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# OFFICIAL GAZETTE

# UNITED STATES PATENT OFFICE

## VOL. 200 - 201

## MARCH - APRIL

## 1914

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# OFFICIAL GAZETTE

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OF THE

# UNITED STATES PATENT OFFICE

VOLUME CC.

MARCH,

1914.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1914.

# ERRATA.

**1,089,286,** page 209, in heading, after residence of patentee, insert the words *assignor of one-half to William D. Mewborn, Jason, N. C.*

**1,089,419,** page 301, fifth claim, lines 3–4, strike out the words "and held at points beyond the travel of the piston" and insert the same after the word "cylinder," same claim, line 5.

**1,089,462,** page 317, second claim, line 1, after the word "governing" insert the word *valve.*

**1,089,470,** pages 319–320, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

**1,089,530,** page 343, in heading, assignment, after the word "assignor" insert the words *of one-half.*

**1,090,880,** page 878, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

**1,091,263,** page 1011, in heading, assignment, name of assignee, for "The Denver Rock Drill & Machinery Company" read *The Denver Rock Drill Manufacturing Company.*

**1,092,046,** page 1318, in heading, assignment, name of assignee, for "Charles W. Swain" read *Charles W. Swaim.*

**1,092,130,** page 1347, in heading, assignment, name of fourth-mentioned assignee, for "Jesse Holden" read *Jesse Holdom.*

**95,737,** (Trade-Mark.) page 577, in heading, title, strike out the words "Cement-Working."

VOL. 200.

# CONTENTS.


| | Page. |
|---|---|
| PATENTS AND DESIGNS GRANTED, March 3, 10, 17, 24, 31 | 3, 289, 587, 861, 1121 |
| TRADE-MARKS PUBLISHED AND REGISTERED, March 3, 10, 17, 24, 31 | 253, 559, 837, 1095, 1363 |
| LABELS AND PRINTS REGISTERED, March 3, 10, 24, 31 | 278, 580, 1113, 1389 |
| DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS, March 3, 10, 17, 24, 31 | 279, 581, 855, 1115, 1391 |
| INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS AND THE UNITED STATES COURTS | 1397 |
| ALPHABETICAL LIST OF PATENTEES AND INVENTIONS | i |


# ANNOUNCEMENTS.


| | Page. |
|---|---|
| ADVERSE DECISIONS— | |
| Babcock, No. 936,207 | 287 |
| Foster, No. 849,840 | 859 |
| Schwartz, No. 1,055,235 | 286 |
| Yetman, No. 884,347 | 287 |
| AMENDMENTS | 1,287 |
| APPLICATIONS— | |
| Condition of pending | 2,288,586,860,1120 |
| Delayed—*Order 2107* | 1119 |
| CANCELATION OF TRADE-MARKS— | |
| Notice of | 584,858,1118 |
| CLASSIFICATION OF INVENTIONS— | |
| Changes in—*Order 2104* | 1117 |
| *Order 2105* | 1117 |
| *Order 2106* | 1118 |
| *Order 2108* | 1118 |
| *Order 2109* | 1395 |
| *Order 2110* | 1395 |
| *Order 2111* | 1395 |
| DISCLAIMERS— | |
| Voight, Henry G | 285 |
| DRAWINGS— | |
| Correction of—Rule 72 | 1119 |
| Notice relative to margin | 585 |
| HEARINGS BY THE COMMISSIONER | 585 |
| INTERFERENCE NOTICES— | |
| Brokhahne, William | 1396 |
| Central Lighting Company | 1118,1396 |
| Connable & Co., R. M | 584,858,1118 |
| Donaldson, Percy | 1396 |
| Fenton, Aurilla B | 1396 |
| Goodyear Boot and Shoe Co | 286,584 |
| Hancock & Co | 858,1118,1396 |
| Lewis, William H | 858,1118,1396 |
| Marline Manufacturing Company | 584,858,1118 |
| Shaw & Son, Anthony | 286,584,858 |
| Ward, Benjamin | 286,584,858 |
| OFFICIAL GAZETTE— | |
| Trade-mark portion, price of | 287 |
| PATENTS— | |
| List of adjudicated | 285,583,857,1117,1395 |
| RULES OF PRACTICE— | |
| Amendment to Rule 80—*Order 2102* | 1,859 |

Patents Nos. 1,088,676 to 1,089,386.

# THE OFFICIAL GAZETTE OF THE United States Patent Office.

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## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF MARCH 3, 1914 | 1 |
| AMENDMENT OF RULE 80, RULES OF PRACTICE | 1 |
| AMENDMENTS | 1 |
| APPLICATIONS UNDER EXAMINATION | 2 |
| PATENTS GRANTED | 3 |
| REISSUES | 241 |
| DESIGNS | 242 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 268 |
| TRADE-MARKS—REGISTERED | 273 |
| LABELS AND PRINTS | 278 |
| DECISIONS OF THE U. S. COURTS— | |
| Waterbury Chemical Company v. Reed & Carnrick | 279 |
| Riley v. Emerson and Yoerg | 279 |
| Emerson and Yoerg v. Riley | 280 |
| ADJUDICATED PATENTS | 285 |
| DISCLAIMER | 285 |
| ADVERSE DECISIONS IN INTERFERENCE | 286 |
| INTERFERENCE NOTICES | 286 |

## ISSUE OF MARCH 3, 1914.

| | | |
|---|---|---|
| Patents | 711—Nos. | 1,088,676 to No. 1,089,386, inclusive. |
| Designs | 46—Nos. | 46,219 to No. 46,264, inclusive. |
| Trade-Marks | 139—Nos. | 98,586 to No. 98,724, inclusive. |
| Labels | 6—Nos. | 17,889 to No. 17,894, inclusive. |
| Prints | 4—Nos. | 2,517 to No. 2,520, inclusive. |
| Reissues | 2—Nos. | 12,693 to No. 12,694, inclusive. |
| Total | 908 | |

## TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 3 | .... | North Carolina | 4 | .... |
| Arizona | 3 | .... | North Dakota | .... | .... |
| Arkansas | 1 | .... | Ohio | 55 | 6 |
| California | 27 | 7 | Oklahoma | 6 | .... |
| Colorado | 14 | 1 | Oregon | 4 | 2 |
| Connecticut | 22 | 2 | Pennsylvania | 65 | 11 |
| Delaware | .... | 2 | Rhode Island | 2 | .... |
| Florida | 3 | 2 | South Carolina | 2 | .... |
| Georgia | 5 | .... | South Dakota | 3 | 1 |
| Idaho | 4 | 1 | Tennessee | 2 | 2 |
| Illinois | 71 | 12 | Texas | 14 | 1 |
| Indiana | 23 | 2 | Utah | 3 | .... |
| Iowa | 14 | 2 | Vermont | 1 | .... |
| Kansas | 12 | 1 | Virginia | 8 | 1 |
| Kentucky | 2 | 1 | Washington | 15 | 1 |
| Louisiana | 4 | 2 | West Virginia | 4 | 2 |
| Maine | 2 | 1 | Wisconsin | 12 | .... |
| Maryland | 4 | 2 | Wyoming | 2 | .... |
| Massachusetts | 62 | 11 | | | |
| Michigan | 19 | 2 | Alaska, District of | .... | .... |
| Minnesota | 10 | 2 | Canal Zone | .... | .... |
| Mississippi | 3 | .... | District of Columbia | 7 | 1 |
| Missouri | 18 | 14 | Hawaii Territory | 3 | .... |
| Montana | 2 | .... | Philippine Islands | .... | .... |
| Nebraska | 6 | 1 | Porto Rico | 1 | .... |
| Nevada | .... | .... | U. S. Army | .... | .... |
| New Hampshire | 3 | .... | U. S. Navy | .... | .... |
| New Jersey | 44 | 8 | | | |
| New Mexico | .... | .... | Total to residents of the United States | 670 | 139 |
| New York | 90 | 35 | | | |

## TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | 2 | .... | Natal | 1 | .... |
| Austria-Hungary | 1 | .... | Netherlands | 1 | .... |
| Belgium | 1 | .... | Newfoundland | .... | .... |
| Brazil | .... | .... | New Zealand | .... | .... |
| British West Indies | .... | .... | Norway | 1 | .... |
| Canada | 12 | .... | Queensland | .... | .... |
| Cape Colony | .... | .... | Roumania | .... | .... |
| Chile | .... | .... | Russia | .... | .... |
| China | .... | .... | Scotland | 1 | .... |
| Costa Rica | .... | .... | South Australia | .... | .... |
| Cuba | .... | .... | Spain | .... | .... |
| Denmark | 1 | .... | Sweden | 1 | .... |
| England | 19 | 1 | Switzerland | 4 | 1 |
| France | 7 | 2 | Transvaal, South Africa | .... | .... |
| Germany | 27 | 5 | Victoria | 2 | .... |
| Guatemala | .... | .... | Western Australia | .... | .... |
| India | .... | .... | | | |
| Ireland | .... | .... | Total to residents of foreign countries | 85 | 10 |
| Italy | 3 | .... | | | |
| Japan | .... | 1 | | | |
| Mexico | 1 | .... | | | |

## Amendment of Rule 80, Rules of Practice.

(ORDER No. 2,102.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 80 of the Rules of Practice in the United States Patent Office is amended by adding the following paragraph:

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term,

so that the rule as amended will read as follows:

80. Patents for designs are granted for the term of three and one-half years, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term.

THOMAS EWING,
*Commissioner.*

## Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business February 28, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Dec. 26 | Jan. 2 | 702 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Oct. 24 | Jan. 19 | 571 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Jan. 29 | Feb. 16 | 248 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 16 | Jan. 24 | 861 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Nov. 17 | Dec. 16 | 559 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Nov. 5 | Dec. 17 | 785 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Nov. 8 | Jan. 10 | 767 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Sept. 16 | Jan. 19 | 1077 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Aug. 26 | Jan. 29 | 657 |
| 236 | 10. Carriages and Wagons | Nov. 10 | Dec. 23 | 1161 |
| 164 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Dec. 17 | Jan. 16 | 457 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Sept. 2 | Nov. 24 | 1350 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Jan. 12 | Jan. 23 | 466 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Sept. 29 | Feb. 2 | 524 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Sept. 12 | Dec. 11 | 1428 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Sept. 27 | Dec. 13 | 798 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Jan. 17 | Jan. 30 | 246 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Jan. 14 | Jan. 21 | 229 |
| 209 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Nov. 5 | Jan. 14 | 522 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Nov. 21 | Jan. 24 | 286 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Oct. 13 | Jan. 5 | 527 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Nov. 24 | Jan. 13 | 407 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Oct. 31 | Jan. 5 | 504 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Dec. 3 | Jan. 7 | 538 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Jan. 8 | Jan. 15 | 289 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 21 | Nov. 1 | 761 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Dec. 13 | Jan. 15 | 520 |
| 65 | 28. Internal-Combustion Engines | Oct. 2 | Jan. 22 | 845 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Dec. 22 | Jan. 2 | 524 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 2 | Feb. 9 | 336 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Oct. 20 | Jan. 21 | 402 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 1 | Feb. 2 | 543 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Dec. 13 | Jan. 16 | 326 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Jan. 21 | Feb. 4 | 336 |
| 87 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Jan. 5 | Jan. 27 | 610 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Jan. 5 | Jan. 8 | 784 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Sept. 2 | Dec. 29 | 871 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 1 | Nov. 14 | 866 |
| 221 | 39. Water Distribution | Oct. 30 | Dec. 9 | 897 |
| 220 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Oct. 29 | Jan. 13 | 1191 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Jan. 23 | Jan. 12 | 450 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Sept. 22 | Jan. 10 | 576 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Dec. 27 | Jan. 23 | 316 |

Oldest new case, Aug. 1; oldest amended, Nov. 1.
Total number of applications awaiting action ..... 26,512

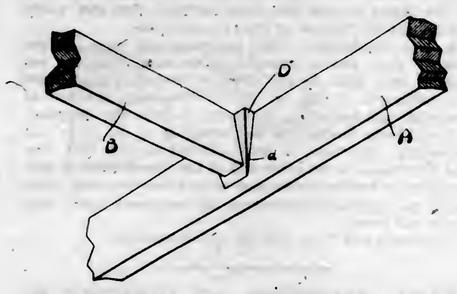
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Dec. 15 | Jan. 17 | 960 |
| | Designs | Jan. 24 | Feb. 17 | 223 |
| | Labels and Prints | Feb. 12 | Feb. 13 | 75 |



# PATENTS

## GRANTED MARCH 3, 1914.

1,088,676. BEAM AND GIRDER. WILLIAM P. ANDERSON, Cincinnati, Ohio, assignor to The Ferro Concrete Construction Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 28, 1911. Serial No. 651,711. (Cl. 72—69.)




A monolithic structure comprising rectangular girders, rectangular beams joining the girders, and wedge-shaped blocks located at the juncture of the girders and beams, one face of a block tapering toward the vertical face of the beam and the other face of the block tapering toward the face of the girder.

1,088,677. INFUSIBLE CONDENSATION PRODUCT OF METACRESOL AND FORMALDEHYDE. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Filed Mar. 14, 1910. Serial No. 549,100. (Cl. 106—22.)

1. An insoluble and infusible body, containing as an essential constituent a condensation product of formaldehyde and metacresol, and containing corresponding condensation products of para- and orth-cresol only in minor proportions.

2. An insoluble and infusible body, containing as an essential constituent a condensation product of formaldehyde and metacresol compounded with a filling material, and containing corresponding condensation products of para- and ortho-cresol only in minor proportions.

3. An insoluble and infusible body, containing as essential constituents the condensation products of formaldehyde and metacresol, and of formaldehyde and oxybenzol, and containing corresponding condensation products of para- and ortho-cresol only in minor proportions.

4. An insoluble and infusible body, containing as essential constituents the condensation products of folmaldehyde and metacresol, and of formaldehyde and oxybenzol, compounded with a filling material, and containing corresponding condensation products of para- and ortho-cresol only in minor proportions.

1,088,678. INFUSIBLE CONDENSATION PRODUCT. LEO H. BAEKELAND, Yonkers, N. Y., assignor to General Bakelite Company, New York, N. Y., a Corporation of New York. Original application filed Mar. 14, 1910, Serial No. 549,100. Divided and this application filed May 9, 1911. Serial No. 626,016. (Cl. 106—22.)

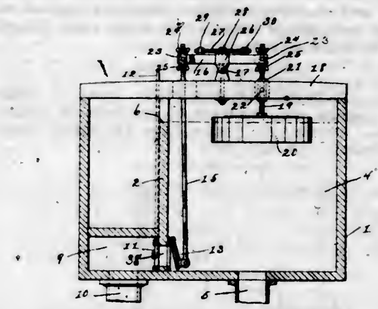
1. An insoluble and infusible body, containing as essential constituents the condensation products of formaldehyde and metacresol, and of formaldehyde and paracresol, the former in preponderating proportions.

2. An insoluble and infusible body, containing as essential constituents the condensation products of formaldehyde and metacresol, and of formaldehyde and paracresol, the former in preponderating proportion, compounded with a filling material.

3. An insoluble and infusible body, containing as essential constituents the condensation products of formaldehyde and metacresol, paracresol and oxybenzol, the condensation products of metacresol and oxybensol being in preponderating proportion.

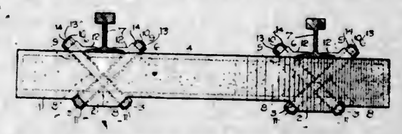
4. An insoluble and infusible body, containing as essential constituents the condensation products of formaldehyde and metacresol, paracresol and oxybenzol, said mixture compounded with a filling material, the condensation products of metacresol and oxybenzol being in preponderating proportion.

1,088,679. PULP-FEED REGULATOR. EDWARD BEECHER, Thompson, N. Y. Filed July 3, 1911. Serial No. 636,577. (Cl. 92—46.)



In a paper making machine, a pulp box having an outlet; a valve controlling the outlet; a float; a lever; connections uniting the ends of the lever with the valve and with the float; a pivotally mounted fulcrum block in which the lever is slidable, the lever having a pair of lugs located upon opposite sides of the block and between the connections; a screw threaded into the block and movable in the lugs, the screw extending upon both sides of the block and constituting a truss for the lever; and nuts threaded upon the screw and adapted to engage the lugs.

1,088,680. RAIL TIE AND FASTENER. WILLIAM BIERY and ANATOLE BEAUCOUDRAY, Covington, La. Filed June 25, 1913. Serial No. 775,820. (Cl. 238—8.)



1. A rail tie comprising a body formed of plastic material, said body being provided with projections on the

under face adjacent the ends thereof to provide bearing points thereon, and also having inclined channels formed therein extending from the upper to the lower faces of the same, the lower ends of said channels terminating in the faces of said projections.

2. A rail tie comprising a plastic body provided with projections on the under face thereof, to provide bearing points thereon, the faces of said projections being beveled in opposite directions, said body being also provided with inclined channels extending from the upper to the lower faces of the same, the lower ends of said channels terminating in the beveled faces of said projections.

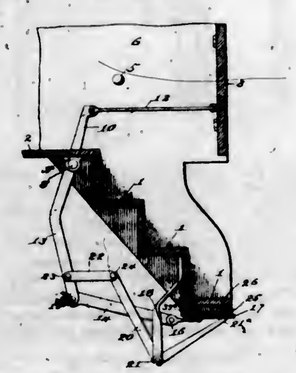
3. A rail tie comprising a plastic body having inclined channels formed therein adjacent the ends of the same, longitudinal reinforcing stripe embedded in said body, and inclined ribs formed on said stripe, said ribs being arcuate in cross section and embedded in the walls of said inclined channels.

4. The combination with a tie having inclined channels formed therein extending from the upper to the lower faces of the same adjacent the ends thereof; of bolts disposed through said channels, nuts engaged with the lower ends of said bolts to engage the under face of said tie, clamping members applied to the upper ends of said bolts to rest on the upper face of said tie and secure rails thereto, and means engaged with said bolts to secure said clamping members in position.

5. The combination with a tie having projections on the under face adjacent the ends thereof, said projections being provided with oppositely beveled faces, said tie being also provided with inclined channels extending from the upper to the lower faces thereof, the lower ends of said channels terminating in the beveled faces of said projections; of bolts disposed through the inclined channels of said tie, means engaged with the lower ends of said bolts for contact with the beveled faces of said projections, and clamping members adjustably applied on the upper ends of said bolts to rest on the upper face of said tie to secure rails thereto.

---

1,088,681. EXTENSIBLE CAR-STEP. JOHN P. DEIMLING, Clarion, Pa., assignor of one-third to Walter Graham, Clarion, Pa. Filed June 11, 1913. Serial No. 773,065. (Cl. 105—88.)



1. An extensible car step, and means for operating the step, comprising a vertical lever having an upper end adapted to be given swinging movement parallel with the end of a car, a pair of levers having a stop-joint fulcrum, one lever of said pair being pivoted to the extensible step, and means for pivotally connecting the other lever of said pair with the lower end of the vertical lever.

2. In means for operating extensible steps of vestibule cars, an extensible step, a riser hinged to the step, a plurality of connected levers connecting said step with the outer vestibule doors so that the opening and closing of the doors will extend and retract said step, and a bell-crank lever connected with said levers and having a free end following the movement of said step in engagement therewith.

3. An extensible car step, and means for simultaneously operating the step and a laterally swinging vestible car door, comprising a vertical lever adapted to rock parallel with the end of a car, a horizontal rod having one end pivoted to the lever and the other end pivoted to the door for rocking the lever, and means for pivotally connecting the other end of the lever with the extensible step so that the opening and closing of the door will extend and retract the step.

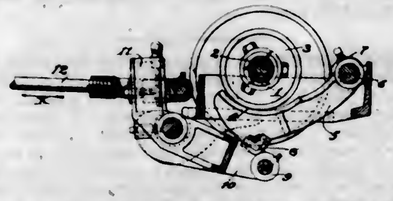
4. The combination, with passenger car steps, an extensible step, and a swinging riser connecting the extensible step with the car steps, of a pair of fulcrumed levers one of which is pivoted to said step, a shaft having the other of said levers secured thereto, a lever for rocking the shaft, and a lever pivotally connected with one of the levers of said pair and having a free end working against the bottom of the extensible step.

5. The combination, with passenger car steps, an extensible step, and a swinging riser connecting the extensible step with the car steps, of a shaft journaled on the under side of the car platform, a lever attached to the shaft and projecting upwardly through the platform, a bowed lever having one end attached to the shaft and depending therefrom, a lever pivoted to the said step and fulcrumed to the other end of the bowed lever, a bell-crank lever having a free end upon which the step rides, and a bar pivotally connecting the bell-crank lever with the bowed lever.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,682. HEAD-MOTION FOR CONCENTRATING-TABLES. WILLIAM F. DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed June 20, 1913. Serial No. 774,787. (Cl. 74—5.)



1. A head motion for a concentrating table having in combination a plurality of pivoted members one operative by the other means for imparting a differential movement to one of said members, means for transmitting motion from the second member to the part or element to be operated and means interposed between the said members for imparting an abnormal movement to the second member.

2. A head motion for a concentrating table having in combination a plurality of pivoted members, one operative by the other, means for oscillating one of said members means for transmitting the movement of the second member to the part or element to be operated, and means interposed between said members for imparting an abnormal movement to the second member.

3. A head motion for a concentrating table having in combination a plurality of pivoted members, one operative by the other, means for oscillating one of said members, an angular block and a curved bearing portion on the respective members, and means for transmitting the movement of the second member to the part to be operated.

4. A head motion for a concentrating table, having in combination a plurality of pivoted members, one operative by the other, means for oscillating one of said members, an angular block and a curved bearing portion on the respective members, means for adjusting the relative positions of the block and curved bearing portions, and means for transmitting the movement of the second member to the part to be operated.

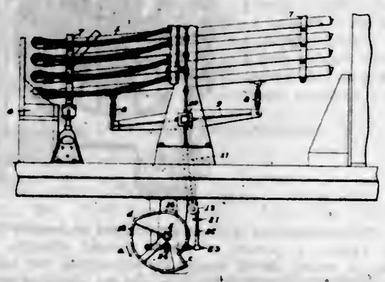
5. A head motion for a concentrating table, having in combination a plurality of pivoted members one operative by the other, means for oscillating one of said members, an angular block and a curved bearing portion on the respective members, means for shifting one of the members longitudinally, and means for transmitting the motion of the second member to the part to be operated.

[Claim 6 not printed in the Gazette.]

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1,088,683. MECHANISM FOR OPERATING CONCENTRATING UNITS. WILLIAM F. DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed July 30, 1913. Serial No. 782,084. (Cl. 83—89.)



1. In a concentrating plant, the combination of a battery consisting of a plurality of concentrating units, each consisting of a plurality of pivotally mounted decks, a plurality of means for reversing the inclination of the decks of the several units, continuously operating means for the operation of the deck reversing means and variable means for connecting each of the operating means.

2. In a concentrating plant, the combination of a plurality of concentrating units, each consisting of a plurality of pivotally mounted decks, a plurality of means for reversing the inclination of the decks, and continuously operating means for operating the deck reversing means and means for controlling the relative periodicities of such reversals.

3. In a concentrating plant, the combination of a plurality of concentrating units, each consisting of a plurality of pivotally mounted decks, a plurality of means for reversing the inclination of the decks, and continuously operating means for operating the deck reversing means and adapted to impart different feed periodicities to different units.

4. In a concentrating plant, the combination of a plurality of concentrating units, each consisting of a plurality of pivotally mounted decks, a plurality of means for reversing the inclination of the decks, a driven shaft extending along the line of units, and adjustable means for automatically connecting each reversing means with said shaft.

5. In a concentrating plant, the combination of a plurality of concentrating units, each consisting of a plurality of pivotally mounted decks, a plurality of means for reversing the inclination of the decks, a driven shaft extending along the line of units, and independent and adjustable means for automatically connecting each reversing means with said shaft.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,684. MECHANISM FOR OPERATING CONCENTRATING UNITS. WILLIAM F. DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed July 30, 1913. Serial No. 782,085. (Cl. 83—89.)

1. In a concentrating plant, the combination of a plurality of concentrating apparatus, each consisting of pivotally mounted decks, a fluid pressure cylinder for each apparatus, a plurality of valve mechanisms each connected to a cylinder and adapted to control the flow of fluid pressure to and from said cylinder and a movable head for operating said valve mechanisms in succession.



2. In a concentrating plant, the combination of a plurality of concentrating apparatus, each consisting of pivotally mounted decks, a fluid pressure cylinder for each apparatus, a plurality of valve mechanisms, each connected to a cylinder, a head movable into operative relation to said mechanisms successively the spacing of the mechanisms and the movement of the head being dependent on the desired duration of the feeding operation.

3. In a concentrating plant, the combination of a plurality of concentrating apparatus, each consisting of pivotally mounted decks, a fluid pressure cylinder for each apparatus, a plurality of valve mechanisms each connected to a cylinder and each consisting of spaced valves for controlling the flow of fluid pressure to and from a cylinder, means for operating the valves of each mechanism independently, a head for shifting the valve operating means, and movable along the line of valve mechanisms, the movement of the head and the spacing of the valve operating means for each mechanism being dependent on the desired duration of the washing operation.

4. In a concentrating plant, the combination of a plurality of concentrating apparatus, each consisting of pivotally mounted decks, a fluid pressure cylinder for each apparatus, a plurality of valve mechanisms each connected to a cylinder and adapted to control the flow of fluid pressure to and from its cylinder, said mechanisms being arranged at suitable intervals around a central point, a movable head, and means for moving said head around the central point to operative relation to said valve mechanisms successively.

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1,088,685. APPARATUS FOR CONCENTRATING ORES. WILLIAM F. DEISTER, Fort Wayne, Ind., assignor to Deister Machine Company, Fort Wayne, Ind., a Corporation of Indiana. Filed Nov. 13, 1913. Serial No. 800,779. (Cl. 83—88.)



1. A concentrating table, having in combination therewith a plurality of plateaus arranged transverse of the lines of movement of the values toward the mineral discharge edge, and having their surfaces higher than that of the main or stratifying surface and the surface of each succeeding plateau being higher than that of the preceding plateau, the front edge of the final plateau of the series forming the mineral discharge edge and a plateau or plateaus intermediate the main surface of the table and the last plateau being adapted to permit of a further stratification of the material and to deliver concentrates as a stratum to the plateau having the mineral discharge edge.

2. A concentrating table, having in combination therewith a plurality of plateaus arranged transverse of the lines of movement of the values toward the mineral discharge edge, the surface of the first plateau being above the normal surface of the material on the main or stratifying surface of the table and the surface of each succeeding plateau being above the normal surface of material on the preceding plateau, the front edge of the final plateau of the series forming the mineral discharge edge and a plateau or plateaus intermediate the main surface of the table and the last plateau being adapted to permit of a further stratification of the material and to deliver concentrates as a stratum to the plateau having the mineral discharge edge.

3. A concentrating table, having in combination therewith a plurality of plateaus arranged transverse of the lines of movement of the values toward the mineral discharge edge, the main or stratifying surface of the table and the surfaces of the plateaus being in different but parallel planes, the front edge of the final plateau of the series forming the mineral discharge edge and a plateau or plateaus intermediate the main surface of the table and the last plateau being adapted to permit of a further stratification of the material and to deliver concentrates as a stratum to the plateau having the mineral discharge edge.

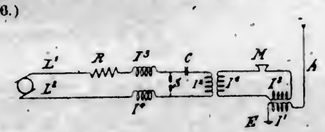
4. A concentrating table, having in combination therewith a plurality of plateaus arranged transverse of the lines of movement of the values toward the mineral discharge edge, the main or stratifying surface of the table and the surfaces of the plateaus being in different but parallel planes and the rear edges of the plateaus being beveled or inclined to facilitate the upward and onward movements of the values, the front edge of the final plateau of the series forming the mineral discharge edge and a plateau or plateaus intermediate the main surface of the table and the last plateau being adapted to permit of a further stratification of the material and to deliver concentrates as a stratum to the plateau having the mineral discharge edge.

5. A concentrating table, having in combination therewith a plurality of plateaus arranged transverse of the lines of movement of the values toward the mineral discharge edge and having their surfaces higher than that of the main or stratifying surface, and the surface of each succeeding plateau being higher than that of the preceding plateau, and riffles arranged on the main or stratifying surface and extending onto the plateau next adjacent to the mineral discharge edge, the front edge of the final plateau of the series forming the mineral discharge edge and a plateau or plateaus intermediate the main surface of the table and the last plateau being adapted to permit of a further stratification of the material and to deliver concentrates as a stratum to the plateau having the mineral discharge edge.

[Claims 6 to 11 not printed in the Gazette.]

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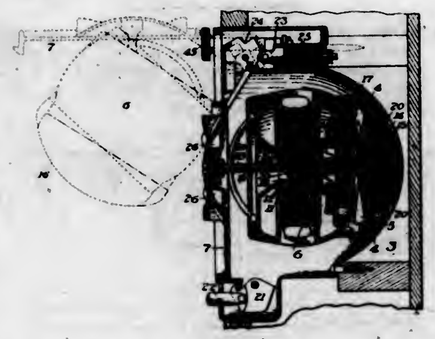
1,088,686. TRANSMITTER FOR WIRELESS TELEPHONY. WILLIAM THEODORE DITCHAM, Twickenham, England. Filed Apr. 9, 1913. Serial No. 759,897. (Cl. 250—6.)




In a transmitter for wireless telephony, a source of direct current electricity, inductances in the circuit thereof, a high frequency quenched spark circuit connected to said direct current circuit between said inductances and comprising a rapidly quenched spark gap in series with said direct circuit and a condenser and an inductance in parallel with said spark gap, a radiating air wire, an inductance in said air wire inductively separated from said spark circuit inductance, a continuous circuit tightly coupled to said spark circuit inductance and to said air wire inductance and a microphone in said continuous circuit.

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1,088,687. ELECTRIC FAN FOR RAILWAY-CARS. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1913. Serial No. 743,541. (Cl. 230—1.)



1. The combination with an apartment or compartment wall, having a pocket or recess formed therein, said pocket or recess having means for permitting the ingress and egress of air, of a fan motor and fan mounted within said pocket or recess and normally inclosed therein, substantially as described.

2. The combination with an apartment or compartment wall having a pocket or recess formed therein, said pocket or recess having means for permitting the ingress and egress of air, of a fan motor and fan mounted within said pocket or recess and normally inclosed therein, the mounting of the fan motor and fan having means for permitting the axial direction of the fan to be changed, and means external to the pocket or recess for controlling the operation of the fan motor and fan, substantially as described.

3. The combination with an apartment or compartment wall having a pocket or recess formed therein, said pocket or recess having means for permitting the ingress and egress of air, of a fan motor and fan mounted within said pocket or recess to swing into and out of the same, substantially as described.

4. The combination with an apartment or compartment wall having a pocket or recess formed therein, of a fan motor and fan mounted within said pocket or recess to swing into and out of the same, together with means for controlling the fan motor, whereby it may be operated to drive the fan when the latter is either within or without said recess, substantially as described.

5. The combination with an apartment or compartment wall having a pocket or recess formed therein, said pocket or recess having means for permitting the ingress and egress of air, of a fan motor and fan mounted within said pocket or recess to swing into and out of the same, and means for securing the fan and motor in their outwardly swung position, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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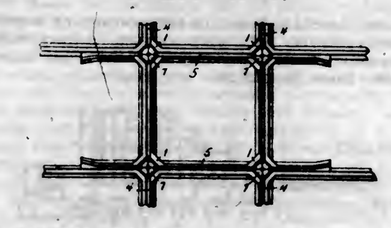
1,088,688. RAILWAY-CROSSING. ROBERT A. DYER, Jr., Auburn, N. Y. Filed Oct. 1, 1913. Serial No. 792,896. (Cl. 104—116.)

1. A railway crossing comprising a body portion having intersecting partitions and movable blocks confined by said partition walls.

2. A railway crossing comprising a body portion having intersecting partitions alined with the flange grooves in the respective rails, and movable blocks separated by said partitions.



3. A railway crossing comprising a body portion having intersecting partitionse alined with the flange grooves in the respective rails, movable blocks separated by said partitions, and having portions above the partitions adapted to contact with the flange of a car wheel.



4. A railway crossing comprising a body portion having seats formed therein, plates having a smooth surface in said seats and movable blocks resting on said plates.

5. A railway crossing comprising a body portion having intersecting partitions, blocks separated by said partitions and having portions above said partitions in contact with each other.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,689. REPEATING AIR-RIFLE. ARVID ECK, St. Louis, Mo. Filed Nov. 10, 1913. Serial No. 800,108. (Cl. 124—8.)



1. An air rifle, comprising a barrel, a valved air chamber, and means for bodily moving the air chamber to effect a release of the air therein to discharge through said barrel.

2. An air rifle, comprising a barrel, a plurality of valved air chambers arranged to communicate one at a time with said barrel, and means for effecting a release of the air stored in the chamber in communication with the barrel.

3. In an air rifle, an air compressing means, a revolvable unit comprising a plurality of air chambers, means for selectively bringing any one of said chambers into communication with said barrel, and means for releasing the air from said selected chamber to discharge through said barrel.

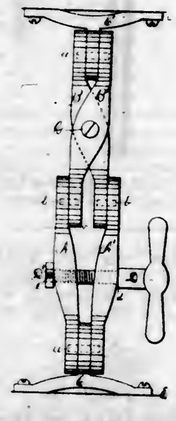
4. In an air rifle, a piston, a cylinder, a tubular shaft supported by said cylinder, a unit comprising a number of valved air chambers rotatably mounted on said shaft, a ball holder in communication with each chamber, a barrel, means for selectively holding any one of said ball holders in parallelism with said barrel, and a trigger for bodily moving said unit to bring said ball holder to engage with said barrel to effect a release of the air from said selected chamber to discharge through said barrel.

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1,088,690. ADJUSTABLE ARM OR SUPPORT. WILLIAM ERWIN, Philadelphia, Pa. Filed Apr. 23, 1913. Serial No. 763,028. (Cl. 248—30.)

1. In an adjustable arm or support, two pairs of connected levers, wherein the members of each pair are movably and adjustably connected together, the members of the first pair are parallel, controlled by a centrally or nearly centrally placed binding or clamping screw, and grasp the members of the second pair, which are crossed for the purpose of continuing or extending compression.

2. In an adjustable arm or support, two pairs of movably and adjustably connected levers, and two end members (attached to base and rest respectively) connecting therewith, all provided with friction contact fixation heads or surfaces, wherein the members of the first pair of levers are parallel, controlled by a central or nearly central binding or clamping screw, and grasp the first end member by their distal ends and the proximal ends of the second pair by their proximal ends, the members of the second pair being crossed, pivoted at or near their centers, and by their distal ends grasping the second end member, and wherein all members of said arm or support are rigidly fixed together by the single binding or clamping screw of the first pair of levers, said binding or clamping screw being provided at its end with a detaining nut and set-screw.



3. In an adjustable arm or support, retaining pins, which pass centrally through the heads of the fixed end members or fulcrums of said arm or support, through the centers or the friction contact fixation heads of the proximal ends of the second pair of levers, and enter openings in the centers of the friction contact fixation heads of both ends of both members of the first pair of levers, and of the distal ends of the second pair, and which prevent slipping from relationship of apposed friction contact fixation surfaces between the movably and adjustably connected levers, and between the levers and the end members thereof.

4. In an adjustable arm or support for a rest for head, foot, pulleys, instruments, or stands of various kinds, the combination of two pairs of movably and adjustably connected levers with two end members, all provided with friction contact fixation connecting surfaces, wherein the first pair of levers are bound or clamped together by a central or nearly central fulcrum binding or clamping screw, and the second pair are reversed or crossed, pivoted upon each other at or near their centers, and rigidly bound or clamped together at their proximal ends by the proximal ends of the first pair, so that the distal ends of each pair grasp and rigidly clamp the end members, which are secured to the base and to the rest respectively, and all friction contact fixation surfaces are provided with retaining pins.

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1,088,691. FOUNTAIN-PEN. THEODORE K. FELCH, Newark, N. J., assignor of one-half to Newton F. McKeon, Paterson, N. J. Filed Aug. 24, 1912. Serial No. 716,923. (Cl. 120—42.)

A fountain pen embodying a sleeve having a threaded counterbore at one end, a barrel having its mouth detachably engaged to the other end of the sleeve, the sleeve bore being tapered next inside the counterbore, a transparent tubular ink reservoir fitting snugly through the sleeve bore and having its closed end housed within the barrel, the mouth of the reservoir being flared and fitting

snugly in the tapered portion of the sleeve bore, and a pen section having a reduced nipple threaded into the said



counterbore to seat the flared mouth of the reservoir against the tapered portion of the sleeve bore.

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1,088,692. PROCESS FOR THE MANUFACTURE OF ASPHALT FROM CRUDE MINERAL OIL OR RESIDUUM THEREOF. CHAUNCEY B. FORWARD, Urbana, Ohio. Filed June 7, 1913. Serial No. 772,269. (Cl. 196—25.)



1. The process herein described of removing an asphalt base from crude oil or any of its constituents consisting in atomising the oil to be treated and forcing the atomised product under a sustained pressure through a retort heated to a temperature below the coking point of the asphalt base as it passes through the retort.

2. A process for the manufacture of asphalt from crude oil or any of its constituents consisting in atomising the product to be treated and forcing it through a retort heated to a temperature below the coking point of the asphalt base contained in the product, and in drawing off the asphalt base and subsequently subjecting the same in an open vessel to a materially lower temperature than the temperature in the retort for a period of eight to twenty-four hours, more or less.

3. A process of manufacturing an asphalt product from crude oil; consisting in separating all the volatile parts of the crude oil from its asphalt base by subjecting the crude oil to a high temperature in a retort, and while discharging the hot volatile and base products returning a part of the heavier portions of the former to the latter.

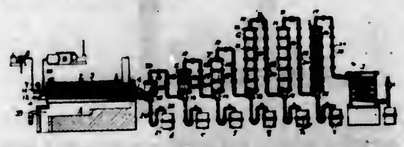
4. A process of manufacturing an asphalt product from crude oil, consisting in heating the oil in a retort until all the constituent parts thereof are separated; discharging the volatile and base parts jointly through condensing pipes of different lengths; and trapping off the asphalt base together with a portion of the heavier oils at predetermined different points in the said pipes to obtain either a hard, soft or intermediate asphalt product.

5. A process of manufacturing asphalt from crude oil, consisting in subjecting the crude oil to a high temperature in a retort until all the volatile parts thereof are separated from the asphalt base and in condensing the heavier portions of the volatile parts in variable degree immediately after the product is discharged from said retort and mixing the said heavier portions with the said base as it is discharged, and subsequently heating the discharged product in an open vessel until a predetermined adhesive and cohesive condition thereof is obtained.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,693. APPARATUS FOR CONTINUOUSLY DISTILLING CRUDE OIL AND OTHER SUBSTANCES. CHAUNCEY B. FORWARD, Urbana, Ohio. Filed June 7, 1913. Serial No. 772,270. (Cl. 196—5.)

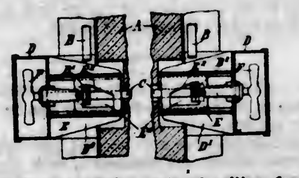


1. An apparatus for the continuous fractional separation of hydro-carbon oils comprising a multiple series of condensers having upper and lower end sections provided with inlet and outlet openings respectively and intermediate interchangeably body sections circumferentially open internally from the upper edge to the lower edge and having solid closed sides, means separably uniting said sections and adapting different collections thereof to be made in the respective condensers and thereby increasing and decreasing the length of condensers relatively to one another according to the fractional divisions of the oil desired from each, and pipes connecting the top section of one condenser with the bottom section of the next succeeding condenser, in combination with means in advance of the series of condensers to vaporize the oil and force the vapors into and through all the condensers in the series successively.

2. An apparatus for treating crude petroleum oils from different oil fields, the same comprising a plurality of condensers having sectional bodies open internally about the wall thereof from bottom to top and a pipe having the same length of sections as said body sections connecting the top of one condenser with the bottom of the next succeeding condenser and having bottom outlets for the distillates, the bodies of the said condensers consisting each of sections of the same size and interchangeable between condensers and said sections closed about their sides and separably connected, thus adapting each condenser to be changed in size by adding to or taking from another condenser a portion or all of the units thereof according to the size and number of condensers wanted, whereby any desired fractional separation of the oils can be secured and any crude hydro-carbon oil treated by said apparatus.

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1,088,694. MECHANISM FOR ACTUATING TRIP-RELEASE DEVICES FOR FIRE-RESISTING CURTAINS. WILLIAM PARKER GIBSON and WILLIAM HENRY ROSS, London, England, assignors to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Apr. 17, 1911. Serial No. 621,515. (Cl. 189—57.)



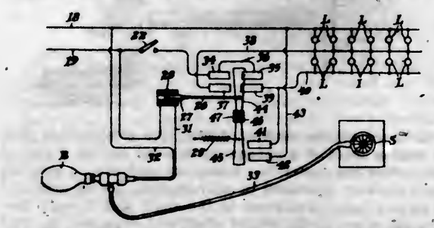
1. Means for releasing a pair of rolling fire resisting curtains on opposite sides of a partition including, in combination, a latch for retaining each of the curtains, means operatively connected together for holding and simultaneously releasing each of said latches, means connected with said last named means including vertical rods B, B, for actuating said latch holding and releasing means, said rods being operatively connected at the lower ends, and means on opposite sides of the partition operative independently of each other and in opposite directions for moving both rods B, B, in the same direction to simultaneously release said curtain holding latches.

2. Means for releasing a pair of rolling fire resisting curtains on opposite sides of a partition including in combination, a latch for retaining each of the curtains, means operatively connected together for holding and simultaneously releasing each of said latches, means connected with said last named means including vertical rods, B, B, for actuating said latch holding and releasing means, means operatively connecting both said rods B, B, at their lower ends including arms B', B', and cam plates E, E, operative independently of each other and in opposite directions to depress both said arms and the rods B, B, in the same direction to simultaneously release said curtain holding latches.



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1,088,695. PHOTOGRAPHIC APPARATUS. ELIAS GOLDENSKY and PERCY H. BARTLETT, Philadelphia, Pa. Filed Aug. 17, 1912. Serial No. 715,557. (Cl. 240—2.)



1. The combination with an incandescent electric lamp, of a camera shutter, means for energizing said lamp at predetermined voltage, switching means for causing energization of said lamp at higher voltage, and means for simultaneously actuating said shutter and said switching means.

2. The combination with a plurality of incandescent electric lamps, of means for supplying current at different voltages, said lamps normally energized at a lower voltage, a camera shutter, and means for simultaneously actuating said shutter and subjecting said lamps to higher voltage.

3. The combination with a plurality of incandescent lamps, of a camera shutter, means for energizing said lamps at predetermined voltage, a switch for causing energization of said lamps at higher voltage, electro-magnetic means controlling said switch, a second switch controlling said electro-magnetic means, and means for simultaneously actuating said second switch and said camera shutter.

4. The combination with a plurality of incandescent lamps having filaments capable of withstanding repeated subjection to voltages higher than normal, of a camera shutter, switching means for subjecting said incandescent lamps to voltage higher than normal, and means for simultaneously actuating said shutter and said switching means.

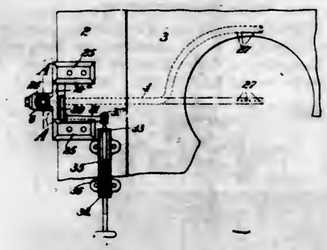
5. The combination with a plurality of incandescent electric lamps, of a camera shutter, a three wire system of electric current supply, said lamps normally connected to conductors of said three wire system whereby said lamps are energized at predetermined voltage, means for transferring said lamps whereby said lamps are energized at higher voltage of said three wire system, and means for simultaneously actuating said shutter and said transferring means.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,696. SANITARY CLOSET-RINSING DEVICE. JOHANN PETER GOVERTS, Berlin, Germany, assignor to John F. Wahl, St. Petersburg, Russia. Filed Oct. 29, 1912. Serial No. 728,494. (Cl. 4—25.)

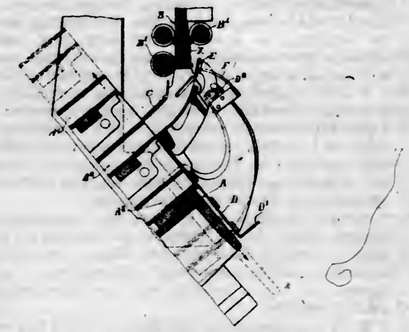
In a device of the character described, in combination, a closet basin, a seat therefor, a water reservoir, a discharge pipe having one end connected therewith, a casing at the rear of said basin to which the other end of said discharge pipe is connected, a tube having a curved portion and a straight end portion rotatably journaled in said casing, the axis of rotation of said tube being in line



with the longitudinal axis of the basin, said tube having perforations in its curved portion, means normally holding said tube in a horizontal position, and means for turning said tube into a vertical position, the curved portion of said tube being so shaped that it will be entirely covered by the seat when in its normally horizontal position.

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1,088,697. TYPOGRAPHICAL MACHINE. ALFRED W. F. GUEST, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 11, 1912. Serial No. 719,814. (Cl. 199—7.)



1. In a typographical machine, the combination of a movable magazine and a cover to close the upper mouth thereof and thus exclude type or matrices and foreign matter therefrom, the said cover being pivotally mounted on an independent stationary support, so as to be moved from its normal position by type or matrices protruding from the magazine.

2. In a typographical machine, the combination of distributing mechanism, a magazine, a movable cover to close the mouth thereof and thus exclude type or matrices and foreign matter therefrom, and connections actuated by the movement of the cover to arrest the distributing mechanism.

3. In a typographical machine, the combination of distributing mechanism, a movable magazine, a cover movably mounted on a fixed support to close the mouth thereof and thus exclude type or matrices and foreign matter therefrom, and means actuated by the movement of said cover to arrest the distributing mechanism.

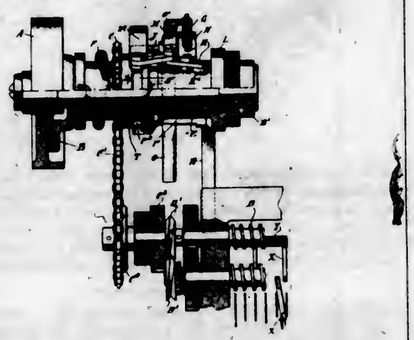
4. In a typographical machine, the combination of a plurality of movable superposed magazines and a cover to close the upper mouths of those below the one in operation, the said cover being movably mounted on an independent stationary support, so as to yield in the event of matrices protruding from the magazines.

5. In a typographical machine, the combination of the distributing mechanism, and stop devices therefor, with

a magazine, and a movable cover to close the upper mouth thereof and thus exclude type or matrices and foreign matter therefrom, the said cover being provided with the arm F to actuate said stop devices.

[Claims 6 and 7 not printed in the Gazette.]

1,088,698. TYPOGRAPHICAL MACHINE. ALFRED W. F. GUEST, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 11, 1913. Serial No. 760,375. (Cl. 199—7.)



1. In a typographical machine, the combination of distributing mechanism, actuating devices therefor, supplemental means connected to the distributing mechanism for retarding or arresting the same, and connections whereby the retardation of the distributing mechanism will instantly effect the arrest of the actuating devices.

2. In a typographical machine, the combination of distributing mechanism, actuating devices connected thereto, supplemental means connected to the distributing mechanism for retarding or arresting the same, and means tending constantly to disconnect the actuating devices from the distributing mechanism and adapted to be rendered effective upon the retardation thereof.

3. In a typographical machine, the combination of distributing mechanism adapted to be retarded by misplaced type or matrices, and actuating devices therefor, the said actuating devices comprising a clutch and a spring for opening the clutch directly when the distributing mechanism is retarded.

4. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising a clutch, a spring to close the clutch, and a second spring of sufficient strength to overcome the other and open the clutch, the second spring adapted to be thrown into action upon the abnormal operation of the distributing mechanism.

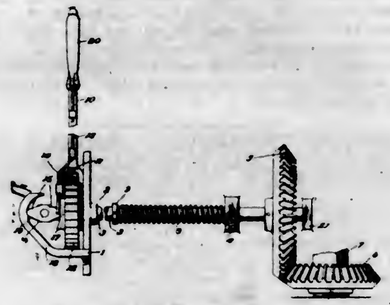
5. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising a clutch, a spring to close the clutch, a second spring of sufficient strength to overcome the other and open the clutch, and devices for holding the second spring against action to permit the other spring to close the clutch, the said device adapted to be tripped upon the abnormal operation of the distributing mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,088,699. GAS-ENGINE STARTER. WILLIAM S. HANSON, Chicago, Ill. Filed Nov. 15, 1912. Serial No. 731,626. (Cl. 123—185.)

1. The combination with an engine shaft, of a starting shaft, a starting lever, means whereby said starting lever may rotate the starting shaft, a cam disposed to shift the starting shaft axially and thereby connect the same with the engine shaft, and means carried by the starting lever to actuate said cam.

2. An engine starting device comprising in combination with an engine shaft a starting shaft, a lever mounted upon one end of the starting shaft, means controlled by said lever for rotating said shaft, a cam arranged to impart axial movement to the starting shaft to thereby connect the same to the engine shaft, means for holding the starting shaft normally disconnected from the engine shaft, a latch slidably mounted on the lever and attached to the said cam, and a spring connected with the lever and the latch to hold the cam normally in inoperative position.



3. In an engine starting device, the combination with an engine shaft of a supporting bracket having a lateral arm projecting therefrom, a stop on said arm, a starting shaft slidably journaled in said bracket, a cam arranged to impart axial movement to the shaft and thereby connect the same to the engine shaft and engaging the said arm above the stop thereon, means for rotating the starting shaft, and means carried by said rotating means to actuate the said cam.

4. In an engine starting device, the combination with an engine shaft of a supporting bracket, a starting shaft slidably journaled therein, a ratchet wheel fixed on said shaft, a lever loosely fulcrumed on the shaft and spanning said ratchet wheel, a collar loose on the end of the shaft, a cam pivoted on said collar and engaging the bracket and the side of the lever, means carried by the lever to actuate the cam and effect axial movement of the starting shaft in one direction, and means acting on the shaft to effect axial movement thereof in the opposite direction and thereby disconnect the same from the engine shaft.

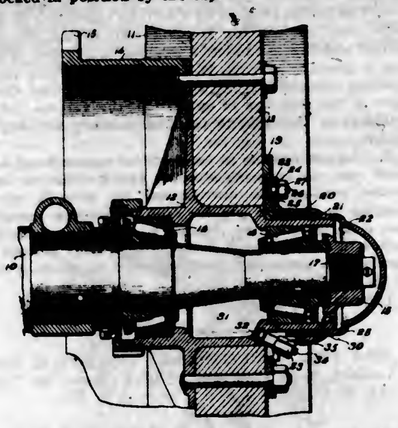
1,088,700. WHEEL-HUB. DON T. HASTINGS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 20, 1911. Serial No. 639,582. (Cl. 21—89.)

1. In combination with a wheel, an axle extending therethrough and projecting outwardly therefrom, an outwardly projecting flange on said wheel surrounding the projecting end of said axle, and a cap inclosing said flange and bolted to said wheel, said cap having a reduced portion adjacent the end of said flange.

2. In combination, a wheel, an axle extending therethrough and projecting outwardly therefrom, a flange on said wheel surrounding the projecting end of said axle, a cap inclosing said flange and bolted to said wheel and provided with a reduced portion forming a shoulder adjacent the end of said flange, and packing between the end of said flange and said shoulder.

3. A wheel comprising a hub, spokes radiating therefrom, a plate on the outer side of the wheel and rigidly secured to said hub, an outwardly projecting flange on said plate, and a cap secured to said plate and inclosing said flange.

4. A wheel comprising a hub, spokes radiating therefrom, a plate on the outer side of the wheel and rigidly secured to said hub, an outwardly projecting flange on said plate, a cap secured to said plate and inclosing said flange, and a lubricator communicating with the interior of said hub and extending through said plate and cap and locked in position by the cap.

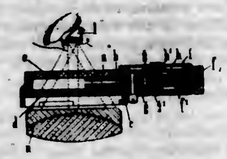


5. A wheel comprising a hub, spokes radiating therefrom, a plate on the outer side of the wheel and rigidly secured to said hub, an outwardly projecting flange on said plate, a cap secured to said plate and inclosing said flange and provided with a circumferential shoulder adjacent the end of said flange, and packing arranged between said shoulder and the end of said flange.

[Claim 6 not printed in the Gazette.]



1,088,701. DISTANCE-MEASURING INSTRUMENT. JULIUS HUMBRECHT, Gross-Lichterfelde, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Berlin, Germany. Filed Sept. 9, 1912. Serial No. 719,269. (Cl. 88—2.4.)

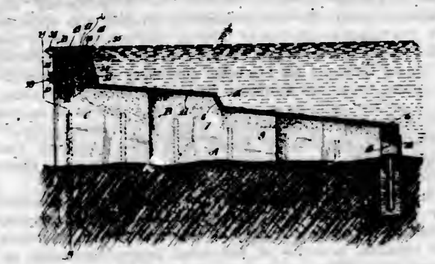


1. In a distance measuring instrument two pivotally mounted members having wedge-shaped transparent plates, a casing having a tubular part the transparent wedge-shaped plates projecting into said tubular casing from one side, the projecting edges of said plates having a circular form and being in line with each other, an actuating device for said wedge-shaped plates adapted to turn them in opposite directions and an index mechanism comprising a rotatable scale plate coupled with said actuating device for the wedge-shaped plates.

2. In a distance measuring instrument two wedge-shaped transparent plates each firmly connected with a metal hub piece, a casing having a tubular part, said wedge-shaped transparent plates projecting into said tubular part of the casing from one side and being provided with circular edges in line with each other, the metal hubs of said wedge-shaped plates pivotally mounted so as to be rotatable about the axis of the circular edges of the transparent plates and each provided with a toothed edge, an actuating shaft, a pinion thereon meshing with the toothed edges of the wedge-shaped plates, a rotatably mounted scale disk mounted substantially parallel to said actuating shaft, a gear connection between said scale disk and said shaft adapted to rotate the scale disk with higher speed than the wedge-shaped plates.

3. In a distance measuring instrument two pivotally mounted members having wedge-shaped transparent plates, a casing having a tubular part the transparent wedge-shaped plates projecting into said tubular casing from one side, the projecting edges of said plates having a circular form and being in line with each other, two circular transparent plates mounted within said tubular casing one on each side of the pair of wedge-shaped plates so as to form a protecting receptacle for same.

1,088,702. DAM CONSTRUCTION. EDWARD B. HUNT, Lampasas, Tex. Filed Sept. 26, 1912. Serial No. 722,425. (Cl. 61—24.)



1. A dam having a solid head wall supported a distance above the bed of a stream or river.

2. A dam comprising a substructure and a solid head wall supported by said substructure a distance above the bed of a stream or river.

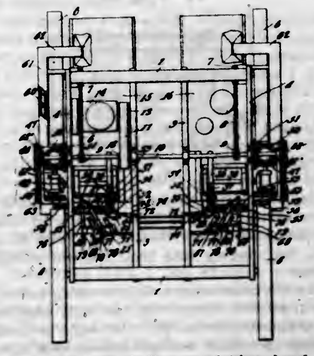
3. A dam comprising a substructure having a load-supporting deck elevated above the bed of a stream or river, and a head wall supported on said substructure at the down-stream end of said load-supporting deck, said load supporting deck extending up stream from the lower end of said head wall.

4. A dam comprising a substructure having longitudinally-disposed buttresses projecting from the bed of a stream or river, a load-supporting deck carried by said buttresses, and a head wall also carried by said buttresses and arranged substantially at a right angle thereto, said buttresses and deck extending up stream a distance.

5. A dam comprising spaced longitudinally-disposed buttresses projecting from the bed of a stream or river and being of gradually increased height down-stream, an abutment wall at the up-stream ends of said buttresses, a head wall carried by the down-stream ends of said buttresses, and a load-supporting deck carried by said buttresses and extending from said abutment wall to said head wall.

[Claims 6 to 17 not printed in the Gazette.]

1,088,703. COTTON-PICKER. ROBERT W. IVEY, New London, N. C., assignor of one-half to William T. Harris, Virgilina, Va. Filed Apr. 9, 1912. Serial No. 689,645. (Cl. 56—118.)



1. A cotton picker including a picking head, a series of fiber engaging spindles, means for reciprocating the

spindles for wrapping cotton fibers thereon and for reversing the rotation of said spindles to unwrap the fibers therefrom, stripping elements for engaging the fibers while being unwrapped from the spindles, stripping fingers extending close to the spindles and the stripping elements, means for shifting the said fingers while the spindles are retracted, to remove the fibers from said elements and spindles.

2. A cotton picker including a picking head, a series of fiber engaging spindles, means for reciprocating the spindles, means for simultaneously rotating the spindles for wrapping cotton fibers thereon and for reversing the rotation of said spindles to unwrap the fibers therefrom, stripping elements for engaging the fibers while being unwrapped from the spindles, stripping fingers extending close to the spindles and the stripping elements, means for shifting the said fingers while the spindles are retracted, to remove the fibers from said elements and spindles, and means for automatically delivering the fibers from the fingers and onto the conveyer.

3. A cotton picking machine including spindles mounted for reciprocation, a laterally movable spindle carrying structure, a series of stripping fingers extending between the spindles, a series of delivering fingers extending between the spindles, means operated by said structure when moved in one direction for successively shifting the stripping fingers away from the spindles and moving the delivering fingers between the stripping fingers.

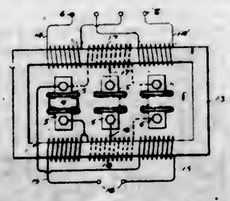
4. A cotton picker including a stripping plate, spindles mounted for reciprocation within the plate, means on the spindles for engaging cotton fibers to wrap them about the spindles, means for rotating the spindles when shifted away from the stripping plate, said spindles constituting means for conveying cotton to the stripping plate, oscillatory stripping fingers adjacent the plate for engaging the fibers, and means mounted to oscillate about a common fixed axis, for automatically removing the fibers from said stripping fingers and the spindles.

5. A cotton picker including a stripping plate, spindles mounted for reciprocation within the plate, means on the spindles for engaging cotton fibers to wrap them about the spindles, means for rotating the spindles when shifted away from the stripping plate, said spindles constituting means for conveying cotton to the stripping plate, oscillatory stripping fingers adjacent the plate for engaging the fibers, and spaced means mounted to oscillate about a common fixed axis for automatically removing said fibers from the stripping fingers and the spindles and conveying them laterally beyond the path of the spindles.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,704. ALTERNATING-CURRENT REGULATOR. SVEND E. JOHANNESEN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 16, 1909. Serial No. 517,968. (Cl. 171—242.)



1. In an electrical apparatus, a winding and a reactance in series therewith comprising a plurality of coils adapted to have voltages induced therein, the coils being so connected to the winding that their induced voltages are in opposition.

2. In an electrical apparatus, a winding and a reactance in series therewith comprising two coils adapted to have voltages induced therein, the coils being so connected to the winding that their voltages oppose each other.

3. In an electrical apparatus, a winding and a reactance in series therewith comprising two coils adapted to have substantially equal voltages induced therein, the coils being so connected that their voltages are in opposition.

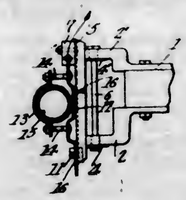
4. The combination in an electrical apparatus of a magnetic core, an inducing winding surrounding the core, a second winding in inductive relation to the first winding, and a plurality of coils in inductive relation to the first winding connected to the second winding so that the voltages of the coils are in opposition, the various inductive relations of the coils to the first winding differing relatively.

5. The combination in an electrical apparatus of a magnetic core, an inducing winding surrounding the core, a second winding also surrounding the core in inductive relation to the first winding, and a reactance comprising two coils in inductive relation to the first winding connected in series to each other so that their induced voltages are in opposition and connected in series with one of the windings.

[Claims 6 to 14 not printed in the Gazette.]

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1,088,705. CULTIVATOR. LAWRENCE E. KELLEY, Leonard, Tex. Filed June 9, 1913. Serial No. 772,642. (Cl. 97—7.)



1. The combination with the frame of a cultivator and a tooth carrying beam, of a coupling therebetween, consisting of a member attached to the tooth carrying beam, a second member attached to the frame of the cultivator, and coöperable means carried by both members for adjusting such members relative to each other to regulate the angle of disposition of the tooth carrying beam, said coacting means including a pivotal connection for one member to the other, and a feed screw carried by one member for adjustably engaging the other member, at a point remote from the pivotal connection.

2. The combination with a cultivator frame and a tooth carrying beam thereof, of a coupling therebetween, including a plate connected to the beam, a feed screw carrying block carried by the plate, a feed screw mounted therein, a clamping member for engaging the frame of the cultivator, means for connecting the same to the screw, and a pivotal connection between the latter member and the plate.

3. The combination with the frame of a cultivator, and a tooth carrying beam thereof, of means for attaching the beam adjustably to the frame of the cultivator, including a vertical plate, provided with two spaced lugs, means for attaching the lugs to the tooth carrying beam, a block attached to the plate near one end thereof, a feed screw mounted in said block, a clamping plate attached to the frame of the cultivator and carrying the feed screw, and means for pivotally connecting the clamping plate to the opposite end of the first plate.

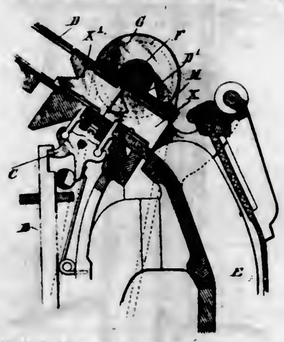
4. The combination with the frame of a cultivator, and a tooth carrying beam, of a coupling therebetween, including a plate connected to the beam by a lateral swinging hinge, a clamping plate attached to the frame of the cultivator and pivotally connected to one end of said first plate, and coöperable means carried by the other end of said clamping plate and the first plate for adjustably connecting the clamping plate thereto.

5. The combination with the frame of a cultivator, and a tooth carrying beam, of a coupling therebetween, including a plate connected to the beam by a lateral swinging hinge, a clamping plate attached to the frame of the cultivator and pivotally connected to one end of said first plate, coöperable means carried by the other end of said clamping plate and the first plate for adjustably connecting the clamping plate thereto, said latter means including two spaced sleeves carried by the clamping plate, a feed screw rotatably mounted therein, and a block provided with a threaded aperture therethrough carried by the first plate and fitting upon the screw.



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1,088,706. TYPOGRAPHICAL MACHINE. LUTHER L. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 19, 1912. Serial No. 704,478. (Cl. 199—7.)



1. In a typographical machine comprising type or matrices, the combination of a place of storage therefor, devices for releasing the type or matrices, and constantly operated means to expel the type or matrices from their place of storage when released.

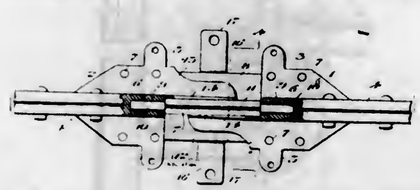
2. In a typographical machine comprising type or matrices, the combination of a place of storage therefor, means tending constantly to expel the type or matrices therefrom, and devices for releasing the type or matrices to permit the action of said means.

3. In a typographical machine, the combination of a magazine wherein the type or matrices are stored in columns, escapements to control the release of the type or matrices, and a constantly operated roll to engage the lowermost matrix of a column to expel it from the magazine when released.

4. In a typographical machine, the combination of the magazine D wherein the type or matrices are stored in columns, the escapements C to release the type or matrices, and the constantly operated roll F engaging the lowermost matrices of the columns to expel them from the magazine when released by the escapements.

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1,088,707. TROLLEY-WIRE CONNECTOR. JOHN KIRBY, Douglas, Ariz. Filed May 31, 1912. Serial No. 700,631. (Cl. 191—39.)

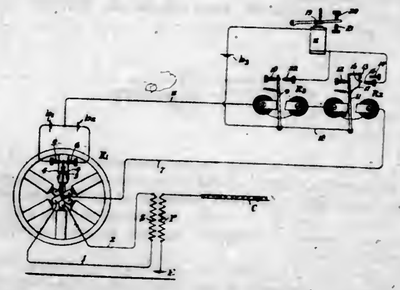


1. In a trolley wire connector, wire terminals, means for insulating said terminals from each other, said terminals having extensions arranged in relative overlapping position and provided with downwardly extending flanges, an insulated trolley wheel or roller guide on the connector, said downwardly extending flanges being disposed on opposite sides of said guide, the extensions and flanges being arranged so that the trolley wheel or roller will contact with one extension or its flange before passing from the other extension and its flange.

2. In a trolley wire connector, wire terminals, an insulating bar connecting said terminals, extensions on the terminals which lie against the bottom of the insulating bar and are arranged in relative overlapping position and provided with angularly disposed flanges, said extensions with their flanges being separated from each other, a trolley wheel or roller guide of insulating material interposed between the flanges of the said extensions and flanked by them, the said parts being arranged so that the trolley wheel or roller will contact with one extension or its flange before passing from the other extension and its flange.

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1,088,708. TELEGRAPH SYSTEM. ISIDOR KITSEE, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 31, 1909. Serial No. 487,075. (Cl. 178—45.)



1. The combination with a line or cable carrying impulses of one polarity to represent dots and of opposite polarity to represent dashes, of a sensitive relay associated with said line or cable, a local circuit controlled by said relay and including a plurality of polarized relays, one relay in said local circuit serving to reproduce dots, and another relay in said circuit making protracted contact to reproduce dashes.

2. The combination with a line or cable carrying current impulses of one polarity representing dots and of the other polarity representing dashes, of a relay associated therewith, a local circuit including a plurality of polarized relays controlled by said relay, means for causing current to flow in said local circuit in one direction in response to a line or cable impulse of one polarity, and for causing a current to flow in opposite direction in said local circuit in response to a line or cable impulse of opposite polarity, said relays in said local circuit making contacts of different durations.

3. The combination with a line or cable carrying current impulses of one polarity representing dots and of the other polarity representing dashes, of a sensitive relay associated therewith, a local circuit including a plurality of polarized relays controlled by said sensitive relay, means for causing current flow in said local circuit in one direction in response to a line or cable impulse of one polarity and for causing current flow in opposite direction in said local circuit in response to a line or cable impulse of opposite polarity, one of said relays in said local circuit responding to a current of one direction to reproduce dots, and another relay in said local circuit responding to current of opposite direction and making protracted contact to reproduce dashes.

4. The combination with a line or cable carrying current impulses of one polarity representing dots and current impulses of opposite polarity representing dashes, of a sensitive relay, a local circuit controlled thereby and including a plurality of polarized relays, a second local circuit controlled by said polarized relays, one of said polarized relays responding to current of one direction for

momentarily controlling the second local circuit, and another of said polarized relays responsive to current of opposite direction for protractedly controlling said second local circuit.

5. The combination with a line or cable carrying impulses of one polarity to represent dots and of opposite polarity to represent dashes, of a sensitive relay associated with said line or cable and comprising a movable contact movable a fixed distance between stationary contacts, a transformer intervening between said relay and said line or cable, a local circuit controlled by said relay and including a plurality of relays, a second local circuit controlled by said relays, one relay in said local circuit controlling said second local circuit to reproduce dots, and another relay protractedly controlling said second local circuit to reproduce dashes.

[Claims 6 to 14 not printed in the Gazette.]

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1,088,709. BLADE FOR SKATES, SLEIGHS, SKEES, AND THE LIKE. LOTHAR VON KÖPPEN, Potsdam, Germany. Filed Mar. 29, 1912. Serial No. 687,160. (Cl. 46—50.)



1. An ice skate having the ice-engaging surface of its blade curved upwardly at the front and at the rear, said blade being bodily convexed inwardly at its forward part, so that its forward extremity curves outwardly, and its rear part convexed outwardly so that its rear extremity curves inwardly.

2. An ice skate having the ice-engaging surface of its blade curved upwardly at the front and at the rear, said blade being bodily convexed inwardly at its forward part, so that its forward extremity curves outwardly, and its rear part convexed outwardly so that its rear extremity curves inwardly, said front and rear extremities of the blade terminating in a plane with the medium line of the base of the skate.

3. An ice skate having the ice-engaging surface of its blade curved upwardly at the front and at the rear, said blade being bodily convexed inwardly at its forward part, so that its forward extremity curves outwardly, and its rear part convexed outwardly so that its rear extremity curves inwardly, the middle portions of the body of each runner being straight and lying in the median line of the base of the skate.

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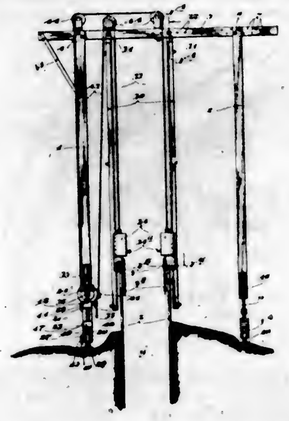
1,088,710. PILE-DRIVER. PATRICK W. LEEN, Minneapolis, Minn. Filed June 18, 1913. Serial No. 774,329. (Cl. 61—38.)

1. The combination with an upright frame, of a guide secured to said frame, for pendulum-like movement, a driving weight slidably mounted on said guide, means for raising and releasing said weight, means for adjusting said frame in a vertical plane that transversely intersects the plane of oscillatory movement of said guide, and means for adjusting said frame in the plane of the oscillatory movement of said guide.

2. The combination with an upright frame, of a pair of laterally spaced guides secured to said frame, for pendulum-like movement, means for adjusting one of said guides toward and from the other, driving weights slidably mounted on said guides, and means for raising and releasing said weights.

3. The combination with an upright frame, of a pair of laterally spaced guides secured to said frame for pendulum-like movement, means for adjusting one of said guides toward and from the other, driving weights slidably mounted on said guides, means for raising and releasing said weights, and means for adjusting said frame in a vertical plane that transversely intersects the plane of oscillatory movement of said guides.

4. The combination with an upright frame, of a pair of laterally spaced guides secured to said frame, for pendulum-like movement, means for adjusting one of said guides toward and from the other, driving weights slidably mounted on said guides, means for raising and releasing said weights, means for adjusting said frame in a vertical plane that transversely intersects the plane of oscillatory movement of said guides, and means for adjusting said frame in the plane of the oscillatory movement of said guides.

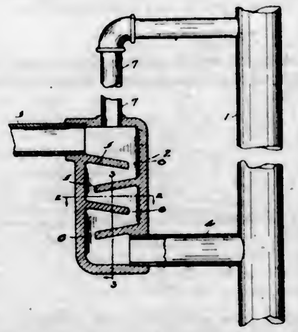


5. The combination with an upright frame having a lateral frame extension of means for vertically adjusting the outer end of said frame extension, an engine mounted on said frame extension and having its driving shaft extended approximately parallel with said frame extension, a driving weight, a guide on said upright frame for said driving weight, and connections between said engine shaft and driving weight for raising and releasing said weight.

[Claims 6 to 13 not printed in the Gazette.]

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1,088,711. OIL-ATOMIZER. EDWARD LINDMUELLER, Cleveland, Ohio, assignor of three-fourths to Joseph C. McClure, Cleveland, Ohio. Filed Feb. 27, 1913. Serial No. 751,111. (Cl. 184—56.)



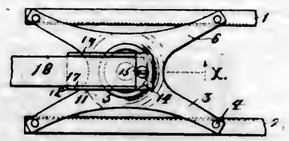
1. The combination with a steam pipe and branches therefrom, of a shell having an inlet, a series of shelves each closing the cross area of the shell and downwardly inclined toward an opening located diametrically opposite an opening in each adjoining shelf, and the upper surface of each shelf being convex in formation.



2. An oil atomizer including a shell having a series of shelves with convex upper surfaces, and each shelf closing the cross area of the shell and downwardly inclined toward an opening located diametrically opposite the opening in an adjoining shelf.

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1,088,712. COUPLING. CURTIS C. MCGUIRE, Akron, Ohio. Filed June 23, 1913. Serial No. 775,281. (Cl. 21—114.)

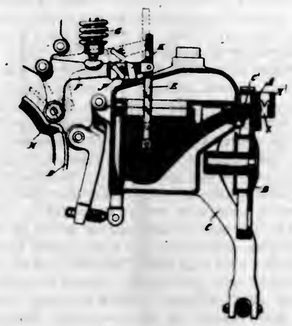


1. A coupling embodying a frame provided with an upturned hub the upper face of which constitutes a bearing, said member further provided with an opening for a king-bolt, a movable coupling member mounted on the upper bearing face of said hub, said movable coupling member provided with a forwardly positioned and upwardly extending standard having a head over-hanging the lower portion to provide a recess to receive the end of the reach or bar, and a pin extending through said head and reach for detachably coupling said members together.

2. A coupling for the purpose described embodying a fixed member provided with a central hub, and a king-bolt positioned therein, the upper face of said hub having an annular projection forming a bearing surface, a movable coupling member provided on its under face with an annular projection registering with the upper face of said hub and revolving thereon, said members provided with registering openings to receive a king bolt, an upwardly-projecting standard at one end of said movable member, a recess in said standard to receive the end of a reach or bar of a drawn vehicle, a pin extending through said standard and the end of said reach, the rear portion of said movable member having a downwardly-inclined portion to serve as a supporting and guiding means.

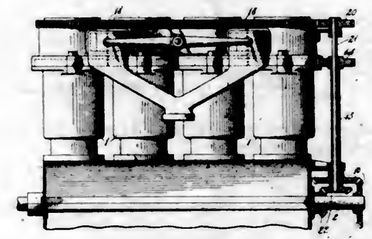
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1,088,713. LINOTYPE-MACHINE. JOHN R. MCRAE, Albany, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 5, 1913. Serial No. 759,141. (Cl. 199—15.)



In a linotype machine, the combination of the movable pot and the pump lever therefor, the said pot being provided with a fixed stop or abutment which in one position of the pot engages the pump lever and locks it against action and in another position of the pot frees the pump lever and permits it to operate.

1,088,714. VALVE FOR EXPLOSIVE-ENGINES. JOHN W. MEAKER, Detroit, Mich. Filed May 13, 1912. Serial No. 696,816. (Cl. 136—7.)



1. In an explosive engine, a cylinder having a lateral intake and a lateral exhaust port, an inner expansion ring consisting of a pair of segmental sections extending circumferentially around the cylinder wall in grooves thereof from one port to the next with end bars connecting the adjacent end portions of the segments and lying in grooves in the wall adjacent a longitudinal margin of the port, an outer expansion ring having a pair of segmental sections encircling the cylinder wall from port to port in the groove of the inner ring with end bars connecting the adjacent end portions of the sections and lying in grooves each adjacent the other longitudinal margin of a port, and an annular valve closure journaled on the cylinder around the ports, and rings and provided with an opening adapted to register with either port.

2. In an explosive engine, the combination with a cylinder having a lateral exhaust port and a lateral inlet port, and an annular valve closure journaled on the cylinder over the ports and provided with an opening that may be brought to register with either of the ports, of means for preventing leakage between the closure and cylinder from the mouths of the ports consisting of a pair of expansion members, the inner one having a pair of segmental sections extending circumferentially of the cylinder from port to port in channels in the cylinder wall with the end portions thereof connected by end bars lying in grooves parallel to the adjacent longitudinal margin of the ports, the outer member having a pair of segmental sections abutting the outer faces of the inner member sections in the channels of the cylinder, the end portions being united by end bars lying in grooves parallel to the other longitudinal margins of the ports.

3. In an explosive engine, a cylinder having a lateral intake and a lateral exhaust port, an inner expansion ring consisting of a pair of segmental sections extending circumferentially around the cylinder wall in grooves thereof from one port to the next with end bars connecting the adjacent end portions of the segments and lying in grooves in the wall adjacent a longitudinal margin of the port, an outer expansion ring having a pair of segmental sections encircling the cylinder wall from port to port in the groove of the inner ring with end bars connecting the adjacent end portions of the sections and lying in grooves each adjacent the other longitudinal margin of a port, a pair of annular valve closures journaled concentrically on the cylinder around the ports and rings and each provided with an opening, these openings being adapted to simultaneously register with either of the ports, and means for independently turning the closures.

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1,088,715. DRAFT-EQUALIZER. JOSEPH MILLER, Ramona, Kans. Filed July 3, 1913. Serial No. 777,316. (Cl. 21—76.)

A draft equalizer comprising a clevis, a pair of linked auxiliary bars, connections between each of said bars and said clevis, a curved lever carried by one of said auxiliary bars, a main bar intermediate said clevis and said pair of auxiliary bars, a connection between said curved lever

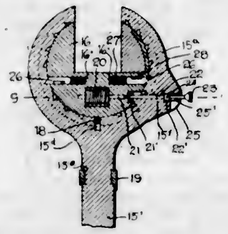
and one end of said main bar, a connection between the other auxiliary bar and the main bar, and hitching devices



connected with the free end of said main bar and the free end of said curved lever.

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1,088,716. WRENCH. JOHN E. MONAGHAN, Fort Morgan, Colo. Filed Aug. 16, 1913. Serial No. 785,111. (Cl. 81—59.)



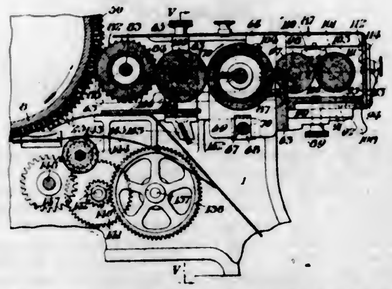
1. A device of the character described including a head provided with a handle, a plurality of interlocking jaw members rotatably supported by the head, certain of such members being capable of adjustment relatively to the remainder, an endwise movable member mounted for movement longitudinally of the handle and capable of engagement with one of the jaws whereby the jaws are held against rotary movement, said member being provided with a recess affording spaced shoulders, and a sleeve embracing the handle and capable of rotation therearound and extending through the recess, the opposite margins of such sleeve being provided with cams coacting with the shoulders of the member whereby the same may be moved into or out of engagement with the jaw upon rotation of the sleeve.

2. A device of the character described including a head provided with a handle, jaws rotatably supported by the head, a rotary adjusting element carried by one of the jaws engageable with a second jaw, said rotary element being provided with a socket, a shaft capable of endwise and axial movements mounted in the head and adapted to be engaged within the socket of the adjusting element, and an operating member for such shaft pivotally engaged therewith and projecting exteriorly of the head, such operating member serving as a stop to prevent movement of the shaft relative to the adjusting element when such shaft is moved out of engagement with the socket of such adjusting element.

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1,088,717. INKING APPARATUS. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Sept. 28, 1910, Serial No. 584,202. Divided and this application filed Sept. 8, 1911. Serial No. 648,324. (Cl. 101—71.)

1. The combination with a rotary type carrying drum; of an ink fountain; a series of inking rollers interposed between said drum and said fountain including a transfer roller presented next to said drum, and four other rollers provided with means coöperating to intermittently withdraw a definite, adjustably variable amount of ink from said fountain and deposit it upon said transfer roller, including a metal faced distributing roller in contact with said transfer roller; a rubber faced roller in said fountain; a metal faced roller in said fountain in contact with said rubber faced roller; a rubber faced doffer roller exterior to said fountain arranged to intermittently alternately contact with said metal faced fountain roller and said distributing roller; means arranged to intermittently rotate said doffer roller and shift the axis thereof to bring said roller alternately into contact with said metal faced fountain roller and said distributing roller; means arranged to axially reciprocate said distributing roller; gearing connecting said drum and said transfer roller arranged to continuously rotate the latter; and, means arranged to intermittently rotate said two fountain rollers.



2. The combination with a rotary type carrying drum; of an ink fountain; a series of inking rollers interposed between said drum and said fountain including a transfer roller presented next to said drum, and four other rollers provided with means coöperating to intermittently withdraw a definite, adjustably variable amount of ink from said fountain and deposit it upon said transfer roller, including a metal faced distributing roller in contact with said transfer roller; a rubber faced roller in said fountain; a metal faced roller in said fountain in contact with said rubber faced roller; a rubber faced doffer roller exterior to said fountain arranged to intermittently alternately contact with said metal faced fountain roller and said distributing roller; means arranged to rotate said doffer roller and shift the axis thereof to bring said roller alternately into contact with said metal faced fountain roller and said distributing roller; means arranged to axially reciprocate said distributing roller; gearing connecting said drum and said transfer roller arranged to continuously rotate the latter; and, means arranged to rotate said two fountain rollers.

3. The combination with a frame; of a printing couple including a rotary drum having a shaft journaled in said frame; a carriage arranged to slide on said frame toward and away from said drum; a shaft having bearing blocks arranged to slide in flanges on said carriage, and eccentrics journaled in said frame; a handle on said shaft having a spring pressed plunger detent arranged to engage sockets on said frame; whereby when said handle is turned in one direction said carriage is shifted toward said drum and held in operative position and when said handle is turned in the opposite direction said carriage is shifted away from said drum and held in inoperative position; means on said handle whereby it may be rotatably adjusted in connection with said shaft, including a crown clutch hub fitted to engage a crown clutch collar on said shaft; means whereby said handle may be rigidly secured in adjusted relation with said shaft; an ink fountain detachably connected with said carriage by screws extending through brackets on said carriage; means precisely locating said fountain with respect to said carriage, including socket plates on said fountain; screws respectively adapted to shift and to secure said plates in rigid relation with said fountain; and, dowel pins projecting from said brackets into said socket plates.

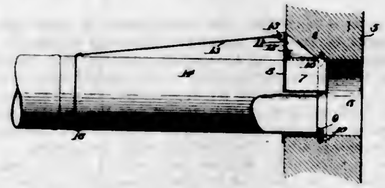
4. The combination with a frame; of a printing couple including a rotary drum having a shaft journaled in said frame; a carriage arranged to slide on said frame toward and away from said drum; a shaft having bearing blocks arranged to slide in flanges on said carriage and eccentrics journaled in said frame; a handle on said shaft having a spring pressed plunger detent arranged to engage sockets in a plate on said frame; whereby when said handle is turned in one direction said carriage is shifted toward said drum and held in operative position and when said handle is turned in the opposite direction said carriage is shifted away from said drum and held in inoperative position; means on said handle whereby it may be rotatably adjusted in connection with said shaft including a crown clutch hub fitted to engage a crown clutch collar on said shaft; and, means whereby said handle may be rigidly secured in adjusted relation with said shaft.

5. The combination with a frame; of a printing couple including a rotary drum having a shaft journaled in said frame; a carriage arranged to slide on said frame toward and away from said drum; a shaft having bearing blocks arranged to slide in flanges on said carriage, and eccentrics journaled in said frame; a handle on said shaft having a detent, whereby when said handle is turned in one direction said carriage is shifted toward said drum and held in operative position and when said handle is turned in the opposite direction said carriage is shifted away from said drum and held in inoperative position; means on said handle whereby it may be rotatably adjusted in connection with said shaft including a crown clutch hub fitted to engage a crown clutch collar in said shaft; and, means whereby said handle may be rigidly secured in adjusted relation with said shaft.

[Claims 6 to 13 not printed in the Gazette.]

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1,088,718. STOVEPIPE OR CHIMNEY THIMBLE. WILLIAM PETERSEN, Lyons, Iowa. Filed Oct. 6, 1913. Serial No. 793,761. (Cl. 126—318.)



An article of the character set forth, comprising, a cylindrical casing formed with a pipe stop, an anchor lug, an outwardly extending face flange, and a longitudinally extending web joining the flange with the outer side of the casing, said flange having a fastening-receiving means located above the casing opening.

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1,088,719. SAW. FRITZ PETERSON, Rockford, Ill. Filed Mar. 29, 1912. Serial No. 687,252. (Cl. 143—133.)



A back saw having a web of uniform and parallel thickness, a cutting-edge portion of greater cross-sectional

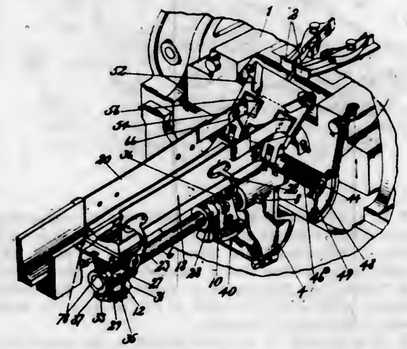




thickness than that of said web, teeth on the edge of said cutting-edge portion formed without set, and the sides of said cutting-edge portion extending parallel from a point distant from said teeth, to the cutting face of said teeth.

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1,088,720. MACHINE FOR STACKING HEEL-BLANKS. JOSEPH H. POPE, Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 12, 1906. Serial No. 347,540. (Cl. 12—48.)



1. The combination with a machine for acting upon heel blanks successively, of a receiver constructed to sustain the blanks in a parallel relation face to face, movable means for transferring said blanks from operative relation to said machine, into position in said receiver, and means for causing said blanks to be properly positioned upon said transferring means.

2. The combination with a machine constructed to act upon heel shaped blanks successively and to discharge them rounded end foremost lying loosely upon one side, of a receiver arranged to sustain the blanks on edge and means in the path of the blanks from said machine for positioning the blanks on edge in the receiver, said means having provisions for causing the blanks to register with each other as they enter the receiver.

3. The combination with a machine for acting upon heel shaped blanks successively constructed to discharge them by movement in the direction of the length of the blanks, of a receiver constructed to sustain the blanks in parallel relation face to face, and means for transferring said blanks from said machine to said receiver, said means being arranged to receive blanks as they are discharged from said machine and having provision for so positioning the blanks as to insure their proper register with each other when transferred to the receiver.

4. A support for heel blanks comprising a normally horizontal trough open at the top and having its bottom transversely curved to conform approximately to the contour of the curved end of a heel, and arranged to support a series of blanks on edge with their breast ends uppermost, said trough being reversible to deposit the series of blanks with their breast ends downward.

5. A support for heel blanks comprising an open trough formed to support the blanks on their rounded edges face to face along its length, said trough being reversible to permit the blanks therein to be deposited upon their breast edges and being adjustable in width to accommodate blanks of different widths.

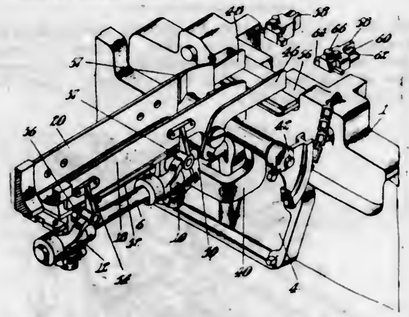
[Claims 6 to 26 not printed in the Gazette.]

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1,088,721. MACHINE FOR STACKING HEEL-BLANKS. JOSEPH H. POPE, South Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 6, 1909. Serial No. 506,090. (Cl. 12—48.)

1. In a machine of the class described, the combination with a receiver adjustable in width to accommodate blanks

varying in width, of a carrier for supplying blanks successively to the receiver, and guides for engaging the sides of a blank to position it upon the carrier arranged for adjustment simultaneously with the receiver.



2. In a machine of the class described, the combination with a receiver having side walls arranged for relative adjustment to accommodate blanks varying in width, of a carrier for supplying blanks successively to the receiver, and guides for positioning a blank upon the carrier mounted upon said side walls of the receiver for simultaneous adjustment therewith.

3. In a machine of the class described, the combination with a receiver, of a carrier arranged for angular movement from a receiving position into a position in which it inserts a blank on edge in the receiver, and means engaging an edge of the blank for restraining the blank from longitudinal movement upon the carrier in the movement of the carrier into delivering position.

4. In a machine of the class described, the combination with a receiver of a carrier arranged for swinging movement from an approximately horizontal receiving position into a vertical position in which it inserts a blank on edge in the receiver, and means engaging an edge of the blank upon the carrier for restraining the blank from longitudinal movement in the movement of the carrier into delivering position.

5. In a machine of the class described, the combination of a receiver, a carrier arranged for movement from a receiving position into a position in which it inserts a blank on edge in the receiver, and means for restraining the blank from longitudinal movement upon the carrier in the movement of the carrier into delivering position, said last named means being variable to accommodate blanks of different lengths.

[Claims 6 to 9 not printed in the Gazette.]

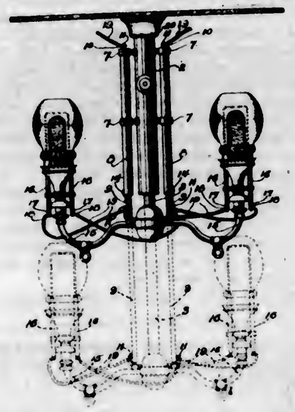
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1,088,722. CHANDELIER. WARREN POTTS, Elkhart, Ind. Filed June 18, 1913. Serial No. 774,494. (Cl. 240—70.)

1. In a chandelier, the combination of fixed and telescoping central tube members, a plurality of casings, each comprising fixed and telescoping members; said casings being offset from and parallel to the central tube members, and means connecting the fixed central tube members with the fixed members of the casings and the telescoping tube member with the telescoping members of the casings.

2. In a chandelier, the combination of fixed and telescoping central tube members, a plurality of casings, each comprising fixed and telescoping members; said casings being offset from and parallel to the central tube members, and means connecting the fixed central tube members with the fixed members of the casings, and the telescoping tube member with the telescoping members of the casings, there being a plurality of such connections between each fixed casing member and the fixed tube member, spaced apart longitudinally of the tube member and thereby fixing said parts against relative torsional displacement.

3. In a chandelier, the combination of fixed and telescoping central tube members, a plurality of casings, each comprising fixed and telescoping members; said casings being off-set from and parallel to the central tube members, and means connecting the fixed central tube members with the fixed members of the casings, and the telescoping tube member with the telescoping members of the casings, there being a plurality of such connections between each fixed casing member and the fixed tube member, spaced apart longitudinally of the tube member and thereby fixing said parts against relative torsional displacement, and the connections between the telescoping tube member and the telescoping casing members comprising tubular chandelier arms communicating with the interior of the telescoping central tube member.



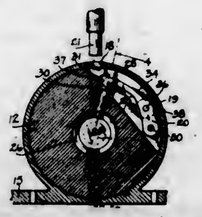
4. In a chandelier, the combination of fixed and telescoping central tube members, a plurality of casings, each comprising fixed and telescoping members, said casings being offset from and parallel to the central tube members, and means connecting the fixed central tube members with the fixed members of the casings and the telescoping tube member with the telescoping members of the casings, and telescoping electric conductors each comprising a fixed and a telescoping member and located within and connected to the fixed and telescoping members of the respective casings.

5. In a chandelier, the combination of fixed and telescoping central tube members, a plurality of casings, each comprising fixed and telescoping members; said casings being offset from and parallel to the central tube members, and means connecting the fixed central tube members with the fixed members of the casings and the telescoping tube member with the telescoping members of the casings, and a friction grip carried by one member of each conductor casing and bearing against the other member thereof.

[Claim 6 not printed in the Gazette.]

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1,088,723. CLUTCH. FRANK G. RATHSAM, Indianapolis, Ind. Filed Oct. 14, 1912. Serial No. 725,663. (Cl. 192—6.)



1. Clutch mechanism including two rotatable members, one surrounding the other, a plunger mounted in the surrounding member radially moved into clutching engagement with the other member, a spring for withholding said plunger and means in said surrounding member for actuating the plunger.

2. Clutch mechanism including a rotatable member, a driving element, a driven element, said two elements mounted adjacent to each other in said rotatable member and means movable radially in said rotatable member into engagement with said two elements for clutching them together.

3. Clutch mechanism including a rotatable member, a driving element, a driven element, said two elements mounted in said rotatable element and with adjacent projections, and means in said rotatable member movable radially into position between said two elements for engaging the projections thereon and clutching them together.

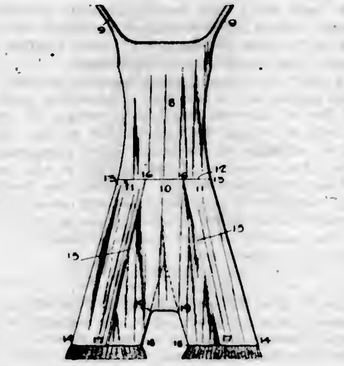
4. Clutch mechanism including a rotatable member, a driving element, a driven element, said two elements mounted in said rotatable member and means in said rotatable member movable radially into position between said two elements for engaging the projections thereon and clutching them together.

5. Clutch mechanism including a rotatable member, a driving element, a driven element, said two elements being mounted in said rotatable member adjacent to each other, a plunger mounted in said rotatable member so as to be radially movable into clutching engagement with said two elements, and means for actuating said plunger.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,724. UNDERGARMENT. JACOB D. REED, Schuylkill Haven, Pa., and LEO SCHMIDT, New York, N. Y. Filed June 22, 1912. Serial No. 705,321. (Cl. 2—144.)



A union garment comprising body and leg portions, said garment being completely closed from the neck portion to the lower ends of the leg portions at both front and rear, a substantially triangular shaped gusset inserted in the rear of the garment extending from the waist line to the bottom of the legs, the intermediate portion of the lower edge of the gusset being shaped to provide a triangular extension which is stitched to the garment through the crotch and extends to a point above the crotch at the front of the garment.

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1,088,725. BURIAL-VAULT. WILLIAM C. REINMILLER, Atlanta, Ill. Filed Nov. 28, 1913. Serial No. 803,499. (Cl. 27—7.)

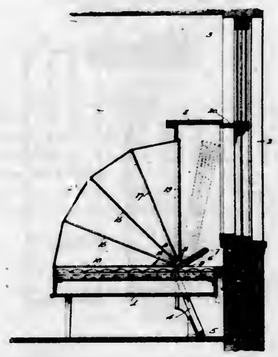
A burial vault comprising a top and bottom section, the bottom section provided with an open bottom, and flanges formed on the sides and ends thereof, straps spanning the opening of the bottom section upon which the casket is supported, said top section adapted to be received on the bottom section and within the flanges



which prevent longitudinal and lateral movement of the top member.

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1,088,726. CANOPY FOR OPEN-WINDOW SLEEPING-BEDS. WALTER L. RICE, Denver, Colo. Filed June 17, 1912. Serial No. 704,115. (Cl. 5—4.)



1. In an attachment for beds as specified, the combination with a cabinet adapted to surround the lower portion of a window and having an open front and back, and a bed, one end of which extends into said cabinet, of a canopy comprising a plurality of bows hinged together at their extremities and being radially disposed when in a position for use, and a fabric covering secured to said bows to form a housing, the first of said bows being pivotally attached to the sides of the bed, while the last bow is adapted to rest against the inner face of the front of the cabinet surrounding the opening therein.

2. In an attachment for beds as specified, the combination with a cabinet open in front and back, and a bed, one end of which extends into said cabinet near its lower end, of a plurality of radially disposed bows hinged together at their lower ends, the first bow being pivoted at its extremities to the sides of the bed and adapted to rest upon the sides and foot board of said bed, while the last bow rests against the inner face of the front of the cabinet surrounding the opening therein, and a fabric housing secured upon said bows.

3. In an attachment for beds as specified, the combination with a vertically disposed cabinet which is open front and back, and a bed, one end of which extends into the lower portion of the cabinet, of a collapsible canopy pivotally attached to opposite sides of the bed, and forming a housing which extends from the foot of the bed to the top of the opening in the cabinet, and adapted to be collapsed and swung back into said cabinet when not in use.

4. In an open window canopy for beds, the combination with a cabinet adapted to inclose the lower portion of the window, and a bed extending into the cabinet, the cabinet being open front and back, of a collapsible canopy comprising a plurality of radially disposed bows pivotally connected at their ends, the first of said bows being horizontally disposed and hinged at its ends to the sides of

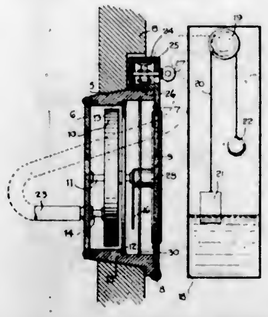
the bed, while the last of said bows is vertically disposed and rests against the inner face of the front of the cabinet surrounding the opening therein, and a fabric housing surrounding said bows, said canopy being adapted to be folded back into the cabinet when not in use.

5. In an open window canopy for beds, the combination with a bed and an open ended cabinet surrounding the end of the bed and extending above the same, of a collapsible arc-shaped housing extending from the opening in the cabinet and resting upon the sides and one end of the bed, said housing being pivotally secured to the sides of the bed in line with the front of the cabinet, and being adapted to be collapsed and swung into the cabinet, when not in use.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,727. LIQUID-GAGE LOCK. OLIVER C. RITZ-WOLLER, Jacksonville, Fla. Filed Mar. 5, 1913. Serial No. 752,152. (Cl. 73—82.)



1. The combination with a gage including a float, a casing, and indicating mechanism automatically actuated in the movement of said float, of locking means mounted upon the casing of the indicator movable into engagement with one of the elements of the indicating mechanism to lock the same and the float against movement.

2. The combination with a gage including a float, a casing, and indicating mechanism automatically actuated in the movement of the float, of a face plate movably mounted upon the casing of the indicator, means adapted to be engaged by said plate to lock the indicating mechanism against operation, and means for locking said plate against movement.

3. The combination with a gage, including a float, indicating mechanism actuated in the movement of said float, said mechanism including a pointer, of a compressible element adapted to frictionally engage said pointer and lock the mechanism against operation, means coöperating with said element to move the same to effective position, and additional means to lock said last named means against movement.

4. The combination with a gage including a movable float, indicating mechanism and actuating means therefor operated by the movement of the float, of a casing for said indicating mechanism, said mechanism including a pointer, a hinged face plate for the casing, means adapted to be engaged by said face plate when the same is moved to its closed position and moved into engagement with the pointer to lock the indicating mechanism against operation, and means for locking said face plate in its closed position upon the indicator casing.

5. The combination with a gage including a float, indicating mechanism and actuating means therefor actuated by the float, said indicating means including a shaft having a pointer fixed thereto, of a movable friction block, a casing for the indicating mechanism, a face plate hingedly mounted upon said casing adapted to move said friction block into engagement with the pointer and lock the indicating mechanism against operation, and means for locking the face plate in its closed position upon the casing.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,728. LINE-CASTING MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 7, 1910. Serial No. 565,516. (Cl. 199—13.)



1. A slotted mold for a line casting machine provided with permanently and uniformly spaced means exterior to the mold slot to engage individual matrices or spaces in the line irrespective of their location therein and hold them against lateral movement.

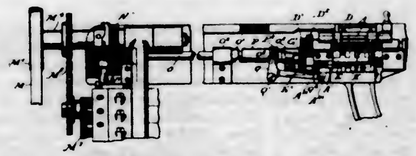
2. A mold for a line casting machine provided with uniformly spaced teeth to engage individual matrices or spaces in the line irrespective of their location therein and hold them against lateral movement.

3. A mold for a line casting machine provided with a toothed portion at its front, in combination with a composed line of matrices and spaces, certain of which are of a form to engage the said toothed portion, the teeth being so arranged as to permit such engagement irrespective of the location of the matrices in the line.

4. The combination with a composed line divided into groups, of a slotted mold provided with permanently and uniformly spaced means exterior to the mold slot to preserve the relation of such groups irrespective of their location in the line.

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1,088,729. TYPOGRAPHICAL MACHINE. JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 25, 1911. Serial No. 640,470. (Cl. 199—7.)



1. In a typographical machine, the combination of distributing devices comprising a movable part, operating mechanism for said devices, and means tending constantly to disconnect it from the distributing devices, independently of its operation, the said means being controlled by the movable part.

2. In a typographical machine, the combination of distributing devices comprising a movable part, operating mechanism for said devices, means tending constantly to disconnect it from the distributing devices independently of its operation, and connections from said movable part whereby the disconnecting means are resisted or unresisted according to the position of the movable part.

3. In a typographical machine, the combination of distributing devices comprising a movable part, operating mechanism for said devices, and a spring acting directly to disconnect the operating mechanism from the distributing devices, the spring being controlled in its action by the movable part.

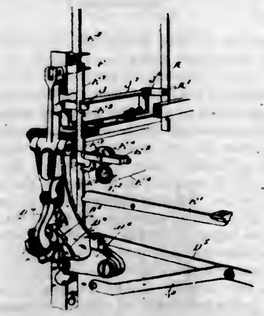
4. In a typographical machine, the combination of distributing devices comprising the movable part $A^1$, operating mechanism for said devices comprising a clutch, the spring $Q^2$ acting directly to disengage said clutch, and connections to maintain the engagement of said clutch in opposition to the spring, the said connections adapted to be tripped by the movement of the part $A^1$.

5. In a typographical machine, the combination of distributing mechanism comprising the movable part $A^1$, operating mechanism for said devices comprising the driving member $O^1$ and the driven member P, the spring $Q^2$ for disengaging said members, and the pivoted lever Q for effecting the engagement of said members in opposition to the spring, the said lever adapted to be tripped by the movement of the said part.

[Claims 6 to 11 not printed in the Gazette.]

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1,088,730. TYPOGRAPHICAL MACHINE. JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 4, 1911. Serial No. 642,295. (Cl. 199—7.)



1. In a typographical machine, the combination of two noncontiguous escapement actuating devices, operating means in normal proximity to one of them, connections to the more remote one, and mechanism whereby the said operating means is caused to engage alternately the proximate actuating device and the connections to the remote actuating device.

2. In a typographical machine, the combination of two noncontiguous escapement actuating devices, operating means arranged to operate one of them directly, and connections to enable it to operate the more remote one, together with mechanism whereby the said operating means is caused to engage alternately the first actuating device and the connections to the second actuating device.

3. In a typographical machine, the combination of two noncontiguous escapement actuating devices, operating means arranged to engage one of them directly and the other one indirectly, and mechanism whereby the said means is caused to operate the said actuating devices alternately.

4. In a typographical machine, the combination of two noncontiguous escapement actuating devices, operating means arranged to engage one of them directly, connections to the other of them, and mechanism whereby the said operating means is caused to engage alternately the first actuating device and the connections to the second actuating device.

5. In a typographical machine, the combination of two noncontiguous escapement actuating devices, operating means arranged to engage one of them directly, connections to the other of them, the said connections comprising a rock shaft and arms thereon, one of the arms engaging one of the actuating devices and the other of the arms being arranged to be actuated by the common operating device, and mechanism whereby the said operating means is caused to engage alternately the first actuating device and the last mentioned rock shaft arm.

[Claims 6 and 7 not printed in the Gazette.]

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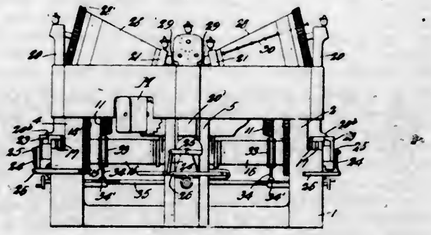
1,088,731. SPOOL THREAD-GUIDE AND BINDER. ALICE ROLLER, New York, N. Y. Filed Sept. 27, 1913. Serial No. 792,097. (Cl. 242—135.)



A thread guide consisting of a U-shaped resilient frame provided with an opening for the passage of thread and a slot in communication therewith, a catch for the thread adjacent said opening, keepers carried by said frame adapted to engage the central opening of a spool, said keepers consisting of a plurality of angularly disposed resilient members, one of the members being shorter than the other member.

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1,088,732. PRINTING-PRESS. NATHAN SADOVSKY, San Antonio, Tex. Filed Jan. 21, 1913. Serial No. 743,418. (Cl. 101—148.)



1. In a printing press, a frame, a rotary circular type bed mounted thereon, a plurality of diametrically disposed impression rollers, a plurality of diametrically disposed ink rollers, and manually adjustable automatically actuated means for moving the impression rollers and ink rollers to and from the bed and in varying timed relation to the bed.

2. In a printing press, a frame, a rotary circular type bed mounted thereon, a plurality of diametrically disposed impression rollers, a plurality of diametrically disposed ink rollers, automatically actuated means for moving the impression rollers and ink rollers to and from the bed and in timed relation to the bed, and manually controlled means for adjusting the actuating mechanism for actuating the rollers at varying times.

3. In a printing press, a frame, a rotary circular type bed mounted thereon, a plurality of diametrically disposed impression rollers, a plurality of diametrically disposed ink rollers, manually adjustable automatically actuated means for moving the impression rollers and ink rollers to and from the bed and in varying timed relation to the bed, and manually actuated means for elevating the rollers to maintain the same out of contact with the bed.

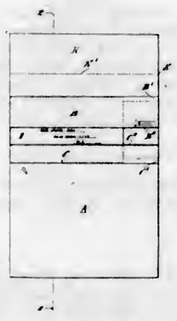
4. In a printing press, a base, a plurality of standards carried by the base, a horizontally disposed supporting

plate carried by the standards, a rotary circular type bed mounted upon the plate, a plurality of diametrically disposed frusto-conical impression rollers, a plurality of diametrically disposed ink rollers, said ink rollers being disposed to alternate with the impression rollers, and adjustable means for automatically actuating the various rollers to move the same to and from the bed and in varying timed relation to the bed.

5. In a printing press, a base, a plurality of standards carried by the base, a horizontally disposed supporting plate carried by the standards, a rotary circular type bed mounted upon said plate, a plurality of diametrically disposed frusto-conical impression rollers, a plurality of diametrically disposed ink rollers, said ink rollers being disposed to alternate with the impression rollers, adjustable means for automatically actuating the various rollers to move the same to and from the bed and in varying timed relation to the bed, and manually actuated means for elevating and maintaining the elevation of the rollers.

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1,088,733. MANIFOLDING DEVICE. ALBERT R. SAMPSON, Jersey City, N. J. Filed Nov. 5, 1910. Serial No. 590,785. (Cl. 11—23.)



1. A device for holding an envelop in registry with an address portion of a letter sheet, comprising a flexible backing sheet having means for registering the head of the letter sheet therewith, a plurality of strips attached along transverse lines to one face of the backing sheet, said strips having a width and being located at a proper distance apart to hold an envelop beneath them and to expose between them a part of the envelop only sufficient to receive the address.

2. A device for holding an envelop in registry with an address portion of a letter sheet, comprising a flexible backing sheet, a plurality of strips attached along transverse lines to one face of the backing sheet, said strips having a width and being located at a proper distance apart to hold an envelop beneath them and to expose between them a part of the envelop only sufficient to receive the address, said backing sheet having means on one end thereof whereby the address portion of the letter sheet may be registered with the exposed portion of the envelop.

3. A device for holding an envelop in registry with an address portion of a letter sheet, comprising a flexible backing sheet, a plurality of strips attached along transverse lines to one face of the backing sheet, said strips having a width and being located at a proper distance apart to hold an envelop beneath them and to expose between them a part of the envelop only sufficient to receive the address, said backing sheet being adapted to be folded or otherwise shortened at one end to act as a variable gage whereby the address portion of the letter sheet may be registered with the exposed portion of the envelop.

4. A device for holding an envelop in registry with an address portion of a letter sheet, comprising a flexible backing sheet, a plurality of strips attached along transverse lines to one face of the backing sheet, said strips having a width and being located at a proper distance apart to hold an envelop beneath them and to expose between them a part of the envelop only sufficient to receive the address, said backing sheet being adapted to be folded or otherwise shortened at one end to act as a variable gage whereby the address portion of the letter sheet may be registered with the exposed portion of the envelop and one of said strips being provided with a position mark to assist in determining to what extent said end should be folded or shortened.

5. A device for holding an envelop in registry with a letter sheet, comprising a flexible backing sheet having means for registering the head of the letter sheet therewith, two strips attached along transverse lines to the face of the backing sheet which is adjacent the letter sheet, said strips having a width and being located at a proper distance apart to hold an envelop beneath them and to expose between them a part of the envelop only sufficient to receive the address.

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1,088,734. CARBON ELECTRODE HAVING PROTECTIVE COVERING, AND PROCESS FOR PRODUCING SAME. CARL HERMANN SCHROERS, Duisburg-Meiderich, Germany, assignor to Gesellschaft für Teerverwertung M. B. H., Duisburg-Meiderich, Germany. Filed Mar. 14, 1913. Serial No. 754,344. (Cl. 204—64.)




1. A process for the production of protective coverings on carbon electrodes, more particularly for use in electric furnaces, which consists in providing the surfaces of the electrodes before they are burned, with a coating of closely arranged particles of granular material which is unaffected by oxidizing gases especially at high temperatures.

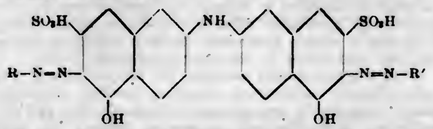
2. A process for the production of protective coverings on carbon electrodes, more particularly for use in electric furnaces, which consists in providing the surfaces of the electrodes before they are burned, with a coating of closely arranged particles of granular material unaffected by oxidizing gases especially at high temperatures, by pressing, rolling, hammering, or otherwise embedding said granular material into the surfaces of the electrodes.

3. As a new article of manufacture, a carbon electrode having a protective layer of closely arranged particles of granular material unaffected by oxidizing gases, embedded in its surface.

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1,088,735. BLUE DYESTUFF. HUGO SCHWEITZER and ARTHUR ZART, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 3, 1913. Serial No. 771,533. (Cl. 8—1.)

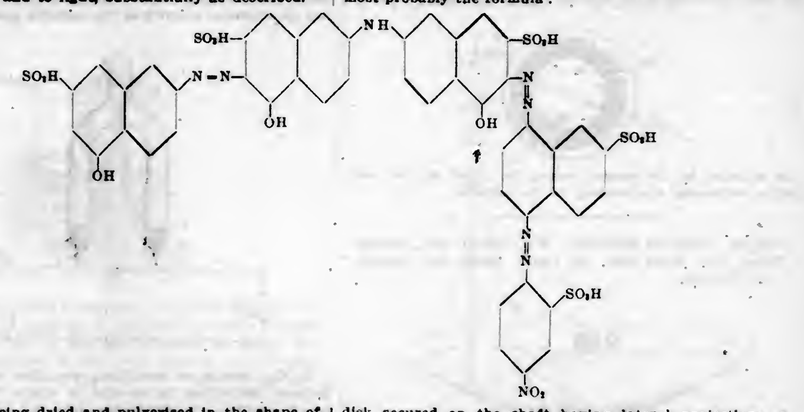
1. The herein described new azo dyestuffs having most probably the formula:




R meaning an azo compound being free from an oxy and amino group; R' meaning a substituted alpha-naphthol radical, which are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water with a violet to blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid a substituted aminonaphthol derivative, an amin, a diamin and 5.5'-dioxy-2.2'-dinaphthylamin-6.6'-diamin-7.7'-disulfonic acid; dyeing cotton blue shades which on being developed with diazotised para-nitraniliu change into blue shades fast to washing and to light, substantially as described.



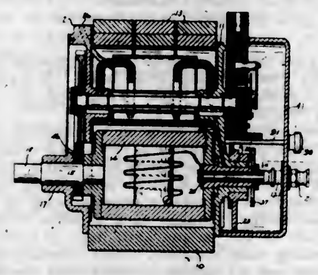
2. The herein described new dye having in a free state most probably the formula:




which is after being dried and pulverized in the shape of its sodium salt a dark powder which is easily soluble in water with a reddish-blue coloration and which is soluble in concentrated sulfuric acid with a greenish-blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, 2-amino-5-naphthol-7-sulfonic acid, para-phenylene-diamin-sulfonic acid and 1.4-naphthylenediamin-7-sulfonic acid; dyeing cotton blue, which shade after being developed with diazotized para-nitraniliu is navy-blue fast to washing which can be discharged to a pure white, substantially as described.

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1,088,736. MAGNETO. LUTHER JAMES SEVISON and LUTHER EARL SEVISON, Elkhart, Ind. Filed July 13, 1911. Serial No. 638,286. (Cl. 123—166.)



1. A magneto electric generator including a shaft, a circuit breaker frame mounted so as to be oscillated about said shaft for the adjustment, a flat contact spring mounted on said frame in a direction substantially at a right angle with said shaft, a contact screw mounted fixedly on said frame in position to be engaged by said spring contact under the normal action of the spring, a disk secured on the shaft having lateral projections, and a projection on the spring adapted to be engaged by the projections on said disk whereby the spring contact will be moved away from the contact screw periodically.

2. A magneto electric generator including a shaft, a circuit breaker frame mounted so as to be oscillated about said shaft for the adjustment, a flat contact spring mounted on said frame in a direction substantially at a right angle with said shaft, a contact screw mounted fixedly on said frame in position to be engaged by said spring contact under the normal action of the spring, a disk secured on said shaft with a lateral projection, a projection on the spring adapted to be engaged by the projection on the disk for actuating the spring, a bracket secured to said frame having a bar curved concentric with said disk near the periphery thereof, a contact screw mounted in said bar in position to be engaged by the spring contact when the spring is released, and a fender plate secured to said bracket and extending partially about the periphery of said disk and between the disk and said contact point.

3. A magneto electric generator including a shaft, a circuit breaker frame mounted so as to be oscillated about said shaft for the adjustment, a flat contact spring mounted on said frame in a direction substantially at a right angle with said shaft, a contact screw mounted fixedly on said frame in position to be engaged by said spring contact under the normal action of the spring, a disk secured on said shaft having a lateral projection, a projection on the spring adapted to be engaged by the projection on the disk for actuating the spring, a bracket secured to said frame having a bar curved concentric with said disk near the periphery thereof, a contact screw mounted in said bar in position to be engaged by the spring contact when the spring is released, and a fender plate secured to said bracket and extending partially about the periphery of said disk and between the disk and said contact point, whereby the contact points will be protected from oil or the like being thrown centrifugally from said disk.

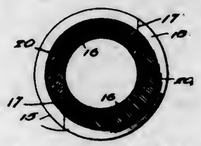
4. A magneto electric generator including a shaft, a circuit breaker frame mounted so as to be oscillated about said shaft for the adjustment, a flat contact spring mounted on said frame in a direction substantially at a right angle with said shaft, a contact screw mounted fixedly on said frame in position to be engaged by said spring contact under the normal action of the spring, a disk secured on said shaft with a lateral projection, a projection on the spring adapted to be engaged by the projection on the disk for actuating the spring, said disk projection and said spring projection being adapted to be lubricated by oil distributed by centrifugal force from said shaft, a bracket secured to said frame having a bar curved concentric with said disk near the periphery thereof, a contact screw mounted in said bar in position to be engaged by the spring contact when the spring is released, and a fender plate secured to said bracket and extending partially about the periphery of said disk and between the disk and said contact point, whereby the contact points will be protected from oil or the like being thrown centrifugally from said disk.

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1,088,737. METALLIC PISTON-PACKING. ALBERT SODERLUND, Fitzgerald, Ga. Filed Dec. 4, 1912. Serial No. 734,917. (Cl. 121—109.)

A packing ring comprising a plurality of packing ring segments each of which is formed of relatively soft metal

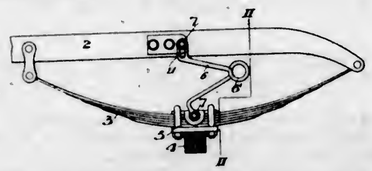
having a longitudinally curved coil spring embedded therein, the coil spring being suitably stiff and tending to retain



the segment in its normal shape, the turns of the coil spring extending transversely of the segment.

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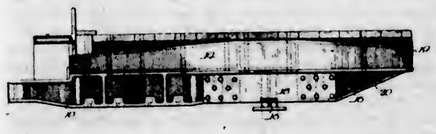
1,088,738. SPRING SYSTEM. WILLIAM H. SON, Wilkes-Barre, Pa. Filed Mar. 26, 1907. Serial No. 364,678. (Cl. 21—105.)



The combination with an axle, a vehicle, and a main spring supported upon the axle and supporting the vehicle, of a supplemental spring comprising diverging arms connected by a spring coil whose tension is increased by the separation of the arms, the arms being connected respectively to the vehicle and the axle, one of the connections being a slidable one, substantially as described.

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1,088,739. CAR CONSTRUCTION. WALTER A. STEARNS, Hammond, Ind., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Aug. 23, 1912. Serial No. 716,593. (Cl. 105—76.)



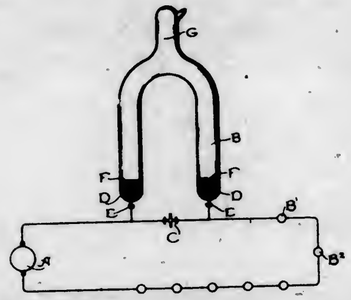
1. In a railway car, the combination of an underframe including wooden center sills, a bolster having an aperture therethrough, a draft arm having a portion extending above and to the rear of said bolster, said draft arm having portions at the front and rear of the bolster and in horizontal alinement with the opening therethrough, and a plate projecting through the opening in said bolster and riveted to said draft arm at the front and rear of the bolster, substantially as described.

2. In a railway car, the combination of a center sill and an apertured body bolster, of a draft arm having a draft rigging receiving portion, an integral truss extending above and to the rear of said bolster, said truss being provided with a downwardly projecting portion to the rear of said body bolster, and means connecting said downwardly projecting portion and said draft rigging receiving portion whereby stresses are transmitted to the rear of said body bolster in a direct line with the line of buff, substantially as described.

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1,088,740. METHOD OF PRODUCING LIGHT. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 5 ,1900. Serial No. 7,265. (Cl. 176—42.)

1. The method which consists in producing an arc in a transparent chamber between terminals, one of which is vaporisable at low temperature, coloring the arc by the addition of a chemically active metallic substance, and protecting the inclosing chamber from injury by neutralizing the chemical activity of the metallic substance.



2. The method of modifying the color of an arc light without destroying the envelop in which the light exists, which consists in introducing into the arc a substance capable of giving off chemically active metallic vapors, and neutralizing to the desired extent the chemical activity of such substance.

3. The method of producing light from electricity, which consists in maintaining in a suitable envelop, an arc in a vapor of a substance vaporizing at a temperature below the temperature of incandescence, and modifying the color of the light therefrom by the addition of color modifying vapors of a metallic salt.

4. The method of producing light, which consists in generating an arc in a transparent or translucent envelop, modifying the color of the arc by introducing metallic vapors, and artificially maintaining the translucency of the envelop.

5. The method which consists of producing an arc between terminals one of which is vaporisable at low temperature, surrounding such arc by an inclosing chamber, and modifying the color of the light by the addition of anhydrous iodids of lithium and sodium.

[Claims 6 to 12 not printed in the Gazette.]

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1,088,741. PROCESS FOR PREPARING LEGUMINOUS PRODUCTS FOR EDIBLE PURPOSES. EDWARD U. STEPHENS, Battle Creek, Mich. Filed Apr. 21, 1913. Serial No. 762,560. (Cl. 99—11.)

1. The process for flaking beans, which consists in eliminating the strong and unpleasant flavor in their substance, by subjecting dry beans to a sodium bi-carbonate solution and bringing the solution to a boiling point, thence removing the solution from the beans, rinsing the beans in pure water, thence boiling the same in a solution of salted water adequate to the purpose until done or nearly so without breaking their structure, thence eliminating the saline solution and all surplus moisture from the beans without drying their structure, thence passing the beans between rolls until flaked and then subjecting the flakes to a drying process that will render the same crisp and brittle.

2. The process for flaking beans, which consists first, in covering one hundred pounds of dry beans with tepid or cold water to which twelve ounces of sodium bi-carbonate (baking soda) has been added the solution thoroughly mixed and brought to a boiling point; second ridding the beans of the solution, and rinsing the same with pure water; third, charging the beans with pure water, tepid or boiling, in quantity to cover the same after which, or before the solution has been added five and one half pounds of salt has been supplied, and boiling the beans until done, or nearly so without breaking their structure; fourth drying the beans to the extent of removing all surplus moisture without injury to the bean substance; fifth, flaking the beans by passing the same between rolls; sixth, drying the flakes until crisp and brittle.



1,088,742. ANVIL ATTACHMENT. JAMES R. STULL, Los Angeles, Cal. Filed June 18, 1912. Serial No. 704,313. (Cl. 78—4.)



1. In an anvil having a member, a head for moving vertically to clamp a member to the anvil, a lever pivoted adjacent the bottom of the anvil, means by which the head may be operated by the lever, and an arm pivoted to the lever, the arm having teeth for engaging the first member.

2. In an anvil having a member for engagement by teeth, a head for moving vertically to clamp a member to the anvil, a lever pivoted adjacent the bottom of the anvil, means by which the head may be operated by the lever, an arm pivoted to the lever and curved around the fulcrum of the lever, the arm having teeth for engaging the first-mentioned member for holding the lever against movement.

3. An anvil having a strap for engagement by teeth, a head for clamping a member to the anvil, a lever fulcrumed relatively to the anvil, means by which the head may be operated by the lever, an arm pivoted to the lever and disposed in the strap, the arm having teeth for engaging the strap for holding the lever against movement.

4. In an anvil, a member for engagement by an arm, a head for clamping a member to the anvil, a lever disposed below the first-mentioned member, means by which the head is operated by the lever, and an arm pivoted to the lever and curved around the fulcrum of the lever, the arm having a surface for engaging the first-mentioned member, for holding the lever against movement, the arm having a surface adjacent the lever for the purpose specified.

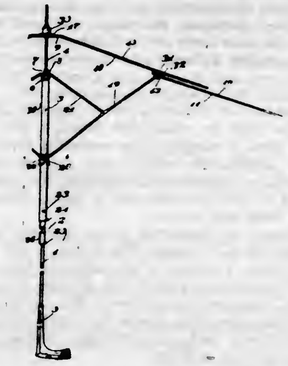
5. In an anvil, a member for engagement by an arm, a head for clamping a member to the anvil, a lever having an opening, means by which the head is operated by the lever, an arm pivoted to the lever, and having a surface for engaging the first-mentioned member for holding the lever against movement, the arm having a terminal extending through the opening in the lever for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,743. FOLDING UMBRELLA. JOHN SWINLAND, Duluth, Minn. Filed Sept. 11, 1912. Serial No. 719,737. (Cl. 135—46.)

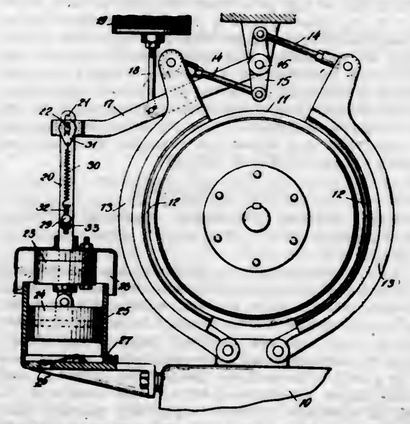
1. In an umbrella, the combination with a stick comprising a tubular body member, an extension rod, the latter being telescopically mounted in the former, for free sliding movement, and a handle independent of said extension rod and adapted to be rigidly secured to said body member, of a crown piece rigidly secured on the outer end portion of said extension rod, a runner mounted on said body member for free sliding movement toward and from said crown piece, ribs pivotally connected to and radiating from said crown piece, stiff spreaders pivotally connected to said runner and to said ribs, and brace rods pivotally connected, at their outer ends, to the intermediate portions of said spreaders, and, at their inner ends, to said body member, at a point between said crown piece and runner, said runner having its closest approach to said crown piece when the umbrella is spread, said crown piece and runner simultaneously moving in opposite directions, relative to each other, during the opening and closing of the umbrella.



2. In an umbrella, the combination with a stick comprising a tubular body member, an extension rod, the latter being telescopically mounted in the former, for free sliding movement, and a handle independent of said extension rod and adapted to be rigidly secured to said body member, of a crown piece rigidly secured on the outer end portion of said extension rod, a runner mounted on said body member for free sliding movement toward and from said crown piece, ribs pivotally connected to and radiating from said crown piece, stiff spreaders pivotally connected to said runner and to said ribs, brace rods pivotally connected, at their outer ends, to the intermediate portions of said spreaders, and, at their inner ends, to said body member, at a point between said crown piece and runner, said runner having its closest approach to said crown piece when the umbrella is spread, said crown piece and runner simultaneously moving in opposite directions, relative to each other, during the opening and closing of the umbrella, and means for locking said extension rod against movement in respect to said body member, substantially as described.

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1,088,744. ELEVATOR-BRAKE. FREDERICK H. THURBER, Newark, N. J., assignor, by mesne assignments, to Gurney Electric Elevator Company, Honesdale, Pa., a Corporation of Pennsylvania. Filed Apr. 6, 1911. Serial No. 619,229. (Cl. 74—37.)



1. A brake, an actuating lever therefor, means for moving the lever to release the brake, combined with a weighted

having a resilient connection and a lost-motion positive connection with said lever, and a retarding device associated with said weight.

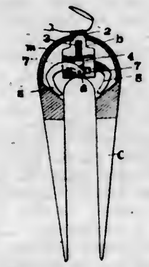
2. A brake, an actuating lever therefor, means for moving the lever to release the brake, combined with a bar connected to said lever by a lost-motion connection, a weight connected to said bar, a spring connecting the actuating lever and the bar, and a dash-pot for retarding the movement of the weight in one direction.

3. A brake, an actuating lever therefor, means for moving the lever to release the brake, a pin projecting from said lever, a weight, a bar connected therewith, said bar being constructed with a slot through which said pin projects, a dash-pot for retarding the movement of the weight in one direction, and a spring connecting the actuating lever and the bar.

4. A brake, an actuating lever therefor, means for moving the lever to release the brake, a pin projecting from said lever, a weight, a bar connected therewith, said bar being constructed with a slot through which said pin projects, a dash-pot for retarding the movement of the weight in one direction, means for regulating the action of said dash-pot, and an adjustable tension spring between the pin and said bar.

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1,088,745. HAIR-FASTENER. MARGARETHE TÖTH, Cleveland, Ohio. Filed July 19, 1911. Serial No. 639,259. (Cl. 132—16.)

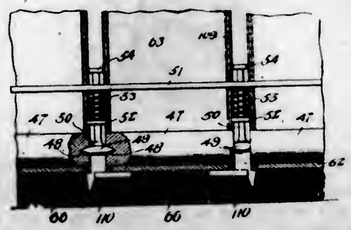


A hair fastener for ladies' wear having teeth and a central recess in its top, a pair of substantially hook-shaped fingers and a single fixed pivot in said recess on which said fingers are pivotally mounted at their inner ends and adapted to swing back and forth on the arcs of the same circle, the said fingers having each a lateral actuating projection on its inner end and lying on the opposite side of said pivot from the main portions of the finger, in combination with a depressible member having a substantially cross-shaped slot with the cross portion thereof at its bottom and said lateral projections engaged in the cross portion of said slot, a fixed stop on the fastener in the said recess and a spring in the stem of said slot seated on said stop and in lifting relations with said depressible member at its top to raise the said member and throw said fingers into engaging relations when pressure on said member is relieved.

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1,088,746. STREET-SWEEPER. DURWARD N. TOWE, West Durham, N. C. Filed Mar. 7, 1913. Serial No. 752,703. (Cl. 15—17.)

1. In a street sweeper, a portable frame, an operating roller journaled in said frame, a deflecting plate extending rearwardly from beneath the said roller and downwardly therefrom to the surface to be swept, a second, vertically movable roller mounted upon the frame in spaced relation to the operating roller, the said second roller including a plurality of sections having their adjacent ends slightly spaced and provided with central recesses, a plurality of vertically yieldable supporting members, each having its lower end disposed between the adjacent ends of the said roller sections and having oppositely disposed pivot points engaging the recesses thereof, a third vertically movable roller disposed in superimposed relation to the second-named roller and including relatively movable sections, vertically yieldable pivoting means supporting the adjacent ends of the said sections upon the frame, a sweeping element in the form of an endless belt passing around the said rollers and including sections so as to be accommodated to the sections of the movable rollers.



2. In a street sweeper, a portable frame, an operating roller journaled in said frame, a deflecting plate extending rearwardly from beneath the said roller and downwardly therefrom to the surface to be swept, a second, vertically movable roller mounted upon the frame in spaced relation to the operating roller, the said second roller including a plurality of sections having their adjacent ends slightly spaced and provided with central recesses, a plurality of vertically yieldable supporting members, each having its lower end disposed between the adjacent ends of the said roller sections and having oppositely disposed pivot points engaging the recesses thereof, a third vertically movable roller disposed in superimposed relation to the second-named roller and including relatively movable sections, vertically yieldable pivoting means supporting the adjacent ends of the said sections upon the frame, a sweeping element in the form of an endless belt passing around the said rollers and including sections so as to be accommodated to the sections of the movable rollers, said belt sections being slightly spaced horizontally, brushes arranged on the outer faces thereof in transversely alining, longitudinally spaced rows, and auxiliary brushes interposed between alternate main brushes upon alternate belt sections at both sides thereof so as to overlap the spaces between the same and the adjacent belt sections.

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1,088,747. EMERGENCY-RIM FOR VEHICLE-WHEELS. ALEXANDER TURNBULL, Glasgow, Scotland. Filed Nov. 15, 1910. Serial No. 592,545. (Cl. 152—23.)



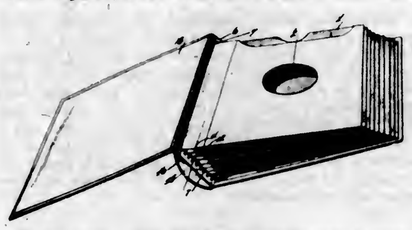
1. In an emergency wheel for vehicles comprising a rim of larger diameter than the rim of the wheel proper, a plurality of supports permanently carried by said emergency rim; each of said supports consisting of three members, one of said members being rigidly connected to the inner periphery of the emergency rim, the second member adapted to engage between the beads of the main rim when in locking position and to be disengaged from said main rim when turned approximately 90° relative to said position; the third member being a bolt having threaded connection with the first member and being provided with an enlarged flange at its inner end, and a circular recess in said second member for engaging with said flange, and means on said third member for revolving it relative to the other two members.

2. In an emergency wheel for vehicles comprising a rim of larger diameter than the rim of the wheel proper, a plurality of supports permanently carried by said emergency rim; each of said supports consisting of three members, one of said members being rigidly connected to the inner periphery of the emergency rim, the second member adapted to engage between the beads of the main rim; the third member being constructed to engage directly with the two other members in order to hold them rigidly and permanently together and to adjust the distance between them, said third member having threaded connection with said first member.

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1,088,748. ALBUM. HYMAN UFFNER, New York, N. Y. Filed Sept. 24, 1912. Serial No. 722,040. (Cl. 11—17.)



1. The herein described album, comprising a cover, a slotted back plate, the slots in the back plate extending through the plate and disposed lengthwise thereof, a plurality of leaf-carrying members secured thereto, each leaf-carrying member passing through at least two of said slots, and means for securing the back plate and the assembled leaf-carrying members to the cover.

2. An album comprising a cover, having a back portion and side portion, a block adjacent the back of the cover, a back plate having a plurality of elongated parallel slots, the slots in the plate extending through the plate and disposed lengthwise thereof, leaf-carrying members passing around the portions of the plate between different slots, and extending from the back plate, and means for securing the back plate to the block and cover portion.

3. An album comprising a cover, having a back portion and side portion, a back adjacent the back of the cover, a back plate having a plurality of elongated parallel slots, leaf-carrying members passing around the portions of the plate between different slots and extending from the back plate, and means for securing the back plate to the block and cover portion, the said leaf-carrying members being in pairs with their ends open to form a yoke, and a leaf having its edge within said yoke.

4. The herein described means for fastening together a plurality of book leaves consisting of a back plate provided with a plurality of parallel slots, the slots in the plate extending through the plate and disposed lengthwise thereof, and leaf-carrying members extending from said slots on one side of the plate, a single leaf-carrying member passing around the space between two slots.

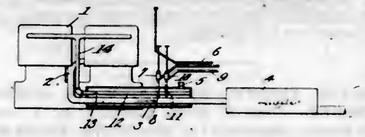
5. The herein described album, comprising a cover, a back plate having elongated slots, the slots parallel one to the other, and two adjacent leaf portions secured together at one end by a leaf-carrying member, said leaf-carrying member passing through two slots of the back plate and around the intervening wall.

[Claim 6 not printed in the Gazette.]

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1,088,749. VAPORIZER AND CARBURETER. FRANK G. UNDERWOOD, Deadwood, S. D., assignor of one-fourth to Jens Thomas Jensen, Deadwood, S. D. Filed Sept. 3, 1913. Serial No. 788,028. (Cl. 48—95.)

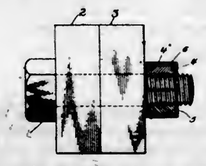
The combination with the exhaust and intake manifolds of an explosion engine, of a vaporizer and carbureter, including a casing surrounding a portion of the exhaust manifold and having an air inlet port at its upper portion near one end, a carbureted air intake pipe mounted within and near the upper portion of the casing, said pipe having a port in its lower wall within the casing at a point remote from the air port, one end of the pipe being in communication with the intake manifold, a valve controlled explosive liquid directing nozzle mounted in the upper wall of the casing and projecting within the casing



below the pipe and terminating directly above and out of contact with the exhaust manifold, and a water directing nozzle mounted in the upper wall of the casing and parallel with the explosive liquid nozzle, whereby the explosive liquid and water are directed upon the exhaust manifold within the casing at points between the air inlet port and the port of the intake pipe.

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1,088,750. LOCKING-NUT. REYBURN WATERS, Scranton, Pa. Filed June 7, 1912. Serial No. 702,179. (Cl. 151—21.)



1. A locking nut composed of two separated longitudinal sections each of which has half a complete thread and one of which is longer than the other combined with a sleeve enveloping the nut and adapted to receive a turning wrench.

2. A locking nut composed of two separated longitudinal sections each of which has half a complete thread and one of which is longer than the other and each having a recess on its inner face combined with an enveloping sleeve having at its inner edge projections adapted to seat in said recesses.

3. A nut lock composed of two separated longitudinal sections each of which has half a complete thread combined with a sleeve enveloping the nut and adapted to receive a wrench.

4. A locking nut composed of two separated longitudinal sections each of which has half a complete thread and one of which is longer than the other combined with a sleeve enveloping the nut and adapted to receive a turning wrench the nut sections and sleeve being provided with means for retaining the sleeve in position around the nut.

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1,088,751. DEFECATANT AND PROCESS OF MAKING SAME. WALTER J. WAYTE, Philadelphia, Pa., assignor to The American Agricultural Chemical Company, a Corporation of Connecticut. Filed Jan. 24, 1913. Serial No. 744,010. (Cl. 127—7.)

1. The process of charging kieselguhr with phosphoric acid, which consists in treating kieselguhr with a solution of phosphoric acid of specific gravity not exceeding 1.2 in such quantity that the moisture of said solution is completely taken up by the kieselguhr.

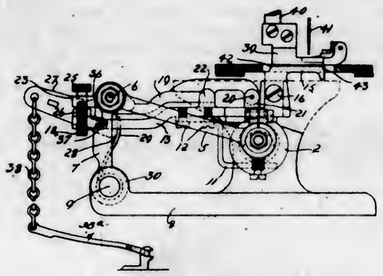
2. The process of charging kieselguhr with phosphoric acid, which consists in treating kieselguhr with a solution of phosphoric acid of specific gravity not exceeding 1.2 in such quantity that the moisture of said solution is completely taken up by the kieselguhr, and driving such moisture off from the kieselguhr.

3. The process of charging kieselguhr with phosphoric acid, which consists in treating a mass of kieselguhr with a solution of phosphoric acid not exceeding 1.2 specific gravity, driving the moisture of the solution off from the kieselguhr, and repeating these steps until the kieselguhr is charged with phosphoric acid of a weight not exceeding 40% of the weight of the kieselguhr.

4. A substantially non-hygroscopic mixture of kieselguhr and phosphoric acid of a weight not exceeding 40% of the weight of the kieselguhr.

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1,088,752. FEEDING MECHANISM FOR SEWING-MACHINES. JOHN P. WEIS, Brooklyn, N. Y., assignor, by mesne assignments, to Metropolitan Sewing-Machine Company, a Corporation of New York. Filed Apr. 23, 1903. Serial No. 153,907. (Cl. 112—8.)



1. The combination, in a sewing machine having stitch-forming mechanism including a reciprocating needle; and also having a plate for supporting the work; a feeding device operating both in front of and behind the needle; means for actuating said feeding device to traverse the work over said plate; and means coöperating with one of said parts whereby said plate and feeding device may be tilted relatively from front to rear in the general direction of the feed of the work, whereby the action of said feeding device upon the work may be varied according to the extent to which it is tilted.

2. The combination, in a sewing machine having stitch-forming mechanism including a reciprocating needle, and also having a plate for supporting the work; a feeding device operating both in front of and behind the needle; means for actuating said feeding device to traverse the work over said plate; and treadle-operated means whereby said plate and feeding device may be tilted relatively from front to rear in the general direction of feed of the work, and the degree of relative inclination of said plate and feeding device may be varied.

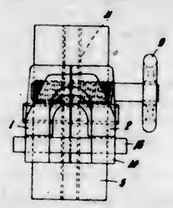
3. A feeding mechanism comprising a feed-bar, a feeding device carried by said bar, and means whereby said feeding device may be tilted bodily from front to rear in the general direction of its feeding movement, whereby the action of said feeding device upon the work may be varied according to the extent to which it is tilted.

4. A feeding mechanism for sewing machines comprising a feed-dog; means for giving said dog feeding movements; and means for angularly adjusting said dog relatively to the horizontal plane of the work-plate, whereby either the toe or the heel of said dog may be caused to contact with the work earlier than the remainder in the feeding movement thereof.

5. A feeding mechanism for sewing machines comprising a feed-bar carrying a dog; means for giving the same feed movement; means for angularly adjusting the feed-dog relatively to the horizontal plane of the work-plate, whereby one end or the other of said dog is either elevated or depressed; and means whereby predetermined extremes of said adjustment may be instantly obtained during the operation of the mechanism.

[Claims 6 to 21 not printed in the Gazette.]

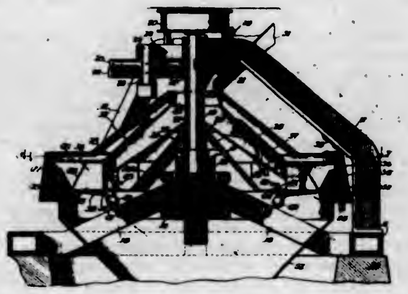
1,088,753. CLAMPING DEVICE FOR HEELS OR THE LIKE. JOSEPH HENRY WEITER, Mexico, Mexico. Filed Mar. 18, 1912. Serial No. 684,602. (Cl. 12—123.)



A heel-holding device comprising an operating screw formed with right and left hand screw threads, a pair of heel-holding jaws shaped to conform to a heel and mounted one on each of said screw threads, means whereby said screw may be rotated, guiding means to guide said jaws in their movement toward or away from one another, lugs on said jaws formed with oppositely located eyes, and a bar extending through said eyes and so positioned as to constitute a breast bar for the heel, and also a means for maintaining a proper alinement of the jaws in their different adjusted positions.

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1,088,754. CONTINUOUS AUTOMATIC DRIER. CARL A. WENDELL, Joliet, Ill. Filed May 31, 1912. Serial No. 700,748. (Cl. 127—3.)



1. In a centrifugal drier, the combination of a frame, a pair of horizontal, rotatable, differentially geared members, one of said members being in the form of a delivery spout, the other of said members acting as a separating member whereby moisture is projected from the material by centrifugal action, a screen carried by said last named member, said screen being mounted at an angle to the vertical, and a trap mounted in said last named member and located beneath said screen whereby materials forced against said screen by the centrifugal force is by the same force projected downwardly and outwardly through said trap, substantially as described.

2. In a device of the class described, the combination of a frame, a rotatable casing, a rotatable delivery spout, said casing and spout being differentially geared whereby both are rotated in the same direction but at different speeds, said casing being provided with a screen, said screen being secured to the bottom wall of said casing and extending upwardly and inwardly in a substantially straight line, and a trap mounted in the bottom wall of said casing, said trap serving the space over which said screen is inclined and means for periodically opening said trap the arrangement being such that centrifugal force tends to project downwardly and outwardly materials forced against said screen, substantially as described.



1,088,755. REFRACTORY BRICK. HENRY WESSLING, Hays Station, Pa. Filed Mar. 30, 1912. Serial No. 687,544. (Cl. 106—9.)

1. As a new article of manufacture, a refractory brick formed of fine particles of silica bonded together by finely pulverized soapstone.

2. As a new article of manufacture, a refractory brick formed of silica and soapstone in substantially the proportion of six thousand pounds of silica to one hundred and fifty pounds of pulverized soapstone.

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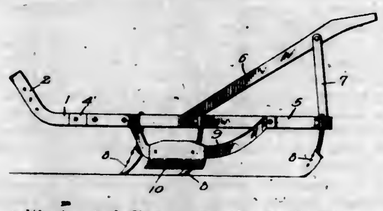
1,088,756. REFRACTORY BRICK. HENRY WESSLING, Hays Station, Pa. Filed Apr. 2, 1912. Serial No. 688,077. (Cl. 106—9.)

1. As a new article of manufacture a refractory brick composed of particles of silica bonded by soapstone and having a smooth surface of vitrified silica formed by immersing the brick into a bath of powdered silica and water before drying and burning the same.

2. The method of producing refractory brick which consists in reducing silica to a fine state, bonding the same with a mixture of pulverized soapstone and water, molding the material thus produced into shape and permitting the same to dry, immersing the dried brick in a solution of finely pulverized silica and water, and subsequently burning the brick.

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1,088,757. CULTIVATOR. JEFFERSON WESTMORELAND, Randolph, Miss. Filed May 20, 1911. Serial No. 628,481. (Cl. 97—10.)



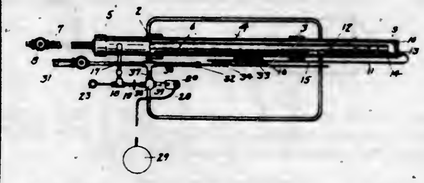
A cultivator including a central metallic beam, oppositely extending arms at the rear end of the beam, rearwardly diverging side strips secured at their front ends along the sides of the central beam and secured at intermediate points to the outer ends of the arms, a bracket angular in plan, one of these brackets being located at each side of the cultivator, the front end of each bracket being secured to the beam adjacent the front ends of the side strips and the rear end of each bracket being secured to the side strips adjacent the outer end of the arms, each of said brackets having its lower end curved upwardly from its center to constitute deflecting means, and rearwardly diverging scraping blades secured to the brackets and extending close to the central beam, a soil engaging device secured to the central beam between the forwardly converging portions of the brackets and slightly in advance of the front ends of the scraping blades, and soil engaging devices carried by the side strips and movable in the path cut by the scraping blades.

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1,088,758. OIL-BURNING APPARATUS. CLARENCE GRANGER WHITE, Spokane, Wash. Filed Dec. 23, 1912. Serial No. 738,226. (Cl. 158—75.)

1. An oil burner comprising in combination, a burner head, an oil container delivering to said burner, means for delivering a fluid under pressure to said burner to discharge oil therefrom, and a metallic element having a portion thereof lying exterior to said container and adapted to be heated to transmit heat to the oil in said container prior to its delivery to said burner, substantially as described.

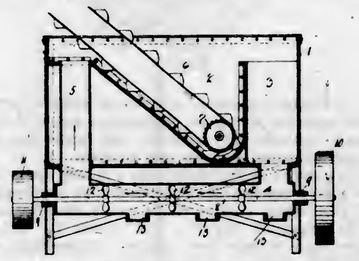
2. An oil burner comprising in combination, a burner head, an oil container delivering to said burner head, means for delivering fluid under pressure to said burner to cause discharge of oil therefrom, and means disposed partly inside and partly outside of said container and adapted to have its outer portion heated to transmit heat to the oil in said container prior to the delivery of such oil to said burner, substantially as described.



3. An oil burner comprising in combination, a firing pan, a burner head adapted to deliver a flame over said pan, an oil chamber delivering to said burner, a steam generator delivering to said burner to cause a discharge of the oil therefrom, a wire in and projecting from said oil chamber and having its projecting portion extended over said pan, and a wire in and projecting from said generator and having its projecting portion extending over said pan, projecting portions of said wires being adapted to be heated by the starting flame from said pan, substantially as described.

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1,088,759. PLACER-MACHINE. CARL E. J. ANDERSON, Youngstown, Ohio, assignor to National Placer Machine Company, Youngstown, Ohio, a Corporation of Arizona. Filed Nov. 18, 1911. Serial No. 661,133. (Cl. 83—81.)



1. In a machine of the class described, the combination of a conduit having pockets along the sides thereof; a water-reservoir overflowing into said conduit; and a screw-propeller mounted longitudinally in said conduit and adapted to return the discharge from said conduit to said reservoir and adapted also to exert a centrifugal action in said conduit and to force the precious metals toward the sides thereof, whereby said metals are received by such pockets.

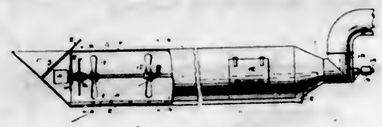
2. In a machine of the class described, the combination of a horizontally disposed conduit having pockets in one side; a water-reservoir disposed above said conduit; an overflow conduit connecting one end of said reservoir to the corresponding end of said horizontal conduit; a return conduit connecting the other ends of said horizontal conduit and said reservoir; and a screw-propeller mounted longitudinally in said horizontal conduit and adapted to return the discharge from said horizontal conduit to said reservoir and adapted also to exert a centrifugal action in said horizontal conduit and to force the precious metals toward the sides thereof, whereby said metals are received by such pockets.

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1,088,760. APPARATUS FOR TREATING PLACER. CARL E. J. ANDERSON, Youngstown, Ohio. Filed Feb. 9, 1912. Serial No. 676,515. (Cl. 83—54.)

In apparatus of the class described, the combination of a substantially horizontally disposed casing having an opening at one end; a trough at the bottom of said casing

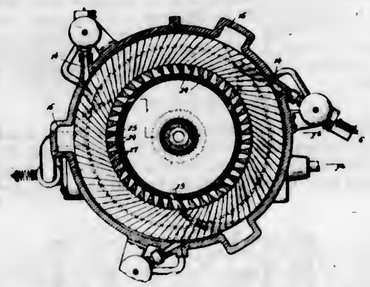
adapted to receive riffle boards; a valve adapted to control such opening in said casing; a shaft rotatably mounted in said casing; fans attached to said shaft and adapted



when rotated thereby to produce a draft in said casing away from such opening of sufficient force to draw placer through such opening and through said casing.

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1,088,761. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to Anderson Gas Turbine Company, Newark, N. J., a Corporation of New Jersey. Filed Jan. 5, 1912. Serial No. 669,690. (Cl. 60—4.)



1. A turbine comprising a series of members having reaction surfaces, means for supplying a motive fluid under pressure between said surfaces, and means for forming a liquid abutment between said surfaces.

2. A turbine engine comprising a rotary series of members having reaction surfaces, means for supplying a motive fluid under pressure between said surfaces in a generally tangential direction, and means for spraying a heavier fluid between said surfaces transversely with respect to the path of said motive fluid.

3. A turbine engine comprising a rotary series of corrugated blades, means for supplying a motive fluid between said blades in a generally tangential direction, and means for spraying a liquid between said blades transversely with respect to the path of said motive fluid.

4. A turbine engine comprising a rotary series of members having reaction surfaces, means for supplying hot gases under pressure between said surfaces, and means for supplying cooling water between said surfaces.

5. A turbine engine comprising a rotary series of corrugated blades, means for supplying hot gases under pressure between said blades, and means for spraying cooling water between said blades in a direction transverse to the path of said gases.

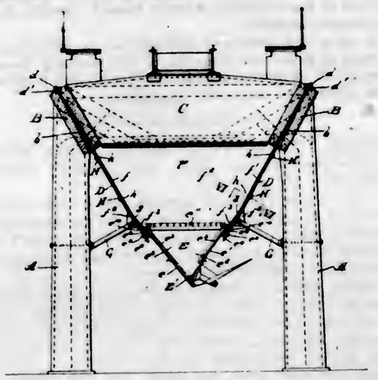
[Claims 6 to 10 not printed in the Gazette.]

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1,088,762. STORAGE-BIN. ROBERT E. BAKER, Cleveland, Ohio. Filed May 23, 1912. Serial No. 699,118. (Cl. 189—3.)

1. A suspension storage bin comprising a supporting structure, flexible tension members suspended from said supporting structure, a rigid bottom structure supported by said tension members, and a side structure supported by said bottom structure and resting against said tension members.

2. A suspension storage bin comprising a supporting structure, flexible tension members suspended from said supporting structure, a bottom structure supported by said tension members, and flexible plates supported by said bottom structure and resting against said tension members.



3. A suspension storage bin comprising a rectangular supporting structure, the side members of which are sloped in the direction of the load thereon, flexible tension members depending inwardly therefrom and in approximately the same plane therewith, a rigid bottom structure supported by said flexible members, and flexible side containing members supported by said bottom structure and resting against said tension members.

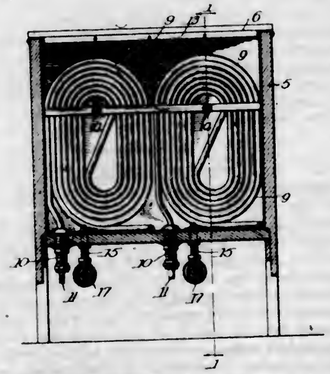
4. A suspension storage bin comprising a supporting structure, flexible tension members suspended from said supporting structure, a rigid bottom structure supported by said flexible tension members, and transverse tension members separating said bottom structure into chutes, said flexible tension members and flexible side containing members being free to assume shape approximating a segment of a parabola under imposed load.

5. A suspension storage bin comprising a supporting structure, flexible tension members depending therefrom, a rigid bottom structure supported by said flexible tension members, flexible side containing members resting against said flexible tension members, and end containing members resting on said rigid bottom structure and rigidly attached to said flexible side containing members.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,763. BEER-COOLER. CHARLES BIEGER, Chicago, Ill. Filed Oct. 27, 1911. Serial No. 657,170. (Cl. 62—2.)



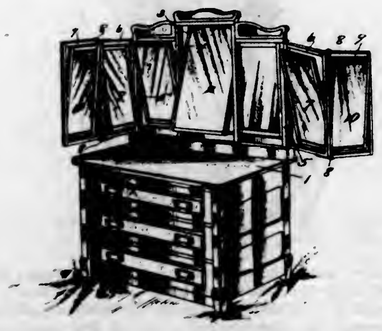
1. A beer cooler comprising an ice box having a flat vertical wall, a cooling coil consisting of a looped pipe coiled upon itself and arranged flat against said wall in a single vertical plane, connections for connecting said pipe with a delivery faucet and a source of supply, a flat bar arranged across the face of said coil adjacent its top, and a bolt disposed through said bar through the opening in the coil and through said vertical wall for holding the bar in operative position, whereby the said bar serves to prevent displacement of the coil and to protect said coil from large cakes of ice when they are positioned in the cooler.

2. A beer cooler comprising an ice box having a flat vertical wall, a cooling coil consisting of a looped pipe coiled upon itself and arranged flat against said wall in a single vertical plane, connections for connecting said pipe with a delivery faucet and a source of supply, a flat bar arranged across the face of said coil adjacent its top, the inner face of said bar being spaced from said vertical wall a distance greater than the thickness of said coil, and a bolt disposed through said bar through the opening in the coil and through said vertical wall for holding the bar in operative position whereby the said bar serves to prevent displacement of the coil and to protect said coil from large cakes of ice when they are positioned in the cooler.

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1,088,764. SWINGING MIRRORS FOR WARDROBES AND DRESSERS. JOHN BOOTH, Peru, Ind. Filed Jan. 5, 1912. Serial No. 669,570. (Cl. 45—99.)



In combination, an article of furniture comprising a base frame, a skeleton frame rising from the upper rear portion of the base frame and provided with three rectangular openings, two end openings and an intermediate opening, a mirror pivoted substantially of its length on a horizontal axis in each opening, two additional frames, one hinged to each end of the vertical rising frame, each additional frame consisting of two parts hingedly connected, each part having a mirror pivoted midway of its length upon a horizontal axis therein, said parts of each additional frames being so hinged that said parts are adapted to collapse against and in registration with the mirrors of the end openings, the outer mirrors of the swinging frame being arranged, when collapsed against the outer mirrors of the stationary frame, to face in the same direction as the last mentioned outer mirrors whereby to maintain three mirrors facing the front of the article of furniture both when the outer frames are collapsed and when they are opened.

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1,088,765. SWINGING-MIRROR SUPPORT FOR DRESSERS. JOHN BOOTH, Peru, Ind. Filed June 8, 1912. Serial No. 702,440. (Cl. 45—97.)

In combination with a dresser having a centrally arranged mirror, a strip extending transversely of the upper portion of the mirror and beyond the same on each side forming arms, a socket plate secured to the under face of each arm at the end thereof, a socket plate secured to the base of the dresser on each side of the centrally arranged mirror and axially arranged with the first socket plate, a rod swivelly mounted in each two axially arranged socket plates, the upper socket plate with the arm acting to prevent vertical movement of the rod, a



pair of sleeves swiveled on the rod, each adjacent each socket plate, a collar integrally fast on the rod to support the upper sleeve, said socket plates having lugs embedding into the arm and the base of the dresser to prevent movement of the socket plates, means for securing the socket plates to the arm and base, and a swinging end mirror having rod connections to said sleeves.

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1,088,766. LANDING-NET. GOTTHARD A. BORGARDT, Camden, N. J. Filed May 2, 1911. Serial No. 624,593. (Cl. 43—9.)



1. In a device of the character stated, a pair of collapsible strips quarter-turned near each end to provide for pivotal connection to move directly toward and from each other, pivots therefor at each end thereof, a lock for the outer ends of the strips, a handle laterally slotted at one end to receive the strips and ears extending in proximity to the slots for supporting the edges of the strips therebeyond.

2. In a device of the character stated, a collapsible net frame, means for locking it in open position, telescopic handle sections within which said frame is adapted to slide, a grip fitting on the larger of said telescopic sections and a fitting upon the smaller of said sections, adapted to engage the grip when the telescopic sections are removed.

3. In a device of the character stated, a hollow handle section, transversely slotted at its outer end, flat net frame members adapted to enter said handle section, having their sides perpendicular to the planes of said slots throughout the major part of the net frame and quarter-turned in proximity thereto to bring the sides of

the end portions parallel therewith, entering the slot and supported laterally thereby, a pivot pin for the inner ends and a lock for the outer ends of said frame.

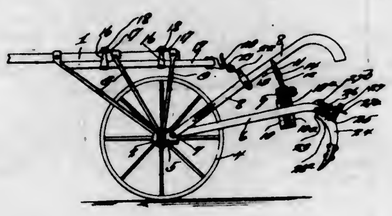
4. In a device of the character stated, a hollow handle section, transversely slotted at its outer end, spring side net frame strips adapted to enter said handle section, having their sides perpendicular to the planes of the slots throughout the greater part of their length and quarter-turned in proximity to the slots to fit therein, a lock for the outer ends of said strips and ears in proximity to the slots engaging the edges of said strips.

5. In a device of the character stated, normally straight spring side net frame members quarter-turned at the outer and inner ends thereof, a lock and pivot for the outer ends, a pivot for the inner ends and a handle slotted for passage of the pivoted inner ends when extended, and within which the collapsed frame is adapted to telescope.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,767. RAKE. CASPER G. BRADFORD, Joplin, Mo. Filed June 18, 1913. Serial No. 744,404. (Cl. 97—34.)



1. In a rake machine, an axle having supporting wheels, a tongue having braces connecting it to said axle, a series of box bearings on the axle, plow beams pivoted in said box bearings, a transverse tubular rod having a plurality of downwardly extending loops in which said plow beams are arranged, handles pivoted in two of said box bearings and having connections with said transverse tubular member, each of the plow beams having an individually and independently yieldable foot provided with a plow plate.

2. In a rake machine, an axle having supporting wheels, a tongue having braces connecting it to said axle, a series of box bearings on the axle, plow beams pivoted in said box bearings, a transverse tubular rod having a plurality of downwardly extending loops in which said plow beams are arranged, handles pivoted in two of said box bearings and having adjustable connections with said transverse tubular member, each of the plow beams having an individually and independently yieldable foot provided with a plow plate.

3. In a rake machine, an axle having supporting wheels, a tongue having braces connecting it to said axle, a series of box bearings on the axle, plow beams pivoted in said box bearings, a transverse tubular rod having a plurality of downwardly extending loops in which said plow beams are arranged, handles pivoted in two of said box bearings and having adjustable connections with said transverse tubular member, each of the plow beams having an individually and independently yieldable foot provided with a plow plate, a beam adjustable parallel to and longitudinally of said tongue, means for holding the beam in adjusted positions, and connections between said beam and the handle, for supporting the plow beams.

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1,088,768. WHEEL-TIRE. WILLIAM E. BUDD, Elizabeth, N. J. Filed Sept. 13, 1913. Serial No. 789,693. (Cl. 152—1.)

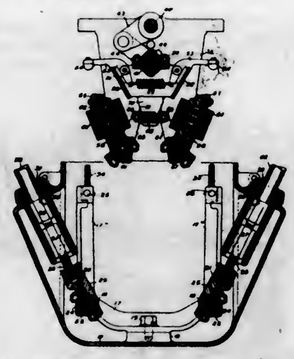
A tire including two similar non-yielding base members, a continuous pliable body permanently secured upon said base members, slotted steel plates extending upon the opposed ends of the base members, and screws threaded in



said base members and disposed in the slots of said plates to limit the relative movement of said members.

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1,088,769. SWITCH. HERBERT W. CHENEY, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 4, 1910. Serial No. 542,097. (Cl. 175—282.)



1. In a double throw switch, two parallel supporting bars, a contact terminal mounted on one of said bars and two contact terminals mounted on the other supporting bar opposite the contact terminal on the first supporting bar, and means for connecting the contact terminal on the first bar to either of the contact terminals on the second bar.

2. In a double-throw switch, a pair of stationary contact terminals, a movable contact member, said movable contact member being shiftable substantially rectilinearly from one position to another, and when in one position being movable substantially rectilinearly into and out of connection with one contact terminal, and when in another position being similarly movable in the same direction into and out of connection with the other contact terminal.

3. In a double throw switch, a stationary contact terminal, a pair of stationary contact terminals arranged side by side opposite the first named contact terminal, a movable bridging contact member movable rectilinearly toward and away from the said contact terminals, and means whereby the normal position of said movable contact member may be shifted rectilinearly so that when it is in one position and the switch is closed by one movement it will connect the first named contact terminal to one of said pair of contact terminals and when in another position and the switch is closed by a movement in the same direction, it will connect said first named contact terminal to the other of the pair of contact terminals.

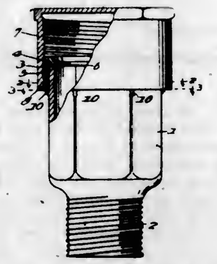
4. In a double throw switch, a stationary contact terminal, a pair of contact terminals either one of which is adapted to be connected to the first named contact terminal, a bridging contact member adapted to be shifted vertically to open and close the switch, and means whereby said bridging contact member may be moved from one plane of movement to a substantially parallel one so that when in one position and shifted vertically it will cooperate with the first named contact terminal and with one of the pair of contact terminals and when shifted to another position and moved vertically it will coöperate with the first named contact and with the other of the pair of contact terminals.

5. In a double-throw switch, a pair of contact terminals arranged side by side, a single contact terminal adapted to be connected to either of the pair of contact terminals, and a bridging contact member, said bridging contact member having two substantially parallel normal positions and when in one position being movable into and out of connection with the single terminal and one of the pair of terminals, and when in the other position being similarly movable into and out of connection with the single terminal and the other of the pair of terminals.

[Claims 6 to 32 not printed in the Gazette.]

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1,088,770. GREASE-CUP. NORMAN W. CUMMINS, Bridgeport, Conn., assignor to The Burns & Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Mar. 26, 1913. Serial No. 756,989. (Cl. 184—48.)



1. In a grease cup, an angular body formed of malleable material, an exteriorly threaded reinforcing member secured to the body and having an inwardly extending base flange, an interiorly threaded cap engaged over and with said threads of the reinforcing member, a leather or similar disk externally threaded and provided with an opening that receives the body, said disk having its upper face engaged with the flange of the reinforcing member and having its threads frictionally engaged with the threads of the cap, the angular portions of the body having displaced material engaged with the under face of the leather disk to hold same at a plurality of spaced points and against the flange of the reinforcing member.

2. In a grease cup, a body formed of malleable material having an angular cross-section and an abutment adjacent its upper end, a leather or similar disk having an opening which receives the body and is held from rotation by the latter, an interiorly threaded cap on the body, said disk having its periphery threaded and frictionally engaged with the threads of the cap, and a series of spaced independent means integral with the body and engaged with the under face of the disk to hold same against the abutment, said means being capable of being forcibly moved against the disk to govern the extent of compression of the latter.

3. In a grease cup, a body formed of malleable material having an angular cross-section and an abutment adjacent its upper end, a leather or similar disk having an opening which receives the body and is held from rotation by the latter, an interiorly threaded cap on the body, said disk having its periphery threaded and frictionally engaged with the threads of the cap, and teats integral with the body and engaged with the under face of the disk to engage same at a plurality of points to hold same in position, said teats being capable of being forcibly moved against the disk to adjustably compress the latter.

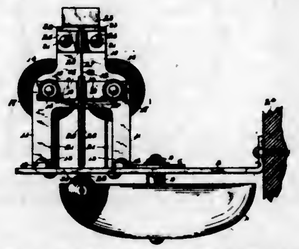




4. In a grease cup, a body formed of malleable material, a cap threaded over the body, an abutment on the body, a disk on the body engaged with said abutment and having a threaded periphery to frictionally engage the threads of the cap, and teats integral with the body and being capable of being forcibly moved to engage the disk to hold same against said abutment.

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1,088,771. ELECTROMAGNETIC DEVICE. WILLIAM W. DEAN, Chicago, Ill., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 15, 1903. Serial No. 161,528. (Cl. 177—7.)



1. In a device of the class described, the combination with a diamagnetic front plate, of magnet coils secured to said front plate, a supporting member to which said plate is secured to support the front ends of the magnets with reference to the said member, and a vibrating reed adapted to be operated by said magnets and fixed at one end to said front plate, substantially as described.

2. In a device of the class described, the combination with an operating magnet, of a tuned-reed adapted to be vibrated thereby, said tuned-reed comprising a leaf spring fixed at one end, a pair of rigid magnetic stripe riveted to the opposite sides of the free end of said spring, a flexible member riveted between the other ends of said strips and a ball carried by the latter member, said strips forming the armature of the magnet, substantially as described.

3. In a device of the class described, the combination with an operating magnet, of a tuned reed adapted to be vibrated thereby, said tuned reed comprising a leaf spring fixed at one end, a pair of magnetic pieces riveted to the opposite sides of the free end of said spring, and extending member secured between another portion of said magnetic pieces, and a hammer carried by the latter member, said magnetic pieces forming the armature for the magnet, substantially as described.

4. In a magnetic device of the class described, the combination with a single pair of magnet coils, of a two-piece polarized armature for said coils, a thin spring plate fixed at one end and secured between said armature pieces at the other end, and adapted to form a portion of the magnetic circuit of said device, and a hammer carrier also secured between said armature pieces, substantially as described.

5. In a signaling device, the combination with a pair of electro-magnets, of a tuned reed adapted to be vibrated by alternating current passed through the coils of said electro-magnets in series, said tuned reed comprising a spring, a pair of armature pieces, a hammer and a supporting strip passing between said armature pieces and supporting the said hammer, substantially as described.

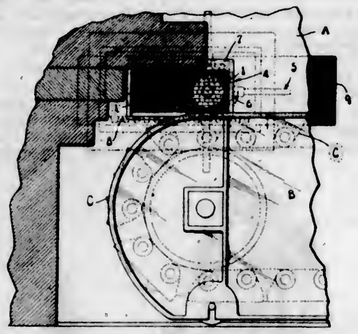
[Claims 6 to 9 not printed in the Gazette.]

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1,088,772. MECHANICAL STOKER. WILLIAM M. DUNCAN, Alton, Ill. Filed Apr. 8, 1912. Serial No. 689,214. (Cl. 110—40.)

1. The combination with a mechanical stoker having a traveling grate, of a rotatable barrier at the rear of said grate by which the fuel resting upon the grate may be restrained while the grate is in motion, and means for rolling said barrier back and forth to vary the gap between the grate and the barrier.

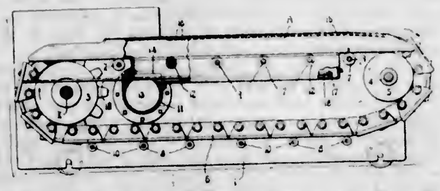
2. The combination with a mechanical stoker having a traveling grate, of a cylindrical water back at the rear of said grate, water conducting connections to which said



water back is journaled, and means for rolling said water back back and forth to vary the gap between the grate and barrier.

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1,088,773. FURNACE-GRATE. WILLIAM M. DUNCAN, Alton, Ill. Filed July 18, 1912. Serial No. 710,140. (Cl. 110—40.)



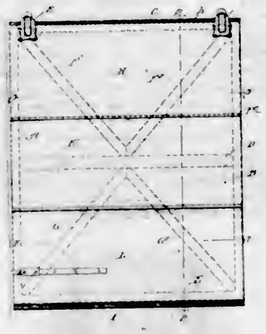
A furnace grate comprising side walls, a drive shaft having a drive wheel, an idle shaft having a driven wheel, and two series of transverse rods; said drive shaft, idle shaft and series of rods being mounted in the said side walls, series of rollers mounted on the rods, endless grate chains mounted on said wheels and series of rollers, a manifold having a compressed air inlet and air outlets and located between the two series of rollers, and hollow grate bars located between the endless grate chains and connected with the air outlets of the manifold, each of the grate bars being formed with openings in the top thereof through which compressed air is discharged into the fuel and with sleeves through which certain of said rods pass.

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1,088,774. FREIGHT-CAR DOOR. PERCY M. ELLIOTT, Chicago, Ill. Filed Feb. 4, 1913. Serial No. 746,114. (Cl. 20—22.)

1. In a freight car door, the combination with a rectangular wooden door frame, of a sheet metal covering secured to the outer side of said frame and bent around the periphery thereof, a flange formed integrally with the upper edge of said metal covering and projecting upwardly therefrom in substantially the plane of the inner surface of said frame, a reinforcing plate overlying the inner flush surfaces of said flange and adjacent frame member, a flange formed integrally with the bottom edge of said metal covering and projecting downwardly therefrom in substantially the plane of the inner surface of said frame, and a reinforcing plate overlying the inner alined surfaces of said latter flange and the adjacent lower frame member.

2. In a freight car door, the combination with a wooden door frame, of a sheet metal covering secured to the outer side of said frame and bent around the periphery thereof, a flange formed integrally with the upper edge of said metal covering and projecting upwardly therefrom in substantially the plane of the inner surface of said frame, a reinforcing plate overlying the alined inner surface of said flange and adjacent member of said frame, a flange formed integrally with the rear edge of said metal covering and projecting inwardly therefrom so as to form a weather strip adapted to overlap a coöperating strip at the rear of the door opening, a reinforcing plate overlying the inner surface of the rear wooden frame member, and a jamb plate formed integrally with the front edge of said metal covering and overlying the inner surface of the front member of said frame so as to engage the door jamb at the front of the door when the door is closed.



3. In a freight car door, the combination with a wooden door frame, of a sheet metal covering secured to the outer side of said frame and bent around the periphery thereof, a flange formed integrally with the upper edge of said metal covering and projecting upwardly therefrom in substantially the plane of the inner surface of said frame, a reinforcing plate overlying the alined inner surfaces of said flange and adjacent member of said frame, a flange formed integrally with the rear edge of said metal covering and projecting inwardly therefrom so as to form a weather strip adapted to overlap a coöperating strip at the rear of the door opening, a jamb plate formed integrally with the front edge of said metal covering and overlying the inner surface of the front member of said frame so as to engage the door jamb at the front of the door when the door is closed, a flange formed integrally with the roller edge of said metal covering and depending therefrom from the plane of the inner surface of said frame to engage door guide brackets and a bottom reinforcing plate overlying the alined inner surfaces of said latter flange and the adjacent member of said frame.

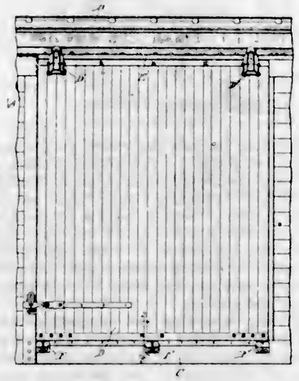
4. In a freight car having a door opening in its side wall, a track above the door opening having a depending flange thereon, a vertical weather strip at the rear of the door opening, a door comprising a wooden door frame and a sheet metal covering secured thereto, hangers for suspending the door from said track, a flange formed integrally with the upper edge of said metal covering and projecting upwardly therefrom to overlap the depending flange on said track, the reinforcing plate overlying the alined inner surfaces of said flange and the adjacent member of said frame, a flange formed integrally with the rear edge of said metal covering and projecting inwardly therefrom so as to overlap said vertical weather strip when the door is closed, and a reinforcing plate overlying the inner surfaces of the rear member of the door frame.

5. In a freight car having a door opening in its side wall, a track above the door opening having a depending flange thereon, door guide brackets below the door opening, a vertical post at the front of the door opening, a vertical weather strip at the rear of the door opening, a door comprising a wooden frame and a sheet metal covering secured thereto, hangers for supporting said door from said track, a flange formed integrally with the upper edge of said metal covering and projecting upwardly therefrom to overlap the depending flange of the said track, a reinforcing plate overlying the alined inner surfaces of said flange and adjacent member of said frame, a flange formed integrally with the rear edge of said metal covering and projecting inwardly therefrom so as to form a weather strip adapted to overlap the said vertical weather strip, a jamb plate formed integrally with the front edge of said metal covering and extending around the front member of the door frame so as to engage the front door post when the door is closed, a flange formed integrally with the lower edge of said metal covering and depending therefrom between the door guide brackets and the car side, and a reinforcing plate overlying the alined inner surfaces of said latter flange and the adjacent member of the door frame.



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1,088,775. FREIGHT-CAR. PERCY M. ELLIOTT, Chicago, Ill. Filed Mar. 29, 1913. Serial No. 757,658. (Cl. 20—22.)



1. In a freight car, the combination with a vertically sliding door controlling a door opening in the car side, a Z-bar secured along the bottom of the door with one vertical flange overlying the outer surface of the door adjacent the bottom thereof and the outer vertical flange depending substantially flush with the inner surface of the door, an angular weather strip having a flange overlying the inner surface of the door adjacent the bottom thereof and having a flange projecting inwardly and upwardly beneath the door opening, bolts passing through the bottom of the door and through the upwardly extending vertical flange of said Z-bar and through the flange of said weather strip which engages the inner surface of the door, a plate secured to the car floor adjacent the bottom of the door opening and having a depending flange lying between said weather strip and the upwardly projecting flange thereon, and door guide brackets secured beneath the door opening and engaging the depending flange of said Z-bar to guide the door and to prevent outward movement of the bottom thereof sufficient to injure the engaged flanges of said weather strip and plate.

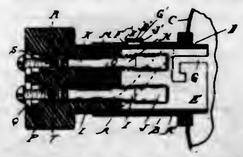
2. In a freight car, the combination with a vertically arranged side sill, of a floor supported upon and projecting outwardly beyond the said side sill, a vertical sliding door controlling an opening above the car floor, a Z-bar secured along the bottom of said door and having a flange depending in a plane substantially flush with the inner surface of the door, door guide brackets secured to said side sill and extending upwardly on the outside of the depending flange of said Z-bar, a weather strip secured to the depending flange of said Z-bar and having an inwardly and upwardly projecting flange extending beneath the portion of the car floor which projects beyond said side sill, and a threshold plate having a depending flange extending between said weather strip and the upwardly projecting flange thereon, said depending flange of the threshold plate and the upwardly projecting flange of said weather strip being protected from injurious contact by the engagement of said brackets with the depending flange of said Z-bar.

3. In a freight car, the combination with a vertical sliding door controlling a door opening in the car side, of means for supporting and guiding said door in its opening and closing movements, an angular weather strip comprising a vertical flange overlying the inner surface of the bottom of the door, and a horizontal flange projecting inwardly from adjacent the lower edge of the door and extending beneath the bottom wall of the door opening, a Z-bar secured along the bottom of the door with one vertical flange overlying the outer surface of the bottom of the door and the other vertical flange depending below the door, door guide brackets secured beneath the door opening and engaging the said depending flange of the Z-bar, and bolts for securing the flanges of said weather strip and Z-bar to the opposite sides of the portion of the door which they overlap, said bolts projecting through the said flanges and through the interposed portion of the door.

4. In a freight car, the combination with a vertically arranged side sill, of a floor supported upon and projecting outwardly beyond the said side sill, a vertically sliding door controlling an opening above the car floor, a Z-bar secured along the bottom of said door with one vertical flange overlying the outer surface of the bottom of the door and the other vertical flange depending in a plane substantially flush with the inner surface of the door, an angular weather strip comprising a vertical flange overlying the inner surface of the bottom of the door and also overlying the depending flange of said Z-bar, said weather strip having an inwardly and upwardly projecting flange extending beneath the portion of the car floor which projects beyond said side sill, a threshold plate having a depending flange extending between said weather strip and the upwardly projecting flange thereon, means for securing together the overlapped flanges of said weather strip and Z-bar, means for securing the flanges of said weather strip and Z-bar to the portion of the door which they overlap, and door guide brackets secured to said side sill extending upwardly on the outside of the depending flange of said Z-bar, the relative positions of said brackets and depending flange serving to prevent injurious contact between the upwardly projecting flange on said weather strip and the depending flange on said threshold plate.

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1,088,776. LAMP-SOCKET. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds & Jones Mfg. Company, Detroit, Mich., a Corporation of Michigan. Filed June 16, 1913. Serial No. 773,988. (Cl. 240—44.)



1. The combination with a reflector of a lamp, of a plug having a lamp-bulb-engaging portion formed as a unit therewith, a terminal carried by the plug and extending into operative relation to the lamp-bulb engaging portion, a lead-engaging connector carried by the rear end of the plug and electrically connected to said terminal, a bearing for the plug arranged to position the lamp-bulb engaging portion in operative relation to the reflector, and a connection between the bearing and the plug for adjusting the plug in relation to the reflector, comprising a spiral guide upon the one and a projection upon the other engaging the guide, said guide having a steep pitch whereby a relative rotation between the plug and the bearing of but a portion of a revolution will effect a comparatively large longitudinal adjustment of the plug.

2. The combination with a reflector of a lamp, of a plug having a lamp-bulb engaging portion formed as a unit therewith, a terminal carried by the plug and pro-

jecting into operative relation to the lamp-bulb engaging portion, a lead-engaging connector carried by the rear end of the plug and electrically connected to said terminal, a sleeve within which said plug is arranged, positioned to arrange the lamp-bulb engaging portion in operative relation to the reflector, and a connection between the sleeve and the plug for effecting a longitudinal adjustment of the plug in the sleeve, comprising a projection upon the one and a spiral guide upon the other with which said projection engages, said spiral guide having a steep pitch whereby a relative rotation between the sleeve and plug of but a portion of a revolution will effect a comparatively large longitudinal travel of the plug within the sleeve.

3. The combination with a reflector, of a lamp socket comprising a plug having a lamp-bulb engaging portion formed as a unit therewith, a sleeve within which said plug is arranged, positioned to arrange the lamp-bulb engaging portion in operative relation to the reflector, and a connection between the sleeve and the plug for effecting a longitudinal adjustment of the plug in relation to the reflector upon rotation of the plug, said plug having a portion projecting rearwardly of the sleeve forming a means by which the plug may be turned.

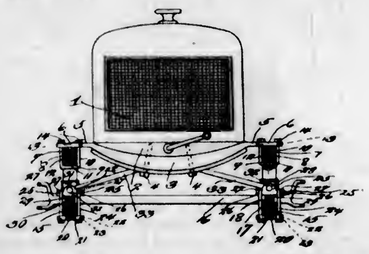
4. The combination with a reflector, of a lamp socket comprising a plug having a lamp-bulb engaging portion, a sleeve within which said plug is arranged, positioned to arrange the lamp-bulb engaging portion in operative relation to the reflector, and a connection between the sleeve and the plug for effecting a longitudinal adjustment of the plug in relation to the reflector upon rotation of the plug, said plug having an adjusting knob at the rear end thereof.

5. The combination with a reflector, of a lamp socket comprising a plug having a lamp bulb engaging portion, a sleeve within which said plug is arranged, positioned to arrange the lamp-bulb engaging portion in operative relation to the reflector, and a connection between the sleeve and the plug for effecting a longitudinal adjustment of the plug in relation to the reflector upon rotation of the plug, said plug having a portion projecting rearwardly of the sleeve forming a means by which the plug may be turned, and lead-engaging connectors carried by said rearward projection.

[Claims 6 to 12 not printed in the Gazette.]

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1,088,777. HANGER CONSTRUCTION FOR AUTO RUNNING-GEAR SPRINGS. EDWARD F. GOODMAN, Augusta, Ga. Filed July 12, 1913. Serial No. 778,811. (Cl. 21—50.)

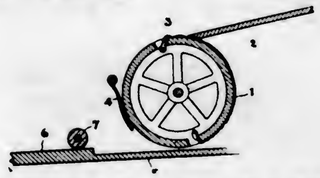


1. In a hanger construction for auto running gear springs, a transverse hanger bolster bar adapted to be connected to an automobile body having end extensions, springs connected to the end extensions, a plate block resting upon the lower portions of said springs having a semicircular recess to receive an axle casing, a cap plate arching over the upper portion of the axle casing, plates arranged adjacent the under surface of the lower portions of said springs, bolts passing through the cap plate and the lower plates and provided with means to hold the bolts in place.

2. In a hanger construction for auto running gear springs, a transverse hanger bolster bar adapted to be connected to an automobile body having end extensions constructed with lateral portions, elliptical running gear springs having their upper portions arranged adjacent the under faces of said end extensions, plates arranged against the under surfaces of the upper portions of said elliptical springs, staple bolts arching under said plates and having their shanks penetrating said lateral portions and provided with means for holding the staple bolts in place, means to prevent the plates and the upper portions of the springs against displacement relative to the extensions, and connections between the lower portions of said springs and an automobile axle.

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1,088,778. PRINTING DEVICE. WELLINGTON F. HEADLEY, Akron, Ohio. Filed Oct. 19, 1911. Serial No. 655,576. (Cl. 101—113.)



1. In apparatus for printing sheets with a design varying in intensity, means for applying a primary design to the sheet, said means including a plain, unyielding ink-carrying surface uniformly inked, and an impression member for applying varying degrees of pressure to the sheet while the latter is in contact with said surface.

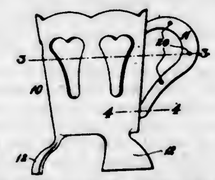
2. In printing apparatus, a design-forming impression element, a plain unyielding inking surface uniformly inked, and means for carrying the sheet to be printed between said element and surface.

3. In printing apparatus and in combination, a plain unyielding inking surface uniformly inked, a sheet carrier adapted to bring the sheet to be printed into juxtaposition with said surface, and means carried by the sheet carrier for bringing the sheet into facial contact with said surface with varying degrees of pressure.

4. In printing apparatus and in combination, a plain unyielding inking surface uniformly inked, a sheet carrier adapted to bring the sheet to be printed into juxtaposition with said surface, and means carried by the sheet carrier for bringing the sheet into facial contact with said surface with varying degrees of pressure, said means comprising an element carrying raised independent projections wider at their base than at the top, whereby varying degrees of intensity in the print may be provided.

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1,088,779. RECEPTACLE. BERTHOLD JAHN, New Britain, Conn., assignor to The B. Jahn Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 8, 1912. Serial No. 676,447. (Cl. 65—61.)



1. A receptacle comprising a tubular body provided with depending legs, said body being made from a sheet provided with integral loop-like ears bent outward at an angle to the body to present a handle therefor, said body and legs having a flange extending interiorly thereof uninterruptedly along the lower part of said body, along the opposite sides of and along the bottoms of said legs.

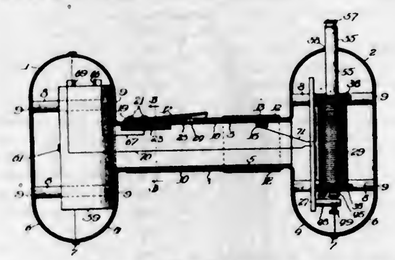
2. A receptacle comprising a tubular body made from a sheet the edges of which are approximately contiguous and



are provided with loop-like ears extending outward at an angle to the body and presenting collectively a handle therefor, the body being slit inward at the junction of the ears therewith, said ears being flanged on their opposite faces and the flanges of the ears fitting against each other.

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1,088,780. ELECTROMEDICAL EXERCISING APPARATUS. GEORGE J. KATZ, Chicago, Ill. Filed July 5, 1913. Serial No. 777,562. (Cl. 174—175.)



1. In a device of the class described, a hollow head comprising a pair of complementary concave wall members adapted to fit together closely at their abutting edges in combination with a plurality of clamping studs adapted and arranged to secure said wall members together, and a mounting plate supported rigidly by said studs, substantially as and for the purpose set forth.

2. A dumb bell, comprising a pair of broad, hollow heads and a hollow handle connecting said heads, said handle having a switch plate operatable by gripping the handle, and electrodes comprising said switch plate arranged on the handle for contact with the hand, in combination with a battery and an induction coil housed transversely in said heads respectively, said induction coil having an adjustable damper and an interrupter, said electrodes, battery, induction coil, and interrupter being arranged and connected for closure of the primary circuit by said switch plate and for closure of the secondary circuit through the hand of the user when the handle is gripped.

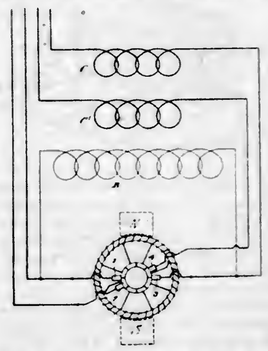
3. A dumb bell having a broad head flattened in a plane transverse to the main axis, a mounting plate secured transversely within said head, an induction coil mounted on said plate, an interrupter also mounted on said plate adapted and arranged for interrupting the primary circuit, and a damper for the induction coil adapted and arranged for increasing and adjusting the electromotive force of the secondary coil by partial or complete removal from the induction coil.

4. In an electro-medical exercising device, a handle member, a hollow head carried by said handle member and comprising a pair of mutually separable complementary concave wall members adapted to fit together at their adjoining edges, one of said wall members being permanently secured to said handle member, in combination with a plurality of interiorly disposed studs arranged transversely of said wall members and adapted to secure them together, inductive apparatus carried by said studs, combined switch and electrode members carried exteriorly by said handle adapted for manually controlling said inductive apparatus and for delivering current to the hand of the user when the handle is gripped, and a source of current also carried by said device and electrically connected for operating said inductive apparatus when the switch is closed.

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1,088,781. ELECTRIC GENERATOR. JOHN F. KELLY, Pittsfield, Mass. Filed Dec. 20, 1910. Serial No. 598,404. (Cl. 171—223.)

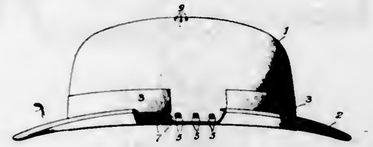
In a multi-circuit compound-wound dynamo electric machine designed to supply independent external circuits with currents whose voltages are different and constant, in combination with a single field magnet-member and a closed circuit armature, of a plurality of positive and negative brushes, a shunt-coil connected to a pair of brushes, coöperating series coils equal in number to the brushes of one polarity and having one terminal of each series coil connected respectively to said brushes of that polarity and their other terminals connected respectively to and forming part of the external circuits to compound the field, and



leads also forming a part of the external circuits and connected one each to the brushes of opposite polarity, said brushes of opposite polarity being arranged at different potential points, whereby currents of different and independent voltages may be supplied to the external circuits, as described.

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1,088,782. VENTILATED HAT. FRANK H. LEE, Bridgeport, Conn. Filed Aug. 23, 1913. Serial No. 786,225. (Cl. 2—114.)



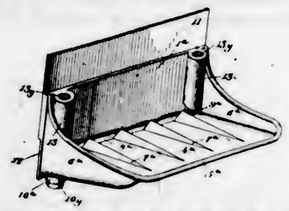
A hat having its crown provided with circumferentially extending openings adjacent the junction with the brim; an external fabric band whose lower portion is openwork and is disposed opposite the openings in the crown; and a sweat leather whose lower portion adjacent the brim is provided with openings that extend throughout its length and are opposite the openings in the hat crown, said sweat leather being spaced from the hat crown to provide an unobstructed annular air pocket between the hat body and the sweat band the inclosing walls of which pocket above said openings are imperforate said pocket leading into the interior upper portion of the hat crown.

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1,088,783. SOAP-HOLDER. JOHN J. LISBAE, Canton, Ohio, assignor to The Sanitary Rubber Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 15, 1911, Serial No. 649,574. Renewed Jan. 22, 1914. Serial No. 813,774. (Cl. 45—28.)

1. A soap holder made of pliable material and comprising a back, a plurality of soap holding trays formed integrally with said back and arranged one above another, each tray having a bottom, front and sides, said bottom having a declination from said front to said back and provided with integral raised ribs in front-to-rear position, a depressed transverse channel in said bottom adjacent said back, drainage tubes formed integrally with said back and extending from the rear inner corners of the uppermost tray downwardly through the rear inner corners of the lower trays, said tubes in each of said lower trays being cut away to form drainage apertures leading from said transverse channels into said tubes, said tubes

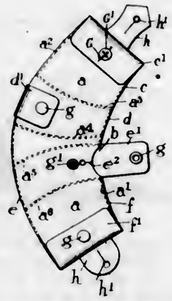
terminating below the lowermost tray, whereby the drainage from all of the trays on said back will be carried downwardly through said tubes and discharged therefrom below the lowermost tray.



2. In a sectional soap holder a bottom section provided with a back, a front piece formed integrally with said back and connected to said back along the outer edges of the same, said front piece provided adjacent said edges with outwardly spaced walls forming, with said back, drainage tubes, said tubes converging at their lower ends and uniting in a common discharge outlet in the median line of the section, said front piece intermediate said outwardly spaced walls normally lying adjacent the back and adapted to be drawn away from said back to permit access to the interior of said drainage tubes.

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1,088,784. PURSE. ALASTAIR W. J. LIVINGSTON, London, England. Filed Apr. 15, 1913. Serial No. 761,261. (Cl. 150—28.)



1. In a purse having an elongated flat form, the combination of two pieces of material, lines of stitching connecting said pieces of material and forming two end pockets, one opening upward and one downward, and intermediate pockets opening sidewise, means for closing said pockets, and means for suspending the purse, substantially as set forth.

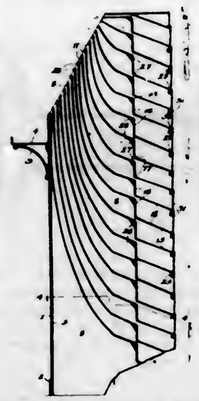
2. In a purse having an elongated flat form, the combination of two pieces of material, lines of stitching connecting said pieces of material and forming two end pockets, one opening upward and one downward, and intermediate pockets opening sidewise, a flap adjacent to the mouth of each pocket, said flaps being integral with one of the said pieces of material, means for fastening said flaps, and means for suspending the purse, substantially as set forth.

3. In a purse having an elongated flat form, the combination of two pieces of material, lines of stitching connecting said pieces of material and forming two end pockets, one opening upward and one downward, and intermediate pockets opening sidewise, a flap adjacent to the mouth of each pocket, said flaps being integral with one of the said pieces of material, means for fastening said flaps, and an extension at each end of the purse provided with a button-hole, substantially as set forth.

4. In a purse having an elongated flat form, the combination of two pieces of material each having a concave curved side and a convex curved side and straight ends, lines of stitching connecting said pieces of material and forming two end pockets, one opening upward and one downward, and intermediate pockets opening sidewise, means for closing said pockets, and means for suspending the purse, substantially as set forth.

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1,088,785. MAIL-SORTING CASE. WILEY W. LOTSPEICH, Atlanta, Ga. Filed May 1, 1913. Serial No. 764,904. (Cl. 211—36.)



1. The herein described sectional distributing case for mail matter and the like comprising an upright front wall, upright parallel partitions having flanges at their front edges connected with said wall and having their upper ends extended above the wall and their upper front corners beveled off, end walls of the same shape as the partitions, a series of chutes secured at one edge to one side of each partition and abutting at the other edge against the contiguous partition or the end wall, the upper ends of all the chutes in a series standing adjacent each other along said beveled line and there having transverse eyes, their lower ends standing at the rear of the case and having transverse eyes disposed in a vertical row, and transverse rods passing through the end walls, the partitions, and said eyes.

2. The herein described sectional distributing case for mail matter and the like comprising an upright front wall, upright parallel partitions having flanges at their front edges connected with said wall and having their upper ends extended above the wall and their upper front corners beveled off, end walls of the same shape as the partitions, a series of chutes secured at one edge to one side of each partition and abutting at the other edge against the contiguous partition or the end wall, the upper ends of all the chutes in a series standing adjacent each other along said beveled line and there having transverse eyes, their bodies being curved downward and rearward from said ends and provided with a double angle within their length, their lower ends standing at the rear of the case and having transverse eyes disposed in a vertical row, a series of upper rods passing through the end walls, the partitions, and the upper eyes of said chutes, a series of lower rods passing through the walls and partitions and the lower eyes of said chutes, and a third series of rods passing through the walls and the partitions and under the uppermost angles in the body of said chutes.

3. The herein described sectional distributing case for mail matter and the like comprising an upright front wall, upright parallel partitions having flanges at their front edges connected with said wall and having their upper ends extended above the wall and their upper front corners beveled off, end walls of the same shape as the partitions, a series of chutes secured at one edge to one side of each partition and abutting at the other edge against the contiguous partition or the end wall, the upper ends of all the chutes in a series standing adjacent each other along said beveled line and there having transverse eyes, their bodies being curved downward and rearward from said ends and provided with a double angle within their length, their lower ends standing at the rear of the case and having transverse eyes disposed in a vertical row, a series of upper rods passing through the end walls, the partitions, and the upper eyes of said chutes, a second series of rods passing through the walls and partitions and under the uppermost angles of the chutes, brackets beneath said angles embracing these rods, a third series of rods passing through the walls and partitions and lowermost eyes of said chutes at the rear of the case, the lower end of each chute being notched, and a door hung on each rod within such notch, for the purpose set forth.

4. In a device of the class described, the combination with two upright walls, and a series of spaced chutes between said walls, each chute having its rear end formed into a box-bottom and provided at its center with a deep notch, the fingers on opposite sides of said notch being carried downward and then turned to the front into eyes; of a rod passing transversely through said walls and eyes, a door having a coil loosely engaging said rod between the eyes, and means for holding the door normally in an upright position.

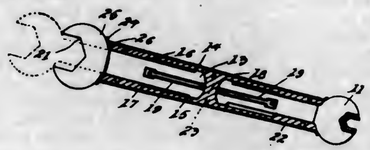
5. In a device of the class described, the combination with two upright walls, and a series of spaced chutes between said walls, each chute having its rear end formed into a box-bottom and provided at its center with a deep notch, the fingers on opposite sides of said notch being carried downward and then curled into eyes; of a rod passing transversely through said walls and eyes, a door of spring wire including two upright fingers and a coil between them loosely embracing said rod between the fingers of the chute and below the plane of the box-bottom, and means for turning the door-fingers normally upward.

[Claims 6 and 7 not printed in the Gazette.]



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1,088,786. AUTOMOBILE EMERGENCY-WRENCH. JOHN LUKOWSKI, Chicago, Ill. Filed June 30, 1913. Serial No. 776,637. (Cl. 81—180.)



1. In a multiple bar wrench, a body member formed with longitudinally extending bifurcations extending inwardly from each end toward the center, a stop wall between the inner terminals of said bifurcations, a plurality of bar wrenches having their shanks mounted for sliding movement in said bifurcated portions of said body member, a casing for said body member and said wrench shanks, means for limiting the outward sliding movement of the said wrench shanks, and means for yieldingly holding said shanks in adjusted position.

2. In a multiple bar wrench, a body member having bifurcations directed inwardly from each terminal, a stop wall arranged centrally of the body portion, a plurality of bar wrenches having their shanks mounted for sliding movement in said bifurcated portions, said stop wall being adapted for limiting the inward movement of said shanks, a casing for said body member, means for limiting the outward movement of said shanks, and means for holding the said shanks in adjusted position comprising a plurality of leaf springs carried by said shanks.

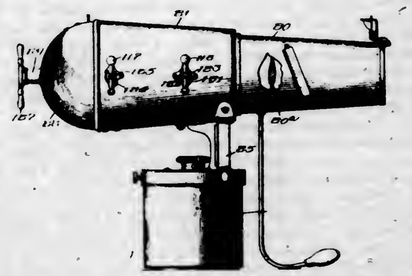
3. In a multiple bar wrench, a body member having a pair of longitudinally extending bifurcations directed inwardly from each terminal, a plurality of bars having their shanks mounted for sliding movement in said bifurcations, stop shoulders formed on the inner terminal of each shank, stop shoulders formed on the body member and adapted to engage the stop shoulders of the said shanks for limiting the outward movement of said shanks, means for limiting the inward movement of said shanks formed integrally with the body member, a leaf spring secured to each of said shanks, spacing plates arranged between said shanks, and a casing for said body member.

4. A multiple bar wrench, comprising a body portion formed with longitudinally extending bifurcations disposed inwardly from each end and toward the center, a stop wall between the inner terminals of said bifurcations, a plurality of bar wrenches having their shanks mounted for sliding movement in said bifurcated portions of the body portion, a casing for said body member and said wrench, means for limiting the outward sliding movement of said wrench shanks, and means for yieldingly holding said shanks in adjusted position carried by each of said shanks adjacent the inner terminal thereof.

5. In a multiple bar wrench, a body portion provided with longitudinally extending bifurcations extending inwardly from each end toward the center, a stop wall between the inner terminals of said bifurcations, a plurality of bar wrenches having their shanks mounted for sliding movement in said bifurcated portions of said body portion, means for limiting the outward sliding movement of said wrench shanks carried by the wrench shanks and body portion, means for yieldingly holding said shanks in adjusted position carried adjacent the inner terminal of each of said shanks and means mounted within the body portion and between each of said shanks for spacing said shanks.

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1,088,787. PHOTOGRAPHIC CAMERA. MANDEL MANDEL and LOUIS MANDEL, Chicago, Ill. Filed Feb. 3, 1911. Serial No. 606,328. (Cl. 95—22.)



1. In a camera the combination of flexible material lapped upon itself for holding a plurality of separate sensitized pieces between the laps thereof in non-curled condition, a lens, means for unfolding said flexible material, and a single means for consecutively receiving and exposing said pieces one at a time to the lens.

2. In a camera, the combination of a strip of flexible material flatly lapped upon itself for flatly holding a plurality of separate sensitized pieces between the laps thereof, a lens, and means for exposing said pieces one at a time to said lens, comprising means for unfolding said strip and a movable holder to receive and discharge said pieces.

3. In a camera, the combination of flexible material lapped upon itself in substantially flat folds for holding a plurality of separate sensitized pieces between said folds in non-curled condition, a lens, and mechanism for receiving said pieces one at a time and carrying them into position relatively to said lens.

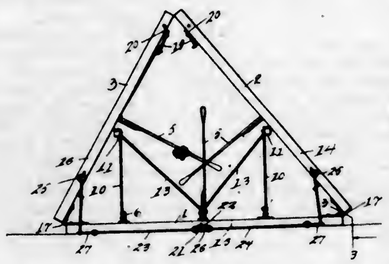
4. In a camera the combination of flexible material lapped upon itself for holding a plurality of separate sensitized pieces between the folds thereof, a lens, and means for exposing said pieces one at a time to said lens, comprising means for unfolding said flexible material for a portion of its length equal to the length of one fold at a time, and a movable holder for automatically receiving and discharging the exposed pieces.

5. In a camera, the combination of flexible material lapped upon itself for holding a plurality of separate

sensitized pieces between the folds thereof, a lens, means for unfolding said flexible material to successively deliver said pieces, a carrier adapted to receive and positively present them in a position exposed to said lens, a casing, and means outside the casing for actuating said unfolding means.

[Claims 6 to 27 not printed in the Gazette.]

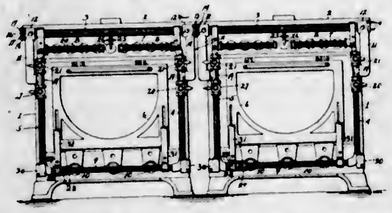
1,088,788. FOLDING HARROW. JAMES MASON, Elkhorn, Wis. Filed Apr. 4, 1913. Serial No. 758,904. (Cl. 55—84.)



1. A harrow including a center section, a pair of terminally mounted wing sections, means carried by the said center section for supporting the said wing sections in folded position, said center section including lower lateral beams pivotally connected to the frame members of said center section, a pair of vertical supporting legs carried by each said lower lateral beam, a wing supporting cross beam member carried by the upper free ends of the said vertical legs and adapted to engage the frame members of the said wing sections in supporting relation when the said wing members are in folded position.

2. A harrow including a center section, a pair of wing sections connected thereto, and means carried by the said center section for supporting the said wing sections in folded position, said means including a plurality of T-shaped supporting brackets secured to the frame members of said center section, lower laterally disposed cross beams pivotally connected to said supporting brackets, a pair of vertically extending supporting legs mounted on each said lateral beam, wing supporting beams secured to the said legs at the upper terminal thereof, and an angular brace for each wing supporting beam, said brace being secured at one end to the said wing supporting means and at the other to a frame member of the said center section.

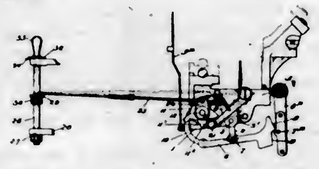
1,088,789. PIPING FOR GAS-RANGES. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 15, 1912. Serial No. 683,939. (Cl. 126—39.)



1. A gas range having a series of burners under its cooking top and a series of burners under the bottom of its oven, a horizontal main feed pipe, an auxiliary top feed pipe supplying the top burners, an auxiliary bottom feed pipe supplying the oven burners, a vertical supply pipe connecting said auxiliary pipes, and a fitting connecting the main supply pipe with the vertical supply pipe at a point between said auxiliary pipes.

2. In a gas range, a horizontal feed pipe co-extensive with said range, a fitting at each end of said pipe for effecting a closure thereof or connection with the succeeding pipe section, burners for said range, auxiliary feed pipes communicating with said burners and connected with each of said fittings respectively.

1,088,790. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. LEWIS C. MYERS, Brooklyn, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed June 13, 1912. Serial No. 703,383. (Cl. 197—157.)



1. Ribbon mechanism for a typewriting machine, comprising a ribbon vibrator, adjustable means for throwing the vibrator through different distances to effect printing from an upper or a lower zone of a ribbon, adjustable stop devices for limiting the throw of the vibrator when printing from either zone, means for simultaneously adjusting the vibrator actuating means and the stop devices and means for accurately positioning and holding the stop devices and vibrator actuating means, said holding means comprising a recessed wheel, a pivoted arm having a projection engaging the recesses in the wheel and a coiled reaction spring applied to said arm.

2. Ribbon mechanism for a typewriting machine, comprising a ribbon vibrator, adjustable means for throwing the vibrator through different distances to effect printing from an upper or a lower zone of a ribbon, adjustable stop devices for limiting the throw of the vibrator when printing from either zone, means for simultaneously adjusting the vibrator actuating means and the stop devices and means for accurately positioning and holding the stop devices and vibrator actuating means, said holding means comprising a recessed wheel, a pivoted arm having a projecting roller engaging the recesses in the wheel and a coiled reaction spring applied to said arm.

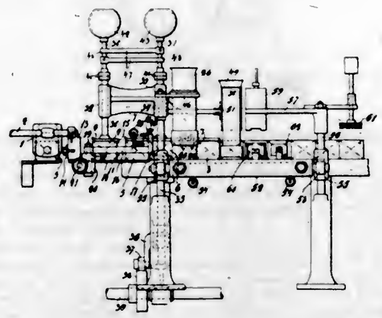
3. Ribbon mechanism for a typewriting machine, comprising a ribbon vibrator, adjustable means for throwing the vibrator through different distances to effect printing from an upper or a lower zone of a ribbon, adjustable stop devices for limiting the throw of the vibrator when printing from either zone, means for simultaneously adjusting the vibrator actuating means and the stop devices and means for accurately positioning and holding the stop devices and vibrator actuating means, said holding means comprising a wheel having limiting stops 15, 16 and intermediate teeth forming recesses, a pivoted arm having a lateral projection engaging said recesses and a coiled reaction spring applied to the arm.

4. Ribbon mechanism for a typewriting machine, comprising a ribbon vibrator, adjustable means for throwing the vibrator through different distances to effect printing from an upper or a lower zone of a ribbon, adjustable stop devices for limiting the throw of the vibrator when printing from either zone, means for simultaneously adjusting the vibrator actuating means and the stop devices and means for accurately positioning and holding the stop devices and vibrator actuating means, said holding means comprising a movable part having positioning faces, an arm coöperating therewith and a coiled reaction spring applied to the arm.

5. Ribbon mechanism for a typewriting machine, comprising a ribbon vibrator, adjustable means for throwing the vibrator through different distances to effect printing from an upper or a lower zone of a ribbon, adjustable stop devices for limiting the throw of the vibrator when printing from either zone, means for simultaneously adjusting the vibrator actuating means and the stop devices and means for accurately positioning and holding the stop devices and vibrator actuating means, said holding means comprising a rotatable part having positioning faces an arm coöperating therewith pivoted upon the frame and a coiled reaction spring applied to the arm.



1,088,791. PACKETING-MACHINE. CARL SIGFRID NYBERG, Södertelje, Sweden. Filed Feb. 26, 1910. Serial No. 546,109. (Cl. 93—2.)



1. In a wrapping or packeting machine, the combination with means for feeding a partially wrapped packet into the machine, of folders adapted to coöperate with the end folds of the wrapper to fold the same, means carried by and moving with said folders for feeding the packet forward after the folding operation, and means for lifting both the folders and the second named feeding means during their return movement.

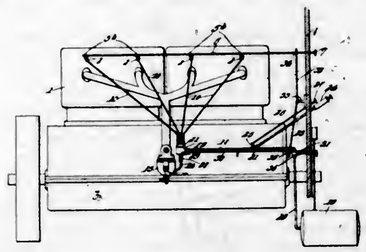
2. In a wrapping or packeting machine, the combination with means for feeding a partially wrapped packet into the machine, of folders adapted to coöperate with the end folds of the wrapper to fold the same, a presser foot adapted to engage one face of the packet after certain of the end folds have been folded, and means on said folders adapted to coöperate with the presser foot for lifting and lowering the folders as said presser foot is raised and lowered.

3. In a wrapping or packeting machine, the combination with means for feeding a partially wrapped packet into the machine, of folders adapted to coöperate with the end folds of the wrapper to fold the same, a cross piece or member extending transversely of the machine, a vertical rod guided within said cross piece or member, a presser foot carried by said vertical rod and capable of engaging one face of the packets passing through the machine, and means on said vertical rod adapted to coöperate with the cross piece for lifting the presser foot when said cross piece is moved in an upward direction.

4. In a wrapping or packeting machine, the combination with means for feeding a partially wrapped packet into the machine, of folders adapted to coöperate with the end folds of the wrapper to fold the same, a presser foot adapted to engage one face of the packet, a projection on the folders adapted to overhang the presser foot, an adjusting screw carried by said projection, and means for raising the presser foot to lift the same from the packet and also to engage with the adjusting screws for the purpose of lifting the folders.

5. In a wrapping or packeting machine, the combination with means for feeding a partially wrapped packet into the machine, of folders adapted to coöperate with the end folds of the wrapper to fold the same, a paste magazine slidably mounted upon the frame of the machine, a spring for forcing said magazine in a direction to apply paste to said packets, a reciprocating rod mounted on the machine, and a cam on said rod for moving the paste magazine away from the packets.

1,088,792. EXPLOSIVE-ENGINE-PRIMING MECHANISM. LOUIS J. PERKINS, Lewiston, Idaho. Filed May 20, 1913. Serial No. 768,827. (Cl. 123—180.)



1. The combination with an explosive engine, and the fuel chamber of a carbureter, of an atomizing priming mechanism connected to supply carbureted air from the chamber of the carbureter to the cylinder of the engine, said mechanism including a conduit provided with a nozzle and led from the fuel chamber of the carbureter, an atomizing and air receiving chamber surrounding the nozzle, a conduit led from the chamber to the cylinder of the engine, an air supplying conduit led into the atomizing chamber in atomizing relation to the fuel nozzle, a manually opened valve mounted in the conduit leading to the cylinder, a manually controlled valve in the air supplying conduit, an air pressure tank in communication with the air supply conduit, and a manually controlled pumping device operably connected to the air supplying conduit, the air controlling valve being disposed selectively for connecting the tank or the manually controlled air supplying device to the air conduit.

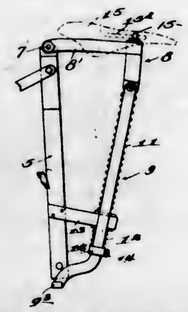
2. A priming mechanism for explosive engines, including the float chamber of a carbureter, a conduit having a nozzle in communication with the float chamber, an air receiving and atomizing chamber surrounding the nozzle thereof, a valve in said conduit, a conduit led from the atomizing chamber to the cylinder of an explosion engine, a valve in said conduit, an air supplying conduit led to the atomizing chamber, means for operating coincidently the valve of the atomizing conduit and the valve of the conduit led to the cylinder, an air pressure supply connected to the air supplying conduit, a manually controlled supplying device connected to said conduit, and a manually controlled valve for selectively connecting the air supply pressure device or the manually operated air supplying device to the conduit.

1,088,793. TANDEM SEAT FOR MOTOR-CYCLES. JOHN ALFRED PETERSON, Modesto, Cal. Filed Jan. 7, 1913. Serial No. 740,684. (Cl. 208—24.)

1. A rear seat support for tandem motor cycles and the like comprising, in combination, a vertically-disposed inverted U-shaped main frame adapted for attachment to the frame of the motor cycle; a seat-carrying frame embodying a pair of substantially-horizontal parallel side members hinged at their front ends to the ends of the top member of said main frame, and an arched rear member to which the rear ends of said side members are rigidly connected; and a cushioning frame embodying spring-pressed parallel side members hinged at their upper ends to the ends of the rear member of said seat-carrying frame.

2. A rear seat support for tandem motor cycles and the like comprising, in combination, a vertically-disposed frame adapted for attachment to the frame of the motor cycle; a rearwardly-extending seat-carrying frame hinged

at its front end to the top member of said main frame and including an upwardly-arched rear member; and a cushioning frame connected to said seat-carrying frame and embodying a pair of connected, parallel bars hinged at their upper ends to each end of said arched rear member, one bar of each of said pairs having a guide connection with said main frame and a cushioning spring engaging said guide.



3. A rear seat support for tandem motor cycles and the like comprising, in combination, a vertically-disposed inverted U-shaped main frame adapted for attachment to the frame of the motor cycle; a seat-carrying frame embodying a pair of substantially-horizontal parallel side members hinged at their front ends to the ends of the top member of said main frame, and an arched rear member to which the rear ends of said side members are rigidly connected; and a cushioning frame embodying a pair of connected, parallel bars hinged at their upper ends to each end of said arched rear member, one bar of each of said pairs having a guide connection with the adjacent leg of said main frame and a cushioning spring engaging said guide.

4. A rear seat support for tandem motor cycles and the like comprising, in combination, an inverted U-shaped main frame adapted for connection to the frame of the motor cycle, each leg of said main frame having a rearwardly and downwardly inclined looped strap secured thereto and provided with a pair of spaced, parallel transverse rollers; a rearwardly-extending seat-carrying frame hinged at its front end to the top member of said main frame; and a cushioning frame embodying a pair of parallel depending bars hinged at their upper ends to each side of said seat-carrying frame at the rear end thereof, one bar of each of said pairs passing through the adjacent strap and between the rollers therein and being provided at its lower end with a collar, the other bar of each pair being engaged with the adjacent collar and having its lower end out-turned to form a foot rest, and upper and lower cushioning springs carried by the first-named bar of each pair and disposed upon opposite sides of the adjacent strap.

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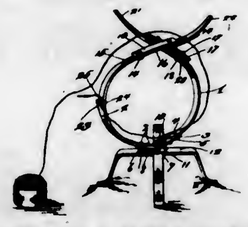
1,088,794. FLUE-CLEANER. GEORGE F. PIERCE, Kansas City, Mo. Filed Apr. 22, 1913. Serial No. 762,777. (Cl. 83—64.)



In a flue cleaner, a tube having a nozzle on its front end, a hollow head having a substantially cone-shaped front portion, the free end of which abuts the nozzle and also having a substantially cone-shaped rear portion, the free end of which engages about the tube, a substantially conical hollow head spaced from the first named head and having its smaller end engaged about the tube, cutting means connected to the heads, and means secured about the tube and which engages the inner circumference of the second named head adjacent the smaller end of the latter to prevent lateral movement of the second named head.

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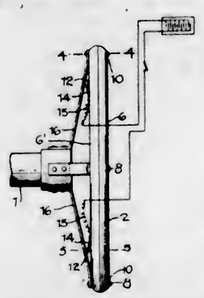
1,088,795. GRAIN-BINDER. JAMES EDWARD POWERS and WILLIAM HERBERT POWERS, Bedford City, Va. Filed Oct. 11, 1913. Serial No. 794,570. (Cl. 100—31.)



In combination, a pair of segmental curved members pivoted together, the free portion of which adapted to be crossed so as to hold a bundle of grain therebetween, one of said members having a bar carried thereby provided with laterally extending flanges, means for adjustably connecting said bar to its respective member whereby the bar may be adjusted, the other member being provided with a bar having its edge portions provided with notches arranged in staggered relations, any one of the notches of either side of said bar adapted to be engaged by one of the flanges of the other bar, means for adjustably connecting the bar having the notches to its respective member whereby the bar may be adjusted.

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1,088,796. STEERING-WHEEL. CHARLES T. SCHROYER, Chester, S. D. Filed Feb. 15, 1913. Serial No. 748,674. (Cl. 74—33.)

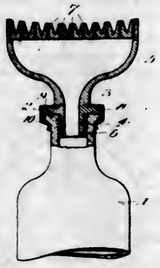


The combination with a steering post having radially projecting spokes secured to the upper end thereof, of a steering wheel mounted upon the outer end of said spokes and including a sectional casing having bolt receiving openings therein, each section of said casing being provided with an annular groove, an asbestos lining arranged within said grooves, a ring arranged within said grooves, said ring being formed of a non-conductive material and having bolt receiving openings therein, bolts adapted to be disposed within the openings in the casing and ring to securely fasten the casing to the ring, contacts formed integral with the ring and projecting through said casing, and means whereby an electric current may be supplied to the ring for electrically heating the casing.

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1,088,797. LIQUID-APPLYING DEVICE. GERTRUDE SMITH, Valdosta, Ga. Filed Oct. 5, 1912. Serial No. 724,158. (Cl. 15—48.)

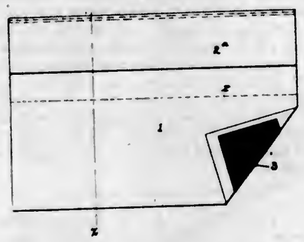
A liquid applying device comprising a receptacle, a hollow stopper, said stopper being enlarged at its outer end, perforated teeth formed on the stopper, a flange formed on the stopper adapted to engage the receptacle, a band



encircling the stopper and engaging the flange, and spring arms extending from the band and engaging the receptacle.

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1,088,798. MANIFOLDING DEVICE FOR ADDRESSING ENVELOPS. WARD T. SMITH, Seattle, Wash. Filed Dec. 19, 1912. Serial No. 737,753. (Cl. 11—23.)

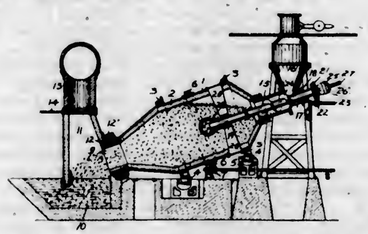


1. In an addressing device, the combination of a body sheet, a carbon face thereon near the lower edge thereof, and a plain face above the said carbon face, the top portion of said body sheet being folded back upon itself and there pasted together, and bent over upon one side of the body sheet, and the extreme top edge folded over upon the opposite side thereof, to form limit stops for a letter sheet and an envelop respectively.

2. In an addressing device, the combination of a body sheet, a carbon face thereon near the lower edge thereof and a plain face above the said carbon face, and the limit stops 2 and $2^a$ for a letter sheet and an envelop respectively.

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1,088,799. GAS-PRODUCER. HORACE E. SMYTHE, Pittsburgh, Pa., assignor to The S. R. Smythe Company, Pittsburgh, Pa., a Corporation of West Virginia. Filed Apr. 24, 1913. Serial No. 763,271. (Cl. 48—85.1.)



1. In a gas producing apparatus, an inclined rotary shell, a hopper, a shaft extending axially into the upper end of the shell, a conveyer on the shaft arranged to convey fuel from the hopper into the upper end of the shell, means for supplying the said hollow shaft with a blast of air, steam or both, a blast distributing nozzle secured to the lower end of the shaft, and means for rotating the shaft in one direction and the shell in the same or opposite direction.

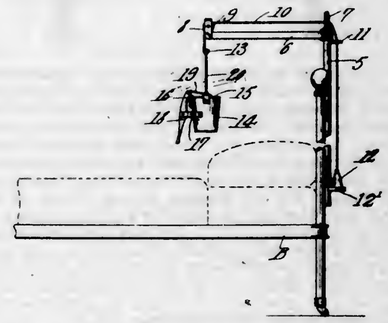
2. In a gas producing apparatus, an inclined rotary shell, a hopper, a cylindrical passage between the hopper and the upper end of the shell, an inclined hollow shaft extending through the said passage and provided with the feed-screw, means for supplying the hollow shaft with a suitable blast, and means for rotating the shaft, the shell being inclined at such an angle that the feed-screw forces the fuel continually against the fuel previously fed into the shell.

3. In a gas producing apparatus, an inclined rotary shell, a rotary shaft extending into the upper end of the shell and arranged in axial alinement therewith, and a fuel agitating device on the lower end of the shaft.

4. In a gas producing apparatus, an inclined rotary shell, a hollow rotary shaft extending into the upper end of the shell and arranged in axial alinement therewith, a hollow fuel agitating device secured to the lower end of the shaft and provided with blast distributing openings, and means for providing the hollow shaft with a suitable blast.

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1,088,800. BEDSTEAD ATTACHMENT. THOMAS A. THOMPSON, Loretto, Ky. Filed July 6, 1910. Serial No. 570,597. (Cl. 5—41.)



The combination with the head board of a bedstead, of a post connected to and extending upwardly from the head board, a horizontal arm supported by and adapted to swing horizontally relative to the post, a guide eye upon the top of the post, another guide eye upon the post below the arm, a guide sheave supported by the free end portion of the arm, a cable mounted on the sheave and extending through the eyes, an article engaging hook at one end of the cable, a weight at the other end of the cable, said weight constituting a counterbalance for the hook and an article to be engaged thereby, and a shelf extending from the post and into the path of the weight, said shelf constituting means for stopping the downward movement of the weight when the article engaging hook is brought to position close to but out of contact with the arm.

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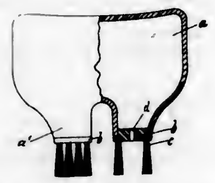
1,088,801. RESERVOIR-BRUSH. RICHARD TÖMLICH, Munich, Germany. Filed June 12, 1913. Serial No. 773,181. (Cl. 15—51.)

1. In a brush, a reservoir, a plurality of nozzles integrally extending from said reservoir, and axially perforated stopples, furnished with bristles, secured in said nozzles.

2. In a brush, a reservoir provided with a plurality of nozzles, and perforated stopples, furnished with bristles, removably inserted in the orifices of the nozzles.

3. In a brush, a reservoir whose bottom wall is inter-

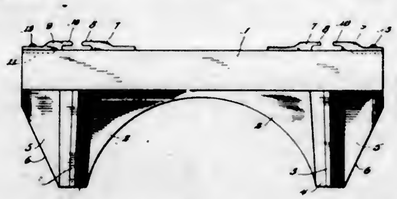
nally depressed at a plurality of places, so as to present externally a number of isolated prominences, the top of



each of which is removed, and perforated plugs, provided with bristles, fitting in the open tops of the prominences.

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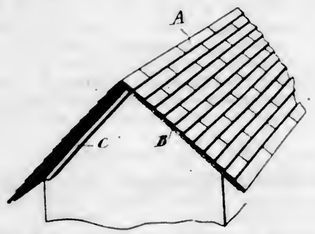
1,088,802. RAILWAY-TIE. CAAL H. WHITE, Greenfield, Mass. Filed Jan. 30, 1913. Serial No. 745,246. (Cl. 238—5.)



A railway tie including a body portion substantially rectangular in cross section, a longitudinally extending centrally disposed brace formed integrally with and depending from the under face of said body, lateral braces extending transversely of the said first mentioned brace, the said first mentioned brace being arched throughout its entire length, the said lateral braces being disposed directly beneath the rail engaging surface of the tie and formed to depend from the body at a slight outward inclination, the lateral faces of the said lateral braces being tapered from the longitudinal brace to a point upon the same plane as the side of the said body, end braces formed from a continuation of the said longitudinal brace, the outer faces of the said end braces being tapered from a point near the top thereof, and means formed upon the rail engaging surface of the tie for fastening the rail thereto, as and for the purpose set forth.

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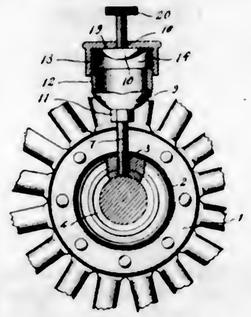
1,088,803. ROOF OR WALL COVERING. GEORGE FREDERIC BISHOPRIC, Ottawa, Ontario, Canada. Filed June 4, 1913. Serial No. 771,707. (Cl. 108—7.)




1. A shingle for the purpose specified comprising a strip of roofing material having parallel reinforcing means attached to said strip on the underside near one end.

2. A roofing shingle for the purpose specified comprising a strip of roofing material having a layer of asphalt on the underside and reinforcing strips embedded in the asphalt adjacent one end.

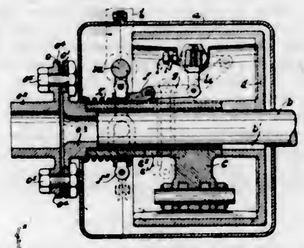
1,088,804. GREASE-CUP. HERMAN A. BROCKHAUS, Woodward, Okla. Filed Aug. 28, 1912. Serial No. 717,556. (Cl. 184—38.)



A lubricator comprising a cup having a bottom of concavo convex form and cylindrical side walls extending from the bottom and exteriorly threaded throughout their length, a discharge tube leading from the bottom, a cap provided with an internally threaded depending flange adjustably engaging the threaded walls and provided with a head overlying the upper end of the cup and serving initially as a follower to compress the lubricant and force the same into the cup for discharge through the tube, and a follower adjustably mounted in the cap and provided with a head having an upper smooth surface normally engaging with the inner side of the head of the cap and a convex bottom conforming to the concavity of the bottom of the cup and adapted to be adjusted with relation to said bottom.

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1,088,805. FRICTION CLUTCH MECHANISM. GEORGE LAWRENCE BROWN, Elyria, Ohio. Filed Dec. 12, 1905. Serial No. 291,374. (Cl. 192—13.)



1. In a screw-actuated friction clutch mechanism, the combination with an expansible clutch-member, of an actuating screw disposed therein to open and close said member, a coacting tapped sleeve for said screw, a split socket mounting the sleeve, and means for securing it in its positions of rotatable adjustment with respect to the screw and the clutch-member, substantially as set forth.

2. In a screw-actuated friction clutch mechanism, the combination with its expansible clutch-member, of a right and left hand screw mounted to open and close the same, tapped sleeves for engaging the screw, a split socket mounting the sleeve within each of the opposing portions of the expansible member, and means for securing said sleeves in their positions of adjustment with respect to the member and the screw, substantially as set forth.

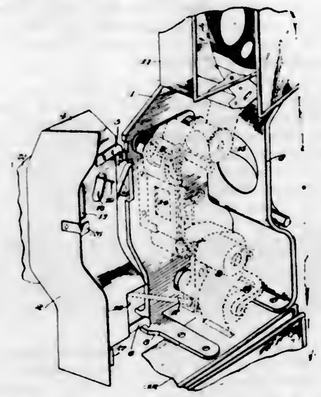
3. In a screw-actuated friction clutch mechanism, the combination with its expansible clutch-member, of a right and left hand screw mounted to open and close the same, tapped sleeves for engaging the screw, mounted within opposing portions of the expansible member and means for securing said sleeves in their positions of adjustment with respect to the member and the screw, comprising recessed slotted lugs within the opposing portions of the clutch-member and associated compression bolts for rigidly engaging the tapped sleeves, substantially as set forth.

4. In a friction clutch mechanism, the combination with a cylindrical clutch-member or drum, of an interiorly-positioned expansible member comprising two pivoted segmental parts, means comprising a screw mechanism for effecting their contraction and their expansion into engagement with said drum, a support or hanging for said expansible member, and lugs or stops provided thereon, against which the expansible member is adapted to be drawn and held in position of disengagement from the drum, substantially as set forth.



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1,088,806. MOVING-PICTURE MACHINE. JAMES A. CAMERON, New York, N. Y. Filed Jan. 8, 1912. Serial No. 669,995. (Cl. 88—17.)



1. In a moving picture machine, a frame embodying relatively fixed side and front walls, film moving mechanism supported on the fixed side wall, and a door pivoted to the fixed side wall embodying a rear and side wall to coöperate with the fixed side and front wall to constitute a closed casing.

2. In a moving picture machine, a frame embodying side and front portions, film moving mechanism supported on the side portion of the frame, and a door pivoted to the side portion, embodying rear and side sections corresponding in general to the front and side portions respectively of the frame, to form in combination therewith a substantially rectangular fireproof casing for the film moving mechanism, said door having an opening or openings therein to permit projection of certain parts of the mechanism.

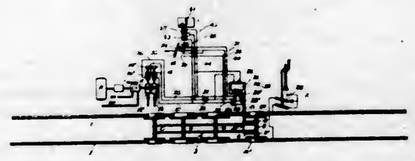
3. The combination with a moving picture machine having suitable film moving mechanism, of a casing inclosing the film moving mechanism and embodying relatively fixed angularly disposed side and front portions, together with an angular door pivoted to the relatively fixed side portion and coöperating with the relatively fixed side and front portions to constitute an inclosing casing.

4. The combination with a moving picture machine having suitable film moving mechanism, of a pivoted shielding element arranged to protect said film moving mechanism, the said shielding element being mounted to swing on a substantially vertical axis and having angular side walls to cover different sides of the film moving mechanism.

5. In combination with a moving picture machine having suitable film moving mechanism, and a lantern disposed in operative relation to the film moving mechanism, a pivotally mounted shielding element arranged to swing on a substantially vertical axis having angular side portions to cover different sides of the film moving mechanism, and means limiting the opening movement of the shielding element to a position where one of the angular side portions of the same will be interposed between the lantern and the film moving mechanism.

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1,088,807. TRAFFIC-CONTROLLING APPARATUS. CLYDE J. COLEMAN, New York, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed Feb. 2, 1910. Serial No. 541,642. (Cl. 246—58.)



1. The combination with a railroad track supplied at intervals with current giving the rails opposite polarity, of a traffic controlling electro-responsive device carried by a car or train, and connections therefrom placing the same in shunt to a portion of the track circuit said track circuits being formed by the train and the track rails and the source ahead of the train, said electro-responsive device being constructed to be operatively energized by current due to the normal drop of potential in said track circuit portion.

2. In combination with a railroad track supplied at intervals with current giving the two rails opposite polarity, of a car or engine having an axle completing the track circuit and having a traffic controlling electro-responsive device receiving its energy in shunt to a length of the track circuit in advance of the first axle completing said circuit and arranged to be operatively energized by the current caused by the normal drop of potential in said length of track.

3. In a traffic controlling system, the combination of the rails of a track, a source of current across the rails, a vehicle having an axle bridging the rails and forming a part of the track circuit, and an electro-responsive traffic controlling device carried by the vehicle and connected in shunt to a part of the track circuit to receive its energy from across the rails, and responsive to current due to the drop of potential in the part of the track circuit to which it is in shunt.

4. In a traffic controlling system, the combination of the rails of a track, a source of current across the rails, a vehicle having an axle bridging the rails and forming a part of the track circuit, a stop device carried by the vehicle, and an electro-responsive device also carried by the vehicle for controlling said stop device and connected in shunt to a part of the track circuit to receive its energy from across the rails at a point in advance of said axle and controlled by current due to the drop of potential in the part of the track circuit to which it is in shunt.

5. In a traffic controlling system, the combination of the rails of a track, a source of current across the rails, a vehicle having an axle bridging the rails and forming a part of the track circuit, a second axle bridging the rails but having its wheels insulated one from the other, a stop device carried by the vehicle, and an electro-responsive device for controlling said stop device connected through the wheels of the insulated axle across the track circuit in shunt to a portion thereof including the first axle, and controlled by current due to the drop of potential in said portion of the track circuit.

[Claims 6 to 12 not printed in the Gazette.]

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1,088,808. COLLAR. CHARLES W. T. DAVIES, New York, N. Y. Filed May 25, 1910. Serial No. 563,429. (Cl. 2—69.)

A collar provided with means for attachment to a shirt at the back and at the front by one fore end only, said fore end having a notch in its lower edge the other fore

end having a portion cut out so as to avoid locking contact with the shank of a front collar stud when fastened in place, and provided with a tab projecting downwardly



from its lower edge constructed, positioned and adapted to be passed up beneath the lower edge of the first named fore end and adapted to engage with the recess cut out of the lower edge of said band end.

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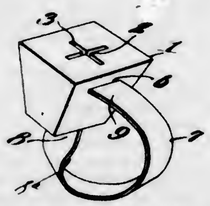
1,088,809. CUFF-LINK AND THE LIKE. CHARLES W. T. DAVIES, New York, N. Y. Filed Feb. 26, 1913. Serial No. 750,808. (Cl. 24—102.)



A cuff link having a connecting member, side wings rigidly connected thereto which are disposed transversely in relation to said connecting member and arranged in converging planes extending in the direction of the length of the connecting member, said wings being provided with slight or low raised parts or ridges extending in converging relation the full length of the wings where they join the connecting member.

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1,088,810. SEAL. JOHN CLAYTON DAVIS, Harbor Beach, Mich. Filed June 10, 1913. Serial No. 772,868. (Cl. 70—99.)



1. In a device of the class described, a body having a longitudinal cruciform opening, one part of which extends through the body, the other part of which terminates short of one end of the body to form a shoulder, the body having a transverse slot intersecting the cruciform opening; a shackle including a primary end having spaced slots, the primary end being mounted in the first specified part of the cruciform opening; and a shoulder-engaging, split ring, located in the other part of the cruciform opening and threaded through the spaced slots, the shackle including a secondary end having an opening receiving the primary end.

2. In a device of the class described, a body having angularly disposed intersecting openings one of which terminates within the body to form a shoulder; a shackle including a primary end disposed in the shoulder forming opening and a secondary end disposed in the other opening, the secondary end extending across the primary end and having means for engaging the primary end; and a novable locking device on the primary end, the secondary end coöperating with the shoulder to define a compartment in which the locking device is housed.

3. In a device of the class described, a body having a cruciform opening and having a transverse slot intersecting the opening; a shackle including a primary end disposed in one arm of the opening; a movable locking device on the primary end and engaged with the body at one end of the other arm of the opening; the shackle including a secondary end mounted in the transverse slot and constituting at once a closure for the cruciform opening and a protection for the locking device; the secondary end having a slot in which the primary end is engaged.

4. In a device of the class described, a body having a longitudinal cruciform opening, one part of which extends through the body, the other part of which terminates short of one end of the body to form a shoulder, the body having a transverse slot intersecting the cruciform opening; a shackle including a primary end having spaced slots, and a secondary end having a slot, the primary end being mounted in the first specified part of the cruciform opening; and a shoulder-engaging split ring located in the other part of the cruciform opening and threaded through the spaced slots; the primary end being bent outside of the body to hold the body and the shackle together for limited relative movement.

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1,088,811. VOTING-MACHINE. JAMES H. DEAN, Chicago, Ill., assignor, by mesne assignments, to Empire Voting Machine Company, a Corporation of New York. Original application filed Oct. 30, 1905, Serial No. 285,045. Divided and this application filed Aug. 11, 1910. Serial No. 576,616. (Cl. 235—54.)



1. In voting machines, the combination with the series of counters, the series of limiting blocks therefor and separators coöperating with said blocks, of connections between the end blocks of the series, one of the intermediate blocks being held against movement.

2. In voting machines, the combination with the office group of registering devices, of a series of limiting blocks and separators coöperating therewith and a connecting link between the end blocks of the series, one of the intermediate blocks being fixed in position.

3. In voting machines, the combination with the office group of voting mechanisms and with the series of limiting blocks and separators therefor, one of the intermediate blocks being fixed in position, of an arm pivoted to one of the end blocks of the series, a bar connecting said arm with the other end block of the series and means for limiting the movement of said arm.

4. In voting machines, the combination with the office groups of counters, limiting blocks and separators therefor, of a set of limiting blocks connected to the groups of blocks by bars, a set of devices for limiting the movement of said bars and means for releasably holding said limiting devices in position.

5. In voting machines, the combination with the office groups of counters and limiting mechanisms for each group, of a set of bars connected to the limiting mechanisms of the several groups, a set of overlapping limiting plate coöperating with said bars and means for removably holding said plates in position.

[Claims 6 to 25 not printed in the Gazette.]

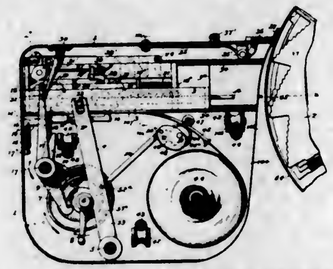
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1,088,812. COMPUTING-MACHINE. ISAAC S. DEMENT, Chicago, Ill. Filed May 21, 1906, Serial No. 318,083. Renewed June 12, 1913. Serial No. 773,348. (Cl. 235—58.)

1. In a computing machine, the combination with a controlling surface having abutting faces thereon; of a carriage bodily movable toward said surface and one or more indicating mechanisms mounted in the carriage and controlled by abutting faces of the surface.



2. In a computing machine, the combination with a controlling surface having abutting faces, of a carriage bodily movable toward said surface and one or more registering mechanisms mounted in the carriage and controlled by faces of said surface and actuated by the movement of the carriage.



3. In a computing machine, the combination with a controlling surface having abutting faces, of a carriage bodily movable toward said surface, indicating mechanism mounted in the carriage, and devices slidably mounted in the carriage to abut against said surface and actuate the indicating mechanism during the movement of the carriage toward the same.

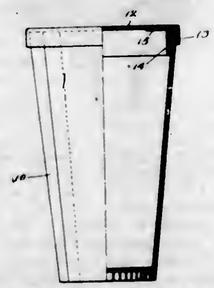
4. In a computing machine, the combination with a controlling surface having stepped abutting faces movable as a unit, of a carriage bodily movable toward said surface, a set of indicating mechanisms mounted in the carriage, and devices slidably mounted in the carriage to actuate said mechanisms when the said devices are caused to abut against stepped faces moved into their path.

5. In a computing machine the combination with a controlling surface of a carriage bodily movable toward said surface, one or more registering and one or more recording mechanisms mounted in the carriage and controlled by the surface, said mechanisms actuated by the movement of the carriage.

[Claims 6 to 60 not printed in the Gazette.]

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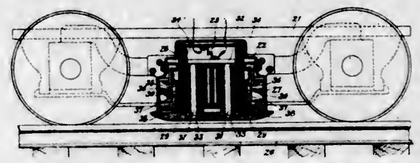
1,088,813. PAPER RECEPTACLE. LUKE W. FARMER, Somerville, Mass. Filed Oct. 9, 1912. Serial No. 724,765. (Cl. 229—12.)



The combination with a paper receptacle having an inclined wall, of a cover to removably coöperate with the free edge of said wall, said cover including a disk corresponding to the maximum diameter of the wall and having spaced annular depending flanges to receive the wall between them, the outer flange having an inner diameter corresponding approximately to the maximum outer diameter of the mouth of the receptacle, the inner flange having an outer diameter slightly less than the inner diameter of such mouth, whereby the inner surface of the outer flange engages the wall on its outer surface, the inner flange engaging the inner surface of said wall at a point remote from its upper edge.

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1,088,814. RAILWAY-VEHICLE MAGNET AND ROADWAY THEREFOR. AUSTEN H. FOX, New York, N. Y. Continuation of application Serial No. 423,139, filed Mar. 25, 1908. This application filed Mar. 6, 1909. Serial No. 481,780. (Cl. 246—26.)



1. The combination of a railway having an armature substantially coextensive therewith, a vehicle on said railway carrying a magnetic detector which coöperates with said armature, said detector responding to magnetic gaps or differentiations in the armature and adapted to restore itself to normal condition by its attraction for the latter when said gap or differentiation is passed, effaced or counteracted, and indicating means on the vehicle controlled by said detector and adapted to respond to the latter's condition of attraction or release.

2. The combination of a railway having a magnetic running rail, non-magnetic sections interposed in said rail at intervals, and a vehicle carrying a self-restoring magnet which coöperates with said rail and is adapted to respond to the magnetic interruptions caused by said non-magnetic sections.

3. The combination of a railway having a magnetic running rail in which are interposed non-magnetic sections, a vehicle, a magnetic detector mounted on said vehicle and movable from a retracted position by its own attraction toward the magnetic part of said running rail, and means on the vehicle for indicating the response of said detector to the magnetic and non-magnetic sections of said rail.

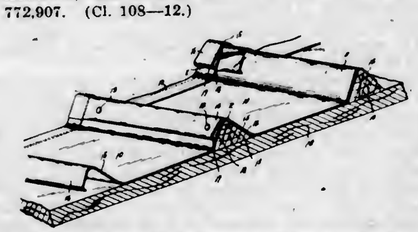
4. In a railway control system, the combination of a railway vehicle unit having a magnet device adapted to be drawn from a retracted position by its own attraction toward a roadway armature, a roadway armature structure magnetically continous between control points, and means for magnetically differentiating sections of said armature structure at will at said points.

5. In a railway control system, the combination of a roadway having an armature rail longitudinally coextensive with said roadway and magnetically interrupted at a control point, a movable magnetic section adapted to magnetically bridge or by-pass the interruption, a vehicle unit having a self-restoring magnet which coöperates with said rail, and means on the unit controlled by said magnet and adapted to respond to the latter's condition of attraction or release.

[Claims 6 to 19 not printed in the Gazette.]

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1,088,815. ROOFING MEMBER. BURTON HERBERT GEDGE, Anderson, Ind. Filed June 10, 1913. Serial No. 772,907. (Cl. 108—12.)



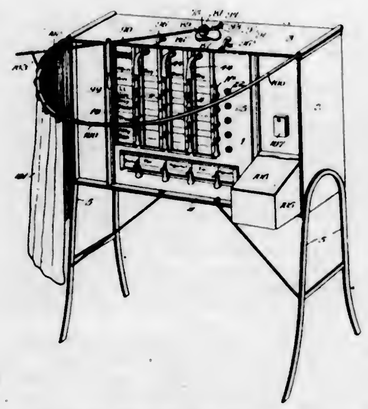
1. A roofing member provided adjacent one edge with a longitudinal rib formed by a portion upwardly inclined from the body of the member and an adjacent downwardly oppositely inclined portion, and at the other edge provided with a rib formed by an upwardly inclined portion and an adjacent downwardly and oppositely inclined portion

which latter portion extends to the edge of the body of the member and there is provided with a lip turned under substantially at right angles substantially as and for the purpose set forth.

2. A roofing, comprising a plurality of members each of which is provided at one edge with a longitudinal rib formed by a portion upwardly inclined from the body of the member and an adjacent downwardly and oppositely inclined portion and is provided at the other edge with a rib formed by an upwardly inclined portion and an adjacent downwardly and oppositely inclined portion which latter portion extends to the edge of the body of the member and is there provided with a lip turned under substantially at right angles to such portion, said second rib of one member extending over and resting directly upon the first named rib of an adjacent member so that the first portion of said second rib rests upon the second portion of the first rib and the second portion of the second rib is spaced by said lip from the first portion of the first rib.

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1,088,816. VOTING-MACHINE. ALFRED J. GILLESPIE, Atlantic, Iowa, assignor, by mesne assignments, to Empire Voting Machine Company, a Corporation of New York. Filed Nov. 18, 1897. Serial No. 658,938. (Cl. 235—54.)



1. In a voting machine, the combination with a plurality of registers secured to a supporting frame in fixed relation to each other, and each embodying a series of wheels and having a reciprocating actuating member carried by said frame, of a support, a plurality of ballot indicators thereon, corresponding with the registers and each having a part for positively engaging with the actuating member of its register when moved to one position, interlocking devices for permitting the operation of a predetermined number of indicators only, means for causing the positive relative movement of the frame and support so as to cause the operation of the registers whose indicators are in engagement therewith.

2. In a voting machine, the combination with a plurality of registers secured to a supporting frame in fixed relation to each other, and each embodying a series of wheels and having a reciprocating actuating member carried by said frame, of a support, a plurality of ballot indicators thereon corresponding with the registers, and each having a part for positively engaging the actuating member of its register when moved to one position, interlocking devices for permitting the operation of a predetermined number of indicators only, means for causing the positive relative movement of the frame and support, and resetting devices for the indicators.

3. In a voting machine, the combination with a plurality of registers mounted in fixed relation to each other, of a plurality of freely movable regular ballot indicators corresponding with the registers normally disconnected from the registers and each adapted to be placed into or out of operative connection with its register, an irregular balloting device embodying a ballot depositing mechanism, interlocking devices between the ballot indicators and the irregular balloting device, whereby the indication of a predetermined number only of regular and irregular ballots is permitted, means for causing the operation of the registers of the ballot indicators actuated, and a resetting device for returning the regular indicators and irregular device to normal position.

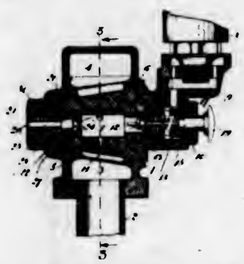
4. In a voting machine, the combination with a plurality of separably movable ballot indicators, a plurality of registers corresponding to the indicators, interlocking devices between the indicators for preventing the operation of more than a predetermined number to operative position, a resetting device for returning the operated indicators to normal position, and operating devices for subsequently and fully registering the ballots indicated, and actuating the resetting device, of an oscillatory barrier or cover for alternately covering and exposing the indicators, and connecting devices between said barrier and the operating devices, by which the latter will be operated when the barrier is moved in one direction only.

5. In a voting machine, the combination with a plurality of registers, a plurality of ballot indicators adapted to be actuated into coöperative position with relation to the registers, mechanism for subsequently and completely operating the registers of the actuated indicators, an indicator resetting device connected to said mechanism, an oscillating lever, and clutch devices between said lever and mechanism for operating the latter in one direction only, of a barrier or cover for the indicators, and connections between the barrier and the operating lever for moving the former over and away from the indicators.

[Claims 6 to 75 not printed in the Gazette.]

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1,088,817. SIGNAL-COCK. BENJAMIN J. GRAHAM, Beverly, Mass., assignor to Charles H. Sherburne, Boston, Mass. Filed Apr. 30, 1913. Serial No. 764,673. (Cl. 116—19.)



1. In a signal cock, the combination of a body having inlet and outlet passages and a valve chamber between said passages, a main valve operable within said valve chamber, a sounding device, said main valve having a cross-passage through it forming a connection between said inlet and outlet passages when said valve is open, said main valve having also a by-passage extending from said inlet passage to said cross passage when said main valve is in a closed position and a further passage extending from said cross-passage to said sounding device, means for controlling the passage to said sounding device from said cross-passage and an indicating device for indicating the pressure within said cross-passage, the same comprising a plunger having an indicating stem, the inner face of said plunger forming a portion of the wall of said cross-passage whereby said plunger may be moved out by pressure within said cross-passage and the stem thereof assume an exposed position, and means for normally holding said plunger in its innermost position whereby it may be moved out only by a determinate pressure within said cross-passage.

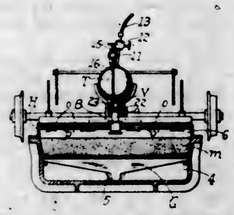


2. In a signal cock, the combination of a body having inlet and outlet passages and a valve chamber between said passages, a main valve operable within said valve chamber, a sounding device, said main valve having a cross-passage through it forming a connection between said inlet and outlet passages when said valve is open, said main valve having also a by-passage extending from said inlet passage to said cross passage when said main valve is in a closed position and a further passage extending from said cross-passage to said sounding device, means for controlling the passage to said sounding device from said cross-passage, a socket-forming member connecting with one end of said main valve, the socket within said member opening at the inner end thereof to said cross-passage, an indicating device for indicating the pressure within said cross-passage, the same comprising a plunger contained within the socket of said socket-forming member and having an indicating stem extending through the outer end of said member, the inner face of said plunger forming a portion of the wall of said cross-passage whereby said plunger may be moved out by pressure within said cross-passage and the stem thereof assume an exposed position, and means located within said socket for normally holding said plunger in its innermost position whereby it may be moved out only by a determinate pressure within said cross-passage.

3. In a signal cock, the combination of a body having inlet and outlet passages and a valve chamber between said passages, a main valve operable within said valve chamber, a sounding device, said main valve having a cross-passage through it forming a connection between said inlet and outlet passages when said valve is open, said main valve having also a by-passage extending from said inlet passage to said cross passage when said main valve is in a closed position and a further passage extending from said cross-passage to said sounding device, means for controlling the passage to said sounding device from said cross-passage, a holding member provided with a head retaining said main valve within said valve chamber, said member connecting with the inner end of said main valve and having a socket formed therein communicating with said cross-passage, an indicating device for indicating pressure within said cross-passage, the same comprising a plunger located within said socket and having an indicating stem extending outwardly through said head, the inner face of said plunger forming a portion of the wall of said cross-passage whereby said plunger may be moved out by pressure within said cross-passage and the stem thereof assume an exposed position beyond the face of said head, and means located within said socket for normally holding said plunger in its innermost position whereby it may be moved out only by a determinate pressure within said cross-passage.

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1,088,818. APPARATUS FOR ROASTING AND SINTERING ORES. JOHN E. GREENAWALT, Denver, Colo. Original application filed Mar. 24, 1913, Serial No. 756,519. Divided and this application filed Sept. 26, 1913. Serial No. 791,976. (Cl. 75—134.)



1. In combination with a treatment vessel containing a charge, and provided with a chamber above the charge, means positioned in the chamber above the charge at a point within the outer boundaries of the surface of the charge, and operating to project inflammable material over said surface toward the boundaries thereof aforesaid.

2. In combination with a treatment vessel containing a charge, and provided with a chamber above the charge, means positioned in the chamber above the charge at a point within the outer boundaries of the surface of the charge, and operating to project inflammable material toward said boundaries, and means for directing the inflammable material so projected, in paths substantially parallel to the surface of the charge.

3. In combination with a treatment vessel containing a charge, a hood adapted to be deposited thereover and forming a chamber above the charge, and means carried by the hood at a point above the charge and within the boundaries of the surface thereof, and operating to project into said chamber inflammable particles in paths substantially parallel to said surface.

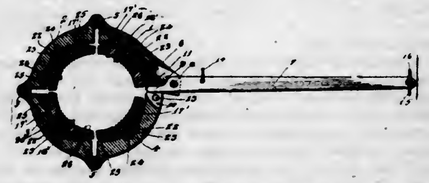
4. In combination with a treatment vessel having a perforated support for the charge, a hood adapted to engage said vessel and form therewith a sealed chamber above the charge when so engaged, an exhauster coupled to the vessel, and means in the chamber positioned above the charge within the outer boundaries of the charge, and operating to project inflammable material into the chamber in paths substantially parallel to the surface of said charge, and direct said material toward the seal aforesaid and toward the aforesaid boundaries of the charge.

5. In combination with a treatment vessel having a perforated support for the charge, a hood adapted to engage said vessel and form therewith a sealed chamber above the charge when so engaged, an exhauster coupled to the vessel, means in the chamber positioned above an intermediate point of the surface of the charge and operating to project radially outward, inflammable particles toward said seal in paths substantially parallel to the surface of the charge, and means for introducing a supporter of combustion through the hood into the sealed chamber.

[Claim 6 not printed in the Gazette.]

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1,088,819. CASING-WRENCH. THOMAS J. GRIFFIN, Los Angeles, Cal. Filed Nov. 9, 1912. Serial No. 730,534. (Cl. 81—67.)



1. A casing wrench comprising an even number of segments pivotally connected and diametrically opposed in pairs to produce in operation a diametrical pressure through the casing engaged, a lever pivoted to one of said segments, the adjoining segment having a slot, the lever having a finger projecting into said slot, the latter segment having a pin adapted to receive the pressure of said finger, and a detachable backing pin in the latter segment, on the opposite side of said finger for receiving the opposite pressure of said finger to loosen the segments.

2. A casing wrench comprising a plurality of segments pivoted together, a lever pivoted to one of said segments, the adjoining segment having a slot, the lever having a finger projecting into said slot, the latter segment having a bearing face adapted to receive the pressure of said finger, a detachable backing pin in the latter segment, on the opposite side of said finger for receiving the opposite pressure of said finger to loosen the segments, a segmental jaw provided with a plurality of teeth arranged circularly, and means for detachably pivotally securing said segmental jaw to the segment.

3. In a casing wrench, a plurality of segments pivoted together, a lever, means connecting the lever with the segments and coöperating therewith for loosening or tightening the segments by the swinging motion of the lever, and a segmental jaw pivoted to each segment at a point intermediate of the end joints of the segment.

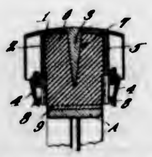
4. In a casing wrench, a plurality of segments pivoted together, a lever, means connecting the lever with the segments and coöperating therewith for loosening or tightening the segments by the swinging motion of the lever, a segmental jaw formed with a convex projection, a segment formed with a concave recess receiving and forming a bearing for the said projection, and a pin pivoting the jaw to the segment, concentric with said projection, said jaw being formed with a clearance between it and the segment.

5. In a casing wrench, a plurality of segments pivoted together, a lever, means connecting the lever with the segments and coöperating therewith for loosening or tightening the segments by the swinging motion of the lever, and a segmental jaw pivoted to each segment, said jaw having a plurality of teeth formed thereon in the center of the jaw, the jaw having smooth frictional gripping faces at each end.

[Claim 6 not printed in the Gazette.]

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1,088,820. TIRE. HARRY J. GRISWOLD, Bayside, Cal. Filed Nov. 23, 1912. Serial No. 733,223. (Cl. 152—3.)



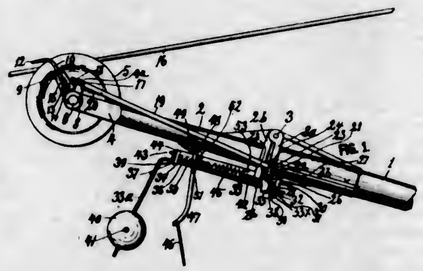
1. A tire including a plurality of similar sections, each comprising a wear plate, a cup upon the inner surface of the plate, a wedge-shaped partition within the cup, a cushioning block straddling the partition and lodged within the cup, said block projecting toward the outer surface of the wheel rim, flexible endless tie devices extending along the sides of the cups, and means upon the cups for engaging said devices to hold the cups against longitudinal movement on the devices, said wear plates overhanging the tie devices.

2. The combination with a wheel rim, of a tire consisting of a plurality of sections each having a wear plate, a cup upon the inner surface of the wear plate, and a cushioning block seated within the cup and extending inwardly toward the rim, tubular portions extending longitudinally upon the sides of the cup and tapered toward the adjacent ends of the cup respectively, endless flexible tie devices extending along the sides of the cup and through said tubular portions, means for tightening the tie devices to bind the tie upon the rim, and tapered securing means fixed upon the tie devices and filling the tubular portions to hold the tie devices against movement in either direction relative to said tubular portions.

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1,088,821. TROLLEY-HEAD. OLE N. IVERSON, Hills, Minn. Filed Feb. 28, 1913. Serial No. 751,306. (Cl. 191—83.)

1. In a device of the kind described, the combination of a trolley pole having a main section and a hinged extension or top section with a fork-shaped upper end, a shaft fixed in the fork and traversing the gap of the same, a trolley wheel rotatably mounted on the shaft, angular levers pivotally mounted one upon each end of the shaft, said angle levers having each a long and a short arm, rearwardly leaning guarding fingers carried one by each of the long arms and extending beyond and inward over the edges of the trolley wheel, a stud on each of the short arms, a side rod having its rear end provided with a slot engaged by the stud, a spring connecting the rod with the arm, the front end of said rod having connection near the lower side of the upper end of the main pole section, and a spring arranged to bend the pole at the joint whenever the trolley wheel is pressed with less than normal force upward against the line wire, and means for limiting said bending.



2. In a device of the kind described, the combination of a trolley pole having a main section and a hinged extension or top section with a fork-shape upper end, a shaft fixed in the fork and traversing the gap of the same, a trolley wheel rotatably mounted on the shaft angular levers pivotally mounted one upon each end of the shaft, said angle levers having each a long and a short arm, rearwardly leaning guarding fingers carried one by each of the long arms and extending beyond and inward over the edges of the trolley wheel, a stud on each of the short arms, a side rod having its rear end provided with a slot engaged by the stud, a spring connecting the rod with the arm, and a spring arranged to bend the pole at the joint whenever the trolley wheel is pressed with less than normal force upward against the line wire, and means for limiting said bending; said hinge composed of two hinge members, each with a downward projection below the pole, the front projection having a slotted rearward arm, a rock-shaft journaled in the ends of said arm and provided with a downward arm, a weight secured on the arm, a horizontally disposed transverse beam fixed on the front end of the rock shaft, links pivoted one at each side of the front hinge member and having their upper ends pivoted to the rods extending from the guard-carrying levers at the sides of the fork; forwardly inclined levers pivoted with their lower ends one at each side of the front hinge member and provided with a catch normally engaging the rear edge of the adjacent link, and links connecting the forward ends of the inclined arms with the ends of the transverse beam; and lugs at the sides of the front hinge member to engage and limit the rearward motion of the side rods and the links pivoted to said rods.

3. In combination, a trolley pole having a lower main section and a top section hinged thereto by a hinge composed of two adjoining members, each member having a downward projection, the front projection having a rearward arm with a longitudinal slot in which the rear projection swings when the joint bends, means on the arm for limiting the motion of the rear projection, a helical contracting spring extending from the rear projection to the rear terminal of the slot, means for regulating the tension of said spring, and a trolley wheel mounted to the upper section of the pole.

4. The combination with a trolley pole and a trolley wheel mounted at the top thereof, said pole composed of a lower main section and a top section hinged thereto by adjoining hinge members the front one of which projects below the pole and forms an arm extending rearwardly and provided with two side pins, a spring tending to bend the joint and throw the free end of the top section upward, a lever pivotally suspended from the top section of the pole between the two pins, said lever having a notch adapted to engage one of the pins when the lever is swung in that direction, a hand cord suspended from the lower end of the lever, and a spring arranged to act on the lever to hold it normally disengaged from the pin.

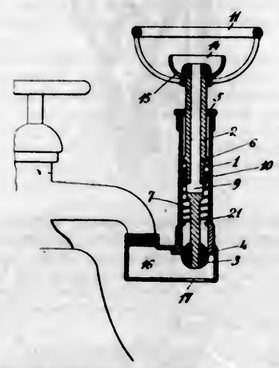
5. In a device of the kind described, the combination with a trolley pole and a trolley wheel mounted on the same, of two independent guards carried by the pole one



at each side of the trolley wheel to prevent the wheel from slipping sidewise from under the line wire, said guards being mounted to tilt upward to a higher position when so desired, a weight suspended from the lower side of the pole and adapted to swing to either side, and operative connection between said weight and said guards to raise alternately either one of them when the weight swings to the one side or the other according as the car carrying the trolley pole may turn to the right or the left on curves of the track.

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1,088,822. VALVE. ANDREW E. KENNEY, North Plainfield, N. J. Filed Mar. 18, 1911. Serial No. 615,316. (Cl. 137—4.)



1. The combination with a faucet, of a conduit in communication therewith having an opening therein forming a normal water outlet for the faucet, a barrel rising from said conduit having a valve seat in its lower end opposite the outlet opening in the conduit, a tube slidingly engaged in the barrel and provided with an opening or openings to permit flow of the water from the inclosing barrel up into the tube, a valve carried by the lower end of the tube, a spring acting on the tube to normally hold the valve carried thereby in engagement with the valve seat, and the valve aforesaid, adapted when the tube is depressed, to engage the outlet opening in the conduit to deflect the water up into the barrel.

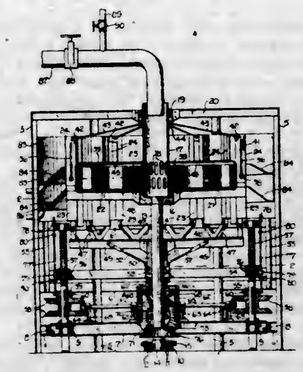
2. An attachment for water faucets and the like comprising a conduit arranged to be secured to a faucet and having an opening therein forming a normal outlet from the faucet, and a push valve carried by the said conduit having a valve part adapted when the push valve is operated to close the outlet opening in the conduit and deflect the water up through the push valve.

3. In a valve of the character set forth, an inclosing barrel provided with a valve seat at its lower end, a tube slidingly engaged in the barrel, passing up through the opposite end of the barrel, a valve carried on the lower end of the tube to engage with the valve seat aforesaid, the tube having an opening therethrough to permit water admitted to the barrel when the valve is opened to flow up through the tube, a sleeve surrounding the tube and adjustable on the tube to cover or uncover the inlet opening therein more or less, an annular shoulder on the interior of the barrel and a corresponding shoulder on the tube, a coiled spring surrounding the tube engaged between the shoulder thereon and the shoulder on the barrel, and a handle on the upper extended end of the tube.

4. The combination with a faucet provided with a downwardly directed discharge mouth, of an upright barrel attached to the faucet, a tubular valve stem slidingly engaged within the barrel and extending up through the same, a valve seat in the lower end of the barrel disposed above and substantially opposite the discharge mouth of the faucet, a valve carried on the lower end of the valve stem, arranged to engage with either the valve seat or the discharge mouth aforesaid, a spring acting on the valve stem to normally force the valve carried thereby into engagement with the valve seat in the end of the barrel, and a handle on the upper extended end of the valve stem for depressing the same to carry the valve away from the valve seat and into engagement with the discharge mouth, to thereby cut off flow through the discharge mouth and direct the water up through the tubular valve stem.

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1,088,823. CENTRIFUGAL FILTERING OR DEWATERING MACHINE FOR ORE-PULP. JESSE C. KING, La Junta, Colo., assignor of one-half to Aaron Wilkins, La Junta, Colo. Filed July 19, 1913. Serial No. 780,045. (Cl. 127—3.)



1. In a centrifugal machine, a plurality of screens mounted for rotation about a common axis, means for moving the screens bodily in a plane parallel with said axis, and additional means for disposing the several screens in planes at right angles to their axes of rotation.

2. In a centrifugal machine, a rotary table, a plurality of filtering screens mounted upon the outer edge of said table and normally stationary with respect thereto, said screens being disposed in parallel relation to the axis of the table, means for elevating the screens above the bed of material upon the table, and additional means for automatically turning the screens as they are elevated and disposing the same in planes at right angles to the rotary axis of the table.

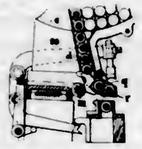
3. In a centrifugal machine, a plurality of filtering screens mounted to rotate about a common axis, means for rotating said screens, means rotatable with the screens to feed the ore impregnated solution to said screens, means for moving the screens in a plane parallel to their axis of rotation, and additional means for angularly disposing the screens with relation to their axis of rotation whereby the slime collected thereon is discharged by centrifugal force.

4. In a centrifugal machine, a plurality of filtering screens mounted to rotate about a common axis, means for rotating said screens, means rotatable with the screens to feed the ore impregnated solution to said screens, means for moving the screens in a plane parallel to their axis of rotation, and means for bodily turning the said screens about individual axes, whereby the slime collected thereon is discharged by centrifugal force.

5. In a centrifugal machine, a plurality of filtering screens mounted to rotate about a common axis, means for rotating said screens, means for feeding the ore impregnated solution to the screens, means for moving said screens in parallel relation to their axis of rotation, and individual means for moving each screen during said latter movement to an angular position with relation to its rotative axis whereby the slime collected thereon is discharged by centrifugal force.

[Claims 6 to 13 not printed in the Gazette.]

1,088,824. SPOOL-CHANGING APPARATUS FOR LOOMS. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Original application filed Aug. 1, 1911, Serial No. 641,836. Divided and this application filed Jan. 14, 1913. Serial No. 742,018. (Cl. 139—85.)



1. The combination with a loom of a spool magazine containing a number of spools each having a loose thread end arranged in its internal space, discharging guideways on the magazine to receive the spools, a shuttle in the loom adjacent to the end of the guideways, means for subjecting the interior space of the lowest spool in the guideways to the action of a jet of compressed air to remove the thread end from the interior of the spool, and means for subsequently inserting the spool into the shuttle.

2. The combination with a loom of a spool magazine containing a number of spools each having a loose thread end arranged in its internal space, discharging guideways on the magazine to receive the spools, a shuttle in the loom adjacent to the guideways, means for subjecting the interior space of the lowest spool in the guideways to the action of a jet of compressed air to remove the thread end from the interior of the spool, and independent means for subsequently inserting the spool into the shuttle.

3. The combination with a loom of a spool magazine containing a number of spools each having its thread end arranged in its internal space, discharging guideways on the magazine to receive the spools, a shuttle on the loom adjacent to the end of the guideways, a compressed air pipe, a nozzle thereon in register with the lowest spool in the guideways, a valve on the said pipe and means for automatically operating the said valve to eject the thread end from the interior of the spool when in the lowest position in the guideways, and means for subsequently inserting the spool in the shuttle immediately the thread end has been driven out.

4. The combination with a loom of a spool magazine containing a number of spools each having its thread end arranged in its internal space, discharging guideways on the magazine to receive the spools a shuttle on the loom adjacent to the end of the guideways, a compressed air pipe, a weft detector controlled shaft, a rocking lever thereon, a member connecting the said lever to the valve adapted to open the said valve and eject the end of the thread by a blast of compressed air and means for subsequently inserting the spool into the shuttle immediately the thread end has been driven out.

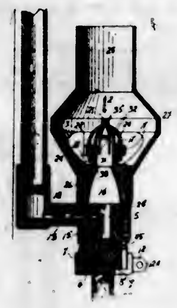
5. The combination with a loom of a spool magazine containing a number of spools each having its thread end arranged in its internal space, discharging guideways on the magazine to receive the spools, a shuttle on the loom adjacent to the end of the guideways, a compressed air pipe, a weft detector controlled shaft, a rocking lever thereon, a member connecting the said lever to the valve adapted to open the said valve and eject the end of the thread by a blast of compressed air, a spool ejector governed by the weft-detector controlled shaft adapted to operate the ejector, to drive the spool out of the guides and insert it in the shuttle immediately after the thread end has been driven out.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,825. GAS-JET REGULATOR. SAMUEL F. KRAUS, Denver, Colo., assignor to The Kraus Light Company, Denver, Colo., a Corporation of Colorado. Filed Sept. 21, 1910. Serial No. 583,131. (Cl. 67—121.)

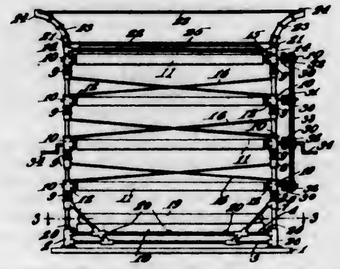
A gas jet regulating device comprising a casing, adapted to receive the supply of gas, a slotted tapering cylindrical tube inserted in the upper extremity of the casing, the slots of the tube forming the upper portion thereof into a number of spring members, the upper extremities of the spring members occupying approximately vertical positions and shaped to form a circular discharge orifice, and a dome-shaped device rotatably mounted on the casing and surrounding the spring members of the said tube, the said



dome-shaped device having a circular orifice at its upper extremity through which the vertical portion of the spring members protrude, the dome-shaped device being adjustable to regulate the circular discharge orifice of the tube, the vertical portions of the spring members being adapted to approach each other as the dome is moved downwardly, for the purpose set forth.

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1,088,826. BODY-CATCHER. CHARLES E. LABADY, Michigan City, Ind., assignor of one-third to Annie Hanson, Michigan City, Ind. Filed Jan. 31, 1913. Serial No. 745,514. (Cl. 227—6.)



1. A body catcher, including a base, a frame mounted thereon, a series of rollers arranged in pairs and mounted within the frame, a plurality of strips of flexible puncturable material, one strip connected to each pair of rollers to be wound upon one roller and off of the other roller, one of said rollers being a supply roller, said strips providing a series of superposed fall retarding means within the frame.

2. A body catcher, including a base, a frame mounted therein, a pair of spring cushioned rollers mounted within the frame, a strip of flexible material wound upon both rollers and stretched between the rollers within the frame, one of said rollers being a receiving roller and the other a supply roller, and means for locking the rollers to hold the strips taut.

3. A body catcher, including a base, a frame mounted therein, a pair of spring cushioned rollers mounted within the frame, a strip of flexible material wound upon both rollers and stretched between the rollers within the frame, one of said rollers being a receiving roller and the other a supply roller, means for locking the rollers to hold the strips taut, and means for rotating the rollers simultaneously to wind the strip upon the receiving roller and to unwind it from the supply roller.

4. A body catcher, including a base, four tubular uprights mounted thereupon, braces connecting said uprights to maintain them relatively to each other, a plurality of flanged collars connected to the uprights, a spring surrounding the upright and engaging the flange of each flanged collar, a sleeve surrounding the standard, one to each spring, said springs resiliently supporting the latter sleeve, each of said latter sleeves being provided with a shaft journaling portion, a plurality of rollers, one roller to each alined pair of sleeves journaled in the sleeves and resiliently supported by the springs, a plurality of strips of flexible puncturable material, one strip connected to each pair of rollers to be wound upon one and off of the other roller, and means for locking the rollers of each pair against accidental rotation and for holding the flexible material taut.

5. A body catcher, having a base, a frame, superposed rollers arranged in pairs within the frame, a strip of canvas carried by each pair and at superposed intervals within the frame, means for rotating said rollers simultaneously to unroll the canvas from one roller and upon the other to suspend a new portion of the canvas between the rollers, and means to lock said rollers against rotation and hold the canvas stretched between the rollers.

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1,088,827. CIGAR-MAKING MACHINE. JOSEPH D. LACROIX, New Orleans, La., assignor to Eugene H. Davis, New York, N. Y. Filed Aug. 16, 1904. Serial No. 220,920. (Cl. 131—45.)



1. In a cigar machine, wrapper applying mechanism, bunch manipulating mechanism comprising rotating rolls and means for operating them, and means for swinging the said manipulating mechanism to directly deliver a bunch to the wrapper applying mechanism.

2. In a cigar machine, wrapper applying mechanism, swinging bunch-forming mechanism comprising rolls and means for operating them, and means for moving the bunch forming mechanism to deliver a bunch to the wrapper applying mechanism.

3. In a cigar machine, the combination of a bunch manipulating mechanism having a swinging movement, and a wrapping mechanism arranged to receive a worked-up bunch directly from the said manipulating mechanism.

4. In a cigar machine, wrapper applying mechanism, bunch-forming mechanism, and means for moving the bunch-forming mechanism to and over the wrapper applying mechanism and for operating said bunch forming mechanism while moving.

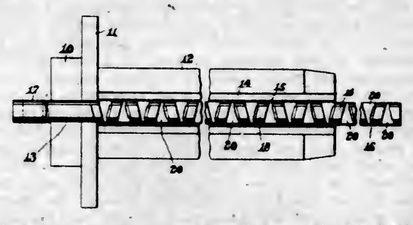
5. In a cigar machine, wrapper applying mechanism, and bunch-forming mechanism having means for overthrowing the same for transferring a bunch bodily into the wrapper applying mechanism.

[Claims 6 to 80 not printed in the Gazette.]

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1,088,828. CUTTER-BAR AND BUSHING THEREFOR. FRANCIS J. LAPOINTE, New London, Conn. Filed June 7, 1913. Serial No. 772,438. (Cl. 90—33.)

1. In a device of the class described, a cutter bar having a body portion rectangular in cross section from one face of which projects a narrower centrally disposed member provided with a plurality of cutting teeth alternately oppositely inclined transversely thereof, said body portion being provided with tapered semicylindrical channels extending to the sides of said body portion and each disposed in front of one of said teeth.



2. In a device of the class described, a cutter bar having a body portion rectangular in cross section from one face of which projects a narrower centrally disposed member provided with a plurality of cutting teeth alternately oppositely inclined transversely thereof with their bases above said face, said body portion being provided with tapered semicylindrical channels extending to the sides of said body portion and each disposed in front of one of said teeth.

3. In a device of the class described, a cutter bar having a body portion rectangular in cross section from one face of which projects a narrower centrally disposed member provided with a plurality of cutting teeth alternately oppositely inclined transversely thereof, said body portion being provided with tapered semicylindrical channels extending alternately in opposite directions.

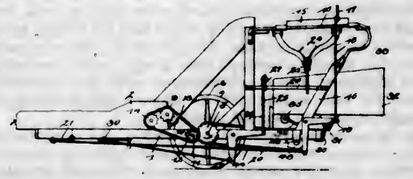
4. In a device of the class described, a guide consisting of a support having a cylindrical shank provided with a radial slot and a peripheral groove on each side of said slot and parallel therewith; and a cutter-bar fitted to and reciprocable in said slot having teeth inclined transversely thereof and a tapered channel in front of each tooth adapted to deliver the chips into said grooves.

5. In a device of the class described, a guide consisting of a support having a cylindrical shank provided with a radial slot and a peripheral groove on each side of said slot and parallel therewith; and a cutter-bar fitted to and reciprocable in said slot having teeth inclined transversely thereof alternately in opposite directions and a tapered channel in front of each tooth adapted to deliver the chips into said grooves.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,829. GRAIN-SHOCKER. CHARLES H. LINDENKUGEL, Wellington, Colo. Filed Aug. 28, 1912. Serial No. 717,635. (Cl. 56—121.)



1. In a device of the class described, the combination with a frame, a dumping member pivotally carried on said frame at the rear end thereof, said member being provided with a central division wall to provide a pair of compartments therein, and means for the operation of said dumping member; of a deck pivotally carried on said frame above said dumping member, the outer free edge of said deck being immediately over one compartment of said dumping member when the deck is disposed to its operative position, means to control the pivotal movement of said deck on the frame, a slidable extension for the deck to project over the other compartment of said dumping member when said extension is operatively disposed, means for the manual operation of said extension, and means to supply material to the deck.

2. In a device of the class described, the combination

with a frame, a dumping member pivotally carried on said frame at the rear end thereof, said dumping member having the sides thereof forwardly converging, a central division member carried on said dumping member to provide a pair of compartments therein, and means for the operation of said dumping member; of a deck pivotally carried on said frame, above the dumping member to project transversely of the frame when disposed to its operative position, the outer free edge of said deck converging rearwardly toward the pivotal edge thereof and designed to project over one compartment of said dumping member when said deck is operatively disposed, a slidable extension for the outer end of said deck, the outer free edge thereof converging forwardly toward the pivotal edge of said deck and arranged to project over the other compartment of said dumping member when said extension is operatively disposed, means to control the pivotal movement of said deck on the frame, and additional means to control the sliding movement of the extension on said deck.

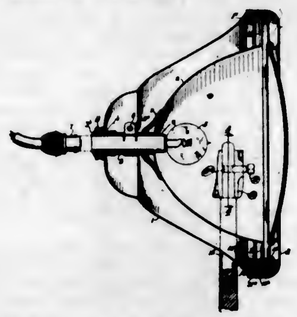
3. In a device of the class described, the combination with a frame, a deck pivotally carried thereon, and means for disposing said deck to its operative and inoperative position; of a dumping member pivotally carried on the frame below said deck and adapted to receive the contents of the latter, spring means to normally dispose said dumping member to its horizontal position, a pivoted locking pawl carried on the frame below the forward end of said dumping member and adapted to engage the forward end of the latter to retain the same in its horizontal position, means to dispose said locking pawl to a position out of engagement with the dumping member and simultaneously dispose the latter to a partially dumped position, and additional means operated by the last referred to means for disposing said dumping member to its full dumped position, said latter means being also adapted to return said dumping member to its initial position.

4. In a device of the class described, the combination with a frame, a dumping receptacle pivotally carried thereon, and means to supply material to said dumping receptacle; of spring means to normally dispose said dumping receptacle to a horizontal position on the frame, a pivoted locking pawl carried on said frame below the forward end of the dumping receptacle and adapted to engage said forward end of the latter to lock the same in its horizontal position, means to dispose said locking pawl to a position out of engagement with the dumping receptacle, a bell crank lever fulcrumed on the frame below said dumping receptacle, one arm of said bell crank lever being provided with a roller at its free end for engagement with the lower face of said dumping receptacle, means connecting the opposite arm of said bell crank lever with the operating means for said locking pawl, whereby to partially dump the receptacle simultaneously upon the disengagement of the locking pawl therewith, and additional means coöperating with the operating means for said locking pawl to dispose said dumping receptacle to its full dumped position.

5. In a device of the class described, the combination with a frame, and a dumping member pivotally mounted thereon; of spring means coöperating with said dumping member to normally dispose the same to a horizontal position on the frame, a pivoted locking pawl carried on said frame below the forward end of the dumping member and adapted for engagement with said forward end of the latter to lock the same in its horizontal position, means for disposing said locking pawl out of engagement with said dumping member, means carried on said frame under the dumping member having coöperation with the latter and with the pawl operating means for simultaneously disposing said dumping member to a partially dumped position upon the disengagement of the pawl therewith, and additional means coöperating with said dumping member and also with the pawl operating means for disposing said dumping member to its full dumped position, said latter means being also adapted to return said dumping member to its initial position.

[Claim 6 not printed in the Gazette.]

1,088,830. LAMP. SALVATORE MAZZEO, Cleveland, Ohio, assignor to The Prsco Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 20, 1913. Serial No. 755,628. (Cl. 240—41.)



1. In an automobile lamp, a lamp casing provided with internally operable bracket arm engaging and releasing members, a door or front and a reflector having internally arranged connections with the latter and detachably mounted within said casing and normally preventing the operation of said members and connections within and secured to the rear of the latter.

2. In an automobile lamp, a lamp casing, a reflector removably mounted therein, a glass supporting front, and means for connecting said front to said reflector, said connecting members being only operable for releasing the same when said reflector is removed from said casing.

3. In an automobile lamp, the combination with a conical shaped lamp casing, and a reflector mounted therein; of a front, connecting means for connecting said front to said reflector, means for detaching said connecting means when said reflector and front are removed from said casing, and means operable from the rear of said casing for connecting said reflector and clamping said front to said casing.

4. An automobile lamp, comprising a casing open at its front and closed at its rear, a reflector within said casing, a glass supporting front detachably connected to said reflector, means for detaching said front from said reflector when the latter is removed from said casing, and means operable from the rear of said casing for detachably connecting said parts in assembled position.

5. In an automobile lamp, a lamp casing open at its front and closed at its rear, a reflector, a glass supporting front, means for connecting the latter to and detaching the same from said reflector when the latter is disengaged from said lamp casing, a connecting member extending between the rear portions of said reflector and lamp casing, and means for detachably connecting said connecting member to one of said members.

[Claims 6 to 10 not printed in the Gazette.]

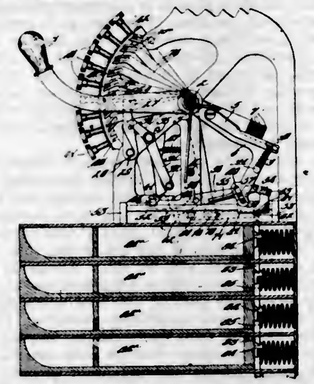
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1,088,831. CASH-REGISTER. WILLIAM M. MCCARTHY, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Oct. 27, 1906. Serial No. 340,907. (Cl. 235—9.)

1. In a cash register, the combination with a plurality of keys and a plurality of cash receptacles, of connecting means from each key for releasing the corresponding receptacle, a special key, a detent mechanism common to all of said keys, an operating mechanism for the register, a lock for said mechanism controlled by said detent, said detent being so constructed as to require an operation of the special key after one of said releasing keys has been depressed.

2. In a cash register, the combination with a plurality of keys, and a corresponding number of cash receptacles, of means normally locking each receptacle, means operated by the keys for releasing the locking means for the corresponding receptacle, an operating mechanism, a lock for said mechanism, a special key for releasing said lock and a detent common to all said keys.





3. In a cash register, the combination with a plurality of initial keys and a special key, of detent means common to said keys, an operating mechanism normally locked, but released by operating said special key which gives a full movement of said detent, the construction of said detent being such that a partial movement thereof sufficient to lock the initial keys occurs when any initial key is operated, a plurality of cash receptacles with separate means for latching each receptacle, and connections from each initial key to unlock one of the receptacles.

4. In a cash register, the combination with a plurality of keys, a corresponding number of cash receptacles, latching means for each receptacle operated by the keys, a special key, a detent common to all of said keys, said detent being so constructed as to require an operation of the special key after one of said operating keys has been operated, an indicator, an operating mechanism, controlled by said detent, a shield for the indicator moved to concealing position when said detent is operated, and means controlled by the operating mechanism for moving the shield to exposing position.

5. In a cash register, the combination with a plurality of initial keys, of a plurality of cash safes each having a movable part, latching means for the movable parts, connections whereby the actuation of a key operates the latching device for one of the movable parts, a special key, detent mechanism so constructed as to require an operation of the special key after one of said initial keys has been operated, an indicator, a shield for said indicator, normally in exposing position and adapted to be moved to concealing position upon an operation of said detent, an operating mechanism controlled by said detent and means controlled by the operating mechanism for moving the shield to exposing position.

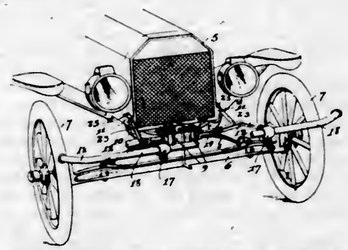
[Claims 6 to 21 not printed in the Gazette.]

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1,088,832. AUTOMOBILE-BUMPER. ALLAN L. MCGREGOR, Chicago, Ill. Filed Oct. 19, 1912. Serial No. 726,669. (Cl. 213—39.)

1. An automobile bumper adapted for application to automobiles having a front body bolster and spring centrally united and both disposed in the vertical plane of the front axle, said bumper comprising a bumper-bar, and carrying-arms therefor formed at their inner ends with clamps adapted to embrace said body bolster and spring on opposite sides of their center, respectively, substantially as described.

2. An automobile bumper adapted for application to automobiles having a front body bolster and spring centrally united and both disposed in the vertical plane of the front axle, and a radiator frame supported on said body bolster, said bumper comprising a bumper-bar, carrying-arms therefor formed at their inner ends with clamps adapted to embrace said body bolster and spring on opposite sides of their center, respectively, and braces connecting said arms to the sides of said radiator frame, substantially as described.

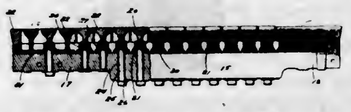


3. An automobile bumper adapted for application to automobiles having a front body bolster and spring centrally united and both disposed in the vertical plane of the front axle, and a radiator frame supported on said body bolster, said bumper comprising a bumper-bar, carrying-arms therefor having inwardly bent inner portions terminating in clamps adapted to embrace said body bolster and spring on opposite sides of their center, respectively, and braces connecting the forwardly extending portions of said arms to the sides of said radiator frame substantially as described.

4. An automobile bumper having, in combination, a bumper-bar, supports for the bar extending rearwardly therefrom and provided, at their rear portions, with inwardly-directed transverse extensions adapted to engage and lie parallel with a transverse frame-member of an automobile, and means for fixing said extensions to said frame-member.

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1,088,833. FURNACE-GRATE. DOUGAL J. MCKENZIE, Chicago, Ill., assignor, by mesne assignments, to Chicago Title and Trust Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 12, 1909. Serial No. 483,009. (Cl. 126—168.)



1. In a device of the class described, a bar having holes therethrough, transverse fuel supporting members mounted thereon, and bolts through the holes engaging the said members, each of said members having a socket to receive a nut to coact with the bolt, said socket being surrounded by a flange.

2. In a device of the class described, a horizontal bar having a series of vertical holes therethrough, a series of transverse fuel supporting members mounted upon the bar over the respective holes, each member having a socket with a lateral opening to receive a nut and also having a hole leading to the socket, the holes in the members registering with the holes in the bar, and bolts in these holes with their heads on the underside of the bar and the nuts in the sockets in the said members.

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1,088,834. GARMENT. WALTER P. MCQUILLEN, deceased, Philadelphia, Pa., by Catherine McQuillen, administratrix, Philadelphia, Pa. Filed Sept. 13, 1912. Serial No. 720,191. (Cl. 2—144.)

1. In combination with an under garment, a reinforcement for the seat and fly portion thereof including duplicate sections superimposed one upon the other in reversed relation and having their upper end portions secured one to the other across their entire width, the op-

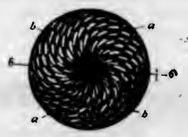
posite end portions of the sections being provided with angular directed sections to form the fly, said sections being reversely directed.



2. A union garment comprising a body portion having an opening extended the entire length of the front thereof, an intermediate belt portion connecting the body portion and the nether portion, said body portion and nether portion being of uniform elasticity while the belt portion is extensible transversely, the belt portion being non-elastic longitudinally, a non-elastic seat secured within the body portion extended from and secured to the intermediate belt portion, and a non-elastic facing secured along the edges of the opening in the body portion, the intermediate belt portion being unobstructed throughout its entire length.

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1,088,835. BUTTON. MAX MELZER, Buchholz, Germany, assignor to Sigmund Basch, New York, N. Y. Filed July 28, 1911. Serial No. 641,058. (Cl. 24—92.)



1. As a new article of manufacture, a button, having the appearance of a crocheted button, comprising a foundation and a covering composed of interwoven thin and thick threads, both sets of threads starting outward from the central portion of the top of the button in a substantially radial direction and curving along the upper side of the button in opposite directions to form intersecting spirals, the spirals of the thick threads being longer than those of the thin threads.

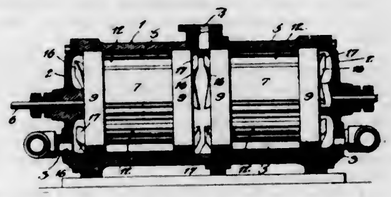
2. As a new article of manufacture a button, having the appearance of a crocheted button, comprising a foundation of soft yielding material having a central opening and a covering composed of interwoven thin and thick threads both sets of threads being concentrated in said central opening, the threads passing out from said central opening in a substantially radial direction and extending over the upper side of the button in spiral curves, the thin threads curving in one direction and the thick threads in another, the spiral of the thick threads being longer than that of the thin threads, the thick and thin threads alternately overlapping to produce a weave such that the visible loops of adjacent thick threads extend in diagonal lines cutting the curves of both sets of threads and invisible threads extending under said loops along said diagonal lines.

3. As a new article of manufacture a button, having the appearance of a crocheted button comprising a soft yielding foundation having a central opening and a covering composed of interwoven thin and thick threads starting radially from said central opening and curving spirally over the upper face of the button the thin threads curving in one direction and the thick threads in an opposite direction, the thin threads being arranged in groups, each group alternately passing over and under the thick threads to form a weave resembling crocheting, the loops of the thick threads being arranged in diagonal rows and single fine threads passing through said diagonal rows under said thick threads and over said groups of thin threads so as to remain invisible for holding said diagonal loops in position on said foundation.

4. As a new article of manufacture a button, having the appearance of a crocheted button comprising a soft yielding foundation having a central opening and a covering composed of interwoven thin and thick threads starting radially from said central opening and curving spirally over the upper face of the button the thin threads curving in one direction and the thick threads in an opposite direction, the thin threads being arranged in groups, each group alternately passing over and under the thick threads to form a weave resembling crocheting, the loops of the thick threads being arranged in diagonal rows, single fine threads passing through said diagonal rows under said thick threads and over said groups of thin threads so as to remain invisible for holding said diagonal loops in position on said foundation and material impregnating said foundation adapted in the presence of water to harden the same and thus retain said threads in their proper relations.

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1,088,836. HORIZONTAL ROTARY ENGINE OR PUMP. JENS NIELSEN, Cedar Falls, Iowa. Filed Dec. 17, 1912. Serial No. 737,346. (Cl. 103—44.)



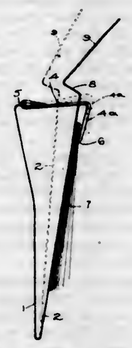
1. A rotary engine or pump comprising casings, a shaft journaled in the casings, rotors mounted upon the shaft, plates located at the ends of the rotors and having ports, vanes mounted upon the plates at the edges of the ports, the vanes at the opposite ends of the rotors being oppositely disposed, the casings having openings located beyond the outer ends of the rotor and having an opening located between the inner ends thereof.

2. A rotary engine or pump comprising casings, a shaft journaled in the casings, rotors mounted upon the shaft, plates carried at the ends of the rotors and having ports, vanes mounted upon the plates at the edges of the ports, the vanes at the opposite ends of the rotors being oppositely disposed and the vanes upon the corresponding ends of the rotors being oppositely disposed with relation to each other, the casings having openings located beyond the outer ends of the rotors and an opening located between the inner ends thereof.

3. A rotary engine or pump comprising a casing having openings at its opposide ends and provided upon its inner side with teeth, a shaft journaled in the casing, a rotor mounted upon the shaft and provided with a peripheral pocket, a piston journaled in the pocket and having teeth which mesh with the teeth in the casing, plates located at the ends of the rotor and having ports located at the ends of the piston, said ports being out of alinement with each other longitudinal of the piston, vanes located at the edges of the ports, the vane at one end of the piston being disposed opposite to the vane at the other end thereof.



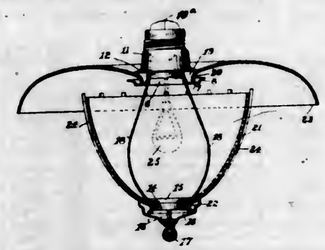
1,088,837. BILL-FILE. CHARLES L. PASSMORE, Clinton, Iowa, assignor to John L. Sommer Mfg. Co., a Corporation of New Jersey. Filed Jan. 9, 1911. Serial No. 601,532. (Cl. 24—66.)



The herein described bill file, comprising a single integral piece of resilient sheet metal bent into V-shape with the two leaves normally spread apart and forming one a base and the other a sloping support perforated near its free end, said free end projecting beyond the perforations and forming a pencil holder, and a U-shaped wire clip having its closed end adapted to lie against the support adjacent the free end thereof and its arms bent loosely through said perforations and pivoted to the free end of the base.

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1,088,838. COMBINED REFLECTOR AND REFRACTOR FOR LAMPS. HARRY PICKHARDT, New York, N. Y., assignor to Phoenix Glass Co., Pittsburgh, Pa., a Corporation of West Virginia. Filed July 10, 1913. Serial No. 778,283. (Cl. 240—93.)



1. In apparatus of the character set forth, the combination with an upper and a lower shade-clamping member, said members being oppositely disposed, of means connecting the said members for holding them in spaced relation, a removable shade-clamping member detachably mounted over the upper clamping member and coacting therewith, and a removable clamping member located below the lower clamping member and coacting therewith.

2. In apparatus of the character set forth, the combination with an upper shade-clamping member and a lower oppositely disposed shade-clamping member, of spaced devices connecting the members for holding them in spaced relation, a removable shade-clamping member having a detachable threaded connection with the upper portion of the upper clamping member, and another removable clamping member having a detachable threaded engagement with the lower portion of the lower member and coacting with said member.

3. In apparatus of the character set forth, the combination with an upper flared shade-clamping plate and a lower flared shade-clamping plate, of spaced rods connecting the plates, a removable shade-clamping plate detachably mounted on the upper portion of the upper plate, and a removable shade-clamping plate detachably mounted on the lower portion of the lower plate.

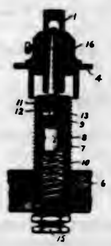
4. In apparatus of the character set forth, the combination with an upper shade-clamping plate having an upstanding tubular extension and a coacting removable shade-clamping plate threaded on said extension, of a lower shade-clamping plate having a depending stem, a coacting plate detachably mounted on the stem, and spaced rods secured to the said upper and lower plates and maintaining the same in predetermined relation.

5. In apparatus of the character set forth, the combination with upper and lower oppositely disposed shade-clamping members, the upper member having an upstanding extension and cap leaves hinged thereto, of spaced connections between the upper and lower members, a removable shade-clamping member detachably mounted on the extension and engaging the leaves to hold the same closed, and another shade-clamping member detachably mounted on the lower portion of the lower shade.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,839. BEARING FOR THE SHAFTS OF MEASURING INSTRUMENTS. WILLIAM H. PRATT and ALEXANDER J. R. FIEGO, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Apr. 22, 1904. Serial No. 204,338. (Cl. 64—25.)



1. A bearing for the shaft of a measuring instrument comprising, a pivot for the lower end of the shaft the lower end of the pivot being enlarged, a bearing post therefor comprising a hollow screw having its upper end contracted to form an opening about the pivot through which the pivot cannot be withdrawn, and a spring sustained member in said screw supporting the pivot.

2. A bearing for the shaft of a measuring instrument comprising, a pivot for the end of the shaft the lower portion being enlarged and carrying a jewel, a bearing post therefor comprising a hollow screw with its upper end contracted to form an opening about the pivot through which the pivot cannot be withdrawn, a spring supported member in said post carrying a jewel, and a ball in operative relation with the two jewels.

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1,088,840. INK. THOMAS M. PRICE, Washington, D. C. Filed Feb. 26, 1912. Serial No. 680,029. (Cl. 134—28.)

1. An ink of the character described, comprising a fat solid at 35 degrees C. or 95 degrees F., a coloring matter, and glycerin.

2. An ink of the character described, consisting of lanolin, glycerin, and a coloring matter.

3. An ink of the character described, comprising lanolin 50%, glycerin 10%, and carbon 40%, the whole being worked together in a plastic mass.

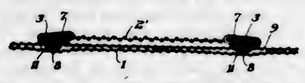
4. An ink of the character described, comprising lanolin, glycerin and carbon.

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1,088,841. COAT-HANGER. SAMUEL C. RUBIN, Philadelphia, Pa. Filed Sept. 26, 1913. Serial No. 791,902. (Cl. 2—53.)

A coat hanger comprising a hanger strap and a pair of fasteners, each comprising a metal rear plate, a front plate

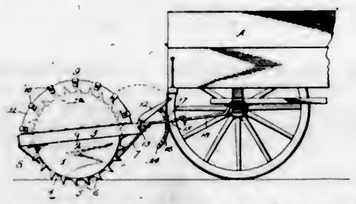
integral with the rear plate and adapted to be pressed against it to grip the hanger strap therebetween, strip retaining devices extending from one plate toward the other,



prongs upon the front plate extending past the rear plate and a bar apertured for the prongs and about which these prongs are adapted to be bent.

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1,088,842. MANURE-SPREADER. CHARLES SHABLEY, Leavenworth, Kans., assignor of one-half to Andrew T. Thompson, Leavenworth, Kans. Filed June 23, 1913. Serial No. 775,177. (Cl. 111—34.)



1. A manure spreader, consisting of a ground roller, means for supplying manure to said roller, peripheral teeth upon said roller to break up the manure and force it into the soil, and means coacting with said teeth to break up the manure.

2. A manure spreader, consisting of a roller, peripheral teeth upon said roller, a frame in which said roller is mounted, an apron at the front end of said frame, and means beneath said apron to direct manure therefrom to the teeth.

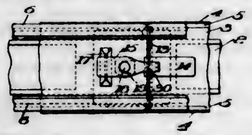
3. A manure spreader, consisting of a roller, peripheral teeth on said roller, a frame in which said roller is mounted, an apron pivotally-mounted upon said frame in advance of the roller, and means for holding said apron in any of its adjusted positions.

4. A manure spreader, consisting of a roller, peripheral teeth upon said roller, a frame in which said roller is mounted, an apron pivotally-mounted upon said frame in advance of the roller, a perforated segmental arm connected to said apron to secure it in any of its adjusted positions, a draft appliance upon the forward portion of the frame having an opening through which said segmental arm extends, and a pin adapted to pass through one of the perforations in said segmental arm and engage the draft appliance.

5. A manure spreader, consisting of a roller, peripheral teeth upon said roller, a frame in which said roller is mounted, means to direct manure to said teeth, a hook at the forward portion of the frame, and a draft-bar adapted to be secured to the rear portion of a vehicle and engage the forward end of said hook.

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1,088,843. VEHICLE WHEEL-RIM. EDWIN C. SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed May 22, 1909. Serial No. 497,625. (Cl. 152—21.)



1. In a vehicle wheel rim in combination, a fixed member, a split detachable member, a latching member movable into position to lock the ends of the split member together or in a separated position, and a screw for holding said latching member in either of said positions.

2. In a vehicle wheel rim in combination, a fixed member, a split detachable rim member carrying tire retaining means, a latch on one end of said split rim member, means on the other end of said split rim member adapted to be engaged by said latch, and a screw passing through a slot in the last named end of said rim member, engaging a threaded opening in the latch.

3. In a vehicle wheel rim in combination, a fixed member, a split detachable rim member, a bracket carried by one end of said split member, a latch pivoted to said bracket to swing in the plane of the wheel, said latch being provided with a transverse groove in its under surface near its outer end, a pyramidal lug formed upon the other end of said split member adapted to be engaged by said latch, and a cap screw engaging with a threaded opening in the latch and acting to secure the latter in engagement with said lug.

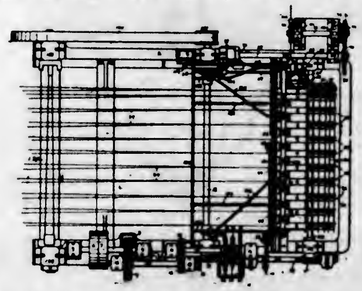
4. In a vehicle wheel rim in combination, a fixed member, and a split detachable rim member having a portion offset from the body thereof without thickening the metal forming an annular shoulder for engagement with the side of the fixed member, and having a substantially cylindrical inner surface extending from said offset to the edge of said member, a portion of said surface adjacent to said offset seating upon said fixed member.

5. In a vehicle wheel rim in combination, a fixed member, a split detachable rim member, said fixed member being provided with an opening for the valve-stem of a tire said opening being enlarged at its outer end into a shallow recess and a short bushing carried by the split detachable member projecting inwardly therefrom and adapted to be inserted endwise into said opening in said fixed member.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,844. FENCE-MACHINE. JAMES W. SNEDEKER, Adrian, Mich., assignor to Page Woven Wire Fence Company, Adrian, Mich., a Corporation of New Jersey. Filed May 12, 1913. Serial No. 766,924. (Cl. 140—4.)



1. In a fence machine, the combination of a frame, a shaft mounted at the front end thereof, a series of wheels mounted thereon to receive the warp strands of the fence, and having teeth along their edges between which to receive picket wires, a drum mounted on said shaft and having a series of radial openings in its face, a triangular anvil in each opening, springs to move said anvils outward, a cam to move the anvils inward, twister heads on the frame, a spindle mounted in each head and having longitudinal perforations to permit the passage of warp wires, means to move the picket wires laterally between the warp wires, means to turn the spindles to twist the warp wires after each movement into position of the picket wires, means to turn said wheels and drum one step at each twisting of the warp wires, and means to fold one end of each picket wire around said anvils so its end may be locked in with the second following wire.



2. In a fence machine, the combination of a frame, a shaft mounted at the front end thereof, a series of toothed wheels on said shaft adapted to receive the warp wires and picket wires of the fence, means to feed the picket wires into the machine, a drum having a series of radially slidable anvils, means to move the picket wires laterally to position on the wheels and drum, means to twist the warp wires alternately in opposite directions between succeeding pickets, means to bend the end of each picket back to lie along the second succeeding picket, and means to turn the drum and wheels the angular distance between succeeding anvils at each twisting of the warp wires.

3. In a fence machine, the combination of a frame, a shaft mounted on one end thereof, a series of toothed wheels on said shaft adapted to receive the warp wires and the picket wires of the fence, means to feed picket wires to the machine and insert them between the warp wires, a drum on said shaft having a series of anvils, means to move the pickets longitudinally of the warp wires, means to bend the end of each picket back around two anvils, means to twist the warp wires to lock the previously positioned picket and the bent end of the second picket in advance, and means to turn the drum during such twisting operation.

4. In a fence machine, the combination of a frame, a shaft mounted at the front end thereof, a series of toothed wheels on said shaft adapted to receive the warp wires and picket wires of the fence, means to feed the picket wires into the machine, a drum having a series of anvils, means to move the picket wires laterally to position on the wheels and drum, a series of spindles each having two longitudinal passages for the warp wires, means to turn the spindles in opposite directions and to twist the warp wires between succeeding pickets, means to bend each picket into a semi-circle so that its end lies along the second succeeding picket, and means to turn the drum and wheels the angular distance between succeeding anvils at each twisting of the warp wires.

5. In a fence machine, the combination of a frame, a shaft mounted thereon, a series of toothed wheels on said shaft adapted to receive the warp wires and the picket wires of the fence, means to feed picket wires to the machine and insert them between the warp wires, a drum on said shaft having a series of anvils, means to move the pickets longitudinally of the warp wires, means to bend each picket back around two anvils so that the end will lie along the second succeeding picket, a series of spindles each having two longitudinal passages for the warp wires, a gear on the rear end of each spindle, a rack meshing with said gears, means to reciprocate said rack to turn the spindles in opposite directions to twist the warp wires to lock the previously positioned picket and the bent end of the second picket in advance, and means to turn the drum one step during such twisting operation.

[Claims 6 to 25 not printed in the Gazette.]

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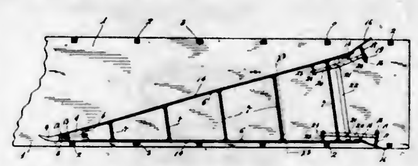
1,088,845. VEHICLE-TIRE. JULIUS STROMEYER, Philadelphia, Pa. Filed June 7, 1913. Serial No. 772,220. (Cl. 152—14.)



A vehicle-tire having a rubber tread formed with magnesite material in a finely sub-divided condition intimately incorporated with rubber in vulcanized condition, said mixture extending from the surface inwardly to provide a frictional tread surface, the composition of which is maintained during the normal wear of the tread.

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1,088,846. SIDE-BALLAST UNLOADING-PLOW. JOHN SUGGITT, Minneapolis, Minn. Filed May 19, 1913. Serial No. 768,531. (Cl. 214—10.)



1. A plow for unloading cars having a laterally curved nose that is shiftable from one position to another with respect to said plow.

2. A plow for unloading cars having a laterally curved reversible nose, said plow and nose having interlapping lugs, and means detachably connecting said lugs.

3. A plow for unloading cars having a laterally curved reversible nose, said plow and nose having perforated interlapping lugs, and a lock pin insertible through the perforations in said lugs.

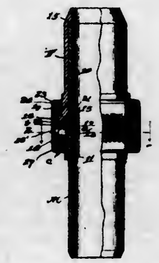
4. A plow for unloading cars comprising a head block, rearwardly diverging scraper blades secured to said head block, a reversible nose, said head block and nose having interlapping lugs, and means detachably connecting said lugs.

5. A plow for unloading cars comprising a head block, rearwardly diverging scraper blades secured to said head block, and a reversible nose detachably secured to said head block.

[Claims 6 to 9 not printed in the Gazette.]

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1,088,847. COUPLING. WILLIAM S. SUTTON, Rockford, Ill., assignor to American Radiator Company, Chicago, Ill., a Corporation of New Jersey. Filed Dec. 11, 1912. Serial No. 736,110. (Cl. 137—28.)

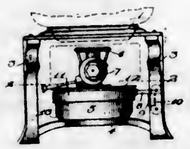


In a coupling, the combination of a female coupling member having a flange at its end provided with a wedging surface, a male coupling member fitting into said female coupling member, an adjusting ring having threaded engagement with said female coupling member flange and having a wedging surface opposed to said coupling member wedging surface, a split clamping ring interposed between said wedging surface and surrounding said male coupling member whereby rotation of said adjusting sleeve to bring said wedging surfaces toward each other will cause radial contraction of said clamping ring and clamping thereby of said male coupling member, and a locking pin extending from the flange of said female coupling member to the gap between the ends of said split clamping ring to prevent rotation of said ring with reference to the female coupling member, the ends of said ring adjacent said gap being tapered to form wedging surfaces for said

locking pin to be engaged by said pin upon primary slight rotation of said ring whereby the engaged ring end is forced radially inwardly against said male coupling member.

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1,088,848. LAMP-BRACKET. ALFRED H. S. SWAN, Rochester, N. Y., assignor to Rochester Stamping Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1911. Serial No. 657,581. (Cl. 126—256.)



1. The combination with a stove top and a supporting leg therefor, of a lamp and a bracket for carrying the same embodying an elbow shaped arm pivoted on the inside of the leg and permitting the lamp to be swung outwardly from beneath the stove top, the intermediate portion of the arm engaging the inside of the leg as a stop when the lamp is swung back to define the position of the latter beneath the stove top.

2. The combination with a support embodying a stove top and a table beneath the same, of a laterally pivoted lamp bracket embodying a lamp supporting ring adapted to swing from beneath the stove top and above the table and a lamp supported in and resting on the bracket ring with its bottom below the level of the table and having vertical movement relatively to the ring permitting it to rest upon the table independently of the support of the bracket ring when the latter is beneath the stove top.

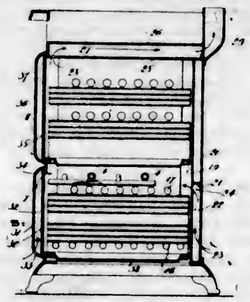
3. The combination with a support embodying a stove top and a table beneath the same, of a lamp supported on the table and a laterally pivoted lamp bracket connected to the lamp to swing from beneath the stove top and to support it when off the table with its bottom below the level of the latter, the lamp being permitted vertical movement relatively to the table and said parts being provided with means for elevating the lamp onto the table when returned comprising a cam surface on one of them engaged by the other.

4. The combination with a stove top having oppositely arranged supporting legs and a table extending between the legs below the top, of a bracket comprising an elbow shaped arm pivoted on the inside of one leg and carrying a supporting ring adapted to assume a position beneath the stove top or to swing laterally to the opposite side of the leg and a lamp carried loosely within the ring to rest on the table in one position of the bracket and to be supported wholly by the latter in its other position, the elbow of the bracket being proportioned to engage the leg by which it is carried to define the position of the lamp on the table and to straddle said leg when the bracket is so swung as to dispose the lamp on the other side of the leg.

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1,088,849. GAS-STOVE. OLE C. SIVERTSEN, Taunton, Mass., assignor to Weir Stove Company, Taunton, Mass., a Corporation of Massachusetts. Filed Sept. 27, 1911. Serial No. 651,532. (Cl. 126—39.)

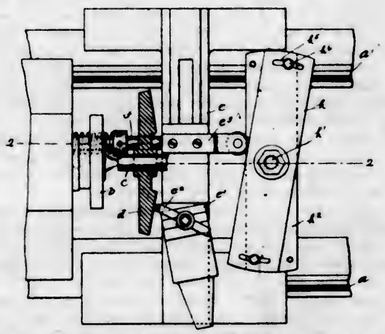
In a stove of the character specified, the combination of an oven chamber having an outlet, a burner chamber and a partition separating said chambers, said chambers being provided with separate spaced walls on either side thereof forming flues open at the bottom to the atmosphere and the inner ones of which walls are provided with openings therein, partitions interposed between said spaced walls dividing said respective flues into upper and lower compartments, the lower one of said compartments connecting with the atmosphere as aforesaid and extending alongside the lower portion of said burner chamber to connect with said burner chamber by a portion of the openings through the inner of said walls, the other and upper of said compartments extending alongside both of said



chambers and connecting, respectively, therewith by other of the openings through said inner walls.

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1,088,850. LATHE. SCOTT FRANK TAYLOR, Hyde Park, Mass. Filed Dec. 27, 1910. Serial No. 599,285. (Cl. 82—17.)



In a lathe, the combination with a lathe-carriage movable longitudinally of the lathe-bed and having a cross-slide thereon bearing a tool-post, a rigid arm projecting from said slide over the lathe-bed, and having an engaging-face at its end, a templet having an abutting-face, means to secure said templet to the lathe-bed with its abutting-face extended convergently with the normal path of said engaging-face, as it is moved outwardly from the lathe-center, and in position to permit the slide to carry its said arm for a portion of its outward movement with its face out of engagement with the abutting-face of the templet and subsequently with its face in engagement with said abutting-face, to cause the carriage to be moved longitudinally of the bed during further outward movement of the slide, substantially as described.

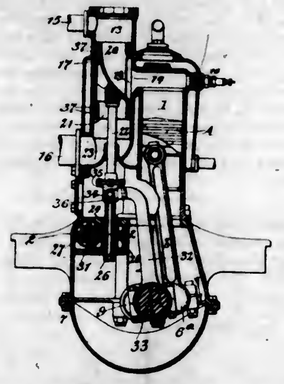
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1,088,851. EXPLOSION-ENGINE. EDWIN L. THOMAS, Buffalo, N. Y. Filed Mar. 7, 1910. Serial No. 547,660. (Cl. 123—190.)

1. An explosion engine comprising a working cylinder, a working piston arranged in said working cylinder, a combined fuel and exhaust valve cylinder having a fuel inlet at one end, an exhaust outlet at its opposite end and a main port between its ends leading to said working cylinder, a tubular valve piston movable lengthwise and rotatable in said valve cylinder and having an inlet passage which opens through that end thereof next to said inlet and has an inlet port at the side of the valve piston and an outlet passage which opens through the other end of the valve piston next to said outlet and has an outlet port at the side of the valve piston circumferentially in



line with the inlet port, said inlet and outlet ports being adapted to communicate successively with said main port during the rotary movement of said valve piston, packing rings arranged in circumferential grooves at opposite ends of the valve piston and engaging with the bore of the valve cylinder, and packing bars arranged in longitudinal grooves in the periphery of the valve piston between said inlet and outlet ports and each provided at its opposite ends with rabbets which receive the inner sides of adjacent packing rings.



2. An explosion engine comprising a working cylinder, a working piston arranged in said working cylinder, a combined fuel and exhaust valve cylinder having a fuel inlet at one end, an exhaust outlet at its opposite end and a main port between its ends leading to said working cylinder, a tubular valve piston movable lengthwise and rotatable in said valve cylinder and having an inlet passage which opens through that end thereof next to said inlet and has an inlet port at the side of the valve piston and an outlet passage which opens through the other end of the valve piston next to said outlet and has an outlet port at the side of the valve piston circumferentially in line with the inlet port, said inlet and outlet ports being adapted to communicate successively with said main port during the rotary movement of said valve piston, packing rings arranged in circumferential grooves at opposite ends of the valve piston and engaging with the bore of the valve cylinder, packing bars arranged in longitudinal grooves in the periphery of the valve piston between said inlet and outlet ports and each provided at its opposite ends with rabbets which receive the inner sides of adjacent packing rings and springs arranged between the inner sides of the longitudinal packing bars and the bottom of the grooves containing said bars.

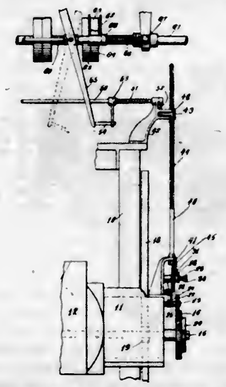
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1,088,852. PLANER-STOP MECHANISM. CHARLES H. USHER, Chicopee Falls, Mass., assignor to Usher Automatic Stop Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Feb. 14, 1913. Serial No. 748,295. (Cl. 90—51.)

1. The combination with a planer, a feed mechanism, a tool feed driving mechanism therefor, means arranged for stopping the planer and means automatically actuated in response to the tool feed driving mechanism after a predetermined movement thereof for operating the stopping means.

2. In combination with a planer, a feed mechanism, a tool feed driving mechanism directly associated therewith and operatively connected thereto, means arranged for stopping the planer, and means automatically actuated by the tool feed driving mechanism after a predetermined movement thereof for operating the stopping means.

3. In combination with a planer, a tool feed driving mechanism therefor, means arranged for stopping the planer when released, an adjustable cam disk operatively connected to said feed driving mechanism, and mechanism arranged to release the stopping means and automatically actuated by said cam disk after a predetermined movement of the feed driving mechanism and the disk whereby the planer is automatically stopped.



4. In combination with a planer, a tool feed driving mechanism therefor, horizontal and vertical feed shafts adapted to be operated by said tool feed driving mechanism, means arranged for stopping the planer when released, an adjustable cam disk operatively connected to said feed driving mechanism, and mechanism arranged to release the stopping means and automatically actuated by said cam disk after a predetermined movement of the feed driving mechanism and the disk, whereby the planer is automatically stopped.

5. In combination with a planer, a tool feed driving mechanism therefor comprising a rack and a gear wheel arranged to be rotated thereby, vertical and horizontal tool feed screws adapted to be operatively connected to said gear wheel, means for stopping the planer when released, an adjustable cam disk operatively connected to said gear wheel, and means dependent upon a predetermined movement of said cam disk for releasing the stopping means.

[Claim 6 not printed in the Gazette.]

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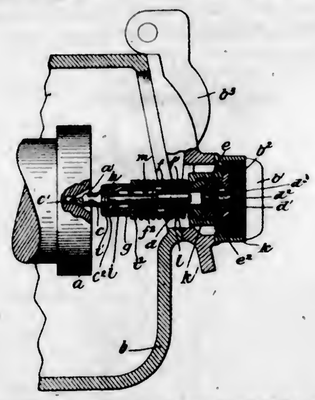
1,088,853. DRIVING CONNECTION FOR ODOMETERS. CURTIS H. VEEDER, Hartford, Conn. Filed Oct. 17, 1913. Serial No. 795,648. (Cl. 235—96.)

1. In combination with a relatively rotatable odometer and axle, a driving connection therebetween comprising a spindle in engagement with the axle, a sleeve in operative engagement with the odometer, said sleeve and spindle being in telescopic relationship and relatively slidable, and means to maintain the spindle in constant yielding engagement with the axle, whereby relative axial movement of the axle and the spindle is prevented.

2. In combination with a relatively rotatable odometer and axle, a driving connection interposed between the axle and the odometer and comprising a spindle, means to hold the same in yielding engagement with the axle, a driving member between the spindle and the odometer and movable axially with respect to the spindle, and a relatively non-rotative casing to inclose said driving member and the greater part of the spindle, said casing permitting free relative movement axially between the spindle and the driving connection.

3. In combination with a relatively rotatable odometer and axle, a driving connection interposed between the axle and the odometer and comprising a spindle, a sleeve in operative engagement with the odometer and adapted to receive the end of the spindle, the sleeve and the spindle being held against relative rotation while being movable axially with respect to each other, a relatively non-rotative

casing to inclose said sleeve and the greater part of the spindle and a spring to hold the spindle in yielding engagement with the axle.



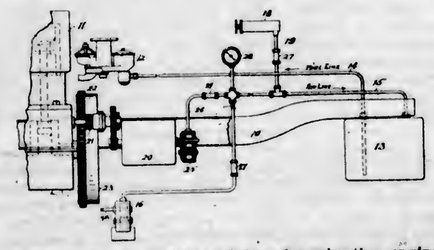
4. In combination with a relatively rotatable odometer and axle and having a countersunk center, a driving connection interposed between the axle and the odometer and comprising a spindle provided with a non-circular portion to engage the countersunk center and insure rotation of the spindle with the axle, a sleeve in operative engagement with the odometer and adapted to receive the free end of the spindle, the sleeve and the spindle being held against relative rotation while being freely movable axially with respect to each other, and a spring to hold the spindle in yielding engagement with the axle.

5. In combination with a relatively rotatable odometer and axle, a support for the odometer spaced from the end of the axle, a yielding driving connection between the odometer and the axle and normally disposed in substantial alinement with the axle and a ball and socket joint between the odometer support and the driving connection to permit free radial movement between the odometer and the axle.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,854. FUEL-FEED SYSTEM FOR ENGINES WITH STARTERS. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 27, 1913. Serial No. 776,109. (Cl. 123—179.)



1. In combination with an internal combustion engine, a fuel supply tank from which fuel is adapted to be forced to the engine by air pressure, an air pump for creating pressure in the tank, and a starter for starting the engine and for actuating the pump.

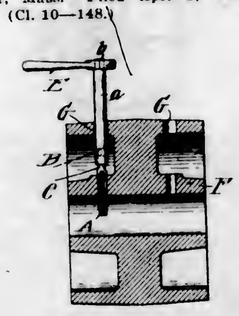
2. In combination with an internal combustion engine, a fuel supply tank from which fuel is caused to pass to the engine by air pressure, a starting motor adapted to be connected to the engine for starting purposes, an air pump connected to the tank and connected to said starting motor so as to be driven thereby.

3. In combination with an internal combustion engine, a fuel supply tank from which fuel is adapted to be caused to pass to the engine by air pressure maintained on the fuel, an engine driven pump connected to the tank for normally maintaining air pressure therein, means for starting the engine, an auxiliary air pump adapted to be operated by said starting means, and likewise connected to the tank so as to supply initial air pressure for starting purposes.

4. In combination with an internal combustion engine, a fuel supply tank connected to the engine and from which fuel is adapted to be caused to flow by air pressure maintained in the tank on the fuel, an engine driven pump connected to the tank for normally maintaining air pressure therein, means for starting the engine including a starting motor, and means for connecting the same to and disconnecting it from the engine so as to start the engine and thence to be idle, and an auxiliary pump connected to the starting motor so as to be driven thereby when the latter is in operation, said auxiliary pump being connected to the tank so as to supply initial air pressure for starting purposes.

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1,088,855. TAP EXTENSION. ANTON WAIZ, Worcester, Mass., assignor of one-half to Elijah L. Greenslit, Worcester, Mass. Filed Apr. 2, 1913. Serial No. 758,350. (Cl. 10—148.)



1. As an article of manufacture, an extension for a machinist's hand tap to enable it to be used as a pulley tap consisting of a substantially cylindrical rod having a non-circular projection at one end for receiving a wrench and a socket at the other end of substantially the same size and shape as said projection and constituting the sole means for receiving the end of a tap having substantially the same external diameter as that of the extension.

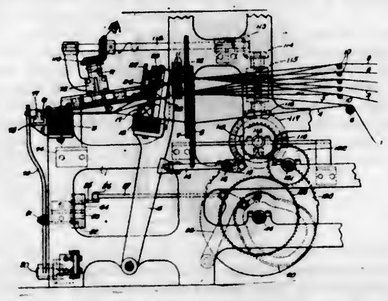
2. As an article of manufacture, a tap extension consisting of a substantially cylindrical rod having a non-circular projection at one end for receiving a wrench and a socket at the other end of substantially the same size and shape as said projection for receiving the end of a tap, and having a cylindrical socket constituting an integral part of the last named end beyond the non-circular socket for receiving and rigidly holding the cylindrical part of the tap.

3. The combination with a tap of a tap extension consisting of a substantially cylindrical rod in a single piece having substantially the same outside diameter as the threads of said tap and having a non-circular projection at one end and a socket at the other end of substantially the same size and shape as said projection and in axial alinement therewith, said socket constituting the sole means for receiving and holding the end of the tap.

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1,088,856. PILE-WIRE LOOM. THOMAS P. WALSH, Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Filed Mar. 11, 1911. Serial No. 613,892. (Cl. 139—62.)

1. In a pile-loom, means for inserting a pile-wire, containing mechanism for bending the pile-wire, so as to occupy less space than would be required if the wire is handled straight, said bending means having a wire-receiving portion in position forward of the fell and a wire-delivering portion in position at the same time back of the fell in line with the shed.



2. In a pile-loom, means for inserting a pile-wire, including a rotary member for feeding the wire forward to the loom, mounted to rotate in an unvarying position approximately in the plane of the shed.

3. In a pile-loom, means for removing a pile-wire from the pile fabric, including a rotary member for withdrawing the pile-wire mounted to rotate substantially in the plane of the fabric and forward of the fell.

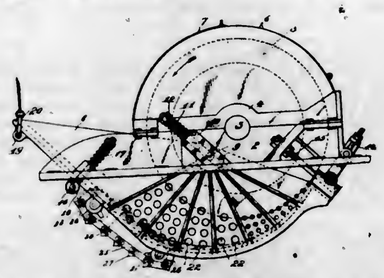
4. In a pile-loom, means for handling a pile-wire, comprising transferring mechanism for taking the pile-wire from the fabric already woven, and replacing it in the fabric being woven, and containing means for deflecting the wire by a unidirectional movement of the wire in a direction from one of said points to the other in the course of this movement.

5. In a pile loom, means for handling a pile wire, comprising transferring mechanism for taking the pile wire from the fabric already woven and replacing it in the fabric being woven, and containing means for bending the wire in a U-shape from one of said points to the other in the course of this movement.

[Claims 6 to 49 not printed in the Gazette.]

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1,088,857. PULP-GRINDER. JULIUS WM. WALTERS, Glens Falls, N. Y. Filed Nov. 25, 1910. Serial No. 594,205. (Cl. 83—75.)



1. In a wood pulp grinder and in combination, a rotary grinding stone, a wood-receiving trough or pocket having an eccentric cavity in which said stone runs, inclined fulcrum pins on which said trough is hung, yielding mountings for said pins, an adjustable resistance bar against which said trough bears at one end, and a yielding supporting bar having anti-friction devices for the other end of said trough.

2. In a wood pulp grinder and in combination, supporting side frames, a rotary grinding stone journaled therein, fulcrum housings on said side frames, fulcrum pins yieldingly mounted in said housings, a wood-receiving trough or pocket having pulp escape openings suspended from said fulcrum pins, a resistance bar having pulp-escape notches against which said trough bears at one end, and a yielding roller-carrying bar to support the other end of said trough.

3. In a wood pulp grinder, the combination with a frame, a revoluble grinding member journaled thereupon, a pocket yieldingly mounted in bearings adjacent to said grinding member and adapted to hold a supply of stock thereagainst, said pocket being pivotally displaceable in a plane coinciding with the plane of its bearings, means for limiting the body movement of said pocket, a spring mechanism for retarding said pocket, the pocket being adapted to be pressed toward said revoluble grinding member in a direction lateral to the general path of travel of said stock.

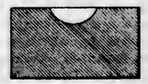
4. In a wood pulp grinder, the combination of a frame, a revoluble grinding member journaled thereupon, a pocket mounted in bearings adjacent to said grinding member and adapted to hold a supply of stock thereagainst, said pocket having a yielding movement in the direction of said bearings, means for retracting said pocket after such movement, a resistance bar for limiting the travel of said pocket as thus retracted, said resistance bar slidably engaging said pocket and means for adjusting the position of said resistance bar relatively to the path of movement of said pocket.

5. In a wood pulp grinder, the combination with a frame, a revoluble grinding member journaled thereupon, a pocket yieldingly mounted in bearings adjacent to said grinding member and adapted to press a supply of stock thereagainst, said pocket being pivotally displaceable in the plane of its bearings by excessive pressure of the stock, a resistance bar for limiting the movement of said pocket, and means controllable at will for adjusting the position of said bar relatively to the proximate path of travel of said stock.

[Claims 6 to 12 not printed in the Gazette.]

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1,088,858. HARD BODY FOR WEARING-SURFACES AND THE LIKE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 27, 1909. Serial No. 524,940. (Cl. 64—25.)



1. A meter jewel composed of a hard, dense fusion consisting mainly of boron.

2. A meter jewel formed of a fused body of boron and carbon.

3. A pivot-bearing composed of a hard, dense fusion, consisting mainly of boron.

4. A pivot-bearing formed of a fused body of boron and carbon.

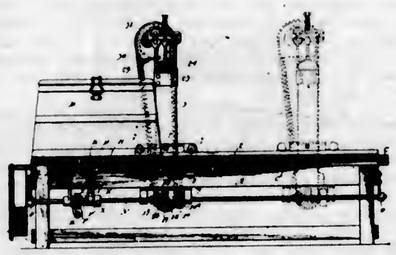
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1,088,859. MECHANICAL MOVEMENT FOR WASHING-MACHINE WRINGERS. SAMUEL T. WHITE, Davenport, Iowa. Original application filed Mar. 10, 1913, Serial No. 753,327. Divided and this application filed June 16, 1913. Serial No. 773,845. (Cl. 74—58.)

1. A mechanical movement for wringers comprising a suitable elongated support, a master-shaft having fixed bearings and extending longitudinally under said support, a traveling frame adjustable longitudinally on said support, a driving gear mounted on said shaft and movable with said frame, an idle-gear journaled on said frame and engaged by said driving gear, a transverse shaft journaled in bearings supported by said traveling frame adapted to be actuated through the medium of said idle-gear, and sprocket wheels and a chain connected to said idle-gear.

2. A mechanical movement for wringers comprising a suitable elongated support, a master-shaft having fixed

bearings and extending longitudinally under said support, a traveling frame adjustable longitudinally on said support, a driving gear mounted on said shaft, a combined spur and beveled gear in mesh therewith, a longitudinally movable shaft upon which said combination gear is mounted, a beveled gear thereon facing the beveled teeth of the combination gear, a shaft, a pinion on one end thereof adapted to be engaged by either of said beveled gears, a driven-shaft, and means adapted to transmit the motion of said transverse shaft to said driven-shaft.



3. A mechanical movement for wringers comprising a suitable elongated support, a master-shaft having fixed bearings extending longitudinally below said support and made square in cross-section between its bearings, a driving frame longitudinally adjustable upon said support, a longitudinally movable shaft parallel to and deriving motion from said master-shaft, a pair of beveled gears on said longitudinally movable shaft, a lever fulcrumed mediate its ends one end of which is adapted to engage and move said last-mentioned shaft longitudinally, a vertical rock-shaft adapted to move said lever, a transverse shaft one end of which terminates adjacent the longitudinally movable shaft, a pinion carried on the adjacent end of said transverse shaft and adapted to engage one of said beveled gears, a horizontally disposed driven shaft, and means for transmitting the motion of said transverse shaft to said driven shaft.

4. A mechanical movement for wringers comprising a suitable support, a longitudinally disposed master-shaft having fixed bearings in said support, a traveling frame movable longitudinally on said support and comprising two upright standards, a cross-plate connecting the upper ends thereof, truck-frames to which said standards are secured, a driven shaft mounted on said traveling frame, and actuating means for said driven shaft carried by said frame and deriving motion from said master-shaft.

5. A mechanical movement for wringers comprising a suitable support, a longitudinally disposed master-shaft having fixed bearings in said support, a traveling frame movable longitudinally on said support and comprising two upright standards, a cross-plate connecting the upper ends thereof, truck-frames to which said standards are secured, a driven shaft mounted on said traveling frame, a transmission shaft carried by said frame and arranged at an angle to said master-shaft, means transmitting the motion of said master-shaft to said transmission-shaft, and separate actuating means connecting said transmission-sbaft and driven shaft.

[Claims 6 to 13 not printed in the Gazette.]

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1,088,860. COMBINED ELASTIC AND PNEUMATIC TIRE. FREDERICK H. WILBUR, Lestershire, N. Y. Filed Mar. 27, 1912. Serial No. 686,524. (Cl. 152—33.)

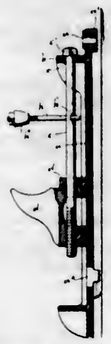
In combination with the rim of a vehicle having inwardly extending flanges, a pneumatic tire having an envelop split circumferentially through one side, a pair of circumferential gripping flanges upon the inner side and upon the outer side, respectively, of said envelop, the flanges upon the inner side of the envelop engaging the flanges upon the rim, separate circular clamping rings having inner and outer edge flanges and a central offset portion, the inner edge flange of each ring engaging the gripping flanges, respectively, upon the outer side of the envelop, a circumferential depressed portion formed in the outer side of said envelop, a non-puncturable band seated upon the offset portion of said clamping rings and having



a central depressed portion seated in the depressed portion of the envelop, a tread having flanges engaged by the respective flanges upon the outer side of the rings and means for holding said rings in operative position.

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1,088,861. BRACKET TO SUPPORT RADIATORS. WILTSIE F. WOLFE, Atlantic City, N. J., and CHARLES R. FOWLER, NELSON C. SCHROEDER, and ALFRED S. MAPPETT, Philadelphia, Pa., assignors to Fowler & Wolfe Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 9, 1913. Serial No. 759,865. (Cl. 248—30.)



1. A bracket for supporting a radiator section against a wall and in a position parallel thereto, consisting of a piece rigidly secured to the wall or other surface, and a swinging bracket-piece having a swinging connection with the wall piece and provided with means for supporting the radiator section, whereby the radiator section may move laterally across and parallel to the surface of the wall with the movement of the bracket piece under expansion and contraction.

2. A bracket for supporting a radiator consisting of a plate adapted to be fixed to a wall or other surface, a rod suspended at its upper end by said plate with provision for lateral movement over the surface of said plate and the wall by which it is supported, said rod being provided with a support upon which a sectional radiator may be supported or may rest and be secured in a position parallel to the surface of the wall with capacity for lateral movement with the bracket-piece.

3. A bracket for supporting a radiator consisting of a plate adapted to be affixed to the wall or other surface, a rod suspended at its upper end by said plate with provision for lateral movement, and a bracket-piece carried by said rod with provision for vertical adjustment thereon, upon which the radiator is adapted to rest.



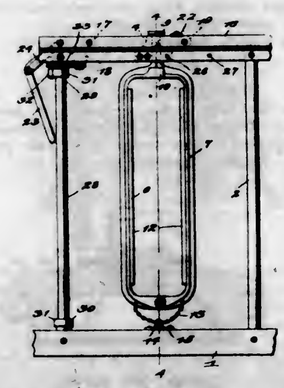
4. A bracket for supporting a radiator consisting of a plate adapted to be affixed to the wall or other surface, a rod suspended at its upper end from said plate with provision for lateral movement and threaded at its lower end, a threaded block carried by the threaded portion of said rod and adjustable thereon by the rotation of the rod, and a bracket-piece upon which the radiator is adapted to rest carried by said adjustable block.

5. A bracket for supporting a radiator section against a wall and in a position parallel thereto, consisting of a piece rigidly secured to the wall or other surface, and a swinging bracket-piece having a swinging connection with the wall piece at the upper end and provided at the bottom with means for supporting the radiator section, whereby the radiator section may move laterally across and parallel to the surface of the wall with the movement of the bracket-piece under expansion and contraction.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,862. STANCHION. FRANK O. WOOD, Brownsville, Wis., assignor of one-half to Lester Nathaniel Phelps, Fond du Lac, Wis. Filed Sept. 22, 1913. Serial No. 791,149. (Cl. 119—148.)

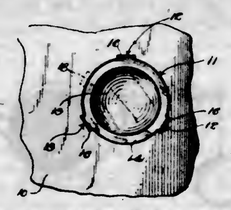


1. A stanchion comprising a base, standards secured thereto, yoke supporting bars secured to said standards, a block secured to said bars and having a bearing, a yoke comprising a stationary member having at its upper end a stud pivotally mounted in said bearing, an opening member hinged to said stationary member and having at its upper end a stud projecting between said supporting bars, a yoke operating member having a sliding engagement with said supporting bars, a block pivotally mounted in said yoke-operating member and having a lug adapted to pass between said supporting bars, the face of the lug being provided with an upright groove adapted to engage the stud on the upper end of said hinged member when the lug is lowered or to disengage said stud when the block is raised, and means to limit the outward movement of said hinged yoke member and to fasten the latter in a closed position.

2. A stanchion comprising a base, standards rising therefrom, yoke supporting bars secured to said standards, a block secured between said bars, a yoke comprising a stationary member having a loose pivotal connection with said block, an opening member hinged at its lower end to said stationary member and having at its upper end a stud projecting between said bars, a yoke operating mechanism comprising a pair of bars slidably mounted on said yoke supporting bars and means for moving them, a block pivoted between said yoke operating bars and adapted when in an operative position to engage said stud, and a plate secured across the top of said block and projecting beyond its sides to rest upon the yoke operating bars when the block stands in this position.



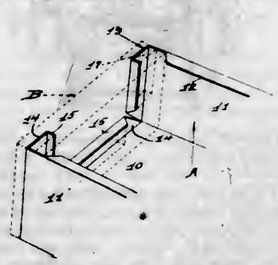
1,088,863. GLASS LENS. JOSEPH ALBERT YOUNG and GEORGE YOUNG, Jr., Bellevue, Iowa. Filed Sept. 15, 1913. Serial No. 789,868. (Cl. 240—111.)



In a sign of the class described, a casing provided with an opening, said casing provided with a plurality of notches adjacent said opening, a lens carried by said casing, said lens provided upon its rear portion with an annular rib, a plurality of lugs formed upon said rib, said lugs each provided with a curved side, a shoulder formed upon said lens at a spaced distance from the inner ends of said lugs, said lugs adapted to be positioned within said notches, and said lens adapted to rotate whereby said casing will ride upon said curved sides of said lugs for positioning said casing between said lugs and said shoulder for holding said lens in engagement with said casing, said annular rib provided with an integrally formed squared locking lug, said locking lug positioned between said first mentioned lugs, said locking lug adapted to fit in one of said notches for holding said lens against rotation, whereby said lens will be held securely in engagement with said casing.

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1,088,864. DRAWER FOR FILING-CASES AND SIMILAR STRUCTURES. HENRY O. AMUNDSON, Alexandria, Minn. Filed May 9, 1912. Serial No. 696,149. (Cl. 45—7.)



1. In a drawer of the class described, the combination of a body forming a bottom and sides, an angular lug on each edge of said bottom and on each lateral edge of said sides, each lug consisting of an inward projection having a flange thereon, ends for said body provided with grooves to receive said angular lugs and filling blocks for said grooves inclosed therein by said lugs, said filling blocks being secured to the ends and adapted to abut against said flanges to retain said lugs in said ends and thereby unite said body and ends.

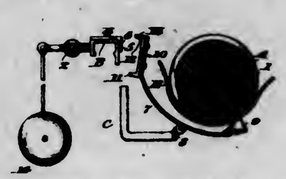
2. As a new article of manufacture, a drawer comprising heads formed with grooves in the edges thereof, a body having flanged projections at its ends arranged to rest in said grooves and filling blocks for the grooves, said blocks being secured to the ends and adapted to abut against the flanges to retain said projections within the grooves to unite said body and heads, the edges of said blocks being incased by said body at the bottom and sides thereof.

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1,088,865. TYPE-WRITER ATTACHMENT. OSCAR BANCROFT, Washington, D. C. Filed Apr. 17, 1913. Serial No. 761,791. (Cl. 197—189.)

1. The combination with a carriage-frame and platen having an annular groove therein, of an oscillating bar having a stop thereon, an arm pivotally mounted upon the

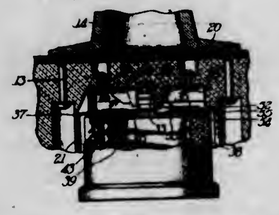
carriage-frame, a projection on the arm adapted to enter the annular groove of the platen, and a trip on the arm adapted to be brought into engagement with the stop on the oscillating bar for actuating the bar upon the entrance of the projection in the groove.



2. The combination with a carriage, platen and a movable bar, said platen having the paper to be operated upon traveling thereover, an alarm adapted to be operated upon the movement of the bar, of an arm pivotally mounted upon the carriage in engagement with the paper, a stop on the bar, and a trip upon the arm adapted to engage the stop as the arm is released by the paper passing out of engagement therewith for actuating the bar to give an alarm.

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1,088,866. LAMP-SUPPORTING DEVICE. REUBEN B. BENJAMIN, Chicago, Ill., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y., a Corporation of New York. Filed Apr. 7, 1911. Serial No. 619,546. (Cl. 173—342.)



1. A separable lamp socket comprising a body, a center-lamp-terminal-engaging contact carried thereby, a second contact carried by said body, a lamp receiver detachably connected with said body and including an outer-lamp-terminal-engaging contact having a portion making engaging connection with said second-named contact when the lamp receiver is connected with the body, and manually releasable means, actuatable from the outside of said lamp receiver, for connecting said lamp receiver with said body.

2. A separable lamp socket comprising a body; a center-lamp-terminal-engaging contact carried thereby; a second contact carried by said body, a lamp receiver adapted to be detachably connected with said body and including an outer-lamp-terminal-engaging contact adapted to make connection with said second-named contact when the lamp receiver is connected with the body; and means for connecting the lamp receiver with the body, said connecting means being detachable without removing the lamp from said receiver.

3. A separable high-tension series socket comprising a body, including a support, a center-lamp-terminal-engaging contact carried by said support, and a second contact carried by said support; a lamp receiver including an outer-lamp-terminal-engaging contact adapted to make connection with the second-named contact of said body when the lamp receiver is connected to the body, and dielectric receiving contacts insulated from each other and adapted to make connection, one with said center-lamp-terminal-engaging contact, and the other with said outer-lamp-terminal-engaging contact, when said body and said lamp receiver are connected together.

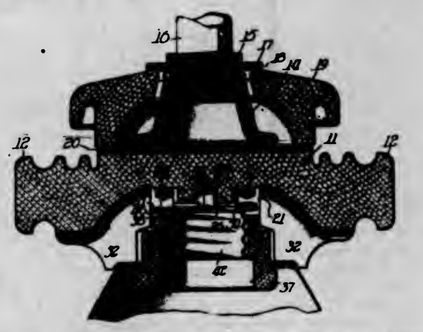
4. A separable high-tension series socket comprising a body, including a support, a center-lamp-terminal-engaging contact carried by said support, a second contact carried by said support, and means for causing said center-lamp-terminal-engaging contact to make connection with said second-named contact when the lamp receiver is disconnected from said body; a lamp receiver including an outer-lamp-terminal-engaging contact adapted to make connection with the second-named contact of said body when the lamp receiver is connected to the body, and dielectric receiving contacts insulated from each other and adapted to make connection, one with said center-lamp-terminal-engaging contact, and the other with said outer-lamp-terminal-engaging contact, when said body and said lamp receiver are connected together.

5. A separable high-tension series socket comprising a body, including a support, a center-lamp-terminal-engaging contact carried by said support, a second contact carried by said support, and means for causing said center-lamp-terminal-engaging contact to make connection with said second-named contact when a lamp is not present in the lamp receiver; a lamp receiver including an outer lamp-terminal-engaging contact adapted to make connection with the second-named contact of said body when the lamp receiver is connected to the body, and dielectric receiving contacts insulated from each other and adapted to make connection, one with said center-lamp-terminal-engaging contact, and the other with said outer-lamp-terminal-engaging contact, when said body and said lamp receiver are connected together.

[Claims 6 to 22 not printed in the Gazette.]

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1,088,867. ELECTRIC-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y., a Corporation of New York. Filed July 18, 1910, Serial No. 572,503. Renewed Sept. 18, 1913. Serial No. 790,565. (Cl. 173—342.)



1. An electrical device comprising a member formed with a bayonet slot, a second-member provided with a bayonet projection adapted to enter said slot upon one of the members being turned relatively to the other, whereby a bayonet connection is established, an abutment adapted to be moved into the path of said bayonet projection to prevent withdrawal of the latter from the bayonet slot, and means, actuated on a further turning movement of one of the members relatively to the other, for effecting the movement of said abutment.

2. An electrical device comprising a member provided with a bayonet projection, a second member including two portions movable rotarily with respect to each other, said second-named member having a bayonet slot, an abutment carried by one of said members and movable into and out of closing position with respect to said slot, and means, associated with the other portion, for operating said abutment when one of said portions is rotated with respect to the other.

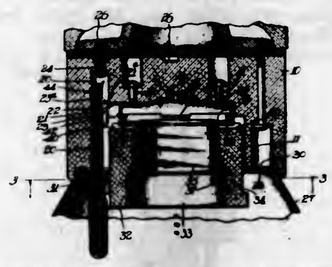
3. An electric lamp socket comprising a base carrying a center contact and a connector having a bayonet projection and a lamp receiver including an insulating member, a threaded contact member rotarily mounted on said insulating member and forming a bayonet slot between itself and said insulating member, an abutment carried by one of said members and movable into and out of closing position with respect to said slot, and means, associated with the other member, for operating said abutment when one of said portions is rotated with respect to the other.

4. An electric lamp socket comprising a base carrying a center contact and a connector having a bayonet projection, and a lamp receiver including an insulating member, a threaded contact member rotarily mounted on said insulating member and forming a bayonet slot between itself and said insulating member, a resilient abutment carried by one of said members and normally located without said slot, the other member being provided with a cam portion for engaging said resilient abutment and moving it into said slot when one of said members is rotated with respect to the other.



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1,088,868. LAMP-SUPPORTING DEVICE. REUBEN B. BENJAMIN, Chicago, Ill., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y., a Corporation of New York. Filed Apr. 22, 1911, Serial No. 622,658. Renewed Dec. 10, 1913. Serial No. 805,865. (Cl. 173—344.)



1. In combination, a lamp supporting device having an opening at its lower part for the reception of a lamp base, lamp-terminal-engaging contacts supported by said device, plug-terminal-engaging contacts connected with said lamp-terminal-engaging contacts, said plug-terminal-engaging contacts being supported by said device, and being disposed therein so as to be accessible through the lower part thereof, and a dielectric supporting plug adapted to be inserted into said device, substantially parallel with the lamp and beside the same, to make electrical connection with said plug-terminal-engaging contacts.

2. In combination, a lamp supporting device having an opening at its lower part for the reception of a lamp base, lamp-terminal-engaging contacts supported by said device, plug-terminal-engaging contacts connected with said lamp-terminal-engaging contacts, said plug-terminal-engaging contacts being supported by said device, and being disposed so as to be accessible through the lower part thereof, a shade carried by said supporting device, and a dielectric supporting plug adapted to be inserted into said device, between the lamp and said shade, so as to make electrical connection with said plug-terminal-engaging contacts.

3. In combination, an insulating body having an opening in the lower part thereof, a lamp receiver adapted to be inserted in the opening of said insulating body, plug-terminal-engaging contacts carried by said insulating body and disposed so as to be accessible through the said opening thereof, and a dielectric supporting plug adapted to be inverted between said body and said lamp receiver, parallel with said lamp receiver, to make connection with said plug-terminal-engaging contacts.

4. In combination, an insulating base having an opening in the lower part thereof, a center-lamp-terminal-engaging contact carried by said base, a second contact carried by said base, plug-terminal-engaging contacts carried by said base and electrically connected with said center-lamp-terminal-engaging contact and said second-named contact, said plug-terminal-engaging contacts being disposed so as to be accessible through the said opening of said base, an insulating member provided with an outer-lamp-terminal-engaging contact, means for connecting said insulating member with said base with said outer-lamp-terminal-engaging contact in connection with said second-named contact, and a dielectric receiving plug adapted to be inserted into said base through the said opening thereof, parallel with said lamp receiver, to make connection with said plug-terminal-engaging contacts.

5. In a high tension electric lamp socket, a member carrying a center-lamp-terminal-engaging contact, a second member removably connected with said first-named member and carrying an outer-lamp-terminal-engaging contact, plug-terminal-engaging contacts connected with the center-lamp-terminal-engaging contact and the outer-lamp-terminal-engaging contact, and a dielectric receiving plug insertible into one of said members so as to lie in the path of a portion of the other member, whereby the members are locked in their connected position, said plug being adapted to make connection, when inserted, with said plug-terminal-engaging contacts.

[Claims 6 to 11 not printed in the Gazette.]

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1,088,869. ILLUMINATED SIGN. JOHANNES ADOLF BERGMANN, Toronto, Ontario, Canada. Filed Dec. 8, 1911. Serial No. 664,579. (Cl. 40—130.)



1. An illuminated sign comprising a series of mirrors forming each letter of the advertisement, dished members inclined inwardly from the vertical toward each other for holding the mirrors, a casing joining the members together, a lamp in front of each member, a drum formed of sections of glass of different colors surrounding the lamp and means for rotating the drum as and for the purpose specified.

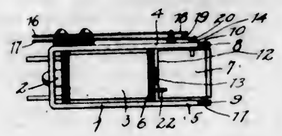
2. An illuminated sign comprising a series of mirrors forming each letter of the advertisement, dished members inclined inwardly from the vertical toward each other for holding the mirrors, a casing joining the members, a lamp in front of each member, central disk members, hollow downwardly turned brackets secured to the disk members from which the lamps are suspended, barrel-shaped drums formed of sections of glass of different colors surrounding the lamps and having top and bottom plates with central apertures therein, sleeves secured to the top plate of the drum, lower upwardly turned brackets, the drums mounted freely on the lower brackets and the sleeves surrounding the upper brackets, reflectors behind the drums, friction wheels secured to the sleeves, a cross shaft having a pulley keyed thereto, a motor having a pulley on the shaft thereof driving the cross shaft through a belt extending over the aforesaid pulleys, friction wheels on the ends of the cross shaft, inclined shafts, friction wheels on the inner ends thereof engaging the friction wheels on the cross shaft and friction wheels on the outer ends of the inclined shafts engaging the friction wheels on the sleeves of the drum as and for the purpose specified.

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1,088,870. RELAY. JULES A. BIRSFIELD, Chicago, Ill., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed June 13, 1907. Serial No. 378,715. (Cl. 178—304.)

1. In a relay, the combination of a U-shaped magnet frame, a core extending from the yoke of said frame, a

winding on said core, an armature plate pivoted to the ends of said frame and normally disposed in a plane at an angle with the axis of the core, contact springs mounted on the magnet frame, and a cam post extending from the armature plate associated with one of the contact springs, energization of the winding causing the armature to be attracted and swung parallel to the axis of the core and engagement of the spring and cam post to cause a change in the contact conditions of said springs.



2. In a relay, the combination of a U-shaped magnet frame, a core extending from the yoke between the limbs of the magnet frame, an energizing winding on said core, the limbs of said frame extending a distance beyond the pole of the core, an armature plate disposed between the ends of the frame and pivoted at its outer end in the ends of the frame limbs, said armature being normally in a plane at an angle to the axis of the core, contact springs mounted on top of the magnet frame, a cam projection at the end of one of said springs, a cam post extending from the armature frame for engaging with said cam projection, attraction of said armature toward the core causing engagement of the cam post with the cam projection to cause a change in the contact condition of the springs.

3. In a relay, the combination of a U-shaped magnet frame, a core extending from the yoke of the frame and between the limbs thereof, the ends of said limbs extending a distance beyond the pole of the core, an energizing winding on the core, an armature plate disposed between the ends of the frame and pivoted at its outer end in the ends of the frame limbs, whereby it may swing toward and from the core pole, switch mechanism mounted on the magnet frame, an actuating spring for the switch mechanism having a cam projection at its end, a cam post extending upwardly from the armature and associated with the cam projection, said armature being normally inclined relative to the axis of said core, attraction of the armature toward the core causing said cam post to engage the cam projection to raise the actuating spring to thereby change the contact conditions of the switch mechanism.

4. In a relay, the combination with a U-shaped frame, a core extending from the yoke and between the limbs thereof, an energizing winding on said core, the ends of said frame extending a distance beyond the pole of the core, an armature plate between the ends of the frame and pivoted at its outer end in the ends of the magnet frame, whereby it may swing toward and away from the core, switch mechanism mounted on the magnet frame, an actuating spring for said switch mechanism having a cam projection at its end, a cam post extending upwardly from the armature frame and normally engaged by the cam projection to hold the armature at one side, energization of the core causing attraction of the armature toward the core whereby said cam post engages the cam projection to raise the actuating spring to thereby change the contact conditions of the switch mechanism.

5. In a relay, the combination of a magnet frame, an energizing winding, an armature pivoted to be swung upon energization of the winding, switch springs for said relay lying in a plane at right angles to the axis of the pivots for said armature, and spring actuating means carried by the armature and arranged to move crosswise of said switch springs in the actuation of the armature, and an inclined plane formed on one of said switch springs and engaged by the actuating means, whereby a delayed or slow movement of the switch springs results.

[Claims 6 to 10 not printed in the Gazette.]

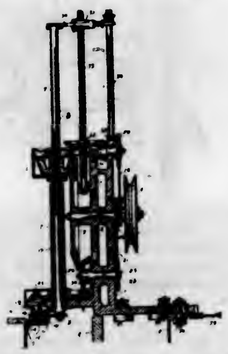
1,088,871. HAT-PIN PROTECTOR. MARGARET E. BLESSING, Philadelphia, Pa. Filed Jan. 2, 1913. Serial No. 739,727. (Cl. 24—155.)



1. A protector of the character described, comprising a filler block, fabric on the ends of the filler block with their edges projected over the sides of the filler block, a cord wound around said filler block and edges of the fabric, and means securing the cord against movement, substantially as described.

2. A protector of the character described, comprising a filler block, fabric on the ends of the filler block with their edges projected over the sides of the filler block, a cord wound around said filler block and edges of the fabric, an ornamental button, and a wire secured to the button and projecting through the filler block, substantially as described.

1,088,872. GRINDING-MACHINE. PIERRE BOGEY, San Francisco, Cal. Filed June 17, 1911. Serial No. 633,843. (Cl. 51—4.)



1. In a grinding machine for engine cylinders or the like, the combination of an elongated spindle, a transversely extending rotatable drive shaft, intermeshing gears mounted on the drive shaft and spindle for rotating the spindle, a rotary grinding wheel mounted on a suitably supported shaft extending longitudinally of the spindle and to one side of the spindle, a sleeve surrounding the spindle operatively connected with the grinding wheel support, means for rotating the sleeve including a gear mechanism operatively connected with said drive shaft, and means for imparting lengthwise movement to the spindle and with it the grinding wheel and its driving gear.

2. In a grinding machine for engine cylinders or the like, the combination of an elongated spindle, a transversely extending rotatable drive shaft, intermeshing gears mounted on the drive shaft and spindle for rotating the spindle, a rotary grinding wheel mounted on a suitably supported shaft extending longitudinally of the spindle and to one side of the spindle, a sleeve surrounding the spindle operatively connected with the grinding wheel support, means for rotating the sleeve including a gear mechanism operatively connected with said drive shaft and means for imparting lengthwise movement to the spindle and with it the grinding wheel and its driving gear comprising a vertically extended feed screw operatively connected at one end to said spindle, and a gear connection between said screw and said drive shaft.

3. In a grinding machine for engines or the like, the combination of an elongated spindle, a drive shaft, gearing between said drive shaft and spindle for rotating the spindle, a sleeve loosely mounted on said spindle and longitudinally movable therewith, a grinding wheel support carried by said sleeve, a grinding wheel journaled in said support, gearing between said grinding wheel and said spindle, gearing between said sleeve and the drive shaft for rotating said sleeve, and means for feeding the spindle and sleeve carried thereby longitudinally.

4. In a grinding machine for engines or the like the combination of an elongated spindle, a drive shaft, gearing between said drive shaft and spindle for rotating the spindle, a sleeve loosely mounted on said spindle and longitudinally movable therewith, a grinding wheel support carried by said sleeve, a grinding wheel journaled in said support, gearing between said grinding wheel and said spindle, gearing between the sleeve and the drive shaft for rotating said sleeve, and means actuated by the drive shaft for feeding said spindle and the sleeve carried thereby, said means comprising a feed screw arranged parallel to the spindle, a nut carried by said spindle and having a threaded engagement with said feed screw, and gearing for rotating the feed screw from the drive shaft.



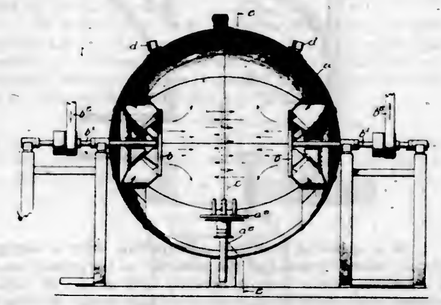
1,088,873. SAFETY-RAZOR. EMANUEL J. BOYLER, New Haven, Conn., assignor to The Greist Manufacturing Company, a Corporation of Connecticut. Filed Apr. 24, 1913. Serial No. 763,413. (Cl. 30—12.)



A safety razor the body of which comprises a handle having an opening, combined with a blade-holding head extending at an angle from said handle and provided at its front corners with stops to position the edge of the blade, and having, projecting forward of said stops, a comb or guard, a blade fitting against said head, and a blade holder formed of spring sheet metal and having a clamping portion fitting over said blade and a shank portion provided with a catch adapted to enter said opening in said handle to maintain the said blade holder in place, the said head being provided on its outer face with lugs and the said clamping portion of said blade holder having, at its front edge, projections which engage the front edges of said lugs.

1,088,874. PROCESS OF COATING OBJECTS WITH SUBDIVIDED MATERIAL. FRANKLIN F. BRADLEY, Chicago, Ill., assignor to Bradley & Vrooman Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 14, 1911. Serial No. 654,678. (Cl. 91—68.)

1. The process of coating objects having a multiplicity of surfaces with subdivided material which consists in placing adhesive material upon a multiplicity of surfaces of the object to be coated, substantially confining a body of gas in which the subdivided material is adapted to float, distributing the subdivided material with which the object is to be coated in the body of gas, substantially surrounding the object in substantially all planes by the body of gas, causing some of the gas in which subdivided material is floating to flow by the object in opposing streams under substantially equal pressures, causing the opposing streams to mingle where the object is located, and thereafter causing the gas to move toward the object under unequal pressures whereby various parts of the object having adhesive material thereon are coated with the subdivided material.



2. The process of coating objects having a multiplicity of surfaces with subdivided material which consists in placing adhesive material upon a multiplicity of surfaces of the object to be coated, substantially confining a body of gas in which the subdivided material is adapted to float, distributing the subdivided material with which the object is to be coated in the body of gas, substantially surrounding the object in substantially all planes by the body of gas, causing some of the gas in which subdivided material is floating to flow by the object in opposing streams under substantially equal pressures, and causing the opposing streams to mingle where the object is located, and thereafter causing the gas to move toward the object under unequal pressures which alternately predominate upon the opposite sides of the object to be coated whereby various parts of the object having adhesive material thereon are coated with the subdivided material.

3. The process of coating objects having a multiplicity of surfaces with subdivided material which consists in placing adhesive material upon a multiplicity of surfaces of the object to be coated, substantially confining a body of gas in which the subdivided material is adapted to float, distributing the subdivided material with which the object is to be coated in the body of gas, substantially surrounding the object in substantially all planes by the body of gas, causing some of the gas in which subdivided material is floating to flow by the object in opposing streams under substantially equal pressures, causing the opposing streams to mingle where the object is located and thereafter causing the gas to move under unequal pressures toward the object to be coated, the pressures alternately predominating on different sides of the object whereby various parts of the object having adhesive material thereon are coated with the subdivided material.

1,088,875. ARTICLE OF FOOD AND PROCESS OF PRODUCING THE SAME. DAVID BRAININ, Charlottenburg, Germany. Filed Dec. 11, 1912. Serial No. 736,063. (Cl. 99—11.)

1. A process of producing an article of food, comprising lightly roasted soy beans; and then mixing the lightly roasted soy beans with another vegetable substance.

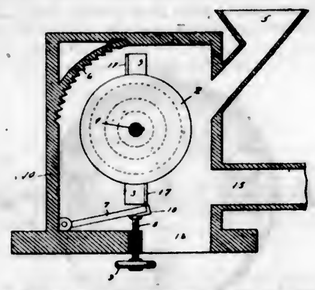
2. An article of food comprising lightly-roasted soy beans mixed with other vegetable substance.

3. An article of food consisting or unripe, dried and rough-ground rye in combination with steamed oats deprived of their husks and lightly roasted and ground soy beans, the mixture being in the form of powder, granules or tablets.

4. An article of food comprising lightly roasted soy beans mixed with rye and oats.

5. An article of food comprising lightly-roasted soy beans mixed with rye and steamed oats.

1,088,876. CRUSHING AND GRINDING MILL. ALEJANDRO CALDOGNETTO, Buenos Aires, Argentina. Filed July 22, 1913. Serial No. 780,447. (Cl. 83—6.)

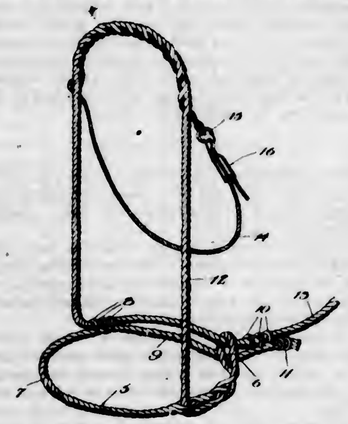


1. In a grinding mill, the combination, with a casing having inlets for air and the material to be ground, and a discharge outlet located between said inlets; of coöperating, stationary and movable grinding elements arranged within said casing; and means for rotating the movable grinding element, to draw air continuously through the air inlet into said casing, and force it therefrom with the ground material through said outlet.

2. In a grinding mill, the combination of a rotatable disk provided at diametrically opposed points with a pair of knives; means for rotating said disk; a block pivoted at one end beneath said disk and provided with a knife coöperative with the first-named knives; and a vertically-arranged screw upon which the other end of the block is supported for raising and lowering said block, to adjust the position of the second-named knife with relation to the first-named knives.

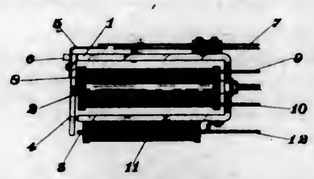
3. In a grinding mill, the combination, with a casing having inlets for air and the material to be ground, and a discharge outlet located between said inlets; of a rotary element provided with peripheral air chambers and with grinding means; a stationary element provided with grinding means for coöperation with the first-named grinding means; and means for rotating the first-named element, to draw air continuously through the air inlet into said casing and said air chambers, and force it therefrom with the ground material through said outlet.

1,088,877. HALTER. LOGAN CURTIS, Browns, Ill. Filed Jan. 24, 1912. Serial No. 673,152. (Cl. 54—24.)



A halter comprising a length of rope looped to form a head stall and cheek pieces continuous with said head stall, the end of said rope forming the lower termination of one of said cheek pieces being designed to form a guide loop, that portion of the rope continuing from the other cheek piece being disposed through said guide loop to form a lead rope, and a portion of the rope forming a nose loop having the strands at one end thereof interlocked with the strands of the first mentioned cheek piece adjacent its lower end, said nose loop having the strands thereof adjacent the opposite end designed to form guide loops for the second named cheek piece for adjustability on the latter, and that portion of the nose loop continuing from said last mentioned guide loops being designed to form an operating shank for the nose loop.

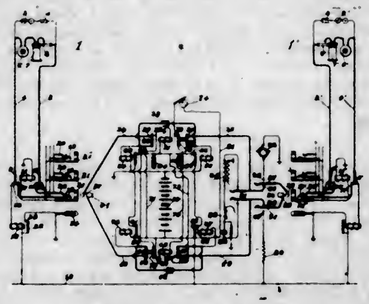
1,088,878. ELECTROMAGNETIC DEVICE. HENRY P. CLAUSEN, Rochester, N. Y., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Original application filed Mar. 25, 1907, Serial No. 364,460. Divided and this application filed May 25, 1911. Serial No. 629,296. (Cl. 175—21.)



1. In an electro-magnetic device, a U-shaped frame of magnetic material, an electro-magnet within said frame, the ends of said frame and the end of the electro-magnet core forming the poles of said magnet, an armature for said magnet extending across said frame and an auxiliary magnet using one limb of said U-shaped frame as a portion of its magnetic circuit, also acting upon said armature.

2. In an electric relay, the combination with main and auxiliary cores, of a flat strip of magnetic material lying between said cores and forming the return magnetic circuit for each core, a second strip of magnetic material forming a return magnetic circuit for one core, and an armature supported thereon in position to be similarly actuated by the magnetization of either or both cores in either the same or opposite polarity.

1,088,879. TELEPHONE SYSTEM. HENRY P. CLAUSEN, Rochester, N. Y., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Sept. 6, 1911. Serial No. 647,907. (Cl. 179—58.)



1. In a telephone system, the combination with a pair of telephone lines, of an operator's cord circuit for connecting said lines for conversation, a source of current associated with the cord circuit for supplying transmitter current to said lines, a pair of switches in each strand of said cord circuit, a pair of relays, one controlling the switches of one strand and the other controlling the switches of the other strand, and magnetic means under the control of the subscribers for closing the circuits of said relays at the termination of a conversation whereby the lines will be automatically disconnected each from the other.

2. In a telephone system, the combination with a pair of telephone lines, of a cord circuit for interconnecting said lines, a condenser in each strand of said cord circuit, a pair of normally closed contacts in each strand of said cord circuit, one on each side of said condensers, a pair of relays each controlling a pair of contacts in one strand of said cord circuit; means for operating said relays to sever the strands of the talking circuit, said means being initially operated when both line circuits are opened at the subscribers' stations.

3. In a telephone system, the combination with a cord circuit, of tip and sleeve talking strands therefor, relays for interrupting said talking strands at the termination of a conversation whereby the immediate interruption of the circuit by the operator is unnecessary, and means to return said relays to their normal condition by the interruption of one of the talking strands when the operator finally removes the connection.

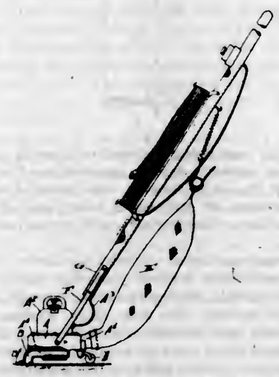
4. In a telephone system, the combination with a two wire cord circuit, of a pair of supervisory signals therefor, a pair of relays controlling contacts in the talking strands of said cord circuit, said relays being adapted to be actuated upon the display of both of said supervisory signals to sever the talking strands of the cord circuit, and means to interrupt the circuit of said relays by the removal of the plugs of the cord circuit from their connections.

5. In a telephone system, the combination with a cord circuit, of a pair of telephone lines with which said cord is connected, a pair of supervisory signals for the cord circuit, a relay controlling contacts in the sleeve strand of said cord circuit and adapted to be actuated to sever said contacts upon the simultaneous display of said supervisory signals, interrupter means in the circuit of said relay whereby the relay will periodically return to its normal position, a pair of contacts in the circuit of said relay, said contacts being controlled over a circuit including the sleeve strand of said cord circuit and the sleeve of the jack with which said cord is connected during the open period of said interrupter.

[Claims 6 and 7 not printed in the Gazette.]



1,088,880. NOZZLE AND SQUEEGEE FOR VACUUM-CLEANERS. GEORGE CLEMENTS, Chicago, Ill., assignor to Clements Mfg. Co., Chicago, Ill., a Corporation of Illinois. Original application filed June 14, 1911, Serial No. 633,011. Divided and this application filed June 24, 1912. Serial No. 705,399. (Cl. 15—60.)

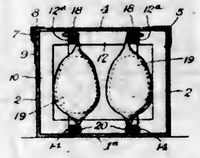


1. In a vacuum cleaner a nozzle comprising an elongated end with an elongated opening and a squeegee consisting of a holder with oppositely opening grooves, a yielding material clamped in one of said grooves, and the other adapted to receive and frictionally engage the rear lip of the nozzle.

2. In a vacuum cleaner a nozzle comprising an elongated end with an elongated opening and a squeegee consisting of a holder, a yielding strip secured to said holder and said holder provided with means for yieldingly engaging one lip of the nozzle.

3. In a vacuum cleaner, a nozzle comprising an elongated end with an elongated opening and a squeegee comprising a rigid member removably secured in the elongated opening between the lips, to one of the lips and provided with a downwardly projecting yielding strip.

1,088,881. SHIPPING-CRATE. ASA F. COGSWELL, Kirwin, Kans. Filed Mar. 18, 1913. Serial No. 755,079. (Cl. 217—28.)



1. In a shipping crate, a case having ends, a pair of up right frames permanently arranged in the ends of the case, a longitudinal frame adapted to extend between and connect said end frames; said longitudinal frame having vertical dovetail tenons upon the ends thereof, and said end frames having dovetail grooves adapted to receive said tenons; the groove and tenon at one end of the crate being of different size to the groove and tenon at the opposite end.

2. In a shipping crate, a case, a longitudinal upright frame, a series of individual egg-holders suspended in said frame and at one side thereof, dovetail tenons on the ends of said frame, and members at the end of the case having dovetail grooves adapted to receive said tenons; the grooves and tenons at opposite ends being unequal in size.

3. In a shipping crate, a case, a longitudinal frame removably-arranged within said case, a series of pins projecting from the upper part of said longitudinal frame, and a series of sacks having their bottoms secured to the lower portion of said frame and their upper open ends adapted to be folded over the upper side of the frame and secured by the pins, each sack being adapted to hold a single egg, substantially as described.

1,088,882. STEAM-TRAP. LAMBERT COSTER, College Point, N. Y. Filed Apr. 28, 1913. Serial No. 764,110. (Cl. 236—9.)

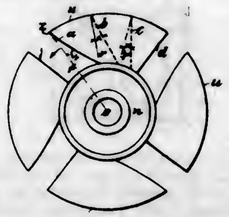


In a steam trap, a coupling having inlet and discharge openings and an apertured partition therein between said

openings, a valve seat formed in said partition around the aperture therein, a valve casing connected with said coupling around said valve seat and spaced therefrom, a closure for the outer end of said casing, a thermostatic valve arranged in said casing and of smaller diameter than the casing and with one end adapted to engage said seat when expanded and to leave the seat when contracted, said valve seat being located within the coupling below the top of the inlet and outlet passages, whereby the water of condensation may be discharged through the coupling by gravity alone when the valve is opened and the thermostatic valve quickly unsealed to the influence of the steam, and means for adjusting the valve toward or away from its seat.

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1,088,883. SCREW-BLADE FOR IMPELLERS. MAX DONATH, Dresden, Germany, assignor to Emil Imle, Dresden, Germany. Filed May 20, 1913. Serial No. 768,884. (Cl. 170—159.)

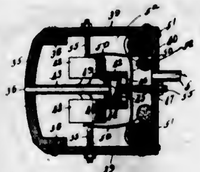


1. An impeller wheel having one or more blades, each blade having the form described by a generatrix lying at an angle to the radius of the wheel, and moving in a helical path with continuously changing pitch and position, said angle varying during the generation of the surface from its maximum value to its minimum value.

2. An impeller wheel having one or more blades, each blade having the form described by a generatrix lying at an angle to the radius of the wheel, and moving in a helical path with continually changing pitch and position, said angle varying during the generation of the surface from its maximum value to zero.

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1,088,884. PNEUMATO-ELECTRIC TRACKER-BAR FOR MUSICAL INSTRUMENTS. CHARLES W. DOBRICOTT, Philadelphia, Pa., assignor to Electrelle Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 21, 1912. Serial No. 704,994. (Cl. 84—229.)



1. A pneumato-electric tracker comprising a hollow-member having the usual tracker ducts and an air chamber therein, a plurality of movable contact members mounted within the tracker, pneumatics for actuating said contacts, said pneumatics being located within the tracker and having communication with the tracker ducts, and a plurality of fixed contacts adjustably mounted in an outer wall of the tracker for coöperation with the movable contact members, said fixed contacts, each having a tool engaging portion exposed outside the tracker for the purpose described.

2. A pneumato-electric tracker comprising a hollow-member having the usual tracker ducts and an air chamber therein, a plurality of movable contact members mounted within the tracker, pneumatics for actuating said contact members, said pneumatics being located within the tracker and having communication with said ducts, and a plurality of fixed contacts projecting through an outer wall of the tracker, said fixed contacts being adjustably mounted for coaction with the said movable contact members.

3. A pneumato-electric tracker comprising a hollow-member having the usual tracker ducts and an air chamber therein, a plurality of movable contact members mounted within the tracker, pneumatics for actuating said contact members, said pneumatics being located within the tracker and having communication with said ducts, a plurality of fixed contact pins projecting through an outer wall of the tracker for coaction with the movable contact members, and means for adjustably supporting the contact pins.

4. A pneumato-electric tracker comprising a hollow member constituting an air chamber; said tracker having the usual tracker-ducts and provided with removable side and bottom walls, a plurality of movable contact members located within the tracker, pneumatics for actuating said contacts also located within the tracker and having communication with said ducts, and a plurality of fixed contacts adjustably carried by the removable walls and each having a tool engaging portion projecting outside the tracker, said fixed contacts adapted for coaction with the movable contacts.

5. A pneumato-electric tracker comprising a hollow member constituting an air chamber, said tracker having the usual tracker ducts, and provided with removable side and bottom walls, separate rows of diaphragm pneumatics located within the tracker, the diaphragms of each row of pneumatics facing one of the said removable walls of the tracker and said pneumatics communicating with said ducts, a plurality of movable contact springs located within the tracker and each having its free end overhanging one of the said diaphragms, and a plurality of fixed contacts passing through the said removable walls and each having its inner end mounted for coaction with one of the said movable contacts, said fixed contacts being adjustable toward and from the movable contacts.

[Claims 6 to 13 not printed in the Gazette.]

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1,088,885. CAMERA-CARRYING CASE. WILLIAM F. DORRIS, Rochester, N. Y. Filed Feb. 27, 1913. Serial No. 751,042. (Cl. 150—52.)



1. A casing comprising a plurality of walls, an intermediate portion curved to form a rounded end for the casing, the edges of the walls forming edge portions for the casing, and portions of said edges being bent along a line curved to conform substantially with the aforesaid curved end portion.

2. A casing comprising a plurality of side walls and an integral intermediate portion curved to form a rounded end for the casing, said walls being scored along lines substantially parallel with their edges, forming outside of the score lines edge portions for the casing, the portions last mentioned being bent at an angle with the walls of the casing, and opposite sides of the intermediate portion being bent along lines curved to conform substantially with the curve of the rounded end and disposed substantially parallel with the edge portions.

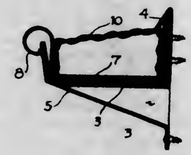


3. A blank for a casing comprising a sheet divided by score lines into main portions designed to form front and rear walls, an intermediate portion between the main portions designed to form an end wall, and wing portions extending along the main portions, the wing portions on a given edge of the blank terminating along curved lines spaced apart to form a tongue on the intermediate portion, the curved edges of the tongue and the curved ends of the wings thereby formed being adapted to substantially coincide with the blank is folded to form a rounded end for the casing.

4. A blank for a casing comprising a sheet scored along substantially parallel lines spaced from the edges thereof, the score lines along each edge terminating at points distant from each other, said sheet being also scored along lines substantially at right angles with the lines first mentioned, to form an intermediate portion extending transversely of the blank, and having supplemental score lines extending from the points of termination aforesaid to the adjacent edges of the blank and spaced apart at said edges, the supplemental score lines on a given side of the blank being oppositely curved.

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1,088,886. CRAYON-TROUGH. ALVIN DUDFIELD, Liberty, Mo. Filed Apr. 12, 1913. Serial No. 760,717. (Cl. 35—15.)



1. A crayon trough consisting of an outer tray, the inner wall of which is provided with a downwardly and outwardly deflecting flange, an inner tray arranged in the outer tray and held therein under said flange, and an outwardly curved extension formed on the outer wall of the inner tray adapted for engagement with the outer face of the outer wall of said outer tray to aid in the locking of said trays in engagement with one another.

2. A crayon trough consisting of an outer tray, the inner wall of which terminates at the upper end in a downwardly and outwardly deflecting flange, the outer wall of said tray being bent upon itself to deflect inwardly and downwardly to form a bracing means for said tray, an inner tray disposed in said outer tray under the aforesaid flange, whereby to be held therein, and means on said inner tray adapted for engagement with the outer tray to aid in the retaining of said trays in locked engagement with one another.

3. In a crayon trough, an outer tray member, an inner tray member disposed therein, means to removably secure said inner tray member within the outer tray member, and a combined dust removing member and crayon support carried in said inner tray, said latter member being held in the inner tray by a portion of the means for retaining said trays together.

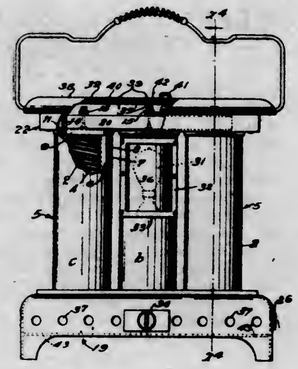
4. A crayon trough consisting of an outer tray, an inner tray arranged therein, and bracing means for said outer tray, and an inwardly and downwardly bent flange formed at the upper termination of the inner wall of said outer tray and designed for engagement with portions of the inner tray to lock the latter in position in the outer tray.

5. A crayon trough consisting of an outer tray, an inner tray arranged therein, bracing means for said outer tray, an inwardly and downwardly bent flange formed at the upper termination of the inner wall of said outer tray and designed for engagement with portions of the inner tray to lock the latter in position in the outer tray, and additional means formed on the outer portion of the inner tray and adapted for engagement with the outer portion of the outer tray to lock said trays together.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,887. ELECTRICAL HEATER. GEORGE A. EDMISON and LAURENCE EDMISON, Los Angeles, Cal. Filed May 26, 1913. Serial No. 770,061. (Cl. 219—34.)



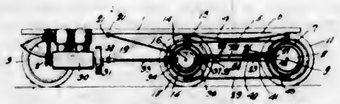
1. In an electrical heater, the combination of an outer hollow vertical tube open above and below, an inner hollow vertical tube, the second said tube being within and spaced apart from the first said tube to form an air passage, electrical resistance wire on the second said tube, electrical connections for connecting said wire to an electrical circuit so that said wire may be electrically heated, said heat being dissipated by conduction and radiation to and through said outer tube and by the upward flow of the air between said tubes, said inner tube being also open above and below so that air may rise therethrough and abstract the heat therefrom.

2. In a portable electrical stove the combination of a lower base member, a top member, an outer vertical tube connecting said base member with said top member, an inner vertical tube, said inner vertical tube being located within and spaced apart from the first said tube to form an air passage, electrical resistance wire on said inner tube, electrical connections for connecting said wire with an electrical circuit so that said wire may be electrically heated, said outer and inner tubes both being open below to said base member and both being open above to said top member, said base member itself being open to the atmosphere, and said top member also being open to the atmosphere and through adjustable apertures.

3. In a portable electrical stove the combination of a base member, a top member, a series of relatively large vertical tubes joining said base member with said top member, each of said large vertical tubes having a smaller vertical tube within, electrical resistance wire on each of said inner tubes, electrical connections for connecting said resistance wire to an electrical circuit so that said wire may be heated, said tubes being open below to said base member and being open above to said top member, a horizontal imperforate plate spanning across said bottom member below said tubes, said bottom member having apertures adapted to lead air from the atmosphere to and through said tubes, and said top member having adjustable apertures adapted to lead air from said tubes to the atmosphere.

4. An electrical heater comprising a base, a top member, outer and inner tubes forming an air passage therebetween, a resistance unit around the inner tube, annular insulating caps at the ends of the inner tube, metallic strips fastened across said caps, metallic bars fastened to said strips, insulating blocks fastened to the base and supporting one of said bars, and other insulating blocks fastened to the top member and supporting the other of said bars.

1,088,888. RUNNING-GEAR FOR MOTOR-VEHICLES. DAVID FAIRLEY, Hattiesburg, Miss. Filed May 13, 1912. Serial No. 697,010. Renewed Jan. 16, 1914. Serial No. 812,587. (Cl. 21—90.)



1. A motor vehicle including a non-flexible body, three sets of wheels therefor, one set constituting front steering wheels, an axle in rear of said first set and adapted to swing laterally relative to the chassis of the vehicle and about a point in front of the axle, the second set of wheels constituting front drive wheels and supporting said axle, a rear axle supported by the third set of wheels which constitute rear driving wheels, and coöperating means upon the axles for maintaining the axes of rotation of the wheels in lines converging to a point constituting the center of any circle within which the vehicle may be traveling.

2. A motor vehicle including front steering wheels, an axle in rear thereof adapted to swing laterally relative to the chassis of the vehicle and about a point in front of the axle, front drive wheels supporting said axle, a rear axle, rear driving wheels supporting the same, and coöperating means upon the axles for maintaining the axes of rotation of the wheels in lines converging to a point constituting the center of any circle in which the vehicle may be traveling.

3. A motor vehicle including front steering wheels, an axle in rear thereof adapted to swing laterally relative to the chassis of the vehicle and about a point in front of the axle, front drive wheels supporting said axle, a body supporting lever pivoted at one end to said axle, a rear axle pivoted to the other end of the lever, drive wheels supporting the rear axle, and coöperating means upon the two axles for maintaining the axes of rotation of the drive wheels along lines intersecting the center of the concentric circles traveled by the steering wheels.

4. A motor vehicle including front steering wheels, an axle in rear thereof adapted to swing laterally relative to the chassis of the vehicle and about a point in front of the axle, front drive wheels supporting said axle, a cross bar constituting a body supporting element, a lever pivoted at its center upon said bar and at one end to the center of the axle, a rear axle pivoted at its center to the other end of the lever, drive wheels supporting the rear axle, and coöperating means upon the two axles for maintaining the axes of rotation of the drive wheels along lines extending to a point constituting the center of the concentric circles traveled by the steering wheels.

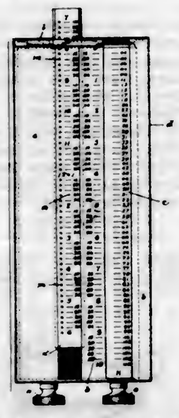
5. A motor vehicle including front steering wheels, an axle in rear thereof adapted to swing laterally relative to the chassis of the vehicle and about a point in front of the axle, front drive wheels supporting said axle, a cross bar constituting a body supporting element, a lever pivoted at its center upon said bar and at one end to the center of the axle, a rear axle pivoted at its center to the other end of the lever, drive wheels supporting the rear axle, a longitudinally slotted tongue interposed between the axles and connected to one of them, and means slidably engaging said tongue and connected to the other axle for varying the angles of the axles relative to each other during the actuation of the lever.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,889. TIME AND WAGE COMPUTER. THOMAS J. FALVEY, Needham, and ROBSON D. CALDWELL, Salem, Mass., assignors to Caldwell Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 11, 1908. Serial No. 426,473. (Cl. 235—86.)

1. A computing device comprising a scale having indications denoting the hours and parts thereof of the working day, a series of scales bearing figures showing the money value at various rates of the time intervals of the first scale, means for obscuring all but a small proportion of the total number of scales of said series, said series of scales being mounted with capability for displacement laterally to cause any one of the series to appear beside the first scale, and the first-mentioned scale being movable endwise, whereby the value of the elapsed time between two time indications on the first-mentioned scale may be read from the character on the money value scale appearing beside the later time indication.



2. A computing device comprising a scale having indications denoting the hours and parts thereof of the working day, a series of scales bearing figures showing the money value at various rates per hour of the time intervals of the first scale, said latter scales being mounted with capability for displacement to cause any one of the series to appear beside the first scale, a stop, and provisions whereby said scale may be moved to bring any selected indication thereof adjacent the stop, whereby the valve of the elapsed time between the indication adjacent the stop and any other indication may be read at a glance.

3. A computing device comprising a plurality of scales arranged in columns side by side, one of said scales showing times of day between certain limits, another showing the intervals of time between the successive indications of the first, and a third showing the value in money of such time intervals, the first scale being on a slide which is movable endwise so as to bring any selected time indication beside the beginning of the other scales, and a stop for arresting the movement of the slide when the selected indication is in the desired position.

4. A computing device consisting of a box or casing, a cover or top therefor having a longitudinal slot or sight opening, said cover bearing a column of figures, parallel to said opening, representing time intervals, a flexible sheet bearing columns of figures representing money values at various rates for selected intervals of time, rolls on which said sheet is mounted so that said columns are parallel with the sight opening, and a slide mounted in said cover and arranged to move parallel with the sight opening, said slide having a column of numbers representing units of time, arranged in parallel with the numbers of the other columns and having also depressions beside each of the numbers wherein an instrument may be inserted to move the slide.

5. A computing device consisting of a box or casing, a cover or top therefor having a longitudinal slot or sight opening, said cover bearing a column of figures, parallel to said opening, representing time intervals, a flexible sheet bearing columns of figures representing money values at various rates for selected intervals of time, rolls on which said sheet is mounted so that said columns are parallel with the sight opening, a slide mounted in said cover and arranged to move parallel with the sight opening, said slide having a column of numbers representing units of time, arranged in parallel with the numbers of the other columns and having also depressions beside each of the numbers wherein an instrument may be inserted to move the slide, and a stop fixed to the casing against which such instrument may abut, and by which the movement of the slide is arrested.

[Claims 6 to 8 not printed in the Gazette.]



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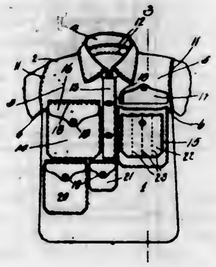
1,088,890. BUCKLE AND BAND. GEORGE EDWARD FIGG, Montreal, Quebec, Canada. Filed Mar. 8, 1912. Serial No. 682,500. (Cl. 24—50.)



In a buckle and band, a sheet material plate slightly enlarged at each end and having corresponding arc-shaped cuts in the material adjacent to the end edges, the metal inside of one of said cuts being outwardly bent in the form of a lip and the metal inside of the other cut being removed to form a crescent-shaped opening having a serrated inner edge, and a further cross slot parallel with said serrated edge, and a band having a fastener at one end adapted to engage detachably the crescent-shaped opening and removably attached to the plate at the other end by being threaded through the slots in the manner specified.

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1,088,891. SHIRT. CLINTON C. FILSON, Seattle, Wash. Filed Oct. 28, 1912. Serial No. 728,177. (Cl. 2—41.)

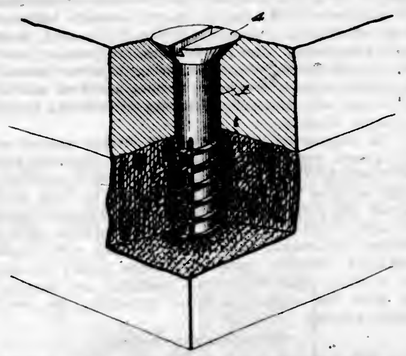


A shirt provided with a superposed layer of fabric, said superposed layer substantially covering the whole back portion of the short and bifurcated at its upper end to provide a pair of forwardly extending breast portions terminating at a point substantially at the armpits, said superposed layer being stitched along the major portion of its marginal edges the back portion thereof extending from the armpits to the waist line being free, breast pockets upon the shirt proper and flaps for said pockets stitched along the upper edges through the shirt proper and the superposed layer to reinforce the superposed layer at this point.

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1,088,892. SCREW. ERNEST JAY FOREMAN, Trinidad, Colo. Filed May 27, 1913. Serial No. 770,238. (Cl. 85—47.)

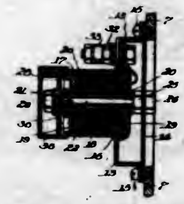
A wood screw comprising a threaded shank, said threaded shank provided with a groove extending longitudinally thereof, the front or leading face of the groove considered during the insertion of the screw extending substantially radial of the said threaded shank, the opposite face of said groove of sloping outline, the said sloping face adapted to compress material in contact therewith during the insertion of the screw, the radially extending face of the



groove adapted to contact with the compressed fibrous material to greatly increase the effective resistance to the movements of the screw during the retraction thereof.

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1,088,893. AUTOMOBILE-HORN. HERBERT H. FREY, Chicago, Ill. Filed June 29, 1912. Serial No. 706,564. (Cl. 177—7.)



1. In combination, an alternating current generator, a horn comprising a sounding diaphragm, an electromagnet disposed behind said sounding diaphragm, said electromagnet being connected across the terminals of said alternating current generator, a movable armature for said electromagnet arranged to be actuated by said electromagnet when the latter is energized, and spring means connected with said armature arranged to normally hold the latter out of engagement with said sounding diaphragm, said armature adapted to vibrate between points on opposite sides of its normal position.

2. In combination, an alternating current generator, a horn comprising an electromagnet, an amplifying device, a sounding diaphragm disposed between said electromagnet and said amplifying device, said electromagnet being connected across the terminals of said alternating current generator, a movable armature for said electromagnet arranged to be actuated by said electromagnet when the latter is energized, and a spring diaphragm connected with the armature arranged to normally hold the latter out of engagement with the sounding diaphragm, said armature adapted to vibrate between points on opposite sides of its normal position.

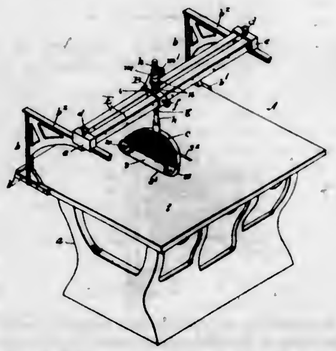
3. In combination, an automobile engine, an alternating current ignition system for said automobile engine comprising an alternating current generator driven by said engine, a horn electrically connected with said generator, said horn comprising a sounding diaphragm, a bell magnet and an armature arranged to be actuated by said bell magnet, said armature comprising a striking rod arranged to strike the sounding diaphragm, and a spring normally holding said striking rod out of engagement with the sounding diaphragm, said armature adapted to vibrate between points on opposite sides of its normal position.

4. In combination, an alternating current ignition magneto, a horn comprising an electromagnet connected across the terminals of said magneto, a sounding diaphragm, an armature arranged to be actuated by said electromagnet, said armature comprising an impact member, and spring means arranged to normally retain the impact member out of engagement with the sounding diaphragm, said armature and spring means vibrating between points on either side of their respective normal positions and keeping in step with the electric impulses traversing the electromagnet winding.

5. In combination, an alternating current ignition magneto, a horn comprising an electromagnet connected across the terminals of said generator, a sounding diaphragm, an impact member arranged to be actuated by said electromagnet, and a spring connected with said impact member arranged to retain the latter out of engagement with the sounding diaphragm, said impact member and sounding diaphragm vibrating together between points on either side of their respective normal positions and keeping in step with the electric impulses traversing the electromagnet winding.

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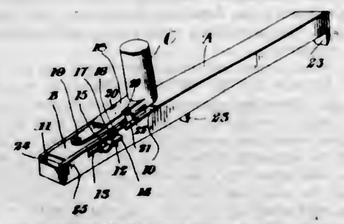
1,088,894. GUARD FOR CIRCULAR SAWS. WARREN B. GARDINER, Saylesville, R. I. Filed Apr. 10, 1913. Serial No. 760,108. (Cl. 143—159.)



The herein described combined frame and guard for circular saw machines, the same comprising a pair of bracket or frame members arranged to be removably attached to the table of a circular saw machine, a horizontally disposed cross-head adjustably mounted on said brackets, a guard proper constructed to protect the upper portion of the periphery and sides of the saw, a vertically disposed bar having the guard suspended therefrom, and means connected with said bar and cross-head for changing the position of the guard in lateral and vertical directions relatively to the cross-head.

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1,088,895. SPRING-BLOCK SET FOR SAWS. EUGENE GODIN, Harrisville, N. Y., assignor to Thomas J. Wilber, Harrisville, N. Y. Filed Feb. 10, 1913. Serial No. 747,585. (Cl. 76—65.)



1. A saw setting device comprising in combination an anvil member having a slot therein, a gage member mounted in the slot, means for clamping the gage member in adjusted position in said slot, a hammer member formed with a laterally extending tongue adapted to act as a spring, said tongue supporting the hammer member and being secured to the gage member and means for limiting the upward movement of the hammer member.

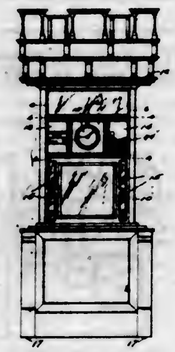
2. A saw-setting device comprising in combination an anvil member having a longitudinally extending slot in the normal upper surface thereof, a gage member slidably mounted in the slot, means for adjustably clamping the gage member in the slot, said means extending laterally through a slot formed in one of the side walls of the first mentioned slots, a hammer member supported by a plate spring formed integral therewith, said spring being secured to said gage member.

3. An improved saw setting device comprising an anvil member having a dovetail slot formed on the surface by two flanges, one of the flanges having a slot therethrough, a gage plate mounted in the dovetail slot, clamping means on the gage plate extending through the slot in the flange on the anvil member and adapted to bear against the side of the anvil member, a hammer member, and means for supporting the hammer member from the gage plate with freedom to reciprocate to and from the anvil member.

4. An improved saw setting device comprising an anvil member, an adjustable gage plate thereon having dovetail slots in the sides thereof, a hammer member, a flat spring supporting the hammer member and plates on the side of the spring having enlarged ends fitting the dovetail slots in the gage member.

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1,088,896. CLOCK. JOSEPH E. GUERDAT, St. Amant, La. Filed Jan. 27, 1911. Serial No. 605,068. (Cl. 58—3.)



1. A clock comprising the combination of a main shaft, means for operating the shaft, a second shaft, a dummy sun rigidly connected with the second shaft and adapted to rotate therewith, connection between the main and the second shaft to rotate the latter, a dummy moon loosely mounted upon the second shaft, connection between the main shaft and the dummy moon to rotate the latter at a speed different to that of the dummy sun, and means for changing the character of the dummy moon during rotation of the latter.

2. In a clock, the combination of a main shaft, means for operating the main shaft, time indicating means controlled by the main shaft, date indicating means controlled by the main shaft, an auxiliary shaft rotated by the main shaft, a dummy sun carried by the auxiliary shaft adapted for movement across a glass to indicate the time of the rising and setting of the sun, a sleeve loosely mounted upon the auxiliary shaft, an arm projecting radially from the sleeve, said arm being rotatably connected to the sleeve and carrying a dummy moon, means connected with the main shaft and the sleeve for rotating the latter to move the dummy moon across the glass to indicate the rising and setting of the moon, and means for rotating the arm a predetermined distance each revolution of the sleeve to automatically change the character of the dummy moon.

3. A clock including a frame provided with a suitable opening, an earth card vertically, slidably mounted adjacent the opening, a dummy planet, means causing movement of the planet across the opening, a wheel, means for rotating the wheel once in a year, an eccentric pin on the wheel and a connection between the pin and card for vertically moving the same.

4. A clock including a shaft, means for rotating the shaft once a day, a date roller, a geared connection between the date roller and one end of the shaft, a wheel having three hundred and sixty five teeth, a pawl at the other end of the shaft whereby one rotation of the shaft will advance the wheel one step, a slidably mounted earth card and means connecting the wheel and earth card whereby rotation of the wheel will slide the earth card.



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1,088,897. ELECTRICAL MEASURING INSTRUMENT. KARL GYR, Zug, Switzerland. Filed Mar. 27, 1911. Serial No. 617,453. ((Cl. 171—95.)

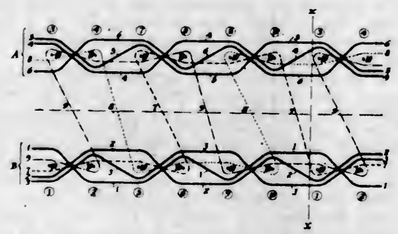


1. In a measuring instrument of the character described, the combination of a substantially vertically disposed wall portion having an opening therein, a horizontally disposed rotor having a dial scale and rotatable about a vertical axis and having one peripheral portion of the dial adjacent said opening to disclose the dial, a fixed pointer disposed abreast of the dial of said rotor, and a single prism disposed in said opening and overhanging the dial of said rotor to reflect the position of the dial with respect to the pointer in a vertically readable image at such opening, substantially as described.

2. In a measuring instrument of the character described, the combination of a substantially vertically disposed wall portion having an opening therein, a horizontally disposed dial rotor and a pointer abreast of the dial of said rotor, the one being movable with respect to the other, and a single element for reflecting the position of the dial with respect to the pointer in a vertically readable image at such opening, substantially as described.

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1,088,898. WOVEN PILE FABRIC IN IMITATION OF NATURAL FUR. FRITZ HAMMER, Philadelphia, Pa., assignor to Edward F. Mason, trustee, Germantown, Pa. Filed Oct. 8, 1912. Serial No. 724,558. (Cl. 139—71.)

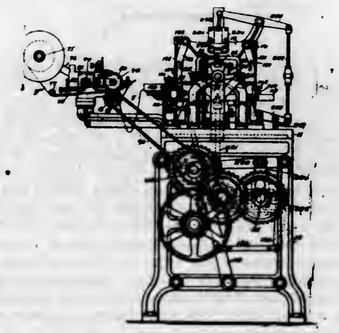


1. A woven-pile fabric, consisting of three pile-threads, a single weft in each shed and three binder warp-threads singly and doubly binding the wefts and floating respectively over and under certain of said wefts and the pile-threads passing respectively, under and over said wefts and in conjunction with said binder warp-threads binding the weft sheds, so that the said pile-threads in the weaving may lie throughout in an inclining diagonal overlapping relationship in said woven fabric, substantially as and for the purposes described.

2. A woven-pile fabric, consisting of two weft planes, the wefts in separate sheds respectively being bound singly and doubly by binder warps and three pile-threads in certain of the weft sheds binding with said binder warp threads said wefts and in certain other sheds floating and said pile-threads forming the pile of the fabricated article lying in diagonal overlapping relationship, substantially as and for the purposes described.

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1,088,899. BOX-MAKING MACHINE. FRED R. HARRIS, New York, N. Y., assignor to The American Tobacco Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 25, 1903. Serial No. 182,569. (Cl. 93—40.)



1. The combination of a forming plunger, side folders past which a box blank is carried by said plunger, and means for applying covering material to the box while the box is stationarily supported by the plunger, substantially as described.

2. The combination of a forming plunger, side folders past which a box blank is carried by said plunger, means for applying covering material to the box while the box is stationarily supported by the plunger, and means for delivering the covered boxes transversely to the direction of movement of the plunger, substantially as described.

3. The combination of a forming plunger, side folders past which a box blank is carried by said plunger, and means for applying a strip of covering material to the sides of the box while the box is stationarily supported by the plunger, substantially as described.

4. The combination of a forming plunger, side folders past which a box blank is carried by said plunger, means for moving a strip of covering material into position to be applied to the sides of the box, and means for folding such strip about the sides of the box while the box is stationarily supported by the plunger, substantially as described.

5. The combination of a forming plunger side folders past which a box blank is carried by said plunger, means for applying an intermediate portion of a strip of covering material to one side of the box, and means for folding the extending portions of the strip about the remaining sides of the box while the box is stationarily supported by the plunger, substantially as described.

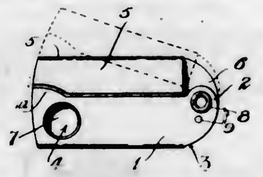
[Claims 6 to 132 not printed in the Gazette.]

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1,088,900. CUTTING DEVICE. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 7, 1913. Serial No. 752,628. (Cl. 131—38.)

1. In a device of the character described, in combination, two pivotally interconnected and transversely alined parts, one of said parts comprising a flat sheet metal guard

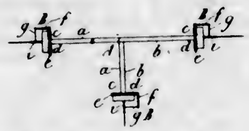
member of channel section having alined apertures therethrough adjacent its non pivoted end, a complemental flat sheet metal blade holding member of channel section having a blade seated within the channel thereof with its cutting edge projecting from its channel into the channel of said guard member, the end of one of said members being laterally offset and extending into the channel of the other and being pivotally mounted therein and said members being provided with means positioning the cutting edge of said blade above the base of the channel of said guard member when said members are in fully closed position.



2. In a device of the character described, in combination, two pivotally connected and transversely alined parts, one of said parts comprising a flat sheet metal guard member of channel section having alined apertures therethrough adjacent one end and having its opposite end provided with a bifurcated portion, a complemental flat sheet metal blade-holding member of channel section having a lateral offset adjacent one end extending within and pivotally secured to the bifurcated portion of said guard member and having a blade member seated within its channel portion with its cutting edge extending within the channel of said guard member, the adjacent edges of said guard and blade-holding members being of complemental contour whereby when said blade-holding member is positioned to bring the cutting edge of its blade below the lower edge of said alined apertures, said adjacent edges will lie in parallel relation and will contact to position the cutting edge of said blade above the base of said channeled guard member, and means arranged to limit the withdrawal of the cutting edge of the blade member to a point adjacent the upper edges of the alined apertures in the guard member.

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1,088,901. ARRANGEMENT FOR PROTECTING ELECTRIC CIRCUITS AND APPARATUS. PHILIP VASSAR HUNTER, Newcastle-upon-Tyne, England. Filed July 31, 1911. Serial No. 641,511. (Cl. 175—294.)



1. In an electrical power distributing system, a circuit section comprising two conductors connected in parallel, circuit breaking means at each end of the section, adapted to cut out both conductors completely, and devices for operating such circuit breaking means responsive only to a difference of currents in the two conductors due to leakage from one of them, the said conductors being each alone incapable of carrying the maximum load current of the section and being subject to an electromotive force, derived inductively when leakage occurs, in a direction to increase the difference of currents in the conductors.

2. In an electrical power distributing system, a circuit section comprising two conductors connected in parallel and having normally no difference of potential between them at any point in their length, circuit breaking means at each end of the section, adapted to cut out both conductors completely, and devices for operating such circuit breaking means responsive only to a difference of currents in the two conductors due to leakage from one of them, the said conductors being each alone incapable of carrying the maximum load current of the section and being arranged throughout in inductive relation one to the other whereby the difference of currents in the said conductors is increased.

3. In an electrical power distributing system, a circuit section comprising two conductors arranged in mutually inductive relationship, a single lead section adjacent to one end of such two conductor section and another single lead section at the opposite end thereof, circuit breaking means adapted to connect the two conductors of the first named section in parallel and to the single lead sections and devices for operating such circuit breaking means responsive only to a difference of currents in the conductors of the two-conductor section, the said conductors being each alone incapable of carrying the maximum load current and the circuit breakers acting simultaneously to disconnect the conductors of the two conductor section from each other and from the adjacent single lead sections.

4. In an electrical power distributing system, a circuit section comprising two conductors connecting in parallel and arranged in mutually inductive relationship and means such as an impedance device associated with such conductors adapted upon any alteration in the proportion of current flowing in the said conductors due to leakage from one thereof, to increase the difference of currents, the mutually inductive relationship between the leads acting to still further increase the difference of currents.

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1,088,902. CABLE FOR ELECTRIC-CURRENT-DISTRIBUTING SYSTEMS. PHILIP VASSAR HUNTER, Newcastle-upon-Tyne, England. Filed Feb. 14, 1912, Serial No. 677,461. Renewed Sept. 5, 1913. Serial No. 788,325. (Cl. 173—264.)



1. In an electric distribution system, a cable comprising a pair of leads, insulating material of abnormally low insulation value separating such leads thereby enabling the leads to be used in parallel with no appreciable difference of potential between them, and insulating material surrounding said pair of leads, collectively, of a much greater insulating value than the material separating the leads, substantially as described.

2. In an electric distribution system, a cable comprising a pair of leads, material of abnormally low insulating value separating such leads thereby enabling the leads to be used in parallel with no appreciable difference of potential between them and in such close proximity one to another that the reaction of one upon the other by mutual induction with disturbance in the proportion of currents carried is rendered very pronounced, and material surrounding said pair of leads, that is collectively, of a much greater insulation value than the material separating the leads, substantially as described.

3. In an electric distribution system, a cable comprising a pair of leads, insulating material of abnormally low insulation value separating such leads, thereby enabling the leads to be used in parallel with no appreciable difference of potential between them, and insulating material surrounding such pair of leads, collectively, of a much greater insulation value than the material separating the leads, the leads being arranged to occupy different positions at intervals throughout the length of the cable to prevent alteration to the division of current between the two leads by unequal inductive effect due to extraneous currents.

4. In an electric distribution system, a cable comprising a pair of leads, material of an abnormally low insulation value separating such leads thereby enabling the leads to be used in parallel with no appreciable difference of potential between them and in such close proximity one to another that the reaction of one upon the other by mutual induction with disturbance in the proportion of currents carried by them is rendered very pronounced, and insulating material surrounding said pair of leads, collectively, of a much greater insulation value than the material separating the leads, the leads being each divided into an even number of sections of equal lengths and each section of each lead being connected to a non-corresponding section of the other lead.

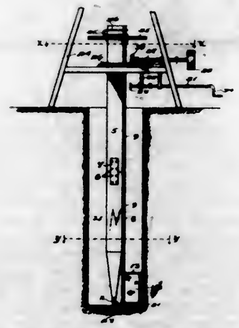
5. In an electric current distributing system, a cable having cores separated one from another by insulation commensurate with the difference of potential required therebetween, each core comprising divided leads between which there is normally no difference of potential and separated by insulating material commensurate with the momentary difference of pressure which may exist between the leads should leakage occur.

[Claim 6 not printed in the Gazette.]

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1,088,903. WELL-DIGGING OR EARTH-BORING APPARATUS. MAX HYMAN, Relee, Va. Filed July 11, 1913. Serial No. 778,423. (Cl. 255—21.)



1. In a device of the character described, the combination with a supporting standard, of a laterally extending, vertical, open frame, means for securing a bag or like receptacle in position to receive the dirt discharged through said frame, and a cutting blade carried by said frame.

2. In a device of the character described, the combination with a supporting standard, of a laterally extending, vertical, open frame, means for securing a bag or like receptacle in position to receive the dirt discharged through said frame, a cutting blade carried by said frame, and an auger carried by said standard below said cutting blade.

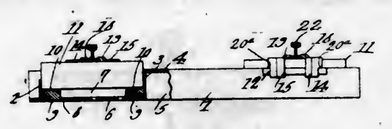
3. In a device of the character described, the combination with a supporting standard, of a laterally extending, vertical, open frame, means for securing a bag or like receptacle in position to receive the dirt discharged through said frame, a cutting blade carried by said frame, an auger carried by said standard below said cutting blade and means for raising and lowering said receptacle.

4. In a device of the character described, the combination with a supporting standard, of a fixed, open frame carried thereby and lying in a vertical plane, a cutting blade carried by the lower part of said fixed frame, a longitudinally reciprocatory movable frame arranged to have interlocking engagement with said fixed frame, and means for securing the mouth of the bag to said reciprocatory frame.

5. In a device of the character described, the combination with a rotative standard, of an auger at the lower end thereof, a fixed, laterally extending, vertically disposed, open frame disposed adjacent the lower portion of said standard and having bodily movement therewith, a movable frame having interlocking engagement with the fixed frame and arranged to register therewith, means for securing the mouth of a bag about said movable frame and a cutting blade carried by the fixed frame.

[Claims 6 to 9 not printed in the Gazette.]

1,088,904. RAILROAD-TIE. DAVID H. HYNDS, Todd, Tex. Filed Sept. 15, 1913. Serial No. 789,829. (Cl. 238—5.)



1. In a device of the class described, a tie including ribs; interchangeable retainers of different widths engaged beneath the ribs; and reversible keys engaged with the tie and with the retainers and provided with projecting shoulders.

2. In a device of the class described, a tie; a rail thereon; rail retainers of different widths upon the tie and interchangeably mounted upon opposite sides of the rail; retainer engaging keys interchangeably mounted upon opposite sides of the respective retainers, one key being reversible and having a retainer engaging shoulder; and means for securing the retainers and keys to the tie.

3. In a device of the class described, a tie having ribs provided with openings; an arched rail retainer extended transversely of the top of the tie and slidably engaged beneath the ribs, for movement longitudinally of the tie; and an arched key extended transversely of the top of the tie and including depending arms received in the openings, the key being vertically removable and constituting an abutment for the retainer.

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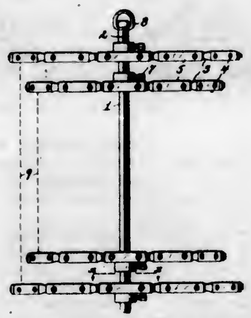
1,088,905. WHEEL AND TIRE THEREFOR. HENRY KITCHER, Toronto, Ontario, Canada. Filed Feb. 14, 1913. Serial No. 748,393. (Cl. 152—10.)



1. In a wheel and tire therefor, the combination with an annular casing comprising a felly having an annular slot in its periphery, of a pneumatic tube held within the casing, bearing brackets extending upwardly from the annular casing to each side of the annular slot, radially depressible sections having enlarged inner ends bearing upon the inner tire and having enlarged outer ends, an outer casing or tire secured to the enlarged outer ends of the sections and having inwardly curved web-like portions at each side thereof engaging beneath said enlarged ends and terminating in beaded portions and brackets secured to the annular casing or felly and extending around such beaded portions, as and for the purpose specified.

2. In a wheel and tire therefor, the combination with an annular casing forming the felly having a peripheral slot formed therein, of a pneumatic tube held within the casing, depressible sections held within the peripheral slot and having enlarged inner ends bearing upon the pneumatic tube, and an enlarged outer end, a tire secured on such enlarged outer ends, certain of said depressible sections being provided with open ended slots, strips of flexible resilient material extending through the slots and having projections extending between each of said last mentioned sections above and below said strips thereby holding the sections normally apart and allowing the sections to draw together tightly.

1,088,906. PHOTOGRAPHIC-FILM DEVELOPING AND DRYING DEVICE. CONRAD H. KNOBLAUCH, Newark, N. J. Filed June 9, 1913. Serial No. 772,467. (Cl. 95—100.)



1. A photographic film developing and drying device, the same comprising a central support, a pair of film holding elements relatively adjustable along said support and means on the peripheries of said elements for clamping photographic films extended between said pair of elements.

2. A photographic film developing and drying device, the same comprising a central support, film holders comprising pairs of supports of different dimensions adjustably secured to said central support, both supports of a pair of supports of lesser dimensions being located between the supports of a pair of supports of greater dimensions, said supports being provided with means for holding a series of photographic films between the peripheries of said supports.

3. A photographic film developing and drying device, the same comprising a central support, film holders of different dimensions adjustably secured to said central support, the circumferential edges of said holders being provided with a plurality of sets of film securing means, and a plurality of clamping plates provided with split bushings designed to have holding engagement with said film securing means.

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1,088,907. PROCESS OF MANUFACTURING A SUBSTITUTE FOR VULCANITE. ERNST KNOLL, Meiningen, Germany, assignor to The Firm of Metall- und Isoller-Werke G. M. B. H. Meiningen, Meiningen, Germany. Filed Oct. 14, 1912. Serial No. 725,730. (Cl. 106—22.)

1. A process of producing a substitute for vulcanite consisting in boiling ground rubber refuse with oil until a gelatinous mass is obtained, in mixing the said mass with a loading material, oil and sulfur, in vulcanizing the mixture thus obtained, in pulverizing the vulcanized product, in mixing the powder thus obtained with a caoutchouc substitute, oil and sulfur, and in vulcanizing the mixture thus obtained the amounts of the several ingredients being so proportioned that the amount of said rubber is not materially above 2% of the entire mass.

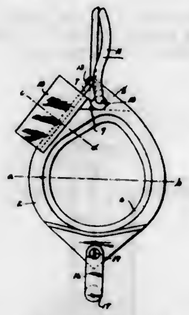
2. A process of producing a substitute for vulcanite consisting in boiling ground rubber refuse with oil until a gelatinous mass is obtained, in mixing the said mass with powdered slate, oil and sulfur, in vulcanizing the mixture thus obtained, in pulverizing the vulcanized product, in mixing the powder thus obtained with a caoutchouc substitute, oil and sulfur, and in vulcanizing the mixture thus obtained the amounts of the several ingredients being so proportioned that the amount of said rubber is not materially above 2% of the entire mass.

3. A process of producing a substitute for vulcanite consisting in boiling ground rubber refuse with oil until a gelatinous mass is obtained, in mixing the said mass with a loading material, oil and sulfur, in vulcanizing the mixture thus obtained, in pulverizing the vulcanized product, in mixing the powder thus obtained with guayule, oil and sulfur, and in vulcanizing the mixture thus obtained the amounts of the several ingredients being so proportioned that the amount of said rubber is not materially above 2% of the entire mass.

4. A process of producing a substitute for vulcanite consisting in pulverizing a vulcanized mixture of gelatinous regenerated rubber, powdered slate, refuse oil and sulfur, and in vulcanizing a mixture of the powder thus obtained with a caoutchouc substitute, a pigment, oil, wax, resin, and sulfur the amounts of the several ingredients being so proportioned that the amount of said rubber is not materially above 2% of the entire mass.

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1,088,908. TUG-LOOP. RICHARD P. KRONKE, Meriden, Conn. Filed June 14, 1913. Serial No. 773,618. (Cl. 54—50.)



A tug loop comprising two members formed in adjacent faces with grooves, a lining the edges of which are located in said grooves the upper ends of the members formed with slots providing spring-fingers, the upper ends of the members formed with notches opening into said slots, a buckle located in said notches, a tuck loop inclosing said spring-fingers, means for connecting the outer ends of the spring-fingers with the members, and means for connecting the lower ends of the members.

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1,088,909. METALLURGICAL METHOD. HANS KUZEL, Baden, near Vienna, Austria-Hungary, and EDGAR WEDEKIND, Strassburg, Germany, assignors to General Electric Company, a Corporation of New York. Filed June 10, 1910. Serial No. 566,222. (Cl. 75—17.)

1. The method of producing refractory metals which consists in reducing oxygen compounds of such metals with metallic calcium in an inert environment.

2. The method of producing pure refractory metals which consists in reducing metallic oxids of such metals with calcium in a vacuum.

3. The method of producing metal which consists in heating an intimate mixture of a compound of the metal to be reduced and metallic calcium to cause reaction, and excluding oxygen and nitrogen from the reaction zone during the process of the reaction.

4. The method of producing substantially pure zirconium which consists in reducing zirconium oxid with calcium in an inert environment.

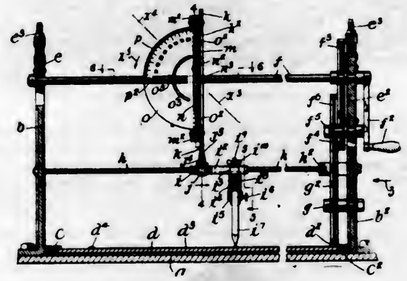
5. The method of producing pure zirconium which consists in reducing zirconium oxid with calcium and treating the reaction product to eliminate all substances except the metal, the reactions and treatment being effected in the absence of nitrogen and oxygen.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,910. DRAWING-MACHINE. THOMAS M. LARSEN, Brooklyn, N. Y. Filed Mar. 6, 1913. Serial No. 752,264. (Cl. 33—2.)

1. In a machine of the class described, a frame comprising a base provided at its opposite sides with uprights, a sheet support movable longitudinally on said base, a transverse support arranged over the sheet support, a marker support movable longitudinally on said transverse support, a shaft mounted in said uprights and over said transverse support, and means whereby the turning of said shaft will move the sheet support longitudinally of the frame and the marker support transversely of the frame.



2. In a machine of the class described, a frame comprising a base having opposite side uprights, a sheet support movable longitudinally on said base, a transverse support mounted between said uprights, a marker holder movable longitudinally on said transverse support, a shaft mounted in the top portion of said uprights, a plate connected with the marker holder and provided with a central slot through which said shaft passes, a support connected with said plate, a rotary disk mounted on said support, a protractor connected with said disk and passing through said shaft, and means whereby the turning of said shaft will move the sheet support longitudinally of the frame.

3. In a machine of the class described, a frame comprising a base provided at its opposite sides with uprights, a transverse support mounted between said uprights, a marker holder movable longitudinally on said transverse support, a sheet support movable longitudinally of the base, a shaft mounted in said uprights and over the transverse support, and means whereby the turning of said shaft will move the sheet support longitudinally of the base, a protractor mounted in the said shaft centrally thereof and adjustable therein into different positions, a plate connected with the marker holder by a universal joint and provided with a central slot through which the said shaft passes, a support connected with said plate and a disk connected with the protractor and rotatable in said support, said shaft being passed centrally through said support and said disk, and being loosely connected with said disk.

4. In a machine of the class described, a base, a sheet support movable longitudinally thereof, a marker holder supported above the base and movable transversely of the machine, a shaft mounted above the marker holder, and means whereby the turning of said shaft will move the sheet support longitudinally of the base and the marker holder transversely thereof.

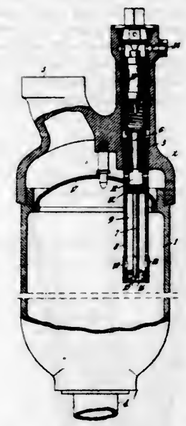
5. In a machine of the class described, a frame, a marker holder movable transversely thereof, a shaft, a slotted plate connected with said marker holder by a universal joint and through which the shaft passes, a support connected with said plate, a rotatable disk connected with said support and provided with a large central opening through which the shaft passes, a protractor connected with said disk and passing through a central longitudinal slot in said shaft, and means for adjusting said protractor in said shaft.

[Claims 6 and 7 not printed in the Gazette.]





1,088,911. IGNITION DEVICE. FRANK M. LEAVITT, Smithtown, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed May 29, 1913. Serial No. 770,740. (Cl. 60—3.)



1. An ignition device comprising a slow-burning fuse supported at one end, and a casing of inflammable material so arranged that when the primer is detonated the flame therefrom will pass between the fuse and the casing and ignite the former at its free end.

2. An ignition device comprising a cordite pencil supported at one end, and a celluloid casing surrounding such pencil.

3. In an ignition device, the combination with an elongated body of slow-burning material, of a holder engaging one end of such body, an inflammable casing surrounding such body, a mass of inflammable material in the casing at the free end of the said body, and means for passing a flame through the casing to such mass.

4. The combination with a slow-burning fuse, of a holder from which the fuse is pendant, and a casing inclosing the fuse having a flame opening at one end, and a vent hole at its other end.

5. The combination with a holder, of a pencil of inflammable material supported at one end by the holder, an inflammable casing supported by the holder and surrounding the pencil, said casing being provided at its other end with an opening, and a readily rupturable covering for said opening.

[Claim 6 not printed in the Gazette.]

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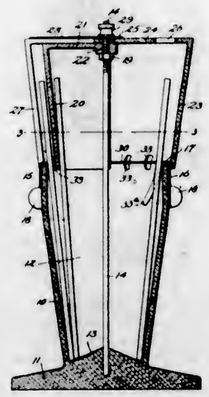
1,088,912. STRAW-DISPENSING APPARATUS. THEODORE B. LONG, Coatesville, Pa., assignor of one-half to Ralph P. Wilton, Wrightsville, Pa. Filed July 17, 1912. Serial No. 709,937. (Cl. 211—8.)

1. A dispensing apparatus comprising a body and a removable crown piece fixedly connected together to contain in loose bulk articles to be dispensed, and a revoluble dispensing member between the body and the crown piece for selecting individual articles from the loose bulk and carry them past an opening in said crown piece through which they may be manually withdrawn one at a time, said dispensing member retaining the selected articles until withdrawn.

2. A dispensing apparatus comprising a hollow body tapering outwardly from the bottom to the top, a crown piece also tapering outwardly toward the top fixed to said body and having a side opening, and the revolubile dispensing member mounted on the body between said body and

the crown piece for presenting articles contained within the apparatus in front of said opening to permit their removal.

3. A dispensing apparatus comprising a hollow body having a conical bottom and sides tapering outwardly from the bottom to the top, a stationary rod rising from the bottom of the body, a crown piece also tapering outwardly toward the top and having a side opening, fastened on said rod, and a revoluble dispensing member mounted on the top of the body between its upper edge and the crown piece, said member being provided with means for engaging articles within the apparatus and delivering them one at a time in front of the opening in the crown piece.



4. A dispensing apparatus comprising a hollow body tapering outwardly from the bottom to the top, a crown piece also tapering outwardly at the top and having a side opening, fixed to said body, a shell within the crown piece disposed within the side opening of the crown piece to form a backing therefor, means for fastening rigidly together the body, crown piece and shell, and a dispensing member revolubly mounted on the body between the crown piece and shell.

5. A dispensing apparatus comprising a hollow body tapering outwardly from the bottom to the top, the crown piece also tapering outwardly toward the top and having a side opening, fixed to said body, and a revoluble dispensing member for presenting articles contained within the apparatus in front of said opening, said dispensing member comprising a cylindrical band embracing the body and an internal flange over the top of the same, said flange having a plurality of recesses in its inner edge into which the articles to be dispensed fall and by which they are delivered.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,913. EMBROIDERY-HOOP. JOHN G. MACCUNE, Minneapolis, Minn., assignor of one-half to Frank H. Peterson, Minneapolis, Minn. Filed Sept. 16, 1912. Serial No. 720,514. (Cl. 45—24.)



1. An embroidery hoop comprising an inner continuous ring, an outer ring split or divided transversely and adapted to be expanded sufficiently to encircle said inner ring, said rings having annular grooves or depressions therein and a spring consisting of a metal hoop divided transversely at one point and adapted to encircle said rings and bear uniformly thereon and cause said rings to exert a uniform pressure on the cloth inserted between them.

2. An embroidery hoop comprising an inner and an outer ring, one of said rings being split or divided transversely and adapted to grip the adjacent surface of the other ring, said rings having grooves or depressions therein and a spring hoop divided transversely at one point and fitting within one of said grooves and bearing uniformly on said rings and causing them to exert a uniform pressure on the cloth inserted between them.

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1,088,914. INCANDESCENT-LAMP SOCKET. HARRY MARKS and SANFORD HELSEL, Johnstown, Pa., assignors of one-third to William C. Howland, Johnstown, Pa. Filed Mar. 13, 1913. Serial No. 754,070. (Cl. 173—356.)



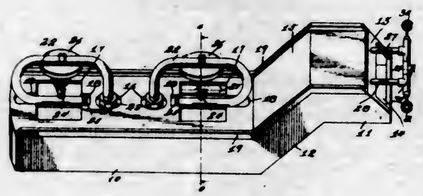
1. In an incandescent electric lamp socket, the combination with the switch supporting block and switch mechanism therefor of a lamp receptacle revolubly supported on said switch block, means to lock said lamp receptacle against turning in a direction for screwing a lamp therein, said means permitting the receptacle to be freely revolved in a reverse direction, and means to fasten said receptacle against turning in either direction.

2. In an incandescent electric lamp socket the combination with the switch supporting block and switch mechanism of the socket, of a receptacle supporting block rigidly secured to said switch block, a lamp receptacle revolubly secured to said supporting block, a spring pawl arranged on said supporting block, a beveled stop shoulder formed on said lamp receptacle and adapted to be brought into engagement with the pawl on said supporting block whereby the receptacle is locked against turning in the direction for screwing a lamp therein but is permitted to freely revolve in the opposite direction thereby preventing the lamp from being unscrewed from the receptacle, and a set screw carried by said receptacle supporting block and adapted to be screwed into engagement with the lamp receptacle whereby the latter is locked against turning in either direction.

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1,088,915. OIL-BURNER. JOHN W. MATLOCK, Steelville, Mo. Filed June 9, 1913. Serial No. 772,667. (Cl. 158—64.)

1. A burner of the character described comprising a housing provided with an air inlet opening, a cover for said housing provided with a plurality of openings, a conical coupling in said housing positioned beneath one of the openings in said cover, a burner pipe connected with the upper end of said coupling and carried over another opening in said cover and having its end portion curved downwardly and carried back beneath the upper portion of the burner pipe and provided with an outlet opening, a deflector plate carried by the upper portion of said burner pipe and positioned above the opening formed in the lower portion of the burner pipe, and a fuel supply pipe connected with said coupling.



2. A burner of the character described, comprising a housing having one end portion positioned in a higher plane than the major portion of the housing and connected with the major portion by an inclined neck, a cover for said housing provided with a plurality of openings, a conical coupling in the major portion of said housing positioned beneath one of the openings formed in said cover, a burner pipe connected with said coupling and extending through another opening in said cover and carried over the opening above the coupling in the cover and bent downwardly and carried through the last-mentioned opening into the body portion and bent beneath the upper portion and provided with an outlet opening, a deflector plate carried by the upper portion and positioned above the outlet opening formed in said burner pipe, and a supply pipe entering said body portion through the upper end portion and extending in said inclined neck and having its inner end portion connected with said coupling.

3. In a burner of the character described, a housing, a cover for said housing provided with a plurality of openings, a conical coupling in said housing, a burner pipe connected with said coupling and carried through one of said openings formed in the cover of said housing and having its outer end portion carried over a second opening formed in said cover and bent back through the last-mentioned opening beneath the upper portion and provided with an outlet opening, and a valve controlled supply pipe entering said body portion and connected with said coupling.

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1,088,916. REVERSIBLE DIPPER-TOOTH. WALTER S. MCKEE, Glencoe, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Oct. 27, 1911. Serial No. 657,094. (Cl. 37—16.)



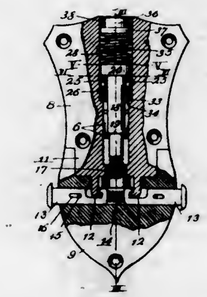
1. A detachable and reversible tooth adapted to be secured to the free end of a supporting shank, said tooth being bifurcated to provide two arms of like form and having a centrally located web connecting said arms with one another, said arms having each a centrally located projecting lug at its free end which lugs are narrower than and extend beyond the inner surfaces of said arms and toward one another, the extremities of said arms and of said lugs lying in a single transverse plane and each arm having also a hole intersecting the lug upon it, said holes being in line with one another so that a securing member may extend through both holes.



2. In combination a detachable and reversible tooth for excavating dippers, the same being bifurcated to provide two arms of like form and having a centrally located web connecting said arms with one another, said arms having each a centrally located projecting lug at its free end, which lugs are narrower than and extend beyond the inner surfaces of said arms and toward one another, the extremities of said arms and of said lugs lying in a single transverse plane; a supporting shank the free end of which is shaped to receive said tooth and to which the same is secured, the extremity of said shank being slotted to receive the web aforesaid, and provided with two oppositely located transverse shoulders against which the extremities of said arms abut, and with two centrally located recesses within which said lugs lie; and a securing member extending through said arms and shank and through the lugs and recesses aforesaid for holding said tooth in place.

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1,088,917. TRUNK-FASTENER. SARKIS MELEDONIAN, Seattle, Wash. Filed Feb. 10, 1913. Serial No. 747,399. (Cl. 70—27.)



1. In a device of the character described, a lock consisting of a hasp member and a body member which latter has an internally-threaded portion, a lock bolt operably-mounted in the hasp member and adapted to engage the internally-threaded portion to fasten the two members of the lock together, said lock bolt having a key-slot at one end, a stationary cylinder in the hasp member, tumblers mounted in said cylinder, means to force any one of said tumblers into the key-slot when registering therewith to secure the bolt lock from rotation, and a key adapted to enter said key-slot to force the tumblers therefrom and rotate the lock bolt, for the purpose described.

2. In a device of the character described, a lock consisting of a hasp member and a body member which latter has an internally-threaded portion, a lock bolt operably-mounted in the hasp member and adapted to engage the internally-threaded portion to fasten the two members of the lock together, said lock bolt having a key-slot at one end, a stationary cylinder in the hasp member, tumblers mounted in said cylinder, means to force any one of said tumblers into the key-slot when registering therewith, a key adapted to enter said key-slot to force the tumblers therefrom and rotate the lock bolt, and means in the hasp member to conceal said key-slot.

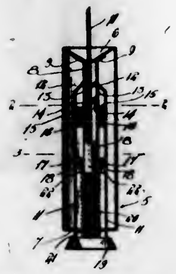
3. In a device of the character described, a lock consisting of a hasp member and a body member which latter has an internally-threaded portion, a lock bolt operably-mounted in the hasp member and adapted to engage the internally-threaded portion to fasten the two members of the lock together, said lock bolt having an irregular shaped key-slot at one end, a stationary cylinder in the hasp member, tumblers mounted in said cylinder, means to force any one of said tumblers into the key-slot when registering therewith, a key adapted to enter said

key-slot to force the tumblers therefrom and rotate the lock bolt, a key-guide rotatably mounted in the hasp member, and opposed yielding means carried by said key-guide to conceal the key-slot in the lock bolt.

4. In a device of the character described, a lock consisting of a hasp member and a body member which latter has an internally-threaded portion, a lock bolt operably-mounted in the hasp member and threaded to engage the internally-threaded portion in the body-member, said lock bolt having an enlarged circular head with a key-slot therein, a stationary cylinder in the hasp member, tumblers operably-mounted in said cylinder, and normally bearing against the lock-bolt head, means to force any one of said tumblers into the key-slot when registering therewith, a key adapted to enter said key-slot to force the tumblers therefrom and rotate the lock bolt, means in the hasp member to conceal the key-slot, and an expansion spring interposed between said means and the head of the lock bolt to yieldingly hold said head in engagement with the cylinder.

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1,088,918. HAT-PIN GUARD. VICTOR MICHET, Knife River, Minn. Filed May 20, 1913. Serial No. 768,896. (Cl. 24—155.)

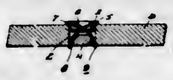


1. A hat pin guard comprising a casing, an inner tubular member spaced from the wall of the casing, leaf springs disposed on each side of the member, beveled surfaces formed on the member, coacting beveled surfaces formed on the inner ends of the springs whereby longitudinal movement of said springs will cause the ends thereof to move apart, and means for moving the springs longitudinally of the member.

2. A hat pin guard comprising a casing, an inner tubular member spaced from the wall of the casing, leaf springs disposed on each side of the member and extending outwardly at one end past the casing, a button secured to the extended ends of the springs, eye portions carried by the tubular member, arms carried by the springs and slidable in the eyes, the said member being provided with beveled faces and the springs being provided with coacting beveled faces adjacent the inner ends thereof whereby longitudinal movement of the springs will cause the inner ends thereof to move with relation to each other.

3. A hat pin guard comprising a casing, a tubular member spaced from the wall of the casing and provided adjacent the receiving end with opposed openings, leaf springs disposed on each side of the member and provided with jaws extending into said openings to engage a pin and having their other end portions extended past the casing, a button on said ends, means for holding the last mentioned end portions in parallel relation to the tubular member, beveled surfaces on the other ends of the springs, coacting beveled surfaces on the tubular member whereby longitudinal movement of the springs will cause the jaws to move with relation to each other, and means for normally holding the jaws in operative relation.

1,088,919. SPINDLE-STEP. JOHN R. MITCHELL, Montclair, N. J. Filed May 14, 1912. Serial No. 697,277. (Cl. 118—21.)



1. A spindle step having a greater diameter at one end than at the other and adapted to fit in a hole in a rail, the said step having a bearing socket in the end of greater diameter and a transverse hole therethrough curved on a plane longitudinal of the step and terminating at the end of smaller diameter within the margin of the step at that end whereby a fastening means may extend into said step at the smaller end through said curved hole therein.

2. The combination with a rail of a step fitting in a hole in said rail with its inner end substantially flush with the inner face of said rail, means for limiting the inward movement of said step in said hole, the said step having longitudinal grooves at its inner end connected by a transverse hole, and a curved spring wire passing through said hole resting in said grooves and engaging the inner face of said rail to lock said step in place.

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1,088,920. [WITHDRAWN.]

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1,088,921. PASTEURIZING-MACHINE. NIELS FREDERIK NISSEN, Copenhagen, Denmark, assignor to Nyeboe & Nissen, Copenhagen, Denmark, a Firm. Filed June 30, 1909. Serial No. 505,296. (Cl. 126—272.)



1. An apparatus for pasteurizing beer and other bottled liquids, comprising a number of fluid containing compartments connected together for circulation of their fluid contents through all of the chambers, a circulating pump for circulating the fluid therethrough *seriatim*, outlet and inlet pipes in connection with each compartment, valves in said pipes, and a pump adapted to circulate fluid through said pipes and the compartments in open communication therewith, whereby a secondary circulation independent of the first circulation can take place through a limited number of the compartments, means for heating the fluid circulated by said second-named pump, and means for automatically opening and closing said valves controlling said outlet and inlet pipes, through which said secondary circulation occurs, said means being controlled by said first named pump.

2. An apparatus for pasteurizing beer and other bottled liquids comprising a number of fluid-containing compartments connected together in series for circulation of their fluid contents, means for separately heating the fluid in each of said compartments, means for producing a circulation of the fluid contents of said compartments throughout the series, and means for automatically stopping the circulation of the water after a certain period of operation of said circulating means.



3. An apparatus for pasteurizing beer and other bottled liquids comprising a continuous series of intercommunicating chambers, through which a heat transmitting medium is adapted to be circulated, a pump inserted in the circuit for producing a circulation of said transmitting medium, valves for admitting an independent heating medium through each compartment, means for automatically opening and closing said valves, and means for automatically stopping the circulation of the heat transmitting medium after a certain pumping period.

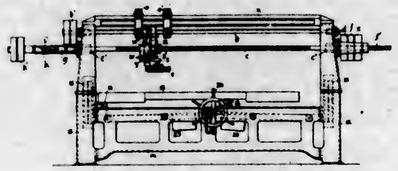
4. An apparatus for pasteurizing beer and other bottled liquids comprising a continuous series of intercommunicating compartments, through which a heat transmitting medium is adapted to be circulated, a pump inserted in the circuit for producing a circulation of said transmitting medium, valves for admitting an independent heating medium through each compartment, and means for automatically opening and closing said valves under the influence of the said circulating pump.

5. An apparatus for pasteurizing beer or the like comprising a continuous series of intercommunicating compartments, through which a heat transmitting medium is adapted to be circulated, a pump inserted in the circuit for producing a circulation of said transmitting medium, valves for admitting an independent heating medium through each compartment, means for automatically opening and closing said valves, said means being controlled by the circulating pump, and means for automatically starting the action of the heat source, when the temperature of the heat transmitting medium passing through the pipe system has sunk to a certain limit, and setting it out of action, when the temperature of this medium has reached a certain limit.

[Claims 6 to 9 not printed in the Gazette.]

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1,088,922. GRINDING AND POLISHING MACHINE. RUDOLF OCHSCHIM, Berlin, Germany. Filed Mar. 7, 1913. Serial No. 752,765. (Cl. 51—11.)



1. In a grinding and polishing machine of the character described, the combination of a frame, a vertical crank mounted therein, a grinding or polishing head connected to said crank by a ball-and-socket joint, means for preventing said head from rotating about the vertical axis of said ball-and-socket joint while allowing it to oscillate about any horizontal axis thereof, means for rotating said crank, and means for slowly moving the axis of said crank horizontally and means for imparting to the crank a rapid horizontal reciprocatory movement.

2. In a grinding and polishing machine of the character described, the combination of a frame, two vertical parallel cranks mounted therein, a grinding or polishing head connected to one crank by a ball-and-socket joint and only vertically slidably connected with the other crank, means for rotating said cranks at equal speeds, and means for slowly moving the axes of said cranks horizontally and means for imparting to the crank a rapid horizontal reciprocatory movement.

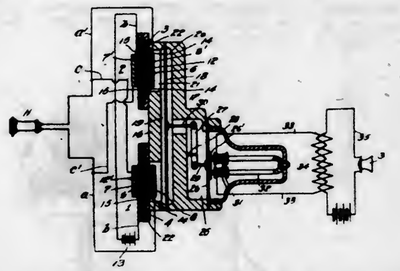
3. In a grinding and polishing machine of the character described, the combination of a frame, a vertical crank mounted therein, a grinding or polishing head connected to said crank by a ball-and-socket joint, means for rotating said crank, and means for slowly moving the axis of said crank horizontally, and means for imparting to the crank a rapid horizontal reciprocatory movement.

4. In a grinding and polishing machine of the character described, the combination of a frame, a vertical crank mounted therein, a grinding or polishing head connected to said crank by a ball-and-socket joint, means for preventing said head from rotating about the vertical axis of said ball-and-socket joint while allowing it to oscillate about any horizontal axis thereof, means for rotating said crank, and means for slowly moving the axis of said crank horizontally; a horizontal feed-shaft operatively connected with said crank and mounted rotatably and axially displaceably in said frame, and means for longitudinally reciprocating said feed-shaft.

5. In a grinding and polishing machine of the character described, the combination of a frame, a vertical crank mounted therein, a grinding or polishing head connected to said crank by a ball-and-socket joint, means for preventing said head from rotating about the vertical axis of said ball-and-socket joint while allowing it to oscillate about any horizontal axis thereof, means for rotating said crank, and means for slowly moving the axis of said crank horizontally; a horizontal feed-shaft operatively connected with said crank and mounted rotatably and axially displaceably in said frame, and means for longitudinally reciprocating said feed-shaft; an auxiliary shaft journaled in the frame and having right and left handed threads which cross and join at their ends, two stops fast on said feed-shaft, and a block engaging said threads and embracing said feed-shaft between said stops.

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1,088,923. ELECTRICAL SOUND-TRANSMITTER. MILES E. PEARSON, Seattle, Wash., assignor to The Long Distance Telephone Equipment Co., a Corporation of Washington. Filed Mar. 31, 1913. Serial No. 757,758. (Cl. 179—171.)



1. In apparatus of the class described, a transmitter circuit having in its secondary side an electro-magnet, an armature for the electro-magnet, a receiver circuit having therein a plurality of resistance-varying devices in series and each device having a movable element, a diaphragm connected with each of said elements, a second diaphragm operatively connected with the aforesaid armature, and a flued medium arranged to be acted upon by the second named diaphragm for influencing the first named diaphragms and the respective movable elements.

2. In apparatus of the class described, a casing, a diaphragm within the casing dividing the same into two compartments, a plurality of resistance chambers secured to said casing, a diaphragm in each of said chambers, a movable electrode secured to each of the last named diaphragms, circuit connections between said movable electrodes, relatively stationary electrodes provided for the respective resistance chambers at opposite sides of the diaphragm thereof, a granular mass intermediate the mov-

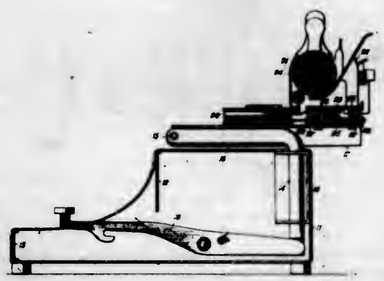
able and stationary electrodes of each resistance chamber, communicative connections between the interiors of said chambers and the adjacent compartment of the casing whereby a fluid medium coöperates with the first named diaphragm for imparting vibratory movements to the second named diaphragms and to the movable electrodes carried thereby, a receiver, circuit connections between the receiver and the stationary electrodes whereby the vibratory movements of the movable electrodes will afford alternating currents in the receiver.

3. In apparatus of the class described, a transmitter circuit including an electro-magnet, a receiver circuit including a pair of resistance-varying devices having fixed and movable electrodes and a mass of granular material, a diaphragm, an armature under the control of the electro-magnet, means operatively connected with the diaphragm and acting on the armature in opposition to the electro-magnet whereby the energizing or deënergizing of the electro-magnet, vibrates the diaphragm, and means connected with the movable electrodes of the resistance-varying device and arranged to vibrate the movable electrode through the agency of variations of air-pressures caused by the vibratory movement of the diaphragm whereby said devices are influenced to afford alternating currents in the receiver circuit.

4. In apparatus of the class described, a transmitter circuit having in its secondary side an electro-magnet, an armature for the electro-magnet, a receiver electrically connected with a plurality of resistance-varying devices which are each provided with a movable electrode, a diaphragm connected with each of said electrodes, a second diaphragm operatively connected with said armature, and a fluid medium arranged to be acted upon by the second named diaphragm for influencing the first named diaphragms and the respective movable electrodes to impart alternating currents to said receiver.

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1,088,924. CARRIAGE FOR TYPE-WRITING MACHINES. OTTO PETERMANN, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company, a Corporation of New York. Filed June 16, 1909. Serial No. 502,631. (Cl. 197—69.)



1. In a typewriting machine, the combination of a carriage bed provided with grooves along its upper surface lengthwise of the carriage on opposite sides of the longitudinal center thereof, a carriage adapted to move along said bed and having a plate portion located above the bed and having grooves on its under surface lengthwise thereof opposed to the grooves of the bed and forming therewith two parallel and horizontally arranged raceways, a plurality of balls arranged in one of the race-ways, a single ball arranged in the other race-way, and a tie device loosely holding the balls to cause them to move in unison.

2. In a typewriting machine, the combination of a vertically movable carriage bed provided with grooves along its upper surface lengthwise of the carriage on opposite sides of the longitudinal center thereof, a carriage adapted to move along said bed and having a plate portion located above the bed and having grooves lengthwise thereof opposed to the grooves of the bed and forming therewith two parallel and horizontally arranged race-ways, a plurality of anti-friction objects arranged in one of the race-ways, a single anti-friction object arranged in the other race-way and a horizontally arranged integral wire tie device loosely holding the objects to cause them to move in unison.

3. In a typewriting machine, the combination with a bed provided with horizontally arranged grooves along the upper surface thereof, of a carriage having a plate opposed to the bed and also having grooves opposed to the grooves of the bed and forming therewith race-ways located on opposite sides of the longitudinal center of the carriage, a plurality of balls arranged in one of the race-ways, a single ball arranged in one of the race-ways, and an integral wire device having a plurality of guides in the form of loops adapted to fit loosely about the balls in one of the race-ways and having an angular portion extending from one of the guides at one end of the device and formed into a single guide at the end of said angular portion which is located substantially central of the first-mentioned guides and in the same plane therewith.

4. In a typewriting machine, the combination of a bed provided with horizontally arranged grooves along the upper surface thereof, a carriage having a plate opposed to the bed and also having grooves opposed to the grooves of the bed and forming therewith race-ways located on opposite sides of the longitudinal center of the carriage, a plurality of balls arranged in one of the race-ways, a single ball arranged in the other race-way, and a device having a plurality of guides in the form of loops adapted to fit loosely about the balls in one of the race-ways and having a guide for the single ball located substantially central of the first-mentioned guides and in the same plane therewith.

5. In a typewriting machine, the combination with a bed provided with horizontally arranged grooves along the upper surface thereof, of a carriage having a plate opposed to the bed and also having horizontally arranged grooves opposed to the grooves of the bed and forming therewith race-ways located on opposite sides of the longitudinal center of the carriage, two balls arranged in one of the race-ways, a single ball arranged in the other race-way and a device having two end guides in the form of loops adapted to fit loosely about the balls in one of the race-ways and having an angular portion extending from one of the guides at one end of the device and formed into a guide at the end of said angular portion substantially central of the two first-mentioned guides and in the same plane therewith.

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1,088,925. DEVICE FOR LOADING MAGAZINE-RIFLES. ROBERT JULIUS PETERSEN, Birmingham, England. Filed June 12, 1913. Serial No. 773,341. (Cl. 42—87.)

1. In a device for loading rifles, the combination of a tubular member having a bore adapted to contain a plurality of cartridges placed end to end therein; an extension on said member co-axial therewith and having a bore larger than the bore of said member, said enlarged bore corresponding with and being adapted to receive the extremity of a magazine tube of a rifle, the junction between the enlarged bore and the tubular member being in the form of a shoulder; a cartridge-retaining stop located in said enlarged bore and having its retaining portion so disposed as to retain the cartridges within the aforesaid tubular member and having also an inclined extremity facing toward the open end of the enlarged bore and a spring arm carrying said retaining stop, so arranged that the magazine tube of the rifle when inserted into said enlarged bore of the said extension against the said inclined extremity automatically presses the retaining stop outwardly, releasing the cartridges and permitting them to fall by gravity one behind the other into the open end of the magazine of the rifle; for the purpose specified and substantially as set forth.



2. In a device for loading rifles, the combination of a tubular member adapted to contain a plurality of cartridges placed end to end therein and having an enlarged bore at one end; a spring actuated stop located adjacent to said enlarged bore and normally projecting within the tubular member so as to retain the cartridges in said tubular member but adapted when another tubular member is inserted in said enlarged bore to automatically release the cartridges; and a second stop fixed to the tubular member, located at a distance from the first stop and normally preventing passage of the cartridges to the first stop but permitting a predetermined quantity to pass at will; for the purpose specified and substantially as set forth.

3. In a device for loading rifles, the combination of a tubular member adapted to contain a plurality of cartridges placed end to end therein and having an enlarged bore at one end; a stop for normally retaining the cartridges therein embodying a laterally projecting abutment, an inclined extremity, a spring limb, and a pair of arms at one end of said spring which embrace the tubular member and secure the strip in position; and a second stop fixed to the tubular member, located at a distance from the first stop and normally preventing passage of the cartridges to the first stop but permitting a pre-determined quantity to pass at will; for the purpose specified and substantially as set forth.

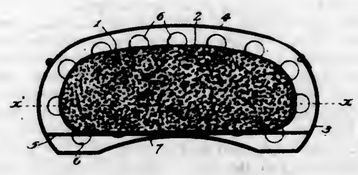
4. In a device for loading rifles, the combination of a tubular member adapted to contain a plurality of cartridges placed end to end therein; a spring actuated stop normally projecting within the tubular member so as to retain the cartridges therein but adapted to be retracted to release the cartridges; and a second stop formed from a strip of spring metal having a pair of arms at its one extremity which embrace the tubular member and secure the stop thereto, an inwardly projecting lug abutting against the exterior of the tube to act as a fulcrum and a second inwardly projecting member normally extending through an opening in the tube but adapted to recede when the extremity of the stop is pressed inwardly; for the purpose specified and substantially as set forth.

5. In a device for loading rifles, the combination of a tubular member adapted to contain a plurality of cartridges placed end to end therein and having an enlarged bore at one end; a spring actuated stop located adjacent to said enlarged bore and normally projecting within the tubular member so as to retain the cartridges in said tubular member, but adapted when another tubular member is inserted in said enlarged bore to automatically release the cartridges; and a second stop formed from a strip of spring metal having a pair of arms at its one extremity which embrace the tubular member and secure the stop thereto, an inwardly projecting lug abutting against the exterior of the tube to act as a fulcrum and a second inwardly projecting member normally extending through an opening in the tube but adapted to recede when the extremity of the stop is pressed inwardly; for the purpose specified and substantially as set forth.

[Claim 6 not printed in the Gazette.]

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1,088,926. CHEMICAL HEATER. ALBERT L. RADLEIN and JAMES W. MURPHY, Chicago, Ill. Filed Sept. 23, 1912. Serial No. 721,861. (Cl. 126—206.)

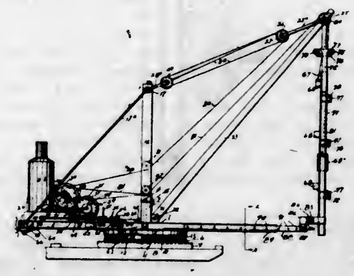


1. A chemical heater, comprising a mixed mass of iron in a comminuted state and chlorid of ammonium, and a housing of water absorbent material inclosing said mass, substantially as set forth.

2. A chemical heater, comprising a mixed mass of iron in a comminuted state and chlorid of ammonium, and a housing of flexible water absorbent material inclosing said mass, substantially as set forth.

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1,088,927. PILE-DRIVING MACHINE. THOMAS LEROY REDDING, Seattle, Wash. Filed Jan. 30, 1913. Serial No. 745,084. (Cl. 61—38.)



1. The combination in a device of the class described, having a centrally pivoted main frame and an engine slidable radially upon the said frame, of means for adjusting the boom and lead of the device whereby a pile may be driven at any degree of angularity with respect to the horizontal.

2. The combination in a device of the class described having a boom and a swingable lead and a centrally pivoted main frame, of an engine slidable radially with respect to the main frame and means for swinging the lower end of lead whereby a pile may be driven which diverges upwardly from the vertical plane of the pivot of the main frame.

3. The combination in a device of the class described having a centrally pivoted main frame, boom, swingable lead and engine, of a bed for the engine which is slidable radially with respect to the main frame, and means for holding the engine in its various moved positions, an A frame hinged centrally of the main frame and tie rods for holding the same in its operative position, slides at the forward part of the main frame which are movable radially with respect to the said frame, connections be-

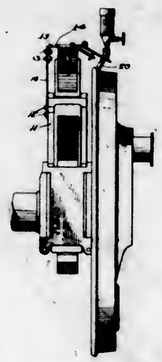
tween the said slides and the lead whereby the latter may be moved to direct a pile inwardly on a slant toward the plane of the pivot of the main frame.

4. The combination in a pile driving machine having a centrally pivoted main frame, boom, swingable lead and engine, of a bed for the engine which moves radially with respect to the main frame in ways along the inner side of the frame, sliding bars which also move radially, but upon the opposite side of the main frame, means for securing the said bars in their adjusted position, a pivoted connection between the lower end of the lead and the said bars whereby the lower end of the lead may be moved toward the pivot of the main frame.

5. The combination in a pile driving machine having a swingable lead, of parallel I beams joined together to form a main frame, an engine bed slidably supported between the projections from the I beams, sliding bars similarly supported upon the sides of the main frame opposite to that which supports the engine, a cross head connected to the forward ends of said bars, a block slidably mounted upon said cross head and pivoted connections between the said block and the lower end of the lead of the machine.

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1,088,928. FLANGE-LUBRICATOR. DAVID REID, Globe, Ariz. Filed Apr. 1, 1913. Serial No. 758,201. (Cl. 184—3.)



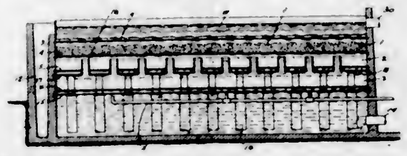
1. In a device of the class described comprising a supporting bar, a bracket carried by said supporting bar, a lubricator, a lubricator supporting member hingedly secured to said supporting bracket, an adjusting bracket carried by said supporting bracket, means carried by said adjusting bracket whereby said lubricator supporting member may be adjusted relative to said adjusting bracket.

2. In a device of the class described comprising a supporting bar, a supporting bracket provided with a downwardly projecting foot at one end carried by said supporting bar, a lubricator, a lubricator supporting member hingedly secured to said supporting bracket, an adjusting bracket provided with a rearwardly extending foot secured to the under face of said supporting bracket, said adjusting bracket provided with a threaded opening, an adjusting screw threaded in said opening in said adjusting bracket and adapted to rest against said lubricator supporting member whereby said lubricator supporting member may be adjusted relative to said adjusting bracket.

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1,088,929. FILTER. HANS REISERT, Cologne, Germany. Filed June 26, 1913. Serial No. 775,978. (Cl. 210—8.)

1. In a filter, the combination of a plurality of superposed filter beds, means over the top bed for delivering the water which is to pass through the several beds, means for dividing the flow of water from said means so that different parts of it pass through the material of different beds, a chamber beneath the beds to receive the filtered water therefrom, and means for admitting air under pressure to said chamber so as to drive the water therein upward through the beds.



2. In a filter, the combination of a plurality of superposed filter beds, means for dividing the water to be filtered so that different parts thereof pass through the material of different beds, a chamber adapted to receive filtered water from all the beds and to hold a sufficient quantity to wash out the same, and means for forcing the filtered water in said chamber backward through the beds when desired.

3. In a filter, the combination of a plurality of superposed filter beds, a chamber beneath the same for receiving the filtered water from the several beds, means for dividing the flow of water comprising ducts leading downward from one or more of the beds through the bed or beds beneath, and means for forcing the clear water in said chamber back through the beds and ducts for washing out when desired.

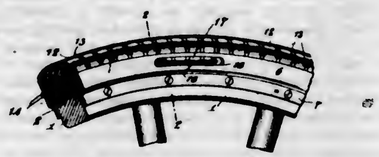
4. In a filter, the combination of a plurality of superposed filter beds, a chamber beneath the same for receiving the filtered water from the several beds, a wall between said beds and chamber, one or more downtakes extending into the latter so as to afford water-sealed means of communication between the beds and chamber, means for admitting air under pressure to said chamber when desired so as to force the water backward through said downtakes to wash out the beds, and ducts extending downward from one or more of the beds through one or more beds beneath so that the filtrate from the bed or beds above reaches said chamber without passing through the material of the bed or beds below.

5. In a filter, the combination of a plurality of superposed filter beds, a chamber beneath the same for receiving the filtered water from the several beds, a wall between said beds and chamber, one or more downtakes extending into the latter so as to afford water-sealed means of communication between the beds and chamber, means for admitting air under pressure to said chamber when desired so as to force the water backward through said downtakes to wash out the beds, a wall between two of the beds, and one or more ducts extending downward from said wall through the bed or beds below and delivering into said downtakes.

[Claims 6 to 12 not printed in the Gazette.]

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1,088,930. TIRE. GIUSEPPE RESTUCCI, Naples, Italy, assignor of one-half to Thomas P. Pugliatti, Naples, Italy. Filed May 5, 1910. Serial No. 559,624. (Cl. 152—9.)



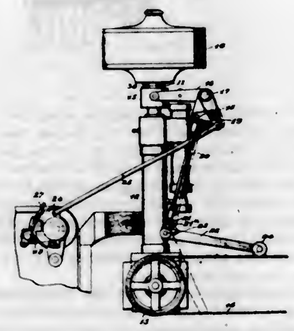
1. A tire comprising a main tread portion having a circumferential opening therethrough, a filling-piece interposed between the adjacent ends of the tire, cross-heads interposed between said filling-piece and said main tread portion, a band passing through said opening and said cross-heads and having ends projecting into said filling-piece, portions of said cross-heads projecting from the sides of said body portion, and adjustable means connecting said projecting portions.

2. A tire comprising a main body portion having a circumferential opening therethrough, a filling-piece having a tread surface similar in contour to that of the main tread portion of the tire and interposed between the adjacent ends of the tire, cross-heads interposed between said filling-piece and said body portion, a band passing through said opening and said cross-heads and having ends projecting into said filling-piece, portions of said cross-heads projecting from the sides of said body portion, and adjustable means connecting said projecting portions.

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1,088,931. ENGINE-STOP. MICHAEL RIESNER, Cincinnati, Ohio, assignor to International Steam Pump Company, a Corporation of New Jersey. Filed Oct. 24, 1911. Serial No. 656,458. (Cl. 121—103.)



1. In combination, a governor, a valve gear, connections between the governor and the valve gear, and a safety device controlling the valve gear independently of the governor, without breaking the connections between the governor and the valve gear.

2. In combination, a governor, a safety lever, a valve gear, connections between the governor and the valve gear adapted to move the valve gear normally in unison with the movement of the governor, and supplementary devices adapted upon movement of the safety lever to cause said connections to move the said valve gear independently of the governor, without breaking the connections between the governor and the valve gear.

3. In combination, a valve gear, an operating link attached to said gear, a governing device and a safety device, each of said devices controlling the movement of the valve gear through the said link, the control of the said valve gear and link by the safety device being at all times independent of the governing device, and the governing device at all times having an unbroken connection with the operating link.

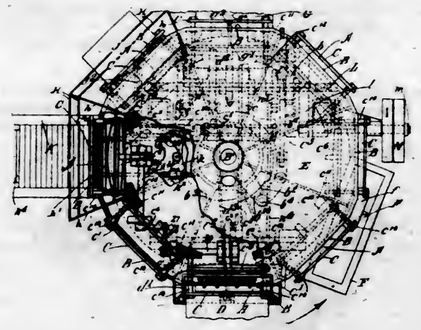
4. In combination, a governor, a safety lever, a cut-off inlet valve gear, connections between the governor and said gear whereby the point of cut-off is controlled by the position of the governor, the said connections including intermediate mechanism operable in any position of the governor and adapted to prevent the opening of the inlet valve when the safety lever is moved, without breaking the connection between the governor and the gear, substantially as described.

5. In combination, a governor and valve gear, connections between the governor and valve gear adapted to hold the valve open when the governor is in its lowest position, and a safety device operable through said connections to close the valve independently of the position or movement of said governor.

[Claims 6 to 13 not printed in the Gazette.]

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1,088,932. PAMPHLET-COVERER. MARRIOTT CLAUDE RITCHIE, London, England. Filed Oct. 24, 1910. Serial No. 588,714. (Cl. 11—33.)



1. In a machine for covering books and the like, the combination of a horizontal disk having a plurality of spaced flattened surfaces in its edge, means for intermittently rotating said disks, a plurality of clamping heads carried by said disk and movable each toward one of said flattened surfaces to firmly hold between said surface and a head a book to be covered with its back down, means for positively opening each clamping head during each pause in the movement of said disk to receive a book, means for applying adhesive to the back of each book as the disk is rotated, a support for a stack of covers, means for elevating said stack into contact with a back of a book to cause the uppermost cover to adhere to said book back, supports for holding said cover flat as said disk travels to the point of delivery, means for opening said clamping head to release said covered book, and means for folding said cover against the sides of the book as the latter is discharged.

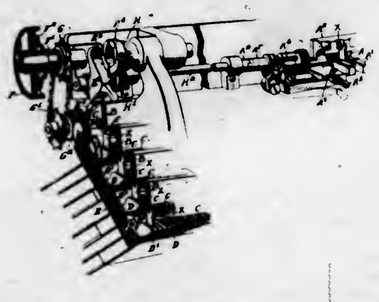
2. In a machine for covering books and the like, the combination of a horizontal disk having a plurality of spaced flattened surfaces on its outer edge, means for intermittently rotating said disk, a plurality of clamping heads carried by said disk and movable each toward one of said flattened surfaces to firmly hold between said surface and the head a book to be covered with its back down, a rocking arm for positively opening each clamping head when it is stopped in position to receive a book, means for applying an adhesive to the back of each book as the disk is rotated, a support for a stack of covers, means for elevating said stack into contact with the back of a book to cause the uppermost cover to adhere to said book back, supports for holding said cover flat as the disk travels to the point of delivery, a rocking arm for opening said clamping head to release said covered book, a common means for simultaneously actuating said rocking arms to open said clamps to respectively receive and discharge a book, and means for holding said cover upon the book as the latter is discharged.

3. In a machine for covering books and the like, the combination with a base plate, a top plate and supports between said plates rigidly secured thereto, of a vertical shaft journaled in said plates, a horizontal disk having a plurality of spaced flattened surfaces on its outer edge fixed on said shaft, a ratchet wheel on said shaft and means for actuating said ratchet wheel to intermittently rotate said disk, a plurality of clamping heads carried by said disk

and movable each toward one of said flattened surfaces to clamp therebetween a book to be covered with its back down, a rocking arm mounted on said top plate for positively opening said clamping head as the disk rotates into position to receive a book, means for feeding a book between a clamping head and the flattened surface of the disk, an adhesive applying device for the back of a book, means for pressing a cover into contact with the adhesively coated book back, supports for sustaining said cover flatwise as the book travels to the point of delivery; a second rocking arm on said top plate for opening the clamping head to release a book, and a common means for simultaneously actuating said rocking arm, to open the clamps to respectively receive and discharge a book.

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1,088,933. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 10, 1913. Serial No. 741,149. (Cl. 199—7.)



1. In a typographical machine, the combination with a plurality of distributing mechanisms, of means whereby one of said mechanisms will be arrested by its abnormal operation while another distributing mechanism continues in operation.

2. In a typographical machine, the combination of a plurality of distributing mechanisms, common operating means connected thereto, and means whereby one of said distributing mechanisms will be disconnected from the operating means by its abnormal operation while another distributing mechanism continues in operation under the action of said common operating means.

3. In a typographical machine, the combination of two distributing mechanisms, separate driving connections therefor, and means whereby one of said connections will be broken while the other distributing mechanism continues in operation.

4. In a typographical machine, the combination of two distributing mechanisms, and separate driving connections therefor, one of said connections comprising a clutch by which it may be broken while the other distributing mechanism continues in operation, together with means controlled by the abnormal operation of one of the distributing mechanisms for opening the clutch.

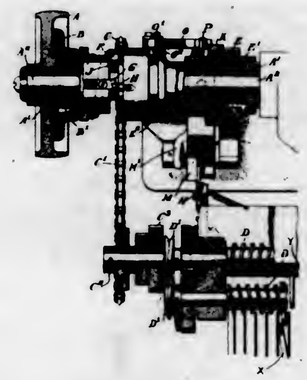
5. In a typographical machine, the combination of two distributing mechanisms and separate stop devices therefor, one of said devices being adapted to act independently of the other and controlled in its action by the abnormal operation of the corresponding distributing mechanism.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,934. TYPOGRAPHICAL MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 12, 1913. Serial No. 760,605. (Cl. 199—7.)

1. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising a clutch, a spring tending to open the clutch, and a second spring of sufficient strength to overcome the other and close the clutch, the second spring being thrown out of action upon the abnormal operation of the distributing mechanism so as to permit the first spring to open the clutch.



2. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising a driving part and a driven part, the latter being formed in relatively movable sections, and springs, one tending to disengage the driving and driven parts, and the other of sufficient strength to maintain their engagement in opposition to the first spring, and devices whereby the relative movement of the sections of the driven part throws the second spring out of action and allows the first to operate.

3. In a typographical machine, the combination of distributing mechanism adapted to be retarded by misplaced matrices, and actuating means therefor, the said actuating means comprising a driving part and a part driven thereby, the latter being formed in sections adapted to be disengaged by a relative movement between them, a spring to break the driving connection upon the relative movement of said sections, and means whereby the retardation of the distributing mechanism effects the relative movement of said sections.

4. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising the driving wheel A, the clutch member B normally maintained in engagement therewith, and the spring $B^1$ located between said wheel and member to disengage them directly when the distributing mechanism operates abnormally.

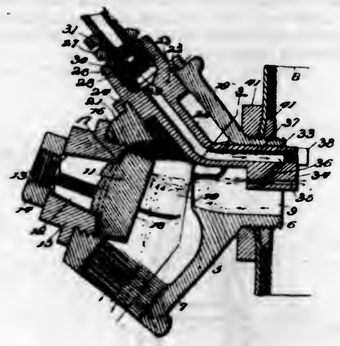
5. In a typographical machine, the combination of distributing mechanism and actuating means therefor, the said actuating means comprising a driving part and a driven part, the latter being formed in relatively rotatable sections, cooperating elements on the respective sections to maintain the normal connection of said parts, the said elements being of such dimensions as to permit the disconnection of the parts by a slight relative rotation of said sections, and connections from the distributing mechanism for effecting the relative rotation of the sections.

[Claims 6 to 11 not printed in the Gazette.]

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1,088,935. TRACK-SANDER. WALTER B. ROGERS, Knoxville, Tenn. Filed Oct. 1, 1912. Serial No. 723,454. Renewed Dec. 30, 1913. Serial No. 809,592. (Cl. 105—263.)

1. A track sander including a casing having sand inlet and discharge passages, a blast nozzle disposed within the inlet passage, means for detachably securing the blast nozzle within the casing, and means independent of the securing means for centering the discharge end of the blast nozzle within the inlet passage.



2. A track sander including a sand box, a casing having sand inlet and discharge passages, one of which communicates with the interior of the box, a deflector and a blast nozzle disposed within the inlet passage and projecting within the sand box, said nozzle being provided with a duct discharging in opposite directions in the same plane into the sand box and against said deflector respectively.

3. A track sander including a sand box, a casing having sand inlet and discharge passages, one of which communicates with the interior of the sand box, a deflector, a blast nozzle having intersecting ducts of uniform diameter, one of which discharges forwardly into the sand box and rearwardly in the same plane against the deflector, and means for centering the blast nozzle within the inlet passage.

4. A track sander including a sand box, a casing having sand inlet and discharge passages, a deflector and a blast nozzle disposed within the inlet passage and having one end thereof projecting within the sand box and provided with unobstructed intersecting ducts disposed at an angle to each other, one of said ducts discharging forwardly into the sand box and rearwardly in the same plane against the deflector.

5. A track sander including a sand box, a casing having sand inlet and discharge passages, a blast nozzle disposed within the casing and having one end thereof provided with a depending enlargement having intersecting ducts formed therein, one of which discharges into the sand box and interior of the casing, respectively, a deflector, and a contracted throat arranged within the inlet passage for directing the sand against the deflector.

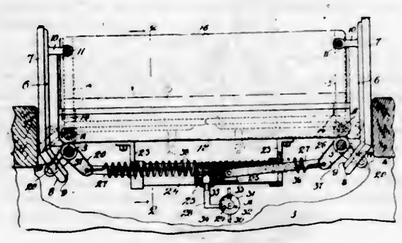
[Claims 6 to 22 not printed in the Gazette.]

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1,088,936. HINGED DOORS AND OPERATING MECHANISM THEREFOR. HAROLD ROWNTREE, Chicago, Ill., assignor, by mesne assignments, to National Pneumatic Company, a Corporation of West Virginia. Filed Apr. 3, 1909. Serial No. 487,667. (Cl. 39—93.)

1. The combination with door jambs arranged on opposite sides of a doorway, a vertical shaft journaled adjacent each jamb, a door connected to each shaft, a crank arm on each shaft, a piston connected to each crank arm, a cylinder in which said pistons move in opposite directions, and means for controlling the supply and exhaust of operating medium from the space between said pistons.

2. The combination with jambs arranged on opposite sides of a doorway, a vertical shaft journaled adjacent each jamb, a door connected to each shaft, a crank arm on each shaft, a spring connecting said crank arms, independent pistons respectively connected to said shafts for rocking the same, a cylinder in which both pistons operate and means for simultaneously actuating said pistons against the tension of said spring.

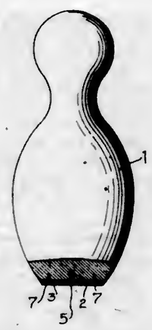


3. The combination with jambs arranged on opposite sides of a doorway, a vertical shaft journaled adjacent each jamb, a door connected to each shaft, a crank arm on each shaft, independent pistons respectively connected to said arms, a cylinder in which both pistons operate, means for simultaneously actuating said pistons in opposite directions, to open the doors, and a spring having operative connections with both shafts to close the doors.

4. The combination with vertical shafts respectively arranged on opposite sides of a doorway, a door connected to each shaft, a crank arm on each shaft, a piston connected to each crank arm, a cylinder in which said pistons move in opposite direction, means for controlling the supply and exhaust of operating medium to and from said cylinder in the space between said pistons, and a spring having connection with both of said shafts to yieldingly oppose the action of said pistons when the latter are actuated.

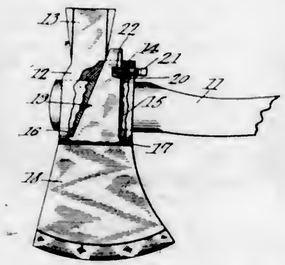
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1,088,937. BOWLING-PIN. JOSEPH SCHLAG, Cleveland, Ohio. Filed Feb. 12, 1913. Serial No. 748,032. (Cl. 46—66.)



In combination with a bowling pin having a stud projecting from its base at the axial center thereof, of a bearing plate adapted to lie snugly against such base and being provided with an aperture through which the stud of the pin is adapted to be freely inserted, the walls of the opening and the periphery of the pin being unobstructed, the outer face of the plate immediately surrounding the opening being recessed, the stud of the pin being of such a length as to terminate at substantially the junction of the opening of the plate with the recess thereof.

1,088,938. PROSPECTOR'S AX AND PICK. WILLIAM E. SEELYE, Sault Ste. Marie, Ontario, Canada. Filed July 26, 1913. Serial No. 781,359. (Cl. 145—2.)



1. In a tool of the class described, the combination of a head provided with a wedge-shaped aperture extending therethrough and terminating at a ledge, a bevel-ended set screw extending through the said head, a blade provided with a wedge-shaped shank extending through the wedge-shaped aperture in the said head, said shank provided with an opening extending transversely thereof, the side walls of said opening engageable by the beveled end of said set screw to hold the said head and blade in forced and wedged contact.

2. A tool of the class described including a handle, a head carried thereby, said head including an upper hammer forming portion, and with a ledge offset to one side thereof, said head provided with a wedge-shaped opening extending transversely therethrough and terminating at the said ledge, the lower extremity of said head provided with a longitudinally extending slot communicating with the said wedge-shaped opening, a removable blade provided with an upwardly extending shank, said shank provided with a bore extending for a limited distance therein, a bevel-ended set screw threadedly engaging the said head juxtaposed said ledge and engaging the side walls of said shank bore adapted to force the said shank into wedged relation with the wedge-shaped opening of the head, the body portion of the blade adapted to fit within the head longitudinal slot.

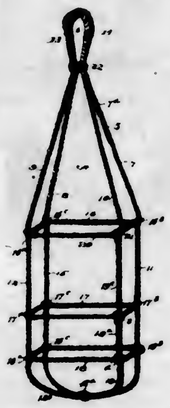
3. In a tool of the class described, the combination of a head provided with a lower longitudinally extending groove and a wedge-shaped aperture communicating therewith and extending entirely through said head, a blade provided with an upwardly extending wedge-shaped shank, the said shank extending within the wedge-shaped aperture and with a portion of the blade fitting within said head longitudinal groove, and means extending through said head wedgedly engaging the wedge-shaped shank and adapted to force the latter in forced contact with the head aperture, to thereby hold said blade rigidly and detachably secured thereto.

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1,088,939. ROPE SLING FOR GUN-SHELLS. JAMES M. SNEE, Bridgeport, Conn., assignor to Robert H. Newman and William M. Strawn, Bridgeport, Conn. Filed Dec. 14, 1911. Serial No. 665,666. (Cl. 57—11.)

1. A shell sling made of a continuous piece of rope and comprising longitudinal members and encircling girdle members, said girdle members being formed by looped portions of one of the longitudinal members and the other longitudinal members being threaded through the strands of the girdle members whereby the latter are held spaced apart in substantially parallel relation, the diagonally disposed longitudinal members being connected together below the lower girdle to form the bottom of the sling and the upper ends of the longitudinal members being arranged to constitute means for suspending the sling.

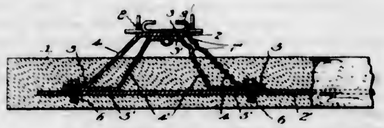
2. A shell sling made of a single length of rope and comprising longitudinal members and encircling girdle members, the girdle members being formed by looped portions of one of the longitudinal members and the other longitudinal members being threaded through the strands of the girdle members, the lower ends of diagonally opposite longitudinal members being united by connecting portions, one connecting portion being threaded through the strands of the other connecting portion whereby the bottom of the sling is formed below the lowermost girdle member, and the upper ends of the members being connected together by loops extending above the upper girdle member to form suspending means for the sling.



3. A sling for projectiles made of a continuous piece of rope and comprising longitudinal members and encircling girdle members, each of said girdle members consisting of a loop formed by passing one of the longitudinal members through its own strands while each of the other longitudinal members passes through the strands of said loop at separate points; all of the longitudinal members being united at the bottom of the sling and extending above the girdle members to form handles for the sling substantially as described.

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1,088,940. RAILROAD-TIE. WILMOT N. STEUART, Brookfield, Ohio. Filed Dec. 13, 1912. Serial No. 736,653. (Cl. 238—3.)



1. The combination with a concrete railroad tie and a railroad rail, of rail supporting saddles partly embedded therein near the extremities of said tie, and comprising a top table, out spreading legs corrugated above the concrete, and horizontal feet in line with the tie longitudinally; a rail retainer welded on said table and consisting of a horizontal metal plate having a plurality of lips on either side thereof suitably formed to be crimped over the flanges of the railroad rail.

2. The combination of a concrete railroad tie and railroad rail, with a supporting saddle for said rail consisting of a table for attachment of the rail, feet embedded in said tie and legs having horizontal corrugations above the top line of said concrete.

3. In a saddle for a railroad rail seated above a railroad tie, obtusely angled legs extending from the top of said saddle and rigidly attached to said tie, and having horizontal corrugations in said legs.

4. The combination of a railroad tie and rails, with saddles to support said rails, comprising tables at their tops, feet at their bottoms, rigid legs on the outsides and corrugated, obtusely inclined legs on the insides, relatively of the railroad track.

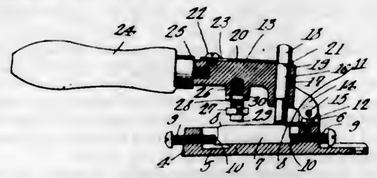
5. The combination with a railroad tie, a railroad rail, a supporting saddle for said rail and a rail retainer welded to said saddle, of a second retainer having a plurality of lips for engagement with and over the flanges of said rail, on either longitudinal edge of said retainer and having holes therethrough for the reception of bolts passing through corresponding holes in said first, welded, retainer.

[Claims 6 to 8 not printed in the Gazette.]



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1,088,941. SAW-SET. WILLIAM H. SWAINSTON, Woodlawn, Mich. Filed Apr. 7, 1913. Serial No. 759,568. (Cl. 76—70.)



1. In a saw set, an anvil, a lever swingable to and from the anvil, a plunger slidable through the lever to coöperate with the anvil and having flattened sides forming shoulders, and a leaf spring adjustable longitudinally on the lever and having its free end bifurcated and straddling the said flattened sides of the plunger to bear against the said shoulders so as to depress the plunger.

2. In a saw set, a base, an anvil adjustable longitudinally thereon and having a bevel at one end, a stop carried by the base and overlapping the said bevel, a lever pivoted to the base, and a die carried by the lever to coöperate with the said bevel.

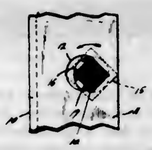
3. In a saw set, a base embodying a channel, an anvil slidable in the channel, and having a bevel at one end, a stop secured on the respective end of the channel and overlapping the bevel, a lever fulcrumed at the said end of the channel, and a die carried by the lever to coöperate with the said bevel.

4. In a saw set, a base embodying a channel, a reversible anvil slidable in the channel having upper bevels at its ends, jam bolts threaded through the ends of the channel and engaging the ends of the anvil, a stop secured on one end of the channel and overlapping the respective bevel, a lever fulcrumed to the said end of the channel, and a die carried by the lever to coöperate with the respective bevel.

5. In a saw set, a base, a longitudinally adjustable anvil having a bevel at one end and mounted on the base, a stop carried by the base, coöperating with the said bevel, a member carried by the base above the anvil, and a die slidably carried by the said member to move to and from the said bevel.

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1,088,942. FENCE-POST AND WIRE-TIGHTENER. LAFE SWANK, Anderson, Ind., assignor to Dwiggins Wire Fence Company, Anderson, Ind., a Corporation of Indiana. Filed Dec. 5, 1913. Serial No. 804,807. (Cl. 256—40.)

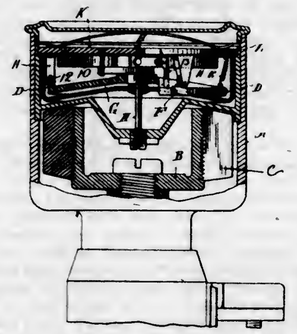


1. A fence post comprising a flange having a hole formed therethrough, said hole having a polygonal extension one side of which conjoins with the main body of the hole at a substantial angle, and a coöperating windlass member comprising a drum portion projectable through the aforesaid hole, a head by means of which a winding force may be applied, and an intermediate polygonal portion of less dimension than the head and the drum and fitting the polygonal extension of the aforesaid hole in such manner that, when nested within said hole extension, rotation of the windlass member will be prevented in one direction and permitted in the other.

2. A fence post comprising a flange having a hole formed therethrough, said hole having a polygonal extension one side of which conjoins with the main body of the hole at a substantial angle, and a coöperating windlass member comprising a drum portion projectable through the aforesaid hole, a head by means of which a winding force may be applied, and an intermediate polygonal portion fitting the polygonal extension of the aforesaid hole in such manner that, when nested within said hole extension, rotation of the windlass member will be prevented in one direction and permitted in the other.

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1,088,943. MEANS FOR COMPENSATING TACHOMETERS FOR TEMPERATURE VARIATIONS. EDWARD M. THOMPSON, Beloit, Wis., assignor, by mesne assignments, to Stewart-Warner Speedometer Corporation, a Corporation of Virginia. Filed May 22, 1911. Serial No. 628,652. (Cl. 73—123.)



1. In a magnetic speed indicating device, a magnet and a magnetic device, means for rotating one of these parts to create a rotating magnetic field, and a scale and pointer mechanism arranged to be displaced by said field in combination with a thermostatic device, an arm carried thereby, and connected to the magnetic mass to move the same rotatively, relatively to the magnet, and means for engaging the mass when rotatively moved relatively to the magnet to shift said mass toward and from the magnet.

2. In a tachometer, means for creating a field including a magnet and a magnetic mass, a thermostatic device carrying an arm arranged to engage one of the members of the field creating means, whereby variations in atmospheric temperature cause said member to be shifted, and means operating when said member is thermostatically shifted to move said member relatively to the other member of the field creating means, to automatically vary the strength of the magnetic field, and means arranged within the influence of said field to be acted on thereby.

3. In a tachometer the combination of means for creating a concentrated rotating magnetic field including a magnet and a magnetic mass, a member arranged within the influence of said field to be rotated thereby, a thermostatic device, a connection between said device and said mass to shift the latter rotatively about its geometric axis in accordance with temperature variations, a fixed arm, said magnetic mass having an inclined surface arranged in the path of the end of said arm, whereby when said mass is rotatively moved it is shifted toward and from the magnet, to vary the strength of the magnetic field.

4. In a tachometer the combination of means for creating a concentrated rotating magnetic field, including a

magnet and a magnetic mass, a member arranged within the influence of said field to be rotated thereby, said magnetic mass having inclined surfaces, a thermostatic device, means for connecting said device with the mass to shift or move the same rotatively, fixed arms, means attached thereto and arranged to engage said inclined surfaces, and means for yieldingly holding said inclined surfaces in bearing contact against said arms.

5. In a tachometer, means for producing a concentrated rotating magnetic field including a magnet, and a magnetic mass, a member arranged within the influence of the rotating magnetic field to be displaced thereby, the said magnetic mass having inclined surfaces, a thermostatic device having means connecting it to the magnetic mass to rotatively shift the same, fixed arms having rollers to engage said inclined surfaces, and means for yieldingly maintaining said surfaces pressed against said rollers.

[Claims 6 to 8 not printed in the Gazette.]

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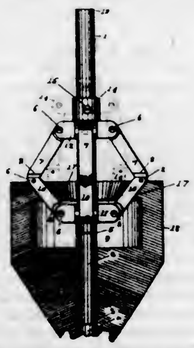
1,088,944. PREPARING A PRESERVED MEAT COMPOUND. NILS J. TORKELSEN, Oakland, Cal. Filed July 9, 1913. Serial No. 778,187. (Cl. 99—11.)

1. The process of preparing a meat compound which consists in preparing a mixture of 8 ounces beef, 5 ounces pork, 3 ounces veal, chopped intimately together with a suitable quantity of salt and saltpeter and allowing the mixture to set for substantially 12 hours and then chopping intimately together with 2 ounces of cornstarch and 1 ounce of cornflour to each pound of meat and maize, nutmeg, black pepper and ginger in quantities sufficient to produce a desired flavor and rolling this mixture in a suitable covering and boiling for three hours and then pressing it and packing it in such a manner as to exclude the air.

2. The process of preparing a meat product which consists in preparing a mixture of 8 ounces beef, 5 ounces pork, 3 ounces veal, chopped intimately together with a suitable quantity of salt and saltpeter and allowed to set for substantially 12 hours, and then chopping the same intimately together with 2 ounces of cornstarch and 1 ounce of cornflour to each pound of meat, and maize, nutmeg, black pepper and ginger in quantities sufficient to produce a desired flavor, then making the mixture into rolls having at their center an ox tongue split in two with a strip of fat bacon disposed between the two parts of the said ox tongue and rolling the said rolls in cheese cloth and tying both ends, then boiling for substantially 3 hours when they are removed, pressed and dipped in melted paraffin.

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1,088,945. ADJUSTABLE VALVE-SEAT-DRESSING DEVICE. GEORGE W. TROUTMAN, Caldwell, Kans. Filed Aug. 16, 1913. Serial No. 785,061. (Cl. 90—12.5.)



1. In an invention of the character described a valve seat dressing device, comprising a main axial shaft means on the lower portion of said shaft for rigidly attaching thereto a supplemental shaft in axial alinement therewith, a member slidable on the upper portion of the main axial shaft, said slidable member having a central perforation adapted to receive the main axial shaft, means for securing said slidable member to the shaft in a given position, means on the slidable member to pivotally connect the upper ends of the cutting members, cutting members adapted to dressing a valve seat, and means for imparting a rotary motion to the device.

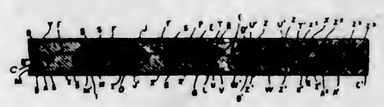
2. In an invention of the character described a valve seat dressing device, comprising a main axial shaft means on the lower portion of said shaft for rigidly attaching thereto a supplemental shaft in axial alinement therewith, a member slidable on the upper portion of the main axial shaft, said slidable member having a central perforation adapted to receive the main axial shaft, means for securing said slidable member to the shaft in a given position, means on the slidable member to pivotally connect the upper ends of the cutting members, cutting members adapted to dressing a valve seat, a stationary member rigidly secured to the lower portion of the main axial shaft said member having a central perforation adapted to receive the shaft, means on said stationary member to pivotally connect the lower ends of the cutting members, and means for imparting a rotary motion to the device.

3. In an invention of the character described a valve seat dressing device, comprising a main axial shaft and a supplemental shaft rigidly connected to the lower portion of the main shaft in axial alinement therewith, a stationary member rigidly secured to the lower portion of the main axial shaft, said stationary member having a central perforation adapted to receive the main axial shaft, means on said stationary member to pivotally connect the lower ends of the cutting members, cutting members adapted to dressing a valve seat, a member slidable on the upper portion of the main axial shaft and adapted to pivotally connect the upper ends of said cutting members, said movable member being adapted to slide upward and downward on the main axial shaft and having means for rigidly securing it to the shaft in a given position so as to adapt the cutting members to a desired size and angle and means for imparting a rotary motion to the device.

4. In an invention of the character described a valve seat dressing device, comprising a main axial shaft and a supplemental shaft rigidly connected to the main shaft in axial alinement therewith, a member slidable on the main shaft, means for rigidly securing said slidable member in a given position, said slidable member having a central perforation adapted to receive the main axial shaft, means on the slidable member to pivotally connect the upper ends of the cutting members, cutting members adapted to dressing a valve seat and means for imparting a rotary motion to the device.

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1,088,946. CONCRETE PILES AND PILING ELEMENTS. MAXWELL M. UPSON, Englewood, N. J., assignor to Raymond Concrete Pile Company, New York, N. Y., a Corporation of New Jersey. Original application filed July 23, 1909, Serial No. 509,111. Divided and this application filed Apr. 23, 1913. Serial No. 763,077. (Cl. 61—52.)



1. A piling element comprising a pile composed of concrete and having a grouting groove in one face, and having embedded in one face a metallic strain-resisting member to engage an adjacent piling element.

2. A piling element comprising a pile composed of concrete and having vertical grouting spaces in two vertical faces and having embedded in at least one of said faces a metallic strain-resisting member to engage an adjacent piling element.



3. A piling element comprising a pile composed of concrete and having embedded in it at one vertical face, a metallic interlocking member having its interlocking portion projecting beyond said face.

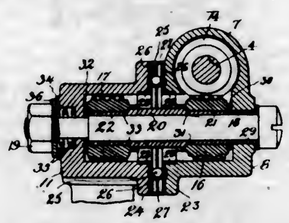
4. A piling element comprising a pile composed of concrete and having a metallic member vertically disposed and permanently incorporated inside it to serve as an interlock with an adjacent piling element.

5. A piling element comprising a pile composed of concrete and containing a metallic guiding member arranged to resist lateral strains and to engage with and guide an adjacent pile to a grounded position.

[Claims 6 to 15 not printed in the Gazette.]

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1,088,947. SPIRAL-GEAR POWER-TRANSMITTING DEVICE. CHARLES H. WARNER, Beloit, Wis., assignor, by mesne assignments, to Stewart-Warner Speedometer Corporation, a Corporation of Virginia. Filed Mar. 10, 1910. Serial No. 548,481. (Cl. 74—19.)



1. A power transmitting device consisting of the driving and driven shafts, a spiral pinion mounted on each shaft, gear casing members inclosing said pinions, a bolt for clamping said gear casing members together, the axis of said bolt being disposed in angular relation with respect to the axes of said shafts, a sleeve journaled to rotate upon said bolt, drive gears carried by said sleeve and respectively meshing with said pinions, said gear casing members having oppositely-faced laterally-extending annular flanges and ball bearings interposed between the meeting faces of said flanges.

2. A power transmitting device consisting of the driving and driven shafts, a pinion carried by each of said shafts, gear casing members having lateral extensions inclosing said pinions, a bolt for clamping said gear case members together, a sleeve journaled on said bolt and having reduced ends extending respectively into said gear casing members, a drive gear mounted upon each of the reduced ends of said sleeve, said drive gears respectively meshing with said pinions, and an anti-friction device interposed between the meeting faces of said gear casing members.

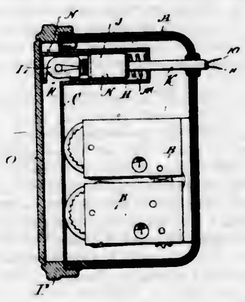
3. A power transmitting device consisting of the driving and driven shafts, a pinion carried by each of said shafts, casing members having lateral extensions inclosing said pinions, a bolt extending axially through said casing members to clamp the same together, a sleeve journaled on said bolt, and having its ends respectively extending into said casing members, a drive gear mounted on each end of said sleeve, said drive gears respectively meshing with said pinions, said casing members having laterally extending annular flanges on their meeting edges, wearing plates applied to the meeting faces of said flanges, and anti-friction balls interposed between said wearing plates.

4. A power transmitting device consisting of the driving and driven shafts, and pinions mounted on each shaft, gear casing members having lateral extensions to inclose said pinions, a bolt connecting the said casing members together, a sleeve journaled on said bolt and having its ends respectively extending into said casing members, said sleeve having shoulders formed thereon, a driving gear mounted upon each end of said sleeve and respectively held between a shoulder on said sleeve and the associated casing, said gears respectively meshing with said pinions, and an anti-friction ball bearing interposed between the meeting faces of said gear case sections.

5. A power transmitting device consisting of the driving and driven shafts each having a pinion, gear case sections having lateral extensions to inclose said pinions, a bolt extending axially through said gear case sections to clamp the same upon each other, gears carried by said bolt and respectively arranged within said gear case members to mesh with the associated pinions, said gear case members having laterally extending annular meeting flanges, flanged wearing plates forming the facings for said flanges, and anti-friction balls interposed between said wearing plates.

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1,088,948. SPEED-INDICATING INSTRUMENT. CHARLES H. WARNER and ADDI BENJAMIN CADMAN, Beloit, Wis., assignors, by mesne assignments, to Stewart-Warner Speedometer Corporation, a Corporation of Virginia. Original application filed Jan. 21, 1909, Serial No. 473,598. Divided and this application filed May 22, 1911. Serial No. 628,712. (Cl. 240—2.)



1. In a speed indicating instrument a casing, speed indicating devices inclosed therein and including a movable dial, a face plate arranged to inclose the dial and having an opening to disclose the dial therethrough, a lamp arranged within the casing and extending through the face plate, and means for reflecting the light from the lamp upon the opening in the face plate.

2. In a speed indicating instrument, a casing provided with a face plate having an opening therethrough, indicating devices arranged within the casing to be disclosed through said opening, and a lamp also arranged within the casing and extending through the face plate to illuminate the face plate.

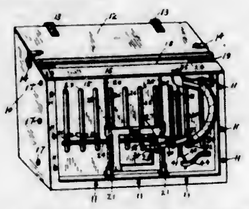
3. In a speed indicating instrument, a casing, speed indicating devices arranged therein, and including an indicating dial and pointer, a lamp carried by the casing, and means for reflecting the light directly from the lamp onto the dial and pointer.

4. In a speed indicating instrument, a casing, speed indicating devices arranged therein and including a dial and pointer, a transparent cap for the casing, a barrel arranged in the casing, a lamp located within the barrel, a tube to inclose the lamp, and a spring tending to force the lamp and its inclosing tube out of the barrel and against the cap, said lamp being arranged to illuminate the dial and pointer.

5. In a speed indicating instrument, an inclosing casing having a face plate, indicating devices arranged within said casing and inclosed by said face plate, and including a dial, said face plate having openings therethrough to disclose said dial, a barrel arranged in said casing, a lamp arranged in said barrel, a tube extending through said face plate, and telescoped over said lamp, said tube having an opening in the side thereof, the opening in the tube being directed toward the opening in said face plate whereby the light from the lamp falls upon the dial disclosed through the opening in said face plate.

[Claim 6 not printed in the Gazette.]

1,088,949. COIN-OPERATED VENDING-MACHINE. FRANK WARREN, Seattle, Wash. Filed Sept. 26, 1912. Serial No. 722,390. (Cl. 211—8.)



1. A vending machine comprising a receptacle adapted to contain articles and provided with a discharge opening through the top thereof, a follower for said articles, a stationary plate adapted to be contacted by the forwardmost article and having a plurality of vertically positioned slots therethrough, vertical rods secured forwardly of said plate, a sliding frame movably mounted upon said rods, a bar rotatably journaled in said frame between said frame and plate, a plurality of needles transversely secured through said bar in alinement with said slots and adapted to extend rearwardly of said plate upon a rotation of said bar.

2. A vending machine comprising a receptacle adapted to contain articles and provided with a discharge opening through the top thereof, a follower for said articles, a stationary plate adapted to be contacted by the forwardmost article and having a plurality of vertically positioned slots therethrough, vertical rods secured forwardly of said plate, a sliding frame movably mounted upon said rods, a bar rotatably journaled in said frame between said frame and plate, a plurality of needles transversely secured through said bar in alinement with said slots and adapted to extend rearwardly of said plate upon a rotation of said bar, a weighted lever normally maintaining said needles inoperative, means operable from the exterior of the machine for reciprocating said frame and adapted for depositing one of said articles exteriorly thereof upon each of said reciprocations.

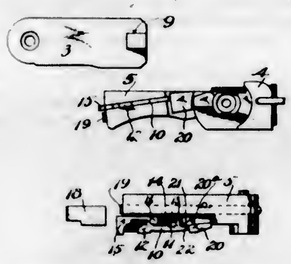
3. A vending machine comprising a receptacle, a stationary closure plate at the front of said receptacle provided with a plurality of vertically positioned slots therethrough, a slidable frame movably mounted exteriorly of said plate, a bar rotatably journaled horizontally in said frame, a plurality of needles secured transversely of said bar and adapted to project through said slots upon an upward movement of said frame and means operable from the exterior of the machine for reciprocating said frame.

4. A vending machine comprising a receptacle, a stationary closure plate at the front of said receptacle provided with a plurality of vertically positioned slots therethrough, a slidable frame movably mounted exteriorly of said plate, a bar rotatably journaled horizontally in said frame, a plurality of needles secured transversely of said bar and adapted to project through said slots upon a partial rotation of said bar, a weighted lever pivoted to said frame, a pin connection between said lever and bar whereby the turning of said bar is simultaneous with the pivoting movement of said lever.

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1,088,950. SAFETY DEVICE FOR REPEATING FIREARMS. JOHN H. WHEELER, New Haven, Conn., assignor to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 3, 1913. Serial No. 798,804. (Cl. 42—17.)

1. In a repeating firearm, a receiver, breech mechanism therein including a locking bolt movable into and out of a locking position, a manually controllable operating device coöperating with the locking bolt to move the same, a safety device for holding the locking bolt in the locking position until released, said safety device comprising a movable locking shoulder carried by the locking bolt and a relatively stationary shoulder carried by an adjacent part and arranged in the path of movement of said shoulder to block the same when the locking bolt is in the locked position, means for automatically releasing the locking bolt upon the recoil of the firearm, said means comprising a spring coacting with said safety device, and a movable inertia piece also coacting with said safety device, said spring and inertia piece operating to shift the shoulder on the safety device to the position where it is free of the said adjacent coöperating shoulder.



2. In a repeating firearm, a receiver, breech mechanism therein including a locking bolt movable into and out of a locking position, a manually controllable operating device coöperating with the locking bolt to move the same, a safety device for holding the locking bolt in the locking position until released, said safety device comprising a movable locking shoulder carried by the locking bolt and a relatively stationary shoulder carried by an adjacent part and arranged in the path of movement of said shoulder to block the same when the locking bolt is in the locked position, means for automatically releasing the locking bolt upon the recoil of the firearm, said means comprising a spring coacting with said safety device, and a movable inertia piece also coacting with said safety device, said spring and inertia piece operating to shift the shoulder on the safety device to the position where it is free of the said adjacent coöperating shoulder, said locking bolt and both of said shoulders being arranged to reciprocate together, said coöperating shoulder standing over said safety locking shoulder to hold the same retracted excepting when the locking bolt is in the breech locking position.

3. In a repeating firearm, a recoil operating locking device comprising a locking arm, a relatively stationary locking shoulder, means for forcing the former into locking position relatively to the latter, a manually operable operating device coacting with said locking arm whereby pressure on said operating device in a direction to unlock the locking arm will hold said shoulders in frictional engagement until the recoil of the gun, with means for then automatically withdrawing said locking arm from locking engagement with the relatively stationary shoulder, said means comprising a spring and an inertia-controlled piece.

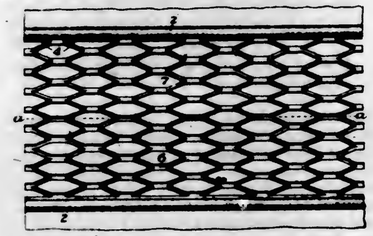
4. In a repeating firearm, a recoil operating locking device comprising a locking arm, a relatively stationary locking shoulder, means for forcing the former into locking position relatively to the latter, a manually operable operating device coacting with said locking arm whereby pressure on said operating device in a direction to unlock the locking arm will hold said shoulder in frictional engagement until the recoil of the gun, with means for then automatically withdrawing said locking arm from locking engagement with the relatively stationary shoulder, said means comprising a spring and an inertia-controlled piece, and a locking bolt, said locking arm, spring and inertia piece being carried thereby.

5. In a repeating firearm, reciprocating breech mechanism including a tilting locking bolt arranged to also reciprocate with said breech mechanism, a locking arm pivotally mounted in the locking bolt having a locking shoulder with means arranged to force said shoulder outwardly when the breech mechanism is closed and locked and the hammer is cocked, a relatively stationary shoulder coöperating with the locking shoulder to block the unlocking movement of the locking bolt before the firearm is discharged, said means comprising a reciprocating slide with an inclined connection between said slide and said locking arm, with means for automatically casting off said locking shoulder upon the recoil of the firearm, said means comprising a spring and an inertia-controlled block, said hammer coacting with said reciprocating slide to release said locking arm to permit said shoulder to be automatically retracted after the hammer has dropped and the firearm has been discharged.



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1,088,951. EXPANDED METAL STRUCTURE. HERBERT E. WHITE, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed June 21, 1911. Serial No. 634,617. (Cl. 72—117.)



1. As an article of manufacture, a metal structure, consisting of a single sheet having spaced high stiffening ribs and a web between the ribs and integral therewith, said web comprising sinuous strands or ribbons disposed substantially longitudinally of the ribs between the same and each being alternately and integrally joined at spaced points to the adjacent strands or ribbons on opposite sides of it, the said strands or ribbons being set at an opposite inclination from the center of the web and the outermost being furthermore integrally joined at spaced points to the edges of the ribs, said strands or ribbons being elongated and thereby of thinner material than the material of the ribs.

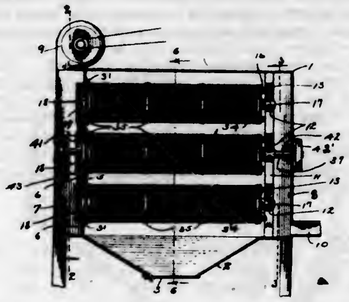
2. An expanded sheet metal product including a plurality of spaced high ribs, and expanded open-mesh sections between said ribs and integral therewith, each of which sections consists of connected elongated strands, the strands at one side of the longitudinal center of the section having an inclination reverse to the inclination of the strands at the opposite side of said center.

3. As an article of manufacture, a metal structure consisting of a single sheet having a plurality of spaced high stiffening ribs having reverse longitudinal beads, the outer sides of which are set at an inclination, and a web between the ribs, said web comprising strands or ribbons that are disposed substantially longitudinally of the ribs between the same and being integrally joined to each other, the outermost strands or ribbons having spaced portions also integrally joined to the edges of the outer sides of the beads being disposed longitudinally of the beads and set at substantially the same inclination as the outer sides thereof.

4. As an article of manufacture, a metal structure consisting of a single sheet having a plurality of spaced stiffening ribs and a web between the ribs, said web comprising strands or ribbons that are disposed substantially longitudinally of the ribs between the same and being sinuous, each strand or ribbon being alternately and integrally joined at spaced points to the adjacent ribbons on opposite sides of it, the outermost strands or ribbons having spaced portions also integrally joined to the edges of the ribs, the portions so joined to the ribs being disposed longitudinally of the ribs, and said ribs having their margins adjacent to said juncture with the strands provided with reverse longitudinal beads, the strands or ribbons being of material that is thinner than the ribs.



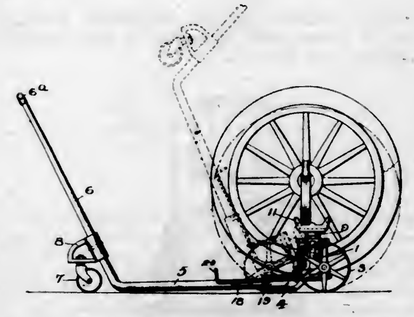
1,088,952. DUST-COLLECTOR. WILLIAM H. WILKEY, Cleveland, Ohio. Filed May 17, 1911. Serial No. 627,791. (Cl. 83—48.)



A dust collector comprising a casing having a partition dividing said casing into a dust collecting chamber and a suction chamber, said partition being provided with a series of journal forming openings, bearings arranged in the dust collecting chamber, one bearing being opposite each opening in the said partition, a series of screening cylinders arranged in said dust collecting chamber, each cylinder having an open end and a closed end, the open end of each cylinder being rotatably mounted in a journal forming opening in said partition so that the end thereof extends into the suction chamber and the closed end of each cylinder being mounted in a bearing in the dust collecting chamber, gear teeth formed on the end of each cylinder where it projects through the said partition into the suction chamber and means for driving said gears so as to rotate said cylinders.

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1,088,953. AUTO TURN-JACK. WARREN WILLET, Fort Erie, Ontario, Canada, and ORIA E. BOWEN, Buffalo, N. Y. Filed Feb. 7, 1913. Serial No. 746,730. (Cl. 57—43.)



1. An auto turn jack comprising a frame having supporting wheels constructed to sustain the same clear of the floor, a standard rising from said frame, and a handle-lever attached to said frame and having a substantially horizontal rear portion extending forwardly from the frame, the lowest portion of said handle-lever being arranged below the plane of the axles of said wheels, to permit the same to pass under the raised wheels of an automobile.

2. An auto turn jack comprising a frame having supporting wheels constructed to sustain the same clear of the floor, a standard rising from said frame, and a handle-lever attached to said frame and having a substantially horizontal rear portion extending forwardly from the frame and a front portion rising from the horizontal rear portion, the lowest portion of said handle-lever being ar-

ranged below the plane of the axles of said wheels, to permit the same to pass under the raised wheels of an automobile.

3. An auto turn jack comprising a frame having supporting wheels constructed to sustain the same clear of the floor, a standard rising from said frame, and a handle-lever attached to said frame and having a substantially horizontal rear portion extending forwardly from the frame and a front portion rising from the horizontal rear portion, the lowest portion of said handle-lever being arranged below the plane of the axles of said wheels, said rear portion extending forwardly from said wheeled frame a sufficient distance to permit said front portion to clear the raised automobile wheels when the rear portion of said lever is swung thereunder.

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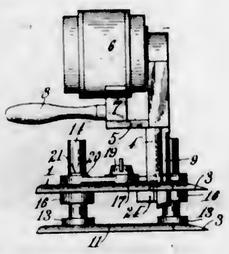
1,088,954. FILTER FOR ATOMIZERS AND OTHER DEVICES. CHARLES I. WRIGHT, Tucson, Ariz. Filed May 7, 1912. Serial No. 695,611. (Cl. 98—48.)



In a detachable filter member for atomizers, in combination, a cylindrical member having a shoulder at one end, a hollow expander adapted to fit within said cylindrical member, one end of said expander being split longitudinally thereof on several lines for substantially its entire length to form spring arms, a shoulder on the other end, a foraminous medium adapted to be placed over the split end of the expander and extend between it and the cylindrical member, said screen being held taut and firmly in position by the expansion of the spring arms of the expander.

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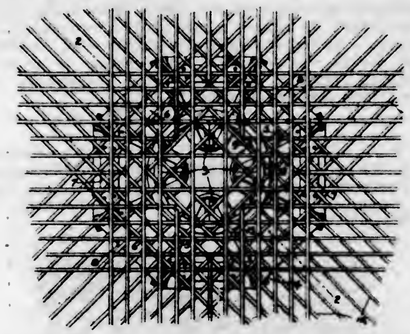
1,088,955. CLOTH-CUTTING MACHINE. HARVEY L. YOUNG, Dayton, Ohio. Filed Mar. 10, 1913. Serial No. 753,242. (Cl. 164—75.)



1. In a device of the type specified, a base member, vertical standards mounted on said base member, a vertically movable overhung frame slidingly mounted on said standards, one of said standards being provided with gear teeth, a pinion in mesh with said teeth and mounted in said frame, means for rotating said pinion, and a cloth cutter attached to said frame.

2. In a device of the type specified, a base member, vertical standards mounted on said base member, a vertically movable overhung frame slidingly mounted on said standards, means for elevating and lowering said frame, a cloth cutter detachably connected to said frame, and a dowel pin extending from said frame and received by said cloth cutter.

1,088,956. REINFORCED-CONCRETE FLOOR CONSTRUCTION. ROBERT ANDERSON, Cincinnati, Ohio; George M. Anderson, administrator of said Robert Anderson, deceased. Filed Jan. 18, 1911. Serial No. 603,204. (Cl. 72—15.)



1. A column bracket and floor construction, comprising, column reinforcing members, tension members located in the column bracket secured to the reinforcing members and radiating therefrom, plates surrounding the column reinforcing members and secured to the tension members within the column bracket, and reinforcing members for the floor construction, secured to, and terminating at, the support plates.

2. A column bracket and floor construction comprising, column reinforcing members, V-shaped tension members with their apexes engaging said column reinforcing members, plates secured to the ends of adjacent V-shaped members and tension members in the floor construction secured to, and terminating at, the support plates.

3. A column bracket and floor construction comprising, vertical column reinforcing members, tension members located in the column bracket and comprising channel bars bent to a V-shape, each channel bar engaging one of said vertical reinforcing members at its apex, support plates located between, and secured to, the ends of the channel bars, and tension members in the floor construction secured to, and terminating at, the support plates.

4. In combination with a concrete column and its vertically extending reinforcing members, V-shaped tension members secured at their apexes to said reinforcing members and extending outwardly with reference to the column, support plates located between, and secured to, the ends of the tension members and compression members located between, and secured to, the ends of the tension members.

5. In combination in a concrete structure, a concrete column, reinforcing members for the column, brackets mounted on the column and comprising outwardly extending tension members looped around the reinforcing members, supporting members located between, and secured to, the ends of the tension members, and compression members located between, and secured to, the ends of the tension members.

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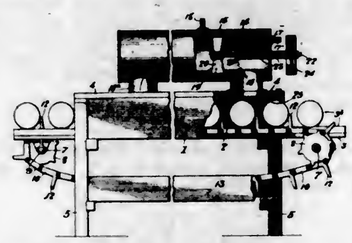
1,088,957. APPARATUS FOR STERILIZING CANNED GOODS. LEWIS E. ARNOLD, Honolulu, Hawaii, assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii. Filed Mar. 7, 1913. Serial No. 752,756. (Cl. 126—272.)

1. Apparatus of the kind described comprising a conduit, means to move containers through the conduit, a steam jacketed drum communicating with the conduit at two points in the length of the former, means to admit steam to the drum, and a revoluble fan within the drum to produce a circulation of the steam through the conduit and the drum, for the purpose described.

2. Apparatus of the kind described comprising a conduit, means for moving containers therethrough, a drum



in communication with said conduit, means to admit a heating medium to the circuit formed by said conduit and the drum, means associated with said drum to superheat the heating medium therein, and a revoluble fan within the drum to cause a circulation of the heating medium through the drum and conduit, for the purpose described.

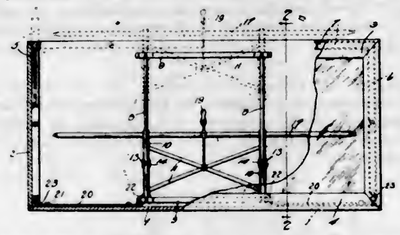


3. Apparatus of the kind described comprising a conduit, means for moving containers therethrough, a drum in communication with the conduit at each end of the former, means to admit steam to the apparatus, means associated with the drum to superheat the steam therein, and means for maintaining a circulation of steam in the drum and conduit.

4. Apparatus of the kind described comprising a conduit, means for moving containers therethrough, a drum communicating with said conduit, means to admit a heating medium to the circuit formed by said drum and conduit, means to superheat the heating medium in the drum, and means to maintain a circulation of the heating medium in the conduit and said drum.

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1,088,958. GARMENT-EXHIBITING APPARATUS. FOREST T. BARTON and OSCAR HENSON, Seattle, Wash., assignors of one-third to Leo N. Kemper, Seattle, Wash. Filed Mar. 31, 1913. Serial No. 757,798. (Cl. 211—16.)



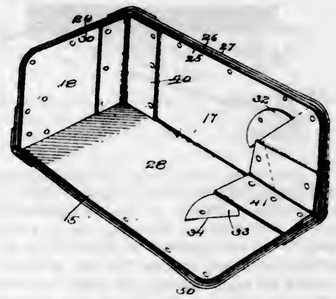
1. In a show-case of the class described, the combination of a suitable case provided with a sliding door opening within the side of its compartment, a pair of track rails secured at the top of said compartment, garment supporting apparatus arranged to be reciprocatively mounted on said track-rails, means to lock said apparatus within the compartment, and means actuated by movement of said door to release the locking mechanism of said apparatus.

2. In a show-case of the class described, the combination of a suitable case provided with a sliding door opening within the side of its compartment, a pair of track-rails secured at the top of said compartment, garment supporting apparatus arranged to be reciprocatively mounted on said track-rails, locking means for said apparatus and said door whereby both may be locked within the compartment and either released by means of the other.

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1,088,959. MATTRESS. THOMAS H. BENTON, Portsmouth, Va. Filed May 18, 1911. Serial No. 627,991. (Cl. 5—13.)

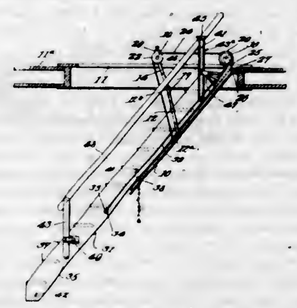
In a device of the class described, a mattress and a reinforcing device therefor comprising a three-sided box-like member arranged to cover a plurality of sides and corners of the mattress, and a second member corresponding therewith, the said box members each overlapping the other along certain sides and having one side free, and said members being formed of a plurality of layers, means for bracing the corners of the inner layers, means for



bracing the corners of the outer layers, and reinforcing means for connecting the inner layer with one of the intermediate layers near the edge and at a point remote from the corner of each box member, the means last mentioned being formed integrally with said intermediate layer.

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1,088,960. MOVABLE STAIRWAY. FRANK E. BESSLER, Akron, Ohio, assignor to The Bessler Movable Stairway Co., Akron, Ohio. Filed Feb. 24, 1913. Serial No. 750,361. (Cl. 228—27.)

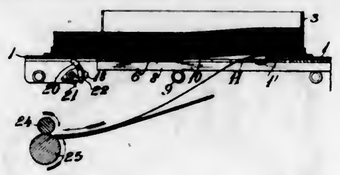


1. In a device of the class described, a hingedly mounted panel; a stairway slidable upon the panel; a shaft supported by the panel; a sheave fixed to the shaft; a drum rotatable upon the shaft; a spring connecting the drum with the sheave; a flexible element connecting the shaft with the panel; and a flexible element connecting the drum with the stairway.

2. In a device of the class described, a hingedly mounted panel; a stairway slidable upon the panel; a shaft supported for rotation adjacent the hinged mounting of the panel; a drum rotatable upon the shaft; a spring connecting the drum with the shaft; a flexible element connecting the shaft with the panel; and a flexible element connecting the drum with the stairway.

3. In a device of the class described, a hingedly mounted panel; a stairway slidable upon the panel coöperating elements comprising a shaft supported for rotation adjacent the hinged mounting of the panel and a drum rotatable upon the shaft; a spring connecting the drum with the shaft; a flexible element connecting one of said coöperating elements with the panel; and a flexible element connecting the other of said coöperating elements with the stairway.

1,088,961. AUTOMATIC SHEET-FEEDING DEVICE. JEAN DE BLONAY, Lausanne, Switzerland, assignor to The Firm of Sapal, Societe Anonyme des Pileuses Automatiques, Lausanne, Switzerland. Filed May 26, 1913. Serial No. 769,935. (Cl. 101—39.)



1. In a device for separating and drawing off single sheets of rhomboidal form from a pile of sheets used in packing machines, a frame, a case of rhomboidal form supported by said frame, a plate moving underneath the pile to and fro in the longitudinal direction of the sheets and provided with an opening for the passage of the sheets, means for reciprocating said plate and means projecting through said opening during the forward movement of the plate for separating the undermost sheet from the pile.

2. In a device for separating and drawing off single sheets of rhomboidal form from a pile of sheets used in packing machines, a frame, a case of rhomboidal form supported by said frame, a plate moving underneath the pile to and fro in the longitudinal direction of the sheets and provided with an opening for the passage of the sheets, means for reciprocating said plate, means projecting through said opening during the forward movement of the plate and drawing thereby the front end of the undermost sheet through the opening in said plate and means entirely drawing off said sheet from the pile during the next forward movement, this sheet being partially separated from the pile by the movable plate during the preceding return movement of the latter.

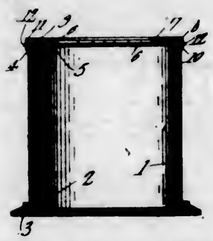
3. In a device for separating and drawing off single sheets of rhomboidal form from a pile of sheets used in packing machines, a frame, a case of rhomboidal form supported by said frame, a plate moving underneath the pile to and fro in the longitudinal direction of the sheets and provided with an opening for the passage of the sheets, means for reciprocating said plate, a cam connected to pivotally arranged supporting means, the cam being brought to project during the forward movement of the plate through the opening of said plate drawing thereby the front end of the undermost sheet through said opening and means entirely drawing off said sheet during the next forward movement, said sheet being partially separated from the pile by the movable plate during the preceding return movement of the latter.

4. In a device for separating and drawing off single sheets of rhomboidal form from a pile of sheets used in packing machines, a frame, a case of rhomboidal form supported by said frame, a plate moving underneath the pile to and fro in the longitudinal direction of the sheets and provided with an opening for the passage of the sheet, means for reciprocating said plate, a cam connected to pivotally arranged supporting means operated by the forward moving plate, the cam being brought to project during this movement of the movable plate through the opening of said plate drawing whereby the front end of the undermost sheet through the said opening and means entirely drawing off said sheet during the next forward movement, said sheet being partially separated from the pile by the movable plate during the preceding return movement of the latter.

5. In a device for separating and drawing off single sheets of rhomboidal form from a pile of sheets used in packing machines, a frame, a case of rhomboidal form supported by said frame, a plate moving underneath the pile to and fro in the longitudinal direction of the sheets and provided with an opening for the passage of the sheets, means for reciprocating said plate, a cam connected to a support secured to a shaft supported in said frame and carrying a toothed wheel engaging a rack pivotally attached to the movable plate, said cam being rotated during the forward movement of the table and projecting during this movement of the latter through the opening in said plate and drawing thereby the front end of the undermost sheet through said opening, a locking pawl preventing said toothed wheel from revolving during the return movement of the plate and means for entirely drawing off the undermost sheet during the next forward movement, said sheet being partially separated from the pile by the movable plate during the preceding return movement of the latter.

[Claims 6 to 9 not printed in the Gazette.]

1,088,962. ASEPTIC DENTAL-WASTE RECEIVER. FRANK B. BOSTWICK, Plainfield, N. J. Filed Dec. 6, 1911. Serial No. 664,222. (Cl. 32—5.)



A dental waste receiver comprising a receptacle having an internal shoulder; a destructible disk resting on the shoulder and having a tool receiving opening; a retaining ring surrounding the receptacle and having a flange which overhangs the disk; and interengaging elements on the ring and the receptacle coöperating upon relative rotation between the ring and the receptacle to hold the ring on the receptacle, the flange engaging the top of the receptacle to prevent a reading or distortion of the disk upon relative rotation between the ring and the receptacle.

1,088,963. ELECTRIC CONDUIT. NEWTON W. BUCH, New Castle, Pa., assignor to Safety Armorite Conduit Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 29, 1912. Serial No. 674,090. (Cl. 247—4.)

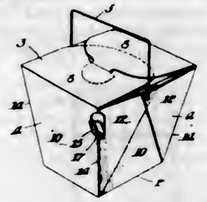


1. As a new article of manufacture, a metal pipe having its interior provided with a coating of oil paint, and a coating of flexible enamel superimposed upon said paint layer, substantially as described.



2. As a new article of manufacture, a metal pipe having an interior layer of oil paint, and a layer of flexible enamel superimposed thereon, said pipe having a thin, uniform coating of zinc, substantially as described.

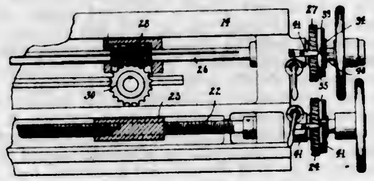
1,088,964. BOX FOR CARRYING AND DISPENSING LIQUIDS. LAWRENCE E. BUCHMAN, Philadelphia, Pa., assignor of one-half to Velanda B. Carmean, Philadelphia, Pa. Filed Jan. 31, 1913. Serial No. 745,320. (Cl. 229—17.)



1. A box for carrying and dispensing liquids comprising a paper blank folded to form the bottom, the side walls and the top of the box, the paper forming the box having a slit cut therein forming a spout below the top of the box, said slit extending over the top and down the sides of the spout, said spout being integral at its bottom and from one to the other of its sides with the paper forming the body of the box.

2. A box for carrying and dispensing liquids comprising a paper blank folded to form the bottom, the side walls and the top of the box, said blank having folds extending between the top and bottom of the box and forming corners at the junction of the side walls, the paper forming the box having a slit cut therein extending around one of said corners and forming a spout through which one of the corner folds extends, said slit extending over the top and down the sides of the spout, and said spout being integral at its bottom and from one to the other of its sides with the paper forming the body of the box.

1,088,965. ADJUSTABLE OBSERVATION-STOP. EDWARD P. BULLARD, Jr., Bridgeport, Conn., assignor to The Bullard Machine Tool Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 17, 1912. Serial No. 709,879. (Cl. 29—29.)

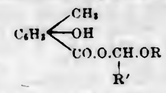


1. The combination with a cross rail, a movable tool head mounted thereon and means for moving the same including a feed shaft, of a disk mounted upon the shaft and having an annular groove, a series of stops adjustably mounted in the groove of the disk, and a fixed pointer with which either of the said stops may be made to register.

2. The combination with a graduated disk of the class described and having annular grooves on opposite sides of its peripheral portion, of a sheet metal stop shaped to conform to the surface of the disk and provided with ends to yieldably engage the said grooves in a way to frictionally and detachably engage the peripheral portion of the said disk.

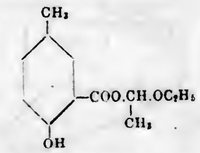
1,088,966. ALKYLALKOXYMETHYL ESTERS OF CRESOTINIC ACIDS. JÜRGEN CALLSEN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 17, 1913. Serial No. 774,124. (Cl. 23—24.)

1. The herein described new alkylalkoxymethyl esters of cresotinic acids of the following general formula:



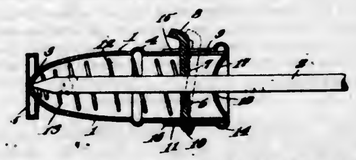
R and R′ meaning alkyl radicals, being from colorless to yellowish liquids soluble in ether, alcohol, chloroform and benzene, the alcoholic solutions being colored violet by ferric chlorid and exhibiting valuable therapeutic properties, substantially as described.

2. The herein described new methylethoxymethyl ester of para-cresotinic acid of the following formula:



being a yellowish oil, breaking up into cresotinic acid, acetaldehyde and ethylalcohol when reacted upon by dilute acids, and exhibiting valuable therapeutic properties, substantially as described.

1,088,967. HAT-PIN FASTENER AND PROTECTOR. JAMES M. CHRITTON, Rocky Ford, Colo. Filed June 3, 1913. Serial No. 771,519. (Cl. 24—155.)



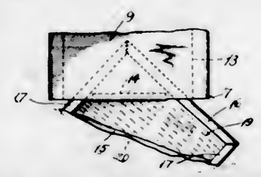
1. A device of the class described, comprising a casing open at one end and closed at the other, said casing provided with a longitudinal slot at the open end thereof, said casing provided with an aperture extending through the side wall thereof and diametrically opposed to the above mentioned slot, a cap slidably engaging the open end of the casing and provided with diametrically arranged slots adapted to aline with the slot and aperture of the casing, a locking plate provided with an aperture extending therethrough, the said plate provided with a downwardly extending projection adapted to rotatably engage the casing aperture, said plate provided with an upwardly extending handle projecting through the slot of the casing and cap, said cap provided with a central opening extending therethrough in alinement with the opening of the locking plate, and a spring positioned within the casing and contacting with the closed end wall thereof and with the locking plate adapted to normally maintain the latter in an angular position, the said locking plate opening and cap opening adapted to receive the shank of a pin therethrough and prevent the accidental withdrawal therefrom.

2. A device of the class described, comprising a casing open at one end and closed at the other, the remote end of decreasing cross section and terminating in a rounded end, the said casing provided at its open end with a diametrically arranged aperture and slot, the slot extending to the end of the casing, a cap provided with an opening extending through the face thereof, said cap further provided with diametrically arranged slots adapted to aline with the aperture and slot of the casing, said cap adapted to fit over and engage the open end of the said casing,

a locking plate disposed within the said casing and provided with a downwardly extending offset projection fitting within and being rotatably supported by the casing aperture, the remote extremity of the plate provided with an upwardly offset finger engaging portion extending through the casing and cap slots, and a helical and spirally wound spring coil positioned within the casing, the spirality of the spring conforming with the decreasing cross section of the casing and adapted to guide the shank of a pin within the casing and to maintain the same centrally thereof, said spring adapted to normally hold the locking plate in frictional engagement with the shank of a pin.

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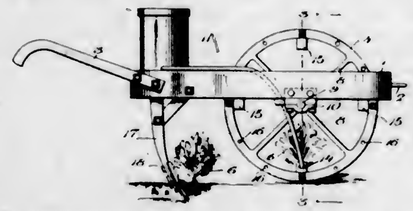
1,088,968. CARD-HOLDER. EDWIN H. COOPER, Los Angeles, Cal. Filed Aug. 15, 1910, Serial No. 577,343. Renewed July 21, 1913. Serial No. 780,367. (Cl. 40—18.)



A device of the class described comprising a guide plate adapted to be attached to a support, a slide plate guided thereupon and adapted to slide outwardly, said slide plate having side flanges adapted to retain a card and an upwardly projecting flange at the rear end thereof, said guide plate having a downwardly projecting tongue at the forward edge thereof adapted to engage the said flange at the rear edge of said slide plate to limit the outward movement thereof, said tongue being of less width than said guide plate so as to form gaps between the ends of said tongue and the side edges of said guide plate to permit the introduction cornerwise of said slide plate into said guide plate.

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1,088,969. AGRICULTURAL IMPLEMENT. ERNEST H. COX, Marlow, Okla. Filed Oct. 11, 1913. Serial No. 794,677. (Cl. 97—49.)



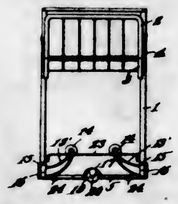
1. An implement for thinning cotton, comprising a supporting frame, a fluid fuel tank thereon, a wheel comprising two spaced apart rims mounted upon the frame, fuel burners upon each side thereof, means connecting the burners to the tank and supporting the burners to direct the flames thereof upon the ground beneath the axis of the wheel, and means upon the rim for interrupting the flame at predetermined distances.

2. An implement for thinning cotton, comprising a frame, a fluid fuel tank supported thereon, a thinning wheel comprising two spaced apart joined rims of equal diameters carried upon a shaft mounted upon a frame, pipes leading from the fuel tank on each side of the frame supporting burners arranged beneath the wheel shaft upon the outer side of each rim and adapted to direct the flame upon the ground between the rims, and an adjustable means upon the rims for interrupting the flame simultaneously at predetermined distances.

3. An implement for thinning cotton, comprising a frame, a fluid fuel tank supported thereon, a thinning wheel comprising two spaced apart joined rims of equal diameters carried upon a shaft mounted upon the frame, pipes leading from the fuel tank upon each side of the frame supporting burners arranged beneath the wheel shaft upon the outer side of each rim and adapted to direct the flame upon the ground between the rims, correspondingly spaced fender plates secured to the rim adapted to interrupt the burner flame, means upon the rim for correspondingly changing the relation of the fender plates to each other, and means for supporting cultivating plows upon the frame to the rear of the thinning wheel.

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1,088,970. BED. FRANK J. CROUCH, Portland, Oreg. Filed Sept. 9, 1913. Serial No. 788,870. (Cl. 5—37.)



1. A bed, including a frame, a counter-balancing head member for the frame to form a base therefor when the frame is in an upright position, said head member being provided with two wings one at each end thereof, two curved members pivotally connected to the lower edge of the wings for movements to and from each other to assume positions parallel with or at right angles to the frame, said curved members constituting legs for the head member, and means for retaining said hinged member in extended or folded position.

2. A bed, including a frame, a counter-balancing head member for the frame to form a base therefor when the frame is in an upright position, said head member being provided with two wings one at each end thereof, two curved members pivotally connected to the lower edge of the wings for movements to and from each other to assume positions parallel with or at right angles to the frame, said curved members constituting legs for the head member, means for retaining said hinged members in extended or folded position, and a pivoted head rail connected to the opposite ends of the wings for movement parallel or at right angles to the head member.

3. A bed, including a frame, a counter-balancing head member for the frame to form a base therefor when the frame is in an upright position, said head member being provided with two wings one at each end thereof, two curved members pivotally connected to the lower edge of the wings for movements to and from each other to assume positions parallel with or at right angles to the frame, said curved members constituting legs for the head member, means for retaining said hinged members in extended or folded position, a pivoted head rail connected to the opposite ends of the wings for movement parallel or at right angles to the head member, and a sectional foot rail and leg pivotally connected to the frame and for movement at right angles to or parallel with the frame.

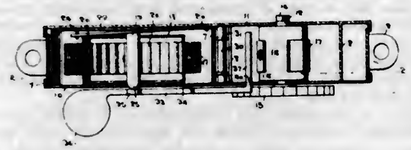
4. A counter-balancing head member for beds, including a relatively flat portion, a supporting and carrying roller disposed centrally and transversely thereof, and two swingingly mounted rocker shaped legs connected to the ends thereof and forming guiding means to assist in positioning the bed in a vertical or horizontal position.

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1,088,971. COUNTING-MACHINE. OSCAR C. DAVIS, Dallas, Tex., assignor of one-half to Samuel Freshman, Dallas, Tex. Filed Dec. 24, 1912. Serial No. 738,415. (Cl. 235—125.)

1. In a device of the class described, a casing, feed and take-up rollers mounted therein, a numbered tape connecting said rollers, spring means for retarding the rotation of said feed roller, and a lever actuable by the tape for moving said spring means into retarding position.





2. In a device of the class described, a casing, a take-up roller mounted therein, a flat disk, an axle extending from the central portion of said disk, spring elements formed on said disk on opposite sides of said axle, a spring actuated feed roller mounted on said axle and carrying a numbered tape connected to said take-up roller, said disk adapted to retard the rotation of said feed roller, means for actuating said take-up roller, and means actuable by the tape for moving said disk into retarding position.

3. In a device of the class described, a casing, a take-up roller mounted therein, a flat disk, an axle extending from the central portion of said disk through said casing, spring elements formed on said disk at opposite sides of said axle, a spring actuated feed roller mounted on said disk and carrying a numbered tape connected to said take-up roller, said disk adapted to retard the rotation of said feed roller, means for actuating said take-up roller, a lever pivoted on said casing and having an arm extending over said tape, and a lug on said tape adapted to actuate said arm for throwing said lever out of engagement with said axle whereby said disk is moved into retarding position.

4. In combination, a casing, a take-up roller mounted in the casing, a spring actuated feed roller mounted in the casing and carrying a numbered tape having connection with the take-up roller, means for retarding the rotation of said feed roller and means actuable by the tape for moving said retarding means feed roller into retarding position.

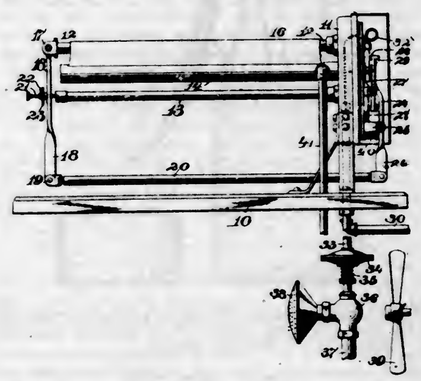
5. In a registering attachment for a typewriter, a casing adapted to be attached to an ordinary typewriter, an axle journaled in the casing and having a ratchet wheel and a drum fixed thereon, means adapted to be connected to the typewriter for actuating the ratchet wheel and thereby rotating the drum, a numbered tape connected to the drum and adapted to be wound thereon from its initial position to its final position, a second drum in the casing and having an end of the tape secured thereto, means associated with the said second drum for rotating the latter and thereby rewinding the tape thereon, a tensioning element for retarding the motion of the drum and preventing premature rewinding of the tape thereon, a holder member for moving the tensioning element out of operative relation with the drum, and means on the tape for actuating the holder member for allowing the tensioning element to return to its operative position when the tape has returned to its initial position.

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1,088,972. HYGROSTAT. VERNER F. DAVIS, Orange, N. J. Filed Feb. 15, 1910. Serial No. 544,042. (Cl. 98—39.)

1. Means for adjusting a valve of a humidifying apparatus consisting of a pair of rods made of material having the same coefficient of expansion, means for keeping one of the rods wet, a lever in pivotal relation with the rods, and a bar of material having the same coefficient of expansion as the pair of rods connecting the lever and the valve, the bar being proportioned in length so as to maintain its operativeness within a predetermined range of dry bulb temperature, the pair of rods and the bar being separated suitable distances to give the proper ratios of leverage to the lever.

2. Means for adjusting a valve of a humidifying apparatus consisting of a pair of rods having the same coefficient of expansion, means for keeping one of the rods wet, a lever in pivotal relation with the rods, a bar having the same coefficient of expansion as the rods connecting the lever with the valve, and means on the end of one of the rods for adjusting the lever toward and from the end of the rod, the bar having its length and disposition so regulated that it maintains its operativeness within a predetermined range of dry bulb temperature, the pair of rods and the bar being separated suitable distances to give the proper ratios of leverage to the lever.



3. Means for adjusting a valve of a humidifying apparatus consisting of a pair of rods having the same coefficient of expansion, means for keeping one of the rods wet, a lever in pivotal relation with one of the rods, a bar in pivotal relation with the lever and connected with the valve, and a regulating screw in the lever and bearing on the other rod, the bar being disposed and proportioned so that it is operative for a predetermined range of dry bulb temperature, the pair of rods and the bar being separated suitable distances to give the proper ratios of leverage to the lever.

4. Means for adjusting a valve of a humidifying apparatus consisting of three rods, one end of the rods being connected by a lever, and means for keeping one of the rods wet, the wet rod and one of the dry rods having a fixed support, the third rod having one end connected to the valve to operate it, the rods having such lengths, coefficient of expansion, and being separated to give the proper ratios of leverage to the lever so as to operate the valve to keep the humidifying means at the point of operating with a given percentage of humidity regardless of temperature.

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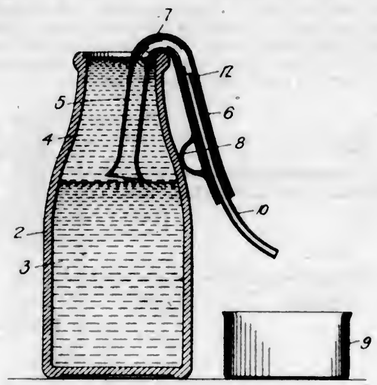
1,088,973. SIPHON. SAMUEL B. DRINKHOUSE, Denver, Colo. Filed Apr. 23, 1912. Serial No. 692,612. (Cl. 137—20.)

1. A siphon comprising a bent open-ended conduit, and an open-ended tube of flexible material having at one of its ends an integral enlargement in sliding contact with the interior surface of one of the legs of said conduit, the opening at the end of said leg being adapted to permit of the entire withdrawal of the tube when it is moved to incite a flow of liquid through the conduit, and the outer end of the said tube being adapted to be closed by hand for the exclusion of air from the conduit.

2. A siphon comprising a bent open-ended conduit, and an open-ended tube of flexible material having at one of its ends an enlargement in sliding contact with the interior surface of one of the legs of said conduit, the opening at the end of said leg being adapted to permit of the entire withdrawal of the tube when it is moved to incite a flow of liquid through the conduit, and the outer end of the said tube being compressible for the exclusion of air from the conduit.

3. A siphon comprising a bent open-ended conduit, and an open-ended tube of flexible material having at one of its ends an enlargement in sliding contact with the interior surface of one of the legs of said conduit, the open-

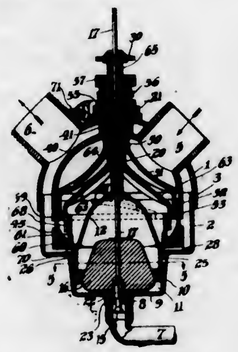
ing at the end of said leg being adapted to permit of the entire withdrawal of the tube when it is moved to incite



a flow of liquid through the conduit, and the outer end of the said tube being adapted to be closed by hand for the exclusion of air from the conduit.

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1,088,974. CARBURETER. BRUCE DRYSDALE, Philadelphia, Pa., assignor of one-fourth to James W. Mason, one-fourth to John W. Hulton, and one-fourth to Walker Hulton, Philadelphia, Pa. Filed Feb. 6, 1912. Serial No. 675,742. (Cl. 48—155.1.)



1. In a carbureter, the combination of means for distributing inflammable fluid in a thin film over a portion of the carbureter structure, the said means including an adjustable member for varying the thickness of said film, with means for directing air in the form of a thin film over the said film of fluid to absorb the latter to produce an explosive gas for a gas engine, the said last mentioned means also including an adjustable member for varying the thickness of the film of air.

2. In a carbureter, the combination of means for distributing an inflammable fluid in the form of a film or thin coating over an annular surface of a part of the carbureter structure, the said means including an adjustable member for varying the thickness of said film, with means for directing air in the form of a film or thin layer laterally in all directions over and in contact with the said surface to absorb the fluid deposited thereon to produce an explosive mixture of air and inflammable fluid for use in a gas engine, the said last mentioned means also including an adjustable member for varying the thickness of the film of air.

3. In a carbureter, the combination of a casing having an annular portion adapted to receive a film or thin layer of combustion fluid thereon, means for supplying the said fluid thereto, adjustable means for varying the thickness of said film or layer of combustion fluid, a member adjustable toward and from the surface of said annular portion to vary and control the thickness of the thin film-like current of air which flows over the said surface, and means for causing the air to flow over the said surface radially in all directions.

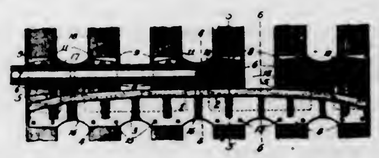
4. In a carbureter, the combination of a casing having a reduced lower end portion, the upper end of which portion is connected with an annular horizontal portion of said casing, a member having adjustable connection with the said reduced portion of the casing and forming therewith a combustible fluid receiving chamber, and the said chamber being provided with channels for supplying the said fluid in the form of a thin film to the said annular horizontal portion, and means for causing a thin annular film of air to flow over and in contact with the said horizontal portion to absorb the said fluid to produce an explosive gas for use in a gas engine.

5. In a carbureter, the combination of a member of the structure having an annular combustible fluid receiving surface and means for supplying oil to such surface with an air throttling device having an annular surface situated in opposition to said combustible fluid receiving surface and means independent of the oil supplying means for adjusting the said throttling device toward and from the fluid receiving surface to control and vary the flow of air between the said surfaces.

[Claims 6 to 8 not printed in the Gazette.]

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1,088,975. GUARD-RAIL. HENRY G. ELFBORG, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,262. (Cl. 239—17.)



1. In a device of the class described, a guard wall, a base plate integral therewith, said base plate having transversely extending projections adapted to project beneath a traffic rail between the ties, and longitudinal extensions at the outer ends of said arms, said extensions being adapted to overlie the adjacent ties beneath the traffic rail.

2. In a device of the class described, a guard wall, a base plate integral therewith, said base plate having T-shaped integral extensions, the stems of said T-shaped extensions being adapted to lie between adjacent ties and the arms thereof being adapted to project over said adjacent ties to support a traffic rail.

3. In combination, supporting ties, a guard rail structure comprising a guard wall having an integral base plate, said base plate having projections extending outwardly therefrom between the ties and each of said projections having longitudinally extending arms resting on said adjacent ties, and a traffic rail supported on said arms.

4. In combination, supporting ties, a guard rail structure comprising a guard wall having an integral base plate, said base plate having projections extending outwardly therefrom between the ties at each alternate tie separating space and each of said projections having longitudinally extending arms resting on said adjacent ties, and a traffic rail supported on said arms.

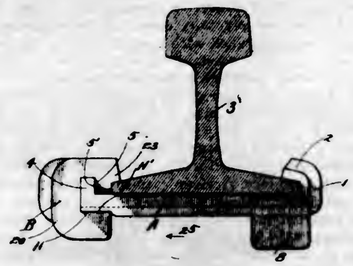
5. In a device of the class described, a guard wall, a base plate integral therewith, integral projections extending outwardly from said base plate and adapted to lie between the ties, longitudinal arms at the outer ends of said projections adapted to overlie the adjacent ties, adjustable means for securing said arms and the outer base flange of a traffic rail to the ties, and means for securing the inner base flange of said traffic rail to the ties.

[Claims 6 to 17 not printed in the Gazette.]



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1,088,976. ANTI-RAIL-CREEPER. HENRY G. ELFBORG, Chicago, Ill., assignor to Ajax Rail Anchor Co., Chicago, Ill., a Corporation of Delaware. Continuation in part of application Serial No. 778,680, filed July 12, 1913. This application filed Nov. 28, 1913. Serial No. 803,574. (Cl. 238—4.)



1. An anti-creeper for railroad rails comprising a member adapted to underlie the base of a rail and to bear against a tie, one end of said member being adapted to hang upon and engage the rail base by means of an upwardly extending part directly engaging the edge of the rail base, and the other end of said member having an upwardly extending shoulder converging in a horizontal plane with the opposite edge of said rail base toward said tie, said last mentioned end of said member having also a surface on its under side inclining downwardly toward said tie, and a second member adapted to overlie the other edge of the rail base and to embrace the last mentioned end of said main member by means of a groove extending along one side thereof, said groove having one part adapted to co-act with said upwardly extending shoulder of said main member and having another part adapted to coact with said inclined under surface of the main member, whereby when said wedge member is impelled toward said tie the opposite edges of the rail base are clamped between said wedge member and the upwardly extending part of the opposite end of said main member and said main member is forced upwardly against the under side of said rail base.

2. An anti-creeper for railroad rails comprising a member adapted to underlie the base of a rail and to bear against a tie, one end of said member being adapted to hang upon and engage the rail base by means of an upwardly extending part directly engaging the edge of the rail base and the other end of said member having an upwardly extending shoulder converging in a horizontal plane with the opposite edge of said rail base toward said tie, said last mentioned end of said member having also a surface on its under side inclining downwardly toward said tie, and a second member having a groove along one of its sides and extending through one end thereof, the upper wall of said groove being adapted to engage and overlap one edge of the rail base, a lug depending from the upper wall of said groove having an inner surface adapted to coact with the inner surface of said upwardly extending shoulder of said main member and the lower wall of said groove being adapted to coact with the inclined under surface of the main member, whereby when said wedge member is impelled toward said tie the opposite edges of the rail base are clamped between said wedge member and the upwardly extending part of the opposite end of said main member and said main member is forced upwardly against the under side of said rail base.

3. An anti-creeper for railroad rails comprising one member adapted to underlie and engage one edge of the base of a rail and to bear against a tie, the other end of said member having two inclined surfaces, and a second member having a groove on one of its sides, said grooves having two inclined wedging surfaces adapted to coact with the two inclined surfaces on said first mentioned member whereby when said second member is impelled toward the tie the rail base is subjected to a transverse gripping and to a vertical pressure on its under side.

4. An anti-creeper comprising a rail, a member having a jaw engaging the upper side of and vertically supported by one edge of the base of said rail and extending beneath and in contact with said rail, and a second member engaging the upper surface of the opposite side of said rail base and having a groove along one of its sides adapted to engage the end of said first named member opposite the jaw thereon, one of said members being adapted to abut against an adjacent tie, said members having two pairs of coacting surfaces, each inclined longitudinally of said rail, the relative movement of said members acting through one pair of said inclined surfaces to grip the opposite edges of said rail base and through the other pair of inclined surfaces to force said first named member against the bottom of said rail base.

5. An anti-creeper comprising a rail, a member having a jaw engaging the upper side of and vertically supported by one edge of the base of said rail and extending beneath and in contact with said rail, the other end of said member having two inclined surfaces, said member being provided on its under and outer surface with depending ribs extending transversely of the rail, and a second member engaging the end of said first named member opposite said jaw by means of a groove along one of its sides, said groove having parts adapted to coact with said inclined surfaces on said first named member, whereby when said second member is impelled toward the tie the rail base is subjected to a transverse gripping and to a vertical pressure on its under side.

[Claims 6 to 8 not printed in the Gazette.]

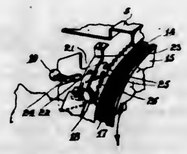
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1,088,977. PROCESS OF THE HARDENING OR MUMMIFICATION OF HUMAN AND ANIMAL BODIES AND THEIR ORGANS. GIUSEPPE FRATARCANGELI and PIETRO FRATARCANGELI, Frosinone, Italy. Filed Nov. 12, 1912. Serial No. 730,929. (Cl. 99—1.)

The herein described process of hardening or mummification of bodies which consists in removing all putrid substances from the body, immersing the body in turpentine, then immersing the body in alcohol containing pine tar in solution, then washing the body with turpentine, and finally drying the body.

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1,088,978. ALARM-CLOCK. EDWARD E. GAGE, New York, N. Y., assignor to Yankee Wizard Clock Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 15, 1913. Serial No. 795,193. (Cl. 58—16.)



1. In an alarm clock, alarm mechanism including a shaft having an arm; a movable setting member for determining the time at which said alarm mechanism shall operate; a movable switch adapted to engage the arm aforesaid to thereby control said alarm mechanism; and means intermediate said setting member and said switch and through which motion is transmitted from said setting member to said switch.

2. In an alarm clock, alarm mechanism; a movable setting member for determining the time at which said alarm mechanism shall operate; a movable switch adapted to engage an element of the alarm mechanism to thereby arrest the operation thereof; and means operated by said

setting member and adapted to move said switch out of engagement with the alarm train during the initial movement of said setting member as the same is moved to set the alarm mechanism.

3. In an alarm clock, alarm mechanism; a rotatable setting ring surrounding the face of the clock for determining the time at which said alarm mechanism shall operate; a movable switch adapted to engage an element of the alarm mechanism to thereby arrest the operation thereof; and a switch operating member operated by said setting ring during the initial movement thereof as the same is moved to set the alarm mechanism, and which switch operating member is operatively connected with said switch.

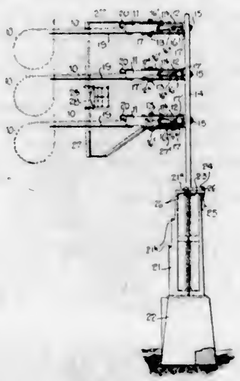
4. In an alarm clock, alarm mechanism; a rotatable setting ring surrounding the face of the clock for determining the time at which said alarm mechanism shall operate; an oscillating switch adapted to engage an element of the alarm mechanism to thereby arrest the operation thereof; a movable switch operating member in permanent operative engagement with said setting ring; and an arm carried by said switch and with which said operating member is operatively connected.

5. In an alarm clock, alarm mechanism; a pivotally supported switch adapted to engage an element of the alarm mechanism to thereby arrest the operation thereof; a movable switch operating member; a rotatable setting ring surrounding the face of the clock and the periphery of which ring is in operative engagement with said switch operating member; and an arm through which motion is communicated from said switch operating member to said switch.

[Claims 6 and 7 not printed in the Gazette.]

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1,088,979. SUPPORTING AND DELIVERING DEVICE. FRANK GEIGER, Imperial Junction, Cal. Filed Aug. 11, 1913. Serial No. 784,137. (Cl. 258—23.)



1. In combination, a device adapted to hold a package and provided with a substantially horizontal shank, a block having a substantially horizontal aperture in which the shank is movably seated, said block having a spring element adjacent to the aperture and frictionally engaging the shank, a standard, a substantially U-shaped bracket on the standard, a substantially U-shaped spring between the arms of the U-shaped bracket, and a pivot element extending through said bracket and said block and securing the latter with one end between the arms of the substantially U-shaped spring.

2. The combination with an article supporting device including a substantially horizontal shank, of an elongated block formed with a longitudinal aperture in one end and having its other end convexed and having a vertical aperture in its medial portion, an arm extending from the block in the longitudinal direction thereof and engaged with the article supporting device, a bracket, a pivot extending through the vertical aperture of the block and connecting it to the bracket, and a spring connected to the bracket and engaging with the convexed end of the block.

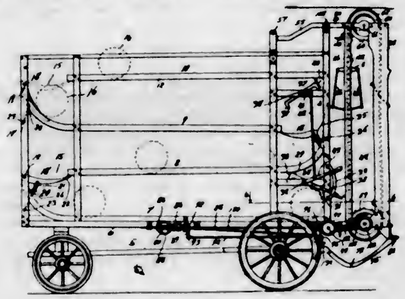
3. The combination with an article supporting device including a shank, of an elongated and pivotally mounted block provided with a longitudinal aperture and with a longitudinal arm extending outward past the aperture and adapted for engagement with said article supporting device, a spring carried by said block in frictional engagement with said shank, and a spring engaged with said block for holding it in its normal position and allowing it to be swung horizontally.

4. In combination, a base, a standard supported by the base, several article delivering mechanisms carried by the standard, a bracket pivotally connected to certain of said mechanisms and provided with a substantially vertical element, and a lantern receiver carried by the vertical element and being adjustable thereon and adapted to be located adjacent to either of the supporting mechanisms.

5. In combination, a base, a standard supported on the base, several article delivering mechanisms carried by the standard, a bracket pivotally connected to certain of said mechanisms and provided with a substantially vertical element, and a lantern receiver carried by the vertical element and being adjustable thereon and adapted to be located adjacent to either of the several article supporting mechanisms, said bracket being provided with means for holding it in either of two vertical planes which are spaced apart from the plane of the article supporting mechanisms.

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1,088,980. SELF LOADING AND UNLOADING BARREL-TRUCK. JOHN S. GOBLE, Denver, Colo., assignor of one-third to Charles L. Coombs, Denver, Colo. Filed Sept. 16, 1912. Serial No. 720,526. (Cl. 214—12.)



1. A barrel truck having a number of decks, each deck being divided longitudinally into a number of compartments, and a barrel elevator mounted on the truck and transversely movable to bring it into position to load or unload barrels to the different compartments of the several decks, substantially as described.

2. A barrel truck composed of a number of inter-communicating decks arranged one above another, and an auxiliary platform mounted on the truck and arranged to close the opening leading from one deck to another whereby it becomes practicable to unload from an upper deck, substantially as described.

3. A barrel truck composed of a number of decks, arranged one above another, the decks having terminal outlets to allow barrels to pass from one deck to the deck next below, and an auxiliary platform arranged to close the terminal opening of any deck to prevent barrels from passing from that deck to the deck next below, whereby it becomes practicable to unload barrels from an upper deck, substantially as described.

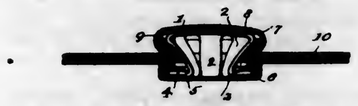
4. A barrel truck composed of a number of decks, the several decks being divided longitudinally, whereby each deck is formed into a number of compartments, an elevator mounted on the truck for barrel-loading and unloading purposes, and a transversely movable carriage upon which the elevator is mounted whereby it may be brought into position for handling barrels in connection with any set of compartments of the various decks, substantially as described.

5. A barrel truck composed of a number of decks arranged one above another, the said decks sloping alternately toward the front and rear, to facilitate the travel of the barrels for loading and unloading purposes, each deck having an opening at one extremity to allow the barrels to travel therefrom to the deck next below, and a rocking lever mounted adjacent any deck and serving when in one position, to form a stop for the barrels, while when in another position it separates a terminal barrel from an adjacent barrel for unloading purposes, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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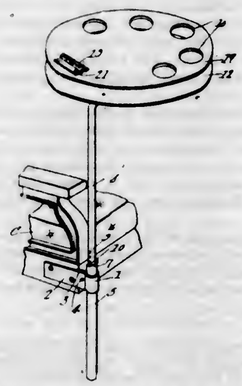
1,088,981. SPRING-SOCKET FOR SNAP-FASTENERS. ABRAHAM H. GRENEBAUM, Baltimore, Md., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Apr. 13, 1911. Serial No. 620,881. (Cl. 24—216.)



A spring socket for snap fasteners, comprising a spring of the bird-cage type, the limbs of which terminate in outturned feet and are constricted about the mouth of the socket, a ring encircling the spring next to and above its feet, a binder applied to the feet below them and closed in over the ring to unite the spring's feet and ring and allow lateral play of the spring, and a top or cap provided with a holding-piece in its back having a funnel-shaped mouth extending toward the ring when the parts are assembled, the whole adapted to be applied to goods by mushrooming the spring within the top or cap arranged above the goods, while the feet, ring and binder are located beneath the goods, said ring in connection with the holding-piece serving to prevent the collapsing of the spring outside of the top or cap above the goods in the act of setting, and insuring the mushrooming of the spring within the top or cap during such setting.

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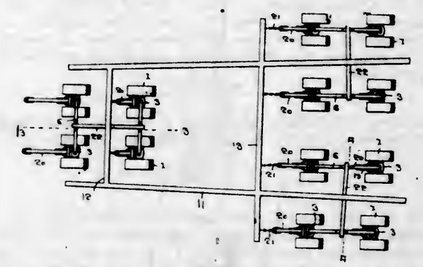
1,088,982. CHAIR ATTACHMENT. HARRY GREENWOOD, Sr., Barnesboro, Pa. Filed May 23, 1913. Serial No. 769,544. (Cl. 211—3.)



A chair attachment, including a tubular support, the upper edge of which is provided with a plurality of even numbered depressions and ridges, an arm having a tubular shank which is vertically slidable and rotatable within the tubular support, the lower end thereof being provided with a plurality of diametrically disposed apertures therethrough, a pin insertible through any one of said apertures and of greater length than the diameter of the rod, said pin being disposed to seat within diametrically opposed recesses at the upper end of the tubular member to lock the arm against rotation, and an article carrying shelf connected to the upper end of the supporting arm.

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1,088,983. TRUCK. SAMUEL P. GRIFFIN, Laporte, Ind. Filed Oct. 12, 1912. Serial No. 725,467. (Cl. 21—115.)



A truck comprising pairs of front and rear wheels, a shaft for each pair of wheels, bolsters positioned on said shafts between said wheels, seats formed in said bolsters having the upper portions thereof elongated on a line longitudinal of the shaft and tapered downwardly, a connecting beam having the opposite ends turned downwardly and mounted within said seats and having the central portion depressed, lugs extending laterally from the depressed portion of said connecting beam, a cap disposed over said lugs and having an upstanding stud, and straps connecting said cap with said lugs.

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1,088,984. ROCK-DRILLING MACHINE. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 9, 1910. Serial No. 581,197. (Cl. 255—45.)



1. A wagon, a frame carried thereby, a percussive tool movable along the frame, an engine carried by the wagon, flexible connections between the engine and tool whereby the tool is moved positively along the frame toward and away from its work and means for operating the tool.

2. A wagon, a turntable thereon, a frame uprising from the turntable, a percussive tool movable along the frame; an engine carried by the wagon, flexible connections between the engine and tool whereby the tool is moved posi-

tively along the frame toward and away from its work and means for operating the tool.

3. A wagon, a frame carried thereby, a percussive tool movable along the frame, an engine carried by the wagon, flexible connections between the engine and tool whereby the tool is moved positively along the frame toward and away from its work, a tension device engaging the flexible connection which operates to move the tool toward its work and means for operating the tool.

4. A suitable support, a frame carried thereby, a percussive tool movable along the frame, means for positively feeding and withdrawing the tool along the frame, a tension device for the feeding means and means for operating the tool.

5. A suitable support, a frame carried thereby, a percussive tool movable along the frame, tool feeding and withdrawing cables, means for operating them, a tension device engaging the feeding cable, and means for operating the tool.

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1,088,985. WRENCH. CLARENCE T. HARNER, Suver, Oreg. Filed Oct. 21, 1913. Serial No. 796,496. (Cl. 81—116.)



1. A wrench including a handle having a bifurcated head providing side plates, a pair of jaws fulcrumed intermediate the ends between said said plates, a helical spring connecting the rear ends of said jaws and normally holding said jaws open, and a spring pressed plunger slidably mounted between said jaws on said side plates and carrying an integral triangular shaped cam at the rear end engageable between the confronting edges of said jaws and adapted upon forcing of said plunger rearwardly to cam the rear ends of said jaws apart and dispose the front ends of said jaws in clamping engagement with the sides of a nut.

2. In a wrench the combination of a handle having a bifurcated head, a pair of jaws fulcrumed intermediate the ends in the bifurcation of said head, a helical spring connecting the rear ends of said jaws and normally holding said jaws open, a stem in said bifurcation between said jaws having a longitudinal slot, a head on one end of said stem for engagement with the nut to be turned, a triangular shaped cam on the opposite end of said shank bearing upon obliquely disposed cam faces formed on the inner edges of said jaws, a transverse pin engaged through said slot and terminally secured in said bifurcation, and a helical spring seated on said shank and confined under tension between said head and said pin.

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1,088,986. SHARPENING DEVICE. MOSES L. HAWKS, New York, N. Y. Filed Feb. 19, 1913. Serial No. 749,405. (Cl. 76—88.)

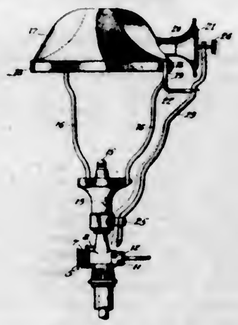
1. In combination with a handle having a transverse aperture adjacent one end, of a channeled holder within the aperture, said holder being provided with angular flaring end portions for retaining the same in position, and a sharpening member adjustably held in said holder, means for clamping the holder against the sharpening member, said flaring end portions serving as guides for the instrument to be sharpened.



2. In combination with a handle having a transverse aperture adjacent one end, of a holder formed of spring sheet metal, said holder having a channeled body portion passing through the aperture, angular flaring end portions formed on the holder adjacent to the mouths of the aperture, a sharpening member adjustably held in said holder, and means for springing the body portion so as to clamp the sharpening member in adjusted position to present a fresh sharpening surface, the flaring end portions serving as guides for the instrument to be sharpened.

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1,088,987. AUTOMATIC GAS-EXTINGUISHER. EDWIN H. HAWLEY, Washington, D. C. Filed Nov. 20, 1913. Serial No. 802,087. (Cl. 67—117.)



1. The combination with a gas burner having a self closing stop cock, of an annular air chamber located above said burner and arranged to be heated by the gas flame and having a flexible portion, and a trigger adapted to be operated by said flexible portion and thereby release the stop cock.

2. The combination with a gas burner having a self closing stop cock, of an annular air chamber made of thin sheet metal and located above said burner, a flexible diaphragm carried by said chamber, and a trigger arranged adjacent to said diaphragm and operating to release said stop cock.

3. The combination with a gas burner having a self closing stop cock, of an annular air chamber made of thin sheet metal and located above said burner, a horn projecting from said chamber, a flexible diaphragm closing the mouth of said horn, and a trigger having one end adjacent to said diaphragm and operating to release said stop cock.

4. The combination with a gas burner having a self closing stop cock, of an air chamber composed of thin sheet metal, said chamber being annular in shape and resembling a frustum of a cone, with curved walls.

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1,088,988. ANIMAL-TRAP. HENRY H. HERRING, Atascosa, Tex. Filed July 23, 1913. Serial No. 780,737. (Cl. 43—19.)

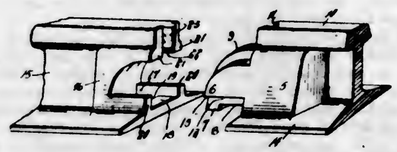
A trap of the class described having a wall provided with an entrance chute extending inwardly into the trap, said chute having posts at the inner ends of its side walls and stops at elevated points on said posts, a trap door hingedly connected near one end to a cross bar at the outer end of the entrance chute, the said door being adapted to close downwardly and lie in an inclined position in the chute, a supporting bar for the trap door, to lie in the stops of the posts and to support the door in elevated,



open position, a weight, a cord connecting the said weight to the supporting bar, means including a releasing element to support the said weight in elevated position and a trigger to hold the releasing element in set up position and to release said releasing element and cause the weight to drop when the trigger is moved.

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1,088,989. VERTICAL-LOCKING RAIL-JOINT. GOTTLIEB H. HOELSCHER, Hawarden, Iowa, assignor of one-fourth to A. D. Horton and one-fourth to John Smith, Hawarden, Iowa. Filed May 27, 1913. Serial No. 770,216. (Cl. 239—8.)



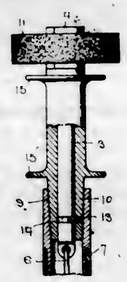
1. In a rail joint, a plurality of rails each having its web thickened at the ends thereof, one said thickened end being provided with a locking lug having a depending shoulder thereon, said locking lug having an upwardly convexed surface, the other thickened rail end having a recess formed therein and being provided with an upstanding shoulder within the recess and with a flange at a side of the shoulder, a depending flange at a side of the top of the recess, said depending flange being formed with a concaved lower surface, so that two rails may be fitted together by causing the depending shoulder of one rail to pass over the upstanding shoulder of the other rail while the convexed surface of one rail slides upon the concaved surface of the other.

2. A rail having counterpart end portions each of which is formed with a recess having a vertical wall which is extended in the longitudinal direction of the rail and beyond the rail head for forming a locking lug, said locking lug having an upwardly convexed surface and a depending shoulder, an upstanding shoulder within the recess, an upstanding flange on the locking lug, and a depending flange spaced apart from the vertical wall, whereby either end of one rail may be joined with either end of a similar rail by causing the depending locking lugs to pass over the upstanding locking lugs and to interlock therewith while the convexed surface of each rail end slides upon the concaved surface of the contiguous rail section.

3. A rail having counterpart end portions each formed with a locking lug and a contiguous recess adapted to receive a similar locking lug, said locking lug being formed with a depending shoulder, an upstanding shoulder within the recess, a depending flange at the top of the recess and a vertical shoulder extending from the top of the recess to the top of the rail tread, whereby two similar rails may have their ends united by moving the lug of each rail into the recess of the other rail and engaging the depending shoulder of each rail with the upstanding shoulder of the other and interlapping the shoulder of one rail head with that of the other.

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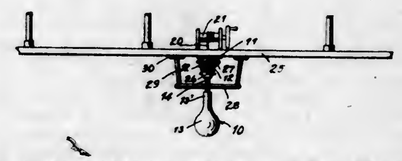
1,088,990. TOOL. JAMES L. HOFFMAN, Pleasant Lake, Ind. Filed May 1, 1912. Serial No. 694,460. (Cl. 51—7.)



In combination, a non-rotatable flexible tube, an interiorly tapered sleeve fixed in one end thereof, a bearing sleeve having one end exteriorly tapered and disposed in the tapered end of said first mentioned sleeve, a shaft rotatable in said bearing sleeve, means to prevent longitudinal movement of said shaft within said sleeve, a grinding wheel secured to one end of said shaft, and a chain disposed within said tubing for driving said shaft and adapted when rotated to contract and frictionally lock said bearing sleeve with said first mentioned sleeve and tubing.

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1,088,991. SAFETY-BALANCE. MILFORD G. HOUGHTON, Webster Groves, Mo. Filed Mar. 27, 1913. Serial No. 757,186. (Cl. 244—31.)



1. A safety balancing pendulum including a support having an annular guide ring, a socket member adapted to be secured centrally within the borders of said support and a telescoping pendulum member having a ball end yieldably and swivelly secured within said socket member, said pendulum being limited in movement by said annular guide.

2. A safety balancing pendulum including an annular guide ring having upturned supporting legs for attachment to an aeroplane, a socket member for attachment to an aeroplane within the inclosure of said legs, a telescoping pendulum having a ball end mounted in said socket, and helical springs attached to said pendulum and to said socket member, said pendulum being limited in movement by said guide rings.

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1,088,992. HAME AND TUG COUPLING. CHARLES H. HUDSON, Oconto, Nebr. Filed July 30, 1913. Serial No. 781,905. (Cl. 54—30.)

1. A hame and tug coupling comprising body members adapted for permanent attachment respectively to the hame and tug of a harness and having formed respectively therein right and left hand threaded apertures, and a universally jointed coupling having right and left hand threaded terminals adapted to engage respectively said threaded apertures.

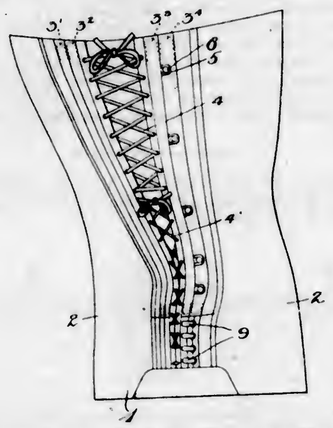
2. A hame and tug coupling comprising a hame staple having projecting stems adapted to be riveted to the hame, and having a threaded aperture formed in the body thereof, a tug yoke having flattened parallel side members adapted to be riveted to the tug and having a left hand threaded aperture formed in the body thereof, and a two



part coupling comprising a right hand threaded screw eye and a left hand threaded screw eye linked together and adapted to detachably engage respectively at their threaded ends the threaded apertures in said hame and tug members.

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1,088,993. PRESCRIPTION-CORSET. MARIE ELIZABETH JAMME, Summit, N. J. Filed Jan. 30, 1913. Serial No. 745,072. (Cl. 2—73.)



1. A corset consisting of a corset body and a plurality of steels in the front thereof, said corset having an inwardly extending hypogastric projection above the lower ends of the steels, and means for holding the said parts about the wearer.

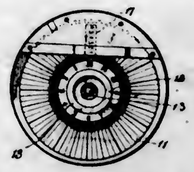
2. In a corset, the combination of a corset body, a plurality of steels in the front thereof, said steels having inwardly extending hypogastric projections above the lower ends of the steels, and hooks and studs on two adjacent steels.

3. In a corset, the combination of a corset body, a plurality of steels in the front thereof, said steels having inwardly extending hypogastric projections above the lower ends of the steels, and a lacing between two of said steels.

4. In a corset, the combination of a corset body, a pair of steels in the front thereof, said steels having inwardly extending hypogastric projections above the lower ends of the steels, a lacing between said steels, and additional means for holding the parts about the wearer.

5. In a corset, the combination of a corset body, two pairs of steels in the front thereof, said steels having inwardly extending hypogastric projections above the lower ends of the steels, a lacing between said pairs, and studs and loops on the two members of one pair respectively.

1,088,994. RECORD-DIAL-SUPPORTING DEVICE FOR WATCHMEN'S TIME-RECORDERS. CHARLES H. JENKINS, Belleville, N. J., assignor to Newman Clock Company, New York, N. Y., a Corporation of New York. Filed Sept. 23, 1910, Serial No. 583,331. Renewed Aug. 15, 1913. Serial No. 784,974. (Cl. 234—37.)



1. In a watchman's time-register, in combination, a clock-driven arbor, a record-dial supporting plate encircling the arbor and rotating therewith, an extension on said supporting plate having a circumferential groove therein, said plate being provided with one or more radially extending ribs to engage a correspondingly shaped slot or slots in a centrally apertured record-dial, a removable cap for holding the dial in position, and means engaging said groove for locking the cap in place.

2. In a watchman's time-register, in combination, a clock-driven arbor, a record-dial supporting plate encircling the arbor and rotating therewith, said plate being provided with one or more radial extending ribs to engage a correspondingly shaped slot or slots in a centrally apertured record-dial, a removable cap having in its under surface one or more radially extending grooves to fit the rib or ribs on the plate and having a central aperture to permit the cap to be slipped over the said arbor, and means for locking the cap in place.

3. In a watchman's time-register, in combination, a record-dial supporting plate having a stem and having one or more radially extending ribs to engage a correspondingly shaped slot or slots in a centrally apertured record-dial, said stem being provided with a circumferential groove, a removable cap having an aperture to fit said stem, and having one or more radial grooves to fit the ribs on said plate, and one or more spring-actuated locking pins carried by the cap and adapted to engage the groove in the stem whereby to hold the cap removably on the stem.

4. In a watchman's time-register, in combination, a record-dial supporting plate having a stem and having a plurality of ribs extending radially frome said stem and spaced equiangularly apart, said stem being provided with a circumferential groove, a cap having an aperture to fit said stem, and having in its under surface a plurality of grooves to fit the ribs on said plate, and a plurality of spring-pressed locking pins carried by the cap and adapted to engage the groove in said stem whereby to hold the cap removably on the stem.

5. In a watchman's time-register, in combination, a clock-driven arbor, a record-dial supporting plate encircling the arbor and rotating therewith, said plate being provided with one or more extending ribs to engage a correspondingly shaped slot or slots in an apertured record-dial, and a removable cap having in its under surface one or more corresponding grooves to fit the rib or ribs on the plate and having a central aperture to permit the cap to be slipped over the said arbor.

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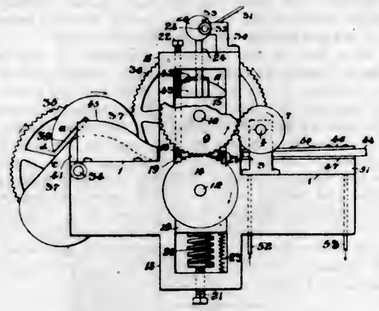
1,088,995. HOOF-CUTTING AND HOOF-OPENING MACHINE. FRANCIS M. KEANE, Botsford Station, Conn. Filed Feb. 21, 1913. Serial No. 749,834. (Cl. 18—1.)

1. A hoof splitting cutter, having a support for the hoof and an overhanging cutting lip adapted to enter the hoof, and means for actuating the cutter to sever the hoof.

2. A hoof splitting cutter having an overhanging cutting lip, and a support for the hoof, and exterior supports for the hoof during the cutting operation.

3. A rotatable hoof splitting cutter having an overhanging cutting lip on opposite sides and hoof supporting surfaces, exterior hoof supports adapted to support the hoof during the cutting operation.





4. A rotatable hoof splitting cutter having oppositely located and overhanging cutting lips and hoof supports, exterior hoof supports adapted to support the hoof during the cutting operation, and side guides to maintain the hoof in an upright position.

5. A rotatable hoof splitting cutter having oppositely located and overhanging cutting lips and hoof supports, exterior hoof supports to support the hoof during the cutting operation, and rolls, said cutter adapted to split a hoof and eject a previously split hoof into the rolls.

[Claims 6 to 10 not printed in the Gazette.]

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1,088,996. BED-SPRING. RICHARD J. KELLY, Syracuse, N. Y. Filed June 30, 1913. Serial No. 776,530. (Cl. 5—67.)



1. In a bed spring, a frame, a fabric, rocking levers hinged to the frame and also to the fabric, floating bars, means for operatively connecting said bars to said levers, and means for operating said bars for rocking said levers.

2. In a bed spring, the combination with a fabric for supporting a mattress and a frame, of a plurality of tension levers hinged to each end of the frame and connected to the ends of the fabric, a series of floating bars, resilient means connecting said bars to said levers, and screw-bolts for operating said bars and said levers.

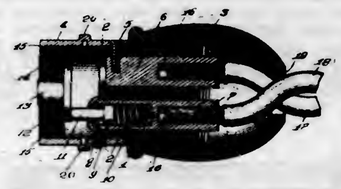
3. The combination of a fabric for supporting a mattress, a frame, a plurality of tension levers connecting said fabric to said frame, a plurality of floating bars, tension springs interposed between said floating bars and said tension levers, and means for operating said levers and said bars for increasing and decreasing the tension of said fabric.

4. In a bed spring, a frame, a fabric for supporting a mattress mounted in said frame, a plurality of depending levers hinged to the end rails of the frame and supporting the ends of the fabric, a series of tension springs connected to said depending levers, and a series of rods for increasing and decreasing the tension of said springs.

5. In a bed spring, a frame, a fabric for supporting a mattress above said frame, a plurality of tension levers pivoted to the end rails of said frame and connected to the ends of said fabric, springs connected to the lower ends of said tension levers, floating bars connected to said springs, and means for independently operating each of said bars for increasing the tension of certain parts of said fabric without disturbing the other parts thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,088,997. CONNECTOR-PLUG. GEORGE C. KNAUFF, Chicago, Ill. Filed May 26, 1913. Serial No. 769,947. (Cl. 173—346.)



1. In a wire-connecting plug for a socket having a metal casing, an insulating body; a pair of wire terminals carried thereby; a metal shell mounted upon one end of the insulating body, the said shell slidingly interfitting the casing of the socket and electrically connected to one of the wire terminals; an auxiliary insulating body housed within the said shell; a contact member carried by the auxiliary insulating body; the outer end of the said shell being contracted to secure the auxiliary insulating body and the contact member carried thereby within the said shell; and a spring-pressed member interposed between the contact member and the other of the said wire terminals.

2. In a wire-connecting plug for a socket having a metal casing, a main insulating body; a pair of wire terminals carried thereby; a metal shell mounted upon one end of the insulating body, the said shell slidingly interfitting the casing of the socket and electrically connected to one of the wire terminals; an auxiliary insulating body housed within the said shell; and a contact member carried by the auxiliary insulating body and electrically connected to the other of the said wire terminals, the outer end of the said shell being contracted to secure the auxiliary insulating body within the said shell.

3. In a wire-connecting plug for a socket having a metal casing, an insulating body; a pair of wire terminals carried thereby; a metal shell mounted upon one end of the insulating body, the said shell slidingly interfitting the said casing of the socket; a metallic fastening member electrically connecting the said shell and one of the wire-terminals carried by the insulating body, the said fastening member extending through a portion of the insulating body and thereby securing both the shell and the last-named wire-terminal to the insulating body; and a contact member mounted within the said shell and insulated therefrom and electrically connected to the other of the said wire-terminals.

4. In a wire-connecting plug for a socket having a metal casing, a main insulating body; a pair of wire terminals carried thereby; a metal shell mounted upon one end of the insulating body, the said shell slidingly interfitting the casing of the socket and electrically connected to one of the wire terminals; an auxiliary insulating body housed within the said shell; and a contact member carried by the auxiliary insulating body and electrically connected to the other of the said wire terminals.

5. In a wire-connecting plug for a socket having a metal casing, an insulating body; a pair of wire terminals carried thereby; a metal shell mounted upon one end of the insulating body, the said shell slidingly interfitting the casing of the socket and electrically connected to one of the wire terminals; a contact member insulatingly mounted within the said shell; and a spring-pressed member interposed between the contact member and the other of said wire terminals.

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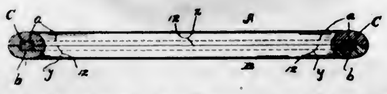
1,088,998. POLISH FOR FURNITURE. EDWARD KNOX. Montreal, Quebec, Canada. Filed Mar. 17, 1913. Serial No. 754,861. (Cl. 134—24.)

1. The herein described composition of matter consisting of raw linseed oil, vinegar, high wines, eggs and sugar, substantially and for the purpose specified.

2. The herein described composition of matter for polishing furniture, consisting of raw linseed oil two quarts, vinegar two pints, high wines one pint, eggs six, and sugar one half pound substantially as described.

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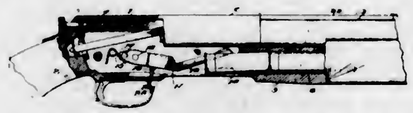
1,088,999. RIM FOR STEERING-WHEELS OF AUTOMOBILES. BELA KORMENDY, Cleveland, Ohio, assignor to Theodor Kundtz, Lakewood, Ohio. Filed July 17, 1911. Serial No. 638,901. (Cl. 74—33.)



In a wheel-rim of the character indicated, oppositely arranged top and bottom annular wooden sections provided with registering annular recesses arranged centrally of and substantially concentrically relative to the wheel-rim, and an interior annular wooden section engaging said recesses and arranged substantially concentrically relative to the top and bottom sections, said interior section being composed of a single circularly bent wooden piece which has its ends cemented together, the top and bottom sections being each composed of several wooden segmental pieces arranged end to end and concentrically relative to the wheel-rim, the segmental pieces of the top section being cemented to the segmental pieces of the bottom section, the joints formed between the segmental pieces of the bottom section alternating with the joints formed between the segmental pieces of the top section, and all the segmental pieces of the top and bottom sections being cemented to the aforesaid interior section along all of the walls of the aforesaid recesses.

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1,089,000. CARTRIDGE-DISCHARAGING ATTACHMENT FOR GUNS. JOSEPH KRAMER, Mobile, Ala. Filed Apr. 15, 1913. Serial No. 761,397. (Cl. 42—17.)



1. In a gun of the character described, a magazine, a movable cartridge carrier disposed at the entrance to the magazine, and means extending inward from the exterior of the gun and engaging the cartridge carrier, said means being manually movable to force the cartridge carrier inward and having loose contact with the carrier, whereby the carrier may move inwardly independently of the said means.

2. In a gun of the character described, a magazine, a movable cartridge carrier disposed at the entrance to the magazine, and a shiftable pin extending through the under side of the gun and loosely engaging said carrier whereby the carrier may be manually shifted inward whereby said carrier may have movement independently of the pin.

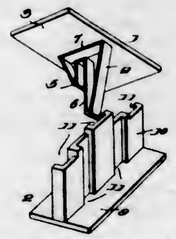
3. In a gun of the character described, a magazine, a cartridge carrier disposed at the entrance to the magazine and pivotally supported at its rear end, a spring normally forcing the forward end of the cartridge carrier outward and means projecting through the under side of the gun and contacting loosely with the carrier forward of its point of pivotal support whereby the forward end of the cartridge carrier may be shifted inward against the force of the spring said carrier being movable inward independently of said means.

4. In a gun of the character described, a gun frame, a barrel extending from the frame, a magazine extending from the frame beneath the barrel, said frame being formed on its under side with a loading opening, an angular cartridge carrier pivoted in the interior of the frame and having spaced legs extending toward the entrance of the magazine, a spring normally forcing the forward end of the cartridge carrier outward, and a pin passing loosely through the under side of the gun and contacting at its inner end with the cartridge carrier forward of its pivot whereby the cartridge carrier may be manually moved inward against the force of this spring.

5. In a gun of the character described, a gun frame having a loading opening, a magazine extending from the frame forward of the loading opening, a guard frame disposed beneath the rear end of the gun frame and rearward of the loading opening, an angular cartridge carrier pivotally supported adjacent its rear end in the gun frame and having spaced forwardly extending arms extending above the loading opening, a spring normally holding the forward end of the carrier shifted outward, and a pin loosely mounted in the trigger guard frame, the inner end of the pin contacting with the cartridge carrier forward of its pivot, the outer end of the pin being disposed adjacent the side of the trigger guard and being formed with a head.

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1,089,001. CHAPLET. OSCAR F. LINDBERG, Bradford, Pa. Filed May 22, 1913. Serial No. 769,315. (Cl. 22—184.)



1. A chaplet comprising a lower member having a standard provided with grooves of unequal lengths, and an upper member having a standard adapted to engage in one of said grooves.

2. A chaplet comprising a lower plate, a standard rising therefrom and provided with vertical grooves in its opposite faces, the various heights of the standard in the planes of the respective grooves being unequal, and an upper plate having means for engaging one of said grooves.

3. A chaplet comprising a lower member having grooved supports of unequal height rising therefrom, and an upper member having a depending standard adapted to engage one of said supports.

4. A chaplet comprising a lower plate, a grooved support rising therefrom, an upper plate having a pair of parallel members depending therefrom and adapted to fit over said grooved support and engage the groove therein, and a connection between said members to rest upon said support.

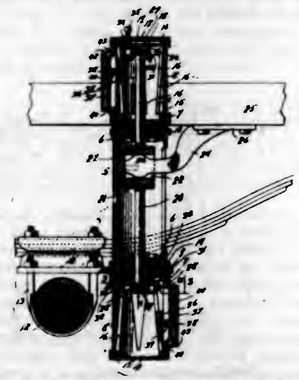
5. A chaplet comprising a lower member, a support therefor and having a stepped upper edge, and an upper member constructed to fit over said support and rest upon a step in the upper edge thereof.

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1,089,002. SHOCK-ABSORBER. ROY M. LYON, Denver, Colo., assignor of three-tenths to Guy C. Walter, Denver, Colo. Filed Mar. 24, 1913. Serial No. 756,336. (Cl. 21—105.)

1. A shock absorber, comprising upper and lower chambers having shallow cavities, lengthwise disposed in the inner surfaces of their walls, the said cavities diminishing in area from the top toward the bottom in the lower chamber and from the bottom toward the top of the upper chamber, pistons mounted in the said chambers, and a stem connecting said pistons, each piston having valve controlled orifices, the valves being arranged to close the said orifices during the downward movement of the lower piston and during the upward movement of the upper piston, the said orifices, during the reverse movements of the said pistons being open to permit the passage of fluid, substantially as described.





2. A shock absorber, comprising a vertically disposed tubular body member, chambers connected with the body member at the opposite extremities thereof, each chamber being composed of inner and outer shells, the inner shell of each chamber being provided with slots which diminish in area from the top of the chamber downwardly in the lower chamber and from the bottom of the chamber upwardly in the upper chamber, pistons located in the respective chamber, a stem connecting the said pistons, each piston having perforations and being equipped with a movable valve disk normally closing the perforations therein, the valve disk of the lower piston being arranged to open during the upward movement of the said piston, while the valve disk of the upper piston is arranged to open during the downward movement thereof.

3. A shock absorber, comprising a vertically disposed body member, chambers connected with the opposite extremities of the said member, each chamber being composed of separable inner and outer shells closely fitted together and connected to form a substantially integral device, the inner shell of each chamber having slots extending lengthwise of the shell, the slots of the shell of the lower chamber diminishing in width from the top toward the bottom, while the width of the slots in the inner shell of the upper chamber diminish in width from the bottom toward the top, pistons fitted within the inner shells of the respective chambers, a stem connecting the said pistons, the pistons having ports and equipped with valves arranged to close the said ports during the downward movement of the lower piston and during the upward movement of the upper piston.

4. A shock absorber, comprising a body member adapted to be connected with the axle of a vehicle, chambers connected with the opposite extremities of the said member, each chamber composed of inner and outer shells fitted together to form a substantially integral device, each chamber being closed at the top and bottom, the inner shells of the respective chambers having elongated openings formed therein and extending lengthwise thereof, the said openings diminishing in area from the top toward the bottom in the lower chamber and from the bottom toward the top in the upper chamber, pistons located in the said chambers and fitted into the inner shells thereof, the pistons having check valves, the said valve of the lower piston being arranged to close during the downward movement of the piston, and to open to permit the free passage of liquid during the upward movement of the piston, while the check valve of the upper piston is reversely arranged, and a stem connecting the two pistons and adapted to be connected with the vibrating body of a vehicle, substantially as described.

5. A shock absorber, having upper and lower chambers, having shallow cavities formed in the inner surfaces of their walls, the said cavities extending lengthwise of the chambers and varying in cross-sectional area between the top and bottom of the chambers; pistons mounted in the said chambers and a stem connecting said pistons, each piston having a valve-controlled opening, the valves being arranged to close said openings during the downward movement of the lower piston and during the upward movement of the upper piston, the said orifices during the reverse movement of the said pistons being open to permit the passage of fluid, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,089,003. LETTER FOR SIGNS. GEORGE MAYERLE, San Francisco, Cal. Filed Oct. 21, 1911. Serial No. 655,862. (Cl. 40—138.)

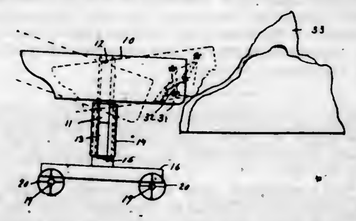


1. In a sign in combination, a framework comprising a rod bent in the form of a letter, a series of rotatably mounted blades arranged to form a letter and mounted within said frame, each of said blades being formed in such manner as to cause the blades to be rotated by air currents and to exhibit first one side of the blade and then the other side of the blade to the observer standing in any position from where said sign can be read, said blades being so positioned as to have their adjacent edges nearly touch when in the plane of the frame, one side of each blade being of one color and the other side of each blade being of a different color, substantially as described.

2. In a sign in combination, a frame work comprising a rod bent in the form of a letter, a series of blades mounted on horizontal axes and arranged to rotate within said frame-work, each of said blades being formed in such manner as to cause the blades to be rotated by air currents and exhibit first one side and then the other to an observer, each of said blades being provided on one side with a reflecting surface adapted to reflect rays of light to the ground in the paths of passersby to thereby attract their attention, the blades being arranged sufficiently close to nearly touch when in the plane of the frame.

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1,089,004. AMUSEMENT DEVICE. WILLIAM A. MORBY, Longbeach, Cal. Filed Aug. 27, 1913. Serial No. 786,826. (Cl. 46—70.)



1. An amusement device comprising the representation of an iceberg composed of a body member and a movable member attached thereto, said body member having an L shaped slot therein and said movable member having a pin entering said slot; in combination with the representation of a ship composed of a shield or plate having one of the lower corners of irregular form to represent a

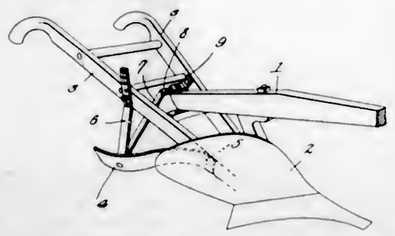
break and a movable plate adapted to lie against said corner and prevent said irregular corner being observed.

2. In an amusement device the representation of a steampship comprising a shield or plate cut to substantially the outline of a steamship, and having the lower corner of the prow formed to represent a break therein; a movable plate pivotally mounted upon the back of said shield, normally hiding said break and being adapted to be moved to disclose said break; a support for said shield pivotally connected thereto centrally at near the top; and means to raise and lower said shield when desired.

3. In an amusement device the representation of an iceberg comprising a body member and a movable member; a slidable connection between said members; and means to support said members.

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1,089,005. ATTACHMENT FOR PLOWS. JACOB J. OOSTERHOUS, Plymouth, Wis. Filed Mar. 1, 1913. Serial No. 751,659. (Cl. 97—18.)



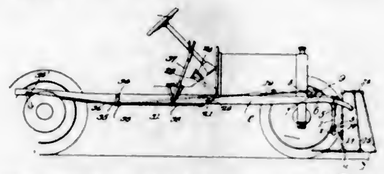
1. The combination with a plow including a moldboard and upwardly diverging handles, of a turning and packing attachment comprising an elongated plate ogee-shaped from end to end and slightly twisted, said plate having its front end pivotally connected to the outer side of one of the handles at a point close to and adjacent the inner side of the moldboard, said plate being extended laterally and rearwardly beyond the rear edge of the moldboard and the rear portion thereof constituting means for turning and pressing downwardly upon the overturned slice upon leaving the moldboard, and adjustable means for connecting the rear end portion of said plate to the respective handles.

2. The combination with a plow including a moldboard and upwardly diverging handles, of a turning and packing attachment comprising an elongated plate ogee-shaped from end to end and slightly twisted, said plate having its front end pivotally connected to the outer side of one of the handles at a point close to and adjacent the inner side of the moldboard, said plate being extended laterally and rearwardly beyond the rear edge of the moldboard and the rear portion thereof constituting means for turning and pressing downwardly upon the overturned slice upon leaving the moldboard, and adjustable means for connecting the rear end portion of said plate to the respective handles, one of said means being adjustable vertically and the other of said means being adjustable laterally.

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1,089,006. AUTOMOBILE-FENDER. CHARLES PELTER, TOWNSEND H. SPRY, and CHARLES F. BUSSE, Walla Walla, Wash. Filed May 24, 1913. Serial No. 769,733. (Cl. 21—90.)

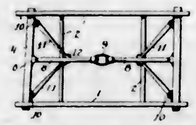
1. The combination with an automobile chassis, and a brake mechanism including an emergency lever and a foot lever, of a fender structure mounted at the forward end of the chassis for movements to and from the surface traversed, said fender structure moving to the lowermost position by gravity, a rock shaft journaled transversely of the chassis and operably connected to the fender structure for elevating the fender, means for operably connecting the rock shaft to the emergency lever and foot lever, coöperable locking means carried by the latter means and disposed to be engaged when the mechanism is operated unduly by the foot lever or at any time by the emergency lever, and manually controlled means for operating the rock shaft to elevate the fender.



2. The combination with an automobile chassis, and a brake mechanism including an emergency lever and a foot lever, of a fender structure mounted at the forward end of the chassis for movement to and from the surface traversed, said fender structure moving to the lowermost position due to gravity, a rock shaft journaled transversely of the chassis and operably connected to the fender structure for elevating the fender, transverse shafts mounted in the chassis adjacent the foot and emergency levers, means operably connecting the transverse shafts to the rock shaft, coöperable locking means carried by the last shaft and disposed in the path to be engaged when the mechanism is operated unduly by the foot lever or at any time by the emergency lever, and manually controlled means for operating the transverse shaft to elevate the fender.

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1,089,007. BED-SPRING TIGHTENER. ARTHUR PONTON, Murdock, Ill. Filed Mar. 21, 1912. Serial No. 685,217. (Cl. 5—69.)



A bed spring tightener comprising a pair of side bars having slots formed in their ends, end bars supported in said slots, a fabric spring having its ends secured to the end bars, rods having their outer ends pivotally connected to the end bars, a turn buckle connecting the inner ends of said rods, means for shifting the end bars in diagonal relation to the side bars, said means consisting of a pair of arms pivotally connected at their outer ends to each end bar and having their inner ends adapted to be adjustably connected to said rods, and adapted to have their ends adjustably connected to the opposite sides of said rods and in diagonal relation, thereby stretching one side edge of the spring more than the other upon operation of the turn buckle.

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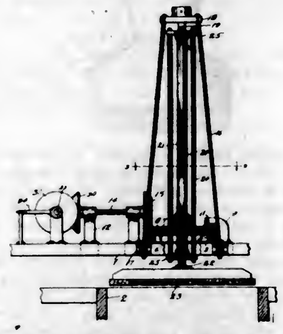
1,089,008. PRESS-HEAD-OPERATING APPARATUS. CHARLES R. P. POOL, Dallas, Tex. Filed Feb. 7, 1913. Serial No. 746,741. (Cl. 100—8.)

1. In a press head operating apparatus, a base plate, a support above the base plate, a screw fixed in the support, a second screw passing freely through the base plate, said screws being oppositely threaded, a turn-buckle engaging both screws, a rotation member connected to the turn-buckle, and a press head attached to the second screw.

2. In a press head operating apparatus, a pair of alined and oppositely threaded screws, one of said screws being fixed against longitudinal movement relative of the other screw which latter is capable of longitudinal movement relatively of the first named screw, a turn-buckle rotatably mounted on the screws and having movement longitudinally of the screws, and a rotating member engaging the turn-buckle.

3. In a press head operating apparatus, a pair of alined and oppositely threaded screws, one of said screws being fixed against longitudinal movement relative of the other screw which latter is capable of longitudinal movement relatively of the first named screw, a press head connected to one of the screws, a turn-buckle rotatably mounted on the screws and having movement longitudinally of the screws, a rotating member engaging the turn-buckle, and a housing incasing the screws.





4. In a press head operating apparatus, a pair of alined and oppositely threaded screws, one of said screws being fixed against longitudinal movement relatively of the other screw which latter is capable of longitudinal movement relatively of the first named screw, a press head connected to one of the screws, a turn-buckle rotatably mounted on the screws and having movement longitudinally of the screws, and a gear engaging with the turn-buckle.

5. In a press head operating apparatus, a base plate, a support above the base plate, a screw fixed in the support, a second screw passing freely through the base plate, said screws being oppositely threaded, a turn-buckle comprising heads connected in relative fixed relation, one head being threaded on one screw and the other head being threaded on the other screw, a rotating member connected to the turn-buckle, and a press head attached to the second screw.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,009. SIGHT FOR FIREARMS. FREDERICK WILTON HANLEY PORTER, Quebec, Quebec, Canada, assignor to Sir Charles H. A. F. L. Ross, county of Ross, Scotland. Filed Sept. 27, 1913. Serial No. 792,235. (Cl. 33—47.)



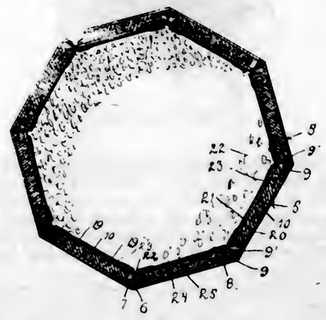
1. In a sight for fire arms the combination of means for securing the sight to the barrel provided with a recess; a readily removable sight base provided with a housing fitting said recess; a sight member pivoted to said base adapted to enter said housing; and a catch for holding said sight member in said housing, substantially as described.

2. In a sight for fire arms the combination of means provided with a slot for securing the sight to the gun; a sight base provided with a housing secured in said slot; a sight member pivoted to said base adapted to enter said housing; a spring adapted to normally hold said sight member out of said housing and a catch carried by said base adapted to engage said sight member and hold it in said housing, substantially as described.

3. In a sight for fire arms the combination of means provided with a slot for securing the sight to the gun; a sight base provided with a housing secured in said slot; a sight member pivoted to said base adapted to enter said housing; a spring adapted to normally hold said sight member out of said housing; a catch provided with a finger engaging member carried by said base adapted to engage said sight member and hold it in said housing; and a spring controlling said catch, substantially as described.

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1,089,010. COMBINATION WOOD AND CONCRETE SILO. WILLIAM D. PUGH, Fletcher, Okla. Filed May 23, 1913. Serial No. 769,526. (Cl. 72—6.)



1. A silo consisting of frame sections each formed of vertical beams of different lengths at opposite sides, struts connecting the vertical beams of each frame section, said frame sections being fitted together so that the relatively long vertical beam of one section overlaps the relatively long vertical beam of the superposed section and is contiguous to the relatively short vertical beam of the juxtaposed section, angle irons fitted between the vertical sides of the adjacent end sections of said vertical beams, and bolts extending through said angle irons and through said adjacent end portions.

2. A silo consisting of a series of superposed and juxtaposed frame sections each comprising vertical beams of different lengths connected together in spaced relation, the upper end portions of two juxtaposed frame sections being connected to the lower end portions of two other juxtaposed frame sections by means of angle irons fitted against the meeting end portions of said juxtaposed and superposed frame sections, and means rigidly connecting the angle irons to the said meeting end portions.

3. The combination in a silo having a concrete floor, of anchoring means embedded in the concrete floor, angle irons secured to the anchoring means and extending upward from the concrete floor, wooden frame sections each including vertical beams of different lengths having their respective lower ends secured to the said angle irons in such relation that each said angle iron connects two adjacent frame sections, other frame sections having vertical beams with their lower ends in lapped relation with the upper ends of the first said frame sections, and means mutually contributing to unite the adjoining ends of the juxtaposed and superposed frame section.

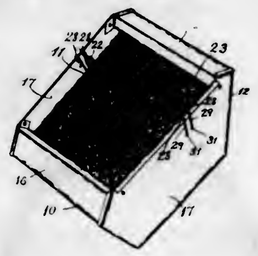
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1,089,011. FEED-HOPPER. FREDERICK W. RUGGLES, Hudson, Mass., assignor, by mesne assignments, to United States Hopper Company, Boston, Mass., a Corporation of Massachusetts. Filed May 3, 1913. Serial No. 765,261. (Cl. 119—61.)

1. A feed hopper having a feed chamber, feed-supporting means, and a mouth, a grid in said chamber adapted to gravitate bodily toward and with the feed, said grid being bodily movable from the feed toward said mouth, and means supported by said hopper for coacting with opposite marginal portions of said grid for guiding the aforesaid bodily movement of the grid.

2. A feed hopper having a feed chamber, feed-supporting means, and means forming a mouth of less area than the interior of the hopper, and a grid of greater area than

said mouth arranged in said chamber, said grid being bodily movable toward said mouth and toward the feed.



3. A feed hopper having a grid movable bodily toward and from the feed, and spring clips for guiding the bodily movement of the grid, said clips and hopper having interlocking portions whereby the clips are detachably secured to the hopper in operative position, said clips having provisions for holding the grid away from the feed to prevent access to the feed.

4. A feed hopper having a feed chamber, feed-supporting means, and a mouth, a bodily movable grid arranged between said mouth and said feed-supporting means, and means supported by said hopper for preventing movement of said grid beyond said mouth.

5. A feed hopper having inwardly extending flanges at opposite sides of the mouth to reduce the area of the mouth, a grid movable bodily in said hopper toward and from said flanges, said flanges overlapping said grid so as to prevent removal thereof, and means arranged to engage said grid at opposite sides between said flanges to hold the grid away from the feed.

[Claim 6 not printed in the Gazette.]

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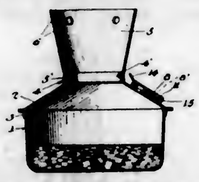
1,089,012. TREE-PROTECTOR. CARL HUGO SANDAHL, McPherson, Kans. Filed Sept. 17, 1913. Serial No. 790,173. (Cl. 47—39.)



1. As a tree protector, a cylindrical jacket formed with annular bulged portions apertured below the crest of the bulge, sliding apertured plates disposed over the apertured portions of said jacket, supports for said plates and locking straps for said jacket.

2. As a tree protector, a cylindrical jacket formed with annular bulged portions apertured below the crest of the bulge, slidable means carried by said jacket and disposed over the apertured portions in the bulged portions thereof for opening or closing the apertures therein and screens disposed in the apertured portions of said jacket.

1,089,013. ORCHARD-HEATER. WILLIAM C. SCHEU, Grand Junction, Colo., assignor to The Bannister Orchard Heater Company, Grand Junction, Colo., a Corporation of Colorado. Filed June 17, 1912. Serial No. 704,237. (Cl. 158—91.)



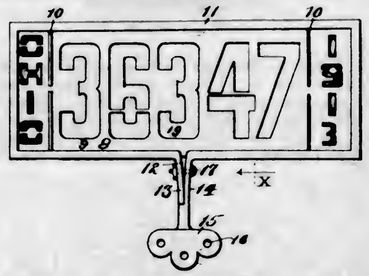
1. An orchard heater comprising a pot for receiving oil, a cover for the pot having a flange engaging the edge of the pot to make a tight joint therewith, said cover extending upwardly in the form of a frustum of a cone and having a central opening and a chimney extending upwardly from the upper end of said cover and communicating with said opening, said chimney having lateral air inlet openings, air inlet means opening into the space inclosed by the cover, and means for restricting admission of air through said air inlet to produce combustion in the said space, with sufficient resultant heat to vaporize the oil, the air inlet openings in the chimney being of sufficient capacity to provide for complete combustion of the vapor so generated.

2. An orchard heater comprising a pot, a frusto conical cover member provided with a flange making a tight joint for said pot, and having a central opening, a chimney communicating with said opening and extending upwardly therefrom, and making a tight joint with said cover, said chimney having lateral air inlet openings, said cover being provided with air inlet openings, and a closure member for regulating the amount of opening of said air inlet openings in the cover.

3. An orchard heater comprising a pot, a cover member provided with a flange making a tight joint with said pot, and having a central opening, a chimney communicating with said opening and extending upwardly therefrom and making a tight joint with said cover, said chimney having lateral air inlet openings, a plate on said cover, said plate being provided with a plurality of openings, a closure member movably mounted on said plate to close one or more of said openings, said plate being spaced from the closure member adjacent to one of said openings to maintain continual communication with the outside air through said opening, irrespective of the position of the closure member.

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1,089,014. AUTOMOBILE LIGHT AND INDICATOR. RAY K. SCHIEB and HOWARD E. SHAFFER, Akron, Ohio. Filed Dec. 3, 1912. Serial No. 734,775. (Cl. 40—132.)



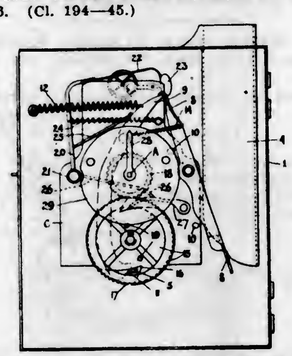

A vehicle lamp embodying a body-portion having one open side, the edges of the body-portion surrounding three sides at said open side provided with outwardly-projecting U-shaped beads, the interiors of said beads forming channels, the frame of said lamp rearwardly of said beads provided with inwardly-projecting U-shaped beads, a lamp



in said body portion, an indicia-bearing plate slidably mounted in said channels, a sheet of translucent material also mounted in said channels, and a clamping frame inclosing the outwardly-projecting U-shaped beads of the open side of said frame and extending over the open end of said frame for holding said plates in position, a portion of said frame extending rearwardly and engaging in the U-shaped channels formed by the inwardly-projecting beads of said frame to serve as a support for said lamp-frame.

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1,089,015. COIN-OPERATED, TIME-CONTROLLED MECHANISM. WILLIAM SIEGMUND SCHOTT, Durban, Natal, South Africa. Filed July 23, 1912. Serial No. 711,036. (Cl. 194—45.)

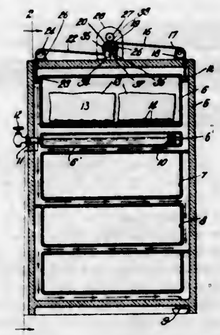


1. In a coin operated, time controlled mechanism for permitting a machine to be used for a predetermined period of time, a locking member adapted to be normally held in engagement with a moving part of the machine, clockwork, means normally holding said clockwork inoperative, coin controlled means for rendering said first mentioned means inoperative whereby said clockwork will operate and means controlled by said clockwork for maintaining said locking member inoperative for a predetermined interval of time, means for returning said first mentioned means and said locking member to their normal position at the termination of said interval of time whereby said clockwork will be rendered inoperative and said locking member will lock the machine against further use.

2. In a coin operated, time controlled mechanism for permitting a machine to be used for a predetermined period of time, a locking member adapted to be normally held in engagement with a moving part of the machine; clockwork normally held from operating by a stop arm; a lever normally held by a latch and adapted to be released by the insertion of a coin to disengage the locking member and to move the stop-arm to permit the clockwork to start; and a notched disk operated by the clockwork to hold the locking member in disengaged position for a predetermined period of time, and to hold the stop-arm back for the predetermined period of time to permit the clockwork to operate, and also serving to return the releasing lever to latched position.

3. In a coin operated, time controlled mechanism for permitting a machine to be used for a predetermined period of time, a locking member adapted to be normally held in engagement with a moving part of the machine, clockwork normally held from operating by a stop-arm, a lever normally held by a latch and adapted to be released by the insertion of a coin to disengage the locking member and to move the stop-arm to permit the clockwork to start, and a notched disk operated by the clockwork to hold the locking member in disengaged position for a predetermined period of time, and to hold the stop-arm back for the predetermined period of time to permit the clockwork to operate, and also serving to return the releasing lever to latched position, and an indicating hand and dial to enable the person using the machine to see how much of the predetermined time remains.

1,089,016. REFRIGERATOR. MABEL H. SLATER, Webster, Mass. Filed Sept. 25, 1913. Serial No. 791,783. (Cl. 73—46.)



1. A refrigerator having, in combination, a casing, a receptacle for ice located within said casing and movable vertically therein, an indicator, a rotary shaft adapted to operate said indicator, a plurality of flexible members connecting said shaft to said receptacle whereby said shaft may be rotated in one direction, and means adapted to oppose the rotation of said shaft in said direction and adapted to rotate said shaft in the opposite direction.

2. A refrigerator having, in combination, a casing, a receptacle for ice located within said casing and movable vertically therein, an indicator, a rotary shaft adapted to operate said indicator, a plurality of flexible members connecting said shaft to said receptacle and a torsional spring encircling said shaft, one end fast thereto and the other end fast to a stationary member whereby the rotation of said shaft is opposed in one direction and assisted in the opposite direction.

3. A refrigerator having, in combination, a casing, a receptacle for ice located within said casing and movable vertically therein, an indicator, a rotary shaft adapted to operate said indicator, a plurality of flexible members connected at one end thereof to said receptacle, a shaft rotatably mounted on the top of said casing, guide pulleys intermediate said shaft and receptacle, over which pulleys said flexible members pass, the other ends of said flexible members connected to said shaft and adapted to rotate the same in one direction, means adapted to rotate said shaft in the opposite direction and an indicator adapted to be operated by the rotation of said shaft whereby movements of said ice receptacle will be registered by said indicator.

4. A refrigerator having, in combination, a casing, a receptacle for ice located within said casing and movable vertically therein, an indicator, a rotary shaft adapted to operate said indicator, a plurality of flexible members connected at one end thereof to said receptacle, a shaft rotatably mounted on the top of said casing, guide pulleys intermediate said shaft and receptacle, over which pulleys said flexible members pass, pulleys fast to said shaft to which the other ends of said flexible members are connected and adapted to rotate said shaft in one direction, a spring connected to said shaft and adapted to rotate the same in the opposite direction, an indicator embodying an index finger and gearing connecting said index finger to said shaft whereby movements of said ice receptacle cause said index finger to assume different positions.

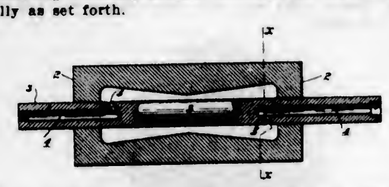
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1,089,017. CRUSHING-ROLLER. MYRON A. SMITH, Rockville Center, N. Y. Filed Oct. 21, 1913. Serial No. 796,422. (Cl. 83—12.)

1. A crushing roller having end bearings, a cylindrical outer surface and a bore of varying diameter, substantially as set forth.

2. A crushing roller having end bearings, a cylindrical outer surface and a bore of varying diameter, means for

circulating a cooling medium through said bore, substantially as set forth.



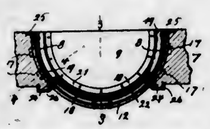
3. A crushing roller having end bearings, a cylindrical outer surface and a bore of less diameter at the central transverse plane of the cylinder than at the ends of said bore, whereby the thickness of the cylindrical walls of the roller are greater at the central transverse plane of the roller than at the ends, substantially as set forth.

4. A crushing roller having end bearings, a cylindrical outer surface and a bore gradually decreasing in diameter from the ends of the roller toward the central transverse plane whereby the thickness of the cylindrical walls of the roller gradually decreases from the central transverse plane toward the ends, substantially as set forth.

5. The combination with a roller having a bore of varying diameter, of a shaft on which said roller is mounted, said shaft having a conduit extending inward beyond the inner surface of the end or head of the roller and a conduit extending from the inner end of said conduit in the shaft to the bore of the roller, substantially as set forth.

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1,089,018. VAULT-ENTRANCE. THOMAS S. SPIVEY, Norwood, Ohio, assignor to The Victor Safe & Lock Co., Norwood, Ohio, a Corporation of Ohio. Filed June 16, 1913. Serial No. 773,835. (Cl. 109—1.)



1. In a frame for a vault-entrance, the combination of the jambs, sill and lintel-plates, angle-rails positioned where lower and upper edges of the jambs and the front edges of the plates mentioned come together, the jambs being spaced and means to connect these angle-rails to the jambs and to the plates and so as to cover and close the joint between them.

2. In a frame for a vault-entrance, the combination of the jambs, angle-rails connected respectively to upper and lower ends of the jambs by a clenched mortise and tenon-joint and sill and lintel-plates set up against the inner sides of the jambs and connected to the angle-rails.

3. In a vault-entrance, the combination of a frame consisting of side-members, sill and lintel-plates, angle-rails positioned where lower and upper edges of the side-members and the front-edges of the plates respectively come together, means to connect these angle-rails to the side-members and to the plates, a door fitted to the opening between the side-members and guide-ways provided for the door, the front of the entire structure, including the side-members and door presenting a cylindrical segmental shape to which the front edges of sill and lintel plates conform likewise.

4. In a vault-entrance, the combination of a frame consisting of side-members, sill and lintel-plates, angle-rails whereby lower and upper edges of the side-members and the front edges of the plates mentioned are respectively connected to each other with a space between the side-members to form an entrance-opening, a door for this opening, all these parts being shaped to form cylindrical segments having a common center, angle-rails of similar shape connected to the inner sides of the plates and spaced from the inner side of the side-members to form guide-ways between them for the door, and fillets to complete the guide-ways in the door-opening and between the side-members.

5. In a vault-entrance, the combination of a frame adapted to be walled in and consisting of segmental side-members and of sill and lintel plates having segmental front edges connected respectively to the side members with a space between these latter to form a door-opening, a segmental door for this opening, guide-ways for the door and a profile facing having an inner, radially arranged portion which covers the front edges of the side-members and exteuds also outwardly to cover the juncture of these members with the wall which surrounds the frame.

[Claim 6 not printed in the Gazette.]

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1,089,019. KNIFE. OSCAR F. SWASEY, Beverly, Mass. Filed Jan. 6, 1912. Serial No. 669,809. (Cl. 30—23.)



1. A cutting tool having a blade tapered to a point and depressed on its upper face to produce cutting portions disposed at an acute angle to each other, the under side thereof being convex, said blade being provided with a flattened shank, and a handle disposed at an angle to both cutting portions secured to the shank.

2. A cutting tool having a blade and provided with a tubular handle, a bushing encircling the shank of the blade and forming a closure to one end of the handle, the tubular handle being flattened on opposite sides about the bushing to secure the latter in place and to provide finger grips.

3. A cutting tool having a blade formed with a flattened shank and a tubular handle, the opposite sides thereof being flattened perpendicularly to the blade about the flattened shank thereof to secure the shank in the handle, and to form finger grips.

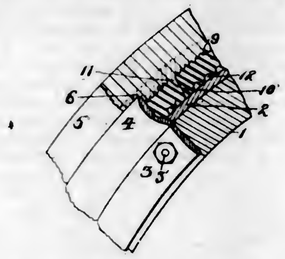
4. A cutting tool having a pointed blade bent transversely to produce cutting edges disposed perpendicularly to each other and joined by an arcuate cutting edge and provided with a shank, and a handle engaging the shank, the blade point, shank and handle all being in alinement with each other.

5. A cutting tool having a blade formed with a flattened shank and a tubular handle, the opposite sides of the handle being flattened perpendicularly to the blade about the flattened shank thereof to secure the shank in the handle and to form finger grips, the blade having its longitudinal edge portions sharpened and being bent transversely intermediate its length to produce angularly disposed cutting edges.

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1,089,020. VEHICLE-TIRE. CLARK ALLEN SWINEHART, Akron, Ohio. Filed Jan. 24, 1913. Serial No. 743,950. (Cl. 152—1.)

An elastic vehicle tire adapted to be held on a wheel rim by means of clencher flanges, and embodying a continuous tread and base, the latter having incorporated therein a circumferentially-extending series of individual metallic blocks with their inner faces fitting snugly on the outer face of the rigid felly-band, said blocks extending from side to side of said tire and projecting laterally therebeyond and with their lateral projecting faces convexed to receive the clencher flanges, provision being made at the ends of said blocks for the material of the tire body to extend between the individual blocks to thereby form a flexible base for said tire and possess sufficient rigidity

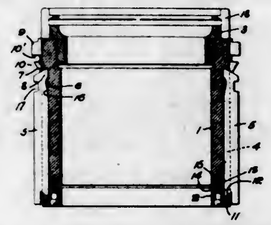


to be non-compressible when grasped by the clencher flanges of the wheel.



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1,089,021. NEEDLE-CYLINDER FOR CIRCULAR-KNITTING MACHINES. HARRY SWINGLEHURST, Boston, Mass., assignor to Scott & Williams, Inc., Philadelphia, Pa., a Corporation of New Jersey. Filed Oct. 5, 1911. Serial No. 653,004. (Cl. 66—21.)



1. A needle cylinder for knitting machines consisting of two superimposed rings, the uppermost thereof being provided with vertical peripheral grooves, bars 5 positioned within said grooves, the upper portion of said uppermost ring having a pivotal shoulder 7 and fulcruming shoulders 6, and the lower ring having a shoulder for imparting upward thrust to said bars 5.

2. A needle cylinder for knitting machines consisting of two superimposed rings, the uppermost thereof being provided with vertical, peripheral grooves, the upper portion of said ring having integral therewith two annularly opposed spacing shoulders, needle bars or walls inserted in said grooves with their heads positioned between said shoulders, and the lowermost ring having an annular formation to engage the lower ends of said bars.

3. A needle cylinder for knitting machines consisting of a plurality of superimposed rings, one of them having vertical peripheral grooves, bars positioned within said grooves, one of said rings having an abutment for the upper ends of the bars and another ring having an opposed abutment for the lower end of the bar, there being fulcruming shoulders in the bottoms of said grooves adjacent one of said abutments to co-act with the latter.

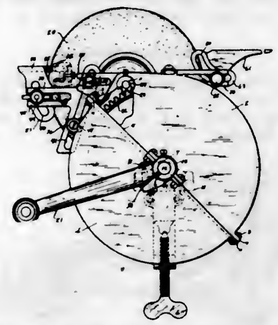
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1,089,022. GEAR-CASING FOR GRINDING-MACHINES. JAMES M. THOMPSON, Milwaukee, Wis. Filed Apr. 26, 1909. Serial No. 492,354. (Cl. 51—7.)

1. A gear casing for grinding machines divided transversely into sections, a shaft mounted in suitable bearings in one section and provided with pinion teeth formed in the body of the shaft, a grinding wheel mounted on said shaft, a driving shaft journaled in said casing members at their meeting margins, and a gear wheel on said shaft meshing with said teeth.

2. A gear casing for grinding machines divided transversely into sections, a shaft mounted in suitable bearings in one section and provided with pinion teeth formed in the body of the shaft, a grinding wheel mounted on said shaft, a driving shaft journaled in said casing members at their meeting margins, and a gear wheel on said shaft meshing with said pinion teeth.

3. A gear casing for grinding machines divided transversely into sections, a shaft mounted in suitable bearings in one section at one side of the division line, another shaft journaled in said casing members at their meeting margins, a grinding wheel mounted on one of said shafts, and grinding wheel driving mechanism connecting said shafts, together with a supporting clamping member connected with one of the sections and unconnected with the other section, said clamping member and grinding wheel shaft being mounted upon different sections, whereby the grinding wheel and its supporting section may be removed from the other section without detaching the latter from its support.

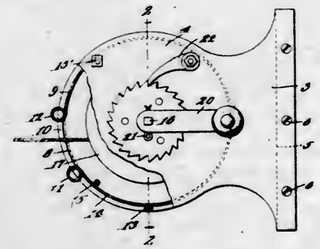


4. A gear casing for grinding machines divided transversely into sections, a shaft mounted in suitable bearings located wholly in one section and provided with pinion teeth formed in the body of the shaft, a grinding wheel mounted on said shaft, tool rests connected with said casing member, a driving shaft journaled in said casing members at their meeting margins, and a gear wheel on said shaft meshing with said pinion teeth.

5. In a grinding machine, a separable gear casing member provided with a fork, a slot bracket adjustably mounted on said fork, a connecting member extending through the fork and slot, said bracket also having a forked arm, a tool rest having a slotted arm and a connection extending through the arm slot and bracket fork, in combination with another casing member coöperating with the first casing member in supporting a driving shaft and gear.

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1,089,023. CLOTHES-LINE REEL. NICK W. TRAUTNER, Red Wing, Minn. Filed Jan. 29, 1913. Serial No. 745,050. (Cl. 242—101.)

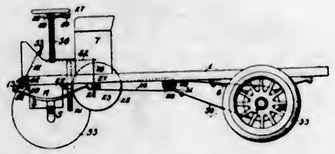


In a device of the character described, a back, a pair of cheek plates attached thereto, and having inner annular grooves, a removable shaft journaled through the cheek

plates, a removable reel mounted on the shaft between the cheek plates, an arcuate housing plate having its edges engaging the said grooves to permit the plate to be adjusted rotatably about the shaft, clamping means connecting the cheek plates, and a door hinged to one end of the arcuate plate and adapted to be adjusted therewith, and adapted to snap into and out of engagement with the said grooves at the various adjustments of the said arcuate plate.

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1,089,024. MOTOR-VEHICLE. WILLARD IRVING TWOMBLY, New York, N. Y., assignor to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Jan. 26, 1911. Serial No. 604,729. (Cl. 21—90.)



1. In a motor vehicle, the combination with the main frame, of a motor mounted in said frame to have longitudinal to and fro movement therein, said motor adapted to be placed in position in and removed from the front of the frame; a friction driving wheel connected to said motor and movable therewith; a friction driven wheel adjustable transversely to the axis of the driving wheel; lever mechanism to impart movement to the motor to throw the friction driving wheel into and maintain it in engagement with the friction driven wheel; and springs connected to the motor and engaging with lugs on the frame to throw and maintain the motor in position with the friction driving wheel out of engagement with the friction driven wheel when the lever mechanism is released.

2. In a motor vehicle, the combination with the frame of the chassis, of a motor having lateral hanger arms to engage with the side members of the frame and whereby it is carried in said frame to have to and fro movement; a friction drive-wheel fixed to the shaft of the motor and movable therewith; a friction driven wheel the axis of which is transverse to the axis of the motor and adjustable along its axis, the periphery of said wheel adapted to have frictional engagement with the face of the drive-wheel; means to impart rearward movement to the motor to throw the drive-wheel into frictional engagement with the driven wheel and maintain it in engagement therewith; springs operating between the motor and chassis frame tensioned to impart movement to the motor to throw the drive-wheel out of engagement with the driven wheel and maintain it in such position when the means to impart movement to the motor to throw the drive-wheel into engagement with the driven wheel is released; means to adjust the driven wheel transversely to the axis of the drive-wheel to transmit variable forward and reverse velocities thereto; and means to transmit power from the driven wheel to the driving wheels of the vehicle.

3. In a motor vehicle, the combination with the frame of the chassis, of a motor carried by said frame to have to-and-fro movement; a friction drive wheel fixed to the shaft thereof; a driven shaft the axis of which is transverse to the axis of the motor shaft; a friction driven wheel mounted on said shaft to rotate therewith and adjustable along the same, leaf springs, one end connected to the motor frame and the other ends engaging with lugs on the chassis frame to normally maintain the motor in position with the drive wheel out of engagement with the driven wheel; a lever having a foot pedal to impart movement to the motor against the tension of the springs to throw the drive wheel into engagement with the driven wheel; and means to transmit power from said friction wheel shaft to the drive wheels of the vehicle.

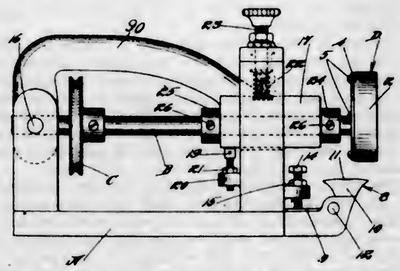
4. In a motor vehicle, the combination with the chassis frame, of a motor mounted in the side members of the chassis frame to have to and fro longitudinal movement; a friction drive wheel fixed to the shaft thereof; a shaft journaled in the chassis frame with its axis transverse to the axis of the motor; a friction driven wheel mounted on said shaft to rotate therewith and adjustable along the same; lever mechanism connected to the motor to impart movement thereto to throw the drive wheel into engagement with the driven wheel; means to lock the lever mechanism in such position to maintain the drive wheel in engagement with the driven wheel; springs operative when said locking means are released to automatically impart movement to the motor and thereby throw and maintain the drive wheel out of engagement with the driven wheel; and means to transmit power from the driven wheel shaft to the driving wheels of the vehicle.

5. In a motor vehicle, the combination with the frame of the chassis, of a motor having lateral hanger arms to engage with the side members of the frame and whereby it is carried therein to have a limited to and fro longitudinal movement; a friction drive wheel fixed to the shaft of the motor; a driven shaft the axis of which is transverse to the axis of the motor shaft; a wheel on said shaft to rotate therewith and have sliding movement along the same, the periphery of said wheel adapted to have frictional engagement with the face of the drive wheel; means to impart rearward movement to the motor to throw the drive-wheel into and maintain it in engagement with the periphery of the driven wheel, comprising a rock shaft, a lever having a pivoted foot-pedal fixed to said shaft, a pair of arms also fixed to said shaft, rollers carried on the motor frame with which the latter arms engage, a pawl pivotally connected to the foot-pedal, and a fixed rack with which the pawl engages; and springs fixed to the motor frame and engaging with the chassis frame to normally maintain the motor in position with the drive wheel out of engagement with the driven wheel.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,025. WELT-BEATING MACHINE. FELIX E. VALOIS, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Oct. 24, 1912. Serial No. 727,512. (Cl. 12—67.2.)



1. In a welt beating machine, the combination with a work support having a pivoted anvil part, of a circular rotary beater eccentrically mounted and having a continuous or uninterrupted periphery.

2. In a welt beating machine, the combination with a work support having a pivoted anvil part, of a rotary beater comprising a slidable rim.

3. In a welt beating machine, the combination with a work support, of a vertically movable shaft, and an eccentrically mounted rotary beater located at the outer end of said shaft and comprising a slidable rim.

4. In a welt beating machine, the combination with a work support, of a vertically movable yieldingly mounted shaft, a rotary beater with a slidable rim at the outer end of said shaft, and means for detachably securing said rim.

5. In a welt beating machine, the combination with a work support, of a rotary shaft, and an eccentric beater at the outer end of said shaft and having a slidable rim, said rim being fitted with an inwardly extending flange at one side and a detachably secured inwardly extending flange at the other side.

[Claims 6 to 9 not printed in the Gazette.]



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1,089,026. PISTON PACKING-RING. FRANK VAN DER CRUYSSEN, Webster Groves, Mo. Filed May 26, 1913. Serial No. 769,931. (Cl. 121—108.)



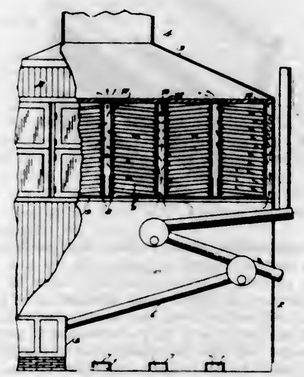
1. A packing ring comprising a one-piece expansible body portion, split at one point and provided with overlapping end portions, said body portion being provided in its outer surface with a groove, a split expansion ring in said groove having overlapping end portions, and means for preventing said expansion ring from assuming such a position with relation to said body portion that the joints between the ends of said parts aline.

2. A packing ring comprising a one-piece ring-shaped expansible body portion split at one point by a scarf-joint, said body portion being substantially channel-shape in cross section and arranged with its horizontal side legs or flanges projecting outwardly, a split expansion ring arranged between the horizontally-disposed flanges of said body portion and having overlapping end portions, and means for preventing said ring from moving circumferentially with relation to said body portion.

3. A packing ring comprising a one-piece expansible body portion, split at one point, said body-portion being provided in its outer surface with a groove, and a split expansion ring in said groove.

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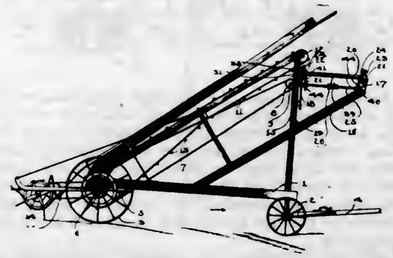
1,089,027. EVAPORATOR. JOHN T. WANN, Berkeley, Cal. Filed Sept. 24, 1912. Serial No. 722,073. (Cl. 34—39.)



An evaporating apparatus comprising an air heating chamber common to a plurality of racks, a series of racks arranged over said chamber, removable fruit carrying trays arranged in said racks, heated air inlet flues, exit flues for said heated air, a chamber over said exit flues and forming a common outlet for all of said exit flues, said inlet and said exit flues being arranged in alternation to provide an inlet flue on one side and an exit flue on the other side of each of said racks, said fruit trays being inclined upwardly away from each inlet flue and toward each exit flue, and deflectors on each side of the inlet flues to direct the heated air current over the trays toward the exit flues.

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1,089,028. AUTOMATIC HAY-LOADER. WILLIAM J. WITTENBURG, Salmon, Idaho. Filed Dec. 14, 1912. Serial No. 736,827. (Cl. 193—14.)



1. In a machine of the class described the combination with a main frame, elevating means carried by said frame, a distributing frame reciprocably mounted upon said main frame and means for automatically shifting the distributing frame when it reaches the limits of its movement in one direction.

2. In a machine of the class described the combination with a main frame, elevating means carried by said main frame, a distributing frame reciprocably mounted upon said main frame, and automatic means coöperating therewith for causing the same to automatically shift back and forth upon said main frame.

3. In a machine of the class described the combination with a main frame, hay elevating means carried thereby, a distributing frame extending transversely of said main frame, a drum carried by said main frame, means for driving said drum, and means carried by said main frame and coöperating with said drum and driving means for causing said distributing frame to be automatically shifted from one side of said main frame to the other.

4. In a machine of the class described the combination with a main frame, of a distributing frame carried thereby, a drum carried by said main frame, cables passing over said drum and secured to the opposite ends of said distributing frame, driving means carried by said main frame, and automatic clutch means associated with said driving means and drum for automatically shifting said distributing frame from one side of said main frame to the other.

5. In a machine of the class described the combination with a main frame, of a distributing frame carried thereby, a drum carried by said main frame, a conveyer apron carried by said distributing frame, a driving shaft, of a clutch carried by said driving shaft, means coöperating with said driving shaft for imparting rotary movement to said drum, a lever carried by said clutch, and means carried by said main frame for swinging said lever whereby said clutch will be shifted and said distributing frame will be caused to travel in an opposite direction.

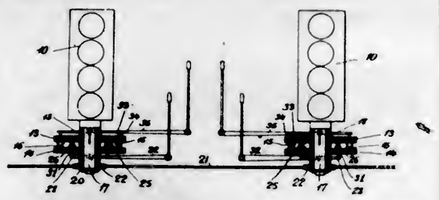
[Claims 6 to 12 not printed in the Gazette.]

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1,089,029. DRIVING MECHANISM FOR AIRSHIPS. PAUL G. ZIMMERMANN, San Juan, Porto Rico. Filed Sept. 13, 1910. Serial No. 581,813. (Cl. 244—25.)

1. Driving mechanism for air-ships, comprising the combination of a plurality of motors, a plurality of driven members, one-way connections between each motor and the corresponding driven member whereby each driven member may be driven by its motor but may rotate inde-

pendently thereof on stopping of the said motor, a plurality of propellers, and a common endless flexible driving connection between the driven members and the propellers whereby all the propellers must stop on breaking of this element.



2. Driving mechanism for air-ships, comprising a plurality of motors, propelling means connected with the motors so as to be driven thereby jointly, one-way connections between the motors and the propelling means whereby the latter may be driven by one of the motors in event of stopping of the remainder, and manually-operated means for connecting the propelling means with the motors so that the motors may be cranked by turning the propellers.

3. Driving mechanism for air-ships, comprising the combination of a plurality of motors, a driving and a driven member pertaining to each motor and automatic one-way driving connections between said members, propelling means, means connecting said propelling means with the driven members and connecting the driven members with each other, and manually-operated means for connecting either driven member with its driving member so that the corresponding motor may be cranked by the other.

4. In an aeroplane propeller drive, the combination, with the propellers, of two engines, and a single endless driving connection between said propellers and engines and arranged to be driven by either one or both of the engines simultaneously.

5. In an aeroplane propeller drive, the combination, with the propellers, of two engines, a single endless driving connection between the engines and propellers, and means for starting one engine from the motion of the other.

[Claims 6 to 8 not printed in the Gazette.]

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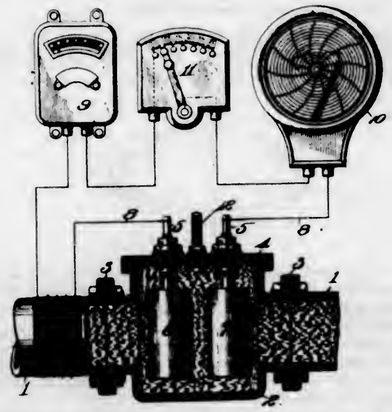
1,089,030. ELECTRICAL CHEMICAL-TESTING SYSTEM. JOHN E. ANGELL, St. Louis, Mo. Filed Apr. 19, 1909. Serial No. 490,955. (Cl. 73—51.)

1. A system for testing water, comprising electrodes or terminals in contact with the water of varying temperature to be tested, a register for indicating the quantity of chemicals in solution in the water, and an electric circuit under control of the temperature of the water connecting said electrodes or terminals with said register effectively to cause said register to indicate the quantity of chemicals in solution under varying conditions of temperature of the water.

2. A system for testing water of varying temperature, comprising electrodes in contact with the water to be tested, an indicator for indicating the quantity of chemicals in solution in the water, and an electrical circuit subjected to the temperature of the water connecting said electrodes with said indicator, substantially as specified.

3. In a water testing system the combination with a container for containing the water to be tested, of electrodes arranged to contact with the water in said container, and an indicating, and a recording device in circuit with said electrodes operable effectively to indicate and record the quantity of chemicals in said water, substantially as specified.

4. In a water testing system the combination with a container for containing the water to be tested, of electrodes arranged to contact with the water in said container, an electrical circuit connecting said electrodes, an indicating device in said circuit for indicating the amount of chemicals in the water under test, a manually operable temperature compensator in said circuit, and a supplemental automatically operable temperature compensator also arranged in said circuit, substantially as specified.

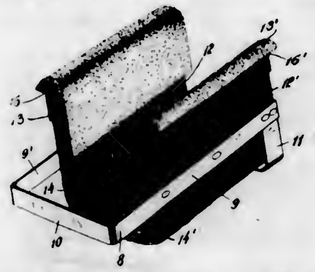


5. In a water testing system the combination with a container for containing the water to be tested, of electrodes extending into said container and arranged to contact with the water therein, an electrical circuit connecting said electrodes, a device in said circuit for indicating the amount of chemicals in the water under test, and means in said circuit for coördinating the resistance thereof with the temperature of the liquid in said container, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,031. LUBRICATING DEVICE. ERNEST ARMSTRONG, Camden, N. J., assignor to General Lubricating Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1912. Serial No. 718,454. (Cl. 64—35.)



1. The combination of a journal box having an oil well in the bottom thereof, a journal in the box, a bearing on the journal, a wick-supporting frame in the box having a part at one side of the vertical axial plane of the journal and at or below the horizontal axial plane, and a wick secured to said part and having a portion extending upward between the journal and the adjacent side of the box above the axial horizontal plane of the journal and resting upon the journal above said plane, the upwardly projecting portion of the wick being of such body as to prevent its falling down between the journal and the side of the box, said wick having a downwardly projecting portion extending from its supporting frame into the oil well, whereby, when the wick becomes saturated with oil, the upper portion of the wick will sag over and rest against the journal by gravity to lubricate the same.



2. The combination of a journal box, having an oil well in the bottom thereof, a journal in the box, a bearing on the journal, a wick-supporting frame in the box having a part extending along the side of the journal at or below the horizontal axial plane thereof, and a wick secured to said part and having a portion extending upward between the journal and the adjacent side of the box above the horizontal axial plane of the journal and resting upon the journal above said plane, said wick having a downwardly projecting portion extending into the oil well, whereby, when the wick becomes saturated, the upwardly extending portion of the wick wil lsag over on the journal to lubricate the same.

3. The combination of a journal box and an oil well in the bottom thereof, a journal in the box having a small clearance at the side walls of the box, a bearing on the journal, a wick-supporting frame in the box having a wick-securing part at one side of the vertical axial plane of the journal and at or below the horizontal axial plane, and a wick secured to said part and having a portion extending upward through the clearance between the journal and the adjacent side wall of the box into the space between the journal and side wall above the axial horizontal plane of the journal, and having a thickened top portion substantially filling the space, said wick having a downwardly projecting portion extending from its supporting frame into the oil well in the box whereby, when the wick becomes saturated with oil, the upper portion of the wick will sag over and rest against the journal by gravity to lubricate the same.

4. The combination of a journal box and an oil well in the bottom thereof, a journal in the box having a small clearance at the side walls of the box, a bearing on the journal, a wick-supporting frame in the box having a wick-securing part at one side of the vertical axial plane of the journal and at or below the horizontal axial plane, and a wick secured to said part and having a napped portion extending upward through the clearance between the journal and the side of the box into the space between the journal and the adjacent wall of the box above the axial horizontal plane of the journal, and having a thickened top portion substantially filling said space, and having a downwardly extending portion comprising longitudinal lubricant-feeding fibers extending into the oil well in the box whereby, when the wick becomes saturated with oil, the upper portion of the wick will sag over upon the journal to lubricate the same.

5. The combination of a journal box having an oil well in the bottom thereof, a journal in the box, a bearing on the journal, a wick-supporting frame in the box at the side of the journal at or below the horizontal axial plane thereof, and a wick secured to said frame at the side of the journal and having a portion extending upward between the journal and the adjacent side wall of the box above the axial horizontal plane of the journal and resting upon the journal above said plane, the upwardly projecting portion of the wick being of such body as to prevent its falling down between the journal and the side of the box, said wick having a downwardly projecting portion extending from its supporting frame into the oil well, whereby, when the wick becomes saturated with oil, the upper portion of the wick will sag over against the journal to lubricate the same.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,032. LUBRICATING DEVICE. ERNEST ARMSTRONG, Camden, N. J., assignor to General Lubricating Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1912. Serial No. 718,455. (Cl. 64—35.)

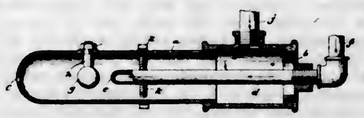
1. The combination of a journal box having an oil well in the bottom thereof, a journal in the box, a bearing on the journal, a wick-supporting frame in the box at one side of the journal having a wick-supporting part yieldable toward and away from the side wall of the box, and a wick secured to said part and having an upwardly projecting lubricating portion extending from said part above the horizontal axial plane of the journal and having a lubricant-feeding portion extending downward into the oil well, whereby the frame may be slipped in place from above and when in place a portion of the wick will be held in engagement with the journal and when the wick is saturated with lubricant, the portion of the wick above the horizontal axial plane of the journal will sag over by gravity upon the journal.



2. The combination of a journal box having an oil well in the bottom thereof and a horizontal ledge on the side wall thereof, a journal in the box, a bearing on the journal, an upright wick-supporting frame in the box supported on said ledge and having a wick-supporting part secured thereto and extending downwardly and inwardly away from the side wall of the box and compressible toward the side wall of the box, and a wick secured to said part and having an upwardly projecting napped lubricating portion extending from said part above the horizontal axial plane of the journal and having a lubricant-feeding portion extending downward into the oil well, whereby the frame and wick may be slipped in place from above and when the wick is saturated with lubricant, the portion of the wick above the horizontal axial plane of the journal will sag over by gravity upon the journal.

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1,089,033. OIL-BURNER. JOHN ROBERT ARTHUR, Roanoke, Va. Filed July 23, 1913. Serial No. 780,727. (Cl. 158—77.)



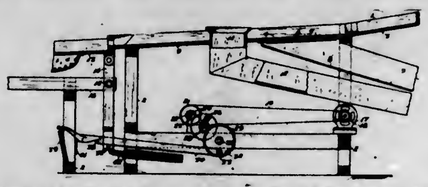
A device of the character described, comprising a burner-tube having a contracted nozzle at one end and an air supply pipe at its other end, the diameter of the discharge opening of said nozzle being relatively small compared with the diameter of the air supply pipe, an adjustable oil tube extending longitudinally into said burner-tube, and an atomizing ball in said burner-tube between the outlet of said oil-tube and discharge opening of said burner tube and in close relation to the oil-tube outlet, whereby a combined mixing and compression chamber is formed in the end of the burner-tube between its discharge opening and said atomizer.

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1,089,034. FRUIT-GRADING MACHINE. CAREY H. BAKER, Watsonville, Cal. Filed Sept. 22, 1913. Serial No. 791,074. (Cl. 130—32.)

The combination of a movable grading table, means for reciprocating the same, a sloping selecting table having side walls and discharging on to said grading table, the slope of said selecting table being less than that at which fruit rolls down the same, a hopper extending upwardly through the selecting table, a separator at the upper end

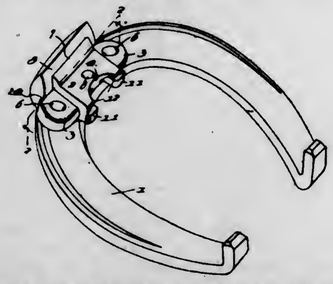
of the selecting table, comprising longitudinal bars having substantially the same slope as said table, and a re-



ceptacle having a sloping bottom discharging on to said separator.

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1,089,035. TOE-CALK FOR HORSESHOES. JOHN W. BAMFORD, North Providence, R. I. Filed Jan. 10, 1913. Serial No. 741,138. (Cl. 168—31.)

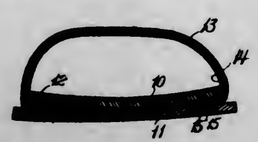


1. In a horseshoe, a casing having apertured end wings and a central apertured pillar with cut-out portions on opposite sides of the pillar, means passed through the apertures of the wings and pillar to secure the casing onto the toe of the shoe, an outwardly extending shoulder at the front side of the casing, a calk seating on the shoe and abutting said shoulder, a pair of spaced spring arms carried by the calk for engagement in said cut-out portions of the casing, and a finger on each arm which extends outwardly therefrom for engagement with the rear side of the casing.

2. In a horseshoe, a casing having apertured portions, a longitudinal shoulder at the front side of the casing extending outwardly from the under face of the casing, the front side of the casing having a cut-out portion which forms end shoulders that are located beyond the respective longitudinal shoulder ends, a calk which has its rear side engaged with the longitudinal shoulder and which has its ends abutting the end shoulders formed by the cut-out portion, spring arms on the calk which extend through the apertured portions of the casing, and fingers on the free ends of the arms extending beyond and engaged with the rear face of the casing so as to be exposed relative to the casing.

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1,089,036. BOOT OR SHOE. REINHARD E. BARTELS, Newton, Mass. Filed Sept. 4, 1913. Serial No. 788,100. (Cl. 36—45.)



1. A shoe having a vamp, a non-elastic reinforce substantially coextensive in area with the vamp but projecting beyond the bottom of the vamp, stitches connecting the upper and lower margins of the vamp to the reinforce, and means for securing the projecting marginal portion of the reinforce to the bottom of the shoe.

2. A shoe having the usual inner and outer soles, a leather vamp whose bottom margin is concealed but terminates short of the seam connecting the upper and the inner sole, a non-elastic reinforce substantially coextensive in area with the vamp and whose bottom portion projects beyond the margin of the vamp and is secured to the inner sole, and stitches connecting the margin of the vamp to the reinforce.

3. A leather upper for shoes comprising a vamp, a lining, an intermediate reinforce projecting beyond the bottom edge of the vamp, and stitches securing the upper and bottom margins of the vamp to the reinforce, whereby the projecting marginal portion of the reinforce may be pulled over and secured to a sole, and by its connection with the vamp secure the leather vamp in place without unduly stretching the leather vamp.

4. A shoe having a sole, a vamp, a toe cap, a non-elastic reinforce for the toe cap, stitches connecting the reinforce to the sole, and stitches connecting the entire margin of the toe cap to the reinforce independently of the stitches which secure the reinforce to the sole.

5. A shoe having a leather vamp terminating in a toe cap, the bottom margin of the vamp and toe cap being concealed but terminating short of the seam connecting the upper and the sole, a non-elastic reinforce whose bottom portion projects beyond the margin of the vamp and toe cap and is secured to the sole, and stitches connecting the upper and lower margins of the vamp and toe cap to the reinforce.

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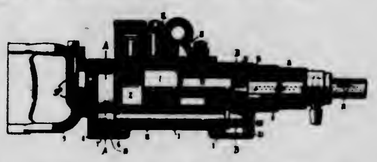
1,089,037. TYPE-WRITING MACHINE. HARRY BATES, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 7, 1912. Serial No. 682,147. (Cl. 155—33.)



An attachment for a typewriting machine frame consisting of a thick disk-like or cylindrical screw head, a screw shank therefor, said head being in contact with the underside of the machine frame, a helical spring of about the diameter of the head, bearing against said head, a hollow cylinder fitting over said head and spring and in easy sliding relation thereto, a head at the other end of said hollow cylinder for receiving the downward thrust of said spring and pendent screw-stops taking into the screw head for limiting the movement of said thrust receiving head.

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1,089,038. PERCUSSIVE TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 3, 1912. Serial No. 675,292. (Cl. 121—20.)



1. In a percussive tool, a chuck and means for rotating it comprising a rock shaft, a fluid pressure operated rocking piston carried thereby at the rear of the tool and a driving connection between the shaft and chuck.

2. In a percussive tool, a chuck, a rock shaft, a fluid pressure operated rocking piston, carried thereby at the rear of the tool, and a clutch connection between the shaft and chuck.

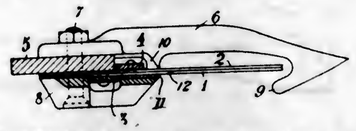
3. In a percussive tool, a chuck and means for rotating it comprising a rock shaft extending longitudinally from front to rear of the tool, a fluid pressure operated rocking piston fixed to the shaft at the rear of the tool and a driving connection between the shaft and chuck at the front end of the tool.

4. In a percussive tool, a chuck and means for rotating it comprising a rock shaft extending longitudinally from front to rear of the tool, a fluid pressure operated rocking piston fixed to the shaft at the rear of the tool and a clutch connection between the shaft and chuck at the front of the tool.

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1,089,039. MOWER. HANS CHRISTIAN BJERING, Gjövik, Norway, assignor to Kristian Halmrast, Söndre Land, Norway. Filed May 26, 1911. Serial No. 629,658. (Cl. 56—44.)



1. In mowers, the combination of a plurality of knives one superposed relatively to the other, means to reciprocate said knives in opposite directions, and protecting means extending over and at a determined distance from said knives, said protecting means at its forward end having a projection extending around for a relatively short distance under the lower surface of said knives.

2. In mowers, the combination of two knives one superposed with respect to the other, means to impart a reciprocating movement to said knives in opposite directions, and a protecting finger extending over and at a determined distance from the upper surface of said knives and extending at its forward end downwardly and rearwardly slightly under the lower surface of said knives.

3. In mowers the combination of cutting mechanism comprising a plurality of knives disposed one upon the other, protecting means extending over and at a determined distance from the upper surface of said knives, means connected with said cutting mechanism and extending beneath said knives, and means projecting from said projecting means at the forward end thereof and extending downwardly and rearwardly slightly under the lower surfaces of said knives to protect the front ends of said knives, the said projecting means and the said means connected with the cutting mechanism sliding when the mower is in operation along the ground to maintain a determined distance between the knives and the ground.

4. In mowers, the combination of a frame, two knives carried by said frame and disposed one upon the other with the lower knife exposed substantially wholly on its under face, means to reciprocate said knives in opposite directions, protecting fingers extending over the upper surface of said knives, and having their forward ends extending around the front ends of the knives and terminating beneath the under surface of said knives in relatively close proximity to said knife ends to form a heel-like extension, and a member connected with said frame and having its bottom surface below said heel-like extension when the knives lie in a substantially horisontal plane.

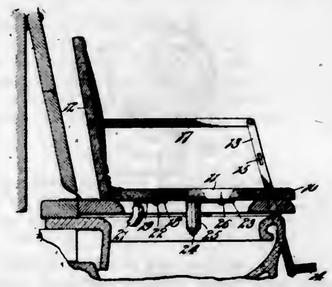
5. In mowers, the combination of two knives one superposed with relation to the other, a frame carrying said knives, protecting means extending over the upper surface of said knives to beneath the forward ends thereof, means connected with said frame normally to support said frame and said cutting mechanism, guiding means for the upper and lower knives, upper and lower bars rigidly connected with said knives and located with the rear edge of the upper bar substantially above the front edge of the lower bar, the upper bar being located with its front edge at a distance from the cutting edges of the knives to provide for the accommodation of the said guiding means for the upper knife.

[Claim 6 not printed in the Gazette.]

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1,089,040. FOLDING TOILET-SEAT. HENRY L. BLOCK, St. Louis, Mo. Filed June 6, 1912. Serial No. 702,059. (Cl. 155—32.)

1. In a portable folding seat of the class described, a seat having an opening, a substantially U-shaped plate adjustably mounted on the under side of said seat to one side of said opening, the legs of said plate being provided with depending curved extensions presented rearwardly, and plates adjustably carried on the under side of said seat to the sides of said opening and provided adjacent one end thereof with depending members, substantially as and for the purposes described.



2. In a portable folding seat of the class described, a seat having an opening, a substantially U-shaped plate adjustably mounted on the under side of said seat to one side of said opening, the legs of said plate being provided with depending curved extensions presented rearwardly, plates adjustably carried on the under side of said seat to the sides of said opening, and separate members attached to, and depending from, said plates adjacent one end thereof, substantially as and for the purposes described.

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1,089,041. WRITING-PEN. HENRY S. BREWINGTON, Baltimore, Md. Filed Mar. 25, 1913. Serial No. 756,669. (Cl. 120—115.)



1. A pen of the character described, having integral corrugated side wings forming open channels therein, which wings are bent beneath the body part of the pen.

2. A pen of the character described, comprising a body part having integral side wings, the wings being longitudinally corrugated relative to the body part forming longitudinal open channels therein, which wings are bent beneath the body part of the pen.

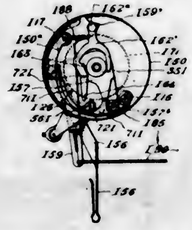
3. A pen of the character described, made from a single piece of sheet metal, comprising a body part having integral side wings pointed on their lower ends, the wings being longitudinally corrugated relative to the said body part, forming longitudinal open channels therein, which wings are bent beneath the body part of the pen with the pointed ends of the said wings extended downwardly toward the point and under the said body part of the pen.

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1,089,042. RIBBON WINDING AND REVERSING MECHANISM. WALTER J. BURCHETT, East Orange, N. J., assignor to Ellis Adding Typewriter Company, a Corporation of New Jersey. Filed Nov. 21, 1913. Serial No. 802,282. (Cl. 197—162.)

1. In a ribbon winding and reversing mechanism, the combination with ribbon reels or spools, of independent rotating devices therefor coupled to the said spools and thereby adapted to turn with the spools whether the latter are reeling or unreeling the ribbon, means for turning said rotating devices, coupled reversing means controlling

the coöperation of the turning means with the rotating devices, and means operated by the ribbon, when unwound, adapted to coöperate with the reversing means to cause the reversing means to coöperate with the turning means aforesaid, whereby on the unwinding of the ribbon, the reversing means is shifted to reverse the coöperation of the ribbon turning means with the rotating devices aforesaid.



2. In a ribbon winding and reversing mechanism, the combination with ribbon reels or spools, of independent rotating devices therefor coupled to the said spools and thereby adapted to turn with the spools whether the latter are reeling or unreeling the ribbon, means for turning said rotating devices, coupled reversing levers, a shifting dog for each lever, said shifting dogs and levers controlling the coöperation of the turning means with the rotating devices aforesaid, means operated by the ribbon, when unwound, adapted to coöperate with the shifting dogs aforesaid to thereby control the coöperation of the reversing levers with the turning means aforesaid, whereby when the ribbon is unwound, the turning means shifts the dog and reversing lever of the unwound reel or spool and causes the turning means to coöperate with the rotating device of that reel or spool.

3. In a ribbon winding and reversing mechanism, the combination with ribbon reels or spools, of independent ratchet wheels coupled to said spools and thereby adapted to turn with the spools whether the latter are reeling or unreeling the ribbon, an operating pawl for each of the ratchet wheels which is disengageable therefrom, independent, coupled reversing levers having means coöperating with the respective pawl, whereby the pawl of one ratchet wheel is freed from said ratchet wheel when the pawl of the other ratchet wheel is engaged with its ratchet wheel, ribbon reel turning means for operating the pawls, and means operated by the ribbon, when unwound, adapted to effect coöperation between the reversing levers and the ribbon reel turning means, whereby the ribbon reel turning means shifts the reversing levers to reverse the previously existing arrangement of the pawls.

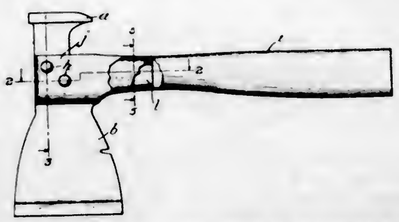
4. In a ribbon winding and reversing mechanism, the combination with ribbon reels or spools, of independent ratchet wheels coupled to said spools and thereby adapted to turn with the spools whether the latter are reeling or unreeling the ribbon, an operating pawl for each of the ratchet wheels which is disengageable therefrom, a pawl operating device, independent, coupled reversing levers, shifting spring-actuated dogs pivoted to the respective reversing levers and adapted for engagement by the pawl operating device aforesaid when said dogs are in a predetermined position, and means operated by the ribbon, when unwound, adapted to coöperate with the dog of the unwound reel or spool to thereby position it for coöperation with the pawl operating device, said reversing levers having means coöperating with the pawls, whereby a pawl is held out of engagement with the ratchet wheel of the ribbon spool from which the ribbon is unreeling.

5. In a ribbon winding and reversing mechanism, the combination with ribbon reels or spools, of independent rotating devices therefor coupled to the said spools and thereby adapted to turn with the spools whether the latter are reeling or unreeling the ribbon, trip levers carried by the rotating devices, means operated by the ribbon, when unwound, adapted to shift the trip lever of the unwound reel, means for turning the rotating devices aforesaid, and reversing means positioned by the movement of the trip lever so as to be adapted to coöperate with the turning means aforesaid, whereby the said reversing means is thereupon operated.

[Claims 6 to 15 not printed in the Gazette.]

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1,089,043. HATCHET. FRANK A. BURGESS, Geneva, Ill., assignor to Burgess-Norton Manufacturing Company, Geneva, Ill., a Corporation of Illinois. Filed Feb. 14, 1913. Serial No. 748,292. (Cl. 145—2.)



1. In a hatchet, the combination of a metallic head, a tubular metallic handle having forked end portions forming outer cheek plates on opposite sides of and in overlapping engagement with the head, a reinforcing member fitting within the handle and having forked portions in overlapping engagement with the head and overlapped by said outer cheek plates on opposite sides of the head, and means for securing said parts all together.

2. In a hatchet, the combination of a metallic head, a tubular metallic handle having forked end portions forming outer cheek plates on opposite sides of the head, a reinforcing member fitting within the handle and having forked portions in overlapping engagement with the head on opposite sides thereof and of less width than the overlapping outer cheek plates of the handle, said outer cheek plates having marginal portions bent inward and inclosing the adjacent margins of the forked portions of the reinforcement, and means for rigidly securing said overlapping parts all together.

3. In a hatchet, the combination of a metallic head, a tubular metallic handle having forked end portions forming outer cheek plates on opposite sides of the head, a reinforcing member having a tubular portion fitting within the handle, and having forked portions integral with said tubular portion of the reinforcement extending on opposite sides of and in overlapping engagement with the head, said forked portions being of less width than the outer overlapping cheek plates of the handle member, said cheek plates having their marginal portions bent inward into engagement with the head and into position to cover and inclose the edges of the forked portions of the reinforcing member, and common rivets each extending through the overlapping portions of all of said members.

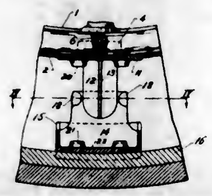
4. In a hatchet, the combination of a metallic head comprising a hammer member and a blade member in overlapping engagement with each other, a tubular metallic handle having forked end portions forming outer cheek plates on opposite sides of and in overlapping engagement with the hammer member and blade, a reinforcing member fitting within the handle and having forked portions in overlapping engagement with the head and overlapped by the outer cheek plates on opposite sides of the head, and means for rigidly securing said parts all together.

5. In a hatchet, the combination of a metallic head comprising a hammer member and a blade member in overlapping engagement with each other, a tubular metallic handle having forked end portions forming outer cheek plates on opposite sides of and in overlapping engagement with the hammer member and blade, a sheet metal reinforcing member having a tubular shank fitting within the handle and having forked portions in overlapping engagement with the haid on opposite sides thereof and of less width than the overlapping outer cheek plates of the handle, said outer cheek plates having marginal portions bent inward into engagement with and inclosing the adjacent edges of the forked portions of the reinforcement, and connecting means adapted to rigidly connect all of said overlapping parts.



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1,089,044. RESILIENT TIRE. HENRY CAPDEVIELLE, Washington, D. C. Filed May 20, 1911. Serial No. 628,473. (Cl. 152—8.)

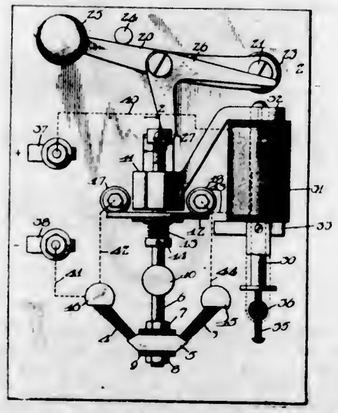


1. A shoe plate for a resilient tire comprising a circumferential portion adapted to fit the inner curvature of the tire, an inwardly extending longitudinal flange, and laterally projecting rounded bearing shoulders adjacent the inner end of the inwardly extending flange substantially as shown and described.

2. In a resilient tire a wheel rim comprising a circumferential portion adapted to fit the felly and a plurality of outwardly extending separated members divided longitudinally; and a shoe plate comprising a circumferential portion adapted to fit the inner curvature of the tire and an inwardly extending longitudinal flange fitting between the halves of the separated member on the rim and having fixed rounded bearing shoulders adjacent its inner ends adapted to slidingly and oscillatingly engage the edges of the divided member of the wheel rim.

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1,089,045. CIRCUIT-BREAKER. CHARLES E. CARPENTER, New York, and ALBERT J. HORTON, White Plains, N. Y., assignors to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 20, 1907. Serial No. 374,712. (Cl. 175—267.)

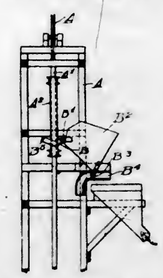


1. In combination, a longitudinally movable rod, a laminated main switch rigidly mounted thereon, an auxiliary switch resiliently mounted on said rod and arranged to be closed before and opened after said main switch, said rod tending to stand in position to hold said switches open, means for holding said rod in position to close said switches, and an electromagnet for causing said means to release said rod upon the occurrence of abnormal electrical conditions, said magnet having pole pieces between which the arc formed upon the opening of said auxiliary switch is extinguished, one of said pole pieces forming a guide for said rod.

2. In a circuit breaker, the combination with a longitudinally movable rod, a laminated main switch rigidly mounted thereon, an auxiliary switch resiliently mounted on said rod, said rod tending to stand in position to hold said switches open, a pivoted arm, a bell crank lever pivoted on said arm and provided with a catch adapted to engage said rod, a spring tending to move said arm to actuate said rod to close said switches, an overload magnet adapted to actuate said bell crank lever to release said rod upon the occurrence of abnormal electrical conditions, said magnet having pole pieces between which the arc formed upon the opening of said auxiliary switch is extinguished, one of said pole pieces forming a guide for said rod.

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1,089,046. BUCKET FOR HOIST-TOWERS. LAWRENCE A. CLARK, Chicago, Ill., assignor to Archer Iron Works, Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1913. Serial No. 741,671. (Cl. 214—12.)

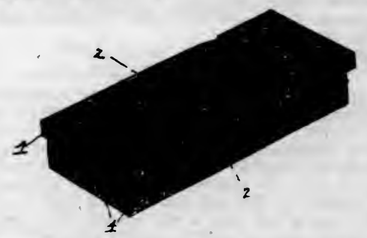


1. A hoist comprising a slidably mounted rectangular frame means for holding said rectangular frame in vertical position a cradle carried by said frame a bucket resting in said cradle a pivotal connection between one side of said bucket and said cradle and located below and to one side of the center of gravity of the bucket and means responsive to the upward movement of the bucket for tilting it.

2. A hoist comprising a slidably mounted rectangular frame means for holding said rectangular frame in vertical position a cradle carried by said frame a bucket resting in said cradle a pivotal connection between one side of said bucket and said cradle and located below and to one side of the center of gravity of the bucket and means responsive to the upward movement of the bucket for tilting it said means comprising a contact member adjacent the upper edge of the bucket on the same side as the pivotal connection between the connection and cradle a fixed stop mechanism along the side of the path of the bucket in opposition to said contact member.

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1,089,047. BLACKBOARD-ERASER. THOMAS H. COSTELLO, Chicago, Ill. Filed July 23, 1909. Serial No. 509,158. (Cl. 15—65.)

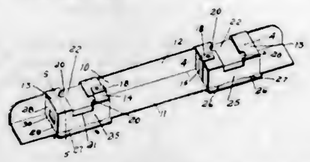


A blackboard eraser comprising a back of elastic fibrous material having its inner face depressed except at the

marginal edges, the marginal edges forming a projecting ridge entirely around the depressed portion of the inner face, a rubbing body formed of the same material as the back and comprising a plurality of rectangular strips of less length than the back and having their side faces abutting and unattached throughout and further having their inner longitudinal edges received in the depressed face of the back and completely filling the space inclosed by the projecting ridge, and a layer of cement securing said edges to the back, said cement layer being removed from the outer edge of the ridge.

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1,089,048. RAILWAY CROSS-TIE. CHARLES W. GILES, Attleboro, Mass. Filed Feb. 24, 1913. Serial No. 750,196. (Cl. 246—21.)



1. In a railway block signal apparatus, the combination with an electrically operable danger signal, of a railroad tie of electrical conducting material having supporting members for the rails of insulating material, and means connected to the tie whereby said rails are automatically connected electrically through said conducting tie to set the signal to danger when the rails become moved a predetermined distance from their normal position.

2. In a railway signal apparatus, the combination with an electrically operable danger signal, of a railroad tie of electrical conducting material having supporting members for the rails of insulating material, and means connected to the tie whereby said rails are automatically connected electrically through the conducting tie to set the signal to danger when the rails become moved laterally a predetermined distance from their normal position.

3. In a railway signal apparatus, the combination with an electrically operable danger signal having a normally open circuit, of a railroad tie of electrical conducting material having supporting members of insulating material for the rails, and a conducting member connected to the tie on the outside of each rail whereby said rails are automatically connected electrically through the tie to close the circuit and set the signal to danger when the rails become moved laterally a predetermined distance from their normal position.

4. In a railway signal apparatus, the combination with an electrically operable danger signal, of a metal railroad cross tie having supporting members for the rails of electrically insulating material, and means whereby the signal is set to danger when the rails become spread and both come in contact with the metal of the tie.

5. In a railway signal apparatus, the combination with an electrically operable danger signal, of a metal railroad cross tie having pockets, supporting members for the rail of electrically insulating material retained in said pockets, and means whereby the signal is set to danger when the rails become spread and both come in contact with the metal of the tie.

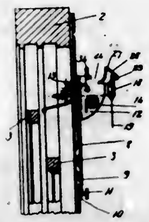
[Claim 6 not printed in the Gazette.]

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1,089,049. CURTAIN-HOLDER. JOHN GREENHOUSE, Cambridge Springs, Pa. Filed July 3, 1913. Serial No. 777,165. (Cl. 156—27.)

1. The combination, with a window frame, of supporting brackets carried by the window frame, a curtain support carried by the said brackets, and an air deflecting plate attached to the said brackets and extending rearwardly between the sides of the window frame and forwardly and upwardly over the curtain support.

2. The combination, with a window frame, and upper and lower window sashes slidable in it; of supporting brackets carried by the window frame, a curtain support carried by the said brackets, and an air deflecting plate attached to the said brackets and extending rearwardly between the sides of the window frame into the path of the lower window sash and extending forwardly and upwardly over the curtain support.



3. The combination, with a window frame, of supporting brackets carried by the window frame, a curtain support carried by the said brackets, and an air deflecting plate attached to the said brackets and extending rearwardly between the sides of the window frame and forwardly and upwardly over the curtain support, said plate having a downwardly projecting beaded flange at its front edge.

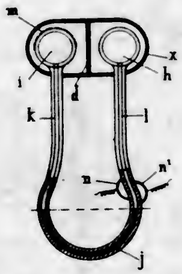
4. The combination, with a window frame, of a vertically adjustable curtain support carried by the window frame, and an air deflecting plate which slides up and down with the curtain support and which extends over it and between the sides of the window frame and which operates to deflect the incoming air upwardly.

5. The combination, with a window frame, of supporting brackets carried by the window frame and provided with slots, a curtain support carried by the said brackets, and an air deflecting plate provided with end portions which engage slidably with the said slots, said plate extending rearwardly between the sides of the window frame and forwardly and upwardly over the curtain support.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,050. INFLAMMABLE-GAS INDICATOR. ANDRÉ GUASCO, Paris, France. Filed Feb. 29, 1912. Serial No. 680,608. (Cl. 73—51.)



1. Toximetric apparatus for determining the presence in the air of toxic or inflammable gases comprising, in combination, two bulbs united by a U-tube containing a small quantity of liquid, a catalytic metal surrounding one of said bulbs, and an insulating box surrounding said bulbs and provided with a wall of porous material permitting of endosmose in allowing the combustible gases to pass readily in separating them from the air.

2. Toximetric apparatus for determining the presence in the air of toxic or inflammable gases comprising, in combination, two bulbs united by a U-tube containing a small quantity of liquid, a catalytic metal surrounding one of said bulbs, an insulating box surrounding said bulbs and provided with a wall of porous material permitting of endosmose in allowing the combustible gases to pass readily in separating them from the air, and two wires in the branch of the uncovered bulb adapted to close an electric circuit by their contact with the liquid ascending in this branch under the influence of the expansion of the air contained in the bulb covered with catalytic metal, when the apparatus is immersed in a medium containing toxic or inflammable gases.



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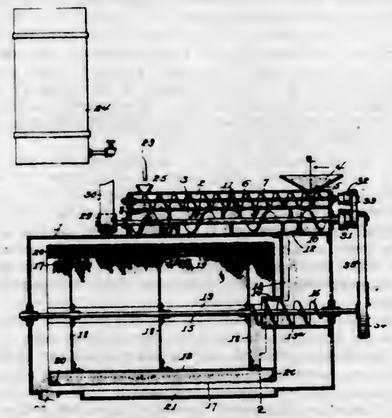
1,089,051. SWITCH MECHANISM. WILLIAM HERSKOVITZ, Chicago, Ill. Filed Jan. 9, 1913. Serial No. 740,921. (Cl. 173—354.)



In electrical switch mechanism, the combination of a ratchet disk, a pawl frame, a pawl pivoted intermediate its ends to said frame, a pull chain connected with the tail of said pawl at one side of its pivot and passing over the pivot and against the end of said pawl at the opposite side of its pivot, and a guide for the chain situated to hold the chain against the pawl whereby upon pull on said chain the pawl will be rotated and its end firmly held to said ratchet disk and said disk rotated.

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1,089,052. GRAIN-SCOURING DEVICE. SAMUEL S. HASS, Jewett, Ohio. Filed Dec. 6, 1911. Serial No. 664,272. (Cl. 130—16.)

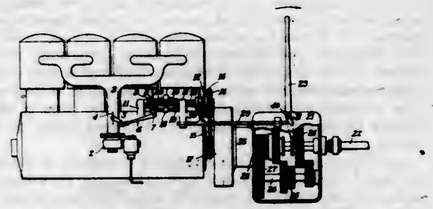


In a device of the character described, the combination with grain conveyers, of a rotary shaft, and a cylindrical screen mounted on said shaft; said screen embodying a frame composed of a plurality of circular disks fixed to the shaft, a plurality of longitudinal bars mounted on the peripheries of said disks; and a wire netting encircling said frame; said bars having their ends angularly disposed to form attaching portions on which said netting is mounted and by which said netting is supported in a position non-contiguous with respect to said bars.

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1,089,053. POWER MECHANISM. PERCY W. HODGKINSON, Rochester, N. Y., assignor of one-half to Clarence W. Carroll, Rochester, N. Y. Filed Oct. 20, 1913. Serial No. 796,341. (Cl. 121—112.)

1. In a power mechanism, the combination of a motor; a driven member; variable-speed mechanism between the motor and the driven member; a governor for the motor; and means whereby the governor is rendered inoperative when a predetermined relative speed of the motor and the driven member is established.



2. In a power mechanism, the combination of a motor; a driven member; variable-speed mechanism for establishing different speed-ratios between the motor and the driven member; a governor for the motor; and means whereby the governor is automatically rendered inoperative at a predetermined point in the operation of the variable-speed mechanism.

3. In a power mechanism, the combination of a motor; a driven member; variable-speed mechanism between the motor and the driven member; a governor for limiting the speed of the motor; and means coöperating with a member of the variable-speed mechanism whereby a movement of the latter renders the governor inoperative.

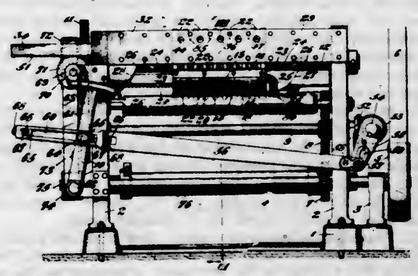
4. In a power mechanism, the combination of a motor; a driven member; variable-speed mechanism connecting the motor and the driven member and adapted to produce different speed ratios between said motor and said driven member; a governor for limiting the speed of the motor; and means for automatically rendering the governor inoperative when the variable-speed mechanism is set to produce a predetermined speed ratio between the motor and the driven member.

5. In a power mechanism, the combination of a motor; a driven member; variable-speed mechanism between the motor and the driven member; a governor adapted to be operated by the motor; and means coöperating with the variable-speed mechanism whereby a given movement of the latter automatically disconnects the governor from the motor.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,054. WIRE-NETTING MACHINE. JOHN A. HOLMQUIST, Johnstown, Pa. Filed Mar. 28, 1912. Serial No. 686,831. (Cl. 140—9.)



1. In a machine of the character described, means for continuously advancing a series of wires therethrough, means for forming a transverse row of direct twists between pairs of said wires, and means coöperating therewith for simultaneously forming a transverse row of reverse twists from differently grouped wires of said series.

2. In a machine of the character described, means for continuously advancing a series of wires therethrough, means for forming a transverse row of direct twists in one direction between pairs of said wires, means for forming thereafter another transverse row of direct twists in

the opposite direction between said pairs of wires, and means coöperating therewith for simultaneously forming transverse rows of reverse twists from differently grouped wires of said series.

3. In a machine of the character described, means for continuously advancing a series of wires therethrough, means for forming a transverse row of direct twists in one direction and thereafter another transverse row of direct twists in the opposite direction, and means coöperating therewith for simultaneously forming a transverse row of reverse twists between each of the rows of direct twists aforesaid from differently grouped wires of said series.

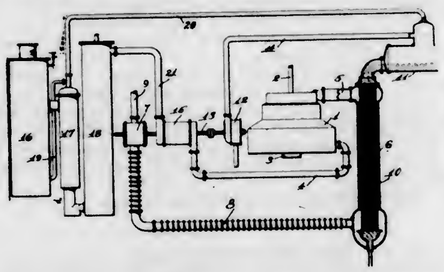
4. In a machine of the character described, a plurality of direct twisters provided with means for operating the same intermittently in opposite directions, in combination with a plurality of reverse twisters adapted to continuously advance a plurality of wires through said machine.

5. In a machine of the character described, means for continuously advancing a series of wires therethrough, means for alternately forming transverse rows of right-hand and lefthand direct twist from the same pair of adjacent wires, means coöperating therewith for simultaneously forming transverse rows of reverse twists between, and in staggered relation with, the rows of direct twists aforesaid, and from differently grouped wires of said series.

[Claims 6 to 33 not printed in the Gazette.]

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1,089,055. GAS-TURBINE PLANT. HANS HOLZWARTH, Baden, Germany, assignor of one-half to Erhard Junghans, Wurttemberg, Germany. Filed Apr. 2, 1910. Serial No. 553,042. (Cl. 123—6.)



1. A gas turbine plant comprising a gas turbine provided with an exhaust conduit, a steam generator disposed in said exhaust conduit, a gas compression pump for the gas turbine and a pump to cause the flow of air through the turbine, a steam engine having driving connection with said pumps, and a steam supply connection from the steam generator to the steam engine.

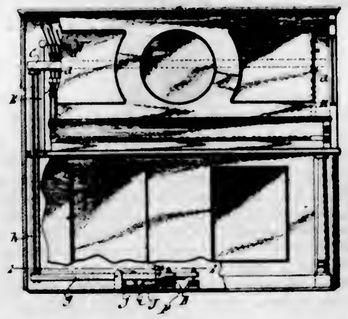
2. In a gas turbine plant, the combination of a gas turbine, an exhaust conduit therefor, a pump for supplying fuel to the turbine, an exhaust pump, a steam engine connected to drive said pumps, a steam generator in said exhaust conduit, a steam supply connection from said generator to the steam engine, and an exhaust connection from said exhaust conduit to the exhaust pump.

3. The combination of a suction gas producer plant, a steam container, a connection to carry surplus steam from said producer plant to the container, a gas turbine, an exhaust conduit therefor, a steam generator in said conduit, a connection from said generator to said steam container, a steam turbine motor, a supply connection from said steam container to said motor, a fuel pump for pumping fuel from said gas producer to said gas turbine, a connection between said pump and said steam turbine, an exhaust pump, a connection between said pump and said steam turbine, and an exhaust pipe connecting said pump with said exhaust conduit.

4. In a gas turbine plant, the combination of a gas turbine, an exhaust conduit therefor, a steam generator in said conduit, a pump for drawing exhaust gas away from said steam generator, a steam motor for said pump, and a steam connection from said generator to said steam motor.

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1,089,056. PIANO-PEDAL. ROBERT HOPE-JONES, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Apr. 21, 1911. Serial No. 622,503. (Cl. 84—61.)



1. In a piano, the combination of the hammer-rest rail, soft pedal mechanism for actuating said rail, a comparatively light spring associated with said mechanism for resisting initial depression of the pedal, and a second spring of greater resistance than the first-named spring coöperating with said soft-pedal mechanism for resisting further depression of the pedal.

2. The combination of the hammer-rest-rail, the soft pedal for actuating said rail, an intermediate lever operatively connected with the pedal and said rail, and a spring-pressed stop-lever arranged in the path of said intermediate lever but normally out of contact therewith, whereby the intermediate lever may be partly depressed before encountering the stop lever.

3. The combination of the hammer-rest-rail, the soft pedal for actuating said rail, a comparatively light spring for holding the pedal in its highest position, an intermediate lever operatively connected with the pedal and said rail, a stop-lever arranged underneath said intermediate lever and normally spaced therefrom to permit a free initial movement of said lever, and a relatively heavy spring coöperating with said lever to resist depression thereof.

4. The combination of the hammer-rest-rail, the soft pedal for actuating said rail, a comparatively light spring for holding the pedal in its highest position, an intermediate lever operatively connected with the pedal and said rail, a stop-lever arranged underneath said intermediate lever and normally spaced therefrom to permit a free initial movement of said lever, a relatively heavy spring cooperating with said lever to resist depression thereof, and means for limiting the upward movement of said stop-lever under pressure of its spring.

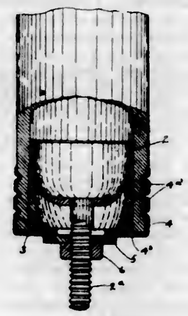
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1,089,057. COMBINATION HOSE-PLUG. WUGBOLD HUISVELD and CHRISTIAN HANSEN, San Diego, Cal. Filed Apr. 4, 1913. Serial No. 758,758. (Cl. 137—76.)

1. In a combination hose plug, the combination of a thimble mounted over the end of a hose provided with a plurality of inwardly extending ridges, a tapered soft metallic bushing fitting the inner surface of said hose and a tapered pressure part adapted to be pressed into said bushing and spread the same, provided with a threaded spindle, and a nut and washer adapted to screw onto said spindle and against the end of said thimble, adapted to force said pressure part into said bushing.

2. In a combination hose plug, the combination with a hose, of a thimble mounted over the end of a hose provided with a plurality of inwardly extending ridges, a tapered soft metallic bushing fitting the inner surface of said hose, and a tapered pressure part adapted to be pressed into said bushing and spread the same, provided with a threaded spindle, and a nut and washer adapted

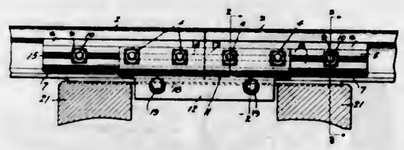




to screw onto said spindle and against the end of said thimble, adapted to force said pressure part into said bushing, adapted to compress the end of the hose between said bushing and said thimble in accordance with the tension on said nut.

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1,089,058. RAIL-JOINT. JOHN R. KELLER, Pittsburgh, Pa., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1912. Serial No. 689,654. (Cl. 239—10.)



1. A rail joint including a main splice bar fitting the fishing spaces, and a supplemental splice bar overlying and underlying the rail base flanges and having a direct engagement with the upper sides of said flanges, said supplemental splice bar having an interlocking engagement with the outer side of the main splice bar.

2. In a rail joint, a main splice bar fitting the fishing spaces and having a shoulder, and a supplemental splice bar comprising an upright portion interlocked with the main splice bar, a depending truss flange portion and an intermediate angular portion overlying and engaging the rail base flanges.

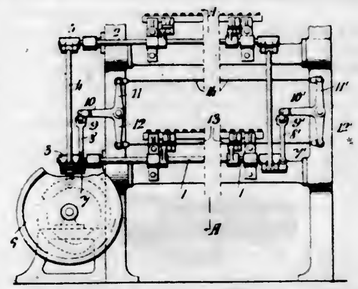
3. In a rail joint, a main splice bar fitting the fishing spaces and having a shoulder, and a supplemental splice bar having an upright flange provided with a shoulder underlying and engaging the shoulder of the main splice bar, a depending truss flange portion, and an intermediate angular portion which overlies and bears against the rail base flanges.

4. In a rail joint, a main splice bar fitting the fishing spaces and having ribs, and a supplemental splice bar also having ribs interlocking with those of the main splice bar, said supplemental splice bar comprising a body portion having an upright flange, a depending flange and an intermediate angular portion overlying and bearing upon the rail base flanges.

5. In a rail joint, a main splice bar, a base plate, and a supplemental splice bar overlying and bearing upon the rail base flanges and interlocked with the main splice bar, said supplemental splice bar also having a shoulder engaging beneath the base plate.

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1,089,059. EMBROIDERING-MACHINE. KARL KELLER and LAURENZ HUNKEMÖLLER, Arbon, Switzerland, assignors to The Firm of Adolph Saurer, Arbon, Switzerland. Filed Mar. 12, 1913. Serial No. 753,773. (Cl. 112—7.)



1. In an embroidery machine, oscillatory work-shafts, means located at one end of the machine for actuating the shafts, a member fulcrumed at the same end of the machine, means connected by universal joints at one end to the member and at the other end to the shaft actuating means, for transmitting positive motion from the latter to the former, a member fulcrumed at the opposite end of the machine and positively coupled with the shafts, and means positively connecting the two members, substantially as described.

2. In an embroidery machine, oscillatory work-shafts, means located at one end of the machine for actuating the shafts, a three armed lever fulcrumed at the same end of the machine, means connected by gimbal joints at one end to the lever and at the other end to the shaft actuating means, for transmitting positive motion from the latter to the former, a like three armed lever fulcrumed at the opposite end of the machine, means presenting two gimbal joints coupling the second lever positively with the shafts, and means positively connecting the two levers, substantially as described.

3. In an embroidery machine, a needle actuating shaft, means located at one end of the machine for rocking the shaft, a lever system located at the same end of the machine and positively operated by the shaft actuating means, a lever system at the opposite end of the machine and positively coupled with the shaft, and means positively connecting the two lever systems, substantially as described.

4. In an embroidery machine, a needle actuating shaft, means located at one end of the machine for rocking the shaft, a three armed lever fulcrumed at the same end of the machine, means connected by universal joints at one end to the lever and the other end to the shaft rocking means, for transmitting positive motion from the latter to the former, a like three armed lever fulcrumed at the opposite end of the machine, means presenting two universal joints coupling the said second lever positively with the shafts, and means positively connecting the two levers, substantially as described.

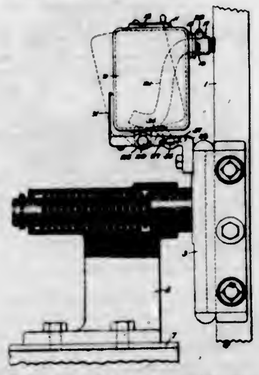
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1,089,060. LUBRICATOR. DWIGHT F. KILGOUR, Lexington, Mass. Filed Mar. 22, 1913. Serial No. 756,083. (Cl. 184—22.)

1. A lubricator comprising, in combination, a receiver; a wick for feeding lubricant from said receiver to a member to be lubricated; a bracket; means pivotally connecting said receiver to said bracket at a point slightly offset from the center of gravity of the receiver for causing the latter to tilt and press its wick into light contact with said member; and means for automatically returning said receiver toward said member on the bounding of said receiver away from said member.

2. A lubricator comprising, in combination, a receiver; a wick for feeding lubricant from said receiver; a bracket;

means pivotally connecting said receiver to said bracket at a point slightly offset from the center of gravity of the receiver for causing the latter to tilt and press its wick into light capillary contact with a member to be lubricated; and means adjustable to hold said receiver with its wick out of contact with said member.



3. A lubricator comprising, in combination, a receiver having a wick for feeding lubricant therefrom, a support, means pivotally connecting said receiver to said support at a point slightly offset from the center of gravity of the receiver for causing the latter automatically to tilt and press its wick into contact with a member to be lubricated, a stop, and adjustable means for holding said receiver against said stop with its wick out of contact with said member.

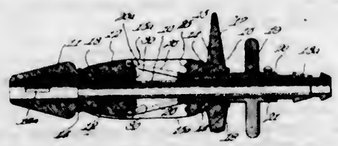
4. A lubricator comprising, in combination, a receiver having a wick for feeding lubricant therefrom, a support, means pivotally connecting said receiver to said support at a point slightly offset from the center of gravity of the receiver for causing the latter automatically to tilt and press its wick into contact with a member to be lubricated, a spring stop and means coöperating therewith for holding said receiver in an inoperative position.

5. A lubricator comprising, in combination, a receiver having a wick for feeding lubricant therefrom, means supporting said receiver at a point slightly offset from the center of gravity of said receiver for causing the latter to tilt and press its wick into contact with a member to be lubricated, a stop and a rocking element movable beyond a dead center position into engagement with said stop for holding said receiver in a position for preventing contact of its wick with said member.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,061. NOZZLE FOR VAGINAL SYRINGES. SAMUEL L. KISTLER, Los Angeles, Cal. Filed Feb. 23, 1912. Serial No. 679,262. (Cl. 128—25.)



1. A syringe nozzle, comprising a nozzle portion having a longitudinal passage, a tube forming a continuation of said passage and extending from the nozzle portion, a member longitudinally movable on the tube, a series of expanding arms pivoted to said member and bearing against the nozzle portion, an annulus of coiled spring wire mounted upon the ends of the arms, and an expansible liquid-tight covering for the expanding arms, said covering directly resting upon and supported by said annulus.

2. A syringe nozzle, comprising a nozzle portion having a longitudinal passage, a tube forming a continuation of said passage and extending from the nozzle portion, a member longitudinally movable on the tube, a series of expanding arms pivoted to said member at one end and bearing against the nozzle portion near their free ends, a resilient expansible ring of coiled wire spring surrounding the free ends of the expanding arms, and an expansible liquid-tight sleeve surrounding the expanding arms and secured at one end to the nozzle portion and at the other to the longitudinally moving member and resting directly upon and supported by said ring of coiled wire.

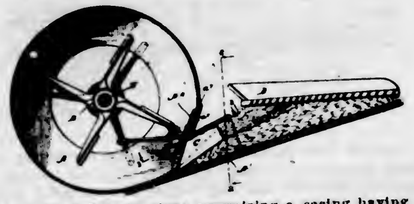
3. A syringe nozzle, comprising an apertured body, a thin sleeve of expansible material over the body and tightly attached thereto at one end, and an expansion means within the sleeve including an annulus of coiled wire spring directly engaging the interior of the sleeve, and means for expanding said annulus of coiled wire.

4. A syringe nozzle, comprising an apertured body, a thin sleeve of expansible material over the body and tightly attached thereto at one end, and an expansion means within the sleeve including an annulus of coiled wire spring directly engaging the interior of the sleeve, and means for expanding said annulus of coiled wire including a series of pivoted arms adapted to be swung outwardly away from the nozzle body and from each other.

5. In a device of the character described, an expansible liquid-tight construction comprising a body member, a member slidable thereon, a liquid-tight sleeve of thin resilient material having its ends tightly secured to the body and slidable member respectively, an annulus of coiled wire spring in direct contact with the inner surface of the sleeve, and means coöperated with the slidable member for causing expansion of said annulus.

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1,089,062. BLAST-DISTRIBUTER FOR WINNOWING-MACHINES. FRANK F. LANDIS, Waynesboro, Pa. Filed Aug. 23, 1904. Serial No. 221,875. (Cl. 130—12.)



1. A blast-fan structure comprising a casing having an air-duct leading therefrom said air-duct being divided vertically into air conveyers with uniform entrances, some of which conveyers are arranged to discharge at a point above the bottom of the main air-duct, substantially as set forth.

2. In a cleaning machine, the combination, of a blast-fan the casing whereof is formed with an air-duct, and a series of deflectors mounted at intervals in said air-duct to divide it into air conveyers, the bottom of said deflectors being inclined upwardly from their entrances and mounted with their entrance ends resting on the bottom of said air-duct, substantially as set forth.

3. A blast-fan structure comprising a fan-casing containing a blast-fan, an air-duct formed thereon, and deflectors mounted in said air-duct to divide the same by vertical partitions into longitudinal air conveyers from bottom to top thereof, the bottom of said deflectors being set to extend upward at an angle from the entrance to their discharge ends, substantially as set forth.

4. A cleaning machine comprising a blast-fan the casing whereof is provided with an outlet air-duct which is divided into air conveyers, the entrances to which are in the same plane and the bottoms of the discharge ends of adjacent channels whereof are arranged in different planes, substantially as set forth.

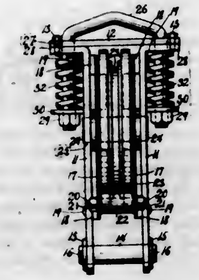
5. A cleaning machine comprising a blast-fan having a casing provided with an air-duct or outlet arranged to discharge against the separating device, which air-duct is divided vertically into longitudinal air conveyers, the bottoms of the discharge ends of adjacent conveyers whereof are arranged in different horizontal planes, whereby the blast of alternate conveyers is directed at different angles and the complete blast is distributed over greater area, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]



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1,089,063. PADLOCK FOR STEAM-SHOVELS AND THE LIKE. WILLIAM LANGE, Tomkins Cove, N. Y., assignor of one-half to Calvin Tomkins, New York, N. Y. Filed Oct. 11, 1913. Serial No. 794,689. (Cl. 57—34.)



1. A padlock for steam shovels and the like comprising a pair of inverted L-shaped spaced side pieces between which the hoisting sheave is mounted, a connecting and spacing piece located at the upper end of and secured to the flanges of the side pieces, a connecting and spacing bolt located between the lower ends of the side pieces, an inverted U-shaped bar, having its ends passed through the ends of the spacing piece and through the flanges of the side pieces, nuts mounted on the ends of the bar and springs surrounding the ends of the bar between the flanges of the side pieces and the nuts.

2. A padlock for steam shovels and the like comprising a pair of inverted L-shaped spaced side pieces between which the hoisting sheave is mounted, a connecting and spacing piece located at the upper end of and secured to the flanges of the side pieces, a connecting and spacing bolt located between the lower ends of the side pieces, flat side plates and spacing filling pieces secured to the side pieces, an inverted U-shaped bar having its ends passed through the ends of the spacing piece and through the flanges of the side pieces, nuts mounted on the ends of the bar and springs surrounding the ends of the bar between the flanges of the side pieces and the nuts.

3. A padlock for steam shovels and the like comprising a pair of inverted L-shaped spaced side pieces between which the hoisting sheave is mounted, a connecting and spacing piece located at the upper end of and secured to the flanges of the side pieces, a connecting and spacing bolt located between the lower ends of the side pieces, flat side plates and spacing filling pieces secured to the side pieces, an inverted U-shaped bar having its ends passed through the ends of the spacing piece and through the flanges of the side pieces, nuts mounted on the ends of the bar, guiding washer plates seated upon the nuts and bearing against the side pieces, and springs surrounding the ends of the bar between the flanges of the side pieces and the guiding washer plates on the nuts.

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1,089,064. PROCESS OF MANUFACTURING VEGETABLE GLUE. FEODOR LEHMANN and JOHANNES STOCKER, Berlin, Germany. Filed July 13, 1909. Serial No. 507,401. (Cl. 87—17.)

1. The process of manufacturing a vegetable glue, consisting in treating seaweed with dilute acid, and an astringent, substantially as described.

2. The process of manufacturing a vegetable glue, consisting in treating the colloidal matter of seaweed with dilute acid, and an astringent, as tannin, substantially as described.

3. The process of manufacturing a vegetable glue, consisting in treating the colloidal matter of seaweed with dilute acid, and an astringent, and in finally adding glycerin, substantially as described.

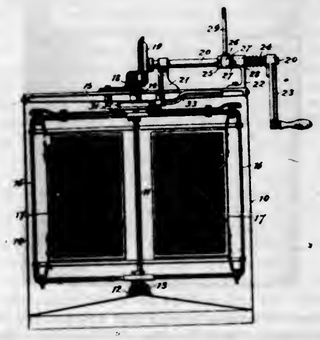
4. The process of manufacturing a vegetable glue, consisting in boiling seaweed in water, filtering the solution, adding dilute acid and an astringent, and heating the mass for a prolonged period, substantially as described.

5. The process of manufacturing a vegetable glue, consisting in soaking seaweed in water, pouring off the liquid, boiling the resultant mass in water, filtering the solution, adding dilute acid and an astringent, and heating the product for a prolonged period, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,089,065. GEARING. FRANK GEORGE MARBACH, Medina, Ohio, assignor to The A. I. Root Company, Medina, Ohio. Filed May 8, 1909. Serial No. 494,850. (Cl. 74—7.)



1. The combination of a power shaft, a shaft to be driven, intermeshing gear wheels on the respective shafts, said power shaft being longitudinally movable to place its gear into and out of mesh with the gear on the driven shaft, means for moving said shaft longitudinally and holding it in the position to which it is moved, and bearings for said driven shaft in which it is adapted to run free after the disconnection of said gears, a frame carried by the driven shaft, the momentum of the frame after the disconnection of the gears serving to continue the rotation of the driven shaft and the parts carried thereby.

2. The combination of a horizontal power shaft, a vertical shaft to be driven, intermeshing gear wheels on the respective shafts, said power shaft being longitudinally movable to place its gear into and out of mesh with the gear on the driven shaft, means for moving said shaft longitudinally and holding it in the position to which it is moved, comprising a spring acting to move the shaft to place the gears out of mesh, and a hand operated means to move the shaft in opposition to the spring and to cause the meshing of the gears, and bearings for said driven shaft in which it is adapted to run free after the disconnection of said gears, a frame carried by the driven shaft, the momentum of the frame after the disconnection of the gears serving to continue the rotation of the driven shaft and the parts carried thereby.

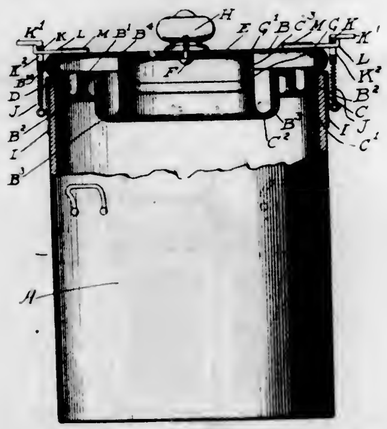
3. In a centrifugal honey extractor, the combination of the basket-carrying shaft, a power shaft, gear wheels for the two shafts, one of which is movable longitudinally with the power shaft, bearings for the power shaft, a collar on said shaft, a ring interposed between said collar and one of the bearings mounted loosely on the shaft, said ring and said bearing having coacting cam surfaces, and a spring interposed between said bearing and a part on

the power shaft on the opposite side of the bearing from the ring.

4. In a centrifugal honey extractor, the combination of the basket-carrying shaft, a power shaft, gear wheels for the two shafts, one of which is movable longitudinally with the power shaft, bearings for the power shaft, a collar on said shaft, a ring interposed between said collar and one of the bearings and loose on the shaft, said ring having lugs with inclined faces to co-act with notches with inclined faces in said bearing, and a turning handle on the ring.

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1,089,066. STEAM-COOKER. ALBERT W. MEYER, New York, N. Y. Filed July 5, 1911, Serial No. 636,814. Renewed July 30, 1913. Serial No. 782,141. (Cl. 53—2.)



1. A pot having a side wall and an open top, a grooved flange extending from the top of the wall adjacent the opening, and a cover having a plurality of depending annular channeled projections adapted to fit within said grooves, and a horizontally extending rim adapted to rest on said flange, and a closure member located above said channels to cover the same and terminating in an inwardly extending horizontal ring doubled over with respect to the body of said member and adapted to be clamped between said rim and flange.

2. A pot having a side wall and an open top, a flange extending from the top of the wall adjacent the opening and a cover comprising two separate closure members, one of said members having a horizontal rim projecting over the flange and the other of said members being located above said first member and terminating in an inwardly extending horizontal ring adapted to be clamped between said rim and flange.

3. A pot having a side wall and an open top, an annular flange extending inwardly from the top of the wall, and a cover comprising three separate closure members, one of said members projecting into the opening, the second of said members located above said first member and having a horizontal peripheral rim extending over the flange, and the third of said members having an inwardly extending portion disposed between said rim and flange and adapted to be clamped therebetween.

4. A pot having a side wall and an open top, a flange extending from the top of the wall, and a cover comprising two closure members, one of said members having a horizontal rim projecting over the flange, and the other of said members being located above said first member and terminating in an inwardly extending horizontal ring, located between said rim and flange, and a plurality of springs adapted to clamp said ring between said rim and flange.

5. A pot having a side wall and an open top, a flange extending inwardly from the top of the wall, said flange having an inner upwardly projecting tubular portion and a groove adjacent thereto, a cover having a depending tubular portion fitting within the first mentioned tubular portion, and a depending channeled annular portion adapted to fit within said groove, said cover having also a horizontal rim located above said flange and a flat closure member covering said channel.

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1,089,067. TIN OR CAN FOR HAMS OR LIKE ARTICLES OF FOOD. ANTON MEYER, Hamburg, Germany. Filed July 8, 1913. Serial No. 777,816. (Cl. 220—94.)

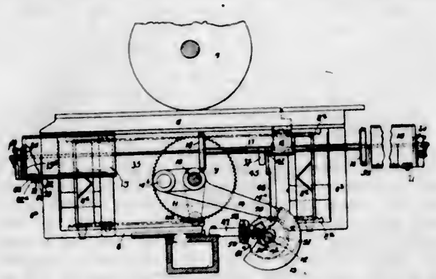


1. A can of the character described, comprising a main chamber, a tapering extension opening into the same, and a shield projecting from the extension partly across the chamber to form an air evacuating pocket.

2. A can of the character described, comprising a main chamber, a tapering extension opening into the same and having an inclined top that extends a distance into the main chamber to form an air evacuating pocket.

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1,089,068. CUSHIONING DEVICE FOR PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill., assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Filed Sept. 10, 1912. Serial No. 719,561. (Cl. 101—5.)



1. In a cushioning device for printing presses, the combination of an oscillatory valve having an oscillating operating arm and a speed-governor device for controlling the time of operation of the valve, provided with an oscillating, laterally shifting arm, and means for transmitting movement from said oscillating arm of the speed governor device to the operating arm of the said valve, comprising a rock shaft mounted to turn on an axis parallel to the axis of oscillation of said valve; said rock shaft being provided with two rigidly attached arms, one of which has engagement with the said operating arm of the valve, and means for transmitting to the other of said arms, the oscillatory movement only of said oscillating arm of the speed-governor device.

2. In a cushioning device for printing presses, the combination with an oscillatory cylinder valve having an oscillating operating arm, of a speed-governor device provided with an oscillating arm which has shifting movement in a plane at right angles to the plane of its oscillatory movement, and means for transmitting oscillatory movement from the oscillating arm of the speed-governor device to the operating arm of the valve, comprising a rock shaft mounted to turn on an axis parallel with the axis of oscillation of the valve; said rock shaft being provided with two rigidly attached arms, one of which has engagement with said valve-operating arm, and a connecting rod loosely connected at one end with the oscillating arm of the speed-governor device and at its opposite end with the other rigid arm on said rock shaft.

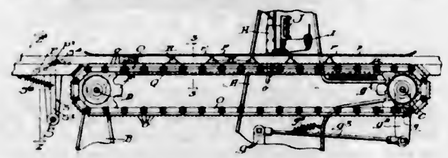
3. In a cushioning device for printing presses, the combination with an oscillatory cylinder valve having an oscillating operating arm adapted to turn on a horizontal axis, of a speed-governor device located at a distance below the level of the axis of the valve and provided with a vertically oscillating arm which has horizontal shifting movement, and means for transmitting oscillatory movement from the said oscillating arm of the speed-governor device to the operating arm of the valve, comprising a rock shaft mounted to turn on a horizontal axis parallel with the axis of oscillation of the valve; said rock shaft being provided with a rigidly attached arm having operative connection with said valve operating arm and with a second rigidly attached arm the swinging end of which is located approximately in vertical alinement with the swinging end of the said oscillating arm of the speed-governor device, and an upright connecting rod loosely connected at its lower end with said oscillating arm of the speed-governor device and at its upper end with the swinging end of the second rigid arm of the rock shaft.

4. In a cushioning device for printing presses, the combination with two cushioning cylinders located in alinement with each other, said cylinders being provided each with an oscillatory controlling valve having an oscillatory operating arm, turning on a horizontal axis, and a speed governor device located at a distance below the level of the axis of the valve, and provided with a vertically swinging oscillating arm having shifting movement in a horizontal plane, a rock shaft mounted to turn on a horizontal axis parallel with the axis of oscillation of said valves and provided with three rigid arms, two of which have operative connection with the operating arms of said valves, and a connecting rod loosely connected at its lower end with the said oscillating arm of the speed-governor device and at its upper end with the said third arm of the said rock shaft.



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1,089,069. BOX-BLANK MACHINE. JULIUS J. MILLER, St. Joseph, Mich., assignor to William P. Healy, Chicago, Ill. Filed Oct. 11, 1909. Serial No. 522,156. (Cl. 1—14.)



1. In a machine for making wire bound box blanks, the combination of guides for the cleats, endless traveling members provided with teeth for engaging horizontal surfaces of the cleats, loose spacing blocks interposed between the ends of the cleats, whereby the cleats of each blank are spaced apart endwise, means operating to position the cleats before they reach the said teeth and mounted to move a distance with the cleats about an axis below the path of travel of the materials, and devices for stapling binding wires to the veneer and cleats of the blanks.

2. In a machine for making wire bound box blanks, the combination of parallel guides for the cleats, loose spacing blocks for separating the cleats, whereby the cleats of each blank are spaced apart endwise, endless traveling members provided with teeth adapted to engage longitudinal traveling surfaces of the said cleats, said endless traveling members and cleats being parallel, whereby the cleats of each blank are moved forward by reason of their engagement with the said traveling members, means for positioning the cleats before they engage said members, movable a distance with the cleats, about an axis below the path of travel of the materials, whereby the ends of the cleats in one guide are sure to be even with the ends of the corresponding cleats in the other guide, and a plurality of staplers having provisions for stapling the binding wires to the upper surface of the blanks.

3. In a machine for making wire bound box blanks, the combination of parallel guides for the cleats, whereby the cleats of each blank are arranged to travel forward in a plurality of parallel rows, loose spacing blocks for separating the cleats endwise, endless traveling members having teeth or projections for engaging longitudinal surfaces of the cleats, mechanism for operating said endless traveling members to feed the cleats forward, mechanism for insuring a correct positioning of the members of one row of cleats relative to those of the other row of cleats, before said cleats are engaged by said endless traveling members, mounted to travel a distance with the said cleats, about an axis below the cleats, and devices for stapling binding wires to the upper surface of the blanks.

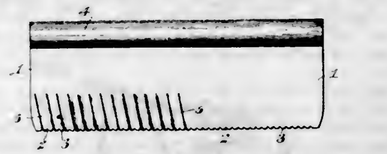
4. In a machine for making wire bound box blanks, the combination of means for spacing the cleats apart endwise, consisting of loose spacing blocks disposed between the opposing ends of the cleats, whereby the cleats alternate with spacing blocks in a plurality of longitudinally traveling rows, mechanism for insuring a correct positioning of the cleats and blocks of one row relative to those of another row and movable a distance with the cleats and blocks, and devices for stapling the binding wires to the veneer and cleats of the blanks, said mechanism comprising two oppositely arranged devices for engaging the ends of the cleats, which cleat-engaging devices are movable into and out of the path of the cleats, and disposed in position to bear against the sides of the cleats while the latter are moving along.

5. In a machine for making wire bound box blanks, the combination of means for engaging longitudinal surfaces of the cleats, comprising endless traveling members provided with teeth or projections for engaging the cleats, said teeth or projections adapted to penetrate into the wood of the cleats, whereby the said members are operative to move the cleats endwise in a plurality of longitudinally traveling rows, mechanism for insuring a correct positioning of the cleats before they are engaged by the teeth of said members, mounted to travel a distance in engagement with the ends of the cleats, about an axis below the cleats, and devices for stapling binding wires to the veneer and cleats of the blanks.

[Claims 6 to 57 not printed in the Gazette.]

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1,089,070. COMB-CLEANER. JULIUS NASSAUER, New York, N. Y., assignor to Ohio Comb & Novelty Company, Doylestown, Ohio, a Corporation of Ohio. Filed Jan. 6, 1913. Serial No. 740,561. (Cl. 132—17.)



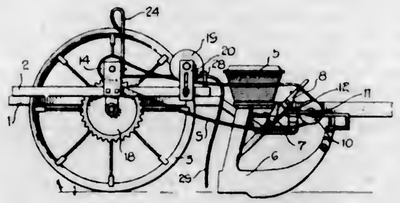
1. A comb cleaner comprising a plate-like structure with an active edge notched to form a series of teeth, and the body portion provided with corrugations extending to and including the toothed edge, each corrugation being of a width to include a plurality of teeth and the latter being set or staggered with relation one to the other.

2. A comb cleaner comprising a plate-like structure with marginal notches forming teeth of uniform size throughout, with a fractional portion of the toothed margin provided with corrugations extending back into the body of the structure and each corrugation being of a width to include a plurality of teeth set or staggered with relation one to the other by said corrugations.

8. A comb cleaner comprising a plate-like structure with an active edge notched to form a series of teeth, and the body portion provided with corrugations extending to and including the toothed edge and inclined with respect thereto, each corrugation being of a width to include a plurality of teeth and the latter being set or staggered with relation one to the other by said corrugations.

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1,089,071. CORN-PLANTER. SOPHA C. ODEN and ROY F. ODEN, Hawarden, Iowa. Filed Sept. 24, 1913. Serial No. 791,574. (Cl. 111—24.)



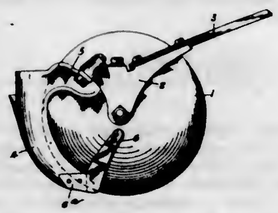
1. In a device of the character described, the combination with a feeding mechanism, means for driving such mechanism including a clutch, means for disengaging the clutch whereby the feeding mechanism becomes inoperative, and means operable with the clutch operating means for marking the ground simultaneously with the disengagement of the clutch.

2. In a device of the character described, the combination with a feeding mechanism, a driving means for such mechanism including a clutch, a lever for adjusting the clutch in operative or inoperative relation whereby the operation of the feeding mechanism is controlled, and means operatively connected with the lever for marking the ground when the lever is operated to adjust the clutch into inoperative position.

3. In a device of the character described, the combination with a feeding mechanism, a driving means for such mechanism including a clutch, a lever for adjusting the clutch in operative or inoperative relation whereby the operation of the feeding mechanism is controlled, such lever being provided with an extension adapted to impinge the ground and create a marking when the lever is operated to adjust the clutch into inoperative position.

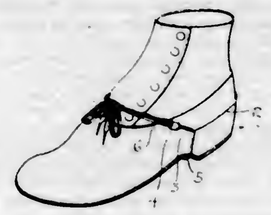
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1,089,072. DISK FURROW-OPENER. FRANK R. PACKHAM, Springfield, Ohio, assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Dec. 13, 1912. Serial No. 736,503. (Cl. 111—11.)



In a single disk furrow opener, a rotatable concavo-convex disk, a boot supported at the rear of said disk, a scraper rigid with the lower end of said boot, said scraper being formed of a flat piece of metal having a concave forward scraping edge so as to permit it to conform to the convex side of said disk, said scraper extending forwardly and upwardly in proximity to said disk so that the concave scraping edge of said scraper will face the ground.

1,089,073. OVERSHOE-RETAINER. STEPHEN M. PALMER, Tonica, Ill. Filed May 14, 1913. Serial No. 767,746. (Cl. 36—7.)

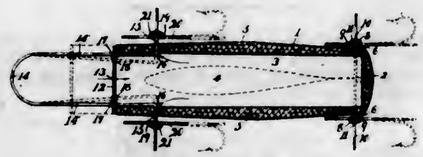


1. A device of the class described including a single length of wire bent to form U-shaped members disposed at right angles to each other, and elongated loops formed in the wire at the junction of the two U-shaped members and a detachable connection between said loops.

2. A device of the class described including a single length of wire, one end of which is bent to form an elongated loop, said wire being thence bent to form a curved U-shaped member, and thence bent to form a second loop arranged in spaced relation with the first with a portion of wire between each loop and said U-shaped member, said wire being thence bent to form a second U-shaped member disposed at right angles to the first U-shaped portion and its extreme end being twisted upon the portion between the first loop and the first U-shaped member, and flexible connecting means between said loops, as and for the purpose set forth.

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1,089,074. FISH-BAIT HOLDER. BYRON G. PFEIFFER, Detroit, Mich. Filed Oct. 13, 1913. Serial No. 794,776. (Cl. 43—30.)

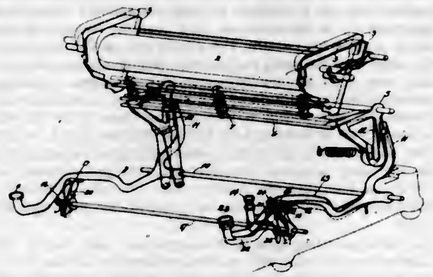


1. A fish-bait holder comprising a transparent cylindrical receptacle having a closed end and an open end, said receptacle adapted to be filled with water and to contain the bait, a band encircling the closed end of said receptacle having fish-hooks attached thereto, a closure for the open end of said receptacle, a yoke adapted for attachment to a fish-line attached at its ends to the open end of said receptacle and having a locking engagement with said closure, fish-hooks carried upon the ends of said yoke, and means for disengaging said yoke from locked engagement with said closure.

2. A fish-bait holder comprising a transparent cylindrical receptacle having a closed end and an open end, said receptacle adapted to be filled with water and to contain the bait, a band encircling said receptacle at its closed end having groups of fish-hooks pivotally attached thereto, a perforated closure for the open end of said receptacle, a yoke adapted for attachment to a fish-line having its free ends attached to said receptacle near the open end thereof, the side members of said yoke passing through apertures in said closure and having depressions adapted to effect a locking engagement with said closure, the free ends of said yoke having groups of fish-hooks pivotally attached thereto, the ends of said yoke adapted to be depressed within said receptacle to release said closure from locked engagement therewith.



1,089,075. TYPE-WRITING MACHINE. EMIL L. PFUNDER, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 16, 1908. Serial No. 411,084. (Cl. 197—73.)



1. In a typewriting machine, the combination with a case-shifting member, of a key lever at each side of the keyboard to shift said shifting member, a dog to lock one of the key levers, means connecting the other key lever with the dog to release the same upon operation of said other or second key lever, and an auxiliary key lever hung on the first key lever to release the dog.

2. In a typewriting machine, the combination with a case-shifting member, of a key lever at each side of the keyboard and operable independently of each other to shift said shifting member, a dog to lock the first of the levers, means to enable the other of said key levers to release the dog, and an extra key also carried on the first key lever and having means to release the dog.

3. In a typewriting machine, the combination with a shiftable member, of a key to shift the same, a dog to lock the key, an auxiliary key hung on the first key to release the dog, and a separate key movable independently of the first key, to both shift said shiftable member and release said dog.

4. In a typewriting machine, the combination with a shiftable member, of a key lever to shift the same, a pivoted dog to lock the key lever, and an auxiliary key lever fulcrumed between its ends on the first key lever, one end of the auxiliary lever bearing a key, and the other end engaging the dog to release it.

5. In a typewriting machine, the combination with a case-shifting member, of a key lever to shift the carriage, a dog to lock the key lever, and an auxiliary key lever intermediately fulcrumed on the first key lever, the outer end of the auxiliary key lever bearing the key and the inner end coacting with the dog to release it; a third key lever removed from the first key lever and also adapted to shift said case-shifting member, and devices actuated by the third key lever also to release the dog.

[Claims 6 to 19 not printed in the Gazette.]

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1,089,076. AUXILIARY STEAM-GENERATOR. JULIUS J. PLANK, Kansas City, Mo. Filed Feb. 1, 1912. Serial No. 674,747. (Cl. 122—10.)

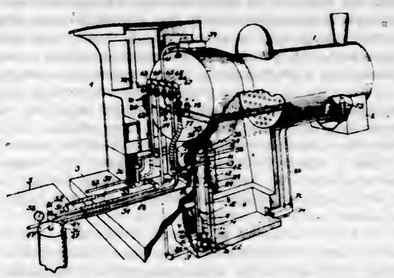
1. The combination with a steam boiler, of an auxiliary steam generator removably located in the fire box of said boiler.

2. The combination with a steam boiler, of an oil burner, and an auxiliary steam generator removably mounted in the fire box of the boiler and connected with said burner.

3. The combination with a steam boiler, of an oil burner having a steam line to the boiler, and an auxiliary steam generator removably mounted in the fire box of the boiler and connected with said steam line.

4. The combination with a steam boiler and a burner, of a removable steam generator adapted for location within the fire box of the boiler and comprising a plurality of steam tubes, a superheating tube and drum, and means for conducting steam from the generator to the burner.

5. The combination with a steam boiler, of a removable steam generator, comprising a plurality of heating tubes,

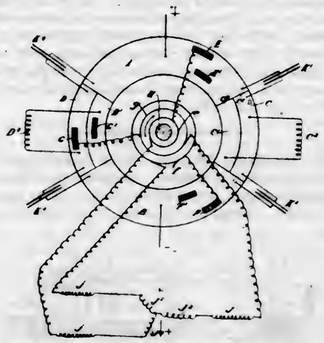


a superheating tube and a drum, and a heater for generating steam in the tubes and superheating same in the superheating tube.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,077. ELECTRICAL MACHINE. WILLIAM ARTHUR PRICE, Teddington, England. Filed Jan. 31, 1911. Serial No. 605,809. (Cl. 171—253.)



1. In the conversion of direct current into alternating current, the combination with the leads from a direct current supply, the leads to an alternating current consumer, and an interposed commutator comprising conducting segments and brushes movable relatively thereto, of an electrolytic condenser permanently connected across commutator segments in passing from one to the other of which the brushes break the circuit between the aforesaid leads, means for breaking an inductive circuit in shunt with respect to the condenser, and means for breaking a non-inductive circuit in shunt with respect to the condenser, the inductive circuit being broken before the non-inductive circuit.

2. In the conversion of direct current into alternating current, the combination with the leads from a direct current supply, the leads to an alternating current consumer, and an interposed commutator comprising conducting segments and brushes movable relatively thereto, of an electrolytic condenser permanently connected across commutator segments in passing from one to the other of which the brushes break the circuit between the aforesaid leads, another electrolytic condenser permanently connected across commutator segments in passing from one to the other of which the brushes remake the circuit between the aforesaid leads, means for making and breaking an induction circuit in shunt with respect to each condenser, and means for making and breaking a non-inductive circuit in shunt with respect to each condenser, the inductive circuit being broken before the non-inductive circuit is broken and made before the non-inductive circuit is made.

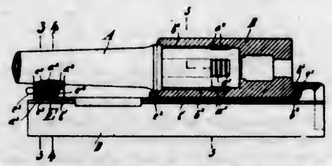
3. In the conversion of direct current into alternating current, the combination with the leads of a direct cur-

rent supply, the leads to an alternating current consumer, and an interposed commutator, comprising segments to which the leads of the direct current supply are connected, segments interposed between the aforesaid segments but unconnected to any of the aforesaid leads, and brushes connected to the leads of the alternating current consumer and movable with respect to all the commutator segments, of electrolytic condensers permanently connecting the first mentioned segments with the interposed segments, means for making and breaking an inductive circuit in shunt with respect to each condenser, and means for making and breaking a non-inductive circuit in shunt with respect to each condenser the inductive circuit being broken before the non-inductive circuit is broken, and made before the non-inductive circuit is made.

4. In the conversion of direct current into alternating current, the combination with the leads of a direct current supply, the leads to an alternating circuit consumer, and an interposed commutator, comprising segments to which the leads of the direct current supply are connected, and segments in pairs interposed between the aforesaid segments but unconnected to any of the aforesaid leads of electrolytic condensers permanently connecting the first mentioned segments with one of each of the adjacent pairs of interposed segments, inductances connecting together the segments of each of the aforesaid pairs of segments, brushes connected to the leads of the alternating current consumer and movable with respect to all the aforesaid segments, the said brushes being so situated relatively to the segments that they intermittently serve as a non-inductive shunt path across the condensers, and auxiliary brushes slightly in advance of the first mentioned brushes for intermittently completing shunt paths across the condensers through the inductances.

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1,089,078. BARREL RECOIL GUN. HEINRICH RABBA, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Aug. 1, 1910. Serial No. 574,810. (Cl. 89—40.)



1. In a recoiling gun with a separable gun barrel, the combination of a jacket, a tube detachably connected to the jacket by a bayonet-lock and forming therewith the barrel, a slide for guiding the gun barrel on the guide-carrier, said jacket having connection with the slide and said tube and slide having inter-engaging faces arranged concentric with the axis of the gun barrel, a bolt disposed transversely of and engaging with the tube to interlock said engaging faces, a recess in said bolt adapted to permit the rotation of the tube when said bolt is turned a half revolution.

2. In a recoiling gun with a separable gun barrel, the combination of a jacket, a tube detachably connected therewith by a bayonet-lock and forming therewith the barrel, and a slide for guiding the gun barrel on the guide-carrier said jacket having connection with the slide, said tube and slide having engaging faces arranged concentric with the axis of the gun barrel, means engaging with the tube to prevent separation between the slide and the gun barrel, said means making engagement between the tube and the slide and preventing separation between the tube and jacket.

3. In a recoiling gun with a separable gun barrel, the combination of a jacket, a tube detachably connected therewith by a bayonet-lock and forming therewith the barrel, a slide for guiding the gun barrel on the guide-carrier, said jacket having connection with the slide and said tube and slide having inter-engaging faces arranged concentric with the axis of the gun barrel, and a bolt disposed transversely of and engaging with the gun barrel and interlocking said engaging faces, and coöperating with the engagement between the jacket and the slide to prevent unlocking of the bayonet-lock of the tube and jacket.

4. In a recoiling gun with a separable gun barrel, the combination of a jacket, a tube detachably connected therewith by a bayonet-lock and forming therewith the barrel, a slide for guiding the gun barrel on the guide-carrier, said jacket having connection with the slide, and said tube and slide having interengaging members arranged concentric with the axis of the gun barrel, a plurality of grooves formed within a face of the tube adjacent said members and a locking bolt having ribs mounted on the slide and adapted to engage with said grooves and hold the engaging members interlocked; said connections between the tube and the jacket with the slide adapted to prevent unlocking of the bayonet-lock of the tube and the jacket.

5. In a recoiling gun with a separable gun barrel, the combination of a jacket, a tube detachably connected to the jacket by a bayonet-lock and forming therewith the barrel, a slide for guiding the gun barrel on the guide-carrier, said jacket having connection with the slide and said tube and slide having interengaging faces arranged concentric with the axis of the gun barrel, a bolt disposed transversely of and engaging with the gun barrel to interlock said engaging faces, and means connecting the jacket and the tube to the slide to prevent dismounting of the jacket from the slide.

[Claim 6 not printed in the Gazette.]

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1,089,079. GUN-BARREL. HEINRICH RABBA, Essen-Rüttenscheid, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 19, 1911. Serial No. 666,670. (Cl. 89—16.)



1. A separable gun barrel comprising a tube, a jacket and a slide, supporting means on said tube and slide leaving the rear end of the tube unsupported, and securing means on said tube and slide preventing turning and longitudinal displacement of said tube relative to said slide, the jacket being separable from said tube and slide and adapted to be pushed over the free rear end of the tube secured to the slide.

2. A separable gun barrel comprising a tube, a jacket and a slide, supporting means on said tube and slide leaving the rear end of the tube unsupported, and securing means on said tube and slide preventing turning and longitudinal displacement of said tube relative to said slide, said securing means comprising interengaging ledges on slide and tube at the muzzle and a lug and a recess therefor on tube and slide respectively at the middle of the tube, the jacket being separable from said tube and slide and adapted to be pushed over the free rear end of the tube secured to the slide.

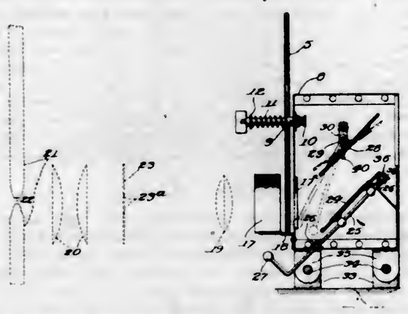
3. A separable gun barrel comprising a tube, a jacket and a slide, securing means on said tube and slide situated at the muzzle and the middle of the tube leaving its rear end unsupported, said securing means preventing turning and longitudinal displacement of said tube relative to said slide, a bayonet joint adapted to secure jacket and tube together, locking members on jacket and tube respectively for preventing turning of said jacket relative to said tube, holding down members on said jacket and said slide respectively comprising interengaging annular ledges concentrically arranged around the axis of the gun barrel.

4. A separable gun barrel comprising a tube, a jacket and a slide, securing means on said tube and slide situated at the muzzle and the middle of the tube leaving the rear end of the tube unsupported, said securing means preventing turning and longitudinal displacement of said tube relative to said slide; said securing means comprising interengaging ledges on slide and tube at the muzzle, and a lug and a recess therefor on tube and slide respectively at the middle of the tube; a bayonet joint adapted to secure said jacket and tube together, male and female locking members on jacket and tube respectively for preventing turning of said jacket relative to said tube; holding down members on said jacket and the rear end of said slide respectively, comprising interengaging annular ledges concentrically arranged around the axis of the gun barrel; whereby the assembling of the gun barrel is accomplished by first laying the tube on the slide permitting said securing means to engage, by thereupon pushing the jacket over the free rear end of the tube and turning it to secure the bayonet joint and simultaneously engaging the holding down members, and lastly by operating said male locking member to hold said jacket from turning.

5. A separable gun barrel comprising a bore-tube, a jacket and a slide; a bayonet lock adapted to secure jacket and bore-tube together; a ledge on said bore-tube adjacent the muzzle; a second ledge on said slide made to interlock with the bore tube ledge; a third ledge on the rear end of the slide; a groove on the jacket engaging said third ledge; said ledges and groove adapted to hold down said bore-tube and jacket on said slide; a lug on said bore-tube; a cut in said slide adapted to engage said lug and thereby to prevent any axial or rotary movement of the bore-tube relative to the slide; a housing on the jacket situated on top thereof; a collar bolt seated in said housing transversely to the axis of the bore and adapted to rotate in said housing; a plurality of parallel collars on one side of said bolt; a handle, accessible from the outside on said bolt, adapted to turn said bolt about 180° from locking to unlocking position; a plurality of grooves on said bore tube constructed to coöperate with said bolt collars to prevent the turning of said jacket relative to the bore-tube.

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1,089,080. SPOT-LIGHT ATTACHMENT FOR PROJECTION APPARATUS. EMIL P. RAUSCHERT, Lake Mills, Wis. Filed June 7, 1913. Serial No. 772,301. (Cl. 240—47.)



1. A spot-light attachment for projection apparatus comprising a disk, said disk having a plurality of openings therethrough equidistant from the center of said disk; films covering some of said openings, said films being transparent to certain colors only; a casing rotatably supporting said disk, said casing having an opening therethrough which registers respectively with the openings through said disk as the disk rotates; an inclined mirror mounted in said casing adjacent the opening in said casing; a pivoted inclined mirror mounted in said casing; said casing having a second opening therethrough adjacent said second mirror; means for rotating said pivoted mirror; and means for movably supporting said casing.

2. A spot-light attachment for projection apparatus comprising a disk, said disk having a plurality of openings therethrough equidistant from the center of said disk; colored sheets covering some of said openings; a casing rotatably supporting said disk, said casing having an opening therethrough which registers respectively with the openings through said disk as the disk rotates; a pivoted inclined mirror mounted in said casing adjacent the opening in said casing; a second inclined mirror mounted in said casing; said casing having a second opening therethrough adjacent said second mirror; and means for rotating said pivoted mirror.

3. A spot-light attachment for projection apparatus comprising a disk, said disk having a plurality of openings therethrough equidistant from the center of said disk; means for rotatably supporting said disk; colored sheets covering some of said openings; a casing having an opening therethrough which registers respectively with the openings through said disk as the disk rotates; an inclined mirror mounted in said casing adjacent the opening in said casing; a pivoted inclined mirror mounted in said casing; said casing having a second opening therethrough adjacent said second mirror; and frictional means resisting rotation of said disk.

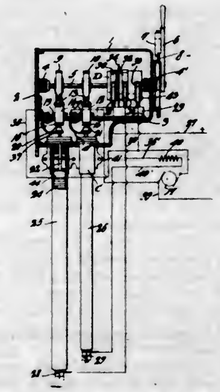
4. A spot-light attachment for projection apparatus comprising a disk, said disk having a plurality of openings therethrough equidistant from the center of said disk; transparent colored sheets covering some of said openings; a casing rotatably supporting said disk, said casing having an opening therethrough which registers respectively with the openings through said disk as the disk rotates; a pivoted inclined mirror mounted in said casing adjacent the opening in said casing; a second pivoted inclined mirror mounted in said casing, said casing having a second opening therethrough adjacent said second mirror; means for rotating each of said mirrors and adjustable frictional means resisting the rotation of said mirrors.

5. A spot-light attachment for projection apparatus comprising a disk, said disk having a plurality of openings therethrough; sheets covering some of said openings, said sheets being transparent to certain colors only; a casing upon which said disk is rotatably mounted, said casing having an opening therethrough which registers respectively with the openings through said disk as the disk rotates; a mirror mounted in said casing adjacent the opening in said casing; a second mirror mounted in said casing, said casing having a second opening therethrough adjacent said second mirror; means for rotating each of said mirrors; and a cylinder attached to said casing substantially concentric with the first mentioned opening through said casing.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,081. ELECTRIC-CURRENT CONTROLLER. PAUL J. RAY, Lakewood, Ohio. Filed May 21, 1913. Serial No. 769,112. (Cl. 172—179.)



1. In an electric current controller, a compressible resistance medium having a zero or positive temperature

co-efficient, means for exerting a resilient tension upon the medium to prevent separation of the members thereof, and manually operated means for compressing the resistance medium to reduce the resistance thereof.

2. An inner electric current controller, a compressible resistance medium having a zero or positive temperature co-efficient and composed of a plurality of conductive disks, the conductivity of which is increased due to the pressure placed thereupon, means for exerting a pressure upon the disks to hold the same against separation, and manually operated means for compressing the disks to reduce the resistance thereof and increase the conductivity.

3. In an electric current controller, a compressible resistance medium having a zero or positive temperature co-efficient, and whose electrical conductivity is increased when it is subjected to pressure, means for maintaining a slight pressure thereupon to prevent the separating of the members of such medium, and means for compressing the medium to increase its conductivity.

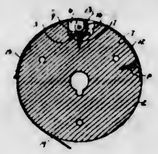
4. A controller, including a manually controlled shaft, a current controlling drum thereupon, a compressible resistance medium having a zero or positive temperature co-efficient, means carried by the shaft for controlling the compressibility thereof, and means for exerting a slight pressure upon the compressible resistance units to hold the members thereof against separation when not under mechanical compression.

5. An electric current controller, including a compressible resistance medium, having a zero or positive temperature co-efficient, whose electrical conductivity is increased when it is subjected to pressure, a plunger disposed to engage the medium, a resilient member carried thereby for holding the resistance medium against separation, and manually operated means for exerting a pressure upon the plunger to compress the resistance medium to increase the conductivity thereof.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,082. REEL FOR MOVING-PICTURE FILMS. JOHN H. REES, Meriden, Conn., assignor to Fred Rees and William W. Morrell, Meriden, Conn. Filed Nov. 17, 1913. Serial No. 801,460. (Cl. 242—70.)



1. A reel for moving picture films comprising a hub and two end disks, said hub formed with a recess, a spring plate connected with the hub and extending into said recess, and a clamping finger pivoted to the end of the spring-plate and adapted to be held thereby in close engagement with the surface of the hub.

2. A reel for moving picture films comprising a hub and two disks, said hub formed with a recess and a groove opening into the same, a spring-plate seated in said groove and formed at its end with ears which extend into said recess, a spring-finger pivotally connected with said ears and formed with an inwardly turned end having a bearing within said recess.

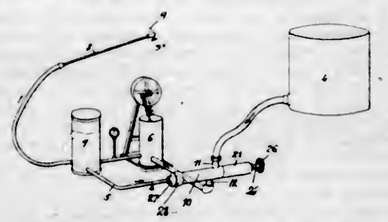
3. A reel for moving picture films comprising a hub and two disks, said hub formed with a recess, a bearing-plate in the bottom of said recess, a spring-plate secured to said hub and formed at its inner end with ears projecting into said recess, and a clamping-finger pivotally connected with said ears and having its inner end extended into contact with said bearing-plate.

4. A reel for moving picture films comprising a hub and two disks, said hub formed with a recess, a plate in the bottom of said recess, said plate formed with bearing ribs, a spring-plate secured to said hub and formed at its ends with ears projecting into said recess, and a clamping-finger pivoted to said spring-plate and formed at its inner end with a bend adapted to bear upon the ribs of said bearing-plate.

5. A reel for moving picture films comprising a hub and two disks connected therewith, said hub formed with a recess, a plate in the bottom of said recess, a groove extending into said recess, a spring plate secured in said groove and formed at its end with ears projecting into said recess, and a clamping-finger pivoted to said spring plate and formed at its inner end with a bend having a bearing upon said bearing plate.

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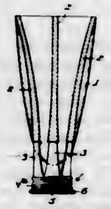
1,089,083. SPRAYING APPARATUS. CARL REICHERT, North Yakima, Wash. Filed Apr. 17, 1912. Serial No. 691,289. (Cl. 103—87.)



A spraying apparatus including a source of supply of the liquid to be sprayed; a pump provided with a pump-chamber; a valve casing formed with inlet and outlet ports and with a passage therebetween, the inlet port being connected with said source of supply and the outlet port being connected with said pump, whereby the latter is arranged to draw liquid through said passage from said source of supply; a valve mounted in said valve-casing and arranged to control said passage; a spring which normally presses upon said valve and tends to hold the same against closing said passage; means which connect said pump-chamber with said valve-casing on the side of said valve which lies away from said passage and spring, whereby the pressure in said pump-chamber acts to press said valve toward said passage and spring; a spraying device which is connected with said pump-chamber; and means for shutting off communication between said pump-chamber and said spraying device, said valve being arranged to close said passage against the tension of said spring under the influence of the increase of pressure induced in said pump-chamber by shutting off said spraying device and thereby to shut off the supply of liquid from said source thereof, when the spraying device is cut off.

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1,089,084. SANITARY DRINKING-CUP. BENJAMIN L. ROSENBLOOM, Wheeling, W. Va. Filed July 12, 1913. Serial No. 778,652. (Cl. 65—13.)



1. A drinking cup comprising a cylindrical member having a plurality of spaced fingers projecting therefrom, a collapsible receptacle detachably mounted on said fingers, and a casing adapted for receiving said member and receptacle.

2. A drinking cup comprising a collapsible fluid receptacle, resilient supporting means disposed in embracing relation to said receptacle, and a tubular inclosure in which said receptacle and supporting means are receivable.

3. In a drinking cup, a fluid receptacle composed of collapsible material, a holder for said receptacle comprising a cylindrical member having a plurality of integral resilient fingers projecting therefrom and disposed at spaced intervals about and substantially parallel to a common axis, and a casing for inclosing said receptacle and holder.

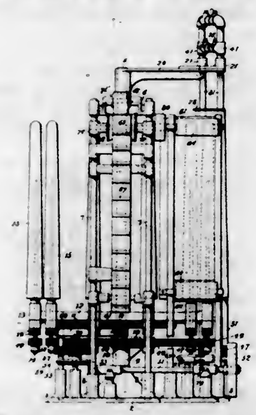
4. In a drinking cup, a cylindrical member having a plurality of fingers formed integral therewith and disposed about a common axis, said fingers being resilient and normally inclined outward with respect to said axis, a collapsible fluid receptacle detachably mounted on said fingers, and a casing within which said receptacle and fingers are adapted to be introduced.

5. In a drinking cup, a cylindrical member having a plurality of fingers formed integral therewith and disposed about a common axis, said fingers being resilient and normally inclined outward with respect to said axis, a collapsible fluid receptacle disposed within the embrace of said fingers, means detachably connecting said receptacle to said fingers, and a casing adapted to receive said receptacle and said fingers.

[Claim 6 not printed in the Gazette.]

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1,089,085. SINGEING-MACHINE. WALTER W. SIBSON and THOMAS ALLSOP, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 26, 1909. Serial No. 485,967. (Cl. 26—14.)



1. In a machine of the class described, means for singeing the articles, means for supporting the articles to be singed, means for feeding the articles relatively to the singeing means, and means for causing the singeing means to move with the articles during the singeing operation.

2. In a machine of the class described, means for singeing the articles, means for supporting the articles to be singed, means for feeding the articles relatively to the singeing means, means for causing the singeing means to move with the articles during the singeing operation, and means for causing relative movement between the articles and the singeing means while the articles are in the singeing zone.

3. In a machine of the class described, means for singeing the articles, means for supporting the articles to be singed, means for feeding the articles through the singeing means, means for causing the singeing means to move with the article during the singeing operation, and means for imparting movement to the articles while in the singeing zone for effecting uniform exposure of the articles to the singeing means.

4. In a machine of the class described, means for singeing the articles, means for supporting the articles to be singed, means for feeding the articles through the singeing means, means for rotating the article-supporting means during the singeing operation for effecting uniform exposure of the articles to the singeing means, and means for causing the singeing means to move with the articles during the singeing operation.

5. In a machine of the class described, means for singeing the articles, a movable table, supports carried by said table for the articles to be singed, and means for causing the singeing means to move with said supports during the singeing operation.

[Claims 6 to 32 not printed in the Gazette.]

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1,089,086. FIREARM. JULIUS SIKES, Chicago, Ill. Filed Aug. 16, 1912. Serial No. 715,361. (Cl. 33—47.)



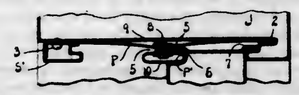
1. A firearm comprising in its construction a barrel, a tube mounted on and extending longitudinally of the barrel and normally open at both ends, a front sight extending inside of the tube, a rear sight adjacent to the rear end of the tube, the tops of both sights being above the level of the bottom of and in alinement with the hollow portion of the tube, and a plug adapted to be removably mounted in the front end of the tube, the tube, sights and plug being so constructed and arranged as to enable the barrel and tube to be forced through an embankment of earth and the plug removed by means of a rod inserted from the rear of and through said tube, and the firearm sighted and discharged while extending through the embankment.

2. A firearm comprising in its construction a barrel, front and rear sights therefor, a hollow tube adapted to be removably attached to the barrel of the firearm with its open rear end adjacent to the rear sight, said tube having an aperture in the bottom of and adjacent to the front end thereof adapted to admit the top of the front sight to the interior of said tube, a plug adapted to be removably mounted in the front end of the barrel, and a plug adapted to be removably mounted within the front end of the tube and adapted to prevent the same from being clogged when the rifle is forced through an embankment of earth or similar substance and means for removing the plug in said tube.

3. A firearm comprising in its construction a barrel, front and rear sights therefor, and a hollow tube extending over the front sight and comprising a plurality of telescoping sections removably attached to the barrel in position to extend longitudinally of the barrel between the front and rear sights, and provided with a normally unobstructed longitudinal opening having its axial center in the same vertical plane in which the sights are located, the tops of the sights being above the level of the bottom of said longitudinal opening and a plug adapted to be removably mounted in the front end of said tube.

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1,089,087. WINDOW. MILLARD SMITH, St. Louis, Mo. Filed Apr. 21, 1913. Serial No. 762,585. (Cl. 189—73.)



1. The combination with a window jamb, of a flexible parting strip member fitted to said jamb, the said member having a sash parting rib, and a screw mounted in

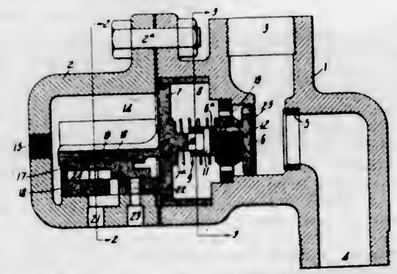
said sash parting rib and abutting said jamb; said screw being adjustable to move said sash parting rib away from said jamb.

2. The combination with a window jamb, of a flexible parting strip member having one of its vertical margins secured to said jamb, the other vertical margin of said parting strip member being slidably fitted to the jamb and the middle portion of said flexible parting strip member being movable toward and away from said jamb, and means for adjusting the middle portion of said flexible parting strip member, relative to said jamb.

3. The combination with a window jamb, of a flexible parting strip member having a sash parting rib, a nut mounted in said sash parting rib, and a screw fitted to said nut; said screw being movable to adjust the rib of said flexible parting strip member away from said jamb.

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1,089,088. EMERGENCY CUT-OFF VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company, a Corporation of Pennsylvania. Filed Mar. 30, 1912. Serial No. 687,536. Renewed July 30, 1913. Serial No. 782,140. (Cl. 188—1.)



1. An emergency cut-off valve for air brake systems, having connections to a steam cut-off valve, a brake cylinder, a source of pressure, the main reservoir and the train pipe, a valve, a movable abutment for actuating said valve open to train pipe pressure on one side and to reservoir pressure on its opposite side, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve and with the brake cylinder, and a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe.

2. An emergency cut-off valve for air brake systems, having connections to a steam cut-off valve, a brake cylinder, a source of pressure, the main reservoir and the train pipe, a valve, a movable abutment for actuating said valve open to train pipe pressure on one side and to reservoir pressure on its opposite side, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve and with the brake cylinder, and a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe, said valve seating toward the train pipe and having a yielding connection with the movable abutment so as to open under preponderance of train pipe pressure.

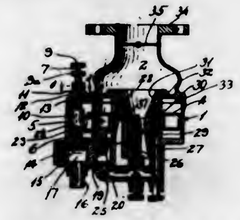
3. An emergency cut-off valve for air brake systems, having connections to a steam cut-off valve, a brake cylinder, a source of pressure, the main reservoir and the train pipe, a valve, a movable abutment for actuating said valve open to train pipe pressure on one side and to reservoir pressure on its opposite side, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve and with the brake cylinder, a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe, and a spring supplementing the action of train pipe pressure on said movable abutment.

4. An emergency cut-off valve for air brake systems, having connections to a steam cut-off valve, a brake cylinder, a source of pressure, an equalizing reservoir, the main reservoir and the train pipe, a movable abutment open to train pipe pressure on one side and to equalizing reservoir pressure on its opposite side, a slide valve actuated by said movable abutment, ports and passages controlled by said slide valve and arranged on sudden reduction or pressure on the train pipe side of the movable abutment to connect the source of pressure to the steam cut-off valve and to the brake cylinder, and a second valve actuated by the movable abutment and acting to cut off communication between the main reservoir and the train pipe.

5. An emergency cut-off valve for air brake systems, having connections to a steam cut-off valve, a brake cylinder, a source of pressure, an equalizing reservoir, the main reservoir and the train pipe, a movable abutment open to train pipe pressure on one side and to equalizing reservoir pressure on its opposite side, a slide valve actuated by said movable abutment, ports and passages controlled by said slide valve and arranged on sudden reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure to the steam cut-off valve and to the brake cylinder, and a second valve actuated by the movable abutment and acting to cut off communication between the main reservoir and the train pipe, said last named valve seating toward the train pipe and having a yielding connection to the piston so arranged as to allow said valve to open under preponderance of train pipe pressure.

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1,089,089. CARBURETER. NATHANIEL C. STAMPS, Ocean Park, Cal., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 5, 1910. Serial No. 595,730. (Cl. 48—155.2.)



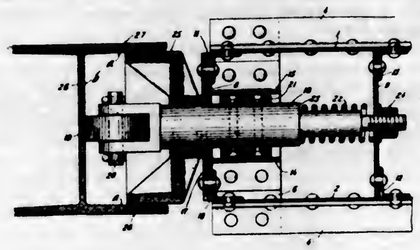
1. A carbureter mechanism comprising a casing having a central opening connecting the interior with the atmosphere, a valve seat being formed at the inner end of said opening, a reciprocating valve having a flared inner end to engage said seat, an inlet nozzle for gasolene extending within said opening and into said valve, and a second inlet nozzle extending into said opening outside the valve, the feed of gasolene through said nozzles being controlled by the movement of said valve.

2. A carbureter mechanism comprising a casing having a central air passage extending through the same and into the mixing chamber of the carbureter, needle valves extending into said passage for introducing carbureted material, a reciprocating hollow sleeve mounted in said passage, and capable of closing the discharge from one of said needle valves, the suction of the engine connected with the carbureter operating to move the valve and effect the introduction of more gasolene through the needle valves and the said central passage.

3. In a carbureter, a mixing chamber, an air passage leading to said mixing chamber, said air passage having a valve seat at its upper end, a conical tubular member resting upon said valve seat, a fuel nozzle extending up into said conical member, and an auxiliary fuel passage opening into the space around such conical member.



1,089,090. GUIDE-FRAME FOR GAS-HOLDERS. HENRY JOHN STOFFELS, Norwood, Ohio. Filed Nov. 29, 1912. Serial No. 734,225. (Cl. 48—174.)



1. The combination with a gas-holder and guiding means therefor, comprising a series of guide columns each of H-form in cross-section arranged around the holder, a series of guiding carriages on the holder, each supporting a roller normally engaging the web surface of a column, and a second roller having its axis co-planar with the axis of said first-named roller intervening the oppositely disposed flange surfaces of the column to engage the same independently coördinate to the direction of lateral movement of the holder.

2. The combination with a gas-holder and guiding means therefor, comprising a series of guide columns disposed around the holder, each having opposing guide surfaces in parallelism with a diametric line of the holder, and a guide surface joining the same at right angles thereto, a carriage for each column mounted on said holder, a pair of rollers journaled thereon with their axes co-planar and relatively transverse to each other, so as to engage a guide surface of the column in parallelism with the peripheral face of a roller.

3. The combination with a gas-holder and guiding means therefor, comprising a series of guide columns surrounding the holder, each having guide surfaces radially and tangentially disposed relative to the holder, a radial roller for each guide column yieldingly mounted on said holder to normally engage with a tangential surface of the guide column, and a tangential roller mounted on said holder, having its axis co-planar with the axis of said radial roller intervening said radial guide surfaces of a column to engage therewith coördinate to the latter movement of the holder to symmetrically transmit the holder strains to substantially the entire series of guiding columns.

4. A guiding carriage of the class described, having a plurality of guiding rollers, with their diametric lines disposed at right angles to each other, with their axes co-planar, said rollers arranged to traverse within a channel, the walls of which provide a guide surface for the periphery of the roller parallel therewith.

5. A guiding carriage of the class described, comprising a frame, a roller supporting shank movably mounted on said frame, a roller journaled transversely thereon at one end, and a second roller concentrically journaled about said shank.

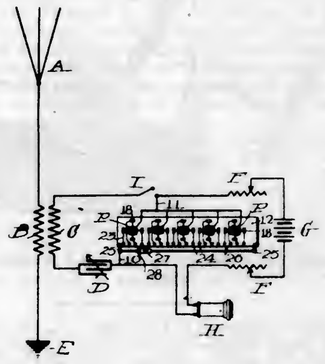
[Claims 6 to 23 not printed in the Gazette.]

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1,089,091. RECEIVING DEVICE FOR WIRELESS SYSTEMS. WILLIAM E. D. STOKES, Jr., New York, N. Y., and GEORGE W. DAVIS, Hoboken, N. J., assignors to William E. D. Stokes, New York, N. Y. Filed Dec. 9, 1908. Serial No. 466,634. (Cl. 250—31.)

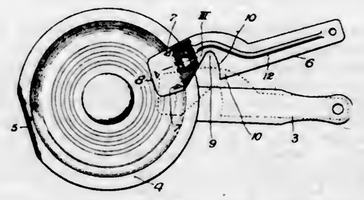
1. A receiver for wireless systems having an element composed of iron pyrites having carbonaceous shale embedded therein.

2. A receiving arrangement for wireless systems, comprising a base, a plurality of responsive elements carried thereby, stands or uprights thereon supporting a plurality of adjustable contacts engaging each element, a system of buttons or posts on said base connected with said contacts, a rod carried by said base, and a sliding block on said rod which can be moved to engage any one of said buttons or posts, whereby any contact can be thrown into circuit.



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1,089,092. DRAIN-LID FOR COOKING UTENSILS. GERTRUDE STRICKER, Kansas City, Mo., assignor of one-third to William Stricker, Kansas City, Mo. Filed Nov. 13, 1912. Serial No. 731,139. (Cl. 53—8.)



1. In combination with a cooking utensil having a handle, a lid having a lip to engage the rim of said utensil, and a handle on said lid opposite the lip thereof, said handle having a lateral recess to receive the utensil handle, one wall of said recess constituting a locking lug which engages the under side of the utensil handle and draws the lid firmly into engagement with the rim when the handles are pressed toward each other.

2. A lid, a handle on said lid, said handle having a lateral recess one wall of which constitutes a locking lug adapted to engage the handle of a vessel, and a member projecting downward from the lid in position to contact the inner surface of said vessel.

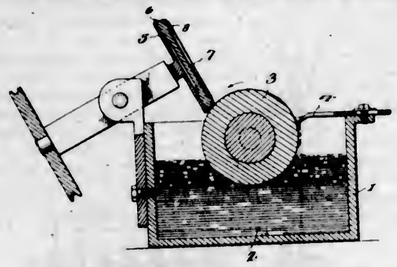
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1,089,093. METHOD OF FORMING SEALING-RINGS FOR GLASS OR PORCELAIN COVERS. THOMAS LUCIEN TALIAFERRO, Wheeling, W. Va., assignor, by mesne assignments, to Phoenix Hermetic Company, New York, N. Y., a Corporation of New York. Filed Oct. 23, 1912. Serial No. 727,469. (Cl. 113—80.)

1. The method of forming a sealing ring on a cover, consisting in scraping the plastic sealing material on to the edge of the cover to be coated in spirally made layers of substantially uniform thickness.

2. The method of forming a plastic sealing ring on a

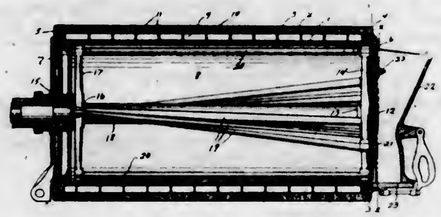
cover, consisting in laying on the edge of the cover to be coated plastic sealing material by scraping the same there-



on in spirally made layers, whereby a plastic coating of uniform thickness is formed.

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1,089,094. ICE-CREAM FREEZER. FRANK TYSON, Canton, Ohio, assignor to The Tyson Company, Canton, Ohio, a Corporation of Ohio. Filed May 19, 1913. Serial No. 768,409. (Cl. 62—4.)



1. An ice cream freezer including a horizontal cylinder forming a freezing chamber with heads on its ends, refrigerating means around the cylinder and rotating scraping, agitating, and ejecting mechanism within the chamber, there being an opening in the lower portion of one head and an external hopper on the same head extending upward from and downward in front of the opening with a valved outlet mouth on its lower end, and there being an eduction port in the upper portion of the same head adapted to discharge into the hopper.

2. An ice cream freezer including a horizontal cylinder forming a freezing chamber with heads on its ends, refrigerating means around the cylinder and rotating scraping, agitating and ejecting mechanism within the chamber, there being an opening in the lower portion of one head and an external hopper on the same head extending upward from and downward in front of the opening with a valved outlet mouth on its lower end, and there being an eduction port in the upper portion of the same head with a downwardly directed spout leading therefrom into the hopper.

3. An ice cream freezer including a horizontal cylinder forming a freezing chamber with heads on its ends, refrigerating means around the cylinder and rotating scraping, agitating and ejecting mechanism within the chamber, there being an opening in the lower portion of one head and an external hopper on the same head extending upward from and downward in front of the opening with a valved outlet mouth on its lower end, and there being an eduction port in the upper portion of the same head adapted to discharge into the hopper, said port being located on the side of the median line of the head toward which the rotating mechanism operates.

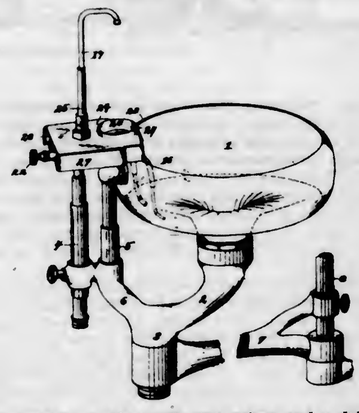
4. A horizontal-cylinder ice-cream freezer head having an opening in its lower portion and an external hopper thereon extending upward from and downward in front of the opening with a valved outlet mouth in its lower end, there being a port in the upper portion of the head adapted to discharge into the hopper.

5. A horizontal-cylinder ice-cream freezer head having an opening in its lower portion and an external hopper thereon extending upward from and downward in front of the opening with a valved outlet mouth in its lower end, there being a port in the upper portion of the head with a downwardly directing spout leading therefrom into the hopper.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,095. CUSPIDOR. HENRY E. WEBER, Canton, Ohio, assignor to The Weber Dental Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Oct. 14, 1913. Serial No. 795,081. (Cl. 4—40.)



1. A cuspidor bowl, supply-pipe valves and a drinking-cup nozzle adjacent to the bowl, and a shielding plate overhanging the valves having formed thereon a dripping-cup and a draining-spout leading therefrom to the bowl.

2. A cuspidor bowl, supply-pipe valves adjacent thereto, and a shielding plate overhanging the valves and the rim of the bowl, there being formed on the plate a dripping-cup and a draining-spout leading therefrom to the bowl.

3. A cuspidor bowl, supply-pipe valves adjacent thereto, and a shielding plate overhanging the valves and the rim of the bowl.

4. A shielding plate for the supply-pipe valves of a cuspidor having formed thereon a dripping-cup and a draining-spout leading therefrom to the cuspidor.

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1,089,096. HYDROMETALLURGY OF COPPER. EDWARD RAY WEIDLEIN, Pittsburgh, Pa., assignor, by mesne assignments, to Metals Research Company, New York, N. Y., a Corporation of Maine. Filed Oct. 27, 1913. Serial No. 797,408. (Cl. 75—18.)

1. The method of extracting copper from ores, roasted matte, and other copper-bearing material, which comprises leaching the material to obtain a copper sulfate solution containing not more than 3% of copper, neutralizing the free sulfuric acid contained in the solution, and precipitating the copper substantially quantitatively by means of sulfur dioxid; substantially as described.

2. The method of extracting copper from ores, roasted matte, and other copper-bearing material, which comprises leaching the material to obtain a copper sulfate solution containing not more than one per cent. of free sulfuric acid and containing not more than 3% of copper, neutralizing the free sulfuric acid contained in the solution, and precipitating the copper substantially quantitatively by means of sulfur dioxid; substantially as described.

3. The method of extracting copper from ores, roasted matte, and other copper-bearing material, which comprises leaching the material to obtain a copper sulfate solution, neutralising the free sulfuric acid contained in the solution, and precipitating by means of sulfur dioxid of a concentration approximately equal to the concentration of the copper in solution expressed in percentage by weight; substantially as described.

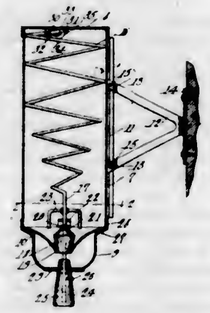
4. The method of extracting copper from ores, roasted matte, and other copper-bearing material, which comprises leaching the material to obtain a copper sulfate solution, neutralising the free sulfuric acid contained in the solution, precipitating by means of sulfur dioxid of such concentration and under such conditions of superatmospheric pressure and temperature as to produce a residual leach liquor of relatively low percentage in copper as compared with its original copper content, utilizing said leach liquor to extract a further portion of copper from the ore or other material treated, precipitating, as before, the additional copper thus extracted and producing a second residual leach liquor, and so on, until the ore or other material is exhausted practically completely, and finally washing out the last extracting liquor with a further quantity of the leach liquor produced in the operation; substantially as described.

5. The method of extracting copper from ores, roasted matte, and other copper-bearing material, which comprises leaching the material and obtaining a copper sulfate solution of a strength not substantially exceeding 1.5% metallic copper (6% $CuSO_4.5H_2O$), neutralizing the free sulfuric acid contained in the solution, and precipitating by means of sulfur dioxid; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,097. POWDERED-SOAP DISPENSER. EDMUND C. WIDEMAN, Wilkes-Barre, Pa. Filed Jan. 18, 1913. Serial No. 742,927. (Cl. 221—62.)



1. In a dispenser, a casing having a dispensing opening at its lower end, a closure for the opening, a coil in the casing for yieldingly holding the closure in position, a cover engageable on the upper end of the casing, the upper end of the coil serving to lock the cover against retrograde movement, and the casing having an opening adjoining the upper end of the coil for the insertion of an implement to release the upper end of the coil from the cover.

2. In a dispenser, a casing having a dispensing opening at its lower end, a closure for the opening, a coil in the casing for yieldingly holding the closure in position, a cover engageable on the upper end of the casing, the casing having a slot in its upper end, the cover having a member to enter the slot, and the upper end of the coil serving to lock the said member against retrograde movement, and the casing having an opening adjoining the upper end of the coil for the insertion of an implement to release the upper end of the coil from the said member.

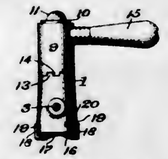
3. In a dispenser, a casing having a bayonet slot, a cap for the casing having a member to enter the slot, a coil in the casing, the casing having a seat for the upper end of the coil adjoining the bayonet slot and the upper end of the coil being bent back downwardly into a loop, the bight of the loop projecting over the tail of the bayonet slot and the other end of the loop resting against the seat.

4. In a dispenser, a casing having a bayonet slot, a cap for the casing having a member to enter the slot, a coil in the casing, the casing having a seat for the upper end of the coil adjoining the bayonet slot and the upper end of the coil being bent back downwardly into a loop, the bight of the loop projecting over the tail of the bayonet slot and the other end of the loop resting against the seat, the casing having a slot adjoining the lower arm of the loop for the insertion of an implement to depress the loop.

5. In a dispenser, a casing having a dispensing opening at its lower end, a closure for the opening, a cover engageable on the upper end of the casing, and a coil disposed in the casing, a coil having its lower end connected to the said closure for yieldingly holding the same within the dispensing opening, the casing having means for holding the upper end of the coil, the upper end of the coil and cover having coöperating means for normally maintaining the cover in position.

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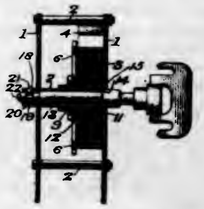
1,089,098. SAFETY-COCK. JOHN WINKLER, Philadelphia, Pa. Filed Feb. 21, 1913. Serial No. 749,836. (Cl. 137—7.)



In a device of the character stated, a body formed with a tapering seat and with an annular series of teeth at the small end of said seat, and formed with diametrically opposite recesses in its exterior, a tapering plug rotatably seated in said seat and formed with a stem at its small end, a sleeve having a handle and surrounding said stem and formed with an annular series of teeth at one end registering and intermeshing with the teeth of the body, a spring coiled around the stem and bearing against the sleeve with one end to force the teeth of said sleeve into engagement with those of the body, and a flat bulging spring bearing with the bulge at its middle against the large end of said plug and having upwardly and inwardly bent ends engaging the recesses in said body.

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1,089,099. CLOCK. ABRAHAM M. YEAKEL, Perkasie, Pa., assignor of one-half to Wilson L. Yeakel, Perkasie, Pa. Filed Feb. 28, 1913. Serial No. 751,204. (Cl. 58—46.)



1. In a clock, a main spring, a sleeve in suitable connection with said spring, an arbor, means on said arbor for engagement with said sleeve, a frame on which said arbor is mounted, said arbor having a continuous circumferential groove therein, and a device for laterally controlling said arbor in its bearings on said frame, the same being connected movably with said frame and adapted freely to occupy said groove, whereby said arbor may be rotated to cause said means to engage with said sleeve.

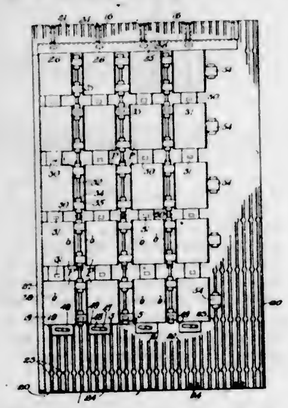
2. In a clock, a main spring, an arbor for winding the same, a frame on which said arbor is mounted, said arbor having a continuous circumferential groove therein, a device for laterally controlling said arbor in its bearings on said frame, the same being adapted freely to occupy said groove, and a boss on said frame, the same having a recess with which said groove of the arbor is adapted to register, said controlling device being adapted to be seated in said recess while freely occupying said groove.

3. In a device of the character stated, a frame, a main gear, an arbor, means for removably connecting the same with said main gear, a main spring in suitable connection with said main gear, a barrel with which said spring is connected, and means on said barrel adapted to be engaged by said arbor for removably connecting said barrel and frame and preventing rotation of said barrel.

4. In a device of the character stated, a frame, a main gear, an arbor, means for removably connecting the same with said main gear, a main spring in suitable connection with said main gear, a barrel with which said spring is connected, and means on said barrel for engagement with said frame, and adapted to be engaged by said arbor for removably connecting the said barrel and frame and preventing rotation of said barrel.

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1,089,100. PRINTING-FORM. WILLIAM J. ADAM, Norwood, Mass., assignor to The Plimpton Press, Norwood, Mass., a Corporation of Massachusetts. Filed June 12, 1912. Serial No. 703,186. (Cl. 101—169.)



1. A printing form comprising a form bed having a series of depressions, and a series of printing plate spacing and clamping devices having securing means located in and shiftable longitudinally of said depressions and also having members movable in directions laterally of the shifting direction.

2. A printing form comprising a form bed having a series of grooves, rods adapted to be received by said grooves, and a series of printing plate engaging means carried by and slidable laterally on said rods.

3. A printing form comprising a form bed having a series of grooves of permanent width, rods adapted to be secured therein, guides fixedly mounted on said rods, and printing plate engaging clamps slidable laterally of the rods in said guides.

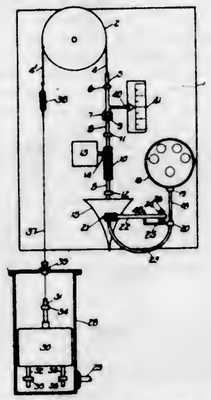
4. A printing form comprising a form bed, means adjustably mounted thereon and engageable therewith for spacing printing plates in columns and for engaging the edges of said plates, the adjustment being in the direction of length of the columns, said spacing and engaging means including elements movable laterally of the means, and means adapted to be mounted on said bed for exerting pressure on certain plates of all of said columns.

5. A printing form comprising a form bed, means adjustably mounted thereon and engageable therewith for spacing printing plates in columns and for engaging edges of said plates, the adjustment being in the direction of length of the columns, said spacing and engaging means including elements movable laterally of the means, and clamping and tightening means mounted on said bed and adapted to engage the edges of printing plates of one of said columns to tighten the cross rows of said printing plates.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,101. FLUID-METER. HARLEY C. ALGER, Chicago Heights, Ill. Filed Sept. 6, 1912. Serial No. 719,010. (Cl. 73—167.)



1. In a fluid meter, a vertical cord, means whereby the vertical cord is caused to move in response to the rate of flow of fluid through the meter, a revoluble member shaped to correspond to the curve of flow of the fluid being measured, said revoluble member being suspended from the cord, means for revolving the revoluble member, a register and means for transmitting motion from the revoluble member to cause the register to operate.

2. A fluid meter comprising a measuring element, a cord, means whereby the cord is caused to move longitudinally in accordance with changes in rate of flow of the fluid passing through the measuring element, a revoluble member comprising a solid of revolution shaped to correspond to the curve of flow of the fluid being measured, said revoluble member being connected to the cord and adapted to receive motion, axially, from the cord, means for revolving the revoluble member, a register and means operated by the revoluble member to cause the register to operate.

3. A fluid meter comprising a measuring element, a sliding member, means whereby the sliding member is caused to move longitudinally in accordance with changes in rate of flow of the fluid passing through the measuring element, a revoluble member comprising a solid of revolution shaped to correspond to the curve of flow of the fluid being measured, said revoluble member being adapted to receive motion from the sliding member, means for revolving the revoluble member, a register and means operated by the revoluble member to cause the register to operate.

4. A fluid meter comprising a measuring element, a sliding member, means whereby the sliding member is caused to move longitudinally in accordance with changes in rate of flow of the fluid passing through the measuring element, a revoluble member comprising a solid of revolution shaped to correspond to the curve of flow of the fluid being measured, said revoluble member being adapted to receive motion from the sliding member, the axis of the revoluble member being substantially in line with the sliding member, means for revolving the revoluble member, a register and means operated by the revoluble member to cause the register to operate.

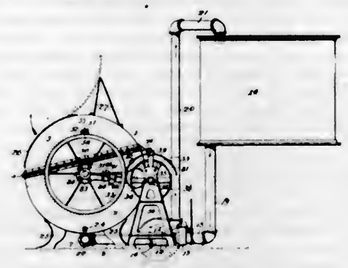


5. In a fluid meter, a register, a revoluble member shaped to correspond to the curve of flow of the fluid being measured, float actuated means for moving the revoluble member axially, a pivoted arm adapted to swing about an axis, substantially parallel to the axis of the revoluble member, a member rotatably mounted on the arm and adapted to receive motion from the revoluble member and means for transmitting motion from the rotatably mounted member to cause the register to operate.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,102. MACHINE FOR DYEING FIBROUS MATERIALS. THOMAS ALLSOP and WALTER W. SIBSON, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 12, 1907. Serial No. 401,888. (Cl. 8—18.)



1. In a dyeing machine, a vat, a reservoir for the dye liquor, a pipe connecting said vat and the reservoir and through which the dye liquor is introduced to and removed from the vat, a valve arranged in said pipe, a pump connected to said pipe at a point between said valve and the vat, a valve interposed between the pump and said pipe, a second pipe connected to the discharge of said pump and the reservoir for conveying the dye liquor from the pump to the reservoir, a water pipe connected to the first mentioned pipe for introducing wash water to the vat, a valve in said water pipe for controlling communication therethrough, and a valved discharge pipe leading from the vat.

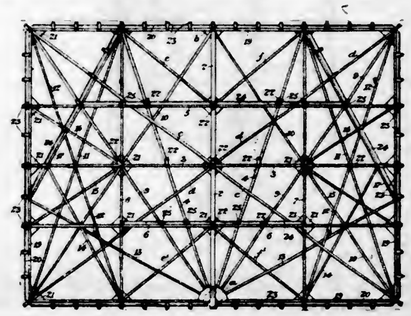
2. In a dyeing machine, a closed vat comprising a two-section outer drum, the upper section of which is provided with a hinged door, and an inner drum rotatably mounted therein, a reservoir for the dye liquor, a pipe connecting said vat and the reservoir and through which the dye liquor is introduced to and removed from the vat, a valve arranged in said pipe, a pump connected to said pipe at a point between said valve and the vat, a valve interposed between the pump and said pipe, a second pipe connected to the discharge of said pump and the reservoir for conveying the dye liquor from the pump to the reservoir, a valved water pipe connected to the first mentioned pipe for introducing wash water to the interior of the vat, and a valved discharge pipe leading from the vat.

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1,089,103. TENT. ARTHUR W. BARNARD, Ridgewood, N. J., assignor of one-half to W. C. Craig, Ridgewood, N. J. Filed May 28, 1912. Serial No. 700,170. (Cl. 135—1.)

1. A tent cloth comprising a sheet of rectangular fabric, marginal tapes secured to the edges of the tent cloth, a series of spaced intersecting tapes secured to one surface of the tent cloth and running parallel with the edges thereof, a series of tapes secured to the said side of the tent cloth and running across the aforesaid series of tapes, both series of tapes adapted to indicate positions at which the material is to be folded to construct tents of different configurations, and means connected to the tent cloth for attaching the same to supporting and tension devices.

2. A tent cloth comprising a sheet of rectangular fabric, marginal tapes secured to the edges of the tent cloth, a series of spaced intersecting tapes secured to one surface of the tent cloth and running parallel with the edges thereof, a series of tapes secured to the said side of the tent cloth and running across the aforesaid series of tapes, both series of tapes adapted to indicate positions at which the material is to be folded to construct tents of different configurations, and tubular fabric members running lengthwise with and secured to predetermined tapes.



3. A tent cloth comprising a sheet of rectangular fabric, tapes secured to one surface thereof and passing through the center of the fabric in opposite directions, tapes also secured to the surface of the fabric and running in directions diagonally to the aforesaid tapes, marginal tapes secured to the said fabric, strengthening pieces secured to the said fabric at the points of intersection of said tapes, tubular members running parallel with and secured to the said marginal tapes, and other tubular members running parallel with and secured to predetermined intermediate tapes.

4. A tent cloth comprising a sheet of rectangular fabric, tapes secured to one surface thereof passing through the center of the fabric and parallel with the edges thereof, tapes also running parallel with the aforesaid tapes secured to the surface of the fabric and placed intermediate of the aforesaid tapes and the edges of the fabric, other tapes also secured to the surface of the said fabric and points of intersection of the said tapes, marginal tapes, strengthening pieces secured to the said fabric at the points of intersection of the said tapes, marginal tapes, tubular members running parallel with and secured to the marginal tapes, other tubular members running parallel with and secured to predetermined intermediate tapes, and fabric loops secured in predetermined positions to the said tapes.

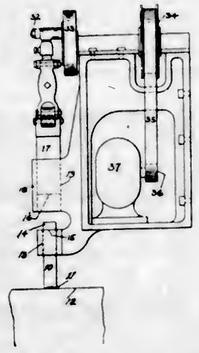
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1,089,104. STONE-DRESSING MACHINE. HENRY J. BECK, St. Johnsbury, Vt. Filed Nov. 10, 1911. Serial No. 659,612. (Cl. 125—6.)

1. A stone dressing machine comprising in combination a substantially rectangular frame adapted to be secured to a support, a shaft arranged in suitable bearings upon the top of the frame, a pulley on said shaft, a crank disk also on the said shaft at one end thereof, a bifurcated arm carried by the frame at one side and integral therewith, a portion thereof extending below the plane of the lower edge of the frame, the upper and lower members of the arm having a hammer guide and a tool guide respectively, a hammer eccentrically suspended from the crank disk and slidable in the hammer guide in the arm, a stone dressing tool adapted to rest in the tool guide in the path of the hammer, and a motor seated within the said rectangular frame and adapted to transmit power to the pulley on the shaft.

2. A stone dressing machine including in combination a substantially rectangular frame adapted to be secured to a

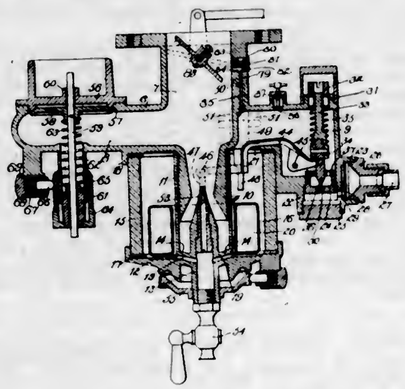
support, a shaft having a pulley thereon suitably journaled in said frame, a reciprocating hammer device carried and actuated by said shaft, a bifurcated arm carried by the frame at one side, a portion thereof extending below



the plane of the lower edge of the frame, the upper and lower members of said arm having a hammer guide and a tool guide respectively, and a motor seated within the said rectangular frame having operative connection with said shaft.

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1,089,105. CARBURETER. EARL A. BESSOM and RAYMOND M. ANDERSON, Chicago, Ill., assignors to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 14, 1912. Serial No. 677,513. (Cl. 48—155.2.)



1. In a carbureter, an air passage one end of which is adapted to be connected with the atmosphere and the other end of which is adapted to be connected with the engine, a reservoir for liquid fuel, a fuel supplying nozzle in said air passage, said nozzle communicating with said reservoir, a throttle valve in said air passage beyond said nozzle and remote from the atmosphere, two air passageways between said first-named air passage and said reservoir, one of said air passageways opening on one side of the throttle and the other opening on the other side of the throttle when the throttle is in substantially closed position, one of said passageways being in position to be directly and positively restricted by said throttle, and both being exposed to substantially the same pneumatic potential when the valve is open, and an atmosphere inlet for said reservoir.

2. In a carbureter, an air passage one end of which is adapted to be connected with the atmosphere and the other end of which is adapted to be connected with the engine, a float chamber for liquid fuel, a fuel supplying nozzle in said air passage, said nozzle communicating with said float chamber, a throttle valve in said air passage beyond said nozzle and remote from the atmosphere, two air passageways adjustable in position between said first-named air passage and said float chamber, one of said air passagewys opening on one side of the throttle and the other opening on the other side of the throttle when the throttle is in substantially closed position, both being exposed to substantially the same pneumatic potential when the valve is open, and an atmosphere inlet for said float chamber.

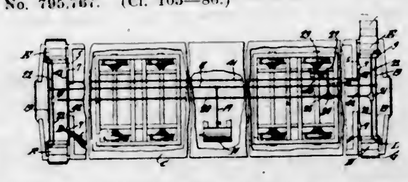
3. In a carbureter, an air passage one end of which is adapted to be connected with the atmosphere and the other end of which is adapted to be connected with the engine, a reservoir for liquid fuel, a fuel supplying nozzle in said air passage, said nozzle communicating with said reservoir, a throttle valve in said air passage beyond said nozzle and remote from the atmosphere, two air passageways between said first-named air passage and said reservoir, one of said air passageways opening on one side of the throttle and the other opening on the other side of the throttle when the throttle is in substantially closed position, both being exposed to substantially the same pneumatic potential when the valve is open, an atmosphere inlet for said reservoir, said air passageways being in a rotatable plug whereby the vertical positions may be changed.

4. The combination with a carbureting chamber and a jet supplied with fuel from a float chamber, of additional passageways from the upper part of said float chamber to said carbureting chamber, and a throttle in said carbureting chamber directly restricting one of said passageways to vary the effect of the engine suction in that passageway.

5. In a carbureter, an air passage one end of which is adapted to be connected with the atmosphere and the other end of which is adapted to be connected with the engine, a reservoir for liquid fuel, a fuel supplying nozzle in said air passage, said nozzle communicating with said reservoir, a throttle valve in said air passage beyond said nozzle and remote from the atmosphere, two air passageways between said first-named air passage and said reservoir, one of said air passageways opening on one side of the throttle and the other opening on the other side of the throttle when the throttle is in substantially closed position, both being exposed to substantially the same pneumatic potential when the valve is open, a passageway opening above the throttle being smaller than that opening below the throttle, both of said passageways being connected with a passageway of intermediate size leading to the top of the reservoir, and an atmosphere inlet for said reservoir.

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1,089,106. CAR-STEP-OPERATING SYSTEM. FRED D. BLAKE, Charlotte, N. C., assignor to Blake Car Step Company, Charlotte, N. C. Filed Oct. 17, 1913. Serial No. 795,767. (Cl. 105—86.)



1. The combination with foldable car steps, means for holding the steps in extended position, and means for automatically folding the steps when released, of means operated by air under pressure for actuating the holding means to release the steps, and means operated by the application of motive power to the car, for controlling the application of air under pressure to said releasing means.



2. The combination with folding car steps, means for holding them in extended position, and means for automatically folding the steps when released from the holding means, of a plunger operatively connected to the holding means, and means controlled by the application of motive power to the car, for directing fluid under pressure against the plunger to actuate the plunger and release the extended steps.

3. The combination with foldable car steps, means for fastening them in extended positions, and means for automatically folding the steps when released, of a pressure tank, means operated by pressure from the tank for releasing the holding means, and means operated by the starting of the car for controlling the application of pressure to said releasing means.

4. The combination with separate sets of folding car steps, separate means for holding the respective sets in lowered positions, and separate means for automatically folding the respective sets of steps when released, of releasing means connected to each of said holding means, and means controlled by the starting of the car for applying fluid under pressure to all of the releasing means.

5. The combination with folding car steps, means for holding the steps in lowered position, and means for automatically folding the steps when released from the holding means, of a plunger connected to the holding means, a pressure tank, separate valves for cutting off communication between the pressure tank and the plunger, said steps when moving to lowered position, constituting means for opening one of the valves, and means controlled by the rotation of a car axle for opening the other valve.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,107. PENCIL ATTACHMENT. ALVIN H. BLOOD, Aberdeen, Wash. Filed Oct. 15, 1912. Serial No. 725,908. (Cl. 131—38.)

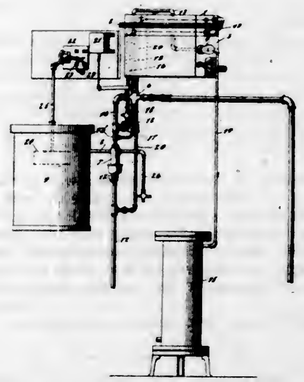


A pencil attachment comprising an inner tube having a substantially elliptical shaped opening extending through the outer edge thereof, a portion of the edge of the opening being beveled, an outer tube movably supported upon the inner tube and telescoped upon the same, the said outer tube being provided with a curved slot, a pin stationarily mounted in the inner tube and projected into the curved slot for rotating the said outer tube on pulling outwardly upon the same, the said outer tube being further provided with a circular opening normally in alinement with the opening in the inner tube, and a spring member having one end fixed to the outer tube and its opposite end slidably engaging the inner end edge of the inner tube to operate upon the said tubes for the moving of the outer tube into position to bring its opening in alinement with the opening in the inner tube.

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1,089,108. SYSTEM FOR OZONING LIQUIDS. GEORGE F. BUTLER, Niagara Falls, N. Y., assignor to American Ozone Company, a Corporation of New York. Filed May 20, 1913. Serial No. 768,742. (Cl. 210—1.)

In a system for ozonizing liquids, the combination of a supply column of the liquid to be ozonized, a depository for the ozonized liquid, a cut-off valve in said column, means for injecting ozone into the column at a point between the cut-off valve and the depository, and a valve located in said column between the depository and the point of ozone injection, said valve being adapted to de-



flect the liquid from the depository and being itself controlled by the pressure in the column.

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1,089,109. METHOD OF CALCINING ALUNITE. HOWARD F. CHAPPELL, New York, N. Y. Filed May 8, 1913. Serial No. 766,269. (Cl. 23—22.)



1. The method of calcining alunite, which comprises dividing the calcining operation into two stages, in the first of which the alunite is traversed by furnace gases, and in the second of which the partly calcined alunite is heated from without, carrying off separately the gases evolved from the second stage of the calcining operation and recovering sulfuric acid therefrom; substantially as described.

2. The method of calcining alunite, which comprises dividing the calcining operation into two stages, in the first of which the operation is conducted at a final temperature of about 600° C., and in the second of which the calcining operation is completed at a final temperature ranging from 900° C. to 1000° C., and carrying off separately the gases evolved in the second stage of the calcining operation and recovering sulfuric acid therefrom; substantially as described.

3. The method of calcining alunite, which comprises dividing the calcining operation into two stages, the partly calcined product from the first stage being pro-

gressively supplied to take the place of the fully calcined product withdrawn from the second stage, and the gases evolved from the second stage of the operation being carried off separately from those evolved in the first stage thereof; substantially as described.

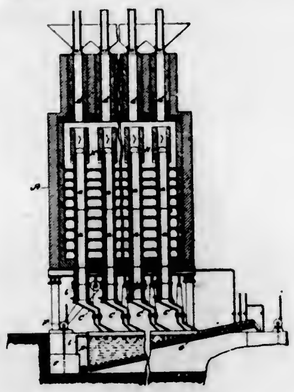
4. The method of calcining alunite, which comprises dividing the calcining operation into two stages, in the first stage of which the alunite is traversed by furnace gases and in the second of which the partly calcined product from the first stage is heated from without, the gases evolved from the second stage being carried off separately from those evolved in the first stage; substantially as described.

5. The method of calcining alunite, which comprises subjecting an upright column of alunite to calcination, by fire gases applied externally to the lower portion of the column and admitted internally into the upper part of the column, thereby dividing the calcining operation into two stages, and carrying off separately gases evolved from the lower portion of the column; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,110. APPARATUS FOR TREATING ALUNITE. HOWARD F. CHAPPELL, New York, N. Y. Original application filed May 8, 1913, Serial No. 766,269. Divided and this application filed Oct. 15, 1913. Serial No. 795,207. (Cl. 23—13.)



1. Apparatus for calcining alunite and the like, comprising an upright retort or muffle, a shaft for supplying said retort or muffle, and a heating chamber surrounding the retort for heating the retort externally, said heating chamber communicating with the shaft so as to pass the fire gases from the heating chamber into and through the shaft; substantially as described.

2. Apparatus for calcining alunite and the like, comprising an upright retort or muffle, a shaft for supplying said retort or muffle, a heating chamber surrounding the retort for heating the retort externally, said heating chamber communicating with the shaft so as to pass the fire gases from the heating chamber into and through the shaft, exit conduits for withdrawing the gases from the retort, and means for preventing the fire gases from being drawn into the restort; substantially as described.

3. Apparatus for calcining alunite and the like, comprising an upright retort or muffle, a shaft for supplying said retort or muffle, a heating chamber surrounding the retort for heating the retort externally, said heating chamber communicating with the shaft so as to pass the fire gases from the heating chamber into and through the shaft, exit conduits for withdrawing the gases from the retort, and means for preventing the fire gases from being drawn into the retort, said means consisting of a pipe for admitting into the retort above the exit for the retort gases a supply of aeriform fluid under pressure; substantially as described.

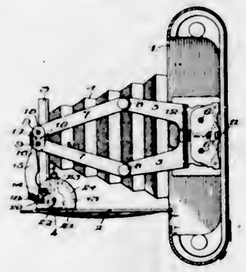
4. Apparatus for calcining alunite and the like, comprising an upright retort or muffle, a shaft for supplying said retort or muffle, a heating chamber surrounding the retort for heating the retort externally, said heating chamber communicating with the shaft so as to pass the fire gases from the heating chamber into and through the shaft, and means for admitting air into the bottom of the retort; substantially as described.

5. Apparatus for calcining alunite and the like, comprising an upright retort or muffle, a shaft for supplying said retort or muffle, a heating chamber surrounding the retort for heating the retort externally, said heating chamber communicating with the shaft so as to pass the fire gases from the heating chamber into and through the shaft, and means for admitting steam into the bottom of the retort; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,111. FOCUSING DEVICE. JOSEPH THACHER CLARKE, Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 8, 1912. Serial No. 724,593. (Cl. 95—45.)



1. In a camera, the combination with a body, a front and extension supports for the latter causing parallel movement of the parts as the front is projected and retracted, of means tending to actuate the front to one of said positions and a focusing device embodying a member directly connected to the front independently of the extension supports for operating the latter in the opposite direction against the influence of the actuating means.

2. In a camera, the combination with a body, a front and extension supports for the latter permitting the front to be projected and retracted, of means tending to actuate the front to one of said positions, a bed adapted to be extended below the front and a focusing device on the bed operatively connected to the front to move it against the influence of the actuating means.

3. In a camera, the combination with a body, a front and extension supports for the latter causing parallel movement of the parts as the front is projected and retracted, of means tending to actuate the front to one of said positions, a bed adapted to be extended below the front, a lever pivoted on the bed and having one arm cooperating with the front and means on the bed acting against the other arm of the lever to move the front against the influence of the actuating means.

4. In a camera, the combination with a body, a front, extension supports for the latter causing parallel movement of the parts as the front is projected and retracted, a bed adapted to close the body when the front is retracted to a position therein and to lie extended below the front when the latter is projected, means tending to actuate the front to projected position, a link pivotally connecting the front and bed and means on the bed arranged to act against the link whereby the front is operated against the influence of the actuating means.

5. In a camera, the combination with a body, a front adapted to fold within the latter, extension supports for the front, and a bed and cover hinged to the body, of a link pivoted to the bed and to the front and means on the bed for rocking the link to move the front relatively to the body.

[Claims 6 to 11 not printed in the Gazette.]



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1,089,112. TOOL. OSCAR Z. COUTANT, Springfield, Ill. Filed June 30, 1913. Serial No. 776,509. (Cl. 1—47.)



1. In a tool of the character described, a member forming a hand-hold and being tubular for the greater portion of its length, its forward or operating end being substantially rectangular in cross-section and having a narrow passage-way therethrough, one wall of said rectangular portion having a square opening therein communicating with the passage-way therethrough, the face of said rectangular portion adjacent the rear edge of said opening being tapered toward the opening to facilitate guiding staples into said opening, a spring plate secured to the outside face of said rectangular portion and bent over the forward edge of said opening and passing into said member through said opening and extending obliquely across the passageway therein to yieldingly hold a staple in operative position, and a plunger in the member for driving the staple out of the member.

2. In a tool of the character described, a member forming a hand-hold and being tubular for the greater portion of its length, its forward operating end being substantially rectangular in cross-section and having a narrow passage-way therethrough, one wall of said rectangular portion having a square opening for the insertion of staples into said member, a plate spring in said passageway at the forward edge of said opening to hold the staples when inserted, in operative position, the end of the tubular portion of said member being slotted for a portion of its length, a plunger in the member for driving the staple, an inner barrel for the tubular portion of the member, said barrel comprising semi-circular sections through which the plunger operates, said plunger having ratchet teeth arranged thereon, a ratchet pawl suitably journaled on the sections of the inner barrel and adapted to engage with the teeth on the plunger, a spring for forcing the pawl into engaging relation with the teeth on the plunger, and a push-button on said pawl, said button protruding through the slot in the wall of said tubular portion, in position for engagement by an operator.

3. In a tool of the character described, a member forming a hand-hold, one end being tubular and provided with an inner annular shoulder, and with diametrically arranged grooves, one of which passes through the wall of said member, an inner barrel, said barrel including semicircular sections, each provided with corresponding lugs, said lugs, when said barrel is inserted into said member, being inserted through said grooves and being seated in the member against the inner edge of said annular shoulder and bearing against the inner wall of the member to retain the inner barrel in operative position, a plunger in the member passing through the inner barrel and having ratchet teeth arranged thereon, a ratchet pawl pivotally arranged over said inner barrel, and a push-button on said pawl protruding through the slot in the wall of said member.

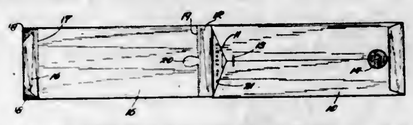
4. In a tool of the character described, one end of which is tubular, an inner barrel for said member, said barrel including semi-circular sections, the matching edges of said sections on one side being spaced apart and formed with bearing recesses, a ratchet pawl having trunnions arranged to have a bearing relation with certain of said recesses, a wire spring having a portion crossing the pawl and lying under said trunnions with ends having a bearing relation with other of said recesses, a push-button on said pawl for oscillating the same on said barrel, and a plunger passing through said barrel, said plunger having ratchet teeth so positioned that they may be engaged by said pawl.

5. In a tool of the character described, a member forming a hand-hold, one end being tubular and provided with an inner annular shoulder, and with diametrically arranged grooves, one of which passes through the wall of said member, an inner barrel, said barrel including semicircular sections, each provided with corresponding lugs, said lugs, when said barrel is inserted into said member, being inserted through said grooves and being seated in the member against the inner edge of said annular shoulder and bearing against the inner wall of the member to retain the inner barrel in operative position, a plunger in the member passing through the inner barrel and having ratchet teeth arranged thereon, a spring encircling said plunger and having a bearing against a part thereof and against said member, said semicircular sections having their matching edges on one side spaced apart and formed with corresponding bearing recesses, a ratchet pawl positioned in said space and having trunnions arranged to have a bearing relation with certain of said recesses, said pawl being arranged to engage said ratchet teeth, and a push button on said pawl protruding through the slot in the wall of said member.

[Claim 6 not printed in the Gazette.]

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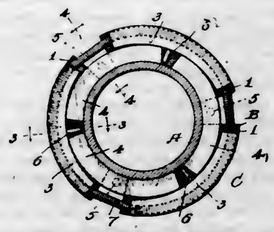
1,089,113. NEGOTIABLE INSTRUMENT. FRED T. CRICHTON, Philadelphia, Pa., assignor of one-fourth to Henry Eneu Johnson, Yeadon, Pa. Filed June 24, 1913. Serial No. 775,591. (Cl. 229—70.)



In a negotiable instrument, an envelop for containing documents or instruments in writing, said envelop having a tab insertion slit in its back, and having secured adjacent its open end, a combined bill of exchange, closure flap and no-protest strip, which combined parts are of a size sufficient to cover the envelop back, the bill of exchange being separably attached at one end to the closure flap by a line of perforations, designed to form a tab for the closure flap for coöperation with the tab insertion slit to close the envelop opening when the bill of exchange is detached along said line of perforations, the opposite end of the bill of exchange having separably attached thereto by a line of perforations the no-protest strip, the under face of which strip is provided with seals of adhesive material for temporarily securing said combined parts to the envelop back.

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1,089,114. METALLIC ROD-PACKING. CHARLES RAY CRUMP and LUTHER J. DAVIS, Chicago Junction, Ohio. Filed June 14, 1913. Serial No. 773,672. (Cl. 121—109.)



1. In a metallic rod packing, an outer sectional ring and means for holding the sections in position, in combi-

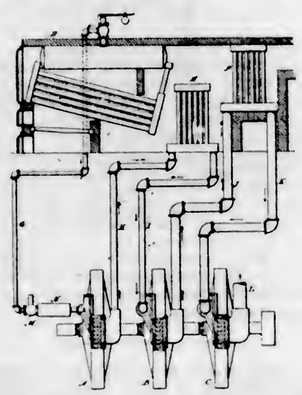
nation with an inner ring composed of a peripheral set of segments and an inner set of segments, the inner set having their inner faces ground concentrically to the rod and the outer set having their inner faces ground eccentrically to the rod, thus touching the inner segments only on their tip ends, and a spring passing around the outer segments, the outer ring of the packing being presented toward the pressure end of the rod.

2. In a metallic rod packing, an outer sectional ring and means for holding the sections in position, in combination with an inner ring composed of a peripheral set of segments and an inner set of segments, the inner set having their inner faces ground concentrically to the rod and the outer set having their inner faces ground eccentrically to the rod, thus touching the inner segments only on their tip ends, spacing pins secured in said segments to hold them in proper relation to each other and the two rings in proper relation to each other, and a spring passing around the outer segments, the outer ring being presented toward the pressure end of the rod.

3. In a metallic rod packing, an outer ring composed of segments and a spring passing around their outer edges, in combination with an inner ring composed of a peripheral set of segments and an inner set of segments, the inner set having their inner faces ground concentrically to the rod and the peripheral set having their inner faces ground eccentrically to the rod, thus touching the inner segments only on their tip ends, and a spring passing around the outer segments, the outer ring being presented toward the pressure end of the rod.

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1,089,115. ELASTIC-FLUID TURBINE. CHARLES GORDON CURTIS, New York, N. Y., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Continuation of application Serial No. 631,481, filed Apr. 9, 1897. This application filed Oct. 2, 1905. Serial No. 280,995. (Cl. 121—95.)



1. In an elastic fluid turbine, the combination with a turbine having a plurality of stages, means for withdrawing steam from a stage into a reheater, means for returning the reheated steam into a subsequent stage, such stage being of greater area than the area required for saturated steam, but with the increase of ratio of expansion less than that required for saturated steam.

2. In an elastic fluid turbine, the combination with a turbine having a plurality of stages, each comprising a nozzle and a rotor, the nozzles in the several stages being proportioned one to another to pass equal amounts of energy, means for withdrawing steam from one stage into a reheater, and means for returning the reheated steam into a subsequent stage, such stage being of greater area than the area required for saturated steam.

3. In an elastic fluid turbine, the combination with a turbine having a plurality of stages, each comprising a nozzle and a working passage, means for withdrawing steam from a stage into a reheater, means for returning the reheated steam into a subsequent stage, the working passage of such stage being of greater area than that required for saturated steam, but with the increase of ratio of expansion less than that required for saturated steam.

4. An elastic fluid turbine comprising a plurality of stages, each provided with a nozzle and a rotor having expanding working passages, in combination with a reheater, a means receiving steam from the turbine after it has performed work therein and conveying it to the reheater, and a second means receiving the reheated steam and conveying it to the nozzle of a subsequent stage of the turbine, said nozzle having a cross-sectional area greater than that required for saturated steam, and with its cooperating working passage having a ratio of expansion less than that required for saturated steam.

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1,089,116. VEHICLE-TIRE. PERCY B. DAWSON, Berkeley, Cal. Filed Nov. 22, 1911. Serial No. 661,703. (Cl. 152—9.)



1. In a vehicle tire, the combination of a rim frame comprising two opposed rings connected together by cross bars thereby forming a series of pockets, stiffening rings secured to each of said opposed rings and forming part of the walls of said pockets, said stiffening rings having radial grooves therein and cushion carrying frames located in said pockets and provided with pins projecting into said grooves whereby the movements of the cushion carrying frames are guided and limited.

2. In a vehicle tire a sheet metal rim frame comprising two spaced apart rings and integral cross bars forming a series of pockets, said cross bars being partially cut from the rings and bent so that their cross-section is U-shaped, in combination with a series of cushions located in the respective pockets.

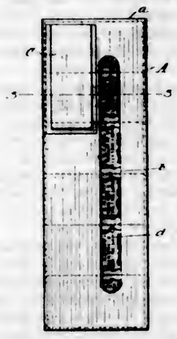
3. In a vehicle tire, a sheet metal annular frame comprising top and side portions, said top portions being cut adjacent the side portions and the metal bent to a U-shape to form spaced-apart rings and cross-bars integral therewith, stiffening rings fastened between said rings and the ends of the cross-bars, the inner walls of said stiffening rings and the walls of said cross-bars forming pockets in combination with a series of cushions located in the respective pockets.

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1,089,117. CAR-TICKET, STAMP, AND CARD HOLDER. THOMAS H. EDMONDS, Washington, D. C. Filed July 3, 1913. Serial No. 777,196. (Cl. 206—39.)

1. A ticket-holder, consisting of a flat case having two outer face plates provided each with a longitudinal slot, and a longitudinal flat partition plate having end flanges bent over in opposite directions at each end and lapped upon the outer face plates, thereby forming two pockets open at opposite ends, said slots permitting tickets in the pockets to be slid out simultaneously by the thrust of a thumb and finger, substantially as described.

2. A ticket-holder composed of a flat complete case having a front plate provided with a longitudinal slot, and a back plate provided with end flanges, a separate back plate provided with a longitudinal slot and longitudinal side flanges turned over on the front of the complete case, said end flanges being turned over in opposite directions, one forward on the front of the complete case, and the other



backward on the separate back plate, thereby forming two pockets open at opposite ends, substantially as described.

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1,089,118. COMBINED PANCAKE-TURNER AND FORK. EUGENE L. EMORY, Suffolk, Va., assignor of one-half to Harry E. Bruce, Suffolk, Va. Filed June 19, 1913. Serial No. 774,630. (Cl. 65—10.)



1. A device of the class described including a tubular handle, a turning plate pivotally mounted upon one end thereof and normally disposed in an offset position with respect to the handle, a rod movable in said handle, and means carried by said plate and the rod adapted for engagement, whereby upon reciprocation of the rod the plate will be actuated to dispose the same at an angle with respect to the rod or return said plate to its normal position.

2. A device of the class described including a tubular handle, a turning plate pivotally mounted upon one end thereof, a reciprocating rod within the handle, a tongue formed integral with the turning plate, and means carried by the rod for engaging said tongue whereby upon reciprocation of the rod the plate will be actuated to dispose the same at an angle with respect to the handle.

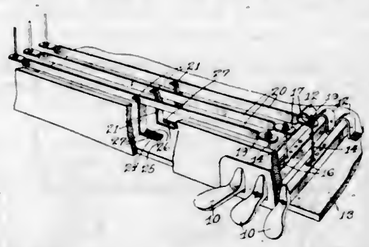
3. A device of the class described including a tubular member, a turning plate pivotally mounted upon one end thereof and normally disposed in an offset position with respect to the handle, a reciprocating rod mounted within the handle member, a tongue formed integral with the turning plate and provided with oppositely disposed recesses, and forked projections formed at the outer ends of said rod and arranged within said recesses whereby the turning plate will be actuated and disposed at an angle with respect to the handle upon reciprocation of the rod.

4. A device of the class described including a tubular handle having an extension formed at one end, spaced bearings formed at the outer end of said extension, a turning plate having a tongue formed integral therewith, a bearing formed in the medial portion of said tongue, a pivot pin mounted within the aforesaid bearings to pivotally connect the turning plate to the handle, a reciprocating rod mounted within the handle, forked projections formed at the outer end of said rod and adapted to engage the end of said tongue whereby upon reciprocation of said rod the turning plate will be disposed at an angle with respect to the handle.

5. A device of the class described including a tubular handle member, spaced bearings formed at one end thereof, a turning plate having a tongue formed at one end, said tongue being bent upon itself adjacent its inner end to form a bearing adapted to be arranged between said spaced bearings on the handle, a pivot pin arranged within said bearings, a movable rod within said handle, means at the outer end of said rod adapted for engagement with the tongue whereby upon reciprocation of the rod the turning plate will be disposed at an angle with respect to the handle, and curved fingers formed at the outer end of said handle adapted to be engaged by the turning plate to limit swinging movement of the same.

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1,089,119. PEDAL TRAP-WORK. FREDERICK ENGELSKIRCHEN, Chicago, Ill., assignor to George P. Bent Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 20, 1913. Serial No. 785,613. (Cl. 84—24.)



1. In a device of the class described, a pedal, a pedal lever having a marginal slot in its lower edge, detachable connections between the lever and pedal, and a spring having its upper edge curved and provided with a slot in its curved portion to receive the pedal lever, the slot in the lever fitting on the body of the spring below its slot.

2. In a device of the class described, a pedal having a slot provided with an enlarged end, a pedal lever having a marginal slot in its lower edge, a prop adjustably connected at one end to the lever and at its other end having a head to pass through the enlarged end of the pedal slot, a spring having its ends oppositely bent and provided with a marginal slot in its upper end and with screw-receiving slots in its lower end, and screws having heads overlying the edges of the slots in the lower end of the spring, the slot in the lever fitting on the body of the spring below its upper slot and the walls of the upper slot of the spring forming extended side bearings for the lever.

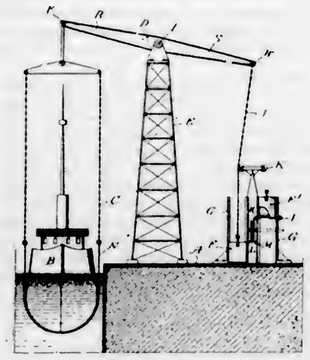
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1,089,120. TIDE-POWER MECHANISM. WILLIAM T. ERICKSON, New York, N. Y. Filed Aug. 19, 1913. Serial No. 785,489. (Cl. 253—10.)

1. In a device of the character specified, a support carrying a pivotally attached lever one arm of which is attached to a buoyantly floated body, the other arm carrying a vessel containing weighted materials, the buoy arm being at least as long as the weight carrying arm, guides for the vertical rising or falling weight body, a means for retaining the weighted material at its highest point, and a means for producing power by the falling of the weight material.

2. In a device of the character specified, a support carrying a pivotally attached lever one arm of which is attached to a vessel carrying cradle, the other arm being

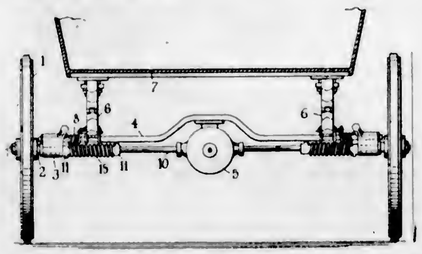
attached to a vessel containing weight material capable of a vertical movement, the length of the arms allowing of the raising of a weight at least equal to the weight of



the vessel in the cradle, guides for the vertical rising or falling weight body, a receptacle for receiving the weighted material at its greatest height, and a bucketed wheel revoluble by the fall of the weight material.

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1,089,121. SELF-PROPELLED VEHICLE. HUGH EWING, Columbus, Ohio. Filed Sept. 15, 1911. Serial No. 649,413. (Cl. 21—90.)



1. In a self-driven vehicle, the combination of a driving wheel therefor, a wheel-axle, a body, a spring controlled-supporting link for the body carried upon the wheel-axle, said link being pivoted substantially vertically over the wheel-axle and normally maintained in said position by its spring control, driving mechanism in two sections one of which positively connects with the driving wheel, and a power transmission spring connecting the sections of the driving mechanism so as to absorb the power of the driving mechanism while permitting the driving wheel to be momentarily retarded in its revolution, substantially as described.

2. In a self-driven vehicle, the combination of a driving wheel therefor, a wheel-axle, a body, a supporting link for the body carried upon the wheel-axle, a spring for controlling the movement of the link upon its pivot, driving mechanism in two sections one of which positively connects with the driving wheel, and a power transmission spring connecting the sections of the driving mechanism so as to absorb the power of the driving mechanism while permitting the driving wheel to be momentarily retarded in its revolution, substantially as described.

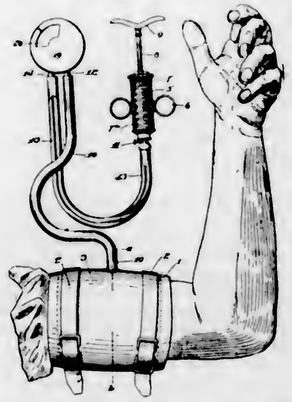
3. In a self-driven vehicle, the combination of a driving wheel therefor, a wheel-axle, a body, a pivoted supporting link for the body carried upon the wheel-axle, a spring for controlling the movement of the link upon its pivot, driving mechanism in two sections which positively engage for rearward movement and one of which positively connects with the driving wheel, and a power transmission spring connecting the sections of the driving mechanism so as to hold the sections normally in engagement and to absorb the power of the driving mechanism while permitting the driving wheel to be momentarily retarded in its revolution, substantially as described.

4. In a self-driven vehicle, the combination of a driving wheel therefor, a wheel-axle, a body, a pivoted supporting link for the body carried upon the wheel-axle, a spring for controlling the movement of the link upon its pivot, driving mechanism including a driving shaft supported independently of the link and forming an extension of the wheel-axle, and flexible connections between the driving shaft and the wheel axle, substantially as described.

5. In a self-driven vehicle, the combination of a driving wheel therefor, a wheel-axle, a body, a pivoted supporting link for the body carried upon the wheel-axle, a spring for controlling the link upon its pivot, driving mechanism including a driving shaft in two sections forming an extension of the wheel-axle which positively engages for rearward movement and one of which positively connects with the driving wheel, flexible connections between the driving shaft and the wheel-axle, and a power transmission spring connecting the sections of the driving mechanism independently of the flexible connections so as to hold the sections normally in engagement and to absorb the power of the driving mechanism while permitting the driving wheel to be momentarily retarded in its revolution, substantially as described.

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1,089,122. APPARATUS FOR MEASURING AND INDICATING BLOOD-PRESSURE. FRANCIS ASHLEY FAUGHT and CHARLES J. PILLING, Philadelphia, Pa., assignors to George P. Pilling and Son Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 20, 1910. Serial No. 582,825. (Cl. 73—44.)



1. Apparatus for measuring and indicating arterial blood pressure comprising, in combination, the following instrumentalities, namely, a source of air supply, a constriction device, a mechanically operating pressure gage interposed between said elements, a plurality of independent tubular means operatively connecting said gage device with the source of air supply and with the constriction device through said pressure gage, and a sensitive release valve governing said tubular means, said pressure gage comprising a substantially closed air chamber with dial actuating mechanism mounted therein adapted to be actuated in both directions by the increase and decrease respectively in pressure of the volume of air on its passage through said air chamber in opposite directions alternately.

2. Apparatus for measuring and indicating arterial blood pressure consisting of the combination with a source of air supply and a constriction device of a mechanically operating pressure gage interposed between said elements and comprising a substantially closed air chamber with air inlet and discharge ports, independent tubular connections between the source of air supply and one of said ports and between the other of said ports and the constriction device, said gage element including dial actuating mechanism actuated by rise and fall in pressure of the air passing through said air chamber in both directions, and a sensitive valve governing the release of the pressure therein to reduce it to equilibrio with the arterial pressure.

3. Apparatus for measuring and indicating arterial blood pressure comprising in combination a source of air supply, a constriction device, a release valve, a mechanically operating pressure gage including a substantially closed air chamber and a dial actuating mechanism therein adapted to be actuated in both directions by rise and fall in air pressure in said chamber, a tubular connection between said air chamber and the constriction device and a flexible tube which is corrugated in cross section and directly connects said air chamber of the pressure gage with the primary source of air supply.

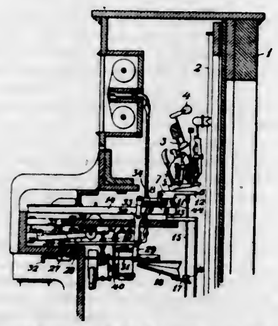
4. Apparatus of the class recited comprising a fixed dial plate, a dial, a rotatable spindle carrying said dial, and air-actuated mechanism within the casing operating to rotate said dial spindle, said mechanism including a closed chamber having air-inlet and discharge ports and operating primarily as a passageway for compressed air, a bellows device within the chamber actuated by compressed air passing through said chamber, and connecting actuating mechanism between said bellows device and said dial-carrying spindle, operating to impart a rotary movement to the dial relatively to the dial plate.

5. An apparatus of the class recited comprising in combination a containing casing, a fixed dial plate having a segmental opening, a disk-shaped pressure-scale dial, disposed in operative relation to said fixed dial plate, a rotatable spindle on which said dial is mounted, compressed-air actuated mechanism including a bellows device and a closed chamber therefor, mounted in said casing, mechanism, actuated by said bellows device to cause a partial rotation of said spindle in one direction, said mechanism also including means to cause an opposite rotative movement of the spindle to normal position when the supply of compressed air acting on the bellows is released.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,123. PIANO-ACTION. RUFUS B. FOWLER, Worcester, Mass. Original application filed July 14, 1906, Serial No. 326,276. Divided and this application filed Mar. 5, 1908. Serial No. 419,264. (Cl. 84—160.)



1. The combination with a piano action and a key, of horizontal ways, a bar capable of sliding in said ways, a lever pivoted to said bar with its upper surface bearing against the wippen of the piano action, a capstan carried by said key and bearing against an under surface of said lever, and means for sliding said bar in its ways to move said lever out of contact with said capstan.



2. The combination with a piano action and a key, of a movable pivoted lever having its upper surface in constant operative relation to the piano action and its under surface capable of being brought into and out of operative relation to said key at will, and means for moving said lever to change its operative relation to said key.

3. The combination with a piano action and a key, of a movable pivoted member in a horizontal position, with the upper surface of said member in one horizontal plane and arranged in operative connection with said piano action and with the under surface of said member in two horizontal planes, connecting means between said key and the lower portion of said under surface, whereby said member is rocked on its pivot by the movement of said key, means for moving said member to bring the higher portion of said lower surface above said connecting means, and means for maintaining said member in said horizontal position.

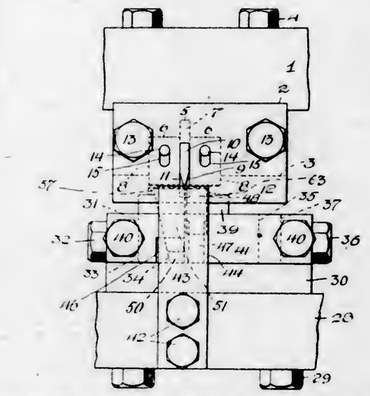
4. The combination with a piano action and a key, of horizontal ways, a bar slidable in said ways, a lever pivoted to said bar with its upper surface in constant operative relation to the piano action and having an under surface capable of being brought into and out of operative relation to said key at will by the sliding movement of said bar in its ways, and means for sliding said bar.

5. The combination with a piano action and a key, of a bar above said key and transverse thereto, a horizontal lever pivoted to said bar, with the upper surface of said lever operatively connected with said piano action and with a portion of the lower surface cut away, a capstan on said key in contact with said lower surface, and means for sliding said bar to bring the cut away portion of said lower surface above said capstan, thereby disconnecting said lever and said key.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,124. DIES FOR MAKING RADIATOR-TUBES. JOHN GABRIELSON, Buffalo, N. Y. Filed Aug. 5, 1913. Serial No. 783,149. (Cl. 113—38.)



1. Dies of the type described, comprising yieldable forming members, a yieldable shaping blade arranged between said members, interlocked yieldable forming members providing a gap between which material is compressed by said blade to produce a rib, one of said members moving in a horizontal plane to coöperate with the other of said members and said blade in shaping a rib, shaping ribs carried by said interlocked members and cooperating with the first-mentioned members in fluting a piece of material, and means in connection with all of said forming members for producing raised portions at the ends of the flutes of a piece of material.

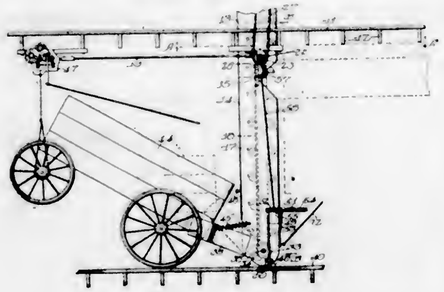
2. Dies of the type described, comprising yieldable forming members, a yieldable shaping blade arranged between said members, interlocked yieldable forming members providing a gap between which material is com-

pressed by said blade to produce a rib, one of said members moving in a horizontal plane to coöperate with the other of said members and said blade in shaping a rib, shaping ribs carried by said interlocked members and cooperating with the first-mentioned members in fluting a piece of material, means in connection with all of said forming members for producing raised portions at the ends of the flutes of a piece of material, and means including push pins for yieldably supporting said forming members and said blade, said means being disposed whereby the first-mentioned forming members can yield in advance of said blade.

3. In the manufacture of radiator tubes, a male die and a female die, said male die comprising a block, forming members yieldably arranged in said block, a shaping blade yieldably mounted between said forming members, means at the ends of said block for supporting and limiting the movement of said forming members and said blade, and said female die comprising a channel block, guide blocks arranged therein, interlocked forming members arranged between said guide blocks, means for yieldably supporting said forming members whereby one of said members can move in a horizontal plane relative to the others, and shaping ribs carried by the last-mentioned forming members and coöperating with the members of said male die in fluting a piece of material forced between the members of said female die by the shaping blade of said male die.

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1,089,125. ELEVATING APPARATUS. JOHN H. GILMAN and ALBERT E. GILMAN, Ottawa, Ill., assignors to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Filed Mar. 18, 1912. Serial No. 684,576. (Cl. 193—6.)



1. In a stationary elevator, the combination with a depending trough having a lower portion hinged to an upper portion, and a support for said upper portion, of carrying mechanism extending throughout the length of the trough, and a boot terminating the lower end of said lower portion, said lower portion being adapted to be swung down to bring the boot into receiving position below the rear end of a wagon and to be elevated so that the wagon can be driven directly beneath it.

2. In a stationary elevator, the combination with a depending trough having a lower portion hinged to an upper portion, and a stationary support for said upper portion, of carrying mechanism extending throughout the length of the trough, a boot terminating the lower end of said lower portion, said lower portion being adapted to be swung down to bring the boot into receiving position below the rear end of a wagon and to be elevated so that the wagon can be driven directly beneath it, of a stationary locking element outside of the conveyer, and locking means at the lower end of the lower portion coöperating with said locking element to lock said lower portion in grain-receiving position.

3. In a stationary elevator, the combination with a depending trough having a lower portion hinged to an upper portion, and a support for said upper portion, of carrying mechanism extending throughout the length of the trough, a boot terminating the lower end of said lower portion, said lower portion being adapted to be swung down to bring the boot into receiving position below the rear end of a wagon and to be elevated so that the wagon can be driven directly beneath it, means for operating said carrying mechanism, and driving connections with said means which can be operated to raise the lower portion.

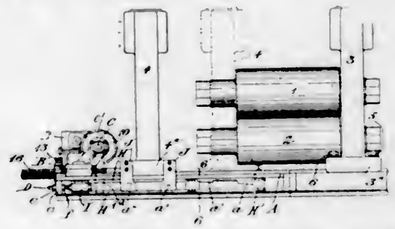
4. In an elevating apparatus, the combination with a depending trough having a lower portion hinged to an upper portion, and a support for said upper portion, of carrying mechanism extending throughout the length of the trough, a boot terminating the lower end of said lower portion, said lower portion being adapted to be swung down to bring the boot into receiving position below the rear end of a wagon and to be elevated so that the wagon can be driven directly beneath it, means for operating said carrying mechanism, driving connections with said means which can be operated to raise the lower portion, and mechanism for automatically disengaging said connections when said lower end has been completely raised.

5. In an elevating apparatus, the combination with a depending trough having a lower portion hinged to an upper portion, and a support for said upper portion, of carrying mechanism extending throughout the length of the trough, a boot terminating the lower end of said lower portion, a hopper discharging into the boot, and spring connections for the hopper by which it is adapted to adjust itself automatically beneath the rear end of a wagon when said lower portion is swung down to bring the boot into receiving position beneath the rear end of the wagon.

[Claims 6 to 22 not printed in the Gazette.]

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1,089,126. ROLLING-MILL MECHANISM. CHARLES M. GREY, East Orange, N. J., assignor to New York Steel Beam & Girder Company, New York, N. Y., a Corporation of New York. Filed Sept. 4, 1908. Serial No. 451,723. (Cl. 80—55.)



1. In a rolling mill, a sole plate, a roll housing movable thereon, means whereby the housing may be moved out of and into operative relation to the rolls, and wedging mechanism coöperating with the housing whereby upon the movement of the housing into operative position relative to the rolls said wedging mechanism operates to lock the housing in position.

2. In a rolling mill, a sole plate, a roll housing slidable thereon, said roll housing being movable into and out of operative relation to the rolls, and coöperating wedges on the sole plate and the housing, said wedges being brought into engagement by the movement of the housing into operative relation to the rolls.

3. In a rolling mill, a sole plate, a roll housing guided on the sole plate for slidable movement thereon, means for imparting movement to the housing whereby it is moved into and out of an operative position relative to the rolls, wedges movable with the housing, and other wedges positioned on the sole plate for engagement automatically with the wedges of the housing upon the movement of said housing into an operative position relative to the rolls.

4. In a rolling mill, a sole plate, a roll housing movable thereon and into and out of operative relation to the rolls, wedges attached to and movable with said housing, and other relatively fixed wedges on the sole plate, said relatively fixed wedges being positioned in the path of the wedges on the housing and coöperating therewith to automatically lock the housing against movement upon the movement of said housing into an operative position relative to the rolls.

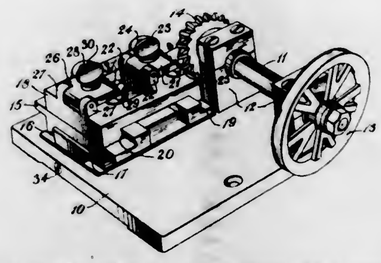
5. In a rolling mill, a sole plate, a roll housing movable lengthwise of the sole plate, said roll housing being movable into and out of operative relation to the rolls, and wedges extending lengthwise of the sole plate, said housing being provided with wedges which are adapted, by the movement of the housing into an operative position relative to the rolls, to be brought into engagement with said wedges of the sole plate for the purpose of retaining the housing fixedly in operative relation to the rolls.

[Claims 6 to 23 not printed in the Gazette.]



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1,089,127. DUPLICATING-MACHINE. AUGUST H. GUSSMAN, East Orange, N. J., assignor to Gussman Key Cutting Machine Co., North Pelham, N. Y., a Corporation of New York. Filed Apr. 1, 1909. Serial No. 487,286. (Cl. 90—13.)



1. A cutting device and a positioning device normally spaced apart in fixed relation, the latter being arranged for limited yielding movement to permit the cutter to operate upon a blank, and a blank holder and a pattern holder operatively located with respect to said devices.

2. A cutter and a positioning device normally spaced apart in fixed relation, the latter having a limited yielding movement toward the cutter, a holder for a blank and a holder for a pattern, and means for moving said holders to engage the pattern with the positioning device and the blank with the cutter.

3. A blank holder, a cutter to operate upon a blank held by the blank holder, a pattern holder supported to act in positioning one of said parts, means for reducing the space between the cutter and blank holder, means for changing the relative positions of the blank and cutter in a direction laterally of said cutter, a post, a positioning device mounted on the post to engage a pattern and having a limited movement to permit engagement of the cutter and blank, and means for limiting the movement of the positioning device.

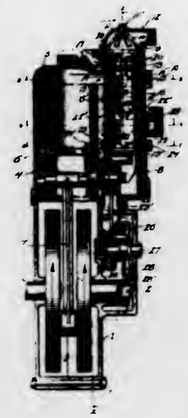
4. A blank holder, a cutter to operate upon a blank held by the blank holder, a pattern holder supported to act in positioning one of said parts, means for reducing the space between the cutter and blank holder, means for changing the relative positions of the blank and cutter in a direction laterally of said cutter, a post, a positioning device pivotally mounted on the post to engage a pattern and having a limited movement to permit engagement of the cutter and blank, and means for limiting the swinging movement of the positioning device.

5. A blank holder, a cutter to operate upon a blank held by the blank holder, a pattern holder supported to act in positioning one of said parts, means for changing the relative positions of the blank and cutter in a direction laterally of said cutter, a post removably secured in position, a positioning device mounted on said post and having a limited movement to permit engagement of the cutter and blank, and means for limiting the movement of the positioning device.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,128. INTERNAL-COMBUSTION ENGINE OF THE COMPRESSION TYPE. WILLIAM S. HARLEY, Milwaukee, Wis. Filed Dec. 19, 1911. Serial No. 666,787. (Cl. 123—188.)



1. An internal combustion engine comprising a cylindrical valve-chest provided with a common intake and exhaust chamber and a main exhaust chamber, the chambers being disposed upon different planes, an engine cylinder having its firing end in communication with the common intake and exhaust chamber, a fixed ported sleeve extending into the valve-chest in juxtaposition to the intake and exhaust chamber, outer and inner valve-shells in slidable union with each other and having ends adapted to co-act with the fixed ported sleeve, the shells being provided with co-acting ports arranged to cover and uncover the fixed sleeve ports and having other co-acting ports arranged to control communication with the main exhaust chamber of the valve chest, a closure head for the inner valve-shell between its sets of port openings adapted to cover and uncover the fixed shell ports, and a gas receiving head above the closure head.

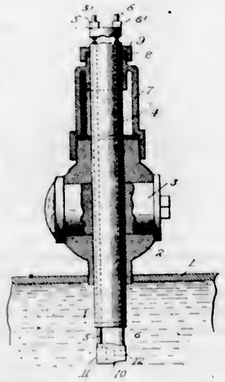
2. An internal combustion engine comprising a cylinder, a piston therein, a cylindrical valve-chest provided with a common intake and exhaust chamber disposed about its inner walls having a port in communication with the firing end of the engine cylinder, the valve-chest being also provided with a main exhaust chamber and an auxiliary exhaust chamber at different distances from the common intake and exhaust chamber, the auxiliary exhaust chamber being in communication with the lower end of the engine cylinder, a closed receiving head in connection with that end of the valve-chest in juxtaposition to the aforesaid common intake and exhaust chamber, a depending fixed sleeve carried by said valve-chest located adjacent to the receiving head and spaced from the inner walls of the aforesaid chest, the fixed sleeve being provided with port openings for communication with the valve-chest intake and exhaust chamber, a reciprocative outer valve-shell in telescopic engagement with the valve-chest and outer wall of the fixed sleeve, the said outer valve-shell being provided with common intake and exhaust ports adapted to control communication between the fixed shell ports and common intake and exhaust chamber, and two sets of exhaust ports spaced at different distances below the common intake and exhaust ports for establishing communication between the main and auxiliary exhaust chambers, an inner valve-shell in telescopic union with the outer shell and fixed sleeve, a head closure for the inner valve-shell adapted to control communication between the receiving end of the valve-chest and fixed sleeve ports, the said inner valve-shell being provided with two sets of exhaust ports below its head closure adapted to register with the two sets of exhaust ports of the aforesaid outer

shell, and a closure for the opposite end of the inner valve-shell.

3. In an internal combustion engine comprising a cylinder, a piston therein, an actuating crank for the piston, a cylindrical valve-chest provided with a common intake and exhaust chamber disposed about its inner wall having a port in communication with the firing end of the engine cylinder and having a main exhaust chamber and auxiliary exhaust chamber spaced respectively below the first mentioned chamber, the auxiliary exhaust chamber being in communication with the lower end of the engine cylinder, a closed fluid receiving head in connection with one end of the valve-chest, a fixed sleeve carried by said valve-chest in juxtaposition to its closed receiving head and spaced from the inner wall of said chest, the fixed sleeve being provided with port openings, an outer valve-shell in telescopic union with the valve-chest and outer wall of the fixed sleeve, the said valve-shell being provided with three sets of ports the upper set being adapted to establish communication with the common intake, the lower set being adapted to establish communication with the auxiliary exhaust port, the intermediate set being adapted to establish communication with the main exhaust chamber of the valve-chest, an inner valve-shell in telescopic union with the outer shell and fixed sleeve, a head closure for the inner valve-shell having a ported flanged extension adapted to control communication between the receiving end of the valve-chest and fixed sleeve ports, the said inner valve-shell being also provided with separate sets of exhaust ports below its head closure for covering and uncovering the separate sets of outer shell exhaust ports, a closure for the opposite end of the inner valve-shell, and actuating eccentrics for the valve-shells in gear connection with the engine crank-shaft.

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1,089,129. PITOMETER. HAROLD T. HAVILL, New York, N. Y., assignor of one-fourth to Egbert U. Havill, New York, N. Y. Filed Apr. 22, 1912. Serial No. 692,293. (Cl. 73—167.)



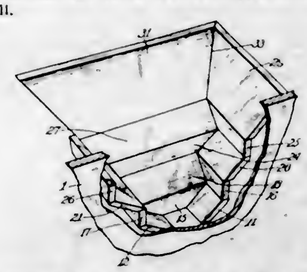
A portable pitometer on the Venturi principle, comprising a suitable length of tubing forming the shell of the pitometer, a Venturi tube located adjacent to one end of said tubing having a pipe laterally connected adjacent to either of its ends, said pipes being located inside of said shell tubing and leading to its other end.

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1,089,130. DUMPING-SINK. JOHN D. HOFFA, Crawfordsville, Ind. Filed Apr. 21, 1913. Serial No. 762,612. (Cl. 57—37.)

1. A dumping sink including a plurality of side walls, each wall comprising a plurality of inclined portions and a plurality of vertical portions arranged alternatively, the inclined portions of one side wall being on one and the same horizontal planes with the vertical portions of the next adjacent wall and connected thereto.

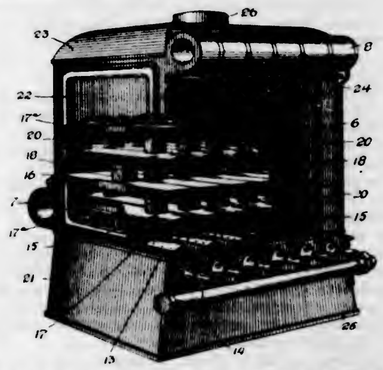
2. A dumping sink including a vertical wall, a plurality of pairs of inclined slides joined to and extending from the vertical wall on different horizontal planes, each pair being on a separate plane, the two slides of each pair being spaced apart and extending divergently upward, a plurality of pairs of side boards extending vertically upward from the top of one pair to the bottom of the adjacent pair of slides respectively and joined thereto and to the vertical wall, a plurality of vertical side boards opposite to the vertical wall and extending respectively from the end of one to the end of the remaining one of a pair of slides, and a plurality of inclined slides spaced apart opposite to the vertical wall and extending respectively from one to the remaining one of a pair of vertical side boards between the slides that are opposite the vertical side wall.



3. A dumping sink including a vertical wall, two sloping slides joined to and extending from the vertical wall, the slides being spaced apart and extending divergently upward, a side board extending vertically upward from the plane of the bottoms to the plane of the tops of the slides opposite to the vertical wall and joined to the slides, a single slide upon the side board and extending upward opposite to and in direction away from the vertical wall, a wall portion upon the last described slide, two side boards upon the two sloping slides respectively and extending vertically and from the vertical wall to the single slide, and two wall portions upon the two side boards extending from the vertical wall to the first-described wall portion.

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1,089,131. GAS-BOILER. CHARLES HOWARD HOOK, Pittsburgh, Pa. Filed Sept. 30, 1913. Serial No. 792,642. (Cl. 122—225.)



1. A boiler including a unit comprising a pair of hollow end walls, a steam dome connecting said walls at the top thereof, means communicating with one of said end walls to constitute an outlet, means communicating with the other end wall to constitute an inlet, and water conduits connecting said hollow end walls and communicating intermediate their ends with each other, one of said conduits provided with means for establishing communication therebetween and said steam dome.



2. A boiler including a unit comprising a pair of hollow end walls, a steam dome connecting said walls at the top thereof, means communicating with one of said end walls to constitute an outlet, means communicating with the other end wall to constitute an inlet, and water conduits connecting said hollow end walls and communicating intermediate their ends with each other, one of said conduits provided with means for establishing communication therebetween and said steam dome, certain of said conduits having their end portions reduced and the remaining of said conduits having their intermediate portions reduced.

3. A boiler including a unit comprising a pair of hollow end walls, a steam dome connecting said walls at the top thereof, means communicating with one of said end walls to constitute an outlet, means communicating with the other end wall to constitute an inlet, and water conduits connecting said hollow end walls and communicating intermediate their ends with each other, one of said conduits provided with means for establishing communication therebetween and said steam dome, certain of said conduits having their end portions reduced and the remaining of said conduits having their intermediate portions reduced, those conduits having their end portions reduced being heart-shaped in cross section, and the remaining conduits being rectangular in cross section.

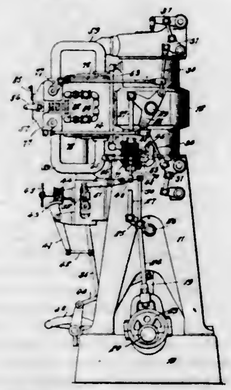
4. A boiler unit comprising hollow end walls, one provided with means to constitute an outlet and the other provided with means to constitute an inlet, water conduits communicating at their ends with said walls, said conduits superimposed with respect to each other, and pairs of pipes and single pipes for establishing communication between said conduits, the pairs of pipes being alternately disposed with respect to the single pipes.

5. A boiler unit comprising a pair of hollow end walls, one provided with means to constitute an inlet and the other with means to constitute an outlet, a series of superimposed conduits communicating with and connected to said end walls, certain of said conduits having enlarged intermediate portions, said conduits having the enlarged intermediate portions being alternately disposed with respect to the remaining conduits, a pair of pipes for establishing communication between the said intermediate portions and the other conduits, and a single pipe for establishing communication between the other conduits and said intermediate portions.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,132. GAS-ENGINE. LOUIS ILLMER, Jr., Reading, Pa., assignor to Illmer Gas Engine Company, a Corporation of Delaware. Filed Jan. 21, 1910. Serial No. 539,218. (Cl. 123—41.)



1. In a reversing two-cycle internal combustion engine having a power cylinder, a pump normally discharging the motive fluid into the power cylinder, a pump piston operated to lead in phase position with respect to the power piston movements, means shifting the pump piston to lag in phase position whereby the pump ceases its discharge of motive fluid while the engine is coming to rest, and resumes its normal discharge functions immediately upon reversal of rotation.

2. A reversing internal combustion engine having a power cylinder and piston, a pump supplying the motive fluid to the power cylinder, a starting valve for timing the flow of starting air into the power cylinder, means shifting the phase position of the pump and the starting valve with respect to the power piston movements while running, whereby to cause the pump to cease its discharge of motive fluid and to cause the starting valve to throw compressed air against the power piston during its compression stroke while the engine is coming to rest.

3. A two-cycle internal combustion engine having a power cylinder and piston, a pump supplying the motive fluid to the power cylinder, a starting valve timing the flow of starting air into the power cylinder, means for driving the pump and the starting valve in synchronism and for shifting their phase positions with respect to the power piston movements while running, whereby to cause the pump to cease its discharge of motive fluid and to cause the starting valve to throw compressed air against the power piston during its compression stroke while the engine is coming to rest and to immediately start the engine in the reverse direction by throwing compressed air against said piston during its expansion stroke, after which the pump immediately resumes its normal charging functions.

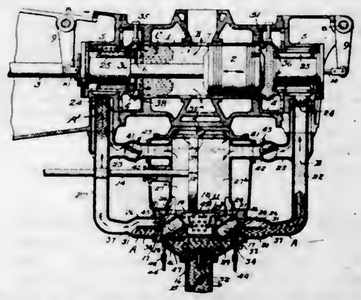
4. In a two-cycle internal combustion engine having a power cylinder and piston, an inlet valve for the power cylinder, a pump normally discharging the motive fluid to the inlet valve, a pump piston operated to lead in phase position with respect to the power piston movements, a suction valve for the pump, a crank shaft, an eccentric mounted thereon, means operating both the inlet valve and the suction valve from said eccentric and means for shifting the pump piston to lag in phase position while running and to cease its normal discharge functions while coming to rest.

5. In a two-cycle internal combustion engine, a power cylinder, an inlet valve to the cylinder, a pump supplying the working charge to the cylinder, a suction valve for the pump, a crank shaft, an eccentric mounted thereon and means mechanically operating both the inlet valve and the suction valve from the eccentric.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,133. INTERNAL-COMBUSTION ENGINE. LOUIS ILLMER, Jr., Reading, Pa., assignor to Illmer Gas Engine Company, a Corporation of Delaware. Filed May 31, 1912. Serial No. 700,691. (Cl. 123—61.)



1. In an internal combustion engine of the scavenging type having a power cylinder with controlled inlet and exhaust ports, a charging pump comprising a single cylinder and a piston, a gas duct one end of which communicates with the pump and the other end with both the pump and the power cylinder, separate supplies of air and gaseous fuel, means for admitting air to the pump and a

body of gaseous fuel into the gas duct, the pump during its compression stroke serving to blow said gaseous fuel body out of the gas duct and into the power cylinder by means of a body of air, a portion of which body of air is held back of the inlet valve during the entire period of inlet closure.

2. In an internal combustion engine of the scavenging type having a power cylinder with controlled inlet and exhaust ports, a charging pump comprising a single cylinder and a piston, a gas duct one end of which communicates with the pump and the other end with both the pump and the power cylinder, separate supplies of air and gaseous fuel, means admitting air to the pump and a body of gaseous fuel to the gas duct, said pump during its compression stroke discharging air through both of its communications with the duct to blow said gaseous fuel body out of the duct and mix it with air and to enter the mixture body thus formed into the power cylinder, and means for controlling the ratio of air to gas in said mixture body.

3. In an internal combustion engine of the scavenging type, having a power cylinder with controlled inlet and exhaust ports, a charging pump comprising a single cylinder and a piston, a gas duct and an air duct, each establishing communication with the pump and a common duct discharging to the inlet port, separate supplies of air and gaseous fuel, means for admitting air to the pump and a body of gaseous fuel into the gas duct, said pump during its compression stroke discharging air through both the air and the gas ducts simultaneously to blow said gaseous fuel body out of the gas duct and means converting said air and gas into an explosive mixture body prior to entering the same into the power cylinder.

4. In an internal combustion engine of the scavenging type having a power cylinder with controlled inlet and exhaust ports, a charging pump comprising a single cylinde and a piston, a gas duct one end of which communicates with the pump and the other end with both the pump and the power cylinder, separate supplies of air and gaseous fuel, a valve admitting air to the pump cylinder and a body of gaseous fuel into the gas duct and commanding one of the communications between the pump and the duct, the pump during its compression stroke discharging air through both of its communications with the duct to blow said gaseous fuel body out of the duct and mix it with air and to enter the explosive mixture thus formed, into the power cylinder, by means of a body of air, a portion of which body of air is held back of the inlet valve during the entire period of inlet closure.

5. In an internal combustion engine of the scavenging type having a power cylinder with controlled inlet and exhaust ports, a charging pump comprising a single cylinder and a piston, a gas duct of which its inner end communicates with the pump and its outer end communicates with both the pump and the power cylinder, an air and a gaseous fuel supply means, a valve arranged alternately to place the pump cylinder in communication with the air supply to admit air and to place the inner end of the gas duct in communication with the gas supply to admit a body of gaseous fuel, and upon changing its position, to close the air and gas supplies and place the inner end of the gas duct in direct communication with the pump cylinder to blow said body of gaseous fuel out of the duct and into the power cylinder.

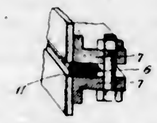
[Claims 6 to 11 not printed in the Gazette.]

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1,089,134. GASKET. CHARLES F. HETTINGER, Camden, N. J., assignor to Flexitallic Gasket Company, Camden, N. J., a Corporation of New Jersey. Filed Jan. 25, 1913. Serial No. 744,111. (Cl. 137—28.)

1. A gasket comprising the combination of a plurality of convolutions of metallic strip, the strip of each convolution having a portion thereon extending laterally from the body-portion of the strip and coacting with the next adjacent convolution, the several convolutions being spaced apart but connected by said laterally extending portions, and non-metallic material between adjacent convolutions, substantially as set forth.

2. An annular gasket comprising the combination of a plurality of convolutions of metallic strip wound spirally, each convolution being interlocked radially of the gasket with the adjacent convolution to limit relative radial movement of the convolutions, and non-metallic material between adjacent convolutions, substantially as set forth.




3. A gasket comprising the combination of a plurality of convolutions of metallic strip wound spirally on edge with the adjacent convolutions spaced apart but connected together by integral portions of the strip, and non-metallic packing in the spaces between adjacent convolutions, substantially as set forth.

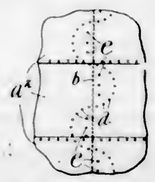
4. A gasket comprising the combination of a plurality of convolutions of metallic strip wound spirally on edge, the strip of each convolution having an integral portion intermediate the edges of the strip extending laterally into co-action with the next adjacent convolution, and non-metallic material between adjacent convolutions on each side of the laterally extending portion lying between those convolutions.

5. A gasket comprising the combination of a plurality of convolutions of metallic strip, the strip of each convolution having a portion thereon extending laterally from the body-portion of the strip and coacting with the next adjacent convolution, and non-metallic material between adjacent convolutions on each side of the said laterally-extending portion, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,135. HULL OF STEEL SHIPS. SAMUEL HOLMES, Elizabeth, N. J. Filed Nov. 7, 1913. Serial No. 699,647. (Cl. 114—79.)

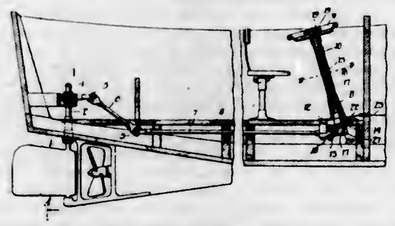



1. A ship the hull of which is composed of sheet metal and provided with a transverse bulkhead or bulkheads which are secured to the hull by means of angle plates arranged alternately on opposite sides of the bulkhead or bulkheads, said angle plates being composed of parts which fit against the inner sides of the hull, and with other parts which fit against the opposite sides of the bulkhead or bulkheads and are riveted thereto, the parts of said angle plates which fit against the inner sides of the hull being secured thereto by a continuous S-shaped or zig-zag line of rivets extending around the hull and crossing the central plane of the bulkhead or bulkheads.

2. A ship the hull of which is provided with a transverse bulkhead or bulkheads secured thereto by angle plates arranged alternately on opposite sides of the bulkhead or bulkheads and composed of parts which fit against the inner side of the hull, and other parts which fit against the opposite sides of the bulkhead or bulkheads, the ends of said angle plates on the opposite sides of the bulkhead or bulkheads being overlapped, and the parts thereof which fit against the bulkhead or bulkheads being riveted thereto, and the parts which fit against the hull being secured thereto by a continuous S-shaped or zig-zag line of rivets extending entirely around the girth of the hull and crossing the central plane of the bulkhead or bulkheads.



1,089,136. STEERING-GEAR. FREDERICK C. KAINER, Chicago, Ill. Filed Dec. 28, 1912. Serial No. 739,073. (Cl. 114—159.)



1. In a device of the class described, the combination of a rudder, a vertically disposed steering-post, a pedestal in which said steering-post is journaled, mechanism connecting the lower end of said steering-post with said rudder for operating the latter through the rotation of said steering-post, a bracket below said steering-post, a tubular shaft rotatably supported by said bracket and extending longitudinally through said steering post, a second shaft extending through said tubular shaft, means at the upper end of said tubular and second shafts for separately rotating them, and arms at the lower ends of said tubular and second shafts adapted for operating controlling devices of an engine, said arms being bent upwardly and extending upward outside of said steering-post.

2. In a boat having a floor with an opening thereunder, an upright rudder post at the rear end, in combination with steering means positioned forward of said rudder post and projecting downwardly below said floor, a concealed and longitudinally disposed shaft rotatably journaled in a substantially horizontal position in said opening beneath the floor and operatively geared at its forward end to the lower end of said steering means, a horizontally disposed and laterally projecting gear sector rigidly attached to the upper end of said rudder post, a longitudinally disposed worm journaled beside and arranged to mesh operatively with said gear sector for oscillating the same and adapted normally to hold the same rigidly in fixed position, and a longitudinally disposed and downwardly inclined shaft having universal joint connection at its upper and rear end with the forward end of said worm, the forward end of said inclined shaft being arranged to project beneath the said floor and having universal joint connection with the rear end of said concealed shaft.

3. In a boat of the class described, a rudder post journaled in substantially vertical position, in combination with a substantially horizontally disposed and laterally projecting gear sector fixed to the upper end of said rudder post, a worm disposed substantially longitudinally and journaled to mesh operatively with said gear sector, an inclined shaft having universal joint connection at its upper and rear end with the forward end of said worm, and at its forward and lower end projecting downwardly beneath the floor of the boat, and steering means operatively connected beneath the floor with the said forward and lower end of the inclined shaft.

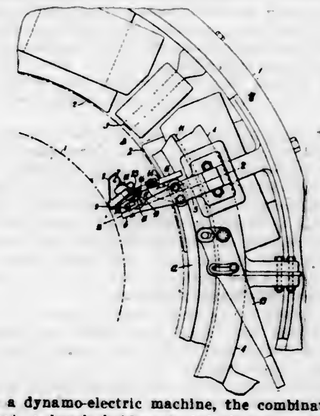
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1,089,137. BRUSH-LIFTING DEVICE FOR DYNAMO-ELECTRIC MACHINES. GEORGE H. KRAUSKOPF, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 21, 1912. Serial No. 705,054. (Cl. 171—210.)

1. In a dynamo-electric machine, the combination with a support, a brush holder carried thereby, and a brush mounted in the holder, of a ratchet carried by the brush, a pawl adapted to engage therewith, means for actuating the pawl to cause it to engage the ratchet and raise the brush, and a member that carries the pawl and is interposed between the brush holder and its support.



2. In a dynamo-electric machine, the combination with a support, a brush holder carried thereby, and a brush mounted in the holder, of a ratchet carried by the brush, a pawl adapted to engage therewith, a pawl-carrying rod, and means for actuating the rod to cause the pawl to engage the ratchet and raise the brush.



3. In a dynamo-electric machine, the combination with a support, a brush holder carried thereby, and a brush mounted in the holder, of a ratchet carried by the brush, a pawl adapted to engage therewith, a pawl-carrying rod rotatably mounted upon the support, and means for rotating the rod to cause the pawl to engage the ratchet and raise the brush.

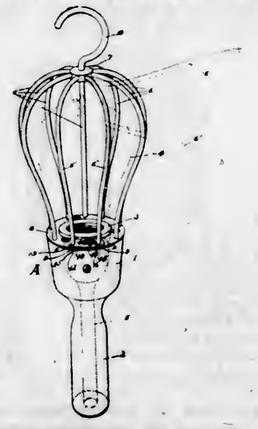
4. A brush-lifting device for dynamo-electric machines comprising a brush holder, a brush mounted therein, a ratchet carried by the brush, a pawl adapted to engage the ratchet, and means for actuating the pawl to cause it to engage the ratchet and raise the brush.

5. A brush-lifting device for dynamo-electric machines comprising a brush holder, a brush mounted therein, a pawl, a ratchet and means for causing the pawl to engage the ratchet and thereby move the brush in the holder.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,138. GUARD FOR INCANDESCENT ELECTRIC LAMPS. CLAUDE A. LEHMAN and PERCY A. LAWRENCE, Valparaiso, Ind., assignors to McGill Manufacturing Company, Valparaiso, Ind., a Corporation of Indiana. Filed Dec. 2, 1912. Serial No. 734,452. (Cl. 240—102.)




1. A guard for an incandescent electric lamp comprising guard wires continuous from end to end of said guard, a

ring to which the lower ends of said guard wires are connected and a block to which the upper ends of said guard wires are pivotally connected, said guard wires comprising a wire or wires rotatable in said block and detachably connected to said ring, substantially as described.

2. A guard for an incandescent electric lamp comprising guard wires continuous from end to end of said guard, a ring to which the lower ends of said guard wires are connected and a block provided with screw-threaded holes into which the upper ends of said guard wires are threaded, said guard wires comprising a wire or wires detachably connected to said ring, whereby they may be disengaged from said ring and turned pivotally substantially as described.

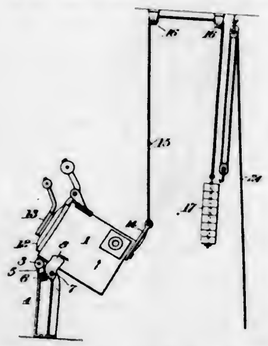
3. In a guard for an incandescent electric lamp of the type described, a base ring, guard wires which are continuous from end to end of said guard, and means for detachably connecting a guard wire to said base ring, said means comprising a slot formed in the edge of said base ring adapted to receive the lower end of said guard wire, and a clip mounted on said base ring and adapted to close said slot outside of said guard wire when moved in one direction and to open said slot when moved in the opposite direction, substantially as described.

4. In a guard for an incandescent lamp of the type described, a base ring, guard wires which are continuous from end to end of said guard, and means for detachably connecting a guard wire to said base ring, said means comprising a slot formed in the edge of said base ring adapted to receive the lower end of said guard wire, a clip mounted on said base ring so as to be movable endwise and a hook on said clip constructed and arranged to extend across the slot in said base ring outside of said guard wire when said clip is moved in one direction and to be retracted to release said guard wire when moved in the opposite direction, substantially as described.

5. In a guard for an incandescent lamp of the type described, a base ring, guard wires which are continuous from end to end of said guard, and means for detachably connecting adjacent guard wires to said base ring, said means comprising slots formed in the edges of said base ring adapted to receive the lower ends of said guard wires, a clip movable endwise on said base ring, and hooks on said clip constructed and arranged to extend across the slots in said base ring outside of said guard wires when said clip is moved in one direction and to be retracted to release said guard wires when moved in the opposite direction, substantially as described.

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1,089,139. APPARATUS FOR POURING MOLTEN MATERIALS. CHARLES WILLIAM LUMMIS, Waterbury, Conn. Filed Jan. 9, 1912, Serial No. 670,258. Renewed July 5, 1913. Serial No. 777,495. (Cl. 22—82.)



1. An apparatus for pouring molten materials, comprising a container for the molten material, means to support said container so that it may be tilted, and means to impart a definite rate of tilting movement to said container so that the quantity of molten material poured from said container in each interval of time during the pouring operation is automatically controlled in accordance with a predetermined plan.

2. An apparatus for pouring molten materials, having a container for the molten material, means to support said container so that it may be tilted, and means to tilt said container including a member operating to automatically control the angle of movement of the container during each interval of time throughout the pouring operation and thereby control the quantity of material so poured in accordance with any predetermined plan.

3. An apparatus for pouring molten materials, having a container for the molten material, means to support said container so that it may be tilted, and means to tilt said container including a member operating to automatically control the angle of movement of the container during each interval of time throughout the pouring operation and thereby control the quantity of material so poured in accordance with any predetermined plan, said controlling member capable of change to produce the desired predetermined rate of pouring.

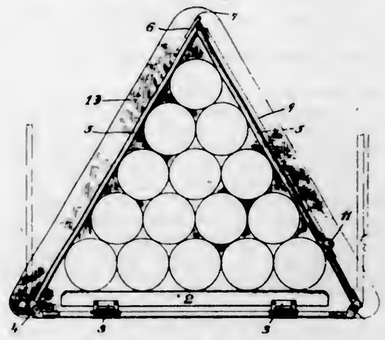
4. An apparatus for pouring molten materials, comprising a container for the molten material, means to support said container so that it may be tilted, and means to tilt said container through a predetermined angle in each interval of the time in which the tilting takes place and thereby pour out the contents at a predetermined variable rate.

5. An apparatus for pouring molten materials, comprising a container for the molten material, means to support said container so that it may be tilted, means tending to tilt said container, and a restraining member to automatically limit the angle through which the container is tilted during each interval of the time in which the tilting movement takes place, and thereby cause the contents to be poured from the container at a predetermined rate.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,140. POOL OR OTHER GAME FRAME. THOMAS J. MADIGAN, New York, N. Y. Filed Feb. 23, 1911. Serial No. 610,203. Renewed Aug. 9, 1913. Serial No. 783,983. (Cl. 46—6.)



1. A pool frame comprising a base, sides pivoted thereto, and releasable means for latching the sides.

2. A pool or game frame comprising a base, sides pivoted thereto, springs tending to throw the sides outward, and releasable means for latching the sides.

3. A pool or game frame comprising a stationary base, sides, and a movable setting up bar normally carried by the base in the same vertical plane and movable relatively to the base to force the balls against the sides.

4. A pool or game frame comprising a base, sides pivoted thereto, latching means for releasably connecting the sides, and a setting up bar pivotally carried by the base.

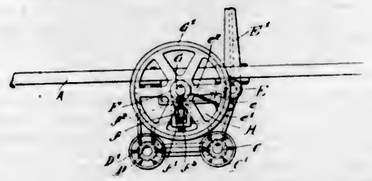
5. A pool or game frame comprising a base, sides, a setting up bar hinged to the base, and spring means normally holding the bar in vertical position.

[Claims 6 to 8 not printed in the Gazette.]



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1,089,141. GEARING. WHITLEY E. MARTIN, Winston-Salem, N. C., and GORDON BRYAN, Dallas, Tex., assignors to Standard Cross-Tie Machine Company, New Orleans, La., a Corporation of Louisiana. Original application filed Oct. 29, 1907, Serial No. 399,671. Divided and this application filed May 6, 1911, Serial No. 625,577. Renewed July 25, 1913. Serial No. 781,257. (Cl. 74—26.)



1. The combination with two continuously driven friction wheels rotating in opposite directions, of a normally inactive driving shaft, a vertically adjustable movable bearing in which the shaft is mounted, a friction wheel carried by said shaft and normally out of engagement with either of the continuously driven friction wheels, and means for at will moving said bearing from normal position to bring the friction wheel on said normally inactive shaft into engagement with either of the continuously driven friction wheels.

2. The combination with two continuously driven friction wheels rotating in opposite directions of a normally inactive driving shaft, a vertically adjustable rocking bearing in which the shaft is mounted, a friction wheel carried by said shaft and normally out of engagement with either of the continuously driven friction wheels, and means for at will rocking said bearing in either direction from normal central position to bring the friction wheel on the normally inactive shaft into engagement with one or the other of the continuously driven friction wheels.

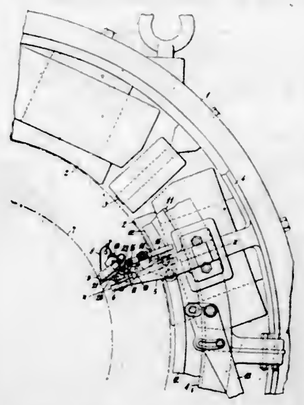
3. The combination with two friction wheels constantly driven in reverse direction, a normally inactive driving shaft, a friction wheel carried thereby and symmetrically disposed with reference to the constantly driven friction wheels, a rocking bearing in which the normally inactive shaft has a bearing adjacent its friction wheel, a vertically adjustable box in which is carried the pivot pin of said rocking bearing, vertically disposed ways in which said box is mounted and adjusting screws above and below the box, and means under the control of the operator for rocking the bearing of the normally inactive shaft from central normal position to at will bring the friction wheel of said shaft into operative engagement with either one of the continuously driven friction wheels.

4. The combination of a normally inactive shaft, a friction wheel fixed to said shaft, two continuously driven friction wheels rotating about fixed axes and correspondingly located in juxtaposition to the friction wheel on the normally inactive shaft, a pivoted bearing in which the latter shaft is mounted, a rock shaft having an operating lever, an arm projecting from the rock shaft, a link connection between it and the pivoted rocking bearing of the normally inactive shaft whereby the latter shaft may be swung from its normally inactive position to bring its friction wheel into operative contact with either one of the continuously driven friction wheels.

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1,089,142. BRUSH-LIFTING DEVICE FOR DYNAMO-ELECTRIC MACHINES. EMIL MATTMAN, Winkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 21, 1912. Serial No. 705,072. (Cl. 171—210.)

1. A brush-lifting device for dynamo-electric machines comprising a brush holder, a brush supported thereby, a ratchet carried by the brush, a resiliently mounted pawl adapted to engage the ratchet, and means for actuating the pawl to move the brush in the holder.

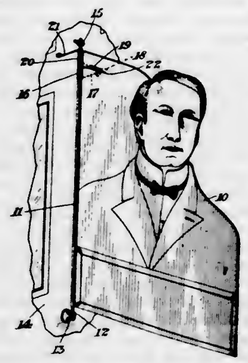


2. A brush-lifting device for dynamo-electric machines comprising a brush holder, a spring-actuated brush supported thereby and provided with a ratchet, a resiliently mounted pawl, and means for effecting operative engagement of said pawl with said ratchet for moving the brush in the holder.

3. A brush-lifting device for dynamo-electric machines comprising a brush holder, a brush supported thereby, a ratchet carried by the brush, a pawl adapted to engage the ratchet, a resilient arm to which the pawl is pivoted, and means for actuating the said arm to move the brush in the holder.

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1,089,143. SWINGING SIGN. MORITZ MAYER, New York, N. Y. Filed Sept. 19, 1913. Serial No. 790,642. (Cl. 40—138.)



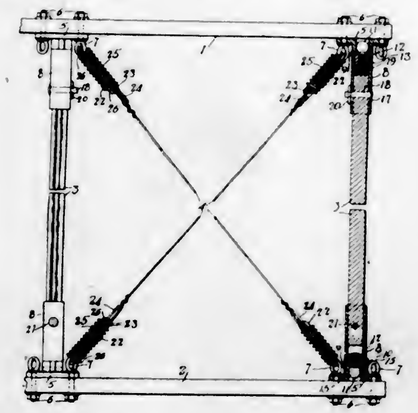
1. A sign comprising a sheet metal form, a standard to which the sheet metal form is secured, means for pivotally mounting the standard on a support, and yielding means for exerting equal forces in opposite directions against the said form to normally maintain the same in a position of rest at right angles to the face of the support, and to cause the sheet metal form to swing back and forth, when pressure has been exerted on either side thereof and after said pressure has been removed, until it returns to the said position of rest.

2. A sign comprising a sheet metal form, a rod to which at one side the sheet metal form is secured, bearings in which the rod is mounted adjacent its ends, the said bearings being secured to a support, and springs surround-

ing the upper portion of the said rod, one end of each of the said springs bearing against the said support while the other ends of the said springs are passed from opposite sides through an aperture in the said sheet metal form and bear upon the opposite sides thereof.

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1,089,144. POST CONNECTION FOR AEROPLANES. LEWIS F. MILLER, Fairfield, Ohio. Filed Feb. 26, 1912. Serial No. 680,000. (Cl. 244—31.)



1. In a flying machine, the combination, with superposed planes, each plane comprising a frame member, and a post extending between said planes, of a connecting device comprising a base mounted on the frame member of one of said planes between the ends thereof, and a socket removably mounted on said base to receive the adjacent end of said post, the connection between said socket and said post being a slidable one to permit of the ready removal of said socket from said post, whereby said socket may be first detached from said base and removed from said post without altering the positions of said planes.

2. In a flying machine the combination, with superposed planes, each plane comprising a frame member, and a post extending between said planes, of a connecting device comprising a base mounted on the frame member of one of said planes between the ends thereof and a removable socket pivotally mounted on said base on an axis parallel with said plane and adapted to receive the adjacent end of said post, the connection between said socket and said post being a slidable one to permit of the ready removal of said socket from said post, whereby said socket may be first detached from said base and removed from said post without altering the positions of said planes.

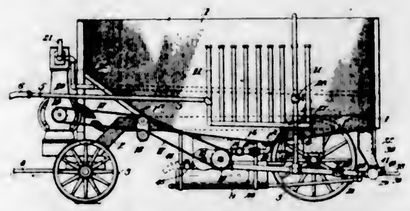
3. In a flying machine, the combination, with superposed planes, each plane comprising a frame member, and a post extending between said planes, of a connecting device comprising a base rigidly secured to the frame of one of said planes between the ends thereof, a part pivotally mounted on said base on an axis substantially parallel with said planes, and a post-receiving socket detachably secured to said pivoted part.

4. The combination, with a frame and a post, of a fixed member rigidly secured to said frame, a tubular post-receiving socket, and a supporting member movably mounted on said fixed member, adapted to extend into said post-receiving socket, and having means for detachably connecting said socket to said supporting member.

5. The combination, with a frame and a post, of a fixed member rigidly secured to said frame, a collar pivotally secured to said fixed member and having exterior screw-threads, and a tubular post-receiving socket having screw threads to engage the threads of said collar.

[Claims 6 to 13 not printed in the Gazette.]

1,089,145. ROAD-SURFACING MACHINE. THOMAS J. MCDONALD, Baltimore, Md., assignor to American Car Sprinkler Co., Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 21, 1910. Serial No. 556,773. (Cl. 137—63.)

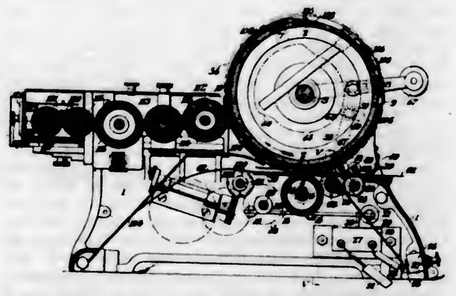


1. In a machine for applying liquid material to a roadbed, a tank for containing the material, such tank having an inclined bottom, a pump, a pipe extending from the lowest point of the inclined bottom to the pump, means for heating the material in the tank adjacent such point, a distributing device, a pipe extending from said pump directly to said distributing device, and additional means for heating the material as it passes through the distributing device.

2. In a machine of the class described, the combination with a tank, a distributing device, means for forcing liquid under pressure from said tank to said distributing device, such distributing device comprising a pair of drums, circular in cross section, and arranged snugly one within the other, the outer of such drums being formed in sections, the inner of said drums having a slit formed therein and extending throughout the length thereof parallel with the axis, each of the sections of said outer drum also having a corresponding slit, means for independently rotating the sections of said outer drum on said inner drum so as to bring the respective slits in said sections into and out of registry with the slit in said inner drum, a pipe extending axially through said drums and disposed concentrically therewith, and means for supplying steam to said pipe, whereby the material in said distributing device is maintained in a heated condition at the point of discharge.

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1,089,146. DUPLICATING-MACHINE. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 28, 1910. Serial No. 584,201. (Cl. 101—36.)



1. The combination with a rotary printing couple; of mechanism arranged to feed sheets of paper between said couple including a feed roller mounted to rotate on a normally stationary axis and another feed roller mounted to rotate in opposition to said first feed roller upon an axis movable toward and away from the latter; means arranged to render said couple inoperative when released; an electrically operative releasing mechanism; an electric switch comprising a normally stationary member and a member carried by and arranged to oscillate with said movable feed roller; a spring tending to shift said movable roller into contact with said other roller; and an electric circuit including said switch, said releasing mechanism and a source of current; whereby said releasing mechanism is operated and the printing couple rendered inoperative when said switch is closed, such closure being consequent upon the omission of a sheet of paper when it should be present between said feed rollers.

2. The combination with a rotary printing couple; of mechanism arranged to feed sheets of paper between said couple including a feed roller mounted to rotate on a normally stationary axis and another feed roller mounted to rotate in opposition to said first feed roller upon an axis movable toward and away from the latter; means arranged to render said couple inoperative when released; and electrically operative releasing mechanism; an electric switch in operative relation with said movable feed roller; a spring tending to shift said movable roller into contact with said other roller; and an electric circuit including said switch, said releasing mechanism and a source of current; whereby said releasing mechanism is operated and the printing couple rendered inoperative when said switch is closed, such closure being consequent upon the omission of a sheet of paper when it should be present between said feed rollers.

3. The combination with a rotary printing couple including a drum; of a cam carried by said drum; an electric switch arranged to be closed and opened by said cam; means arranged to render said couple inoperative when released; an electrically operative releasing mechanism; mechanism arranged to feed sheets of paper between said couple, including a pair of feed rollers one of which is moved toward or from the other by said cam, and an electric circuit including said switch, said releasing mechanism and a source of current; whereby, said releasing mechanism is operated and the printing couple rendered inoperative when said switch is closed, such closure being consequent upon the omission of a sheet of paper when it should be present between said feed rollers.

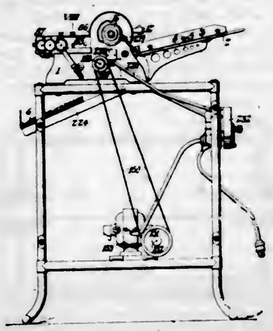
4. The combination with a printing couple including a rotary drum; of a cam carried by said drum; means whereby said cam may be rotatably adjusted in definite relation to the printing form on said drum and secured in rigid relation with said shaft; means arranged to render said couple inoperative when released; an electrically operative releasing mechanism; paper feed mechanism controlled by said cam; an electric switch in operative relation with said paper feed mechanism; and, an electric circuit including said switch, said releasing mechanism and a source of current; whereby, said releasing mechanism is operated and the printing couple rendered inoperative when said switch is closed, such closure being consequent upon the omission of a sheet of paper when it should be present.

5. The combination with a rotary printing couple including a drum; of means arranged to render said couple inoperative when released; an electrically operative releasing mechanism; a cam carried by said drum; paper feeding mechanism including a supporting table, stop fingers above said table, a feed roller above said table, a feed roller below said table, means arranged to shift said lower roller to and from cooperative relation with said upper roller including a rock shaft carrying said stop fingers and said lower roller and having means to engage said cam, whereby said stop fingers and feed rollers are rendered alternately operative and inoperative in accordance with the rotary position of said cam; an electric switch arranged to be operated by said cam; another electric switch arranged to be closed when said feed rollers are in contact; and an electric circuit including said switches, said releasing mechanism and a source of current; whereby said releasing mechanism is operated and the printing couple rendered inoperative when both of said switches are closed, such closure being consequent upon the omission of a sheet of paper when it should be present between said feed rollers.

[Claims 6 to 20 not printed in the Gazette.]



1,089,147. DUPLICATING-MACHINE. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 28, 1910. Serial No. 584,202. (Cl. 101—126.)



1. A printing drum having means to detachably hold an inking surface thereon, including a flexible sheet having attaching plates with pairs of holes at its respectively opposite ends, a pair of stationary studs on said drum adapted to engage in either pair of said holes in one of said plates, and a pair of leashes projecting from said drum, including hooks adapted to engage the holes in the other of said plates and connected by flexible tapes to spiral springs arranged to reciprocate in tubes extending in said drums.

2. A printing drum having means to detachably hold an inking surface thereon, including a flexible sheet having attaching plates with pairs of holes at its respectively opposite ends, a pair of stationary studs on said drum adapted to engage in a pair of holes in one of said plates, and a pair of leashes projecting from said drum, including hooks adapted to engage the holes in the other of said plates and connected to spiral springs extending in said drum.

3. A printing drum having means to detachably hold an inking surface thereon, including a flexible sheet having attaching plates with holes at its respectively opposite ends, said holes being respectively differently located transversely with respect to said sheet, means adapted to selectively engage different holes, whereby said sheet may be held in different positions to permit it to be uniformly worn out, including a stud on said drum adapted to engage a hole in one of said plates, and a leash projecting from said drum and having a hook adapted to engage a hole in the other of said plates.

4. The combination, with a printing drum, of a flexible sheet having attaching plates with pairs of holes at its respectively opposite ends differently located transversely with respect to said sheet, and means carried by said drum adapted to selectively engage said pairs of holes, whereby said sheet may be held in different positions to permit it to be uniformly worn out.

5. A printing drum having means to detachably hold a member thereon, including a leash projecting from said drum, having a hook connected by a flexible tape to a spiral spring arranged to reciprocate in a tube extending in said drum.

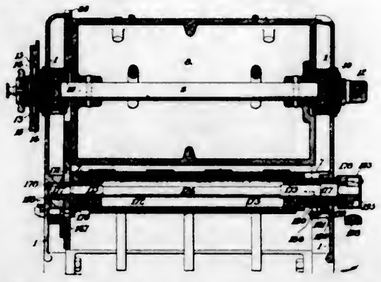
[Claims 6 to 17 not printed in the Gazette.]

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1,089,148. PRINTING-COUPLE APPLIANCE. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Sept. 28, 1910, Serial No. 584,202. Divided and this application filed Sept. 8, 1911. Serial No. 648,325. (Cl. 101—111.)

1. The combination, with a frame, of a rotary printing drum journaled in said frame, a rotary platen arranged

to coöperate with said drum, means arranged to adjustably shift the axis of said platen toward and away from said drum to vary the printing impression, including a shaft for said platen having eccentrics journaled in said frame, a worm gear on said shaft, an impression lever rotatably adjustable on said shaft and carrying a worm engaging said gear, said lever being formed with a housing surrounding the worm wheel and worm, a shaft for said worm extending outside of the housing, a handle on said worm shaft, a flange projecting from the housing, and a detent adapted to engage said flange to detain said platen in printing position.



2. The combination, with a frame, of a rotary printing drum journaled in said frame, a rotary platen arranged to coöperate with said drum, means arranged to adjustably shift the axis of said platen toward and away from said drum to vary the printing impression, including a shaft for said platen having eccentrics journaled in said frame, a worm gear on said shaft, a worm engaging said gear, said lever being formed with a housing extending around the worm wheel and carrying a flange, a detent adapted to engage said flange to detain said platen in printing position, a lever for moving said detent, and a push button for operating said last mentioned lever.

3. The combination, with a shaft carrying a circumferentially adjustable lever, of means arranged to adjust said lever including a worm gear fixed on said shaft, a worm carried by said lever in engagement with said gear, means arranged to turn said worm, said lever being formed with a housing journaled on the shaft and having a wall surrounding the worm wheel and worm, the worm being in a recess of said housing between the worm wheel and operative end of the lever, and a cap plate secured over said wall and coöperating therewith to inclose the worm and worm wheel.

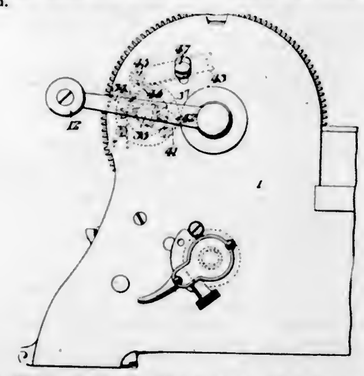
4. The combination, with an eccentrically mounted shaft, of a roller platen on the shaft, a driving gear for the platen, a shiftable coupling between the gear and platen, a flange adjustably connected to said shaft, a spring tending to turn the shaft in a direction to release the platen, and a movable detent adapted to engage the flange to hold the platen active or release it.

5. The combination of an eccentric shaft, a platen thereon, a worm wheel on the shaft, a lever having the housing extending around the worm wheel, a worm carried by the lever and coöperating with the worm wheel, a flange projecting from the housing, a detent to engage the flange to hold the platen active, a stop positioned to be engaged by a shoulder on the flange to stop the rotative movement of the shaft, and a spring tending to cause such rotative movement.

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1,089,149. HOLDER FOR PRINTING-SURFACES. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor, by mesne assignments, to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Sept. 28, 1910, Serial No. 584,202. Divided and this application filed Sept. 8, 1911. Serial No. 648,326. (Cl. 101—168.)

1. The combination with a frame; of a printing couple including a rotary drum journaled in said frame; means on said drum arranged to engage a flexible chase, including a pair of stationary hooks and a pair of oscillatory hooks projecting from the circumference of said drum; a shaft journaled in said drum and carrying said oscillatory hooks; a spring tending to rock said shaft and press said hooks in one direction; a crank on said hook shaft exterior to said drum; a catch lever pivoted in said frame; a spring arranged to normally present said lever aside from the path of said crank; and, a handle on said catch lever extending exterior to said frame, whereby said lever may be manually set in the path of said crank to rock the latter and press said hooks in the opposite direction.



2. The combination with a frame; of a printing couple including a rotary drum journaled in said frame; means on said drum arranged to engage a flexible chase, including a pair of stationary hooks and a pair of oscillatory hooks projecting from the circumference of said drum; a shaft journaled in said drum and carrying said oscillatory hooks; a spring tending to rock said shaft and press said hooks in one direction; a crank on said hook shaft exterior to said drum, and a movable stop adapted to be positioned to engage the crank when the drum is rotated.

3. A printing drum having means arranged to engage a chase, including a pair of stationary hooks and a pair of oscillatory hooks projecting from the surface of said drum; means including a crank exterior to said drum whereby said oscillatory hooks may be moved, and a movable stop adapted to be positioned to engage the crank when the drum is rotated.

4. A printing drum having means arranged to engage a chase, including a pair of stationary hooks and a pair of movable hooks projecting from the circumference of said drum, said movable hooks extending within said drum; spring means within said drum whereby said movable hooks may apply tension to the chase, and mechanism for automatically releasing said movable hooks consequent upon a partial rotation of the drum.

5. The combination of a drum, a flexible type chase adapted to seat thereon, a holding device on the drum for one end of the chase, a holding device on the drum for the other end of the chase including a spring adapted to keep the chase taut, and mechanism for moving the latter device against the action of the spring to release the chase, said mechanism including a rock shaft within the drum and a movable stop adapted to be positioned to engage an arm on the rock shaft.

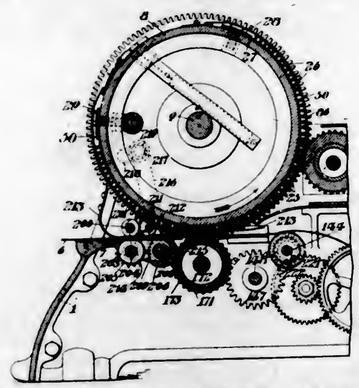
[Claims 6 to 20 not printed in the Gazette.]

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1,089,150. PRINTING FEEDING MECHANISM. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Sept. 28, 1910, Serial No. 584,202. Divided and this application filed Sept. 8, 1911. Serial No. 648,327. (Cl. 101—36.)

1. The combination with a frame, of a printing couple including a rotary drum having a shaft journaled in said frame, a cam on the end of said shaft outside of the frame, means whereby said cam may be rotatably adjusted and secured in rigid relation with said shaft, paper-feeding mechanism including a supporting table, a feed-roller above said table having a shaft with a normally stationary axis, a feed roller below said table, and means arranged to shift said lower roller to and from coöperative relation with said upper roller, including a rock shaft carrying said lower roller, and an arm rigid on the rock-shaft and located within the frame, and a roller on the outside of the frame coacting with the cam and connected with the arm through a slot in the frame.

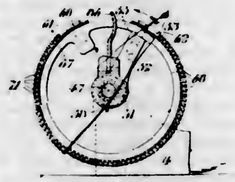




2. The combination with a frame having a pair of upright plates, a shaft journaled in said plates, a printing drum on said shaft between said plates, the shaft extending through one of the plates, a cam adjustably positioned on the end of said shaft, a paper table, a rock-shaft below the table, an arm on said rock-shaft lying between the frame plates, a roller on the outside of one of the frame plates connected with said arm through a slot in the plate and coacting with the cam, and paper-feed mechanism controlled by said rock-shaft.

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1,089,151. TYPE-CASE. SAMUEL A. NEIDICH, Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed June 26, 1908, Serial No. 440,430. Divided and this application filed Nov. 4, 1911. Serial No. 658,462. (Cl. 101—195.)



1. The combination with a frame having shaft bearings; of a shaft mounted to rotate in said bearings; a handle on one end of said shaft; a friction brake comprising a spring interposed between said handle and the adjacent bearing; a rotary drum having opposite end heads on said shaft between said bearings, and channels for carrying on its surface parallel lines of individual type; a circular rack on one of said heads, having recesses spatially corresponding with said channels; means arranged to detachably engage said rack, in said recesses, including a plunger mounted to reciprocate in said frame, a spring normally pressing said plunger into engagement with said rack, a handle on said plunger, whereby it may be withdrawn, and, a stud on said plunger normally fitted in a socket in said frame, but adapted to hold said plunger out of engagement with respect to said rack when said plunger is withdrawn and turned with said stud away from its socket.

2. The combination with a frame having shaft bearings; of a shaft mounted to rotate in said bearings; a handle on one end of said shaft; a friction brake for said shaft; a rotary drum having opposite end heads on said shaft between said bearings, and channels for carrying on its surface parallel lines of individual type; a circular rack on one of said heads, having recesses spatially corresponding with said channels; means arranged to detachably engage said rack, in said recesses, including a plunger mounted to reciprocate in said frame, a spring normally pressing said plunger into engagement with said rack, a handle on said plunger, whereby it may be withdrawn, and, means adapted to hold said plunger out of engagement with respect to said rack when said plunger is withdrawn.

3. The combination with a frame; of a rotary drum, having channels for carrying on its surface parallel lines of type; a circular rack on one end of said drum, having outwardly flared radial recesses spatially corresponding with said channels; means arranged to detachably engage said rack, in said recesses, including a plunger mounted to reciprocate in said frame, parallel with the axis of the drum, a spring normally pressing said plunger into engagement with said rack, a handle on said plunger, whereby it may be withdrawn, and, means adapted to hold said plunger in inoperative position when it is withdrawn.

4. The combination, with a rotatable shaft, of a pair of heads thereon having smooth peripheries, a rack carried on the side of one of said heads, a detent device coöperating with said rack, a removable blanket composed of parallel rails adapted to be mounted on said heads, and a locking device for said blanket carried partly within the drum provided by said heads and shaft.

5. The combination with a frame; of a rotary drum journaled in said frame; means on said drum arranged to engage a flexible chase, including a pair of stationary hooks and a pair of oscillatory hooks projecting beyond the circumference of said drum; a shaft journaled in said drum and carrying said oscillatory hooks; a spring tending to rock said shaft, and press said hooks in one direction; and an operating arm on said hook shaft.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,152. BELT-SHIFTER. ARTHUR C. PLETZ, Cincinnati, Ohio. Filed June 11, 1913. Serial No. 772,981. (Cl. 64—4.)



1. A belt shifter of the nature disclosed combining an upper, and a lower bracket; a belt-shifting member movably mounted in each of said brackets; a hand-operated gear segment; a pair of gears, each located in opposite relations with said gear segment and adapted to be actuated in alternate succession thereby; and means operatively connecting said gears with said members to move

first the one and then the other in the same direction when said gear-segment is progressively rotated.

2. A belt shifter of the nature disclosed combining an upper and lower bracket; a belt-shifting member movably mounted in each of said brackets; a hand-operated bevel-gear segment; a pair of bevel gears, each located in opposite relations with said gear-segment and adapted to be actuated alternately thereby; and means operatively connecting said gears with said members to move first the one and then the other in the same direction when said gear-segment is progressively rotated.

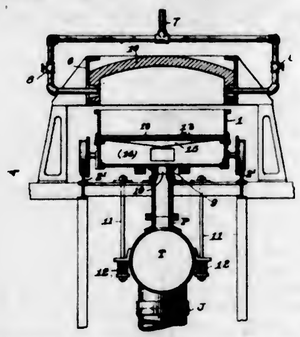
3. A belt shifter of the nature disclosed combining an upper and a lower bracket; a belt-shifting member movably mounted in each of said brackets; a hand-operated gear segment; a pair of gears, each located on opposite sides of the axis of said gear segment and adapted to be actuated in alternate succession thereby; and means operatively connecting said gears with said members to move first the one and then the other in the same direction when said gear-segment is progressively rotated.

4. A belt shifter of the nature disclosed combining an upper and a lower bracket; a belt-shifting member movably mounted in each of said brackets; a hand-operated bevel gear segment; a pair of bevel gears, each located on opposite sides of the axis of said gear segment and adapted to be actuated in alternate succession thereby; and two shafts; each operatively connecting one of said gears with one of said members to move first the one member and then the other in the same direction when said gear-segment is progressively rotated.

5. A belt shifter of the nature disclosed combining an upper and a lower bracket; a belt-shifting member movably mounted in each of said brackets; a hand-operated bevel gear segment; a pair of coaxial bevel gears, each located on opposite sides of the axis of said gear segment and adapted to be actuated in alternate succession thereby; and a long and a short shaft operatively connecting said gears with said members to move first the one and then the other in the same direction when said gear-segment is progressively rotated.

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1,089,153. APPARATUS FOR SINTERING ORES. ALBERT F. PLOCK, Pittsburgh, Pa., assignor to Pittsburgh Metallurgical Company, Incorporated, Wilmington, Del., a Corporation of Delaware. Filed Mar. 20, 1913. Serial No. 755,642. (Cl. 75—134.)



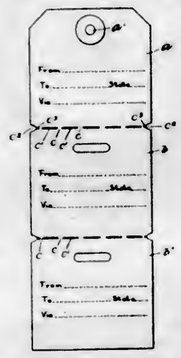
1. In sintering apparatus, the combination with suitable transfer tracks, an ignition device, a suction fan and exhaust pipes, of an ore car having a body closed on four sides and having a grated bottom, a separate and approximately closed air box under the grate, having a restricted air outlet connected by a slot to the exhaust pipes, substantially as described.

2. A sintering car comprising a box with four complete sides and a bottom, a dividing horizontal grated intermediate partition and a restricted opening from the lower chamber to air exhaust passages, substantially as described.

3. The combination of a series of sintering cars, each comprising a box receptacle having a grated bottom and an approximately closed separate air box under the grate, an exhaust device, a restricted air outlet in said air box connected to said exhaust device, an ignition hood, a supporting track holding the cars in connected relation to the exhaust device, and lateral transfer tracks whereby each car may be independently and entirely removed from the series, substantially as described.

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1,089,154. BAGGAGE-CHECK. THOMAS G. PORTMORE, South Framingham, Mass., assignor to Dennison Manufacturing Company, South Framingham, Mass., a Corporation of Massachusetts. Filed Nov. 25, 1910. Serial No. 594,045. (Cl. 40—6.)



1. A checking card, as for baggage, comprising portions joined by bridge pieces, said bridge pieces being separated by regions, materially longer than the width of a bridge piece transversely of the card, from which regions the card material is excised.

2. A checking card, as for baggage, having parts of its material removed to form a line of elongated slots across the body of the card, said slots separated by bridge pieces narrow in contrast to the length of the slots.

3. A checking card, as for baggage, having parts of its material removed to form a line of elongated slots across the body of the card, said slots separated by bridge pieces narrow in contrast to the length of the slots, the end slots of the line forming open notches in the edges of the card.

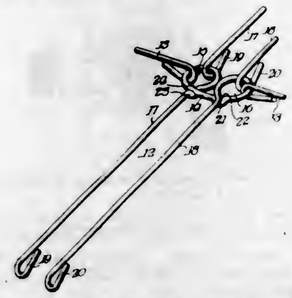
4. A checking card, as for baggage, comprising portions joined by bridge pieces, the card having parts of its material removed between said bridge pieces to form elongated slots transversely of the card, the width of the bridge pieces transversely of the card being materially less than the length of the slots, while the length of the bridge pieces longitudinally of the card is such as to permit uniform flexion of the said bridge pieces without fracture thereof.

5. A checking card, as for baggage, comprising portions joined by bridge pieces of substantially uniform width transversely of the card, the card having parts of its material removed between said bridge pieces to form elongated slots transversely of the card, the width of the bridge pieces transversely of the card being materially less than the length of the slots, while the length of the bridge pieces longitudinally of the card is such as to permit uniform flexion of the said bridge pieces without fracture thereof.

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1,089,155. BED-BOTTOM FABRIC. ANTHONY RHENSTROM, Kenosha, Wis., assignor to The Vincent-Alward Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Jan. 18, 1913. Serial No. 742,772. (Cl. 245—5.)

1. In a wire fabric, a link unit comprising a length of wire bent in its medial portion to provide at one end of the link a transverse cross-bar and a pair of loops, and bent at its two extremities to provide at the other end of the link a pair of hooks, the two intermediate reaches of wire extending one above and the other below and at substantially right angles to the cross-bar and the two loops arranged exterior to the cross bar and the two reaches of wire, substantially as described.



2. In a wire fabric, a link unit comprising a length of wire bent in its medial portion to provide at one end of the link a transverse cross-bar and a pair of loops, and bent at its two extremities to provide at the other end of the link a pair of hooks, the two intermediate reaches of wire extending one above and the other below and at substantially right angles to the cross-bar and thence in substantially parallel relation and the two loops arranged exterior to the cross bar and the two reaches of wire, substantially as described.

3. A wire fabric comprising rows of links, each link having two substantially straight limbs provided with hooks at their free ends and at their other ends connected by a substantially straight cross bar with a pair of loops exterior to the limbs and bar, the hooks of one link engaging within the respective loops of the next adjacent link, and transversely arranged means connecting the loops of adjacent links in contiguous rows, substantially as described.

4. A wire fabric comprising rows of links, each link having two substantially straight limbs provided with hooks at their free ends and at their other ends connected by a substantially straight cross bar with a pair of loops exterior to the limbs and bar, the two limbs lying respectively above and below the cross bar at the point of intersection, the hooks of one link engaging within the respective loops of the next adjacent link, and transversely arranged means connecting the loops of adjacent links in contiguous rows, substantially as described.

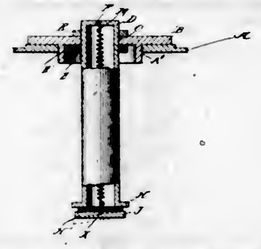
5. In a wire fabric, a link unit comprising a length of wire bent to provide in its medial portion a cross bar and a pair of laterally extending loops lying in substantially one horizontal plane and provided at each extremity with a hook, the two intermediate reaches of wire extending in spaced parallel relation, the underlying wire member at the point of intersection of the cross bar and reaches bent downwardly to provide a recess for the reception of the overlying member whereby to present an upper substantially plane surface, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

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1,089,156. VENT-VALVE. LESLIE L. RICHARDSON, Balfour, Iowa. Filed Jan. 23, 1913. Serial No. 743,771. (Cl. 220—121.)

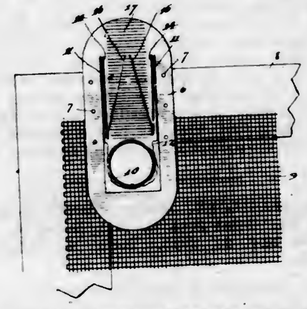
The combination with the tank having the threaded filling opening, the cap having the flat broad top provided with a threaded opening and having a depending threaded portion to engage the threaded filling opening of the tank, the thimble having the upper closed end provided with exterior threads to engage the threads of the opening of the cap and having its lower end open and formed with an annular flange, the closure consisting of the plate and pliable disk to engage the open end of the thimble, the adjustable hooks mounted in the closure and closed end of the thimble, the coiled spring having its ends connected to said adjustable hooks in the closure and closed end of the thimble, the coiled spring having its ends connected



to said adjustable hooks, and the securing nuts and washer engaging the threaded end of the thimble.

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1,089,157. BEE-ESCAPE. HERBERT D. ROGERS, Lewistown, Ill. Filed Nov. 13, 1912. Serial No. 731,221. (Cl. 6—4.)



1. A bee escape comprising a base adapted to be secured to a support and having an inlet opening therethrough, a guide frame extending from said inlet opening toward the end of the base and comprising a top wall and side walls, the side walls being secured to the base and the base forming the floor of said guide frame, elastic escapement members secured to the inner ends of said side walls and approaching each other adjacent the outer ends of said walls, and ribs or corrugations formed in the base to provide adequate foot hold for bees passing through said guide frame.

2. A bee escape comprising a base having an inlet opening at one end and having a section extending from the opening to the end thereof corrugated or ribbed, a U-shaped guideframe applied adjacent the inlet opening and over the corrugated section and with its longitudinal edges secured to the base, and escapement members extending into said frame, said corrugated section providing adequate foot hold for bees paasing through said frame.

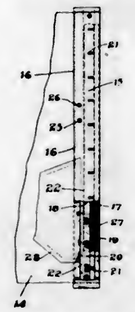
3. A bee escape comprising a sheet metal base adapted to be secured to a support and having inelt opening through one end thereof, a longitudinal section of said base from said inlet opening to the end thereof being corrugated or ribbed, an inclosing frame secured to said base to bridge over said inlet opening and corrugated section, said corrugated section forming the floor giving adequate foot hold to bees passing through said frame frome the inlet opening to the end thereof.

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1,089,158. CORSET-CLOSURE. ISIDOR ROTH, Bridgeport, Conn., assignor to Birdsey, Somers Company, Bridgeport, Conn., a Corporation of New York. Filed Jan. 22, 1913. Serial No. 743,533. (Cl. 2—74.)

1. A corset of the character described having at the front hook members each provided with inner and outer

pockets, hook supporting steels underlying tape strips carrying hooks in the inner pockets and supplemental protecting bones in the outer pockets, and lacings engaging the hooks and passing over the supplemental bones to protect the wearer.



2. A corset of the character described including front sections having hook members connected to the front sections each provided with inner and outer pockets, hook supporting steels underlying tape strips carrying hooks in the inner pockets and supplemental protecting bones in the outer pockets, the hook members each provided with a pair of eyelets at the waist line between the inner pockets and adjacent front sections, and lacings passing through the eyelets extending in the opposite direction, passing over the protecting bones, and engaging the hooks.

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1,089,159. NUT-LOCK. JOSEPH SANTARCANGELO, Pittsburgh, Pa. Filed Sept. 6, 1911, Serial No. 647,815. Renewed Nov. 22, 1913. Serial No. 802,585. (Cl. 151—21.)

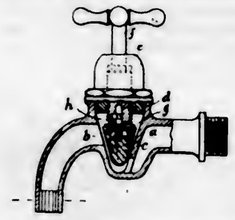


In a nut lock, the combination with a bolt having the threaded portion thereof formed with a series of equally spaced longitudinal grooves of less length than said threaded portion and having their outer termini at the outer terminus of the bolt, a nut having its outer face provided with a transverse recess and further having diametrically opposed pairs of facets slitted inwardly and with the slits extending through the walls of said recess at opposite ends thereof thereby providing oppositely disposed tongues extending toward the other ends of the walls of the recess, said tongues decreasing in width toward their free ends, said tongues adapted to have their free ends driven into diametrically opposed grooves for securing the nuts against unlocking movements.

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1,089,160. TAP AND VALVE. JEAN SCHERR, Ehrenfeld, Cologne, Germany. Filed Jan. 18, 1911. Serial No. 603,340. (Cl. 137—4.)

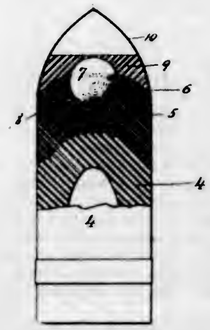
A valve comprising a valve chamber having a cone-shaped portion forming a part of the through-way and closed at its apex, said valve chamber having an aperture in its side wall which also constitutes part of the through-way, a solid cone of compressible and resilient material located within and having a shape to fit the cone-shaped portion of the valve chamber, a screw-threaded valve spindle provided with a handle, and a swivel connection between said cone and the valve spindle, the construction being such that when the spindle is turned the cone is carried into said cone-shaped portion with the end of the cone engaging the closed apex of the said cone-shaped portion, whereby the said cone will be compressed



axially and thereby expanded radially to make a tight fit in said cone-shaped portion.

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1,089,161. PROJECTILE. ALBERT F. SHORE, New York, N. Y. Filed Dec. 10, 1913. Serial No. 805,690. (Cl. 102—28.)



1. An armor-piercing projectile comprising in combination a relatively soft body having a hardened blunt fore end to the full diameter of said body, and provided with a socket, a hardened steel ball seated in said socket, a soft cap forward of the said hardened fore end, and a sheet metal point secured to the latter.

2. An armor-piercing projectile comprising in combination a relatively soft body having a hardened blunt fore end provided with a socket, a hardened steel ball seated in said socket, a soft lining in said socket interposed between said hardened fore end and the said steel ball, a soft cap over the latter and a metal point secured to the said hardened fore end.

3. An armor-piercing projectile comprising in combination a relatively soft body, a hardened fore end portion shrunk on to said body and provided with a socket, a hardened steel ball seated in the latter, a soft cap forward of said hardened fore end and the said steel ball, and a hollow metal point secured to the said hardened fore end.

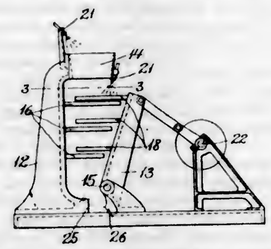
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1,089,162. MACHINE FOR CLEANING CRUDE RUBBER. WILLIAM R. SMITH, Buffalo, N. Y. Filed Nov. 21, 1912. Serial No. 732,685. (Cl. 18—2.)

1. A machine for cleaning crude rubber, comprising two series of alternating jaws, two opposed supports therefor, the jaws being rigidly attached at both ends to the supports and spaced therefrom, one of the supports being pivoted to oscillate toward and from the other, and means for oscillating the pivoted support to cause the jaws to engage and stretch elastic matter interposed between them.

2. A machine for cleaning crude rubber, comprising two series of alternating jaws, two opposed supports therefor, the jaws being rigidly attached at both ends to the supports and spaced therefrom, and means for varying the distance between the supports to cause the jaws to engage and stretch elastic matter interposed between them,





the supports being provided at their lower portions with corrugated pressing jaws which are alternately opened and closed.

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1,089,163. CAR-TRUCK. FRED STEFFENS, St. Joseph, Mo. Filed Oct. 3, 1913. Serial No. 793,148. (Cl. 105—137.)



1. In a car truck, a car axle, a lower frame, a truck frame, boxes on the axle, springs supported by the boxes and supporting the truck frame, the lower frame having hangers supported by and adapted to travel in a circle upon said truck frame, a car body, and means supported by the lower frame for supporting the car body.

2. In a car truck, a car axle, boxes on the axle, a truck frame, springs supported by the boxes and supporting the truck frame, a lower frame having hangers supported by and adapted to travel in a circle on the truck frame, a car body, means carried by the lower frame for supporting the car body and yielding means connected with the lower frame for normally swinging the truck frame and axle to a predetermined position when they have been swung in either direction past said position.

3. In a car truck, a car axle, boxes on said axle, a truck frame revoluble in a horizontal plane with the axle, springs supported by the boxes and supporting the truck frame, a lower frame having hangers supported by and adapted to travel in a circle on the truck frame, a car body, means carried by said lower frame for supporting the car body, and spring actuated means for returning the truck frame to a predetermined position when it has been swung in either direction past said position.

4. In a car truck, a car axle, boxes on said axle, a lower truck frame supported by said boxes, springs supported by said lower truck frame, an upper truck frame supported by said springs and revoluble in a horizontal plane with said axle, and a car body supporting frame having hangers supported by and adapted to travel in a circle upon the upper truck frame.

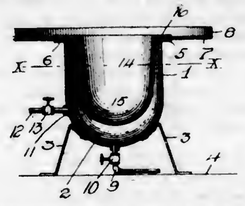
5. In a car truck, a car axle, boxes on said axle, a lower truck frame supported by said boxes, springs supported by said lower truck frame, an upper truck frame supported by said springs and revoluble in a horizontal plane with said axle and having concavously curved runways at opposite sides of said axle, and a car body supporting frame having hangers supported by and adapted to travel on said runways.

[Claims 6 to 18 not printed in the Gazette.]

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1,089,164. KETTLE. JOZSEF SZUNYIK, Dorchester, Va. Filed June 6, 1913. Serial No. 772,176. (Cl. 126—370.)

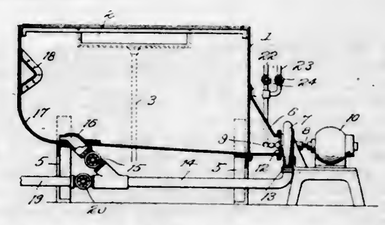
A kettle having a rounded bottom, legs supporting said kettle in an elevated position, a drain pipe connected to the bottom of said kettle and provided with a valve, a water inlet pipe connected to the side of said kettle and provided with a valve, an annular apron secured to the upper edges of said kettle and having a vertical wall at



the outer edges thereof, and a receptacle arranged in said kettle and spaced from the walls thereof, said receptacle having an annular flange adapted to rest upon said apron and support said receptacle in said kettle.

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1,089,165. APPARATUS FOR TREATING AND DELIVERING PULP. WILLIAM F. TRAUDT, Rutherford, N. J., assignor to Taber Pump Company, a Corporation of New York. Filed Feb. 12, 1913. Serial No. 748,052. (Cl. 141—12.)



1. The combination of a tank, a centrifugal pump having its inlet connected to one end of the tank, a conduit extending from the pump outlet to the other end of the tank, a filter press, a branch conduit extending from the pump outlet to said filter press, and valves controlling said conduits.

2. The combination with a tank of a centrifugal pump having its inlet connected to said tank, the shaft of said pump extending into the tank and being provided with means for agitating the contents thereof.

3. The combination with a tank of a centrifugal pump having its inlet connected to said tank, the shaft of said pump extending into the tank and being provided with means for agitating the contents thereof comprising helical blades.

4. The combination with a tank, a rotary pump having its inlet connected to said tank near one end thereof, a conduit extending from the pump outlet to another portion of the tank, overflow connections, and a feed water pipe connected to the tank near the pump inlet.

5. The combination with a tank having a tapering extension at one end near the bottom, of a rotary pump having its inlet connected to said extension, the shaft of said pump extending into said extension and being provided with means for agitating the contents thereof.

[Claim 6 not printed in the Gazette.]

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1,089,166. PYROTECHNIC TOY. JOHN B. VAN DOREN, Berkley Heights, N. J., assignor of one-half to William A Luce, Boston, Mass. Filed Oct. 4, 1913. Serial No. 793,297. (Cl. 102—20.)

1. In a pyrotechnic toy, a handle, a fixed pin extending from said handle, and a roller adapted to revolve about its own axis and also move around said fixed pin, whereby a cap or fulminate-bearing strip is fed between said fixed pin and said roller with a rectilinear movement and also around the said pin.

2. In a pyrotechnic toy, a handle, a fixed pin extending from said handle, said pin being provided with a roughened surface-portion, and a roller adapted to revolve about its own axis and also move around the roughened surface of said fixed pin, whereby a cap or fulminate-bearing strip is fed between the roughened surface of said fixed pin and said roller with a rectilinear movement and also around the roughened surface of said pin.

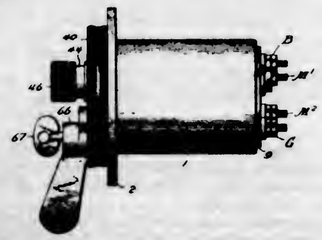


3. In a pyrotechnic toy, a handle, a fixed pin extending from said handle, roller-bearing plates rotatably mounted upon said fixed pin so as to be swung around said pin, a roller rotatably mounted between said plates, said roller being adapted to revolve about its own axis, and a weight connected with and extending from said plates, said weight and roller being also adapted to be swung with said plates around said fixed pin, whereby a cap or fulminate-bearing strip is fed between said fixed pin and said roller with a rectilinear movement and also around the said pin.

4. In a pyrotechnic toy, a handle, a fixed pin extending from said handle, said pin being provided with a roughened surface-portion, roller-bearing plates rotatably mounted upon said fixed pin so as to be swung around said pin, a roller rotatably mounted between said plates, said roller being adapted to revolve about its axis, and a weight connected with and extending from said plates, said weight and roller being also adapted to be swung with said plates around the roughened surface of said pin, whereby a cap or fulminate-bearing strip is fed between said pin and said roller with a rectilinear movement and also around the roughened surface of said pin.

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1,089,167. STARTER-SWITCH FOR DUAL IGNITION SYSTEMS. GEORGE W. WACKER, East Orange, N. J., assignor to The Simms Magneto Company, New York, N. Y., a Corporation of New York. Filed Dec. 20, 1912 Serial No. 737,888. (Cl. 123—165.)



1. In a switch mechanism for ignition systems the combination with an electric trembler provided with a vibrating contact of a movable contact normally out of contact with the vibrating contact and a push button independent of the movable contact, provided with a part adapted to engage said movable contact and move it into engagement with said vibrating contact.

2. In a switch mechanism for ignition systems the combination with an electric trembler provided with a vibrating contact of a spring actuated contact normally held out of contact with the said vibrating contact, and a push button independent of the spring actuated contact, in line with said spring actuated contact for moving it into contact with the vibrating contact.

3. In a switch mechanism for ignition systems, the combination with an electric trembler provided with a vibrating contact, of a spring actuated contact normally separated from said vibrating contact, a shifting part movable transversely with respect to said spring actuated contact, a push button carried by said shifting part, and adapted to be moved therewith into and out of alinement with said spring actuated contact, and a stop for said push button located adjacent to said spring actuated contact for preventing the operation of said push button, when the shifting part is moved to carry the push button out of alinement with said spring actuated contact.

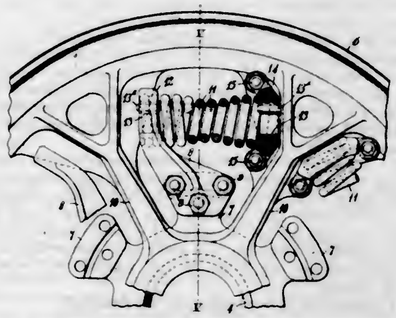
4. In a switch mechanism for ignition systems, the combination with an electric trembler provided with a vibrating contact, of a spring actuated contact normally separated from said vibrating contact, a shifting part movable transversely with respect to said spring actuated contact, a push button carried by said shifting part, and adapted to be moved therewith into and out of alinement with said spring actuated contact, and means for preventing the operation of said spring actuated contact when said shifting part is moved to carry said push button out of alinement therewith.

5. In a switch mechanism for ignition systems, the combination with an electric trembler provided with a vibrating contact, of a spring actuated contact normally separated from said vibrating contact, a shifting part movable transversely with respect to said spring actuated contact, a push button carried by said shifting part, and adapted to be moved therewith into and out of alinement with said spring actuated contact, a plate adjacent to said spring actuated contact, provided with a recess registering with the stem of said push button when the latter is in operative position whereby said plate will engage the stem of the push button and prevent its operation when the shifting part is moved to carry the push button out of alinement with the spring actuated contact.

[Claims 6 to 26 not printed in the Gazette.]

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1,089,168. RESILIENT DRIVING CONNECTION. JOHN E. WEBSTER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 24, 1911. Serial No. 640,194. (Cl. 105—259.)



1. A resilient connection comprising a helical spring having closed end turns of substantially equal diameters and intermediate turns of varying diameters, and spring grips comprising nuts into which the end turns of the spring are adapted to be screwed, and wedge blocks adapted to grip the end turns internally.



2. A helical spring composed of substantially closed end turns of equal diameter and open intermediate turns of varying diameters, the turns of the smallest diameter being in the middle of the spring.

3. A resilient connection comprising a helical spring having closed end turns of substantially equal diameters and intermediate turns of varying diameters and means for rigidly gripping the closed turns.

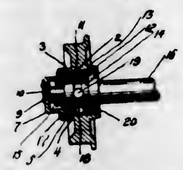
4. The combination with two relatively movable members, of an interposed helical spring, the end turns of which are closed, and means for circumferentially gripping the closed convolutions of said spring and clamping the same to the respective members.

5. The combination with two relatively movable members, of an interposed helical spring, the end turns of which are closed and the intermediate turns of which are of varying diameters, and means for circumferentially gripping the closed convolutions of said spring and clamping the same to the respective members.

[Claims 6 and 7 not printed in the Gazette.]

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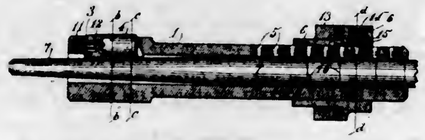
1,089,169. LUBRICATOR FOR PIT-CAR WHEELS. GUSTAVE WEINSCHENKER, New Alexandria, Pa. Filed Aug. 12, 1912. Serial No. 714,602. (Cl. 64—26.)



In combination, a wheel having a hub provided at its outer end with an inwardly extending annular flange forming a concentric opening, said hub having its inner face provided with an annular web spaced from said flange, an annular bearing surrounded by said flange and web, said bearing projecting beyond the web, a flanged plug mounted in the inner end of the hub and having its flange abutting against the web for spacing the plug from the web, said plug abutting against said bearing, a flanged cap secured to said flange of the hub and provided with a filling opening, said flange provided with grooves for establishing communication between the interior of the hub and cap, said web provided with a series of ports and said bearing provided centrally with a circumferentially arranged groove and radially disposed openings communicating with said groove.

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1,089,170. TUBE-EXPANDER. OTTO WIEDEKE, Dayton, Ohio, assignor of one-half to Gustav Wiedeke, Dayton, Ohio. Filed Sept. 24, 1913. Serial No. 791,505. (Cl. 153—82.)



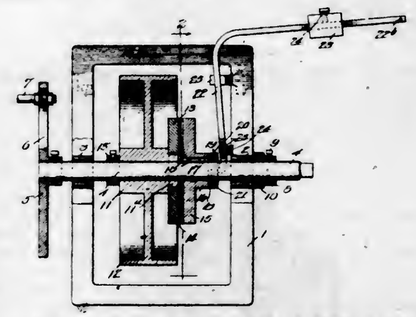
1. A tube expander, comprising an elongated cylindrical body terminating at one end in a head, provided with the necessary roller apertures, the rearward end walls of said apertures being tapered outwardly and the said walls of said apertures having inwardly lying shoulders extending therefrom, a series of expanding rollers confined within said openings the rearward ends of which lie between said shoulders and the outer longitudinal edges of the apertures, said rollers having each an aperture in its outer end, and means projected through the head and engaging said last named apertures to support the outer ends of said rollers, substantially as specified.

2. A tube expander, comprising a cylindrical body terminating at one end in a head provided with roller openings, the rearward walls of said openings being tapered and the rearward sides of said openings having shoulders extending inwardly therefrom, a series of expanding rollers within the openings in said head, said rollers having axial openings in the outer ends thereof, pins projected through said head and entering said axial openings, said axial openings being substantially larger than the inclosed ends of the pins whereby means are provided for preventing the rollers from becoming dislodged in the head and for enabling the mandrel to expand said rollers, substantially as specified.

3. In a tube expander, a cylindrical body, a series of expanding rollers mounted in said body, and a mandrel adapted to be inserted in said body to expand said rollers, said mandrel having gage marks on the surfaces thereof, and means for preventing the rollers from being dislodged from said body when the mandrel is withdrawn, said means comprising interior shoulders projecting from the rearward ends of the roller openings, and pins extending into openings in the ends of said rollers, substantially as specified.

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1,089,171. FRICTION-CLUTCH. NEWTON J. WIGGINTON, Winchester, Va. Filed Apr. 3, 1912. Serial No. 688,191. (Cl. 192—8.)



1. In a friction clutch mechanism, a shaft, a pair of clutch members, one of said clutch members being movable longitudinally of the shaft, and means for moving said last named member, said means comprising a lever having a yoke arranged to straddle the shaft and adapted to engage said movable member, a portion of said lever being bent laterally into a horizontal position and being provided with a slidable weight for varying the thrust of the lever.

2. In a friction clutch mechanism, a pair of clutch members, a lever for causing the engagement of said clutch members, said lever having a laterally bent substantially horizontal portion, a weight supported by the horizontal portion and adjustable to various positions along the lever, and means for locking the weight in its adjusted position.

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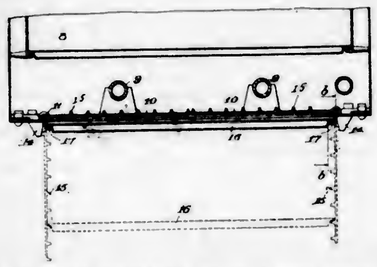
1,089,172. GAS-STOVE. FREDERICK WILL and HUGO BECKER, Rochester, N. Y., assignors to Sill Stove Works, Rochester, N. Y., a Corporation of New York. Filed Jan. 22, 1912. Serial No. 672,623. (Cl. 126—39.)

1. A gas stove comprising a burner, a stove bottom disposed below the burner, said stove bottom including a pair of hinged sections and means for supporting a broiler below the burner when the sections are lowered.

2. A gas stove comprising a burner, a stove bottom disposed below the burner, said stove bottom including a pair of movable sections adapted to be lowered from their normal position, and means carried by the sections for supporting a broiler between them when the sections are lowered.

3. A gas stove comprising a burner, a stove bottom disposed below the burner, said stove bottom including a pair

of hinged sections, and guideways arranged on the sections whereby to support a broiler when the sections are lowered.



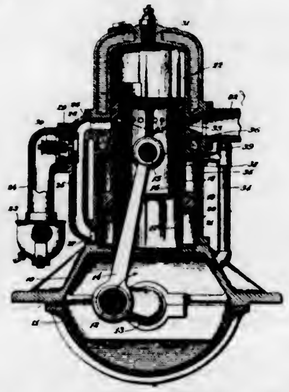
4. A gas stove comprising a burner, a stove bottom disposed below the burner, said stove bottom including a pair of hinged sections, guideways arranged on the sections whereby to support a broiler when the sections are lowered, and means for holding the sections raised.

5. A gas stove comprising a burner, a stove bottom disposed below the burner, said stove bottom including hinged sections movable to a vertical position, and means carried by said sections for supporting a broiler below the burner when in such vertical position.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,173. GAS-ENGINE. HENRY F. WILL, Michigan City, Ind. Filed Nov. 4, 1911. Serial No. 658,493. (Cl. 123—74.)

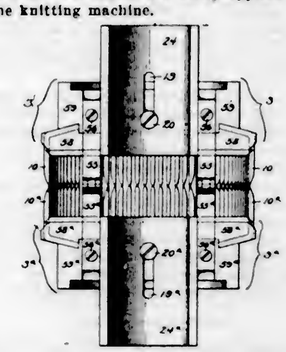


In a gas engine, the combination with a closed casing, a cylindrical shell extending upwardly therefrom, and a charging cylinder surrounding said shell and having an explosion chamber above the end of said shell, of a piston movable in said shell and extending into said explosion chamber, a sleeve movable upon said shell and having an end thereof detachably connected to said piston to cooperate therewith in providing a head in said explosive chamber, a piston head carried by said sleeve within said charging cylinder, a gas conduit connecting the charging cylinder and a port in said explosive chamber, a gas supply pipe for said conduit, a check valve in the gas supply pipe and opening into said conduit, and a relief pipe connecting said casing and the space between said charging cylinder and said sleeve.

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1,089,174. STITCH TRANSFERRING AND DOUBLING DEVICE. LOUIS N. D. WILLIAMS, Ogontz, Pa. Filed Aug. 6, 1913. Serial No. 783,297. (Cl. 66—32.)

1. The combination, in a stitch-transferring device, of a circular series of stitch receiving quills, a two-part carrier therefor, and a hinge connection located within the circle of quills whereby it may occupy an operative relation to the quills while the latter are being applied to the needles of the knitting machine.

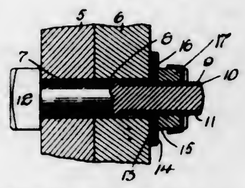


2. The combination, in a stitch-transferring device, of a circular series of stitch-receiving quills, a two-part carrier therefor, and a hinge fixedly located in operative position within the circle of quills.

3. The combination, in a stitch-transferring device, of a circular series of stitch receiving quills, a two-part carrier therefor, and a hinge connection fixedly attached to the parts of said carrier within the circle of quills.

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1,089,175. NUT-LOCK. WALTER R. WILSON, Pittsburgh, Pa. Filed Dec. 11, 1913. Serial No. 806,088. (Cl. 151—3.)



1. A nut lock comprising a grooved bolt, a grooved nut mounted thereon, and a locking washer positioned upon the bolt and having its outer edge provided with a retaining arm extending against the outer face of the washer and through said grooves and engaging a facet of the nut whereby the nut and bolt will be prevented from turning with respect to each other.

2. A nut lock comprising a bolt provided with a plurality of grooves, a nut engaging therewith and formed with a plurality of grooves, and a locking washer positioned upon the bolt and having projecting from its outer edge a pair of bendable retaining arms adapted to be maintained against the outer face of the washer by said nut and further extending through the grooves of the bolt and the grooves of the nut and further engaging a pair of facets of the nut whereby rotation of the nut with respect to the bolt is prevented.

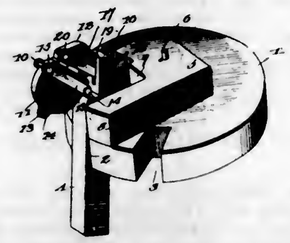
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1,089,176. SWITCH-STAND LOCK. CHARLES WOOD, Moulton, Iowa. Filed Jan. 31, 1912, Serial No. 674,404. Renewed Jan. 20, 1914. Serial No. 813,274. (Cl. 104—25.)

1. In combination with the switch stand, the operating shaft, and the laterally disposed arm secured to the shaft and provided with a recess for receiving the operating lever when said lever is in alinement with the arm, and the operating lever pivoted to the arm, of means for locking the operating lever to the stand when said lever is swung out of alinement with the arm said means comprising a padlock composed of a locking body having a perforated lug, and a shackle, means for securing the shackle to the



lever, and means for securing the body to the arm in position to receive the bolt on the shackle when the lever is swung out of alinement with the arm, said first named means comprising a link, a bolt passing through the link at each end thereof, the outermost bolt passing through the shackle and connecting the link thereto, and the innermost bolt passing through the inner end of the lever, said lever having a slot for receiving the adjacent end of the link, said last-named means comprising a link, a bolt passing through the link at each end, and a bracket plate secured to the arm and having openings for the last-named bolts, each of the said last-named bolts passing through one of the said openings.



2. In combination with the switch stand, the operating shaft, and the laterally disposed arm secured to the shaft and provided with a recess for receiving the operating lever when said lever is in alinement with the arm, and the operating lever pivoted to the arm, of means for locking the operating lever to the arm when said lever is swung out of alinement with the arm, said means comprising a padlock composed of a locking body, and a shackle, means for securing the shackle to the lever, and means for securing the body to the arm in position to receive the bolt on the shackle when the lever is swung out of alinement with the arm, said first named means comprising a link, a bolt passing through each end of the link, said shackle having a perforated lug for receiving the outermost bolt, the inner end of the lever having an opening for engagement by the innermost bolt, said last named means comprising a link, a bolt passing through each end of the link, and a bracket plate secured to the stand and having openings for receiving the bolts.

3. In combination with the switch stand, the operating shaft, and the laterally disposed arm secured to the shaft and provided with a recess for receiving the operating lever when said lever is in alinement with the arm and the operating lever pivoted to the arm, of means for locking the operating lever to the arm when said lever is swung out of alinement with the arm, said means comprising a padlock composed of a locking body, and a shackle, means for securing the shackle to the lever, and means for securing the body to the arm in position to receive the bolt on the shackle when the lever is swung out of alinement with the arm, the said means comprising a link for the body and a link for the shackle, bolts passing through each end of each link, the shackle and the inner end of the lever having each a perforation for receiving one of the bolts, and a plate secured to the stand for engagement by the bolts passing through the ends of the link of the body.

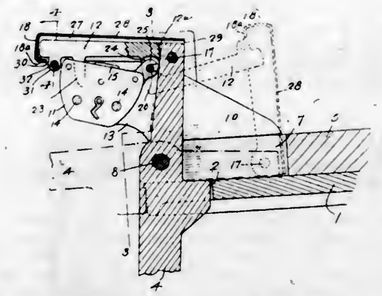
4. In combination with the switch stand, the operating shaft, and the laterally disposed arm secured to the shaft and provided with a recess for receiving the operating lever when said lever is in alinement with the arm, and the operating lever pivoted to the arm, of means for locking the operating lever to the arm when said lever is swung out of alinement with the arm, said means comprising a padlock composed of a locking body, and a shackle, means for securing the shackle to the lever, and means for securing the body to the arm in position to receive the bolt on the shackle when the lever is swung out of alinement with the arm.

5. In combination with the switch stand, the shaft, the operating lever, and the connection between the said lever and the shaft for permitting the lever to swing on an axis transverse to the shaft and for preventing angular movement of the lever with respect to the shaft, of a padlock comprising a body and a shackle, means for securing the shackle to the lever, and means for securing the body to the shaft in such relative position that when the lever is swung out of operative position with respect to the shaft and into inoperative position with the switch closed the shackle will engage the body.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,177. SWITCH-STAND LOCK. CHARLES WOOD, Moulton, Iowa. Filed May 11, 1912, Serial No. 696,622. Renewed Jan. 20, 1914. Serial No. 813,275. (Cl. 104—25.)



1. In combination with the switch stand, the operating shaft, and the laterally disposed arm secured to the shaft and provided with a recess for receiving the operating lever when said lever is in alinement with the arm, and the operating lever pivoted to the arm, of means for locking the operating lever to the arm when said lever is swung out of alinement with the arm, said means comprising a padlock composed of a locking body, and a shackle, means for securing the shackle to the lever, said means comprising a channel bar pivoted at one end to the upper end of the operating lever, the shackle being received in the channel of the bar, and a pivotal connection between the opposite end of the channel bar and the adjacent end of the shackle.

2. In combination with the switch stand, the shaft and the operating lever pivoted to the shaft for swinging movement on an axis transverse to the shaft, and secured to the shaft to prevent angular movement of the lever with respect to the shaft, of a padlock comprising a body and a shackle, means for securing the shackle to the lever, means for connecting the body to the shaft in position to receive the shackle when the lever is dropped into inoperative position, said connecting means for the shackle comprising a channel bar, the shackle being received in the channel bar, a pivotal connection between one end of the channel bar and the lever, and a pivotal connection between the other end of the channel bar and the shackle.

3. In combination with the operating shaft of the switch, the lateral arm secured thereto, the lever pivoted to the arm, and the stand having notches for receiving the lever when in inoperative position out of alinement with the arm, of a padlock shackle carried by the lever and a padlock body carried by the arm for locking the lever out of alinement with the arm and in either notch of the stand, the connecting means for the shackle comprising a channel bar pivoted at one end to the lever and at the other end to the shackle, said shackle resting in the channel, and the connection between the lever and the channel bar being releasable.

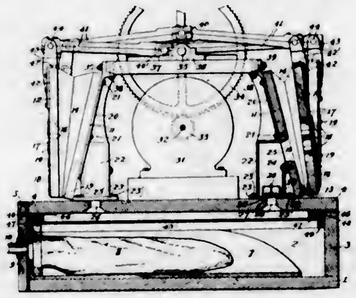
4. In combination with the operating shaft of the switch, the lateral arm secured thereto, the lever pivoted to the arm, and the stand having notches for receiving the lever when in inoperative position out of alinement with the arm, of means carried by the lever and the arm for locking the lever out of alinement with the arm and in either notch of the stand, said means comprising a pad-

lock having a body and a shackle, a channel bar for connecting the shackle to the lever, and means for connecting the body to the arm in position to engage the shackle when the lever is moved into engagement with a notch of the stand, the connection between the channel bar and the lever being releasable for the purpose specified.

5. The combination with the switch stand having notches, the operating shaft of the switch, the lateral arm secured thereto, the lever pivoted to the arm and adapted to engage the notches when in inoperative position out of alinement with the arm, of a channel bar connected at one end to the lever, a padlock shackle in the channel of the bar and pivoted thereto at the opposite end from the lever, and a padlock body carried by the stand and in position to receive the catch of the shackle when the lever is in inoperative position.

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1,089,178. EXHAUST APPARATUS. MORRIS S. WRIGHT, Worcester, Mass., assignor to Morris S. Wright Company, Worcester, Mass., a Corporation of Massachusetts. Filed Sept. 1, 1910. Serial No. 580,138. (Cl. 230—2.)



1. In an apparatus of the character described, a vacuum chamber having an outlet in its top adjacent opposite ends, a motor supported on the top of the vacuum chamber intermediate said outlets, a drive wheel having operative connection with said motor, a shaft for the wheel, pumps adapted to have communication with said outlets, one member of each pump being stationary, and the other movable, a longitudinally extending support for said shaft extending between and supported upon the stationary members of the pumps, and connections between said drive wheel and the movable members of the pumps for operating the latter.

2. In an apparatus of the character described, a vacuum chamber having an outlet in its top adjacent opposite ends, a motor supported on the top of the vacuum chamber intermediate said outlets, a drive wheel having operative connections with said motor, a shaft for the wheel, pumps adapted to have communication with said outlets, one member of each pump being stationary, and the other movable, a longitudinally extending support for said shaft extending between and supported upon the stationary members of the pumps, and connections between said drive wheel and the movable members of the pumps for operating the movable members of the respective pumps alternately in opposite directions.

3. In an apparatus of the character described, a vacuum chamber having in its top adjacent opposite ends an outlet opening, pumps one adjacent opposite ends of the vacuum chamber, said pumps comprising a fixed and a pivotally connected member, the fixed member having communication with the adjacent outlet of the vacuum chamber, a longitudinally extending support projecting between and supported on the fixed members of the pumps, a transversely extending drive shaft having a bearing in said longitudinally extending support and opposite rods connecting at one end with a movable member of the pumps, and at their oppositely disposed ends with said shaft.

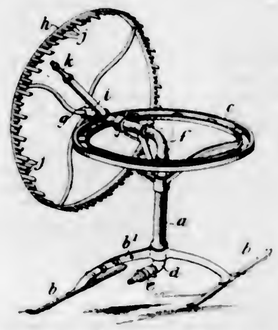
4. In an apparatus of the character described, a vacuum chamber having two outlets, a pump for each outlet, said pumps each comprising a relatively fixed and a movable member, means for supporting the fixed members on the vacuum chamber, a motor also supported on the vacuum chamber between the ends thereof, a gear projecting therefrom, a drive wheel having a gear connection with the motor gear, a crank shaft for said drive wheel and oppositely extending arms connected to said shaft for movement by the latter, said arms having connection respectively with the movable members of the pumps.

5. In an apparatus of the character described, a vacuum chamber having two outlets, a pump for each outlet, said pumps each comprising a relatively fixed and a movable member, means for supporting the fixed members on the vacuum chamber, a motor also supported on the vacuum chamber between the ends thereof, a gear projecting therefrom, a drive wheel having a gear connection with the motor gear, and oppositely extending oscillating arms operatively connected with said wheel for movement by the latter, said arms having connection respectively with the movable members of the pumps whereby the movable members will be moved in opposite directions at the same time.

[Claims 6 to 23 not printed in the Gazette.]

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1,089,179. SPRINKLER FOR LAWNS, GOLF-GREENS, GARDENS, AND THE LIKE. PAUL ZEYSSOLFF, Munster, Germany, assignor to Lloyd Lawrence & Co., London, England. Filed Feb. 8, 1913. Serial No. 747,075. (Cl. 137—59.)




1. In a sprinkler for lawns and the like, the combination with a circular table or platform, an arm pivoted at the center of said table or platform, a wheel mounted on the said arm so that its plane of rotation is perpendicular to a radius of the said table or platform, a series of lateral blades upon said wheel, and a nozzle for directing a jet of water against the inside of the said blades for causing the rotation of the said wheel.

2. In a sprinkler for lawns and the like, the combination of a circular table or platform, an arm jointed in the center of the said table and adapted to rotate in a horizontal plane, a rotating wheel mounted on the extremity of the said arm and having its hub adapted to rotate on the table, a series of blades carried by the said wheel and a nozzle carried by the horizontal arm and adapted to direct a jet of water on to the said blades to cause the rotation of the wheel on its axis and its revolution around the vertical axis, substantially as described.

3. In a sprinkler for lawns and the like, a wheel having a series of lateral blades upon it, a horizontally rotating water carrying arm carrying the said wheel, a nozzle provided on said arm and designed to direct a jet of water against the said blades, and means for moving the wheel longitudinally upon the horizontal arm for the purpose of varying the position of the jet of water issuing from the nozzle with relation to the said blades, substantially as described.

4. In a sprinkler for lawns and the like, the combination with a horizontal table or platform, a horizontal arm rotating with relation to the said table or platform and a wheel mounted upon said arm and running upon the platform, of means comprising a cam rib and groove for automatically moving the wheel longitudinally upon the arm, substantially as described.

5. In a sprinkler for lawns and the like, the combination with a circular track, an arm pivoted at the center of said track and a wheel adapted to rotate in a plane perpendicular to a radius of the said track, of a series of lateral blades upon the said wheel, and a nozzle for directing a jet of water against the said blades.

[Claim 6 not printed in the Gazette.]



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1,089,180. SOCKET-SHELL AND HOLDER COMBINED. LAURITZ W. ANDERSEN, Waterbury, Conn., assignor to The Plume and Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 12, 1913. Serial No. 784,329. (Cl. 240—111.)



1. A combined socket shell and shade holder comprising a shell adapted to receive and envelop a socket within the same, and a sleeve detachably secured to the interior of said shell and adapted to retain the socket therein, said sleeve being also enveloped by the shell, as set forth.

2. A combined socket shell and shade holder comprising a shell adapted to receive and envelop a socket, a sleeve adapted to be secured within said shell, said sleeve and shell being provided with means for limiting the inward movement of the sleeve, said sleeve being also enveloped within the shell, as set forth.

3. A combined socket shell and shade holder comprising a shell adapted to receive and envelop a socket, the shell being adapted to support a shade at its lower end, said shell having a thread intermediate its ends, and a sleeve adapted to be inserted within the shell for the purpose of retaining a socket therein, the upper end of said sleeve being threaded to engage the threaded portion of the shell, as set forth.

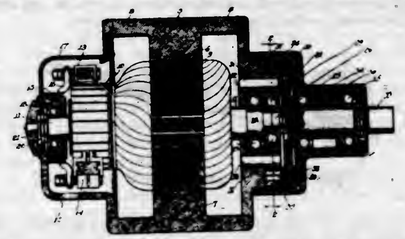
4. A combined socket shell and shade holder comprising a shell adapted to receive and envelop a socket and support a shade at its lower end, said shell being threaded intermediate its ends, a sleeve threaded at its upper end and adapted to engage the threaded portion of the shell, said sleeve being arranged within the shell and enveloped thereby, and provided with a collar or shoulder adapted to limit the inward movement of said sleeve with reference to the shell.

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1,089,181. SPEED-REDUCTION GEARING. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Mar. 24, 1913. Serial No. 756,349. (Cl. 74—35.)

1. In a device of the character described, a driving shaft; an eccentric rotatable thereby; a spur-gear radially movable by said eccentric; a driven shaft; an internal-gear member overlying said spur-gear, in mesh therewith, having a different number of teeth therefrom and directly carried by said driven shaft; a casing wall adjacent one face of the spur gear, and a stud secured in said wall and projecting into an opening in said spur gear.

2. In a device of the character described, a driving shaft; an eccentric rotatable thereby; a spur-gear, radially movable by said eccentric; a driven shaft having its inner end expanded into a disk with an overhanging internal gear member provided with a different number of teeth from and in mesh with said spur-gear, a casing wall



adjacent one face of the spur gear, and studs secured in said wall and projecting into openings in said spur gear.

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1,089,182. PAVING APPARATUS. ROBERT D. BAKER, Detroit, Mich. Filed Apr. 2, 1913. Serial No. 758,422. (Cl. 94—61.)



1. Apparatus for constructing armored pavement joints comprising, in combination, a supporting member adapted to be placed over a roadbed and having a lower portion formed to serve as a gage for the finished surface of a pavement to be laid on such roadbed, and means for holding a joint armoring member with its upper or wearing edge in substantial abutment with said lower portion.

2. Apparatus for constructing armored pavement joints comprising a substantially rigid supporting member adapted to be placed over a roadway and provided with means for receiving and suspending joint-armoring members over such roadbed during the construction of a pavement with their upper or wearing faces substantially at the exact elevation of the finished surface of the pavement to be laid, said supporting member being shaped to conform approximately to the contour of the finished pavement and being adapted to serve as a gage therefor.

3. Apparatus for constructing armored pavement joints comprising a substantially rigid supporting member adapted to extend transversely of a roadway and provided with means for accurately alining the upper or wearing edges of the joint-armoring plates to be supported thereby, and means on said member adapted to engage such joint-armoring plates and to suspend the same at a predetermined elevation above a roadway.

4. Apparatus for constructing armored pavement joints comprising, in combination, a bar adapted to be placed over a roadway and having a substantially flat lower face, and means for securing a joint armoring member thereto with its upper or wearing edge abutting against said face.

5. Apparatus for constructing armored pavement joints comprising a supporting beam, and clamping means mounted thereon and extending therebelow and arranged to engage and hold joint-armoring means wholly below said beam.

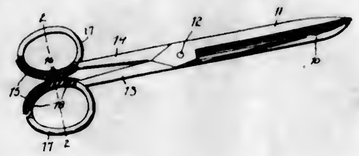
[Claims 6 to 12 not printed in the Gazette.]

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1,089,183. SHEARS-HANDLE. MAX BEER, Rensselaer, N. Y. Filed Apr. 7, 1913. Serial No. 759,498. (Cl. 30—13.)

1. A pair of shears comprising two blades pivotally secured at their ends, extensions formed on said blades adjacent their pivoted ends, said extensions projected rearwardly and terminating in curved portions, each of said curved portions being substantially concavo-convex in cross section and lying in direct alinement with each other, elliptical members formed of a yielding material and adapted to conform to the shape of the curved portions on

the extensions, said elliptical members being adapted to form cushions for the hands of the operator and also to assist in opening the shears when the device is in use, and means to secure the elliptical members in place.



2. A pair of shears comprising two blades pivotally secured at their ends, extensions formed on each of the blades adjacent their pivoted ends, said extensions projecting rearwardly and terminating in curved portions, bows of elastic material, each of the curved portions being provided with recesses to receive the bows, said bows being adapted to form cushions for the hands of the operator, and means to secure the bows in place.

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1,089,184. MOLD FOR FORMING SUNKEN CONCRETE STRUCTURES. ROBERT H. BOLEN, New Orleans, La. Filed Sept. 18, 1913. Serial No. 790,443. (Cl. 72—81.)



1. A mold for forming concrete structures, comprising oppositely-disposed channel-irons having their flanges arranged outwardly, means for securing the irons apart from each other, guides formed on one set of flanges, a detachable closure-plate slidable in said guides, and a detachable division-plate slidable in guide-ways, formed in adjacent edges of the other set of flanges.

2. A mold for forming concrete structures, comprising oppositely-disposed channel-irons arranged with their flanges extending outwardly, means for securing the irons a distance apart from each other, hook-shape guide-ways formed on one set of oppositely-disposed flanges, a detachable closure-plate slidable in said guide ways, grooved guide-ways formed in the adjacent edges of the other set of flanges, and a detachable division-plate slidable in said guideways.

3. A mold for forming concrete structures, comprising oppositely-disposed channel irons having their flanges arranged outwardly, means for securing said irons spaced apart, hook-shaped guide-ways formed on one set of flanges, a detachable closure plate slidable in said guideways, grooved guide-ways formed in the adjacent edges of the other set of flanges, a detachable division-plate slidable in the grooved guideways, and a driving-box arranged between the channel-irons so as to leave a pouring-space at each side thereof.

4. A mold for forming concrete structures, comprising oppositely-disposed channel-irons having their flanges arranged outwardly, means for securing the channel irons spaced apart, guide-ways formed on one set of flanges, a detachable closure-plate slidable in said guide-ways, grooved guideways formed in the adjacent edges of the other flanges, a detachable division-plate slidable therein, and a hinged bottom arranged to open upon the withdrawal of the mold for a short distance.

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1,089,185. PRODUCING AMMONIA. CARL BOSCH and ALWIN MITTASCH, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Nov. 11, 1912. Serial No. 730,646. (Cl. 23—21.)

1. The process of producing ammonia by passing nitrogen and hydrogen alternately over a catalyst containing molybdenum and maintained at a temperature between about 300° and 900° C.

2. The process of producing ammonia by passing nitrogen and hydrogen alternately under pressure over a catalyst containing molybdenum and maintained at a temperature between about 300° and 900° C.

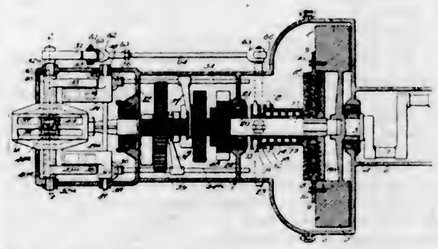
3. The process of producing ammonia by passing nitrogen and hydrogen alternately at a pressure above 100 atmospheres over a catalyst containing molybdenum and maintained at a temperature between 300° and 900° C.

4. The process of producing ammonia by passing practically pure hydrogen and nitrogen containing small quantities of hydrogen alternately over a catalyst containing molybdenum at a temperature of between about 300° and 900° C.

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1,089,186. TRANSMISSION MECHANISM. ALOYSIUS B. BROCKMAN and WILLIAM BROCKMAN, Lawrence, Nebr. Filed June 14, 1912. Serial No. 703,692. (Cl. 74—59.)

1. A device of the character specified, comprising a



crank shaft, a transmission shaft, a clutch for connecting the crank shaft and the transmission shaft, a spring normally pressing the clutch sections together, means for holding the sections apart, an operating shaft, a casing in which the shaft is journaled, a collar secured to the shaft, a selective lever connected to the collar for swinging movement longitudinal to the shaft, a sleeve on the shaft on each side of the collar, an arm on the inner end of each sleeve, each arm having a lug extending toward the lever, said casing having a pair of parallel guideways extending transverse to the shaft for holding the lever in engagement with the lug of the adjacent arm, said casing having a passage connecting the guideways at the neutral position of the lever, a gear transmission mechanism for connecting the transmission shaft to the axle at different speeds, means operated by the angular movement of the lever in either direction and in either guideway for operating said transmission mechanism, and a connection between the lever and the holding means for releasing the same at the end of the movement of the lever.

2. In a transmission mechanism for motor vehicles, a drive shaft, a transmission shaft, a plurality of means for connecting the said shafts to cause them to rotate at different speeds with respect to each other, an operating shaft, an operating sleeve journaled on the shaft, on each side of the lever, a connection between the sleeves and the said connecting means to operate one of the said means when either sleeve is moved in either direction, a selective lever mounted to swing longitudinally of the operating



shaft and to rotate the said shaft, an arm arranged on each side of the said lever, one of the arms being connected to each sleeve, each arm having a laterally extending lug for engagement by the lever to operate the sleeve when the lever is moved angularly with respect to the shaft, a pair of parallel guideways for guiding the lever in its angular movement when in engagement with either arm, said guideways having a communication for receiving the lever when in neutral position, and yielding means for normally retaining the lever in such position.

3. In a transmission mechanism for motor vehicles, a drive shaft, a transmission shaft, a plurality of means for connecting the said shafts to cause them to rotate at different speeds with respect to each other, an operating shaft, an operating sleeve on the shaft on each side of the lever, a connection between the sleeves and the said connecting means for operating one of said means when either sleeve is moved in either direction, a selective lever mounted to swing longitudinally of the operating shaft and to rotate the said shaft, a pair of guideways arranged alongside each other transversely of the operating shaft, said guideways having a communication for receiving the lever when the said lever is in neutral position, means connected with each sleeve adjacent to one of the guideways for engagement by the lever when in the guideway to move the sleeve, and yielding means for normally retaining the lever in the communication between the guideways.

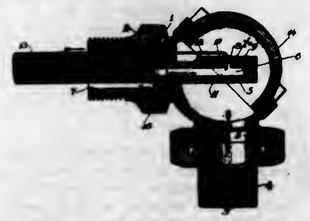
4. In a transmission mechanism for motor vehicles, a drive shaft, a transmission shaft, a plurality of means for connecting the said shafts to cause them to rotate at different speeds with respect to each other, an operating shaft, an operating sleeve on the shaft, a connection between the sleeves and the said connecting means for operating one of the said means when either sleeve is moved in either direction, a selective lever mounted to swing longitudinally of the operating shaft and rotate the said shaft, a pair of guide-ways arranged alongside each other transversely of the operating shaft, said guideways having a communication for receiving the lever when the said lever is in neutral position, and means connected with each sleeve adjacent to one of the guideways for engagement by the lever when in the guide-way to move the sleeve.

5. In a transmission mechanism for motor vehicles, the combination with the speed changing gears, of an operating shaft, sleeves on the ends of the shaft for operating the said gears, a selective lever mounted to swing longitudinally of the operating shaft and to rotate the said shaft, a pair of guide-ways arranged alongside each other transversely of the operating shaft, said guide-ways having a communication for receiving the lever when it is in neutral position, and means adjacent to each guideway and connected with the adjacent sleeve for engagement by the lever when in the guideway, each sleeve being connected with a speed changing gear for operating the same.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,187. METHOD AND MEANS FOR SEPARATING FLUIDS HAVING DIFFERENT CHARACTERISTICS. CHARLES S. BROWN, Nashville, Tenn. Filed Mar. 23, 1908. Serial No. 422,860. (Cl. 237—19.)



1. The method of separating fluids having different characteristics, which consists in causing them to flow into a passage of increasing area, thereby producing a pressure in said passage according to the expansion or velocity of said fluids, and causing said passage to be controlled by the pressure therein, whereby one fluid is permitted to escape but the escape of another fluid is substantially prevented.

2. The method of separating fluids having different characteristics, which consists in causing them to flow through a central orifice, and then through a passage extending radially from said orifice and increasing rapidly in area, thereby varying the pressure in said passage and causing said variation in pressure to operate a movable device and thereby control said passage, whereby one or more fluids are permitted to escape but the escape of another fluid is substantially prevented.

3. The method of separating fluids having different characteristics, which consists in causing them to flow through an orifice, and then to spread out in a thin film so as to vary the pressure in said film, and thereby causing said variation in pressure to operate a movable device and thereby control said orifice whereby one or more fluids are permitted to escape but the escape of another fluid is substantially prevented.

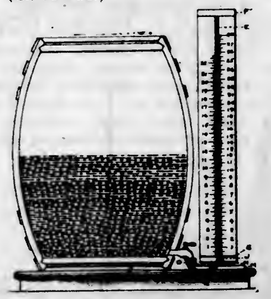
4. The method of separating fluids having different characteristics, which consists in causing them to flow into a passage of increasing area, and causing the pressure in said passage to be varied by the different action of the respective fluids, and causing this variation of pressure to operate a movable part by such variation of pressure in said passage so as to control the passage whereby one or more fluids are permitted to escape but the escape of another fluid is substantially prevented.

5. The method of separating fluids having different characteristics, which consists in causing them to flow in a passage of rapidly increasing area, thereby varying the pressure in said passage, and causing the variation in pressure to operate a movable part so as to control the passage, whereby one or more fluids are permitted to escape but the escape of another fluid is substantially prevented.

[Claims 6 to 30 not printed in the Gazette.]

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1,089,188. PORTABLE INVOICE-ROD. CLEMENT M. CAREW, Titusville, Pa. Filed Apr. 22, 1912. Serial No. 692,471. (Cl. 73—54.)



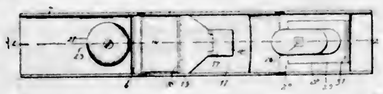
In an invoice rod, the combination with proximate parallel scale strips having each a groove in its inner face, a gage tube fitting in said grooves, a connecting-piece connecting the scale strips at the top, a connecting piece connecting said scale strips at the bottom, said bottom connecting piece having a depending extension and also an opening at one side, a broad base having a sleeve to receive the extension in said bottom connecting-piece, a finger-operated clamping screw in the sleeve to engage the extension for securing the device to the base, and a flexible tube connected with the opening in the side of the bottom connecting piece.

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1,089,189. IRON PLANE. THOMAS S. CARLISLE, Ocean City, N. J. Filed Apr. 9, 1913. Serial No. 760,062. (Cl. 145—19.)

The combination with a plane of a detachable toat including a body portion, a rectangular plate, means for securing said rectangular plate to said body portion at the

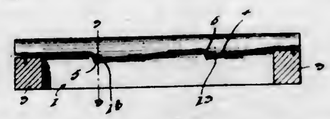
lower terminal thereof, said base plate being chamfered on its forward transverse edge and side edges and straight on its rear transverse edge, a substantially U-shaped frame, said frame being provided with grooves on its inner, forward edge and side edges to receive the chamfered edges



of said base plate and provided with transverse grooves adjacent its free terminals and an arcuate leaf spring having its terminals slidably mounted in the recesses in the frame, said spring adapted to hold said base plate in assembled position by engagement with the rear straight transverse edge thereof.

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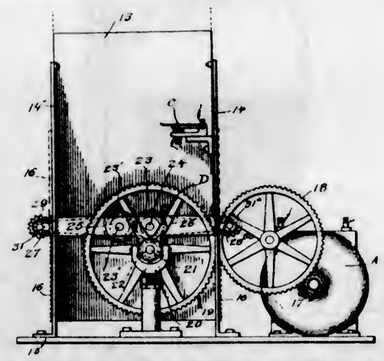
1,089,190. WEED-SCREEN. JACOB EHRHARDT, Ramona, Kans. Filed Oct. 29, 1913. Serial No. 797,974. (Cl. 130—19.)



In a device of the character described a rectangular frame, having depressions and upwardly extending shoulders formed on its lateral members, screening secured to the frame, said screening being adapted to enter the depressions and conform to the contour of the depressions and shoulders, and inwardly curved guides secured to the side pieces of the frame and adapted to conform to the shape of the side pieces and materially assist in maintaining the screen in its normal corrugated position.

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1,089,191. TRAIN-STOPPING DEVICE. JOSEPH L. EIRICH, Brooklyn, N. Y. Filed June 14, 1913. Serial No. 773,798. (Cl. 246—59.)

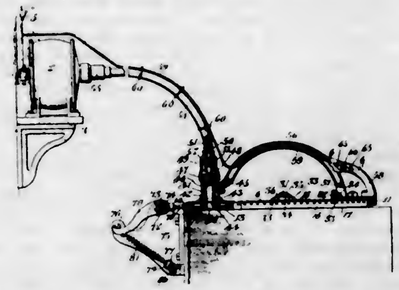


1. In a train stopping device, the combination with a semaphore signal mechanism having an oscillating arm and electric contacts thereon, of a vertically adjustable track obstacle, an electric motor geared with said obstacle for raising same, a latch for holding said obstacle in raised position, an electro-magnet for releasing said latch, an electric circuit connected with the contacts on the semaphore arm when in lowered position for actuating the motor to raise the obstacle, and an electric circuit connected with the contacts on said semaphore arm when in raised position to actuate said latch-operating electro-magnet to permit said obstacle to lower, substantially as described.

2. In a train stopping device, the combination with a semaphore signal mechanism having an oscillating arm and electric contacts thereon, of a vertically adjustable track obstacle, an electric motor geared with said obstacle for raising same, an electric circuit connected with the contacts on the semaphore arm adapted to energize the motor for raising the obstacle, a circuit breaker adjacent said obstacle, and means carried on the obstacle for operating said circuit breaker when the obstacle attains the desired height, substantially as described.

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1,089,192. MEAT-SAW. ALLEN S. ERQUHART and CYPRIEN DUCLOS, Coalinga, Cal. Filed Feb. 24, 1911. Serial No. 610,656. (Cl. 143—24.)

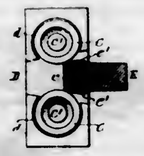


1. A meat sawing machine including a band saw, a hollow substantially V-shaped saw carrying frame composed of two members joined at one end at the angle of the frame, said frame being closed at the top and open at the bottom and having pulleys mounted within it at the angle and ends of the V-shaped frame and receiving and forming a guard for two runs of the band saw and exposing the other or active run of the band saw at the unjoined ends of the said members, and an arched bar connecting the unjoined ends of the saw carrying frame above the plane of the active run of the band saw.

2. A meat saw including a fixed guiding frame having inner upper and lower horizontal rods and an outer horizontal rod, a sleeve slidable on the upper horizontal rod and provided with an outwardly projecting arm extending beneath and having its upward movement limited by the outer horizontal rod, a spring slidably connected with the lower inner rod and secured to the said arm, and a saw carrying frame connected to the sleeve and slidable longitudinally of the guiding frame and adapted to swing upwardly and downwardly.

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1,089,193. ANTIRATTLER FOR VEHICLE-DOORS. HORACE ERVIEN, Ogontz, Pa. Filed Dec. 14, 1910. Serial No. 597,245. (Cl. 70—119.)



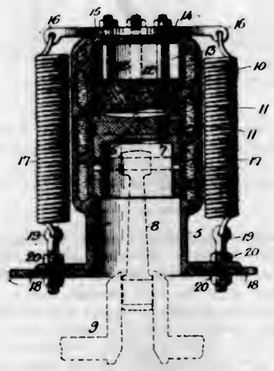
1. The combination in an anti-rattling device for vehicles, of a keeper secured to the door frame; consisting of a plate having two sockets; posts projecting into the sockets; a flexible roller mounted on each post; a transverse slot extending through the keeper; with a plate arranged to be secured to the door and having a lateral wedge-shaped projection with shoulders back of the wedge portion; said projection being arranged to enter the transverse slot in the keeper and projecting between the two flexible rollers; the rollers, when the door is closed, resting back of the shoulders.

2. The combination in an anti-rattling device for doors, of a roller having a rubber center; with a thin shell of yielding material extending around the periphery of the flexible center; with a shouldered projection arranged to engage the roller; one part being mounted on the door and the other on the door frame.



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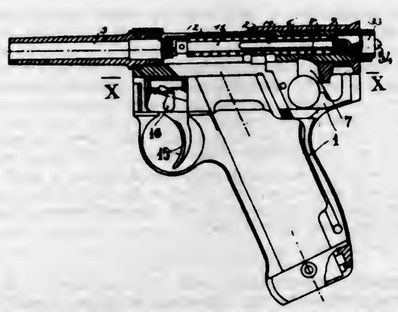
1,089,194. EXPLOSIVE-ENGINE. ALBIN E. S. FAGERHOLM, Brooklyn, N. Y., assignor to Nels A. Nelson, Brooklyn, N. Y. Filed Dec. 16, 1911. Serial No. 666,096. (Cl. 123—78.)



An engine comprising a cylinder provided at its side with an exhaust passage, a piston slidably mounted in the cylinder, and arranged to move over the exhaust passage, a head movably mounted in the cylinder between the exhaust passage and the end of the cylinder, studs attached to the head and slidably passing through the end of the cylinder, a yoke attached to the studs, and springs connected with the yoke and the cylinder and normally holding the yoke against the end of the cylinder said studs and yoke arranged to coöperate with the cylinder to limit the movement of the head in the cylinder to a path between the exhaust passage and the end of the cylinder.

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1,089,195. AUTOMATIC PISTOL. VITTORIO FALCO, Turin, Italy, assignor to Metallurgica Bresciana Già Tempini, Brescia, Italy, a Company organized under the laws of Italy. Filed Apr. 18, 1913. Serial No. 761,997. (Cl. 42—4.)



1. In an automatic pistol, a casing comprising a recess, a breech mounted thereon, a trigger pivoted to the casing, a flat spring mounted on the casing and having the tendency to bring a projection into a position for locking the trigger, a second projection arranged on the said spring and projecting into the recess in the casing, and a magazine in said recess pressing against the said projection, in order normally to maintain in inoperative position the stop for the trigger.

2. In an automatic pistol, a casing having a recess, a breech mounted thereon, a bolt mounted in the interior of the said breech, a magazine in the interior of the said recess, an elevator guided in the interior of the magazine, a spring having the tendency to raise the said elevator, a spring-controlled button mounted on the said elevator and capable of projecting through a slot in the wall of the magazine, at the upper end of its travel, and a tooth adjustably mounted in the path of the button of the elevator and capable, when raised, of locking the bolt in the open position.

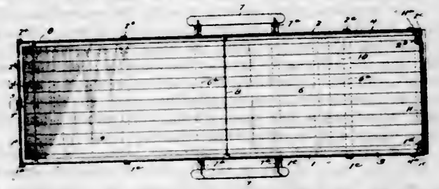
3. In an automatic pistol, a casing having a recess, a breech mounted thereon, a bolt mounted in the interior of the said breech, a magazine introduced into the interior of the said recess, an elevator guided in the interior of the magazine, a spring having the tendency to raise the said elevator, a spring-controlled button mounted on the said elevator and capable of projecting through a slot in the wall of the magazine, at the upper end of its travel, a tooth adjustably mounted in the path of the button of the elevator, the said tooth being adapted, when raised, to stop the bolt in the open position, and a button connected to the said tooth for its operation by hand.

4. In an automatic pistol, a casing having a recess, a breech mounted thereon, a magazine introduced into the said recess, an elevator guided in the interior of the magazine, a spring arranged in the magazine below the elevator, a sliding part closing the bottom wall of the magazine, a hole made in the said part, a plate in the interior of the magazine, pushed against the closing part by the inner spring of the magazine, and a projection on the surface of the said plate facing the closing part, the said projection being intended to engage with the hole of the closing part when the latter is in place.

5. In an automatic pistol, a casing, a breech mounted thereon, a bolt mounted in the said breech, a firing pin adjustable in the interior of the bolt, a sleeve mounted so as to turn in the rear end of the bolt and surrounding the head of the firing pin, means for operating the said sleeve, a projection arranged in the interior of the said sleeve, a longitudinal groove in the head of the firing pin and intended to contain the projection of the sleeve, and a lateral extension of the said groove with which engages the projection of the sleeve when the latter is turned for the purpose of locking the firing pin.

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1,089,196. KNOCKDOWN WAGON-BOX. FREDERICK J. FARRINGTON, Omaha, Nebr. Filed Apr. 24, 1912. Serial No. 692,899. (Cl. 21—7.)



1. A knock-down wagon box comprising two side pieces constructed of suitable material, said side pieces being provided with extensions at an angle thereto and integral therewith, the meeting ends of said extensions being provided with apertures, bolts adapted to pass through said apertures, tail nuts for securing said bolts, and a bottom detachably secured to said sides.

2. A knock-down wagon box comprising two side pieces constructed of suitable material, said side pieces being provided with front and rear extensions at an angle thereto and integral therewith, the end of the front extension of one side being provided with an inwardly bent portion which is adapted to embrace the end of

the front extension of the other side, means for detachably securing said ends together, and a bottom detachably secured to said sides.

3. A knock-down wagon body comprising two side pieces constructed of suitable material, said side pieces being provided with front and rear extensions at an angle thereto and integral therewith, the end of the front extension of one side being provided with an inwardly bent portion which is adapted to embrace the end of the front extension of the other side, means for detachably securing said ends together, the rear extensions forming a portion of the rear end of the box with an open space between, means for closing the space between the rear extensions, and a bottom detachably secured to said sides.

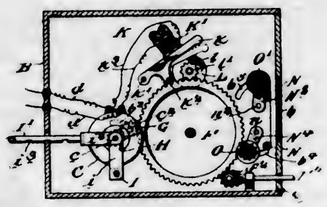
4. A knock-down wagon box comprising two side pieces constructed of suitable material, said side pieces being provided with front and rear extensions at an angle thereto and integral therewith, the end of the front extension of one side being provided with an inwardly bent portion which is adapted to embrace the end of the front extension of the other side, apertures provided in said ends, bolts passing through said apertures, tail nuts for securing said bolts, and a bottom detachably secured to said sides.

5. A wagon box comprising two side pieces constructed of suitable material, said side pieces being provided with front and rear extensions at an angle thereto and integral therewith, the meetings ends of the front extensions being detachably secured together to form the front end of the box, and the rear extensions forming a portion of the rear end of the box, angle irons extending lengthwise of said sides and upon said extensions, a bottom detachably secured to said sides, the angle irons being adapted to abut against said bottom, and means for closing the space between the rear extensions.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,197. STREET AND STATION INDICATOR FOR CARS. ALPHONSE FERNANDEZ, Mobile, Ala. Filed Oct. 20, 1913. Serial No. 796,264. (Cl. 40—57.)



1. A street and station indicator, comprising rollers, a web attached to said rollers and carrying the street and station numbers, a spur wheel, gearing for connecting said spur wheel with said rollers, an electric motor, gearing connecting the motor with the spur wheel, means for shifting the gearing to reverse the movement of the spur wheel, and brake mechanism for the spur wheel comprising an electrically operated armature lever engaging said spur wheel and a disk having a flat side revolved by said spur wheel and engaging said armature lever.

2. A street and station indicator, comprising a web containing designations of the streets and stations, rollers to which the opposite ends of the web are connected, a spur wheel, gearing for connecting the spur wheel with said rollers, means for connecting and disconnecting said gearing from said spur wheel, an electric motor, pinions for connecting said motor with the spur wheel, means for shifting said pinions to reverse the movement of said spur wheel and electric brake mechanism operating upon said spur wheel.

3. A street and station indicator, comprising a web containing designations of the streets and stations, rollers to which the opposite ends of the web are connected, a spur wheel, gearing between said rollers and said spur wheel, a shaft (c), means for rotating said shaft, a pinion on said shaft, an intermediate pinion meshing with the pinion on said shaft and with the spur wheel, means for moving said intermediate pinion into and out of gear with said spur wheel, means for moving the pinion on said shaft into and out of gear with said spur wheel, and means for shifting the gearing between said web-carrying rollers and said spur wheel into and out of communication with said spur wheel.

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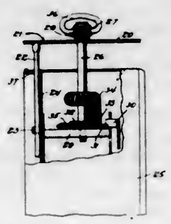
1,089,198. HAND-STAMP. ELMER FISHER, Detroit, Mich. Filed May 20, 1911. Serial No. 628,497. (Cl. 101—58.)



A hand stamp comprising a head, a handle therefor, the said head having a threaded passage therein, the handle having a threaded passage therein disposed in axial alinement with the first passage, and a connecting member comprising a spirally wound wire having its convolute portions engaged directly against each other and having the same equal diameter throughout to provide an effective screw-thread whereby the ends of the said member may be securely threaded in the passages in the said head and handle respectively.

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1,089,199. MECHANICAL MATCH-LIGHTER. EDWARD DANIEL FITZPATRICK, Omaha, Nebr. Filed May 22, 1913. Serial No. 769,197. (Cl. 161—14.)



In combination, a clock having a frame provided with an annular flange slotted to permit the insertion of a match, and a loop disposed in alinement with said slot, said loop being integrally connected with the back of said frame; a rotary member operatively mounted partially within said frame; an abrasive member mounted on said rotary member to extend above said slot and loop to abrade a match when held in said loop; a spring motor device for rotating said rotary member, said device being mounted on said member, within said frame; a latch to hold said member against rotation by said device; and means operatively connected with the mechanism of said clock, for releasing said latch.

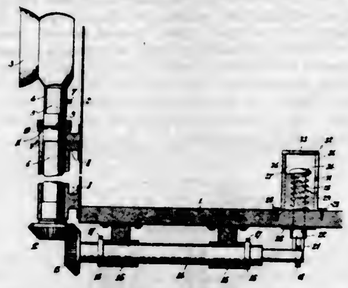
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1,089,200. HEADLIGHT FOR STREET-CARS. JOHN FLECK, Tarentum, Pa. Filed Apr. 25, 1913. Serial No. 763,627. (Cl. 240—61.)

In a headlight for street cars, a lamp, a vertical lamp supporting shaft journaled to turn in a bearing on the car, a rock shaft geared to the lamp shaft and extending rearwardly therefrom, a cross head fast on said rock shaft,



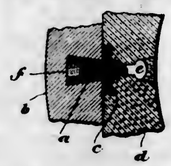
foot actuated plungers operatively connected with the opposite extremities of said cross head, and a combined control box and heel rest comprising a stationary plunger inclosing casing, one side of which embodies a fixed lower



section and a movable upper section hinged to the lower section, and a cover hinged to said hinged section, whereby the cover is adapted to form a support for said hinged section, and the latter is adapted to form a heel rest.

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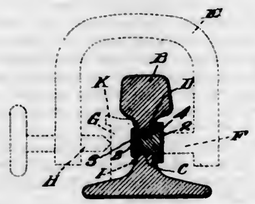
1,089,201. ARTIFICIAL TOOTH. ALBERT EDWARD FOLLOWS, Wavertree, Liverpool, England. Filed July 14, 1913. Serial No. 778,925. (Cl. 32—9.)



In an artificial tooth attachment, a denture, a hollow securing pin slit at one end and adapted to be secured at its other end to said denture, an artificial tooth formed of porcelain with an undercut recess, a plug adapted to be placed in the slitted end of said pin, and a screw for compressing said plug to expand the slitted end of said tube in the recess of said tooth.

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1,089,202. RAIL-BOND. THOMAS C. FOLSOM, Tampa, Fla. Filed Sept. 9, 1912. Serial No. 719,489. (Cl. 173—278.)



1. In a rail bond, the combination with a rail having a perforated portion, of a terminal having a cylindrical body portion provided with a plurality of annularly arranged centering lugs fitting within said perforation; and a mass of fusible conducting material securing said terminal in place, substantially as described.

2. In a rail bond, the combination with a rail having a perforated portion, of a terminal having a cylindrical body portion provided with lugs for a part of its length and fitting within said perforation and centering the body portion; and a mass of fusible conducting material surrounding the body portion and securing said terminal in place, substantially as described.

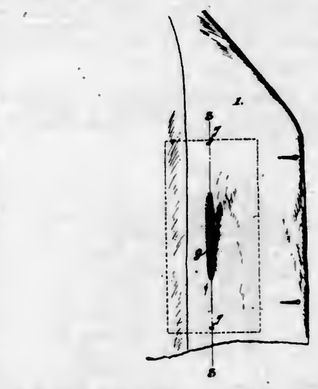
3. In a rail bond, the combination with a rail having a perforated portion, of a terminal having a body portion fitting within said perforation, said body portion being slotted, and provided with lugs for centering the same; and a mass of fusible conducting material surrounding the body portion and entering said slots and securing said terminal in place, substantially as described.

4. In a rail bond, the combination with a rail having a perforated web, of a terminal having a head and a body portion fitting within said perforation, said body portion provided with centering lugs adjacent said head, and having the end portion thereof transversely slotted; and a mass of fusible conducting material surrounding the body portion and entering said slots and securing said terminal in place, substantially as described.

5. In a rail bond, the combination with a rail having a perforated web with faced surfaces surrounding the perforation, of a terminal having a body portion fitting within said perforation, and a head seated within one of said facings; said body portion provided with centering lugs adjacent said head, and having the end portion thereof transversely slotted; and a mass of fusible conducting metal surrounding the body portion and entering said slots, and formed with a head seated within the other of said facings on the rail web, substantially as described.

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1,089,203. SAFETY-POCKET. JOSEPH FORMAN, Baltimore, Md., assignor to Henry Sonneborn and Company, Baltimore, Md. Filed Oct. 13, 1913. Serial No. 794,917. (Cl. 2—15.)



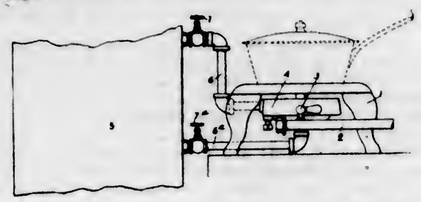
The combination of a garment having a longitudinally extending slit therein, a pocket comprising two members of uniform size secured together around their edges, one of said members having a slit therein corresponding in size to the slit in the garment to which it is to be applied, said slit being positioned midway between the ends and sides of the pocket and the pocket being secured to the garment only around the edges of the slit and at two points in alinement with said slit on the upper and lower edges respectively whereby the pocket is largely unattached to the garment.

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1,089,204. GAS-BURNER AND WATER-HEATER. JOHN ALEXANDER FRISK, Urbana, Ill. Filed Nov. 5, 1912. Serial No. 729,601. (Cl. 126—54.)

1. A gas burner and water heater, comprising a body having a plurality of annular communicating water passages spaced from each other to form annular passages open at the top, the innermost water passages being at the center of the body, a gas chamber on the under side of the body and having in its top burner openings leading into the spaces between the water passages, a water inlet leading into the innermost water passage, and an outlet leading from the outermost water passage.

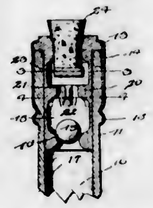
2. A gas burner and water heater, comprising a body having a plurality of annular communicating water passages spaced from each other to form annular passages open at the top, the inner most water passage being at the center of the body and communicating with the intermediate passage at a point diametrically opposite the communication between the said intermediate and outermost passages, a gas chamber on the under side of the body and having in its top openings leading into the open top passages, a water inlet leading through the gas chamber and extending into the innermost water passage, and a water outlet leading from one side of the outermost water passage.



3. A gas burner and water heater, comprising a body having a plurality of annular communicating water passages and intervening annular passages open at the top, the innermost water passage being at the center of the body, a gas chamber on the under side of the body and communicating with the open top passages, a water inlet leading through gas chamber into the innermost water passage, a water outlet leading from the side of the outermost water passage, a blow-off opening in the bottom of the outermost passage, and a plug for closing said opening.

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1,089,205. NON-REFILLABLE BOTTLE. ERNEST C. FUCHS, Rochelle Park, N. J. Filed Apr. 8, 1913. Serial No. 759,722. (Cl. 215—66.)



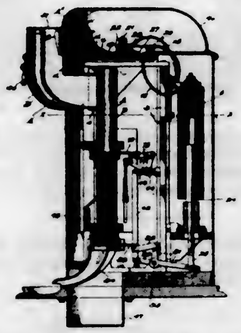
In a non-refillable bottle, the combination with a bottle body including a neck, of a tubular member carried within the neck and having an enlarged portion projecting exteriorly thereof, the said tubular member having a side opening and a valve chamber including an inlet and an outlet, a ball valve normally closing the inlet to the valve chamber and freely movable therein to be advanced to the said outlet when the bottle body is tilted, the said ball valve being placed in the tubular member by passing the same through the side opening therein, a closure for normally closing the same opening and adapted to constitute a wall of the tubular member, a stopper normally closing the entrance to the tubular member, and means carried on the exterior of the neck and engaging the exteriorly projecting portion of the said tubular member to secure the same rigidly within the neck of the bottle body.

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1,089,206. AUTOMATIC REGISTERING AND CHANGE DEVICE. DAVID GAIBIS, New Castle, Pa. Filed Dec. 16, 1912. Serial No. 737,049. (Cl. 194—10.)

1. In an automatic change device, the combination of a series of independent receptacles for coins of different denominations, pairs of slides in said several receptacles for discharging coins therefrom, electro-magnetic means for actuating said slides of the respective receptacles, and switches actuated by the insertion of coins in the respective receptacles for controlling said electro-magnetic means for actuating the slides of other of said receptacles.

2. In an automatic change device, the combination of a series of independent receptacles for coins of different denominations, pairs of slides in said several receptacles for discharging coins therefrom, a common electro-magnetic means for simultaneously actuating said slides of the respective receptacles, and switches actuated by the insertion of coins in the respective receptacles for controlling said electro-magnetic means for actuating the slides of other of said receptacles.



3. In an automatic registering and change device, the combination of a series of independent receptacles for coins of different denominations, a spout for receiving change from said several receptacles, independent slides in said several receptacles for discharging change and surplus coins therefrom, electro-magnetic means for actuating said slides, and switches actuated by the insertion of coins in the respective receptacles for controlling said electro-magnetic means for actuating the slides of other of said receptacles.

4. In an automatic change device, the combination of a series of independent receptacles for coins of different denominations, slides in said several receptacles for discharging change therefrom, a fixed shaft, a series of independent levers rotatably mounted on said shaft, connections between said levers and slides, means for axially adjusting said several levers on said shaft, electro-magnetic means for actuating said levers, and switches actuated by the insertion of coins in the respective receptacles for controlling said electro-magnetic means for actuating the slides of other of said receptacles.

5. In an automatic change device, the combination of a series of independent receptacles for coins of different denominations, slides in said several receptacles for discharging change therefrom, a fixed shaft, a series of externally threaded sleeves rotatably mounted on said shaft, levers adjustably screwed on said threaded sleeves, links connecting said levers and slides, electro-magnetic means for actuating said levers and switches actuated by the insertion of coins in the respective receptacles for controlling said electro-magnetic means for actuating the slides of other of said receptacles.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,207. TIE-PLATE. WILLIAM M. GLOTFELTY, Ohiopyle, Pa. Filed Nov. 20, 1913. Serial No. 802,052. (Cl. 238—2.)

1. A device of the character described comprising tie plates having transverse rail receiving grooves and flanges at their inner ends, connecting plates extending between the tie plates and having adjustable connections at their inner ends, and hooks adjustably connected with the outer portions of the connecting plates and engaging the end flanges of the tie plates, all for the purpose described.



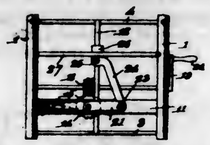
2. In a device of the character described, a tie plate provided with an upper transverse rail receiving groove and an overhang or ledge extending along the inner side of the groove, the body of the plate being gradually increased in thickness toward its outer end and being provided with a flange depending around its lower edge and with ribs upon its lower surface within the surrounding flange, all for the purpose described.



3. In a device of the character described, a tie plate having an upper rail receiving groove and spike apertures and being provided with an upwardly projecting flange at its inner end and with a depending flange surrounding its lower surface, all for the purpose described.

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1,089,208. INVALID-BED. JOHN A. GOSNELL and JOHN OLSON, Bradley, Ill. Filed Nov. 17, 1909. Serial No. 528,512. (Cl. 5—12.)

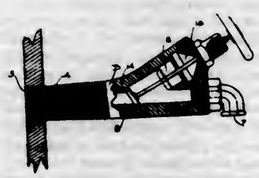


1. An invalid bed comprising head and foot posts, rails connecting said posts, vertical guide rods disposed at each end of the bed between said head posts and said foot posts, a vertical adjustable frame slidably mounted upon said guide rods, bearings depending from the sides of the adjustable frame, a mattress support disposed within said adjustable frame, angular offset trunnions provided upon said mattress support and journaled in said bearings, an adjusting screw threaded in said bearings and adapted to engage said trunnions, and means to raise and lower said adjustable frame.

2. An invalid bed comprising a head and foot posts, rails connecting said posts, a bar connecting the head posts, a bar connecting the foot posts, a shaft having its ends supported upon said bars, a guide rod vertically disposed between said head posts and, also, between said foot posts, slides movable upon said guide rods, a frame supported by said slides and movable therewith, a worm carrying shaft transversely mounted upon one end of the bed, a worm gear mounted upon said first mentioned shaft and meshing with said worm, angular levers pivoted at one end to said slides, a lever arm rigid with first mentioned shaft and connected to the free end of the angular levers, and means to impart motion to the transverse shaft whereby said frame may be raised and lowered.

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1,089,209. PETCOCK-VALVE. THOMAS H. GOULDING, St. Paul, Minn. Filed Jan. 3, 1912. Serial No. 669,223. (Cl. 136—3.)

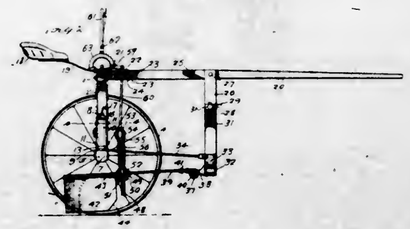


1. A gage cock the body of which is formed with a straight unobstructed bore extending throughout its length to provide a free passage therethrough, an inclined boss projecting from one side of the body and having a bore in communication with the straight bore of the body, a valve seat formed in the bore of the body opposite to the inner end of the bore of said boss, a plug mounted in the outer end of said boss, a valve stem supported by said plug, and a valve arranged at the inner end of said stem adapted to coöperate with said seat to close communication through the bore of the body, said valve being of a diameter corresponding to the diameter of the bore of the boss and serving in the open position of the valve to close the bore of the boss against communication with the bore of the body to prevent accumulation of sediment in the bore of the boss.

2. A gage cock the body of which is formed with a straight unobstructed bore extending throughout its length to provide a free passage therethrough, the outer end of said bore being threaded to permit the interchangeable application thereto of a discharge tube or closure plug, said body also having a lateral opening in communication with said bore, a plug seated in said opening to close the same, an inclined boss projecting from one side of the body and having a bore in communication with the straight bore of the body, a valve seat formed in the bore of the body opposite to the inner end of the bore of said boss, a plug mounted in the outer end of said boss, a valve stem supported by said plug, and a valve arranged at the inner end of said stem adapted to coöperate with said seat to close communication through the bore of the body, said valve being of a diameter corresponding to the diameter of the bore of the boss and serving in the open position of the valve to close the bore of the boss against communication with the bore of the body to prevent accumulation of sediment in the bore of the boss.

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1,089,210. BEET-BLOCKER. HENRY W. GRIBLER and ARTHUR G. GRIBLER, Van Wert, Ohio. Filed May 15, 1913. Serial No. 767,754. (Cl. 97—48.)



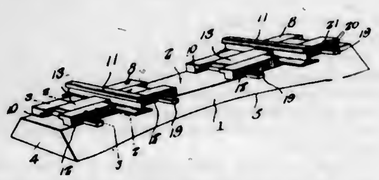
In a cultivator, a main frame, wheels for supporting the main frame, a shaft arranged transversely of the main frame in front of the wheels, a series of plows, each having a forwardly extending beam journaled on the shaft, each of the said plows having a cultivator blade at the rear end thereof and below the beam and transverse thereto, a fender substantially U-shaped in cross section between each adjacent pair of plows, each fender having a forwardly extending beam journaled on the shaft, a bar arranged transversely of the main frame above the beams, means on the main frame for raising and lowering the bar, a rod for each beam, each rod being connected with the bar at its upper end, and extending through an opening in the adjacent beam, a stop on the rod below the beam, and a spring between the bar and the beam.

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1,089,211. RAILROAD-TIE. HENRY GUDERJAHN, Westfield, Wis. Filed Aug. 1, 1913. Serial No. 782,489. (Cl. 238—5.)

A metallic tie including a horizontally straight top, ends and angular sides, the top, adjacent its ends, having transverse integrally formed elevated rail rests, the said top at

the edges thereof being formed with integral plates which extend longitudinally in opposite directions from the rail rests, the sides of the top having their lower edges curved upwardly toward the center of the tie, a central longitudi-



nally extending rib formed on the lower face of the top, said rib terminating away from the ends of the tie, and a transverse rib formed with the top and the sides of the tie and connected centrally to the longitudinal rib.

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1,089,212. ANIMATED TOY. ADOLF GUND, New York, N. Y. Filed Feb. 27, 1913. Serial No. 751,002. (Cl. 46—40.)



1. An animated toy, comprising a body having movable members, a frame held in the said body, a sound producing device mounted in the said frame and having movable actuating parts, levers loosely fulcrumed on the said frame and connected at one end with the said movable body members, and loose connections between the other ends of said levers and the said actuating parts to simultaneously sound the sound producing device and to actuate the said movable body members.

2. An animated toy, comprising a body having movable members, a frame arranged within the said body and provided with guideways and with cut-out portions at the sides, a sound-producing device arranged within the said frame and having movable actuating parts mounted to slide on the said guideways, the said actuating parts being pressed by a spring and extending along the said cut-out portions to permit of pressing the movable parts toward each other and against the tension of the spring, levers loosely fulcrumed on the said frame and connected at the outer ends with the said movable body members, and links connecting the said levers, with the said movable actuating parts of the sound-producing device.

3. An animated toy, comprising a body having movable members, a frame arranged within the said body and provided with guideways and with cut-out portions at the sides, a sound-producing device arranged within the said frame and having movable actuating parts mounted to slide on the said guideways, the said actuating parts being pressed by a spring and extending along the said cut-out portions to permit of pressing the movable parts toward each other and against the tension of the spring, levers fulcrumed on the said frame and provided at their outer ends with blocks attached to the said movable body members, and links connecting the said levers with the said movable actuating parts.

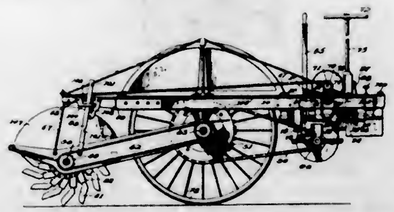
4. An animated toy, comprising a body having movable members, the outer portions of which are solid and the inner portions are of a flexible material, an actuating device arranged within the said body, loosely pivoted levers connected with the said inner flexible portions of the movable members, and links loosely connected with the actuating device and with the said levers to actuate the movable members and to allow movement of the said movable members independent of the said actuating device.

5. An animated toy, comprising a body having movable members, the outer portions of which are solid and the inner portions are of a flexible material, a frame held in the said body and an actuating and sound-producing device arranged within the said frame and having guided movement, the said device having a loose jointed lever and link connections with the said inner flexible portions of the movable members to actuate the latter and to allow movement of the said movable members independent of the said actuating device.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,213. ROOT-GRUBBING MACHINE. ALBERT L. HALLBAUER, Tampa, Fla., assignor to Palmetto Machine Company, Incorporated, Baltimore, Md., a Corporation of Maryland. Filed June 28, 1913. Serial No. 776,376. (Cl. 97—71.)



1. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in spiral formation about the rotatable means, the cutting edge of each of said knives being formed with a flat side and a beveled side, the knives on each side of the central portion of the spiral being arranged with their bevels facing the central portion of the spiral, the cutting edges of said knives facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a drawcut when entering and passing through the ground.

2. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in double spiral formation about the rotatable means, the cutting edges of said knives facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a drawcut when entering and passing through the ground.

3. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in two opposed spirals about the rotatable means, the cutting edges of said knives facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a drawcut when entering and passing through the ground.

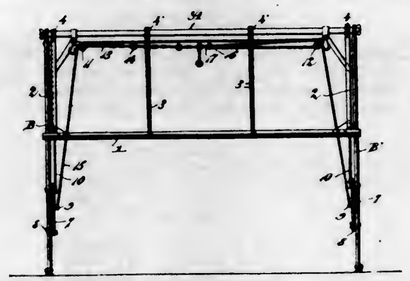
4. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in two opposed spirals about the rotatable means, the spirals being arranged so that under the normal rotation of the knives they screw toward each other, the cutting edges of said knives facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a drawcut when entering and passing through the ground.

5. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in double spiral formation about the rotatable means, the cutting edges of said knives being beveled on one side and facing outwardly, and extending at an angle to the radii of the rotatable means, the bevels of one spiral opposing the bevels of the other spiral, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a drawcut when entering and passing through the ground, and the beveled edges of the knives in combination with the opposed spiral formation force the roots and earth toward the center.

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1,089,214. CANOPY. EDWARD HANIGAN, Schenectady, N. Y. Filed Oct. 4, 1912. Serial No. 723,964. (Cl. 135—5.)



1. In a canopy, the combination with a suitable support, of hingedly supported leaves, vertically movable slides, link bars connecting the slides with the leaves, a suitably guided flexible hoisting element terminally connected with the slides, a guide member loosely engaging the hoisting element and having a hook member connected therewith, and a hitching element having a plurality of spaced links for engagement with said hooks to place the hoisting element under varying degrees of tension, thereby effecting adjustment of the slides and related parts.

2. A canopy comprising two hingedly supported leaves, vertically movable slides, one adjacent to each end of the canopy, link bars connecting the slides with the leaves of the canopy, guide members including several pulleys and a ring having a hook, a hoisting element terminally connected with the slides, said hoisting element being guided over a pulley near one slide, then over a pulley near the second slide, then through the ring, and then over a second pulley near the second slide to said second slide; and a hitching element having a plurality of links adapted to engage the hook member of the ring.

3. In a device of the class described, a suitably supported ridge pole, canopy frames each comprising a side bar having arms pivotally engaging the ridge pole, slides supported for vertical movement adjacent to either end of the canopy, guide members including several pulleys and a ring having a hook, a hoisting element terminally connected with the slides, said hoisting element being guided over a pulley near one side, then beneath and adjacent to the ridge pole and over a pulley near the second slide, then through the ring and then over a second pulley near the second slide to said second slide; and a hitching element having a plurality of links adapted to engage the hook member of the ring.

1,089,215. FOOD PRODUCT AND PROCESS OF PREPARING THE SAME. WILHELM H. HEINE, Honolulu, Hawaii. Filed May 6, 1913. Serial No. 765,910. (Cl. 99—11.)

1. As a food product, dried bananas hermetically sealed in the presence of a preservative agent.

2. As a new food product, dried bananas hermetically sealed in the presence of a saccharine liquor.

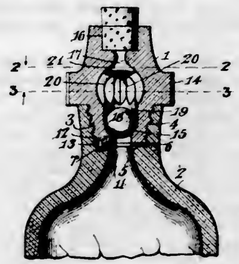
3. As a new food product, dried bananas hermetically sealed in the presence of a sugar syrup.

4. The herein described process of producing a food product of the character described, which consists in drying peeled bananas to evaporate the moisture therefrom, and then hermetically sealing the same with a preservative agent.

5. The herein described process of producing a food product of the character described, which consists in drying peeled bananas to evaporate the moisture therefrom, and then hermetically sealing the same with a saccharine liquor.

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1,089,216. NON-REFILLABLE BOTTLE. LOUIS C. HELMCAMP and EDWIN HOXWORTH, Waco, Tex. Filed Mar. 14, 1912. Serial No. 683,788. (Cl. 215—66.)



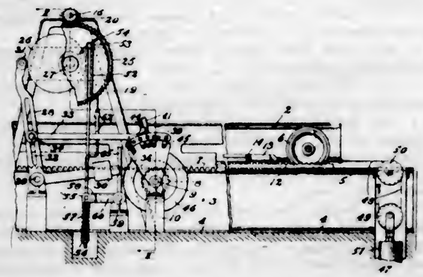
In a device of the class described, the combination of a receptacle having an interiorly threaded neck and provided with a horizontal shoulder having a recess, a hollow closure plug provided with a passage through it and having exterior screw threads to engage those of the neck of the receptacle, said closure plug being also provided in its lower end with a socket and having a curved recess extending from the socket and arranged substantially concentric with the said passage, an automatic locking spring also curved substantially concentric with the passage of the closure plug and arranged at the curved recess thereof and provided at its ends with upwardly and downwardly projecting portions, the upwardly projecting portion of the spring being secured in the said socket and the downwardly projecting portion engaging the recess of the shoulder of the receptacle to lock the closure plug in the neck, and a washer interposed between the lower end of the closure plug and the shoulder of the receptacle and having a slot through which the downwardly projecting portion of the neck extends, said washer being elastic and forming a liquid tight joint between the plug and the receptacle to prevent the contents of the latter from coming in contact with the locking spring.

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1,089,217. ATTACHMENT FOR PUNCHING-MACHINES. ROBERT L. HIBBARD, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 27, 1912. Serial No. 699,877. (Cl. 164—117.)

1. The combination with a punch, of a table, automatically operable means for moving the table forward and for operating the punch including a common power shaft and coöperating elements disposed between the shaft and table and other coöperating elements between the punch

and shaft, whereby said table and said punch may be operated independently of each other, but from the same power shaft.



2. The combination with a punch, of a table, automatically operable means for moving the table forward a predetermined distance and for operating the punch at predetermined intervals including a common power shaft and coöperating elements disposed between the shaft and table and other coöperating elements between the punch and shaft, whereby said table and said punch may be operated independently of each other, but from the same power shaft.

3. The combination in a punching and work feeding machine of a common power shaft for operating the work table feeding mechanism and the punch, means interposed between said shaft and each of said mechanisms for operating one independently of the other, and a variable throw rod interposed between the power shaft and the table feed for intermittently advancing said table any predetermined distance, substantially as set forth.

4. The combination with a punch, of a table, a common power shaft for said punch and table, automatically operable means coacting with the power shaft for controlling the operation of the punch, and automatically operable means coacting with the common power shaft for moving the table forward including a cam, a lever coacting with the cam, and a variable throw means connecting the table with the lever.

5. The combination with a punch, of a table, a common power shaft for said punch and table, automatically operable means co-acting with the power shaft for controlling the operation of the punch, and automatically operable means for intermittently moving the table forward a predetermined distance coacting with the common power shaft and including a cam, and a variable throw operable means connected with the table and actuated by the cam.

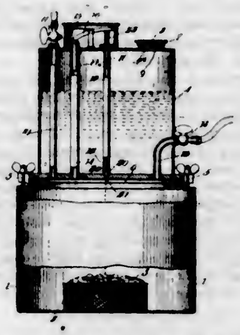
[Claim 6 not printed in the Gazette.]

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1,089,218. ACETYLENE-GAS GENERATOR. KIEVE WILNA HOLLINGSWORTH, Columbia, S. C. Filed Dec. 27, 1911. Serial No. 668,026. (Cl. 48—37.)

1. An acetylene gas generator comprising a main casing arranged to contain carbid, a water tank disposed above said main casing and provided with an opening for feeding water upon said carbid, a housing disposed above said water tank, a pair of tubes extending through said water tank into said housing, a lever carried within said housing, a piston within one of said tubes arranged to engage said lever, and a needle valve within the other of said tubes arranged to control the flow of water upon the carbid.

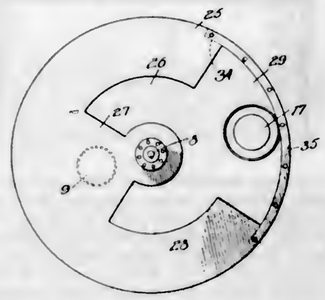
2. An acetylene gas generator comprising a main casing arranged to contain carbid, a water tank disposed above said main casing, means for hermetically securing said water tank to said casing, said water tank being provided with a series of tubes extending through the interior of the tank, a housing carried by said water tank, a piston disposed in one of said tubes and arranged to extend partially into said housing, a spring-pressed rod disposed within another of said tubes and having one end extending into said housing, a lever disposed within said housing, one end of said lever being engaged by said piston and the



other end being arranged to bear on the end of said rod, and a valve at the opposite end of said rod for admitting water from said water tank into said main casing.

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1,089,219. APPARATUS FOR EXHIBITING MOVING PICTURES. JOSEPH U. HOUSEMAN, Chicago, Ill., assignor of one-half to John S. Moe, Chicago, Ill. Filed Nov. 4, 1912. Serial No. 729,205. (Cl. 88—18.)



In an apparatus for exhibiting moving pictures upon a screen or the like, the combination with the intermittent feed for the film, and the picture-projecting lens, of auxiliary light-projecting means, a rotary shutter movable to shut off the picture-projecting rays during the feeding movements of the film and to direct the auxiliary light rays upon the screen during such periods, said shutter having a pair of vanes, one for each light-projecting means, said vanes being arranged at different distances from the axis of the shutter and on the same side of the axis with the vane farther from the axis having a greater length than the vane nearer the axis.

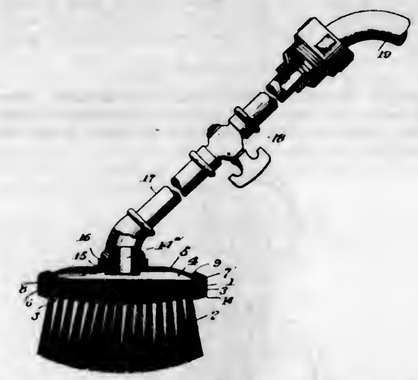
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1,089,220. FOUNTAIN-BRUSH. THOMAS C. INGRAM, Toronto, Ontario, Canada, assignor to Edward L. Schwabenland, Riverton, N. J. Filed Sept. 12, 1913. Serial No. 789,538. (Cl. 15—51.)

A fountain brush comprising a head provided with bristles and a plurality of passages, a back placed against the head and inclosing a space which constitutes a chamber, the outer edge portions of the back and head being outwardly converged, means for supplying water to the chamber, a clamp for securing the back to the head, such clamp comprising a band and flared flanges which engage the converged edge portions of the back and head of the



brush to bring them together by a wedging action, said clamp consisting of a split band, and means for drawing



the separated ends of the band together and securing them in the adjusted position.

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1,089,221. ANTHRAQUINONE COLORING-MATTERS AND PROCESS OF MAKING THEM. MAX HENRY ISLER, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 16, 1911. Serial No. 666,114. (Cl. 8—1.)

1. The process of producing coloring matter of the anthraquinone series by condensing an aldehyde of the anthraquinone series with a compound corresponding to the formula



in which X includes a divalent metalloid.

2. The process of producing coloring matter of the anthraquinone series by condensing anthraquinone-2-aldehyde with urea.

3. The new coloring matters which can be obtained by condensing an aldehyde of the anthraquinone series with a compound corresponding to the formula



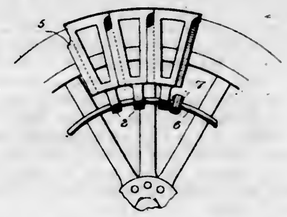
in which X includes a divalent metalloid, which coloring matters are characterized by being insoluble in dilute acids and alkalis, very difficultly soluble in toluene and in glacial acetic acid, soluble in nitrobenzene and also soluble in concentrated sulfuric acid yielding from yellowish brown to red solutions, and which with alkaline hydrosulfite yield brown to yellow vats dyeing cotton from yellow to red shades.

4. The new coloring matter of the anthraquinone series which can be obtained by condensing anthraquinone-2-aldehyde with urea, which coloring matter is insoluble in dilute acids and alkalis, is very difficultly soluble in toluene and in glacial acetic acid, which after re-crystallization from nitrobenzene yields a yellow-red solution in concentrated sulfuric acid, and which with alkaline hydrosulfite yields a brown-yellow vat which dyes cotton pure yellow shades.

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1,089,222. TIRE-PROTECTOR. WILHELM JACOBSON, Lents, Oreg. Filed Aug. 15, 1913. Serial No. 784,997. (Cl. 152—17.)

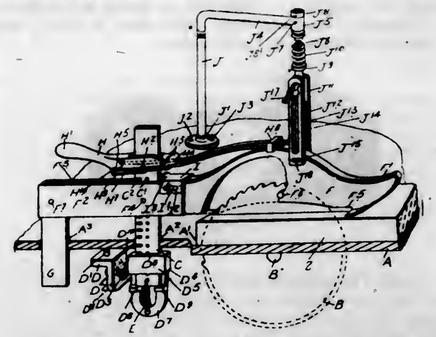
A tire protector comprising members U-shaped in edge elevation and sector shaped in side elevation, said members having their side portions at one edge reduced transversely and provided at the opposite edge with spaced flanges, the flanges of one member adapted to receive between them the reduced portion of an adjacent member,



said members having at their ends lugs provided with elongated openings, rod sections passing through the openings and means for drawing the rod sections together.

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1,089,223. CIRCULAR-SAW GUARD. WILLIAM JENKINS, Meaford, Ontario, Canada. Filed June 7, 1912, Serial No. 702,219. Renewed Jan. 24, 1914. Serial No. 814,238. (Cl. 143—159.)



1. In a saw guard, the combination with the dividing strip, of a hood swung at one end on the dividing strip and having an upturned opposite end and an adjustable pressure lever carried by said strip having spring fingers bearing upon said hood, as and for the purpose specified.

2. In a saw guard the combination with the suitably supported dividing strip having a vertical series of holes therein, of a saw covering hood, a pin extending through one end of the hood and through one of the series of holes, a pin extending through the pressure lever and through another of the vertical series of holes located above the hood, a pressure lever carried by said dividing strip, and spring fingers extending forwardly from the pressure lever on to the top of the hood, and means for securing the pressure lever in a definite position, as and for the purpose specified.

3. In a saw guard, the combination with a suitable supported dividing strip having a series of holes therein, of a saw covering hood pivotally carried by said dividing strip, a pressure lever mounted on said dividing strip, a pin extending through the pressure lever, and through one of the series of holes located above the hood, spring fingers extending forwardly from the pressure lever on to the top of the hood, a push plunger secured to the pressure lever, and means operated by the push plunger for engaging the dividing strip to hold the pressure lever definitely in the position to which it is adjustable, as and for the purpose specified.

4. In a saw guard, the combination with the dividing strip having two vertical series of holes, of a saw covering hood, a pin extending through one end of the hood into

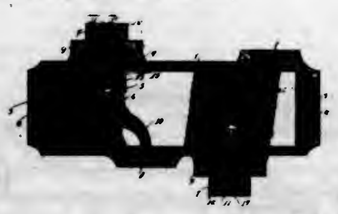
one of the holes of one of the vertical series, a pressure lever, a pin extending through the pressure lever through one of the vertical series of holes located above the aforesaid hole, a spring finger secured to the pressure lever, a pin extending from the spring finger through the pressure lever into one of the other series of vertical holes, a push plunger carried by the pressure lever and designed to operate the spring finger, and spring pressure fingers extending upwardly from the pressure lever on to the top of the saw covering hood, as and for the purpose specified.

5. In a saw guard, the combination with the saw table having a slot therein, and the dividing strip extending through the hood, of a saw guard pivoted thereto, spring pressure means bearing upon the top of the saw guard, a bracket secured beneath the saw table having a horizontal slot therein, a supplemental bracket having a vertical slot arranged in alinement with the hood of the saw table and into which the lower end of the dividing strip extends, adjustable means for connecting the supplemental bracket in the slot of the main bracket, a depending piece extending from the supplemental bracket and a tension spring connected at one end to the depending piece and at the other end to the dividing strips, as and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

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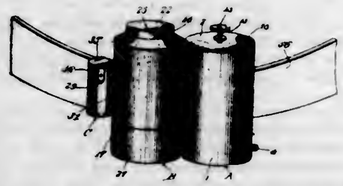
1,089,224. SANDER. CHRISTIAN A. JOHNSON and HANS THISSENIUS, Laramie, Wyo. Filed Nov. 29, 1913. Serial No. 803,819. (Cl. 105—263.)



A sand box provided with a nozzle receiving opening in one side thereof and a sand discharge opening in the opposite side thereof, in combination with an air nozzle adjustably threaded in the first named opening, said nozzle being internally bored and threaded, and a sleve threaded in said bore and provided with a central longitudinal bore closed at one end, said sleve being formed with a number of perforations through the side wall thereof leading into said central bore.

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1,089,225. SUPPLY-HOLDER. SAMUEL I. KAMIGASHIRA, Rock Springs, Wyo. Filed Nov. 8, 1912. Serial No. 730,295. (Cl. 224—5.)



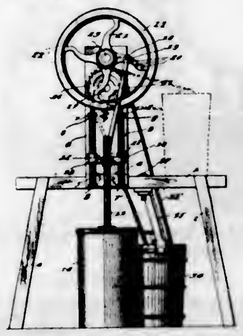
1. A supply holder including a carbid receptacle and a water receptacle, a belt connector to secure said receptacle as a unit to the belt, means for removably securing the water receptacle to the belt connector, and means for hingedly connecting the carbid receptacle to the belt connector.

2. A supply holder including a belt connector, a water receptacle removably secured to said connector, a carbid receptacle hingedly connected to said connector and means for securing the carbid receptacle against movement on its hinge connection.

3. A belt connector including a connecting plate having curved sections, a carbid receptacle fitting in one section and hinged to the plate, means carried by the section to secure the receptacle in fixed relation to the plate, a water receptacle fitting the other section of the plate and means for securing the water section removably connected to the plate.

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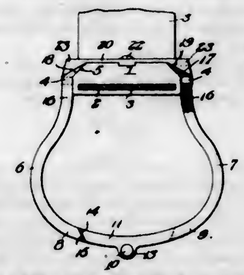
1,089,226. HOLDING AND OPERATING MEANS. JOHN B. KELLY, Anniston, Ala., assignor of one-half to Joseph Saks, Anniston, Ala. Filed Apr. 5, 1913. Serial No. 759,123. (Cl. 62—4.)



The combination with a supporting frame for driving mechanism, an arm secured to said frame, a bucket, a clamp carried by the arm for engaging the edge of the bucket, a dasher shaft on the bucket carrying a sprocket wheel, a driving shaft supported on the frame, a sprocket wheel on said shaft, and a sprocket chain passing over the sprocket wheels on the driving and dasher shafts.

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1,089,227. SAFETY-STIRRUP. JABEZ KENYON, Hugo, Colo. Filed May 7, 1913. Serial No. 766,142. (Cl. 54—49.)



1. A stirrup of the class described comprising a cross bar, a projection formed on each end of the said bar, a stirrup body portion including side portions pivotally connected at their lower ends and provided in their upper ends with openings for the reception of the cross bar projections, and yieldable means provided upon the cross bar for locking engagement with the upper ends of said body portions.

2. A stirrup of the class described comprising a cross bar, a projection formed on each end of the said bar, a stirrup body portion including side portions pivotally connected at their lower ends and provided in their upper ends with openings for the reception of the cross bar projections, the upper end of each body portion being provided with a beveled outer face, and a locking member connected with the said cross bar and comprising a yieldable body, and an engaging head provided upon each end thereof and having a beveled inner face for engagement with the beveled face of the corresponding portion of the stirrup.



3. A stirrup of the class described comprising a cross bar, a projection formed upon each end of the said bar, a stirrup body comprising side portions pivotally connected at their lower ends and provided in their upper ends with openings for the reception of the cross bar projections, the upper end of each body portion being provided with a beveled outer face, the upper face of the cross bar being provided medially with a transverse groove and a locking member comprising an elongated resilient body extending longitudinally upon the upper face of the cross bar, an enlargement formed medially upon the said body and being secured within the groove of the cross bar, and a depending head provided upon each end of the said body for locking engagement with the beveled end face of the corresponding stirrup portion.

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1,089,228. SAFETY-RAZOR. SAM KITZES, New York, N. Y. Filed July 8, 1913. Serial No. 777,852. (Cl. 30—12.)



1. A safety razor, comprising in combination a frame provided at the top with a guard, a blade resting on the said guard, a backing overlying the said blade and provided with a fixed rod having a threaded end, a lather-receiving receptacle detachably held on the bottom of the said frame, the said blade, the said guard, the said frame bottom and the said receptacle having registering apertures for the passage of the said rod, and a handle screwing on the lower end of the said rod and abutting against the under side of the said receptacle to fasten the several parts together.

2. A safety razor, comprising in combination a frame provided at the top with a guard, a blade resting on the said guard, a backing overlying the said blade and provided with a fixed rod having a threaded end, a lather-receiving receptacle detachably held on the bottom of the said frame, the said receptacle being provided with inwardly-extending struck-up lugs and the bottom of the frame being provided with upwardly-extending lugs on which rest the said receptacle lugs, the said blade, the said guard, the said frame bottom and the said receptacle having registering apertures for the passage of the said rod, and a handle screwing on the lower end of the said rod and abutting against the under side of the said receptacle to fasten the several parts together.

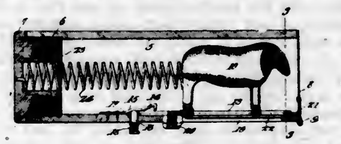
3. A safety razor provided with a frame having a bottom, a lather-gathering receptacle held sidewise removable on the bottom of said frame on the outer face thereof, the bottom of said frame and the said receptacle being provided on the front and rear with lugs in engagement with each other, to hold the receptacle in position on the frame, and means fastening the receptacle to the said frame.

4. A safety razor provided with a frame, a lather-gathering receptacle of trough shape and provided with inwardly-extending lugs, the frame having a bottom provided with upwardly-extending lugs engaged by the said receptacle lugs, end bars rising integrally from the said bottom, and a guard plate held on the upper ends of the said end bars.

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1,089,229. TOY. JOHN V. KLEIN, Battle Creek, Nebr. Filed Aug. 26, 1913. Serial No. 786,725. (Cl. 46—40.)

1. An apparatus of the class described, the combination of a casing, provided with a groove terminating at one end thereof, a runner slidably disposed within said groove, said casing being provided with a limited slot communicating with said groove, and means extending through said slot engaging said runner and adapted to maintain said runner within said groove; a door hingedly secured to the front end of said casing, resilient means engaging said runner adapted to move the same forwardly, and means engaging the said runner and adapted to hold the same in a retracted position.



2. In a toy, the combination of a casing, a door hingedly secured thereto, said casing provided with a groove terminating at the said door, and further provided with a slot communicating with said groove for a limited distance thereof, a runner slidably positioned within and guided in its movements by said groove, a finger engaging knob extending through said slot and engaging said runner and adapted to hold the same within said groove, means engaging the said casing and said runner and adapted to move the same forwardly, means secured to said casing engaging the said runner and adapted to hold the same in a retracted position, and means positioned upon the said runner engaging the said door and adapted to open and close the same with forward and reverse movements of said runner respectively.

3. In a device of the described character, the combination of a casing, provided with a groove terminating at one end thereof, and further provided with a slot of limited length communicating with the said groove and extending entirely through the side wall of said casing, a runner adapted to support a figure thereon slidably positioned within the said groove, a finger engaging knob carried by the said runner extending through said slot and contacting with the side walls thereof, a door hingedly secured to said casing juxtaposed said groove, a guide rod secured to said runner, means secured to said door engaging said runner and guide rod, said guide rod and means upon said door coacting for the opening and closing of said door during the reciprocation of said runner, locking means rigidly secured to the said casing engaging said runner and adapted to hold the same in retracted position, means extending through the side wall of said casing for the releasing of said lock, and resilient means engaging the said runner and the said casing adapted to move the runner forcibly outward beyond the said casing.

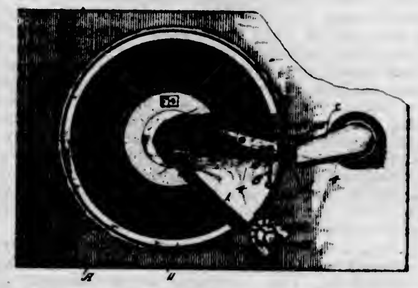
4. In a device of the class described, the combination of a casing provided with a groove terminating at one end thereof and a slot of limited length communicating with said groove and extending through side wall of said casing, a door hingedly mounted juxtaposed the extreme end of said groove, a rear cap carried by said casing, a carriage slidably mounted within the said groove and including a runner with a figure thereon, said runner slidably disposed within the said casing groove, said carriage further including a finger actuating knob disposed upon the outer surface of said casing and engaging the runner through said slot, and a guide rod rigidly secured to and beneath said runner; said door provided with an outstanding loop slidably engaged by the said runner and guide rod, the said guide rod and upstanding door loop coacting for the simultaneous opening and closing of said door with the forward and rearward movements of said carriage respectively, a spring latch secured to the casing engaging the said runner and adapted to hold the same in a retracted position, means extending through the side walls of said casing for the releasing of said spring latch, and resilient means engaging the casing, rear cap and said carriage and adapted to move said carriage forcibly outwardly with the releasing of said spring latch.

5. In a toy of the class specified, the combination of a casing, provided with a groove extending along the in-

ner surface thereof and terminating adjacent one end, a door hingedly secured to said casing juxtaposed the termination of said groove, the said casing being further provided with a slot of limited length commnnicating with said groove and extending substantially central and longitudinally thereof, a carriage including a runner with a figure supported thereupon, and a finger engaging knob disposed upon the outer surface of said casing and secured through the slot to said runner; said finger engaging knob coacting with the limited length of said slot to limit the movements of said runner, said runner slidably positioned within said groove, a guide rod bent upon itself and secured to the front end of said runner extending rearwardly therebeneath and secured at its rearward extremity to said runner, an upstanding loop carried by said door disposed between the said runner and guide rod, said guide rod adapted to open and close the said door with forward and reverse movements of said runner respectively, said upstanding loop and guide rod adapted to hold said runner within said groove, said runner provided adjacent its rear portion with an upstanding beveled lug, a spring latch rigidly secured to the casing and adapted to engage said lug to maintain said runner in retracted position, said carriage being completely housed by the said casing when in retracted position, a trigger extending through the side walls of said casing engaging said spring latch and adapted to release the same, a compression spring engaging the said carriage, and a cap threadedly engaging the rear extremity of said casing and forming an abutment for the said compression spring, said compression spring adapted to move said carriage partially beyond the said casing upon releasing of said spring latch through the intervention of said trigger.

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1,089,230. AUTOMATIC BRAKE FOR SOUND-REPRODUCING MACHINES. EDWIN O. KLEMM, Saginaw, Mich. Filed June 24, 1912. Serial No. 705,464. (Cl. 74—46.)



1. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever, a spring connected with one end of the brake lever and normally holding the same under tension, a brake shoe on the opposite end of the lever, a lug carried by the brake lever, a pawl having its free end adapted to engage with the lug aforesaid to hold the brake shoe from contact with the rotating element, a controlling lever coöperating with the brake lever and having an arm lying in the path of movement of the moving element aforesaid, and spaced guide lugs carried by the controlling lever between which the pawl aforesaid rests, whereby the pawl may be disengaged from the lug on the brake lever by contact of the moving element with the arm of the controlling lever.

2. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever adapted to coöperate with the rotating element, a controlling lever adapted to release the brake lever to permit operation of the same, variable adjusting means upon which the brake and controlling levers are mounted, and means for moving the last mentioned adjusting means to adjust the position of the controlling lever aforesaid for operation of the brake at variable times.

3. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever adapted to coöperate with the rotating element, a controlling lever adapted to operate the brake lever, an adjusting plate upon which the brake and controlling levers are mounted having an extension formed thereon, and means carried by the machine coöperating with the extension of the adjusting plate for moving the latter in a path parallel with the path of travel of the periphery of the rotating element to adjust the position of the controlling lever.

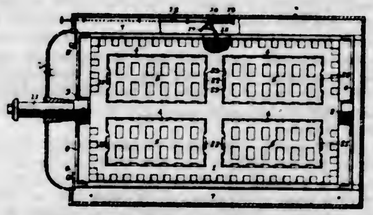
4. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, an adjusting plate, a controlling lever associated with the plate and adapted to engage with the moving element, a spring actuated brake lever normally held disengaged from the rotating element, and an indicator movable to adjust the plate aforesaid and thereby adjust the position of the controlling lever for operation of the brake lever at a predetermined time.

5. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, an adjusting plate, a controlling lever associated with the plate and adapted to coöperate with the moving element, a spring actuated brake lever normally held disengaged from the rotating element, and an eccentric cam coöperating with the adjusting plate and movable to adjust the controlling lever for operation of the brake lever at a predetermined time.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,231. GRATE. HERMAN F. LANGENHOP, Chappaqua, N. Y. Filed Nov. 12, 1912. Serial No. 730,950. (Cl. 126—177.)



In combination a grate provided with rows of oblong openings having centrally disposed vertical guides at their ends, brackets pendent from the grate, crank shafts mounted in said brackets and located in line with the said vertical guides, agitators located in the openings of the grate and provided at their ends with studs which engage the vertical guides and coöperate therewith to hold the agitators in proper position, hangers pendent from the agitators and mounted upon the crank portions of the crank shafts, and means for imparting a rotary movement to the crank shafts to cause the agitators to receive a combined vertical reciprocating and laterally rocking motion.

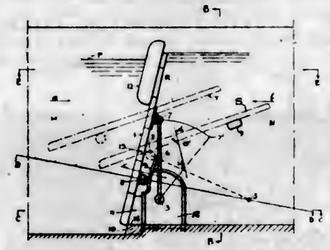
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1,089,232. AUTOMATIC SLUICE-GATE. GUSTAVE LARSON, Buenos Aires, Argentina. Filed Dec. 5, 1912. Serial No. 735,088. (Cl. 61—47.)

1. In combination with a canal or sluice way, a gate, an arm pivotally connected at one end to the sluice and at the other to the gate, a guide to support the gate below its connection with the arm and a roller or the like connected to the gate, to facilitate the movement of the gate on the guide so as to admit opening or closing the gate by swinging around its upper connection alone with arm stationary; or so as to determine motion of gate by following the guide and arc of arm motion, substantially as and for the purposes hereinbefore described.

2. In combination with a sluice way, a gate, stops arranged to retain the gate in a normally closed position, and means to balance said gate so as to be automatically moved from and to said closed position, said balancing means comprising a pivotally connected arm, a guide and a roller, substantially as hereinbefore described.





3. In combination with a sluice way and a gate for the same, means for balancing said gate comprising an arm pivotally connected to said gate and to the sluice way, a guide connected to the sluice way and a roller attached to the gate, to facilitate its movement on said guide, substantially as and for the purposes hereinbefore described.

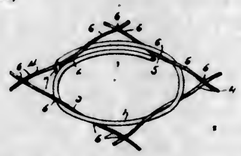
4. In combination with a sluice way, a gate, (such as 1) normally retained in a closed position by stops (such as 10 11 and 12) and balancing means to effect the automatic movement of said gate from or to said closed position, comprising a pivotally connected arm (such as 6) a guide (such as 4) and a roller or the like (such as 8) attached to the gate to facilitate the movement of the gate on the guide, substantially as hereinbefore described and illustrated in the accompanying drawings.

5. In combination with a sluice way, a gate, stops arranged to retain the gate in a normally closed position, means to balance said gate so as to be automatically moved to and from said closed position, said balancing means comprising a pivotally connected arm, a guide and a roller, and means to stop the opening movement of the gate and retain it in an inclined open position.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,233. SPRING BED-BOTTOM. JOSEPH P. LEGGETT, Carthage, Mo. Filed May 24, 1912. Serial No. 699,446. (Cl. 5—29.)



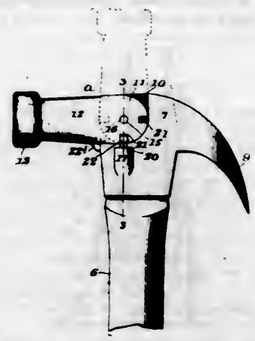
1. In a spring bed bottom, a coil spring, and four wires, two of which are interwoven with the other two, and each wire passing over and under one coil of the spring, each wire being substantially tangential with the inner side of the coil with which it engages.

2. In a spring bed bottom, a coil spring, and two pairs of wires, each wire of each pair passing over one wire of the other pair, then under and then over one coil of the spring, and then under the other wire of the other pair, the wires of one pair crossing the wires of the other pair on opposite sides, each wire being substantially tangential with the inner side of the coil with which it engages.

3. In a spring bed bottom, a mattress surface comprising the end coils of a plurality of coil springs, and two sets of wires, one set being interwoven with the wires of the other set, and each coil of said end coils being interwoven with two wires of each set, each wire being substantially tangential with the inner side of the coil with which it engages.



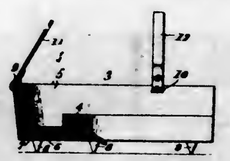
1,089,234. HAMMER. JOHN ALEXANDER LESLIE, Antelope, Oreg. Filed Aug. 5, 1913. Serial No. 783,108. (Cl. 145—29.)



A hammer including a head, an independent driving butt forming part of said head, said butt being pivotally connected to the head for adjustment to position the operative end of said butt in either of two right angularly related positions, and means for locking the butt in either of such positions with relation to the head.

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1,089,235. HORSESHOE. JOSEPH K. LEVEY, Detroit, Mich. Filed Feb. 19, 1913. Serial No. 749,487. (Cl. 168—1.)



An auxiliary shoe adapted to engage with a horse shoe and to be secured to the hoof of an animal, comprising a base corresponding in shape to the horse shoe, said base being formed with an inner and an outer flange, the inner flange projecting above the base a less distance than the thickness of the horse shoe, the outer flange being of a greater height than the inner flange and comprising vertically straight side walls and its rounded wall at the toe portion thereof inclined outwardly from the base to permit of the insertion of the horse's hoof and shoe between the flanges and to further permit of a tight frictional contact between the flanges and the horse shoe, removable calks for the device, and means for securing the device upon the ankle of an animal.

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1,089,236. ATTACHMENT FOR GARMENT-CEMENTING MACHINES. SAMUEL LIPSON, Saugus, Mass., assignor of one-third to Harry Rosenberg and one-third to Jacob Rosenberg, Boston, Mass. Filed Mar. 11, 1912. Serial No. 683,115. (Cl. 91—30.)

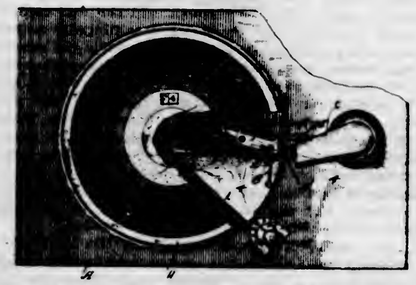
1. A cement applying device for cementing machines comprising a pair of levers pivoted at an intermediate point to swing about a common axis, a cement-retaining plate carried by each lever at its rear end, a distributing plate held between said retaining plates, a spring engaging the opposite ends of said levers and acting to hold the lower edges of all of said plates against the work, and means for delivering cement to the space included by said plates, substantially as described.

2. A cement-applying device for cementing machines, comprising a delivery tube, a carriage pivotally connected

ner surface thereof and terminating adjacent one end, a door hingedly secured to said casing juxtaposed the termination of said groove, the said casing being further provided with a slot of limited length communicating with said groove and extending substantially central and longitudinally thereof, a carriage including a runner with a figure supported thereupon, and a finger engaging knob disposed upon the outer surface of said casing and secured through the slot to said runner; said finger engaging knob coacting with the limited length of said slot to limit the movements of said runner, said runner slidably positioned within said groove, a guide rod bent upon itself and secured to the front end of said runner extending rearwardly therebeneath and secured at its rearward extremity to said runner, an upstanding loop carried by said door disposed between the said runner and guide rod, said guide rod adapted to open and close the said door with forward and reverse movements of said runner respectively, said upstanding loop and guide rod adapted to hold said runner within said groove, said runner provided adjacent its rear portion with an upstanding beveled lug, a spring latch rigidly secured to the casing and adapted to engage said lug to maintain said runner in retracted position, said carriage being completely housed by the said casing when in retracted position, a trigger extending through the side walls of said casing engaging said spring latch and adapted to release the same, a compression spring engaging the said carriage, and a cap threadedly engaging the rear extremity of said casing and forming an abutment for the said compression spring, said compression spring adapted to move said carriage partially beyond the said casing upon releasing of said spring latch through the intervention of said trigger.

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1,089,230. AUTOMATIC BRAKE FOR SOUND-REPRODUCING MACHINES. EDWIN O. KLEMM, Saginaw, Mich. Filed June 24, 1912. Serial No. 705,464. (Cl. 74—46.)



1. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever, a spring connected with one end of the brake lever and normally holding the same under tension, a brake shoe on the opposite end of the lever, a lug carried by the brake lever, a pawl having its free end adapted to engage with the lug aforesaid to hold the brake shoe from contact with the rotating element, a controlling lever coöperating with the brake lever and having an arm lying in the path of movement of the moving element aforesaid, and spaced guide lugs carried by the controlling lever between which the pawl aforesaid rests, whereby the pawl may be disengaged from the lug on the brake lever by contact of the moving element with the arm of the controlling lever.

2. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever adapted to coöperate with the rotating element, a controlling lever adapted to release the brake lever to permit operation of the same, variable adjusting means upon which the brake and controlling levers are mounted, and means for moving the last mentioned adjusting means to adjust the position of the controlling lever aforesaid for operation of the brake at variable times.

3. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, a brake lever adapted to coöperate with the rotating element, a controlling lever adapted to operate the brake lever, an adjusting plate upon which the brake and controlling levers are mounted having an extension formed thereon, and means carried by the machine coöperating with the extension of the adjusting plate for moving the latter in a path parallel with the path of travel of the periphery of the rotating element to adjust the position of the controlling lever.

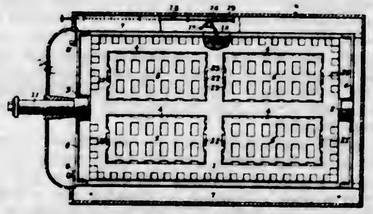
4. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, an adjusting plate, a controlling lever associated with the plate and adapted to engage with the moving element, a spring actuated brake lever normally held disengaged from the rotating element, and an indicator movable to adjust the plate aforesaid and thereby adjust the position of the controlling lever for operation of the brake lever at a predetermined time.

5. An automatic brake for sound reproducing machines comprising, in combination, a rotating element and a moving element, an adjusting plate, a controlling lever associated with the plate and adapted to coöperate with the moving element, a spring actuated brake lever normally held disengaged from the rotating element, and an eccentric cam coöperating with the adjusting plate and movable to adjust the controlling lever for operation of the brake lever at a predetermined time.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,231. GRATE. HERMAN F. LANGENHOP, Chappaqua, N. Y. Filed Nov. 12, 1912. Serial No. 730,950. (Cl. 126—177.)



In combination a grate provided with rows of oblong openings having centrally disposed vertical guides at their ends, brackets pendent from the grate, crank shafts mounted in said brackets and located in line with the said vertical guides, agitators located in the openings of the grate and provided at their ends with studs which engage the vertical guides and coöperate therewith to hold the agitators in proper position, hangers pendent from the agitators and mounted upon the crank portions of the crank shafts, and means for imparting a rotary movement to the crank shafts to cause the agitators to receive a combined vertical reciprocating and laterally rocking motion.

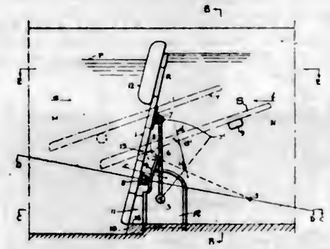
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1. In combination with a canal or sluice way, a gate, an arm pivotally connected at one end to the sluice and at the other to the gate, a guide to support the gate below its connection with the arm and a roller or the like connected to the gate, to facilitate the movement of the gate on the guide so as to admit opening or closing the gate by swinging around its upper connection alone with arm stationary; or so as to determine motion of gate by following the guide and arc of arm motion, substantially as and for the purposes hereinbefore described.

2. In combination with a sluice way, a gate, stops arranged to retain the gate in a normally closed position, and means to balance said gate so as to be automatically moved from and to said closed position, said balancing means comprising a pivotally connected arm, a guide and a roller, substantially as hereinbefore described.





3. In combination with a sluice way and a gate for the same, means for balancing said gate comprising an arm pivotally connected to said gate and to the sluice way, a guide connected to the sluice way and a roller attached to the gate, to facilitate its movement on said guide, substantially as and for the purposes hereinbefore described.

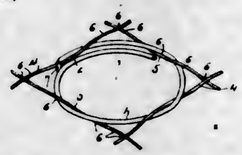
4. In combination with a sluice way, a gate, (such as 1) normally retained in a closed position by stops (such as 10 11 and 12) and balancing means to effect the automatic movement of said gate from or to said closed position, comprising a pivotally connected arm (such as 6) a guide (such as 4) and a roller or the like (such as 8) attached to the gate to facilitate the movement of the gate on the guide, substantially as hereinbefore described and illustrated in the accompanying drawings.

5. In combination with a sluice way, a gate, stops arranged to retain the gate in a normally closed position, means to balance said gate so as to be automatically moved to and from said closed position, said balancing means comprising a pivotally connected arm, a guide and a roller, and means to stop the opening movement of the gate and retain it in an inclined open position.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,233. SPRING BED-BOTTOM. JOSEPH P. LEGGETT, Carthage, Mo. Filed May 24, 1912. Serial No. 699,446. (Cl. 5—29.)



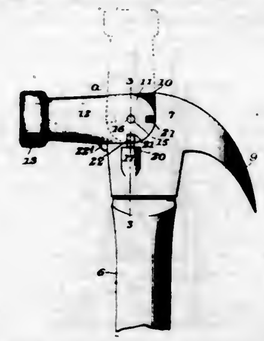
1. In a spring bed bottom, a coil spring, and four wires, two of which are interwoven with the other two, and each wire passing over and under one coil of the spring, each wire being substantially tangential with the inner side of the coil with which it engages.

2. In a spring bed bottom, a coil spring, and two pairs of wires, each wire of each pair passing over one wire of the other pair, then under and then over one coil of the spring, and then under the other wire of the other pair, the wires of one pair crossing the wires of the other pair on opposite sides, each wire being substantially tangential with the inner side of the coil with which it engages.

3. In a spring bed bottom, a mattress surface comprising the end coils of a plurality of coil springs, and two sets of wires, one set being interwoven with the wires of the other set, and each coil of said end coils being interwoven with two wires of each set, each wire being substantially tangential with the inner side of the coil with which it engages.



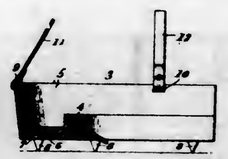
1,089,234. HAMMER. JOHN ALEXANDER LESLIE, Antelope, Oreg. Filed Aug. 5, 1913. Serial No. 783,108. (Cl. 145—29.)



A hammer including a head, an independent driving butt forming part of said head, said butt being pivotally connected to the head for adjustment to position the operative end of said butt in either of two right angularly related positions, and means for locking the butt in either of such positions with relation to the head.

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1,089,235. HORSESHOE. JOSEPH K. LEVEY, Detroit, Mich. Filed Feb. 19, 1913. Serial No. 749,487. (Cl. 168—1.)



An auxiliary shoe adapted to engage with a horse shoe and to be secured to the hoof of an animal, comprising a base corresponding in shape to the horse shoe, said base being formed with an inner and an outer flange, the inner flange projecting above the base a less distance than the thickness of the horse shoe, the outer flange being of a greater height than the inner flange and comprising vertically straight side walls and its rounded wall at the toe portion thereof inclined outwardly from the base to permit of the insertion of the horse's hoof and shoe between the flanges and to further permit of a tight frictional contact between the flanges and the horse shoe, removable calks for the device, and means for securing the device upon the ankle of an animal.

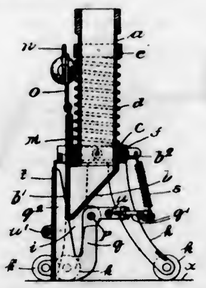
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1,089,236. ATTACHMENT FOR GARMENT-CEMENTING MACHINES. SAMUEL LIPSON, Saugus, Mass., assignor of one-third to Harry Rosenberg and one-third to Jacob Rosenberg, Boston, Mass. Filed Mar. 11, 1912. Serial No. 683,115. (Cl. 91—30.)

1. A cement applying device for cementing machines comprising a pair of levers pivoted at an intermediate point to swing about a common axis, a cement-retaining plate carried by each lever at its rear end, a distributing plate held between said retaining plates, a spring engaging the opposite ends of said levers and acting to hold the lower edges of all of said plates against the work, and means for delivering cement to the space included by said plates, substantially as described.

2. A cement-applying device for cementing machines, comprising a delivery tube, a carriage pivotally connected

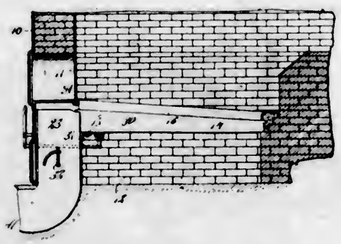
thereto and having friction rolls for engaging the work, an arm pivotally mounted on said carriage, a cement-distributing plate carried by said arm, a spring engaging said arm to hold said plate against the work, and means for delivering the cement from said tube in front of said plate, substantially as described.



3. A cement-applying device for cementing machines, comprising a cement-delivering tube, a pair of arms pivotally connected to said tube, disposed at opposite sides thereof and extending rearwardly therefrom, a cement-retaining plate at the rear end of each arm and a distributing plate held between said retaining plates and in the rear of said tube, substantially as described.

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1,089,237. FORCED-DRAFT GRATE. ROBERT G. LONG, Lawrence, Kans. Filed July 2, 1912. Serial No. 707,342. (Cl. 110—74.)

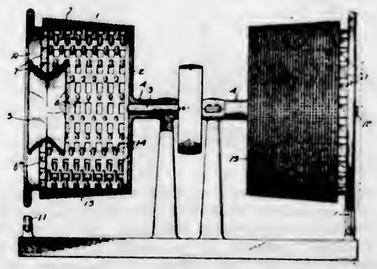


1. A grate comprising a plurality of hollow grate bars, each bar including separable top and bottom sections formed with straight side and end walls, the upper edges of the side walls of the bottom section being rearwardly inclined, an out-turned marginal flange formed at the front and rear upper edges of the bottom section, said bottom section being formed with an upstanding portion about its free edge to provide a seat, a top section having a depending rim resting upon the seat, an out-turned lip formed at the rear end of the said rim, the upstanding portion at the rear end of the bottom section being inturned to overlap the lip at the rear end of the rim on the top section, and a draft flue connected with the larger end of the bottom section and communicating therewith.

2. A gate comprising a plurality of hollow grate bars, each bar including separable top and bottom sections formed with straight side and end walls, the upper edges of the side walls of the bottom section being rearwardly inclined, an out-turned marginal flange formed at the front and rear upper edges of the bottom section, said bottom section being formed with an upstanding portion about its free edge to provide a seat, a top section having a depending rim resting upon the seat, an out-turned lip formed at the rear end of the said rim, the upstanding portion at the rear end of the bottom section being inturned to overlap the lip at the rear end of the rim on the top section, a draft flue connected with the larger end of the bottom section and communicating therewith, the said bottom section being provided with draft openings, a slide mounted within each bottom section for controlling the draft openings, and means for actuating the said slide.

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1,089,238. APPARATUS FOR MIXING AND SCREENING MOLDERS' SAND. GEORGE HENERY MARTIN, Hornell, N. Y. Filed Oct. 14, 1910. Serial No. 587,074. (Cl. 83—73.)



1. In a machine of the type set forth, a mixing cylinder having mixing elements and perforations arranged in rows, a series of separate plates disposed around the cylinder and having perforations which may be brought into or out of alinement with the perforations of the cylinder, said plates fitted to slide longitudinally of the axis of the cylinder, and means connected to the plates to produce simultaneous movements of the series of separate plates.

2. In a machine of the type set forth a mixing cylinder having perforations arranged in transverse rows, transverse plates fitted slidably to the outer face of the cylinder, corresponding in arrangement to the rows of perforations, and having perforations which may be brought into or out of alinement with the perforations of the cylinder, and an axially movable ring disposed coaxially of the cylinder and connected to the plates to produce simultaneous movements thereof in either direction.

3. In a machine of the type set forth, a movable mixer provided with mixing elements and having a perforated surface, a sieve encircling and spaced from and connected to the mixer for movement therewith and upon which the material passing through the perforations of the cylinder falls, and means for closing or uncovering the perforations to control the passage of the material from the mixer to the encircling sieve.

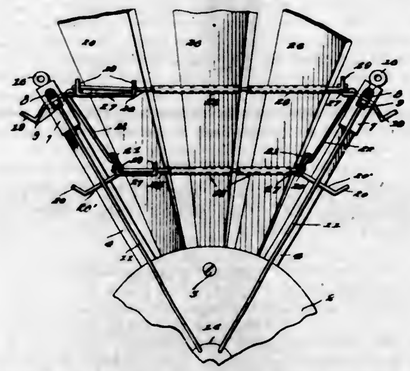
4. In a machine of the type set forth, a mixing cylinder having mixing elements thereon and having suitably arranged perforations, a sieve of frusto-conical outline attached to and concentrically surrounding the cylinder to leave a space around the mixing cylinder increasing in depth from the rear of the cylinder toward its receiving end, and means for closing or uncovering the perforations to control the passage of the material from the mixer to the surrounding sieve.

5. In a machine of the type set forth, a mixing cylinder having perforations arranged in rows and teeth arranged in staggered relation on the inside of the cylinder between the rows of perforations, a frusto-conical sieve surrounding said cylinder and forming a space around the cylinder increasing in depth from the rear to the front of the cylinder, a series of apertured plates between the cylinder and inclosing cylinder and slidable axially of the cylinder, a plate being provided for each row of perforations in the cylinder, guides secured to the outside of the cylinder for each one of the plates, and means connected with the plates for moving the series in unison, substantially as described.

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1,089,239. WINDMILL-WHEEL. CHARLES O. MASON, Texhoma, Tex. Filed June 10, 1913. Serial No. 772,796. (Cl. 170—79.)

1. A wind mill wheel, consisting of the hub and radial arms, screws or adjusting rods mounted in said arms, nuts on said screws, clamping plates engaged by said screws and nuts, an outer series of blade supporting frames connected to said plates, an inner series of plates connected with said outer series of plates, an inner series of blade supporting frames connected with said inner series of plates, and blades mounted and retained in said series of supporting frames.



2. A wind mill wheel, consisting of the hub having the supporting arms, a series of wing supporting frames mounted upon said arms, means for engaging and securing the wings carried by said frames, adjusting and securing means for the frame mounted in said arms, a shaft upon which the hub is mounted, and braces leading from the shaft to said arms.

3. A wind mill wheel, consisting of the hub, the arms supported in the hub, the wing supporting frames connected with said arms, the adjusting rods mounted in the arms and formed with eyes, the clamping plates mounted upon said adjusting rod and connected with the wing supporting frames, and the tension rods passing through the eyes of the adjusting rods and connected to said clamping plates.

4. A wind mill wheel, consisting of the hub and radial arms, the caps mounted on the outer ends of said arms and provided with openings, the braces having one end connected to said rods and passing through the opening of said caps, a plate secured to the other ends of said braces, and the wing supporting frames connected with the radial arms, and having means to secure the wings.

5. A wind mill wheel, consisting of the hub and radial arms, the caps on said arms, the adjusting rods engaging the caps and arms, the clamping nuts and plates on the adjusting rods, the inner series of plates, the rods connecting said clamping and inner series of plates, the inner and outer series of open wire frames connected to said clamping and inner plates, the wing engaging plates mounted upon said wire frames, the wings retained between said plates, and means for retaining the adjusting rods in proper position to secure the wings, frames and connections in place.

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1,089,240. PROCESS FOR THE SYNTHETIC PREPARATION OF AMMONIA FROM ITS CONSTITUENTS. ARTHÈME MATIGNON, Bourg-la-Reine, France, assignor to The Société Generale des Nitrures, Paris, France. Filed Aug. 7, 1911. Serial No. 642,825. (Cl. 23—21.)

1. A process for the synthetic formation of ammonia, consisting in passing a mixture of nitrogen and hydrogen gases in free and molecular state over a catalytic agent, containing zinc, at a temperature above normal temperature but below the melting point of said zinc, substantially as described.

2. A process for the synthetic formation of ammonia comprising the passing of a mixture of nitrogen and hydrogen gases over a catalytic agent, said agent consisting of finely divided zinc maintained at a temperature above normal temperature but below the melting point of said zinc.

3. A process for the synthetic formation of ammonia, comprising the passing of a mixture of nitrogen and hydrogen gases under pressure over a catalytic agent consisting of finely divided zinc powder spread upon asbestos and maintained at a temperature above normal temperature but below the melting point of said zinc.

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1,089,241. PROCESS FOR THE SYNTHETIC PREPARATION OF AMMONIA FROM ITS CONSTITUENTS. ARTHÈME MATIGNON, Bourg-la-Reine, France, assignor to The Société Generale des Nitrures, Paris, France. Original application filed Aug. 7, 1911, Serial No. 642,825. Divided and this application filed May 22, 1913. Serial No. 769,296. (Cl. 23—21.)

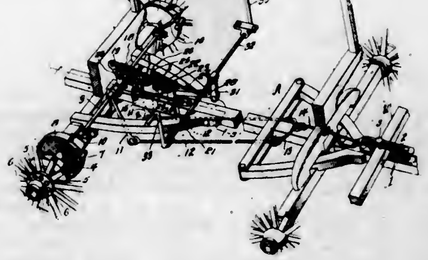
1. A process for the synthetic production of ammonia, comprising the passing of nitrogen and hydrogen over a catalytic agent containing tungsten, at a low temperature, substantially as described.

2. A process for the synthetic production of ammonia, comprising the passing of nitrogen and hydrogen mixture over a catalytic agent consisting of finely divided tungsten, substantially as described.

3. A process for the synthetic formation of ammonia, comprising the passing of nitrogen and hydrogen mixture under pressure, over finely divided tungsten powder spread upon an asbestos support, substantially as described.

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1,089,242. AUTOMATIC BRAKE. DUDLEY A. MATTHEWS, Garden Valley, Tex. Filed Mar. 15, 1913. Serial No. 754,410. (Cl. 21—9.)



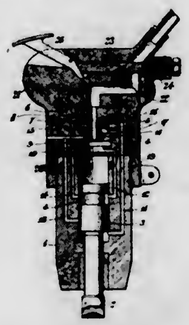
1. In an automatic braking apparatus for vehicles, band brakes associated with the hubs of the rear wheels of the vehicle, a crank shaft disposed longitudinally of the rear axle of the vehicle and journaled upon the vehicle running gear, connections between said shaft and brakes whereby the latter may be moved to braking and non-braking positions, connections between said shaft and the draft appliance of the vehicle whereby the brakes will be held in non-braking position, a bracket slidably disposed upon the reach bar of the vehicle, tension means interposed between said bracket and shaft and acting to rotate the shaft to move the brakes into braking position, means normally holding said bracket against movement, and means for relieving said bracket of the influence of the last means and for subsequently sliding said bracket to increase the efficiency of said tension means.

2. In an automatic braking apparatus for wheeled vehicles, band brakes associated with the hubs of the rear wheels of the vehicle, a crank shaft disposed longitudinally of the rear axles of the vehicle and journaled upon the running gear thereof, connections between said crank shaft and brakes, connections between said shaft and the draft appliance of the vehicle whereby the brakes will be held in non-braking position, a bracket comprising a plate bent to inclose a portion of the reach rod of the vehicle and having the opposite ends thereof extending upwardly

and spaced apart, a hook disposed between the confronting faces of said ends, a hook extending upwardly from said shaft, a spring having the opposite ends thereof secured to said hooks and normally acting to rotate the shaft to hold the brakes in braking position, a dog fulcrumed between its ends intermediate the ends of said plate, a bar slidably disposed between said plate and having pins projecting outwardly from the opposite sides thereof, the ends of said bracket being provided with alining slots to receive said pins, a rod passed loosely through the free end of said dog and connected to said bar, a rack bar connected to said reach rod and adapted to be engaged with said dog to hold the bracket in proper position, means for sliding said bar between the upstanding ends of said bracket to disengage the dog from the teeth of the rack and subsequently slide the bracket along the reach rod, and means for restoring said dog to normal position upon the release of the last-named means.

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1,089,243. FLUID-ACTUATED TOOL. MAX MAXIMILIAN, St. Louis, Mo. Filed Dec. 24, 1912. Serial No. 738,498. (Cl. 121—20.)



A fluid actuated tool comprising a cylinder having an open end, a piston within the cylinder and formed with a circumferential groove, a valve casing secured to said cylinder at the open end thereof and having a valve chamber formed therein and provided with a port in the lower wall thereof leading into the upper end of the cylinder above the piston therein to establish communication between the valve chamber and cylinder, a cap closing said valve chamber, a hollow shaft secured to said cap and extending into the valve chamber and provided with an aperture, a valve disposed concentrically of said shaft and slidably mounted thereon within the valve chamber and conforming to the contour of the latter, said valve casing and cylinder being provided with registering bores forming air passages, said valve controlling the first-mentioned port and the aperture in said shaft alternately whereby the piston will be reciprocated, certain of said passages being adapted to be brought into registration with each other by means of the groove in the piston and opening into the atmosphere, while the remaining passages control the valve and form exhaust passages, the groove in said valve serving to establish communication between certain of said passages and the atmosphere, and fluid controlling means for the valve chamber.

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1,089,244. SPARK-PLUG. JOHN R. MCDOWELL, Auburn, Ind. Filed May 24, 1912. Serial No. 699,442. (Cl. 123—169.)

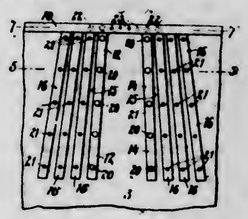
A spark plug, comprising a metal jacket, an insulating core therein having the inner end thereof formed with a central recess and its outer edge beveled, leaving a V-shaped annular ridge, a spark point protruding from the core centrally of said recess and partially arranged in said recess, and a dead point projecting from the apex of said ridge and lying in a radial line between the spark point and the jacket, the dead point being concaved on both



sides back of the extremity thereof and the spark point being concaved on the side next to the dead point.

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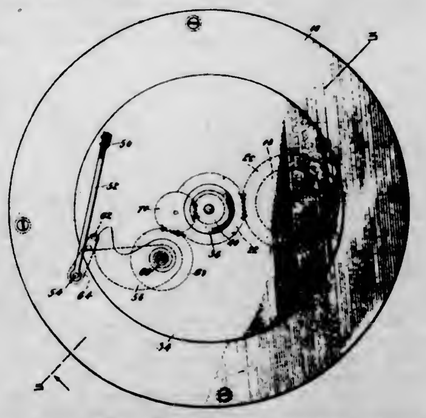
1,089,245. UNDERSKIRT. MARTINA G. MCLOUGHLIN, Philadelphia, Pa. Filed Oct. 2, 1912. Serial No. 723,474. (Cl. 2—143.)



An adjustable underskirt having a plurality of strips of tape secured in a vertical position to the under side of the skirt, fastening devices, one member of said fastening devices secured upon said strips of tape, two strips of tape located adjacent to the center of the skirt and having secured thereon the opposite member of said fastening devices, said last mentioned strips of tape secured to the skirt by the inner edges thereof and the opposite edges of the tape remaining free to overlap the first mentioned strips of tape by which the skirt may be plaited and secured, by said fastening devices, to reduce the size of the skirt at the waist line and over the hips.

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1,089,246. SPEED INDICATING AND RECORDING DEVICE. WALTER K. MENNS, Chelsea, Mass., assignor to Chelsea Clock Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 16, 1913. Serial No. 761,606. (Cl. 234—29.)



1. In a speed indicating and recording device, the combination of a rotary record-receiving sheet, means for holding said sheet to cause it to be rotated, a marker, and means for controlling the movement of said marker to produce a spiral mark extending from the outer portion of said sheet toward the center thereof, said marker being automatically returned to its initial position when said sheet is released, substantially as described.

2. In a speed indicating and recording device, the combination of a center arbor, means for rotating said arbor, a record-receiving sheet, means for clamping said sheet in driving position on said arbor, a marker, and means for moving said marker from the outer portion of said sheet toward the center thereof when the sheet is clamped on the arbor, said marker being arranged to be automatically returned to its initial position when said sheet is unclamped from said arbor, substantially as described.

3. In a speed indicating and recording device, the combination of a center arbor, means for rotating said arbor, a record-receiving sheet, a gear rotatably mounted on said arbor, means for clamping said record-receiving sheet on said arbor and for clamping said gear in driving relation with said arbor, a marker, means driven by said gear for moving said marker from the outer portion toward the center of said sheet while the latter is clamped in driving position, said means being arranged to automatically return said marker to its initial position when said gear is released, substantially as described.

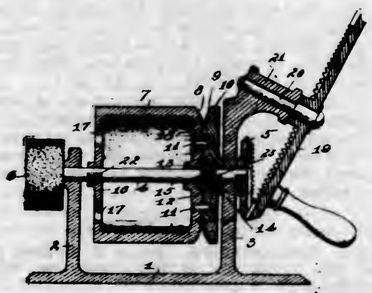
4. In a speed indicating and recording device, the combination of a center arbor, a gear loosely mounted on said arbor, means for placing said gear in driving relation with said arbor, a marker, a cam, a spring arranged to hold the marker in driving relation with said cam and to automatically return said marker to its initial position when said gear is freed from driving relation with said arbor, substantially as described.

5. In a speed indicating and recording device, the combination of a center arbor, a disk loosely mounted on said arbor, a gear fast on said arbor, a sleeve loosely mounted on said arbor between said gear and disk, a spring surrounding said arbor between said sleeve and gear and tending normally to separate them, means for clamping said disk and sleeve in driving relation with said gear, a cam, driving connections between said sleeve and cam, a marker, and a spring adapted to be wound up during the rotation of said cam in one direction and arranged to keep said marker under the control of said cam to move said marker toward the center of said disk, said last mentioned spring and cam being arranged to automatically return said marker to its initial position when said sleeve is freed from driving engagement with said gear, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,089,247. GRINDING IMPLEMENT. STEPHEN MENYHEART and VENDEL SMITH, New Brunswick, N. J. Filed Nov. 4, 1913. Serial No. 799,234. (Cl. 51—7.)



1. An implement of the class described comprising two grinding wheels, one of which is longitudinally adjustable relative to the other, the opposed faces of the wheels being beveled in opposite directions adjacent to their edges, and also oppositely beveled to provide a channel concentric with the peripheries of said wheels.

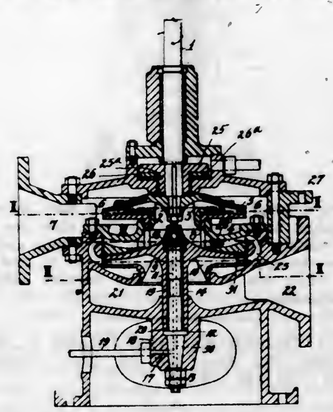
2. An implement of the class described comprising two grinding wheels, the opposing faces of which are beveled in opposite directions, one of said wheels being hollow and formed with openings, a spring interposed between the wheels, and screws alined with said openings for adjusting one of the wheels relative to the other.

3. An implement of the class described comprising a grinding wheel having one edge beveled, a second wheel adjustable to and from the first and having also a beveled edge, each of said wheels being oppositely beveled near its periphery to provide a channel, and means for adjusting one wheel relative to the other.

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1,089,248. CENTRIFUGAL PUMP. ANTHONY GEORGE MALDON MICHELL, Melbourne, Victoria, Australia. Filed Sept. 18, 1912. Serial No. 721,096. (Cl. 103—43.)



1. In a centrifugal pump and in combination with a primary pump-wheel, a rotating member comprising a turbine element receiving the fluid discharged by said primary wheel, an auxiliary pump element acting on the fluid in series with said primary pump-wheel, and a coupling element consisting of bars through which the fluid passes, coupling said auxiliary pump element to said turbine element.

2. In a centrifugal pump and in combination with a primary pump-wheel, a turbine element receiving the fluid from said primary pump wheel, an auxiliary centrifugal pump element coupled to said turbine element and delivering the fluid to said primary pump wheel, fixed guide-vanes conveying the fluid from said auxiliary pump to said primary pump, and a common casing wherein said parts are arranged.

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1,089,249. WRENCH. EDGAR T. MOOSE, Fellows, Cal. Filed May 24, 1913. Serial No. 769,633. (Cl. 81—121.)

1. In a socket wrench, a plurality of sockets disposed one within the other, the outer socket having a head provided with a bore, the remaining sockets being provided with shanks which telescope one within the other, and the outermost of which passing through the bore of the head of the first mentioned socket, each of the shanks being provided with a head, catch members upon each of the heads for sustaining all or any of the interior sockets in a plane with the exterior socket, and spring members arranged between the heads for raising any of said sockets when the catches are operated to raise the said socket above the plane of the engaging end of the outer socket.

2. In a wrench of the class set forth, a plurality of sockets arranged for slidable movement one within the other, the outer socket being formed with a head having a longitudinal passage therein, each of the remaining sockets being provided with shanks telescoping one within

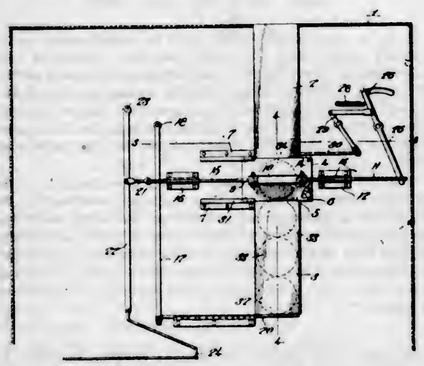
the other, each of the shanks being provided with heads having continuous flanges, spring members between each of the heads, a spring catch member for the heads and entering the bores of the heads, and each of the hollow shanks of the interior sockets being provided with a pair



of spaced openings whereby the socket may be retained by the shank in nut-receiving position when one of the catches engages with one of the depressions and to be raised by the spring and to be retained in said raised position when one of the catches engages within the second depression.

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1,089,250. VENDING-MACHINE. ROBERT H. MORGAN, Pittsburgh, Pa. Filed Feb. 25, 1913. Serial No. 750,619. (Cl. 194—78.)



1. A coin controlled mechanism for coin operated vending machines including a coin chute, a coin tube having a length corresponding to the diameter of the number of coins to be used, a movable slide interposed between the coin chute and coin tube to receive the final coin delivered to the machine, said final coin being supported solely by the previously introduced coins, an operating bar freely movable in the slide in one direction, a push bar freely movable in the slide in one direction, the final coin held in the slide serving to form an abutment between the proximate ends of the push bar and operating bar, and means for supporting the coin in the slide in the operation of the latter.

2. A coin control for coin operated vending machines including a coin chute, a coin tube having a length corresponding to the diameter of the number of coins to be used, a movable slide interposed between the coin chute and coin tube to receive the final coin delivered to the machine, said final coin being supported within the slide solely by the previously introduced coins, an operating bar freely movable in the slide in one direction, a push bar freely movable in the slide in one direction, the final coin held in the slide serving to form an abutment between the proximate ends of the push bar and operating bar, and a shelf arranged beyond the coin tube to support the operating coin in the slide during movement of the slide.

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1,089,251. COMPOSITION OF MATTER TO BE USED FOR A FOOD. GEORGE H. MOWE, Watertown, N. Y. Filed June 6, 1913. Serial No. 772,045. (Cl. 99—11.)

A composition of food material comprising cornmeal and parched bran mixed together in equal quantities.

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1,089,252. WINDOW-SHADE HOLDER. HARVEY A. MOWREY, Blackfoot, Idaho. Filed May 24, 1913. Serial No. 769,663. (Cl. 156—23.)



1. A device of the class described comprising a pair of brackets, friction heads carried by the brackets, a second pair of brackets adjustably mounted in said heads, a curtain pole consisting of adjustably connected sections, said second brackets having inwardly turned ends adapted to fit into the ends of the sections of the curtain pole, a two-part shade bracket slidably mounted on the second bracket and means for adjusting the parts of the shade brackets independently of the curtain pole.

2. A device of the class described comprising a pair of brackets, friction heads carried by the brackets, a second pair of brackets adjustably mounted in said sleeves, a curtain pole consisting of adjustably connected sections freely slidable upon one another, said second brackets having inwardly turned ends adapted to fit freely into the sections of the curtain pole, a two-part shade bracket having the ends freely slidably mounted upon the second brackets and means for adjustably connecting the parts of the curtain bracket together independently of the curtain pole.

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1,089,253. BLEACHING FATS AND OILS. FRIEDRICH MÜLLER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 20, 1912. Serial No. 678,879. (Cl. 87—12.)

1. The process of bleaching fats and oils of vegetable and animal origin by treating the same with solutions of hydrosulfites in the presence of alkaline reagents.

2. The process of bleaching fats and oils of vegetable and animal origin by treating them with an alkaline solution of sodium hydrosulfite.

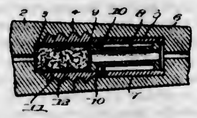
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1,089,254. TOBACCO-PIPE. FRANK T. MURATA, Canon City, Colo. Filed Nov. 26, 1912. Serial No. 733,652. (Cl. 131—12.)

A tobacco pipe, cigar holder, or the like having a stem provided with a chamber in its outer end and communicating with its bore, a mouth piece having a chamber in its inner end, a tubular cartridge holder having threaded engagement with the chambers of the stem and mouth piece and forming a coupling member between them,



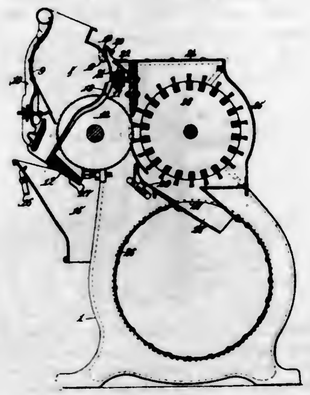
a sleeve mounted for longitudinal movement in the cartridge holder and connected thereto and removable there-



with from the stem and mouth piece, said sleeve having a contracted bore extending from end to end thereof.

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1,089,255. COTTON-GIN. STEPHEN D. MURRAY, Dallas, Tex. Filed Sept. 13, 1907. Serial No. 392,652. (Cl. 13—9.)



1. In a cotton gin, the combination with supporting legs, of a longitudinal hollow member uniting the legs and operating as a receptive means for the lint and having a lint-receiving opening, and ginning devices including a brush cylinder arranged to discharge into the lint-receiving opening of the member, the hollow member extending along the brush cylinder.

2. In a cotton gin, the combination of ginning mechanism including a brush cylinder, and a main hollow lint receiving member extending longitudinally through the body of the gin and forming the direct outlet for the lint cotton from the gin, a guiding means between the cylinder and conduit and tangentially arranged in relation to the latter, the brush cylinder being arranged above the hollow member and operating to produce an air current in the direction of and in the said member to drive the lint cotton into and through the latter.

3. In a cotton ginning apparatus, the combination with a plurality of gins, a main hollow lint receiving member disposed longitudinally in the gins and extending endwise through the latter and continuous with respect to all the gins, the hollow member having angularly disposed inlets communicating with the gins, and ginning mechanism including brush cylinders, each brush cylinder being disposed in proximity to an inlet portion of the hollow member, the one extremity of each inlet being tangentially arranged in relation to and closely associated with each brush cylinder, a thin stratum of air of high velocity being produced adjacent to each brush cylinder and operating to drive the lint cotton into the hollow member.

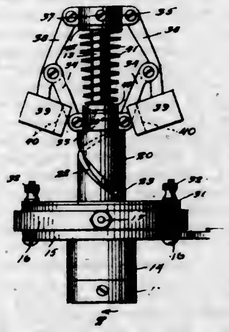
4. The combination with a plurality of gins having ginning mechanism therein including brush cylinders, of a longitudinal conduit extending through the bodies of the several gins and rigidly uniting the legs of the latter, and also serving as a receptive medium for the lint, the brush cylinders being disposed in coöperative relation to the conduit and operating to drive the lint cotton into the latter.

5. The combination with a plurality of gins having supporting legs, of a hollow member longitudinally extending through the gins and secured to and rigidly uniting the frames of the gins, and ginning mechanism in each gin including a brush cylinder disposed in coöperative relation with the portion of the hollow member passing therethrough and operating to drive the lint cotton into said member.

[Claims 6 to 31 not printed in the Gazette.]

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1,089,256. SPARK ADVANCING AND RETARDING MECHANISM. EDWIN L. PARDEE, Marne, Iowa. Filed Apr. 11, 1912. Serial No. 689,969. (Cl. 123—117.)



1. A spark advancing and retarding mechanism comprising a socket, means for connecting said socket to a cam shaft of an engine, a collar rigidly secured to the lower end of the socket adapted to form a bearing, a second collar loosely mounted on the socket and adapted to bear on the first mentioned collar, a plate formed on the upper extremity of the second mentioned collar, an insulated ring rigidly secured to said plate, contact plates mounted in the ring, binding posts adapted to pass through said ring and connect with said contact plates, a timing shaft mounted on said socket and adapted to rotate therewith, a sleeve loosely mounted on said shaft and provided with an enlarged portion at the lower end thereof, said sleeve provided with a spiral groove therein, a second sleeve interposed between the timing shaft and the first mentioned sleeve, means for connecting said sleeve, a governor secured to the timing shaft and the second mentiond sleeve and means for guiding the weights of the governor.

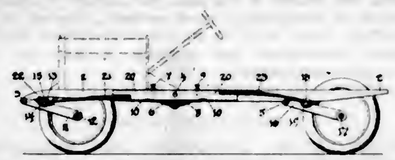
2. A spark advancing and retarding mechanism, comprising a socket, an insulated ring, means for supporting said ring on the socket, a timing shaft mounted on the upper end of said socket, contact plates carried by said ring, binding posts connecting with the contact plates, a sleeve surrounding said timing shaft and provided with a spiral groove therein, a second sleeve interposed between the first mentioned sleeve, a lug adapted to project into said spiral groove, a governor attached in the second sleeve and to the timing shaft, ears formed on the lower end of the outer sleeve, a lever pivoted to one ear, a coil spring attached to the other ear and to the end of said lever, and a roller carried on the free end of the lever and adapted to bear against the insulated ring.

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1,089,257. SHOCK-NULLIFYING VEHICLE SUSPENSION. ALBERT VICTOR PARK, South Melbourne, and JAMES NORMAN CAUGHT and HERMAN HOUSE, St. Kilda, Melbourne, Victoria, Australia; said Park and Caught assignors to said House. Filed July 30, 1912. Serial No. 712,338. (Cl. 21—101.)

1. A vehicle suspension consisting in the combination with a frame and axles therefor, of a compensating beam at each side of the frame and intermediately pivoted to suspend the load by the beam pivots, springs extending

from the beams, means for supporting the axles on the frame, said springs being supported by the means which supports the axles.



2. A shock absorbing vehicle suspension consisting in the combination with a frame and axles therefor, of a compensating beam at each side of the frame and having a central pivotal suspension for the load, springs extending from the beams, means for supporting the springs between the axles and the frame, resilient means for balancing the load and absorbing reflex of the frame when an obstruction is encountered, and means for adjusting the resiliency of the balancing and reflex absorbing means.

3. A shock absorbing vehicle suspension consisting of the combinaiotn with a frame and wheels thereof, of a longitudinally disposed intermediately pivoted compensating beam at each side of the vehicle, a spring resistance between each end of each beam and the corresponding vehicle wheels, and a load balancing and reflex absorbing spring at each side of the pivotal center of each beam.

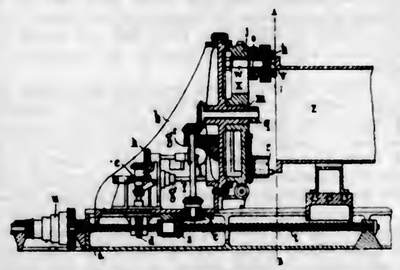
4. A vehicle suspension consisting in the combination with a frame and axles therefor, of a compensating beam at each side of the frame, each beam having a central pivot by which the load is suspended, springs extending from the ends of the beams and pivoted radiating arms between the frame and the axles and forming supports for the springs.

5. A shock absorbing vehicle suspension consisting of a main load carrying frame, a secondary frame pivoted to the main frame centrally of said load, a plurality of axles, a plurality of rearwardly directed resilient connectors between said axles, and secondary frame, and wheels carried by said axles.

[Claims 6 to 28 not printed in the Gazette.]

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1,089,258. FACING OR MILLING MACHINE. JAMES ARNOT PATERSON, Widnes, England. Filed Jan. 13, 1914. Serial No. 811,865. (Cl. 90—15.)



1. In a machine for facing by milling, in combination, a continuously rotating face plate, a rotating tool holder mounted upon said face plate but with its axis external to the axis of the latter, means for rotating said face plate and said tool holder, and means for traversing said face plate in an axial direction, as set forth.

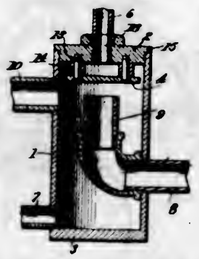
2. In a machine for facing by milling, in combination, a continuously rotating face plate, a rotating tool holder mounted upon said face plate but with its axis external to the axis of the latter, means for adjusting said tool holder relatively to the face plate axis, means for rotating said face plate and tool holder and means for traversing the face plate in an axial direction, as set forth.

3. In a machine for facing by milling, in combination, a continuously rotating face plate with a slot therein, a rotating tool holder mounted so as to be adjustable in said slot, a gear wheel co-axial with said face plate, an adjustable carrier wheel meshing with said gear wheel and also with the tool holder, means for rotating said face plate, means for traversing the face plate in an axial direction, and means for supporting the work adjacent to the face plate, as set forth.

4. In a machine for facing by milling, in combination, a bed, a carriage mounted and traversable upon said bed, a face plate carried by said carriage, means for continuously rotating said face plate, a milling head carried upon said face plate and adjustable away from or toward the center thereof, means for rotating said milling head, and means for traversing said carriage, as set forth.

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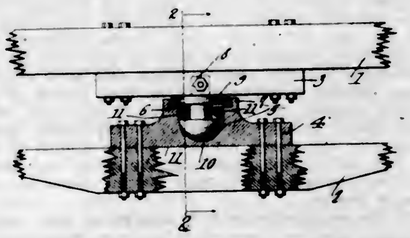
1,089,259. MUFFLER. ARNOLD J. PATTEN, Ellsworth, Me. Filed May 4, 1912. Serial No. 695,147. (Cl. 121—116.)



A muffler for internal combustion engines, comprising a cylindrical shell forming an expansion chamber closed at one end, a detachable head having a threaded connection with the opposite end of the shell, a water inlet connection threaded through the center of said head, a gas inlet connection threaded through an opening in the cylindrical wall of the shell, an elbow threaded on the inner end of the gas inlet connection and positioned to discharge toward the water inlet connection, an outlet connection threaded through the cylindrical wall of the shell, a spreader disk interposed between the discharge end of said elbow and the water inlet and positioned concentrically of the cylindrical wall of the shell, fasteners connecting said spreader disk to the detachable head, and spacing sleeves around said fasteners between the head and disk.

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1,089,260. PIVOT-BEARING FOR RAILWAY-CARS. HARRY E. PETTY, Neodesha, Kans., assignor of one-sixth to Charles D. McCoy, one-sixth to James H. Beegle, and one-sixth to Nicholas S. Sibert, Neodesha, Kans. Filed Nov. 24, 1913. Serial No. 802,748. (Cl. 105—108.)



1. In a pivot bearing, a pair of members, one having a concaved socket, and the other having a shank entering the socket and provided with a hemi-spherical head snugly engaging the socket, and a pair of locking pins engaged through the first mentioned member adjoining the flat face of the said head.

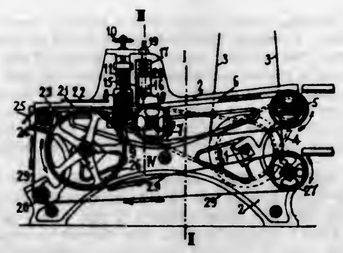


2. In a pivot bearing, a pair of castings, one having a socket and a surrounding rabbet, and the other having a circular portion disposed loosely within and arranged to contact with the rabbet to limit the swinging movements of the castings relative to each other, and a shank entering the socket the shank having a head working within the socket, and locking means carried by the first mentioned casting for retaining the head within the socket.

3. In a pivot bearing, a pair of castings, one having a concaved socket and a surrounding annular rabbet, and the other casting having a circular portion disposed loosely within the rabbet, and a shank entering the socket, the shank having a hemi-spherical head loosely engaging the socket, and a pair of locking pins engaged through the first mentioned casting adjoining the flat face of the said head.

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1,089,261. DEVICE FOR THE PRODUCTION OF FIBERS FROM PLANTS. GERRIT MARIE ELIZE POS, Amsterdam, Netherlands. Filed Aug. 5, 1912. Serial No. 713,451. (Cl. 13—21.)



1. In a machine for the production of fibers from plants, the combination of a downwardly-inclined conveyer for feeding the stalk of the plant, flexible end first; a pair of superposed co-acting flattening rollers located adjacent the delivery end of said conveyer; and a spring-pressed knife located between said rollers and said conveyer end, said rollers having a greater surface speed than said conveyer for raising the stalk above the latter, as it leaves the same, into contact with the edge of said knife, whereby the under surface of the stalk is stretched and the upper surface thereof scored longitudinally and the peel and core are caused to split along the line of scoring by the tension of the said stretched surface, the split peel and core being flattened during their passage between said rollers.

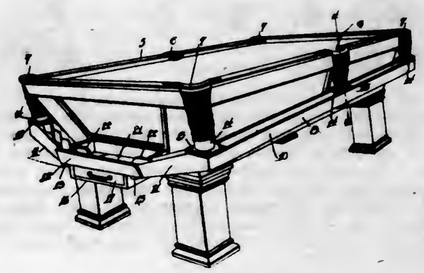
2. In a machine for the production of fibers from plants, the combination of a downwardly-inclined conveyer for feeding the stalk of the plant, flexible end first; a pair of superposed co-acting flattening rollers located adjacent the delivery end of said conveyer, a spring-pressed knife located between said rollers and said conveyer end, said rollers having a greater surface speed than said conveyer for raising the stalk above the latter, as it leaves the same, into contact with the edge of said knife, whereby the under surface of the stalk is stretched and the upper surface thereof scored longitudinally and the peel and core are caused to split along the line of scoring by the tension of the said stretched surface, the split peel and core being flattened during their passage between said rollers; a table for receiving the flattened peel and core from said rollers; and a pair of coacting rollers below the end of said table for seizing and pulling downward the front end of the peel when said end drops over the table end to separate the peel from the stiffer core.

3. In a machine for the production of fibers from plants, the combination of a downwardly-inclined conveyer for feeding the stalk of the plant, flexible end first; a pair of superposed coacting flattening rollers located adjacent the delivery end of said conveyer, a spring-pressed knife located between said rollers and said conveyer end, said rollers having a greater surface speed than said conveyer for raising the stalk above the latter, as it leaves the same, into contact with the edge of said knife, whereby the under surface of the stalk is stretched and the upper surface thereof scored longitudinally and the peel and core are caused to split along the line of scoring by the tension of the said stretched surface, the split peel and core being flattened during their passage between said rollers; a table for receiving the flattened peel and core from said rollers; a pair of coacting rollers below the end of said table for seizing and pulling downward the front end of the peel when said end drops over the table end to separate the peel from the stiffer core; a series of rollers for seizing the separated peel and expressing the sap therefrom; and means for washing said peel with a sap-dissolving liquid during the expressing operation.

4. A device for cleaning vegetable fibers comprising in combination a pair of rubber rolls in contact adapted to feed the fibers, an endless belt composed of slats arranged in spaced parallel relation adapted to receive the fibers, a small pivoted flap between said rolls and said belt, a rotating brush situated above the belt and adapted to brush and clean the ends of the fibers, a drum consisting of spaced parallel strips to which the cleaned ends of the fibers are secured, and rotating brushes around said drum adapted to clean the fibers throughout their length.

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1,089,262. ATTACHMENT FOR POOL-TABLES. MARION S. POST and THOMAS LA FAYETTE, Middletown, Ohio. Filed Feb. 7, 1913. Serial No. 746,960. (Cl. 46—12.)



1. The combination with a pool table, of a tray mounted at one end of the table, means including inclined runways to conduct the balls to the tray from the pockets in the table, a removable rack frame drawer supported below the tray, a lid arranged within the tray and adapted to be removed for establishing communication between it and the said drawer.

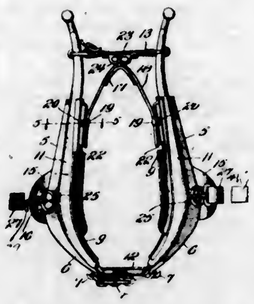
2. The combination with a pool table, of a tray mounted at one end of the table, means including inclined runways to conduct the balls to the tray from the pockets in the table, a removable rack frame drawer supported below the tray, a lid arranged within the tray and adapted to be removed for establishing communication between it and the said drawer, a drawer frame mounted on the tray and removably supporting the drawer, and removable means for cutting off communication between the pockets of the table and the runways when the lid is seated within the tray.

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1,089,263. HORSE-COLLAR. JOHN A. PRATER, Edinburg, Ill. Filed Feb. 14, 1912. Serial No. 677,434. (Cl. 54—18.)

A horse collar comprising pad members for engaging the shoulders of a horse, a rigid bearing plate attached to each of said pad members, means for coupling said plates at their lower ends, a member adapted to bear upon the neck

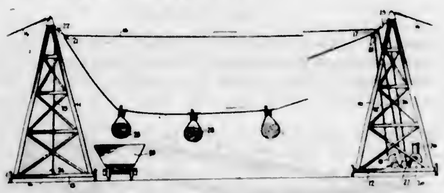
of a horse, means for coupling said neck bearing member to said plates, means adapted to support hames upon said



plates, and means for adjustably coupling said pads to said hame supporting means.

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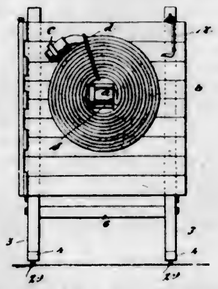
1,089,264. ELEVATED CARRIER. FRANK LAWRENCE PUTMAN, Lihue, Hawaii. Filed Jan. 22, 1913. Serial No. 743,461. (Cl. 212—77.)



In an elevated carrier, the combination of a pair of spaced elevated supports, an endless power cable operating between said supports, means extending from the tops of said supports to sustain portions of said cable, means to vary the points of application of said supporting means to said cable portions and maintain them in such positions of adjustment, and means to operate the cable when so adjusted as to cause one portion thereof to move from the ground through an elliptical path up toward one of the elevated supports.

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1,089,265. FIRE-HOSE REEL. CHARLES RIDLEY, Bath, Me., assignor to Ernest M. Evrard, Bath, Me. Filed July 18, 1913. Serial No. 779,817. (Cl. 242—90.)

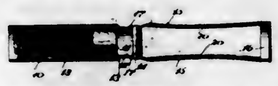


1. A reel of the class described embodying a frame, a guiding wall thereon, a winding shaft arranged with one end extending through said wall and provided with an attaching device for engaging one end of a hose, means to turn the winding shaft with its attaching device, and a forming element mounted for movement to a position parallel with and spaced from said guiding wall, and also adapted to be opened outwardly from said wall to permit the removal of a coiled hose from the attaching device.

2. A hose reel of the class described comprising a frame, a vertical forming wall on one side of the frame, a winding shaft mounted in bearings on the frame and extending at one end through the center of the said wall and provided at said end with an attaching device adapted to engage and release a coupling member at one end of a length of hose, means to operate the winding shaft and a forming door connected to the frame and adapted to be turned toward and arranged parallel with and at a suitable distance from the said wall and to be also turned outwardly from said wall to permit the removal of a coiled length of hose.

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1,089,266. SHAVING-BRUSH. HARRY ROBINSON, New York, N. Y. Filed Feb. 8, 1911, Serial No. 607,236. Renewed July 12, 1913. Serial No. 778,775. (Cl. 15—38.)



1. A shaving brush, comprising a tubular hood open at both ends; a capped tuft slidably mounted in said hood the capped end whereof is adapted to close the end of said hood; and a second cap adapted to cover the end of said hood opposite that closed by said tuft, said second cap being provided with a pair of diametrically opposed arms pivotally connected with the capped end of said tuft, said arms being expansible over and contractible within said hood.

2. A shaving brush, comprising a full-sided tubular hood; a metal capped tuft of bristles slidably mounted in said hood said tuft being adapted to rest within said hood and to form a closure for one end thereof; a second cap to extend over the end of said hood opposite that closed by said tuft; and a pair of diametrically opposed arms fixedly connected with said second cap and pivotally mounted on the capped end of said tuft, said arms being of greater length than said tuft and adapted to be expanded and contracted to enfold or be inserted within said hood.

3. In a shaving brush, a tubular hood open at both ends; a tubular cap having elongated sides and closed at one end, said cap being adapted to slide in said hood and to close one end thereof; a second cap to fit over the end of said hood opposite that closed by said first cap; and a plurality of arms connecting said caps and pivotally attached to one thereof, said arms being adapted for disposal partly within and to enfold said hood, and said arms being of sufficient length to permit the said second cap to swing over the end of said hood to close the same.

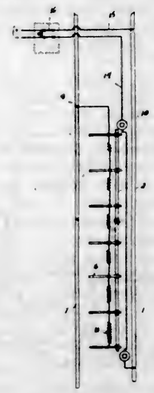
4. In a shaving brush, a tubular hood open at both ends; a tubular cap having elongated sides and closed at one end, said cap being adapted to slide in said hood and to close one end thereof; a second cap to fit over the end of said hood opposite that closed by said first cap; a plurality of arms connecting said caps and pivotally attached to one thereof, said arms being adapted for disposal partly within and to enfold said hood, and said arms being of sufficient length to permit the said second cap to swing over the end of said hood to close the same; and a tuft of bristles fixedly mounted in said first mentioned cap, said bristles adapted to be enveloped by said hood.

5. In a shaving brush, a tubular hood open at both ends; a tubular cap having elongated sides and closed at one end, said cap being adapted to slide in said hood and to close one end thereof; a second cap to fit over the end of said hood opposite that closed by said first cap; a plurality of arms connecting said caps and pivotally attached to one thereof, said arms being adapted for disposal partly within and to enfold said hood, and said arms being of sufficient length to permit the said second cap to swing over the end of said hood to close the same; a tuft of bristles fixedly mounted in said first mentioned cap, said bristles adapted to be enveloped by said hood; and stop members extended from said arms and said hood to impinge upon and regulate the position of said first mentioned cap within said hood.



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1,089,267. AUTOMATIC TRAIN-STOPPING APPARATUS. JACKSON M. ROE, Sunnyside, Wash., assignor of one-half to John Alexander, Sunnyside, Wash. Filed May 20, 1913. Serial No. 768,785. (Cl. 246—58.)



1. In train stopping apparatus, a resistance grid located on the roadway and including a plurality of sections of resistance connected in series, means for swinging said grid to active position, a train carried mechanism comprising a source of eneragy, a shoe adapted to ride over said grid in the active position of the latter and contact therewith, and a controller, an electric circuit including said grid, source of energy, shoe and controller in series whereby when the grid is in active position, said shoe will ride over the same and gradually cut the resistance out of the circuit so that the controller will operate and bring the train to a gradual stop.

2. In train stopping apparatus, a resistance grid located on the roadway and including a plurality of sections of resistance connected in series, electrically operated means for swinging said grid to active position, a train carried mechanism comprising a source of energy, a shoe adapted to ride over said grid in the active position of the latter and contact therewith, and a controller, an electric circuit including said grid, source of energy, shoe and controller in series whereby when the grid is in active position, said shoe will ride over the same and gradually cut the resistance out of the circuit so that the controller will operate and bring the train to a gradual stop.

3. In train stopping apparatus, a plurality of contact fingers located on the roadway and suitably spaced apart along the track, a plurality of resistance sections interconnecting said fingers and connected in series thereby, means for swinging said fingers upwardly simultaneously, a train carried mechanism comprising a source of energy, a shoe adapted to engage said fingers successively in the active position of the latter, and a controller, an electric circuit including said contact fingers, source of energy, shoe and controller in series whereby when the fingers are in active position said shoe will ride over the same and engage the individual fingers successively to gradually energize said controller and bring the train to a stop.

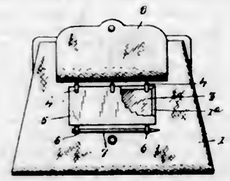
4. In train stopping apparatus, a resistance grid located on the roadway and including a plurality of sections of resistance connected in series, means for swinging said grid to active position, a train carried mechanism comprising a source of energy, a shoe adapted to ride over said grid in the active position thereof, and a controller, an electric circuit including said grid, source of energy, shoe and controller in series whereby when the grid is in active position, said shoe will ride over the same and gradually cut the resistance out of the circuit so that the controller will operate gradually, a valve in the train line air pipe, and connections between said valve and controller.

5. In train stopping apparatus, a resistance grid located on the roadway and including a plurality of sections of resistance connected in series, means for swinging said grid to active position, a train carried mechanism comprising a source of energy, a shoe adapted to ride over said grid in the active position thereof, and a controller, an electric circuit including said grid, source of energy, shoe and controller in series whereby when the grid is in active position, said shoe will ride over the same and gradually cut the resistance out of the circuit so that the controller will operate gradually, a valve in the train line air pipe and adapted when operated initially to effect a service application and subsequently an emergency application, and connections between said valve and controller.

[Claim 6 not printed in the Gazette.]

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1,089,268. HAND-BAG. ANNADELLE ROSENDALE, Grand Rapids, Mich. Filed Apr. 26, 1913. Serial No. 763,814. (Cl. 150—35.)



In combination with a hand bag, a plate attached to a side thereof and having its edge portions folded to provide a neat finish and means for engaging a mirror, and having portions partly cut therefrom and bent to provide article engaging clips and loops at the edges of the plate, and a flap attached at one edge to the bag and adapted to extend over the plate and provided with means for securing its free edge to the bag beyond the plate.

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1,089,269. BINDER. BENJAMIN ROTHENBURG, Boston, Mass. Filed Sept. 3, 1913. Serial No. 787,983. (Cl. 11—11.)



1. The combination, in a binder, of a pad clamp comprising a substantially U-shaped clamping member fixed at its rear wall to the binder, said clamping member having it opposed walls divergent with respect to the remaining wall toward their free edges, and having the latter bent inward convergently to provide clamping surfaces, said opposed walls being disposed at different relative angles to the said remaining wall.

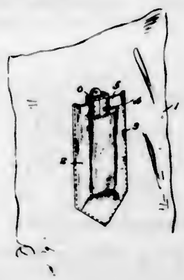
2. The combination, with a binder, of a U-shaped spring clamping member, fixed at its rear wall to the binder, said

clamping member having its front and rear walls extending at an angle divergently toward their free edges, the rear wall being arranged at a greater angle than the front wall, and said walls having their free edges bent at an inward and downward angle, the free edge of the rear wall being of greater depth and lying at a greater angle than the free edge of the front wall.

3. As a new article of manufacture, a clamping member of the character described comprising a channeled or U-shaped body made of spring metal, and having its front and rear walls arranged at angles greater than a right angle to its cross portion, said walls having their free edges bent inwardly and downwardly at an angle to provide clamping portions, the rear wall being arranged at a greater angle than the front wall and having a clamping portion of relatively greater depth and inclination.

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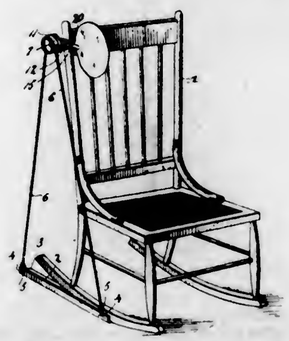
1,089,270. SAFETY-POCKET. THOMAS B. RYAN, New Bedford, Mass. Filed Aug. 25, 1911. Serial No. 645,941. (Cl. 2—15.)



A garment pocket for sectional rules, comprising a section of the garment, and an outer wall connected to said garment to form an elongated pocket, said outer wall consisting of a single strip of material provided near the top free margin with a horizontal elongated opening adapted to receive and have passed therethrough a section of said rule, whereby said rule is prevented from accidentally dropping from said pocket.

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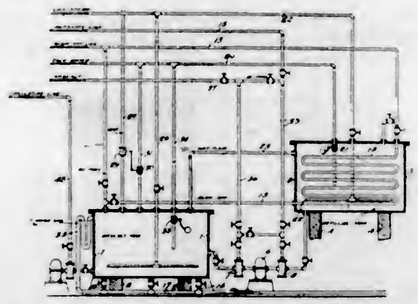
1,089,271. AUTOMATIC FAN. AUGUST A. SAUTER, Covington, Ky. Filed Aug. 27, 1912. Serial No. 717,349. (Cl. 270—7.)



The herein described fan attachment for rocking chairs comprising, in combination with a plate for arrangement on the floor and engagement by one of the chair rockers, a bracket for attachment to the chair back, an L-shaped member having its horizontal arm secured to the bracket, a body member secured to the vertical arm of said L-shaped member and provided with an axle, a drum mounted for rotation on said axle and having a beveled gear, a shaft having bearings in said body member and also having means for the attachment of a fan thereto, a beveled gear fixed on said shaft and engaging the drum gear and a beveled gear to balance the said shaft gear, mounted in the said body member and engaging the drum gear at a point opposite the shaft gear, and a cable having its central portion coiled on the drum and its ends attached to the said plate.

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1,089,272. BOILER-WASHING SYSTEM. WILLIAM M. SAXTON, Spokane, Wash., and CHARLES CLINTON HODGE, Winnipeg, Manitoba, Canada. Filed Feb. 11, 1913. Serial No. 747,769. (Cl. 122—396.)



1. In a system for simultaneously washing out a plurality of boilers, the combination of a wash out tank, a blow-off line, connections between said blow-off line and each of said boilers at one end and between said blow-off line and said wash out tank at the other, a wash out line having connection with said wash out tank at one end and with said boilers at the other end, means for forcing water from said wash out tank through said wash out line into the boilers, means disposed in said blow-off line for condensing the steam from said boilers prior to its delivery to the wash out tank, a refilling tank surrounding a portion of the blow-off line and arranged to be heated by the passage of fluid through said blow-off line, and a refilling line connected with said refilling tank at one end and having connections with each of said boilers at the other end of the line, said refilling line being connected with said blow-off line.

2. In a system for simultaneously washing out a plurality of boilers, the combination of a wash out tank, a blow-off line, connections between said blow-off line and each of said boilers at one end and between said blow-off line and said wash out tank at the other, a wash out line having connection with said wash out tank at one end and with said boilers at the other end, means for forcing water from said wash out tank through said wash out line into the boilers, means disposed in said blow-off line for condensing the steam from said boilers prior to its delivery to the wash out tank, a refilling tank surrounding a portion of the blow-off line and arranged to be heated by the passage of fluid through said blow-off line, a refilling line connected with said refilling tank at one end and having connections with each of said boilers at the other end of the line, said refilling line being connected with said blow-off line, and means for heating said refilling line and said wash out tank.

3. In a system for simultaneously washing out a plurality of boilers, the combination of a wash out tank, a blow-off line, connections between said blow-off line and each of said boilers at one end and between said blow-off line and said wash out tank at the other, a wash out line having connection with said wash out tank at one end and with said boilers at the other end, means for forcing water from said wash out tank through said wash out line into the boilers, means disposed in said blow-off line for condensing the steam from said boilers prior to its delivery to the wash out tank, a refilling tank surrounding a portion of the blow-off line and arranged to be heated by the passage of fluid through said blow-off line, a refilling line connected with said refilling tank at one end and having connections with each of said boilers at the other end of the line, said refilling line being connected with said blow-off line, means for heating said refilling line and said wash out tank, said heating means comprising a live steam line, a perforated pipe disposed in each of said tanks and being connected with said live steam line, a circulating line for connecting the wash out tank with the blow-off line and the refilling line, and means for forcing water from said wash out tank through said circulating line into said blow-off line.

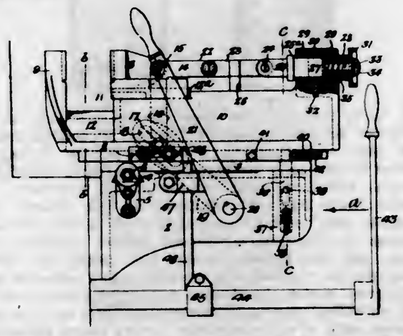


4. In a system for simultaneously washing out a plurality of boilers, the combination of a wash out tank, a blow-off line, connections between said blow-off line and each of said boilers at one end and between said blow-off line and said wash out tank at the other, a wash out line having connection with said wash out tank at one end and with said boilers at the other end, means for forcing water from said wash out tank through said wash out line into the boilers, means disposed in said blow-off line for condensing the steam from said boilers prior to its delivery to the wash out tank, a refilling tank surrounding a portion of the blow-off line and arranged to be heated by the passage of fluid through said blow-off line, a refilling line connected with said refilling tank at one end and having connections with each of said boilers at the other end of the line, said refilling line being connected with said blow-off line, means for heating said refilling line and said wash out tank, said heating means comprising a live steam line, a perforated pipe disposed in each of said tanks and being connected with said live steam line.

5. In a system for simultaneously washing out a plurality of boilers, the combination of a wash out tank, a blow-off line, connections between said blow-off line and each of said boilers at one end and between said blow-off line and said wash out tank at the other, a wash out line having connection with said wash out tank at one end and with said boilers at the other end, means for forcing water from said wash out tank through said wash out line into the boilers, means disposed in said blow-off line for condensing the steam from said boilers prior to its delivery to the wash out tank, a refilling tank surrounding a portion of the blow-off line and arranged to be heated by the passage of fluid through said blow-off line, a refilling line connected with said refilling tank at one end and having connections with each of said boilers at the other end of the line, said refilling line being connected with said blow-off line, a by-pass in said blow-off line around the portion of the blow-off line within the receiving tank, and means for controlling said by-pass.

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1,089,273. MACHINE-VISE. JOHN R. SAYLOR, Pottstown, Pa. Filed Apr. 26, 1912. Serial No. 693,425. (Cl. 90—60.)



1. The combination of a support; a slide thereon; a fixed jaw on the slide; a movable jaw on the slide arranged to move toward and from the fixed jaw; an abutment at the rear end of the slide; a bell crank lever pivoted to the movable jaw; a link connecting one arm of the bell crank lever with the abutment; means engaging the other arm of the bell crank lever for moving the slide and for actuating the movable jaw; and means for adjusting the abutment.

2. The combination of a support; a slide thereon having a fixed jaw; a movable jaw mounted on the slide and arranged to be moved to and from the fixed jaw; an abutment on the slide; a toggle joint connecting the abutment with the movable jaw; means for actuating the toggle joint to operate the movable jaw; an adjustable socket into which the abutment extends; and a spring between the abutment and the socket; said socket being adjustable in the slide so as to alter the position of the slide and its fixed jaw.

3. The combination of a support; a slide thereon having a body portion and a fixed jaw spaced apart to form a throat; a movable jaw on the body portion; and means for actuating the jaw; that portion of the slide forming the bottom of the throat being inclined to one side so that when the work is released from the jaws, it will drop on the inclined surface and will be discharged to one side of the machine.

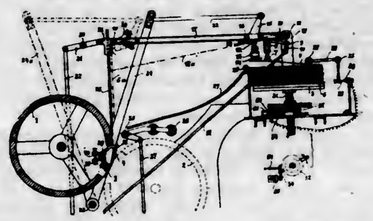
4. The combination of a support; a slide thereon having a fixed jaw and having a body portion; longitudinal guideways on the body portion; a movable slide adapted to the said guideways; an abutment located at the rear of the slide; an adjustable socket mounted on the slide and adapted to be adjusted therein; a spring between the abutment and the socket; a bell crank lever; a link forming a toggle joint between the movable jaw and the abutment; and means for actuating the bell crank lever.

5. The combination of a support; a slide thereon having a fixed jaw and having a body portion; a slideway thereon; a movable jaw mounted on the slideway; said body portion having two lugs at the rear end; a nut mounted between the lugs; a socket having a thread adapted to the nut; a shouldered abutment having a portion adapted to the socket; a spring between the base of the socket and the abutment; a spindle extending from the abutment through the socket; a nut thereon; a bell crank lever engaging the movable jaw; a link connecting one arm of the lever with the abutment; a rock shaft; a slotted arm on the rock shaft connected to the other arm of the bell crank lever; and means for rocking the said shaft to actuate the movable jaw.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,274. SHEET-FEEDING APPARATUS. LUDWIG VON SAZENHOFEN, Nuremberg, Germany. Filed Aug. 30, 1911. Serial No. 646,933. (Cl. 101—36.)



1. In combination, printing cylinders and gripping means therefor, a vertical stop plate above said means, a track above said cylinders having one of its ends remote from said cylinders pivotally mounted, means for lowering the remaining end toward said cylinders and said means, a device for supporting a pile of sheets in a horizontal position, a sheet transferring carriage mechanism movable on said track for carrying said horizontally disposed sheets from said pile toward said stop plate, means engaging said mechanism to shift the carriage into a vertical position, and means for lowering the track to dispose said sheets within the range of said gripping means.

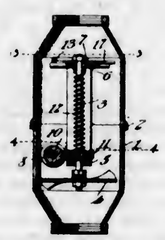
2. In combination, printing cylinders and gripping means therefor, a track above said cylinders having stop means, a device for supporting a pile of sheets in a horizontal position, a sheet transferring carriage mechanism movable on said track for carrying said horizontally disposed sheets from said pile toward said stop means, means engaging said mechanism to shift the carriage into a vertical position, and means for lowering the track to dispose said sheets within the range of said gripping means, substantially as described.

3. In combination with mechanism provided with sheet gripping means, a track disposed above said means, a device for supporting a pile of sheets in a horizontal position, a carriage movable on said track provided with pivotally mounted sheet carrying means to dispose the sheets into a vertical position, and means for lowering said track to bring the sheets into range of said gripping means, substantially as described.

4. In combination with mechanism provided with sheet gripping means, of a track disposed above said means, a support for a pile of sheets, a carriage movable on said track provided with sheet carrying means for transferring the sheets from said pile to said mechanism, and means for lowering the track to bring the sheets carried by said sheet carrying means into range of said gripping means, substantially as described.

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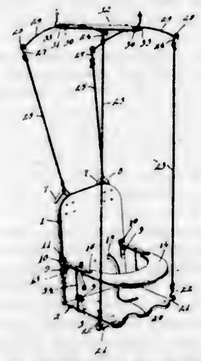
1,089,275. THROTTLING DEVICE FOR HYDROCARBON-ENGINES. JOHN L. SCHINDLER, Friend, Oreg. Filed May 15, 1913. Serial No. 767,817. (Cl. 50—14.)



1. In throttling devices for hydrocarbon engines, the combination of a casing, a longitudinal shaft mounted in said casing, a throttling valve fixedly secured to one end of the shaft, a governor fixedly secured to the shaft at its other end in spaced relation to the valve and adapted to be operated by suction through the casing whereby the valve may be moved to regulate the operative area of the opening through said passage, a manually operable rod extending transversely through the casing, and a spring mounted upon the shaft intermediate the valve and governor and operably connected with the manually operable rod whereby to place said spring under predetermined tension normally preventing action of the governor and valve until a predetermined pressure of suction through said passage is reached.

2. In throttling devices for hydrocarbon engines, the combination of a casing, a longitudinal shaft mounted in said casing, a frame removably inserted in the casing and comprising spaced bearings for said shaft, one of said bearings constituting a partial closure for the passage through the casing, a fan governor fixedly mounted at one end of said shaft, and a throttle valve fixedly secured to the other end of the shaft, said valve being adapted to coöperate with the bearing closure aforesaid to regulate the operative area of the opening through the casing, a spring surrounding the shaft between the fan and the valve and connected to said shaft at one end, a pinion loosely mounted upon said shaft and connected with said spring at the other end, and a manipulating rod extending transversely of the casing and having a worm thereon to engage the pinion aforesaid whereby to place the spring under tension upon rotation of the manipulating rod.

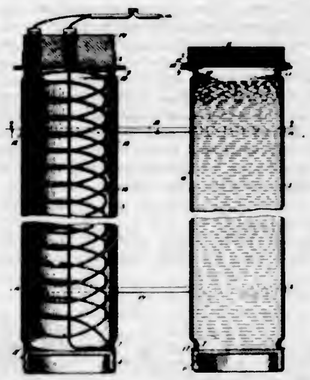
1,089,276. COMBINED CHAIR, SWING, AND JUMPER. AUGUST C. SEEGER, East St. Louis, Ill. Filed Feb. 15, 1913. Serial No. 748,622. (Cl. 155—44.)



A device of the character described embodying a back section and a seat section, a lid or tray section, keeper members on the lid or tray section having flaring passages, arms connected with the back section and having tapered tongues adapted to project through the tapered passages of the keeper members and formed at their extremities with shoulders, said arms being provided with projections overhanging the tongues and engaging the edge of the lid or tray section so as to over-lap the same at the side opposite the side on which the tongues are arranged, and spring latches on the lid or tray section to interlock with the shouldered extremities of the tongues.

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1,089,277. BED COOLER OR HEATER. GILBERT FERDINAND SHEPARD, Dodge City, Kans. Filed Nov. 18, 1913. Serial No. 801,680. (Cl. 219—19.)



1. In a device of the class described, a pair of receptacles adapted to receive heating or cooling means and each comprising a cylindrical portion having a bottom at one end, the opposite end of said cylindrical portion being threaded exteriorly and interiorly; a lateral flange on said cylindrical portion adjacent the threaded end, said cylindrical portion having circular grooves on the lateral surface thereof adjacent the flange and the bottom; means for closing the cylindrical portion engaging said threaded end; a cover for said cylindrical portion; and means for securing said cover to said cylindrical portion by forcing said cover into the said grooves, each of said receptacles having means projecting through the cover; and means engaging each of said means of each of the receptacles whereby the relative distance between said receptacles can be varied.



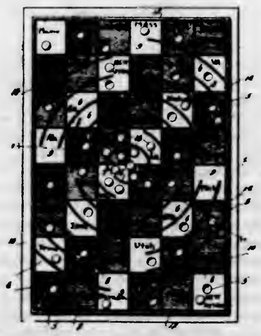
2. In a device of the class described, a pair of receptacles adapted to be disposed longitudinally in a bed and adapted to receive heating or cooling means, each of said receptacles having a cylindrical portion having a bottom at one end, the opposite end of said portion being open; a lateral flange on the outer surface of said portion adjacent the open end, said cylindrical portion having grooves on the lateral surface adjacent the flange and the bottom thereof; means for closing the open end of said cylindrical portion adapted to engage the said flange; an outer cover for each of said receptacles adapted to engage the cylindrical portion; means for forcing the ends of each of said covers into the circular grooves whereby the said covers are secured to each of said receptacles; clasps on the lateral surface of each of the receptacles and projecting through the covers; straps engaging said clasps of each of the receptacles and whereby the distance between the said receptacles can be varied.

3. In a device of the class described, a pair of receptacles each adapted to be longitudinally positioned in a bed and adapted to receive heating or cooling means, each of the receptacles comprising a cylindrical portion having a bottom at one end, the opposite end being open and threaded exteriorly and interiorly, the lateral exterior flange adjacent the threaded end of the cylindrical portion and flanged cup adapted to engage the threaded end and close the open end of the cylindrical portion, said flange of said cup adapted to coact with the flange on said cylindrical portion, each of said cylindrical portions having grooves on the lateral surface thereof adjacent the flange and the bottom; a cover for each of said cylindrical portions; draw-strings for securing the ends of said cover into the grooves on said cylindrical portion, each of said receptacles having clasps on the lateral surface of their cylindrical portions; and means engaging said clasps of each receptacle for varying their relative distance.

4. In a device of the class described, a pair of receptacles adapted to be disposed longitudinally in a bed, each of said receptacles having a cylindrical portion having a bottom at one end, the opposite end of said portion being open, said cylindrical portion having grooves on the lateral surface adjacent the flange and the bottom thereof; means for closing the open end of said cylindrical portion; an outer cover for each of said receptacles adapted to engage the cylindrical portions; means for forcing the end of each of said covers into the circular grooves whereby said covers are secured to each of said receptacles; means for securing said receptacles to each other and whereby the distance between said receptacles can be varied, each of said receptacles being adapted to receive a coil to be heated electrically, and whereby dry heat is generated therein.

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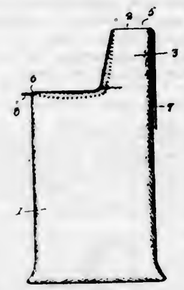
1,089,278. PUZZLE. FRANK L. SHIPMAN, Whippany, N. J. Filed Apr. 25, 1913. Serial No. 763,618. (Cl. 46—41.)



A puzzle comprising a board having vertical side and end walls, a central substantially circular member rising from the board, a plurality of series of concentric arcuate partitions rising from the board, the partitions of each of said series having their ends spaced from each other so as to form runs extending radially from said circular member, the partitions of one series being spaced from the partitions of adjacent series to form therewith intervening annular runs therebetween, certain of said annular runs being closed at their outer ends by the side walls of the board, the board having a plurality of recesses therein distinguished from each other by geographical indicia, namely, the names of the States, and balls mounted to travel on said board and adapted to be seated in said recesses, the said circular member having a single open side disposed in line with one of the radial runs.

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1,089,279. SELF-CLOSING SACK. BURTON W. SIMER and ANTHONY NICHOLS, Salmon, Idaho. Filed Sept. 19, 1913. Serial No. 790,736. (Cl. 150—3.)



1. A sack closed at both ends and provided at one of its closed ends with a spout adapted to be extended therefrom or to be folded on the same and a closing cord attached to the said spout, the said closing cord being arranged on the inner side of the spout and on the inner side of the sack, extending across the sack and being led out through an opening in one side of the sack.

2. A sack closed at both ends and provided at one of its closed ends with a spout adapted to be extended therefrom or to be folded on the same and a closing cord attached to the said spout, the said closing cord being arranged on the inner side of the spout and on the inner side of the sack, extending across the sack and being led out through an opening in one side of the sack, the sack being provided with an eyelet in the said opening and through which the said cord extends.

3. A sack of the class described closed at both ends and provided at one of its closed ends with an integral, flexible spout arranged at one corner thereof and adapted to be extended therefrom or folded across the same, an opening cord attached to the outer side of the spout at its mouth and a closing cord attached to the inner side of the spout at its mouth.

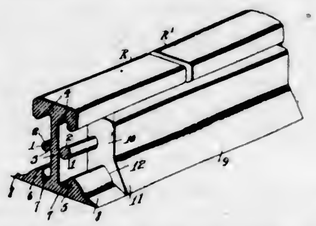
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1,089,280. RAIL-SPLICE. WARREN SLATER, Washington, D. C. Filed May 22, 1913. Serial No. 769,288. (Cl. 239—9.)

1. In a rail joint, two rails having their webs at their ends provided with T-shaped ribs, the heads of which are beveled in opposite directions upon the opposite sides of the rails and which have their webs gradually increasing and decreasing respectively in width from their opposite terminals, connecting plates having T-shaped slots agreeing with the formation and adapted to receive the said ribs.

2. In a rail joint, two rails, each of said rails having its web, adjacent its end provided upon their opposite faces with registering substantially T-shaped ribs, the heads of the rails at the juncture of the webs being grooved, the base flanges of the rails having longitudinally extending projecting flanges disposed adjacent the

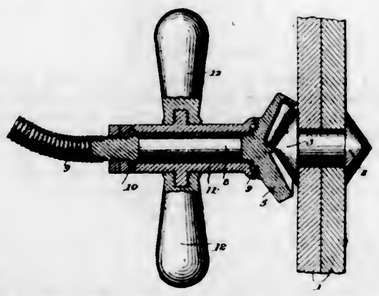
webs of the rails, connecting members, each of said connecting members comprising a body having its lower wall shaped to agree with the shape of the base flanges and projecting flanges of the rails, its inner face formed with T-shaped slots which are adapted to receive the T-shaped



ribs of the rails and their upper inner portions provided with beads which are adapted to be received within the grooves of the rail, the top or edge of the boxes below the said head having a ledge shaped to provide a seat for the undersfaces of the heads of the rails.

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1,089,281. RIVETING-MACHINE. CHARLEY SNODGRASS, Los Angeles, Cal., assignor of one-fourth to Fritz Klehn, one-fourth to Julius Zahl, and one-fourth to Heinrich Illetschko, Los Angeles, Cal. Filed June 5, 1913. Serial No. 772,013. (Cl. 78—53.)



1. In a riveting machine of the class described, a head formed with a tapering socket, a plurality of tapering rollers arranged in the bottom of said socket whereby the rollers may act near the center of said socket, a shank extending from said head, a sleeve surrounding said shank and acting on said head and said shank, and a pressure member connected with said sleeve for providing means for holding the head in an operative position against said rivet.

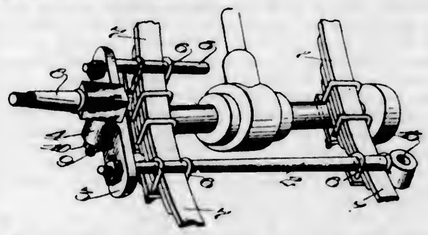
2. In a riveting device of the character described, a rotatable head, a plurality of converging rollers arranged in said head, each of said rollers being formed with pintles at the end, said head being formed with sockets near the center for accommodating one end of said rollers and a removable journal member arranged at the outer ends of said rollers for supporting said rollers, means connected with said head for rotating the same and means associated with said head for applying pressure thereto.

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1,089,282. JURY-AXLE. FRANCIS H. SPRUNG, San Jose, Cal. Filed Nov. 6, 1911, Serial No. 658,663. Renewed Aug. 20, 1913. Serial No. 785,820. (Cl. 21—93.)

1. A supplemental axle for vehicles, comprising a transverse rod adapted to reach across parallel springs, a supplemental supporting rod, a stirrup adapted to be mounted upon the adjacent ends of the rods, and a spindle supported upon said stirrup.

2. A supplemental axle for vehicles, comprising a transverse rod adapted to reach across parallel springs, said rod being adapted for connection at one end to a stirrup, a supplemental supporting rod, a stirrup adapted to be mounted upon the adjacent ends of the rods, and a spindle supported upon said stirrup.



3. A supplemental axle for vehicles, comprising a transverse rod adapted to reach across parallel springs, said rod being adapted for connection at one end to a stirrup, a supplemental supporting rod, a stirrup adapted to be mounted upon the adjacent ends of the rods, a spindle supported upon said stirrup, and means whereby said device may be connected to convenient portions of the vehicle.

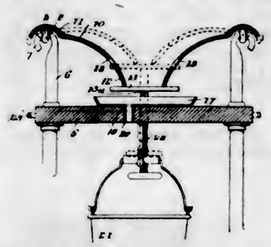
4. A supplemental axle for vehicles of the self-propelled type, comprising a transverse rod having a bearing at one end, means for connecting said rod to a portion of a vehicle, and a pivotal adjustable spindle detachably connected to said bearing.

5. A supplemental axle for vehicles, comprising a transverse rod adapted to extend straightway across the springs of the vehicle, said rod having a bearing at one end, means for connecting the rod to a fixed part of the vehicle, a pivoted adjustable spindle detachably connected to said bearing, and means for pivotally adjusting said spindle.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,283. OPERATING-TABLE FOR USE IN ANIMAL RESEARCH. KATHARINE STEBBINS, New York, N. Y. Filed May 10, 1913. Serial No. 766,769. (Cl. 119—103.)



1. In a device of the class described, a support having a threaded opening, a plurality of posts secured to the support and having hooks, two leaves having lugs with eyes in which the hooks are normally disposed, a member engaging the under side of the leaves, and a screw meshing in the opening for supporting the member.

2. In a device of the class described, two horizontally disposed leaves, having their sides disposed upwardly and outwardly, pivotal means engaging the leaves and disposed at a distance from the inner edges of the leaves, and a member engaging the inner edges of the leaves and adjustable vertically relatively to the pivotal means for supporting the leaves in adjusted position.

3. In a device of the character described, a table, a plurality of posts at opposite sides of the table and having hooks extending outwardly, two leaves, lugs secured to the under sides of the leaves adjacent the outer edges of the leaves, the leaves extending inwardly from the lugs greater



distances than the distances of the hooks from the table, there being eyes in the lugs, in which the hooks are normally disposed, and means for supporting the inner edges of the leaves.

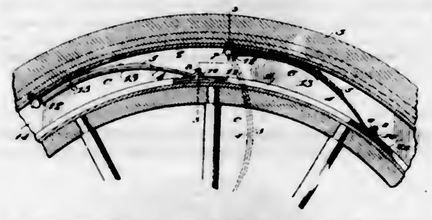
4. In a device of the class described, a support, a plurality of posts extending upward from the support, hooks on the posts, leaves having openings in their sides, means on the leaves with which the hooks pivotally engage, cleats on the supports for securing cords passing through the openings, and transverse means for supporting the leaves in raised position and relatively to the posts.

5. In a device of the class described, a support, a plurality of posts extending upward from the support, hooks on the posts, leaves having openings in their sides, means on the leaves with which the hooks pivotally engage, cleats on the supports for securing cords passing through the openings, and a cross member disposed under the leaves, and means engaging the support for holding the cross member thereabove.

[Claim 6 not printed in the Gazette.]

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1,089,284. WHEEL. ARCHIBALD STEWART, Keota, Iowa. Filed Jan. 19, 1911. Serial No. 603,503. (Cl. 152—37.)



1. The combination with a wheel having a flanged rim, a tire comprising a metal rim and rubber shoe, and bolts secured to the tire, of leaf springs having rounded slotted ends, the slots at one end of said leaf springs straddling the shanks of the bolts, and friction blocks having rounded backs which turn in the opposite rounded ends of the springs bearing upon the flanged rim, whereby the blocks and springs become self-adjusted.

2. The combination with a wheel and a tire detachably connected therewith and comprising a metal rim, of leaf springs and friction-blocks interposed between said wheel and rim, the leaf springs pivotally and detachably connected with one of said parts, and the friction blocks pivotally connected with the free ends of said springs, said leaf springs having a curvature which bears at an intermediate point between its ends against the part to which the springs are detachably pivoted.

3. The combination with a wheel and tire revolubly mounted thereon comprising a rim, of leaf-springs connected to the inner surface of said rim, and friction blocks pivotally connected with the free ends of the springs, said leaf-springs having a curvature which bears at an intermediate point between its ends against the part to which the springs are connected.

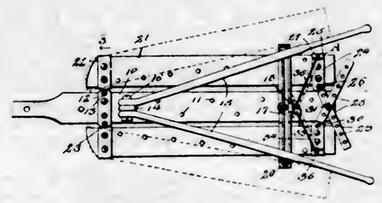
4. The combination with two wheel rims, T-bolts, and friction blocks, of springs comprising main and reinforcing springs having rounded slotted ends connected respectively with the friction blocks and T-bolts, the reinforcing springs having hooked connection at one end with one of the slots of the main spring, and means of securing the other ends to the main spring, whereby to prevent rattling.

5. The combination with a wheel having a flanged rim, of a tire removably connected with the wheel and comprising a metal rim, springs pivotally connected with said rim, and friction-blocks connected with the free ends of these springs and bearing resiliently and removably upon the flanged wheel rim between the flanges, and flanges embracing both rims and secured to the outer rim, thereby inclosing and incasing the springs and blocks and having free sliding connection with the inner flanged rim.

[Claim 6 not printed in the Gazette.]



1,089,285. HARROW. WILLIAM J. STOKES, Crystal Springs, Miss. Filed July 8, 1913. Serial No. 777,886. (Cl. 55—125.)

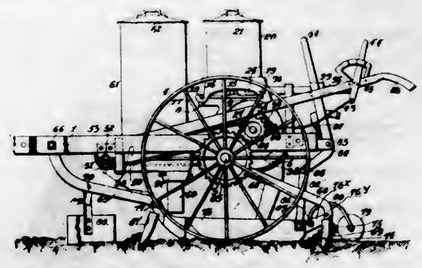


1. A harrow comprising a center bar, wings hingedly connected at their front ends with said center bar, a brace extending upwardly from the center bar near the rear end thereof, said brace having a series of apertures, and angle plates on the wings near the rear ends thereof, said angle plates having terminal apertures in their bases and in their upstanding flanges, link braces having terminal hooks at their lower ends engaging the apertures in the upstanding flanges of the angle plates, said links being provided with series of apertures, a bolt adjustably connecting the apertured link braces with the apertured upstanding brace, and link braces flexibly connecting the rear end of the center bar with the bases of the angle plates at the rear ends of the wings.

2. In a harrow, a center bar and side wings having earth engaging teeth, means for flexibly connecting the front ends of the wings with the center bar, angle plates on the rear ends of the wings, link braces connecting the rear end of the center bar with the bases of the angle plates for lateral adjustment in a horizontal plane, handles connected with the center bar, a rung connecting the handles, a brace connecting the rung with the center bar near the rear end of the latter, and link braces adjustably connecting the vertical brace with the upstanding flanges of the angle plates on the wings to tilt the latter.

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1,089,286. PLANTER. THEOPHILUS W. SUGGS, Arba, N. C. Original application filed Sept. 23, 1912, Serial No. 721,844. Divided and this application filed Apr. 14, 1913. Serial No. 760,923. (Cl. 111—32.)



1. In a machine of the class stated, a wheeled draft frame, a furrow opening plow pivotally held by and beneath said frame, a pivotally held furrow closing plow held by and below said frame, a runner opener rigidly secured to said opening plow and pivotally secured to said closing plow, and means for raising and lowering said plows and said runner opener together, and means for depositing material into the furrow when held open by said runner opener.

2. In a machine of the class stated, a wheeled draft frame, a furrow opening plow pivotally held by and beneath said frame, a pivotally held furrow closing plow held by and below said frame, a runner opener rigidly secured to said opening plow and pivotally secured to said closing plow, and means for raising and lowering said plows and said runner opener together, and means for depositing ma-

terial into the furrow when held open by said runner opener, a ground scraper carried by said opener plow in advance of the plow share.

3. In a machine of the class stated, a wheeled draft frame, a furrow opening plow pivotally held by and beneath said frame, a pivotally held furrow closing plow held by and below said frame, a runner opener rigidly secured to said opening plow and pivotally secured to said closing plow, and means for raising and lowering said plows and said runner opener together, and means for depositing material into the furrow when held open by said runner opener, and a ground evener carried by said runner opener to the rear of the same.

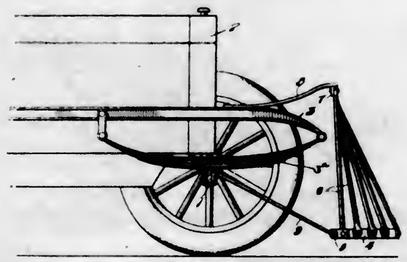
4. In a machine of the character stated, a wheeled draft frame, a furrow opening plow including a plow beam and a plow share pivotally suspended by and beneath said draft frame, a furrow closing device including a divided plow beam and plow shares carried thereby, said divided plow beam being pivotally suspended by and beneath said draft frame, a runner opener connecting said first mentioned plow beam with said second mentioned plow beam, and a single lever operated device for raising and lowering said plows and said runner opener, and means carried by said draft frame for feeding material through said runner opener into the opened furrow.

5. In a machine of the character stated, a wheeled draft frame, a furrow opening plow including a plow beam and a plow share pivotally suspended by and beneath said draft frame, a furrow closing device including a divided plow beam and plow shares carried thereby, said divided plow beam being pivotally suspended by and beneath said draft frame, a runner opener connecting said first mentioned plow beam with said second mentioned plow beam, and a single lever operated device for raising and lowering said plows and said runner opener, and means carried by said draft frame for feeding material through said runner opener into the opened furrow, and a yieldably mounted furrow leveling roller carried by said runner opener and extending over and in back of said furrow closing plow, said furrow closing plow adapted to engage said roller when said plow is raised to raise said roller off the ground.

[Claim 6 not printed in the Gazette.]

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1,089,287. PILOT OR FENDER. JOHN SUMMERS, Maybrook, N. Y. Filed Mar. 29, 1912. Serial No. 687,132. (Cl. 105—254.)

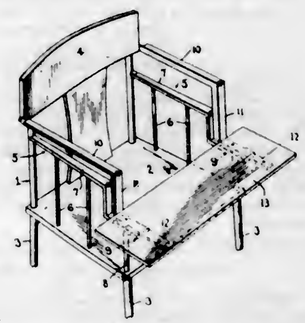


In combination with the front axle, chassis side bars and front springs of an automobile, a fender, elastic longitudinally curved arms having their front ends secured to the upper side of the fender and their rear ends secured on the upper sides of the chassis side bars at points distant from the front ends of said chassis side bars, and lower supporting arms having their front ends pivotally connected to the lower side of the fender and their rear ends rigidly secured directly to the front axle.

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1,089,288. HIGH CHAIR. HENRY TAYLOR, Chicago, Ill. Filed July 3, 1913. Serial No. 777,367. (Cl. 155—12.)

In combination with a chair seat having side arms and a back having its upper portion disposed in a horizontal plane above the arms, of supplemental arms pivoted to the upper portion of the back and extending forwardly therefrom and in spaced relation to the chair arms, said supplemental arms forming guards and having at their forward extremities upright portions extending downwardly, and



also having forwardly extending portions at the lower ends of the upright portions adapted to rest upon the chair arms at the front portions of the latter, and a tray secured to said forwardly extending portions of the supplemental arms and movable over the back of the chair.

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1,089,289. TABLE. STACY C. THOMPSON, Manistee, Mich. Filed Jan. 29, 1913. Serial No. 745,044. (Cl. 45—116.)



1. The combination of a base comprising interlocking leg portions, each having mortises or recesses in its respective faces in proximity to the juncture of the interlocking connection between said leg members, and a pedestal provided with slots to receive said leg portions, the slotted lower end of said pedestal forming projections entering sockets afforded by the recessed or mortised faces of said leg members.

2. A knock-down table comprising a pedestal provided at each of its ends with transverse slots, a base portion comprising interlocking leg members, each having recessed or mortised faces receiving the projecting portions afforded by the slotting of the lower end of the pedestal, a top provided with longitudinal and transverse interlocking members, each having recessed or mortised faces adjacent to their interlocking juncture, said recessed or mortised faces forming sockets receiving the projecting portions of the pedestal afforded by the slotting of the upper end of the latter.

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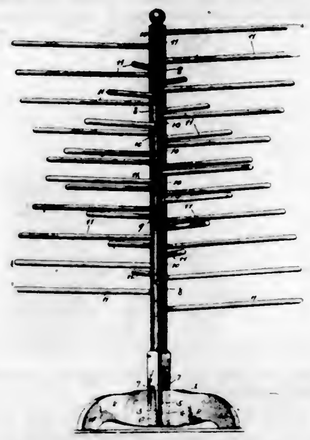
1,089,290. CLOTHES-RACK. STACY C. THOMPSON, Manistee, Mich. Filed Sept. 13, 1913. Serial No. 789,617. (Cl. 68—34.)

1. The combination of a base composed of two leg members each having centrally located oppositely disposed wedge-shaped grooves and a slot in each member, the slots being in the center of the grooved portion of the members, the two leg members being arranged at right angles, and a standard slotted at its lower end, the fingers formed by slotting the standard being wedge shape and fitting within the pockets formed by the grooves in the leg members.

2. The combination of a base composed of interlocking leg portions each having wedge shaped grooves in its respective faces in proximity to the juncture of the interlocking connection between said leg members, and a standard



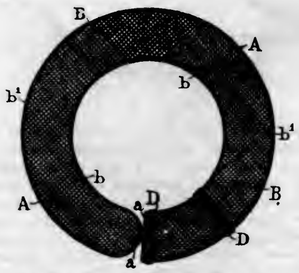
provided with slots to receive said leg portions, the fingers formed by slotting the lower end of the standard entering



the wedge shaped pockets formed at the juncture of the leg members.

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1,089,291. BANDEAU FOR HATS. SAMUEL THORNLEY, HARRY THORNLEY, and JAMES BOOTH, Hyde, England. Filed June 6, 1912. Serial No. 702,029. (Cl. 2—108.)



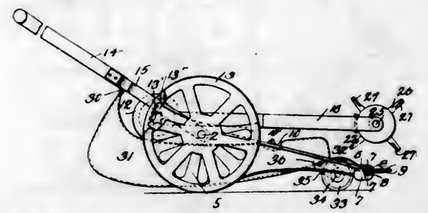

1. As a new article of manufacture, a bandeau for hats comprising a flat, annular strip of stiff material with severed ends adapted to be overlapped and drawn past each other to convert said annular strip into frusto-conical shape; a covering of fabric attached to said annular strip; and means for holding said ends together when in overlapped position.

2. As a new article of manufacture, a bandeau for hats comprising a flat, annular strip of buckram with severed ends adapted to be overlapped and drawn past each other to convert said annular strip into frusto-conical shape; a covering of fabric attached to said annular strip; and elastic loops carried by said annular strip for holding said ends together when the same are in overlapped position.

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1,089,292. MOWING-MACHINE. JOHN B. TURNER and JOHN S. BRISCOE, Okmulgee, Okla. Filed Dec. 28, 1912. Serial No. 739,088. (Cl. 56—19.)

1. In a machine of the class described for cutting grass, or the like, the combination with a main frame and drive wheels, of an operating shaft operatively connected with the drive wheels, cutting elements carried by said frame, cam wheels carried by the operating shaft and having grooved peripheries, levers pivotally mounted upon the frame and connected at one end to the cutting elements and having their other end projecting into the grooved peripheries of the cam wheels whereby reciprocation in opposite directions is imparted to the cutting elements, the main frame aforesaid having a transverse rod, an auxiliary frame connected at one end to the operating shaft, and having its other end suspended over the cutting elements, rotating members mounted at the opposite end of the auxiliary frame, and means secured to said auxiliary frame and adapted to engage with the transverse rod of the main frame to hold the auxiliary frame in its suspended position and to regulate the height of said rotating members.



2. In a machine of the class described, the combination of a main frame, an auxiliary frame supported above said main frame, drive wheels mounted in the main frame, cutting mechanism carried by the main frame, means operatively connected with the drive wheels for actuating the cutting mechanism, a reel rotatably mounted in the auxiliary frame, a driving shaft journaled in the auxiliary frame and operatively connected with the operating means for the cutting mechanism, and the reel and a notched dog pivotally secured to the auxiliary frame and adapted to engage with the main frame to support and adjust the height of the auxiliary frame.

3. In a machine of the class described, the combination of a main frame, an auxiliary frame pivotally mounted for extension above the main frame, drive wheels mounted in the main frame, cutting mechanism carried by the main frame, means operatively connected with the drive wheels for actuating the cutting mechanism, a reel rotatably mounted in the auxiliary frame and operatively connected with the operating means for the cutting mechanism, and dogs pivotally mounted on the auxiliary frame and having notches therein arranged at varying distances from the pivot of each dog so as to permit the auxiliary frame to be held at different heights when said dogs are engaged with the main frame.

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1,089,293. HORSESHOE. WILLIAM J. TWIST, Tulsa, Okla. Filed July 30, 1913. Serial No. 782,052. (Cl. 168—22.)



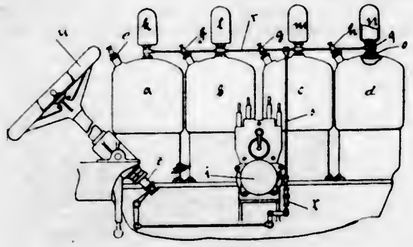
A horseshoe provided at its toe end with a plurality of horizontal recesses and communicating forwardly and downwardly extending passages, a plate secured to the shoe at the heel thereof, a strap adapted to be adjusted around the hoof and connected with said plate, depending lugs extending from the strap at the forward end thereof, and a connecting member carried by said lugs and extending downwardly therefrom in the direction of the shoe and having horizontal portions fitting in the horizontal recesses and having angular portions extending from the horizontal portions and fitting in said downwardly and forwardly extending passages.

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1,089,294. APPARATUS FOR STARTING INTERNAL-COMBUSTION ENGINES. GUSTAV UNTERBERG, Durlach, Germany. Filed Mar. 26, 1912. Serial No. 686,273. (Cl. 123—180.)

1. Apparatus for starting internal combustion engines consisting of a reservoir connected to each cylinder

of the engine, back pressure valves arranged in the passages between said reservoirs and cylinders and means for controlling said valves, whereby they are closed during the running of the engine and opened during the starting and stopping thereof.



2. Apparatus for starting internal combustion engines consisting of a reservoir connected to each cylinder of the engine, back pressure valves arranged in the passages between said reservoirs and cylinders and means for controlling said valves connected to the ignition controlling devices, whereby said valves are closed during the running of the engine and opened during the starting and stopping thereof.

3. Apparatus for starting internal combustion engines consisting of a reservoir connected to each cylinder of the engine, automatic valves interposed between said reservoirs and cylinders, and valves adapted to open communication between the cylinders and the reservoirs to allow the latter to be charged.

4. Apparatus for starting internal combustion engines consisting of a reservoir connected to each cylinder of the engine, automatic valves interposed between said reservoirs and said cylinders, valves adapted to open communication between the cylinders and the reservoirs to allow the latter to be charged, and means for opening the automatic valves to allow the compressed gas to escape into the cylinders of the motors.

5. Apparatus for starting internal combustion engines consisting of a reservoir connected to each cylinder of the engine, automatic valves interposed between said cylinders and said reservoirs, valves adapted to open communication between the cylinders and the reservoirs to allow the latter to be charged, and means for controlling the last named valves whereby they are closed during the running of the engine and opened during the starting and stopping thereof.

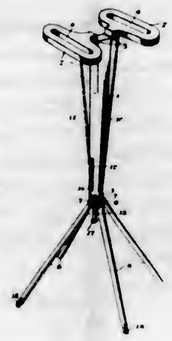
[Claim 6 not printed in the Gazette.]

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1,089,295. COMBINED SEAT AND WALKING-CANE. JAMES W. VALLIER, Independence, Oreg. Filed June 29, 1912. Serial No. 706,671. (Cl. 155—42.)

1. A device of the character described comprising a pedestal, leg members hinged to the lower end of the pedestal, said leg members having heads provided with cogs, a slidable member arranged axially within the pedestal and having teeth meshing with the cogs on the heads of the legs to extend and fold the same, a stud in the sliding member spaced from the teeth and adapted to engage the cogs to prevent movement of the legs when folded together, and means connected with the slide to actuate the same.

2. A device of the character described including a pedestal, leg members hinged to the lower end of said pedestal, a rod slidable within said pedestal, a serration of teeth formed intermediately upon said rod, cogs provided on the upper end of said legs and adapted to mesh with the teeth when said rod is moved downward, abutments formed on the upper extremity of the legs and adapted to engage said teeth to limit the outward movement of said legs, means connected to said rod to actuate the same, a stud on said rod and adapted to engage said



cogs to hold the legs in a folded position when the rod is in an upper position.

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1,089,296. CHICKEN-LEG-SECURING DEVICE. FRANK K. VALLO, Murphysboro, Ill. Filed Jan. 28, 1913. Serial No. 744,661. (Cl. 24—260.



1. A leg securing device for fowls comprising a fixed member having a guide and a yielding member having shoulders, and rings mounted in said guide surrounding said yielding member and co-acting with said shoulders.

2. A leg securing device for fowls comprising a single piece of wire bent into substantially U-shaped form having a coil at its closed end, one leg of said U-shaped member being formed double and the other leg stepped, and a ring mounted in the double portion surrounding the stepped portion.

3. A leg securing device for fowls comprising a substantially U-shaped member formed of a single piece of wire bent to form a coil at the closed end thereof, one leg of said member being formed of parallel bars forming a guide, the other leg of said member being provided with shoulders, and a ring mounted in the guide portion of said member surrounding the yielding portion, and held in its adjusted position by said shoulders.

4. As a new article of manufacture, a leg securing device for fowls comprising a substantially U-shaped member formed of a single piece of wire having a guide portion upon one side and a series of offset portions upon the opposite side, and rings slidably mounted in said guide portion adapted to embrace the opposite portion and co-act with the offset portions for limiting the outward movement thereof.

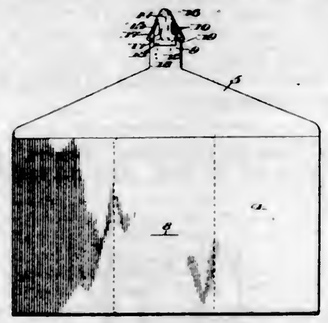
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1,089,297. FASTENER FOR ENVELOPS AND OTHER CONTAINERS. WALTER WAIDLICH, Detroit, Mich. Filed Mar. 26, 1913. Serial No. 757,038. (Cl. 229—78.)

A container having a plurality of walls provided with slits adapted to register, a sealing flap having a tongue provided with an arrow-shaped head, said head being of less width than the body of the tongue, a strip secured to said head and having a portion arranged to form a fold



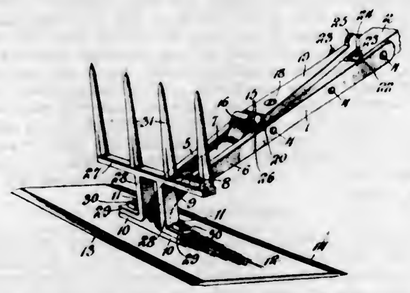
at the vertex of the head, and an arrow-shaped fastener formed of spring wire confined at its vertex in said fold and having its arms arranged at a greater diverging angle than the sides of the head and projecting laterally



beyond the head and body of the tongue, said arms being provided with extensions, movable between the head and strip and forming with said extensions shoulders for an interlocking action.

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1,089,298. GARDEN IMPLEMENT. JOHN SWAYZE WARD, Weimar, Tex. Filed Nov. 9, 1912. Serial No. 730,467. (Cl. 55—40.)



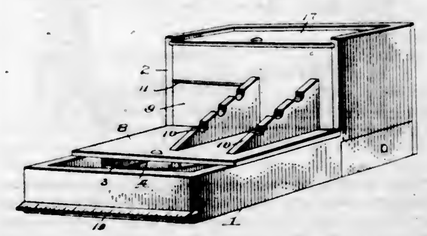
1. A device of the class described, including a handle member, having longitudinally extending arms, a shank member pivotally mounted between said arms, a blade secured to the outer or lower end of said shank member, an arcuate series of teeth formed on the inner end of the shank member concentric with the pivot thereof, a locking lever pivotally mounted on the handle member and adapted to swing laterally into and out of engagement between the teeth of the shank member, and means for holding the said locking lever in such engagement.

2. A device of the class described, including a socket member adapted to have an operating handle fitted in its socket, forwardly extended arms provided on the socket member, a hoe blade having its shank member pivotally mounted between said arms, a toothed segment formed on the inner end of the shank member, a locking lever pivotally mounted upon one of the faces of the socket member and having a tooth-engaging end adapted to swing laterally into and out of engagement between the teeth of said segment, said socket member having outwardly projecting teeth arranged in the path of movement of the said lever, and a downwardly extending tooth provided on said lever to engage one of the teeth of the socket member.

3. A device of the class described comprising a blade, a shank secured rigidly to said blade and having its free end formed with a toothed segment, a handle member provided with forwardly extending arms, means for pivoting the shank to said arms, a locking lever pivoted to the handle member and having one end widened and beveled to enter between the teeth of the shank, the edge of said widened and beveled end of said lever being disposed eccentric with the pivot thereof so as to provide a wedging engagement between the tooth-engaging portion of said lever and the teeth of said segment.

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1,089,299. CABINET. WILBUR F. WEBB, Huntington, W. Va. Filed Mar. 15, 1913. Serial No. 754,588. (Cl. 120—1.)



1. A cabinet of the kind described comprising a base having a receptacle therein, a chamber elevated above the base, a slidable cover for the receptacle having a rack thereon, and a board attached to the sliding cover, extending at an angle thereto and forming a movable front for the elevated chamber.

2. A cabinet of the kind described comprising a base having a receptacle therein, a chamber elevated above the base, a slidable cover for the receptacle having a rack thereon, the cover extending into and forming the floor of the chamber, and a board attached to the cover extending at an angle thereto, and forming a movable front for the elevated chamber.

3. A cabinet of the kind described comprising a base having a receptacle therein, a chamber elevated above the the base, a slidable cover for the receptacle having a rack thereon, a board extending at an angle to the slidable cover and forming a movable front to the chamber, and a slidable cover for the chamber, whereby access to the chamber may be had without moving the cover for the receptacle in the base.

4. A cabinet of the kind described comprising a base having a receptacle therein, a chamber elevated above the base, a slidable cover for the receptacle having a rack attached thereto, a board having a slot therein, attached to the cover, extending therefrom at an angle and forming a movable front for the elevated chamber, and a rack having bearings therein attached to the inner face of the board adjacent to the slot.

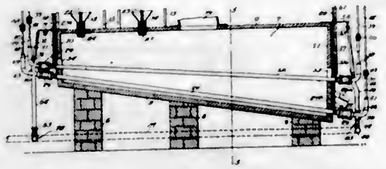
5. A cabinet of the kind described comprising a base having a receptacle therein, a chamber elevated above the base, a slidable cover for the receptacle having a rack attached thereto, such cover extending into and forming the floor of the chamber, a board having a slot therein extending at an angle to the cover for the receptacle and forming a movable front for the elevated chamber, a rack having bearings therein attached to the inner face of the board, and a slidable cover for the elevated chamber.

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1,089,300. ELECTRIC FURNACE. CLAUDE C. WHITMORE, Butte, Mont., assignor of one-half to Walker B. Carroll, Butte, Mont. Filed Apr. 16, 1913. Serial No. 761,494. (Cl. 204—64.)

1. An electric furnace, comprising a furnace body provided at its ends with slots, an electrode of longitudinal form extending through said furnace body, a second electrode extending through said furnace body and disposed approximately parallel to said first mentioned electrode, said second electrode being of tubular form, means for cooling said second electrode, and mechanism controllable at the wall of the operator for adjusting said second mentioned electrode to different angles relatively to said first mentioned electrode.

2. An electric furnace, comprising a furnace body, an electrode mounted therein, a second electrode located within said furnace body and movable relatively to said first-mentioned electrode, said second-mentioned electrode having substantially the form of a long cylinder, means controllable at the will of the operator for tilting said second-mentioned electrode to different angles relatively to said first mentioned electrode, and means for supplying current to both of said electrodes.



3. An electric furnace, comprising a furnace body provided at its ends with slots, an electrode extending through said furnace body and through said slots, means controllable at the will of the operator for raising and lowering said electrode, another electrode located within said furnace body, and electrical connections to said electrodes.

4. An electric furnace comprising a furnace body, electrodes of tubular form extending into said furnace body and disposed approximately parallel with each other, means for supplying a cooling fluid into each of said electrodes and mechanism controllable at the will of the operator for shifting the general position of one of said electrodes relatively to the other.

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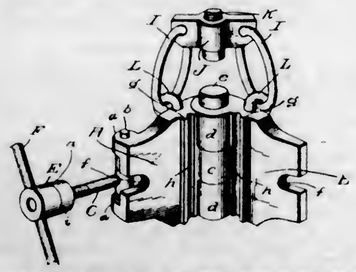
1,089,301. REINFORCED-CONCRETE RAILWAY-TIE. HARRY WILKINS, Evansville, Ind. Filed July 17, 1913. Serial No. 779,548. (Cl. 238—3.)



A rail tie provided with sets of upright reinforcing rods in its end parts and with longitudinal reinforcing rods arranged in series which alternate with the series of upright rods, and wooden rail chairs embedded in the tie and located between the respective sets of upright reinforcing rods aforesaid with the sides of said chairs arranged substantially parallel to parts of said upright reinforcing rods.

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1,089,302. CLAMPING DEVICE FOR DEEP-WELL-DRILLING TOOLS. EDWARD P. WINDLE, Independence, Kans. Filed Oct. 14, 1912. Serial No. 725,743. (Cl. 24—135.)

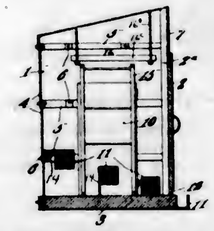


1. A clamping device for the wire lines or cables of well drilling tools, comprising hinged jaws, each having a shoulder parallel with and adjacent their fulcrum pin and each of said shoulders having a straight, continuous, longitudinally extending groove formed therein to receive the wire line, whereby the wear of the grooves or the lines may be compensated by reducing the shoulders.

2. A clamping device for wire lines of well drilling tools, comprising hinged jaws each having a shoulder parallel with and adjacent to their fulcrum pin, said shoulders having longitudinally extending straight, continuous grooves formed therein, and means for drawing said jaws into their clamping position.

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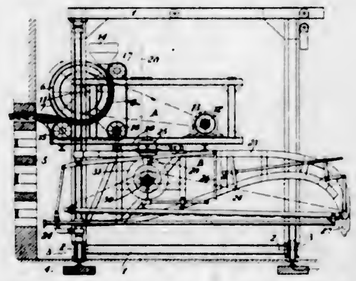
1,089,303. HENNERY. HORATIO BARNETT, Malvern, Ark. Filed July 13, 1911. Serial No. 638,337. (Cl. 119—21.)



A hennery embodying a relatively thick and solid bottom designed to rest flush on the ground, sides and a back secured to the bottom, the sides terminating short of the front edge of the bottom, a pair of doors hinged to the front edges of the sides and spaced above the bottom to provide a clean-out opening extending from side to side, the bottom extending beyond the doors, and an angle iron having one flange secured to the lower face of the bottom along its front edge and flush with the lower face of the bottom, the angle iron member having its other flange spaced from and forming an open ended trough with the forward edge of the bottom, the edge of the last mentioned flange lying in the plane of the upper face of the bottom.

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1,089,304. APPARATUS FOR SPREADING PYRITES IN ROASTING-FURNACES. OCTAVE BATTAILLE, Basècles, Belgium, and PIERRE PIPEREAUT, Paris, France. Filed Jan. 29, 1913. Serial No. 744,915. (Cl. 75—57.)



1. In a mechanical poker, the combination of a spreading device comprising a carrier, means for adjusting the said carrier both vertically and horizontally, a plurality of pokers carried by said carrier, means for causing the said pokers to reciprocate on said carrier, means for raising and lowering the front ends of said pokers and means for raising and lowering the rear ends of said pokers, substantially as and for the purpose set forth.

2. In a mechanical poker, the combination with a carrier, of means for adjusting said carrier both vertically and horizontally, a plurality of pokers mounted on said carrier, means for causing the pokers to reciprocate on said carrier, said means comprising a motor, a friction pinion on said motor, a double internal friction wheel adapted to engage with either face of said pinion, a shaft carrying said wheel, and fast therewith, drums loosely mounted on said shaft, cables carried by said drums and connected with said pokers, clutch devices adapted to engage said drums to cause them to rotate to move said pokers, and means for shifting the friction wheel to cause the pinion to engage either face thereof to change the direction of rotation.

3. In a mechanical poker, the combination with an adjustable carrier, of a plurality of reciprocating pokers, mounted thereon, means for controlling the movement of said pokers, and means for raising and lowering said pokers at the furnace end thereof, said means comprising a lever carrying said poker, a pivoted lever having its short arm connected to the poker carrying lever, and a hand lever connected to the long arm of said pivoted lever.

4. In a mechanical poker, the combination with an adjustable carrier, of a plurality of controllable reciprocating pokers thereon, means for raising and lowering the furnace ends, and means for raising and lowering said pokers at the far end, said means comprising a member carrying said poker, a pivoted bell crank lever attached to said member, the other arm of said lever having a threaded bushing, a threaded rod in said bushing, means for rotating said rod to move said bell crank lever, whereby to raise or lower said pokers.

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1,089,305. ADJUSTABLE SPLINT. JOHN F. BAUGHMAN, Auburn, Ind. Filed July 1, 1913. Serial No. 776,877. (Cl. 128—52.)



1. An adjustable splint comprising a body section having a longitudinal guide way, a cover plate closing said guide way and having a longitudinal slot therein, an extension section slidably fitted in said guide way, a foot rest carried by said extension section, spaced posts upon the cover plate, a screw shaft journaled in said posts, a nut engaging said shaft and carried by the extension section and movable in the slot of the cover plate, and ratchet mechanism for actuating said shaft to adjust said nut and extension section.

2. An adjustable splint comprising a body section having a longitudinal guide way opening through its outer face and end, a cover plate secured to the outer face of said body section and closing said guide way, said cover plate having a longitudinal slot therein, an extension section slidably adjustable in said guide way, said extension section being provided with a longitudinal slot, a foot rest carried by the extension section, stop members respectively upon the cover plate and extension section arranged to travel in the slots in the extension section and cover plate to limit the sliding movements of said extension section, spaced posts upon the cover plate adjacent the opposite ends of the slot therein, a screw shaft journaled in said post, ratchet mechanism for revolving said shaft, and a nut carried by the extension section and projecting through the slot in the cover plate and engaging said screw shaft.

3. An adjustable splint comprising relatively adjustable body and extension sections, adjusting means therefor, a foot rest provided at its heel portion with a side recess to receive the end of the extension section, and a bracket fixed to the end of the extension section and having an angular arm extending through said recess and under said foot rest and detachably secured to the latter.

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1,089,306. RAILWAY CONSTRUCTION-CAR. WILLIAM R. BELL, Logtown, Miss. Filed Nov. 22, 1913. Serial No. 802,427. (Cl. 104—16.)



1. A railway construction car embodying a wheel truck frame, parallel endless carrier chains running lengthwise thereof, and driving means for said chains, tie supporting sills extending parallel to said chains, and cam controlled means for elevating and lowering said chains in relation to the tie supporting faces of said sills.

2. A railway construction car embodying a wheeled truck frame, parallel endless carrier chains running lengthwise thereof, driving means for said chains, tie-supporting sills extending parallel to said chains, parallel sectional chain supports, and means for severally raising and lowering the sections of said chain supports in opposing pairs and correspondingly varying the relative levels of said chains and sills comprising cam shafts underlying and working against the bottoms of said chain supports.

3. A railway construction car embodying a wheeled truck frame, a set of parallel endless carrier chains running lengthwise thereof, driving means for said chains, an extension boom hinged to one end of the car, another set of parallel endless carrier chains extending lengthwise of said boom and geared to and driven by the first named chains, and means on the car for supporting the free end of said extension boom.

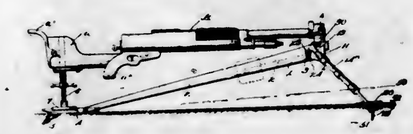
4. A railway construction car embodying a wheeled truck frame, cross shafts journaled thereon, endless chains running lengthwise of the car and passing around said shafts, means for driving said chains, rail holding bunks projecting laterally beyond said chains, and rail supporting and actuating rollers fast on one of said shafts.

5. A railway construction car embodying a wheeled truck frame, cross shafts journaled thereon, endless chains running lengthwise of the car and passing around said shafts, means for driving said chains, rail holding bunks projecting laterally beyond said chains, and rail holding stirrups positioned to catch the rails when the latter are pushed off the bunks and support said rails below the plane of said bunks.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,307. GUN-MOUNT. LAURENCE VINCENT BENÉT and HENRI ALBERT MERCIÉ, Paris, France. Filed June 9, 1913. Serial No. 772,620. (Cl. 89—40.16.)



1. The combination with a gun mount provided with a trail and housing, two front legs hinged to said housing and adapted to be swung about a horizontal axis therein, the said housing and said front legs being provided with engaging rack teeth, a swiveled head carried by said housing, a gun, and means for detachably connecting said gun near the muzzle to said swiveled head, substantially as described.

2. The combination with a gun mount provided with a trail and housing, two front legs hinged to said housing and adapted to be swung about a horizontal axis therein, the said housing and said front legs being provided with engaging rack teeth, a hinged separator adapted to separate said front legs, a swiveled head carried by said hous-

ing, a gun, and means for detachably connecting said gun near the muzzle to said swiveled head, substantially as described.

3. The combination with a gun mount provided with a trail and housing, two front legs hinged to said housing and adapted to be swung about a horizontal axis therein, the said housing and said front legs being provided with engaging rack teeth, a swiveled head carried by said housing, a gun and means for detachably connecting said gun near the muzzle to said swiveled head, with means for vertically moving the breech of said gun, substantially as described.

4. The combination with a gun mount provided with a trail and housing, two front legs hinged to said housing and adapted to be swung about a horizontal axis therein, the said housing and said front legs being provided with engaging rack teeth, a hinged separator adapted to separate said front legs, a swiveled head carried by said housing, a gun, and means for detachably connecting said gun near the muzzle to said swiveled head, with means for vertically moving the breech of said gun, substantially as described.

5. The combination with a gun mount provided with a trail, two front legs hinged to said trail and adapted to be swung about a horizontal axis and fixed in the desired position, a housing carried by the head of said trail and provided with interior screw threads therein, a swiveled head carried by said housing and provided with exterior screw threads engaging those in the housing, a gun, and a cradle carried by said swiveled head for detachably connecting said gun near the muzzle to said swiveled head, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

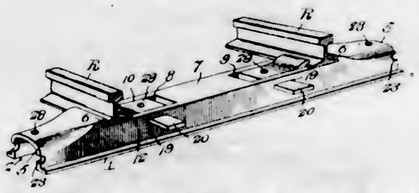
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1,089,308. AUTOMATICALLY-LIGHTABLE CIGAR AND CIGARETTE. LAURENCE BESSON, widow of the late Claude Tixidre, Paris, France. Filed Oct. 16, 1912. Serial No. 726,156. (Cl. 52—5.)

A tip for the lighting of cigars, cigarettes or the like, composed of a mixture of adhesive and combustible ingredients, said ingredients consisting of gum tragacanth, potassium chlorate, tobacco charcoal powder, pumice-stone, and water.

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1,089,309. RAIL-TIE. DANIEL C. BLOSE and MICHAEL SHULTZ, Kaylor, Pa. Filed June 17, 1913. Serial No. 774,177. (Cl. 238—5.)



1. A metallic tie having its lower edges flanged outwardly, its bottom channeled between the flanges, the said channeled bottom being provided with end depressions and with a central depression, the upper face of the tie at its ends being rounded and flared outwardly to provide transverse angular rail receiving lips, the top of the tie adjacent the lips being provided with pockets for the reception of longitudinally adjustable rail engaging members, means for retaining the said members within the pockets, and means for locking the said members in an adjusted position upon the tie.

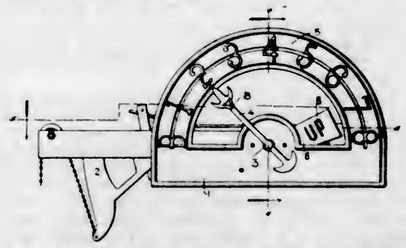
2. A metallic tie having its lower edges flanged, its bottom channeled between the flanges, the said channeled portion being provided with a central and end depressions, the upper face of the tie, at the ends thereof being rounded and terminating in transversely arranged outwardly inclined rail receiving lips, the portion of the tie between the lips being horizontally straight and being provided with longitudinally extending depressions, the outer walls of which terminating adjacent the lips, and the inner walls of which terminating adjacent the central depression of the tie, said depressions forming pockets for the reception of longitudinally movable rail engaging members, means for locking the members within the pockets, and said means also sustaining the members in an adjusted position.

3. A metallic tie having its lower edges flanged outwardly, its bottom channeled between the flanges, the said bottom being provided with a central depression and with end depressions, the upper face of the tie being rounded and terminating in transverse angular rail receiving lips, the portion of the tie between the lips being straight and disposed below the lips, the said straight portion being formed with pockets which are disposed adjacent the lips, the walls of the pockets adjacent the lips being provided with openings which enter the end recesses of the tie, and the upper walls provided by the openings being beveled, rail sustaining members of a greater length than the pockets, each of said members comprising a body portion formed with a lip, a flat portion extending beyond the lip, and a beveled portion projecting from the flat portion and adapted to pass through the openings in the ends of the pockets and to contact with the inclined walls provided thereby, the members having their bodies provided with transverse elongated slots, the sides of the tie having transverse openings which enter the pockets, wedge members passing through the slots of the ties and the slots of the rail engaging members for adjusting the said members with relation to the rail engaging lips of the tie and for sustaining the said members within the pockets, and means for locking the wedge keys.

4. A tie having its lower edges flanged outwardly, its bottom channeled between the flanges, its upper face adjacent its ends rounded and terminating in rail engaging lips, longitudinally adjustable rail engaging members upon the ties and adapted one to co-act with each of the lips of the tie, each of said members being formed with rail engaging lips, means for securing the said members in an adjusted position upon the tie, and the lips of the tie at their juncture with the tie being formed with depressions which are adapted to register with similar depressions formed in the lower portion of the lips of the adjustable rail engaging members.

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1,089,310. ELEVATOR-INDICATOR. FRANZ A. BOEDTCHER, Bergenfield, N. J. Filed Jan. 6, 1913. Serial No. 740,476. (Cl. 116—64.)




1. In an indicator of the class described, the combination with a rock shaft, of a pivotally mounted sign member having a legend arranged on each end, a screen normally concealing both legends, means connected with said shaft and engaging said sign member for rocking the sign member and thereby causing one of said legends to be brought to view upon each reversal of said shaft, and a weight connected to said sign member for giving the same a tendency to remain in a neutral position.

2. In an indicator of the class described, the combination with an indicating hand, a rotating shaft for operating said hand, of a sign member formed with a legend on each end, means frictionally engaging said shaft and operatively engaging said sign member for causing said sign member to be tilted from one position to the other upon each reversal of movement of said shaft for indicating the direction of travel of the elevator to which the indicator is connected.

3. In an indicator of the class described, the combination with a rotating shaft and an indicating finger, of a tiltable sign formed with legends on opposite portions thereof, a pin connected with said sign adapted to be engaged by said finger for causing the finger to move said sign so as to move the legends from one position to another, and an auxiliary means frictionally connected with said shaft and engaging said sign for shifting the position of said sign whenever said shaft reverses its movement.

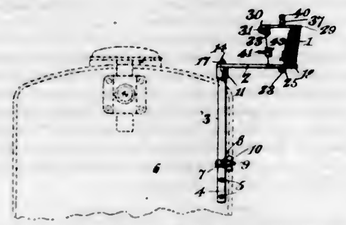
4. In an indicator of the class described, the combination with a rocking shaft and an indicating finger of a tiltable sign formed with legends on opposite portions thereof, pins projecting from said sign, an auxiliary hand connected with said rocking shaft adapted to engage the pin on said sign and move said sign upon the extreme movement of said shaft in either direction, and auxiliary means frictionally connected with said shaft and engaging said sign for shifting the position of said sign whenever said shaft reverses its movement.

5. In an indicator of the class described, the combination with a rotating shaft and an indicating finger, of a tiltable sign formed with legends on opposite portions thereof, means for causing said indicating finger to move said sign so as to change the legend, and auxiliary means connected with said shaft and engaging said sign for shifting the position of said sign whenever said shaft reverses its movement.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,311. RAZOR-CLEANING ATTACHMENT FOR BARBERS' CHAIRS. ANTONIO BONGIOVANNI, Barnesboro, Pa., assignor of one-half to Irenaeus A. Lantzy, Spangler, Pa. Filed Sept. 10, 1912. Serial No. 719,674. (Cl. 132—29.)



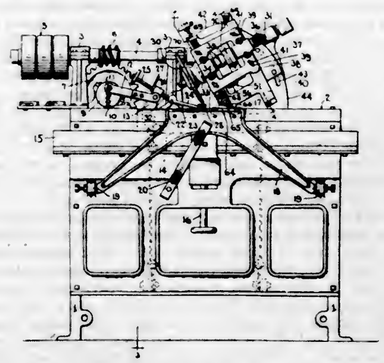
1. A razor cleaning device including hinged supporting means adapted to swing downwardly, an upwardly projecting head carried by the supporting means and provided with a reduced neck spacing the head from the supporting means and having a shank secured to the supporting means, and a receptacle constructed of yieldable material and composed of a thick bottom and relatively thin side walls, said receptacle being provided in its bottom with a socket conforming to the configuration of and receiving the projecting head and provided with a contracted entrance through which the head is passed, said head being clamped in the socket of the receptacle to hold the latter on the supporting means.

2. A razor cleaning device comprising a standard composed of a lower attaching portion provided with means for rigidly securing it to the back of a barber's chair, and an upper section hinged to the lower section and forming a continuation thereof and having means located at the hinge joint for clamping the upper section in an upright position, said upper section being adapted to swing downwardly from an upright position to arrange the cleaning device out of the way, an arm connected at its inner end to the upper end of the standard, and a receptacle mounted on the outer portion of the arm.

3. A razor cleaning device comprising a standard composed of a lower attaching portion, and an upper section hinged thereto and adapted to swing downwardly from an upright position to arrange the cleaning device out of the way, an arm connected at its inner end to the upper end of the standard, and a receptacle mounted on the outer portion of the arm, said receptacle and arm having coacting means for detachably retaining the cup on the arm when the upper section of the standard is swung downwardly.

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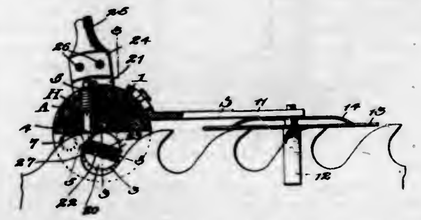
1,089,312. SAW-SHARPENER. FRANK A. BREEZE, Newburgh, Ontario, Canada. Filed June 16, 1913. Serial No. 773,998. (Cl. 76—41.)



In a saw grinding machine, the combination with the bed, a saw clamp, and a saw-feeding mechanism on said bed; of a carriage made in two members adjustable over each other, toothed racks on the contiguous faces of said members and arranged in pairs standing opposite each other, a pair of toothed wheels engaging said pairs of racks, a rod connecting said wheels, a plain wheel at one end of said rod and a wheel having a V-shaped face at the other end of said rod, said contiguous faces having grooved tracks for the last-named wheels, bearings carried by the foremost member, an arbor journaled in said bearings and carrying the grinder, means for rotating said arbor, and means for lifting the foremost carriage-member during the advance of the saw.

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1,089,313. SAW-SWAGE. FRANK A. BREEZE, Newburgh, Ontario, Canada. Filed July 28, 1913. Serial No. 781,619. (Cl. 76—54.)



1. In a saw swage, the combination with a head having a transverse recess and a peripheral slit intersecting the same, and an anvil whose active face stands within said slit; of a mandrel rotatably mounted within said recess and having a transverse slot, a die roller mounted in one end of said slot, and anti-friction devices within said slot behind said roller.

2. In a saw swage, the combination with a head having a transverse recess and a peripheral slit intersecting the same, and an anvil whose active face stands within said slit; of a mandrel rotatably mounted within said recess and having a transverse slot, a die roller mounted in one end of said slot, and two anti-friction rollers mounted

in said slot behind the die roller with the rearmost anti-friction roller bearing on the remote wall of said recess.

3. In a saw swage, the combination with a circular head having an off-center recess therethrough and a peripheral slit intersecting said recess, and an anvil whose active face stands within said slit; of a mandrel rotatably mounted within said recess and having a transverse slot extending across the slit in the head, a handle projecting radially from the end of the mandrel and moving across one end of the head, a die roller mounted in one end of said slot, and two anti-friction rollers mounted in said slot behind the die roller with the rearmost anti-friction roller bearing on the remote wall of said recess.

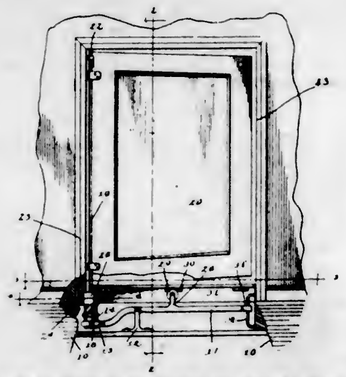
4. In a saw swage, the combination with a head having a transverse recess and a peripheral slit intersecting the same, and an anvil whose active face stands within said slit; of a mandrel consisting of two studs rotatably mounted in said recess and having their inner ends spaced a distance equal to the width of said slit and their bodies transversely slotted in alinement with each other, a handle connected with the outer ends of said studs whereby the latter are rotated in unison, a die roller located within one end of the registering slots within said studs and anti-friction devices behind said roller.

5. In a saw swage, the combination with a head having a transverse recess and a peripheral slit intersecting the same, and an anvil whose active face stands within said slit; of a mandrel including two studs rotatably mounted in said recess in alinement with each other, a handle connected with the outer ends of said studs whereby the latter are rotated in unison, a die roller located within one end of the registering slots within said studs and two-part anti-friction rollers within said slots behind the die roller with the contiguous ends of the parts spaced from each other, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,089,314. DOOR-OPERATING DEVICE. PAUL C. BAENNER, Chicago, Ill. Filed June 25, 1913. Serial No. 775,735. (Cl. 39—95.)



1. A swinging door supported for vertical movement by means including a bearing sleeve having inwardly extending lugs, a spirally grooved cylinder carried by the door and operating in the bearing sleeve, a lever having a bifurcated arm and a member on which the cylinder is supported for rotation about its axis, said member being pivoted on the bifurcated arm of the lever.

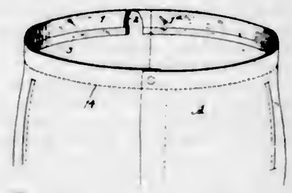
2. A swinging door supported for vertical movement by means including a bearing sleeve having inwardly extending lugs, a spirally grooved cylinder carried by the door and operating in the sleeve, a lever, a member pivotally connected with an arm of said lever and having a circular recess receiving the lower end of the cylinder, and anti-friction members in said recess.

3. A swinging door supported for vertical movement by means including a bearing sleeve and a spirally grooved cylinder carried by the door and operating in said sleeve, a lever, one arm of which supports the cylinder and the other arm of which has an eye, and a keeper on which said eye is guided.

4. A swinging door supported for vertical movement by means including a bearing sleeve, a spirally grooved cylinder operating therein and carried by the door, a lever, one arm of which supports the spirally grooved cylinder and the other arm of which has a raised portion carrying a roller, operating boards, and a hinge connecting said boards and engaging the roller.

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1,089,315. WAISTBAND-LINING FOR TROUSERS. ABRAHAM A. BROWN, New York, N. Y., assignor to A. L. Palmer Co., New York, N. Y., a Corporation. Filed June 24, 1913. Serial No. 775,469. (Cl. 2—142.)



1. A trouser band lining comprising a stiffening strip and a lacking or facing strip completely covering the face of the stiffening strip, the lining strip having its lower edge turned under the corresponding edge of the stiffening strip and its other edge free from and extending beyond the opposite edge of the stiffening strip to form an extension adapted to be sewed to the trousers, and a hanging plait provided in the lining strip midway of its edges and adapted to fold over and cover a row of stitching passing through the lining and stiffening strips and trousers.

2. The combination of a waist portion of a pair of trousers, a lining strip having one edge secured to the trousers and turned inwardly, a stiffening strip disposed under the lining strip and completely covered thereby and having its lower edge enveloped by the lining strip, and a horizontal row of stitching passing through the lining substantially midway between its upper and lower edges and through the trousers, said lining strip being formed with a longitudinal flap or plait integral therewith and hanging down over the said stitching to cover the same.

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1,089,316. FOLDING PASTEBOARD TRAY. HENRY J. BRUGGEMAN, Sioux City, Iowa. Filed May 17, 1913. Serial No. 768,385. (Cl. 229—21.)



1. A tray comprising a bottom, a multipart rim extending from the body portion and having integral portions formed on the ends of the parts and extending inwardly of the tray, and parting strips held by said inwardly extending members.

2. A tray comprising a body portion, a multipart rim extending from the body portion, adjacent ends of adjacent parts of the rim meeting and extending inwardly of the tray, and parting strips held by the ends of said parts.

3. A tray comprising a body portion, a rim, tabs formed on the rim extending inwardly of the tray, parting strips held by said inwardly extending tabs, and means integral with the body portion adapted to lock said tabs against the parting strips.



4. A tray comprising a body portion, a multipart rim extending therefrom, the ends of the parts of the rim lying adjacent to one another, and means integral with the body portion adapted to fit over adjacent parts of the rim, and adapted to engage the ends of said parts for locking the same.

5. A tray comprising a body portion, rim flaps extending upwardly from said body portion, and having inwardly extending ends provided with slits, flaps extending from the body portion and having tongues extending therefrom, said flaps adapted to extend over the ends of the rim flaps and have the tongues engage the slits.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,317. GRATE-BAR. GEORGE E. CAMP, Utica, N. Y., assignor to International Heater Company, New York, N. Y., a Corporation of New York. Filed Aug. 14, 1912. Serial No. 714,956. (Cl. 126—181.)



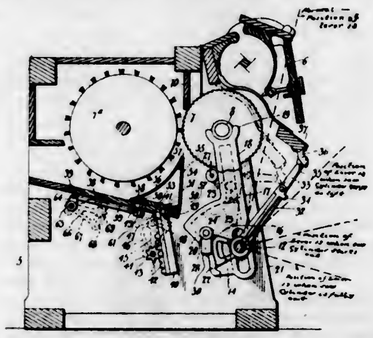
1. In a revolving grate bar a shaft triangular in cross section, journals on said shaft, triangular wings projecting from the surfaces of said shaft and all slanting toward the same end of said shaft and having their outer faces each adapted to form substantially flat fuel-supporting surfaces.

2. In a revolving grate bar a shaft, journals on said shaft, wings projecting from said shaft in series of three extending about said shaft and all slanting toward the same end of said shaft, said wings having their outer faces at an angle to each other and each of said faces forming with the adjacent face of another wing of the same series a substantially flat fuel-supporting surface.

3. In a revolving grate bar a shaft triangular in cross section, journals on said shaft, triangular wings projecting from said shaft in series of three extending about said shaft and all slanting toward the same end of said shaft, each of the outer faces of said wings forming with the adjacent face of another wing of the same series a substantially flat fuel-supporting surface.

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1,089,318. ATTACHMENT FOR LINTING AND DELINTING MACHINES. WARNER H. CAMP, Atlanta, Ga. Filed Oct. 21, 1912. Serial No. 727,031. (Cl. 13—9.)



1. The combination with a machine for operating on cotton and including a saw cylinder, of mechanism for elevating and throwing the saw cylinder outwardly from the machine and conversely for moving the saw cylinder into the machine and lowering it to its applied position, the said mechanism forming a part of the machine equipment.

2. The combination with a machine for operating on seed cotton and including a saw cylinder and a hinged breast, of mechanism forming a part of the equipment of the machine and operative to open and close the breast and to displace and replace the saw cylinder.

3. The combination with a machine for operating on cotton and including a saw cylinder and a hinged breast, of mechanism forming a part of the equipment of the machine and operative to open the breast and elevate and project the saw cylinder exteriorly of the machine.

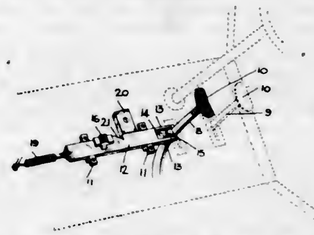
4. The combination with a machine for operating on seed cotton including a saw cylinder, of mechanism forming a part of the equipment of the machine and disposed to engage the shaft extremities of the cylinder to vertically move and swing the said cylinder outwardly and inwardly from and into the machine.

5. The combination with a machine for operating on cotton including a saw cylinder, of mechanism forming a part of the equipment of the machine and disposed to engage the under portion of opposite extremities of the cylinder and to elevate and depress the latter and also to move the said cylinder outwardly and inwardly relatively to the machine, the said mechanism embodying automatic locking and releasing means to regulate the vertical movement thereof.

[Claims 6 to 18 not printed in the Gazette.]

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1,089,319. LOCK FOR AUTOMOBILES. JOHN ALPHUS CAMPBELL, Carbondale, Ill. Filed May 21, 1912. Serial No. 698,742. (Cl. 70—90.)



1. In combination with a member to be locked, a stationary support, guide members on the stationary support, a horizontal bar having arms spaced apart and extending from an end of the horizontal bar, the arms being normally disposed at opposite sides of the member, a flange at the end of the horizontal bar extending in the direction of the member, a flange on the member extending in the direction of the first-mentioned flange, and a spring for holding the horizontal bar with the first flange out of engagement with the second flange.

2. In combination with a member to be locked, a stationary support, a bar having arms spaced apart and extending from an end of the bar, the arms being normally disposed at opposite sides of the member, a flange at the end of the bar, extending in the direction of the member, a flange on the member extending in the direction of the first-mentioned flange, a spring for holding the bar with the first flange out of engagement with the second flange, and a lock having a bolt for engaging the bar for holding the bar and the first flange in a predetermined position relatively to the member and the second flange.

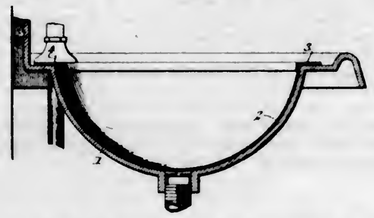
3. In combination with a member to be locked, a flange on the member, a stationary support, having an opening, a slot and a second opening, the member to be locked being disposed in the first-mentioned opening, guide members on the stationary support, a bar disposed on the guide members and having a lug disposed for moving in the slot, the bar being adapted to engage the projection on the first member to secure the first member, a lock secured to the under side of the stationary support, and provided with a key hole disposed in the second-mentioned

opening in the stationary support, and a bolt in the lock for engaging the bar to secure the bar relatively to the stationary support.

4. In combination with a member to be locked, a stationary support with an opening, a slot and a second opening, the member to be locked being disposed in one of the openings, and being provided with a projection, guide members on the stationary support, a bar disposed in the guide members and having a lug disposed for moving in the slot, a flange on the bar, the flange and the stationary support at the first-mentioned opening being adapted to be disposed one at each side of the projection on the first member for securing the first member, a lock secured to the under side of the stationary support, and provided with a key hole disposed in the second-mentioned member of the stationary support, and a bolt on the lock for engaging the bar to secure the bar relatively to the stationary support.

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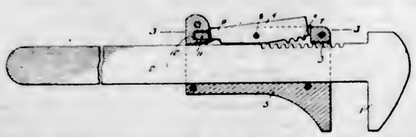
1,089,320. SANITARY WASHBASIN. FREDERICK W. CARLSON, Helena, Mont. Filed Aug. 21, 1912. Serial No. 716,254. (Cl. 4—1.)



As an article of manufacture, an auxiliary basin or lining for lavatory basins constructed of light destructible material, comprising a foldable bowl-shaped member which is adapted to be forced against the inner wall of the lavatory basin when water is delivered to within the said destructible basin, the said basin including a reinforced rim which is adapted to rest upon the top member of the lavatory basin, the said destructible auxiliary basin having therein a severing cord which extends from approximately the center of the basin to and through the upper edge thereof and adapted when a pull is exerted thereon in the direction of the longitudinal axis of the said destructible basin to split the basin to allow the water to flow therefrom to within the basin proper.

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1,089,321. WRENCH. WILLIAM CARMAN, Ellenville, N. Y., assignor of one-half to Albert J. L. Wolf, Ellenville, N. Y. Filed Apr. 12, 1913. Serial No. 760,622. (Cl. 81—140.)



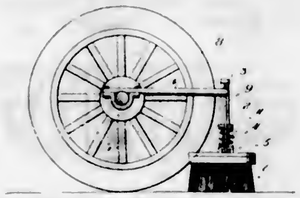
1. A wrench comprising a fixed jaw-carrying shank, a movable jaw on the shank, a pawl on the movable jaw, a key movable transversely of the movable jaw to and from pawl-locking position, and a spring on the movable jaw and engaging the key for normally holding the latter in operative position under the pawl, said key having a portion adapted to engage the pawl when the key is in inoperative position, whereby the pawl holds the key in such inoperative position against the tension of the said spring.

2. A wrench comprising a fixed jaw-carrying shank, a movable jaw on the shank, a pawl on the movable jaw, a key slidable transversely of the movable jaw into and out of engagement with the pawl, and a spring mounted on the movable jaw and hingedly connected with the key and normally holding the key in locking position with respect to the pawl.

3. A wrench comprising a fixed jaw-carrying shank, a movable jaw on the shank, a pawl on the movable jaw, a key movable transversely of the movable jaw into and out of engagement with the pawl, and a spring mounted on the movable jaw and hingedly connected with the key and normally holding the key in locking position with respect to the pawl, said spring having its free extremity extending upwardly above the jaw to form a thumb or finger piece.

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1,089,322. CLEARER ATTACHMENT FOR VEHICLES. ANGELO CARREIRO, Fall River, Mass. Filed May 13, 1913. Serial No. 767,315. (Cl. 208—151.)

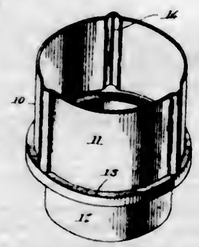


1. In means of the character specified for the purpose described the combination with a vehicle wheel and a supporting axle therefor, an arm secured to the axle and provided with a sleeve, a clearer arranged in front of the wheel and in contact with the surface to remove objects therefrom in the path of the wheel, a main rod extending vertically from the clearer and passing through the sleeve of the before mentioned arm, a guide rod secured at its lower end to the clearer and extending upwardly parallel with the main rod and passing through the before mentioned arm, means connecting the upper ends of the two rods, and a spring interposed between the sleeve and clearer and yieldably holding the latter in engagement with the surface of the road.

2. In combination with a vehicle wheel and axle, a supporting arm connected with the axle and provided with a sleeve, a clearer arranged in advance of the vehicle wheel and in contact with the road surface, a main rod adjustably connected at its lower end with the clearer and passing through the sleeve of the supporting arm, guide rods at the sides of the main rod extending parallel therewith, one of said guide rods passing through an opening of the supporting arm, a cross piece connecting the upper ends of the main and guide rods, and an expansible helical spring mounted upon the lower portion of the main rod and confined between the lower end of the sleeve of the clearer.

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1,089,323. VAULT-LIGHT CONSTRUCTION. ALEXANDER CHAMBLEY, Philadelphia, Pa. Filed May 9, 1913. Serial No. 766,626. (Cl. 94—7.)

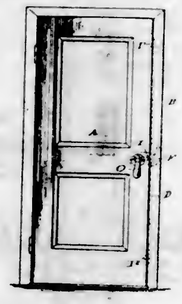


1. In a vault light construction, the combination with a casing adapted to be supported on a base and consisting of an upper section and a lower reduced section, an annular flange between the sections and providing an annular recess and a seat, vertical channels in the upper section, a vault light body for insertion in the said casing, lugs on the vault light body and adapted to register with the said channels when the said body is inserted in the casing, the said vault light body being adapted to be rotated on the casing when the lugs are received in the recess formed by the said annular flange, to move the lugs out of alinement with the channels in the upper section, and a plastic material adapted to be poured between the said casing and the said body after the body has been inserted in the casing to rigidly secure the body in the said casing.

2. In a vault light construction, the combination with a casing having vertical channels and a recess in which the vertical channels terminate, of a vault light body for insertion in the casing, and lugs on the vault light body and adapted to aline with the channels when the vault light body is inserted in the casing, the said vault light body being adapted to be rotated after insertion in the casing and when the said lugs are received in the said recess, to move the lugs out of alinement with the channel and lock the said body in the said casing.

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1,089,324. MORTISE LATCH AND LOCK. ARTHUR C. CHESLEY, New York, N. Y. Filed Nov. 3, 1913. Serial No. 798,882. (Cl. 70—51.)



1. A mortise latch and lock, comprising a bar hinged in the door casing and provided with a series of latches, keepers held on the door and adapted to engage the said latches, and a manually-controlled bolt mounted on the door and adapted to pass through one of the said keepers to engage the corresponding latch.

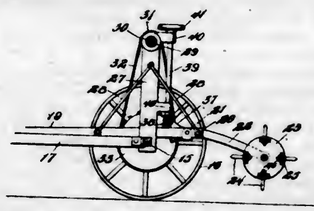
2. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, and means for normally holding the said latch bar in closed position.

3. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, and a weighted lever pivoted in the door jamb and bearing against the inner face of the said latch bar.

4. A mortise latch and lock for doors, comprising a bar fixed to the inside of the door jamb, a latch bar within the door jamb and hinged to the said fixed bar, a series of latches fixed on the said latch bar, keepers held in the door and adapted to be engaged by the said bar latches, a manually-controlled bolt in the door casing and adapted to engage one of the said latches, the said bolt being provided with a rack, a spindle held in the door and provided at its ends with handles, a pinion on the said spindle and in mesh with the said rack, and means for normally holding the said latch bar in closed position.

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1,089,325. SOIL-PULVERIZER. LEWIS CHESSER, Wilson, Wash. Filed Sept. 3, 1913. Serial No. 787,974. (Cl. 55—85.)

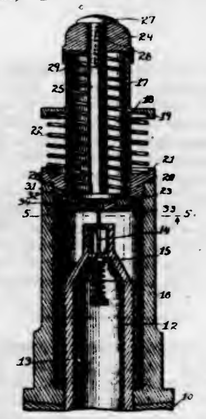


1. In a machine of the class described, an axle having ground wheels, brackets extending rearwardly from the axle, cylinder carrying arms hinged upon and supported by the brackets, rack segments at the front ends of the arms, said segments being positioned adjacent to the side faces of the brackets, and worms engaging the rack segments, the brackets being extended rearwardly in the path of the cylinder carrying arms to limit the downward movement thereof.

2. In a machine of the class described, an axle having ground wheels, hingedly supported arms carrying a revoluble pulverizing cylinder and having rack segments at their forward ends, uprights rising from the axle, a bearing sleeve supported on the uprights, a counter shaft supported for rotation in the sleeve, means for transmitting motion from one of the ground wheels to the counter shaft and from the latter to the cylinder, bearings on the uprights, and shafts supported in said bearings and having worms engaging the rack segments, said worm carrying shafts being provided with hand wheels.

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1,089,326. PRESSURE-GAGE. MARVIN LOGAN CHILSON, Webster, S. D. Filed Nov. 25, 1911. Serial No. 662,461. (Cl. 73—111.)



1. In a pressure gage, the combination with a casing for connection with a valve member, of a second casing having slidable connection with the first casing and movable longitudinally therein, means for normally holding the second casing in extended position in the first casing, and a pressure registering device mounted to slide in the second casing, the said second casing being movable in the first mentioned casing to engage and release the valve of the said valve member.

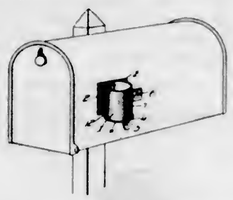
2. In a pressure gage, the combination with a casing for connection with a valve member, of a second casing having slidable connection with the first casing and movable longitudinally therein, a spring for normally holding the second casing in extended position in the first casing, and a spring-engaged graduated pressure registering device slidably mounted in the second casing, the said second casing being movable in the first mentioned casing and against the action of the first mentioned spring to engage and release the valve of the valve member.

3. In a pressure gage, the combination with a casing for connection with a valve member, of a second casing having slidable connection with the first casing and movable longitudinaliy therein, a spring for normally holding the second casing in extended position in the first casing, a cap for the second casing, a pressure registering piston mounted in the second casing and slidably extending through the said cap, and a spring engaging the said cap and the said piston to normally retain the piston in lowermost position within the second casing, the said second casing being movable in the first casing to engage and release the valve of the said valve member.

4. The combination of two members telescoped to form a pressure receiving chamber, one member being adapted for screw connection with a tire valve casing, a spring normally holding the members in extended relation, the second member carrying means to engage and open the tire valve when said member is depressed against the action of the spring, and means also carried by said second member and responsive to the pressure of air admitted to the chamber for indicating the amount of such pressure.

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1,089,327. MAIL-BOX MONEY-HOLDER. ERNEST CLAY, Holdrege, Nebr. Filed Sept. 11, 1912. Serial No. 719,826. (Cl. 133—14.)

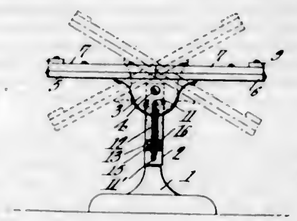


A money holder attachment for mail boxes, comprising a cylindrical receptacle open at the top and bottom, a hinged shutter for closing the bottom of said receptacle, a spring catch on the receptacle for holding the shutter closed, and attaching flanges for fastening the holder to a mail box, the receptacle attaching flanges being formed of a one piece sheet metal blank provided with slits extending inwardly from the opposite edges thereof in spaced relation to each other, the portion of the blank between the slits being rolled into the form of a cylinder, and the opposite end portions of the blank being crossed so as to intersect in line with said slits leaving the portions beyond the slits extending in opposite directions in a common plane.

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1,089,328. DEVICE FOR FACILITATING THE HANDLING OF COIN. STELLA B. COLBY, Detroit, Mich., assignor to Willis H. Colby, Detroit, Mich. Filed Mar. 19, 1913. Serial No. 755,458. (Cl. 133—14.)

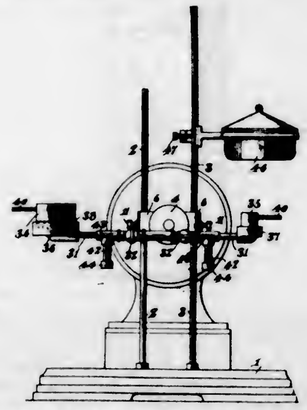
A device of this character, including a base, a rectangular post connected thereto and extending vertically therefrom, a coin receiving and delivering tray substantially hexagonal in shape and provided with oppositely disposed coin outlets, a pair of spaced lugs connected to and depending from the under side of the tray centrally thereof, said lugs straddling the upper end of the post, a pin pivotally connecting the lugs to the post, two springs one connected to each lug below the pivotal point thereof, the lower terminal of the spring being connected to the post, and a single independent means for adjusting each spring connected to the post intermediate the ends of the spring, each of said means, comprising a plate having an elongated slot, a screw fitting in the slot to secure the plate adjustably to the post, and two offset spaced spring re-



ceiving fingers carried by the plate for engaging the spring intermediate its ends and at a point near the lower connection thereof, whereby when the plate is adjusted due to the screw and the slot, the tension of the spring is varied according to the flexing thereof.

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1,089,329. APPARATUS FOR CASTING METALS. JESSE DAVID CONEY, Williamsport, Pa. Filed July 31, 1913. Serial No. 782,329. (Cl. 22—73.)



1. A casting apparatus of the class described including an air compressor having an inlet opening, a suction pipe connection extending from the air inlet opening, an investment holder, means for connecting the investment holder with the suction pipe connection, and a trap depending from the suction pipe connection at a point beyond the vertical plane of the investment holder to cause any molten metal drawn from the investment holder to chill and solidify before reaching the trap, whereby such metal will positively fall into such trap, said investment holder having a base with a relatively thin bottom arranged to permit a heating device to be placed directly beneath it.

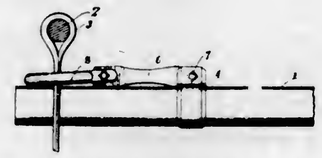
2. A casting apparatus of the class described including a stand, a supporting base, an air compressor or pump having an inlet, a suction pipe connection extending from the air inlet and having an arm located above the base and provided with a valve, an investment holder connected with the said arm and provided with a base having a relatively thin bottom and located above the stand and adapted to permit a heating device to be placed directly beneath it, and a trap depending from the arm at a point beyond the vertical plane of the investment holder so that any metal drawn from the same will be chilled and solidified before reaching the trap and positively caused to fall into the latter.



3. A casting apparatus of the class described comprising a stand having a base, a rotary pump or compressor having air inlet and outlet openings and adjustably supported by the said stand, a suction pipe connection extending from the air inlet opening and provided with a three-way valve and having a plurality of arms or branches located above the said base, each of said arms or branches being provided with a controlling valve, investment holders connected with and carried by the said arms or branches and located beyond the valves thereof, and traps depending from the arms or branches and arranged at points between the investment holders and the valves of the said arms or branches.

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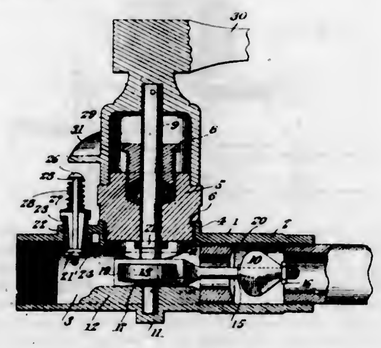
1,089,330. NECK-YOKE SECURER. CHARLES M. CONNOR, Boyd, Minn. Filed July 22, 1913. Serial No. 780,549. (Cl. 21—77.)



A device for securing a neck yoke to a pole comprising a bar pivotally connected with the pole, a loop formed from a single piece of material and having spaced end portions which lie against the opposite sides of the bar, a bolt passing transversely through the ends of the loop and the bar and means for tightening the bolt.

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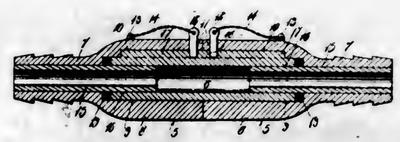
1,089,331. VALVE. HENRY EDWARD COX and HENRY CICERO COX, East St. Louis, Ill. Filed Sept. 12, 1913. Serial No. 789,510. (Cl. 137—4.)



The herein described stop and waste valve comprising a valve casing having a duct extending therethrough and provided with a valve seat in said duct, a waste valve for said duct having an operating rod and a spring, the latter to normally close the waste valve, an operating stem mounted in the valve casing for rotation and extending across the duct, a cam on said operating stem, a main valve to open from and close against the valve seat, a rod attached to said main valve and engaged and operated by the cam of the operating stem, a second cam for coacting with the rod of the waste valve to open the latter against the tension of its spring simultaneously with the closing of the main valve by the first-named cam, a stuffing box for the operating stem secured to the valve casing at one side of the duct, and a housing for the stuffing box attached to and movable with the operating stem and to which housing the second named cam is attached.

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1,089,332. HOSE CONNECTION. RICHARD DE KUYPER, Jr., Hooper, Utah. Filed Apr. 28, 1913. Serial No. 764,184. (Cl. 137—28.)



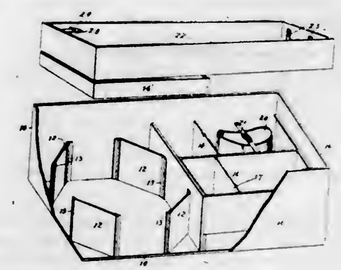
1. A hose coupling consisting of two counterpart and interchangeable outer sections each of which is provided with a cylindrical bore and a rectangular channel merging therewith and a radial bore communicating with the channel, a tubular member extending into each of said cylindrical bores and providing an annular recess in each bore, and a reversible inner coupling member having counterpart end portions which fit within said outer sections and being provided with a notched rib which fits snugly in said channels while its ends are seated in said annular recesses, and fastening means fitted within the radial bores and extending into the notches of said rib.

2. A hose coupling consisting of a pair of counterpart and interchangeable outer sections each comprising a shank and an enlarged centrally bored end portion and having a radial bore communicating with the central bore, a cylindrical bushing fitted snugly in each of the shanks and extending into the central bore to a point between said radial bore and the inner end of said central bore, a cylindrical member having counterpart end portions fitted snugly around the bushings and fitted snugly within the central bores, and fastening means extending through the radial bores and engaged with said cylindrical member.

3. A hose coupling including mating outer members having registering longitudinal inner slots or grooves, an inner coupling member having a longitudinal rib snugly fitting in said grooves, said rib being provided with central notches, and pintles carried on flexible attaching means on said outer members and engageable in the notches formed in said rib.

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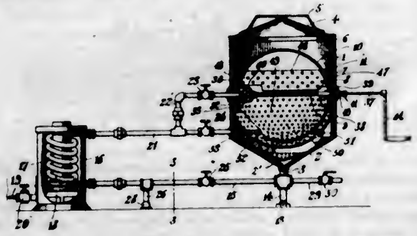
1,089,333. TRUNK. CLARA ROSSER DENNIS, Washington, D. C. Filed May 14, 1910. Serial No. 561,365. (Cl. 190—24.)



1. A trunk having a compartment of rectangular form, and diagonally extending, straight, removable partitions contiguous to each corner of said compartment and reaching between and bearing against walls at right angles to each other, and a removable tray fitting said compartment and resting upon and supported by said removable partitions.

2. A trunk having a compartment of rectangular form, diagonally extending, straight, removable partitions contiguous to each corner of said compartment and reaching between and bearing against walls at right angles to each other, and an invertible tray in the upper part of said compartment and resting upon and supported by said partitions.

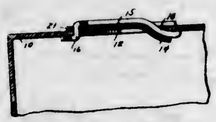
1,089,334. STEAM WASHING-MACHINE. JOSEPH RICHARD DICKERSON, San Augustine, Tex. Filed Apr. 19, 1913. Serial No. 762,293. (Cl. 68—18.)



1. A steam washing machine comprising a boiler, a rotary clothes receptacle mounted in said boiler, a cover for the boiler, a cover for said receptacle, a hollow perforated shaft extending through said receptacle and having the receptacle secured fixedly thereto, a steam supply pipe inserted through the side of the boiler and having a supporting and coupled connection with said hollow perforated shaft, a crank shaft having the end thereof removable through an opening in the opposite side of the boiler and fitted into the opposite end of said tubular shaft, and means detachably connecting said crank shaft and hollow perforated shaft of the clothes receptacle.

2. A steam washing machine comprising a boiler, a rotary perforated clothes receptacle mounted therein, a screen supported within said boiler and beneath said clothes receptacle, a perforated tubular shaft extending through said receptacle and terminally connected thereto, a steam supply pipe leading into the boiler between the clothes receptacle and the underlying screen, a branch pipe leading from said steam supply pipe into the tubular shaft of the receptacle and forming a support for said shaft, means for revolving said receptacle, valves independently controlling said steam supply and branch pipes whereby the steam may be directed into the boiler either at one point or another separately or simultaneously at both points, and an exhaust pipe leading off from the bottom of said boiler.

1,089,335. HOLE-CLOSURE. DANIEL J. DIEL, Jersey City, N. J. Filed Mar. 29, 1913. Serial No. 757,553. (Cl. 247—7.)



1. The herein described hole closure comprising a plate larger than the hole, said plate being formed with a pair of oppositely arranged inwardly projecting lugs adapted to substantially engage the edge of the rim of the hole to limit the sliding movement of the plate at right angles to the line joining said lugs, the plate also being provided with an inwardly extending tongue, the free end of which is adapted to engage beneath said rim, and a bendable key coöperating with the outer surface of the plate and tongue and engaging within the structure having the hole serving to prevent displacement of the plate.

2. The herein described closure for a hole, the same comprising a plate larger than the hole, said plate having parts bent inwardly for coöperation with the rim of the hole, and a key spanning the outer surface of the plate and having at one end a hook serving to grip one portion of the plate to the rim of the hole and said key at the other end having a tongue adapted to be forced into interlocking coöperation with the hole rim, securing to the hole rim the portion of the plate opposite said gripped portion.

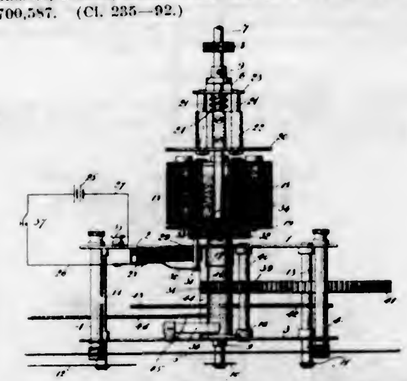
3. The herein described hole closure comprising a plate adapted to be applied over said hole, said plate being formed with a plurality of inwardly extending projections coöperating with the hole rim, one of said projections extending beneath the rim, and a key, said key including a hook at one end adapted to engage the inner surface of the hole rim, and a bar adjacent said hook adapted to lie snugly against the outside of the plate, and a tongue at the other end of the key adapted to be forced inwardly between the hole rim and the plate projection extending therebeneath.

4. The herein described hole closure comprising a substantially flat plate larger than the hole to be closed, said plate having formed therein a pair of integral studs projecting inwardly from the margin of the plate in to cooperation with the edge of the hole rim, said plate also having an integral tongue extending inwardly beneath the hole rim, there being formed in the plate opposite the tongue a seat, and a key spanning the outside of the plate and having its ends extending beneath and interlocking with the rim of the hole, one of said ends being extended through said seat and the other end being forced between said plate tongue and the hole rim.

5. In a hole closure, the combination of a plate having integral parts adapted to coöperate with and limit the extent of movement of the plate upon a hole rim, and a locking key connected permanently with said plate, spanning the outside thereof and having its ends adapted to interlock with the under surface of said rim.

[Claim 6 not printed in the Gazette.]

1,089,336. INDICATOR FOR MEASURING OR WEIGHING MACHINES AND DEVICES. THOMAS W. FITZGERALD, Boston, Mass. Filed May 31, 1912. Serial No. 700,587. (Cl. 235—92.)



1. In an indicator, the combination with a frame, of a primary indicating mechanism having a rotary spindle, a secondary indicating mechanism having a rotary shaft independent of said spindle, means for coupling said spindle and shaft together whereby they may rotate in unison, said means comprising an electro-magnetic device having separate members consisting of a magnet and armature carried respectively by said spindle and shaft to rotate therewith, means for maintaining said members in a disengaging position and where they may have an engaging position and become coupled together upon energizing said magnet, and means for controlling said magnet.

2. In an indicator, the combination with a frame, of a primary indicating mechanism having a rotary spindle, a secondary indicating mechanism having a rotary shaft independent of said spindle, means for coupling said spindle and shaft whereby they may be connected to rotate in unison, the same comprising an electro-magnetic device having a magnet and armature carried respectively by said spindle and shaft, means for yieldingly retaining said armature in a position removed from said magnet and where it may be attracted to and held by it, and means for controlling said magnet.

3. In an indicator, the combination with a frame, of a primary indicating mechanism having a rotary spindle, a secondary indicating mechanism having a rotary shaft, an electro-magnet carried by said spindle to rotate therewith, an armature for said magnet carried by said shaft to rotate therewith, means for yieldingly retaining said armature in a position removed from said magnet where it may be attracted by it, and means for controlling said magnet to attract said armature by the completion of an electric circuit.

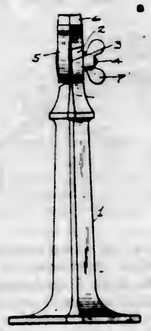
4. In an indicator, the combination with a frame, of a primary indicating mechanism having a rotary spindle, a secondary indicating mechanism having a rotary shaft concentric with said spindle but independent thereof, and an electrically-controlled clutch-forming mechanism for coupling said shaft and spindle to rotate in unison, the same having a magnet and armature carried respectively by said spindle and shaft to rotate therewith, and means for controlling said magnet and armature to have engagement or disengagement with one another by the making or breaking of an electric circuit.

5. In an indicator, the combination with a frame, of a primary indicating mechanism having a rotary spindle, a secondary indicating mechanism having a rotary shaft, an electrically-controlled friction clutch-forming mechanism having parts carried respectively by said shaft and spindle to rotate therewith, and means for controlling the parts of said clutch-forming mechanism to have engagement or disengagement with respect to one another dependent upon the making or breaking of an electric circuit.

[Claims 6 and 7 not printed in the Gazette.]



1,089,337. ADJUSTABLE BRACKET. WALLACE S. GRAHAM, Lancaster, Ohio, assignor to The Lancaster Glass Company, Lancaster, Ohio, a Corporation of Ohio. Filed Sept. 5, 1913. Serial No. 788,309. (Cl. 248—19.)

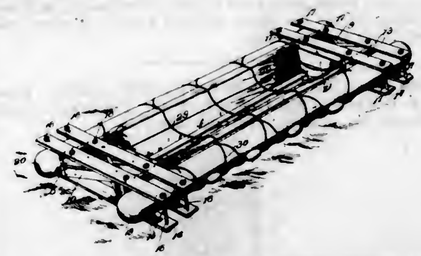


1. In a bracket, the combination of a support, a disk of fragile material attached to said support and having one face roughened, an arm, a second disk also of fragile material attached to said arm and having one roughened face, a disk of readily compressible material interposed between such serrated faces of said first-named disks, and means adapted to detachably clamp said two first-named disks in engagement.

2. In a bracket, the combination of a support, a disk of fragile material attached to said support and having one serrated face, an arm, a second disk also of fragile material attached to said arm and having one serrated face, a disk of readily compressible material interposed between such serrated faces of said two first-named disks, and means adapted to detachably clamp said two first-named disks in engagement.

3. In a bracket, the combination of a support, a disk of fragile material attached to said support and having one serrated face, an arm, a second disk also of fragile material attached to said arm and having one serrated face, a disk of readily compressible material interposed between such serrated faces of said two first named disks, said two fragile disks having central apertures, a bolt engaging in such apertures, a nut adapted to engage on said bolt against one of said disks, and other disks of readily compressible material interposed between said nut and the adjacent disk and between the head of said bolt and the adjacent disk.

1,089,338. LIFE-RAFT. ERNEST R. GREENE, Hanover, N. H. Filed Sept. 10, 1913. Serial No. 789,099. (Cl. 9—11.)



1. In a life raft, a framework, a buoyant member carried by said framework, a continuous flexibly mounted piece of waterproof material secured to said framework, and a waterproof body portion or hull secured to said piece on a line between its top and bottom.

2. In a life raft, a framework composed of two spaced longitudinal strips, transverse strips secured at the ends of said longitudinal strips, a continuous piece of waterproof material arranged over the inner faces of said longitudinal strips, and a hull or body portion of water-proof material secured to said piece on a line between its top and bottom.

3. In a life raft, a framework composed of two spaced longitudinal strips, transverse strips secured at the ends of said longitudinal strips, a continuous piece of waterproof material arranged over the inner faces of said longitudinal strips, and a hull or body portion of water-proof material secured to said piece on a line between the top and bottom of said longitudinal strips.

4. In a life raft, a framework composed of two spaced longitudinal strips, transverse strips secured at the ends of said longitudinal strips, a continuous piece of waterproof material arranged over the inner faces of said longitudinal strips, a hull or body portion of water-proof material secured to said piece on a line between the top and bottom of said longitudinal strips, and ropes carried by said framework and passing under said hull or body.

5. In a life raft, a framework composed of two spaced longitudinal strips, transverse strips secured at the ends of said longitudinal strips, a continuous piece of waterproof material arranged over the inner faces of said longitudinal strips, a hull or body portion of water-proof material secured to said piece on a line between the top and bottom of said longitudinal strips, and two sets of ropes, one passing under and the other over said hull or body portion.

[Claims 6 to 17 not printed in the Gazette.]

1,089,339. METHOD OF CLOSING TUBULAR BODIES. FRANK HEGEWALD, Irvington, N. J., assignor to Krements & Company, a Copartnership consisting of George K. Krements and Julius A. Lebkuecher, Newark, N. J. Filed Mar. 31, 1913. Serial No. 757,797. (Cl. 79—3.)



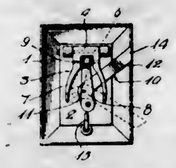
1. The herein described method of closing the opening in a tube having a flange at one end consisting of rotating

the tube and flange, bringing pressure to bear from the outside of the flange inwardly to cause an upstanding wave of metal at the center, and then forcing said wave of metal into and across the open ended tube.

2. The herein described method of closing the open end of a tubular shank provided with a flange consisting of rotating the shank and flange in a suitable die, the flange being a distance away from the face of the die, then applying a tool from the outer end of the flange inwardly to force said flange down upon the face, then moving said tool radially toward the center to force a wave of metal into and across the open hole.

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1,089,340. CHAIN-CLASP OR SAFETY-CATCH. DANA E. HEMPHILL, Salt Lake City, Utah. Filed Dec. 2, 1912. Serial No. 734,602. (Cl. 24—250.)



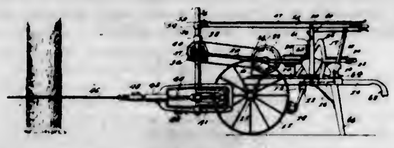
1. An article attaching device comprising a plate, a head pivotally mounted on said plate and having an inwardly curved penetrating prong, a link pivotally connected with said prong adjacent the base thereof, a bell crank lever fulcrumed in alinement with the pivoted end of said link, the free end of said link being pivotally connected with one arm of said lever and the free end of the other arm of said lever being beveled transversely to position it flush with the outer edge of said plate when the lever is in closed or operative position, said end being thus disposed in convenient position for actuation.

2. An article attaching device comprising a plate, a forked holding member pivoted on said plate and having its arms inwardly curved and the free ends thereof pointed to form penetrating prongs, a link having one end offset in a direction opposite to the curvature of said arms and pivotally mounted between said arms near the base thereof, a bell crank lever fulcrumed on said plate in alinement with the center of said holding member, one arm of said lever being pivotally connected with the free end of said link.

3. An article attaching device comprising a plate having a hollow rear face, a head pivotally mounted on said hollow rear face and having inwardly curved penetrating prongs spaced laterally apart, a link pivotally mounted between said prongs, a bell crank lever fulcrumed in alinement with the pivoted end of said link, the free end of said link being pivotally connected with the short arm of said lever and the free end of the long arm of said lever being offset to position its terminal at the outer edge of said plate in convenient position for actuation.

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1,089,341. TREE-SAWING MACHINE. JOHN JACK, Jr., Jack, Mo. Filed Mar. 18, 1913. Serial No. 755,199. (Cl. 143—68.)

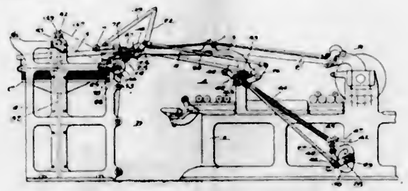


1. A portable reciprocating sawing machine comprising a frame, a motor supported upon said frame and having a horizontal driving shaft, a yoke fulcrumed upon said shaft, a driven shaft journaled in said yoke, a rocking frame supported upon said driven shaft for rocking in a vertical plane, connections between the driving and driven shafts, a crank shaft vertically journaled in the rocking frame, a guide frame supported by said crank shaft, a guide rod mounted in said guide frame and having connection with the crank shaft for operation thereby, a saw blade connected with the outer end of said guide rod and adjustable about a longitudinal axis, means for adjusting the rocking frame, means for adjusting the yoke, means for swinging the guide frame, and reversing connections between the last-named means and the driven shaft.

2. A portable reciprocating sawing machine comprising a frame, a motor supported upon said frame and having a horizontal driving shaft, a yoke fulcrumed upon said shaft, a driven shaft journaled in said yoke, a rocking frame supported upon said driven shaft for rocking in a vertical plane, connections between the driving and driven shafts, a crank shaft vertically journaled in the rocking frame, a guide frame supported by said crank shaft, a guide rod mounted in said guide frame and having connection with the crank shaft for operation thereby, a saw blade connected with the outer end of said guide rod and adjustable about a longitudinal axis, means for adjusting the rocking frame, means for adjusting the yoke, and means for swinging the guide frame, reversing connections between the last-named means and the driven shaft, said means for swinging the guide frame being mounted on the rocking frame.

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1,089,342. PILING-TABLE FOR PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill., assignor of one-half to Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 7, 1904, Serial No. 196,890. Divided and this application filed Oct. 19, 1905, Serial No. 283,376. Renewed Jan. 15, 1914. Serial No. 812,207. (Cl. 101—34.)



1. A piling table of the class described comprising a table proper arranged to move from an overhead position to a position near the floor, a horizontal rocker-shaft arranged out of the path of movement of the table and operatively connected therewith for lowering the same, a counter-shaft adjacent the said rocker-shaft and lengthwise thereof, and means operatively connecting said counter-shaft with the rocker-shaft for operating the former.

2. A piling table of the class described comprising a table proper arranged to move from an overhead position to a position near the floor, a horizontal rocker-shaft arranged out of the path of movement of the table and operatively connected therewith for lowering the same, a counter-shaft adjacent the said rocker-shaft and lengthwise thereof, means operatively connecting the said counter-shaft with the rocker-shaft for operating the former, and additional means for lowering the said table at will.

3. A piling table of the class described, comprising a sheet receiving surface situated in an overhead position, mechanism for lowering said surface embodying a horizontal shaft arranged in an overhead position and to one side and out of the path of movement of the said surface, said mechanism also embodying connecting means between the said surface and the shaft, and mechanism for imparting motion to the shaft.

4. A piling table of the class described comprising a sheet receiving surface situated in an overhead position, mechanism for lowering said surface embodying a shaft arranged to one side and out of the path of movement of the said surface, said mechanism also embodying connecting means between the said surface and the shaft, mechanism for imparting motion to the shaft, and a hand crank connected with the shaft for raising and lowering said surface at will.

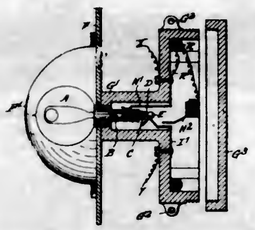
5. In combination, a vertically movable piling table, mechanism for moving said piling table in a vertical direction and embodying upright screws operatively connected with the table, sprocket wheels operatively connected with the screws for imparting motion thereto, a shaft arranged to one side of the plane of movement of the said table, sprocket wheels connected with the shaft for movement therewith, sprocket chains engaging the respective sprocket wheels connected with the screws and shaft, and means for operating the shaft.

[Claims 6 and 7 not printed in the Gazette.]



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1,089,343. SOCKET STRUCTURE FOR ELECTRIC INCANDESCENT LAMPS. JAMES PRIESTNALL NAYLOR, London, England. Filed Jan. 10, 1914. Serial No. 811,386. (Cl. 173—338.)



1. In a socket structure for incandescent lamps, the combination of a pair of lamp-engaging contacts, a third contact arranged to engage one of said lamp-engaging contacts when a lamp is absent and to be disengaged therefrom on insertion of a lamp, and an electrical connection between said third contact and the other lamp-engaging contact.

2. In a socket structure for incandescent lamps, the combination of a pair of lamp-engaging contacts, a third contact arranged to engage one of said lamp-engaging contacts when a lamp is absent and to be disengaged therefrom on insertion of a lamp, and a resistance between said third contact and the other lamp-engaging contact, said resistance substantially equal to the resistance of a lamp filament normally inserted in said socket.

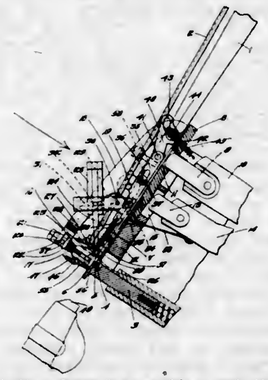
3. In a socket structure for incandescent lamps, the combination of a pair of lamp-engaging contacts, a circuit connection between the contacts including a resistance equal to that of a lamp, and circuit-closing means in said circuit connection operable by the lamp to open the circuit by insertion of the lamp and closing the same when the lamp is removed.

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1,089,344. BUTTON-FASTENING MACHINE. GEORGE W. PERKINS, Boston, Mass., assignor to Heaton Peninsular Button Fastener Company, Boston, Mass., a Corporation of Maine. Filed July 1, 1912. Serial No. 706,009. (Cl. 218—8.)

1. In a button fastening machine, a button raceway, a push member reciprocable in a path at an angle to the path of movement of the buttons in the raceway, the paths of movement of the push member and of the buttons being in the same plane and intersecting each other, means for actuating the push member whereby it engages one of the buttons in the raceway and positions it for receiving a fastener wire, means for clamping the button in its position to receive the fastener wire, means for moving the button and attached fastener, and means whereby the movements of the push member and clamp are controlled by the mechanism which moves the button and attached fastener.

2. In a button fastening machine, a button raceway, means for pushing the lowermost button out of the raceway into position for receiving a fastener, and means for clamping the button in its position for the fastener, the raceway being formed with an undulation near its lower end to support the button which is engaged by the push member at a higher elevation than the next following button.



3. In a button fastening machine, a button raceway, a reciprocable push member for pushing a button out of the raceway into position to receive a fastener wire, a reciprocable member which forms the fastener, and means controlled by the said reciprocable fastener mechanism on its forward movement which retracts the said push member, said fastener forming mechanism on its forward movement forming the fastener for a previously positioned button, and on its retrograde movement actuating the push member to eject another button from the raceway and to position it for a fastener.

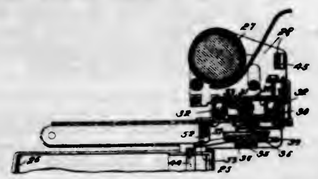
4. In a button fastening machine of the character described, a reciprocable member which forms a fastener out of a wire, a button raceway, a push member for pushing a button out of the raceway into position to receive a fastener wire, means whereby the button is clamped in its placed position for the wire, and means whereby the reciprocable fastener forming mechanism controls the movements of the push member and of the clamp.

5. In a button fastening machine, a button raceway, a reciprocable push member mounted over the raceway and movable in a path at an angle to the path of movement of the buttons in the raceway, a pivoted lever connected with said push member, a reciprocable slide member connected with said lever whereby said lever is rocked on its fulcrum, a reciprocable former which forms a wire for a fastener, and mechanism connected with the lever rocking slide which is actuated by the movement of the reciprocable former whereby the rocking lever and push member are actuated to push a button out of the raceway.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,345. TYPE-WRITING MACHINE. OTTO PETERMANN, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company, a Corporation of New York. Filed June 12, 1909. Serial No. 501,852. (Cl. 197—109.)



1. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, an escapement mechanism having a lever carrying the es-

capement dogs, a bar having a relative rocking movement only mounted on said carriage, a device adjustably held to said bar and pendent therefrom, a lever pivotally held to the support and having one end provided with two spaced engaging parts arranged in the path of movement of said device and having its other end adapted to be moved into the path of movement of the dog carrying lever of the escapement mechanism and adapted to directly engage said latter lever and hold the same against movement when either of said engaging parts are engaged by said device, and means for releasing the device from engagement with the lever whereby the escapement mechanism may be locked at two distinct points.

2. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, an escapement mechanism having a lever carrying the escapement dogs, a horizontally arranged bar having a rocking movement and mounted on said carriage, a device held to said bar and pendent therefrom, a horizontally arranged lever pivotally held to the support and having one end provided with a plurality of engaging parts arranged in the path of movement of said device and having its other end adapted to be moved into the path of movement of the dog-carrying lever of the escapement mechanism and adapted to directly engage said latter lever and hold the same against movement when said engaging parts are engaged by said device, and means for releasing the device from engagement with the lever whereby the escapement mechanism may be locked at distinct points.

3. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, an escapement mechanism having a lever carrying the escapement dogs, a bar having a rocking movement and mounted on said carriage, a device held to said bar and pendent therefrom, a lever pivotally held to the support and having one end provided with spaced engaging parts arranged in the path of movement of said device and having its other end adapted to be moved into the path of movement of the dog-carrying lever of the escapement mechanism and adapted to directly engage said latter lever and hold the same against movement when said engaging parts are engaged by said device, and a finger lever for rocking the bar and releasing the device from engagement with the lever to lock the escapement mechanism at distinct points.

4. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, an escapement mechanism having a lever, a horizontally arranged bar having a relative rocking movement and mounted on said carriage, a device held to said bar and pendent therefrom, a spring tending normally to rock the bar in one direction, a finger lever for rocking the bar in the opposite direction, and a lever pivotally held to the support and having one end adapted to be engaged by said device and having its other end adapted to be moved into the path of movement of the escapement lever and adapted to engage directly said latter lever and hold the same against movement.

5. In a typewriting machine, the combination of a support, a carriage adapted to travel along said support, an escapement mechanism having a lever, a horizontally arranged toothed bar mounted on said carriage, a device adjustably held to said bar and pendent therefrom, and a lever pivotally held to the support and having one end arranged in the path of movement of said device and having its other end adapted to be moved into the path of movement of the escapement lever and to directly engage said latter lever and hold the same against movement.

[Claims 6 to 14 not printed in the Gazette.]

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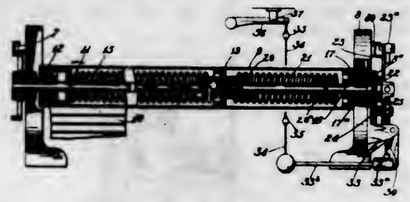
1,089,346. PROCESS OF MANUFACTURING FILTERING MATERIAL. FRITZ POTT, Friedenau, near Berlin, Germany. Filed Aug. 16, 1913. Serial No. 785,174. (Cl. 210—9.)

1. A process of making a filtering material, consisting in impregnating a porous mineral substance with a solution of albuminoids, in drying the same, in thereupon highly heating the same while excluding the air therefrom, and in washing the same, and in then loading the treated mineral substance with a deposit of an hydroxid of a metal mixed with calcium carbonate.

2. A process of making a filtering material, consisting in impregnating a porous mineral substance with a solution of albuminoids, in drying the same, in thereupon highly heating the same while excluding the air therefrom, and in washing the same, and in then loading the treated mineral substance with a deposit of iron mixed with calcium carbonate.

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1,089,347. AUTOMATIC FIRE-SHUTTER. ALBERT RUSH, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed July 1, 1912. Serial No. 706,851. (Cl. 189—58.)



1. In a fire shutter, in combination, a rotary shutter-receiving member and a shutter thereon, a tension member for balancing the shutter for normal operation, a tension member for impelling the shutter to opening-closing position, a gear connected with the shutter-receiving member, a shaft engaging the second named tension member, a gear and ratchet carried by said shaft, said gear being in permanent mesh with the first mentioned gear, a pawl also carried by said shaft adapted when released to engage said ratchet and lock the said gears from rotation with reference to each other, and releasable means for holding said pawl disengaged from said ratchet and said shaft from rotation.

2. In a fire shutter, in combination, a rotary shutter-receiving member and shutter thereon, a tension member for balancing the shutter for normal operation, a normally inoperative tension member for impelling the shutter to opening closing position, and means actuated by movement of the shutter releasing the tension of the said last named tensioned member after the performance of its function.

3. In a fire shutter, in combination, a rotary shutter-receiving member and shutter thereon, a tension member for balancing the shutter for normal operation, a normally inoperative tensioned member for impelling the shutter to opening closing position, and means operative by raising the shutter to release the tensioned member after the performance of the shutter closing operation by said tensioned member.

4. In a fire shutter, in combination, a rotary shutter-receiving member and a shutter thereon, a tension member for balancing the shutter for normal operation, a tension member for impelling the shutter to opening-closing position, a gear connected with the shutter-receiving member, a shaft engaging the second named tension member, a gear and ratchet carried by said shaft, said gear being in permanent mesh with the first mentioned gear, a pawl also carried by said shaft adapted when released to engage said ratchet and lock the said gears from rotation with reference to each other, and releasable means for holding said pawl disengaged from said ratchet and said shaft from rotation, and means for releasing the tension of the second named tension member after the performance of its function.

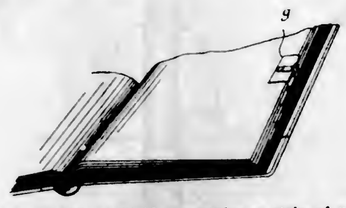
5. In a fire shutter, in combination, a barrel having a head or plug provided with an extension beyond the barrel, said head or plug and extension being axially perforated, a shaft extending through said perforation into the barrel, a tension member within the barrel and connected with the shaft for impelling the shutter to opening-closing position, a clutch mechanism associated with the shaft and barrel on the exterior of the barrel, and operating on said plug extension, and thermally controlled means for normally holding said clutch mechanism and the shaft from operation and for releasing the same for operation in case of fire, substantially as described.

[Claim 6 not printed in the Gazette.]



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1,089,348. BOOK MARKER OR INDICATOR. WINIFRED A. RUTTY and JOHN BERTRAM EDWARD, Ilford, England; said Edward assignor to Elizabeth Louisa Rutty. Filed Dec. 27, 1913. Serial No. 809,105. (Cl. 11—12.)



In a bookmark, a shield comprising a strip of material bent upon itself and adapted to embrace an edge of a leaf, a clamping member comprising a head, parallel arms integral with the head and substantially at right angles thereto, said shield adapted to be positioned between the arms of the clamping member with the looped edge engaging the inner side of the head, said arms having curved portions, the portions of the arms adjacent the curved portions adapted to coöperate with the shield in gripping engagement therewith whereby the arms may be adjusted throughout the length of the shield without mutilating the leaf.

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1,089,349. PORTABLE DISPLAY-STAND. WILLIAM SCHWEITZER and HARRY H. LABADIE, Chicago, Ill. Filed Aug. 9, 1913. Serial No. 783,920. (Cl. 211—14.)



1. A display stand including a base and a series of display containers normally superimposed thereon, lazytongs adjacent the opposite ends of said containers, which ends are connected to members of said lazytongs, the lowermost member of each of said tongs being hingedly connected to said base and the next to lowermost members pivotally to said lowermost members, the free ends of the said next to lowermost members being link connected to said base, whereby when said lazytongs are being extended, said tongs and their connected display members are caused to swing around said hinges on said base into a practically perpendicular plane and locked there against collapse.

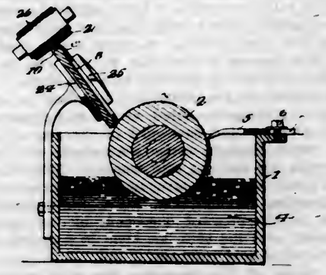
2. A display stand including a base and a series of display containers normally superimposed thereupon, lazytongs connected to each of said containers at the opposite ends thereof, the lowermost members of which lazytongs are hinged to said base, links pivoted to said base and to the next-to-lowermost members of said tongs, whereby when said containers are elevated, toggle locks are formed by said links and next-to-lowermost members, preventing the collapse of said tongs.

3. A display stand including a base and a series of normally, horizontally disposed display containers superimposed thereupon, lazytongs comprising a plurality of pivotally connected members attached to and supporting said containers at the opposite ends thereof, the lowermost members of which lazytongs are hinged to said base, and means connecting the next-to-lowermost members of said tongs and said base, whereby when said tongs are extended, the same and said containers are forced into an essentially vertical plane and locked there against collapse.

4. A display stand including a base and a series of normally, horizontally disposed display containers superimposed thereupon, lazytongs comprising a plurality of pivotally connected members attached to and supporting said containers at the opposite ends thereof, the lowermost members of which lazytongs are provided with depending extensions hinged to said base, next-to-lowermost members of said tongs, said members having right-angled extensions at their free ends, links connecting said extensions and said base, whereby when said tongs and said containers are elevated, toggle locks are formed by said links and said next-to-lowermost members, preventing the collapse of said tongs.

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1,089,350. APPARATUS FOR COATING COVERS. THOMAS LUCIEN TALIAFERRO, Wheeling, W. Va., assignor, by mesne assignments, to Phoenix-Hermetic Company, New York, N. Y., a Corporation of New York. Filed Oct. 23, 1912. Serial No. 727,470. (Cl. 113—80.)



1. An apparatus for applying a coating to covers including a traveling device adapted to carry a layer of coating material, means for supplying a uniform layer of coating material to said traveling device, means for supporting and rotating a cover with its edge in contact with said traveling device and with its surface at an angle to the latter and with said cover in a plane cutting the surface of the traveling device transversely to its direction of movement whereby said cover is caused to scrape said coating material from the traveling device.

2. An apparatus for applying a plastic coating to covers including a traveling device adapted to carry a layer of sealing material, means for supplying a uniform layer of sealing material to said traveling device, means for supporting the cover in a plane cutting the surface of the traveling device at an angle, whereby said cover is caused to scrape the sealing material from the traveling device, and means for turning said cover to present the entire outer circumference thereof to said traveling device.

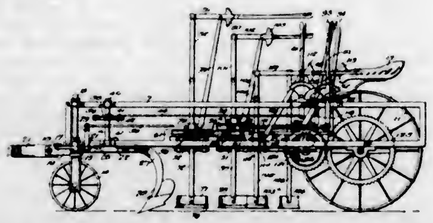
3. An apparatus for applying a plastic coating to covers, including a coating roll, means for supplying said coating roll with a uniform layer of sealing material, means for

supporting the cover in a plane cutting the surface of the coating roll at an angle and in contact therewith, whereby said cover may be caused to scrape the sealing material from said coating roll, and means for turning the cover to present the entire outer circumference thereof to said coating roll.

4. An apparatus for applying a plastic coating to covers including a coating roll, a receptacle for supplying plastic sealing material to said coating roll, a scraper cooperating with said roll for forming a uniform layer of sealing material on said coating roll, a support on which the covers are adapted to rest whereby said covers may be rolled longitudinally of said coating roll and in contact therewith whereby the edges of the covers scrape the coating material from said coating roll, and means for engaging said covers and rolling the same along said support and coating roll.

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1,089,351. AUTOMATIC HOE. ASA THOMPSON, Spartanburg, S. C. Filed Mar. 29, 1913. Serial No. 757,577. (Cl. 97—45.)



1. A device of the character described comprising a framework, a revoluble axle actuated by movements of said framework, a crank shaft, gearing connecting said crank shaft with said axle, cranks carried by said crank shaft, pitmen connected with said cranks, sliding frames carried by said framework, a plate carried by said sliding frame, a bearing sleeve extending vertically through said plate, a hoe stem slidably mounted within said bearing sleeve, and means controllable at the will of the operator for raising and lowering said hoe stem.

2. A device of the character described comprising a framework, a frame mounted within said framework and movable forward and backward in the general direction of the length thereof, means controllable at the will of the operator for shifting said frame to different positions forward and backward relatively to said framework, a hoe stem extending through said frame, and mechanism controllable by the forward movement of the machine for continuously shifting said hoe stem in a direction lateral to the travel of said machine.

3. A device of the character described comprising a framework, a frame slidably mounted in relation to said framework and adapted to move crosswise of the general direction of travel thereof, a hoe stem supported by said frame and extending vertically through the same, said hoe stem being movable bodily in a direction crossing the general direction of travel of the machine, means actuated by the forward movement of the machine for sliding said frame, mechanism controllable by sliding movements of said frame for partially turning said stem in order to shift said hoe to different angles relatively to the ground, and mechanism controllable at the will of the operator for raising and lowering said hoe stem.

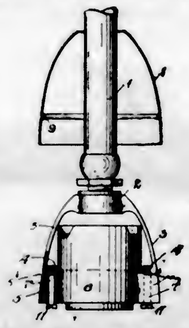
4. A device of the character described comprising a framework adapted to travel upon the ground, a sliding frame carried by said framework and movable crosswise thereof, mechanism for actuating said sliding frame, a hoe stem supported by said sliding frame, means for raising and lowering said hoe stem, and mechanism controllable at the will of the operator for shifting said frame forward or backward relatively to said framework.

5. A device of the character described comprising a frame, hoe stems extending vertically therethrough, means actuated by the forward movement of the machine for shifting some of said hoe stems in a direction crossing the general direction of travel of the machine, and mechanism for shifting others of said hoe stems back and forth in the general direction of the travel of said machine, and mechanism controllable at the will of the operator for raising any of said hoe stems relatively to the framework.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,352. COMBINED RECEPTACLE-COVER AND SHADE-HOLDER. FREDERICK W. WAKEFIELD, Vermilion, Ohio, assignor to The F. W. Wakefield Brass Company, Vermilion, Ohio, a Corporation of Ohio. Filed Oct. 24, 1912. Serial No. 727,586. (Cl. 240—115.)



1. The combination with an electric lamp receptacle; of a cover adapted to resiliently and detachably engage the sides of said receptacle; and a shade holder detachably secured to said receptacle, thereby preventing disengagement of the latter.

2. The combination with an electric lamp receptacle; provided with a plurality of shoulders; of a flexible cover adapted to resiliently engage such shoulders on said receptacle; and a shade holder detachably secured to said receptacle, thereby preventing disengagement of the latter.

3. The combination with an electric lamp receptacle; provided with two oppositely disposed shoulders; of a flexible cover provided with an internally extending flange adapted to resiliently engage over such shoulders; and a shade holder detachably secured to said receptacle, thereby preventing disengagement of the latter.

4. The combination with an electric lamp receptacle, provided with two oppositely disposed laterally extending shoulders having engaging members on their lower faces; of a flexible hollow cover provided with an internally extending flange adapted to resiliently engage over such shoulders, and a shade-holder having apertures adapted to receive such engaging members on said receptacle.

5. The combination with a pendant support, of a yoke attached thereto, each arm of said yoke being provided with a lug; an electric lamp receptacle provided with two oppositely disposed laterally extending shoulders adapted to register with such lugs on said yoke; screws engaging such registering lugs and shoulders; a shade-holder detachably secured to said screws; and a flexible hollow cover provided with an internally extending bead adapted to resiliently engage such shoulders.

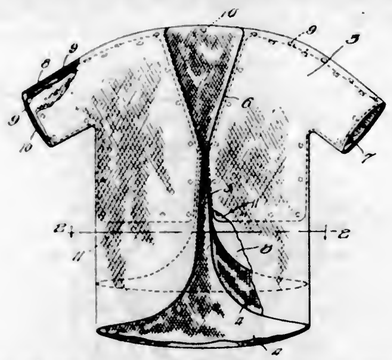
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1,089,353. GARMENT. CHERRILL H. WELLS, Chicago, Ill. Filed Aug. 5, 1913. Serial No. 783,072. (Cl. 2—60.)

1. In combination, a garment, a lining on the inner side thereof, a connection between said garment and said lining at certain places only whereby an unclosed opening at another place is provided therebetween, and an inner lining attachable and detachable through said unclosed opening adapted to be inserted and secured in operative position between said garment and said lining, substantially as described.



2. In combination, a garment, a lining on the inner side thereof, a connection between said garment and said lining at certain places only whereby an unclosed opening at another place is provided therebetween, an inner lining attachable and detachable through said unclosed opening adapted to be inserted and secured between said garment and said lining, said inner lining having divided shoulder portions, and means for securing together said divided shoulder portions when said inner lining has been placed in operative position, substantially as described.



3. In combination, a garment, a lining on the inner side thereof, a connection between said garment and said lining at certain places only whereby an unclosed opening at another place is provided therebetween, an inner lining attachable and detachable through said unclosed opening adapted to be inserted and secured between said garment and said lining, said inner lining having divided shoulder portions, means for securing together said divided shoulder portions when said inner lining has been placed in operative position, and means for preventing displacement of said inner lining with respect to said garment and lining, substantially as described.

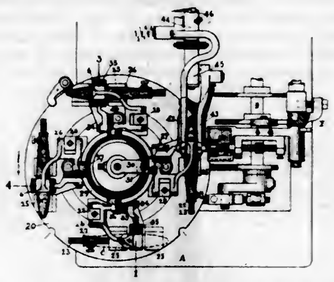
4. In combination, a garment, a lining on the inner side thereof, a connection at certain places between said garment and said lining arranged to provide an unclosed opening therebetween along the lower edge of said garment, and an inner lining attachable and detachable through said unclosed opening adapted to be inserted and secured between said garment and said lining, substantially as described.

5. In combination, a garment, a lining on the inner side thereof, a connection at certain places between said garment and said lining arranged to provide an unclosed opening therebetween along the lower edge of said garment, an inner lining attachable and detachable through said unclosed opening adapted to be inserted and secured between said garment and said lining, and means for preventing displacement of said inner lining with respect to said garment and lining, substantially as described.

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1,089,354. CIGAR-BANDING MACHINE. FRANK O. WOODLAND, Worcester, Mass. Filed Feb. 19, 1912. Serial No. 678,650. (Cl. 131—61.)

1. In a machine for banding cigars or the like, in combination with means for gumming, presenting and affixing unattached encircling bands; a rotatable carrier or turntable element having thereon a series of dual intermediately spaced supporters adapted for carrying cigars or the like, disposed in approximately tangential relation to the circle of rotation and in horizontal plane with the band-affixing position, band-clasping devices accompanying each of said supporters, actuating mechanism therefor, and mechanism for advancing said carrier alternately synchronous with the action of said band-affixing means; said carrier and supporters adapted to receive cigars placed thereon when at the front position, to move to a side position for the reception and affixment of the bands, and to then pass step-by-step to a predetermined position where the cigars can be discharged or removed from the supporters, substantially as set forth.



2. In a machine of the character described, the combination with means for delivering and affixing bands; of a horizontal circular revolving carrier mounted upon an upright axis, a plurality of cigar-supporting rests standing upon said carrier whereon cigars are successively carried to the band-affixing members, means for severally retaining the cigars upon the carrier, said mechanism being arranged for receiving the unbanded cigar and for permitting the removal of the banded cigar at the same stage or position in the cycle of rotation of the carrier, and means for retracting the clamping members when approaching said position.

3. In a machine for banding cigars or the like, in combination with means for gumming and delivering bands singly at a predetermined position for affixment, and a pair of oppositely oscillating lapper-devices for wiping on the band; a pivotally centered rotatable carrier provided with a plurality of dual rests supported thereon at or near its periphery, approximately tangential in relation to a circle passing through the band-affixing position, said dual rests each adapted for receiving a cigar or the like thereon at a front position, and to carry the same by an intermittent step movement into alinement with said lapper-devices, a pair of devices on said carrier for clasping the cigar and band succeeding the lapper-devices, means for intermittently rotatively advancing said carrier, for bringing the banded cigar to a position where it can be conveniently removed by the operator, and means for closing and opening said clasping devices.

4. In a banding machine, in combination with means for gumming, delivering and lapping-on a band, a horizontally rotatable carrier provided with a plurality of cigar-supporters mounted thereon in approximately circular order, a plurality of sets of grip-devices and presser-devices mounted on said carrier and respectively coacting with the supporters to embrace a cigar or the like resting thereon, means for advancing said carrier with a step-by-step movement corresponding with the spacing of said supporters, and actuating means that effects the closing and the opening of the respective grip-devices and presser-devices at predetermined positions in the cycle of rotative movement of the carrier.

5. In a cigar-banding machine, in combination, a horizontal carrier provided with a plurality of cigar-supporting rests mounted at regular intervals thereon to be successively carried to a predetermined position for receiving a cigar upon the rest, and then to a position for receiving the band; means for gumming and delivering the band across the cigar, means for lapping and sealing the ends of the band, a plurality of independently acting grip-devices accompanying the several rests, said grip-devices adapted to severally act for centrally holding the delivered band during the lapping-on operation, and to retain its grip thereon while the carrier is transferring the cigar to the place of discharge, means for intermittently shifting said carrier, and means for controlling said grip-devices.

[Claims 6 to 18 not printed in the Gazette.]

1,089,355. ACETYLENE-GENERATOR. EDMUND R. ANGELL, Derry, N. H. Filed Mar. 21, 1911. Serial No. 616,025. (Cl. 48—57.)



1. In an acetylene generator, a solid iron base ring rabbeted on the inner edge of the upper face to form a rectangular gutter with the extended inner wall of the gasholder seal, and said ring also rabbeted on the lower face to receive a gasket, in combination with a detachable generator pail adapted to secure a tight joint with said gasket, and the hereinbefore described mechanism for holding said pail tightly against said gasket.

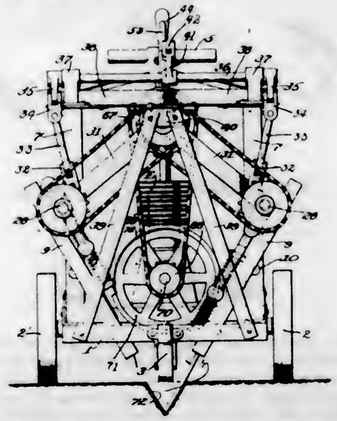
2. In an acetylene generator, mechanism for holding a detachable generator pail tightly against the body of the apparatus, consisting of a solid bed-ring provided with a gasket, legs firmly attached to said bed-ring supporting the entire machine, a bail-shape lever, pivoted at either end to a leg extension and just above the bed-ring, two depending hooks fastened to said bail-shape lever on diametrically opposite sides of the generator and facing in opposite directions, adapted to engage lugs on said detachable generator pail, a shelf fastened to said bed-ring and extending outwardly, an eccentric provided with a handle and pivoted to the center of said bail-shape lever, adapted to press upon said shelf and thereby raise or lower said lever to force the top of said detachable generator pail tightly against said gasket, or release it therefrom as said eccentric is turned by its handle, in combination with a floating gasholder, and mechanism for feeding carbid into water contained in said detachable generator pail.

3. In an acetylene generator, a floating gasholder, a carbid chamber, carbid feeding mechanism, a gas chamber to block out air space and to diminish, by its large volume, the small quantity of air, which gets within the apparatus during the exchange of detachable generator pails, said gas chamber consisting of the space between the inner wall of the gasholder seal and a frusto-conical pipe through which carbid falls into said detachable pail, its roof, the frusto-conical bottom of said carbid chamber, and its floor, the annular ring fastening said frusto-conical pipe and the inner wall of the gasholder seal together, in combination with a detachable generating chamber, and the hereinbefore described means of attaching said chamber to the body of said acetylene generator.

4. In an acetylene generator, a detachable generating chamber, its top edge adapted to secure a tight joint against a packing ring on the body of the machine, two lugs fastened to said chamber on diametrically opposite sides near its top, mechanism for holding said detachable generating chamber tightly against the body of the apparatus and releasing it therefrom, consisting of a solid bed-ring provided with a gasket, a bail-shape lever pivoted at each end, an eccentric pivoted to the center of said lever and provided with a handle for turning it, a shelf on said bed-ring to support said eccentric, two depending hooks attached to said lever equally distant from its pivots and adapted to engage said lugs on said generating chamber, whereby said chamber is forced tightly against said gasket, or released therefrom, according to the way said eccentric is turned by its handle, means for feeding carbid into water, a floating gas-holder, and means for holding said gas-holder suspended during the exchange of said generating chamber for another in recharging.

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1,089,356. ASPHALT-CHOPPING MACHINE. CHARLES E. BATHRICK, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed May 25, 1911. Serial No. 629,385. (Cl. 37—50.)



1. In a machine for chopping asphalt or like pavement, the combination of a truck or carriage having an upright framework mounted thereon, a power shaft journaled longitudinally on said framework, a pair of downwardly converging arms pivoted to swing on an axis coincident with the axis of said power shaft, a crank shaft supported at the lower end of each arm, connections between said power shaft and said crank shafts, a pair of slidable choppers operatively connected with said crank shafts, means for vertically adjusting said arms to vary the limit of the downward stroke of said arms, and guiding means for said choppers.

2. In a machine for chopping asphalt or like pavement, the combination of a truck or carriage having an upright framework mounted thereon, a power shaft journaled longitudinally on said framework, a pair of downwardly diverging arms pivoted to swing on an axis coincident with the axis of said power shaft, a crank shaft supported at the lower end of each arm, driving connections between said power shaft and said crank shafts, a pair of slidable choppers operatively connected with said crank shafts, means for vertically adjusting said arms to vary the limit of the down-stroke of said arms, and a pair of downwardly converging guides in which said choppers operate.

3. In a machine for chopping asphalt or like pavement, the combination of a truck or carriage having an upright framework mounted thereon, a power shaft journaled longitudinally on said framework, a pair of downwardly diverging arms pivoted to swing on an axis coincident with the axis of said power shaft, a crank shaft supported at the lower end of each arm, driving connections between said power shaft and said crank shafts, a pair of choppers operatively connected with said crank shafts, means for vertically adjusting said arms to vary the limit of the down-stroke of said arms, said crank shafts being arranged to cause reciprocation of said choppers alternately in opposite directions, and a pair of downwardly converging guides in which said choppers operate.

4. In a machine for chopping asphalt or like pavement, the combination of a pair of downwardly diverging arms pivotally connected together at one end, a crank shaft journaled at the other end of each arm, a chopper adapted to be operated by each crank shaft, and means for simultaneously raising said arms to hold the choppers out of operative position.

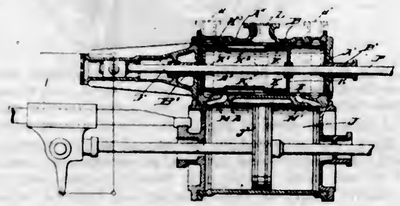
5. In a machine for chopping asphalt or like pavement, the combination of a truck or carriage, a pair of downwardly converging guide members fixed upon said truck, a chopper adapted to slide in each of said guide members, a pair of downwardly diverging arms supported on said truck, a crank shaft journaled in the lower end of each arm, and operative connections between said crank shafts and said choppers for sliding the latter alternately in opposite directions.

[Claims 6 to 15 not printed in the Gazette.]



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1,089,357. PISTON-VALVE. FRIEDRICH BECHER, Landsberg-on-the-Warthe, Germany. Filed Aug. 24, 1909. Serial No. 514,377. (Cl. 136—5.)

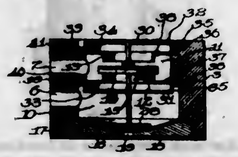


1. In a piston valve, the combination of a piston cylinder formed with inlet and outlet ports, a reciprocating piston valve in the piston cylinder, the diameter of the piston valve being less than the interior diameter of the piston cylinder, the piston valve having a depressed portion to form with the piston cylinder an annular passage, packing rings on the piston valve to pack the space between the piston cylinder and said piston valve, whereby steam in the piston cylinder between the ends of the latter and the ends of the piston valve, and in the annular passage between the piston valve and piston cylinder equalizes the pressure entirely around the piston valve, and guiding means for holding the piston valve concentric with the piston cylinder.

2. In a piston valve, the combination of a piston cylinder formed with inlet and outlet ports, a reciprocating piston valve in the piston cylinder, said piston valve having a depressed portion to form with the piston cylinder an annular passage, packing rings on the piston valve to form a tight joint between said piston cylinder and said piston valve, whereby the steam in the piston cylinder between the ends of the latter and the ends of the piston vtive, and in the annular passage between the piston valve and piston cylinder equalizes the pressure entirely around the piston valve, steme extending from opposite ends of the piston valve, said stems forming guiding means for holding the piston valve centrally disposed during its reciprocation.

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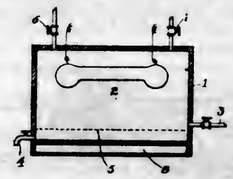
1,089,358. PNEUMATIC PLAYING ATTACHMENT FOR MUSICAL INSTRUMENTS. ROBERT J. BENNETT, Moline, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed May 3, 1910, Serial No. 559,180. Renewed Jan. 23, 1914. Serial No. 814,001. (Cl. 84—156.)



In a primary pneumatic for pneumatic playing attachments for musical instruments, the combination of a valve housing having a recess and provided with two ports leading thereinto, a diaphragm stretched across said recess, a concave plug secured to the valve block or housing at one side of the diaphragm and having a passage ent therethrough, a tracker board duct leading to said passage, a cap secured to the valve housing and covering said plug and passage, said housing having a bleed hole connecting the spaces at both sides of the diaphragm together, and a valve for intercepting communication between said ports arranged to be actuated by said diaphragm.

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1,089,359. TREATING PETROLEUM OILS WITH ULTRA-VIOLET LIGHT. CARLETON ELLIS, Montclair, N. J., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Sept. 10, 1913. Serial No. 789,072. (Cl. 196—26.)



1. The process of treating heavy petroleum oil which comprises exposing such oil in thin layers and at a temperature regulated to avoid deep-seated decomposition of the oil, to the action of ultra violet light of high intensity; whereby said oil becomes debloomed and gum-forming products become polymerized.

2. The process of treating petroleum oil which comprises exposing the same to the rays of ultra violet light to destroy fluorescence and in maintaining the temperature of the oil below the decomposition point.

3. The process of treating fluorescent oils to destroy fluorescence which comprises exposing the same to the action of ultra violet light whereby said fluorescence is destroyed.

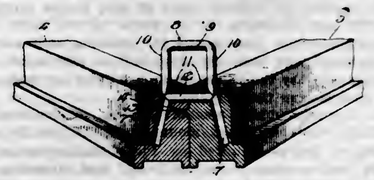
4. The process of treating oils containing gum-forming components to render said oil adapted as lubricants which comprises exposing said oils to the action of ultra violet light of high voltage, whereby the gum-forming agents become polymerized.

5. The process of treating fluorescent oils to remove their fluorescence which comprises exposing said fluorescent oils in thin layers to the action of ultra violet of relatively high voltage and in maintaining the temperature below the point at which deleterious changes occur.

[Claim 6 not printed in the Gazette.]

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1,089,360. MITER-JOINT FASTENER. WILLIAM GOODROW, Chicago, Ill. Filed Apr. 14, 1913. Serial No. 761,111. (Cl. 20—92.)

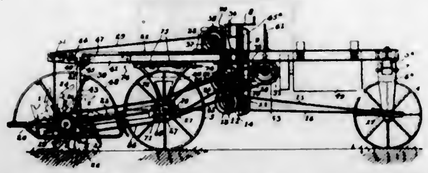


The combination of companion strips having abutting faces cut upon a slant to produce a miter joint, means for securing said strips together comprising a locking member of spring material embodying companion vertically depending legs arranged to extend approximately parallel to one another prior to insertion, each of said strips being provided with a single bore lying adjacent the engaging

edges of said strip, and each bore being arranged to receive one leg of said locking member, said bores diverging from one another from their upper toward their lower ends, said bores being spaced apart at their upper ends a distance approximately equal to the distance which said legs are spaced apart, and formed of a diameter approximately equal to the diameter of the legs and of uniform diameter from end to end, said locking member when inserted having its lower ends spread apart by the relative position of the bores, whereby a spring pressure is created in said locking member forcing the strips together and holding the locking member in place, substantially as described.

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1,089,361. ROOT-GRUBBING MACHINE. ALBERT L. HALLBAUER, Beverly, Mass., assignor, by direct and mesne assignments, to Palmetto Machine Company, Incorporated, Baltimore, Md., a Corporation of Maryland. Filed Nov. 7, 1910, Serial No. 591,014. Renewed Nov. 18, 1913. Serial No. 801,746. (Cl. 97—71.)



1. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a plurality of knives mounted on the rotatable means with their cutting edges facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle, whereby the knives produce a draw cut when entering and passing through the ground.

2. A root grubbing machine having, in combination, a motor vehicle, rotatable means mounted on the vehicle, a plurality of knives mounted on the rotatable means with their cutting edges facing outwardly and extending at an angle to the radii of the rotatable means, and means for driving the knives of the vehicle at a greater speed than the longitudinal movement of the vehicle whereby the knives produce a draw cut when entering and passing through the ground.

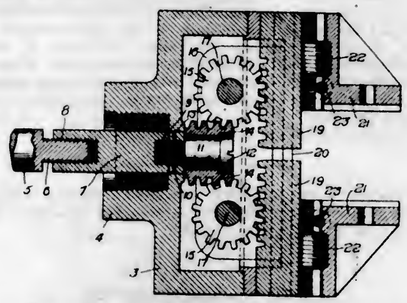
3. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a plurality of knives closely arranged around the rotatable means with their cutting edges facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle whereby the knives produce a draw cut when entering and passing through the ground.

4. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a series of knives arranged in spiral formation about the rotatable means, the cutting edges of said knives facing outwardly and extending at an angle to the radii of the rotatable means, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle whereby the knives produce a draw cut when entering and passing through the ground.

5. A root grubbing machine having, in combination, a vehicle, rotatable means mounted on the vehicle, a plurality of knives mounted on the rotatable means with their cutting edges facing outwardly and extending at an angle to the radii of the rotatable means whereby the cutting edges will extend substantially parallel to the surface of the ground when in contact therewith, and means for rotating said knives at a greater speed than the longitudinal movement of the vehicle whereby the knives produce a draw cut when entering and passing through the ground.

[Claims 6 to 9 not printed in the Gazette.]

1,089,362. CHUCK. ARTHUR V. HANNIFIN, Chicago, Ill., assignor to Hannifin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 7, 1913. Serial No. 759,443. (Cl. 29—107.)

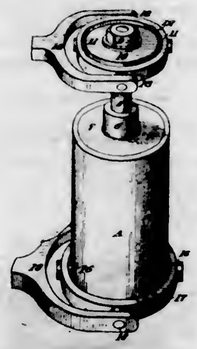


1. In a chuck, the combination of a longitudinally movable actuating rod consisting of two sections, one of said sections being formed with a threaded socket and the other with a threaded stem to engage therewith, a rack within the chuck body mounted on the end of the inner section of said actuating rod and arranged to permit rotary movement of said inner section with respect thereto, whereby the relative length of the actuating rod may be varied, pinions arranged to mesh with said rack, rack members movable substantially radially of the chuck and arranged one to mesh with each of said pinions, and jaws carried one by each of said rack members, substantially as described.

2. In a chuck, the combination of a longitudinally movable actuating rod consisting of two sections, one of said sections being formed with a threaded socket and the other with a threaded stem to engage therewith, a double faced rack mounted on the end of the inner section of said rod and arranged to permit rotary movement of said inner section with respect thereto, whereby the relative length of the actuating rod may be varied, pinions arranged diametrically within the chuck to mesh one with each face of said rack, rack members movable substantially radially of the chuck arranged one to mesh with each of said pinions, and jaws carried one by each of said members, substantially as described.

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1,089,363. VEHICLE SPRING SHOCK-ABSORBER. JAMES N. LEWIS, San Francisco, Cal. Filed Jan. 6, 1913. Serial No. 740,391. (Cl. 21—105.)



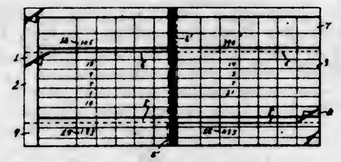
1. A shock absorber comprising in combination, a cylindrical casing, compression heads slidably mounted in each end of said casing, a coil spring interposed between said heads, a rod secured to the lower compression head which extends through the upper compression head and casing, a head portion formed on the upper end of the rod, a clip or bracket having a forked extension secured to the chassis, a similar clip having a forked extension secured to the running gear, a universal connection pivoted in the last named forked extension in which the lower end of the cylindrical casing is mounted, and a universal connection pivotally mounted in the upper forked extension in which the upper end of the rod is slidably mounted.

2. The combination with the chassis and running frame of a vehicle, of a shock absorber comprising a cylindrical casing, compression heads mounted in each end of said cylinder, a coil spring interposed between said heads, a rod secured in the lower compression head upon which rod the upper compression head is slidably mounted, an annular extension formed on said upper head, an adjustable stop secured on the upper end of the rod, a disk slidably mounted upon the rod between said annular extension and rod head, a clip having a forked extension secured to the upper spring or the chassis, a universal connection connecting the disk with the forked extension, a clip having a forked extension secured to the lower spring on the running gear, and a universal connection connecting the lower end of the cylindrical casing with the last named forked extension.



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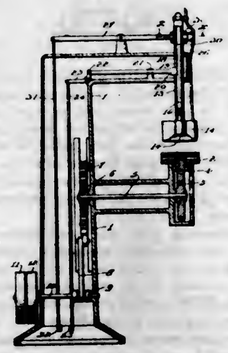
1,089,364. ACCOUNT-BOOK. WALTER H. MAXWELL, Cincinnati, Ohio. Filed May 16, 1910. Serial No. 561,768. (Cl. 11—19.)



An account book comprising leaves having corresponding pages similarly ruled into vertical columns and horizontal spaces, and each leaf having weakened lines across the same near the top and near the bottom, respectively, and also having other vertical weakened lines extending to the ends of the leaves from the inner end portion of said first mentioned weakened lines, all substantially as and for the purpose set forth.

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1,089,365. IRONING-MACHINE. MICHAEL J. REILLY, Chicago, Ill. Filed June 19, 1913. Serial No. 774,535. (Cl. 68—9.)



1. An ironing machine comprising a table; a support mounted to reciprocate above said table; an iron pivoted to the lower end of said support; a member slidable relatively to said support; a link connecting one end of said iron and said member; and means for holding said member during depression of said support, substantially as described.

2. An ironing machine comprising a table; a support mounted to reciprocate above said table; an iron pivoted to the lower end of said support; a member slidable relatively to said support; a link connecting one end of said iron and said member; and means for holding or releasing said member during depression of said support, substantially as described.

3. An ironing machine comprising a table; a tube mounted to reciprocate above said table; an iron pivoted to the lower end of said tube; a member slidable in said tube; a link connecting one end of said iron and said member; and means for holding said member during depression of said tube, substantially as described.

4. An ironing machine comprising a table; a tube mounted to reciprocate above said table; an iron pivoted to the lower end of said tube; a rod slidable in said tube and provided with teeth on one side, there being a slot in said tube giving access to said teeth; a toothed stop arranged to engage said teeth; means for moving said stop into and out of engagement with said teeth; and a link connecting one end of said iron with said rod, substantially as described.

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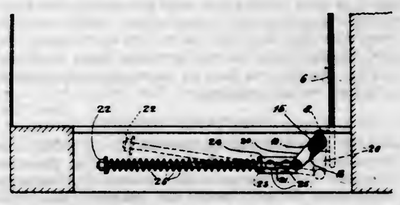
1,089,366. FASTENER. LUES REITER, New York, N. Y., assignor to Rau Fastener Company, Providence, R. I., a Corporation of Rhode Island. Filed Mar. 13, 1912. Serial No. 683,552. (Cl. 24—216.)



A socket member for fasteners comprising a central face plate, three prongs only, equally spaced from each other and placed symmetrically about the periphery of said face plate; and a collar having a groove in one face thereof surrounding said prongs, the inner periphery of said collar being spaced from said prongs whereby the latter may have lateral movement therein, the tips of said prongs being bent outwardly and backwardly into the groove in said collar.

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1,089,367. TRAP-DOOR. HARRY H. SCHROYER, Chicago, Ill., assignor to General Railway Supply Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 15, 1913. Serial No. 801,305. (Cl. 105—84.)



1. In a device of the class described, the combination of a door, a pivotal mounting for the door, mechanism for raising the door comprising a crank operatively connected to the door, a rod connected at one end to the crank and having its other end free, a stationary guide member for the rod located intermediate its ends, an abutment adjacent the free end of the rod and a tension member about said rod interposed between the guide member and abutment, substantially as described.

2. In a device of the class described, the combination of a door, a pivotal mounting for the door, mechanism for raising the door comprising a crank operatively connected to the door, a rod connected at one end to the crank, and having its other end free, a stationary plate located intermediate the ends of the rod, said plate having an opening through which the rod passes, an abut-

ment adjacent the free end of the rod and tension means about said rod and interposed between the plate and abutment, substantially as described.

3. In a device of the class described, the combination of a door, means for supporting the door, comprising a removable supporting member in which the door is pivotally mounted and a rotatable supporting member having an interlocking connection with the door, said door when positioned serving to hold said rotatable supporting member in position and tension actuated means for rotating said rotatable support to move the door to raised position, substantially as described.

4. In a device of the class described, the combination of a door, means for supporting the door comprising a removable supporting member in which the door is pivotally mounted, a shaft forming a second supporting member for the door, said shaft having an interlocking connection with the door, a fixed bearing for said shaft a collar on said shaft lying when the parts are assembled between said fixed bearing and the end of the door and tension actuated means operatively connected for rotating said shaft to open the door, substantially as described.

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1,089,368. CURRYCOMB. ROBERT F. SIMMONS and CHARLES FRANCISCO, Brooklyn, N. Y., assignors to New York Stamping Company, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 13, 1913. Serial No. 741,812. (Cl. 119—94.)



1. A currycomb, of substantially the construction described, having a metal back provided with slits and adjacent integral flexible tongues or flams bent away from the level of the metal of the back coincidently with said slits to form slots in said back, and a handle having its ends passed through said slots, said tongues or flams being bent back toward the level of the metal of the back to narrow the slots and thereby pinch and permanently hold the ends of the handle in the slots by and between the adjacent edges of the tongues or flams and the metal of the back.

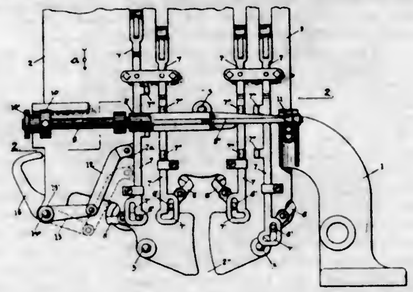
2. A currycomb, comprising a series of comb members, and a back formed integrally with one of said comb members and having a pair of flexible tongues or flams cut from and bent beyond the level of said back and forming openings upon opposite sides of the back, and a handle bowed over said back and having its ends passed through said openings, said tongues or flams being bent back toward the level of the back to pinch and permanently hold the handle in said openings.

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1,089,369. WEFT-REPLENISHING LOOM. HORACE WYMAN, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed June 6, 1912. Serial No. 702,030. (Cl. 139—85.)

1. In a weft replenishing loom, a magazine having a primary compartment for superposed filling carriers, a rocking support or cradle upon which the lowest of the superposed filling carriers rests, to retain said filling carriers, and also to release the lowest of said filling carriers from said compartment, and means for operating said support or cradle, and one or more supplemental compartments for superposed filling carriers, and retaining and releasing device for the filling carriers in said supplemental compartments, and meane for operating said retaining and releasing device, to allow the filling in a supplemental compartment to pass into the adjoining primary compartment, upon the exhaustion of filling in said primary compartment.

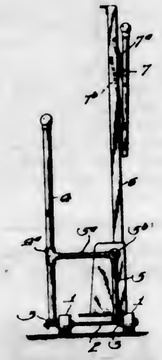
2. In a weft replenishing loom, a magazine with a plurality of primary compartments for superposed filling carriers, each compartment having filling of different colors or characters, retaining and releasing devices for said compartments, and one or more supplemental compartments for superposed filling carriers having filling of the same color or character as the filling in one of said primary compartments, and retaining and releasing devices



for the filling carriers in said supplemental compartment or compartments, and means for operating said retaining and releasing devices, to allow the filling carriers in a supplemental compartment to pass into the adjoining primary compartment, upon the exhaustion of the filling carriers in said primary compartment.

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1,089,370. PORTABLE FOLDING BED. ROBERT H. ANDERSON, San Diego, Cal., assignor to Ruth B. Anderson, San Diego, Cal. Filed Apr. 11, 1912. Serial No. 689,994. (Cl. 5—18.)



1. The combination with the head frame of a portable folding bed of two parallel, horizontal base members rigidly mounted on the lower ends of the supports of said head frame, three pairs of rollers mounted on said horizontal base members,—one pair being located at each end thereof and the third pair located near the middle of said base members, and a means in connection with said middle pair of rollers for raising it relatively to the other pairs of rollers.

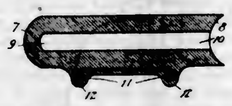
2. In combination with the head frame of a portable folding bed, two parallel, horizontal base members rigidly mounted on the lower ends of the supports of said head frame, a bed frame pivotally mounted practically in equilibrium in said head frame, two parallel horizontal base members rigidly mounted on the lower extended ends of said head frame supports, a plurality of pairs of rollers mounted in said horizontal base members, the one pair thereof being located near the middle of said base members, and a means in connection with said middle pair of rollers adapted for raising and lowering it relatively to the other pairs of rollers.



3. In a portable folding bed, the combination of a head frame provided with a plurality of extended support members, two parallel horizontal base members rigidly mounted on the ends of said extended support members, a bed frame pivotally mounted in said head frame adapted to be in equilibrium therein, a plurality of pairs of rollers mounted on said horizontal base members, the pair near the middle thereof being adapted to be raised and lowered relatively to the other pairs, and a lever means adapted to facilitate the raising and lowering thereof.

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1,089,371. BUILDING-SLAB. LEROY BAUMGARTL, Chicago, Ill., assignor to Federal Cement Tile Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 11, 1913. Serial No. 784,204. (Cl. 72—68.)



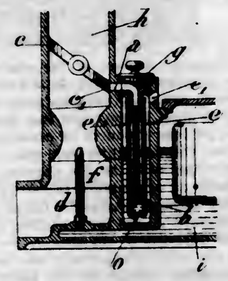
1. A building slab formed from concrete, or the like, having upper and lower walls spaced apart to form a chambered area between the same, the lower of said walls being provided on its under surface with horizontally extending separated ribs spaced from the ends thereof, reinforcing means embedded in said ribs, and transversely extending reinforcing means embedded in the structure and connected with said first-mentioned reinforcing means.

2. A structure comprising a series of building slabs formed from concrete, or the like, each of said slabs having interlocking edges and upper and lower walls spaced apart to form a chambered area between the same, the lower of said walls being provided on its under surface with horizontally extending separated ribs spaced from the ends thereof, reinforcing means embedded in said ribs, and transversely extending reinforcing means embedded in the structure and connected with said first-mentioned reinforcing means.

3. A building slab formed from concrete, or the like, and having spaced walls forming a chambered area between the same, one of said walls having horizontally extending ribs spaced from the ends thereof, that portion of the wall between said ribs being increased in thickness, reinforcing means embedded in said ribs, and transversely extending reinforcing means embedded in the thickened portion of said wall and connected with said first-mentioned reinforcing means.

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1,089,372. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. FRANÇOIS BAVEREY, Oullins, France, assignor to Société du Carburateur Zenith, Lyon, France. Filed Sept. 17, 1912. Serial No. 720,822. (Cl. 48—155.1.)

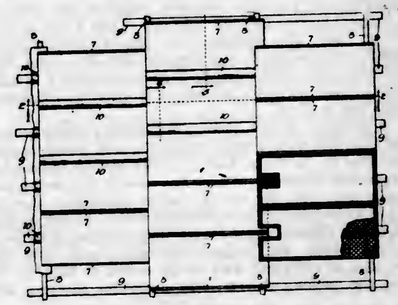


1. A carbureter for explosion motors comprising in combination a principal fuel jet, an auxiliary fuel tube having a feed orifice issuing into the motor suction conduit at a point opposite the edge of the throttle valve of said conduit when said valve is closed, an auxiliary fuel container having means for the supply of fuel thereto, and means for maintaining atmospheric pressure therein, and a tube adjustable as regards its height within said auxiliary fuel container, in which said auxiliary fuel tube sucks, said adjustable tube being provided with a calibrated orifice for the feed of fuel from said auxiliary fuel container therein and having air inlet orifices in its walls communicating with said auxiliary container, said orifices being of a size to produce reduced atmospheric pressure in said adjustable tube.

2. A carbureter for explosion motors comprising in combination a principal fuel jet, an auxiliary fuel tube having a feed orifice issuing into the motor suction conduit at a point opposite the edge of the throttle valve of said conduit when said valve is closed, an auxiliary fuel container having means for the supply of fuel thereto, and means for maintaining atmospheric pressure therein, and a tube within said auxiliary fuel container, in which said auxiliary fuel tube sucks, said tube being provided with a calibrated orifice for the feed of fuel from said auxiliary fuel container therein and having air inlet orifices in its walls communicating with said auxiliary container, said orifices being of a size to produce reduced atmospheric pressure in said tube.

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1,089,373. CEMENT-MORTAR OR CONCRETE ROOFING-TILE. IGNATZ H. FREUND, Chicago, Ill., assignor to Federal Cement Tile Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 15, 1912. Serial No. 684,061. (Cl. 108—10.)



1. A roofing tile comprising a flat body portion formed on its upper longitudinal edges with longitudinal flanges, and at its upper forward edge with a transverse depending flange, the rearward under surface of the tile having a longitudinal recess open at its end and bottom, and the tile about and beyond said recess being hollow to form a dead-air space.

2. A plurality of hollow roofing tiles adapted to be laid in overlapping and interlocking series, each tile being formed with longitudinally extending marginal flanges on its upper surface and containing a closed chamber affording a dead-air space, and a recess on the under side of the tile the side and end walls of which intersect said closed chamber and lying in the same longitudinal plane therewith, and channel members adapted to cover abutting flanged edges of flanking tiles, the end of each channel member fitting in one of said recesses, whereby each tile of the series is caused to lie in flatwise relation over the end of an adjacent tile.

3. A plurality of hollow reinforced roofing tiles adapted to be laid in overlapping and interlocking series, each tile being formed with longitudinally extending marginal flanges on its upper surface and containing a closed chamber affording a dead-air space, and a recess on the under side of the tile the side and end walls of which intersect said closed chamber and lying in the same longitudinal plane therewith, and channel members adapted to cover abutting flanged edges of flanking tiles, the end of each

channel member fitting in one of said recesses, whereby each tile of the series is caused to lie in flatwise relation over the end of an adjacent tile.

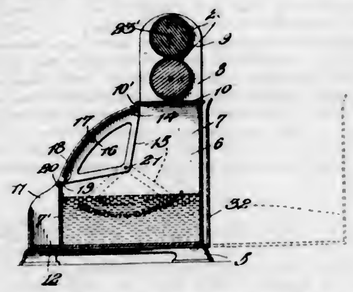
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1,089,374. [WITHDRAWN.]

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1,089,375. ENVELOP-SEALING DEVICE. CHARLES F. HANSEN, Port Ludlow, Wash., assignor of one-third to Eyvind N. Hansen, one-third to Sigurd R. Hansen, and one-third to Fritjof C. Hansen, St. Paul, Minn. Filed May 10, 1913. Serial No. 766,820. (Cl. 120—6.)

1. A machine of the character described comprising a



casing provided with a water reservoir, a sector-shaped moistening pad rotatably mounted between the ends of said casing and movable into and out of the water in said reservoir, said pad embodying a curved longitudinally extending lip adapted for engagement with the upper edge of the front wall of the casing to support the pad in position for engagement with the flap of an envelop, and means for rotating said pad.

2. A machine of the character described comprising a casing provided with a water reservoir, said casing having an opening in its front wall, a sector-shaped moistening pad rotatably mounted between the ends of the casing and movable into and out of the water contained therein, said pad embodying a plate provided with a trough having perforations therein and a curved lip projecting outwardly from the trough and adapted for engagement with the upper edge of the front wall of the casing to support the pad in the opening therein, and means for rotating said pad.

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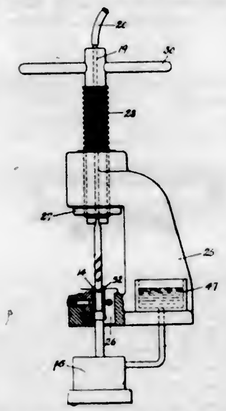
1,089,376. METAL-CUTTING TOOL. BENGT M. W. HANSON, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed June 4, 1906. Serial No. 320,075. (Cl. 90—33.)

1. The combination, in a tool for cutting a channel in the wall of a cylindrical bore, of a body portion substantially fitting the said bore, a series of cutting teeth disposed in substantial conformity with the path of the desired channel, and successively increasing in cutting size, an internal subway in the body of the tool, and a separate opening for each tooth extending radially upward from the subway to the cutting faces of the respective teeth.

2. The combination, in a tool for cutting a curved channel, of a series of cutting teeth disposed in a curved path corresponding with that of the desired channel and successively increasing in size, a subway extending beneath the series of teeth, and a separate opening for each tooth extending radially outward from the subway to the cutting faces of the respective teeth.

3. The combination, in a tool for cutting a spiral channel, of a series of teeth disposed in conformity with the path of the intended spiral and successively increasing in cutting size, and a subway extending beneath the series of teeth provided with separate openings leading directly to the respective cutting faces of all of the said teeth.

4. The combination, in a tool for cutting spiral channels in the inner wall of a cylindrical bore, of a body substantially fitting the said bore, a series of teeth arranged in conformity with the intended spiral and successively increasing in cutting size, an internal subway extending through the body of the tool, and openings extending radially outward from the said subway directly to the respective cutting faces of all of the said teeth.

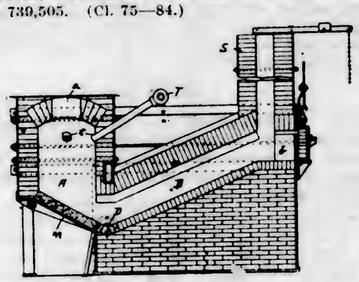


5. A tool for cutting and enlarging a plurality of channels in the wall of a cylindrical bore, including in combination a body portion approximately fitting the said bore, a plurality of series of teeth disposed on the said body in substantial conformity to the respective paths of the intended channels and successively increasing in cutting size, and an internal subway extending longitudinally through the body of the tool and provided with openings extending radially directly to the respective cutting faces of all of the teeth of each series.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,377. METALLURGICAL FURNACE. HENRY D. HIBBARD, Plainfield, N. J. Filed Dec. 31, 1912. Serial No. 739,505. (Cl. 75—84.)



1. A metallurgical furnace of the character described, comprising a fire chamber with downwardly-inclined imperforate bottom for solid carbonaceous fuel, means for creating a down draft through the fuel therein, a furnace outlet for the gaseous products of combustion and an interposed portion through which said gases pass, said portion communicating with the fire chamber to receive the gaseous products of combustion therefrom and having a bottom merging without substantial break into the bottom of said fire chamber, means for collecting in and discharging from said interposed chamber a melted charge of metalliferous material, substantially as described.

2. A metallurgical furnace of the character described, comprising a fire chamber with downwardly-inclined imperforate bottom for solid carbonaceous fuel, means for creating a down draft through the fuel therein, a furnace outlet for the gases of combustion and an interposed portion through which said gases pass, said portion communicating with the fire chamber to receive the gases of combustion therefrom and an outlet from said interposed chamber for discharging melted material collected therein, said furnace having an inclined bottom substantially continuous with the bottom of the fire chamber for leading melted material to said interposed portion.

3. A metallurgical furnace of the character described, comprising a fire chamber with downwardly-inclined imperforate bottom for solid carbonaceous fuel, means for creating a down draft through the fuel therein, a furnace outlet for the gases of combustion and an interposed portion through which said gases pass, said portion communicating with the fire chamber to receive the gases of combustion therefrom and an outlet from said interposed chamber for discharging melted material collected therein, said furnace having an inclined bottom substantially continuous with the bottom of the fire chamber for leading melted material to said interposed portion, and the bottom of the latter being inclined toward its discharge outlet.

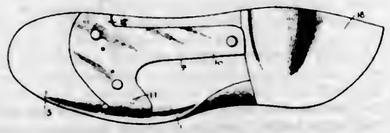
4. A metallurgical furnace of the character described, comprising a melting chamber for the reception of a combined ore and fuel charge, a stack and an interposed collecting chamber, a down draft blast for forcing air down through the charge and through the collecting chamber to the stack, together with a by-pass flue connecting the upper portion of the melting chamber directly with the stack for the purpose described.

5. A metallurgical furnace of the character described, comprising a melting chamber for the reception of a combined ore and fuel charge, a stack and an interposed collecting chamber, a down draft blast for forcing air down through the charge and through the collecting chamber to the stack, together with a by-pass flue connecting the upper portion of the melting chamber directly with the stack, said blast mechanism comprising twyers opening into the upper portion of the melting chamber for use in starting the combustion and supplemental twyers opening to the melting zone for use during the melt and valves for controlling the several twyers independently.

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1,089,378. ARCH-SUPPORT FOR SHOES. PIETRO IACOVINO, New York, N. Y. Filed Apr. 22, 1913. Serial No. 762,780. (Cl. 36—71.)



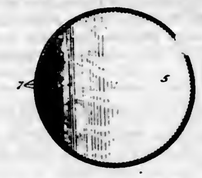
1. In an arch support of the class described, a body and a metallic reinforcement therefor bowed from one end to the other, said metallic reinforcement being substantially T-shaped, the two arms of the T extending transversely of the body near the end of the same and the trunk of the T extending longitudinally of the body.

2. In an arch support of the class described, a body and a metallic reinforcement therefor, said metallic reinforcement being formed with a body extending substantially centrally and longitudinally of said first mentioned body, said body being bowed from one end to the other, and with a pair of transversely extending arms.

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1,089,379. GAME-COUNTER. JAMES D. MCCRACKEN, Cincinnati, Ohio, assignor to The United States Playing Card Co., Cincinnati, Ohio, a Corporation of New Jersey. Filed Dec. 7, 1912. Serial No. 735,465. (Cl. 46—55.)

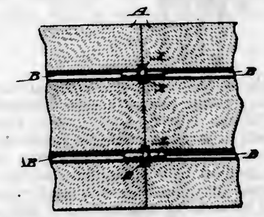
1. A game counter having approximately flat opposite surfaces and having its peripheral edge provided with two



separate knurled portions spaced from each other and extending about the periphery of said counter, the peripheral edge thereof being transversely rounded.

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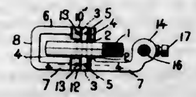
1,089,380. SIDEWALK. CLEMENT C. MCDONALD, Chenoa, Ill. Filed Apr. 28, 1913. Serial No. 764,200. (Cl. 94—1.)



In a sidewalk, the combination with a plurality of slabs having recesses in the ends thereof, of tubes embedded within the slabs having the outer ends thereof flush with the bottoms of the recesses, dowel pins inserted in the ends of the tubes of the adjacent slabs for connecting the slabs together, and annular flanges on the pins received in the recesses of the adjacent slabs for maintaining the pins in place and preventing them from sliding into one of the slabs, thereby disconnecting the adjacent slab.

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1,089,381. PULLEY-BEARING. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 24, 1912. Serial No. 711,204. (Cl. 64—66.)

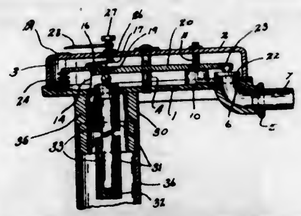


1. In a device of the character described, a yoke provided with alined open-ended and polygonal seats partially open at their tops, a non-metallic bearing fitting and insertible endwise into each seat and extended beyond the inner end thereof, means for holding each bearing fixedly in its seat, and a pulley having a metal hub and rigidly attached metallic journals extended beyond the hub ends and rotatably mounted in the bearings, the ends of the hub rotating between and in close proximity to the projecting inner ends of the bearings, whereby the parts may be assembled by inserting the pulley in the yoke and the journals through the tops of the empty seats and then inserting the bearings endwise into the seats over the journals and whereby thus contact of metal upon metal is wholly obviated.

2. In a take-up device for driving belts, a metallic yoke having two alined polygonal and open-ended seats each provided with an overhanging lip thus to present partially open tops, a non-metallic bearing insertible endwise and fitted in each seat and extending at its inner end beyond the adjacent end of the seat, a retaining member extended removably through each lip and into the bearing to prevent endwise movement thereof in the seat,

and a metal pulley having oppositely extended journals mounted rotatably in the bearings, whereby the parts may be assembled by inserting the pulley in the yoke and the journals through the tops of the empty seats and then inserting the bearings endwise into the seats over the journals and whereby thus contact of metal upon metal is wholly obviated.

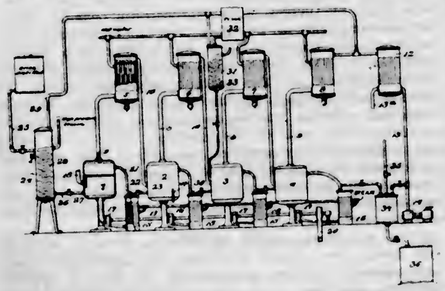
1,089,382. VALVE-OPERATING MECHANISM. JOHN SABO, Cleveland, Ohio, assignor, by mesne assignments, to Lewis Sands, Cleveland, Ohio. Filed Apr. 19, 1913. Serial No. 762,247. (Cl. 236—5.)



1. In a device of the character indicated, the combination of a valve casing having a dial arranged on the outer surface thereof, a valve seat, a valve arranged to rest on said seat, a carriage pivotally supported in said valve casing and provided with a forwardly extending arm, a lever fulcrumed in said carriage, one end of said lever being operatively connected with said valve, a coil spring arranged between the opposite end of said lever and the bottom of the valve casing, a screw mounted in the top of the valve casing and adapted to engage with the arm on the carriage, and an index finger mounted on the outer end of said screw and arranged to travel over a dial on the outer surface of said casing.

2. In a device of the character indicated, the combination of a valve casing, a valve seat, a valve arranged to rest on said seat, a carriage pivotally supported in said valve casing and provided with a forwardly extending arm, a lever fulcrumed in said carriage, one end of said lever being operatively connected with said valve, a coil spring arranged between the opposite end of said lever and the bottom of the valve casing, a screw mounted in the top of the valve casing and adapted to engage with the arm on the carriage, a copper tube having a closed end connected with said valve casing and a carbon rod slidably mounted in said copper tube and arranged to extend into said casing in contact with said lever.

1,089,383. PROCESS OF DISTILLING GLYCERIN. FRANK J. WOOD, New York, N. Y., assignor to Marx and Rawolle, New York, N. Y., a Corporation of New York. Filed Jan. 15, 1910. Serial No. 538,306. (Cl. 87—4.)



1. The process of effecting a series of distillations of glycerin or similar material, consisting of conducting a body of glycerin successively to a plurality of stills and condensers in series and vaporising and condensing a portion of the glycerin at each still and condenser, respectively.

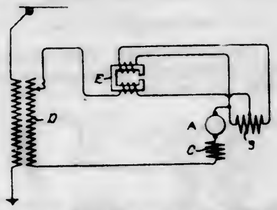
2. The process of effecting a series of distillations of glycerin or similar material, consisting of vaporizing the water out of the glycerin, conducting the substantially anhydrous glycerin successively to a plurality of stills and condensers in series, and vaporizing and condensing a portion of the glycerin at each still and condenser, respectively.

3. The process of effecting a series of distillations of glycerin or similar material, consisting of vaporizing the water out of the glycerin, conducting the substantially anhydrous glycerin to the first still and condenser of a series of stills and condensers, vaporizing and condensing a portion of the glycerin contained within the first still and condenser, transferring the balance of the glycerin from still to still in succession, and vaporizing and condensing at each still and condenser respectively.

4. The process of effecting a series of distillations of glycerin or similar material, consisting of conducting a body of glycerin successively to a plurality of stills in series, and vaporizing a portion of the glycerin at each still and condensing in condensers which alternate with each still by the agency of a single current of steam conducted successively to all of the series of stills alternating with condensers.

5. The process of effecting a series of distillations of glycerin or similar material, consisting of conducting a body of glycerin successively to a plurality of stills arranged in alternate series with their respective condensers, and combining with the glycerin at each of the succeeding stills the steam out of which the glycerin vapors of a previous distillation have been condensed in one of said condensers.

1,089,384. ELECTRIC BRAKING WITH ALTERNATING-CURRENT MOTORS. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 19, 1911. Serial No. 655,477. (Cl. 172—276.)




1. In combination an alternating current series motor provided with means whereby a motor action or a braking generator action can be produced, the means for operating the motor as a braking generator comprising a transformer requiring an abnormally high magnetizing current so that the motor will not build up as a low frequency generator, and leads connecting the motor armature and transformer primary in series to the source and the transformer secondary to the exciting winding of the motor in a direction to produce a torque opposite to the direction of rotation.

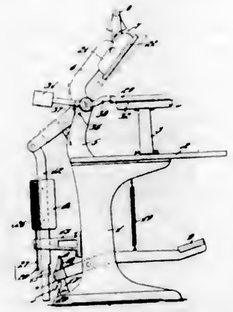
2. In combination an alternating current series motor provided with means whereby a motor action or a braking generator action can be produced, the means for operating the motor as a braking generator comprising a transformer having an air gap in its magnetic circuit, and leads connecting the motor armature and transformer primary in series to the source and the transformer secondary to the exciting winding of the motor in a direction to produce a torque opposite to the direction of rotation.

3. In combination with an alternating current series motor, means for operating the motor as a braking generator comprising a transformer requiring an abnormally high magnetizing current so that said motor will not build up as a low frequency generator, and leads connecting the motor armature, a part of the exciting winding of the motor, and the transformer primary to the source and the transformer secondary in series with the whole of said exciting winding.

4. In combination with an alternating current series motor, means for operating the motor as a braking generator comprising a transformer having an air gap in its magnetic circuit and leads connecting the motor armature, a part of the exciting winding of the motor, and the transformer primary in series to the source, and the transformer secondary in series with the whole of said exciting winding.



1,089,385. PRESSING-MACHINE. FREDERICK M. BETZ, Hamilton, Ohio, assignor to The Ohio Machinery Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 12, 1912. Serial No. 677,128. (Cl. 68—9.)



1. In a machine of the class described, a presser head, means within said head for heating the same, a table, said presser head being mounted to swing to and from said table, a frame for supporting a sponging cloth mounted to swing to and from the table, means for locking said sponging cloth frame in its position for use, and means for releasing the same upon a movement of the presser head toward the table.

2. A machine of the nature disclosed, combining a frame, a garment supporting table, a presser head pivotally mounted on the frame and movable into parallelism with the table, a sponging cloth holder swinging about the axis of the presser head and independently movable into parallelism with the table, the normal position of the presser head offering accessibility manually to sponge the holder cloth, and means for retaining the sponging cloth holder in its position over the table and releasable during the movement of the presser head toward normal.

3. A machine of the nature disclosed, comprising a frame, a work-supporting table, an open frame holder for a sponging cloth having radiating lever arms pivotally mounted on said frame to swing the holder over into proximity with the table, and automatically movable to its normal position, a presser head having radiating lever elements pivoted about the axis of the lever arms of the cloth holder to swing the head toward the table into contact with the sponging cloth, retaining means for maintaining the holder in its position over the table preparatory to the movement of the presser head and adapted to be automatically released to enable said holder to swing simultaneously with the head during its return.

4. A machine of the nature disclosed, combining a frame, a work-supporting table, an open frame holder for a sponging cloth having radiating lever arms pivotally mounted on said frame to swing the holder over into proximity with the table, a presser head having radiating lever elements pivoted about the axis of the lever arms of the cloth holder to swing the head toward the table into contact with the sponging cloth, retaining means for maintaining the holder in its position over the table preparatory to the movement of the presser head and adapted to be automatically released to enable said holder to swing simultaneously with the head during its return, treadle and lever mechanism adapted to be brought into operative connection with said presser head element during abnormal position of the head to exert a pressure upon the intervening sponging cloth and garment on the table.

5. A pressing machine having a work-supporting table, a presser head movable toward and from the table, a sponging cloth holder having its cloth adapted to be positioned over the work on said table, with the exposed surface thereof accessible for manually moistening, a treadle for applying pressure to bring the members forcibly into contact, a connecting ratchet bar in pivotal connection with said presser head, pawl mechanism mounted on said treadle, and means for directing said pawl toward and into engagement with the ratchet elements of said bar during a pressure movement of the treadle, and release in a reverse movement.

[Claims 6 and 7 not printed in the Gazette.]

1,089,386. WRENCH. FREDRICK H. KANNING, Hopewell, Mo. Filed Aug. 8, 1913. Serial No. 783,684. (Cl. 81—177.)



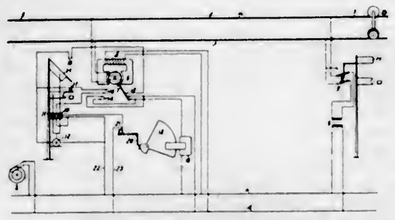
In a wrench, a stationary jaw that is provided with a reduced shank having an offset portion at its lower end, a movable jaw that is provided with a reduced shank, a pressed metal body portion that surrounds said shanks and extends some distance below the offset portion of the shank on the stationary jaw so as to form a handle, an extension on said body portion that entirely covers three sides of the reduced shank on the movable jaw, vertically-disposed faces on said extension that bear against the rear shoulder of the movable jaw face when said jaw is moved away from the stationary jaw, and means for moving said movable jaw.

# REISSUES.

13,693. AUTOMATIC BLOCK-SIGNALING SYSTEM. DANIEL J. MCCARTHY, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Oct. 30, 1913. Serial No. 798,376. Original No. 867,563, dated Oct. 1, 1907, Serial No. 388,750. (Cl. 246—36.)

1. In an alternating current block signal system, a normally closed track circuit, line wires from which the track circuit is energized, means for reversing the polarity of the track circuit, a reversing relay controlled by the reversal of polarity of the track circuit and controlling the operating mechanism for the home and distant signal blades, alternating current slot magnets, and an auxiliary circuit controlling device for holding the circuit of the home signal slot magnet closed while the relay is reversing; substantially as described.

2. In alternating current block signaling system of the character described, a main reversing relay, a slot magnet for the home signal, and an auxiliary circuit-controlling device for maintaining the circuit of the slot magnet closed while the relay is reversing; substantially as described.



3. In an automatic block signaling system using alternating current, a closed track circuit, a reversing relay controlled thereby, home and distant signal blades, an actuating motor therefor, alternating current slot magnets, an auxiliary circuit-closing device for holding the circuit of the home signal slot magnets closed while the relay is reversing; substantially as described.

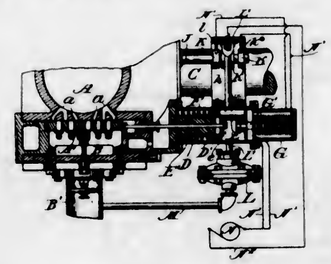
4. In an alternating current block signaling system of the character described, a slot magnet, a reversing relay and an auxiliary device for maintaining the circuit of the slot magnet while the relay is reversing; substantially as described.

5. In an alternating current block signaling system of the character described, an alternating current slot magnet, a reversing relay, and an auxiliary device controlled by the track circuit for maintaining the circuit of the slot magnet while the relay is reversing; substantially as described.

6. In an alternating current block signaling system of the character described, home and distant signal blades, a reversing relay through which said blades are controlled by the track circuits, a line circuit, and an alternating current slot magnet, and a slow motion circuit controlling device for controlling the circuit of said magnet; substantially as described.

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13,694. ENGINE VALVE-GEAR. ROBERT C. STEVENS, Erie, Pa., assignor to Skinner Engine Company, Erie, Pa., a Corporation of Pennsylvania. Filed Jan. 12, 1914. Serial No. 811,759. Original No. 1,072,786, dated Sept. 9, 1913, Serial No. 744,203. (Cl. 121—97.)



1. The combination in an engine valve gear, of an exhaust valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, an electro-magnetic device connected to said valve stem, an engine shaft, a commutator adapted to rotate in unison with said shaft, brushes adapted to contact with said commutator, an electric generator, an electric circuit leading from said generator to said electro-magnetic device, and to said brushes and a pneumatic mechanism communicating with the exhaust of the engine adapted to be actuated by vacuum to make and break said electric circuit, substantially as and for the purpose set forth.

2. The combination in an engine valve gear, of an exhaust valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, an electro-magnetic device connected to said valve stem, an engine shaft, a commutator adapted to rotate in unison with said shaft, a continuous electric conductor on said commutator, lateral extensions on said conductor, brushes adapted to contact with said commutator, an electric generator, an electric circuit leading from said generator to said electro-magnetic device, and to said brushes, and a pneumatic mechanism communicating with the exhaust of the engine adapted to be actuated by vacuum to operate said brushes to make and break said electric circuit, substantially as and for the purpose set forth.

3. The combination in an engine valve gear, of an exhaust valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, a solenoid coil, a core within said coil attached to said valve stem, an engine shaft, a commutator on said shaft, an electric conductor on said commutator, a brush-holder support, an oscillatory brush holder on said support, a brush secured in said holder adapted to contact with said commutator, a generator, an electric circuit between said generator through said brushes and commutator, a stationary brush holder on said support, a brush secured thereon adapted to contact with said commutator to said solenoid, a pneumatic diaphragm mechanism in communication with the exhaust of the engine, and rod and lever mechanism adapted to operate said oscillatory brush holder to raise the brush secured therein out of contact with said commutator, substantially as and for the purpose set forth.

4. In a valve-controlling mechanism for steam engines, the combination with an exhaust valve, of electric devices for operating the same, and means governed by the vacuum in the exhaust pipe of the engine for controlling the operation of said electric devices.

5. The combination of a steam engine cylinder having main and auxiliary exhaust ports, a valve controlling the auxiliary exhaust port, means to hold said valve closed when the engine is running condensing, electric devices for operating the said valve when the engine is running non-condensing, and means governed by the vacuum in the exhaust pipe for controlling the operation of said electric devices.

6. The combination of a steam engine cylinder, an exhaust valve, electric devices for operating said valve, and means governed by variation of pressure in the exhaust pipe to control the operation of said electric devices.

7. The combination of a steam engine cylinder having main and auxiliary exhaust ports, a valve controlling the auxiliary exhaust port, a spring tending to hold said valve closed, electric devices operative to open said valve at proper times, and means governed by the presence or absence of vacuum in the exhaust pipe for controlling the operation of said electric devices, whereby said valve will remain closed when the engine is running condensing.

8. In a valve-controlling mechanism for steam engines, the combination with an auxiliary exhaust valve, and means tending to hold said valve closed, of electric devices for opening said valve according to the operation of the engine, and pneumatic devices connected to the exhaust pipe of the engine and controlled by the vacuum therein for holding the circuit of said devices open and preventing the operation thereof when sufficient vacuum exists.

9. In a valve-controlling mechanism for steam engines, the combination with a cylinder having main and auxiliary exhaust ports, of a valve for the auxiliary exhaust port, a spring tending to close said valve, electric devices for opening said valve, including a circuit, and circuit closing members controlled by the operation of the engine, and means governed by vacuum in the exhaust pipe, for controlling the operation of said circuit-closing members and operative to hold said circuit closing members open when sufficient vacuum exists.

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# DESIGNS.

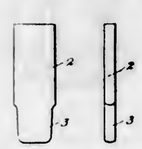
45,319. GLASS VESSEL. OLIVER S. ATTERHOLT, Pittston, Pa. Filed July 5, 1913. Serial No. 777,590. Term of patent 7 years.



The ornamental design for glass vessel, as shown.

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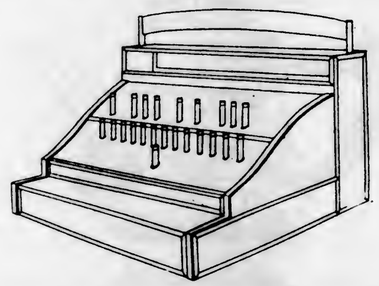
45,320. ORGAN-STOP KEY. JOHN T. AUSTIN, Hartford, Conn., assignor to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed Aug. 22, 1913. Serial No. 786,168. Term of patent 14 years.



The ornamental design for an organ stop key substantially as shown.

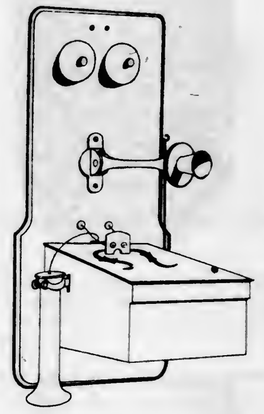
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45,321. MUSICAL INSTRUMENT. HARRY E. BARNES, Topeka, Kans. Filed Nov. 19, 1913. Serial No. 801,993. Term of patent 7 years.



The ornamental design for a musical instrument, as shown.

45,322. MUSICAL INSTRUMENT. HARRY E. BARNES, Topeka, Kans. Filed Nov. 19, 1913. Serial No. 801,994. Term of patent 7 years.



The ornamental design for a musical instrument, as shown.

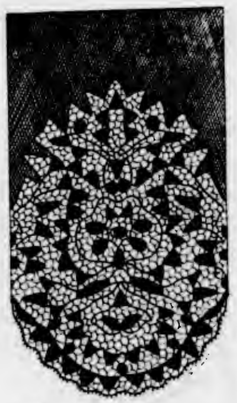
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45,323. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Jan. 14, 1914. Serial No. 812,148. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

45,324. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Jan. 14, 1914. Serial No. 812,149. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

45,325. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Jan. 14, 1914. Serial No. 812,150. Term of patent 3½ years.



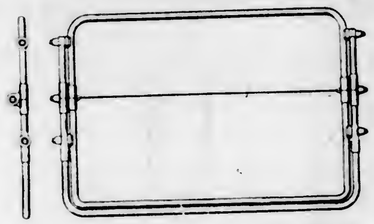
The ornamental design for Levers lace as shown.

45,326. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Jan. 14, 1914. Serial No. 812,151. Term of patent 3½ years.



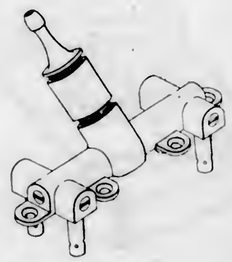
The ornamental design for Levers lace as shown.

45,327. WIND-SHIELD FOR MOTOR-VEHICLES AND THE LIKE. WILLARD G. BRATTON, Pittsburgh, Pa. Filed Nov. 29, 1913. Serial No. 803,851. Term of patent 7 years.



The ornamental design for a wind shield for motor vehicles and the like, as shown.

45,328. FOUNTAIN-BRUSH BACK. FRANK A. BURKHART, Reading, Pa. Filed Oct. 2, 1913. Serial No. 793,076. Term of patent 7 years.



The ornamental design for a fountain brush back, as shown.



45,329. MOTOR-CAR BONNET. EDOUARD HENRI FREDERIC DE TURCKHEIM, Paris, France. Filed Oct. 15, 1912. Serial No. 725,913. Term of patent 7 years.



The ornamental design for a motor car bonnet as shown.

45,330. URINAL. DAVID A. EBINGER, Columbus, Ohio Filed Dec. 26, 1913. Serial No. 808,917. Term of patent 14 years.



The ornamental design for a urinal, as shown.

45,331. PERCOLATOR-POT. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec 11, 1913. Serial No. 806,114. Term of patent 7 years.



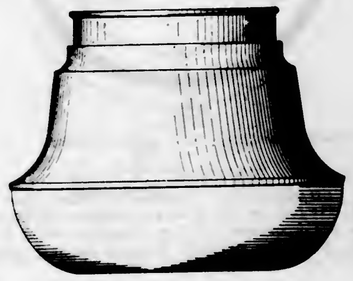
The ornamental design for a percolator pot, as shown

45,332. KETTLE. EDWARD A. FARR, Meriden, Conn. assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 11, 1913. Serial No. 806,115. Term of patent 7 years.



The ornamental design for a kettle as shown.

45,333. POT-BODY. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 11, 1913. Serial No. 806,116. Term of patent 7 years.



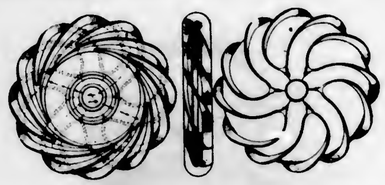
The ornamental design for a pot body as shown.

45,334. THUMB-TACK. CHARLES A. FORD, Newark, N. J. Filed July 21, 1913. Serial No. 780,403. Term of patent 7 years.



The ornamental design for thumb tack, as shown.

45,335. DIFFUSION-DISK. WALTER L. FORWARD, Berkeley, Cal. Filed Jan. 21, 1913. Serial No. 743,414. Term of patent 14 years.



The ornamental design for a diffusion disk, as shown.

45,336. PLATE. WILLIAM P. GRAHAM, Brooklyn, N. Y. Filed Oct. 31, 1913. Serial No. 798,598. Term of patent 7 years.



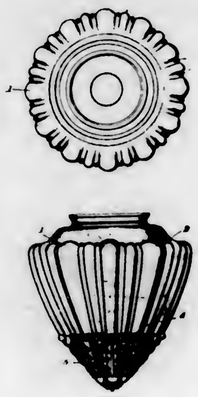
The ornamental design for a plate as shown.

45,337. SHADE-BOWL. EDWARD F. GRAY, New York, N. Y., assignor to Gill Brothers Company, Steubenville, Ohio, a Corporation of West Virginia. Filed Dec. 9, 1913. Serial No. 805,649. Term of patent 7 years.



The ornamental design for a shade bowl substantially as shown and described.

45,338. SHADE. EDWARD F. GRAY, New York, N. Y., assignor to Gill Brothers Company, Steubenville, Ohio, a Corporation of West Virginia. Filed Dec. 9, 1913. Serial No. 805,650. Term of patent 7 years.



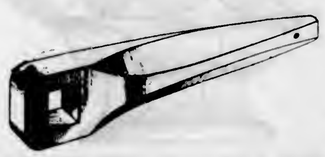
The ornamental design for a shade substantially as shown and described.

45,339. GAS-PLATE. MARY S. C. HARTMANN, Oakland, Cal. Filed Dec. 15, 1913. Serial No. 806,928. Term of patent 14 years.



The ornamental design for a gas plate, as shown.

45,340. NUT-LOCK. DOZIER HESTER, Wade, Miss. Filed Dec. 18, 1913. Serial No. 807,557. Term of patent 14 years.



The ornamental design for a nut lock, as shown.

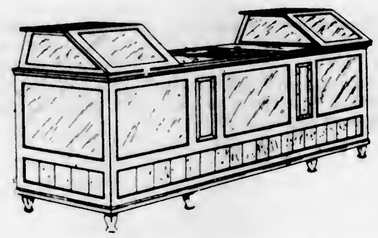


45,341. POCKET-POUCH. JOSEPH WILLIAM KINGHORNE, Burkeville, Va., assignor to American Tobacco Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 12, 1913. Serial No. 800,683. Term of patent 14 years.



The ornamental design for a pocket pouch, as shown.

45,342. DISPLAY-CASE. ADOLPH S. KLEIN, Cleveland, Ohio. Filed Dec. 15, 1913. Serial No. 806,932. Term of patent 7 years.



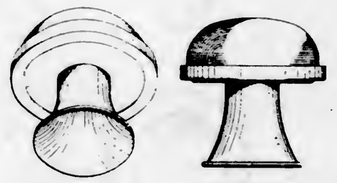
The ornamental design for a display case as shown.

45,343. PLAQUE. ARTHUR E. LONGSHAW, Salt Lake City, Utah. Filed Sept. 29, 1913. Serial No. 792,520. Term of patent 14 years.



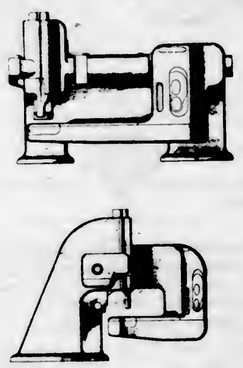

The ornamental design for a plaque as herein shown.

45,344. MOTOR-CYCLE HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 24, 1913. Serial No. 791,653. Term of patent 7 years.



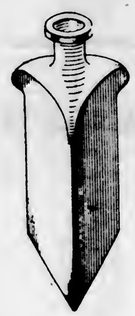
The ornamental design for a motor cycle horn, as shown.

45,345. SEWING-MACHINE FRAME. ARTHUR A. MERRITT, Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y., a Corporation of New York. Filed Oct. 12, 1912. Serial No. 725,522. Term of patent 14 years.



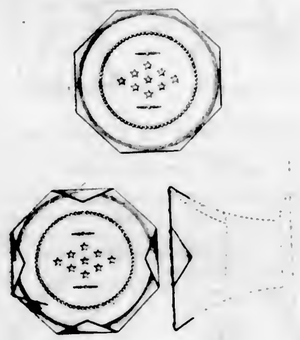
The ornamental design for sewing machine frame, as shown.

45,346. BOTTLE. JOHN F. MEYER, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,769. Term of patent 14 years.



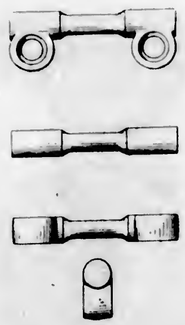
The ornamental design for a bottle, as shown.

45,347. SANITARY TELEPHONE-MOUTHPIECE. CHARLES MUNDY, Hoboken, N. J. Filed Jan. 5, 1914. Serial No. 810,514. Term of patent 7 years.



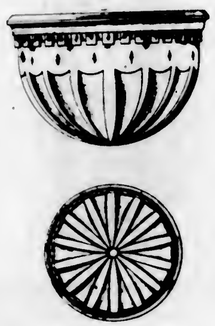
The ornamental design for a sanitary telephone mouthpiece, as shown.

45,348. CONNECTOR FOR STORAGE BATTERIES. RUDOLPH C. NORBERG, Cleveland, Ohio, assignor to The Willard Storage Battery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 14, 1913. Serial No. 801,086. Term of patent 7 years.



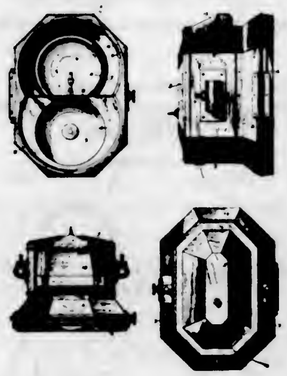
The ornamental design for a connector for storage batteries, as shown.

45,349. LAMP-SHADE. RAYMOND V. OWEN, St. Louis, Mo., assignor to St. Louis Brass Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 26, 1913. Serial No. 803,342. Term of patent 3½ years.



The ornamental design for a lamp shade, as shown.

45,350. COMBINATION-LAMP. JAMES R. PAGIN, Valparaiso, Ind. Filed Aug. 15, 1912. Serial No. 715,304. Term of patent 14 years.



The ornamental design for a combination lamp as shown and described.



45,351. BOTTLE. ALBERT E. PICKARD, Roslyn, N. Y. Filed Dec. 12, 1913. Serial No. 806,348. Term of patent 14 years.



The ornamental design for a bottle as shown and described.

45,352. PARASOL-HANDLE ORNAMENT. PERCIVAL J. REEVE, Haddonfield, N. J. Filed Dec. 4, 1913. Serial No. 804,775. Term of patent 3½ years.



The ornamental design for a parasol handle ornament, substantially as shown and described.

45,353. CUT GEM. MEYER L. ROBBINS, New York, N. Y. Filed Dec. 12, 1913. Serial No. 806,336. Term of patent 7 years.



The ornamental design for a cut-gem, as shown.

45,354. COIN-HOLDER. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Jan. 8, 1914. Serial No. 811,093. Term of patent 3½ years.



The ornamental design for a coin holder, as shown.

45,355. COIN-HOLDER. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Jan. 8, 1914. Serial No. 811,094. Term of patent 3½ years.



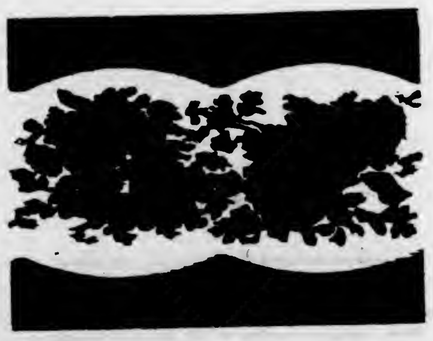
The ornamental design for a coin holder, as shown.

45,356. COIN-HOLDER. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Jan. 8, 1914. Serial No. 811,095. Term of patent 3½ years.



The ornamental design for a coin holder, as shown.

45,357. TEXTILE FABRIC. HERMANN SCHROFF, New York, N. Y., and CHARLES J. CRONK, Weehawken, N. J., assignors to Elms & Sellon, a Copartnership comprised of James C. Elms, East Orange, N. J., Franklin M. Elms, Montclair, N. J., and Charles H. Sellon, South Orange, N. J. Filed Oct. 27, 1913. Serial No. 797,695. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

45,358. BINDING-POST. AUGUSTUS KELLOGG SLOAN, Brooklyn, N. Y. Filed Nov. 4, 1912. Serial No. 729,501. Term of patent 14 years.



The ornamental design for a binding post as shown.

45,359. FILE-CABINET. EDWARD ALLEN THOMPSON, Cloverdale, Cal. Filed Dec. 17, 1913. Serial No. 807,353. Term of patent 14 years.



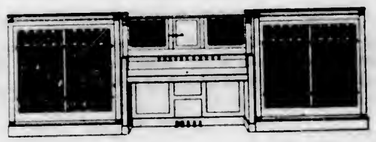
The ornamental design for a file cabinet as shown.

45,360. BEDSTEAD-FITTING. JOHN W. VAIL, Chicago, Ill. Filed Dec. 23, 1913. Serial No. 808,504. Term of patent 14 years.



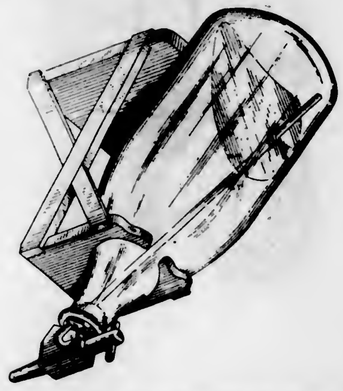
The ornamental design for a bedstead-fitting, as shown and described.

45,361. ORCHESTRION-CASE. BURT R. VAN VALKENBURG, Oakland, Cal. Filed Oct. 23, 1913. Serial No. 796,851. Term of patent 3½ years.



The ornamental design for an orchestrion case as shown.

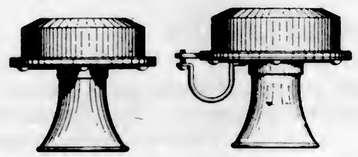
45,362. DISPENSING-RECEPTACLE AND DISPLAY-STAND. NEVIN G. WOODSIDE, Pittsburgh, Pa. Filed Dec. 26, 1913. Serial No. 808,916. Term of patent 14 years.



The ornamental design for a dispensing receptacle and display stand, as shown.

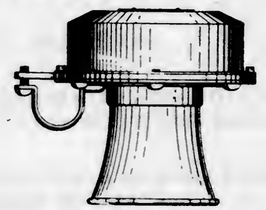


45,363. MOTOR-CYCLE HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 24, 1913. Serial No. 791,652. Term of patent 7 years.



The ornamental design for a motor cycle horn, as shown.

45,364. MOTOR-CYCLE HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Original application filed Sept. 24, 1913, Serial No. 791,652. Divided and this application filed Nov. 24, 1913. Serial No. 802,832. Term of patent 7 years.



The ornamental design for a motor cycle born, as shown.

# TRADE-MARKS

## PUBLISHED MARCH 3, 1914.

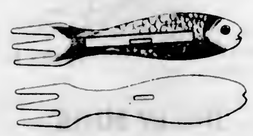
The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

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Ser. No. 36,990. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. AMIEUX & CIE., Nantes, France. Filed Aug. 27, 1908. Under ten-year proviso.



*Particular description of goods.*—Canned Sardines, Vegetables, Pâté de Foie Gras, Game, Poultry, Truffles, Fish Sandwiches, Mustard, and Fruits Pickled in Vinegar and Brine, and Tapiocas.

*Claims use* since May 18, 1885.

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Ser. No. 37,498. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) PORTABLE FRAME & SIGN COMPANY, Milwaukee, Wis. Filed Sept. 19, 1908.




The words "Trade Mark," however, forming no part of the trade-mark.

*Particular description of goods.*—Signs.

*Claims use* since Aug. 25, 1908.

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Ser. No. 41,099. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PELLIER FRÈRES, Mans, France. Filed Mar. 11, 1909. Under ten-year proviso.

CONSERVES ALIMENTAIRES
Maison Fondée en 1829
PELLIER FRÈRES
LE MANS (FRANCE)

*Particular description of goods.*—Canned Small Beans, Green Kidney-Beans, Haricot-Beans, Asparagus, Esculent Boletus, Truffles, Mushrooms, Artichokes, Sardines, Tunny-Fish, Anchovy, Mackerel, Herring, Soles, Lobsters, Spring Lobsters, Salmon, Sprats, Poultry, Game, Meat Pasties, Soup, Porridge, Capers, Gherkins, Red Cabbage, Mixed Pickles, Small Onions, Olives, Pickles, and Fruits Preserved in Juice or Syrup.

*Claims use* since 1829.

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Ser. No. 44,631. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. R. D. EATON CHEMICAL CO., Minneapolis, Minn. Filed Sept. 11, 1909.




Which is a portrait of Dr. R. D. Eaton.

*Particular description of goods.*—A Liniment for Human and Veterinary Use; and Remedies for Colic, Distemper, and Spavins for Animals.

*Claims use* since on or about Mar. 1, 1897.

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Ser. No. 52,833. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FOX RIVER VALLEY CO., Aurora, Ill. Filed Nov. 17, 1910.




*Particular description of goods.*—Cider Vinegar and Distilled Vinegar, Whole Cloves, Whole Allspice, Ground White Pepper, Ground Black Pepper, Mustard-Seed, Leaf-Sage, Leaf-Marjoram, and Caraway-Seed, Cane-Molasses, Rice, Evaporated Milk.

*Claims use* since Oct. 1, 1910.

Ser. No. 57,012. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOLBROOK GROCERY CO., Keene, Woodsville, and Nashua, N. H. Filed June 14, 1911.

WHITE MOUNTAIN

*Particular description of goods.*—Wheat-Flour, Coffee, and Tea.
*Claims use* since about May 5, 1906.

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Ser. No. 57,310. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) GOODYEAR RUBBER CO., San Francisco, Cal. Filed June 26, 1911.

HIPPO

*Particular description of goods.*—Rubber Hose.
*Claims use* since Oct. 1, 1909.

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Ser. No. 58,501. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) A. B. SEELYE MEDICAL CO., Abilene, Kans. Filed Sept. 1, 1911.

HEALA-DERMA

*Particular description of goods.*—Toilet Soap.
*Claims use* since Sept. 1, 1910.

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Ser. No. 58,558. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAY HOBART EGBERT, Willimantic, Conn. Filed Sept. 7, 1911.

OPTONE

*Particular description of goods.*—An Eye Remedy and Tonic.
*Claims use* since on or about October, 1909.

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Ser. No. 58,970. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE NATIONAL ELECTRIC SPECIALTY COMPANY, Toledo, Ohio. Filed Oct. 2, 1911.

VAC-M

*Particular description of goods.*—Lightning-Arresters.
*Claims use* since Dec. 23, 1907.

Ser. No. 59,261. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Oct. 21, 1911.

B

*Particular description of goods.*—Distillates of Coal-Tar Adapted without the Addition of Oils, Gums, or Colors for Use as a Preservative Coating.
*Claims use* since on or about Jan. 1, 1889.

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Ser. No. 59,350. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE M. EMERY, Denver, Colo. Filed Oct. 26, 1911.

ANTI-AGE INE

*Particular description of goods.*—A Facial Enamel.
*Claims use* since Oct. 21, 1911.

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Ser. No. 59,188. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Nov. 1, 1911.

DOLLY MINE

*Particular description of goods.*—Dolls.
*Claims use* since about May, 1911.

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Ser. No. 59,983. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNIE YOUNG, Amsterdam, N. Y. Filed Nov. 28, 1911.

MELLODEW

*Particular description of goods.*—A Remedy for Tan, Sunburn, Freckles, Moth and Liver Spots, Sallow Skin, Blackheads, Pimples, Eruptions, Chapped Hands, Burns, and Wrinkles.
*Claims use* since 1900.

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Ser. No. 60,430. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ARMIGER CHEMICAL CO., Chicago, Ill. Filed Dec. 26, 1911.

REX

*Particular description of goods.*—Wood-Polish Used for Polishing Purposes.
*Claims use* since Oct. 2, 1911.





Ser. No. 60,673. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY COMPANY, Chicago, Ill., and San Francisco, Cal. Filed Jan. 8, 1912.

SUNKIST

*Particular description of goods.*—Catsup, Pickles, Olive-Oil, Jams, Jellies, Olives, Coffee, Tea, Dried Beans for Food.
*Claims use* since Sept. 2, 1911.

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Ser. No. 61,092. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FALLS MACHINE COMPANY, Sheboygan Falls, Wis. Filed Jan. 27, 1912.

Falls

The trade-mark consists of the arbitrary word "Falls," displayed in the distinctive manner shown in the drawing.
*Particular description of goods.*—Internal-Combustion Engines of the Stationary and Automobile Type and Woodworking Machinery—Namely, Rip-Sawing Machines, Automatic Hand-Planers, Automatic Edging and Jointing Saws, Glue-Jointing Machines, Grinding-Machines, Boring-Machines, Undercut Planing-Machines, and Cutters for Woodworking-Machines.
*Claims use* since January, 1903.

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Ser. No. 61,287. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.

T
N Y

*Particular description of goods.*—Artists' Paints and Water-Colors.
*Claims use* since Mar. 1, 1903.

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Ser. No. 61,899. (CLASS 39. CLOTHING.) FREEMAN C. HOGLE, Bay City, Mich. Filed Mar. 4, 1912.

*Particular description of goods.*—Knitted Sweater-Coats, Underskirts, Hoods, and Caps.
*Claims use* since Jan. 30, 1912.

Ser. No. 62,739. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY M. FRECK, Columbus, Ohio. Filed Apr. 8, 1912.

EPICURA

*Particular description of goods.*—A Remedy for Epilepsy.
*Claims use* since Dec. 10, 1911.

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Ser. No. 62,897. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE J. & G. BUTLER CO., Columbus, Ohio. Filed Apr. 15, 1912.

HORSE HEAD

*Particular description of goods.*—A Blend of Rye and Bourbon Whisky.
*Claims use* since about Jan. 1, 1907.

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Ser. No. 63,264. (CLASS 38. PRINTS AND PUBLICATIONS.) AMERICAN FEDERATION OF LABOR, Washington, D. C. Filed May 2, 1912.

AMERICAN FEDERATION OF LABOR

*Particular description of goods.*—Books, Pamphlets, and Circulars.
*Claims use* since 1886.

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Ser. No. 63,973. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES BEVERLY BRAGASSA, Tulsa, Okla. Filed June 4, 1912.

LIME O GRIT

*Particular description of goods.*—A Poultry Food.
*Claims use* since Apr. 1, 1912.

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Ser. No. 64,240. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PERCIVAL H. TROUTMAN, Canon City, Colo. Filed June 17, 1912.

ROYAL GORGE

*Particular description of goods.*—Jams, Jellies, Canned Fruits, Apple-Butter, and Fresh Boxed Apples.
*Claims use* since July 1, 1905.

Ser. No. 65,214. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AKTIEBOLAGET BALTIC, Framnäs, Södertelje, Sweden. Filed Aug. 12, 1912.

BALTIC

*Particular description of goods.*—Hand and Power Separators, Turbine-Separators, Butter-Churns, Butter-Workers, Milk-Pumps, Milk-Scales, Milk-Strainers, Cheese-Presses, Cheese-Vats, Homogenizers, and Milking-Machines.
*Claims use* since about 1902.

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Ser. No. 66,206. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) FLORENCE MANUFACTURING COMPANY, Northampton, Mass. Filed Oct. 9, 1912.



The trade-mark consisting of a narrow band encircling the handle and located near the outer end thereof.
*Particular description of goods.*—Tooth-Brushes.
*Claims use* since Sept. 1, 1912.

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Ser. No. 66,316. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) ETABLISSEMENTS CH. LOONEN SOCIETE ANONYME, Paris, France. Filed Oct. 16, 1912.



*Particular description of goods.*—Tooth-Brushes, Nail-Brushes, Flesh-Brushes, Hair-Brushes, Hat-Brushes, Clothes-Brushes.
*Claims use* since 1839.

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Ser. No. 66,319. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE COMPANY, New York, N. Y. Filed Oct. 16, 1912.

KRAFT

*Particular description of goods.*—Dye Stuff and Colors.
*Claims use* since the year 1909.

Ser. No. 67,184. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE DUEBER WATCH CASE MFG. CO., Canton, Ohio. Filed Nov. 30, 1912. Under ten-year proviso.




*Particular description of goods.*—Eighteen-Carat-Gold Watchcases.
*Claims use* since 1877.

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Ser. No. 67,684. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SOLOMON I. SCHWARZ, Cleveland, Ohio. Filed Jan. 2, 1913.

SISCO

*Particular description of goods.*—Robes in the Nature of Lap-Robes for Use in Vehicles.
*Claims use* since the 26th day of December, 1912.

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Ser. No. 68,014. (CLASS 48. MALT EXTRACTS AND LIQUORS.) LEISEN & HENES BREWING CO., Menominee, Mich. Filed Jan. 20, 1913.



*Particular description of goods.*—Beer.
*Claims use* since about 1885.

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Ser. No. 68,113. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CROUSE-HINDS COMPANY, Syracuse, N. Y. Filed Jan. 25, 1913.

ADJUSTAROD

The trade-mark consists of the word "Adjustarod."
*Particular description of goods.*—Anchor-Rods for Anchors for Guy-Wires.
*Claims use* since on or before Sept. 1, 1911.

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Ser. No. 68,461. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich. Filed Feb. 10, 1913.

SONOMA

*Particular description of goods.*—Pulverized Graphite.
*Claims use* since January, 1898.





Ser. No. 68,661. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE OHIO SUSPENDER COMPANY, Mansfield, Ohio. Filed Feb. 21, 1913.

KADY GARTERS

The word "Garters" being disclaimed.
*Particular description of goods.*—Garters.
*Claims use* since Dec. 23, 1912.

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Ser. No. 69,540. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KATHREINERS MALZKAFFEE-FABRIKEN G. M. B. H., Berlin, Germany. Filed Apr. 2, 1913.



The picture being that of Sebastian Kneipp, deceased, and the signature being a facsimile of the signature of the same person, no claim being made to the printed words and the numerals.
*Particular description of goods.*—Malt Coffee.
*Claims use* since January, 1899.

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Ser. No. 69,929. (CLASS 38. PRINTS AND PUBLICATIONS.) SULLIVAN MACHINERY COMPANY, Chicago, Ill. Filed Apr. 19, 1913.

MINE AND QUARRY

*Particular description of goods.*—Quarterly Publications.
*Claims use* since May, 1906.

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Ser. No. 70,095. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HUNTLEY MANUFACTURING COMPANY, Silver Creek, N. Y. Filed Apr. 28, 1913.

MONITOR

*Particular description of goods.*—Grain Separating and Cleaning Machinery Consisting of Aspirators, Bean and Pea Graders, Polishers, and Cleaners, Buckwheat Shuckers, Cleaners, Cornmeal-Bolters, Corn Shellers, Feeders and Mixers, Finishers, Graders and Polishers, Oat-Clippers, Oat-Extractors, Oat Clippers and Cleaners, Receiving-Cleaners, Scouring-Regulators, Separators, Smutters, Scourers, Scourers and Polishers, Seed Separators, Washers, Coolers and Driers; Canners' Machinery Consisting of Blanchers, Fruit and Vegetable Cutters, Corn-Huskers, Can-Fillers, Elevators, Feeders, Fruit-Pitters, Fruit and Vegetable Cleaners, Peeling and Preparing Tables, Picking-Tables, Polishers, Cleaners and Graders, Separators, Thistle-Separators, and Sanitary Tables; Peanut Machinery Consisting of Aspirators, Separators, and Graders and Separators; Coffee, Tea, and Spice Machinery Consisting of Blenders, Finishers, Cooling-Boxes, Coffee-Picking Tables, Cylinder Coolers, Elevators, Hopper-Trucks, Mixers and Polishers, Roasters, Separators and Graders, Stoning and Cooling Outfits, Tea-Mixers, and Weighing-Tubs; Mill and Special Machinery Consisting of Air-Regulators for Cleaning-Machines, Dust-Packers, Dust-Collectors, Elevators, Flour, Bran, and Alfalfa Packers, Receiving and Scalping Shoes, Scalping and Grading Shoes, Screenings-Separators, Wheat-Peelers; and Parts Thereof.
*Claims use* since Jan. 15, 1886.

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Ser. No. 70,113. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FRAZIER & BACHMANN, Knowlton, Pa. Filed Apr. 29, 1913.



The picture shown in the drawing is fanciful.
*Particular description of goods.*—Polishing-Powder for Glass and Metals.
*Claims use* since February, 1913.

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Ser. No. 70,156. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) NEW CASTLE LEATHER CO., New York, N. Y. Filed May 1, 1913.




The word "Buck" indicated on the drawing being disclaimed.
*Particular description of goods.*—White Side Leather in Imitation of Buckskin.
*Claims use* since Oct. 1, 1912.

Ser. No. 70,311. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALLIT MINT COMPANY, Wilmington, Del., and Chicago, Ill. Filed May 9, 1913.

Callit

*Particular description of goods.*—Candy Confections.
*Claims use* since May 2, 1913.

Ser. No. 70,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPRAGUE, WARNER & COMPANY, Chicago, Ill. Filed May 21, 1913.

GRAY GOOSE



*Particular description of goods.*—Canned Fruits, Canned Vegetables, and Canned Fish—to wit, Canned Peaches, Pears, Tomatoes, Corn, Oysters, and Salmon.
*Claims use* since on or about the 17th day of April, 1913.

Ser. No. 70,634. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN G. SCHUERGER, Washington, D. C. Filed May 24, 1913.




The star being printed in white, the upper portion of the design in blue, the lower portion of the design in red, the words "Star of the East" in red, and the rays from the star being printed in blue and extended over the red letters spelling "Star of the East."
*Particular description of goods.*—Bread.
*Claims use* since about Feb. 19, 1913.

Ser. No. 70,956. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GALLET, PELLERIN ET CIE., Paris, France. Filed June 7, 1913.



*Particular description of goods.*—Pastes and Powders for Beautifying and Preserving the Teeth, Skin, and Hair, and Perfumery.
*Claims use* since the 2d day of January, 1891.

Ser. No. 71,070. (CLASS 17. TOBACCO PRODUCTS.) H. L. HAINES & Co., Red Lion, Pa. Filed June 12, 1913.

HASENPFEFFER

*Particular description of goods.*—Cigars.
*Claims use* since Mar. 10, 1913.

Ser. No. 71,433. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARBUCKLE BROTHERS, New York, N. Y., and Chicago, Ill. Filed June 30, 1913.

Natural

*Particular description of goods.*—Mustard, Nutmeg, Sage, Mace, White Pepper, Red Pepper, Black Pepper, Jamaica Ginger, Allspice, Cloves, Cinnamon, and Flavoring Extracts.
*Claims use* since Feb. 18, 1913.

Ser. No. 71,474. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) S. H. COHN, Neukölln, near Berlin, Germany. Filed July 2, 1913.

Durolith

*Particular description of goods.*—Lacquers and Varnishes.
*Claims use* since Apr. 22, 1911.

Ser. No. 71,611. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALLAHAN & SONS, Louisville, Ky. Filed July 9, 1913.

ELECTRIC

*Particular description of goods.*—Whole Oats Clipped or in the Natural State for Feeding or Milling Purposes.
*Claims use* since about Feb. 17, 1900.

Ser. No. 71,767. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL YEAST COMPANY, Cedar Rapids, Iowa. Filed July 16, 1913.

IDEAL

*Particular description of goods.*—Yeast.
*Claims use* since October, 1912.





Ser. No. 71,769. (CLASS 17. TOBACCO PRODUCTS.) WALTER E. OLSEN & COMPANY, Manila, Philippine Islands. Filed July 16, 1913.

"EL TRIO"

*Particular description of goods.*—Cigars.
*Claims use* since December, 1912.

Ser. No. 71,841. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed July 18, 1913.

FERROPHYTINE

*Particular description of goods.*—A Pharmaceutical Product Consisting in the Iron Salt of the Inosite Phosphoric Acid and of Albumin, and Particularly Applicable as an Iron Preparation.
*Claims use* since Sept. 19, 1911.

Ser. No. 71,846. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed July 18, 1913.

SILVATOL

*Particular description of goods.*—Olein-Oil and an Oil Preparation Made of Sulfonated Castor-Oil and an Emulsion of This Oil Preparation in Water, Particularly Applicable as Finishes, Weighting, Softening, Degreasing, and Cleansing Agents for the Textile Industry.
*Claims use* since Sept. 3, 1906.

Ser. No. 72,119. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SANITARY FOOD MANUFACTURING COMPANY, St. Paul, Minn. Filed Aug. 1, 1913.




*Particular description of goods.*—Chocolate Creams, Chocolate Caramels, Any Fondants, Nuts, or Fruit Dipped in Chocolate, Creams, Bonbons, Marshmallows, Fudge, Caramels, Chewing-Candies, Peanut and Cocoanut Candies, Salted Nuts of All Kinds, Hard-Boiled Candies, Mixed Stick, Drops, Squares, and Cuts, Sugar Sand, Jellies, and Gum-Drops.
*Claims use* since the 10th day of February, 1912.

Ser. No. 72,156. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LA CROSSE PLOW CO., La Crosse, Wis. Filed Aug. 4, 1913.

THE BEETER

*Particular description of goods.*—Plows, Such as Disk Plows.
*Claims use* since February, 1911.

Ser. No. 72,371. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN- & SODA-FABRIK, Ludwigshafen-on-the-Rhine, Germany. Filed Aug. 16, 1913.

Ortamine

*Particular description of goods.*—Coloring-Matters and Chemicals Used in Dyeing and Printing.
*Claims use* since Feb. 24, 1913.

Ser. No. 72,454. (CLASS 17. TOBACCO PRODUCTS.) COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands. Filed Aug. 21, 1913.

ROSALES

*Particular description of goods.*—Cigars.
*Claims use* since about the 20th day of December, 1912.

Ser. No. 72,457. (CLASS 17. TOBACCO PRODUCTS.) COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands. Filed Aug. 21, 1913.

EL MORO

*Particular description of goods.*—Cigars.
*Claims use* since about the 12th day of May, 1913.

Ser. No. 72,461. (CLASS 17. TOBACCO PRODUCTS.) COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands. Filed Aug. 21, 1913.

Santillana

*Particular description of goods.*—Cigars.
*Claims use* since about the 16th day of December, 1912.

Ser. No. 72,502. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANZ LOEB, New York, N. Y. Filed Aug. 23, 1913.

Hexalet

*Particular description of goods.*—Internal Disinfectants for Uric-Acid Diathesis and Genital-Urinary Inflammations.
*Claims use* since Aug. 21, 1913.

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Ser. No. 72,508. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BRYN & HALDEN TAENDSTIKFABRIKKER, Bryn, near Christiania, Norway. Filed Aug. 25, 1913.



The word "Haldens" being disclaimed.
*Particular description of goods.*—Matches.
*Claims use* since Mar. 4, 1907.

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Ser. No. 72,517. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HORACE WILBUR LOVELAND, Wichita, Kans. Filed Aug. 25, 1913.

JUMBOLETTS

*Particular description of goods.*—Popcorn Confection.
*Claims use* since Mar. 1, 1913.

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Ser. No. 72,525. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COURTAULDS, LIMITED, London, England. Filed Aug. 26, 1913.

MYOSOTIS

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since Sept. 1, 1907.

Ser. No. 72,641. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPOKANE FRUIT GROWERS CO., Spokane, Wash. Filed Sept. 2, 1913.

REDSKIN FRUITS



Hereby expressly disclaiming any past or present intention of appropriating or of adopting as part of said trade-mark the word "Fruits."
*Particular description of goods.*—Fresh Apples and Fresh Peaches.
*Claims use* since Aug. 20, 1913.

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Ser. No. 72,666. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MERCHANTS CANDY CO., Salt Lake City, Utah. Filed Sept. 3, 1913.



*Particular description of goods.*—Candy.
*Claims use* since Aug. 16, 1913.

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Ser. No. 72,776. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LEWIS E. BURLEIGH, Chicago, Ill. Filed Sept. 11, 1913.

Savo

*Particular description of goods.*—An Air-Moistener.
*Claims use* since July, 1906.

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Ser. No. 72,898. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) MORRIS SOLOMON, New York, N. Y. Filed Sept. 16, 1913.

COMMONWEALTH

*Particular description of goods.*—Silver Hollow Ware.
*Claims use* since July 29, 1913.





Ser. No. 72,957. (CLASS 33. GLASSWARE.) REX-CONSERVENGLAS-GESELLSCHAFT LEONHARDT & KLEEMANN, Homburg vor der Höhe, Germany. Filed Sept. 19, 1913.

Rex

*Particular description of goods.*—Preserve-Glasses.
*Claims use* since March, 1905.

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Ser. No. 72,981. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) RICHARD ROTH, New York, N. Y. Filed Sept. 20, 1913.



The picture being fanciful.
*Particular description of goods.*—Lace Neckwear for Ladies, Ladies' Flowers, Millinery, Lace Collars, Lace Jabots, Ruffings Made of Net and Chiffon, Sashes, Girdles, Bows for Ladies' Wear, and Lace Sets.
*Claims use* since Aug. 15, 1913.

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Ser. No. 72,994. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE PEERLESS MACHINERY COMPANY, Boston, Mass. Filed Sept. 22, 1913.



*Particular description of goods.*—Celluloid-Covered Eyelets and Lacing-Hooks for Shoes.
*Claims use* since Sept. 15, 1913.

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Ser. No. 73,020. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) IMRE WARGA, Long Island City, N. Y. Filed Sept. 23, 1913.

WONDERSCOPE

*Particular description of goods.*—Kaleidoscopes.
*Claims use* since Aug. 15, 1913.

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Ser. No. 73,289. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) SIMON P. ECKI, Manafield, Ohio. Filed Oct. 9, 1913.

TRADE MARK
FLASHLIGHT

*Particular description of goods.*—Friction-Matches.
*Claims use* since Sept. 30, 1913.

Ser. No. 73,493. (CLASS 37. PAPER AND STATIONERY.) JULIUS L. SCHNELL, New York, N. Y. Filed Oct. 18, 1913.



"KING" SELF-FILLER

Comprising the word-symbol "King" with an adjacent imprint of a crowned human head. The descriptive compound word "Self-Filler" forms no part of my registered trade-mark.
*Particular description of goods.*—Fountain-Pens.
*Claims use* since Oct. 2, 1913.

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Ser. No. 73,505. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ESSEX GELATINE COMPANY, Jersey City, N. J., and Boston, Mass. Filed Oct. 20, 1913.




No claim being made to the words "Essex Gelatine."
*Particular description of goods.*—Gelatin.
*Claims use* since about June 3, 1913.

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Ser. No. 73,531. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIBBY, MCNEILL & LIBBY, Chicago, Ill. Filed Oct. 21, 1913.




*Particular description of goods.*—Canned Fruits and Canned Fish.
*Claims use* since March, 1909.

Ser. No. 73,546. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL MILLING COMPANY, Lockport, N. Y. Filed Oct. 22, 1913.

MOHAWK

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Dec. 4, 1905.

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Ser. No. 73,627. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GEORGES LÉVY, Paris, France. Filed Oct. 27, 1913.

LES GRANDS FILMS POPULAIRES

No claim is made to the exclusive use of the words "Les Grands Films Populaires."
*Particular description of goods.*—Kinematographic Bands or Films, Apparatuses or Cameras for Taking Up, Printing, and Projecting Kinematographic Bands or Films.
*Claims use* since June, 1910.

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Ser. No. 73,844. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FRANZ BRUCKNER MANUFACTURING COMPANY, New York, N. Y. Filed Nov. 7, 1913.




The words "Made in Austria, Glaced Silk Strings, They are Made Scientifically Correct," and "Guaranteed Waterproof" not being claimed herein.
*Particular description of goods.*—Strings for Musical Instruments.
*Claims use* since Oct. 15, 1913.

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Ser. No. 73,938. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) FRANCIS A. WAGNER, Dayton, Ohio. Filed Nov. 12, 1913.




*Particular description of goods.*—Mechanical Toys Consisting in Collections of Mechanical Elements to be Combined into Various Mechanical Structures.
*Claims use* since Jan. 1, 1913.

Ser. No. 73,962. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHEUERTHEEVERSAND-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Wilmersdorf, near Berlin, Germany. Filed Nov. 13, 1913.




The portrait shown being that of Sigfried Scheuer, deceased.
*Particular description of goods.*—A Remedy for Diabetes, in Tablet Form.
*Claims use* since the 15th of May, 1909.

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Ser. No. 73,981. (CLASS 2. RECEPTACLES.) HENRY R. HANSEN, Jersey City, N. J. Filed Nov. 14, 1913.

CUCKOO

*Particular description of goods.*—Paper Bags and Paper Boxes.
*Claims use* since Nov. 1, 1913.

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Ser. No. 74,047. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) WINCHESTER REPEATING ARMS CO., New Haven, Conn. Filed Nov. 17, 1913.

SPOTLIGHT

*Particular description of goods.*—Rifle-Cartridges.
*Claims use* since Nov. 12, 1913.

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Ser. No. 74,129. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. F. BOEHRINGER & SOEHNE, Mannheim-Waldhof, Germany. Filed Nov. 21, 1913.

NARCOPHIN

*Particular description of goods.*—Double Salt of Narcotin and Morphin.
*Claims use* since July, 1912.

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Ser. No. 74,160. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELSÄSSISCHE WERKZEUGFABRIK ZORNHOFF VORMALS GOLDENBERG & Co., Zornhoff, near Zabern, Germany. Filed Nov. 24, 1913.



*Particular description of goods.*—Files and Rasps of All Kinds.
*Claims use* since Oct. 8, 1858.





Ser. No. 74,255. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) INTERNATIONAL SUPPLY CO., Hartford, Conn. Filed Nov. 29, 1913.



*Particular description of goods.*—Liniment.
*Claims use* since July, 1913.

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Ser. No. 74,300. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) L. TEWELES & Co., Milwaukee, Wis. Filed Dec. 1, 1913.

TIGER



*Particular description of goods.*—Grass and Field Seeds.
*Claims use* since Jan. 1, 1908.

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Ser. No. 74,307. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FRANK & MEYER NECKWEAR COMPANY, St. Louis, Mo. Filed Dec. 2, 1913.

REGAL

*Particular description of goods.*—Men's, Women's, and Children's Neckties of All Kinds; Belts for Personal Wear; Suspenders; and Garters.
*Claims use* since on or about the 25th day of November, 1913.

Ser. No. 74,308. (CLASS 10. FERTILIZERS.) FOREIGN PRODUCTS COMPANY, INC., Baltimore, Md. Filed Dec. 2, 1913.



*Particular description of goods.*—A Fertilizer.
*Claims use* since Nov. 10, 1913.

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Ser. No. 74,313. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHN L. RADERMACHER, New York, N. Y. Filed Dec. 2, 1913.

"VICKTORY"

*Particular description of goods.*—Mattresses.
*Claims use* since Nov. 15, 1913.

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Ser. No. 74,334. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ORA KRICHBAUM, Ashland, Ohio. Filed Dec. 3, 1913.

MAXOTIRE

*Particular description of goods.*—Inner Tires or Inner Liners for Use in Connection with Vehicle and Motor-Vehicle Tires.
*Claims use* since Nov. 28, 1913.

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Ser. No. 74,395. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FORT OGDEN CITRUS GROWERS ASSOCIATION, Fort Ogden, Fla. Filed Dec. 5, 1913.

SAPSUCKER

*Particular description of goods.*—Citrus Fruits.
*Claims use* since August, 1911.

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Ser. No. 74,408. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOUIS BURK, Philadelphia, Pa. Filed Dec. 6, 1913.




No claim being made herein to the exclusive use of the words "Burk's Pure Pastry Lard."
*Particular description of goods.*—Lard.
*Claims use* since about Feb. 5, 1910.

Ser. No. 74,418. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE NATIONAL FIREWORKS DISTRIBUTING COMPANY, Boston, Mass. Filed Dec. 6, 1913.

GOLD DRAGON SALUTES



Comprising the words "Gold Dragon" and the representation of a dragon, no claim being made to the word "Salutes."

*Particular description of goods.*—Firecrackers.

*Claims use* since December, 1911.

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Ser. No. 74,437. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES AMMEN, Jackson, La. Filed Dec. 8, 1913.




*Particular description of goods.*—A Flux for Tinning Brass, Copper, &c.

*Claims use* since Nov. 14, 1913.

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Ser. No. 74,441. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BLACK HILLS WHOLESALE GROCERY COMPANY, Rapid City, S. D. Filed Dec. 8, 1913.




*Particular description of goods.*—Canned Fruits, Canned Vegetables, Canned Fish, Coffee, Spices, and Mince-Meat.

*Claims use* since Jan. 1, 1911.

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Ser. No. 74,461. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Dec. 9, 1913.

KEWPIE

*Particular description of goods.*—Nettings, Veilings, Scrims, Voiles, Chiffons, Muslins, Crêpe de Chine, Malines, Illusions, Laces, (Piece Goods,) Veils, and Children's Handkerchiefs.

*Claims use* since about Dec. 1, 1913.

Ser. No. 74,503. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY CO., San Francisco, Cal. Filed Dec. 11, 1913.

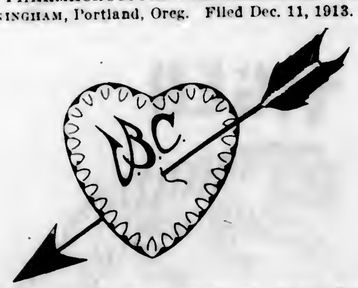


*Particular description of goods.*—Raisins, Dried Fruits, Nuts, Canned Fruits, Canned Vegetables, Canned Chilli, Canned Pimientoes, Canned Milk, Canned Salmon, Olives, Olive-Oil, Catsup, Pickles, Dried Beans, Coffee, Tea, and Butter.

*Claims use* since April, 1911.

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Ser. No. 74,514. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VAN B. CUNNINGHAM, Portland, Oreg. Filed Dec. 11, 1913.




*Particular description of goods.*—A Rodent-Exterminator.

*Claims use* since Nov. 1, 1913.

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Ser. No. 74,519. (CLASS 39. CLOTHING.) LANCASTER MILLS, Clinton, Mass. Filed Dec. 11, 1913.




*Particular description of goods.*—Aprons, Rompers, Wrappers, Shirts, and Pajamas.

*Claims use* since the year 1906.

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Ser. No. 74,533. (CLASS 39. CLOTHING.) HOOD RUBBER COMPANY, Watertown, Mass. Filed Dec. 12, 1913.

KICKOFF

*Particular description of goods.*—Rubber Boots and Shoes, Rubber Overshoes, and Rubber-Soled Canvas Boots and Shoes.

*Claims use* since February, 1909.

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Ser. No. 74,540. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE




ADIPOSA COMPANY, Chicago, Ill. Filed Dec. 12, 1913.

*Particular description of goods.*—Massage-Cream.

*Claims use* since Nov. 15, 1913.





Ser. No. 74,599. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) UNIVERSAL WINDING COMPANY, Providence, R. I., and Boston, Mass. Filed Dec. 13, 1913.



The trade-mark consists of the word "Leeson," being part of the facsimile signature of Joseph R. Leeson, president of the Universal Winding Company, arranged with the letters thereof combined with and entwined about the letters of the word "Magnet." No claim is made for the exclusive right to the use of the following: "Universal Winding Co., Boston, U. S. A., Universal Winding System," or to the representation of the name-plate as shown.

*Particular description of goods.*—Machines for Coiling Wire or other Conducting Material in the Manufacture of Electrical Coils.

*Claims use* since Oct. 1, 1913.

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Ser. No. 74,618. (CLASS 39. CLOTHING.) NEENAH SHOE CO., Neenah, Wis. Filed Dec. 15, 1913.




*Particular description of goods.*—Boys', Young Men's, and Men's Leather Boots and Shoes.

*Claims use* since Jan. 24, 1910.

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Ser. No. 74,664. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) P. BAILLY & CIE., Paris, France. Filed Dec. 18, 1913. Under ten-year proviso.



*Particular description of goods.*—Shoulder-Braces and Suspenders.

*Claims use* since about the 29th day of January, 1857.

Ser. No. 74,665. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) P. BAILLY & CIE., Paris, France. Filed Dec. 18, 1913. Under ten-year proviso.

C☆G
BRETELLES HYGIÉNIQUES
MÉDAILLES BRONZE 1867 ARGENT 1889

CHARLES GUYOT
A PARIS

Except the line "Medaille de Bronze 1867, Argent 1889," which is disclaimed as part thereof.

*Particular description of goods.*—Shoulder-Braces and Suspenders.

*Claims use* since about the 29th day of January, 1857.

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Ser. No. 74,666. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) P. BAILLY & CIE., Paris, France. Filed Dec. 18, 1913. Under ten-year proviso.




The trade-mark is shown in the accompanying drawing, except that the medals shown thereon and the line reading "1, Avenue De La Republique—Manufacture Rue Dutot, 75 & 77, Paris," are disclaimed as part thereof.

*Particular description of goods.*—Shoulder-Braces and Suspenders.

*Claims use* since about the 29th day of January, 1857.

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Ser. No. 74,668. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) C. BOCKIUS CO., Philadelphia, Pa. Filed Dec. 18, 1913.




No claim being made for the word "Bockius."

*Particular description of goods.*—Glazed Kid Manufactured from Goatskins for Shoemaking Purposes.

*Claims use* since Nov. 26, 1913.

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Ser. No. 74,681. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) SOMMERS BROS. MATCH CO., Saginaw, Mich. Filed Dec. 18, 1913.




White letters being shown on a red background.

*Particular description of goods.*—Matches.

*Claims use* since Nov. 25, 1913.

Ser. No. 74,682. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. L. SCOTT, Cincinnati, Ohio. Filed Dec. 18, 1913.




*Particular description of goods.*—Candy.
*Claims use* since Nov. 25, 1913.

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Ser. No. 74,691. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) C. TENNANT SONS & CO. OF NEW YORK, New York, N. Y. Filed Dec. 19, 1913.




*Particular description of goods.*—Pure Gum Spirits of Turpentine, Spirits of Turpentine, and Turpentine Substitutes.
*Claims use* since Sept. 6, 1912.

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Ser. No. 74,703. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ILLINOIS IRON & BOLT CO., Carpentersville, Ill. Filed Dec. 20, 1913.

BADGER

*Particular description of goods.*—Jack-Screws.
*Claims use* since about July 1, 1913.

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Ser. No. 74,717. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Dec. 20, 1913. Under ten-year proviso.

DEERING

*Particular description of goods.*—Binders, Reapers, Headers, Header-Binders, Mowers, Rakes, Tedders, Hay-Loaders, Hay-Presses, Stackers, Combined Rakes and Stackers, Planters, Cultivators, Corn-Binders, Corn-Pickers, Corn-Shellers, Cornstalk Rakes, Huskers, and Shredders, Ensilage-Cutters, Harrows, Feed-Grinders, Cream-Separators, Oil and Gas Engines, Stalk-Cutters, Tractors, Manure-Spreaders, Knife and Tool Grinders, Binder-Hitches, Grain-Drills, Fertilizer-Drills, Seeders, Lime-Sowers, and Separate Parts for Each of Said Machines.
*Claims use* since 1874.

Ser. No. 74,719. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Dec. 20, 1913. Under ten-year proviso.

OSBORNE

*Particular description of goods.*—Binders, Reapers, Headers, Header-Binders, Mowers, Rakes, Tedders, Hay-Loaders, Hay-Presses, Stackers, Combined Rakes and Stackers, Planters, Cultivators, Corn-Binders, Corn-Pickers, Corn-Shellers, Cornstalk Rakes, Huskers, and Shredders, Ensilage-Cutters, Harrows, Feed-Grinders, Cream-Separators, Oil and Gas Engines, Stalk-Cutters, Tractors, Manure-Spreaders, Knife and Tool Grinders, Binder-Hitches, Grain-Drills, Fertilizer-Drills, Seeders, Lime-Sowers, and Separate Parts for Each of Said Machines.
*Claims use* since 1856.

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Ser. No. 74,741. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) R. M. ROSE COMPANY, Chattanooga, Tenn. Filed Dec. 20, 1913. Under ten-year proviso.

ROSE'S

*Particular description of goods.*—Gin, Medicinal Malt Whisky, Straight Whisky, Blended Whisky, Cherry Cordial, Rock and Rye, Dry Martini Cocktail, Manhattan Cocktail, Rum, and Wild-Cherry Rum.
*Claims use* since the year 1889.

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Ser. No. 74,755. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RICH TOOL COMPANY, Chicago, Ill. Filed Dec. 20, 1913.




No claim being made herein to the word "Rich."
*Particular description of goods.*—Reamers and Drills.
*Claims use* since Oct. 1, 1913.

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Ser. No. 74,776. (CLASS 39. CLOTHING.) THE EMPIRE KNITTING CO., Cleveland, Ohio. Filed Dec. 22, 1913.

UNYTO

*Particular description of goods.*—Sweaters.
*Claims use* since Jan. 1, 1913.





Ser. No. 74,790. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SHERI-TONE COMPANY, Oakland, Cal. Filed Dec. 22, 1913.

SHERI-TONE

*Particular description of goods.*—Laxatives, Tonics, Stimulants, and Digestants.
*Claims use* since Oct. 2, 1913.

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Ser. No. 74,797. (CLASS 15. OILS AND GREASES.) HARRY COOLEY, Madison, Wis. Filed Dec. 20, 1913.

H-Y-C-O

*Particular description of goods.*—Auto-Oils, Castor Machine-Oil, Separator-Oils, Gun-Oil, Graphite Harvester-Oil, Harvester-Oil, Coach-Oil, Cylinder-Oil, Gas-Engine Oil, Turbine-Oil, Dynamo-Machine Oil, Type-Writer Oil, Axle-Greases, Transmission-Greases, and Sponge-Greases.
*Claims use* since Dec. 1, 1913.

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Ser. No. 74,799. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) BARLOW & SEELIG MFG. CO., Ripon, Wis. Filed Dec. 23, 1913.

BIG 3

*Particular description of goods.*—Washing-Machines.
*Claims use* since Dec. 23, 1909.

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Ser. No. 74,807. (CLASS 33. GLASSWARE.) J. HOARE & COMPANY, Corning, N. Y. Filed Dec. 23, 1913.

J. HOARE & CO. 1853

The trade-mark shown in the accompanying drawing, excepting the name "J. Hoare & Co." which is disclaimed as part thereof.
*Particular description of goods.*—Cut and Engraved Glass.
*Claims use* since early in the year 1895.

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Ser. No. 74,821. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed Dec. 24, 1913.

Taffetango

*Particular description of goods.*—Silk Dress Piece Goods.
*Claims use* since Dec. 1, 1913.

Ser. No. 74,853. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LENA G. SMUCKLER, Portland, Oreg. Filed Dec. 26, 1913.

FGM

*Particular description of goods.*—Piano and Auto Polish.
*Claims use* since April, 1913.

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Ser. No. 74,861. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JACOB LEON LASCOFF, New York, N. Y. Filed Dec. 27, 1913. Consists of the arbitrary word "Tabusol."

TABUSOL

*Particular description of goods.*—Antiseptic and Aseptic Liquids and Disinfectants, and Especially Such of the Aforesaid Which are Dispensed in Ampuls or Sealed Glass Tubes.
*Claims use* since Dec. 1, 1913.

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Ser. No. 74,877. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) KEYSTONE SPRING WORKS, Philadelphia, Pa. Filed Dec. 29, 1913.

SIMFLEX

*Particular description of goods.*—Shock-Absorbers.
*Claims use* since Nov. 25, 1913.

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Ser. No. 74,884. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA ELIZABETH ROBINS, Richmond, Va. Filed Dec. 29, 1913.

CAPSO-Q

*Particular description of goods.*—Tablets for Malaria and Colds.
*Claims use* since Dec. 23, 1913.

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Ser. No. 74,910. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHN LEE CLARKE, Albuquerque, N. Mex. Filed Dec. 31, 1913.

Hi-Dri

*Particular description of goods.*—Clothes-Racks.
*Claims use* since Jan. 26, 1913.

Ser. No. 74,917. (CLASS 39. CLOTHING.) THE LA RESISTA CORSET COMPANY, Bridgeport, Conn.; New York, N. Y.; Boston, Mass., and Paris, France. Filed Dec. 31, 1913.

"SPIRABONE"

*Particular description of goods.*—Corsets.
*Claims use* since May 1, 1902.

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Ser. No. 74,954. (CLASS 38. PRINTS AND PUBLICATIONS.) THE GEORGE C. WHITNEY CO., Worcester, Mass. Filed Jan. 2, 1914.

W M

*Particular description of goods.*—Christmas, Easter, and Fine-Art Cards, Prints, and Valentines.
*Claims use* since Dec. 22, 1913.

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Ser. No. 74,958. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 3, 1914.

O-U-NET

The trade-mark is shown in the accompanying drawing, except the word "Net," which is disclaimed.
*Particular description of goods.*—Hair-Nets.
*Claims use* since Dec. 22, 1913.

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Ser. No. 75,015. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. B. SENGER & CO., Franklin Grove, Ill. Filed Jan. 7, 1914. Under ten-year proviso.

Dr. Wrightsman's SOVEREIGN



*Particular description of goods.*—Medicines to be Used as a Treatment for Chronic Weakness and Complaints Peculiar to Females.
*Claims use* since October, 1882.

Ser. No. 75,032. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE LIVE LEATHER BELT COMPANY INC., New York, N. Y. Filed Jan. 8, 1914.

LIVE BRAND

The trade-mark consisting of the word "Live," the word "Brand" being disclaimed.
*Particular description of goods.*—Belts for Personal Wear.
*Claims use* since the month of August, 1913.

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Ser. No. 75,046. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOTTIE C. BLUM, Cleveland, Ohio, and New York, N. Y. Filed Jan. 9, 1914.

Carmen

*Particular description of goods.*—A Shampoo-Tonic.
*Claims use* since Jan. 1, 1913.

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Ser. No. 75,063. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HIRAM MERRITT, Newburgh, N. Y. Filed Jan. 9, 1914.

LIQUOGEN

*Particular description of goods.*—A Fire-Extinguishing Fluid.
*Claims use* since Feb. 4, 1911.

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Ser. No. 75,112. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLOSSET & DEVERS, Portland, Oreg. Filed Jan. 12, 1914.

MARIGOLD



*Particular description of goods.*—Tea, Flavoring Extracts for Foods, and Spices.
*Claims use* since January, 1913, on flavoring extracts for foods, and since Dec. 1, 1913, on spices and tea.

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Ser. No. 75,114. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. C. FRANCEK & Co., Chicago, Ill. Filed Jan. 12, 1914.

Alva

*Particular description of goods.*—Hair Elixir.
*Claims use* since Sept. 1, 1911.





Ser. No. 75,124. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CORA F. MOORE, San Francisco, Cal. Filed Jan. 12, 1914.

VEGA

*Particular description of goods.*—Canned Soups.
*Claims use* since Dec. 21, 1913.

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Ser. No. 75,130. (CLASS 43. THREAD AND YARN.) NEW ENGLAND COTTON YARN COMPANY, New Bedford, Mass. Filed Jan. 12, 1914.

$E$

*Particular description of goods.*—Thread.
*Claims use* since July, 1913.

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Ser. No. 75,167. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Jan. 14, 1914. Under ten-year proviso.



BRIC-A-BRAC.

The portrait shown being fanciful.
*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since prior to the year 1895.

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Ser. No. 75,184. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. C. ROBINSON & SON CO., Baltimore, Md. Filed Jan. 14, 1914.

SLASHOL

*Particular description of goods.*—An Oil for Use in Finishing and Sizing in the Manufacture of Cotton Goods.
*Claims use* since Dec. 26, 1913.

Ser. No. 75,200. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY LUNTZ, Brooklyn, N. Y. Filed Jan. 15, 1914.

FLAXOLYN

*Particular description of goods.*—A Remedy for Indigestion, Headache, Dizziness, Nervousness, Torpid Liver, and Kidney Complaints.
*Claims use* since on or about Jan. 7, 1914.

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Ser. No. 75,228. (CLASS 32. FURNITURE AND UPHOLSTERY.) FRANCIS KARR COMPANY, Chicago, Ill. Filed Jan. 16, 1914.

KWY-BT

*Particular description of goods.*—Spring-Beds.
*Claims use* since Oct. 1, 1913.

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Ser. No. 75,235. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX ROBINS, Chicago, Ill. Filed Jan. 16, 1914.

"PASTAX"

*Particular description of goods.*—An Internal Remedy for Gonorrhea and Diseases of the Kidneys and Bladder.
*Claims use* since July 10, 1913.

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Ser. No. 75,245. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 17, 1914.

K

*Particular description of goods.*—Harmonicas, Flageolets, Clarinets, Fifes, Flutes, Violins, Accordions, Trumpets, Banjos, Mandolins, Jews' Harps, and Juvenile Zithers.
*Claims use* since Jan. 7, 1914.

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Ser. No. 75,257. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HIGMO DISINFECTANT COMPANY, Boston, Mass. Filed Jan. 17, 1914.

Higmo

Consisting of the word "Higmo."
*Particular description of goods.*—Deodorizers and Disinfectants.
*Claims use* since about Dec. 1, 1913.

Ser. No. 75,259. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELIAS B. KELLEY, Electra, Tex. Filed Jan. 17, 1914.

(B.S.)

*Particular description of goods.*—Salve.
*Claims use* since January, 1913.

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Ser. No. 75,275. (CLASS 12. CONSTRUCTION MATERIALS.) THE BEAVER COMPANY, Tonawanda, N. Y. Filed Jan. 19, 1914.

BEAVER

*Particular description of goods.*—Pulp or Fiber Board and Building-Paper.
*Claims use* since about Apr. 20, 1906.

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Ser. No. 75,278. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) MARTINS BIRMINGHAM LIMITED, Birmingham, England. Filed Jan. 19, 1914.

TWO-BIRDS

Consisting of the words "Two-Birds."
*Particular description of goods.*—Traveling-Bags and Trunks, Portfolios, and Pocket-Books.
*Claims use* since December, 1910.

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Ser. No. 75,318. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) S. SLATER & SONS, INC., Webster, Mass. Filed Jan. 20, 1914.

S. SLATER & SONS INC. 1790 WEBSTER MASS

The trade-mark is shown in the accompanying drawing, except that "S. Slater & Sons Inc." and "Webster Mass." are disclaimed as part thereof.
*Particular description of goods.*—Flannels, Kerseys, Cassimeres, Uniform-Cloths, Doeskins, Broadcloths, Worsteds, and Cotton-Worsteds Piece Goods.
*Claims use* since about Jan. 1, 1914.

Ser. No. 75,357. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARDWICK & MAGEE CO., Philadelphia, Pa. Filed Jan. 22, 1914.

MELROSE

*Particular description of goods.*—Textile Carpets and Rugs.
*Claims use* since Nov. 22, 1913.

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Ser. No. 75,385. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) THE W. H. HOOVER COMPANY, New Berlin, Ohio. Filed Jan. 23, 1914.

EZYBAK

*Particular description of goods.*—Harness-Saddles.
*Claims use* since July 1, 1913.

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Ser. No. 75,404. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LANCASTER MILLS, Clinton, Mass. Filed Jan. 24, 1914. Under ten-year proviso.

LANCASTER

*Particular description of goods.*—Cotton Piece and Dress Goods and Cotton Bed-Covering.
*Claims use* since the year 1844.

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Ser. No. 75,420. (CLASS 39. CLOTHING.) WEINGARTEN BROS., INC., New York, N. Y. Filed Jan. 24, 1914.

Respirata

*Particular description of goods.*—Corsets.
*Claims use* since Jan. 2, 1914.

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Ser. No. 75,430. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) GEO. BOAGFELDT & CO., New York, N. Y. Filed Jan. 26, 1914.

KEWPIE

*Particular description of goods.*—Children's Safety-Straps, Hand-Bags for Women and Children, Wallets, Card-Cases, Leather Folders or Envelops, Music-Rolls, Leather Ink-Wipers, Sleeping-Car Slippers, and Leather Pouches for Toilet Articles.
*Claims use* since about the middle of January, 1914.





Ser. No. 75,433. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE CANFIELD RUBBER COMPANY, Bridgeport, Conn. Filed Jan. 26, 1914. Under ten-year proviso.

"MERIT WILL WIN"

*Particular description of goods.*—Dress-Shields.
*Claims use* since the year 1885.

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Ser. No. 75,496. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE KINDEL BEDDING AND RENOVATING COMPANY, Denver, Colo. Filed Jan. 28, 1914.

KINDELASTIC

*Particular description of goods.*—Mattresses.
*Claims use* since Jan. 6, 1914.

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Ser. No. 75,497. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM HENRY LEAK, Watertown, N. Y. Filed Jan. 28, 1914.

POLITOR

The word "Politor."
*Particular description of goods.*—A Medicated Prophylactic Dentifrice.
*Claims use* since May, 1913.

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Ser. No. 75,521. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LORENZO CIONE, New York, N. Y. Filed Jan. 29, 1914.

Fosfymbina

The word "Fosfymbina."
*Particular description of goods.*—A Medicinal Preparation for the Treatment of Nervous Disorders.
*Claims use* since about Jan. 12, 1913.

Ser. No. 75,522. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THEODORE A. CASSELS, Arcadia, Fla. Filed Jan. 29, 1914.



The trade-mark being a portrait of the applicant.
*Particular description of goods.*—Medicines for Indigestion.
*Claims use* since Jan. 1, 1912.

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Ser. No. 75,607. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) B. B. DAVIS & COMPANY, New York, N. Y. Filed Feb. 2, 1914.

TOWN HALL

*Particular description of goods.*—Whisky.
*Claims use* since Nov. 13, 1913.

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Ser. No. 75,610. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN H. HAYDON, New York, N. Y. Filed Feb. 2, 1914.

EXTERNO

*Particular description of goods.*—A Remedy for the Treatment of Skin Troubles.
*Claims use* since May 23, 1912.

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Ser. No. 75,630. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) RANDOLPH ROSE, Chattanooga, Tenn. Filed Feb. 2, 1914.



*Particular description of goods.*—Whisky, Cognac Brandy, Rum, Gin, and Apricot Liqueur.
*Claims use* since Jan. 1, 1903.

Ser. No. 75,643. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed Feb. 3, 1914.

**DANDROIL**

*Particular description of goods.*—Hair-Tonic.
*Claims use* since Oct. 12, 1913.

Ser. No. 75,655. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) SIMONS & MCGILL, New York, N. Y. Filed Feb. 3, 1914.

**The "Bungalow"**

*Particular description of goods.*—Umbrellas and Parasols.
*Claims use* since about Jan. 25, 1914.

[Vol. 200. No. 1.]



# TRADE-MARKS

## REGISTERED MARCH 3, 1914.

95,586. MOLASSES. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed June 27, 1913. Serial No. 71,305. PUBLISHED OCTOBER 14, 1913.

95,587. GARMENT-HOOKS. ANTHONY BENNETT ALDRICH, Wechawken, N. J.
Filed April 15, 1912. Serial No. 62,906. PUBLISHED DECEMBER 30, 1913.

95,588. ALIMENTARY PASTE. THE ATLANTIC MACARONI CO., Long Island City, N. Y.
Filed September 2, 1913. Serial No. 72,608. PUBLISHED DECEMBER 30, 1913.

95,589. ALIMENTARY PASTE. THE ATLANTIC MACARONI CO., Long Island City, N. Y.
Filed September 2, 1913. Serial No. 72,609. PUBLISHED DECEMBER 30, 1913.

95,590. ALIMENTARY PASTE. THE ATLANTIC MACARONI CO., Long Island City, N. Y.
Filed September 2, 1913. Serial No. 72,610. PUBLISHED DECEMBER 30, 1913.

95,591. CIGARS. AUSTIN, NICHOLS & CO., INC., New York, N. Y.
Filed October 8, 1913. Serial No. 73,268. Renewal of No. 10,685, October 30, 1883. PUBLISHED DECEMBER 23, 1913.

95,592. GUIDES AND TRAVELERS' HANDBOOKS. KARL BAEDEKER, Leipzig, Germany.
Filed August 8, 1913. Serial No. 72,219. PUBLISHED DECEMBER 23, 1913.

95,593. METAL-POLISH. E. W. BENNETT & CO., San Francisco, Cal.
Filed February 10, 1913. Serial No. 68,420. PUBLISHED JULY 1, 1913.

95,594. CAKES, WAFERS, AND BISCUITS. BREMNER BROS., Chicago, Ill.
Filed August 29, 1913. Serial No. 72,578. PUBLISHED DECEMBER 30, 1913.

95,595. ELASTIC TRANSPARENT SHEET MATERIAL. GEORGE M. BROWNING, New York, N. Y.
Filed November 8, 1913. Serial No. 73,867. PUBLISHED DECEMBER 23, 1913.

95,596. BELTS AND BELTING. ROBERT A. CAIRD, Chicago, Ill., assignor to National Belting Company, Elyria, Ohio, a Corporation of Ohio.
Filed October 9, 1913. Serial No. 73,288. PUBLISHED DECEMBER 30, 1913.

95,597. TIME-PRINTING MACHINES AND PARTS THEREFOR. CALCULAGRAPH COMPANY, New York, N. Y.
Filed April 17, 1913. Serial No. 69,843. PUBLISHED DECEMBER 30, 1913.

95,598. MAGAZINE PUBLISHED SEMIMONTHLY. ARTHUR CAPPER, Topeka, Kans.
Filed June 11, 1913. Serial No. 71,013. PUBLISHED DECEMBER 23, 1913.

95,599. RAZORS. CATTARAUGUS CUTLERY CO., Little Valley, N. Y.
Filed November 11, 1913. Serial No. 73,905. PUBLISHED DECEMBER 30, 1913.

95,600. CERTAIN NAMED CITRUS FRUITS. CENTRAL FRUIT CO., South Lake Weir, Fla.
Filed April 5, 1913. Serial No. 69,616. PUBLISHED DECEMBER 30, 1913.

95,601. LEATHER BOOTS AND SHOES. CHIPPEWA SHOE MANUFACTURING COMPANY, Chippewa Falls, Wis.
Filed February 24, 1913. Serial No. 68,678. PUBLISHED MAY 6, 1913.

95,602. CANNED FRUITS AND CANNED VEGETABLES. CODE PORTWOOD CANNING CO., Oakland, Cal.
Filed March 17, 1913. Serial No. 69,087. PUBLISHED JULY 15, 1913.

95,603. WOOD-BORING BITS. THE CONN. VALLEY MANUFACTURING COMPANY, Essex, Conn.
Filed December 3, 1913. Serial No. 74,326. PUBLISHED DECEMBER 30, 1913.

95,604. FLOUR. COWGILL & HILL MILLING CO., Carthage, Mo.
Filed August 20, 1913. Serial No. 72,432. PUBLISHED DECEMBER 30, 1913.

95,605. CERTAIN NAMED METALLIC CONSTRUCTION MATERIALS. DAHLSTROM METALLIC DOOR CO., Jamestown, N. Y.
Filed February 28, 1913. Serial No. 68,777. PUBLISHED DECEMBER 30, 1913.

95,606. COFFEE-HULLING MACHINES. WILLIAM L. DINES, JR. CO., Worcester, Mass.
Filed November 28, 1913. Serial No. 74,230. PUBLISHED DECEMBER 30, 1913.

95,607. COFFEE-PULPING MACHINES. WILLIAM L. DINES, JR. CO., Worcester, Mass.
Filed November 28, 1913. Serial No. 74,231. PUBLISHED DECEMBER 30, 1913.

95,608. SAWS. HENRY DISSTON & SONS, INCORPORATED, Philadelphia, Pa.
Filed October 17, 1913. Serial No. 73,448. PUBLISHED DECEMBER 30, 1913.

95,609. BREAD. JOHN A. DRAYER, Clinton, Iowa.
Filed July 9, 1913. Serial No. 71,615. PUBLISHED DECEMBER 30, 1913.

95,610. BUSINESS-FORMS, MENUS, BROCHURES, BOOKLETS, AND THE LIKE. CLARENCE V. EKROTH, New York, N. Y.
Filed February 8, 1913. Serial No. 68,403. PUBLISHED DECEMBER 23, 1913.

95,611. ADDING AND CALCULATING MACHINES. HANS W. EGLI INGR, Zurich, Switzerland.
Filed November 22, 1913. Serial No. 74,136. PUBLISHED DECEMBER 30, 1913.

95,612. CERTAIN NAMED ENAMELED KITCHEN AND HOUSEHOLD UTENSILS. THE ENTERPRISE ENAMEL CO., Bellaire, Ohio.
Filed June 16, 1913. Serial No. 71,124. PUBLISHED DECEMBER 30, 1913.

95,613. CERTAIN VALVES, COCKS, BOWLS, BASINS, FIXTURES, AND BATH-TUBS. EXCELOVALVE COMPANY, New York, N. Y.
Filed September 26, 1911. Serial No. 58,856. PUBLISHED DECEMBER 17, 1912.

95,614. FLEXIBLE METALLIC PACKING. FEDERAL METALLIC PACKING COMPANY, Boston, Mass.
Filed November 5, 1913. Serial No. 73,816. PUBLISHED DECEMBER 30, 1913.

95,615. CANNED FRUITS AND CANNED VEGETABLES. FLEMING & Co., Baltimore, Md.
Filed August 20, 1913. Serial No. 72,433. PUBLISHED DECEMBER 30, 1913.

95,616. CANDY. WILLIAM E. FOSTER, Somerville, Mass.
Filed August 30, 1913. Serial No. 72,598. PUBLISHED DECEMBER 30, 1913.

95,617. MOLASSES FEED FOR HORSES AND MULES AND CATTLE. JOHN T. GIBBONS, New Orleans, La.
Filed March 23, 1912. Serial No. 62,372. PUBLISHED DECEMBER 16, 1913.

95,618. ALUMINUM TELESCOPING COOKING OUTFIT. VIRGIL HEINMÜLLER, New York, N. Y.
Filed November 24, 1913. Serial No. 74,166. PUBLISHED DECEMBER 30, 1913.

95,619. DRINKING STRAWS OR TUBES. ALEXANDER HERZ, New York, N. Y.
Filed October 2, 1913. Serial No. 73,170. PUBLISHED DECEMBER 23, 1913.

95,620. INDIA-RUBBER COMPOSITION IN CELLULAR OR SPONGY FORM. THE HIGH PRESSURE CELLULAR RUBBER SYNDICATE, LIMITED, London, England.
Filed July 31, 1913. Serial No. 72,065. PUBLISHED DECEMBER 23, 1913.

95,621. POPCORN-BAGS. HOLCOMB & HOKE MFG. CO., Indianapolis, Ind.
Filed October 6, 1913. Serial No. 73,231. PUBLISHED DECEMBER 30, 1913.

95,622. WHEAT-FLOUR. HOLT & COMPANY, New York, N. Y.
Filed August 28, 1913. Serial No. 72,570. PUBLISHED DECEMBER 30, 1913.

95,623. SOAPS. J. L. HOPKINS & Co., New York, N. Y.
Filed July 15, 1913. Serial No. 71,712. PUBLISHED DECEMBER 16, 1913.

95,624. CERTAIN NAMED ELECTRICALLY HEATING, HEATED, COOKING UTENSILS AND THE LIKE. HOTPOINT ELECTRIC HEATING COMPANY, Ontario, Cal.
Filed November 3, 1913. Serial No. 73,781. PUBLISHED DECEMBER 30, 1913.

95,625. ROLLER-BEARINGS AND PARTS THEREOF. HYATT ROLLER BEARING COMPANY, Harrison, N. J.
Filed September 29, 1913. Serial No. 73,108. PUBLISHED DECEMBER 30, 1913.

95,626. COAL. INDIAN HEAD COAL & MINING COMPANY, Connellsville, Pa.
Filed June 6, 1913. Serial No. 70,898. PUBLISHED DECEMBER 23, 1913.

95,627. AUTOMATICALLY-ROTATING FLUID-OPERATED HAMMER-DRILLS. INGERSOLL-RAND COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 15, 1913. Serial No. 74,014. PUBLISHED DECEMBER 30, 1913.

95,628. TRACTORS AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed August 1, 1913. Serial No. 72,100. PUBLISHED DECEMBER 30, 1913.

95,629. ARTIFICIAL HORN MADE FROM CASEIN. INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & Co., Harburg-on-the-Elbe, Germany.
Filed September 19, 1912. Serial No. 65,861. PUBLISHED DECEMBER 30, 1913.

95,630. TECHNICAL CASEIN. INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & Co., Harburg-on-the-Elbe, Germany.
Filed November 12, 1913. Serial No. 73,924. PUBLISHED DECEMBER 30, 1913.

95,631. TECHNICAL CASEIN. INTERNATIONALE GALALITH-GESELLSCHAFT HOFF & Co., Harburg-on-the-Elbe, Germany.
Filed November 25, 1913. Serial No. 74,189. PUBLISHED DECEMBER 30, 1913.

95,632. COATING FOR CERTAIN NAMED STRUCTURES AND A FIREPROOF PAINT. H. W. JOHNS-MANVILLE CO., New York, N. Y.
Filed September 10, 1913. Serial No. 72,766. PUBLISHED DECEMBER 30, 1913.

95,633. MACHINERY-BRAKE LINING. H. W. JOHNS-MANVILLE CO., New York, N. Y.
Filed November 29, 1913. Serial No. 74,257. PUBLISHED DECEMBER 30, 1913.

95,634. PAPER, BLANK BOOKS, PRINTED FORMS, AND STATIONERY. THE JONES AGENCY COMPANY, Denver, Colo.
Filed February 24, 1913. Serial No. 68,690. PUBLISHED DECEMBER 16, 1913.

95,635. DRY BEANS. KENDRICK WAREHOUSE & MILLING CO., Lewiston, Idaho.
Filed September 2, 1913. Serial No. 72,623. PUBLISHED DECEMBER 30, 1913.

95,636. MEAT-CUTTERS. KLIMAX MANUFACTURING COMPANY, Chicago, Ill.
Filed November 26, 1913. Serial No. 74,200. PUBLISHED DECEMBER 30, 1913.

95,637. CONVEYING AND TRANSMISSION APPARATUS. THE LAMSON COMPANY, Boston, Mass.
Filed September 15, 1913. Serial No. 72,858. PUBLISHED DECEMBER 30, 1913.

95,638. SOAP. LAUTZ BROS. & Co., Buffalo, N. Y.
Filed November 29, 1913. Serial No. 46,163. PUBLISHED DECEMBER 16, 1913.

95,639. DRY, PASTE, AND READY-MIXED PAINTS. LOUISVILLE PAINT MFG. CO., Louisville, Ky.
Filed November 10, 1913. Serial No. 73,892. PUBLISHED DECEMBER 30, 1913.

95,640. WIRE-CLOTH. THE LUDLOW-SAYLOR WIRE COMPANY, St. Louis, Mo.
Filed November 28, 1913. Serial No. 74,238. PUBLISHED DECEMBER 30, 1913.

95,641. CORDIALS. MARIANI BRO'S., New York, N. Y.
Filed March 7, 1912. Serial No. 62,015. PUBLISHED DECEMBER 30, 1913.

95,642. SOY. MARUKIN-SHOYU-KABUSHIKI-KWAISHA, Nobumura, Shozu-gun, Kagawa-Ken, Japan.
Filed July 5, 1913. Serial No. 71,541. PUBLISHED DECEMBER 23, 1913.

95,643. WHEAT-FLOUR. MAYFLOWER MILLS, Fort Wayne, Ind.
Filed September 2, 1913. Serial No. 72,624. PUBLISHED DECEMBER 30, 1913.

95,644. METAL-POLISH. WILLIAM MCCANN, Minneapolis, Minn.
Filed August 11, 1913. Serial No. 72,292. PUBLISHED DECEMBER 16, 1913.

95,645. TABLE RELISHES AND SALAD-DRESSINGS. MCCORMICK & Co., Baltimore, Md.
Filed August 15, 1913. Serial No. 72,356. PUBLISHED DECEMBER 30, 1913.

95,646. WHITE-KID-GLOVE CLEANER. FRANK L. MCFERRAN, Syracuse, N. Y.
Filed April 26, 1913. Serial No. 70,080. PUBLISHED DECEMBER 30, 1913.

95,647. SAFETY-CONTAINERS FOR EXPLOSIVE AND INFLAMMABLE FLUIDS. MCNUTT NON EXPLOSIVE CAN CO., New York, N. Y.
Filed September 6, 1913. Serial No. 72,704. PUBLISHED DECEMBER 30, 1913.

95,648. TRANSMISSION-GEARING. MOTOR AND GEAR IMPROVEMENT COMPANY, Wilmington, Del., and New York, N. Y.
Filed November 22, 1913. Serial No. 74,140. PUBLISHED DECEMBER 30, 1913.

95,649. SMOKED FISH. NEPTUNE PACKING CO., Boothbay Harbor, Me.
Filed August 22, 1913. Serial No. 72,487. PUBLISHED DECEMBER 30, 1913.



95,650. FRESH FRUITS. NORTHWESTERN FRUIT EXCHANGE, Portland, Oreg.
Filed August 19, 1913. Serial No. 72,414. PUBLISHED DECEMBER 30, 1913.

95,651. WEEKLY PUBLICATION. THE OPERA, INC., New York, N. Y.
Filed November 3, 1913. Serial No. 73,752. PUBLISHED DECEMBER 23, 1913.

95,652. POWDER PREPARATION FOR CLEANING WHITE SHOES. O-WHITE-O CLEANER COMPANY, Akron, Ohio.
Filed July 29, 1913. Serial No. 72,030. PUBLISHED DECEMBER 16, 1913.

95,653. GAS-GENERATORS, ACETYLENE-BLOWPIPES, AND ACETYLENE CUTTING-TORCHES. OXWELD ACETYLENE COMPANY, Chicago, Ill.
Filed August 8, 1912. Serial No. 65,151. PUBLISHED DECEMBER 30, 1913.

95,654. CANNED SALMON. PACIFIC FISHERIES & PACKING COMPANY, Aberdeen, Wash.
Filed September 2, 1913. Serial No. 72,630. PUBLISHED DECEMBER 30, 1913.

95,655. LUBRICATING-OIL. PACKARD MOTOR CAR COMPANY, Detroit, Mich.
Filed June 5, 1911. Serial No. 56,832. PUBLISHED DECEMBER 30, 1913.

95,656. LIGHTING UNITS FOR SEMI-INDIRECT LIGHTING. THE PHOENIX GLASS CO., Pittsburgh, Pa.
Filed June 23, 1913. Serial No. 71,319. PUBLISHED DECEMBER 2, 1913.

95,657. BEER. PITTSBURGH BREWING COMPANY, Pittsburgh, Pa.
Filed November 18, 1913. Serial No. 74,063. PUBLISHED DECEMBER 30, 1913.

95,658. COAL. PLYMOUTH COAL AND MINING CO., Plymouth, W. Va.
Filed August 11, 1913. Serial No. 72,293. PUBLISHED DECEMBER 23, 1913.

95,659. CORN-SHIELDS. ARTHUR J. POTVIN, Minneapolis, Minn.
Filed September 2, 1913. Serial No. 72,632. PUBLISHED DECEMBER 30, 1913.

95,660. WASHING AND SCOURING SOAPS AND POWDERS. PRIDE OF THE KITCHEN COMPANY, New York, N. Y.
Filed October 19, 1912. Serial No. 66,383. PUBLISHED DECEMBER 16, 1913.

95,661. SPARK-PLUG INSULATORS COMMONLY KNOWN AS PORCELAINS. RAJAH AUTO SUPPLY COMPANY, Bloomfield, N. J.
Filed November 5, 1913. Serial No. 73,825. PUBLISHED DECEMBER 30, 1913.

95,662. PORCH-SHADES, WINDOW-SHADES, AND FURNITURE-SCREENS. RAYMOND PORCH SHADE COMPANY, Richmond, Ind.
Filed November 8, 1913. Serial No. 73,877. PUBLISHED DECEMBER 30, 1913.

95,663. SHOE-BUTTONERS AND SHOE-HORNS. REGAL SHOE COMPANY, Boston, Mass.
Filed November 6, 1911. Serial No. 59,578. PUBLISHED DECEMBER 30, 1913.

95,664. SHOE-LACINGS. REGAL SHOE COMPANY, Boston, Mass.
Filed November 6, 1911. Serial No. 59,581. PUBLISHED DECEMBER 30, 1913.

95,665. METAL PLATE WORN ABOUT THE NECK FOR RELIEF OF ASTHMA. JAMES W. REILLY, Buffalo, N. Y.
Filed November 14, 1913. Serial No. 73,991. PUBLISHED DECEMBER 30, 1913.

95,666. FELT PENNANTS. THE REPRODUCTION CO., New York, N. Y.
Filed December 2, 1911. Serial No. 60,047. PUBLISHED NOVEMBER 11, 1913.

95,667. CERTAIN BELTING, CORD, AND LACING. J. E. RHOADS & SONS, Philadelphia, Pa., and Wilmington, Del.
Filed October 15, 1913. Serial No. 73,401. PUBLISHED DECEMBER 30, 1913.

95,668. AUTOMOBILE KIT-TOOLS, WRENCHES, AND SCREW-DRIVERS. S. & A. MANUFACTURING CO., Boston, Mass.
Filed September 29, 1913. Serial No. 73,116. PUBLISHED DECEMBER 30, 1913.

95,669. DENTAL FLOSSES, DENTAL TAPES, AND TONGUE-CLEANSERS. JULES J. SARRAZIN, New Orleans, La.
Filed October 13, 1913. Serial No. 73,347. PUBLISHED DECEMBER 30, 1913.

95,670. LONG-CUT TOBACCO FOR BOTH SMOKING AND CHEWING. SCHMITT BROTHERS TOBACCO WORKS, Milwaukee, Wis.
Filed July 5, 1913. Serial No. 71,545. PUBLISHED DECEMBER 23, 1913.

95,671. ELECTRIC-LIGHTING FIXTURES OF ALL KINDS. EDWARD SCHROEDER LAMP WORKS, Jersey City, N. J.
Filed December 3, 1912. Serial No. 67,212. PUBLISHED DECEMBER 30, 1913.

95,672. LACES. EMILIE EUGÉNIE ADÈLE CAROLINE SEYRIG, Le Chesnay, France.
Filed September 7, 1912. Serial No. 65,627. PUBLISHED DECEMBER 30, 1913.

95,673. RAW FURS. A. B. SHUBERT, Chicago, Ill.
Filed August 4, 1913. Serial No. 72,160. PUBLISHED DECEMBER 16, 1913.

95,674. LEATHER BELTING. SHULTZ BELTING CO., St. Louis, Mo.
Filed September 16, 1913. Serial No. 72,904. PUBLISHED DECEMBER 30, 1913.

95,675. LEATHER BELTING. SHULTZ BELTING CO., St. Louis, Mo.
Filed September 16, 1913. Serial No. 72,905. PUBLISHED DECEMBER 30, 1913.

95,676. LEATHER BELTING. SHULTZ BELTING CO., St. Louis, Mo.
Filed September 16, 1913. Serial No. 72,906. PUBLISHED DECEMBER 30, 1913.

95,677. BAND-SAWS AND BAND-SAW STRIPS. SOCIÉTÉ ANONYME DES ANCIENS ETABLISSEMENTS PANHARD & LEVASSOR, Paris, France.
Filed August 27, 1912. Serial No. 65,441. PUBLISHED DECEMBER 30, 1913.

95,678. NEWSPAPER-SECTION PUBLISHED PERIODICALLY. STAR COMPANY, New York, N. Y.
Filed August 14, 1913. Serial No. 72,338. PUBLISHED DECEMBER 23, 1913.

95,679. CIGARS, CIGARETTES, AND MANUFACTURED TOBACCOS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed October 2, 1913. Serial No. 73,178. PUBLISHED DECEMBER 16, 1913.

95,680. SALTED PEANUTS. SUPERIOR PEANUT COMPANY, Cleveland, Ohio.
Filed August 27, 1913. Serial No. 72,562. PUBLISHED DECEMBER 30, 1913.

95,681. CERTAIN NAMED MATERIALS FOR ARTIFICIAL-STONE WORK. TERRANOVA-INDUSTRIE C. A. KAPFERER & Co., Freiburg, Germany.
Filed April 15, 1911. Serial No. 55,774. PUBLISHED DECEMBER 30, 1913.

95,682. JULEP-STRAWS. C. C. TRUAX & COMPANY, Toledo, Ohio.
Filed August 9, 1913. Serial No. 72,270. PUBLISHED DECEMBER 23, 1913.

95,683. COOKING-OIL. UNION LARD CORPORATION, New York, N. Y.
Filed September 9, 1913. Serial No. 72,753. PUBLISHED DECEMBER 30, 1913.

95,684. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,791. PUBLISHED DECEMBER 23, 1913.

95,685. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,792. PUBLISHED DECEMBER 23, 1913.

95,686. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,794. PUBLISHED DECEMBER 23, 1913.

95,687. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,796. PUBLISHED DECEMBER 23, 1913.

95,688. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,797. PUBLISHED DECEMBER 23, 1913.

95,689. STEREOPTICONS AND SLIDES THEREFOR. VICTOR ANIMATOGRAPH COMPANY, Davenport, Iowa.
Filed November 24, 1913. Serial No. 74,177. PUBLISHED DECEMBER 30, 1913.

95,690. DRY, PASTE, AND READY-MIXED PAINTS AND VARNISHES. WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass.
Filed October 10, 1913. Serial No. 73,306. PUBLISHED DECEMBER 30, 1913.

95,691. CERTAIN NAMED CUTLERY. EDWIN WALKER, Erie, Pa.
Filed June 1, 1907. Serial No. 27,839. PUBLISHED DECEMBER 30, 1913.

95,692. MOVING-PICTURE FILMS. WARNER'S FEATURES, INCORPORATED, New York, N. Y.
Filed November 20, 1913. Serial No. 74,107. PUBLISHED DECEMBER 30, 1913.

95,693. CANDIES. WEAVER, COSTELLO & COMPANY, Pittsburgh, Pa.
Filed August 16, 1913. Serial No. 72,387. PUBLISHED DECEMBER 30, 1913.

95,694. HIDES AND LEATHER. WILDER & COMPANY, Chicago, Ill.
Filed January 20, 1913. Serial No. 68,026. PUBLISHED DECEMBER 23, 1913.

95,695. BREAD. YOUNG & SWAIN BAKING CO., San Francisco, Cal.
Filed April 4, 1913. Serial No. 69,605. PUBLISHED DECEMBER 30, 1913.

95,696. TOILET-PAPER, PAPER TOWELS, AND PAPER NAPKINS. ADIRONDACK TISSUE PAPER CO., New Hartford, N. Y.
Filed July 24, 1913. Serial No. 71,930. PUBLISHED DECEMBER 30, 1913.

95,697. CERTAIN NAMED FOODS. AMERICAN CONSUMERS' ASSOCIATION OF NEW YORK, INC., New York, N. Y.
Filed October 23, 1912. Serial No. 66,473. PUBLISHED NOVEMBER 4, 1913.

95,698. RHEUMATIC REMEDY. BAKER CHEMICAL CO., Detroit, Mich.
Filed November 4, 1912. Serial No. 66,681. PUBLISHED DECEMBER 30, 1913.

95,699. RHEUMATIC AND LUMBAGO REMEDY, GENERAL TONIC, AND BLOOD-PURIFIER. HORACE A. BENNETT, Boston, Mass.
Filed October 17, 1913. Serial No. 73,437. PUBLISHED DECEMBER 30, 1913.

95,700. CANDY. BRADLEY CANDY CO., Marshfield, Oreg.
Filed September 4, 1913. Serial No. 72,671. PUBLISHED DECEMBER 30, 1913.

95,701. CERTAIN NAMED MUSICAL INSTRUMENTS AND PARTS THEREFOR. SAMUEL BUEGELEISEN, New York, N. Y.
Filed September 12, 1913. Serial No. 72,806. PUBLISHED DECEMBER 30, 1913.

95,702. CATARRH REMEDY. DR. BURKE'S CATARRH REMEDY CO., Kansas City, Mo.
Filed November 6, 1913. Serial No. 73,830. PUBLISHED DECEMBER 30, 1913.

95,703. TALKING-MACHINES AND TALKING-MACHINE RECORDS. COLUMBIA GRAPHOPHONE COMPANY, Washington, D. C.
Filed October 8, 1913. Serial No. 73,270. PUBLISHED DECEMBER 30, 1913.

95,704. OATS FOR FEEDING HORSES AND CATTLE. CONSOLIDATED GROCERY COMPANY, Tampa, Jacksonville, and Pensacola, Fla.
Filed May 28, 1913. Serial No. 70,711. PUBLISHED DECEMBER 9, 1913.

95,705. SELF-RISING WHEAT-FLOUR. THE DAVIS MILLING COMPANY, St. Joseph, Mo.
Filed July 16, 1913. Serial No. 71,738. PUBLISHED DECEMBER 23, 1913.

95,706. PREPARATION FOR THE GROWTH AND PRESERVATION OF THE HAIR. WILLIAM J. DEEGAN, Chicago, Ill.
Filed September 17, 1913. Serial No. 72,915. PUBLISHED DECEMBER 30, 1913.

95,707. COFFEE SUBSTITUTE. DWINELL-WRIGHT COMPANY, Boston, Mass.
Filed March 7, 1911. Serial No. 54,916. PUBLISHED DECEMBER 23, 1913.

95,708. REMEDIES FOR CERTAIN NAMED DISEASES AND A LINIMENT. EBERHART PHARMACAL CO., Dickson, Tenn.
Filed October 26, 1908. Serial No. 38,242. PUBLISHED DECEMBER 30, 1913.

95,709. MEDICINAL PREPARATIONS FOR THE TREATMENT OF CERTAIN NAMED DISEASES. JOHN J. FULTON COMPANY, Pierre, S. D., and San Francisco, Cal.
Filed October 13, 1913. Serial No. 73,339. PUBLISHED DECEMBER 30, 1913.

95,710. DENTAL CREAM. HARRY S. GOLDSTEIN, Philadelphia, Pa.
Filed October 22, 1913. Serial No. 73,548. PUBLISHED DECEMBER 30, 1913.

95,711. MEDICAL OINTMENT. THE W. F. GRAY COMPANY, Madison and Nashville, Tenn.
Filed April 28, 1913. Serial No. 70,093. PUBLISHED DECEMBER 30, 1913.

95,712. PERFORATED MUSIC-ROLLS FOR PLAYER INSTRUMENTS. LYON & HEALY, Chicago, Ill.
Filed October 20, 1913. Serial No. 73,516. PUBLISHED DECEMBER 30, 1913.

95,713. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 27, 1912. Serial No. 61,099. PUBLISHED APRIL 8, 1913.

95,714. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. THE OXYPATHOR CO., Buffalo, N. Y.
Filed March 22, 1912. Serial No. 62,332. PUBLISHED SEPTEMBER 10, 1912.

95,715. SUBSTITUTE FOR COFFEE. PANAMA BANANA FOOD COMPANY, New York, N. Y.
Filed August 22, 1913. Serial No. 72,488. PUBLISHED DECEMBER 30, 1913.

95,716. HAIR-RESTORER. JULIA PAVELKOVITZ, Chico, Cal.
Filed October 16, 1913. Serial No. 73,423. PUBLISHED DECEMBER 30, 1913.

95,717. GERMICIDE FOR THE DIGESTIVE TRACTS. HARRIS NEWELL REYNOLDS, New York, N. Y.
Filed November 4, 1913. Serial No. 73,796. PUBLISHED DECEMBER 30, 1913.

95,718. BRAND OF COFFEE. THE J. R. RICHARDSON COMPANY, Wilmington, Del.
Filed September 2, 1913. Serial No. 72,635. PUBLISHED DECEMBER 30, 1913.



95,719. WHEAT-FLOUR. UPDIKE MILLING COMPANY, Omaha, Nebr.
Filed April 22, 1912. Serial No. 63,053. PUBLISHED DECEMBER 23, 1913.

95,720. CEREAL FOOD. THE U. S. CEREAL COMPANY, Upper Sandusky, Ohio.
Filed May 5, 1913. Serial No. 70,257. PUBLISHED DECEMBER 30, 1913.

95,721. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,793. PUBLISHED DECEMBER 23, 1913.

95,722. WHEAT-FLOUR. VALIER & SPIES MILLING CO., St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,798. PUBLISHED DECEMBER 23, 1913.

95,723. LARD, HAM, BACON, AND SCRAPPLE. F. G. VOGT & SONS, INC., Philadelphia, Pa.
Filed September 4, 1913. Serial No. 72,680. PUBLISHED DECEMBER 30, 1913.

95,724. BUTTER AND EGGS. HENRY VON GLAHN & SON, Brooklyn, N. Y.
Filed March 27, 1908. Serial No. 33,691. PUBLISHED MAY 12, 1909.

# LABELS

## REGISTERED MARCH 3, 1914.

17,589.—*Title:* "CORSET DE LUXE." (For Corsets.) JOSEPH F. ACKERMAN, Bridgeport, Conn. Filed January 3, 1914.

17,590.—*Title:* "ITALIAN UNION CIGAR." (For Cigars.) MARIO D'URSO & Co., Philadelphia, Pa. Filed February 2, 1914.

17,591.—*Title:* "LIGHTNING RHEUMATIC REMEDY." (For a Rheumatic Remedy.) MCNULTY & STIFF, Toledo, Ohio. Filed January 6, 1914.

17,592.—*Title:* "PERFECTION." (For Violin-Strings.) SOUTHERN CALIFORNIA MUSIC COMPANY, Los Angeles, Cal. Filed April 15, 1913.

17,593.—*Title:* "PAGANINI." (For Violin-Strings.) SOUTHERN CALIFORNIA MUSIC COMPANY, Los Angeles, Cal. Filed April 15, 1913.

17,594.—*Title:* "HOWEL'S ORANGE-JULEP THE ORIGINAL." (For Orange Julep.) SOUTHERN FRUIT JULEP COMPANY, Fort Worth, Tex. Filed November 11, 1913.

# PRINTS

## REGISTERED MARCH 3, 1914.

3,517.—*Title:* "AUTO PARTS CO." (For Auto Parts.) AUTO PARTS CO., Chicago, Ill. Filed July 31, 1913.

3,518.—*Title:* "OLD OVERHOLT RYE." (For Whisky.) THE MEYERCORD COMPANY, Chicago, Ill. Filed January 26, 1914.

3,519.—*Title:* "THE EDWIN NATURAL BRIDGE." (For Whisky.) THE MEYERCORD COMPANY, Chicago, Ill. Filed January 26, 1914.

3,520.—*Title:* "A GOOD BOTTLE TO KEEP GOOD WHISKEY GOOD." (For Whisky.) STEWART DISTILLING CO., Philadelphia, Pa. Filed February 17, 1914.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

WATERBURY CHEMICAL COMPANY v. REED & CARNRICK.

*Decided December 1, 1913.*

TRADE-MARKS—"PINOZYME," "PEPTENZYME"—NOT DECEPTIVELY SIMILAR.

The words "Peptenzyme" and "Pinozyme" *Held* not so similar within the meaning of the trade-mark law as to tend to create confusion in trade.

*Mr. Wallace R. Lane* for the appellant.

*Mr. Alfred W. Kiddle* for the appellee.

VAN ORSDEL, *J.:*

This is an appeal from the Commissioner of Patents in a trade-mark opposition in which appellees seek to prevent appellant from registering the word "Pinozyme" as a trade-mark for certain medicinal preparations.

Appellees allege in their notice of opposition, in substance, that the mark sought to be registered so nearly resembles their mark "Peptenzyme" as to cause confusion in trade. The Examiner of Interferences and the Commissioner sustained the opposition, from which ruling this appeal was taken. It is agreed that the goods to which the marks are applied are similar, and that appellees used their mark long prior to the adoption and use of its mark by appellant. The sole question, therefore, presented by the appeal is, whether the words "Peptenzyme" and "Pinozyme" are so similar, within the meaning of the trade-mark law, as to tend to create confusion in trade.

It is somewhat difficult to determine just what degree of similarity between two marks is sufficient to bring them within the inhibition of the law. But in this case, in the absence of any evidence showing actual confusion, we think there is not such a general similarity between the marks as to cause the average purchaser of the goods to confuse one for the other. The Examiner cited, as decisive of this case, certain cases where the following marks were held to be confusing: "Purock" and "Pureoxia," (*ex parte Hires*, 180 O. G., 879;) "Carbolineum" and "Creo-Carbolin," (*in re Barrett Mfg. Co.*, 167 O. G., 513;) "Autola" and "Au-to-do," (*in re Wilcox & Co.*, 36 App. D. C., 107,) and "Momaja" and "Mojava," (*American Grocery Co.* v. *Bennett Sloan & Co.*, 68 Fed., 539.) We think the marks in issue, where the only similarity consists in the single syllable "zyme" come within the ruling in *Landespriv* v. *Hall & Ruckel*, (36 App. D. C., 532,) where the word "Kalodont" was held not to be likely to be confused with "Sozodont," and in the application of the Lasokola Co., (100 O. G., 450,) where it was held that "Dermacura" was not in conflict with "Dermakola," and in *Hall & Ruckel* v. *Ingram*, (28 App. D. C., 454,) where "Sozodont" was held not to be in conflict with "Zodenta." True, we have the testimony of witnesses on behalf of appellees to the effect that in their opinion the use of the marks would create confusion, but this is counterbalanced by the witnesses for appellant, who testified to the contrary. We agree with the statement of the Assistant Commissioner that—

> such testimony is not of great assistance in determining the question whether there is such similarity as to justify a refusal to register under the statute; the effect of the marks upon the mind of the tribunal having to consider the question must be the controlling factor.

Applying this test, we are impelled to the conclusion that the marks are not so similar as to be likely to create confusion in trade.

It appears in the opinion of the Assistant Commissioner that there is a registered trade-mark issued upon goods similar to those on which the marks in question are used consisting of the word "Panzyme." While we are only concerned with the marks in opposition, it may be suggested that it is still within the power of the Commissioner to inquire into the similarity between this mark and the mark of appellant. The decision of the Commissioner of Patents is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

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### Court of Appeals of the District of Columbia.

RILEY v. EMERSON AND YOERG.

*Decided February 2, 1914.*

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* to establish that the invention in issue originated with E. and Y. and that they are entitled to the award of priority.

*Mr. J. E. Stryker* and *Mr. H. P. Alden* for the appellant.

*Mr. W. A. Redding* and *Mr. A. C. Paul* for the appellees.

ROBB, *J.*:

This interference involves an application of Emerson and Yoerg filed December 18, 1909, and the application of Riley filed August 1, 1910, being a division of his application of December 27, 1909. The claims are three in number, the first and third being sufficient for the purposes of this opinion:

1. A superheater header having saturated and superheated steam chambers formed therein and external bosses formed on the side walls of said steam chambers and projecting laterally therefrom and separated from one another and having sockets communicating with said chambers, respectively, the bosses communicating with one chamber being staggered with respect to those communicating with the other chamber on the same side of the header, and superheating tubes communicating with said chambers through said sockets.

3. A superheater comprising, in combination, a header having saturated and superheated steam chambers therein and two rows of external, longitudinally arranged bosses on each side thereof, said bosses being separated from one another and having transverse pockets therein, passages connecting the pockets in one row of bosses with one of said chambers and the pockets in the other row of bosses on the same side of the header with the other chamber, and superheating tubes having their ends communicating with said chambers respectively through the pockets on the same side of said header.

Each of the tribunals of the Patent Office awarded priority to Emerson and Yoerg. The evidence in this and the companion interference having been fully reviewed in the case just decided, we affirm the decision of the Commissioner without further discussion.

Affirmed.

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## Court of Appeals of the District of Columbia.

EMERSON AND YOERG *v.* RILEY.

*Decided February 2, 1914.*

1. INTERFERENCE — TESTIMONY — SURROUNDING CIRCUMSTANCES.

Where there is a sharp issue of fact, the surrounding circumstances and the inherent probability or improbability of the testimony must have a material bearing upon the outcome.

2. SAME—SAME—WITNESS TESTIFYING FALSELY AS TO ONE FACT—PRESUMPTION.

"Where it clearly appears that a witness has wilfully testified falsely as to a given point, his entire testimony is entitled to little consideration, for 'courts are bound by principles of law, morality and justice, to apply the maxim *Falsus in uno, falsus in omnibus.*'"

3. SAME—SAME—SAME—SAME.

"The theory upon which this rule is founded is not that a witness who has wilfully perjured himself is incapable of speaking the truth as to other facts, but rather that the motive that prompted him to commit perjury in one part of his testimony *may* lead him to support it by falsifying other parts."

4. SAME—PRIORITY.

Evidence reviewed and *Held* to establish that the invention in issue originated with E. and Y. and that they are entitled to the award of priority.

*Mr. A. C. Paul* and *Mr. Wm. A. Redding* for the appellants.

*Mr. J. E. Stryker* for the appellee.

ROBB, *J.*:

This appeal is from a decision of the Commissioner of Patents in an interference proceeding awarding priority of invention to the appellee, Willis L. Riley. It is one of two interferences involving closely-related subject-matter. By stipulation the testimony taken in each, so far as material, is made applicable to the other. The application of Emerson and Yoerg, in the present interference, was filed January 20, 1909; that of Riley January 11, 1909.

The invention here involved relates to a superheater for locomotive-engines, consisting of a header arranged in the smoke-box of the locomotive and connected at its ends with the steam-supply pipe and the cylinder steam-chest. The interior of the header, by means of a longitudinal partition, is divided into separate compartments, one for the saturated and the other for the superheated steam. Bosses are provided on the sides of the header which in turn are divided into compartments connecting respectively with the saturated and superheated steam chambers of the header. The superheating-pipes are arranged at the side of the header and extend into enlarged fire-flues, the opposite ends of the pipes being connected with alternate compartments of the bosses. This invention, to distinguish it from that involved in the companion interference, is known as the "continuous boss" type and is defined in fifteen counts. We here reproduce the first, fourth, eighth and thirteenth as typical:

1. A superheater for steam boilers, comprising a header having a longitudinal partition dividing said header into separate saturated and superheated steam chambers, and a longitudinally extending boss at the side of said header adjoining an end of said partition, said boss being divided into compartments, alternate ones of said compartments communicating with said saturated and superheated steam chambers.

4. A boiler containing two curved rows of enlarged fire flues arranged about a central group of small flues, in combination with a curved header arranged in front of and substantially between said rows of enlarged flues, having a substantially central longitudinal partition dividing said header into separate saturated and superheated steam compartments, longitudinally extending bosses at the sides of said header adjoining the ends of said partition, said bosses being divided into compartments communicating with said saturated and superheated steam chambers and superheating pipes occupying said enlarged fire flues and having their opposite ends connected respectively with said alternate chambers.

8. The combination, with a boiler flue sheet and flues and a saturated steam supply pipe, of superheater headers arranged one on each side of the longitudinal axis of the boiler and near said flue sheet, the upper ends of said headers having a connection with said steam supply pipe, and the lower ends of said headers having connections with the cylinder steam chests, each header comprising an elongated casting having a compartment for saturated steam and a compartment for superheated steam, the former communicating with said steam supply pipe and the latter with the connections leading to the steam chests, superheating tubes arranged in groups on each side of said headers, the tubes of each group being located one above another and each tube in a group having its ends connected respectively with said steam chambers.

13. A superheater comprising a header having longitudinally arranged saturated and superheated steam chambers therein and a series of bosses or lugs projecting from the walls of said chambers on each side of said header, said bosses having sockets therein communicating with said chambers respectively, the bosses communicating with a chamber on a side of said header being staggered with respect to the bosses communicating with the other chamber on the same side, whereby all of the bosses on the same side will be exposed and accessible from the front of the header, and superheater tubes communicating with said chambers on each side of said header through said sockets.

The Examiner of Interferences observed that the question involved is one of originality rather than of priority of invention and, after a painstaking review of the evidence, determined that question in favor of Emerson and Yoerg. The Examiners-in-Chief, two members sitting, reversed this finding and award, which decision was sustained by one of the Assistant Commissioners.

At the time this controversy arose, late in December, 1909, Mr. Emerson was assistant general manager of the Great Northern Railroad, which position he had held for about seven months. He has since become general manager of that road. He had been continuously employed by that company since 1882 and, for eight years prior to his promotion to the position of assistant general manager, he had been superintendent of motive power. In that position he had entire supervision of locomotive-engines for the company and, consequently, the duty devolved upon him to evolve or adopt improvements for such engines. Mr. Yoerg, coapplicant, a graduate of the Massachusetts Institute of Technology, was and is the mechanical engineer of the same company. His first connection therewith was in 1897, when he was employed as a draftsman. Subsequently he became superintendent of shops at Havre, Mont., where he remained about a year. He was then made superintendent of the St. Paul shops, where he remained until November 15, 1908, when he was promoted to the position he now holds. Like Mr. Emerson, he had a thorough and practical knowledge of locomotive-engines.

Mr. Riley was about twenty-eight years old when this controversy arose and had been employed by the Great Northern Railroad since October, 1902, as a draftsman. In September, 1907, he was promoted to be chief draftsman. While, of course, he was a highly-skilled draftsman, the evidence shows that he had had no practical experience in building or using superheaters. In fact, he had never seen a superheater in actual use, although he must have been familiar with the mechanical construction of such devices.

According to the evidence for Emerson and Yoerg, their company had experienced more or less difficulty with the type of superheaters then in use. Mr. Emerson, Mr. Yoerg, and a Mr. Robert D. Hawkins, who was then assistant superintendent of motive power on the Great Northern and has since been promoted to be superintendent of motive power, met at the offices of the company in St. Paul on a Sunday in the latter part of December, 1908, for the purpose of making up a budget of improvements for the year 1909. Mr. Hawkins could not testify positively upon what particular Sunday in December this occurred, but was of the opinion that it was prior to Christmas, for the reason that such work is not usually taken up between the holidays. Mr. Emerson states positively that this occurrence was on the 20th of December, 1908, and his reason for being so positive is that he was then preparing recommendations for the 1909 improvements and, early in the month, had written to his subordinates to submit their recommendations; that his manager, about the 16th or 17th of December, advised him that it would be necessary to submit the recommendations to the executive officers about the first of the year; that on Saturday, the 19th, he advised Mr. Yoerg that he wished to go over the recommendations the next day; that he remembers distinctly that he was unable to complete his recommendations from the fact that he had not received a full report from the car department. By reference to his files he found that he received a reply from that department on the 23d. He therefore did not have that reply before him on the 20th, as he would have had if the meeting had taken place on the 27th. Mr. Yoerg was certain that it was the 20th of December for the reason that it was the first Sunday since his appointment as mechanical engineer, November 15, 1908, that he had been required to work. These gentlemen on that Sunday lunched at Carling's café. During lunch-time, according to their testimony, they were discussing superheaters when Mr. Emerson suggested the idea of—

an arrangement where it could be possible to remove one element without disturbing the other.

Mr. Yoerg—

made a suggestion in reference to casting the boss to the header in order to overcome the trouble that we had experienced with the other pipe that was secured with a bolt, and the joint made with a gasket.

Mr. Hawkins testifies that—

Mr. Emerson suggested at that time that there were too many joints in the Schmidt and Toltz arrangements, and he asked Mr. Yoerg why a design of a superheater could not be gotten up doing away with the header proper and making the steam pipe itself act as a header. He and Mr. Yoerg discussed a design of that kind and Mr. Yoerg outlined the method of attaching the pipes. * * * Mr. Emerson suggested using the steam pipe as a header, and Mr. Yoerg suggested means of attaching the superheating pipes.

Rough sketches were made, either on the tablecloth or on a strip of paper, but no sketch was preserved. It was determined by Mr. Emerson, however, according to the testimony of these witnesses, to have these ideas worked up next day, which was Monday, December 21, 1908.

According to Mr. Yoerg's testimony, he saw Mr. Riley, the appellee, the next morning, December 21st, explained the ideas evolved by Mr. Emerson and himself the day before, and directed him to start the work of laying out the new superheater. It may be pertinent here to state that Mr. Emerson was Mr. Yoerg's superior and Mr. Riley was subordinate to both Mr. Emerson and Mr. Yoerg, and subject to their directions. Mr. Riley, Mr. Yoerg testifies, stated that he would get Mr. Ross, another draftsman, to draw the flue-sheets that the matter might be expedited, and this was done. Mr. Nicoll, a mechanical draftsman employed by the Great Northern, testifies that early Monday morning, December 21, 1908, he saw Mr. Yoerg and Mr. Riley in conversation in the drafting-room and that soon thereafter he learned that a new superheater was being designed. He remembers distinctly that this was on the Monday before Christmas. Mr. Nicoll, during the making of the first tracing by Mr. Riley,

noticed Mr. Yoerg frequently at Mr. Riley's desk. * * * They were together a great deal during that Monday and for several days during the same week.

Mr. Nicoll remembers that on the day the tracing was finished—

Mr. Riley had it on the desk next to mine covered up with a sheet of drawing paper and told me he had worked on it—he says, "I took it home last night and worked until 11 o'clock on it to get it finished."

Later in the day Mr. Yoerg came in and looked at the tracing. Mr. Ross testifies that by the direction of Mr. Riley he laid out a couple of tracings of flue-sheets for him before the final drawing for the new superheater was commenced, and Mr. Nicoll corroborates this testimony. Mr. Yoerg testifies that this tracing was made under his supervision and that of Mr. Emerson, with whom he consulted and

who also frequently saw it as it was taking form; that on Saturday morning, January 2d, Mr. Yoerg asked Mr. Riley to bring the tracing down to his, Yoerg's, office. Upon Mr. Riley's statement that the tracing was at his home he was requested to get it, which he did, and that Mr. Yoerg then discovered that Mr. Riley had placed his name on the tracing as the inventor. Thereupon Mr. Yoerg, according to his testimony, asked Mr. Riley whether he had ever thought of the idea before it was explained to him by Mr. Yoerg on the 21st of December, 1908; that Mr. Riley stated he had not and he thereupon was directed to erase his name from the tracing, which he did; that later in the day Mr. Riley again brought the tracing to the office of Mr. Yoerg, when Mr. Emerson was present. Mr. Emerson testifies that Mr. Riley then stated that there was some misunderstanding with reference to this superheater; that Mr. Emerson then asked him whether he had any idea of this particular design before he was instructed to make it up.

He said not, but he had made the drawing. I then advised him that that was his business to make drawings; that is what he was hired for.

This tracing is dated December 31, 1908. From it blue-prints were made and one of these blue-prints (Emerson and Yoerg Exhibit No. 1) was immediately taken to patent solicitors for the purpose of having an application filed for Emerson and Yoerg. The original was kept in Mr. Yoerg's desk, which was broken open and the tracing taken therefrom. It subsequently turned up in the possession of Mr. Riley.

There is another item of evidence tending to show that the discussion at Carling's café occurred on the 20th of December, instead of the 27th as contended in behalf of Mr. Riley. A Mr. Adolph J. Anderson, a draftsman who was not in the employ of the Great Northern when he testified and who therefore was an entirely disinterested witness, had previously been employed by the company and a second period of employment commenced on Monday morning, December 28, 1908. Mr. Riley's table, the witness stated, was immediately in front of his and he noticed that there was a piece of drawing-paper on that table about four feet long and two and one-half feet wide. At noon Mr. Emerson and Mr. Yoerg came into the room and walked over to Mr. Riley's table and there consulted with him. Mr. Riley, when Mr. Emerson and Mr. Yoerg reached his table, took the thumb-tacks out of the paper covering the drawing-paper underneath and the witness gathered enough of the conversation to know that they were discussing a superheater. The fact that the discussion was apparently secret and that it was the first time the witness had seen Mr. Emerson in the office led him to pay particular attention to the conversation. Of course, if the testimony of Mr. Anderson is true, and there is every reason to believe that it is, the incident at Carling's café necessarily occurred on the 20th of December, rather than on the 27th, for otherwise there would have been no drawing to discuss on the 28th.

Immediately after the tracing or drawing of the subject-matter of this interference was completed, certain practical and technical defects were discovered in the structure there disclosed. Thereupon the subject-matter of the second interference was conceived and disclosed by Emerson and Yoerg. They directed Mr. Ross, to whom reference already has been made, to prepare a drawing embodying their conception, and his drawing was completed February 10, 1909. There is no claim by Mr. Riley that any information concerning this invention was furnished by him to either Emerson or Yoerg or to the draftsman, Mr. Ross. In other words, so far as this record discloses, Emerson and Yoerg were independent inventors of the subject-matter of the second interference.

The principal difference between the construction of the second superheater and the first is explained thus by Mr. Emerson:

The general construction of the header as shown on the first exhibit of December 31, 1908, the construction was such that it was our opinion that it would be so rigid that it would be impossible to keep the top and bottom joints tight due to its expansion and contraction. It was also heavier than was necessary due to its construction. It (the new construction) is much lighter, and there is a difference in the construction of the bosses.

As explained by Mr. Yoerg,

the purpose of making that drawing was, after talking the matter over with Mr. Emerson we concluded to put on the bosses in place of the other casting, due to the considerable amount of material in the first header, which would serve to make a great amount of contraction and expansion. Also on account of difficulty in making a casting.

Patterns for the superheater disclosed in this second drawing were started the first of March and a superheater was completed and installed in an engine in July, 1909. Other superheaters were also constructed and installed at a later period.

We will now review the evidence in behalf of Mr. Riley. He testifies that in the latter part of *December, 1906*, he—

had formulated a general idea of the superheater referred to (the superheater of this interference) and made some rough sketches;

that on or about February 6, 1907, he made sketches showing the superheaters of both interferences in his sketch-book, which book he produced. These sketches or drawings, for they are much more than mere sketches, cover several pages of this book and purport to have been made on the 15th of January, 1907. Mr. RHey says that this was the day he conceived "the general iden of the superheaters shown on these pages." Mr. Riley further testifies that prior to December 20, 1908, he showed these drawings to his wife, to Mr. Thomas Crawford, to Mr. Thomas Riley, his father, and to a Mr. Frank Whealon. He produced a sketch which he said he made for Mr. Whealon on the cover of the April, 1907, issue of the *Locomotive Engineers Journal* and also sketches on a postal card at the same time. These sketches, he testifies, were left with Mr. Whealon after they were made by him and were found in Mr. Whealon's attic on October 23, 1910. He further testifies that in April, 1908, he discussed the subject-matter of this interference with Mr. Whealon at St. Joseph's Hospital and again on November 8, 1908, when Mr. and Mrs. Whealon called at his home; that on November 22, 1908, he





commenced a small tracing of the superheater of this issue, which tracing, according to his testimony, was completed in a few days; that he then "did practically nothing until the night of December 23d, 1908," at which time he added a few dimensions to his tracing and some figures showing the number of tubes lost by applying the superheater to an ordinary locomotive. Prior to this time he admits that he had never mentioned the matter to either Emerson or Yoerg. He says, however, that he finally decided, on November 23d,

to take the tracing down to the office and show them (Emerson and Yoerg) the device, with a view of probably introducing it on the Great Northern Railroad.

On cross-examination he was asked whether there were any particular circumstances which led him to determine then to disclose his invention. He replied: "I don't remember of anything in particular." Mr. Riley says he took the tracing down to the Great Northern offices on December 23d and showed it to Mr. Nicoll and Mr. Ross. Both Mr. Nicoll and Mr. Ross positively deny this and both state that the large tracing of December 31st was the first tracing they ever saw of the invention. Mr. Riley says that within half an hour after showing his small sketch to Mr. Nicoll and Mr. Ross, Mr. Yoerg came into the drafting-room and, after looking at it, remarked "that is all right;" that he thereupon asked permission to show it to Mr. Emerson, which was done; that Mr. Yoerg came back to the drafting-room and asked him, Riley, whether he could figure the heating-surfaces; that thereupon Mr. Riley pushed a scratch-pad over to Mr. Yoerg and the heating-surfaces were figured out. Mr. Riley produced in evidence three sheets of yellow scratch-paper, the figures upon which admittedly having been made by Mr. Yoerg. Mr. Emerson and Mr. Yoerg also deny ever having seen this small sketch to which Mr. Riley alluded. Mr. Riley further says that on the 24th he was called to Mr. Emerson's office, where he found Mr. Emerson and Mr. Yoerg in conversation comparing his design with two other superheaters; that he then told them that he wanted all the benefits of this superheater outside the Great Northern Company and that he was assured that his interests would be protected; that Mr. Emerson then said: "You had better work it all out, and we will have the patterns made and put it on an engine;" that Mr. Yoerg said: "Yes, you work out all the details;" that he suggested that this tracing was on too small a scale; that Mr. Yoerg agreed to this and instructed him to "work it to a larger scale;" that he did nothing on the larger drawing until the evening of December 28th. It may be noted here that this is in direct conflict with the testimony of the witness Anderson, who saw the large tracing during the forenoon of that day. The testimony of Mr. Nicoll and Mr. Ross also tends to show that work on the large tracing commenced considerably earlier than the time fixed by Mr. Riley.

On New Year's night, Mr. Riley states, he took the tracing home and left it there; that during the afternoon of January 2d Mr. Yoerg came into the drafting-room and asked for it; that he immediately procured it and left it on Mr. Yoerg's table; that a little later Mr. Yoerg requested to see him; that he thereupon went to Mr. Yoerg's office, where the tracing was spread out on the desk; that Mr. Yoerg—

wanted to know if I didn't think it was a little far-fetched. I asked him what he meant. He said "This," pointing to my name;

that, after a serious argument, Mr. Yoerg ordered his name off; that he finally took the tracing to the drafting-room and removed his name. The witness was asked on cross-examination what Mr. Emerson said when he was informed by the witness of the dispute as to who was the inventor, and replied:

I called Mr. Emerson's attention to the fact that Mr. Yoerg had disputed me on the invention, and he jumped up from his chair and exclaimed that he didn't give a damn whose name was on that tracing; that that was what they had draftsmen there for, was to work up *his* ideas.

The Riley application was filed almost immediately thereafter, its date, as previously noted, being January 11, 1909. While Mr. Riley remained with the Great Northern Company until January, 1910, he did not disclose the fact of his application to any official of that company, nor did they know of it.

The drawing embodying the structure of the second interference was in the drafting-room, easily accessible to Mr. Riley. There is direct testimony to the effect that he saw this drawing while it was being made. This he denies, and, in denying it, is unquestionably testifying falsely. He swears positively that he did not go near the office at all from about a week or ten days after his conversation with Emerson and Yoerg on said January 2d until about the middle of February. It will be remembered that the drawing for the second invention was completed on February 10th. Evidently Mr. Riley was unwilling to admit that he was on duty while that drawing was being made. The evidence is overwhelming, however, that he was there practically every day during that time. Having stated that he was so disgusted that he remained away, he was asked in cross-examination whether he was too disgusted to accept his salary for the time of his absence, and replied:

Not at all. Everything I got was coming to me.
Q. You were willing to take all you could get?
A. All I could get. It was the practice down there to help yourself.

As previously stated, several of the witnesses to whom Mr. Riley said he disclosed the invention of the present interference prior to December 20, 1908, deny such disclosure. Mr. Whealon, a locomotive engineer and a close friend of Mr. Riley, identified the copy of the *Locomotive Engineers Journal* and the postal card to which Mr. Riley referred in his testimoney, and testified as to when the sketches were made thereon and also as to the finding of the exhibits later. The witness also testified that he saw the book containing the drawings to which reference has been made about the 18th of December, 1908, and remembered having seen the drawings therein. Mrs. Whealon testified to the finding of the magazine and postal card on August 23, 1910. How long they had been in the attic she was unable to state. The testimony of Mrs. Riley is equally vague. The father of Mr. Riley, Mr. Thomas Riley, was called and while he was unable to say that he

had seen the sketch-book in 1907 he was certain that he saw it in the latter part of November, 1908, and that his son then informed him that he was drawing a superheater. A careful examination of Mr. Thomas Riley's testimony, however, fails to convince us that he saw the drawings in this sketch-book relating to this invention prior to the latter part of December, 1908. That he saw drawings may readily be conceded, but, having no technical knowledge, it was very difficult for him to distinguish one from another.

The appellee having testified in his direct examination that he had exhibited this sketch-book and disclosed the invention to Mr. Thomas Crawford, he was asked in cross-examination, about the middle of February, 1911, whether he intended to call Mr. Crawford, and replied: "I can't say just now whether that is the intention or not." He was then asked whether he had requested Mr. Crawford to come and testify and replied that he had not. Mr. Crawford was not called by Mr. Riley in making out his case-in-chief. He was called in rebuttal, however, and it then transpired that Mr. Riley, some time prior to January 20, 1911, had written Mr. Crawford and submitted a list of questions for him to answer and that Mr. Crawford, under date of January 20, 1911, had replied saying, among other things:

> I think you have a good case and hope you sting them hard. If you have to have my testimony I will either make it before a notary here or come east.

As his reason for not calling Mr. Crawford in making out his case-in-chief, Mr. Riley stated that he could not afford to expend the $225.00 it would have cost to call him earlier. When the testimony was taken notice was given that a motion would be made to suppress it, which motion was made and the Examiner of Interferences suppressed the testimony. This decision was sustained by each of the other tribunals. Mr. Crawford, who was formerly a mechanical engineer, was a salesman at the time he testified. He stated that he was employed by the Great Northern Company from March 1, 1906, until December 31, 1907, and that he saw the Riley sketch-book "practically every day while I was at the office;" that he saw a sketch of the present invention and that it was explained to him by Riley "in a general way" and that he "understood the general idea;" that he had not seen the book from the middle of December, 1908, until he testified on June 13, 1911. He was asked in direct examination whether any of the drawings in the sketch-book which were shown him prior to his leaving in December, 1908, "show an individual or outside boss on a superheater" and replied:

> Well, the sketches show both types of bosses, although I didn't know them by that name when we discussed them. He simply had various ideas as to what would be the best arrangement if such a device was used.

Since there is such a sharp issue of fact in this case, it is apparent that the surrounding circumstances and the inherent probability or improbability of the testimony must have a material bearing upon the outcome. (*Beals* v. *Finkenbiner*, 12 App. D. C., 23; 82 O. G., 598.) And where it clearly appears that a witness has wilfully testified falsely as to a given point, his entire testimony is entitled to little consideration, for courts are bound by principles of law, morality and justice, to apply the maxim "*Falsus in uno, falsus in omnibus.*" (*Alexander* v. *Blackman*, 26 App. D. C., 541; 121 O. G., 1979; *Campbell* v. *State*, 3 Kan., 498; *Dell* v. *Oppenheimer*, 9 Neb., 457; *Stoffer* v. *State*, 15 Ohio, 56.) The theory upon which this rule is founded is not that a witness who has wilfully perjured himself is incapable of speaking the truth as to other facts, but rather that the motive that prompted him to commit perjury in one part of his testimony *may* lead him to support it by falsifying other parts. In other words, courts have found it unsafe to base an award upon the testimony of such a witness.

In the present case we have two men of high character, occupying positions of trust and responsibility and possessing special skill in the art to which this invention relates. To deny their claim to the invention we must find that they deliberately entered into a conspiracy to deprive their subordinate, Mr. Riley, of the fruits of his genius. There is no half-way ground, for deliberate perjury rests on one side or the other. That Mr. Riley has testified falsely in one material respect is overwhelmingly established, for, instead of being absent from his duties for over a month at the time the drawings for the invention forming the subject-matter of the second interference were being prepared, he was there practically every day. While there is less direct evidence that he saw these drawings than as to his being present during the time of their preparation, we think he is clearly discredited as to this point. In other words, we entertain no doubt whatever that he saw these drawings while they were in process of evolution. We must therefore scrutinize all of his testimony with great care.

We think the evidence of Emerson and Yoerg satisfactorily shows that the conversation at Carling's café occurred on Sunday, December 20, 1908, and that the general features of the invention of this interference were there disclosed. Admittedly, Mr. Riley had not then disclosed any part of the invention to them or either of them. That an interview took place between Mr. Yoerg and Mr. Riley on the next morning even Mr. Riley himself admits. Both the evidence and circumstances tend to show that Mr. Yoerg then disclosed the general features of the invention to Mr. Riley and directed him to work out the details on paper. This it was Mr. Riley's duty to do. Mr. Riley's testimony at this point is very improbable and, to our minds, unbelievable. He says he then had in his possession the small tracing (his Exhibit D) and that for some unexplained reason he took this tracing to the office on the 23d and showed it to both Mr. Emerson and Mr. Yoerg. He does not explain why, if the elaborate drawings in his sketch-book which completely covered both the invention of this and of the companion interference were then in existence, he made no mention whatever of them. He does say that previously he had withheld information from Emerson and Yoerg because of his fear that they would appropriate his invention. Just why there was less danger of their appropriating it if disclosed by means of the small tracing than there would have been had he disclosed it by means of his sketch-book drawings, he does not explain. Nor does he explain, or attempt to explain, why he did not show or make known this sketch-book to his own counsel when this application was being prepared.





Mr. Riley attempts to explain his failure to include the subject-matter of the second interference in his first application by the statement that he supposed the first application was sufficiently broad to cover both forms. But it is very significant that this draftsman, whose knowledge of superheaters was theoretical and not practical, should have originally devised both forms of the invention. It will be borne in mind how the second form came to be devised by Emerson and Yoerg. Mr. Riley has attempted to prove too much. It is unbelievable that back in January, 1907, he conceived both forms of this invention and in February of that year, on a single day or within two or three days at most, according to his own testimony, made the elaborate drawings in his sketch-book covering both forms. We are convinced that the drawings of the invention of this and of the companion interference in this sketch-book were not made until a time subsequent to the disclosure of Emerson and Yoerg.

The testimony of the witness Whealon we are unable to accept. The other witnesses for Mr. Riley, with the possible exception of Mr. Crawford, to whom we shall presently refer, would hardly have distinguished one drawing from another, and their testimony, therefore, is of little importance here. That the testimony of Mr. Crawford might have been seasonably obtained is apparent, we think, and we therefore are not prepared to say that the Patent Office tribunals erred in suppressing it. It may be suggested, however, that even if that testimony should be considered it would not change the result. That Mr. Crawford was a partisan of Mr. Riley's is apparent. He left the employ of the Great Northern Road December 31, 1907, and his testimony was given June 13, 1911. In view of the fact that the drafting-room was the place where drawings for the various parts of locomotive-engines were made and that various types of superheaters were developed, it is not strange that this witness should have had some conversation with Mr. Riley on the subject of superheaters. The testimony of the witness, however, is altogether too vague to convince us that Mr. Riley then disclosed to him this invention. Nor do we think the witness ever saw the drawings covering this invention in the Riley sketch-book at the time he testified he did.

An attempt has been made to discredit Mr. Yoerg in connection with the calculation of heating-surfaces which he made on the yellow slips of paper introduced by Mr. Riley as exhibits. It is contended that these calculations were made with reference to Riley's Exhibit D. Mr. Yoerg testifies that they were made in January, while he was developing the second form of superheaters and that they were preliminary in character. Mr. Ross, the draftsman, remembers that calculations were made and that they were made on similar paper. Of course, he could not definitely identify these particular sheets. Moreover, it is possible that these calculations were made by Mr. Yoerg with reference to the large tracing of December 31st and either while that tracing was under way or at its completion. Admittedly this shows substantially the same structure that is shown in the small Riley Exhibit D tracing. In view of the fact that the calculations were preliminary in character and that the sheets of paper upon which they were made were cast aside by Mr. Yoerg, we do not think it would have been at all strange had he been mistaken in his testimony as to just when the calculations were made. At all events, since Mr. Riley has been so badly discredited as to this Exhibit D and otherwise, we accept Mr. Yoerg's statement that he did not see that exhibit.

On the whole case, we are clearly of the opinion that the award of priority should have been in favor of Emerson and Yoerg. The decision of the Commissioner will therefore be reversed.

Reversed.

## ADJUDICATED PATENTS.

(U. S. C. C.) The Gennert patent, No. 514,822, for improvements in insulating joints and couplings for sections generally, *Held* not infringed. *Macallen Co.* v. *Charles Wirt & Co.*, 209 Fed. Rep., 625.

(U. S. C. C. A.) The Lafean patent, No. 945,788, *Held* void for lack of invention. *Glen Rock Co.* v. *American Caramel Co.*, 209 Fed. Rep., 619.

(U. S. D. C.) The Phillips patent, No. 950,402, for gearing devices for washing-machines, *Held* valid and infringed. *Grinnell Washing Mach. Co.* v. *Woodrow*, 209 Fed. Rep., 621.

(U. S. C. C. A.) The Avery patent, No. 986,668, for a reflector for automobile-lamps of cast metal, *Held* void for lack of patentable invention in view of the prior art. *Milwaukee Bronze Casting Co.* v. *Avery*, 209 Fed Rep., 616.

## Disclaimer.

1,040,969.—*Henry G. Voight*, New Britain, Conn. DOOR-CONTROLLING MEANS. Patent dated October 8, 1912.

Disclaimer filed February 13, 1914, by the patentee.

Enters this disclaimer—

"To claims 1 and 2 of the aforesaid Letters Patent, which claims read as follows:

"1. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock the door against opening movement, an operating handle carried by the door and having a limited free movement relative thereto, and means whereby a continuous movement of said handle in the same direction operates to break said toggle lock and to open said door.

"2. In a device of the character described, the combination of a sliding door, a stationary abutment, a toggle lever connection between said door and abutment adapted to be straightened when the door is closed to thereby lock

the door against opening movement, closing mechanism for said door operatively connected with said toggle lever and normally tending to move the latter in a direction to move said door into closed position, an operating handle carried by the door and having a limited free movement relative thereto, and means whereby a continuous movement of said handle in the same direction operates to break said toggle lock and to open said door against the force of said closing means."

## Adverse Decisions in Interference.

PATENT No. 1,055,235.

On January 26, 1914, a decision was rendered that Walter M. Schwartz was not the first inventor of the subject-matter covered by claims 1 and 3 of his Patent No. 1,055,235, subject, "Fabric-Driers," and no appeal having been taken within the time allowed such decision has become final.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 25, 1914.*

*Anthony Shaw & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Worcester Royal Porcelain Company, Limited, Worcester, England, for registration of a trade-mark and trade-mark registered September 30, 1884, No. 11,534, to Anthony Shaw & Son, Burslem, England, and a notice of such declaration sent by registered mail to the said Anthony Shaw & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Anthony Shaw & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

*Benjamin Ward, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Seth William Eddy, of Fourteenth and N streets, Lincoln, Nebr., for registration of a trade-mark and trade-mark registered June 1, 1886, No. 13,366, to Benjamin Ward, of northwest corner of Dauphin and Conception streets, Mobile, Ala., and the Office having failed to secure service upon Ward, and Dave S. Bauer, of Mobile, Ala., claiming to be the successor of Ward, having failed to file evidence of his right to intervene on behalf of Ward within the time allowed for that purpose, notice is hereby given that unless said Benjamin Ward, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 14, 1914.*

*Goodyear Boot and Shoe Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Strauss & Jandorf Shoe Co., of Chicago, Ill., for registration of a trade-mark and trade-mark registered July 21, 1885, No. 12,419, to the Goodyear Boot and Shoe Co., of New York, N. Y., and a notice of such declaration sent by registered mail to said Goodyear Boot and Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Goodyear Boot and Shoe Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*






# THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 200—No. 2. TUESDAY, MARCH 10, 1914. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.


CONTENTS.


| | Page. |
|---|---|
| ISSUE OF MARCH 10, 1914 | 287 |
| ADVERSE DECISIONS IN INTERFERENCE | 287 |
| AMENDMENTS | 287 |
| TRADE-MARKS | 287 |
| APPLICATIONS UNDER EXAMINATION | 288 |
| PATENTS GRANTED | 289 |
| REISSUES | 547 |
| DESIGNS | 550 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 559 |
| TRADE-MARKS—REGISTERED | 577 |
| LABELS AND PRINTS | 580 |
| COMMISSIONER'S DECISIONS— | |
| Ex parte Cooper | 581 |
| Both v. Bart | 582 |
| DECISIONS OF THE U. S. COURTS— | |
| In re Cooper | 583 |
| In re McNeil | 583 |
| ADJUDICATED PATENTS | 583 |
| NOTICE OF CANCELATION | 584 |
| INTERFERENCE NOTICES | 584 |


## ISSUE OF MARCH 10, 1914.

| | | |
|---|---|---|
| Patents | 740—No. 1,089,387 to No. 1,090,126, | inclusive. |
| Designs | 42—No. 45,365 to No. 45,406, | inclusive. |
| Trade-Marks | 92—No. 95,725 to No. 95,816, | inclusive. |
| Labels | 6—No. 17,595 to No. 17,600, | inclusive. |
| Prints | 4—No. 3,521 to No. 3,524, | inclusive. |
| Reissues | 4—No. 13,695 to No. 13,698, | inclusive. |
| Total | 868 | |

TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 2 | ..... | North Carolina | 5 | ..... |
| Arizona | 3 | ..... | North Dakota | ..... | ..... |
| Arkansas | 6 | ..... | Ohio | 37 | 5 |
| California | 33 | 4 | Oklahoma | 5 | 1 |
| Colorado | 4 | ..... | Oregon | 2 | ..... |
| Connecticut | 26 | 2 | Pennsylvania | 74 | 17 |
| Delaware | ..... | 5 | Rhode Island | 5 | ..... |
| Florida | 3 | ..... | South Carolina | 3 | ..... |
| Georgia | 4 | 3 | South Dakota | 2 | ..... |
| Idaho | 3 | ..... | Tennessee | 5 | 1 |
| Illinois | 78 | 5 | Texas | 13 | 1 |
| Indiana | 16 | 2 | Utah | 2 | 1 |
| Iowa | 15 | ..... | Vermont | 1 | ..... |
| Kansas | 6 | ..... | Virginia | 6 | 1 |
| Kentucky | 8 | 1 | Washington | 7 | ..... |
| Louisiana | 7 | ..... | West Virginia | 2 | ..... |
| Maine | 2 | ..... | Wisconsin | 13 | ..... |
| Maryland | 9 | 3 | Wyoming | 1 | ..... |
| Massachusetts | 34 | 9 | | | |
| Michigan | 25 | 1 | Alaska, District of | ..... | ..... |
| Minnesota | 6 | ..... | Canal Zone | 1 | ..... |
| Mississippi | 2 | ..... | District of Columbia | 9 | 1 |
| Missouri | 20 | 2 | Hawaii Territory | ..... | ..... |
| Montana | 2 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 7 | 1 | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 3 | 1 | U. S. Navy | ..... | ..... |
| New Jersey | 36 | 2 | | | |
| New Mexico | 1 | ..... | Total to residents of the United States | 672 | 95 |
| New York | 118 | 26 | | | |

TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | 2 | ..... |
| Austria-Hungary | 4 | ..... | Newfoundland | ..... | ..... |
| Belgium | 1 | ..... | New South Wales | ..... | ..... |
| British India | ..... | ..... | New Zealand | 2 | ..... |
| British West Indies | ..... | ..... | Norway | ..... | ..... |
| Bulgaria | ..... | ..... | Peru | ..... | ..... |
| Canada | 16 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Roumania | ..... | ..... |
| Chile | ..... | ..... | Russia | ..... | ..... |
| Costa Rica | ..... | ..... | Scotland | 2 | ..... |
| Cuba | ..... | ..... | South Australia | ..... | ..... |
| Denmark | ..... | ..... | Spain | ..... | ..... |
| Dominican Republic | ..... | ..... | Sweden | 3 | ..... |
| England | 22 | 4 | Switzerland | 1 | ..... |
| France | 9 | 1 | Transvaal, South Africa | ..... | ..... |
| Germany | 45 | 1 | Victoria | 1 | ..... |
| India | ..... | ..... | Wales | ..... | ..... |
| Ireland | ..... | ..... | | | |
| Italy | 1 | 1 | Total to residents of foreign countries | 110 | 7 |
| Japan | ..... | ..... | | | |
| Mexico | 1 | ..... | | | |

## Adverse Decisions in Interference.

PATENT No. 936,207.

On February 4, 1914, a decision was rendered that Clifford D. Babcock was not the first inventor of the subject-matter covered by claims 8 and 9 of his Patent No. 936,207, subject, "Telephone-transmitters," and no appeal having been taken within the time allowed such decision has become final.

PATENT No. 884,347.

On February 6, 1914, a decision was rendered that Charles E. Yetman was not the first inventor of the subject-matter covered by claims 48 and 53 of his Patent No. 884,347, subject, "Type-writing machine," and no appeal having been taken within the time allowed such decision has become final.

## Amendments.

In order to insure the prompt delivery of amendments to the proper examining division, applicants are requested in their actions on applications to give the division number and the room number appearing on the last Office letter, as well as the date of such letter.

## Trade-Marks.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment therefor.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business March 7, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Jan. 3 | Jan. 13 | 665 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Nov. 5 | Jan. 21 | 545 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Feb. 9 | Feb. 24 | 208 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 16 | Feb. 5 | 856 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Nov. 20 | Dec. 24 | 554 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Nov. 6 | Dec. 19 | 790 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Nov. 15 | Jan. 10 | 770 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Sept. 16 | Jan. 23 | 1059 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Sept. 25 | Feb. 4 | 629 |
| 235 | 10. Carriages and Wagons | Nov. 17 | Jan. 2 | 1128 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Dec. 26 | Jan. 21 | 436 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Sept. 2 | Dec. 2 | 1243 |
| 229 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Jan. 17 | Jan. 30 | 462 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Sept. 29 | Feb. 2 | 516 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Sept. 16 | Dec. 22 | 1426 |
| 100 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Sept. 29 | Dec. 26 | 512 |
| 268 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Jan. 19 | Feb. 7 | 238 |
| 227 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Feb. 5 | Feb. 7 | 213 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Nov. 5 | Jan. 20 | 498 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Dec. 2 | Jan. 26 | 297 |
| 112 | 21. Brakes and Gibs; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Oct. 21 | Jan. 12 | 501 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Sept. 8 | Jan. 28 | 388 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Nov. 21 | Jan. 5 | 402 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Dec. 19 | Jan. 15 | 530 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Jan. 22 | Jan. 30 | 266 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 21 | Nov. 10 | 765 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Dec. 20 | Jan. 21 | 497 |
| 65 | 28. Internal-Combustion Engines | Oct. 3 | Jan. 27 | 847 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Jan. 2 | Jan. 12 | 573 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 2 | Feb. 16 | 318 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Nov. 7 | Feb. 2 | 377 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 1 | Feb. 7 | 562 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Jan. 6 | Jan. 26 | 301 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Jan. 29 | Feb. 11 | 313 |
| 87 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Jan. 6 | Feb. 7 | 562 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Jan. 12 | Jan. 15 | 763 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Sept. 3 | Jan. 5 | 861 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 1 | Dec. 15 | 850 |
| 221 | 39. Water Distribution | Oct. 30 | Dec. 18 | 557 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Nov. 4 | Jan. 17 | 1137 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Jan. 23 | Jan. 29 | 452 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Oct. 2 | Jan. 22 | 863 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Jan. 15 | Jan. 28 | 310 |

Oldest new case, Aug. 1; oldest amended, Nov. 10.
Total number of applications awaiting action ..... 20,260

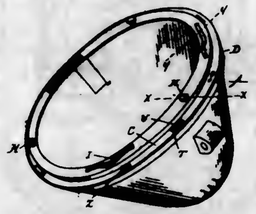
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Dec. 29 | Feb. 3 | 1046 |
| | Designs | Jan. 21 | Feb. 7 | 283 |
| | Labels and Prints | Jan. 24 | Feb. 19 | 240 |



# PATENTS

## GRANTED MARCH 10, 1914.

1,089,387. LAMP. WILLIAM F. ANKLAM, Detroit, Mich., assignor to C. M. Hall Lamp Company, Detroit, Mich., a Corporation of Michigan. Filed May 26, 1913. Serial No. 769,928. (Cl. 240—41.)



1. In a lamp the combination with a casing having an inwardly-extending annular flange, of a reflector having an outwardly extending annular flange arranged over the flange of the casing, means for securing the two annular flanges together, and a door including a transparent panel, said reflector being provided at the onter end thereof with an annular bead arranged within and projecting beyond the outwardly-extending flange of the reflector and said bead projecting into proximity to the transparent panel.

2. In a lamp the combination with a casing, of a door therefor, interlocking members inclosed by the door and casing and carried respectively thereby, means for yieldably holding said interlocking members in engagement, said door including a transparent panel and a seat against which said panel is pressed by said yielding means.

3. In a lamp the combination with a casing, of a reflector arranged within the casing, a door for the latter, resilient means between the casing and reflector, and interlocking members upon the door and casing arranged within said casing.

4. In a lamp the combination with a casing provided with a flange, of a reflector arranged in and carried by the casing and having a flange extending in operative relation to the flange of the casing, and yielding means interposed between said flanges.

5. In a lamp the combination with a casing provided with a flange, of a reflector arranged in the casing and having a flange extending in operative relation to the flange of the casing, yielding means interposed between said flanges, and a detachable interlocking engagement between the flanges.

[Claims 6 to 18 not printed in the Gazette.]

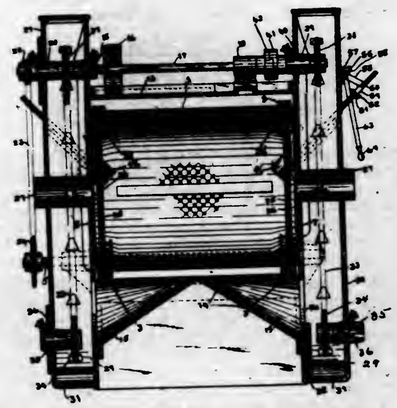
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1,089,388. STEEL-GRIT BLAST-MACHINE. ROBERT J. BARR, Erie, Pa., assignor of one-half to Joseph N. Germain, Erie, Pa. Filed Sept. 9, 1912. Serial No. 719,364. (Cl. 51—14.)

1. In a steel grit blast machine, the combination of a barrel; means for rotating the barrel; a stationary head for said barrel; and a steel grit nozzle extending through said head adjacent to the side of the barrel having an upward movement and directed onto the crest of the material as it is formed by the rotating barrel, said nozzle terminating at a point adjacent to the head.

2. In a steel grit blast machine, the combination of a barrel, said barrel having a beveled shoulder adjacent to one of its heads; means for supporting and rotating said barrel; a stationary head within the beveled shoulder; and devices for delivering a blast to the barrel.

3. In a steel grit blast machine, the combination of a barrel; a steel grit blast nozzle directing a blast of grit to the interior of the barrel; perforated stationary heads for said barrel; and means for delivering a scavenging blast to one head and conveying said scavenging blast from the opposite head.



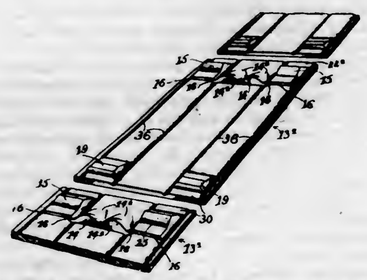
4. In a steel grit blast machine, the combination of a barrel; a steel grit blast nozzle directing a blast of grit to the interior of the barrel; perforated stationary heads for said barrel; and means for delivering a scavenging blast to one head and conveying said scavenging blast from the opposite head comprising a manifold for each head and passages leading to and from said manifolds.

5. In a steel grit blast machine, the combination of a barrel; a head for said barrel; an end frame adjacent to said head; devices for elevating grit carried by said frame; means for movably supporting said frame, said means permitting the movement of said frame to permit the removal of the head of the barrel; and driving devices for said elevating means.

[Claims 6 to 17 not printed in the Gazette.]

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1,089,389. PROCESS FOR MANUFACTURING TIE-PLATES. EDWIN H. BELL, Chicago, Ill. Filed Aug. 18, 1911. Serial No. 644,866. (Cl. 80—66.)

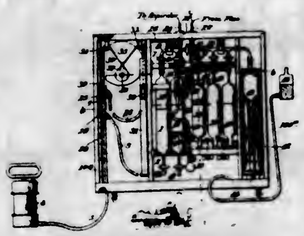


The process of rolling from a continuous plate or billet a succession of integrally connected tie-plate blanks each provided adjacent one end with a transverse rib forming a

rail abutting shoulder and elevated spike-head seats at either side thereof and adjacent its other end with elevated spike-head seats, which consists in rolling the billet so that the tie-plates are formed end to end with their lengths extending in the direction of the length of the billet and in rolling the parts of the billet intermediate said transverse rib of one tie-plate blank and the elevated spike-head seats of the proximate blank to the same cross-sectional form as the main part of the tie-plate blanks.

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1,089,390. GAS-ANALYSIS APPARATUS. EDWARD J. BILLINGS, Boston, Mass., assignor to Arthur D. Little, Incorporated, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 24, 1912. Serial No. 727,547. (Cl. 23—3.)



1. In a gas-analysis apparatus, a sampling tube, a draining conduit comprising a Y-overflow tube connected thereto, and means for lowering said Y-overflow tube and collecting a sample of gas during a predetermined time.

2. In a gas-analysis apparatus, a sampling pipette, an exhaust tube connected thereto, a sampling tube connected to said pipette, a conduit leading from said sampling tube, and a gas connection between said conduit and exhaust tube.

3. In a gas-analysis apparatus, a sampling pipette, an exhaust tube connected thereto, a sampling tube connected to said pipette, a conduit leading from said sampling tube, said conduit having a valved connection to said exhaust tube, and means for draining said sampling tube through said conduit.

4. In a gas-analysis apparatus, a sampling tube, a conduit leading therefrom, a clock-movement, and means operated by said clock-movement for lowering a part of said conduit at a predetermined rate.

5. In a gas-analysis apparatus, a sampling tube, a conduit comprising a Y-overflow tube leading therefrom, a clock-movement, and changeable means for imparting predetermined velocities attachable to said clock-movement to lower said Y-overflow tube at different predetermined rates.

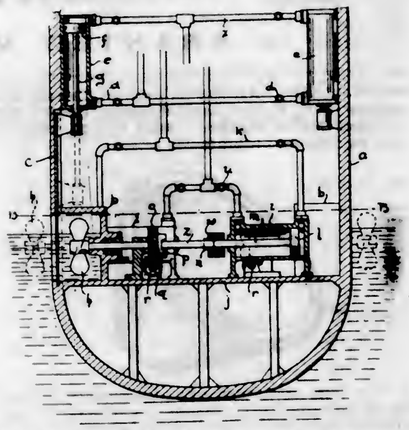
[Claim 6 not printed in the Gazette.]

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1,089,391. BOAT-PROPELLER. JOSEPH S. BLATZER and PHILIP J. PAWLOSKI, Pontiac, Mich. Filed Apr. 21, 1913. Serial No. 762,699. (Cl. 115—38.)

1. The combination with a boat, having a plurality of propeller boxes along each side, of a main propeller and shaft, a plurality of side propellers vertically disposed and ordinarily resting in said boxes, a plurality of cylinders and pistons, one cylinder and piston connected with each side propeller, a means for furnishing compressed fluid to the pistons for forcing the propellers outward, and driving connections on the said propellers and the main propeller shaft for interengaging when the said propellers are forced out by the said pistons and cylinders, substantially as described.

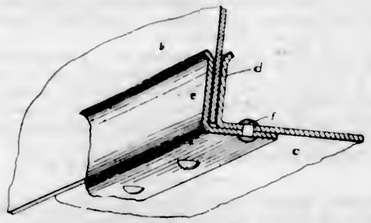
2. The combination with a boat, having a propeller box along each side, of means for driving the boat, a side propeller vertically disposed and ordinarily resting in each box, a gate for each box, apparatus operated by compressed fluid for substantially simultaneously raising the gates, apparatus operated by compressed fluid for thrusting the side propellers outward, and driving connections for connecting the side propellers with the means for driving the boat when the said apparatus thrusts the side propellers outward, substantially as described.



3. In combination with a boat provided with a plurality of propeller boxes along its sides, a main propeller and shaft driving the ship, a plurality of side propellers and propeller shafts, one located in each box, a plurality of air cylinders, one for each side propeller, a piston in each air cylinder, a piston rod connected with each piston and having a connection with one side-propeller shaft, a clutch on the side-propeller shaft, one of the parts being fast to the shaft, the other part being free to rotate thereupon, a gear wheel fast to the last mentioned clutch part and constantly rotated by the main propeller shaft whereby the travel of the piston connects the side-propeller with the main propeller-shaft and thrusts the side-propeller out of the propeller-wheel box, substantially as described.

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1,089,392. DUMP-CAR DOOR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Apr. 13, 1912. Serial No. 690,571. (Cl. 105—186.)



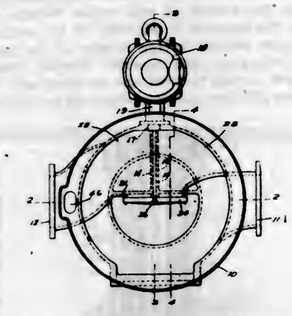
In a car for loose commodities a discharge hopper having walls with straight side edges, and a door hinged at one edge to the hopper and having side flanges with pockets having flared mouths and said pockets being adapted to envelop and closely fit the side edges of the walls when the door is closed.

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1,089,393. GAS-METER. HORACE CHRISMAN, Edgewood Park, Pa., assignor to Pittsburg Meter Company, a Corporation of Pennsylvania. Filed Apr. 9, 1910. Serial No. 554,538. (Cl. 73—1.)

1. In a proportional meter, the combination of an inlet chamber, an outlet chamber, a tally meter, a meter delivery chamber, a diaphragm, a ported proportional valve connected to the diaphragm, one opening of said valve being for communication between the inlet chamber and the outlet chamber, and another opening thereof being for communication between the meter delivery chamber and the outlet chamber, and means connecting the valve and the diaphragm.





2. In a proportional meter, the combination of an inlet chamber and an outlet chamber, a tally meter, a conduit in communication with the exhaust from said tally meter, a diaphragm, a third chamber and a valve connected to the diaphragm and having openings, one of which is for communication between the inlet chamber and the outlet chamber and the other of which is for communication between the third chamber and the outlet chamber, said valve being operated by the diaphragm.

3. In a proportional meter, the combination with a main casing having an inlet opening and an outlet opening, a tally meter having an inlet port in communication with the inlet opening, an exhaust port and a delivery chamber for communication with the outlet opening in communication with the tally meter, a valve and ported valve seat between the inlet and outlet openings and adapted to effect communication between the exhaust port of the tally meter and the outlet port of the main casing, and a diaphragm for operating said valve.

4. In a proportional meter, the combination with a main casing having an inlet chamber and an outlet chamber, a tally meter having ports communicating with the inlet chamber and the outlet chamber, a valve and ported valve seat to effect communication between one of the ports of the tally meter and the outlet chamber, and a diaphragm for operating said valve.

5. In a proportional meter, the combination of a main casing having an inlet chamber and an outlet chamber, a tally meter in communication with the main casing, a slide valve having an opening for communication between the inlet chamber and the outlet chamber of the main casing and an opening for communication between the tally meter exhaust and the outlet chamber of the main casing, and a diaphragm for operating said valve.

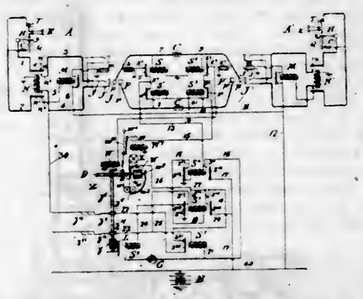
[Claims 6 to 8 not printed in the Gazette.]

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1,089,394. CALL-RECORDING SYSTEM FOR TELEPHONE-EXCHANGES. EDWARD E. CLEMENT, Washington, D. C., assignor to The Telephone Improvement Company, Attica, N. Y., a Corporation of New York. Filed Nov. 21, 1905, Serial No. 288,367. Renewed Oct. 15, 1912. Serial No. 725,927. (Cl. 179—9.)

1. In a call recording system for telephone exchanges and the like, a plurality of lines to be interconnected, means for interconnecting the same, a recording member carrying indicia corresponding to the circuits over which calls are to be recorded, means for moving said member, controlled in making connection with a calling line, and means for effecting a record when the recording member has been moved to exposed the indication of the particular line with which connection has been so effected, and means for disabling the device for all other positions and for all other lines, whether calling or not.

2. In a telephone exchange system, a plurality of lines, means for interconnecting the same, and a recording system therefor, comprising a driven type wheel, a coöperating printing magnet, a motor magnet, a starting relay energized when connection is effected with a calling line, and a stopping relay energized when the type wheel has been moved to expose an indication corresponding to the particular line in which connection has been effected.



3. In a telephone exchange system, a plurality of lines, means for interconnecting the same, and a recording system therefor, comprising a selector switch having a spindle carrying a type wheel and a contact arm, contact banks for said arm containing terminals for a plurality of lines, each connected so as to have its potential raised when its line is calling, a motor for the switch, a starting magnet for the motor, connections for said starting magnet completed for its energization when connection is effected with a line, and a stopping magnet for the motor connected to the switch-arm and energized when the latter touches the contact of the line with which connection has been established.

4. In a telephone exchange system, a plurality of lines, means for interconnecting the same, and a recording system therefor, comprising a selector switch associated with a connective circuit, a spindle for said switch carrying a printing member and a contact arm, a series of line-contacts adapted to be swept over by said arm, line-numeral characters on said printing member corresponding in position with the line contacts, so as to be brought into printing position when the switch-arm rests upon their respective contacts, a motor for the switch, a controlling magnet for said motor, means whereby said controlling magnet is energized to start the switch upon connection being effected with a line, means to stop the motor when the switch-arm rests on the contact of the line with which connection has been established, and means to prevent interference with other busy lines.

5. A register system for telephone exchanges and the like comprising a selector switch and a recorder associated therewith, line-contacts and test-contacts in said switch, a motor for the switch a connective circuit, a starting magnet for the motor taking current through said connective circuit when the same is connected with a line, a stopping magnet connected to a switch-arm coöperating with the line-contacts, and adapted to become energized when its switch-arm rests on the contact of a busy line, and a test or guard magnet connected to a switch-arm cooperating with the test contacts and acting to disable the stopping magnet when its arm rests on a busy line-contact of any other line than that with which the associated connective circuit is in connection.

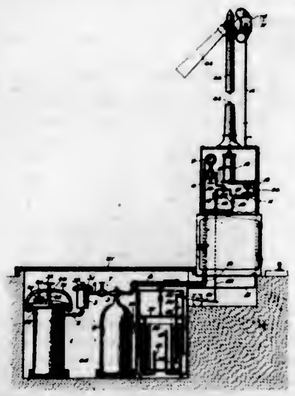
[Claims 6 to 10 not printed in the Gazette.]

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1,089,395. RAILWAY SIGNALING APPARATUS. CLYDE J. COLEMAN, New York, N. Y., assignor to Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed Feb. 1, 1909. Serial No. 475,331. (Cl. 246—38.)

1. In a signaling apparatus for railways, a signal, a gas burner for lighting the signal, a gas motor for operating the signal, means for conveying gas to said motor, a gas reservoir, an exhaust passage leading from said me-

tor to said reservoir, a by-pass connecting said conveying means with said reservoir, a passage for supplying gas to the burner from said reservoir, and means for controlling the amount of gas to be passed through said by-pass.



2. In a signaling apparatus for railways, a signal, a gas burner for lighting the signal, a gas motor for operating the signal, means for conveying gas to said motor, a gas reservoir, an exhaust passage leading from said motor to said reservoir, a by-pass connecting said conveying means with said reservoir, a passage for supplying gas to the burner from said reservoir, a valve in said by-pass, and means connecting said valve with the reservoir for opening said valve when the reservoir does not contain a predetermined quantity of gas, and for closing said valve when the predetermined quantity is reached.

3. In a railway signaling apparatus, a signal, a gas motor and a burner therefor, a gas generator, a gas reservoir, means for supplying gas to the reservoir from the motor and from the generator independently of the motor, and means for supplying gas to the burner from the reservoir independently of the motor or the generator.

4. In a railway signaling apparatus, a signal, a gas motor and a burner for the signal, a gas generator, a gas reservoir, means for supplying gas to the reservoir from the motor and from the generator independently of the motor, means for supplying gas to the burner from the reservoir independently of the motor or the generator, and means governed responsively to changes of gas in the reservoir for controlling the direct supply of gas from the generator to the reservoir.

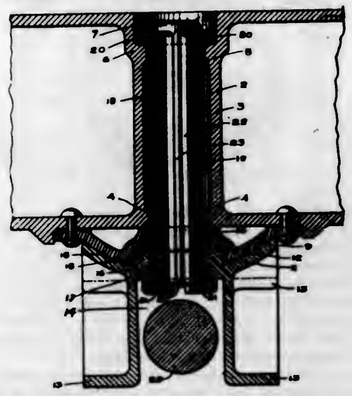
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1,089,396. FLEXIBLE LOCK-JOINT FOR CAR BODIES AND TRUCKS. JAMES MCCUTCHEON COLEMAN, Westmount, Quebec, Canada. Filed Feb. 6, 1913. Serial No. 746,555. (Cl. 105—108.)

1. In a flexible lock joint for car bodies and trucks, a body bolster, a truck bolster, tie members at one end engaging said body bolster and at the other end engaging said truck bolster and a king pin provided with means for carrying said tie-members therewith in rotation, the latter being journaled in fixed bearings in the said body and truck bolsters.

2. In a flexible lock joint for car bodies and trucks, a body bolster, a truck bolster, tie members arc-shaped in cross section and having outwardly extending flanges at the upper and lower end thereof engaging said body and truck bolsters, respectively, and a king pin provided with means for carrying said tie-members therewith in rotation, the latter being journaled in fixed bearings in said body and truck bolsters.

3. In a flexible lock joint for car bodies and trucks, a body bolster having a central vertical passage therethrough and a central recess at the upper end of said passage forming at the bottom an annular flange, a truck bolster having a suitable bearing surface meeting said body bolster, a recess from the under side and a passage into said recess in alinement with the said passage in the body bolster, the bottom of said recess forming a flange surrounding the passage, a plurality of tie members arc-shaped in cross section having flanges at the upper and lower ends engaging said annular flanges, respectively and a king pin having vertical ribs splitting said tie members from one another and rotatable with said tie members.



4. In a flexible lock joint for car bodies and trucks, a body bolster having a central passage therethrough converging slightly at the lower end and at the upper end forming a flange at the bottom of a central recess in the upper side of the bolster, said bolster having a bearing member rigid with the underside thereof and a central opening through said bearing member in alinement with the lower converging end of the aforesaid passage, a truck bolster having a recess from the underside thereof, a bearing surface meeting the aforesaid bearing and an opening through the bottom of said recess, said recess bottom forming an annular flange surrounding said opening, a pair of tie members formed in cross section in arc-shape and having flanges at the upper and lower ends engaging said bolster flanges, respectively, and abutting the converging parts of the passage walls and bearing member in the truck bolster and a king pin having vertical ribs separating said tie members and forming with said tie members a rotatable joint member.

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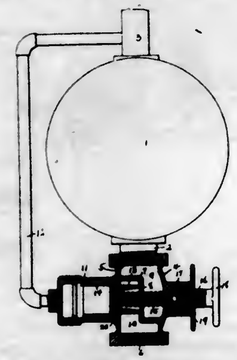
1,089,397. RELIEF DEVICE FOR COMPRESSORS. RUDOLPH CONRADER, Erie, Pa. Filed May 1, 1911. Serial No. 624,306. (Cl. 230—24.)

1. In a relief device for compressors, the combination of a compressor intake connection; a valve body having a passage therethrough; a valve seat; a valve operating on the seat by moving toward and from the seat and controlling the passage; a cylinder connected with the body; a piston in the cylinder for actuating the valve, said valve having a less area on the face exposed to the passage at the opposite side of the piston than the piston; a receiver connection leading to the cylinder; and a spring operating against the piston.

2. In a relief device for compressors, the combination of a compressor intake connection; a valve body; a diaphragm dividing the body into two chambers, said diaphragm having a valve passage therethrough; a valve controlling said passage and opening and closing by movement from and toward the diaphragm; a cylinder connected with the body; a piston in the cylinder for actuating the valve, said valve having a less area next to the diaphragm than the piston; a receiver connection leading to the cylinder; and a spring operating against the piston.



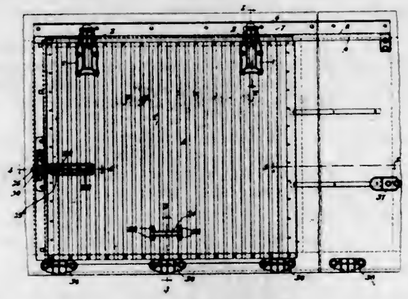
3. In a relief device for compressors, the combination of a compressor intake connection; a valve body having a passage therethrough; a valve seat; a valve operating on the seat by moving toward and from the seat and controlling the passage; a cylinder connected with the



body; a piston in the cylinder for actuating the valve, said valve having a less area on the face exposed to the passage at the opposite side of the piston than the piston but greater than one-half the area of the piston; a receiver connection leading to the cylinder; and a spring operating against the piston.

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1,089,398. RAILWAY-CAR DOOR. WALTER L. CONWELL, Montclair, and ALLEN EDWARD OSTRANDER, Ridgewood, N. J., assignors to Transportation Utilities Company, New York, N. Y., a Corporation of West Virginia. Filed July 8, 1913. Serial No. 777,842. (Cl. 189—46.)



1. In a railway car door, vertically disposed corrugations on the outer face thereof, a door hanger extending above the upper edge of the door and extending downwardly and lapping certain of said vertical corrugations and interlocked with the door against torsional stresses by means of lugs projecting from the hanger inwardly within a channel formed by said corrugations and in juxtaposition to and between outwardly extending ribs outlining said channels, and fixture securing means projected through said lugs and through the door.

2. In a railway car door, vertically disposed corrugations on the outer face thereof, a door fixture lapping certain of said vertical corrugations and interlocked with the door against torsional stresses by means of hollow lugs projecting from the fixture inwardly within channels formed by said corrugations and in juxtaposition to and between outwardly extending ribs outlining said channels, and fixture securing means projected through said hollow lugs and through the door.

3. In a car door, relatively parallel corrugated sheets of metal secured together with the corrugations of the parallel sheets right angularly disposed, in combination with a door fixture lapping a plurality of extending ribs or projecting faces of said corrugations and having spaced perforated lugs inset within recesses or channel portions of a plurality of corrugations, and a plurality of rivets extending through said spaced perforated lugs and the parallel sheets of the door to secure the fixture to the door and securing the parallel corrugated sheets together.

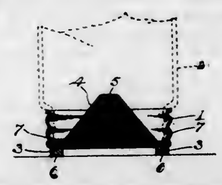
4. In a railway car door, vertically disposed corrugations on one face thereof, horizontally disposed corrugations on the other face of the door, a door hanger extending above the upper edge of the door and extending downwardly and lapping the door and interlocked with the door against torsional stresses by means of extensions projecting from the hanger partly within spaced channels formed by said corrugations on one face and in juxtaposition to and between outwardly extending ribs outlining said channels, a reinforcing member in a channel on the other face of the door, and securing means projected through said hollow lugs through the door and through said reinforcing member.

5. In a railway car door, vertically disposed corrugations on one face thereof, horizontal channels on the opposite face of said door, a door fixture lapping the door and interlocked with the door against torsional stresses by means integral with said fixture projecting from the fixture within channels formed by said corrugations and in juxtaposition to and between extending ribs outlining said channels, a reinforcing bar in one of said horizontal channels, and fixture securing means projected through said door fixture through the door and through said bar.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,399. FLY-TRAP. ERNEST E. CULLEN, Detroit, Mich., assignor, by mesne assignments, to Alice M. Beebe, Detroit, Mich. Filed Apr. 24, 1912. Serial No. 692,783. (Cl. 43—22.)



1. An attachment for fruit jars comprising an annular member having an upstanding screwthreaded flange to receive the screwthreaded neck of a glass fruit jar, and provided with an inwardly extending flange, a conical member formed of wire screen secured at its base to the inwardly extending flange on the annular member and provided with an opening at its apex, and members forming supporting legs secured to the inwardly extending flange on said annular member and having their ends terminating in a plane defined by the circumference of said jar.

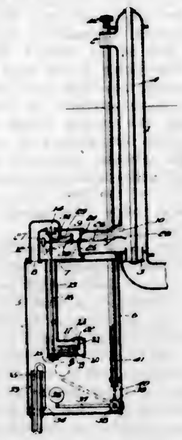
2. An attachment for fruit jars comprising an annular member having an upstanding screwthreaded flange to receive the screwthreaded neck of a glass fruit jar and provided with an inwardly extending flange, a conical member formed of wire screen secured at its base to the inwardly extending flange on the annular member and provided with an opening at its apex, strips secured to said inwardly extending flange at diametrically opposite sides thereof and arranged in parallelism with the ends of said strips terminating in a plane defined by the circumference of said jar to form supports and forming between them a run-way leading to the open lower end of the conical member.

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1,089,400. FIRE-HYDRANT. EDWARD L. DELANY, New York, N. Y. Filed Mar. 31, 1911. Serial No. 618,159. (Cl. 137—13.)

1. In a fire hydrant, the combination with a hydrant casing having a valve, of a trap in communication with the lower end of said casing, a valve in said trap, means auto-

matically actuated on closing said first mentioned valve for opening the valve in said trap for conducting water remaining in said casing through said trap to an outlet, and means controlled by the pressure of the outflowing water through said casing for closing the valve in said trap for preventing loss of water through the latter when said hydrant valve is open.



2. In a fire hydrant, the combination with the hydrant casing having a valve, of a trap in communication with said casing and adapted to receive water leaking past said valve, means for preventing back flow from said trap, a signal at or near the top of said hydrant, and means actuated by the rise of water in said trap for operating said signal.

3. The combination with a hydrant, of a trap, a pipe leading from the hydrant casing to said trap, a valve in said pipe, a lever arm fulcrumed in said pipe having a widened portion extending into the path of the water flowing through said hydrant, said widened portion being at right-angles to such path so as to be actuated thereby, and connections between said valve and said arm for opening and closing said valve for the purpose stated.

4. The combination with the hydrant, of a trap connected with said hydrant near the base thereof and adapted to drain said hydrant when the flow of water therethrough is discontinued, said trap having an outlet pipe vertically disposed therein, a port being formed in said pipe near the bottom of said trap, and a siphon in said pipe having its bend above the top thereof and its short leg extending into said trap, for the purpose stated.

5. The combination with the hydrant, of a trap connected with said hydrant near the base thereof and adapted to drain said hydrant when the flow of water therethrough is discontinued, said trap having an outlet pipe vertically disposed therein, a port being formed in said pipe near the bottom of said trap, a signal on said hydrant, a float in said trap, and means actuated by the rise of said float to the height of said outlet pipe for actuating said signal.

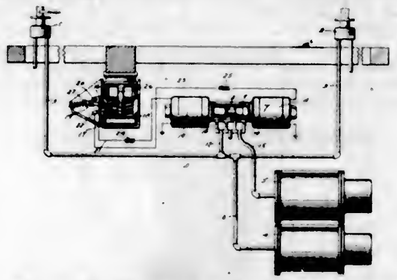
[Claim 6 not printed in the Gazette.]

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1,089,401. LOAD-BRAKE. EDWARD H. DEWSON, New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Filed May 28, 1913. Serial No. 770,295. (Cl. 188—4.)

1. The combination with a fluid pressure operated brake apparatus adapted to be adjusted to give light braking power on light cars and heavy braking power on loaded cars, of electrically controlled means governed by the load on the car for controlling the adjustment of said brake apparatus.

2. In a fluid pressure brake, the combination with a brake cylinder for providing braking power on a light car and a brake cylinder adapted to be cut in to provide increased braking power on a loaded car, of electrically controlled means governed by the load on the car for cutting in said load brake cylinder.



3. The combination with a fluid pressure operated brake apparatus adapted to be adjusted to give light braking power on light cars and heavy braking power on loaded cars, of electrically operated means for controlling the adjustment of said brake apparatus and an electric switch operated according to the load on the car for controlling the circuit of said electrically controlled means.

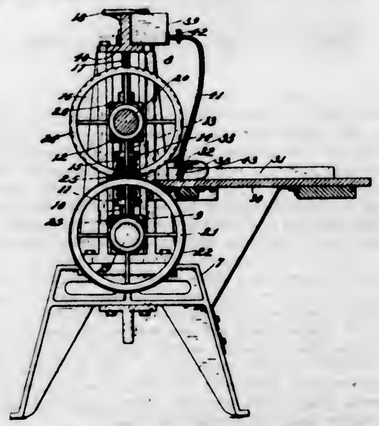
4. In a fluid pressure brake, the combination with a brake cylinder for providing braking power on light cars and a brake cylinder for providing increased braking power on loaded cars, of a valve for connecting up said load brake cylinder to receive fluid under pressure in applying the brakes and an electro-magnet having the electric circuit thereof controlled according to the load on the car for operating said valve.

5. In a fluid pressure brake, the combination with a brake cylinder for providing braking power on light cars and a brake cylinder for providing increased braking power on loaded cars, of a valve for connecting up said load brake cylinder to receive fluid under pressure in applying the brakes, an electro-magnet for operating said valve to connect up said load brake cylinder, an electromagnet for operating said valve to cut out said load brake cylinder, and a switch operated by the movement of the car according to the load thereon for controlling the electric circuits of said magnets.

[Claim 6 not printed in the Gazette.]

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1,089,402. PAPER-CREASING MACHINE. ALBERT C. DOWNING, Milwaukee, Wis. Filed Oct. 17, 1908. Serial No. 458,207. (Cl. 63—58.)

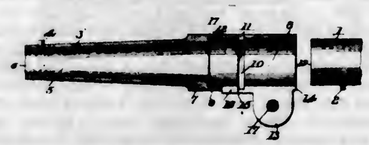


In a paper creasing machine, the combination of a frame, alined shafts mounted in bearings in said frame, creasing wheels mounted on one of said shafts, means for adjusting the wheels laterally upon the shaft, coöperating creasing wheels mounted on the other of said shafts, means for adjusting the said wheels laterally on their shaft, the provision for the lateral adjustment of the two sets of creasing wheels permitting of the regulation of the distance apart of the creased lines, moistening devices located forward of and in line with the creasing wheels, and on a plane, or substantially a plane, with the point of meeting of the peripheries of said wheels, said moistening devices adapted to form, previous to the action of the creasing wheels on the material, a plurality of moistened or dampened lines, upon which lines the creasing wheels subsequently act, and said moistening devices carrying at their lower ends a sponge or other foraminous material, and having a duct leading to the sponge, and also provided with a horizontally projecting clamping means, a transverse rod which the clamping means of the moistening devices adjustably engage, a water reservoir supported on the frame at an elevation to the moistening devices, and flexible tubes leading from the reservoir to the moistening devices and registering with the ducts of said moistening devices.



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1,089,403. SHOTGUN-BARREL ATTACHMENT. CHARLES EHRLER, Rolla, Mo. Filed June 30, 1913. Serial No. 776,608. (Cl. 42—79.)



1. An attachment for the muzzle end of a shotgun barrel comprising a choke bore barrel extension, a socket at the rear end of said barrel extension, a recess for the sight of the gun barrel, said socket being provided with a shoulder for receiving the muzzle end of the gun barrel and said socket being provided with lugs, and an adjusting screw for clamping the attachment to a gun barrel.

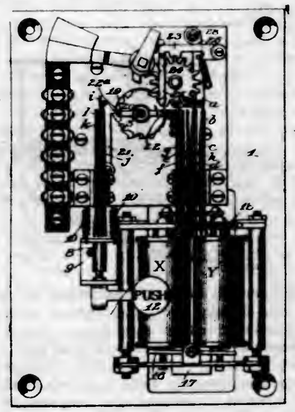
2. A shot gun attachment comprising an extended choke bore barrel, a socket in the rear end of said barrel, said socket being divided at its lower end and provided with spaced lugs, a screw for drawing said lugs together for clamping the attachment to a gun barrel, an annular recess for permitting the sight on the muzzle end of the gun barrel to be positioned therein, said socket being provided with a slot or saw kerf to give greater resiliency to the two clamping members.

3. A shotgun barrel attachment comprising an extension designed to be clamped to the muzzle end of a gun barrel, said extension having a choke bore barrel therein, and an enlarged socket at its rear end, said socket being separated at its lower side to permit the sight on the gun barrel to pass into the same and said socket being provided with an annular recess for said sight, said recess communicating with a sight opening at the top of the attachment for the sight on the gun barrel, and means for clamping the attachment to the muzzle end of the gun.

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1,089,404. FIRE-ALARM SIGNAL-BOX FOR AUTOMATIC TELEPHONE SYSTEMS. JOHN ERICKSON, Chicago, Ill., assignor to Denio General Electric Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 28, 1911, Serial No. 668,223. Renewed Oct. 4, 1913. Serial No. 793,470. (Cl. 179—5.)

1. In a signal mechanism for use on a subscriber's circuit of an automatic telephone system comprising central office switching mechanism for connecting two subscribers' circuits, the combination with a mechanism for transmitting current impulses to effect the operation of the switching mechanism embodying driving devices, of means for restraining the operation of the driving devices comprising a polarized armature adapted to be influenced and moved into arresting position by the current supplied to the line when two subscribers' circuits are connected for conversational purposes.



2. In a fire alarm signal mechanism, for subscribers' circuits of an automatic telephone exchange comprising automatic central office switching mechanism and circuit arrangements for cutting back battery current for talking purposes when the called party answers, the combination with mechanism for controlling the switches to set up a connection between two circuits, devices for driving said mechanism and means which is normally inoperative for restraining its operation, comprising an armature, and electromagnet adapted to be bridged across the subscriber's circuit when the signal mechanism has been started and to be energized when said circuit has been connected to another subscriber's circuit, and means for opening the first mentioned subscriber's circuit after said magnet has been energized.

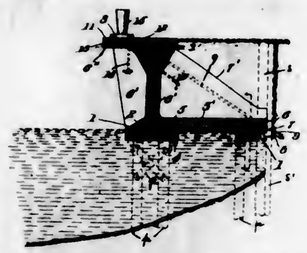
3. A signal apparatus adapted to be used on a subscriber's circuit of an automatic telephone exchange, comprising a driving mechanism, means operated thereby for transmitting current impulses to actuate the central office switches to connect two subscribers' circuits, and subsequently despatch alarm recording impulses, means for arresting said driving mechanism comprising polarized electro-magnetic devices adapted to be actuated into arresting position by the current in the line when two subscribers' circuits are connected and to be actuated into release position when said circuits are disconnected.

4. An alarm system apparatus for use on subscribers' circuits of automatic telephone systems, comprising means for despatching impulses for operating the central office switches and other impulses for recording an alarm, and devices normally set for driving said means, a polarized electro-magnet adapted to be bridged across the line when the driving devices are operated, an armature which is moved in a direction to control the driving devices when said magnet is energized by current of one polarity.

5. In an alarm signal apparatus for use on subscribers' circuits of automatic telephone systems, the combination with means for transmitting current impulses to effect the operation of the central office switches and despatch a signal over a line subsequently connected by the switches and devices for driving said means, of sets of contacts and members operated by the driving devices controlling them for opening the subscriber's instrument circuit and closing a branch circuit bridged thereto having an electromagnet therein, a polarized armature on said magnet and a member operated thereby for restraining the driving devices normally held in an inoperative position and moved into an operative position by the flow of current employed for talking purposes when a called subscriber has answered.

[Claims 6 to 9 not printed in the Gazette.]

1,089,405. REINFORCED-CONCRETE DOCK OR PIER. WILLIAM S. FERGUSON, Cleveland, Ohio, assignor to J. D. Carey, Cleveland, Ohio. Filed Mar. 5, 1909, Serial No. 481,527. Renewed Nov. 1, 1912. Serial No. 729,129. (Cl. 61—31.)



1. In a concrete dock, a foundation of upright piles, metallic rods crossing the upper ends of said piles, a second set of metallic rods at right angles to said first named rods, a concrete structure formed upon said rods and incorporated therewith, said structure comprising a front wall and a base, bracing walls connecting said front wall and base adapted to support the compression strain, and means inserted in said bracing wall for supporting the tensile strain, substantially as set forth.

2. A concrete dock, comprising a suitably supported base, a plurality of metallic rods embedded in said base and connected to the shore, additional metallic rods embedded in the base adapted to sustain the tensile strain of said base, a wall on said base, means connecting said wall with the shore, and additional means connecting said wall with the base adapted to sustain the compression and tensile strain of said wall, substantially as set forth.

3. In a concrete dock, a foundation of series of piles secured together by metallic rods crossing the ends of said piles, and a concrete structure substantially L shaped in cross section supported upon said piles, comprising a perpendicular front wall and a horizontally extending base, spaced web portions connecting said front wall with said base, metallic rods passing through said web portions and anchored at one end to the shore and at the other to said front wall, outwardly projecting portions on the upper and lower ends of the front wall, and spaced vertical web portions connecting said outwardly projecting portions, substantially as set forth.

4. A concrete dock comprising a base, a front wall integral with said base, an overhanging portion formed on said wall, spaced webbed portions connecting said overhanging portion with the base, metallic rods passing through said overhanging portion and the webbed portions, metallic rods passing through the front wall and said overhanging portion, and means for anchoring said base and wall to the shore, substantially as set forth.

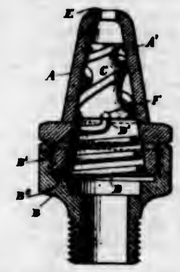
5. In a dock or pier, the combination with a concrete foundation and sub-floor supported upon series of parallel piling or the like, of a plurality of parallel concrete walls, superposed respectively upon the series of piling, and integral with the subfloor, concrete web portions extending laterally between said walls and sub-floor and integral therewith, and reinforcing metallic tension members in each of said concrete portions for sustaining the bending and tensile strains therein, substantially as set forth.

[Claims 6 to 16 not printed in the Gazette.]

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1,089,406. SPRAY-NOZZLE. JAMES LOGAN FITTS, Pensauken township, Camden county, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed Sept. 2, 1913. Serial No. 787,559. (Cl. 137—86.)

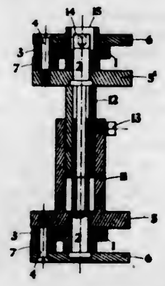
1. In a spraying nozzle, the combination of a casing having a conical chamber terminating at its small end in a spraying aperture, a base to which said casing is removably secured, said base having an inlet for pressure fluid and an annular abutment encircling said inlet and projecting circumferentially within said conical chamber adjacent the large end thereof, a conical plug having spiral grooves about its periphery and mounted for free movement within said chamber whereby said plug may be pushed back to provide an annular passage for pressure fluid about the plug for flushing purposes and a spring interposed between said plug and said abutment for normally holding said plug in operative position adjacent the smaller end of the said chamber.



2. In a spraying nozzle, the combination of a casing having a conical chamber terminating at its small end in a spraying aperture, a base to which said casing is removably secured, said base having an inlet for pressure fluid and an annular abutment encircling said inlet and projecting circumferentially within said conical chamber adjacent the large end thereof, a conical plug having spiral grooves about its periphery and a recess centrally disposed in each end thereof, said plug being freely movable within said casing, and one of said recesses being adapted to receive a suitable implement inserted by way of said spraying aperture whereby said plug may be pushed back to provide an annular passage about the plug for flushing purposes, and a coiled spring seating at one end against said abutment, and having its other end inserted within the remaining plug recess, whereby the passageway for pressure fluid is substantially unobstructed by said spring.

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1,089,407. CENTERING DEVICE. GUSTAV GABRIEL, Offenbach-on-the-Main, Germany. Filed Apr. 8, 1912. Serial No. 689,348. (Cl. 82—50.)



1. A centering device comprising a shaft, said shaft consisting of telescopic members, rotary members disposed at the respective ends of the shaft, stationary members mounted on said shaft, adjacent said rotary members, oscillatory levers mounted on said stationary members and means connecting the oscillatory levers to the rotary members.

2. A centering device comprising a shaft, said shaft consisting of telescopic members, rotary members disposed at the respective ends of the shaft, stationary members mounted on said shaft, adjacent said rotary members, oscillatory levers mounted on said stationary members and means connecting the oscillatory levers to the rotary members, and means for fixing the oscillatory members in position.

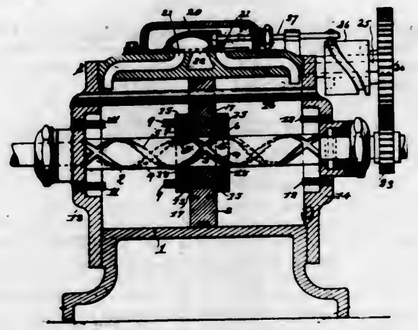


3. A centering device comprising a shaft, said shaft consisting of telescopic members, rotary members disposed at the respective ends of the shaft, stationary members mounted on said shaft, adjacent said rotary members, oscillatory levers mounted on said stationary members and means connecting the oscillatory levers to the rotary members, and means for fixing the oscillatory members in position, and means for supporting the work to be centered.

4. A centering device comprising telescoping members, said telescoping members forming a shaft, large toothed wheels mounted at the extremities of said shaft, stationary members mounted on said shaft adjacent said toothed wheels, small toothed wheels mounted on said stationary members and gearing with the large toothed wheels, levers fixed to the small toothed wheels, and means for fixing the levers in position.

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1,089,408. STEAM-ENGINE. THOMAS GANDERTON, Cleveland, Ohio, assignor of one-half to Conrad Mueller, Cleveland, Ohio. Filed Dec. 5, 1910. Serial No. 595,820. (Cl. 121—45.)



1. In a steam engine, a cylinder and piston shaft therefor, said piston shaft being provided with right and left spiral grooves, a piston slidably movable on said shaft, a disk nut on each side of said piston, each nut rotatably secured thereto, one nut engaging a right spiral groove and the other nut engaging a left spiral groove in said shaft, a rod slidably mounted in said piston and adapted to engage said piston with one of the said disk nuts and simultaneously to release the other nut when going in one direction, and to reverse said movement when going in the opposite direction, means for operating said rod as said piston nears the respective limits of its stroke, to release the nut it is engaging and to engage the other one, and means for alternately admitting steam to opposite ends of said cylinder, said means operatively connected with said piston shaft.

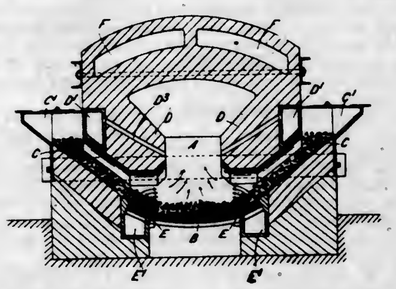
2. In a steam engine, a cylinder, a piston shaft therein, a reciprocating piston slidingly mounted on said shaft, said piston shaft being provided with right and left spiral grooves, rods slidingly mounted in said piston, a nut on each side of said piston rotatably connected therewith, said nuts provided with openings registering with said rods, said rods of a length adapted to connect with said piston operatively with one disk nut at a time and pins projecting inwardly from the cylinder head, adapted to engage in turn with said rods, to push them out of one nut and into engagement with the other nut and alternately reverse said movement as said piston reciprocates.

3. In a steam engine, in combination, a cylinder, having steam ports and a valve, a piston reciprocable therein, a shaft on which said piston moves, said shaft being provided with right and left spiral grooves, a nut on each side of said piston means for rotatably connecting said piston with said disk nuts, rods inserted in said piston and adapted to alternately connect said piston with said nuts, adjustable pins in the cylinder heads in alinement with said rods and adapted to alternately engage said rods in said piston as said piston reciprocates, means for preventing the piston from rotating, a shaft adjacent to the engine shaft gearing operatively connecting said shafts and a cam on the adjacent shaft, said cam operatively connected with said valve.

4. The combination with the reciprocating piston and cylinder of a steam engine, of a shaft passing through said piston and cylinder, said shaft being provided with right and left spiral grooves, a disk sleeved on said shaft on each side of said piston, an annular extension on each disk extending into said piston, said extension having an annular groove, a plate on each side of the piston, said plate engaging one of said grooves, a lug on each disk engaging one of said spiral grooves, a rod slidingly movable in said piston, adapted to alternately connect said piston in an operative manner with said disks and when so connected to prevent them from turning, and a pin longitudinally projecting from each cylinder head and adapted to engage alternate ends of said rod at the ends of said piston stroke, to release one disk from the piston and to operatively connect the other disk therewith.

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1,089,409. FURNACE. WALTER GARTNER, Hamburg, Germany. Filed July 19, 1913. Serial No. 779,966. (Cl. 110—24.)



1. In a furnace, the combination of a combustion chamber, a main fire grate, a fuel passage leading thereto on either side thereof, a supplementary grate on either side of the main grate, means for supplying air to the under side of the main grate, separate passages adapted to supply warm air to each supplementary side grate, air supply conduits in the walls of the combustion chamber leading to the under side of the main grate and to the air passages below the supplementary grates and means for controlling the air supplied through said conduits to the supplementary grates independently of that supplied to the main grate.

2. In a furnace the combination of a combustion chamber, a main fire-grate, a fuel passage leading thereto on either side thereof, a supplementary grate on either side of the main grate, means for supplying air to the underside of the main grate, separate passages adapted to supply warm air to each supplementary side grate, air supply conduits in the walls of the combustion chamber leading to the underside of the main grate and to the air passages below the supplementary grates and means for controlling the air supplied to the main and supplementary grates.

3. In a furnace the combination of a combustion chamber, a main fire-grate, a fuel passage leading thereto on either side thereof, a supplementary grate on either side of the main grate, an air passage below each supplementar grate communicating with the atmosphere, means for controlling the amount of cold air admitted to said conduits, air supply conduits formed in the walls of the combustion chamber communicating with the conduits below each supplementary grate and also leading to the underside of the main grate and means for controlling the amount of hot air supplied to the main and supplementary grates.

4. In a furnace for steam generators the combination of a combustion chamber, a main fire-grate, a fuel passage

leading thereto on either side thereof, a refractory partition above each fuel passage, a cooling chamber in each partition communicating directly with the atmosphere, means for controlling the amount of cold air admitted to said cooling chambers, passages connecting said cooling chambers with the combustion chamber, a supplementary grate on either side of the main grate, an air passage below each supplementary grate communicating with the atmosphere, means for controlling the amount of cold air admitted to said conduits, air supply conduits formed in the walls of the combustion chamber communicating with the conduits below each supplementary grate and also leading to the underside of the main grate and means for controlling the amount of hot air supplied to the main and supplementary grates.

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1,089,410. REFINING STEEL. AXEL HETHEY, London, England. Filed July 21, 1913. Serial No. 780,373. (Cl. 75—27.)

1. In the refining of phosphoric steel in the open hearth or electric furnace, the process which consists in dephosphorizing the steel with an oxidizing slag and adding manganese to the metal from time to time during such dephosphorization to protect the metal from solution or formation of iron oxid therein.

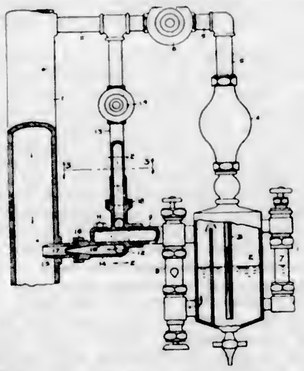
2. The process of refining steel which consists in treating it with an oxidizing slag and maintaining manganese in the metal during such treatment and thereafter bringing the slag to a solid condition by the addition of lime or dolomite to prevent action of the oxid in the slag upon the metal.

3. The process of producing low carbon steel in the electric furnace which consists in treating it with an oxidizing slag and maintaining manganese in the metal during such treatment, continuing such operations until the desired oxidization of impurities is secured, and thereafter adding lime or dolomite to the slag to prevent action of the oxid in the slag upon the metal and finishing the process at an increased temperature with this solid slag.

4. In the treatment of steel with a slag containing an oxid which tends to act on the metal, the method of preventing such action which consists in solidifying the slag by the addition of lime or dolomite thereto.

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1,089,411. LUBRICANT-NEBULIZER. BENJAMIN F. HOWARD, Indianapolis, Ind., assignor of one-half to John W. Staub, Indianapolis, Ind. Filed Feb. 11, 1913. Serial No. 747,764. (Cl. 184—50.)



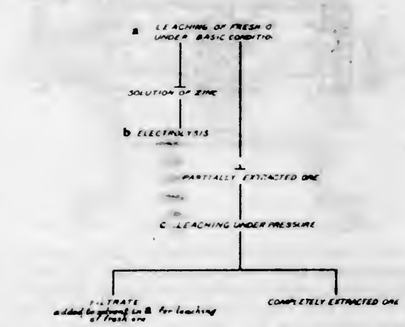
1. The combination with a main steam pipe of a mixing chamber in two transversely separable parts discharging into said pipe, an oil supply pipe discharging into said mixing chamber, means for supplying oil in drops to said pipe, a steam chamber through which the oil supply pipe passes, an auxiliary pipe supplying steam to said chamber, said steam chamber discharging into said mixing chamber.

2. The combination with a main steam pipe of a mixing chamber in two transversely separable parts discharging into said pipe, a nozzle in said chamber at the joint between said two parts, an oil supply pipe discharging into said mixing chamber, means for supplying oil in drops to said pipe, a steam chamber through which the oil supply pipe passes, an auxiliary pipe supplying steam to said chamber, said steam discharging into said mixing chamber.

3. The combination with a main steam pipe of a mixing chamber discharging into said pipe, said mixing chamber being in two transversely separable parts, a nozzle in said chamber at the joint between the two parts discharging toward the main steam pipe, an oil supply pipe discharging into said mixing chamber through a reduced opening in the lower wall between the oil supply pipe and mixing chamber, means for supplying oil in drops to said oil supply pipe, a steam chamber through which the oil supply pipe passes to volatilize the oil, and an auxiliary pipe supplying steam to said chamber, said steam chamber discharging into said mixing chamber.

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1,089,412. TREATMENT OF REFRACTORY ZINC-LEAD ORES. PERCY CLAUDE CAMERON ISHERWOOD, Bushey Heath, England. Filed Oct. 18, 1912. Serial No. 726,525. (Cl. 75—18.)




1. A process for the recovery of zinc from prepared refractory zinc lead ore, consisting in roasting the ore, then leaching the ore under basic conditions with a quantity of fresh sulfuric acid less than that which is necessary for the complete solution of the zinc contained therein and producing a highly basic solution of zinc, afterward leaching the ore with the remainder of the fresh sulfuric acid necessary for the complete solution of the zinc under conditions of high temperature and pressure, and adding the solution of zinc thus produced in the second leaching of the ore to the fresh sulfuric acid used in the first leaching of a fresh quantity of ore.

2. A process for the recovery of zinc from prepared refractory zinc lead ore, consisting in leaching the ore under basic conditions with a quantity of fresh sulfuric acid less than that necessary completely to dissolve the zinc contained therein and producing a highly basic solution of zinc, and then leaching the partially extracted ore under conditions of high temperature and pressure.

3. A process for the recovery of zinc from prepared refractory zinc lead ore, consisting in leaching the ore under basic conditions with a quantity of fresh sulfuric acid less than that necessary completely to dissolve the zinc contained therein and producing a highly basic solution of zinc, then leaching the partially extracted ore under conditions of high temperature and pressure, and then adding the filtrate to the fresh sulfuric acid used in the first leaching of a fresh quantity of ore.

4. A process for the recovery of zinc from prepared refractory zinc lead ore, consisting in leaching the ore under basic conditions in an open vat with fresh sulfuric acid, then leaching the ore under conditions of high temperature and pressure and adding the solution from the second leaching to the quantity of fresh acid used for leaching a fresh quantity of ore and maintaining the quantity of acid used in the first leaching always less than that necessary for the complete solution of the zinc contained in the ore.

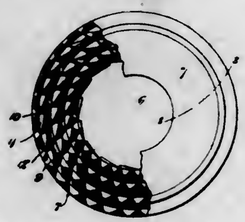
5. A process for the recovery of zinc from prepared refractory zinc lead ore, consisting in first leaching the ore under basic conditions with a quantity of fresh sulfuric acid less than that necessary for the complete solution of the zinc contained therein and producing a highly basic solution of zinc and then effecting the extraction of the remainder of the zinc contained in the ore under conditions of high temperature and pressure in an extractor filter.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,413. GRINDING-DISK FOR COFFEE-MILLS AND THE LIKE. HERBERT L. JOHNSTON, Troy, Ohio, assignor to The Hobart Electric Manufacturing Company, Troy, Ohio, a Corporation of Ohio. Filed May 22, 1911. Serial No. 628,789. (Cl. 83—3.)



1. A pair of coöperating disks for coffee mills and the like, provided with concentric rows of uniformly pyramidal teeth, the teeth of each concentric row being of uniform size and gradually and uniformly increasing in size for each radial row for both disks from the center to the periphery, with the radial faces of the teeth cut on the same arc of a circle eccentric of the center of the disk for each disk, the center of the cutting arc being uniformly advanced around the periphery of the disk for the radial rows of both disks.

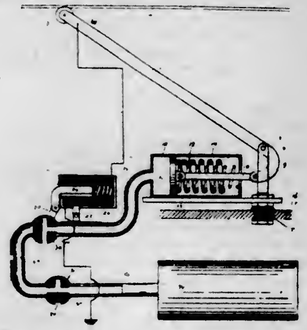
2. A pair of coöperating disks for coffee mills and the like, provided with concentric rows of uniformly pyramidal teeth, the teeth of each concentric row being of uniform size and gradually and uniformly increasing in size for each radial row for both disks from the center to the periphery, with the radial faces of the teeth cut on the same arc of a circle eccentric of the center of the disk for each disk, the center of the cutting arc being uniformly advanced around the periphery of the disk for the radial rows of both disks, each tooth for each concentric row having an abrupt and an inclined V-shaped radial face, with similarly inclined side faces, whereby when the two disks are placed together the abrupt radial faces of the teeth will give a shearing cut with the side faces.

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1,089,414. AUTOMATIC TROLLEY-POLE CONTROLLER. MARK B. JOLLIFFE, New Haven, Conn., assignor of one-third to Justus V. Ryder and one-third to John H. Meeks, New Haven, Conn. Filed Apr. 10, 1911. Serial No. 619,991. (Cl. 191—90.)

1. In an automatic trolley-pole controller, the combination with a pivotal trolley-pole, of a compressed-air cylinder located beneath the said pole and having its piston connected with the said pole at a point below the pivot thereof, a compressed-air tank, connection between the said cylinder and air tank, an emergency-valve and a conductor's valve located in the said connection, and means controlled by the operating current for automatically operating the emergency-valve to permit compressed air to flow directly from the said tank into the said cylinder the moment the trolley-pole leaves the trolley-wire, and for closing the said valve when the pole is again in contact with the trolley wire.

2. In an automatic trolley-pole controller, the combination with a pivotal trolley-pole, of a compressed air cylinder located beneath the said pole, a piston located in the said cylinder and connected with the said pole at a point below the pivot thereof, an operating-spring located within the cylinder and exerting a constant effort to lift the pole, a tank for compressed air, connection between the said cylinder and tank, an emergency-valve and a conductor's valve located in the said connection, a magnet located in the circuit of the trolley-wire and connected with the said emergency-valve which is closed by the said magnet when the circuit is closed, and means for opening the said emergency-valve when the current through the said magnet is broken, to permit compressed air to flow directly from the said tank to the said cylinder.



3. In an automatic trolley-pole controller, the combination with a pivotal trolley-pole, of a compressed-air cylinder located beneath the said pole and having its piston connected with the said pole at a point below the pivot thereof, a movable support for the pole and cylinder, whereby the same are permitted to accommodate themselves to curves in the trolley-wire, a compressed-air tank, an emergency-valve, flexible connection between the said cylinder and emergency-valve, a conductor's valve controlling the passage of compressed air from the said tank to the said emergency-valve, a magnet located in a shunt circuit of the trolley-wire and connected with the emergency-valve which is closed by the said magnet when the current through the same is closed, and means for opening the said valve when the current through the said magnet is broken, to permit compressed air to flow directly from the said tank to the said cylinder.

4. In an automatic trolley-pole controller, the combination with a trolley-pole, of a compressed-air cylinder located beneath the said pole, a piston located in the said cylinder and connected with the pole at a point below the pivot thereof, a spring exerting a constant effort to lift the pole, a compressed-air tank, connection between the said tank and cylinder, an emergency-valve and a conductor's valve located in the said connection, a magnet located in the circuit of the trolley-wire, a movable armature for the said magnet, and connection between the said armature and emergency-valve for automatically opening the valve when the current is cut off from the magnet by the jumping of the trolley-wheel from the trolley-wire and for automatically closing the valve when the trolley wheel is replaced on the trolley wire.

5. In an automatic trolley-pole controller, the combination with a pivotal trolley-pole, of a compressed-air cylinder located beneath the said pole and having its piston connected with the said pole below the pivot thereof, a compressed-air tank, connection between the said cylinder and tank, a three-way emergency-valve and a three-way conductor's valve located in the said connection, and means controlled by the operating current for automatically opening the emergency-valve when the current is broken by the jumping of the trolley-wheel off the trolley-wire and for automatically closing the valve when the trolley wheel is replaced on the trolley wire.

[Claims 6 and 7 not printed in the Gazette.]

1,089,415. DEVICE FOR SUPPORTING TROLLEY-WIRES. COLOMAN DE KANDÓ, Budapest, Austria-Hungary, assignor to George Westinghouse, Pittsburgh, Pa. Filed Mar. 26, 1907. Serial No. 364,565. (Cl. 191—40.)



1. A device for steadying trolley wires comprising, a linked structure having a plurality of members, one of which is subjected to a tension, and one to a compression strain, the device being so constructed that the lines of direction of the tension and compression forces acting on said members, intersect in the line of direction of the resultant of the horizontal forces on the trolley wire connected to the support.

2. In a steadying device for trolley wires, a closed system comprising, relatively movable tension and compression members and a lever pivotally connected to said members and adapted to be connected to a trolley wire subjected to a pull having a horizontal lateral component, said system being so constructed that the direction of the said component of the tensional forces, to which the wire is subjected, passes through the point of intersection of the lines of direction of the forces acting on the compression and tension members.

3. In a steadying device for trolley wires, a closed system comprising relatively movable pivotally mounted tension and compression members and means secured thereto for engaging the trolley wire, said system being so constructed that the lines of direction of the forces acting on the compression and tension members intersect in the line of the horizontal lateral component of the forces transmitted by the wire to the point of connection of the wire with the device.

4. In a steadying device for trolley wires, a closed system comprising relatively movable tension and compression members and a member for engaging the trolley wire, said members being so arranged that the point of intersection of the lines of direction of the forces acting on the tension and compression members falls in the line of direction of the resultant of the tensional forces acting upon the point of connection of the trolley wire to the device.

5. In a steadying device for trolley wires, a closed system comprising a compression member, a tension member, and a substantially vertical lever pivotally connected at its upper end to said compression member, at an intermediate point to said tension member and secured at its lower end to a trolley wire subjected to a pull having a horizontal lateral component, said system being so arranged that the lines of direction of the forces acting on the compression and tension members intersect in the line of the horizontal lateral component of the forces acting on the point of connection of the trolley wire with the lever.

[Claim 6 not printed in the Gazette.]

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1,089,416. SAFETY-PIN. ADOLPH G. KAUFMAN, New York, N. Y. Filed Nov. 22, 1912. Serial No. 732,925. (Cl. 24—155.)

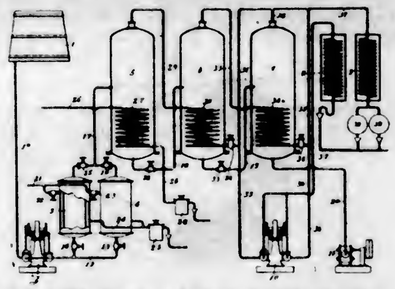


1. A safety-pin comprising two side bars integral at one end, a clamp securing said bars together at the opposite end, and a pin, or prong connected with one of said bars in a semi-circular portion through said clamp, the end of the other bar being bent into engagement with the under side of said pin, or prong adjacent to said semi-circular portion, for the purpose set forth.

2. A safety pin comprising two side bars integral at one end, a clamp securing said bars together at the opposite end, and a pin, or prong connected with one of said bars in a semi-circular portion through said clamp, the end of the other bar being curved in a semi-circle corresponding with the semi-circular portion of the other part and lying contiguous thereto within said clamp, and the free end of said last-named bar being bent at substantially right angles to said circular part and into contact with the under side of said pin, or prong, as and for the purpose set forth.

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1,089,417. PROCESS FOR DISTILLING CRUDE PYROLIGNEOUS ACID. MAX KLAR, Marquette, Mich. Filed Apr. 17, 1911. Serial No. 621,605. (Cl. 203—6.)



1. A process for distilling crude pyroligneous acid, comprising heating the said acid to a relatively high, tar-forming temperature by any convenient means, separating, settling, and removing the precipitate formed in the crude acid by so heating before the acid enters the stills and thereafter distilling at a lower temperature, whereby the stills are not clogged by the said precipitate.

2. A process of distilling crude pyroligneous acid, comprising a preliminary heating of the said acid, separating therefrom the precipitate formed by so heating, and distilling the acid in a series of stills under progressively reduced pressures and temperatures all being below the temperature of the pre-heating step whereby the more concentrated residue is in the last still of the series only.

3. A process of distilling crude pyroligneous acid, consisting of a preliminary heating of the same and removal of the precipitate formed therein by so heating, passing the crude pyroligneous acid successively in a continuous stream through a series of stills working under progressively reduced pressures and temperatures, heating the first of the series of stills from an independent source of heat, and heating each succeeding still by means of the vapors escaping from the next preceding still.

4. A process of distilling crude pyroligneous acid, consisting of heating the same to a relatively high, tar-forming temperature in a preheater, removing therefrom the precipitate formed by so heating, supplying a continuous stream of the acid so treated to a series of connected stills, removing the concentrated residue from the last still of the series, heating the first still by means of an independent source of heat, heating each succeeding still by means of the vapors escaping from the next preceding still, and maintaining a progressively reduced pressure and temperature in each succeeding still, whereby the said stills may be operated continuously.

5. A process of distilling crude pyroligneous acid, comprising preliminary heating of the said acid to a relatively high, tar-forming temperature, separating the precipitate formed by said heating, supplying said acid continuously and in succession to a series of stills, heating the first of the series of stills from an independent source, heating each succeeding still by the vapor escaping from the next preceding still, removing the concentrated residue from the last still of the series, maintaining progressively

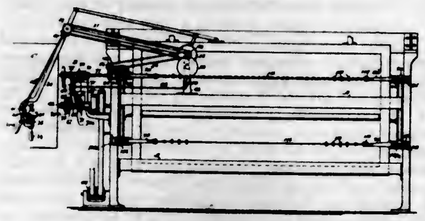


reduced pressures and temperatures on the series of stills, removing the condensed distillate from the heating coils of each still in the series, condensing the residue of vapors not condensed in the respective stills and cooling the condensed liquid coming from the respective heating coils of the stills.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,418. EMBROIDERY-MACHINE. JOHN KRUSI, New York, N. Y., assignor of one-half to Isaiah Schofer, New York, N. Y. Filed Aug. 20, 1913. Serial No. 785,649. (Cl. 112—7.)



1. An embroidery machine comprising a pantograph, a rotator mounted thereon, carriers for guiding a cord to be sewed onto the fabric, means for oscillating the carriers, and means governed by the actuation of the rotator for controlling the oscillation of the carriers.

2. An embroidery machine comprising a pantograph, a rotator mounted thereon, carriers for guiding a cord to be sewed onto the fabric, means for rotating the carriers, and means controlled by the actuation of the rotator for governing the rotation of the carriers.

3. An embroidery machine comprising a pantograph, a rotator mounted thereon, cord guides for guiding a cord to be sewed onto the fabric, means for rotating the guides, and means controlled by the actuation of the rotator for reversing the rotation of the guides.

4. An embroidery machine comprising a manually operable pantograph, a rotator mounted thereon, cord guides for guiding a cord over the fabric, means controlled by the actuation of the rotator for interrupting and reversing the rotation of the guides.

5. An embroidery machine comprising a manually operable pantograph, a rotator mounted thereon, cord guides for laying a cord onto the fabric, annular members carried by the guides for threading the cord, means for rotating the guides and means controlled by the actuation of the rotator for governing the rotation of the guides.

[Claims 6 to 20 not printed in the Gazette.]

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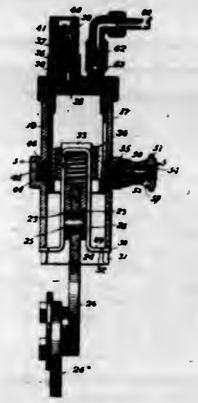
1,089,419. PUMP FOR MOTOR-VEHICLES. ALLEN LOOMIS, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 6, 1910. Serial No. 559,753. (Cl. 230—27.)

1. In a pump, the combination with a cylinder, of a piston working therein, a cam, said cylinder being provided with ways, and a cam roll on said piston and working in said ways.

2. In a pump, the combination with a cylinder, of a hollow piston working therein, a cam roll support removably connected to said piston, said cylinder walls being provided with ways, and a cam roll mounted in said support and working in said ways.

3. In a pump, the combination with a cylinder, of a hollow piston working therein and having a solid face and an open end, a spring for moving said piston in one direction, and an abutment for said spring inside of said piston and extending through the open end thereof.

4. In a pump, the combination with a cylinder, of a hollow piston working therein and having a solid face and an open end, a spring for moving said piston away from the head end of the cylinder, and an abutment for said spring inside of said piston and extending through the open end thereof.

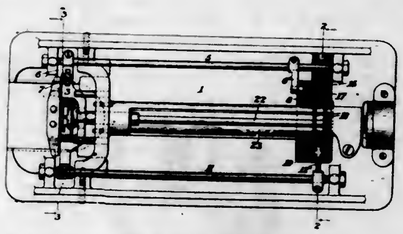


5. In a pump, the combination with a cylinder, of a piston working therein, a spring for moving said piston away from the head end of the cylinder and held at points beyond the travel of the piston, an abutment for said spring extending toward the head end of the cylinder, and an abutment on said piston.

[Claims 6 to 11 not printed in the Gazette.]

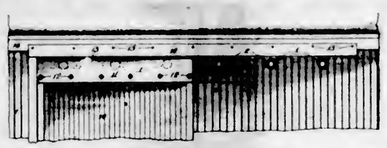
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1,089,420. FEEDING MECHANISM FOR SEWING-MACHINES. WILLIAM A. MACK, Cleveland, Ohio, assignor to The Standard Sewing Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 25, 1911. Serial No. 623,271. (Cl. 112—8.)



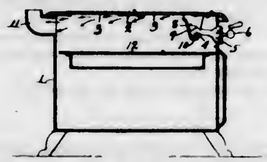
In a feeding mechanism for sewing machines, the combination of a driving shaft and two parallel rock-shafts, an arm on each rock-shaft, two independent actuating devices on the driving shaft, a connection between each actuating device and one of said arms, a feed-bar, a second arm on each rock-shaft one of which arms is connected to one end of the feed-bar to impart a horizontal movement thereto and the other arm connected through a link with the opposite end of said feed-bar to impart a vertical movement thereto, a sleeve between one of said actuating device connections and the arm operated by it on the rock-shaft which moves the feed-bar horizontally said sleeve being movable longitudinally on said arm, the sewing machine bed-plate provided with a transversely arranged seat and with an elongated slot at the surface of the bed-plate communicating with said seat, an adjusting bar mounted in said seat in the bed-plate to move horizontally, an adjusting screw engaging said bar through the slot in the bed-plate, and a link connecting said bar with the sleeve whereby the position of said sleeve on its carrying arm may be shifted to change the throw of the rock-shaft on which it is mounted and thereby the horizontal movement of the connected feed-bar.

1,089,421. CAR-DOOR. FRED MATHEWS, Chicago, Ill., assignor to Clinton C. Murphy, Chicago, Ill. Filed May 4, 1912. Serial No. 695,026. (Cl. 20—22.)



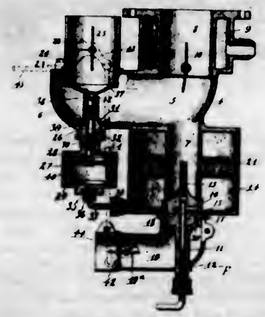
A car having a door opening, a series of rollers mounted in the car wall and extending over said opening, a door, a Z-bar having one of its flanges secured to said door adjacent the upper edge thereof, the central web of said Z-bar being spaced above the upper edge of said door and resting on said rollers, and the other flange of said Z-bar extending upwardly adjacent the car wall, a plate secured to said car wall above said door opening and extending downwardly outside of said upwardly extending flange of said Z-bar.

1,089,422. GAS-STOVE. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 15, 1912. Serial No. 671,154. (Cl. 158—99.)



A plurality of burners each having axially and horizontally arranged an air mixer and a mixing chamber, each of said burners having a series of nozzles located at right angles to the axes of the burners, the axis of each nozzle being in a vertical plane and directed upwardly from the horizontal plane of the mixing chambers.

1,089,423. CARBURETER. GODFRIED J. MAYER, Buffalo, N. Y. Filed Jan. 5, 1911. Serial No. 600,867. (Cl. 48—135.2.)



1. In a carbureter, the combination with a gasolene feed chamber, of a casing having an air-inlet, a mixture-outlet, and an auxiliary air-inlet, means for carbureting air passing through said casing, a valve for opening and closing said auxiliary air-inlet, a dash-pot chamber coaxial with said valve and adjustable toward and from the same, a piston within said dash-pot chamber rigidly connected with said valve, a tube connecting said dash-pot chamber with said gasolene chamber, said dash-pot chamber being movable on said tube, and a spring interposed between said dash-pot chamber and said valve.

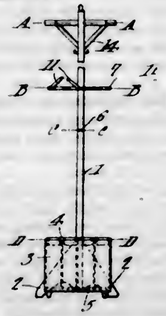
2. In a carbureter, the combination with a casing having an air-inlet, a mixture-outlet, and an auxiliary air-inlet and having also means for carbureting air passing therethrough, of a valve for opening and closing said auxiliary air-inlet, a dash-pot comprising a chamber containing a liquid and having a sleeve in axial alinement with said valve, a piston within said dash-pot chamber acting against the liquid therein, a tube slidable in said casing and connecting said valve and piston together, and a coil spring between the end of said sleeve and said valve.

3. A carbureter comprising a casing having an air inlet, a mixture-outlet, an auxiliary air-inlet, and a threaded opening opposite said auxiliary air inlet and having also means for carbureting air passing therethrough, a valve for opening and closing said auxiliary air-inlet, a dash-pot comprising a chamber having an externally threaded sleeve threaded into the threaded opening of said casing and containing a liquid, a piston within said chamber acting against said liquid, a tube slidable in said sleeve and connecting said valve and piston, and a coil spring surrounding said tube and bearing at opposite ends against said valve and the end of said sleeve entered in said casing.

4. In a carbureter, the combination with a gasolene feed-chamber adapted to contain a quantity of gasolene, of a casing having an air-inlet, a mixture-outlet, an auxiliary air-inlet and a threaded opening opposite said auxiliary air-inlet and having also means therein for carbureting air passing therethrough, said means being in connection with said gasolene feed-chamber, a valve for opening and closing said auxiliary air-inlet, a dash-pot comprising a chamber having an externally threaded sleeve threaded into the threaded opening of said casing and containing a quantity of gasolene, a tube connecting said chamber with said gasolene feed-chamber so that the gasolene in said dash-pot chamber is on a level with that in the feed-chamber, a piston within said dash-pot chamber acting against the gasolene therein and having connection with said valve, and a spring tending to hold said valve in closed position.

5. In a carbureter, the combination with a gasolene feed-chamber, of a casing having an air-inlet, a mixture-outlet, an auxiliary air-inlet and a threaded opening opposite said auxiliary air-inlet, means within said casing having connection with said gasolene chamber for carbureting air passing through said casing, a valve for opening and closing said auxiliary air-inlet, a dash-pot comprising a chamber having an externally threaded sleeve threaded into the threaded opening of said casing so as to be adjustable toward and from said auxiliary air-inlet, a piston within said dash-pot chamber, a tube connecting said dash-pot chamber with the gasolene feed-chamber to supply said dash-pot chamber with gasolene, said tube having connection with said dash-pot chamber to permit the latter to be rotated for adjusting the same relative to said auxiliary air-inlet and said piston having connection with said valve, and a spring acting to hold said valve in closed position.

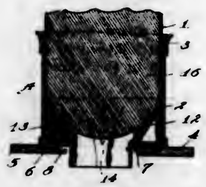
1,089,424. WHIP-HOLDER. JOSEPH T. MCKEE, Montour Falls, N. Y. Filed June 28, 1913. Serial No. 776,373. (Cl. 211—17.)



A whip holder comprising an upright supporting standard, an open-ended receptacle secured to the lower extremity thereof and adapted to receive the whip handles therein, a rack bar rigidly secured to the upright standard and defining open-ended receptacles in alinement with the first mentioned receptacle, means extending across the open-ended receptacles for forming an outer wall therefor, and a notched bar rigidly secured to the upper extremity of said standard upon the opposite side thereof with relation to the aforementioned receptacles and out of alinement therewith, the notched bar and lower and intermediate receptacles defining means engaging the whips at three points out of alinement to resiliently spring the same against the walls of the notched bar and receptacles to thereby frictionally hold the same against vertical jarring, the walls of the said receptacle and notched bar preventing the lateral movements of the whip.



1,089,425. DRINKING-CUP. FREDERIC P. MEYER, Lancaster, Wis. Filed Feb. 13, 1911. Serial No. 608,315. (Cl. 65—13.)



1. A holder for a paper vessel comprising an inclosing frame for said vessel, and clamping means constructed and arranged to open and close and adapted when open to permit said paper vessel to be inserted into said holder in position for engagement by said clamping means, and when closed to seal the lower end of said paper vessel, substantially as described.

2. A holder for a paper vessel comprising an inclosing frame for said vessel, and clamping means constructed and arranged to open and close and adapted when open to permit said paper vessel to be inserted into said holder in position for engagement by said clamping means, and when closed to seal the lower end of said paper vessel, said holder also comprising folding means adapted for gathering or contracting the lower end of said paper vessel, substantially as described.

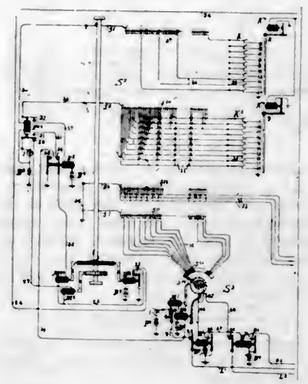
3. A holder for a paper vessel comprising a body portion adapted to receive said paper vessel and clamping plates supported on said body portion and movable toward and from each other and adapted when separated to permit said paper vessel to be inserted into said holder between said clamping plates, and when closed to grip said paper vessel between the meeting edges of said clamping plates and thereby to seal the lower end thereof, substantially as described.

4. A holder for a paper vessel comprising a body portion adapted to receive said paper vessel and clamping plates supported on said body portion and movable toward and from each other and adapted when separated to permit said paper vessel to be inserted into said holder between said clamping plates, and when closed to grip said paper vessel between the meeting edges of said clamping plates and thereby to seal the lower end thereof, the meeting edges of said clamping plates being constructed and arranged to interlock with each other when closed, substantially as described.

5. A holder for a paper vessel comprising a body portion adapted to receive said paper vessel and pivotally supported clamping plates the adjacent edges of which are adapted to be separated and brought into contact with each other by pivotal movement of said plates, and when separated to permit a paper vessel to be inserted into said holder between the edges of said clamping plates and when closed to clamp said paper vessel between the meeting edges of said clamping plates and thereby seal the lower end thereof, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,089,426. TRANSLATING AND REGISTERING APPARATUS. EDWARD C. MOLINA, East Orange, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed May 15, 1911. Serial No. 627,320. (Cl. 179—27.)



1. A translating electromechanism comprising terminals arranged according to one grouping, terminals arranged according to another grouping, contact members movable together over both groups of terminals, and motor mechanism common to the contact members of both groups and governed by the conditions of one set of terminals and thereby changing the condition originally existing at the other set of terminals.

2. An electrical translating apparatus comprising terminals arranged according to one grouping, terminals arranged according to another grouping, contact members coöperating with both groups of terminals, means common to all of said contact members for moving the same, manually operable devices for governing the movement of the contact members, and switch mechanism controlled by the position of the contact members.

3. A controlling apparatus comprising a series of manually operable contact devices having a definite grouping, an electromechanism having terminals connected and corresponding to the grouping of the manual devices, a movable member contacting with said terminals and contact means governed by the movable member and forming therewith a unitary register structure, and a second electromechanism provided with terminals connected to the contact means and with a coöperating movable contact member.

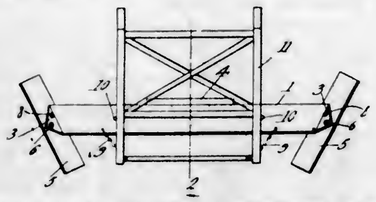
4. A telephone switching system comprising selecting apparatus, a set of decimal keys, a register mechanism having corresponding terminals connected to the keys and a movable member coöperating therewith, contact means operated in the movement of said member, said terminals, movable member and contact means being parts of a unitary register structure and selection controlling mechanism connected with the contact means and provided with terminals arranged in non-decimal groups.

5. An automatic controlling apparatus comprising manually operable means having register elements arranged in one or more groups, a certain number in each group, automatic registering means provided with elements corresponding to said group or groups of said manual means and coöperating therewith to limit its movement, and other elements arranged in one or more groups, the number in one or more of said groups being different from said

first-named number or numbers, said elements being parts of a unitary register structure, and selection controlling means governed by the last-named elements of the registering means.

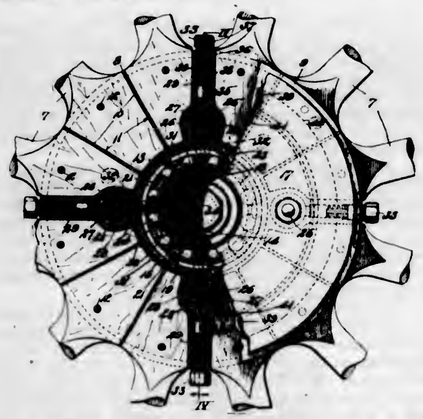
[Claims 6 to 16 not printed in the Gazette.]

1,089,427. ROAD-MACHINE. OAKMAN A. MOODY, Canaan, Me. Filed Mar. 13, 1913. Serial No. 754,108. (Cl. 37—35.)



A road machine including a transversely extending snow compressing element including a wear plate, wings upstanding from and integral with the ends of the wear plate and diverging both upwardly and rearwardly, scraping blades mounted for angular adjustment upon the wings and diverging both upwardly and rearwardly, and means for holding the blades in the positions to which they are adjusted.

1,089,428. VEHICLE-WHEEL. EDWARD W. MOON, Sr., St. Louis, Mo. Filed Mar. 19, 1913. Serial No. 755,389. (Cl. 152—39.)



1. In a vehicle wheel, a pair of hubs therefor, a series of cylinders radially arranged on the interior of one of said hubs, said cylinders adapted to contain a fluid, plungers mounted in said cylinders, a retaining ring for said plungers, said plungers adapted to retard the flow of fluid from said cylinders.

2. In a vehicle wheel, a pair of hubs therefor, a series of cylinders radially arranged on the interior of one of said hubs, said cylinders adapted to contain a fluid, plungers adapted to reciprocate in said cylinders, a retaining ring for said plungers, said ring adapted to hold one end of said plungers against one of said hubs, said plungers adapted to retard the flow of fluid from said cylinders.

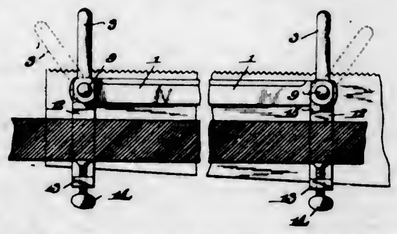
3. In a vehicle wheel, an axle hub adapted to be mounted on an axle, an outer hub adapted to be loosely mounted on said axle hub yet turnable therewith, a chamber formed between said hubs, a series of auxiliary chambers formed around said chamber, recesses located between said hubs in said chamber, said recesses and said chambers adapted to contain a fluid, plungers mounted in said recesses, means for successively reciprocating said plungers in said recesses, side flanges forming side walls to said chambers, and bolts passing through said auxiliary chambers and said flanges.

4. In a vehicle wheel, a pair of hubs therefor, a series of cylinders radially arranged on the interior of one of said hubs, said cylinders adopted to contain a fluid, plungers mounted in said cylinders, a retaining ring for said plungers, said plungers adapted to retard the flow of fluid from said cylinders, said retaining ring forming means for successively drawing the plungers from their respective cylinders.

5. In a vehicle wheel, the combination of a pair of hubs, with a felly, one of said hubs adapted to be mounted on an axle, the other said hub being carried by the felly, an annular chamber formed between said hubs, side flanges mounted on said axle hub, said felly hub being slidably mounted between said flanges, auxiliary chambers formed in said felly hub, means of communication between said annular chamber and said auxiliary chambers, bolts passing through said side flanges and said auxiliary chambers to limit the sliding movement between said axle hub and said felly hub, said flanges forming side walls to said chambers, said annular chamber and said auxiliary chambers adapted to contain a fluid.

[Claim 6 not printed in the Gazette.]

1,089,429. SAW-CLAMP. CARL S. MORTENSON, Moline, Ill. Filed May 10, 1913. Serial No. 766,694. (Cl. 76—78.)



1. In a device of the class described, a fixed and a movable jaw, pivotally mounted means connecting said jaws and adapted to move the same into and out of engagement with each other, and means for securing the device to a bench, said means being pivotally mounted upon the outer face of the fixed jaw and adapted to fold against said face, substantially as described.

2. A saw clamp comprising a pair of parallelly disposed jaw members, yokes adjacent each end of the said jaw members and having their ends pivotally connected to said jaws respectively, and coöperating cam faces upon the adjacent faces of the said yoke and the said last named jaw member whereby the said jaw will be forced into engagement with the first named jaw member when the yokes are turned on their pivots, substantially as described.

3. A saw clamp comprising a pair of parallelly disposed jaw members, yokes adjacent each end of the said jaw members and having their ends pivotally connected to said jaws respectively, coöperating cam faces upon the adjacent faces of the said yoke and the said last named jaw member, whereby the said jaw will be forced into engagement with the first named jaw member when the yokes are turned on their pivots, and means secured to one of said jaws for attaching the device to a bench, substantially as described.

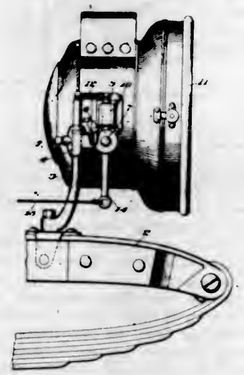
4. A saw clamp comprising a pair of parallelly disposed jaw members, yokes adjacent each end of the said jaw members and having their ends pivotally connected to said jaws respectively, and coöperating cam faces upon the adjacent faces of the said yoke and the said last named jaw member whereby the said jaw will be forced into or out of engagement with the first named jaw member when the yokes are turned on their pivots, substantially as described.

5. A saw clamp comprising a stationary jaw, a movable jaw, a yoke pivotally mounted at each end of the first named jaw and embracing the movable jaw, coöperating cam faces upon the movable jaw and the adjacent ends of the yoke adapted to force said movable jaw into engagement with the first named jaw, and means whereby the movable jaw is held to frictionally engage the coöperating faces of the yoke member, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]



1,089,430. MOUNTING FOR AUTOMOBILE-HEADLIGHTS. WILLIAM E. NICKERSON, Cambridge, Mass., assignor to Everett D. Chadwick, trustee, Winchester, Mass. Filed June 16, 1911. Serial No. 633,565. (Cl. 240—61.)



1. An attachment for automobiles comprising a pair of brackets adapted to be supported respectively by the usual headlight standards, supplementary upright standards carried by said brackets and mounted to turn on alined horizontal pivots, and means for turning the latter standards on said pivots.

2. An attachment for automobiles comprising a pair of brackets adapted to be supported respectively by the usual headlight standards, said brackets being provided with supplementary upright standards adapted to support the headlight and mounted to turn on transversely-extending horizontal pivots, springs tending to maintain the supplementary standards in vertical position, and means for tilting the latter standards and the headlight carried thereby on said pivots.

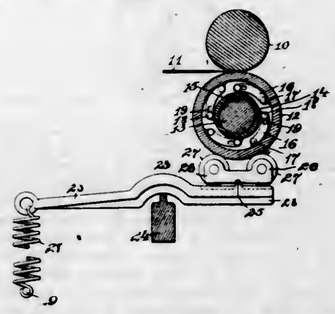
3. An attachment for automobiles comprising a pair of independent brackets having vertical perforations adapted to receive the usual headlight standards, supplementary standards carried by said brackets respectively and adapted to enter the perforated supports on the sides of the headlight, said supplementary standards being mounted on alined transversely-extending pivots, springs connecting the upper ends of the standards on each side of the headlight, an arm connected to one of the supplementary standards and extending downward therefrom, and means for drawing said arm backward to tilt the headlight on said pivots.

4. The combination with an automobile having a pair of upright headlight-carrying standards, of a bracket mounted on each standard, a supplementary standard carried by each bracket and mounted to rock on a transversely-extending pivot, a headlight mounted on said pair of supplementary standards, springs connecting the upper ends of the standards on each side of the headlight, and means for tilting the headlight to throw its rays forward and downward on the road-bed.

5. The combination with an automobile having a pair of upright headlight-carrying standards, of a bracket mounted on each standard, a supplementary standard carried by each bracket and mounted to rock on a transversely-extending pivot, a headlight mounted on said pair of supplementary standards, springs connecting the upper ends of the standards on each side of the headlight, and means for tilting the headlight to throw its rays forward and downward on the road-bed, comprising an arm connected to the supplementary standards and extending downward therefrom, a rock-shaft, connections between the rock-shaft and said downwardly-extending arm, and a treadle accessible from the driver's seat for operating said rock-shaft.

[Claim 6 not printed in the Gazette.]

1,089,431. MEANS FOR FEEDING MATERIAL. WILLIAM H. O'CONNOR, East Orange, N. J. Filed Jan. 18, 1912. Serial No. 671,977. (Cl. 69—13.)



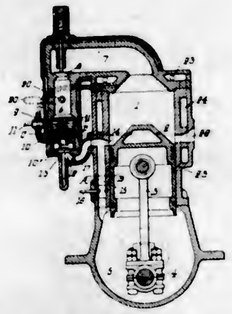
1. A feeding means comprising a fixed roll, a shaft, a supporting roller, a sleeve secured on the shaft, a roller surrounding the sleeve at a distance therefrom so as to provide a space between them, the roller being arranged between the supporting roller and the fixed roll, links, and pins pivotally connecting the links with the sleeve and the roller so that the links normally lie tangential to the sleeve, at least one end of each link being provided with a slot into which one of the aforesaid pins passes to give the rollers a limited rotary movement in relation to the sleeve and permit the movement of the roller to a position eccentric to the sleeve.

2. A feeding means comprising a fixed roll, a shaft, a supporting roller, a sleeve secured on the shaft, a roller surrounding the sleeve at a distance therefrom so as to provide a space between them, the roller being arranged between the supporting roller and the fixed roll, curved links with substantially the same radius as the outside of the sleeve, and pins pivotally connecting the links with the sleeve and the roller so that the links normally lie tangential to the sleeve, at least one end of each link being provided with a slot into which one of the aforesaid pins passes to give the rollers a limited rotary movement in relation to the sleeve and permit the movement of the roller to a position eccentric to the sleeve.

1,089,432. INTERNAL-COMBUSTION ENGINE. OLOF OHLSSON, Soderteije, Sweden. Filed May 22, 1907. Serial No. 375,069. (Cl. 123—1.)

1. An internal combustion engine having a cylinder, a piston movable therein, a primary chamber having unyielding walls, means for admitting a combustible charge to the primary chamber, and means for admitting air to the primary chamber, said piston being adapted for successive operation first to supply a combustible charge to the primary chamber and afterward to supply air thereto to increase the pressure therein, a secondary chamber adapted to afford communication from the primary chamber to the cylinder of the engine, means for admitting a supply of air to the cylinder, means to close communication

between the primary chamber and the secondary chamber during compression of the charge in the primary chamber, and means operable upon the compression stroke of the piston for igniting the combustible charge in the primary chamber whereby the same is caused to be discharged into the secondary chamber and mingled with the air therein contained.



2. An internal combustion engine having a cylinder, a piston movable therein, a primary chamber having unyielding walls, means for admitting a combustible charge to the primary chamber, means for admitting air to the primary chamber, said piston being adapted for successive operation to supply a fuel charge to said primary chamber and afterward to supply air thereto, increasing the pressure therein, a secondary chamber adapted to afford communication between the primary chamber and the cylinder of the engine, means for admitting air to the cylinder, a valve controlling communication between the primary chamber and the secondary chamber and adapted to remain normally in closed position, and means operable upon the compression stroke of the piston for igniting the combustible charge in the primary chamber whereby the same is caused to be discharged into the secondary chamber and mingled with the air therein contained.

3. An internal combustion engine having a cylinder, a piston movable therein, a primary chamber, a secondary chamber affording communication from the primary chamber to the cylinder, means for controlling communication from the primary chamber to the secondary chamber, a mixing member extended in the primary chamber, means for supplying a combustible charge to the mixing member, means for directing a supply of air along the mixing member for admixture with the combustible charge, and means operable upon the compression stroke of the piston for igniting the charge in the primary chamber to cause the same to be discharged into the secondary chamber and mingled with the air therein contained.

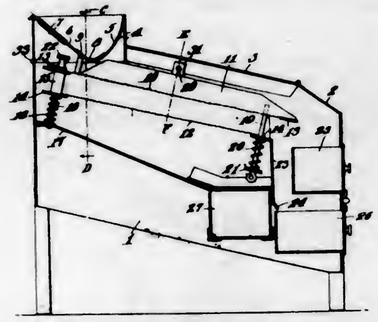
4. An internal combustion engine having a cylinder, a piston movable therein, a primary chamber, a secondary chamber affording communication from the primary chamber to the cylinder, means for admitting a supply of air to the cylinder, means for controlling communication from the primary chamber to the secondary chamber, means for admitting a combustible charge to the primary chamber, a mixing member in the primary chamber, and means for supplying a current of air from the cylinder to the mixing member in a direction to force the combustible charge through the mixing member toward the secondary chamber.

5. An internal combustion engine having a cylinder, a piston movable therein, a primary chamber, a secondary chamber affording communication from the primary chamber to the cylinder, a compression chamber, means for admitting air to the cylinder, a passage affording communication between the primary chamber and the cylinder, a second passage affording communication between the primary chamber and the compression chamber, means for supplying fuel within the said second named passage, said piston being capable of operation first to draw fuel into the said second named passage and afterward to increase the tension of air in the compression chamber whereby the same is forced through the second passage into the primary chamber, and means for igniting the charge in the primary chamber.

[Claims 6 to 11 not printed in the Gazette.]

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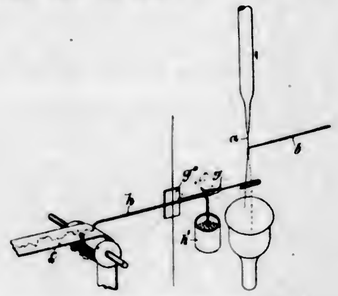
1,089,433. SEED-GRADING MACHINE. ELAM ALPHEUS OLIVER, Belleville, Wis. Filed Mar. 17, 1913. Serial No. 754,931. (Cl. 130—15.)



In a separator the combination with a casing, of a seed hopper supported upon one end portion of the casing, superposed screens for receiving material from the hopper, the upper screen projecting downwardly beyond one end of the lower screen, an inclined board under the lower screen, a partition beyond the lower end of the inclined board and supporting the lower end of the lower screen, a removable receptacle extending under the discharge end of the upper screen and spaced from the partition to form a passage for tailings from the lower screen, a removable receptacle arranged under the first named receptacle for receiving the tailings from said passage, and a removable receptacle for receiving tailings from the inclined board, said last named receptacle being removable laterally from the casing while the remaining receptacles are removable from one end of the casing.

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1,089,434. RELAY APPARATUS. AXEL ORLING, London, England, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Filed Oct. 6, 1911. Serial No. 653,196. (Cl. 178—46.)



1. A relay contrivance comprising a stream of liquid, an element immersed therein, means for causing said element to undergo relative displacement transversely to said stream, a second element impinged upon by said stream at a subsequent portion thereof and recording means operated by the consequent angular displacement of the receding portion of said stream.

2. A relay contrivance comprising a stream of liquid, an element immersed therein, means for causing said element to undergo relative displacement transversely to said stream, and displaceable recording means operated by the consequent angular displacement of the receding portion of said stream.

3. A relay contrivance comprising a stream of liquid an element immersed therein, means for causing the said element to undergo a series of displacements transversely to the stream, a fixed element impinged upon by the stream at a subsequent portion thereof and a displaceable element impinged upon by the stream at a portion subsequent to the said fixed element.

4. A relay contrivance comprising a stream of liquid, an element immersed therein, means for causing the said element to undergo a series of displacements transversely to the stream, a displaceable element impinged upon by the stream at a subsequent portion thereof and a siphon recorder secured to the said displaceable element.

5. A relay contrivance comprising a stream of liquid, an element immersed therein, means for causing the said element to undergo a series of displacements transversely to the stream, a fixed element impinged upon the stream at a subsequent portion thereof, a displaceable element impinged upon by the stream at a portion subsequent to the said fixed element and a siphon recorder secured to the said second displaceable element.

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1,089,435. AUXILIARY SPRING FOR LATCHES. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 16, 1912. Serial No. 731,811. (Cl. 70—42.)



1. In an auxiliary spring device for latches, the combination of a supporting plate, a latch spindle passing through said plate, and a double acting spring acting on said spindle and housed beneath said plate; substantially as described.

2. In an auxiliary spring device for latches, the combination of a supporting plate, a latch spindle passing therethrough, and a spring carried by said plate and formed of a single metal piece acting on said spindle to return it to neutral position when the spindle is oscillated in either direction; substantially as described.

3. In an auxiliary spring device for latches, the combination of a latch bolt, an escutcheon, a plate associated with said escutcheon, a cam journaled in said plate, a latch operating spindle passing through said cam, and a double acting spring acting on said cam; substantially as described.

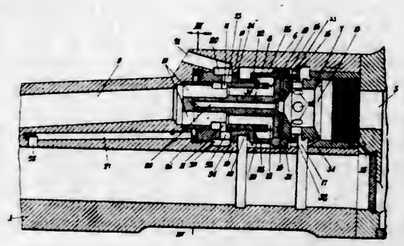
4. A device such as described, comprising a supporting plate, a cam having a bearing in said plate and provided with a polygonal opening, a latch spindle passing through said opening, and a double acting spring on said supporting plate engaged with the cam to return it to neutral position; substantially as described.

5. A device such as described, comprising spaced supporting plates, a cam having bearings in said plates and provided with a spindle opening, and a spring acting on said cam between the plates; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]



1,089,436. VALVE FOR PERCUSSIVE TOOLS. CAID H. PECK, Athens, Pa., assignor to Ingersoll Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 28, 1913. Serial No. 770,296. (Cl. 121—20.)



1. In a percussive tool, a cylinder, its piston, a valve chest, inlet and exhaust passages for the rear end of the cylinder, a fluid passage extending rearwardly of the cylinder from the forward end of the cylinder to said valve chest, a valve supporting stem extending rearwardly from said forward passage, said stem having exhaust and inlet ports therein communicating with said forward passage, an exhaust opening in said valve chest, an inlet passage and a valve sliding on said valve supporting stem and adapted to alternately connect said exhaust ports and passages and said inlet ports and passages.

2. In a percussive tool, a cylinder, its piston, a valve chest, inlet and exhaust passages for the rear end of the cylinder, a fluid passage of large area extending rearwardly of the cylinder from the forward end of the cylinder to said valve chest, a valve supporting stem extending rearwardly from said large passage, said stem having exhaust and inlet ports therein communicating with said large passage, an exhaust opening of large area in said valve chest, an inlet passage of very constricted area, and a valve sliding on said valve supporting stem and adapted to alternately connect said exhaust ports and passages and said inlet ports and passages.

3. In a percussive tool, a cylinder, its piston, a valve chest, inlet and exhaust ports opening from said valve chest to the rear end of the cylinder, a passage of large area extending rearwardly of the cylinder to said valve chest, a valve supporting plug in said valve chest having inlet and exhaust ports opening from said large passage to said valve chest, and an inlet passage of constricted area for the front end and an inlet passage for the back end opening from the inlet of the tool to said valve chest, an atmospheric exhaust from said valve chest, and a valve sliding on said valve plug, adapted to connect said valve plug exhaust with said atmospheric exhaust, and said rear end valve plug inlet with said rear end cylinder inlet, and in its other position to connect said rear end cylinder exhaust with said atmospheric exhaust and said constricted valve plug inlet passage with said valve plug inlet port.

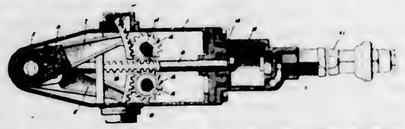
4. In a percussive tool, a cylinder, its piston, inlet and exhaust passages for both ends of the cylinder, the inlet port for one end being constricted in area, and the exhaust port for the other end being at a distance from the end of the cylinder, a valve for controlling said passages having a surface for operating it in one direction and two smaller surfaces of a greater total area than said first surface for operating it in the opposite direction, one of said smaller surfaces being in communication with each end of the cylinder, a passage from the intermediate portion of the cylinder to the first surface, so placed as to be uncovered on both strokes by the piston, so that at the end of one stroke the first surface and one of said smaller surfaces will be exposed to live fluid pressure, while at the end of the other stroke, said first surface and the other of said smaller surfaces will be exposed to live pressure lessened by said constricted passage and the first of said smaller surfaces will be exposed to piston compression.

5. In a percussive tool, a cylinder, its piston, inlet and exhaust ports communicating with the forward end of the cylinder, an inlet port for the rear end of the cylinder, an exhaust port farther from the rear end of the cylinder than said inlet port and a valve for controlling said ports, having a surface for operating it in one direction and two smaller surfaces of a total area greater than said first surface for operating the valve in the other direction, one of said smaller surfaces communicating with each end of the cylinder, a passage leading from the cylinder to said first surface and so placed as to be uncovered by the piston near the end of each stroke, so that at the end of the forward stroke the first surface and one of the smaller surfaces will be exposed to live pressure, while at the end of the rearward stroke, the first surface and one of the smaller surfaces will be exposed to live pressure and the other smaller surface will be exposed to the pressure of the fluid trapped by the piston in the rear end of the cylinder.

[Claim 6 not printed in the Gazette.]

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1,089,437. DRILL-SPINDLE-ROTATING MECHANISM FOR CLOSE-CORNER DRILLS. CAID H. PECK, Athens, Pa., assignor to Ingersoll Rand Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 19, 1913. Serial No. 774,537. (Cl. 74—54.)

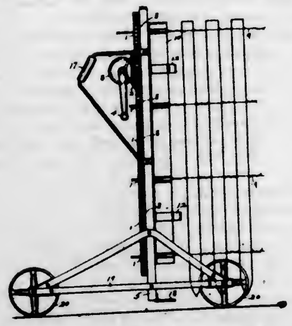


1. In a drilling mechanism, a drill spindle, a pair of ratchet arms engaging said spindle, arcuate racks on said arms, driving pinions engaging said racks and a reciprocable rack for rotating said pinions in opposite directions.

2. In a drilling mechanism, a toothed drill spindle, a pair of ratchet arms engaging said spindle, arcuate racks on said arms, spaced driving pinions engaging said arcuate racks, and an oppositely toothed reciprocable rack between and intermeshing with said driving pinions.

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1,089,438. PICKET-FENCE MACHINE. JOHN S. PURDY, Houston Heights, Tex. Filed July 5, 1913. Serial No. 777,533. (Cl. 140—40.)



1. A device of the character described, including a frame and carrier wheels upon which the same is mounted, two uprights spaced apart and fixed in position relative to each other, carried by said frame, a train of intermeshing spur gear wheels rotatably mounted in suitable bearings located between said uprights and carried thereby, said gear wheels being provided with two holes parallel with their axes and located on opposite sides thereof for the reception of fence-forming wires, means for manually rotating one of said gear wheels, two vertically extending guides fixed to the uprights and spaced apart, the inner face of each guide being provided with a transverse recess in which said wires rest, a rest plate fixed to the lower end of said uprights and alined with the space between said guides, two pairs of spacing fingers, the members of each pair being arranged opposite each other, said pairs of fingers being fixed to the uprights near their upper and lower ends, respectively, and projecting at right angles therefrom beyond said guides, and two pairs of spacing fingers, said pairs being fixed to the uprights near their upper and lower ends, respectively, and projecting out at right angles therefrom beyond said guides.

2. A device of the character described, including a frame and carrier wheels upon which the same is mounted, two uprights carried by the frame, said uprights being spaced apart and fixed in position relative to each other, a train of alined intermeshing spur gears rotatably mounted in suitable bearings located between said uprights and carried thereby, said gear wheels being provided with two orifices extending therethrough on opposite sides of their axes and parallel therewith for the reception of fence-forming wires, means for rotating one of said gear wheels, two vertically extending guides fixed to the uprights and spaced apart, the inner face of each guide being provided with transverse recesses opposite said orifices in which said wires normally rest, a rest plate fixed to the lower end of said uprights and alined with the space between said guides, and two pairs of spacing fingers, the members of each pair being arranged opposite each other, said pairs of fingers being fixed to the uprights near their upper and lower ends, respectively, and projecting out at right angles therefrom beyond said guides.

3. A device of the character described, including a frame and carrier wheels upon which the same is mounted, two uprights carried by the frame, said uprights being spaced apart and fixed in position relative to each other, a train of alined intermeshing spur gears rotatably mounted in suitable bearings located between said uprights and carried thereby, said gear wheels being provided with two orifices extending therethrough on opposite sides of their axes and parallel therewith for the reception of fence-forming wires, means for rotating one of said gear wheels, two vertically extending guides fixed to the uprights and spaced apart, the inner face of each guide being provided with transverse recesses opposite said orifices in which said wires normally rest, a rest plate fixed to the lower end of said uprights and alined with the space between said guides, two pairs of spacing fingers, the members of each pair being arranged opposite each other, said pairs of fingers being fixed to the uprights near their upper and lower ends, respectively, and projecting at right angles therefrom beyond said guides, and a handle fixed to one of said uprights for manually propelling the device.

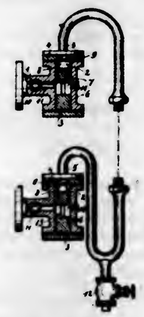
4. A device of the character described, including a frame and carrier wheels upon which the same is mounted, two uprights spaced apart and fixed in position relative to each other, carried by said frame, a rotatable member mounted in a suitable bearing carried by said uprights, said member being provided with two orifices parallel with and located on opposite sides of the axis thereof for the reception of fence-forming wires, means for rotating said rotatable member, two vertically extending guides fixed to the uprights and spaced apart, the inner faces of each guide being provided with transverse recesses opposite said orifices in which said wires normally rest, a rest plate fixed to the lower end of said uprights and alined with the space between said guides, and spacing fingers fixed to said uprights and projecting out at right angles therefrom beyond said guides.

5. A device of the character described, including a frame, two uprights spaced apart and fixed in position relative to each other, carried by said frame, a train of intermeshing spur gear wheels rotatably mounted in suitable bearings located between said uprights and carried thereby, said gear wheels being provided with two holes parallel with their axes and located on opposite sides thereof for the reception of fence-forming wires, means for manually rotating one of said gear wheels, two vertically extending guides fixed to said uprights and spaced apart, the inner face of each guide being provided with a transverse recess in which said wires rest, a rest plate fixed at the lower end of said uprights and alined with the space between said guides, and two pairs of spacing fingers, said pairs being fixed to the uprights near their upper and lower ends respectively and projecting out at right angles therefrom beyond said guides.



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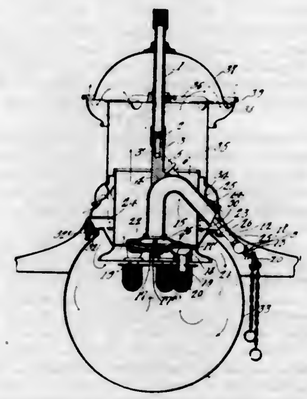
1,089,439. AUTOMATICALLY-CLOSING VALVE FOR WATER-GAGES. ERNST RHEINBACH, Stolpen, Germany. Filed May 23, 1912. Serial No. 699,303. (Cl. 73—54.)



An automatically closing valve for water-gages and the like, comprising a vertical cylindrical casing having an outlet port at its upper end and an inlet port opening at right angles into the casing midway of its length, a piston-like valve body movably mounted in said casing, said valve body being composed of two cylindrical portions distanced by bars which hold said portion normally at opposite sides of the inlet duct, the casing having a clearing aperture arranged so as to admit a cleaning instrument into the inlet port from between the bars of the valve, a screw normally closing said clearing aperture, the upper portion of the valve body having longitudinal grooves through which the inlet and outlet port normally communicate, the valve body being adapted to close the outlet port with its upper end when it is raised by a sudden decrease of the pressure outside said outlet port, substantially as set forth.

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1,089,440. GAS-LAMP. FRANK V. RISINGER, Youngstown, Ohio, assignor to The Block Light Co., Youngstown, Ohio. Filed Aug. 28, 1913. Serial No. 787,186. (Cl. 67—94.)



1. A gas lamp, having a burner cluster, a Bunsen tube with its outlet concentric thereto and its inlet inclined downwardly and outwardly, a reflector skirting the inlet of the tube, a globe supported by the reflector, and a valved gas nozzle beneath the reflector exteriorly of the globe and emptying into the inlet of the tube.

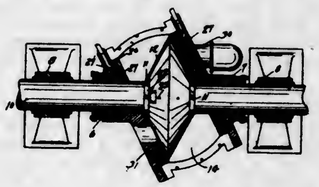
2. A gas lamp, having a burner cluster, a Bunsen tube with its outlet concentric thereto and its inlet inclined downwardly and outwardly, a reflector skirting the inlet of the tube, a globe supported by the reflector, a valved gas nozzle beneath the reflector exteriorly of the globe and emptying into the inlet of the tube, and an air directing cylinder disposed above the burner cluster and through the wall of which projects the inlet end of the Bunsen tube in coöperation with the reflector.

3. A gas lamp, having a burner cluster, a Bunsen tube with its outlet concentric thereto and its inlet inclined downwardly and outwardly; a reflector skirting the inlet of the tube; an air directing cylinder disposed above the burner cluster; an outwardly projecting globe carrying rim adjacent the lower end of the cylinder, a valved gas nozzle in the annular space formed by the rim, cylinder and reflector said nozzle emptying into the inlet end of the Bunsen tube; and a globe supported by the rim.

4. A gas lamp, having a Bunsen tube, a sectional cluster member into which the tube empties, a single fastener concentric of the sections, and a pin slidably mounted in one section and fast to the other section, whereby when the fastener is released, one cluster section may be slid downwardly and swung to one side.

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1,089,441. WATER-PUMP. JOHN L. SAUCHEREAU, Spokane, Wash. Filed Mar. 31, 1913. Serial No. 757,734. (Cl. 103—44.)



1. In a device of the class described in combination, a revoluble piston having a pair of rings attached thereto, grooved heads in which said rings revolve, a shaft set at an angle with said heads, and driving connections intermediate said shaft and said piston.

2. In a device of the class described in combination, a pump cylinder provided with a pair of grooved heads, a piston mounted in said cylinder, rings contacting with said piston on opposite sides thereof mounted in the grooves of said heads, means for revolving said piston, and means for forcing water into said grooves underneath said rings.

3. In a device of the class described comprising in combination, a cylinder, a revoluble piston mounted in said cylinder, and rings mounted in contact with said piston on each side thereof, said cylinder being provided with grooved heads into which said rings are inserted and said rings being provided with pockets on their faces next to said head for receiving lubricating material.

4. In a device of the class described in combination, a revoluble piston, driving means for said piston comprising a member provided with two exterior cone like surfaces, a pin within said member and on which said piston is revolubly mounted, tapered roller bearings mounted between said piston and said pin, and means whereby said bearings may be adjusted.

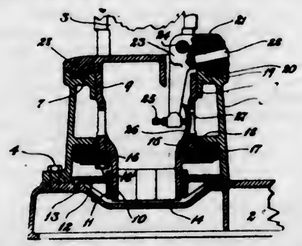
5. In a device of the class described in combination, a revoluble piston, and driving means for said piston comprising a member provided with two exterior cone line surfaces, a pin mounted within said member, said pin having rotating connection with said piston, tapered roller bearings interposed between said piston and said pins, said bearings having cage rings, plates having threaded engagement with said pin for adjusting said cage rings.

and balls intermediate said plate and said rings, said member being provided with removable portions to afford access to said plates.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,442. RADIAL DRILL. WILLARD T. SEARS, Hartford, Conn., assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Jan. 25, 1913. Serial No. 744,087. (Cl. 77—27.)



1. The combination of a support, a rotary column carried by the support, a roller carried by the column, means for yieldingly forcing the roller toward the support, and means for drawing the column into rigid engagement with the support and at the same time causing the relative reaction of the roller.

2. The combination of a support, a rotary column carried by the support, a circular track on the support, a single conical roller carried by the column, to travel in contact with said circular track, means for yieldingly forcing the roller toward the support, and means for drawing the column into rigid engagement with the support and for causing at the same time the relative retraction of the roller sufficient to permit the column to come into clamping engagement with the support.

3. The combination of a support, a column structure rotatively carried by the support, a circular track on the support, and a single conical roller on the column to travel in contact with said support, and situated approximately at the center of gravity of said column and the parts supported thereby.

4. The combination of a support, a rotary column carried by the support, a wedge ring rigid with said column, a divided wedge ring active when contracted to act against the first wedge ring, to clamp said column to said support, and means comprising an electrically operated device for contracting said second wedge ring.

5. In a radial drill, the combination of a support, a rotary column carried by said support, a circular track on the column, a single-conical roller, a yieldingly mounted lever on the column, upon which said roller is mounted, said lever being adapted to move said roller toward said column, and means for clamping said column to said support and at the same time for causing the relative retraction of the lever and thereby the roller sufficient to permit the column to come into clamping engagement with the support.

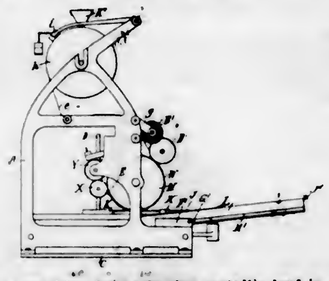
[Claim 6 not printed in the Gazette.]

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1,089,443. MACHINE FOR PACKAGING METALLIC LEAF IN ROLLS. CHARLES E. SMITH, Oak Lawn, R. I. Filed May 18, 1910. Serial No. 562,096. (Cl. 242—59.)

1. In a machine for packaging metallic leaf in rolls the combination of a pressure roll, the traveling bed adapted for forward movement with the pressure roll, and a hand operated sliding table adapted for supporting the book of metallic leaf upon the traveling bed and for movement beyond the outward movement of the said traveling bed, to allow the operator to turn the leaves of the book for the repeated operation of the machine.

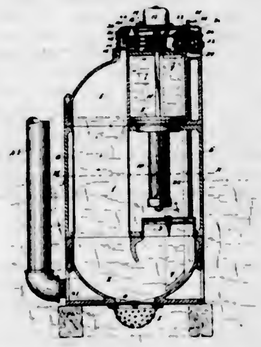
2. In a machine for packaging metallic leaf in rolls, the combination of means for abrading the surface of the supporting strip a mechanism for applying the sheet of metallic leaf to the abraded surface of the strip, and means for winding up the abraded supporting strip and the attached metallic leaf into a package roll.



3. In a machine for packaging metallic leaf in rolls, the combination of a pressure roll, and the traveling bed with a pivoted spring-actuated track member for supporting the traveling bed and a dash-pot for checking the resilient upward movement of the said track member when freed from the traveling bed.

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1,089,444. INTERNALLY-FIRED ENGINE. WILLIAM H. SMITH, Berkeley, Cal., assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed Feb. 5, 1900. Serial No. 4,129. (Cl. 160—1.)



1. In an apparatus of the named type, the combination of a combustion chamber provided with an igniter and means to regulate the in and outflow of fluids, an air chamber surrounding the combustion chamber and having an inlet passage thereto and a discharge from the air chamber.

2. In an apparatus of the named type, the combination of a combustion chamber provided with an igniter and means to regulate the in and outflow of fluids, an air chamber surrounding the combustion chamber and having a valve controlled inlet passage thereto and a discharge from the air chamber.

3. In an apparatus of the named type, the combination of a multiplicity of combustion chambers provided with suitable devices and having controlling devices to regulate the in and outflow of fluids, an air chamber surrounding the combustion chambers connected therewith by suitable passages, a discharge from the air chamber, means adapted to form a succession of explosive charges and a power driven engine to introduce the charges into the combustion chamber.

4. In an apparatus of the named type, the combination of a combustion chamber provided with an igniter and means to regulate the in and outflow of fluids, an air chamber surrounding the combustion chamber, an inlet passage from the air chamber to the combustion chamber whereby material driven from the combustion chamber is opposed by the air in the air chamber and a discharge from the air chamber.

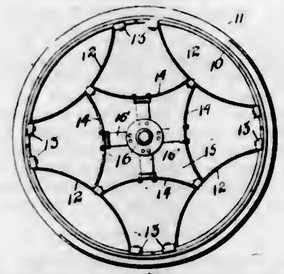
5. In an apparatus of the named type, the combination of a combustion chamber provided with an igniter and means to regulate the in and outflow of fluids, an air chamber surrounding the combustion chamber, means to introduce liquid to act as a piston in the combustion chamber, a valve controlled inlet passage from the air chamber to the combustion chamber whereby liquid driven from the combustion chamber is opposed by the air in the air chamber and a discharge from the air chamber.

[Claims 6 to 28 not printed in the Gazette.]



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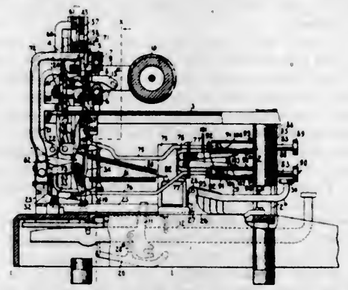
1,089,445. AUTOMOBILE-WHEEL. BERT B. STAPLETON, Downing, Mo., assignor of one-half to E. J. Goines, Memphis, Mo. Filed Nov. 25, 1912. Serial No. 733,435. (Cl. 152—28.)



A wheel including a rim having inwardly projecting bolts carried thereby, bowed springs having apertured end portions engaged with the bolts, substantially U-shaped clips straddling the feet of the springs and the rim and receiving the bolts therethrough, bolts carried by the intermediate portions of the springs, similar springs having apertured feet engaged with the last mentioned bolts, substantially U-shaped clips straddling the last mentioned feet and the intermediate portions of the first mentioned springs, a hub, and radiating braces secured to the hub and secured at their outer ends to the intermediate portions of the second named springs.

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1,089,446. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Aug. 22, 1913. Serial No. 786,091. (Cl. 197—179.)



1. In a typewriting machine and in tabulating mechanism, the combination of column stops, a stop magazine, a column stop bar, a stop ejector, a stop retractor, lever members, links connecting said lever members with said ejector and retractor, rods connected to said lever members, key stems slidably connected with said rods, power springs mounted on said rods, said springs being compressible by devices operative by said key stems, detent devices normally preventing effective actuation of said rods by said springs, and means connected with said key stems for rendering said detent devices ineffective.

2. In a typewriting machine and in tabulating mechanism, the combination of column stops, a stop magazine, a column stop bar, a stop ejector, a stop retractor, lever members, links connecting said lever members with said ejector and retractor, rods connected to said lever members, key stems slidably connected with said rods, springs mounted on said rods, said springs being compressible by devices operative by said key stems, detent devices normally preventing effective actuation of said rods by said springs, means connected with said key stems for rendering said detent devices ineffective, and means for preventing simultaneous effective operation of said key stems.

3. In a typewriting machine and in tabulating mechanism, the combination of a stop magazine, a column stop bar, a stop ejector for ejecting said stops from said magazine on to said stop bar, a train of devices connected to said ejector and comprising a link, a lever member and a rod, a housing on said rod, a power spring within said housing, a detent effective on said rod, a key stem connected with said rod, and devices connected with said key stem for storing power in said power spring and for releasing said detent.

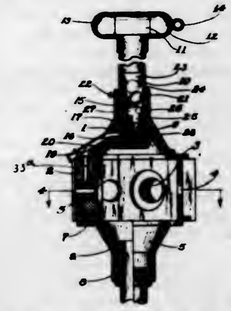
4. In a typewriting machine and in tabulating mechanism, the combination of a stop bar, column stops thereon, a stop magazine, a stop retractor for retracting the stops from said stop bar into said magazine, a train of devices connected with said retractor and comprising a link, a lever member and a rod, a housing on said rod, a power spring within said housing, a detent normally preventing effective actuation of said rod, a key stem connected with said rod, and devices connected with said key stem for storing power in said power spring and for releasing said detent.

5. In a typewriting machine and in tabulating mechanism, the combination of a stop setting device, a train of devices connected to said setting device comprising a link, a lever member and a rod, a housing on said rod, a power spring within said housing, a detent for said rod normally in effective position, a key stem slidable on said rod, and devices connected with said key stem for storing power in said spring and for releasing said detent.

[Claims 6 to 40 not printed in the Gazette.]

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1,089,447. AUTOMATIC-OILING MULTIPLE-DIE STOCK. HERMAN JOS. SUELZEN, Chicago, Ill. Filed Feb. 3, 1913. Serial No. 745,840. (Cl. 10—114.)



1. A device of the character described, comprising in combination: a stock, said stock being polygonal in shape, alternate walls of said stock having projecting sides; and a flange extending from one end of said stock; dies mounted between said projecting sides and flange; and a sleeve removably secured on the other end of said stock to retain said dies in place.

2. In a device of the character described, the combination of a stock, a conical end thereto, a body adjacent to

said conical end, said body being polygonal in cross section and each side of said polygon being a wall, each of said walls being perforated and being provided with a flange, a die adapted to rest upon each of said flanges, there being openings in said body opposite to each of said flanged walls, said openings being in alinement with the perforation in the corresponding wall, and each of said openings being in the space intermediate two of said walls, and a sleeve coöperating with the conical end, said sleeve being adapted to retain said dies and said stock.

3. In a device of the character described, the combination of a stock, a conical end thereto, a body adjacent to said conical end, said body being polygonal in cross section and each side of said polygon being a wall, each of said walls being perforated and being provided with a flange, a die adapted to rest upon each of said flanges, there being openings in said body opposite to each of said flanged walls, said openings being in alinement with the perforation in the corresponding wall and each of said openings being in the space intermediate two of said walls, and a sleeve coöperating with the conical end, said sleeve being adapted to retain said dies and said stock, said stock being provided with a flange, said dies being adapted to be retained between said flange and said sleeve.

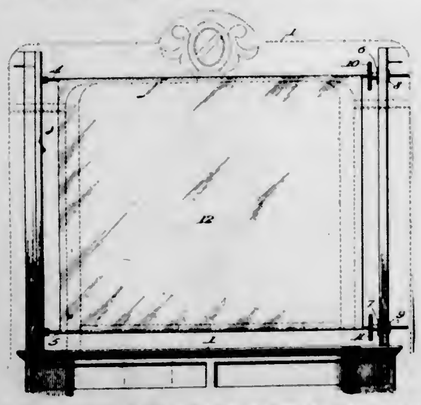
4. A device of the character described, comprising a stock which is polygonal in shape, the alternate walls of said stock being provided with projecting die-holders, each die-holder having a flange, the walls of said stock opposite said first-mentioned walls being provided with openings which openings are in axial alinement with the openings of the dies, and a sleeve coöperating with the stock and adapted to retain the dies between said die-holders and the flanges thereupon.

5. A device of the character described, comprising a stock, said stock being polygonal in shape, alternate walls of said stock being relatively large in size and bearing projecting die-holders, the remaining walls of said stock being relatively small in size and being provided with openings which are in axial alinement with the openings of the dies, said dies being adapted to slide longitudinally of the stock within said die-holders, and a sleeve in connection with the stock, adapted to lock the dies against longitudinal movement and thereby retain the said dies in said stock.

[Claim 6 not printed in the Gazette.]

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1,089,448. CURVED SCREEN FOR STATIONARY AND MOVING PICTURE REPRODUCTION AND MECHANISM FOR PRODUCING THE SAME. WILLIAM L. TILLOTSON, Denver, Colo. Filed Oct. 25, 1913. Serial No. 797,243. (Cl. 88—24.)



1. In a device of the character described, the combination with supports, of rods secured to said supports, a picture screen on said rods, and means for bowing said rods.

2. In a device of the character described, the combination with parallel supports, of parallel rods secured to said supports, a picture screen secured to said rods, and means for adjustably bowing said rods.

3. In a device of the character described, the combination with parallel uprights, of horizontally disposed parallel rods hinged at one end to one of said uprights, automatically adjustable abutments on the opposite upright, through which the free ends of the said rods pass, hand wheels threaded to said rods and in engagement with said abutments, and a picture screen supported upon said rods.

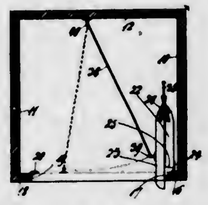
4. In a device of the character described, the combination with supports, of horizontally disposed parallel resilient rods hinged at one end to one of said supports, swiveled abutment blocks mounted on the other support having horizontally disposed bearing apertures, the free ends of said rods being threaded and supported loosely in said bearing apertures, a picture screen secured at its upper and lower ends to said rods, and means for bowing said rods, comprising hand wheels threaded thereon, the hubs of which bear against the inner faces of said swivel blocks.

5. In a device of the character described, the combination with a support, of horizontally disposed parallel resilient rods hinged at one end to said support, a second support, brackets thereon, swivel blocks mounted in said brackets having horizontal bearing apertures, the free ends of said rods being threaded and passed loosely through said bearing apertures and extended beyond said blocks, hand wheels threaded to said rods, having elongated hubs which bear against the inner faces of said blocks, and a picture screen secured at its upper and lower ends to said rods, said rods, with the screen, being bowed by screwing the said hand wheels against the said swiveled blocks.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,449. TELEPHONE-BOOTH DOOR. EUGENE W. WALSH, New York, N. Y. Filed Sept. 12, 1913. Serial No. 789,460. (Cl. 20—20.)



1. A folding door comprising two main elements, the inner of which hingedly engages with a jamb at one edge and with the outer element at the opposite edge, a supplementary element disposed between the said main elements, an equalizing means combined with said door elements and means for rod controlling the movement of the outer element.

2. A folding door comprising two main elements relatively wide and narrow, the latter being hingedly engaged with a support in such manner as to swing away from it when operated, pivotal connections between said elements at their adjacent edges, a vertical bar loosely confined within the joint between the adjacent edges of said elements, preventing the intrusion of objects therebetween and means for maintaining said bar in operative position relative to the joint, irrespective of the position of said door elements.

3. A folding door comprising two main elements of unequal width, the narrower being hingedly engaged with a jamb, curved recesses formed in the adjacent corners of said elements, a bar having a semi-cylindrical cross section disposed in said recesses, said bar having a flat outer side, hinge connections between said elements, said hinged connections pivotally engaging said bar on the flat side thereof, and means combined with said elements and said bar whereby the flat side is held at an angle uniform with each of said main elements, irrespective of their position.

4. A folding door comprising relatively wide and narrow elements, said narrow elements having an outwardly beveled outer edge, a jamb suited to the bevel of said narrow element, hinges on the inner side thereof and connecting therebetween, said hinges having their pivotal point adjacent to said jamb and definitely spaced rearward from the edge thereof, a second jamb at the opposite side of the door, said second jamb being formed with a concave recess along its front edge, the wider element being suited thereto, a strip interior of said second jamb extending past the inner edge thereof, hinges between said door elements, and means combined therewith preventing the entrance of objects to the joint therebetween and from either side thereof.

5. A folding door comprising two main elements, the inner of which is hingedly engaged with a jamb at one edge and with the outer element at the opposite edge, an equalizing means combined with said elements and their joint therebetween, and a radius rod controlling the movement of the said outer element.

[Claim 6 not printed in the Gazette.]



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1,089,450. SEPARABLE BODY-BOLSTER. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed May 16, 1913. Serial No. 768,052. (Cl. 105—104.)



1. In car construction, the combination with center sills provided in their ends with slots, of a body bolster attached to said center sills, a portion of which body bolster occupies said slots, a center bearing plate detachably applied to the bolster beneath the center sills, and a pair of overlapping plates on said bolster and center bearing plate between the center sills, which overlapping plates are connected to form a strut.

2. In car construction, the combination with slotted center sills, of a body bolster having an opening through which parts of the center sills project, parts of which bolster occupy the slots in the center sills so that the latter project entirely through said bolster, a separable center bearing plate attached to the bolster and spanning the lower portion of the opening therein, a web plate integral with said center bearing plate, and a web plate integral with the upper portion of the bolster, which web plates are attached to each other to form a strut between the center bearing plate and the upper portion of the bolster.

3. The herein described body bolster having a single opening near its center adapted to receive parts of sills, which are slotted so that the end portions of the sills project entirely through said bolster, a separable center bearing plate applied to the bolster and spanning the opening therein, and a strut between said center bearing plate and the upper portion of the bolster.

4. The herein described body bolster having an opening near its center adapted to receive parts of sills having slotted end portions which engage with and project entirely through the opening in the bolster, a separable center bearing plate applied to the bolster and spanning the opening therein, and a strut between said center bearing plate and the upper portion of the bolster, which strut is formed by overlapping connected web plates which are integral with the center bearing plate and the bolster.

5. The herein described body bolster provided with an opening adapted to receive parts of sills having slotted end portions which engage with and project entirely through the opening in the bolster, a web plate depending from the upper portion of said bolster within the opening, a separable center bearing plate applied to the bolster beneath the opening therein, and a web plate integral with said center bearing plate, which last mentioned web plate extends upwardly into the opening in the bolster and is fixed to the depending web plate on the bolster to form a strut.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,451. LATCH FOR ELEVATOR-DOORS. BENJAMIN WEXLER, Brooklyn, N. Y., assignor to The Peelle Company, New York, N. Y., a Corporation of New York. Filed Aug. 7, 1912. Serial No. 713,724. (Cl. 187—59.)



1. The combination with a self-closing elevator-door, of an elevator-car, a latch-lever yieldingly supported adjacent said door and normally held from engagement with said car, a latch-head yieldingly supported on and normally projecting from said latch-lever, means on the door adapted to engage the latch-head and actuate the latch-lever, and means on the car for arresting the movement of the latch-lever when the car is at that floor of the building to hold the door in open position and for releasing said lever when the car leaves the floor in either direction.

2. The combination with a self-closing elevator-door having a carrier-bar secured thereto, of an elevator-car, a latch-lever yieldingly supported adjacent said door and normally held from engagement with said car, a latch-head yieldingly supported on and normally projecting from said latch-lever and adapted to be engaged by the carrier-bar, a spring-recoiler adjacent said latch-head and adapted to be engaged by said carrier-bar, and a cam fixed on said car and adapted to arrest the movement of the latch-lever when the car is at rest at that floor of the building.

3. The combination with a self-closing elevator-door, of an elevator-car, a latch-lever yieldingly supported adjacent said door and normally held from engagement with said car, a latch-head yieldingly supported on and normally projecting from said latch-lever, means on the door adapted to engage the latch-head and actuate the latch-lever, means on the car for arresting the movement of the latch lever when the car is at rest at that floor of the building, and latch-releasing means including a fusible-link connection adapted to actuate said latch-head independently of the latch-lever.

4. The combination with a self-closing elevator-door having a carrier-bar secured thereto, of an elevator-car, a latch-lever yieldingly supported adjacent said door and normally held from engagement with said car, a latch-head yieldingly supported on and normally projecting from said latch-lever and adapted to be engaged by the carrier-bar, a spring-recoiler adjacent said latch-head and adapted to be engaged by said carrier-bar, a cam fixed on said car and adapted to arrest the movement of the latch-lever when the car is at rest at that floor of the building, and latch-releasing means including a fusible-link connection adapted to actuate said latch-head independently of the latch-lever.

5. The combination with a self-closing elevator-door, of an elevator-car, a latch-frame supported adjacent said door, a latch-lever yieldingly supported on said latch-lever and movable therewith, a spring-recoiler supported on said frame, means on the door adapted to engage said latch-head and spring-recoiler, and means on the car adapted to arrest the movement of the latch-lever.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,452. SPOOL. ANDREW WOLD, Spokane, Wash. Filed Feb. 17, 1913. Serial No. 748,770. (Cl. 242—118.)

In combination, a spool having a flanged head provided on its outer end or face with a flat recess disposed radially inwardly of the peripheral edge of the flange and with the bottom of the recess parallel with the outer or

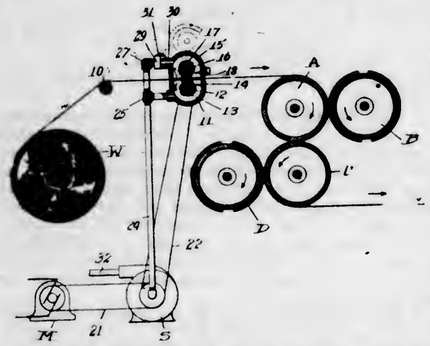
end face of the spool head, and a flat cutter plate closely fitting the margins of said recess and of a thickness to lie substantially flush with the outer face of the spool head, said plate having a rounded cutting beveled edge



with the sharp portion of the beveled edge disposed at the bottom of the recess, and said head having a thread slot extending from the peripheral edge of the head flange to said rounded cutting edge of the plate, substantially as described.

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1,089,453. WEB-TREATING DEVICE FOR PRINTING-PRESSES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 26, 1903, Serial No. 149,699. Renewed June 27, 1913. Serial No. 776,170. (Cl. 101—111.)



1. The combination of a web perfecting printing machine, two casings arranged between the web-supply and printing machine between which the web of paper is led, a rotary brush journaled in each casing, a rib bearing on each brush, and a suction device connected to the casings.

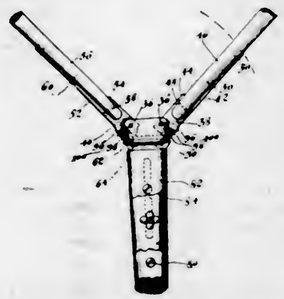
2. The combination of a web perfecting printing machine, and devices for cleaning each side of the web of paper between the web supply and printing machine, one of said devices being arranged so that it can be moved out of normal position to allow the web of paper to be threaded.

3. The combination of a web perfecting printing machine, a lower casing and upper hinged casing, a rotary brush mounted in each casing, and means for driving the brushes, the parts being arranged so that the upper casing can be turned on its hinges for the threading of the web of paper.

4. The combination of a web perfecting printing machine, two casings arranged between the web supply and printing machine, a rotary brush journaled in each casing, a plurality of outlets connected to each casing, and an exhaust fan connected to said outlets.

5. The combination of a web perfecting printing machine, two casings arranged between the web supply and printing machine, a rotary brush mounted in each casing, a plurality of outlets extending from each casing, an exhaust fan connected to said outlets, and means for driving said exhaust fan and brushes.

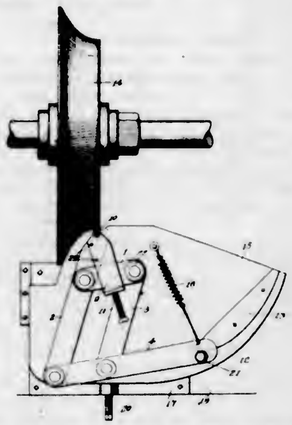
1,089,454. VEHICLE TOP-BOW HINGE. CLARENCE L. BAIR, Chicago, Ill., assignor to Auto Specialties Manufacturing Company, San Francisco, Cal., a Corporation of California. Filed Nov. 20, 1911. Serial No. 661,221. (Cl. 21—62.)



In a device of the class described, a hinge base, a pair of bow carrier members pivoted to the base at points adjacent to each other and adapted to swing on said pivots through appreciable angles, means preventing the carrier members swinging nearer than a predetermined distance toward each other, and means for independently adjusting the arc of swing of each carrier member.

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1,089,455. TRUING DEVICE FOR GRINDING-MACHINES. CHARLES W. BEAM, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Oct. 9, 1911. Serial No. 653,664. (Cl. 125—6.)



1. In a truing device for a grinding machine, the combination with a grindstone, of a truing templet, and a double toggle lever, two arms of said lever being movable in coördination and in ranges of predetermined ratio, one of said arms being provided with a stone-dressing tool, and the movement of the other arm being controlled by said templet.

2. In a truing device for a grinding machine, the combination with a grindstone, of a templet, and a double toggle lever, one arm of said lever movable in a path determined by the contour of said templet and another arm of said lever armed with a stone-dressing instrument and movable across the face of said grindstone in response to movement of said first named lever arm in its said predetermined path, substantially as described.

3. In a truing device for a grinding machine, the combination with a grindstone, of a templet, means for adjusting the position of said templet with respect to the axis of said grindstone, and a double toggle lever, one arm of said lever movable in a path determined by the contour of said templet and another arm of said lever armed with a stone-dressing tool and movable across the face of said grindstone in response to movement of said first-named lever arm in its predetermined path, substantially as described.

4. In a truing device for a grinding machine, the combination with a grindstone, of a templet, and a double toggle lever, one arm of said lever movable in a path determined by the contour of said templet and another arm of said lever armed with a longitudinally adjustable stone-dressing tool, substantially as described.

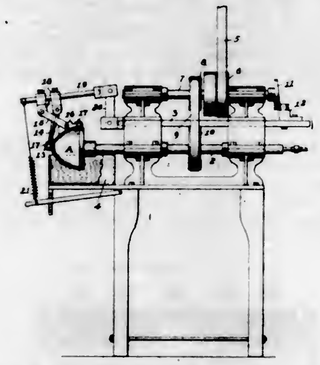
5. In a truing device for a grinding machine, the combination with a grindstone, of a templet, and a double toggle lever, one arm of said lever movable in a path determined by the contour of said templet and another arm of said lever armed with an extensible stone-dressing tool, the direction of extension being approximately perpendicular to the adjacent face of said grindstone, substantially as described.

[Claim 6 not printed in the Gazette.]



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1,089,456. POLISHING-MACHINE. CHARLES W. BEAM, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed July 17, 1913. Serial No. 779,438. (Cl. 51—3.)



1. In a machine for polishing curved surfaces of glass blanks, the combination of a rotatable member holding a blank in polishing position, means for engaging a flexible polishing pad at opposite sides thereof and for holding it yieldingly and under tension upon the surface of said blank, and means for causing a reciprocatory movement of said blank and pad with relation to each other.

2. In a machine for polishing curved surfaces of glass blanks, the combination of a rotatable member holding a blank in polishing position, means for engaging a flexible polishing pad at opposite sides thereof and for holding it yieldingly and under tension upon the surface of said blank, means for applying a yielding pressure upon said pad intermediate the engaged points thereof, and means for causing a reciprocatory movement of said blank and pad with relation to each other.

3. In a machine for polishing curved surfaces of glass blanks, the combination of a rotatable member holding a blank in polishing position, a polishing block comprising a pair of pivoted arms and a flexible polishing pad secured at opposte points to the otherwise free ends of said arms, said arms holding said pad yieldingly and under tension upon the surface of said blank, and means for causing a reciprocatory movement of said blank and pad with relation to each other.

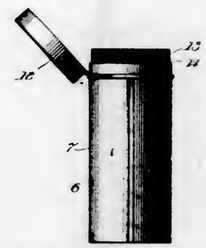
4. In a machine for polishing irregular curved surfaces of glass blanks, the combination of a rotatable member holding a blank in polishing position, a pair of pivoted arms arranged adjacent to said blank, a pressure block pivoted to the free end of one of said arms, a flexible polishing pad secured at opposite points to said pressure block and to the other of said arms, said arms holding said pad yieldingly and under tension upon the surface of said blank, and said block applying pressure to said pad intermediate the engaged points thereof, and means for causing a reciprocatory movement of said blank and pad with relation to each other.

5. In a machine for polishing curved surfaces, the combination of a rotatable member holding a blank in polishing position, means for engaging a flexible polishing pad at opposite sides thereof, and for holding it yieldingly and under tension upon the surface of said blank, and means for rotating said blank-holding member.

[Claim 6 not printed in the Gazette.]

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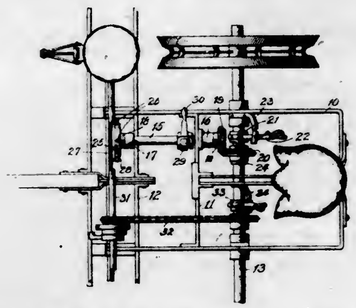
1,089,457. TOBACCO-PACKAGE. EDWARD C. BERRIMAN, Chicago, Ill. Filed Feb. 8, 1909. Serial No. 476,606. (Cl. 131—11.)



A mixture of smoking tobacco comprising a plurality of standard grades of tobacco of different length, strength and cut intermingled to form a determined blend and compressed together in the form of a solid stick from which desired amounts containing a predetermined ratio of the various grades may be cut or broken off for use.

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1,089,458. CORN-PLANTER. JOHN H. BOEHME, Hornick, and GEORGE E. HOLDEN, Castana, Iowa. Filed July 15, 1912. Serial No. 709,574. (Cl. 111—6.)



1. In a device of the class described, a corn planter having an axle and furrow openers, a frame mounted on said axle and furrow openers, a transverse oscillating shaft mounted on said frame and adapted to be connected at either end with a suitable drop mechanism, a lug on said transverse shaft, a longitudinal shaft rotatably mounted on said frame and provided with a wheel or disk at one end having lugs spaced apart on its periphery, said lugs being designed to operatively engage the lug on said transverse shaft for partially oscillating said shaft, and means for rotating said longitudinal shaft.

2. In a device of the class described, the combination of a planter comprising an axle and furrow openers hav-

ing a frame mounted thereon, a transverse shaft mounted on said frame and adapted to be connected at either end with suitable drop mechanism in said furrow openers, a lug on said transverse shaft, a longitudinal shaft rotatably mounted on said frame and provided with a wheel or disk having a series of lugs spaced apart on its periphery designed to operatively engage the lug of said transverse shaft, a pinion securely mounted on the opposite end of said shaft, a gear wheel mounted on said axle and adapted to mesh with said pinion, means for throwing said pinion into, and out of operative connection with the gear wheel on said axle, and a ratchet lever for rotating said longitudinal shaft when out of operative connection with said axle, substantially as, and for the purpose described.

1,089,459. POST OR POLE. JACK M. BOOTH, American Falls, Idaho. Filed Apr. 3, 1913. Serial No. 758,573. (Cl. 189—29.)



1. A post blank composed of an elongated plate of metal bent longitudinally upon itself to form two wings at an angle to each other, the said plate having its wings provided at their lower ends with lateral extensions and having the upper ends of said extensions separated at their inner edges from the body of the post to form projecting tongues, said tongues being tapered to form outer pointed ends and being bent downwardly so as to enter the surface of the ground, the said wings being also slitted below said tongues to form tongues free at their upper ends, the lateral extensions being adapted to be bent out of the plane of the wings from which they project, substantially as set forth.

2. A post comprising an elongated plate bent to form angular portions, the said angular portions being tapered and sharpened at their lower ends and being provided adjacent said lower ends with laterally projecting wings bent to extend in substantially the same plane and provided at their upper ends with downwardly bent prongs adapted to form lateral supports for the post as used.

3. A post of the character described, comprising an elongated plate bent along a longitudinal line to provide angular portions, the lower ends of said angular portions being provided with laterally extending wings bent to lie in substantially the same plane and provided at their upper ends with downwardly bent prongs, the said post being provided with a lower tapering sharpened end, and the said angular portions being slitted adjacent the lower end of the post in order to provide upwardly and outwardly flaring tongues adapted to resist upward movement of the posts in use, and to coöperate with the said wings and prongs to form lateral supports for the post, substantially as described.

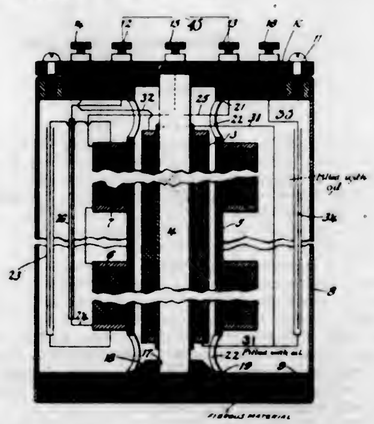
1,089,460. HOLDER FOR MOPS. MARSHALL F. CLAY and GORHAM F. BASSET, Cleveland, Ohio. Filed Apr. 24, 1913. Serial No. 763,266. (Cl. 15—56.)

1. A holder for mops comprising a securing member having parallel spring arms with right angled extremities and a cross portion at its top provided with a U bend in its middle at right angles to said sides, a handle and a mop support thereon having said spring arms operatively engaged therewith, and a fastener for said member consisting of a single piece of wire having its ends engaged in said handle beneath the said cross portion of said securing member and having a middle spring portion clamped on said handle.



2. A holder for mops having a handle and a mop support thereon, in combination with a mop securing member having spring side arms adapted to engage said support and provided with a cross portion at its top having a bend corresponding to the said handle, and a fastener for said member pivoted in the said handle relatively beneath said cross portion and provided with curved sides adapted to lift said member upward and with a U-shaped bend adapted to lock on the handle.

1,089,461. JUMP-SPARK IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. MARK B. CRIST, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 15, 1906. Serial No. 301,227. (Cl. 171—122.)



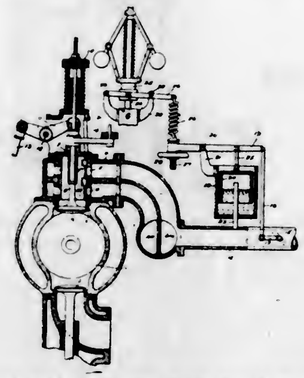
1. In a transformer the combination of a primary coil, a casing, a secondary coil surrounding said casing to permit a circulating space, an outer shell a cooling and insulating liquid in the outer shell surrounding said coils, and ports located in said casing whereby a circulation of liquid may be had through the space between the primary coil and said casing by convection currents when the coils are energized.

2. In a transformer the combination of a primary coil, a metallic core therefor, a casing spaced away from the primary coil but surrounding it, a secondary coil on the casing, a shell surrounding said coils, said casing having ports at its ends whereby a circulation of cooling and insulating liquid may be had within said shell and between said coils due to convection currents when the coils are energized.

3. In a transformer the combination of a primary coil, a vertically extending tubular casing surrounding said coil and spaced from it, a secondary coil mounted on said casing, said casing having ports at its respective ends, a shell inclosing both of said coils and containing a cooling and insulating liquid adapted to circulate through the ports and between the tubular casing and the first mentioned coil.



1,089,462. EXPLOSION-MOTOR. MARK B. CRIST, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 20, 1910. Serial No. 556,462. (Cl. 123—106.)



1. In a gas engine, the combination with a mixture governing valve, air and gas conduits leading to said valve, a valve in one of said conduits and independent of the first named valve, a pressure regulator connected to the last named valve, and a speed-responsive device connected to the pressure regulator.

2. In a gas engine, a mixture governing air and gas conduits leading to said valve, pressure regulated means for varying the pressure in one of said conduits, and a speed responsive device for controlling the pressure regulated means.

3. In an internal combustion engine, a valve, conduits leading to said valve, a pressure regulator in communication with one of said conduits, and a speed responsive device for controlling the pressure regulator, a valve in one of said conduits, and means connecting the last named valve to said pressure regulator and to the speed responsive device.

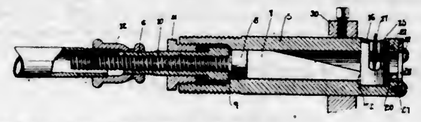
4. In an internal combustion engine, a mixture governing valve, air and gas conduits in communication with said valve, a valve in one of said conduits, a pressure regulator in communication with one of said conduits, a speed responsive device for controlling the pressure in said pressure regulator, and means for connecting said pressure regulator to the last named valve.

5. In a gas engine, a mixture governing valve, air and gas conduits leading to said valve, a speed responsive device, and means responsive to variations in position of a movable part of said speed responsive device for varying the pressure in one of said conduits.

[Claim 6 not printed in the Gazette.]

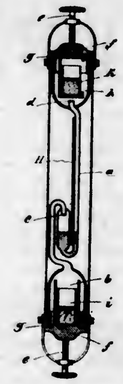
1,089,463. FLUE-CUTTER. FRED DIX, Hardtner, Kans. Filed Nov. 4, 1910. Serial No. 590,707. (Cl. 81—195.)

In a flue cutter, a tubular body having a lateral aperture, said body having its interior diameter enlarged and threaded at one end, a cutter carrier mounted in said aperture, a wedge slidable in said body and engaging the carrier to effect movement thereof, a headed screw slidable and rotatable in the body, a sleeve screwed into the threaded portion of the body, a second sleeve rotatable in



the first sleeve and having a threaded bore receiving said screw, said second sleeve further having an enlarged end adapted to fit loosely between the bottom of the threaded portion of the body and the inner end of the first sleeve, and means to rotate the body and operate the second sleeve.

1,089,464. SACCHAROMETER. AUGUST EPPENS, Berlin, Germany. Filed Dec. 31, 1912. Serial No. 739,542. (Cl. 23—30.)



1. In a saccharometer the combination of a mercury manometer, a fermentation chamber connected thereto at one end, means impermeable to liquid but permeable to gases interposed between the said manometer and the fermentation chamber at that end and a fermentation chamber connected to the said manometer at its other end, substantially as set forth.

2. In a saccharometer the combination of a mercury manometer, a fermentation chamber connected thereto at one end, means impermeable to liquid but permeable to gases interposed between the said manometer, a fermentation chamber connected to the said manometer at its other end and means interposed at this end between the manometer and the said second fermentation chamber so as to form a seal impermeable to liquids but permeable to gases, all substantially as set forth.

3. In a saccharometer the combination of a mercury manometer, a chamber for fermenting liquid, a seal impermeable to said liquid and mercury, but permeable to gases arising from said fermenting liquid interposed between the said manometer and the said fermentation chamber and means for closing the fermentation chamber against the atmosphere and for enabling the pressure in the fermentation chamber to be varied, substantially as and for the purpose set forth.

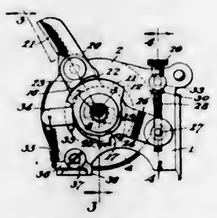
4. In a saccharometer the combination of a mercury manometer, a fermentation chamber connected to each end of the said manometer, means impermeable to liquid but permeable to gases interposed at each end between the said manometer and the corresponding fermentation chamber and means for closing each fermentation chamber against the atmosphere and for varying the pressure therein, all substantially as and for the purpose set forth.

5. In a saccharometer the combination of a mercury manometer, a fermentation chamber connected thereto, means impermeable to liquid but permeable to gases interposed between the said manometer and the said fermentation chamber, an elastic washer and a plate for closing the said fermentation chamber against the atmosphere and an adjusting screw acting on the said plate and enabling the pressure in the fermentation chamber to be varied and the level of the measuring liquid to be adjusted at will, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,089,465. LINE-SPACING MECHANISM. HARRY A. FOOTHORAP, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed May 24, 1911. Serial No. 629,138. (Cl. 197—114.)



1. The combination with a platen and its spindle, of an oscillatory line spacing device and a coacting stop member, both mounted on the spindle, and an adjusting screw mounted to swing laterally from a relatively fixed part and operative to swing the stop member about the axis of the spindle to different positions of adjustment.

2. The combination with a platen and its spindle, of an oscillatory line epacing device and a coacting stop member, both mounted on the platen spindle to swing about the same as an axis, a relatively fixed part, an adjusting screw having a swiveled mounting on said fixed part to permit said screw to swing about a transverse axis, and a swiveled nut carried by the stop member and engaged by the screw.

3. The combination with a platen and its spindle, said spindle being reduced to form a shoulder, of a line space wheel secured to the end of the spindle, a line space rocker and a coacting stop member, both mounted on the spindle between said shoulder and the line space wheel, and a line space lever mounted on the rocker to engage the line space wheel.

4. The combination with a platen and its spindle, said spindle being reduced to form a shoulder, of a line space wheel secured to the end of the spindle, a line space rocker and a coacting stop member, both mounted on the spindle between said shoulder and the line space wheel, a line space lever mounted on the rocker to engage the line space wheel, and an adjusting screw operative to swing the stop member about the spindle to different positions of adjustment.

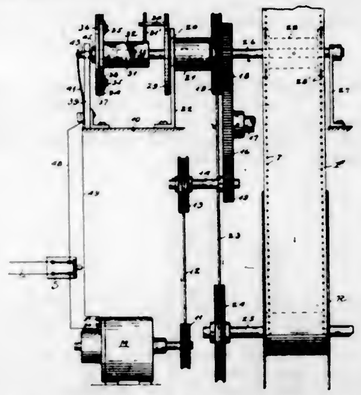
5. The combination with a platen and its spindle, the latter being formed with a shoulder, of a line space wheel, a screw retaining said line space wheel on the end of the spindle, a line space rocker and a coacting stop member, both loosely mounted on the spindle between said shoulder and the line space wheel, and a line space lever carried by the rocker and arranged to engage the line space wheel.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,466. MOVING-PICTURE MACHINE. FRANK H. FRUDE, Chicago, Ill., assignor of one-third to Samuel I. Levin, Chicago, Ill. Filed Aug. 4, 1913. Serial No. 782,815. (Cl. 88—17.)

1. In a moving picture machine the combination of a supporting frame, a driving motor and current circuit therefor, controlling mechanism for said circuit, a takeup reel for receiving a film, a rotatable member, said motor having driving connection with said reel and rotatable member, a second rotatable member and a sprocket member thereon for engaging the film whereby said second rotatable member is rotated upon travel of the film to the reel, and means controlled upon rotation of said second rotatable member faster than the first mentioned rotatable member ao adjust said circuit controlling mechanism to close the motor current circuit.



2. In a moving picture machine the combination of a supporting frame, a driving motor and current circuit therefor, controlling mechanism for said circuit, a takeup reel for receiving a film, a rotatable member, said motor having driving connection with said reel and rotatable member, a second rotatable member and a sprocket member thereon for engaging the film whereby said second rotatable member is rotated upon travel of the film to the reel, and means controlled upon rotation of said second rotatable member slower than said first mentioned rotatable member to adjust said circuit controlling mechanism to open the motor current circuit.

3. In a moving picture machine, the combination of a supporting frame, a driving motor and current circuit therefor, controlling mechanism for said circuit, a takeup reel for receiving a film, a rotatable member, said motor having driving connection with said rotatable member and reel, a second rotatable member and a sprocket member thereon for engaging the film whereby said second rotatable member is rotated upon travel of the film to the reel, and cam mechanism controlled upon relative rotation of said rotatable member to adjust said circuit controlling mechanism.

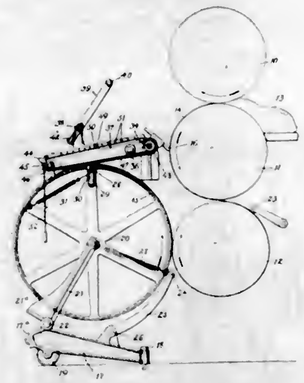
4. In a moving picture machine, the combination of a supporting frame, a driving motor, a takeup reel for receiving a film, a rotatable member, said driving motor having driving connection with said take up reel and rotatable member, a second rotatable member concentric with said first mentioned rotatable member and carrying a sprocket member for engaging the film whereby said second rotatable member is rotated upon travel of the film, a hub on said second rotatable member, cam mechanism controlled by the relative rotation of said rotatable member to shift said hub, a circuit for said motor, and switch mechanism for said circuit controlled upon shifting of said hub.

5. In a moving picture machine, the combination of a supporting frame, a driving motor and a current supply circuit therefor, a takeup reel for receiving a film, a rotatable sleeve member, said motor having driving connection with said sleeve member and reel, a shaft concentric with said sleeve member, and a sprocket member thereon for engaging said film whereby said shaft is rotated upon travel of the film to the reel, a hub rotatable and slidable on said shaft and having a cam slot, a pin on said shaft engaging in said cam slot, an arm extending from said hub and another arm extending from said sleeve member, said arms engaging upon relative rotation of said sleeve member and shaft to effect shift of said hub along said shaft, and switch mechanism for said motor circuit adjusted upon shifting of said hub.



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1,089,467. SLAB-FORMING ATTACHMENT FOR CALENDERS. JOHN R. GAMMETER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed Aug. 8, 1913. Serial No. 783,736. (Cl. 164—38.)



1. In a machine for forming laminated slaps, the combination of means for supporting and feeding a sheet of material, devices for cutting a strip from said sheet, a drum for receiving the strip, and means for automatically displacing one or more of said cutting devices laterally at a predetermined point in the rotation of said drum.

2. In a machine for forming laminated slabs, the combination of means for supporting and feeding a sheet of material, a pair of knives for cutting a strip from said sheet, a drum for receiving the strip, and means controlled by the rotation of said drum for automatically displacing said knives in a direction parallel to the axis of the drum.

3. In a machine for forming laminated slabs, the combination of means for supporting and feeding a sheet of material, a pair of knives for cutting a strip from said sheet, a drum for receiving the strip, and means controlled by the rotation of said drum for relatively displacing said knives laterally at the end of successive rotations of the drum for varying the width of successive plies of the slab.

4. In a machine for forming laminated slabs, the combination of means for supporting and feeding a sheet of material, a pair of knives for cutting a strip from said sheet, a drum for receiving said strip, screw mechanism for displacing said knives laterally toward and from each other, and tripping means controlled by the rotation of the drum and controlling said screw mechanism.

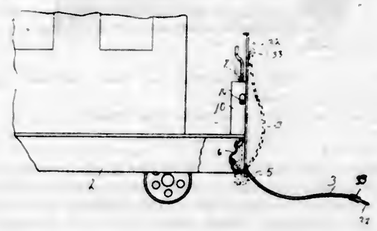
5. In a machine for forming laminated slabs, the combination of means for supporting and feeding a sheet of material, a knife for slitting said sheet, a strip-receiving drum, means controlled by the rotation of the drum for automatically displacing said knife laterally, and means for manually resetting the knife.

[Claims 6 to 15 not printed in the Gazette.]

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1,089,468. FENDER. GUSTAVE L. HINDERER, Philadelphia, Pa. Filed May 17, 1912. Serial No. 697,859. (Cl. 105—252.)

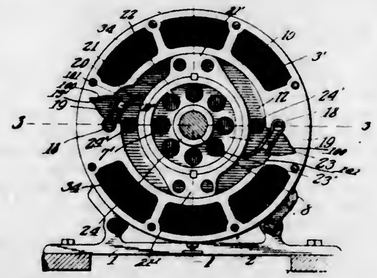
1. In combination with a car, a fender hinged thereto, said fender carrying a flexible strip along its front edge, a rearwardly projecting L shaped arm carried by the fender, a casing mounted upon the car, an operating rod passing through said casing and the floor of the car, means for connecting said operating rod with the L shaped arm, a toothed member mounted upon the operating rod within the casing, a pawl normally held in engagement with the teeth of said member to hold the fender in any desired position and means for disengaging the pawl from the toothed member.



2. In combination with a car, a fender hinged thereto, an L shaped arm carried by said fender, a casing mounted upon the platform of the car, an operating rod passing through said casing and the floor of the car, a connecting link attached to said operating rod and to the L shaped arm, a toothed member mounted upon the operating rod and lying within the casing, a pawl normally engaging the teeth of the toothed member for holding the fender in any desired elevated position, and an operating finger carried by the pawl and passing through the casing, whereby the pawl may be disengaged from the toothed member to permit the fender to drop.

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1,089,469. ROTARY ENGINE. LAFAYETTE HOLT, Burlington, N. C. Filed May 28, 1912. Serial No. 700,339. (Cl. 121—83.)



A rotary engine, including a stator having a rotor chamber, the peripheral wall of which is provided with a valve receiving pocket, a rotor having a piston mounted in the rotor chamber, said piston also being a valve actuator, and a swingingly mounted valve disposed in the pocket for admitting pressure fluid, said valve including two legs, one of which is resilient and curved to extend into the rotor chamber to engage the periphery of the rotor and the other of which slides within the pocket of the stator, both of the legs seating in the pocket beyond the periphery of the rotor chamber when the piston of the rotor passes such point.

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1,089,470. MEAT PRODUCT AND PROCESS FOR PRODUCING THE SAME. ADDA A. HOE, St. Louis, Mo. Filed Feb. 26, 1912. Serial No. 680,053. (Cl. 99—11.)

1. A food product comprising undried comminuted meat.

2. A food product comprising fresh uncooked comminuted meat.

3. A food product comprising uncompacted comminuted meat.

4. A food product consisting of meat comminuted in a frozen state.

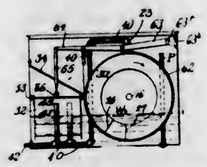


5. A food product consisting of meat sawdust produced by sawing meat.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,471. CARBURETER. HOWARD H. HUNT and WILLIAM S. PELOUBET, Los Angeles, Cal., assignors to Hunt Gas Machine Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Feb. 14, 1913. Serial No. 748,424. (Cl. 48—158.)



1. In a carbureter, an oscillating shell, open at its lower end, a plurality of separated, vertical, transverse webs therein of absorbent material, a partition at one end of said train of webs and separated therefrom, the lower ends of said webs and partition being submerged in a volatile oil, means for supplying air under pressure to the compartments formed by the partition, and for forcing the air under the partition through said absorbent webs, and means connected with the oscillating shell for controlling the air supply to the shell.

2. In a carbureter, a case, an air compressing cylinder mounted within said case longitudinally at one side of the central line, a shaft on which said cylinder is mounted, means connected with its shaft to revolve said cylinder, a carbureting shell within the case alongside the cylinder, said shell having therein webs of absorbent material, means to force air through said webs from one end of the shell to the other, said cylinder and shell being partially submerged in water, and means for supplying a film of volatile oil to the water within the shell.

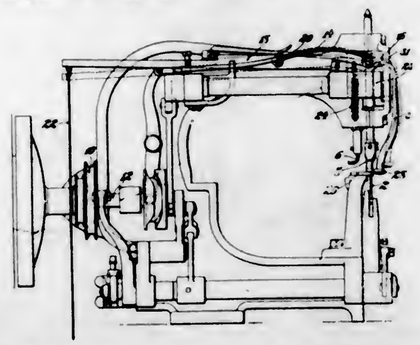
3. In a carbureter, a case, an air compressing cylinder mounted within said case at one side thereof, a shaft on which said cylinder is mounted to rotatably support the same, means to automatically rotate said cylinder, a carbureting shell within said case to coöperate with said cylinder, said shell having therein webs of absorbent material, the rotation of said cylinder causing air to be forced through said webs from one end of the shell to the other, and liquid confined in said casing and partially submerging said cylinder and shell, the liquid within the carbureting shell containing a combustible volatile element.

4. In a carbureter, a casing, means to maintain within said casing a body of liquid, an air pump comprising a rotary cylinder partially submerged in said liquid, a motor tending to rotate said cylinder, a carbureter proper comprising a floating shell and carbureting screens within said shell, means to conduct the air supplied by said pump to and through said screens and thence to a place of use, a brake applied to said cylinder to intermittently check the rotation thereof, and means controlled by the rise and fall of the floating carbureting shell to apply and release said brake, the liquid within said carbureting shell containing a volatile combustible element.

5. In a carbureter, a casing, means to maintain within said casing a body of liquid, an air pump comprising a rotary cylinder partially submerged in said liquid, a motor tending to rotate said cylinder, a carbureter proper comprising a floating shell and carbureting screens within said shell, means to conduct the air supplied by said pump to and through said screens and thence to a place of use, a brake band extending around the cylinder of said pump to intermittently check the rotation thereof, and a lever operated by the rise and fall of the floating shell of the carbureter proper to apply and release said brake band, the liquid within said shell containing a volatile combustible element.

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1,089,472. MACHINE FOR MAKING INSOLES. ALBERT E. JOHNSON, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 25, 1909. Serial No. 473,993. (Cl. 112—28.)



1. A machine for securing together the two contiguous upturned flaps of a channeled insole, having, in combination, sole feeding means, a sole support continuously in engagement with one of the flaps and acting to support the insole during the feed, provision for applying to the flaps a series of fastening devices to secure them together and form a single lip, and a device at the front of and extending above the flap engaging surface of the sole support constructed and arranged to bear on the unchanneled face of the insole opposite the flaps and hold the flaps in fastener receiving position on the sole support, substantially as described.

2. A machine for securing together the two contiguous upturned flaps on a channeled insole, having, in combination, sole feeding means, a sole support continuously in engagement with one of the flaps and acting to support the insole during the feed, provision for applying to the flaps a series of fastening devices to secure them together and form a single lip, a sole positioning device at the front of and extending above the flap engaging surface of the sole support for engaging the unchanneled face of the insole opposite said flaps, and provision for retracting said device from working position to permit insertion and removal of the sole, substantially as described.

3. A machine for securing together the two contiguous upturned flaps of a channeled insole, having, in combination, sole feeding means, a sole support continuously in engagement with one of the flaps and acting to support the insole during the feed, provision for applying to the flaps a series of fastening devices to secure them together and form a single lip, and a yieldingly mounted device in front of and extending above the flap engaging surface of the sole support constructed and arranged to engage the unchanneled face of the insole opposite said flaps and maintain the flaps in fastener receiving position on the sole support, substantially as described.

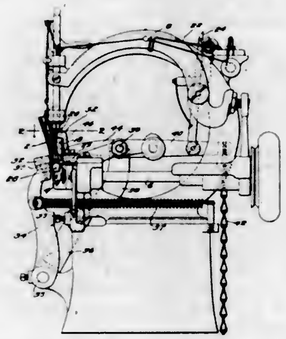
4. A machine for securing together the two contiguous upturned flaps of a channeled insole, having, in combination, sole feeding means, a support for the flaps, provision for securing said flaps together by a line of stitches to form a single, compound lip, and an anti-friction bearing roll at the front of and extending above the flap engaging surface of the sole support for engaging the unchanneled face of the insole, opposite said flaps, with its curved surface to hold the flaps in stitch receiving position on the sole support, substantially as described.

5. A sewing machine for securing together the two contiguous upturned flaps of a channeled insole, having, in combination, sole feeding means, a sole support engaging one flap and acting to support the insole during the feed, a presser foot to engage the other flap, and a device at the front of and extending above the flap engaging surface of the sole support constructed and arranged to bear on the unchanneled face of the insole opposite the flaps and hold it with its upturned flaps between the sole support and presser foot in position to receive the stitches, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,473. INSOLE-LIP-SEWING MACHINE. ALBERT E. JOHNSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 14, 1910. Serial No. 538,087. (Cl. 112—28.)



1. A sewing machine for securing together the two contiguous flaps of an insole having a channel and a feather, having, in combination, stitch forming mechanism, a work table adapted to engage the outer flap and having its outer edge extending into the angle between the outer flaps and the feather, a presser-foot adapted to engage the channel flap, a work guide to bear on the unchanneled face of the insole and hold the flaps in stitch receiving position on the work table, and a support for the guide rising from the machine frame below the work table.

2. A sewing machine for securing together the two contiguous flaps of an insole having a channel and a feather, having, in combination, stitch forming mechanism, a work table adapted to engage the outer flap and having its outer edge extending into the angle between the outer flap and the feather, a presser-foot adapted to engage the channel flap, a work guide obliquely arranged with respect to the surface of the work table to bear on the unchanneled face of the insole and hold the flaps in stitch receiving position on the work table, and a support for the guide rising from the machine frame below the work table.

3. A sewing machine for securing together the two contiguous flaps of an insole having a channel and a feather, having, in combination, stitch forming mechanism, a work table adapted to engage the outer flap and having its outer edge extending into the angle between the outer flap and the feather, a presser-foot adapted to engage the channel flap, a work guide to bear on the unchanneled face of the insole and hold the flaps in stitch receiving position on the work table, a movable support for the work guide arranged below the work table, a spring to hold the guide in working position, and means under control of the operative to move the guide out of working position.



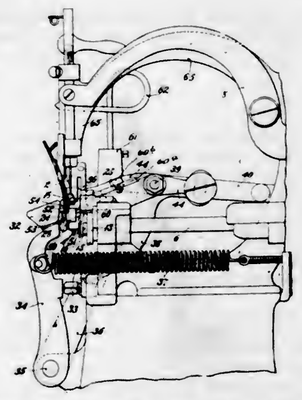
4. A sewing machine for securing together the two contiguous flaps of an insole having a channel and a feather, having, in combination, stitch forming mechanism, a work table adapted to engage the outer flap and having its outer edge extending into the angle between the outer flap and the feather, a presser-foot adapted to engage the channel flap, a work guide to bear on the unchanneled face of the insole and hold the flaps in stitch receiving position on the work table, a movable support for the work guide fulcrumed at a point below the work table, a spring to hold the guide in working position, and means under control of the operative to simultaneously lift the presser-foot and remove the guide from working position.

5. A sewing machine for securing together the two contiguous flaps of an insole, having, in combination, stitch forming mechanism, a work table, a feed foot operating in front of the outer edge of the work table, and a work gage arranged in a plane outside of the plane of operation of the feed foot to maintain the marginal portion of the insole out of the path of movement of the feed foot.

[Claims 6 to 14 not printed in the Gazette.]

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1,089,474. INSOLE-LIP-SEWING MACHINE. ALBERT E. JOHNSON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 1, 1911. Serial No. 624,321. (Cl. 112—28.)



1. A sewing machine for securing together the two contiguous flaps of an insole having a channel and feather, having, in combination, stitch forming mechanism including a needle, a work table for supporting the insole with its lip projected across the path of movement, and with its feather extending along the path of movement of the needle, and a reciprocatory sole feeding device comprising jaws lying one on each side of the feather to positively grip the two sides of the feather of the sole and means to close and open the jaws during the feeding and return movements respectively.

2. A sewing machine for securing together the two contiguous flaps of an insole having a channel and feather, having, in combination, stitch forming mechanism, a work table adapted to engage the edge flap and support the sole with its feather depending in front thereof, a work guide to exert pressure on the unchanneled face of the sole and hold the sole in stitch receiving position, and a sole feeding device between the table and work guide comprising a pair of jaws having their faces in position for gripping the depending feather of the sole.

3. A sewing machine for securing together the two contiguous flaps of an insole having a channel and feather, having, in combination, stitch forming mechanism, a work table adapted to engage the edge flap, a four-motion feed bar having a pair of jaws at one end in front of the work table, means for normally maintaining said jaws

open, and a work guide to exert pressure on the unchanneled face of the sole constructed and arranged to close the jaws and cause them to grip the feather of the sole during the feeding stroke of the feed bar.

4. A sewing machine for securing together the two contiguous flaps of an insole having a channel and feather, having, in combination, stitch forming mechanism, a work-table adapted to engage the edge flap, a four-motion feed bar having a rigid jaw at one end and moving with the the bar in front of the work table, a second jaw pivoted in front of the rigid jaw and normally spring pressed outwardly therefrom, and cam means to close the jaws upon the feather and carry the sole forward during the feeding stroke.

5. A sewing machine for securing together the two contiguous flaps of an insole having a channel and feather, having, in combination, stitch forming mechanism, a work table adapted to engage the edge flap, a work guide to exert pressure on the unchanneled face of the sole and hold the sole in stitch receiving position comprising a conical roll arranged base up, and a four-motion sole feeding device between the table and guide comprising a pair of jaws yieldingly held open, whereby the conical roll acts as a cam to close the jaws as they move up prior to the feeding stroke and permits them to open as they move down after the feeding stroke has been completed.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,475. COMBINED MOP HOLDER AND WRINGER. HANS OSCAR JOHNSON and JAMES H. NICHOLSON, Sacramento, Cal. Filed Feb. 24, 1913. Serial No. 750,166. (Cl. 15—43.)

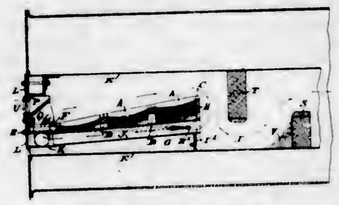


1. A device of the character described comprising a tubular handle member, a pair of presser plates hinged together on the lower end of said handle member, a rod movable through said tubular member and having a handle member projecting through the side of said tubular member, said rod projecting between said presser plates, means on the end of said rod for receiving a mop and means for moving said presser plates together, as described.

2. A device of the character described comprising a handle member, a pair of presser plates disposed on said handle member and pivoted together at one end and linked together at the other end, the links on one plate having cam surfaces adapted to engage the links connected to the other plate to force the plates together, and pull wires connected with said cam links.

3. A device of the character described comprising a tubular member provided with spaced presser plates at one end, means for moving said presser plates, a rod movable in said tubular member and projecting between said presser plates, means on said rod for receiving a mop, said tubular member being provided with a slot, a handle member on said rod projecting through said slot and a band spring normally disposed over a portion of said slot and projecting in the path of said handle member, as described.

1,089,476. STEAM-BOILER AND OTHER FURNACE. PETER JONES, Wigan, England. Filed Jan. 6, 1912. Serial No. 669,840. (Cl. 110—51.)



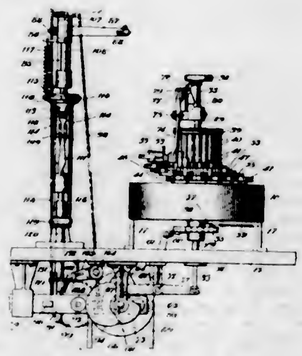
1. The combination with a furnace having a dead plate and a smoke chamber, of a frame seated on the dead plate and provided with a centrally disposed opening for the fire door, an upwardly inclined air admission duct at each side thereof and smoke discharge ducts below said air admission ducts; and pipes leading from the smoke chamber and extending forwardly therefrom to the smoke discharge ducts, to discharge unconsumed products of combustion therethrough.

2. The combination with a furnace having a dead plate and a smoke chamber, of a frame seated on the dead plate and provided with a centrally disposed opening for the fire door, and an air admission duct at each side thereof; means adapted to conduct smoke back to the furnace from the smoke chamber and to discharge it adjacent said air admission ducts; and a grate in said furnace, said grate having an upward convexity progressively increasing toward its rear.

3. The combination with a furnace having a smoke chamber at its rear, of a grate mounted at the forward end of said furnace and having an upward convexity progressively increasing toward the rear; means adapted to feed smoke from the smoke chamber and to discharge it above the grate at the forward end of the furnace; and means for admitting air at the forward end of said furnace above the grate and adjacent the point of discharge of said smoke.

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1,089,477. BRUSH-TUFT-COATING MACHINE. SAMUEL E. JORDAN, Malden, Mass., assignor to Sam'l E. Jordan Brush Company, Malden, Mass., a Corporation of Massachusetts. Filed Apr. 29, 1912. Serial No. 694,017. (Cl. 91—46.)



1. A machine for preparing tufts for insertion in brush backs, comprising a receptacle for cement, a rotatable cage having vertical guide rods above said receptacle, tuft carriers movable on said guide rods to dip tufts in the cement, means for elevating the carriers during the rotation of the cage, and a transferrer to remove the tufts from the carriers and shift them away from the receptacle.

2. A machine of the character described, comprising a receptacle for cement, a rotatable cage having vertical guide rods above said receptacle, a series of tuft carriers vertically movable on said guide rods, means for intermittently rotating said cage, means for shifting the height of the carriers as they rotate, a transferrer to remove the tufts from the carriers and shift them away fom the receptacle, and means to actuate said transferrer in the intervals between the steps of rotation.

3. In a machine of the character described, a cement tank having a vertical tubular bearing, a sleeve mounted therein, a cage having vertical guide rods removably carried by the upper end of said sleeve, a series of tuft carriers movable on said guide rods, means for intermittently rotating said sleeve, and means for raising and lowering the tuft carrier during rotation.

4. In a machine of the character described, a cement tank having a vertical tubular bearing, a sleeve mounted therein and having a flange bearing upon the upper end of said bearing, a cage removably connected with said sleeve above the flange, said cage including a circular series of guide rods, means for intermittently rotating the sleeve and cage, tuft carriers mounted on said guide rods and vertically movable thereon, and a cam for shifting said tuft carriers vertically.

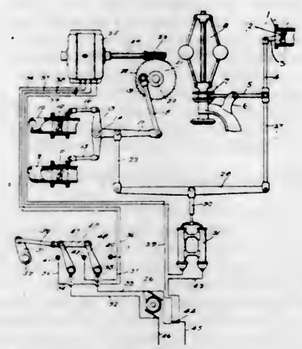
5. In a machine of the character described, a cement tank having a vertical tubular bearing, a spider secured to said bearing, a cam supported by said spider, an intermittently rotatable cage having vertical guide rods, and tuft carriers mounted on said rods and vertically controlled by said cam.

[Claims 6 to 14 not printed in the Gazette.]



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1,089,478. EXPLOSION-MOTOR. ALEXANDER T. KASSLEY, Swissvale, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 1, 1909. Serial No. 515,578. (Cl. 123—102.)



1. In combination with an internal combustion engine, a mixing device having valved air and gas inlets, an electric motor for operating the valves of said inlets and means for varying the effective opening of the gas valve as the calorific value of the gas varies.

2. Means for regulating the mixture for an explosion motor comprising mixture mechanism, of which a reversible motor forms a part, means for alternately operating said motor in either direction and means for varying the speed of the motor in either direction.

3. Means for regulating the mixture for an explosion motor comprising an air valve, a gas valve, a reversible motor for opening and closing said valves and means for varying the speed of the motor in either direction.

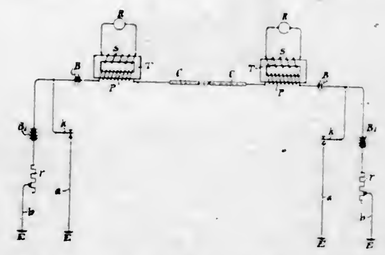
4. Means for regulating the mixture for an explosion motor comprising a gas conduit, an air conduit, valves in the conduits, a motor for imparting opening and closing movements to said valves, means for alternately operating said motor during a given time in either direction and means for causing said motor to speed up at intervals in either direction.

5. Means for regulating the charge of air and gas for an explosion motor dependent upon the quality of the gas, said means including conduits and valves for the air and gas supplies and an agent for operating said valves whereby more gas will be permitted to enter the combustion chamber of the motor when the gas is lean than when the gas is of relatively rich quality.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,479. CABLE-TELEGRAPH SYSTEM. ISIDOR KITSEE, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Jan. 14, 1909, Serial No. 472,159. Renewed Jan. 13, 1914. Serial No. 811,906. (Cl. 178—45.)



1. In a telegraph system, the combination with a line or cable having great capacity, of opposed sources of energy of different potentials conductively connected to said line or cable and to earth, a signaling instrument for shunting one of said sources of energy, similar opposed sources of energy and a similarly disposed signaling instrument at the opposite end of said line or cable, the sources of energy at the opposite ends of the cable opposing each other with respect to said cable, and electro-magnetic receiving apparatus.

2. In a telegraph system, the combination with a line or cable having great capacity, of opposed sources of energy of different potentials conductively connected to said line or cable and to earth, a signaling instrument for shunting one of said sources of energy, and similar opposed sources of energy and a similarly disposed signaling instrument at the opposite end of said line or cable, the sources of energy at the opposite ends of the cable opposing each other with respect to said cable, a receiving instrument, and an inductive connection between said receiving instrument and said line or cable.

3. In a telegraph system, the combination with a line or cable having great capacity, of opposed sources of energy at each terminal, the sources of energy at one terminal being opposed with respect to the cable to the sources of energy at the other station, and a signaling instrument at each station for shunting one of said opposed sources of energy.

4. In a telegraph system, the combination with a line or cable having great capacity, of opposed sources of energy of different potentials at each terminal of said line or cable, the sources of energy at one terminal being opposed with respect to the line or cable to the sources of energy at the other terminal, and a signal transmitting instrument at each station for shunting the source of greater potential.

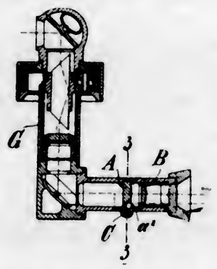
5. In a telegraph system, the combination with a line or cable having great capacity, of a conductive connection from each terminal of the cable to earth, opposed sources of energy of different potentials and a resistance serially included in each of said connections, the sources of energy at one terminal of the line or cable being con-

nected in opposition to the sources at the other terminal of said line or cable, and a signaling instrument at each terminal for shunting one of said sources of energy and said resistance.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,480. PANORAMIC SIGHTING-TELESCOPE FOR GUNS. HEINRICH KORRODI, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 7, 1909. Serial No. 521,615. (Cl. 89—32.)




1. A gun sighting device comprising a panoramic telescope having a housing, an ocular, a D-shaped cross-hair-plate mounted in the housing, a horizontal plane through the axis of the ocular dividing the cross-hair-plate into an upper semi-circular and lower rectangular part and the rectangular part of said cross-hair-plate being provided with a beveled surface on the side toward the ocular and in the field of view of the telescope; and a level mounted transversely to the axis of the ocular in the housing near said beveled surface and with its middle point substantially in the middle vertical plane of said cross-hair plate whereby the level will be reflected by said beveled surface into the field of view of the telescope, near the lower edge of the ocular.

2. A gun sighting device comprising a panoramic telescope having an ocular, a revolving reflector and an objective whose axis coincides with the revolving axis of the reflector and intersects the axis of the ocular, a D-shaped cross-hair plate substantially having a semi-circular top part and a rectangular lower part interposed in the focal plane of the objective, the bottom straight edge beveled to an angle of 45° on the rectangular part of the cross-hair plate, a tube level mounted in a non-revolving part at right angles to the axis of the ocular in the plane of the cross-hair plate and parallel to the beveled edge thereof, a window in the housing on the outer side of said level to admit light through the level and at right angles to the axis of the ocular, coöperative relationship between said level and the beveled edge of the cross-hair plate to reflect the image of the level with precision into the field of view of the telescope near the lower edge of the ocular.

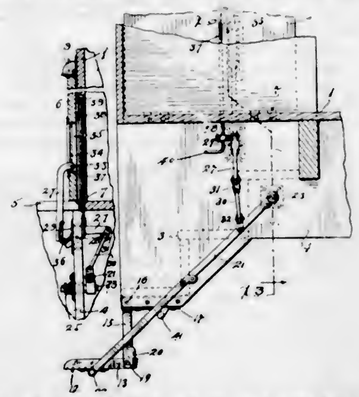
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1,089,481. AUXILIARY STEP FOR CAR-PLATFORMS. JOHN R. KUNZELMAN, Duluth, Minn. Filed Sept. 17, 1913. Serial No. 790,213. (Cl. 105—86.)

1. The combination with a car, of a tread and riser pivotally connected one to the other and to said car, for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, an operative lever connected to one of the arms of said toggle lever, and a stop operative on the other arm of said toggle lever, for guiding the same during their buckling action.

2. The combination with a car, of a tread and riser pivotally connected one to the other and to said car, for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, an operative lever connected to one of the arms of said toggle lever, and stops for limiting the unfolding movements of said tread and riser.

3. The combination with a car, of a tread and riser pivotally connected one to the other and to said car, for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, an operating lever connected to one of the arms of said toggle lever, a stop operative on the other arm of said toggle lever, for guiding the same during their buckling action, and stops for limiting the unfolding movements of said tread and riser.



4. The combination with a car, of a tread and riser pivotally connected one to the other and to said car, for toggle-like folding action, a toggle lever for moving said tread to and from operative positions, an operating lever connected to one of the arms of said toggle lever, a stop operative on the other arm of said toggle lever, for guiding the same during their buckling action, stops for limiting the unfolding movements of said tread and riser, and a spring tending to straighten said toggle lever.

5. The combination with a car vestibule, main steps leading to the platform thereof and a trap door hinged to said platform and covering said steps, of an auxiliary step comprising a tread and riser pivotally connected one to the other and to said main steps, for toggle-like folding movements, stops limiting the unfolding movements of said tread and riser, an upwardly buckling toggle lever having its upper arm pivotally connected to said main steps and its lower arm to said tread, and an operating lever connected to the upper arm of said toggle lever and actuated by the opening and closing movements of said trap door.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,482. PROCESS OF MANUFACTURING AN ELASTIC FOAM FROM VOLATILE SOLUTIONS. FRITZ LAARMANN, Dresden, Germany. Filed June 21, 1909. Serial No. 503,533. (Cl. 18—53.)

1. The hereindescribed process of manufacturing an elastic foam from a solution of an elastic material, comprising the placing of the solution in an air tight vessel, hermetically closing said vessel, turning the contained solution into a substantive foam, thereupon fixing it in that condition by bringing a vulcanizing agent into contact and intimately mixing it with the already actually produced foam, and finally opening the vessel and evaporating the dissolving medium.

2. The hereindescribed process of manufacturing an elastic foam from a solution of an elastic material, comprising the placing of the solution in an air tight vessel, hermetically closing said vessel, turning the contained solution into a foam, fixing it in that condition by cold vulcanization by forcing sulfur monochlorid, in gaseous form, into the solution and finally opening the vessel and evaporating the dissolving medium.

3. The herein described process of manufacturing an elastic foam from a solution of an elastic material, comprising the placing of the solution in an air tight vessel, hermetically closing said vessel, working pure nitrogen into the solution to prevent after oxidation of the foam, turning the contained solution into a foam, fixing it in that condition, and finally opening the vessel and evaporating the dissolving medium.

4. The herein described process of manufacturing an elastic foam from a solution of an elastic material, comprising the placing of the solution in an air tight vessel, hermetically closing the latter, turning the contained solution into a foam, by adding gas delivering substances, fixing it in that condition running off the contents of the vessel and evaporating the dissolving medium, the evaporation being carried on under a counter pressure from the outside equal to the inside pressure, to counteract the destructive action of the gas contained in the cells of the foam.

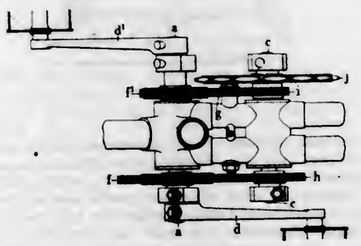
5. The hereindescribed process of manufacturing an elastic foam from a solution of an elastic material, comprising the placing of the solution in an air tight vessel, hermetically closing said vessel, forcing a compressed gas into the space in the vessel not occupied by the solution, stirring the solution into a foam whereby the bubbles are filled with the gas, fixing the foam by vulcanization, allowing the fixed foam to expand and fill the vessel, while permitting the free gas to escape, pouring the substance into molds, and removing the dissolving medium.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,483. BICYCLE PROPELLING MECHANISM. ANTOINE LAFFOND, Marignac-Lasclares, near Le Fousseret, France. Filed July 23, 1912. Serial No. 711,069. (Cl. 208—46.)

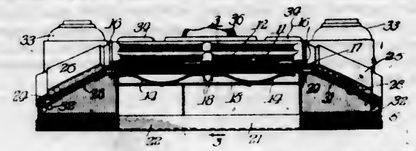



1. In bicycle propelling mechanism, in combination, a driven shaft, a driving shaft adapted to be rocked, and means interposed between said shafts for causing the rocking movement of said driving shaft to transmit a unidirectional rotary movement to said driven shaft.

2. In bicycle propelling mechanism, in combination, a driven shaft, a driving shaft, a pair of gears mounted upon said driving shaft, means for rendering one only of said gears operative when said driving shaft rotates in one direction, means for rendering the other one only of said gears operative when said driving shaft rotates in the opposite direction, and means interposed between said pair of gears and said driven shaft to impart a unidirectional rotation thereto when said driving shaft is rocked.

3. In bicycle propelling mechanism, in combination, a driven shaft, a driving shaft, a pair of pinions fixed to said driven shaft, a pair of gears mounted upon said driving shaft, means for rendering one only of said gears operative when said driving shaft rotates in one direction, means for rendering the other one only of said gears operative when said driving shaft rotates in the other direction, one of said gears meshing directly with one of said pinions, and an intermediate pinion interposed between and meshing with the other of said gears and the other of said mentioned pinions, whereby a unidirectional rotation is imparted to said driven shaft when said driving shaft is rocked.

1,089,484. CARD REGISTER AND CABINET. THOMAS F. LEAHY, Evanston, Ill. Filed Feb. 3, 1913. Serial No. 745,793. (Cl. 45—81.)



1. A card register cabinet comprising a body having a recess in its upper face, said upper face at opposite sides of the recess being inclined downwardly and outwardly from the recess, a frame mounted in the recess and provided with a card-containing compartment open at its top and bottom to expose the top and bottom cards of a pack of cards in the compartment, a spring-pressed follower in the compartment, said compartment having its top portion extending above the body and provided with a transverse slot in the upwardly projecting portion and at the adjacent inclined portion of the body, through which slot the uppermost card in the compartment may be withdrawn across the inclined portion of the body.

2. A card register cabinet comprising a body having a recess in its upper face, said upper face at opposite sides of the recess being inclined downwardly and outwardly from the recess, a frame mounted in the recess and provided with a card-containing compartment open at its top and bottom to expose the top and bottom cards of a pack of cards in the compartment, said compartment having its top portion extending above the body and provided with a transverse slot in the upwardly projecting portion and at the adjacent inclined portion of the body, through which slot the uppermost card in the compartment may be withdrawn across the inclined portion of the body, the spring-pressed follower and the frame having a pin and opening engagement to permit vertical movement of the follower and prevent edgewise displacement of said follower through the slot.

3. A card register cabinet comprising a body having a recess in its upper face, a frame mounted in the recess and provided with a card-containing compartment open at its top and bottom to expose the top and bottom cards of a pack of cards in the compartment, a spring-pressed follower in the compartment, a spring-pressed follower in the compartment, said compartment having its top portion extending above the body and provided with a transverse slot, the top of the body at opposite sides of the frame being below the slot.

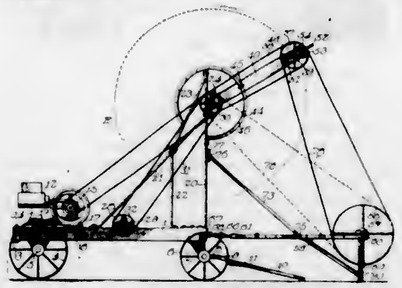
4. A card register cabinet comprising a body having a recess in its upper face, a frame in the recess and provided with a card-containing compartment open at its top and bottom to expose the top and bottom cards of a pack of cards in the compartment, the bottom of the compartment being provided with a substantially horizontal inwardly-directed flange, a spring-pressed follower within the compartment and above the flange, said compartment projecting above the body and provided with a transverse slot in said projecting portion, the top of the body at opposite sides of the frame being below the slot, and said follower being provided with a pin depending through an opening in the flange to permit vertical movement of the follower and prevent edgewise displacement thereof through the slot in the top portion of the compartment.

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1,089,485. PORTABLE POWER TRANSMISSION. ARTHUR LEE, Union Hill, Ill. Filed Oct. 2, 1912. Serial No. 723,534. (Cl. 21—114.)

1. In a device of the kind described and in combination, with a suitable truck frame, an upright frame mounted thereon, a shaft carried by said upright frame, an adjustable frame pivotally mounted upon said shaft, means for maintaining said adjustable frame in the desired position relative to said upright frame, and a rotatable shaft carried by said adjustable frame proximate the free end thereof.

2. In a device of the kind described and in combination, a suitable truck, a power element mounted thereon, a driving shaft operatively connected therewith, an upright frame mounted upon said truck, a driven shaft, and means for adjustably supporting the same upon said upright frame, comprising a pair of arms adjustably secured to said driven shaft, and means for operatively connecting said shafts.



3. The combination of a suitable truck frame, and supporting wheels therefor, an upright frame mounted upon said truck frame, bracing means for said upright frame, a shaft rotatably carried by said upright frame, an adjustable frame mounted upon said shaft, means carried by said upright frame at each side thereof for supporting said adjustable frame and maintaining the same in the desired operative position, and a rotatable shaft adjustably carried by said adjustable frame proximate the free end thereof.

4. In a device of the kind described and in combination, a suitable truck frame and supporting wheels therefor, an engine mounted proximate one end of said truck, an upright frame mounted proximate the opposite end of said truck provided with a frame part pivotally secured thereto, means for maintaining said pivotally connected part in the desired position, a driving shaft oppositely connected with said engine, a driven shaft carried by said upright, means for operatively connecting said shafts, said driven shaft mounted at the center of pivotal connection of said adjustable frame part, a shaft carried proximate the end of said adjustable frame part, and means for operatively connecting said last mentioned shafts.

5. In a device of the kind described and in combination, a truck frame provided with supporting wheels therefor, an engine mounted proximate one end of said truck frame, a driving shaft operatively connected with said engine, an upright frame mounted proximate the opposite end of said truck frame, a transmitting shaft carried by said upright frame, a third shaft adjustable carried by said frame, a fourth shaft arranged between said driving frame and the engine, and means for operatively connecting all of said shafts with said driving shaft, an auxiliary frame detachably secured to said truck frame, a shaft carried by said detachable frame, means for operatively connecting said shaft with any of said first mentioned shafts.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,486. COMBINED FOLDER AND RETURN-ENVELOP. MAXIMILIAN P. LEVINE, Chicago, Ill. Filed Apr. 7, 1911. Serial No. 619,614. (Cl. 120—74.)

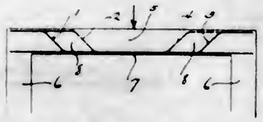
In a device of the kind described, the combination of an envelop comprising a front or address side and a rear side connected thereto, said sides being separated from one another at their upper edge, a flap projecting from the upper edge of the front side of the envelop and normally folded downwardly over said front side, a folder projecting from the upper free edge of the rear side and connected thereto by a weakened line, the said folder being of a width throughout substantially co-extensive with the width of the envelop and of a length to fold entirely around the envelop and having a sealing flap to engage the body part of the folder holding the latter in place and entirely inclosing the envelop without engaging any portion of the envelop, the folder being adapted to be removed



at the weakened portion and the flap of the envelop being thereupon adapted to be folded from its position against the front side of the envelop to a position over the rear side and to be sealed to the latter.

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1,089,487. BEAM. DANIEL B. LUTEN, Indianapolis, Ind. Filed Nov. 28, 1910. Serial No. 594,483. (Cl. 72—61.)



1. A beam reinforced with embedded tension members, each of said members following the unloaded face of the beam closely near one end and along the middle of the beam and crossing the beam near the opposite end of the beam, two of said members being substantially identical but longitudinally reversed in the beam, and two others of said members being similarly arranged but crossing the beam nearer the center of the beam than are the points of crossing of the first two members, corresponding ends of all said members being substantially in the same vertical planes.

2. A beam of hardened plastic embodying two series of embedded tension members the tension members of both series being substantially identical in effective length with their corresponding ends substantially in the same vertical planes and each member of each series comprising two substantially parallel portions of different lengths connected by an intermediate inclined portion, the initial ends of the several members of a series differing in length whereby the inclined intermediate connecting portions may be distributed along the length of the beam, and the members of one series being arranged opposite to the members of the other series.

3. In combination, a beam of hardened plastic, and a plurality of tension members embedded in said beam and each comprising two substantially parallel end portions respectively near the upper and lower surfaces of the beam and joined by an intermediate oblique portion, some of said tension members being longitudinally reversed in position with respect to others and some having their oblique portions nearer the elevated ends than have others, the elevated end portions being over the beam supports with their ends all substantially in the same vertical planes.

4. A beam reinforced with embedded tension members, in two sets, each of said members having a portion adjacent the middle part of the unloaded face of the beam and a diagonal portion crossing the beam at one end only of said first named portion and an end portion projecting from the end of the diagonal portion, the end portions on the two sets being of unequal length and closely following the loaded face of the beam, said reinforcing members being reversely embedded in pairs so that the diagonal portions cross the beam at different distances from the middle of the span.

5. A beam reinforced with embedded tension members, in two sets, the members of each set all being substantially identical, each of said members comprising a portion adjacent the unloaded face of the beam from one end of the beam to a point on the opposite side of the center of the beam and a diagonal portion extending from said last named end of the first portion across the beam toward the loaded face of the beam and an end portion extending from the diagonal portion and located adjacent the loaded face of the beam, some of the reinforcing members of each set being reversed with respect to other members of said set, and the first named portions of the two sets being of different lengths, so that the diagonal portions cross the beam on both sides of the center thereof at different distances from such center.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,488. PROCESS OF BUILDING REINFORCED-CONCRETE ARCHES. DANIEL B. LUTEN, Indianapolis, Ind. Original application filed May 17, 1902, Serial No. 107,812. Divided and this application filed July 27, 1911. Serial No. 640,834. (Cl. 72—56.)



1. That improvement in the art of building a reinforced concrete arch comprising placing concrete foundations, then placing tension members having spiral ends projecting into the space over said foundations, then erecting the centers for the arch, then placing arch reinforcing members having spiral ends and interlocking such spiral ends with the spiral ends of the first named tension members, then bending the arch reinforcing members so that they are supported by the centers, and then placing the concrete of the arch to embed the arch reinforcing members and the projecting spiral ends.

2. That improvement in the art of building a reinforced concrete arch comprising placing concrete foundations, then placing tension members having bent ends projecting into the space over said foundations, then erecting the centers for the arch, then placing arch reinforcing members having bent ends, then bending the arch reinforcing members so that they are supported by the centers, and then placing the concrete of the arch to embed the arch reinforcing members and the projecting bent ends.

3. That improvement in the art of building a reinforced concrete bridge comprising placing the foundations, then laying between the foundations a pavement having anchor ends projecting from the pavement into the space over the foundations, then erecting on the pavement the centers for the arch, then placing arch reinforcing members and interlocking them with the projecting anchor ends, then bending the arch reinforcing members into position where they are supported at the crown by the centers, and finally embedding the arch reinforcing members and the projecting anchor ends in concrete.

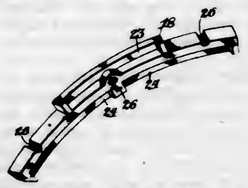
4. That improvement in the art of building reinforced concrete bridge comprising placing the foundations, then laying between the foundations a pavement having anchor ends projecting from the pavement into the space over the foundations, then erecting on the pavement the centers for the arch, then placing arch reinforcing members and interlocking them with the projecting anchor ends, and finally embedding the arch reinforcing members and the projecting anchor ends in concrete.

5. That improvement in the art of building a reinforced concrete bridge comprising placing the foundations, then laying between the foundations a pavement having anchor ends projecting from the pavement into the space over the foundations, then erecting on the pavement the center for the arch, then placing arch reinforcing members, then bending the arch reinforcing members into position where they are supported at the crown by the centers, and finally embedding the arch reinforcing members and the projecting anchor ends in concrete.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,489. SECTIONAL RESILIENT TIRE. CHARLES A. MARIEN, St. Louis, Mo. Filed Mar. 9, 1912. Serial No. 682,768. (Cl. 152—9.)

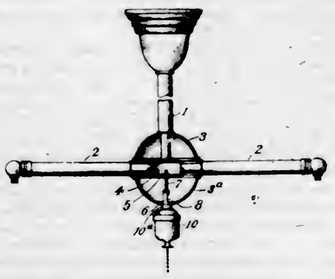


1. The combination with a wheel, of a double row of resilient sectional blocks provided with lateral projections, retaining members arranged at the outer edge of each set of blocks and engaging with the projections, overlapping retaining members arranged between the sets of blocks and also engaging with the projections, said latter retaining members being each provided with pockets on both sides, the pockets on one side being greater in number than those on the other side, and means for securing said retaining members to the periphery of the wheel.

2. The combination with a wheel, of a double row of resilient sectional blocks provided with lateral projections, retaining members arranged at the outer edge of each set of blocks and engaging with the projections, overlapping retaining members arranged between the sets of blocks, and also engaging with the projections, said latter retaining members being each provided on one side with one pocket and on the opposite side with two pockets, and means for securing said retaining members to the periphery of the wheel.

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1,089,490. ELECTROLIER-FITTING. CHARLES MESSICK, Hackensack, N. J. Filed Oct. 24, 1913. Serial No. 797,007. (Cl. 240—78.)



1. As an article of manufacture, a fitting for electroliers comprising a body member having a substantially cylindrical form and provided at one of its ends with a massive portion, and with a hole extending through said massive portion in the general direction of the axis of said body member, said hole being threaded internally, said body member being further provided with an axially disposed channel of greater cross diameter than said hole, said body member being also provided with a lat-

erally disposed opening merging into said channel, and with a thread located externally of said body member and adjacent the end thereof opposite said end bearing said massive portion.

2. In an electrolier, the combination of a central casting provided with a bridge, a stud secured to said bridge, a fitting mounted upon said stud and provided with an axially disposed channel and with a laterally disposed opening merging into said channel to enable wires to be passed through said fitting, a shell member partially inclosing said central casting, means for supporting said central casting rigidly in relation to said shell member, a second shell member detachably engaging said first mentioned shell member, and coacting therewith to completely inclose said central casting, said second mentioned shell member being adapted to be held against said first mentioned shell member by pressure, and a pull switch mounted upon said fitting and provided with a shoulder for engaging said second mentioned shell member, in order to hold the latter against said first mentioned shell member.

3. A fitting for central pull switches for electroliers comprising a body member provided adjacent one of its ends with a tapped hole suitable for a standard stud, said body member being also provided with an opening disposed near the central portion of said body member, and further provided with a channel extending downwardly from said opening, said channel having a larger diameter than said tapped hole, said body member being also provided, adjacent its end opposite said first mentioned end, with a threaded portion to which a standard pull switch may be attached.

4. In an electrolier, the combination of a central casting provided with a bridge, a stud screwed into said bridge, and a fitting attached to said stud, said fitting being provided with a channel larger than said stud for facilitating the passage of wires through said fitting, and a pull switch mounted upon the lower end of the fitting and provided with a shoulder for engaging a shell member of an electrolier.

5. In a device of the character described, the combination of a shell, a distributing box located within said shell and provided with a bridge, hollow arms extending through the wall of said shell and secured to said distributing box, a stud secured to said bridge, a sleeve detachably fitted upon said stud and provided with a hollow cylindrical portion, and a pull switch provided with a portion for engaging said cylindrical portion of said sleeve, said pull switch being further provided with an abutting surface for pressing against said shell.

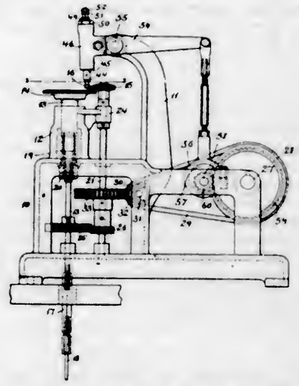
[Claims 6 to 9 not printed in the Gazette.]

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1,089,491. FORMING-IN MACHINE. JAMES N. MOULTON, Haverhill, Mass. Filed June 3, 1912. Serial No. 701,134. (Cl. 12—20.)

1. In a machine for preparing insoles, a depressible rotatable horizontal work support, a member arranged to tuck reinforcing material into the angle behind the lip of the insole, and having a curved face at its end and a side face at an angle to its end face, and means for causing said tucking member to bear upon the reinforcing material on the flat part of the sole behind the lip, and to move thereon toward and from the lip, said means being adapted to increase the pressure of said tucking member upon the work when it moves toward the lip, and to decrease the pressure when said member moves away from the lip, and a fixed feed wheel having its axis parallel to the work support, said feed wheel bearing upon the feather of the sole and engaging the lip to hold it upright against the pressure of the tucking member.

2. In a machine for preparing insoles, a depressible yielding rotatable work support, a member arranged to tuck reinforcing material into the angle behind the lip, a fixed rotatable feeding member adapted to engage the outer side of the lip and the upper face of the feather, means for driving said work-support and feeding member continuously, and pressure means for causing said tucking member to bear upon the reinforcing material on the flat part of the sole behind the lip, said pressure means being adapted to alternately increase and decrease the pressure of said tucking member upon the work and move said member toward and from the lip.



3. In a forming-in machine, a depressible rotatable work-supporting wheel arranged substantially horizontally to provide a flat surface for the work, a fixed rotatable feed wheel overlapping the edge of the work-supporting wheel and adapted to clamp the feather of the inner sole against said work-supporting wheel, the periphery of the feed wheel being elongated to engage and support the lip to its edge, an oscillatory forming-in tool having an under end face to press against reinforcing material on the surface of the sole and a side face to press against the lip so as to force the reinforcing material into the angle formed by the lip and the body of the insole, and yielding means for oscillating said forming-in tool.

4. In a forming-in machine, a horizontal work-supporting wheel having a flat face for the reception of the work, an overlapping feed wheel adapted to clamp the feather of the work against the marginal portion of the feed wheel and to support the lip in raised position, parallel vertical shafts respectively secured to said wheels, gears connecting said shafts, means for yieldingly supporting the shaft for said work-supporting wheel, adapted to permit it to be depressed for the insertion of the work, an oscillatory lever having a head on one end, a forming-in tool yieldingly mounted in said head above said work-supporting wheel and angularly formed to force the fabric into the angle formed by the lip and the body of the sole, and instrumentalities for positively actuating said shafts and oscillating said lever.

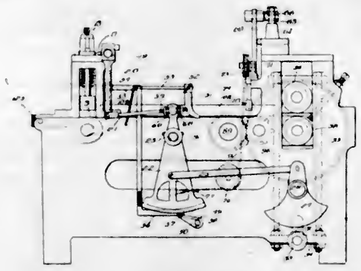
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1,089,492. MACHINE FOR EVENING AND GRADING SOLES. ELMER P. NICHOLS, Manchester, N. H., assignor to Lacene Manufacturing Company, Manchester, N. H., a Corporation of Maine. Original application filed Aug. 6, 1904, Serial No. 219,755. Divided and this application filed Oct. 31, 1911. Serial No. 657,748. (Cl. 101—186.)

1. A machine of the kind described, having, in combination, means against which a piece of stock may be pressed, detecting means comprising a plurality of detectors independently movable in the direction of said first-named means, an actuator and moving means therefor for causing one of said means to tend to approach the other, and means, controlled by the aforesaid detecting means and including a single common member actuated to visually indicate the thickness of the thinnest portion only of the stock as determined by said plurality of detectors.

2. A machine of the kind described, having, in combination, means against which a piece of stock may be pressed, a plurality of detectors movable to effect said pressure in the direction of said means for insuring relative pressing and stock-flattening movement between said detectors and means, means for so moving said detectors with said pressing and stock-flattening movement, and means controllably related to all the detectors but controlled by that detector which gets nearest to said first named means during the detecting operation, and including a single common member for visually indicating the distance between the two.





3. A machine of the kind described, having, in combination, devices for pressing a piece of stock on its opposite sides to be graded, including a plurality of detectors independently movable toward and from one side of the stock, means for maintaining said detectors under tendency to move toward the stock, and a single means controllably related to said plurality of detectors and controlled by at least one of said plurality of detectors for visually indicating the thickness of the stock at the thinnest place thus detected.

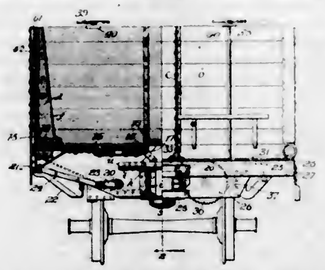
4. In a machine of the kind described, having power mechanism, a plurality of detectors responsive to the unevenness of a leather piece to be graded, a grade-indicating device, and connecting mechanism controlled by at least one of said detectors for setting said grade-indicating device, operating mechanism adapted to be operated by said power mechanism for operating said indicating device with relation to the leather piece, said connecting mechanism containing means for setting the indicating device independently of said power mechanism.

5. In a machine of the kind described, having power mechanism, a plurality of detectors movable in accordance with the unevenness of a leather piece to be graded, a grade-indicating device, and connecting mechanism controlled by at least one of said detectors for setting said grate-indicating device, the latter including a movable frame adapted to be operated by said power mechanism for operating said indicating device with relation to the leather piece, said connecting mechanism containing means for setting the indicating device independently of said power mechanism.

[Claims 6 to 25 not printed in the Gazette.]

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1,089,493. DUMP-CAR. SPENCER OTIS, Chicago, Ill. Filed Oct. 26, 1905. Serial No. 284,558. (Cl. 105—14.)



1. In a car, a hinged dumping door, inclined tracks upon the door and upon the frame of the car, a reciprocatory shaft co-acting with said tracks, a rotary shaft for operating said reciprocatory shaft, said rotary shaft being located beneath the car and between the reciprocatory shaft and the center of the car, and connections between the rotary shaft and the reciprocatory shaft.

2. In a car, a door, inclined tracks upon the door and upon the frame of the car, a reciprocatory shaft co-acting with said tracks, and a rotary shaft for operating said reciprocatory shaft, said rotary shaft being located beneath the car and between the reciprocatory shaft and the center of the car.

3. In a car of the class described, a door, an inclined track on the under side of the door, an inclined track on the frame of the car, a reciprocatory shaft co-acting with said tracks, a rotary shaft provided with a crank, and a link connecting said crank to the reciprocatory shaft for actuating the latter, the path of movement of the crank being substantially in alinement with the lower track when the reciprocatory shaft is moving on said track.

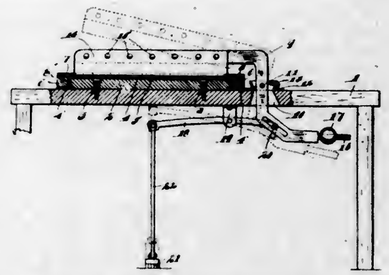
4. In a car of the class described, a swinging door, co-acting inclined surfaces and a member operating between said surfaces for actuating said door, and a power shaft located beneath the door and connected to said member.

5. In a car, an end sill comprising a vertical member extending continuously throughout the width of the car, a reinforcing member spaced from the vertical member at its central portion and attached thereto at its end portions, and door operating mechanism located between the vertical member and the reinforcing member.

[Claims 6 to 26 not printed in the Gazette.]

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1,089,494. STARCHING-MACHINE. EDWY S. PARKER and THOMAS W. DURANT, Chicago, Ill.; said Durant assignor to said Parker. Filed Jan. 24, 1913. Serial No. 743,928. (Cl. 68—28.)



1. A starching machine comprising a table; a starching pad on said table; a lever extending through and pivoted on said table; a clamping jaw on one end of said lever and coöperating with said pad to hold work; a second lever pivoted on said table and connected to said first mentioned lever with a slot-and-pin connection therebetween; and a foot pedal operatively connected with said second lever, substantially as described.

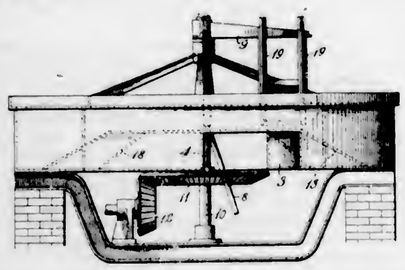
2. A starching machine comprising a table; a starching pad on said table; an irregularly shaped lever extending over said starching pad, through and under said table and pivotally connected to the latter; a counter weight adjustably secured on one end of said lever; a work clamping jaw on the other end of said lever; a second lever pivoted to said table and connected to said first lever by a slot and pin connection; and a foot pedal operatively connected with said second lever, substantially as described.

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1,089,495. APPARATUS FOR EXTRACTION OF SUGAR-JUICES. WALTER RAABE. Cöthen, Germany, assignor of one-half to Edward C. Post, Ann Arbor, Mich. Filed Oct. 29, 1912. Serial No. 728,467. (Cl. 127—8.)

1. An extraction apparatus comprising a casing having an annular channel provided with two transverse adja-

cent partitions, an opening in its bottom between the partitions, a carrying member adapted to traverse the channel and provided with a drop bottom, means for driving the carrying member around the channel, and guiding means in the channel for passing the carrying member over the partitions and the opening and releasing the discharge bottom of the member when in substantial register with the opening.



2. An extraction apparatus comprising a casing having a horizontal annular channel, transverse partitions therein on either side of an opening in the bottom, a carrying member adapted to traverse the channel and provided with a drop bottom, driving mechanism for revolving the carrying member around the channel and guides adapted to elevate the carrying member to move across the partition, the drop bottom of the carrier being adapted to open automatically when the carrier is substantially in register with the channel opening and to close when the carrier moves away from the opening over the adjacent partition.

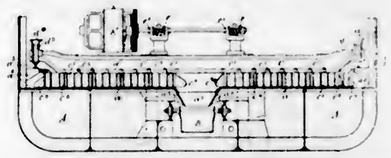
3. An extraction apparatus comprising a casing provided with an annular channel, a pair of separated transverse partitions in the channel on either side of an opening through the bottom thereof, an inclined guiding member leading upward from the top of one partition, guides between the partitions over the opening, a carrying member adapted to sweep the channel and provided with a drop bottom that automatically opens when the carrier traverses the guides substantially in register with the channel opening, and means for driving the carrying member around the channel.

4. An extraction apparatus comprising a casing having a substantially horizontal annular channel with an opening in its bottom, a diffusion liquid inlet opening and a liquid outlet opening, a pair of transverse partitions across the channel at the sides of the opening, a perforated inclined guide extending from the lower portion of the channel to the upper margin of one of the partitions, substantially horizontal guides bridging the interval between the partitions at the top thereof, a cage adapted to sweep the channel and provided with a drop bottom that is released automatically when the cage is substantially in register with the channel opening between the partitions, and means for revolving the cage in the channel.

5. An extraction apparatus comprising a casing having a substantially horizontal annular channel with an opening in its bottom, a diffusion liquid inlet opening and a liquid outlet opening, a pair of transverse partitions across the channel at the sides of the opening, a perforated inclined guide extending from the lower portion of the channel to the upper margin of one of the partitions, substantially horizontal guides bridging the interval between the partitions at the top thereof, a cage adapted to sweep the channel and provided with a drop bottom that is released automatically when the cage is substantially in register with the channel opening between the partitions, a spindle concentric in axial co-incidence with the channel, arms journaled at one end of the spindle and secured to the cage, and gearing for rotating the arms of the cage.

[Claims 6 to 9 not printed in the Gazette.]

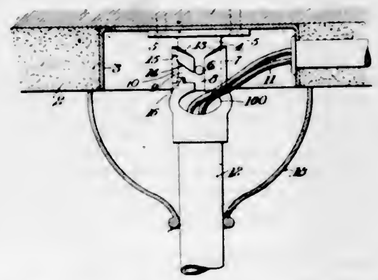
1,089,496. APPARATUS FOR TRANSFERRING CARGO IN BULK. WILLIAM GEORGE READ, Whiston, Prescot, England. Filed June 7, 1913. Serial No. 772,265. (Cl. 193—20.)



1. In the hold of a vessel for carrying loose material in bulk, a floor having a longitudinal trough, a conveyer in said trough, a traveler extending across said trough, a wheeled carriage at each end of said traveler supported on said floor, horizontal wheels journaled on said traveler at each end thereof and adjacent to said trough, endless chains of vertical plates led around said wheels, vertical sweep-plates protruding from said plate-chains, means for suspending said plate-chains from said traveler and means for rotating said wheels.

2. In the hold of a vessel for carrying loose material in bulk, a floor having a longitudinal trough, a conveyer in said trough, a traveler extending across said trough, a wheeled carriage at each end of said traveler supported on said floor, horizontal wheels journaled on said traveler at each end thereof and adjacent to said trough, endless chains of vertical plates led around said wheels, vertical sweep plates protruding from said plate-chains, rollers on said plate-chains running on said traveler and means for rotating said wheels.

1,089,497. ELECTROLIER-HANGER. LYMAN C. REED, New Orleans, La. Filed Oct. 7, 1913. Serial No. 793,902. (Cl. 240—85.)



1. In an electrolier hanger, the combination of an outlet box provided with lead wires; a tubular stud in said box provided with a pin; a tubular member coacting with said pin provided with a hole for said lead wires; an inclined upper edge, a vertical slot leading from said edge, an inclined guiding surface leading from said vertical slot, and a locking slot coacting with said inclined surface; and a pipe member secured to said tubular member, adapted to receive said lead wires, substantially as described.

2. In an electrolier hanger, the combination of a tubular member provided with a hole for lead wires; a pipe for said wires attached to said tubular member; said tubular member provided with an inclined upper edge, a vertical slot leading from said edge, an inclined slot having an inclined surface leading from said vertical slot, a second vertical slot into which enters said inclined slot, and a safety lug associated with said inclined and second vertical slots; and a cylindrical member provided with a locking pin adapted to coact with said first named tubular member, substantially as described.

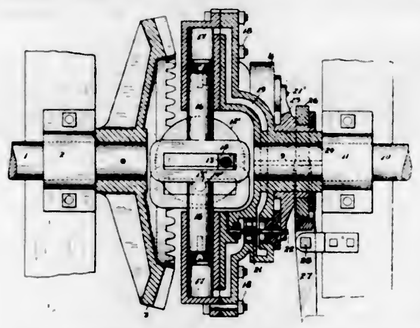


3. In an electrolier hanger, the combination of a cylindrical member provided with a locking pin; a slotted rotatable tubular member provided with an inclined surface adapted to rest on said pin and permit the weight of the fixture to further rotate the parts, said tubular member also provided with a locking pocket to receive said pin, with a safety lug to prevent the accidental unlocking of said parts, and with an opening for lead wires; said cylindrical member adapted to enter said tubular member and extend substantially to said opening, to prevent swaying of the parts; and a pipe for said wires secured to said tubular member, substantially as described.

4. In an electrolier hanger, the combination of an outlet box provided with lead wires; a tubular stud in said box; a member provided with a pin; connections between said member and said tubular stud; a tubular member coacting with said pin provided with a hole for said lead wires, said tubular member having an inclined uppef edge, a vertical slot leading from said edge, an inclined guiding surface leading from said vertical slot, and a locking slot coacting with said inclined surface; and a pipe member secured to said tubular member, adapted to receive said lead wires, substantially as described.

5. In an electrolier hanger, the combination of a cylindrical member provided with a locking pin; a sleeve secured to said cylindrical member; a stud to which said sleeve is secured; a slotted rotatable tubular member provided with an inclined surface adapted to rest on said pin and permit the weight of the fixture to further rotate the parts, said tubular member also provided with a locking pocket to receive said pin, with a safety lug to prevent the accidental unlocking of said parts, and with an opening for lead wires; said cylindrical member adapted to enter said tubular member and extend substantially to said opening, to prevent swaying of the parts; and a pipe for said wires secured to said tubular member, substantially as described.

1,089,498. CLUTCH AND SPEED-REGULATOR. GEORGE RISCHMULLER, San Francisco, Cal. Filed Mar. 5, 1912. Serial No. 681,707. (Cl. 74—34.)



1. The combination of two shafts in line with each other, a rotary device secured on one of said shafts, an element secured upon the other shaft having a liquid conduit therein, a valve for regulating the flow of liquid in said conduit, cylinders connected with the respective ends of the conduit, plungers in said cylinders, means directly connecting said plungers with each other, whereby they reciprocate in unison therein, a bearing carried by said element, a transverse shaft therein, one portion of said shaft being operatively connected to said plungers whereby the plungers reciprocate in unison with the rotation of the shaft, and a rotary device carried by another portion of the shaft and adapted to engage the rotary device on the first named shaft to revolve therewith.

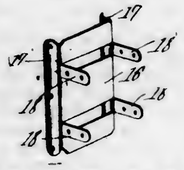
2. The combination of two shafts in line with each other, a gear wheel secured on one of said shafts, an element secured upon the other shaft having a liquid conduit therein, a valve for regulating the flow of liquid in said conduit, cylinders connected with the respective ends of the conduit, plungers in said cylinders, means directly connecting said plungers with each other, whereby they reciprocate in unison therein, a bearing carried by said element, a transverse shaft therein, one portion of said shaft being operatively connected to said plungers whereby the plungers reciprocate in unison with the rotation of the shaft, and a pinion carried by another portion of the shaft and meshing with said gear wheel.

3. The combination of two shafts in line with each other, a bevel gear wheel secured to one of said shafts, an element secured to the other shaft having liquid conduits, on opposite sides of a plane through the axis of the shaft, valves for controlling the passage of liquid in said conduits, two pairs of cylinders on opposite sides of said plate, the cylinders of each pair being connected with the respective ends of the corresponding conduit, two pairs of plungers in said cylinders, shafts transverse to the aforesaid shafts and in line with each other, bearings, for said transverse shafts, carried by said element, one end of each transverse shaft being operatively connected to a pair of plungers, whereby they reciprocate in unison with the rotation of said shaft, a bevel pinion carried by the other end of each transverse shaft, said bevel pinions meshing with said bevel gear wheel.

4. The combination of two shafts in line with each other, a bevel gear wheel connected to one of said shafts, a casting connected to the other shaft and formed with liquid conduits, valves controlling said conduits, two pairs of cylinders secured to said casting, the cylinders of each pair being in line with each other, and communicating at their ends with the respective ends of one of said conduits, two pairs of plungers in said cylinders, yokes each connected on opposite sides to the plungers of one of said pairs, transverse shafts in line with each other, said castings being provided with bearings for said shafts, a disk secured upon the inner end of each transverse shaft, a crank pin on each disk sliding in one of said yokes, and bevel pinions on the outer ends of said shafts, meshing with said gear wheel.

5. The combination of two shafts in line with each other, a bevel gear wheel connected to one of said shafts, a casting connected to the other shaft and formed with liquid conduits, valves controlling said conduits, a ring surrounding said casting, and operatively connecting the stems of said valves to open or close the same, said ring being grooved, and means engaging said groove for moving said ring to operate the valves, two pairs of cylinders secured to said casting, the cylinders of each pair being in line with each other, and communicating at their ends with the respective ends of one of said conduits, two pairs of plungers in said cylinders, yokes each connected on opposite sides of the plungers of one of said pairs, transverse shafts in line with each other, said castings being provided with bearings for said shafts, a disk secured upon the inner end of each transverse shaft, a crank pin on each disk sliding in one of said yokes, and bevel pinions on the outer ends of said shafts, meshing with said gear wheel.

1,089,499. CORNER-FASTENING FOR SCREEN-FRAMES. BYRD C. ROCKWELL, Malvern, Ark. Filed Dec. 13, 1911. Serial No. 665,512. (Cl. 20—92.)

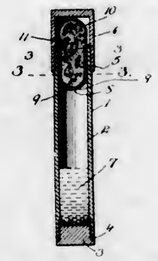


In a device of the class described, a plate having parallel side flanges bent to embrace and engage the sides of

a rail, portions of the plate between the flanges being cut along lines perpendicular to the flanges and outstruck to form parallel tongues for engaging opposed faces of a stile, said tongues being perpendicular to the plate and extending from the angles produced by the plate and flanges, and said flanges constituting the sole means for holding together those parts of the plate between the openings from which the tongues were removed.

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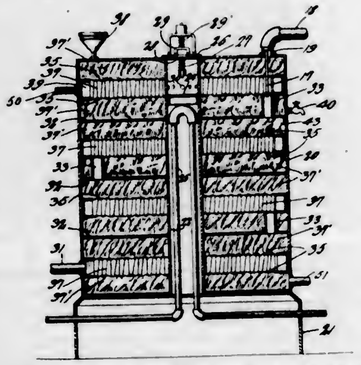
1,089,500. POCKET-OILER. RICHARD LAFFEYETTE ROSS, Pasco, Wash. Filed Apr. 24, 1913. Serial No. 763,363. (Cl. 15—66.)



An oiler comprising a cylindrical body, a cap for the same, a U-shaped strap in the capped end of said body, a cylindrical elongated bag of suitable flexible material arranged in the capped end of the said body and received by the said U-shaped strap, a suitable filling of absorbent material within the said elongated cylindrical flexible bag to receive oil from the said body, the whole arranged in such manner that the oil received by the said elongated flexible bag and its said absorbent filling is deposited from the said oiler at the outer end of said elongated flexible bag, substantially as described.

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1,089,501. CARBURETER. JOHN RUTHVEN, Indianapolis, Ind. Filed Aug. 30, 1912. Serial No. 717,986. (Cl. 48—156.)

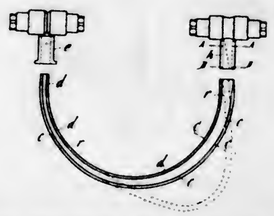


1. A carbureter, including an open base, a casing disposed thereupon and provided with a concentrically disposed cylindrical tubular chamber the full length thereof, a partition disposed within said tubular chamber adjacent the upper end thereof, said chamber above the partition being provided with a plurality of apertures therethrough in communication with the upper end of said casing, a valve controlled air inlet in the upper end of said chamber for controlling the supply of air to the chamber above the partition, a plurality of partitions disposed within the casing about the tubular chamber and dividing the casing into a plurality of superposed and communicating compartments, each partition being provided with a short conduit projecting upwardly therefrom to a point below the center line of its respective compartment, a liquid hydrocarbon supply entering the upper compartment and concentric with the conduit of the upper partition, two spaced gauze diaphragms disposed within each compartment intermediate of the respective partitions, a carbureted air conducting pipe in communication with the lower compartment and adjacent the space between the gauze diaphragms thereof, the apertures of the tubular chamber being disposed adjacent to the space between the gauze diaphragms of the upper compartment, a packing of absorbent and filtering material disposed about the gauze diaphragms in each compartment, and means for supplying a less volatile liquid fuel disposed to direct such fuel into the space between the gauze diaphragms of the upper compartment.

2. A carbureter, including a base, a cylindrical casing disposed thereupon and provided with a concentrically disposed cylindrical chamber the full length thereof, the said chamber being open at both ends, a partition disposed within said cylindrical chamber adjacent the upper end thereof, said chamber above the partition being provided with a plurality of apertures therethrough in communication with the upper end of the casing, a valve controlled inlet in the upper end of the cylindrical chamber for controlling the supply of air to the same above the partition, a back pressure release valve also at the upper end of the cylindrical chamber, a plurality of partitions disposed within the casing about the tubular chamber and dividing the casing into a plurality of superposed and communicating compartments, two spaced gauze diaphragms disposed within each compartment intermediate of the respective partitions, a liquid hydrocarbon supply led to the upper compartment at the space between two of the diaphragms, a carbureted air conducting pipe in communication with the lower compartment and adjacent the space between the gauze diaphragms thereof, the apertures of the cylindrical chamber being disposed adjacent the space between the gauze diaphragms of the upper compartment, and a packing of absorbent and filtering material disposed about the gauze diaphragms in each compartment.

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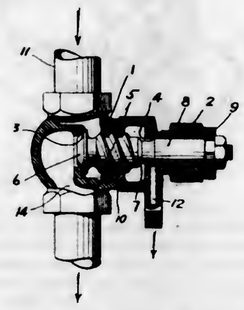
1,089,502. METHOD OF CONSTRUCTING A TRANSFERRING DEVICE FOR ROD OR WIRE ROLLING MILLS. ANTON SCHÖPF, St. Johann-on-the-Saar, and HERMANN MOSANER, Neunkirchen, near Trier, Germany. Filed May 8, 1907. Serial No. 372,616. (Cl. 80—37.)



The herein described method of constructing a transferring device adapted to automatically direct a bar or rod from the discharge box communicating with a pass formed by two rolls of a rolling mill to the inlet box communicating with another similar pass, the longest diameter of the cross section of each of said passes being in a plane extending substantially at right angles to the plane including the corresponding diameter of the other pass, consisting in bending an elastic metal band horizontally and vertically to form a continuous curve from one of said boxes to the other with its ends in alinement with the passages in both said boxes, and then building a guide conforming to the curvature of said elastic strip.



1,089,503. VALVE FOR LIGHTING-FIXTURES. VICTOR H. SLINACK, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 9, 1911. Serial No. 601,735. (Cl. 67—16.)

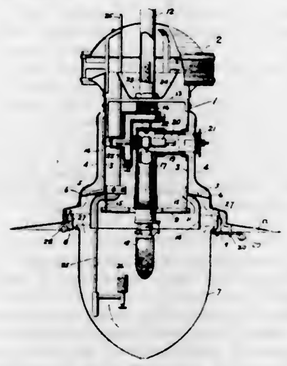


1. A gas valve for lighting fixtures comprising the combination of a casing having two gas outlets constituting valve seats with a coarsely threaded portion between them, a threaded plug loosely engaging the threaded portion of the casing so as to provide a passage for gas and having two valves whereof one covers one and the other uncovers the other of said outlets, a gas supply inlet communicating at all times with both said valved outlets, and a spindle for the plug whereby a partial turn of the latter opens one and closes the other of the outlets.

2. A gas valve for lighting fixtures comprising the combination of an internally threaded casing having two outlets and to the space between which gas is at all times admitted, a gas supply inlet communicating with said space, a threaded plug engaging a threaded part of the casing and having two valves whereof one closes one and opens the other outlet in one position to the plug and whereof the other closes one and opens the other outlet in the other position of the plug, and a spindle for turning the plug.

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1,089,504. INVERTED INCANDESCENT GAS-LIGHT. VICTOR H. SLINACK, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 29, 1911. Serial No. 635,976. (Cl. 67—94.)

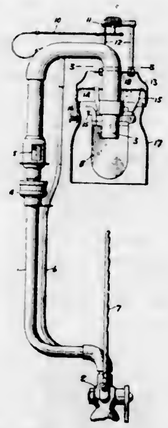


1. An inverted incandescent gas light comprising the combination of a casing provided with a ventilator and having a double wall constituting an air supply chamber, a globe beneath the outer part of the double wall with air inlet between it and the bottom of said outer part of the double wall, a deflector having a burner opening and having a hood encircling the deflector with space between and both arranged beneath the inner part of the double wall, a gas pipe, and a fitting carried by the gas pipe and provided with an air and gas mixing tube having an inverted mantle depending through the burner opening, and provided with a jet orifice discharging into said tube and provided with an air intake chamber communicating with the air supply chamber and inclosing the jet orifice and mixing tube and forming an annular air chamber coextensive with the mixing tube, substantially as described.

2. An inverted incandescent gas light comprising the combination of a casing provided with a ventilator and having a double side wall and a perforated bottom wall connecting the side walls and constituting an air supply chamber, a globe beneath the outer wall with air inlets between it and the bottom wall of the casing, a baffle plate arranged at the center of the casing, having a burner opening and a hood encircling the baffle plate with space between for the passage of products of combustion and air and both arranged beneath the inner wall, a gas pipe, and a fitting carried by the gas pipe and provided with an air and gas mixing tube having an inverted mantle depending through the burner opening, and provided with a jet orifice discharging into said tube and provided with an air intake chamber communicating with the space between the double wall and inclosing the jet orifice and mixing tube forming an annular air chamber concentric and co-extensive with the mixing tube, substantially as described.

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1,089,505. INVERTED INCANDESCENT GAS-LIGHT. VICTOR H. SLINACK, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 15, 1913. Serial No. 789,792. (Cl. 67—104.)



1. In an inverted incandescent gas light the combination of a Bunsen tube having a downwardly opening burner mouth, a spring arm provided with a point disposed concentrically with and above the burner mouth, a carrier having a socket for the reception of the point from which it depends substantially co-axially with the burner mouth, a mantle depending from the carrier, and a stop for the carrier, substantially as described.

2. In an inverted incandescent gas light the combination of a downwardly depending burner tube, a spring provided with an upwardly extending point, a carrier provided with a socket for the reception of the point from which it is suspended and with a ring loosely encircling the tube and adapted to operate as a limit stop, and fragile parts suspended from the carrier substantially concentrically with the burner tube, substantially as described.

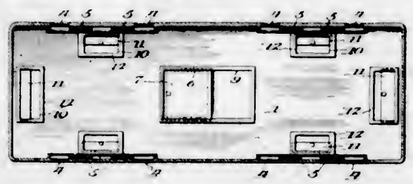
3. In an inverted incandescent gas light the combination of a tube having a bend and providing a depending burner tube, a carrier encircling the burner tube and terminating above its end and free therefrom, a mantle depending below the carrier, a spring support above the bend, and a detachable pivotal connection by which the carrier is suspended from the spring.

4. In an inverted incandescent gas light the combination of a Bunsen tube having a downwardly extending burner tube, a mantle, a carrier encircling the burner tube and from which the mantle depends, and a spring arm above the Bunsen tube and protected thereby from heat and from the free end of which the carrier depends co-axially with the burner tube.

5. In an inverted incandescent gas light the combination of a Bunsen tube having a downwardly extending burner tube, a carrier having a depending mantle, a spring support, and a pivotal point and socket detachable connection for depending the carrier from the spring support.

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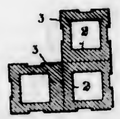
1,089,506. ANTIROBBERY AND BURGLAR-PROOF CAR. THOMAS G. SMITH, New Orleans, La. Filed May 31, 1913. Serial No. 770,930. (Cl. 105—75.)



An anti-robbery and burglar-proof car body divided by a horizontal partition into lower and upper apartments that extend throughout its area and are free of obstruction, and having doors in the side walls of one apartment and also having a large central opening in the partition wall and small openings in said partition wall located adjacent the first-named doors, horizontally slidable doors for controlling said openings in the horizontal partition, and guideways on said partition constructed and arranged to prevent vertical movement of the doors; the apartment other than the one having doors in its side walls being constructed and arranged to accommodate a guard and prevent entrance to the apartment except through the central opening in the partition.

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1,089,507. BUILDING-BLOCK. WALTER W. SMITH, Shallow Lake, Ontario, Canada. Filed Apr. 29, 1913. Serial No. 764,428. (Cl. 72—39.)

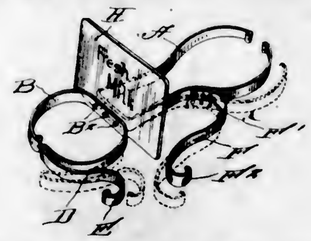


1. A hollow building block L-shaped in cross section and provided with an internal intermediate web in each arm of the L of substantially double the thickness of the walls of the block, the arms of the L being of the same dimensions and each in width substantially half the width of the block.

2. A building block L-shaped in cross section, the arms of the L being of the same dimensions and each in width substantially half the width of the block.

3. A hollow building block L-shaped in cross section, the arms of the L being of the same dimensions and each in width supstantially half the width of the hollow block and provided with an internal intermediate web in each arm of the L, said webs being each located substantially midway between the opposite outer sides of the block which it parallels.

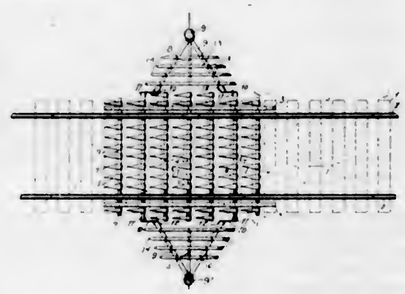
1,089,508. DEVICE FOR HOLDING COWS' TAILS. WILLIAM S. SMITH, Imlay City, Mich. Filed June 12, 1913. Serial No. 773,304. (Cl. 119—105.)



A device for holding cows' tails, the same comprising a resilient metallic strip bent upon itself, its free ends being curved to embrace the leg of a cow, a metallic strip bent upon itself and riveted to the first named strip, the said band being bent to form a loop to engage the tail of a cow, one end of said riveted band being curved outwardly and serving, in conjunction with a like curved band attached to the first mentioned loop, to form a handle upon one side of the device and adapted to engage or disengage the device by the resiliency of the band forming the loops, substantially as shown and described.

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1,089,509. CATTLE-GUARD. JOHN ISAAC STEPHENS, Chaffee, Mo. Filed Dec. 4, 1912. Serial No. 134,945. (Cl. 256—18.)



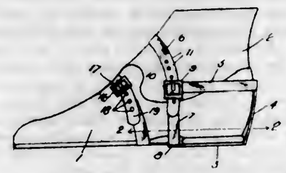
In a device of the character described, the combination with a railroad track having longitudinal bars secured to the ends of the ties of the track and transverse bars arranged in parallel relation with the ties, said transverse bars being disposed between the ties and having their ends secured to the longitudinal bars, of spur members having their lower ends secured to the transverse bars, points formed upon the upper ends of said spur members and disposed at right angles to the body of the spur members, said points being arranged in longitudinal alinement and disposed in a horizontal plane upon a level with the tops of the rails, as and for the purpose set forth.

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1,089,510. FASTENING FOR OVERSHOES. RENA B. STROUP, Homeworth, Ohio. Filed Jan. 2, 1913. Serial No. 739,808. (Cl. 36—7.)

1. A device for holding an overshoe on a shoe, comprising a plate adapted to extend under the heel of the overshoe, an upwardly extending strap attached to the rear end of said plate, a U-shaped strap having its curved middle portion attached to said upwardly extending strap and its sides extending forwardly and adapted to engage the counter of the overshoe with the said U-shaped strap terminating adjacent the shank of the overshoe, a strap having one end atttached to a side of said plate adjacent its forward end, said strap extending upwardly and having its other end attached to one end of said U-shaped strap and provided with a buckle, and a strap having one end attached to the opposite side of said plate adjacent its forward end, said strap being adapted to extend upwardly and over the instep of the wearer and to have its free end secured by said buckle, an intermediate portion of said strap being secured to the other end of said U-shaped strap.





2. A device for holding an overshoe on a shoe, comprising a heel plate adapted to extend under the heel of the overshoe, a shank plate extending forwardly from said heel plate and adapted to extend under the shank of the overshoe, an adjustable strap having its ends attached to said shank plate and adapted to extend over the instep of the wearer, an adjustable strap adapted to extend over the instep of the wearer and having its ends attached to the sides of said heel plate adjacent its forward end, a strap attached to the rear end of said heel plate and extending upwardly, and a strap adapted to extend substantially horizontally about the counter of the overshoe and connected to said straps attached to the front and rear ends of said heel plate.

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1,089,511. VEHICLE-WHEEL. ALFRED J. SWING, Cincinnati, Ohio. Filed Feb. 26, 1913. Serial No. 750,827. (Cl. 152—32.)



1. A vehicle wheel comprising a hub, a tire, an annular rim rigidly supporting said tire and of yoke shaped cross-section, a circumferential radially corrugated web rigidly attached to said hub and extending therefrom to said rim and a plurality of flexible connecting members pivotally attached at one end to said web at the base of the channels formed by said radial corrugations and partially housed in said channels and pivotally connected at the opposite ends respectively to opposite sides of said rim, said flexible connecting members overlapping each other along the transverse medial line of the wheel.

2. A vehicle wheel comprising a hub, a tire, a rim, a web, and flexible connecting members pivotally connected respectively at opposite ends to said rim and web, said rim and web being so arranged that while one is radially corrugated the other is forked or yoke shaped in cross section to embrace one end of said radially corrugated member, and said flexible connecting members connected at one end at the base of the channels formed by said radial corrugations and at their opposite ends alternately to opposite forks of said yoke shaped member to cause said flexible connecting members to overlap at the transverse medial line of the wheel.

3. A vehicle wheel comprising a hub, a tire, a circumferential web radially corrugated to form radial channels on opposite sides extending from said hub to the rim, a rim of forked or yoke shaped cross section embracing the periphery of said web, and flexible connecting members pivotally connected at one end to said web at the base of the channels formed by said radial corrugations, and pivotally connected at the opposite end alternately to opposite forks of said rim.

4. A vehicle wheel comprising a hub, a tire, a circumferential radially corrugated web, a rim of yoke shaped cross section composed of an annular rim member to serve as a seat and support for the tire, an inwardly turned fork or flange formed of interengaging segmental sections rigidly secured to said annular rim member, and a detachable fork or flange formed of interengaging segmental sections rigidly secured together and detachably secured to said annular rim member, and flexible connecting members pivotally connected at one end to said web at the base of the channels formed by said radial corrugations, and at the opposite end alternately to opposite forks of said rim member.

5. A vehicle wheel comprising a hub, a tire, a radially corrugated web rigidly attached to the hub, a rim of forked or yoke shaped cross section embracing the periphery of said web, and flexible connecting members pivotally connected at one end to said web at the base of the channels formed by said radial corrugations and pivotally connected at the opposite forks of said rim, the periphery of said web being in position to engage and seat upon the inner face of said rim under excessive radial or transverse strain to limit the tension on said flexible connecting members.

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1,089,512. CLUTCH. EMIL TRAUB, Newark, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Mar. 29, 1912. Serial No. 687,088. (Cl. 192—22.)



1. In a clutch, the combination with primary and secondary members mounted for independent rotation upon a common axis, the one formed with an axial clutch-cavity and the other entering and embraced by said clutch-cavity and formed with a peripheral pocket having one side eccentric to said cavity, of a clutch-roller disposed in said pocket and adapted for engagement with the adjacent wall of said cavity and means independent of said secondary member whereby the clutch-roller is maintained in parallelism with the axis of said cavity.

2. In a clutch, the combination with primary and secondary members mounted for independent rotation upon a common axis, the one formed with an open-ended axial clutch-cavity containing a locking element and an annular projection at its inner end, and the other entering and embraced by said clutch-cavity and formed with a peripheral pocket having one side eccentric to said cavity, of a clutch-roller disposed in said pocket and adapted for engagement with the adjacent wall of said cavity and provided with a locking element coöperating with that of said cavity whereby said roller is positively confined within said cavity.

3. In a clutch, the combination with primary and secondary members mounted for independent rotation upon a common axis, the one formed with an open-ended axial

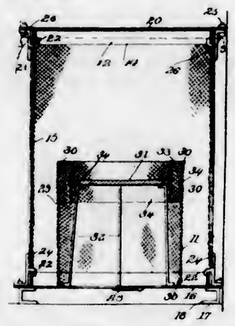
clutch-cavity having a peripheral groove and an annular projection at its inner end, and the other entering and embraced by said clutch-cavity and formed with a plurality of peripheral pockets each having one side eccentric to said cavity, of clutch-rollers disposed in said pockets and each adapted for engagement with the adjacent wall of said cavity and provided with a peripheral flange entering said groove of the clutch-cavity.

4. In a clutch, the combination with primary and secondary members mounted for independent rotation upon a common axis, the one formed with an open-ended axial clutch-cavity having in its inner end a projecting boss and in its periphery a groove surrounding said boss and the other member entering and embraced by said clutch-cavity and formed with a plurality of peripheral pockets each having one side eccentric to said cavity, of clutch-rollers disposed in said pockets and each adapted for engagement with the adjacent wall of said cavity and provided with a peripheral flange entering said groove of the clutch-cavity and adapted for engagement also with said boss.

5. In a clutch, the combination with primary and secondary members adapted for support independent of each other upon a common axis, the one formed with an axial clutch-cavity containing a peripheral groove and the other entering said clutch-cavity and formed with peripheral pockets each having one side eccentric to said cavity, of clutch-rollers disposed in said pockets each provided with a peripheral flange entering said groove in the clutch-cavity, and means whereby the faces of said flanges are shielded from contact with said secondary member.

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1,089,513. FLY-TRAP. CALVIN W. VON DORN, Albuquerque, N. Mex., assignor of one-third to Cecil K. Schafer, Naco, Ariz. Filed Sept. 18, 1912. Serial No. 721,037. (Cl. 43—22.)



1. A fly trap including an outer frame having a covering of foraminous material, a base for said frame provided with an opening, an inner frame having a covering of foraminous material and with its ends open, one end of the inner frame resting upon the base of the outer casing and about its opening, and an opaque top for the inner frame supported within the upper end thereof and in spaced relation to the free edge thereof to provide an annular passage between the inner and outer frames.

2. A fly trap including a frame having a covering of foraminous material forming a casing provided with an opening in its lower end, a second frame having a covering of foraminous material providing a second casing positioned within the first and seated by its lower end upon the lower end of the first, the ends of said second casing being open, an opaque top for said second casing supported within the upper end thereof and with its edges in spaced relation to the free edge of the second casing, and a crimped baffle member of foraminous material encircling said top and extending between it and the second casing to provide a plurality of passages from the second casing to the first.

3. A fly trap including an annular base, an annular top, and semicylindrical body members, means for securing the body members to each other and also to the base and top to provide an outer casing, and an inner casing positioned within the outer casing and provided with a plurality of restricted passages communicating between the two casings.

4. A fly trap including an annular base, an annular top, and body members, each comprising spaced apart longitudinally bowed semicircular frame members connected by parallel side members to form frames, a covering of foraminous material for said frames, means for securing said frames to each other and to the top and base, said means including a plurality of L-shaped plates, each secured by one arm to the top or base and having their free arms slitted to form tongues bent into hooks to engage the bowed frame members at points adjacent the side frame members, means for supporting the base in raised position, and an inner casing of foraminous material positioned within the first casing and provided with a plurality of restricted passages communicating with the first casing.

5. A fly trap including an outer frame having a covering of foraminous material, a base having an opening, an inner frame having a covering of foraminous material and with its ends open, one end of the inner frame resting upon the base of the outer frame and about its opening, an imperforate opaque top for the inner frame spaced within the frame and below the upper end thereof, and a crimped baffle member encircling said top between it and the covering of the inner frame, said baffle member extending below and above the top of the inner frame.

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1,089,514. DRAWER-GUIDE. ISAAC WAGEMAKER, Grand Rapids, Mich. Filed Sept. 28, 1912. Serial No. 722,810. (Cl. 45—77.)



1. In combination with a case and a drawer, a sheet metal carrier formed into channels at the sides and also provided with an opening, rollers in the bottom of the case along the front thereof to support the carrier, rollers at the front of the channels to support the drawer, rollers in the rear of the channels, channel bars embracing the carrier and traversed by the last mentioned rollers, channel bars beneath the sides of the drawer, rollers carried by the rear of the drawer and traversing the last mentioned channel bars, a stop block in the opening of the carrier fixed on the bottom of the case to limit the movements of the carrier, and a stop block fixed on the bottom of the drawer to engage the outer end of the carrier.

2. In combination with a case and drawer, a roller in the bottom of the case at the front thereof, a carrier longitudinally movable in the case and carried on said roller, a channel bar fixed in the case, a roller on the rear of the carrier traversing the said bar, a roller at the front of the carrier supporting the front of the drawer, a channel-bar beneath the side of the drawer, a hanger extending downward from the rear corner of the drawer, and a roller mounted on the hanger and traversing the said channel-bar.

3. In combination with a case and a drawer, rollers in the bottom of the case near the front thereof, a longitudinally movable carrier supported at the front on said rollers, rollers on the front of the carrier supporting the drawer, channel-bars embracing the carrier and extending forward from the rear of the case, rollers on the rear end of the carrier traversing the said channel-bars, channel-bars beneath the sides of the drawers and extending from front to rear of the case, hangers on the rear corners of the drawer and extending downward therefrom, and rollers mounted on the hangers, and traversing the last named channel-bars.

4. In a drawer guide, a carrier of sheet metal folded in channel-form at the sides and upturned at the ends, rollers in the outer ends of the margin channels to carry a drawer, rollers in the inner ends of the channel, and channel-bars traversed by the last named rollers.

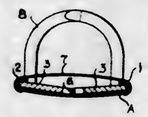
5. In combination with a case and a drawer, a sheet metal carrier formed into channels at the sides and upturned at the ends, and also having an opening with upturned margins, rollers in the front and rear ends of the channel of the carrier, channel-bars fixed in the case and traversed by the rear roller, rollers in the bottom of the case at the front thereof to support the carrier, and a fixed stop block in said opening to limit the movements of the carrier.

[Claims 6 to 9 not printed in the Gazette.]



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1,089,515. LOOSE-LEAF BINDER. RICHARD M. WATSON, Detroit, Mich. Filed Mar. 24, 1913. Serial No. 756,367. (Cl. 129—24.)

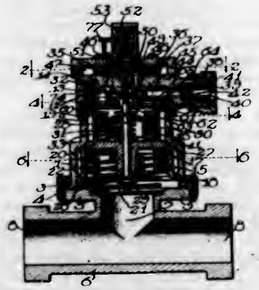


1. The combination with a shell, of a pair of clip-carrying plates journaled therein, clips carried thereupon, the said clip-carrying plates being provided with lugs along the adjacent edges, said lugs being arranged in staggered relation on the two plates and in the planes of the plates to which they are attached, the ends of the lugs being grooved, and a small gage wire of less thickness than either of the plates held in the grooves of the lugs, substantially as described.

2. The combination with a shell with its sides turned up to form channel bearings and a comparatively flat cover fitting over the shell and having its side-edges turned over the outside of the channel bearings, of a pair of clip-carrying plates, each plate being without projections beyond the planes of its faces and being of substantially uniform thickness at all points and journaled in the channel bearings of the shell, clasp mounted upon the clip-carrying plates, and a resilient member of less thickness than the plates held between the two plates at their meeting edges and put under stress when the plates are moved toward a common plane, substantially as described.

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1,089,516. CARBURETER OR THE LIKE. WALTER C. WESTAWAY, Belvidere, Ill., assignor to William W. Lufkin, Beloit, Ill. Filed June 12, 1911. Serial No. 632,588. (Cl. 137—32.)



1. In a carbureter, the combination of a vertically disposed casing having intermediate its ends an interior annular shoulder forming a valve seat, a valve disk to engage said seat, vertically extending tubular parts projecting in opposite directions from said disk, and each having an open end with an outer annular flange to engage the inner surface of the casing, the wall of each tubular part between each flange and the valve disk being spaced throughout from the wall of the casing, and each having a series of circumferentially extending relatively narrow elongated openings, said openings being relatively small and closely associated from top to bottom and thereabout.

2. In a carbureter, the combination of a vertically disposed casing having intermediate its ends an interior annular shoulder forming a seat, a valve disk to engage said seat, vertically extending tubular parts projecting in opposite directions from said disk, and each of said tubular parts having an outer open end with a surrounding annular flange to engage the inner surface of the casing, the wall of each tubular part between said flange and the valve disk being spaced from the wall of the casing, and each of the tubular parts having a series of openings, said openings being relatively small and closely associated throughout the length of said wall, a plurality of valve controlled inlets leading from the casing to the open end of the upper tubular part, and a spring positioned within the lower tubular part adapted to engage at one end the valve disk and at its opposite end a part of said casing.

3. In a carbureter, a vertically arranged casing open at opposite ends, the lower portion of the casing being enlarged relative to the upper portion thereof to form an annular valve seat intermediate its ends, a tubular valve member arranged in said casing, the lower portion thereof being enlarged relative to the upper portion thereof to form an annular valve disk intermediate its ends to engage said seat, the tubular member having a central partition dividing the same into two parts, the annular wall of each of which is spaced from the casing and has a plurality of relatively small openings throughout.

4. In a carbureter, a vertically arranged casing open at opposite ends, the lower portion of the casing being enlarged relative to the upper portion thereof to form an annular valve seat intermediate its ends, a tubular valve member arranged in said casing, the lower portion thereof being enlarged relative to the upper portion thereof to form an annular valve disk intermediate its ends to engage said seat, the tubular member having a central partition dividing the same into two parts, the annular wall of each of which is spaced from the casing and has a plurality of relatively small openings throughout, and valve controlled means at the upper open end of the casing for admitting fluid into the interior of the upper part of the tubular member.

5. In a carbureter, a casing provided with an inlet and outlet and with a valve seat therebetween, a valve member arranged in said casing, comprising a tubular part provided with a partition between its ends and with a face substantially proximate said partition arranged to seat on said casing seat, said part provided with a plurality of closely associated relatively small openings therethrough on each side of said partition and substantially throughout the length of said parts.

[Claims 6 to 12 not printed in the Gazette.]

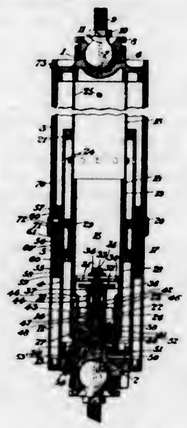
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1,089,517. FLUID-PRESSURE DEVICE. GEORGE WESTINGHOUSE, Pittsburgh, Pa., assignor to The Westinghouse Air Spring Company, a Corporation of Pennsylvania. Filed Sept. 12, 1910, Serial No. 581,607. Renewed Sept. 12, 1913. Serial No. 789,542. (Cl. 21—50.)

1. An elastic cushion device of the hydro-pneumatic type comprising relatively movable members having a sliding joint to permit varying of the volume of the fluid contained therein, liquid and gaseous fluids within said device, in combination with an internal pump supported in fixed relation to the bottom of the liquid within the device and adapted to be operated by flow of fluid therein together with means for forcing the liquid to circulate in operative relation to said pump upon movement of said relatively movable members.

2. An elastic cushion device of the hydro-pneumatic type comprising relatively movable members having a sliding joint to permit varying of the volume of the fluid contained therein, liquid and gaseous fluids within said device, and a partition member carried by one of said movable members, arranged to subdivide the lower portion of the space within said device and affording a pas-

sage for the liquid, below the normal level thereof, from one subdivision to another, in combination with a displacing member carried by the other relatively movable member and located in one of said subdivisions so as to force the liquid to circulate through said passage upon movement of said relatively movable members.



3. An elastic cushion device of the hydro-pneumatic type comprising relatively movable members having a sliding joint to permit varying of the volume of the fluid contained therein, liquid and gaseous fluids within said device, and a partition member carried by one of said movable members, arranged to subdivide the lower portion of the space within said device and affording a passage for the liquid, below the normal level thereof, from one subdivision to another, in combination with a displacing member carried by the other relatively movable member and located in one of said subdivisions so as to force the liquid to circulate through said passage upon movement of said relatively movable members, together with a pump in operative relation to said passage and adapted to be operated by fluid flow therethrough, said pump having an external intake in operative relation to liquid leaking from the sliding joint and a discharge into the pressure cavity within the device.

4. An elastic cushion device of the hydro-pneumatic type comprising relatively movable members adapted for varying of the volume of the fluid contained therein, a fluid compression medium within said device, a passage for fluid in fixed relation to the bottom of the device and a pump in operative relation to said passage, adapted to be operated by flow of fluid therethrough, in combination with a displacing member for forcing the fluid to circulate through said passage to operate said pump upon movement of said relatively movable members.

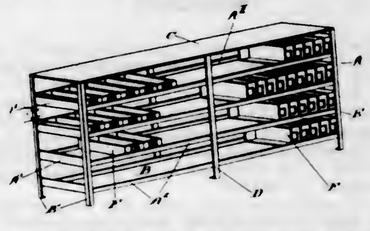
5. An elastic cushion device of the hydro-pneumatic type comprising relatively movable members for varying the volume of the fluid contained therein, liquid and gaseous fluids within said device, a passage for fluid in fixed relation to the bottom of the device, motive means adapted to be operated by flow of fluid through said passage, and an agent operated by said motive means to force fluid into the compression space within said device in combination with means for forcing the fluid to circulate through said passage to operate said agent upon movement of said relatively movable members.

[Claims 6 to 41 not printed in the Gazette.]

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1,089,518. TRANSFER-BIN. WILLIAM WARREN WOODRUFF, Ardmore, Pa., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Nov. 21, 1910. Serial No. 593,474. (Cl. 211—6.)

1. A parcel sorting apparatus comprising a cage having a plurality of horizontal shelves arranged one above the other, a series of trays of considerably greater width than depth removably mounted in said cage on said shelves, each of said trays having a depth considerably less than the space between the shelf on which it rests and the shelf immediately above, to provide relatively large openings through which parcels may be readily inserted for emplacement upon or withdrawal from said trays when the latter are in position upon the shelves, each of said shelves adapted to hold a number of trays but normally having an insufficient number of the latter operatively disposed thereon to completely fill said shelf, rollers upon which said trays ride, the axes of said rollers being held against swiveling and disposed at right angles to the length of said shelves whereby lateral pressure upon any one of said trays, applied in the direction of the length of the corresponding shelf, may be readily communicated to one or more adjacent trays to facilitate a sidewise movement of a plurality of trays by pressure upon merely said one, for opening a space in a series of trays on a given shelf into which an additional tray may be inserted, the width of said trays being less than the distance between shelves to permit the trays when out of use being stacked on edge to afford room for the said sidewise movement of operatively disposed trays.



2. A parcel sorting apparatus comprising a cage having a plurality of horizontal shelves arranged one above the other, a series of trays removably mounted in said cage on said shelves, each of said trays having, in the front at least thereof, a depth considerably less than the space between the shelf on which it rests and the shelf immediately above, to provide relatively large openings through which parcels may be readily inserted for emplacement upon or withdrawal from said trays when the latter are in position upon the shelves, each of said shelves adapted to hold a number of trays but normally having an insufficient number of the latter operatively disposed thereon to completely fill said shelf, rollers upon which said trays ride, the axes of said rollers being held against swiveling and disposed at right angles to the length of said shelves whereby lateral pressure upon any one of said trays, applied in the direction of the length of the corresponding shelf, may be readily communicated to one or more adjacent trays to facilitate a sidewise movement of a plurality of trays by pressure upon merely said one, for opening a space in a series of trays on a given shelf into which an additional tray may be inserted.

3. A parcel sorting apparatus comprising a cage having a plurality of horizontal shelves arranged one above the other, a series of trays of considerably greater width than depth removably mounted in said cage on said shelves, each of said trays having a depth considerably less than the space between the shelf on which it rests and the shelf immediately above, to provide relatively large openings through which parcels may be readily inserted for emplacement upon or withdrawal from said trays when the latter are in position upon the shelves, each of said shelves adapted to hold a number of trays but normally having an insufficient number of the latter operatively disposed thereon to completely fill said shelf, rollers upon which said trays ride, the axes of said rollers being held against swiveling and disposed at right angles to the length of said shelves, whereby lateral pressure upon any one of said trays applied in the direction of the length of the corresponding shelf may be readily communicated to one or more adjacent trays to facilitate a sidewise movement of a plurality of trays by pressure upon merely said one, for opening a space in a series of trays on a given shelf into which an additional tray may be inserted, the width of said trays being less than the distance between shelves to permit the trays when out of use being stacked on edge to afford room for the said sidewise movement of operatively disposed trays, said rollers being attached to the bottoms of said trays and being spaced in from the edges of the latter to permit of said rollers entering into the interior of an adjoining tray when stacked on edge in manner aforesaid, whereby a further economy of space is effected.



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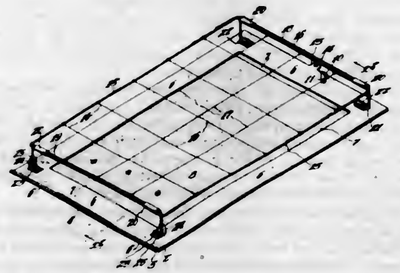
1,089,519. TIE AND SOFT-COLLAR CASE. GEORGE WORDINGHAM, Milwaukee, Wis. Filed Sept. 19, 1911. Serial No. 650,253. (Cl. 229—87.)



A wrapper for laundried articles comprising a back of relatively stiff material and a cover sheet of relatively thin foldable material of greater width than the back, one margin of the cover sheet being attached to one margin of the back and the other margin of the cover sheet being free, the obverse face of the back being provided with a line of adhesive for the attachment of the free margin of the cover sheet and the said cover sheet having its upper and lower edge portions folded inwardly continuously throughout the entire length of the said end edge portions whereby the folded in edge portions at the upper and lower ends of the wrapper will be closed at the ends of the folds whereby to prevent accidental unfolding of the said edge portions.

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1,089,520. FLY-PAPER HOLDER. BUNKICHI YOKOYAMA, Los Angeles, Cal. Filed June 23, 1913. Serial No. 775,428. (Cl. 43—22.)



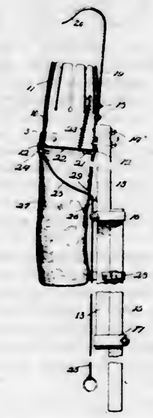
1. A fly paper holder comprising a base plate, means for clamping the fly paper to said base plate, and a collapsible protective screen attached to said clamping means and located above the upper surface of said fly paper.

2. A fly paper holder comprising a base plate, a clamping plate with a rectangular opening therein slightly smaller than the sheet of fly paper to be held, means for locking said clamping plate securely to said base plate, and a collapsible screen carried by said clamping plate and adapted to be held above the surface of said fly paper or bent downward into a collapsed position.

3. A fly paper holder comprising a base plate, a clamping plate hinged on said base plate, a latch for fastening said base plate and said clamping plate together, a frame, wire members crossing said frame at right angles to each other, standards hinged on said clamping plate and on said frame, and means for frictionally retaining said standards in the upright position.

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1,089,521. FRUIT-PICKER. JOHN E. ALLSTEADT, Hastings, Nebr. Filed May 7, 1913. Serial No. 766,149. (Cl. 56—99.)

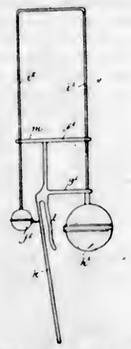


1. A fruit picker comprising a receptacle of rigid material open at the ends and with an outwardly directed flange at the lower end, a receiver of fabric material bearing at its upper end around said flange and supported thereby, a closure swingingly connected to said receptacle, and operative within the fabric receiver, a stop device extending from said closure at the side opposite from the hinge, a spring engaging said closure and yieldably maintaining the same in closed position with the stop device engaging the flange, and means for depressing said closure against the resistance of said spring.

2. A fruit picker comprising a receiver of rigid material, a swinging closure for the lower end of said receiver, a spring operating to yieldably maintain said closure in elevated position, a fabric receptacle depending from said receiver and closed at the lower end and into which said closure moves when depressed, an upper pole section connected to said receiver, a lower pole section slidable relative to the upper pole sections, means for adjustably coupling said pole sections, and means for depressing said closure.

3. A fruit picker comprising a receiver of rigid material, an arm connected to said receiver and curving over the same and with a converging recess in the curved portion, a swinging closure for the lower end of said receiver, a spring operating to yieldably maintain said closure in elevated position, a fabric receptacle depending from said receiver and closed at the lower end and into which said closure moves when depressed, means for depressing said closure, a supporting device for said receiver, and means for actuating said closure against the resistance of said spring.

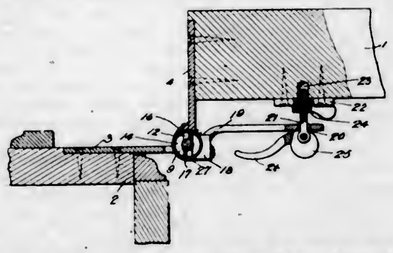
1,089,522. WATER-LEVEL GAGE FOR PAILS. EDWIN E. ANGELL, Somerville, Mass. Filed Mar. 4, 1912. Serial No. 681,393. (Cl. 116—31.)



1. A water level gage for pails, buckets and the like, comprising complemental embracing members having a space between them adapted to be slipped over the edge of any pail and to lie adjacent to the inner and outer faces of the pail, guiding means projecting inwardly from said embracing members, a slide engaged with said guiding means and held thereby in a substantially vertically position with provision for movement lengthwise, a float connected to the lower end of said rod and adapted to be supported by the water in the pail, and an index member carried by said rod outside the pail and visible externally thereof.

2. A gage for fire pails comprising members relatively constructed and arranged to embrace the lip or rim of a pail, vertically separated arms attached to said members having apertures or eyes in substantially vertical alinement, a rod passing loosely through said eyes and adapted to move endwise therein, a float connected to said rod within the pail, and an indicator also connected to the rod outside of the pail.

1,089,523. DOOR-HOLDING DEVICE. HOWARD H. BARNETT, Pontiac, Mich. Filed Mar. 15, 1913. Serial No. 754,498. (Cl. 16—6.)



1. In combination, a leaf member having at one end thereof a lip formed with a concaved portion, a second leaf member having a cylindrical member, a lever having a concaved portion, a resilient member attached to the lip passing around the cylindrical member and having attachment to the lever whereby the concaved portions of the lip and lever have bearing engagement with the cylindrical member, a double means of adjustment for the lever to draw the lip, cylindrical member and lever together, and a single means for operating either adjusting means.

2. In combination, a casing, a door mounted for swinging movement on the casing, means to retain the door in position with respect to the casing comprising leaf members attached to the door and casing and pivotally secured together, a cylindrical member forming a portion of one leaf member and located at their pivotal connection, a head formed on the other leaf member and having a concaved surface bearing against the cylindrical member, a resilient member attached to the head opposite the concaved surface and passing around the cylindrical member, a lever with which the resilient member has attachment lying substantially parallel to the door and having attachment thereto, a threaded plate secured to the door, a pin passing through the lever and threaded into the plate and means secured to the outer end of the pin and bearing against the lever whereby the pin may be turned to operate the lever toward the door and draw the engaging parts of the leaf members together.

3. In combination, a casing, a swinging member hingedly mounted on the casing, a device attached to the casing and swinging member comprising leaf members pivotally secured together, a cylindrical member associated with the leaf members at their pivotal connection, a resilient member attached to one leaf member and passing around the cylindrical member, a lever normally lying substantially parallel to the swinging member and having attachment to the resilient member, whereby operation of the lever toward the swinging member serves to bind the resilient member against the cylindrical member, and means to adjust the lever toward and from the swinging member comprising a threaded pin passing through the lever and having engagement with a threaded member, secured to the swinging member, said pin having attached at its outer end a cam lever bearing against the lever and adapted to turn the pin in the threaded member or operate the lever toward the swinging member by movement of the cam lever with reference to the pin.

4. In combination, a casing, a door mounted for swinging movement on the casing, means to retain the door in position with respect to the casing comprising leaf members attached to the door and casing and pivotally secured together, a cylindrical member forming a portion of one leaf member and located at their pivotal connection, a head formed on the other leaf member and having a concaved surface bearing against the cylindrical member, a resilient member attached to the head and passing around the cylindrical member, a lever with which the resilient member has attachment lying substantially parallel to the door and having attachment to the door, a threaded plate secured to the door, a pin passing through the lever and threaded into the plate, and a cam lever pivotally attached to the outer end of the pin and operating to adjust the lever toward the door either by turning the pin in the plate or by pivotal movement with respect to the plate.

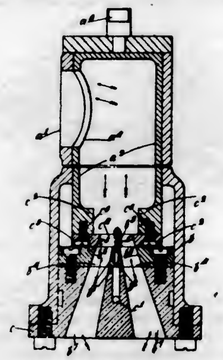
1,089,524. CARBURETER. HERBERT RAYMOND BARRETT, Southport, and KENNETH MCCLYMONT WILSON, Manchester, England, assignors to The Phoenix Motor Company, Altrincham, England. Filed Nov. 6, 1911. Serial No. 658,867. (Cl. 48—155.1.)

1. A carbureter or vaporizer for internal combustion engines, comprising in combination, a casing, a diametrical bar therein, a fuel jet in said bar, tapered air passages extending along and contiguous to the sides of said bar, and a rotating choking plate for controlling the proportions of the constituents of the mixture and for imparting a swirling motion to the same.

2. A carbureter or vaporizer for internal combustion engines, comprising in combination, a casing, a tapered perforated bar, means for conducting the oil to said perforated bar, tapered air passages adjacent the sides of said perforated bar, a rotating sleeve in the casing, and a choking plate carried by said rotating sleeve, said plate having an aperture formed with tapered sides.

3. Carbureter or vaporizer for internal combustion engines comprising in combination a casing, a tapered perforated bar, means for conducting oil to said perforated bar, tapered air passages adjacent to said perforated bar, a rotating sleeve in the said casing which is adapted to serve as a mixing chamber, a port in said sleeve for controlling the inlet to the engine, a choking plate carried by said rotating sleeve, and having an aperture formed with tapered sides.

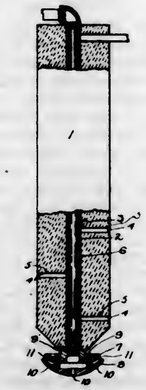




4. Carbureter or vaporizer for internal combustion engines comprising in combination a casing, a diametrical bar therein, a fuel jet in said bar, a plurality of tapered air passages, a rotating sleeve within said casing, and a choking plate adjustably mounted on said sleeve for controlling the proportions of the constituents of the mixture and for imparting a swirling motion to the same.

5. Carbureter or vaporizer for internal combustion engines comprising in combination a casing, a tapered perforated bar, means for conducting oil to said perforated bar, tapered air passages adjacent to said perforated bar, a rotating sleeve in the said casing which is adapted to serve as a mixing chamber, a port in said sleeve for controlling the inlet to the engine, a choking plate adjustably mounted on said sleeve and having an opening formed with tapered sides.

1,089,525. NOZZLE FOR PILES AND CAISSONS. EDWARD BIGNELL, Lincoln, Nebr., assignor of two-fifths to Harry T. Jones, Seward, Nebr. Filed May 31, 1913. Serial No. 770,936. (Cl. 61—41.)

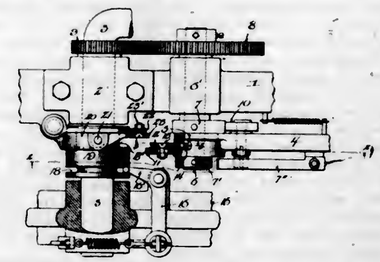


1. In a substructure of the specified class, a terminal nozzle comprising an annular plate detachably united with the bottom of the substructure, and an annular downwardly convex plate fastened to the first mentioned plate in a co-axial position and spaced therefrom.

2. In a substructure of the specified class, a terminal nozzle comprising an annular plate united with the bottom of the substructure, and an annular downwardly convex plate fastened to the first mentioned plate in a coaxial position and spaced apart therefrom.

3. In a substructure of the specified class, a terminal nozzle comprising a downwardly convex annular plate united with the bottom of the substructure, and an annular concavo-convex plate fastened to the first mentioned plate in a coaxial and subjacent position, and spaced apart therefrom.

1,089,526. VALVE-GEARING FOR INTERNAL-COMBUSTION ENGINES. HARRY W. BOLENS, Port Washington, Wis. Filed June 28, 1912. Serial No. 706,450. (Cl. 123—113.)



1. In an internal combustion engine having a bed, a shaft journaled therein, a valve-rod provided with a head in juxtaposition to the shaft, a governor-controlled grooved sleeve reciprocatively mounted upon the shaft, and a tappet-plate carried by the valve-rod head; the combination of a vertically disposed pin extending from the engine bed, an oscillatory arm mounted upon the pin, the arm being extended crosswise over the sleeve and having its free end disposed upon the opposite side of said sleeve from that of its fulcrum point, a stud extending from said arm intermediate of its length engageable with the sleeve groove, a tappet-plate secured to the free end of the aforesaid arm, the tappet-plate being arranged to oscillate across the line of travel of the valve head tappet, whereby the latter is engaged incidental to predetermined acceleration of the engine.

2. In an internal combustion engine having a bed, a shaft journaled therein, a valve-rod provided with a head in juxtaposition to the shaft, a governor-controlled grooved sleeve reciprocatively mounted upon the shaft, and a tappet-plate carried by the valve-rod head; the combination of an oscillatory arm in pivotal union with the engine bed, the arm being extended crosswise of the sleeve and having its free end disposed upon the opposite side of said sleeve from that of its point of oscillation, a stud extending from the arm intermediate of its length engageable with the sleeve groove, a tappet-plate carried at the free end of said arm, the tappet-plate being in alinement with the valve-rod tappet-plate whereby movement of said valve-rod is checked in one direction.

3. In an internal combustion engine having a bed, a shaft journaled therein, a valve-rod provided with a head in juxtaposition to the shaft, a governor-controlled grooved sleeve reciprocatively mounted upon the shaft, and a tappet-plate carried by the valve-rod head; the combination of an oscillatory arm in pivotal union with the engine bed, the arm being extended crosswise of the sleeve and having its free end disposed upon the opposite side of said sleeve from that of its point of oscillation, a roller stud extending from the arm intermediate of its length engageable with the sleeve groove, a tappet-plate carried at the free end of said arm, the tappet-plate being in alinement with the valve-rod tappet-plate whereby movement of said valve-rod is checked in one direction.

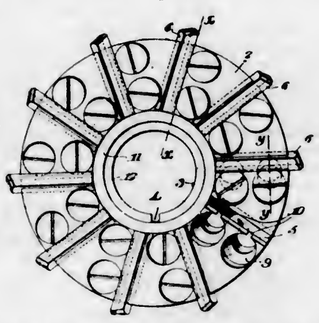
4. In an internal combustion engine having a bed, a crank-shaft journaled therein, a valve-rod provided with a head in juxtaposition to one side of the shaft, a tappet-plate carried by the head, and a governor-controlled grooved sleeve reciprocatively mounted upon said shaft; the com-

bination of a vertically disposed pin extending from the engine bed upon that side of the shaft opposite the valve-rod head, an arm pivotally mounted upon the pin, the arm being extended crosswise of the sleeve and having its free end disposed upon the opposite side of said sleeve from that of its point of oscillation, a rectangular tappet-seat at its free end, the tappet-seat being upon the same horizontal plane as the valve-rod tappet, and means depending from the arm intermediate of its length for engagement with the sleeve groove whereby the free end of said arm is caused to move in or out of the path of travel of the valve-rod tappet.

5. An internal combustion engine comprising a bed, a crank-shaft journaled therein, an arbor in gear connection with the crank-shaft, a spring-controlled reciprocative valve-rod, a forked head carried by the valve-rod engageable with the arbor, an ear extending from the head, a tappet-plate secured to the ear, a governor-controlled grooved sleeve reciprocatively mounted upon the crank-shaft, a pivot-pin extending upwardly from the engine bed, an arm having one end journaled upon the pivot-pin, the arm being extended crosswise over the sleeve and having its free end disposed upon the opposite side of said sleeve from that of its point of oscillation, a tappet carried at the free end of the arm for engagement with the valve-rod head tappet, and a stud extending from the arm intermediate of its ends engageable with the sleeve groove whereby said arm is oscillated when the sleeve is moved under control of the governor.

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1,089,527. MILLING-MACHINE HEAD. SAMUEL S. BOLTON, Cleveland, Ohio. Filed July 5, 1913. Serial No. 777,470. (Cl. 29—105.)



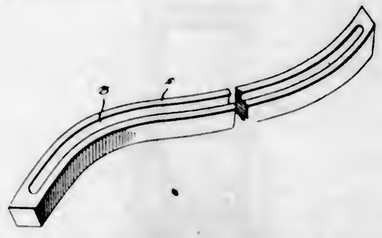
1. A milling head comprising a cylindrical body having a plane outer face, and being provided with blade receiving recesses in said head at an angle to said face, blades in said recesses, screws tapped into said head at an angle to said blades and provided with conical heads engaging the faces of the respective blades, substantially as described.

2. A milling head comprising a cylindrical body having a plane outer face and provided with a plurality of substantially radially disposed blade receiving recesses, said recesses being arranged at an angle to the plane of rotation of said head, and having parallel side walls, blades arranged in said recesses, said blades being of substantially uniform thickness throughout, screws tapped into said head at an angle to said blades and provided with conical heads engaging the forward faces of said blades, substantially as described.

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1,089,528. PIANO-BRIDGE. LOUIS H. BREITENBACH, New York, N. Y., assignor to William F. Keogh, New York, N. Y. Filed Mar. 28, 1911. Serial No. 617,430. (Cl. 84—139.)

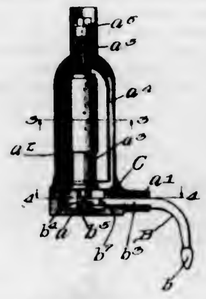
1. The combination with a sounding board of a piano, of a bridge resting upon the sounding board and having a longitudinally extending series of recesses spaced from each other on the side of the bridge toward the sounding board, the recesses being narrower than the width of the bridge and forming a series of separated resonant chambers.



2. The combination with a sounding board of a piano, of a bridge resting upon the sounding board and having a longitudinally extending concavity on the side toward the sounding board, the ends of the cavity being closed and the recess being less in width than the width of the bridge, and forming a closed resonant chamber.

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1,089,529. RADIATOR-VALVE. WALTER W. BRISSENDEN, Inglewood, Cal., assignor to National Steam Specialty Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 21, 1907. Serial No. 398,381. (Cl. 237—19.)



1. In a radiator valve, a drain comprising a plurality of strips of material entirely separated from each other except at one end thereof, but arranged close together, so as to provide longitudinal spaces each open at two sides thereof, with one end of said drain inside of the valve, and the other end adapted to depend from said valve.

2. In a radiator valve, a drain comprising a plurality of members entirely separated from each other except at one end thereof, but arranged close together, so as to provide longitudinal spaces each open at two sides thereof, said members suitably connected at their outer ends, which outer ends are adapted to depend from said valve, the inner end of said drain being within the valve.

3. In a radiator valve, a drain comprising a plurality of strips of metal entirely separated from each other except at one end thereof, but arranged close together with their flat vertical surfaces opposing each other, so as to provide longitudinal spaces each open at two sides thereof, the inner end of the drain being within the valve, and the other end adapted to depend from said valve.

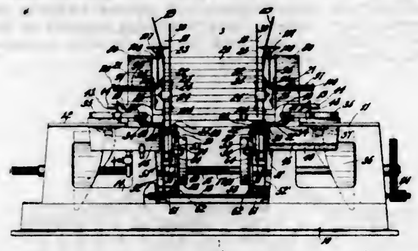
4. In a radiator valve, an inlet therefor, and a drain having a part thereof depending from said inlet, said drain made of strips of spring metal joined together only at their lower ends.

5. A radiator valve including a drain adapted to depend therefrom, a thermostatic member, and means on the inner end of the drain engaging said thermostatic member to lock said member in place.

[Claim 6 not printed in the Gazette.]



1,089,530. AUTOMATIC DOUBLE GLUER AND DRIVER. RUSH C. BROWN, Oshkosh, Wis., assignor to Wilkin-Challoner Company, a Corporation of Wisconsin. Filed June 26, 1911. Serial No. 635,451. (Cl. 144—31.)



1. An automatic gluing and driving machine, comprising a support, means for feeding door rails thereto, dowel pin hoppers mounted thereon, a gluing mechanism carried by the frame, means for actuating the gluing mechanism to simultaneously insert glue within dowel pin openings in both ends of a door rail, and means for driving dowel pins simultaneously into the dowel openings of both ends of the door rail.

2. An automatic gluing and driving machine, comprising a support, oppositely positioned rail hoppers mounted thereon and adapted to carry therebetween door rails having dowel pin openings provided in opposite ends, oppositely positioned dowel pin hoppers mounted on the support and between which the door rails are moved, oppositely positioned gluing mechanisms carried by the support, means for actuating the gluing mechanisms to simultaneously insert glue into the dowel pin openings at both ends of a rail, and means for driving dowel pins carried by the dowel pin hoppers simultaneously into the openings at both ends of the rail.

3. An automatic gluing and driving machine, comprising a support adapted to movably hold thereon door rails provided with dowel pin openings, oppositely positioned dowel pin hoppers mounted on the support and between which the door rails are moved, oppositely positioned gluing mechanisms mounted on the support, means for actuating the gluing mechanism to insert glue within the dowel pin openings, and means for driving dowel pins carried by the dowel pin hoppers simultaneously into the dowel pin openings at both ends of the rail

4. An automatic gluing and driving machine, comprising a support adapted to movably hold thereon door rails provided with dowel pin openings, oppositely positioned dowel pin hoppers mounted on the support and between which the door rails are moved, oppositely positioned gluing mechanisms mounted on the support, means for actuating the gluing mechanism to insert glue within the dowel pin openings, means for automatically moving the door rails from a position between the gluing mechanisms to a position between the dowel pin hoppers, and means for driving dowel pins from the dowel pin hoppers simultaneously into all of the dowel pin openings of a door rail.

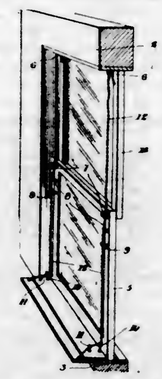
5. An automatic gluing and driving machine, comprising a support adapted to movably hold thereon door rails provided with dowel pin openings, oppositely positioned dowel pin hoppers mounted on the support and between which the door rails are moved, oppositely positioned gluing mechanisms mounted on the support, cam means for actuating the gluing mechanisms to insert glue within the opening of the rails and to drive dowel pins into the openings of said rails, and means for automatically moving the door rails from a position adjacent to the gluing mechanism to a position between the dowel pin hoppers.

[Claims 6 to 12 not printed in the Gazette.]

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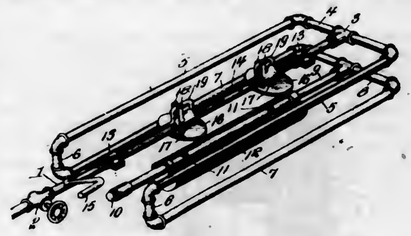
1,089,531. DEVICE FOR RAISING AND LOWERING WINDOWS. GEORGE CARTER, Calgary, Alberta, Canada. Filed Apr. 10, 1913. Serial No. 760,333. (Cl. 16—116.)

A raising and lowering device for windows comprising in combination with the upper and lower sashes and the window frame, pulleys suitably secured to the upper horizontal portion of the window frame, pulleys suitably secured to the lower sash, guiding hooks secured to the lower sash, hooks suitably secured to the lower sash beneath the pulleys on the same, hooks suitably secured to the lower horizontal portion of the window frame, guiding hooks secured to the lower horizontal portion of the window frame, chains secured to the upper sash and extending up around the pulleys secured to the upper horizontal portion of the window frame and down through the pulleys secured to the lower sash, and through the guiding hooks.



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1,089,532. COMBINED GENERATOR AND BURNER. SIDNEY A. CHRISTIAN, Fulbright, Tex. Filed May 16, 1913. Serial No. 768,129. (Cl. 158—63.)



A combined burner and generator including a fuel inlet pipe, a burner pipe and a series of communicating intermediate pipes, deflecting shields movably mounted on the inlet pipe, and a lever mounted for rotary and longitudinal movement on the inlet pipe and connected to the deflecting shields.

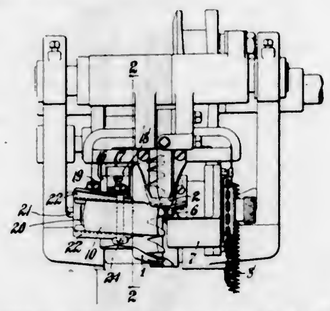
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1,089,533. INSEAM-TRIMMING MACHINE. EDWARD COEY, St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 4, 1912. Serial No. 695,095. (Cl. 12—82.)

1. An inseam trimming machine having, in combination, a trimming knife, means for feeding the shoe past the knife, and guiding devices for the shoe including a guard supported in the line of feed beyond the cutting point and having provision for adjustment in the line of feed, substantially as described.

2. An inseam trimming machine having, in combination, a trimming knife, means for feeding the shoe past the knife, and guiding devices including a guard supported in the line of feed beyond the cutting point and having provision for adjustment both in the line of feed and to vary the depth of cut made by the knife, substantially as described.

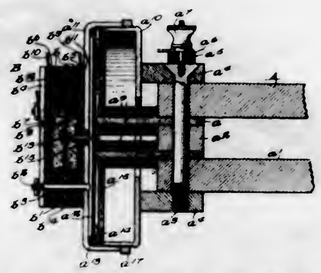
3. An inseam trimming machine having, in combination, a knife shaft, a cylindrical trimming knife journaled upon the shaft, means for feeding the shoe past the knife, a crease guide, a channel guide, and a guard supported upon the knife shaft and having provision for adjustment both transversely and lengthwise of the shaft, substantially as described.



4. An inseam trimming machine comprising a knife shaft, a cylindrical trimming knife journaled thereon, a collar secured to the knife shaft, an L-shaped arm attached to the collar and having provision for adjustment transversely thereof, and a guard supported upon the arm and having provision for adjustment lengthwise of the knife to maintain the guard in close proximity to the knife edge, substantially as described.

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1,089,534. DIFFERENTIAL-MICROPHONE REPEATER. JOHN J. COMER, Chicago, Ill., assignor to Automatic Enunciator Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1911. Serial No. 611,111. (Cl. 179—171.)



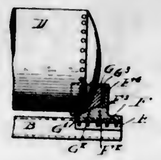
1. In a microphone repeater, a microphone box provided with a movable stem for the operation thereof, a magnet, a diaphragm disposed in position to be directly acted upon and vibrated by said magnet, said diaphragm being connected with the said stem, a cup partially inclosing said magnet, and a removable cap screwed upon the said cup, which cap carries with it when removed both the said diaphragm and said microphone box, said diaphragm being mounted on one side of said cap and the microphone box on the other side thereof.

2. In a microphone repeater, a magnet, a cup partially inclosing said magnet, a cap for said cup removably secured thereto, a diaphragm mounted adjacent the poles of said magnet and carried by said cap, a microphone transmitter mounted on the outside of said cap, and a connection between said diaphragm and said transmitter passing through said cap.

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1,089,535. TANK-CAR. CHARLES H. COYLE, Clyde, Ill. Filed Feb. 3, 1913. Serial No. 745,851. (Cl. 105—264.)

1. A tank car comprising a frame and a tank provided at either end with a rigid shoe extending across the end of the tank at the bottom inclosing a portion of the end of the side plates and conforming closely to the contour of the tank, bumpers mounted one on either end of the frame in opposition to said rigid shoes, said shoes and bumpers being provided with opposed vertically disposed contact surfaces, said tank being mounted on and free to slide along the frame limited only in its movement therealong by said bumpers.

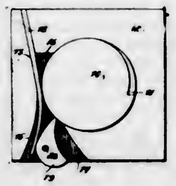


2. A tank car comprising a frame and a tank provided at either end with a rigid shoe extending across the end of the tank at the bottom inclosing a portion of the end of the side plates and conforming closely to the contour of the tank, bumpers mounted one on either end of the frame in opposition to said rigid shoes, said shoes and bumpers being provided with opposed vertically disposed contact surfaces, said tank being mounted on and free to slide along the frame limited only in its movement therealong by said bumpers said bumpers and shoes being normally out of contact one with the other the distance between the bumpers being substantially equal to the over all distance between the contact surfaces of the shoes when the relative temperature of the tank is at a maximum compared to the temperature of the frame.

3. A tank car comprising a frame and a tank provided at either end with a rigid shoe extending across the end of the tank at the bottom inclosing a portion of the end of the side plates and conforming closely to the contour of the tank, bumpers mounted one on either end of the frame in opposition to said rigid shoes, said shoes and bumpers being provided with opposed vertically disposed contact surfaces, said tank being mounted on and free to slide along the frame limited only in its movement therealong by said bumpers said shoes and said bumpers being provided with upwardly and outwardly inclined surfaces in contact one with the other to guide the course of the shoe along the arm.

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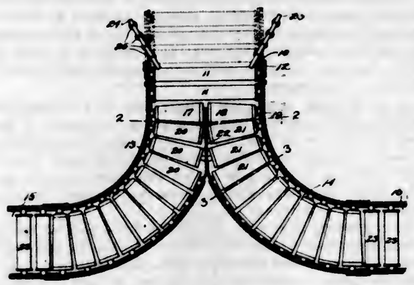
1,089,536. LOCK-NUT. WILLARD D. CRANNEY, Logan, Utah. Filed Feb. 17, 1912. Serial No. 678,289. (Cl. 151—25.)



A nut lock comprising a nut having a recess in its upper face with a flared portion and a reduced extended portion opposite the flared portion, the flared portion of the recess extending through the side of the nut, a crescent shaped pawl pivoted in said recess and having one terminal bifurcated to engage the thread of a bolt upon which the nut is engaged while its opposite rounded terminal normally projects beyond the side of the nut, said pawl being pivoted in the flared portion of the recess, and a leaf spring having one end secured in the reduced extended portion of the recess while its opposite end is engaged against the convex face of the pawl to resiliently retain the bifurcated terminal thereof in engagement with the bolt threads, said leaf spring being tapered from end to end whereby it may be wedged tightly in the reduced portion of the recess.



1,089,537. GRAVITY-CONVEYER. HOLLIS B. CRUM, Chicago, Ill., assignor to Raymond C. Penfield, New York, N. Y. Filed Jan. 25, 1912. Serial No. 673,388. (Cl. 193—1.)



1. An apparatus of the kind described, comprising a conveyer way for supplying lines of articles, said way having branching turns extending to diverging portions, and said turns having conical rollers arranged therein to automatically divide the lines of bricks and apportion them to said diverging portions.

2. An apparatus of the kind described, comprising a gravity conveyer way having branch turns leading to oppositely extending portions, said turns having mounted therein conical rollers adapted to divide lines of bricks and apportion them equally to said oppositely extending portions.

3. An apparatus of the kind described, comprising a sectional gravity roller conveyer having branching turns leading to oppositely extending portions, said turns and the conveyer portion adjacent thereto having banked conical rollers mounted therein in position to automatically apportion the lines of bricks between said oppositely extending portions and direct the same thereto.

4. An apparatus of the kind described, comprising a gravity roller conveyer way having branching turns leading to oppositely extending portions, said conveyer way having lateral guides for centering lines of bricks thereon and bringing them into close formation, and said turns having conical rollers arranged to apportion the lines of bricks therebetween.

5. An apparatus of the kind described, comprising a gravity roller conveyer way having branching turns leading to oppositely extending portions, said conveyer way having lateral spring presser means for centering the lines of bricks just before they reach said branching turns, and said turns having conical rollers arranged to apportion the lines of bricks therebetween.

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1,089,538. BOX. JOHN E. DAVIDSON, Boston, Mass., assignor of one-third to Arthur N. Hood, Newton, Mass., and one-third to John T. Nightingale, Boston, Mass. Filed Jan. 17, 1913. Serial No. 742,591. (Cl. 217—5.)



1. The improved packing box consisting throughout of laminated wood comprising laminæ built up with the grain of the layers in crossed relation and united and permeated by cement, said box comprising contacting top, bottom, ends and sides supporting each other at the corners of the box, rigid corner reinforcing strips overlapping the contacting walls of the box and each having a sharp internal angle, the inner overlapping faces of said strips being in contact throughout their lengths with the adjacent walls of the box, and means for securing said reinforcing strips in place.

2. The improved packing box comprising overlapping top, bottom, sides and ends forming the walls of the box and composed of laminated wood, consisting of laminæ secured together and permeated by cement, combined with rigid corner binding strips overlapping said walls and having a sharp internal angle, said corner binding strips being composed of laminæ of wood secured together and permeated by cement, and means for securing said corner binding strips over said contiguous walls to cause the inner surfaces of said strips to lie in contact throughout with the adjacent walls of the box and firmly secure and clamp them together.

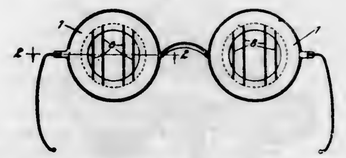
3. The improved laminated wood box, consisting of top, bottom, sides, and ends, forming the walls of the box and having their edges in contact with and supporting each other, said wall parts being composed of laminæ of wood with the grain placed in crossed relation and united and permeated by cement, combined with rigid corner bindings composed of laminæ of wood with the grain placed in crossed relation and united and permeated by cement, said corner bindings overlapping the walls of the box and each having a sharp internal angle and mitered ends, and means for securing said corner bindings to the walls of the box with their mitered ends in close engagement and their internal faces in contact throughout with the adjacent box surfaces.

4. The improved packing case having overlapping top, bottom, ends and sides, forming the walls of the box, of laminated wood united and permeated by cement, the overlapping parts forming the walls of the box supporting each against pressure from without, combined with rigid corner bindings around the box edges and composed of laminæ of wood united and permeated by cement and each having a sharp internal angle to permit their internal faces to lie in contact throughout with the surfaces of adjacent wall parts, and means for securing said corner bindings to said box edges to strengthen and support the box.

5. The improved packing case, composed of laminated wood united and permeated by cement, having sides, ends and top and bottom parts, a portion of each of said parts overlapping the edge of an adjacent part, combined with rigid corner bindings composed of laminæ of wood united and permeated by cement and each having a sharp internal angle, said top part having a corner binding strip secured along one edge, and means for securing said first mentioned corner bindings to the box edges to cause said corner bindings to lie in contact throughout with the adjacent box surfaces.

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1,089,539. LIGHT-SHIELD. THEODORE P. DRIVER, Melrose, Mass. Filed Nov. 7, 1913. Serial No. 799,704. (Cl. 88—1.)



1. In a light shield, a row of three or more vertically arranged, non-contiguous screens.

2. In a light shield, a vertical screen at each extremity, and a non-contiguous vertical screen intermediate thereof.

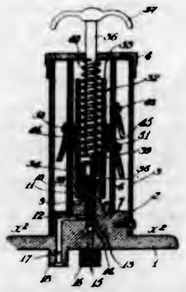
3. In a light shield, a vertical screen at each extremity, and a plurality of non-contiguous vertical screens intermediate thereof.

4. In a light shield, a frame and a row of three or more non-contiguous vertically arranged thin screens retained therein, said screens having darkened surfaces.

5. In a light shield, a row of three or more screens, vertically arranged and separated from each other by substantial spaces.

[Claims 6 and 7 not printed in the Gazette.]

1,089,540. LAMP-IGNITION DEVICE. LESTER M. DULL, Los Angeles, Cal. Filed Oct. 24, 1912. Serial No. 727,606. (Cl. 175—115.)

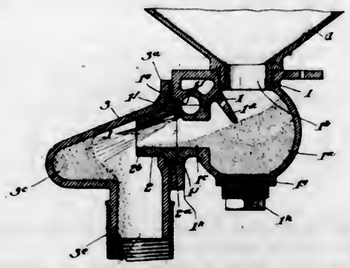


1. A lamp ignition device comprising a support having a gas opening therethrough, a valve for regulating the flow of gas in said gas opening, a rod slidable in said support and engaging said valve, a spring for holding said rod in engagement with said valve, stationary contacts secured to said support and a movable contact carried by said rod.

2. A lamp ignition device comprising a support, a gas valve secured to said support, a stem for said gas valve, a rod slidable with relation to said support and engaging said stem, a spring for holding said rod in engagement with said stem, stationary contacts secured to said support, and a movable contact carried by said rod.

3. A lamp ignition device comprising a support, a gas opening through said support, a valve regulating said opening, a square stem for said valve, a cylindrical cover for said support, an insulating cylinder secured to said support, stationary contacts on said insulating cylinder, a rod having a square recess for engaging said stem, a spring holding said rod in engagement with said stem, an insulating tube carried by said rod, and a movable contact carried by said insulating tube.

1,089,541. SAND-TRAP. CYRUS P. EBERSOLE, Philadelphia, Pa., assignor to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 29, 1912. Serial No. 693,932. (Cl. 105—263.)



1. A sanding apparatus comprising a receptacle having a nozzle with a converging discharge passage communicating therewith, means for delivering a blast through said nozzle, an outlet passage beneath the end of said nozzle, and a pocket in line with said nozzle and in communication with said outlet passage.

2. A sanding apparatus comprising a bowl having an inlet port at the top thereof, an outlet passage at the side thereof, a nozzle with which said outlet passage communicates, a passage for delivering blast through said nozzle, a sand pocket in the line of said blast, and a baffle extending downwardly between said inlet port and nozzle.

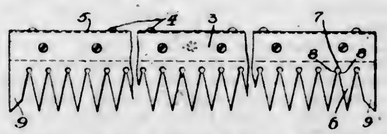
3. A sanding apparatus comprising a bowl having a removable plug in the bottom thereof, an inlet at the top thereof, an outlet at the side thereof, a baffle extending downwardly between said inlet and outlet, a passage for delivering blast through said outlet, and a sand pocket in the line of said blast.

4. A sanding apparatus comprising a receptacle for holding sand, a nozzle communicating therewith, a fluid duct having one or more discharge passages for delivering a blast through the upper part of the passage through said nozzle, a pocket into which said blast carries sand from said receptacle, and a discharge passage communicating with said pocket.

5. A sanding apparatus having an inlet port at its top, a discharge port at its side, an air passage at the top of and adjacent to said discharge port, an aperture and a removable plug therefor at the bottom of said receptacle, a nozzle which registers with said discharge port and passage, a pocket in line with said nozzle, and a discharge passage beneath said nozzle and in communication with said pocket.

[Claims 6 to 8 not printed in the Gazette.]

1,089,542. RAKE. ROSWELL C. ERWIN, Oak Park, Ill. Filed Oct. 14, 1912, Serial No. 725,568. Renewed Sept. 29, 1913. Serial No. 792,487. (Cl. 55—10.)

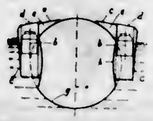


1. A rake comprising a handle, a plate connected therewith and having its lower edge shaped to afford a plurality of teeth which converge to a throat having sharp outwardly directed portions on the opposite edges of the same.

2. A rake comprising a handle, a cross bar secured on one end thereof, a concave plate secured to said cross bar and having its upper edge bent thereover, and its lower edge shaped to afford a plurality of teeth which converge to a throat adapted to receive and cut the scape of a weed at a point beneath the sepal.

3. A rake comprising a handle, a cross bar secured on one end thereof, a concave plate secured to said cross bar and having its upper edge bent thereover, and its lower edge shaped to afford a plurality of teeth which converge to a throat having sharp outwardly directed portions on the opposite edges of the same adapted to scar the scape of a weed at a point beneath the sepal as it passes into the throat.

1,089,543. SUBMARINE BOAT. FERNAND FENAUX, Le Havre, France, assignor to Chantiers et Ateliers Augustin Normand, Le Havre, France, a Corporation of France. Filed May 26, 1913. Serial No. 769,861. (Cl. 102—3.)



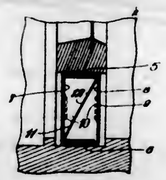
1. A submarine boat provided with a series of mine retaining cells, said cells provided with upper and lower openings to permit the mine to be moored in an upward or downward direction.

2. A submarine boat provided with a series of mine retaining cells, said cells provided wth upper and lower openings to permit the mine to be moored in an upward or downward direction, and guiding means to guide the mines vertically in said cells.

3. A submarine boat provided with a series of mine retaining cells, said cells provided with upper and lower openings to permit the mine to be moored in an upward or downward direction, guiding means to guide the mines vertically in said cells, and releasable means to retain the mines in the cells.

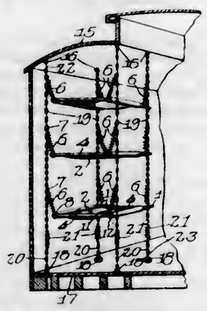


1,089,544. WINDOW-VENTILATOR. NATHAN FRIEDMAN, Chicago, Ill. Filed Feb. 27, 1913. Serial No. 751,060. (Cl. 98—31.)



A window ventilator comprising a casing, and a telescoping end section carried by the casing, the top and bottom of the casing being connected to the front and rear sides by marginal folds locking upon each other and producing channels in the top and bottom of the casing, and the end section having guide ribs seating in said channels.

1,089,545. COT. ALTON E. GOSSO, Chicago, Ill. Filed Sept. 12, 1912. Serial No. 719,941. (Cl. 5—60.)



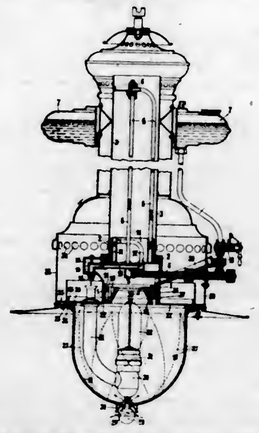
1. In a device of the kind described and in combination, a plurality of supporting members, a depending chain carried by each part and detachable therefrom, means for yieldingly securing the depending ends of each of said chains, a suitable bed part and means for adjustably, detachably and resiliently securing said bed part to each of said chains.

2. In a device of the kind described and in combination, a plurality of supporting members, a depending chain carried by each member and detachable therefrom, means for securing the depending ends of each of said chains, a spring for each chain, each spring provided with means for detachably and adjustably engaging the chain, and a bed part detachably carried by said springs.

3. In a device of the kind described and in combination, a plurality of suitable supporting members arranged for attachment to a fixed support, a flexible member secured to said supporting members, means for securing the depending ends of said flexible members to the floor of the structure, and a bed comprising a pair of side bars, a carrier secured thereto and means for resiliently securing said side bars to said flexible members at the desired point between the floor and said flexible member supports.

4. In a device of the kind described and in combination, a plurality of supporting members arranged to be secured to the ceiling of a suitable structure, a chain detachably secured to said supporting members and depending therefrom, a spring arranged proximate the lower end of each of said chains, means for detachably securing said springs to the floor of the structure, and a bed part resiliently secured to said chains and detachable therefrom.

1,089,546. PETROLEUM INCANDESCENT LAMP. OTTO GOTTKE, Halensee, near Berlin, Germany. Filed Sept. 8, 1913. Serial No. 788,676. (Cl. 67—48.)

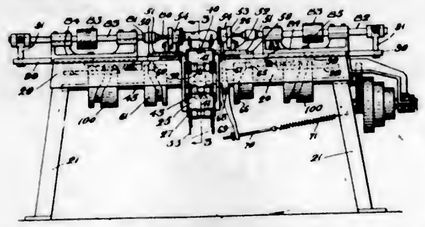


1. In a petroleum incandescent lamp provided with a chimney, a burner, an evaporating pipe, a fuel tank connected thereto and positioned at a higher level than the evaporating pipe, a superheater pipe coil having one end connected to said evaporating pipe and rising upward beyond the level of the fuel in the tank, a substantially annular liquid separator receiving the outlet end of said superheater pipe coil the central space inclosed thereby forming the entrance of the chimney, a conduit adapted to carry the fuel vapors from said liquid separator to said burner, and a warming up cup, the liquid separator being disposed above said evaporating pipe and warming up cup.

2. In a petroleum incandescent lamp giving an intense light, a burner, an evaporating pipe, a fuel tank connected thereto and positioned at a higher level than the evaporating pipe, a superheater pipe coil having one end connected to said evaporating pipe and rising upward beyond the level of the fuel in the tank, a substantially annular liquid separator receiving the outlet end of said superheater pipe coil, a chimney surrounding the superheater pipe coil and the liquid separator and having the inner wall of its lower end substantially in contact with said annular liquid separator, a conduit adapted to carry the fuel vapors from said liquid separator to said burner, and a warming up cup, the liquid separator being disposed above said evaporating pipe and warming up cup.

3. In a petroleum incandescent lamp giving an intense light, a burner, an evaporating pipe, a fuel tank connected thereto and positioned at a higher level than the evaporating pipe, a superheater pipe coil having one end connected to said evaporating pipe and rising upward beyond the level of the fuel in the tank, a substantially annular liquid separator receiving the outlet end of said superheater pipe coil, a conduit adapted to carry the fuel vapors from said liquid separator to said burner, a chimney surrounding the superheater pipe coil and the liquid separator, a base member carrying the gasifying device and the warming up cup, the foot of said chimney being detachably mounted on said base member and with its inner wall substantially in contact with the outer wall of the annular liquid separator and a warming up cup, the liquid separator being disposed above said evaporating pipe and warming up cup.

1,089,547. WOOD-BORING MACHINE. CHESTER GREENWOOD, Farmington, Me. Filed Aug. 16, 1912. Serial No. 715,402. (Cl. 144—14.)



1. An automatic boring machine for wood articles, including an axially-movable boring tool, clamping members to engage the ends of the articles for the action of the boring tool, automatically-operated elements for supporting the clamping members, said clamping members being independently adjustable longitudinally of such elements, an endless carrier operating between said elements, holders mounted on said carrier, said holders being adjustable transversely of the carrier and at right angles thereto, and means to operate the endless carrier to position the holders successively between and in line with the clamping members, said carrier-operating means being wholly free of connection with such carrier for predetermined intervals to release the carrier wholly to the influence of the clamping members.

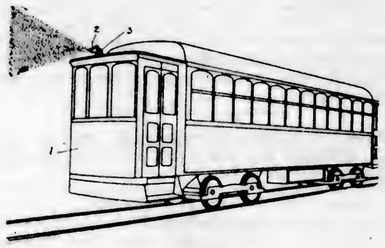
2. An automatic boring machine for wood articles, including an axially-movable boring tool, clamping members to engage the ends of the articles for the action of the boring tool, said members being formed to engage and center the articles with respect to the boring tool, an endless carrier operating between said members, holders mounted on said carrier, said holders being adjustable transversely of the carrier and at right angles thereto, and means to operate the endless carrier to position the holders successively between and in line with the clamping members, said carrier-operating means being wholly free of connection with such carrier for predetermined intervals to release the carrier wholly to the influence of the clamping members, whereby the action of the clamping members may accurately center the article with respect to the boring tool.

3. An automatic boring machine including a frame, guide rollers adjustably secured to and arranged beyond the frame, an endless carrier passing over said rollers, a plurality of bars arranged in spaced relation transversely of the carrier, holders coöperating with each bar, said holders comprising brackets slidably mounted on the bars, and plates formed with article-receiving recesses, adjustably secured to and rising from said brackets, said carrier being formed with an opening adjacent each bar, a power shaft, a cam thereon, a lever pivotally mounted on the frame and continuously operated by the cam, and a pawl carried by said lever and engaging the successive openings in the carrier to move the latter a predetermined distance in one direction, said pawl being wholly free of connection with the carrier in the movement of the pawl in the opposite direction.

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1,089,548. AIR-PURIFIER. EDWARD L. GROSS, Chicago, Ill., assignor of one-half to Joseph I. Kopperl and one-half to Charles F. Elker, Chicago, Ill. Filed June 29, 1912. Serial No. 706,798. (Cl. 137—63.)

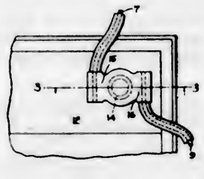
In an apparatus of the class described, the combination with a passenger car, a compressed air storage tank and air compressing means communicating therewith and located at the under side of the car, a liquid receptacle on the car, a pipe connecting the tank and receptacle, a second pipe extending vertically of the car adjacent the end of the car and projecting through the top thereof, a nozzle arranged on said pipe and disposed to direct the material passing through the pipe in the line of travel of the car, a valve arranged in said pipe and controlling the



passage of fluid through the pipe, said valve being operable from the platform of the car.

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1,089,549. STORAGE-BATTERY SYSTEM. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 16, 1913. Serial No. 742,495. (Cl. 171—314.)



1. A storage-battery system comprising an electric generator, translating-devices, load-conductors connected with the translating-devices, generator-conductors connected with the generator, and a storage-battery having grids with integral terminal-projections, in which system the respective load-conductors and generator-conductors are connected with the respective terminal-projections of the battery so as to float the battery on the line; said system being characterized by the fact that at each end of said terminal-projections of the battery the respective load-conductor and generator-conductor are isolated from each other and are connected directly to the terminal-projection at separate points, so that they may have no direct connection with each other in case either of said conductors becomes disconnected from the terminal-projection.

2. An electric system comprising an electric generator, translating-devices, load-conductors connected with the translating-devices, generator-conductors connected with the generator, and a storage-battery having grids provided with integral terminal-projections, in which system the respective load-conductors and generator-conductors are connected with the respective terminal-projections of the battery so as to float the battery on the line; said system being characterized by the fact that each of said terminal-projections has two branches, and that the respective load-conductor and generator-conductor are isolated from each other and are connected directly to said branches, respectively, so that they may have no direct connection with each other in case either of said conductors becomes disconnected from the terminal-projection.

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1,089,550. CURTAIN-SUPPORT. JOSEPH B. HANNON and CHARLES H. VON DRAK, Chicago, Ill. Filed Jan. 16, 1913. Serial No. 742,363. (Cl. 156—22.)

A curtain support comprising a rod made up of telescoping sections, one of said sections being formed substantially U-shaped in cross section with each of its leg portions rebent inwardly and the other of said sections being also U-shaped in cross section and telescoped on said



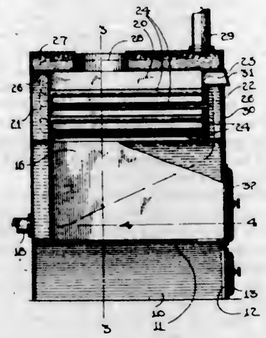
first mentioned section with its leg portion bent around the rebent leg portions of said first mentioned section; and



laterally projecting bracket supporting ears on each of said sections, substantially as described.

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1,089,551. WATER-HEATER. AUGUST HENRY HARD, Kewanee, Ill. Filed Jan. 21, 1913. Serial No. 743,423. (Cl. 122—264.)



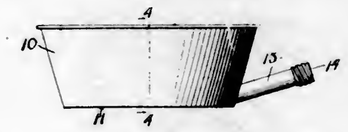
1. A boiler comprising a body portion having upper and lower sections, said upper section being provided with a plurality of hollow walls, tubes connecting the hollow walls of said upper section and passing through the fire-box of said boiler, said lower section being provided with hollow walls communicating with one of the hollow walls of said upper section whereby water entering said lower section will pass through its hollow walls and into one of the hollow walls of said upper section and through the tubes into a second wall of said upper section, and a hollow top for said boiler forming a cover for the fire-box, said top communicating with the second hollow wall of said upper section and provided with an outlet whereby the water from said second hollow wall of said upper section will pass through the hollow top across the fire-box and out through the outlet.

2. A boiler comprising a body portion, said body portion comprising a supporting section forming an ash pit, a second section constituting the lower portion of a fire-box resting upon said supporting section, said second section being provided with hollow walls having outlet openings at one end and provided with an inlet opening, an upper section for the fire-box resting upon said second section and provided with hollow walls, one of the walls being in communication with the outlet openings of said second section, tubes connecting the walls of said upper section and passing through the fire-box, one of the walls of said upper section being provided with an outlet opening, and a hollow cover for the fire-box resting upon said upper section and provided with an inlet opening communicating with the outlet opening of said upper section and with an outlet opening upon the opposite side of said fire-box from its inlet opening.

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1,089,552. SELF-SKIMMING MILK-PAN. HUGH C. HARRIS, Coeur d'Alene, Idaho. Filed Dec. 27, 1912. Serial No. 738,910. (Cl. 31—85.)

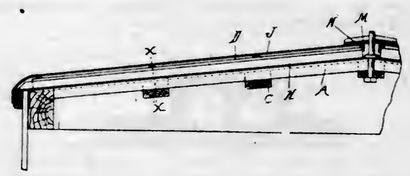
A milk skimming device embodying a receptacle having a spout leading from its bottom portion, the bottom point of the outlet end of the spout being higher than the top portion of the inlet end of the spout and a shield de-



tachably connected to the inner end of the spout and disposed over the same but in spaced relation to the bottom of the receptacle and at either side thereof.

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1,089,553. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 11, 1910. Serial No. 566,383. (Cl. 108—5.)



1. In a car roof, the combination with carlines, of a purlin of greater depth having its upper face flush with the upper faces of the carlines and having a lower portion extending uninterruptedly beneath said carlines, and roofing sheets supported on the flush faces of said carlines and purlins.

2. In a car roof, the combination of metallic carlines and wooden purlins arranged with their upper faces on the same plane, roofing sheets supported on said carlines, and purlins having upturned flanges and caps above said carlines covering said flanges.

3. In a car roof, the combination with metallic carlines, of wooden purlins having their upper faces flush with the upper faces of said carlines, roofing sheets supported on said carlines and purlins, and wooden strips extending longitudinally on said carlines forming spacers for said sheets and reinforcements for said carlines.

4. In a car roof, the combination with metallic carlines, of wooden purlins having their upper faces flush with the upper faces of said carlines, roof sheets supported on said carlines and purlins, and wooden strips extending longitudinally of each carline forming a spacer for said sheets and a reinforcement for said carline, and a ridge cap having abutment thereon for said spacer.

5. In a car roof, the combination with metallic carlines formed of channel bars, of purlins arranged with their upper faces in the same plane, roofing sheets supported on the flush faces of said carlines and purlins, wooden strips extending longitudinally on said carlines forming spacers for said sheets and reinforcements for said carlines, and filler blocks within the channels of the carlines.

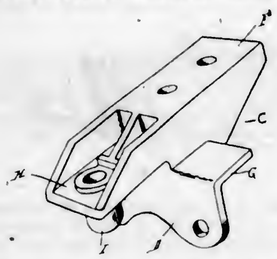
[Claim 6 not printed in the Gazette.]

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1,089,554. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 2, 1910. Serial No. 595,256. (Cl. 108—5.)

In a car roof, the combination with a plate, of a metallic carline of inverted channel section terminating at the inner face of said plate, a bracket having a portion fitting within said channel and secured to the web portion thereof, said bracket also having flanged portions bearing

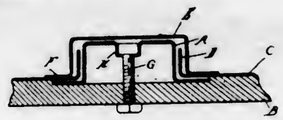
against the top and inner side of the plate, bolts for securing said flanges passing transversely through said plate,



and an apertured lug surrounding one of said bolts and engaging a counterbore in the plate.

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1,089,555. CAR-ROOF. DAVID W. HAWKSWORTH, Detroit, Mich., assignor to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 16, 1911. Serial No. 633,572. (Cl. 108—5.)



1. In a car roof, the combination with carlines, of inverted U-section, purlins and roofing sheets or plates supported thereon between the carlines, of weatherproofing caps embracing said carlines and the edge portions of said sheets, headed connecting members between said carlines and purlins, and a depressed bearing in the web portion of said carline for receiving the head of said connecting member and permitting said cap to lie flush with the top of the carline.

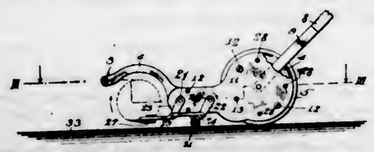
2. In a car roof a skeleton frame formed of crossing beams, one of said beams having a web portion, a laterally extending flange portion and a depressed bearing in the web portion positioned intermediate the planes of said web and flange portions, for receiving one end of a connecting member for said beams.

3. In a car roof, the combination with a carline, of a cap lying adjacent to a portion of said carline, a headed hanger supported from said carline, and a depressed bearing in the portion adjacent to said cap for receiving the head of said hanger.

4. In a car roof, the combination with a carline, of a cap lying adjacent to a portion of said carline, a hanger provided with a non-circular head supported from said carline, and a depressed bearing in said portion of the carline adjacent to said cap for receiving the head of said hanger and preventing rotation thereof.

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1,089,556. LAWN-MOWER. GUSTAV P. HELFRICH, New York, N. Y. Filed Dec. 17, 1910. Serial No. 597,753. (Cl. 56—19.)



1. In a mower, in combination, a frame; a pair of bull wheels oppositely journaled to said frame; a substantially horizontal cutting blade movably supported in front of said bull wheels in such a manner that the edge of said blade will be constrained to travel in a curved path relative to said frame; and operating mechanism driven by said bull wheels for imparting a forward and back movement to said blade, said blade having its flat faces at all times substantially parallel with the longitudinal axis of the frame.

2. In a mower, in combination, a frame; a pair of bull wheels journaled to said frame; a pair of laterally spaced parallel motion arms; a cutting blade secured to the forward ends of said parallel motion arms, said arms being movably supported by said frame in such a manner that the edge of said blade will be constrained to travel forward and backward in a curved path; and mechanism operated by said bull wheels for synchronously driving said arms with a forward and back movement.

3. In a mower, in combination, a frame; a pair of bull wheels journaled to rotate independently of one another; a substantially horizontal cutting blade movably supported in front of said bull wheels; and operating mechanism for imparting a forward and back movement to said blade and adapted to be actuated by either or both of said bull wheels, said blade having its flat faces at all times substantially parallel with the longitudinal axis of the frame.

4. In a mower, in combination, a frame; a pair of bull wheels journaled in said frame to rotate independently of one another; a pair of laterally spaced parallel motion arms; a cutting blade secured to the forward ends of said arms; and means for synchronously driving said arms with a forward and back movement and adapted to be actuated by either or both of said bull wheels.

5. In a mower, in combination, a frame; a bull wheel journaled in said frame; a pair of laterally spaced parallel motion arms supported by said frame; a cutting blade secured to the forward ends of said arms; a crank journaled in said frame and operatively connected to said arms to drive the same with a forward and back movement; means controlling the movement of said arms to direct the travel of said blade in a curved path; and means operatively associating with said bull wheels for rotating said crank.

[Claim 6 not printed in the Gazette.]

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1,089,557. CHECK-BOOK HOLDER. EDWIN L. HENDERSON, Norwood, Ohio, assignor to The Kemper-Thomas Company, Norwood, Ohio, a Corporation of New Jersey. Filed Sept. 22, 1913. Serial No. 791,034. (Cl. 11—3.)



1. In a holder for check-pads and the like, a backing therefor, a liner of blotting paper attached to the sides of the backing substantially the whole length of the holder, and the backing and the blotter in folds to close the holder.

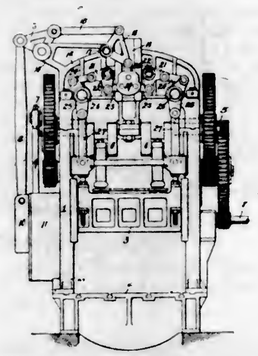
2. In a holder for check-pads and the like, a backing therefor, a strip of blotting paper firmly attached to the sides of the backing substantially the whole length of the holder, and folds in the backing and the blotter to close the holder.

3. In a holder for check-pads and the like, a backing therefor, a strip of blotting paper firmly attached to the sides of the backing and positioned to serve as a liner therefor, folds in the backing to close the holder, and means of reinforcing the blotting paper to form a pocket on the said backing.

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1,089,558. DRAWING-PRESS. HENRY J. HINDE, FREDERIC ORTON, and BROR J. LINDGREN, Toledo, Ohio, assignors to The Toledo Machine & Tool Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 9, 1913. Serial No. 759,889. (Cl. 113—46.)

1. In a drawing press, a blank-holder, a crank, a member reciprocally movable by the crank in the plane of movement of the blank-holder and in vertically spaced relation thereto, means operable by a turning of the crank to reciprocate said member, and mechanism connecting said member and blank-holder for controlling the movement of the latter and causing it to dwell during a portion of each revolution of the crank.



2. In a drawing press, two vertically spaced members reciprocally movable in a common plane, a crank, means operable by a turning of the crank to reciprocate one of said members, and means connecting said members for imparting differential movements from one to the other thereof when the crank is revolved.

3. In a drawing press, two members reciprocally movable in a common plane and being in permanent vertically spaced relation, a crank, means operable by a turning of the crank to reciprocate one of said members, and lever and link connection between said members for imparting differential movements from one to the other thereof and for causing one to dwell during a portion of the movement of the other.

4. In a drawing press, two members reciprocally movable in a common plane and being in permanent vertically spaced relation, a crank, a pair of link connected levers interposed between said members one lever having link connection with one member and the other lever having link connection with the other member whereby one member is caused to dwell during a portion of the movement of the other member.

5. In a drawing press, a blank-holder, a crank, two reciprocally movable members one movable at a side of and one above the blank-holder, means operable by a turning of the crank to reciprocate one of said members, means for communicating reciprocating movements from one to the other of said members, and means connecting the member, which is driven by the crank-driven member, to the blank-holder for causing the blank-holder to dwell during a portion of the revolution of the crank.

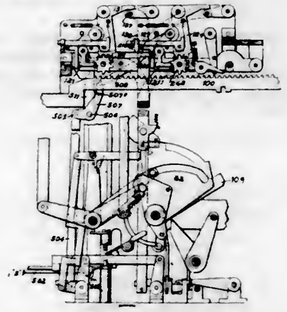
[Claims 6 to 24 not printed in the Gazette.]

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1,089,559. CALCULATING-MACHINE. HUBERT HOPKINS, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed July 2, 1909. Serial No. 505,712. (Cl. 235—60.)

1. In a calculating machine, the combination of two totalizers, means for connecting them together, carrying mechanism coöperating with one of said totalizers and means for operating said carrying mechanism to carry "1" in each of the totalizer wheels above the units wheel said means being operable independently of the totalizer wheels.

2. In a calculating machine, the combination of two totalizers, means for connecting said totalizers whereby a number may be transferred from one totalizer to the other, a carrying mechanism coöperating with the totalizer from which the number is to be transferred, and means for operating said carrying mechanism to actuate certain of the wheels of said totalizer before a number is transferred therefrom, said means being operable independently of the totalizer wheels.



3. In a calculating machine, the combination of a totalizer, a carrying mechanism coöperating therewith, and means independent of the totalizer wheels for operating said carrying mechanism to effect carrying.

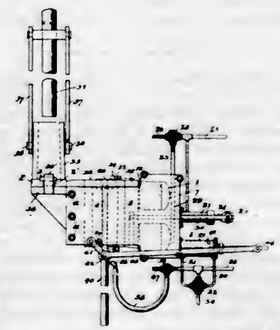
4. In a calculating machine, the combination of a totalizer whose wheels are provided with tripping projections, carrying mechanism which is operated by said tripping projections, and means independent of said tripping projections for operating said carrying mechanism to effect carrying.

5. In a calculating machine, the combination of a totalizer, carrying mechanism coöperating therewith, means on the totalizer wheels for operating said carrying mechanism to individually carry from one wheel to the next, and means operable independently of said totalizer wheels for operating all of said carrying devices collectively to effect carrying.

[Claims 6 to 49 not printed in the Gazette.]

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1,089,560. METHOD OF MAKING INGOTS. LESLIE E. HOWARD, Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Filed May 3, 1913. Serial No. 765,255. (Cl. 22—207.)



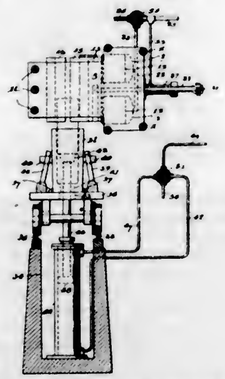
1. A method of manufacturing ingots, which consists in pouring the metal into a mold, allowing the metal to partially solidify in the mold, transferring the mold containing the partially cooled ingot to a position in line with a compressing die, passing the ingot from the mold into the die, and finally applying lateral pressure to the ingot by means of the die.

2. A method of manufacturing ingots, which consists in pouring the metal into a mold at a point adjacent to a compressing die, allowing the metal to partially solidify in the mold, transferring the mold containing the partially cooled ingot to a position directly above and in substan-

tial axial alinement with the die, stripping the mold from the ingot, lowering the ingot into the die, and finally applying lateral pressure to the ingot by means of the die.

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1,089,561. METHOD OF MAKING INGOTS. LESLIE E. HOWARD, Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Filed May 7, 1913. Serial No. 766,095. (Cl. 22—207.)



1. A method of manufacturing ingots which consists in first casting a tapered ingot with its wide end up, and then applying lateral pressure to the partially cooled ingot in a direction at right-angles to its axis while the interior of the ingot is still in a molten condition.

2. A method of manufacturing ingots which consists in first casting a tapered ingot with its wide end up, removing the ingot from the mold while in a partially cooled condition, and then subjecting the ingot to lateral pressure in a die having parallel walls while the interior of the ingot is still in a molten condition.

3. A method of manufacturing ingots which consists in first casting a tapered ingot with its wide end up, removing the ingot and its mold to a position directly beneath a compression die, forcing the partially cooled ingot upwardly out of the mold and into the die, and then applying lateral pressure to the ingot by means of the die.

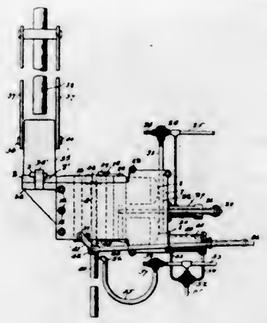
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1,089,562. APPARATUS FOR MAKING INGOTS. LESLIE E. HOWARD, Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Original application filed May 3, 1913, Serial No. 765,255. Divided and this application filed Nov. 19, 1913. Serial No. 801,788. (Cl. 22—67.)

1. An apparatus for manufacturing ingots, comprising, in combination, a compression die for imparting lateral compression to an ingot, a mold support disposed in proximity to said compression die, a mold adapted to rest on said mold support to receive a pour of metal, means for bodily transferring said mold and its contained partially cooled ingot to a position in substantial axial alinement with said die, and means for transferring the partially cooled ingot from said mold into said die.

2. An apparatus for manufacturing ingots, comprising, in combination, a compression die for imparting lateral compression to an ingot, a mold-supporting platform disposed in proximity to the upper end of said compression die, a mold adapted to rest on said platform to receive a pour of metal, means for bodily shifting said mold and its contained partially cooled ingot to a position above and in substantial axial alinement with said die, means for stripping said mold from said ingot, and means for lowering said ingot into said die.

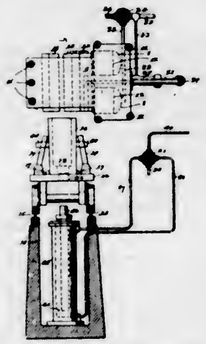
3. An apparatus for manufacturing ingots, comprising, in combination, a press frame, a compression die mounted therein for imparting lateral compression to an ingot, a mold-supporting platform secured to one side of said press frame adjacent to the upper end of said die, a mold adapted to rest on said platform to receive a pour of metal, an



overhead crane and stripper serving to bodily shift said mold and its contained partially cooled ingot to a position above and in substantial axial alinement with said die, means for centering said mold above said die, and means for lowering said ingot into said die.

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1,089,563. APPARATUS FOR MAKING INGOTS. LESLIE E. HOWARD, Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Original application filed May 7, 1913, Serial No. 766,095. Divided and this application filed Nov. 21, 1913. Serial No. 802,194. (Cl. 22—67.)



1. An apparatus for manufacturing ingots comprising, in combination, a compression die for imparting lateral compression to an ingot, a portable mold-support, a mold resting on said mold-support to receive a pour of metal, said mold-support and mold being movable to and from a position directly beneath said die, and means located beneath said die for raising a partially cooled ingot out of said mold and into said die.

2. An apparatus for manufacturing ingots comprising, in combination, a compression die for imparting lateral compression to an ingot, a portable mold-support, a tapered mold resting on said mold-support with its wide end up to receive a pour of metal, said mold-support and mold being movable to and from a position directly beneath said die, and means located beneath said die for raising a partially cooled ingot out of said mold and into said die.

3. An apparatus for manufacturing ingots comprising, in combination, a compression die for imparting lateral compression to an ingot, a pit located beneath said die, a track spanning said pit, a car on said track, an ingot-mold resting on said car, means for locking the mold to the car, and a power cylinder and ram located in said pit beneath and in substantial axial alinement with said die and adapted to force a partially cooled ingot upwardly out of said mold and into said die.

4. An apparatus for making ingots, comprising, in combination, a compression die for imparting lateral compression to an ingot, a pit located beneath said die, a track spanning said pit, a car on said track, a tapered ingot-mold resting on said car with its wide end up to receive a pour of metal, means for positioning the lower end of said mold on the platform of said car, means for locking said mold against vertical movement relatively to said car, and a power cylinder and ram located in said pit beneath and in substantial axial alinement with said die and adapted to force a partially cooled ingot upwardly out of said mold and into said die.

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1,089,564. CIRCUIT-CONTROLLER. SAMUEL P. HULL, Yonkers, N. Y. Filed Apr. 3, 1913. Serial No. 758,544. (Cl. 175—283.)



1. An electric circuit controller comprising, in combination, a pair of relatively longitudinally shiftable contact member supporting bars, and a plurality of contact members carried by each bar and separated longitudinally of the bar into a plurality of segregated groups in which the contact members are arranged in series longitudinally of the bar, the contact members of the segregated groups being separated longitudinally of the bar into sets in which the contact-making portions of the contact members are in different planes longitudinally of the bar and are in the paths of and coöperative with the contact-making portions of contact members belonging to corresponding sets of corresponding groups on the other bar and out of the paths of the contact-making portions of the contact members of non-corresponding sets and groups.

2. In an electric circuit controller, in combination, a bar for supporting conductive contact members formed of longitudinally joined parts shaped so as to produce a T-shaped slot in the bar when the parts are joined, a contact member, and a T-bolt engaging in the T-shaped slot and clamping the contact member on the bar.

3. In an electric circuit controller, in combination, a bar for supporting conductive contact members formed of longitudinally joined parts shaped so as to produce opposite T-shaped slots in the bar when the parts thereof are joined with an intervening web between the slots, a contact member for each slot, and a T-bolt for each contact member for clamping it on the bar, the heads of the T-bolts engaging in the respective T-shaped slots and the possibility of contact of the bolt heads with each other being prevented by the central web of the bar.

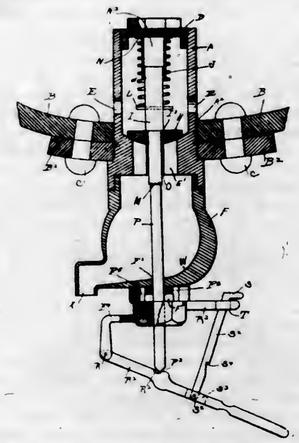
4. In an electric circuit controller, in combination, a bar having therein a T-shaped slot, a T-bolt engageable in the T-shaped slot having a shank so shaped and dimensioned as to permit the bolt to be turned in the slot for effecting attachment and removal of the T-bolt, a clamp member engaged by the T-bolt and having a portion projecting into the T-shaped slot and engaging the head of the T-bolt to prevent rotation of the T-bolt, and an electric contact member held in place by the T-bolt and clamp member.

5. In an electric controller, in combination, a bar having therein a T-shaped slot, a T-bolt engageable in the T-shaped slot having a shank shaped and dimensioned for turning in the slot so as to permit attachment and removal of the T-bolt, a clamp member engaged by the T-bolt having prongs projecting into the slot at each side of the T-bolt and engaging the opposite flat sides of the head of the T-bolt to prevent rotation of the T-bolt in the slot when the clamp member is in place, and an electric contact member held in place on the bar by the T-bolt and clamp member.

[Claims 6 to 14 not printed in the Gazette.]

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1,089,565. SAFETY-VALVE. THOMAS JOSEPH KYNE, Louisville, Ky. Filed Aug. 27, 1913. Serial No. 786,981. (Cl. 137—21.)



A safety valve for boilers comprising a shell fitted in an opening in the wall of a boiler and having openings leading through one end thereof, a spring-pressed valve stem movable through an aperture in one end of the shell, a valve on said stem and adapted to close the opening leading from the shell, a bowl fitted to said shell, a stem section movable through an opening in said bowl and engaging the outer end of the stem carrying said valve, a nut fitted about a threaded boss upon said bowl and through which the stem section passes, said nut having a yoke projecting therefrom, a lever pivoted to the yoke, a bar pivoted to the lever and having a notch in the edge thereof and one end angled, a slotted projection upon the nut through which the angled end of said bar is adapted to have a play, said lever being dished upon its inner edge, said stem section terminating in a point adapted to engage said dished part of the lever, as set forth.

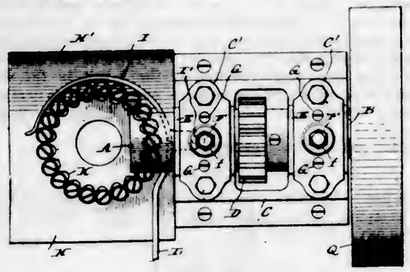
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1,089,566. GIN-SAW-SPACE-BLOCK-SIZING MACHINE. HARRY W. LIGON, Atlanta, Ga., assignor to Continental Gin Company, Birmingham, Ala., a Corporation of Delaware. Filed June 21, 1912. Serial No. 705,115. (Cl. 80—1.)

1. A gin saw space block sizing machine, embodying a pair of rolls, said rolls being arranged horizontally one above the other and having parallel axes, and supported in bearings at one end only, gearing for rotating the rolls in opposite directions at the same speed, and a guiding retainer in which the blocks may rotate on their own axes, said retainer extending in a plane parallel with and intermediate the axes of the rolls.

2. A gin saw space block sizing machine embodying a pair of parallel, horizontal spaced rolls geared to rotate in unison in opposite directions, a movable curved guiding retainer extending in a plane parallel with and interme-

diate the axes of the rolls, and means whereby said guiding retainer may be moved to feed the blocks to and away from the sizing rolls.



3. In a gin saw space block sizing machine, the combination with spaced rolls supported at one end arranged horizontally one above the other on parallel axes and geared to rotate in unison in opposite directions, of means for rotatably supporting a spacing block in a plane parallel with and intermediate the axes of the rolls, with its center beyond the ends of the rolls, whereby the block will be rotated on an axis at right angles to the axis of the rolls, and its peripheral portions sized progressively by the rolls.

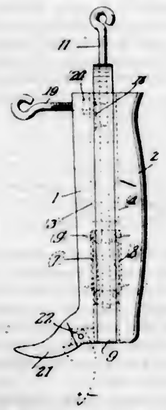
4. In a gin saw space block sizing machine, the combination with the rolls having horizontal parallel axes, said rolls supported at one end only and geared to rotate in unison in opposite directions, of a space block support extending parallel with the axes of the rolls, and a curved space block guide movable parallel with and above said support in a plane intermediate the rolls and adapted to retain a block with its edge and one side of the center between the ends of the rolls.

5. In a gin saw space block sizing machine, the combination with two spaced rolls, said rolls arranged in horizontal relation and having parallel axes, and geared to rotate in opposite directions at the same speed, of a supporting table lying in a plane parallel to the axes of the rolls, a guiding feeder movable over said table and between the rolls, said feeder having circular guides for the reception of the blocks, whereby the blocks may rotate while being acted upon by the rolls.

[Claims 6 and 7 not printed in the Gazette.]

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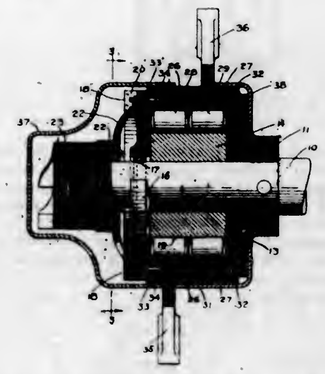
1,089,567. BOOT-TREE FORMER. MICHELE LUCCHESE, San Antonio, Tex. Filed Aug. 5, 1911. Serial No. 642,540. (Cl. 12—116.)



A boot tree former including a central expanding member having an intermediate main opening and also having a second opening located at one end of the main opening and connected to the latter by contracted openings, a former element on each side of the said central member, a metal plate carried by each element on its inner face and arranged opposite to the sides of said opening, a rotatable rod having a lower threaded end rotatably carried by said expanding member, a nut threaded on said lower end of the rod and rigidly held in the second opening which latter is provided to receive the nut, a collar rigid on the rod, a second collar engaging one end of the rigid collar, a pin engaging the second collar beneath the latter, and toggle links in said opening of the expanding member pivoted together at their inner ends and having their outer ends pivoted to the nut and the second-named collar, the elbows of said links extending outwardly on opposite sides of the expanding member and being for engagement with said metal plates, said links operating through the main and second openings and also through the contracted openings which connect the said main and second openings, the upper end of said rod extending through the top end of the expanding member.

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1,089,568. STARTING DEVICE FOR EXPLOSIVE-ENGINES. MERLE MACFARLAND, Maplewood, N. J., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed Sept. 11, 1912. Serial No. 719,747. (Cl. 123—185.)



1. Starting mechanism comprising a driving member having peripheral recesses with inclines, driving rings outside the driving member, rolls between the inclines and the rings, a driven member, a friction washer between said members and yielding means bearing against the driving member for locking the driving and driven members together by frictional engagement.

2. Starting mechanism comprising a driving member having peripheral recesses with inclines, driving rings outside the driving member, rolls between the inclines and the rings, a driven member, a friction washer between said members, a sliding disk adapted to bear against the driving member, a washer between the rolls and the disk and springs bearing against the disk whereby the driving and driven members are locked together by frictional engagement.

3. Starting mechanism comprising a driving member having peripheral recesses with inclines, driving rings outside the driving member, rolls between the inclines and the rings, a driven member, a friction washer between said members, a sliding disk adapted to bear against the driving member and having a slotted flange on one face and springs bearing against the disk and retained in place by the slots, substantially as described, for the purpose specified.

4. Starting mechanism comprising a driving member having peripheral recesses with inclines, driving rings outside the driving member, rolls between the inclines and the rings, a driven member, a friction washer between said members, means for retaining the rolls against endwise displacement and yielding means for locking the members together by frictional engagement.

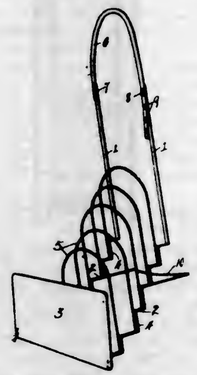
5. Starting mechanism comprising a driving member having peripheral recesses with inclines, driving rings outside the driving member, rolls between the inclines and the rings, a driven member, a sliding disk adapted to bear against the driving member and a spring bearing against the disk and acting to lock the members together by frictional engagement.

[Claims 6 to 13 not printed in the Gazette.]



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1,089,569. PORTABLE NEWSPAPER-RACK. ALBERT E. MACKINNON, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,259. (Cl. 224—25.)



1. A rack of the class described comprising a pair of laterally spaced vertically disposed strap metal body members having the lower end portions thereof provided with successive outwardly projecting steps, rigid spacing means connecting the lower ends of said members, spacing members rising from the riser portions of said steps and connecting the two body members, means attached to the upper ends of said body members for suspending them from the shoulders and neck of the wearer, and bracing means extending rearwardly from the step portions of the body members to brace such portions relative to the body of a person carrying the rack.

2. A portable rack adapted to be carried from the shoulders of a person, and having spaced body members with their lower end portions outwardly stepped in registering form, a plurality of spacing members rising from the stepped portions of said body members, means attached to the upper ends of said body members for suspending the same from the shoulders of the wearer, and means attached to the stepped portions of said body members for bracing such portions relative to the body of the wearer.

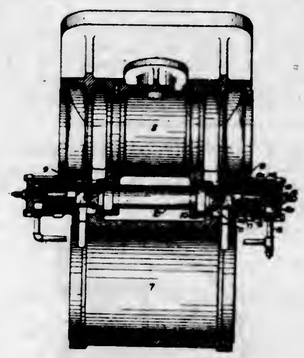
3. A rack of the class described having laterally spaced vertically extending body members with their lower end portions provided with a plurality of successive outwardly projecting steps, spacing members rising from the riser portions of said steps and connecting the two body members, means at the upper ends of said body members for suspending them from the shoulders and neck of the wearer, and bracing means extending rearwardly from the stepped portions of the body members to brace such portions relative to the body of a person carrying the rack.

4. A rack of the class described comprising a pair of vertically extending strap metal body parts which have their lower portions formed to provide a plurality of outwardly and downwardly extending steps, rod-like spacing members rising from said steps with their opposite ends attached to the riser portions of corresponding steps of the different body members, means for extending over the shoulders and around the back of the neck of the wearer and attaching to the upper ends of said body parts, and a looped bracing member attached at its leg terminals to the stepped portions of said body parts and extending rearwardly therefrom to brace the rack relative to the body of the wearer.

5. A rack of the class described, comprising a pair of spaced strap-like body members of a non-flexible character their lower end portions provided with a plurality of successive outwardly projecting straps, a guard member rising from and connecting the lower ends of said body members, inverted U-shaped spacing rods rising from different steps of the members with their ends connecting the body members and attached to corresponding steps thereof, a flexible suspending strap fixedly attached to the upper end of one of said body members and adjustably attached at its other end to the upper end of the other of said body members, and a bracing part extending rearwardly from the stepped portions of said body members and having its rear end of inwardly bowed form.

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1,089,570. BY-PASS VALVE FOR LOCOMOTIVE-ENGINES. HENRY C. MANCHESTER and SAMUEL S. RIEGEL, Scranton, Pa. Filed Aug. 21, 1913. Serial No. 785,889. (Cl. 121—14.)



1. In a locomotive engine, the combination with the cylinder, steam chest, and a by-pass connecting the opposite ends of the cylinder, of a valve for controlling said by-pass, and means governed by the opposing pressures of the steam chest and the boiler for operating said valve.

2. In a locomotive engine, the combination with the cylinder, steam chest, and a by-pass connecting the opposite ends of the cylinder, of a valve for controlling said by-pass, and a movable abutment subject in one direction to pressure from the steam chest tending to close said valve, and in the opposite direction to pressure from the boiler tending to open said valve.

3. In a locomotive engine, the combination with the cylinder, steam chest, and a by-pass connecting the opposite ends of the cylinder, of a valve for controlling said by-pass, a movable abutment subject to opposing pressures from the steam chest and from the boiler for operating said valve, and means also controlled by said abutment for admitting a limited quantity of steam into the cylinder when said valve is open.

4. In a locomotive engine, the combination with the steam chest, the cylinder having induction ports at its opposite ends, and a by-pass connecting said ports, of valves for controlling communication between said ports and by-pass, and differential piston means subject to the steam chest pressure on one side and to the boiler pressure on the other side for operating said valves.

5. In a locomotive engine, the combination with the steam chest, cylinder, and by-pass, of a by-pass valve mechanism comprising a casing containing a chamber communicating with said by-pass, and a differential pis-

ton valve mounted in said chamber and operated by the opposing pressures from the steam chest and from the boiler, said piston containing a dash pot chamber for cushioning the movement of said valve.

[Claims 6 to 10 not printed in the Gazette.]

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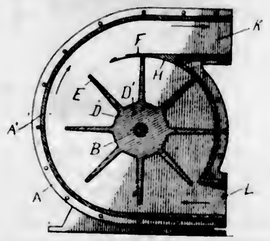
1,089,571. LEVEL. THOMAS H. MCNUTT, deceased, Pine Bluff, Ark., by Anna Eleanor McNutt, administratrix, Oklahoma, Okla., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 4, 1913. Serial No. 746,148. (Cl. 33—207.)



In a hand level, a level body, a plurality of pins carried by the body, said pins being arranged to project from the same side thereof, the overall length of said pins not exceeding the maximum thickness of the body, with means for projecting said pins so that they will extend slightly beyond one side bearing face of said level body and for retiring said pins so that both ends thereof will not project beyond the opposite side bearing surfaces.

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1,089,572. CENTRIFUGAL SUCTION-FAN. JOHN MEIER, Dallas, Tex., assignor of one-half to T. S. Miller, Jr., Dallas, Tex. Filed Mar. 1, 1913. Serial No. 751,544. (Cl. 230—11.)



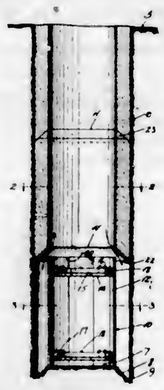

1. A suction fan for cotton picking apparatus comprising a casing having an inlet and an exit opening, the opposite circumferential walls of the casing being on arcs of circles of different diameters, a fan mounted eccentrically within the space intermediate said concaved walls, the blades of the fan being adapted to turn adjacent to the concaved wall which is upon the arc of the smaller circle, the passageway for the cotton to be fed through the casing increasing in capacity from the inlet to the exit openings of the casing, as set forth.

2. A suction fan for cotton picking apparatus comprising a casing having an inlet and an exit opening, the opposite circumferential walls of the casing being on arcs of circles of different diameters, a fan journaled eccentrically between said concaved surfaces and being of a diameter equal to the diameter of the concaved wall on the arc of the smaller circle, the wall of the exit opening projecting beyond the inlet opening to the casing and concaved upon its under surface and underneath and adjacent to which the fans are adapted to turn, as set forth.

3. A suction fan for cotton picking apparatus comprising a casing having an inlet and an exit opening, a fan mounted eccentrically in the casing between said concaved surfaces and having a solid hub portion with radial wings in the circumference thereof, the ends of which are adapted to turn adjacent to the concaved wall which is on the arc of the smaller of the two circles, a passageway through the casing increasing in width from the inlet to the exit openings in the casing, as set forth.

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1,089,573. METHOD OF LINING SHAFTS WITH CONCRETE. EDWARD MORLAE, San Gabriel, Cal. Filed Nov. 5, 1912. Serial No. 729,557. (Cl. 61—3.)



1. A method of lining shafts with concrete, consisting in sinking a shaft approximately equal to the depth of the form used, an annular channel being formed below a flat base for the form, inserting the form to rest on the base, and filling in cement, then removing the form and sinking the shaft another section and placing the form to fill in below the last formed section.

2. A method of lining shafts with concrete, consisting in sinking a shaft equal to the depth of a form, inserting the form, and filling in cement, then removing the form and sinking the shaft another section and placing the form to fill in below the last formed section, then facing the inside of the casing intermediate of the flat top of the new section and the inclined edge of the section next above.

3. A method of lining shafts, which consists in first excavating a portion of the shaft approximately equal to the height of the form employed, the bottom of the shaft being formed as a truncated cone, the truncation forming a base for the form, then inserting the form of smaller diameter and filling the void between the wall of the shaft and the form with concrete and allowing the same to set, then removing the form and excavating additional sections of approximately the same depth one at a time below said first named section and proceeding with substantially the same steps as set forth for the first section, whereby the shaft will be lined in sections from the top to the bottom thereof.

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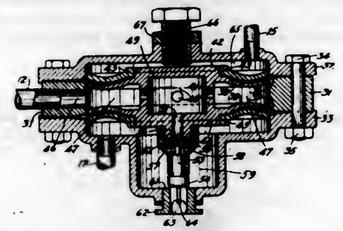
1,089,574. COMPENSATING VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed Jan. 30, 1913. Serial No. 745,202. (Cl. 188—1.)

1. A pressure compensating device comprising a casing forming an air chamber, two diaphragms which divide said chamber into three compartments, means to connect said diaphragms together to move in unison, an air pressure supply communicating with the air chamber between said diaphragms, and an air feeding device located in one of the outer chambers, variation of pressure in either of said outer chambers operating said device.

2. A pressure compensating device comprising a casing forming an air chamber, two diaphragms which divide said chamber into three compartments, means to connect said diaphragms together to move in unison, an air pressure supply communicating with the air chamber between said



diaphragms, and an air feeding device located in one of the outer chambers, decrease of pressure in the chamber which contains said air feeding device operating said device to feed air to such chamber.



3. In an air brake apparatus, the combination of a main storage reservoir, a train pipe, a pressure-actuated valve to control communication between the train pipe and the main reservoir, valve-operating means to actuate said valve, said valve being automatically closed by the pressure of train pipe air upon said valve-operating means, and means to admit and release fluid pressure to said valve operating means to control the operation of said valve, said valve-operating means comprising a double diaphragm on the inner sides of which there is the same pressure and from between the parts of which air is supplied to said valve.

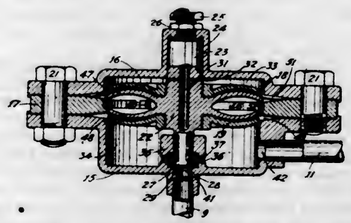
4. A pressure compensating device comprising a casing forming an air chamber, two diaphragms which divide said chamber into three compartments, means to connect said diaphragms together to move in unison, an air pressure supply communicating with the air chamber between said diaphragms whereby the same pressure will be on the inner sides of the said diaphragms, an air feeding device operatively connected with said diaphragms, there being an air feeding passage from the air-chamber between said diaphragms to supply air to said air feeding device, and means to vary fluid pressure upon the exterior side of one of said diaphragms to operate said air feeding device.

5. A pressure compensating device comprising a casing forming an air chamber, two diaphragms which divide said chamber into three compartments, means to connect said diaphragms together to move in unison, an air pressure supply communicating with the air chamber between said diaphragms, an air feeding device located in one of the outer chambers and means to vary the pressure in the opposite outer chamber to operate said air feeding device.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,575. AUXILIARY-PRESSURE-CONTROL VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,833. (Cl. 188—1.)



1. The combination with the train pipe, auxiliary reservoir and triple valve, of a pressure control device comprising a casing, two diaphragms dividing said casing into three chambers, the chamber between said diaphragms being in free communication with the outer atmosphere; one of said outer chambers being an auxiliary reservoir chamber, and the other of said outer chambers being a train pipe chamber; the diaphragm next to the auxiliary reservoir chamber having a greater working area than the other diaphragm, a spacing device rigidly uniting said diaphragms, a passage leading from the auxiliary reservoir chamber through said spacing device, and an extension forming a valve through which said passage opens out, said valve controlling communication between the train pipe and the auxiliary reservoir, and said passage through said valve at all times affording communication between the auxiliary reservoir and said auxiliary reservoir chamber.

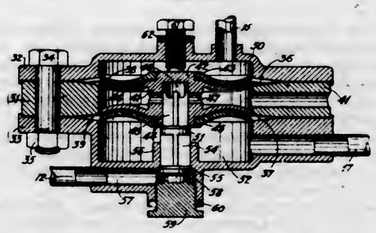
2. The combination with the train pipe auxiliary reservoir and triple valve, of a pressure control device comprising a casing, two diaphragms within said casing dividing the same into three compartments, one of the outer chambers being in communication with the auxiliary reservoir and the other outer chamber being in communication with the train pipe, the diaphragm next the auxiliary reservoir chamber being of greater working area than the diaphragm next the train pipe chamber, and means operated by said diaphragm device to control communication between the train pipe and the auxiliary reservoir.

3. In combination, a train pipe, an auxiliary reservoir, a triple valve, a movable abutment comprising two elements of different areas, a casing divided by said abutment into two chambers exteriorly thereto, a valve consisting of a tube having an open end within its seating surface, said valve being operatively connected with said abutment and controlling communication between the train pipe and the auxiliary reservoir, the movements of said abutment being controlled by train pressure opposed by auxiliary reservoir pressure, the tubular portion of said valve communicating with the auxiliary reservoir chamber.

4. In combination, a train pipe, an auxiliary reservoir, a triple valve, a casing, an abutment within said casing comprising two elements of different areas, said abutment dividing said casing into an auxiliary reservoir chamber and a train pipe chamber exterior thereto, and means controlled by the movements of said elements to maintain in said auxiliary chamber a pressure less than the pressure in said train pipe chamber.

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1,089,576. COMPENSATING VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,835. (Cl. 188—1.)



1. The combination with a train pipe and an engineer's brake valve, of means to regulate the supply of air to the train pipe; said means comprising two diaphragms, a spacing device to rigidly connect said diaphragms to each other, there being an annular chamber communicating with the outer atmosphere between said diaphragms around said spacing device, there being also a valve chamber within said spacing device communicating with said annular chamber, the lower end of said valve chamber communicating with the train pipe chamber located beneath said diaphragm device, a release valve in said valve chamber to control release of air from the train pipe chamber to the outer atmosphere, and a supply valve formed as a downward continuation of said release valve to regulate the supply of air to said train pipe chamber.

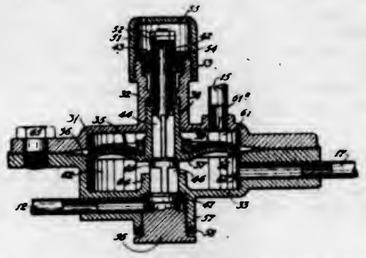
2. The combination with a train pipe and engineer's brake valve, of means to regulate the supply of air to the

train pipe; said means comprising a casing, a diaphragm device dividing said casing into three separate chambers, one of said chambers being interior with respect to said diaphragm device, said interior chamber being at all times in communication with the outer atmosphere, a release valve to control communication with said interior chamber, and a supply valve rigidly connecteid with said release valve to control supply of air to said train pipe chamber.

3. A compensating valve comprising a casing, a diaphragm device dividing said casing into three chambers, the chamber on one side of said diaphragm device being an equalizing chamber and the chamber on the other side of said diaphragm device being a train pipe chamber, a vent chamber located interiorly of said diaphragm device, a valve chamber also located within said diaphragm device and communicating with said vent chamber, said valve chamber having a closed upper end and a lower end forming a valve seat, a valve having a winged portion within said valve chamber and a base portion to open and close the lower end of said valve chamber and a supply valve to control the supply to the train pipe chamber, said supply valve being a downward continuation of said release valve, downward movement of said diaphragm device first closing said release valve, and farther downward movement of said diaphragm device opening said supply valve to supply air to said train pipe chamber.

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1,089,577. COMPENSATING VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,836. (Cl. 188—1.)



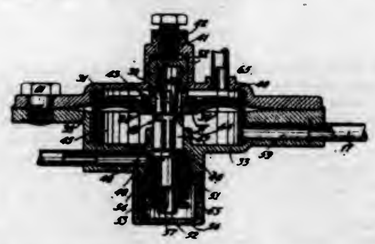
1. In a compensating valve, a casing, a diaphragm dividing said casing into two compartments, one of said compartments forming an equalizing chamber, and the other of said compartments formiug a train pipe chamber, a valve device located centrally of said diaphragm and operated thereby, said valve device comprising a valve element adapted to control communication from the main reservoir to said train pipe chamber, and another valve element adapted to control communication from said train pipe chamber to the outer atmosphere.

2. In a compensating valve, a casing, a diaphragm device dividing said casing into two compartments, one of said compartments being an equalizing chamber and the other of said compartments being a chamber in communication with the train pipe, there being a passage extending through the central portion of said diaphragm device, a valve device located in said passage, said valve device comprising a valve element adapted to control communication from the main reservoir to said chamber in communication with the train pipe, and another element adapted to control communication from said train pipe chamber through said central passage to the outer atmosphere.

3. In a compensating valve, a casing, a diaphragm device dividing said casing into two compartments, one of said compartments being an equalizing chamber and the other of said compartments being a chamber in communication with the train pipe, said diaphragm device having a hollow extension projecting centrally therefrom through the equalizing chamber and casing at that side of the device, a valve device extending through said hollow extension and provided with a shoulder movable into and out of engagement with the end of said hollow extension to move the valve device, a valve element carried by said valve device to control the entrance of air from the train pipe chamber into said passage, and another valve element carried by said valve device to control communication between the main reservoir and said train pipe chamber.

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1,089,578. COMPENSATING VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,837. (Cl. 188—1.)



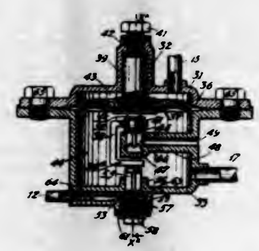
1. In a compensating valve, a casing, a diaphragm device dividing said casing into two chambers, one of said chambers being an equalizing chamber and the other of said chambers being a train pipe chamber, a hollow extension projecting from one side of said diaphragm device, the end of said extension which adjoins the diaphragm device being open and the other end thereof being closed, a valve device projecting into and guided by the open end of said extension, a plurality of valves formed on and moving in unison with said valve device, a passage to afford communication through said valve device from end to end thereof, the valves carried by said valve device both being located between the ends of said passage, one of said valves being located within said train pipe chamber and normally closing the lower end of the hollow extension of the diaphragm device to control communication between said train pipe chamber and the passage through said valve device, and the other of said valves controlling the supply of air to said train pipe chamber.

2. In a compensating valve, a casing, a diaphragm device dividing said casing into two chambers, one of said chambers being an equalizing chamber and the other a train pipe chamber, a valve device having formed thereon two valves, one of said valves being a release valve located within the train pipe chamber to release air therefrom, the other of said valves being a supply valve to control the supply of air to said train pipe chamber, and a hollow extension formed on said diaphragm device, said release valve seating upon the open end of said extension, the movement of said valve device toward the train pipe chamber resulting first, in the closing of said release valve, and then continued movement of said diaphragm device resulting in opening of said supply valve.

3. In a compensating valve, a casing, a diaphragm device dividing said casing into two chambers, one of said chambers being an equalizing chamber and the other of said chambers being a train pipe chamber, a hollow extension projecting from the side of said diaphragm device opposite said train pipe chamber, a movable valve device having a release passage extending therethrough, the upper end of said valve device being provided with a release valve seating upon the mouth of said hollow extension, and a supply valve also formed on said valve device to regulate the supply of air to the train pipe chamber, said valve device having an extension projecting beyond the last named valve, there being a valve chamber below said supply valve through which the supply of air passes, and a stuffing box surrounding said extension, said extension projecting beyond said stuffing box to release air from the train pipe chamber to the outer atmosphere.



1,089,579. COMPENSATING VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,838. (Cl. 188—1.)



1. A compensating valve comprising a casing, a diaphragm device dividing the interior of casing into an equalizing chamber and a train pipe chamber, a combined outlet conduit and valve support within said train pipe chamber, a release valve operatively connected with said diaphragm to control release of air through said conduit, a supply valve to control supply of air to said train pipe chamber, and a part operated by said diaphragm to engage and open said supply valve, the engagement of said part with said supply valve occurring only when said release valve is closed.

2. A compensating valve comprising a casing, a diaphragm device dividing said casing into a train pipe chamber and equalizing chamber, and a combined outlet conduit and valve support within said train pipe chamber, a release valve operatively connected with said diaphragm to control release of air through said conduit, a supply valve to control the supply of air to said train pipe chamber, and means operated by said diaphragm to open said supply valve when the pressure in the train pipe chamber falls below that in the equalizing chamber, said valve opening means operating to open said release valve when the pressure in the train pipe chamber rises above that in the equalizing chamber.

3. In a compensating valve, a casing, a diaphragm dividing the interior of said casing into an equalizing chamber and a train pipe chamber, a release valve to control the release of air from said train pipe chamber, a supply valve to control supply of air to said train pipe chamber, and means operatively connected with said diaphragm alternately to open said valves, said means preventing both of said valves opening at the same time and causing both of said valves to remain closed when there is a balanced pressure against opposite sides of said diaphragm.

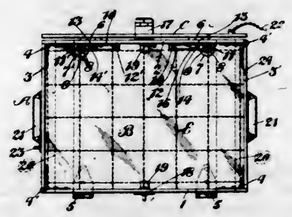
4. In a compensating valve, a casing, a diaphragm device dividing the interior of said casing into two compartments, one of said compartments being a train pipe chamber, and the other of said compartments being an equalizing chamber, a release valve within said train pipe chamber to control the release of air therefrom, a supply valve to control the supply of air thereto, and a valve operating member operated by said diaphragm device to control said release valve, said supply valve being in the path of movement of said valve operating member to permit said valve operating member to engage and open said supply valve.

5. The combination with a train pipe and an engineer's brake valve of a compensating valve comprising a casing, a diaphragm dividing said casing into an equalizing reservoir chamber and a train pipe chamber, a conduit projecting into said train pipe chamber, said conduit at its inner end forming a valve cage, a valve in said cage to control the flow of air through said conduit, a valve operating member operatively connected with said diaphragm, there being a lost motion connection between the said valve and said valve operating member to permit a slight movement of said diaphragm before said valve is unseated, and a supply valve to supply air to the train pipe chamber, said operating member impinging upon said supply valve to open the latter immediately after the release valve has been brought to its seat.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,580. FOLDABLE BOX. JOSEPH NEMETH, St. Louis, Mo. Filed July 9, 1913. Serial No. 778,056. (Cl. 217—14.)



1. In a foldable box, a body comprising a front wall, a rear wall, and a pair of side walls, said walls being hingedly fastened together at their side edges and foldable simultaneously from folded flatwise relation to each other to unfolded rectangular relation to each other or from unfolded rectangular relation to each other to folded flatwise relation to each other, a base wall hingedly fastened to said body and adapted to completely underlie the same when unfolded and to fold flatwise thereupon when folded, a staple-member fixed on said base wall, a spring-actuated bolt slidable on said body adapted to engage with said staple-member when said body and base wall are in unfolded condition and relation to each other, means adapted to releasably hold said bolt in retracted position, and means adapted to automatically release said bolt to engage said staple-member, under the compression of its said spring, on said body and base wall being brought into unfolded condition and relation to each other; substantially as described.

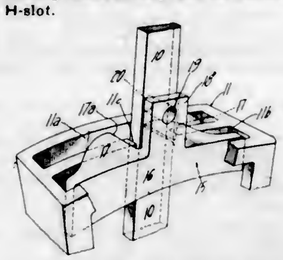
2. In a foldable box, a body comprising a front wall, a rear wall, and a pair of side walls, said walls being hingedly fastened together at their side edges and foldable simultaneously from folded flatwise relation to each other to unfolded rectangular relation to each other or from unfolded rectangular relation to each other to folded flatwise relation to each other, a base wall hingedly fastened to said body and adapted to completely underlie the same when unfolded and to fold flatwise thereupon when folded, a staple-member fixed on said base wall, a recessed housing fixed on said body, a bolt slidable in said housing adapted to engage with said staple when said body and base wall are in unfolded condition and relation to each other, a coiled spring in said housing adapted to be compressed when said bolt is in retracted position, a stud on said bolt adapted to releasably engage with said housing to hold said bolt in retracted position against the pressure of said spring, and a member on said base wall adapted to automatically release said stud from engagement with said housing to permit said spring to actuate said bolt to engage said staple-member on said base wall and body being brought into unfolded condition and relation to each other; substantially as described.

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1,089,581. AUTOMOBILE-LOCK. HERMAN J. NEUMANN, Los Angeles, Cal. Filed Oct. 5, 1912. Serial No. 724,112. (Cl. 70—90.)

1. In combination with an H-slotted member and a lever projecting upwardly therethrough; a locking member having a vertical web fitting into one of the longitudinal portions of the H-slot, the web being of approximately the same length as the slot portion so that the web is allowed practically no longitudinal movement therein, horizontal wings projecting transversely from the web and lying over both longitudinal portions of the H-slot one on each

side of the central transverse portion thereof, and a lug projecting upwardly from the web between the wings; and a lock securing the said lug and lever together so that the locking member may not be removed vertically from the H-slot.



2. In combination with an H-slotted member and a lever projecting upwardly therethrough; a locking member comprising a vertical web fitting into one of the longitudinal portions of the H-slot and engaging with each end thereof to prevent longitudinal movement of the web, lever engaging wings extending horizontally from the top of the web over the longitudinal portions of the H-slot on each side of the central transverse slot portion; and means to lock the member against vertical movement in the H-slot.

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1,089,582. TURN-TABLE. WILLIAM A. E. NOBLE, Los Angeles, Cal. Filed June 7, 1913. Serial No. 772,419. (Cl. 104—19.)



1. A turn table comprising a central post, a conical platform supported solely thereby and turning freely thereon.

2. A turn table comprising a central post rigidly supported, and a conical platform supported solely by and turning on said post.

3. A turn table comprising a central stationary vertical post having a bearing on the upper end thereof, a head adapted to turn upon said bearing, a conical platform rigidly attached to said head and supported solely thereby.

4. A turn table comprising a central vertical stationary post having a bearing at the upper end thereof, a head, a bearing member mounted in said head and adapted to bear and turn upon said post, and a conical platform supported by said head.

5. A turn table comprising a central vertical stationary post having a bearing at the upper end thereof, a head, a bearing member adjustably secured in said head and adapted to bear and turn upon said post, and a conical platform secured to said head.

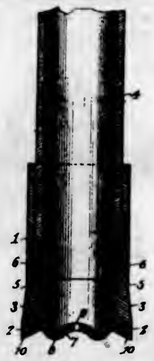
[Claims 6 and 7 not printed in the Gazette.]

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1,089,583. CASING-SHOE. JAMES ALLISON OLINGER and JAMES HAROLD WALKER, West Chicago, Ill. Filed Oct. 22, 1912. Serial No. 727,195. (Cl. 166—9.)

1. A casing shoe having the outer edge of its active end of sinuous configuration forming a series of teeth convexly curved at their outer ends and joined at their bases by concavely curved portions.

2. A casing shoe having the outer edge of its active end of sinuous configuration forming a series of teeth convexly curved at their outer ends and joined at their bases by concavely curved portions, the outer and basic curved portions of the teeth being of substantially equal extent



and the active end face of the shoe being beveled away from the outer edge.

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1,089,584. HAT-PIN GUARD. ELLIN C. PLEASANTS, Baltimore, Md. Filed June 14, 1912. Serial No. 703,659. (Cl. 132—25.)

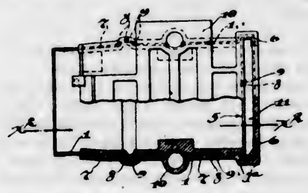


1. A hat-pin shield or lock consisting of a pad and an impervious jacket therefor, the jacket having an opening and means adjacent the periphery of the opening and disposed in the direction of the opening for securing the jacket to the hat wall.

2. A hat pin shield and lock consisting of a pad secured to the outside of the hat, and a hard impervious jacket therefor, the jacket having an opening, and means adjacent the periphery of the opening and disposed in the direction of the opening for securing the jacket to the hat wall, the jacket having an ornamented exterior surface.

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1,089,585. PROCESS OF MAKING JOURNAL-BOXES. IVAR A. RANDEL, Chicago, Ill., assignor to McCord and Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 16, 1913. Serial No. 795,512. (Cl. 22—203.)



1. The process of making journal boxes, which consists in forming a metallic cellar with an abnormally contractible edge, and in casting a top fast on the contractible edge of said cellar.

2. The process of making journal boxes, which consists in forming a metallic cellar and in providing the edge thereof with slits that make the same abnormally contractible, and in casting fast a top onto the abnormally contractible edge of said cellar.

3. The process of making journal boxes, which consists in forming a metallic cellar and providing the edge thereof with slits that make the same abnormally contractible, in applying stoppers to the slits thereof, and in casting fast a top onto the abnormally contractible edge of said cellar.

4. The process of making journal boxes, which consists in forming a metallic cellar and a metallic dust guard wall, and in providing both thereof, at their edges, with slits that make the same abnormally contractible, in assembling the said cellar and dust guard wall with the abnormally contractible edges thereof presented to a mold, and in casting fast a top onto the contractible edges of the said cellar and dust guard wall.

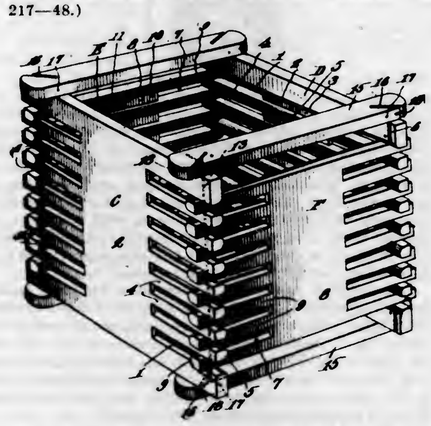
5. The process of making journal boxes, which consists in forming a metallic cellar and a metallic dust guard wall, and providing the upper edges of both thereof with slits that make the same abnormally contractible, in applying stoppers to the slits of said cellar and wall, in assembling the said cellar and wall and presenting the slit edges thereof and the applied stoppers to a mold, and in casting fast a top onto the slit edges of said cellar and wall.

[Claim 6 not printed in the Gazette.]

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1,089,586. CONTAINER. BYRD C. ROCKWELL, Camden, Ark. Filed Feb. 3, 1913. Serial No. 746,047. (Cl. 217—48.)



1. A container consisting of side and end panels each formed in a single piece of stock having parallel elongated slots extending into the ends thereof and forming spaced tongues, the tongues of each panel being extended between and pivotally connected to the tongues of the next adjoining panels, there being ventilating openings formed by the slots between the inserted tongues and the inner ends of the slots.

2. A container consisting of side and end panels each formed in a single piece of stock having parallel elongated slots extending into the ends thereof and forming spaced tongues, the tongues of each panel being extended between and pivotally connected to the tongues of the next adjoining panels, each panel having a solid intermediate portion, there being ventilating openings formed by the slots between the inserted tongues and the inner ends of the slots.

3. A container consisting of side and end panels each formed in a single piece of stock having parallel slots extending into the ends thereof and forming spaced tongues, the tongues of each panel being extended between and pivotally connected to the tongues of the next adjoining panels, each panel having a solid intermediate portion, said solid portion being provided, in its inner face, with grooves registering with the spaces between the tongues and with beads alining with said tongues.

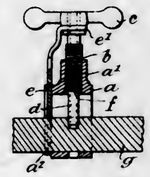
4. In a container, a panel formed in a single piece of stock and including a solid intermediate portion and parallel elongated similar tongues extending in opposite directions from said portion, the length of each tongue being greater than the thickness thereof.

5. A container including interfitting wall members each having a series of spaced similar tongues, the tongues of each series having diagonally disposed kerfs extending thereinto, the inner ends of all the kerfs alining in the crossed portions of the interfitting members, and a hinge device extending through the alining portions of the kerfs.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,587. COMBINATION PUNCH AND CUTTER FOR MOTOR-CYCLE BELTS. JAMES JESSE ROWE, Ilford, England. Filed Oct. 30, 1911. Serial No. 657,680. (Cl. 164—15.)

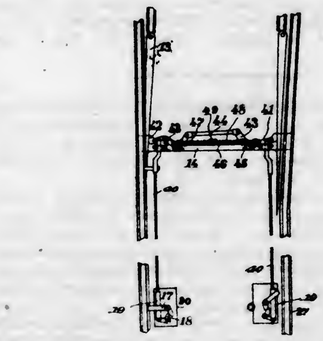


1. A combined cutter and punch for belts comprising a four sided frame with sides tapering toward their lower ends, a screw punch, and a cutter blade sliding in the end of said frame and operatively connected to move simultaneously with the punch whereby the belt is centered, cut and punched in one operation.

2. A combined belt cutter and punch comprising a rectangular frame having a boss on its upper member provided with a screw threaded bore, the lower member of said frame having an aperture therein registering with the bore in said boss to form a seat for the punch, a punch having a screw threaded shank mounted in said bore, the side members of said frame having longitudinally arranged grooves in their inner faces, a knife slidably mounted in said grooves and having a laterally extending arm engaging with the shank of said punch, and a handle on said punch.

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1,089,588. SWITCH-POINT-OPERATING MECHANISM. DINO SAMAIA, Brussels, Belgium. Original application filed Apr. 13, 1910, Serial No. 555,253. Divided and this application filed Dec. 30, 1912. Serial No. 739,400. (Cl. 104—24.)



1. The combination with a pair of railroad rails and a pair of switch points, of a bar mounted for transverse movement relatively to said rails and adapted to operate said switch points in either direction, a member disposed adjacent one of said rails and adapted to be operated by a passing train, a link, operative connections between said member and said link to transmit a movement to tension said link, connections between said link and said bar to throw said points in one direction when said link is put under tension, a second member adapted to be operated by

a train, a second link, connections between said second member and said second link adapted to place said second link under tension when said second member is operated, and connections between said second link and said bar adapted to operate said bar in the other direction when said second link is placed under tension.

2. The combination of a pair of rails and a pair of switch points, of a bar placed transversely of said rails and adapted to operate said points in either direction, a pivoted bell lever placed adjacent one of said rails, one arm of said lever being adapted to be operated by a passing train, a second bell lever one arm of which is adapted to be operated by one of the arms of said first mentioned arm, a link, a connection between said second bell-lever and said link adapted to place said link under tension when said first mentioned bell lever is operated, connection between said link and said bar adapted to operate said bar in one direction when said link is placed under tension, a second link, connections between said second link and said bar adapted to throw said bar in the other direction when said second link is placed under tension, and a second pair of bell levers one of which is adapted to be operated by a passing train and which are adapted to place said second links under tension when operated by a passing train.

3. The combination with a pair of railroad rails and a pair of switch points; of a bar mounted for transverse movement relative to said rails, a second bar fixed to said switch points, a resilient connection between the first and second bars, and a lever mechanism to move the first bar including a pair of plates each fixed to one of said rails, a pair of bell crank levers pivoted at their angles to the first bar, links each connecting one arm of a respective bell crank lever to the respective plate, a third link connecting the remaining arms of said bell crank levers, and operating rods connected to the first mentioned links.

4. The combination with a pair of railroad rails and a pair of switch points, of a bar slidable transversely of said rails, a pair of plates connected fixedly to said rails, a pair of bell crank levers pivoted at their angles to said bar, links each connecting one of said plates to an arm of a respective bell crank lever, operating rods connected to said links, a third link connecting the remaining arms of the bell crank levers, a second bar connecting said switch points, a centrally disposed lug on the first bar, spaced lugs on the second bar, a bridle rod passing through the said lugs, adjusting nuts adjacent each end of the bridle rod, and coiled springs surrounding said bridle rod, each of said springs bearing at one end against the lug on the first rod and at the other end against the adjusting nuts on the respective end of the bridle rod, said springs being arranged on opposite sides of the lug on the first rod.

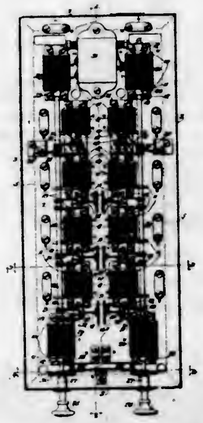
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1,089,589. ELECTRIC INDICATOR. CHARLES SCHENCK and JAMES M. GRAHAM, Chicago, Ill., assignors to Elevator Supply & Repair Company, Chicago, Ill., a Corporation of Illinois. Filed May 12, 1911. Serial No. 626,854. (Cl. 177—326.)

1. An electric indicator comprising a vertically reciprocating, horizontally oscillating support provided with a laterally projecting arm, a magnet for vertically shifting said support, a cam engaging said arm for oscillating said support, and a target fixed to said support, said cam having a high portion intermediate its ends over which said arm is lifted by said magnet.

2. An electric indicator comprising a vertically reciprocating, horizontally oscillating support provided with a laterally projecting arm, a magnet for vertically shifting said support, a cam engaging said arm for oscillating said support, a target fixed to said support and arranged to shift therewith from normal to set position, and restoring means for said support and said target, said cam having a high portion intermediate its ends over which said arm is lifted by said magnet and by said restoring means.

3. An electric indicator comprising a vertically reciprocating, horizontally oscillating support provided with a laterally projecting arm, a cam member having an inclined slot engaging said arm with a seat therefor at the upper end of said slot, a solenoid magnet arranged to vertically shift said support and carry said arm into engagement with said seat and a target mounted upon said support.



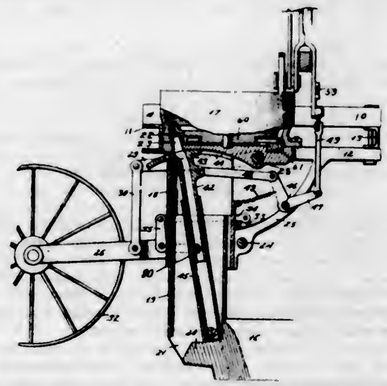
4. An electric indicator comprising a vertically reciprocating, horizontally oscillating support provided with a laterally projecting arm, a cam member having an inclined slot engaging said arm with a seat therefor at the upper end of said slot, a solenoid magnet arranged to vertically shift said support and carry said arm into engagement with said seat, a target mounted on said support and restoring means arranged to lift said support and target and disengage said arm from said seat.

5. An electric indicator comprising a vertically reciprocating, horizontally oscillating support, a fixed member coöperating with said movable support, one of said parts having an inclined cam slot with a seat at one end and the other of said parts having a pin arranged to engage said slot and said seat, a solenoid magnet arranged to vertically shift said support to engage said pin with said seat and a target mounted on said support.

[Claims 6 to 14 not printed in the Gazette.]

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1,089,590. CORN-PLANTER. HANS SCHLICHT, Walnut, Iowa. Filed Apr. 15, 1912. Serial No. 690,894. (Cl. 111—6.)



1. In a device of the class described, a frame, a plurality of seed boxes mounted thereon, a tube below each box, a shoe pivoted to the frame below and in front of each box, an upwardly extending tube on the rear end of each shoe, telescopically connected with one of said first tubes, wheels mounted on the frame behind each box, and means for varying the relative height of each shoe with relation to the adjacent wheel.



2. In a device of the class described, a frame, a plurality of seed boxes mounted thereon, a tube below each box, a shoe pivoted to the frame below and in front of each box, an upwardly extending tube on the rear end of each shoe, telescopically connected with one of said first tubes, wheels mounted on the frame behind each box, and means for raising or lowering the frame with relation to the wheels.

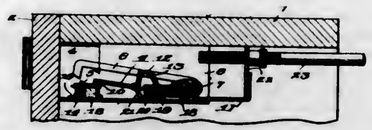
3. In a device of the class described, a frame, a plurality of seed boxes mounted thereon, a tube below each box, a shoe pivoted to the frame below and in front of each box, an upwardly extending tube on the rear end of each shoe, telescopically connected with one of said first tubes, a transverse, horizontal shaft, rearwardly extending arms fixed thereto, adjacent to each of said first tubes, wheels rotatably mounted on the rear ends of said arms, a lever on said shaft, means for varying the relative height of each shoe with relation to the adjacent wheel, said means comprising, in the case of each shoe, a lever arm fixed on said shaft, a horizontal link pivoted thereto, a bell crank lever fixed on one of said first named arms, having one end pivoted to said link, and the other end pivoted to the tube on said shoe.

4. In a device of the class described, a frame, a plurality of seed boxes mounted thereon, a tube below each box, a shoe pivoted to the frame, below and in front of each box, an upwardly extending tube on the rear end of each shoe, telescopically connected with one of said first tubes, a transverse, horizontal shaft rotatably mounted in said frame, arms extending rearwardly therefrom, adjacent to each of said first tubes, wheels rotatably mounted on the rear ends of said arms, a second horizontal transverse shaft rotatably mounted on said frame, a lever thereon, rearwardly extending arms fixed on said second shaft, and a link pivotally connected with the ends of said last named arms and with the respective first named arms.

5. In a device of the class described, a frame, a dropper box having an opening in the bottom thereof, a tube below same, a shoe pivoted at its forward end to said frame, and having at its rearward end an upwardly extending tube telescopically connected with said first tube, and having in its lower end, a closed portion and an open portion, a small tube in said first tube, provided with a flange slidably mounted at the upper end of said tube, so that one position of the movement of said small tube, it registers with the opening in said dropper box and in another position of its movement, said flange closes the opening in the dropper box, a small tube in the said second tube, pivoted to the side thereof, and telescopically connected with said first small tube.

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1,089,591. DEPOSIT AND COLLECTION RECEPTACLE. ERNEST E. SCHNELLE, Rochester, N. Y. Filed Jan. 11, 1913. Serial No. 741,415. (Cl. 232—41.)



1. In a deposit and collection receptacle, the combination with a casing and a door, of a keeper arranged on one of said parts, a latch movably mounted on the other of said parts, a detainer for the latch mounted on the part carrying the keeper for holding said latch out of coöperation with the keeper, said detainer and latch being separated bodily when the door is opened, in order to free the latch, and means independent of the detainer for coöperating with the latch to shift the latter to cause said latch to coöperate with the detainer while the door is closed.

2. In a deposit and collection receptacle, the combination with a casing and a door, of a keeper arranged on one of said parts, a latch mounted on the other of said parts, a detainer for the latch arranged on the part carrying the keeper for holding the latch out of coöperation with the keeper, said detainer and latch being separated bodily when the door is opened in order to free the latch, and said detainer being movable to permit the latch to be set while the door is closed, and means independent of the detainer for coöperating with the latch to shift the latter to cause said latch to coöperate with the detainer while the door is closed.

3. In a deposit and collection receptacle, the combination with a casing and a door, of a keeper arranged on one of said parts, a gravity latch mounted on the other of said parts, a pivoted detainer for the latch mounted on the part carrying the keeper and adapted to hold the latch elevated above the keeper, said detainer and latch being separated bodily when the door is opened, in order to free the latch, and means independent of the detainer for coöperating with the latch to shift the latter to cause said latch to coöperate with the detainer while the door is closed.

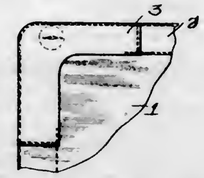
4. In a deposit and collection receptacle, the combination with a casing and two doors therefor, of a keeper arranged on one of the doors, a latch arranged on the casing, a detainer for the latch arranged on the door carrying the keeper to hold the latch out of coöperation with the keeper, said detainer being carried bodily with the door out of coöperation with the latch when the door is opened in order to free the latch, and mechanism controlled by the other door and connected with the latch for setting the latch in coöperation with said detainer to hold said latch out of coöperation with the keeper.

5. In a deposit and collection receptacle, the combination with a casing and two doors therefor, of a keeper arranged on one of the doors, a latch arranged on the casing, a yielding detainer for the latch arranged on the door carrying the keeper, said detainer being carried bodily with the door out of coöperation with the latch when the door is opened in order to free the latch, and mechanism controlled by the other door and connected with the latch for setting said latch in coöperation with the detainer to hold said latch out of coöperation with the keeper.

[Claims 6 to 17 not printed in the Gazette.]

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1,089,592. REINFORCED AND PROTECTIVE SHIRT-BAND. SAUL P. SIMON, Chicago, Ill. Filed Apr. 11, 1912. Serial No. 689,990. (Cl. 2—92.)



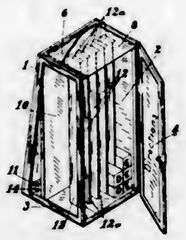
The combination with a shirt body having a vertical opening, and its neck band, the latter having a buttonhole near the vertical opening in the shirt body, of an L-shaped fabric reinforcement stitched to said band and body at the inner side of the inner front fold thereof, said stitching connecting the outer edge of said reinforcement to the outer edge of said band and the vertical edge of the body at said opening, the inner edge of said reinforcement being free to afford a pocket to receive the collar button.

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1,089,593. SHOW-CASE CONSTRUCTION. MAX A. SKAILZ, New York, N. Y. Filed Apr. 14, 1913. Serial No. 760,921. (Cl. 211—25.)

1. In a show case of the class described the combination with a rectangular base or bottom section of sheet metal,

provided with flanges along its edges, a slanted front side fastened to one of said flanges, two vertical sides fastened to the front side and to flanges of the base, a door opposite said front side, each of said sides consisting of a panel board surrounded by a frame made of U shaped channels, a roof panel similarly held by U shaped channels and provided with a metallic backing toward the interior of the show case and fastened to the upper edges of three sides of the show case and a vertical gage board in said show case forming a parallel plane to the door opening of the show case.



2. In a show case of the class described the combination with a rectangular base of sheet metal a slanting front side fastened to said base, two vertical sides, fastened to the base and to the front side, a door opposite the front side, each vertical side of the show case consisting of a panel board surrounded by a frame of U shaped channels, a roof panel similarly held by such channels and provided with a metallic backing toward the interior of the show case and fastened to the upper edges of three sides of the show case, a vertical gage board so placed into the interior of said show case, as to form a parallel plane to the plane of the door opening of the show case and a plurality of vertical partitions so placed in the interior of the show case as to form planes perpendicular to the plane of the door opening and fastened to the base and roof sections of the show case, by horizontal flanges formed on said partitions.

3. In a show case of the class described, the combination with a rectangular base or bottom section, of a slanted front side, two vertical sides and a roof section, a door opposite said front side, all of said sides formed by a frame, holding a panel of suitable material, a vertical gage board in said show case forming a parallel plane to the plane of the door opening of the show case, a horizontal projection on the lower edge of said gage board, extending to the front side of the show case, to space the gage board correctly from said front side.

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1,089,594. PROCESS FOR SENSITIZING DYESTUFFS EMPLOYED IN PHOTOGRAPHY. JOHN H. SMITH, Bois-Colombes, France. Filed Feb. 18, 1910. Serial No. 544,717. (Cl. 95—7.)

1. A process for increasing the sensitiveness to the action of light of dyestuffs used in photography, consisting in introducing thiosinamin into the photographic product containing the light sensitive dye.

2. A process for increasing the sensitiveness to the action of light of dyestuffs used in photography, consisting in incorporating thiosinamin in the finished photographic product containing the light sensitive dye and silver haloid.

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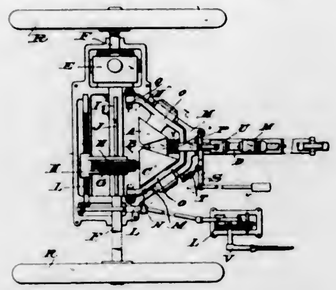
1,089,595. SPRAYING DEVICE FOR THE HAIR AND SCALP. HATTIE SOPHA, Detroit, Mich., assignor to Frank C. Dorment, Detroit, Mich. Filed Feb. 28, 1913. Serial No. 751,255. (Cl. 132—3.)

A device of the character described comprising a compressible liquid container, a stem detachably connected thereto, and a spray producing member attached to said stem formed of a plurality of hollow curved channels communicating at opposite ends, and provided at the outer end with a pointed cap, each of said channels being provided with a number of spray apertures for a portion of its length near said end on the concave face thereof.



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1,089,596. FRICTION TRANSMISSION MECHANISM. THEODORE D. STANLEY, Detroit, Mich. Filed Apr. 16, 1913. Serial No. 761,537. (Cl. 74—26.)



1. In an automobile or other self moving vehicle, the friction transmitter consisting of a driving shaft a truncated cone shaped drum on one end thereof, twin cones on opposite sides of said drum means to hold such drum in proper position and also to disengage the same from contact with the faces of the other cones, the extreme outward sides of said twin cones (most remote from said drum) forming a right line, a driven shaft, a movable wheel splined thereto to which the power is to be transmitted, means for controlling such movable wheel, an independent frame to hold and support such cones as well as to allow them to revolve upon their axes and means to keep such frame in proper position so as to give the proper grip to the twin cones against the movable wheel substantially as set forth.

2. In an automobile or other self moving vehicle, for the transmission of power and securing any desired change of speed in such vehicle, a device consisting of three cones standing so that the same plane will bisect the three cones and will produce at the apexes of the three cones angles totaling one hundred and eighty degrees, a driving shaft capable of contraction and expansion attached to the base of the middle cone at its center, means to control such contraction and expansion thereby allowing the middle cone to revolve free from any contact with the other cones or in such close contact therewith as by friction to cause such other cones to revolve when the middle cone revolves, a movable pulley so adjusted that its face may come into contact with any part of the faces of the two outer cones, a shaft whose center is in the same plane as that bisecting the three cones, such shaft standing parallel with the two faces of the outer cones and supporting the movable pulley and splined thereto, spindles upon which the outer cones revolve, a frame holding rigid such spindles and supporting the three cones, means to cause such frame and with it the faces of the outer cones to be moved toward the face of the sliding pulley, all substantially as set forth.

3. In an automobile or other self moving vehicle, for the transmission of power and securing a change of speed, a transmitter comprising a driving shaft, a truncated cone shaped cap attached thereto having a face or surface of some soft substance, twin cones mounted for revolution in contact with the cone shaped cap, means for giving such cap a proper pressure against the other revolving cones or of detaching it from them, a frame to support the twin cones, means to keep the said frame in the desired position, a shaft for receiving the power, a pulley splined to the shaft or axle receiving the transmitted power and means for controlling the position of the said pulley thus causing it to be propelled by the twin cones at any point between the bases of the twin cones along the line of their faces except at or near the apexes thereof but by one cone in the opposite direction to that of the other, all substantially as set forth.

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1,089,597. SQUIRREL-CAGE ROTOR. FRANK W. STEFATER, Louisville, Ky., assignor to Jas. Clark, Jr., Electric Co., Louisville, Ky., a Corporation of Kentucky. Filed Apr. 14, 1913. Serial No. 761,037. (Cl. 172—120.)



1. A squirrel cage rotor comprising end rings with radial notches therein and with radial teeth between the notches, bars fitting tightly in said notches, each said end ring having an annular groove turned in its face cutting alternately through the said teeth and the ends of the said bars, and a locking ring in said groove.

2. A squirrel cage rotor comprising end rings and bars engaging the same, each said end ring and said bars having an annular groove turned in the face of the ring cutting alternately through portions of the ring and the bars, and a locking ring in said groove.

3. A squirrel cage rotor comprising end rings and bars engaging the same, and a single locking ring engaging the ends of the bars and the intermediate portions of the ring alternately and thereby securing the ends of the bars to the rings.

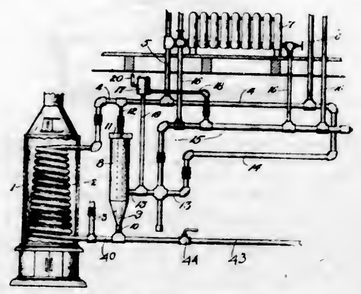
4. A squirrel cage rotor comprising end rings and bars in combination, said rotor having a groove at each end cutting through the ends of the bars and the intermediate portions of the respective end ring in alternation, and a locking ring in said groove securing the parts together.

5. A squirrel cage rotor comprising end rings and bars in combination, said rotor having a groove at one end thereof cutting across the bars and across the intermediate portions of the respective end ring, a wall of said groove overhanging the groove with respect to centrifugal force, and a locking ring in said groove.

[Claim 6 not printed in the Gazette.]



1,089,598. HEATING SYSTEM. CHARLES A. STJERNQUIST, Chicago, Ill. Filed Apr. 1, 1910. Serial No. 552,895. (Cl. 237—9.)



1. A steam heating system, comprising a steam generator, a steam pipe leading from said generator to the supply side of the system, a return for the system, an air chamber communicating with said return, a thermostatically controlled valve connected to said air chamber and adapted to permit cold air to escape, to prevent admission of atmospheric air and to cushion the system under excessive internal pressure, a condensation chamber with which the system return communicates, and an ejector in said chamber connected with the supply side of the system for returning the water of condensation to the generator.

2. A steam heating system, comprising a steam generator, a steam pipe leading from said generator to the supply side of the system, a return for the system, an air chamber communicating with said return, a valve chamber connected to said air chamber, valves in said valve chamber closing in opposite directions, the discharge valve being thermostatically controlled and said valves coöperating to close the discharge from said chamber under access of steam to said chamber, a condensation chamber with which the system return communicates, and an ejector in said chamber connected with the supply side of the system for returning the water of condensation to the generator.

3. A steam heating system, comprising a steam generator, a steam pipe leading from said generator directly to the supply side of the system, a single return pipe for the whole system, an air chamber communicating with said return, a valve chamber connected to said air chamber, valves in said valve chamber closing in opposite directions, the discharge valve being thermostatically controlled and said valves coöperating to close the discharge from said chamber under access of steam to said chamber, a condensation chamber with which the system return communicates, a return pipe leading from said condensation chamber to said generator, and an injector pipe tapped into said steam pipe and discharging in said chamber between the point of entrance thereinto of the inlet from the system return pipe and the connection therewith of the generator return pipe.

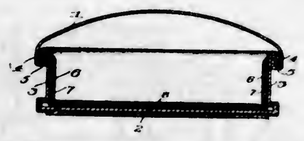
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1,089,599. FOOTWEAR. CHARLES STREB, Rochester, N. Y., assignor of one-half to Fitz Henry Boyer, Rochester, N. Y. Original application filed Jan. 22, 1912, Serial No. 672,575. Divided and this application filed Dec. 1, 1913. Serial No. 804,032. (Cl. 36—12.)

1. Footwear comprising an upper formed of flexible material, and a sole formed of metal and having a surrounding upwardly-extending flange having its upper edge turned downwardly into gripping engagement with the upper.

2. Footwear comprising an upper formed of flexible material, and a sole formed of metal and having a surrounding flange turned outwardly and downwardly along its upper edge, the lower edge of the upper being turned in-

wardly and upwardly and held between the outwardly and downwardly turned edge of the flange.

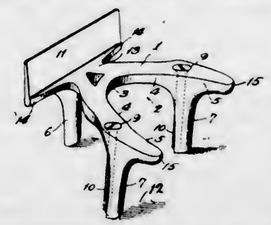


3. Footwear comprising an upper formed of flexible material, a sole of metal having a surrounding upturned flange to the upper edge of which the upper is secured, and a covering for said flange secured in the seam between the upper and said flange and depending from said seam to the inner or upper face of the metal sole.

4. Footwear comprising an upper formed of flexible material, a sole of metal having a surrounding up-turned flange, the upper edge of which is bent outwardly and is clamped upon the upper, and a covering for the flange having a thin portion turned over the upper edge of the flange and secured with the upper.

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1,089,600. COMBINED OVERSHOE JACK AND SCRAPER. JOSEPH STREETON, Los Angeles, Cal. Filed Jan. 12, 1911. Serial No. 602,351. (Cl. 132—30.)



1. The combination with a jack plate comprising two divergent tip sections and an upbent portion forming a blade behind said tip sections, of a rear leg forming a downward extension from and a support for the blade, front legs forming downward extensions from and supports for the divergent sections, and bolts; there being bolt-seats in the divergent sections between the rear leg and the front legs and said bolts being passed through said bolt seats for attachment to a support to hold the sections and the blade rigidly stationary.

2. An overshoe jack comprising a plate provided with a heel receiving recess and downwardly extending legs, two of said legs being grooved and there being orifices in the plate in line with the grooves to accommodate bolts for the purpose of fastening the jack to a support.

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1,089,601. WHEEL. ALFRED J. SWING, Cincinnati, Ohio. Filed Mar. 18, 1912. Serial No. 684,517. (Cl. 152—28.)

1. A vehicle wheel comprising a circumferentially offset hub member, a circumferential rim member, a concentric series of spring members jointedly attached at opposite ends and connecting the hub to one side of the rim member, and a different concentric series of spring members jointedly attached at opposite ends and connecting said hub member to the opposite side of said rim member, said two series of spring members being under opposed tension substantially with each other, and the wheel axis and overlapping in the medial vertical line of the wheel plane.

2. A vehicle wheel comprising a circumferentially offset hub member, a circumferential rim member having inwardly extending side walls with the peripheral portion of said hub member lying between said walls of the rim member and spring members arranged in opposed tension substantially parallel with the wheel axis in different concentric circles and jointedly secured at their opposite ends to said hub member and to the respective side walls of said rim member.



3. A vehicle wheel comprising a hub, a circumferential hub member attached to said hub, a circumferential rim member having inwardly extending side walls, one of which is projected farther than the other, the hub member having an angled portion lying between said walls, a series of concentrically arranged spiral springs under tension jointedly connecting the shorter side wall of the rim member to the outer portion of the hub member, and a second series of concentrically arranged spiral springs under tension jointedly connecting the longer wall of said rim member to the inner portion of said hub member, said respective series of springs being attached to the hub member with reference to the angled portion thereof so that said springs at their inner ends extend across the medial vertical line of the wheel plane.

4. A vehicle wheel comprising a hub, an outwardly projecting hub member united to opposite ends of said hub and off-set at separate sections circumferentially to provide a plurality of points for spring attachment upon opposite sides of the medial vertical line of the wheel plane, a rim member comprising two sections united to form an annular tire channel with inwardly projecting side walls on opposite sides of said projecting hub member, and spring members jointedly connected to said projecting hub member at said respective points of attachment at one end and jointedly connected to the respective side walls of said rim member so that said spring members will overlap at the medial vertical line of the wheel plane.

5. A vehicle wheel comprising a hub, an outwardly projecting hub member united to and encircling said hub, said hub member being off-set at separate sections circumferentially to provide a plurality of points for spring attachment upon opposite sides of the medial vertical plane of the wheel, a rim member comprising a tire channel and inwardly projecting walls on opposite sides of said projecting hub member, springs opposed to each other and in different concentric arrangement on opposite sides of said projecting hub member, said springs being jointedly connected at opposite ends to said projecting hub member and said respective side walls of said rim member, and said projecting hub member being in position to contact with either the rim or side wall of said rim member under excessive strain.

[Claim 6 not printed in the Gazette.]

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1,089,602. PROCESS FOR PRODUCING POLYCHROMATIC SCREENS, PLATES, FILMS, AND PAPER FOR COLOR PHOTOGRAPHY. JAN SZCZEPANIK, Lulsenhof, near Dresden, Germany. Filed Aug. 6, 1908. Serial No. 447,336. (Cl. 95—81.)

1. The method of producing polychromatic screens for color photography, comprising simultaneously applying to a support a number of dyes contained in vehicles comprising material for which said dyes have a lower affinity than for the support so that said dyes will migrate into the support from the vehicles, and then removing the vehicles from the support by washing.



2. The method of producing polychromatic screens for color photography, comprising applying to a support discrete dye-containing vehicles comprising material for which said dyes have a lower affinity than for the support so that said dyes will migrate into said support from the vehicles, and then removing the vehicles from the support by washing.

3. The method of producing polychromatic screens for color photography, comprising projecting upon a support discrete dye-containing vehicles comprising material for which said dyes have a lower affinity than for the support so that said dyes will migrate into said support from the vehicles, and then removing the vehicles from the support by washing.

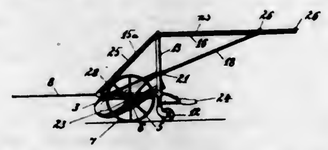
4. The method of producing polychromatic screens for color photography, comprising applying to a support a mixture of dye powders, the dyes being contained in vehicles comprising material for which said dyes have a lower affinity than for the support so that said dyes will migrate into said support from the vehicles, and then removing the vehicles from the support by washing.

5. The process of manufacturing polychromatic screens for color photography in natural colors, which comprises bringing into close contact with a suitable support, a sufficient number of provisional dye-stuff carriers, such carriers being provided with dyes having a lower affinity for the carriers than for the support so that said dyes will migrate into the support from the provisional carriers, and then removing the provisional carriers.

[Claim 6 not printed in the Gazette.]

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1,089,603. VEHICLE FOR COTTON-PICKERS. WILLIAM L. THOMAS, Hutchins, Tex. Filed Oct. 4, 1912. Serial No. 723,829. (Cl. 21—65.)



1. In a cotton picker's vehicle, a horizontal frame, wheels disposed transversely of the frame and supporting the same, uprights carried by the frame, and a canopy frame mounted on the upper ends of the uprights and comprising a horizontal portion extending rearward from the uprights and an inclined portion extending downward from the uprights.

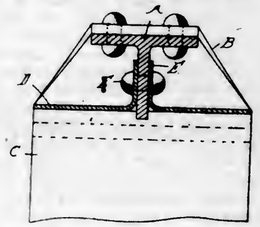
2. In a cotton picker's vehicle, a horizontal open frame, wheels supporting the frame, seats carried by the frame, uprights extending from the frame, a canopy frame comprising a rearwardly extending horizontal portion and a forwardly extending downwardly inclined portion, a fabric covering the canopy frame, and braces extending from the uprights to the horizontal portion of the canopy frame.

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1,089,604. CAR-ROOF. WILLIAM D. THOMPSON and DAVID W. HAWKSWORTH, Detroit, Mich., assignors to Hutchins Car Roofing Company, Detroit, Mich., a Corporation of Michigan. Filed June 11, 1910. Serial No. 566,386. (Cl. 108—5.)

1. In a car roof a metallic carline of T-shaped cross section, roofing plates extending between said carline and having upstanding flanges, the flanges of adjacent sheets being positioned adjacent the depending web of the carline and rigidly secured thereto constituting a truss of I-beam section, said carline being positioned so that its integral head forms a weather guard for the joint of the I-beam section.

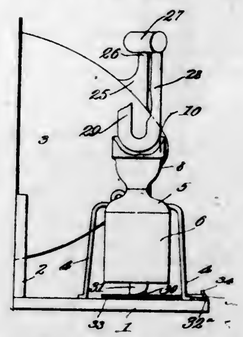
2. In a car roof comprising roofing sheets having upstanding flanges, metallic carlines of T-shaped cross section having the vertical portion depending between said upstanding flanges and rigidly secured thereto, constituting a truss having an I-beam section, the upper head of which forms a weather guard for the joint.



3. A car roof comprising a roofing plate having upstanding flanges, a carline of T-shaped section having a stem portion extending between said upstanding flanges and rigidly secured thereto, whereby said plates and beams together form a truss.

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1,089,605. LOCOMOTIVE ACETYLENE-GAS HEADLIGHT. WILLIAM R. THURSTON, Hammond, Ind. Filed Sept. 13, 1912. Serial No. 720,207. (Cl. 48—4.)



1. In a device of the class described, a reflector; a burner within the contour of the reflector; a carbid receptacle and a water reservoir communicating with the carbid receptacle; means for admitting air to the reflector; and a combined ventilating and water heating pipe opening at one end through the reflector above the burner and at its other end provided with a return bend extended into the reservoir and having an open end discharging outside of the reservoir.

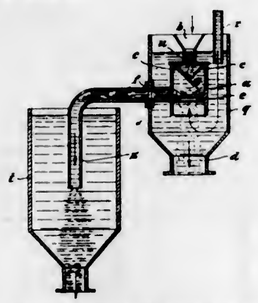
2. In a device of the class described, a reflector; a burner within the contour of the reflector; a carbid receptacle and a water reservoir communicating with the carbid receptacle; a pipe opening into the reflector above the burner and extended through the water receptacle; and a shield movable in front of the burner, the shield constituting means for directing heated air from the burner to the pipe.

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1,089,606. ORE-DRESSING APPARATUS. HUGO VELTEN, Milan, Italy. Filed Jan. 9, 1913. Serial No. 741,051. (Cl. 83—82.)

1. An ore dressing apparatus having a fluid tank, an inlet pipe admitting fluid under pressure to said tank, a separator immerged in the fluid, said separator receiving the material to be separated at its top and the fluid through its bottom and being provided with a contracted passage and an outlet, said passage having opposing sharp edges and being situated approximately midway between the two ends, and said outlet situated level with said passage; whereby the fluid, meeting said material at said passage separates out the lighter particles from said material and carries them with it through said outlet while the heavier particles continue through said passage in the same direction as the material entered.

2. An ore dressing apparatus having a fluid tank, an inlet pipe admitting fluid under pressure to said tank, a separator immerged in the fluid, said separator receiving the material to be separated at its top and the fluid through its bottom and being provided with a contracted passage and an outlet, said passage having opposing sharp edges and being situated approximately midway between the two ends, and said outlet situated level with said passage; and a plurality of downwardly and inwardly inclined alternating baffle plates at its upper end; whereby the fluid meeting said material at said passage separates out the lighter particles from said material and carries them with it through said outlet while the heavier particles continue through said passage in the same direction as the material entered.



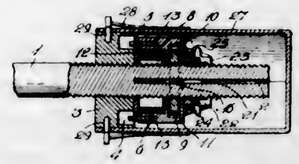
3. An ore dressing apparatus having a fluid tank, an inlet pipe admitting fluid under pressure to said tank, a separator immerged in the fluid, a hopper above said separator for feeding the material to be separated into the separator, said separator receiving the material to be separated at its top and the fluid through its bottom and being provided with a contracted passage and an outlet, said passage having opposing sharp edges and being situated approximately midway between the two ends and said outlet situated level with said passage; and a plurality of downwardly and inwardly inclined alternating baffle plates at its upper end; whereby the fluid, meeting said material at said passage separates out the lighter particles from said material and carries them with it through said outlet while the heavier particles continue through said passage in the same direction as the material entered.

4. An ore dressing apparatus having a fluid tank, an inlet pipe admitting fluid under pressure to said tank, a separator immerged in the fluid, a hopper above said separator for feeding the material to be separated into the separator, said hopper communicating at its lower end with the surrounding fluid in said tank; said separator receiving the material to be separated at its top and the fluid through its bottom and being provided with a contracted passage and an outlet said passage having opposing sharp edges and being situated approximately midway between the two ends, and said outlet situated level with said passage; and a plurality of downwardly and inwardly inclined alternating baffle plates at its upper end; whereby the fluid, meeting said material at said passage separates out the lighter particles from said material and carries them with it through said outlet while the heavier particles continue through said passage in the same direction as the material entered.

5. An ore dressing apparatus having a fluid tank, an inlet pipe admitting fluid under pressure to said tank, a separator immerged in the fluid of the tank and open at its lower end, a hopper at the upper end of said separator for receiving the material to be separated and passing it into said separator, said hopper being provided with an annular aperture at its lower end opening into the fluid in said tank, downwardly and inwardly inclined baffle plates in said separator beneath the entrance from said hopper, a horizontal partition in the separator provided with a central contracted passage with sharp edges, and being also provided with an outlet from said separator above and level with said partition, and a pipe running in a horizontal direction from said outlet through said tank, said tank having an opening in its bottom for removing the heavy separated material; the material to be separated meeting at the contracted passage, the fluid current coming in the opposite direction, whereby the lighter particles of said material are carried away by the fluid through said outlet, the heavier particles of the material collecting at the bottom of said tank.

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1,089,607. NUT-LOCK. ODEODE VINCENT, Leroy, La. Filed Dec. 19, 1912. Serial No. 737,723. (Cl. 151—2.)



1. In a nut lock, a bolt, a nut adapted to be screwed thereon and having a plurality of ratchet notches, a locking member slidable on said bolt and having a spring projected locking pawl arranged to engage said notches for locking the nut against turning in one direction, means for holding said locking member against turning, and having housed pawls for locking it against outward movement.

2. In a nut lock, a bolt, a nut adapted to be screwed thereon and having a plurality of ratchet notches, a locking member slidable on said bolt and having a spring projected locking pawl arranged to engage said notches for locking the nut against turning in one direction, means for holding said locking member against turning and having housed pawls for locking it against outward movement, said pawls having actuating arms projecting beyond the outer face of said auxiliary locking member.

3. The combination with a nut having ratchet notches, locking means for said nut comprising a member having a pawl for engagement with said notches and means for engaging a bolt to lock said member against turning, a member for locking said pawl carrying member against outward movement, and having means to hold it against turning, and spring pressed pawls for engaging the threads of a bolt to hold said members against outward movement.

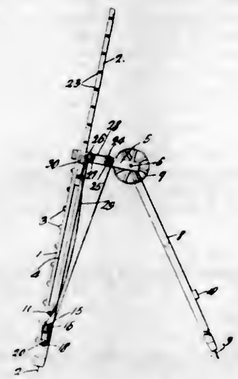
4. In a nut lock, a bolt having a longitudinal slot extending inwardly over the free end of the threaded portion thereof, a nut adapted to be screwed thereon and having a plurality of ratchet notches in its outer end, a nut locking member comprising a casing having a coiled spring secured at one end thereof within the casing and its other end extended laterally to engage the slot in said bolt, spring pressed pawls extending longitudinally from said casing for engagement with the ratchet notches of said nut, means for locking said casing against turning in one direction, and auxiliary locking means for locking said casing against outward movement.

5. In a nut lock, a bolt having a longitudinal slot extending inwardly over the free end of the threaded portion thereof, a nut adapted to be screwed thereon and having a plurality of ratchet notches in its outer end, a nut locking member comprising a casing having a coiled spring secured at one end thereof within the casing and its other end extended laterally to engage the slot in said bolt, spring pressed pawls extending longitudinally from said casing for engagement with the ratchet notches of said nut, means for locking said casing against turning in one direction, auxiliary locking means for locking said casing against outward movement, said auxiliary means comprising a hollow truncated cone shaped member having a transverse bar at its smaller end for engagement with the slot in said bolt, oppositely disposed pawls housed in said member, springs for forcing the free ends of said pawls into engagement with the threads of the bolt.

[Claims 6 and 7 not printed in the Gazette.]



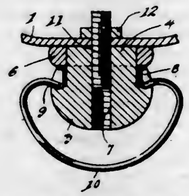
1,089,608. EXTENSION-LADDER. EDWARD WEIL and MARTIN DEADY, La Fayette, Ind. Filed Dec. 3, 1913. Serial No. 804,463. (Cl. 228—19.)



A ladder including a main section, arms fixedly connected to one end thereof and extending at an angle therefrom, an axle mounted in said arms, supporting wheels mounted on the axle, prop legs pivotally mounted on the axle and adapted to swing diagonally across the sides of the main section, a cross tie connecting the prop legs and adapted to engage the sides of the main section when the ladder is folded, the free ends of the prop legs constituting handles.

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1,089,609. ELECTRICAL FIXTURE. ELMER S. WHITE, Mount Carmel, Ill. Filed June 5, 1913. Serial No. 771,974. (Cl. 240—85.)

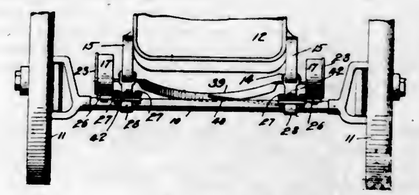


In a device of the character described the combination with a shower pan having a centrally located aperture, of a substantially globular body portion, said body portion being provided with a centrally located internally screw threaded aperture, a tubular stem threaded into the aperture in the shower pan, a cylindrical extension formed at the upper side of the globular body portion, a removable ring adapted to surround the tubular extension, a shoulder formed at the point where the tubular member and body portion meet, said shoulder being adapted to support the ring, the said body portion being provided with a pair of diametrically disposed recesses, and an open ended loop adapted to seat in the recesses to support a lighting fixture.

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1,089,610. PNEUMATIC SUSPENSION DEVICE FOR VEHICLES. JOHN WILLIAMSON, Brooklyn, N. Y., assignor of one-third to Harvey E. Randell and one-third to Albert P. Stewart, Brooklyn, N. Y. Filed Dec. 28, 1911. Serial No. 668,305. (Cl. 21—50.)

1. A suspension device comprising an elongated casing having a reëntrant portion, an annular pneumatic cushioning means conforming to the shape of the casing, and an elongated block located within the cushioning means and of less length than the interior of said cushioning means and bearing against said cushioning means in a vertical plane at but two points and otherwise free of said cushioning member.



2. A suspension device comprising an elongated casing having a reëntrant portion and adapted for attachment to a vehicle axle above the same, a floating member located within the casing and adapted to be attached to a movable part of the vehicle, and an annular pneumatic tube conforming to the shape of the casing and interposed between the casing and the floating member and bearing against said floating member at two points and in a vertical direction and free of the floating member except at such points.

3. A suspension device comprising an elongated casing, a floating member located within the casing, and an annular vertically disposed pneumatic tube conforming to the shape of the casing and adapted to bear against the upper and lower side of said floating member and free of the ends of said floating member.

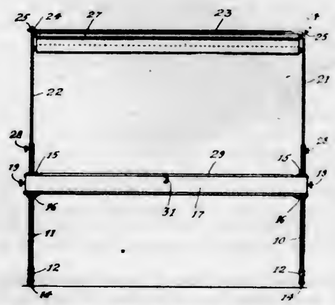
4. A suspension device comprising a casing, cushioning means, an elongated floating member having engaging surfaces of relatively different extents with said cushioning means and on opposite sides thereof, said floating member being free at its ends of said cushioning means, and means for causing said floating member to have a substantially vertical movement only.

5. In a vehicle, the combination of frame and axle members, pneumatic means comprising a casing, a block movable in the casing and cushioning means arranged between the block and casing, said block contacting with the cushioning means at but two points and otherwise free thereof, and a flat spring attached at one end to the frame member and the other end to the axle member to prevent movement of the axle lengthwise of the vehicle and direct the movement of the axle vertically.

[Claim 6 not printed in the Gazette.]

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1,089,611. SCREEN. FRANK T. WILSON, Stillwater, Minn. Filed Aug. 2, 1912. Serial No. 712,901. (Cl. 88—24.)



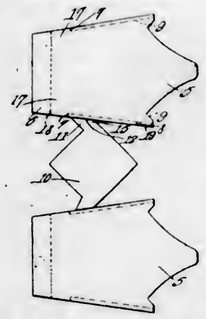
1. A screen comprising a pair of tubular standards, a box cross bar having top and bottom plates at the ends thereof through apertures in which said tubular members extend, handscrews in the ends of said box engaging the tubular members and adjustably clamping the same to said plates, a second set of standards adjustably secured within the tubular members and being provided with inwardly opening sockets, a roller and screen thereon, said

roller having the fixtures thereof seated in said sockets, and a rod holding said last named member in fixed position to retain the said fixtures in the sockets.

2. In a screen, side standards and castered bases to which said standards are secured, a box cross bar having top and bottom plates at the ends thereof formed with apertures through which the standards extend, and hand-screws in the ends of said box for clamping the standards to the plates.

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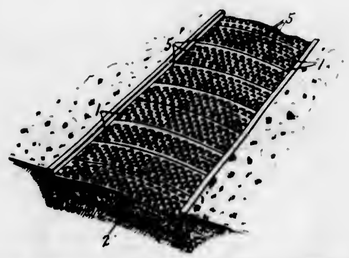
1,089,612. SANITARY CUFF-PROTECTOR. GEORGE W. WILSON, Greenland, Ark., assignor of one-half to William T. Fulton, Winslow, Ark. Filed Apr. 13, 1912. Serial No. 690,633. (Cl. 2—95.)



As an article of manufacture, a blank for use in the production of a pair of cuff protectors, said blank consisting of a single sheet of flexible material made up of side members adapted to be rolled to form a cuff protector, and a connecting member interposed therebetween, there being a weakened line at each side of said interposed member along which it may be torn from the side members, said interposed member, when detached, constituting a napkin.

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1,089,613. METALLIC SURFACING. JOSEPH FRED WIXOM, Hammondsport, N. Y. Filed May 13, 1913. Serial No. 767,314. (Cl. 94—1.)



1. A pavement comprising a bed of cementitious material and a metal surfacing therefor consisting of plates arranged edge to edge and having their meeting edges provided with interlocking connections, said plates being also provided with pendant projections, embedded in the concrete.

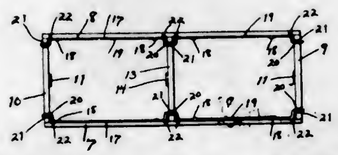
2. A pavement comprising a bed of cementitious material and metal plates arranged edge to edge on the surface of said bed, the adjacent edges of the plates being provided respectively with a series of apertures and tongues passed through said apertures whereby the plates are locked to each other.

3. A pavement comprising a bed of cementitious material and a metal surfacing therefor consisting of a series of sheet metal plates arranged edge to edge and having their meeting edges provided with interlocking connections, each plate having a series of integral pendant ribs stamped therefrom forming a corresponding number of apertures, the ribs being embedded in the concrete leaving the apertures open the full depth of the plates.

4. A pavement comprising a bed of cementitious material, metal plates applied to the surface of said material and each provided with a series of apertures having flaring ends, said plates being also provided with pendant ribs integral with the shorter sides of the apertures and having flaring ends embedded in the concrete leaving the apertures open the full depth of the plates.

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1,089,614. COLLAPSIBLE EGG-CRATE. EDWARD T. WORSTER, Woodfield, Ohio, assignor of one-half to J. F. Grasley. Filed May 10, 1913. Serial No. 766,763. (Cl. 217—15.)



1. In combination, a collapsible crate body including a cover therefor, said crate body comprising a partition member, end members, and side pieces, a rocking wire embedded in each side piece and having arch portions to engage the end and partition members.

2. In combination, a collapsible crate body including a cover therefor, said crate body comprising a partition member, end members and side pieces, the end members and partition member having notches, a rocking wire embedded in each side piece having L-shaped arches arranged in alinement to engage said notches to hold said partition, end and side members locked in erect positions.

3. In combination, a collapsible crate body including a cover therefor, means for clasping the cover to the crate body either distended or collapsed, said crate body comprising a partition member, end members, and side pieces, a rocking wire embedded in each side piece and having arch portions to engage the end and partition members.

4. In combination, a collapsible crate body including a cover therefor, clasping means for the cover for clasping the same to the crate body whether in a distended or collapsed condition, said crate body comprising a partition member, end members, and the side pieces, the end and partition members having notches, a rocking wire embedded in each side piece having L-shaped arches arranged in alinement to engage said notches to hold said partition, end and side members locked in erect positions.

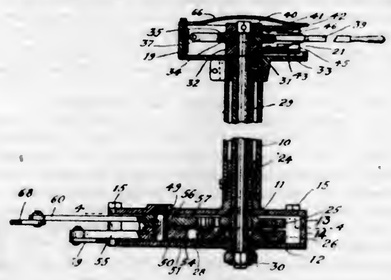
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1,089,615. LEVER. ALTON L. WYMAN, Minneapolis, Minn., assignor to Winona Wagon Company, Winona, Minn., a Corporation. Original application filed May 18, 1912, Serial No. 698,260. Divided and this application filed Oct. 7, 1912. Serial No. 724,301. (Cl. 74—39.)

1. A lever system comprising a base forming an inclosed chamber, a plurality of arms pivotally mounted within said chamber and extending out of the same, each of said arms being provided with differentially positioned notches, rotary members within said chamber having teeth for engaging said notches, and a lever for operating the rotary members.

2. A lever system comprising a base forming a closed chamber, a plurality of arms pivotally mounted within said chamber and extending out of the same, each of said arms being provided with differentially positioned notches, rotary members within said chamber having teeth thereon successively engageable with the notches of the several pivotally mounted arms for rotating said arms successively and independently, and a lever for operating the rotary members.

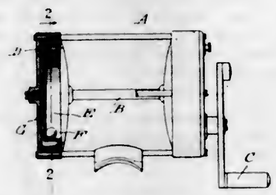
3. A lever system comprising a base forming an inclosed chamber, a tubular standard on said base, a plurality of independent movable members mounted within said base, a sleeve in the tubular standard, a plurality of



rotary members attached to the sleeve, and a lever for operating the sleeve.

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1,089,616. BRAKING ATTACHMENT FOR REELS. GEORGE S. YINGLING, Eau Gallie, Fla. Filed Oct. 2, 1913. Serial No. 793,060. (Cl. 242—84.5.)

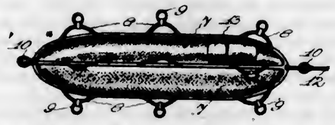


1. In combination with a casing of a reel and reel therein, one end of the casing projecting beyond the end of the reel, forming a chamber, a cylinder within said chamber, and centrifugally operated balls within the cylinder, as set forth.

2. In combination with a casing of a reel and reel therein, one end of the casing projecting beyond the end of the reel, forming a chamber, a cylinder within said chamber, centrifugally operated balls within the cylinder, and a closure for said chamber, as set forth.

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1,089,617. LIFE-SAVING BUOY. JOHN BALDWIN ADAMS, Christchurch, New Zealand. Filed Dec. 12, 1913. Serial No. 806,180. (Cl. 9—17.)

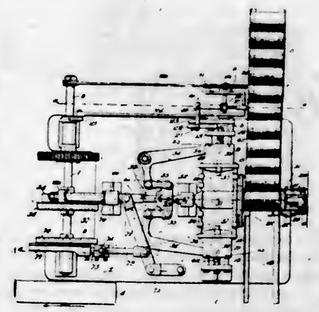


A device of the class described comprising in combination a rod surrounded by a padding of light fibrous material, a thin water-proof envelop hermetically inclosing said padding, a framework of longitudinal and circumferential members inclosing said envelop, and one or more outer protecting water-proof skins inclosing said construction, substantially as set forth.

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1,089,618. MACHINE FOR APPLYING LININGS TO HOLLOW ARTICLES. ERNEST DE NEEN ANDERSON, New York, N. Y., assignor to Union Paper Company, New York, N. Y., a Corporation of New York. Filed June 1, 1907. Serial No. 376,885. (Cl. 93—36.)

1. In a machine for lining cartons and other receptacles, the combination with means for supporting a rigid tubular object, of means for supporting a quantity of lining blanks, a sharp edged device for separating such lining blanks from each other, means for shaping a lining blank so separated into the form of a lining, and means for introducing the lining within such object.



2. In a machine for lining cartons and other receptacles, the combination with means for supporting a tubular object, of means for supporting a quantity of lining blanks, a sharp edged device for separating one lining blank from the quantity thereof, and a stop so arranged that one lining blank will pass between the edges of the separating device, means for shaping said blank into a lining, and means for introducing the lining so shaped within such object.

3. In a machine for lining cartons and the like, the combination of means for feeding the cartons to the machine, means for holding them in position to be individually operated upon, means for holding lining blanks, means for shaping said blanks into linings, including a plunger and forming dies, means for applying an adhesive material internally to the carton or other object, means for inserting the lining into said object, and means for ejecting the lined object from the machine.

4. In a machine for lining cartons and other receptacles, the combination with means for supporting the object to be lined, said means consisting essentially of a stationary collar and a movable buffer between which the object is temporarily held, of automatic mechanism for introducing a lining into the object, consisting essentially of a plunger, means for shaping the lining around said plunger, said plunger operating to deliver the lining to the object, and cam mechanism operating to actuate the plunger by introducing it partly into the object to be lined, then withdrawing it, and then again introducing it the full necessary distance.

5. In a machine for lining cartons and other receptacles, the combination with means for supporting the object to be lined, said means including a stationary collar and means for holding the object temporarily in said collar, of automatic mechanism for shaping a lining blank into proper form to serve as a lining, said automatic mechanism including a plunger, and means for introducing said plunger and the lining carried thereby through the collar into the object to be lined, with a plurality of movements, first introducing the lining part way, then withdrawing it more or less, and then introducing it the full necessary distance.

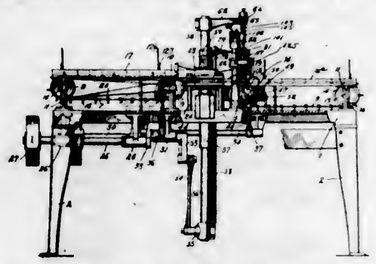
[Claims 6 to 38 not printed in the Gazette.]

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1,089,619. MACHINE FOR MAKING PAPER BOXES. ERNEST DE NEEN ANDERSON, New York, N. Y., assignor to Union Paper Company, New York, N. Y. Filed July 9, 1909. Serial No. 506,688. (Cl. 93—55.)

1. In a box-making machine, the combination with means for feeding a tubular part of the box, of means for feeding a cover for one end of said tube, so that the two may be placed in juxtaposition, means consisting of a plunger for introducing one part within the other, expanding means whereby one part is slightly distended at

the moment of the introduction of the other thereinto, and ejecting means for the finished product.



2. In a box-making machine, the combination with means for feeding a tubular part of the box, of means for feeding a cover for one end of said tube, so that the two may be placed in juxtaposition, means for introducing one part within the other, and expanding means whereby one part is slightly distended at the moment of the introduction of the other, said expanding means comprising a series of pivoted radial fingers.

3. In a box-making machine, the combination with means for presenting a tubular part of the box and a cover for one end of the same simultaneously, of means consisting of a plunger for introducing one part within the other, and expanding means whereby one part is slightly distended at the moment of the introduction of the other thereinto.

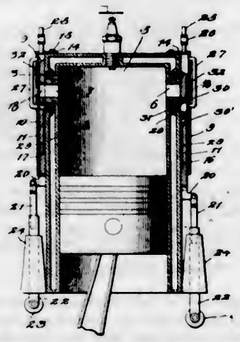
4. In a machine for making boxes, the combination with means for causing two parts of the box to telescope with each other, of means for slightly distending one part at the moment of the introduction of the other thereinto, said distending means consisting of a series of pivoted radial fingers.

5. In a machine for uniting the parts of boxes and the like, the combination with means for introducing one part within another part of corresponding shape, of means for slightly distending the receiving part at the moment of the introduction of the other thereinto, said distending means consisting of a series of pivoted radial fingers.

[Claims 6 to 18 not printed in the Gazette.]

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1,089,620. VALVE FOR INTERNAL-COMBUSTION ENGINES. HARRY E. BAILEY and CLYDE PARSONS, Green Castle, Mo. Filed Mar. 24, 1913. Serial No. 756,501. (Cl. 136—8.)



1. In combination with a cylinder having a port formed therein, a plate valve slidable upon the outer wall of the cylinder to open and close said port, a casing surrounding the valve and holding it in engagement with the cylinder, means for introducing oil into one end of the casing and a duct for conveying oil from said end to a portion of the casing on the opposite side of the port.

2. The combination with a cylinder having a port formed in the wall thereof, of a sliding valve engaging the exterior of the cylinder to open and close said port, a casing surrounding the valve to hold it in engagement with the cylinder, the casing being closed at one end and formed with an opening in alinement with the port, means for introducing oil into the closed end of the casing and a duct adapted to convey oil from said closed end of the casing to a point on the opposite side of the port.

3. The combination with a cylinder having a port formed in the wall thereof, of a plate valve slidable upon the exterior of the cylinder to open and close the port, a casing fitted around the valve to hold the same in engagement with the cylinder, said casing being closed at one end, means for introducing oil into the closed end of the casing, and a duct communicating at one end of the closed end of the casing and at its other end with the casing at a point on the opposite side of the port, the valve being formed with oil receiving grooves.

4. The combination with a cylinder having a port formed therein, of a plate valve slidable upon the exterior of the cylinder to open and close said port, a casing fitted around the valve to hold the same in engagement with the cylinder, one end of the casing being closed, means for introducing oil into said closed end the faces of the valve being formed with oil grooves and said valve being also formed with a transverse oil passage, whereby oil may be conveyed from one side of the valve to the other, and a duct leading from the closed end of the casing to a point on the opposite side of the port, whereby oil will be conveyed across the port so that both ends of the valve may be lubricated.

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1,089,621. AUTOMATIC FIREARM. CHARLES H. BARNES, Ilion, N. Y. Filed May 24, 1909. Serial No. 497,829. (Cl. 42—3.)



1. In a firearm, a receiver, a barrel having a depending lug, a fore stock adjustable forwardly and rearwardly relatively to the receiver and the barrel and having a slot for receiving the barrel lug and means for engaging the front end of the receiver, and means for adjusting the fore stock forwardly and rearwardly relatively to the receiver and the barrel, the adjusting means comprising a screw extending forwardly through the rear end of the fore stock and shouldering against the rear face of the barrel lug, substantially as and for the purpose specified.

2. In a firearm, a receiver, a barrel having a depending lug, a fore stock adjustable forwardly and rearwardly relatively to the receiver and the barrel and having a slot for receiving the barrel lug and means for engaging the front end of the receiver, and means for adjusting the fore stock forwardly and rearwardly relatively to the receiver and the barrel, said adjusting means comprising a screw extending forwardly through the rear end of the fore stock and coacting with the barrel lug, substantially as and for the purpose set forth.

3. In a firearm, a receiver, a barrel having a depending lug, a fore stock having a slot for receiving the lug, the fore stock being adjustable forwardly and rearwardly relatively to the receiver and having a slot for receiving the barrel lug, a screw extending through the rear end of the fore stock and shouldering against the rear face of the barrel lug, and a screw extending vertically through the fore stock and threading into the barrel lug, substantially as and for the purpose set forth.

4. In a firearm, a receiver, a barrel having a depending lug, a fore stock adjustable forwardly and rearwardly



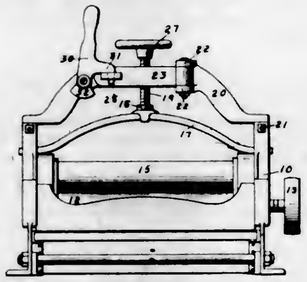
relatively to the receiver and barrel and having a slot for receiving the barrel lug and a cap for engaging the front end of the receiver, and means for adjusting the fore stock forwardly and rearwardly relatively to the receiver and barrel, the adjusting means comprising a screw threading into the cap and shouldering against the rear face of the barrel lug, substantially as and for the purpose described.

5. In a firearm, a receiver, a barrel having a depending lug, a fore stock adjustable forwardly and rearwardly relatively to the receiver and barrel and having a slot for receiving a depending lug and a cap for engaging the front end of the receiver, a screw passing through the cap and threading into the fore stock for securing the cap to the fore stock, and an adjusting screw threading into the cap and shouldering against the rear face of the barrel lug, the portion of the adjusting screw passing through the fore stock being unprovided with threads, substantially as and for the purpose specified.

[Claims 6 to 45 not printed in the Gazette.]

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1,089,622. RELEASABLE WRINGER. FREDERICK H. BERGMAN, Newton, Iowa. Filed Mar. 10, 1913. Serial No. 753,441. (Cl. 68—32.)



1. In a device of the class described, a frame including upright end members, a lower wringer roll suitably mounted on said frame, an upper wringer roll mounted on said frame to slide in a vertical plane, a spring arranged to impart downward pressure upon the upper wringer roll, a cross member secured to said upright end members above said spring, a bar hinged to said cross member to swing in a horizontal plane, said bar and said cross member being provided with vertical recesses which register with each other and are screw threaded, instantly releasable means for locking said bar against said cross member and a screw threaded bolt mounted in said vertical recesses with its lower end bearing upon said spring.

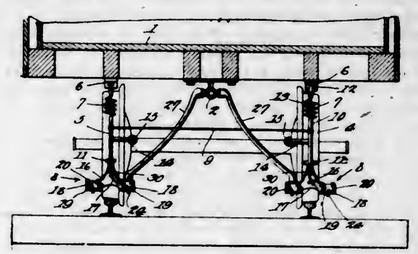
2. In a device of the class described, a frame including upright end members, a lower wringer roll suitably mounted on said frame, an upper wringer roll mounted on said frame to slide in a vertical plane, a spring arranged to impart downward pressure upon the upper wringer roll, a cross member secured to said upright end members above said spring, a bar hinged to said cross member to swing in a horizontal plane, said bar and said cross member being provided with vertical recesses which register with each other and are screw threaded, instantly releasable means for locking said bar against said cross member and for moving said bar away from said cross member when said means are released, a screw threaded bolt mounted in said screw threaded recesses with its lower end designed to bear upon said spring.

3. In a device of the class described, a frame including upright end members, a lower wringer roll suitably mounted on said frame, an upper wringer roll mounted on said frame to slide in a vertical plane, a spring arranged to impart downward pressure upon the upper wringer roll, a cross member secured to said upright end members above said spring, a bar hinged to said cross member to swing in a horizontal plane, said bar and said cross member being provided with vertical recesses which register with each other and are screw threaded, said bar being provided with an opening in its free end, a lug on said cross member having an opening therein, said lug being designed to extend through the opening in said bar when said bar is moved against said cross member, a lever pivoted to said cross member and a hook member thereon designed in one position of the movement of said lever to enter the opening in said lug for locking said bar against said cross member.

4. In a device of the class described a frame having upright end members, a lower wringer roll mounted on said frame, an upper wringer roll mounted to slide vertically in said frame, a flat spring curved from its center downwardly and outwardly to its ends, said ends resting above the ends of said second wringer roll and designed to bear downwardly upon them, a cross member mounted on said frame above said spring, a bar hinged to said cross member to swing in a horizontal plane, instantly releasable means for locking said member against said cross member and adjustable means designed to be secured between said bar and said cross member and to impart downward pressure on said spring.

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1,089,623. DERAILMENT BRAKE APPLIANCE. WILLIAM R. CARROLL, Many, La. Filed Nov. 1, 1913. Serial No. 798,711. (Cl. 188—2.)



1. In a device of the character described, an elongated body adapted to be disposed transversely above a rail, the body being arched intermediate its ends, means for suspending the body from a car body, and air brake controlling means carried by the end portions of the aforesaid body and coöperable with the rail.

2. In a device of the character described, an air chamber adapted to be disposed transversely of a rail, means for suspending the air chamber, from a car body, means for connecting the air chamber to a train pipe, and valves carried by the air chamber at the sides of the rail and arranged to be opened by the rail.

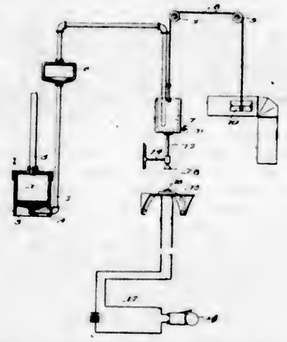
3. In a device of the character described, a car carried hanger, an elongated air chamber adapted for connection with a train pipe and adapted to be disposed transversely of a rail, the said chamber being arched intermediate its ends, the intermediate portion of the air chamber being pivoted to the hanger, valves carried by the end portions of the air chamber and coöperable with the rail, and balancing springs disposed between the hanger and the end portions of the air chamber.

4. In a device of the character described, a car carried hanger, an air chamber arranged to be disposed transversely over a rail and adapted for connection to the train pipe, the air chamber being pivoted to the hanger to swing transversely, valves for the end portions of the air chamber, and balancing springs between the end portions of the air chamber and hanger.

5. In a device of the character described, an air chamber arranged for connection with a train pipe and adapted to stand transversely over a rail, means for suspending the air chamber from a car body, the air chamber having lower outlet at the sides of the rail, and valves seatable over the said ports and having stems depending through the ports for coöperation with the rail.

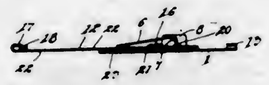
[Claims 6 to 10 not printed in the Gazette.]

1,089,624. SAFETY ATTACHMENT FOR WATER-HEATING APPARATUS. JOHN F. CUNNINGHAM, Springfield, Mo. Filed July 14, 1913. Serial No. 779,035. (Cl. 236—1.)



In a safety attachment for water heating apparatus, a mercury chamber adapted to be connected with one of the pipes of the apparatus, a substantially inverted U-shaped relief pipe having one long leg, having a lateral arm connected with an opening in the bottom of said mercury chamber, a separating chamber arranged in the long leg of said relief pipe, a receptacle arranged in position to catch the water discharged from said relief pipe, pulley supports, a check damper arranged in the smoke pipe of the heating apparatus, a flexible element connected with said damper and with said receptacle and passing over said pulleys, whereby the receptacle is counter-balanced and supported in position, an electric alarm circuit, an alarm arranged therein, a switch to open and close said circuit, a circuit closing member carried by said receptacle and having thereon a switch engaging element, and means to support said switch in position to be engaged by said switch engaging element when said receptacle receives sufficient water to cause it to lower and thereby simultaneously open said damper and sound an alarm.

1,089,625. HARNESS-CLASP. TURNER J. DANIEL, Butler, Ala. Filed Oct. 29, 1913. Serial No. 797,972. (Cl. 24—206.)

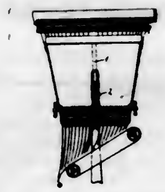


1. A clasp for harness comprising a stationary locking plate, an adjustable locking plate having a plurality of spaced openings therein slidably mounted upon said stationary locking plate, a locking lever pivoted upon said stationary plate, a pair of spaced locking tongues disposed in spaced parallel relation to the upper surface of the stationary plate and formed integral therewith, harness securing hooks carried upon one terminal of said adjustable plate, spaced lugs carried upon the pivoted terminal of said locking lever and adapted for engagement with the adjustable plate when in locked position, said locking tongues adapted for engagement with the openings in the adjustable plate and guide means carried by said stationary plate.

2. A clasp for harness comprising a stationary locking plate, an adjustable locking plate mounted for sliding movement on said stationary locking plate and having a plurality of spaced openings formed therein, a pair of upstanding opposed ears formed on said stationary plate, a locking lever pivoted within the ears, a pair of spaced locking tongues formed integral with the stationary plate and disposed in parallel spaced relation at their outer terminals to the upper surface of the stationary plate and adapted for engagement with the openings in the adjustable plate, means for guiding said adjustable plate and holding it in sliding relation to the stationary plate and means carried upon each terminal of the locking lever for holding the adjustable plate in locked position adapted for engagement with the locking plate and openings therein respectively.

3. A clasp for harness hooks comprising a rectangular stationary locking plate, an adjustable locking plate adapted for sliding movement upon said stationary plate and having a plurality of spaced openings formed therein, a pair of opposed harness hook members formed integral with the adjustable plate at one terminal thereof, an inwardly turned hook member formed integral with the adjustable plate and extending outwardly from one terminal thereof, a locking lever pivotally secured to said stationary plate, a pair of lugs formed integral with the locking lever, adjacent the pivoted terminal thereof extending at right angles to the locking lever and adapted for engagement with the adjustable locking plate, a pair of spaced locking tongues formed integral with the stationary plate and adapted for engagement with the openings in the adjustable plate, guide means carried by said stationary plate and means carried by the free terminal of said locking lever and adapted for engagement with one of the openings in the adjustable plate to hold said plate in locked position.

1,089,626. MATRIX-SETTING AND LINE-CASTING MACHINE. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 11, 1910. Serial No. 591,891. (Cl. 199—7.)



1. In a matrix setting and type line casting machine in combination matrices provided on both sides with characters and a magazine containing the matrices and having a central longitudinal axis, about which it can be turned through an angle of 180°.

2. In a matrix setting and type line casting machine in combination matrices provided on both sides with characters, a magazine containing the matrices having a central longitudinal axis and means for turning the magazine about the said central longitudinal axis through an angle of 180°.

3. In a matrix setting and type line casting machine in combination matrices provided on both sides with different characters and a magazine containing the matrices and having means to enable the magazine to be turned through an angle of 180° about its central longitudinal axis for the purpose of altering the type.

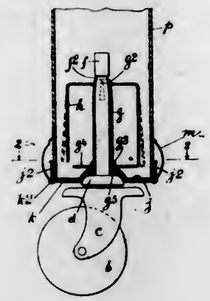
4. In a matrix setting and type line casting machine in combination matrices provided on both sides with characters, a magazine containing the matrices and having means to enable the magazine to be turned through an angle of 180° about its central longitudinal axis, a releasing mechanism for releasing the matrices and a distributing device for distributing them into the magazine, said releasing mechanism and distributing device remaining without any change if the magazine is turned.

5. In a matrix setting and type line casting machine in combination matrices provided on both sides with characters, a magazine containing the matrices and having means to enable the magazine to be turned through an angle of 180° about its central longitudinal axis, a releasing mechanism for releasing the matrices connected with the key-board and remaining without any change if the magazine is turned and two matrix releasing devices arranged on the magazine one for each position of it.

[Claims 6 to 51 not printed in the Gazette.]



1,089,627. CASTER STRUCTURE FOR TUBULAR LEGS. ALBERT B. DISS, Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 5, 1912. Serial No. 688,627. (Cl. 16—14.)



1. A caster structure for tubular legs, combining a pintle tube, a leg supporting plate centered on the pintle tube, and a spring frame centered on the pintle tube near the upper end of the tube and extending downward therefrom and adapted to resiliently act outward on the interior of the leg, the said pintle tube, supporting plate and frame being secured together adjacent to the lower end of the tube but the tube and frame being free to tilt relatively to the plate and the frame free to move relatively to both in its resilient action on the interior of the leg.

2. A caster structure for tubular legs, combining a pintle tube having two enlargements near its lower end, a leg supporting plate provided with means for centering it relatively to the leg and secured to and centering the pintle tube between the said two enlargements, and a spring frame having an upper member perforated and surrounding the tube for centering the tube at its upper end in the leg, said frame having two outwardly acting members for engaging the interior of the leg and which extend downward from said upper perforated member, one of the said downward extending members having a lower portion engaging the pintle tube and confined beneath the upper of the said two enlargements but left free to move in directions to permit the inward and outward action of the spring frame.

3. Caster structure combining a leg supporting plate, a pintle tube extending through the plate and secured thereto by enlargements below and above the same, and a spring frame having a perforate portion which surrounds the upper end of the tube and a lower portion which is provided with an open-ended slot which fits between the said enlargements.

1,089,628. CASTER. ALBERT B. DISS, Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 26, 1913. Serial No. 786,718. (Cl. 16—4.)

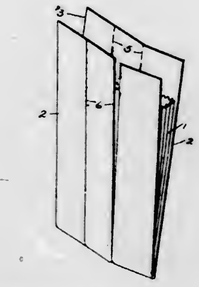


1. A caster having a caster wheel, jaws and pin, and in which the caster jaws are of sheet metal slitted and spread open for the pin between two substantially semi-circular oppositely-bent bearing portions for the pin which bear on opposite sides of the pin, and one of the said bearing portions having a continuation at its end remote from the other bearing which substantially encircles the pin and is adapted to bear on the pin from all sides.

2. A caster having a caster wheel, jaws and pin, the said jaws comprising a piece of sheet metal slitted and spread open for the pin between two oppositely bent portions which form upper and lower partial bearings acting on opposite sides of the pin, the said lower bearing being on the side away from the caster wheel and being provided with an extension substantially encircling the pin and forming a tubular bearing in continuation of such lower partial bearing.

3. A caster having a caster wheel, jaws and pin, and in which the jaws are of sheet metal and have a lower bearing for the pin on the side away from the wheel, which bearing is formed by a bent portion of the sheet metal in which the sheet lies parallel with and bears against the pin and at its lower part extends substantially around the pin and is adapted to bear on any side of the pin, the said jaws also having an upper bearing for the pin on the same side as the caster wheel.

1,089,629. CIGAR-POCKETS. JOHN J. DITTGEN, Madisonville, Ohio, assignor to The Dittgen Paper Goods Co., Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 26, 1910. Serial No. 540,180. (Cl. 229—87.)



1. A detachably connected series of cigar pockets consisting of a plurality of individual compartments made of flexible paper and secured to the walls of a double backing sheet, the individual pockets ending below the tops of the cigars to be contained and the free edges of the backing sheet extending substantially above the individual compartments.

2. A series of cigar pockets consisting of a plurality of individual compartments shorter than the cigars to be contained made of flexible paper and secured at spaced intervals to the walls of a double backing sheet, the space between the individual compartments being sufficient to hold them out of contact when expanded, and the free ends of the backing sheet extending substantially above the individual compartments.

3. A series of cigar pockets consisting of a plurality of individual compartments made of soft flexible paper and secured to the walls of a double backing sheet, one side of the backing sheet being provided with weakening lines of separation between the adjacent compartments, and the other side being disconnected.

4. A connected series of cigar pockets consisting of a plurality of individual compartments made of flexible paper and secured at spaced intervals to the walls of a double backing sheet, the space between the individual compartments being sufficient to hold them out of contact when expanded, one side of the backing sheet being provided with weakening lines of separation between the adjacent compartments, and the other side being disconnected.

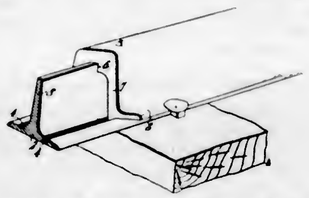
1,089,630. STOCK FOOD. WILLIAM T. ELDRIDGE, Sugar Land, Tex., assignor to Imperial Sugar Company, Sugar Land, Tex., a Corporation of Texas. Filed Dec. 2, 1912. Serial No. 734,562. (Cl. 99—11.)

1. A stock food consisting of a divided fibrous, uncooked alimentary base, such as cotton seed hulls and alfalfa meal, a low-grade molasses, in proportion greater than the proportion of any of the other materials, a relatively small portion of oily substance such as cotton seed meal, and a minor portion of peat.

2. A stock food comprising approximately 20 parts cotton seed hulls, 20 parts alfalfa meal, a small percentage of cotton seed meal, a low grade molasses in proportion greater than the proportion of any of the other materials, and a minor part of peat.

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1,089,631. RAILWAY-RAIL. THOMAS HUNTLY ELLIOTT, Vancouver, British Columbia, Canada. Filed July 24, 1913. Serial No. 780,919. (Cl. 239—16.)



1. A railway rail composed of two parts, one comprising a base or flange portion, having a central web projecting at right angles from the base along its middle line, the other comprising a tread portion of substantially U-shape in cross section and having its sides extending down to engage said base portion, said sides being spaced from said central web, said tread portion having a longitudinal groove to receive the upper edge of said central web substantially as shown and described.

2. A railway rail composed of two parts, one comprising a base or flange portion, having a central web projecting at right angles from the base along its middle line, the other comprising a tread portion of substantially U-shape in cross section and having its sides extending down to engage said base portion, said sides being spaced from said central web, said tread portion having a longitudinal groove to receive the upper edge of said central web, said tread portion having the lower extremity of its sides provided with lateral base webs to engage said first mentioned base portion, and also having longitudinal beads on its under side, said first mentioned base portion having longitudinal grooves to receive said beads, all being arranged substantially as shown and described.

3. A railway rail composed of two parts, one comprising a base or flange portion, having a central web projecting at right angles from the base along its middle line, the other comprising a tread portion of substantially U-shape in cross section and having its sides extending down to engage said base portion, said sides being spaced from said central web, said tread portion having a longitudinal groove to receive the upper edge of said central web, and I blocks adapted to be fitted between adjacent ends of two sections of said first mentioned portion and straddle the web thereof and project into the space between said web and the sides of said tread portion.

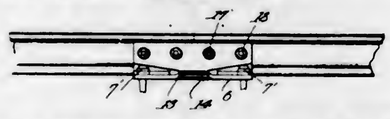
4. A railway rail composed of two parts, one comprising a base or flange portion, having a central web projecting at right angles from the base along its middle line, the other comprising a tread portion of substantially U-shape in cross section and having its sides extending down to engage said base portion, said sides being spaced from said central web, said tread portion having a longitudinal groove to receive the upper edge of said central web the lower extremity of its sides provided with lateral base webs to engage said first mentioned base portion, and also having longitudinal beads on its under sides, said first mentioned base portion having longitudinal grooves to receive said beads, and I blocks adapted to be fitted between the adjacent ends of two sections of said first mentioned portion and straddle the web thereof, and project into the space between said web and the sides of said tread portion.

5. A railway rail composed of two parts, one of said parts having a base and an upwardly projecting central web with longitudinal grooves within the base at each side of the web; the other part having a tread face and downwardly projecting sides and laterally projecting base webs, longitudinal beads on the bottom of said sides to enter said first part longitudinal grooves, said second part having a central longitudinal groove to fit over the upper edge of the web of said first part, the sides of said second part being spaced from the web of said first part and the base portion of said second part resting on the base of said first part.

[Claim 6 not printed in the Gazette.]

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1,089,632. RAILROAD ANGLE-BAR. ELIGAH H. FIELD and WILLIAM F. WALKER, Suwanee, Ga. Filed Sept. 3, 1913. Serial No. 788,019. (Cl. 239—6.)



1. An angle bar comprising a base plate, a side plate carried thereby and rigid with respect thereto, a detachable side plate, means for holding the same against shifting with respect to the said base plate, an auxiliary side plate secured to the said base plate, a filler interposed between the said detachable side plate and the said auxiliary side plate.

2. An angle bar comprising a base plate, bosses disposed along the edges thereof and projecting upwardly therefrom and provided with openings extending therethrough, said bosses affording a wide area of contact between the base plate and rail spikes, a side plate carried by the said base plate and rigid with respect thereto, a detachable side plate interlocking with the said base plate at its lower edge and held against movement thereby, an auxiliary side plate secured to the said base plate and bracing the upper extremity of said detachable side plate.

3. In a device of the class described, the combination of a base plate, a side plate carried thereby and contacting with the side of a rail a detachable side plate disposed upon the opposite side of the said rail contacting therewith, means disposed upon the said side plate interlocking with the said detachable base plate and holding the lower edge against relative motion with respect thereto, an auxiliary side plate secured to the said base plate, a filler positioned between the said detachable side plate and said auxiliary side plate, and means extending through the said side plates and filler, supporting the same in rigid relation.

4. In a device of the class described, the combination of a base plate, upstanding bosses along the edges thereof, a side plate carried by said base plate and rigid with respect thereto, a detachable side plate interlocking with the said bosses and held against relative motion thereby, a portion of said base plate offset in an upward manner, an auxiliary side plate engaging the offset portion of said base plate, a filler interposed between the said detachable side plate and said auxiliary side plate, means extending through the said side plates and filler adapted to hold the same in rigid relation, said bosses securing a wide area of contact between the tie spikes and said base plate.

5. An angle bar including a base plate, a side plate carried thereby and rigid with respect thereto, a portion of said base plate offset in an upward direction, a detachable side plate interlocking with the said base plate and held against relative motion with respect thereto, an auxiliary side plate hingedly secured to the offset portion of said base plate, a filler interposed between the auxiliary and

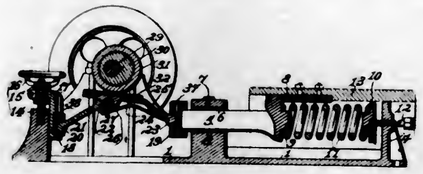


detachable side plates, and means extending through the said side plates and filler adapted to hold the same in rigid relation.

[Claim 6 not printed in the Gazette.]

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1,089,633. HEAD-MOTION. FRANK FRANZ, Wallace, Idaho, assignor of one-half to E. R. Day, Wallace, Idaho. Filed Jan. 30, 1912. Serial No. 674,307. (Cl. 74—5.)



1. In a head motion for ore concentrators, a supporting frame, a bracket member having a shaft or pin, a bearing on said frame in which said shaft or pin is mounted, yieldable means coöperative with said pin and bracket and continuously tending to move said bracket in one direction, an abutment carried by said frame and spaced from said bearing, a shaft rotatably mounted between said abutments and in a plane above the same, and extending in a direction transverse to the axis of said pin, a bearing member adjustably mounted on said abutment and including a socket portion, a bearing member carried by said pin, and also including a socket portion, a cam mounted on said transverse shaft, a main toggle lever including a flat upper bearing surface adapted to be held up in contact with said cam, and also including a downwardly projecting portion terminating in a bearing end to enter the socket of said pin carried bearing member, said main toggle member including a bearing socket beneath said flat surface, and a downwardly projecting toggle link having a bearing end held in said last named socket, and having a second bearing head held in the bearing socket of said adjustable bearing member, all being arranged whereby said yieldable means will also serve to hold said main toggle member in contact with said cam at all times, substantially as shown and for the purposes described.

2. In a head motion, a supporting frame, a bearing mounted thereon, a bracket member having a rod portion slidable in said bearing, a bearing block mounted on the end of said rod portion, said frame including an abutment, a bearing block engaging said abutment, a main toggle member having a bearing end engaging said bracket rod bearing member, a second toggle member having bearing members for engaging said abutment bearing member and said first toggle member, a wear plate mounted on said first toggle member, a rotatable shaft, a cam on said rotatable shaft for effecting the movement of said toggle member, and resilient means continuously tending to move said bracket member in a direction to continuously tend to move said toggle members toward said shaft.

3. In a head motion, a supporting frame, a bearing mounted thereon, a bracket member having a rod portion slidable in said bearing, a bearing block mounted on the end of said rod portion, said frame including an abutment, a bearing block engaging said abutment, a main toggle member having a bearing end engaging said bracket rod bearing member, a second toggle member having bearing members for engaging said abutment bearing member and said first toggle member, a wear plate mounted on said first toggle member, a rotatable shaft, a cam on said rotatable shaft for effecting the movement of said toggle member, and resilient means continuously tending to move said bracket member in a direction to continuously tend to move said toggle members toward said shaft, a ring loosely mounted on said cam to engage said first mentioned toggle member, and means for adjusting the stroke of said bracket member.

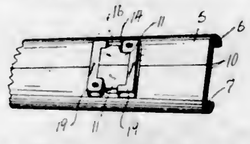
4. In a head motion, a base or support having an abutment and a bearing member, a bracket member having a rod portion mounted in said bearing member, other bearing members carried by said support, an operating shaft rotatably mounted in said other bearing members, a cam on said shaft, a ring loosely mounted on said cam, a bearing member mounted on said bracket rod, a bearing member mounted on said abutment, a main and a secondary toggle member connecting said bearing members, said main toggle member including a table portion coöperative with said cam carried ring, and means continuously tending to move said table member toward said ring.

5. In a head motion, a base or support having an abutment and a bearing member, a bracket member having a rod portion mounted in said bearing member, other bearing members carried by said support, an operating shaft rotatably mounted in said other bearing members, a cam on said shaft, a ring loosely mounted on said cam, a bearing member mounted on said bracket rod, a bearing member mounted on said abutment, a main and a secondary toggle member connecting said bearing members, said main toggle member including a table portion coöperative with said cam carried ring, and means continuously tending to move said table member toward said ring, and a wear plate mounted on said table member to engage said ring.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,634. VEHICLE WHEEL-RIM. RICHARD F. GEIDE, Rochester, N. Y. Filed Nov. 21, 1913. Serial No. 802,235. (Cl. 152—21.)



1. A device of the class described including a sectional rim, blocks secured to each section of said rim and arranged at intervals at the inner longitudinal edges thereof, said blocks having outwardly extending flanges and provided with inset flanges with recesses, pivoted levers having their ends adapted to be arranged within said recesses and engage the ends of the flanges to retain said blocks in a locking position and hold the sections against movement.

2. A device of the class described including a sectional rim, blocks carried by each of said sections at the inner longitudinal edges thereof, outwardly extending flanges formed on said blocks and provided at the outer corners with large and small recesses, levers carried by said sections and having their pivoted ends arranged within the large recesses, and their other ends adapted to be arranged within the small recesses, said levers being provided with cut away portions to receive said flanges whereby the blocks will be locked against movement to retain said sections in position.

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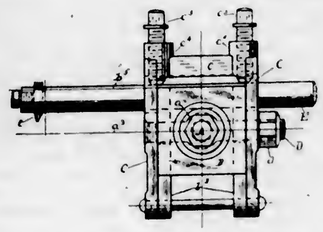
1,089,635. HOLDER FOR METAL-BORING TOOLS. EDWARD F-G. GIBBS, Washington, D. C. Filed June 9, 1913. Serial No. 772,686. (Cl. 82—36.)

1. As an article of manufacture a hollow base piece of rectangular form for boring bar holders, having four walls rectangular to each other and vertical opposing holes through top and bottom walls, suitable for retaining a king bolt, substantially as set forth.

2. As an article of manufacture a base piece of rectangular form for boring bar holders, having two vertical sides, having also a U-shaped recess at the front end thereof adapted to receive a central portion of a horizontally disposed shaft and having also a vertical hole suitable for retaining a king bolt, substantially as set forth.

3. As an article of manufacture, a hollow base piece of rectangular form for boring bar holders, having two vertical side walls, provided with recesses in their front ends adapted to receive a horizontally disposed shaft, substantially as set forth.

4. As an article of manufacture, a hollow base piece of rectangular form for boring bar holders, having two vertical side walls adapted to receive an embracing yoke, from which walls tail pieces adapted to engage the arms of the said yoke project backward; substantially as set forth.

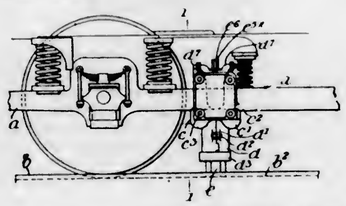


5. As an article of manufacture, a base piece of rectangular form for boring bar holders, having two vertical sides adapted to receive an embracing yoke, provided with a recess in the front end thereof adapted to receive a horizontally disposed shaft, provided also with a tail piece adapted to engage the arm of the said yoke projecting backward; all substantially as set forth.

[Claims 6 to 22 not printed in the Gazette.]

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1,089,636. TRACK-CLEANER. GEORGE WILLIAM GREEN, Feltham, and JOHN McILVAINE CATER, London, England. Filed Mar. 27, 1912. Serial No. 686,546. (Cl. 104—100.)



1. In a rail cleaning device, a bracket adapted to be fixed to the frame of a vehicle, a case or sleeve loose within the bracket, means for supporting the case or sleeve upon the bracket with capability of oscillation, blades vertically slidable within the case or sleeve and at their lower ends shaped to engage the tread and groove of the rail, respectively, and springs acting on the blades to cause them to bear with a spring pressure upon the rail as set forth.

2. In a rail cleaning device, a bracket adapted to be fixed to the frume of a vehicle, a casing or sleeve loose within the bracket, means for supporting the case or sleeve upon the bracket with capability of oscillation, extension springs fastened to the case or sleeve and to the bracket for controlling the oscillation of the case or sleeve, blades vertically slidable within the case or sleeve and at their lower ends shaped to engage the tread and groove of the rail respectively and springs acting on the blades to cause them to bear with a spring pressure upon the rail as set forth.

3. In a rail cleaning device, a bracket adapted to be fixed to the frame of a vehicle, a casing or sleeve loose within the bracket, means for supporting the case or sleeve upon the bracket with capability of oscillation, means for controlling the oscillation of the case or sleeve, blades vertically slidable in the case or sleeve and adapted to engage the tread and groove of the rail, nuts provided on the blades, long screws working in the nuts, bridge pieces extending across the tops of the cases or sleeves and having plain holes therein through which the upper ends of the screws extend, bosses or the like fixed to the screws above the bridge pieces, means attached to the bosses for rotating the screws, collars or shoulders upon the screws below the bridge pieces and extension springs attached to the bridge pieces and the case or sleeve for acting on the blades through the bridge pieces and screws as set forth.

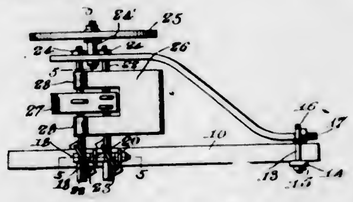
4. In a rail cleaning device, a bracket adapted to be fixed to the frame of a vehicle, a casing or sleeve loose within the bracket, means for supporting the case or sleeve upon the bracket, blades vertically slidable in the case or sleeve and adapted to engage the tread and groove of the rail, bridge pieces extending across the top of the case or sleeve, long screws working in nuts on the blades and extending through plain holes in the bridge pieces, bosses or the like fixed to the screws above the bridge pieces, collars or shoulders upon the screws below the bridge pieces, helical compression springs interposed between the bosses and bridge pieces, helical springs interposed between the bridge pieces and collars or shoulders of the screws for causing the blades to bear with a spring pressure upon the rail, means for turning the screws, and extension springs attached to the bridge pieces and to the case or sleeve for acting on the bladea through the bridge pieces, helical springs and screws as set forth.

5. In a rail cleaning device comprising a case or sleeve having blades slidable therein and regulated by screws working in nuts thereon and extending through bridge pieces and acted on thereby, extension springs attached to the case or sleeve and the bridge pieces and means for turning the screws comprising handles or levers having a pivotal connection therewith so as to fold down out of the way when not in use as set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,637. PLOW ATTACHMENT. GAINFORD GRIMES, Lakeview, Oreg., assignor of one-half to Brad. S. Radcliff, Medford, Oreg. Filed Nov. 5, 1912. Serial No. 729,671. (Cl. 97—36.)



A riding attachment for a plow, including a recessed block mounted on the beam of the plow and provided with upstanding recessed lugs, attaching clips for the block disposed in the recesses of the lugs and embracing the beam, parallel bars each having one of its ends disposed in one of the recesses of the block, heads on the bars engaging the block, clamping means engaging the beam of the plow and the bars for holding the bars in the recesses of the block and the block on the beam, a brace bar receiving the outer ends of the said parallel bars therethrough and supporting the same, a stub shaft carried by the rear end of said brace between the parallel bars and provided with a ground engaging wheel, a seat secured to the bars, and a platform pivotally carried by the rear one of the parallel bars and resting on the forward one of the bars.

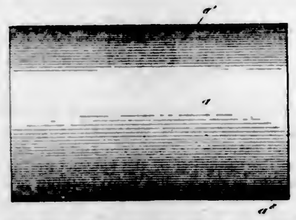
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1,089,638. ARMOR-PLATE. ROBERT ABBOTT HADFIELD, Sheffield, England. Filed Mar. 31, 1909, Serial No. 487,041. Renewed Aug. 6, 1913. Serial No. 783,412. (Cl. 114—11.)

1. An armor belt for battleships composed of a plurality of steel plates made of sufficient depth to extend the full depth of the required armor-belt so that the said belt has vertical divisional lines only, said plates being formed of gradually diminishing thickness from their central portion.



2. A battleship having an armor belt composed of cast nickel, chromium, steel alloy plates, said plates being heat treated to produce hardened central face portions, and having toughened end portions.

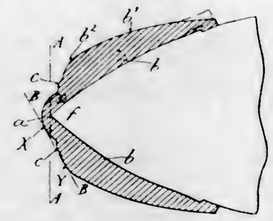


3. In an armor belt for battleships, composed of a plurality of steel plates the intermediate portion of one side of each plate being carbonized and face hardened at its central portion and the carbonizing and hardening effect tapering off to nothing at the upper and lower ends so that the plate will be face hardened at its central portion and be very tough at the upper and lower ends as well as at the back thereof, substantially as described.

4. A battleship provided with armor built up of plates composed of "Era steel" cast to shape and of different thicknesses in the direction of their depth, such plates being heat treated, having hardened central face portions and toughened end portions and of such depth that they each extend the full depth of the required armor, or of the main portion of the required armor, of the ship, substantially as described.

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1,089,639. CAP FOR ARMOR-PIERCING PROJECTILES. ROBERT ABBOTT HADFIELD, Westminster, England. Filed Aug. 22, 1913. Serial No. 786,131. (Cl. 102—28.)



1. A pointed armor piercing projectile and a cap for the forwnrd portion thereof, said cap comprising a relatively thin central portion, formed with a convex surface of small radius of curvature to cover the projectile tip and a relatively thick body extending rearwardly therefrom, the forward end of the body being behind the projectile tip, and the forward surface of the cap being formed with an annular concavity rearwardly of the tip and around said relatively thin, central portion, leaving the tip covered and surrounded only with a relatively thin covering, giving a small point of contact, but a greater thickness of metal in the body and a firm support to the projectile after the tip has penetrated.

2. For an armor piercing projectile, a cap having a centrally arranged forward portion of a small axial thickness to fit over the point of a projectile and a hollow rear or body portion to fit over the ogival portion of the projectile, the front end surface of the body portion having an annular depression therein and joining the outer peripheral surface of the body portion behind a plane transverse to the axis of the projectile and passing through the point of the projectile, the greatest transverse thickness of the cap metal being around the pointed end portion of the projectile but behind the actual point of the projectile, substantially as described.

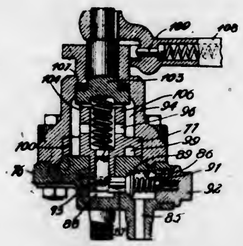
3. For an armor piercing projectile, a cap having a concave-convex front end surface, the convex surface being centrally arranged and the concave surface extending around the central portion and terminating in a substantially plane annular outer portion located behind the point of the projectile to which the cap is fitted.

4. For an armor piercing projectile, a cap having a centrally arranged forward portion of small axial thickness and cross sectional area to fit over the pointed end portion of a projectile and a hollow rear or body portion to fit over and surround the ogival portion of the projectile, the body portion having its front end surface arranged to come well behind a plane transverse to the axis of the cap and passing through the point of the projectile and the surfaces of the said forward portion and front end of the body portion being joined by an intermediate annular surface that will be bridged by a line drawn tangentially to the said forward and body portions substantially as described.

5. A cap for a pointed armor piercing projectile comprising a relatively thin central portion to cover the projectile tip and a relatively thicker body extending rearwardly therefrom, the forward end of the body being behind the projectile tip, and the forward surface being a single continuous curved surface, the outer edge thereof being behind the projectile tip, and from said outer edge the body extends rearwardly in a rounded shoulder, the total diameter of the cap increasing and its thickness decreasing toward the rear.

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1,089,640. VALVE FOR CONTROLLING AIR-BRAKES AND THE LIKE. HIRAM T. HALL, Oakland, Cal. Original application filed Nov. 7, 1912, Serial No. 730,033. Divided and this application filed May 9, 1913. Serial No. 766,651. (Cl. 188—7.)



1. A controlling valve comprising in combination, a valve seat portion having ports of graduated sizes for communicating with an air brake cylinder, a port opening to atmosphere, a port for communicating with a source of compressed air and the interior of said valve, and a closure having a through port adapted to connect the interior of said valve with any one or all of said graduated ports, said closure also having a cavity for connecting one of said graduated ports with the atmosphere port of said valve seat portion, substantially as described.

2. A controlling valve comprising in combination, a valve seat portion having ports of graduated sizes communicating with said brake cylinder, a port for communicating with an air reservoir and the interior of said valve, and a closure for said valve having a port adapted to connect the interior of said valve with any one or all of said graduated ports, said closure also having an imperforate portion adapted to close said graduated ports to maintain partial or full braking pressure subsequent to the application of such pressure, substantially as described.

3. A controlling valve comprising in combination, a port for communicating with a brake cylinder and a passage for communicating with an air reservoir and the interior of said valve, a passage closure normally preventing ingress of air to said passage to the interior of said valve, a valve closure for connecting and disconnecting said brake cylinder port with and from the interior of said valve, and means operated by said valve closure for un-

seating said passage closure when said brake cylinder port is opened, substantially as described.

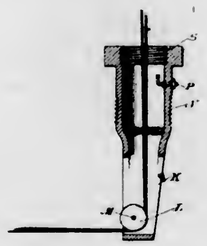
4. A controlling valve comprising in combination, a casing provided with a flat floor and having a central recess, said floor having a port adapted to connect with a brake cylinder and also a port leading to atmosphere, said casing being provided also with a port connecting with said central recess, a valve closure mounted in contact with said floor and having a projection extending into said recess, said closure also having a central flue port whereby air is admitted into the interior of the casing from said recess and, a through port for connecting the interior of the casing with said brake cylinder port, and a closed port adapted to connect said brake cylinder port with said atmosphere port

5. A controlling valve comprising in combination, a casing provided with a flat floor and having a central recess, said floor having a port adapted to connect with the brake cylinder and also a port leading to atmosphere, said casing also being provided with a port connecting with said central recess, a valve closure mounted in contact with said floor and having a projection extending into said recess, said closure also having a central through port whereby air is admitted into the interior of the casing from the recess and, a through port for connecting the interior of the casing with said brake cylinder port, and a cavity adapted to connect said brake cylinder port with said atmosphere port, a check valve intermediate said inlet port and said recess, and means for opening said check valve when said through port is in communication with said air cylinder port.

[Claim 6 not printed in the Gazette.]

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1,089,641. APPARATUS FOR INSERTING PIPE-CLEANING DEVICES INTO PIPE-LINES. BURT B. HODGMAN, East Orange, N. J., and Clinton Inglee, Amityville, N. Y., assignors to National Water Main Cleaning Company, a Corporation of Maine. Filed Sept. 18, 1911. Serial No. 649,853. (Cl. 137—70.)



1. In apparatus for inserting pipe cleaning devices into a pipe line, the combination of a pipe, an opening in said pipe, a fitting adapted to fill said opening, a pulley carried by said fitting, a cable passing through said fitting around said pulley and engaging with said cleaning device, all so arranged that said cleaning device may be drawn into the pipe line through the medium of said cable.

2. In apparatus for inserting pipe cleaning devices into a pipe line, the combination of a pipe, an opening in said pipe, a fitting adapted to fill said opening, said fitting having arms supporting a shaft, a pulley mounted on said shaft, a cable passing through said fitting and engaging with said pulley, said cable engaging with the device to be inserted into the pipe, all so arranged that said device may be drawn into the pipe line through the medium of said cable.

3. In a pipe section, an opening in the circumference thereof a fitting adapted to fill said opening, a sheave carried by said fitting, said sheave being of less diameter than the said opening.

1,089,642. SUPPORT FOR ELECTRIC CONDUCTORS. GOTTLOB HONOLD, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Sept. 21, 1911. Serial No. 650,605. (Cl. 173—251.)

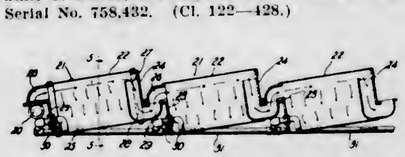



1. The combination with a plurality of electrical conductors, of a guide rod, a plurality of spaced disks of rigid material threaded on said rod and having a plurality of holes for the reception of the conductors in freely suspended position in space, said holes opening to the periphery of the disks so as to permit the insertion and removal of the conductors, and a removable band for each disk adapted to be slipped over the outer periphery thereof to hold the conductors in the holes in spaced relation to each other; substantially as described.

2. The combination with a plurality of electrical conductors, of a guide rod, a plurality of spaced disks of rigid material threaded on said rod and having a plurality of inwardly widening peripheral notches for the reception of individual conductors in freely suspended position in space, and also having radial grooves between the notches to afford elasticity to the disks in placing the conductors within and removing them from the notches, and a removable band for each disk adapted to be slipped over the outer periphery thereof to hold the conductors in the notches in spaced relation to each other; substantially as described.

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1,089,643. PREBOILER FOR STEAM-BOILERS. WILLIAM O. HOPPE, Los Angeles, Cal. Filed Apr. 2, 1913. Serial No. 758,432. (Cl. 122—428.)



1. In a device of the class described, a receptacle comprising a drum of oval cross section and composed of a shell and a pair of heads, an inlet at the upper end of one head, an outlet communicating with the drum interior at the upper end of the other head and discharging near the lower outside end of that head, and a blow-off pipe reaching through one of the heads to a point near the bottom of the drum.

2. In a device of the class described, a series of drums each of oval cross section and each comprising a shell and a pair of heads, an inlet at the upper end of one head, an outlet communicating with the drum interior at the upper end of the other head and discharging at the lower end of the outside of that head, the outlet discharge of one drum being rigidly connected directly with the inlet of an adjacent drum, the arrangement being such that each drum stands at a slight incline with its inlet end lower than its outlet end, and a blow-off pipe for each drum extending from a point adjacent the lowermost part of the drum interior.

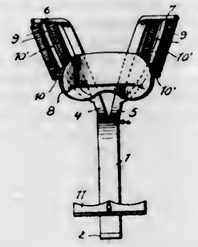
3. In combination with a steam boiler, a series of receptacles within said boiler, each receptacle comprising a drum consisting of a shell and a pair of heads, an inlet at the top of one head, an outlet leading from the drum interior at the top of the other head, the outlet of one drum being connected directly to the inlet of the next, a feed water pipe connecting to the inlet of the first drum of the series and the outlet of the last drum discharging into the boiler, and a blow-off pipe connecting into the lowermost point of each drum.

4. In combination with a steam boiler, a series of receptacles within said boiler, each receptacle comprising a drum consisting of a shell and a pair of heads, an inlet at the top of one head, an outlet leading from the drum interior at the top of the other head, the outlet of one drum being connected directly to the inlet of the next, the arrangement being such that each drum stands in an inclined position with its inlet end slightly lower than its outlet end, a feed water pipe connecting to the inlet of the first drum of the series and the outlet of the last drum discharging into the boiler, and a blow-off pipe connecting into the lowermost point of each drum.

5. In combination with a steam boiler, a series of substantially closed receptacles therein, each receptacle having an inlet and outlet at opposite ends near its top, the outlet of one receptacle being connected directly to the inlet of the next, the arrangement being such that each receptacle stands at an incline with its inlet end slightly lower than its outlet end, a feed water pipe connecting to the inlet of the first receptacle of the series and the outlet of the last receptacle discharging into the boiler, and a blow-off pipe connecting into each receptacle near its lowermost point.

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1,089,644. SPRING-SEAT. FRANK JACKSON, Randolph, Nebr. Filed Apr. 15, 1913. Serial No. 761,296. (Cl. 155—25.)



The herein described spring seat comprising a resilient standard having its upper end bifurcated to form chair arms and supports for the seats, said arms being bent outward to diverge from said standard and curved upward to extend forwardly, said standard and arm having integral, vertically disposed connecting braces, a seat suspended between and below said arms, and spiral springs each connected at one end to said seat, and having their opposite ends connected to said arms.

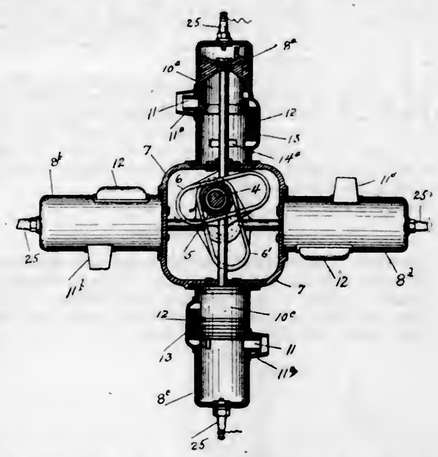
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1,089,645. AEROPLANE-ENGINE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Dec. 13, 1910. Serial No. 597,104. (Cl. 121—64.)

1. In an aeroplane engine, the combination with a closed crank case, having external diametrically opposite cylinder-receiving depressions, revolubly mounted upon a fixed axial crank shaft, of pairs of radial alining cylinders held in said depressions, respectively, by threaded encircling rings, a rigid piston rod structure passing through apertures in the crank case, rigidly connecting the two pistons of each pair and provided with an oblique crank-receiving slot, and an aeroplane propeller fixed to and rotating with the crank case.

2. In an aeroplane engine, the combination with a closed crank case having diametrically opposite, external, cylinder-receiving recesses and revolubly mounted upon a fixed crank shaft, of pairs of alining radial, one-piece cylinders mounted in said recesses, respectively, and held therein by encircling threaded rings, pistons working in the cylinders of each pair and rigidly connected by a piston rod structure sliding in apertures in the crank case and provided with central, oblique, crank-receiving slots, and an aeroplane propeller fixed directly to the crank case.

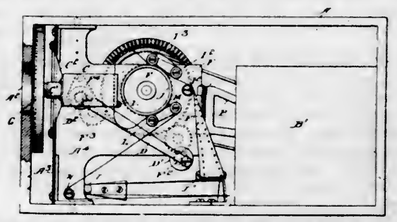
3. An aeroplane engine comprising a closed crank case revolubly mounted upon a fixed crank shaft, pairs of opposite alining one-piece cylinders detachably mounted externally on the crank case, pistons working in the cylinders, respectively, of each pair, piston rod members rigidly connecting the pistons of each pair, sliding in bearings within the cylinders and provided with central oblique slots to receive the crank, a fuel conduit leading to



the crank case, and conduits carried by the crank case, leading to the cylinders, respectively, and arranged to register successively with the conduit first mentioned, as the crank case rotates.

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1,089,646. MOTION-PICTURE CAMERA. CHARLES FRANCIS JENKINS, Washington, D. C. Filed June 27, 1912. Serial No. 706,187. (Cl. 88—16.8.)



1. In motion picture apparatus, the combination with a lens and a film guide arranged to hold transversely disposed film at a constant distance from the lens, of means for moving the lens and guide together in a circular path, and means whereby the film is at intervals prevented from moving with the guide in a direction opposite to the direction of the film's feeding movement at the guide, whereby the film is caused to advance intermittently with respect to the guide.

2. In moving picture apparatus, the combination with a lens and a film guide adapted to hold a film strip at a constant distance from the lens, of means for moving the lens and film guide together in an endless path, means for causing the film to advance step by step in said guide, and means for interrupting the passage of light to the film while it is in motion.

3. The combination with means for constantly feeding a film strip, of a lens and a film guide, in fixed relation thereto, slightly resisting the advance of the film, means for moving the lens and guide together in an endless path varying in distance from the constantly feeding means, and means for alternately allowing and interrupting the passage of light to the guided portion of the film said feeding means and means for moving the guide being arranged to produce step by step advance of the film with respect to the guide, substantially as set forth.

4. The combination with a lens and a guide for frictionally holding film to be fed transversely to the axis of the

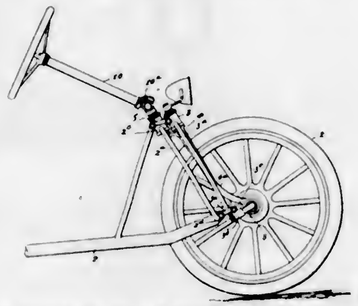
lens, of means for moving the lens and guide synchronously in an endless path, means whereby the film is at intervals prevented from moving with the guide in a direction opposite to the direction of the film's feeding movement at the guide, causing the film to advance with respect to the latter, and means for interrupting the passage of light to the guided portion of the film while the film is thus advancing.

5. In motion picture apparatus, the combination with a lens moving in an endless path and carrying with it and in its axis a portion of a film, of means whereby said portion is exposed while the lens moves through a portion of its path, and means whereby the movement of the lens through another portion of said path brings a fresh portion of the film into said axis.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,647. STEERING MECHANISM FOR MOTOR-CYCLES. DAVID JAMES JOHNSTON, Toronto, Ontario, Canada, assignor to The Militaire Auto Company Inc., Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 29, 1913. Serial No. 744,854. (Cl. 208—114.)



1. In mechanism for the purpose described, the forward wheel mounted on a curved track and adapted to travel laterally in the arc of said track, in combination with the main frame, a track supporting frame, a steering fork connected with the hub of the wheel and journaled in the track supporting frame, a steering post journaled in the main frame, and connecting means between said post and the fork, whereby the lateral movement is imparted to the wheel.

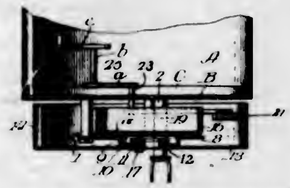
2. In mechanism for the purpose described, the combination of the main frame, the forward wheel, a curved track member passing through the hub of the wheel, rollers mounted in the hub and bearing on the track member, a track supporting frame, a steering fork connected with the hub and journaled in the track supporting frame, a steering post journaled in the main frame, flexible connection between said post and the fork, and flexible connection between the track supporting frame and the main frame.

3. In mechanism for the purpose described, the combination of the main frame, the forward wheel, a curved track member passing through the hub of the wheel and supported by a frame connected with the main frame, rollers mounted in the hub and bearing on the track member at an angle formed by lines drawn at right angles to the axes of the rollers and passing through the points of contact between said rollers and track, intersecting at the center of the arc, a steering fork, and means for turning said fork, whereby the wheel is caused to travel in the arc of the track.

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1,089,648. ALARM-CLOCK. GEORGE KERN, Peru, Ill., assignor to Western Clock Company, La Salle, Ill., a Corporation of Illinois. Filed Aug. 16, 1913. Serial No. 785,130. (Cl. 58—16.)

1. In an alarm clock, a body, alarm mechanism therein, and a back thereto, a hammer shaft journaled in said back exteriorly of said body, there being an outer end support for said shaft, a hammer arm and head fixed to said shaft, means connected to said alarm mechanism, protruding through said back, adapted to impart motion to said hammer arm, head, and shaft, and resonant members impacted by said hammer head.



2. In an alarm clock, a body, alarm mechanism therein, and a back thereto, a hammer shaft journaled in said back exteriorly of said body, an outer end support for said shaft connected to said back, a hammer arm and head fixed to said shaft, means connected to said alarm mechanism, protruding through said back, adapted to impart oscillatory motion to said hammer arm and head, and resonant members alternately impacted by said hammer head.

3. An alarm clock including a body, alarm actuating mechanism therein, and a back thereto, a bottomed, flanged, concentric, resonant member fixed to said back, a smaller, similar, resonant member arranged concentrically within said first named member, a hammer located in the annular space between said resonant members, and means protruding through said back actuating said hammer.

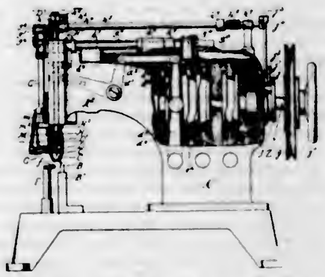
4. An alarm including a body, a back thereto, a bottomed, flanged, concentric, resonant member fixed to said back, a smaller, similar, resonant member arranged concentrically within said first named member, the flange of the larger of said members pointing in the direction of said back to conceal said smaller member, a hammer located in the annular space between said resonant members, and means protruding through said back actuating said hammer.

5. An alarm clock including a body, alarm actuating mechanism therein, and a back thereto, a supporting bridge on said back, a bottomed, flanged concentric, resonant member fixed to the top face of said bridge, a smaller, similar, resonant member arranged concentrically within said first named member, and affixed underneath said bridge a hammer located in the annular space between said resonant members, and means protruding through said back actuating said hammer.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,649. BUTTON-ATTACHING MACHINE. JOHN KIEWICZ, Hyde Park, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Dec. 1, 1911. Serial No. 663,343. (Cl. 112—32.)



1. A button attaching machine of the type in which two successive loops are drawn through the work and formed into a knot for the attachment of each button, comprising in combination a work support, a hooked needle fitted to move downwardly and upwardly, a cast-off located in coöperative engagement with said needle and fitted to move downwardly and upwardly, a common driving part, needle mechanism actuated from said part adapted for causing the needle to descend rapidly to the work and thence through the work and return in the formation of each of said two successive loops, and means for causing the cast-off in its descent during the second descent of the needle to retard relatively to the needle so as to come to the work with an easy approach and contact.

2. A button attaching machine comprising in combination loop forming mechanism, a spreader, a spreader shaft or pivot permitting the spreader to tip, a spreader bar carrying said shaft and spreader and adapted to swing the spreader into a loop, a spreader tipper adapted to shift and located to cause the spreader's tipping when shifted, and means independent of said spreader shaft and bar for shifting said tipper for causing the spreader to shed its loop.

3. A button attaching machine comprising in combination loop forming mechanism, a spreader, a spreader shaft or pivot permitting the spreader to tip, a spreader bar carrying said shaft and spreader and adapted to swing the spreader into a loop, a finger or projection carried by the spreader, a spreader tipper adapted to shift and located to contact said finger to cause the spreader's tipping when shifted, and means independent of said spreader shaft and bar for shifting said tipper for causing the spreader to shed its loop.

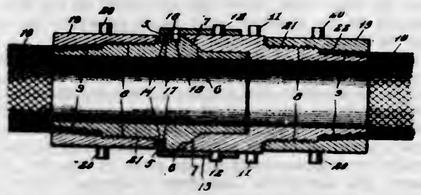
4. A button attaching machine comprising in combination, a reciprocating sewing needle, a loop spreader, means for operating said spreader to spread a loop engaged on said needle, a movable needle supporter, and connections whereby the spreader's movement effects a shifting of said supporter to and from the needle, whereby the needle is supported against deflection while the spreader is imposing a strain thereon.

5. A button attaching machine comprising in combination a work support, a needle carrier reciprocable in a straight line, a straight needle thereon adapted to take the thread near its point, means to actuate the carrier to cause the needle to penetrate the work from above and return, and an intermittent needle backer adapted to contact the needle substantially above the work while the needle is disengaged from the work, and means independent of the needle and carrier for causing the backer to laterally approach and recede from the needle.

[Claims 6 to 14 not printed in the Gazette.]

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1,089,650. HOSE-COUPLING. JOSEPH R. KILE, Neodesha, Kans. Filed Apr. 9, 1912. Serial No. 689,638. (Cl. 137—28.)



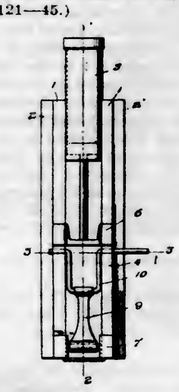
A hose coupling embodying male and female sections having telescoping cylindrical portions provided with conical abutting faces extending to the periphery of the sections, one of said sections having an abutment shoulder and the other diametrically disposed locking lugs, a coupling ring uniting said sections and closing the joint between said conical abutting faces at the periphery of said sections, said ring being provided at one end with a flange opposing said shoulder and at its opposite ends with cam slots formed with corrugated outer walls to interlock with said lugs, and a ring-shaped flat metal spring disposed between said flange and shoulder and having angularly related portions alternately bent in opposite directions and respectively bearing on the flange and shoulder, said spring serving to force the flange away from the shoulder and thereby exerting endwise pressure on the sleeve to hold the conical faces in close contact and also maintain the corrugated walls of the cam slots in interlocking engagement with the lugs, substantially as described.





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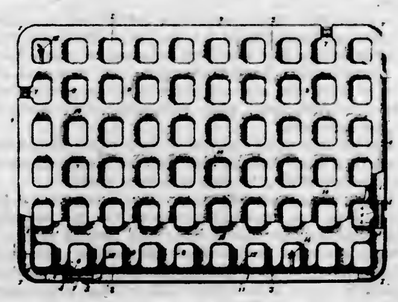
1,089,651. MOTION-CONVERTER. GREGORY KOVALAVICH, New York, N. Y. Filed Oct. 23, 1913. Serial No. 796,918. (Cl. 121—45.)



In a device for converting reciprocating motion into rotary motion, a frame composed of channel irons, one of the wings thereof being longer than the other and arranged to extend outwardly, a cross head having ears adapted to rest above and below the channel irons a distance equal to the width of the short wings thereof, arms extending from the cross head in line with the channel irons, and an auxiliary cross head connected to the arms, consisting of two members, each having ears adapted to rest above and below one of the channel irons a distance equal to the width of the short wing thereof, and a shaft connecting the two members of the auxiliary cross head, a link mounted at one end on the shaft connection between the auxiliary cross head members, and at its other end to a crank shaft, said crank shaft being mounted to rotate in the frame between the cross heads.

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1,089,652. PNEUMATIC BED-SPRING. JOHN J. LISBAR, Canton, Ohio, assignor of one-half to William J. Piero, Canton, Ohio. Filed Sept. 15, 1911, Serial No. 649,573. Renewed Jan. 22, 1914. Serial No. 813,773. (Cl. 5—1.)



1. A pneumatic bed spring comprising a tubular frame having two end pieces and two side pieces, spaced, parallel, longitudinally disposed elastic, inflatable tubes connected at their ends to the two end pieces of said frame, and spaced, parallel, transversely disposed, elastic, in-

flatable tubes connected at their ends to the two side pieces of the frame, the transverse tubes intersecting and inter-connecting said longitudinal tubes, and forming a meshed network having its general median plane coincident with the general median plane of said frame, and means for the attachment of an inflating device for the purpose of inflating said tubes.

2. A pneumatic bed spring comprising a frame having four sides made of hollow metal tubes, said tubes connected to each other at the corners of the frame by hollow elbows, each of the four sides of the frame provided with an adjusting device comprising relatively right and left internally threaded thimbles fitting into the severed ends of the tubes and a nipple provided with right and left threaded extensions arranged in the internally threaded thimbles, each nipple having a longitudinal bore providing internal communication between the tubes to which the same is connected and having an external nut portion whereby the area inclosed by said frame may be increased or decreased by turning said nipples, and a rubber net-work of intersecting, intercommunicating inflatable tubes connected to and supported by said tubular frame, the general median plane of said network being normally coincident with the general median plane of said frame.

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1,089,653. VETERINARY MOUTH-SPECULUM. ALFRED LITTAUER, Brooklyn, N. Y. Filed Sept. 5, 1913. Serial No. 788,209. (Cl. 128—27.)



1. A veterinary mouth speculum comprising hinged jaw members provided with bits, and a clamping connection holding the jaw members at substantially any degree of opening.

2. A veterinary mouth speculum comprising, in combination, two pairs of hinged jaw members, bits connecting the corresponding jaw members at opposite sides, brace arms one of which is pivotally connected with one jaw member at each side, and cramping clutch loops pivotally connected to said brace arms and coöperating with the other jaw members.

3. A veterinary mouth speculum, comprising hinged jaw members, and a pivotal arm and pivotal cramping clutch member for adjustably holding said jaws apart.

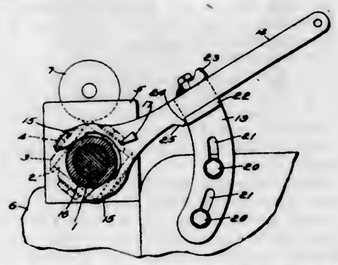
4. A veterinary mouth speculum, comprising hinged jaw members, bits, and means for holding the jaw members and bits apart comprising a brace arm pivoted to one of the jaws, a pivotal cramping clutch member adjustably connecting said arm and the complementary jaw member, and a spring acting to cant the clutch member with respect to the part embraced thereby.

5. A veterinary mouth speculum, comprising hinged jaw members, bits, and means for holding the jaw members and bits apart comprising a brace arm pivoted to one of the jaws, a pivotal cramping clutch member adjustably connecting said arm and the complementary jaw member, serrations engaged by one edge of the clutch member, and a spring acting to cant the clutch member with respect to the part embraced thereby.

[Claim 6 not printed in the Gazette.]

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1,089,654. INDEXING DEVICE. BYRON S. LOVELAND, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Nov. 21, 1913. Serial No. 802,200. (Cl. 144—114.)



1. In a device of the character described, the combination of a cutter shaft, an arm, means for positioning the arm radially of the shaft, means for transmitting rotary movement to the shaft by movement of the arm, an abutment to limit said movement of the arm, and means for rendering the relation of the arm and the shaft rigid before the said movement of the arm is stopped by the abutment.

2. In a device of the character described, the combination of a cutter shaft, an arm, means to position the arm radially of said shaft, a tooth and slot connection between the arm and the shaft, an abutment to limit the movement of the arm, and means for securely seating the tooth in the slot before the movement of the arm is stopped by the abutment.

3. In a device of the character described, the combination of a cutter shaft, an arm, means to position the arm radially of said shaft, a wedge-shaped tooth and slot for connecting the arm and the shaft, an abutment to limit the movement of the arm, and means for securely seating the tooth in the slot during the movement of the arm before it is stopped by the abutment.

4. In a device of the character described, the combination of a cutter shaft, an arm, means to position the arm operatively with relation to the shaft, means for transmitting rotary movement from the arm to the shaft, an abutment to limit the movement of the arm, means to permit adjustment of the abutment to vary the movement of the arm, means for rendering the relation of the arm and the shaft rigid before the movement of the arm is stopped by the abutment, and means by which the arm may be locked in engagement with the abutment.

5. In a device of the character described, the combination of a cutter shaft carrying a series of cutters, means for grinding said cutters, an arm for turning the cutter shaft to bring one of the cutters into operative relation with the grinding means, means for effecting a rigid connection of the arm and cutter shaft to insure proper turning movement of the shaft by the arm, and means for locking the arm from movement to hold a cutter in position for the action of the grinding means.

[Claims 6 to 9 not printed in the Gazette.]

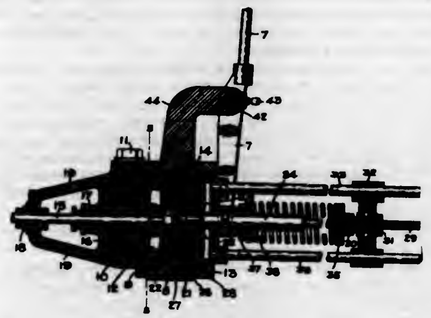
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1,089,655. CENTRIFUGAL PRESSURE-GOVERNOR. LOUIS C. LOEWENSTEIN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 4, 1911. Serial No. 658,524. (Cl. 121—114.)

1. A speed governor comprising a rotatable impeller, a casing for said impeller, a body of liquid in said casing, a flexible diaphragm exposed to the pressure produced by said impeller, a regulator for said pressure actuated by said diaphragm, and operative connections between said diaphragm and mechanism to be governed.



2. A speed governor comprising a casing filled with liquid, a rotatable impeller therein, a flexible diaphragm in one side of said casing, a spring pressing against the outside of said diaphragm, means actuated by said diaphragm for regulating the quantity of liquid thrown by said impeller against said diaphragm, and means for transmitting the movement of said diaphragm to the mechanism to be governed.



3. A speed governor comprising a casing filled with liquid, a rotatable impeller in said casing, a flexible diaphragm in one side of said casing, a spring opposing outward deflection of said diaphragm, a bowl-shaped device attached to said diaphragm and encircling said impeller, and means for transmitting the movement of said diaphragm to the mechanism to be governed.

4. A speed governor comprising a casing filled with liquid, a rotatable cylindrical impeller in said casing, a flexible diaphragm in one side of said casing, a spring opposing outward deflection of said diaphragm, a bowl-shaped device attached to said diaphragm provided with openings and having a sharp inturned edge adjacent to the periphery of said impeller, and means for transmitting the movements of said diaphragm.

5. A speed governor comprising a casing filled with liquid, a partition in said casing provided with openings, a shaft extending into said casing and through said partition, an impeller on said shaft in advance of said partition, a flexible diaphragm in one side of said casing, a head clamping the edge of said diaphragm, a regulator attached to said diaphragm and varying the quantities of liquid thrown off by said impeller against said diaphragm, a plunger attached to the outside of said diaphragm, a sleeve threaded on said plunger, and a spring between said sleeve and the head of the casing.

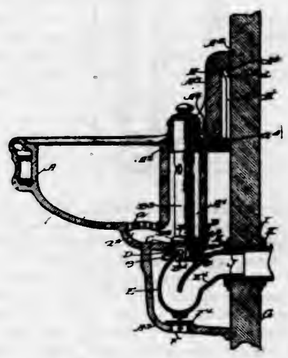
[Claims 6 to 8 not printed in the Gazette.]

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1,089,656. PIPE-COUPLING. PATRICK J. MADDEN, Chicago, Ill. Original application filed Dec. 21, 1907, Serial No. 407,604. Continuation application filed July 27, 1909, Serial No. 509,913. Divided and this application filed Sept. 30, 1911. Serial No. 652,101. (Cl. 137—96.)

1. In a pipe coupling, the combination with a receptacle having through it an opening for the passage of water, and a pipe having an open end registering with said opening, of means for coupling the receptacle and pipe together, said coupling means having on the receptacle an annular bearing surface, surrounding its opening and presented inward, a thimble passing through the opening of the receptacle, a ring having threaded engagement with the thimble and providing a bearing surface presented outward, said bearing surfaces being spaced apart to provide an annular groove between them, a packing ring occupying said annular groove and a corresponding groove in the pipe and means for forcing the receptacle and pipe toward each other.

2. In a pipe coupling, the combination with a receptacle having through it an opening for the passage of water, and a pipe having an open end registering with the opening of the receptacle, means for coupling them together, said coupling means having a thimble extending through said opening and provided with a valve seat presented upward, a ring having threaded engagement with the thimble and having in its under side a countersink, resulting in an inwardly presented bearing surface, the pipe being provided with an annular lip extending into said countersink and means for forcing the receptacle and pipe toward each other.

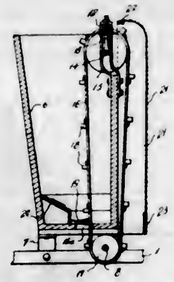


3. In a pipe coupling, the combination with a receptacle having through it an opening for the passage of water, the receptacle being countersunk around the opening providing a bearing surface presented inward, a ring located in said countersink and having a bearing surface presented outward, a space being left between said bearing surfaces to form an annular groove, a thimble supported by the receptacle and extending through the opening thereof, said thimble and ring having threaded engagement with each other, a packing ring interposed between the receptacle and pipe and occupying the groove aforesaid and a corresponding groove with which the pipe is provided, and means for forcing the pipe and receptable toward each other.

4. In a pipe coupling, the combination with a receptacle having an opening through it, said receptacle being countersunk around said opening providing a bearing surface presented inward, a ring located in said countersink and providing a bearing surface presented outward, a space being left between said bearing surfaces to form an annular groove, a thimble supported by the receptacle and passing through its opening, said thimble and ring having threaded engagement with each other and the ring being provided with a bearing surface presented inward, a pipe having an opening end registering with the opening of the receptacle and having an annular lip encircled by said inwardly presented bearing surface of the ring, a packing ring interposed between the receptacle and pipe and occupying the groove aforesaid and a corresponding groove formed in the pipe, and means for forcing the pipe and receptacle toward each other.

5. A plumbing fixture having a receptacle provided through its bottom with an opening for the discharge of water, a pipe having an open end presented upward and registering with said discharge opening, said pipe having also a horizontal portion adapted to extend through an opening formed through a supporting wall, means for coupling together the receptacle and the upwardly presented end of the pipe and preventing their movement relatively to each other, said horizontal portion of the pipe being made up of an inner section screw threaded on its exterior and an outer section screw threaded on both its exterior and interior, a nut turned on to the outer section and adapted to engage the rear face of the wall, a nut turned on to the inner section and adapted to engage the front face of the wall, and a packing ring surrounding the inner section between the nut last aforesaid and the end of the outer section.

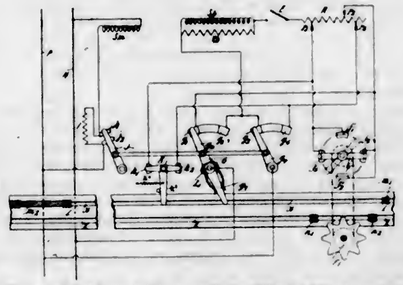
1,089,657. PLANTER. JESSE D. MADDUX, Atwell, Tex., assignor of one-half to John A. Lauderdale, Harpersville, Tex. Filed July 25, 1913. Serial No. 781,088. (Cl. 111—8.)



1. In a seed planter the combination with a wheel supported frame, of a hopper mounted on the frame, an endless belt having legs traveling vertically on each side of one of the walls of the hopper, buckets mounted on the belt, a false bottom removably disposed on the bottom of the hopper and having portions inclined downward toward the belt, and a brush mounted on the bottom of the hopper within the false bottom and contacting with the belt.

2. In seed planter the combination with a wheel supported frame, of a hopper mounted on the frame, an endless belt having legs traveling vertically on each side of one of the walls of the hopper, buckets mounted on the belt, a belt casing comprising connected side boards extending from the bottom to the top of the hopper on the outside thereof, a covering of wire fabric secured on the side boards of the casing and extending the entire length of the casing whereby one entire leg of the belt is visible, angular flanges secured to the side boards of the casing, and means for removably fastening the flanges to the hopper wall.

1,089,658. ELECTRICALLY-DRIVEN PLANING-MACHINE. GEORGE ERIC MASON, Toronto, Canada. Filed Sept. 6, 1910. Serial No. 580,657. (Cl. 172—240.)



1. In combination with a reciprocating part, a motor, a generator suppiying current to the motor, a field resistance, a switch adapted to reverse the generator field and change the magnitude of the said field resistance for the cutting and return strokes, respectively, of the reciprocating part of a machine tool, and means on the reciprocating part adapted when the movement of the latter has to be reversed to operate the said switch; an auxiliary switch adapted to change the magnitude of the generator field resistance, and adjustable means on the reciprocating part independent of the first mentioned means, and adapted to operate said auxiliary switch during the cutting stroke, substantially as described.

2. In combination with a reciprocating part, a motor, a generator supplying current to the motor, a generator field resistance, the source of potential and the reversing switch;—an auxiliary switch adapted to short-circuit a part of the resistance, a star wheel operating the switch, and pieces adjustably fixed to said reciprocating part actuating the star wheel; substantially as described.

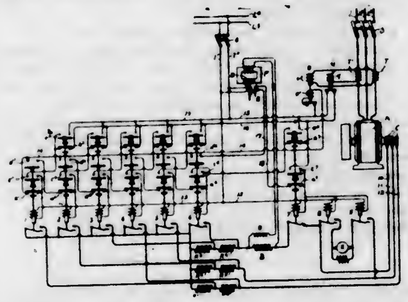
3. In combination with a reciprocating part of a machine tool, a generator supplying current to a motor, a generator field resistance, a source of potential and a field controlling and reversing switch; an auxiliary switch normally closed and when closed adapted to short circuit the field resistance to one contact of the reversing switch, and means on the reciprocating part adapted to open the said auxiliary switch just before the end of the return stroke, substantially as described.

4. In combination with a reciprocating part, a motor, a generator supplying current to the motor, a generator field resistance connected at one end to the generator field winding;—a two-part two-way reversing switch, operated by the reciprocating part, said switch having two arms connected to a source of potential, and having contacts two connected to one end of the field winding and the other two contacts connected to different points in the field resistance; substantially as described.

5. In combination with a reciprocating part, a motor, a generator supplying current to the motor, a generator field resistance connected at one end to a generator field winding;—a two part two-way reversing switch; operated by a reciprocating part, having its two arms connected to a source of potential, and having two of its contacts connected to one end of the field winding and the other two contacts connected to different points in the field resistance, and an auxiliary switch operated by the reciprocating part and adapted when closed to short-circuit the resistance between the said points; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,089,659. SYSTEM OF CONTROL. HOWARD MAXWELL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 13, 1908. Serial No. 438,260. (Cl. 172—274.)



1. In combination, an alternating current motor having a secondary circuit, a resistance in the secondary circuit of said motor, a source of direct current excitation, automatic means for gradually cutting said resistance out of circuit and for connecting said source of direct current excitation in the secondary circuit of said motor when the motor is operating near synchronous speed, and means responsive to an overload for disconnecting said source and for cutting said resistance into circuit.

2. In combination, an alternating current motor having a secondary circuit, a source of direct current excitation, and automatic means for connecting said source of direct current excitation in the secondary circuit of said motor when the motor is operating near synchronous speed and for disconnecting said source of direct current excitation when the motor is heavily loaded.

3. In combination, an alternating current motor having a secondary circuit, a source of direct current excitation, automatic means for connecting said source of direct current excitation in the secondary circuit of said motor when the motor is operating near synchronous speed, and means responsive to an overload for disconnecting said source.

4. The combination with an alternating current motor having a secondary circuit, of a relay, a circuit in which alternating current flows to excite said relay, a reactance in series with said relay, a switch arranged to be operated by said relay when the frequency of the current in said circuit has been reduced to a certain value, and a source of direct current excitation arranged to be inserted into the secondary circuit of said motor upon the operation of said switch.

5. The combination with an alternating current motor having a secondary circuit, of a polarized relay, a circuit in which alternating current flows to excite said relay, a reactance in series with said relay and so proportioned that the relay will not operate until the frequency of the current in said circuit has been reduced to a certain value, a switch in said circuit controlled by said relay, and a source of direct current excitation arranged to be inserted into the secondary circuit of said motor upon the operation of said switch.

[Claims 6 to 15 not printed in the Gazette.]



1,089,660. DRILL-SOCKET. ROBERT G. MCDOWELL, Walkerville, Mont., assignor of one-fourth to Robert B. McIntyre, Walkerville, Mont., and one-fourth to Martin F. Gilligan, Butte, Mont. Filed Apr. 30, 1912. Serial No. 694,276. (Cl. 29—110.)



1. A device of the class described comprising as constituent parts a chuck having a bore and a drill-receiving member mounted in the bore; a single movable structure mounted directly upon the drill receiving member and forming a continuation of the bore of the chuck; interengaging elements upon the movable structure and upon one of said constituent parts to connect the movable structure and said part for simultaneous rotation; and frangible means connecting the movable structure with the other of said constituent parts for simultaneous rotation.

2. A device of the class described comprising a chuck; a drill-receiving member; a peripherally exposed part interposed operatively between the drill-receiving member and the chuck; interengaging elements upon said part and the chuck adapted to secure a rotation of said part when the chuck is rotated; and frangible means inserted radially into said part and connecting said part with the drill-receiving member independently of the chuck for rotation.

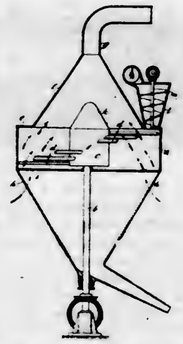
3. A device of the class described comprising a chuck and a ring, one of which is provided with a terminal recess, the other of which is provided with a projection adapted to register in the recess; a drill-receiving member inserted into and bearing upon the ring; and a releasable element connecting the ring with the drill-receiving member independently of the chuck.

4. A device of the class described comprising a tubular drill-receiving member; a drill-holding member mounted to slide longitudinally in the drill-receiving member and held against rotation therein; and spring means for advancing the drill-holding member.

5. A device of the class described comprising a tubular drill-receiving member provided with an internal shoulder; a drill-holding member mounted to slide longitudinally in the drill-receiving member and held against rotation therein; and spring means engaging the drill-holding member to maintain the same normally in abutment with the shoulder.

[Claims 6 to 13 not printed in the Gazette.]

1,089,661. APPARATUS FOR SEPARATING FIBERS FROM OTHER MATERIALS. PAUL HERMANN MINCK, Bremen, Germany, and EDWARD CARSTENSEN DE SEGUNDO, London, England. Filed Mar. 9, 1908. Serial No. 419,942. (Cl. 13—10.)



1. In apparatus for defibrating cotton seed hulls, the combination with an upright casing having a bottom, provided with marginal openings that constitute air inlets and outlets for the discharge of defibrated hulls, of a vertical shaft extending through the bottom into the casing and terminating short of its upper end, rotary threshing beaters connected to the shaft and operating in the casing, said upper end of the casing having a central tapered unobstructed uptake, and means connected to the uptake for creating an outward blast of air therethrough sufficient to produce indrafts through the bottom openings, which indrafts are, however, sufficiently weak to permit the outflow of the defibrated hulls.

2. In apparatus for defibrating cotton seed hulls, the combination with a substantially vertical casing having a bottom provided in its marginal portions with a plurality of outlet openings and downwardly inclined lips extending beneath said openings, said casing having a tapered top and a central wholly unobstructed uptake, of a vertical shaft extending through the bottom of the casing and terminating short of said uptake, rotary beaters connected to the shaft and operating in the casing, means for creating an uptake of air through the casing and means for feeding hulls to be defibrated into said casing and substantially preventing the ingress of air through said feeding means.

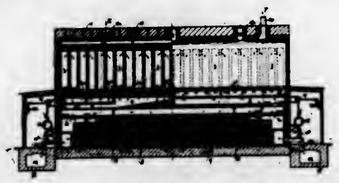
1,089,662. PAINT. THEODORE MOTT, Houston, Tex., assignor to B. F. Greenwood, Houston, Tex. Filed July 6, 1912. Serial No. 707,974. (Cl. 134—42.)

A paint for rendering wood fire, water and worm proof, consisting of Venetian red ten pounds, salt ten pounds, brown mineral ten pounds, sulfur fifteen pounds, Cayenne pepper two pounds, rosin fifteen pounds, water-gas tar one pound, and gasolene one pint, substantially as described.

1,089,663. REGENERATIVE OVEN. WILHELM MUELLER, Essen-on-the-Ruhr, Germany. Filed Mar. 8, 1913. Serial No. 752,923. (Cl. 202—9.)

1. A regenerative coke oven or a gas retort furnace which is heated with producer gas or coal gas, compris-

ing coking chambers, heating flues connected in groups between the coking chambers, an interconnectible gas regenerator and an air regenerator arranged beneath each coking chamber, gas and air transfer channels beneath the entire length of the oven, regulatable passages connecting said gas and air transfer channels with said regenerators and with said heating flues, means for supplying gas and air to said regenerators and said heating flues, means for drawing off the waste combustion gases from said heating flues through said transfer channels and said regenerators, means for changing the gas supply and admission of air alternately to alternate regenerators and heating flues, and means for changing the waste heat discharge passages in accordance with the reversal of the regenerators.



2. A regenerative coke oven or a gas retort furnace which is heated with producer gas or coal gas, comprising coking chambers, heating flues between said chambers, gas and air regenerators beneath each coking chamber, gas and air transfer channels connected with said regenerators and regulatable superimposed interconnected gas and air distribution channels for the entire length of each half of the oven connected to said transfer channels and connected by gas ducts and air ducts with the said heating flues of the oven wall.

3. A regenerative coke oven as set forth, comprising coking chambers, heating flues between said chambers, interconnectible gas and air regenerators for each coking chamber, means to supply producer gas and air through said regenerators and through the gas and air transfer channels into the distribution channels, means for supplying auxiliary cold coal gas directly into said gas distribution channels to be mixed with the hot producer gas and passing said mixture of gases through the gas ducts and the hot air through the air ducts into the heating flues for combustion, means for drawing off the waste combustion gases from the heating flues through the distribution channels, transfer channels and regenerators, means for closing and changing said producer gas and said coal gas supply to alternate regenerators and to alternate distribution flues and to said heating flues, and means for changing the air supply intakes and the waste heat discharge passages, all in accordance with the reversal of the combustion gases, substantially as described.

4. A regenerative coke oven having interconnectible and interchangeable regenerators for each oven, means for disconnecting the gas regenerator from the gas supply pipe and from the gas distribution channels and connecting said gas regenerator to the transfer and distribution channels of the adjacent regenerator to be adapted for air heating only, substantially as described.

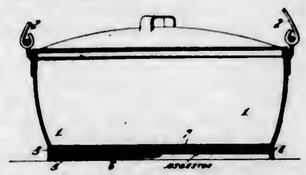
5. A regenerative coke oven comprising coking chambers, heating flues between said chambers, two sets of superposed regulatable gas and air distribution channels each connected to an alternate set of said heating flues, transfer channels connecting said distribution channels to the regenerators and two interconnectible and interchangeable regenerators beneath each coking chamber, substantially as described.

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1,089,664. COOKING UTENSIL. CLARA OSADA, Denver, Colo. Filed Mar. 6, 1913. Serial No. 752,332. (Cl. 53—8.)

1. A cooking utensil having a pendent flange, said flange being horizontally slotted, and a removable bottom, the said bottom being slidable through the said slotted flange and supportable on the flange.

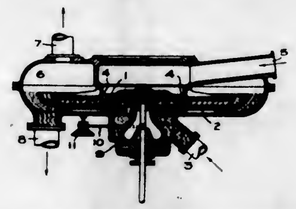
2. As a new article, a cooking utensil having a pendent resting flange, said flange having a horizontal slotway extended a portion of its length, the upper edge of said slotway being some distance below the bottom of the utensil, a bottom plate, said bottom plate being edgewise insertible through the said slot, and means on the inner face of the flange for supporting the said plate.



3. As a new article, a cooking utensil having a pendent flange, said flange having a horizontal slotway at a point slightly below the bottom of the utensil, and an internal rib at a point below the slotway, and a supplemental bottom edgewise slidable through the said slotway in the flange and supportable on the said internal rib.

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1,089,665. CENTRIFUGAL AIR-PUMP. GUSTAV PAGEL, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 10, 1911. Serial No. 626,240. (Cl. 230—14.)



1. The method of regulating an apparatus utilizing an auxiliary liquid medium for drawing off gases, vapor, and the like by direct action of said medium thereon, which consists in varying the quantity of the auxiliary medium by means of a regulating member that is caused to act on said medium directly in advance of or at a small distance from a place where the pressure or velocity of the auxiliary medium undergoes a change.

2. In an apparatus utilizing an auxiliary liquid medium for drawing off gases, vapor, and the like by direct action of said medium thereon, the combination of means for changing the pressure or velocity of the auxiliary medium as it passes through said apparatus, and a device located at a point closely adjacent the place where said means produces said change which varies the quantity of the auxiliary medium to regulate the operation of the apparatus.

3. In a centrifugal air pump, the combination of an impeller having passages for a throwing medium, means for supplying the throwing medium to the impeller including a regulating member adjacent to the inlets of said passages which varies the quantity of throwing medium supplied to the impeller, means conveying air, to the pump, and a directing member surrounding the impeller through which the throwing medium and the air pass.

4. In a centrifugal air pump, the combination of an impeller having passages for throwing-water, means for supplying throwing-water to the impeller including a valve having passages to direct the throwing-water to the inlets of said impeller passages, mechanism for adjusting the valve to vary the quantity of water delivered to said inlets, and a directing member surrounding the impeller through which the throwing-water and air pass.

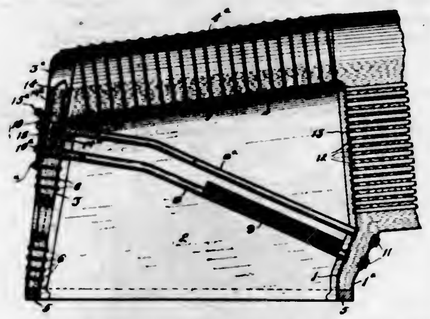
5. In a centrifugal air pump, the combination of an impeller having passages for throwing-water, a shaft on which the impeller is mounted, means for supplying throwing-water to the impeller including a valve surrounding the shaft and movable longitudinally thereof, mechanism for adjusting the valve to vary the quantity of throwing-water delivered to the impeller, and a directing member surrounding the impeller through which the throwing-water and air pass.

[Claims 6 and 7 not printed in the Gazette.]



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1,089,666. LOCOMOTIVE-FIRE-BOX CONSTRUCTION. LE GRAND PARISH, New York, N. Y. Filed Mar. 19, 1913. Serial No. 755,419. (Cl. 122—71.)



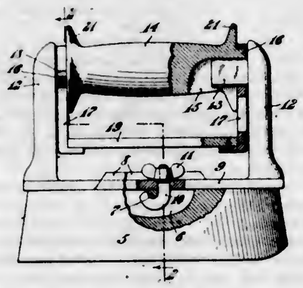
1. A locomotive fire-box comprising in combination with water walls, a pair of circulating tubes connecting the water walls, a delivery member extending upward from one water space to another and having a passage communicating with the discharge ends of the circulating tubes, and means for detachably connecting the tubes and the delivery member, said passage being of larger capacity than that of a tube.

2. A locomotive fire-box comprising in combination with water walls, a pair of circulating tubes communicating with a water wall, and a common delivery member communicating with the discharge ends of the tubes and extending toward the normal steam space.

3. A locomotive fire-box comprising in combination with water walls and circulating tubes, a discharge or delivery member located in one of the water walls and common to a plurality of the tubes and extending upward from the discharge ends thereof to the normal steam space.

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1,089,667. SAD-IRON. JAMES LANE POALK, Jenkintown, Pa. Filed Apr. 12, 1913. Serial No. 760,583. (Cl. 68—26.)



1. In a sad-iron, a detachable handle, a guard plate rotatably mounted on said handle and normally interposed between the handle and the body of the iron, and means controlled by the movement of said guard plate for locking the handle to the iron and releasing it therefrom.

2. In a sad-iron, in combination with the body of the iron, of standards extending upwardly therefrom, a handle adapted to be attached to and detached from said standards, a guard plate rotatably mounted on said handle and normally interposed between the handle and the body of the iron, and means controlled by the movement of said guard plate for locking said handle to said standards and releasing it therefrom.

3. In a sad-iron, in combination with the body of the iron, of standards extending upwardly therefrom, lugs extending from the upper ends of said standards, a detachable handle having its ends slotted to engage said lugs, a guard plate rotatably mounted on said handle and normally interposed between said handle and the body of the iron, and means controlled by the movement of said guard plate for locking said handle on said lugs and releasing it therefrom.

4. In a sad-iron, in combination with the body of the iron, of standards extending upwardly therefrom, lugs extending from the upper ends of said standards, a detachable handle having its ends slotted to engage said lugs, brackets movably mounted on the ends of said handle and adapted to open and close said slots to thereby release said handle from said lugs or lock it thereon, and a guard plate carried by said brackets and adapted to be normally interposed between the handle and the body of the iron.

5. In a sad-iron, in combination with the body of the iron, of standards extending upwardly therefrom, lugs extending from the upper ends of said standards, a detachable handle having its ends slotted to engage said lugs, brackets movably mounted on the ends of said handle and adapted to open and close said slots to thereby release said handle from said lugs or lock it thereon, and a guard plate carried by said brackets adapted to be normally interposed between the handle and the body of the iron, and means for limiting the movement of said brackets.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,668. SPINNING-TOP. GEORGE F. PRENDERGAST, Buffalo, N. Y. Filed Apr. 24, 1912, Serial No. 692,770. Renewed June 30, 1913. Serial No. 776,707. (Cl. 46—32.)



1. In combination in a top, two top members, one carrying the other and having a movable element adapted to project said other upwardly when the top is brought in contact with the ground.

2. A spinning top comprising a main top having a movable peg and an auxiliary top carried by said main top and adapted to be driven into the air by the movable peg of said main top.

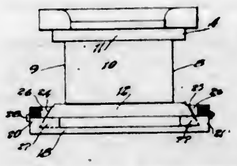
3. A spinning top comprising a main top having a cavity in its upper end and a slidable peg normally projected and adapted to be moved into the main top when brought in contact with the ground, an auxiliary top held within the cavity of said main top and having its peg in line with the slidable peg of said main top and adapted to be forcibly engaged by said slidable peg to cause the auxiliary top to be driven from its cavity while spinning said main top.

4. A spinning top comprising a main top having a cavity in its upper end and a shouldered bore extending downwardly from said cavity, a ferrule fitting into said

bore from the apex of the top, a peg slidable in said ferrule and bore and having a collar adapted to engage the shoulder of said bore and the inner end of said ferrule in its opposite movements, and an auxiliary top held in said cavity by frictional contact and having a fixed peg adapted to be engaged by the inner end of said slidable peg when the top is propelled to the ground so as to project the auxiliary top from its cavity while both pegs are spinning.

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1,089,669. SIDE-LINER FOR TRUCK-BOXES. ROBERT PRESTON, Winnipeg, Manitoba, Canada. Filed Feb. 23, 1911. Serial No. 610,407. (Cl. 64—25.)



1. The combination with a box having similar shoulders formed on the opposite sides thereof and the faces of the box above the shoulders beveled, of a plate fitting the face of the box and provided with back-turned flanges fitting against the edges of the box, said flanges being supplied with wedge shaped projections bearing normally slidably against the beveled faces aforesaid of the box and engaging with the shoulders, stops carried by the plate and engageable with the top of the box and a releasable pin passing through the lower ends of the flanges and securing the plate to the box, as and for the purpose specified.

2. The combination with a journal-box, wheel and axle, of a wear plate interposed between the wheel-hub and adjacent end of the journal-box, said wear plate having inturned flanges embracing the journal-box, guide-connections between said flanges and the lateral surfaces of the outer end portion of the journal-box, and means connecting said flanges and the journal-box beneath the axle to secure the wear-plate against accidental dislodgment.

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1,089,670. SHUTTLE. FRANCESCO RENZO, Paterson, N. J. Filed Nov. 27, 1912. Serial No. 733,737. (Cl. 139—27.)



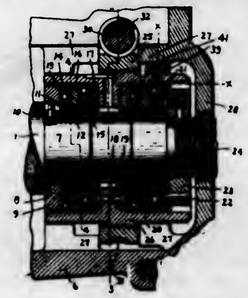
1. In combination, a shuttle body having a cavity for the filling package and an axial supporting and gripping means for said package consisting of a spindle housed in said cavity and pivotally movable in the shuttle body into projecting relation thereto, and an elongated elastic member secured at one end in the shuttle body at a point near to but removed from the spindle pivoting axis and extending toward the free end of and resiliently held against the spindle and lying in the plane of movement of the spindle, substantially as described.

2. In combination, a shuttle body having a cavity for the filling package and an axial supporting and gripping means for said package consisting of a spindle housed in said cavity and pivotally movable in the shuttle body into projecting relation thereto, and an elongated elastic member secured at one end in the shuttle body at a point near to but removed from the spindle pivoting axis and extending toward the free end of the spindle, the other end of said member being rebent and resiliently held against the spindle and lying in the plane of movement of said spindle, substantially as described.

3. In combination, a shuttle body having a cavity for the filling package and an axial supporting and gripping means for said package consisting of a spindle housed in said cavity and pivotally movable in the shuttle body into projecting relation thereto, and an elongated elastic member secured at one end on the shuttle body at a point near to but removed from the spindle pivoting axis and extending toward the free end of the spindle, the other end of said member being rebent and resiliently held against the spindle and lying in the plane of movement of said spindle and said spindle having a longitudinal groove receiving said other end, substantially as described.

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1,089,671. THRUST-BEARING. RICHARD H. RICE and WERNER JOHNSON, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Oct. 20, 1911. Serial No. 655,738. (Cl. 64—50.)



1. The combination with a shaft having a shoulder and an adjustable abutment, of a casing surrounding said shaft and provided with an internal rib intermediate its ends, anti-friction elements between the opposite sides of the rib and said shoulder and abutment, a means that engages the periphery of the casing for adjusting it and with it the shaft axially, and a stationary element which carries said means.

2. The combination with a shaft having abutments, of a casing surrounding said shaft and provided with an internal rib, rings surrounding said shaft, annular carriers having radial rollers bearing against said rings, said rings and carriers being arranged between the rib and the abutments, means for adjusting the casing and with it the shaft axially, said means including a nut that is in threaded engagement with the periphery of the casing, and means which prevents the casing from turning and permits it to be adjusted axially.

3. The combination with a shaft having a shoulder, a nut screwed on a reduced portion of said shaft, an inclosing casing having an integral internal rib between said shoulder and nut, anti-friction members interposed between said shoulder and one side of said rib and between said nut and the other side of said rib, a housing for the casing, and means carried by the housing for adjusting the casing and with it the shaft axially.

4. The combination with a shaft having abutments, of a cylindrical casing surrounding said shaft and provided with an internal rib, anti-friction members between said rib and said abutments, external screw-threads on said casing, a screw threaded ring meshing therewith, means for rotating said ring to adjust the position of the shaft, means for preventing axial movement of the ring, and a key which prevents the casing from turning and permits it to be adjusted axially.

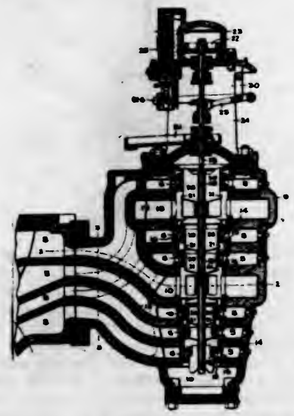
5. The combination with a shaft having abutments, of a cylindrical casing surrounding said shaft and provided with an internal rib, anti-friction members between said rib and said abutments, external screw-threads on said casing, a screw-threaded ring meshing therewith and provided with external worm gear teeth, a worm meshing with said teeth, means for preventing the movement of said ring along said shaft, and means for preventing said casing from rotating.

[Claims 6 to 14 not printed in the Gazette.]



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1,089,672. VALVE-CASING FOR ELASTIC-FLUID TURBINES. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 11, 1912. Serial No. 719,743. (Cl. 121—118.)



1. The combination with a valve casing having a plurality of partitions containing openings progressively increasing in diameter, of bushings fitting respective openings and each provided with seats for a double valve.

2. The combination with a valve casing having a plurality of partitions containing openings progressively increasing in diameter, of bushings fitting respective openings and extending from one partition to the next, interior ledges on said bushings, and apertures through the walls of said bushings between said ledges.

3. The combination with a valve casing having a plurality of steam passages, of a valve for each passage, and a plurality of steam admission ports interposed between certain passages.

4. A valve casing having partitions dividing it into a tier of steam passages, admission ports interposed between certain passages, alined openings in said partitions progressively increasing in diameter, bushings fitting said openings and having apertures into said passages, and seats for double valves in said bushings.

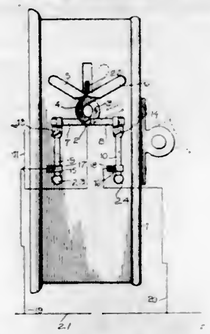
5. A valve casing having partitions dividing it into a tier of steam passages, admission ports interposed between certain passages, alined openings in said partitions progressively increasing in diameter, bushings fitting said openings and having apertures into said passages, seats for double valves in said bushings, valves on said seats, a stem passing through said valves, and radial lifters on said stem.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,673. TELEPHONE CUT-OFF. ROLLAND J. ROBISON, Romulus, Okla. Filed June 20, 1913. Serial No. 774,894. (Cl. 179—30.)

1. A device of the class described comprising a pair of levers, spring members, pivot means for the levers, a wire connected with the pivot means, binding screws, said spring members being electrically connected to the binding screws, auxiliary line wires connected with the binding screws, a main line wire, said auxiliary line wires being connected with the main line wire, said levers being removably connected with the spring members, and pivot means for the spring members.

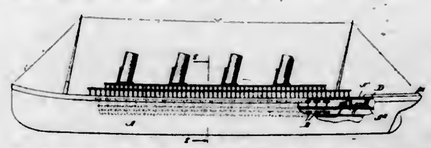


2. The combination with a telephone box wire and a main line wire, of a binding screw for the box wire, a pair of levers pivoted upon the binding screw, auxiliary line wires connected with the main line wire, binding screws for said auxiliary line wires, clamp members carried by the last mentioned binding screws, spring members engaged with the clamp members, said levers being detachably engaged with the spring members, and means for securing the spring members in position.

3. The combination with a telephone box, telephone receiver hook, binding screw, and box wire secured to the binding screw; of a pair of levers pivoted upon the binding screw, a sectional main line wire, auxiliary line wires connected with the sections of the main line wire, binding screws carried by the box for said auxiliary line wires, clamp members carried by the last mentioned binding screws, spring members normally engaged with the clamp members, means for forcing each spring member out of engagement with its clamp member, means for securing the spring members to the telephone box, said levers being held in engagement with the spring members by the receiver hook when in its lower position, and means for disengaging either lever from its spring member when the receiver hook is in raised position.

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1,089,674. VESSEL FOR FREIGHT OR PASSENGERS. WILLIAM ALBERT RUPPERT, New York, N. Y. Filed Sept. 9, 1912. Serial No. 719,300. (Cl. 114—68.)



1. A vessel having partially inclosed receptacles of little depth distributed in its interior, flexible air-tight bags correspondingly distributed, said receptacles holding such bags compactly folded and also maintaining provisions through which each bag may easily escape on being expanded with air, pipes arranged to connect the whole or any part with air-supplying means, and mechanism controllable from a single point adapted for directing the air into any bags as required.

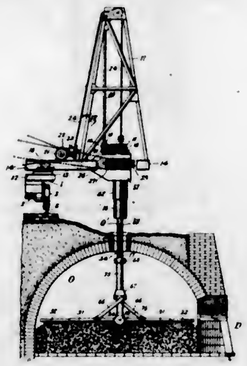
2. In air-tight bags for floating vessels folded compactly for storage on the vessel each independently of the others, yielding cushions serving for packing, in the interiors of the folds, arranged to cause the material to curve and avoid being sharply folded.

3. A vessel, a series of air-tight bags therein, a reservoir and hose to carry air under gentle pressure to the whole of the series or to a part thereof as desired, one valve for each bag adapted to work when liberated at a distant point and deliver air into the bag and prevent its return, and another valve for each bag of a construction

adapted to resist automatic delivery in either direction, a spring tending to move the latter valve and provisions for moving such valve against the pressure of the spring at will.

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1,089,675. COAL-LEVELING MACHINE FOR BEE-HIVE-OVENS. WILLIAM SANGSTER, Covington, Va., assignor to Covington Machine Company, a Corporation of Virginia. Filed July 7, 1908. Serial No. 442,306. (Cl. 193—19.)



1. In a traveling coal leveling machine for use with beehive ovens, the combination of a vertical member arranged to be lowered from the carriage through the eye of an oven; a leveling arm connected therewith composed of extensible parts and means actuated by the driving mechanism and controlled manually for extending the parts of the arm so as to make it of any desired length, after introduction into the coke oven.

2. In a traveling coal leveling machine for use with beehive ovens, the combination of a vertical member arranged to be lowered from the carriage through the eye of an oven; a leveling arm connected therewith composed of extensible parts and means actuated by the driving mechanism and controlled manually for extending the parts of the arm so as to make it of any desired length, after introduction into the coke oven, and for retracting them to their original position after the leveling has been completed.

3. In a traveling coal leveling machine for use with beehive ovens, the combination of a vertical member arranged to be lowered from the carriage through the eye of a coke oven; means for lowering said member into the oven; an arm connected with the vertical member composed of extensible parts, means for dropping the arm to a horizontal position, means for extending the parts of the arm while being lowered so as to make it of any desired length; and means for rotating parts of the vertical member in different directions as may be desired, substantially as described.

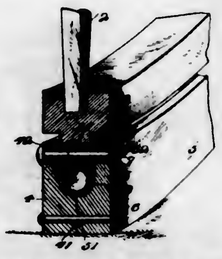
4. In a traveling coal leveling machine for use with beehive ovens, the combination of a suitable shaft arranged to be lowered from a carriage through the eye of a coke oven, means for lowering the shaft into the coke oven, an arm connected with the shaft arranged to be lowered, composed of extensible parts, means for dropping the arm to a horizontal position, means for extending the parts of the arm while being so lowered, so as to make it of any required length, means for rotating the extended arm in the furnace, means for retracting the parts of the arm, and means for folding them up and lifting the shaft and arms out of the oven when the leveling operation is completed.

5. In a traveling coal leveling machine for use with beehive ovens, the combination of a vertical member arranged to be lowered from the carriage through the eye of a coke oven; means for lowering said member into the oven; an arm connected with the vertical member composed of extensible telescopic parts, means for dropping the arm to a horizontal position and means for extending the telescopic parts of the arm while being lowered so as to make it of any desired length, and means for rotating parts of the vertical member substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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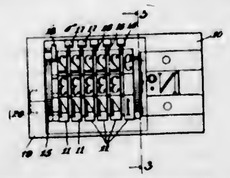
1,089,676. VEHICLE-TIRE. LEO L. SAVOIE and EMILE FRANÇOIS GENEVAY, New Orleans, La. Filed Apr. 16, 1913. Serial No. 761,593. (Cl. 152—35.)



A wheel for vehicles comprising a felly having a circumferential rib with a concaved face, transverse pins secured in said rib with their ends projecting on each side thereof, an outer tire of interlocked sections having upstanding portions to engage the sides of the rib, said portions having enlarged perforations to receive the ends of the transverse pins whereby said outer tire is secured to and permitted a limited radial movement on said felly, and a pneumatic tube or cushion fitted in the space between the face of the rib and the bottom of the groove formed by the upstanding side portions of the outer tire.

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1,089,677. NUMBERING-MACHINE. WILLARD W. SAWYER and EMIL H. JUNGK, Brooklyn, N. Y. Filed May 8, 1913. Serial No. 766,260. (Cl. 101—189.)



1. A numbering machine comprising a frame, wheels, a pawl swing and pawls therefor, and a shaft having its ends mounted in said frame and supporting said wheels and pawl swing, said frame being constructed to permit the removal of said shaft from said frame with said wheels and pawl swing thereon.

2. A numbering machine comprising a frame, wheels, a pawl swing and pawls therefor, a shaft having its ends mounted in said frame and supporting said wheels and pawl swing, said frame being constructed to permit the removal of said shaft from said frame with said wheels and pawl swing thereon, and means to lock said shaft in said frame.

3. A numbering machine comprising a frame, wheels, a pawl swing and pawls therefor, a shaft to support said wheels and pawl swing, said frame having slots constructed and arranged to permit the insertion of the ends of said shaft therein, said frame and said slots being constructed and arranged to permit the removal of said shaft from said frame with said wheels and pawl swing thereon, and means to close the ends of said slots.

4. A numbering machine comprising a frame, wheels, a pawl swing and pawls therefor, a shaft to support said wheels and pawl swing, said frame having slots constructed and arranged to permit the insertion of the ends of said shaft therein, said frame and said slots being constructed and arranged to permit the removal of said shaft from said frame with said wheels and pawl swing thereon, and a removable member pivotally connected to said frame and arranged to close the ends of said slots.

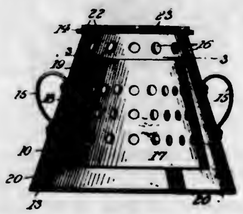
5. A numbering machine comprising a frame, wheels, a pawl swing and pawls therefor, a shaft to support said wheels and pawl swing, said frame having slots constructed and arranged to permit the insertion of the ends of said shaft therein, said frame and said slots being constructed and arranged to permit the removal of said shaft from said frame with said wheels and pawl swing thereon, a removable member arranged to close the ends of said slots, and means to connect said removable member to said frame.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,678. BAKER'S RADIATOR. GUSTAV SCHMELZLE, Brooklyn, N. Y. Filed July 16, 1913. Serial No. 779,280. (Cl. 126—275.)



A radiator of the class described comprising a gas stove having surface grooves, a coniform heat radiating shell adapted to be placed upon said stove and provided with a series of upper apertures, the surface grooves of the stove forming air inlet ducts beneath the shell, a lid supported upon the shell, a perforated coniform shield arranged within the shell, a plurality of resilient arms secured to the shield and having outwardly deflected upper and lower ends that engage the shell whereby an annular heating flue is formed intermediate said shell and shield, and a shield-retaining abutment on the shell that is removably engaged by the lower ends of the resilient arms.

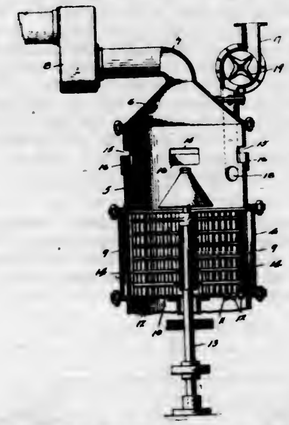
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1,089,679. METHOD OF TREATING COTTON-SEED HULLS. EDWARD CARSTENSEN DE SEGUNDO, London, England. Filed Dec. 8, 1910. Serial No. 596,361. (Cl. 13—10.)

1. The method of defibrating cotton seed hulls, which consists in threshing said hulls without grinding them, simultaneously subjecting the hulls and fiber to a whirling upward draft of air to carry off the detached fiber therewith and cause the hulls to move by centrifugal force toward the periphery of said whirling draft and also to move by gravity in a downward direction, and impinging against said whirling draft, a transverse current of air to assist the upward draft of air carrying off the fiber, while hindering the upward movement of the defibrated hull particles.

2. The method of defibrating cotton seed hulls, which consists in threshing said hulls without grinding them, simultaneously subjecting the hulls and fiber to a whirling upward draft of air to carry off the detached fiber therewith and cause the hulls to move by centrifugal force toward the periphery of said whirling draft and also to move by gravity in a downward direction, confining said whirling current to a substantially cylindrical form with the main body of hulls at the periphery thereof, and directing into said periphery impinging currents of air that stop upwardly moving hull particles while permitting the upward passage of the fiber.

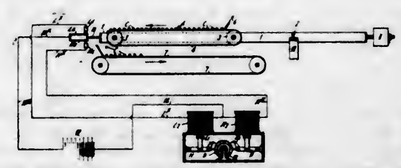
3. The method of defibrating cotton seed hulls, which includes the threshing of the hulls and causing an upward whirl of the same, admitting lateral air currents into the whirl, and feeding the hulls to be defibrated into the field of the threshing action below the lateral air currents.



4. The method of defibrating cotton seed hulls, which includes the threshing of the hulls and causing an upward whirl of the same, admitting air currents into the whirl, and feeding hulls to be defibrated into the whirl between the field of the threshing action and the lateral air currents.

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1,089,680. CIGARETTE-MAKING MACHINE. ROBERT A. SLOAN and JOHN E. LLOYD BARNES, Liverpool, England. Filed Mar. 30, 1912. Serial No. 687,533. (Cl. 131—39.)



1. In combination with a cigarette machine, a weighing device comprising an adjustable weight and a movable part over which the cigarettes pass in a continuous stream and at a rate proportional to the speed of the machine, said movable part and adjustable weight being normally balanced over a common fulcrum in such manner that the number of cigarettes supported by the said weighing device is always the same, and means for indicating continuously the position of the said movable part in respect to its balanced or zero position, substantially as described.

2. In combination with a cigarette machine;—a weighing device comprising an adjustable weight and a movable part over which the cigarettes pass in a continuous stream and at a rate proportional to the speed of the machine, and an organization controlled by the movement of the said movable part and adapted to actuate a part the movement of which regulates the rate of feed of tobacco to the cigarette machine; substantially as described.

3. In combination with a cigarette machine; a weighing device comprising a weigh-beam and a traveling endless belt to receive and transmit the cigarettes and means for driving the said belt at a rate in synchronism with that of the cigarette machine in such a manner that the number of cigarettes supported by said weighing device is always the same; substantially as described.

4. In combination with a cigarette machine;—a weighing device comprising a weigh-beam and conveyer belt and

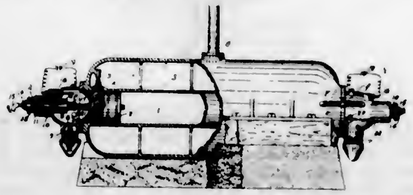
driving device therefor carried by the said scale beam, a part rotated in synchronism with the cigarette machine, and means for transmitting a torque to the weigh-beam tending only to rotate the latter about an axis perpendicular to the axis of the knife edges thereof, and adapted to transmit the movement of the said rotated part to the said driving device; substantially as described.

5. In combination with a cigarette machine;—a weighing device comprising a weigh-beam and conveyer belt adapted always to support a constant number of cigarettes and driving device therefor carried by the said scale beam, a part rotated in synchronism with the cigarette machine, and a shaft located at right-angles to the scale-beam knife edge axis, and adapted to connect the said rotated part to the said driving device; substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

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1,089,681. UTILIZING HEAT ENERGY. WILLIAM H. SMYTH, Berkeley, Cal., assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed Aug. 4, 1903, Serial No. 168,233. Renewed June 7, 1913. Serial No. 772,424. (Cl. 60—37.)



1. An internal combustion engine comprising a cylinder with an independent piston, a charge chamber attached to the cylinder provided with a pump suitably placed to engage the piston and be operated thereby and introduce fuel into the cylinder, means for commingling a volume of air with the fuel to form an explosive charge in the cylinder, an igniter operated by the piston, the cylinder and piston being suitably arranged to compress the charge by the momentum of the independent piston, a resilient cushion against which the charge partially expends its energy and a buffer in addition to the resilient cushion to arrest the piston.

2. An internal combustion engine comprising a cylinder with an independent piston, a charge chamber attached to the cylinder provided with a pump suitably placed to engage the piston and be operated thereby to introduce fuel, means for commingling a volume of air with the fuel to form an explosive charge in the cylinder, an igniter operated by the piston, the cylinder and piston being suitably arranged to compress the charge by the momentum of the piston, a resilient cushion against which the charge partially expends its energy, a buffer to absorb the remaining energy and arrest the piston, and an air chamber surrounding and communicating with the cylinder by a valve controlled passage.

3. A device for utilizing heat energy comprising a cylinder and a free metallic piston therein, a charge chamber attached to the cylinder provided with a pump operated by the piston adapted to introduce fluid fuel, means for commingling a volume of air with the fuel to form an explosive charge, an igniter operated by the piston, means adapted to form a resilient cushion against which the charge expends its energy, and an air chamber surrounding the cylinder.

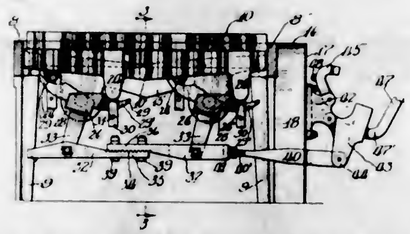
4. A device for utilizing heat energy comprising a cylinder and a free metallic piston therein, a charge chamber attached to the cylinder provided with a pump operated by the piston adapted to introduce fluid fuel, means for commingling a volume of air with the fuel to form an explosive charge, an igniter operated by the piston, the piston being suitably arranged to compress the charge by its momentum, a resilient cushion against which the charge partially expends its energy and a buffer in addition to the resilient cushion adapted to arrest the forward motion of the piston and an air chamber surrounding and communicating with the cylinder by a valve controlled passage.

5. In a device of the character described, the combination of a cylinder having an expansion chamber at the end thereof, a piston adapted to reciprocate in said cylinder, a valve controlled air intake connected with the expansion chamber, means for introducing combustible gas into the expansion chamber, said means controlled by the piston whereby the gas is mixed with the air in the expansion chamber, and the mixture compressed by the movement of the piston, and means for igniting the mixture.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,682. GRATE. ROBERT M. SPRAGUE and CHARLES C. SPRAGUE, Council Bluffs, Iowa. Filed Mar. 27, 1911. Serial No. 617,167. (Cl. 126—157.)



In a furnace grate, in combination, a frame, a pair of rock shafts supported thereby, a plurality of vertically movable grate bars supported transversely thereon, said rock-shafts having lateral arms rigidly attached thereto extending alternately in opposite directions respectively, the upper face of each of said arms having a concave recess therein, said bars having downwardly extending rigid elements resting in said recesses in the upper side of said arms, and slidable along the same to accelerate the upward movement and means to oscillate said shafts in unison to shake said grate bars.

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1,089,683. APPARATUS FOR DISPENSING CONGEALED OR SOLID SUBSTANCES. ALEXANDER STAPLER, Charlottenburg, Germany, assignor to The Firm of Oja Aktiengesellschaft, Berlin, Germany. Filed Nov. 8, 1910. Serial No. 591,254. (Cl. 128—16.)



1. In an apparatus for applying congealed or solid substances such as blocks of perfumes, ointments, fats, and the like to a surface, the combination with a receptacle for said substance having a mouth and a seat bounding the same and forming a hollow spherical zone, of a ball of non-corrosive material on said seat arranged to yieldingly close said mouth and adapted to contact with the substance within said receptacle and to be passed over said surface and to be rotated thereby and when rotated to present varying portions of its surface to the inner side of the receptacle and to the outside, and means operative in any position of the receptacle to press said substance in contact with said ball.

2. In an apparatus for applying congealed or solid substances such as blocks of perfumes, ointments, fats, and the like to a surface, the combination with a receptacle for said substance having a mouth and a seat bounding the same and forming a hollow spherical zone, of a ball of non-corrosive material on said seat arranged to yieldingly close said mouth and adapted to contact with the substance within said receptacle and to be passed over said surface and to be rotated thereby and when rotated to present varying portions of its surface to the inner side of the receptacle and to the outside, and a spring within said receptacle arranged for engagement with the substance within the receptacle and adapted to force the same in contact with said ball and said ball in contact with its seat.

3. In an apparatus for applying congealed or solid substances such as blocks of perfumes, ointments, fats, and the like to a surface, the combination with a receptacle for said substance having a mouth and a seat bounding the same and forming a hollow spherical zone, of a ball of non-corrosive material on said seat arranged to yieldingly close said mouth and adapted to contact with the substance within said receptacle and to be passed over said surface and to be rotated thereby and when rotated to present varying portions of its surface to the inner side of the receptacle and to the outside, means operative in any position of the receptacle to press said substance in contact with said ball, and suspending means connected with said receptacle.

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1,089,684. WIRE CABLE. JAMES B. STONE, Fresno, Cal. Filed Oct. 9, 1912. Serial No. 724,788. (Cl. 173—31.)



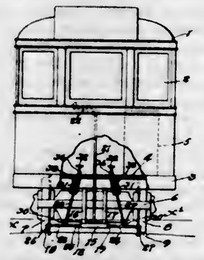
1. A series of relatively thin metal strips each twisted about its own axis and all united, with their broader surfaces free from each other, to form a metal cable.

2. A cable for conducting electric currents, consisting of a series of relatively thin metal strips, each twisted to auger-like form, lying side by side with their edges only in contact and together forming a cable cylindrical in general shape.

3. In a flexible cable for transmitting electric currents, the combination with a central core member, of a series of members each consisting of a flat strip twisted to auger-like form and all passing spirally about said core member to form a cable.

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1,089,685. SWITCH-POINT-CONTROLLING DEVICE. WALTER THORSTEINSON, Winnipeg, Manitoba, Canada. Filed Oct. 14, 1912. Serial No. 725,585. (Cl. 104—171.)



1. In a switch point controlling device for cars the combination with the car, of a plurality of pivotally supported oppositely extending catch bars located beneath the front end of the car in advance of the car wheels, said bars being provided with hooked ends, means for varying the distance between the hooked ends of the bars and depressible means suspending the bars in a more or less horizontal position, as and for the purpose specified.

2. In a switch point controlling device for cars the combination with the car, of a plurality of oppositely extending pivotally mounted catch bars located beneath the front end of the car and in advance of the car wheels, said bars having their outer ends provided with hooks, means for withdrawing or extending the bars and depressible means suspending the outer ends of the bar clear of the rails, as and for the purpose specified.



3. In a switch point controlling device for cars the combination with the car, of a pair of slidably mounted rack bars carried by the car in advance of the front trucks, a pinion engaging with the rack bars, means operated from the car for rotating the pinion and thereby extending or withdrawing the rack bars, catch bars pivotally secured to the outer ends of the rack bars, said catch bars having their outer ends provided with hooks, and depressible means normally supporting the catch bars clear of the track rails, as and for the purpose specified.

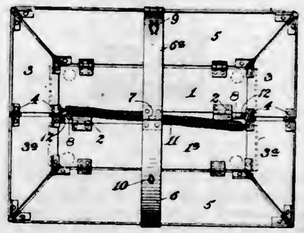
4. In a switch point controlling device for cars the combination with the car, of an open ended box suitably suspended beneath the car in advance of the front trucks, an upright shaft mounted centrally in the box and passing upwardly into the car vestibule, means located in the vestibule for turning the shaft, a pinion fixed on the shaft and contained within the box, a pair of rack bars slidably mounted in the box and engaging with the pinion, a pair of oppositely extending catch bars having the inner ends pivotally secured to the outer ends of the rack bars and their outer ends provided with downwardly directed hooks, and depressible means normally suspending the outer ends of the hooked bars clear of the track rails, as and for the purpose specified.

5. In a switch point controlling device for cars the combination with the car, of an open ended box suitably suspended beneath the car in advance of the front trucks, an upright shaft mounted centrally in the box and passing upwardly into the car vestibule, means located in the vestibule for turning the shaft, a pinion fixed on the shaft and contained within the box a pair of rack bars slidably mounted in the box and engaging with the pinion, a pair of oppositely extending catch bars having the inner ends pivotally secured to the outer ends of the rack bars and the outer ends provided with downwardly directed hooks, rods secured to the catch bars and passing upwardly through the car floor into the vestibule, said rods having their upper ends provided with foot trips and spiral springs suspending the rods, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

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1,089,686. FOLDING BASKET. ANGELO ZANOLLI, Pittsburgh, Pa. Filed July 7, 1913. Serial No. 777,655. (Cl. 217—14.)



1. In a folding basket, the combination of oppositely disposed sides, a bottom formed of two pieces each being hinged to the lower edge of a side and hinged together centrally of the basket, oppositely disposed ends each formed of two pieces hinged together centrally of the basket, each piece of said ends being hinged to an end of said sides, means for locking said several parts in open position, and a single means for swinging said ends between said sides when said locking means are released and for carrying the basket when folded.

2. In a folding basket, the combination of oppositely disposed sides, a bottom formed of two pieces each being hinged to the lower edge of a side and hinged together centrally of the basket with an intervening space, oppositely disposed ends each formed of two pieces hinged together centrally of the basket, each piece of said ends being hinged to an end of said sides, means for locking said several parts in open position, and a coiled flexible spring secured at its opposite ends to the central portion

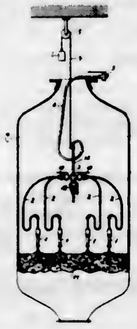
of said basket ends and exerting a tension thereon when the basket is open, said spring adapted to extend through the intervening space between said bottom pieces and thus form a handle for the basket when folded.

3. In a folding basket, the combination of oppositely disposed sides, a bottom formed of two pieces each being hinged to the lower edge of a side and hinged together centrally of the basket, oppositely disposed ends each formed of two pieces hinged together centrally of the basket, each piece of said ends being hinged to an end of said sides, and a handle formed of two yielding strips hinged together at the central portion of the basket and each hinged to a side, said handle being adapted when the basket is open to exert a yielding outward pressure upon the sides thereof.

4. In a folding basket, the combination of oppositely disposed single-piece sides, a bottom formed of two pieces each being hinged to the lower edge of a side and hinged together centrally of the basket, oppositely disposed ends each formed of two pieces hinged together centrally of the basket, each piece of said ends being hinged to an end of said sides, means for locking said several parts in position, a coiled flexible spring attached at its opposite ends to the central portion of said basket ends and exerting a tension thereon when the basket is open, a handle formed of two yielding strips hinged together at the central portion of the basket and each hinged to a side, said handle being adapted when the basket is open to exert a yielding outward pressure upon the sides thereof, and means borne by said handle parts for locking the basket in closed position.

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1,089,687. METHOD OF COMPRESSING WOOD OR OTHER ELASTIC MATERIAL. FRIEDRICH ZIEBARTH, Frankfort-on-the-Main, Germany. Filed Oct. 24, 1912. Serial. No. 727,539. (Cl. 100—57.)

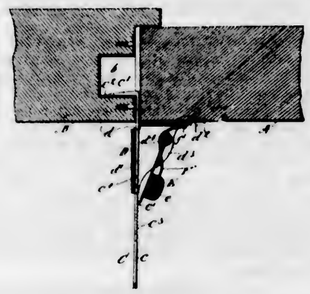


The herein described method of compressing or stamping wood or other elastic material in boilers or other receptacles, which consists in compressing or stamping the material within the receptacle by blows delivered in such quick succession that the material will not have sufficient time to expand and to follow the tool delivering said blows, on its return stroke.

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1,089,688. POCKET DOOR-LOCK. CHARLES F. BELLOWS, Boston, Mass. Filed Oct. 21, 1911. Serial No. 655,992. (Cl. 16—8.)

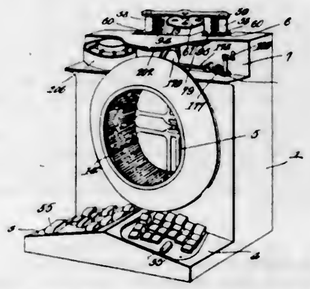
A pocket door lock comprising a bolt having means to engage a door jamb, and a housing formed of pressed metal slidable on the bolt and having a foot portion lying entirely on one side of the bolt and a door-engaging wall extending at right angles from the foot and situated entirely on the opposite side of the bolt, whereby said bolt is situated between the foot portion and door-engaging wall, said housing also having two side walls on the side of the bolt below the door-engaging wall, a spring-pressed pawl pivotally mounted between said side walls in bearings formed therein, said pawl acting both to maintain the bolt in position against the foot portion and to prevent the locking member from moving longitudinally of the bolt in one direction and finger pieces extending from opposite



sides of the pawl adjacent its free end and situated in the general plane of the side walls at a slight inclination thereto.

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1,089,689. TYPE-WRITING MACHINE. JUAN G. HOLGUIN BUABOA, Hermosillo, Mexico. Filed Feb. 13, 1913. Serial No. 748,219. (Cl. 197—15.)



1. A type writing machine, having a type basket provided with a plurality of sections, one section of which is slidable relatively to the others, and each type bar of which carries a plurality of type, the type bars of the stationary section each having a single type, a set of six keys to each section, and means for operably connecting the keys either one at a time or a combination of keys, to operate a selected type bar.

2. A type writing machine, having a circular type basket, one segment of which is slidable relatively to the other, and each type bar of which carries a plurality of type, the type bars of the stationary section each having a single type, a plurality of sets of keys, and a selecting device interposed between the keys and the type bars whereby the depression of a key or combination of keys will operate a selected type bar of either or both segments.

3. A type writing machine, having a platen, a type basket, one section of which is slidable relatively to the other, and each type bar of which carries a plurality of type, the type bars of the stationary section each having a single type, the type of the respective sections having individual presentation positions to the platen, whereby a type of each section may be presented simultaneously to the platen, keys, a pneumatic motor, a vacuum chamber, a vacuum motor to each type bar, and a plurality of selectors one to each section operably connected to the keys and the vacuum motors, whereby the depression of a key or any combination of keys operates its selector to select a single type bar.

4. A type writer, including a frame, a type bar, a vacuum motor operably connected to the type bar, a vacuum creating motor, a depressible key, and means operably connected to the key and vacuum creating motor for connecting the vacuum motor to the vacuum creating motor to operate the type bar.

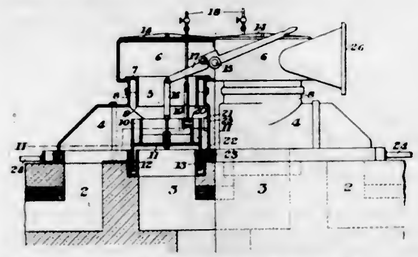
5. A type writer, including a frame, a plurality of pivotally mounted type bars, a vacuum motor operably connected to each type bar, a vacuum creating motor, a plurality of depressible keys, and a selector device operably connected to all of the keys and the vacuum creating motor for connecting a single vacuum motor to the vacuum creating motor to operate a selected type bar.

[Claims 6 and 7 not printed in the Gazette.]



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1,089,690. REVERSING-VALVE. CLARENCE P. BYRNES, Edgeworth, Pa. Filed Dec. 9, 1905. Serial No. 291,101. (Cl. 75—124.)



1. The combination with a series of separate furnace chambers, of sets of reversing valves controlling the flow of gases separately to each chamber, said valves being connected in pairs, means for operating the several pairs of valves, and separable connections between each pair of valves and the common operating means, to permit any pair to be thrown out of operation with the others or to permit its operation independently of said others substantially as described.

2. In a reversing valve, a vertically movable water-cooled valve having upper and lower sealing troughs arranged to make a seal at one end before breaking it at the other end, means for moving the valve vertically, and guides arranged to limit the swinging or sidewise movement of the valve; substantially as described.

3. In a reversing valve, a vertically movable water-cooled valve having connections to a rock shaft, and guides arranged to limit swinging or sidewise movement of the valve; substantially as described.

4. The combination with a series of regenerative furnaces having supply and off-take ports connected with regenerators, of a series of reversing valves arranged in pairs and controlling the flow of the gases to said furnaces, an operating shaft common to all, and severable connections between each pair of valves and said shaft to permit any pair to be thrown out of operation with the others or to permit its operation independently thereof; substantially as described.

5. In reversing valve systems, a series of separate furnace chambers, sets of reversing valves for each chamber, a common operating shaft, means for rocking said shaft, and a severable link connection between said shaft and the valve-operating mechanism of each of the separate furnace chambers; substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

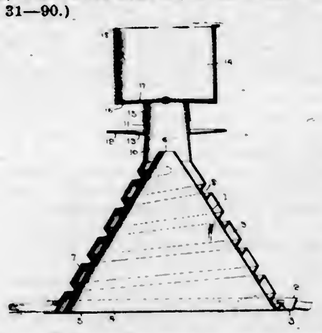
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1,089,691. MANUFACTURE OF SULFITE PULP FROM RESINOUS WOODS. OMA CARR, Asheville, N. C. Filed Aug. 9, 1913. Serial No. 783,900. (Cl. 92—2.)

The method herein described of making sulfite pulp from resinous woods, consisting in dissolving out the resinous matters by subjecting the wood chips to turpentine and also an alkaline solvent, and then cooking the chips by the sulfite process.

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1,089,692. MILK-COOLER. PATTERSON E. CRANSTON, Viola, Wis. Filed June 14, 1913. Serial No. 773,671. (Cl. 31—90.)



1. A milk cooler comprising an outer cone having a spiral depression therein, a reservoir disposed thereover, an inner cone having an opening in the upper end telescopically engaged within the outer cone forming a spiral passage between the walls of the spiral depression, an inlet pipe communicating with the spiral passage, and a spout communicating with the bottom of the spiral channel.

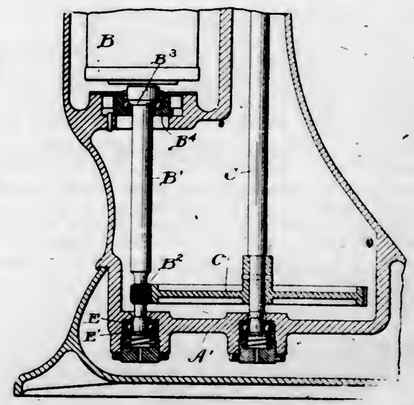
2. A milk cooler comprising an outer cone having a spiral depression providing a channel, and an inner cone telescopically engaged within the outer cone, having an open upper end and contacting the inner wall of said spiral depression providing a spiral passage between said inner and outer cones.

3. A milk cooler comprising an outer cone having a spiral depression providing a channel, an inner cone contacting the inner walls of said spiral depression and providing a spiral passage between said inner and outer cones, said inner cone having openings in the top and bottom thereof, pipe communicating with the bottom of the spiral passage, a gutter surrounding said cones.

4. A milk cooler comprising an inner and an outer spirally channeled cone in telescopic engagement providing a spiral passage therebetween, tubular extension at the upper end of said outer cone, a reservoir removably disposed over said tubular extension, and a perforate deflector disk surrounding said tubular extension below said reservoir.

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1,089,693. DRIVING MECHANISM. JOHN C. CROMWELL, Cleveland, Ohio. Filed Apr. 19, 1909. Serial No. 490,703. (Cl. 64—48.)




1. Driving mechanism comprising two parallel shafts, one adapted to drive the other, a gear wheel on each of

said shafts intermeshing each with the other, and a yielding bearing for each of said shafts adjacent to the gear wheels to permit the shafts to vibrate with relation to each other; substantially as described.

2. A rotatable device having a downwardly extending spindle, anti-friction bearings for said device, a yielding centering anti-friction bearing about the lower end of the spindle, a driving shaft parallel with the spindle, a yielding centering anti-friction bearing at the lower end of the driving shaft, and driving connections between the shaft and spindle; substantially as described.

3. A rotatable device having a downwardly extending spindle, anti-friction bearings for supporting said device, a spring-pressed ball-bearing about the lower end of the spindle arranged to maintain the spindle in its central position, but permitting it to tilt and shift in a lateral direction against the pressure of said spring, a driving shaft parallel with said spindle, a spring-actuated ball-bearing for the lower end of said driving shaft arranged to permit the shaft to tilt and shift in a lateral direction against the action of said spring, and a gear connection between the driving shaft and the end of the spindle; substantially as described.

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1,089,694. TOY. CURTIS L. CRUVER, Chicago, Ill. Filed Oct. 5, 1911. Serial No. 652,929. (Cl. 46—14.)



1. In a device of the class described, the combination of a screw-threaded spindle, a container movable along said spindle, means to cause rotation of the container in its movement along the spindle, said container having openings therethrough, and a plurality of colored members in said container, said members being rotated in the rotation of said container.

2. In a device of the class described, the combination of a screw-threaded spindle, a container movable along said spindle, said container having openings therethrough, means to cause rotation of the container in its movement along the spindle, and a plurality of colored members in said container, arranged to be rotated through frictional contact with said container.

3. In a device of the class described, the combination of a container with inclosing edges, said container having openings therethrough, means for rotating said container comprising a screw, and a plurality of colored members movable within said container and arranged to be rotated through frictional contact with said container.

4. In a device of the class described, the combination of a container having openings therethrough, means for rotating said container comprising a screw spindle, and a plurality of superposed colored members within said container and resting loosely upon the bottom of said container.

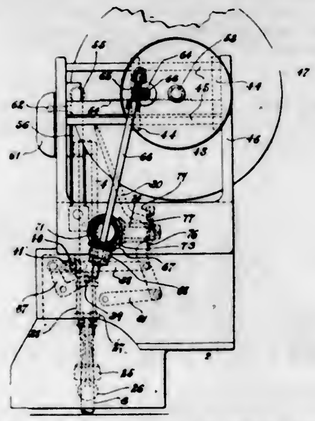
5. In a device of the class described, the combination of a container, means for rotating said container comprising a screw spindle, and a plurality of superposed colored apertured members within said container and of less diameter than said container, the apertures in said members being of different sizes, and said members being freely rotatable with relation to the container, said container having openings therethrough.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,695. MILEAGE-INDICATING APPARATUS. SOLOMON M. CUTTER and JOHN F. MCLAUGHLIN, Hartford, Conn. Filed Jan. 7, 1911. Serial No. 601,415. (Cl. 234—33.)

1. In an apparatus of the class described adapted for attachment to a movable vehicle, the combination of a card carrier, and a marking device for the card on the card carrier, a clock having means for causing a relative motion of the marking device and the card about an axis and for also causing the movement bodily of the card radially of said axis, and independent means operable by and on the movement of the vehicle for causing a third relative motion of the card and marking device to obtain a mark on the card.



2. In an apparatus of the class described adapted for attachment to a movable vehicle, the combination of a card carrier, and a punch for punching the card on the card carrier, a clock having means for causing a relative motion of the marking device and the card about an axis and for also causing the movement bodily of the card radially of said axis, and independent means operable by and on the movement of the vehicle for causing a third relative motion of the punch and card to effect the punching of said card.

3. In an apparatus of the class described, the combination of a clock and a card carrier, one of the arbors of the clock having said card carrier connected therewith, means operable by another arbor of the clock for bodily shifting said clock and thereby the card carrier and card, and a marking device for the card.

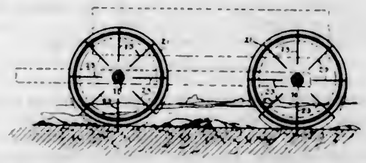
4. In an apparatus of the class described, the combination of a clock having minute and hour arbors, a card carrier connected with the minute arbor, and mechanism for bodily shifting the clock, operable by said hour arbor.

5. In an apparatus of the class described, the combination of a card carrier, and a clock, the clock having independent members rotative at different speeds, one of said members being connected with the card carrier, and means for shifting the clock, connected with the other of said members.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,696. TRACTOR FOR VEHICLES. SAMUEL F. DOUGLASS, Prairie du Rocher, Ill. Filed June 15, 1912. Serial No. 703,873. (Cl. 21—209.)



1. In a device of the kind described, an axle, a wheel carried by said axle, a collar carried by said axle, a series of tractor blades slidably mounted upon said wheel, a



movable cam supported adjacent the wheel, said tractor blades having heads adapted to engage said cam, a means to move said cam and cause successive engagement of the heads therewith, said means comprising a frame carried by said axle, and supporting said movable cam, toothed bars carried by said frame, and a lug carried by said collar and projecting therefrom, and adapted to engage said toothed bars.

2. In a device of the kind described, an axle, a wheel carried by said axle, a collar carried by said axle adjacent said wheel, a series of tractor blades slidably mounted upon said wheel, a movable cam supported adjacent the wheel, said tractor blades having heads adapted to engage said cam, means to move said cam and cause successive engagement of the heads therewith, said means comprising a frame carried by said axle, and supporting said movable cam, toothed bars carried by said frame, a lug carried by said collar and projecting therefrom and adapted to engage said toothed bars, means to move said toothed bars into engagement with said lug, and a locking means to hold said cam in engagement with said tractor blades.

3. In a device of the kind described, an axle, a wheel carried by said axle, a collar carried by said axle, a series of tractor blades slidably mounted upon said wheel, a movable cam supported adjacent the wheel, said tractor blades having heads adapted to engage said cam, means to move said cam and cause successive engagement of the heads therewith, said means comprising a frame carried by said axle, and supporting said movable cam, toothed bars carried by said frame, a lug carried by said collar and projecting therefrom and adapted to engage said toothed bars, arms carried by said frame adjacent said toothed bars, each arm provided with a bent portion terminating in a crank portion, said crank adapted to be moved whereby said arm will bear upon said toothed bar and move the same in engagement with said lug, and locking means to hold said cam in engagement with said tractor blades.

4. In a device of the kind described, an axle, a wheel carried by said axle, a collar carried by said axle, a series of tractor blades slidably mounted upon said wheel, a movable cam supported adjacent the wheel, said tractor blades having heads adapted to engage said cam, means to move said cam and cause successive engagement of the heads therewith, said means comprising a frame carried by said axle supporting said movable cam, toothed bars carried by said frame, a lug carried by said collar and projecting therefrom and adapted to engage said toothed bars, means to move said toothed bars into engagement with said lug, a bracket carried by said axle adjacent said cam, said bracket provided with a bent portion, a short arm provided with teeth connected to said cam and positioned above said axle adjacent said bracket, said teeth of said short arm adapted to engage said bent portion of said bracket for holding said cam in engagement with the heads of said tractor blades, and a lever carried by said frame for releasing said short arm from engagement with said bracket.

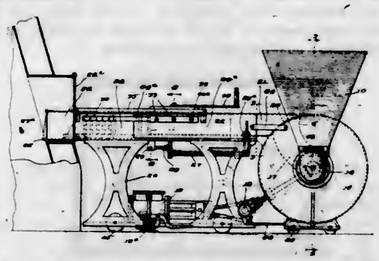
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1,089,697. MECHANICAL STOKER. FRANK C. FOSDICK, Chicago, Ill. Filed Oct. 18, 1912. Serial No. 726,462. (Cl. 110—115.)

1. In a mechanical stoker, a fuel conduit adapted to project into a furnace, means for projecting fuel at a high speed into said conduit, means for varying the path of motion of said fuel while in said conduit, said means comprising wings pivoted to the interior sides of said conduit, and means for varying the path of motion of said fuel as it leaves said conduit, the last mentioned means being arranged to operate said wings.

2. In a mechanical stoker, a fuel-transporting conduit adapted to project into a furnace, the sides of the discharge end of said conduit being slidably mounted, means for sliding one of said sides outwardly and the other of said sides inwardly, and means for turning the end of the outwardly slid side toward the other side, whereby the conduit opening may be faced in different directions.

3. In a mechanical stoker, a fuel-transporting conduit adapted to project into a furnace, the sides of the discharge end of said conduit being slidably mounted and flexible, means for sliding one of said sides outwardly and the other of said sides inwardly, and means for flexing said outwardly slid side toward the other side, whereby the position of the conduit opening is changed.



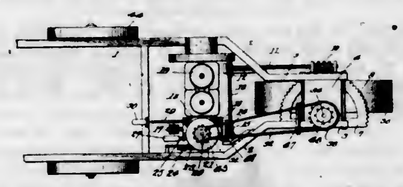
4. In a mechanical stoker, a fuel conduit adapted to project into a furnace, the sides of the discharge end of said conduit being slidably mounted, means for sliding one of said sides outwardly and the other inwardly, said means comprising a toothed rack operatively connected to each of said sides, a gear wheel meshing with each of said racks, and means for rotating said gear wheel.

5. In a mechanical stoker, a fuel conduit adapted to project into a furnace, a plurality of hinged sections in each side wall of the furnace end of said conduit, a disk pivoted at the end of said conduit and extending horizontally between said walls, the end section of each of said sides being fixed to said disk, and means for rotating said disk.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,698. TRACTOR. ANDREW FREDERICK, Harmony, Pa. Filed Mar. 5, 1913. Serial No. 752,199. (Cl. 21—114.)



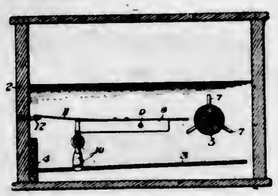
A tractor including a frame, a motor supported thereby, wheels for supporting the frame close to the ground, said frame having an upwardly extending end portion, a relatively large combined propelling and steering wheel arranged under and supporting said upwardly extending portion of the frame, a revoluble drive member actuated by the motor, and separately operated means coöperating with said member for rotating the drive wheel in either direction and for steering said wheel respectively.

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1,089,699. MUSICAL TOY. WILLIAM ALFRED GAY, Newark, N. J. Filed Mar. 24, 1913. Serial No. 756,377. (Cl. 46—47.)

1. A musical toy, comprising a sounding box, a series of metal rods or wires fixed to a wall of said box and representing at least a portion of a musical scale, and a pair of striking fingers adjusted with respect to each other and with respect to the wires or rods to simultaneously strike two different wires or rods and thereby produce a succession of harmonies, and means for actuating said fingers and for moving them relatively to the wires or rods whereby each finger is caused to strike the wires or rods in succession; substantially as described.

2. A musical toy, comprising a sounding box having at least one of its ends of hard wood, a series of metal wires representing at least a portion of a musical scale and secured to the hard wood end of said box, a plurality of loosely suspended striking fingers adjusted with reference to said wires and with reference to each other to simultaneously strike different wires and thereby produce a succession of harmonies, and means for actuating said fingers and for moving them relatively to the wires or rods whereby each finger is caused to strike the wires or rods in succession; substantially as described.



3. A musical toy, comprising a series of vibratory rods or wires, an inclosing case in which said rods are secured, a movable member having a plurality of dangling striking fingers arranged to simultaneously strike different rods or wires, and a rotary shaft for actuating the said fingers and for moving them relatively to the wires or rods whereby each finger is caused to strike the wires or rods in succession; substantially as described.

4. A musical toy, comprising a series of vibratory rods driven into the inner surface of a hard wood base, an inclosing case of which the hard wood base is one of the sides, a pivoted arm provided at one end with a plurality of dangling striking fingers, and shaft means for transmitting motion from the axle to the pivoted arm, substantially as described.

5. A musical toy, comprising a sounding box, a series of vibratory rods secured at one end in a wall of said box, an oscillating member pivoted within the box above the rods, a pair of dangling striking fingers suspended from one end portion of said member, and a rotary shaft for effecting the oscillation of said member, substantially as described.

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1,089,700. CURRENT-COLLECTOR AND PROCESS OF MAKING THE SAME. EMERY G. GILSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 17, 1911. Serial No. 660,767. (Cl. 171—210.)

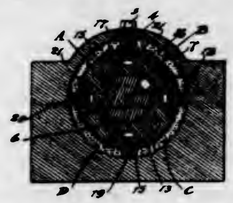


1. The process of connecting a pigtail to a molded current collector which consists in embedding the unstranded end of said pigtail in finely-divided metal, molding the same under pressure, and firing in an inert environment at a temperature sufficient to consolidate the metal particles.

2. The process of making current connections to molded metal brush which consists in embedding the end of a stranded conductor in the material of said brush in a finely-divided state, compressing said material and firing in a substantial vacuum at a temperature at which said material will consolidate.

3. The process of making current connections to molded metal brush which consists in embedding the unbraided end of a stranded conductor in finely-divided brush material containing some oxid, compressing said material and firing in a vacuum.

1,089,701. SHAFT-BEARING. BERTIE RAY HALL, Outlook, Saskatchewan, Canada. Filed Apr. 11, 1913. Serial No. 760,487. (Cl. 64—47.)



The combination comprising a casing, a shaft passing through the casing, there being a space reserved between the shaft and the casing, heads rotatable with the shaft and closing the ends of the casing, a sleeve mounted on the shaft and rotatable therewith, said sleeve having longitudinally extending grooves formed therein, bolts fitting in said grooves connecting the heads, dividing bars extending between the sleeve and the casing and dividing the space aforesaid into a number of independent compartments, the said dividing bars being rotatable with the sleeve but slidably mounted within and filling the compartments, as and for the purpose specified.

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1,089,702. BROOM-HOLDER. PAUL HENZE, Kamsack, Saskatchewan, Canada. Filed Feb. 19, 1913. Serial No. 749,394. (Cl. 24—249.)



1. A broom holder comprising a suitably supported back plate provided with a pair of extending and connected side wings, a hasp pivotally secured to the back plate and having a centrally disposed opening therein adapted to receive the handle of a broom and means for locking the hasp to the wings, as and for the purpose specified.

2. A broom holder comprising a suitably supported back plate having a pair of opposing similar forwardly turned and connected side wings, a hasp pivotally secured to the back plate at a point above the wings, said hasp being provided with a centrally disposed opening adapted to receive the handle of a broom and releasable means for securing the hasp to the forward extremities of the side wings, as and for the purpose specified.

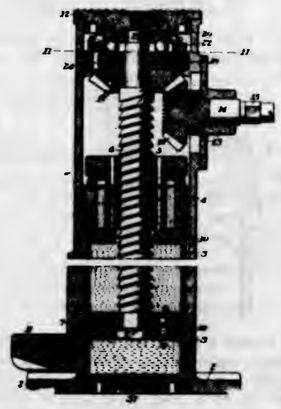
3. A broom holder comprising a back plate provided with a pair of opposing similar side wings bent forwardly to the front of the plate and connected one to the other there being registering openings formed in the extremities of the wings, a spring hasp pivotally secured to the body of the plate at a point above the wings, said hasp being provided with a centrally disposed opening adapted to receive the handle of a broom and having further a slot formed in one end thereof adapted to receive the extremities of the wings and releasable locking means insertible within the registering openings of the wings, as and for the purpose specified.

4. A broom holder comprising a suitably supported back plate having a pair of similar opposing side wings extending forwardly therefrom and riveted together in advance of the plate, the extremities of the wings being supplied with registering openings, opposing lugs located above the wings and extending from the plate, a spring hasp pivotally secured to the lugs and having a centrally disposed opening therein adapted to receive the handle of a broom and provided further at one end with a slot adapted to receive the extremities of the wings and a padlock for securing the hasp to the wings, as and for the purpose specified.

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1,089,703. FRICTION-CLUTCH DEVICE. ISAIAH E. HINDMAN, Crafton, Pa., assignor to The Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 7, 1912. Serial No. 695,729. (Cl. 57—44.)



1. The combination with a rotary member, of a friction ring coacting with the rotary member, a controller element around the ring, antifriction elements coacting with the controller element, an element having a series of cam surfaces to coact with the antifriction elements, and a biasing device, substantially as described.

2. The combination with a rotary member, a friction ring, a cam clutch coacting therewith, and a spring-actuated biasing device exerting a constant tendency on the cam clutch to move it into clutching position, substantially as described.

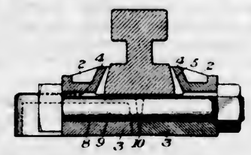
3. The combination with a rotary member, of a friction ring, a controller ring surrounding it, antifriction devices carried by the controller ring, a surrounding element having cam grooves coacting with the rollers, and a biasing device engaging the controller ring, substantially as described.

4. The combination with a rotary member, of a friction ring coacting with the said member, a controller element around the ring, antifriction elements coacting with the controller element, an element having a series of cam surfaces to coact with the antifriction element, a biasing device, and a knock-off for the biasing device, substantially as described.

5. In a device of the character described, the combination of a rotary member having a gear attached thereto, a friction ring carried by the gear, an upper bearing plate, a series of balls between the upper bearing plate and friction ring, a controller element surrounding the friction ring, and having vertical slots therein, rollers journaled in said slots, and adapted to contact with the friction ring, and a cam element surrounding the controller and having cam surfaces also engaged by said rollers, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,089,704. RAIL-FASTENER. ISAIAH E. HINDMAN, Beechview, Pa., assignor to The Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 26, 1913. Serial No. 803,173. (Cl. 238—2.)



1. A rail fastener comprising two members, each of said members having rail-engaging projections near each end thereof and portions adapted to extend below the rail flanges, said members being arranged to contact with each other below the plane of the rail flanges, so that the upper portions of said members can be moved toward each other a greater distance than the other portions thereof, and means to draw said members toward each other; substantially as described.

2. A rail fastener comprising two members, each of said members having rail flange-engaging projections near each end thereof and portions adapted to extend below the rail flanges, said members being arranged to swing toward each other about a fulcrum below the plane of the rail flanges, and a bolt extending through openings in the portions below the rail flanges for drawing said members toward each other; substantially as described.

3. A rail fastener comprising two members, each of said members having rail-engaging projections near each end thereof and portions adapted to extend below the rail flanges, said members being arranged to contact with each other below the plane of the rail flanges, so that the upper portions of said members can be moved toward each other a greater distance than the other portions thereof, and a bolt extending through openings in the portions below the rail flanges for drawing said members toward each other; substantially as described.

4. A rail fastener comprising two members out of transverse alinement with each other, each of said members having a horizontally disposed base portion, and an upwardly and inwardly extending flange portion, said upwardly and inwardly extending flange portions being recessed, so that only the ends of said flange portions will engage the flanges of the rail, the engaging portions of the flange of one member being in staggered relation to the engaging portions of the flange of the other member, the lower longitudinal edges of the base portion being in engagement with each other, and forming a fulcrum about which said members are arranged to swing, and a securing bolt passing through openings in said base members for drawing the clamping flanges of the two members toward each other; substantially as described

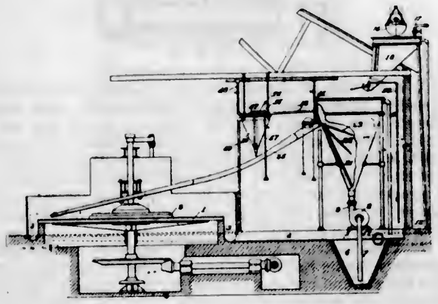
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1,089,705. METHOD OF APPLYING ABRASIVES TO GRINDING-MACHINES. HALBERT K. HITCHCOCK, Tarentum, Pa. Original application filed July 31, 1911, Serial No. 641,484. Divided and this application filed May 17, 1912. Serial No. 697,864. (Cl. 51—11.)

1. The method of applying abrasives to grinding mechanism, which consists in supplying the material in suspension in a liquid to a vessel and therein separating the same into grades, simultaneously therewith withdrawing the grades from said vessel separately and independently and conducting the same directly to the grinding mechanism, and also simultaneously drawing off from said vessel the finer material for use in the subsequent smoothing and finishing operation.

2. The method of applying abrasives to grinding and smoothing mechanism, which consists in conducting the material mixed with a liquid to a vessel and therein separating the same into grades, and simultaneously therewith withdrawing said grades from said vessel separately and conducting the same to the grinding mechanism.

3. The method of applying abrasives to grinding and smoothing mechanism, which consists in conducting the material mixed with a liquid to a vessel and there separating the same into various grades, withdrawing said several grades separately and conducting each separately directly to the grinding mechanism, and reconducting the used material mixed with a liquid to said grading vessel and regrading the same therein, the grading, regrading and circulation being carried on in an uninterrupted cycle with the material constantly mixed with the liquid.



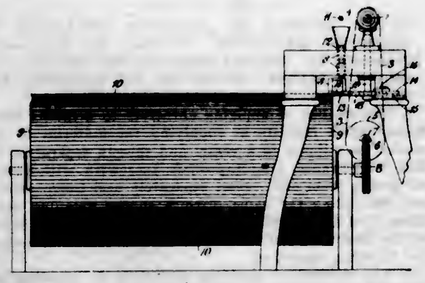
4. The method of applying abrasives to grinding and smoothing mechanism, which consists in conducting the material mixed with a liquid to a vessel and there separating the same into various grades, and simultaneously therewith withdrawing said grades separately and in any desired sequence from said vessel and conducting the same directly to the grinding mechanism.

5. The method of applying abrasives to grinding and smoothing mechanism, which consists in conducting the material mixed with a liquid to a vessel and there separating the same into various grades, withdrawing said grades separately and in any desired sequence and conducting the same in said sequence to grinding mechanism, and reconducting the used material mixed with the liquid to the grading vessel and regrading the same therein, said grading, regrading and circulation being carried on in an uninterrupted cycle with the material constantly mixed with the liquid.

[Claims 6 to 37 not printed in the Gazette.]

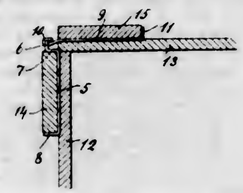
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1,089,706. MACHINE FOR DRYING FRESHLY-PRINTED CYLINDRICAL ARTICLES, SUCH AS CARTRIDGE-SHELLS. HOWARD DOUGLAS HODGE, Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Filed Dec. 31, 1912. Serial No. 739,450. (Cl. 34—4.)



The combination of a drum having grooves formed on its surface, means for pushing articles into the grooves and means for rotating the drum.

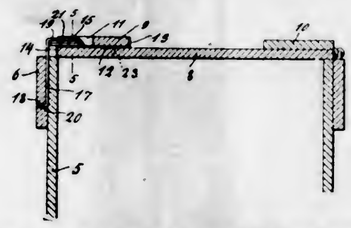
1,089,707. HINGE. ANTON HOVORKA, Chicago, Ill. Filed June 16, 1913. Serial No. 773,973. (Cl. 16—104.)



A hinge comprising a wire member bent intermediate its ends and brought together to form parallel shanks, the wire at the bend being spread to form an eye, and the shanks having lateral bends at one end to offset the eye therefrom and to form a shoulder, said eye extending laterally from the shoulder, and a second wire member having a hook which engages the eye.

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1,089,708. BOX-FASTENER. ANTON HOVORKA, Chicago, Ill. Filed June 17, 1913. Serial No. 774,231. (Cl. 70—80.)



A box having a hinged lid, a strip extending lengthwise across the forward portion of the lid and having its front edge recessed, a plate mounted on the lid beneath the recess of the strip, said plate having bends in opposite directions at its end, one of which bends engages the front edge of the lid, and the other bend the rear edge of the strip, an upstanding perforated ear on the plate, and a stem carried by the box wall and having a lateral bend, said stem being rotatable to locate the bend across the plate alongside the ear, the bend having an aperture to register with the perforation of the ear.

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1,089,709. TWIN-GOVERNOR MECHANISM FOR MIXED-PRESSURE TURBINES. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Continuation of application Serial No. 641,015, filed July 28, 1911. This application filed Nov. 10, 1911. Serial No. 659,474. (Cl. 121—118.)

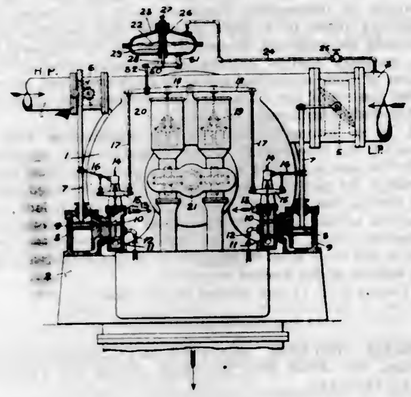
1. The combination with a mixed pressure turbine, of twin speed governors, controlling respectively the low pressure conduit and the high pressure main, and a compensating device responsive to a drop in pressure in the low pressure conduit and operating to open the high pressure main independently of its governor.

2. The combination with a mixed pressure turbine, of twin speed governors, controlling respectively the low pressure conduit and the high pressure main, a diaphragm exposed to the pressure in the low pressure conduit, and operative connections between said diaphragm and the high pressure governor.

3. The combination with a mixed pressure turbine, of twin speed governors controlling respectively the low pressure conduit and the high pressure main, a diaphragm exposed to the pressure in the low pressure conduit, and connections between said diaphragm and the transmission lever of the high pressure governor, said connections including a lost motion device.



4. The combination with a mixed pressure turbine, of twin speed governors controlling respectively the low pressure conduit and the high pressure main, means responsive to a drop in the low pressure fluid, and operative connections whereby said means can close the low pressure conduit and admit high pressure steam independently of said governors.

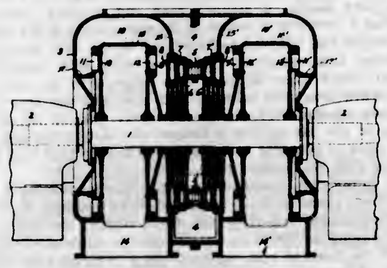


5. The combination with a mixed pressure turbine, of twin speed governors controlling respectively the low pressure conduit and the high pressure main, a diaphragm exposed to the low pressure fluid, a spring acting on said diaphragm, a lever connected with the diaphragm, and lost motion connections between said lever and the transmission lever of the high pressure governor.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,710. LOW-PRESSURE STEAM-TURBINE. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 21, 1912. Serial No. 726,867. (Cl. 121—58.)



1. A low pressure turbine comprising a casing divided into a middle and two outer compartments, two sets of bucket wheels in said middle compartment arranged to form successive stages of a divided flow turbine and having their final stages communicating with said outer compartments, a plurality of bucket wheels in each of the outer compartments arranged in parallel as regards the flow of steam, and means for admitting steam to said middle compartment.

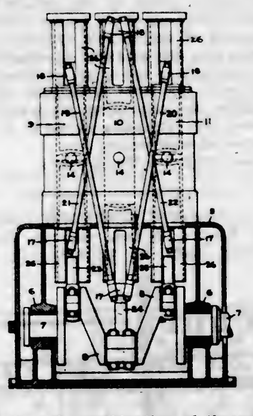
2. A low pressure turbine comprising a casing divided into a middle and two outer compartments, two sets of bucket wheels in said middle compartment arranged to form successive stages of a divided flow turbine and having their final stages communicating with said outer compartments, two bucket wheels located in each of said outer compartments, oppositely facing nozzles for directing steam to said last named bucket wheels and means for admitting steam to said middle compartment.

3. A low pressure turbine comprising a casing divided into a middle and two outer compartments, two sets of bucket wheels in said middle compartment arranged to form successive stages of a divided flow turbine and having their final stages communicating with said outer compartment, a plurality of bucket wheels in each of the outer compartments arranged in parallel, means for admitting steam to said middle compartment and exhaust outlets communicating with each of said outer compartments.

4. A low pressure turbine comprising a casing, a shaft extending longitudinally of said casing, a plurality of bucket wheels carried by the central portion of said shaft, dividing walls forming a central annular steam chamber entirely surrounding said bucket wheels, nozzles carried by said dividing walls and coöperating with said bucket wheels to form successive stages of a divided flow turbine, the final stages exhausting into the spaces between each dividing wall and the end of the casing, a plurality of bucket wheels arranged in parallel as regards the flow of steam located in said spaces, and an outlet communicating with each of said spaces to receive the exhaust.

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1,089,711. ENGINE. GUSTAV H. KAEMMERLING, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 19, 1913. Serial No. 762,198. (Cl. 123—51.)



1. In an engine, the combination of three cylinders arranged side by side, a pair of oppositely moving pistons for each cylinder, a main crank shaft, connecting-rods connecting the three inner pistons with the shaft, means connecting the inner piston of the central cylinder with the two outer pistons of the outside cylinders, means connecting the outer piston in the central cylinder with the two inner pistons in the outside cylinders, and means admitting motive fluid to the cylinders and exhausting it therefrom.

2. In an internal combustion engine, the combination of three cylinders arranged side by side, each cylinder having scavenging and exhaust ports, a pair of oppositely moving pistons located in each cylinder arranged to control said ports, means admitting motive fluid to each cylinder between the pistons, a main shaft having three cranks, a connecting rod between each of the inner pistons and a crank, a pair of diagonally-arranged rods which connect the inner piston of the central cylinder with the two outer pistons in the outside cylinders, and a pair of diagonally-arranged rods which connect the outer piston of the central cylinder with the two inner pistons of the outside cylinders.

3. In an engine, the combination of three open-ended cylinders arranged side by side, each being provided with ports near its outer ends, means admitting motive fluid to

each cylinder at its central part, a pair of oppositely moving pistons located in each cylinder and arranged to control its ports, cross-heads for said pistons, diagonal rods arranged in pairs in the front and in the rear of the cylinders which connect the cross-head of the central inner piston with the cross-heads of the two outer pistons of the outside cylinders, and other diagonal rods also arranged in pairs in the front and in the rear of the cylinders which connect the cross-head of the central outer piston with the cross-heads of the inner pistons of the two outside cylinders.

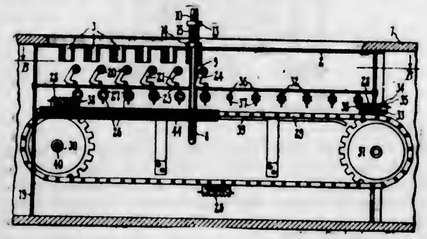
4. In an engine, the combination of three cylinders arranged side by side, a pair of oppositely moving pistons for each cylinder, a main crank shaft, connecting rods connecting the three inner pistons with the shaft, means connecting the inner piston of the central cylinder with the two outer pistons of the outside cylinders, means connecting the outer piston in the central cylinder with the two inner pistons in the outside cylinders, a member connected to pistons of the outside cylinders to relieve side thrust, and means for admitting motive fluid to the cylinders and exhausting it therefrom.

5. In an internal combustion engine, the combination of three cylinders arranged side by side, each cylinder having exhaust and scavenging ports controlled by the pistons, fuel injectors for the cylinders, a pair of oppositely-moving pistons in each cylinder, a main shaft having three cranks, rods connecting the inner pistons with the cranks, cross-heads for the pistons, diagonally-extending rods arranged on opposite sides of the cylinders which connect the inner cross-head of the central cylinder with the outer cross-heads of the outside cylinders, other diagonally-extending rods also arranged on opposite sides of the cylinders which connect the outer cross-head of the central cylinder with the inner cross-heads of the outside cylinders, pumps for compressing air which is delivered to the cylinders, and extensions carried by the inner cross-heads for actuating said pumps.

[Claim 6 not printed in the Gazette.]

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1,089,712. AUTOMATIC REMINDER. HENRY EDWARD MORDAUNT KENSIT, Ottawa, Ontario, Canada. Filed Dec. 20, 1912. Serial No. 737,873. (Cl. 161—6.)



1. An automatic reminder comprising a plurality of visual signal supports, means for positioning the several supports for giving signals at different periods of time without interference one with another, means for storing signal actuating power by the act of positioning the signals, a clock movement and means operated by the clock movement and synchronously therewith for releasing the signals at the proper times.

2. An automatic reminder comprising a plurality of visual signal supports, means for positioning the several supports for giving signals at different periods of time without interference one with another, audible signals arranged to be operated by the visual signal supports simultaneously with the operating of the visual signals, means for operating the visual signal supports, a clock movement and means operated by the clock movement for releasing the visual signal supports.

3. An automatic reminder comprising a plurality of visual signal supports, means for positioning the several supports for giving signals at different periods of time without interference one with another, means for storing signal actuating power by the act of positioning the signal supports, audible signals arranged to be operated by said stored power simultaneously with the operating of the visual signals, a clock movement and means operated by the clock movement for releasing the said signal supports at proper times.

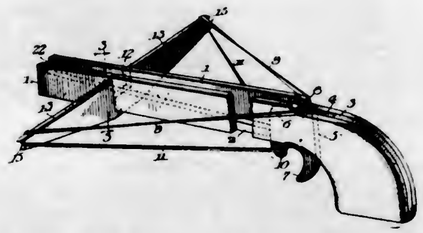
4. In an automatic reminder, the combination with a plurality of independent signal supports and means for actuating them, of a plate provided with openings for receiving the supports, means for locking the supports in the openings against unintentional displacement by the action of their actuating means, a clock-work and means under control of the clock-work for releasing the supports at the desired moment.

5. In an automatic reminder, the combination with a plurality of independent signal supports each provided with its own actuating means, of a plate provided with openings for receiving the supports, spring actuated locking devices, one for each support, in position to lock the supports in position to operate under the action of their actuating means, a clock-work and means under the control of the clock-work to release the spring actuated locking devices at the desired moment.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,713. TOY GUN. GUSTAVE A. M. LILJENCRANTZ, Chicago, Ill. Filed Mar. 10, 1913. Serial No. 753,295. (Cl. 124—14.)



1. A toy gun comprising a barrel portion having a transverse recess in the underside thereof near its forward end, and having a stepped rear end a rigid cross-bow having a transverse recess in its upper edge at its center of length and adapted to be seated in the first mentioned mortise and removably interlock with said barrel, an elastic band mounted upon and adapted to be stretched backward from the ends of said bow and the rear bend thereof caught over the stepped rear end of the upper edge of the barrel, and a trigger pivotally hung between the sides of said gun and adapted to release said rear bend of the stretched elastic band.

2. A toy gun comprising a barrel portion having a longitudinal channel in its upper edge, the bottom of which inclines downward from the front toward the rear end, and having a transverse recess in the underside thereof near its forward end, and having a stepped rear end a rigid cross-bow having a transverse recess in its upper edge at its center of length and adapted to be seated in the first mentioned mortise and removably interlock with said barrel, an elastic band mounted upon and adapted to be stretched backward from the ends of said bow and the rear end thereof caught over the stepped rear end of the upper edge of the barrel, and a trigger pivotally hung between the sides of said gun and adapted to release said rear bend of the stretched elastic band.

3. A toy comprising a barrel having a longitudinal groove in its upper edge and a stepped rear end near the rear of said groove on its upper edge, a pivoted member movable past said stepped end, an elastic secured near the forward end of said barrel one portion of which is adapted to be stretched to and engage said stepped end in the path of said pivoted member and the other portion of which is connected to said pivoted member and retains the latter normally out of engagement with the first-mentioned portion of said elastic, and a dart of substantially triangular shape having a downwardly projecting longitudinal fin that is seated in said groove and its rear end adapted to be engaged by said elastic when the latter is released and projected from said groove.



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1,089,714. BASE-BALL. CLARENCE S. LINCOLN, Chicago, Ill. Filed June 2, 1913. Serial No. 771,348. (Cl. 46—4.)



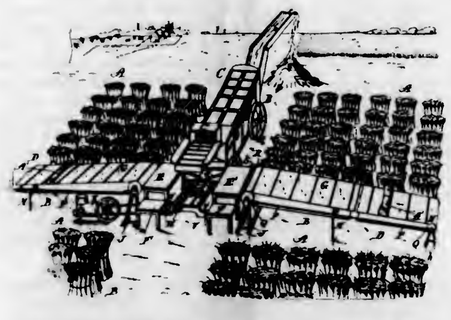
1. A base-ball comprising, in combination, a central core formed of a resilient body in an envelop having the properties of yielding easily to deformation and resistance to easy extensibility, thread-windings about the core, and an outer cover of flexible material.

2. A base-ball comprising, in combination, a central core formed of a resilient body in an envelop having the properties of yielding easily to deformation and resistance to easy extensibility, thread-windings about the core, an envelop of yielding material about said windings, thread-windings about said last-named envelop, and an outer cover of flexible material.

3. A base-ball comprising, in combination, a central core formed of a spherical rubber body in an envelop having the properties of yielding easily to deformation and resistance to easy extensibility, thread-windings about the core, an envelop of gelatinous material about said windings and further windings of thread about the gelatinous envelop, and an outer cover of flexible material.

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1,089,715. BUNDLE CARRIER OR CONVEYER. GEORGE MARSHALL, Fremont, Nebr. Filed June 30, 1913. Serial No. 776,653. (Cl. 193—14.)



The combination with a feed conveyer, of platforms arranged on opposite sides thereof to receive the grain, platforms on which attendants stand to take the sheaves from said first mentioned platforms and deliver them to the feed conveyer, conveyers on opposite sides of the feed conveyer and extending from each of said grain-receiving platforms, a frame arranged between said two grain-receiving platforms, gearing carried by said frame and connected with said conveyers, and means for operating said gearing.

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1,089,716. METHOD OF EXTRACTING ALKALIS FROM NATURAL ROCKS. ANTON MESSERSCHMITT, Stolberg, Germany. Filed June 27, 1912. Serial No. 706,244. (Cl. 23—22.)

1. The herein described process of extracting alkalis from rocks, which comprises heating the rocks with calcium compounds capable of reacting therewith to form insoluble calcium silicates and soluble alkali metal compounds and disintegrating the product of the heating operation by adding a relatively small amount of aqueous liquid thereto, and lixiviating.

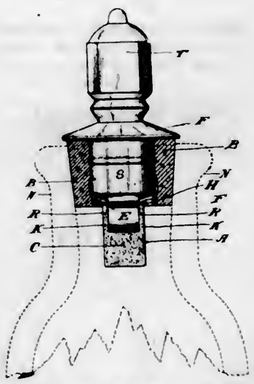
2. The herein described process of extracting alkalis from rocks, which comprises heating the rocks with calcium compounds capable of reacting therewith to form insoluble calcium silicates and soluble alkali metal compounds, disintegrating the product of the heating operation by treatment with a relatively small amount of aqueous liquid, treating the disintegrated product with steam under pressure, and lixiviating.

3. The herein described process of extracting alkalis from rocks, which comprises heating the rocks with calcium compounds capable of reacting therewith to form insoluble calcium silicates and soluble alkali metal compounds, disintegrating the product of the heating operation by treatment with a relatively small amount of aqueous liquid, introducing the disintegrated product into an autoclave, treating with steam, and lixiviating.

4. The herein described process of extracting alkalis from rocks, which comprises heating the rocks with calcium compounds capable of reacting therewith to form insoluble calcium silicates and soluble alkali metal compounds, disintegrating the product of the heating operation by treatment with a relatively small amount of aqueous liquid, introducing the disintegrated compounds into an autoclave, moistening the same with water in the autoclave, treatment with steam, and lixiviating.

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1,089,717. BOTTLE-STOPPER AND APPLICATOR. HERMAN A. METZ, New York, N. Y. Filed Aug. 5, 1911. Serial No. 642,559. (Cl. 215—51.)



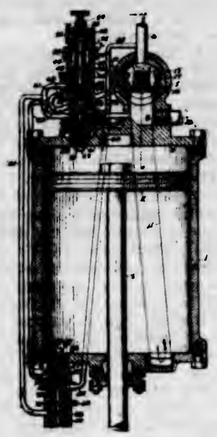
A bottle stopper comprising a top portion, a flange, a shank carried thereby having at its lower end an enlarged member, an absorbent material surrounding said enlarged member of the shank, and an elastic bushing surrounding the shank and portions of the absorbent material.

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1,089,718. FLUID-CONTROLLING MECHANISM FOR CYLINDERS. ADRIAN N. METZELAAR, New York, N. Y. Filed Jan. 18, 1913. Serial No. 742,973. (Cl. 136—10.)

In combination with a main cylinder having an exhaust port, and ports leading to its opposite ends, and a piston reciprocable therein, an auxiliary cylinder, a valve for controlling said ports, means for moving said valve by the

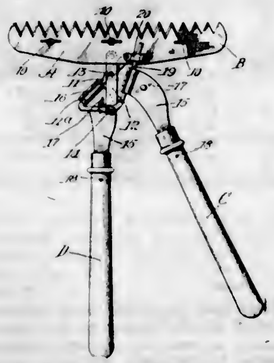
pressure of fluid admitted to opposite ends of the latter cylinder, valve casings secured to the ends of the main cylinder and open at both ends, tubular slide valves therein, also open at both ends, stems screwed in said slide valves and extending wholly therethrough means on the outer ends of the stems for screwing them in the slide valves, said stems having on their immediate ends heads



projecting into the main cylinder and adapted to be alternately engaged by the main piston to move them in said casing, and conduits between said valve casing and auxiliary cylinder, whereby pressure fluid is admitted to either end alternately of said auxiliary cylinder and exhausted from the other end upon the actuation by said main piston of said valves alternately.

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1,089,719. HEDGE-TRIMMER. JOSEPH P. MEYER, Rochester, N. Y. Filed Aug. 28, 1912. Serial No. 717,653. (Cl. 30—13.)



1. In a hedge trimmer, the combination of two blades having serrated cutting edges, said blades being slidably secured together, a rod secured to one of the blades and extending rearwardly and at an angle to the axis of the blade, a handle having a recess or socket to receive said rod, the said handle being adjustable about the longitudinal axis of the rod and provided with means for securing it in different positions thereon and a second handle operatively connected to the other blade.

2. A hedge trimmer comprising two serrated blades slidably secured together, a rod secured to one of said blades and extending rearwardly at an angle thereto, a handle having a recess to receive the rod, said recess being arranged at an angle to the axis of the handle, and said handle being adapted to swing about the longitudinal axis of the rod and provided with means for securely clamping it to the rod in different positions and a second hande operatively connected to the other blade.

3. A hedge trimmer comprising two serrated blades slidably secured together, a rod secured to one of said blades and extending rearwardly therefrom at an angle to the axis of the blade, a second rod pivotally secured to the first rod and connected to operate the other blades, and a pair of handles fitted to said rods respectively, the said handles having recesses to receive the rods and to be adjustable around the longitudinal axis of the rods, and having means for securing them to the rods in any desired adjustment.

4. A hedge trimmer comprising two serrated blades slidably secured together, a rod secured to one of said blades and extending rearwardly therefrom at an angle to the axis of the blade, a second rod pivotally secured to the first rod and connected to operate the other blade, a pair of handles fitted to said rods respectively, the said handles having recesses to receive the rods and to be adjustable around the rods and having means for securing them to the rods in any desired adjustment, the recesses being arranged at an angle to the axes of the handles, for the purpose set forth.

5. A hedge trimmer comprising two serrated blades slidably secured together, a rod rigidly secured to one of said blades, a second rod loosely connected to the other blade and pivotally connected to the first named rod, and handles connected to said rods, the said handles each comprising a tang consisting of two plates hinged together at their outer ends and provided with recesses adjacent the hinge to receive one of the rods and also provided with means for clamping the plates together to secure the handle upon the rod in any desired position.

[Claim 6 not printed in the Gazette.]

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1,089,720. PUMP. HERBERT G. MOSS and WALTER CHAPPIUS, Maricopa, Cal. Filed June 2, 1913. Serial No. 771,353. (Cl. 103—80.)



1. A pump comprising a pump barrel adapted to be screwed onto the casing of a well, a pipe extension screwed into said pump barrel, a lower cage seat adapted to be screwed onto said pipe extension and having a conical seat therein terminating in a square opening, a hollow plunger sliding in said pump barrel, an upper cage screwed into the upper end of said plunger, having an opening therein in open communication with the interior of said plunger, a ball for closing the opening in said upper cage, a lower cage seating in said lower cage seat and having an opening therein, a ball for closing the opening in said lower cage, a square extension on said lower cage so placed as to enter the aforesaid square opening in said lower cage, a flat lifting rod detachably fastened to said lower cage and projecting into said plunger, a nut on the lower end of the plunger through which said lifting rod passes, a head fixed on the end of said lifting rod to prevent the lifting rod from being withdrawn from the plunger by engaging the upper surface of said nut, and means for reciprocating the plunger.

2. A pump comprising a pump barrel adapted to be screwed onto the casing of a well, a lower cage seat screwed onto said pump barrel and having a conical seat therein, an attachment screwed into said lower cage seat and having a square opening therein, a hollow plunger reciprocating in said pump barrel, an upper cage screwed into the upper end of said plunger and having an opening therein in open communication with the interior of said hollow plunger, a ball for closing the opening in said upper cage, a lower cage seating in said lower cage seat and having an opening therein, a ball for closing the opening in said lower cage, a square extension screwed into said lower cage and extending into the square opening in said attachment, a flat lifting rod detachably secured to said lower cage and projecting into said plunger, a lower plunger nut on the lower end of said plunger provided with an opening through which said lifting rod passes, a head fixed on the end of said lifting rod to prevent the lifting rod from being withdrawn from the plunger by engaging the upper surface of said nut, and means for reciprocating the plunger.

3. A pump comprising a hollow structure adapted to be fastened to the casing of a well, said structure terminating in a conical seat having a square opening below, a hollow plunger tightly fitting and reciprocated in said hollow structure, valve means at the upper end of said plunger, a valve detachably fitting into said conical seat in said hollow structure and provided with a square extension fitting into the square opening in said hollow structure, a flat lifting rod detachably secured to said last named valve and extending into said hollow plunger, a head solidly attached to the upper end of said flat lifting rod, a nut on the lower end of said plunger provided with an opening through which said flat lifting rod passes but of insufficient size to permit the passage of said head, and means for reciprocating the plunger.

4. A pump comprising a hollow structure adapted to form a portion of the casing of a well, a plunger having valve means at the upper end thereof fitting tightly and reciprocating in said hollow structure, a valve means seated in the lower end of said hollow structure but restrained from turning therein, a lifting rod detachably secured to said last named valve means slidably secured in said plunger and restrained from turning in said plunger, and means for reciprocating said plunger.

5. A pump comprising a stationary hollow structure forming a portion of the casing of a well, a plunger reciprocating in said structure and provided with valve means, a valve means detachably seated in the lower end of said structure and restrained from turning therein, a lifting rod detachably secured to said last named valve means and slidably secured to said plunger being restrained from turning in said plunger, and means for reciprocating said plunger.

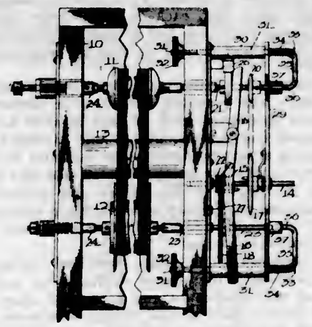
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1,089,721. SPOOL-OPERATING DEVICE FOR MUSICAL INSTRUMENTS. AUGUST NORDEEN and ALBERT KRELL, Connersville, Ind., assignors to Krell Auto-Grand Piano Co. of America, Connersville, Ind., a Corporation of Indiana. Filed Sept. 26, 1910. Serial No. 583,743. (Cl. 84—161.)

In a device of the character described, the combination of a frame or casing having a bearing at one side provided with a smooth passage therethrough, a pair of reciprocable supports for the ends of a spool arranged parallel with said passage, yielding means for constantly pressing said supports toward the side of the casing in which said passage is located, a rod having a screw



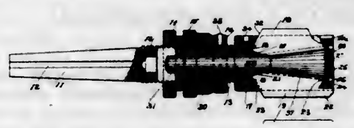
threaded end extending into said passage and arranged parallel with said supports and of U-shaped form at the end, one side of the U-shaped rod having an end projecting inwardly toward said supports, and bearing on the end of one of them, a spring for normally forcing said



U-shaped rod in the same direction in which the supports are urged by said yielding means, and a nut on the inner end of said screw-threaded portion of the rod for positively forcing it in the opposite direction, said nut being located on the inside of said casing.

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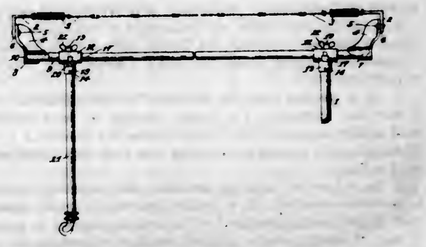
1,089,722. ADJUSTABLE REAMER. WILLIAM PINCIN, Altoona, Pa. Filed Dec. 15, 1911. Serial No. 665,942. (Cl. 77—76.)



An adjustable reamer comprising a hollow cylindrical exteriorly threaded body, a stem provided with a cone shaped end portion adjustable in said body, a cap member associated with the cone shaped end of the said stem, cutting blades adapted to bear against the conical surface of the stem, a clamping nut adjustable on the exterior threaded portion of the body for clamping the blades upon the cone shaped end of the stem and also against the cap member, and graduated means for adjusting the blades also mounted on the exterior threaded portion of the body.

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1,089,723. COUCH AND COUCH-BED. FREDERICK J. QUINCY, Brooklyn, N. Y., assignor to Englander Spring Bed Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 18, 1912. Serial No. 691,593. (Cl. 5—5.)



1. In a structure of the class described having sidebars, rotatable legs provided with sleeves mounted for rotation upon said bars each of said sleeves having a pair of radial slots at opposite points, a bolt located in posi-

tion to work in said radial slots and means engaging said bolt for clamping the sleeve upon the bar, whereby when the bolt is within said radial slots the movement of the sleeve lengthwise of the bar is prevented.

2. In a structure of the class described having side bars, rotatable legs provided with sleeves mounted for rotation upon said bars, each of said sleeves having a bayonet-shaped slot therein and at another side thereof a radial slot, and a bolt carried by said bar and projecting into said slots.

3. In a structure of the class described having side-bars, rotatable legs provided with sleeves mounted for rotation upon said bars each of said sleeves having a bayonet shaped slot therein, and a bolt carried by said bar and having a part projecting into said slot for securing the sleeve to the bar one portion of said slot permitting rotary movement of the sleeve and another part thereof preventing such rotary movement and said bayonet shaped slot permitting only a limited movement of the sleeve lengthwise on the bar.

4. In a structure of the class described having side-bars, legs provided with sleeves rotatable on said side-bars each of said sleeves having a bayonet shaped slot effective to permit rotation and sliding movement on its side-bar, and also having a radial slot terminating in a pocket and a bolt carried by said side-bar and coöperating with said slots, whereby the leg may be rotated and slid to lock the same against movement.

5. In a structure of the class described having side-bars, rotatable legs provided with sleeve rotatable on said side-bars each of said sleeves having a pair of radial slots each terminating in a pair of lengthwise extending openings, and a bolt carried by said side-bar and coöperating with said openings and slots, whereby the leg may be rotated and slid to lock the same against movement in a predetermined position.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,724. PROCESS OF MAKING PUNCHES. GEORGE REMNSNIDER, Belleville, Ill. Filed May 5, 1910. Serial No. 559,608. (Cl. 76—107.)




1. The process of forming punches which comprises punching the character from the stock, without actually separating it therefrom, electrically welding the character to a backing while still held in position by the stock, and separating the character from the stock.

2. The process of forming punches which comprises punching the character from the stock, electrically welding the character to a backing while held in position in the stock by a contact surface greater than the surface to be welded, and separating the character from the stock.

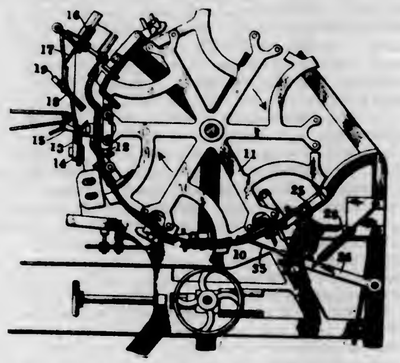
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1,089,725. PRETZEL-MAKING MACHINE. GEORGE H. SCHAETZEL, St. Louis, Mo., assignor to Pfenninger Pretzel & Baking Company, St. Louis, Mo., a Corporation of Missouri. Filed June 19, 1912. Serial No. 704,530. (Cl. 107—8.)

1. In a pretzel making machine, the combination with a movable member, of a holder carried by said member, said holder being provided with means for receiving a loop of dough, and means for forcing the loop into position on said holder.

2. In a pretzel making machine, the combination with a movable member, of a holder carried by said member, said holder being provided with means adapted to receive a loop of dough, and a pivoted brush for forcing the loop into position on said holder.

3. In a pretzel making machine, the combination with a rotary member, of a holder carried by said member, said holder being provided with pins adapted to receive a loop of dough, and a pivoted brush arranged in the path of said pins whereby said pins enter the end of the brush to force said loop into position on the holder.




4. In a pretzel making machine, the combination with a rotary member, of a holder carried by said member, said holder being provided with means for engaging a loop of dough, and a pivoted brush arranged in the path of said holder to swing up and down between the members of the loop, said brush being adapted to be swung from a downwardly inclined to an upwardly inclined position by contact with the holder whereby the return movement of said brush spreads the ends of the loop of dough.

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1,089,726. SAFETY-RAZOR. MATTHEW C. SHARPNACK, Prescott, Ariz. Filed May 24, 1913. Serial No. 769,595. (Cl. 30—12.)



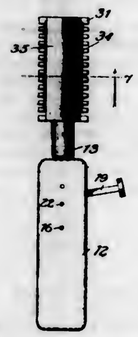

1. In a safety-razor, the combination of a handle having an arc-shaped guide-neck on one end, a blade-plate having a curved tongue adjustably confined in said neck, means for securing the tongue in its adjusted position, a motor, a blade confined on said plate to be reciprocated, and means connecting the motor with the blade for reciprocating the latter, said means including a universal joint concentric with the circle of which said guide-neck is an arc.

2. In a safety-razor, the combination of a hollow handle, a spring secured at one end in the handle, a lever fulcrumed between its ends in the handle, having an expanded section containing a slot, and engaging with the opposite end of the spring, a finger-piece pivotally connected with the outer end of the lever and working through the handle, gearing in the handle comprising a gear on the lever-fulcrum and to which the lever is fastened, a crown-gear having its journal extending through said slot and carrying a pinion meshing with said gear, a shaft journaled in the forward end of the handle and carrying in the latter a pinion meshing with the crown-gear, a sleeve secured on the shaft, a thimble separably seating on the forward handle-end, a shaft journaled centrally in the thimble and entering the sleeve, a blade-plate supported on the thimble, a blade confined in said plate to be reciprocated and provided with a transverse slot, a disk rotatably seated in said plate and having an eccentric stud engaging said slot, and a universal-joint connection between said disk and said last-named shaft.



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1,089,727. SAFETY-RAZOR. MATTHEW C. SHARPNACK, Prescott, Ariz. Filed May 24, 1913. Serial No. 769,596. (Cl. 30—12.)




1. In a safety-razor, the combination of a hollow handle, a motor housed in the handle, comprising a spring-pressed lever fulcrumed between its ends, and a train of gears having its innermost member secured to said lever, a finger-piece pivotally connected at its inner end with one end of said lever and longitudinally reciprocable through the handle-wall to rock the same and drive the motor, a blade-plate on the handle, a blade confined on said plate, and means connecting the motor with the blade to reciprocate the latter by manipulating the finger-piece.

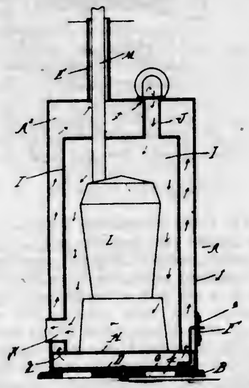
2. In a safety-razor, the combination of a hollow handle, a spring-motor, including a train of gears, housed in the handle, a blade-plate on the handle, a blade confined on said plate to be reciprocated thereon, a finger-piece longitudinally reciprocable through the handle-wall and connected with the motor for operating it, a cam connected with the outermost gear of said train, and a stem having a slotted inner end engaged by the cam and engaging at its opposite end with the blade to reciprocate it by operating the motor.

3. In a safety-razor, the combination of a hollow handle having a neck on its forward end, a spring-motor in the handle and a blade-plate on the latter, a blade confined on said plate to be reciprocated thereon, a finger-piece working through a wall of the handle for operating said motor, a cam geared to said motor and comprising a disk provided with an eccentric stud, a sleeve reciprocably confined in said neck and having a tongue on its inner end containing a transverse slot engaged by said stud, and a stem confined at one end in the sleeve and engaging at its opposite end the blade to reciprocate it by the action of the motor.

4. In a safety-razor, the combination of a hollow handle having a neck on its forward end, a spring-motor in the handle, a finger-piece working through a wall of the handle for operating said motor, a blade-plate having a thimble at which it seats about said neck and containing a longitudinal groove in its face, a blade confined on said plate to be reciprocated thereon, and a stem having a cam-connection at one end with the motor and extending through said neck and thimble and in said groove into engagement as its opposite end with the blade to reciprocate it by operating the motor.

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1,089,728. HEATING APPARATUS. ELMER J. SMITH, Detroit, Mich., assignor to Peter Smith Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 4, 1911. Serial No. 606,550. (Cl. 126—117.)



1. In a heating apparatus, the combination with an outer casing, of a vent stack communicating therewith, an inner casing having an air inlet at its top and an air outlet at its base, a heater in the inner casing, a flue leading therefrom through the stack, and an air propelling means adjacent the stack for causing air to pass through the outer casing into the top of the inner casing and out from the lower part of the inner casing whereby the suction of the air propelling means when the latter is in operation will influence the passage of the air inwardly through the stack and will permit the passage of heated air outwardly through the stack when idle.

2. In a heating apparatus, the combination with a casing having a vent stack communicating therewith, of a heater having a flue extending through the stack and of a diameter less than that of the stack to form an air space therebetween, an inner casing surrounding the heater, and an air forcing means communicating with the outer and the inner casing and arranged to create a suction within the said vent stack, when said air forcing means is in operation, and permitting the escape of heated air through said stack when the said air propelling means is at rest.

3. In a heating apparatus, the combination with an inner and an outer casing, a vent stack communicating with the upper part of the outer casing, and air forcing means operatively associated with the casing and the vent stack whereby a pressure less than that of the atmosphere is created within the outer casing, thereby preventing the escape of heated air through the vent stack during the operation of the air propelling means, but permitting the escape of heated air through the said stack when the said air propelling means is at rest.

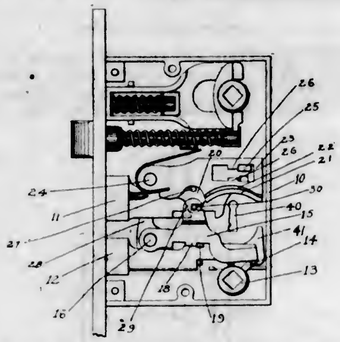
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1,089,729. LOCK. WILLIAM E. SPARKS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 20, 1912. Serial No. 710,595. (Cl. 70—74.)

1. In a lock, dead bolts, a plurality of tumblers for one of said bolts, and a tumbler for the other bolt directly connected with one of said first named tumblers; substantially as described.

2. In a lock, dead bolts, a plurality of tumblers for one of said bolts, including a master key tumbler, and a

tumber for the other bolt connected directly with said master key tumbler; substantially as described.



3. In a lock, a key bolt having a plurality of tumblers, including a master key tumbler, and a thumb-turn bolt having a single tumbler, directly connected with said master key tumbler; substantially as described.

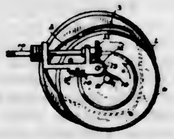
4. In a lock, a key bolt, a thumb-turn bolt, a lever connection between said bolts whereby the protraction of one when the other is protracted effects the retraction of said other bolt, a rollback for said thumb-turn bolt, a pivoted tumbler co-acting with said rollback and with said thumb turn bolt, and a plurality of pivoted tumblers for said key bolt, including a master key tumbler directly connected with the tumbler of the thumb-turn bolt; substantially as described.

5. In a lock, dead bolts, a tumbler for one of said bolts having a hooked portion, and a tumbler for the other bolt having a pin or projection engaged by said hooked portion; substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

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1,089,730. GAS-METER. HENRY H. SPRAGUE, Bridgeport, Conn. Filed June 23, 1904. Serial No. 213,846. (Cl. 73—1.)



1. In a gas meter, a rotatable valve, a seat therefor, a stop arranged in proximity to said valve and mounted to yield in one direction of movement of said valve but limited in its movement in the reverse direction, a projecting element carried by the valve, and means interposed between said stop and projecting element and engaged by the latter, whereby on the reverse rotation of the valve the stop arrests the reverse rotation of said valve and the latter is also maintained on its seat.

2. In a gas meter, a rotatable valve, a seat therefor, a stop arranged in proximity to said valve and mounted to yield in one direction of movement of said valve but limited in its movement in the reverse direction, a projecting element carried by the valve, and an inclined foot interposed between said stop and said projecting element and engaged by the latter, whereby on the reverse rotation of the valve the stop arrests the reverse rotation of said valve and the latter is also maintained on its seat.

3. In a gas meter, means for actuating the registering mechanism thereof and including a shaft, a rotatable valve, a seat therefor, an arm carried by said shaft, a projecting element carried by the valve and adapted to contact with said arm whereby to actuate the registering mechanism, a stop arranged in proximity to said valve and mounted to yield in one direction of movement of said valve but limited in its movement in the reverse direction, and means interposed between said stop and said projecting element and engaged by the latter whereby on the reverse rotation of the valve the stop arrests the reverse rotation of said valve and the latter is also maintained on its seat.

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1,089,731. STOP ATTACHMENT FOR WINDOW-SHADES. HUGO L. STEIDEL, Arlington, N. J. Filed Jan. 18, 1913. Serial No. 742,799. (Cl. 156—36.)



1. The combination of a window frame and sashes having a meeting rail, with a window shade, and a stop on the front of the shade and disposed to project therefrom so as to engage the bottom of the rail with its top edge so as to halt the curtain at an intermediate point in its range of travel.

2. The combination of a window frame and sashes having a meeting rail, with a window shade, and a stop at the bottom of the shade and projecting from the front thereof, the stop being arranged so that the rail is in its path of travel whereby the shade can be stopped at a predetermined point with the stop resting against the bottom edge of the rail.

3. The combination of a window frame and sashes having a meeting rail, with a window shade, and a metal plate formed into a wide trough to receive the stick end of the shade and projecting above the stick and from the front of the shade so as to form a flat top plate to engage the rail, the plate having an upwardly and outwardly inclined curved part extending from the trough to the plate.

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1,089,732. OIL DUSTER AND POLISHER. GEORGE M. URIE, Kansas City, Mo., assignor to Reginald B. Calcutt, Chicago, Ill. Filed Jan. 31, 1912. Serial No. 674,468. (Cl. 15—13.)



1. A device of the class specified comprising a cylindrical disk-shaped head provided with a concave outer edge, a mop constructed of cotton warp fibers folded together with the folded portions of the fibers encircling the outer concave edge of the head and stitched together, the ends of the fibers extending beneath the head and constituting a soft flexible absorptive cleaning and polishing surface, an inner strip of sheeting between the layers of the folded portion of the mop, an outer strip of sheeting, covering the outer and inner edges of the folded portion of the mop with said outer and inner strips stitched to said folded portion, a handle, means for attaching the handle to the head and means for holding the folded portion of the mop on the head.

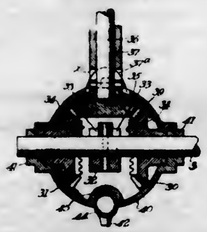
2. A device of the class specified comprising a mop consisting of cotton warp fibers folded together with the ends of the fibers extending beneath the folded portion and constituting a soft flexible absorptive cleaning and polishing surface, an inner strip of sheeting between the layers of the folded portion of the mop, an outer strip of sheeting covering the outer and inner edges of the folded portion of the mop with said outer and inner strips stitched to said folded portion, a handle and means to which said mop is attached comprising a ring formed from a single piece of wire with its ends twisted together in the form of a spiral screw adapted to screw into the inner end of the handle.

3. A device of the kind specified comprising a suitable handle, a substantially flat plate removably carried thereby, and having a substantially continuous concave channel in the edge thereof, and a removable mop having a reinforced upper portion that encircles said plate and is seated in said channel and is confined and secured therein.

4. A device of the class specified comprising a mop consisting of cotton warp fibers folded together with the ends of the fibers extending beneath the folded portion and constituting a soft flexible absorptive cleaning and polishing surface, an inner strip of sheeting between the layers of the folded portion of the mop, an outer strip of sheeting covering the outer and inner edges of the folded portion of the mop with said outer and inner strips stitched to said folded portion, a handle and means to which said mop is attached which includes a ring.

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1,089,733. MECHANICAL MOVEMENT FOR WRINGERS. WILLIAM H. VOSS, Davenport, Iowa. Original application filed Jan. 18, 1913, Serial No. 742,785. Divided and this application filed May 12, 1913. Serial No. 766,955. (Cl. 74—59.)



1. A mechanical movement comprising a drive-shaft, beveled gears loosely mounted thereon, a driven-shaft extending at an angle from said drive-shaft, a fixed pinion mounted on said driven-shaft in mesh with said gears, a device adapted to connect one or the other of said gears to said drive-shaft, and shifting mechanism adapted to alternately move said gears into and out of engagement with said device.

2. A mechanical movement comprising a drive-shaft, beveled gears loosely mounted thereon, a driven-shaft extending at an angle from said drive-shaft, a fixed pinion mounted on said driven-shaft in mesh with said gears, a device adapted to connect one or the other of said gears to said drive-shaft, and a casing inclosing said gears and pinion and adapted to move the former into and out of engagement with said device.

3. A mechanical movement comprising a drive-shaft, beveled gears loosely mounted thereon, a driven-shaft extending at an angle from said drive-shaft, a fixed pinion mounted on said driven-shaft in mesh with said gears, a device adapted to connect one or the other of said gears to said drive-shaft, and a casing loosely mounted on said shaft and adapted to reciprocate thereon and move said gears into and out of engagement with said devices.

4. A mechanical movement comprising a drive-shaft, beveled gears loosely mounted thereon, a driven-shaft extending at an angle from said drive-shaft, a fixed pinion mounted on said driven-shaft in mesh with said gears, a device adapted to connect one or the other of said gears to said drive-shaft, and a casing loosely mounted on said shaft and adapted to be reciprocated longitudinally on said shaft and thereby move said gears into and out of engagement with said device.

5. A mechanical movement comprising a drive-shaft, gears mounted loosely thereon, a driven-shaft extending at an angle to said drive-shaft, a fixed pinion mounted on said driven-shaft in mesh with said gears, a clutch counterpart secured to said drive-shaft intermediate said gears, and a casing inclosing said gears and pinion that is reciprocably mounted on the drive-shaft and is adapted to move said gears into and out of engagement with said counterpart.

[Claims 6 to 15 not printed in the Gazette.]

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1,089,734. LOOSE-LEAF BINDER. RICHARD M. WATSON, Detroit, Mich., assignor of one-half to Otto P. Senzik, Detroit, Mich. Filed Feb. 6, 1913. Serial No. 746,423. (Cl. 129—24.)



1. In a loose-leaf binder, the combination of a base-plate, clip-bearings rotatably supported in the base plate, clips carried thereon, each clip-bearing operatively connecting the clips on one side of the base plate and being in itself extensible and contractible in its length to vary the spacing of the clips, substantially as described.

2. In a loose-leaf binder, the combination of a base plate, clip-bearings rotatably supported in connection with the base plate, the said clip-bearings being divided into one or more sections, the said sections having overlapping and abutting faces, and a clip supported on each clip-bearing section whereby one pair of clips is operatively connected with another pair of clips and the pairs of clips are adjustable with respect to each other, substantially as described.

3. In a loose-leaf binder, the combination of a base plate purovided with edges turned over to form tubular journal bearings, wire clip-bearings that are divided into one or more sections, the said sections having overlapping and abutting faces, and a clip rising from each clip-bearing section, the said overlapping portions of the sections being contained in the tubular journal bearings so that the pairs of clips are adjustable with respect to each other, but are operatively connected with each other, substantially as described.

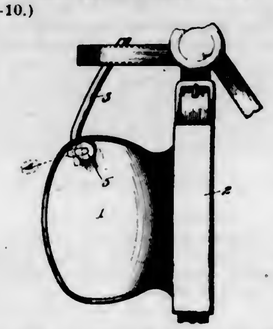
4. In a loose-leaf binder, the combination of a base plate, tubular bearings supported along parts of the length of the base plate, clip bearings journaled in said tubular bearings and comprising sections having overlapping and abutting faces, clips attached to the clip-bearing sections, which are adjustable one pair of clips with respect to another on account of the overlapping and abutting sections contained in the tubular bearings, a cover plate adapted to fit over the base plate and provided with cut-away portions that are adjacent to the portions of the base plate wherein there are no tubular bearings, and a cap plate for each adjustable pair of clips adapted to conceal the cut-away portions of the cover plate, substantially as described.

5. In a loose-leaf binder, the combination of a base plate, tubular bearings supported along parts of the length of the base plate, clip bearings journaled in said tubular bearings, the said clip bearings being cylindrical members

that are divided into sections by splits which run transversely of the member to the center, then lengthwise of the member and thence transversely to the other side, the said splits forming overlapping portions of the sections which are contained in the said tubular bearings, and clips supported on the respective bearing sections, substantially as described.

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1,089,735. HARNESS. NOAH C. WEIMER, Grand Junction, Colo. Filed Mar. 7, 1913. Serial No. 752,564. (Cl. 54—10.)



1. The combination with a blinder, of a holder extending against one side of said blinder, a clamp device engaging said holder and having one end embedded in the blinder an the opposite end projecting through the blinder, and means for tightening and releasing said clamp device.

2. The combination with a blinder, and a holder for said blinder, of a clamp device extending through the blinder and engaging said holder, and means on said clamp device at one side of said blinder for tightening said clamp device.

3. The combination with a blinder, and a holder for said blinder, of a clamp device encircling the holder and extending through said blinder, and a nut upon said clamp device adjustable to tighten or to release said clamp device.

4. The combination with a blinder, and a holder extending along side of said blinder, of a clamp device embracing said holder and extending through said blinder on one side of said holder and contacting with said blinder on the other side of said holder, and releasable means for holding said clamp device clamped upon said stay or holder.

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1,089,736. REPEATING FIREARM. JOHN H. WHEELER, New Haven, Conn., assignor to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 3, 1913. Serial No. 798,805. (Cl. 42—16.)



1. In a repeating firearm, reciprocating breech mechanism, manually controllable means for moving said mechanism backward and forward, means coöperating with said breech mechanism when said breech mechanism is in the position where the direction of movement from rearward to forward is being reversed, said last mentioned means mechanically assisting in said reversing of the parts, said breech mechanism being free from the influence of said reverse assisting means for a portion of its travel.

2. In a repeating firearm, breech mechanism movable rearwardly to unload the firearm and forwardly to load the firearm, means coöperating with said breech mechanism only when the same is in its rear position to assist it on the beginning of its forward movement, with a manually controlled operating device associated with said breech mechanism for manually moving said mechanism backward ahd forward.

3. In a repeating firearm, a reciprocating breech mechanism including a breech block and locking bolt, manually controllable means for moving said mechanism backward and forward, means arranged at the rear of said locking bolt and arranged to be compressed by the rearward movement of said locking bolt, the expansion of said means assisting in moving the locking bolt and breech block on the first part of its forward movement, the first part of the rearward movement and the last part of the forward movement of said breech mechanism being free from the influence of said means.

4. In a repeating firearm, a reciprocating breech mechanism including a breech block and locking bolt, manually controllable means for moving said mechanism backward and forward, means arranged at the rear of said locking bolt and arranged to be compressed by the rearward movement of said locking bolt, the expansion of said means assisting in moving the locking bolt and breech block on the first part of its forward movement, said assisting means comprising a spring pressed plunger, said plunger having a shorter range of movement than the range of movement of said breech mechanism.

5. In a repeating firearm, a reciprocating breech mechanism including a breech block and locking bolt, manually controllable means for moving said mechanism backward and forward, means arranged at the rear of said locking bolt and arranged to be compressed by the rearward movement of said locking bolt, the expansion of said means assisting in moving the locking bolt and breech block on the first part of its forward movement, said assisting means comprising a spring pressed plunger, and a relatively stationary support for said spring pressed plunger located at the rear of said locking bolt when the latter is in its rearmost position, said plunger having a shorter range of movement than the range of movement of said breech mechanism.

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1,089,737. RATCHET-WRENCH. GORDON K. WRIGHT, Hinsdale, Ill., assignor to Chicago Manufacturing & Distributing Company, a Corporation of Illinois. Filed Mar. 19, 1913. Serial No. 755,350. (Cl. 81—61.)



1. In a ratchet wrench, in combination, a handle, a pair of parallel plates at one end of the handle, one being formed integral with the handle and the other being removable, a socket member extending transversely through the plates and being journaled therein, ratchet teeth formed on such member between the plates, a tubular spacing stud formed integral with that one of said plates which is formed integral with the handle and extending toward the other plate, a pawl pivotally mounted on the said stud, and a bolt or rivet connecting the plates and extending through the bore of the said stud.

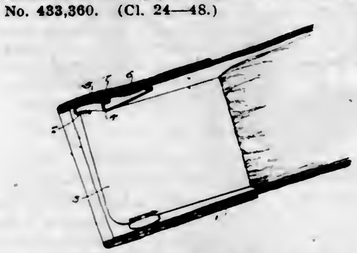
2. In a ratchet wrench, in combination, a handle, a pair of apertured parallel plates at one end of the handle, one being formed integral with the handle and the other being removable, a sleeve journaled in the apertures of the plates, ratchet teeth formed on the sleeve between the plates, a nut engaging socket having an axially extending tubular stem adapted to enter the said sleeve from either end, the bore of the said stem being adapted to receive the rod or bolt upon which a nut runs for guidedly supporting the socket when engaged with the nut, a tubular spacing stud formed integral with one of the said plates, a pawl acting in one direction only pivotally mounted on the said stud and coöperating with the said ratchet teeth and a bolt or rivet connecting the plates and extending through the bore of the said stud.



3. In a ratchet wrench, in combination, a handle, a pair of parallel plates at one end of the handle, one being formed integral with the handle and the other being removable, a socket member extending transversely through the plates and being journaled therein, ratchet teeth formed on such member between the plates, an integral spacing flange extending along one edge of that one of the said parallel plates which is formed integral with the handle from the handle to a point adjacent the socket member, said flange having an inwardly extending thickened portion which is spaced apart from the end of the handle, an integral spacing stud formed on the same plate with the said flange at an equal distance from the end of the handle with the said thickened portion of the flange, a pawl having an apertured hub intermediate its ends, the said hub being mounted on the said spacing stud and the two end portions of the pawl extending along the adjacent edge of the plate which carries the stud toward the adjacent end of the handle and toward the said socket member respectively, a spring transversely mounted in the space between the said plates, the end of the handle, the thickened portion of the said spacing flange and the hub of the pawl, the opposite ends of the spring reacting against the said spacing flange and the adjacent end of the pawl respectively, and two fastening elements uniting the said plates, one extending through the said removable plate into the thickened portion of the said spacing flange and the other extending through the removable plate into the said spacing stud.

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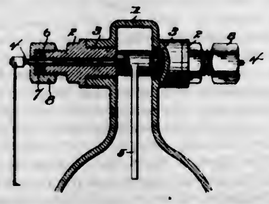
1,089,738. CUFF-PROTECTOR OR HOOK. EDWIN S. ANTISDALE, Chicago, Ill. Filed May 18, 1908. Serial No. 433,360. (Cl. 24—48.)



A cuff protector comprising a hook having a shank provided with means for securing the same to the inner surface of the coat sleeve, said shank having a broad surface adapted to engage the inner surface of the coat sleeve to hold the hook substantially at right angles to said surface, said hook having an outwardly inclined bill, and said shank having an outwardly projecting, rigid guard lug arranged in front of and in line with the bill of said hook and extending at a greater height than said bill to prevent the accidental engagement of the hook with the cuff, said guard lug being spaced lengthwise of the hook away from the end of the bill to permit the intentional engagement of the cuff with the hook, substantially as described.

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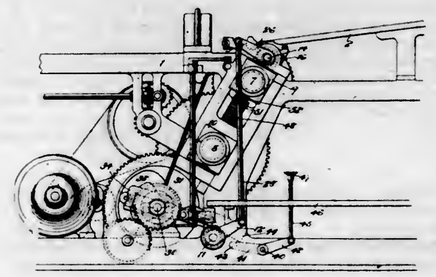
1,089,739. PRESSURE-TIGHT BEARING. ERVIN G. BAILEY, Newton Highlands, Mass. Filed Apr. 30, 1913. Serial No. 764,500. (Cl. 121—109.)



A pressure tight bearing consisting of a spindle extending through an opening in the wall of a casing, said opening being slightly larger in diameter than the diameter of the spindle, combined with a flat piece of pliable material which constitutes a bearing for the spindle and has a hole in which the said spindle fits and bears; and means for holding said flat piece in position to make a pressure tight joint, said flat piece being held solely by confinement on opposite sides and being free from confinement along its entire edge.

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1,089,740. CYLINDER PRINTING-MACHINE. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 16, 1909. Serial No. 518,003. (Cl. 101—111.)



1. An impression cylinder, its journal boxes, their lifting springs, depressing cams and means for automatically operating the depressing cams at predetermined intervals comprising cam shafts, their arms, a rock shaft, its arms, rods connecting the corresponding arms of said shafts, a rotary cam, its slide, a gab hook carried thereby and gab hook arms carried by the rock shaft and engaged by said gab hook.

2. An impression cylinder, its journal boxes, their lifting springs, depressing cams and means for automatically operating the depressing cams at predetermined intervals comprising cam shafts, their arms, a rock shaft, its arms, rods connecting the corresponding arms of said shafts, a rotary cam, its slide, a gab hook carried thereby, gab hook arms carried by the rock shaft and engaged by said gab hook, and a manually controlled device for disconnecting the gab hook and gab hook arm at pleasure.

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1,089,741. MAP. ELMER S. BATTERSON, Chicago, Ill. Filed Aug. 13, 1913. Serial No. 784,498. (Cl. 35—6.)

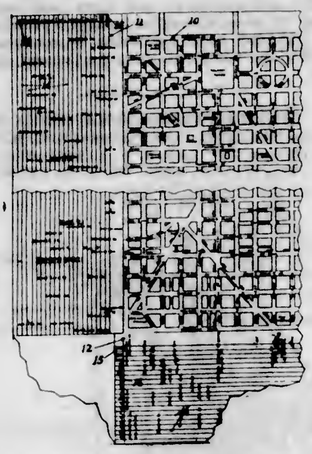
1. A self indexing map applicable to any graphically delineated area provided on its map face and at adjacent marginal portions with columns to which are appropriated symbols suggestive of the names of the points or places to be located within the area, such names being entered at the columnated portions in line with such locations and with the appropriate column symbols.

2. A self indexing map applicable to any graphically delineated area provided on its map face and at adjacent marginal portions with columns, each column designated by a letter of the alphabet, the names of the streets, roadways or the like to be located within said area being entered in the columnated portion in line with such locations and with the initial letter of each name in a column to which such letter is appropriated as an indexing symbol.

3. A self indexing map provided on its map face with columns bearing symbols suggestive of names of streets, roads and other points on the map which are to be located, the names of the streets and other points to be located being arranged at the columns in prearranged relation to the said streets and other points and also to said symbols of said columns.

4. A self indexing map of city streets and the like provided on its map face with areas divided into columns, and letters appropriated to said columns, the street names

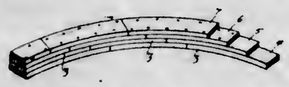
being entered on the columnated areas in line with the streets designated thereby, and with the initial letters of



said names in the columns to which said initial letters are appropriated as indexing symbols.

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1,089,742. SILO-HOOP. HERMAN E. BOLDT, Sheboygan Falls, Wis., assignor to Wood Tire Silo Company, Sheboygan Falls, Wis., a Corporation of Wisconsin. Filed July 17, 1912. Serial No. 709,882. (Cl. 217—91.)



1. As an article of manufacture a sectional or knock-down silo hoop, comprising separate hoop sections, each formed of several layers, each layer made up of several boards, the boards of one layer being arranged to break joints with the boards of the other layers, both throughout the body and at the ends of the several sections, so that, when the several sections are assembled in a hoop, the ends of the layers of one section break joints with those of the abutting section, and the sections may be secured together to form a hoop by nailing through the overlapping ends of the several sections.

2. As an article of manufacture a sectional or knock-down silo hoop, comprising separate hoop sections, each formed of several layers, each layer made up of short boards, the boards of each layer breaking joints with the boards of other layers, the layers being nailed to each other and the several layers extending one beyond another at the ends of each section, and in reverse order at opposite ends of the section, so that, when the several sections are assembled in a hoop the ends of the layers of one section overlap and break joints with those of the abutting section, and the sections may be secured together by nailing through such ends to make a complete hoop.

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1,089,743. RADIATION-PYROMETER. RICHARD P. BROWN, Philadelphia, Pa. Filed June 2, 1910. Serial No. 564,593. (Cl. 73—32.)

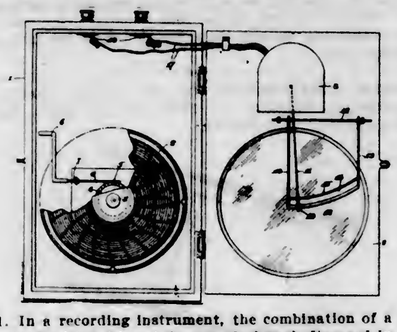
A radiation pyrometer for registering the radiant heat of an object, said instrument comprising a tube open at one end for the entrance of the heat rays from said object, a heat sensitive device carried interiorly of said tube, a temperature indicator carried exteriorly of said tube and connected with said heat sensitive device, a ray concentrator operative to concentrate the heat rays entering said tube upon said heat sensitive device, and a reflecting device disposed on said tube normally in fixed relation to said open end, said heat sensitive device and said concentrator and having a field of incidence corresponding with the field of incidence of said tube and operative to perform the double function of sighting the radiant object and indicating by



an exclusively incandescent image of reflection a proper temperature registering range of the instrument for registering the temperature of the radiant object through the heat rays entering said tube from said object simultaneously with the entry in the reflecting device of the light rays forming said image.

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1,089,744. RECORDING INSTRUMENT. RICHARD PERCY BROWN, Philadelphia, Pa. Filed Sept. 7, 1911. Serial No. 648,124. (Cl. 234—11.)



1. In a recording instrument, the combination of a case provided with a hinged door, a clockwork disposed in said case and adapted to carry a chart, an electrically operated instrument secured to said door, a stylus operated by said instrument and adapted to engage said chart when said door is closed and to swing away therefrom when the door is open, whereby charts may be removed and replaced without interference with the electrically actuated recording devices, and means actuated by said clockwork for causing an intermittent contact of said stylus with said clock, said means being disposed in part on said door and in part on said case.

2. In a recording instrument, the combination of a case provided with a hinged door, a clockwork disposed in said case and adapted to carry a chart, an electrically operated instrument secured to said door, a sylus operated by said instrument and adapted to engage said chart when said door is closed and to swing away therefrom when the door is open, whereby charts may be removed and replaced without interference with the electrically actuated recording device, and means actuated by said clockwork for causing an intermittent contact of said stylus with said clock, said means carrying an inking device and being disposed in part on said door and in part on said case.

3. In a recording instrument, the combination of a case provided with a hinged door, a clockwork disposed in said case and adapted to carry a chart, an electrically operated instrument secured to said door, a stylus operated by said instrument and adapted to engage said chart when said door is closed and to swing away therefrom when the door is open, whereby charts may be removed and replaced without interference with the electrically actuated recording devices, a swinging gravity frame hinged to said door and adapted to drive said stylus into contact with said chart when the door is closed, and means operated intermittently by said clockwork and adapted when said door is closed to engage said frame for holding it normally out of contact with said stylus and periodically releasing it to perform its recording function.

4. In a recording instrument, the combination of a case provided with a hinged door, a clockwork disposed in said case and adapted to carry a chart, an electrically operated instrument secured to said door, a stylus operated by said instrument and adapted to engage said chart when said door is closed and to swing away therefrom when the door is open, whereby charts may be removed and replaced without interference with the electrically actuated recording devices, a movable frame secured to said door, carrying an inking device and adapted to engage said stylus, and means operated intermittently by said clockwork and adapted when said door is closed to engage said frame for holding it normally out of contact with said stylus and periodically releasing it to perform its recording function.

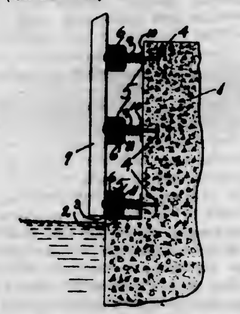
5. In a recording instrument, the combination of a case provided with a hinged door, a clockwork disposed in said case and adapted to carry a chart, an electrically operated instrument secured to said door, a stylus operated by said instrument and adapted to engage said chart when said door is closed and to swing away therefrom when the door is open, whereby charts may be removed and replaced without interference with the electrically actuated recording devices, a movable frame secured to said door, carrying an inking device and adapted to engage said stylus, and means operated intermittently by said clockwork and adapted when said door is closed to engage said frame for holding it normally out of contact with said stylus and periodically releasing it to perform its recording function, said means comprising a lever pivoted within said casing and provided at one end with an arm adapted to engage said movable frame when said door is closed and a ratchet crown wheel turned by said clockwork and engaging the other end of said lever.

[Claims 6 and 7 not printed in the Gazette.]



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1,089,745. DOCK STRUCTURE. HENRY J. BRUNNIER, San Francisco, Cal. Filed Sept. 18, 1913. Serial No. 790,462. (Cl. 14—76.)



1. In a dock, a fixed dock structure, a girder slidable on said fixed dock structure, sheathing timbers carried by said girder and extending above the same, another girder connecting the sheathing timbers, springs interposed between the slidable girders and the fixed dock structure, and means to prevent the slidable girders from moving more than a given distance away from the dock structure.

2. In a dock, a fixed dock structure, a ledge projecting therefrom, a girder extending along said dock and resting upon said ledge, sheathing timbers carried by said girder, another girder connecting said sheathing timbers, springs interposed between the girders and the fixed dock structure, and means connecting the fixed dock structure and the movable fender line to prevent the same from moving more than a given distance away from the dock.

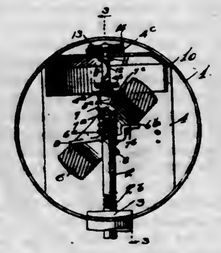
3. In a dock, a fixed dock structure, a supporting ledge extending therefrom, a girder on said ledge and extending along the dock structure, wear plates on said ledge and upon which said girder is slidable, sheathing timbers connected with said girder, another girder connecting the sheathing timbers, springs interposed between the girders and the fixed dock structure, and means to prevent the movable fender line from moving more than a fixed distance away from the dock structure.

4. In a dock structure, a fixed dock, a ledge extending therefrom, wear plates on said ledge, a girder resting upon said wear plates and slidable thereon, sheathing timbers connected with said girder, another girder connected with the sheathing timbers, springs interposed between the fixed dock structure and the girders, and means extending through said springs to prevent the movable fender line from moving more than a given distance away from the fixed dock structure.

5. In a dock, a fixed dock structure, a girder slidable on a plurality of supports on said fixed dock structure, sheathing timbers carried by said girder and extending above the same, another girder connecting the sheathing timbers and forming with the sheathing timbers and the other girder, a fender, and resilient means interposed between the fixed dock structure and fender to hold the girders at a given distance from the dock.

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1,089,746. CENTRIFUGAL SPEEDOMETER. CHARLES S. BURTON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Illinois. Filed Mar. 20, 1913. Serial No. 755,596. (Cl. 73—123.)



1. In a speedometer, in combination with a revoluble shaft, a centrifugally operable element pivoted on the shaft; a slidable element on the shaft mounted for positively rotating therewith; connections by which the pivoted element actuates the slidable element; a graduated member having a spindle journaled in the case; connections whereby the slidable element rotates the spindle; a face plate having an aperture, the graduated element being positioned for exposing its graduations through said aperture as said graduated element is rotated by its spindle.

2. In a speedometer, in combination with a revoluble shaft, a centrifugally operable element pivoted on the shaft, a slidable element on the shaft rotatable therewith; connections by which the pivoted element actuates the slidable element; a spindle journaled in the casing substantially in line with said shaft; a flange carried by and co-axial with the spindle exteriorly graduated for speed indication; a yoke mounted non-rotatably for sliding parallel to the spindle; means by which the yoke is engaged by the slidable element, the spindle having a worm, and the yoke having means for engaging the worm for movement along the spindle; and a face plate having an aperture positioned in front of said graduated flange.

3. In a speedometer, in combination with a revoluble shaft, a centrifugally operable element pivoted to the shaft and a spring for resisting its centrifugal operation; a slidable element on the shaft rotating therewith; connections by which the pivoted element operates the slidable element; a spindle journaled in the casing substantially in line with the shaft; a graduated member carried

by the spindle; a disk on the sliding element having a concentric portion of its area positioned in a plane perpendicular to the axis of the shaft; a yoke mounted nonrotatably for sliding parallel to the spindle and having abutments by which it is engaged with said portion of the disk; means by which the yoke engages the spindle for rotation by the sliding of the yoke along the spindle, and a face plate having an aperture positioned in front of the graduated member.

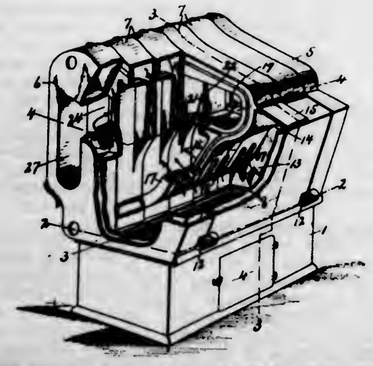
4. In a speedometer, in combination with a revoluble shaft, a centrifugally operable element pivoted on the shaft; a spring which yieldingly resists the action of said pivoted element; a sleeve mounted for sliding on the shaft and connected therewith for rotation; a spindle journaled in the casing substantially in line with the shaft; an exteriorly graduated flange carried by the spindle; a disk on the sleeve having a concentric portion of its area perpendicular to its axis; a yoke mounted nonrotatably parallel to the spindle and having abutments engaging the disk, the spindle having a worm and the yoke having means for engaging the worm for movement along the spindle, and a face plate having an aperture positioned in front of the graduated flange.

5. In a speedometer, in combination with a revoluble shaft, a centrifugally operable element pivoted on the shaft; a slidable element on the shaft mounted for positively rotating therewith; connections by which the pivoted element actuates the slidable element; a spring which resists the centrifugal operation of the pivoted element; a second spring which resists the sliding action of the slidable element, the shaft having one bearing proximate to the case wall and extending out through said bearing and having a second bearing within the case and in which it is stopped against inthrust into the case; a spindle stepped in said last mentioned bearing at the opposite side thereof from that at which the shaft is stopped; a flange co-axial with the spindle and rigid therewith, said last mentioned bearing being extended from the wall of the case transversely to the shaft, and spindle, and offset along the shaft within the coaxial flange for positioning the stopped end of the shaft and the stepped end of the spindle within said flange, the spindle having a worm within the flange; a yoke mounted for sliding in said last mentioned bearing parallel with the spindle, said yoke having engagement with the worm and with the slidable element on the shaft, said flange being exteriorly graduated for speed indication, and a face plate having an aperture through which said graduation is readable.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,747. SECTIONAL BOILER. WILLIAM M. BUTLER, Syracuse, N. Y. Filed Jan. 23, 1912. Serial No. 672,878. (Cl. 122—223.)



1. An upright boiler section having a rear upright water-leg and a hollow water-front inclining upwardly and forwardly from the base of the water-leg and portions thereof spaced apart therefrom to form an intervening combustion chamber, said inclined water-front communicating with the water-leg above and below said combustion chamber and provided with a fire passage therethrough from front to rear and surrounded by water space.

2. A sectional boiler comprising a base having an ashpit and grate, hollow upright end and intermediate sections secured together side by side and having communicating water chambers, the front edges of the intermediate sections inclining upwardly and forwardly from the rear edge of the grate, and front sections resting upon the base and inclining upwardly and forwardly therefrom at the front side of the grate and connected to the end sections to form therewith and with the front edges of the intermediate sections a fire box, the lower front portions of the intermediate sections being provided with horizontally extending fire passages registering with each other to form an auxiliary combustion chamber, the portions of the intermediate sections between said fire passages and fire pot being provided with vertically elongated fire passages connecting the fire box with the auxiliary combustion chamber, said intermediate sections being also provided with upright fire passages in corresponding sides thereof and with separate sets of openings therethrough at opposite sides of the upright passages, those of each set registering with each other to form flues, one of the end sections being provided with a fire passage connecting the adjacent ends of the flues.

3. An upright boiler-section having a rear upright water-leg and a hollow water front inclining upwardly and forwardly from the base of the water-leg and having portions thereof spaced apart therefrom to form an intervening combustion chamber, said inclined water-front communicating with the water-leg above and below the combustion chamber and provided with a fire passage therethrough from front to rear and surrounded by water space, the water-leg being provided with a transverse fire passage therethrough from side to side.

4. A boiler comprising hollow upright end and intermediate sections arranged side by side, and a hollow upright front section secured to the end sections, the front edges of the intermediate sections being inclined downwardly and rearwardly at an angle with the rear face of the front section, upright passage-ways through the intermediate sections and connecting with a horizontal passage-way, vertical channels in said sections connecting said horizontal passage-way with a second passage-way, and a third passage-way connected to the second by a passage through one end section.

5. A boiler comprising hollow upright end and intermediate sections arranged side by side, and a hollow upright front section secured to the end sections, the front edges of the intermediate sections being inclined downwardly and rearwardly at an angle with the rear face of the front section to form a fire box gradually increasing in width from front to rear from top to bottom, the intermediate sections having front and rear sets of registering fire flues, and an intermediate set of registering openings forming an auxiliary combustion chamber, at the rear of the fire box, said intermediate sections also having one set of passages connecting the fire box and combustion chamber and another set of passages connecting such chamber with the front set of flues, one of the end sections having a passage connecting the adjacent ends of the front and rear flues.

[Claims 6 to 14 not printed in the Gazette.]

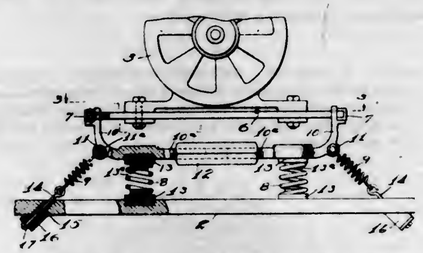
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1,089,748. MOTOR FOR AUTOMATIC PIANOS. MELVILLE CLARK, Chicago, Ill., assignor to Melville Clark Piano Company, Chicago, Ill., a Corporation of Illinois. Filed June 20, 1913. Serial No. 774,779. (Cl. 248—30.)

1. A support for a motor for minimizing the sound produced by its operation, consisting of a strip of flexible belting adapted to have the motor mounted upon it between its ends, and supports to which the ends of the belting are directly connected.

2. A support for a motor for the purpose of deadening its sound, consisting of flexible belting adapted to have the motor mounted upon it between its ends; cross bars to which the ends of the belting are made fast, and springs by which the cross bars are yieldingly supported.

3. A support for a motor for deadening its sound, comprising a flexible belting strip; means by which such belting strip is supported at its ends with freedom to sag between its said supports, and means by which the motor may be lodged upon the belt between its supports so as to permit it to sag.



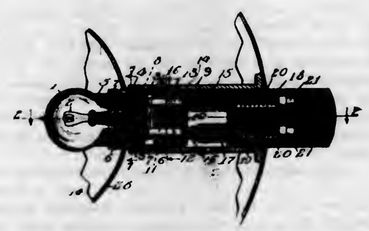
4. A support for a motor to deaden its sound, consisting of a flexible belting strip; cross-wise-extending supports for the belting strip at its ends, and elastically yielding supports for said crosswise supports, the belting strip being adapted to have the motor support lodged upon it between said crosswise supports.

5. A support for a motor to deaden its sound, comprising a flexible belting strip; supports connected to the ends of the belting strip; means for spreading said supports to stretch the belt taut between them, and means for mounting the motor upon the belt between said supports.

[Claim 6 not printed in the Gazette.]

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1,089,749. ELECTRIC LAMP. HARRY A. DOUGLAS, Chicago, Ill. Filed Apr. 11, 1912. Serial No. 690,008. (Cl. 173—328.)



1. A circuit closer including an element carrying terminals; a shell receiving a portion of said element; contacts within the shell and in electrical connection with said terminals and rearwardly spring pressed; cord terminals; and means for holding the cord terminals in engagement with said spring pressed contacts.

2. A circuit closer including an element carrying terminals; a shell receiving a portion of said element at the forward portion of the shell; contacts within the shell and in electrical connection with said terminals and rearwardly spring pressed; a closure for the rear of the shell and having plug receiving sockets into which said spring pressed contacts are projected when said sockets are free of plugs; and cord terminal plugs adapted to be projected within said sockets into engagement with said spring pressed contacts.

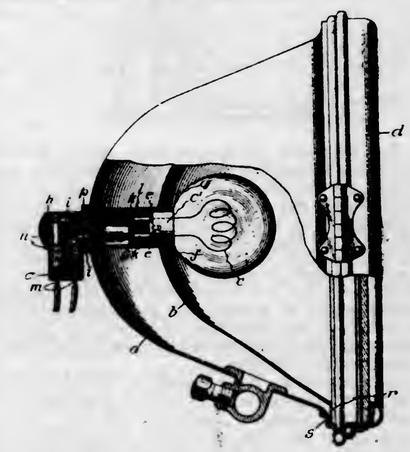
3. A circuit closer including an element carrying terminals; a mounting in which said element may be inserted by its movement longitudinally of the structure; one contact for engaging one of the terminals; a second contact for engaging the other of the terminals; a support for said contacts with respect to which one of said contacts is substantially fixed and the other is movable, the support and the movable one of these contacts being spring pressed whereby effective engagement between the terminals and said contacts is assured.

4. A connecting device including a shell for receiving a portion of an element with which electrical connection is to be effected; a mounting block within and movable longitudinally of the shell; a contact terminal in fixed relation to the mounting block; a second contact terminal within and movable longitudinally of the shell and with respect to the mounting block and thereby with respect to the first contact terminal; and spring mechanism for forwardly pressing said contact terminals.

5. A connecting device including a shell for receiving a portion of an element with which electrical connection is to be effected; a contact terminal that is rearwardly spring pressed and which is alined with the bore of the shell; a plug receiving element having a lateral opening into which the rearwardly spring pressed contact terminal projects; and a plug having a projecting contact portion which is receivable within said lateral opening there to engage the contact element.

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1,089,750. REFLECTING ELECTRIC LAMP. HARRY A. DOUGLAS, Chicago, Ill. Filed Aug. 5, 1912. Serial No. 713,317. (Cl. 240—41.)



1. A lamp structure including an electric lamp element; a shell housing the conductors for including the lamp element in circuit; a reflector for reflecting the light produced by the lamp; a back element for holding the reflector; and a flange upon one end of the shell whereby the back element and reflector may be held together.

2. A lamp structure including an electric lamp element; a shell housing the conductors for including the lamp element in circuit; a reflector for reflecting the light produced by the lamp; a back element for holding the reflector, the forward portions of the back element and reflector being in engagement; and a flange upon one end of the shell whereby the back element and reflector may be held together.

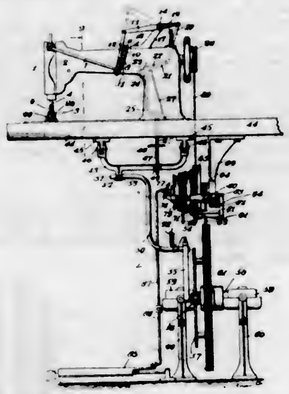
3. A lamp structure including an electric lamp element; a shell housing the conductors for including the lamp element in circuit; a reflector for reflecting the light produced by the lamp; a back element for housing the reflector; a flange upon one end of the shell; and a threaded nut upon the other end of the shell, the back and reflecting elements being interposed between the nut and the flange, whereby the back element and reflector are held together.

4. A lamp structure including an electric lamp element; a shell housing the conductors for including the lamp element in circuit; a reflector for reflecting the light produced by the lamp; a back element for holding the reflector, the forward portions of the back element and reflector being in engagement; a flange upon one end of the

shell; and a threaded nut upon the other end of the shell, the back and reflecting elements being interposed between the nut and the flange, whereby the back element and reflector are held together.

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1,089,751. AUTOMATIC STITCH-CONTROLLER. MAX DRUCKERMAN, Brooklyn, N. Y. Filed Dec. 11, 1912. Serial No. 736,130. (Cl. 112—4.)



1. The combination in an embroidery sewing machine having a vertically and laterally movable needle-bar, of a depending slotted pivoted needle-bar rock arm, a slide mounted in the rock arm, connections between the slide and the needle-bar, a vertically extending link connected to the slide, a rock shaft, a lever mounted on the rock shaft and connected to the vertically extending link, an oppositely disposed lever mounted on the rock shaft, a depending controller rod, connections from the depending controller rod to the second lever, and automatic means independent of the depending controller rod and cooperating with it to automatically govern the movement of the depending controller rod.

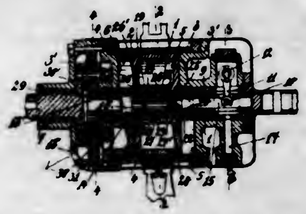
2. The combination in an embroidery sewing machine having a vertically and laterally movable needle-bar, of a depending slotted pivoted needle-bar rock arm, a slide mounted in the rock arm, connections between the slide and the needle bar, a vertically extending link connected to the slide, a rock shaft above the plane of the sewing machine, a lever mounted on the end of the rock shaft adjacent to the rock arm, a link connecting the slide with the lever, an oppositely disposed lever mounted on the other end of the rock shaft, and connections from that lever and on the opposite side of the machine from the rock arm connected with a depending controller rod, a depending controller rod and automatic means independent of the controller rod and coöperating with it to automatically govern the movement of the controller rod.

3. The combination in an embroidery sewing machine having a vertically and laterally movable needle-bar, of a depending slotted pivoted needle-bar rock arm, a slide mounted in the rock arm, connections between the slide and the needle bar, a vertically extending link connected to the slide, a rock shaft above the plane of the sewing machine, a lever mounted on the end of the rock shaft adjacent to the rock arm, a link connecting the slide with that lever, an oppositely disposed lever mounted on the other end of the rock shaft, and connections from that lever and on the opposite side of the machine from the rock arm connected with a depending controller rod a depending controller rod, and automatic vertically operated means independent of the controller rod and cooperating with it to automatically lift the controller rod.

4. The combination in a sewing machine having a vertically and laterally movable needle, of a slotted pivoted needle bar rock arm, slide and connections to control the lateral throw of the needle, a controller rod, a support for the sewing machine, a cradle pivoted to the support and provided with a member to coöperate with the controller rod, a stub shaft, a driven pulley mounted loosely upon the stub shaft, a drive pulley loosely mounted upon the stub shaft and adapted to have a relative longitudinal movement on the stub shaft, a pulley adapted to cooperate with the drive pulley, a cam carried by this latter pulley, a wiper carried by the cradle adapted to be operated by the cam, and means to move the drive pulley laterally to engage the driven pulley.

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1,089,752. ROTARY EXPANSION-ENGINE. RUDOLF EISERMANN, Berlin, and JOSEF LEHNE, Charlottenburg, Germany, assignors to The American Rotary Machine Company, New York, N. Y. Filed Jan. 26, 1911. Serial No. 604,880. (Cl. 121—76.)



1. A rotary expansion engine, comprising a casing having end walls forming parallel cam surfaces, a rotary member in the casing forming working chambers between its ends and the cam surfaces of the casing, axially movable pistons in the rotary member engaging said surfaces and arranged to work in periods alternating by an angle of 180 degrees, and means to admit fluid to each end of the rotary member during such angle of revolution that the admission periods of the ends overlap each other.

2. A rotary expansion engine comprising a casing having end walls forming parallel cam surfaces, a rotary drum in the casing forming working chambers between its ends and the cam surfaces of the casing, an axially movable slide mounted in a radial slot in the drum and engaging said cam surfaces, and means to admit fluid to each working chamber during such an angle of revolution that the admission periods to both chambers overlap each other.

3. A rotary expansion engine comprising a casing having end walls forming parallel cam surfaces, a rotary drum in the casing forming working chambers between its ends and the ends of the casing, a hollow shaft carrying said drum and having a port therein near each side of the drum, a valve in the hollow shaft having a plurality of ports corresponding to each port of the shaft, a stationary bush interposed between the valve and shaft and provided with a plurality of ports arranged to connect one or more ports of the valve with the ports of the shaft at each side of the drum, for the purpose specified.

4. A rotary expansion engine comprising a casing having end walls forming parallel cam surfaces, a rotary drum in the casing forming working chambers between its ends and the ends of the casing, an axially movable slide mounted in a radial slot in the drum and engaging said cam surfaces, a hollow shaft carrying said drum and having a wide port near each side of the drum, a valve in said shaft and provided with a large and two small ports near each side of the drum, a stationary bush interposed between said valve and shaft and having two ports located near each end of the drum, the relative arrangement of said ports being such that none, or both, or only the large port of the valve is in communication with the interior of the valve and the port in the shaft being of such circumferential length that in a certain position it communicates simultaneously with both ports in the bush, for the purpose specified.



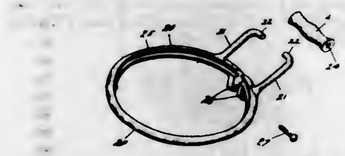
1,089,753. SAFETY-GUARD FOR RAZORS. LOUIS W. FARQUHAR, St. Louis, Mo. Filed Jan. 24, 1913. Serial No. 743,956. (Cl. 30—12.)



An attachable and adjustable guard for razor-blades made of a single piece of thin resilient sheet-metal cut into a blank to form two parallel blade-engaging plates integrally connected intermediate their ends by a narrow neck arranged at right angles to said plates, one of said plates being wider than the other and provided with teeth at its outer edge, said neck being bent centrally into a loop to bring the plates into substantial parallelism whereby they will lie throughout their whole extent snugly against opposite sides of a razor blade below the back and from toe to heel thereof, with the said narrow neck projecting from the central portion only of the blade, a single non-rotatable bolt extending through both ends of said bent neck between the said loop and the points of connection of the neck with the plates, and a thumb-screw threaded upon the bolt for bringing the plates into clamping engagement with opposite faces of the razor blade.

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1,089,754. AIR-TIGHT CLOSURE AND CLAMP THEREFOR. EDMUND J. FEENY, Muncie, Ind., assignor to The Feeny Manufacturing Company, Muncie, Ind., a Corporation of Indiana. Filed Mar. 11, 1912. Serial No. 682,901. (Cl. 220—64.)



1. A combined clamping ring and handle comprising a split ring, a handle arm carried by each end of the ring, said handle arms each having a finger projected toward the finger of the other arm, a hand piece formed at its ends to interengage with the fingers of the handle arms, and a clamping member for clamping the ends of the ring together.

2. A combined clamping ring and handle comprising a split ring, and outwardly projecting arms carried by the adjacent ends of said split ring, the said arms carrying a cross member extending between the arms and forming a hand piece which may be grasped in the hand of an operator with the fingers lying between the outwardly projecting arms, and a clamping member for clamping the ends of the ring together independently of said arms.

3. A combined clamping ring and handle comprising a split ring, a handle arm carried by each end of the ring, a hand piece, the said hand piece and handle arms having interengaging portions, and a clamping member for clamping the ends of the ring together and simultaneously holding the hand piece in engagement with the handle arms.

4. The combination of a pair of members to be clamped together, said members provided with mating flanges, a split clamping ring internally formed to receive and clamp together the said flanges, a handle arm carried by each end of said split ring, and a clamping member for clamping the two ends of the ring together.

5. The combination of a pair of members to be clamped together, said members provided with mating flanges, a split clamping ring internally formed to receive and clamp together the said flanges, a handle arm carried by each end of said split ring, a hand piece, said hand piece and the two handle arms being formed for interengagement, and a clamping member for clamping the ends of the split rings together upon the flanges and for simultaneously holding the handle arms and hand piece in engagement.

[Claim 6 not printed in the Gazette.]

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1,089,755. CLUTCH FOR SCARF-PINS, HAT-PINS, AND THE LIKE. ROBERT FISCHER, New York, N. Y., assignor to Max H. Fischer, East Orange, N. J. Filed Sept. 13, 1910. Serial No. 581,810. (Cl. 24—155.)



1. In a clutch for scarf-pins, hat-pins and the like, the combination with a pin-receiving member having a hole in one end and an inclined face, of a carrier,—the said carrier and pin-receiving member being capable of relative longitudinal movement,—a gripping device carried by said carrier and moved by engagement with the inclined face of the pin-receiving member, and an operating part for said carrier comprising an outer envelop substantially inclosing the pin-receiving member and other parts of the clutch.

2. In a clutch, the combination of a body portion, a gripping device carried by the body portion and so guided as to be capable of lateral movement only with reference thereto, and a member within the said body, capable of movement in a line perpendicular to that of the gripping device, the said member having a bore parallel with its line of movement and also having a portion with an inclined surface adapted to engage and move the gripping device.

3. In a clutch, the combination of a body portion, a gripping device carried by the body portion and so guided as to be capable of lateral movement only with reference thereto, a member within the said body, capable of movement in a line perpendicular to that of the gripping device, the said member having a bore parallel with its line of movement and also having a portion with an inclined surface adapted to engage and move the gripping device, and means for automatically bringing the said member into engagement with the gripping device.

4. A clutch comprising a gripping device and means for supporting same, a spring, an operator moved by the spring and adapted to operate and give gripping power to the gripping device, proportional to the strength of the spring, and a casing inclosing all of the aforesaid parts save a relatively small portion of the operator, the said portion being so situated with reference to the direction of movement imparted to it by the spring, that external pressure applied to it will supplement the action of the spring and augment the gripping power.

5. A clutch comprising a carrier having a central bore and one or more transverse holes communicating therewith, a gripping device confined in each hole, a casing nearly inclosing the carrier and partially supported thereby, but movable with reference thereto, the said casing having an interior inclined portion adapted to engage and move the gripping devices, and an aperture opening into the small part thereof, and a superimposed casing, open at one end and attached at the other end to the carrier.

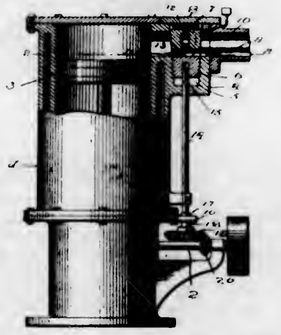
[Claim 6 not printed in the Gazette.]

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1,089,756. VALVE. EDWARD G. FISHER, Washington, D. C. Filed Dec. 31, 1912. Serial No. 739,499. (Cl. 123—190.)

1. The combination with a cylinder having a piston therein and a single port in one wall of the cylinder, of a

valve casing having a tapered seat therein and a pair of ports through the wall of the casing diametrically opposite the port in the cylinder, one of the latter ports being immediately below the other, a tapered cylindrical valve within said casing and of less length than the seat, said valve having an inlet and outlet port extending transversely therethrough and intersecting its center, one immediately above the other, said ports being crossed with each other and at an angle less than a right angle, both of said ports communicating with the single port in the cylinder and separately with the ports in the casing, a cap at the upper end of the casing and a spring between the cap and end of the valve to direct pressure on the valve.



2. The combination with a cylinder, a piston, a shaft to drive the piston and a gear on the shaft, of a casing on the cylinder having a tapered seat, a tapered valve fitting the seat and of les length than the seat, said cylinder having a single port communicating with the casing, said casing having a pair of ports diametrically opposite the single port, said valve having a pair of crossed ports one immediately below the other and extending centrally through the valve, both of said crossed ports communicating with the single port in the cylinder and separately with the ports in the casing, a vertically extending shaft projecting through the lower end of the casing, the upper end thereof being square, the lower end of the valve having a square opening to receive the squared end of the shaft, the opening being greater in length than the squared portion of the shaft, and a gear at the lower end of the vertical shaft to engage the gear on the driving shaft, said latter gear being less in diameter than the gear on the vertical shaft whereby the valve will be rotated slower than the driving or crank shaft.

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1,089,757. TUNGSTEN MANUFACTURE. THEODORE W. FERCH, Jr., Cleveland, Ohio, assignor to General Electric Company, a Corporation of New York. Filed Oct. 9, 1912. Serial No. 724,825. (Cl. 176—132.)

1. The step in the manufacture of tungsten for use in incandescent lamp filaments which consists in adding to a tungsten bearing material a relatively small amount of a compound of thorium and heating the mixture under oxidizing conditions.

2. The process of preparing a compound containing tungsten for subsequent reduction to tungsten and the drawing of the said tungsten down to wire which consists in heating said compound under oxidizing conditions with a compound of thorium.

3. The process of preparing an oxid of tungsten for subsequent reduction to tungsten and the drawing of the said tungsten down to wire which consists in heating said oxid under oxidising conditions with a compound of thorium.

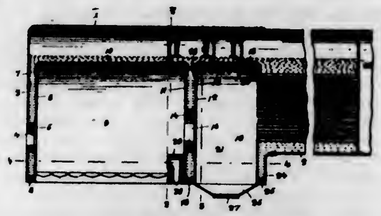
4. The process of preparing an oxid of tungsten for subsequent reduction to tungsten and the drawing of the said tungsten down to wire which consists in heating said oxid under oxidising conditions with a compound of thorium which is broken up upon heating to produce an oxid of thorium.

5. The process of preparing tungstic oxid for subsequent reduction to tungsten and the drawing of the said tungsten down to wire which consists in heating said oxid under oxidizing conditions with a compound of thorium.

[Claims 6 and 7 not printed in the Gazette.]

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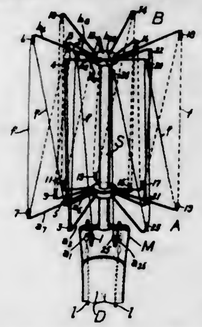
1,089,758. BOILER. LEWIS D. FREEMAN, Pittsburg, Kans. Filed Feb. 17, 1913. Serial No. 748,930. (Cl. 122—64.)



The combination with a boiler having flue sheets and flues therein, of a primary combustion chamber, a secondary combustion chamber, a water partition dividing the secondary and primary combustion chambers and having a plurality of ports therein, the combined area of which is greater than the combined area of the flues, and air inlets leading into the primary combustion chamber adjacent the partition.

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1,089,759. FILAMENT-MOUNTING. EDGAR S. GARDNER, Acquackanonck, N. J., assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1910. Serial No. 599,357. (Cl. 176—39.)



1. In an incandescent lamp, the combination of a central supporting stem, a plurality of groups of alternately long and short filament carriers mounted on said stem, a continuous filament extending back and forth between the carriers of said groups in a plurality of sections, filament sections adjacent to a carrier of one group, extending to carriers of the other group which differ from one another in length.

2. In a filament system the combination of a central supporting stem, two suitably spaced groups of filament carriers mounted thereon, the engaging portions of the carriers of each group being alternately relatively long and relatively short distances from said supporting stem, a continuous filament mounted on said carriers in a plurality of successive sections in such manner that when the first section under consideration is parallel with said supporting stem, the second section forms an angle therewith, the third section is parallel with said supporting stem and the fourth section forms an angle reverse to the angle of said second section with respect to said supporting stem.

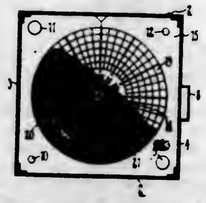


3. In a filament mount, the combination of a suitable supporting member and a plurality of carriers at each end of the mount alternately projecting relatively long and relatively short distances radially from said member, and a filament extending back and forth in a plurality of lengths from one end of the mount to the other on said carriers, the filament after passing from a long carrier at one end of the mount to a long carrier at the other extending in successive lengths back again to a short carrier at the end of the mount first referred to, then from this short carrier to a short carrier at the other end, then back yet again to a long carrier at the end of the mount first referred to, in further lengths traversing long and short carriers in like order of succession.

4. In a filament mount, the combination of two separated groups of carriers radiating from a supporting member, the carriers of each group being relatively long and relatively short alternately, and a filament extending back and forth between the carriers of the two groups in a plurality of lengths, lengths extending between long carriers in the respective groups and lengths extending between the short carriers adjacent to such long carriers having their opposite ends directly connected by lengths which extend from a long carrier of one group to a short carrier of the other and thus have a component of divergence from the lengths which they connect radially with reference to said member, and the short carriers of each group making smaller angles with the supporting member than do the long carriers so as to facilitate the stringing of the filament.

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1,089,760. TIME-RECORDER. GEORGE W. GIBBS, New York, N. Y. Filed Dec. 10, 1912. Serial No. 736,012. (Cl. 234—39.)



A time recorder comprising a plurality of printing keys, a rotating dial or recording surface divided into units of time, clock mechanism adapted to rotate the dial at the speed of and in the direction of the hour hand of the clock, and a transferring medium consisting of a sheet of carbon-paper having concentric bands varying in diameter and color superimposed on said dial to rotate with it, said carbon-paper being adapted to receive and transfer to the dial the impresses of the keys in different colors at different radial locations.

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1,089,761. MITER-BOX. CHARLES CLINTON GLADWIN, New York, N. Y. Filed Oct. 6, 1913. Serial No. 793,604. (Cl. 143—86.)

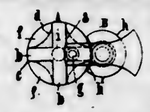


1. A miter-box comprising a channeled receptacle provided with guide slots in the side walls thereof, said side walls being of different heights, a vertically adjustable support carried by the higher of said side walls and located intermediate said slots, said vertically adjustable support consisting of a supporting plate provided with slots, binding screws passing through said slots and engaging the adjacent side wall, a cover plate carried by said supporting plate extending over the gap between said side walls, said cover plate being provided with a slot, a lever pivoted in said slot, a clamping cam carried by said lever and extending into said gap, and auxiliary clamping screws carried by the lower side wall.

2. A miter-box comprising a channeled receptacle provided with guide slots in the side walls thereof, said side walls being of different heights, a vertically adjustable support carried by the higher of said side walls and located intermediate said slots, said vertically adjustable support consisting of a supporting plate provided with slots, binding screws passing through said slots and engaging the adjacent side wall, a cover plate carried by said supporting plate extending over the gap between said side walls, said cover plate being provided with a slot, a lever pivoted in said slot, a projection carried by said lever extending into said gap, a portion of said extension consisting of a clamping cam and a straight portion extending therefrom in parallelism with the bottom surface of said gap, an auxiliary clamping screw carried by the cover-plate of said support, and auxiliary clamping screws carried by the lower wall.

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1,089,762. MECHANICAL MOVEMENT. GASTON VICTOR JUSTIN GUILBERT, Paris, France. Filed Nov. 6, 1912. Serial No. 729,816. (Cl. 74—41.)



1. In a mechanical movement, the combination with a continuously rotating driving element comprising an actuating member and a braking member, of a driven element adapted to be intermittently rotated by said driving element, said driven element having a series of recesses for engagement with said braking member and a second series of recesses located in a plane different from that in which said first series of recesses is located, so as to leave a disk-like strengthening portion between said first and second series of recesses, the said second series of recesses being adapted to be successively engaged by said actuating member.

2. In a mechanical movement, the combination with a continuously rotating driving element comprising an actuating member and a braking member, of a driven element adapted to be intermittently rotated by said driving element and consisting of an integral disk having a series of recesses for engagement with said braking member and a second series of recesses located in a plane different from that in which said first series of recesses is located and adapted to be successively engaged by said actuating member.

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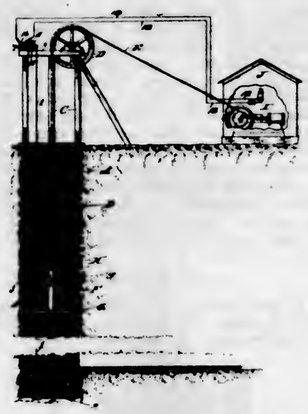
1,089,763. SIGNAL APPARATUS FOR MINES. ALBERT J. GURNEY, Herrin, Ill. Filed June 21, 1913. Serial No. 775,073. (Cl. 116—63.)

1. The combination with a mine shaft and a cage operable therein, of a flexible signal member arranged in said shaft in the path of movement of said cage and secured at one end to the shaft, a signal device secured to the other end of said flexible signal member, and manually operable means carried by said cage by which said flexible signal member may be flexed to cause it to operate said signal device.

2. The combination with a mine shaft and a cage operable therein, of a flexible signal member arranged in said shaft in the path of movement of said cage and secured at one end to the shaft, a signal device secured to the other end of said flexible signal member, and rockable means carried by said cage by which said flexible signal member may be flexed to cause it to operate said signal device.

3. The combination with a mine shaft and a cage operable therein, of a flexible signal member arranged in said shaft in the path of movement of said cage and se-

cured at one end to the shaft a signal device secured to the other end of said flexible signal member, and a pair of rockable members carried by said cage between which said flexible signal member may be flexed to cause it to operate said signal device.



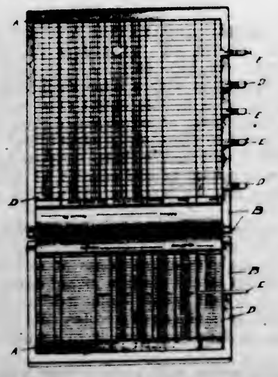
4. The combination with a mine shaft and a cage operable therein, of a flexible signal member arranged in said shaft in the path of movement of said cage and secured at one end to the shaft, a signal device secured to the other end of said flexible signal member, and a pair of rockable wheels carried by said cage between which said flexible signal member may be flexed to cause it to operate said signal device.

5. The combination with a mine shaft and a cage operable therein, of a flexible signal member arranged in said shaft in the path of movement of said cage and secured at one end to the shaft, a signal device secured to the other end of said flexible signal member, a rock shaft carried by said cage, a carrying bar attached to said rock shaft, a pair of members carried by said carrying bar, and means for operating said rock shaft to move the members carried by said carrying bar to cause the said flexible signal member to be flexed thereby for the operation of said signal device.

[Claims 6 to 9 not printed in the Gazette.]

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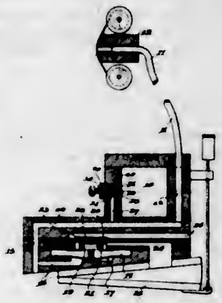
1,089,764. READY-BALANCE SHEET. ELMER B. HIGH, Macungie, Pa. Filed Oct. 23, 1912. Serial No. 727,415. (Cl. 11—19.)



A ready balance for facilitating bank bookkeeping comprising a sheet upon which daily entries are designed to be made, detachable tabs formed integral with one edge of the sheet and adapted to fold against the face of the sheet, the portion of the sheet against which said tabs fold and the tabs themselves each being half the thickness of the body portion of the sheet, making the outer faces of the tabs and face of the sheet flush, said tabs being folded and adapted to be severed along a line flush with the edge of the sheet, as set forth.

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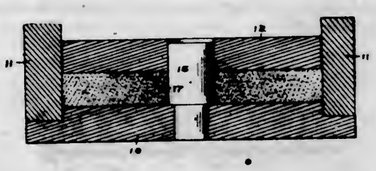
1,089,765. PNEUMATIC PLAYER-ACTION. EMORY C. HISCOCK, Chicago, Ill., assignor to W. W. Kimball Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 2, 1910, Serial No. 546,309. Divided and this application filed Sept. 17, 1910. Serial No. 582,451. (Cl. 84—178.)



In a pneumatic player action of the character described, the combination with the action-bellows, the action-bellows valve, the diaphragm controlling said valve, and the tracker-range, of a main exhaust chamber having an unobstructed front wall and a duct formed in said front wall and communicating through its lower end with one side of said diaphragm and with the tracker range, of a vent valve casing mounted in said front wall of said exhaust chamber and communicating interiorly with said exhaust chamber and said duct, and a needle-valve adjustably mounted in said valve-casing and controlling communication between the interior of the latter and said exhaust chamber, substantially as described.

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1,089,766. GRINDING-WHEEL. FREDERIC B. JACOBS, Indianapolis, Ind. Filed June 23, 1913. Serial No. 775,381. (Cl. 51—1.)



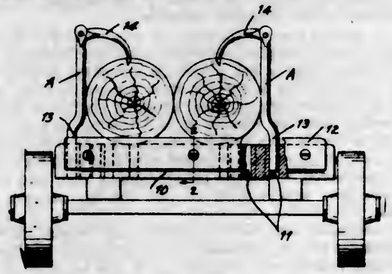
1. As an article of manufacture, a grinding wheel of gradually increasing density from its periphery toward its center.

2. As a new article of manufacture, a grinding wheel of varying compactness, said compactness being the same at all equal radial distances from the axis of the wheel.

3. As a new article of manufacture, a grinding wheel composed of granular material, said material varying radially and uniformly in compactness.



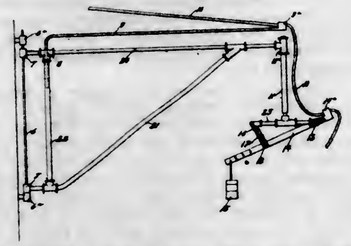
1,089,767. LOAD-RETAINING DEVICE FOR LOGGING-WAGONS. THOMAS JOHNSTON, Dickson, Tenn. Filed June 12, 1913. Serial No. 773,279. (Cl. 21—54.)



In a load retaining device for wagons the combination of a bolster having a plurality of vertical passages therein, a pair of stakes adapted for interchangeable insertion in said passages, said stakes each having their terminals offset, and a hook pivoted to the upper end of each stake.

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1,089,768. SWINGING BRACKET. MARSHALL W. KEITH, Kent, Ohio. Filed Oct. 6, 1913. Serial No. 793,581. (Cl. 248—5.)



1. A bracket comprising a projecting arm, a vertically and horizontally swinging bar connected thereto, and provided with means to support a conduit or the like, and a supplemental horizontally swinging arm pivotally mounted on said arm and provided with means to support said conduit.

2. A bracket comprising a horizontally swinging arm, a cross piece connected thereto, a vertically swinging bar pivoted to said cross piece and provided at one end with means to engage a conduit or the like, and a stop connection between said bar and cross piece adapted to limit the swing of the former.

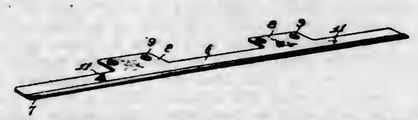
3. A bracket comprising a horizontally swinging member, a vertically swinging member pivoted thereto and provided with a device to engage a conduit or the like, and a supplemental horizontally swinging arm pivotally mounted on the first-mentioned member and provided with a device to engage said conduit.

4. A bracket comprising a horizontally swinging arm, a hanger depending from the outer end thereof, a cross piece at the lower end of said hanger, a vertically-swinging bar pivoted to one end of said bar and provided with a counterweight, and a flexible connection between the other end of said cross piece and the bar, and adapted to limit the swing of the latter.

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1,089,769. DEVICE FOR RETAINING BOOKS IN COVERS. WILLIAM J. KENNEDY, St. Louis, Mo. Filed Nov. 18, 1912. Serial No. 732,126. (Cl. 129—1.)

1. A device for holding a book in a binder of loose leaf type, the said device comprising a body portion provided at one edge with an extension adapted to project through the back of a book to provide for the connection of said device to the binder, the said body portion being provided with prongs adapted to enter a leaf of the book to hold the book from movement relative to said body portion.

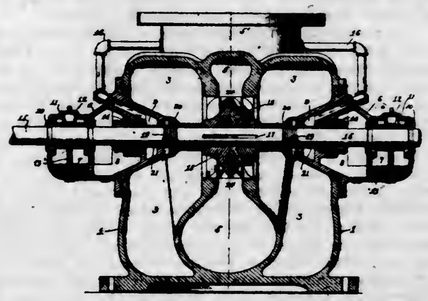


2. A device of the character described comprising a body portion, prongs formed thereon, perforated ears formed on the body portion, which ears are adapted to project through the back of the book, to be supported on posts of a post binder, substantially as specified.

3. A device for holding a book in a loose leaf binder, the said device consisting of a single leaf of thin sheet metal provided at its outer edge with a perforated extension adapted to be connected to the binder, the inner terminal edge of said single leaf of thin sheet metal being folded to produce a single stiffening rib adapted to lie between the leaves of the book.

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1,089,770. CENTRIFUGAL PUMP. CHARLES V. KERR, Wellsville, N. Y., assignor to McEwen Bros., Wellsville, N. Y., a Corporation of New York. Filed June 21, 1911. Serial No. 634,568. (Cl. 103—43.)



1. A rotary impeller for centrifugal pumps comprising conoidal surfaces having adjoining bases which form a central comb or ridge near the periphery of said impeller, a series of vanes arranged as right and left hand helicoids on said surfaces, said helicoids being generated by a line of constant length which so moves with respect to a fixed straight line with which it constantly forms a right angle that every point of said line shall have a uniform velocity in the direction of said fixed straight line, and said conoidal surfaces being generated by revolving a line about said fixed straight line.

2. A rotary impeller for centrifugal pumps having a conoidal base, all sections of which are normal to the axis being circular with the section of greatest diameter at the center of said base, and a series of vanes arranged as right and left hand helicoids on said conoidal base, said helicoids being generated by a line of constant length which so moves with respect to a fixed straight line with which it constantly forms a right angle that every point of said line shall have a uniform velocity in the direction of and around said straight line, said vanes each having a radial entering edge and a uniform external diameter and terminating in said conoidal base at the section of greatest diameter.

3. A centrifugal pump comprising a casing having a divided inlet and spiral suction chambers, an inner volute conduit connected with said suction chambers by an annular opening or nozzle, and to the discharge, heads attached to said casing and having a pressure chamber, a shaft rotatably supported in said heads and pass-

ing through said pressure chambers, a rotary impeller on said shaft and outside of and adjacent to said annular opening or nozzle and provided on its periphery with a series of oppositely disposed blades so constructed and arranged to take in oppositely moving sheets of fluid in planes at right angles to the axis of the impeller and made to impinge against each other in planes at right angles to the shaft and at the apex of the impeller, to thereby force the fluid from the suction chambers into the conduit through said annular nozzle, a thrust sleeve fixed on said shaft on eacn side of the impeller and between the heads, and means for effecting a fluid pressure in said pressure chambers.

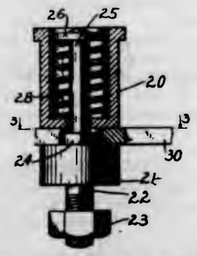
4. A centrifugal pump comprising a casing having a divided inlet and spiral suction chambers, an inner volute conduit connected with said suction chambers by an annular opening or nozzle, and to the discharge, heads attached to said casing and having a pressure chamber therein, a shaft rotatably supported in said heads and passing through said pressure chambers, a rotary impeller on said shaft and outside of and adjacent to said annular opening or nozzle and provided on its conoidal periphery with a series of oppositely disposed helicoidal blades so constructed and arranged to take in oppositely moving sheets of fluid in planes at right angles to the axis of the impeller and made to impinge against each other in planes at right angles to the shaft and at the apex of the impeller, to thereby force the fluid from the suction chambers into the conduit through said annular nozzle, a thrust sleeve fixed on said shaft on each side of the impeller and between the heads, and means for effecting a fluid pressure in said pressure chambers.

5. A centrifugal pump comprising a casing having a divided inlet, spiral suction chambers, and an inner volute conduit connected with said suction chambers by an annular opening or nozzle, and to the discharge, heads having a pressure chamber attached to said casing, a shaft rotatably supported in said heads and passing through said pressure chambers, a rotary impeller on said shaft and outside of and adjacent to said annular opening or nozzle and provided on its periphery with oppositely disposed blades so constructed and arranged to take in opositely moving sheets of fluid in planes at right angles to the axis of the impeller and made to impinge against each other in planes at right angles to the shaft and at the apex of the impeller, to thereby force the fluid from the suction chambers into the conduit through said annular nozzle, a thrust sleeve fixed on said shaft and on each side of the impeller and between the heads, and pipes connecting the interior of each of the pressure chambers with the discharge of the pump.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,771. BINDING-POST. CHARLES F. KETTERING, Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co., a Corporation of Ohio. Filed Nov. 14, 1910. Serial No. 592,293. (Cl. 173—259.)




1. A binding post comprising two confronting clamping members, one of the same having a lock projection extending toward the other member, resilient means for normally maintaining said members in clamping position, and a terminal for clamping between said two members, said terminal being provided with an aperture slightly larger than the contour of said locking shoulder, whereby to permit clamping of the terminal between said clamping members but preventing lateral withdrawal of the terminal without separation of the clamping members.

2. A binding post comprising the combination with two spring pressed clamping members, one of said members being provided with a lock projection extending toward the other member, and a guiding shaft extending from said locking shoulder; of a terminal having a peripheral slot of less width than the contour of said locking shoulder but of greater width than said guiding shaft, and also formed with a central aperture connected with said peripheral slot and constructed of slightly larger contour than said locking shoulder, substantially as and for the purpose described.

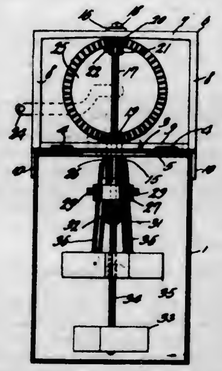
3. A metallic terminal for an electrical element, having a spindle of various diameters; a metallic plate connected to a high tension wire and having a side opening to engage the spindle, the diameter of said opening being larger than the width of its mouth and the smallest diameter of the spindle, while the width of its mouth is smaller than the largest diameter of the spindle; and means whereby the plate may be held in operative engagement with the spindle.

4. A metallic terminal for an electrical element, having a spindle provided with a step of larger diameter than that of the spindle; a metallic plate connected to a high tension wire and having a side opening the diameter of which is larger than that of the step, while the width of the mouth of the opening is larger than the diameter of the spindle, but smaller than the diameter of the step; and means whereby the larger portion of said opening may be held in engagement with the step when the plate embraces and engages the step.

5. A binding post, comprising a hollow clamping member; a coöperating clamping member having a reduced shank extending into said first named clamping member; an enlarged head secured to said shank member; a locking projection secured to said coöperating clamping member and extending toward the opposite member; spring means located about the shank of said coöperating member and operable to maintain the said members in clamping position; and a terminal provided with an aperture slightly larger than the contour of said locking member, said terminal being provided with an opening slot communicating with said aperture of less width than the diameter of said locking projection and of greater width than the diameter of the shank portion of said coöperating clamping member.

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1,089,772. CHURN. GEORGE W. KING, Indian Springs, Tenn., assignor of one-third to J. Nat Bowery, Indian Springs, Tenn. Filed July 12, 1913. Serial No. 778,805. (Cl. 31—43.)



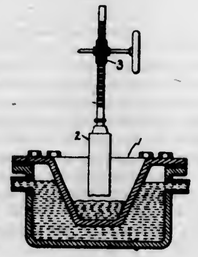
1. In a churn, a receptacle; a shaft; means for supporting the shaft for rotation; a transverse head secured to the shaft and having openings located upon opposite sides of the shaft; a dasher located in the receptacle and provided with converging arms engaged in the openings and bearing against the shaft above the head; and arm-engaging clamping means carried by the head and coöperating with the openings.

2. In a churn, a receptacle; a shaft having opposed longitudinal grooves; means for supporting the shaft for rotation; a transverse head secured to the shaft and having openings alined with the grooves; a dasher located in the receptacle; and resilient arms secured to the dasher, the arms passing through the openings in the head and registering in the grooves.



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1,089,773. METHOD OF MAKING TITANIUM AND OTHER ALLOYS. ERNEST KRAUS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 8, 1911. Serial No. 664,595. (Cl. 75—1).




1. The process which consists in electrically fusing a compound of a highly refractory metal, and introducing into said fusion a metal the heat of formation of the corresponding compound of which is greater than that of said refractory metal, thereby reducing said highly refractory metal compound to the metallic state, and continuing to develop heat electrically in said fusion to produce a fused ingot of metal.

2. The process which consists in fusing an oxid of a highly refractory metal and introducing into said fusion a metal the heat of formation of whose oxid is greater than that of the oxid of said refractory metal whereby reduction of the refractory oxid takes place with the formation of an ingot of metal.

3. The process which consists in fusing the oxid of titanium and introducing aluminium into said fusion, thereby reducing part of said oxid and producing an ingot of titanium and aluminium alloy.

4. The process which consists in fusing titanium oxid and introducing a reducing metal into the fusion, thereby reducing the titanium to the metallic state and causing it to unite to the form of ingot.

5. The process of reducing titanium which consists in melting a reducible compound of titanium and adding a reducing agent while maintaining the said compound in fusion.

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1,089,774. PACKING-RECEPTACLE. HENRY KUECHENMEISTER and ARTHUR A. SEIDEL, St. Louis, Mo. Filed Dec. 19, 1912. Serial No. 737,707. (Cl. 221—11.)



1. The combination of a receptacle having a slot in one of its walls, a discharge spout, means securing said spout to the interior face of the wall of the receptacle adjacent said slot, and an offset nose on said spout extending through said slit and lying parallel with the outer surface of said wall.

2. The combination of a receptacle closed except for a slit in one of its walls, a discharge spout secured to the interior face of said wall adjacent to the slit, an offset portion of said spout extending through said slit to the exterior of the receptacle and lying parallel with the exterior face of said wall adjacent said slit, whereby the slit is closed.

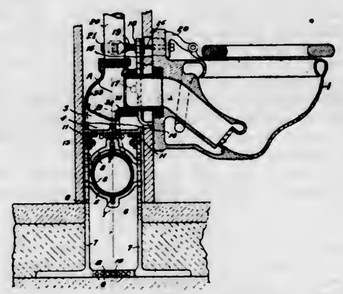
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1,089,775. DECOLORIZING GLYCERIN. FELIX LINDNER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation of Baden. Filed Apr. 26, 1910. Serial No. 557,724. (Cl. 87—4.)

The decolorization of glycerin by treating it (either in solution, or not) with a formaldehyde sulfoxylate, substantially as hereinbefore described.

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1,089,776. PLUMBING-FIXTURE. IRA A. MANN, Pittsburgh, Pa. Filed May 13, 1913. Serial No. 767,304. (Cl. 137—94.)



1. In a building structure, the combination with a horizontal soil pipe and vertical piping connected thereto and lying within a partition, of a wall bowl abutting the partition, connections whereby the said piping carries the bowl, and connections between the said horizontal pipe and the building structure in which the pipe is located, for preventing the rotation of the horizontal pipe about its axis.

2. In a building structure, the combination with a horizontal soil pipe and vertical piping connected thereto and lying within a partition, of a wall bowl abutting the partition, connections whereby the said piping carries the bowl, and means secured to the horizontal pipe and cooperating with the building structure for preventing the rotation of the horizontal pipe about its axis.

3. In a building structure, the combination with a horizontal soil pipe and vertical piping connected thereto and lying within a partition, of means supporting the partition, a wall bowl abutting the partition and communicating with the vertical piping, connections whereby the said piping supports the bowl, and connections between the horizontal pipe and the said means supporting the partition for preventing the rotation of the horizontal pipe about its axis.

4. In a building structure, the combination with a horizontal soil pipe and vertical piping connected thereto and lying within a partition, of a metal framework supporting the partition, a wall bowl abutting the partition and communicating with the vertical piping, connections whereby the said piping supports the bowl, and connections coöperating with the said framework whereby the horizontal pipe is prevented from turning.

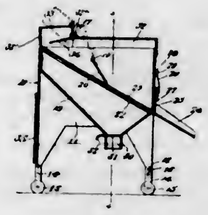
5. In a building structure, the combination with a horizontal soil pipe and vertical piping connected thereto and lying within a partition, of a metal framework supporting the partition, a wall bowl abutting the partition and communicating with the vertical piping, connections

whereby the said piping supports the bowl, and connections coöperating with the said framework whereby the horizontal pipe is prevented from turning, the said framework being adjustable as to width to suit partitions of varying thickness.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,777. SIFTER. OWEN F. MATTINGLY, Washington, D. C. Filed July 13, 1912. Serial No. 709,228. (Cl. 83—60.)



1. A sifter comprising in combination, an inclosing stand structure having shaft openings, a sifter casing loosely disposed in said stand structure and having openings adapted to register with the shaft openings in said stand and engaging the interior of said stand to hold said casing against lateral movement in said stand, a shaft journaled in said casing and stand openings and supporting the casing in said stand, a screen in said casing, an agitator mounted on said shaft in operable relation with respect to said screen, and means for operating said shaft in its bearings to actuate said agitator, substantially as described.

2. In a sifter the combination with a stand, of a casing removably mounted therein, a discharge chute on the stand, a discharge chute on the casing, a screen on the casing and alining with the discharge chute of the stand, closures for the said discharge chutes, a hood on the stand, a closure on the hood and adapted to normally close an entrance to the casing, a shaft, journaled on the said casing and engaging the stand to support the casing therein and an agitator on the said shaft and movable therewith.

3. In a sifter the combination with a stand, of a casing removably mounted therein, a discharge chute on the stand, a discharge chute on the casing, a screen on the casing and alining with the discharge chute of the stand, closures for the said discharge chutes, a hood on the stand, a closure on the hood and adapted to normally close an entrance to the casing, a shaft, journaled on the said casing and engaging the stand to support the casing therein, an agitator on the said shaft and movable therewith, and a baffle plate rigidly mounted on the said hood and projecting across the mentioned entrance to the said casing.

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1,089,778. ELECTRIC TRANSPORTATION SYSTEM. CHARLES B. MCLEER and JOSEPH F. MCLEER, Brooklyn, N. Y., assignors to Electric Carrier Company, of Delaware. Filed May 26, 1911. Serial No. 629,608. (Cl. 172—290.)



1. The combination in an electric transportation system of a casing having interior ribs providing passageways; a track in each of said passageways carried by said ribs; motor members mounted on the ribs on opposite sides of each of said passageways; a carrier having motive power means placed to coöperate with said motor members of the passageways to cause said carrier to be propelled on said tracks through the same; with a conduit mounted on the ribs within the casing but outside of the passageways thereof.

2. The combination in an electric transportation system of a carrier consisting of a container having supporting wheels; laminated structures mounted on opposite sides of said container and provided with windings; contacts on the carrier electrically connected to said windings; a supporting and guiding structure for the carrier; supply conductors placed to be engaged by the contacts on the carrier and connected to a source of alternating current supply; laminated structures mounted adjacent said supporting structure; and closed circuit conductors on said laminated structures.

3. An electric transportation system consisting of a supporting structure; a movable carrier; guiding means therefor; and an electric motive power device for actuating said carrier, the same consisting of an elongated laminated and transversely grooved member mounted on the supporting structure; an elongated plate formed of electrical conducting material slotted to form transverse elements and mounted with said elements in the grooves of the laminated member; and windings on the carrier connected to a source of alternating current supply and placed to coöperate with the elongated member to cause movement of said carrier on said guiding means.

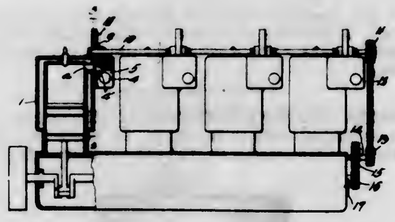
4. An electric transportation system consisting of two sets of carrier guiding structures; means for supporting the same adjacent each other; a carrier movable on said guiding structures; and motive power means for propelling the carrier consisting of a fixed motor member adjacent each set of guiding structures and a fixed motor member mounted to coöperate with a carrier on either guiding structure; windings on the carrier connected to a source of alternating current supply and placed to co-act with the fixed motor members to propel the said carrier.

5. An electric transportation system consisting of an elongated transversely grooved member; an elongated plate formed of electrically conducting material slotted to form transverse elements and mounted with said elements in the grooves of said elongated member; carriers movably mounted to operate adjacent the elongated member, said carriers having windings placed to coöperate with the elongated member and its conducting plate, and a source of alternating current supply connected with said windings.

[Claim 6 not printed in the Gazette.]

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1,089,779. EXPLOSIVE-ENGINE. JAMES M. MORGAN, Royal, Iowa. Filed May 4, 1912. Serial No. 695,200. (Cl. 123—190.)



1. An explosive engine, having a plurality of cylinders, each of which is provided with an intake and an exhaust port in one side and near the head, a projection carried by each cylinder having channels leading to the respective ports of the cylinder, a plurality of rotary valves, one to each cylinder each valve being provided with a single port and disposed between the ports and channels of its respective cylinder and projection, each of said valves also having a portion thereof normally above the cylinder, a power piston in each cylinder, a crank shaft operably connected to all of the pistons, a single shaft disposed longitudinally of and above all of the cylinders and carrying all the valves, and means for operably connecting said valve shaft to the crank shaft.

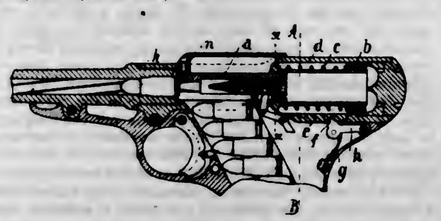
2. An explosive engine, having a plurality of cylinders, each of which is provided with an intake and an exhaust port in one side near the head thereof, a projection carried by each cylinder having two channels one to each port of its respective cylinder, a plurality of rotary valves, one to each cylinder each valve being disposed to intersect the channels and ports of its respective cylinder, each of said rotary valves being provided with a single port, a portion of said valve being disposed above and transversely of the cylinder head, a hood connected to the cylinder and projection and incasing the portion of the valve above the head, a power piston mounted in each cylinder, a crank shaft operably connected to all of said power pistons, a shaft journaled above and longitudinally of all cylinders, and connected to simultaneously operate all of the rotary disk valves, and means for operably connecting said last mentioned shaft to the crank shaft.

3. An explosive engine, having a plurality of cylinders, each of which is provided with an intake and an exhaust port with a transversely disposed valve receptacle intersecting said ports, a plurality of rotary disk valves, one to each receptacle and disposed so that a portion thereof is within the receptacle, each of said rotary valves being provided with a single port to control the respective ports of the cylinder, and being so positioned that a portion thereof is projected above the head of the cylinder, a hood connected to the head of the cylinder and providing a casing for the upper portion of the valve, a power piston mounted in each cylinder, a crank shaft operably connected to all of said pistons, a shaft journaled longitudinally of and above the cylinders, said shaft carrying all of the rotary disk valves, and means for operably connecting said valve shaft to the crank shaft.

4. An explosive engine, having a plurality of cylinders, each of which is provided with an intake and an exhaust port with a transversely disposed valve receptacle intersecting said ports, a plurality of rotary disk valves, one to each receptacle and disposed so that a portion thereof is within the receptacle, each of said rotary valves being provided with a single port to control the respective ports of the cylinder and being so positioned that a portion thereof is projected above the head of the cylinder, a hood connected to the head of the cylinder and providing a casing for the upper portion of the valve, a power piston mounted in each cylinder, a crank shaft operably connected to all of said pistons, a shaft journaled longitudinally of and above the cylinders, said shaft being connected to control the rotary disk valves, means for operably connecting said valve shaft to the crank shaft, and means for supplying lubricant to the recessed portion to lubricate the portion of the valve projected below the head of the cylinder.

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1,089,780. BREECH-ACTION FOR FIREARMS. ADOLF MCLLER-DEUTSCHMANN and DETLEF STRÖH, Eltville-on-the-Rhine, Germany. Filed Dec. 4, 1911. Serial No. 663,912. (Cl. 42—3.)



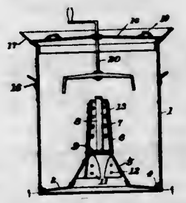

1. In a breech action for automatic fire arms, the combination with a double-walled breech casing whose chambers communicate with each other in the rear, a slidable breech bolt in the inner chamber of said casing, and a spring in the outer chamber for holding said bolt in closed position, of a piston arranged in the outer chamber between the bolt and the spring so that, by means of a liquid introduced between the bolt and the piston, the movement of the former can be communicated to the latter, substantially as set forth.

2. In a breech action for automatic fire arms, a double-walled breech casing, a breech bolt fitted piston-like within the space inclosed by the inner wall of said casing, and a ring-shaped spring-actuated piston in the space between the walls, the spaces being in communication at the rear of the piston so that the movement of the bolt can be transmitted by means of a liquid to the piston, substantially as set forth.

3. In a breech action for automatic fire arms, a double-walled breech casing slidably fitted by means of a guide block in the gun frame so that it can be removed, a spring-actuated latch pivoted to the gun frame and adapted to engage a notch in the casing for securing the latter in position, a breech bolt fitted piston-like within the space inclosed by the inner wall of said casing, and a ring-shaped spring-actuated piston in the space within the walls, the spaces being in communication at the rear of the piston so that the movements of the bolt can be transmitted by means of a liquid to the piston, substantially as set forth.

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1,089,781. CLOTHES-WASHER. WILLIAM MURPHY, Keyser, W. Va. Filed Aug. 11, 1913. Serial No. 784,175. (Cl. 68—30.)



1. A washer comprising a lower conical part adapted to be attached to a supporting base and provided with vacuum cones therein, an upper conical member supported by said lower conical member and provided with perforations and closed at its top, and an outer conical member conforming generally in shape to the shape of said upper conical member adapted to act as a valve member with respect to said perforations when surrounding said upper conical member.

2. A washer comprising a lower base member, a conical member attachably supported by said base member and provided with a plurality of vacuum cones each provided with minute perforations, an upper conical member above said lower conical member provided with perforations and closed at its upper end, and means for regulating the size of the perforations in said upper conical member.

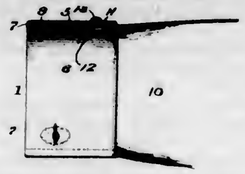
3. A washer comprising a lower base member, a washing device of conical contour thereabove and detachably supported thereby, said washing device being provided with lateral perforations and being closed at its top, and means for controlling the size of said lateral perforations.

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1,089,782. SHIRT-CUFF. ALBERT PARADIS, Philadelphia, Pa., assignor to Samuel Sternberger Company, a Corporation of Pennsylvania. Filed Mar. 7, 1913. Serial No. 752,544. (Cl. 2—79.)

In a shirt, a combined wrist band and a reversible cuff composed of a wrist band section proper, and a cuff section proper, said sections being joined at their front by a fold of the material of the two sections, said sections having registering buttonholes near their side ends for the recep-

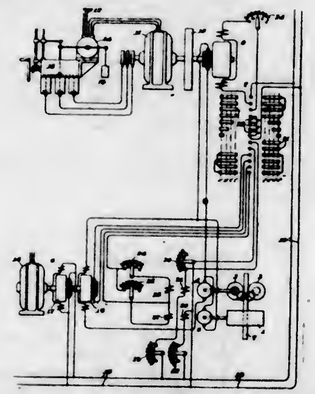
tion of fastenings for controlling said ends, and auxiliary registering buttonholes in the back of the sections rear-



ward of the front fold for the reception of fastenings for controlling said backs at said fold.

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1,089,783. ELECTRIC-MOTOR DRIVE. KARL A. PAULY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 29, 1913. Serial No. 787,276. (Cl. 172—239.)



1. In combination, a plurality of motors, means for causing the speed of one of said motors to depend upon the load thereon, means for reversing said motors, and means for causing said motors to have different relative speeds when their direction of rotation is reversed.

2. In combination, a plurality of motors, means for causing one of said motors to slow down as the load thereon increases, means for reversing said motors, and means for causing said motors to have different relative speeds when their direction of rotation is reversed.

3. In combination, a plurality of motors, means for causing the speed of one of said motors to depend upon the load thereon, means for reversing said motors, and means for changing the field strength of one of said motors when its direction of rotation is reversed.

4. In combination, a plurality of motors, means for causing one of said motors to slow down as the load thereon increases, means for reversing said motors, and means for changing the field strength of one of said motors when its direction of rotation is reversed.

5. In combination, a plurality of motors, means for causing the speed of one of said motors to depend upon the load thereon, means for reversing said motors, a resistance, and means for cutting said resistance into the field circuit of one of said motors when its direction of rotation is reversed.

[Claims 6 to 34 not printed in the Gazette.]

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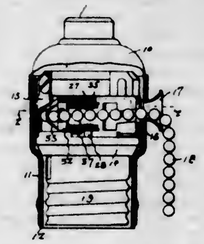
1,089,784. PROCESS OF HYDRATING PHOSPHORUS PENTOXID. SAMUEL PEACOCK, Chicago, Ill., assignor to International Agricultural Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 7, 1912. Serial No. 719,153. (Cl. 23—1.)

1. The process of hydrating phosphorus pent-oxid, $P_2O_5$, which consists in subjecting the same to the action of water at a temperature above 90° C. until sufficient phosphoric acid has formed to produce a solution of substantially 1.2 Baumé, and then maintaining the temperature above 100° C., substantially as described.

2. The process of hydrating phosphorus pent-oxid, $P_2O_5$, which consists in subjecting the same to the action of hot water at a temperature above 90° C. until sufficient phosphoric acid has formed to produce a solution of substantially 1.2 Baumé, and then maintaining the temperature above 100° C., but below the boiling point of said solution, substantially as desceribed.

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1,089,785. ELECTRIC SWITCH. WILBUR G. PEET, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 1, 1913. Serial No. 804,035. (Cl. 173—354.)



1. A switch mechanism comprising an oscillating switch piece, a switch spring for actuating the same, a switch spring abutment movable to shift one end of the switch spring across the axis of oscillation of the switch piece in opposite directions, manually operated means for moving said abutment in one direction and means operative only after alternate manual movements of said abutment in one direction, for moving said abutment to shift the abutment end of said switch spring in opposite direction across the axis of oscillation of the switch piece.

2. In a switch mechanism, an oscillating switch piece, a switch spring operatively connected to oscillate the same, a shiftable abutment for one end of the spring, means for shifting said abutment in opposite directions to move the abutting end of the switch spring past the axis of oscillation of the switch piece, and means operatively engaging said abutment to hold the same against operative movement in the one direction after alternate movements in the opposite direction.

3. In a switch mechanism, an oscillating switch piece, a switch spring for actuating the same, a shiftable abutment for one end of said spring adapted to move the abutting end of said switch spring in opposite directions across the axis of oscillation of the switch piece, manually operated means for shifting said abutment in one direction and spring means for returning it in the other direction, in combination with stop means for halting the spring actuated return movement of said abutment before it has shifted the abutting end of the switch spring across the axis of oscillation of the switch piece.

4. In a switch mechanism, an oscillating switch piece, a switch spring for actuating the same, a shiftable abutment for one end of said spring adapted to move the abutting end of said switch spring in opposite directions across the axis of oscillation of the switch piece, manually operated means for shifting said abutment in one direction and spring means for returning it in the other direction, in combination with stop means for intermittently halting the spring actuated return movement of said abutment before it has shifted the abutting end of the switch spring across the axis of oscillation of the switch piece.

5. In a switch mechanism, an oscillating switch piece, a switch spring for actuating the same, a shiftable abutment for one end of said spring adapted to move the abutting end of said switch spring in opposite directions across the axis of oscillation of the switch piece, manually operated means for shifting said abutment in one direction and spring means for returning it in the other direction, in combination with stop means for halting the spring actuated return movement of said abutment before it has shifted the abutting end of the switch spring across the axis of oscillation of the switch piece, and means for rendering said stop inoperative on alternate spring actuated return movements of the switch spring abutment.

[Claims 6 to 15 not printed in the Gazette.]



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1,089,786. METHOD OF WORKING REFRACTORY METALS. MARCELLO VON PIRANI, Wilmersdorf, near Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1912. Serial No. 733,076. (Cl. 219—1.)

1. The process of reclaiming refractory metal which has become cracked during rolling which consists in locally heating the metal to a temperatoure sufficient to cause the crack to be completely and automatically eliminated merely by heating until said cracked portion becomes homogeneous, and re-rolling said metal.

2. The process of reclaiming refractory metal which has become cracked during rolling which consists in electrically locally heating the same in an inert atmosphere to a point sufficient to cause the cracked portions to automatically reunite into a homogeneous body of metal, and re-rolling said metal.

3. The process of reclaiming refractory metal which has become fractured during rolling which consists in locally heating the metal by electricity in an inert environment by connecting said metal to one pole of a source of current, and moving an electrode connected to the other pole of said source over said metal adjacent the fracture, and thereby raising said metal to a sufficient temperature to cause the imperfect portions to sinter together, and re-rolling said metal.

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1,089,787. INTERMEDIATE SUPPORT FOR BOND-WIRES AND NUT-LOCKS. WELLES M. POST, Elizabeth, N. J. Original application filed Mar. 24, 1909, Serial No. 485,431 Divided and this application filed Jan. 19, 1912. Serial No. 672,190. (Cl. 173—277.)



1. A combined nut-locking and wire-retaining washer formed of a single piece of spring-metal having a curved wire-retaining portion and a nut engaging element.

2. A combined nut-locking and wire-retaining device comprising a flat spring-metal split washer forming a nut engaging element and a curved wire-retaining tongue.

3. A combined nut-locking and wire-retaining device formed of a single piece of spring-metal having a curved wire-retaining portion provided with a bearing terminal extending in one direction and a nut-engaging element extending in another direction from the washer.

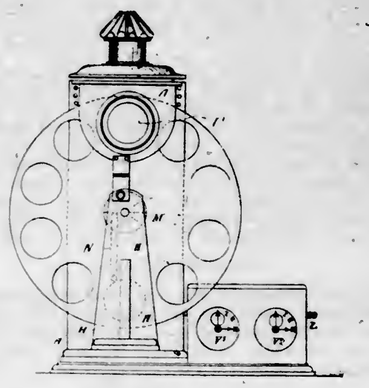
4. In a rail-joint, the combination with the rails, splice bars, bolt and bond-wires; of a nut-locking and wire-retaining device consisting of a spring-metal washer having an integral outwardly bent device for holding the nut and an integral oppositely bent portion for retaining the bond wires.

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1,089,788. AUTOMATIC PROJECTING-LANTERN. JOSEPH QUIGLEY, Dunoon, Scotland, assignor to William James Semple, Glasgow, Scotland. Filed Feb. 10, 1912. Serial No. 676,867. (Cl. 88—27.)

1. The combination with a projecting lantern, of a rotary slide carrying member therefor, a driving cam disk having its axis at an angle to said slide carrying member and provided with means for imparting a step by step movement to said slide carrying member, a shutter device, and a spring controlled actuating bar for said device operated by said cam disk, substantially as described.

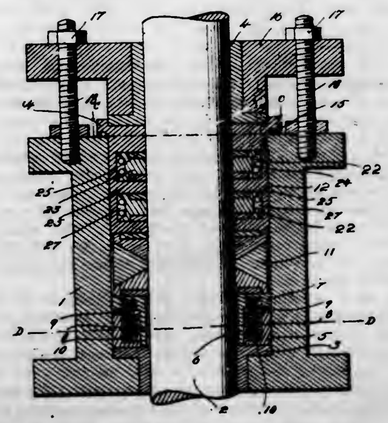
2. The combination with a projecting lantern, of a rotary slide carrying member therefor, a driving cam having its axis at an angle to the said slide carrying member and provided with means for imparting a step by step movement to the said slide carrying member, a shutter device adapted to be operated intermittently, a spring controlled reciprocating actuating bar for the said shutter device, and means carried by the said driving cam disk for actuating the said shutter device and reciprocating bar.



3. The combination with a projecting lantern, of a clock-work mechanism adapted to drive a rotary slide carrying member for the said lantern, a driving cam disk having its axis at an angle to said slide carrying member and provided with means for imparting a step by step movement to said slide carrying member, a shutter device adapted to be operated intermittently, a spring controlled reciprocating actuating bar for the said shutter device, means carried by said driving cam disk for actuating said shutter device and reciprocating bar, and means for arresting at suitable intervals the rotary movement of the slide carrying member.

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1,089,789. PISTON-ROD PACKING. HAKEN WILFRED RAMBERG, Brooklyn, N. Y. Filed Nov. 8, 1912. Serial No. 730,196. (Cl. 121—109.)



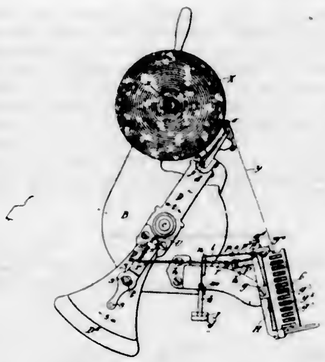
1. In combination a plurality of segments, said segments being arranged to contact only at their inner edges whereby a continuous cylindrical inner surface of a ring is formed, said segments being separated by substantially

V-shaped grooves, said segments being formed with a plurality of coextensive under recesses at opposite sides, a plurality of relatively narrower segments arranged in said under recesses and in staggered relation with respect to said first-named segments, said narrower segments arranged to contact at their inner edges to form a continuous inner surface of a ring, and compression springs coiled around said first-named segments and fitting in the grooves thereof.

2. In a stuffing box, in combination, a shaft, a bushing arranged at the inner end of said shaft, a ring inclosing said shaft at its inner end, a terminal flange formed on said ring and fitting snugly in said stuffing box, a second ring snugly surrounding the greater portion of the unflanged end of said first ring, said second named ring being formed with a plurality of circumferentially-extending relatively elongated recesses, said flange being formed with a plurality of circumferentially-extending recesses arranged to aline with first-named recesses, contractile springs arranged to lie in said pairs of registering recesses and arranged to hold said flanged ring normally spaced from the inner wall of said stuffing box, and means for forcing said flange to compress said springs to cause said first-named ring to engage the inner end of the stuffing box.

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1,089,790. TENSION DEVICE FOR WINDING-MACHINES. FESTUS S. RAND, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Mar. 28, 1913. Serial No. 757,435. (Cl. 242—154.)



1. In a winding machine, the combination with the winding-spindle and thread-guide, of a tension-device, a lever to operate said tension-device to apply pressure on the yarn, weights to operate the lever, flexible means connecting said weights with the lever, a fixed support over which said means leads to hold the weights in suspension, said support arranged to apply a frictional resistance to the movement of the suspension-means to prevent undue vibration of the weights, and means operating automatically to move the point of connection of the weight-suspending means toward the pivot of the lever during the growth of the winding to gradually reduce the tension applied to the yarn.

2. In a winding machine, the combination with the winding-spindle and thread-guide, of a tension-device to apply tension on the running yarn, a lever to operate the tension-device, weights to operate the lever, flexible means for suspending the weights, a fixed support over which said means leads so arranged as to apply frictional resistance to the movement of the suspension-means to prevent undue vibration of the weights, means to connect the weight-suspending means to the lever, and means operating automatically to adjust the connecting-means toward the pivot of the lever during the growth of the winding to relieve the tension applied to the yarn.

3. In a winding machine, the combination with the winding-spindle and thread-guide arranged to recede one from the other during the building up of the cop on the spindle, of means to apply tension on the running yarn, a lever to operate said means, weights to operate the lever, a flexible connection between the weights and the lever, means over which said connection leads to suspend the weights under the influence of gravity in such manner that frictional resistance is applied to the movement of the weight-suspending means to prevent undue vibration of the weights, and means operating automatically during the separation of the spindle and thread-guide to move the connecting point of the weight-suspending means toward the pivot of the lever to relieve the tension applied to the yarn.

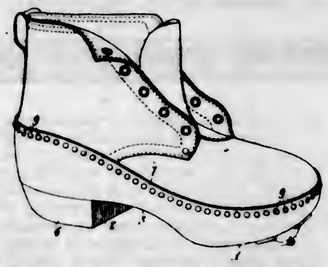
4. In a tension-device for winding machines, the combination with means to apply resistance to the draft of the yarn, of a lever to operate said means, weights to operate said lever, a flexible connection between the weights and the lever, a support over which said connection leads to hold the weights in suspension in such manner that frictional resistance is applied to the movement of the weight-suspending means to prevent undue vibration of the weights, and means to automatically move the point of connection of said suspending-means toward the pivot of the lever to relieve the tension on the yarn.

5. In a tension-device, the combination with means to apply resistance to the draft of the yarn, of a lever to operate said means, weights to operate the lever, means shiftable from one end of the lever to the other, a flexible connection between the shiftable means and the weights, a support over which said connection leads to hold the weights in suspension in such manner that frictional resistance is applied to the movement of the weight-suspending means to prevent undue vibration of the weights, and automatically operated devices to move the shiftable means toward the pivot of the lever to reduce the tension applied to the yarn.

[Claims 6 to 12 not printed in the Gazette.]

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1,089,791. FOOTWEAR. CHARLES REMER, Racine, Wis. Filed Mar. 14, 1911. Serial No. 614,300. (Cl. 36—73.)



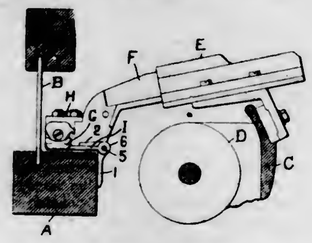
In a device of the class described including a metallic protector for shoes provided with an upstanding continuous marginal guard or flange having a series of perforations, means passing through said perforations and through the vamp of the shoe for securing the guard thereto, the upper of the shoe having its lower extremity bent inwardly and provided with a plurality of nails, an insole adapted to be engaged by the nails of the inturned portion of the shoe and extending over and in engagement with the cushioning member, and a second insole constructed of some soft material adapted to overlie the first named insole.

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1,089,792. LOOM. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Aug. 29, 1912. Serial No. 717,698. (Cl. 139—36.)

In a loom having a lay provided with a reed, and a high take-up roll substantially opposite the lay, in combination with a temple mounted to reciprocate toward and from the take-up roll, a depending heel connected with the temple and in the path of the lay to effect normal movement of the temple upon the beat up, and means to render said heel rigid and immovable relatively to the temple when said heel is struck by the lay and while the

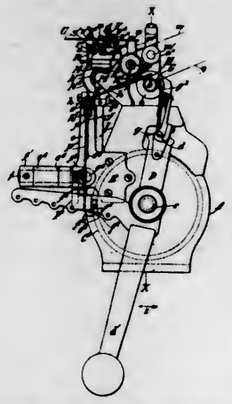





latter remains in engagement with the heel and permitting the heel to move rearward when engaged by the take-up roll on abnormal forward movement of the temple during the trapping of the shuttle between the reed and temple.

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1,089,793. SPEED-CONTROLLING DEVICE. CLAES RYDEN, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Feb. 25, 1913. Serial No. 750,636. (Cl. 242—25.)



1. In a winding machine, the combination with a rotating winding-spindle and reciprocating traverse-guide, of means to regulate the speed ratio between said spindle and guide comprising a shaft, means to drive said shaft from the spindle including a gear normally held rotatively with said shaft, a worm-wheel on said shaft, a worm engaging said worm-wheel, and means to rotate the worm to turn the shaft independently of the gear.

2. In a winding machine, the combination with the rotating winding-spindle and reciprocating traverse-guide, of means for controlling the speed ratio between said spindle and guide comprising a shaft, a gear mounted on said shaft, means to connect the gear rotatively with the winding-spindle, a worm mounted to revolve with the gear about its axis, a worm-wheel on the shaft engaged by said worm, and means to rotate the worm to vary the speed of rotation of the shaft as imparted by the gear.

3. In a winding machine, the combination with the rotating winding-spindle and reciprocating traverse-guide, of means for controlling the speed ratio between the spindle and guide comprising a shaft, a worm-wheel fast on said shaft, a worm engaging said worm-wheel, a gear on the shaft normally keyed rotatively therewith by the engagement of the worm and worm-wheel, means connecting said gear rotatively with the winding-spindle, and means to turn the worm during the rotation of the gear to vary the speed of rotation of the shaft.

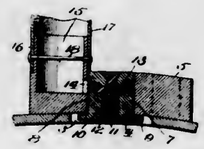
4. In a winding machine, the combination with the rotating winding-spindle and reciprocating traverse-guide, of means for controlling the speed ratio between said spindle and guide comprising a shaft, a worm-wheel fast on said shaft, a gear mounted free on the shaft, a worm engaging the worm-wheel to key said gear with the shaft, means to drive said gear, and means actuated through the revolution of said worm with the gear to turn the worm and vary the speed of rotation imparted to the shaft through the gear.

5. In a winding machine, the combination with the rotating winding-spindle and reciprocating traverse-guide, of means for controlling the speed ratio of the same comprising a shaft, a worm-wheel fast on the shaft, a gear mounted free to turn on the shaft, a worm connected with said gear and engaging the worm-wheel to key the gear with the shaft, and means adjustable to cause a greater or less rotative movement of the worm to vary the speed of rotation imparted to the shaft through the gear.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,794. SAFETY-PLUG. ALBERT C. SANGER, Brunswick, Md. Filed May 13, 1913. Serial No. 767,427. (Cl. 236—16.)



1. The combination with a boiler, of a safety plug having a central bore and diametrically opposed laterally extending bores communicating at their inner ends with the central bore and means to convey water into one or the other of the lateral bores from a point below the plug.

2. The combination with a boiler, of a safety plug having bores extending longitudinally and laterally therethrough, a plate to receive said plug, said plate having openings communicating with the laterally extending bores and means to convey water through said openings and bores.

3. The combination with a boiler, of a safety plug having bores extending longitudinally and transversely therethrough, a plate to receive said plug, said plate having a tubular extension and a passage communicating with the lateral bores at one end and the hollow of the extension at its opposite end, and a pipe extending from the extension to a point below the plug.

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1,089,795. CARRIER FOR MATCH-SPLINTS. FRANK SCHAFER, Philadelphia, Pa., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 6, 1909. Serial No. 526,656. (Cl. 144—65.)



1. A carrier for match splints and the like, comprising punched perforated plates in which the perforation raises ridges which are ground or otherwise made parallel and to a height approximately equal to the thickness of the plate itself, the said ridges being placed face to face and riveted or otherwise secured together forming a match splint carrier.

2. In a device of the character stated, a plurality of plates each having a plurality of perforations punched therein and similarly disposed spacing members formed of said punched material on one face of each plate, and means to secure said plates together in pairs with said spacing members in contact.

3. In a device of the character stated, a plurality of plates each having a plurality of perforations punched therein and similarly disposed spacing members formed of said punched material on one face of each plate, means to secure said plates together in pairs with said spacing members in contact, and link sections securing each pair of plates to the next adjacent pair whereby a match splint carrier is formed.

4. A match splint carrier, including superposed plates having splint-receiving perforations punched therein to produce on their inner faces complementary tubular projections, integral with the plates and in axial alinement with each other, said projections providing elongated guiding and holding members for the splints.

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1,089,796. SIDES UNIT FOR METAL FILING-CABINETS. ADOLPH H. SCHAFFERT, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 2, 1913. Serial No. 739,922. (Cl. 211—27.)



1. A file case section having a permanent sheet-metal wall provided at a plurality of points therein with fastener openings, a separate detachable outside sheet-metal wall-plate coextensive with the permanent wall and having edge-flanges abutting the outer side thereof, said separate wall-plate being provided upon its inner side with a plurality of projecting fastening elements adapted to extend through said fastener openings, and holding means engaging said fastening elements at the inner side of said permanent wall.

2. A file case unit including interchangeable file case sections adapted to be assembled side by side and formed at corresponding points in the side walls thereof with openings, fastening members adapted to pass through registering openings in abutting side walls of adjacent file case sections, detachable protecting and reinforcing plates for the exposed sides of the end file case sections, and fastening members passing through the openings in the said exposed sides of the end file case sections for retaining the protecting and reinforcing plates in position.

3. A file case unit including interchangeable file case sections adapted to be assembled side by side and provided in the side walls thereof with corresponding openings, reinforcing plates applied to the side walls and formed with openings corresponding to the openings in the side walls, fastening members adapted to be inserted through registering openings in the abutting walls of adjacent file case sections to hold the file case sections together, protecting and reinforcing plates for the exposed sides of the end file case sections, and fastening members passing through the openings of the said exposed sides of the end file case sections for holding the protecting and reinforcing plates in position.

4. The combination of a file case section, detachable protecting and reinforcing plates for the file case section, nut plates applied to the protecting and reinforcing plates, spacing blocks interposed between the protecting and reinforcing plates and the file case section and formed with threaded lugs engaging the nut plates, and means cooperating with the spacing blocks to hold the protecting and reinforcing plates in position.

5. The combination of a file case section having openings in the sides thereof, a detachable protecting and reinforcing plate for a side of the file case section, a nut plate applied to the protecting and reinforcing plate, a spacing block interposed between the protecting and reinforcing plate and the file case section, said spacing block being formed with a threaded lug engaging the lug plate and also with a threaded lug passing through an opening of the file case section, and a nut capping the second mentioned threaded lug for holding the protecting and reinforcing plate securely in position.

[Claim 6 not printed in the Gazette.]

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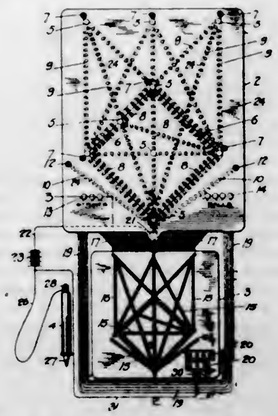
1,089,797. TANNING MATERIAL. OTTO SCHMIDT and JULIUS MÜLLER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 21, 1913. Serial No. 743,297. (Cl. 149—5.)

1. As new articles of manufacture condensation products obtainable from a phenol-sulfonic acid, which new compounds contain sulfur, are practically free from diphenylmethane compounds, and in the form of their alkali salts are practically colorless, amorphous and readily soluble in water, yielding solutions which give intense colorations with ferric chlorid and, after the addition of acid, congulate gum solution, and which tan hides giving a useful leather.

2. As a new article of manufacture the condensation product obtainable from cresol-sulfonic acid, which product contains sulfur, is practically free from diphenylmethane compounds, on heating with dilute sulfuric acid splts off cresol, and in the form of its alkali salts is practically colorless, amorphous and readily soluble in water yielding solutions which give intense colorations with ferric chlorid, and after the addition of acid coagulate gum solution, and which tan hides giving a useful leather.

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1,089,798. ELECTRIC SCORE-BOARD. CHARLES H. SMITH, Worcester, Mass. Filed Dec. 2, 1911. Serial No. 663,522. (Cl. 235—1.)



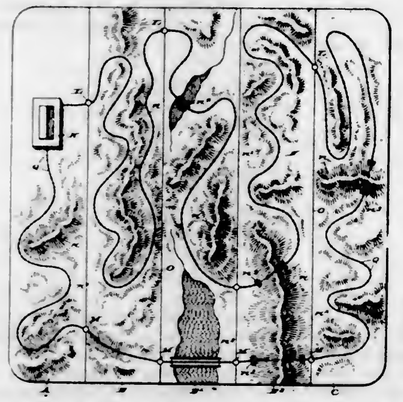
1. In apparatus of the class described, the combination with a score-board having series of lamps arranged at determinate points and along lines between said points, of an operating board having guide ways arranged in correspondence with the arrangement of the lines on the score board, successions of insulated contacts along said guideways separately in circuits with the lamps contained in the series along thr respective lines on the score board, contact sockets at the ends of said guide ways in separate circuits with the lamps at the points at the ends of the corresponding lines on the score board, and a stencil having a contact member connected in said circuits, said contacts being adapted to be successively engaged by said member when continuously moved along said guide ways, and the said member being made to fit any one of the said sockets whereby to hold the stencil in place therein and thus continuously close the circuit in which the socket is connected.

2. In apparatus of the class described, the combination with a score-board having series of lamps arranged at determinate points and along lines between said points, of an operating board having guide ways arranged in correspondence with the arrangements of the said lines on the score board, successions of insulated contacts along said guide ways, separately in circuits with the respective lamps along the respective lines on the score board, and a stencil having a contact member connected in all the circuits and adapted to engage the said contacts when the stencil is moved continuously along the said guide ways, the said stencil and the said guide ways being adapted for the support of the stencils at the ends of the same to continuously close the circuits of the contacts at the said ends.

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1,089,799. TOY RAILROAD SYSTEM. THOMAS CARL SPELLING, New York, N. Y. Filed July 7, 1913. Serial No. 777,752. (Cl. 104—111.)



1. A railroad system of the character described comprising portable base sections, and out-going and return rail sections secured to and carried by each base section adapted when assembled to form a complete system.

2. A toy railroad system of the character described comprising portable base sections bearing topographical formations, and rail sections secured to and carried thereby adapted when assembled to form a complete system, in combination with means for securing the base sections together when in their assembled relation.

3. A toy railroad system of the character described comprising portable base sections bearing topographical formations, and rail sections secured to and carried thereby adapted when assembled to form a complete system, in combination with means for separably securing the base sections together when in their assembled relation.

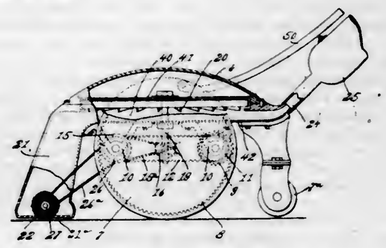
4. A railroad system of the character described comprising portable base sections, and rail sections secured to and carried thereby adapted when assembled to form a complete system, in combination with means for separably securing the base sections together when in their assembled relation, consisting of interfitting edge portions of the base sections and fastening devices to maintain engagement therebetween.

5. A railroad system of the character described comprising portable base sections, and rail sections secured to and carried thereby adapted when assembled to form a complete system, in combination with means for separably securing the base sections together when in their assembled relation, consisting of detachable fasteners at abutting ends of the sections.

[Claims 6 to 29 not printed in the Gazette.]

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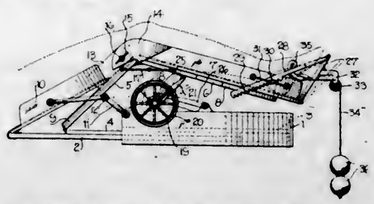
1,089,800. PNEUMATIC SWEEPER. JOHN G. STAMM, Canton, Ohio. Filed May 26, 1913. Serial No. 769,987. (Cl. 15—60.)



A suction sweeper comprising a fan casing, a fan therein, a nozzle projecting from the casing, wheels on which the casing is mounted, driving gearing between the wheels and the fan, a rotary brush at the mouth of the nozzle, and driving mechanism between the wheels and the brush, the gearing between the wheels and fan including a clutch engaging in one direction and permitting slip in the other direction, whereby the brush will be positively driven in opposite direction as the sweeper is moved back and forth, and the fan will be positively driven in one direction and will run free by its momentum, when the sweeper is moved in the opposite direction.

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1,089,801. FRACTURE-BOX. NELS SWANSON, Muscatine, Iowa. Filed Oct. 20, 1913. Serial No. 796,322. (Cl. 128—52.)



1. A device of the class described including a base, an adjustable member carried thereby, a rigid member carried by the base, a thigh box pivotally connected to the adjustable member and having pivotal connection with the base, a bridge plate pivotally connected to the rigid member, a fracture box having its free end movably mounted upon the bridge plate whereby the same will be adjusted simultaneously with the fracture box.

2. A device of the class described including a base, a supporting member pivotally connected thereto, a second supporting member pivotally connected to the outer end of the first supporting member, a fracture box carried by said supporting members, a rotatable shaft carried by the base, an arm carried by the shaft and having pivotal connection with the second supporting member, whereby the fracture box may be raised and lowered upon the rotation of the shaft.

3. A device of the class described including a base, a supporting member pivotally connected thereto, a second supporting member pivotally connected to the outer end of the first supporting member, a bridge plate carried by the first supporting member, a fracture box mounted upon the second supporting member, side members carried by the bridge plate, pins extending outwardly from said side boards, the ends of said fracture box having slots to receive said ends, and means for raising and lowering the fracture box, as and for the purpose set forth.

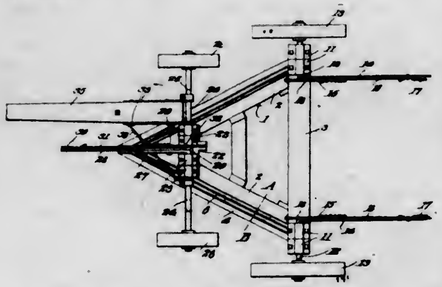
4. A device of the class described including a base, a supporting member pivotally connected thereto, a second supporting member pivotally connected to the outer end of the first supporting member, a fracture box mounted upon the second supporting member, a rotatable shaft mounted upon the base, an arm formed on the shaft and having pivotal connection with the second supporting member whereby rotation of the shaft will adjust the fracture box, a pivoted pawl carried by the base and adapted for engagement with the shaft to prevent rotation of the same.

5. A device of the class described including a base, a supporting member pivotally connected to the base, a second supporting member pivotally connected to the outer end of the first member, a fracture box carried by the second supporting member, a rotatable shaft upon the base, an arm carried by the shaft and having pivotal connection with the second supporting member, a collar carried by the shaft and having a plurality of openings, a pivoted pawl mounted upon the base and having a lug adapted for engagement within said openings to prevent rotary movement of the shaft, as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,802. DITCHER. CHARLES E. WARREN, Helena, Mont. Filed Oct. 4, 1912. Serial No. 723,918. (Cl. 97—12.)



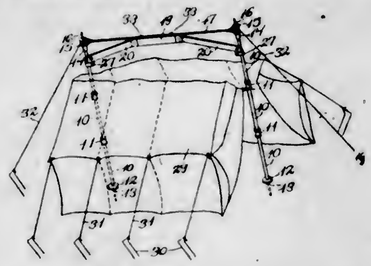
A ditching machine including a transversely extending wheel supported rear beam, means for shifting said wheels to lower or raise the respective ends of the beam, forwardly converging side beams secured at their rear ends to the transverse beam and secured together at their front ends, a wheel supported crank axle extending across the front end portions of the side beams and connected to them, means for rotating said axle to raise and lower the front end portions of the side beams, and scraping blades secured to the outer sides of the side beams, and a vertically adjustable nose plate connected to the front ends of the side beams and in front of the forward ends of the scraping blades, said nose plate being inclined upwardly and rearwardly.

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1,089,803. TENT-SUPPORT. HENRY ORRIS WELLMAN, Somerville, Mass. Filed Feb. 5, 1913. Serial No. 746,392. (Cl. 135—15.)

1. A tent support comprising uprights, a flexible ridge for connecting the upper portion of the uprights, and means for simultaneously exerting spreading pressure against the uprights and upward pressure against the ridge, said means comprising a center piece and braces adapted to engage the ends of the center piece and the uprights.

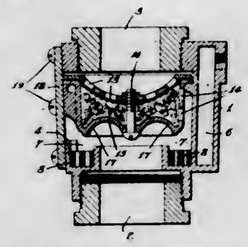
2. A tent support for comprising uprights, a flexible ridge for connecting the upper portion of the uprights, and means for simultaneously exerting spreading pressure against the uprights and upward pressure against the ridge, said means comprising a center piece having end recesses, and two braces, each having one end formed to enter an end recess of the center piece and having the other end recessed to engage an upright, and adjustable clamps carried by the uprights.



3. A tent support comprising uprights, a flexible ridge for connecting the upper portion of the uprights, and means for simultaneously exerting spreading pressure against the uprights and upward pressure against the ridge, said means comprising a center piece having a narrow upper edge to fit the top of a tent, and braces to engage the ends of said center piece and the uprights.

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1,089,804. MIXER FOR GASEOUS FUEL. HERMAN E. WHITING, Palmyra, N. Y., assignor to Garlock Auto Specialty Company, Palmyra, N. Y., a Corporation of New York. Filed Feb. 15, 1911. Serial No. 608,690. (Cl. 48—180.)



1. In a mixer for gaseous fuel, the combination with a body having an inlet and an outlet in opposite walls thereof and also having an opening in one of its walls between the inlet and the outlet, of guides arranged within the body, a mixing device embodying a cup-shaped member having its cup-shaped portion disposed toward the outlet and also having an imperforate wall disposed toward the inlet, the side walls being provided with a number of perforations, and a closure for the opening in the body cooperating with the mixing device to hold the latter against movement.

2. In a mixer for gaseous fuel, the combination with a body having an inlet and an outlet in opposite walls thereof, an opening in one of its side walls between said opposite walls, and a nozzle projecting into the body about the inlet opening, of a mixing device located in the body between the inlet and the outlet and removable through the opening in the side walls, said mixing device having perforated walls permitting the passage of the mixture therethrough and also having an imperforate concave wall against which the mixture impinges as it issues from the nozzle, said concave wall directing the mixture back upon itself before passing through the perforations of the mixer, and a removable closure for the opening in the side wall of the body.



3. In a mixer for gaseous fuel, the combination with a mixing chamber and an inlet nozzle projecting therein, of a mixing device arranged in the chamber and comprising a cupped member, the cupped portion thereof being turned away from the nozzle and supported at its marginal edge, the side walls of said cupped portion being perforated and the bottom wall being concaved and located opposite the nozzle in order to direct the mixture back upon itself before being passed through the perforations.

4. In a mixer for gaseous fuel, the combination with a mixing chamber provided with an inlet and an outlet in opposite walls, and with an opening between the inlet and the outlet, of a mixing device arranged within the chamber between the inlet and the outlet, laterally slidable through said opening and comprising two perforated cupped members, one being received within the other, abutting at their margins, and spaced apart within their margins.

5. In a mixer for gaseous fuel, the combination with a mixing chamber having an inlet nozzle projecting upwardly therein and an outlet at the top of the chamber, said chamber being provided with an opening in its side wall between the inlet and the outlet, the bottom wall of said opening being above the base of the nozzle so that a chamber is formed about the nozzle, of a mixing device arranged between the inlet and the outlet, removable through the opening in the side wall and having an imperforate concaved portion opposite the nozzle, and a closure for the opening in the side wall of the mixer.

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1,089,805. MEDICAL APPLIANCE. GEORG WOLF, Berlin, Germany, assignor to The Firm of Georg Wolf, G. M. B. H., Berlin, Germany. Filed July 11, 1913. Serial No. 778,426. (Cl. 128—28.)



1 In a medical appliance adapted to be introduced into the urinary bladder a dilatable bladder, a tubular member communicating at one of its ends with the interior of the said dilatable bladder, means for dilating this bladder through the said tubular member and tubular means adapted to drain the said urinary bladder extending through the said dilatable bladder, the part extending through this bladder being flexible.

2. In a medical appliance adapted to be introduced into the urinary bladder a dilatable bladder, a tubular member communicating at one of its ends with the interior of the said dilatable bladder, means for dilating this bladder through the said tubular member and tubular means adapted to drain the said urinary bladder lying within the said tubular member and extending through the said dilatable bladder, the part extending through this bladder being flexible.

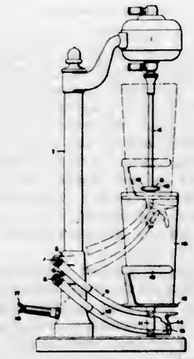
3. In a medical appliance adapted to be introduced into the urinary bladder a dilatable bladder, a tubular member communicating at one of its ends with the interior of the said dilatable bladder, means for dilating this bladder through the said tubular member and two small tubes adapted to drain the said urinary bladder lying within the said tubular member and having each a flexible extension at one end, such extensions reaching through the said dilatable bladder.

4. In a medical appliance adapted to be introduced into the urinary bladder a dilatable bladder, a tubular member communicating at one of its ends with the interior of the said dilatable bladder, means for dilating this bladder through the said tubular member, a resilient metal bow fixed to the said member and adapted to lie against the inner surface of the said dilatable bladder and two small tubes adapted to drain the said urinary bladder lying within the said tubular member and having each a flexible extension at one end, such extensions reaching through the said dilatable bladder.

5. In a medical appliance adapted to be introduced into the urinary bladder a dilatable bladder, a tubular member communicating at one of its ends with the interior of the said dilatable bladder, means for dilating this bladder through the said tubular member, a resilient metal bow fixed to the said member and adapted to lie against the inner surface of the said dilatable bladder, two small tubes adapted to drain the said urinary bladder lying within the said tubular member and having each a flexible extension at one end, such extension reaching through the said dilatable bladder, a supporting body at the end of the tubular member nearest the said dilatable bladder, a headpiece at the other end of the tubular member, a non-return flap within this headpiece, coaxial holes in the said supporting body and the said headpiece and axially directed grooves in the said supporting body.

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1,089,806. LIQUID-MIXER. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed Jan. 9, 1913. Serial No. 741,001. (Cl. 31—63.)



1. The combination with a receptacle, of a shaft extending downward into said receptacle, means for rotating said shaft, and an agitator secured to said shaft, said agitator comprising a disk provided with an inclined hole therethrough near the edge of said disk, the opening of the hole in the bottom of the disk trailing in the direction of rotation behind the opening of the hole in the top of the disk.

2. The combination with a receptacle, of a shaft extending downwardly into said receptacle, means for rotating said shaft, and an agitator secured to said shaft, said agitator comprising a disk having substantially flat top and bottom surfaces and being provided with a plurality of inclined holes therethrough near the edge of said disk, the openings of the holes in the bottom of the disk trailing in the direction of rotation behind the openings of the holes in the top of the disk.

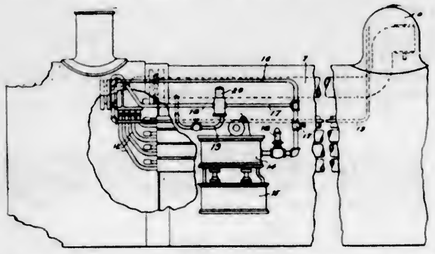
3. The combination with a receptacle, of a shaft extending downward into said receptacle, means for rotating said shaft, and an agitator secured to said shaft, said agitator comprising a disk having substantially flat top and

bottom surfaces and being provided with a plurality of holes therethrough near the edge of said disk, said holes being inclined at an angle to said surfaces, the openings of the holes in the bottom of the disk trailing in the direction of rotation behind the openings of the holes in the top of the disk whereby the liquid in said container is set in whirling motion and pumped downward.

4. The combination with a receptacle of a shaft extending downward into said receptacle, means for rotating said shaft, and an agitator secured to said shaft, said agitator comprising a disk having substantially flat top and bottom surfaces and being provided with a plurality of holes therethrough near the edge of said disk, said holes being inclined substantially 45 degrees to said surfaces, the openings of the holes in the bottom of the disk trailing in the direction of rotation behind the openings of the holes in the top of the disk whereby the liquid in said container is set in whirling motion and pumped downward.

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1,089,807. LOCOMOTIVE SUPERHEATER APPARATUS. CHARLES D. YOUNG, Altoona, Pa. Filed Oct. 1, 1913. Serial No. 792,702. (Cl. 122—460.)



1. In combination in locomotive superheater apparatus for supplying a portion of the superheated steam to the steam cylinder of an air pump, a main superheater for supplying steam to the locomotive cylinders, a supplemental superheater, a connection for supplying steam to said supplemental superheater from the boiler, a connection from the supplemental superheater to the said air pump steam cylinder, and automatic means whereby the supplemental superheater is placed in communication with the main superheater when steam is supplied to the said main superheater from the boiler, and whereby such communication is cut off when the supply of steam to the main superheater is cut off.

2. In combination in locomotive superheater apparatus for supplying a portion of the superheated steam to the steam cylinder of an air pump, a main superheater for supplying steam to the locomotive cylinders, a supplemental superheater, a connection from the supplemental superheater to the said air pump steam cylinder, a communication from the supplemental to the main superheater, and controlling means therein operated by supplying and cutting off the supply of steam to the main superheater for opening and closing the said communication.

3. In combination in locomotive superheater apparatus for supplying a portion of the superheated steam to the steam cylinder of an air pump, a main superheater in communication with the dry pipe of the locomotive for supplying steam to the locomotive cylinders, a supplemental superheater, a separate connection for supplying steam from the boiler to the supplemental superheater, a communication between the two superheaters, a valve in the said communication, and means operated by pressure from the dry pipe for opening the said valve.

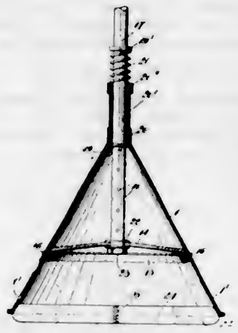
4. In combination in locomotive superheater apparatus for supplying a portion of the superheated steam to the steam cylinder of an air pump, a main superheater in communication with the dry pipe of a locomotive for supplying steam to the locomotive cylinders, a supplemental superheater, a separate connection for supplying steam from the boiler to the supplemental superheater, a communication between the two superheaters, and automatic means for opening the said communication when steam is supplied through the dry pipe and for closing it when the supply of steam is cut off from the said dry pipe.

5. In combination in locomotive superheater apparatus for supplying a portion of the superheated steam to the steam cylinder of an air pump, a main superheater for supplying steam to the locomotive cylinders, a supplemental superheater provided with a communication for supplying steam to a main locomotive cylinder, a communication for supplying steam from the supplemental superheater to the steam cylinder of the air pump, a communication from the boiler for supplying steam to the main superheater, a separate communication for supplying steam from the boiler to the supplemental superheater, and automatic means governed by the supplying and cutting off of steam to the main superheater, for opening and closing the communication for supplying steam from the supplemental superheater to the locomotive cylinder.

[Claims 6 and 7 not printed in the Gazette.]

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1,089,808. CLOTHES-POUNDER. NILS FREDERICK AMBURSEN, Brookline, Mass. Filed Sept. 11, 1913. Serial No. 789,322. (Cl. 68—5.)



1. A clothes-pounder comprising a conical body and an imperforate elastic diaphragm secured to the interior wall of said body at a point intermediate the ends thereof.

2. A cloths-pounder comprising a conical body, an imperforate elastic diaphragm secured to the interior wall of said body at a point intermediate the ends thereof, and a grating arranged below said diaphragm.

3. A clothes-pounder comprising a conical body, an imperforate elastic diaphragm secured to the interior wall of said body at a point intermediate the ends thereof, and a hollow handle for operating said clothes-pounder.

4. A clothes-pounder comprising a conical body, and an imperforate elastic diaphragm secured to the interior wall of said body at a point intermediate the ends thereof, the wall of said body being provided with a vent-hole below said diaphragm.

5. A clothes-pounder comprising a conical body, an imperforate elastic diaphragm secured to the interior wall of said body at a point intermediate the ends thereof, a hollow handle secured to said diaphragm, and resilient means for normally maintaining said diaphragm flexed upwardly.

[Claim 6 not printed in the Gazette.]

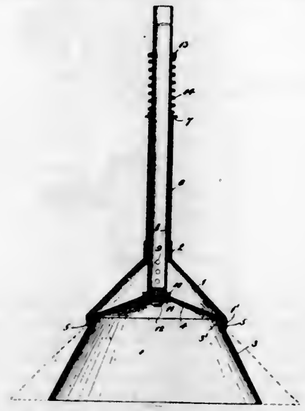
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1,089,809. CLOTHES-POUNDER. NILS FREDERICK AMBURSEN, Brookline, Mass. Filed Oct. 18, 1913. Serial No. 796,017. (Cl. 68—5.)

1. A clothes-pounder comprising a conical body having a beaded lower edge, a second conical body having a beaded upper edge, an elastic diaphragm extending across the first mentioned conical body and having its outer edge compressed between the beaded edges of said conical bodies, and a hollow handle secured to said diaphragm.



2. A clothes-pounder comprising a conical body having a beaded lower edge, a second conical body having a beaded upper edge, an elastic diaphragm extending across the first mentioned conical body and having its outer edge compressed between the beaded edges of said conical bodies, and a hollow handle secured to said diaphragm and resilient means for maintaining said diaphragm flexed upwardly.



3. A clothes-pounder comprising two conical bodies, and an elastic diaphragm, the outer edge of which is compressed between said conical bodies.

4. A clothes-pounder comprising two conical bodies and an elastic diaphragm extending across the same.

5. A clothes-pounder comprising two conical bodies and an elastic diaphragm extending across the same, said diaphragm having a thickened outer edge and said outer edge being compressed between said conical bodies.

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1,089,810. SEED-CORN-DRYING RACK. JOSEPH SMITH BAIN and BENJAMIN LANGFORD BAIN, Cedar Rapids, Iowa. Filed Apr. 14, 1913. Serial No. 761,102. (Cl. 34—26.)



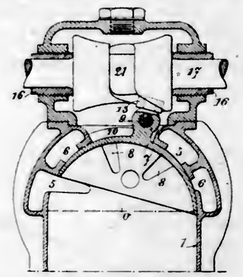
1. In a seed corn drier, combined with a suitable supporting frame, a series of upright slats, notched in staggered order on opposite sides, and corn-ear hangers adapted to rest in said notches, substantially as described.

2. A seed corn hanger comprising upright posts connecting horizontal bars, and upright slats attached to said bars, the slats being provided with notches forming alternating hooks at opposite sides, adapted to retain the corn ear hangers and hangers adapted to rest in said notches.

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1,089,811. DISTRIBUTING APPARATUS FOR ENGINES OR THE LIKE. ERNEST MAURICE BALLOT, Paris, France. Filed Jan. 17, 1911. Serial No. 603,096. (Cl. 123—190.)

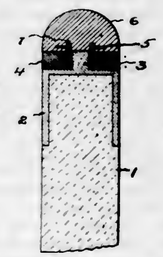
A distributing mechanism of the character described for engines, pumps or the like, comprising in combination a cylinder provided with ports in its head and having a semi-spherical cap provided with inlet and exhaust openings registering with said ports of the cylinder head, a cam with its meridian concentrically arranged to said cap for controlling the oscillation of the same and provided with a groove adapted to be engaged by a projection



of said cap carrying a roller, and springs tending to return the cap to its normal position.

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1,089,812. CUE-TIP. PETER BALZANO, New Haven, Conn. Filed Feb. 14, 1913. Serial No. 748,370. (Cl. 46—9.)



1. In combination, a cue; a cue tip, having a recess in the flat face thereof surrounding a central core; an anvil washer in the bottom of said recess; a ferrule upon said cue, having a stud therein that contacts with said core; and a pronged base block mounted upon said stud with its outer face slightly below the end of said stud.

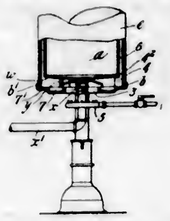
2. In combination, a cue; a ferrule connected therewith, having a stud thereon; a cue tip, having a recess in its flat face surrounding a core, the axis of which is coincident with that of said stud; an anvil washer within said recess; a base block, having prongs thereon, connected with said stud so that the outer face thereof is slightly below the end of said stud, said prongs being so arranged that they enter said recess and are turned outwardly and into the said tip when they engage said anvil washer and hold said tip with its flat face against the end of said stud and the face of said base block, the various flat portions of said face of said tip then occupying different planes.

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1,089,813. HOT-WATER HEATING SYSTEM. JOHN F. BARKER, Springfield, Mass., assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a Corporation of Massachusetts. Filed Nov. 15, 1912. Serial No. 731,486. (Cl. 122—13.)

1. In a hot-water heating system, the combination with a tank for containing the water to be heated, of a bed-plate member for supporting the tank and provided with means to space the lower end of the tank from said member, the member having an opening in the central bottom portion, a jacket-member surrounding and spaced from the tank to afford an annular passageway for the heated products of combustion to pass up and around the tank, said passageway communicating with the space below the lower end of the tank, a burner arranged below the opening in the bed-plate to permit the products of combustion to pass upward into the space below the lower end of the tank, and to cause the heated products of combustion to

spread out in an even manner before they pass upward into the annular space around the tank, and an annular groove formed in the bed-plate and about the burner opening to receive and retain any drippings from the tank that may occur whereby when the bed-plate becomes heated the drippings will be evaporated and pass upward with the heated products of combustion, as described.



2. A bed-plate for supporting hot-water tanks, and formed with an opening in the bottom portion of the same, said portion being depressed in relation to the rim portion thereof to form a channel to receive drippings from the lower end of the tank, said plate being formed with supporting lugs on the rim portion and designed to receive the lower edge of the tank and space the same from the bed-plate, whereby when the heated products of combustion from a burner located below said opening pass upward therethrough they will be spread out before passing upward and around the sides of the tank, and a jacket-member spaced from the side of the tank to confine the heated products of combustion, said jacket-member resting upon the rim portion of the bed-plate, as described.

3. A hood to receive the drippings from the convex lower end of a hot-water tank and comprising a convex upper surface, to direct the drippings to its outer edge, a perforated threaded connection on the hood for attaching the same to the nipple on the lower end of the tank and for affording connection with a circulating pipe, as described.

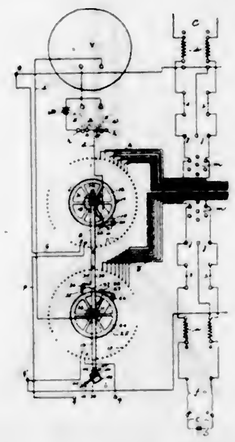
4. A water-heating apparatus comprising a tank to contain the water to be heated, an inclosing shell therefor spaced from the tank, a bed-plate to support the tank and formed with an opening therethrough to permit the heated products of combustion from a burner located below the openings to pass therethrough, said plate having depressions about the opening, a concavo-convex drip-plate located below the lower end of the tank with its convex side uppermost, centrally arranged about the axis of the tank, and extending over the depressed portion of the bed-plate to convey any drippings from the tank to the depressed portion of the bed-plate, whereby when the plate becomes heated the drippings will be evaporated, as described.

5. In a water-heater, the combination with a tank or boiler to contain the water to be heated, a surrounding casing open at its upper and lower end and spaced away from said tank, a bed-plate member to support the tank and casing and having an opening to receive a pipe connection, a convex drip-plate located below the lower end of the tank over the opening and extending over and beyond the edge of the opening in the bed-plate to carry the water of condensation away from said opening, a burner located below the opening to heat the tank, said bed-plate being formed with a depression between the opening and its outer edge portion to receive the drippings, whereby when the bed-plate member becomes heated the water of condensation will be evaporated, as described.

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1,089,814. TESTING SYSTEM AND MECHANISM FOR ELECTRICAL CIRCUITS. CLARENCE E. BEACH and HERMAN W. DOUGHTY, Binghamton, N. Y., assignors to George O. Knapp, New York, N. Y. Filed Apr. 9, 1912. Serial No. 689,588. (Cl. 175—183.)

1. In a testing system, the combination of two switch mechanisms each comprising a plurality of contacts and a movable contact arm coöperating with said contacts, means for transmitting motion between said switch mechanisms, means for limiting said motion so that one complete cycle of movement of one mechanism will cause less than one complete cycle of movement of the other mechanism, and means for holding said transmitting means in inoperative position.



2. In a testing system, the combination of two switch mechanisms each comprising a rotatable contact arm, a brake wheel movable with said arm, a plurality of contacts adapted for successive engagement with said arm, a brake member yieldingly engaging said brake wheel, with a cam connected to move with one of said contact arms, a connecting rod adapted to be operated by said cam, a ratchet mechanism controlled by said rod to operate the other of said arms, and means for holding said connecting rod out of engagement with said cam.

3. In a testing system, the combination of two switch mechanisms each comprising a plurality of contacts for connecting with circuits to be tested and a movable contact arm for engaging with said contacts, a testing circuit adapted for connection with said contact arms and adapted to include a testing instrument, inter-connecting means for said contact arms adapted upon movement of one of said arms to automatically cause movement of the other contact arm, and means for locking said inter-connecting means in inoperative position to allow independent operation of said switch mechanisms.

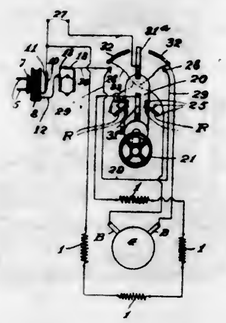
4. In a testing system, the combination of two switch mechanisms, a rotatable contact arm for each switch mechanism and a plurality of contacts adapted for successive engagement with said switch arm, a connecting rod extending between the two switch mechanisms, drive mechanism for connecting said connecting rod with one of said switch arms, actuating mechanism connecting said rod with the other switch arm, means for holding said actuating mechanism in inoperative position, and means whereby one complete revolution of one switch arm will cause operation of the drive mechanism to advance the other switch arm a predetermined part of a complete revolution.

5. In a testing system, the combination of two switch mechanisms, a rotatable switch arm for each switch mechanism and a plurality of contacts therefor to be successively engaged thereby and adapted for connection with circuits to be tested, step-by-step connecting mechanism for said switch arms for causing a predetermined angular advance of one switch arm for each complete revolution of the other switch arm, and means for holding said step-by-step mechanism in inoperative position.

[Claims 6 to 10 not printed in the Gazette.]



1,089,815. ALTERNATING-CURRENT MOTOR. ALONZO C. BELL and THADDEUS R. BELL, Westfield, N. J. Filed July 14, 1910. Serial No. 571,888. (Cl. 172—279.)



1. In combination, a reversible alternating current motor having a commutator, electro-magnetic means controlling the short circuiting of the comutator of the motor, manually controlled contacts, and contacts automatically controlled from the operation of the motor, both sets of contacts being in series circuit with the electro-magnetic means, a current source in said circuit, and means for controlling the direction of rotation of the motor, said means being operatively connected with the aforesaid manually controlled contacts.

2. In combination, a reversible alternating current motor having a commutator, a controller connected with the motor and operable into different positions to operate the motor in one direction or the other, electro-magnetic means for short circuiting the commutator of the motor, contacts closed by the controller when in either of its operating positions and otherwise being open, and contacts normally open and being automatically closed by the motor when at given speed, both sets of contacts being in series circuit with the electro-magnetic means, and a current source in said circuit.

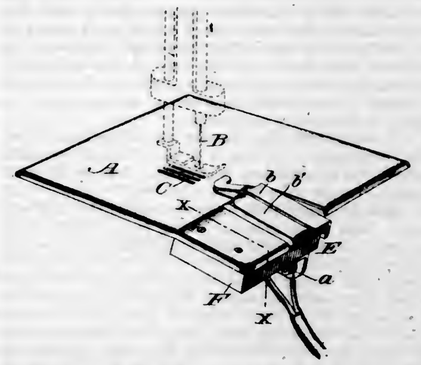
3. In combination, a reversible alternating current motor having a commutator, a controller connected with the motor operable into different positions to operate the motor in one direction or the other, electro-magnetic means which when energized short circuits the commutator, contacts closed by the controller when in either of its operating positions and being opened as the controller is operated from either of its said positions to the other, normally open contacts which are centrifugally closed from the operation of the motor, both sets of contacts being in series circuit with the electro-magnetic means, and a current source in said circuit.

4. In combination, a reversible alternating current motor having a commutator, a controller connected with the motor for operating it in one direction or the other, electro-magnetic means controlling the short circuiting of the commutator of the motor, and contacts in series circuit with the electro-magnetic means and operated from the controller, and a current source in said circuit.

5. In combination, a reversible alternating current motor having a commutator, a controller connected with the motor for operating it in one direction or the other, electro-magnetic means for short-circuiting the commutator of the motor, and contacts in series circuit with the electro-magnetic means and operated from the controller, said contacts being closed to complete the circuit of the electro-magnetic means when the controller is in either of its final operating positions for running the motor in one direction or the other, said contacts being opened as the controller is operated between said final positions, and a current source in said circuit.

[Claim 6 not printed in the Gazette.]

1,089,816. METHOD OF SELVAGE-SEWING. HELEN A. BLANCHARD, Philadelphia, Pa. Filed Oct. 29, 1913. Serial No. 798,053. (Cl. 2—146.)



1. The method herein described of selvage sewing of knitted goods, said method consisting, essentially, in applying heat to the edges of two pieces of goods and immediately joining said edges by stitching.

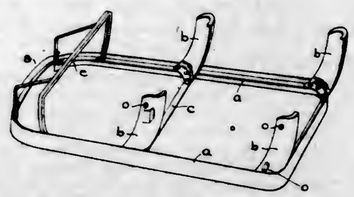
2. As a step in the method herein described, of selvage sewing of goods whose edges have a tendency to curl, the removing of the curl from said edges by heat administered thereto immediately preceding the joining of the edges by stitching.

3. The method herein described of selvage sewing of knitted goods whose edges have a tendency to curl, said method consisting, essentially, in subjecting said edges to the action of heat for the purpose of removing the curl and flattening out the edge and then uniting the edges by stitching before said edges lose their heat and return to normal curled condition.

4. The method herein described of joining the edges of pieces of knitted goods, said method consisting, essentially, in straightening out the curl and laying the edges flat and smooth by the application of heat, and uniting the edges by stitching before they are allowed to cool and re-curl.

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1,089,817. VEHICLE-BODY. MAX ALVINUS BUCH, Sparkbrook, Birmingham, England. Filed Apr. 7, 1913. Serial No. 759,382. (Cl. 21—7.)



1. In a vehicle body, a sheet metal side panel provided with a door opening in which the metal is turned in at its edges, a stiffening strip lying behind and fastened to the turned-in metal of the side panel, said stiffening strip being beaded at its inside edge to protrude into the door opening beyond the turned-in edge of the side panel to form a door jamb, substantially as described.

2. In a vehicle body, a sheet metal side panel, having a door opening wherein the metal is turned over at the edge, a stiffening strip lying behind and fastened to the turned-over edge of the side panel and having a turned-over edge that forms a bead and a wire inclosed within the bead to stiffen the same, the said bead and wire protruding into the door opening and acting as a door jamb, substantially as described.

3. In an automobile body, the combination of a base frame, comprising a vertical web and a flange extending interiorly and substantially horizontally therefrom, rounded metallic corner posts fastened to the base frame and sheet metal panels connecting adjacent corner posts and fastened thereto, said sheet metal panels being turned in at the bottom to provide a sill which may rest upon the base-frame flange and be fastened thereto, the said corner posts being exposed at the outside of the body and shaped to conform to the general lines of the exterior surface of the body, substantially as described.

4. An automobile body, having in combination a base frame comprising a vertical web and a flange extending interiorly and substantially horizontally therefrom, rounded metallic corner posts located at the rear corners of each seat, the said corner posts being secured to the said base frame, a hood frame attached to the forward end of the base frame, a sheet metal panel extending transversely of the base frame and secured at its ends to the corner posts, the said panel having turned-in lower edges that rest upon the said frame and are secured thereto, side panels comprising single sheet metal members having one or more doorways and turned-in lower edges, the turned-in lower edges being adapted to rest upon the flange of the base member and be secured thereto, each of said side panels reaching from the rear corner posts to the hood frame, and a hood of sheet metal adapted to fit over the hood frame and be secured thereto, the said corner posts having their convex faces exposed at the outside of the body and shaped to conform to the general lines of the exterior surface of the body, substantially as described.

5. In an automobile body, the combination of a base frame, comprising a vertical web and a flange extending interiorly and substantially horizontally therefrom, rounded metallic corner posts having lips at their bottoms which are fastened to the flange of the base frame, the said posts being located at the positions on the base frame where the rear corners of the seats are to be and said corner posts being round in shape to occupy the corner positions in the outside surface of the body, one or more seat panels of sheet metal having their ends secured to the corner posts and having their side edges turned in, the bottom edge of one panel turned in to rest upon the flange of the base frame and to be fastened thereto, and side panels secured to the said posts and having turned-in upper and lower edges, the lower edge resting upon the flange of the base frame and being secured thereto, the said side panels being provided with one or more door-openings having their edges turned in, substantially as described.

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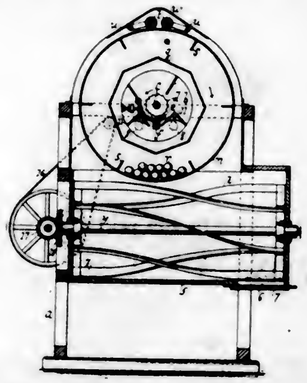
1,089,818. COFFEE-GRANULATING MILL. ROBERT BURNS, New York, N. Y., assignor to Jabez Burns & Sons, New York, N. Y., a Corporation of New York. Filed July 14, 1913. Serial No. 778,914. (Cl. 83—14.)

1. In a coffee granulator the combination with a pair of stationary disks, of a drum with perforated periphery mounted on the disks, grinding devices disposed between the disks, means for rotating the drum, a concentric diaphragm provided with larger perforations than those in the drum to permit the material to pass through, fixed in the drum, balls confined in the space between the perforated periphery of the drum and the diaparagm and means connected with the perforated drum constructed to carry the balls upward with the drum by the rotation of the drum.

2. In a coffee granulator and cleaner the combination with a pair of stationary disks, of a perforated drum mounted on the disks, grinding devices disposed between the disks, means for rotating the drum, stationary deflectors coöperating with the grinding devices located in the drum, and suction pipes communicating with the deflectors.

3. In a coffee granulator and cleaner the combination with a pair of stationary disks, of a perforated drum mounted on the disks, grinding devices disposed between the disks, means for rotating the drum, deflectors coöperating with the grinding devices secured to the disks, and suction pipes communicating with the deflectors.

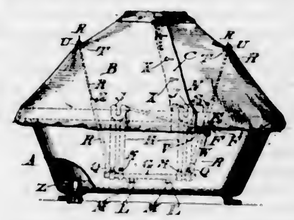
4. In a coffee granulator and cleaner the combination with a pair of stationary disks, of a perforated drum mounted on the disks, grinding devices disposed between



the disks, means for rotating the drum, inverted V shaped deflectors coöperating with the grinding devices secured to the disks, and suction pipes with inlets located below the deflectors.

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1,089,819. VAPOR-CABINET APPLIANCE FOR BATH-TUBS. GEORGE W. CALDWELL, Philadelphia, Pa. Filed July 28, 1911. Serial No. 640,985. (Cl. 4—13.)



1. In a vapor appliance for a bath tub, a foot-supporting rack within the tub near the bottom, canopy-supporting means rising from said rack, a canopy removable with said rack and means for securing the same to said canopy-supporting means and around the top of the tub.

2. In a vapor appliance for a bath tub, a foot-supporting rack within the tub near the bottom, canopy-supporting means rising from said rack, a canopy removable with said rack, means for securing the same to said canopy-supporting means and around the top of the tub, and hangers for supporting said rack, with hook and eye connections between said rack and hangers.

3. In a vapor appliance for a bath tub, a canopy, a foot-supporting rack within the tub suspended from the sides thereof, means for connecting the canopy with the tub, standards supported by said rack and removable therewith and rising above the tub, and means thereon for retaining the canopy in elevated position over the tub.

4. In a vapor appliance for a bath tub, a foot-supporting rack, means for suspending the same from the sides of the tub, vertically extensible means rising from said rack and means for supporting a canopy upon the upper end of said extensible means, a seat coöperating with said suspending means and means for securing the lower edge of the canopy to the tub.

5. In a vapor appliance for a bath tub, a foot-supporting rack, hangers pivotally connected with said rack for suspending the same within the tub and a seat engaging

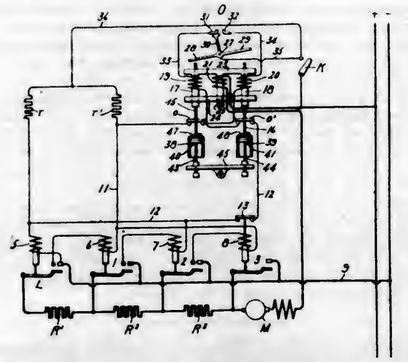


one set of hangers and coöperating therewith to prevent shifting of the hangers and to retain the seat in position.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,820. CONTROL OF ELECTRICALLY-OPERATED SWITCHES. EUGENE R. CARICHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 12, 1910. Serial No. 576,927. (Cl. 172—288.)



1. In combination, a plurality of contactors, two actuating circuits leading to alternate contactors, normally open switch contacts coöperating with each contactor except the last and closed by said contactors in closing located in the actuating circuit of the succeeding contactor, and a relay mechanism for energizing said actuating circuits alternately comprising two sets of switch contacts one located in each of said actuating circuits, a magnet for opening each of said switch contacts each magnet having its coil connected in series with the other switch contacts, and a switch mechanism actuated by said magnets for completing the circuit through the coils of said magnets alternately.

2. In combination, a plurality of contactors, two actuating circuits leading to alternate contactors, normally open switch contacts coöperating with each contactor except the last and closed by said contactors in closing located in the actuating circuit of the succeeding contactor, and a relay mechanism for energizing said actuating circuits alternately comprising two sets of switch contacts one located in each of said actuating circuits, a magnet for opening each of said switch contacts each magnet having its coil connected in series with the other switch contacts, and a switch mechanism actuated by said magnets for opening the circuit through the coil of one magnet and closing a connection in the circuit through the coil of the other magnet alternately.

3. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, two actuating circuits leading to alternate contactors, a normally open switch coöperating with each contactor except the last and closed by said contactors in closing located in the actuating circuit of the succeeding contactor, and a relay mechanism for energizing said actuating circuits alternately comprising two sets of switch contacts one located in each of said actuating circuits, a magnet for opening each of said switch contacts each magnet having its coil connected in series with the other switch contacts, a magnet energized from the power circuit for controlling the closing of said switch contacts, and a switch mechanism actuated by said first mentioned magnets for closing connections in the circuits through the coils of said magnets alternately.

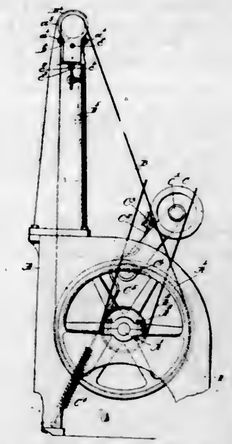
4. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, two actuating circuits leading to alternate contactors, a normally open switch coöperating with each contactor except the last and closed by said contactors in closing located in the actuating circuit of the succeeding contactor, means for maintaining said contactors closed independently of said actuating circuits, and a relay mechanism for energizing said actuating circuits alternately comprising two sets of normally closed switch contacts one located in each of said actuating circuits, a magnet for opening each of said switch contacts each magnet having its coil connected in series with the other switch contacts, a third magnet energized from the power circuit for controlling the closing of said switch contacts, and a switch mechanism actuated by each of said first mentioned magnets for opening the circuit through the coil of the energized magnet and closing a connection through the coil of the other magnet.

5. A relay mechanism comprising two sets of normally closed switch contacts, a magnet for opening each of said switch contacts, each magnet having its coil connected in series with the other switch contacts, and a switch mechanism operated by each magnet for opening a connection in the circuit through that magnet and for closing a connection in the circuit through the other magnet, whereby circuits through said magnets will be completed alternately.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,821. BURNISHING-MACHINE. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 31, 1910. Serial No. 589,939. (Cl. 12—77.)



1. In a machine of the class described, an edge setting tool, mechanism for reciprocating said tool relative to the stock in a direction substantially parallel with the face of the stock, and means for imparting to the stock through said tool a series of percussional impulses of high frequency.

2. In a machine of the class described, an edge setting tool, mechanism for giving the tool a rubbing movement along the face of the stock, and means for imparting to said tool in its movement a succession of percussional impulses.

3. In a machine of the class described, an edge setting tool normally in contact with the stock, mechanism for giving the tool a rubbing movement along the face of the stock, and means for imparting to the stock a series of percussional impulses in a direction substantially perpendicular to the line of said rubbing movement of the tool.

4. In a machine of the class described, an edge setting tool, means for reciprocating said tool, and mechanism for

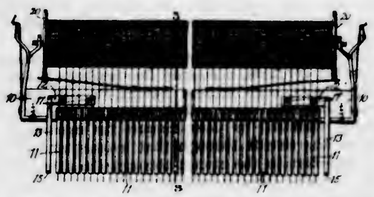
imparting to said tool in its movement a succession of rapid blows.

5. In a machine of the class described, a tool, means for reciprocating said tool along the stock, and mechanism including yielding means for imparting to said tool in its movement a succession of rapid blows.

[Claims 6 to 60 not printed in the Gazette.]

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1,089,822. PROTECTING DEVICE FOR THE TUBES OF PILE-FABRIC LOOMS. ALEXANDER CLAPPERTON, Yonkers, N. Y. Filed July 25, 1913. Serial No. 781,100. (Cl. 139—66.)

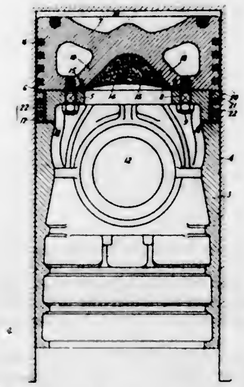


1. The combination, with the tube-frame and tubes of a pile-fabric loom, of independently detachable guard-members, secured one at each end of the series of tubes, in alinement therewith, said guard-members at their forward edges extending forward of the plane of the tubes.

2. The combination, with the tube-frame and tubes of a pile-fabric loom, of independently-detachable guard-members, secured to the tube-frame, one at each end of the series of tubes, in alinement therewith, said guard-members at their forward edges and lower corners extending forward of the plane of the tubes, and at their rear ends extending rearwardly of the entering ends of the tubes.

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1,089,823. PISTON FOR INTERNAL-COMBUSTION ENGINES. CHARLES DAY and GEORGE E. WINDELER, Stockport, England, assignors to General Electric Company, a Corporation of New York. Filed June 13, 1912. Serial No. 703,396. (Cl. 123—193.)



1. A piston comprising a body portion, a removable head therefor, the joint between the parts being perpendicular to the axis thereof, and means for conveying lubricating oil that enters the joint to the interior of the body portion.

2. A piston comprising a body portion, a removable chambered head mounted thereon, the body of the piston closing the entrance to said chamber, and a passage that communicates with the joint between the head and body at one end and with the interior of the body at the other for conveying excess lubricating oil from the joint to the interior of said body.

3. A piston comprising a body portion, a removable chambered head mounted on and moving with said body, the latter closing the entrance to said chamber, packing rings mounted on the piston above and below the joint between the body portion and head, and a passage that communicates with said joint, receives lubricant and discharges it into the interior of the body.

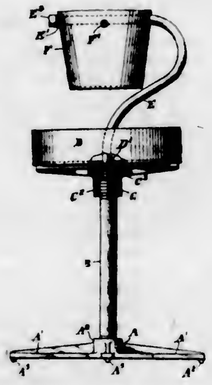
4. A piston comprising a body portion, a removable recessed head mounted thereon, a body of heat insulating material located in the recess to reduce the transmission of heat from the head to the piston pin, and a plate which holds the insulating material in place, the peripheral edge of which is located in the joint between the body and head.

5. A piston comprising a body portion having an inturned flange, a removable chambered head that engages the flanged end of the body, said head and flange acting as a means to close said chamber on one side, a member for conveying heat from the head to the body, means for uniting the head and body, an annular peripheral groove located between the head and body, a passage connecting said groove with the interior of the body, and packing rings located on opposite sides of the groove and acting to force lubricant into the groove from which it is conveyed by the passage into the interior of the body.

[Claim 6 not printed in the Gazette.]

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1,089,824. TEE-BOX. LUCIUS F. DEMING, Philadelphia, Pa. Filed May 31, 1913. Serial No. 770,816. (Cl. 46—4.)



1. A tee box comprising in combination, a pedestal, a sand receptacle mounted on said pedestal, a support connected at its lower end to said pedestal and passing upward through the sand box, a water receptacle mounted on said support and adapted to swing relative thereto to discharge water into said sand receptacle.

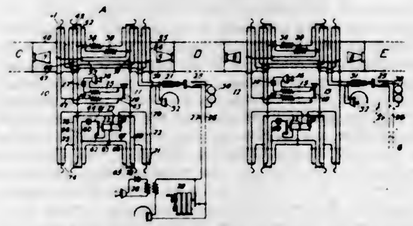
2. A tee box comprising in combination, a pedestal consisting of base and top members each formed with a central socket, a post having its lower end entered in the socket of the base member and its upper end entered in the socket of the top member, a sand box mounted on said top member, a water receptacle support secured at its lower end to said pedestal and a water receptacle mounted on said support above said sand box and adapted to swing relative to said support to discharge water into said sand receptacle.

3. A tee box comprising in combination, a pedestal consisting of base and top members each formed with a central socket, a post having its lower end entered in the socket of the base member and its upper end entered in the socket of the top member, a sand box mounted on said top member and formed with a central aperture, a water receptacle support passing through said aperture and secured at its lower end to said pedestal, and a water receptacle mounted on said support above said sand box and adapted to swing relative to said support to discharge water into said sand receptacle.

4. A tee box comprising in combination, a pedestal consisting of spider-like top and bottom members formed with central hub portions, a tubular post threaded at its lower end into the hub portion of the base member and at its upper end into the hub portion of the top member, a sand box resting on the top member and formed with a central aperture, a pipe comprising a lower vertical portion a horisontal upper portion and an intermediate portion, said lower portion passing through said aperture and being threaded into the hub portion of said top member, and a water receptacle provided with apertures receiving and being thereby supported by said horizontal portion and adapted to swing thereon to discharge into said sand box, said intermediate portion of said pipe being offset to normally clear said water receptacle.

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1,089,825. TELEPHONE TRANSMISSION-CIRCUITS. HENRY C. EGERTON, Passaic, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 18, 1912. Serial No. 710,108. (Cl. 179—41.)



1. In a telephone transmission system, two independent telephone circuits terminating at one station, receiving telephones connected one in each of said circuits, transmission apparatus at said station, means for operatively connecting said transmission apparatus with either of said telephone circuits and means for reducing the volume of sound in the receiving telephone of either of said circuits when the transmission apparatus is operatively connected with the other of said circuits.

2. In a telephone transmission system two independent telephone circuits terminating at one station, a receiving telephone connected in each of said circuits, transmission apparatus at said station, volume reducing means for each of said receiving telephones, and means for operatively connecting said telephone transmission apparatus with one of said circuits and simultaneously rendering effective the volume reducing means of the receiving telephone in the other of said circuits.

3. In a telephone transmission system, two independent telephone circuits terminating at one station, receiving telephones connected one in each of said circuits and located at said station, transmission apparatus, switching means for operatively connecting said transmission apparatus with either of said telephone circuits and a normally disabled resistance device for each line circuit connected in shunt of the receiving telephone of its line when the transmission apparatus is operatively connected with the other of said lines.

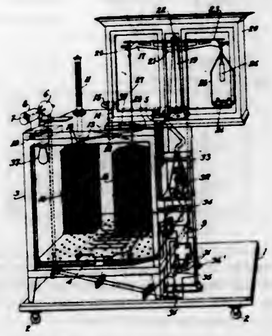
4. In a telephone transmission system, two independent telephone circuits terminating at one station, receiving telephones connected one in each of said circuits, normally disabled resistances for said circuits, transmission apparatus, switching means for operatively connecting said transmission apparatus with one of said telephone circuits and simultaneously connecting one of said resistances in shunt of the receiving telephone in the other of said circuits.

5. In a telephone transmission system the combination of two telephones in audible, interfering proximity, a separate main circuit for each, transmitting apparatus, a switching device and means whereby said switching device when operated places the transmission apparatus in circuit with one receiver and renders the articulation of the other receiver practically inaudible.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,826. TEXTILE-CONDITIONING INSTRUMENT. CHARLES J. EMERSON, Providence, R. I. Filed May 10, 1913. Serial No. 766,719. (Cl. 73—51.)



1. In an instrument of the class described, a sample drying oven, plural sample supports in said oven, a weighing device associated with said oven and having a sample engaging member extending therein, and means for selectively presenting any one of said samples supports to said weighing device.

2. In an instrument of the class described, a sample drying oven, a sample support in said oven comprising a spider having radial arms, a weighing device associated with said oven and having a sample engaging member extending therein, and an external manipulator operatively connected to said spider for selectively presenting any one of said sample supports to said weighing device.

3. In an instrument of the class described, a sample drying oven, plural sample supports in said oven, a weighing device associated with said oven and having a sample engaging member extending therein, and externally controllable means for selectively presenting any one of said sample supports to said weighing device.

4. In an instrument of the class described, a sample drying oven, a source of heat therein, means for automatically regulating the temperature of said oven, means for artificially accelerating the circulation of the heated air in said oven, a revoluble support having a plurality of sample containers extending in said oven, and means whereby said support may be rotated to selectively present any one of said sample containers to a weighing device.

5. In an instrument of the class described, a sample drying oven, an electrical heater therein, a thermostat for automatically regulating the temperature of said oven, a circulating fan for artificially accelerating the circulation of the heated air in said oven, a revoluble support having a plurality of sample containers extending in said oven, and a hand wheel for revolving said support to selectively present any one of said sample containers to a weighing device.

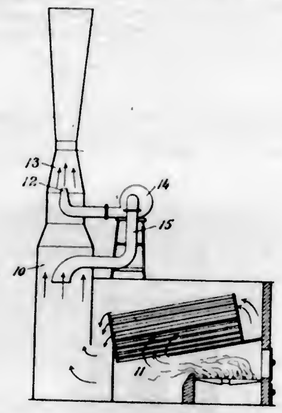
[Claim 6 not printed in the Gazette.]

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1,089,827. INDUCTION DRAFT APPARATUS. ADALBERT FISCHER, Philadelphia, Pa. Filed July 9, 1912. Serial No. 708,408. (Cl. 110—162.)

The combination with a furnace, of a passage for the discharge of the combustion gases from the furnace com-

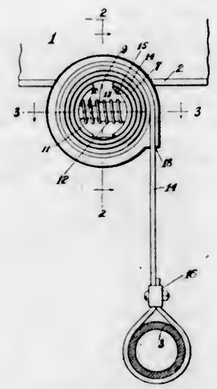
prising a portion having the form of a Venturi tube and including a converging part, a jet nozzle set to discharge into said converging part of said portion of the discharge



passage, and means for supplying under pressure to the jet nozzle a part of the combustion gases taken from a point between the combustion chamber of the furnace and the jet nozzle.

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1,089,828. SHOCK-ABSORBING DEVICE. CLAUD H. FOSTER, Cleveland, Ohio. Filed Oct. 11, 1911. Serial No. 654,089. (Cl. 21—105.)



1. The combination of a compression spring, a flexible device wrapped around said spring, and a supporting member interposed between said device and said spring.

2. The combination of a compression spring, a flexible band wrapped around said spring, and relatively fixed and movable supporting members interposed between said band and said spring.

3. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a compression spring, a flexible band wrapped around said spring, abutments for the ends of said spring and operatively interposed between such ends and said band, means connecting one end of the band to one of said members, and means connecting the other end of said band to the other member.

4. A shock absorbing device comprising a compression spring, a flexible band wrapped around said spring, and relatively movable abutments operatively interposed between the ends of said spring and said band.

5. The combination, with a pair of relatively movable members, of a shock absorbing device comprising a base, a curved projection carried by the base and provided with a spring supporting member, a curved projection complementary to the first mentioned projection and provided with a spring supporting member, the last mentioned members being telescopically fitted one within the other, a spring surrounding the spring supporting members, a flexible band having its inner end connected with said base and wrapped around said projections, means connecting the base to one of the first-mentioned members, and means connecting the outer end of the band with the other of said members.

[Claims 6 to 23 not printed in the Gazette.]

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1,089,829. SPRING-CLASP HAIR-FASTENER. ANNA S. FRIDOLPH, Zybach, Tex. Filed May 5, 1913. Serial No. 765,578. (Cl. 132—22.)



1. A device of the character described comprising an elongated tubular member split longitudinally, said member possessing such resiliency as to maintain the longitudinal edges afforded by the split normally in close proximity, a pin operatively connected to the body at a side opposite to the split, such pin being adapted to be passed through the split, and means carried by the side of the member opposite to the split for maintaining the pin within the tubular member and in close proximity to the wall thereof.

2. A device of the character described comprising an elongated tubular member split longitudinally, said member possessing such resiliency as to maintain the longitudinal edges afforded by the split normally in close proximity, inwardly disposed tabs carried by the body at a side opposite to the split and adjacent the ends thereof, such tabs obstructing the bore of the member, and a pin hingedly connected to one of the tabs and adapted to be passed through the split, the second of such tabs being provided with means for maintaining the pin within the tubular member and in close proximity to the wall thereof.

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1,089,830. SHOCK-ABSORBER. WILLY R. FROMMATER, Long Island City, N. Y. Filed Nov. 14, 1913. Serial No. 800,945. (Cl. 21—105.)



1. In a shock-absorber for use between two points of compression in a moving vehicle, a shaft having spiral grooves, a movable sleeve having interiorly-extending lugs engaging the grooves and movable along the shaft, a spring at either side of the sleeve, and members connected with the sleeve for moving the same, said movement necessitating the overcoming of the friction of the lugs in the spiral grooves, and the tension and compression of both springs.

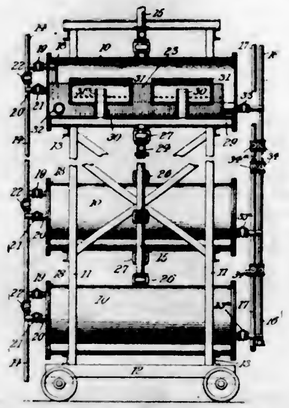
2. In a shock-absorber for use between two points of compression in a moving vehicle, a shaft, spiral grooves in the shaft, a sleeve movable along the shaft and provided with interiorly-extending lugs adapted to engage the grooves, a spring secured to either side of the sleeve, and fixed abutments on the shaft to which the free ends of the springs are secured.

3. A shock-absorber, comprising two members threaded together, a helical spring fixed at one end to one member and at the other end to the other member, means for preventing rotation of one of said members, and motion-transmitting means for connecting the other member with the source of shock.



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1,089,831. COLUMN APPARATUS FOR DISTILLING, COOLING, HEATING, AND SIMILAR PURPOSES. HEINRICH AUGUST GASSER, Wiesbaden, Germany. Filed Oct. 4, 1911. Serial No. 652,742. (Cl. 195—13.)



1. A column apparatus comprising an upright frame, a plurality of rests carried thereby and arranged vertically above one another, a plurality of chambers removably supported on said rests, vertical pipes, means for connecting said pipes to the chambers, and cocks in said connecting means, whereby any one of the chambers may be disconnected from said pipes.

2. A column apparatus comprising a truck, an upright frame mounted thereon, a plurality of rests carried thereby and arranged vertically above one another, a plurality of chambers removably supported on said rests, vertical pipes, means for connecting said pipes to the chambers, and cocks in said connecting means, whereby any one of the chambers may be disconnected from said pipes.

3. A column apparatus comprising an upright frame, a plurality of rests carried thereby and arranged vertically above one another, a plurality of chambers removably supported on said rests, troughs at the bottom of the chambers, nozzles extending upwardly therefrom, apertured bells communicating with the nozzles, longitudinal partitions above the troughs, an upright liquid pipe having cock-controlled connections with each of the chambers at opposite sides of the partitions, cock-controlled vapor ducts connecting the top of one chamber with the trough of the adjoining chamber, an upright cock-controlled vapor pipe connected to the ducts, whereby any one chamber may be uncoupled from the liquid pipe and vapor pipe, heating or cooling coils within the chambers, a pair of heating or cooling pipes, and cock-controlled connections between said coils and pipes.

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1,089,832. MACHINE FOR STROPPING RAZORS. EDWARD B. GIBFORD, Adrian, Mich. Filed Dec. 9, 1912. Serial No. 735,689. (Cl. 51—16.)

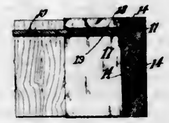


1. In a stropping device, the combination of a case, a blade holder pivoted in the case, small plates secured to the blade holder and extending rearwardly therefrom, a rod mounted in the plates parallel to the axis of the blade holder, an oscillatory member mounted in the case, an arm extending forwardly from each end of the member and having a slot to receive said rod, and a spring on said oscillatory member having the ends in engagement with the blade holder to center the same.

2. In a stropping device, the combination of a case, a blade holder pivoted in the case, small plates secured to the blade holder and extending rearwardly therefrom, a rod mounted in the plates parallel to the axis of the blade holder, an oscillatory member mounted in the case, an arm extending forwardly from each end of the member and having a slot to receive said rod, the length of said slots determining the angular movement of the blade holder in the case, and a spring on said oscillatory member having its ends in engagement with the blade holder to center the same.

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1,089,833. COVER FOR PACKING-BOXES. SAMUEL A. GOLDBERG, New York, N. Y. Filed Nov. 21, 1911. Serial No. 661,599. (Cl. 217—56.)

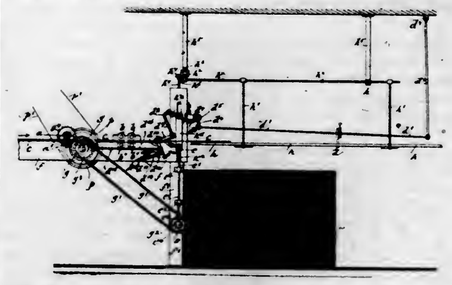


1. A removable cover for a packing box consisting of a frame of stiff material provided with a holding groove around the inner face of its sidewall below its top edge, a web of light breakable material surrounded by said frame and having its edge projecting into the groove thereof, and a covering of flexible material cemented to the outer face and top of said frame and to the inner face thereof above said web and having a horizontal extension cemented to the top of said web adjacent to the holding groove of said frame.

2. A cover for packing boxes consisting of a web, a frame of relatively stiff material surrounding said web and provided with an interior groove receiving the web, and a strip covering the frame and covering a substantial portion of the upper and lower sides of the web immediately adjacent the groove of the frame, so as to hold the parts together.

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1,089,834. CUTTING-OFF ATTACHMENT FOR MACHINES FOR MAKING CORRUGATED CARDBOARD. SAMUEL A. GOLDBERG, New York, N. Y. Filed Sept. 4, 1912. Serial No. 718,561. (Cl. 164—49.)



1. A cutting-off attachment for machines for making corrugated cardboard, comprising intermittently-actuated feed-rollers, spaced guide-plates for the cardboard, bearings laterally and independently adjustable, for supporting said guide-plates, means for oscillating said guide-plates, a stop-gage suspended in the path of the cardboard, means between the stop-gage and the driving mechanism of the feed-rollers for interrupting the motion of the same, and a vertically reciprocating cutting-knife adapted to cut off the proper length of cardboard as soon as it forms contact with the stop-gage.

2. A cutting-off attachment for machines for making corrugated cardboard, comprising intermittently-actuated feed-rollers, spaced guide-plates for the cardboard, bearings laterally and independently adjustable for suspending the guide-plates, means for oscillating said guide-plates in lateral direction, a stop-gage suspended in the path of the cardboard, means between the stop-gage and the driving mechanism of the feed-rollers for interrupting the motion of the same, a vertically guided cutting-knife adapted to cut off the proper size of cardboard as soon as the same forms contact with the stop-gage, means for intermittently reciprocating the cutting-knife, a stop device for the cutting knife and means for returning the stopping means of the feed-rollers and of the cutting knife into their normal position for the next actuation of the same.

3. A cutting-off attachment for machines for making corrugated cardboard, comprising intermittently-actuated feed-rollers, spaced guide-plates for the cardboard, bearings laterally and independently adjustable for suspending the guide-plates, means for oscillating said guide-plates in lateral direction, an adjustable stop-gage, means for supporting the stop-gage in the path of the cardboard, means between the stop-gage and the driving mechanism of the feed-rollers for interrupting the feed-motion of the same, a vertically guided cutting-knife adapted to cut off the proper length of cardboard as soon as it forms contact with the stop-gage, means for vertically reciprocating the cutting-knife, a stop-device for the same and means for releasing the stop device and permitting the actuation of the cutting-knife.

4. In a cutting-off attachment for cardboard machines, the combination of intermittently-actuated feed-rollers, spaced guide-plates for the cardboard, bearings laterally and independently adjustable for suspending the guide-plates, an oscillating lever for operating said guide-plates, a connecting-rod connected with said lever, means for adjusting the length of said connecting-rod, a stop-gage for the cardboard, means for suspending the stop-gage in the path of the cardboard, a vertically guided cutting knife, means for intermittently reciprocating the cutting knife, a stop-device for said cutting knife, means for releasing said stop-device, a clutch device between the feed-roller driving means and cutting-knife actuating means, and a lever mechanism between the stop-gage and clutch-device for arresting the motion of the feed-rollers and cardboard simultaneously with the release of the stop-device of the cutting knife and actuation of the same.

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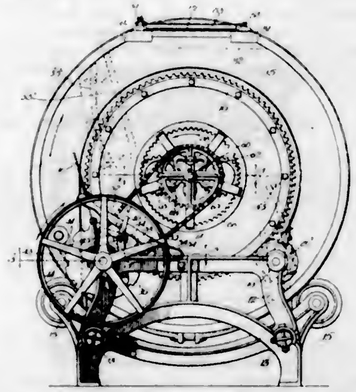
1,089,835. PHONOGRAPH-RECORD. FRIEND H. GREGORY, Philadelphia, Pa. Filed Sept. 10, 1910. Serial No. 581,391. (Cl. 181—17.)



A record strip for a talking machine, consisting of a continuous length of flexible material provided with a number of series of transverse slots dividing it into sections, the slots between the adjacent sections being varied as to their positions to provide openings for the reception of the bridge pieces formed by the slots between other sections.

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1,089,836. BUTTER-MAKING MACHINE. PAUL HANSON, Wild Horse, Colo. Filed June 27, 1912. Serial No. 706,140. (Cl. 31—25.)



1. A butter making machine of the class described, comprising a receptacle having a door opening formed by omitting a segment from the receptacle, sills for the door opening, cross pieces extending over the door opening below the sills, binding hoops for the receptacles extending across the door opening on top of the cross-pieces and below the sills, and a flat door for the opening.

2. In a machine of the class described, the combination with a receptacle substantially round in cross section and having flat ends, of end pieces forming the flat ends, and means to engage the end pieces to tighten the ends.

3. In a machine of the class described, the combination with a receptacle substantially round in cross section and having flat ends, of side pieces to cover the receptacle, and means to engage the side pieces to tighten them upon the receptacle.

4. In a machine of the class described, the combination with a receptacle formed of strip material, of means to tighten the strips of the receptacle comprising metal pieces disposed between adjacent strips, and spaced apart, one of the adjacent strips overlapping the other in the inside of the receptacle, one of the metal pieces being provided with threaded openings, bolts screwed in the openings with their heads disposed between the metal pieces and movable to press the pieces apart.

5. In a butter making machine, the combination with a receptacle, of means to mount the receptacle for rotation, comprising rollers disposed at the sides and ends thereof, one of said rollers being provided with a sprocket and means to engage the receptacle to rotate it, butter working rollers rotatable in the receptacle, gears secured to the butter working rollers and disposed outside of the receptacle, a freely rotatable internally geared member meshing with said gears, a sprocket co-axially mounted with said member, releasable means to engage the sprocket with said member, a sprocket chain connected to both of said sprockets and means to rotate the first named sprocket to rotate the receptacle in one direction and to rotate the butter working rollers in the other direction when the said releasable means is in engagement.

[Claims 6 to 28 not printed in the Gazette.]

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1,089,837. EVAPORATIVE COOLER. THOMAS A. HENDERSON, Mart, Tex. Filed May 2, 1913. Serial No. 765,159. (Cl. 62—10.)

An evaporative cooler comprising an upright frame, screens extending therebetween and forming the walls



thereof, shelving extending transversely of said frame and defining compartments, independent flues extending along the side walls of said compartments and communicating therewith, outwardly extending ledges in alinement with the shelving and extending flush with the outer surface of said flues, and a textile jacket positioned around and lying



in contact with the said screen-like walls and lying in contact with the flues and outstanding ledges, the side jacket and independent flues maintaining the various compartments in a non-communicating condition and preventing the passage of air between the various compartments, and means for maintaining the said jacket in a moist condition.

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1,089,838. TEAT-CUP FOR MILKING-MACHINES. JOHN L. HULBERT, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Filed June 1, 1912. Serial No. 700,951. (Cl. 31—102.)



1. In a milking machine, a teat cup comprising a flexible cup adapted to surround and support substantially the whole teat, and means to intermittently apply, a pressure upon the outside of that part of the cup adapted to surround the base of the teat, and in unison therewith, a lesser pressure upon the outside of that part of the cup adapted to surround the remainder of the teat, thereby maintaining a supporting pressure upon the lower portion of the teat throughout the squeezing pressure upon the base of the teat.

2. In a milking machine, a teat cup comprising a flexible cup adapted to surround and support substantially the whole teat, and means intermittently and simultaneously to apply a pressure upon the outside of that part of the cup adapted to surround the base of the teat and to diminish the pressure within the cup.

3. In a milking machine, a teat cup comprising a flexible cup adapted to surround and support substantially the whole teat, and means to successively apply, maintain and remove pressure upon the outside of that part of the cup adapted to surround the base of the teat and respectively simultaneously therewith apply, maintain and remove pressure of a lesser degree upon that part of the cup adapted to surround the remainder of the teat.

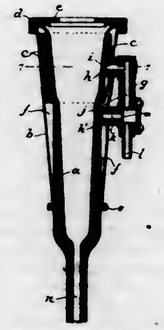
4. In a milking machine, a teat cup comprising a flexible cup adapted to surround and support substantially the whole of the teat, and means to intermittently increase the pressure upon the outside of that part of the cup adapted to surround the base of the teat and, during only said increase, to increase the pressure to a lesser degree upon the outside of that part of the cup adapted to surround the remainder of the teat.

5. In a milking machine, a teat cup comprising a flexible cup adapted to surround and support substantially the whole teat, an inflatable and deflatable cushion surrounding the upper portion of said flexible cup, and means simultaneously to inflate the cushion and to diminish the pressure within the cup relatively to the pressure outside the cup below the cushion.

[Claims 6 to 22 not printed in the Gazette.]

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1,089,839. METHOD OF MECHANICALLY MILKING. JOHN L. HULBERT, Poughkeepsie, N. Y., assignor to The De Laval Separator Company, a Corporation of New Jersey. Filed Mar. 29, 1913. Serial No. 757,576. (Cl. 31—102.)



1. The method of mechanically milking, which consists in intermittently applying a squeezing pressure upon the base of the teat and in unison therewith a substantially lesser pressure upon the lower part of the teat, thereby, during the squeezing pressure upon the base of the teat, maintaining a supporting pressure upon the lower portion of the teat to prevent expansion of the milk passage and dilation of the teat while maintaining the milk passage open and insuring the free discharge of milk therefrom.

2. The method of mechanically milking which consists in intermittently increasing the pressure upon the base of the teat and substantially simultaneously therewith increasing the pressure to a lesser degree upon the remainder of the teat and maintaining the latter pressure during only the period of the maintenance of the increased pressure upon the base of the teat.

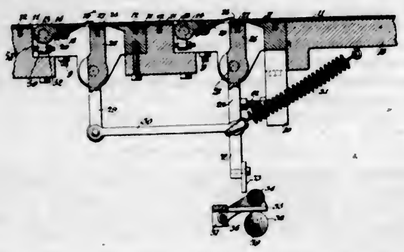
3. The method of mechanically milking which consists in applying a squeezing pressure upon the base of the teat and substantially simultaneously therewith applying a pressure of a lesser degree upon the remainder of the teat, maintaining said pressures in unison and substantially simultaneously removing said pressures.

4. The method of mechanically milking which consists in flexibly inclosing and supporting substantially the entire teat, intermittently applying a squeezing pressure upon the base of the teat to expel the milk therefrom and substantially simultaneously therewith increasing the pressure upon the remainder of the teat to a degree sufficient to prevent substantial dilation or expansion but insufficient to produce substantial constriction thereof whereby the milk passage therein will be maintained open to insure the free discharge thereof without injury to the teat.

5. The method of mechanically milking which consists in applying a squeezing pressure upon the base of the teat and substantially simultaneously therewith applying upon the remainder of the teat pressure of a lesser degree sufficient to prevent substantial dilation and expansion by the milk discharging therethrough but insufficient to produce substantial constriction thereof, and alternately therewith removing said pressures.

[Claims 6 to 12 not printed in the Gazette.]

1,089,840. CLAY-CLEANER. BERNARD JACQUART, South River, N. J., and JOHN V. V. BOORAEM, New York, N. Y. Filed Oct. 25, 1912. Serial No. 727,665. (Cl. 83—6.)

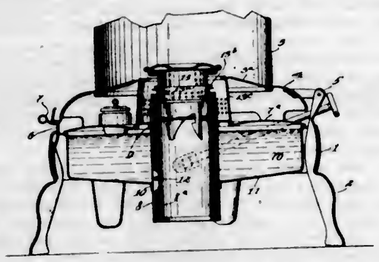


1. An improved knife for clay cleaners comprising a carrier, pivoted shafts at each end thereof, a knife plate supported on the carrier and having shoulders of knife-thickness at its rear edge, a knife between the carrier and the knife-plate, and means for adjusting the knife on the carrier radially in and out from the axis of the carrier.

2. An improved knife for clay cleaners, comprising a reversible pivoted carrier, a knife radially adjustably secured thereto, and a set-screw at the lower portion of the knife carrier for changing its position.

3. A knife for clay cleaners comprising a carrier, having unobstructed movement into reverse position of the knife, a knife fastening plate at the lower side thereof, a knife between the carrier and fastening plate, means adjustably holding the fastening plate and knife in position, and means for varying the position of the knife carrier with the knife thereon arranged to permit free movement of the knife carrier with its knife, from its normal position to a position with the bottom side up.

1,089,841. OIL-HEATER. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Feb. 20, 1913. Serial No. 749,585. (Cl. 158—94.)



1. In an oil stove, the combination of a font, a pair of wick tubes extending upwardly therefrom, a wick between said tubes, and means for shielding the inner and substantially the top surface of the upper end of the wick, the distance of the top of the wick tubes from the lowest point at which the font communicates with the wick not materially exceeding five inches, whereby the exposed portion of the wick is amply supplied with oil to prevent the charring of such portion, substantially as described.

2. In an oil stove, the combination of a font, a pair of wick tubes extending upwardly therefrom, a wick between said tubes, and means for shielding the inner and substantially the top surface of the upper end of the wick, the distance of the top of the wick tubes from the bottom of the font not materially exceeding five inches, whereby the exposed portion of the wick is amply supplied with oil to prevent the charring of such portion, substantially as described.

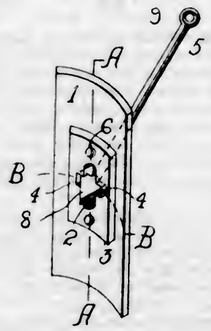
3. In an oil stove, the combination of a pair of wick tubes, a wick therebetween, an oil reservoir from which the wick tubes project, the top of said reservoir extending in a horizontal direction from said tubes, means for shielding the inner surface and substantially the top of the upper end of the wick, and a combustion chamber the bottom whereof extends laterally above the reservoir in position to heat the subjacent top of the reservoir, the top of the wick tubes being not materially farther than five inches from the bottom of the reservoir, whereby the oil in the reservoir is warmed sufficiently to reduce its viscosity and enable it to keep the exposed surface of the wick amply wet to prevent charring, notwithstanding the lowering of the oil level in the reservoir, substantially as described.

4. In an oil stove, the combination of a pair of wick tubes, a wick therebetween, an oil reservoir from which the wick tubes project, the top of said reservoir extending in a horizontal direction from said tubes, means for shielding the inner surface and substantially the top of the upper end of the wick, and a combustion chamber the bottom whereof extends laterally above the reservoir in position to heat the subjacent top of the reservoir, the top of the wick tubes being not materially farther than one and one-half inches from the top of the reservoir, whereby in operation seepage is prevented and the temperature of the oil in the reservoir is maintained at at least 110° F., thereby reducing its viscosity and enabling it to keep the exposed surface of the wick amply wet to prevent charring, notwithstanding the lowering of the oil lever in the reservoir, substantially as described.

5. In an oil stove, the combination of a font, a pair of wick tubes extending upwardly therefrom, a wick between said tubes, means for shielding the inner and substantially the top surface of the upper end of the wick, and means for supplying air to the exposed surface of the wick in sufficient quantity to produce an illuminating flame, the distance of the top of the wick tubes from the lowest point at which the font communicates with the wick not materially exceeding five inches, whereby the exposed portion of the wick is amply supplied with oil to prevent charring of such portion, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,089,842. POST-ANCHOR. WILLIAM JOHNSON, Fremont, Ohio. Filed Dec. 30, 1912. Serial No. 739,413. (Cl. 189—90.)

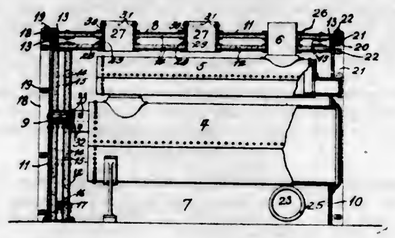



In a land anchor an anchor block, a reinforcing plate fixedly carried thereby, a slot passing through said block and plate, and duplicate locking recesses in said plate, one at each side of said slot and connecting therewith.

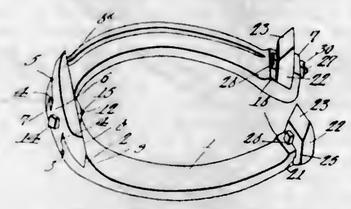
1,089,843. FURNACE-CASING. CHARLES AVERY KENNEDY, Coaticook, Quebec, Canada. Filed July 12, 1909. Serial No. 507,234. (Cl. 126—114.)

A furnace casing comprising a plurality of hollow sections, a flange on the edge of each section forming a rabbet, the edge of one section resting in the rabbet of the adjacent section, the flange of said first section projecting transversely beyond the flange of the second section, and a grooved strip secured to the flange of the second section and embracing the flange of the first section.



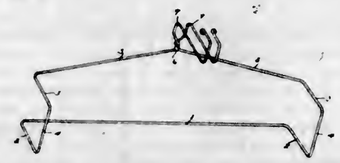


1,089,844. HORSESHOE. JOHN H. KIEFFER, Allentown, Pa. Filed Dec. 18, 1912. Serial No. 737,583. (Cl. 168—36.)



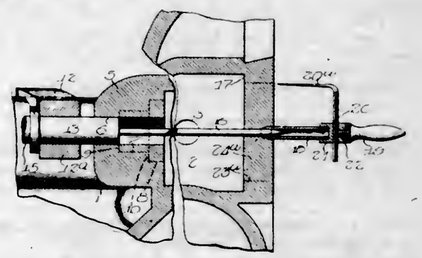
A horse shoe provided adjacent its heel and upon its outer edge with a recess which is extended but part way across the heel, the shoe being thickened at the heel to offset the weakening caused by the recess, the heel terminating in a depending support which is thinner than the heel in front of the thickened portion, thereby to compensate for the thickening, the support having an opening which is independent of the thickened portion, thereby to avoid a weakening thereof; a calk abutting against the support and including a hook-shaped extension terminally engaged in the recess, the calk having a notch in its lower edge and alined with the opening, the calk being sharpened, and the sharpened portion of the calk being spaced from the notch; and a securing element mounted in the notch and in the opening.

1,089,845. PENCIL-HOLDER. DAVID L. LONG, Columbus, Ohio. Filed Nov. 2, 1911. Serial No. 658,227. (Cl. 45—90.)



A pencil holder comprising a skeleton frame made of a single piece of wire and bent to form U-shaped extensions for the ends of the holder, transversely bent extensions on the free ends of the legs of said U-shaped extensions to form the back of the holder, certain of said transversely bent extensions having their extremities intertwisted and bent vertically and carrying an integral hook formation for engagement with a desk, a cloth cover attached to said frame to form a receptacle and a plurality of staples determinately spaced to removably hold said cloth in position.

1,089,846. POTTER'S TOOL. PATRICK J. MADDEN, Chicago, Ill. Filed Oct. 25, 1911. Serial No. 656,665. (Cl. 25—1.)



1. A potter's tool adapted to form and counterbore openings through distant oppositely located, relatively fixed walls of a chamber, said tool having, in combination, means for forming an opening through one of said walls, a shank adapted to occupy said opening with a snug fit, whereby it is guided and sustained against lateral movement relatively to the axis of said opening, a spindle carried by the shank and adapted to form a centering perforation through the opposite wall, in line with the projected axis of the opening first aforesaid, and a cutter having a centering bearing adapted to register with said centering perforation and a cutting blade adapted to cut through said wall upon a circular line concentric with said centering perforation and thereby form through said wall an opening whose axis coincides with the projected axis of the opening first aforesaid.

2. A potter's tool adapted to form and counterbore openings through distant oppositely located, relatively fixed walls of a chamber, said tool having, in combination, means for forming an opening through one of said walls, a shank adapted to occupy said opening with a snug fit, whereby it is guided and sustained against lateral movement relatively to the axis of said opening, a spindle carried by the shank and adapted to form a centering perforation through the opposite wall, in line with the projected axis of the opening first aforesaid, and a cutter having a centering bearing adapted to enter said centering perforation, and a cutting blade adapted to cut through said wall upon a circular line concentric with said centering perforation and thereby form through said wall an opening whose axis coincides with the projected axis of the opening first aforesaid.

3. A potter's tool adapted to form and counterbore openings through distant oppositely located, relatively fixed walls of a chamber, said tool having, in combination, means for forming an opening through one of said walls, a shank adapted to occupy said opening with a snug fit, whereby it is guided and sustained against lateral movement relatively to the axis of said opening, a spindle carried by the shank and adapted to form a centering perforation through the opposite wall, in line with the projected axis of the opening first aforesaid, and a cutter having a tubular centering bearing adapted to receive and fit over said spindle, and a cutting blade adapted to cut through said wall upon a circular line concentric with said centering perforation and thereby form through said wall an opening whose axis coincides with the projected axis of the opening first aforesaid.

4. A potter's tool of the class described having, in combination a shank adapted to occupy an opening through one wall of a chamber with a snug fit whereby it is guided and sustained against lateral movement, a spindle carried by the shank and adapted to perforate the opposite wall of the chamber, while still plastic, and a cutter engaging the spindle and adapted to both rotate and move longitudinally relatively thereto, said cutter having a blade adapted to describe a circle as the cutter is rotated.

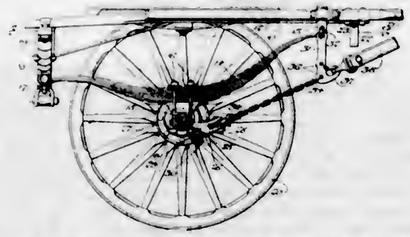
5. A potter's tool of the class described having, in combination a shank adapted to occupy an opening through one wall of a chamber with a snug fit whereby it is guided

and sustained against lateral movement, a spindle carried by the shank and adapted to perforate the opposite wall of the chamber, while still plastic, and a cutter, said spindle and cutter having a socket and a part occupying said socket, respectively, whereby the cutter and spindle may both rotate and move longitudinally relatively to each other, said cutter having a blade adapted to describe a circle as the cutter is rotated.

[Claims 6 to 17 not printed in the Gazette.]

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1,089,847. DRAFT MECHANISM FOR VEHICLES. GEORGE F. MANN, Chicago, Ill. Filed Feb. 1, 1908. Serial No. 413,814. (Cl. 21—76.)



1. In draft mechanism, the combination with a vehicle and a pivoted front axle thereof, of a pair of draft arms pivotally mounted upon the opposite ends of the pivoted front wheel axle to swing in planes inclined upwardly and forwardly and to apply the pull directly thereto independently of the vehicle tongue or shafts, an equalizing connection between said draft arms, and separate hitch devices mounted on the vehicle above and in front of said draft arms and connected thereto, said hitch devices being movable in fore and aft direction independently of the vehicle tongue or shafts, substantially as described.

2. In draft mechanism, the combination with a vehicle and the pivoted front wheel axle thereof, of a pair of brackets detachably clamped upon the opposite ends of said pivoted front wheel axle, a pair of draft arms pivoted to said brackets, an equalizing connection between said draft arms, and separate hitch devices pivotally movable in fore and aft direction connected respectively to said draft arms, substantially as described.

3. In draft mechanism, the combination with a vehicle and the pivoted front wheel axle therefor, of a pair of draft arms pivoted directly upon the opposite ends of said front wheel axle to swing in planes inclined to the horizontal, an equalizing connection between said draft arms, a pair of hitch devices independently connected to said vehicle in front of and above said wheel axle to swing in vertical planes and in fore and aft direction, and upwardly and forwardly inclined connections between said hitch devices and said draft arms, substantially as described.

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1,089,848. BRUSH. JOSEPH EMILIEN MARCIL, Montreal, and LOUIS MARCIL, parish of St. Michel-Archange, Quebec, Canada. Filed May 25, 1912. Serial No. 699,728. (Cl. 15—29.)

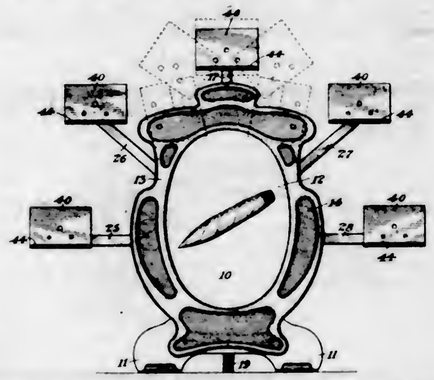


1. A brush, comprising in combination, a body having a comparatively deep cavity formed therein, said body also having transverse passages extending through the sides of the body from said cavity to the outer sides of said body, a cement material filling said cavity and passages completely and bristles embedded in said filling cement.

2. A brush, comprising in combination, a body having a comparatively deep cavity formed therein, said body also having transverse passages extending through the sides of the body from said cavity to the outside thereof, a similar passage extending upwardly from said cavity to the top of said body, a cement filler filling said cavity and passages, bristles embedded in said filler, and veneer coverings for the top and bottom of said body, said passages serving to lock the filler in position in the body.

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1,089,849. DISPLAY-RACK. MORITZ MAYER, New York, N. Y., assignor to Mayer and Lavenson Company, New York, N. Y., a Corporation of New York. Filed July 16, 1913. Serial No. 779,234. (Cl. 211—24.)



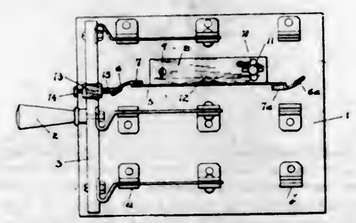
1. As a new article of manufacture, a display rack comprising a foundation plate, a design body member secured thereto, a plurality of arms in pairs pivotally connected at one end to the said plate so as to swing in planes parallel thereto and to extend beyond the edge of the said design body member, a bracket fixed to the outer end of each of the said arms so as to assume an upright position when its arm is in position for use, and a tablet pivotally connected to each bracket and adapted to be fixed in a rearwardly inclined position when in use and to swing to any one of a plurality of positions so as to pass behind and lie in a plane parallel to the said design body member when not in use.

2. As a new article of manufacture, a display rack comprising a foundation plate, a design body member secured thereto, a fixed arm secured to the said plate extending upwardly therefrom and beyond the edge of the body design member, a plurality of arms in pairs pivotally connected at one end to the said foundation plate so as to swing in planes parallel thereto and to extend beyond the edge of the said design body member, stops fixed in the said foundation plate for determining the position of each of the movable arms when in use, a bracket fixed to the outer end of each of the said arms so as to assume an upright position when its arm is in position for use, and a tablet pivotally connected to each bracket and adapted to be fixed in a rearwardly inclined position when in use and to swing to any one of a plurality of positions so as to pass behind and lie in a plane parallel to the said design body member when not in use.

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1,089,850. SWITCH CONTROL. SAMUEL A. MCCONNELL and EBN ERICHSON, Portland, Oreg. Filed Aug. 26, 1912. Serial No. 717,034. (Cl. 175—282.)

1. A switch control comprising in combination an oscillating switch lever, an arcuate member supported at the center of oscillation of the switch lever, a pin depending from the cross bar of the lever and adapted to bear against the arcuate member, and a laterally offset terminal portion at each end of the arcuate member to form stops for the depending pin, the terminal portion at one end being offset from the body portion in an opposite direction to the terminal portion at the other end, and inclining from its respective shoulder to a point across and beyond the plane of said member.

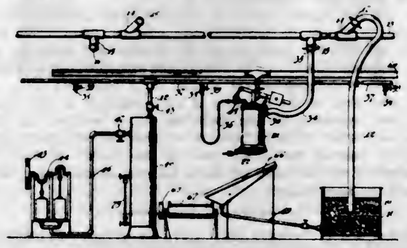


2. A switch control comprising in combination an oscillating switch lever, an arcuate member supported at the center of oscillation of the switch lever, a pin depending from the cross bar of the lever and adapted to bear against the arcuate member, a laterally offset terminal portion at each end of the arcuate member to form stops for the depending pin, the terminal portion at one end being offset from the body portion in an opposite direction to the terminal portion at the other end, each terminal portion inclining from its respective shoulder to a point across and beyond the plane of said member, and means for adjusting the alinement of the arcuate member.

3. A switch control comprising in combination an oscillating switch lever, an arcuate member supported at the center of oscillation of the switch lever, a pin depending from the cross bar of the lever and adapted to bear against the arcuate member, a laterally offset terminal portion at each end of the arcuate member to form stops for the depending pin, the terminal portion at one end being offset from the body portion in an opposite direction to the terminal portion at the other end, each terminal portion inclining from its respective shoulder to a point across and beyond the plane of said member, means for adjusting the alinement of the arcuate member and means at the intermediate portion of the arcuate member for releasably engaging the depending bar.

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1,089,851. SYSTEM FOR TRANSPORTING MATERIALS IN BULK. THOMAS W. MCNEILL, Chicago, Ill., assignor to Reid, Murdoch & Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 21, 1912. Serial No. 726,958. (Cl. 73—177.)



1. A system of the character described, comprising, in part, a material-conveying pipe, a receptacle for materials to be conveyed, means for connecting said pipe and said receptacle, a material-receiver open at the bottom and having a materials inlet port connected to said pipe, and air exhaust means for said receiver, a valve for said port controlling communication between said receiver and conveying pipe, a valve for closing the bottom opening of said receiver by operation of atmospheric pressure and supporting the contents of said receiver, and means operated by the contents of said receiver for admitting air therein and thereby relieving the atmospheric pressure to permit the bottom valve to open by the weight of the contents of said receiver and seat the valve for the inlet port.

2. A system of the character described, comprising, in part, a material-conveying pipe having a plurality of closable openings therein, and an air exhaust pipe having a plurality of closable openings therein, a trolley track coextensive and parallel with said pipes, a material-receiver having means for connection to both said pipes and having a trolley for coöperation with said track whereby said receiver may be moved from place to place thereon, an atmospheric seated valve for closing a discharge opening in said receiver and for supporting the contents thereof, a valve for controlling communication between said receiver and said air exhaust means, and means operated by the contents of said receiver for closing said exhaust valve and for opening communication between said receiver and the atmosphere, thereby permitting the discharge valve to open and discharge the contents of said receiver.

3. A system of the character described for handling materials carried in a fluid medium, comprising, in part, a material container, a materials conveying pipe connected thereto, a material-receiver connected to said conveying pipe, an air-exhaust pipe communicating with said receiver, a valve controlling said communication between the exhaust pipe and receiver, an air admitting valve, a closure for the bottom of said receiver, means responsive to presence of predetermined amount of material in said receptacle to operate the air-controlling valves thereto, a check valve closing toward the material-conveying pipe, and means to catch material and liquid discharged from said bottom opening upon admission of air to said receiver.

4. A system of the character described, comprising, in part, an air-exhaust pipe, a material-conveying pipe, a receiver having communication with said two pipes, a valve for controlling communication to the air-exhaust pipe, a closure for the receiver, means to support said receiver for movement operable upon admission of air to the receiver by the weight of a predetermined amount of contained material, said means comprising a weighted lever, means for pivotally connecting said receiver to said lever, and means for operation of said valve upon movement of said receiver, means to return the closure to closed position after opening, and a retard means, whereby the closure is moved to closed position before the opening of communication between the receiver and the exhaust pipe.

5. A system of the character described, comprising, in part, a material-receiver, a material supply pipe and an air-exhaust pipe communicating therewith, a mechanically-closable valve for the discharge opening of said material-receiver, a valve for controlling communication with the air-exhaust pipe, means for closing said valve to the air-exhaust pipe, and means for retarding the opening of said valve till said mechanically closable valve is closed.

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1,089,852. CENTER-ENTRANCE CAR. WILLIAM S. MENDEN, Brooklyn, N. Y. Filed Jan. 2, 1913. Serial No. 739,755. (Cl. 105—205.)



1. A passenger car provided with wheels or trucks adjacent the opposite ends thereof, platforms arranged above said wheels or trucks, a drop platform of relatively small extent disposed substantially central with respect to said end platforms and below the level thereof, said drop platform being provided with a doorway, and inclined floors connecting said central platform with said end platforms, said inclined floors being adapted to have seats arranged along them.

2. A passenger car provided with wheels or trucks adjacent the opposite ends thereof, platforms arranged above said wheels or trucks, a drop platform disposed substantially central with respect to said end platforms and below the level of said end platforms, said drop platform being provided with a doorway, and inclines extending from said end floors or platforms to points adjacent the opposite sides of said doorway.

3. A passenger car provided with wheels or trucks adjacent the opposite ends thereof, floors or platforms arranged above said wheels or trucks, a drop platform disposed substantially central with respect to said end floors or platforms and below the level of said end floors or platforms, said drop platform being provided with a doorway, and inclines extending from said end floors or platforms toward said drop platform, said drop platform being separated from said inclines by risers.

4. A passenger car provided with wheels or trucks adjacent opposite ends of said car, level floors above said wheels or trucks, and a platform disposed below the level of and substantially central with respect to said floors, said platform comprising a substantially level central portion, and inclines extending laterally from said central portion.

5. A passenger car provided with wheels or trucks adjacent opposite ends of said car, level floors above said wheels or trucks, a platform disposed below the level of and substantially central with respect to said floors, said platform comprising a substantially level central portion, and inclines extending laterally from said central portion, and inclines extending from said level floors above the wheels or trucks toward said platform.

[Claims 6 to 27 not printed in the Gazette.]

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1,089,853. BUCKLE. MILTON D. MESEROLE, West Haven, Conn., assignor to Thomas F. Molloy and Lillian Molloy Sheehan, New Haven, Conn., administrators of James F. Molloy, deceased. Filed Dec. 8, 1913. Serial No. 805,380. (Cl. 24—194.)



1. A buckle comprising a plate formed with a clearance space, a housing secured to said plate, said housing formed on opposite sides with slots, a clamping-piece within said housing and formed with finger-pieces projecting outward through said slots, said clamping-piece provided with a spring-finger adapted to bear upon the said plate and to enter the clearance-space therein.

2. A buckle comprising a plate formed with a clearance opening near its rear end, a housing secured to said plate and provided on opposite sides with slots, a clamping-piece within said housing and provided with finger-pieces extending outward through said slots, said clamping-piece provided at opposite edges with gripping jaws, and with a spring-finger turned inward and rearward from its forward edge and adapted to bear upon the inner face of the plate and to enter the opening formed therein.

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1,089,854. BUCKLE. THOMAS F. MOLLOY, West Haven, Conn. Filed Sept. 22, 1913. Serial No. 791,113. (Cl. 24—194.)

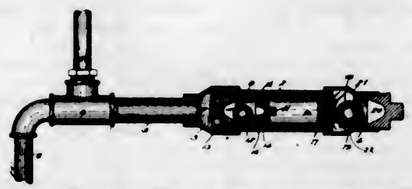
1. A buckle comprising a back plate, a housing connected therewith, openings in opposite sides of the housing, a clamping piece within the housing and formed on opposite sides with fingers extending through the openings in the sides of the housing and formed with outwardly turned gripping edges, the back-plate formed with an integral spring finger extending into the path of the clamping-piece and also formed with a pocket into which the clamping piece may be retired.



2. A buckle comprising a back-plate formed with a spring-finger and a recess, a housing connected with the back-plate and formed on opposite sides with notches, a clamping-piece within the housing and formed on opposite sides with fingers extending through the notches in the housing, said clamping-piece formed with gripping ends and in its under face with knobs bearing upon said spring-finger, said clamping-piece adapted to be retired into said recess.

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1,089,855. OIL-BURNER. CHARLES N. MOORE, Douglas, Ariz. Filed Apr. 29, 1913. Serial No. 764,334. (Cl. 158—77.)



1. A liquid fuel burner comprising a tubular central body, a feed pipe attached at one end thereof for conveyance of mixed fuel and an atomizing fluid, a plug at the inlet end of the body with diagonal slots, an inner chamber with outlets into the central part and into which the slots discharge from the feed pipe, and a ball confined within the inner chamber and agitated by the fluid flowing therethrough for aiding the atomization of the fuel.

2. An oil burner comprising a central body, an initial mixing and feed pipe attached thereto, inner mixing and grinding chambers at each end of said body, each of said chambers inclosing a loose ball, and having diagonal feed slots for swirling the oil about the ball, and discharge ports from said chambers.

3. An oil burner made of standard pipe fittings, comprising a nipple or central body part, a reducer on the feed end thereof, said nipple being provided with an inner reducer closed at the inner end and forming a bushing with discharge ports, a plug with diagonal slots in the inlet end of the bushing, a ball confined in the bushing and movable by the swirling oil, a reducer on the discharge end of the nipple with slots for oil discharge, a plug closing the outer end of the latter reducer, a diagonally slotted plug at the inlet end of the latter, and a ball inclosed therein.

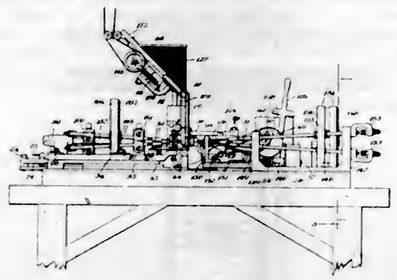
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1,089,856. DRILLING AND NICHING MACHINE. THOMAS F. MORRISSEY, West Orange, N. J., assignor to United Button Company, a Corporation of New York. Filed July 22, 1910. Serial No. 573,241. (Cl. 79—11.)

1. In a machine of the character set forth, a reciprocating slide, a supporting member on said slide, a niching tool on said supporting member, a pivot mounting said supporting member on said slide, an eccentric carried by said supporting member, and means for oscillating said eccentric thereby causing the supporting member to oscillate around said pivot and to vibrate with respect thereto.



2. In a machine of the character set forth, a reciprocating slide, a supporting member on said slide, a niching tool on said supporting member, a pivot mounting said supporting member on said slide, an eccentric carried by said supporting member, a gear on said eccentric, and means for oscillating said gear.



3. In a machine of the character set forth, a reciprocating slide, a supporting member on said slide, a niching tool on said supporting member, a pivot mounting said supporting member on said slide, an eccentric carried by said supporting member, a gear on said eccentric, a gear sector for oscillating said gear, and means for varying the throw of the gear sector.

4. In a machine of the character set forth, a reciprocating slide, a supporting member on said slide, a niching tool on said supporting member, and means for oscillating and longitudinally vibrating the supporting member a plurality of times to each reciprocation of the slide.

5. In a machine of the character set forth, a work holder, a tool, means for reciprocating both the work holder and tool and for causing the work holder and tool to approach each other while both are traveling in the same direction and for causing the work holder and tool to recede from each other while both are traveling in the opposite direction.

[Claims 6 to 24 not printed in the Gazette.]

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1,089,857. UMBRELLA-COVERING. RICHARD MÜLLER, Norwalk, Conn. Filed Sept. 30, 1911. Serial No. 652,090. (Cl. 139—9.)

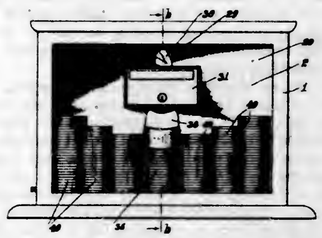


1. A fabric for umbrella coverings comprising a woven fabric having selvages and a pair of tape-like bands woven therein, said fabric being adapted to be severed intermediate said pair of bands and having a strip of fabric attached to each of said bands, said strips being adapted to be folded over the bands to form a smooth selvage-like edge.

2. As an article of manufacture, a fabric for umbrella coverings having a selvage and a plurality of tape-like bands woven therein, said fabric being adapted to be cut into determined widths with tape-like bands spaced from each of the severed edges, the material between the band and the severed edges being adapted to be folded over and adhesively secured to the band to form a selvage-like edge of sufficient strength to prevent the tearing of the fabric when stretched.

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1,089,858. EXHIBIT DEVICE. JOHN NUTRY, Ridgewood, N. J., assignor to Nutry and Cook Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Dec. 30, 1912. Serial No. 739,209. (Cl. 46—37.)



1. In a device of the kind described, the combination with an article, of means for alternately bringing into view a coin above the article and causing it to disappear, and means for bringing into view a coin of greater denomination beneath the article, substantially as set forth.

2. In a device of the kind described, the combination with an article, of means for alternately bringing into view a coin above the article and causing it to disappear and means for depositing a coin of greater denomination beneath the article, substantially as set forth.

3. In a device of the kind described, the combination with an article, of means for alternately bringing into view a coin above the article and causing it to disappear, means for depositing a coin of greater denomination beneath the article, and a representation of a stack of coins of such greater denomination, upon which imitation stack said coin of greater denomination is deposited, substantially as set forth.

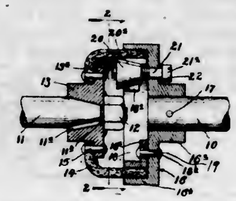
4. In a device of the kind described, the combination with an article, of means for alternately bringing into view a coin above the article and causing it to disappear and means for depositing a coin of greater denomination beneath the article, a representation of a stack of coins of such greater denomination, beneath the article and a tilting platform upon such representation of a stack of coins, substantially as set forth.

5. In a device of the kind described, the combination with an article, of means for alternately bringing into view a coin above the article and causing it to disappear and means for depositing a coin of greater denomination beneath the article, a representation of a stack of coins of such greater denomination, beneath the said article and a tilting platform upon such representation of a stack of coins, and a transparent shield partly surrounding the platform, substantially as set forth.

[Claims 6 to 18 not printed in the Gazette.]

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1,089,859. FLEXIBLE COUPLING. FRANK N. NUTT, Kokomo, Ind., assignor to The Haynes Automobile Company, Kokomo, Ind., a Corporation of Indiana. Filed Nov. 27, 1912. Serial No. 733,773. (Cl. 64—13.)



1. In a flexible coupling, the combination with a driving and a driven shaft, of a disk mounted upon the extremity of one of said shafts and provided with an inwardly facing bearing surface, a collar mounted upon the extremity of

the other of said shafts, a cup shaped flexible sleeve secured to said collar throughout its inwardly extending portions, and having its annular marginal portion engaging the bearing surface of said disk, said flexible sleeve and disk forming a chamber, a clamping member mounted within said chamber for clamping said marginal portion of said sleeve against the bearing surface of said disk, and means extending outwardly through the face of said disk for operating said clamping member.

2. In a flexible coupling, the combination with a driving and a driven shaft, of a disk mounted upon the extremity of one of said shafts and provided with an annular inwardly facing bearing surface, a collar mounted upon the extremity of the other of said shafts, said collar having a diameter less than that of said disk, a cup shaped flexible sleeve having the inwardly extending portion embracing and secured to the outer face of said collar, and its annular marginal portion engaging the bearing surface of said disk, a clamping member for clamping said flexible member to said disk member and inclosed by said disk and flexible coupling member, for operating said clamping member extending outwardly through the face of said disk.

3. In a flexible coupling, the combination with a driving shaft and a driven shaft, of a disk mounted upon the extremity of one of said shafts, and provided with a peripheral flange, a collar mounted upon the extremity of the other of said shafts and having a diameter less than that of said disk, a flexible cup shaped sleeve the inwardly extending portion thereof being provided with a central aperture, the marginal portions adjacent to said aperture embracing the outer surface of said collar and secured thereto, an expansible clamping member mounted within said flange of the disk and forming therewith a space adapted to receive the annular marginal portion of said flexible sleeve, and means for expanding said clamping member, extending outwardly through the face of said disk.

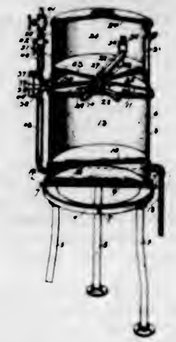
4. In a flexible coupling, the combination with a driving shaft and a driven shaft, of a disk mounted upon the extremity of one of said shafts, said disk being provided with a peripheral flange, a collar mounted upon the extremity of the other of said shafts, having a diameter less than that of said disk, a flexible cup shaped sleeve having its inwardly extending portion embracing and secured to the outer surface of said collar, an annular expansible clamping member inclosed within said disk, collar, and flexible sleeve and concentric, with said flange, said clamping member forming between it and the inner surface of said flange a space adapted to receive the marginal portion of said flexible sleeve, said clamping member comprising a split ring provided with a tapered seat adjacent to its end portions, a non-rotatable tapered collar within said seat, and a bolt extending through the face of the disk having screw-threaded engagement with said collar.

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1,089,860. GLUE-DISSOLVER. MARTIN NYSTROM, Chicago, Ill. Filed July 17, 1913. Serial No. 779,480. (Cl. 126—284.)

1. In a device of the class described, a lower receptacle provided with an opening in the top and comprising a glue compartment and a water compartment below the glue compartment, an upper receptacle arranged to rest on and be in controlled communication with the lower receptacle and comprising a vertically disposed cylindrical body, a lower diaphragm or bottom secured in said cylindrical body, and an upper diaphragm or bottom depressed in the center secured in said cylindrical body to form a sealed steam space between the two diaphragms or bottoms and form a glue compartment above the upper diaphragm or bottom.

2. In a device of the class described, a lower receptacle provided with an opening in the top and comprising a glue receptacle and a water receptacle below the glue receptacle, a water inlet pipe leading from the interior of said water receptacle to the exterior thereof, an upper receptacle detachable from, and arranged to rest on and in controlled communication with the lower receptacle comprising a vertically disposed cylindrical body, a lower diaphragm or bottom secured in said cylindrical body and an upper diaphragm or bottom having its center depressed secured in said cylindrical body to form a sealed steam space between the two diaphragms or bottoms and form a glue compartment above the upper diaphragm or bottom, a steam inlet leading to said steam space, an outlet for condensed steam leading from said steam space, a detachable tube forming connection between said outlet and said water inlet pipe of the lower receptacle and means for admitting steam through the said steam inlet of the upper receptacle.



3. In a device of the class described, a glue compartment, a sealed steam chamber for heating said glue compartment, a second glue compartment, a closed hot water compartment at a lower level than said steam chamber for warming said second named glue compartment and a tube leading from a source of steam supply provided with a branch connecting it to said steam chamber and a second branch connecting it to said water compartment, the parts being so constructed and arranged that the steam cannot contact with the glue.

4. In a device of the class described, a glue compartment provided with an opening in the top, a glue melting receptacle provided with a discharge opening in its bottom arranged to be removably placed on the top of said first named glue compartment with its discharge opening registering with the opening in the top of said glue compartment and a valve at the discharge opening of the glue melting receptacle to control the passage of glue through said discharge opening.

5. In a device of the class described, a glue compartment provided with an opening in the top, a glue melting receptacle provided with a discharge opening in its bottom arranged to be removably placed on the top of said first named glue compartment with its discharge opening registering with the opening in the top of said glue compartment, a valve at the discharge opening of the glue melting receptacle to control the passage of glue through said discharge opening and a glue strainer comprising an inverted trough having perforated side walls secured on the bottom of said glue melting receptacle.

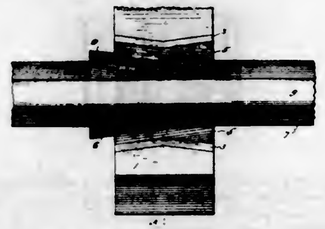
[Claims 6 and 7 not printed in the Gazette.]

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1,089,861. RAIL-FASTENING MEANS. WARREN M. OSBORN, New Britain, Conn. Filed July 17, 1913. Serial No. 779,511. (Cl. 238—2.)

1. A rail securing means consisting of a pocket having a base and inclined walls that diverge toward both ends, filling blocks that are wider at one end than the other with their outer surfaces fitting the inner surfaces of the side walls of the pockets, and wedges that are wider at one end than the other and have their outer surfaces fitting the inner surfaces of the filling blocks and their inner surfaces adapted to fit a rail.





2. A rail securing means consisting of a pocket having a base and side walls that incline toward each other and diverge toward both ends, filling blocks with their outer surfaces inclined and diverging at both ends and their inner surfaces converging toward one end, and wedges with their outer surfaces adapted to fit the inner surfaces of the filling blocks and their inner surfaces adapted to fit a rail.

3. A rail securing means consisting of a pocket having a base and side walls that converge upwardly and diverge toward both ends, filling blocks having outer surfaces that converge upwardly and diverge toward both ends and inner surfaces that converge upwardly toward each other, said inner surfaces also converging toward one end, and wedge blocks having outer surfaces that converge upwardly and diverge toward one end, bottom surfaces adapted to fit the flange, inner surfaces adapted to fit the web, and upper surfaces adapted to fit under the ball of a rail.

4. A rail securing means consisting of a pocket that tapers from the bottom to the top and that tapers from both ends to the middle, filling blocks with their outer surfaces shaped to fit the walls of the pockets when put therein either end around and their inner surfaces converging toward one end, and wedge blocks with their outer surfaces adapted to fit the inner surfaces of the filling blocks and their inner surfaces adapted to conform to the contour of a rail.

5. A rail securing means having a pocket that is narrower at the top than at the bottom and is adapted to be secured against endwise movement in the face of a tie, filling blocks that are wider at one end than the other shaped to be placed in the pockets either end to, and blocks that are wider at one end than the other adapted to be driven in between the filling blocks and a rail.

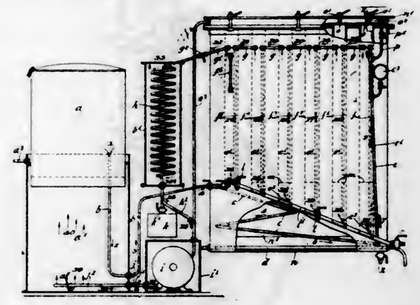
[Claim 6 not printed in the Gazette.]

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1,089,862. DEALCOHOLIZING LIQUIDS. OTTO G. C. L. J. OVERBECK, Great Grimsby, England. Filed Jan. 10, 1911. Serial No. 601,866. (Cl. 195—1.)

1. The herein described process for dealcoholizing liquids, which consists first in placing the liquid under a positive atmospheric pressure, then raising the temperature of the liquid to about 90° F., then blowing the liquid into froth by passing carbonic acid gas through the liquid in sufficient quantities, then cooling the mixture of carbonic acid gas and alcohol and finally passing the mixture through a body of water.

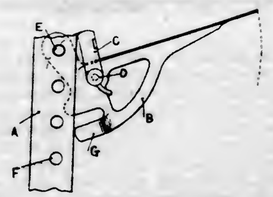
2. The herein described process for dealcoholizing liquids, which consists first in placing the liquid under a slight and positive atmospheric pressure, then replacing with carbonic acid gas any air which there may be in the receptacle containing the liquid, then raising the temperature of the liquid to about 90° F., then blowing the liquid into froth by passing carbonic acid gas through the liquid in sufficient quantities and continuing the same until the liquid has been dealcoholized to the desired extent, then cooling the mixture of carbonic acid gas and alcohol and finally passing the said mixture through a body of water which absorbs the alcohol therein.



3. The herein described process for dealcoholizing liquids, which consists in placing the liquid under a positive atmospheric pressure, then raising the temperature of the liquid to about 90° F., and then blowing the liquid into froth by passing carbonic acid gas through the liquid in sufficient quantities.

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1,089,863. ADJUSTABLE BRACKET FOR SUPPORTING SHELVES OR THE LIKE. RICHARD OWEN, Liverpool, England. Filed June 15, 1912. Serial No. 703,926. (Cl. 248—19.)




1. The combination with a standard having therein a vertical series of transverse apertures, of a bracket having a portion adapted to lie alongside the standard and provided with a laterally projecting stud adapted to enter one of the apertures, said bracket having a laterally offset lip adapted to lie alongside the standard opposite the bracket, and a similarly offset plate pivoted to the bracket and adapted to lie on the same side of the standard as the lip.

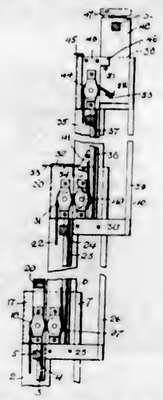
2. The combination with a standard having therein a vertical series of apertures, of a bracket having an upper portion adapted to lie alongside the standard and provided with a laterally extending stud adapted to enter one of the apertures, said bracket having in its lower portion an offset lip adapted to lie on that side of the standard opposite the bracket, and a similarly offset plate pivoted to the bracket and adapted to lie on that side of the standard opposite the stud.

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1,089,864. EXTENSION-LADDER. HENRY PISARZ and STASH M. PISARZ, Los Angeles, Cal. Filed Aug. 5, 1913. Serial No. 783,201. (Cl. 228—24.)

An extension ladder comprising a plurality of sections, each having a guide bar thereon and laterally projecting

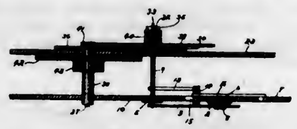
arms carrying hand rails parallel to the stiles of the section, and guide bars so arranged that the hand rails and



guide bars of the lower section constitute embracing guides for the next upper section.

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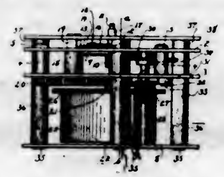
1,089,865. CHRONOGRAPH OR STOP WATCH. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Nov. 7, 1911. Serial No. 658,929. (Cl. 58—76.)



1. In a stop-watch, the combination with a centrally arranged sweep-second hand arbor, of a heart-cam and a driven chronograph-wheel mounted thereupon, a fly-back lever co-acting directly with the said cam for rotating the said arbor as required to restore the sweep-second hand to its zero position, an arbor-tilting lever forming a bearing for one end of the said arbor and providing for the tilting thereof, a stud upon which both of the said levers are mounted for oscillation independent of each other, a fourth wheel or pinion arbor, a driving chronograph-wheel mounted upon the same and corresponding in size and number of teeth to the said driven chronograph-wheel, and means for successively operating the said levers, whereby the sweep-second hand arbor and driven chronograph-wheel are tilted for meshing the said wheel into and demeshing it from the said driving chronograph-wheel, and whereby the sweep-second hand arbor is rotated as required for the restoration of its sweep-second hand to its zero position when the said wheels are demeshed.

2. In a stop-watch, the combination with the time-train thereof, including a fourth-wheel or pinion arbor, of a fly-back lever, an arbor-tilting lever, a stud upon which both of the said levers are mounted for oscillation independently of each other, means for operating the said levers in succession, a sweep-second-hand arbor having its inner end mounted in the said arbor-tilting lever, a heart-cam, a driven chronograph-wheel mounted upon the inner end of the said sweep-second-hand arbor, a driving chronograph-wheel exactly corresponding in size to the said driven chronograph-wheel and meshing directly thereinto for driving the same, and demeshed therefrom by the tilting of the said arbor by the action of the said arbor tilting lever, a center-arbor located at one side of the center of the watch-movement, and dial-work connecting the said center-arbor with hour and minute wheels concentric with the outer end of the said sweep-second-hand arbor.

1,089,866. CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Mar. 19, 1913. Serial No. 755,542. (Cl. 58—7.)



1. As a new article of manufacture, a separately organized self-contained time-train movement having front and rear movement plates, pillars permanently located between and connecting the said plates, and assembling-sleeves permanently located between the said plates for which they form struts and adapted for the passage through them of assembling-pillars connected with a power train movement whereby when pressure is applied to the plates of the time-train movement in associating it with a power-train movement, the said plates are prevented from being sprung by the said sleeves.

2. In a separately organized self-contained time-train movement, the combination with front and rear movement plates mounting the several members of a time-train, of pillars interposed between and permanently connecting the said plates, and assembling-sleeves interposed between and permanently located between the said plates and distributed between the said pillars and acting as struts for the support of the movement plates and receiving assembling-pillars connected with a power-train movement, whereby when pressure is applied to the plates in associating the said time-train movement with a power-train movement the said plates are prevented from being sprung by the said sleeves.

3. In a separately organized self-contained time-train movement, the combination with front and rear movement plates mounting the several members of a time-train one of which plates is formed with a clearance-slot and one of which members is adapted to be operatively connected with a power-train by a connecting member entering the said slot, pillars permanently located between said plates and connecting the same, and assembling-sleeves permanently located between the plates and receiving assembling-pillars by which the said time-train movement is connected with a power-train movement, whereby when pressure is applied to the plates of the time-train movement in associating it with a power-train movement, the plates are prevented from being sprung by the said sleeves.

4. In a separately organized self-contained time-train movement for a front winding clock, the combination with front and rear movement plates mounting the several members of a time-train which is adapted to be operatively connected with a power-train, pillars permanently located between the said plates and connecting the same, assembling-sleeves permanently located between the said plates and forming struts therefor and adapted to receive assembling pillars connected with a power-train movement, a winding arbor mounted in the said plates and projecting at its front end through the said front plate and provided at its rear end with an auxiliary winding wheel bearing upon the back of the said rear plate and adapted to be meshed into a winding wheel organized with a power-train movement.

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1,089,867. HAT-PIN-POINT-PROTECTING DEVICE. JOZEF PRZYBYTKA, Sayreville, N. J. Filed Oct. 28, 1912. Serial No. 728,110. (Cl. 24—155.)

A hat pin point protecting device comprising a pair of gripping members having the outer ends thereof hinged together and the confronting faces thereof provided with longitudinal grooves for the reception of the pointed end of a pin, a yoke formed of a pair of angularly disposed arms and a pin, said arms integral with the sides of one



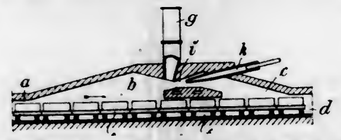
of said members and extending across the sides and projecting from the other of said members, said pin extending through the free ends of said arms, a longitudinal wear plate integral with and offset with respect to outer face of the said second mentioned member at its inner



portion and arranged inwardly with respect to said pin, and a cam pivotally supported by said pin and provided with a lever for actuating the same, said cam having a nose and capable of being shifted to have its nose engage said plate for locking said members in gripping engagement with the pointed end of the pin.

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1,089,868. CHANNEL-FURNACE FOR BURNING ORE-BRICKS. ARTHUR RAMÉN, Helsingborg, Sweden. Filed Aug. 4, 1910. Serial No. 575,541. (Cl. 75—134.)

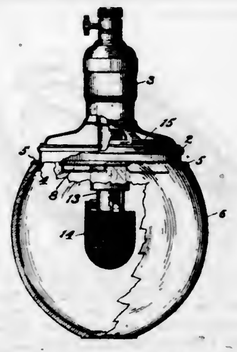



1. In a channel furnace, a movable hearth, a combustion chamber, a cooling chamber communicating therewith, a bridge positioned above said movable hearth intermediate said chambers whereby a channel is formed between the bridge and the roof of the furnace, and means for introducing a gaseous medium under pressure in said channel, and in the direction of the combustion chamber, whereby air will be drawn by injection from the cooling chamber and forced into the combustion chamber.

2. In a channel furnace a movable hearth, a combustion chamber, a cooling chamber communicating therewith, a bridge positioned above said movable hearth intermediate said chambers, a channel between the bridge and the roof of the furnace, vertical partition walls in the said channel dividing it into vertical channels and means for introducing a gaseous medium under pressure in said vertical channels and in the direction of the combustion chamber, whereby air will be drawn by injection from the cooling chamber and forced into the combustion chamber.

3. In a channel furnace a movable hearth, a combustion chamber, a cooling chamber communicating therewith, a bridge positioned above said movable hearth intermediate said chambers a channel between the bridge and the roof of the furnace, vertical partition walls in the said channel dividing it into vertical channels, means in the partition walls for introducing combustible gas under pressure between the said channels and means for introducing a gaseous medium under pressure in said channels and in the direction of the combustion chamber, whereby air will be drawn by injection from the cooling chamber and forced into the combustion chamber.

1,089,869. GLOBE OR SHADE AND HOLDER THEREFOR. DANIEL A. RIPLEY, Connellsville, Pa., assignor to Ripley and Company, Inc., Connellsville, Pa., a Corporation of West Virginia. Filed Aug. 12, 1912. Serial No. 714,646. (Cl. 240—115.)



1. The combination of a shade having a circular hole formed with edge notches, an annular sheet-metal supporting device shaped to form integral projections for entering the shade notches and other integral projections for overhanging the edge of the shade, whereby when the assembled parts are turned one relatively to the other they are securely united.

2. The combination of a shade or globe having notches in the edge surrounding its top hole, an annular sheet-metal supporting device flanged to overhang the top edge of the shade and also formed with flanged projections in a lower plane than the overhanging flanged portion for entering the shade notches, whereby when the assembled parts are turned one relatively to the other they are securely united.

3. The combination with a shade having a circular hole formed with edge notches, of a shade support provided with laterally separated projections adapted to enter the shade notches and engage the shade between the notches when the shade and support are turned one relatively to the other, the support provided with projections spaced from the first named projections a distance corresponding approximately to the thickness of the shade for engaging the exterior of the latter when the parts are assembled.

4. The combination with a shade having a circular hole formed with edge notches, of a circular support provided with two series of peripheral projections, the two series separated from each other a distance corresponding approximately to the thickness of the shade, the projections of each series spaced apart and arranged opposite interruptions in the other series, the projections of one series adapted to enter the shade notches and engage the shade between the notches when the shade and support are turned one relatively to the other with the projections of the other series engaging the exterior of the shade.

5. The combination with a shade having a circular hole formed with edge notches, of an annular support formed of resilient metal having integral projections spaced apart laterally and also spaced apart vertically to interlock with the notched edge of the shade and exert pressure on opposite surfaces of the latter.

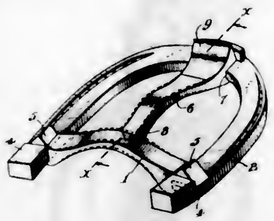
[Claim 6 not printed in the Gazette.]

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1,089,870. ATTACHMENT FOR HORSESHOES. JOHN H. ROEBUCK, Chicago, Ill. Filed May 10, 1913. Serial No. 766,695. (Cl. 168—30.)

The combination with a horse shoe, of a cross bar arranged and extending between the ends of the shoe, the ends of said bar being adapted to abut the rearward sides of the permanent calks of the shoe; calks on said bar, said bar being bowed whereby, when said bar is straightened, the ends thereof will move into gripping relation with the

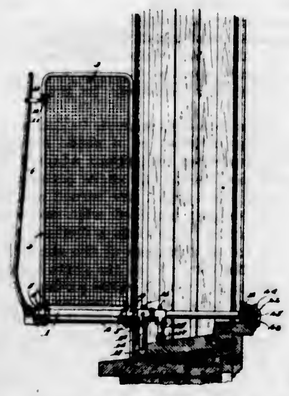
adjacent end portion of the shoe; a second bar arranged at substantially right angles to said first mentioned bar and medially thereof; and a calk on said bar, one end of said second mentioned bar engaging against said first mentioned bar, the opposite end of said second mentioned bar engaging said shoe, said second mentioned bar being



also bowed whereby, when the same is straightened, the ends thereof will be moved into gripping relation with said first mentioned bar and said shoe, the respective ends of said last mentioned bar being channel formed for loosely embracing said first mentioned bar and said shoe, substantially as described.

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1,089,871. WINDOW-PLATFORM. JOSEPH M. SCHOLEY, Kenosha, Wis., assignor, by direct and mesne assignments, to Safety Window Platform Company, Kenosha, Wis. Filed Mar. 1, 1912. Serial No. 680,809. (Cl. 20—87.)



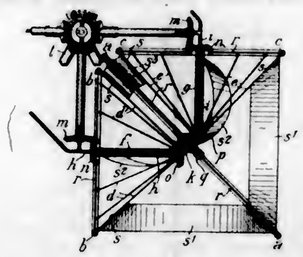
In a window scaffold, a U-shaped frame comprising a transverse end portion and parallel side portions, a pair of side frames and an end frame each formed of a U-shaped member and a panel, bearings fixed to the free ends of each of said U-shaped members and rotatably mounted on the respective portions of said U-shaped frame, collars fixed to said frame portions upon each side of said bearings, and co-acting means on said U-shaped members for holding the side and end frames in extended position, said end frame being outwardly bowed adjacent the lower end to facilitate folding flat over the side frames, substantially as described.

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1,089,872. PROPELLER FOR AIRCRAFT. KURT SCHULTZE, Pankow, Berlin, Germany. Filed July 3, 1913. Serial No. 777,142. (Cl. 170—143.)

1. A propeller comprising two disks mounted to rotate at an angle to each other, flexible operating members connecting said disks, and a third disk located between the first-named disks, the flexible operating members being secured to said intermediate disk.

2. A propeller comprising two disks mounted to rotate in planes at a right angle to each other, flexible operating members connecting said disks, and an intermediate disk to which said members are secured.



3. A propeller comprising two disks mounted to rotate at an angle to each other, flexible operating members connecting said disks, and an intermediate disk, of larger diameter than the other disks, and having the said members secured to it.

4. A propeller comprising disks mounted to rotate at an angle to each other and provided with converging conically arranged spokes, and flexible operating members connecting said disks and secured to the conically converging spokes.

5. A propeller comprising two disks mounted to rotate at an angle to each other, axles supporting said disks and connected with each other, an intermediate disk mounted on the portion connecting said axles, and flexible operating members connected with said disks.

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1,089,873. SASH CONSTRUCTION. ALBERT H. SISSON, High Point, N. C., assignor to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 22, 1913. Serial No. 791,040. (Cl. 189—76.)



1. In sash construction, the combination with a rail and stile connected to form a sash corner, of an exterior plate secured to both of the sash members and bridging the joint therebetween, the inner edges of the plate deflected laterally to form a flange fitting over the inner edges of the members, and a lock operating member carried by the plate and extending into the glass area of the sash, substantially as described.

2. In sash construction, the combination with a rail and stile connected to form a sash corner, of an exterior L-plate secured to both of the sash members and bridging the joint therebetween and extending from the corner along each of said members, the inner edges of the plate deflected laterally to form a flange fitting over the inner edges of the members, and a lock operating member carried by the plate and extending into the glass area of the sash, substantially as described.

3. In sash construction, the combination with a rail and stile connected to form a sash corner, of an L-plate secured to both of the sash members and bridging the joint therebetween and extending from the corner along each of said members, the inner edges of the plate deflected laterally to form a flange fitting over the inner edges of the members, a lock operating member mounted on the plate, and a stud integral with the plate and engaging within a recess of the sash, substantially as described.

4. In sash construction, the combination with a rail and stile connected to form a sash corner, of a plate secured to both of the sash members and bridging the joint therebetween and extending from the corner along each of said members, the inner edges of the plate deflected laterally to form a flange fitting over the inner edges of the members, a sash lift formed integral with the plate, and a lock covered by the plate and having a finger piece disposed adjacent the lift, substantially as described.

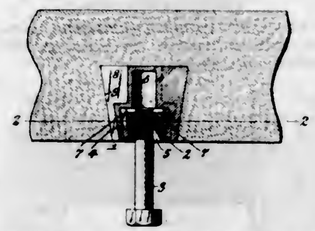
5. In sash construction, the combination with a rail and stile connected to form a sash corner, of an L-plate overlying the joint and extending from the corner along the side face of each of said members, said plate projecting inwardly beyond the inner edges of the sash members into the space bounded by said members, a lift carried by the plate, a lock covered by the plate, and a finger piece disposed adjacent the lift, the lift and finger piece being entirely within the area bounded by the inner edges of the sash members, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]



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1,089,874. CONCRETE ANCHOR. HARRY J. SMITH, Lakewood, Ohio, assignor to The Hill Clutch Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 11, 1911. Serial No. 665,076. (Cl. 72—105.)



1. A concrete anchor comprising a hollow cast body having a lower chamber, an upper chamber opening into the lower chamber and an opening arranged in the underside of the body and in line with the upper chamber, and a screw nut arranged in said lower chamber and constructed of such size as to prevent its removal from the lower chamber.

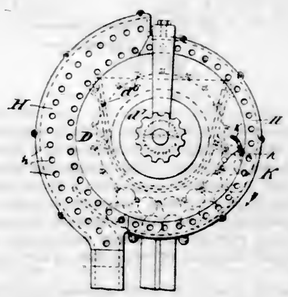
2. A concrete anchor comprising a hollow cast body having a lower chamber, an upper chamber opening into the lower chamber and an opening arranged in the underside of the body and in line with the upper chamber, and a screw nut arranged in said lower chamber and constructed of a size to prevent its removal from the lower chamber and said lower chamber being provided with an internal stop shoulder which is engaged by the corners of said screw nut for preventing the latter from turning within the body.

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1,089,875. BOTTLE-SEALING MACHINE. HERBERT T. SNYDER, Baltimore, Md. Filed June 22, 1912. Serial No. 705,178. (Cl. 113—114.)

1. In a machine for sealing bottles with metallic caps, the combination with a hopper, a feed drum adapted to be rotated relatively to the hopper and a connecting flanged spacing plate interposed between them, said drum provided with a flange forming with said flanged plate, an upwardly extending endless curved guideway between said drum and plate adapted to receive a plurality of rows of caps in proper position throughout the entire guideway, and means carried on the face of said drum for directing the caps to said guideway.

2. In a machine for sealing bottles, the combination with a hopper, a feed drum adapted to be rotated relatively thereto and provided with a series of cap-positioning and propelling pins, a connecting spacing plate interposed between said elements and having an interior and upwardly curved flange, said plate forming, with the interior wall of said drum, a curved guideway extending upwardly to a plane coincident with the lowermost plane of rotation of said cap-propelling pins and adapted to receive a plurality of rows of sealing caps throughout the entire guideway.



3. In a machine for sealing bottles, a hopper, a relatively rotatable feed drum, and an interposed flanged plate, said elements being constructed and combined to form a curved guideway, an annular series of spacing pins on one wall of said guideway, arranged thereon at a distance from the circumferential wall of the guideway sufficient to admit thereto a plurality of rows of caps throughout the entire guideway, said pins being out of contact with the outermost row of caps but contacting with the innermost row of caps, whereby on rotation of the feed drum the pins act on the innermost row of caps and through them, by a rolling contact, force the outermost row of caps in a direction toward the delivering end of the guideway, means for directing the caps to said pins, and resiliently controlled means extending into said guideway for positively forcing the caps toward the delivering end of said guideway.

4. In a machine for sealing bottles, a hopper, a relatively rotatable feed drum, and an interposed flanged plate, said elements being constructed and combined to form a curved guideway, an annular series of spacing pins on one wall of said guideway, arranged thereon at a distance from the circumferential wall of the guideway sufficient to admit thereto a plurality of rows of caps throughout the entire guideway, said pins being out of contact with the outermost row of caps but connecting with the innermost row of caps, whereby on rotation of the feed drum the pins act on the innermost row of caps and through them, by a rolling contact, force the outermost row of caps in a direction toward the delivering end of the guideway, means for directing the caps to said pins, and a spring pressed finger rotatably mounted on one of said pins and extending into said guideway, said finger adapted in its normal position to positively force the caps toward the delivering end of said guideway and clear the guideway on each revolution of the feed drum and when resistance is met with be forced backward and ride over the edge of the caps.

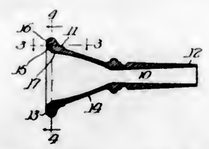
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1,089,876. MOUTHPIECE. CHARLES E. STACY, Dayton, Ohio, assignor to Frank Holton & Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1913. Serial No. 792,309. (Cl. 84—79.)

1. A mouth piece for wind musical instruments comprising a shank portion for insertion in a mouth pipe of an instrument, a cupped portion extending from the shank portion, and a rounded flange about the outer extremity of said cupped portion, said flange being provided with a single recess in its inner periphery at the outer side thereof.

2. A mouth piece for wind musical instruments comprising a shank portion for insertion in a mouth pipe of

an instrument, a cupped portion extending from the shank portion, and a rounded flange about the outer extremity of said cupped portion, said flange being formed with a recess extending from the cupped portion to the forward or lip-contacting side of the flange.



3. A mouth piece for wind musical instruments comprising a shank portion for insertion in a mouth pipe of an instrument, a cupped portion extending from the shank portion, and a rounded flange about the outer extremity of said cupped portion, said flange being formed with a recess extending from the cupped portion to the forward or lip-contacting side of the flange and being of sufficient size to permit freedom of vibration of the lip of the operator.

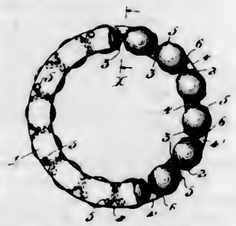
4. A mouth piece for wind musical instruments comprising a shank portion for insertion in a mouth pipe of an instrument, a cupped portion extending from the shank portion, and a rounded flange about the outer extremity of said cupped portion, said flange being formed with a recess extending from the cupped portion to the forward or lip-contacting side of the flange and being of sufficient size to permit freedom of vibration of the lower portion of the upper lip of the operator.

5. A mouth piece for wind musical instruments provided with a lip contacting flange, the outermost periphery of said flange being unbroken, and a recess being provided in the flange extending from the outer lip-contacting periphery of the flange inwardly to the innermost lip-contacting periphery thereof.

[Claim 6 not printed in the Gazette.]

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1,089,877. BALL-BEARING RETAINER. GUSTAV H. STAHL, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,279. (Cl. 64—59.)



1. A ball bearing retainer comprising two annular members counterparts of each other; projections on each of said members coöperating to form spherical sockets for the reception of bearing balls; and bosses on each of said members adapted to interlock with the outer ends of the projections on the other for holding said members against relative movement, substantially as described.

2. A ball bearing retainer comprising two annular members counterparts of each other; projections on each of said members substantially wedge-shaped in cross section coöperating to form spherical sockets for the reception of bearing balls; and bosses on said annular members adapted to engage the free ends of said projections, substantially as described.

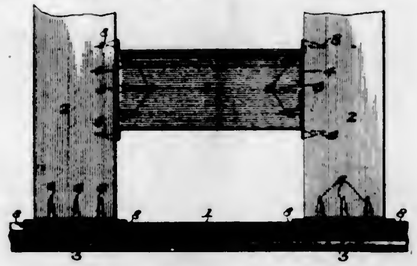
3. A ball bearing retainer comprising two annular members counterparts of each other; projections extending from one side of each of said members substantially wedge-shaped in cross-section and having recesses in their free ends, said projections being adapted, when said members are arranged in operative relation with each other, to form spherical sockets for the reception of bearing balls; and bosses on said annular members, each boss engaging one of said recesses, substantially as described.

4. A ball bearing retainer comprising two annular members, counterparts of each other, each of said members being formed of a blank of sheet metal, said blank comprising an annular body portion; and projections extending radially from the periphery of said body portion, said projections being bent to extend perpendicular to said body portion and each being bent longitudinally upon itself into a form supstantially wedge-shaped in cross-section, the projections of said members being adapted to coöperate with each other to form spherical sockets for the reception of bearing balls; bosses on said annular members adapted to engage the free ends of said projections, and means for locking said members together, substantially as described.

5. A ball bearing retainer comprising two annular members counterparts of each other, each of said members being formed of sheet metal, each comprising an annular body portion and projections formed integral with said body extending perpendicular to said body portion, each of said projections being bent longitudinally upon itself into a form substantially wedge-shaped in cross-section; bosses formed upon the body portion of each of said members, the bosses of each of said members being adapted for engagement by the outer ends of the projections of the other, to hold said members against reintive movement; and means for locking said members together, substantially as described.

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1,089,878. STUDDING-FASTENER. ALFRED STEINHAUSER, Philadelphia, Pa. Filed Apr. 9, 1913. Serial No. 760,015. (Cl. 85—11.)



1. A fastener for studding and similar frame elements, comprising a body-portion having prongs projecting in one direction only and extensions on said body portion having prongs projecting in one direction only and in the opposite direction to the body prongs.

2. A fastener for studding and similar frame elements, comprising a body-portion having prongs projecting in one direction and ends bent out of the plane of said body-portion and having end-prongs projecting in the opposite direction.

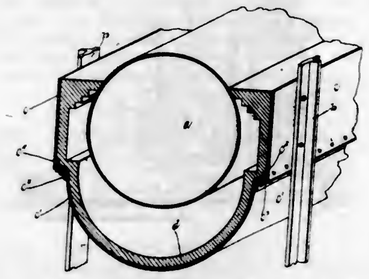
3. A fastener for studding and similar frame elements, consisting of a single plate of sheet-metal forming a flat body-portion having prongs struck out from it to project in one direction and end-portions bent out of the plane of said body-portion and having prongs struck out from them to project in the opposite direction.

4. A fastener for studding and similar frame elements, consisting of a single plate of sheet-metal forming a flat body-portion having prongs struck out from it to project in one direction and weakened end-portions bent out of the plane of said body-portion and having prongs struck out from them to project in the opposite direction.

5. A fastener for studding and similar frame elements, consisting of a single plate of sheet-metal forming a flat body-portion, prongs projecting therefrom in one direction only, and weakened extensions on said body portion having prongs projecting therefrom in one direction only and in the opposite direction to the first-mentioned prongs.



1,089,879. STEAM-BOILER FURNACE. FREDERICK C. STIMMEL, Chattanooga, Tenn., assignor to The Casey-Hedges Company, Chattanooga, Tenn., a Corporation of Ohio. Filed Mar. 18, 1909. Serial No. 484,340. (Cl. 110—1.)



1. In a device of the character described, a boiler, an outer steel casing for the same, said casing being formed of upper and lower sections, an inner lining of refractory material for said casing, a flange secured to said upper section and extending beneath part of said lining to form a support for same, and means for removably securing said lower section to said flange to support said lower section from said upper section, substantially as specified.

2. In a device of the character described, a boiler, an outer steel casing for same formed of upper and lower sections, an inner laterally projecting flange on the lower edge of said upper section, an inner lining of refractory material supported by said flange, an outer laterally projecting flange on the upper edge of said lower section, and means for removably securing said flanges together to support said lower section from said upper section, substantially as specified.

3. In a device of the character described, a boiler, an outer steel casing for said boiler, said casing being formed of an upper section on each side of said boiler and a lower section, an inner laterally projecting flange on the lower edge of each of said upper sections, an inner lining of refractory material for said upper sections supported by said flanges, and an outwardly projecting flange on each of the upper edges of said lower section removably secured to the flanges of the upper sections to support said lower section from said upper sections, substantially as specified.

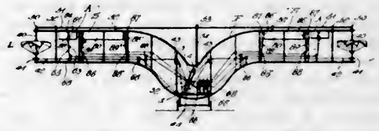
4. In a device of the character described, a boiler, an outer steel casing for same, said casing being formed of upper and lower sections, supports for said upper section, an inner lining of refractory material for said upper section, a shelf secured to said upper section for supporting said lining, and means for removably securing said lower section to said shelf to support said lower section from said upper section, substantially as specified.

5. In a device of the character described, a boiler, an outer steel casing for same, said casing being formed of upper and lower sections, supports for said upper section, an inner lining of refractory material for said upper section, a shelf secured to said upper section for supporting said lining, devices for removably securing said lower section to the shelf to support said lower section from said upper section, and a lining of refractory material for said lower section and supported thereby, substantially as specified.

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1,089,880. AEROPLANE. REUBEN B. SWANK, Dayton, Ohio. Filed Apr. 17, 1913. Serial No. 761,768. (Cl. 244—14.)

1. In an aeroplane, the combination with a framework dropped at its transverse center to afford space for the operator, a forward rudder, a rearward tail, controlling devices for these elements at the center of the machine and respectively in front and rear of said space, and a driving propeller mounted on a shaft standing along the center of the frame; of a motor and its main shaft disposed to one side of said space, connections between this shaft and that of the driving mechanism, hinged planes at the extremities of the frame, manual controls therefor located at the opposite side of said space from said motor, and connections between said planes and their respective controls.



2. The herein described air craft comprising fixed main planes extending transversely of the machine, lifting propellers at the extremities of said planes, two pairs of hinged planes next inside said propellers, manual means for adjusting them, a rudder at the front of the machine, a longitudinally curved tail at the rear end of the machine, means for turning this tail on its longitudinal axis, the driving mechanism, and a power plant.

3. The herein described air craft comprising fixed main planes extending transversely of the machine, lifting propellers at the extremities of said planes, hinged planes next inside said propellers, means for adjusting them, a rudder at the front of the machine, a longitudinally curved tail at the rear end of the machine, means for turning this tail manually on its longitudinal axis and setting it in adjusted position, the driving mechanism, and a power plant.

4. The herein described air craft comprising fixed main planes extending transversely of the machine, lifting propellers near the ends of said planes, hinged planes adjacent said propellers, means for adjusting them, a rudder at the front of the machine, a longitudinally curved tail at the rear end of the machine, means for turning this tail on its longitudinal center and setting it in adjusted position, the driving mechanism, and a power plant.

5. The herein described air craft comprising fixed main planes extending transversely of the machine, lifting propellers at the extremities of said planes, hinged planes inside said propellers, means for adjusting said hinged planes independently of each other, a longitudinally curved tail at the rear end of the machine, the driving mechanism, and a power plant.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,881. GOLF-CLUB. THOMAS TAYLOR, Jr., Hubbard Woods, Ill. Filed May 31, 1913. Serial No. 770,843. (Cl. 46—4.)



1. In a golf club, a head having feet depending from the lower side thereof; the whole of each foot extending back beyond the rear face of the head forming a large heel, each heel weighing not less than the amount of metal it would take to fill up the space or cavity between any two of the large feet, and the sole of each foot being not less than twice as long or thick forward and back as the thickness of the sole of the conventional golf club head and making the center of the weight and the center of percussion approximately the center of the whole face of the club head.

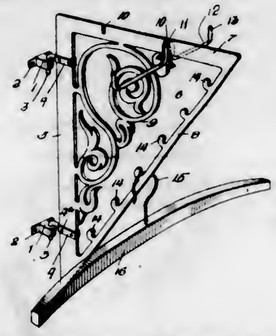
2. In a golf club, a head having feet depending from the lower side thereof, each foot having a rearwardly extending weighted heel of approximately the same weight as the amount of metal it would take to fill the space between two adjacent feet, each heel having an extension which projects upwardly therefrom and contacts with the rear face of the head at a point between the top and bottom sides of the head to reinforce the head and feet and making the center of weight and percussion approximately the center of the whole face of the club head.

3. In a golf club, a head having feet depending from the lower side thereof, each foot having a rearwardly extending weighted heel or extension of the same weight as the amount of metal it would take to fill the space between two adjacent feet, each heel having an extension which projects upwardly therefrom and contacts with the rear face of the head at a point between the top and bottom sides of the head to reinforce the head and feet, and making the center of weight and percussion approximately the center of the whole face of the club, the toes of the feet and the free extremities of the heels extending substantially the same distance from the driving and rear faces, respectively, of the head.

4. In a golf club, a head having spaced feet depending from the lower side thereof, the whole of each foot extending back beyond the rear face of the head and forming a heel, each heel weighing not less than the amount of metal it would take to fill up the space or cavity between any two of the feet, and the sole of each foot being not less than twice as long or thick forward and back as the thickness of the sole of the conventional golf club head and making the center of the weight and the center of percussion approximately the center of the whole face of the club.

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1,089,882. GARMENT-HANGER. MARY E. THOMAS, Pittsburgh, Pa., assignor of one-half to James M. Fullerton, Pittsburgh, Pa. Filed Dec. 14, 1911. Serial No. 665,756. (Cl. 45—13.)

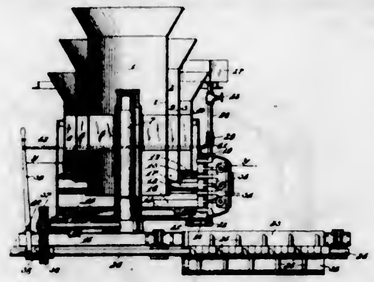


A garment holder comprising a skeleton body of flat metal in the form of a right angled triangle, one leg of said triangle being provided with means for supporting the body, the inner edge of the hypotenuse of said body forming a garment-supporting member provided with upwardly projecting hooks forming narrow slot-like recesses to receive hook-portions of garment hangers, whereby the hangers will not readily fall out of said recesses or become accidentally disengaged from said garment-supporting member.

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1,089,883. CONCRETE-MACHINE. EDWARD N. THUMP, Syracuse, N. Y., assignor to The Solvay Process Company, Solvay, N. Y., a Corporation of New York. Filed Aug. 1, 1906. Serial No. 328,660. (Cl. 83—73.)

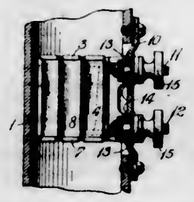
1. In a concrete mixer, the combination of means for proportionately feeding the ingredients, said means adapted to feed the same in freely falling substantially parallel streams, and means in transverse line with and located on opposite sides of said streams for spraying said streams of material while the same are falling unconfined.



2. In a concrete mixer, the combination of means for proportionately feeding the ingredients, said means adapted to feed the same in freely falling substantially parallel streams, means in transverse line with and located on opposite sides of said streams for spraying said streams of material while the same are falling unconfined, and a mixing receptacle having means therein for mixing the material thus moistened.

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1,089,884. MANIFOLD-HEATER. FREDERICK A. VOLLBRECHT, Detroit, Mich. Filed Dec. 26, 1912. Serial No. 738,545. (Cl. 219—38.)



1. A heater for the purpose described, comprising a metallic casing, curved supports carried thereby, plates of insulation arranged in said casing with one of said plates provided with extensions engaging said supports, an insulating core arranged between said plates, and a metallic ribbon wound around said core and having ends thereof extending out of said casing against the extension of said plate of insulation and adapted to be connected to a suitable source of electrical energy.

2. A heater for the purpose described, comprising a metallic casing, supports carried thereby, plates of insulation arranged within said casing and one of said plates provided with extensions adapted to engage said supports, an insulating core arranged between said plates of insulation, a metallic ribbon wound around said core and having the ends thereof in proximity to the extensions of said insulating plate, a detachable ribbed side wall closing said casing and means in connection with said casing for retaining said side wall in engagement therewith.

3. A heater of the type described, comprising a casing having a detachable side wall, supports projecting from one side of the back of said casing, plates of insulation arranged within said casing, extensions carried by an edge of one of said plates and engaging the supports of said casing, an insulating core arranged between said plates, and a metallic ribbon supported by said core and having the ends thereof terminating at the extensions of said insulating plates.

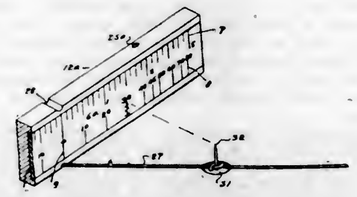
4. A heater of the type described comprising a casing, supports carried by the back of said casing at one edge thereof, plates of insulation arranged within said casing, an insulating core arranged between said plates, a metallic ribbon wound upon said core and having the ends thereof terminating at the supports of said casing, insulation arranged between said supports and the ends of said ribbon, and means whereby access can be had to said casing.

5. The combination with a suitable support, of a casing connected thereto, plates of insulation arranged in said casing, extensions carried by one of said plates of insulation and extending to the connection of said casing with said support, an insulating core arranged between said plates of insulation and a metallic ribbon wound around said core and having ends thereof extending into proximity to the extensions of said plate of insulation.



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1,089,885. ANGLE-FINDER. GUSTAVE WALLACE, New York, N. Y. Filed Mar. 22, 1913. Serial No. 756,170. (Cl. 88—2.2.)



1. An angle finder comprising a frame adapted to stand with one of its edges on a primary support, a mirror having divisions representing inches and fractions thereof set into said frame, a cord attached at one end to said frame and adapted to be swung therefrom in front of the divisions on the mirror, and a sight on the cord co-acting with said divisions.

2. An angle finder comprising a frame adapted to stand with one of its edges on a primary support, a mirror having a central line running substantially vertically across the face thereof set into said frame, divisions corresponding to inches and fractions thereof extending to the right and left of the central line, said divisions being adjacent the edge of the mirror, a cord attached endwise to said frame in front of the central line of the mirror and adapted to be swung on either side thereof, and a sight on the cord co-acting with said divisions.

3. An angle finder comprising a frame adapted to rest with one of its edges on a support, a mirror having divisions formed on its back surface set into said frame, a cord attached endwise to said frame adapted to be swung laterally in front of the divisions on the mirror, and a sight coöperating with said cord and said mirror.

4. An angle finder comprising a reflector bearing scales of different characters adjacent its top and bottom edges, a cord secured endwise to said reflector and adapted to be swung laterally in front of the mirror in connection with either scale, and a sight on the cord coöperating with said scales.

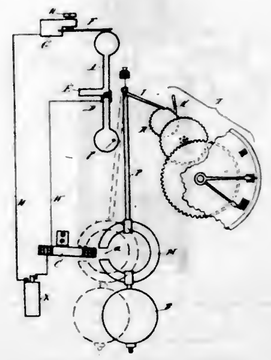
5. An angle finder comprising a mirror having a zero mark and graduations corresponding to projections of the degrees of a circle combined with a cord connected endwise with the mirror at the zero mark, said cord being movable on either side thereof, and a sight on the cord co-acting with said graduations.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,886. ELECTRIC APPARATUS FOR DRIVING CLOCKS OR SIMILAR MECHANISM. HENRY E. WARREN, Ashland, Mass. Filed Dec. 23, 1909. Serial No. 534,686. (Cl. 58—30.)

1. The combination of an oscillating device, electrical means to give it added impulse when oscillating, mechanism to open the electric circuit operated by the oscillating device, and operated by other means to close the circuit, with a dead-beat contact after time intervals, the extent of which are determined by the amplitude of swing of the oscillating device.



2. The combination of an oscillating device, electrical means to give it added impulse when oscillating, a contact maker operated by the oscillating device to open the impulse given circuit, other means as a counterweight to act upon the contact-maker to close the circuit, and means to arrest the kinetic force of such contact and prevent resilient action when closing the circuit.

3. The combination of an oscillating device, electrical means to give it added impulse when oscillating, a make-and-break device in the electric circuit which is operated by the oscillating device to open the circuit and automatically to close the circuit, one member of the make-and-break device having resilient frictional contact to cause the kinetic energy of the movable member to polish the contact surfaces and to prevent resilient action.

4. The combination of a pendulum, a permanent magnet having an air-gap, and so placed that its magnetic lines of force across the gap are chiefly in a direction approximately radial to the axis of oscillation of the pendulum, and an electric conductor, in the form of a coil with its axis substantially parallel to the lines of force across the air gap of the magnet which lines will be cut by the electric conductor when the pendulum oscillates, and means to supply current to the conductor intermittently.

5. Means to impart energy to an oscillating device consisting of a permanent magnet having a relatively short air gap in which the lines of force are concentrated and approximately parallel, and an electric conductor in the form of a flat coil, the planes of the convolutions of which are perpendicular to the lines of force across said air gap, one of said means being mounted in such position upon the oscillating device that the magnetic lines of the magnet will cut across the convolutions of the conductor when the device is oscillating, and means to supply current to the conductor intermittently.

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1,089,887. BOTTLE. AUGUST A. WAYE, St. Louis, Mo., assignor of one-fourth to Joseph Kuppertz, St. Louis, Mo. Filed Aug. 11, 1913. Serial No. 784,109. (Cl. 215—113.)

In combination with a bottle whose neck is provided with external threads and interrupted horizontal ribs, vertically arranged stops between the ribs, a combined stopper and cap arranged to fit within and embrace the neck of the bottle and having threads for connection with the threads of the bottle neck, and diametrically opposite projections for coaction with said ribs and stops of the bottle whereby, upon a rotation of the cap, the threads

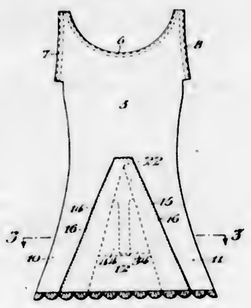
will cause a seating or unseating of the stopper and the projections, ribs and stops will require relative right and



left hand movements for the removal of the cap from the bottle.

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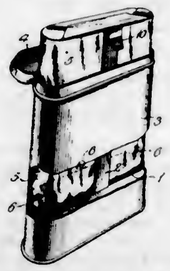
1,089,888. UNDERGARMENT. EDWARD F. WENTWORTH, Sinking Spring, Pa., assignor to Model Underwear Company, Sinking Spring, Pa., a Corporation of Pennsylvania. Filed Oct. 17, 1913. Serial No. 795,625. (Cl. 2—144.)



An undergarment having a body portion and leg portions, said leg portions being connected by aprons forming a continuous skirt, one of said aprons having its lateral edges stitched to the front of the leg portions, and the other apron having its laterai edges stitched to the back of said leg portions.

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1,089,889. PACKAGE. FRANCIS J. WESTON, Binghamton, N. Y., assignor of one-half to Bernard L. Gabriel, Binghamton, N. Y. Filed Aug. 9, 1913. Serial No. 783,884. (Cl. 209—41.)



1. The combination in a package having a permanently formed outer casing, and a collapsible lining, of an ejector corresponding in form to the cross sectional contour of the package and provided with folding means for engaging the lower portion of the collapsible lining, and a lifting handle intermediate the ends of said ejector and extending from the margin of the ejector upwardly between the lining and the casing wall.

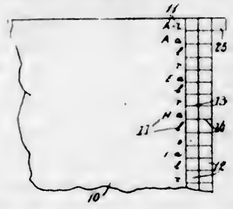
2. The combination in a package having a permanently formed outer casing provided with a lid, and a collapsible lining, of an ejector corresponding in form to the cross sectional contour of the package and provided with folding means for engaging the lower portion of the collapsible lining, and a lifting handle extending from the margin of the ejector upwardly between the lining and the casing wall, the handle being adapted to be bent downwardly over the margin of the upper end of the casing and retained in engagement therewith by the lid of said casing.

3. The combination in a package having permanently formed outer casing and a collapsible lining, of an ejector corresponding to the interior cross sectional contour of the casing on which the lining rests, means on the margin of the ejector for engaging the adjacent portions of the lining, and a handle formed integrally on the ejector that extends upwardly between the lining and the casing and is adapted to be bent downwardly over the margin of the casing.

4. A package comprising an outer casing adapted to contain a lining, a flanged cover closing over the upper open end thereof, an ejector formed of sheet material having a body formed substantially to the interior cross sectional contour of the casing, and its edges provided with means for engaging the lining placed in said casing, and an upwardly projecting strip on its margin forming a lifting handle that extends between the lining and the casing and is bendable downwardly over the upper margin of the casing, the flange of the cover being adapted to close over the handle.

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1,089,890. INDEX. CLARENCE H. WILEY, Hartford, Conn. Filed Dec. 12, 1906. Serial No. 347,562. (Cl. 11—7.)



1. An index sheet designed to receive index characters, a set of memoranda sheets each having on its edge a selective formation relatively located with respect to and to be identified by a character on the index sheet, said formations on the memoranda sheets being blank and being located outside of the edge of the index sheet.

2. An index sheet having characters extending along an edge, a set of memoranda sheets each having a selective formation on its edge relatively located with respect to and to be identified by one of said characters on the index sheet, said formations being blank and located outside of the edge of the margin of the index sheet.

3. An index sheet designed to receive index characters, a set of memoranda sheets each having on its edge a selective formation relatively located with respect to and to be identified by a character on the index sheet, and a section page provided with means located outside of the edges of the index sheet and memoranda sheets for locating the sections composed of said sheets.

4. An index sheet provided with characters extending along an edge, a set of memoranda sheets each having on its edge a selective formation relatively located with respect to and to be identified by one of said characters on the index sheet, said formations being located outside of the edge of the index sheet and being blank, and a separate section indicating page provided with means located outside of the edges of the other pages for locating a section composed of an indicating sheet and memoranda sheets appurtenant thereto.

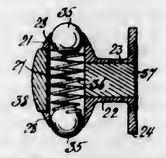
5. An index sheet designed to receive index characters, a set of memoranda sheets each having on its edge a selective formation relatively located with respect to and to be identified by a character on the index sheet, and means located outside of the edges of the index sheet and memoranda sheets for locating the section composed of said sheets.

[Claims 6 to 10 not printed in the Gazette.]



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1,089,891. DOOR-HOLDER. EDWARD W. WOOLLEY, Jersey City, N. J. Filed Aug. 6, 1910. Serial No. 575,886. (Cl. 16—80.)



1. In a holder the combination of a knob shaped male member having an opening therethrough, latches located in the opposite ends of said opening, a spring bearing between said latches and a bulged shaped cup female member coacting with said male member.

2. In a holder the combination of a knob shaped male member, having an opening with converging ends, latches located in said opening and extending through said converging ends, a spring located in said opening and bearing between said latches and a bulged shaped cup female member coacting with said male member.

3. In a holder the combination of a male member, a pair of latches supported in said member, a spring bearing between the inner faces of the latches, a cup shaped female member having a pair of openings that register with said latches in one position of said female member, means to turn the female member to cause said openings to register with said latches and automatic means to return the same to its normal position.

4. In a holder the combination of a male member, a pair of latches supported in said member, means to maintain said latches in their normal positions, a movable female member comprising a cup, having a pair of openings that register with said latches in one position of the female members, a neck extending from the cup, flange lugs extending from the neck, a barrel having a groove supporting said neck, the said groove registering with the flange lugs of said neck, and a spring connected between the cup and the barrel.

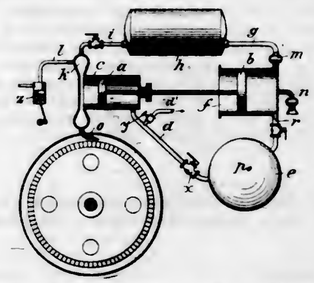
5. In a holder combination of a male member, a buffer extending from said member, a pair of vertical latches supported in the member, means to maintain said latches in their normal extended locations, a female member comprising a cup, a flange on the cup having a pair of openings adapted to register with the latches in one position of the cup, a support for the cup to turn on, a spring connected between the cup and support adapted to maintain the cup with the openings out of register with the latches and means to control the amount of rotation of the cup.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,892. EXPLOSION GAS-TURBINE. HEINRICH ZOELLY, Zurich, Switzerland. Filed Jan. 6, 1913. Serial No. 740,470. (Cl. 60—4.)

1. In an explosion gas turbine, the combination with a piston compressor, of a two cycle gas engine for impelling said compressor, the combustion gases of said engine expanding during the outward movement of its piston, an explosion chamber in continuous communication with the cylinder of said engine, nozzles connected to the combustion chamber, a rotor wheel, auxiliary means for expelling said combustion gases during the inward stroke of the piston of the gas engine at an approximately constant pressure and for causing these gases to flow during the whole working process through said nozzles at a speed of the greatest possible uniformity to said rotor wheel



2. In an explosion gas turbine, the combination with a piston compressor, of a two cycle gas engine impelling said compressor, the combustion gases of said engine expanding during the outward movement of its piston, an explosion chamber in continuous communication with the cylinder of said engine, nozzles connected to the combustion chamber, a rotor wheel, auxiliary means for expelling said combustion gases during the inward stroke of the piston of the gas engine at an approximately constant pressure and for causing these gases to flow during the whole working process through said nozzles at a speed of the greatest possible uniformity to said rotor wheel, and a medium contained in said means connected during the greater part of a working process to the side of the gas engine cylinder opposite to that of the explosion chamber, said medium receiving work from the products of combustion during the outward stroke of the piston of the gas engine, while it transmits its work to said products during the inward stroke of said piston.

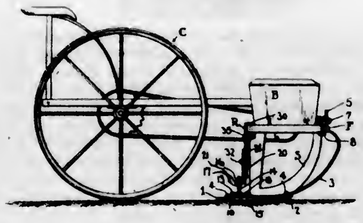
3. In an explosion gas turbine, the combination with a piston compressor, of a two cycle gas engine impelling said compressor, the combustion of said engine expanding during the outward movement of its piston, an explosion chamber in continuous communication with the cylinder of said engine, nozzles connected to the combustion chamber, a rotor wheel, auxiliary means for impelling said combustion gases during the inward stroke of the piston of the gas engine at an approximately constant pressure and for causing these gases to flow during the whole working process through said nozzles at a speed of the greatest possible uniformity to said rotor wheel, said means including a receptacle filled with air and connected during the greater part of a working process to the side of the gas engine cylinder opposite to that of the explosion chamber, the air in said receptacle receiving work from the products of combustion during the outward stroke of the piston of the gas engine, while the air transmits work to said products during the inward stroke of said piston.

4. In an explosion gas turbine, the combination with a piston compressor, of a two cycle gas engine impelling said compressor, the combustion gases of said engine expanding during the outward movement of its position, an explosion chamber in continuous communication with the cylinder of said engine, nozzles connected to the combustion chamber, a rotor wheel, auxiliary means for impelling said combustion gases during the inward stroke of the piston of the gas engine at an approximately constant pressure and for causing these gases to flow during the whole working process through said nozzles at a speed of the greatest possible uniformity to said rotor wheel, said means including a receptacle filled with air used for the combustion and connected during the greater part of a working process to the side of the gas engine cylinder opposite to that of the explosion chamber, the air in said receptacle receiving work from the products of combustion during the outward stroke of the piston of the gas engine, while the air transmits work to said products during the inward stroke of said piston.

5. In an explosion gas turbine, the combination with a piston compressor, of a two-cycle twin-cylinder gas engine having pistons working in opposite directions and impelling said compressor, the combustion gases of said engine expanding during the outward movement of its pistons, an explosion chamber in continuous communication with the cylinder of said engine, nozzles connected to the combustion chambers, a rotor wheel and auxiliary means for expelling said combustion gases during the inward stroke of the pistons of the gas engine at an approximate constant pressure and for causing these gases to flow during the whole working process through said nozzles at a speed of the greatest possible uniformity to said rotor wheel.

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1,089,893. CORN-PLANTER ATTACHMENT. JOHN B. ALLBEE, Plover, Iowa. Filed May 29, 1913. Serial No. 770,788. (Cl. 111—6.)



1. In a corn planter attachment for the purpose set forth, the combination with a flat shoe slightly upturned at its front end; of a rib secured upon and along the central line of said shoe with its forward end extending beyond the front end of the shoe and upturned, means for attaching its upper extremity to the frame of a corn planter, a support connecting the rear end of said rib with the frame of the corn planter, and means for adjusting the length of said support.

2. In a corn planter attachment for the purpose set forth, the combination with a flat shoe slightly upturned at its front end; of a rib secured upon and along the central line of said shoe with its forward end extending beyond the front end of the shoe and upturned, means for attaching its upper extremity to the frame of a corn planter, a bolt whose head is connected with the rear end of said rib and whose threaded shank stands uppermost, a pair of members telescopically mounted upon each other and the lowermost having a horizontally projecting lower extremity pierced with an eye engaging said bolt, means for attaching the upper end of the uppermost member to the frame of the corn planter, and nuts on the threaded shank of said bolt above and below the eye in the rearwardly turned end of said lower member.

3. In a corn planter attachment for the purpose set forth, the combination with a flat shoe tapering toward its front end; of a rib secured upon and along the central line of said shoe with its forward end extending beyond the front end of the shoe and upturned, means for attaching its upper extremity to the frame of a corn planter, a clip plate having its ends secured upon said rib and its center raised and pierced with a hole, a bolt having its head disposed between said clip plate and rib and its shank projecting through said hole with its threaded end uppermost, two nuts on said threaded end, and a support consisting of two members telescopically mounted upon each other with the upper end of the uppermost member engaging the frame of the corn planter and the lower end of the lowermost member turned to the rear and pierced with an eye engaging said bolt between the nuts.

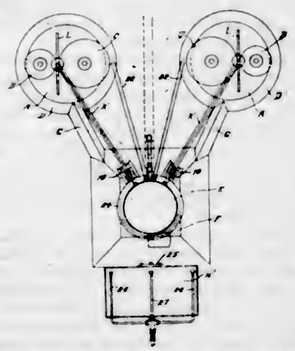
4. In a corn planter attachment for the purpose set forth, the combination with a flat shoe tapering toward its front end; of a rib secured upon and along the central line of said shoe with its forward end extending beyond the front end of the shoe and upturned, means for attaching its upper extremity to the frame of a corn planter, a clip plate having its ends secured upon said rib and its center raised and pierced with a hole, a bolt having its head disposed between said clip plate and rib and its shank projecting through said hole with its threaded end uppermost, two nuts on said threaded end, an upright member of strap iron having its lower end turned to the rear and pierced with an eye engaging said bolt between said nuts and its upper end formed into tongues projecting forwardly in parallelism with each other, an upper member having its upper end hooked over the frame of the corn planter and secured thereto and its body pierced with a series of holes, the body of the lower member having a single hole, and a bolt passing through one of said series in one member and through the single hole in the other member, for the purpose set forth.

5. In an attachment for corn planters, the combination with a flat shoe tapering toward its front end, and a rib of strap iron secured upon and throughout the length of said shoe and having an upturned front extremity adapted to be secured to the frame of the corn planter; of a bolt whose head is secured to the rear end of said rib and whose threaded shank stands uppermost, a pair of nuts on said shank, an upright member of strap iron having its lower end turned to the rear and pierced with an eye engaging said bolt between said nuts and its upper end formed into tongues projecting forwardly in parallelism with each other, an upper member having its upper end adapted to be hooked over the frame of the corn planter and secured thereto and its body pierced with a series of holes, the body of the lower member having a single hole, and a bolt passing through one of said series in one member and through the single hole in the other member, for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,089,894. GRINDING APPARATUS. JOHN A. BECHTEL, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 14, 1912. Serial No. 715,126. (Cl. 51—11.)



1. The combination with a grinding mechanism employing a mixture of abrasive and water, and a drainage receptacle beneath the grinding mechanism for receiving the said mixture from such grinding mechanism after use therewith, of a grading device adapted to grade the abrasive in the said mixture, means for conducting the mixture of abrasive and water from the receptacle to the grading device, and means whereby the mixture of abrasive and water may be conducted either to the grinding mechanism or to the drainage receptacle whereby it may be circulated continuously through the grading device without passing to the grinding mechanism.

2. The combination with a grinding mechanism employing a mixture of abrasive and water, and a drainage receptacle beneath the grinding mechanism for receiving the said mixture from such grinding mechanism after use therewith, of a grading device adapted to grade the abrasive in the said mixture, means for conducting the mixture of abrasive and water from the receptacle to the grading device, means whereby the mixture of abrasive and water may be conducted either to the grinding mechanism or to the drainage receptacle whereby it may be circulated continuously through the grading device without passing to the grinding mechanism, or may be directed to the grinding mechanism.



3. The combination with a grinding mechanism employing a mixture of abrasive and water, and a drainage receptacle beneath the grinding mechanism for receiving the said mixture from such grinding mechanism after use therewith, of a grading device adapted to separate the abrasive in the said mixture into a plurality of different grades, means for conducting the mixture of abrasive and water from the receptacle to the grading device, means whereby any one of the grades in the grading device may be conducted from the grading device to the grinding mechanism while maintaining the other grades in suspension in the grading device, and means for returning a portion of such other grades to the drainage receptacle during the application of the one grade to the grinding mechanism.

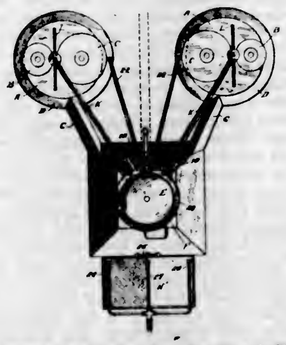
4. The combination with a grinding mechanism employing a mixture of abrasive and water, and a drainage receptacle beneath the grinding mechanism for receiving the said mixture from such grinding mechanism after use therewith, of a grading device adapted to grade the abrasive in the said mixture, means for conducting the mixture of abrasive and water from the receptacle to the grading device, and a conductor leading to the grinding mechanism and movable vertically in the grading device whereby any one of the grades therein may be withdrawn and delivered to the grinding mechanism without withdrawing the other grades.

5. The combination with a grinding mechanism employing a mixture of abrasive and water, and a drainage receptacle for receiving the said mixture from the grinding mechanism, of a grading tank, means for forcing the mixture from the drainage receptacle upward through the tank, an overflow passage leading from the tank, a conductor for carrying the material graded from the tank to the grinding mechanism, and a regulating passage intermediate the ends of the tank and leading back to the drainage receptacle, whereby the amount of overflow and the upward velocity of the liquid in the tank above the outlet from the tank of such last passage may be regulated.

[Claims 6 to 14 not printed in the Gazette.]

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1,089,895. PROCESS OF APPLYING ABRADING MATERIAL TO GRINDING MECHANISM. JOHN A. BECHTEL, Tarentum, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 15, 1913. Serial No. 742,224. (Cl. 51—11.)



1. The method of applying abrasive to grinding mechanism, which consists in grading the abrasive in suspension in water in a receptacle, conducting any desired grade to the grinding mechanism, collecting the drainage of abrasive and water from the grinding mechanism, conducting portions of the grades in the receptacle not being used to the drainage collected and returning the drainage to the grading receptacle during the period in which the said desired grade is being conducted to the grinding mechanism, the said operation being conducted in an uninterrupted cycle.

2. The method of applying abrasive to grinding mechanism, which consists in supplying a mixture of one of the grades of the abrasive and a liquid from a grading receptacle to the grinding mechanism and returning the mixture to the receptacle in an uninterrupted cycle, while maintaining the other grades of abrasive in the receptacle in suspension in the liquid, and simultaneously circulating such other grades to a position removed from the receptacle and back through the receptacle to their original positions in the receptacle.

3. The method of handling abrasive for grinding mechanism, which consists in grading the abrasive in suspension in water in a receptacle, conducting a mixture of the abrasive and water to the grinding mechanism and thence to a drainage receptacle and back to the grading receptacle in an uninterrupted cycle during the grinding operation, and continuously circulating the mixture of abrasive and water to the drainage receptacle and back to the grading receptacle when the grinding operation is not being carried on, the portion of the abrasive in the receptacle at such time being graded by the circulation.

4. The method of applying abrasive to grinding mechanism, which consists in collecting a mixture of abrasive and water from a grinding mechanism, forcing such mixture upward through a grading tank containing a mixture of abrasive and water, thereby grading the mixture, conducting a portion of the mixture from one level in the tank to the grinding mechanism, and simultaneously returning other portions of the mixture from other different levels in the tank to the mixture collected from the grinding mechanism, the cycle being substantially a continuous and uninterrupted one as long as the grinding continues.

5. The method of applying abrasive to grinding mechanism, which consists in collecting a mixture of abrasive and water from a grinding mechanism, forcing such mixture upward through a grading tank containing a mixture of abrasive and water, thereby grading the mixture, conducting a portion of the mixture from a level intermediate the top and bottom of the tank back to the mixture collected from the grinding mechanism without passing to such mechanism, whereby the upward velocity of the water in the tank above the said level is reduced, and conducting portions of the mixture in the tank below and above the said level successively to the grinding mechanism, the operations of forcing the mixture upward through the grading tank, conducting a portion of the mixture from the said level in the tank, and conducting another portion of the mixture to the grinding mechanism being carried on simultaneously.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,896. SHIPPING-CRATE. GUSTAV BECKER, Chicago, Ill. Filed July 25, 1912. Serial No. 711,558. (Cl. 217—48.)

1. A shipping crate comprising a plurality of sections pivotally connected together; a bottom hingedly secured to one of said sections; a flexible closure secured to the upper ends of said sections; and a tubular flexible wall loosely positioned within said crate and adapted when removed to be unfolded to assume a flat form, substantially as described.

2. A shipping crate comprising a body consisting of a plurality of sections pivotally connected together at their vertical edges, one pair of said edges being detachably connected to permit of unfolding of said sections; a bottom hingedly connected with one of said sections; and a sheet of flexible material arranged in tubular form loosely positioned in said body to constitute an inner wall therefor, said sheet being adapted, when said body is unfolded, to

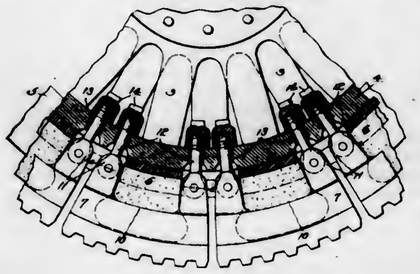
be unwound into straight form to lie flat against said body, substantially as described.



3. A shipping crate comprising a body consisting of a plurality of sections pivotally connected together at their vertical edges, one pair of said edges being detachably connected to permit of unfolding of said sections; a bottom hingedly connected with one of said sections; and a substantially rectangular sheet of cardboard arranged in tubular form to constitute an inner wall therefor, said sheet being adapted, when said body is unfolded, to be unwound into straight form to lie flat against said body, substantially as described.

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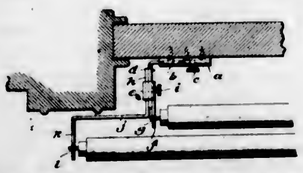
1,089,897. SECTIONAL CUSHION-TIRE. JAMES H. BEDELL and ISAAC E. BEDELL, Stamford, Conn. Filed Sept. 19, 1912. Serial No. 721,228. (Cl. 152—9.)



The combination with a wheel, of circular plates secured to the rim of the wheel and projecting beyond the rim, a plurality of segments having side and end flanges, the side flanges being slidably retained between said plates, rubber blocks fitting in said segments and bearing upon the wheel rim, rings secured upon the inner sides of said plates and bearing upon said blocks, and bolts pivotally connected to the ends of the segments and working loosely through the wheel rim.

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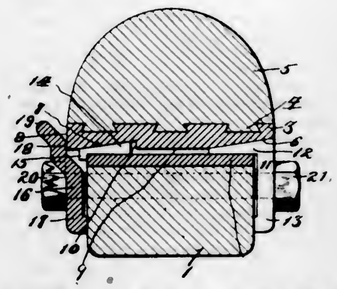
1,089,898. SHADE-BRACKET. JOHN A. BERCHTOLD, Sigel, Ill., assignor of one-half to August Schlicher, Mattoon, Ill. Filed June 25, 1913. Serial No. 775,753. (Cl. 156—24.)



A shade supporting structure embodying a forwardly projecting arm and means for detachably attaching it to the sash, a clip on said arm, provided with a forwardly projecting shade support adapted to receive the pintle of one of the shade rollers, a bracket consisting of a rearwardly extending arm passing through said clip, a laterally extending bar adapted to lie in front of the adjacent window framing and an outwardly projecting shade support on the outer end of said bar, and a set screw for adjustably clamping the clip to the aforesaid overlapping arms.

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1,089,899. VEHICLE WHEEL-RIM. PERCY B. BOSWORTH, Akron, Ohio. Filed Apr. 4, 1913. Serial No. 758,847. (Cl. 152—7.)



1. The combination with a vehicle wheel, of a pair of wedge-shaped rings positioned on the periphery thereof, one of said wedge-shaped rings provided with an inwardly-projecting flange for preventing its lateral movement, a tire-carrying rim provided on its inner face with a pair of inclined faces adapted to seat on the inclined faces of said wedge-shaped rings, and a clamping ring secured to the side of said wheel and provided with a portion engaging the side of said tire-carrying rim for shifting it laterally to cause snug engagement between said rim and the outer faces of said wedge-shaped rings.

2. The combination with a vehicle wheel, of a pair of broken wedge-shaped rings having inclined outer faces positioned on the periphery thereof, a tire-carrying rim inclosing said wheel and provided on its inner face with a pair of inclined faces adapted to co-act with the inclined outer faces of said wedge-shaped rings, the inner face of said tire-carrying rim further provided with a shoulder adapted to engage one of said rings when said rim is shifted for moving said ring off from its seat on said vehicle wheel, and a clamping ring secured to the side of said vehicle wheel and engaging the tire-carrying rim for shifting the latter to cause inter-engagement between the inner face of said rim and the outer faces of said wedge-shaped rings.

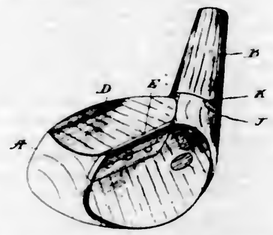
3. The combination with a vehicle wheel, of a broken wedge-shaped ring adapted to be seated on the periphery of said wheel and provided with an outer inclined face and an inwardly-extending flange provided with apertures, a second broken ring provided with an outer inclined face also mounted on the periphery of said wheel, said second ring provided with an inwardly-extending flange engaging the side of said wheel, a tire-carrying rim having parallel inclined inner faces adapted to seat on the outer faces of said broken rings, a clamping ring secured to the side of said wheel and engaging the tire-carrying rim for shifting the latter to set up interengagement between the inclined faces of the rim and broken rings, said ring further provided with apertures, and a plurality of clamping bolts extending through the apertures in said clamping rings and said broken ring for laterally shifting the former.

4. The combination with a vehicle wheel, of a pair of broken wedge-shaped locking rings mounted on the peripheral portion thereof with the outer inclined faces of said wedge-shaped rings extending in the same general direction, both of said wedge-shaped rings provided with inwardly-extending portions for engaging said wheel for preventing their lateral movement, a tire-carrying rim inclosing said wedge-shaped rings and provided on its inner face with inclined portions arranged to co-act with said rings, and a transversely shiftable element secured to said wheel and engaging said tire-carrying rim for shifting the same laterally to cause interengagement between its inner face and the outer faces of said wedge-shaped rings for snugly holding said tire-carrying rim in position.



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1,089,900. GOLF-CLUB HEAD. WILLIAM BURKE, Newark, Ohio. Filed Aug. 18, 1913. Serial No. 785,212. (Cl. 46—4.)



1. A golf club embodying a head proper formed of a single integral body of wood whose grain runs at substantially right angles to the striking face of the club and a neck portion formed of a separate piece of wood whose grain runs in planes at substantially right angles to the plane of the grain of the wood of the head proper substantially as described.

2. A golf club embodying a head proper formed of a single integral body of wood whose grain runs at substantially right angles to the striking face of the club and a neck portion formed of a separate piece of wood whose grain runs in planes at substantially right angles to the plane of the grain of the wood of the head proper, and in parallel lines extending obliquely to the sole of the head.

3. A golf club embodying a head proper formed of a single integral body of wood whose grain runs at substantially right angles to the striking face of the club and a neck portion formed of a separate piece of wood having its grain extending parallel with the longitudinal axis of the shaft and obliquely to the sole of the head and in planes at substantially right angles to the plane of the grain of the wood of the head proper.

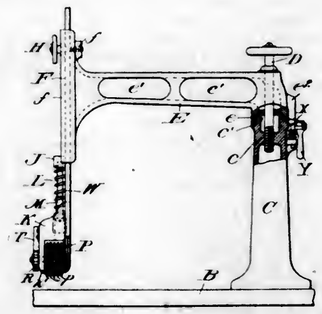
4. A golf club embodying a head proper formed of a single integral body of wood whose grain runs at substantially right angles to the striking face of the club and provided with a counter-bored mortise and a neck portion formed of a separate piece of wood whose grain runs in planes at substantially right angles to the plane of the grain of the wood of the head proper and provided with a tenon to engage the mortise, substantially as described.

5. A golf club embodying a head proper formed of a single integral body of wood whose grain runs at substantially right angles to the striking face of the club and provided with a counter-bored mortise and with a conical shoulder and a neck portion formed of a separate piece of wood whose grain runs in planes at substantially right angles to the plane of the grain of the wood of the head proper and provided with a tenon to engage the mortise and with an insert shoulder to engage that of the head, substantially as described.

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1,089,901. WORK-HOLDER. FREDRICK EMERY CARSON, Richmond, Va., assignor of one-third to James McEvoy and one-third to William McEvoy, Richmond, Va. Filed Apr. 15, 1913. Serial No. 761,226. (Cl. 143—159.)

1. In a work holder for the purpose specified, the combination with a head, of a pin disposed vertically thereon with a head on its lower end, a sleeve having two bores of different diameters, the pin fitting loosely in the smaller bore and the head of the pin engaging the shoulder at the juncture of the bores for retaining the sleeve on the pin, a roller carrying foot secured to said sleeve, and a coiled spring mounted around the pin and abutting against the foot.



2. In a work holder for the purpose specified, the combination with a head, of an adjustable slide thereon, a spring pressed roller carrying foot slidably mounted on said slide, a block fixed to the slide, a vertically disposed pin fastened to said block and having a head on its lower end, means for removably retaining the foot on the lower end portion of the pin above its head, and a coiled spring mounted around the pin and abutting at its opposite ends against the block and foot.

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1,089,902. MATCH-IGNITION COMPOSITION. HARRY WILLIAMS CHARLTON, Ottawa, Ontario, Canada. Filed May 13, 1911. Serial No. 627,066. (Cl. 52—5.)

1. In a match ignition composition a nitrogenous phosphorus compound, an oxidizing agent and chemically inert material.

2. In a match ignition composition a nitrogenous phosphorus compound, an oxidizing agent, a filler, frictional matter and a binding agent.

3. In a match ignition composition a nitrogenous phosphorus compound containing as impurities other easily oxidizable materials, potassium chlorate, oxid of zinc, powdered glass and glue.

4. In a match ignition composition phospham containing stable sulfids of phosphorus as impurities, an oxidizing agent, a filler, frictional matter and a binding agent.

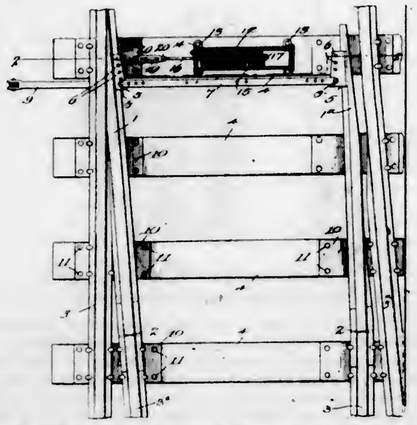
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1,089,903. SAFETY SWITCH-POINT. JOSEPH B. COBB, Jr., Shawnee, Okla. Filed Dec. 21, 1912. Serial No. 737,963. (Cl. 104—79.)

1. The combination with the switch points, and the rails with which the said points coöperate, of a cylinder arranged between the points, a spring within the cylinder, a sectional rod, a turnbuckle connection between the meeting ends of the sections of the rod, one of the sections of the rod extending into the cylinder and being connected with the spring, the other end of the spring being connected with the cylinder, a plate connected to each point in approximate alinement with the cylinder, each plate having a series of openings extending longitudinally of the point, the other section of the rod having a hook for engaging one of the openings, said spring acting normally to hold the points in closed position, means for locking the sections of the rod in adjusted position, and a connection between the points for causing the said points to move together.

2. The combination with the switch points, and the rails with which the said points coöperate, of a cylinder arranged between the points, a spring within the cylinder, a sectional rod, a turnbuckle connection between the meeting ends of the sections of the rod, one of the sections of the rod extending into the cylinder and being connected with the spring, the other end of the spring being connected with the cylinder, the other section of the rod being connected with one of the points, said spring

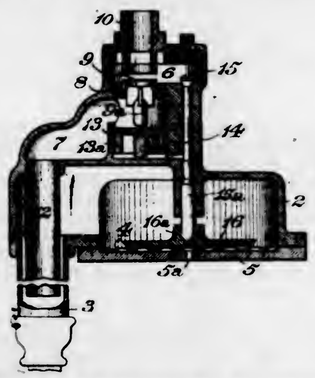
acting to hold the points in closed position, and a connection between the points for constraining them to move together.



3. The combination with the switch points, and the rails with which the points coöperate, of yielding means for pressing the points toward one rail to hold the points in closed position, said means comprising a casing secured between the points and at approximate right angles thereto, a spring in the cylinder, a sectional rod, a turnbuckle connection between the adjacent ends of the sections, one of said sections being connected to the spring and the other to one of the points, said spring being connected to the casing at the other end from the rod.

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1,089,904. DRIFTING-VALVE FOR LOCOMOTIVES. FRANCIS J. COLE, Schenectady, N. Y. Filed Nov. 19, 1912. Serial No. 732,206. (Cl. 121—14.)

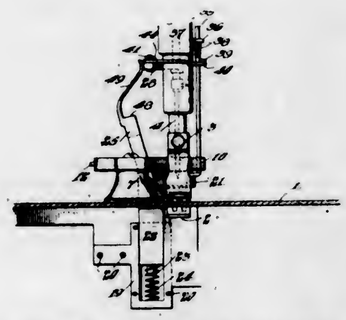


1. In a drifting valve appliance for locomotives, the combination of a diaphragm chamber, a flexible diaphragm closing one end of said chamber and subject to atmospheric pressure on its outer side, a pipe for connecting said chamber with a distribution valve chest, a steam supply chamber and a steam delivery chamber, a steam supply valve controlling communication between said supply and delivery chambers, a pipe for connecting the steam supply chamber with a locomotive boiler, a pipe for connecting the steam delivery chamber with a distribution valve chest, a piston, of larger diameter than the steam supply valve and adapted to unseat said valve, a pilot valve controlling the supply of steam to said piston, and a stem interposed between said pilot valve and the flexible diaphragm, whereby said valve is automatically unseated by the movement of the diaphragm under atmospheric pressure when the locomotive is drifting with throttle closed.

2. In a drifting valve appliance for locomotives, the combination of a diaphragm chamber, a flexible diaphragm extending across one end of said chamber, a perforated cover plate secured to the chamber on the outer side of the diaphragm, a pipe extending from said chamber to a distribution valve chest, a steam supply chamber and a steam delivery chamber integral with and located on one side of the center line of the diaphragm chamber, a pipe for connecting the steam supply chamber with a locomotive boiler, a steam supply valve controlling communication between the steam supply and delivery chambers, a piston of larger diameter than the supply valve, fitted in a chamber in the steam delivery chamber below the steam supply valve and adapted to unseat said valve, a pilot valve controlling the supply of steam to said piston, and a stem interposed between said pilot valve and the flexible diaphragm, through which stem the pilot valve is automatically unseated by the inward movement of the diaphragm under atmospheric pressure when the locomotive is drifting with throttle closed.

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1,089,905. THREAD-CUTTING ATTACHMENT FOR SEWING-MACHINES. ROBERT LEE COLEY, Kannapolis, N. C. Filed Jan. 22, 1913. Serial No. 743,513. (Cl. 112—33.)



1. The combination with a sewing machine provided with a presser foot, a feed plate and a needle bar, of a thread cutting attachment comprising an auxiliary presser foot and an auxiliary feed plate coöperating with and arranged behind and in approximate alinement with the presser foot and feed plate of the machine, a fixed blade between the feed plates, a movable blade coöperating with the fixed blade, means for guiding the said movable blade for movement toward and from the fixed blade, a lever pivoted to the movable blade, an arm extending laterally from the needle bar above the movable blade and in position to engage the upper end of the lever to depress the movable blade when the needle bar moves downward, normally active means for holding the lever in vertical position and in position to be engaged by the arm when the needle bar moves downward, a bar mounted for vertical reciprocating movement and having a foot for engagement by the work to lift the bar, said bar having an opening for permitting the passage of the rod to permit the lever to take a vertical position when the bar is out of engagement with the work, and means on the arm for lifting the bar when the needle bar is near the end of its upward stroke.

2. The combination with a sewing machine provided with a presser foot, a feed plate and a needle bar, of a thread cutting attachment comprising an auxiliary presser foot and an auxiliary feed plate coöperating with and arranged behind and in approximate alinement with the presser foot and feed plate of the machine, a fixed blade between the feed plates, a movable blade coöperating with the fixed blade, means for guiding the said movable blade for movement toward and from the fixed blade, a lever pivoted to the movable blade, an arm extending laterally from the needle bar above the movable blade in position to engage the upper end of the lever to depress the movable blade when the needle bar moves downward, normally active means for holding the lever in vertical position and in position to be engaged by the arm when the needle bar moves downward, means operated by the work for holding the lever in inclined position, and means on the lever for engagement by the arm to move the lever into inclined operative position when the needle bar moves upward.



3. The combination with a sewing machine provided with a presser foot, a feed plate and a needle bar, of a thread cutting attachment comprising an auxiliary presser foot and an auxiliary feed plate coöperating with and arranged behind and in approximate alinement with the presser foot and feed plate of the machine, a fixed blade between the feed plates, a movable baide coöperating with the fixed blade, means for guiding said movable blade for movement toward and from the fixed blade, a lever pivoted to the movable blade, an arm extending laterally from the needle bar above the movable blade and in position to engage the upper end of the lever to depress the movable blade when the needle bar moves downward, normally active means for holding the lever in vertical position and in position to be engaged by the arm when the needle bar moves downward, and means operated by the work for holding the lever in inclined position.

4. The combination with a sewing machine provided with a presser foot, a feed plate and a needle bar, of a fixed blade extending transversely of the needle behind the same, a movable blade coöperating with the fixed blade for severing the thread behind the needle, a lever pivoted to the movable blade, an arm on the needle bar for engaging the lever when the lever is in vertical position, a spring normally pressing the movable blade upward, normally active means for holding the lever in vertical position, a vertically movable bar having a foot for engaging the work adjacent to the movable blade, means in connection with the bar and the lever for holding the lever in inclined position when the bar foot is in engagement with the work and for permitting the lever to move to vertical position when the bar foot is not engaged with the work, and an auxiliary feeding device for the work in rear of the needle.

5. The combination with a sewing machine provided with a presser foot, a feed plate and a needle bar, of a fixed blade extending transversely of the needle behind the same, a movable blade coöperating with the fixed blade for severing the thread behind the needle, a lever pivoted to the movable blade, an arm on the needle bar for engaging the lever when the lever is in vertical position, a spring normally pressing the movable blade upward, normally active means for holding the lever in vertical position, means operated by the work for holding the lever in inclined position, means in connection with the lever for engagement by the arm to positively move the lever out of position for engagement by the arm when the needle bar moves upward, and an auxiliary feeding device for the articles in rear of the needle bar.

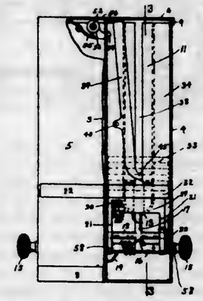
[Claims 6 to 13 not printed in the Gazette.]

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1,089,906. VENDING-MACHINE. GEORGE F. CONNER, Port Huron, Mich. Filed Oct. 17, 1912. Serial No. 726,196. (Cl. 211—8.)

1. In a vending machine, the combination of a case having a slot in its front side, a shaft extending through the case parallel to the front, an ejector mounted on the shaft and adapted to move outwardly through said slot and carry with it one of the articles to be vended, a latch to normally lock the ejector from movement, and an arm secured to said shaft to swing the ejector outward.

2. In a vending machine, the combination of a case having a slot in its front side, a shaft extending through the case parallel to the front, a delivery-table loosely mounted on this shaft and adapted to move outwardly through said slot and carry with it one of the articles to be vended, a latch pivoted at the back of the case and normally engaging the delivery-table to prevent movement, means to turn the shaft, and an arm on the shaft so constructed that it may be swung against the article to be vended and move said article and the delivery-table out of the case.



3. In a vending machine, the combination of a body having a back, a bottom and sides, each of the sides having a slot therein, with a front for the body, said front having side flanges that overlap and inclose portions of the sides of the body, a discharge opening in the front face of the body, and a reservoir for packages adjacent the front face, a shaft mounted to swing in the slots and retained therein by the side flanges of the front, a table secured to the shaft and adapted to swing outwardly through the discharge opening in the front of the body.

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1,089,907. ELECTRICAL CONTACT. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Mar. 20, 1912, Serial No. 685,113. Divided and this application filed Dec. 17, 1912. Serial No. 737,214. (Cl. 173—13.)



1. An electrical make-and-break contact of tungsten.

2. An electrical make-and-break contact of malleable tungsten.

3. An electrical make-and-break contact of tungsten, and a backing for the same of a metal of superior electric and thermal conductivity intimately joined thereto.

4. An electrical make-and-break contact of tungsten integrally joined to a metal backing of superior electric and thermal conductivity.

5. An electrical make-and-break contact of tungsten, a support for the same and a contact backing of a metal of superior electric and thermal conductivity intervening between the contact and support and integrally joined to both.

[Claims 6 and 7 not printed in the Gazette.]

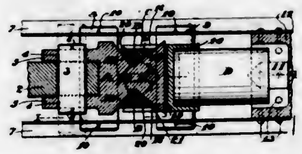
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1,089,908. DRAFT-GEAR. JOHN F. COURSON, Pitcairn, Pa. Filed Feb. 19, 1913. Serial No. 749,397. (Cl. 213—64.)

1. In a friction draft gear, the combination with car framing, of a forwardly pressed shock absorbing member, a draw-bar, and intervening co-acting face-to-face wedge mechanism adapted to impart backward pressure to the shock absorbing member in either pulling or buffing.

2. In a friction draft gear, the combination with car framing, of a forwardly pressed shock absorbing member,

a draw-bar, and intervening co-acting face-to-face wedge mechanism embodying a pair of oppositely acting spreading wedges operable to transmit strains from the drawbar to the shock absorbing member in a uniformly backward direction.



3. In a friction draft gear, the combination with car framing, of a forwardly pressed shock absorbing member having wedge faces, a wedge member engaging the drawbar, and wedge members directly engaging the faces of said drawbar wedge member and the wedge faces of the shock absorbing member respectively, and operable to transmit either pulling or buffing strains backwardly to the shock absorbing member.

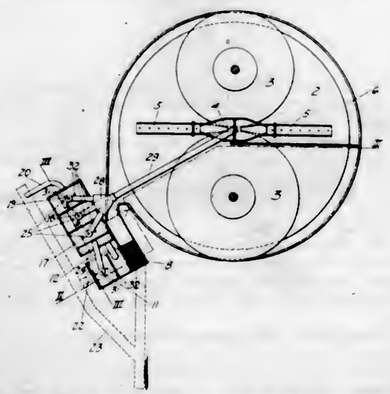
4. In a friction draft gear, the combination with car framing, of a forwardly pressed shock absorbing member having wedge faces, a wedge member engaging the drawbar, and laterally movable wedge members directly engaging the faces of said drawbar wedge member and the wedge faces of the shock absorbing member respectively, and operable to transmit either pulling or buffing strains backwardly to the shock absorbing member.

5. In a friction draft gear, the combination with car framing, of a forwardly pressed shock absorbing member having wedge faces, a wedge member engaging the drawbar, laterally movable wedge members directly engaging the faces of the drawbar wedge member and the wedge faces of the shock absorbing member, operable to transmit either pulling or buffing strains backwardly to the shock absorbing member, and laterally arranged guides therefor.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,909. APPARATUS FOR DELIVERING ABRASIVE MATERIAL. JAMES W. CHUKSHANK, Pittsburgh, Pa. Filed June 4, 1913. Serial No. 771,639. (Cl. 51—12.)



1. Apparatus for delivering abrasive material consisting of a preliminary collecting tank, a separate classifying tank, means for removing abrasive and water from the preliminary tank to the classifying tank, and means for removing abrasive and water from the classifying tank and supplying it to a utilizing apparatus.

2. Apparatus for delivering abrasive material consisting of a preliminary collecting tank, a separate classifying tank, means for removing abrasive and water from the lower portion of the preliminary tank to the upper portion of the classifying tank, and means for removing abrasive and water from the classifying tank and supplying it to a utilizing apparatus.

3. Apparatus for delivering abrasive material consisting of a preliminary collecting tank, a separate classifying tank having a series of partitions providing settling compartments of varying heights communicating above the partitions, means for removing abrasive and water from the lower portion of the preliminary tank to the upper portion of the classifying tank, and means for removing abrasive and water from each settling compartment and supplying it to a utilizing apparatus.

4. In apparatus for collecting and delivering abrasive material, the combination of a preliminary collecting tank, a classifying tank having settling compartments and an overflow conduit, means for removing abrasive and water from the preliminary tank to the classifying tank, and a series of air lift pumps for removing the abrasive and water from the settling compartments.

5. In apparatus for collecting and delivering abrasive material, the combination of a preliminary collecting tank, a classifying tank having settling compartments and an overflow conduit, a return overflow conduit connecting the upper portion of the classifying tank with the collecting tank, means for removing abrasive and water from the preliminary tank to the classifying tank, and a series of air lift pumps for removing the abrasive and water from the settling compartments.

[Claims 6 to 15 not printed in the Gazette.]

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1,089,910. PLASTIC MATERIAL USED IN THE MANUFACTURE OF KINEMATOGRAPHIC FILMS. HENRY DANZER, Paris, France, assignor to Compagnie Generale de Phonographes Cinematographes et Appareils de Precision, Paris, France. Filed June 11, 1912. Serial No. 702,957. (Cl. 106—40.)

1. A plastic composition comprising a cellulose derivative and a glycerin derivative in which at least one of the hydroxyl groups of glycerin is replaced by an ether forming organic radical.

2. A plastic composition comprising an acidyl derivative of cellulose and a glycerin derivative in which at least one of the hydroxyl groups of glycerin is replaced by an ether forming organic radical.

3. A plastic composition comprising a cellulose acetate and a glycerin derivative in which at least one of the hydroxyl groups of glycerin is replaced by an ether forming organic radical.

4. A plastic composition comprising a cellulose ester and a glycerin derivative in which at least one of the hydroxyl groups of glycerin is replaced by a phenol radical.

5. A plastic composition comprising an acidyl derivative of cellulose and a glycerin derivative in which at least one of the hydroxyl groups of glycerin is replaced by a phenol radical.

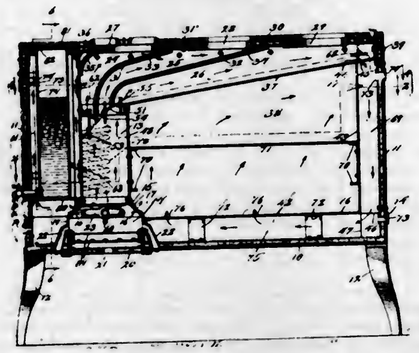
[Claims 6 to 11 not printed in the Gazette.]

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1,089,911. COOKING APPARATUS. FOREST V. DERWILER, Chicago, Ill. Filed Nov. 4, 1910. Serial No. 590,652. (Cl. 126—39.)

1. A cooking apparatus comprising an inclosing casing having stove holes in the top thereof, a flue within the casing adjacent one side thereof and having a plurality of branches leading to the stove holes, a source of supply of heat discharging into the flue, an oven in the casing, one wall of the oven being adjacent the flue, a second flue extending about the oven and having communication with the first said flue, and means for causing the heated air from the first said flue to pass under the stove holes and circulate about the oven, said branches having points of connection with the flue in different horizontal planes with relation to each other.

2. A cooking apparatus comprising an inclosing casing having stove holes in the top thereof, a flue within the casing and having a plurality of branches leading to the stove holes, a source of supply of heat for the flue, an oven in the casing, a flue extending about the oven and having communication with the first said flue, and dampers individual to the said branches for controlling the heated air therein, said dampers being disposed in different horizontal planes and adapted when adjusted to close the respective branches to form deflectors inclined to the horizontal for diverting the heated air into an open branch.



3. A cooking apparatus comprising an inclosing casing having stove holes in the top thereof, a flue within the casing, a source of supply of heat for the flue, curved deflectors extending into the top of the flue to form portions of branch flues extending from the first said flue to the stove holes, some of said deflectors extending into the flue a greater distance than others, said deflectors being provided with openings therethrough adjacent the top of the casing, an oven, a flue extending about the oven and communicating with the first said flue, and means for causing the heated air from the branch flues to pass under the stove holes and circulate about the oven.

4. A cooking apparatus comprising an inclosing casing having stove holes at the top thereof, a flue within the casing, a source of supply of heat for the flue, curved deflectors extending into the top of the flue to form portions of branch flues extending from the first said flue to the stove holes, some of said deflectors extending into the flue a greater distance than others, said deflectors being provided with openings therethrough adjacent the top of the casing, an oven, a flue extending about the oven and communicating with the first said flue, and means for admitting outside air into the casing to induce circulation of the heated air about the oven.

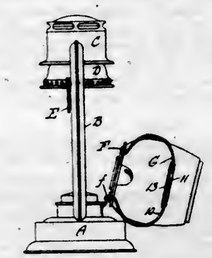
5. A cooking apparatus comprising an inclosing casing having stove holes in the top thereof, a flue within the casing, a source of supply of heat for the flue, curved deflectors extending from the top of the casing to the top of the flue to form portions of branch flues for communication with the first recited flue and extending to the respective stove holes, said branch flues communicating with the first recited flue at different points with respect to the height of the latter, an oven in the casing, a flue about the oven and communicating with the first said flue, and means for controlling the heated air to cause the latter to flow across the stove holes and to circulate about the oven.

[Claims 6 to 24 not printed in the Gazette.]

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1,089,912. LANTERN. FREDERICK DIETZ, New York, N. Y., assignor to R. E. Dietz Company, New York, N. Y. Filed Dec. 22, 1913. Serial No. 808,077. (Cl. 240—33.)

1. The combination of a globe supporting plate, a guard thereon having holding top portions which partially encircle the globe and impinge upon the same, and a globe which has segmental holding devices which can be alined with the holding portions of the guard for securing the globe on the plate and which can be released from said holding portions by turning the globe on the plate.



2. The combination of a globe supporting plate, a guard thereon having top portions which impinge against the globe and partially encircle the same, and a globe having segmental holding devices of a circumferential length to engage the top portions of the guard for holding the globe on the plate, said holding devices of the globe being separated by unobstructed portions of the globe surface which when alined with the impinging top portions of the guard permit the globe to be removed.

3. The combination of a globe supporting plate, a guard thereon having top portions which impinge against the globe and partially encircle the same, and a globe having segmental grooves of a circumferential length to receive the top portions of the guard for holding the globe on the plate, said grooves of the globe being separated by unobstructed portions of the globe surface which when alined with the impinging top portions of the guard permit the globe to be removed.

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1,089,913. PNEUMATIC VEHICLE-TIRE. JEROME J. DITTENHOEFER, Chicago, Ill. Filed Sept. 2, 1913. Serial No. 787,722. (Cl. 152—22.)

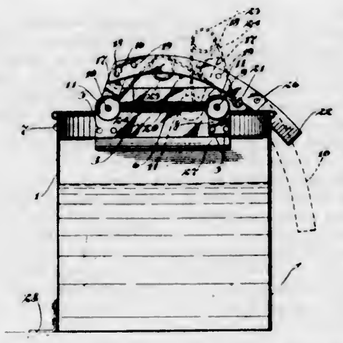


A pneumatic vehicle tire comprising an air tube divided longitudinally by a flexible partition into inner and outer co-extensive independent compartments; a valved air inlet tube communicating with said outer compartment, said tube being connected at its inner end with said partition and passing exteriorly loosely through the inner wall of said air tube; a second tube communicating with said inner compartment and being connected at its inner end with the inner wall of said air tube, said second tube loosely surrounding said first tube so as to form an annular air passage through said second tube around said first tube and permit of free longitudinal movement of the latter in said second tube, said first tube being of such a length that, when said partition is in outwardly flexed position, the outer end of said tube will project slightly into the inner end of said second tube; and an elongated

valved cap adapted for arrangement over the outer end of said second tube, said cap having a medial passage therein registering with the passage through said second tube, the inner end of said passage through said cap being enlarged, said enlarged portion of said passage being of such a length and width as to permit of free longitudinal movement of said first mentioned tube thereinto without the outer end of said tube striking the inner end of said enlarged portion, when the tire is compressed and with the inner compartment in use, substantially as described.

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1,089,914. MOP-WRINGER. ELMER E. DOBBINS and WILLIAM P. BARTHOLOW, Minneapolis, Minn., assignors to Dobbins Manufacturing Company, Minneapolis, Minn., a Corporation of South Dakota. Filed May 11, 1912. Serial No. 696,559. (Cl. 15—12.)



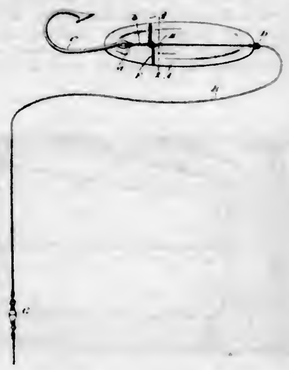
1. The combination with a pail having relatively fixed side frames thereon and fulcrums on said side frames, of a pair of laterally spaced connected levers mounted, at their intermediate portions, on said fulcrums for rocking and sliding movements, a pair of coöperating wringing rollers, one journaled in bearings on said side frames and the other journaled in the ends of said levers, and means guiding the traveling wringing roller for straight line movement toward and from the other wringing roller, substantially as described.

2. The combination with a pail having relatively fixed side frames thereon and fulcrums on said side frames, of a pair of laterally spaced connected levers mounted, at their intermediate portions, on said fulcrums for rocking and sliding movements, a pair of coöperating wringing rollers, one journaled in bearings on said side frames and the other journaled in the ends of said levers, means guiding the traveling wringing roller for straight line movement toward and from the other wringing roller, and springs tending to separate said wringing rollers, substantially as described.

3. The combination with a pail having relatively fixed side frames thereon and fulcrums on said side frames, of a pair of laterally spaced toggle levers, one of the arms of each of said toggle levers being curved and mounted on said fulcrums for rocking and sliding movements, a spring tending to straighten said toggle levers, and a pair of coöperating wringing rollers one journaled in bearings on said side frames and the other journaled in the ends of said levers.

4. The combination with a pail having relatively nxed side frames thereon and fulcrums on said side frames, of a pair of laterally spaced toggle levers, one of the arms of each of said toggle levers being curved and mounted on said fulcrums for rocking and sliding movement, a spring tending to straighten said toggle levers, and a pair of coöperating wringing rollers, one journaled in bearings on said frames and the other journaled in the ends of said levers, and stops for limiting the straightening action of said toggle levers.

1,089,915. ARTIFICIAL BAIT. EDWARD LEWIS EVANS, Fort Myers, Fla. Filed Nov. 25, 1912. Serial No. 733,411. (Cl. 43—30.)



1. An artificial bait, comprising a spoon, a hook, a snood, means on one face of the spoon through which said snood passes freely lengthwise, and means movable into and out of engagement with the spoon for limiting the approach of the spoon to the hook.

2. An artificial bait comprising a spoon, a hook, and a snood, means on one face of the spoon through which the snood passes lengthwise, and means carried by the snood and movable into and out of engagement with the spoon for limiting the approach of the spoon to the hook and for holding the spoon and hook in rotative connection when so engaged.

3. An artificial bait, comprising a spoon, a hook, and a snood, the snood being slidably connected to one face of the spoon and formed to limit the approach of the spoon to the hook and to cause the spoon and hook to rotate in unison.

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1,089,916. FILM DEVELOPING AND DRYING SUPPORT. AUSTIN CARL FISHER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 16, 1913. Serial No. 795,583. (Cl. 95—100.)



1. In a sheet suspending device, the combination with a pair of relatively stiff supporting members pivotally connected at one end to permit them, selectively, to hang in vertical parallelism or to be extended in substantially horizontal alinement with each other, of a plurality of sheet holding clips mounted on the members.

2. In a sheet suspending device, the combination with a pair of relatively stiff supporting members pivotally



connected at one end to permit them, selectively, to hang in vertical parallelism or to be extended in substantially horizontal alinement with each other, of a plurality of sheet holding clips pivotally mounted upon the outer sides of the members and adapted to assume vertical positions while the supporting members are in either position.

3. In a sheet suspending device, the combination with a pair of relatively stiff supporting members pivotally connected at one end to permit them, selectively, to hang in vertical parallelism or to be extended in substantially horizontal alinement with each other and a plurality of sheet holding clips mounted on the members, of a fastening device for temporarily locking together the other ends of the members.

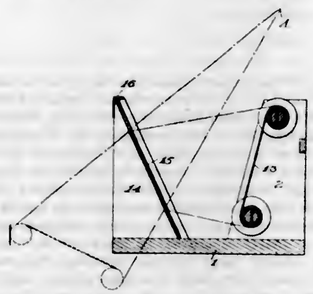
4. In a sheet suspending device, the combination with a pair of relatively stiff supporting members loosely pivoted together at one end to permit them, selectively, to hang in vertical parallelism or to be extended in substantially horizontal alinement with each other and a plurality of sheet holding clips mounted on the members, of means for temporarily locking together the other ends of the members comprising an opening and a longitudinally disposed communicating slot in one member and a headed projection and an adjacent opening in the other member, said openings constituting attaching eyes when the members are hung up in the said horizontal position.

5. In a sheet suspending device, the combination with a supporting member comprising a plate or strip having an opening and a bar spanning the opening, of a sheet holding clip carried by the support and comprising two pivoted jaws, the extremity of one of which is formed into an offset eye coöperating with the beforementioned bar as a pivot.

[Claim 6 not printed in the Gazette.]

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1,089,917. APPARATUS FOR READING REVERSED IMAGES. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Oct. 30, 1913. Serial No. 798,228. (Cl. 88—1.)



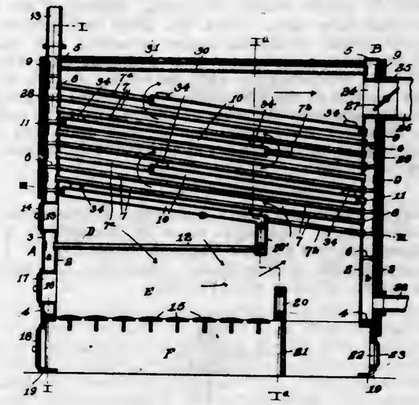
1. In a device for reading reversed photographic images, the combination with a support for holding the image at a fixed angle, of a mirror facing said support and arranged at a relatively fixed angle to the support to reflect the image thereon toward a view point in rear of the support.

2. In a device for reading reversed photographic images, the combination with a base, an image support rising from the base and adapted to hold the image at a fixed angle, a mirror support rising from the base opposite the image support and containing a mirror arranged at a relatively fixed angle to the image support to reflect an image thereon to a view point in rear of the image support.

3. In a device for reading reversed photographic images, the combination with a base, supporting members rising from the base and spaced photographic film roll supports journaled in the supporting members and comprising turning knobs permitting an exposed photographic strip to be stretched between the rolls at a fixed angle and to be reeled from one to the other, of mirror supporting members rising from the base opposite the image support and containing a mirror arranged at a relatively fixed angle to the stretch of the photographic strip to reflect the image thereof to a view point in rear of the image support.

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1,089,918. BOILER. FREDERICK J. FRENZ, Allison Park, Pa. Filed Feb. 27, 1913. Serial No. 751,040. (Cl. 122—166.)



1. In a boiler of the class described, the combination of a supporting base, hollow cast side and end walls having hollow nipple connections, inclined water circulation tubes connecting the hollow front and back walls, water connections for the front and back walls, a plurality of hollow cast metal headers arranged in alinement with the tubes at alternating positions providing baffling walls for the gases of combustion and in circulating connection at each end with the end walls, and a combustion chamber provided with grate bars arranged below the lowermost of said headers, substantially as set forth.

2. In a boiler of the class described, the combination of hollow cast metal end walls and side walls, hollow nipples connecting said walls at the corners, a water supply connected to the base of one end wall, a water exhaust connected to the top of the other end wall, an outlet for the products of combustion, a furnace chamber at the lowermost inner portion of the boiler, a plurality of alternately arranged hollow cast metal circulating baffling headers connected at each end with the end walls by tubes, and a series of inclined water circulation tubes connecting the front and back walls, substantially as set fortb.

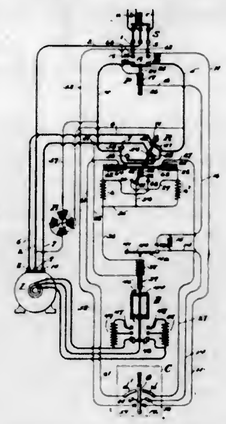
3. In a boiler, a base structure, hollow cast metal side and end walls thereon inclosing a furnace chamber and having their end portions connected by circulating nipples, inclined water circulation tubes connecting opposite walls, a plurality of hollow cast metal headers arranged at varying alternating positions paralleling the water circulation tubes and communicating at each end with said opposite walls, the lowermost of said headers having a rear downward extension, and hollow water circulation grate bars connecting said extension with one of the end walls, substantially as set forth.

4. In a boiler, a base structure, hollow cast metal side, front and back walls thereon having their end portions connected for water circulation, a series of grate bars extending between the side walls and a hollow bridge wall in rear thereof connecting the side walls and providing with the grate bars a furnace chamber, inclined water circulation tubes connecting the front and back walls, a plurality of hollow alternating cast metal headers extending between the side walls and communicating at each end with the end walls, the lowermost of said headers having a rear downward extension, and a series of hollow grate bars connecting said extension with the front wall and arranged over the first named grate bars, substantially as set forth.

5. In a boiler of the class described, rectangular cast metal side and end walls forming the main frame of the structure each having integral inner and outer side and endmost wall sections inclosing a hollow circulating interior, hollow water circulating tubes fixedly connected with the inner wall sections, the outer wall sections having registering openings and closing caps therefor, the upper portions of said end walls having their top portions formed to provide concave supporting depressions for a water and steam drum, a water and steam drum mounted thereon, hollow circulating nipples connecting said concave top portions with the shell of said drum to provide circulating communication with the interior thereof, the upper portions of the side walls being deflected inwardly and connected with the drum by similar nipples at each side thereof, a steam connection for said drum, and a water inlet connection for one of said end walls, substantially as set forth.

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1,089,919. ALTERNATING-CURRENT-CONTROLLING APPARATUS. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 18, 1905. Serial No. 292,121. (Cl. 172—152.)



1. The combination with an alternating-current motor of the induction type; of a reversing switch therefor; electro-magnetic means for operating said reversing switch; manual means for controlling said electric means; a sectional starting-resistance; electro-magnetic means for inserting said resistance in the rotor circuits; current-reducing resistance for preventing the operation of said electro-magnetic means; means co-acting with said reversing switch for short-circuiting the said current-reducing resistance and effecting the insertion of said starting resistance; an electro-magnetic main line switch; an additional resistance preventing the operation of said main line switch; means co-acting with said electro-magnetic means for inserting the starting resistance, to short-circuit said additional resistance and effect the operation of said main line switch; and circuits and connections for effecting the cutting out of the electric means for operating the reversing switch, and also the cutting out of the electro-magnetic means for inserting the starting-resistance to effect the re-insertion of said additional resistance and also the automatic operation of said accelerating apparatus.

2. The combination with an alternating current motor, of means for controlling the same comprising an electro-magnetic switch for the primary circuit, a variable impedance for the secondary circuit, a controlling element therefor having a bias toward a minimum impedance position, an electro-magnetic device for moving said element to a maximum impedance position, and connections whereby the circuit of the primary switch is closed when said element reaches the latter position.

3. In a self-starter for electric motors, the combination with a rheostat, of an electro-magnet for operating said rheostat, a motor reversing switch, resistance in circuit with said electromagnet, means controlled by the position of said reversing switch for short-circuiting the resistance and thereby controlling said electro-magnet, and devices for operating said reversing switch.

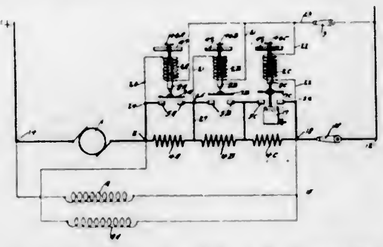
4. In a self-starter for electric motors, the combination with a rheostat, of reversing switch mechanism, a manual controlling switch, an electro-magnet for operating said rheostat, resistance in circuit with said electromagnet, and means operated by the reversing switch to short circuit said resistance when the reversing switch is in position corresponding to the position of said manual switch.

5. In a self-starter for electric motors, the combination with a rheostat, of an electro-magnet for operating the same, a motor reversing switch, a resistance in circuit with said electro-magnet to prevent its operation, and a switch dependent upon the position of said reversing switch for short-circuiting said resistance.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,920. CURRENT-CONTROLLING APPARATUS. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed June 11, 1907. Serial No. 378,409. (Cl. 172—288.)



1. In motor controlling apparatus, the combination with an electric motor, of an electro-magnet connected directly in series with the motor-armature, sectional starting resistance, an additional electro-magnet in multiple with said first-named electro-magnet and connected in series with the motor-armature through a section of said sectional starting resistance, a third electro-magnet in multiple with the first two-named electro-magnets and in series with the motor-armature and the entire sectional starting resistance, a switch operated by each of said electro-magnets to control said sectional starting resistance, a switch for closing the main armature circuit and short-circuiting the third electro-magnet, and a retarding device for the last-named electro-magnet, the second-named and first-named electro-magnets successively permitting their respective switches to operate successively to gradually cut out the remainder of the sectional starting resistance and to substantially eliminate the current flowing through themselves.

2. In a motor controlling apparatus, the combination with a motor-armature, of a shunt field circuit, resistance in series with the motor-armature, a controlling circuit connected across said resistance, means operated by said controlling circuit for varying said resistance, and an extra field permanently connected across said resistance.

3. In motor controlling apparatus, the combination with a motor-armature, of a field winding starting resistance in series with the motor armature, means for controlling said starting resistance, and an extra field circuit connected permanently to said starting resistance to absorb the field discharge of the said field winding when the current thereto is reduced.

4. In motor-controlling apparatus, the combination with a shunt motor, of starting resistance therefor, means for controlling said resistance, and an extra field circuit connected to said resistance to effect the absorption of the counter-electromotive force of self-induction in the shunt field when the main line current to the motor is cut off.

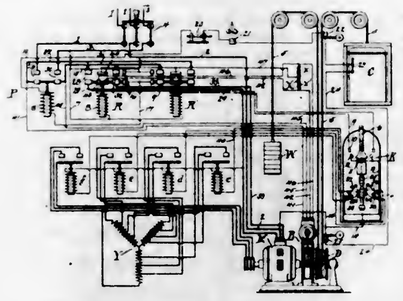
5. In motor-controlling apparatus, the combination with a shunt motor, of starting resistance therefor, of means for controlling said resistance to cut out the same as the motor accelerates in speed, and to maintain the same cut out while the motor is operating and after the main line circuit thereto is interrupted, an extra field circuit connected to the terminals of the starting resistance to increase the starting torque of the motor, and to substantially absorb the counter-electromotive force of self-induction in the shunt field circuit when the current to the motor is cut off.

[Claims 6 to 15 not printed in the Gazette.]



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1,089,921. ELECTRICAL CONTROLLING APPARATUS. ERNEST L. GALE, Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 2, 1912. Serial No. 694,646. (Cl. 172—152.)



1. In electrical controlling apparatus, the combination of a brake, a brake magnet, means to connect and disconnect said magnet to and from a source of alternating current supply, and means operable independent of the operation of the brake automatically to momentarily increase the resistance of the magnet circuit before it is disconnected from the said source of current supply.

2. In electrical controlling apparatus, the combination of a motor, an electromagnetic brake, circuit controlling devices operable in succession to connect and disconnect the motor to and from a source of current supply, a brake magnet circuit controlled by said devices, and means automatically to reduce the current through the brake magnet during the interval between the successive operation of said devices.

3. In electrical controlling apparatus, the combination of an electrical circuit, switches in series in said circuit, means to effect the successive operation of said switches, an electromagnet, a circuit therefor controlled by said switches, and means automatically to reduce the current through said magnet during the interval between the operation of said switches.

4. The combination of an electric motor, switches operable in succession to establish a circuit for the motor, means to effect the opening of said switches in succession to open the motor circuit, an electromagnetic brake having its circuit controlled by said switches, and means automatically to reduce the current in the brake magnet during the interval between the opening of said switches.

5. The combination of an electric motor, reversing switches therefor, an additional switch in circuit with the reversing switches, means to effect the successive operation of said switches, an electromagnetic brake having its circuit controlled by said switches, and means automatically to modify the brake circuit and thereby reduce the current in the brake magnet in the interval of time between the operation of said switches.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,922. ILLUSTRATED BOOK. RAYMOND H. GARMAN, Chicago, Ill. Filed July 16, 1912. Serial No. 709,732. (Cl. 46—37.)



1. A book of the class described, comprising a plurality of illustrative pages, one of said pages being unbroken and the next adjacent page being divided into sections by lines of severance, an inwardly disposed and an outwardly disposed illustrative subject on each of said pages, one of said subjects lying in different positions with respect to the other as regards the top and bottom of the page on which they are positioned, said lines of severance extending irregularly across said divided page, whereby upper portions of the subjects on said divided page are all arranged in one said section thereof, the middle portions of said subjects in another section thereof, and the lower portions of said subjects on the lowermost section thereof, whereby a registration of that portion of the subjects on any selected section of the divided page will be made with respect to the corresponding portion of subjects on the unbroken page when said sections superimpose upon said unbroken page, and a different subject thus produced, substantially as described.

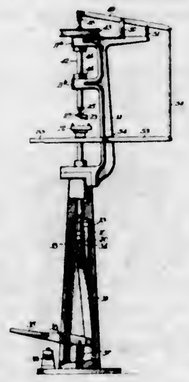
2. A book of the class described, comprising a plurality of illustrative pages, one of said pages being unbroken and the next adjacent page being divided into sections by lines of severance, an inwardly disposed and an outwardly disposed illustrative subject on each of said pages, one of said subjects lying in different positions with respect to the other as regards the top and bottom of the page on which they are positioned, the outwardly disposed subjects on adjacent pages being substantially alined, and the inwardly disposed subjects on the adjacent pages being substantially alined, said lines of severance extending irregularly across said divided page, whereby the upper portions of the subject on said divided page are all arranged in one section thereof, the middle portions of said subjects in another section thereof, and the lower portions of said subjects on the lower portion thereof, whereby a registration of that portion of the subjects on any selected section of the divided page will be made with respect to the corresponding portion of the subjects on the unbroken page when said section is superimposed upon said unbroken page and a different subject produced, substantially as described.

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1,089,923. MACHINE FOR SPREADING OR FORMING PAINT. JOHN W. HASBURG, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,778. (Cl. 18—5.)

1. In a machine of the class described, a movable forming tool, a palette-holding means movable toward said tool, means carried by said palette-holding means for engaging with the upper face of the palette to hold the same with its confronting surface fixed parallel with a plane described by the path of the tool, and movable palette-engaging means beneath the palette to hold the palette up against said upper palette-engaging means, whereby pal-

ettes of varying thicknesses have their upper surfaces similarly disposed with respect to said tool.



2. A paint-deposit shaping machine comprising a forming tool, a palette receiving means, contact points thereon for positioning the upper surface of the palette with respect to the tool, means for maintaining a palette in contact with said points, and means for moving the tool to fashion a point deposit on said palette.

3. A paint-deposit shaping machine comprising a forming tool, a supporting axis therefor, means for relatively rotating said tool with respect to a palette, and palette-positioning means adapted and arranged to automatically adjust and present the deposit-receiving surface thereof fixed in a plane parallel with the path of the tool.

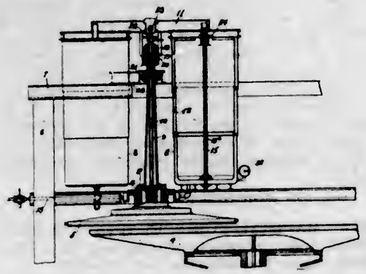
4. In a paint-deposit shaping machine a forming tool, comprising a radially disposed, resilient blade, means for rotating said blade, means for axially moving said blade, a parallel receiving means, and means for positioning a flat palette with its presented surface parallel with the path of said tool.

5. In a paint-deposit shaping machine, a substantially radially disposed, transversely resilient blade for forming paint on a palette, and means for rotating said blade.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,924. GRINDING-MACHINE FOR MANUFACTURING PLATE-GLASS. HERMAN S. HEICHERT, Ford City, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 1, 1909, Serial No. 499,594. Renewed July 16, 1913. Serial No. 779,392. (Cl. 51—11.)



1. In apparatus for grinding plate glass, a table for carrying the glass plate, a runner mounted above the table, a tank, a float therein connected to the runner, and means for supplying fluid to the tank and thereby controlling the pressure of the runner upon the glass plate.

2. In apparatus for grinding plate glass, a table for carrying the glass plate, a runner mounted above the table, a pair of tanks, a pair of floats guided therein and connected to the runner, and means for supplying fluid to the tank and thereby controlling the pressure of the runner upon the glass plate.

3. A runner for glass grinding apparatus, provided with supporting means comprising a pair of hydraulic floats and a cross bar, with means suspending said runner from said cross bar, and means for controlling the hydraulic pressure operating on said floats to determine the pressure of the runner upon the glass.

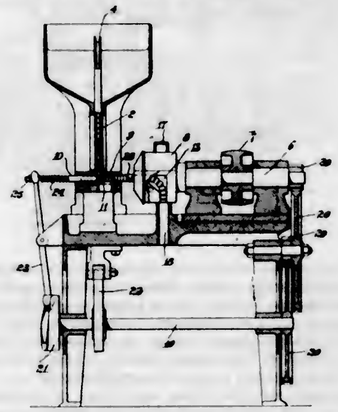
4. A runner for glass grinding apparatus, provided with supporting means comprising an hydraulic float, means for controlling the hydraulic pressure operating on said float to determine the pressure of the runner upon the glass, and means for tilting or inclining said runner with reference to the surface of the glass to be operated upon.

5. In apparatus for grinding surfaces, a rotarily driven table for carrying the member having the surface to be ground, a rotatable runner mounted above the table and exerting pressure downward thereon due to its weight and driven by the table, and yielding means exerting force upon the runner tending to lift it upwardly, and arranged so that the yielding lifting force of the said means increases as the runner moves down.

[Claim 6 not printed in the Gazette.]

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1,089,925. NUT-TAPPING MACHINE. JOHN ALEXANDER JOHNSTON, Montreal, Quebec, Canada. Filed May 20, 1913. Serial No. 768,736. (Cl. 10—129.)



1. In a nut tapping machine, the combination with a nut holder and a chuck, one of which members rotates with respect to the other, said chuck having in it a curved nut passage, and a tap having a bent shank, such shank located within such nut passage, the tap arranged to be held in the chuck by engagement of nuts moving along such shank with the said nut passage of the chuck, of nut placing means arranged to engage the nuts about to enter such nut passage and to regulate the presentation of such nuts to such nut passage.

2. In a nut tapping machine, the combination with a nut holder and a chuck, one of which members rotates with respect to the other, said chuck having in it a curved nut passage, and a tap having a bent shank, such shank located within such nut passage, the tap arranged to be held in the chuck by engagement of nuts moving along such shank with the said nut passage of the chuck, of nut placing means arranged to engage the nuts about to enter such nut passage, such nut placing means having a surface oblique to the line of travel of the nuts along the top-shank, which oblique surface is adapted to rotate the nuts by wedge action into position for entry of the nuts into such nut passage.

3. In a nut tapping machine, the combination with a nut holder and a chuck, one of which members rotates with respect to the other, said chuck having in it a curved nut passage, and a tap having a bent shank, such shank located within such nut passage, the tap arranged to be held in the chuck by engagement of nuts moving along such shank with the said nut passage of the chuck, of nut placing means arranged to engage the nuts about to enter such nut passage and comprising a projection from the end face of the chuck having an edge which is oblique to the direction of travel of the nuts along the tap-shank, such oblique edge adapted to engage the sides of nuts not already properly presented, and by wedge action to rotate such nuts into position for entry into such nut passage.

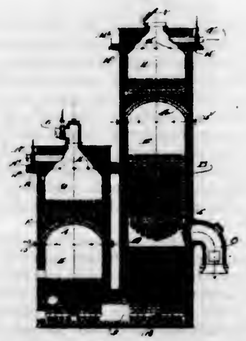
4. In a nut tapping machine, the combination with a nut holder and a chuck, one of which members rotates with respect to the other, said chuck having in it a curved nut passage, and a tap having a bent shank, such shank located within such nut passage, the tap arranged to be held in the chuck by engagement of nuts moving along such shank with the said nut passage of the chuck, of nut placing means arranged to engage the nuts about to enter such nut passage, comprising an angle-piece secured to the face of the chuck and having a forwardly projecting portion comprising an oblique edge adapted to engage properly presented nuts and to rotate same into proper position for entry into the nut passage.

5. In a nut tapping machine, the combination with a nut holder and a chuck, one of which members rotates with respect to the other, said chuck having in it a curved nut passage, and a tap having a bent shank, such shank located within such nut passage, the tap arranged to be held in the chuck by engagement of nuts moving along such shank with the said nut passage of the chuck, of nut placing means arranged to engage the nuts about to enter such nut passage and comprising an angle-piece secured to the face of the chuck and having a forwardly projecting portion comprising an oblique edge, said forwardly projecting portion inclined toward the axis of the tap, said oblique edge adapted to engage improperly presented nuts and to rotate same into proper position for entry into the nut passage.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,926. APPARATUS FOR MANUFACTURING GAS. EDWARD C. JONES and LEON B. JONES, San Francisco, Cal. Filed May 28, 1912. Serial No. 699,131. (Cl. 48—74.)



1. A gas generator consisting in combination of two shells, one longer than the other, the said shells being connected at their lowermost portions by a throat piece, both shells being lined with refractory material and so divided by open arches as to sustain checker work to form a plurality of superposed chambers within the shell, the shorter shell being provided with two sets of checker work, the longer shell being provided with three sets of checker work, the lowermost chamber in the shorter shell being for the purpose of destructive distillation, and an intermediate chamber in the longer shell being also for the purpose of destructive distillation, said chambers for destructive distillation being provided with oil inlets, the upper chamber of both shells being provided with openings for the admission of steam and gas, the lowermost chamber in the longer shell being provided with a common gas outlet for both the longer shell and the shorter shell, an air inlet in the upper portion of the shorter shell, and an outlet for the products of combustion in the upper portion of the longer shell.

2. A gas generator comprising two shells of different length, said shells being connected by a throat piece at their lowermost portions, a lining of refractory material in each of the shells, a series of open arches in each of the shells so located as to divide the shorter shell into two and the longer shell into three substantially equal chambers, checker brick construction in each of the chambers, oil, air and steam inlets in the upper chamber of the shorter shell, an inlet in the lower chamber of the shorter shell to admit the oil to be dissociated, a common gas outlet for both shells in the lower chamber of the larger shell, a secondary air blast opening near the bottom thereof, a stack opening in the top of the longer shell, openings for oil, gas and steam in the upper chamber corresponding to those in the upper chamber of the shorter shell, and an inlet for the crude oil located in the upper portion of the middle chamber of the longer shell.

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1,089,927. EVENER. ROBERT H. KEITH and FRED H. BROOKS, Rowan, Iowa. Filed Apr. 22, 1913. Serial No. 762,774. (Cl. 55—84.)



1. A device of the character specified, comprising a central and lateral sections, a pair of hinge leaves arranged at each end of the central section on opposite sides thereof, each leaf having a lateral upwardly extending perforated lug, a pair of hinge leaves secured to the inner end of each lateral section on opposite sides thereof, each leaf having a lateral upstanding perforated lug fitting inside and registering with the lug of the adjacent hinge leaf of the central section, a pivot pin passing through the perforations, the meeting ends of the section being recessed at each side edge at the lugs, and the adjacent hinge leaves at each side of the sections having registering openings when the sections are in alinement, a latch plate on each pivot pin at each side of the sections, each latch plate depending into the adjacent recess and having a lateral pin for engaging the openings of the leaves to lock the sections in alinement, a spring encircling each pivot pin and normally pressing the latch plates outwardly, and means for simultaneously moving the said plates inwardly to release the pins, said means comprising crossed levers adjacent to each pin, said levers being pivoted at their intersection to the adjacent lateral section and having their inner ends provided with openings for engaging the pivot pins between the latch plates and the adjacent lugs of the hinge leaves.

2. A device of the character specified, comprising central and lateral sections, a pair of hinge leaves arranged at each end of the central section on opposite sides thereof, each leaf having a lateral upwardly extending perforated lug, a pair of hinge leaves secured to the inner end of each lateral section on opposite sides thereof, each leaf having a lateral upstanding perforated lug fitting inside and registering with the lug of the adjacent hinge leaf of the central section, a pivot pin passing through the perforations, the meeting ends of the sections being recessed at each side edge at the lugs, and the adjacent hinge leaves at each side of the sections having registering openings when the sections are in alinement, a latch plate on each pivot pin at each side of the sections, each latch plate depending into the adjacent recess and having a lateral pin for engaging the openings of the leaves to lock the sections in alinement, a spring encircling each pivot pin and nor-

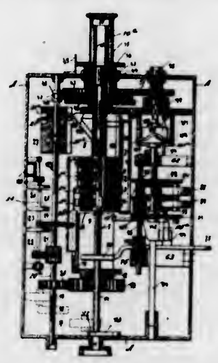
mally pressing the latch plates outwardly, and means for simultaneously moving the said plates inwardly to release the pins.

3. A device of the character specified, comprising a central and lateral sections, a pair of hinge leaves arranged at each end of the central section on opposite sides thereof, each leaf having a lateral upwardly extending perforated lug, a pair of hinge leaves secured to the inner end of each lateral section on opposite sides thereof, each leaf having a lateral upstanding perforated lug fitting inside and registering with the lug of the adjacent hinge leaf of the central section, a pivot pin passing through the perforations, the meeting ends of the sections being recessed at each side edge at the lugs, and the adjacent hinge leaves at each side of the sections having registering openings when the sections are in alinement, a latch plate in each recess and having a pin for engaging the openings of the leaves to lock the sections in alinement, means for holding each pair of latches in engaging position, and means for simultaneously releasing each pair of latches.

4. A device of the character specified, comprising a central and lateral section, a hinge connection between the inner end of each lateral section and the adjacent end of the central section, means for locking the sections in alinement, and means on each lateral section for releasing the device locking means.

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1,089,928. DEVICE FOR PRINTING PREPAID POSTAGE ON POSTAL PACKAGES. JULIUS LERCHE, Steglitz, near Berlin, Germany, assignor to Deutsche Post- und Eisenbahn- Verkehrswesen Aktiengesellschaft (Dapageefubag), Staaken, near Spandau, Germany. Filed Jan. 24, 1912. Serial No. 673,245. (Cl. 101—81.)



1. In an apparatus of the character described, a rotatable shaft, a plurality of stamp printing rollers mounted to rotate and move longitudinally on said shaft, means for rotatably connecting one or an adjacent pair of rollers to said shaft, means for moving said rollers longitudinally on the shaft, means for locking the remainder of the rollers against rotation, and an independent mechanism for registering the imprint of each printing roller.

2. In an apparatus of the character described, a rotatable shaft, a plurality of stamp printing rollers mounted on said shaft and adapted to rotate and to move longitudinally thereon into printing position, means for rotatably connecting one or an adjacent pair of rollers to said shaft, counterpressure rollers for coöperating with the printing rollers, an independent mechanism for registering the imprint of each printing roller, and means controlled by the longitudinal travel of said rollers for connecting only to the roller in printing position its individual registering mechanism and disconnecting the remainder.

3. In an apparatus of the character described, a rotatable shaft, a plurality of stamp printing rollers mounted on said shaft and adapted to rotate and to move longitudinally thereon into printing position, means for rotatably connecting one or an adjacent pair of rollers to said shaft, counterpressure rollers for coöperating with the printing rollers, an independent mechanism for registering the imprint of each printing roller, means controlled by the longitudinal travel of said rollers for connecting only to the roller in printing position its independent registering mechanism and disconnecting the remainder, means for locking against rotation all printing rollers not in use, and means for locking against false rotation the inactive registering mechanisms.

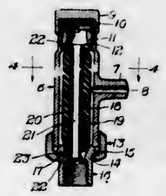
4. In an apparatus of the character described, a rotatable shaft, a plurality of stamp printing rollers mounted to rotate and move longitudinally on said shaft, means for rotatably connecting one or an adjacent pair of rollers to said shaft, means for imparting longitudinal movement to said rollers to cause their engagement with the shaft, counter pressure rollers to coöperate with the printing rollers, and means for moving said counter pressure rollers in an end-wise direction coincident with the longitudinal movement of the printing rollers.

5. In an apparatus of the character described, a rotatable shaft, a plurality of stamp printing rollers mounted to rotate and move longitudinally on said shaft, means for rotatably connecting one or an adjacent pair of rollers to said shaft, counter pressure rollers to coöperate with the printing rollers, rotating means for moving said printing rollers longitudinally on the shaft, and similar means for moving in unison the counter pressure rollers and operated by the moving means of the printing rollers.

[Claims 6 to 11 not printed in the Gazette.]

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1,089,929. THERMOSTATIC MEMBER FOR AIR-VALVES FOR RADIATORS. FRED W. LEUTHESSER, Chicago, Ill. Filed July 17, 1913. Serial No. 779,608. (Cl. 237—19.)



1. In an air valve for radiators, an outer casing, an expansible valve member within the casing, an upper seat in the casing for the expansible valve member, a lower seat in the casing for the expansible valve member, said valve member being located between the upper and lower seats, said valve member consisting of an outer section of expansible material, and an inner section of rigid material, non-separable from one another and loosely held with respect to one another, and having a sidewise clearance and an endwise clearance therebetween, said outer section and inner section being unattached as respects said seats, substantially as described.

2. In an air valve for radiators, an outer casing, an expansible valve member within the outer casing, an adjustable lower seat in the casing for the expansible valve member, said member being located between the upper seat and the lower seat, said member consisting of an outer section of expansible material, and an inner tubular section of rigid material, loosely held with respect to one another, and non-separable from one another, and provided with a sidewise clearance and an endwise clearance between the two sections, said outer section and inner section being unattached as respects said seats, substantially as described.

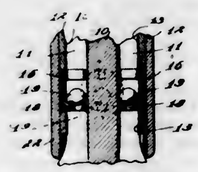
3. As a new article of manufacture, a valve member for air valves for radiators consisting of an outer section of expansible material and an inner rigid section in the form of a metal tube serving as a guide and support for the outer expansible section, the two sections being loosely engaged and having a sidewise clearance and an endwise clearance therebetween, and means adjacent the ends of the inner section for preventing endwise separation between the sections, the ends of the inner section extending beyond the end of the outer section, and said outer section having a free movement between the means preventing endwise separation of the sections, substantially as described.

4. As a new article of manufacture, a valve member for air valves for radiators consisting of an outer section of expansible material and an inner rigid section of metal tubing serving as a guide support for the outer section, said tubing having its ends upset for loosely retaining the two sections in place with a sidewise clearance and an endwise clearance between the two sections, the ends of the inner section extending beyond the ends of the outer section, and said outer section having free movement between the upset ends of the inner section, substantially as described.

5. As a new article of manufacture, an expansible valve member for air valves for radiators consisting of an outer section of expansible material and an inner section of rigid material of greater length than the outer section and extending at each end beyond the ends of the outer section, the two sections being loosely held one with respect to the other with a sidewise clearance and an endwise clearance between the two, and means adjacent the ends of the inner section for preventing endwise separation between the two sections, and said outer section having free movement between the means preventing endwise separation, substantially as described.

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1,089,930. ROCK-DRILL. CHARLES H. LOCHER, Glasgow, Va. Filed Dec 9, 1910. Serial No. 596,414. (Cl. 255—64.)



1. A drill rod and a coacting part secured to said drill rod, said rod and coacting part having relative shapes to form therebetween a conduit parallel with the axis of the rod and of uniform cross section throughout its length including its lower opening, and a separable valve structure including a perforated portion of similar cross section to fit in said conduit.

2. A drill rod provided with a bit and a substantially straight, longitudinally extending, conduit, having an alining open end immediately above the bit, in combination with a valve structure, insertible through the wall of said conduit, said wall being perforated to receive said valve structure.

3. A drill rod provided with a longitudinal channel in its side, in combination with a jacket attached to said rod and inclosing said channel provided with a perforation, a valve cage carrying a port insertible through said perforation, and means for retaining said valve cage in place.

4. A drill provided with a longitudinal channel in its side in combination with a jacket attached to said rod and inclosing said channel provided with a perforation, a valve cage carrying a port insertible through said perforation, and a sleeve on said rod to retain the valve cage.

5. The combination with a drill rod having a longitudinal groove, of a part spanning said groove and secured to the rod to provide a circumferentially closed conduit, said rod, groove-spanning part, and conduit being uniform in cross section throughout their length, and a separable valve cage carrying a gravity-operable valve, and means for fixedly securing said valve cage in said conduit.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,931. EXPANSIBLE BRACELET. RICHARD LOOG, Pforzheim, Germany. Filed May 31, 1912. Serial No. 700,824. (Cl. 59—80.)

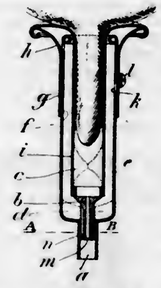


1. An expansible bracelet, consisting of an inner and outer series of links, each link of both series comprising two grooved side pieces secured together in spaced relation by a solid stud at each end of one piece and corresponding tubular studs on the other piece, a part located between the side pieces of each link of each series, said part comprising an integral frame formed into superimposed link parts and slidably connected to the said two grooved side pieces, substantially as described.

2. An expansible bracelet, consisting of an inner and outer series of links, each link of both series comprising two grooved side pieces secured together in spaced relation by a solid-stud at each end of one piece and corresponding tubular studs on the other piece, a part located between the side piece of each link of each series, said part comprising an integral frame formed into superimposed link parts, and having guide pins, and a spring bearing against each of said guide pins and tubular studs.

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1,089,932. MILKING DEVICE. WILHELM LÜBKE, Breslau, Germany. Filed Apr. 25, 1913. Serial No. 763,654. (Cl. 31—99.)



1. A milking device comprising a central elastic tube formed with a duct, an outer tube spaced from the central tube, and having a vent opening, the outer tube being reduced at its lower end and embracing the lower end of the central tube, there being passages formed in the lower portion of the central tube to form communication between the central tube and the space between said two tubes, a cap slidably engaging the outer tube, said cap having a vent opening, and means for limiting the sliding movement between the outer tube and the cap, whereby when suction is applied to the lower end of the outer tube, the air will be withdrawn from said tubes and the outer tube will rise and admit air through the vents and exert pressure on the udder and cause the inner tube to collapse and exert pressure on the teat.

2. A milking device comprising an inner elastic tube to engage a teat, a nozzle at the lower end of the inner tube, said nozzle having air vents, an outer tube spaced from the inner tube and reduced at its lower end to engage the nozzle, the vent openings in the nozzle affording communication between the space formed between the inner and outer tubes and the reduced portion of said outer tube when the parts are in normal position, the outer tube having a vent opening, and a depending cap supported by the inner tube and formed with a vent opening, said cap being positioned to form a support on which the outer

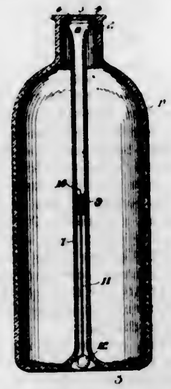
tube slides, whereby when suction is applied to the lower ends of the tubes air will be withdrawn from both tubes and cause the outer tube to rise and subsequently air will be admitted through the vent openings in the outer tube and the cap and cause the inner tube to collapse.

3. A milking device comprising an inner tube adapted to embrace a teat, a nozzle at the lower end of the inner tube, said nozzle having vents disposed some distance below the top of the nozzle, an outer tube spaced from the inner tube and having a vent opening, the lower end of the outer tube being reduced and fitting around the nozzle, the vent openings in the nozzle affording communication between the space formed between the inner and outer tubes and the reduced portion of said outer tube when the parts are in normal position, a cap member supported by the inner tube and slidably engaging the outer tube, said cap member having a vent opening, and means for limiting the movement of the outer tube, whereby when suction is applied to the reduced end of the outer tube, air will be simultaneously withdrawn from the tubes and the outer tube will rise and close the vents in the nozzle and the vent openings in the outer tube and the cap will register and admit a supply of air to the space between the tubes and thereby collapse the inner tube and return the outer tube to normal position.

4. A milking device comprising a central elastic tube having a nozzle at its lower end, said nozzle having a duct and vent openings, an outer tube surrounding and spaced from the inner tube and formed with a vent opening near its upper end, the lower end of the outer tube being reduced and fitting around the nozzle, the vent openings in the nozzle affording communication between the space formed between the inner and outer tubes and the reduced portion of said outer tube when the parts are in normal position, a cap having a vent opening to cooperate with the vent opening in the outer tube the outer tube being in sliding contact with the cap, a tube connected to the lower end of the outer tube, and a pulsator in the tube, whereby when suction is applied to the tubes, the air will be withdrawn, and cause the outer tube to rise and the vents in the nozzle to close and the vent openings in the cap and outer tube to register and admit air to the space between the two tubes and collapse the inner tube.

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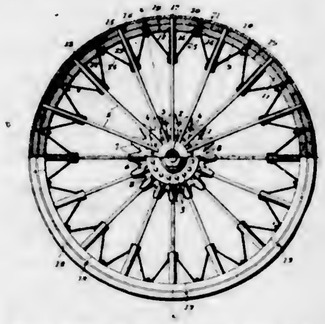
1,089,933. ANTIREFILLABLE BOTTLE. CHOVANEC LUKAC, Yukon, Pa. Filed May 1, 1913. Serial No. 764,912. (Cl. 215—78.)



In an anti-refillable bottle, a body portion provided with a neck including a thin transparent breakable closure therefor, a conduit open at each end, integral with the bottom of the body portion and extending into said neck, that portion of the conduit projecting into said neck having a funnel-shaped mouth to receive said cap when broken, the wall of said conduit, intermediate its ends, provided with an annular shoulder, a removable stopper anchored within said conduit by said shoulder, and means to facilitate the removal of said stopper.

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1,089,934. BUGGY-WHEEL. AUGUSTUS LYLES, Wabbaseka, Ark. Filed May 21, 1913. Serial No. 769,063. (Cl. 24—69.)



1. A wheel having a rim provided with radial openings, spokes having their outer ends secured to the rim at points between said openings, brace sleeves on the spokes and bearing against the inner side of the rim, and brace rods having their inner ends attached to the brace sleeves and their outer ends adjustably secured in the radial openings of the rim.

2. A wheel having a rim provided with radial openings, spokes having their outer ends secured to the rim at points between said openings, brace sleeves on the spokes and bearing against the inner side of the rim, and brace rods having their outer ends arranged in pairs in opposite sides of the openings of the rim, the wheel being further provided with bolts extending through said openings and between the outer ends of the pairs of brace rods, adjusting and clamping sleeves on said bolts, bearing against the brace rods, and nuts on said bolts to adjust said sleeves and hold the latter and the brace rods in place.

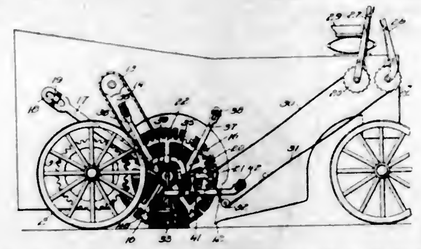
3. A wheel having a rim provided with radial openings, spokes having their outer ends secured to the rim at points between said openings, brace sleeves on the spokes and bearing against the inner side of the rim, and brace rods having their outer ends arranged in pairs in opposite sides of the openings of the rim, the wheel being further provided with bolts extending through said openings and between the outer ends of the pairs of brace rods, adjusting and clamping sleeves on said bolts, bearing against the brace rods, and nuts on said bolts to adjust said sleeves and hold the latter and the brace rods in place, the wheel being further provided with an outer rim and with a tire, the said bolts also extending through said outer rim and tire and holding the same in place.

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1,089,935. STREET-SWEEPER. GEORGE MACCONCHIE, Newark, N. J. Filed Jan. 31, 1911. Serial No. 605,722. (Cl. 15—17.)

1. In a street sweeper, the combination of a rotary brush having a transverse and horizontal arrangement and mounted to move vertically, braces between the rotary brush and the frame of the machine, two rollers, flexible connections attached at one end to the respective rollers and reversely wound thereon and having the opposite end connected with the brush, a guide roller for deflecting one of the flexible connections, and operating means for each of the rollers for winding the flexible connection thereon, the parts being arranged to effect positive vertical movement of the brush in each direction.

2. In a street sweeper, the combination of the main frame, a rotary brush having a transverse horizontal arrangement, side bars having loose connection at one end with the main frame and having the brush carried thereby, and also having horizontal extensions at the lower ends of the side bars, a pair of rollers, operating levers mounted in line with the rollers, a ratchet mechanism between each operating lever and its roller, flexible connections attached to the extensions of the side bars and wound upon said rollers, and guide rollers for deflecting one of the flexible connections.

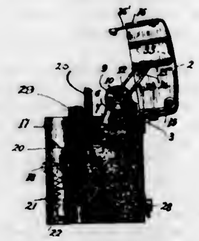


3. In a street sweeper, the combination of a rotary brush having a transverse horizontal arrangement, side bars having the rotary brush mounted therein, means for adjusting the side bars vertically, a bracket connected with one of the side bars and movable therewith, a vertical shaft mounted in said bracket and provided at its lower end with a horizontal brush, and gearing between the vertical shaft and rotary brush.

4. In a street sweeper, the combination of a transversely arranged rotary brush, a main frame, side bars supporting the rotary brush and connected with the main frame, means for moving the side bars to effect vertical adjustment of the rotary brush, a bracket connected with one of the side bars, a vertical shaft mounted in said bracket and provided at its lower end with a horizontal brush, gearing between the vertical shaft and the transversely arranged brush, arms connected to the bracket and having loose connection with the main frame, and a horizontal bar having the aforesaid vertical shaft mounted therein and having loose connection with the main frame.

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1,089,936. FASTENER FOR POCKET-LIGHTERS. JEAN MARIE NICOLAS MANENT, Toulouse, France. Filed July 30, 1912. Serial No. 712,331. (Cl. 70—82.)

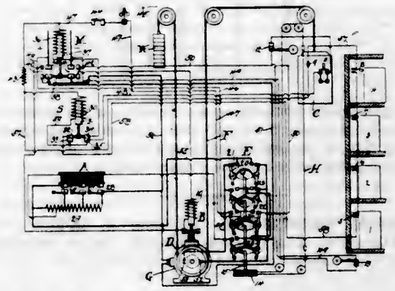


In automatic pocket lamps having a receptacle provided with a bayonet slot and a lid hinged thereto, locking means for said receptacle consisting of a latch on said lid having a cam portion and a lug on said receptacle, a manually operated bolt having a stud projecting through said slot and adapted to be moved vertically and rotated horizontally against said cam portion for disengaging said latch from said lug, substantially as described.

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1,089,937. ELECTRIC ELEVATOR. CHARLES B. MANVILLE, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 16, 1912. Serial No. 697,608. (Cl. 172—152.)

1. In an electric elevator, the combination of a hoisting motor, an electro-responsive device for opening and closing the motor circuit, a normally closed safety switch in the circuit of the operating solenoid of said electro-responsive device, a solenoid for effecting the operation of said safety switch, door contacts arranged at the floor landings, a circuit including said door contacts arranged in shunt to said solenoid, and a resistance in series with said solenoid and door contacts.



2. In an electric elevator, the combination of a hoisting motor, a main line switch for opening and closing a circuit to said motor, electro-magnetic means for effecting the operation of said main line switch, door contacts arranged at the floor landings, a normally closed magnet controlled safety switch in the operating circuit of said main line switch, and a circuit including the door contacts arranged in shunt to the controlling magnet of said safety switch for short circuiting the same when the landing doors are in closed position.

3. In an electric elevator, the combination of an electrically controlled switch, a safety magnet switch in circuit with the operating magnet of said switch, a normally closed shunt around the magnet of said safety switch, and means associated with a landing door for opening said shunt upon opening said landing door.

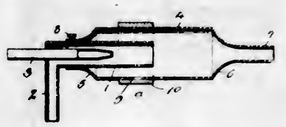
4. In an electric elevator, the combination of a main line switch, means operated from the car for effecting the operation of said switch, an electrically operated safety switch controlled by a hatch door for rendering said switch inoperative, and a self holding circuit for said safety switch established by the operation of said hatch door, said circuit being controlled by said first named means.

5. In an electric elevator, the combination of a car, a main line switch, means controlled from the car for effecting the operation of said main line switch, means independent of said main line switch set into operation by the opening of an elevator door for rendering said main line switch inoperative unless and until said controlling means be first moved to "off" position.

[Claim 6 not printed in the Gazette.]

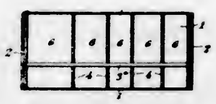
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1,089,938. OIL-BURNER. FREDDIE K. MARTIN, Chelsea, Okla. Filed Sept. 12, 1913. Serial No. 789,501. (Cl. 158—74.)



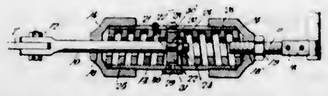
An oil burner of the class described comprising an oil supply duct having a feed arm at right angles thereto, a steam jet pipe arranged concentrically in said oil supply duct and extending through an opening in one side of the feed arm thereof, a tubular mixer of greater diameter than the oil supply duct and in which the latter is arranged, said mixer having a reduced inner end providing an opening through which the oil supply duct extends and being detachably fitted on said oil supply duct and being further provided with a reduced outer end provided with a jet tip, the mixer being further provided with air inlet openings at a point intermediate its ends and means to vary the effective area of said air inlet openings.

1,089,939. CHANGE-HOLDER. JOHN H. MAXWELL, Crewe, Va. Filed Sept. 3, 1913. Serial No. 787,982. (Cl. 133—11.)



A coin holder comprising a receptacle, a series of partitions dividing the receptacle into a plurality of compartments and a bar extending longitudinally of the receptacle and through all of the compartments.

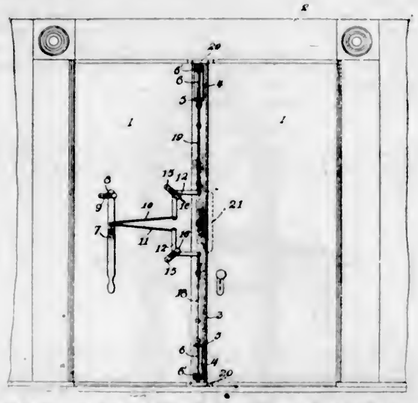
1,089,940. SWITCH-ROD. JACKSON A. MCELROY and WILLIAM B. FREEMAN, Hattiesburg, Miss. Filed May 24, 1912. Serial No. 699,540. (Cl. 104—79.)



1. A switch rod comprising a casing having a drain opening therein, a rod section coupled to said casing, a second rod section slidably mounted in the casing, a piston movable in the casing and secured to said slidable rod section, said piston being provided with peripheral passages between its faces, and opposing springs between said piston and the ends of the casing.

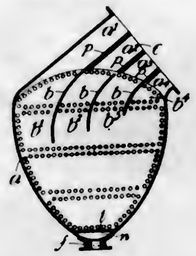
2. The combination with supporting ties, of a bracket secured to said ties, a switch rod comprising two telescopically connected rod sections, said connection including a casing supported by said bracket and to which one of the rod sections is fixed and within which the other rod section is slidably mounted, and springs within said casing and exerting yielding opposing pressures against the sliding rod section.

1,089,941. DOOR-FASTENER. IRVIN F. MILEY, Green Castle, Mo. Filed July 6, 1911. Serial No. 637,192. (Cl. 16—63.)



A swinging door, an angle iron secured at one vertical edge of said swinging door, and having a flange adapted to engage an adjacent door, a bolt bracket mounted on each end of said angle iron, consisting of a strip of metal having a lateral projection at each end with a bolt hole, a slidable bolt mounted in each bracket, a pair of detachable U-shaped brackets mounted on said door, a bell crank lever pivoted to each of said brackets, a rod connected to each of said bell crank levers and to one of said bolts, a U-shaped bracket mounted on said door, a lever handle pivoted thereto and depending therefrom and a pair of rods pivoted at one end to said lever handle and at the other end to said bell crank levers.

1,089,942. APPARATUS FOR CONDENSING STEAM. DONALD BARNS MORISON, Hartlepool, England. Filed May 26, 1913. Serial No. 769,929. (Cl. 62—26.)



1. In steam condensing apparatus, a steam condensing compartment having condensing tubes, an inlet for steam, an air outlet connected to an air pump suction system, and a plurality of plates arranged with their upper extremities lying in planes parallel with the direction of steam flow through said inlet, the lower extremities of said plates being so directed that the stream lines of steam flow deflected by the plates are directed toward said air outlet, thus utilizing the kinetic energy of the steam to compress the air through the air outlet into said pump suction system.

2. In steam condensing apparatus, a steam condensing compartment having a steam inlet that is divided by longitudinal plates into multiple passages, a plurality of plates extending into said condensing compartment and so arranged that the steam current issuing from said passages is deflected by said plurality of plates and is so directed that its stream lines of flow are toward the air outlet from said condensing chamber, for the purpose set forth.

3. In steam condensing apparatus, the combination with a steam condensing compartment of steam current deflecting plates arranged in the steam inlet to said compartment, said plates directing the steam current toward the air outlet.

4. In steam condensing apparatus, the combination with a steam condensing compartment of steam current deflecting plates arranged in the steam space preceding the condensing surface, said plates directing the steam current toward the air outlet.

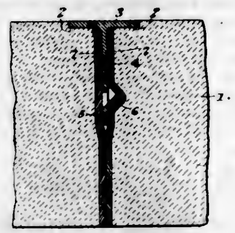
5. In steam condensing apparatus, a steam condensing compartment having condensing tubes, an inlet for steam angularly disposed with regard to an air outlet, and a plurality of plates arranged with their upper extremities lying in planes parallel with the direction of steam flow through said inlet, the lower extremities of said plates being so directed that the stream lines of steam flow deflected by the plate are directed toward said air outlet.

[Claims 6 to 8 not printed in the Gazette.]

1,089,943. EXPANSION-JOINT. SAMUEL T. MORSE and WILLIS D. P. WARREN, Carlinville, Ill. Filed Apr. 8, 1913. Serial No. 759,733. (Cl. 94—2.)

1. In an expansion joint for concrete roadways, the combination with a roadway formed of a number of sections of plastic material, of a reinforcing bar disposed between the confronting edges of adjacent sections, and strips of compressible material interposed between such edges and arranged at the opposite sides of said bar.

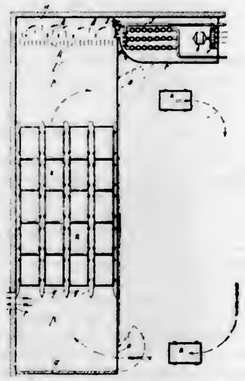
2. In an expansion joint for concrete roadways, the combination with a roadway formed of a number of sections of plastic material, of a T-shaped reinforcing bar having the head thereof spanning the space between the sections and the stem interposed between the confronting edges of such sections, and compressible strips disposed at the opposite sides of said stem.



3. In an expansion joint for concrete roadways, the combination with a roadway formed of a number of sections of plastic material, of a T-shaped reinforcing bar having the head thereof spanning the space between the sections and the stem interposed between the confronting edges of such sections, and compressible strips disposed at the opposite sides of said stem, said stem adjacent to its lower longitudinal edge being stamped out to form lugs spaced apart and designed to be embedded in the material of the sections.

4. In an expansion joint for concrete roadways, the combination with a roadway formed of a number of sections of plastic material, of a reinforcing bar disposed between the confronting edges of adjacent sections and having a head spanning the upper edges of said sections, and a strip of compressible material interposed between such edges and contacting with said reinforcing bar.

1,089,944. APPARATUS FOR DRYING PASTE GOODS. OSCAR MÜLLER, Plüderhausen, Germany. Filed Sept. 27, 1911. Serial No. 651,611. (Cl. 34—46.)

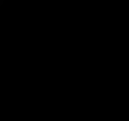


1. In an apparatus for drying paste goods, a drying chamber having dead spaces $p$ at opposite ends, and a central receiving portion between the spaces, an inlet in said chamber for admitting air, means exterior of said chamber for controlling the temperature of said air, an air outlet communicating with the dead space remote from said inlet, a feed and a discharge opening in said chamber on both ends of said receiving portion, and means between said air inlet and said feed opening for breaking down the air current.

2. In an apparatus for drying paste goods, a drying chamber having the dead spaces $p$ on the chamber ends, and a central receiving portion between the spaces, an air inlet in the said chamber connected to an air supply and adapted to convey tempered air into the said chamber, means for controlling the temperature of the air between the air supply and the air inlet, a moistening device in the said air inlet, an air outlet communicating with the dead space $p$ located remote from the air inlet, a feed and a discharge opening in the said chamber on both ends of the said receiving portion, baffle plates between the said air inlet and the said feed opening, and an air distributing device between the baffle plates and the said feed opening.

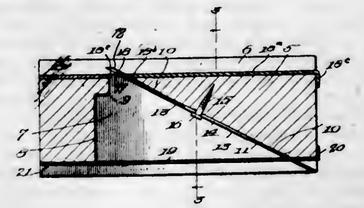
3. In an apparatus for drying paste goods, a drying chamber having the dead spaces $p$ on the chamber ends, and a central receiving portion between these spaces, an air inlet in said chamber connected to an air supply, and adapted to convey tempered air into the said chamber, means for controlling the temperature of the air between the air supply and the air inlet, a moistening device in the said air inlet, a feed and a discharge opening in the said chamber on both ends of the said receiving portion, an air outlet arranged opposite to the said discharge opening and communicating with the dead space $p$ located remote from the air inlet, baffle plates between the said air inlet and the said feed opening, an air distributing device between the baffle plates and the said feed opening, and an unobstructed air passage between the said baffle plate and distributing device, and the top wall of the said chamber.

1,089,945. LOCK-NUT. CHARLES WATSON NEAL, Cheraw, S. C., assignor of two-thirds to William Mitchell and one-third to Samuel M. Finklea, Cheraw, S. C. Filed Sept. 13, 1911. Serial No. 649,103. (Cl. 151—11.)



In combination with a bolt having a longitudinal groove therein of U-shaped configuration, a nut threadedly mounted on the bolt and provided with an annular channel in one of its surfaces, a spring carried by the nut and arranged within the said annular channel, said spring having one of its ends secured radially of the bolt and having its free end provided with a portion arranged at a tangent to the bolt, and terminally extended upwardly toward the outer wall of the annular channel and then extended inwardly and engaging one of the straight walls of the groove in the bolt and providing an outer longitudinal convexity arranged at an angle to the outer wall of the channel, and an inner longitudinal concavity extending beyond and in spaced relation to the inner curved wall of the groove.

1,089,946. PENCIL-SHARPENER. OTTO W. NIEDOMANSKI, Washington, D. C. Filed July 2, 1913. Serial No. 776,963. (Cl. 120—90.)

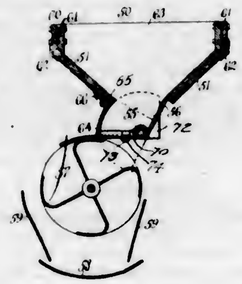


A pencil sharpener comprising a body having central longitudinal grooves along relatively opposite sides thereof and provided with a transverse intermediate compartment communicating with said grooves, said body also having longitudinally extending slots along opposite sides, and adjacent the bases of said grooves, a plate mounted in the compartment and having a sharpened edge projecting slightly beyond the base of one of the grooves, and plates slidably and removably engaging the said slots within the grooves and having angular ends forming handles and abutting one end of the body, one of said plates being

adapted to extend adjacent to the sharpened edge of the plate and to form a base for the respective groove upon which a pencil to be sharpened may be moved, and the other plate forming a closure at its respective end of the compartment, all for the purpose described.

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1,089,947. MEASURING-MACHINE. ALVIN FLAVEL NIMS, Philadelphia, N. Y. Filed Feb. 18, 1910. Serial No. 544,602. (Cl. 221—95.)



1. In a machine of the class described, a hopper, a measuring wheel associated with said hopper, a partition movable longitudinally of said hopper to adjust the effective length thereof, and means for guiding said partition with respect to the hopper.

2. In a machine of the class described, a hopper, a dumping chute under said hopper, a partition movable longitudinally of said hopper and adapted to adjust the effective length thereof, said partition having a part extending into said dumping chute.

3. In a machine of the class described, a hopper, a dumping chute under said hopper, a partition disposed within said hopper and movable longitudinally thereof, and means for guiding said partition longitudinally of said hopper, said partition having a part extending into said chute and conforming thereto, said part constituting an end cover for said chute.

4. In a machine of the class described, a hopper having sides, a frame having sides slidably mounted upon said sides of said hopper, said frame having a plate extending into said hopper, a dumping chute under said hopper, said plate having an extension projecting into said dumping chute, and a cover slidably and pivotally mounted upon said hopper, adjacent to said dumping chute.

5. In a machine of the class described, a hopper having sides, a frame having sides slidably mounted upon said sides of said hopper and provided with guides movably engaging said hopper, and a plate secured to said frame and extending into said hopper, and conforming to the cross sectional shape thereof, whereby said plate forms an adjustable partition for varying the effective length of said hopper.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,948. COMBINED STALK-CUTTER AND ROLLER. JULIUS J. NOHR, Crofton, Nebr. Filed Feb. 28, 1913. Serial No. 751,353. (Cl. 55—61.)

1. In a device of the class described, a vertically movable frame; a soil engaging member fixed on the frame for vertical movement with the frame; a caster wheel vertically movable on the frame independently of the frame and located to the rear of the soil engaging member; resilient means for limiting the upward movement of the caster wheel; soil engaging supporting means vertically movable upon the frame independently of the frame and located between the soil engaging member and the caster wheel; and mechanism for raising and lowering the supporting means.

2. In a device of the class described, a vertically movable frame; a soil engaging member fixed on the frame for vertical movement with the frame; a standard mounted in the frame for rotation and for vertical sliding movement; a spring surrounding the standard and engaging the frame to limit the upward movement of the standard; a ground wheel journaled on the lower end of the standard; soil engaging supporting means vertically movable upon the frame independently of the frame and located between the ground wheel and the soil engaging member; and mechanism for raising and lowering the supporting means.



3. In a device of the class described, a frame including cross bars; a seat; a support upholding the seat and connected with the cross bars; a bracket secured to the cross bars; a standard mounted to slide in the bracket and in the support; a spring surrounding the standard and abutting at one end against the support; a fixed abutment on the standard, located above the bracket and receiving the other end of the spring; a caster wheel supported by the standard; a soil engaging member carried by the frame; and means for raising and lowering the frame, independently of the caster wheel and the soil engaging member.

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1,089,949. HAT-PIN GUARD. WILLIAM H. NUTTER, Shelton, Nebr. Filed Nov. 26, 1912. Serial No. 733,694. (Cl. 24—155.)

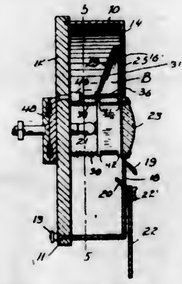


A hat pin guard including a body comprising a flat plate and a rounded cover rising therefrom, said cover being formed with a pin receiving opening, and a locking member arranged wholly within the body and comprising a single length of spring material bent to provide a bowed portion and a projection extending angularly from one terminal of said bowed portion, the ends of said bowed portion bearing upon said plate, said angular projection toward and past the opening in the cover, the angular projection and bowed portion of the locking member being formed with openings adapted to aline with each other and with the opening in the cover in a certain position of the portions of said member other than normal, and means for operating one of the portions of said member to move the portions into such relative position.

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1,089,950. DIRECTION-INDICATING SIGNAL. JAMES J. O'CONNELL, Rochester, N. Y. Filed May 21, 1913. Serial No. 769,111. (Cl. 40—52.)

1. The combination in a direction indicating device including a base plate, of a cylindrical casing detachably secured to said plate, a plurality of variously colored glass plates mounted in said casing and provided with direction indicating characteristics, an open ended housing for each of said plates, a sliding shutter for each of said housings, an electric lamp mounted centrally of said base plate, said shutters being normally disposed to close the open end of the housing and to exclude the light from said electric lamp, an electromagnet for controlling the sliding movement of each of said shutters, said magnets being secured to the said base plate, an independent electrical circuit for each of said magnets, a lamp circuit including said lamp and a battery common to said circuits.

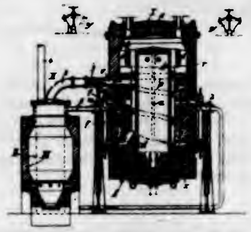


2. In a direction indicating signal, the combination with a casing, of an electric lamp mounted centrally within said casing, a plurality of housings mounted within said casing, each of said housings open at one of its ends adjacent said lamp and provided with a direction indicating transparent wall, shutters slidably mounted within said casing adjacent the open ends of said housings, means for normally closing said shutters and electrical means for opening said shutters to permit the access of light to said housings.

3. In a direction indicating signal, a casing, an electric lamp mounted centrally within said casing, open ended housings mounted within said casing, direction indicating glass plates mounted in the faces of said housings, a pair of spaced rods mounted within said casing and adjacent the open ends of each of the housings, a shutter slidably mounted upon each pair of rods normally closing the adjacent housing, springs mounted upon said rods to normally hold said shutters in a closed position and electromagnets for opening said shutters.

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1,089,951. PROCESS AND HIGH-PRESSURE FURNACE FOR THE DIRECT PRODUCTION OF IRON AND STEEL. CARL OTTO, Dresden, Germany. Filed Nov. 1, 1911. Serial No. 657,978. (Cl. 204—64.)



1. A process for the direct production of iron and steel in a high pressure furnace consisting in first producing spongy iron by accelerating the reduction through the concentration of the carbon monoxid gases, and finally removing all protoxid remnants by the introduction of a powerful electric current increasing the pyrometrical effect, substantially as described and for the purpose set forth.

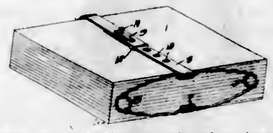
2. In a high pressure furnace for the direct production of iron and steel, a reduction vessel, means for heating said vessel by a gaseous fuel, an ore chamber within said vessel, heated to reaction temperature by said vessel heating means, a fuel chamber arranged above said vessel, an insulated electric resistance within said fuel chamber for heating the same, and means for conducting compressed and preheated air and gas to the furnace, substantially as described.



3. In a high pressure furnace for the direct production of iron and steel, a reduction vessel, means for heating said vessel by a gaseous fuel, a fuel chamber arranged above said reduction vessel and receiving solid fuel and adapted to be heated by an electric resistance, a second electric resistance arranged at the base of said reduction vessel and adapted to heat the lowermost part of the furnace, and feeding devices adapted to feed solid fuel and pulverized ore into the fuel chamber in order to revive the reducing operation, substantially as described.

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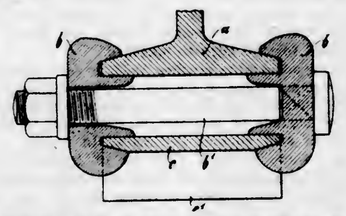
1,089,952. PACKAGE-TIE. CHARLES A. PATRICK, Bellaire, Tex. Filed May 31, 1912. Serial No. 700,760. (Cl. 24—17.)



A package tie including a pair of springs substantially elliptical in an expanded position and provided with depressed portions at opposite points on the ellipse, straps engaging each of said depressed portions whereby to prevent lateral movement of the same, adjustable interlocking means associated with said straps, and arms formed on the opposite ends of one of said straps for facilitating the guiding of the opposite strap.

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1,089,953. SCREW-CLAMP. FRANZ PAULUS, Aachen, Germany. Filed Oct. 20, 1913. Serial No. 796,285. (Cl. 238—4.)



1. A screw clamp for rails comprising a bracing piece, a pair of clamping members and a tightening bolt for said members, said clamping members having grooves for engaging the bracing piece and the foot of the rail, said bolt constructed to draw both clamping members together so as to securely hold the rail.

2. A screw clamp for rails comprising a bracing piece, a pair of clamping members and a tightening bolt for said members, said bracing piece having a downwardly extending flange on one side for engaging with wooden sleepers, and a similar flange on its opposite side for engaging with iron sleepers.

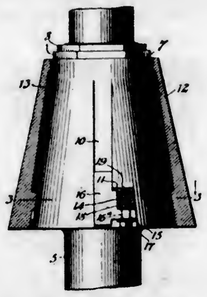
3. A screw clamp for rails comprising a bracing piece, a pair of clamping members and a tightening bolt for said members, said bracing piece having a downwardly extending flange on one side for engaging with wooden sleepers, and a similar flange on its opposite side for engaging with iron sleepers; the body of said bracing piece being provided with beveled edges of the same taper as the foot of the rail; said clamping members being provided with grooves for engaging said beveled edges and the foot of the rail.

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1,089,954. ADJUSTABLE CRUSHER-HEAD. EDWARD LOUIS PEMBERTON, New Haven, Conn. Filed Aug. 6, 1913. Serial No. 783,271. (Cl. 83—10.)

1. In an adjustable crusher head, a core member having an outer surface, a mantle disposed around the core member and having an inner surface engaging the outer

surface of the core member, one of the members at its said surface decreasing in diameter in one direction, there being a recess in one of the members through its said surface, a lug on the other member extending into the recess and having a threaded orifice, and a screw meshing in the threaded orifice and free for moving longitudinally of the core member for engaging the member having the recess at the end thereof.



2. In an adjustable crusher head, a conical core member, a mantle member disposed around the core member and having a conical opening, the inner surface of the mantle member and the outer surface of the core member engaging each other, a keyway and a connecting recess in one of the members and extending through its said surface, a lug on the other member extending into the recess and provided with a threaded orifice, a key in the keyway and having a lug with an orifice, the last mentioned lug extending into the recess, and a screw disposed through the orifice in the last-mentioned lug and meshing in the threaded orifice in the first-mentioned lug and abutting against the member having the recess at the end thereof for the purpose specified.

3. In an adjustable crusher head, a core member having an outer surface, a mantle member disposed around the core member and having an inner surface engaging the outer surface of the core member, one of the members at its said surface decreasing in diameter in one direction, there being a plurality of longitudinally extending keyways spaced apart in the said surface of the core member, there being a recess in the core member communicating with each of the keyways, keys in the keyways with lugs having orifices and extending into the recesses, a plurality of inwardly extending lugs on the mantle provided with threaded orifices and extending into the recesses, and screws disposed through the orifices in the first-mentioned lugs and meshing in the threaded orifices in the second-mentioned lugs and engaging the core member at the recesses for the purpose specified.

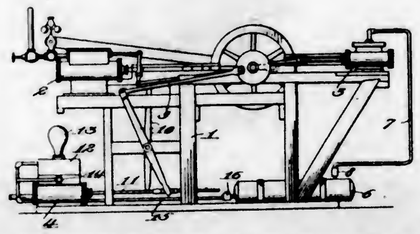
4. In an adjustable crusher head, a conical core member, a mantle member having a conical opening in which the core member is disposed, there being longitudinally extending keyways spaced apart around the core member and extending through the outer surface of the core member, there being recesses extending through the outer surface of the core member, one communicating with each of the keyways, lugs with threaded orifices on the mantle and extending into the recesses, screws meshing in the threaded orifices and engaging the core member at the ends of the recesses, and keys free from the mantle member, the keys being disposed in the key-ways and provided with lugs engaged by the first lugs to be moved thereby.

5. In an adjustable crusher head, a conical core member, a mantle member having a conical opening in which the core member is disposed, there being longitudinally extending keyways spaced apart around the core member and extending through the outer surface of the core member, there being recesses extending through the outer surface of the core member, one communicating with each of the keyways, lugs on the mantle and extending into the recesses, keys in the keyways and having lugs engaging the first-mentioned lugs to be moved thereby, and means for moving the first-mentioned lugs relatively to the core member.

[Claim 6 not printed in the Gazette.]

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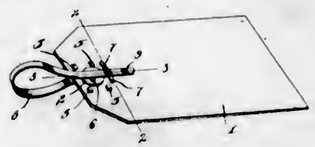
1,089,955. PUMPING APPARATUS. SAMUEL J. PETERSON, Valdosta, Ga. Filed June 18, 1909, Serial No. 502,980. Renewed Aug. 18, 1913. Serial No. 785,364. (Cl. 103—79.)



In a pumping apparatus, the combination of a water pump; a receiving tank in communication therewith and having an air dome; a water-discharge pipe leading from said tank; an air pump structurally independent of the water pump; a compressed air reservoir, a pipe connecting said reservoir and said air pump; a pipe connecting said reservoir and dome for supplying compressed air from the former to the latter, whereby the water contained in said tank will be forced by the compressed air through said discharge pipe; valves in said connecting pipes; and a branch pipe leading from the second-named connecting pipe to the discharge pipe for supplying compressed air to said discharge pipe to facilitate the discharge of water from said tank.

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1,089,956. TAG OR CHECK. ANTON B. POLYANICH, Truckee, Cal. Filed Feb. 1, 1913. Serial No. 745,659. (Cl. 40—21.)



The combination with a tag, check or like article, of a fastener comprising a body portion, a bendable tongue integral with the body portion and having an opening in the free end thereof, and staples integral with said body portion and passing through the tag or check and also through the opening in said tongue.

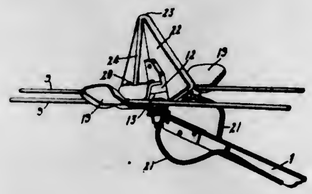
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1,089,957. TROLLEY FOR TRACKLESS VEHICLES. WILLIAM B. POTTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 28, 1909. Serial No. 509,990. (Cl. 191—59.)

1. The combination with a trolley pole, of a head swiveled thereto, and provided with a fin having lateral wings, said fin and said wings being tapered upwardly to a common point, and contact shoes on said head on opposite sides of said fin.

2. The combination with a trolley pole, of a ball mounted thereon, a head comprising two blocks containing bearings for said ball, a tapered fin on the upper block, and contact shoes on opposite sides of said fin and extending to or below the horizontal plane of the ball.

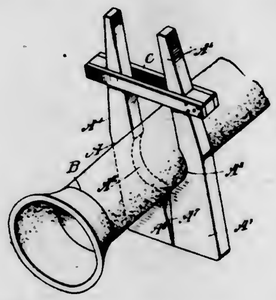
3. The combination with a trolley pole, of a ball mounted thereon, a head comprising two blocks containing bearings for said ball, a spring urging said head to a normally level position, an arrow-shaped fin on the upper block, and contact shoes on said head and extending to or below the horizontal plane of the ball.



4. The combination with a trolley pole, of a stem carrying a ball, two blocks containing a bearing for said ball, the lower block having a recess around said ball, and the upper block having a slot, an arrow-shaped fin in said slot, lateral wings on said fin, a spring surrounding said stem and seating in said recess, and U-shaped contact shoes on opposite sides of the upper block.

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1,089,958. SUPPORT. WARREN A. POWEL, Taylorville, Ill. Filed Sept. 23, 1913. Serial No. 791,322. (Cl. 248—31.)



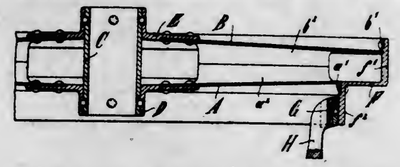
1. A support for supporting a pipe in a trench or the like, comprising a pair of supporting members adapted to rest on the bottom of the trench and provided with registering cut-out portions at their opposite edges, the said cut-out portions forming a seat for the pipe to rest in, the said members having arms extending upwardly from the cut-out portions, and a link removably connected with the said arms.

2. A support for supporting a pipe in a trench or the like, comprising a pair of supporting members adapted to rest on the bottom of the trench and provided with cut-out registering portions at their opposite edges, the said cut-out portions forming a seat for the pipe to rest in, the said cut-out portions being located a distance above the bottoms of the members and the opposite edges of the members from the cut-out portions to the bottoms of the members being converging, the said members having arms extending upwardly from the cut-out portions, and a link removably connected with the said arms.

3. A support for supporting a pipe in a trench or the like, comprising a pair of supporting members adapted to rest on the bottom of the trench and provided with registering cut-out portions at their opposite edges, the said cut-out portions forming a seat for the pipe to rest in, the said members having arms extending upwardly from the cut-out portions, the inner edges of the said arms being approximately parallel and the outer edges of the arms being tapering upwardly and inwardly, and a link removably engaging the said arms to hold the latter normally in closed position.



1,089,959. WHEEL. HEINRICH RABBA and FRIEDRICH STOCK, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Feb. 21, 1912. Serial No. 679,179. (Cl. 21—69.)



1. A wheel comprising a hub, a spoke part consisting of front and rear members, and a rim ⌐⌙-shaped in cross section providing outer and inner limbs; one member of the spoke part being secured to the outer limb of the rim and the other member of the spoke part being connected to the inner limb of the rim.

2. A wheel comprising a hub, a spoke part and a rim; said spoke part consisting of a front half and a rear half, each stamped out of plate, a flange around the periphery of each half of the spoke part; said rim being of ⌐⌙-shaped cross-section, the outer limb forming the tread of the wheel and the inner limb forming a brake ring; the flange of one of said spoke halves being secured to the tread limb of said rim, the flange of the other spoke half secured to the brake ring of said rim, and the center part of both spoke halves secured to the hub.

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1,089,960. ADHESIVE MATERIAL FOR GLUING PURPOSES. FRANCESCO RAMPICHINI, Trieste, Austria-Hungary. Filed Sept. 6, 1912. Serial No. 718,873. (Cl. 87—17.)

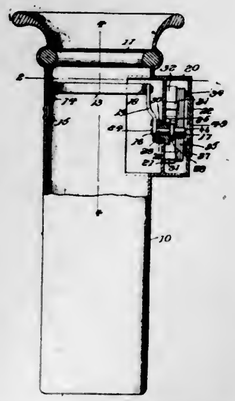
1. An adhesive fluid for gluing purposes, consisting of acetone, celluloid and oxalic acid.

2. The herein-described adhesive fluid for gluing purposes, consisting of acetone one hundred pounds, celluloid twenty to thirty pounds, and oxalic acid one half to two pounds.

3. An adhesive material for gluing purposes consisting of celluloid combined with a suitable solvent and oxalic acid.

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1,089,961. WHIP-SOCKET. HARRY H. RANDALL, Bethany, Nebr. Filed June 28, 1913. Serial No. 776,378. (Cl. 21—130.)



1. In a whip socket, an inclosing casing, a holding member within said casing for receiving a whip, a yieldable device coupling said holding member at one side to said socket, and means operating upon the holding mem-

ber at the other side thereof to move the same against the resistance of said yieldable device into position obliquely to the longitudinal plane of the casing.

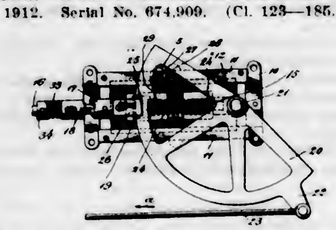
2. The combination with a whip socket, of a holding member for receiving a whip, means for coupling said holding member at one side to said socket, a member mounted for rotation in said socket, an arm directed radially from said rotative member, and a link connecting said holding member and operating to move the same into position obliquely to the longitudinal plane of the socket when the rotative member is actuated.

3. The combination with a whip socket, of a holding member through which a whip is adapted to pass, means for movably supporting said holding member at one side, a stem mounted for rotation, coupling means between said stem and holding member at the opposite side to cause the holding member to be disposed obliquely to the longitudinal plane of the socket when the stem is rotated, and a locking device associated with the stem and operating to hold the same from movement, and a key arranged to operate said stem and locking device.

4. The combination with a whip socket, of a holding member through which a whip is adapted to pass, means for movably supporting said holding member at one side, a stem mounted for rotation, coupling means between said stem and holding member at the opposite side to cause the holding member to be disposed obliquely to the longitudinal plane of the socket when the stem is rotated, a locking device associated with the stem, an operating key, and means whereby said key first releases the locking device and then actuates the holding member.

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1,089,962. STARTING DEVICE FOR EXPLOSIVE-ENGINES. HENRY S. RAUCH, Jackson, Mich. Filed Feb. 2, 1912. Serial No. 674,909. (Cl. 123—185.)



1. The combination with an engine shaft, and a clutch member thereon, of a driving shaft, a clutch member thereon, a slide on which said driving shaft is journaled, a stationary support for said slide, and a manually operable element carried by said slide and coöperating with said driving shaft and its support to shift said slide and driving shaft toward the engine shaft and simultaneously revolve said driving shaft.

2. The combination with an engine shaft, and a clutch member thereon, of a driving shaft, a clutch member thereon, a slide on which said driving shaft is journaled, a stationary support for said slide, and a sector carried by said slide and coöperating with said driving shaft and its support to shift the said slide and driving shaft toward the engine shaft and simultaneously revolve said driving shaft.

3. The combination with an engine shaft, and a clutch member thereon, of a driving shaft, a clutch member thereon, a slide for supporting said driving shaft, a sector journaled on said slide for rotating said driving shaft, and means controlled by the movement of said sector for moving said slide to bring said clutch members into engagement.

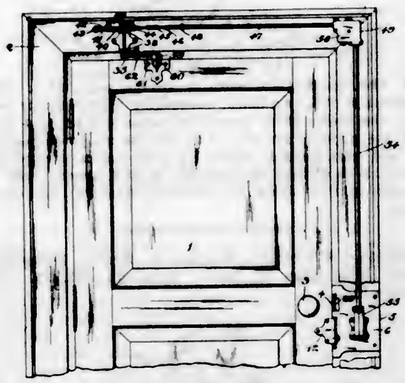
4. The combination with a frame, and an engine shaft, and a clutch member thereon, of a driving shaft, a clutch member thereon, a slide for supporting said driving shaft, a sector journaled on said slide for rotating said driving shaft, an abutment on the frame, and a cam controlled by the movement of said sector and engaging said abutment for moving said slide to bring said clutch members into engagement.

5. The combination with an engine shaft, of a stationary base plate, a slide movable thereon, a shaft journaled on said slide, a sector pivoted on said slide and adapted to rotate said shaft, and means controlled by the movement of said sector for advancing said slide and shaft toward the engine shaft.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,963. DOOR-OPENER. JACOB REINERT and LOUIS REINERT, Pittsburgh, Pa. Filed July 19, 1912. Serial No. 710,466. (Cl. 30—95.)



1. An electrically operated door opener, comprising an electric circuit, an electro-magnet in said circuit, a circuit closing switch, an armature, a spring thrust kick lever mounted on the door frame and coöperating with the door, a trip lever having a jointed connection with said kick lever and held by the armature when the circuit is open and released by the armature when the circuit is closed, and a circuit breaker which is rendered effective when the door is released.

2. An electrically operated door opener, comprising an electric circuit, an electro-magnet in said circuit, a circuit closing switch, an armature, a spring thrust kick lever mounted on the door frame and coöperating with the door, a trip lever having a jointed and sliding connection with said kick lever and held by the armature when the circuit is open and released by the armature when the circuit is closed, and a circuit breaker which is rendered effective when the door is released and held ineffective by the door when closed.

3. An electrically operated door opener, comprising an electric circuit, an electro-magnet in said circuit, a circuit closing switch, an armature, a spring thrust kick lever mounted on the door frame and coöperating with the door, said kick lever being held by the armature when the circuit is opened and released by the armature when the circuit is closed, a circuit breaking lever on the door frame held back when the door is closed, and two circuit breaking contacts, one of which consists of a spring acting to press said circuit breaking lever outwardly as the door is released.

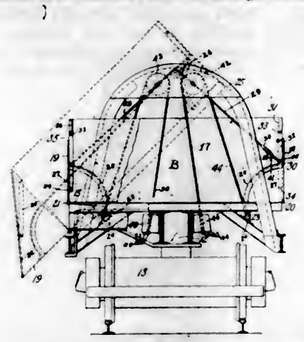
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1,089,964. DUMPING-CAR. CLIFFORD F. RICE, Springfield, Mass. Filed Mar. 29, 1913. Serial No. 757,536. (Cl. 105—191.)

1. In a dumping car, the combination of a car frame, a head guided to slide in the frame, a plurality of dumping boxes mounted on the car to swing laterally to dump the boxes, and means for connecting at will any of the boxes with said head to tilt the box to discharge its contents.

2. In a dumping car, the combination of a car frame, a head guided to slide in the frame, a motor on the car arranged to reciprocate the head, a plurality of dumping boxes mounted on the car to swing laterally to dump the boxes, and means for connecting at will any of the boxes with said head to tilt the box to discharge its contents.





3. In a dumping car, the combination of a car frame, two heads guided to slide in the frame, means for causing the heads to move in unison, a plurality of dumping boxes mounted on the car to swing laterally to dump the boxes, means for connecting at will any of the boxes with one of said heads to tilt the box to discharge its contents at one side of the car, and means for connecting at will any of the boxes with the other said head to tilt the box to discharge its contents at the opposite side of the car.

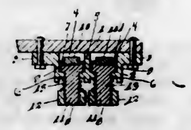
4. In a dumping car, the combination of a car frame, two heads guided to slide in the frame, a plurality of dumping boxes mounted on the car to swing laterally in two directions to dump the boxes on either side of the car, means for connecting at will any of the boxes with one said head to tilt the box to discharge at one side of the car, and means for connecting at will any of the boxes with said other head to cause the movement of the head to tilt the box to discharge its contents at the opposite side of the car.

5. In a dumping car, the combination of a car frame, two heads guided to slide in the frame, a plurality of dumping boxes mounted on the car to swing laterally in two directions to dump the boxes on either side of the car, means for connecting at will any of the boxes with one said head to tilt the box to discharge at one side of the car, means for connecting at will any of the boxes with said other head to cause the same movement of the head to tilt the box to discharge its contents at the opposite side of the car, a motor mounted on the car frame and arranged to reciprocate said head.

[Claims 6 to 24 not printed in the Gazette.]

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1,089,965. HORSESHOE-CALK. CHARLEY J. RICHARD, Louisburg, Wis. Filed Oct. 16, 1912. Serial No. 726,079. (Cl. 168—15.)



The combination with a horse shoe, of a casing secured thereto, said casing being divided into compartments rectangular in cross section, calks comprising rectangular heads arranged for sliding movement within the compartments, shanks depending from the heads and movable in the bores formed in the bottom of the casing, said heads having recesses formed therein, cushion blocks seated in said recesses and adapted to contact with the shoe when the heads move upwardly in the casing, burs secured to the lower ends of the shanks, springs mounted exteriorly of the casing and interposed between the bottom of the casing and burs, as and for the purpose set forth.

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1,089,966. WICK. HENRY RUPPEL, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Oct. 9, 1913. Serial No. 794,261. (Cl. 67—70.)



1. An improved wick, comprising an annular cotton wick having at its upper end inner and outer annular metal walls extending upward beyond the end of the wick with their inner surfaces in vertical lines with the outer and inner surface of the wick to form a projecting open top annular channel of a width corresponding to the thickness of the wick, and a removable and renewable asbestos filling within the channel for the purpose described.

2. An improved wick comprising an annular cotton wick having on its lower portion a metallic wick raising member and at its top and outside annular metal wall in the same vertical plane as the said raising member, the wall projecting beyond the top of the wick, an inner annular wall secured to the top of the wick and projecting thereabove with its upper end in a horizontal plane with the outer annular wall, the inner and outer annular walls being perforated, and a removable and renewable non-combustible fibrous material within the space between the projecting ends of said inner and outer annular walls, substantially as and for the purpose described.

3. An improved wick comprising an annular lower cotton portion having an outer perforated wall throughout its length and projecting beyond its top, and an inner perforated wall secured to the top edge of the wick and extending only a short distance on the wick, the said inner wall projecting above the top of the wick a distance substantially corresponding to the projecting portion of the outer wall, the two walls forming an open top cup, a non-combustible material removably placed in the cup in contact with the top of the cotton wick and projecting beyond the walls, substantially for lighting purposes.

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1,089,967. METHOD AND APPARATUS FOR FLOATING AND REPAIRING STRANDED VESSELS. HERBERT B. SAUNDERS, New York, N. Y. Filed Sept. 9, 1913. Serial No. 788,930. (Cl. 114—44.)



1. A method of treating leaking stranded vessels which consists in sealing substantially air-tight the usual com-

munication of the leaking compartment with the outside, permitting entrance to said compartment under air pressure in excess of that of the atmospheric air, introducing air under pressure into said compartment to expel the leaking water, and confining to a restricted area in said compartment the pulsations caused by the contact of the air and water within the compartment.

2. A method of treating leaking stranded vessels which consists in sealing substantially air-tight the usual communication of the leaking compartment with the outside, permitting entrance to said compartment under air pressure in excess of that of the atmospheric air, introducing air under pressure into said compartment to expel the leaking water, cooling the compressed air before admitting it to the compartment, and confining to a restricted area the pulsations caused by the contact of the compressed air with the water.

3. A device for confining to a restricted area pulsations caused by the contact of compressed air and water, comprising a pipe having a flanged base provided with a plurality of apertures, spacing elements arranged in said apertures for holding said base spaced from its support, and an apron disposed between said base and the support on which said base rests.

4. A device for confining to a restricted area the pulsations within a compartment caused by the contact of compressed air and water comprising a pipe having a flanged base provided with a plurality of apertures, spacing elements arranged in said apertures for holding said base spaced from its support, an apron adapted to be clamped to the support on which said base rests, and removable means for closing the upper end of said pipe.

5. The combination with a vessel having an opening in one wall thereof, of an equalizing device comprising a pipe having a flanged base disposed over said opening, spacing elements extending from the lower face of said base and adapted to rest on the wall of said vessel around said opening, and a lead apron secured to said wall and extending under said flanged base.

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1,089,968. TROLLEY ATTACHMENT. FRANCIS A. SCHMEDINGHOFF, Kansas City, Mo. Filed Apr. 29, 1913. Serial No. 764,382. (Cl. 191—74.)

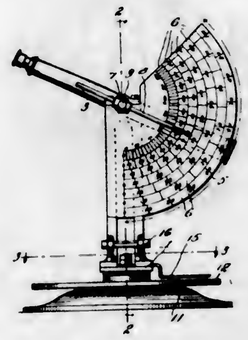


The combination of a trolley harp having an axle which projects beyond its sides and a trolley wheel mounted upon the axle between the arms of the harp, and rollers upon the extending ends of the axle, box members constructed of non-electric conducting material arranged upon the shaft between the rollers and the outer faces of the harp arms, each of said boxes having its inner face recessed to provide a pocket for the reception of the arm of the harp upon which it is arranged, the said recesses being deep to permit of the inner faces of the boxes being disposed just out of contact with the opposite sides of the trolley wheel, and screw members for securing the boxes to the arms of the harp.

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1,089,969. MEASURING INSTRUMENT. FRANCIS C. SCHMID, Washington, D. C. Filed Nov. 13, 1912. Serial No. 731,138. (Cl. 33—71.)

1. In an instrument of the class described, an upright mounted for rotary movement about a vertical axis, a telescope supported for swinging movement on said upright about a horizontal axis, a sleeve fixedly associated with the telescope, a sector associated with the upright, said sector having a plurality of concentric graduated scales exceeding 90° in extent, and a pointer adjustably mounted in the sleeve for coöperation with any one of said scales.

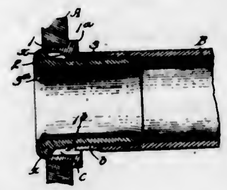


2. In an instrument of the class described, an upright, a sector carried thereby and having a plurality of concentric graduated scales exceeding 90° in extent, a telescope pivotally supported on the upright, and a pointer adjustably connected with the telescope for coöperation with any one of the graduated scales.

3. In an instrument of the class described, a base having a horizontal disk provided with a protractor, an upright pivotally mounted on the disk and having a pointer coöperating with the protractor, a sector secured on the upright, said sector having a plurality of concentric graduated scales, a pivotally supported telescope on said upright, a sleeve associated with the telescope, a pointer adjustable in the sleeve to coöperate with any one of the scales on the sector, and a spirit level supported on the upright.

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1,089,970. BOILER-FLUE-FASTENING MEANS. FREDERICK SCHMITT, Oakland, Cal. Filed Apr. 10, 1913. Serial No. 760,293. (Cl. 137—98.)

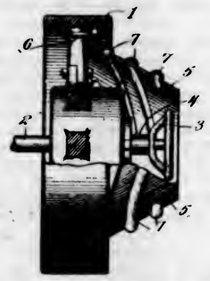


1. In combination, a flue sheet provided with a bearing, a flue seated in said bearing, and a clamping and securing member connected with the flue and coacting with the flue sheet to hold the flue against its bearing, said clamping member being spaced from the flue sheet and the adjacent end of the flue being formed with passages permitting water to enter the space between the clamping member and flue sheet.

2. In combination, a flue sheet having a flue opening, a bushing detachably mounted in said opening and having a bearing at one end, a flue seated at one end on said bearing, and clamping means exerting a pressure against the opposite end of the bushing to draw the flue against the bearing, the opposite ends of the bushing being located substantially at opposite sides of the flue sheet, the bushing and the clamping means being spaced apart, and the adjacent terminal of the flue being cut away to form passages permitting water to enter the space aforesaid.



1,089,971. SAFETY DEVICE FOR PULLEYS. WILLIAM SCHOEPKE, Hartland, Ill. Filed July 18, 1913. Serial No. 779,819. (Cl. 64—17.)



1. In a device of the class described, the combination with a pulley wheel, of a hollow guard member secured to one end of the pulley inwardly with respect to its rim, the said member being extended axially past the adjacent edge of the wheel rim, and means provided upon the outer face of said guard member for forcing an unshipped belt falling thereon axially therefrom.

2. In a device of the class described, the combination with a pulley wheel, of a hollow guard member secured to one end of the pulley inwardly with respect to its rim, the said member being extended axially past the adjacent edge of the wheel rim, and an ejecting ridge formed on the outer surface of the said guard member and disposed at an angle to its longitudinal axis.

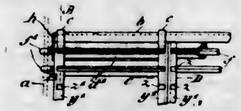
3. In a device of the class described, the combination with a pulley wheel, of a hollow guard member secured to one end of the pulley inwardly with respect to its rim, the said member being extended axially past the adjacent edge of the wheel rim, and a spirally extending ridge formed on the outer surface of the said guard member.

4. In a device of the class described, the combination with a pulley wheel, of a hollow guard member secured to one end of the pulley inwardly with respect to its rim, the said member being extended axially past the adjacent edge of the wheel rim, and a plurality of relatively spaced, spirally extending ridges formed on the outer periphery of the said guard member.

5. In a device of the class described, the combination with a pulley wheel, of a frusto-conical guard member disposed at one end of the pulley inwardly with respect to its rim with its large end disposed innermost, the said member being extended axially past the adjacent edge of the wheel rim, and a spirally extending ridge formed on the outer periphery of the said member.

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1,089,972. DOOR - MAT. JAKOB SCHUMANN, Vienna, Austria-Hungary. Filed Nov. 5, 1912. Serial No. 729,684. (Cl. 15—62.)



1. A door-mat comprising transverse bars having upper and lower horizontal flanges, the upper flanges having notches and the intermediate web portions of said bars having openings in alinement with the notches in alinement with the notches in the flanges, hollow brush sections fitting between the webs of the transverse bars, the upper ends of the said sections fitting in the notches, connecting bars extending through the hollow brush sections and the openings in the webs, and means for fastening the connecting bars.

2. A door mat comprising transverse bars having upper and lower horizontal flanges, the upper flanges having notches and the intermediate web portions of said bars having openings in alinement with the notches in the flanges, hollow brush sections fitting between the webs of the transverse bars, the upper ends of the said sections fitting in the notches, connecting bars extending through the hollow brush sections and the openings in the webs, the ends of the connecting bars being bent into eyelets to fasten the bars and sections together.

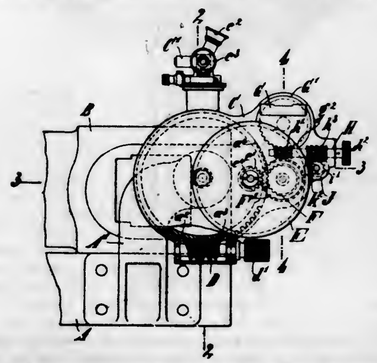
3. A door-mat comprising a series of transverse bars formed with end projections, said transverse bars having notched flanges, a series of longitudinal hollow brush sections located between the transverse bars and engaging in the notches, the transverse bars having openings in alinement with the notches, connecting bars extending through the said hollow brush sections and the openings, means for securing said connecting rods in position, side bars against which the ends of the transverse bars abut, the ends of said side bars being bent around the end transverse bars, and the projections on the ends of the transverse bars being bent around the side bars and passed through the end notches and bent under the flanges of said transverse bars.

4. A mat comprising a series of transverse bars formed with upper and lower flanges, the upper flanges having notches and the said bars having openings in alinement with said notches, a series of longitudinal brush sections located between the transverse bars, each section having an enlarged lower portion and an upper reduced portion, the reduced portion fitting in the notches in the flanges, U-shaped side bars against which the ends of the transverse bars abut, the transverse bars having end extensions which extend around the U-shaped side bars and project through the end notches and are bent under the flanges, the side bars having end projecting portions which are bent around the end transverse bars, and means for securing the latter projecting portions.

5. A mat comprising a series of transverse bars having upper and lower flanges and openings formed intermediate said flanges, the upper flanges having notches in alinement with the openings, a series of hollow brush sections interposed between the transverse bars, each of said hollow sections having an enlarged lower portion and an upper reduced portion, the ends of the reduced portions fitting in the notches, connecting bars extending through the hollow brush sections and the openings, means for securing the connecting bars in position, side bars against which the end bars abut, said side bars having projecting end portions which are bent around the end transverse bars and engage the ends of certain of the connecting bars to bind said side bars in position.

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1,089,973. SIGHTING DEVICE. RICHARD SCHÜRMANN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 26, 1912. Serial No. 727,976. (Cl. 89—32.)



1. The combination with a gun of a sighting apparatus therefor used against targets of high elevation, having a reading device comprising two relatively adjustable members, one being a curve chart movable in one direction

and the other an index for the chart slidable in a direction at right angles thereto and gearing for said curve chart; the curves on said chart each representing a different range, the coördinates for said curves in one direction representing the firing angle, and the coördinates in the other direction representing the angle of site; said gearing in adjusting said curve chart to the firing angle constructed simultaneously to adjust the sight to that angle.

2. A sighting apparatus used against targets of high elevation having a reading device comprising two relatively adjustable members, one being a curve chart movable in one direction, and the other an index for the chart slidable in a direction at right angles thereto, a cylindrical level adjustable to the elevation of the target and a gearing constructed to simultaneously adjust said level and said index.

3. A sighting apparatus used against targets of high elevation, having a reading device comprising two relatively adjustable members, one being a curve chart movable in one direction and the other an index for the chart slidable in a direction at right angles thereto, and a gearing for said curve chart; the curves on said chart each representing a different range, the coördinates for said curves in one direction representing the firing angle, and the coördinates in the other direction representing the angle of site; said gearing in adjusting said curve chart to the firing angle constructed simultaneously to adjust the sight to that angle; a cylindrical level adjustable to the elevation of the target, and a gearing constructed to simultaneously adjust said level and said index.

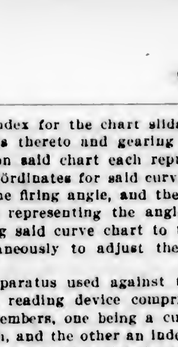
4. A sighting apparatus used against targets of high elevation having a housing supporting the sight proper, a pivot for said housing and gearing between the pivot and the housing, for turning the latter in a vertical plane, a level in the housing mounted, to revolve in the same plane as said housing, and a driving element for said level.

5. A sighting apparatus used against targets of high elevation having a housing supporting the sight proper, a pivot for said housing and gearing between the pivot and the housing, for turning the latter in a vertical plane, a level in the housing mounted to revolve in the same plane as said housing, and a driving element for said level; a graduation drum pivoted to revolve in conjunction with and in the same plane as said housing, and an index seated in said housing adjustable relative to said drum and said level.

[Claims 6 to 13 not printed in the Gazette.]

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1,089,974. PNEUMATIC SUPPORT AND SHOCK-ABSORBER FOR VEHICLES. S. WALTER SCOTT, Troy, N. Y. Filed July 17, 1912. Serial No. 709,910. (Cl. 21—50.)

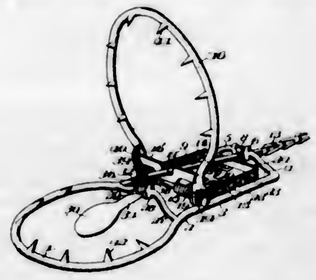


1. A pneumatic support for vehicles comprising upper and lower plates, a flexible casing arranged between the plates and having its end portions outwardly turned, rings for confining the outturned ends of the casing to the respective plates, a pneumatic bag arranged within the casing, bolts for connecting the lower plate to an axle of a vehicle, a U shaped pillow having connection with the upper plate and straddling the axle and having a limited verticle play thereon, an expansible helical spring encircling the casing and having its ends in engagement with the confining rings, and means for connecting the upper end of such pillow with a vehicle spring.

2. A pneumatic support for vehicles, the same comprising upper and lower plates, the upper plate having an opening, a flexible casing arranged between the plates and secured at its ends thereto, a pneumatic bag arranged within the casing, a plug for closing the opening in the upper plate, a tube extending through such plug and having connection with the pneumatic bag, means for connecting the lower plate to an axle of a vehicle, and a connection between the upper plate and the vehicle spring, said connection straddling the axle and having a limited vertical play thereon but prevented from longitudinal movement.

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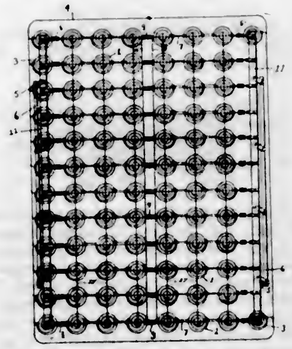
1,089,975. TRAP. BRUCE A. SHAW, Oak Park, Ill. Filed Jan. 11, 1913. Serial No. 741,498. (Cl. 43—21.)



A trap comprising a fixed jaw, a movable jaw, lugs rising from the fixed jaw, ears formed at the terminals of the movable jaw and lying at the sides of the lugs and provided with inwardly opening recesses, a pin passing through the lugs and through the ears, a yieldable bail of U-form wholly supported by the pin and having relatively yieldable branches operable for projection into the recesses in the ears under the inherent elasticity of the bail, a spring bearing against the bail and exerting its force to hold the movable jaw under tension, and trigger means for engaging the bail and for holding the movable jaw in set position.

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1,089,976. SPRING-BED. WOODFORD SHANNON, Louisville, Ky. Filed Aug. 17, 1911. Serial No. 644,495. (Cl. 5—29.)



1. A spring bed comprising a plurality of spiral springs, rods passing therethrough adapted to support said springs against lateral displacement, and resilient means for holding said rods under longitudinal tension.

2. A spring bed comprising a plurality of spiral springs, a stiff side frame placed above the bottoms of said springs, rods passing through said springs and connected with said side frame adapted to support said springs against lateral displacement, and resilient means for holding said rods under longitudinal tension.

3. A spiral spring, a supporting member bearing at two opposite points of the face of a ring of said spring and being narrower than the diameter of said ring, a key member binding said ring on the face opposite to that supported by the said supporting member and at points between the points of support; and a clip straddling said supporting member and bent over said key member on opposite sides of said supporting member at points within said ring.

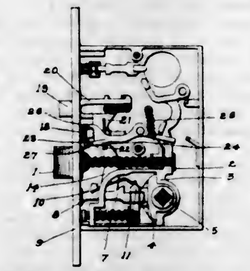
4. A spring bed comprising a series of springs, an outside support on the upper surface thereof, an outside lower support, an extension frame therefrom approximately parallel to said upper support, and a cover drawn over said upper frame and fastened to said lower extension.

5. A spring bed comprising a series of springs, an outside support on the upper surface thereof, an outside lower support, an extension frame therefrom provided with holes, and a cover provided with resilient studs and drawn over said upper frame and fastened to said lower extension by said studs.

[Claim 6 not printed in the Gazette.]

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1,089,977. LOCK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Sept. 23, 1911. Serial No. 650,901. (Cl. 70—18.)



1. In a lock, the combination with a hub, of a dogging member therefor, a releasing member for said dogging member, and a walking beam between said members having a one-way connection with one of them; substantially as described.

2. In a lock, the combination with a hub, of a dogging slide therefor, a releasing slide for said dogging slide, and a walking beam connecting said slides and having a one-way connection with one of them; substantially as described.

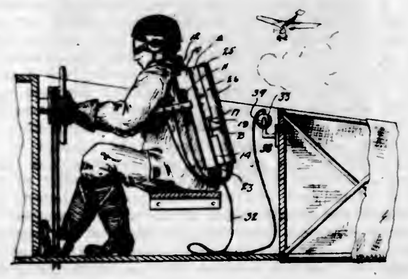
3. In a lock, the combination with a hub, of a dogging slide therefor, a releasing slide for said dogging slide, and a walking beam connecting said slides and having a one-way connection with said releasing slide; substantially as described.

4. In a lock, the combination with a hub, of a dogging slide therefor, a releasing slide having a stud, and a connecting lever between said slides having a single arm projecting across the stud of said releasing slide; substantially as described.

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1,089,978. LIFE-SAVING APPARATUS FOR AVIATORS. GUSTAVAS R. SIGNAIGO, Memphis, Tenn. Filed Apr. 20, 1913. Serial No. 764,652. (Cl. 244—21.)

1. An apparatus of the class described comprising a base portion, straps connected to said base portion for supporting the latter on the body of an aviator, said base portion being provided with a groove, a folded parachute seated in said groove, means for supporting said folded parachute against movement longitudinally of the body portion, means for normally holding the folded parachute against movement laterally from its seat, and means operated by relative movement between an aeroplane and the body of an aviator for throwing said parachute laterally from its seat.



2. An apparatus of the class described comprising a base plate, shoulder and breast straps connected to said base plate for supporting the latter upon the body of an aviator a U-shaped plate secured against said base plate and having its bight dished, a folded parachute seated in the dished portion of the U-shaped plate, angle members pivoted on said U-shaped plate and each having the free edge of one arm curved and of the other arm beveled, the curved edges of the arms of said angle members being adapted in the horizontal position of said arms to embrace and hold the folded parachute against lateral movement from its seat and the beveled edges of the other arms of said angle members being adapted to wedge the folded parachute from its seat when said angle members are rotated in one direction, and means operated by relative movement between the aviator and aeroplane for rotating the angle members to wedge the parachute from its seat.

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1,089,979. SPRING-WHEEL. FREDERICK STITZEL, Louisville, Ky. Filed Jan. 15, 1913. Serial No. 742,193. (Cl. 152—37.)



1. A spring wheel, having an inner member including a hub and spokes and movable independently of and combined with an outer member, said outer member having spoke-sockets fixed thereto and projecting inwardly therefrom and recessed radially to receive the spokes, and circumferentially arranged resilient members supported at their ends in and between the spoke-sockets inside said outer member and having their opposite ends normally engaging adjacent spokes and adapted to be compressed by the spokes in opposite directions upon opposite sides of the vertical axis of the wheel as the wheel turns.

2. A spring wheel, having an inner member including a hub and spokes and movable independently of and combined with an outer member, said outer member having spoke-sockets fixed thereto and projecting inwardly therefrom and recessed radially to receive the spokes, and circumferentially arranged resilient members supported at their ends in and between the spoke-sockets inside

said outer member and having their opposite ends normally engaging adjacent spokes and adapted to be compressed by the spokes in opposite directions upon opposite sides of the vertical axis of the wheel as the wheel turns, said sockets having seats to relieve the spokes of the effective force of the resilient members in opposite directions upon opposite sides of the vertical axis of the wheel as the wheel turns.

3. A spring wheel, having an inner member including a hub and spokes and movable independently of and combined with an outer member, said outer member having spoke-sockets fixed thereto and projecting inwardly therefrom and recessed radially to receive the spokes, and circumferentially arranged resilient members supported at their ends in and between the spoke-sockets inside said outer member and having their opposite ends normally engaging adjacent spokes and adapted to be compressed by the spokes in opposite directions upon opposite sides of the vertical axis of the wheel as the wheel turns, said sockets having seats to relieve the spokes of the effective force of the resilient members in opposite directions upon opposite sides of the vertical axis of the wheel as the wheel turns, and casings inclosing the resilient members and seated in the spoke-sockets.

4. A spring wheel, having a hub, spokes and means to connect the spokes at or near their outer ends, and a rim having spoke-sockets secured thereto and projecting inwardly therefrom and recessed radially to receive the ends of the spokes and permit play therein both radially and circumferentially of the wheel, and resilient members seated in said sockets under compression normally engaging said spokes and adapted to be compressed by and disengaged from the opposite sides of the spokes upon opposite sides of the vertical axis of the wheel relatively to the direction of rotation of the wheel.

5. A spring wheel, having a hub, spokes and means to connect the spokes at or near their outer ends, and a rim having spoke-sockets fixed thereto and projecting inwardly therefrom and recessed radially to receive the ends of the spokes to permit play therein both radially and circumferentially, and resilient members seated at their ends in said sockets circumferentially of and inside the rim of the wheel and normally engaging the opposite sides of the spokes and adapted to be compressed thereby in opposite directions upon opposite sides of the vertical axis of the wheel relatively to the direction of rotation of the wheel.

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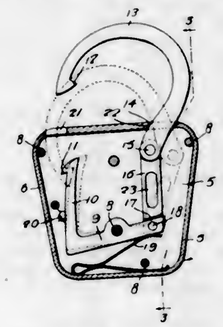
1,089,980. HANGER FOR EMBALMING-BOTTLES. WILLIAM J. STRAYER, Newark, N. J. Filed Oct. 4, 1913. Serial No. 793,450. (Cl. 27—18.)



A device for facilitating the suspension of an embalming fluid bottle in inverted position comprising a ring adapted to be engaged over the neck of a bottle and against the shoulder thereof, straps having corresponding ends secured to the ring at diametrically opposite points in the latter, said straps being adapted to lie along opposite sides of the bottle, and means for securing the free ends of said straps together.

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1,089,981. PADLOCK. JOHN SUKUP, Cudahy, Wis. Filed Dec. 22, 1913. Serial No. 808,252. (Cl. 70—105.)



1. A lock comprising a housing, a lever pivoted in the lower end thereof, an arm extending at an acute angle from said lever and formed with a hook, a link pivoted at one end to the opposite end of the lever from the arm, a substantially U-shaped shackle pivoted at one end to said link, and extending through an opening in the housing the other end of the shackle provided with a hook adapted to engage the first said hook for locking the shackle, a spring interposed between the end of said lever adjacent said link and the lower wall of the casing, said link provided with a slot adapted to register with an opening in said casing, said shackle adapted to be moved inwardly and swung on its pivot while in inward position, for disengaging the hooks.

2. A lock comprising a housing, a lever pivoted therein, a link pivoted to said lever, a shackle pivoted to said link at one end, the other end of said shackle provided with a hook, an arm on said lever, said arm provided with a hook adapted to engage with the hooked end of the shackle for locking the latter, and a spring for normally holding said hooked ends in engagement.

3. A lock comprising a housing, a lever pivoted therein, a link pivoted to said lever, a shackle pivoted at one end to said link, means on said lever for engaging said shackle, and means for normally holding said engaging means in contact with said shackle.

4. A lock comprising a housing, a lever pivoted therein, a shackle pivotally connected with one end of said lever, means on said lever for engaging the opposite end of said shackle for holding the same in closed position, and means for normally holding said engaging means in contact with the shackle.

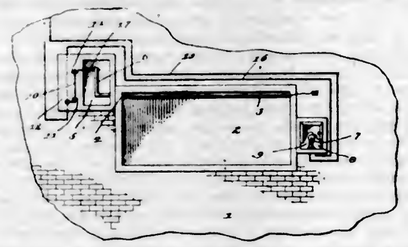
5. In a lock, a pivoted lever, a shackle pivotally connected at one end with said lever, said shackle at its pivoted end being movable circumferentially of the adjacent portion of the lever, coacting means between said lever and shackle for locking the latter in locked position, and means normally holding said lever in locked position.

[Claims 6 to 8 not printed in the Gazette.]

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1,089,982. LIGHTING DEVICE FOR OVENS. ADOLPH SÜSSLIN, Gulfport, Miss. Filed Sept. 24, 1913. Serial No. 791,604. (Cl. 240—5.)

The combination with an oven door, and a shaft forming the axis of movement of the door and on which said door is fastened, of an operating lever on one end of said shaft, a switch arranged adjacent to said lever and provided with an operating arm which lies behind the operating lever of the oven door, a slack flexible connection between said operating lever and said arm, and



an electric lamp in circuit with and controlled by said switch.

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1,089,983. BINDER FOR LOOSE MUSIC. JULIUS F. SWAN, Hoboken, N. J. Filed Mar. 22, 1911. Serial No. 616,118. (Cl. 11—16.)

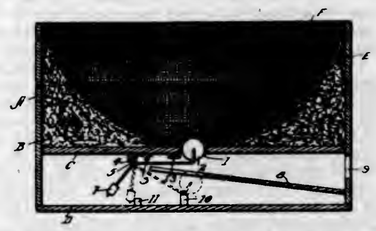



A binder comprising a narrow strip folded longitudinally and provided upon its inner surface with an adhesive, said strip being provided at one side of the fold at a point approximately midway between its ends with an opening, a card secured to the inner surface of the strip and visible through said opening and upon which identifying characters may be inscribed, said strip being provided at the opposite side of the fold and in the vicinity of one end with another opening and another card secured to the inner surface of the strip and upon which a character may be inscribed and which is visible through the last said opening, the portions of the strip at the opposite sides of the fold being adapted to be applied to the outer surfaces of sheets of music at the edges thereof whereby the cards are held in close contact with the sheets of music.

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1,089,984. NEST. EMIL SWANSON, Boone, Iowa. Filed June 18, 1913. Serial No. 774,403. (Cl. 119—48.)

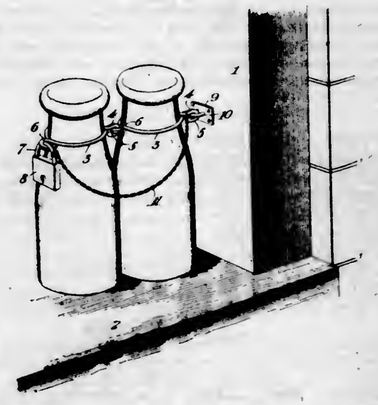
1. In combination, a casing having a false bottom dividing the same into upper and lower compartments, a nest in the upper compartment, said false bottom having an opening leading into the lower compartment, a rotatable egg conveying member at said opening, movable means for supporting the conveying member consisting of a lever bent into angular form and having its horizontal arm pivotally supporting the member aforesaid, a support for said lever pendent from the false bottom, a weight carried by the other arm of said lever and normally tending to hold the egg conveying member elevated and closing the opening aforesaid, a delivery platform arranged beneath the conveying member and inclined downwardly toward one end, said platform having a cut-out portion to permit passage of the conveying member to a point beneath said platform, and a buffer arranged in said casing and coacting with the horizontal arm of the lever to limit the downward movement of the conveying member, said last-mentioned member having rolling contact with the egg deposited in the upper compartment as it is gradually conveyed to the platform in the lower compartment.



2. In combination, a casing having a false bottom dividing the same into upper and lower compartments, said bottom having a central opening therein, a nest supported on said bottom in the upper compartment, an angular shaped lever comprising a piece of wire bent back upon itself and formed with pivot eyes intermediate its length, a pivot for said lever carried by the false bottom aforesaid, said lever having a horizontal supporting arm extending beneath the latter, a movable nest member supported between the free ends of the wire, said lever being also provided with a pendent arm, a weight carried by the pendent arm, a platform inclining outwardly and downwardly toward the front of the casing, and situated beneath the movable nest member to receive the egg conveyed thereby as the latter yields downwardly under weight of the egg, said platform having a notch at its rear edge portion to permit the passage of the movable nest member to a point beneath said platform and allow the egg to pass gradually thereonto, a block member secured adjacent the opening in the false bottom to prevent rearward movement of the egg in passing through said opening, and stop members carried by the bottom of the lower compartment and adapted to limit downward movements of the supporting and pendent arms respectively.

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1,089,985. MILK BOTTLE OR JAR PROTECTOR. JOHN J. TEHAN, Pittsburgh, Pa. Filed May 23, 1913. Serial No. 769,411. (Cl. 232—41.)



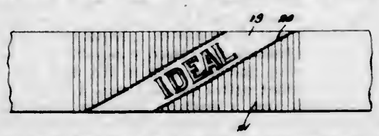
1. A milk bottle protector comprising a staple securely fastened to a suitable structure, a wire clamping frame having a lateral extension at one side thereof provided with a depending hook portion and terminal end portions, each end portion having an eye, and means for locking the said end portions together.

2. A milk bottle protector, comprising a staple firmly secured to a door frame, a wire clamping frame made of a single piece having a lateral extension at one side thereof terminating in a depending hook portion adapted to engage said staple and having terminal end portions provided with an eye at each end, said eyes when forced together resting one above the other in alinement and forming an opening, and a lock secured to the said frame the hasp of said lock passing through said opening and locking together the terminal ends of the said frame.

3. A milk bottle protector comprising a staple firmly secured to a door frame, a plurality of wire clamping frames, each frame consisting of a single piece of wire having a lateral extension at one side thereof, terminating in a depending hook portion, and provided with terminal end portions, each end formed with an eye, the hook portion of one frame being adapted to engage said staple, and the ends of the frame being adapted to be locked together by the hooked end of another frame or the hasp of a padlock, substantially as shown and described.

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1,089,986. BINDING AND SEALING TAPE. GEORGE L. THOM, Brooklyn, N. Y., assignor to Ideal Coated Paper Co., Brookfield, Mass., a Corporation of New Jersey. Filed Jan. 7, 1913. Serial No. 740,700. (Cl. 40—2.)



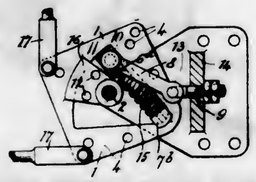

1. In a binding and sealing tape, a gummed tape, portions of said tape being formed into a design, said design having the gummed face thereof adapted to adhere to an article when the tape is applied, said design being separated from the adjacent portions of the tape by reduced portions of said tape, and said adjacent portions of said tape to said design having the gummed face thereof depressed so as to expose reduced areas for adhesion.

2. In a binding and sealing tape, comprising a gummed tape, portions of said tape being formed into designs and having the lines of demarcation rendered weak so as to easily tear, the adjacent portion of said tape to said designs being depressed, and said designs being adapted to entirely adhere to an article while the surrounding depressed portions have reduced portions thereof adapted to adhere to an article.

3. In a binding and sealing tape, a gummed tape, a design formed therein, said design being separated from the adjacent portions of said tape by weakening fibers of said tape, the adjacent portions of said tape about said design being depressed at intervals to render such portions of a different degree of adhesiveness than the design from the rest of the tape.

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1,089,987. APPARATUS FOR OPERATING THE POINTS OF RAILWAYS, TRAMWAYS, AND THE LIKE. HUGH ALEXANDER THOMSON, Glasgow, Scotland. Filed Mar. 29, 1913. Serial No. 757,667. (Cl. 104—115.)



1. The combination with a railway point and a load adapted to hold such point in either of two extreme positions of an articulated link mechanism which as a whole has no dead center and through which the load is transmitted to the point.

2. A mechanism comprising a device, such as a point, to be moved to two extreme positions, and a pivot following the movements of the device and pursuing an arcuate path, a member connected at one end to such pivot, a second pivotal member articulated to the opposite end of the first named member and adapted to exert a turning effort upon the latter in opposite senses at different times, means subjecting the articulated members to a load tending to alter the angle between them and means acting in conjunction with the device to be moved to prevent further alteration of the angle between the articulated members when the said device is in either of its extreme positions, the connection of the articulated members to the device to be moved being such that the members assume a dead center relationship only while the line representing its direction is inclined to the line representing infinite resistance to the load, substantially as described.

3. A mechanism comprising a device, such as a point, to be moved to two extreme positions, a pair of articulated members, and means subjecting such members to a load tending to separate them, one member of the said pair of members being pivoted to the device to be moved and provided with stops and the other member being connected to a pivot movable with the load, the arrangement being such that after the member connected to the load has been moved through a certain distance it is caused to abruptly engage one stop of the companion member and impart movement to the latter through such stop, the mechanism as a whole having no dead center.

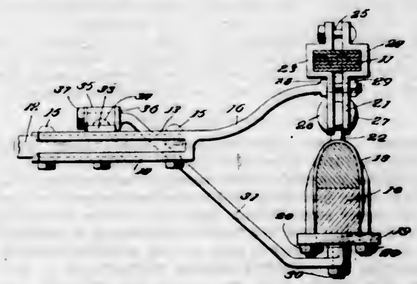
4. A mechanism comprising a device to be moved about a pivot, a member pivotally connected thereto and limited as to angular movement relatively to the device, a second member pivoted to the opposite end of the first named member, and means subjecting the connected members to a load tending to separate them.

5. A mechanism comprising a device to be moved about a pivot, a spring-extensible member pivotally secured thereto and limited as to angular movement relatively to the device, and a rigid member, pivoted to the opposite end of the extensible member and movable about a stationary pivot, the pivot connecting the two members being disposed to one side of a line joining the center of the device to be moved and the stationary pivot aforesaid while the pivotal connection between the device to be moved and the extensible member is disposed at the opposite side of the line in one extreme position and vice versa.

[Claims 6 to 9 not printed in the Gazette.]

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1,089,988. VEHICLE RUNNING-GEAR. SQUIRE W. TICHENOR and CLYDE V. TICHENOR, Mafanzas, Ky. Filed Apr. 25, 1912. Serial No. 693,020. (Cl. 21—39.)



1. A vehicle running gear comprising an axle, a clip supported on the axle and provided with a spherical extension, a reach, a brace supported by the reach, said brace being formed with a curved arm, a spring arranged above and extending parallel with the axle, a plurality of brackets embracing said spring and receiving the terminal of said arm, said arm connecting the brackets below the spring, the brackets being formed with sockets which receive the spherical extension of the axle clip, and a brace one terminal of which is rotatably supported on the axle and the other terminal of which is received within a bearing carried by the reach.

2. A vehicle running gear comprising an axle, a clip supported on the axle, a brace supported by the reach, a spring arranged above and extending parallel with the axle, a bracket embracing the spring and having a connection with the clip which is mounted on the axle whereby the same may move with respect to each other, said brace being connected to said bracket, and a second brace, one terminal of which is mounted in a bearing supported by the reach, said brace extending through and beneath the reach, its terminal remote from the reach being rotatably connected to the clip which is mounted on the axle.

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1,089,989. VALVE MECHANISM FOR EXPLOSIVE-ENGINES. URAL STILWELL TRAUB, Yonkers, N. Y. Filed Mar. 13, 1912. Serial No. 683,474. (Cl. 123—188.)



1. In a multiple cylinder explosive engine, the combination of a valve casing having intake and exhaust ports communicating with each cylinder, a tubular valve mounted in said casing and having intake and exhaust ports corresponding with those of the casing, each of the last mentioned ports being constituted by alined openings in opposite sides of the walls of the valve, a second valve mounted in the first mentioned valve and having transverse dimensions proportioned to cause the second valve to snugly fit within the first valve, the second valve having intake and exhaust ports leading entirely therethrough to register with the corresponding ports of the first valve, the ports of the second valve being surrounded throughout their length with the material of the valve, and means for actuating said valves both relative to each other and to the casing for effecting properly timed registration of the respective ports.

2. In combination, a multiple cylinder explosive engine, a valve casing having intake and exhaust ports communicating with each cylinder, a hollow valve mounted in said casing and having intake and exhaust ports to correspond with those of the casing, each of the last mentioned intake and exhaust ports being constituted by openings at opposite sides of the valve, a second valve mounted in the first mentioned valve and having intake and exhaust ports leading entirely therethrough to register with the corresponding ports of the first mentioned valves and the casing, and means for actuating said valves from the engine shaft to impart relative movement thereto, and movement to the valves relative to the ports of the casing.

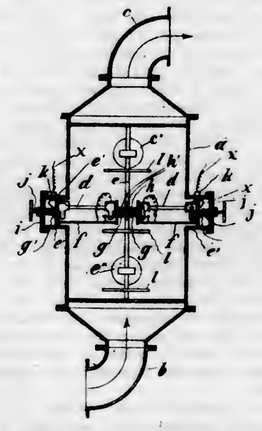
3. In combination, a multiple cylinder explosive engine, a valve casing having intake and exhaust ports communicating with each cylinder, a hollow valve mounted in said casing and having intake and exhaust ports to correspond with those of the casing, each of the last mentioned intake and exhaust ports being constituted by openings at opposite sides of the valve, a second valve mounted in the first mentioned valve and having intake and exhaust ports leading entirely therethrough to register with the corresponding ports of the first mentioned valve and the casing, and means for reciprocating said valves, one within the other to cause registration of their ports at proper intervals and to cause their ports to register with the ports of the valve casing.

4. In combination, a multiple cylinder explosive engine, a valve casing having intake and exhaust ports communicating with each cylinder, a hollow valve mounted in said casing and having intake and exhaust ports to correspond with those of the casing, each of the last mentioned intake and exhaust ports being constituted by openings at opposite sides of the valve, a second valve mounted in the first mentioned valve and having intake and exhaust ports leading entirely therethrough to register with the corresponding ports of the first mentioned valve and the casing, and cranks on said shaft connected with the respective valves aforesaid to cause such relative movement of the latter as to permit each cylinder to intake and exhaust in regular order.

5. In combination, a four-cylinder explosive engine, a valve casing having intake and exhaust ports communicating with each cylinder of said engine, intake and exhaust means connected with said casing, a hollow valve slidably mounted in the casing and having intake and exhaust ports therein, each port of the hollow valve being constituted by openings at opposite sides thereof, a second valve mounted to slide in the hollow valve and having intake and exhaust ports corresponding with those of the hollow valve, an operating shaft geared to the shaft of the engine in the ratio of four to one, and connections between the shaft and the said valves, whereby, during a complete revolution of the operating shaft, the valves will be moved relative to one another and relative to the intake and exhaust ports of each cylinder to cause each cylinder to intake and exhaust twice.

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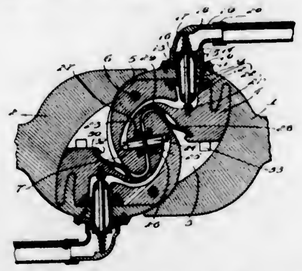
1,089,990. STERILIZER. PAUL GABRIEL TRIQUET, Paris, France. Filed May 9, 1912. Serial No. 696,275. (Cl. 210—20.)



1. An apparatus for sterilizing water comprising a receptacle formed with side pockets, said receptacle having water inlet and outlet openings, a central support in the receptacle, a lamp supporting device extending from each pocket to the central support, bearings on the support and in the pockets to receive the lamp supports, a horizontal lamp mounted in each lamp support, means for supplying each lamp with current, and means outside the receptacle for individually adjusting the lamp supports.

2. In an apparatus for sterilizing water, comprising a receptacle having water inlet and outlet openings, a central vertical support in the receptacle, the receptacle having pockets arranged in different levels, a detachable head for each pocket, a bearing in each pocket, bearings on the central vertical support in alinement with the bearings in the pockets, lamp frames supported in the bearings, lamps mounted in the lamp supports, and baffles mounted on the central vertical support, one of said baffles being located under each lamp.

1,089,991. CAR COUPLING AND BRAKE. PHILANDER KILE TUCKER, Sioux Falls, S. D. Filed Aug. 31, 1912. Serial No. 718,073. (Cl. 23—40.)



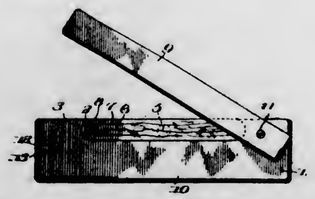
1. A car and air hose coupler of the Janney type comprising coupling heads, knuckles intermediately pivoted in said heads and provided with fluid passages therein having their rear ends expanded, an air hose extending in the side of said heads and projecting into the expanded end of the passages of said knuckles, valves in said air hose normally held closed, and valve stems extending from said valves into the expanded end of the passages of said knuckles to engage the walls of said passages when said knuckles are in engagement with each other thereby opening said valves.

2. A car and hose coupler of the Janney type comprising coupling heads, substantially goose neck knuckles intermediately pivoted in said heads, a flat spring having an end thereof secured to the inner side of the tail of each of said knuckles and being bowed intermediate its ends, the bowed portion of said spring being adapted to engage the tongue of the mating knuckles to constantly press the same against each other when the same are coupled, said knuckles being provided with air passages therein adapted to communicate at the tongues thereof.

3. In a combined car and air hose coupler, a combination with a drawing head, of a knuckle intermediately pivoted in said head and having a fluid passage therein extending from end to end, said passage being enlarged in the tail of said knuckles, an air hose removably connected with said head and adapted to register in said passage, a nipple carried by said hose and extending into the enlarged portion of said passage, a valve seated upon one end of said nipple controlling the passage of air into the head, a spring in said hose normally closing said valve, the valve stem carried by said valve and projecting through the opposite end of the nipple, an adjustable stud in said passage for engaging said valve stem to raise the same to allow air to escape into said passage when the knuckle is engaged by a complemental coupling head.

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1,089,992. PEN CLEANER AND HOLDER. WILLIAM T. TYLER, Warsaw, Va. Filed Jan. 10, 1913. Serial No. 741,263. (Cl. 120—108.)



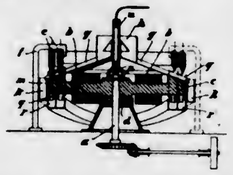
1. A pen holder comprising a supporting body having a recess therein opening through its upper face and one of its side faces and provided with concave end walls, the said body being provided with an opening in its opposite side communicating medially with the said recess, and a nib-receiving element positioned within the recess and consisting of a plurality of transversely alined sections having convex ends engaged with the concave end faces of the recess.

2. A pen holder comprising a supporting body having a recess therein opening through its upper face and one of its side faces and provided with concave end walls, the said body being provided with an opening in its opposite side communicating medially with the said recess, a nib-receiving element positioned within the recess and consisting of a plurality of transversely alined sections having convex ends engaged with the concave end faces of the recess, the said sections being adapted for lateral sliding movement within the recess during independent application or removal thereof, and a vertically swinging closure plate pivoted to the body and adapted to be moved into position wherein it will close the adjacent side of the recess.

3. A pen holder comprising a supporting body having an elongated recess therein, and an elongated nib-receiving element constructed of corn pith with its grain extending longitudinally, the said element being adapted to be fitted within the said recess.

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1,089,993. MAGNETIC SEPARATOR. GEORG ULLRICH, Magdeburg, Germany, assignor to Fried. Krupp, Aktiengesellschaft, Grusonwerk, Magdeburg-Buckau, Germany, a Joint Stock Company. Filed Mar. 14, 1913. Serial No. 754,338. (Cl. 83—71.)



1. A magnetic separator comprising a revoluble magnet pole of less extent than a full circle, a stationary ring-shaped counter pole situated above said revoluble pole, and a channel corresponding in position to the revoluble magnet pole and adapted to rotate therewith, so that the material to be treated is conveyed across the magnetic field extending between the lower and upper poles, whereby the magnetic or magnetizable particles are attracted by and adhere to the upper pole while magnetic, and afterward fall away from the upper pole when magnetic.

2. A magnetic separator comprising a plurality of magnet poles spaced circumferentially apart rotatable about a common shaft, a plurality of downwardly tapered stationary rings situated above, and concentrically with respect to, the aforesaid poles and constituting a counter-pole thereto, a plurality of channels rotatable with the magnet poles and extending across the magnetic fields between the magnet poles and the counter-pole, an inlet common to all the rotatable channels, a circular stationary channel into which the rotatable channels discharge, spraying devices adapted to discharge liquid against the tapered edges of the counter-pole, said spraying devices being situated between the magnet poles and rotatable therewith, and stationary channels vertically below the counter pole adapted to receive the falling particles and spraying liquid, substantially as described.

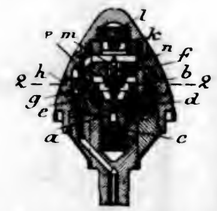
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1,089,994. DELAY-ACTION FUSE. PIETER DANIEL VAN ESSEN, Haag, Netherlands. Filed Aug. 21, 1912. Serial No. 716,210. (Cl. 102—39.)

1. In a fuse for shells, relatively movable explosive members, the normal movement between said members serving to effect a delayed or retarded explosion, spring actuated means for positioning one of said members relatively to the other so that an explosion will occur immediately on impact, and means for rendering the last mentioned means inactive.



2. In a fuse for shells, fixed and movable explosive members, a sleeve surrounding said movable member, a spring acting on said sleeve to position said movable member relatively to said fixed member whereby an explosion may be produced immediately on impact, means for holding the said sleeve as against the tension of said spring, said movable member being movable independently of said sleeve, when the latter is so locked, for producing a delayed explosion.



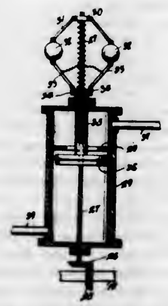
3. In a fuse for shells, fixed and movable explosive members, a sleeve surrounding said movable member, a spring acting on said sleeve to position said movable member relatively to said fixed member whereby an explosion may be produced immediately on impact, a lock for holding said sleeve as against the tension of said spring, and means for releasing said lock, said movable member being movable independently of said sleeve, when the latter is so locked, for producing a delayed explosion.

4. In a fuse for shells, fixed and movable explosive members, a sleeve surrounding said movable member, a spring acting on said sleeve to position said movable member relatively to said fixed member whereby an explosion may be produced immediately on impact, a laterally movable bolt for engaging and locking said sleeve, and a rotatable ring having a recess designed to coincide with said lock, said movable member being movable independently of said sleeve, when the latter is so locked, for producing a delayed explosion.

5. In a fuse for shells, a fixed ignition member, a movable ignition member, a safety pellet for preventing any motion of the movable member, until after the shot has been fired, a spring tending to move the movable member into a position in which explosion occurs immediately on impact, means for locking the said member against the action of the spring and means for releasing the locking device.

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1,089,995. ELECTRIC GENERATING DEVICE FOR RAILWAY-TRAINS. JOHN VENGE, Milwaukee, Wis. Filed Jan. 10, 1913. Serial No. 741,296. (Cl. 121—112.)



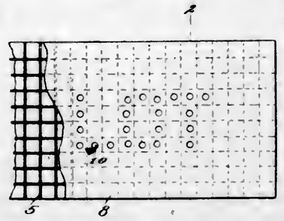
1. In a device of the character described a fluid motor, a valve housing provided with an internal-valve seat, a supply pipe communicating with one end of said valve housing, a pipe leading from said fluid motor to the opposite-end portion of said valve housing, a sleeve slidably mounted in said housing and provided with a valve head adjacent its inner end for engaging said valve seat, a shaft extending through said housing and through said sleeve, a centrifugal governor carried by the upper-end portion of said shaft and engaging the upper-end portion of said sleeve to draw said valve head into engagement with said valve seat when said governor is actuated, and means for transmitting rotary motion from the shaft of said fluid motor to the shaft carrying said governor.

2. A device of the character described comprising a motor, a supply for said motor, a valve positioned intermediate the length of said supply, a shaft extending through said valve, a governor carried by said shaft and engaging said valve to close said valve when said shaft is rotating at too high a speed, and means for transmitting rotary motion from the shaft of said motor to said governor-carrying shaft.

3. A device of the character described, a casing, a motor in said casing, a supply pipe communicating with said motor, a valve housing positioned intermediate the length of said pipe and supported by said casing, a valve in said housing, a shaft extending through said housing and valve, a governor carried by said shaft and connected with said valve to close said valve when said shaft is rotating at too high a speed, and means for transmitting rotary motion from said motor to said shaft.

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1,089,996. SIGN OR DISPLAY-CARD. FREEMAN VALENTINE WALKER, Bluffton, S. C. Filed June 7, 1912. Serial No. 702,305. (Cl. 40—125.)



1. A blank for a sign or display device, comprising a perforate substructure, and a normally imperforate and unbroken opaque thin covering sheet of paper applied and secured directly against the said perforated substructure and adapted to be punctured to form letters and design configurations, the substructure at its edges terminating coincidently with the edges of the covering.

2. A blank for a sign or display device, comprising a perforate substructure composed of elements extending at right angles to each other, and a normally imperforate and unbroken opaque thin covering sheet of paper secured directly against and bearing upon the said substructure and closely fitting into the perforations in the latter, the said covering sheet of paper adapted to be punctured to form letters and designs, the substructure at its edges terminating coincidently with the edges of the covering.

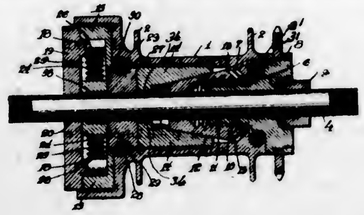
3. A blank for a sign or display device, comprising a perforate substructure, and normally imperforate thin sheet paper coverings applied to opposite sides of the substructure and directly against the latter without interposed layers of any material, the covering sheets being drawn taut on the substructure and closely fitting in the openings in the latter and tightly bearing against the margins of the perforations of the substructure, the thin sheet paper coverings being adapted to be punctured to form letters and designs, the substructure at its edges terminating coincidently with the edges of the covering.

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1,089,997. COASTER-BRAKE. HENRY S. WALKER, Wales, Mass. Filed Mar. 11, 1913. Serial No. 753,557. (Cl. 208—57.)

1. In a coaster brake, a wheel hub, an axle, a driving and brake actuating member journaled on the axle at one

end of the hub, an inwardly projecting threaded extension on said member, expanding brake shoes acting against the inside of the hub, a tapered expander threaded on said extension and serving to wedge said shoes apart, a drum on the end of the hub, internal expanding brake shoes engaging said drum, means to support the drum engaging shoes against rotation, and a key interposed between and engaging the two sets of brake shoes whereby the hub engaging shoes effect an expanding movement of the drum engaging shoes through the medium of said key.



2. In a coaster brake, a wheel hub, an axle, a driving and brake actuating member journaled on the axle at one end of the hub, an inwardly projecting threaded extension on said brake actuating member, expanding brake shoes acting against the inside of the hub, a tapered expander threaded on said extension and serving to wedge said shoes apart, a drum on the end of the hub, internal expanding brake shoes engaging said drum, means to support the drum engaging shoes against rotation, a key interposed between and engaging the two sets of brake shoes whereby the hub engaging shoes effect an expanding movement of the drum engaging shoes through the medium of said key, and means serving to yieldingly sustain the drum brake shoes away from the drum.

3. In a coaster brake, a wheel hub, an axle, a driving and brake actuating member journaled on the axle at one end of the hub, an inwardly projecting threaded extension on said brake actuating member, expanding brake shoes acting against the inside of the hub, a tapered expander threaded on said extension and serving to wedge said shoes apart, a drum on the end of the hub, internal expanding brake shoes engaging said drum, means to support the drum engaging shoes against rotation and a key interposed between and engaging the two sets of brake shoes whereby the hub engaging shoes effect an expanding movement of the drum engaging shoes through the medium of said coupling member, said coupling member forming a ball race of a ball bearing on which said hub turns.

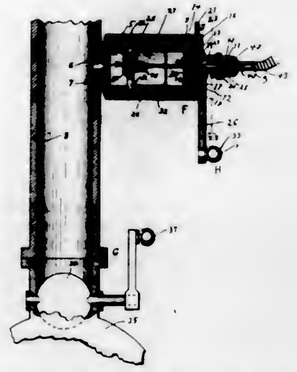
4. In a coaster brake, a wheel hub, an axle, a driving and brake actuating member journaled on the axle at one end of the hub, an inwardly projecting threaded extension on said brake actuating member, expanding brake shoes acting against the inside of the hub, a tapered expander threaded on said extension and serving to wedge said shoes apart, a drum on the end of the hub, internal expanding brake shoes engaging said drum, means to support the drum engaging shoes against rotation, a coupling member interposed between the two sets of brake shoes, and keys on said coupling member, the brake shoes at opposite sides of said coupling member being engaged by said keys in such manner that through the medium of the coupling member the braking action of one set of brake shoes causes the braking action of the other set.

5. In a coaster brake, a wheel hub, an axle, a driving and brake actuating member journaled on the axle at one end of the hub, an inwardly projecting threaded extension on said brake actuating member, expanding brake shoes acting against the inside of the hub, a tapered expander threaded on said extension and serving to wedge said shoes apart, a drum on the end of the hub, internal expanding brake shoes engaging said drum, an anchoring member by which the drum engaging shoes are supported and held, and a key interposed between and engaging the two sets of brake shoes whereby the hub engaging shoes effect an expanding movement of the drum engaging shoes through the medium of said key.

[Claim 6 not printed in the Gazette.]

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1,089,998. AIR-SUPPLY MEANS FOR MOTORS. WILLIAM A. WATKINS, Riverside, Cal., assignor of one-half to Sidney A. Ratliff, Riverside, Cal. Filed June 20, 1913. Serial No. 774,927. (Cl. 48—180.)



1. The combination, with a motor having a fuel intake pipe; of air supply means communicating with the fuel intake pipe, a throttle valve for the fuel intake pipe, and operative connections between said air supply means and said throttle valve; said air supply means comprising valve means for regulating the supply of air to said intake pipe in proportion to the fuel mixture permitted to pass the throttle valve to the motor, and other valve means normally closed and adapted to be opened to admit air to said intake pipe independently of said first named valve means.

2. The combination, with a motor having a fuel intake pipe; of air supply means communicating with the fuel intake pipe, a throttle valve for the fuel intake pipe, and operative connections between said air supply means and said throttle valve; said air supply means comprising valve means for regulating the supply of air to said intake pipe in proportion to the fuel mixture permitted to pass the throttle valve to the motor, and other valve means normally closed and adapted to be opened to admit air to said intake pipe independently of said first named valve means; and independent means for operating said last named valve means.

3. The combination, with a motor having a fuel intake pipe and a throttle valve for the fuel intake pipe; of a tubular member communicating with said fuel intake pipe and having a lateral air port, a valve slidable in said tubular member and seating to terminate communication between said intake pipe and said tubular member, said valve also normally closing said lateral air inlet port, a rotatable valve at the other end of said tubular member and controlling the admission of air thereto, and operative connections between said rotatable valve and said throttle valve.

4. The combination, with a motor having a fuel intake pipe; of air supply means communicating with the fuel intake pipe, a throttle valve for the fuel intake pipe, and operative connections between said air supply means and said throttle valve; said air supply means comprising valve means for regulating the supply of air to said intake pipe in proportion to the fuel mixture permitted to pass the throttle valve to the motor, and other valve means normally closed and adapted to be opened to admit air to said intake pipe independently of said first named valve means and further adapted to entirely cut off said air supply means from said fuel intake pipe.



1,089,990. SHIRT. GEORGE E. WATTS, Brooklyn, N. Y. Filed Dec. 10, 1912. Serial No. 736,047. (Cl. 2—94.)



1. A shirt sleeve comprising a main part attached to the body of the shirt and having an elastic draw string in its free edge, a lower sleeve, means for removably attaching the lower sleeve to the main part above the terminal end of said main part and means arranged on the main part for concealing the attaching means.

2. A shirt sleeve comprising upper and lower parts, a tuck formed on the upper part adjacent the terminal edge of the upper part, an extension secured to the terminal edge of the upper part and having an elastic draw string in its lower end, and coacting fastening members carried by the lower and upper parts, said tuck adapted to conceal said fastening members and joint between the parts when they are connected.

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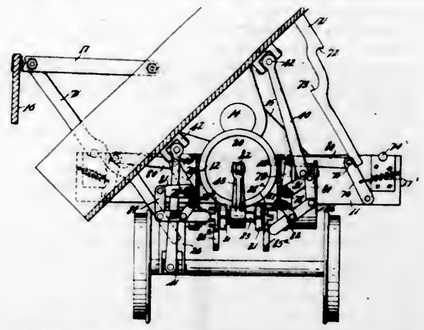
1,090,000. BASKET. MORRIS J. WHEELER and FRANK B. FOSTER, Peterboro, N. H. Filed July 26, 1913. Serial No. 781,376. (Cl. 217—122.)



1. A basket, divided vertically forming two sections, hinges at the upper end of the basket pivotally uniting the said sections, a handle pivotally secured by the hinge members to have a common center of movement with the basket sections, latching means on the bottom of the basket and comprising mating sections, the one having a latch and other catch means for said latch, a flexible pulling element connected with the latch and extending upwardly to near the top of the basket, the latter having guiding means for said pulling elements, and a finger-hold at the upper end of said pulling element, the said finger-hold constituting a means also to swing the section carrying the same relatively to the other section.

2. A basket, comprising two similar sections having opposed open sides, each section being formed of longitudinal and transverse woven elements, the transverse elements being returned around the vertical elements at the opposed edges of the section, hinges uniting the sections at their upper edges, a handle pivotally held by the said hinges, latching means on the bottom of the basket comprising mating sections, a flexible latch-releasing means carried by one basket section and extending through the transverse woven elements thereof, and a finger-hold secured to the upper end of the said flexible latch-releasing means.

1,090,001. DUMP-CAR. JOHN M. WILCOX, Cleveland, Ohio. Filed Oct. 23, 1912. Serial No. 727,427. (Cl. 105—190.)



1. In a dump car, the combination, with a supporting structure and a car body pivoted to said structure upon a horizontal axis so as to be tiltable upon either side of said axis, of a fixed cylinder carried by said supporting structure, means for admitting fluid under pressure to said cylinder, a piston in said cylinder, and means whereby a single movement of said piston in one direction may be utilized to cause the inclination of said car body in either direction, and the return movement of said piston will right said car body.

2. In a dump car, the combination, with a supporting structure and an elongated car body pivoted thereto upon a substantially horizontal axis and adapted to be inclined in either direction about said axis, the bottom of said car body being spaced above said supporting structure, of a cylinder carried by said supporting structure beneath said car body, a piston in said cylinder, means for admitting pressure fluid to one end of said cylinder to displace the piston therein, means for connecting said piston to said car body intermediate the ends thereof so as to incline the same in either direction by such displacement of said piston, and means for admitting pressure fluid to the opposite end of said cylinder for restoring said car body to its initial position.

3. In a dump car, the combination, with a supporting structure and a car body pivoted thereto upon a fixed horizontal axis so as to be inclined thereabout in either direction, of means comprising a stationary cylinder and a movable piston therein for inclining said car body about its axis, pressure fluid connections to the opposite ends of said cylinder whereby said piston may be operated in different directions, and means secured to said car body intermediate its ends and adapted to be attached in operative relation to said piston whereby a movement of said piston in one given direction may be employed to effect the dumping of the car body to either side.

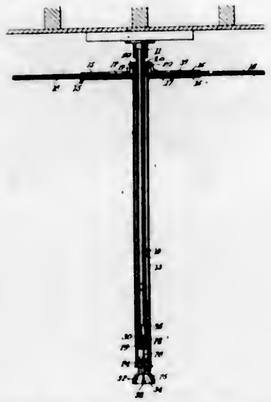
4. In a dump car, the combination, with a supporting structure, and a flat, elongated car body pivoted to said structure upon a horizontal axis so as to be tiltable upon either side of said axis, of a cylinder carried by said supporting structure beneath said car body, means for admitting fluid under pressure to said cylinder, a piston in said cylinder, means whereby the movement of said piston in one direction may be utilized to cause the inclination of said car body in either direction, and means for retarding the escape of fluid from the other end of the cylinder whereby the inclination of the car body may be cushioned in either direction.

5. In a dump car, the combination, with a supporting structure and a car body pivoted to said structure upon a horizontal axis so as to be tiltable upon either side of said axis, of a single cylinder carried by said supporting structure, a piston in said cylinder, movable devices operatively connected to said piston so as to be movable therewith, tilting devices carried by the car body, and means for connecting said movable devices to either of

said tilting devices so as to effect the inclination of said car body in either direction upon the movement of said piston in the same direction, the other of said tilting devices being meanwhile disconnected from said movable devices.

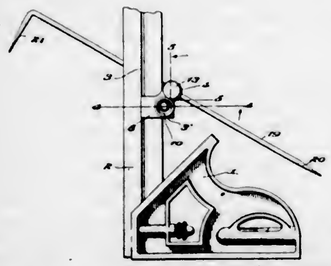
[Claims 6 to 29 not printed in the Gazette.]

1,090,002. CLOTHES-DRIER. EDWIN ALVIN WILLIAMS, Canton, Pa. Filed Nov. 18, 1912. Serial No. 731,964. (Cl. 68—34.)



In a clothes drier such as described, the combination of a tubular guide rod; a lifting tube telescopically arranged upon said guide rod; a locking tube having split resilient expansible end sections mounted on said tube; a latch head mounted on said tubular rod, at the lower end thereof, having a central opening to normally pass said expansible ends; a wedge member juxtaposed to and in line with said expansible ends; and an operating stem for said wedge member, extending beyond said tube, for operating said wedge member.

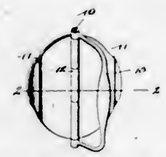
1,090,003. GAGE. JOHN W. WILLIAMS, North Birmingham, Ala. Filed Mar. 7, 1913. Serial No. 752,777. (Cl. 73—66.)



1. The combination with a blade having a groove therein, of a gage of the character described comprising a bracket having a pair of guide plates, one of greater length than the other and provided at its outer edge with a clamping rib to engage said groove, said bracket having an opening communicating with the space between the plates and an outwardly extending ear, a clamping cam journaled in said opening and adapted to engage one of the edges of the blade, a pivot pin journaled in the ear and having an opening therein, a scriber extending through the opening in the pin, and clamping means carried by the pin to engage and hold said pin and scriber in adjusted position.

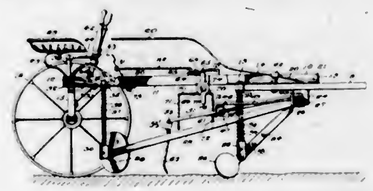
2. The combination with a blade having a groove therein, of a gage of the character described comprising a bracket having a pair of guide plates, one of greater length than the other and provided at its outer edge with a clamping rib to engage said groove, said bracket having an opening communicating with the space between the plates and an outwardly extending ear, a clamping cam journaled in said opening and adapted to engage one of the edges of the blade, a pivot pin journaled in the ear and having an opening therein, grooved washers upon said pin, a scriber extending through the opening in the pin and grooves in the washers, and a clamping nut engaging the pin to coöperate with the washers, whereby the pin and scriber may be clamped in adjusted position.

1,090,004. DEVICE FOR MANUALLY PROPELLING A BODY THROUGH THE WATER. CYRIL HOPKINS WYCHE, Dallas, Tex. Filed May 13, 1913. Serial No. 767,469. (Cl. 9—21.)



As a new article of manufacture, a device for propelling a body through the water, comprising a stem, a plurality of similar semi-circular paddle members having their curved edges flared in opposite directions and terminating at their inner straight edges in hinge members having swinging connection with the said stem, and a handle having its ends connected to projecting portions of the stem and adapted to lie between the paddle members when the same are folded relatively to the stem.

1,090,005. COTTON-CHOPPER. ALFRED O. YEATMAN, Vici, Okla. Filed Nov. 6, 1912. Serial No. 729,885. (Cl. 97—45.)



1. In a device of the class described, a supporting frame, coacting members pivoted to said frame and provided with cutters, a means operating to yieldably maintain said coacting members with the cutters normally in close relation, a lever device pivoted to said frame and including downwardly directed spaced terminals extending between said coacting members, and means for imparting motion intermittently to said lever to cause a corresponding intermittent action of the cutters.

2. In a device of the class described, a supporting frame having bearing wheels, coacting members pivoted to said frame and provided with downwardly directed cutters, a spring operating to yieldably maintain said coacting members with the cutters normally in close relation, a lever device pivoted to said frame and including downwardly directed spaced terminals extending between said coacting members, and means for imparting the motion of said bearing wheels intermittently to said lever device.

3. In a device of the class described, a supporting frame including a forward member suspended below the body of the same, a plate rigidly connected to said forward frame member, combined guide and guard members connected to said plate and extending laterally thereof, coacting members pivoted to said forward frame member and extending between said combined guide and guard members and provided with downwardly directed cutters, a spring operating to yieldably maintain said coacting members with the cutters normally in close relation, a lever device pivoted to said frame and including downwardly directed terminals spaced apart and extending between said coacting members, and means for imparting motion intermittently to said lever device.

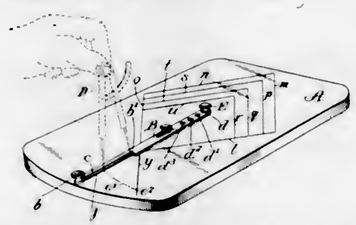
4. In a device of the class described, a supporting frame including a forward member suspended below the body of said frame, a plate connected rigidly to said forward frame member, combined guide and guard members connected to said plate and extending laterally of the same, coacting members pivoted to said forward frame member and extending between said guide and guard members and having cutters at their free ends, a spring operating to yieldably maintain said coacting members with the cutters normally in relatively close relation, and means for intermittently spreading said coacting members against the resistance of said spring.

5. In a device of the class described, a supporting frame including a forward member suspended below the body of said frame, coacting members pivoted to said forward frame member and provided with downwardly directed cutters, a spring operating to yieldably maintain said coacting members with the cutters normally in relatively close relation, a lever device swinging from said frame and with downwardly directed terminals spaced apart and extending between said coacting members, means for imparting motion intermittently to said lever, and means for holding said lever out of the path of said motion imparting means.

[Claim 6 not printed in the Gazette.]



1,090,006. INSTRUMENT FOR LAYING OUT THE EDGES OF CUTTER-HEAD KNIVES. GEORGE W. YUNG, Dunkirk, N. Y. Filed Mar. 26, 1913. Serial No. 757,001. (Cl. 73—16.)



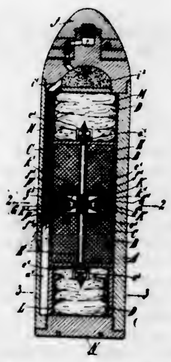
1. An instrument for laying out the edges of cutter-heads, comprising a base plate provided with means for indicating the center of rotation of a cutter-head, means for indicating a radial line extending from said center of rotation through a corner of the cutter-head, means for indicating a knife line extending at an angle of 45° at the corner of the cutter-head to said radial line, and means for indicating on said knife line the line of clearance of the cutter, in combination with a measuring rod pivotally connected with the base plate at the point indicating the center of rotation of the cutter-head and which is provided with means for indicating a line adapted to register with said radial line and also with means for indicating a point which is adapted to register with the point on said knife line intersected by said clearance line.

2. An instrument for laying out the edges of cutter-heads, comprising a base plate provided with means for indicating the center of rotation of a cutter-head, means for indicating a radial line extending from said center of rotation through a corner of the cutter-head, means for indicating a knife line arranged at an angle at the corner of the cutter-head to said radial line, and means for indicating on said knife line the line of clearance of the cutter, in combination with a measuring rod pivotally connected with the base plate at the point representing the center of rotation of the cutter-head and which rod is provided with a straight edge adapted to register with said radial line and also with a shoulder which is adapted to register with said point on the knife line intersected by the clearance line.

3. An instrument for laying out the edges of cutter-heads, comprising a base plate provided with means for indicating a knife line, means for indicating a radial line extending from a point representing the center of rotation of the cutter-head through a corner thereof, means for indicating the clearance line of the cutter, and a measuring rod provided with means for pivoting it to the base plate at different points representing different centers of rotation of cutter-heads of different sizes and which rod is provided with means for indicating a line adapted to register with said radial line and also with means for indicating a point which traverses the clearance line of the cutter.

4. An instrument for laying out the edges of cutter-head knives, comprising a base plate provided with means for indicating the center of rotation of a cutter-head, means for indicating a radial line extending from said center of rotation through a corner of the cutter-head, means for indicating a knife line, and means for indicating on said knife line the line of clearance of the cutter, and a measuring rod pivotally connected with the base plate at the point representing the center of rotation of the cutter-head and which is provided with means for indicating a line adapted to register with said radial line and with means for indicating a point of measurement, and devices for adjusting the length of said rod.

1,090,007. LUMINOUS PROJECTILE. FRIEDRICH ZIEGENFUSS, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 1, 1913. Serial No. 792,813. (Cl. 102—29.)



1. An illuminating projectile comprising an easily exploding projectile body, an intermediately arranged bursting charge in said projectile body and two parachute illuminating bodies arranged in said projectile body with their illuminating masses presented toward the bursting charge.

2. An illuminating projectile comprising an easily exploding projectile body, an intermediately arranged bursting charge in said projectile body and two parachute illuminating bodies arranged in said projectile body with their illuminating masses presented toward said bursting charge; protecting disks between the bursting charge and each illuminating mass.

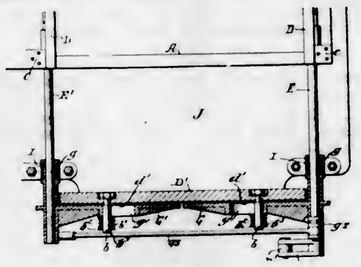
3. An illuminating projectile comprising an easily exploding projectile body, an intermediately arranged bursting charge in said projectile body and two parachute illuminating bodies arranged in said projectile body with their illuminating masses presented toward said bursting charge; protecting disks between the bursting charge and each illuminating mass, arched toward the bursting charge to adapt them to resist pressure of the latter.

4. An illuminating projectile comprising an easily exploding projectile body, an intermediately arranged bursting charge in said projectile body and two parachute illuminating bodies arranged in said projectile body with their illuminating masses presented toward said bursting charge; protecting disks between the bursting charge and each illuminating mass, arched toward the bursting charge to adapt them to resist pressure of the latter and having perforations in their arched portions, through which fire from the bursting charge may be communicated to the illuminating masses.

5. An illuminating projectile comprising an easily exploding projectile body, an intermediately arranged bursting charge in said projectile body and two parachute illuminating bodies arranged in said projectile body with their illuminating masses presented toward the bursting charge, said projectile body having in its inner cylinder wall, a groove extending longitudinally and approximately the length thereof.

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1,090,008. MEANS FOR OPERATING SLIDING STEPS. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 11, 1911. Serial No. 643,569. (Cl. 105—88.)



1. The combination of a riser; a pair of swiveled bracket levers; a step mounted on the bracket levers; and means for operating said levers to project the step in front of or to the rear of the riser.

2. The combination of a pair of rods; bracket levers mounted on the rods; a step carried by the bracket levers; a riser; and means for operating said rods whereby the brackets may be moved to project the step in front of or to the rear of the riser.

3. The combination of a riser; a step; a pair of vertically arranged rods; a pair of bracket levers carried by said rods; bearings for the bracket levers mounted on the riser; and means for operating the step so as to project the same in front of or to the rear of the riser.

4. The combination of a riser; a step; a pair of pivotally mounted bracket levers; there being one bracket lever at each side of the step; said levers being slotted, and pins carried by the step and extending into the slots of the levers whereby movement of the latter may be transmitted to the step.

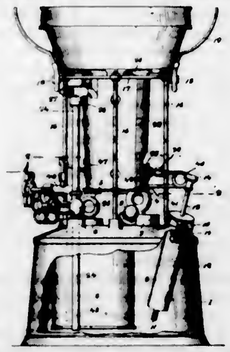
5. The combination of a riser; a step; a vertical rod at each side of the step; a bracket lever carried by each rod and extending under the step; means operatively connecting both of said bracket levers with the step; an arm operatively connected with one of the rods; and actuating means connected to said arm.

[Claims 6 to 15 not printed in the Gazette.]

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1,090,009. PLUMBER'S FURNACE. ARTHUR J. ARCHAMBAULT, Chicago, Ill. Filed Oct. 3, 1913. Serial No. 793,239. (Cl. 158—79.)

1. In a furnace as described, a coil comprising a pipe formed with a series of convolutions, the admission end of the pipe being located between the ends of the said series of convolutions, the pipe being formed above the convolutions with a section S-shaped which lies transversely across the opening through the convolutions, the coil having an outlet below the convolutions.



2. In a furnace as described, a coil including a series of convolutions, an S shaped section located at the end of the convolutions and disposed transversely across the openings through the set of convolutions, the coil having a discharge orifice positioned approximately centrally with relation to the convolutions and S shaped section.

3. In a furnace as described, a coil, a nipple connected with the coil, a sleeve connected to the nipple and having peripheral flanges, a file located between the flanges, a shaft journaled in the sleeve and nipple and having an edge portion disposed between the flanges and a sparking element carried by the said shaft and engaging the file.

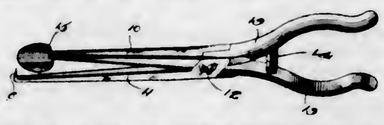
4. In a furnace as described, a coil, a nipple connected with the coil, a sleeve connected with the nipple, a shaft journaled in the nipple and sleeve and having a flattened inner end portion, said shaft projecting beyond the end of the sleeve.

5. In a furnace as described, a nipple having in its side an orifice, a sleeve fixed to the nipple, a file carried by the sleeve, a shaft journaled in the sleeve and nipple and a sparking element carried by the shaft and engaging the file.

[Claim 6 not printed in the Gazette.]

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1,090,010. PIG-FORCEPS. WILLIAM B. ARMSTRONG and BENJAMIN JOHNSON, Sigourney, Iowa. Filed July 15, 1913. Serial No. 779,186. (Cl. 128—27.)



In a pig forceps, the combination with a pair of pivotally mounted members, one of said members shortened and curved to form a spoon-shaped prong to prevent lateral movement, the longer member being in alinement with the end of the spoon of the first member and formed into a tapered prong to prevent longitudinal movement between the spoon-shaped member and the ends of the pivotally-mounted prong-member.

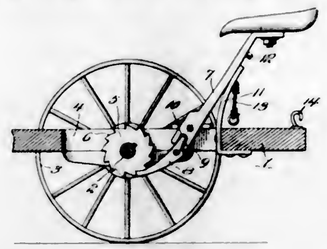
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1,090,011. AUTOMATIC SAFETY DEVICE. ULYSSES G. BALLINGER, Depaw, Wyo. Filed Apr. 22, 1913. Serial No. 762,929. (Cl. 246—61.)

1. A wheeled vehicle including a gear secured upon a wheel carrying axle, a dog coöperating with the gear and a driver's seat connected with and operating the dog.

2. A wheeled vehicle including a gear secured upon a wheel carrying axle, a dog coöperating with the gear, a driver's seat connected with and operating the dog, and a spring for moving the seat in one direction.





3. A wheeled vehicle including a gear secured upon a wheel carrying axle, a dog coöperating with the gear, a driver's seat connected with and operating the dog, and a spring for moving the seat in one direction, the weight of the driver moving the seat in the opposite direction.

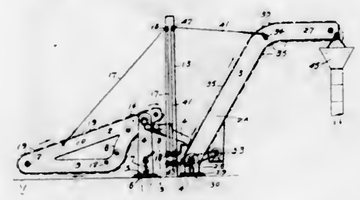
4. A wheeled vehicle including a gear secured upon a wheel carrying axle, a dog coöperating with the gear, a driver's seat connected with and operating the dog, a spring for moving the seat in one direction, the weight of the driver moving the seat in the opposite direction, and means for limiting the movement of the seat under the influence of the driver's weight.

5. A wheeled vehicle including a gear secured upon a wheel carrying axle, a dog coöperating with the gear, a driver's seat connected with and operating the dog, a spring for moving the seat in one direction, the weight of the driver moving the seat in the opposite direction, means for limiting the movement of the seat under the influence of the driver's weight, and means for relieving the seat from the influence of the spring.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,012. COALING DEVICE. OTTO BAUERLE, Sacramento, Cal. Filed July 9, 1913. Serial No. 778,141. (Cl. 193—3.)

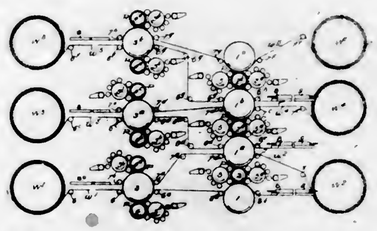


In a coaling device, an upright, a standard rotatably supported adjacent the upright, a charging device pivotally supported on the standard, means carried by the upright and connected to the charging device to adjust the latter on the standard, a second standard rotatably mounted adjacent the upright, a delivery device pivotally mounted on said second standard, means connecting said delivery device to the upright for adjusting the delivery device on its standard, and means for transferring material from the charging device to the delivery device, said means being supported wholly by the upright and coöperating with the charging device in the full adjustment of said charging device.

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1,090,013. ROTARY PRINTING-PRESS. HENRY F. BECHMAN, Battle Creek, Mich., assignor to Duplex Printing Press Company, Battle Creek, Mich., a Corporation of Michigan. Filed May 19, 1910. Serial No. 562,335. (Cl. 101—124.)

1. In a rotary printing press, the combination of a series of printing mechanisms comprising plate and impression cylinders, the plate-cylinders being adapted to carry single-page tubular plates extending around the circumference of the cylinder, and each plate cylinder being arranged between and co-acting with two impression cylinders; and a second series of printing mechanisms comprising a plurality of impression cylinders and two plate cylinders carrying single-page tubular plates co-acting with each impression cylinder; with means for directing pairs of webs successively between a plate-cylinder and impression cylinders in one series to be printed on one side, and between an impression cylinder and plate-cylinders in the other series to be perfected, and means for folding the webs.



2. In a rotary printing press, the combination of two adjacent series of printing mechanisms comprising alternate plate cylinders and impression cylinders, each plate cylinder in one series co-acting with two impression cylinders, and each impression cylinder in the other series co-acting with two plate cylinders, each plate cylinder being adapted to carry only single-page tubular plates; and means for directing a plurality of superposed webs successively between the printing couples in the adjacent series; with a plurality of folding mechanisms adjacent the press, means for slitting the webs, and means for directing the halves of the slit webs to the same or different folding mechanisms.

3. In a rotary printing press, the combination of a series of plate cylinders, and impression cylinders, each plate cylinder being adapted to carry single-page tubular plates substantially extending around the circumference of the cylinder, each plate cylinder being arranged between and co-acting with two impression cylinders, so that each page plate on each cylinder will simultaneously print two webs; and an adjacent series of plate cylinders and impression cylinders, each impression cylinder being arranged between and co-acting with two plate cylinders so as to simultaneously present two webs to the plates on said cylinders, and means for directing a plurality of webs successively between printing couples in the adjacent series to be perfected; with a plurality of folding mechanisms adjacent each end of the press, and means for slitting the webs and means for directing the halves of the slit webs to the same or separate folding mechanism.

4. In a rotary printing press, the combination of a printing mechanism comprising a plate cylinder adapted to carry single-page tubular plates and a pair of impression cylinders co-acting with said single plate cylinder at opposite points; with a second printing mechanism comprising an impression cylinder and two plate cylinders each adapted to carry single-page tubular plates co-acting with said impression cylinder at opposite points, and means for directing pairs of webs successively between the single-plate cylinder and its co-acting impression cylinders in one mechanism and between the single impression cylinder and its pair of co-acting plate cylinders in the other mechanism; with folding mechanisms adjacent each end of the press, and means for deflecting the printed webs laterally to said folders.

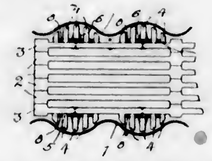
5. In a rotary printing press, the combination of a series of printing mechanisms comprising plate and impression cylinders, each plate cylinder being arranged between and coacting with two impression cylinders, and a second series of printing mechanisms comprising a plurality of impression cylinders and two plate cylinders co-acting

with each impression cylinder, each plate cylinder being of small diameter and adapted to carry only single-page tubular plates extending around the circumference of the cylinders, and means for directing pairs of oppositely moving webs successively between a plate cylinder and impression cylinders in one series to be printed on one side and between an impression cylinder and plate cylinders in the other series to be perfected; with a plurality of folding mechanisms adjacent each end of the press, means for slitting the webs, and means for directing the halves of the similarly moving slit webs to the folding mechanisms.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,014. FURNACE-GRATE. JOSEPH BECK, Two Harbors, Minn. Filed Feb. 20, 1911. Serial No. 609,795. (Cl. 126—167.)



1. A grate for corrugated furnaces, the side bars of the grate having laterally extending projections at their lower faces spaced apart, plates having a beveled upper edge and laterally extending spaced grate fingers adapted to project within corrugations of the furnace, said plates resting against the side bars and having tapering lower ends terminating in reduced laterally extending projections resting upon the projections of the side bars and extending beyond the same and means for securing said plates to the side bars.

2. A grate for corrugated furnaces, the side bars of the grate having laterally extending projections at their lower sides spaced apart and gradually tapering in width, plates having laterally extending spaced grate fingers adapted to extend within the corrugations of the furnace, said plates resting against the side bars and having tapering lower ends terminating in lateral projections gradually tapering in width and resting upon the projections of the side bars, and means for securing the plates to the side bars.

3. A grate for corrugated furnaces, the side bars of the grate having lateral projections at their lower sides spaced apart and gradually tapering in width, plates having lateral spaced grate fingers adapted to extend within the corrugations of the furnace and of different lengths, said plates resting against the sides of the side bars and having a tapering lower end terminating in laterally extending projections gradually tapering in width and resting upon the projections of the side bars, and means for securing the plates to the side bars.

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1,090,015. PLUMB-BOB. FERDINAND BIRCHBAUER, Baltimore, Md. Filed Mar. 29, 1913. Serial No. 757,638. (Cl. 73—72.)

1. A plumb-bob having a cavity therein and an integral projection at its upper end with a wedge-shaped recess opening out at the upper end of said projection, a spring-actuated reel located in the cavity, a cord wound on the reel and passing out of the bob through the aforesaid recess, a wedge-shaped plate movable in the recess, and a nut threaded on the projection of the bob to impinge against the outer end of the plate, substantially as shown and for the purpose set forth.

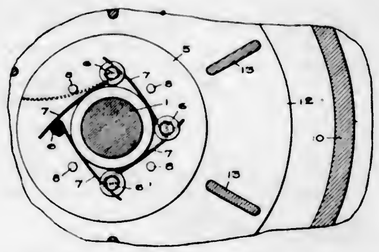
2. In combination with a plumb-bob having a cavity therein, of a shaft extending across said cavity, a sleeve loosely mounted on the shaft, a reel loosely mounted on the sleeve, and a cord wound upon the reel and passing therefrom out of the bob; together with a spring attached to the reel and sleeve, respectively, and a second spring attached to the sleeve and to a fixed part of the bob, substantially as shown and for the purpose set forth.



3. In combination with a plumb-bob having a cavity therein, of a shaft journaled in the bob and extending across the cavity, a sleeve loosely mounted on the shaft, a reel loosely mounted on the sleeve, a cord wound upon the reel and passing out of the bob, a spring attached to the reel and sleeve, respectively, and a second spring attached to the sleeve and to a fixed part of the bob; together with a projection on the bob having a wedge-shaped recess through which the cord passes, a wedge-plate fitting in said recess, and a nut threaded on the projection to bear against the wedge-plate, substantially as shown and for the purpose set forth.

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1,090,016. SPEED-LIMITING DEVICE FOR TURBO-GENERATORS. FREDERIC R. C. BOYD, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 2, 1908. Serial No. 451,313. (Cl. 74—45.)



1. A speed limiting device for a prime mover comprising a fan having a plurality of tangentially arranged resilient blades, and means defining a passage for the admission of air to the blades, said blades delivering the air from between the same to the periphery thereof and being capable of swinging outward under centrifugal force when a certain predetermined speed is reached, whereby the same present an increased radius and a greater vane space.

2. A speed limiting device for a prime mover comprising a fan having a plurality of tangentially arranged resilient blades, means defining a passage for the admission of air to the blades, said blades delivering the air from between the same to the periphery thereof and being capable of swinging outward under centrifugal force when a certain predetermined speed is reached whereby the same present an increased radius and a greater vane space, and means for causing the blades to reverse their curvature as they move outward.

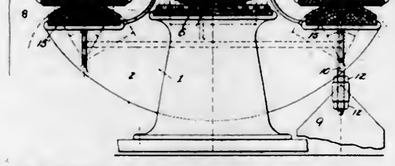
3. A speed limiting device for a prime mover comprising a fan having a plurality of tangentially arranged resilient blades normally curved away from the direction of rotation, means defining an annular passage for the admission of air to the blades, said blades delivering the air from between the same to the periphery thereof and being capable of swinging outward under centrifugal force when a certain predetermined speed is reached, whereby the same present an increased radius and a greater vane space, and means for causing the blades to reverse their curvature so they present their curved surfaces toward the direction of rotation as they move outward.

4. A speed limiting device for a prime mover comprising a fan having a plurality of tangentially arranged resilient blades fixed at one end and having their free ends normally under tension tending to hold them closed upon one another, means defining a passage for the admission of air to the blades, said blades delivering the air to the periphery thereof and being capable of swinging outward under centrifugal force when a certain predetermined speed is exceeded whereby the same present an increased radius and a greater vane space.

5. The combination in a speed limiting device for a prime mover, of a plurality of resilient fan blades fixed at one end and arranged around the shaft of the prime mover, said blades being under an initial tension tending to hold them close to the shaft, and means defining a passage for the admission of air to the blades, said blades being capable of swinging outward under centrifugal force when a certain predetermined speed is exceeded whereby the same present an increased radius and a greater vane space.

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1,090,017. WEIGHING APPARATUS. WILLIAM F. BRAUN, Brooklyn, N. Y. Filed Oct. 25, 1911. Serial No. 656,677. (Cl. 73—152.)



1. In a weighing machine, the combination of a supporting frame and a beam with non-concentric fulcrum members between the same, one of which is curved to roll upon the other, one of said members having a curved rib and the other of said members having a curved groove to engage the curved rib and control the relation of the beam both laterally and longitudinally in all angular positions of the beam, the curve of said groove and rib being each in a horizontal plane when the beam is horizontal and in a direction transversely of the fulcrum members, substantially as described.

2. In combination in a weighing machine or scale, the main frame, the scale beam, and non-concentric fulcrum members between, one of which is curved to roll on the other, one member having a rib struck on the arc of a circle and the other member having an elliptical groove, the curve of said groove and rib being each in a horizontal plane when the beam is horizontal and in a direction transversely of the fulcrum members, substantially as described.

3. In combination with the main frame fulcrum, the beam fulcrum, said fulcrums being non-concentric and having interengaging portions curved in a direction transversely of the fulcrum members and one fulcrum member having rolling contact with the other and a projecting straight guide to prevent the scale beam from turning horizontally in relation to the frame, one of said curved interengaging portions lying in a horizontal plane, substantially as described.

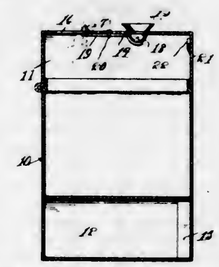
4. In combination, in a scale beam, the non-concentric fulcrum members having interengaging parts and one being curved to roll on the other, one of said members having its said parts of elliptical form curving laterally of the member, the corresponding parts of the other member lying in a horizontal plane, substantially as described.

5. In combination in a weighing apparatus, the fulcrum members one of which has a plain curved bearing surface and the other a series of ribs extending parallel with each other and with the direction of movement of the beam, said plain curved bearing surface being supported by the lines provided by the series of ribs and controlling means consisting of the interengaging members on the fulcrum members, said members being curved transversely of the fulcrum members and one set of said members lying in a horizontal plane, substantially as described.

[Claims 6 not printed in the Gazette.]

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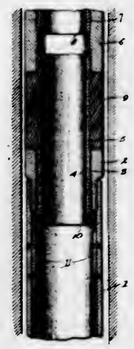
1,090,018. POCKET ASH-TRAY. JOSEPH H. BREMER, Tampa, Fla. Filed Sept. 16, 1912. Serial No. 720,640. (Cl. 131—59.)



In a pocket ash tray, a box, a lid on one end of the box, the upper side of the lid being provided with an opening for admission of ashes, a concavo-convex closure beneath the opening, a rod connected to the closure and extending toward one end of the lid, a funnel-shaped flange secured around the opening in the outer face of the box, the lid being provided with an elongated slot, a button on the rod projecting through the slot, a guiding eye secured to the under face of the lid and receiving the rod slidably therethrough, said eye being disposed to hold the rod close to the lid, whereby friction between the closure and the under face of the lid is produced.

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1,090,019. WELL-PACKER. HARRY C. BREWSTER, Shreveport, La. Filed May 9, 1913. Serial No. 766,652. (Cl. 166—10.)



1. In a well packer, the combination of a tubular member, an internal threaded collar on said member, a tubular

plunger threaded in said collar and adapted to telescope through said collar and tubular member, an exterior collar on said tubular plunger, an expansible packing mounted between said collars of said member and plunger, and cooperating means on said member and plunger for locking the latter against rotation in one direction when telescoped within said tubular member.

2. In a well packer, the combination of a tubular member, an internal threaded collar on said member, a tubular plunger threaded in said collar and adapted to telescope through said collar and tubular member, an exterior collar on said tubular plunger, an expansible packing mounted between said collars of said member and plunger, and lugs and pins on said member and plunger respectively for locking the latter against right-hand rotation when telescoped within said tubular member.

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1,090,020. FARRIER'S NAIL-PULLING NIPPERS. PETER BROADBOOKS, Batavia, N. Y. Filed Jan. 22, 1913. Serial No. 743,509. (Cl. 168—45.)



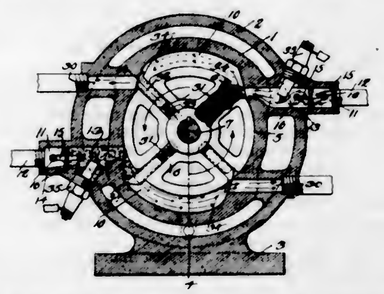
1. A farrier's tool comprising a pair of pivoted members having coöperating jaws provided with meeting edges, said edges having notches adjacent the sides of the jaws provided with opposing inclined walls forming when the jaws are closed a dovetailed notch narrowest at its outer end and adapted to laterally receive and engage a nail embedded in the groove of a horseshoe.

2. A farrier's tool comprising a pair of pivoted members having coöperating jaws provided with meeting edges, said edges having notches adjacent the sides of the jaws provided with opposing beveled inclined walls forming when the jaws are closed a dovetailed notch narrower at its outer end and adapted to laterally receive and engage a nail head embedded in the groove of a horseshoe.

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1,090,021. ROTARY ENGINE. CHARLES M. BURTON and RIO GARDNER, New York, N. Y. Filed Oct. 26, 1912. Serial No. 727,953. (Cl. 123—16.)

1. In an internal explosion engine, the combination, with a housing having a piston chamber, of a rotary piston mounted therein, a plurality of sets of blades carried by said piston, each of said blades being radially movable therein, and the blades of each set being disposed diametrically opposite each other, recesses formed in the housing in communication with the piston chamber and disposed for being adapted to be entered by the piston blades, the recesses being of substantially the same length and being disposed nearer each other at one side of the chamber than at the other side thereof, intake openings being formed in the housing at points spaced circumferentially from diametrically opposite points, each of said intake openings communicating with one of the recesses, and means for firing explosive charges admitted through said intake openings, the housing being formed with an exhaust port for each recess, and each recess being elongated circumferentially of the housing and having its intake at one end and its exhaust at the other.



2. In an internal combustion engine, the combination, with a housing having a substantially cylindrical piston chamber, of a rotary piston mounted therein, the housing having circumferential recesses spaced at substantially opposite sides of the piston but disposed relatively to one side of diametrically opposite points, so that the recesses are nearer each other at one side of the piston chamber than at the other, the recesses being of substantially the same length, diametrically opposite piston blades radially movably carried by said piston and adapted to be moved into and out of said recesses, and means for delivering and firing explosive charges in position for acting against said blades while in said recesses.

3. In an internal combustion engine, the combination, with a housing having a substantially cylindrical piston chamber, of a rotary piston mounted therein, the housing having circumferential recesses spaced at substantially opposite sides of the piston but disposed relatively to one side of diametrically opposite points, so that the recesses are nearer each other at one side of the piston chamber than at the other, the recesses being of substantially the same length, diametrically opposite piston blades radially movably carried by said piston and adapted to be moved into and out of said recesses, means for delivering and firing explosive charges in position for acting against said blades while in said recesses, an intake for the explosive charge for each recess being at one end of the recess, and an exhaust being provided at the opposite end of the recess.

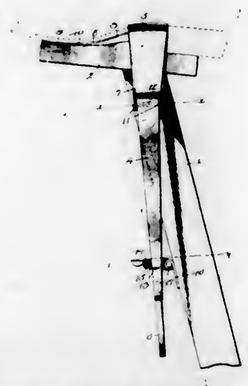
4. In an internal explosion engine, the combination, with a housing having a piston chamber, of a rotary piston mounted therein, diametrically oppositely disposed, radially movable blades carried by said piston, recesses formed in the housing in communication with the piston chamber and disposed for being adapted to be entered by the piston blades, the recesses being of substantially the same length, intake openings being formed in the housing at points spaced circumferentially from diametrically opposite points, each of said intakes communicating with one of the recesses, and means for firing explosive charges admitted to said intakes, the housing being formed with an exhaust port for each recess.

5. In an internal explosion engine, the combination, with a housing having a piston chamber, of a rotary piston mounted therein, diametrically oppositely disposed, radially movable blades carried by said piston, recesses formed in the housing in communication with the piston chamber and disposed for being adapted to be entered by the piston blades, the recesses being of substantially the same length, intake openings being formed in the housing at points spaced circumferentially from diametrically opposite points, each of said intakes communicating with one of the recesses, and means for firing explosive charges admitted to said intakes, the housing being formed with an exhaust port for each recess, each recess being elongated circumferentially of the housing and having an intake at one end and an exhaust at the other.

[Claims 6 to 8 not printed in the Gazette.]



1,090,022. SHOE-SHINER'S CLAMP. FRANK LESTER CAMPBELL, Chelan, Wash. Filed Apr. 18, 1913. Serial No. 761,995. (Cl. 15—58.)



1. In a shoe stand the combination of a foot rest, operating levers having pivotal connection with the foot rest and provided with jaws to grip the sole of the shoe placed in position upon the foot rest, said jaws being bodily adjustable by a swinging movement of the levers toward and away from the foot rest.

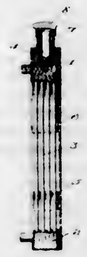
2. In combination a foot rest, operating levers having pivotal connection with the foot rest and provided with shoe gripping jaws which are adapted to be adjusted vertically bodily by a swinging movement of the levers toward or away from the foot rest, and means for securing the levers in the required position to hold the shoe gripping jaws at the required elevation.

3. In combination a foot rest, a clip fitted to the foot rest and having pivotal connection therewith, operating levers pivotally connected to the clip and provided with shoe gripping jaws which are adapted to be adjusted vertically bodily by a pivotal movement of the clip, and means for securing the operating levers in the required position.

4. In combination a foot rest, a clip having an extension by means of which it is pivotally connected to the foot rest, said clip embodying side members embracing opposite sides of the foot rest, operating levers pivoted to the side members of the clip and provided with shoe gripping jaws, and means for securing the operating levers in required position for gripping the shoe placed in position upon the rest.

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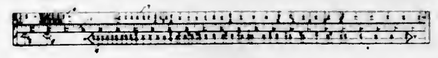
1,090,023. AUTOMOBILE-RADIATOR. ADELARD J. CARRIERE, Putnam, Conn. Filed Feb. 1, 1913. Serial No. 745,658. (Cl. 62—28.)



An automobile radiator comprising upper and lower headers and intermediate tubes, the upper header having a centrally disposed filling tube at its top, a jacket detachably fitted to the radiator by a vertically sliding movement, said jacket having its front portion opposite the tubular part of the radiator perforated and said jacket being further provided at its top with a tube to slip over the filling tube of the radiator to form a handle and also serve as means to retain the jacket in position and a cap threaded upon the filling tube and engaging the tube of the jacket to prevent the jacket from moving vertically.

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1,090,024. TAILOR'S RULE. MORRIS CARROLL, New York, N. Y. Filed July 27, 1912. Serial No. 711,817. (Cl. 33—11.)

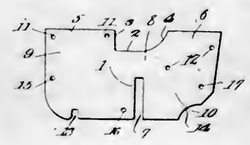


1. A rule provided with a scale formed with size graduations, a second scale on the same side of the rule and on the opposite edge thereof having graduations correlated with the graduations on the first mentioned scale adapted to indicate by the same numbers the desired position of points on a chest line, a transverse line arranged near one end of said ruler for indicating the position of a horizontal construction line, and a block of numbered graduations arranged on the same end of said rule but on the opposite face thereof for indicating the position of a vertical construction line.

2. A rule provided with a block of graduations arranged on one side at one end, said graduations being numbered for indicating the position of a vertical construction line commensurate with the size of the pattern being marked off, a scale arranged on the same side of said rule as said block of graduations but on the opposite edge thereof, said scale being formed with numbers corresponding with the numbers on said block of graduations, and a second scale arranged on the opposite edge of said rule to said first mentioned scale, said second mentioned scale being formed with numbers corresponding to the numbers on said block of graduations and the numbers on said first mentioned scale, said second mentioned scale being used for determining the position of the chest line of the pattern being made.

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1,090,025. PLOW-FENDER. ZACKARIAH T. CASH, Eddyville, Ky. Filed May 13, 1913. Serial No. 767,410. (Cl. 97—13.)



1. A plow fender embodying a rearwardly and downwardly opening hood, the front of which is attachable to the beam of a plow, and the sides of which are attachable to the plow between the mold board and land side.

2. A plow fender embodying a rearwardly and downwardly opening hood having an upper opening at the forward end for the passage of the plow beam, the sides of the hood being attachable to a plow between the landside and moldboard.

3. A plow fender formed from a blank having a recess in one edge providing flaps, the blank being bent intermediate the flaps and the flaps being overlapped.

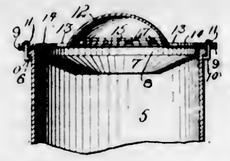
4. A plow fender formed from a blank having a recess in one edge providing flaps, the blank being bent intermediate the flaps and the flaps being overlapped and secured together to provide a hood, the recess providing an opening for the passage of the plow beam, the sides of the hood being attachable to a plow between the landside and moldboard.

5. A plow fender formed from a blank embodying a pair of wings and a web connecting them, the wings and web being bent and the complementing portions of the wings being secured together to provide a hood.

[Claim 6 not printed in the Gazette.]

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1,090,026. SPARK-ARRESTER. WILLIAM G. CHILLIS, Klotzville, La., assignor of one-third to Nick Noto, Klotzville, La. Filed Oct. 16, 1913. Serial No. 795,545. (Cl. 110—130.)

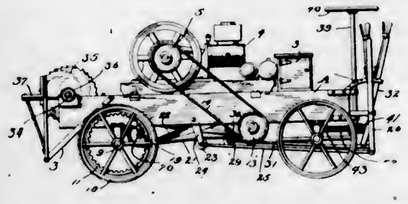


1. A spark arrester comprising the combination with a smoke stack, of an inverted frusto-conical member disposed therein and secured thereto, a dome provided at its base with horizontal arms for securing it to the frusto-conical member and an annular foraminous member secured to the base of the dome and to the base of the frusto-conical member.

2. A spark arrester comprising the combination with a smoke stack, of an inverted frusto-conical member having an annular flange on its base resting on and secured to the stack, a dome having its base slightly larger in diameter than the apex of the frusto-conical member, horizontal arms extending from the dome and secured at their outer ends to an annular band, said annular band being disposed on and secured to the said annular flange and a foraminous annular member secured between the flange and band and secured to the base of the dome.

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1,090,027. SELF-PROPELLED POWER-MACHINE. ARTHUR S. CLEMONS, Bartlett, N. H. Filed Oct. 26, 1912. Serial No. 727,860. (Cl. 21—114.)



A self propelled vehicle including a vehicle body, front ground wheels thereon, a rear axle equipped with traction wheels, gears carried by said traction wheels, a shaft having gear connections with said gears, and having a pair of pulleys thereupon, a second shaft, driving means for the second shaft, a cross belt and an open belt connection between both of said shafts, said belt connection being normally idle, idlers suspended from said body upon swinging brackets and engageable upon actuation of said brackets with respective belts whereby to tighten said belts independently of each other to impart advance or reverse rotation to said traction wheels, a pair of operating levers with racks therefor on said body, and link connections between said levers and said swinging brackets for moving said brackets to operative position upon actuation of said levers.

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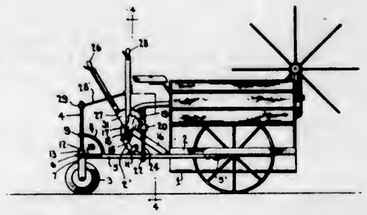
1,090,028. SCREW-HOLDER. HENRY COMB and ANTOINE L. GIRARD, Sterling Junction, Mass. Filed Oct. 28, 1913. Serial No. 797,861. (Cl. 145—52.)



A screw-holding attachment for screw drivers comprising a body constructed of a single piece of flat resilient material, the said body being yoke-shaped to provide gripping portions adapted to embrace the screw driver shank, a pair of laterally yieldable arms formed upon the said body and having their free ends disposed adjacent to and outward from the medial portion of the body, the said medial portion of the body being provided with an opening for the reception of the engaging extremity of the screw driver, and screw holding jaws formed upon the free end of said arms.

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1,090,029. ATTACHMENT FOR BINDERS. JOHN G. CONGER and BONNER R. QUINT, Farmington, Wash. Filed Jan. 27, 1913. Serial No. 744,561. (Cl. 56—32.)



1. An attachment for binders comprising a side supporting bar having its front end turned inward and adapted to be hingedly mounted beneath the framework of the machine and its rear end provided with an upright bearing, a brace rising from said bar and bent to the rear and provided with a bearing above that in the bar, a rear supporting bar having its inner end adapted to be connected with the main framework and its outer end provided with a bearing standing between those just mentioned, an upright standard rotatably mounted in the three bearings and having its lower end forked, a ground wheel mounted within the fork, a collar adjustably mounted on the standard above the bearing at the rear end of said rear supporting bar, means for turning the standard axially within its bearings, and means for raising and lowering the rear end of said bar and the standard with respect to the main framework of the machine.

2. An attachment for binders comprising a side supporting bar having its front end turned inward and adapted to be hingedly mounted beneath the framework of the machine and its rear end provided with an upright bearing, a brace rising from said bar and bent to the rear and provided with a bearing above that in the bar, a rear supporting bar having its inner end adapted to be connected with the main framework and its outer end provided with



a bearing standing between those just mentioned, an upright standard rotatably mounted in the three bearings and having its lower end forked, a ground wheel mounted within the fork, a collar adjustably mounted on the standard above the bearing at the rear end of said supporting bar, means for turning the standard axially within its bearings, a clamp mounted on said side supporting bar and having an apertured lug, a rack bar whose lower portion is reduced and passes loosely through the aperture in said lug, a nut on the lower end of said rack bar beneath the lug, an expansive spring coiled on the reduced portion of said rack bar between the enlarged portion thereof and said lug, and means for raising and lowering the rack bar.

3. An attachment for binders comprising a side supporting bar having its forward portion hingedly connected with the framework and an upright bearing at its rear end, a brace rising from said bar and bent to the rear and provided with a bearing above that in the bar, a rear supporting bar having its forward end hingedly connected with the framework and an upright bearing at its rear end, an upright standard rotatably mounted in the three bearings and having its lower end forked, a ground wheel mounted within the fork, means for turning the standard in its bearings, a clamp mounted on said side supporting bar and having an apertured lug, a rack bar whose lower portion is reduced and passes loosely through the aperture in said lug, a nut on the lower end of said rack bar beneath the lug, an expansive spring coiled on the reduced portion of said rack bar between the enlarged portion thereof and said lug, and means for raising and lowering the rack bar.

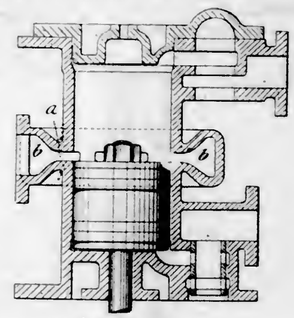
4. An attachment for binders comprising a side supporting bar having its forward portion hingedly connected with the framework and an upright bearing at its rear end, a rear supporting bar having its forward end hingedly connected with the framework and an upright bearing at its rear end, an upright standard rotatably mounted in the bearings and having its lower end forked, a ground wheel mounted within the fork, a rack bar whose lower portion is yieldingly connected with said side supporting bar, a bearing carried by the main frame of the machine and supporting a pair of toothed segments, a rock shaft journaled in said bearing and carrying an operating lever having a thumb latch coacting with one of said segments, a segmental gear on this shaft engaging said rack bar, a second operating lever loosely mounted on said rock shaft and having a thumb latch coacting with the other toothed segment, a crank arm fixed to the upper end of said standard, and connections between this crank arm and the second operating lever.

5. An attachment for binders comprising a side supporting bar having its forward portion hingedly connected with the framework and an upright bearing at its rear end, a brace rising from said bar and bent to the rear and provided with a bearing above that in the bar, a rear supporting bar having its forward end hingedly connected with the framework and an upright bearing at its rear end, an upright standard rotatably mounted in the three bearings and having its lower end forked, a ground wheel mounted within the fork, a clamp mounted on said side supporting bar and having an apertured lug, a rack bar whose lower portion is reduced and passes loosely through the aperture in said lug, a nut on the lower end of said rack bar beneath the lug, an expansive spring coiled on the reduced portion of said rack bar between the enlarged portion thereof and said lug, a rock shaft journaled on the main frame of the machine and carrying an operating lever, a segmental gear on this shaft engaging said rack bar, a second operating lever loosely mounted on said rock shaft, a crank arm fixed to the upper end of said standard, and connections between this crank arm and the second operating lever.

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1,090,030. TERMINAL-EXHAUST STEAM-ENGINE. JOHN DAVIDSON, Pendleton, England. Filed May 20, 1911. Serial No. 628,369. (Cl. 121—45.)

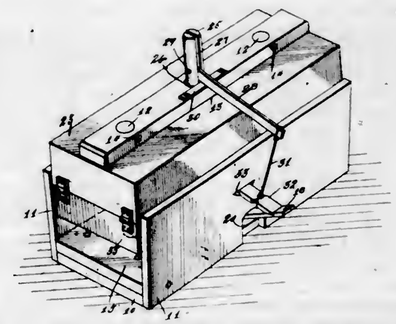
In a uniflow steam engine, a cylinder having an annular series of central exhaust ports; an exhaust belt surrounding said cylinder and tapered toward the cylinder to form a narrow neck the interior of which communicates and corresponds in width with the exhaust ports produc-



ing an enlarged exhaust passage spaced away from the exterior of the cylinder.

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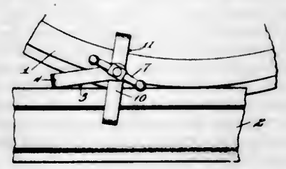
1,090,031. TRAP. EDWIN T. DAWSON, Lamoni, Iowa. Filed June 9, 1913. Serial No. 772,677. (Cl. 43—21.)



A trap comprising a body portion, a block slidably mounted in said body portion, a plate pivotally connected with each end of said block whereby said plates may be lowered to form end walls when said block is in a lowered position, a stem extending from said block, a lever connected with said stem, a trip platform mounted in said body portion and provided with a tongue extending through an opening formed in the side walls of said body portion, a line connected with said lever, and a latch carried by said line and engaging notches formed in said tongue and the side wall of said body portion.

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1,090,032. WHEEL-CLAMP. FAY A. DE WALT, Newton, Kans. Filed Jan. 29, 1913. Serial No. 744,949. (Cl. 57—119.)



A clamp for locking a car wheel to a rail, including a substantially U-shaped member, a longitudinally adjustable member carried by one of the arms of the said U-shaped member, a clamp swiveled to the adjustable

member, said clamp having angular ends, one of said ends providing a hook and the second end being of a greater length than the hook, all substantially as and for the purpose set forth.

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1,090,033. TWINE-HOLDER. ROBERT S. DICKINS, Waycross, Ga. Filed Apr. 12, 1912. Serial No. 690,339. (Cl. 242—141.)



1. An article of manufacture comprising a base, a standard, an outstanding collar carried by the standard intermediate its ends and defining a shoulder adapted to receive and support a twine spool, and a curved arm provided with a terminal eye detachably engaging the upper extremity of said standard and forming a shoulder therewith at the juncture between the said standard and arm, the last mentioned shoulder holding the twine spool in place upon the standard, the said eye adapted to guide the twine for the paying out thereof, the said shoulders allowing the said article to be supported in an upright or depending position.

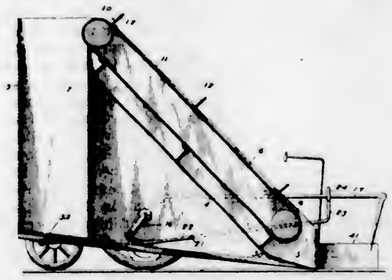
2. An article of manufacture comprising a base, a standard secured thereto, a collar carried by said standard, said standard rotatably receiving a twine cone thereon, a curved eye-ended arm provided with an aperture extending therein and internally threaded, the upper extremity of said standard externally threaded and adapted to be engaged by the internal threads of the said curved arm, the said curved arm defining with the standard a second shoulder, the two shoulders adapted to rotatably receive a twine cone therebetween and to hold the same against longitudinal shifting, allowing the said article to be placed in an upright or depending position, the terminal eye of the arm adapted to guide the twine from the twine cone for the paying out thereof.

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1,090,034. STREET-CLEANING MACHINE. WILLIAM H. DODGE, Manhattan, Kans. Filed Aug. 11, 1913. Serial No. 784,141. (Cl. 37—11.)

1. A street cleaning machine comprising a body having a platform, a transverse shaft journaled in suitable bearings in the body and provided with ground wheels and also provided with cranks adjacent the ground wheels and a crank intermediate the first-named cranks, a transverse rake disposed in front of the body, rods interposed between and connected to the first-named cranks of the shaft and the rake, and a vertically-rocking lever fulcrumed in the body and having a rear arm positioned for coöperation with the intermediate crank of the shaft and also having forward arms terminating in eyes that loosely receive the said rods on the rake.

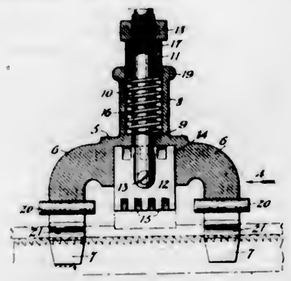
2. A street cleaning machine comprising a body having means to receive dirt and other substance removed from a street, a gravitating rake for transferring dirt and other substance from a street to the said means of the body, means for reciprocating the rake in the direction of the length of the machine, means for raising the rake precedent to the forward traverse thereof and for maintaining the rake in raised position during the said traverse, and means whereby the rake is released and permitted to gravitate at the completion of the forward traverse.



3. A street cleaning machine comprising a body having means to receive dirt and other substance removed from a street, a drive shaft in the body, a transversely arranged rake movable forwardly and rearwardly, a driving connection intermediate the shaft and rake whereby the latter is reciprocated, and means actuated by the shaft for maintaining the rake in raised position during its forward traverse and for releasing the rake and permitting it to gravitate to working position at the completion of said traverse.

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1,090,035. SAW SET AND JOINTER. ADDELBERT DUDGEON, Latrobe, Pa. Filed Sept. 17, 1913. Serial No. 790,190. (Cl. 76—47.)



1. In a device of the class described, a member having a bifurcated end adapted to engage a saw; a plunger in the member; a toothed bit in the bifurcated end carried by the plunger; means for maintaining said plunger in a predetermined position; and means for varying the length of the plunger's motion.

2. In a device of the class described, a member having a bifurcated end adapted to engage a saw; a plunger in the member; a tooth bit within the bifurcated end and carried by said plunger, said member having means for guiding said tooth bit; resilient means for maintaining said plunger in a predetermined position; and means for varying the length of the plunger's motion.

3. In a device of the class described, a member having a bifurcated end adapted to engage a saw; a tooth bit in the bifurcated end mounted to move therein; means for maintaining said bit in a predetermined position; and means for adjusting the movement of said bit substantially as and for the purpose set forth.

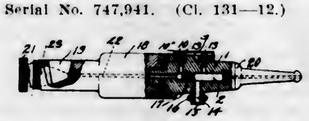
4. In a device of the class described, a member having a bifurcated end, said bifurcated end having alining slots adapted to engage a saw and alining apertures adapted to receive a file; a plunger in said member; a tooth bit within said bifurcated end in alinement with the slots and carried by said plunger; a resilient member for maintaining said plunger in a normal position; and means on said plunger coacting with said member whereby the displacement of said plunger may be varied.

5. In a device of the class described, a member having a bifurcated end, said end having alining slots adapted to receive a saw and alining apertures in said slots adapted to receive a file, said member having a central bore the axis of which is in a plane with the alining slots; a plunger in said bore; a tooth bit within said bifurcated end in alinement with said slots and secured to said plunger, said tooth bit being formed of a blank the edges of which are slit forming teeth alternately deflected in opposite directions, said member having a recess for guiding said tooth bit; a coil spring in said bore; a ring on said plunger engaging said coil spring; and a nut threaded to said plunger and whereby the length of motion of said plunger with the bit may be varied, substantially as and for the purpose set forth.

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1,090,036. PIPE, CIGAR-HOLDER, OR THE LIKE. HENRY H. DYER, Somerville, Mass. Filed Feb. 12, 1913. Serial No. 747,941. (Cl. 131—12.)



1. As a new article of manufacture, an attachment comprising a body portion adapted to be connected to a pipe or holder, said body portion having an interrupted passage therethrough, a raised portion formed on said body portion, a cover pivotally connected at one end to the raised portion aforesaid and adapted when in closed position to form a smoke cooling chamber, smoke passages connecting the interrupted bore with the smoke cooling chamber, a nicotin reservoir carried by the body portion, for draining one portion of the interrupted passage aforesaid, and a removable member projecting into the other portion of the passage to permit cleansing of the same.

2. As a new article of manufacture, an attachment comprising a body portion adapted to be connected to a pipe or holder, the body portion having an interrupted passage therethrough, a raised portion formed on said body portion, a cover pivotally connected at one end to the raised portion aforesaid and adapted when in closed position to form a smoke cooling chamber, smoke passages connecting the interrupted bore with the smoke cooling chamber, the body portion aforesaid having a transverse opening therethrough communicating with one portion of the interrupted passage, a removable plug normally received in said transverse opening, and a nicotin reservoir carried by the body portion and communicating with the other portion of said interrupted passage.

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1,090,037. PUMP-CYLINDER. LORENZO GILBERT EDDY, Huntington, N. Y. Filed Apr. 9, 1913. Serial No. 759,960. (Cl. 103—64.)

1. In combination, a pump cylinder, a sleeve extending into the lower end of the pump cylinder and provided at its lower end with a screw thread, a screen, a coupling removably connected with the said sleeve and with the said screen, and a packing on the sleeve intermediate the said pump cylinder and the said coupling.

2. In combination, a pump cylinder, a sleeve extending into the lower end of the pump cylinder and having bayonet slots for engagement by a turning tool, a rubber washer encircling the sleeve below the said cylinder, a screen, and a coupling screwing on the lower end of the sleeve and the upper end of the screen.

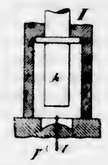
3. In combination, a pump cylinder, a sleeve extending into the lower end of the pump cylinder and provided at its lower end with a screw thread, a screen, a coupling removably connected with the said sleeve and with the said screen, and a packing on the sleeve intermediate the said pump cylinder and the said coupling, the said packing being made in the form of a rubber ring having a lining of sheet metal encircling the sleeve.



4. In combination, a pump cylinder provided at its lower end with a retaining ring for the suction valve, a sleeve extending with its upper end into the said retaining ring and having an exterior screw thread at its lower end, the said upper end being provided with bayonet slots adapted to be engaged by a turning tool, a screen provided with a coupling adapted to screw onto the lower threaded end of the sleeve, an elastic packing ring encircling the said sleeve above its screw thread, the upper edge of the said packing ring abutting against the lower edge of the said retaining ring, a metallic washer encircling the said sleeve and engaging the bottom edge of the said packing ring, and a screen having a coupling screwing onto the said lower threaded end of the said sleeve and engaging the said metallic washer.

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1,090,038. APPLIANCE FOR PROVIDING METALLIC PINS WITH HEAD-PLATES. HERMANN JOSEPH EDEL, Neheim-on-the-Ruhr, Germany, assignor to Gesellschaft für Maschinen- und Metall-Industrie mit beschrankter Haftung, Neheim-on-the-Ruhr, Germany. Filed July 20, 1911. Serial No. 639,659. (Cl. 10—160.)



1. In a machine for providing metallic pins with head-plates, the combination of a device for holding the pin, with a device for simultaneously placing the head-plate on the pin, for holding the head-plate concentrically and for pressing it on the pin for the purpose of attaching it provisionally to the pin, substantially as described.

2. In a machine for providing metallic pins with head-plates, the combination of a device for holding the pin, with a sleeve adapted to place the head-plate on the pin and guide it at the circumference, and a device adapted to press the plate upon the pin while it is being thus held, in order to form a provisional connection, substantially as described.

3. In a machine for providing metallic pins with head-plates, the combination of a device for holding the pin, with a sleeve having elastic side walls, and adapted to

place the head-plate on the pin and to guide it at the circumference, and a device adapted to press the plate upon the pin, while being thus held, in order to provisionally attach the plate to the pin, substantially as described.

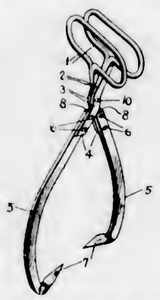
4. In a machine for providing metallic pins with head-plates, the combination of a device for holding the pin, with a driving pin adapted to press the head-plate upon the pin and a sleeve mounted on the driving pin and capable of sliding thereon, the said sleeve being adapted to place the head plate on the pin and to hold it at the circumference, while the driving pin applies the pressure for provisionally attaching the head plate to the pin, substantially as described.

5. In a machine for providing metallic pins with head-plates, the combination of a device for holding the pin, with a sleeve adapted to place the head plate on the pin and to guide it at the circumference, the mouth of the said sleeve being wider than the interior, to facilitate the introduction of the head-plate, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,039. SINGLE-JOINTED ICE-TONGS. HERBERT WELLS ELY, Springfield township, Bradford county, Pa. Filed July 3, 1911. Serial No. 636,673. (Cl. 57—9.)

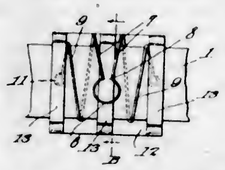


The herein described pair of ice tongs comprising two similar crossed members pivoted together where they cross and each consisting of a jaw section and a handle section riveted together below their pivot, each handle section comprising a transversely disposed hand loop formed integral with a shank portion which has a pivot aperture between a straight lower end and a curved intermediate part, the said jaw sections having oppositely disposed inturned points at their lower ends and straight upper portions overlapping and disposed on reverse sides of the straight lower ends of the said shank portions, the upper extremities of the jaw members being squared and positioned with respect to the straight and curved parts of the said shank portions, whereby when the jaws are opened to the extreme position the outer corners of the upper ends of the jaw sections will strike the curved parts of the said shank portions to prevent the operator's hand engaging with one of the hand loops from contacting with the adjacent jaw section, and when the jaws are brought together to their extreme closing position the inner corners of the upper ends of the jaw sections will strike the straight lower ends of the said shank portions to prevent the points of the jaws from striking.

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1,090,040. GARMENT-SUPPORTER. ALLISON H. FLEMING, Fairmont, W. Va. Filed Aug. 14, 1913. Serial No. 784,747. (Cl. 241—11.)

1. A garment supporting clip for belts, comprising a button receiving eye, arms extending upwardly from the eye, V-shaped extensions integral with the respective arms and adapted to straddle the lower edge of a belt, and a downwardly extending finger at the outer end of each extension and adapted to extend back of the belt, the merging portions of the fingers and extensions being adapted to bear downwardly on the upper edge of the belt and the merging portions of the arms and extensions being normally supported yieldingly above and out of contact with the upper edge of the belt.



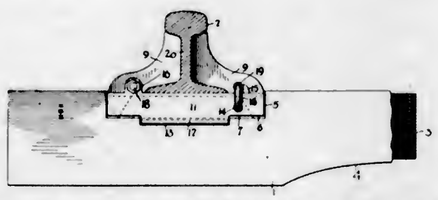
2. A garment supporting clip for belts, formed in a single length of spring wire bent to form a central button receiving eye, diverging arms forming a throat opening into the eye, V-shaped extensions upon the arms and adapted to straddle a belt, and fingers upon the ends of the extensions and adapted to project back of the belt.

3. In a garment supporting clip for belts, formed in a single length of spring wire bent to form a central button receiving eye, arms diverging upwardly from the eye and forming a throat opening into the eye, V-shaped extensions upon the arms, said arms being disposed between the extensions, and downwardly extending fingers at the outer ends of the extensions and terminating in eyes.

4. In a garment supporting clip for belts, formed in a single length of spring wire bent to form a central button receiving eye, arms diverging upwardly from the eye and forming a throat opening into the eye, V-shaped extensions upon the arms, said arms being disposed between the extensions, and downwardly extending fingers at the outer ends of the extensions and terminating in eyes, the inner portions of the extensions being longer than the outer portions thereof.

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1,090,041. RAIL-TIE. SIGMUND FRIEDMAN, Gorgona, Canal Zone. Filed Jan. 28, 1913. Serial No. 744,729. (Cl. 238—2.)



1. The combination of a tie having a recess in one end, a cushioning block secured in said recess, a pair of interengaging plates resting upon said block and having their sides bent over to engage the under side of the block, means for securing said plates together, and locking means carried by each of said plates to engage the sides of a rail and hold the same in position.

2. The combination of a rail having a recess in its end, a cushioning block secured in said recess, a pair of plates having interengaging edges and having their sides bent over to engage the under face of the block to hold the same in place, a hook bolt secured to the side of each of said plates and extending across the same, lugs carried by said plates to receive the opposite ends of said bolts, means engaging said bolts to hold the same against displacement, and bracing members carried by each of said bolts to engage the sides of a rail beneath the top thereof to hold the same in position.

3. A rail chair, including a pair of companion members having interengaging edges, each of said members having a side flange which is adapted to lie flush with one side of a tie, and means for securing the members and retaining the same upon the tie.



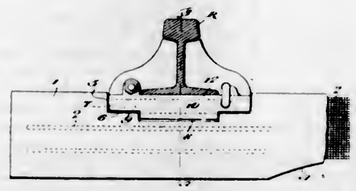
4. A rail chair, including a pair of companion rail-engaging members having inter-engaging edges, each of said members having a side flange which is adapted to be arranged against the side of a tie, inturned projections upon the flanges which enter the sides of the tie, and means for connecting the sections of the chair.

5. A rail chair including a pair of companion rail brace members, each formed of a casting, and each having interlocking inner edges, each of said members being provided with a side flange which is adapted to lie against one of the faces of the tie, means integrally formed with the side flanges for securing the same to the tie, and means for connecting the rail engaging portions of the chairs.

[Claim 6 not printed in the Gazette.]

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1,090,042. RAIL-TIE. SIGMUND FRIEDMAN, Paterson, N. J. Filed Sept. 3, 1913. Serial No. 787,948. (Cl. 238—2.)



1. A railroad tie constructed of reinforced plastic material, the tie having its upper face adjacent its ends recessed transversely, the end walls of each of the recesses being beveled inwardly, the bottom wall having a centrally arranged elongated depression, a cushioning block having its edges beveled to engage the said beveled end walls of the recess, and a rail adapted to rest upon the cushioning member directly above the depression, substantially as and for the purpose set forth.

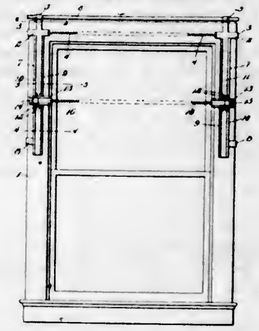
2. A railroad tie having its bottom centrally concaved, its sides inclined from its bottom to its top, its top, adjacent its ends, recessed transversely, each recess having undercut ribs extending along the corners thereof, the lower wall of the recess having a centrally arranged elongated depression, a cushioning block having its edges beveled to engage the undercut ribs to provide a dovetail fit in said recess, and rail sustaining means comprising interlocking members having flanges engaging with the sides of the cushioning block to retain the said block within the recess.

3. A railroad tie having transverse recesses in each end, the side walls of the recess having inwardly projecting lips which overlie the lower wall of said recess, the said lower wall of the recess being provided with a centrally arranged elongated depression, a cushioning member arranged within the recess to rest upon its lower wall and to have its opposite face frictionally contact with the lips provided by the side walls of the recess, whereby, a load arranged centrally upon the block will permit the said cushioning member yielding centrally within the depression and have its ends forced against the inwardly projecting lips provided by the recess.

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1,090,043. WINDOW-SHADE BRACKET. GEORGE A. FUHS, Madisonville, Ky. Filed June 3, 1913. Serial No. 771,451. (Cl. 156—27.)

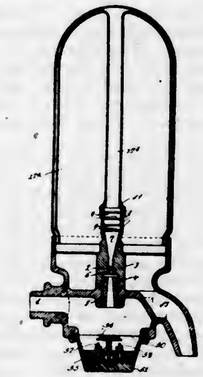
A support of the character described comprising upper and lower pairs of clamping members, guide plates carried by the clamping members and provided with guide ways, carrier brackets having guide members vertically slidable in said guide ways, said carrier brackets also having guide ways, supporting brackets slidably mounted in the guide ways of the carrier brackets for relative adjustment, an elastic connection between the upper pair of clamping members, and an elastic connection between the carrier brackets, said elastic connections serving to draw



the clamping members into engagement with the sides of a window frame.

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1,090,044. SYSTEM FOR TREATING LIQUIDS WITH OZONE. MAX FUSS, Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Apr. 9, 1909. Serial No. 489,001. (Cl. 210—1.)



1. In a system for treating liquids with ozone, the combination with a duct for the liquid, means to add ozone to the liquid while passing through said duct, a plurality of cup shaped plates located within said duct so as to bar the free passage of the liquid and having apertures adapted to break the liquid up into fine streams.

2. In a system for treating liquids with ozone, the combination with a duct for the liquid, means to add ozone to the liquid while passing through said duct, a plurality of plates located within said duct so as to bar the free passage of the liquid and having apertures adapted to break the liquid up into fine streams, said plates being formed with upwardly extending flanges having teeth engaging in notches made in the surfaces of the adjacent plates.

3. In a system for treating liquids with ozone, the combination with the mixing chamber, of an electric ozonizer, means to throw said apparatus into operation, said means being located on the ozonizer and away from the mixing chamber, and a connection between said mixing chamber and ozonizer whereby said means for throwing the ozonizer into operation are controlled by the passage of the liquid through said mixing chamber.

4. In a system for treating liquids with ozone, the combination with a mixing chamber comprising a liquid supply, and means to draw in the ozone by suction, of an

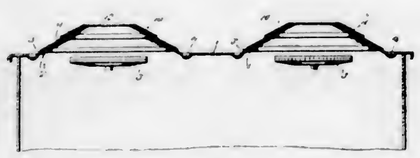
ozonizer, controlling means for the same, a suction duct connecting said ozonizer and said mixing chamber, means operated by the pressure within said suction duct to actuate said controlling means for the ozonizer.

5. In a system for treating liquids with ozone, the combination with a mixing chamber comprising a liquid supply, and means to draw in the ozone by suction, of an ozonizer, controlling means for the same, a suction duct connecting said ozonizer and said mixing chamber, means operated by the pressure within said suction duct to actuate said controlling means for the ozonizer, and a valve within said duct adapted to prevent the liquid from flowing from the mixing chamber to the ozonizer.

[Claim 6 not printed in the Gazette.]

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1,090,045. STOVE ATTACHMENT. ALTON A. GLADDEN, Annapolis, Md. Filed Apr. 13, 1912, Serial No. 690,561. Renewed Aug. 19, 1913. Serial No. 785,595. (Cl. 126—215.)



1. A stove having its top provided with an annular gutter, the said top having an opening therein, a gutter inclined in the direction of the opening and arranged in open communication with said annular gutter, the said top having a pot opening lying wholly within the said annular gutter, and walls defining the said pot opening and inclined in the direction of the annular gutter.

2. A stove having its top provided with an annular gutter, the said top having an opening therein, a gutter inclined in the direction of the opening and arranged in open communication with said annular gutter, the said top having a pot opening lying wholly within the said annular gutter, walls defining the said pot opening and inclined in the direction of the annular gutter, and companion interfitting hollow members opened at both ends and disposed above the pot opening and provided with means whereby they are held against lateral displacement from each other and from the opening, each of said members having its inner walls concentrically disposed with relation to the walls of the pot opening.

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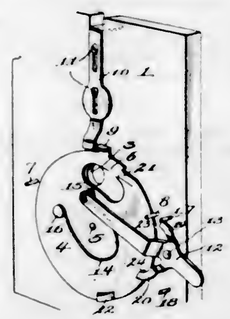
1,090,046. PHOTOGRAPHIC SHUTTER. JOSEPH GODDARD, Rochester, N. Y., assignor to Seneca Camera Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed July 11, 1913. Serial No. 778,611. (Cl. 95—59.)

1. In a photographic shutter, the combination of an exposing member, an actuating and releasing member therefor, and means controlled by the latter for preventing rebound of the former upon termination of an exposure.

2. In a photographic shutter, the combination of an exposing member, an actuating member therefor, and means for preventing rebound of said exposing member embodying a latch on one of the members, and a co-operative dog on the other member.

3. In a photographic shutter, the combination of an exposing member capable of movement in reverse directions, an operating member movable into positions to move the exposing member in reverse directions, and means for preventing rebound of the exposing member upon termination of exposing movement thereof, said means being operative to prevent reverse movement of the exposing member and releasable by said operating member to permit such movement.

4. In a photographic shutter, the combination of an exposing member capable of movement in reverse directions, an operating member movable into positions to move the exposing member in reverse directions, and means for preventing rebound of the exposing member upon termination of exposing movement thereof, embodying a pair of reversely arranged latches on one member, and a pair of dogs on the other member.

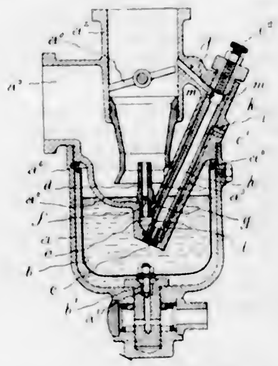


5. In a photographic shutter, the combination of an exposure-controlling member capable of movement alternately in reverse directions, stops for limiting the movement of said member in each direction, an operating member coöperative with said exposure-controlling member and capable of occupying reverse positions, and means on said members set in operative condition by said operating member for preventing rebound of the exposure-controlling member upon completion of its movement in each direction.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,047. CARBURETER. MAURICE GOUDARD and MARCEL MENNESSON, Levallois-Perret, France. Filed Nov. 26, 1912. Serial No. 733,691. (Cl. 48—155.1.)



1. A carbureter having a float chamber, an aspirator tube located above the float chamber, a throttle valve in the aspirator tube, a main air inlet communicating with the aspirator tube, a partition separating the aspirator tube from the float chamber, a spraying nozzle arranged in the float chamber below the liquid level, a chamber for the spraying nozzle, an upright pipe connected to said last named chamber and projecting through the partition into the lower end of the aspirator tube, a second pipe extending upwardly and obliquely from the spraying nozzle, a duct leading from the upper end of said second pipe to the aspirator tube at a point in advance of the throttle valve, and a second air inlet for supplying air to mix with the fuel delivered by the spraying nozzle prior to its passage into the aspirator tube through either of said pipes.

2. A carbureter having a float chamber, an aspirator tube located above the float chamber, a throttle valve in the aspirator tube, a partition separating the aspirator tube from the float chamber, the partition being of cup-like form and projecting into the float chamber below the normal liquid level thereof, a spraying nozzle arranged in the float chamber below the partition, a chamber for the spraying nozzle, an upright pipe connected to said last named chamber and projecting into the lower end of the aspirator tube, said pipe having an orifice communicating with the cup-like interior of said partition and through which liquid fuel passes into said partition, a main air inlet communicating with the lower end of the aspirator tube, a second pipe leading from the spraying nozzle and connected to the aspirator tube at a point in advance of the throttle valve, and a second air inlet for supplying air to mix with the fuel delivered by the spraying nozzle prior to its passage into the aspirator tube through either of said pipes.

3. A carbureter having a float chamber, an aspirator tube located above the float chamber, a throttle valve in the aspirator tube, a partition separating the aspirator tube from the float chamber, the partition being of cup-like form and projecting into the float chamber below the normal liquid level thereof, a spraying nozzle arranged in the float chamber below the partition, a chamber for the spraying nozzle, an upright pipe connected to said last named chamber and projecting into the lower end of the aspirator tube, said pipe having an orifice communicating with the cup-like interior of said partition and through which liquid fuel passes into said partition, a main air inlet communicating with the lower end of the aspirator tube, a second pipe extending upwardly and obliquely from the spraying nozzle, a duct leading from the upper end of said second pipe to the aspirator tube at a point in advance of the throttle valve, and a second air inlet for supplying air to mix with the fuel delivered by the spraying nozzle prior to its passage into the aspirator tube through either of said pipes.

4. A carbureter having a float chamber, an aspirator tube located above the float chamber, a throttle valve in the aspirator tube, a main air inlet communicating with the aspirator tube, a partition separating the aspirator tube from the float chamber, the partition being of cup-like form and projecting into the float chamber, a spraying nozzle arranged in the float chamber below the partition and below the normal liquid level of said chamber, a chamber for the spraying nozzle, an upright pipe connected to said last named chamber and projecting through the partition into the lower end of the aspirator tube, a second pipe extending upwardly and obliquely from the spraying nozzle, a duct leading from the upper end of said second pipe to the aspirator tube at a point in advance of the throttle valve, and a second air inlet for supplying air to mix with the fuel delivered by the spraying nozzle prior to its passage into the aspirator tube through either of said pipes.

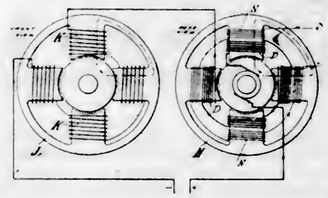
5. A carbureter having a float chamber, an aspirator tube located above the float chamber, a throttle valve in the aspirator tube, a main air inlet communicating with the aspirator tube, a partition separating the aspirator tube from the float chamber, a spraying nozzle arranged in the float chamber below the liquid level, a chamber for the spraying nozzle, an upright pipe connected to said last named chamber and projecting through the partition into the lower end of the aspirator tube, a sleeve extending upwardly and obliquely from the chamber for the spraying nozzle, a web connecting the upper end of the sleeve and the aspirator tube and having a duct therethrough which communicates with the aspirator tube at a point in advance of the throttle valve, a tubular element confined in the sleeve and extending from the spraying nozzle, the tubular element having orifices in its lower end just above the spraying nozzle, and orifices in its upper end communicating with the duct, the tubular element having near its upper end and below its upper orifices a portion of enlarged diameter fitting closely within the sleeve, the restricted diameter of the tubular element for the remainder of its length providing for an annular passage between said element and the sleeve and which communicates with the chamber for the spraying nozzle, and an air inlet in the sleeve communicating with said annular passage.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,048. CONTINUOUS-CURRENT GENERATOR. KURT GREUNER, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed May 15, 1911. Serial No. 627,154. (Cl. 171—223.)



1. In a separately excited continuous current generator, having separately excited winding a compounding winding and a differential winding for weakening the field; a main magnet-frame carrying said compounding winding and a separate magnet-frame carrying said differential winding, the saturation point of said last-named magnet-frame being considerably lower than that of the first named one.

2. In a separately excited continuous current generator, having separately excited winding a compounding winding and a differential winding connected in series therewith for weakening the field; a main magnet-frame carrying said compounding winding and a separate magnet-frame carrying said differential winding, the saturation point of said last-named magnet-frame being considerably lower than that of the first-named one.

3. In a separately excited continuous current generator, having separately excited winding a compounding winding and a differential winding for weakening the field, a main magnet-frame carrying said compounding winding and a separate magnet-frame carrying said differential winding, the saturation point of said last-named magnet-frame being considerably lower than that of the first-named one and the characteristic curve of the differential winding, representing the functional relation existing between the electromotive force induced by said winding and the armature current strength, being steeper near the starting point than the corresponding characteristic curve of the compound winding.

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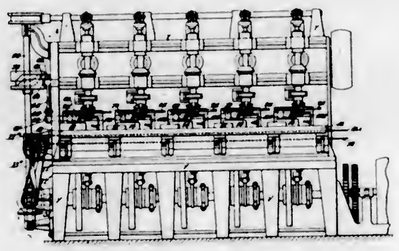
1,090,049. DOUBLE-SEAMING MACHINE. JAMES JOSEPH GRIFFIN, San Francisco, Cal., and GORDON MOFFITT PEACOCK, South Yarra, Melbourne, Victoria, Australia. Filed Aug. 24, 1911. Serial No. 645,872. Renewed Feb. 3, 1914. Serial No. 816,334. (Cl. 113—115.)

1. In a double seaming machine, a framework carrying a series of seaming heads and having an opening adjoining each head, a traveling can feed belt passing said openings, and stationary guides projecting from said framework over said belt and deflecting cans from said belt to said openings.

2. In a double seaming machine, a framework carrying a series of seaming heads and having an opening adjoining each head, a traveling can feed belt passing said openings, guides arranged above said belt and deflecting cans from said belt to said openings, means to prevent the cans mov-

ing freely through said openings, and means for positively moving the cans from the openings to the seaming heads.

3. In a double seaming machine, a framework having a series of openings therein, a can conveyer passing said openings, a series of parallel seaming heads carried by said framework and adjoining said openings at one side thereof and a deflecting guide adjoining each opening at the other side thereof and projecting over the conveyer.



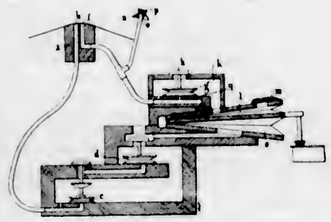
4. In a double seaming machine, the combination with a seaming head of a reciprocatory slide consisting of a stationary and a moving side member with a series of spring controlled arms pivoted to each member and a rising and falling finger pivoted to the moving member.

5. In a can seaming machine, a series of seaming devices, means for continuously feeding unseamed cans along and to one side of said devices, and a reciprocatory slide adjacent each device having pivoted arms for removing seamed cans from the devices and simultaneously moving the unseamed cans from the feed to the said devices.

[Claims 6 to 23 not printed in the Gazette.]

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1,090,050. MECHANICAL PIANO-PLAYER AND LIKE INSTRUMENT. WILLIAM HENRY GRIMSDALE, Twickenham, England, assignor to Grimsdale's Patents Limited, London, England. Filed Oct. 31, 1912. Serial No. 728,826. (Cl. 84—160.)



1. In a mechanical player, in combination, a striking pneumatic for causing a note to be sounded, a variable capacity chamber connected to said striking pneumatic, an air chamber in communication with said variable capacity chamber, an opening leading from said air chamber to atmosphere, a valve controlling said opening, a tracker bar, two apertures in said tracker bar for each note, said apertures being in the line of travel of the music sheet, a vacuum chamber, a valve between said striking pneumatic and said vacuum chamber, a pneumatic controlling said valve, one of the said apertures in said tracker bar being in communication with said pneumatic controlling said last mentioned valve, means for controlling said opening and a passage from said second aperture in said tracker bar to said controlling means as set forth.

2. In a mechanical piano player, in combination, striking pneumatics for causing a note to be sounded, a variable capacity chamber connected to each of said striking pneumatics, an air chamber in communication with said variable capacity chamber, an opening leading from each of said air chambers to atmosphere, a valve controlling one of said openings, a tracker bar, apertures in said tracker bar, a pneumatic in said air chamber controlling said valve, and a passage leading from said apertures in said tracker bar to said pneumatic in said air chamber, as set forth.

3. In a mechanical piano player, in combination, striking pneumatics for causing a note to be sounded, a variable capacity chamber connected to each of said striking pneumatics, an air chamber in communication with said variable capacity chamber, an opening leading from each of said air chambers to atmosphere, a valve controlling one of said openings, a tracker bar, apertures in said tracker bar, a pneumatic in said air chamber controlling said valve, a passage leading from said aperture in said tracker bar to said pneumatic in said air chamber, and a bleed hole leading from said chamber into said air chamber, as set forth.

4. In a mechanical piano player, in combination a striking pneumatic for causing a note to be sounded, a variable capacity chamber connected to said striking pneumatic, an air chamber in communication with said variable capacity chamber, an opening leading from said air chamber to atmosphere, a valve controlling one of said openings, a tracker bar, an aperture in said tracker bar for each note, a pneumatic in said air chamber controlling said valve, a passage leading from said aperture in said tracker bar to said pneumatic in said air chamber, a bar, an aperture for each note in said bar leading to said valve actuating pneumatic, and means for manually controlling said aperture in said bar, as set forth.

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1,090,051. MINER'S LAMP. PAUL GUILMAN, East St. Louis, Ill. Filed Oct. 28, 1913. Serial No. 797,817. (Cl. 48—4.)



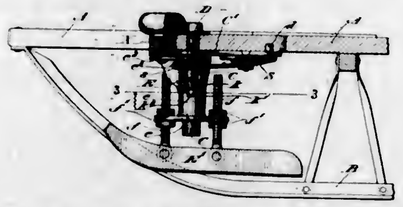
In an acetylene lamp, a tank, there being a filling opening in the tank top, a threaded tube projecting through and of smaller diameter than said opening, a skeleton member securing said tube to the inner wall of said tank, a nut carried by said member below and in alinement with said tube, a valve having a threaded stem engaged through said nut and passing through said tube, and a cap threaded on to said tube and having a base flange engaging the marginal edges of said opening, said cap housing said stem against displacement and closing said filling opening.

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1,090,052. SLED. DANIEL Y. HALLOCK, York, Pa. Filed Apr. 8, 1913. Serial No. 759,625. (Cl. 21—94.)

1. The combination with a sled comprising the usual body and runners, of a spindle secured rigidly to the under side of the sled top and extending down vertically therefrom between the sled runners; a sleeve also located below the sled top mounted on said spindle to both swivel and move up and down thereon; a steering blade carried by and moving with the sleeve; a spring to retain the sleeve in uplifted position; and manually operated means for depressing the sleeve against the stress of the spring and for turning it on the spindle as an axis, substantially as and for the purposes hereinbefore set forth.





2. The combination with a sled comprising the usual body and runners, of a vertical spindle rigidly secured to, and depending from, the under side of the sled body between the runners, a steering blade loosely mounted on said spindle, and adapted both to swivel and to move up and down thereon, a spring to retain the steering blade in uplifted position, manually operated means for depressing the blade against the stress of the spring and for turning it upon the spindle as an axis, and means whereby the steering blade in uplifted position is automatically locked against swiveling movement, substantially as and for the purposes hereinbefore set forth.

3. The combination with a sled comprising the usual body and runners, of a vertical spindle rigidly secured to, and depending from, the under side of the sled body between the runners; a steering blade loosely mounted on said spindle, and adapted both to swivel and to move up and down thereon; a spring to retain the steering blade in uplifted position; manually operated means for depressing the blade against the stress of the spring and for turning it upon the spindle as an axis; means whereby the steering blade in uplifted position is automatically locked against swiveling movement; and means for limiting the extent of swiveling movement of the steering blade when depressed, substantially as and for the purposes hereinbefore set forth.

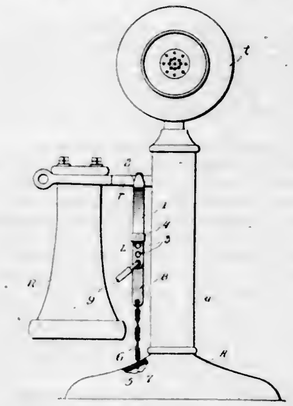
4. The combination with a sled comprising the usual body and runners, of a vertical spindle rigidly secured to the under side of the sled top, and extending down therefrom between the sled runners; a sleeve, also located below the sled top, mounted on said spindle to both swivel and move up and down thereon, said sleeve formed with a vertical V-shaped slot, the sides of which converge downwardly; a pin on the spindle laterally projecting therefrom into, and engaging, said slot, the length of the slot determining the extent to which the sleeve can be depressed, and the width of the slot as it gradually widens toward its upper end determining the extent of the swiveling motion of the sleeve when depressed; a steering blade carried by and moving with the sleeve; a spring to retain the sleeve in uplifted position; and manually operated means for depressing the sleeve against the stress of the spring and for turning it upon the spindle as an axis, substantially as and for the purposes hereinbefore set forth.

5. In a sled steering device, a spindle adapted to be secured to, and to depend from, the body of the sled between the runners, in combination with a base plate mounted on said spindle, and adapted to swivel and to move up and down thereon, a steering blade-proper adjustable vertically upon said base plate, and means for securing said plate and blade together in adjusted position, substantially as and for the purposes hereinbefore set forth.

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1,090,053. TELEPHONE-LOCKING DEVICE. JOHN W. HARVEY, Sunset, Tex. Filed Apr. 18, 1913. Serial No. 762,037. (Cl. 179—180.)

A telephone locking device formed of a strap formed of a single strip of metal bent upon itself approximately centrally of its length and having the bent portion thereof to provide a loop adapted to embrace the arm of the receiver fork, the parallel members of said strap being placed in face to face contact and formed with alining openings adjacent to the free ends thereof and spaced apart longitudinally of the strap, a collar embracing the limbs of said strap and adapted for sliding movement thereon to draw the free ends of the strap toward each other, a flexible element passed through an aperture in the base of the telephone and carrying at its lower end a cross piece



designed to prevent the withdrawal of such flexible element, a link carried by said flexible element and having the free end thereof apertured and adapted to be disposed between the free extremities of the limbs of said strap, the aperture in the end of said link being capable of interchangeable registration with the apertures in said strap whereby the flexible element may be drawn taut, and a lock adapted to be passed through the alining apertures in the limbs of said strap and link.

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1,090,054. DEVICE FOR SUPPORTING WATCH-CHAINS ON BELTS. LE ROY HEFLIN, Fairfax, Okla. Filed Sept. 10, 1912. Serial No. 719,680. (Cl. 24—3.)



1. As a new article of manufacture, a device for supporting watch securing members on belts, comprising a single piece of elongated flexible material bent to provide a front face having a closed vertical slot, with the ends of the piece of material relatively abutting in the rear of the front face and connected so that the said piece of material can be slidingly supported on the belt and encircle the same and carry an end of the said watch securing member, interposed between the said front face and the belt, with a portion of the securing member passing transversely through the said slot.

2. In a device for supporting securing members on belts, a loop slidingly supported on the belt and encircling the same and provided with an elongated slot through which the said securing member passes, the inner end of the securing member being interposed between a face of the said loop and the said belt and supported thereby.

3. Means for attaching a watch chain or like part to a belt, the same consisting of a closed loop adapted to encircle the belt and freely slidable thereon and having an opening for the passage of the watch chain or like part to admit of the bar or corresponding part lying between the belt and the inner wall of the part of the loop having the opening formed therein.

1,090,055. HORSESHOE-CALK. FRANK F. HEISELMANN, Cincinnati, Ohio. Filed June 7, 1913. Serial No. 772,290. (Cl. 168—37.)



1. The combination with a horseshoe having a recess, of a calk having a point and a hook-shaped head, said recess being provided with a flange engaging under said hook-shaped head when the same is received in said recess, and a wedge-shaped keeper removably disposed between said head and the edge of said recess to secure said calk against displacement.

2. The combination with a horseshoe having a recess provided with an inwardly disposed flange, of a calk having a point and a hook-shaped head adapted to be received in said recess and to embrace said flange, and a wedge-shaped keeper removably disposed between said flange and said head to secure said calk against displacement.

3. The combination with a horseshoe having a recess provided with an inwardly disposed flange, of a calk having a point and a hook-shaped head adapted to be received in said recess and to embrace said flange, and a wedge-shaped keeper removably disposed between said flange and said head to secure said calk against displacement, said calk having at the rear edge a rib, said recess having a part formed to receive said rib.

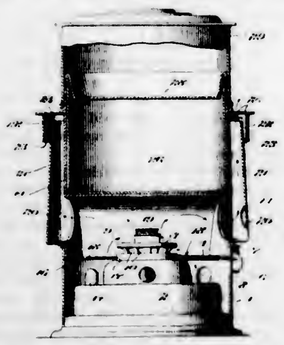
4. The combination with a horseshoe having a recess provided with an inwardly disposed flange forming a groove, of a calk having a point and a hook-shaped head adapted to be received in said recess and to embrace said flange, said head having a downwardly directed flange received in said groove, said recess being cut away to form with said head of said calk an opening to receive a keeper, and a wedge-shaped keeper removably received in said last-mentioned opening.

5. The combination with a horseshoe having a recess provided with an inwardly disposed flange forming a groove, of a calk having a point and a hook-shaped head adapted to be received in said recess and to embrace said flange, said head having a downwardly directed flange received in said groove, said recess being cut away to form with said head of said calk an opening to receive a keeper, and a wedge-shaped keeper removably received in said last-mentioned opening, said calk having at the rear edge a rib, said recess having a part formed to receive said rib.

[Claim 6 not printed in the Gazette.]

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1,090,056. SELF-HEATING DINNER-PAIL. JAMES A. HILDUM and LEONARD HILDUM, Oolitic, Ind. Filed Apr. 18, 1913. Serial No. 762,089. (Cl. 126—266.)



1. The herein described self heating dinner pail comprising a base member, a lamp in the base member, having an upwardly extending burner, a pail having its lower portion detachably secured in the upper portion of the base and provided in its bottom with an opening up through which the lamp burner extends, the pail being further provided with a cross flue on its bottom extending across the pail and open at its ends, the lamp burner being arranged in the said cross flue.

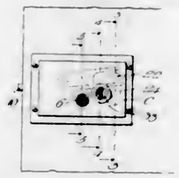
2. The herein described self heating dinner pail comprising a base member, a lamp in the base member, having an upwardly extending burner, a pail having its lower portion detachably secured in the upper portion of the base and provided in its bottom with an opening up through which the lamp burner extends, the pail being further provided with a cross flue on its bottom extending across the pail and open at its ends, the lamp burner being arranged in the said cross flue, said pail being further provided with vertical flues the lower ends of which communicate with said cross flue.

3. The herein described self heating dinner pail comprising a base member, a lamp in the base member, having an upwardly extending burner, a pail having its lower portion detachably secured in the upper portion of the base and provided in its bottom with an opening up through which the lamp burner extends, the pail being further provided with a cross flue on its bottom extending across the pail and open at its ends, the lamp burner being arranged in the said cross flue, said pail being further provided with vertical flues the lower ends of which communicate with said cross flue, said flues projecting from opposite sides of the pail and their lower ends resting on the wall of the base member and supporting the pail.

4. The herein described self heating dinner pail comprising a base member, a heating device in the base member, a pail having its lower portion detachably secured in the upper portion of the base and provided with openings in its bottom and also with a cross flue communicating with said openings and extending across the pail and open at its ends, an inner pail detachably fitted in the pail and arranged to bear upon the said cross flue and a cover for the pail and for the inner pail.

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1,090,057. LOCK. ALEXANDER S. HILL, Medina, N. Y. Filed Mar. 25, 1913. Serial No. 756,778. (Cl. 70—41.)



1. The combination with a knob spindle having a cam thereon; of a tumbler pivoted at one end and forked at the other and having a shoulder adapted to engage said cam, and a dead latch having a shank rotatably mounted, a bit at its inner end disposed between the arms of said fork and projecting in one direction from said shank, and a handle at its outer end projecting from the shank in the opposite direction.

2. In a lock, the combination with a rotary spindle, a bolt projected by the turning thereof in one direction, and a spiral cam fast on the spindle and having a flat face; of a tumbler pivoted at one end and having a shoulder between its ends adapted to engage said face when the bolt is projected, the other end of said tumbler being forked, a dead latch movably mounted between the fork-arms and whose bit is capable of being set in position to hold the tumbler down or up, or permit it to drop by gravity when the cam face passes its shoulder, and a handle on the dead latch projecting in a direction opposite that in which said bit projects.

3. The combination with a rotary spindle having a cam, a bolt connected with said spindle, and a tumbler pivoted at one end and having a shoulder adapted to drop by gravity into engagement with said cam when the bolt is projected, the other end of said tumbler being forked; of a rotatable key barrel having its key-slot partly exposed beneath the forked end of said tumbler when the latter has its shoulder engaging said cam, and means within the fork for locking said tumbler up or down or freeing it entirely.

4. The combination with a rotary spindle having a cam, a bolt connected with said spindle, and a tumbler pivoted at one end and having a shoulder adapted to drop by gravity into engagement with said cam when the bolt is projected, the other end of said tumbler being forked; of a rotatable key barrel having its key-slot partly exposed beneath the forked end of said tumbler when the latter has its shoulder engaging said cam, and a dead latch including a rotatable shank, a bit fast thereon and located between the fork-arms, and means for turning said shank.

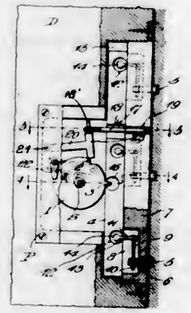
5. The combination with a rotary spindle having a cam, a bolt connected with said spindle, and a tumbler pivoted at one end and having a shoulder adapted to drop by gravity into engagement with said cam when the bolt is projected, the other end of said tumbler being forked; of a rotatable key-barrel having its key-slot partly exposed beneath the forked end of said tumbler when the latter has its shoulder engaging said cam, and a dead latch including a rotatable shank passing between the fork-arms, a bit fast thereon and of a length equal to the space between such arms, and a handle fast on the outer end of the shank and projecting in a direction therefrom opposite to that in which the bit projects.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,058. MULTIPLE-BOLT LOCK. ALEXANDER S. HILL, Washington, D. C. Filed Sept. 29, 1913. Serial No. 792,377. (Cl. 70—64.)



1. In a lock of the class described, the combination of a locking bolt, an upright operating bar connected therewith and having an opening, a disk having a finger loosely engaged with said opening, means for turning said disk to move said bar, a pivoted catch, said disk having a notch for engagement by said catch when the bar is raised, and a trip bar pivoted to said catch and projecting beyond the edge of the door when the bolt is retracted, its projecting end being beveled, for the purpose set forth.

2. In a lock of the class described, the combination of a plurality of spaced locking bolts, a common operating bar, means for connecting said bolts and bar, a bar retracting disk having a finger extending from the periphery thereof and loosely engaged with said bar, means for turning said disk to move said bar, a pivoted catch, means on said disk for engagement by said catch when the bolts are in retracted position, and means connected with said catch and projecting beyond the door to which the lock is applied when said bolts are in retracted position.

3. In a lock of the class described, the combination of a plurality of spaced locking bolts, a longitudinal, movable operating bar for actuating said bolts simultaneously, bell crank levers connected with said bolts and bar, means connected with said bar for moving it in one direction to retract the bolts, a catch positioned to automatically lock said bar moving means to hold the bolts in retracted position, and means connected with said catch and adapted to project beyond the edge of the door to which the lock is applied, when the bolts are in retracted position.

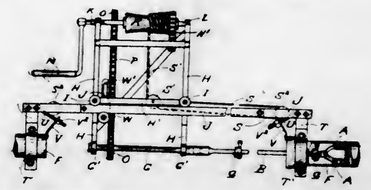
4. In a lock of the class described, the combination of a housing having a plurality of longitudinally spaced transversely sliding bolts mounted therein, bell crank levers fulcrumed in said housing and having one arm engaged with said bolts, an operating bar arranged at the rear of said housing and having means for engagement with the other arm of said bell crank levers, means for moving said bar in one direction for retracting the bolts, automatic means for engaging said bar moving means for locking the bar to hold the bolts in retracted position, and means for releasing said automatic means.

5. In a lock of the class described, the combination of a housing having a plurality of longitudinally spaced, transversely sliding bolts, bell cranks fulcrumed in said housing and having one arm thereof loosely engaged with said bolts, an operating bar mounted to move longitudinally adjacent said housing and provided with a plurality of longitudinally spaced apertures, the other arms of said bell crank levers, having heads adapted to enter said apertures, registering openings in said bar and housing extending transversely therethrough, a disk revolubly mounted adjacent said bar and having a peripheral finger, means on said bar for engagement by said finger, a catch pivoted adjacent said disk, means on said disk positioned for engagement by said catch when the bar is moved to retract the bolts, and a catch releasing trip extending through the registering apertures in said bar and housing.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,059. MEANS FOR CLEANING WATER-PIPES. RICHARD PARKER HILL, Auckland, New Zealand. Filed Jan. 22, 1912. Serial No. 672,756. (Cl. 137—70.)



1. A pipe-cleaning machine comprising a track, a traveling carrier mounted thereon, a pair of horizontal shafts journaled in the upper portion of said carrier, a lower horizontal shaft journaled in said carrier, a scraper coupled to said lower shaft, toothed gearing between said upper shafts, chain gearing between one of the upper shafts and said lower shaft, a pulley mounted at one end of the track, a drum secured to the other upper shaft, a rope passed around said pulley and connected at one end to said carrier and at the other end to said drum and adapted to be wound up on the latter, when the drum-shaft is rotated, and a crank handle connected to one of said upper shafts.

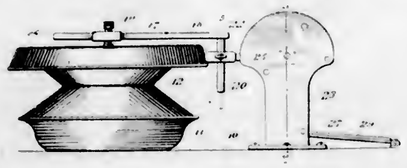
2. A pipe-cleaning machine comprising a track adapted to be clamped to the pipe, a traveling carrier mounted thereon, a plurality of shafts journaled in said carrier, a scraper coupled to one of said shafts and adapted for insertion into said pipe, a drum secured to another of said shafts, a rope connected with one end of said track and adapted to be wound up on said drum when the drum-shaft is rotated, to draw said carrier along said track, and means for rotating said shafts in unison.

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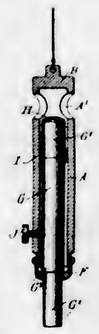
1,090,060. CUSPIDOR. NATHAN HIRSCH, Lancaster, S. C. Filed Oct. 3, 1913. Serial No. 793,235. (Cl. 4—39.)

In a cuspidor, the combination with a receptacle, of a lid therefor, a casing, a member mounted to swing in the

casing and projecting exteriorly thereof, a socket carried by the member, a bar adjustable vertically on the said socket, a sleeve adjustable horizontally on the bar and having connection with the lid, a foot lever projecting exteriorly of the casing, a rod having pivotal connection with the foot lever and with the said member for imparting a swinging movement to the bar to raise the lid from the receptacle when the foot lever is actuated, and a spring carried by the casing and having connection with the rod for moving the same when pressure is released on the foot lever, to return the lid to closed position on the receptacle.



1,090,061. BURGLAR-ALARM. JACOB HOFMANN, New York, N. Y. Filed July 23, 1913. Serial No. 780,700. (Cl. 116—42.)

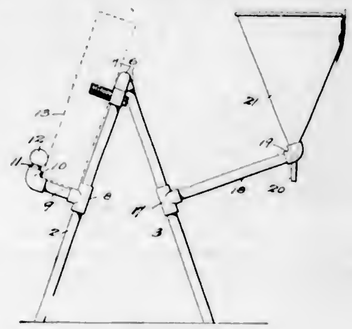


1. A portable burglar alarm, comprising a barrel provided with a closed top and an open bottom, a screw cap on the lower end of the barrel, a firing pin slidably mounted in the said barrel and having a reduced lower portion extending through the said screw cap and projecting below the said screw cap, the said reduced portion forming with the firing pin a shoulder adapted to rest on the said screw cap, and means held exteriorly on the side of the upper portion of the said firing pin for holding a detonating cap on the top of the said firing pin opposite the said closed top of the barrel to explode the said detonating cap against the said top on dropping the barrel and causing the firing pin to slide up in the barrel.

2. A portable burglar alarm, comprising a barrel provided with a closed top and an open bottom, a screw cap on the lower end of the barrel, a firing pin slidably mounted in the said barrel and the said screw cap and projecting below the said screw cap, the upper portion of the said firing pin being reduced, and a clamping ring slidable on the upper reduced portion for removably holding a detonating cap in place, the said detonating cap having its charge on top of the firing pin and having its ends clamped against the sides of the said reduced portion by the said ring, the said firing pin having a reduced lower portion extending through the cap and forming a shoulder adapted to rest on the cap to limit the downward sliding motion of the firing pin in the said barrel.

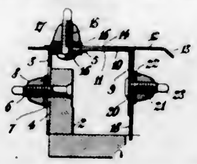
3. A portable burglar alarm, comprising a barrel provided with a closed top and an open bottom, a screw cap on the lower end of the barrel, a firing pin slidably mounted in the said barrel and the said screw cap and projecting below the said screw cap, the upper portion of the said firing pin being reduced, a clamping ring slidable on the upper reduced portion for removably holding a detonating cap in place, the said detonating cap having its charge on top of the firing pin and having its ends clamped against the sides of the said reduced portion by the said ring, the said firing pin having a reduced lower portion extending through the cap and forming a shoulder adapted to rest on the cap to limit the downward sliding motion of the firing pin in the said barrel, and a normally retracted set screw screwing in the said barrel and adapted to engage the said firing pin to lock the latter temporarily against sliding movement.

1,090,062. HOLDER FOR MEMORIAL TABLETS. LOUIS HOFFMANN, Buffalo, N. Y. Filed Feb. 21, 1913. Serial No. 749,870. (Cl. 40—146.)



A tablet support comprising in combination, two parallel sectional front legs, a sectional rear leg, T couplings joining the sections in pairs, an upper cross bar and elbow couplings connecting the front legs thereto, a forwardly extending tablet supporting bracket secured in each T coupling of the front legs and provided with upturned ends, and securing plates for attachment to a tablet, said plates being slidably attached to the front legs by means of sleeves.

1,090,063. RIP-SAW SHIELD. WILLIAM HOOK, Sidney, Ohio, assignor of one-third to Ransom D. Earl and one-third to Edward S. McClure, Sidney, Ohio. Filed Mar. 26, 1913. Serial No. 756,933. (Cl. 143—159.)



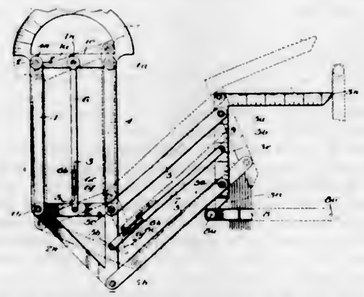
1. In a saw guard, the combination of a circular saw, a saw frame, brackets vertically adjustable on the saw frame, a vertically disposed abutment plate disposed between the frame and saw and having horizontal arms resting upon the brackets, a horizontal shield plate overhanging the space between the frame and abutment plate and projecting outwardly beyond the latter, and clamping devices for securing said abutment plate and shield plate to the brackets, and for permitting adjustment of said plates in a direction toward and from the frame.

2. In a saw guard, the combination of a circular saw, a frame, vertically disposed brackets adjustably secured to the frame and having horizontal portions extending from the top thereof, a vertically disposed abutment plate arranged parallel with and on the outer side of the frame, said plate being provided with inwardly extending slotted horizontal arms, a horizontally disposed shield plate arranged to overhang the space between the frame and abutment plate and extending above the saw and outwardly on the said abutment plate, the said shield plate being provided with slots registering with the slots in the arms of the abutment plate, and bolts passing through said slots in said plates and through said horizontal portions of the brackets and adjustably clamping the plates in position.

3. In a saw guard, the combination of a circular saw, a frame, brackets carried by the frame, a vertically disposed abutment plate disposed between the saw and frame and adjustably connected with the brackets, a horizontally disposed shield plate adjustably supported by the brackets and overhanging the space between the frame and abutment plate and extending outwardly beyond the latter, a slotted saw guard carried by the abutment plate, and means adjustably securing said saw guard thereto.



1,090,064. DRAFTING AND PLOTTING INSTRUMENT. HENRY HOWARD, Brookeville, Md. Filed Dec. 12, 1913. Serial No. 806,299. (Cl. 33—79.)



1. In an instrument of the character specified, the combination of a protractor, an intermediate member and a square, parallel links connecting the protractor and intermediate member, and parallel links connecting the square and intermediate member, the pivots connecting said links to the square and to the protractor being tubular for the insertion of devices for attaching the same to a surface.

2. The combination of a protractor, a square and an intermediate member, parallel links pivotally connecting the protractor with the intermediate member, parallel links pivotally connecting said intermediate member to the square, and devices connecting the protractor and member and the member and square to compensate for lost motion and wear on the pivots.

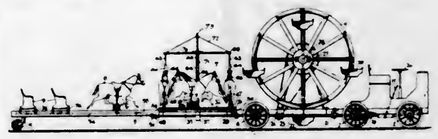
3. The combination of a protractor, a square and an intermediate member, parallel links pivotally connecting the protractor with the intermediate member, and parallel links pivotally connecting said intermediate member to the square, and a compensating link connected to the protractor and intermediate member between their parallel connecting links, and a similar compensating link connecting the triangle and square between their parallel connecting links.

4. The combination of a protractor, a square and an intermediate member, parallel links pivotally connecting the protractor with the intermediate member, and parallel links pivotally connecting said intermediate member to the square; and intermediate spring links between the parallel links for compensating for wear on the pivots, said parallel links being attached to the protractor and to the triangle by tubular rivets, for the engagement of fastening devices.

5. The combination of a protractor, a square and an intermediate member, parallel links pivotally connecting the protractor with the intermediate member, and parallel links pivotally connecting said intermediate member to the square, said connecting links being attached to the protractor and to the triangle by tubular rivets; with a compensating device connected to the protractor and intermediate member between the parallel links, and a similar compensating device connected to the intermediate member and square between their connecting parallel links, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,090,065. MOVABLE CAROUSEL AND FERRIS WHEEL. CHARLES JACOBS, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,560. (Cl. 104—111.)



1. The combination of a figure representing an animal, an extensible rod pivotally connected to said animal at one end and to a support above said animal at the other, a lever pivotally mounted below said figure and pivotally connected thereto at its upper end, and means engaging the lower end of said lever to oscillate the same to rock the figure.

2. The combination of a figure representing an animal, an extensible rod pivotally connected to said figure at its lower end and to a support above said figure at its upper end, a lever pivotally mounted below said figure and pivotally connected thereto at its upper end, resilient means on either side of said lever for cushioning the movement thereof, and means engaging the lower end of the lever to oscillate the same and impart movement to said figure.

3. The combination of a rocking chair and a figure representing an animal in line therewith, means for movably mounting said rocking chair and said figure, a shaft having a crank, a reciprocating rod connected to said chair and to said figure, and a link connecting said rod and said crank, whereby when the shaft is rotated the chair and the figure will be rocked.

4. In a carousel, the combination of a rotatable platform, a fixed gear wheel, shafts carried by the platform and extending radially thereof, gear wheels mounted on the shafts and meshing with the fixed gear wheel, whereby when the platform turns the shafts will be rotated, a plurality of figures movably mounted on the platform, and means connecting said shafts to said figures to rock the same as the shafts rotate.

5. In a carousel, the combination of a platform, antifriction means on which said platform is supported, a ring secured to the lower face of the platform, uprights secured to said ring and projecting through the platform, a lever pivotally mounted upon the ring and extending through the opening in the platform between each pair of said uprights, resilient means engaging said uprights and said levers, and a figure representing an animal connected to the upper end of said lever, whereby when said lever is moved the figure will be rocked.

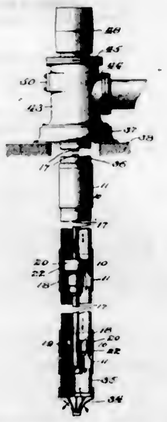
[Claim 6 not printed in the Gazette.]

1,090,066. IMPELLER-PUMP. HORACE G. JOHNSTON, Corsicana, Tex. Filed Nov. 19, 1912. Serial No. 732,350. (Cl. 103—43.)

1. In a pump, a unit comprising a coupling, a spider within the coupling, an impeller mounted to rotate upon the spider, a liner rigidly connected with the walls of the coupling and surrounding the impeller, and a pipe and shaft extending below the coupling.

2. In a pump, a unit comprising a coupling, a bearing box concentric with the coupling supported by radial blades, a bearing member located within the bearing box, an impeller mounted above the bearing and comprising a hub abutting the bearing member, and means carried by

the hub for slidably engaging a superposed shaft, said bearing box having a bore of substantially the same diameter as the hub and said bearing member being of corresponding diameter.



3. In a pump, a coupling, a rigidly mounted liner countersunk from the inner wall of the coupling, and an impeller mounted to rotate adjacent the liner, such impeller comprising a cylindrical band and a fin within the band.

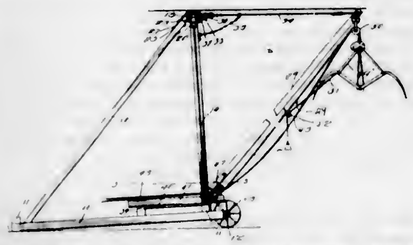
4. In a pump, a rigid structure comprising a tube, a tubular coupling member connected therewith, and a liner having an uninterrupted bore mounted within the coupling; an impeller permitting the passage of fluid therethrough, and including an outer tubular portion having approximately the diameter of the tube and liner and movable independently and longitudinally thereof.

5. In a device of the class described, a pump cylinder comprising a pipe coupling provided upon its interior with an annular shoulder, a flexible liner disposed within the coupling and resting upon the shoulder and a follower inserted into the coupling and engaging the liner, the inner walls of the liner, follower, and shoulder forming a substantially continuous surface.

[Claims 6 to 9 not printed in the Gazette.]

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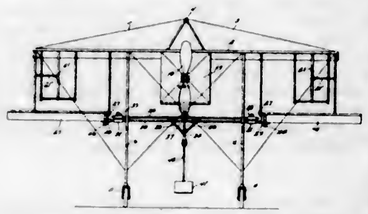
1,090,067. DERRICK. CARLE B. JONES, Whitewood, S. D. Filed Oct. 26, 1912. Serial No. 727,863. (Cl. 212—51.)



A derrick including a support, a mast thereon, a swinging boom carried by said support and suspended at the free end from said mast, a pair of divergent beams pivotally connected at their nearest ends to said support with said boom between said beams, means for adjustably securing the free ends of said beams to said support, sheaves carried by the free ends of said beams, sheaves carried by the outer end of said boom, a pair of cables trained through respective sheaves on said beams and on said boom, and a load handling device operatively connected to said cables, shifting of the load from one to the other of said cables serving to swing said boom, an adjustment of said beams independently of each other and toward or away from said boom serving to vary the speed of swinging movement of said boom.

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1,090,068. FLYING-MACHINE. CHARLIE THOMAS JONES, Blytheville, Ark. Filed May 16, 1913. Serial No. 768,112. (Cl. 244—29.)



1. In a flying machine, a gliding structure, an aviator's seat thereon, vertical rudders positioned at the right and left hand sides of the gliding structure, means for adjusting the same, a motor driven shaft carrying a propeller, balancing planes mounted at the right and left hand sides of the machine for adjustment in opposite directions in unison, and a shield disposed between the propeller and aviator's seat and having inclined guiding surfaces for directing the air pressure equally toward the supporting surface, rudders and balancing planes.

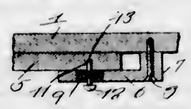
2. In a flying machine, a gliding structure, balancing planes mounted to tilt vertically at the right and left hand sides of said structure, front and rear vertically swinging levers, the latter being operatively connected on opposite sides of its pivot with said balancing planes, a connection between the levers for tilting the rear lever oppositely to the front lever when the latter is actuated, and a pendulum controlling said front lever.

3. In a flying machine, a gliding structure, pivoted vertically movable balancing planes at the opposite sides of the gliding structure, a vertically swinging lever operatively connected with said planes on opposite sides of its pivot, a correspondingly mounted operating lever, rocking elements connecting the similar ends of said levers and pivoted at points between the same, and a pendulum controlling the operating lever.

4. In a flying machine, a gliding structure, pivoted vertically swinging balancing planes at the opposite sides thereof, front and rear intermediately pivoted vertically swinging levers, the arms of the rear lever being pivotally connected with the respective balancing planes, rock shafts disposed between the two levers, transmission levers intermediately connected with the rock shafts and pivotally coupled at their ends to said front and rear shafts, and a pendulum controlling the front shaft.

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1,090,069. IRONING-BOARD. RALEIGH JONES, Salt Lake City, Utah, assignor to Mary I. Jones, Pocatello, Idaho. Filed Mar. 13, 1913. Serial No. 754,032. (Cl. 68—10.)

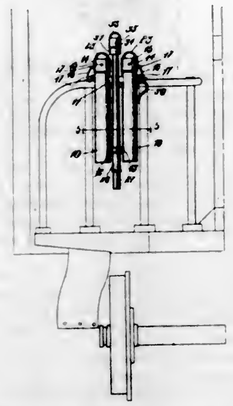


The combination with an ironing board, of an L-shaped member secured to the under side of the board, said member having spacing lugs at its extremities for spacing the member from the board, a sleeve board pivoted to the board at a point within the inner angle of the L-shaped member, the sleeve board having a series of recesses in its under face at equidistant points from the pivot of said sleeve board, a spring pressed locking plunger carried by the longer leg of the L-shaped member for engagement in the sleeve board openings, said sleeve board having a notch for the reception of the lug of the shorter leg of the L-shaped member to limit the inward movement of the sleeve board.



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1,090,070. FLAGGING DEVICE. ROBERT C. KEENE, Frankfort, Ind. Filed Oct. 31, 1912. Serial No. 728,902. (Cl. 206—16.)

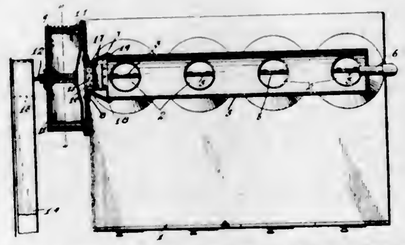


1. In a flagging device, a pair of tubes secured in spaced relation, removable lids for the tubes, said tubes being adapted to contain fuses of different lengths, an adjusting member in each tube, each adjusting member comprising a follower head snugly fitting in the tube and a stem carried by each follower head to permit inversion of the said members for use with short or long fuses.

2. In a flagging device, tubes having supporting means, a cross bar connecting the tubes near one end, straps connecting the tubes near their other ends, one of said straps carrying a hook, a flag case having a hook removably suspended on the bar, a flag having a staff held in the case and provided with a handle portion to support the flag in an inverted position when open, and a torpedo box removably attached to the case.

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1,090,071. SMOKE-CONVEYER. CHARLES F. KELLEMS, Holder, Ill. Filed May 23, 1913. Serial No. 769,505. (Cl. 110—130.)



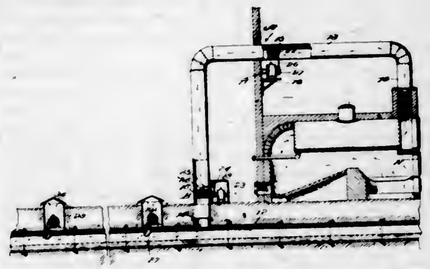
1. In a device of the class described the combination with a furnace, of a communicating pipe, a blower pipe secured to one end thereof, a fan casing positioned adjacent the opposite end of said communicating pipe, an auxiliary casing connecting the end of said communicating pipe with said fan casing, a shield casing positioned within said auxiliary casing for preventing the passage of cinders therethrough, a sewer pipe, and means for forming a communication between said fan casing and said sewer pipe for conveying the smoke to said sewer pipe.

2. In a device of the class described the combination with a furnace, of a communicating pipe, a blower pipe positioned at one end thereof, a fan casing, an auxiliary casing connecting the opposite end of said communicating pipe with said fan casing, a shield casing positioned within said auxiliary casing and comprising a perforated body provided with a substantially concave inner face terminating in an inclined chute portion at its lower end, an overhanging baffle plate carried by the upper end of said shield casing for retarding the passage of heavy cinders therethrough, means for creating a suction within said fan casing, a sewer pipe, and means for forming a communication between said fan casing and said sewer pipe.

3. In a device of the class described the combination with a plurality of furnaces, of a common communicating pipe, a blower pipe positioned at one end thereof, a fan casing, an auxiliary casing connecting the opposite end of said communicating pipe with said fan casing, a shield casing positioned within said fan casing and comprising a perforated body provided with an overhanging head for retarding the passage of cinders into said fan casing, a sewer pipe, a fan positioned in said fan casing, a pipe depending from said fan casing and communicating with said sewer pipe for discharging smoke and obnoxious gases from said fan casing into said sewer pipe.

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1,090,072. SMOKE-CONSUMER. LEWIS KIDD, Bloomfield, Ind. Filed Jan. 31, 1913. Serial No. 745,511. (Cl. 110—145.)



1. In a smoke disposal system, the combination with a sewer pipe, of a plurality of housings located in the ground at spaced intervals along said pipe, ventilating caps covering said housings, a blower positioned in each of said housings, an inspirator tube leading from each blower into the sewer pipe with its free end directed toward the discharge end of said pipe, and means for conducting smoke from a stack to the sewer pipe, said means including a smoke conveying pipe leading from the stack to the sewer pipe, and blowers interposed in said smoke conveying pipe.

2. In a smoke disposal system, the combination with a sewer pipe, of a plurality of housings located in the ground at spaced intervals along said pipe, a blower positioned in each of the housings and arranged to force air through the sewer pipe, and means for conducting smoke from the stack to the sewer pipe.

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1,090,073. CENTRIFUGAL PUMP. WALTER KIESER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 7, 1911. Serial No. 601,421. (Cl. 103—43.)

1. In a centrifugal apparatus, the combination of a casing, a runner having an inlet of relatively small diameter and an outlet of considerably larger diameter, a member carried by the casing that extends inwardly, surrounds said inlet and forms the walls of the supply passage, a labyrinth packing carried by said runner and member, the parts of which are out of contact, and an annular baffling chamber formed between a side face of

the member and the face of the inlet end of the runner which is in communication with the passage through the packing, receives fluid therefrom and acts to change its direction of flow before discharging it into the inlet of the impeller.



2. In a centrifugal apparatus, the combination of a casing, a runner having an inlet of relatively small diameter and an outlet of considerably larger diameter, a member carried by the casing that extends inwardly, surrounds said inlet and forms the walls of the supply passage, a labyrinth packing carried by said runner and member, the parts of which are out of contact, an annular baffling chamber formed between a side face of the member and the face of the inlet end of the runner which is in communication with the passage through the packing and receives fluid therefrom, and an annular passage which communicates with the chamber and inlet of the impeller, said passage being inclined inwardly and in the general direction of flow of the moving column of fluid to discharge leakage forwardly into it without substantial shock.

3. In a centrifugal apparatus, the combination of a casing, a runner having an axially extending portion of relatively small diameter and a radially extending portion of larger diameter, a member carried by the casing and extending inwardly, said member surrounding said axially extending portion, a labyrinth packing carried by said axially extending portion and the adjacent portion of said member, an annular baffling chamber formed in said member for receiving the fluid leaking through the packing, and an annular passage which extends forward from said chamber and communicates with the fluid inlet of the runner whereby the fluid leaking through the packing into said chamber has its direction changed and is discharged into the runner in the same general direction as that in which the main mass of the fluid is moving.

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1,090,074. COMPOUNDS OR DERIVATIVES OF CELLULOSE AND PROCESS OF OBTAINING THE SAME. EMIL KNOEVENAGEL, Heidelberg, Germany. Filed Aug. 20, 1906. Serial No. 331,399. (Cl. 23—24.)

1. As a new chemical product, a viscous solution of acetyl-cellulose containing a sulfinic acid, retaining its viscosity unaltered for months and not undergoing decomposition, when boiled down *in vacuo* to almost complete dryness at temperatures up to 80° C., substantially as described.

2. As a new chemical product, a viscous solution of acetyl-cellulose directly obtained by the acetyiation of cellulose in the presence of a sulfinic acid, the said viscous solution containing a sulfinic acid and the products of its chemical change, retaining its viscosity unaltered for months and not undergoing decomposition, when boiled down *in vacuo* to almost complete dryness at temperatures up to 80° C., substantially as described.

3. The process for the manufacture of derivatives of cellulose, which consists in causing a sulfinic acid to act on cellulose in the presence of an organic acid anhydrid and a solvent of cellulose, substantially as described.

4. The process for the manufacture of a derivative of cellulose, which consists in dissolving cellulose in a mixture of glacial acetic acid, benzene-sulfinic acid and acetic anhydrid, substantially as described.

1,090,075. LAWN-MOWER SHARPENER. GEORGE L. KNOWLTON, Philadelphia, Pa. Filed May 1, 1913. Serial No. 764,833. (Cl. 76—82.)



1. In a tool of the class described, the combination with a front member bent inward along its upper edge and there provided with tongues and having a face along its lower edge with a shoulder above said face and a hollow internally threaded boss about mid-way between said edges; of a rear member bent inward along its upper edge and notched to receive said tongues, this member also having a face along its lower edge with a shoulder above said face and a longitudinal guide disposed beneath said face, and an aperture about mid-way between its upper and lower edges, and a screw passing through said aperture and engaging said boss.

2. In a tool of the class described, the combination with a front member bent inward along its upper edge and having a face along its lower edge which is cut away between its extremities, a rear member similarly constructed, and a rectangular file disposed between said faces; of interlocking elements on the meeting upper edges of said members, and means between these edges and said faces for drawing the members together, for the purpose set forth.

3. In a tool of the class described, the combination with front and rear members abutting at their upper edges and having tool-embracing faces along their lower edges, and means between said edges for drawing said members together; of a longitudinal guide extending along the lower edge of one member beneath its face, a roller opposite said guide, a spring attached to the other member and carrying this roller, and means for adjusting the tension of the spring and the position of the roller.

4. In a tool of the class described, the combination with front and rear members abutting at their upper edges and having tool-embracing faces along their lower edges, and means between said edges for drawing said members together; of a longitudinal guide extending along the lower edge of one member beneath its face and interrupted at its center, a roller mounted on a pin in this member and projecting through said interruption, a second roller opposite the first, a spring secured at its upper end to the other member and having its lower end inturned and its body slotted, a pivot through said inturned end and on which this roller is mounted, and a set screw passing through said slot and into this member, for the purpose set forth.

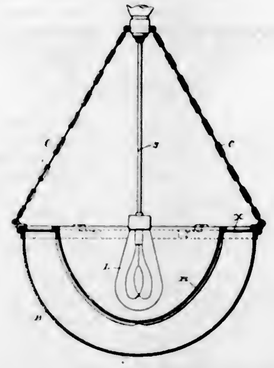
5. In a tool of the class described, the combination with front and rear members abutting at their upper edges and having tool-embracing faces along their lower edges, and means between said edges for drawing said members together; of a longitudinal guide extending along the lower edge of one member, a roller standing opposite the face of said guide, a leaf spring in whose lower end said roller is pivoted, a screw connecting its upper end with the opposite member, and a set screw passing through its body and engaging this member, for the purpose set forth.

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1,090,076. ILLUMINATING APPLIANCE. VAN RENSSELAER LANSINGH, New York, N. Y. Filed Apr. 19, 1910. Serial No. 556,418. (Cl. 240—93.)

1. In an indirect-lighting appliance, a light source, an upwardly facing translucent reflector surrounding the source, an upwardly facing diffusing bowl surrounding the reflector, and means for supporting said reflector and said bowl by their outer edges from above.

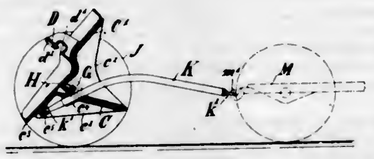
2. An indirect-lighting appliance comprising a light source and a member for supporting the same from above, an upwardly-facing translucent reflector surrounding said source, an upwardly-facing diffusing bowl surrounding



said reflector and supporting means independent of the aforesaid supporting member extending from above to the outer edges of said bowl and said reflector.

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1,090,077. DETACHABLE SPADE FOR WHEELED GUN-CARRIAGES. OTTO LAUBER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 18, 1913. Serial No. 774,429. (Cl. 89—42.)



1. A detachable spade for artillery carriages comprising means for securing the spade to the trail end, a wheel axle and traveling wheels for the same, bearings in said spuce for the wheel axle, and means for connecting the spade with a limber hook, whereby said spade is adapted to be transported separate.

2. A detachable spade for artillery carriages comprising means for securing the spade to the trail end, a wheel axle and traveling wheels for the same, transverse bearings in said spade for the wheel axle, and means for connecting the spade with a limber hook, whereby said spade is adapted to be transported separate.

3. A detachable spade for artillery carriages comprising means for securing the spade to the trail end, a wheel axle and traveling wheels for the same, transverse bearings in said spade for the wheel axle, a key for locking said wheel axle in position, and means for connecting the spade with a limber hook, whereby said spade is adapted to be transported separate.

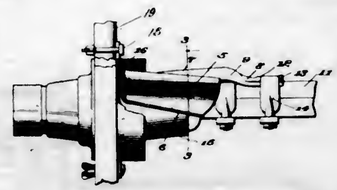
4. A detachable spade for artillery carriages comprising means for securing the spade to the trail end, a wheel axle and traveling wheels for the same, bearings in said spade for the wheel axle, a pole having a trail eye for engaging the limber hook and sleeves in the spade for receiving said pole.

5. A detachable spade for artillery carriages comprising means for securing the spade to the trail end, a wheel axle and traveling wheels for the same, bearings in said spade for the wheel axle, a pole having a trail eye for engaging the limber hook and sleeves in the spade for receiving said pole, and means for securing said pole in a fixed position in said sleeves.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,078. SAND-GUARD. MAURICE W. LEWIS, Clover, Va. Filed May 27, 1913. Serial No. 770,211. (Cl. 21—40.)

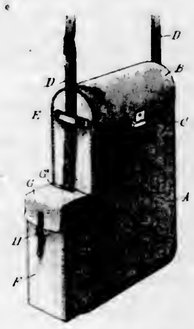


1. In a sand guard for vehicles, an arcuate plate provided with outstanding flanges along the longitudinal edges thereof, said plate being provided with a longitudinal reinforcing rib extended to form a shank, said shank having a longitudinal groove in the underside thereof, an upstanding terminal lip, and an upstanding lug spaced from said lip; in combination with a clip fitted between said lug and lip to secure the device in position for operation on a vehicle axle.

2. In a sand guard for vehicles, an arcuate plate provided with outstanding flanges along the longitudinal edges thereof, said plate being provided with a shank, and a clip for securing the shank on a vehicle axle; in combination with a ring or band detachably mounted on the wheel and extending over the outer end of the arcuate plate.

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1,090,079. COMBINED CAMERA-CASING AND FILM-CARRIER. ROBERT R. LIVINGSTON, Clermont, N. Y. Filed July 25, 1913. Serial No. 781,098. (Cl. 224—52.)



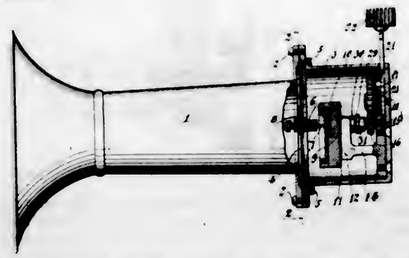
1. A combined camera casing and film carrier, comprising a camera casing, a carrying strap therefor, and a film-carrying receptacle having a cover adapted to be opened and closed for the insertion or removal of a film, the said receptacle having its back fitting onto one side of the camera casing, the said receptacle being held in place on the said camera casing by the said carrying strap engaging the said receptacle back to allow opening and closing bf the said receptacle cover independent of the said carrying strap.

2. A combined camera casing and film carrier, comprising a camera casing, a carrying strap therefor extending along the sides of the said camera casing, and a film-carrying receptacle approximately corresponding to that of the said camera casing, the back of the said receptacle fitting against one side of the said camera casing, the said

receptacle having a cover hingedly connected with the said back, the said cover and the bottom of the receptacle having registering slots adjacent the said back for the passage of the said carrying strap.

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1,090,080. AUTOMATIC HORN. GEORGE F. LONG, New York, N. Y., assignor to Gottfried Piel, New York, N. Y. Filed Sept. 30, 1910. Serial No. 584,595. (Cl. 116—1.)



1. A horn comprising a metal diaphragm, an actuating member secured to said diaphragm and projecting perpendicularly therefrom and comprising a contact member adjustable with relation to the diaphragm and movable therewith, and a weighted disk having its face parallel with the diaphragm and provided with a roughened surface adapted to engage said member and produce vibratory movements of said diaphragm when the disk is moved in a plane approximately parallel to said diaphragm.

2. In a horn, the combination with a metal diaphragm, an actuating member secured to said diaphragm and comprising a projecting contact member movable with the diaphragm and adjustable with relation thereto, of a member movable in a plane parallel with the plane of the diaphragm and comprising a detachable plate having a roughened surface adapted to engage the said pin.

3. A horn comprising a metal diaphragm under tension, an adjustable contact member secured to said diaphragm, a rotatable shaft, a plate secured to said shaft having a roughened surface adapted to engage with said pin, means for rotating said plate, and means engaging said shaft to move same longitudinally.

4. A horn comprising a diaphragm, an adjustable pin secured to said diaphragm, a disk having a roughened surface in engagement with said pin and mounted upon a rotatable spindle, and means for rotating said spindle and disk comprising a vertically moving rack operatively connected therewith through a pawl and ratchet connection.

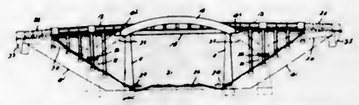
5. A diaphragm horn, comprising a casing, a metal diaphragm secured to said casing, a resonator secured to said casing, a wear-piece secured to the diaphragm and projecting into the casing, a weighted disk having a projection engaging with said wear-piece, a driving gear operatively connected with said disk and mounted upon a countershaft in said casing, a ratchet and pinion loosely mounted on said shaft, a pawl on said driving gear engaging with the ratchet, a vertically moving rack connected with said pinion, and means to automatically retract the rack to its non-operative position substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,081. PROCESS OF BRIDGE CONSTRUCTION. DANIEL B. LUTEN, Indianapolis, Ind. Filed June 27, 1913. Serial No. 776,024. (Cl. 72—56.)

1. The process of constructing a bridge or a viaduct, comprising constructing a bow-string girder of concrete, reinforcing such girder so that it is self-contained as to thrusts, supporting such bow-string girder on piers under its ends, constructing piers farther apart than the length of such bow-string girder, building arch segments from such last named piers and of sufficient length to extend under the ends of the bow-string girder, and removing the first named piers and allowing the bow-string girder to rest on said arch segments.



2. The process of constructing a bridge or a viaduct, comprising constructing a bow-string girder, supporting such bow-string girder on piers under its ends, constructing piers farther apart than the length of such bow-string girder, building arch segments from such last named piers and of sufficient length to extend under the ends of the bow-string girder, and removing the first named piers and allowing the bow-string girder to rest on said arch segments.

3. The process of constructing a bridge or a viaduct, comprising constructing a bow-string girder of concrete, reinforcing such girder so that it is self-contained as to thrusts, constructing piers farther apart than the length of such bow-string girder, building arch segments from such piers and of sufficient length to extend under the ends of the bow-string girder, and allowing the bow-string girder to rest on said arch segments.

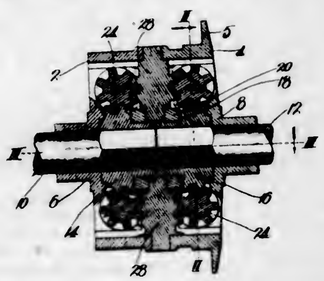
4. The process of constructing a bridge or a viaduct, comprising constructing a bow-string girder, constructing piers farther apart than the length of such bow-string girder, building arch segments from such piers and of sufficient length to extend under the ends of the bow-string girder, and allowing the bow-string girder to rest on said arch segments.

5. The process of constructing a bridge or a viaduct, comprising constructing a bow-string girder, constructing piers farther apart than the length of such bow-string girder, building lateral projections from such piers and of sufficient length to extend under the ends of the bow-string girder, and allowing the bow-string girder to rest on said lateral projections.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,082. DIFFERENTIAL GEARING FOR AUTOMOBILES. WILLIAM F. MUEHL, Chicago, Ill., assignor of one-third to Lewis H. Scurlock, Kansas City, Mo., and one-third to C. C. Wolf, Parkersburg, Iowa. Filed May 10, 1913. Serial No. 766,837. (Cl. 74—34.)



1. In differential gearing, a driving member, a pair of driven members, and driving connections between said driving and driven members, said connections comprising a housing and spiral gears journaled in the housing, meshing with the driven members, and other spiral gears at right angles to the first mentioned gears and meshing therewith.

2. In differential gearing, a driving member, a pair of driven members, differential means between said driven members, comprising a housing and spiral gears journaled in the housing, meshing with the driven members, and other spiral gears arranged at an angle to the first mentioned gears and meshing therewith.

3. In a differential gearing, a rotating housing, a pair of driven spiral gears mounted within the housing, and differentiating means connected to said housing and acting to transmit power from said housing equally to both of said driven spiral gears to rotate the latter irrespective of inequalities in their loads, said differentiating means comprising a set of three spiral gears.

4. In a differential gearing, a housing, a pair of driven shafts, spiral gears mounted thereon within the housing, and differentiating means connected to said housing and acting to transmit power from said housing equally to both of said spiral gears to rotate the shafts irrespective of inequalities in their loads, said differentiating means comprising six spiral gears.

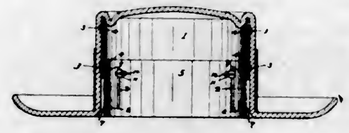
5. In a differential gearing, a housing, a pair of driven members mounted in said housing, and gear connections between said housing and members, said connections comprising spiral gears journaled in the housing and meshing with the driven members, and other spirals gears at right angles to the first mentioned gears and meshing therewith.

[Claims 6 and 7 printed in the Gazette.]



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1,090,083. TELESCOPING DEVICE FOR HATS. FRANK J. O'HARE and GEORGE E. LOVEJOY, Columbus, Ohio. Filed Nov. 1, 1911. Serial No. 657,988. (Cl. 223—31.)



1. A telescoping device for hats comprising a band of a settled height, and a concentric supplemental band secured upon said first-named band in a manner to permit vertical adjustment thereon.

2. A telescoping device for hats comprising a band-like formation vertically and circumferentially adjustable, said vertical adjustment positively maintaining said band formation in adjusted position.

3. A telescoping device for hats comprising a plurality of concentric bands for fitting within the hat, said bands being connected together in a manner to be vertically and circumferentially adjustable.

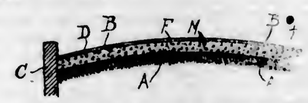
4. A telescoping device for hats comprising a basic band-like formation, and a supplemental band positively mounted for vertical adjustment on said formation, said band being graduated for accurate determination of the various adjustments.

5. A telescoping device for hats comprising vertically adjustable band-like formations, said formations being positively held in vertically adjusted position.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,084. PAVING MATERIAL. JOHN S. E. PARDEE, Philadelphia, Pa. Filed Feb. 13, 1913. Serial No. 748,063. (Cl. 106—31.)



1. As a paving material, a filler of cellulosic material treated with preservative oil and mixed with bituminous material, and a mineral aggregate having relatively large voids filled therewith.

2. As a paving material, a filler of cellulosic material treated with creosote and mixed with bituminous material, and a coarse mineral aggregate having relatively large voids filled therewith.

3. As a paving material, a filler of creosoted sawdust and asphaltum, and a mineral aggregate having relatively large voids filled therewith.

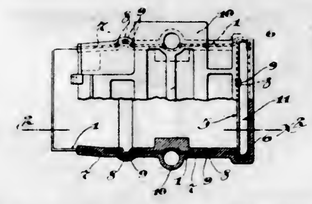
4. As a paving material, a filler comprising a mixture of cellulosic material with bituminous material, and a coarse mineral aggregate having voids filled with said mixture, said filler having a volume approximately one-third of that of said mineral aggregate.

5. As a paving material, a filler comprising a mixture of cellulosic material treated with a preservative oil and mixed with bituminous matter, and a coarse mineral aggregate having relatively large voids filled with said mixture.

[Claims 6 to 12 not printed in the Gazette.]

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1,090,085. JOURNAL-BOX. IVAR A. RANDEL, Chicago, Ill., assignor to McCord and Company, Chicago, Ill., a Corporation of New Jersey. Filed Oct. 16, 1913. Serial No. 795,513. (Cl. 64—10.)



1. A journal box comprising an independently formed metallic cellar having abnormally contractible upper edges and a top cast fast thereto, with said edges of said cellar abnormally contracted by the shrinkage of said cast metal.

2. A journal box having an independently formed metallic cellar and a cast top, said cellar having slits in its upper edge, and the said top being cast fast on the slit upper edge of said cellar and the said edge being abnormally contracted by the shrinkage of said top.

3. A journal box having an independently formed metallic cellar and a cast top, said cellar having slits in its upper edge and stoppers applied thereto, and the said top being cast fast on the upper edge of said cellar having the said slits and stoppers embedded therein, and the edge of said cellar being abnormally contracted by the shrinkage of said top.

4. A journal box comprising an independently formed metallic cellar, an independently formed dust guard wall, and a cast top, said cellar and dust guard wall having slit upper edges and stoppers applied to the slits thereof, and the said top being cast fast onto the upper edges of said cellar and wall and having the said slits and stoppers embedded therein.

5. A journal box comprising an independently formed metallic cellar having a rear end wall that is formed with a gap at the top of the box, and a cast top cast fast to the upper edge of said box and bridging the gap in the rear end wall thereof.

[Claims 6 and 7 not printed in the Gazette.]

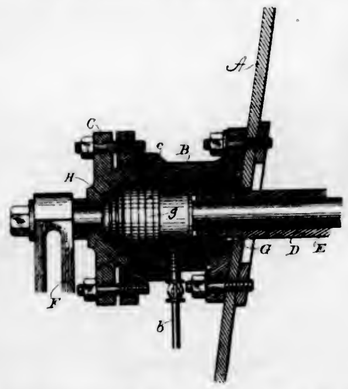
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1,090,086. EXPANSION PIPE-JOINT. WILLIAM H. RENN, Rocky Mount, N. C., assignor of one-third to James F. McMahon, Rocky Mount, N. C. Filed Apr. 10, 1913. Serial No. 760,198. (Cl. 121—109.)

1. The combination with a stuffing box, of a rock shaft passing through the box, a cylinder provided with packing and arranged within the box, the said rock shaft passing movably lengthwise through said cylinder, the said box being constructed interiorly to receive said cylinder movably and steam tight, and a housing surrounding said rock shaft and having one end connected with the said cylinder, whereby said box and shaft and housing may move by expansion or contraction independently of each other.

2. The combination with a rear end of a boiler, of a stuffing box, a rock shaft passing through the said box, a cyl-

inder provided with packing and arranged within the box, the said rock shaft passing movably lengthwise through said cylinder, the said box being constructed interiorly to receive said cylinder movably and steam tight, and a housing surrounding said rock shaft within the boiler and having one end connected with the said cylinder, whereby said box and shaft and housing may move by expansion or contraction independently of each other.



3. The combination with the rear end of a boiler, of a stuffing box arranged upon the exterior of the end of the boiler, a rock shaft passing through said box, a cylinder provided with packing and arranged within the box, the said rock shaft passing movably lengthwise through said cylinder, the said box being constructed interiorly to receive said cylinder movably and steam tight, and a housing surrounding the said rock shaft within the boiler and having one end connected with the said cylinder, whereby said box and shaft and housing may move by expansion or contraction independently of each other.

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1,090,087. RESILIENT WHEEL FOR VEHICLES. GEORGE HUNTER ROBINSON, Bayswater, London, England. Filed June 16, 1913. Serial No. 774,015. (Cl. 152—28.)

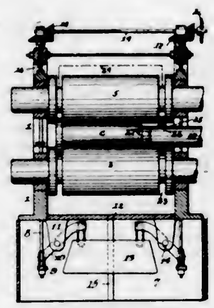


1. In a resilient wheel, a fixed rim and a movable rim arranged to form a channel, a non-compressible ring between said rims, a hub, a boss thereon on the side of the wheel opposite the movable rim, a collar movable with reference to the boss, and devices extending diagonally across the vertical axis of the wheel and connecting the collar with the movable rim.

2. In a resilient wheel, a fixed rim and a movable rim arranged to form a channel with converging sides, a non-compressible ring between said rims, means surrounding the ring and connecting the rims, a hub, a boss thereon on the side of the wheel opposite the movable rim, a collar movable with reference to the boss, and devices extending diagonally with reference to each other and extending across the vertical axis of the wheel, certain of the devices connecting the collar with the movable rim.

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1,090,088. PROCESS OF UNITING METALS. JAMES C. RUSSELL, Pittsburgh, Pa. Filed Dec. 30, 1912. Serial No. 739,190. (Cl. 22—216.)



1. The herein described process of forming combined metal ingots to prevent blow-holes, segregation and the injurious action of the pipe formed therein, which comprises the steps of introducing molten metal against another metal in an ingot mold in order to form an ingot circular in cross section, said molten metal heating said other metal to a semi-plastic condition, and then applying pressure to the side of such ingot to reduce the same and force the gases therefrom while rotating the ingot about its longitudinal axis.

2. The herein described process of forming combined metal ingots to prevent blow-holes, segregation and the injurious action of the pipe formed therein, which comprises the steps of introducing molten metal against another metal in an ingot mold in order to form an ingot into conical shape and circular in cross section, said molten metal heating said other metal to a semi-plastic condition, and then applying pressure to the side of such ingot to reduce the same and force the gases therefrom while the ingot is being subjected to a spinning movement about its longitudinal axis.

3. The herein described process of forming combined metal ingots to prevent blow-holes, segregation and the injurious action of the pipe formed therein, which comprises the steps of introducing molten metal against a tube of another metal in an ingot mold in order to form an ingot circular in cross section, said molten metal heating said other metal to a semi-plastic condition, and then applying pressure to the side of such ingot to reduce the same and force the gases therefrom while rotating the ingot about its longitudinal axis.

4. The herein described process of forming hollow ingots of combined metals to prevent blow-holes, segregation and the injurious action of the pipe formed therein, which comprises the steps of introducing molten metal around a tube of another metal in an ingot mold in order to form an ingot circular in cross section, said molten metal heating said other metal to a semi-plastic condition, and then applying pressure to the sides of such ingot to reduce the same and force the gases therefrom while rotating the ingot about its longitudinal axis.

5. The herein described process of forming hollow ingots of combined metals to prevent blow-holes, segregation and the injurious action of the pipe formed therein, which comprises the steps of introducing molten metal around a tube of another metal in order to form an ingot circular in cross section, and then applying pressure to the sides of such ingot to reduce the same and force the gases therefrom while rotating the ingot about its longitudinal axis to prevent the same from being crushed under such pressure.

[Claims 6 to 13 not printed in the Gazette.]



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1,090,089. FILING DEVICE. ROBERT D. STEUBLE, Buffalo, N. Y., assignor to The Post-Haste Card Systems Company, Inc., Buffalo, N. Y. Filed Apr. 3, 1913. Serial No. 758,560. (Cl. 129—16.)



1. A file comprising a base, opposite end walls pivoted to said base and adapted to swing substantially into the plane of said base, and card-retaining means on said base which have extensions adapted to be moved into alinement with said retaining means when said walls are in the plane of said base, substantially as set forth.

2. A file comprising a base, opposite end walls pivoted to the base and adapted to be swung to a substantially horizontal position, and retaining means on said base for the cards, said retaining means having extensions secured to the end walls and with which the cards are adapted to engage when the end walls are in their horizontal positions, substantially as set forth.

3. A file comprising a base, opposite end walls pivoted to said base and adapted to swing substantially into the plane of said base, a card retaining bar extending lengthwise of said base, and movable extensions for said bar which swing with said end walls and are alined with said retaining bar when said walls are swung into the plane of said base, substantially as set forth.

4. A file comprising a base, opposite end walls pivoted to said base and adapted to swing substantially into the plane of said base, a card retaining bar extending lengthwise of said base, and extensions for said bar secured to said end-walls and pivoted to said retaining bar and which are alined with said retaining bar when said walls are swung into the plane of said base, substantially as set forth.

5. A file comprising a base, opposite end walls pivoted to said base and adapted to swing substantially into the plane of said base, a pair of rods slidably arranged with regard to each other, one of said rods being pivoted to one end wall and the other rod being pivoted to the other end wall, and means for locking the free end of one of the rods to the opposite wall, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

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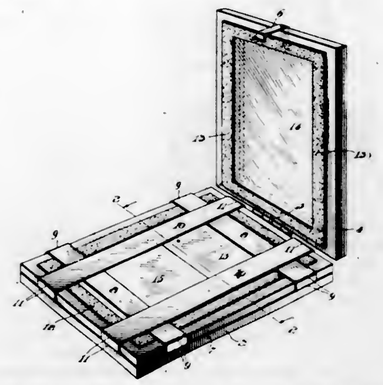
1,090,090. PHOTOGRAPHIC-PRINTING FRAME. HARVEY G. WOLF, Covington, Ky. Filed Nov. 3, 1913. Serial No. 798,932. (Cl. 95—79.)

1. A printing frame comprising two frames hinged together, one of said frames having grooves therein; and elongated plates between said frames and having their ends in said grooves, substantially as described.

2. A printing frame comprising two co-extensive frames, one of said frames having grooves therein; a hinge connecting corresponding ends of said frame; a spring catch locking the other corresponding ends of said frames together; and elongated plates between said frames and having their ends in said grooves, substantially as described.

3. A printing frame comprising two co-extensive frames; a hinge connecting the corresponding ends of said frame; a spring catch locking the other corresponding ends of said frames; two parallel elongated plates arranged longitudinally of and between said frames and adapted to be moved toward and away from each other; and two parallel elongated plates arranged laterally of and between said frames and adapted to be moved toward and away from each other, substantially as described.

4. A printing frame comprising two co-extensive frames, one of said frames having grooves therein; a hinge connecting corresponding ends of said frame; a spring catch locking the other corresponding ends of said frames together; two parallel elongated plates arranged longitudinally of and between said frames, having their ends in said grooves and adapted to be moved toward and away from each other; and two parallel elongated plates arranged laterally of and between said frames, having their ends in said grooves and adapted to be moved toward and away from each other, substantially as described.



5. A printing frame comprising two co-extensive frames hinged together at corresponding ends and locked together at their corresponding ends, there being a groove in the outer edge of one of said frames and extending entirely around such edge; a pair of elongated plates disposed longitudinally of and between said frames, the ends of said elongated plates being bent and extending into the portion of said groove in the ends of said frame; and a pair of elongated plates disposed laterally of and between said frames, the ends of said last mentioned elongated plates being bent and extending into the portion of said groove in the sides of said frame, substantially as described.

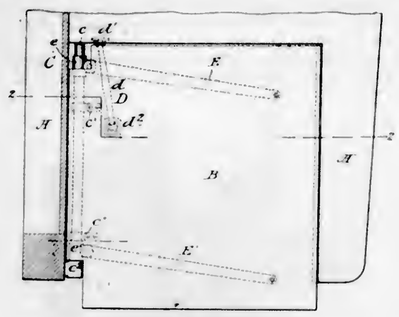
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1,090,091. BOTTLE-CLOSURE. ANST ALEXANDER and ARNOLD M. STEINBERG, Paris, Tenn. Filed June 25, 1913. Serial No 775,716. (Cl. 215—58.)



A bottle having its neck provided intermediate of its ends with a continuous annular channel, a member embracing the neck and having a portion upstruck in the channel, said member having its crown overlying the neck, a gasket interposed between the neck and the crown, a threaded neck rising from the neck having a discharge passage, a valve carried by the cap and extending into the discharge passage and closing the same when the cap is adjusted in one position, an inwardly extending annular projection on the cap coöperating with the upstruck portion to prevent complete disengagement of the cap from the attaching member, an annular bead formed on the neck of the bottle adjacent to the lower end of said cap and adapted to be engaged by the latter in the closing thereof to form an air-tight connection between the cap and bottle.

1,090,092. TRAP-DOOR FOR RAILWAY-CARS AND SIMILAR STRUCTURES. ROY T. AXE, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed Oct. 6, 1910, Serial No. 585,641. Renewed Sept. 20, 1912. Serial No. 721,520. (Cl. 105—88.)



1. The combination with a car platform provided with a step opening and a trap door movable about an axis to close and expose said opening and movable in a direction substantially lengthwise of said axis for projecting a part of its length beyond the plane of the side of the car and for withdrawing such portion, of a hinge element supported from the car and movable about a fixed axis, and means for connecting the door to said element including a part movable about an axis shiftable with said element, substantially as and for the purpose described.

2. The combination with a car platform provided with a step opening and a trap door movable about an axis to close and expose said opening and movable in a direction substantially lengthwise of said axis for projecting a part of its length beyond the plane of the side of the car and for withdrawing such portion, of a hinge element supported from the car and movable about a fixed axis, and means for connecting the door to said element including a part pivotally connected at one end to said element and at its opposite end to the door, substantially as and for the purpose specified.

3. The combination with a car platform provided with a step opening and a trap door movable about an axis to close and expose said opening and movable in a direction substantially lengthwise of said axis for projecting a part of its length beyond the plane of the side of the car and for withdrawing such portion, of a hinge element supported from the car and movable about a fixed axis, and means for connecting the door to said element including a part having a swinging movement relative to said element, substantially as and for the purpose set forth.

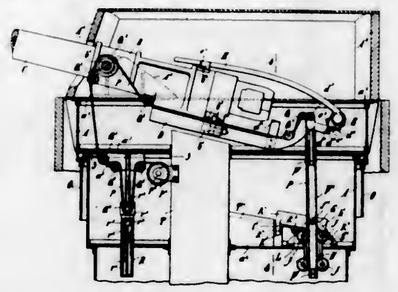
4. The combination with a car platform provided with a step opening and a trap door movable about an axis to close and expose said opening and movable in a direction substantially lengthwise of said axis for projecting a part of its length beyond the plane of the side of the car and for withdrawing such portion, of a hinge element supported from the car and movable about a fixed axis, and means for connecting the door to said element including parallel arms pivotally connected respectively to said element and to the door on the side of the longer axis thereof remote from said element, substantially as and for the purpose described.

5. The combination with a car platform provided with a step opening and a trap door movable about an axis to close and expose said opening and movable in a direction substantially lengthwise of said axis for projecting a part of its length beyond the plane of the side of the car and for withdrawing such portion, of means for operating on the door adjacent one side edge thereof for shifting the door in said lengthwise direction, and means, including a part coöperating with the door adjacent the opposite side edge thereof, for supporting and guiding the door during its movements, substantially as and for the purpose specified.

[Claims 6 to 43 not printed in the Gazette.]

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1,090,093. LOADING DEVICE FOR TURRET OR STATIONARY GUNS. MAX BARTHOLDY, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed June 19, 1911. Serial No. 633,927. (Cl. 89—46.)



1. A loading device for turret or stationary guns, provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, a track for said car, said track being constructed of telescopic rails and journaled respectively on a gun part that partakes of the elevation and on a part of the mount that partakes of the training.

2. A loading device for turret or stationary guns, provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, telescopic rails constructed to form a track for said car, and journaled respectively on a gun part that partakes of the elevation, and on a part of the mount that partakes of the training, the axes of the journals running parallel with the axis of the gun trunnions.

3. A loading device for turret or stationary guns, provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, telescopic rails constructed to form a track for the ammunition car, and journaled respectively on a gun part that partakes of the elevation and on a part of the mount that partakes of the training, a loading tray journaled to oscillate on the ammunition car, the axis of the journals of said tray running parallel with the axis of the gun trunnions.

4. A loading device for turret or stationary guns, provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, telescopic rails constructed to form a track for said car, and journaled respectively on a gun part that partakes of the elevation, and on a part of the mount that partakes of the training, the axes of the journals running parallel with the axis of the gun trunnions, a loading device provided with an ammunition car hoist for placing the ammunition in the loading line of the gun, a loading tray journaled on the ammunition car, the axis of the journals of said tray running parallel with the axis of the gun trunnions.

5. A loading device for turret or stationary guns, provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, telescopic rails constructed to form a track for said car, and journaled respectively on a gun part that partakes of the elevation, and on a part of the mount that partakes of the training, the axes of the journals running parallel with the axis of the gun trunnions, a loading device provided with an ammunition car hoist, for placing the ammunition in the loading line of the gun, a loading tray journaled on the ammunition car, the axis of the journals of said tray running parallel with the axis of the gun trunnions, said tray when in the position to receive the ammunition, having its axis of oscillation coinciding with the axis of oscillation of the journals connecting said rails with the mount.

[Claims 6 to 20 not printed in the Gazette.]



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1,090,094. AUTOMATIC GAS-SAVING ATTACHMENT FOR GAS-STOVES. LEWIS H. BEAR, Los Angeles, Cal., assignor to Bear Automatic Gas Stove Co., Los Angeles, Cal., a Corporation of California. Filed Nov. 10, 1910. Serial No. 591,709. (Cl. 126—52.)



1. In a gas saving device, a valve head provided with a gas-way; a nozzle communicating with the gas-way; a valve provided with two valve faces and a stem, one of said faces being adapted to close the valve-way; a gland screwed into the valve head to form a seat for the other valve face; said stem extending through the gland; a flange adjustably locked on said stem, a lever provided with a slot to engage said flange and a tilting spider to operate the lever.

2. In a gas saving device, the combination with a tilting spider and a burner beneath the spider, of a valve head provided with a nozzle to supply the burner, a cut-off valve in the head and a compound lever comprising a fulcrumed member engaged by the spider, a fulcrumed member in operative relation to the valve, a link connecting the fulcrumed members and means to operate the compound lever to close the valve and tilt the spider all of said lever members being U-shaped.

3. The combination with a stove frame having notches in its upper inner corners, of a tilting spider provided at its edge with lugs projecting laterally into the notches, a burner beneath the spider, means to supply fuel to the burner, a cut-off valve for the gas supply, and means between the cut-off valve and the tilting spider and operatable by the spider to operate the valve.

4. In a gas stove, the combination with a stove frame having notches in its inner corners, of a tilting spider provided with lugs to seat in said notches and vertical laterally projecting knife edges to contact the stove frame, a valve, and valve operating means between the tilting spider and the valve.

5. The combination with a stove frame; of a bracket provided with a front wall, side arms normal to the front wall and ears at the top of the side arms secured to the stove frame; a valve head provided with a bore constituting a valve-way and a gas-way and provided with a valve seat between the gas-way and valve-way; said head also being provided with a hole for a gas nipple, two holes for plugs and a hole for a pilot light valve; a gas nipple in said hole and longitudinally bored plugs in said two holes; said longitudinally bored plugs being provided with heads and inserted through the bracket wall and screwed into the head a valve to close and open the bore in one of the bored plugs; a valve to open and close the valve seat in the valve head; a lever pivoted to the bracket arms and operatively connected with the valve; and a tilting spider mounted partly on the stove frame and partly on the lever to operate the lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,095. MEANS FOR FLUXING CANS. HENRY BLANFORD, Aurora, Ill. Original application filed May 31, 1912, Serial No. 700,758. Divided and this application filed Apr. 5, 1913. Serial No. 759,167. (Cl. 113—95.)

1. The combination with a support for a can, of means for applying flux thereto about the opening in the can comprising a tubular member supported to be reciprocated toward and away from the can into and out of contact therewith and open at its lower end, an apertured partition in said tube between the ends of the latter and forming with the tube a flux-chamber, a member of absorbent material in the lower end of said tube and projecting below said partition and tube, a valve in said tube extending below said partition and relatively closely surrounded by said absorbent member for controlling the flow to said adsorbent member of flux introduced into the tube above said valve, and means for reciprocating said tube, for the purpose set forth.



2. The combination with a support for a can, of means for supplying flux thereto about the opening in the can comprising a tubular member supported to be reciprocated toward and away from the can into and out of contact therewith and open at its lower end, an apertured partition in said tube between the ends of the latter and forming with the tube a flux-chamber, a member of absorbent material in the lower end of said tube and projecting below the latter, a valve controlling the aperture in said partition, means connected with said valve for adjusting it relative to said partition, and means for reciprocating said tube, for the purpose set forth.

3. The combination with a support for a can, of means for applying flux thereto about the opening in the can comprising a tubular member supported to be reciprocated toward and away from the can into and out of contact therewith and open at its lower end, an apertured partition in said tube between the ends of the latter and forming with the tube a flux-chamber, a member of absorbent material in the lower end of said tube and projecting below the latter, a valve in said tube controlling the aperture in said partition, the stem of said valve extending up through the upper end of said tube, adjusting means on the upper end of said valve, and means for reciprocating said tube, for the purpose set forth.

4. The combination with a support for a can, of means for applying flux thereto about the opening in the can comprising a tubular member supported to be reciprocated toward and away from the can into and out of contact therewith and open at its lower end, an apertured partition in said tube between the ends of the latter and forming with the tube a flux-chamber, an annular member of absorbent material in the lower end of said tube and projecting below the latter, a valve extending into the tube below said partition for controlling the aperture in said partition, said valve being of a diameter substantially equal to the internal diameter of said annular member and extending close to the lower end of said tube, and means for reciprocating said tube, for the purpose set forth.

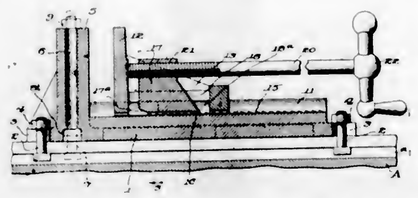
5. The combination with a support for a can, of means for applying flux thereto about the opening in the can comprising a tubular member supported to be reciprocated toward and away from the can into and out of contact therewith and open at its lower end, a member of absorbent material in the lower end of said tube and pro-

jecting below the latter, a valve in said tube for controlling the flow to said absorbent member of flux introduced into the tube above said valve, the stem of said valve extending up through the upper end of said tube, an adjusting nut screwing upon the upper end of said stem and bearing against the upper end of said tube, and means for reciprocating said tube, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,090,096. CHUCK. GEORGE J. BLUM, Chicago, Ill. Filed July 3, 1912. Serial No. 707,418. (Cl. 90—60.)



1. A work-holder comprising a base having a fixed jaw, said base having an undercut groove therein, locking teeth in said groove, a movable jaw having a foot slidable upon said base, said foot being provided with a guide fitting in said undercut groove, said foot having an undercut slot therein, a member movable with relation to said movable jaw and having a guide coöperating with said slot, said member adapted to engage said locking teeth, and means carried by said member for moving said movable jaw.

2. A work-holder comprising a base having a fixed jaw, said base having an undercut groove therein, the upper surfaces of said groove being beveled, locking teeth in said groove, a movable jaw having a foot slidable upon said base, said foot being provided with a guide fitting in said undercut groove and having beveled surfaces adjacent the beveled surfaces of said groove, said foot having an undercut slot therein parallel with said groove, a member movable with relation to said movable jaw and having a guide coöperating with said slot, said member adapted to engage said locking teeth, and means carried by said member for moving said movable jaw.

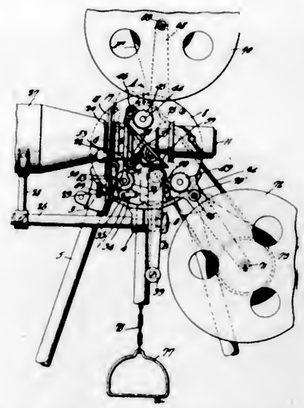
3. A work-holder comprising a base carrying a fixed jaw, said base having an undercut groove therein, a movable jaw having a foot slidable upon the base, said foot being slotted and being provided with a guide fitting in said undercut groove, a member slidably mounted in said slot and adapted to engage said locking teeth and being tiltable out of engagement with said teeth, and means carried by said member for moving said movable jaw.

4. A work-holder comprising a base having a fixed jaw, said base having an undercut groove therein, locking teeth in said groove, a movable jaw having a foot slidable upon said base, said foot being provided with a guide fitting in said undercut groove, said foot having an undercut slot therein, a member movable with relation to said movable jaw and having a guide coöperating with said slot, said member adapted to engage said locking teeth, and means carried by said member for pressing said jaws together and tending to tilt said member.

5. A work-holder comprising a base having a fixed jaw, said base having an undercut groove therein, locking teeth in said groove, a movable jaw having a foot slidable upon said base, said foot being provided with a guide fitting in said undercut groove, the upper adjacent surfaces of said base and said guide being beveled, said foot having an undercut slot therein, a member movable with relation to said movable jaw and coöperating with said slot, said member adapted to engage said locking teeth, and means carried by said member for pressing said jaws together and for tilting said member.

[Claims 6 to 12 not printed in the Gazette.]

1,090,097. PORTABLE MOTION-PICTURE-PROJECTING MACHINE. WILLIAM J. BRANIGAN, Philadelphia, Pa. Filed Mar. 31, 1913. Serial No. 758,028. (Cl. 88—17.)



1. A knock-down portable motion picture projecting machine including a base, a gear case on the base, film supporting and actuating means extending from said case, supporting legs detachably connected to the base, and a lamp detachably connected to the base.

2. A motion picture projecting machine including a casing, upper and lower reels, a film guide extending laterally from and located entirely outside of the casing, film sprockets extending laterally from and located entirely outside of the casing, means within the casing for actuating the sprockets, a bracket extending laterally from and located entirely outside of the casing, and a lens tube carried by the bracket.

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1,090,098. HEEL EXTENSION AND PROTECTING DEVICE. CHARLES HENRY BROWN, New Haven, Conn. Filed May 13, 1911. Serial No. 626,970. (Cl. 36—73.)



1. An article of the class described comprising a detachable shell of hard metal adapted to be fitted on the corner of a heel and having a wearing surface extending forwardly and laterally beyond the edges of the heel to provide a bearing point beyond the corner of the heel and prevent the foot from rolling out of normal position, and having provision for securing it to the heel.

2. An article of the class described comprising a detachable shell of hard metal adapted to be fitted on the corner of the heel and having a wearing surface extending forwardly and laterally beyond the edges of the heel to provide a bearing point beyond the corner of the heel and prevent the foot from rolling out of normal position and projecting downwardly relatively to the top lift toward the point of the heel to elevate the same and having provision for securing it to the heel.

3. The combination with a heel, of a shell of hard metal fitted on the corner of the heel and having a wearing surface extending forwardly and laterally beyond the edges of the heel to provide a bearing point beyond the corner of the heel and prevent the foot from rolling out of normal position, and means for securing the piece on the heel.

4. The combination with a heel, of a shell of hard metal fitted on the corner of the heel and having a wearing surface extending forwardly and laterally beyond the edges of the heel to provide a bearing point beyond the corner of the heel and prevent the foot from rolling out of normal position and projecting downwardly relatively to the top lift toward the point of the heel to elevate the same slightly, and means for securing the piece on the heel.

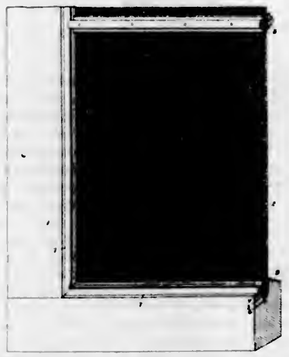
5. The combination with a heel, of a shell of hard metal shaped triangularly interiorly to fit on the corner of the heel and having a wearing surface projecting beyond the corner edges of the heel, a wedge inserted between the shell and the top lift of the heel to cause the shell to project downwardly relatively to the top-lift toward the point of the heel so as to elevate the same, and means for preventing the shell from working forward when walking.

[Claim 6 not printed in the Gazette.]



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1,090,099. SCREEN-FASTENING. FREDERIC P. CALLESON, San Mateo, Cal. Filed Jan. 13, 1913. Serial No. 741,691. (Cl. 156—14.)



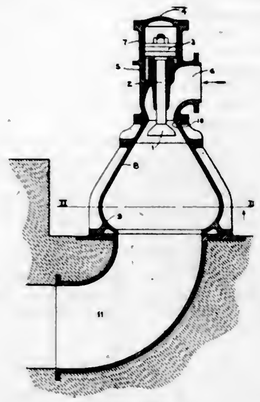
In combination with a screen frame having in an inner edge of a side thereof on one side of the median plane through the frame an integral raised molding, and on the other side a longitudinal groove one side of which is in the median plane of the frame, the depthwise direction of said groove being parallel to the plane of the screen, a securing strip in said groove having a rectangular outer portion, flush with said edge on the other side of said plane, a screen in said median plane having a marginal portion bent from said plane around the inner portion of said strip, nails through said strip and screen and extending into said frame, a molding independently secured to said frame over said strip, and registering bars secured on both sides of said screen.

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1,090,100. ENERGY-ABSORBER. JOHN ELOV ENGLESSON, Karlskrona, Sweden, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed June 27, 1912. Serial No. 706,309. (Cl. 137—71.)

1. In an energy absorber, a hollow conical casing, and a valve near the apex of said casing adjustable toward and from the walls of said casing to form an annular port between the valve and casing, the base portion of the walls of said casing remote from said valve being reëntrant, and said casing having a free discharge at said base portion.

2. In an energy absorber, a hollow casing having walls diverging from one end thereof, a free discharge remote from said end of said casing, and a valve near said end of said casing adjustable toward and from said walls to form a port between said valve and casing, a portion of the walls of said casing remote from said valve being reentrant.



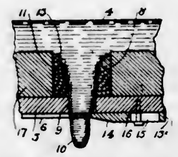
3. In an energy absorber, a hollow conical casing, and a valve near the apex of said casing and movable toward said apex to throttle the passage between said valve and casing, the base portion of the walls of said casing remote from said valve being reëntrant, and said casing having a free discharge at said base portion.

4. In an energy absorber, a hollow casing having walls diverging from one end thereof, a free discharge remote from said end of said casing, and a valve near said end of said casing and adjustable toward said end to throttle the passage between said valve and casing, a portion of the walls of said casing remote from said valve being reentrant.

5. In an energy absorber, a hollow casing forming a chamber free from obstruction and having the walls diverging from one end thereof, a free discharge remote from said end of said casing, and a valve at said end of said casing and adjustable toward said end to throttle the passage between said valve and casing, a portion of the walls of said casing remote from said valve being reentrant.

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1,090,101. REGULATING DEVICE FOR MOLTEN GLASS AND MEANS FOR PREVENTING THE STREAKING OF GLASSWARE. JOHN WILLIAM GAYNER, Salem, N. J. Filed Nov. 14, 1912. Serial No. 731,254. (Cl. 49—55.)



1. In a device for the continuous delivery of molten glass, means for preventing the streaking of glassware, comprising a glass furnace having a discharge opening therein, a metallic floor plate secured below said opening, and having a port therethrough of less diameter than said discharge opening, and a ring of devitrified or hardened glass surrounding said opening above said port and supported upon said floor plate.

2. In a device of the character stated, a glass furnace, an extension therefor, an outlet for the molten glass in said extension, a metallic floor plate supported below said outlet and having a port therein of less diameter than said outlet, retaining devices for said floor plate, a regulating

device movable on said floor plate and having a forward beveled edge on its under side, and means for actuating said regulating device.

3. In a device of the character stated, means for preventing the streaking of glassware, comprising a glass furnace having a discharge opening therein, a ring of devitrified or hardened glass surrounding said opening and suitably supported therein, a regulating device movably supported with respect to said opening and having a forward beveled edge on its under side, and means for actuating said regulating device.

4. In a device of the character stated, a glass furnace having a downward discharge opening therein, a floor plate secured below said opening, and a movable regulating device beneath said floor plate having its forward portion beveled on its under side to present a knife edge at said opening.

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1,090,102. PROCESS FOR MARKING CHEESE. JAN JOHAN HENDRIK GRAMSER, Schrans, near Leeuwarden, Netherlands. Filed Nov. 7, 1912. Serial No. 730,084. (Cl. 31—67.)



1. A method of marking cheese which consists in placing upon the surface of a preliminarily shaped cheese while the latter is still soft in the process of manufacture, a piece of distinguishingly colored casein adapted to unite with the cheese to form a substantially homogeneous portion of the cheese crust, subjecting the cheese to compression in a press whereby the casein is embedded in the surface of the cheese, and permitting the cheese to ripen, whereby said piece of casein becomes indistinguishable from the cheese crust save by color, substantially as described.

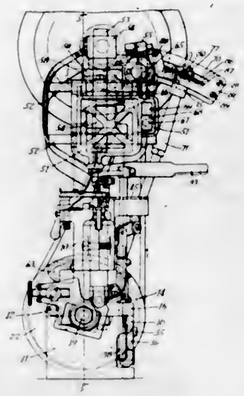
2. A cheese having as an integral portion of its crust a piece of casein substantially homogeneous therewith and distinguishable therefrom only in color, substantially as described.

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1,090,103. MACHINE FOR SETTING LACING-HOOKS IN THE UPPER OF A BOOT OR SHOE. ARTHUR R. HAVENER, Waltham, Mass., assignor to American Lacing Hook Co., a Corporation of New Jersey. Filed Nov. 25, 1912. Serial No. 733,253. (Cl. 218—17.)

1. A lacing hook setting machine having, in combination, a slide, vertical ways for said slide, mechanism adapted to impart a vertical motion to said slide, another slide mounted to slide horizontally on said vertically movable slide, a punch fast to said horizontal slide, mechanism adapted to move said horizontal slide embodying two levers and a link connecting said levers together, said link being pivoted to one of said levers, and adjustable means mounted on said link adapted to pivotally connect the other end of said link to the other of said levers at different distances from the axial center of said last-named lever.

2. A lacing hook setting machine having, in combination, a slide, vertical ways for said slide, mechanism adapted to impart a vertical motion to said slide, another slide mounted to slide horizontally on said vertically movable slide, a punch fast to said horizontal slide, mechanism adapted to move said horizontal slide embodying a shaft, a cam fast thereto and two levers having the median axial lines of their fulcrums substantially parallel to the median axial line of said shaft and a link connecting said levers together, a locking pin mounted on said link to slide transversely thereof and pivotally connecting one of said levers and said link together, said last-named lever having a segmental slot therein, a series of teeth on said lever concentric with said segmental slot, a tooth on said locking pin adapted to engage the teeth on said lever and a locking pin lever pivoted to said link and engaging said locking pin adapted to move the same longitudinally thereof into and out of engagement with the teeth on said lever.



3. A lacing hook setting machine having, in combination, a slide, vertical ways for said slide, mechanism adapted to impart a vertical motion to said slide, another slide mounted to slide horizontally on said vertically movable slide, a punch fast to said horizontal slide, mechanism adapted to move said horizontal slide embodying a shaft, a cam fast thereto and two levers having the median axial lines of their fulcrums substantially parallel to the median axial line of said shaft and a link connecting said levers together, a locking pin mounted on said link to slide transversely thereof and pivotally connecting one of said levers and said link together, said last-named lever having a segmental slot therein, a series of teeth on said lever concentric with said segmental slot, a tooth on said locking pin adapted to engage the teeth on said lever and a locking pin lever pivoted to said link and engaging said locking pin adapted to move the same longitudinally thereof into and out of engagement with the teeth on said lever.

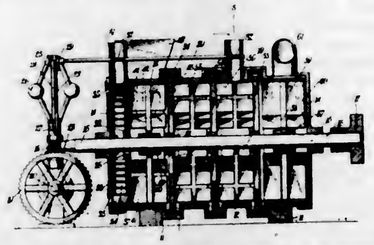
4. A lacing hook setting machine having, in combination, a slide, vertical ways for said slide, mechanism adapted to impart a vertical motion to said slide, another slide mounted to slide horizontally on said vertically movable slide, a punch fast to said horizontal slide, mechanism adapted to move said horizontal slide embodying a shaft, a cam fast thereto and two levers having the median axial lines of their fulcrum substantially parallel to the median axial line of said shaft and a link connecting said levers together, a locking pin pivotally connecting one of said levers and said link together, said last-named lever having a segmental slot therein, a series of teeth on said lever concentric with said segmental slot, a tooth on said locking pin adapted to engage the teeth on said lever, a locking pin lever pivoted to said link and engaging said locking pin adapted to move the same longitudinally thereof into and out of engagement with the teeth on said lever and a spring adapted to hold said locking pin in engagement with said teeth.

5. An organized lacing hook setting machine embodying a frame, a driving shaft journaled on said frame, a pulley loosely mounted on said shaft, a clutch adapted to lock said pulley to said shaft, a base on which said frame is hinged and manually operable mechanism mounted on said base having detachable engagement with said clutch mechanism and adapted to operate said clutch mechanism to lock said pulley to said shaft and to unlock said pulley from said shaft.

[Claims 6 and 7 not printed in the Gazette.]



1,090,104. FUEL APPARATUS. JOHN HYDE, Pittsburgh, Pa.; Catherine Hyde, administratrix of said John Hyde, deceased. Filed Sept. 30, 1911, Serial No. 652,052. Renewed Jan. 29, 1914. Serial No. 815,286. (Cl. 110—106.)



1. An apparatus of the class described, comprising a casing having two independent compartments, a rotary comminuting device, and a blower in one of said compartments, said compartment having also a fuel inlet and a fuel outlet, and an air-directing member in the other of said compartments, said other compartment having an air inlet and an air outlet, said air outlet leading into said first-mentioned compartment.

2. Apparatus of the class described comprising, a casing having two independent compartments; one of the compartments having a fuel inlet and a fuel outlet; a blower adjacent the fuel outlet in said compartment; an air director in the second compartment co-acting with said blower; and rotary comminuting means in the first compartment intermediate the blower and the second compartment, said air director forcing the air centrally from the second compartment through said first compartment and said comminuting means therein, thereby saturating the air with the pulverized fuel, the blower receiving the air saturated with fuel and advancing the same to the fuel outlet.

3. An apparatus of the class described, comprising a casing having a shaft therein, a blower and an air director on said shaft, comminuting means on said shaft intermediate said blower and said air director, and located within said casing, a partition in said casing intermediate said air director and said comminuting means provided with an opening, means for driving said shaft, said casing having a fuel inlet and an outlet in the casing portion containing said communicating device and said blower, an additional air inlet for admitting air to said air director, the said air inlet being independent of said fuel inlet.

4. Apparatus of the class described comprising a casing having a shaft therein, a blower and an air director each mounted upon said shaft, comminuting means mounted upon said shaft, intermediate said blower and said air director, means for operating said shaft, said casing having a fuel inlet and an outlet, and having, furthermore, an auxiliary air inlet, a centrifugal governor controlled by said shaft, and means whereby said governor can control the flow of air through said auxiliary air inlet.

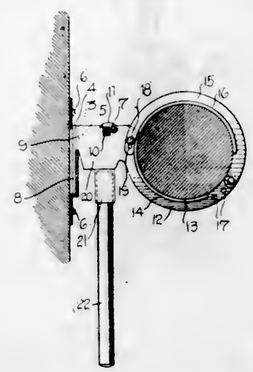
5. Apparatus of the class described, comprising a casing having a fuel inlet and an outlet, a rotary member at one end of said casing in front of said fuel inlet for drawing air into said casing and directing the same toward the axial, central portion thereof, a rotary comminuting device in said casing between said fuel inlet and said outlet through which the air is directed and, therefore, becomes mixed with the pulverized fuel, a blower in said casing at the end thereof remote from said rotary member first mentioned and receiving air mixed with the pulverized fuel and forcing same through the said fuel outlet.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,105. SUPPORTING-BRACKET. RAYMOND WILLIAM MONK, Pittston, Pa. Filed Sept. 6, 1913. Serial No. 788,476. (Cl. 156—24.)

1. A device of the class described including a body plate, a vertically disposed tongue formed at one end and disposed at right angles thereto, a curved arm formed upon the other end of the plate and provided with outwardly extending supporting flanges, a curved retaining arm having one end pivotally secured to the outer end of the supporting arm and its other end removably engaged with the body plate.

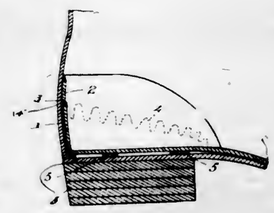


2. A device of the class described including a body plate having a notch formed in the upper edge thereof, a retaining lever pivoted to the plate at one side of the notch and adapted to extend across the notch, a tongue formed at one end of the plate, a curved arm at the other end of the plate, a retaining arm having one end pivoted to the outer end of the supporting arm and its other end removably engaged with the body plate.

3. In combination with a supporting plate having an offset provided with a slot, of a body plate having a vertical tongue formed at one end adapted to be removably arranged within said slot, a curved arm formed at the other end of said plate and provided with supporting flanges, a retaining arm substantially semicircular in form and having one end pivoted to the outer end of the supporting arm for adjustment and its other end removably engaged with the body plate.

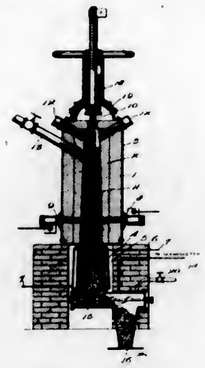
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1,090,106. COUNTER-SUPPORT. JOSEPH F. MONTINE, Nevinville, Iowa. Filed Oct. 28, 1913. Serial No. 797,844. (Cl. 36—69.)



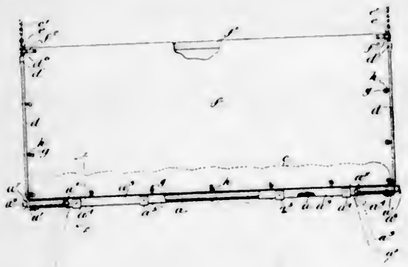
In a shoe, the combination of a counter, and a counter support comprising a thin metallic body approximately U-shaped in plan, said support being positioned against the outer surface of the counter and terminating at its upper edge between the upper and lower edges of the counter, the upper portion of the support being serrated, the said counter support having its opposite side portions connected together by cross strips which are provided with slots the side walls of which converge toward each other.

1,090,107. ELECTRIC FURNACE. SAMUEL PEACOCK, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,158. (Cl. 204—64.)



In an electric furnace the combination of a plurality of electrodes; means comprising a hand wheel and stuffing box for adjusting one of said electrodes; air tight means comprising two pipes closed at their outer ends for introducing charge material; air tight means comprising a valve pipe for introducing gas; a refractory lining tapered in cross section and providing a tapered vertical chamber; an outer air tight casing having an extension; a pipe for carrying off gases from said extension; a water jacket carried by said extension concentric with said chamber located below the high temperature zone of the furnace; and conveyer means for continuously removing the product from the furnace as fast as it is formed, substantially as described.

1,090,108. HAMMOCK. ABRAHAM A. SCHIMMEL, Boston, Mass. Filed Dec. 30, 1912. Serial No. 739,272. (Cl. 5—61.)



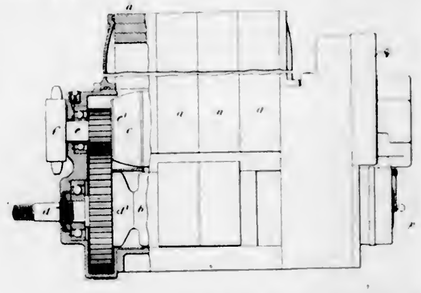
1. A convertible couch and hammock, comprising a rigid mattress supporting frame work having legs thereunder mounted for movement to inoperative position out of the way at will, a rigid upstanding frame secured to said frame work having side and end portions mutually interbraced, wind shield members secured to said side and end portions, and means for suspending the device from the top of said upstanding frame when used as a hammock.

2. A convertible couch and hammock, comprising a rigid mattress supporting frame work having legs thereunder pivotally mounted to be swung to operative position or out of the way at will, a rigid upstanding frame secured to said frame work consisting of end and side portions, having provision for mutual interbracing both in and out laterally and endwise, wind shield portions secured thereto, and means for suspending the device from the tops of the end portions of said upstanding frame when used as a hammock.

3. A device of the kind described, comprising a rigid mattress supporting frame work, an upstanding frame secured thereto composed of end and side sections having connections for mutual interbracing in both directions both laterally and endwise, and means for suspending the device from the tops of the end portions of said frame.

4. In a hammock of the character described, in combination, a frame; a shield comprising two end sections and a side section, each end section comprising two rigid upright marginal bars, a rigid top marginal bar connected at its ends to said upright bars near the upper ends of the latter and a piece of canvas or the like permanently secured to the top and upright marginal bars, and said side section comprising a rigid top marginal bar provided at its ends with means fastening it to the upper portions of the end sections so as to hold said upper portions bar against movement in either direction longitudinally of said bar, and a piece of canvas or the like secured to said top marginal bar; means separably connecting the lower ends of the upright bars of each end section with the frame with provision for removal without requiring movement of said upright bars relatively, and chains or the like connected with the upper ends of said upright bars.

1,090,109. MEANS FOR STARTING MOTOR ROAD-VEHICLES. FREDERICK RICHARD SIMMS, London, England. Filed July 14, 1913. Serial No. 778,974. (Cl. 171—315.)



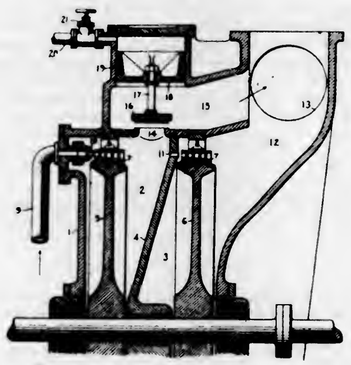
1. In a magneto electric machine, the combination with permanent magnets, of two pairs of pole shoes carried thereby, a generating armature provided with windings specially adapted for the production of ignition current and located between one pair of pole shoes, an independent armature provided with windings specially adapted for the generation of lighting current located between the other pair of pole shoes, means for positively driving both of said armatures simultaneously from an engine shaft, means connected with the shaft of the lighting armature for positively driving the crank shaft of the engine, and means for connecting the lighting armature with an exterior source of current, whereby it may be employed as a motor for starting the engine.

2. In a magneto electric machine, the combination with permanent magnets, of two pairs of pole shoes carried thereby, a generating armature provided with windings specially adapted for the production of ignition current and located between one pair of pole shoes, an independent armature provided with windings specially adapted for the generation of lighting current located between the other pair of pole shoes, means for positively driving both of said armatures simultaneously from an engine shaft, constructed to permit the lighting armature to rotate independently of the ignition armature, means for operatively connecting the shaft of the lighting armature with the crank shaft of the engine, and means for supplying current from an external source to said lighting armature, whereby said lighting armature may be actuated independently of the ignition armature to start the engine, and whereby the engine will positively drive both armatures when running.

3. In a magneto electric engine, the combination with permanent magnets, of two pairs of pole shoes carried thereby, a generating armature provided with windings specially adapted for the production of ignition current and located between one pair of pole shoes, an independent armature provided with windings specially adapted for the generation of lighting current located between the other pair of pole shoes, means for driving the ignition armature from an engine shaft, driving connections between the shaft of said armature, constructed to permit the lighting armature to rotate independently of the ignition armature, and operative connections between the shaft of the lighting armature and the engine crank shaft, constructed to permit the rotation of the crank shaft independently of said armature, and means for supplying current to the lighting armature from an external source, whereby it may be used as a motor to start the engine shaft without operating the ignition armature, and whereby the engine shaft may positively drive both of said armatures.



1,090,110. MULTISTAGE TURBINE. THEODOR THOMSEN, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 17, 1910. Serial No. 592,778. (Cl. 121—118.)



1. In a multi-stage turbine having a steam inlet and an exhaust, means for automatically cutting out a lower stage when the turbine changes from condensing to non-condensing operation, comprising a valve, and a motor for operating the valve which is actuated in one direction by a substantially constant fluid pressure and in the opposite direction by the exhaust pressure of said stage.

2. In a multi-stage turbine, a bypass around a lower stage to the exhaust, a valve controlling said bypass, and means for automatically opening said valve when the machine changes from condensing to non-condensing operation, and for closing it when the machine resumes condensing operation, said means including a movable member exposed on one side to the exhaust pressure and on the other side to a constant pressure, and devices connecting the member and the valve.

3. In a multi-stage turbine, the combination with a puppet valve controlling a port leading from a higher stage to the exhaust, of a piston of larger area than said valve exposed on one side to the exhaust pressure and on the other to a constant higher pressure, and connections between said piston and said valve.

4. The combination with a multi-stage turbine having in a higher stage a port opening into a bypass leading to the exhaust, of a valve in said bypass closing said port from the outside and exposed to the pressure in said bypass, a piston of larger area than said valve, exposed on one side to the pressure in said bypass, means for conveying steam at a substantially constant pressure to the other side of said piston, and connections between said piston and said valve.

5. The combination in a multi-stage turbine having a bypass leading from a higher stage to the exhaust and a port between said stage and the bypass, of a valve controlling the flow through the port that is exposed on one side to stage pressure and on the other side to the pressure in the bypass, a stem for the valve, and means connected to the stem that is subjected on one side to the pressure in the bypass and on the other side to a constant pressure.

[Claim 6 not printed in the Gazette.]

1,090,111. MANUFACTURE OF ELECTRIC FILAMENTS. CARL FREIHERR AUER VON WELSBACH, Vienna, Austria-Hungary. Filed Nov. 25, 1903. Serial No. 182,683. (Cl. 176—131.)

1. The method of making filaments for incandescent lamps, which consists in precipitating from a solution, by means of a common precipitate, material reducible to metal and refractory oxid, highly heating the precipitate in a reducing atmosphere until the reduction to metal and refractory oxid is obtained, and finally forming the mass into filaments; substantially as described.

2. The method of making filaments for incandescent lamps, which consists in precipitating from a solution, by means of a common precipitant, material reducible to osmium and refractory oxid, highly heating the precipitate in a reducing atmosphere until the reduction to osmium and refractory oxid is obtained, and finally forming the mass into filaments; substantially as described.

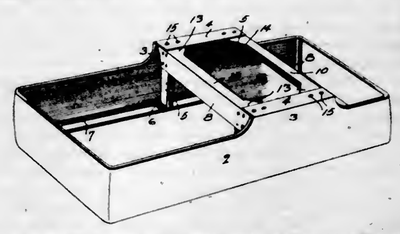
3. The method of making filaments for incandescent lamps, which consists in precipitating from a solution, by means of a common precipitant, material reducible to osmium and refractory oxid, washing and drying the precipitate, highly heating the same in a reducing atmosphere until the reduction to osmium and refractory oxid is obtained, and finally forming the mass into filaments; substantially as described.

4. The method of making filaments for incandescent lamps, which consists in precipitating from a solution, by means of a common precipitant, material reducible to osmium and refractory oxid, washing and drying the precipitate, highly heating the same in a reducing atmosphere until the reduction to osmium and refractory oxid is obtained, and finally forming the mass into filaments; substantially as described.

5. The method of making filaments for incandescent lamps, which consists in treating a solution containing a salt of osmium and a salt of a refractory oxid metal with hydro-sulfuret of ammonia, highly heating the resultant precipitate in a reducing atmosphere until it is reduced to osmium and refractory oxid, and finally forming the mass into filaments; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,090,112. VEHICLE SEAT CONSTRUCTION. ALONZO H. ADAMS, Wilkinsburg, Pa. Filed June 24, 1912. Serial No. 705,527. (Cl. 21—7.)



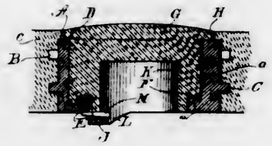
1. In a seat-structure for vehicles, the combination with a metal body, of channel shaped struts supported thereby,

transverse members secured to said struts having inwardly extending flanges, the lower flanges being cut away to receive said struts, the upper flanges of said transverse members resting on said struts, and inwardly extending flanges on the body-sides secured to the upper flanges of said transverse members.

2. In a seat-structure for vehicles, the combination with a metal body having an inwardly extending flange around the lower edge, of channel-shaped struts, lugs formed from the web members of said struts secured to said inwardly extending flanges of said body, transverse members having inwardly extending flanges at the top and bottom, the lower flanges being cut away to receive said struts, the upper flanges resting on the tops of said struts, securing devices passing through the webs of said struts and the webs of said transverse members, and inwardly extending flanges on the body-sides connected to the upper flanges of said transverse members.

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1,090,113. VAULT-LIGHT. EMMANUEL J. ALFIERES, New York, N. Y., assignor of one-half to Cyril de Wyrall, Ridgefield Park, N. J. Filed Aug. 20, 1912. Serial No. 716,023. (Cl. 94—7.)




1. The combination with a lens having a central cavity, the wall of the said cavity having an opening through it, a lens holder having a portion arranged contiguous to the lens exteriorly and above the said opening, and a pin removably inserted in the said opening of the cavity of the lens and projecting outwardly below the said contiguous portion of the lens holder.

2. The combination with a lens having a central cavity, the wall of the said cavity having an opening through it, a lens holder provided with external projecting portions and having an internal portion arranged contiguous to the exterior of the lens and above the said opening, and a pin removably inserted in the said opening in the wall of the lens and projecting outwardly below the said contiguous portion of the lens holder.

3. The combination with a lens holder, of a lens having a central cavity, the wall of the said cavity of the lens extending below the lower surface of the holder and having an opening through it, and a pin removably inserted in the said opening and projecting outwardly below the holder.

4. A vault light comprising a holder having an upper shoulder and a lower lip, and a lens having an upper shoulder engaging the said shoulder of the holder, the said lens having an annular groove engaging the lip of the holder, the said lens having a cavity opening from the bottom of the lens, the wall of the said cavity having an opening through it, and a pin removably placed in the said opening and projecting outwardly beyond the lens and below the holder.

5. A vault light comprising a holder having an upper shoulder and a lower lip, the said lip having a vertical projection, and a lens having an upper shoulder engaging the said shoulder of the holder, the said lens having a lower portion arranged adjacent to the lip of the holder, the said lens having a vertical groove engaging the said vertical projection of the holder, the said lens having a cavity opening from the bottom of the lens, the wall of the said cavity having an opening through it, and a pin removably placed in the said opening and projecting outwardly beyond the lens and below the holder.

1,090,114. RIM FOR PNEUMATIC TIRES. BENAIAH BRADFORD, Norristown, Pa., assignor to Lee Tire & Rubber Co., Conshohocken, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1910. Serial No. 552,192. (Cl. 152—21.)




1. The combination of an outer shoe having flanges, an inner pneumatic tube, a sectional rim for said shoe, said rim having integral flanges adapted to engage the flanges on said tire, a ring attached to one of said rim sections and extending from one end thereof to the other end of said rim section, the other rim sections being free of said ring, and having adjacent ends chamfered, said ring being adapted to engage the inner faces of the flanges on the tire and limit the inward movement of the inner tube when inflated, whereby the inflation of said inner tube will cause the flanges on the tire to move outward into engagement with the flanges on said segmental rim, said ring also limiting the outward movement of the rim sections caused by the inflating of said tube.

2. The combination of an outer shoe having flanges, an inner pneumatic tube, a sectional rim for the shoe, said rim having flanges adapted to engage the flanges on the tire, an integral ring encircling the rim and located between the flanges on the rim, said ring being attached to one of said rim sections, the other rim sections being hinged to the respective ends of the rim section to which the ring is attached and having their adjacent ends chamfered, said ring being adapted to engage the inner faces of the flange on the tire and limit the inward movement of the inner tube when inflated whereby the inflation of said inner tube will cause the flanges on the tire to move outward into engagement with the flanges on the segmental rim, said ring also limiting the outward movement of the rim sections caused by the inflation of said tube.

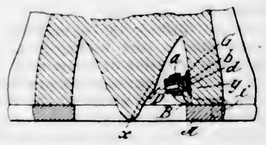
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1,090,115. METHOD OF WORKING PURE IRON. ROBERT B. CARNAHAN, Jr., Middletown, Ohio, assignor to The International Metal Products Co., Middletown, Ohio. Filed Jan. 16, 1913. Serial No. 742,400. (Cl. 148—24.)

The improved method of working pure iron which consists in working the metal at temperature above that of the zone of non-malleability of the metal, arresting the working until the metal shall have cooled to a point below said zone of non-malleability, and then continuing the working, substantially as set forth.

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1,090,116. HOOF-RECTIFYING ATTACHMENT FOR HORSESHOES. FRANK A. DRESSER, Lyndon Center, Vt., assignor of one-half to Wilmer A. Lyon, Lyndonville, Vt. Filed Apr. 9, 1913. Serial No. 759,866. (Cl. 168—6.)




1. In a device of the character described, a member adapted to be supported by a rear portion of a horse shoe and to project inwardly and upwardly into the space within the horse's foot, provided at its extremity with a substantially transverse screw threaded bore, a threaded plug, screw engaged through said threaded bore and having, at its outer end, a hoof-buttress bearing head which is rotatable on the plug, said screw plug being constructed with means by which it may be rotated.

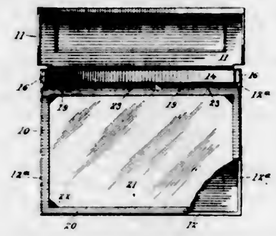
2. In a device of the character described, a bracket adapted to be supported by a rear portion of a horse-shoe and to project inwardly and upwardly into the space within the horse's foot, provided at its extremity with a substantially transverse screw threaded bore, a threaded plug, screw engaged through said threaded bore and having, at its outer end, an axially projecting stud and a centrally apertured hoof buttress bearing member, through which said stud protrudes,—said stud having its outer end upset for the retention of such bearing member on the stud formed end of the threaded plug, which is rotatable relatively thereto, and the said stud having a wrench receiving socket within its inner end.

3. In a device of the character described, a member adapted to be supported by a rear portion of a horseshoe and to project inwardly and upwardly into the space within the horse's foot, provided at its horseshoe engaging portion with a rivet hole and having, adjacent thereto, an angular lip for engagement with the inner edge of the horseshoe, said member being provided at its inner extremity with a transverse screw threaded bore, a threaded plug screw engaged through said threaded bore and having at its outer end a hoof buttress bearing member, and means by which the screw plug may be rotated.



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1,090,117. STORAGE AND DISPLAY RECEPTACLE. JOHN J. FERRALL and EDMUND MACKAY, New York, N. Y., assignors to National Biscuit Company, a Corporation of New Jersey. Filed Apr. 11, 1911. Serial No. 620,404. (Cl. 220—90.)




1. A storage and display package comprising a receptacle, guides extending from the opposite upper ends thereof, a cover for said receptacle comprising a relatively narrow attaching member, integrally formed securing members arranged transversely of said attaching member, at the opposite ends thereof, and adapted to slide upon said guides and frictionally engage the same to hold said cover secured to said receptacle, and a leaf hinged to one of the longitudinal edges of said attaching member, substantially as specified.

2. A storage and display package comprising a receptacle, guides extending inwardly from the opposite ends of said receptacle, a detachable cover for said receptacle composed of an attaching member provided with grooves at its opposite ends adapted to receive the inwardly extending guides on said receptacle, and a leaf hinged to said attaching member, substantially as specified.

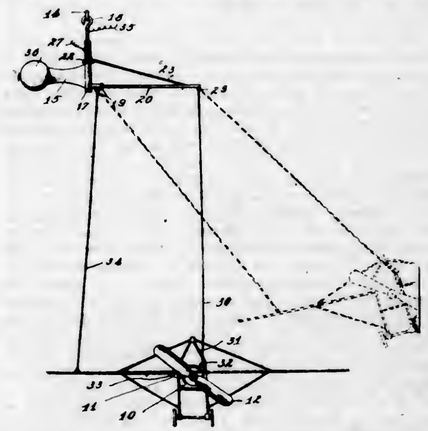
3. A storage and display package comprising a receptacle, guides extending inwardly from the opposite ends of said receptacle, a detachable cover composed of a longitudinal attaching member having transverse grooves in the opposite ends thereof adapted for sliding engagement with the inwardly extending guides on said receptacle, and a leaf hinged to said attaching member along one of its longitudinal edges, substantially as specified.

4. A storage and display package comprising a receptacle having a hinged cover thereon, guides extending inwardly from the opposite ends of said receptacle, a detachable cover adapted to lie intermediate the upper edge of said receptacle and said cover, said detachable cover being composed of a longitudinal attaching member provided at its opposite ends with means adapted to engage the inwardly extending guides of said receptacle, and a leaf hinged to said attaching member along one of its longitudinal edges, substantially as specified.

5. A storage and display package comprising a receptacle having a hinged cover thereon, guides extending inwardly from the opposite ends of said receptacle, a detachable cover adapted to lie intermediate the upper edge of said receptacle and said hinged cover, and be inclosed thereby, said detachable cover being composed of a longitudinal attaching member provided at its opposite ends with means adapted to engage the inwardly extending guides on said receptacle and be supported thereby adjacent to the hinged edge of said first-named cover, and a leaf hinged to said attaching member along one of its longitudinal edges and adapted to swing in the same direction as the hinged cover first-named, substantially as specified.

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1,090,118. SUPPORTING MEANS FOR SWINGING OBJECTS. ARTHUR E. RITTENHOUSE, Scranton, Pa., assignor to A. E. Rittenhouse Co., Honeoye Falls, N. Y. Filed Feb. 21, 1913. Serial No. 749,976. (Cl. 46—27.)




1. A device of the class described comprising a supporting hook, a swivel member mounted thereon, an arm extending from said swivel member, a counter-balance upon the free end of said arm, a radial conducting arm secured to said swivel member and extending in a direction opposite to said first-named arm and being insulated from said swivel member, a swinging object, supports between said object and said swivel member and radial arm, and means for electrically connecting said radial arm and swivel member to the opposite leads of a source of electrical supply.

2. A device of the class described comprising a supporting hook, a swivel member mounted thereon, an arm extending from said swivel member, a counter-balance upon the free end of said arm, a radial conducting arm secured to said swivel member and extending in a direction opposite to said first-named arm and being insulated from said swivel member, a swinging member, an electric motor mounted in said swinging member, a propeller upon said motor, combined suspending and conducting wires connected to the opposite poles of said motor and secured to said radial arm and swivel member, and a line wire connected to said swivel member and radial arm.

3. A device of the class described comprising a swinging object, an electric driving motor positioned therein, a swivel member, a counter-weight arm upon one side there-

of, and a supporting arm insulated therefrom upon the opposite side thereof, conductor and supporting wires secured between said swivel member and motor and between said arm and motor, and electrical lead wires connecting said swivel member and supporting arm with a source of electrical supply.

4. A device of the class described comprising an aeroplane, an electric motor therein, a propeller upon said motor, a suspended swivel, an arm suspended from said swivel, a counter-weight upon one end of said arm, conducting supporting wires between the opposite end of said arm from said counter-weight and said motor, and electric connections to said swivel member adapted for supplying current to said wires.

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1,090,119. KNITTING-MACHINE. WALTER F. ROLSTON, Rockford, Ill., assignor to Burson Manufacturing Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 2, 1912. Serial No. 712,923. (Cl. 66—7.)



1. A knitting machine stopping device, comprising a drive stop, a pivoted catch, a rod having a thrust against said catch member at one side of the pivot thereof, a tripping bar adapted to contact said catch at the opposite side of its pivot and to hold the catch in a set position against the action of said rod, and means for releasing said tripping bar, whereby the catch is released thereby disengaging said rod from its thrust contact with the catch causing the rod to actuate the stopping device.

2. A knitting machine stopping device, comprising a drive stop, a pivoted catch member, a rod having a thrust against said catch member and a connection with the drive stop, a tripping bar adapted to hold the catch in a set position against the action of said rod, means for releasing the tripping bar whereby the catch is sprung and the rod actuated to operate the stopping device, and means for maintaining the catch in its sprung position to allow said rod to be operated independently of the catch to set the rod in its said thrust position when the tripping bar has been returned to its normal position.

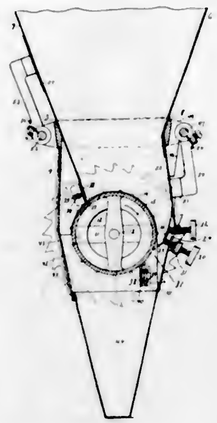
3. A knitting machine stopping device, comprising a drive stop, a pivoted catch, a vertical rod having an upward thrust against the catch and having a connection with the drive stop, a pivoted horizontal tripping bar adapted to release the catch, means for pivoting the tripping bar thereby allowing the catch to pivot and the vertical rod to rise and operate the drive stop, and a dog adapted to hold the catch from backward movement.

4. A knitting machine stopping device, comprising a drive stop, a pivoted catch having two oppositely extending arms, a vertical rod having an upward thrust against one of the arms, to one side of the pivot and having connection with the drive stop, a pivoted tripping bar adapted to rest under the other arm of the catch and hold the catch from movement, means for pivoting the tripping bar, and a dog adapted to hold the catch from backward movement.

5. A knitting machine stopping device, comprising a drive stop, a pivoted catch, a vertical rod having an upward thrust against the catch and having a connection with the drive stop, a pivoted tripping bar holding the catch in a set position, means for pivoting the tripping bar, thereby releasing the catch and allowing the vertical rod to rise and operate the drive stop, a dog adapted to hold the catch from backward movement, a spring adapted to hold the vertical rod against the catch so that upon the downward movement of the vertical rod, said rod will set the catch in a set position.

[Claim 6 not printed in the Gazette.]

1,090,120. FEED-REGULATOR. CHARLES D. SCOTT, Topeka, Kans., assignor to Percy E. Ginn, Winchester, Mass. Filed Aug. 16, 1911. Serial No. 644,300. (Cl. 83—44.)



1. In a machine of the kind described, the combination of a chute having a vibratory wall, a studded feeding cylinder mounted in the chute, a shaft on which said cylinder is mounted, another shaft mounted on the chute, a tapper secured to said second-named shaft, a spring forcing said tapper against said vibratory wall and an arm secured to the same shaft, and a ratchet secured to the first-named shaft and engaged by the arm so that said ratchet and spring co-act to cause the tapper to strike the vibratory wall.

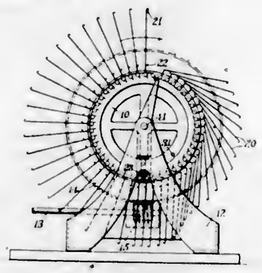
2. In a machine of the kind described, the combination of a chute having rigid side walls, a vibratory front wall terminating in a comb-like plate, and a removable rear wall, with a shaft mounted in and between the said side walls, a cylinder secured to the shaft and having studs on its surface, said cylinder being arranged adjacent to said plate, a means for adjusting said plate with reference to the cylinder to increase or diminish the space therebetween, a second comb-like plate extending between the side walls and adapted to scrape against the cylinder and being vertically adjustable on said side walls and located under said first-named plate, a hopper arranged above said chute and having a rear wall extending down to and terminating in a comb-like plate on the upper rear part of the cylinder, a tapper adapted to strike against said vibratory hopper wall, a ratchet on the shaft adapted to operate the tapper, and a driving mechanism for said shaft.

3. In a machine of the kind described, the combination of a chute having rigid side walls and a vibratory front wall, a studded feeding cylinder mounted between the side walls, a comb-like plate adjacent to the cylinder and forming a continuation of said front wall, an adjusting screw for adjusting said plate with reference to the cylinder, means for locking said screw in adjusted position, means for pressing said plate against the cylinder without changing the adjustment of the said screw, a means for vibrating said front wall, and a driving mechanism for said cylinder and said vibrating means.

4. In a machine of the kind described, the combination of a hopper, a chute leading from the bottom of the hopper, a studded feeding cylinder mounted in said chute, said chute and hopper each having rigid and one vibratory side walls, a tapper for each of said vibratory walls, operating mechanism for rapidly operating the tapper for the chute and for slowly operating the tapper for the hopper, and means for driving the cylinder and said operating mechanism.



1,090,121. VIEW-CHANGING DEVICE. WILLIAM C. URP, New York, N. Y. Filed June 19, 1913. Serial No. 774,590. (Cl. 40—35.)



1. In a view changing device, the combination of a shaft, means to rotate the shaft continuously, a wheel secured to the shaft and rotated continuously therewith, a card carrier associated with said wheel, means to temporarily engage the carrier and hold it from movement, means to cause the carrier when unrestricted to rotate with the wheel, a series of card holders carried by the carrier, and means operated by said wheel in conjunction with said carrier engaging means for automatically causing the carrier to have a step-by-step movement around the axis of the wheel.

2. In a view changing device, the combination of a wheel, means to rotate the same continuously, a card carrier connected frictionally to the rim of the wheel for rotation thereby, a series of card holders carried by the carrier, and means coöperating with the carrier to momentarily stop its rotation, said last mentioned means being operated automatically from the wheel.

3. In a view changing device, the combination of a wheel, means to rotate the same continuously, a card carrier surrounding the wheel, a plurality of springs causing frictional engagement between the carrier and the wheel, whereby the carrier under normal conditions will rotate with the wheel, a series of card holders carried by the carrier, each card holder having a projecting finger, a stationary lug adapted to be engaged by said finger to cause the rotation of the card holder while revolving with the carrier, and means to automatically cause the carrier to be given a step-by-step movement around the axis of the wheel.

4. In a view changing device, the combination of a wheel, means to cause the wheel to rotate continuously, a card carrier surrounding the wheel, a plurality of springs connected to the wheel and extending across the carrier to cause the same to be given frictional engagement with the wheel for normal rotation thereby, a series of card holders pivoted to the card carrier, each card holder being free to swing around its pivot while revolving with the carrier, and means operated from the wheel for causing the carrier to be automatically stopped for imparting to it a step-by-step rotation.

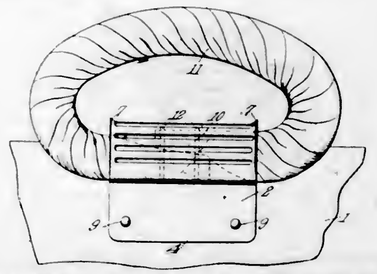
5. In a view changing device, the combination of a wheel, means to rotate the wheel continuously, a card carrier surrounding the wheel, a plurality of springs pivoted to the wheel, each spring having one end overlapping the carrier and its other end extending inwardly beyond its pivot into engagement with the wheel hub, a series of card holders carried by the carrier, and automatic means to control the movement of the carrier with the wheel.

[Claim 6 not printed in the Gazette.]

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1,090,122. HANDLE AND FASTENER THEREFOR. ALBERT L. ADAMS, Cedar Rapids, Iowa. Filed Dec. 11, 1912. Serial No. 736,232. (Cl. 220—30.)

1. In a device of this character, a metal plate formed with a sleeve and two normally spaced attaching plates, a portion of the body of the sleeve being provided with longitudinal corrugations and the ends of the sleeve being flared, a flexible ring shaped handle threaded through the sleeve, and means for attaching the metal plate to an article and for holding the spaced plates together to clamp the sleeve upon the handle.



2. A fastener for a flexible handle, including a sheet of metal provided with a handle receiving sleeve and two attaching plates, said plates being normally spaced, the body of the sleeve being provided with drawn corrugations longitudinally thereof and with flared ends, whereby when the attaching plates are secured to an article, the handle is clamped in the sleeve with the corrugated portions biting the handle to prevent longitudinal and rotary movements of the handle relatively to the sleeve.

3. A fastener for flexible handles, including a handle clamping sleeve having depressions in the body thereof intermediate of the ends and its ends flared, the depressions holding the flexible handle against longitudinal and rotary movements and the flared ends permitting the movement of the handle at such points without cutting the handle.

4. A fastener for flexible handles, including a metal plate having a sleeve and two plates forming an attaching means for the sleeve, the body of the sleeve having a plurality of inwardly disposed projections to form gripping means to hold the flexible handle against longitudinal movement.

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1,090,123. CHROMIUM COMPOUNDS OF OXYANTHRAQUINONE SULFONIC ACIDS AND PROCESS OF MAKING SAME. RENÉ BOHN, Mannheim, and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 3, 1912. Serial No. 734,697. (Cl. 8—1.)

1. The process of producing chromium compounds of oxyanthraquinone-sulfonic acids by heating an oxyanthraquinone-sulfonic acid, with a chromium salt in the presence of water.

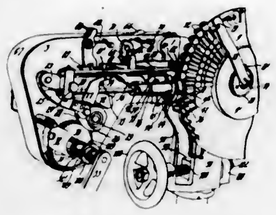
2. The process of producing chromium compound of hexa-oxyanthraquinone-disulfonic acid by heating hexaoxyanthraquinone-disulfonic acid with chromium fluorid in the presence of water.

3. The process of producing a chromium compound of hexa-oxyanthraquinone-disulfonic acid by heating hexaoxyanthraquinone-disulfonic acid with chromium fluorid in the presence of water and of silicious material.

4. As new articles of manufacture the compounds which can be obtained by heating an oxyanthraquinone-sulfonic acid with a chromium salt in the presence of water, which new compounds contain an oxyanthraquinone-sulfonic acid residue and chromium, which are soluble in water and are intensely colored, and which on being steamed in the presence of vegetable fiber yield insoluble lakes giving shade of excellent fastness.

5. As a new article of manufacture the compound which can be obtained by heating hexa-oxyanthraquinone-disulfonic acid with chromium fluorid in the presence of water, which new compound contains an oxyanthraquinone-sulfonic acid residue and chromium, and which is soluble in water yielding a green-blue solution, but on being steamed in the presence of vegetable fiber yields insoluble lakes giving green-blue shades of excellent fastness.

1,090,124. QUICK-FIRING MACHINE-GUN. THOMAS FREDERICK CALDWELL, Richmond, Victoria, Australia. Filed Aug. 21, 1913. Serial No. 786,036. (Cl. 89—11.)



1. A quick-firing machine gun, comprising a stout body having a barrel fitted to the front thereof, a breech-block slidably mounted in guides on said body, a link connecting said block to a rocking lever, a link connection between said rocking lever and an eccentric operated by a revoluble spindle and toothed gearing, a bolt revolubly mounted on the side of said breech-block, two segmental shaped cartridge-gripping members on the front of said bolt, firing pins fitted to springs on the rear of said members, a striking hammer having a recess in the top thereof, and an operating spring in the link connecting said breech-block to said rocking lever, a spring actuated bell-crank having a sear depending therefrom and adapted to engage said recess, and a member on said bell-crank adapted to contact with an abutment piece on the said body to release the sear when the said breech-block is closed.

2. A quick-firing machine gun, comprising a stout body having a barrel fitted to the front thereof, a sliding breech-block connected by a link to the forward end of a rocking lever, a link connecting the rear end of said lever to an eccentric, a bolt revolubly mounted on said breech-block, oppositely disposed segmental shaped gripping members on said bolt, an abutment member on the first-mentioned link, adapted to contact with projections on said bolt, and partially rotate the same when in its forward position, an arm on the second-mentioned link adapted to abut against and partially rotate the segmental gripping members when the same are at the rear of their travel, and a spring normally holding the said bolt in position.

3. In a quick-firing machine gun, a sliding breech-block having a link connection with a rocking lever, a striking hammer passing through and reciprocatingly mounted in said link and in said breech-block, a spring acting on said hammer, links pivotally mounted on studs projecting from said rocking lever in advance of the pivot connection with the link, and slots in said links engaging studs on said hammer.

4. In a quick-firing machine gun, a sliding breech-block having a link connection with a rocking lever, a striking hammer reciprocatingly mounted in said link and breech-block and having a recess in the top thereof, a spring acting on said hammer, a lever pivoted to said link, and having a depending sear for engaging said recess, a spring acting on said pivoted lever, a screw on said lever, and an abutment member in the path of said screw.

5. In a quick-firing machine gun, the combination of a body having a barrel fitted thereto, and a breech-block reciprocatingly mounted on said body, a link connecting said breech-block to the forward end of a rocking lever, a link connecting the rear end of said lever to an eccentric revolubly mounted on the body, a projection on said lever in advance of the pivot point thereof, a second lever pivoted to the body and adapted to bear on said projection when the breech-block is closed, a connection between said second lever and the rear end of a rod, the front end of which is loosely connected to the gun mounting, a spring fitted to and projecting rearwardly from said rod, and a spring for exerting a rearward pressure on the lower end of the lever.

[Claims 6 to 11 not printed in the Gazette.]

1,090,125. PROCESS FOR THE PRODUCTION OF MAGNESIUM CHLORID. JAMES C. GRAVES and ARTHUR E. SCHAEFER, Saginaw West Side, Mich. Filed June 15, 1912. Serial No. 703,841. (Cl. 23—13.)

1. The process of separating magnesium chlorid by successive crystallizations from solutions containing calcium and magnesium chlorids which consists in arresting each step in the crystallizing process before the solution has been cooled to the critical temperature below which calcium chlorid crystallizes more radily than magnesium chlorid.

2. The process of separating magnesium chlorid by successive crystallizations from solutions containing calcium and magnesium chlorids which consist in boiling each successive solution to a less degree of concentration and in arresting each crystallizing step before the solution has been cooled to the critical temperature.

3. The process of separating magnesium chlorid from solutions containing calcium and magnesium chlorids by successive fractional crystallizations each of which occurs in a different pan, which process consists in successively moving and re-dissolving in water the crystallized parts of the solutions step by step from the earlier to the later pans of the series of pans, and in moving the mother liquors in the reverse direction from the later to the earlier pans.

4. The process of separating calcium chlorid and magnesium chlorid individually from solutions containing both of them which consists in effecting partial crystallization of these salts in each pan of a series of pans, in arresting each crystallization before the solution from which it is taking place has been cooled to the critical temperature, in moving the uncrystallized portion of each solution from pan to pan in one direction, and in re-dissolving in water each crop of crystals and moving the new solutions from pan to pan in the opposite direction.

5. The process of separating calcium chlorid and magnesium chlorid progressively by partial crystallizations and re-dissolvings in water in a series of pans from solutions containing both salts which consists in concentrating the solutions in the different pans to successively lower degrees in the successive pans, in transferring the mother liquor from each partial crystallization to the pan within which the next higher degree of concentration occurs, and in transferring dissolved crystals from the pan within which they are formed to the pan within which the next lower degree of concentration occurs.

[Claims 6 to 11 not printed in the Gazette.]

1,090,126. TOOTH-BRUSH. FRITZ REICHMANN, Albany, N. Y. Filed July 15, 1912. Serial No. 709,350. (Cl. 15—39.)



1. A tooth-brush comprising a handle and a plurality of knots of bristles rotatively mounted upon the side of the handle upon axes extending longitudinally of the respective bristles and arranged in a row parallel with the handle, the several knots being beveled whereby they are adapted for self-rotation.

2. A tooth-brush having a handle and a knot of bristles projecting laterally from the handle and rotatively mounted thereupon on an axis perpendicular to the handle, said knot having its outer end beveled.

3. In a tooth-brush and in combination, a handle; a plurality of brush-unit-holders rotatively mounted upon the handle; and brush-units removably mounted upon the respective brush-unit-holders.

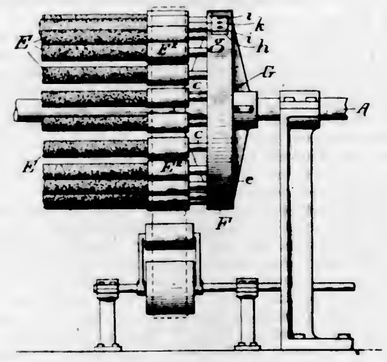
4. In a toothbrush and in combination, a handle; a plurality of brush-units rotatively mounted upon the handle on axes perpendicular thereto; and gear connections between the respective brush-units, the several brush-units having a knot of bristles projecting perpendicularly from the side of the handle, the outer end of said knot being beveled.

5. In a tooth-brush and in combination, a handle; a plurality of brush-unit-holders rotatively mounted upon the handle and each having a snap-member, and brush-units each having a snap-member whereby it is removably mounted in connection with the snap-member on one of said brush-unit-holders.



# REISSUES.

13,695. PLANETARY-NAPPING-MACHINE DRUM. HARRY S. GREENE, Woonsocket, R. I. Filed Jan. 9, 1914. Serial No. 811,274. Original No. 1,020,280, dated Mar. 12, 1912, Serial No. 654,633. (Cl. 26—19.)




1. The combination of a suitably supported shaft, a head fixed on and adapted to turn with the shaft and having a lateral circular flange at its perimeter and also having in its major portion flange openings that extend radially outward to its perimeter, a plurality of rolls having journals carried by said head in the said openings thereof and adapted to be rotated about their axes when the head is rotated about its axis, a wheel loosely mounted on the shaft, alongside the head, a hoop carried by said wheel and surrounding and movable about the circular series of roll journals and against which said journals are caused to bear by the centrifugal action created by rotation of the head, and a wheel loosely mounted on the shaft, at a point intermediate the head and the first named wheel, and arranged between the flange of the head and the shaft and also arranged within the circular series of roll journals and against which the said journals bear when they are out of contact with the said hoop.

2. The combination of a suitably supported shaft, a head fixed on and adapted to turn with the shaft; said head having spaced bearings in the perimeter thereof, a plurality of rolls having journals carried by said head in said bearings and adapted to be rotated about their axes when the head is rotated about its axis, a wheel loosely mounted on the shaft, a hoop carried by said wheel and surrounding and movable about the circular series of roll journals and against which said journals are caused to bear by the centrifugal action created by rotation of the head, and a wheel loosely mounted on the shaft and arranged within the circular series of roll journals and against which the said journals bear when they are out of contact with the said hoop.

3. The combination of a rotatable body, a circular series of rolls carried by said body and adapted to be rotated about their axes incidental to rotation of the body about its axis, a suitably supported and centered hoop surrounding and movable about the circular series of rolls and against which the rolls are caused to bear by the centrifugal action created by rotation of the body, and suitably supported and centered circular bearing means adapted to turn independently of the body and the hoop and arranged within the circular series of rolls and opposed to said rolls so as to be turned by the rolls when the latter are out of contact with the hoop.

4. The combination of a rotatable body, a circular series of rolls carried by said body and adapted to be rotated about their axes when the body is rotated about its axis, a hoop surrounding and movable about the circular series of rolls and against which said rolls are caused to bear by the centrifugal action created by rotation of the body, and bearing means separate from the body and capable of turning independently of the body and the hoop and arranged within the circular series of rolls and opposed to said rolls so as to be turned by the rolls when the latter are out of contact with the hoop.

5. The combination of a rotatable body having spaced bearings therein, a circular series of rolls carried by said body in the said bearings thereof and adapted to be rotated about their axes when the body is rotated about its axis, a hoop surrounding and movable about the circular series of rolls and against which said rolls are caused to bear by the centrifugal action created by rotation of the body, and circular bearing means separate from the body and capable of turning independently of the body and the hoop and arranged within the circular series of rolls and opposed to said rolls so as to be turned by the rolls when the latter are out of contact with the hoop.

6. The combination of a rotatable body, a circular series of rolls carried by said body and adapted to be rotated about their axes when the body is rotated about its axis, movable friction-reducing means against which said rolls are caused to bear by the centrifugal action created by rotation of the body, and circular bearing means separate from the body and capable of turning independently of the body and arranged within the circular series of rolls and opposed to said rolls so as to be turned by the rolls when the latter are out of contact with the said friction-reducing means.

7. The combination of a rotatable body, a circular series of rolls carried by said body and adapted to be rotated about their axes when the body is rotated about its axis, a hoop surrounding and movable about the circular series of rolls and against which said rolls are caused to bear by the centrifugal action created by rotation of the body, bearing means adapted to turn independently of the body and the hoop and arranged within the circular series of rolls and opposed to said rolls so as to be turned by the rolls when the latter are out of contact with the hoop, and means acting directly on the hoop and adapted to move the same at a rate of speed commensurate with that at which the rolls are rotated.

8. A planetary napping machine having a rotatable head, a circular series of napping rolls circumferentially confined but radially movable in said head, and an annular member mounted to rotate substantially concentrically with said head and forming the bearing surface for confining the rolls radially in working position in said head.

9. A planetary napping machine having two rotatable heads, a circular series of napping rolls circumferentially confined but radially movable in said heads, and two annular members mounted to rotate concentrically with said heads and forming the bearing surfaces for confining the rolls radially in working position in said heads.

10. A planetary napping machine, having in combination rotatable heads with spaced bearings therein, a circular series of napping rolls independently rotatable in said bearings, and annular members mounted to rotate freely relatively to said heads, said members constituting the outer side of each of said bearings for confining the rolls radially in said heads.

11. A planetary napping machine, having in combination rotatable heads with spaced open-sided bearings therein, a circular series of napping rolls rotatable in said bearings, annular members freely rotatable in the planes of the heads and constituting the outer side of each bearing, and means separate from the rolls for supporting said annular members substantially concentrically with said heads.

12. The combination of a head of a rotatable drum; said head having spaced bearings therein, a circular series of rolls carried by said head in the said bearings thereof and adapted to be rotated about their axes when the head is rotated about its axis, a hoop surrounding and movable about the circular series of rolls and against which said rolls are caused to bear by the centrifugal action created by rotation of the head, and means acting directly on the hoop and adapted to move the same at a rate of speed commensurate with that at which the rolls are rotated.

13. The combination of a rotatable body, a circular series of exposed rolls carried in spaced relation by said body and provided with means for acting on cloth and adapted to be rotated about their axes incidental to rotation of the body about its axis, means for rotating the rolls about their axes, and a bearing wheel having the same center of movement as the rotatable body and also having its periphery arranged within the circular series of rolls and opposed to said rolls so as to be moved thereby independently of the rotatable body.

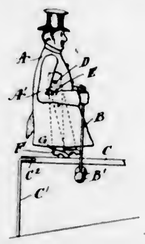
14. The combination of a rotatable body, a circular series of exposed rolls carried in spaced relation by said body and provided with means for acting on cloth and adapted to be rotated about their axes incidental to rotation of the body about its axis, means for rotating the rolls about their axes, and suitably supported and centered circular bearing means separate from the body and capable of turning independently of the body and arranged within the circular series of rolls and opposed to said rolls so as to be moved or turned thereby.

15. A planetary napping machine, having in combination rotatable heads with spaced bearings therein, a circular series of napping rolls rotatable upon their axles in said bearings, and annular members, said bearings having substantially radial sides and being open to their full width at their outer sides, and said members being freely rotatable in the planes of the heads, covering said bearings, constituting the outer side of each of said bearings, and having rolling contact with said axles.

16. A planetary napping machine, having in combination a rotating shaft, a circular series of napping rolls, and bearings supported on said shaft for holding said rolls in spaced relation to said shaft and to each other, each of said rolls having line contact at a plurality of points with surfaces fixed relatively to said shaft and having rolling contact with an additional surface movable relatively to said shaft and forming the outer side of said bearings.

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13,696. TOY. JAMES J. MAHAN, Jersey City, N. J., assignor to S. M. Jackson Jacobs, New York, N. Y. Filed Oct. 18, 1913. Serial No. 796,095. Original No. 1,007,218, dated Oct. 31, 1911, Serial No. 541,801. (Cl. 46—40.)



1. In a device of the character described the combination of an outer shell or casing made to resemble human form, a plurality of legs pivoted within the same on a pin or bar mounted in the outer shell, said legs being formed of strips of flat metal with their upper ends bent over and down parallel with the main strip, and provided with alined openings in the downwardly bent portion and strip through which the pin passes, the said pin, a plurality of recesses in the shell adapted to receive the said pin, the said legs being provided with feet on their lower ends having bottom surfaces inclined with respect to the longitudinal diameter of the legs and a medial cut-out portion terminating in a heel having its lower edge pointed forward, a rod attached to the device between the leg pivots and the feet and outside of the same, a weight on the lower end of said rod, and slots in the bottom of the shell through which the legs extend, said slots being parallel with the line of travel of the device.

2. In a device of the character described the combination of an outer shell or casing, a plurality of legs pivoted at their upper ends within the same on a pin or bar mounted in the outer shell, the said pin, a plurality of recesses in the shell adapted to receive the said pin, the said legs being provided with feet on their lower ends having bottom surfaces inclined with respect to the longitudinal diameter of the legs and a medial cut-out portion terminating in a heel having its lower forward edge pointed, a rod attached to the device between the leg pivots and the feet and outside of the same, and a weight on the lower end of said rod.

3. In a device of the character described the combination of an outer shell or casing, a plurality of legs pivoted at their upper ends within the same on a pin or bar mounted in the outer shell, the said pin, a plurality of recesses in the shell adapted to receive the said pin, the said legs being provided with feet on their lower ends having a medial cut-out portion terminating in a heel having its lower edge pointed, a rod attached to the device between the leg pivots and the feet and outside of the same, a weight on the lower end of said rod.

4. In a device of the character described the combination of an outer shell or casing, a plurality of legs pivoted at their upper ends, the said legs being provided with feet on their lower ends having bottom surfaces inclined with respect to the longitudinal diameter of the legs and a medial cut-out portion terminating in a heel having its lower forward edge pointed, a rod attached to the device between the leg pivots and the feet and outside of the shell, and slots in the bottom of the shell through which the legs extend, said slots being parallel with the line of travel of the device.

5. In a device of the character described the combination of an outer shell or casing, a plurality of legs pivoted at their upper ends, the said legs being provided with feet on their lower ends having bottom surfaces inclined with respect to the center line of the legs and a medial cut-out portion terminating in a heel having its lower forward edge pointed, a rod attached to the device outside of the shell.

6. The combination of a body or shell, a plurality of weights connected with the same outside its normal center of gravity, legs pivotally mounted on the body above the point at which the weights are attached and adapted to swing through the said center of gravity and means for limiting the oscillation of the said legs.

7. The combination of a body or shell, a plurality of weights connected with the same outside its normal center of gravity, legs pivotally mounted on the body and adapted to swing through the said center of gravity, means for limiting the oscillation of the said legs, and means for adjusting the position of the pivot of said legs.

8. The combination of a body or shell, a plurality of weights connected with the same outside its normal center of gravity, legs pivotally mounted on the body in the normal center of gravity and above the point at which the weights are attached and adapted to swing through the said center of gravity, and means for limiting the oscillation of the said legs.

9. The combination of a body or shell, a plurality of weights connected with the same outside its normal center of gravity, legs pivotally mounted on the body in the normal center of gravity and above the point at which the weights are attached and adapted to swing through the said center of gravity.

10. The combination of a body or shell, a plurality of weights connected with the same outside its normal center of gravity and located substantially below the legs, legs pivotally mounted on the body in the normal center of gravity and above the point at which the weights are attached and adapted to swing through the said center of gravity.

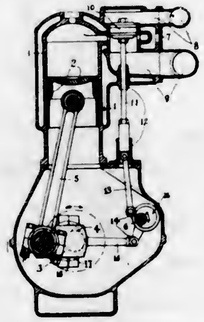
11. The combination of a body portion, legs pivotally connected therewith and extending from the same, weights connected with the said body portion at a point outside the normal center of gravity of the body, but located substantially in the said center of gravity and below the body, the pivotal connection of the legs being substantially in plane with or above the point at which the weights are attached outside the center of gravity.

12. The combination of a body portion, legs pivotally connected therewith and extending from the same, weights connected with the said body portion at a point outside the normal center of gravity of the body and below the body, the pivotal connection of the legs being substantially in plane with or above the point at which the weights are attached.

13. The combination of a body or shell, legs connected therewith, a weight connected with the same outside its normal center of gravity, means for connecting the said weight to the body extending from a point outside its normal center of gravity to the said weights which are substantially below the legs, and a pivotal connection between said legs and the body, said connection being so located that the said point of weight attachment is constantly at or below the said pivots.

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13,697. VALVE AND VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. GEORGE HUTCHINSON MANN, Leeds, England. Filed Mar. 11, 1912. Serial No. 683,092. Original No. 970,525, dated Sept. 20, 1910. Serial No. 568,803. (Cl. 123—91.)



1. In an internal combustion engine of the four-stroke cycle type, the combination with a half-speed shaft and a shaft rotatable at engine speed, of a single reciprocating slide valve, a rocking lever connected at one point to the slide valve to positively reciprocate it, and independent means actuated by the two shafts to differentially change the positions of two other points of the lever, the relationship of the parts being such that the motion of the lever is derived simultaneously from the two shafts and gives to the valve rapid opening and closing movements, and holds the valve almost stationary during the compression and firing strokes of the engine.

2. In an internal combustion engine of the four-stroke cycle type, the combination with a half-speed shaft, a shaft rotatable at engine speed and eccentric members on the said shafts, of a single reciprocating slide valve and a rocking lever fulcrumed on one of said eccentrics and connected at one end to the said valve, and connected at the other end to the other of the said eccentric members.

3. In an internal combustion engine of the four-stroke cycle type, the combination with a half-speed shaft and a shaft rotatable at engine speed, of a single reciprocating slide valve controlling both the inlet and exhaust, an eccentric on the half-speed shaft, a rocking lever fulcrumed on said eccentric, said rocking lever being positively connected to said valve to actuate the latter, and connections from the other shaft to said rocking lever to oscillate the latter relatively to the eccentric on which it is fulcrumed.

4. A valve gear for internal combustion engines of the four-stroke cycle type comprising in combination a main engine shaft, a counter shaft, driving mechanism for rotating said counter shaft at half the speed of the engine shaft, an eccentric fixed to said counter shaft, an eccentric strap around said eccentric, two arms projecting from said strap of said eccentric at different points on its periphery to form a bell-crank lever, a valve casing located at the side of the main cylinder, and having exhaust and inlet passages communicating with a valve chamber in said casing, a valve capable of reciprocating in said valve chamber to control the admission of motive fluid to and the exit of products of combustion from the engine cylinder, a connection directly between one of said arms on the eccentric strap and said valve, and mechanism connected to the other arm of said eccentric strap to regulate the movements of the latter and communicate the desired movements to said valve substantially as set forth.

5. A valve gear for internal-combustion engines of the four-stroke cycle type comprising in combination a main engine shaft, a counter shaft, driving mechanism for rotating said counter shaft at half the speed of the engine shaft, an eccentric fixed to said counter shaft, an eccentric strap around said eccentric, two arms projecting from said strap of said eccentric at different points on its periphery to form a bell-crank lever, a valve casing located at the side of the main cylinder and having exhaust and inlet passages communicating with a valve chamber in said casing, a piston valve capable of reciprocating in said valve chamber to control the admission of motive fluid to and the exit of products of combustion from the engine cylinder, a rod connected to said piston valve, a link to connect said rod to one of the arms on said eccentric strap, and mechanism connected to the other arm of said eccentric strap in order to regulate the movements of the latter and communicate the desired movements to the said valve substantially as set forth.

6. A valve gear for internal-combustion engines of the four-stroke cycle type comprising in combination a main engine shaft, a counter shaft, driving mechanism for rotating said counter shaft at half the speed of the engine shaft, an eccentric fixed to said counter shaft, an eccentric strap around said eccentric, two arms projecting from said strap of said eccentric at different points on its periphery to form a bell-crank lever, a valve casing located at the side of the main cylinder and having exhaust and inlet passages communicating with a valve chamber in said casing, a piston valve capable of reciprocating in said valve chamber to control the admission of motive fluid to and the exit of products of combustion from the engine cylinder, a rod connected to said piston, a link to connect said rod to one of the arms on said eccentric strap, and an eccentric mounted on the main engine shaft, a connection between said eccentric and the other arm on said eccentric strap carried by the counter shaft, whereby by the combined movements of the eccentrics, the eccentric strap is so adjusted as to communicate the desired movements to the said valve substantially as set forth.

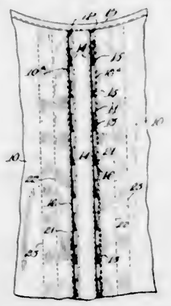
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13,698. CORSET. CHARLES H. SCHOPBACH, Aurora, Ill., assignor to International Corset Company, Aurora, Ill., a Corporation of Illinois. Filed Nov. 27, 1912. Serial No. 733,921. Original No. 1,035,481, dated Aug. 13, 1912, Serial No. 644,841. (Cl. 2—73.)

1. In a corset, the combination of two body sections thereof, each formed of a single thickness of material, vertically spaced, horizontal members, stiffening strips extending along the adjacent margins of said body sections, and pocket forming strips, each of which is substantially wider than its associated stiffening strip, and is attached to the material of the associated section by three laterally

separated lines of stitching; the first and second lines of stitching being located at opposite sides of the said associated stiffening strip and the third line of stitching extending along the edge of the pocket forming strip remote from the margin of the body section; the said horizontal members extending at their inner ends between the pocket forming strip and the material of the section, across the stiffening strip, and being engaged by both lines of stitching at the sides of said stiffening strip, and said members terminating at their ends between the said second and third lines of stitching.

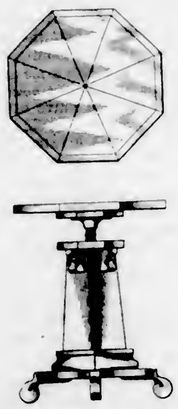
2. In a corset, the combination of two body sections thereof, each formed of a single thickness of material, a ventilating section consisting of a vertically extending member and horizontal members stitched to said vertical member, stiffening strips extending along the adjacent margins of said body sections, and pocket forming strips, each of which is substantially wider than its associated stiffening strip, and is attached to the material of the associated section by three laterally separated lines of stitching; the first and second lines of stitching being located at opposite sides of the said associated stiffening strip and the third line of stitching extending along the edge of the pocket forming strip remote from the margin of the body section; the said horizontal members of the ventilating section extending at their inner ends between the pocket forming strip and the material of the section, across the stiffening strip, and being engaged by both lines



of stitching at the sides of said stiffening strip, and said members terminating at their ends between the said second and third lines of stitching.

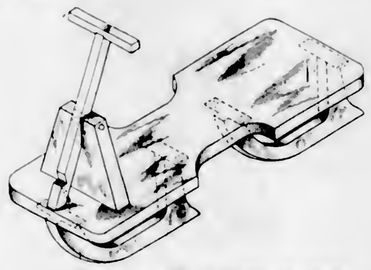
# DESIGNS.

45,365. PIANO-STOOL. THOMAS A. BARNES, Pasadena, Cal. Filed Jan. 2, 1914. Serial No. 810,076. Term of patent 7 years.



The ornamental design for a piano stool, as shown.

45,366. COASTER. ISAAC L. BAUMAN, Lancaster, Pa. Filed Dec. 12, 1913. Serial No. 806,333. Term of patent 3½ years.



The ornamental design for a coaster, as shown.

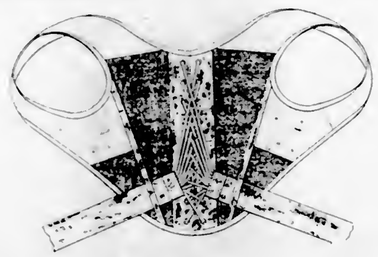
45,367. SOUVENIR-SPOON. LUCILLE BENTZ, Seattle, Wash. Filed July 3, 1913. Serial No. 777,330. Term of patent 3½ years.



The ornamental design for a souvenir spoon, as shown and described.



45,368. SHOULDER-BRACE. THOMAS G. BOWERS, New Haven, Conn. Filed Oct. 6, 1913. Serial No. 793,771. Term of patent 7 years.



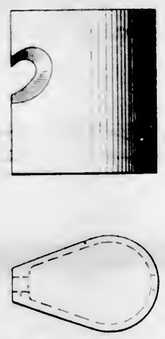
The ornamental design for a shoulder brace, as shown.

45,369. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. LESLIE A. BROWN, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed Dec. 15, 1913. Serial No. 806,931. Term of patent 7 years.



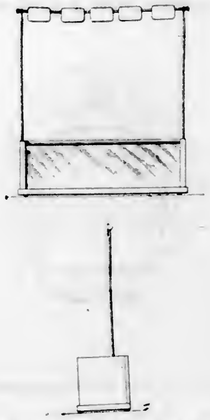
The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,370. SCALE-BEAM WEIGHT. RALPH F. CHATILLON, Greenburg, N. Y. Filed Apr. 16, 1912. Serial No. 691,220. Term of patent 14 years.



The ornamental design for a scale beam weight, as shown.

45,371. SHOW-CASE. CHARLES W. COHN, New York, N. Y. Filed Nov. 21, 1913. Serial No. 802,319. Term of patent 7 years.



The ornamental design for a show case as shown.

45,372. TOY BANK AND CLOCK-CASE. GILBERT CONGDON, Catonsville, Md. Filed Dec. 18, 1913. Serial No. 807,562. Term of patent 7 years.



The ornamental design for a toy bank and clock case, as shown.

45,373. PERCOLATOR. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Jan. 20, 1914. Serial No. 813,337. Term of patent 14 years.



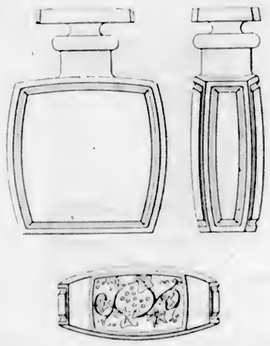
The ornamental design for a percolator, as shown.

45,374. PERCOLATOR. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Jan. 20, 1914. Serial No. 813,338. Term of patent 14 years.



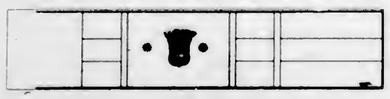
The ornamental design for a percolator, as shown.

45,375. BOTTLE. JOHN L. DUNNOCK, Baltimore, Md. Filed Dec. 30, 1913. Serial No. 809,584. Term of patent 7 years.



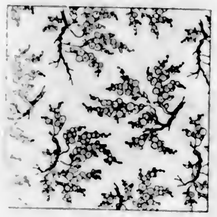
The ornamental design for a bottle, as shown.

45,376. LABEL-BLANK. ALBERT FALK, New York, N. Y., assignor to Falk Tobacco Company, New York, N. Y. Filed Dec. 13, 1913. Serial No. 806,639. Term of patent 7 years.



The ornamental design for a label blank, as shown.

45,377. PRINTED TEXTILE FABRIC. WINFRED C. FOSTER, New York, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,330. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

45,378. BADGE. JOHN GUNTHER, St. Paul, Minn. Filed Jan. 15, 1914. Serial No. 812,354. Term of patent 7 years.




The ornamental design for a badge as shown.

45,379. MIRROR ATTACHMENT FOR AUTOMOBILES FOR SHOWING THE REAR TRAFFIC CONDITIONS. WILLIAM P. HAMMOND, Passaic, N. J. Filed Nov. 20, 1913. Serial No. 802,162. Term of patent 7 years.



The ornamental design for a mirror attachment for automobiles for showing the rear traffic conditions as shown and described.

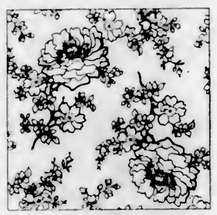


45,380. PRINTED TEXTILE FABRIC. ERNEST HOCH, New York, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,327. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

45,381. PRINTED TEXTILE FABRIC. ERNEST HOCH, New York, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,328. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

45,382. PRINTED TEXTILE FABRIC. ERNEST HOCH, New York, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,329. Term of patent 3½ years.



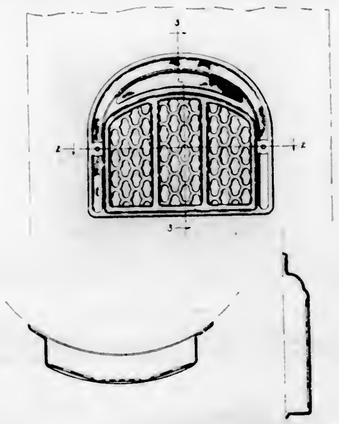
The ornamental design for a printed textile fabric as shown.

45,383. ANTI-SASH-RATTLER. JACOB N. ISENBERGER, Lancaster, Pa. Filed Dec. 12, 1913. Serial No. 806,334. Term of patent 3½ years.



The ornamental design for an anti-sash rattler, as shown.

45,384. STOVE-WINDOW. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Dec. 31, 1913. Serial No. 809,754. Term of patent 14 years.



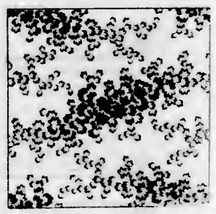
The ornamental design for a stove window, as shown.

45,385. PRINTED TEXTILE FABRIC. WILLIAM CHARLES KORZINEK, Weehawken Heights, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,331. Term of patent 3½ years.



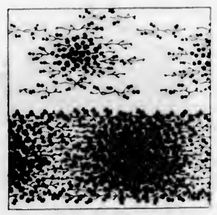
The ornamental design for a printed textile fabric as shown.

45,386. PRINTED TEXTILE FABRIC. WILLIAM CHARLES KORZINEK, Weehawken Heights, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,332. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

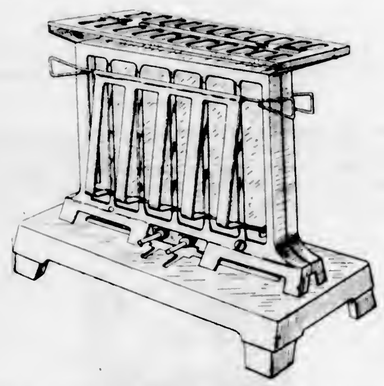
45,387. PRINTED TEXTILE FABRIC. WILLIAM CHARLES KORZINEK, Weehawken Heights, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,333. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

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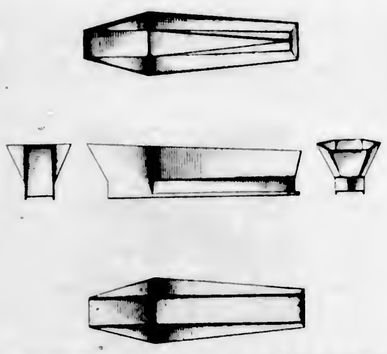
45,388. TOASTER. FRANK KUHN, Detroit, Mich. Filed Dec. 27, 1913. Serial No. 809,135. Term of patent 14 years.



The ornamental design for a toaster, substantially as shown.

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45,389. BOAT-HULL. JOHN E. LANGSTAFF, New York, N. Y. Filed Jan. 3, 1914. Serial No. 810,269. Term of patent 14 years.



The ornamental design for a boat hull, substantially as shown.

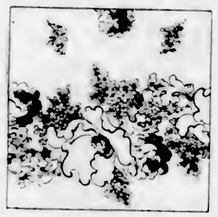
45,390. GAS AND VAPOR BURNER. JAMES E. LOCKWOOD, Peoria, Ill. Filed Jan. 5, 1914. Serial No. 810,515. Term of patent 3½ years.



The ornamental design for a gas and vapor burner, as shown.

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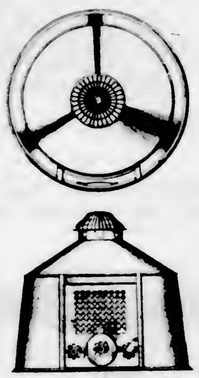
45,391. PRINTED TEXTILE FABRIC. EMILE MADELEINE, Flatbush, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,326. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

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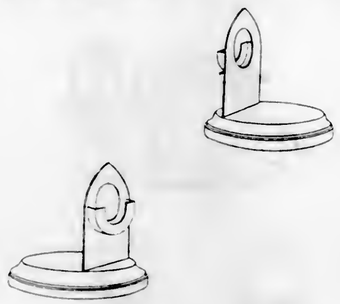
45,392. POULTRY-COOP. WILLIAM H. MATTHAI, Baltimore, Md., assignor to National Enameling and Stamping Company, Baltimore, Md., a Corporation of New Jersey. Filed Dec. 11, 1913. Serial No. 806,118. Term of patent 14 years.



The ornamental design for a poultry coop, as shown.



45,393. WATCH-HOLDER. SIDNEY R. MILBURN, Weehawken, N. J. Filed Nov. 12, 1913. Serial No. 800,684. Term of patent 3½ years.



The ornamental design for a watch holder as shown.

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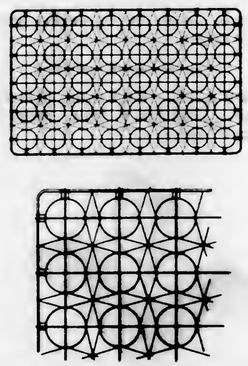
45,394. LOCKET. HENRY D. MIX, Providence, R. I., assignor to Wightman & Hough, Providence, R. I., a Corporation of Rhode Island. Filed Apr. 18, 1913. Serial No. 762,128. Term of patent 7 years.



The ornamental design for a locket as shown.

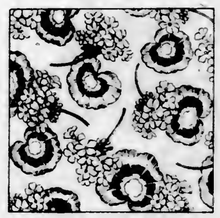
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45,395. SPRING-MATTRESS. CLINTON G. MOORE, Muncie, Ind. Filed Dec. 13, 1913. Serial No. 806,640. Term of patent 14 years.



The ornamental design for a spring mattress, as shown.

45,396. PRINTED TEXTILE FABRIC. EMILE MUNIER, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,321. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

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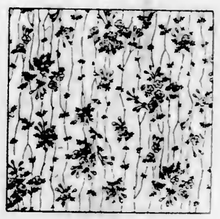
45,397. PRINTED TEXTILE FABRIC. EMILE MUNIER, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,322. Term of patent 3½ years.



The ornamental design for a printed textile fabric as shown.

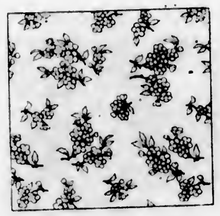
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45,398. PRINTED TEXTILE FABRIC. EMILE MUNIER, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,323. Term of patent 3½ years.



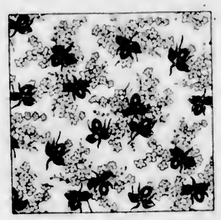
The ornamental design for a printed textile fabric as shown.

45,399. PRINTED TEXTILE FABRIC. EMILE MUNIER, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,324. Term of patent 3½ years.



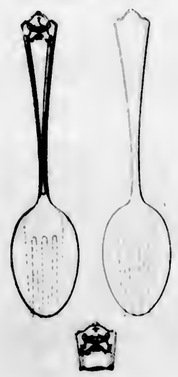
The ornamental design for a printed textile fabric as shown.

45,400. PRINTED TEXTILE FABRIC. EMILE MUNIER, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1914. Serial No. 813,325. Term of patent 3½ years.



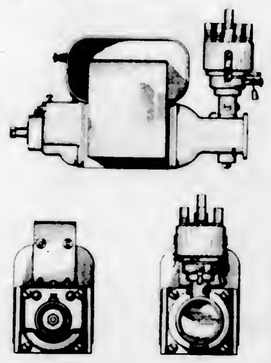
The ornamental design for a printed textile fabric as shown.

45,401. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. CHARLES OSBORNE, New York, N. Y., assignor to Whiting Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 4, 1913. Serial No. 771,772. Term of patent 14 years.



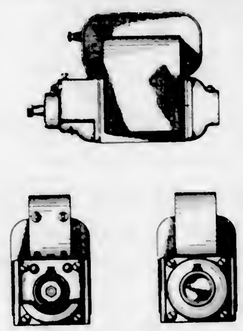
The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,402. CASING FOR ELECTRICAL TRANSLATING DEVICES. JOHN B. PETERS, Toledo, Ohio, assignor to The Electric Auto-Lite Company, Toledo, Ohio, a Corporation of Ohio. Filed Nov. 14, 1913. Serial No. 801,092. Term of patent 7 years.



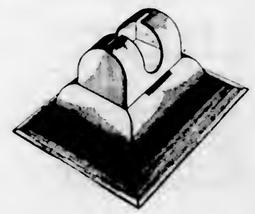
The ornamental design for a casing for electrical translating devices, substantially as shown.

45,403. ENGINE IGNITION DEVICE. JOHN B. PETERS, Toledo, Ohio, assignor to The Electric Auto-Lite Company, Toledo, Ohio, a Corporation of Ohio. Filed Nov. 14, 1913. Serial No 801,093. Term of patent 7 years.



The ornamental design for an engine ignition device, substantially as shown.

45,404. MATCH-SAFE. NATHANIEL SANDERSON, North Yakima, Wash. Filed Jan. 6, 1914. Serial No. 810,683. Term of patent 7 years.



The ornamental design for a match safe as shown.



45,405. FRAME FOR VACUUM-CLEANERS. WILLIAM S. SUTTON, Rockford, Ill., assignor to Houston Manufacturing Company, Rockford, Ill., a Corporation of Illinois. Filed Nov. 4, 1911. Serial No. 658,586. Term of patent 14 years.



The ornamental design for a frame for a vacuum cleaner, as shown.

45,406. BADGE OR SIMILAR ARTICLE. CHARLES O. SWEET, Attleboro, Mass., assignor to C. O. Sweet and Son Company, a Corporation of Massachusetts. Filed Jan. 3, 1914. Serial No. 810,267. Term of patent 3½ years.



The ornamental design for a badge or similar article, as shown.

# TRADE-MARKS

## PUBLISHED MARCH 10, 1914.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 41,692. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MARY A. MITTELL, New York, N. Y. Filed Apr. 9, 1909.

**BILL**

*Particular description of goods.*—Taffy Candy.
*Claims use* since Mar. 31, 1909.

Ser. No. 45,769. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WM. ANDERSON & CO., New York, N. Y. Filed Nov. 8, 1909.

**IVANHOE**

*Particular description of goods.*—Ginghams.
*Claims use* since about July 1, 1909.

Ser. No. 53,912. (CLASS 2. RECEPTACLES.) FRED H. DECKER, New York, N. Y., and Newark, N. J. Filed Jan. 16, 1911.

SIMPLEX

*Particular description of goods.*—Vacuum-Bottles, Vacuum Nursing-Bottles, Vacuum-Carafes, and Boxes and Receptacles for Vacuum Lunch Outfits.
*Claims use* since about the 15th of October, 1910.

Ser. No. 56,341. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) E. G. WEBSTER & SON, Brooklyn, N. Y. Filed May 11, 1911.




Which consists of the representation of a spider's web having superposed thereon a star bearing the letter "W."
*Particular description of goods.*—Hollow Ware in Silver Plate.
*Claims use* since September, 1896.

Ser. No. 57,763. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WELSBACH COMPANY, Gloucester City, N. J. Filed July 21, 1911.

**WIREOID**

*Particular description of goods.*—Textile Mantles for Incandescent Lamps.
*Claims use* since about July 1, 1911.

Ser. No. 60,447. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) PITTSBURGH STEEL CO., Pittsburgh, Pa. Filed Dec. 26, 1911.




*Particular description of goods.*—Metal Fencing.
*Claims use* since about Dec. 14, 1911.

Ser. No. 61,286. (CLASS 15. OILS AND GREASES.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.




*Particular description of goods.*—Type-Writer Oil.
*Claims use* since Mar. 1, 1908.

Ser. No. 61,289. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.




*Particular description of goods.*—Scissors, Shears, Steel Ink-Erasers, Corkscrews, Metal Tally-Punches, Check-Perforating Machines, and Metal-Eyelet Machines.
*Claims use* since Mar. 1, 1908.

Ser. No. 61,643. (CLASS 47. WINES.) LÉON OLRY ROEDERER, Rheims, France. Filed Feb. 21, 1912. Under ten-year proviso.

Louis Roederer

*Particular description of goods.*—Champagne-Wine.
*Claims use* since about 1877.

Ser. No. 61,744. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARRIS WOODSON CO., INC., Lynchburg, Va. Filed Feb. 26, 1912.

HILL CITY

*Particular description of goods.*—Candy.
*Claims use* since Jan. 28, 1909.

Ser. No. 61,930. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE VEEDER MANUFACTURING COMPANY, Hartford, Conn. Filed Mar. 4, 1912.

Veeder

*Particular description of goods.*—Cyclometers, Odometers, Tachometers, and Tachodometers.
*Claims use* since about Oct. 1, 1895.

Ser. No. 62,227. (CLASS 10. FERTILIZERS.) ARKANSAS FERTILIZER CO., Little Rock, Ark. Filed Mar. 18, 1912.




*Particular description of goods.*—Fertilizers.
*Claims use* since February, 1902.

Ser. No. 63,565. (CLASS 11. INKS AND INKING MATERIALS.) BINNEY & SMITH COMPANY, New York, N. Y. Filed May 15, 1912.

FREFLO

*Particular description of goods.*—Dry Pigment for Solid and Semisolid Inks.
*Claims use* since Mar. 14, 1912.

Ser. No. 64,254. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OLO VOIL MANUFACTURING CO., Kansas City, Mo. Filed June 18, 1912.

OLO-VOIL

*Particular description of goods.*—Hair-Tonic.
*Claims use* since Mar. 12, 1912.

Ser. No. 65,279. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) DAVID BASCH, New York, N. Y. Filed Aug. 15, 1912.

GRIPFAST

*Particular description of goods.*—Belts for Personal Wear.
*Claims use* since December, 1907.

Ser. No. 66,670. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) W. S. NOTT COMPANY, Minneapolis, Minn. Filed Nov. 4, 1912.

HERO

*Particular description of goods.*—Leather Belting.
*Claims use* since about Nov. 1, 1907.

Ser. No. 66,671. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) W. S. NOTT COMPANY, Minneapolis, Minn. Filed Nov. 4, 1912.

DIAMOND

*Particular description of goods.*—Leather Belting.
*Claims use* since about Jan. 1, 1888.





Ser. No. 67,044. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SEEBOHM & DIECKSTAHL LD., Sheffield, England. Filed Nov. 21, 1912.



*Particular description of goods.*—Lathes, Boring, Turning, Planing, Shaping, Drilling, Milling, Punching, Shearing, Bending, Straightening, Riveting, Grinding, and Stoneworking Machines, Twist, Mining, Rock-Boring, and Wood-Boring Drills, Milling, Shaping, Turning, Bone, Wheel, Dividing, Fluting, and Grooving Cutters, and Harrows, Harrow-Disks, Saws other Than Hacksaw-Blades and Sawing Machinery, Files, Rasps, Reamers, Taps and Dies, Chisels, Spanners, Axes, Adzes, Hatchets, Hoes, Spades, Shovels, Pickaxes, Wedges, Vises, Hand-Drills, Cramps, Bill-Hooks, and Pincers.
*Claims use* since the 16th of March, 1910.

Ser. No. 67,316. (CLASS 38. PRINTS AND PUBLICATIONS.) SARA ELIZABETH EDWARDS, St. Louis, Mo. Filed Dec. 9, 1912.




The picture shown on the drawing being that of Charles Dickens, deceased.
*Particular description of goods.*—Printed Books, Periodicals, Prints, and Pictures.
*Claims use* since the 1st day of November, 1912.

Ser. No. 67,645. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LYON & HEALY, Chicago, Ill. Filed Dec. 30, 1912.

*Symphonic*

*Particular description of goods.*—Strings for Musical Instruments, Including Violins, Guitars, Mandolins, Cellos.
*Claims use* since Mar. 2, 1912.

Ser. No. 68,129. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CROUSE-HINDS COMPANY, Syracuse, N. Y. Filed Jan. 24, 1913.

OBROUND

The trade-mark consists of the word "Obround."
*Particular description of goods.*—Cover Parts and Fittings for Conduit Outlet-Boxes.
*Claims use* since Mar. 16, 1912.

Ser. No. 68,498. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) D. J. FAOUR & BROS., New York, N. Y. Filed Feb. 11, 1913.



The picture being that of Joseph Bey Karam, a deceased Syrian patriot.
*Particular description of goods.*—Soaps.
*Claims use* since Jan. 2, 1900.

Ser. No. 68,713. (CLASS 38. PRINTS AND PUBLICATIONS.) AMERICAN WINE COMPANY, St. Louis, Mo. Filed Feb. 25, 1913.

COOKS IMP

*Particular description of goods.*—A Monthly Publication.
*Claims use* since February, 1906.

Ser. No. 68,856. (CLASS 38. PRINTS AND PUBLICATIONS.) TROY LAUNDRY MACHINERY COMPANY, LIMITED, Chicago, Ill. Filed Mar. 5, 1913.

TROY TOPICS

*Particular description of goods.*—A Monthly Publication.
*Claims use* since January, 1908.

Ser. No. 69,005. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa. Filed Mar. 13, 1913.

LEELAND

*Particular description of goods.*—Trusses, Supporters, Elastic Hosiery, Water-Bottles, Fountain-Syringes, Combination Water-Bottles and Fountain-Syringes, Nipples, Finger-Cots, Ice-Bags, Ice-Caps, Operating-Cushions, Invalid-Rings, Catheters, Rectal Tubes, Stomach-Tubes, Metallic Splints, Hypodermic Needles, and Cauteries.
*Claims use* since June 3, 1911.

Ser. No. 69,539. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SOCIETE DES ANCIENS ETABLISSEMENTS GROUVELLE ET ARGUEMBOURG (J. GROUVELLE, H. ARGUEMBOURG ET CIE.), Paris, France. Filed Apr. 2, 1913.

LE JARNAC

*Particular description of goods.*—Internal-Combustion or Explosive Engines, Casings for Engines or Motors, Carbureters, and Air and Liquid Pumps.
*Claims use* since Sept. 19, 1912.

Ser. No. 70,321. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NAVE-MCCORD MERCANTILE CO., St. Joseph, Mo. Filed May 9, 1913.

**FRONTIER**

*Particular description of goods.*—Vinegar, Tapioca, Tea, Sugar, Rice, Pepper, Jell-Powder, Buckwheat-Flour, Jellies, Jams, Preserves, Pickles.
*Claims use* since Feb. 1, 1905.

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Ser. No. 70,596. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) UNITED STATES SAND PAPER CO., Williamsport, Pa. Filed May 23, 1913.

HERCULUNDUM

*Particular description of goods.*—Cloth and Paper Overlaid or Faced with an Abrasive Material or Substance.
*Claims use* since about the 1st day of April, 1913.

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Ser. No. 70,597. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) UNITED STATES SAND PAPER CO., Williamsport, Pa. Filed May 23, 1913.

CARBALITE

*Particular description of goods.*—Cloth and Paper Overlaid or Faced with an Abrasive Material or Substance.
*Claims use* since about the 1st day of April, 1913.

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Ser. No. 70,815. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) WULFING GROCER COMPANY, St. Louis, Mo. Filed May 31, 1913.

HAPPY HOME

*Particular description of goods.*—Rubber Jar-Rings.
*Claims use* since about Feb. 1, 1903.

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Ser. No. 70,900. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KANSAS CITY WHOLESALE GROCERY CO., Kansas City, Mo. Filed June 6, 1913.

PICKWICK

*Particular description of goods.*—Apple-Butter, Cereal Breakfast Food, Vienna Sausage, Canned Shrimp, Powdered Sugar, Canned Oysters, Soups, Sliced Beef, Potted Meat Products, Candies, Peanut-Butter, Sugar-Syrup, Tea, Vinegar, Cheese, Salad-Dressing, Molasses, Jelly, Hams, Rice, Alimentary Paste Products, Jam, Olives, Olive-Oil, Pickles, and Catsup.
*Claims use* since July, 1902.

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Ser. No. 71,432. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HAMPTON L. ADAMS, Dalhart, Tex. Filed June 30, 1913.

ADANUTENE

*Particular description of goods.*—A Substitute for Coffee.
*Claims use* since Feb. 8, 1913.

Ser. No. 71,494. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN BAKING COMPANY, Louisville, Ky. Filed July 3, 1913.



*Particular description of goods.*—Bakery Products—viz., Bread, Cake, Doughnuts, and Cookies.
*Claims use* since Apr. 1, 1911.

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Ser. No. 71,552. (CLASS 37. PAPER AND STATIONERY.) ADIRONDACK TISSUE PAPER CO., New Hartford, N. Y. Filed July 7, 1913.




*Particular description of goods.*—Toilet-Paper.
*Claims use* since Jan. 1, 1913.

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Ser. No. 71,612. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALLAHAN & SONS, Louisville, Ky. Filed July 9, 1913.

CALLAHAN'S A

Exclusive right to the word "Callahan's" is expressly disclaimed.
*Particular description of goods.*—Whole Oats, Clipped or in the Natural State, for Feeding or Milling Purposes.
*Claims use* since about Feb. 17, 1900.

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Ser. No. 71,932. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BLODGETT MILLING CO., Janesville, Wis. Filed July 24, 1913.

OLDTIMES

*Particular description of goods.*—Buckwheat-Flour and Buckwheat Products Commercially Known as Buckwheat-Flour.
*Claims use* since about Jan. 1, 1889.





Ser. No. 72,004. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE GOBY ENGINE COMPANY, Cleveland, Ohio. Filed July 28, 1913.

Goby

The said trade-mark being the autograph surname of Clifford S. Goby.
*Particular description of goods.*—Internal-Combustion Engines.
*Claims use* since about January, 1913.

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Ser. No. 72,198. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE AMBER CHEMICAL COMPANY, Atlanta, Ga. Filed Aug. 7, 1913.

TRADE MARK
TACCO
BRAND

The words "Trade-Mark" and "Brand" being specifically disclaimed.
*Particular description of goods.*—A Varnish to be Applied with a Cheese-Cloth and Used Upon All Articles and Objects Requiring and Having a Surface.
*Claims use* since Jan. 1, 1913.

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Ser. No. 72,728. (CLASS 39. CLOTHING.) THE SPIRELLA COMPANY, Meadville, Pa. Filed Sept. 8, 1913.



*Particular description of goods.*—Corsets, Corset-Covers, Children's Underwaists, Girls' Underwaists, Athletic Waists, Collars, Brassières, Stockings, Boots, and Shoes.
*Claims use* since Mar. 1, 1905.

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Ser. No. 72,729. CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE SPIRELLA COMPANY, Meadville, Pa. Filed Sept. 8, 1913.



*Particular description of goods.*—Bust-Extenders, Bust Forms, Bust-Supporters, Stocks, Hose-Supporters, Belts for Personal Wear, Shirt-Waist Extenders, Apparel-Pads, Ruffles, Skirt-Protectors, Corset-Stays, Corset-Clasps, and Clasps Not Made of Precious Metal for Personal Wear.
*Claims use* since in April, 1910.

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Ser. No. 72,903. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STYRON-BEGGS COMPANY, Newark, Ohio. Filed Sept. 16, 1913.




No claim being made to the exclusive use of the words "Dealers Authorized to Guarantee These Goods" and "See That Spot."

*Particular description of goods.*—Oil Cassia Cinnamon, Oil Peppermint, Rubbed Sage, Flavoring Extracts, Fruit-Color, Oil Lemon, Extract Wintergreen, Synthetic Oil Wintergreen, and Oil Cloves, All for Flavoring Foods.
*Claims use* since January, 1896.

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Ser. No. 72,979. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS. AND PARTS THEREOF.) H. MUNDLOS & CO., NÄHMASCHINEN-FABRIK, Magdeburg-N., Germany. Filed Sept. 20, 1913.

Mundus

*Particular description of goods.*—Sewing-Machines and Parts Thereof.
*Claims use* since May, 1913.

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Ser. No. 72,992. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OLD DOMINION PEANUT CORPORATION, Norfolk, Va. Filed Sept. 22, 1913.




No claim is made to the words "Salted Peanuts."
*Particular description of goods.*—Salted Peanuts.
*Claims use* since Aug. 1, 1913.

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Ser. No. 73,004. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ANGELO DI C. DAVINI, Lucca, Italy. Filed Sept. 23, 1913.



No claim being made herein to any of the printed matter, with the exception of the words "La Formica."
*Particular description of goods.*—Olive-Oil.
*Claims use* since Feb. 1, 1913.

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Ser. No. 73,021. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILTON P. WILCOX, Montgomery, Ala. Filed Sept. 23, 1913. Under ten-year proviso.




The picture being fanciful.
*Particular description of goods.*—Cheese.
*Claims use* since 1890.

Ser. No. 73,145. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVERETT, AUGHENBAUGH & Co., Waseca, Minn. Filed Oct. 1, 1913.



*Particular description of goods.*—Wheat-Flour, Wheat-Bran, Wheat-Offal—viz., Wheat-Screenings, Wheat-Middlings, and Mixed Feed.
*Claims use* since Aug. 1, 1913.

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Ser. No. 73,215. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GREAT ATLANTIC AND PACIFIC TEA COMPANY, Jersey City, N. J. Filed Oct. 4, 1913.

Sunnybrook

*Particular description of goods.*—Eggs.
*Claims use* since about Aug. 15, 1911.

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Ser. No. 73,223. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARL A. THIMSEN, Modesto, Cal. Filed Oct. 4, 1913.

Mal-tone

Any right or interest in the words "Trade Mark" being disclaimed. The trade-mark consists of the words "Mal-Tone" resting on heads of wheat.
*Particular description of goods.*—Bread, Said Bread upon Which Said Trade-Mark is Used Being a Special Kind of Bread Manufactured by Me from Whole Wheat, Bran, Malt Extract, Wheat-Flour, and Yeast.
*Claims use* since the 1st day of April, 1913.

Ser. No. 73,228. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) ENGER-KRESS POCKET BOOK CO., West Bend, Wis. Filed Oct. 6, 1913.

UNIVERSAL

*Particular description of goods.*—Leather Novelties, Particularly Pocket-Books, Card-Cases, Bill-Books, Wallets, Music-Rolls, Music-Bags, Pass-Cases, and Bill-Folders.
*Claims use* since in September, 1910.

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Ser. No. 73,229. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EISENMAYER MILLING COMPANY, Springfield, Mo. Filed Oct. 6, 1913. Under ten-year proviso.

SPOTLESS

*Particular description of goods.*—Wheat-Flour.
*Claims use* since July, 1884.

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Ser. No. 73,267. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALSTON SAW & STEEL COMPANY, Folcroft Pa. Filed Oct. 8, 1913.

ALSTON

*Particular description of goods.*—Saws.
*Claims use* since about June 1, 1913.

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Ser. No. 73,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DENT HARRISON, Westmount, Canada. Filed Oct. 9, 1913.

HARRISON'S DUTCH LOAF

No claim, however, being made to the exclusive use of the name "Harrison's" or word "Loaf."
*Particular description of goods.*—Bread.
*Claims use* since about Mar. 6, 1912.





Ser. No. 73,373. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Oct. 15, 1913.




No claim being made to the exclusive use of the word "Brand," the picture shown being fanciful.
*Particular description of goods.*—Wheat-Flour.
*Claims use* since Aug. 20, 1912.

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Ser. No. 73,380. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSON BISCUIT COMPANY, Sioux City, Iowa. Filed Oct. 15, 1913.

Johnsons

La Fama

No claim being made to the exclusive use of the word "Johnson's."
*Particular description of goods.*—Chocolates.
*Claims use* since Jan. 1, 1913.

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Ser. No. 73,577. (CLASS 38. PRINTS AND PUBLICATIONS.) INTERNATIONAL HARVESTER COMPANY OF AMERICA, Chicago, Ill. Filed Oct. 23, 1913.

Ink Spots & Sole Leather

*Particular description of goods.*—A Periodical.
*Claims use* since July 1, 1913.

Ser. No. 73,780. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES G. STAPLES, Spokane, Wash. Filed Nov. 3, 1913.

CrismyCrisp

*Particular description of goods.*—Candies and Popcorn.
*Claims use* since July 25, 1913.

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Ser. No. 73,836. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN MCCORMICK, New York, N. Y. Filed Nov. 6, 1913.

EMPIRE

*Particular description of goods.*—Citrus Fruits, Such as Oranges, Grape-Fruit, and Tangarines, Mandarins, and Kumquats.
*Claims use* since Nov. 1, 1913.

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Ser. No. 73,845. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WHITNEY-ECKSTEIN SEED CO., Buffalo, N. Y. Filed Nov. 7, 1913.

IMPERATOR

The trade-mark consists of the word "Imperator."
*Particular description of goods.*—Clover, Alsike, Alfalfa, Timothy, and Lawn Seeds, Seed-Grain, and Seed-Corn.
*Claims use* since Oct. 21, 1913.

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Ser. No. 73,857. (CLASS 39. CLOTHING.) SAMUEL W. PECK & Co., New York, N. Y. Filed Nov. 7, 1913.

Clothes of Culture
STYLED IN NEW YORK
BY
Samfeck

The phrase "Clothes of Culture Styled in New York By" being disclaimed.
*Particular description of goods.*—Men's and Young Men's Suits and Overcoats.
*Claims use* since July 15, 1913.

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Ser. No. 73,870. (CLASS 39. CLOTHING.) MCINTYRE, HOGG, MARSH AND COMPANY LIMITED, London, England. Filed Nov. 8, 1913.

RADIAC

*Particular description of goods.*—Dress-Shirts, Negligée Shirts, Working-Shirts, Pajama-Suits, Night-Shirts, Collars, Cuffs, and Shirt-Fronts.
*Claims use* since December, 1909.

Ser. No. 73,909. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JABURG BROTHERS, New York, N. Y. Filed Nov. 11, 1913.

IMPERATOR
ONE POUND NET WEIGHT
THE CROWNING QUALITY
COFFEE
PACKED BY
JABURG BROS.
NEW YORK

The words "One Pound," "Net Weight," "The Crowning Quality," "Coffee," "Packed by Jaburg Bros. New York," being disclaimed.

*Particular description of goods.*—Coffees.

*Claims use* since Oct. 27, 1913.

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Ser. No. 74,048. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CECIL BILLUPS, Norfolk, Va. Filed Nov. 18, 1913.

THE CHAMPION

*Particular description of goods.*—Plows, Moldboards, Landsides, Points, Plow-Beams, Weeders, Stalk-Cutters, Field-Rollers, and Grain and Peanut Fans.

*Claims use* since and during the year 1876.

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Ser. No. 74,055. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD F. KEMP, Somerville, Mass. Filed Nov. 18, 1913.

GOLDEN GLOW

*Particular description of goods.*—Nuts and Salted Nuts.

*Claims use* since Nov. 1, 1913.

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Ser. No. 74,282. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DUNLAP & CO., Detroit, Mich. Filed Dec. 1, 1913.

SULFOTHEN

*Particular description of goods.*—A Chemical Compound Used as a Bactericide, Germicide, Antiseptic, Disinfectant, and Insecticide.

*Claims use* since Nov. 1, 1910.

Ser. No. 74,292. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTH AMERICAN MERCANTILE CO., San Francisco, Cal. Filed Dec. 1, 1913.

Namco

*Particular description of goods.*—Canned Crab-Meat, Tuna, Clams, and Shrimps, Peanut-Butter, and Peanuts.

*Claims use* since June 10, 1912.

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Ser. No. 74,315. (CLASS 39. CLOTHING.) SOMERVELL BROTHERS, Netherfield, Kendal, England. Filed Dec. 2, 1913.

K

*Particular description of goods.*—Boots and Shoes, Leggings, and Gaiters of Leather, and Boots and Shoes of Leather Having Canvas or Cloth Uppers.

*Claims use* since approximately the 11th day of January, 1883.

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Ser. No. 74,324. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOSEPH A. BELCHNER, Portland, Me. Filed Dec. 3, 1913.

ADHE

*Particular description of goods.*—A Compound Devised to Secure in Place Artificial Teeth.

*Claims use* since Oct. 1, 1913.

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Ser. No. 74,358. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GUARANTEE PAINT MFG. CO., New Orleans, La. Filed Dec. 4, 1913.

STIKTITE

Our trade-mark consists of the word "Stiktite."

*Particular description of goods.*—Metal Paints.

*Claims use* since the year 1909.

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Ser. No. 74,376. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CARL HOFFBAUER, New York, N. Y. Filed Dec. 5, 1913.

Out-o-syte

*Particular description of goods.*—Tapes on Which are Sewn Garment-Fasteners.

*Claims use* since September, 1913.





Ser. No. 74,383. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARK & TILFORD, New York, N. Y. Filed Dec. 5, 1913.

Rit-Carlton

*Particular description of goods.*—Candy.

*Claims use* since Nov. 13, 1913.

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Ser. No. 74,446. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARGREAVES MERCANTILE CO., Lincoln, Nebr. Filed Dec. 8, 1913.

SUN-KIST

*Particular description of goods.*—Coffee.

*Claims use* since Nov. 1, 1913.

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Ser. No. 74,450. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MEAD-MORRISON MFG. CO., Portland, Me., and Boston, Mass. Filed Dec. 8, 1913.

M M C M

*Particular description of goods.*—Steam-Engines, Hoisting Devices, Coal and Ore Handling and Conveying Machinery, Grab-Buckets, Mechanically-Operated Trolleys, Booms, Derricks, Towers, Tracks, Coal-Crushers, and One-Man Rigs.

*Claims use* since on or about July 11, 1912.

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Ser. No. 74,464. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HOFFINGER & ROTH, St. Louis, Mo. Filed Dec. 9, 1913.

HoRoCo

*Particular description of goods.*—Soap.

*Claims use* since about Nov. 29, 1913.

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Ser. No. 74,470. (CLASS 37. PAPER AND STATIONERY.) WILLIAM MITCHELL (PENS) LIMITED, Birmingham, England. Filed Dec. 9, 1913.




No claim is made to the exclusive use of the representation of a fountain-pen.

*Particular description of goods.*—Fountain-Pens.

*Claims use* since Oct. 31, 1913.

Ser. No. 74,471. (CLASS 37. PAPER AND STATIONERY.) WILLIAM MITCHELL (PENS) LIMITED, Birmingham, England. Filed Dec. 9, 1913.




No claim is made to the exclusive use of the representations of pens, nor to the exclusive use of the numerals "1851" and "1900," nor to any of the printed words, with the exception of the word "Dial."

*Particular description of goods.*—Steel and Metallic Pens.

*Claims use* since Aug. 5, 1913.

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Ser. No. 74,571. (CLASS 39. CLOTHING.) HAYMAN FINKELSTEIN, New York, N. Y. Filed Dec. 13, 1913.

HIGH ART

*Particular description of goods.*—Men's Dress-Shirts and Negligée Shirts and Boys' Shirt-Waists.

*Claims use* since Dec. 1, 1911.

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Ser. No. 74,616. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE MARTHEO CHEMICAL CO., Columbus, Ohio. Filed Dec. 15, 1913.

MARTHEO

*Particular description of goods.*—Soap in Paste Form.

*Claims use* since about Nov. 15, 1913.

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Ser. No. 74,654. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER KERN CO., Knoxville, Tenn. Filed Dec. 17, 1913.

PE-KE-CO.

*Particular description of goods.*—Candy.

*Claims use* since Sept. 29, 1913.

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Ser. No. 74,761. (CLASS 46. FOODS AND INGREDIENTS OF FOODS. STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Dec. 20, 1913.

NA-E-DRO

*Particular description of goods.*—Tea.

*Claims use* since Dec. 10, 1913.

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Ser. No. 74,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITE STAR CANNING COMPANY, Los Angeles, Cal. Filed Dec. 22, 1913.

CHICKEN OF THE SEA

*Particular description of goods.*—Tuna-Fish and Pure Olive-Oil and Olive-Oil with Cotton-Seed Oil and Salad-Oil.

*Claims use* since July, 1912.

Ser. No. 74,811. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) STARK BRO'S NURSERIES & ORCHARDS CO., Louisiana, Mo. Filed Dec. 23, 1913.

Sumner Gleason.

Which is a facsimile of the signature of Dr. Sumner Gleason, of the Gleason Nursery, of Kaysville, Utah.
*Particular description of goods.*—Peach-Trees.
*Claims use* since the year 1906.

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Ser. No. 74,812. (CLASS 38. PRINTS AND PUBLICATIONS.) W. N. SHARPE LIMITED, Bradford, England. Filed Dec. 23, 1913.

CLASSIC

*Particular description of goods.*—Christmas and New-Year Cards, Calendars, Birthday-Cards and Birthday-Booklets, Scoring-Cards and Ball-Programs, Post-Cards, Cut-Out Mottoes, Advertising-Cards, and Show-Cards.
*Claims use* since about January, 1901.

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Ser. No. 74,837. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HENRY W. MILLER and JOHN P. RAFFERTY, Baltimore, Md. Filed Dec. 26, 1913.

WAXOILIN

*Particular description of goods.*—A Preparation for Oiling, Cleaning, and Polishing Furniture and Woodwork.
*Claims use* since Jan. 1, 1914.

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Ser. No. 74,839. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Chicago, Ill. Filed Dec. 26, 1913.

ROB ROY

*Particular description of goods.*—Bakery Products, (Cakes or Cookies.)
*Claims use* since June 18, 1913.

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Ser. No. 74,878. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKE OF THE WOODS MILLING CO. LTD., Montreal, Canada. Filed Dec. 29, 1913.




*Particular description of goods.*—Wheat-Flour.
*Claims use* since May 15, 1896.

Ser. No. 74,885. (CLASS 38. PRINTS AND PUBLICATIONS.) ORLAND V. SMITH, Milford, Conn. Filed Dec. 29, 1913.




*Particular description of goods.*—Books of Printed Coupons for Commercial Use.
*Claims use* since Dec. 10, 1913.

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Ser. No. 74,939. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CLEMENS MÜLLER, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Dresden, Germany. Filed Jan. 2, 1914.

VERITAS

The trade-mark consists of the word "Veritas."
*Particular description of goods.*—Sewing-Machines and Parts Thereof.
*Claims use* since Jan. 1, 1885.

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Ser. No. 74,940. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CLEMENS MÜLLER, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Dresden, Germany. Filed Jan. 2, 1914.

Urania

The trade-mark consists of the word "Urania."
*Particular description of goods.*—Type-Writing Machines and Parts Thereof.
*Claims use* since Nov. 1, 1910.

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Ser. No. 74,941. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CLEMENS MÜLLER GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, Dresden, Germany. Filed Jan. 2, 1914.

Perkeo

The trade-mark consists of the word "Perkeo."
*Particular description of goods.*—Type-Writing Machines and Parts Thereof.
*Claims use* since Mar. 1, 1912.





Ser. No. 74,957. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 3, 1914.




Excepting the representation of a tea-kettle, which is disclaimed.
*Particular description of goods.*—Enameled Ware.
*Claims use* since Dec. 15, 1913.

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Ser. No. 74,967. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) CRESCENT DENTAL MFG. CO., Chicago, Ill. Filed Jan. 5, 1914.

CRESCENT

*Particular description of goods.*—Dental Broaches.
*Claims use* since on or about Aug. 1, 1903.

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Ser. No. 75,009. (CLASS 39. CLOTHING.) LA BELLE NOVELTY MANUFACTURING CO., INC., New York, N. Y. Filed Jan. 7, 1914.




*Particular description of goods.*—Bathing-Shoes, Leggings, and Slippers of All Kinds.
*Claims use* since the 30th day of December, 1913.

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Ser. No. 75,016. (CLASS 17. TOBACCO PRODUCTS.) JOHANNES SAALFELD, Hoboken, N. J. Filed Jan. 7, 1914.

Imperator

*Particular description of goods.*—Cigarettes.
*Claims use* since Dec. 1, 1913.

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Ser. No. 75,023. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. X. BAUMERT & COMPANY, New York, N. Y. Filed Jan. 8, 1914.

LE NAPOLÉON

*Particular description of goods.*—Cheese.
*Claims use* since about September, 1904.

Ser. No. 75,028. (CLASS 39. CLOTHING.) MAURICE B. FREIDENRICH, New York, N. Y. Filed Jan. 8, 1914.

LUPE

The word "Lupe."
*Particular description of goods.*—Athletic Goods—viz., Drawers, Caps, Base-Ball, Foot-Ball, Gymnasium, Basket-Ball, and Tennis Suits, Outing Shirts and Trousers, and Pushers.
*Claims use* since Nov. 4, 1913.

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Ser. No. 75,037. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) NOILLY PRAT & CIE., Marseille, France. Filed Jan. 8, 1914. Under ten-year proviso.




*Particular description of goods.*—Vermuth.
*Claims use* since the year 1855.

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Ser. No. 75,049. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Jan. 9, 1914.

KIROPODIZER

*Particular description of goods.*—Spraying Instruments.
*Claims use* since Dec. 26, 1913.

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Ser. No. 75,081. (CLASS 39. CLOTHING.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Jan. 10, 1914.

Garland

*Particular description of goods.*—Men's Negligée and Work Shirts.
*Claims use* since about Sept. 15, 1913.

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Ser. No. 75,100. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHEFFIELD-KING MILLING CO., Minneapolis, Minn. Filed Jan. 10, 1914.

WHITEHOPE

*Particular description of goods.*—Wheat-Flour and Mill-Feeds.
*Claims use* since the 1st of November, 1913.

Ser. No. 75,161. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) AURORA AUTOMATIC MACHINERY COMPANY, Chicago, Ill. Filed Jan. 14, 1914.

Thor

*Particular description of goods.*—Portable Electrically-Actuated Drills.
*Claims use* since the 11th day of August, 1913.

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Ser. No. 75,177. (CLASS 37. PAPER AND STATIONERY.) LEWIS R. FISHER, Baltimore, Md. Filed Jan. 14, 1914.

CROWN
CARBOLATED
Toilet - Paper

No claim is made to the words "Carbolated" and "Toilet Paper."
*Particular description of goods.*—Toilet-Paper.
*Claims use* since some time in the year 1901.

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Ser. No. 75,216. (CLASS 39. CLOTHING.) WORUMBO MANUFACTURING COMPANY, Bath, Me., and New York, N. Y. Filed Jan. 15, 1914.

FUZZY-WUZZY

*Particular description of goods.*—Women's Coats, Children's Coats, Leggings, Caps, Mufflers, and Sweaters.
*Claims use* since Oct. 15, 1913.

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Ser. No. 75,217. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WORUMBO MANUFACTURING COMPANY, Bath, Me., and New York, N. Y. Filed Jan. 15, 1914.

FUZZY-WUZZY

*Particular description of goods.*—Wool Pile Fabrics, Cotton-Wool Pile Fabrics, and Cotton Pile Fabrics.
*Claims use* since Oct. 15, 1913.

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Ser. No. 75,248. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BENJAMIN F. FLEGEL, Racine, Wis. Filed Jan. 17, 1914.

RELIANCE

*Particular description of goods.*—Electric Automatic Time-Switches.
*Claims use* since August, 1909.

Ser. No. 75,300. (CLASS 39. CLOTHING.) THE SATIS CO. INC., New York, N. Y. Filed Jan. 19, 1914.

RETLEY

*Particular description of goods.*—Dress and Negligée Shirts, Underwear—viz., Shirts, Drawers, and Combination-Suits of Shirts and Drawers in Knitted, Netted, and Textile Fabrics; Athletic Garments—viz., Gymnasium-Suits, Swimming-Suits, and Running or Track Suits.
*Claims use* since Jan. 3, 1914.

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Ser. No. 75,316. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland. Filed Jan. 20, 1914.

Jsarol

*Particular description of goods.*—A Pharmaceutical Product Prepared by the Sulfurization of a Sulfurous Product of Distillation Which is Obtained from the Bituminous Schists and Particularly Applicable for Use Internally and Externally as a Resorbent, Astringent, Reducent, and Antiseptic, in Every Kind of Rheumatic, Arthritic, Skin, and Women's Diseases.
*Claims use* since Apr. 19, 1902.

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Ser. No. 75,317. (CLASS 37. PAPER AND STATIONERY.) SCOTT PAPER CO., Philadelphia, Pa. Filed Jan. 20, 1914.

FOLDUM

*Particular description of goods.*—Toilet-Paper.
*Claims use* since Apr. 25, 1906.

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Ser. No. 75,368. (CLASS 37. PAPER AND STATIONERY.) B. D. RISING PAPER COMPANY, Housatonic, Mass. Filed Jan. 22, 1914.

FINANCE

*Particular description of goods.*—Flat Writing-Paper.
*Claims use* since Jan. 1, 1901.

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Ser. No. 75,369. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS WILLIAM RYAN, Concord Junction, Mass. Filed Jan. 22, 1914.

AL

*Particular description of goods.*—Ball-Cocks.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,379. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE CUTLER-HAMMER M'F'G CO., Milwaukee, Wis. Filed Jan. 23, 1914.

PYROPLAX

The trade-mark consisting of the word "Pyroplax."
*Particular description of goods.*—Insulating Material.
*Claims use* since Dec. 11, 1913.





Ser. No. 75,380. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE CUTLER-HAMMER MFG. CO., Milwaukee, Wis. Filed Jan. 23, 1914.

THERMOPLAX

The trade-mark consisting of the word "Thermoplax."
*Particular description of goods.*—Insulating Material.
*Claims use* since Dec. 11, 1913.

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Ser. No. 75,387. (CLASS 39. CLOTHING.) MOHAWK VALLEY CAP FACTORY, Utica, N. Y. Filed Jan. 23, 1914. Under ten-year proviso.




*Particular description of goods.*—Cloth Caps, Knit Caps, Sweaters, and Sweater-Coats.
*Claims use* since Dec. 1, 1884.

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Ser. No. 75,418. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THAYER-BUCK ELECTRIC CO., Farmington, N. H. Filed Jan. 24, 1914.

GEM

*Particular description of goods.*—Outlet-Boxes.
*Claims use* since on or about Dec. 28, 1910.

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Ser. No. 75,428. (CLASS 39. CLOTHING.) BROWN SHOE COMPANY INC., St. Louis, Mo. Filed Jan. 26, 1914.

Nugget

*Particular description of goods.*—Leather Shoes.
*Claims use* since Sept. 17, 1913.

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Ser. No. 75,452. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GEORGE F. KREITLEIN, Indianapolis, Ind. Filed Jan. 26, 1914.




*Particular description of goods.*—Spark-Plugs.
*Claims use* since May 28, 1913.

Ser. No. 75,453. (CLASS 12. CONSTRUCTION MATERIALS.) DAVID E. KENNEDY, INC., New York, N. Y. Filed Jan. 26, 1914.

EVERLASTIC

*Particular description of goods.*—Elastic Floor-Tiles.
*Claims use* since Jan. 15, 1914.

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Ser. No. 75,464. (CLASS 39. CLOTHING.) SEARS, ROEBUCK AND COMPANY, Chicago, Ill. Filed Jan. 26, 1914.

Double-Body
PILGRIM BRAND

No exclusive claim is made to the words "Double-Body" and "Brand."
*Particular description of goods.*—Underwear.
*Claims use* since Dec. 31, 1913.

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Ser. No. 75,465. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Jan. 26, 1914.

CORONA

*Particular description of goods.*—Prepared Roofings Consisting of Fabric Treated with a Bituminous Mixture and also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,466. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Jan. 26, 1914.

GARANTITE

*Particular description of goods.*—Prepared Roofings Consisting of a Fabric Treated with a Bituminous Mixture and also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,467. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Jan. 26, 1914.

TYTON

*Particular description of goods.*—Prepared Roofings Consisting of a Fabric Treated with a Bituminous Mixture and also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Jan. 16, 1914.

Ser. No. 75,471. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LUIS R. YANGCO, Manila, Philippine Islands. Filed Jan. 26, 1914.



HOMBRE GORDO

*Particular description of goods.*—Silk, Cotton, and Woolen Cloth.
*Claims use* since Jan. 1, 1911.

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Ser. No. 75,472. (CLASS 39. CLOTHING.) COES & YOUNG CO., Boston, Mass. Filed Jan. 27, 1914.

JOY WALKERS

*Particular description of goods.*—Leather and Canvas Boots, Shoes, and Slippers and Canvas Shoes with Rubber Soles.
*Claims use* since Nov. 15, 1913.

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Ser. No. 75,507. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PATTERSON DRUG CO., Lynchburg, Va. Filed Jan. 28, 1914.

PA-DRU-CO

*Particular description of goods.*—An Emulsion of Petroleum Compound Used as a Remedy in Various Throat and Lung Troubles, Enteritis, Ulcerations, Intestinal Indigestion, and Various other Derangements of the Alimentary Canal.
*Claims use* since Nov. 15, 1912.

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Ser. No. 75,516. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Jan. 29, 1914.

9000
RANGE

*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since the 3d of December, 1901.

Ser. No. 75,517. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Jan. 29, 1914.

14000
RANGE

*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since the 15th day of October, 1901.

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Ser. No. 75,518. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed Jan. 29, 1914.

1001
CLOTH

*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since the 23d of November, 1912.

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Ser. No. 75,519. (CLASS 39. CLOTHING.) THE BIXBY COMPANY, Decatur, Ill. Filed Jan. 29, 1914.

Jobix

*Particular description of goods.*—Burial-Shoes.
*Claims use* since on or about the 1st of January, 1914.

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Ser. No. 75,540. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) J. HUNGERFORD SMITH CO., Rochester, N. Y. Filed Jan. 29, 1914.



*Particular description of goods.*—Flavoring-Syrup for Non-Alcoholic Beverages and for Non-Alcoholic Beverages Formed by Diluting Such Syrup.
*Claims use* since Oct. 24, 1913.





Ser. No. 75,541. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) J. HUNGERFORD SMITH CO., Rochester, N. Y. Filed Jan. 29, 1914.

Cherry-Chic

*Particular description of goods.*—Flavoring-Syrup for Non-Alcoholic Beverages and for Non-Alcoholic Beverages Formed by Diluting Such Syrup.
*Claims use* since Oct. 24, 1913.

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Ser. No. 75,546. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM F. DUNLOP, New York, N. Y. Filed Jan. 30, 1914.



*Particular description of goods.*—A Remedy for Pyorrhea and Pus Diseases.
*Claims use* since Jan. 1, 1914.

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Ser. No. 75,547. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) RICHARD FRANK, New York, N. Y. Filed Jan. 30, 1914.

ROSEBUD

*Particular description of goods.*—Cranberry Products Used in Fountain-Drinks.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,549. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOLDEN DAWN SPECIFIC CO., Durant, Miss. Filed Jan. 30, 1914.




The portrait being that of W. O. Glines, and the word "Specific" not being claimed.
*Particular description of goods.*—A Medicine for Use in Treating Colds, La Grippe, and Pulmonary Troubles.
*Claims use* since Sept. 15, 1913.

Ser. No. 75,567. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. B. BARKER & CO. LIMITED, New York, N. Y. Filed Jan. 31, 1914. Under ten-year proviso.




*Particular description of goods.*—Machine-Needles.
*Claims use* since about Jan. 1, 1883.

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Ser. No. 75,568. (CLASS 15. OILS AND GREASES.) C. B. BARKER & CO. LIMITED, New York, N. Y. Filed Jan. 31, 1914. Under ten-year proviso.

HOWARD'S

*Particular description of goods.*—Lubricating-Oils.
*Claims use* since Jan. 1, 1888.

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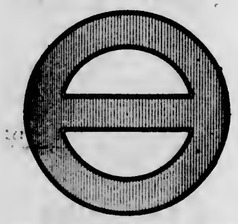
Ser. No. 75,574. (CLASS 39. CLOTHING.) EMIL A. HIRNER, Allentown, Pa. Filed Jan. 31, 1914.



*Particular description of goods.*—Hosiery.
*Claims use* since Nov. 26, 1913.

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Ser. No. 75,578. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BENJAMIN G. KRAMER, Milwaukee, Wis. Filed Jan. 31, 1914.



*Particular description of goods.*—Governors for Engines.
*Claims use* since June 4, 1913.

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Ser. No. 75,591. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SHERMAN & SONS COMPANY, New York, N. Y. Filed Jan. 31, 1914.

CLOISTER

*Particular description of goods.*—Long-Cloth and Cotton Cloth.
*Claims use* since on or about Mar. 17, 1910.

Ser. No. 75,650. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MACNAMARA FEATURE FILM CO., INC., New York, N. Y. Filed Feb. 3, 1914.



Walter Macnamara

The trade-mark consists of a portrait of Walter Macnamara and his signature.
*Particular description of goods.*—Moving-Picture Films.
*Claims use* since Jan. 28, 1914.

Ser. No. 75,651. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MORRIS HERRMANN & CO., New York, N. Y. Filed Feb. 3, 1914.

**TONICIDE**

*Particular description of goods.*—Insecticides.
*Claims use* since Dec. 31, 1913.

Ser. No. 75,657. (CLASS 15. OILS AND GREASES.) MAGNUS NORMAN, St. Paul, Minn. Filed Feb. 3, 1914.

**RACE-O-LENE**

*Particular description of goods.*—Motor-Fuel Improvers.
*Claims use* since Apr. 1, 1913.

Ser. No. 75,707. (CLASS 43. THREAD AND YARN.) CARL MEZ & SÖHNE, Freiburg, Germany. Filed Feb. 5, 1914.

**CAMEZA**

*Particular description of goods.*—Threads Made from Silk, Artificial Silk, Cotton, Linen, and Wool.
*Claims use* since 1st of September, 1913.

Ser. No. 75,708. (CLASS 43. THREAD AND YARN.) CARL MEZ & SÖHNE, Freiburg, Germany. Filed Feb. 5, 1914.

**CAMEZONA**

*Particular description of goods.*—Threads Made from Silk, Artificial Silk, Cotton, Linen, and Wool.
*Claims use* since Sept. 1, 1913.

Ser. No. 75,718. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE STANDARD COMPANY, Torrington, Conn. Filed Feb. 5, 1914.

**PIRATE**

*Particular description of goods.*—Spark-Plugs.
*Claims use* since Sept. 1, 1912.

Ser. No. 75,725. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) IMMER O. CRITTENDEN, Cleveland, Ohio. Filed Feb. 6, 1914.



*Particular description of goods.*—Veterinary Emasculators, Écraseurs, Floats and Files, Specula, Artificial Impregnators, Cattle-Dehorners, Horse and Cattle Trocars, and Similar Veterinary Surgical Instruments.
*Claims use* since February, 1909.

Ser. No. 75,739. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TRIPPE, BARKER & CO., New York, N. Y. Filed Feb. 6, 1914.

**JAPANESE IDOL**

*Particular description of goods.*—Cotton and Linen Piece Goods.
*Claims use* since about Jan. 29, 1914.

Ser. No. 75,740. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TRIPPE, BARKER & CO., New York, N. Y. Filed Feb. 6, 1914.

**Ayesha**

*Particular description of goods.*—Cotton and Linen Piece Goods.
*Claims use* since about Dec. 29, 1913.

Ser. No. 75,741. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TRIPPE, BARKER & CO., New York, N. Y. Filed Feb. 6, 1914.

**MURIKO**

*Particular description of goods.*—Cotton and Linen Piece Goods.
*Claims use* since about Jan. 29, 1914.





Ser. No. 75,742. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TRIPPE, BARKER & CO., New York, N. Y. Filed Feb. 6, 1914.

**KAMORA**

*Particular description of goods.*—Cotton and Linen Piece Goods.
*Claims use* since about Jan. 12, 1914.

Ser. No. 75,755. (CLASS 39. CLOTHING.) FROLASET CORSET COMPANY, Detroit, Mich. Filed Feb. 7, 1914.

**La Matrix**

*Particular description of goods.*—Corsets.
*Claims use* since Jan. 15, 1914

Ser. No. 75,756. (CLASS 39. CLOTHING.) THE L. N. GROSS COMPANY, Cleveland, Ohio. Filed Feb. 7, 1914.

**THE WIRTHMOR**

*Particular description of goods.*—Women's Garments—Namely, Shirt-Waists and Dresses.
*Claims use* since Jan. 2, 1914.

Ser. No. 75,797. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) OTTO W. WALTER, Jacksonville, Fla. Filed Feb. 9, 1914.




*Particular description of goods.*—Canes, Parasols, and Umbrellas.
*Claims use* since Dec. 18, 1913.

Ser. No. 75,842. (CLASS 39. CLOTHING.) J. BAKER & SONS, Evansville, Ind. Filed Feb. 11, 1914.



*Particular description of goods.*—Overalls, Jackets, and Trousers.
*Claims use* since Mar. 29, 1913.

Ser. No. 75,844. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHARLES EICHBAUM, Port Jervis, N. Y. Filed Feb. 11, 1914.



The border and monogram being printed in gold, the circular medallion on which said monogram appears being printed in red, and the words "Minisink Club" being printed in black.
*Particular description of goods.*—Carbonated Beverages, Including Frozen Ginger-Ale, Birch-Soda, Sarsaparilla, Orange-Phosphate, Cream-Soda, and Seltzer-Lemonade.
*Claims use* since Nov. 1, 1913.

Ser. No. 75,861. (CLASS 39. CLOTHING.) ADOLPH BERGMAN, Philadelphia, Pa Filed Feb. 12, 1914.

**KNITTOFIT**

*Particular description of goods.*—Knit Goods—Namely, Jackets, Sweaters, Armlets, Leggings, Mittens, Gloves, Bathing-Suits, and Undershirts.
*Claims use* since about Nov. 24, 1913.

# TRADE-MARKS

## REGISTERED MARCH 10, 1914.

95,725. CERTAIN NAMED MUSICAL INSTRUMENTS AND ATTACHMENTS AND MECHANISM THEREFOR. AEOLIAN COMPANY, New York, N. Y., and Meriden, Conn.
Filed August 2, 1913. Serial No. 72,122. PUBLISHED JANUARY 6, 1914.

95,726. CERTAIN NAMED MUSICAL INSTRUMENTS AND ATTACHMENTS AND MECHANISM THEREFOR. AEOLIAN COMPANY, New York, N. Y., and Meriden, Conn.
Filed August 2, 1913. Serial No. 72,123. PUBLISHED JANUARY 6, 1914.

95,727. ADHESIVE PASTE AND ADHESIVE SIZING. AMERICAN HOMINY COMPANY, Indianapolis, Ind.
Filed July 19, 1909. Serial No. 43,633. PUBLISHED DECEMBER 31, 1912.

95,728. GARBAGE-CANS. AUTOMATIC LOCK COVER CORPORATION, New York, N. Y.
Filed November 7, 1913. Serial No. 73,859. PUBLISHED JANUARY 6, 1914.

95,729. HAIR-TONICS AND HAIR-DRESSINGS. J. C. AYER COMPANY, Lowell, Mass.
Filed July 16, 1912. Serial No. 64,753. PUBLISHED APRIL 29, 1913.

95,730. FOOT SALVES AND POWDERS. BACKUS & FERGUSON, Stockton, Cal.
Filed September 29, 1913. Serial No. 73,096. PUBLISHED JANUARY 6, 1914.

95,731. MATERIAL FOR FORMING AND REPAIRING LININGS FOR FURNACES AND THE LIKE. J. E. BAKER Co., York, Pa.
Filed October 30, 1913. Serial No. 73,667. PUBLISHED DECEMBER 23, 1913.

95,732. PUMPS. THE BARNES MFG. Co., Mansfield, Ohio.
Filed November 24, 1913. Serial No. 74,151. PUBLISHED JANUARY 6, 1914.

95,733. LADIES' OUTER SUITS, COATS, AND SKIRTS. LOUIS BARNETT SONS INC., New York, N. Y.
Filed June 10, 1913. Serial No. 70,994. PUBLISHED JANUARY 6, 1914.

95,734. SALVES. EVA BAYER, Baltimore county, Md.
Filed October 5, 1912. Serial No. 66,164. PUBLISHED JANUARY 6, 1914.

95,735. PHOTOGRAPHS. VINCENZO SPRACARO BELLINO, Philadelphia, Pa.
Filed September 25, 1913. Serial No. 73,036. PUBLISHED JANUARY 6, 1914.

95,736. WHISKY. C. BERRY & Co., Boston, Mass.
Filed November 25, 1913. Serial No. 74,181. PUBLISHED JANUARY 6, 1914.

95,737. CERTAIN NAMED CEMENT-WORKING TOOLS. BONNEY VISE & TOOL WORKS INC., Philadelphia and Allentown, Pa., and New York, N. Y.
Filed November 7, 1913. Serial No. 73,856. PUBLISHED JANUARY 6, 1914.

95,738. PAINT AND VARNISH CLEANSER AND FOR RESTORING VARNISH TO ITS NATURAL COLOR. HARRY BRUAW, Harrisburg, Pa.
Filed August 8, 1913. Serial No. 72,220. PUBLISHED JANUARY 6, 1914.

95,739. CERTAIN NAMED CLOTHING. HENRY A. BUDD, New York, N. Y.
Filed October 31, 1913. Serial No. 73,706. PUBLISHED DECEMBER 23, 1913.

95,740. BLOUSES, KNICKERBOCKERS, BLOOMERS, OVERSKIRTS, UNDERSKIRTS, DRESSES, COATS, LEGGINGS, AND HATS. CAMP FIRE GIRLS, New York, N. Y.
Filed November 26, 1913. Serial No. 74,206. PUBLISHED JANUARY 6, 1914.

95,741. DRESS-SHIELDS. THE CANFIELD RUBBER COMPANY, Bridgeport, Conn.
Filed October 3, 1913. Serial No. 73,195. PUBLISHED JANUARY 6, 1914.

95,742. OVERCOATS, SHORT COATS, NORFOLK JACKETS, REEFERS OR MUFFLERS, TROUSERS, AND VESTS OF KNITTED FABRIC. CARBONDALE KNITTING MILLS, Carbondale, Pa.
Filed February 14, 1913. Serial No. 68,542. PUBLISHED JANUARY 6, 1914.

95,743. CORSETS. CHAPPELL, ALLEN & Co., LIMITED, Redfield, Bristol, England.
Filed September 23, 1913. Serial No. 73,003. PUBLISHED JANUARY 6, 1914.

95,744. TEXTILE FABRIC COATED WITH RUBBER OR WATERPROOF SURFACE COATING. L. C. CHASE & COMPANY, Boston, Mass.
Filed October 1, 1913. Serial No. 73,144. PUBLISHED JANUARY 6, 1914.

95,745. VERMUTH. FRANCESCO CINZANO & Co., Turin, Italy.
Filed July 14, 1913. Serial No. 71,680. PUBLISHED JANUARY 6, 1914.

95,746. SOAP. CLAIRE MANUFACTURING Co., Chicago, Ill.
Filed November 17, 1913. Serial No. 74,027. PUBLISHED JANUARY 6, 1914.

95,747. SOAPS AND SOAP POWDERS. COLGATE & Co., New York, N. Y.
Filed October 10, 1913. Serial No. 73,299. PUBLISHED JANUARY 6, 1914.

95,748. CORSETS, BRASSIÈRES, BUST-SUPPORTERS, TO BE USED EITHER WITH OR WITHOUT CORSETS, AND CORSET-WAISTS. CORSET H COMPANY, Worcester, Mass.
Filed November 21, 1912. Serial No. 67,047. PUBLISHED SEPTEMBER 23, 1913.

95,749. SHOES MADE OF LEATHER OR CLOTH. ZELLA S. COBSON, Chicago, Ill.
Filed September 25, 1913. Serial No. 73,043. PUBLISHED JANUARY 6, 1914.

95,750. CATHARTICS. EDWARD W. COX, Cleveland, Ohio.
Filed December 2, 1913. Serial No. 74,304. PUBLISHED JANUARY 6, 1914.

95,751. MUCILAGE, GLUE, SEALING-WAX, AND PASTE. DENNISON MANUFACTURING COMPANY, Boston, Mass.
Filed October 27, 1913. Serial No. 73,621. PUBLISHED JANUARY 6, 1914.

95,752. STROPS. PHIL. EISEMANN, Lancaster, Pa.
Filed December 3, 1913. Serial No. 74,327. PUBLISHED JANUARY 6, 1914.

95,753. ECZEMA-OINTMENT. FISHMAN & MCGOWAN, Sidney, Nebr.
Filed November 29, 1913. Serial No. 74,252. PUBLISHED JANUARY 6, 1914.

95,754. DEODORANT. FULTON BAG & COTTON MILLS, Atlanta, Ga.
Filed August 14, 1913. Serial No. 72,335. PUBLISHED JANUARY 6, 1914.

95,755. FIREPROOF TEXTILES. FULTON BAG & COTTON MILLS, Atlanta, Ga.
Filed September 2, 1913. Serial No. 72,619. PUBLISHED JANUARY 6, 1914.

95,756. MEDICINE FOR BLOOD, STOMACH, LIVER, AND BOWEL DISEASES. W. J. GILMORE DRUG COMPANY, Pittsburgh, Pa.
Filed November 11, 1913. Serial No. 73,907. PUBLISHED JANUARY 6, 1914.

95,757. SOAP, SOAP POWDER, AND WASHING-POWDER. THE GLOBE SOAP COMPANY, Cincinnati, Ohio.
Filed May 21, 1910. Serial No. 49,844. PUBLISHED JANUARY 6, 1914.

95,758. SOAP, SOAP POWDER, AND WASHING-POWDER. THE GLOBE SOAP COMPANY, Cincinnati, Ohio.
Filed May 21, 1910. Serial No. 49,845. PUBLISHED JANUARY 6, 1914.

95,759. WOOLEN DRESS GOODS. HAAS BROTHERS, New York, N. Y.
Filed November 12, 1913. Serial No. 73,922. PUBLISHED JANUARY 6, 1914.

95,760. DYNAMITE AND GELATINOUS EXPLOSIVES, SPORTING AND BLASTING POWDER, FUSES, AND CAPS. HERCULES POWDER COMPANY, Wilmington, Del.
Filed June 14, 1913. Serial No. 71,107. PUBLISHED DECEMBER 9, 1913.

95,761. DYNAMITE AND GELATINOUS EXPLOSIVES, SPORTING AND BLASTING POWDER, FUSES, AND CAPS. HERCULES POWDER COMPANY, Wilmington, Del.
Filed June 18, 1913. Serial No. 71,165. PUBLISHED DECEMBER 9, 1913.

95,762. FURNITURE-POLISH. CARL HOFMANN, New York, N. Y.
Filed November 20, 1913. Serial No. 74,095. PUBLISHED JANUARY 6, 1914.

95,763. COMPOUNDS FOR CLEANSING THE HANDS AND CLOTHING. INO MANUFACTURING COMPANY, Nashville, Tenn.
Filed October 20, 1913. Serial No. 73,509. PUBLISHED JANUARY 6, 1914.

95,764. CERTAIN NAMED MACHINES AND SEPARATE PARTS THEREFOR. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.
Filed August 1, 1913. Serial No. 72,108. PUBLISHED JANUARY 6, 1914.

95,765. MEDICINE FOR USE IN REMOVING CORNS. JACOBS PHARMACY COMPANY, Atlanta, Ga.
Filed November 13, 1913. Serial No. 73,948. PUBLISHED JANUARY 6, 1914.

95,766. RUSSIA-LEATHER SHOE-POLISH. GEO. J. KELLY CO., Haverhill and Lynn, Mass.
Filed November 20, 1913. Serial No. 74,098. PUBLISHED JANUARY 6, 1914.

95,767. CORSETS. ROSE KERNER, New York, N. Y.
Filed November 25, 1913. Serial No. 74,190. PUBLISHED JANUARY 6, 1914.

95,768. CERTAIN NAMED CUTLERY, TOOLS, AND AGRICULTURAL FORKS. KRAKAUER, ZORK & MOYES SUCS, INC., El Paso, Tex.
Filed September 8, 1913. Serial No. 72,722. PUBLISHED JANUARY 6, 1914.

95,769. BOOTS AND SHOES MADE OF LEATHER AND CANVAS. THE A. S. KREIDER SHOE CO., Annville, Pa.
Filed April 17, 1913. Serial No. 69,860. PUBLISHED JULY 29, 1913.

95,770. GIN COMPOUND. MILTON S. KRONHEIM, Washington, D. C.
Filed November 26, 1913. Serial No. 74,201. PUBLISHED JANUARY 6, 1914.

95,771. METAL MATS AND MATTING. LA PORTE MAT & MFG. CO., Laporte, Ind.
Filed November 29, 1913. Serial No. 74,263. PUBLISHED JANUARY 6, 1914.

95,772. CLEANING, WHITENING, AND RESTORING PREPARATIONS IN LIQUID AND POWDERED FORMS, FOR CERTAIN NAMED ARTICLES. FRANK J. LE DOYEN, Baltimore, Md.
Filed June 5, 1913. Serial No. 70,880. PUBLISHED JANUARY 6, 1914.

95,773. METAL JARDINIÈRES, VASES, AND FERNERIES. GEORGE C. LYNCH COMPANY, New York, N. Y.
Filed October 25, 1910. Serial No. 52,442. PUBLISHED JUNE 3, 1913.

95,774. CERTAIN NAMED CLOTHING FOR GENTLEMEN, LADIES, GIRLS, AND BOYS. JOHN MARES LIMITED, Basingstoke, England.
Filed October 15, 1913. Serial No. 73,384. PUBLISHED JANUARY 6, 1914.

95,775. HOSIERY AND UNDERWEAR—NAMELY, KNITTED SHIRTS AND DRAWERS. F. MEYER & SONS, Brooklyn, N. Y.
Filed October 18, 1913. Serial No. 73,480. PUBLISHED JANUARY 6, 1914.

95,776. MOLDS AND MOLD-CLAMPS, SCAFFOLDS, HOISTS, AND DOOR-CLAMPS. MONOLITHIC SILO & CONSTRUCTION COMPANY, Wilmington, Del., and Chicago, Ill.
Filed October 6, 1913. Serial No. 73,234. PUBLISHED JANUARY 6, 1914.

95,777. FACE-CREAM. NATIONAL PHARMACY CO., Oakland, Cal.
Filed November 19, 1912. Serial No. 67,000. PUBLISHED JANUARY 6, 1914.

95,778. HATS AND CAPS FOR MEN'S WEAR. JOHN T. NEWMARK, Chicago, Ill.
Filed November 14, 1912. Serial No. 66,900. PUBLISHED JANUARY 6, 1914.

95,779. HAIR-PINS MADE OF CELLULOID AND HORN. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed October 9, 1913. Serial No. 73,295. PUBLISHED JANUARY 6, 1914.

95,780. BOOTS AND SHOES MADE OF LEATHER. M. A. PACKARD CO., Brockton, Mass.
Filed March 18, 1913. Serial No. 69,166. PUBLISHED JANUARY 6, 1914.

95,781. CERTAIN MIXTURE USED IN MANUFACTURING SURGICAL SPLINTS AND MEDICAL APPLIANCES. JOHN WICLIFFE PECK, London, England.
Filed November 15, 1913. Serial No. 74,018. PUBLISHED JANUARY 6, 1914.

95,782. PAINT FOR CERTAIN NAMED MATERIALS AND PASTE, PREVENTING RUST, AND VARNISH. AUGUST PRÉE, Dresden, Germany.
Filed November 14, 1913. Serial No. 73,988. PUBLISHED JANUARY 6, 1914.

95,783. PREPARATION FOR THE TREATMENT OF RHEUMATISM. WILLIAM R. RHOADES, Cement, Okla.
Filed September 9, 1913. Serial No. 72,749. PUBLISHED JANUARY 6, 1914.

95,784. UNDERFEED STOKERS. SANFORD RILEY STOKER CO., LTD., Worcester, Mass.
Filed September 19, 1913. Serial No. 72,959. PUBLISHED JANUARY 6, 1914.

95,785. VELVET RIBBON. RUSCH & CO., New York, N. Y.
Filed November 14, 1913. Serial No. 73,989. PUBLISHED JANUARY 6, 1914.

95,786. TABLE-SALT. SAN FRANCISCO SALT REFINERY, San Francisco, Cal.
Filed November 26, 1913. Serial No. 74,221. PUBLISHED JANUARY 6, 1914.

95,787. TABLE-SALT. SAN FRANCISCO SALT REFINERY, San Francisco, Cal.
Filed November 26, 1913. Serial No. 74,222. PUBLISHED JANUARY 6, 1914.



95,788. OINTMENT FOR THE TREATMENT OF CORNS AND CALLOUSES. MORTIMER WEBB SARGEANT, East Orange, N. J.
Filed September 10, 1913. Serial No. 72,774. PUBLISHED JANUARY 6, 1914.

95,789. WHISKY. SHAWHAN DISTILLERY COMPANY, Kansas City, Mo.
Filed November 24, 1913. Serial No. 74,172. PUBLISHED JANUARY 6, 1914.

95,790. PURGATIVE MEDICINE. AUGUSTE FELIX JOSEPH ISIDORE SICRE, Paris, France.
Filed August 27, 1908. Serial No. 36,977. PUBLISHED JANUARY 6, 1914.

95,791. CERTAIN NAMED CLOTHING FOR CHILDREN AND GIRLS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 8, 1913. Serial No. 72,732. PUBLISHED JANUARY 6, 1914.

95,792. CERTAIN NAMED EXTENDERS, FORMS, SUPPORTERS, PROTECTORS, PADS, CLASPS, BELTS, STAYS, STOCKS, AND RUFFLES. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 6, 1913. Serial No. 72,733. PUBLISHED JANUARY 6, 1914.

95,793. CERTAIN NAMED CLOTHING FOR CHILDREN AND GIRLS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 16, 1913. Serial No. 72,899. PUBLISHED JANUARY 6, 1914.

95,794. CERTAIN NAMED EXTENDERS, FORMS, SUPPORTERS, PROTECTORS, PADS, CLASPS, BELTS, STAYS, STOCKS, AND RUFFLES. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 16, 1913. Serial No. 72,900. PUBLISHED JANUARY 6, 1914.

95,795. READY-MIXED PAINTS. STANDARD AMERICAN HOME SUPPLY COMPANY, Wilmington, Del., and Philadelphia, Pa.
Filed April 1, 1913. Serial No. 69,516. PUBLISHED JANUARY 6, 1914.

95,796. HOSIERY. STERN BROTHERS, New York, N. Y.
Filed September 15, 1913. Serial No. 72,866. PUBLISHED JANUARY 6, 1914.

95,797. CAPS. J. N. SUSSKIND & CO., Philadelphia, Pa.
Filed November 10, 1913. Serial No. 74,085. PUBLISHED JANUARY 6, 1914.

95,798. LIVER-PILLS. GIRARD E. THOMPSON, Chatham, Va.
Filed June 6, 1913. Serial No. 70,918. PUBLISHED JANUARY 6, 1914.

95,799. SEWING-NEEDLES, SAFETY-PINS, HAIR-PINS, AND CROCHET-NEEDLES. THÜRINGISCHE NADEL- & STAHLWAREN-FABRIK WOLFF, KNIPPENBERG & CO. ACTIEN-GESELLSCHAFT, Ichtershausen, Germany.
Filed December 2, 1913. Serial No. 74,320. PUBLISHED JANUARY 6, 1914.

95,800. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,340. PUBLISHED JANUARY 6, 1914.

95,801. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,341. PUBLISHED JANUARY 6, 1914.

95,802. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,343. PUBLISHED JANUARY 6, 1914.

95,803. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,344. PUBLISHED JANUARY 6, 1914.

95,804. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,346. PUBLISHED JANUARY 6, 1914.

95,805. HOSIERY AND CERTAIN NAMED KNITTED UNDERWEAR. E. M. TOWNSEND & CO., New York, N. Y.
Filed February 20, 1913. Serial No. 68,644. PUBLISHED APRIL 29, 1913.

95,806. STOVES AND RANGES FOR COOKING AND HEATING PURPOSES. THE UNION STOVE WORKS, New York and Peekskill, N. Y.
Filed September 18, 1913. Serial No. 72,944. PUBLISHED JANUARY 6, 1914.

95,807. POLISH FOR FURNITURE, PIANOS, FLOORS, AND VEHICLES. VI-NE-RO CO., Salt Lake City, Utah.
Filed June 10, 1913. Serial No. 71,008. PUBLISHED JULY 29, 1913.

95,808. DRESS FASTENERS AND BUTTONS. WALDES & COMPANY, New York, N. Y.
Filed December 5, 1913. Serial No. 74,398. PUBLISHED JANUARY 6, 1914.

95,809. DYSPEPSIA AND HEARTBURN. GEORGE HARRY WALTZ, Baltimore, Md.
Filed October 1, 1913. Serial No. 73,161. PUBLISHED JANUARY 6, 1914.

95,810. MEDICAL TONICS, COUGH-DROPS, AND LAXATIVES. DAVID WESTHEIMER, New York, N. Y.
Filed May 9, 1913. Serial No. 70,329. PUBLISHED JANUARY 6, 1914.

95,811. LUBRICATING-OILS. THE WHITE & BAGLEY CO., Worcester, Mass.
Filed November 22, 1913. Serial No. 74,146. PUBLISHED JANUARY 6, 1914.

95,812. GARMENT-FASTENERS. WIRE PRODUCTS COMPANY, Wilmington, Del., and New York, N. Y.
Filed November 21, 1913. Serial No. 74,127. PUBLISHED JANUARY 6, 1914.

95,813. TOILET CREAM AND TOILET LOTION. MAX WOLODARSKY, New York, N. Y.
Filed October 20, 1913. Serial No. 73,525. PUBLISHED JANUARY 6, 1914.

95,814. HAT-BANDEAUX. ARTHUR HENRY WOODFIELD, Luton, England.
Filed September 18, 1913. Serial No. 72,945. PUBLISHED JANUARY 6, 1914.

95,815. REMEDY FOR CERTAIN NAMED DISEASES OF HORSES AND CATTLE. FREDERICK A. WOODMANSEE, Galesburg, Ill.
Filed October 30, 1913. Serial No. 73,704. PUBLISHED JANUARY 6, 1914.

95,816. MEN'S OUTER SUITS. ZERFING AND LIGHTNER, Philadelphia, Pa.
Filed October 18, 1912. Serial No. 66,345. PUBLISHED JANUARY 6, 1914.

# LABELS

## REGISTERED MARCH 10, 1914.

17,595.—*Title:* "FIFTY YEARS AGO, WHEN GOLDEN WEDDING WHISKEY WAS YOUNG." (For Whisky.) Jos. S. Finch & Co., Pittsburgh, Pa. Filed February 18, 1914.

17,596.—*Title:* "GOLDEN WEDDING PURE RYE WHISKEY." (For Whisky.) Jos. S. Finch & Co., Pittsburgh, Pa. Filed February 18, 1914.

17,597.—*Title:* "NATIONAL EXPORT." (For Beer.) The Independent Breweries Company, St. Louis, Mo. Filed February 19, 1914.

17,598.—*Title:* "HEART'S DELIGHT FARM JELLY." (For Jelly.) W. H. Miner, Chazy, N. Y. Filed December 26, 1913.

17,599.—*Title:* "EQUITY CROCHET QUILT." (For Quilts.) Monadnock Mills, Claremont, N. H. Filed November 19, 1913.

17,600.—*Title:* "KENTUCKY BLUE GRASS LAWN SEED." (For Grass-Seed.) Stuart & O'Brien, Paris, Ky. Filed February 18, 1914.

# PRINTS

## REGISTERED MARCH 10, 1914.

3,521.—*Title:* "FIFTY YEARS AGO, WHEN GOLDEN WEDDING WHISKEY WAS YOUNG." (For Whisky.) Jos. S. Finch & Co., Pittsburgh, Pa. Filed February 18, 1914.

3,522.—*Title:* "THE GAME OF SONG AND STORY 'IT PLEASES AND IT PAYS.'" (For Games.) G. Ross Korne & Co., Newark, Ohio. Filed October 23, 1913.

3,523.—*Title:* "WHEN BETTER AUTOMOBILES ARE BUILT BUICK WILL BUILD THEM." (For Automobiles.) Joseph Mack Printing House, Detroit, Mich. Filed December 24, 1913.

3,524.—*Title:* "PICTORIAL ILLUSTRATION OF THE MYERS SEWING AWL." (For Sewing-Awls.) C. A. Myers Company, Inc., Chicago, Ill. Filed January 28, 1914.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

EX PARTE COOPER.

*Decided June 23, 1913.*

PATENTABILITY—TRACKER-BOX.

Claims for a pivotally-mounted tracker-box adapted to be swung into position in front of the keyboard when the piano is to be operated mechanically or to be swung below the keyboard, where it is out of the way, if it is desired to play the piano manually, *Held* unpatentable in view of the prior art.

APPEAL from Examiners-in-Chief.

TRACKER-BOX FOR MECHANICAL MUSICAL INSTRUMENTS.

*Mr. Alfred M. Wilson* for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the rejection by the Primary Examiner of certain claims, of which the following are illustrative:

5. In a mechanical musical instrument, a keyboard and an action, a playing mechanism carried by the instrument and normally positioned stationary therein, and a pivotally-mounted tracker-box movable between two predetermined positions relative to the playing mechanism, one of said positions being with the tracker-box in front of the keyboard, and the other of said positions being with said box below and spaced from the front of the keyboard, the pivot point being below and in rear of the front of the keyboard.

8. In a mechanical musical instrument, a keyboard and an action, in combination with a frame lying substantially parallel with the plane of the keyboard, and a tracker-box having a supporting portion pivotally connected to said frame, the point of pivotal connection being below and in rear of the front of the keyboard, the tracker box being movable between playing and non-playing positions, said positions being on substantially opposite diametrical sides of the point of pivotal connection, said frame and said supporting portion lying in the same plane when the tracker-box is in playing position.

10. In a mechanical musical instrument, a keyboard and an action, in combination with a frame lying substantially parallel with the plane of the keyboard, and a tracker box frame pivotally-connected to said frame, the point of pivotal connection being below and in rear of the front edge of the keyboard, said frames being movable relatively to and from a position in the same plane, and means for locking the tracker-box frame to its supporting frame when the box is in operative position.

13. In a mechanical musical instrument, a keyboard and an action, a playing mechanism carried by the instrument, expression-control mechanism and connections therefor, and a pivotally-mounted tracker-box movable between two predetermined positions relative to the playing mechanism, the pivot point being below and in rear of the front of said keyboard, one of said tracker-box positions being in front of the keyboard, the other of said positions being on the opposing side of the pivot point, said box permanently carrying the operating devices for the expression-control connections, said connections being partially supported by said box and movable therewith.

The references cited are: Kuster, 791,701, June 6, 1905; Votey, 824,049, June 19, 1906.

The patent to Votey discloses a mechanical musical instrument of the same type as applicant's device. As in applicant's structure, it has a pivotally-mounted tracker-box adapted to be swung into position in front of the keyboard when the instrument is operated mechanically or to be swung below the keyboard, where it is out of the way, in case it is desired to play the instrument manually. In Votey's construction the pivotal connection of the tracker-box to its supporting frame or brackets is below the front edge of the keyboard, while in applicant's device it is below the keyboard, but back somewhat from its front edge. This difference in the position of the pivotal connection is the principal difference in the construction set forth in the appealed claims over the Votey structure. It is expressed in the concluding portion of claim 5 by the language—

the pivot point being below and in rear of the front of the keyboard.

This location of the pivotal connection, whereby applicant contends that his tracker-box when swung into an operative position is more completely out of the way of the person manually operating the instrument than is possible with the Votey construction, is set forth in all of the appealed claims by the same or an equivalent expression.

The patent to Kuster shows his playing attachment pivoted below and to the rear of the front edge of the keyboard at the same point where applicant pivots his tracker-box. Kuster's patent states that—

the casing of the attachment consists of a part 4, carrying the bellows, and the key operating and controlling mechanism, which may be of any well-known and approved form and which does not form a part of my present invention.

The appealed claims were rejected by the lower tribunals on the disclosure in Votey's patent, taken in connection with that of Kuster, the position taken being that no invention would be involved in locating Votey's pivotal connection back of the front edge of the keyboard in view of the construction shown in the patent to Kuster.

I perceive no error in the holding of the lower tribunals. As stated by the Primary Examiner:

The Kuster construction suggests that in the Votey case the pivotal point o may be placed beneath and in the rear of the front of the key bed. To accomplish this the change requisite in the Votey structure would be to have the tracker board support of Votey made curved or angular to so extend under the key bed.

In claim 5 and certain other claims it is attempted to distinguish from the construction disclosed in Kuster's patent by the limitation—

a playing mechanism carried by the instrument and normally positioned stationary therein.

This construction, however, is clearly disclosed in the patent to Votey. Claim 8 and some of the other claims do not have this limitation, but use merely the term "tracker-box." These latter claims appear to be met by Kuster alone, since it is not thought that the term "tracker-box" patentably distinguishes from Kuster's swinging box or attachment. Kuster's supporting-brackets K appear to be the equivalent of applicant's supporting-frame 5, at least so far as set forth in the claims.

Claims 10, 19, 20, and 21 include means, or a spring-actuated catch, for securing the tracker-box in operative position. The specification of the Votey patent (p. 2, line 6) states that it is sometimes desirable to provide means for holding the tracker-box against accidental displacement when in position for use. This is an anticipation of applicant's securing means as broadly expressed in these claims. The Examiner has allowed claims covering the specific structure of applicant's securing means.

The limitation in claims 13, 15, 16, and 28 relating to the carrying of the operating devices for the expression-controlling connections upon the tracker-box, as broadly stated in these claims, is not considered patentable over the construction shown in Votey, in which the slide B for operating the expression-controlling lever is mounted on the tracker-box. Claim 3, which specifies the construction of applicant's expression-controlled connection, was allowed by the Examiner.

The decision of the Examiners-in-Chief is affirmed.

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BOTH *v.* BARR.

*Decided February 12, 1914.*

INTERFERENCE—APPLICANT AND PATENTEE—PATENTABILITY.

Where an applicant seeks an interference with a patent, *Held* that the claims in the application should not be rejected unless such rejection is based upon a clear anticipation.

APPEAL from Examiners-in-Chief.

SOCKET-SHELL.

*Mr. Alan M. Johnson* for Both.

*Mr. Robert S. Allyn* for Barr.

NEWTON, *Assistant Commissioner:*

This is an appeal by Barr from the decision of the Examiners-in-Chief affirming the decision of the Primary Examiner refusing to admit his claims 1, 3, and 8 as issues in this interference under the provisions of Rule 109. These claims are as follows:

1. A pull socket comprising a shell body having a slot in its upper end, a double flanged eyelet detachably carried by said shell in said slot forming a chain guide and having its flanges overlapping the edges of the body surrounding the slot and a shell cap on the body holding the eyelet in place.

3. In a pull socket, a metallic shell body having a slot, a chain guide having a groove removably fitting the edges of the metal around the slot and a shell cap fitting the edge of the body and holding the chain guide in place.

8. In electric light pull sockets the combination of a shell provided with a slot, a removable chain guide having means to coöperate with the walls of the slot, a cap to prevent the movement of the chain guide in one direction, and means for securing the cap and shell together.

Both, the other party to the interference, has a patent, No. 1,024,671, which also contains as claims these proposed counts.

After these claims were suggested for interference purposes they were rejected on the patents to Hauss, No. 921,108, May 11, 1909, and on Hubbell, No. 565,541, August 11, 1896, in view of Hauss.

The party Both on September 16, 1911, filed an affidavit under Rule 75 for the purpose of antedating the Hauss patent, but at the same time put on record the following statement:

In answer to the official action of July 17, 1911, applicant traverses the pertinency of the Hauss Patent 921,108, which is for an entirely different device and has no connection with a pull socket, nor is the device used as a chain guide.

As the applicant completed the invention in this country prior to the date of filing of the Hauss patent, he herewith presents an affidavit, under Rule 75, so that the application is now in condition for allowance.

It will be noted from this letter that the party Both traversed the pertinency of the Hauss patent as a reference.

Barr could not antedate the Hauss patent; but in his letter of October 27, 1911, he traverses the pertinence of this patent as a reference.

Hauss discloses an electric-light holder, which is in a somewhat different class of devices from the switch-shells of the interfering parties. The slot 1 in the housing of Hauss holds a collar L', of insulating material, through which a wire *a* passes. Hubbell, however, does disclose a switch-shell having therein an eyelet or collar, through which passes a pull-cord 25, similar to that of the interfering parties.

It will be noted, however, that even if we combined this Hubbell switch-shell with the Hauss light-holder, Hauss being in a somewhat different art, we still do not quite meet the terms of the proposed issues, since it cannot be fairly said of Hubbell that his cap on the body holds the eyelet in place, as specified in count 2, because, unlike the caps of the interfering parties, which come down in contact with the eyelets, Hubbell's shell-cap is too far above his eyelet to hold it in place, or, as stated in proposed count 4, "prevent the movement of the chain guide in one direction."

There is some question, therefore, whether or not the proposed issues are met in these patents. As pointed out above, Both has contended, in effect, that they were not. Barr still contends that they are not met, and under these circumstances it is thought that the proposed counts should be added to the interference in view of the holding of the Court of Appeals of the District of Columbia in *in re Orcutt*, (141 O. G., 567; 32 App. D. C., 345,) to the effect that—

in view of the inadvertence of the Patent Office in granting a patent to McDonald and McDonald for the claims of the issue, which patent is now beyond the control of the Office, it would probably have been the more equitable practice to have assumed patentability in the interference proceeding for the purpose of determining the question of priority between the two parties thereto.

Also, in *ex parte Brinkman*, decided by Commissioner Ewing January 8, 1914, (112 MS. Dec., 128,) it is held:

The question has been raised elsewhere as to the propriety of the refusal by this Office to grant a claim to an applicant which is the same as the claim of a patent disclosing interfering subject-matter. Without passing on this broad question, it seems to me clear that after a patent has once been granted it is not good practice to reject an applicant seeking an interference, where the rejection is based upon no clear anticipation, but the piecing together of several patents.

* * * * * * *

I therefore direct the Examiner to withdraw his rejection of claim 21 and to declare an interference with the Lewis patent.

The decision of the Examiners-in-Chief is therefore reversed.





## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

IN RE COOPER.

*Decided February 2, 1914.*

PATENTABILITY—TRACKER-BOX.

Claims for a pivotally-mounted tracker-box for a piano-player *Held* unpatentable in view of the prior art.

*Mr. Theo. K. Bryant* for the appellant.

*Mr. W. S. Ruckman* for the Commissioner of Patents.

SHEPARD, *C. J.:*

Appellant applied for a patent for an invention relating to the pivotal mounting of the tracker-box of a piano-player so that it may be swung to operative position in front of the keyboard, or to inoperative position beneath the keyboard where it will be out of the way of a performer playing the piano manually. The application contained thirty-two claims. Claims 1 to 4 inclusive are directed to the particular structure of the connections for the control mechanism, and were allowed. The remaining claims are general in their nature; some of them being substantial duplicates of each other. They were rejected on references to Kuster's patent, June 6, 1905, and to Votey's patent, June 19, 1906. It is not necessary to set out the claims. They are recited in the Patent Office decisions. Those decisions are so convincing that we content ourselves with a reference to them.

The decision is affirmed. The clerk will certify this decision to the Commissioner of Patents.

Affirmed.

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### Court of Appeals of the District of Columbia.

IN RE MCNEIL.

*Decided February 2, 1914.*

1. PATENTABILITY—ARTICLE OF MANUFACTURE.

To entitle an applicant to a patent for an article of manufacture, it must appear that he has added a new product to the art, differing from those that preceded it not merely in degree of usefulness or excellence, but in kind.

2. SAME—BELT-LOOP.

A claim for a belt-loop *Held* unpatentable where the article differed from that shown in a prior patent only in the manner in which it was sewed and the stitches used were shown in other patents.

*Mr. E. G. Mason* and *Mr. C. L. Shurtevant* for the appellant.

*Mr. Webster S. Ruckman* for the Commissioner of Patents.

ROBB, *J.:*

Appeal from a decision of the Commissioner of Patents refusing appellant's claim covering a strap composed of fabric as an article of manufacture, the ground of the rejection being lack of novelty. Said claim reads as follows:

A strap composed of a strip of fabric having its side portions initially folded back against the central or body portion, and a single seam securing the side portions to the central portion and to one another including loops of thread passing through one of said folded side portions, entering the central body portion of the strap and passing through the other folded side portion, and cross threads extending across between the edges of the folded side portions and secured by said loops.

The strap above described is really a belt-loop made from a piece of fabric twice the width of the finished loop. The edges of the fabric are folded over so as to abut one another in the center of the fabric. These edges are then stitched together and to the body of the fabric in the manner described in the claim. The patent to Gaisman, No. 661,447, November 6, 1900, shows a completed strap-section that differs from that of appellant's merely in the manner in which it is sewed. The overlapped edges are bound together by a line of zigzag stitching which, however, does not pass into the body portion of the belt. This necessitates either a row of stitching near each edge of the belt or the use of an adhesive. Admittedly, the stitches which appellant has employed are old, as shown by the patent to Fefel, No. 826,094, July 17, 1906, and the patent to Onderdonk, No. 721,077, February 17, 1903. It is apparent, therefore, that appellant, by recourse to the Fefel and Onderdonk patents, has improved upon the method of making the Gaisman belt; and if his application was confined to this improved process he might be entitled to consideration. But his claim is not for a process but for a finished article of manufacture. To entitle him to a patent for such an article it must appear that he has added a new product to this art, differing from those that preceded it not merely in degree of usefulness or excellence but in kind. (*Smith v. Goodyear Dental Vulcanite Co.*, 93 U. S., 486.) To illustrate, when linoleum was produced it differed in kind or species from anything that had gone before. It was distinctly a new product of manufacture, and the one who produced it was entitled not only to a patent for his new process but to a patent for the new article produced in the manner described. In the case of *in re Higgins* (40 App. D. C., 29; 190 O. G., 551) we denied a patent to one who had conceived the idea of making a one-piece cast boiler-header of wrought metal. A single-plate metal boiler-header without seam or weld was old and the applicant had merely perfected a process and devised machinery that would enable him to duplicate the cast-metal header in wrought metal. Here appellant has done nothing more, in our view, than evolve a better process for producing an old thing. The new process clearly does not make new that which was old.

The decision is affirmed.

Affirmed.

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## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Coleman reissue patent, No. 11,626, (original No. 570,906,) for an electric burglar-alarm, claim 6 *Held* void for lack of invention in view of the prior art. *American Bank Protection Co. v. Electric Protection Co.*, 209 Fed. Rep., 845.

(U. S. C. C. A.) The Coleman patent, No. 626,670, for an electric burglar-alarm, claim 1 construed and *Held* not infringed. *American Bank Protection Co.* v. *Electric Protection Co.*, 209 Fed. Rep., 845.

(U. S. C. C. A.) The Stempel patent, No. 688,446, for a gum plaster, construed and *Held* not infringed. *O'Brien-Worthen Co.* v. *Stempel*, 209 Fed. Rep., 847.

(U. S. D. C.) The Norcross patent, No. 698,542, for a reinforced-concrete flooring, claim 2 *Held* void for anticipitation or as for a function and claims 1, 3 and 4 not infringed. *Drum* v. *Turner*, 209 Fed. Rep., 854.

(U. S. D. C.) The Fessenden patent, No. 706,736, for apparatus for wireless telegraphy, as limited by the prior art *Held* not infringed. *National Electric Signaling Co.* v. *Telefunken Wireless Telegraph Co. of the United States*, 209 Fed. Rep., 856.

(U. S. C. C. A.) The Robins and Jacoby patent, No. 771,749, for burglar-alarm devices, claims 1, 3, 4, 6, 15, and 22 construed and *Held* not infringed. *American Bank Protection Co.* v. *Electric Protection Co.*, 209 Fed. Rep., 845.

(U. S. D. C.) The Conrad patent, No. 822,723, for a ball-bearing, construed and *Held* not infringed. *Hess-Bright Mfg. Co.* v. *Fichtel*, 209 Fed. Rep.. 867.

(U. S. C. C. A.) The Grass patent, No. 880,020, for a vault-lining for use in connection with an electrical-alarm circuit, construed and *Held* not infringed. *American Bank Protection Co.* v. *Electric Protection Co.*, 209 Fed. Rep., 845.

## Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 4, 1914.*

*Sea Breeze Chemical Co., its assigns or legal representatives, take notice:*

A cancelation proceeding having been instituted by this Office upon the application of J. W. Brooks & Co., Inc., of No. 20 Bradley street, Portland, Me., to effect the cancelation of the trade-mark registration of the Sea Breeze Chemical Co., of Birmingham, Ala., No. 43,399, dated May 15, 1904, and the notice of such proceeding sent by registered mail to the said Sea Breeze Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Sea Breeze Chemical Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 28, 1914.*

*R. M. Connable & Co., their assigns or legal representatives, take notice:*

Interferences Nos. 37,171 and 37,172 having been declared by this Office between the applications of Monnig Dry Goods Co., 1302–1310 Main street, Fort Worth, Tex., for registration of trade-marks and trade-mark registered June 10, 1890, No. 18,019, to R. M. Connable & Co., Dayton, Ohio, and notices of such declarations sent by registered mail to the said R. M. Connable & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said R. M. Connable & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interferences will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 27, 1914.*

*Marline Manufacturing Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of William Brueser, 3426 Woodland avenue, Kansas City, Mo., for registration of a trade-mark and trade-mark registered February 14, 1893, No. 22,467, to the Marline Manufacturing Company, Minneapolis, Minn., and a notice of such declaration sent by registered mail to said Marline Manufacturing Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Marline Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 25, 1914.*

*Anthony Shaw & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Worcester Royal Porcelain Company, Limited, Worcester, England, for registration of a trade-mark and trade-mark registered September 30, 1884, No. 11,534, to Anthony Shaw & Son, Burslem, England, and a notice of such declaration sent by registered mail to the said Anthony Shaw & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Anthony Shaw & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

*Benjamin Ward, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Seth William Eddy, of Fourteenth and N streets, Lincoln, Nebr., for registration of a trade-mark and trade-mark registered June 1, 1886, No. 13,366, to Benjamin Ward, of northwest corner of Dauphin and Conception streets, Mobile, Ala., and the Office having failed to secure service upon Ward, and Dave S. Bauer, of Mobile, Ala., claiming to be the successor of Ward, having failed to file evidence of his right to intervene on behalf of Ward within the time allowed for that purpose, notice is hereby given that unless said Benjamin Ward, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 14, 1914.*

*Goodyear Boot and Shoe Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Strauss & Jandorf Shoe Co., of Chicago, Ill., for registration of a trade-mark and trade-mark registered July 21, 1885, No. 12,419, to the Goodyear Boot and Shoe Co., of New York, N. Y., and a notice of such declaration sent by registered mail to said Goodyear Boot and Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Goodyear Boot and Shoe Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 200—No. 3. TUESDAY, MARCH 17, 1914. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF MARCH 17, 1914 | 585 |
| NOTICE RELATING TO DRAWINGS | 585 |
| HEARINGS BY THE COMMISSIONER | 585 |
| APPLICATIONS UNDER EXAMINATION | 586 |
| PATENTS GRANTED | 587 |
| REISSUES | 828 |
| DESIGNS | 830 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 837 |
| TRADE-MARKS—REGISTERED | 853 |
| LABELS AND PRINTS | None. |
| TRADE-MARKS RENEWED | 854 |
| TRADE-MARKS CANCELED | 854 |
| COMMISSIONER'S DECISIONS— | |
| Ex parte Shellabarger | 855 |
| DECISIONS OF THE U. S. COURTS— | |
| In re Capron | 855 |
| In re Groves | 856 |
| The Asbestone Company v. The Philip Carey Manufacturing Company | 857 |
| ADJUDICATED PATENTS | 857 |
| NOTICE OF CANCELATION | 858 |
| INTERFERENCE NOTICES | 858 |

## ISSUE OF MARCH 17, 1914.

| | | | |
|---|---|---|---|
| Patents | 702—No. | 1,090,127 to No. | 1,090,828, inclusive. |
| Designs | 36—No. | 45,407 to No. | 45,442, inclusive. |
| Trade-Marks | 42—No. | 95,817 to No. | 95,858, inclusive. |
| Labels | None. | | |
| Prints | None. | | |
| Reissues | 3—No. | 13,699 to No. | 13,701, inclusive. |
| Total | 783 | | |

### TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 7 | ..... | North Carolina | 6 | ..... |
| Arizona | 3 | ..... | North Dakota | 2 | ..... |
| Arkansas | 3 | ..... | Ohio | 40 | 1 |
| California | 30 | 1 | Oklahoma | 7 | ..... |
| Colorado | 12 | ..... | Oregon | 4 | ..... |
| Connecticut | 19 | 1 | Pennsylvania | 64 | 1 |
| Delaware | 1 | ..... | Rhode Island | 7 | 1 |
| Florida | 3 | ..... | South Carolina | 1 | ..... |
| Georgia | 5 | ..... | South Dakota | 2 | ..... |
| Idaho | 1 | ..... | Tennessee | 3 | 1 |
| Illinois | 85 | 1 | Texas | 12 | ..... |
| Indiana | 18 | ..... | Utah | 1 | ..... |
| Iowa | 10 | ..... | Vermont | 2 | ..... |
| Kansas | 7 | ..... | Virginia | 5 | ..... |
| Kentucky | 9 | ..... | Washington | 8 | ..... |
| Louisiana | 2 | ..... | West Virginia | 2 | ..... |
| Maine | 2 | ..... | Wisconsin | 16 | 1 |
| Maryland | 7 | ..... | Wyoming | ..... | ..... |
| Massachusetts | 30 | 3 | | | |
| Michigan | 22 | ..... | Alaska, District of | ..... | ..... |
| Minnesota | 11 | ..... | Canal Zone | ..... | ..... |
| Mississippi | 2 | ..... | District of Columbia | 11 | ..... |
| Missouri | 26 | 1 | Hawaii Territory | ..... | ..... |
| Montana | 2 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 5 | ..... | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 1 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 51 | 2 | | | |
| New Mexico | ..... | ..... | Total to residents of the United States | 660 | 32 |
| New York | 93 | 18 | | | |

### TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Natal | ..... | ..... |
| Austria-Hungary | 4 | ..... | Netherlands | ..... | ..... |
| Belgium | 2 | ..... | Newfoundland | ..... | ..... |
| Brazil | 1 | ..... | New Zealand | ..... | ..... |
| British West Indies | ..... | ..... | Norway | 1 | ..... |
| Canada | 12 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Roumania | ..... | ..... |
| Chile | ..... | ..... | Russia | 1 | ..... |
| China | ..... | ..... | Scotland | 7 | ..... |
| Costa Rica | ..... | ..... | South Australia | ..... | ..... |
| Cuba | ..... | ..... | Spain | ..... | 1 |
| Denmark | ..... | ..... | Sweden | 2 | ..... |
| England | 15 | 2 | Switzerland | 2 | ..... |
| France | 8 | 1 | Transvaal, South Africa | ..... | ..... |
| Germany | 21 | 5 | Victoria | ..... | ..... |
| Guatemala | ..... | ..... | Western Australia | ..... | ..... |
| India | ..... | ..... | | | |
| Ireland | ..... | ..... | Total to residents of foreign countries | 78 | 9 |
| Italy | 1 | ..... | | | |
| Japan | 1 | ..... | | | |
| Mexico | ..... | ..... | | | |

## Notice Relating to Drawings.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 6, 1914.*

Attention is called to paragraphs 7 and 9 of Rule 52 of the Rules of Practice of the Patent Office, and inventors and attorneys are directed to omit from the space outside of the marginal line of the drawings any marks of identification, inasmuch as the space referred to is reserved for the use of the Patent Office. Such identifying-marks should be placed upon the back of the drawings.

THOMAS EWING,
*Commissioner of Patents.*

## Hearings by the Commissioner.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., January 20, 1914.*

When an appeal or petition to the Commissioner is taken in an *ex parte* case, the date of hearing may be selected by the party or his attorney, subject to approval by the docket clerk, provided the date selected does not fall on a Saturday, that five days is allowed for the Examiner's statement when required, and the hearing is set within a period of two months. When no date is indicated, the docket clerk will set the hearing approximately two weeks after the appeal or petition is filed.

The foregoing may be applied to *inter partes* appeals upon motion or stipulation. Otherwise the docket clerk will set the hearing approximately one month after the appeal is taken.

*Inter partes* motions may be set for hearing on reasonable notice.

THOMAS EWING,
*Commissioner.*

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business March 14, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Jan. 8 | Jan. 24 | 678 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Nov. 7 | Feb. 2 | 532 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Feb. 16 | Mar. 2 | 208 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 16 | Feb. 11 | 875 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Nov. 28 | Jan. 2 | 534 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Nov. 15 | Jan. 7 | 764 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 1 | Jan. 24 | 719 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Sept. 16 | Feb. 1 | 1056 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Sept. 27 | Feb. 16 | 629 |
| 235 | 10. Carriages and Wagons | Nov. 24 | Jan. 9 | 1097 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Jan. 9 | Jan. 26 | 431 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Sept. 12 | Dec. 11 | 1348 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Jan. 24 | Feb. 14 | 482 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 6 | Feb. 16 | 510 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Oct. 1 | Jan. 2 | 1404 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 3 | Jan. 7 | 800 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Jan. 21 | Feb. 16 | 232 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Feb. 5 | Feb. 14 | 237 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Nov. 19 | Jan. 22 | 471 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Dec. 6 | Feb. 12 | 303 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Nov. 6 | Jan. 19 | 486 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Dec. 13 | Feb. 9 | 360 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Nov. 22 | Jan. 12 | 517 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Jan. 5 | Jan. 26 | 530 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Feb. 2 | Feb. 6 | 283 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Nov. 12 | 771 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Dec. 30 | Feb. 6 | 476 |
| 65 | 28. Internal-Combustion Engines | Oct. 14 | Jan. 27 | 846 |
| 147 | 29. Cooperage; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools. | Jan. 13 | Jan. 21 | 508 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 14 | Feb. 18 | 332 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Dec. 1 | Feb. 6 | 397 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 2 | Feb. 9 | 606 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Jan. 15 | Feb. 2 | 289 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Feb. 2 | Feb. 17 | 189 |
| 87 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Jan. 6 | Feb. 14 | 565 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Jan. 26 | Jan. 22 | 740 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Sept. 11 | Jan. 14 | 858 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 1 | Jan. 2 | 829 |
| 321 | 39. Water Distribution | Nov. 8 | Dec. 29 | 573 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Nov. 14 | Jan. 21 | 1141 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Feb. 4 | Feb. 7 | 476 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Oct. 6 | Feb. 5 | 533 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Jan. 15 | Feb. 6 | 297 |

Oldest new case, Aug. 1; oldest amended, Nov. 12.
Total number of applications awaiting action ..... 26,071

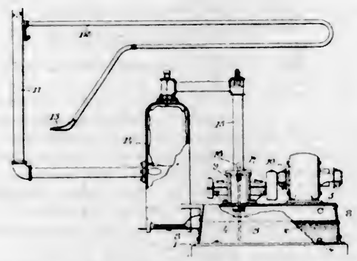
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Jan. 9 | Feb. 24 | 1117 |
| | Designs | Jan. 31 | Feb. 21 | 224 |
| | Labels and Prints | Mar. 6 | Mar. 5 | 58 |



# PATENTS

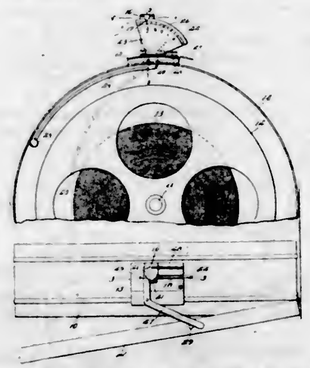
## GRANTED MARCH 17, 1914.

1,090,127. VACUUM CLEANING APPARATUS. JAMES THOMAS ATWOOD, Rockford, Ill. Filed May 2, 1911. Serial No. 624,615. (Cl. 83—47.)



In a vacuum cleaning system, a suction member provided intermediate its ends with a dust collector, a liquid containing chamber open to the atmosphere, a pump interposed between the suction member and the chamber and discharging air from said suction member into said liquid containing chamber, and a suction connection from said liquid containing chamber to a point in said suction member between the dust collector and the inlet side of said pump.

1,090,128. INDICATING DEVICE FOR MOVING-PICTURE FILMS. FRANKLIN H. AYERS, Portage, Wis. Filed Jan. 21, 1913. Serial No. 743,393. (Cl. 33—172.)



1. A device for indicating the amount of film unwound from or wound on to a reel comprising a magazine containing the reel, an indicator mounted to swing on the magazine and adapted to be located according to the amount of film on the said reel to indicate exteriorly of the said magazine the amount of film unwound from or wound on to the said reel, a closure mounted to swing on the magazine to normally close the same, and means normally locking the indicator in an inoperative position and adapted to be engaged by the said closure as it closes and moved into and held in an unlocking position to release the said indicator.

2. In an indicating device for motion picture films, the combination with a film containing magazine, of a closure therefor, an indicator for indicating the amount of film removed from or advanced into the magazine, a locking element normally locking the indicator in a rigid and inoperative position, and means on the closure for moving the locking element into an unlocked position relatively to the indicator when the closure is being closed.

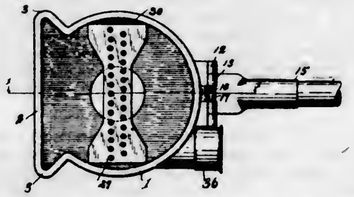
3. In an indicating device for motion picture films, the combination with a magazine, of a film containing reel supported in the magazine, an indicator for indicating the amount of film unwound from or wound on to the said reel, a locking element normally holding the indicator in an inoperative position, and a closure for the magazine and adapted to actuate the locking element when the closure is closed to free the indicator from its inoperative position.

4. In an indicating device for motion picture films, the combination with a magazine, of a film containing reel therein, an indicator for indicating the amount of film unwound from or wound on to the said reel, a spring-actuated locking element normally holding the indicator in a locked position, a closure for the magazine, and means on the closure and adapted to engage the locking element and move the same to free the said indicator from inoperative position, when the said closure is swung into closed position relatively to the magazine.

5. In an indicating device for motion picture films, the combination with a magazine, of a film containing reel therein, an indicator for indicating the amount of film unwound from or wound on to the said reel, a spring-actuated locking element normally holding the indicator in an inoperative position, a closure for the magazine, and a pin on the closure and adapted to engage the locking element and move the same to free the said indicator from inoperative position, when the said closure is swung into closed position relatively to the magazine.

[Claim 6 not printed in the Gazette.]

1,090,129. SUCTION-CLEANER. EDWARD M. BARNES, Hastings, Mich., assignor to Advance M'f'g. Co., Hastings, Mich. Filed May 13, 1912. Serial No. 696,932. (Cl. 15—60.)



1. A structure of the class described, comprising an approximately cylindrical suction shoe open at the bottom and adapted to be moved over the surface to be cleaned and having an extension on its front side, the edge of the extension being substantially straight, the length of the extension being substantially the diameter of the shoe, said shoe and its extension having a continuous downwardly projecting flange at their edges, and a removable shoe plate having upturned flanges at its side edges telescoping with the flanges of said shoe and pro-

vided with an extension extending into said shoe extension, there being a space between the rear edge of said plate and said flange and between the front edge of said plate and said extension, said space being continued at the ends of the extension of the cylindrical portion of the shoe.

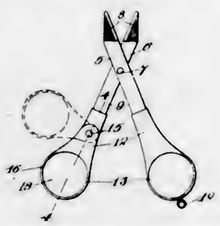
2. A structure of the class described, comprising an approximately cylindrical suction shoe open at the bottom and adapted to be moved over the surface to be cleaned and having an extension on its front side, the edge of the extension being substantially straight, the length of the extension being substantially the diameter of the shoe, said shoe and its extension having a continuous downwardly projecting flange at their edges, and a removable shoe plate telescoping with the flanges of said shoe and provided with an extension extending into said shoe extension, there being a space between the rear edge of said plate and said flange and between the front edge of said plate and said extension.

3. A structure of the class described, comprising an approximately cylindrical suction shoe open at the bottom and adapted to be moved over the surface to be cleaned and having an extension on its front side, the length of the extension being substantially the diameter of the shoe, the walls of said shoe and its extension comprising a continuous downwardly projecting flange at their edges.

4. A structure of the class described, comprising a shoe open at the bottom and adapted to be moved over the surface to be cleaned, the side and rear walls of the shoe being in the form of a segment of a cylinder, the front wall being substantially straight, the length of the front wall being substantially the diameter of the shoe.

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1,090,130. SCISSORS. DOMENICK BORGETTI, Chicago, Ill. Filed May 26, 1913. Serial No. 769,096. (Cl. 30—13.)



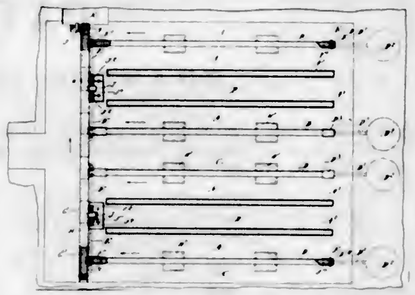
A pair of scissors comprising pivotally connected blades having integral bends at their inner ends to form laterally spaced spring tongues, the edges of the blades at the bend having outstanding tongues forming abutments, and sheaths inclosing the inner ends of the blades and the spring tongues, said spring tongues bearing against the wall of the sheaths, said sheaths being slidable toward each other to inclose the outer ends of the blades when the latter are swung to extend side by side in parallelism, and the aforesaid abutments being engageable with the inner ends of the sheaths to limit the extent the blades may be withdrawn from the sheaths.

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1,090,131. COW-BARN. JOHN P. BOWDITCH, Framingham, Mass. Filed June 24, 1912. Serial No. 705,357. (Cl. 119—15.)

1. In a stable, a series of stalls, a gutter located behind said stalls, a movable floor located in said gutter and forming a top therefor, and means for moving said floor, the bottom of said gutter slanting in a direction opposite the direction in which the floor moves, whereby liquid will flow off through it.

2. In a stable, a series of stalls, a gutter located in the rear thereof, a movable floor supported in said gutter to form the top thereof, means for moving said floor in one direction, the bottom of said gutter slanting in the opposite direction to the direction of movement of said floor, and a collecting floor located at an angle to said movable floor and in close proximity to it and adapted to receive its contents when said first-named floor is in motion, and means for moving said second moving floor.



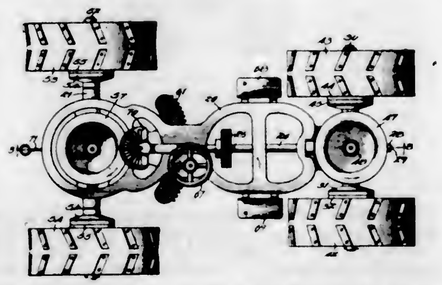
3. In a stable, a plurality of series of stalls, a gutter located behind each series of stalls, a movable floor located in each gutter and forming the top thereof, said movable floors being at substantially the same level, and a collecting floor located at an angle to all of said first-mentioned moving floors and located to receive the contents thereof and convey them away, and means for moving said movable floors operable independently.

4. In a stable, a series of movable floors arranged on substantially the same level and parallel to each other and comprising slats, a collecting floor located at right angles to said series of floors and at a lower level thereto and adapted to receive the contents thereof, and a series of brushes located one at the end of each of said series of movable floors and adapted to sweep matter attached to the slats thereof onto the collecting floor and means for operating each of said floors operable independently of each other.

5. In a stable, a plurality of series of stalls, a series of gutters one located in rear of each series of stalls, a series of movable floors each located in one of said gutters and forming a top therefor, a collecting floor located at an angle to said moving floors, means adapted to move each floor independently of the others in a direction toward the collecting floor, said gutters slanting in a direction away from said collecting floor, and one or more cess pools connected to the discharge ends of said gutters.

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1,090,132. MOTOR-VEHICLE. LAUCHLIN M. BUCHANAN, Kewanee, Ill. Filed Feb. 26, 1913. Serial No. 750,830. (Cl. 21—114.)



1. In a motor vehicle, the combination of a frame, carrying wheels journaled thereon, a drive shaft mounted therein, two transversely-extending shafts located concentrically with the front and rear wheels respectively, a gear fixed upon each of said two last-named shafts, two gears fixed upon said drive shaft, a gear provided with two sets of gear-teeth one of which sets meshes with one of the gears on said drive shaft and the other of which sets of gear-teeth meshes with the gear on one of said transverse shafts, another gear provided with two sets of gear-teeth one of which sets meshes with the other of said gears on said drive shaft and the other of which sets of gear-teeth meshes with the gear on the other of said transverse shafts, and a plurality of clutches interposed between said transverse shafts and said wheels, one for each wheel, adapted to cause each of said wheels to rotate at a speed to coöperate effectively with the other wheels to drive the vehicle forward when said drive shaft is driven in one direction.

2. In a motor vehicle, the combination of a frame, a drive shaft mounted on said frame, a second frame mounted on said first-named frame upon a pivotal axis coinciding with the axis of rotation of said drive shaft, a pair of carrying wheels journaled upon said second frame, gearing carried by said second frame having connections with said wheels, a gear fixed upon said drive shaft, means for driving said drive shaft, and a gear carried by said second frame meshing with the gearing having connections with said wheels and meshing with the gear fixed upon said drive shaft.

3. In a motor vehicle, the combination of a frame, a drive shaft mounted on said frame, a second frame mounted on said first-named frame upon a pivotal axis coinciding with the axis of rotation of said drive shaft, a pair of carrying wheels journaled upon said second frame, gearing carried by said second frame having clutch connections with said wheels, a gear fixed upon said drive shaft, means for driving said drive shaft, and a gear provided with two sets of gear-teeth carried by said second frame one of which sets of gear-teeth meshes with the gearing having clutch connections with said wheels and the other of which sets of gear-teeth meshes with the gear fixed upon said drive shaft.

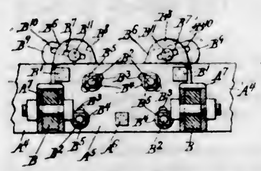
4. In a motor vehicle, the combination of a frame, a drive shaft mounted on said frame, a second frame journaled upon said drive shaft, a pair of carrying wheels journaled upon said second frame, gearing carried by said second frame having clutch connections with said wheels, a gear fixed upon said drive shaft, means for driving said drive shaft, and a gear carried by said second frame meshing with the gearing having clutch connections with said wheels and meshing with the gear fixed upon said drive shaft.

5. In a motor vehicle, the combination of a frame, a drive shaft mounted on said frame, a second frame journaled at one side upon said drive shaft and at the other side upon said first frame, a pair of carrying wheels journaled upon said second frame, gearing carried by said second frame having clutch connections with said wheels, a gear fixed upon said drive shaft, means for driving said drive shaft, and a gear carried by said second frame meshing with the gearing having clutch connections with said wheels and meshing with the gear fixed upon said drive shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,133. ENGINE-PLOW. ROBERT C. CAUGHEY, Dixon, Ill., assignor to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Filed Feb. 17, 1913. Serial No. 748,849. (Cl. 97—60.)



1. In a gang plow a plow frame, a rocker plate pivoted thereon, a plow beam pivoted to said plate, said plate free to rock in a horizontal plane and to rotate about an axis in a horizontal plane.



2. In a gang plow a plow frame, a rocker plate pivoted thereon, a plow beam pivoted to said plate, said plate free to rock in a horizontal plane and to rotate about an axis in a horizontal plane, and means for locking said plate in position.

3. The combination with a plow frame of a plate pivotally mounted thereon, a plow beam pivoted on said plate and means for rotating said plate about its pivotal point to adjust the plow beam, said means comprising adjustable wedges interposed between said plate and said beam.

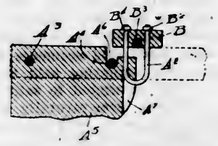
4. The combination with a plow frame of a rocker plate pivoted thereon, said plate being free to rock in a horizontal plane and means for rotating said plate about its pivotal point independently of its rocking movement.

5. The combination with a plow frame of a rocker plate pivoted thereon, said plate being free to rock in a horizontal plane, means for rotating said plate about its pivotal point independently of its rocking movement and means for positively locking said plate in position.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,134. PLOW. ROBERT C. CAUGHEY, Dixon, Ill., assignor to M. Rumely Company, Laporte, Ind., a Corporation of Indiana. Original application filed Feb. 17, 1913, Serial No. 748,849. Divided and this application filed Aug. 4, 1913. Serial No. 782,788. (Cl. 97—20.)



1. The combination with a plow beam of a supporting member pivotally mounted thereon, a plow share rigidly attached to said supporting member, a yoke loosely connected to said supporting member and a breaking member interposed between said yoke and the plow beam, said yoke being adjustable with respect to the plow beam.

2. The combination with a plow beam of a supporting member pivotally mounted thereon, a plow share rigidly attached to said supporting member, a yoke loosely connected to said supporting member and a breaking member interposed between said yoke and the plow beam, said breaking member being removable, said yoke being adjustable with respect to the plow beam.

3. The combination with a plow beam of a plow share rotatably mounted thereon, yielding means for holding said plow share against rotation with respect to said plow beam, means for adjusting the relation between said yielding means, the plow share and the plow beam to compensate for wear of the yielding means, said adjusting means comprising a yoke, a tie block containing the yielding means in engagement with said yoke, the ends of said yoke being screw-threaded, and nuts screw-threaded on the ends of said yoke and in engagement with said tie block.

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1,090,135. COLLAPSIBLE CARRIAGE. GROVER EZRA CLEVELAND, Detroit, Mich., assignor to Sturgis Steel Go-Cart Company, Sturgis, Mich. Original application filed Aug. 30, 1909, Serial No. 515,206. Divided and this application filed Aug. 22, 1910. Serial No. 578,331. (Cl. 21—83.)

1. In a collapsible carriage, the combination with a running gear frame; of a handle pivotally connected to said frame to fold thereon; collapsible wheel supports; levers for actuating said wheel supports pivotally mounted on said running gear frame; connecting links for said levers and handle; a back; means for adjustably supporting said back comprising slotted hinge members mounted on said seat, pivots on said back arranged in said slots in said hinge members, segments on said back, pins on said hinge

members with which said segments are adapted to engage; and means for actuating said back comprising a slotted link pivotally mounted on one of the said wheel support actuating levers, a slotted lever pivotally mounted on one of said hinge members, a pin on said back arranged in the slot of said lever, and a pin on said lever arranged in the slot of said link.



2. In a collapsible carriage, the combination with collapsible wheel supports; means for actuating said wheel supports; a seat; a back; means for adjustably supporting said back comprising slotted hinge members mounted on said seat, pivots on said back arranged in said slots in said hinge members, segments on said back, pins on said hinge members with which said segments are adapted to engage; and means for actuating said back comprising a slotted link, pivotally connected to said wheel support actuating means, a slotted lever pivotally mounted on one of said hinge members, a pin on said back arranged in the slot of said lever, and a pin on said lever arranged in the slot of said link.

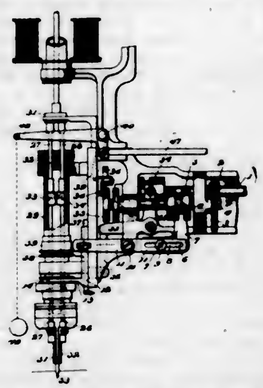
3. In a collapsible carriage, the combination with a running gear frame; of a handle pivotally connected to said frame to fold thereon; collapsible wheel supports; levers for actuating said wheel supports pivotally mounted on said running gear frame; connecting links for said levers and handle; a seat; a back; means for adjustably supporting said back comprising a segment member and a co-acting engaging member, said segment member and its co-acting engaging member having a pin and slot connection; and means for actuating said back comprising a lever pivotally connected to said seat and having a pin and slot connection with said back and a link pivotally mounted on said wheel support actuating lever and having a pin and slot connection to said back.

4. In a collapsible carriage, the combination with the collapsible wheel supports; means for actuating said wheel supports; a seat; a back; means for adjustably supporting said back comprising a segment member, and a co-acting engaging member, said segment member and its co-acting engaging member having a pin and slot connection; and means for actuating said back comprising a lever pivotally connected to said seat and having a pin and slot connection with said back and a link connected to said wheel support actuating means and having a pin and slot connection with said lever connected to said back.

5. In a collapsible carriage, the combination with a running gear frame; of a handle pivotally connected to said frame to fold thereon; collapsible wheel supports; levers for actuating said wheel supports pivotally mounted on said running gear frame; connecting links for said levers and handle; a seat mounted on said running gear frame independently of said handle and said wheel support actuating means; a back; means for adjustably supporting said back comprising a segment member and a co-acting engaging member, said member having a slip connection; and means for actuating said back comprising a link connected to one of the said wheel support actuating levers, and a lever connected to said back, said link and lever being connected with a slip connection.

[Claims 6 to 19 not printed in the Gazette.]

1,090,136. HEMSTITCH SEWING AND EMBROIDERING MACHINE. ROBERT CORNELY, Paris, France. Filed Apr. 15, 1913. Serial No. 761,281. (Cl. 112—7.)



1. In a device of the character described, the combination of a plurality of needle bars, means for reciprocating the same, a vertically-moving member, means for operating the same, means for spreading said needle bars mounted upon said member, and means carried by said member for adjusting the position of said spreading means on said member.

2. In a device of the character described, the combination of a plurality of needle bars, means for reciprocating the same, a vertically-moving member, means for operating the same, means for spreading said needle bars mounted upon said member, and an adjustable regulating device carried by said member and engaging said spreading means.

3. In a device of the character described, the combination of a plurality of needles, means for reciprocating the same, a vertically-moving member, means for operating the same, a device mounted upon said member for spreading said needles, said device being provided with an incline or cam surface, and an adjustable regulating device acting on said spreading device and provided with a corresponding incline or cam surface, said surfaces engaging one another.

4. In a device of the character described, the combination of a plurality of needles, means for reciprocating the same, a vertically-moving member, means for operating the same, a device mounted upon said member for spreading said needles, said device being provided with an incline or cam surface, and an adjustable regualting device carried by said member and provided with a corresponding incline or cam surface, said surfaces engaging one another.

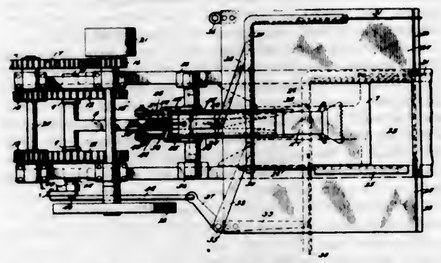
5. In a device of the character described, the combination of a plurality of reciprocating needle bars, slides through which said bars pass, and a needle spreading device comprising a reciprocating support, a wedge-shaped member mounted thereon, the inclined faces of which act against said slides to spread the needles, and means to adjust said wedge member on its support to vary the spread of the needles.

[Claims 6 to 9 not printed in the Gazette.]

1,090,137. HAY-PRESS. JOSEPH DAIN and HERBERT B. SPERRY, Ottumwa, Iowa, assignors to Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed July 8, 1910. Serial No. 571,001. (Cl. 100—22.)

1. In a hay press, the combination of a compression chamber having a feeding opening, a plunger, means for actuating the plunger, a feed-table adjacent to the feeding opening, condensing mechanism surrounding the feeding opening, said condensing mechanism comprising a rectangular frame composed of a plurality of members, certain of said members being movable from different directions toward the feeding opening, and means for actuating the condensing mechanism.





2. In a hay-press, the combination of a compression chamber having a feeding opening, a plunger, means for actuating the plunger, a feed-table adjacent to the feeding opening, condensing mechanism surrounding the feeding opening, said condensing mechanism comprising a rectangular frame composed of a plurality of members, certain of said members being movable toward the feeding opening, means for maintaining the angular relation of the latter member or members to the feeding opening during the movement thereof, and means for actuating the condensing mechanism slowly on the condensing stroke thereof and quickly on the return stroke thereof.

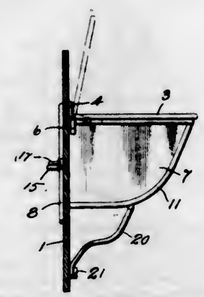
3. A condensing apparatus for hay presses, comprising a stationary frame adjacent to two adjoining edges of the feeding opening and a movable frame arranged parallel with the other edges of the feeding opening and movable toward and away therefrom, and means for actuating said movable frame.

4. A condensing apparatus for hay presses, comprising a stationary frame adjacent to two adjoining edges of the feeding opening and a movable angular frame arranged parallel with the other edges of the feeding opening and movable toward and away therefrom, and means for actuating said movable frame.

5. A condensing apparatus for hay presses, comprising a stationary frame adjacent to two adjoining edges of the feeding opening and a movable frame arranged parallel with the other edges of the feeding opening and movable toward and away therefrom, the members of said movable frame being interlaced with the members of the stationary frame, and means for actuating said movable frame.

[Claims 6 to 11 not printed in the Gazette.]

1,090,138. ASH-RECEPTACLE. MARTIN M. DE GRODY, St. Louis, Mo., assignor to James E. Baker, St. Louis, Mo. Filed Oct. 28, 1912. Serial No. 728,059. (Cl. 220—119.)

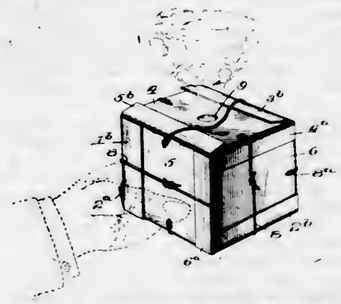



1. In combination with a wall provided with an opening, an unattached receptacle insertible in and withdrawable from said opening having its bottom extending in a straight line for a portion of its distance to form a flat base to rest on the bottom of said opening, and from the termination of such straight portion being continued on a curved line to the top of the receptacle at the rear thereof, and the front wall of said receptacle having an outwardly extending flange portion for engaging the said wall adjacent to the said opening.

2. In combination with a wall having an opening, an unattached receptacle insertible in and withdrawable from said opening, supports secured on said wall adjacent to said opening, a cover having a hinge connection with said supports, and carrying on opposite sides adjacent to said hinge connection stops for engaging the wall and holding the cover in a substantially horizontal position when the receptacle is withdrawn, whereby it will be in a position to cover the receptacle when the latter is inserted through the opening of the wall.

3. In combination with a wall having an opening, a receptacle insertible in said opening, supports secured to the wall above said opening, and a cover having a hinge connection with said supports, said cover having strengthening rods secured in its side edge portions, which said rods project beyond the inner side of the cover and are bent downward at right angles to form stops for engaging the wall whereby to hold the cover in a normally horizontal position.

1,090,139. AMUSEMENT PUZZLE-BOX. SAMUEL P. EDMONDS, Catonsville, Md. Filed May 24, 1912. Serial No. 699,449. (Cl. 46—31.)



1. A puzzle-box comprising a series of identically formed blanks having lines of demarcation forming end flaps, and arranged to form a cubical box or carton, each side of which is secured by the end flaps of the adjacent blanks, at least one of said blanks being resilient and the opposite blank in the box having a central hole, whereby when the box is filled with smoke the same will be ejected in the form of smoke-rings, substantially as described.

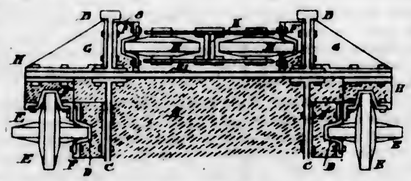
2. A puzzle-box comprising a series of identically formed blanks having lines of demarcation forming end flaps, and arranged to form a cubical box or carton, each side of which is secured by the end flaps of the adjacent blanks, each blank being also provided with centrally disposed cords having their ends projecting adjacent the end flaps, whereby opposite cords may be united across each side of the box to secure the flaps against displacement.

1,090,140. RAILWAY. CLIFTON ALVADO FARON, Los Angeles, Cal. Filed Jan. 13, 1913. Serial No. 741,876. (Cl. 105—95.)

1. A railway roadbed provided with the usual traction rails and with two series of rail elements in addition thereto, and wheel elements for application to rolling stock and adapted to coöperate with said series of rail elements to prevent displacement of the wheels of the rolling stock from the traction rails; said rail elements comprising angular bodies having wheel-tread-receiving plane portions and divergent plane portions projecting therefrom and adapted to embrace the wheels.

2. A railway roadbed provided with the usual traction rails and with two series of rail elements in addition

thereto, and wheel elements for application to rolling stock and adapted to coöperate with said series of rail elements to prevent displacement of the wheels of the rolling stock from the traction rails; said rail elements comprising angular bodies having wheel-tread-receiving plane portions and divergent plane portions projecting therefrom and adapted to embrace the wheels; and supporting means for the rail elements comprising each a body plate and a recessed web projecting therefrom and receiving the angular rail element body.



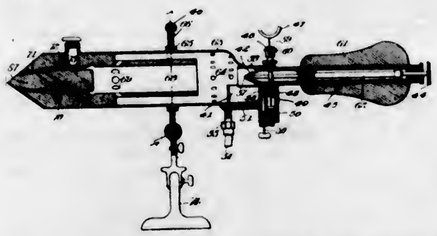
3. A railway roadbed provided with the usual traction rails and with two series of rail elements in addition thereto, and wheel elements for application to rolling stock and adapted to coöperate with said series of rail elements to prevent displacement of the wheels of the rolling stock from the traction rails; said rail elements comprising angular bodies having wheel-tread-receiving plane portions and divergent plane portions projecting therefrom and adapted to embrace the wheels; and supporting means for the rail elements comprising each a body plate and a recessed web projecting therefrom and receiving the angular rail element body; each of said webs having spaced angular flanges, and said rail elements having oppositely directed flanges which are received by and connected with said angular flanges.

4. A railway roadbed provided with the usual traction rails, rail elements applied to the traction rails in opposed relation and between the traction rails, and other rail elements applied to the roadbed independently of the traction rails; each of said rail elements being formed for engagement by a wheel element for application to rolling stock traversing the traction rails to hold the wheels of the rolling stock to the traction rails.

5. A railway roadbed provided with the usual traction rails, rail elements applied to the traction rails in opposed relation and between the traction rails, and other rail elements applied to the roadbed independently of the traction rails; each of said rail elements being formed for engagement by a wheel element for application to rolling stock traversing the traction rails to hold the wheels of the rolling stock to the traction rails; each of said rail elements being formed to opposed play of the said wheel elements in two directions.

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1,090,141. SELF-HEATING SOLDERING-IRON. JOHN L. FINNEGAN, by John Trebing, guardian, Nashville, Tenn. Filed Nov. 30, 1909. Serial No. 530,660. (Cl. 158—26.)



1. In a device of the class described in combination, a handle, a burner, a valve seated in said burner, main and auxiliary fuel ducts communicating with the burner, a throttle valve in said main fuel duct, means for regulating the auxiliary supply of fuel to the burner when the throttle valve is closed, a flame jacket, a soldering head detachably mounted therein, said soldering head being provided with longitudinal canals therein, a solder reservoir therein, and means of communication between said reservoir and one of said canals for the passage of solder.

2. A self heating tool comprising a handle, a needle valve passing through said handle and coöperating with a threaded portion of said handle to permit the regulation of said needle valve, a seat for said needle valve below said threaded portion, a chamber between said seat and said threaded portion, a burner, means coöperating with said chamber for supplying fuel to the burner, and a spring valve located within said means exteriorly of said chamber for controlling the flow of fuel to the chamber.

3. In a device of the class described in combination, a handle, a burner, means for supplying fuel to said burner, a valve for regulating the discharge of fuel from said burner, a throttle valve for controlling the supply of fuel to said regulating valve, a flame jacket forming a combustion chamber, and a soldering head carried by said flame jacket, said soldering head comprising a head portion and a tubular portion extending within said flame jacket and provided with transverse openings, said soldering head being also provided with conduits leading from the tip of said soldering head to the combustion chamber.

4. In a device of the class described in combination, a burner, means for supplying fuel thereto, means for regulating the discharge of fuel from said burner, a throttle valve adapted to control the supply of fuel to said regulating means, a flame jacket carried by said burner and forming a combustion chamber, and a soldering head mounted in said flame jacket, said soldering head being provided with openings converging toward the point of said soldering head and leading into said combustion chamber, substantially as described.

5. In a device of the class described in combination, a handle, a burner carried by said handle, a flame jacket carried forward of said burner and forming a combustion chamber, said flame jacket being provided with air openings in the portion near said burner, and a soldering head carried by said flame jacket, said soldering head comprising a working head and a tubular portion extending within said flame jacket and spaced apart from the walls of said flame jacket, the tubular portion being provided with openings in the walls thereof, and the working head being provided with converging conduits leading into said combustion chamber.

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1,090,142. ADVERTISING DEVICE. ALBERT T. FISCHER, Cleveland, Ohio. Filed June 14, 1913. Serial No. 773,595. (Cl. 211—24.)




1. An advertising device comprising a hollow pyramidal shaped body provided with spaces for advertising matter thereon, the sides of said body being provided with openings, said body being adapted to support an article within the body portion thereof and to display the same through all the openings in the sides of the body.

2. An advertising device comprising a hollow body having contiguous side pieces, said side pieces being provided with spaces adapted to display advertising matter thereon, the side pieces being formed with openings and adapted to support an article within the body portion opposite the openings in the sides whereby the article is visible through all the openings and from all sides of the body portion.

3. An advertising device comprising a hollow pyramidal shaped body, said body portion being provided with spaces to display advertising matter, the sides of the body being provided with openings therein, the material which is cut away to form the said openings being unsevered along the lower edge of the openings and folded in, the said folded in portions coöperating to form a platform adapted to receive an article for display, said article being visible through all the openings in the body and from all sides of the device.

4. An advertising device comprising a hollow body portion formed from a single blank of material and folded to assume a pyramidal shape, each of the sides of the said body being provided with an opening, the body being adapted to support an article for display adjacent all the openings, whereby the article is visible through all the openings and from any side of the device.

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1,090,143. DRAFT AND BUFFING APPLIANCE FOR RAILWAY-CARS. GEORGE H. FORSYTH, Chicago, Ill., assignor to Waugh Draft Gear Company, a Corporation of Illinois. Filed June 16, 1908. Serial No. 438,825. (Cl. 213—60.)



1. In a draft and buffing appliance, the combination with a draw-bar capable of lateral swinging movement, of a buffer-plate having a stem also capable of lateral swinging movement, and a connection between said draw-bar and buffer-stem permitting both a lateral movement of said buffer-stem relatively to, and a bodily lateral movement of said buffer-stem with, said draw-bar.

2. In a draft and buffing appliance, the combination with a laterally swinging draw-bar and buffer-stem, of a yielding connection therebetween adapted to transmit the lateral movement of the former to the latter, said connection comprising overlapping upstanding and depending projections from said draw-bar and buffer-stem, respectively, and an interposed spring member and interlocking connections between said projections.

3. In a draft and buffing appliance, the combination with a laterally swinging draw-bar and buffer-stem, of a connection therebetween adapted to transmit the lateral movement of the former to the latter, said connection comprising overlapping upstanding and depending projections from said draw-bar and buffer-stem, respectively, a pair of followers, and an interposed spring, said followers and springs serving to transmit movement between said projections.

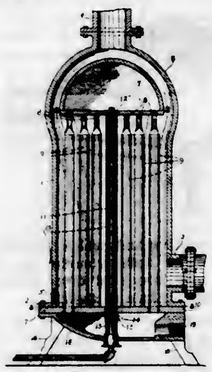
4. In a draft and buffing appliance, the combination with a draw bar capable of lateral swinging movement, of a buffer plate having a stem also capable of lateral swinging movement, and a yieldable connection between said draw bar and buffer stem permitting both a lateral movement of said buffer stem relative to and a bodily lateral movement of said buffer stem with said draw bar, said connection including means to positively limit the extent of such relative lateral movement, substantially as described.

5. In a draft and buffing appliance, the combination with a latera. swinging draw bar and buffer stem, of a connection therebetween adapted to transmit the lateral movement of the former to the latter, said connection comprising interengaging rigid members carried by the draw bar and buffer stem respectively and providing for limited lateral relative movement, and a spring interposed between said rigid members, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]



1,090,144. WATER-HEATER. JOSEPH WILLIAM GUIMONT, Montreal, Quebec, Canada, assignor to Harris Construction Company Limited, Montreal, Canada. Filed May 31, 1913. Serial No. 770,940. (Cl. 62—30.)



1. A heater of the character described comprising, an outer shell provided with inlet and outlet openings and having a bulbous enlargement at its upper end, a steam dome of substantially the same diameter as the inner diameter of the body of said shell and adapted to be arranged within said bulbous enlargement, a base plate, straight steam tubes connected to and communicating with the interior of said dome and connected to said base plate, and having reduced upper ends, and means for delivering steam to said dome.

2. A heater of the character described comprising, an outer shell provided with inlet and outlet openings and having a bulbous enlargement at its upper end, a steam dome of substantially the same diameter as the inner diameter of the body of said shell and adapted to be arranged within said bulbous enlargement, a base plate, steam tubes connected to and communicating with the interior of said dome and connected to said base plate, means for delivering steam to said dome, and a circular, dished exhaust head connected to said plate.

3. A heater of the character described comprising, an outer shell provided with inlet and outlet openings and having a bulbous enlargement at its upper end, a steam dome of substantially the same diameter as the inner diameter of the body of said shell and adapted to be arranged within said bulbous enlargement, a base plate, steam tubes connected to and communicating with the interior of said dome and connected to said base plate, a steam pipe extending through said base plate and into said dome, and a concentric spaced heat insulating pipe inclosing the same.

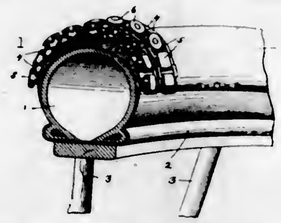
4. A heater of the character described comprising, an outer shell provided with inlet and outlet openings and having a bulbous enlargement at its upper end, a steam dome of substantially the same diameter as the inner diameter of the body of said shell and adapted to be arranged within said bulbous enlargement, a base plate, steam tubes connected to and communicating with the interior of said dome and connected to said base plate, a steam pipe extending through said base plate and into said dome, a concentric spaced heat insulating pipe inclosing the same, and provided with an annular skirt flange about its lower end, a tube section separate therefrom, in alinement therewith and provided with a similar and coöperating skirt flange, and means for adjusting said pipe section toward the lower end of said insulating pipe.

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1,090,145. DETACHABLE TREAD FOR PNEUMATIC TIRES. LUDWIG F. C. HAAS, Lancaster, Pa. Filed May 13, 1911. Serial No. 626,990. (Cl. 152—16.)

A tread for automobile tires providing a series of substantially flat links, resembling in cross section an S

and inverted S connected together, plates provided with an opening for engaging the lower bends of the links whereby the latter are prevented from spreading, plates secured on various links to form the tread, means for con-



necting said links together and cables threaded for adjustment through the outer links whereby the whole device may be tightened on a tire, said links presenting a substantially flat bearing surface to the tire.

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1,090,146. BACK-BAND ATTACHMENT. ZEBULUN R. HALL, Okfuskee, Okla. Filed May 26, 1913. Serial No. 770,037. (Cl. 54—54.)



1. In a back band, a body portion, an adjusting member provided with a plurality of transverse slots and rigidly secured to said body portion, a holding strap rigidly secured to the body portion and arranged to extend beneath the said adjusting member and then outwardly through one of the slots, and looped upon itself to form a retaining loop for the securing and holding of a tug strap or chain, and means arranged to adjustably engage the free end of the said holding strap.

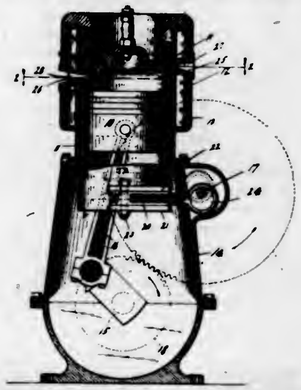
2. In a device of the class described the combination of a body portion, an adjusting member secured thereto, said adjusting member being provided with a plurality of transverse slots, each slot extending nearly across the said member, a holding strap rigidly secured to the said body portion and arranged to extend beneath the said adjusting member and to pass through one of the slots of the said adjusting member, said strap being bent upon itself to form a tug holding loop, and a metallic member slidably secured to the said loop upon the inner portion thereof, said holding strap being interwoven between the slots of the said adjusting member, the free end of said strap being rigidly and adjustably secured to the body portion.

3. In a device of the class described, the combination of a body portion, an adjusting member rigidly secured thereto by means extending through the corners thereof, said adjusting member being provided with a plurality of transverse slots, each slot extending a greater part of the distance thereacross, a holding strap rigidly secured to the said body portion, arranged to extend beneath the said adjusting member, looped upon itself and passing through one of the slots of the said adjusting member, said holding strap being interwoven between the slots of the said adjusting member, a buckle rigidly secured to the said body portion and engaging the free end of the said holding strap, and a metallic member slidably and adjustably secured to the inner portion of the loop of the adjusting member.

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1,090,147. INTERNAL-COMBUSTION ENGINE. JULES HALTENBERGER, Indianapolis, Ind. Filed Sept. 27, 1911. Serial No. 651,578. (Cl. 123—190.)

1. In an internal combustion engine, the combination of a cylinder, a casing sleeve movable both axially and rotatively and provided with ports controlled by such movement, a piston movable in said cylinder, a crank shaft operated by said piston, a counter shaft connected to said crank shaft so as to operate at one-half the speed thereof, an eccentric device on said counter shaft, a connecting rod transverse to the countershaft and operated by said eccentric device and pivoted to said sleeve, and means for maintaining the connecting rod parallel to a plane transverse to the plane in which the eccentric device moves,



2. In an internal combustion engine, the combination of a cylinder movable both axially and rotatively and provided with ports which are controlled by such movement, a piston movable in said cylinder, a crank shaft to which said piston is connected, a counter shaft geared to said crank shaft by a two-to-one reduction gearing, an eccentric device on said counter shaft, and a connecting rod transverse to the countershaft and operated by said eccentric device and pivoted to said cylinder on an axis substantially at right angles to said counter shaft.

3. In an internal combustion engine, the combination of a cylinder movable both axially and rotatively and provided with ports which are controlled by such movement, a piston movable in said cylinder, a crank shaft to which said piston is connected, a counter shaft geared to said crank shaft, an eccentric device on said counter shaft, and a connecting rod transverse to the countershaft and operated by said eccentric device and pivoted to said cylinder on an axis substantially at right angles to said counter shaft.

4. In an internal combustion engine, the combination with the piston, of an eccentric device operated from the piston, a sliding valve, and a connecting rod between a movable part of the valve and the eccentric device for moving the former in a closed curved path always in the same direction, said connecting rod being transverse to the axis on which the eccentric device turns and at all times being parallel to a given plane.

5. In an internal combustion engine, the combination with the piston, of an eccentric device operated from the piston, a sliding valve, and a connecting rod of constant length between a movable part of the valve and the eccentric device for moving the former in a closed curved path, said connecting rod always being parallel to a given plane.

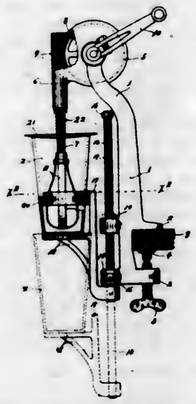
[Claims 6 to 9 not printed in the Gazette.]

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1,090,148. BEATING AND MIXING MACHINE. JOHN L. HARR, Nora Springs, Iowa. Filed June 16, 1913. Serial No. 773,804. (Cl. 31—63.)

1. The combination with a pedestal, of a shaft journaled in bearings carried by said pedestal, means for driving said shaft, a beater on said shaft, a glass supporting bracket mounted on said pedestal, for movement toward and from said beater, means for locking said supporting bracket in such a position that said beater extends within a glass carried by said supporting bracket, and a yieldingly closed cover for said glass mounted on said shaft.





2. The combination with a pedestal, of a shaft journaled in bearings carried by said pedestal, means for driving said shaft, a beater on said shaft, a glass supporting bracket having a vertically movable plunger mounted in bearings on said pedestal, means for locking said plunger in such a position that said beater extends within a glass carried by said supporting bracket, and a yieldingly closed cover for said glass mounted on said shaft.

3. The combination with a pedestal, of a gear casing secured to said pedestal, a shaft journaled in bearings on said gear casing, means for driving said shaft including a worm and worm wheel mounted in said gear casing, a beater on said shaft, a glass supporting bracket having a vertically movable plunger mounted in bearings on said pedestal, means for holding said plunger against rotation and for locking the same in such a position that said beater extends within a glass on said supporting bracket, and a yieldingly closed cover for said glass mounted on said shaft.

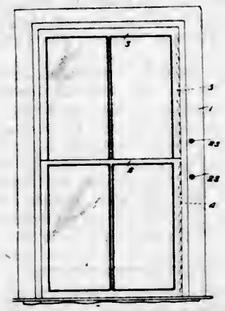
4. The combination with a pedestal, of a gear casing mounted on said pedestal, a shaft journaled in bearings on said gear casing, means for driving said shaft including a worm and worm wheel mounted in said gear casing, a beater on said shaft, a glass supporting bracket having a vertically movable plunger mounted in bearings on said pedestal, means for locking said plunger in such a position that said beater extends within a glass carried by said supporting bracket, a spring clamp for holding said glass in position on said supporting bracket, and a yieldingly closed cover for said glass mounted on said shaft.

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1,090,149. WINDOW-SASH LOCK. LEONARD HARRISON, Wellsboro, Pa. Filed Apr. 18, 1911. Serial No. 621,928. (Cl. 16—18.)

1. In a sash lock, the combination with an elongated casing open at the front and rear, of a locking bolt pivotally mounted therein and having a projection on its front side and a pair of rearward projections radially arranged with respect to the pivot, a spring adapted to swing the bolt forwardly on said pivot, and a removable key rotatable in said casing and adapted to engage one of said rearward projections on either side so as to move the bolt forwardly or rearwardly by rotating the key, and the other of said rearward projections being arranged to engage the key so as to limit the forward movement of the bolt, said bolt and spring being adapted to swing forwardly and thereby provide a substantially clear opening through the casing.

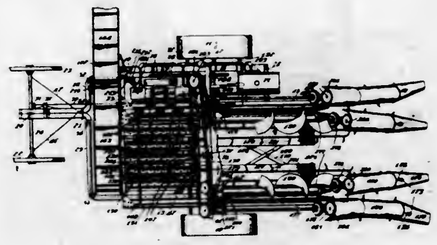
2. In a sash lock, the combination with an elongated casing open at the front and rear and tapering toward the rear, of a locking bolt arranged longitudinally of the casing and pivotally mounted at one end near the front of the casing and having a right angular forward projection on its free end and a pair of rearward projections radially arranged with respect to the pivot, a spring mounted in said casing and engaging said bolt and adapted to move the free end thereof forwardly, and a removable key rotatable in said casing and adapted to



engage one of said rearward projections on either side so as to move the bolt forwardly or rearwardly by rotating the key, said key normally permitting the bolt to swing on its pivot and the other of said rearward projections being arranged to engage the key so as to limit the forward movement of the bolt, said bolt and spring being adapted to swing forwardly and thereby provide a substantially clear opening through the casing.

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1,090,150. CORN-HARVESTER. WILLIAM HIBBS, Piano, Ill. Filed July 20, 1911. Serial No. 639,563. (Cl. 56—113.)



1. In a corn harvester, in combination, two pairs of snapping rolls arranged in parallel relation, separate supporting members for each of the rolls fixed at one end only, the supports for the two outer rolls being rigid and the supports for the two inner rolls being flexible, and an adjustable brace rod connecting the supports for the two inner rolls.

2. In a corn harvester, in combination, two pairs of snapping rolls arranged in parallel relation, separate supporting members for each of the rolls fixed at one end only, the supports for the two outer rolls being rigid and the supports for the two inner rolls being flexible, and an adjustable brace rod connecting the unfixed end of each of the supports for the two inner rolls with the fixed end of the other of said supports.

3. In a corn harvester, in combination, a pair of parallel supports fixed at one end only, one thereof being rigid and the other flexible, a pair of coöperating snapping rolls, one carried by each of said supports, each of said rolls being journaled at one end upon the fixed end of the corresponding support and at the other end upon the unfixed

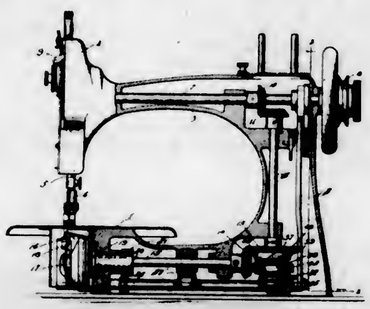
end of said support, and an adjustable brace connected to the unfixed end of the flexible support.

4. In a corn harvester, in combination, a tilting carriage frame, a pair of inclined snapping rolls mounted in said frame in front of its pivot, a gathering chain in front of each of the rolls, a deflecting hood covering each of the said gathering chains and having a vertically movable point, and a runner extending beneath each of said hoods, the rear end of each of the runners being pivotally attached to the said carriage frame to swing in a vertical plane and the forward end of each of the runners being connected to the movable point of the corresponding deflecting hood.

5. In a corn harvester, in combination, a tilting frame, a pair of coöperating inclined snapping rolls longitudinally mounted in the frame in front of its pivot, a horizontal gathering chain in front of each of the snapping rolls, a sectional hood for each gathering chain, the front section of each of said hoods being vertically oscillatable, a runner extending beneath each of the said hoods, the rear end of the runner being pivotally attached to the frame to swing in a vertical plane and the forward end of the runner being connected to the front section of the corresponding hood.

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1,090,151. ROTARY SEWING-MACHINE WITH CHAIN-STITCH ATTACHMENT. RICHARD K. HOHMANN, Belvidere, Ill., assignor to National Sewing Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed May 5, 1913. Serial No. 765,416. (Cl. 112—22.)



1. The combination with stitch forming mechanism including a needle and a rotary hook, of a loop holding member adapted to enter the loop above said rotary hook, means for reciprocating said member, means on said member for engaging and spreading the loop during each alternate revolution of the hook to permit the needle to enter through it and for moving said loop to one side out of the path of the hook during the succeeding revolution, and means for taking up the first mentioned loop as the succeeding loop is drawn up.

2. The combination with stitch forming mechanism including a needle and a rotary hook, of a loop holding member adapted to enter the loop above said rotary hook, means for moving said member forward and backward, fingers on said member adapted to spread the loop to permit the needle to enter through it as the member is moved backward and to hold said loop to one side out of the path of the hook during the greater portion of the succeeding revolution, and means for taking up the first loop as the succeeding loop is drawn up across said fingers.

3. The combination with stitch forming mechanism including a needle and a rotary hook, of a loop holding member adapted to enter the loop above said rotary hook, means for reciprocating said member, means for drawing said loop up around said member when the member moves forward, means on said member for shifting the loop to one side when said member moves backward and for releasing it when the member again moves forward.

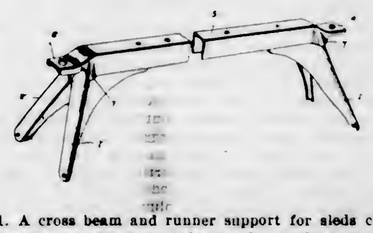
4. The combination with stitch forming mechanism including a needle and a rotary hook, of a loop holding member adapted to enter the loop above said rotary hook, means for reciprocating said member, means for drawing said loop up around said member when the member moves forward, and means on said member for spreading said loop to permit the needle to pass down through it as the member moves backward and for moving said loop to one side out of the way when the needle is withdrawn and for releasing said loop when the member again moves forward.

5. The combination with stitch forming mechanism including a needle and a rotary hook, of a loop holding member having two fingers, means for reciprocating said member to cause one of said fingers on the forward movement to enter the loop carried around by said hook, means for drawing said loop up around said finger, said fingers being so related that the second finger will enter and spread said loop during the backward movement, transferring it to the second finger on the completion of said backward movement and releasing it on the next forward movement, and means for passing the needle down through said loop when spread between said fingers.

[Claims 6 to 25 not printed in the Gazette.]

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1,090,152. SLED. FRANK HORNQUIST, Mount Jewett, Pa. Filed Jan. 20, 1913. Serial No. 743,189. (Cl. 21—94.)



1. A cross beam and runner support for sleds comprising a sheet metal channel bar having pockets in the side flanges thereof, and diverging knees substantially U-shaped in cross section adapted to fit in said pockets, and means for rigidly securing said knees to said bar.

2. A cross beam and runner support for sleds comprising a sheet metal channel bar having pockets in the side flanges thereof and offset ends beyond said pockets, and knees shaped to fit in said channel bars and having diverging legs with members fitting in said pockets, said knees also having offset flanged ends fitting in the offset ends of said bar, and means for securing said knees and bar together.

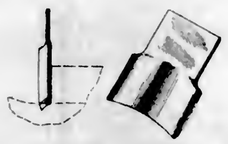
3. A cross beam and runner support for sleds comprising a sheet metal channel bar having pockets in the side flanges thereof near opposite ends, the ends of said bars beyond said pockets being offset downwardly, knees formed of folded sheet metal bent to form diverging legs having their side flanges flared at their connection with the body portion of the knee, the folded portion thereof being adapted to project into said pockets and a body having a downwardly offset end to fit the offset end of said bar, and means for securing said knees and bar together.

4. A cross beam for sleds composed of a strip of sheet metal reduced at its opposite ends and bent to form side flanges, said reduced ends being offset, and knees fitting between said side flanges and having offset ends fitting the offset ends of the beam, and means for securing said knees and beam together.

5. A cross beam for sleds composed of a strip of sheet metal reduced at its opposite ends and bent to form side flanges, said reduced ends being offset, the side flanges of said beam having pockets at the bases of said reduced ends, knees having projections fitting in said pockets and offset ends fitting the offset ends of said beam, and means for rigidly connecting said knees and beam.



1,090,153. METHOD OF FORMING KNIVES. EDWARD L. HURD, Milton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 30, 1912. Serial No. 712,316. (Cl. 148—37.)



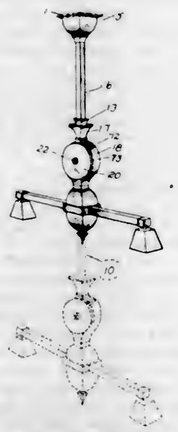
1. That improvement in methods of manufacturing gouge-shaped knives for use in breasting heels which consists in forming a blank from a sheet of steel which has a flat shank portion, a substantially cylindrical blade portion, and a flared edge portion; and then tempering the knife whereby the flare is reduced to approximate conformity with the cylindrical portion.

2. That improvement in methods of manufacturing knives which consists in forming a blank the general shape of which is substantially a portion of a cylinder and which has a flare at the edge on the convex face thereof, and then tempering a portion of the blank including the flared portion whereby the flare is reduced and the knife is caused to assume a more nearly cylindrical form.

3. That improvement in methods of manufacturing knives which consists in forming a blank which is curved in a plane parallel to its cutting edge, portions of the blank being deformed in a manner such that the deformation will be reduced by the tempering process, then tempering a portion, or all, of the blank including the deformed portion whereby the deformation is reduced and the knife is caused to assume more nearly the desired shape, and then finishing the knife by grinding.

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1,090,154. ELECTROLIER. JOHN H. JOHNS, Leavenworth, Kans. Filed July 2, 1912. Serial No. 707,269. (Cl. 240—71.)



1. In an electrolier, a casing, a spool revolubly mounted within said casing and provided with contact members, circuit wires wound on the spool and connected with said contact members, a switch, and a brush operable from the switch, and adapted for wiping one of the spool contacts to close a circuit, for the purpose set forth.

2. In an electrolier, a revoluble spool having contact plates on its outer faces, circuit wires fixed to the spool and connected with said contact members, a permanent contact member constantly engaging one of the spool contacts, a brush adapted for engaging the other spool contact, a switch for actuating said brush, and means for connecting the permanent contact and brush with a lamp, for the purpose set forth.

3. In an electrolier, the combination with a revoluble spool, of separate contact plates on opposite ends of the spool, a permanent contact plate having constant engagement with one of the drum plates, a brush carrier, a brush mounted on the carrier and adapted for movement into and out of contact with the second spool plate, a switch for actuating the brush, and means for closing a circuit from the permanent contact to the brush, for the purpose set forth.

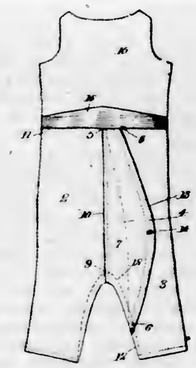
4. In an electrolier, the combination with a revoluble spool, having separate contact plates, of a fixed contact member constantly engaging one of the spool plates, a brush carrier, a brush on said carrier comprising a flexible conductor, a switch adapted for flexing the conductor toward or from the second spool plate, and means for closing a circuit from the fixed contact to the brush.

5. In an electrolier, the combination with a revoluble spool, of contact members carried by the spool, circuit wires fixed to the spool and connected with the contact members, a fixed contact member adapted for constant engagement with one of the spool plates, a brush carrier comprising a slotted conductor, wires carried by the conductor and crossing the slots thereof, brush members carried by the wire and adapted for contacting the second contact member on the spool, and a switch connected with said wire and adapted for flexing same toward or from the spool contact, for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,155. UNION SUIT. SYDNEY JUHN, Baltimore, Md., assignor to Varsity Underwear Company, Baltimore, Md., a Corporation of Delaware. Original application filed July 26, 1913, Serial No. 781,317. Continuation application filed Jan. 21, 1914. Serial No. 813,370. (Cl. 2—144.)



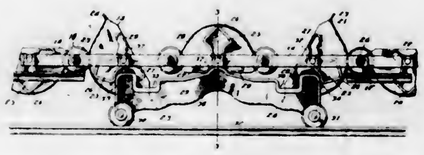
1. A closed crotch union under garment having a rear section and a rear flap meeting and secured together on a vertical median line, a rear section cut away to form a rear opening, the rear flap and the last mentioned rear section thus cut away, together forming a section similar in outline to the first mentioned rear section, the rear median seam edges of both sections being curved outward sharply at the bottom, the inseam edges of both sections being extended and the garment having front sections with inseam edges correspondingly cut away to move the crotch or inseam well forward, the front sections being seamed together on a median line at the lower portion of the front, and the flap being secured to the front section on the same side along the inseam from

the crotch point down to the free edge of the flap, so that when the garment is hanging free, the rear median seam curves outward to a point, at which point the rear sections are turned inward to the crotch or inseam, the rear flap opening extending from a point well up the back around the curve of the leg to the inseam at a point well below the crotch point, so that the flap is wholly on one side of the rear median seam and when the rear flap is opened and swung to the left, the point referred to thus formed by the curvature of the rear seam, turns inside out and swings the openings to the middle of the garment.

2. A permanently closed crotch union undergarment provided with a rear opening, said garment comprising front and rear portions, one half of one rear section extending to the vertical median line and the opposite rear section cut away from said median line, a rear flap having one edge sewed to the first mentioned rear section along such median line from a point near the waistline downwardly through the crotch and upwardly a short distance on the front of the garment and thence downwardly along the inseam of one leg, the opposite edge of such flap being free, the free edge extending from a point near the waistline to a point on the inseam of the leg a considerable distance below the apex of the crotch whereby such flap extends from the vertical median line to one side only of such garment.

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1,090,156. BUCKET CONVEYER. MYRON A. KENDALL, Aurora, Ill., assignor to Stephens-Adamson Mfg. Co., a Corporation of Illinois. Filed Aug. 10, 1911. Serial No. 643,358. (Cl. 198—7.)



1. In a bucket conveyer, in combination, a pair of sprocket chains, sprocket wheels for carrying such chains, buckets pivotally attached to such chains, a tripper cam fixed to each bucket and having a depending and a forwardly projecting arm, a tripper for engaging such arms in succession for causing a complete rotation of the buckets on their pivots.

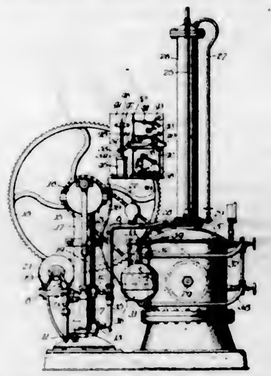
2. In a bucket conveyer, in combination, a pair of sprocket chains, sprocket wheels for carrying such chains, buckets pivotally attached to such chains, a tripper cam fixed to each bucket and having a depending and a forwardly and a rearwardly projecting arm, a tripper for engaging such arms in succession for causing a complete rotation of the buckets on their pivots.

3. In a bucket conveyer, in combination, a pair of sprocket chains, sprocket wheels for carrying such chains, buckets pivotally attached to such chains, a tripper having a longitudinal rail provided with upstanding lugs adjacent its ends and midway thereof and recesses adjacent each of the end lugs, and a tripper cam fixed to each bucket and having a depending arm and forwardly and rearwardly projecting arms and a recess intermediate of the last two arms.

4. In a conveyer, in combination, a series of connected rotatable buckets having overlapping lips, and means for adjusting the buckets to reverse in relative positions of the overlapping lips acting to turn the buckets in one direction only.

5. In a conveyer, in combination, a series of connected rotatable buckets having overlapping lips, and means for causing a complete rotation of each bucket, the action of said rotating means upon the several buckets being so timed that when each bucket is inverted the two adjacent buckets are tilted whereby the overlapping lips clear.

1,090,157. CARBONATOR. ANDREW KOESCHE, Chicago, Ill., assignor to The Bastian Blessing Company, Chicago, Ill., a Corporation of Illinois. Filed June 21, 1913. Serial No. 774,952. (Cl. 209—1.)



1. In a carbonating apparatus, the combination of a mixing tank, a pump for supplying water to said tank, a motor for operating said pump, a switch and a rheostat in the motor operating circuit, means operated by gas pressure from the mixing tank for closing said switch and slowly operating said rheostat, and means controlled by the level of the liquid in said tank for controlling the supply of gas to said means.

2. In a carbonating apparatus, the combination of a mixing tank, an electrically driven pump for supplying water to said tank, a rheostat and a switch disposed in the pump operating circuit, a pressure actuated device adapted to operate said switch and rheostat, connections for supplying gas under pressure from said tank to said device, means controlled by the liquid level in the tank for controlling the supply of gas to said device, and means for restoring said device to normal position when the gas pressure is released.

3. In a carbonating apparatus, the combination of a mixing tank, an electrically operated pump for supplying water thereto, a rheostat and an electric switch located in the pump operating circuit, a pressure actuated device, including a plunger and a pivotally mounted lever adapted to operate said switch and rheostat, a connection for supplying gas under pressure to said device from the mixing tank, and means operated by variation in liquid level in the tank for controlling the supply of gas from the tank to said device.

4. In a carbonating apparatus, the combination of a mixing tank, an electrically operated pump, a rheostat interposed in the pump operating circuit, a cylinder mounted adjacent said rheostat, a plunger reciprocal in said cylinder, a pivoted lever connected with the plunger and adapted to operate said rheostat, connections for supplying gas to said cylinder from said mixing tank to move said plunger in one direction, means for controlling the flow of gas to and from said cylinder, and means for returning said plunger to normal inoperative position.

5. In a carbonating apparatus, the combination of a mixing tank, an electrically operated pump, a rheostat and a switch disposed in the pump operating circuit, a cylinder, a piston mounted to reciprocate in said cylinder, connections between said piston and said switch, a lever operated from said piston to control the rheostat, a spring normally retaining said switch in open position and said lever in inoperative position with respect to the rheostat, a connection for supplying gas under pressure to said cylinder from the mixing tank to move the piston and thereby close the switch and gradually operate the rheostat, and means actuated by variations in the liquid level in the tank for controlling the supply of gas to said cylinder.



1,090,158. EXPANSION-JOINT FOR CONCRETE STRUCTURES. JOHN FRANCIS LE BARON, Chardon, Ohio. Filed July 19, 1913. Serial No. 780,048. (Cl. 72—106.)

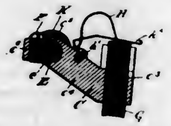


1. In a device of the class described, a pair of concrete members separated at their ends; a reinfocing element embedded in each of the concrete members; plates located upon opposite sides of the reinforcing elements and separated thereby, the plates being terminally embedded in the concrete members and having flexed portions located between the ends of the concrete members and constituting closures for the spaces defined by the reinforcing elements and the plates.

2. In a device of the class described, spaced concrete members; bars embedded in the concrete member; plates applied to the opposite faces of the bars, the plates having opposed folded portions lying between the concrete members; securing device uniting the plates with the bars; and pins inserted through the plates, between the bars, and terminally embedded in the concrete members.

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1,090,159. BRUSH-HOLDER. JOHN C. LINCOLN, Cleveland, Ohio. Filed July 19, 1911. Serial No. 639,433. (Cl. 171—210.)

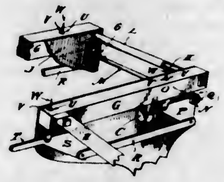


1. A brush-holder comprising a bracket having a plain opening, a brush movably secured to said bracket, a stud rotatably mounted in said opening and provided therein with a worm-threaded portion, such portion being depressed within the peripherical surface, a spiral spring secured to said stud and having its free end bearing against said brush, and means comprising a screw in mesh with such worm-threaded portion and adapted to adjust said stud.

2. In a brush-holder, an arm provided with a plain transverse bore or opening, a cylindrical stud mounted in said opening as a bearing, that portion of said stud within said opening being provided with worm-wheel threads; said arm being provided with a second plain opening or bore intersecting said first named opening or bore; a worm screw loosely mounted in said second opening or bore and engaging the threads of said stud; and two spiral springs having their inner ends secured respectively to opposite ends of said stud, the opposite ends of said springs being adapted to bear upon the brush.

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1,090,160. SACK-HOLDING DEVICE. NICHOLAS MARIE, Peoria, Ill. Filed June 25, 1912. Serial No. 705,883. (Cl. 83—26.)

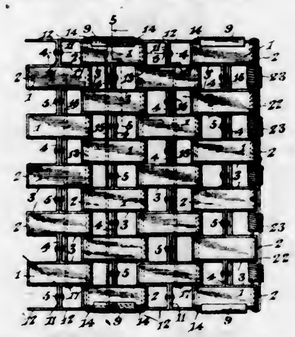


1. In a sack holding device, in combination, a frame having an open side to receive a sack, a rock shaft extending between two of the frame portions at the back, a bell-crank-lever at each end of said shaft, a pair of bell-crank-levers pivoted to the frame, one at each side, and spaced from those of the shaft, a link connecting each bell-crank-lever of the pair with one of the levers of the shaft, and a member carried by each of the said levers adapted to hold the edges of the sack.

2. In a sack holding device, in combination, a frame having an open side to receive a sack, a rock-shaft extending between two of the frame portions at the back, a bell-crank-lever at each end of said shaft, a pair of bell-crank-levers pivoted to the frame, one at each side, and spaced from those of the shaft, a link connecting one of the bell-crank-levers of the pair with one of the levers of the shaft, a member carried by each lever adapted to hold the edges of the sack, and means to resiliently hold all the members in position to receive the sack.

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1,090,161. MAT. FRANK G. MCPHERSON and THOMAS C. MCPHERSON, Beaver Falls, Pa., assignors to Keystone Wire Matting Co., Beaver Falls, Pa. Filed Jan. 27, 1913. Serial No. 744,494. (Cl. 15—63.)



1. A mat of the class described including a plurality of spaced blocks arranged in rows, the blocks of each row being located at the terminals or spaces between the blocks of the adjacent rows, and binding strips for each row bent at intervals to form opposite bends or loops, which embrace and extend entirely around the edges of the blocks to form a complete binding therefor, said strips having intervening connecting portions secured together at the spaces between the blocks.

2. A mat of the class described including a plurality of rows of spaced blocks, the blocks of each row being located at the intervals or spaces between the blocks of the adjacent rows, and binding strips for each row bent at intervals to form opposite bends or loops, which embrace and extend entirely around the edges of the blocks to form a complete binding therefor, said strips having intervening connecting portions abutting at the spaces between the blocks, the connecting abutting portions of the adjacent rows being staggered, and fastening means located at the spaces between the blocks for securing the abutting portions of the binding strips together.

3. A mat of the class described including a plurality of spaced blocks arranged in rows, the blocks of each row being located at the intervals between the blocks of the adjacent rows, a binding strip for each row bent at intervals to partially embrace the blocks, a co-acting binding strip also bent at intervals to partially embrace the blocks, said binding strips operating to form a complete binding which extends entirely around the edges of the blocks, said strips being brought together in abutting relation between each block, and fastening means for securing the strips together at the places where they abut.

4. A mat of the class described including a plurality of spaced blocks arranged in rows, the blocks of each row being located at the intervals or spaces between the blocks of the adjacent rows, and binding strips for each

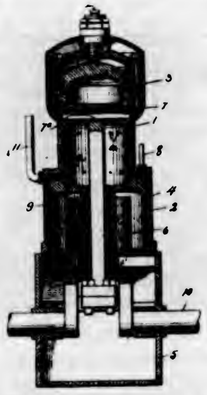
row bent at intervals to form corresponding loops or bends and straight intervening connecting portions, said loops or bends opening toward each other and fitted against the edges of the blocks and forming a complete binding around the same, and fastening means for securing the straight connecting portions of the binding strips together in abutting relation.

5. A mat of the class described including a plurality of rows of spaced blocks, the blocks of each row being arranged opposite the intervals between the blocks of the adjacent rows, binding strips arranged in pairs and extending along the rows and bowed at intervals and embracing the side edges of the blocks and extending completely around the same to form bindings therefor and secured together between the blocks, and rods piercing the blocks and the strips of the adjacent rows and retaining the former in the said bindings.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,162. SYSTEM OF LUBRICATION. ERNEST A. MEYER and RALPH F. MEYER, Freeport, Pa. Filed Mar. 1, 1912. Serial No. 680,873. (Cl. 123—196.)



1. In a gas engine having a compound differential piston, cylinders for said piston, a supply pipe adapted to feed lubricant directly to the cylinder for the larger piston above said piston, forming a splash chamber, the said differential piston being pivoted to the piston rod by a hollow or tubular pin, said differential piston when in its lower position bringing a considerable portion of the smaller part of said piston and the open ends of the hollow pin into said splash chamber, said hollow pin having an opening between its ends through the lower side of the same to lubricate the bearing of the piston and of the piston rod, and a breathing passage for said splash chamber.

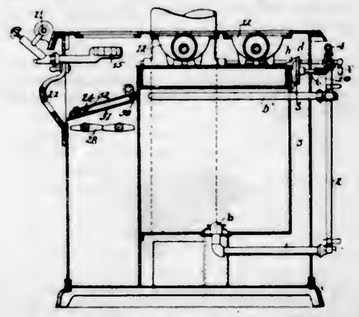
2. In a gas engine of the character described, having a compound differential piston working in an appropriate cylinder construction, a lubricant supply pipe communicating directly with the larger cylinder above the larger piston, forming a splash chamber, means for lubricating the smaller piston, the larger cylinder wall and pivot pin of the piston end of the piston rod, said piston body above the larger piston head being perforated to permit of the passage of the lubricant into the interior of the piston body to lubricate the crank pin and the journals of the crank shaft, and a breathing passage for said splash chamber.

3. In a gas engine having a compound differential piston, cylinders for said piston, a supply pipe for lubricant communicating with the cylinder for the larger piston directly above said piston, forming a splash chamber, the said differential piston being pivoted to the piston rod by a tubular pin, said differential piston when at its lower position bringing a considerable portion of the smaller part of said piston and the open ends of the tubular pin into said splash chamber, said tubular pin having an opening between its ends to lubricate the bearing of the piston and of the piston rod, a stationary piston which acts as a bearing for said differential piston, apertures in said differential piston through which the lubricant is adapted to lubricate the stationary piston, and a breathing passage for said chamber.

4. A gas engine having a plurality of pistons of the compound differential type, cylinders for said pistons, lubricant supply pipes admitting lubricant to the larger cylinders above the larger piston heads, forming splash chambers, the said differential pistons being pivoted to the piston rods by tubular pins, said differential pistons when at their lower position bringing a considerable portion of the smaller part of said piston and the open ends of the tubular pins into said splash chambers, the bodies of the pistons being perforated above the larger piston heads, to permit the passage of the lubricant to the interior thereof, the larger cylinders being connected for the passage of air between them.

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1,090,163. COMBINED SOLID-FUEL AND GAS RANGE. CARL H. MILLER, Cleveland, Ohio. Filed Nov. 20, 1911. Serial No. 661,273. (Cl. 126—36.)



A kitchen range having an exhaust flue for the products of combustion and an oven provided with an exhaust passage at its top into said flue, in combination with a gas supply pipe at the front of the range and a gas burner in said oven having supply connection with said pipe, a hood over the entrance to said exhaust passage and a damper fitted to the outside of said hood, a valve adapted to control the flow of gas to said oven burner having a depending handle, a rod loosely connected with said handle at one end and a support for the other end thereof in said hood and having said damper mounted thereon and a spring on said rod adapted to force said damper to its seat on said hood.

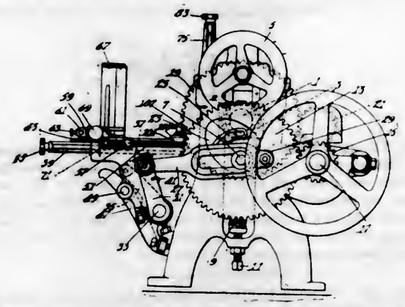
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1,090,164. SKIVING-MACHINE. FREDERICK JESSE NASH, Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 1, 1910. Serial No. 569,904. (Cl. 12—62.)

1. A machine of the class described having stock treating means and means for feeding blank pieces of stock thereto, said feeding means comprising a rock shaft, a member loose thereon, a member fast thereto, one of said members having a projection, and the other having a recess to receive said projection, said recess being of greater extent circumferentially of said shaft than said projection, and a spring fast at one end to said loose member and at the other end to said rock shaft whereby angular movement of said rock shaft in the rearward direction is imparted directly to said loose member while similar movement of said shaft in the forward direction is imparted through said spring.

2. A machine of the class described having stock treating mechanism, a support for a blank piece of stock, a feed slide, and means for actuating said slide and mechanism, in combination with rigid guides for engaging opposite edges of one portion of the blank and yielding guides for engaging opposite edges of another portion.





3. A machine of the class described having stock treating mechanism, a support for a blank piece of stock, a feed slide, and means for actuating said slide and mechanism, in combination with rigid guides adjustable with respect to said support and yielding guides carried by said rigid guides.

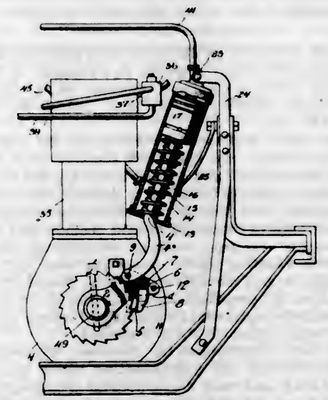
4. A machine of the class described having stock treating mechanism, a support for a blank piece of stock, a feed slide, and means for actuating said slide and mechanism, in combination with rigid guides adjustable with respect to said support and yielding guides carried by said rigid guides, said yielding guides being adjustable with respect to said rigid guides.

5. A machine of the class described having stock treating mechanism, a support for a blank piece of stock, a feed slide, and means for actuating said slide and mechanism, in combination with rigid guides for engaging opposite edges of one portion of the blank and yielding guides for engaging opposite edges of another portion, the two sets of guides being adjustable with respect to each other.

[Claims 6 to 9 not printed in the Gazette.]

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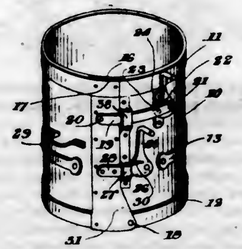
1,090,165. ENGINE-STARTER. HARRY R. NOLL and WILLIAM B. HOLLINGSWORTH, Williamsport, Pa., assignors of one-third to J. C. Smart, Cloudersport, Pa. Filed Dec. 18, 1912. Serial No. 737,459. (Cl. 123—179.)



The combination with an engine shaft, of a ratchet wheel secured thereon, a pawl-carrier journaled upon the shaft, a pawl on said carrier adapted to engage the ratchet wheel, a cylinder pivotally supported at its rear end, a piston within the cylinder, a piston-rod connected to said piston and extending through the forward end of the cylinder and pivotally connected to said pawl-carrier, the portion of said rod external to the cylinder lying in the plane of the ratchet wheel and being curved to conform to the circumference of said ratchet wheel when the piston rod is projected, means for admitting fluid under pressure into the rear end of the cylinder to drive the piston forward, springs within the cylinder for moving the piston rearward, and a stop for tripping the pawl out of engagement with the ratchet wheel when the piston is moved rearward.

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1,090,166. CHEESE-HOOP. JAMES WILLIAM O'BRIEN, Wolfe Island, Ontario, Canada. Filed Aug. 18, 1913. Serial No. 785,388. (Cl. 31—21.)



1. A cheese hoop comprising a single strip of metal bent into the shape of a hollow truncated cone overlapping at its meeting ends and having on the inside of its smaller end a serrated internal radially extending flange adapted to receive and support the bottom plate, said overlapping ends being pivoted to one another adjacent the bottom.

2. A cheese hoop made of one strip of metal with overlapping ends pivotally connected together at their base, means for fastening the said ends, said means comprising eccentric levers, and a tying strip pivotally secured to a tightening lever.

3. A cheese hoop comprising a single strip of metal folded into a tapered circular band overlapping at its ends, said ends being pivotally secured one to the other at the base of the hoop.

4. A cheese hoop comprising a single strip of metal folded into a tapered circular band overlapping at its ends, said ends being pivotally secured one to the other at the base of the hoop, means for opening and closing the overlapping ends of said bands at the top of the hoop.

5. A cheese hoop comprising a single strip of metal folded into a tapered circular band overlapping at its ends, said ends being pivotally secured one to the other at the base of the hoop, means for opening and closing the overlapping ends of said bands at the top of the hoop, means for securing said overlapping ends in an open or closed position.

[Claims 6 and 7 not printed in the Gazette.]

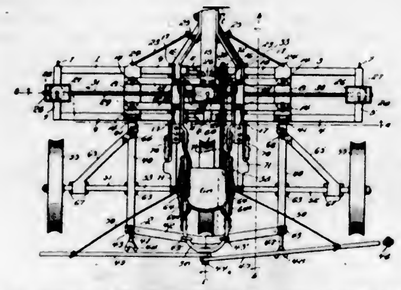
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1,090,167. CHECK-ROWER AND AUTOMATIC CORN-PLANTER. EDWARD W. OWENS, Wagner, S. D. Filed Sept. 3, 1912. Serial No. 718,418. (Cl. 111—6.)

1. A planter of the class described comprising a carrier frame having seed dropping mechanism and furrow openers and a trailing frame connected to and extending rearwardly from the carrier frame and provided with supporting wheels, the said carrier frame and trailing frame being flexible to enable their ends and centers to be independently and vertically moved.

2. A planter of the class described comprising a carrier frame, having seed dropping mechanism and furrow opening elements and comprising members flexibly connected together for independent vertical movement of the ends and center of said carrier frame and a trailing frame connected to and extending rearwardly from the carrier frame and having supporting wheels, the said trailing frame comprising flexibly connected members

adapting the center and ends of the trailing frame to be independently and vertically moved.



3. A planter of the class described comprising a carrier frame comprising members flexibly connected together at points intermediate the ends of said carrier frame for independent vertical angular movement, said carrier frame having seed dropping mechanisms and furrow opening elements at its ends and center, a trailing frame arranged in rear of and connected to the carrier frame, and comprising members flexibly connected together for independent vertical angular movement at the ends and center and supporting and covering wheels mounted at the sides and at the center of said trailing frame.

4. A planter of the class described comprising a carrier frame comprising members flexibly connected together for independent vertical angular movement, said carrier frame having seed dropping mechanisms and furrow opening elements at its ends and center, a trailing frame arranged in rear of and connected to the carrier frame, and comprising members flexibly connected together for independent vertical angular movement at the ends and center and supporting and covering wheels mounted at the sides and at the center of said trailing frame, a draft element attached to the central portion of the carrier frame, and means to raise and lower the said carrier frame independently of the trailing frame.

5. A planter of the class described comprising a carrier frame having members flexibly connected together at a point substantially at the center of said carrier frame for angular vertical movement, a reach element having its front end pivotally connected to the carrier frame for vertical angular movement, said reach element extending rearwardly from the carrier frame, seed dropping mechanisms at the ends and center of the carrier frame, an actuating shaft for said seed dropping mechanisms and comprising members flexibly connected together at a point substantially at the center of said frame; a trailing frame for vertical angular movement and extending rearwardly from the carrier frame, an arch bar connecting the rear ends of the said side bars and flexibly connected thereto, an axle comprising a pair of members connected together at a point intermediate the ends of the axle for angular vertical movement, connections between the axle members, the said side bars and the reach element, said connections admitting of independent vertical movement between said axle members and said reach element, side supporting and covering wheels at the ends of the axle and a center supporting and covering wheel at the center of the axle, and means to raise and lower the carrier frame with reference to the trailing frame.

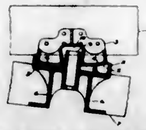
[Claim 6 not printed in the Gazette.]

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1,090,168. CENTER-PLATES FOR RAILWAY-CARS. JOHN A. PILCHER, Roanoke, Va. Filed June 5, 1913. Serial No. 771,930. (Cl. 105—108.)

1. The combination with a car of a circular, flat faced center plate having a segmental portion of the flat face cut away at the ends, longitudinally of the car, substantially as described.

2. The combination with a car of a circular, flat faced center plate having a segmental portion of the flat face cut away at the ends, longitudinally of the car, along an inclined plane at an acute angle with the plane of the flat bottom, substantially as described.



3. The combination with a car of a circular, flat bottom top center plate having a segmental portion of the flat bottom cut away at the ends, longitudinally of the car, along an inclined plane at an acute angle with the plane of the said flat bottom, and a circular lower center plate having a flat top face adapted to support the said top center plate, substantially as described.

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1,090,169. VEHICLE-TIRE. ARTHUR W. SAVAGE, Duarte, Cal. Filed May 15, 1912. Serial No. 697,465. (Cl. 152—16.)



A vehicle tire, comprising a plurality of sections, and means for securing each of the sections in connection with the vehicle wheel; said means comprising slotted annuli upon the wheel, said annuli having spaced side portions, and means upon the sections fitting the spaces between the side portions of the annuli; and tension means for holding said means upon the sections in position between the side portions of said first named annuli; said tension means comprising leaf springs, each connected with one of said annuli at a side portion thereof and projecting at its end adjacent to the means with which it co-acts.

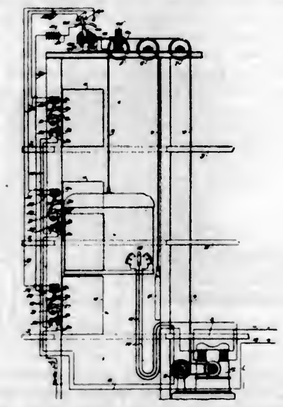
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1,090,170. SAFETY APPLIANCE FOR ELEVATOR-CARS. CHARLES SCHENCK, Chicago, Ill., assignor to Elevator Supply & Repair Company, Chicago, Ill., a Corporation of Illinois. Filed July 14, 1911. Serial No. 638,570. (Cl. 187—31.)

1. In safety appliances for elevators, the combination with the elevator car, shaft and shaft doors, a series of locking members for said doors, pivoted latches for holding said locking members in operative position, electro-magnets for releasing said latches, a commutator comprising a series of contacts connected to said magnets and a switch arm movable over said contacts, car hoisting mechanism and speed reducing gears connecting said car hoisting mechanism to said movable switch arm, whereby the latter is moved in correspondence with the movement of the car to successively engage said contacts and release the latches of said locks, substantially as described.

2. In safety appliances for elevators, the combination with the elevator car and operating motor therefor, an elevator shaft and shaft doors, a series of locking members for said doors, a series of latches for holding said locking members in operative position, electromagnets for releasing said latches, a member connected to and moved in correspondence to the movement of the car for successively opening and closing the circuits of said magnets, and a series of switches mounted independently of but adjacent said locking members and interposed in the circuit of said operating motor, said switches being normally spring held in closed position and arranged to be engaged and opened by said locking members when the latter are shifted to inoperative position, substantially as described.





3. In safety appliances for elevators, the combination with the elevator car, shaft and shaft doors, of a series of locks for said doors, each of said locks comprising a casing, a notched locking member pivotally mounted within said casing, a hook-lug on the door, arranged to extend in said casing and engage and shift said locking member to and from operative position, a spring for yieldingly holding said locking member in its operative and inoperative positions, a pivoted spring held latch in said casing arranged to engage said locking member and hold the same in operative position, an electro-magnet in said casing for releasing said latch, and a switch interposed in the circuit of said motor pivoted in said casing and normally spring held in closed position, said locking member being arranged to engage and open said switch when shifted to its inoperative position, substantially as described.

4. In safety appliances for elevators, the combination with the elevator shaft, shaft doors, the elevator car and hoisting mechanism therefor, of a series of swinging, double-armed locking members for said doors, hook lugs secured to and projecting from the edges of said doors and arranged to engage the separate arms of said locking members to shift the latter to and from operative position, said locking members having seats for said hook lugs between said arms thereof, a spring for yieldingly holding each of said locking members both in its operative and in its inoperative position, latches for securing said locking members in their operative positions, electromagnets for releasing said latches, a commutator comprising a series of contacts electrically connected to said magnets, a pivoted switch arm and speed reducing gearing interposed between said hoisting mechanism and said switch arm and arranged to move the latter in correspondence with the movement of the car to successively engage said contacts, substantially as described.

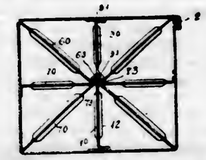
5. In a safety appliance for elevators, the combination with the elevator car, shaft and shaft door, of a movable locking member for said door, a latch for holding said locking member in operative position, an electro-magnet for tripping said latch, and means moved in correspondence with the movement of the car for automatically controlling the circuit of said magnet, said latch being manually releasable by the car conductor.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,171. REINFORCED TUBULAR BUILDING UNIT. FRANK J. SCHISLER, Winthrop, Minn. Filed Jan. 27, 1913. Serial No. 744,503. (Cl. 189—37.)

1. A building unit comprising a rectangular tubular shell, and diagonal and perpendicular bracing members extending throughout the length thereof, each diagonal consisting of two oblique leaves united by an angle and having their outer edges standing in contiguous corners of the shell, the horizontal member having lateral feet at its outer edges standing within the sides of the shell and its body passing between the angles of said diagonals, and the vertical member consisting of two strips of metal whereof the lowermost has a foot resting on the bottom of the shell and its upper edge stands within the angle of the lower diagonal, and the uppermost has a foot resting under the top of the shell and its lower edge engages the angle of the upper diagonal.



2. A building unit comprising a rectangular tubular shell, and diagonal and perpendicular bracing members extending throughout the length thereof, each of the former consisting of two oblique leaves united by an angle and having their outer edges standing in contiguous corners of the shell, the horizontal member extending from side to side of the shell and passing between the angles of said diagonal members, and the vertical member consisting of a strut rising from the bottom of the shell into the apex of said angles and a brace rising from the latter to the top of the shell.

3. A building unit comprising a polygonal tubular shell, a V-shaped bracing member therein having its edges in upper corners of the shell and a reëntrant angle in its vertex, a lateral member connecting the sides of the shell and having an upstruck angle at its center entering said reëntrant angle, an A-shaped member whose edges rest in lower corners of the shell and whose angle rests under that of the lateral member, an upright strut supporting the angle of the A-shaped member from the bottom of the shell, and an upright brace whose upper edge rests under the top of the shell and whose lower edge has a channeled flange resting over said reëntrant angle.

4. A building unit comprising a polygonal tubular shell, a V-shaped bracing member therein having its edges in upper corners of the shell and a reëntrant angle in its vertex, an A-shaped member whose edges rest in lower corners of the shell and whose angles stand under said reëntrant angle, an upright strut supporting the angle of the A-shaped member from the bottom of the shell, and an upright brace whose upper edge rests under the top of the shell and whose lower edge has a channeled flange resting over said reëntrant angle.

5. A building unit comprising a tubular shell, a V-shaped bracing member therein having a reëntrant angle in its vertex, a lateral member having an upstruck angle at its center entering said reëntrant angle, an A-shaped member whose angle rests under that of the lateral member, an upright strut supporting said angles, and an upright brace between the top of the shell and said reëntrant angle.

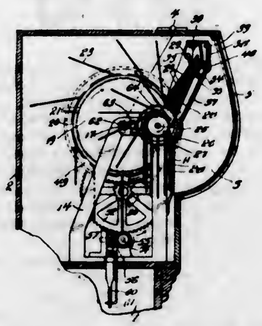
[Claims 6 to 16 not printed in the Gazette.]

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1,090,172. ADVERTISING DEVICE. EDWARD B. SHANKS, Springwood, Va. Filed Jan. 14, 1913. Serial No. 742,027. (Cl. 58—126.)

1. A time and advertising display apparatus including hour and minute drums, means for appropriately operating said drums, hour and minute cards carried by the respective drums, said minute cards bearing advertising data on one face and minute indicating insignia on the opposite face, said hour cards bearing hour indicating insignia on one face, means for holding the respective hour and minute cards in elevated position, and a permanent movably mounted card overlying the hour cards when in elevated position.

2. A casing, hour and minute drums rotatably mounted therein, said casing being formed with upper and lower display openings adjacent each drum, hour and minute cards mounted on the respective drums, the hour cards bearing hour indicating insignia on one face, the minute cards bearing advertising data on one face and minute indicating insignia on the opposite face, means for holding the minute cards in position to display the advertising data through the upper display opening adjacent the minute drum, said drum operating the minute cards to withdraw them from said means to permit them to gravitate to display the minute indicating insignia through the lower display opening, a permanent card movably mounted to be normally displayed through the upper display opening adjacent the hour drum, and means for movably supporting the permanent card to permit the hour cards to move said permanent card beyond their path during the gravical movement of the hour cards.



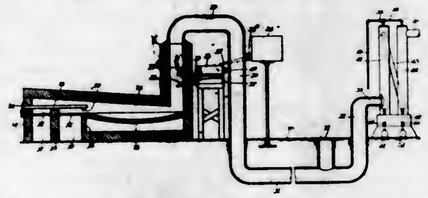
3. A casing, hour and minute drums rotatably mounted therein, said casing being formed with upper and lower display openings adjacent each drum, hour and minute cards mounted on the respective drums, the hour cards bearing hour indicating insignia on one face, the minute cards bearing advertising data on one face and minute indicating insignia on the opposite face, means for holding the hour cards against gravitation to display position, said hour drum operating to withdraw the hour cards from said means prior to the period at which they are to be released, a trip to receive the hour cards succeeding their release from said means, and means operated by a minute card to operate the trip to release the particular hour card, means for holding the minute cards in position to display the advertising data through the upper display opening adjacent the minute drum, said drum operating the minute cards to withdraw them from said means to permit them to gravitate to display the minute indicating insignia through the lower display opening, a permanent card movably mounted to be normally displayed through the upper display opening adjacent the hour drum, and means to hold the hour cards against engagement with said permanent card.

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1,090,173. APPARATUS FOR TREATING WASTE HYDROCHLORIC-ACID-PICKLE LIQUORS. GUSTAF H. STARCK, Waukegan, Ill. Filed July 3, 1912. Serial No. 707,493. (Cl. 23—13.)

1. In apparatus for treating waste hydrochloric acid pickle liquor, in combination with a hearth adapted to contain a liquid, and fire grates arranged so that flames from material placed thereon will pass over said hearth, a retort, adapted to contain wet solid material placed immediately adjacent to said fire grates so that said flames contact with said retort before passing to the hearth and that vapor driven off from the solid material within the retort passes with said flames over the hearth and a recovery chamber into which the resulting gaseous products pass and means providing a water spray within said chamber for the purposes set forth.

2. In apparatus for treating waste hydrochloric acid pickle liquor, in combination with a hearth adapted to contain a liquid and fire grates arranged so that flames from material placed thereon will pass over said receptacle; a retort open at both ends for the passage of air therethrough adapted to contain wet solid material, said retort being placed immediately adjacent to said fire grate so that said flames contact with said retort before passing to the hearth and that vapor driven off from the solid material within the retort mixes with the air passing therethrough and passes with said flames over the hearth and means for collecting the hydrochloric acid from the resulting gaseous products, for the purposes set forth.



3. In apparatus for treating waste hydrochloric acid pickle liquor, in combination with a hearth adapted to contain a liquid and fire grates arranged so that flames from material placed thereon will pass over said hearth, a retort open at both ends for the passage of air therethrough adapted to contain wet solid material, said retort being placed immediately adjacent to said fire grate so that said flames contact with said retort before passing to the hearth, and that vapor driven off from the solid material within said retort mixes with air passing therethrough and passes with said flames over the hearth, and means for regulating the volume of air admitted to and through said retort, for the purposes set forth.

4. In apparatus for treating waste hydrochloric acid pickle liquor, in combination with a hearth adapted to contain a liquid, and fire grates arranged so that flames from material placed thereon will pass over said hearth; a retort adapted to contain wet solid material placed immediately adjacent to said fire grates so that said flames contact with said retort before passing to the hearth that vapor driven off from said solid material within the retort passes with said flames over the hearth, and means for regulating the size of an opening in the retort through which air may be admitted past the solid material therein to the interior of the furnace, and through which solid material may be inserted and removed during the operation of the device without disturbing said operation.

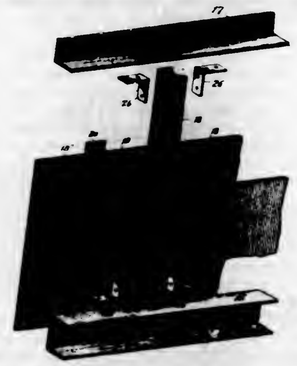
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1,090,174. RAILWAY-CAR. ALBERT W. SULLIVAN, Poughkeepsie, N. Y., and WILLIAM RENSHAW, Chicago, Ill. Filed Nov. 23, 1912. Serial No. 733,067. (Cl. 105—192.)

1. In a railway car of the class described, a series of vertical I-beam side posts with the web portions arranged transversely of the length of the car, and a double wall of sheet metal sheathing comprising outside and inside metal plates attached along their edges to the exterior and interior flanges of said I-beam side posts, certain of said plates adjacent the ends of the car being of greater thickness than the middle plates.

2. In a railway car of the class described, side plate girder walls formed of an upper chord or plate located adjacent the roof of said car, a lower chord or side sill adjacent the floor of said car, a series of vertical wrought metal I-beam side posts with their web portions arranged transversely of the length of the car and forming struts for said side carrying member and connecting the upper and lower chords together, and a double wall of sheet metal sheathing comprising outside and inside metal plates attached along their edges to the exterior and interior flanges of said I-beam side posts, one pair of inside and outside plates being secured to each side post on one side of the web thereof and the adjacent pair of inside and outside plates being attached to the flanges of said post along the other side of the web thereof.



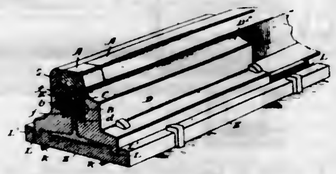


3. In a railway car of the class described, side plate girder walls formed of an upper chord or plate located adjacent the roof of said car, a lower chord or side sill adjacent the floor of said car, a series of vertical wrought-metal I-beam side posts with their web portions arranged transversely of the length of the car and forming struts for said side-carrying member and connecting the upper and lower chords together, and a double wall of sheet metal sheathing comprising outside and inside metal plates attached along their edges to the exterior and interior flanges of said I-beam side posts, one pair of inside and outside plates being secured to each side post on one side of the web thereof and the adjacent pair of inside and outside plates being attached to the flanges of said post along the other side of the web thereof, said outside plates being secured to said side posts by rivets or the like, said inside plates being detachably secured to said posts by bolts or the like.

4. In a railway car, channel beam side sills and a series of I-beam side posts standing thereon and secured thereto with their webs transverse to the length of the car and extending between said side sills and the roof structure of said car, plates on top of said I-beam posts, corner angles connecting and securing the upper and lower ends of said I-beam side posts to the said plates and side sills, respectively, a double wall of sheet metal sheathing attached to the outside and inside flanges of said I-beam side posts, the plates of said metal sheathing adjacent the ends of said cars being of greater thickness than the intermediate plates of said metal sheathing, metal batten strips vertically arranged over the meeting edges of the side plates, and shims arranged between the edges of the thinner plates and the flanges of the I-beam posts to compensate for the difference in thickness of the plates and to present substantially smooth exposed surfaces.

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1,090,175. RAIL-JOINT. JAMES L. THOMAS, Wilmington, Del. Filed Dec. 16, 1913. Serial No. 807,069. (Cl. 239—3.)



1. In a rail joint a T-rail having an ordinary plane-faced web perforated transversely, retaining bars dove-tail in cross section separably secured to opposite sides of the web, and joint bars having dove-tail grooves in their inner faces arranged to be driven over the retaining bars, whereby the retaining bar securing means are concealed and held in position.

2. In a rail joint, the combination with a T-rail having an ordinary plane-faced web perforated transversely, of a retaining bar located on one side of said web and having securing stems thereon passing through the perforations in the web with transverse grooves in proximity to the ends of said stems, a retaining bar mounted on said ends of the stems on the opposite side of the web, a longitudinally movable key bar mounted in the grooves in the stems and a joint bar having its inner face recessed to receive the retaining bar, key bar and ends of the stems.

3. In a rail joint, the combination with a T-rail having an ordinary plane-faced web perforated transversely, retaining bars located on opposite sides of said web, stems connecting said retaining bars through the perforations in the web, and detachable fastening means interposed between one of said retaining bars and the stems, whereby the parts may be separated, and joint bars inclosing said retaining bars and stems on opposite sides of the rail, said joint bars embodying dove-tail recesses for the reception of the retaining bars, whereby the joint bars are held in position to support and connect proximate ends of adjacent rails.

4. In a rail joint, the combination with a T-rail having an ordinarily plane-faced web perforated transversely, retaining bars of dove-tail form in cross section located on opposite sides of said web, stems connecting said bars through the perforations in the web, and a key bar cooperating with the stems on the outer side of one of said retaining bars, of joint bars having their inner faces formed with dove-tail grooves arranged to be driven over the retaining bars, key bar and stems, substantially as described.

5. In a rail joint, the combination with a rail chair having a longitudinal rail seat therein and longitudinal grooves on the outer sides of said seat, of rails having their proximate ends mounted in said seat, retaining bars located on opposite sides of the rail webs and bridging the joint between the ends of the rail, said retaining bars being of dove-tail form in cross section, stems connecting said retaining bars through the rail web, and joint bars having their inner faces provided with dove-tail grooves for the reception of the retaining bars and at their lower outer edges provided with flanges seating in the longitudinal grooves in the rail chair.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,176. DYEING VEGETABLE FIBERS. JOSEPH TURNER and HARRY DEAN, Huddersfield, England, assignors to Read Holliday & Sons, Ltd., Turnbridge, Huddersfield, England. Filed Mar. 31, 1913. Serial No. 757,737. (Cl. 8—5.)

1. The process of treating dyed cotton which comprises subjecting cotton previously dyed with a substantive color to a bath containing an oxidizing agent and an amino compound.

2. The process of treating dyed cotton which comprises subjecting cotton previously dyed with a substantive color to an acid bath containing an oxidizing agent and an amino compound.

3. The process of treating dyed cotton which comprises subjecting cotton previously dyed with a substantive color to n bath containing an oxidizing agent and a mixture of amino compounds.

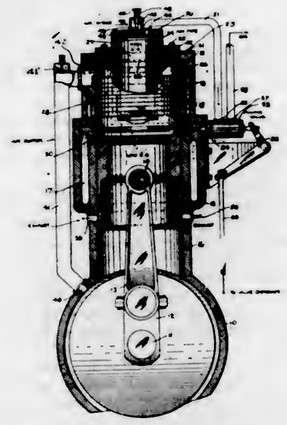
4. The process of treating dyed cotton which comprises subjecting cotton previously dyed with a substantive color to an acid bath containing bichromate of soda and an amino compound.

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1,090,177. GASOLENE-ENGINE. LEO P. VANCE, Rock Island, Ill. Filed Sept. 21, 1912. Serial No. 721,596. (Cl. 123—73.)

1. An engine comprising a casing, a lower cylinder above said casing, an upper cylinder above said lower cylinder,

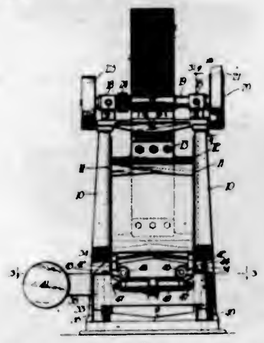
the partition between said cylinders being perforated to permit communication between said cylinders, a hollow cap for said upper cylinder, a piston head slidably mounted in said lower cylinder, a crank shaft passing through said casing, a link connecting said crank shaft with said piston head, a piston head slidably mounted in said upper cylinder and provided with a hollow core extending into said hollow cap, a valve in said core for normally closing an opening in the bottom thereof, the upper portion of said core being provided with perforations for permitting access to the interior thereof, means for permitting communication between said casing and said upper cylinder, and means for introducing fuel into the upper portion of said lower cylinder.



2. An engine comprising a casing, a lower cylinder positioned above said casing and communicating therewith, an upper cylinder positioned above said lower cylinder and communicating therewith, a collar extending inwardly from the upper wall of said upper cylinder and closing an opening formed therein, a hollow cap closing an opening formed in the wall of said upper cylinder, a piston head slidably mounted in said upper cylinder and provided with an extension adapted to close the opening permitting communication between said upper and lower cylinders when said upper piston is in a lowered position, a hollow core in said upper cylinder extending through said collar into said hollow cap, a valve controlling an opening formed in the bottom of said piston, the walls of said core being provided with inlet openings, a pipe permitting communication between said casing and the upper portion of said upper cylinder, a crank shaft passing through said casing, a piston in said lower cylinder, a piston rod connecting said crank shaft with said last mentioned piston, and means for introducing fuel into said lower cylinder above said last mentioned piston.

3. An engine comprising a casing, a lower cylinder above said casing, an upper cylinder above said lower cylinder, a cover plate for said upper cylinder provided with a central opening, an inwardly extending collar closing said opening, a hollow cap covering said opening, a hollow piston in said upper cylinder, a core in said piston extending through said collar into said hollow cap, a partition in said core, the lower portion of said core being provided with a plurality of openings adjacent said partition and with an opening in its end, a valve for closing the opening in the end of said core, a stem extending from said valve through said partition, a spring surrounding said stem above said partition and engaging the same for normally holding said valve in a closed position, a piston in said lower cylinder, operating means for said lower piston, and means for permitting communication between said casing and said upper cylinder.

1,090,178. METALLIC-BARREL-MAKING MACHINERY. FREDERICK G. WACKER, Chicago, Ill., assignor to Charles H. Wacker, Chicago, Ill. Filed May 31, 1911. Serial No. 630,372. (Cl. 113—46.)



1. In a device of the class described, a pair of relatively movable curved dies adapted to operate upon a strip of sheet metal, and means for feeding such strip between the dies with a step by step movement.

2. In a device of the class described, a pair of relatively movable curved dies, means for feeding a strip of sheet metal between the dies with a step by step movement, and means for clamping the metal during the operation thereon by the dies.

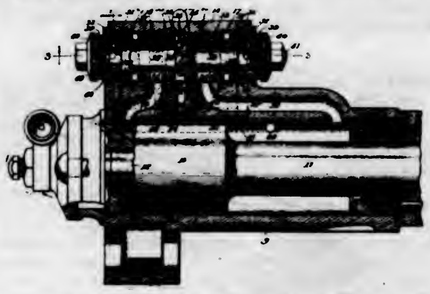
3. In a device of the class described, a pair of relatively movable curved dies, means for feeding a strip of sheet metal between the dies with a step by step movement, and a swinging support for one of the dies.

4. In a device of the class described, the combination of a pair of dies, one being normally stationary and the other movable, means for feeding a strip of sheet metal between the dies with a step by step movement, and a laterally swinging support for the stationary die whereby when the support is swung the work may be removed.

5. In a device of the class described, the pair of relatively movable dies which are curved on their adjacent faces with arcs that are eccentric and are adapted to operate upon a strip of sheet metal, and means for feeding such strip between the dies with a step by step movement.

[Claims 6 to 17 not printed in the Gazette.]

1,090,179. MOTOR. DANIEL S. WAUGH, Denver, Colo., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo., a Corporation of Delaware. Filed Sept. 9, 1913. Serial No. 788,845. (Cl. 121—11.)



1. In a motor of the character described, the combination with a cylinder member and a piston operating therein, of means for supplying fluid under pressure to the motor, an automatic shiftable distributing valve for the motor, means for changing the period of operation



of the distributing valve to vary the stroke of the piston, and a throttle valve controlling the motive fluid supply to the motor and the means for changing the period of operation of the valve.

2. In a motor of the character described, the combination with a cylinder member and a piston operating therein, of means for supplying fluid under pressure to the motor, an automatic shiftable distributing valve for the motor, means for changing the period of operation of the distributing valve to vary the stroke of the piston, including a plurality of ports for supplying motive fluid to the distributing valve, and common means for controlling the motive fluid supply to the motor and for controlling one of said ports.

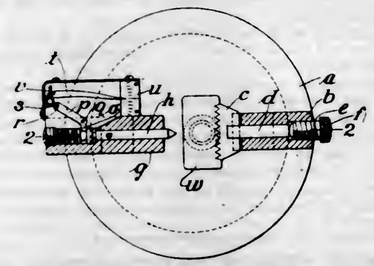
3. In a motor of the character described, the combination with a cylinder member and a piston operating therein, of means for supplying fluid under pressure to the motor, an automatic shiftable distributing valve for the motor, means for changing the period of operation of the distributing valve to vary the stroke of the piston, including a plurality of ports for supplying motive fluid to the distributing valve, and a single valve for controlling the motive fluid supply to the motor and for controlling one of said ports.

4. In a motor of the character described, the combination with a cylinder member and a piston operating therein, of means for supplying fluid under pressure to the motor, an automatic shiftable distributing valve for the motor, means for changing the period of operation of the distributing valve to vary the stroke of the piston, including a plurality of ports for supplying motive fluid to the distributing valve, and a single rotary throttle valve disposed transversely of the cylinder member and controlling the motive fluid supply to the motor and the passage of motive fluid through one of the ports.

5. In a motor of the character described, the combination with a cylinder member and a piston operating therein, of means for supplying motive fluid to the motor, an automatic distributing valve, means for effecting the shifting of the valve, including a plurality of ports covered and uncovered by the piston on its movement, and a throttle valve controlling the motive fluid supply to the motor and one of the ports.

[Claims 6 to 15 not printed in the Gazette.]

1,090,180. CALIPERING-GAGE FOR SCREW-THREADS. FRANK O. WELLS and FRANKLIN JUDGE, Greenfield, Mass. Filed June 19, 1913. Serial No. 774,576. (Cl. 33—167.)



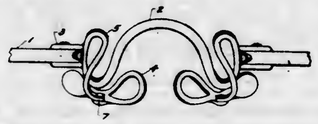
1. A thread-gage, comprising in combination, a base or supporting member contact members to engage the walls of the threads to be measured, one of said members being movable, a pointer device operable from the movable member, means to fixedly adjust the other member, and means to bring the axis of the thread being measured in the same plane as the contact members.

2. In a screw-thread measuring-gage, the combination, of a base-member, thread-receiving members, one of said members being comb-shaped to receive the threads and the opposite one formed with a cone-shaped end, means to move the latter member toward the former, means to limit its movement, a pointer, operable connections between the same and the cone-shaped member, and a movable and adjustable table on which the screw-thread to be measured is placed.

3. In a screw-thread measuring-device to determine its permissible maximum and minimum dimensions, the combinations, of a base-member, two pair of thread-receiving members mounted therein and arranged one above the other, a comb-member on one of the members of the upper pair to receive the walls of the thread, the other member of the upper pair of thread-receiving members being cone-shaped and movable, a grooved roller on one of the members of the lower pair, and its opposite or mate being cone-shaped and fixed.

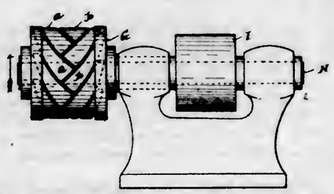
4. A gage-device for measuring screw-threads and comprising, a base-member, an adjustable comb-member to receive and bear against the walls of the thread to be measured, a movable member designed and arranged to engage the walls of the thread on the opposite side of the comb-member and operable from the screw-threads being measured, a pointer movable over a suitable scale to indicate the size of the thread, an operable connection between the pointer and the movable member, a table-member on which the thread is placed while being measured, and means to adjust the table-member in a direction parallel with the axis of the thread.

1,090,181. SPECTACLES AND EYEGLASSES. JOEL C. WELLS, Southbridge, Mass. Filed Feb. 21, 1911. Serial No. 609,867. (Cl. 88—50.)



In eyeglasses and spectacles, lenses, connected lens holding means, nose guards, supports uniting the lens holding means and the guards, a forwardly extending loop between the supports and the lens holding means, and a rearwardly extending loop between the supports and the nose guards.

1,090,182. FORMING HEEL-SEATS FOR BOOTS AND SHOES. SAMUEL J. WENTWORTH, Newport, Ky., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 26, 1905. Serial No. 257,488. (Cl. 12—145.)



1. That improvement in method of making shoes which consists in pulling an upper forwardly to set it around the heel end of a last and, while maintaining it in this condition, drawing the upper over and upon the heel-seat of the shoe simultaneously from opposite sides thereof and progressively on each side in lines directed obliquely forwardly and inwardly and beating such overdrawn portion of the upper down upon the heel seat progressively from the rear end toward the breast of the heel.

2. That improvement in method of making shoes which consists in pulling an upper forwardly to set it around the heel end of a last, fastening it on each side of the shoe to maintain it in this condition, then drawing the upper over the heel seat of the shoe progressively from the rear end of the heel forwardly in lines oblique to the

edge of the heel seat and which converge toward the breast of the heel and beating each portion of the upper down upon the heel seat immediately following the overdrawing thereof.

3. That improvement in method of making shoes which consists in pulling over an upper forwardly to conform its rear portion to the end and side faces and the edge of the heel portion of the last and, while maintaining it in this condition, drawing the upper inwardly over the heel seat of the shoe from opposite sides in lines converging toward the breast of the heel and, while maintaining the drawing strain, beating the successively overdrawn portions of the upper downwardly to conform the upper to the heel seat face of the last.

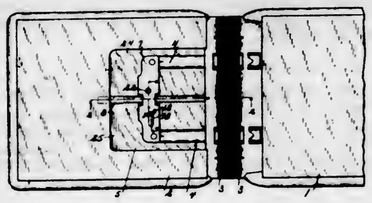
4. That improvement in method of making shoes which consists in pulling an upper forwardly to conform it to the heel end of the last and, while maintaining it in this condition, drawing the upper over the heel seat from opposite sides obliquely inwardly and forwardly with a rubbing and beating action and reducing the extent of the stretching of the engaged upper which would otherwise be produced as an incident to the rubbing action by applying a lubricant to the work.

5. That improvement in method of making shoes which consists in pulling an upper forwardly to conform it to the heel end of the last and, while maintaining it in this condition, drawing the upper obliquely inwardly and forwardly over the heel seat from opposite sides of the shoe with a rubbing and beating action and, simultaneously with said rubbing and beating operation, working into the upper of the heel seat a tempering agent that will facilitate the permanent shaping of the upper to the heel seat of the last.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,183. TEMPORARY BINDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Filed Mar. 3, 1913. Serial No. 751,914. (Cl. 129—41.)



1. In a temporary binder, the combination of a binding member, a rack bar toothed on both edges, an adjusting member for said binding member, mounted on said bar, a pawl mounted on said adjusting member to coact with the teeth on one edge of said bar, a spring adapted to hold said pawl yieldingly in its operative and inoperative positions, a pinion mounted on said adjusting member in mesh with the other edge of said bar, and means for turning said pinion.

2. In a temporary binder, the combination of a binding member, a rack bar toothed on both edges, an adjusting member for said binding member, mounted on said bar, a pawl mounted on said adjusting member to coact with the teeth on one edge of said bar, a pinion mounted on said adjusting member in mesh with the other edge of said bar, and means for turning said pinion.

3. In a temporary binder, the combination of a binding member, a rack bar, an adjusting member for said binding member mounted on said bar, a pawl mounted on said adjusting member to coact with said bar, a spring adapted to hold said pawl yieldingly in its operative and inoperative positions, a pinion mounted on said adjusting member in mesh with said bar, and means for turning said pinion.

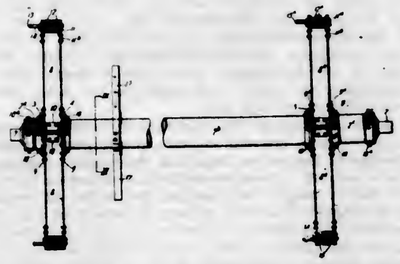
4. In a temporary binder, the combination of a binding member, a rack bar, an adjusting member for said binding member mounted on said bar, a pawl mounted on said adjusting member to coact with said bar, a pinion mounted on said adjusting member in mesh with said bar, and means for turning said pinion.

5. In a temporary binder, the combination of a binding member, a rack bar, an adjusting member for said binding member mounted on said bar, means for holding said adjusting member in its adjusted position on said bar, a pinion mounted on said adjusting member in mesh with said bar, and means for turning said pinion.

[Claims 6 to 15 not printed in the Gazette.]

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1,090,184. WHEEL CONSTRUCTION. ROBERT B. WOODWORTH, Pittsburgh, Pa. Filed Mar. 20, 1911. Serial No. 615,598. (Cl. 242—117.)



1. A knock-down bull wheel comprising a middle shaft section and opposite end shaft sections, a spoked brake wheel interposed between the middle shaft section and an end shaft section, and a spoked driving wheel interposed between the other end of the middle shaft section and the other end shaft section, spokes of each wheel extending in between the adjacent shaft sections and connected with one another, and detachable connections between the said wheels and the respective shaft sections.

2. A knock-down bull wheel construction comprising a middle shaft section and opposite end shaft sections, a spoked brake wheel interposed between the middle shaft section and one of the end shaft sections, a spoked driving wheel interposed between the other end shaft section and the middle shaft section, spokes of each wheel extending in between the adjacent shaft sections, angle connections for the inner ends of said spokes, and detachable connections between the said wheels and the respective shaft sections.

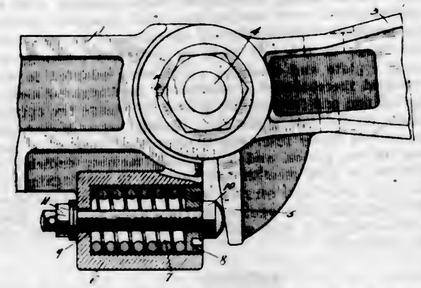
3. A bull wheel construction comprising a middle shaft section and end shaft sections, a spoked brake wheel interposed between the middle shaft section and one of the end shaft sections, a spoked driving wheel interposed between the other end of the middle shaft section and the other end shaft section, each of said wheels having hub-plates, flanges on the ends of the middle shaft section and on the inner ends of the end shaft sections, the shaft sections being detachably connected to the sub-plates of the respective wheels, certain of the spokes of each wheel extending in between the adjacent shaft sections.

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1,090,185. YIELDING COUPLING-SUPPORT. HARRY F. WORMLEY, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 1, 1911. Serial No. 636,529. (Cl. 213—42.)

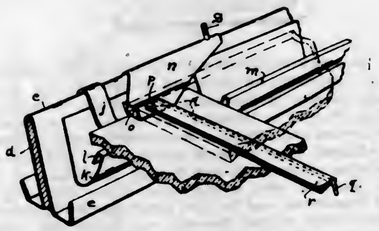
1. The combination with a pivoted draw-bar and a coupler head pivoted to said draw-bar, of a vertically depending arm carried by the coupler head and a spring actuated buffer mounted on said draw-bar and adapted to engage said arm for yieldingly resisting vertical movement of the coupler head from normal position.

2. The combination with a draw-bar and a coupler head pivoted to said draw-bar, of a casing integral with the pivot end of the draw-bar, a spring mounted in said casing, an arm carried by the coupler head, and a buffing member subject to the compression of the spring for engaging said arm to resist vertical movement of the coupler head.



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1,090,186. SKYLIGHT. CHRISTIAN YAUCH, Detroit, Mich. Filed July 23, 1913. Serial No. 780,661. (Cl. 108—16.)



1. In a skylight, the combination with two or more skylight-bars, provided with glazing rests, of weather excluding strips comprising wires connected with adjacent skylight-bars and extended across the intervening space, and a strip of metal wound around the wire to provide two diverging wings which may be compressed between panes of overlapping glass, substantially as described.

2. In a skylight, the combination with a core-bar of a plurality of stirrups placed at relatively short intervals over the core-bar, and gutters comprising relatively thin sheet metal bent to channel-shape with folded-over outer edges engaging over the adjacent ends of the stirrups, the said bent-over edges forming seats for the glazing and the stirrups taking practically all the load of the glazing, substantially as described.

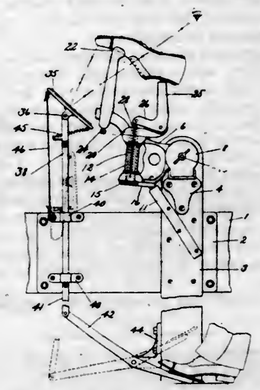
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1,090,187. LASTING APPARATUS. REUBEN G. YORK, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 24, 1906. Serial No. 344,893. (Cl. 12—123.)

1. In an apparatus of the class described, the combination with means for supporting work in position to be operated upon, and a mirror arranged with relation to the support to reflect a portion of the work, of means for moving the mirror bodily toward and from position to reflect the work and simultaneously varying the angle of the face of the mirror with reference to the path of said bodily movement, and means for variably determining the limit of said angular movement of the mirror.

2. In an apparatus of the class described, the combination with a mirror, of a pivotal support for the mirror, a movable shield, said mirror and shield being constructed and arranged to interlock, and means for moving the mirror and shield into and out of interlocking engagement.

3. In an apparatus of the class described, the combination with a mirror arranged to present its face upwardly when in operative position, of a shield, a brush at one edge of the shield, and means for relatively moving said mirror, shield, and brush to cause the brush to dislodge obstructions from the face of the mirror and then cause the shield to cover the mirror with the latter in a plane inclined to that of its normal operative position.



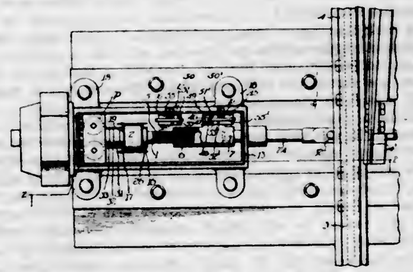
4. In an apparatus of the class described, the combination with a mirror arranged to present its face upwardly when in operative position, of a shield arranged in substantially parallel relation to the mirror when the latter is in said operative position, and means for relatively moving the mirror and shield to cover the mirror and to support the mirror and shield in a plane inclined to that of the normal operative position of the mirror.

5. In an apparatus of the class described, the combination with a mirror, of means for moving the mirror bodily toward and from operative position and simultaneously varying the angle of the face thereof, and adjustable means for variably determining the angular position to which the mirror is moved.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,188. RAILWAY-SWITCH OR THE LIKE. WILSON A. AUSTIN, Omaha, Nebr., assignor of one-half to A. T. Austin, Omaha, Nebr. Filed Jan. 31, 1910. Serial No. 541,018. (Cl. 104—155.)



1. In a device of the kind described and in combination, a rotating part, a switch part movable longitudinally of said rotating part, a threaded bolt carried by one part and a coöperating engaging member carried by the other part, and means for positively connecting said rotating part with the part carried thereby after a predetermined rotation of said rotating part.

2. In a device of the kind described and in combination, a rotating part, and a longitudinally movable part, a threaded bolt, means for connecting said bolt to the rotating part after a predetermined rotation thereof, and means carried by said longitudinal movable part for engaging said threaded bolt.

3. In a device of the kind described and in combination, a rotatable part and a longitudinally movable switch part

and means for transmitting the rotary motion of said rotatable part to said other part to longitudinally move the same, comprising an externally threaded member, means for positively connecting said member with said rotatable part after a predetermined rotation of said part, and an internally threaded part secured on said switch part and movable therewith.

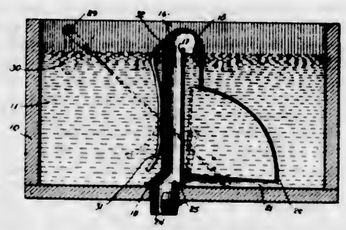
4. In a device of the kind described and in combination, a driving shaft and a throw rod, means for operatively connecting said shaft and throw rod, said means comprising a rotatable shaft positively connected with said throw rod and means for operatively connecting the same with said driving shaft after a predetermined rotation of said driving shaft.

5. In a device of the kind described and in combination, a plurality of rotatable shafts, means arranged therebetween for positively connecting the same, said connecting means normally inoperative until a predetermined rotation of the driving shaft in either direction, and comprising a plurality of disks connected by slot and pin connections.

[Claims 6 to 19 not printed in the Gazette.]

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1,090,189. TANK-SIPHON. PAUL BALZE, Leonia, N. J. Filed Apr. 4, 1913. Serial No. 758,811. (Cl. 4—5.)



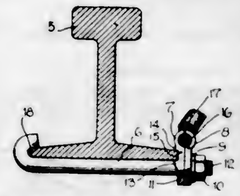
1. In a device of the character set forth, the combination with a tank, of siphon mechanism therefor comprising a valveless siphon and connected chamber, the siphon and chamber being of substantially the same width, the lower end of the longer leg of the siphon merging into a spud fitted in and extending through the bottom of the tank, said longer leg where it merges into the spud on the side thereof adjacent the shorter leg providing a substantially horizontal ledge, said legs being separated by a flat wall having a straight horizontal upper edge and means movable within the chamber to cause a portion of water to be delivered through the siphon and caused to flow in a sheet over said horizontal edge and splash upon said ledge and thence across the center of the spud.

2. In a tank siphon, the combination of a cylindrical structure comprising longer and shorter legs connected at their upper ends by a hemispherical dome and separated by a straight flat square-topped vertical wall, each of said legs in cross section being substantially semi-circular, a cylindrical spud formed at the lower end of the longer leg and having its axis offset outwardly from said wall, there being provided at the bottom of the longer leg between the spud and the wall a flat horizontal ledge, a chamber constituting an extension of said shorter leg and having an open bottom and a recess at its outer edge, and means movable within the chamber to cause a portion of water to be forced through the shorter leg and initially in a sheet over the top of said wall whence it falls upon said ledge and splashes radially toward the axis of the spud, said movable means lying normally below said recess and operating out of contact with the inner walls of the chamber.

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1,090,190. ELECTRICALLY-CONNECTING DEVICE. ROBERT JAMES BELL, Harvey, Ill. Filed July 19, 1913. Serial No. 779,902. (Cl. 173—273.)

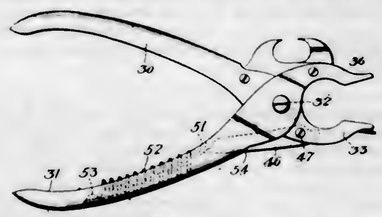
1. In combination with a rail, a wire connecting device therefor comprising an elongated contact plate intersecting the flange of the rail and being provided with a recess intermediate its length to accommodate a marginal portion of such flange, a clamping plate coacting with the contact plate, such contact plate and clamping plate being provided with registering apertures at a point below the flange of the rail when in operative position, said contact plate and clamping plate being adapted to have extended therebetween a conductor, an elongated member having one end formed into a book to engage the opposite flange of the rail while the opposite extremity of such member is freely insertible through the registering openings of the plates, and a retaining member endwise adjustable on such member and adapted to bear against the clamping plate and serving to hold the contact plate and the clamping plate against displacement from the flange and maintaining such plates in proper engagement with the conductor.



2. As a new article of manufacture, a wire connecting device comprising an elongated member having one extremity formed to produce a hook, while the other extremity thereof is threaded, plates loosely mounted on such member and capable of movement lengthwise thereof, the adjacent faces of such plates being provided with registering grooves, the free face of the innermost plate being provided with a transverse groove extending entirely thereacross and in close proximity to the elongated member when applied thereon, and a clamping member engageable with the threaded extremity of the elongated member and adapted to coact with the plates.

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1,090,191. SHOE-BUTTON TOOL. WILLIAM A. BERNARD, New Haven, Conn., assignor to The William Schollhorn Company, New Haven, Conn., a Corporation of Connecticut. Original application filed Nov. 20, 1912, Serial No. 732,550. Divided and this application filed Apr. 22, 1913. Serial No. 762,874. (Cl. 218—24.)



1. In a tool for applying buttons to shoes and the like, a pair of jaws movable toward and away from each other, one of said jaws having a staple seat, a spring coöperating with said seat to hold a staple-connected button in place in the jaw, and means carried by the jaw having the staple seat to automatically push said spring into button releasing position as the jaws are opened and to release the spring as the jaws are closed; substantially as described.

2. In a tool such as described, the combination of pivoted lever members having jaws in advance of the pivot, a button seating spring associated with one of said jaws, and a device carried by said jaw and engaging the other lever member to vary the action of said spring automatically as the jaws are brought together and separated; substantially as described.



3. In a tool such as described, the combination of pivoted lever members having coöperating jaws, a button seating tension member associated with one of said jaws, and a member carried by said jaw and coöperating with the other lever member to push said tension member toward its corresponding jaw as the jaws are separated; substantially as described.

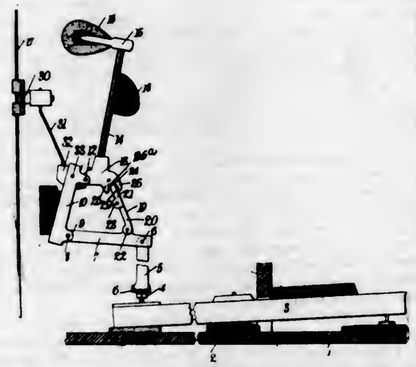
4. In a tool such as described, a pair of pivoted lever members having coöperating jaws, a button seating tension member associated with one of said jaws, and a controlling lever for said tension member pivoted to said last named jaw and movable pivotally by engagement with one of the lever members; substantially as described.

5. In a tool such as described, the combination of pivoted lever members having coöperating jaws, a button seating spring associated with one of said jaws, and a spring controlling lever pivoted to said last named jaw and connected with the other lever member to release said spring as the jaws are brought together; substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

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1,090,192. PIANO-ACTION. JOHN T. BLESSING, Fort Worth, Tex. Filed Aug. 26, 1911. Serial No. 646,166. (Cl. 84—26.)



1. A piano action, comprising a support, a hammer butt pivoted to the support and provided on its under side with a downwardly projecting lug, a jack lever pivoted to said support, a jack formed of links pivoted together by a rule joint, one link being pivoted to the jack lever and the other to the hammer butt adjacent to the lug thereof so as to be engaged thereby to break the joint of the links, and means for operating the jack lever.

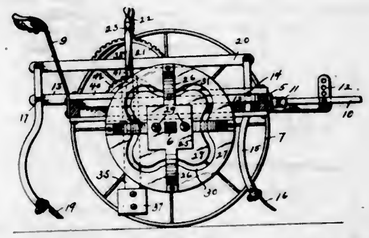
2. A piano action, comprising a support, a hammer butt pivoted to the support and provided with spaced lugs on its under side, a jack lever pivoted to the said support, a jack formed of links pivoted together by a rule joint, one link being pivoted to the jack lever and the other to the hammer butt between the lugs thereof and adapted to be alternately engaged by said lugs.

3. A piano action, comprising a support, a pivoted and spring-pressed hammer butt mounted on the support and provided with a downwardly projecting toe, a jack lever, means for operating hammer butt from the jack lever, a pivoted and spring-pressed damper butt mounted on the support with its pivot adjacent the pivot of the hammer butt and provided with a tongue projecting laterally therefrom and extending below and in the path of the toe of the hammer butt.

4. A piano action, comprising a support provided at its upper end with ears, a hammer butt pivoted between said ears and provided with a toe, a spring on the pivot of the hammer butt and engaging said butt and the support, a jack lever, means for operating the hammer butt from the jack lever, a damper butt pivoted to the support at a point opposite the ears of the support and provided with a tongue projecting below and in the path of the hammer butt, and a spring on the pivot of the damper butt and engaging said butt and the support.

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1,090,193. COTTON-BLOCKING MACHINE. JOSEPH BRAUN, New Decatur, Ala. Filed Sept. 22, 1913. Serial No. 791,028. (Cl. 97—45.)



1. In a device of the character described, the combination with a supporting frame, of longitudinally acting cultivators carried thereby, a horizontally disposed oscillatory bar mounted in said frame and extending longitudinally of the line of travel thereof, ground wheels, means for imparting movement to said bar from said ground wheels, a transversely acting cultivator having a shank pivoted to said oscillatory bar to swing longitudinally thereto, the oscillatory movement of said bar imparting transverse movement to said shank and cultivator, and manually operable means for swinging said shank upon its pivot to shift said transversely acting cultivator backward or forward longitudinally of the line of travel of the machine.

2. In a device of the character described, the combination with a frame, of ground wheels upon which said frame is mounted, a cam driven from said ground wheels, a horizontally disposed rock bar, means for rocking said bar from said cam, a cultivator comprising a blade and a shank, said shank being pivoted upon said rock bar to swing longitudinally thereto, a manually operable member, and a yoke actuated by said manually operable member and embracing said shank and serving to shift said shank upon its pivot while permitting lateral motion of said shank as said bar is rocked.

3. In a cotton blocking machine, the combination with ground wheels, of a cam, means for driving said cam from said ground wheels, a longitudinally extending rock bar, a rod extending transversely from said bar and engaging said cam, and a transversely acting cultivator pivoted to said bar to swing longitudinally thereof.

4. In a cotton blocking machine, the combination with ground wheels, of a cam, means for driving said cam from said ground wheels, a longitudinally extending rock bar, a rod extending transversely from said bar and engaging said cam, a transversely acting cultivator pivoted to said bar to swing longitudinally thereof, and means for swinging said cultivator upon its pivot.

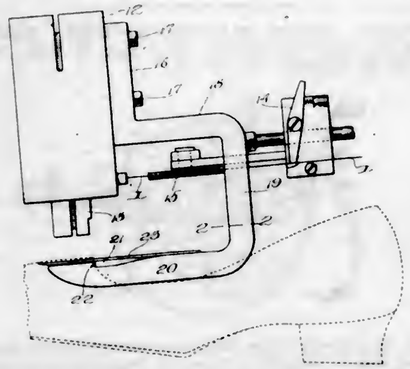
5. In a cotton blocking machine, the combination with ground wheels, of a cam, means for driving said cam from said ground wheels, a longitudinally extending rock bar, a rod extending transversely from said bar and engaging said cam, a transversely acting cultivator pivoted to said bar to swing longitudinally thereto, a pivoted hand lever, and a yoke carried by said hand lever and embracing said cultivator.

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1,090,194. BOW MAKING AND ATTACHING MACHINE. JAMES A. BREED, Lynn, Mass. Filed Dec. 17, 1912. Serial No. 737,249. (Cl. 1—2.)

In a machine for making and setting fastenings, a stapling head, provided with a bracket consisting of an arm arranged to extend away from the head, a vertically arranged portion, and a portion arranged to extend back under the head in a substantially horizontal direction to

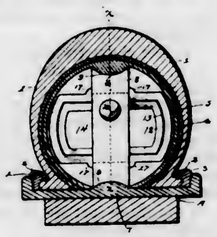
enter a shoe, while the counter of the shoe is permitted to extend upwardly behind the vertical portion of the bracket, the free end of the horizontal portion of the bracket being substantially unyielding and having a



spring finger secured to its upper face, the horizontal portion of the bracket and the spring finger being straight and having a length to present their front ends in position to enable a bow to be attached to the vamp of a shoe.

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1,090,195. TIRE. COLONEL E. BRIGHT, Columbus, Ohio. Filed Sept. 16, 1910. Serial No. 582,294. (Cl. 152—8.)



1. In a vehicle wheel, the combination with the felly, of an outer casing mounted thereon, a series of tubular members located within said outer casing, cushioning blocks within said tubular members extending longitudinally thereof and having circular openings therein, and second cushioning blocks seated transversely within said circular openings and engaging the walls of said members.

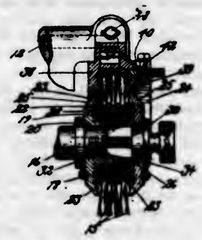
2. In a vehicle wheel, the combination with the felly, of an outer casing mounted thereon, a series of tubular members located within said outer casing, each member being reinforced by a metallic band, ribs extending inward of the tubular sections, cushioning blocks within said tubular members and having circular openings therein, and second cushioning blocks seated transversely within said circular openings and engaging with the walls of said openings.

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1,090,196. LIQUID-APPLYING DEVICE. MICHAEL FRANK BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 31, 1906. Serial No. 298,809. (Cl. 15—37.)

1. In a cementing machine, a hub, a cement applying member of expansible material mounted thereon, means for loosely confining said member in place, and means for rotating said member.

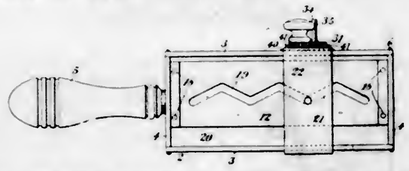
2. In a cementing machine, the combination of a hub, a brush comprising bristles set in an annulus of less width than that of the hub and holding plates arranged at each side of the brush, said plates having annular faces arranged to contact with the bristles.



3. A device of the class described having a bristle holder of expansible material, plates for loosely confining said holder in place and means for connecting said holder with one of said plates to cause it to be rotated therewith.

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1,090,197. RAZOR-SHARPENING MACHINE. GUSTAVUS A. BURSCH, Brooklyn, N. Y. Filed Nov. 20, 1912. Serial No. 732,406. (Cl. 51—16.)



1. In a razor sharpening machine, the combination of a portable frame, a sharpening element mounted therein for lateral movements, a carriage slidably mounted on said frame and provided with blade holding means extending across said sharpening element, means to reciprocate said carriage, and connections between said carriage and said sharpening element whereby the longitudinal movement of the carriage imparts a lateral movement to said sharpening element.

2. In a razor sharpening machine, the combination of a rectangular frame having lateral guides at the ends thereof, a sharpening element set in said frame, said sharpening element being of less width than said frame and movably carried by said guides, said sharpening element having associated therewith a zig-zag slot, a carriage encircling the frame and movable longitudinally thereof and provided with blade holding means spanning said sharpening element, and a member carried by said carriage for engaging in said slot for giving lateral movements to the sharpening element in conjunction with longitudinal movements of the carriage.

3. A razor sharpening machine comprising a frame, a sharpening element mounted therein for lateral movements, a carriage encircling said frame and sharpening element and slidably mounted on the frame, said carriage provided with blade holding means spanning the sharpening element, connections between said carriage and the sharpening element whereby a longitudinal movement of the carriage produces a lateral movement of the sharpening element.

4. A razor sharpening machine comprising a rectangular frame having end and side members, a sharpening element supported by said end members and movable laterally of the frame, a carriage slidably mounted on said side members and provided with blade holding means extending across the surface of said sharpening element, and connections between said carriage and said sharpening element whereby a longitudinal movement of the carriage produces a lateral movement of the sharpening element.

5. A razor sharpening machine comprising a frame, a sharpening element mounted therein for lateral movements, a carriage slidably mounted on said frame, blade holding means carried by said carriage, and means carried entirely by said carriage to reverse the position of the blade holding means when the direction of motion of said carriage is changed.

[Claims 6 and 7 not printed in the Gazette.]

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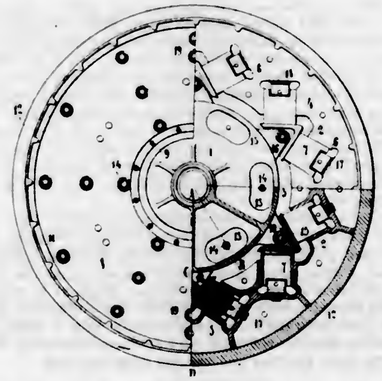
1,090,198. WIG OR HEAD-PIECE FOR DOLLS AND THE LIKE AND PROCESS OF MAKING THE SAME. ALICE H. BUTLER, Evanston, Ill. Filed Apr. 9, 1910. Serial No. 554,314. (Cl. 132—24.)



The herein described process of manufacturing wigs or top head pieces for dolls and the like which consists in introducing a plurality of thoroughly separated or distributed hairs or other fibrous material at varying angles from the convex into the concave side of a wire screen mold, applying to the interior of the wire screen mold molten or plastic material adapted to harden on cooling on exposure to the air, and after the hardening of the plastic material withdrawing the wire screen mold over the free ends of the hair or other fibrous material.

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1,090,199. RESILIENT WHEEL. GASTON CAUVRY and LUCIEN SALEL, Marseille, France. Filed Feb. 20, 1912. Serial No. 678,863. (Cl. 152—28.)



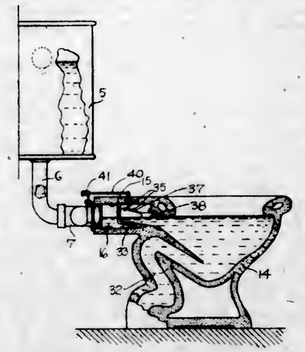
1. A cushion wheel comprising two parts, one of which carries the hub and has on its circumference radially arranged pivotally-mounted driving teeth of wedge-shaped outline and the other of which is concentric to the first part and is shiftable relatively thereto in the plane thereof, the second part having recesses which extend at angles to one another and confront the faces of the driving teeth, caps slidable in the recesses for engagement with the driving teeth, and shock-absorbing devices arranged in the recesses and engaging the caps.

2. A cushion wheel comprising a relatively fixed hub section and a relatively movable rim section, a series of pivotally-mounted driving members of wedge-shaped outline borne by the hub section, and a series of pairs of shock-absorbing devices borne by the rim section and confronting the faces of the adjacent driving members.

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1,090,200. WATER-CLOSET. CHARLES F. COLE, Huntington, W. Va. Filed Nov. 21, 1913. Serial No. 802,280. (Cl. 4—18.)

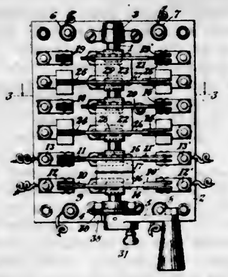
1. The combination of a bowl provided with an extension upon its upper edge, said extension having a float chamber formed therein at all times in open communication with the chamber of the bowl, a flush pipe connected to said bowl extension and provided with a flap valve, said valve being normally open, a float in said float chamber provided with a lever having an angular extension pivotally mounted in the wall of the extension on said bowl and projecting above the same, and a connecting rod between said lever arm and the valve whereby the valve is closed when the water reaches a predetermined point in the bowl chamber and raises said float.



2. The combination of a bowl provided with a water inlet chamber and a float chamber, a division wall separating said chambers and having openings therein affording communication between the same, a flush pipe connected with the water inlet chamber, said float chamber being at all times in open communication with the chamber of the bowl, a normally open valve arranged in the flush pipe, a float in the float chamber, a lever connected to said float and having an angularly disposed arm pivotally mounted in one wall of the bowl and projecting above the same, and a rod connecting said lever arm to the valve to automatically close the same when the water in the chamber bowl reaches a predetermined point and raises the float.

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1,090,201. CHARGING-SWITCH FOR STORAGE BATTERIES. CLARENCE W. COLEMAN, deceased, Westfield, N. J., by Katharine Coleman, administratrix, Westfield, N. J., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y., a Corporation of Maine. Filed Jan. 18, 1911. Serial No. 603,380. (Cl. 171—314.)



1. An electric circuit-controlling device for storage batteries, comprising, in combination with two storage batteries, a charging circuit and a discharging circuit, a plurality of rotative contact-controlling members, a plurality of electric terminals arranged in sets of three disposed in the paths of movement of the contact-controlling members, one set for each contact-controlling mem-

ber, the poles of one battery being connected respectively to one terminal in each of two sets, the poles of the other battery being connected respectively to another terminal in each of the two said sets and the third terminal of the two said sets being connected to the discharging circuit, the respective contact-controlling members of the two said sets being adapted to connect one battery into the discharging circuit in one rotative position and to connect the other battery into the discharging circuit in another rotative position; the charging circuit being connected to the terminals of the other sets, the terminals of the other sets coöperating with their respective contact-controlling members to properly connect the batteries into the charging circuit.

2. An electric circuit-controlling device for storage batteries, comprising, in combination with two storage batteries, a charging circuit and a discharging circuit, a plurality of rotative contact-controlling members, a plurality of electric terminals arranged in sets of three disposed in the paths of movement of the contact-controlling members, one set for each contact-controlling member, the sets including battery sets and charging sets, the poles of the batteries and the discharging circuit being connected to the terminals of the battery sets, so that in one rotative position of the battery contact-controlling members one battery is connected into the discharging circuit and in another rotative position the other battery is connected into the discharging circuit; terminals of the charging sets being connected to the charging circuit, and the contact-controlling members of said terminals of the charging sets being arranged to coöperate therewith to properly connect the batteries into the charging circuit.

3. An electric circuit-controlling device for storage batteries, comprising, in combination with two storage batteries, a charging circuit and a discharging circuit, a plurality of rotative contact-controlling members, a plurality of electric terminals arranged in sets of three disposed in the paths of movement of the contact-controlling member, the sets including battery sets and charging sets, the poles of the batteries and the discharging circuit being connected to the terminals of the battery sets so that in one rotative position of the battery contact-controlling members one battery is connected into the discharging circuit and in another rotative position the other battery is connected into the discharging circuit; and a resistance, terminals of the charging sets being connected to the charging circuit, other terminals being connected to the resistance, and the respective contact-controlling members coöperating with the said terminals to alternately connect and disconnect the respective batteries into the charging circuit in different rotative positions and to connect the resistance into the charging circuit before either battery is disconnected from the charging circuit.

4. An electric circuit-controlling device for storage batteries, comprising, in combination with two storage batteries, a charging circuit, and a discharging circuit, an operating shaft, a plurality of radially extending contact blades carried by the shaft, a plurality of contact jaws arranged in sets of three disposed in the paths of movement of the contact blades, one set for each blade, the poles of one battery being connected respectively to one contact jaw in each of two sets, the poles of the other battery being connected respectively to another contact jaw in each of the two said sets and the third contact jaw of the two said sets being connected to the discharging circuit, the respective contact blades of the two said sets being adapted to connect one battery into the discharging circuit in one rotative position and to connect the other battery into the discharging circuit in another rotative position; the charging circuit being connected to the jaws of the other sets, the jaws of the other sets coöperating with their respective contact blades to connect one battery into the charging circuit in one position of the contact blades and to connect the other battery into the charging circuit in another position of the contact blades.

5. An electric circuit-controlling device for storage batteries comprising, in combination with two storage batteries, a charging circuit and a discharging circuit, an operating shaft, a plurality of radially extending contact blades carried by the shaft, a plurality of contact jaws arranged in sets of three disposed in the paths of movement of the contact blades, one set for each blade, the sets including battery sets and charging sets, the poles of the batteries and the discharging circuit being connected to the terminals of the battery sets, so that in one position of the battery contact blades one battery is connected into the discharging circuit and in another position of the battery contact blades the other battery is connected into the discharging circuit, the charging circuit being connected to the jaws of the charging sets, the jaws of the charging sets coöperating with their respective contact blades to connect one battery into the charging circuit in one position of the contact blades, and to connect the other battery into the charging circuit in another position of the blades.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,202. BUNSEN BURNER FOR HEATING OR ILLUMINATING. GEORGE H. DENNY, Newark, N. J. Filed Sept. 23, 1913. Serial No. 791,307. (Cl. 158—119.)

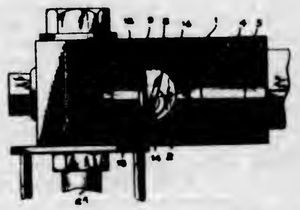


1. In a gas-burner, the combination, with a base having a threaded nozzle with a needle-valve thereon, of a combined gas-regulator and air-valve threaded upon the nozzle, a sheet-metal mixing-tube having a shoulder forming an integral convex air-valve-seat adjacent to the top of the air-valve, the metal of such seat being expanded into a ring materially larger than the mixing-tube, with columns extended downward from such ring, and a collar at the bottom of the columns secured upon the base, such valve-seat, expanded ring and columns being of sheet-metal integral with the mixing-tube, as and for the purpose set forth.

2. In a gas-burner, the combination, with a base having a threaded nozzle with a needle-valve thereon, of a combined gas-regulator and air-valve threaded upon the nozzle, a sheet-metal mixing-tube having a shoulder forming an integral convex air-valve-seat adjacent to the top of the air-valve with the sheet-metal bent upwardly therefrom and outwardly and downwardly into a ring level with the said convex seat, and columns extending downwardly from the ring and secured upon the base.

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1,090,203. GAGE-COCK. HARRY N. EVANS, Sr., Philadelphia, Pa. Filed Sept. 3, 1912. Serial No. 718,214. (Cl. 137—4.)



1. A gage cock having a tranaverse conical opening intersecting its longitudinal bore, a conical plug positioned in said opening and having a screw-threaded stud on its smaller end, a nut positioned against the outer face of the cock and screwed onto said stud, said plug having a recess in one side and an opening communicating with the recess and registering with the bore of the cock, a shaft positioned in the plug and extending across the recess, a valve connected to said shaft in the recess and adapted to close the opening in the plug, and means on the outer end of said shaft for turning the same, substantially as described.

2. A gage cock having a transverse conical opening intersecting its longitudinal bore, a conical plug positioned in said opening and having a screw-threaded stud on its smaller end, a nut positioned against the outer face of the cock and screwed onto said stud, said plug having a recess in one side and an opening communicating with the recess and registering with the bore of the cock, a shaft positioned in the plug and extending across the recess, an arm on said shaft in the recess, a valve fixed to the free end of said arm and adapted to close against the valve seat, and a shaft turning arm on the outer end of said shaft, substantially as described.

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1,090,204. OBTURATOR FOR BREECH-LOADING ORDNANCE. GREGORY GERDOM, Watervliet, N. Y., assignor to Ordnance Improvement Company, a Corporation of New York. Filed Jan. 25, 1906. Serial No. 297,740. (Cl. 89—26.)



1. A gas check pad comprising a plastic core, a wire cloth envelop, and a circumferential interlining of asbestos cloth.

2. A gas check pad comprising a plastic core, a wire cloth envelop and a circumferential interlining of asbestos cloth treated with a cementing composition.

3. A gas check pad comprising a plastic core, a wire cloth envelop and a circumferential interlining of asbestos cloth coated with glue and linseed oil.

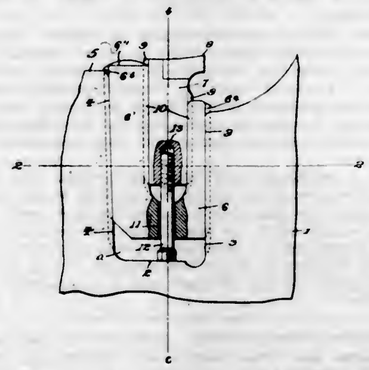
4. A gas check pad comprising a plastic core, a wire cloth envelop and an interlining of asbestos cloth upon the circumference and edges of the core.

5. A gas check pad comprising a plastic core having a wire cloth envelop, and an interlining of asbestos cloth between said envelop and said core upon the outer circumference and edges thereof.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,205. INSERTED-CUTTER SECURING AND ADJUSTING DEVICE. GEORGE GORTON, Racine, Wis. Filed Nov. 4, 1912. Serial No. 729,441. (Cl. 29—105.)



1. A holder for an inserted cutter, of the character substantially as described, having an intermediate longitudinal cutter socket, the rear leg of the holder having an inclined wedge edge and an outer end striking head, in combination with a cutter block arranged in said socket and adjustable longitudinally thereof and provided with a heel projecting through the holder and determining the radial adjustment of the cutter.

2. A saw blade having a pocket and a U-shaped cutter holder adapted to be removably wedged and thereby locked in said pocket and having a cutter removably arranged in the socket formed by the U-shape of such holder, the rear leg of said holder being wedge shape and enlarged to back said cutter and to form a driving head.

3. A saw blade having a wedge shaped pocket, and a cutter holder having an inclined longitudinal edge whereby said holder is adapted to be driven and wedged into said pocket, said holder being provided with a cutter arranged therein and adapted to be locked by the wedging of the holder in the pocket, said cutter having a heel determining the radial adjustment of the cutter and projecting through the holder to abut the floor of said pocket.

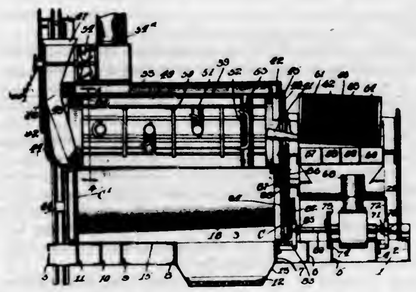
4. Holders and inserted cutters for rotary cutting off saws, each holder being of U-shape with the adjoining longitudinal edges of its legs parallel, a cutter block having parallel longitudinal edges slidably engaging said edges of the holder and intermeshing therewith against lateral displacement, said holder having a transverse passage through its closed end, said cutter having a heel projecting through and movable longitudinally in said passage to determine radial adjustment of the cutter independently of the holder, said heel being formed by a pin normally fixed in the cutter.

5. A holder for the inserted cutter of a rotary cutting off saw, said holder adapted to be wedged in a pocket in a saw blade, said holder being U-shaped and having a longitudinal passage through its closed end, in combination with a cutter arranged in said holder and having a relatively soft heel forming a longitudinal continuation of the cutter and projecting through said passage and adapted to seat against the floor of the blade pocket and determine the radial adjustment of the cutter.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,206. DRIER FOR PORTABLE ASPHALT-MACHINES. CHARLES E. GUELICH, Kingston, Pa. Original application filed Sept. 23, 1908, Serial No. 454,364. Divided and this application filed Oct. 17, 1912. Serial No. 726,266. (Cl. 34—6.)



1. In a machine of the class described an agitating and drying receptacle, fire flues extending transversely through the receptacle and opening thereinto intermediate the ends thereof, and means delivering the material to be dried past the openings in said flues.

2. In a machine of the class described a disintegrating and drying receptacle, fire flues opening through opposite sides of the receptacle, said flues opening through their sides into the receptacle, and means delivering the material to be dried transversely the receptacle and past the lateral openings in said flues.

3. In a machine of the class described a disintegrating and drying cylinder, fire flues extending transversely

therethrough and opening laterally thereinto and means delivering the material to be heated transversely past the opening in said flues.

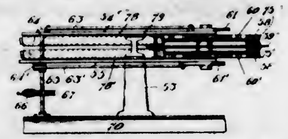
4. In a machine of the clas described a furnace, a drying and disintegrating cylinder adapted to rotate thereover and fire flues extending transversely therethrough and opening thereinto.

5. In a machine of the class described a furnace, a cylinder rotatable therein, fire flues extending diametrically therethrough and opening thereinto, longitudinal webs therein adapted to carry the material partly around the cylinder during the rotation thereof, and means for delivering the material from the cylinder through the axis thereof.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,207. ADVERTISING AND AMUSEMENT DEVICE. LUTHER E. HARDIN, Chicago, Ill. Filed Dec. 27, 1912. Serial No. 738,850. (Cl. 46—40.)



1. In a device of the character described, the combination of bands, rotatable supporting mechanism for each band, a ratchet wheel associated with each supporting mechanism, a crank shaft having angularly displaced crank arms, a connecting rod extending from each crank arm, a pawl operated by each connecting rod and associated with one of said ratchet wheels, means for driving said crank shaft, whereby said supporting mechanism and bands engaged thereby are given alternate step by step movement, and figures having members connected with said bands to partake of the movements thereof.

2. In mechanism of the class described, the combination of belt pulleys, an endless band engaging about each pulley, a ratchet wheel associated with each pulley, pawl mechanism for each ratchet wheel, a crank shaft having angularly displaced crank arms, a connecting rod connecting each crank arm with one of said pawl mechanisms whereby rotation of said shaft will effect alternate step by step rotation of said pulleys and corresponding movement of said bands, means for driving said crank shaft, and a figure having members connected with said bands to follow the step by step movement thereof.

3. In mechanism of the class described, the combination of belt pulleys, an endless band engaging about each pulley, a ratchet wheel associated with each pulley, pawl mechanism for each ratchet wheel, a crank shaft having angularly displaced crank arms, a connecting rod connecting each crank arm with one of said pawl mechanisms whereby rotation of said shaft will effect alternate step by step rotation of said pulleys and corresponding movement of said bands, a worm wheel on said shaft, a drive shaft having a worm engaging with said worm wheel, a driving source connected with said worm shaft, and a figure having members connected with said bands to follow the alternate step by step movements thereof.

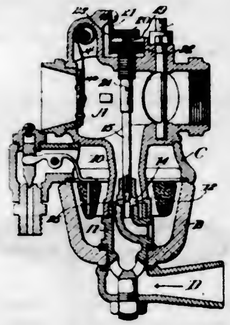
4. In a device of the character described, the combination of bands, rotatable supporting mechanism for each band, a ratchet wheel associated with each supporting mechanism, a crank shaft having angularly displaced crank arms, a connecting rod extending from each crank arm, a pawl operated by each connecting rod and associated with one of said ratchet wheels, means for driving said crank shaft, whereby said supporting mechanism and bands engaged thereby are given alternate step by step movement, figures having members connected with said bands to partake of the movements thereof, and brake mechanism for braking said bands after each movement thereof.

5. In mechanism of the character described, the combination of two drive pulleys arranged one above the other, two idler pulleys arranged one above the other, an endless band passing about the upper pulleys and an endless band passing about the lower pulleys, said bands being in vertical alinement throughout their entire extent, a ratchet wheel associated with each of said driving pulleys, pawl mechanism associated with each ratchet wheel, a crank shaft having angularly displaced crank arms, a connecting rod connecting each crank arm with one of said pawl mechanisms whereby upon rotation of said crank shaft said bands will be given alternate step by step movement, and means for driving said crank shaft.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,208. CARBURETER. FRANK H. HEITGER, Indianapolis, Ind. Filed June 8, 1912. Serial No. 702,614. (Cl. 48—155.2.)



1. In a carbureter, carbureting and mixing chambers, a fuel regulating mechanism comprising a hollow needle valve controlling the aperture leading from the fuel supply to the carbureting chamber, means for adjusting said needle valve to regulate the normal supply of fuel which may flow around the same, and an internal valve mounted within said hollow needle valve for controlling the flow through said needle valve to the mixing chamber, substantially as set forth.

2. In a carbureter, carbureting and mixing chambers, means for regulating the supply of gasolene to the carbureting chamber comprising a needle valve consisting of a hollow stem with a valve on its lower end, means for adjusting said valve to regulate the supply flowing outside of said valve, openings from the interior of said stem to the mixing chamber, a sliding valve within said hollow stem arranged to control the flow through said openings, and means for limiting the movement of said valve, substantially as set forth.

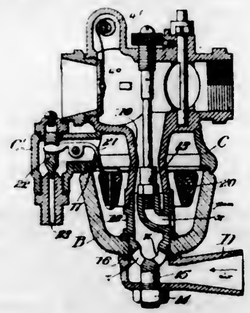
3. A carbureter comprising carbureting and mixing chambers, means for regulating the supply of gasolene consisting of a needle valve carried on a stem, said stem formed with a longitudinal bore of different diameters with a shoulder between them, a valve mounted in the section of the bore having the larger diameter adapted to seat in the end of the section having the smaller diameter, openings leading from said larger bore into the mixing chamber, a valve for controlling the flow through said bore, and means regulating said valve, substantially as set forth.

4. A carbureter comprising carbureting and mixing chambers, means for controlling the feed of the gasolene to the carbureting chamber consisting of a needle valve adapted to control the spray nozzle said needle valve being formed with a longitudinal bore, apertures leading from said bore to the mixing chamber, and a valve for controlling the flow through said bore, substantially as set forth.

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1,090,209. CARBURETER. FRANK H. HEITGER, Indianapolis, Ind. Filed June 8, 1912. Serial No. 702,616. (Cl. 48—155.1.)

1. A carbureter comprising a casing containing a mixing chamber and a carbureting chamber extending from one side thereof, a metal ring carrying the gasolene supply connection mounted to surround said carbureting chamber and seat on one side upon an appropriate seat formed on said casing, a glass float chamber also surrounding said carbureting chamber and formed to seat at its upper edge against said ring, a metal supply tube mounted on the lower end of said float chamber, said carbureting chamber being provided with a part adapted to extend through said tube and formed screw-threaded, and a nut on said screw-threaded end adapted to secure and clamp said several parts together, whereby they may be adjusted circumferentially independently of each other, substantially as set forth.



2. A carbureter comprising a metal mixing chamber, a glass float chamber and a metal ring carrying the gasolene supply connection and interposed between said glass float chamber and metal mixing chamber and supported to be adjusted circumferentially, substantially as set forth.

3. A carbureter comprising a metal mixing chamber, a circumferentially adjustable metal ring on the under side of said mixing chamber, a gasolene supply attachment connected with said ring, a glass float chamber adjacent to the lower edge of said ring and a clamping nut connected with a central screw-threaded shank extending through said parts and adapted to secure them all together, substantially as set forth.

4. A carbureter comprising a carbureting and mixing chamber formed with a main and an auxiliary air inlet, an air supply tube mounted at the base of said carbureting chamber and adjacent the main air inlet capable of circumferential adjustment, a float chamber surrounding said carbureting chamber and mounted adjacent said air supply tube, and a ring carrying the fuel supply to said float chamber mounted between said mixing chamber and said float chamber, and circumferentially adjustable therebetween, substantially as set forth.

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1,090,210. PROCESS OF TREATING FOODS. ERNEST B. HELLER, Philadelphia, Pa., assignor to Albert R. Brandly, Little Falls township, N. J. Filed Apr. 13, 1910. Serial No. 555,137. (Cl. 99—13.)

1. The process of purifying and emulsifying butter which consists in liquefying it, then subjecting it to the action of centrifugal force, and then emulsifying it with a suitable agent.

2. The process of purifying and emulsifying butter which consists in liquefying it, then subjecting it to the action of centrifugal force while introducing a suitable gas therein, and then emulsifying it with a suitable agent.

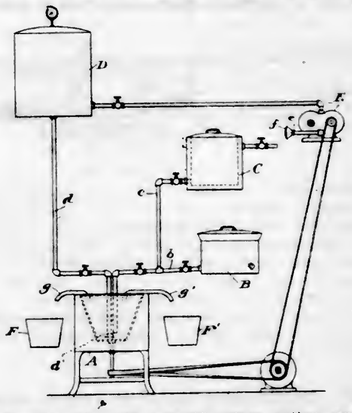
3. The process of purifying and emulsifying butter which consists in liquefying it, then subjecting it to the action of centrifugal force while introducing air therein, and then emulsifying it with a suitable agent.

4. The process of purifying and emulsifying butter which consists in liquefying it, then subjecting it to the action of centrifugal force while introducing electrified air therein, and then emulsifying it with a suitable agent.





5. The process of emulsifying liquid fats and oils which consists in simultaneously commingling a gas therewith

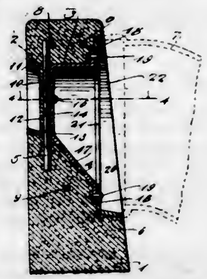


and subjecting them to a rapid rotary action, and then emulsifying the same with a suitable agent.

[Claim 6 not printed in the Gazette.]

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1,090,211. MOLD FOR MAKING SEWER-INLETS. ERNEST B. HIATT, Truro, Iowa. Filed Aug. 22, 1912. Serial No. 716,493. (Cl. 25—118.)



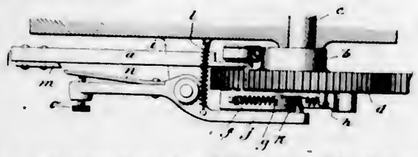
In a mold for making a sewer inlet, which inlet has upright bars across it, the combination with inner and outer members each consisting of a flat plate having upright grooves adapted to register with those in the other plate to receive said bars, and marginal flanges around the plate formed to give shape to the wall of said opening, the flange of the inner member being inclined downward at the bottom away from the outer member and this flange having radial lugs at several points around its inner edge, and bolts detachably connecting said plates; of a third member comprising a ring-shaped body whose opening is of the size and shape of that of the inner member at the inner end of its flange, the body of said third member lying against said lugs and itself having a marginal flange which is narrow at the top and grows wider to its bottom, and means for connecting said body with the lugs, for the purpose set forth.

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1,090,212. GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. WALTER H. HIMES, Lansing, Mich. Filed May 28, 1913. Serial No. 770,321. (Cl. 123—113.)

1. The combination with an engine embodying a push-rod and means for projecting the same, of a wheel mounted on the engine, a centrifugally operated governor weight mounted on one face of said wheel and carrying a wedge-shaped member lying close to the face of the wheel and extending across the axis of the wheel, and a latch lever

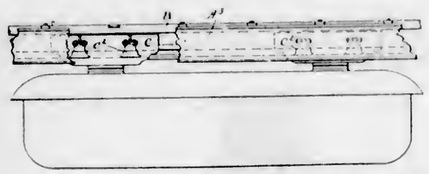
for the push-rod carrying a pin which bears upon the inclined face of said wedge member, a spring being provided to hold said pin normally against said inclined face.



2. The combination with an engine embodying a push-rod, a cam for projecting the same and a gear wheel for operating said cam, of a centrifugally operated governor weight mounted on one face of said wheel and carrying a wedge-shaped member extending across the center of the wheel and having its inclined side facing away from said wheel, a latch lever for the push-rod carrying a pin extending toward the inclined face of said wedge member, and a spring holding said pin normally against said inclined face.

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1,090,213. HIGH-SPEED RAILWAY. TOM L. JOHNSON, Cleveland, Ohio; Margaret J. Johnson administratrix of said Tom L. Johnson, deceased. Filed Apr. 6, 1906, Serial No. 310,335. Renewed Nov. 12, 1908. Serial No. 462,241. (Cl. 172—290.)



1. In an electric traction system, a truck, a stationary element along which the truck is adapted to move and having a portion above the truck, and means for creating both a tractive and a lifting effect on the truck, comprising means for creating a magnetic field which passes between the stationary element and the truck, and means for distorting said field in the direction that the truck is adapted to move.

2. In an electric traction system, a truck and a stationary element along which the truck is adapted to move and having a portion above the truck, means for creating both a lifting and a tractive effect on the truck, comprising means carried by the truck for establishing a magnetic field which passes between the truck and said stationary element, and means for distorting said magnetic field so as to cause the field to have both a vertical and a horizontal component.

3. An electric traction system comprising a stationary element and truck adapted to move along the stationary element and having a portion beneath the latter, means for creating both a lifting and a tractive effect on said truck, comprising a magnet carried by the truck for creating a magnetic field which passes between the truck and stationary element, and means for distorting the magnetic field in a horizontal direction thereby causing the pull of the magnet to have both a vertical component and a horizontal component.

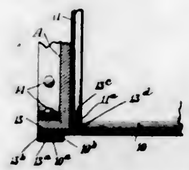
4. In a traction system, a stationary element and a truck adapted to be moved along the same the truck having a part extending below the stationary element, means carried by the truck for creating a magnetic field which passes between the truck and stationary element and has a lifting effect on the truck, and means arranged partly on the truck and partly along the stationary element for distorting said magnetic field so that the pull of the magnetic field on the truck has a horizontal component and a tractive effect.

5. In a traction system, a stationary element and a truck adapted to move along the stationary element, the truck having a part below said element, means for creating a magnetic field which passes between the truck and stationary element and tends to lift the truck, additional means for causing said magnetic field to have a tractive or propelling effect on the truck comprising a solenoid winding carried partly by the truck and partly by the stationary element, the part carried by the truck coöperating with and completing the circuit through the part carried by the stationary element.

[Claims 6 to 9 not printed in the Gazette.]

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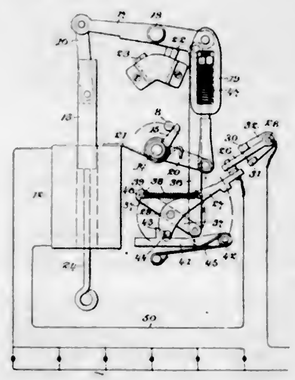
1,090,214. WASHING-MACHINE. LOUIS JUDELSON, New York, N. Y. Filed Aug. 8, 1911. Serial No. 642,992. (Cl. 220—83.)



A washing machine casing, embodying therein a substantially cylindrical sheet metal body portion having the material at the ends thereof doubled upon itself there being a space between the two layers of material, a circular sheet metal end member set in from each extremity of the body portion, the edge of each end member adjacent the body portion being bent on itself to form two layers of material spaced from each other, a locking member for securing each end member to the body portion, each of said locking members comprising an angular sheet of metal having its opposite ends bent upon themselves whereby one of said ends engages between the spaced layers of material of the end member and the other end engages between the spaced layers of material of the edge of the body portion, and an annular cast metal header secured to said body portion immediately adjacent and on the outer side of one of the end members.

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1,090,215. MECHANISM FOR ELECTRICALLY CONTROLLING AND OPERATING FARE-REGISTERS AND OTHER DEVICES. EDWARD JAMES KENNEDY, New York, N. Y. Filed Apr. 10, 1913. Serial No. 760,298. (Cl. 235—45.)



1. Means for operating a fare register comprising a solenoid, the armature of which is adapted to be given motion either manually or electrically, and requisite connections including a series of push buttons for controlling the operation of the solenoid from distant points.

2. The combination of a fare register, a push button, and interposed means controlled by the push button and adapted to operate the fare register repeatedly under continued pressure on the button.



3. The combination with a fare register, of means for electrically operating the register, the said means including mechanism for causing the register to automatically repeat its operation for any number of fares.

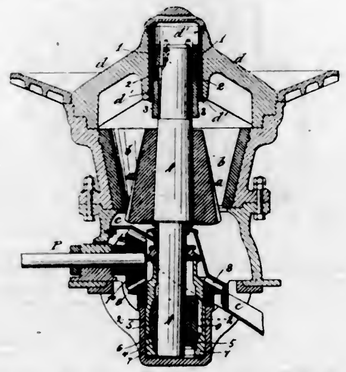
4. The combination with a fare register, of means for electrically operating the register, the said means including an automatic repeating switch controlled by a push button.

5. The combination with a fare register, of electric means controlled by a push button for continuously operating the register for any number of fares, the said means including an automatic repeating switch in circuit with the push button.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,216. CRUSHING AND PULVERIZING MACHINE. JOSEPH E. KENNEDY, New York, N. Y. Filed Aug. 5, 1907. Serial No. 387,967. (Cl. 83—10.)



1. In crushing mechanism of the character designated, the combination of a gyratory shaft, an upper bearing for the same, a sleeve, an eccentric bearing for the lower portion of said shaft mounted in said sleeve, interlocking means which insure the positive rotation of said eccentric bearing with the sleeve while permitting the eccentric bearing to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve and eccentric bearing, for the purpose described.

2. In crushing mechanism of the character designated, the combination of a gyratory shaft, an upper bearing for the same, means for adjusting said upper bearing vertically, a sleeve, an eccentric bearing for the lower portion of the shaft mounted in said sleeve, interlocking means which insure the positive rotation of said eccentric bearing with the sleeve while permitting the eccentric bearing to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve and eccentric bearing for the purpose described.

3. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, a sleeve, an eccentric bearing for the lower portion of said shaft mounted in said sleeve, interlocking means which insure the positive rotation of said eccentric bearing with the sleeve while permitting the eccentric bearing to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve and eccentric bearing for the purpose described.

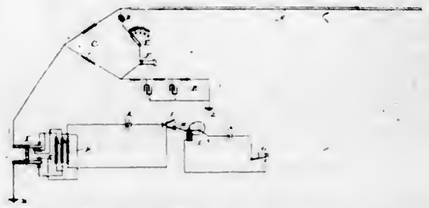
4. In crushing mechanism of the character designated, the combination of a gyratory shaft, means for supporting the same, an eccentric bearing for the lower end of the shaft, said eccentric bearing being free to adapt itself to the inclination of the shaft; and interlocking means for rotating said eccentric bearing, for the purpose described.

5. In crushing mechanism of the character designated, the combination of a gyratory shaft, an upper bearing for the same, an eccentric bearing for the lower portion of the shaft, said eccentric bearing having an axially convex surface, a rotatable sleeve formed with a concavity in which the eccentric bearing is seated, means for preventing the movement transversely of the eccentric bearing within its seat while allowing it to adapt itself axially to the inclination of the shaft, and means for rotating said sleeve.

[Claims 6 to 10 not printed in the Gazette.]

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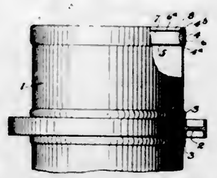
1,090,217. TELEGRAPHY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Jan. 19, 1906, Serial No. 296,814. Renewed Jan. 13, 1914. Serial No. 811,903. (Cl. 178—48.)



In telegraphy, means to transmit messages, in accordance with the Morse alphabet, said means embracing a variable resistance, a transmitting key, source of current, means to vary automatically said resistance by the depression of the key and means to impress thereby upon the line of transmission, a series of impulses of alternating polarity, said means embracing a series of coils and means to change the connection of said coils as to each other and the line.

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1,090,218. METALLIC RECEPTACLE. AUGUST M. KRUSE, Defiance, Ohio, assignor to The American Steel Package Company, Defiance, Ohio, a Corporation of Ohio. Filed Sept. 14, 1911. Serial No. 649,270. (Cl. 220—1.)



1. A barrel, comprising a body, heads provided with outwardly extending rims mounted within and terminating in welding proximity to the ends of said body, half-oval rings abutting against said heads and having their flat portions abutting against and seated within said rims, and a welding uniting the edges of said body to said rims and the outer edges of said rings.

2. A barrel, comprising a cylindrical body provided with head-supporting chime-welding rims, heads provided with flanged rims seated and terminating within said chime-welding rims, reinforcing rings carried within said flanged rims and presenting relatively thin acutely tapered welding edges in close proximity to the edges of the latter, and a welding uniting said chime-welding rims to said flanged rims and tapered welding edges.

3. A barrel, comprising a body provided with chime rims provided with head supporting shoulders and chime-rim welding edges, rimmed heads resting on said shoulders and within said chime-rims, reinforcing rings carried within said rimmed heads and presenting relatively thin acutely tapered welding edges in welding proximity to said

first named welding edges, and an autogenous welding extending about and uniting the outer edges of said chime and head rims to said welding edges of said reinforcing rings.

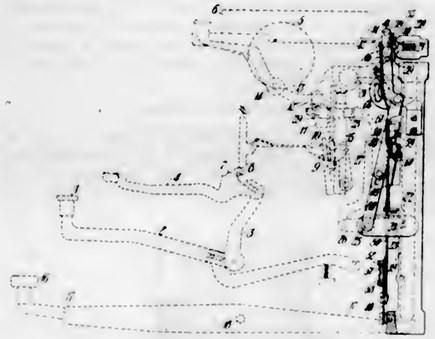
4. In a metallic receptacle, a body provided with a shouldered chime-welding rim, a head resting on said shouldered portion and provided with a rim terminating in a hooked flange, the base of the latter being slightly inset but in welding proximity to said chime-welding rims, a half-oval reinforcing ring having its flat side abutting against said head and head rim and presenting a relatively thin welding edge engaged by said hooked flange, and an acutely tapered welding agent uniting the exposed edges of said rim and hooked flange to said tapered welding edge of said reinforcing ring.

5. A barrel, comprising a body provided with chime rims having head supporting shoulders and chime rim welding edges, rimmed heads resting on said shoulders and provided with inwardly extending short hooked portions inset from but in close proximity to said chime rim welding edges, half-oval reinforcing rings carried and exposed within said rimmed heads and having their outer edges acutely tapered and engaged by said short hooked portions, and a welding agent extending about and uniting the outer edges of said chime rim and the terminating portions of said hooked portions of said head rims.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,219. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed May 3, 1912. Serial No. 694,818. (Cl. 197—64.)



1. The combination with a typewriter carriage, of a fluid cushion normally disconnected from said carriage, a tabulating mechanism for said carriage acting to connect said cushion to said carriage, and means for varying the connection of the cushion to correspond with the magnitude of movement of the carriage.

2. The combination with a carriage, of tabulating mechanism for said carriage, shock-absorbing means for said carriage, and graduated means actuated by said tabulating mechanism to connect different points of said shock-absorbing means with said carriage.

3. The combination with a carriage, of mechanism to effect forward runs of said carriage, shock-absorbing means, a connector for joining said carriage with said shock-absorbing means, and an adjuster for determining the period of connection by said connector of said carriage with said shock-absorbing means.

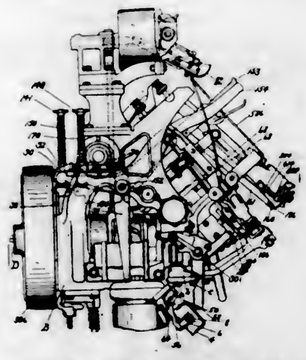
4. The combination with a carriage, of mechanism to cause said carriage to run forward, shock-absorbing means, a connector for joining said carriage with said shock-absorbing means, and an adjuster for determining the period of connection by said connector of said carriage with said shock-absorbing means; said adjuster being operated by said mechanism.

5. The combination with a carriage, of mechanism to cause said carriage to run forward, shock-absorbing means, a connector for joining said carriage with said shock-absorbing means, a shifter for manipulating said connector to and from its connecting position, and an adjuster for determining the period of connection by said connector of said carriage with said shock-absorbing means.

[Claims 6 to 34 not printed in the Gazette.]

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1,090,220. PULLING-OVER MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 12, 1906. Serial No. 338,635. (Cl. 12—4.)



1. In a machine of the class described, a heel rest supported for free lateral swinging movement and also adjustable about an axis which extends transversely of the last to be supported and is located adjacent to the end face of said last substantially midway of the height of the rest, and means for securing the rest in different angular positions.

2. In a pulling-over machine, means for gripping an upper to pull it over a last, a rest for the bottom of the last, and a support for the heel of the last constructed and arranged to be adjusted about an axis located between its upper and lower edges into positions of different inclination to the first mentioned rest.

3. In a machine for pulling an upper over a last, means for gripping the upper at a plurality of points in the length of the last, and a support for the heel of the last constructed and arranged to be adjusted about an axis located between its upper and lower edges into positions of different inclination to the plane in which said gripping means are located.

4. In a pulling-over machine, the combination with a laterally swinging heel rest, a support therefor and a relatively fixed part provided with members arranged to be interlocked with the support for holding the rest against swinging movement, of a connection between the heel rest and the support arranged to permit the rest to be shifted substantially perpendicular to its lateral movement.

5. In a machine of the class described, the combination with a movably supported sole rest, and means for actuating it to sink a last into an upper, of means for returning the sole rest to normal position, and adjustable means for positively limiting the return movement of the sole rest and rendering the rest unyielding to the pressure of the shoe against it.

[Claims 6 to 36 not printed in the Gazette.]

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1,090,221. EMERGENCY CUT-OFF. MILFORD J. MCINTYRE, Gowanda, N. Y. Filed Mar. 8, 1913. Serial No. 752,986. (Cl. 67—115.)

An automatic valve comprising a casing, a diaphragm casing supported above said first mentioned casing, a diaphragm carried therein, a plunger rod extending through both of said casings, a head engaging the lower face of said diaphragm, a valve disk carried by said plunger rod, means for normally exerting an upward pressure upon said valve disk for holding the same in a closed position, a communicating pipe for constituting a communication between said diaphragm casing and said first mentioned casing, a valve carried by said pipe for opening and closing the passage therethrough, a second pipe, said first mentioned casing comprising an inlet casing and a

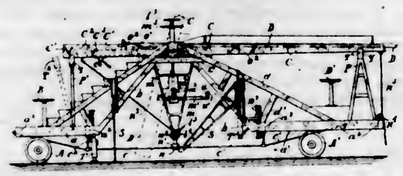




discharge compartment, said first mentioned pipe communicating with said inlet casing, said second pipe communicating with said discharge compartment, a valve carried by said second pipe for controlling the passage from said diaphragm to said discharge compartment, and said diaphragm casing being suspended by said first and second mentioned pipes, and said valves carried by said first and second pipes adapted to facilitate the confining of material or gas in said diaphragm casing for holding said valve disk in an open position.

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1,090,222. TRUCK-LADDER. WILLIAM MCMANE and BENJAMIN F. CARPENTER, Summit, N. J. Filed Oct. 30, 1912. Serial No. 728,722. (Cl. 228—28.)



1. In a counterbalanced aerial safety ladder and truck, the combination, with a truck having a frame with elevated arch at each side, of a turntable sustained upon the frames at the top of the arches and having a gap in one side, the framing of the truck having also a corresponding gap, and a ladder having a horizontal fulcrum upon the turntable and an extended foot movable in the said gaps to an upright position and weighted to balance the said ladder, and the truck-frame thus permitting such ladder and the extended foot to revolve to any point of the compass.

2. A counterbalanced aerial safety ladder and truck having arched side-frames with an annular turntable-seat upon such frames, a turntable fitted to such seat, the seat and turntable having each a gap in one side, and a ladder having a horizontal fulcrum upon the turntable close to the same and having an extended foot movable through the said gaps and weighted to balance the ladder.

3. In a counterbalanced aerial safety ladder and truck, the combination, with the truck, of an annular turntable-seat sustained upon the same with gap in one side, a turntable fitted to the said seat and provided with gap at the middle extending through one side, a ladder pivoted upon the turntable with extended foot movable through the said gaps and weighted to balance the ladder, and a section of the seat fitted removably to the gap in the seat to complete the support for the turntable when the ladder is erected.

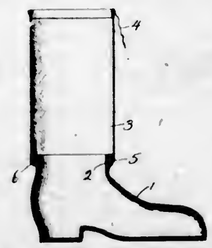
4. In a counterbalanced aerial safety ladder and truck, the combination, with the truck, of an annular turntable-seat sustained upon the same with gap in one side, a turntable fitted to the said seat and provided with gap at the middle extending through one side, a ladder pivoted upon the turntable with extended foot movable through the said gaps and weighted to balance the ladder, and a section of the seat fitted removably to the gap in the seat to complete the support for the turntable when the ladder is erected, and the turntable-seat, including the removable section, provided with anti-friction rolls to support the turntable against upward, downward and lateral thrusts.

5. In an extension ladder and truck, the combination, with the truck, of an annular turntable-seat sustained upon the same with gap in one side, a turntable fitted to the said seat and provided with gap at the middle extending through one side, a ladder pivoted upon the turntable with extended foot movable through the gaps and weighted to balance the ladder, a stand for an operator upon the turntable, and separate trains of gearing arranged for the operator to rotate the turntable and also to move the ladder upon its pivot.

[Claims 6 to 25 not printed in the Gazette.]

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1,090,223. COMBINED OVERSHOE AND LEGGING. EMERALD B. MCNEER, Glen Wilton, Va. Filed Mar. 11, 1913. Serial No. 753,561. (Cl. 36—1.)



1. The combination with a legging, of an overshoe having an annular groove formed in its outer surface near the top edge thereof, and means carried by the lower edge of the legging for detachably engaging said groove.

2. The combination with a legging, of an overshoe having an annular groove formed in its outer surface near the top edge thereof, said legging having its lower edge provided with a tube, a coil spring carried in the tube; and a reinforcing spring mounted within the coil spring and consisting of a plurality of coils connected by straight sections, said tube being adapted to detachably engage the groove in the overshoe, as and for the purpose set forth.

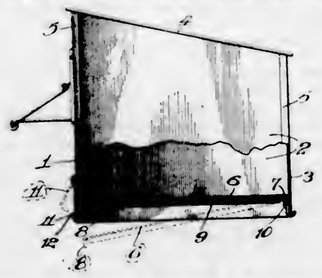
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1,090,224. POULTRY-COOP. WILLIAM L. NIEMANN, Mount Olive, Ill. Original application filed Oct. 14, 1909, Serial No. 522,505. Divided and this application filed Oct. 17, 1910. Serial No. 587,368. (Cl. 119—19.)

1. In a poultry coop, the combination with lateral walls, of brackets secured to the inside of one of the walls, said brackets having an outstanding upturned portion, hooks swingingly mounted upon the outside of another of said walls and having their points projecting through apertures therein, and a drop bottom disposed within and suspended from the walls of said coop by said brackets and said hooks, said bottom being partially supported by said hooks.

2. In a poultry coop, the combination with lateral walls, of brackets secured to the inside of one of said

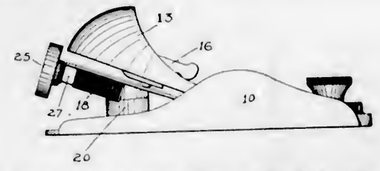
walls, said brackets having an outstanding up-turned portion, hooks swingingly mounted upon the outside of another of said walls and having their points projecting through apertures therein, a drop bottom having a depending edge adjacent one side thereof, said depending



edge adapted to be loosely mounted in said brackets, the opposite edge of said bottom adapted to be supported by said hooks, said depending edge of said bottom being loosely mounted in said brackets adapted to allow said bottom to swing downwardly when released by said hooks.

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1,090,225. PLANE. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 26, 1912. Serial No. 673,501. (Cl. 145—14.)



1. In a plane, a stock, a bit, a standard rising from the bed of the stock and directly engaging the under surface of the bit to support the same, an adjusting screw, and a carrying member for said adjusting screw swiveled in the upper end of said standard, between the standard and bit, to swing in a plane parallel to the bit; substantially as described.

2. In a plane, a stock, a bit, a standard rising from the bed of the stock, and having an inclined upper end directly engaging the under surface of the bit, an adjusting screw, means permanently carried by the bit to engage said adjusting screw, and a carrying or pivot member for said adjusting screw set in the inclined upper portion of said standard directly beneath the bit, and arraged to oscillate in a plane parallel to the bit; substantially as described.

3. In a plane, a stock having a socketed standard rising from the base thereof, a pivot member loosely seated in the socket of said standard to oscillate therein and freely removable from said standard, and an adjusting screw threaded through said pivot member; substantially as described.

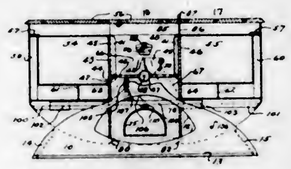
4. In a plane, a stock having a socket portion rising from the base thereof, said portion presenting a socket having its axis inclined in a forward and rearward direction, and being provided with side walls spaced apart at the front and rear, a pivot member set in said socket, and an adjusting screw threaded through said pivot member and having an oscillatory movement limited by the side walls of the socket; substantially as described.

5. In a plane, the combination of a stock, a bit supported therein for laterally oscillating movement, an adjusting screw for the bit swiveled laterally on the stock, said screw having a reduced neck portion, a lug depending from the rear portion of the bit and straddling said reduced neck portion of the adjusting screw, and a swiveled connection between said lug and said bit to permit the bit to turn eccentrically of the adjusting screw as said screw is moved laterally; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,226. GALLEY-STOVE. ROBERT L. PAULSON, Brooklyn, N. Y. Filed Oct. 24, 1912. Serial No. 727,553. (Cl. 126—24.)



1. In a galley stove, the combination with front and rear supports, and a stove hung between said supports and having a curtain wall extending down in advance of the front support.

2. In a galley stove, the combination with front and rear supports, a stove hung between said supports and having double walls at front and back, said supports standing in the spaces between said double walls.

3. The combination of a stove having double vertical walls, supports standing in the spaces between said double wall, and trunnion pins carried by the upper parts of said supports and having their opposite ends received in the double walls respectively adjacent to the same.

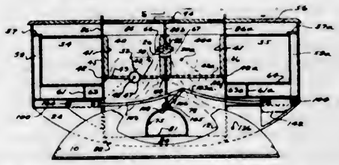
4. The combination with supports adapted to stand on the floor, of a stove hung between said supports and having a curtain wall extending down in front of one support, said stove having a space in its interior to be cleaned, and a thimble adapted to connect with said space and bridge the interval between said curtain wall and the body of the stove.

5. The combination of a stove having an open and a flue passage beneath the same, supports between which said stove is hung, a curtain wall on the stove extending down in front of one of said supports, said flue passage having a clean-out opening in rear of said curtain wall, and said curtain wall having a registering opening, a door for closing said clean-out opening, and a thimble adapted to be inserted through the opening in the curtain wall into the clean-out opening.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,227. GALLEY-STOVE. ROBERT L. PAULSON, Brooklyn, N. Y. Original application filed Oct. 24, 1912, Serial No. 727,553. Divided and this application filed May 3, 1913. Serial No. 765,268. (Cl. 126—24.)



1. In a galley stove, the combination of supports, a stove hung between said supports, counterbalance weights at opposite sides of and below the pivotal axis of said stove, and means for simultaneously moving said weights to shift the center of gravity of the stove in one direction or the other.

2. In a galley stove, the combination of supports, a stove hung between said supports, counterbalance weights at opposite sides of and below the pivotal axis of said stove, a lever, means for connecting said lever with the weights, and other means for holding said lever at various adjustments.

3. In a galley stove, the combination of supports, a stove hung between said supports and having a guide below its pivotal axis, a weight movable on said guide, and means at the front of the stove for shifting and holding said weight.

4. In a galley stove, the combination of supports, a stove pivoted on an axis passing through said supports, said stove being provided with ovens one on each side of its pivotal axis, counterweights disposed below said ovens, and means for conjointly moving said weights to counterbalance unequal loading of the stove.

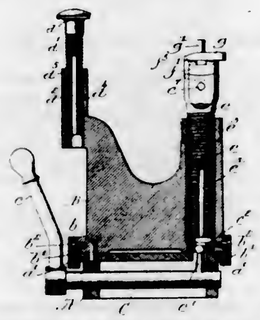
5. The combination of a galley stove having spaced front walls, a support standing in the space between the walls on which the stove can pivot, a compartment located in the rear of the inner one of said walls, a counterweight below the stove's pivot, a device in said compartment for adjusting said weight and means for actuating said device extending forwardly across the walls.

[Claims 6 to 10 not printed in the Gazette.]



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1,090,228. JACK FOR HEEL-NAILING MACHINES. JOSEPH H. POPE, Brockton, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed May 17, 1901, Serial No. 60,622. Renewed Jan. 10, 1912. Serial No. 670,512. (Cl. 12—127.)



1. In a machine of the class described, a last holding jack comprising a slidable base, a head having means to sustain the toe and cone of a last, said head being pivoted on said base near one end thereof, and means in engagement with said head at the other end of said base to swing the head on the base to accurately position the heel end of the last.

2. A jack comprising a base, a pivoted head provided with means to support the cone and the toe of the last, a rock-shaft in said base having an arm in engagement with said head, and means to turn the shaft to swing said head on said base.

3. In a last holding jack, a head provided with vertically adjustable means to support the cone and toe of a last, a base on which said head is pivoted to have a limited amount of swinging movement, and a lip and a ledge at opposite ends of said head coacting as described to retain the head seated on the base as the head is moved over the base about its pivot.

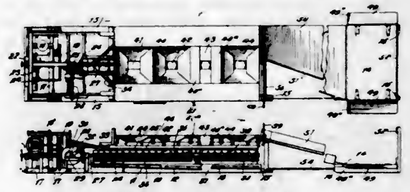
4. In a last holding jack, a head provided with means to support the cone and toe of a last, a base, a pivot between said head and base at that end thereof farthest from the means supporting the cone of the last, and a rock-shaft in said base having an arm to engage said base at its underside substantially in line with the means for supporting the cone of the last, the movement of said rock shaft moving said head over said base.

5. A last holding jack, having in combination, a base constructed for sliding movement, a head arranged for horizontal pivotal movement upon said base about a pivot in advance of the heel end of the last, means for imparting movement to said head in either direction about its pivot and means carried by said head for sustaining a last at the toe and at the cone.

[Claims 6 to 12 not printed in the Gazette.]

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1,090,229. APPARATUS FOR LAYING AND MOLDING CONCRETE ROADWAYS, PAVEMENTS, AND THE LIKE. ERNEST L. RANSOME, Plainfield, N. J. Filed July 24, 1913. Serial No. 780,960. (Cl. 94—6.)



1. In a progressively moving machine for forming sidewalks, pavements, roadways and similar continuing horizontal reaches of concrete work, the combination of means for shaping and compressing the concrete into its final form while the machine moves over the same, means for measuring and mixing the concrete materials and delivering the concrete to said shaping and compressing means, and means for delivering the concrete materials to said measuring and mixing means comprising a deck or platform on and over which a vehicle carrying concrete materials may be moved to deliver the materials to the machine without stopping the continuous movement thereof.

2. In a progressively moving machine for forming sidewalks, pavements, roadways and similar continuing horizontal reaches of concrete work, the combination of means for shaping and compressing the concrete into its final form while the machine moves over the same, means for measuring and mixing the concrete materials and delivering the concrete to said shaping and compressing means and means for delivering the concrete materials to said measuring and mixing means comprising a deck or platform located over the said measuring and mixing means and extending down to the ground and on and over which platform or deck a vehicle carrying the concrete materials may be moved to deliver the materials to the machine without stopping the continuous movement thereof.

3. In a progressively moving machine for forming sidewalks, pavements, roadways and similar continuing horizontal reaches of concrete work, the combination of means for shaping and compressing the concrete into its final form while the machine moves over the same, means for measuring and mixing the concrete materials and delivering the concrete to said shaping and compressing means and a deck or platform extending over the measuring and mixing means and down to the ground, whereby a vehicle carrying the concrete materials may be moved on and over the deck to deliver the materials to the machine without stopping the continuous movement thereof.

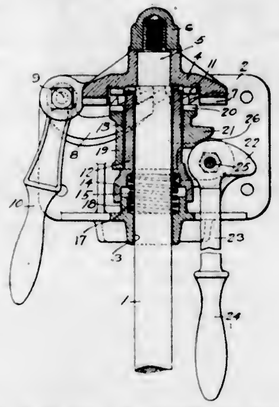
4. In a progressively moving machine for forming sidewalks, pavements, roadways and similar continuing horizontal reaches of concrete work, the combination of means for shaping and compressing the concrete into its final form while the machine moves over the same, means for measuring and mixing the concrete materials and delivering the concrete to said shaping and compressing means and a deck or platform extending over the measuring and mixing means down to the ground, the deck or platform having openings therein discharging to the measuring and mixing means, whereby a vehicle carrying the concrete materials may be moved on and over the deck to deliver the materials to the machine without stopping the continuous movement thereof.

5. In a progressively moving machine for forming sidewalks, pavements, roadways and similar continuing horizontal reaches of concrete work, the combination of means for shaping and compressing the concrete into its final form while the machine moves over the same, means for measuring and mixing the concrete materials and delivering the concrete to said shaping and compressing means,

the measuring and mixing means extending horizontally over the shaping and compressing means and a deck or platform extending horizontally over the measuring and mixing means and having openings discharging into the measuring means, whereby the concrete materials may be dumped from the deck into said openings.

[Claims 6 to 25 not printed in the Gazette.]

1,090,230. HAND-BRAKE RATCHET. FRANKLIN T. REESE, Pittsburgh, Pa. Filed June 23, 1913. Serial No. 775,389. (Cl. 188—57.)



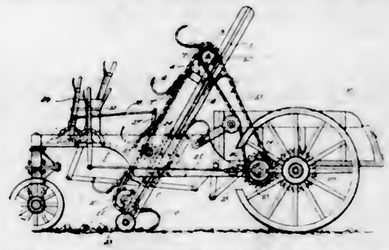
1. In brake mechanism, the combination with a brake shaft, and the bearing bracket therefor, of a hub rotatably mounted on said shaft, a handle pivoted to said hub and adapted normally to lie parallel with said shaft, a ratchet member slidably but non-rotatably mounted on said hub, a second ratchet member fixed on said shaft, and means so constructed and arranged that when said actuating lever is raised to operative position said slidable ratchet member will be thrown into engagement with said shaft ratchet to actuate the shaft and turn it in one direction and means to permit said slidable ratchet member to ride idly over said second ratchet member when moved in the reverse direction.

2. In brake mechanism, the combination with a brake shaft, and a bearing bracket therefor, of an actuating hub rotatably mounted on said shaft and having a brake lever pivoted thereto adapted normally to extend parallel to the shaft, a ratchet member slidably but non-rotatably mounted on said hub having a series of ratchet teeth, a second ratchet member fixed on said shaft, said lever having means to move said first ratchet member into engagement with the second when the lever is raised to operative position and means to permit said first ratchet member to ride idly over the second when said hub is rotated in one direction on the shaft.

3. In a brake mechanism, the combination with a brake shaft and a bearing bracket therefor, of a sleeve or hub rotatably and slidably mounted on said shaft, a spring interposed between said hub and bearing bracket, a ratchet sleeve slidably but non-rotatably mounted upon said hub, a ratchet member fixed to said shaft, a hand lever pivoted on said hub and having a cam member adapted to engage a corresponding cam member on said ratchet sleeve whereby when said lever is raised to operative position said ratchet sleeve will be brought into engagement with said fixed ratchet member for operation of the shaft, said spring support of said hub permitting said ratchet sleeve to ride idly over the ratchet teeth of said fixed ratchet during the reverse movement of said lever.

4. In a brake mechanism, the combination with a brake shaft and a bearing bracket therefor, of a ratchet member fixed on the end of said shaft, an actuating hub rotatably and slidably mounted on the shaft, a spring interposed between said bearing bracket and said hub to hold the latter normally in elevated position, a ratchet sleeve slidably but non-rotatably mounted upon said hub, a series of ratchet teeth on the under side of said fixed ratchet member adapted to be engaged by the teeth of said ratchet sleeve, a hand lever pivoted upon said hub and adapted normally to hang in vertical position parallel with the shaft, said lever and said ratchet sleeve having coöperating cam members whereby when said lever is raised to operative position the teeth of said ratchet sleeve will be engaged with those of said fixed ratchet member for operation of the shaft, said spring permitting said ratchet sleeve to ride idly over said fixed ratchet while the hand lever is raised in its operative raised position.

1,090,231. STONE-GATHERING MACHINE. JOSEPH OCTAVE RICHARD, Ste. Julie Station, Quebec, Canada. Filed June 30, 1913. Serial No. 776,460. (Cl. 193—9.)



1. A conveyer comprising, a vertically adjustable frame, sprocket wheels at each end thereof, chains operative thereover, bars connecting the chains, grab hooks carried thereby and pivotally connected thereto, leaf springs connected to the hooks and to the bars for the purpose of actuating the hooks, and means for operating the lower end of the frame so that it travels at a uniform distance from the surface of the ground.

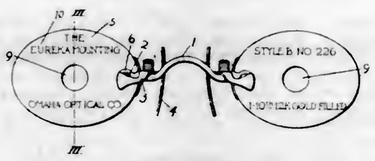
2. A conveyer comprising; a vertically adjustable frame; sprocket wheels at each end thereof; chains operative thereover; bars connecting the chains; grab hooks carried thereby and pivotally connected thereto; leaf springs having their outer ends secured to the said grab hooks and their inner ends secured to the said bars, the springs being adapted to prevent outward movement of the hooks relative to the bars and to allow the hooks to have a slight inward give when gathering stones, for the purpose of preventing shock; and means for supporting the lower end of the frame so that it travels at a uniform distance from the surface of the ground.

3. In combination with a supporting frame and an inclined conveyer frame, rollers on the lower end of the latter frame running on the ground, conveyer chains and cross-bars mounted on said conveyer frame, grab-hooks individually pivoted on said cross-bars and springs attached to said hooks and holding them against outward movement, though permitting them to yield slightly to the resistance of the stones.

1,090,232. LENS SUBSTITUTE FOR USE WITH TRIAL EYEGLASS-MOUNTINGS OR THE LIKE. ELWOOD RIGGS, Omaha, Nebr. Filed Apr. 19, 1912. Serial No. 691,884. (Cl. 88—20.)

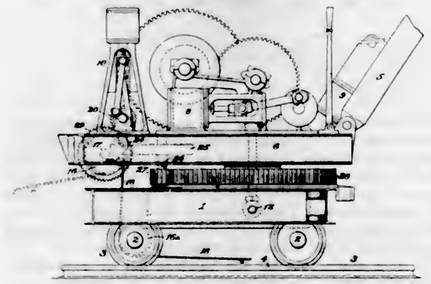
1. In an eye glass mounting the combination with a lens clip of an imitation lens having a portion fitting within the clip and retained in position by the lens screw, said lens being formed from relatively infrangible material on which configurations may be readily printed, and having an aperture formed therein at the center thereof, the outer portion of the member being provided with configurations.

2. In a spectacle mounting the combination with a bridge and an end piece each provided with a lens clip of a member connecting the bridge and end piece, said connecting member being formed of relatively infrangible material shaped in the simulation of a lens having portions fitting into the lens clips and held therein by the lens screw, said connecting member bearing suitable designations on one face thereof.




3. An improved article of manufacture, a lens substitute for use in a spectacle mounting, comprising a body portion of infrangible material, having a central sight aperture formed therethrough, said member being formed into the shape of a lens bearing configurations on one face thereof, and a transparent member of the size and shape of the body member permanently fixed to that face on which the configurations are located.

1,090,233. TUNNEL-SHOVEL. ARTHUR W. ROBINSON, Montreal, Quebec, Canada. Filed Sept. 29, 1910. Serial No. 584,466. (Cl. 212—38.)



In an excavating appliance of the class set forth, the combination of a truck having supporting wheels and axles, a turn table fitted to rotate thereon, an engine mounted on said turn table, a winding drum rotatable about a horizontal axis on said turn table and arranged transversely to the longitudinal axis of the turn table, gearing for effecting the rotation of the winding drum by the engine, and a drum fixed on an axle of the carriage as a guide for a cable passing from the first stated winding drum, whereby said truck and turn table cannot be moved on the wheels until the axis of the winding drum and axle of the carriage under said drum are parallel, when one end of the winding cable is fixed to the earth and passed over the winding drum and drawn over the drum on the axle.

1,090,234. INSULATING AND SUPPORTING MECHANISM. JOSEPH W. ROGERS, Woodbury, N. J., assignor of one-half to Nathan Shute, Philadelphia, Pa. Filed May 12, 1913. Serial No. 767,102. (Cl. 191—30.)

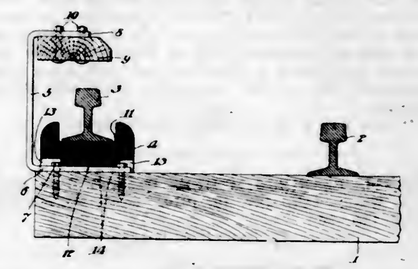
1. In an insulating and supporting mechanism, an insulator having a seat adapted for supporting a rail and a bottom channel extending transversely to said seat from side to side of said insulator.

2. In an insulating and supporting mechanism, an insulator having a seat in the top thereof and a channel in the bottom thereof, said channel having terminal recesses.

3. In an insulating and supporting mechanism, the combination with a tie, of an insulator having a bottom channel extending longitudinally of said tie and a supporting device having a base resting on said tie within said channel.

4. An insulating and supporting device comprising a top seat, a channel extending transversely thereto, said channel having terminal enlargements, and bottom channels extending transversely to said channel first named.

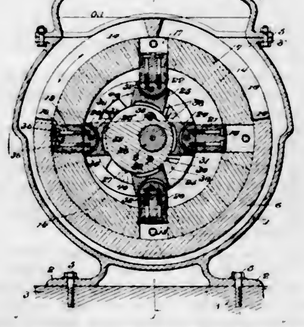
5. The combination with a tie, a rail and a protecting



device for said rail, of a protecting device support having a base extending longitudinally of said tie, lag screws passing through said base into said tie, and an insulator having a channel fitting over said base, recesses within which the heads of said screws are disposed and a seat for said rail.

[Claim 6 not printed in the Gazette.]

1,090,235. ROTARY PUMP. LEBBEUS H. ROGERS, New York, N. Y. Filed Oct. 1, 1906. Serial No. 337,008. (Cl. 230—31.)



1. In a pump, the combination of a reciprocating piston having one face exposed to reservoir pressure during its double stroke, a stationary surface and a sliding member adapted to be held against said surface by reservoir pressure while the piston is taking in a charge of fluid, said member engaging said piston and applying thereto reservoir pressure in opposition to said pressure.

2. In a pump, the combination of a revoluble piston carrying drum, a piston therein, means for reciprocating said piston, and means subject to pump delivery pressure for counteracting the force of said pressure on one face of the piston while the piston is taking in a charge of fluid.

3. In an air and gas pump, the combination of a revoluble piston carrying drum, a piston therein, means for reciprocating said piston, means for counteracting the pump delivery pressure on one face of the piston while the piston is taking in a charge of fluid, and a pressure shield within which said drum revolves and which relieves said pressure on said drum.

4. In a pump, the combination of a casing, a revoluble drum therein provided with a piston channel having a full width opening through its walls into the casing, a

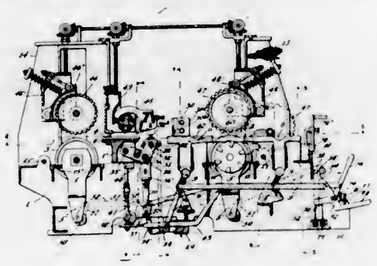
cam-operated piston in said channel, and means for balancing the pump delivery pressure on one face of said piston while the piston is taking in a charge of fluid.

5. In a pump, the combination of a casing having an inlet and outlet, a revoluble drum therein having piston channels opening through the walls of said drum, cam operated pistons in said channels, a cylindrical pressure shield for said drum having on one side a slot registering with said piston channels and on the opposite side one or more slots having a total area equal that of the first-mentioned slot and out of registry with said piston channels.

[Claims 6 to 31 not printed in the Gazette.]

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1,090,236. PLANING-MACHINE. HARRY B. ROSS, Seattle, Wash. Filed Dec. 19, 1910. Serial No. 598,225. (Cl. 144—36.)



1. In a machine of the class described, a frame, cutting means mounted thereon, work supports opposing said means, rolls for the work arranged end to end, means supporting a roll and support for adjustment toward the cutting plane of said cutting means, and a rotation transmitting connection for said rolls interposed between the opposing ends of the latter.

2. In a machine of the class described, a frame, relatively fixed and vertically movable bed sections for supporting a common piece or different pieces of work, a surfacing cutter extending crosswise of said bed sections, a side cutter head for each bed section, one of said heads having main and auxiliary cutters, means supporting said last head for vertical movement to bring its auxiliary cutting means into or out of the path of the work, side cutters on the other of said heads, and means for feeding work in said bed sections.

3. In a machine of the class described, a frame, vertically adjustable means therein for supporting work, a cutter extending crosswise of said frame above said means, companion cutter heads adjacent opposite sides of said work supporting means, main and supplemental cutting means on one of said heads, said supplemental means extending beyond the plane of cut of the main cutting means, auxiliary cutting means carried by the other of said heads, and means supporting said heads for movement to bring said supplemental and auxiliary cutting means into the path of the work.

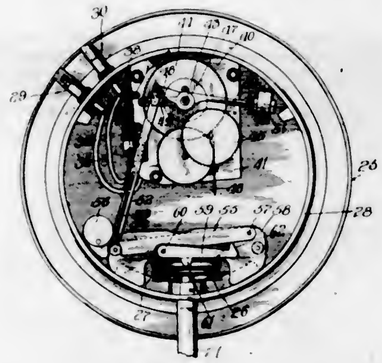
4. In a machine of the class described, a frame, a cutting means extending crosswise thereof, relatively fixed and vertically movable bed sections arranged side by side for supporting work beneath said cutting means, companion cutter heads spaced apart laterally of said frame for operation on the work on said vertically movable bed section, main and supplemental cutting means on one of said heads for cutting to relatively different depths, auxiliary cutting means on the other of said heads, and means supporting said heads for vertical movement to bring said supplemental and auxiliary cutting means into and out of the path of the work.

5. In a machine of the class described, a frame, a cutter extending crosswise of the frame, relatively fixed and vertically movable platens beneath said cutter, cutter heads spaced apart transversely of said frame adjacent said vertically movable platen for operation on a piece of work mounted on the latter, and means supporting said cutter heads for vertical movement.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,237. AUTOMATIC VALVE-ALARM SYSTEM. FRANK V. SACKETT, La Grange, Ill., assignor, by direct and mesne assignments, to General Fire Extinguisher Company, Providence, R. I., a Corporation of New York. Filed Dec. 30, 1909, Serial No. 535,712. Renewed July 12, 1913. Serial No. 778,776. (Cl. 178—103.)



1. In a signal device of the character described, the combination of a pressure-responsive device, a dominant restraining element controlled by said pressure-responsive device, a retarded motor providing a power element movable for motor operation and for potentiation, connections for control of said power element as to both said movements by said dominant restraining element, and signaling means operatively associated with the motor.

2. In a signal device, the combination of a pressure-responsive device, a dominant-element controlled thereby, a power element, means for retarding operation of the power element in one direction, and means associated with said dominant element and power element for control of the latter by the former in the unretarded operation thereof.

3. In a signal device, the combination of a pressure-responsive device, signaling means, an element movable to initiate said signaling means, retard means for said element effective to retard movement thereof in one direction, and potentiating means for said movable element including a dominant element controlled by said pressure-responsive means.

4. A signal device for association with piping of the character described comprising signaling means, a power element operable to actuate the same, retard means effectual against actuating operation of said power element and ineffectual against return operation thereof, pressure-responsive means, and means including a restraining element dominant over the power element and associated with said pressure-responsive means and said power element for positive control of the unretarded movement of the latter.

5. The combination of a pressure-responsive device adapted to be connected with a pressure piping, a dominant restraining element arranged to be actuated by said pressure-responsive device, a motor comprising a power element, means for potentiation of the power element by the restraining element, said means including connections permitting functional operation of the power element when freed by actuation of the restraining element, and signaling means operable by said motor after a predetermined time of operation of the latter.

[Claims 6 to 11 not printed in the Gazette.]



1,090,238. ELECTRIC CURLER AND THE LIKE. EDWARD SCHWARTZ, Chicago, Ill., assignor to Wm. E. Slaughter Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 1, 1913. Serial No. 758,227. (Cl. 219—21.)



1. In a device of the class described, the combination of a handle and a readily detachable connector, one of which members is provided with a socket having a pair of terminal contacts, and the other of which is provided with a plug formed to fit within said socket and having a corresponding pair of terminal contacts adapted for rotary engagement with the socket contacts respectively, one of the contacts of a coacting pair being axially disposed and having a backwardly inclined front surface and a substantially perpendicular radial shoulder on the back side, and the contact coacting therewith being arranged to yieldingly bear inwardly upon and to reach longitudinally past the axially disposed contact and having a shoulder formed to engage the first mentioned shoulder and adapted to prevent separation by direct longitudinal pull.

2. In a device of the class described, the combination of a handle having a socket, a heating appliance carried by said handle and having terminal contacts in said socket, and a plug rotatably fitting within said socket and having contacts adapted to have rotatable engagement with said terminal contacts, one pair of said contacts comprising an annularly shouldered conically pointed plug and a spring-shouldered member coacting therewith, the shoulders on said last named pair of contacts being adapted to abut and prevent separation of said contacts by a direct pull and being adapted to retract said spring contact member through the simultaneous pulling and rotation of said plug.

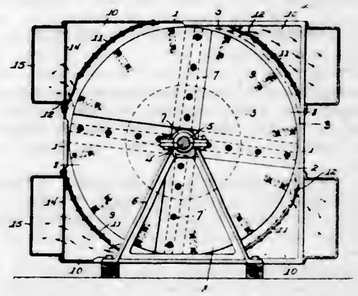
3. In a device of the class described, the combination of a handle having a socket, a heating appliance carried by said handle and having terminal contacts in said socket, and a plug rotatably fitting within said socket and having contacts adapted to have rotatable engagement with said terminal contacts, one pair of said contacts comprising an annularly shouldered conical pointed plug and a spring-shouldered member coacting therewith, the shoulders on said last named pair of contacts being disposed at substantially right angles to the axis of said plug and symmetrical thereto, whereby said spring contact will secure said plug against a direct pull but may be caused to retract by tilting said plug sidewise and pulling same.

4. In a device of the class described, the combination of a terminal block comprising a pair of blocks of insulating material, a reinforcing rod clamped between said blocks, a tube of insulating material mounted concentrically on said rod, a resistance wire coiled on said tube and having one end extending axially therethrough in contact with said reinforcing rod, a pair of fastening devices connecting said blocks, and terminal contact members respectively connected with said fastening devices and respectively connected with the terminal ends of said resistance wire.

5. A device of the class described, comprising a tube of insulating material, a coil of resistance wire wound on the exterior of said tube, an air tight coating of insulating material covering said resistance coil, a reinforcing rod extending through said tube and projecting therefrom at one end, a pair of terminal blocks of insulating material secured together on opposite sides of said rod for supporting the same, a pair of contact terminals respectively connected to said blocks, and a pair of connecting devices extending between said blocks and respectively connecting said contact terminals thereto, the ends of said coil being respectively connected to said contact terminals.

[Claim 6 not printed in the Gazette.]

1,090,239. VENTILATING APPARATUS. WILLIAM D. SCOTT, Martins Ferry, Ohio. Filed Dec. 31, 1912, Serial No. 739,541. Renewed Jan. 28, 1914. Serial No. 815,097. (Cl. 230—11.)



1. A ventilating apparatus comprising a rotatable fan adapted for forcing air in an axial direction, a cylindrical chamber within which said fan is located, said chamber having its front end open to permit the unobstructed delivery of air from the fan and having in its rear end an air inlet opening of less diameter than the fan and concentric therewith, a plurality of air-outlet passages leading laterally from said chamber, and means whereby air forced through said passages is directed forward with the air delivered directly from the fan.

2. A ventilating apparatus comprising a rotatable fan adapted for forcing air in an axial direction, a cylindrical chamber within which said fan is located, said chamber having its front end open to permit the unobstructed delivery of air from the fan and having in its rear end an air inlet opening of less diameter than the fan and concentric therewith, a plurality of pockets located laterally of said chamber, air-outlet passages leading from said chamber to said pockets, and means whereby air delivered to said pockets is directed forward to join with the air delivered directly from the fan.

3. A ventilating apparatus comprising a substantially rectangular casing having its front face open and having an air-inlet opening in its rear face, a rotatable fan located within said casing and adapted to force air in an axial direction, arcuately curved plates disposed across the corners of said casing, forming pockets in said corners and a substantially cylindrical fan inclosing chamber, passages leading from said chamber to said pockets, and means for directing air from said pockets in a forward axial direction.

4. A ventilating apparatus comprising a substantially rectangular casing having its front face open and having an air-inlet opening in its rear face, a rotatable fan located within said casing and adapted to force air in an axial direction, arcuately curved plates disposed across the corners of said casing, forming pockets in said corners and a substantially cylindrical fan inclosing chamber, passages leading from said chamber to said pockets, and air-conducting receptacles located without said casing and in open communication with said pockets, whereby air received in said pockets is directed forward in an axial direction.

5. In a ventilating apparatus, a rotatable shaft; a fan mounted on said shaft, said fan comprising a plurality of semi-circular blades disposed in upright radial position with respect to said shaft and having their straight chord-like edges diagonally crossing said shaft and extending approximately equal distances on opposite sides thereof; a casing inclosing the periphery of said fan and having its front face open for the free delivery of air from the fan in an axial direction; a central air-intake opening in the rear face of said casing and concentric with said fan; a plurality of passages leading through the side walls of said casing, and means whereby air forced through said passages is directed forward in said axial direction.

[Claim 6 not printed in the Gazette.]

1,090,240. MECHANICALLY-PRODUCED NEGATIVE. GEORGE W. SCRITSMIER, Chicago, Ill. Filed Nov. 14, 1912. Serial No. 731,243. (Cl. 41—46.)



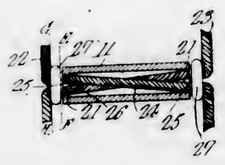
1. A negative comprising a translucent backing, a coating formed with a layer of waxy material covered with printers' ink having light passages through said waxy material and said ink, and a translucent filling in said passages.

2. A negative comprising a translucent backing, an opaque stratum of waxy material glazed over with a thin skin of pyroxylin and provided with light passages through said stratum and skin, and a translucent filling in said passages.

3. A negative comprising a translucent celluloid backing provided with a layer of waxy material covered with printers' ink and with a thin skin of pyroxylin over the printers' ink and having light passages impressed through said coatings, and a translucent, hard filling in said passages.

4. A negative comprising a translucent backing having an opaque waxy coating through which coating light passages have been impressed, said waxy coating being provided with a relatively hard translucent coating extending into said light passages.

1,090,241. LADDER. IRVIN E. SHOOP, Elizabethtown, Pa. Filed Apr. 20, 1911. Serial No. 622,319. (Cl. 228—7.)



1. A ladder comprising rungs having end walls, each of which end walls is provided with a pair of openings; and cables crossed within each rung and extended outwardly through the openings to form the stiles of the ladder, the cables fitting closely in the openings.

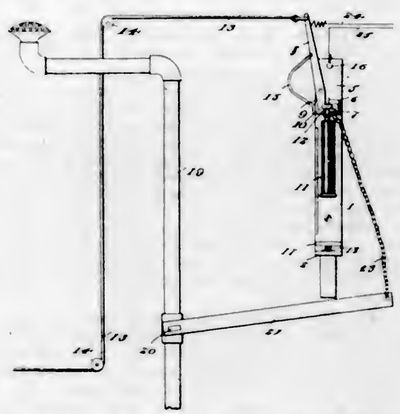
2. A ladder consisting of tubular rungs; cables extended through the rungs to form the stiles of the ladder; and links surrounding the cables only, and engaging the cables at the ends of the rungs.

3. A ladder comprising tubular rungs; cables extended through the rungs in opposite directions, and crossed within the rungs, the cables constituting the stiles of the ladder; securing members extending through the cables transversely, adjacent the ends of the rungs, the extremities of the securing members being wound about the cables and being inserted within the rungs, the securing members constituting means for preventing relative movement between the rungs and the cables; links surrounding the cables transversely, beyond the securing members, the links constituting means for relieving the strains upon the rungs.

4. A ladder comprising tubular rungs having openings in their end walls; cables extended through the openings, and crossed within the rungs, the cables constituting the stiles of the ladder; securing members uniting the cables adjacent the ends of he rungs, he securing members constituting means for preventing movement of the rungs upon the cables; and links surrounding the cables transversely, beyond the securing elements, the links constituting means for relieving the strain upon the rungs.

5. A ladder comprising rungs having end walls, each of which end walls is provided with a pair of openings; cables crossed within each rung and extended outwardly through the openings to form the stiles of the ladder, the cables fitting closely in the openings; and links surrounding the cables and abutting against the end walls of the rungs.

1,090,242. AUTOMATIC FIRE-ALARM. JOSEPH J. C. SINGLETON, Fort Worth, Tex. Filed Dec. 21, 1912. Serial No. 738,036. (Cl. 116—11.)



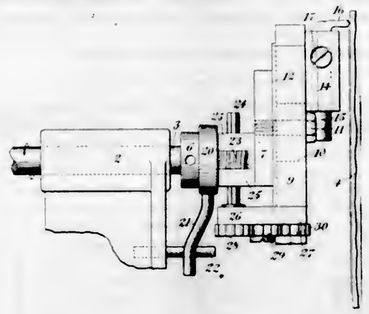
1. An alarm comprising an upright frame, a cartridge holding support projecting horizontally therefrom and a cartridge supported in the support, a suspending support projecting from the upper end of said frame, a lug attached to said suspending support and having a recess in the side thereof, a lever fulcrumed on said suspending support and having a recess in one arm thereof opposite the recess in said lug, a combustible cord attached to the other arm of said lever to be extended about a room, idlers for said cord, and a weight above said cartridge provided with a stem to be held in said recesses while said cord is holding said lever at tension and said weight being adapted to fall on said cartridge when said cord is released.

2. An alarm comprising an upright frame having a cartridge holding support extending horizontally therefrom and a weight suspending support vertically above said cartridge holding support, a cartridge in the first mentioned support, a lug attached to the weight suspending support and having a recess in the side thereof, a lever fulcrumed on said weight suspending support and having a recess in one arm thereof opposite the recess in said lug, a cord to be extended about a room and suitable idlers for said cord, said cord being attached to said lever and to be secured at the other end for holding said lever at tension, a weight above said cartridge provided with a stem having a head held in said recesses and adapted to fall when said cord is released, and a hinged plate standing in the path of said weight and carrying a pointed lug for striking said cartridge.

3. An alarm comprising a frame provided with upper and lower arms projecting horizontally therefrom and the upper arm having a vertical extension, a lug attached to said extension and having a recess in the side thereof, a lever fulcrumed on said extension and having a recess in one arm thereof opposite the recess in said lug, a weight having a stem provided with an enlargement to be held in said recesses, a cord attached to said lever and to be extended about a room and secured at the other end for causing said lever to hold said weight suspended, a spring attached to said extension and bearing against said lever to cause a prompt release of said weight when said cord is burned, and a hinged plate carrying a pointed lug standing in the path of said weight for exploding a cartridge held in said lower arm.



1,090,243. ROTARY CUTTING MECHANISM. FRANK L. SMITH, Chicago, Ill., and THOMAS B. WILLIAMS, Orange, Mass., assignors to The Leavitt Machine Company, a Corporation of Massachusetts. Filed Dec. 9, 1908. Serial No. 466,656. (Cl. 82—1.)



1. In a rotary cutting mechanism, the combination with a main driving spindle disposed in its operative position at a right angle to the work to be faced, and with a bearing for supporting said spindle, of a cutting mechanism embodying the following elements, viz.—a tool-head secured to the end of said spindle for rotation therewith, a feed-screw on said tool-head, a slide-rest positively connected with said feed-screw, a cutting tool carried by said slide-rest, and movable means carried wholly by said tool-head and removable with it from the spindle and the movements of which are derived solely from the rotation of said spindle for actuating said feed-screw and thereby converting the continuous rotation of said spindle into a substantially uniform spiral movement of said cutter.

2. In a rotary cutting mechanism, the combination with the main driving spindle thereof disposed in its operative position at a right angle to the work to be faced, of a tool-head secured to said spindle for rotation therewith, a feed-screw on said tool-head, a slide-rest positively connected with said feed-screw, a cutting tool carried by said slide-rest, movable means carried wholly by said tool-head and removable with it from the spindle and the movements of which are derived solely from the rotation of said spindle for actuating said feed-screw and thereby converting the continuous rotation of said spindle into a slow and substantially uniform spiral movement of said cutter, and means on the tool head for interrupting the driving connection between said spindle and the slide-rest to permit a quick feed movement of said slide-rest and its cutter.

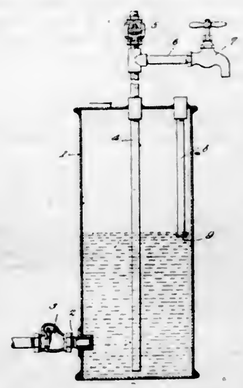
3. In a rotary cutting mechanism, the combination with a rotary driver, of a tool-head secured to said driver for rotation therewith, a feed-screw on said tool-head, a slide-rest positively connected with said feed-screw, a cutting tool carried by said slide-rest, gearing carried wholly by said tool-head and removable with it from the spindle and the movements of which are derived solely from the rotation of said spindle for converting the continuous rotation of said driver into a slow and substantially uniform feed movement of said feed-screw, and means for disconnecting the feed-screw from said gearing and permitting a quick feed movement of said feed-screw.

4. In a rotary cutting mechanism, the combination with a rotary driver, of a tool-head secured to said driver for rotation therewith, a feed-screw on said tool-head, a slide-rest positively connected with said feed-screw, a cutting tool carried by said slide-rest, mechanism carried on said tool-head for converting the continuous rotation of said driver into a slow and substantially uniform feed movement of said feed-screw, and means carried by said feed-screw for connecting it with and disconnecting it from said mechanism.

5. In a rotary cutting mechanism the combination with a rotary driver, of a tool-head secured to said driver for rotation therewith, a feed-screw on said tool-head and movable transversely to the axis of said driver, a slide-rest positively connected with said feed-screw, a cutting tool carried by said slide-rest, a fixed stop adjacent to said rotary driver, a stationary driving worm mounted on said rotary driver and having an arm extending into the path of said stop, and a revoluble driving worm gear secured to the tool-head and in mesh with said worm and operatively connected with said feed-screw for converting the continuous rotation of the driver into a substantially uniform spiral movement of said cutter.

[Claim 6 not printed in the Gazette.]

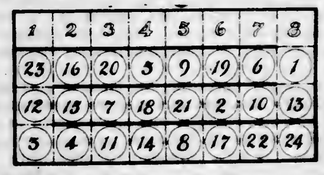
1,090,244. WATER-ELEVATING APPARATUS. JOHN A. STAPLES, Walkertown, N. C. Filed Aug. 25, 1913. Serial No. 786,550. (Cl. 103—8.)



1. Water elevating apparatus including a sealed tank adapted to be submerged and having a valved water inlet, an air vent tube depending into the tank, a valve at the lower end of the vent pipe and adapted to be closed by water rising in the tank, a pipe for directing air under pressure into the bottom portion of the tank, said pipe extending into the tank from the top thereof, and a valved water outlet connected to the last named pipe.

2. Apparatus for elevating water including a tank adapted to be submerged and having a valved water inlet at its bottom, an air vent tube extending downwardly into the tank from the top thereof, a valve for closing the lower end of said pipe when the level of the water rises above the lower end of the pipe, a pipe extending through the top of the tank and down into the tank to a point adjacent the bottom thereof for directing air under pressure into the tank, a check valve within said last named pipe, and a valved water outlet connected to the last named pipe below the check valve.

1,090,245. NUMERICAL PUZZLE. WINSTON STEPHENS, New Bedford, Mass. Filed Apr. 17, 1913. Serial No. 761,764. (Cl. 46—41.)



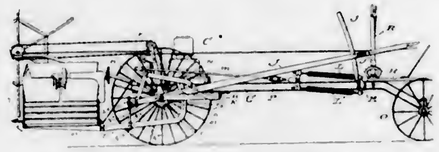

1. A puzzle device comprising a rectangular tray having four longitudinal channels, a communication between

the first and second channel adjacent one end of the tray, a communication between the third and fourth channels adjacent the opposite end of the tray and communications between the second and third channels adjacent each end of the tray and game pieces having distinguishing indicia and adapted to be shifted in the channels.

2. A puzzle device comprising a rectangular tray having three parallel longitudinal partitions, the partition adjacent one side of the tray having an opening to permit the passage of a game piece between the partition end and the end of the tray, the partition adjacent the other side of the tray having a similar opening at the opposite end of the tray and the middle partition having similar openings at each end of the tray, indicia designating equal spaces between one side of the tray and the adjacent partition, other indicia designating similar spaces between the other partitions and a single space adjacent the other side of the tray, and game pieces bearing distinguished indicia arranged in a certain order between the partitions and between one partition and one side of the tray so as to allow one set of indicia to remain uncovered and adapted to be shifted into another certain order so as to uncover the other set of indicia.

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1,090,246. MOTOR-HARVESTER. JOHN F. STEWARD, Chicago, Ill. Filed Aug. 11, 1913. Serial No. 784,062. (Cl. 56—100.)



1. In a motor harvesting machine, in combination, a motor sustained upon a suitable framework, and the latter sustained upon traction wheels and an axle capable of being oscillated, the motor geared to the traction wheels and to the operative parts of the harvesting mechanism, said axle extending through both traction wheels and having secured to its ends, outside of the traction wheels, arms for supporting the harvesting mechanism, a lever, as J, secured to the end of said axle for the purpose of affecting the height of cut of the harvesting mechanism, and means for securing said lever in any position of adjustment.

2. In a motor harvesting machine, in combination, a motor suitably sustained upon traction wheels and an axle capable of being oscillated, the motor geared to the traction wheels and to the operative parts of said harvesting mechanism, the axle extending through both traction wheels and having secured to its ends, outside of the traction wheels, arms for the support of the harvesting mechanism, a lever, as J, secured to one end of said axle outside of one of the traction wheels, one of the supporting arms for the harvesting mechanism secured to said lever.

3. In a motor harvesting machine, in combination, a motor suitably sustained upon traction wheels and an axle capable of being oscillated, the motor geared to the traction wheels and to the operative parts of said harvesting mechanism, the axle extending through both traction wheels and having secured to its ends, outside of the traction wheels, arms for the support of the harvesting mechanism, and a lever, as J, one of the supporting arms for the harvesting mechanism adjustably secured to said lever.

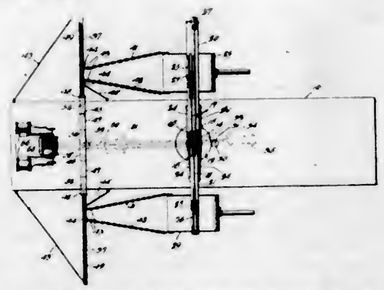
4. In a motor harvesting machine, in combination, a motor suitably sustained upon traction wheels and an axle capable of being oscillated, said motor geared to the traction wheels and to the operative parts of the harvesting mechanism, the axle extending through both traction wheels and having secured to its ends, outside of the traction wheels, levers to which the arms that sustain the harvesting mechanism are secured.

5. In a motor harvesting machine, in combination, a motor suitably sustained upon traction wheels and an axle capable of being oscillated, said motor geared to the traction wheels and to the operative parts of the harvesting mechanism, the axle extending through both traction wheels and having secured to its ends, outside of the traction wheels, a lever to which the arm that sustains the grain end of the harvesting mechanism is adjustably secured.

[Claims 6 and 7 not printed in the Gazette.]

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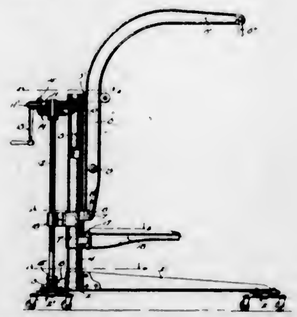
1,090,247. DITCHING-MACHINE. ARBA RANDAL STRONG, Leesville, La. Filed June 15, 1912. Serial No. 703,961. (Cl. 37—41.)



A ditching machine including a car, oppositely extending arms hingedly connected to the sides of the car and adapted to swing upwardly and downwardly relative thereto, each arm including spaced members, a supporting member fixedly mounted on the car, a foldable connection between the upper portion of said supporting member and the outer end of each arm, said connection being hingedly attached to the arm and said supporting member and adapted to fold when the arm is swung upwardly, said connection being extensible to limit the downward movement of the arms, a block slidably mounted between the spaced members of each arm, a soil engaging element back of each arm, a connection between said element and the block, means for supporting the soil engaging element beyond one side of the car and back of its arm, and means for swinging the arms simultaneously upwardly, the blocks thereon being movable by gravity between the members of the arms and toward the sides of the car during the upward swinging movement of the arms, and means for rotating the supporting means of the soil engaging elements to positions over or beyond the sides of the car.

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1,090,248. PORTABLE CRANE. CHARLES TOEPFER, Milwaukee, Wis. Filed June 20, 1913. Serial No. 774,750. (Cl. 57—129.)



1. A portable crane comprising a base-supported column, a guide-block carried by the column adjacent to its upper end, a head in slidable union with the column, an overhanging boom having a stem in slidable engagement with the guide-block, the lower end of the stem being secured to the head, a horizontally swinging jacking arm carried by the head, a rotary spindle in threaded engagement with said head, the spindle being supported by the column, and means for actuating the spindle.



2. A portable crane comprising a base-supported column, a guide-block carried by the column adjacent to its upper end, a head in slidable union with the column, an overhanging boom having a stem in slidable engagement with the guide-block, the lower end of the stem being secured to the head, a rotary spindle in threaded engagement with said head, the spindle being supported by the column, and means for actuating the spindle.

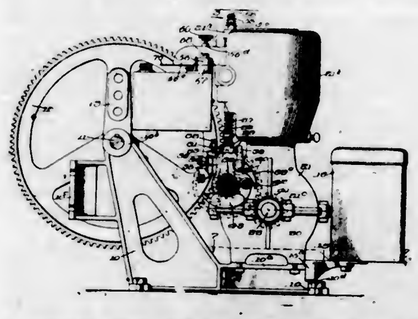
3. A portable crane comprising a base-supported column, a guide-block carried by the column adjacent to its upper end, a head in slidable union with the column, an overhanging boom having a stem in slidable engagement with the guide-block, the lower end of the stem being secured to the head, a pair of jacking arms in pivotal union with the head, a rotary spindle in threaded engagement with said head, the spindle being supported by the column, and means for actuating the spindle.

4. A portable crane comprising a base-supported column, a guide-block detachably mounted upon the end of the column, a head in slidable union with said column, an overhanging boom having a stem in slidable union with the guide-block, means for detachably securing the lower end of the boom-stem to the aforesaid head, a horizontally swinging jacking arm carried by the head, a rotary spindle in threaded engagement with said head, the spindle being supported by the column, and means for actuating the spindle.

5. A portable crane comprising a shank-piece having spider-arms extending radially therefrom, casters mounted upon the shank-piece and ends of the spider-arms, a column extending upwardly from the shank-piece, a bracket extending from the upper end of the column, a foot extending from the shank-piece, a threaded stem having its ends journaled in the bracket and foot, an actuating mechanism for the spindle, a block in slidable union with the collar, a hub in threaded union with the spindle, horizontally swinging jacking arms carried by the head, a guide-block mounted upon the upper end of the column, and an overhanging boom provided with a stem portion in slidable union with the guide-block the lower end of the boom being supported by the aforesaid slidable head.

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1,090,249. ENGINE. JESSE A. VAIL and EDWARD O. POWERS, Beloit, Wis., assignors to Fairbanks, Morse & Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 17, 1911. Serial No. 615,101. (Cl. 123—195.)



A combined pump jack and explosion engine mounted on a common base and including, with the base, a main spur gear wheel, a main crank shaft for the engine, a cam shaft, engine valves operated by said cam shaft, a gear wheel fastened to said main crank shaft concentrically therewith, a gear wheel fastened to said cam shaft concentrically therewith and meshing directly with the gear wheel on the main crank shaft, for driving said cam shaft, and a pinion also fastened to said cam shaft concentrically therewith and meshing directly with said main spur gear wheel whereby the cam shaft serves both to operate the valves and to transmit power to the main spur gear wheel and there are but three gear wheels interposed between said main spur gear wheel and the main crank shaft.

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1,090,250. MINER'S LAMP. JOHN VAN LIEW, Chicago, Ill. Filed Apr. 23, 1912. Serial No. 692,627. (Cl. 67—21.)



1. In a miner's lamp, a lamp body comprising a bent sheet metal strip having its edges secured together and a portion thereof bent to form an integral wick-tube and a bracing web of double thickness between the top of said lamp body and said wick-tube, a cover snugly fitting within the top of said lamp body and a metal piece secured between the thicknesses of said web and having its inner edge flush with the inner surface of said lamp body and abutting against the edge of said cover, substantially as described.

2. In a miner's lamp, a lamp body, a substantially cylindrical wick-tube projecting therefrom, a conducting copper strip extending through said wick-tube and into the lower portion of said lamp body, said strip being arranged snugly in engagement with the inner face of said tube and said lamp body and being secured at its ends to the upper portion of the wick-tube and to the lower portion of said body and a flame deflector mounted upon the upper end of said wick-tube and in contact with said conducting strip, substantially as described.

3. In a miner's lamp, a lamp body, a wick-tube projecting therefrom, a conducting strip extending through the wick-tube into said body and snugly abutting throughout its length against the inner faces of said tube and body, the upper end of said conducting strip being secured to the upper end of said wick-tube and its lower end to the lower portion of said lamp body, substantially as described.

4. In a miner's lamp, a lamp body, a wick tube extending therefrom, and a heat conductor comprising a part fitted within the upper portion of said wick tube and two divergent strips extending downwardly therefrom in opposite directions through said wick tube and into said lamp body, said divergent strips being arranged against the opposite inner side faces of said lamp body, substantially as described.

5. In a miner's lamp, a lamp body, a substantially cylindrical wick tube extending therefrom and a heat conductor comprising a cylindrical portion fitted within and secured to the upper end of the wick tube and two divergent strips extending downwardly therefrom through said wick tube and into said lamp body, said strips being arranged against the side faces of said lamp body on opposite sides of said wick tube and having their lower ends secured to said body, substantially as described.

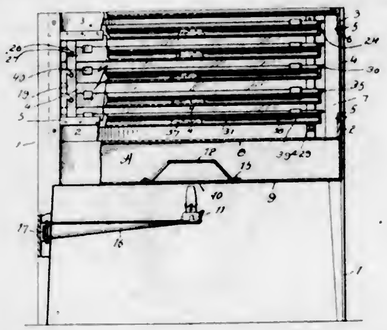
[Claims 6 to 12 not printed in the Gazette.]

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1,090,251. SEED-TESTER. ISAAC L. VAN SCHOIACK, Sugar Grove, Ill. Filed May 2, 1913. Serial No. 765,097. (Cl. 47—30.)

1. A seed tester including a transparent cabinet, a tray rack removably mounted therein, a plurality of seed trays

removably mounted in said rack, a pair of spaced horizontally disposed plates arranged to form a heating chamber, and a heating lamp for said chamber, said tray rack including four supporting legs provided with angular slots, longitudinally extending connecting beams for said legs, laterally extending connecting beams for said legs, and a pair of ball handle members for said legs.



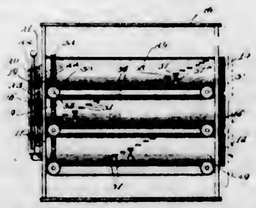
2. A seed tester including a transparent cabinet, a tray rack removably mounted therein, a heating lamp for said cabinet, and a plurality of seed trays removably mounted in said rack, each of said trays including a substantially rectangular box member having a corrugated bottom wall, absorbent wicks arranged in the corrugations, an absorbent sheet provided with grouped seed characters and adapted to support the seeds during the process of germination, and a pair of U-shaped supporting brackets for said seeds, said brackets being removably attached to the side walls of said box.

3. A seed tester comprising a cabinet, a tray rack mounted therein, a plurality of seed trays mounted in said rack, each of said seed trays having a corrugated bottom surface, absorbent wicks mounted in the corrugations, an absorbent seed supporting sheet, and means for supplying heat to said cabinet.

4. A seed tester including a transparent cabinet, a tray rack removably mounted therein, a heating lamp for said cabinet, and a plurality of seed trays removably mounted in said rack, means affording the removable mounting of said seed trays provided by said seed trays and tray rack, each of said trays comprising a substantially rectangular box member having a longitudinal corrugated bottom wall, absorbent wicks arranged in the corrugations, and an absorbent seed supporting sheet provided with grouped seed characters.

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1,090,252. COMPUTING-MACHINE. ADOLPH G. VOSS, Chicago, Ill. Filed Sept. 3, 1912. Serial No. 718,298. (Cl. 235—87.)



1. In a device of the class described, the combination of a casing, a cylinder mounted to revolve within said casing, and provided on its outer surface with a series of symbols denoting computed results, said symbols being arranged in columns, said casing being provided with a slot arranged to expose portions of said columns, a series of symbols arranged along said slot and alined with each of said columns, each of said symbols representing a portion of the data from which the results in the associated column are obtained, an actuating member for said cylinder, a marked surface arranged along the path of travel of said actuating member, each marking of said surface denoting a further portion of the data from which the results in said column are obtained, means for blocking off from view all of the results save the one desired consisting of a sleeve around said cylinder, means for revolving the sleeve independent of the cylinder, said sleeve being provided with a series of stepped openings and with a longitudinally extending slot, whereby when said sleeve is revolved to bring a selected opening into register with the slot in the casing, a single result only will be exposed, and when said sleeve is rotated to bring said slot in the sleeve in alinement with said slot in the casing, a plurality of results will be exposed, substantially as described.

2. In a device of the class described, the combination of a casing, a cylinder within the casing having thereon a series of symbols denoting computed results, said symbols being arranged in columns, said casing having a slot for exposing said symbols, a sleeve about said cylinder having therein a series of openings, a stationary symbol alined with each of said columns of symbols, an actuating member for said sleeve extending to the outside of the casing and movable in a direction parallel with the longitudinal dimension of said slot, a connection between said actuating member and sleeve, whereby when said actuating member is alined with a predetermined stationary symbol an opening in said sleeve will be alined with said slot and immediately below said symbol, and means for rotating said cylinder, substantially as described.

3. In a device of the class described, the combination of a casing, a cylinder within the casing having thereon a series of symbols denoting computed results, said symbols being arranged in columns, said casing having a slot for exposing said symbols, a sleeve about said cylinder having therein a series of openings, a stationary symbol alined with each of said columns of symbols, an actuating member for said sleeve extending to the outside of the casing and movable in a direction parallel with the longitudinal dimension of the said slot, an endless member connected to the actuating member, a geared connection between said sleeve and endless member, whereby when said actuating member is alined with a predetermined stationary symbol and opening in said sleeve will be alined with said slot and immediately below said symbol, and means for rotating said cylinders, substantially as described.

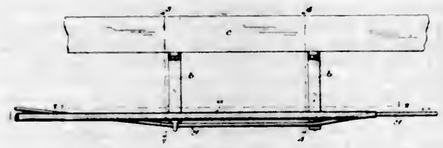
4. In a device of the class described, the combination of a casing, a cylinder within said casing having thereon a series of symbols indicating computed results, said symbols being arranged in columns, said casing having a slot for exposing said symbols, a series of fixed symbols arranged adjacent said slots, one fixed symbol for each column of symbols on the cylinder, said fixed symbols representing a portion of the data from which said computed results are obtained, means operatively connected for rotating said cylinder, means for blocking off from view all but one of the cylinder symbols exposed through said slot, an actuating member for said blocking off means traveling in a plane parallel with said slot and an operative connection between said blocking off means and actuating member therefor whereby when said actuating member is located below a selected one of the fixed symbols, the cylinder symbol alined with said slot and alined with the fixed symbol is exposed, and the remainder cylinder symbols alined with said slots blocked off from view, substantially as described.

5. In a device of the class described, the combination of a casing, a series of cylinders in said casing, each having thereon a series of symbols indicating computed results, said symbols being arranged in columns extending longitudinally and circumferentially of said cylinder, said casing having a series of slots, one for each cylinder, through which said longitudinally arranged columns of symbols are exposed, a series of fixed symbols arranged adjacent said slot, one symbol for each circumferentially arranged column of symbols on each cylinder, said fixed symbols representing a portion of the data from which said computed results are obtained, means operatively connected for rotating all of said cylinders in unison, a single actuating member for all of said rotating mechanisms, a series of stops for said actuating member, said stops being spaced apart a distance whereby the movement of said actuating member from one stop to the next moves the cylinder a distance sufficient to bring one longitudinal column of symbols out of alinement with said slots, and the next adjacent longitudinal column of symbols into alinement with said slots, each of said stops having placed adjacent thereto a symbol denoting a portion of the data from which the computed results are obtained, a sleeve about each of said cylinders having therein a series of openings, an actuating member for each of said sleeves extending to the outside of the casing and movable in a direction parallel with the longitudinal dimension of said cylinder slots, and a connection between each of said actuating members and its associated sleeve, whereby when said actuating member is alined with a predetermined stationary symbol an opening in said sleeve will be alined with said slot and immediately below said sleeve, substantially as described.



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1,090,253. ELEVATED-TROLLEY TRACK. VICTOR WAGNER, Waterloo, Wis., assignor to Drew Carrier Company, Waterloo, Wis., a Corporation of Wisconsin. Filed Aug. 14, 1912. Serial No. 714,953. (Cl. 104—180.)



1. In an elevated trolley track the combination of a straight hollow metal track section longitudinally slotted on the under side, a hanger supporting said section, and a flexible cable section drawn taut through and secured in the open end of the hollow metal section, passing thence obliquely downward and to one side out through the slot in the under side of said hollow section and anchored at a distance therefrom.

2. In an elevated trolley track the combination of a straight hollow metal track section longitudinally slotted on the under side, a hanger supporting said section, and a flexible cable section drawn taut through and confined in the open end of said hollow section, thence obliquely downward and to one side through the longitudinal slot in the under side thereof and through an opening adjacent thereto in the hanger and anchored at a distance therefrom beyond the hanger.

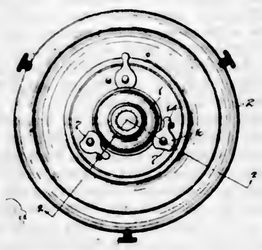
3. In an elevated trolley track the combination of a straight tubular metal track section longitudinally slotted on the under side, hangers supporting said section, and a flexible cable section drawn taut through the end and in alinement with said tubular section, passing thence obliquely downward and to one side through the slot in the under side of the tubular section into engagement with said hangers, adjacent to and at one side of the tubular section and anchored to a fixed support beyond the hangers.

4. In an elevated trolley track the combination of a straight tubular metal track section having a longitudinal slot in the under side, hangers having bosses inserted and confined in the bore of said section and supporting the section from the under side thereof, and a flexible cable drawn taut through and secured in the end of said tubular section in alinement therewith, thence obliquely downward and to one side through the slot in the under side thereof and through openings adjacent thereto in said hangers and anchored to a fixed support beyond the hangers.



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1,090,254. LAMP-SHADE HOLDER. FREDERICK W. WAKEFIELD, Vermilion, Ohio, assignor to The F. W. Wakefield Brass Company, Vermilion, Ohio, a Corporation of Ohio. Filed Apr. 8, 1913. Serial No. 759,640. (Cl. 240—115.)



1. The combination of a shade holder of substantially standard type adapted to receive a lamp socket of substantially standard construction; and rotatably mounted disks on said shade holder adapted to engage said socket and prevent disengagement of the same.

2. The combination of a shade-holder of substantially standard type adapted to receive a lamp socket of substantially standard construction; rotatably mounted disks on said shade holder adapted to engage said socket and prevent disengagement of the same; and means adapted to retain said disks in operative position.

3. The combination of a shade holder having an aperture adapted to receive a flanged lamp socket, the walls of such aperture being rounded at the top to contact with the flange on said socket; and an eccentric disk rotatably mounted on said shade holder and adapted to engage above such flange on said socket thereby preventing disengagement of said socket from said shade holder.

4. The combination of a shade-holder having an aperture adapted to receive a flanged lamp socket, the walls of such aperture being rounded at the top to contact with the flange on said socket; eccentric disks rotatably mounted on said shade holder and adapted to engage above such flange on said socket, thereby preventing disengagement of said socket from said shade holder; and means adapted to retain said disks in operative position.

5. The combination of a shade holder having an aperture adapted to receive a flanged lamp socket, the walls of such aperture being rounded at the top to contact with the flange in said socket; a locking disk provided with an extension, said disk being rotatably mounted on said shade holder adjacent such aperture and being adapted to engage above such flange on said socket thereby preventing disengagement of said socket from said shade holder; and a projection extending into the path of movement of such extension and permitting the latter to pass over it with difficulty, thereby tending to prevent movement of said disk from its operative position.

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1,090,255. BANANA FOOD PRODUCT. JAMES O. WALSH, New York, N. Y., and ARTHUR C. AUSTIN, Hasbrouck Heights, N. J., assignors to said Walsh, New York, N. Y. Filed Mar. 12, 1913. Serial No. 753,656. (Cl. 99—11.)

1. As an improved article of manufacture, a cooked food formed of a banana pulp and a digestible absorbent, the materials being combined, dried, cooked and divided.

2. An improved cooked food product in the form of dry hard particles formed of banana pulp and a ground absorbent.

3. An improved cooked food in the form of dry, hard puffed particles made from banana pulp and a digestible absorbent, the mass being cooked, separated, and puffed as specified.

1,090,256. METHOD OF PREPARING A FOOD PRODUCT. JAMES O. WALSH, New York, N. Y., and ARTHUR C. AUSTIN, Hasbrouck Heights, N. J., assignors to said Walsh, New York, N. Y. Filed Mar. 12, 1913. Serial No. 753,657. (Cl. 99—11.)

1. The herein described method of preparing a food product, which consists in thoroughly mingling banana pulp and a digestible absorbent, next kneading the mingled materials, next cooking the mingled ingredients and thoroughly incorporating them while being cooked, next tempering in the air the cooked mass, then dividing the mass into smaller particles, and finally subjecting the divided particles to a high temperature.

2. The herein described method of preparing a food product, which consists in mingling banana pulp with ground rice, next steaming, pounding, kneading and thoroughly mingling the mass, next steaming and further incorporating the parts together, then laying out the cooked mass to temper in the open air, then dividing the mass into smaller parts, next drying these parts, and finally subjecting the divided parts to a high temperature.

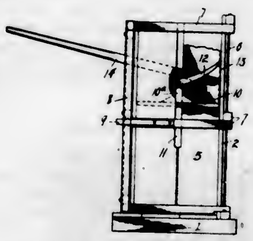
3. The herein described method of preparing a food product, which consists in mingling banana pulp with a digestible absorbent, adding to the mixed parts an excess of banana flavoring, then steam cooking and pounding the mass to render it smooth and glutinous, next laying the mass out in bulk to temper in the air, then dividing the tempered mass into relatively small parts, drying these parts, and finally subjecting the divided parts to a high temperature.

4. The herein described method of preparing a food product, which consists in mingling together banana pulp and a digestible absorbent which will take up the juices of the banana pulp, kneading the mingled ingredients and adding an excess of banana flavor, next steaming and pounding the mingled mass, then laying out the cooked mass in bulk to temper in the air, next dividing the tempered mass into relatively small parts, drying these parts and then subjecting the divided parts to a high temperature.

5. The herein described method of preparing a food product, which consists in mingling together banana pulp and a digestible absorbent which will take up the juices of the pulp, steaming and pounding the mass, dividing the mass into relatively small parts, drying these divided parts, and finally subjecting the divided parts to a high temperature.

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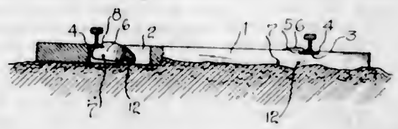
1,090,257. BALING APPARATUS. CHARLES L. WALTER, Bascom, Ohio, assignor to The Monarch Manufacturing Company, Bascom, Ohio, a Corporation of Ohio. Filed May 12, 1913. Serial No. 767,086. (Cl. 100—4.)



In an apparatus of the class described, a baler frame having a plurality of sides, a portion of which are mounted for opening movements, a pressure-head vertically movable in said frame, a pawl pivotally carried by said head, said pawl having an opening therethrough, a ratchet-bar fixed to one of the frame sides for coaction with said pawl to resist an upward movement of the pressure-head, and a ratchet-lever movably projected through one side of the frame and through the opening in said pawl with its nose in engagement with the ratchet-bar, said lever being adapted to have a downward bearing on the pressure-head without its ratchet-bar engaging end.

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1,090,258. RAILWAY-TIE AND FASTENER. HARMON WATSON, Cullman, Ala. Filed Oct. 11, 1913. Serial No. 794,696. (Cl. 238—4.)

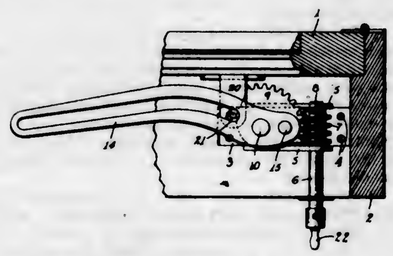


1. A device of the class described including clamping members, outwardly projecting lugs formed at one end of each of said clamping members and spaced from the body portions thereof, said clamping members being provided at their opposite ends and upon their opposite longitudinal edges with tapering notches as and for the purpose set forth.

2. The combination with a tie having longitudinal slots formed therein adjacent each end and further provided with transverse recesses communicating with the slots at one end thereof and adapted to receive the base flanges of the rails, of clamping members pivotally mounted within said slots, outwardly projecting lugs formed on one end of each of the clamping members and adapted to engage over the base flanges of the rails, said lugs being spaced from the body portions of the clamping members to provide recesses for the reception of the base flanges of the rails and said clamping members being provided at their other ends and upon their opposite longitudinal edges with tapering notches, and means carried by the tie and engaged within said notches to retain the clamping members in their operative position.

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1,090,259. CASEMENT-WINDOW-OPERATING MECHANISM. JESSE N. WATSON, St. Louis, Mo. Filed Mar. 18, 1912. Serial No. 684,579. (Cl. 16—136.)

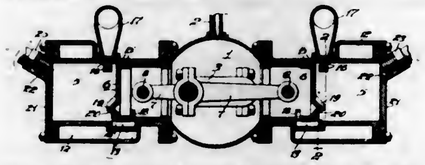


1. In a device of the class described, a base plate provided with ears and a pivot pin, an operating shaft journaled in said ears and reversible with reference to said base plate, a worm carried by said shaft and reversible with reference thereto, a segment adapted to coöperate with said worm mounted on said pin and reversible with reference thereto, and a lever arm attached to said segment and reversible with reference thereto.

2. An operating mechanism for casement windows comprising a base plate, an operating shaft reversibly mounted therein, a worm gear reversibly mounted on said shaft, a pivot pin mounted on said base plate, a sleeve carried by said pivot pin, a toothed segment reversibly supported on said sleeve and meshing with said worm gear, and a lever reversibly pivoted on said pivot pin and having one end connected to said segment.



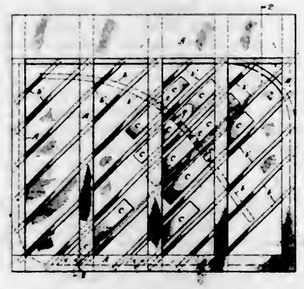
1,090,260. HYDROCARBON-ENGINE. ANTHONY J. WATTS, St. Louis, Mo. Filed May 26, 1910. Serial No. 563,482. (Cl. 123—56.)



The improved internal combustion engine, comprising a gas-tight crank-case, a pair of cylinders connected with the crank-case and in communication therewith, a shaft having a pair of diametrically opposite cranks rotatably mounted in the crank-case, a piston located in each cylinder and connected with the cranks, there being longitudinally disposed charge and exhaust ports in each of said cylinders arranged in transverse rows and having like arrangement relative to the crank-case in each cylinder, there being ports in each piston arranged to co-act with the charge ports of the cylinder, deflectors on said pistons arranged to cover the charge ports of the cylinders, means for supplying a gaseous mixture to the crank-case and an ignition device located in each cylinder end opposite the charge ports and diametrically opposite the charge ports, substantially as shown and for the purposes stated.

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1,090,261. PIANO SOUNDING-BOARD. JOHN WEISER, Chicago, Ill. Filed Oct. 24, 1912. Serial No. 727,496. (Cl. 84—30.)



1. A piano having a back frame provided with an acoustic rim, a sounding-board having rear ribs and a bridge and strings bearing on the bridge, and a plurality of auxiliary flat sound-boards some supported opposite the bridge and others at the rim and projecting between the ribs at a spaced distance from the sounding-board.

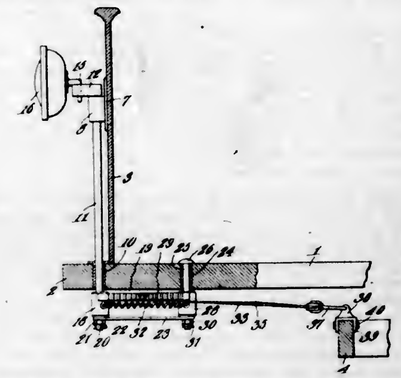
2. A piano having a sounding board provided with ribs and a bridge and strings bearing thereon, and a plurality of auxiliary flat sound-boards supported at their centers on the rear of the sounding-board in the line of the bridge and extending on both sides thereof between the ribs at a spaced distance from the sounding-board and all vibrated by each vibration of the sounding-board.

3. A piano having a sounding-board provided with ribs and a bridge and strings bearing on the bridge, and a plurality of auxiliary flat sound-boards supported at the rim and projecting between the ribs toward the center of the sounding-board at a spaced distance from the sounding-board and vibrated by the vibration of the sounding-board.

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1,090,262. HEADLIGHT-ACTUATOR. WILLIAM C. WENTZ, Marine, Ill. Filed Sept. 19, 1913. Serial No. 790,709. (Cl. 240—62.)

1. In a device of the class described, a support; a pair of intermeshing segments carried by the support; retractile springs connecting the segments upon opposite sides of their place of intermeshing; a lamp actuating shaft operatively connected with one segment; intersecting crossed members each connected at one end with the other segment; and truck engaging means connected with the other ends of the crossed members.

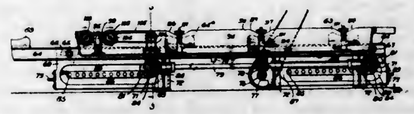


2. In a device of the class described, a support; a pair of shafts carried by the support, one shaft being a lamp actuating shaft; intermeshing segments carried by the shafts; means for actuating one segment; and a connecting member uniting the shafts and supported solely by the shafts.

3. In a device of the class described, a support; a pair of shafts carried by the support; one shaft being a lamp actuating shaft; intermeshing segments carried by the shafts; means for actuating one segment; a connecting member uniting the shafts and supported solely by the shafts; and retractile springs connecting the segments.

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1,090,263. KEG-WASHING MACHINE. JOHN H. G. ZUNNER, Rochester, N. Y., assignor to Zunner Machines Company, Rochester, N. Y. Filed Dec. 30, 1911. Serial No. 668,795. (Cl. 141—6.)



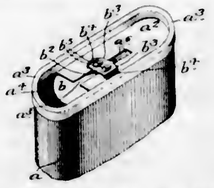
In a keg-washing machine, keg-transferring mechanism having, in combination, a keg-support, a carrier therefor, means for moving the carrier in a closed, curved path in a vertical plane, connections between the carrier and the keg-support permitting relative lost motion in a horizontal direction, and means operative, near the horizontal extremities of the path of motion of the carrier, to arrest the horizontal movement of the keg-support and restrict the keg-support at such times to rectilinear vertical movement.

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1,090,264. PACKAGE-CAN. JAMES F. ADAMS, Phillipsburg, N. J., assignor to The Canister Company, Phillipsburg, N. J., a Corporation of New Jersey. Filed Mar. 9, 1911. Serial No. 613,406. (Cl. 206—41.)

1. In a can or receptacle of the class described, the combination with a head provided with a filling and discharging opening and a guiding slot communicating therewith, of a plate valve for engaging one face of said can head and provided with keepers projecting above the face of the valve, for engaging the opposite face of the can head, said keepers being of such size as to be capable of being passed through said filling and discharging opening and having a part for engaging and moving in said slot, whereby said head and plate valve can be separately completed and thereafter assembled, said opening and said

keepers being so located on their respective parts, that a portion of the valve will project beyond the edge of the can head at the moment when the keepers are passed through said filling and discharging opening in the head, in the act of assembling.



2. In a can or receptacle of the class described, having a head provided with a filling and discharging opening and a guide slot of less width than said opening, communicating directly therewith, of a plate valve for engaging one face of said head, provided with a projecting portion for loosely engaging said slot and keepers extending therefrom constructed to engage the opposite face of said head at a distance from the edge of said slot, said keepers being of such size as to be capable of being passed through said filling and discharging opening, whereby said head and plate valve may be separately completed and thereafter assembled, said opening and said keepers being so located on their respective parts that a portion of the valve will extend beyond the edge of the can head at the moment when the keepers are passed through the said opening, in the act of assembling.

3. A can or receptacle of the class described, said can or receptacle being provided with a head having a raised U-shaped rim which opens downwardly and is adapted to receive one end of the body of the can or receptacle, and the outer side flange of which does not extend perceptibly below the bottom surface of said head, said head being provided adjacent to one edge thereof with a filling and discharge opening, and a plate valve slidably mounted on the bottom of said head and provided with a raised part adapted to be passed upwardly through the filling and discharge opening in the operation of assembling said parts.

4. A can or receptacle of the class described, said can or receptacle being provided with a head having a raised U-shaped rim which opens downwardly and is adapted to receive one end of the body of the can or receptacle, and the outer side flange of which does not extend perceptibly below the bottom surface of said head, said head being provided adjacent to one edge thereof with a filling and discharge opening, and a plate valve slidably mounted on the bottom of said head and provided with a raised part adapted to be passed upwardly through the filling and discharge opening in the operation of assembling said parts, and having means for locking the plate valve and head together when said plate valve is moved longitudinally of said head.

5. A can or receptacle of the class described, said can or receptacle being provided with a head having a raised U-shaped rim which opens downwardly and is adapted to receive one end of the body of the can or receptacle and the outer side flange of which is approximately flush with the bottom surface of said head, said head being provided with a filling and discharge opening and a guide slot communicating therewith, a plate valve slidably mounted on the bottom of said head and provided with keepers which are adapted to be passed upwardly through the filling and discharge opening in the act of assembling said parts.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,265. ROLLER CENTER-BEARING FOR CARS. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 1, 1912. Serial No. 729,036. (Cl. 64—64.)

1. In a roller bearing, coöperating bearing plates, interposed radially disposed conical rollers and a thrust ring against which the outer ends of said rollers engage, said thrust ring being separable from one of said bearing plates but connected to the other with freedom for rotary movements and being removable therewith.



2. In a roller bearing, coöperating bearing plates, interposed radially disposed conical rollers, a thrust ring against which the outer ends of said rollers engage, and means connecting said thrust ring to one of said bearing plates with freedom for rotary movements, said thrust ring having a retaining flange lapping the ends of said rollers.

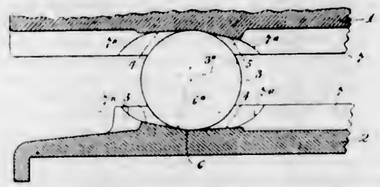
3. In a roller bearing, coöperating bearing plates, interposed conical rollers, a thrust ring against which the outer ends of said rollers engage, and means connecting said thrust ring to one of said bearing plates with freedom for movements in a plane at a right angle to the axis of the bearings, said thrust ring having a retaining flange lapping the outer ends of said rollers.

4. In a roller bearing, coöperating bearing plates, interposed conical rollers, a thrust ring against which the outer ends of said rollers engage, means connecting said thrust ring to one of said bearing plates with freedom for movements in a plane at a right angle to the axis of the bearings, said thrust ring having a retaining flange lapping the outer ends of said rollers, and the bearing plate to which said thrust ring is loosely connected having a hub with an annular retaining flange lapping the inner ends of said rollers.

5. A roller bearing, coöperating bearing plates interposed conical rollers, a thrust ring against which the outer ends of said rollers engage, means connecting said thrust ring to one of said bearing plates with freedom for rotary movements, said thrust ring having a retaining flange lapping the outer ends of said rollers, and the bearing plate to which said thrust ring is connected for rotation having a hub provided with an annular retaining flange lapping the inner ends of said rollers.

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1,090,266. LATERAL-MOTION ROLLER-BEARING FOR CARS. LEE W. BARBER and EDWIN W. WEBB, Chicago, Ill., assignors to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 4, 1912. Serial No. 729,276. (Cl. 64—64.)



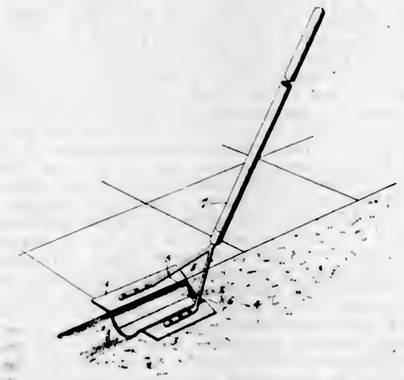
1. A lateral motion device for cars, comprising upper and lower roller bearing plates and interposed rollers, said roller bearing plates having flat diverging surfaces and intermediate cylindrical bearing surfaces tangentially joining said flat bearing surfaces, the said bearing plates, on opposite sides of the car, being in duplicate, but in such reverse arrangement as to cause the car body to rise more on one side than on the other when moved laterally, and the flat bearing surfaces on the upper bearing plates being in reverse arrangement in respect to those of the under-lying roller bearing plates.

2. A lateral-motion device for car trucks, comprising upper and lower roller-bearing plates and an interposed roller, said bearing plates having flat diverging bearing surfaces and an intermediate cylindrical bearing surface tangentially joining said flat bearing surfaces, the radius of said cylindrical bearing surface being slightly greater than the radius of said roller, the said parts being arranged in duplicate on opposite sides of the car and the flat inwardly extending bearing surfaces of the lower bearing plates having a very slight inward rise, while the outwardly extending flat bearing surfaces of said lower bearing plates have a relatively great outward rise, and the flat bearing surfaces of the upper bearing plates being in a reverse arrangement in respect to those of the under-lying lower bearing plates.



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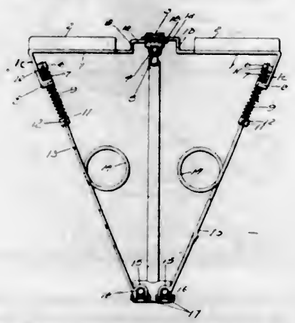
1,090,267. DEVICE FOR CUTTING GRASS. JOHN H. BERRY, Newton, Ill., assignor of one-fourth to James A. Bowles, Villa Grove, Ill. Filed Apr. 18, 1913. Serial No. 762,029. (Cl. 97—28.)



A sod trimmer comprising a plate having parallel side edges, a rear edge at right angles to the side edges and a forward edge at an inclination to the side edges other than a right angle, the longitudinal central portion of the plate being depressed to form a rounded trough, the side edges beyond the trough being in the same horizontal plane, and a handle having spaced terminals connected to the side edges of the plate, said handle rising from the plate to overlie the forward edge thereof.

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1,090,268. SEAT-SUPPORT FOR MOTOR-CYCLES. WILLIAM H. BRADLEY, Portland, Oreg. Filed Apr. 28, 1913. Serial No. 764,006. (Cl. 208—100.)



1. A seat support for motor cycles and the like having a yieldable saddle post, a saddle bar pivotally secured thereto, transverse base members secured to said saddle bar, and a brace secured at each side to the lower portion of the frame and yieldingly united to its respective base member.

2. A seat support for motor cycles and the like having a yieldable saddle post, a saddle bar pivotally secured thereto, transverse base members adjustably secured to the saddle post, a spring brace secured at each side of the lower portion of the frame and means for adjustably connecting the terminal of each base member with its respective brace.

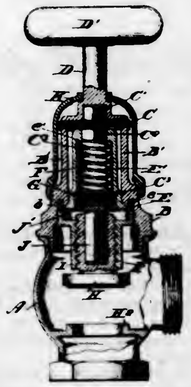
3. The combination of a motor cycle frame with a yieldable saddle post, a saddle bar pivotally secured to the frame and to said post, a pair of transverse bars secured to the saddle bar, the terminals of said bars being turned downwardly at an acute angle, a stay rising from the horizontal portion of the frame at each side having a slidable connection with its respective transverse bar, and a spring element for positioning and supporting its respective bar.

4. The combination with a motor cycle frame of a yieldable saddle post, a saddle bar pivoted to the frame and to the post, a pair of transverse seat supports adjustably secured to the saddle bar, a spring stay rising from the cycle frame at each side, having movable connection with its respective seat support, a spring element upon each spring stay for positioning and sustaining its respective seat support and means for adjusting said spring elements.

5. The combination with a motor cycle frame of a yieldable saddle post, a saddle bar pivoted to the frame and to the post, a pair of transverse seat supports adjustably secured to the saddle bar, a spring stay rising from the cycle frame at each side, having movable connection with its respective seat support, a spring element upon each spring stay for positioning and sustaining its respective seat support, means for adjusting said spring elements and means for taking up the recoil of the spring element.

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1,090,269. PACKLESS VALVE FOR PRESSURE OR VACUUM SYSTEMS. ALFRED A. BAITT, Detroit, Mich. Filed May 12, 1913. Serial No. 767,022. (Cl. 137—4.)



1. In a device of the class described, a body portion provided with a valve seat, an annular sleeve supported upon the body portion, a jointed valve stem, a valve controlling the passage through the body portion actuated by the jointed valve stem, said valve stem comprising a pair of disks spaced apart and respectively seated at opposite ends of the sleeve, a spring located between the disks to draw them to their respective seats, and means for regulating the tension of the spring.

2. In a device of the class described, a body portion provided with a valve seat, an annular sleeve supported upon the body portion, a jointed valve stem, a valve controlling the passage through the body portion actuated by the jointed valve stem, said valve stem comprising a pair of disks spaced apart and respectively carried by sections of the jointed valve stem, said disks respectively seated at opposite ends of the sleeve, a spring located between the

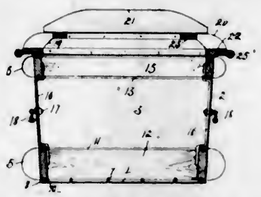
disks to draw them to their seats, and means to regulate the tension of the spring.

3. In a device of the class described, a body portion provided with a valve seat, a valve, a bonnet engaged to the body portion and having an annular sleeve integral therewith, a valve stem formed in sections and jointed together and adapted to actuate said valve, said valve stem comprising a pair of disks respectively carried by sections of the valve stem and respectively seated at opposite ends of the sleeve, a spring located between the disks to draw them to their seats, and means for regulating the tension of the spring.

4. In a device of the class described, a body portion provided with a valve seat, a valve having a screw-threaded shank provided with a squared socket, a bonnet engaged to the body portion, a depending member to receive and support the screw-threaded shank of the valve, an annular sleeve carried by the bonnet, a disk seated against one end of the sleeve, said disk provided with an annular collar portion, a stem engaged to said disk squared to conform to the socket of the valve shank in which it is housed, a disk seated on the opposite end of the sleeve and provided with a stem projecting into the annular collar portion of the first named disk, one portion of said stem being squared to enter a like shaped opening in the end wall of the collar portion, a spring housed within the collar portion, a nut engaging said depending stem adapted to regulate the tension of the spring whereby the disks are drawn to their respective seats, one of said disks provided with a projecting lug squared in cross-section, an operating handle, a stem carried by the handle having a squared socket to receive the projecting lug of the last named disk, and a closure cap engaged to the bonnet having an opening through which the stem of the operating handle projects.

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1,090,270. CASKET. LOUIS O. BROWN, Toledo, Ohio. Filed June 13, 1913. Serial No. 773,406. (Cl. 27—7.)



1. A casket having its wall formed of sheet-metal and inwardly looped, and a mold strip having an edge inserted into and secured to the wall loop.

2. An article of the class described having a vertical wall which is provided at vertically spaced intervals with inwardly projecting loops, and a mold strip of sheet-metal having portions located on opposite sides thereof inserted into and secured to said loops.

3. An article of the class described having its vertical wall formed of sheet-metal and provided adjacent to each its upper and lower edges with a set of vertically-spaced horizontally-disposed inwardly projecting loops, and a molding strip for each set of loops having portions projecting within and secured to said loops.

4. An article of the class described having the upright wall of its body of sheet-metal, which is inwardly looped at vertically-spaced intervals to provide an internal recess between the loops, a nailing strip secured within said recess, and external decorating means having portions projecting within and secured to said loops.

5. An article of the class described having a bottom wall with a turned over edge, an upright wall having vertically spaced inwardly looped portions, one of said looped portions interengaging with the turned over edge of the bottom, and an external mold strip having portions projected within said looped portions.

[Claims 6 to 10 not printed in the Gazette.]

1,090,271. PROPELLER. CHESTER A. BRYAN, Hall City, Fla. Filed Dec. 21, 1912. Serial No. 738,085. (Cl. 170—173.)

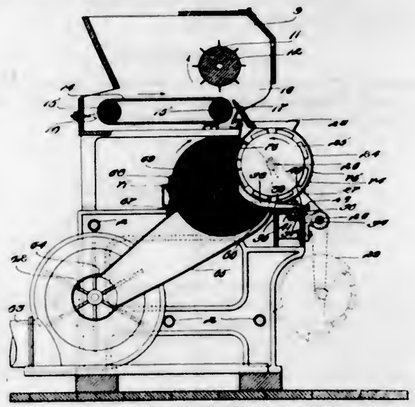


1. In combination, a propeller hub having oppositely arranged dove-tailed recesses which are tapered longitudinally, propeller blades having bases shaped correspondingly with regard to the recesses and fitted therein, the bases having notches provided with inclined portions, devices arranged in and carried by the wall of said recesses of said hub and having means impinging coöperatively with portions of said notches to prevent longitudinal displacement of the bases in one direction, while the longitudinal taper of the recesses prevent displacement of the bases in an opposite direction, said devices with their attendant means together with portions of the notches constitute means to hold the bases tight in the recesses.

2. In combination, a propeller hub having oppositely arranged dove-tailed recesses which are tapered longitudinally, propeller blades having bases shaped correspondingly with regard to the recesses and fitted therein, the bases having teeth, spring members secured in the recesses having lateral portions to engage the teeth to prevent longitudinal displacement of the bases in one direction, while the longitudinal taper of the recess prevents displacement of the bases in an opposite direction, and means for disengaging the lateral portions of the spring members from the teeth.

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1,090,272. COTTON-GIN. EDWIN R. BULLOCK, Pawtucket, R. I., assignor to United Cotton Gin Company, Boston, Mass., a Corporation of Arizona. Filed June 9, 1911. Serial No. 632,271. (Cl. 13—7.)



1. A gin, comprising rotary disks with annular lateral ginning faces, and strippers mounted in coöperative relation thereto extending inward in a curve terminating in an approximate tangent to the inner circle of the annular disk faces.

2. A gin, comprising rotary disks with annular lateral ginning faces, and strippers mounted in coöperative relation thereto extending inward in a curve terminating in an approximate tangent to the inner circle of the annular disk faces, said curve having an outer portion approximately radial of the disks.

3. A gin, comprising rotary disks with lateral ginning faces, strippers mounted in coöperative relation to said disks and extending inward in a circular curve, having a part radial and another part approximately tangential to the inner ginning surface limit, and a one-way movable distributer mounted to move adjacent said strippers.

4. A gin, comprising a set of rotary spaced apart disks with lateral ginning faces, strippers coöperative therewith, and a movable distributer mounted in operative relation to said disks to apportion and feed cotton thereto, said distributer and said strippers being relatively formed and arranged so that movable pockets are formed to remove seeds and hulls.

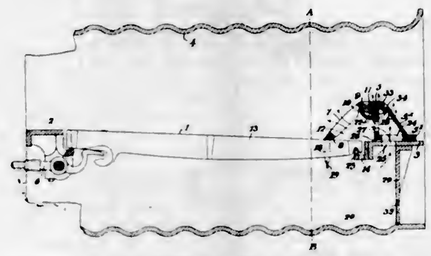
5. A gin, comprising a set of rotary spaced apart disks having lateral faces, strippers mounted in coöperative relation thereto and extending inward in a substantially circular curve, and a rotary distributer adapted to feed and apportion the cotton to the disk faces and formed to provide, in conjunction with said strippers, movable pockets for removing the seeds.

[Claims 6 to 9 not printed in the Gazette.]



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1,090,273. MARINE-BOILER AND OTHER FURNACE. RICHARD CAMPBELL, Liverpool, England. Filed Feb. 2, 1912. Serial No. 675,046. (Cl. 126—152.)



1. In a furnace, the combination of a flue; a main grate therein; a longitudinally movable fire-bridge at the back thereof having a laterally disposed internal space; and an auxiliary grate in front of said bridge, said auxiliary grate together with the main grate and the bridge wall inclosing a space in front of said wall.

2. In a furnace, the combination of a flue; a main grate therein; a longitudinally movable fire-bridge at the back thereof having a laterally disposed internal space; an auxiliary grate in front of said bridge which together with the main grate and the bridge wall incloses a space; and means for fixing said bridge in any desired position.

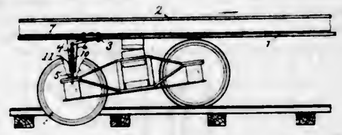
3. In a furnace, the combination of a flue; a main grate therein, a fire-bridge at the back thereof having a laterally disposed internal space; an auxiliary grate in front of said bridge forming the space in front of said bridge; and means for displacing said auxiliary grate relatively to said main grate to vary the effective grate area.

4. In a furnace, the combination of a flue; a main grate therein; a longitudinally movable fire-bridge at the back thereof and having a laterally disposed internal space; and an auxiliary grate in front of said bridge, movable therewith and inclosing a space with the fire-bridge and main grate.

5. In a furnace, the combination of a flue; a main grate therein; a longitudinally movable fire-bridge at the back thereof, having a laterally disposed internal space and an auxiliary grate in front of said bridge, movable therewith, and inclosing a space with the fire-bridge and main grate; and means upon said main grate for guiding said auxiliary grate.

[Claims 6 to 13 not printed in the Gazette.]

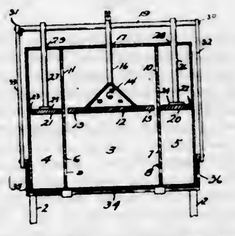
1,090,274. SAFETY AIR-BRAKE APPLIANCE. ALFRED A. CARPENTER, Sherman, Tex. Filed Nov. 15, 1913. Serial No. 801,143. (Cl. 188—2.)



In a safety air-brake appliance for cars, an auxiliary air valve attached to the train line pipe of a car, a depending perforated bracket secured to the car, a vertically movable rod in two parts joined by an adjusting turnbuckle the lower portion of said rod extending loosely through the perforation in the bracket and connected to a ring loosely encircling a truck axle, a spring operating on the rod portion to counterbalance its weight, and a chain normally connected to the upper end of the other section of the rod and to the valve lever, substantially as and for the purpose described.

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1,090,275. WASHING-MACHINE. GEORGE WILLIAM CHILEN, Longbeach, Cal. Filed Feb. 17, 1913. Serial No. 751,174. (Cl. 68—19.)



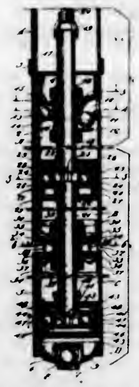
In a washing machine comprising a casing, a central chamber, auxiliary chambers on opposite sides of said central chamber, partitions between and having passages connecting said chambers; a plunger in the central chamber composed of a perforated base, and a conical top, a plunger rod secured to said base and slidable in said central chamber, plungers slidable in said auxiliary chambers having a base and a rod, a transverse bar above the top of the casing connecting all of said plungers, a crank shaft under the casing, cranks on each end of said shaft, arms connecting said cranks with said transverse bar, and a lever pivotally secured to the top of the casing and to said transverse bar for operating said machine, in combination as described.

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1,090,276. QUADRUPLE-IMPULSE PUMP. PETER CHRISTMAN, Green Bay, Wis. Filed Dec. 9, 1912. Serial No. 735,768. (Cl. 103—71.)

1. In a quadruple impulse pump, the combination with the barrel having upper and lower series of inlets through its wall, check valves for the inlets of the upper series, a diaphragm fast within the barrel within the upper series of inlets and having a port communicating with the space above it, a downwardly closing valve for said port, a lower diaphragm fast within the barrel opposite the lower series of inlets and having radial chambers communicating with the latter and ports leading from said chambers to the spaces above and below this diaphragm, and for each pair of such ports a double-acting valve adapted to close one port and open the other; of a tubular sucker rod reciprocating vertically through said diaphragm and having inlets above and below the lowermost diaphragm, a bucket slidably mounted within said barrel and including a piston secured to said rod above the uppermost inlet of the lower diaphragm and a passage leading from the latter downward and opening through the space below

said bucket, a downwardly closing valve in this passage; another bucket secured to the rod below the lowermost diaphragm and having a chamber communicating with the lower end of the rod and ports opening from said chamber to the spaces above and below this bucket, and valves within the chamber adapted to close the ports alternately on the ascent and descent of said rod.



2. In a quadruple impulse pump, the combination with the barrel having upper and lower series of inlets through its wall and an inlet at its lower end, check valves for the latter and for the inlets of the upper series, a diaphragm fast within the barrel within the upper series of inlets and having a port communicating with the space above it, a downwardly closing valve for said port, a lower diaphragm fast within the barrel opposite the lower series of inlets and having radial chambers communicating with the latter and ports leading from said chambers to the spaces above and below this diaphragm, and for each pair of such ports a double-acting valve adapted to close one port and open the other; of a tubular sucker rod reciprocating vertically through said diaphragms and having inlets above and below the lowermost diaphragm, a bucket slidably mounted within said barrel and including a piston secured to said rod above its uppermost inlet and a passage leading from the latter downward and opening through the space below said bucket, a downwardly closing valve in this passage; another bucket secured to the rod below the lowermost diaphragm and having a chamber communicating with its lower inlet and ports opening from said chamber to the spaces above and below this bucket, and a valve within the chamber adapted to close the ports alternately on the ascent and descent of said rod.

3. In a pump of the class described, the combination with the suspension pipe externally threaded at its lower end, and the reciprocating pump rod therein; of the pump barrel internally threaded at its upper end and having two sets of inlets in its wall, diaphragms fast within said barrel opposite these inlets, the uppermost diaphragm engaging the threads at the upper end of said barrel and having a flange engaging the threads at the lower end of said suspension pipe, check valves in the diaphragms over said inlets, a tubular sucker rod moving through said diaphragms and having inlet openings, an open coupling connecting its upper end with the lower end of said pump rod, a plurality of buckets fast on said rod and reciprocating within said barrel, and valves in the buckets, substantially as described.

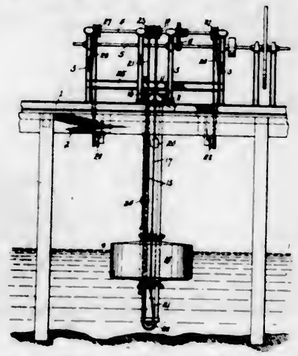
4. In a pump of the class described, the combination with the barrel made in two spaced sections internally threaded at their contiguous ends and each section having an inlet, check valves for said inlets, a diaphragm externally threaded at its upper and lower ends to engage and connect the contiguous ends of said sections and provided with radial chambers between its threaded portions and ports leading both upward and downward from said chambers, the ports having valve seats, valves for these seats opening away from said chambers, and stems passing through said chambers and through said ports and connecting the valves in pairs so as to hold one open when the other rests upon its seat; of a sucker rod reciprocating vertically through said diaphragm, buckets thereon above and below the diaphragm, and valves in the buckets.

5. The combination with a sucker rod made in two sections externally threaded at their contiguous ends; of a bucket having a threaded sleeve at its center adapted to engage said ends of the rod and pierced with radial ports opposite the space between such ends and provided with chambers with which said ports communicate, a valve seat at the lower side of each chamber communicating with the space below the bucket, a valve normally closing against said seat, and a plug removably closing the upper portion of the bucket above said valve, for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,090,277. WAVE-MOTOR. ALBERT S. CLOSE, Toledo, Ohio, assignor to The United States Wave Power Company, Cleveland Ohio, a Corporation of South Dakota. Filed May 12, 1913. Serial No. 767,091. (Cl. 253—8.)



1. In an apparatus of the class described, a pendulum mounted for horisontal turning and swinging movements, a buoy carried by the pendulum for reciprocatory movements longitudinally thereof, and means for converting both the swinging and vertical reciprocatory movements of the buoy into a continuous rotary movement.

2. In an apparatus of the class described, a frame, a bearing member carried by the frame for horizontal turning movements relative thereto, a pendulum suspended from said member for universal swinging movements relative thereto and for turning movements therewith, a buoy carried by the pendulum for vertical reciprocatory movements relative thereto, and means for converting the reciprocatory movements of the buoy and the swinging movements of the pendulum into a continuous rotary movement.

3. In an apparatus of the class described, a pendulum mounted for swinging movements, a walking-beam carried by said pendulum, a shaft, and separate means connecting opposite ends of the walking-beam with said shaft and alternately operable upon a swinging of the pendulum to impart rotary movements in one direction of the shaft.

4. In an apparatus of the class described, a shaft, a T-pendulum pivotally mounted adjacent to its head for swinging movements and having the opposite ends of its head connected with said shaft for imparting continuous rotary movements thereto in one direction when the pendulum is swung.

5. In an apparatus of the class described, a frame, a shaft, a pendulum mounted for horisontal turning and vertical swinging movements relative to said frame, a cross-arm carried by the upper end portion of the pendulum for swinging and turning movements therewith and having its ends projected in opposite directions from the pendulum, and separate means connecting the ends of the cross-arm with the shaft and alternately operable upon a swinging of the pendulum to impart a continuous rotary movement in one direction to the shaft.



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1,090,278. DESIGN-COMPOSER. CHARLES P. COATES, St. Louis, Mo. Filed Oct. 16, 1912. Serial No. 726,176. (Cl. 88—15.)



1. A device of the class described comprising a solid transparent prism having a plurality of reflecting surfaces positioned in angular relation and adapted to form and relatively arrange a plurality of images to form a composite picture or design.

2. A device of the class described comprising a solid transparent prism having a plurality of reflecting surfaces positioned in angular relation and adapted to form a plurality of images of an object or element and relatively arrange said images and said object or element to form together a composite picture or design.

3. A device of the class described comprising a solid prism having a plurality of surfaces positioned to form a solid angle, a plurality of said surfaces forming reflecting surfaces adapted to form and relatively arrange images of an object positioned under another of said surfaces to form a composite picture or design.

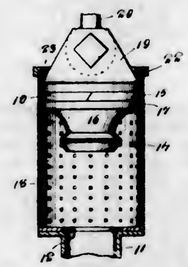
4. A device of the class described comprising a prism having a plurality of reflecting surfaces and having its end surface arranged at an acute angle with respect to the body of the prism to permit a corner of said prism to be viewed through said end surface.

5. A device of the class described comprising a triangular prism having a plurality of reflecting surfaces and having its end surface arranged at an acute angle with respect to the body of the prism to permit the corner opposite said surface to be viewed through the prism.

[Claim 6 not printed in the Gazette.]

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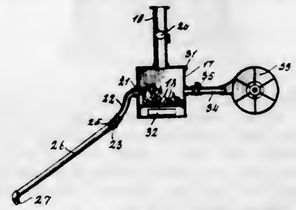
1,090,279. VALVE. JAMES A. COCHRAN, Pittsburg, Kans. Filed Feb. 21, 1912. Serial No. 678,988. (Cl. 137—21.)



In a valve, the combination with a perforated cylindrical strainer casing, of a valve seat formed at the lower end of the strainer casing and constituting a beveled wall of an entrance to the strainer casing, a valve mounted to slide vertically in the strainer casing, the said valve comprising a valve body having the lower portion thereof beveled for engagement with the beveled valve seat of the strainer casing, the medial portion of said valve body being cylindrical, and provided with a reduced portion encircled by a ring, the upper end of the valve body terminating in a cross head, with the said medial portion of the valve body forming a circular guide for guiding the valve body in its movement in the casing; a rod pivotally connected to the said cross head, an operating lever connected to the said rod for operating the valve body in the casing, and a circular flange member secured to the upper end of the casing and having portions projecting inwardly from the inner wall thereof to be engaged by the valve body and limit the upward movement thereof, the upper end of the said casing being received in a circular groove formed in the said flange member.

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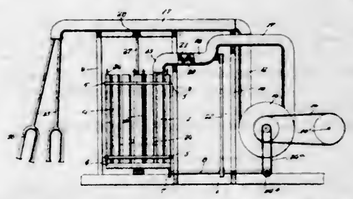
1,090,280. INSECT-DESTROYER. JAMES LICURGIS COLDIRON, Eastland, Tex., assignor of one-fourth to John P. Martin, one-fourth to Drussie S. Holland, and one-fourth to Lee C. Downtain, Eastland, Tex. Filed Apr. 27, 1912. Serial No. 693,759. (Cl. 43—5.)



In a fumigator of the class described, a generator comprising a casing provided with a grate, said casing being provided with an inlet opening and a diametrically directed outlet opening spaced above said grate, said inlet and outlet openings being in axial alinement, and means to force air into said inlet opening whereby a stream of air will be directed diametrically across the material on the grate, said casing being further provided with an inlet opening beneath said grate, and a damper-controlled opening extending from the top of the casing whereby natural draft may be effected and the mixture of air and gases regulated.

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1,090,281. COTTON-BALER. WILLIAM COOK, Binger, Okla. Filed Mar. 26, 1912. Serial No. 686,326. Renewed Aug. 29, 1913. Serial No. 787,362. (Cl. 100—56.)



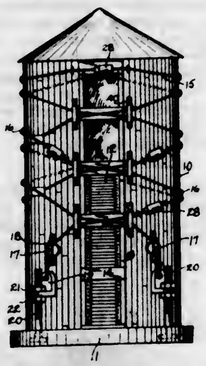
In a cotton baling apparatus, the combination of a framework, a rotary platform supported thereby, an annular series of rods projecting upwardly from the platform, a cylinder composed of vertical slats and horizontal bands surrounding the rods, said cylinder consisting of two hinged and vertically divided sections, means for holding said cylinder closed, a packer supported by the frame for coöperation with the rotary cylinder, a cover for closing said cylinder having notched projections, and clamping members on said rods to engage said notched projections.

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1,090,282. SILO. ELI N. CRAMER, Brooklyn, Ind. Filed Oct. 12, 1912. Serial No. 725,409. (Cl. 217—4.)

1. A silo formed of staves, cables wound about the silo and extending from the top to the lower end thereof,

means on the silo for holding the cables which permit them to be drawn, and means at the lower end of the silo for drawing down the lower ends of the cables for tightening the same.



2. A silo including a foundation, a superstructure formed of staves, cables wound around the silo and extending from top to the lower end thereof, means on the silo for holding the cables which permit of their longitudinal movement, and means secured to the foundation for drawing down the lower ends of the cables and tightening the cables around the silo.

3. A silo including a foundation, a superstructure formed of staves, cables wound around the silo and extending from the top to the lower end thereof, means on the silo for holding the cables which permit their longitudinal movement, means secured to the foundation for drawing down the lower ends of the cables and tightening the cables around the silo and pulleys secured to the silo over which the lower ends of the cables pass for tightening the same.

4. A silo including a foundation, a superstructure formed of staves, a pair of cables extending in opposite directions from a point near the upper end of the silo and coiled about the silo down to the lower end thereof, staples secured to the silo through which the cables loosely extend, and means connected with the foundation for drawing down and holding the lower ends of the cables.

5. A silo including a foundation, a superstructure of staves, cables wound around the silo and extending from the upper end to the lower end thereof, means on the silo for supporting said cables and permitting their longitudinal movement, springs in said cables to render them yielding, and means connected with the foundation for drawing down the lower ends of the cables and tightening the same.

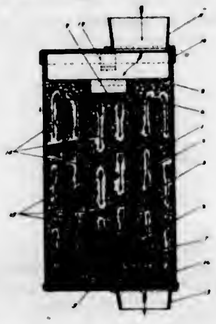
[Claims 6 to 12 not printed in the Gazette.]

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1,090,283. WATER FILTERER OR STRAINER. MERTON L. CRANDALL, Pontiac, Mich. Filed Dec. 26, 1912. Serial No. 738,721. (Cl. 210—6.)

1. A water filter comprising an outer casing, a conoidal screen in the base thereof over an outlet therethrough, a cylinder resting on the screen and having screened outlets near its base, a catch basin detachably secured in the casing with a screened outlet discharging into the upper portion of the cylinder which it otherwise closes, a cap for the casing having an inlet directing water into the catch basin, a tank resting on the screen concentrically with the cylinder and having an outrolled upper margin below the level of the catch basin and a filter bed filling the casing.

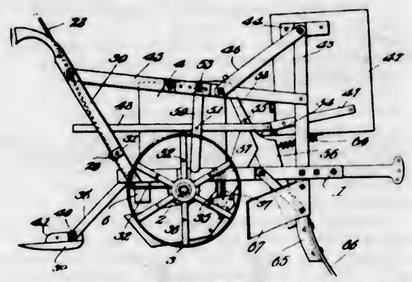
2. A water filter comprising an outer casing having an outlet through its base, a raised screen over the opening, an inner cylinder supported by the screen and provided with screened lateral outlets near its base, a catch basin closing the upper end of the casing and cylinder, and having a screened outlet discharging into the cylinder, a cap for the catch basin having a water inlet, a tank resting on the screen concentrically with the cylinder and the casing and having an outrolled upper margin below the level of the inlet to the cylinder and granular filtering material packed in the tank, cylinder and casing.



3. In a water filter, an outer casing having an open upper end and a closed base with an outlet therethrough, a screen in the base over the outlet having a raised middle portion, a cylinder supported by the screen and provided with lateral outlets near its base, a catch basin telescoping into the upper portion of the casing and resting on the upper margin of the cylinder, arranged to discharge into the latter, a tank resting on the screen concentrically with the cylinder and casing, an outrolled rim flange on the upper end of the tank below the level of the catch basin and filtering material filling the casing, cylinder and tank.

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1,090,284. COMBINED PLANTER AND FERTILIZER-DISTRIBUTER. NOAH C. CROSS, Buford, Ga. Filed Aug. 19, 1912. Serial No. 715,911. (Cl. 111—33.)



1. The combination with front and back means for opening furrows of different depths, of a fertilizer receptacle, a forked chute for directing fertilizer into the respective furrows, means for directing fertilizer into the chute from the receptacle, an adjusting member for controlling the passage of fertilizer within the chute and into the respective furrows, and means for oscillating the receptacle.

2. The combination with front and rear means for opening furrows of different depths, of a forked chute for directing fertilizer into the respective furrows, an adjusting member carried by the chute for controlling the passage of fertilizer therethrough, a fertilizer receptacle discharging into the chute, and means for oscillating the receptacle.

3. The combination with front and rear means for opening furrows of different depths, of a forked chute having front and rear members for directing fertilizer into the respective furrows, a member adjustably mounted in the chute and having an opening adapted to register with the upper end of one of the members of the chute, there being an outstanding deflecting lip upon the member and along the lower edge of the opening, a fertilizer receptacle, and means for directing fertilizer therefrom and onto the member.

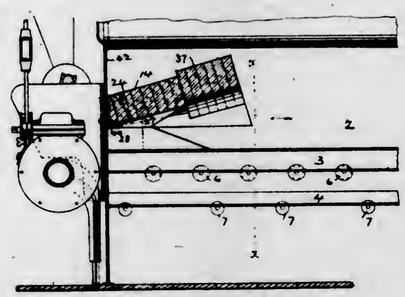
4. The combination with a structure including a supporting wheel and tappets extending from the wheel, of front and rear means for producing furrows of different depths, a chute having forwardly and rearwardly extending members for discharging fertilizer into the respective furrows, a member adjustably mounted in the chute and having an opening adapted to register with the upper end of the rear member of the chute, there being a lip upon said member and along the lower edge of the opening, a fertilizer receptacle mounted for oscillation, means for directing material therefrom and onto the adjustable member, a hanger pivotally supported and normally projecting into the path of the tappets, and a connection between the hanger and the receptacle.

5. The combination with a structure including a supporting wheel and tappets extending from the wheel, of front and rear means for producing furrows of different depths, a chute having forwardly and rearwardly extending members for discharging fertilizer into the respective furrows, a member adjustably mounted in the chute and having an opening adapted to register with the upper end of the rear member of the chute, there being a lip upon said member and along the lower edge of the opening, a fertilizer receptacle mounted for oscillation, means for directing material therefrom and onto the adjustable member, a hanger pivotally supported and normally projecting into the path of the tappets, a connection between the hanger and the receptacle, and means for shifting the hanger into and out of the path of the tappets.

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1,090,285. FURNACE-SETTING. PAUL L. CROWE, Jersey City, N. J. Filed Oct. 28, 1908. Serial No. 459,890. (Cl. 110—95.)



1. In a furnace setting, a furnace comprising front rear and side walls, said side walls provided with offsets, channel irons mounted along said side walls adjacent the offsets, an I beam mounted in the center of said furnace, a central clinker block mounted on said I beam, end clinker blocks mounted on said channel irons in the front portion of said furnace, a central skewback mounted upon said central clinker block, end skewbacks mounted in said side walls of the furnace and an arch mounted in said furnace against the said end skewback in the front portion of said furnace, arches 13—14 adjoining said arch, said arches 13—14 supported by end and central skewbacks.

2. In a furnace setting a furnace comprising front, rear and side walls, said side walls being provided with offsets, channel irons mounted along said side walls adjacent the offsets, an I beam mounted in the center of the furnace, stands for supporting said I beam, end clinker blocks mounted on the channel irons and having an upwardly inclined portion, and a central clinker block mounted on said I beam and having downwardly inclined projecting portions.

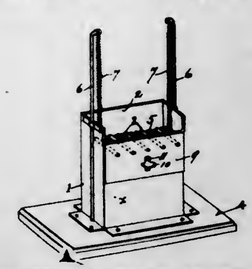
3. A furnace setting comprising front, rear and side walls said side walls having off sets, channel irons with inward flanges extending along said side walls, an I beam supported within said furnace, standards supporting the said I beam, end clinker blocks mounted on said channel irons, having upward inclined surfaces, a central clinker block mounted on said I beam, and having downward inclined surface, end skewbacks mounted in said side walls, a central skewback mounted on said central clinker block, a single arch mounted within the furnace upon the said end skewbacks, said single arch inclined upwardly, a double arch mounted within the furnace, and joined to the said single arch, said double arch inclined upwardly said double arch supported in the center by the said central skewback, and at its ends by the end skewbacks.

4. In a furnace setting a furnace comprising front, rear and side walls, said side walls being provided with offsets, channel irons mounted along said side walls adjacent the offsets, end clinker blocks mounted on the channel irons and having an upwardly inclined portion, end skew-backs mounted in said side walls, an arch mounted within the furnace upon said end skew-backs said arch inclined upwardly, said arch having a straight front portion, and a crowned rear portion.

5. In a furnace setting, a furnace comprising front, rear and side walls, said side walls provided with offsets, channel irons mounted along said side walls adjacent the offsets an arch mounted within said furnace, skew-backs mounted in said side walls against which said arch rests, end clinker blocks mounted on said channel irons below the arch, said arch provided with a straight front portion and a crown rear portion.

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1,090,286. POULTRY AUTOMATIC MASH-FEEDER. JOHN H. CROWELL, Vineyard Haven, Mass. Filed Nov. 1, 1911. Serial No. 658,017. (Cl. 119—60.)



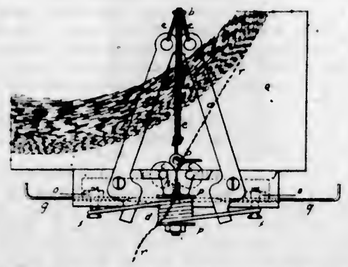
1. In feeders having a conveyer automatically conveying feed vertically within a tubular structure to a fixed location, a conveyer consisting of a bottom and three vertical sides, the fourth side being open, slidable vertically within said tubular structure, in combination with a horizontal rack held stationary by said tubular structure and at a fixed location below the top edge thereof and opposite said fourth or open side of said conveyer and projecting through said open side to within a fixed distance of the three vertical sides of said conveyer, substantially as and for the purpose described.

2. In a mash feeder having a tubular body and a conveyer vertically movable therein, a conveyer having a solid floor and three vertical walls supported by said floor and a fourth side open throughout, and arranged for vertical movement within said tubular body, in combination with a rack held stationary in one side of said tubular body at a fixed location below the top edge of the latter and opposite said open side of said conveyer and projecting through said open side to within a fixed distance of the three vertical sides of said conveyer, and means for imparting vertical movement to said conveyer.

3. An automatic poultry mash feeder comprising a tubular casing having one of its walls solid and of less height than its other walls, a conveyer consisting of a solid bottom and three vertical walls, its top and fourth side being open throughout, said conveyer arranged for reciprocating vertical movement within said casing, and dis-

posed therein with its open side against and closed by said solid lower wall of said casing, and a rack secured to said lower side of the casing at a fixed location below the top edge thereof, and projecting horizontally therefrom through the open side of the conveyer and spaced aa to its three edges a distance from the three vertical walls of said conveyer, and means for automatically actuating said conveyer.

1,090,287. FIRE-PROTECTOR FOR MOVING-PICTURE-MACHINE MAGAZINES. HARVY BARRE CUNNINGHAM, St. Paul, Minn. Filed July 31, 1911. Serial No. 641,687. (Cl. 88—17.)



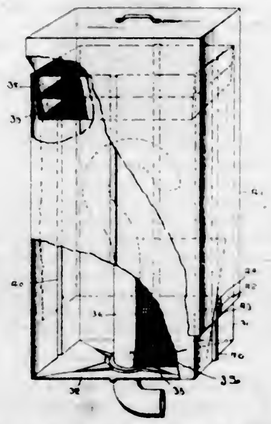
1. A safety device for motion picture machines comprising a rectangular frame-piece provided with rectangular guideways, an opening through the center of said frame-piece, cutting blades mounted to slide in said guideways, a spring engaging said cutting blades and tending to move them toward each other to cover said opening and to cause their cutting edges to overlap, combustible means normally holding said blades in retracted positions, said frame-piece being adapted for attachment to a film magazine with the opening therein in alinement with the opening in the magazine through which the film passes, whereby, upon the accidental ignition of said combustible means, said spring actuates said blades to sever the film and cover said opening substantially as described.

2. An attachment for motion picture machine magazines comprising a support, a pair of rollers mounted in said support and adapted to guide between them the film strip as it issues from the magazine, spring actuating flat shear blades slidably mounted in said support and tending to sever the film strip as it passes between said rollers and to cut off the communication of fire to the interior of the magazine, an inflammable cord normally holding said blades inoperative, said cord being arranged so that a portion of the same lies in proximity to the aperture of the projecting lantern, whereby, upon the ignition of the film as it passes said aperture, the adjacent cord will be severed to release the shear blades substantially as described.

3. In combination with the film aperture of a motion picture machine magazine, a rectangular casing with an opening in one face adapted to be placed in alinement with said aperture, slidable plates with shearing edges forming the opposite face of said casing, grooves in which said plates are slidably mounted, a bracket on one side of said casing, a post on the free end of said bracket, a spring mounted on said post so as to engage with its end portions said slidable plates, said spring tending to move said plates to cover said opening, detent arms pivoted intermediate their ends to the side of said casing which supports said bracket, one end of each arm adapted to engage an end portion of said spring, an inflammable cord attached to the opposite ends of said arms, said cord adapted to hold said arms in their spring retracting positions so that said opening is normally uncovered.

4. In combination with the film aperture of a motion picture machine magazine, a casing provided with an opening in one face adapted to be placed in alinement with said aperture, slidable shear plates with laterally bent portions forming the opposite face of said casing, a bracket attached to one side of said casing, a post on the free end of said bracket, a spring mounted on said post for engagement with said shear plates, said spring tending to move said plates to cover said opening and sever the film passing therethrough, detent arms pivoted to said casing and engaging said spring, a combustible cord engaging said arms to hold them in their spring retracting positions, whereby, upon combustion of the cord, or upon manual actuation of said laterally bent end portions, said shear plates will be moved to cover said opening and sever the film.

1,090,288. COOLING DEVICE FOR EXPLOSIVE-ENGINES. PEARL D. DAVIS and ELWOOD M. PAXSON, Belle Center, Ohio. Filed Feb. 5, 1913. Serial No. 746,860. (Cl. 83—90.)



1. A device of the character described comprising a casing, a cap telescopically engaged thereover, a pipe extending upwardly through said casing, the bottom of said casing being provided with a gutter surrounding said opening and additional gutters extending radially therefrom, and a drain pipe communicating with said gutter and the interior of said pipe.

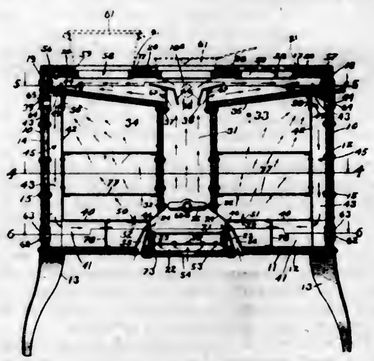
2. A device of the character described comprising a casing having an upper open end, the bottom of said casing being provided centrally with an opening and having a gutter surrounding said opening and additional gutters extending radially therefrom; a pipe secured in the opening in said bottom and extending upwardly within said casing, a drain pipe communicating with the interior of said casing and with said gutters and extending through said pipe, a filtering drum disposed over the upper end of said casing, and a cap disposed over the upper end of said casing.

3. A device of the character described, comprising a casing having an upper open end and a bottom inclined downwardly from the outer edges to the center thereof, said bottom being provided with a central opening and depressions forming gutters circling said opening and extending radially therefrom, a pipe secured in said opening extending upwardly within said casing and having the upper end thereof curved and directed downwardly, a drain pipe communicating with said gutters and extending through said pipe, a filtering drum disposed over the upper open end of said casing, and a cap telescopically engaged over the upper end thereof.

4. A device of the character described comprising a casing having an upper open end, a cap telescopically engaged over said casing, a pipe extending upwardly through said casing and having the upper end curved and directed downwardly, an inclined section of forsminous material disposed beneath the curved end of said pipe, gutters formed in the bottom of said casing and surrounding said pipe and extending radially therefrom, and a drain pipe communicating with said gutters and the interior of said pipe.



1,090,289. HEATER AND COOKER. FORREST V. DETWILER, Chicago, Ill. Filed Sept. 3, 1910. Serial No. 580,419. (Cl. 126—39.)



1. The combination of a casing provided with a plurality of heat openings through the wall, a tubular flue centrally disposed therein and communicating at its outlet end with the said openings, said flue having a constricted inlet, a burner within the casing and arranged to discharge into the inlet, means for admitting external air to the burner, and one or more hot air circulation passages within the casing and having communication at their inlets and outlets with the said flue, there being a door opening in the casing whereby access may be had to the interior of the casing, said casing being provided with means for admitting external air to the said circulation passages.

2. The combination of a casing provided with a plurality of heat openings through the wall, a tubular flue centrally disposed therein and communicating at its outlet end with the said openings, said flue having a constricted inlet, a burner within the casing and arranged to discharge into the said inlet, means for admitting external air to the burner, means forming one or more of the air circulation passages within the casing and having communication at their inlets and outlets with the said flue, there being a door opening in the casing whereby access may be had to the interior of the casing, the casing having means for admitting external air to the said circulation passages and means for controlling the last said means.

3. The combination of a casing provided with a plurality of openings through the top, a tubular flue within the casing and of a size considerably smaller than the interior of the casing, a portion of said flue extending across the top of the casing and having communication with all said openings, there being one or more outlet openings in the wall of the referred to portion of the heated air passage, remote from the inlet of the said portion and beyond the first said openings, there being one or more openings through the wall of the casing communicating with the outside air outside of the said portion of the passage in close proximity to the outlet openings in the said portion of the passage and with which openings in the wall of the casing the said outlet openings communicate for inducing circulation of the hot air across the first recited openings, and means for controlling the said openings in the wall of the casing.

4. The combination of a casing provided with a plurality of openings through the top, a tubular flue within the casing and of a size considerably smaller than the interior of the casing, a portion of said flue extending across the top of the casing and having communication with all of the openings, there being one or more outlet openings in the wall of the last referred to portion of the flue remote from the inlet of the said portion and beyond the first said openings, there being one or more openings through the wall of the casing communicating with the outside air and outside of the said portion of the passage, in close proximity to and with which latter openings the said outlet openings communicate for inducing circulation of the hot air across the first recited openings, and means for controlling the said openings in the wall of the casing.

5. The combination of a casing provided with a plurality of openings through the top thereof, a centrally disposed flue within the casing of a size considerably smaller than the interior of the casing, said flue having communication with all of the openings and having a constricted inlet, a burner within the casing disposed to discharge into the inlet, spaced hot air deflectors arranged substantially at the outlet of the constricted portion of the flue and inclined toward each other and against which the hot air impinges to be equally distributed between the openings, a chamber in the casing and hot air circulation passages within the casing having their inlets and outlets communicating with the said flue, there being door openings in the casing whereby access may be had to the interior of the casing, said hot air circulation passages also having openings communicating with the interior of the portion of the chamber exterior of the said flue.

[Claims 6 to 30 not printed in the Gazette.]

1,090,290. TIRE-TOOL. WILLIAM F. EDGINGTON and ALEXANDER MURRAY, Springfield, Ohio. Filed Apr. 18, 1912. Serial No. 691,640. (Cl. 157—6.)



1. In a tire tool, a main lever having a curved part, a curved arm pivotally connected with said lever, and a brace screw-threaded in said arm near the pivotal point thereof so as to be adjustable with respect thereto.

2. In a tire tool, a lever, an arm pivoted to said lever, said lever and arm being so formed as to extend on opposite sides of a pneumatic tire and its supporting devices and engage the same, and an adjustable screw threaded head arranged substantially as and for the purpose specified.

3. In a tire tool, a main lever, an arm to which said lever is fulcrumed, said arm and lever being so formed as to engage opposite sides of a pneumatic tire and its supporting devices, a brace for the fulcrum of said lever, and a pawl on said lever and a ratchet on said arm.

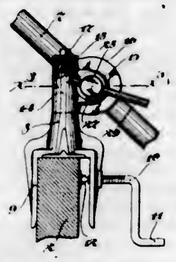
4. In a tire tool, a main lever, an arm to which said lever is fulcrumed, said arm and lever being so formed as to engage opposite sides of a pneumatic tire and its supporting devices, a brace for the fulcrum of said lever, and means for holding said arm and lever in different positions with respect to each other.

5. In a tire tool, a member arranged to engage one side of a pneumatic tire or its channel and extending under said tire to the opposite side thereof, an adjustable part screw-threaded in said member to engage the under side of the tire channel, and a lever pivotally connected with said member arranged to exert a pressure against the other side of said tire or the channel, for the purpose specified.

1,090,291. ADJUSTABLE GRAIN-SPOUT HOLDER FOR GRAIN-LOADERS. JULIUS A. ENGELHART, Minneapolis, Minn. Filed Mar. 24, 1913. Serial No. 756,415. (Cl. 248—80.)

1. A support for adjustable bodies, comprising a supporting bracket, a main head swiveled to said bracket, a

supplemental head swiveled to said main head for movement transversely of the swivel movement of said main head, a rod connected to said body and supported on said supplemental head, and a single operating device for locking said main head to said bracket and to said supplemental head, substantially as described.



2. A support for adjustable bodies, comprising a supporting bracket, a main head swiveled to said bracket, a supplemental head swiveled to said main head for movement transversely of the swiveled movement of said main head, a rod connected to said body and supported on said supplemental head for endwise sliding movement, and a single operating device for locking said main head to said bracket and to said supplemental head and to lock said rod to said supplemental head, substantially as described.

3. A support for adjustable bodies comprising a supporting bracket, a bifurcated head swiveled to said bracket and having a pair of projecting flanges, a supplemental head swiveled on one of said flanges, a rod connected to said body and supported on said supplemental head for endwise sliding movement, and a clamping screw working in perforations formed in said two flanges and supplemental head, arranged to lock said two heads against swivel movement and to lock said rod to said supplemental head, substantially as described.

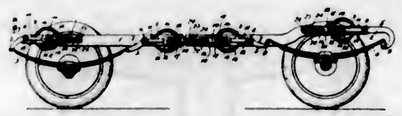
4. A support for adjustable bodies, comprising a supporting bracket, a bifurcated head swiveled to said bracket and having a pair of projecting flanges, a supplemental head swiveled on one of said flanges, a rod connected to said body, a clamping screw working in perforations formed in said two flanges and supplemental head, said supplemental head and clamping screw having transversely extended perforations, adapted to be moved into and out of alinement one with the other, in which perforations said rod is mounted, for endwise sliding movement, and means for adjusting said screw to lock said two heads against swivel movement and to lock said rod to said supplemental head, substantially as described.

5. A support for adjustable bodies, comprising a supporting bracket, a bifurcated head swiveled to said bracket and having a pair of projecting flanges, a supplemental head swiveled on one of said flanges, a rod connected to said body, said two heads having interlocking tapered clutch surfaces, a clamping screw working in perforations formed in said two flanges and supplemental head, said supplemental head and clamping screw having transversely extended perforations, adapted to be moved into and out of alinement one with the other, in which perforations said rod is mounted, for endwise sliding movement, and means for adjusting said screw to lock said two heads against swivel movement and to lock said rod to said supplemental head, substantially as described.

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1,090,292. SHOCK-ABSORBER. CHARLES F. FERNALD, Boston, Mass. Filed Oct. 24, 1912. Serial No. 727,519. (Cl. 21—101.)

1. The combination in a vehicle, of a main supporting spring, a lever one arm of which pivotally connects with said spring whereby said lever may be moved thereby as said spring becomes bent, a secondary spring engaging the other arm of said lever on opposite sides thereof but yieldingly maintaining the same against movement in opposite directions, and means for adjustably retaining said secondary spring whereby it may be adjusted to engage said lever arm at variable points away from its point of fulcrumage.



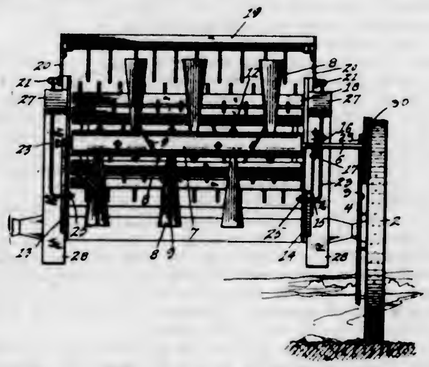
2. The combination in a vehicle, of a frame, a main supporting spring, a lever pivoted to said frame, one arm of which lever pivotally connects with said spring whereby said lever may be moved thereby as said spring becomes bent, a spring secured to said frame engaging the other arm of said lever on opposite sides thereof for yieldingly retaining the same against movement in reverse direction, and means for adjustably securing said spring to said frame, said means comprising in part an adjustable plate on which said spring is mounted.

3. The combination in a vehicle of a main supporting spring, a lever one arm of which pivotally connects with said spring whereby said lever may be moved thereby as said spring becomes bent, a C-shaped spring presenting separate portions the ends of which are adapted to engage the other arm of said lever on opposite sides thereof, and means for adjustably mounting said C-shaped spring whereby the ends thereof may engage said lever arm at variable points away from its point of fulcrumage.

4. The combination in a vehicle of a frame, a main supporting spring, a lever pivoted to said frame and with one arm of which said main supporting spring pivotally connects whereby said lever may be moved thereby as said spring becomes bent, a C-shaped spring presenting portions the ends of which engage the other arm of said lever on opposite sides thereof for yieldingly retaining the same against movement in reverse directions, and means for adjustably securing said C-shaped spring to said frame, said means comprising in part an adjustable plate on which said C-shaped spring is mounted.

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1,090,293. FERTILIZER-DISTRIBUTER. WILLIAM C. FRANCIS, Bristol Center, N. Y. Filed Dec. 16, 1912. Serial No. 737,157. (Cl. 111—40.)



1. The combination with a fertilizer distributer machine including a pulverizing drum, a separating rake, means for supporting the separating rake; of a rotary shaft, means for mounting the rotary shaft outwardly of and parallel with the pulverizing drum, means for adjusting one end of the shaft, a drum mounted on the shaft, outwardly flared blades projecting from the drum, means for securing the outwardly flared blades to the drum, and means connected with the shaft mounting means and with the separating rake supporting means for bracing said shaft mounting means to said separating rake supporting means.

2. The combination with a fertilizer distributing machine including a pulverizing drum and separating rake, and means for supporting the separating rake, of angle irons projecting from the end of the machine, a rotary drum mounted in the free ends of the angle irons, spreader blades mounted on said drum, brace rods connected with the angle irons and with the separating rake supporting means, means for drawing the rods forwardly and retaining the same in position to brace the free ends of the angle irons, and means for rotating the last mentioned drum.

3. The combination with a distributing machine including a pulverizing drum, a separating rake, and means for supporting the separating rake, of a rotary shaft, curved angle irons for mounting the rotary shaft outwardly of and parallel with the pulverizing drum, said angle irons being secured to the machine, a spreader drum mounted upon the rotary shaft, spreader blades carried by said shaft, means for adjusting the spreader drum within the angle irons, and means connected with the angle irons and with the separating rake supporting means for bracing said angle irons.



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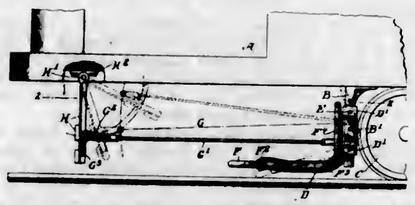
1,090,294. NUMBER-DISPLAY PLATE FOR VEHICLES. SAMUEL GEE, Providence, R. I. Filed Feb. 19, 1912. Serial No. 678,731. (Cl. 40—135.)



A vehicle signal plate comprising a sheet metal plate perforated to provide two symmetrically arranged rows of characters, the characters of one row being reversed and in reversed order, said plate being bent on a line between said rows of characters to bring the latter into register with each other, a translucent plate located between the folded sides of said plate, and a binding strip inclosing the peripheral edges of said folded plate.

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1,090,295. CAR-FENDER. JOHN P. GERAGHTY and GEORGE WILLIAM NAYLOR, Jersey City, N. J., assignors of forty-five one-hundredths to Edward C. Curry and Charles A. Stoneham, New York, N. Y. Filed Aug. 10, 1912. Serial No. 714,398. (Cl. 105—130.)



1. A car fender, comprising a gate at the front end of the car, and an apron frame arranged a distance in the rear of the said gate and normally in an approximately horizontal position above the track, the said apron frame being connected with the said gate and adapted to move simultaneously with the latter and the said apron frame being mounted to move bodily rearwardly and into an inclined position with the front end of the apron frame downward in close proximity with the track when the gate strikes an obstruction during the forward motion of the car and to be returned to horizontal position by the weight of the obstruction on the apron frame.

2. A car fender comprising a swing gate at the front end of the car, an apron frame located a distance in the rear of the said gate, a connection between the said gate and the said apron frame adapted to move the latter bodily rearward on the said gate striking an obstruction during the forward movement of the car, and guideways for the apron frame, said guideways being so constructed and the apron frame so mounted therein that the apron frame will be normally held in approximately horizontal position, will be moved bodily rearward and into an inclined position with the front end of the apron frame in close proximity to the track, when the gate strikes an obstruction, and be returned to normal position by the weight of the obstruction on the apron frame.

3. A car fender comprising a gate suspended from the front end of the car and mounted to swing rearwardly, fixed guideways having rearwardly and upwardly inclined rear portions, an apron frame having at each end projections working in the guideways, one of the projections being at the rear of the frame and the other adjacent its forward end, and a link connecting the gate with the apron frame, whereby the apron frame will be normally held in a horizontal position, and will move bodily, rearwardly and into an inclined position when the gate strikes an obstruction and be returned to horizontal position by the weight of the obstruction on the apron frame.

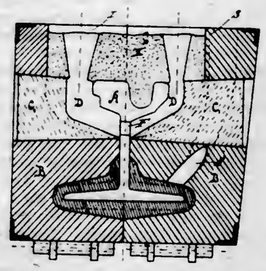
4. A car fender, comprising a gate suspended from the front end of the car and mounted to swing rearwardly, fixed guideways in the rear of the gate, an apron frame having projections at its ends working in the guideways, an angular link pivoted to the gate with one member engaging the gate, and a link pivoted to the first link and to the apron frame.

5. A car fender, comprising a gate suspended from the front end of a car and mounted to swing rearwardly, an apron frame arranged a distance in the rear of the said gate and provided at each side with spaced guiding and supporting members, guideways held on the car and each having an approximately horizontal portion a slightly upwardly inclined forward portion and a rear portion inclined upwardly and rearwardly from the rear end of the said horizontal portion, the said guiding and supporting members engaging the said guide-ways, and a connection between the said gate and the said apron frame to normally hold the apron frame in an approximately horizontal position and to move the apron frame rearwardly and into an upwardly and rearwardly inclined position when the gate strikes an object during the forward movement of the car.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,296. METHOD OF UNITING RAILS AND THE LIKE. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany. Filed Nov. 9, 1912. Serial No. 730,358. (Cl. 22—204.)



1. A method of uniting rails and the like which consists in first welding together the lower parts of the rail sections and then welding or fusing a separate strengthening piece alongside of the upper parts or heads of the sections.

2. A method of uniting rails and the like which consists in first welding together the lower parts of the rail sec-

tions, by surrounding them with molten iron and then welding or fusing a separate strengthening piece alongside of the upper parts or heads of the sections.

3. A method of uniting rails and the like which consists in first welding together the lower parts of the rail sections, by surrounding them with molten iron resulting from an aluminothermic process and then welding or fusing a separate strengthening piece alongside of the upper parts or heads of the sections.

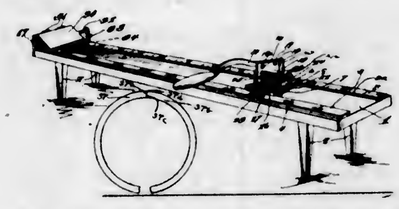
4. A method of uniting rails and the like which consists in first welding together the lower parts of the rail sections, by surrounding them with molten iron resulting from an aluminothermic process, heating the upper parts of the sections by the slag produced simultaneously with the iron and then welding or fusing a strengthening piece alongside of the upper parts or heads of the sections.

5. A method of uniting rails and the like which consists in first welding together the lower parts of the rail sections, by surrounding them with molten iron resulting from an aluminothermic process, heating the upper parts of the sections by the slag produced simultaneously with the iron, in which slag apertures or spaces for producing or receiving the strengthening pieces are formed.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,297. RUBBER-TIRE-CUTTING MACHINE. ALFONSO GREENWELL, Owensboro, Ky. Filed Feb. 5, 1913. Serial No. 746,398. (Cl. 164—41.)



1. In combination, a table having longitudinal guide tracks thereon, a combination abutment and clamp at one end of the table, a carriage movable on the guide tracks, a knife universally connected to the carriage, an angular member having a vertical portion having slots, the angles of which are alined with the universal connection of the knife, the universally connected knife and slots constituting means whereby the opposite ends of a tire may be cut with corresponding fitting angles.

2. In combination, a table having longitudinal guide tracks thereon, a tire abutment at one end of the table, a carriage movable on the guide tracks, a knife universally connected to the carriage, a member having slots, the angles of which are alined with the universal connection of the knife, the universally connected knife and slots constituting means whereby the opposite ends of a tire may be cut with corresponding fitting angles.

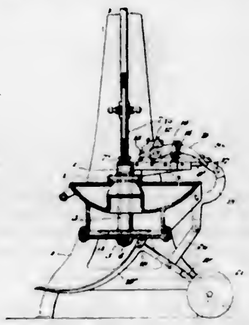
3. In combination, a table having longitudinal guide tracks thereon, a tire abutment at one end of the table, one of the tracks having graduations, a carriage movable on the tracks, a knife universally connected to the carriage, a member having slots the angles of which are alined with the universal connection of the knife, whereby the knife may be brought opposite any one of the slots, the universally connected knife and slots constituting means, whereby the opposite ends of the tire may be cut with correspondingly fitting angles, the member having graduations with which the knife coöperates and provided with a pointer to coöperate with the graduations on one of the tracks.

4. In combination, a table having longitudinal guide tracks thereon, a tire abutment at one end of the table, a carriage movable on the guide tracks, a post swivelly mounted on the carriage to rock horizontally, a knife pivoted to the post to swing vertically, a member on the carriage having slots, the angles of which are alined with the post, whereby the knife when moved horizontally owing to the swiveled connection of the post the same may be brought opposite any one of the slots, the slots, the knife and the mounting thereof constituting means whereby the opposite ends of a tire may be cut with correspondingly fitting angles.

5. In combination, a table having longitudinal guide tracks thereon, a tire abutment and clamp at one end of the table, a carriage movable on the guide tracks, one of the tracks having graduations, a post swiveled on the carriage to rock horizontally, a knife pivoted to the post to swing vertically, a member on the carriage having slots the angles of which are alined with the post, whereby the knife when moved horizontally owing to the swiveled connection of the post the same may be brought opposite any one of the slots, the member having graduations, each of which is arranged opposite each slot, a pointer carried by the member to coöperate with the graduations of one of the tracks, the slots, the knife and the mounting thereof constituting means whereby the opposite ends of a tire may be cut with correspondingly fitting angles.

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1,090,298. BOLT-FACING MACHINE. ARTHUR M. HARRINGTON and ROBERT F. SCOTT, Philadelphia, Pa., assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,355. (Cl. 10—19.)



1. In a bolt machine, the combination with a revoluble stock, a guide, a slide controlled by said guide, a holder provided with a tool journaled in said slide, and means for tilting said tool holder and tool as said slide moves along said guide.

2. In a bolt machine, the combination with a revoluble stock, a guide, a reciprocating slide controlled by said guide, a journaled tool holder mounted on said slide, a cam arm fixed to said tool holder and means engaged by said cam arm for tilting said tool holder as said slide moves along said guide toward said stock.

3. In a bolt machine, the combination with means for engaging and revolving a bolt having a head, of means comprising a reciprocating journaled holder having a tool adapted for facing said head, and means whereby said holder is moved and said tool is caused to turn an undercut facing on said head.

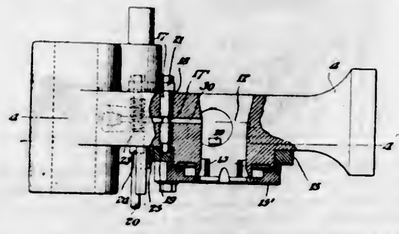
4. In a bolt machine, the combination with means for holding and revolving a bolt having a head, of a guide, a reciprocable slide controlled by said guide, mechanism comprising a treadle for moving said slide along said guide, a holder provided with a tool journaled in said slide, a cam arm fixed to said holder and means fixed to said guide for engaging said cam arm and adjusting said tool in facing the head of said bolt.

5. In a bolt machine, the combination with means for revolving a bolt, of a guide, a slide adapted to reciprocate along said guide, a journaled tool holder carried by said slide and means for reciprocating said slide.

[Claims 6 and 7 not printed in the Gazette.]



1,090,299. BOLT-CUTTING MACHINE. ARTHUR M. HARRINGTON and ROBERT F. SCOTT, Philadelphia, Pa., assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,356. (Cl. 10—106.)



1. In a bolt cutting machine, a movable head having cutters, a passage for a cutter lubricant, a valve movable in said head for controlling said passage, and means whereby said valve is automatically operated to open said passage in the operative position of said cutters and to close said passage in the inoperative position of said cutters.

2. In a bolt cutting machine, mechanism comprising a reciprocating head, thread chasers movable in said head, a passage for supplying a lubricant to said chasers, means for reciprocating said chasers, a pin adapted to control said passage and lock said means in the operative position of said chasers, and means whereby said pin is automatically operated to release said means first named and close said passage.

3. In a bolt cutting machine, mechanism comprising guides, a head adapted to reciprocate along said guides, said head having a thread chaser, means for reciprocating said chaser, a passage for delivering a lubricant to said chaser, and locking mechanism comprising a pin intersecting said passage and adapted to engage said means, said pin simultaneously locking said means and opening said passage.

4. In a bolt cutting machine, a frame having guides, in combination with a head movable along said guides and provided with a thread cutter, means for reciprocating said cutter, a passage for delivering a lubricant to said cutter, mechanism comprising a pin having the function of a valve in controlling said passage so that the passage is open in the operative position of the cutter and closed in the inoperative position thereof, said pin locking said means when said passage is open, and mechanism for disengaging said pin from said means.

5. In a bolt cutting machine, a frame having guides, a cutter head having a passage, said head having a valve movable therein for controlling said passage, and means for automatically operating said valve mechanism.

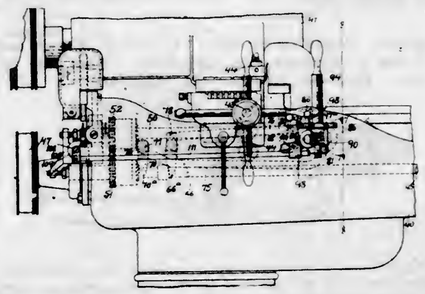
[Claims 6 to 8 not printed in the Gazette.]

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1,090,300. VARIABLE-SPEED MECHANISM FOR METAL-WORKING MACHINES. JAMES HARTNESS, Springfield, Vt. Filed Sept. 7, 1911. Serial No. 648,166. (Cl. 74—58.)

1. The combination with a driving element, a driven element, and variable speed power transmitting mechanism between said elements, comprising a plurality of trains of gears and devices for putting said trains in condition for operation, of a selector for positively actuating said devices in opposite directions and movable into several different positions to select for operation any certain train of gears.

2. The combination with a driving element, a driven element, and variable speed power transmitting mechanism between said elements, comprising a plurality of trains of gears and gear-controlling members for putting said trains in condition for operation, of independent actuators connected to said members and adapted to be operated simultaneously, and a selector movable with respect to said actuators for simultaneously positioning said actuators.



3. The combination with a driving element, a driven element, and variable speed power transmitting mechanism between said elements comprising a plurality of trains of gears and members for putting said trains in condition for operation, of actuators connected to said members, and a selector for engaging and operating said actuators, said actuators and selector having coacting cam faces.

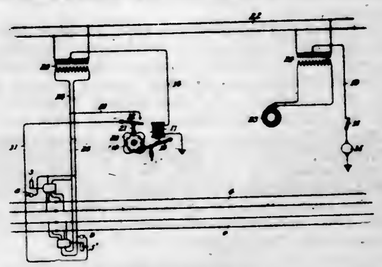
4. The combination with a driving element, a driven element, and variable speed power transmitting mechanism between said elements comprising a plurality of trains of gears and members for putting said trains in condition for operation, of actuators connected to said members and each having faces of varying angularity, and a selector movable into successive registration with the corresponding faces of said actuators to operate said actuators.

5. The combination with a driving element, a driven element, and variable speed power transmitting mechanism between said elements comprising a plurality of trains of gears and members for putting said trains in condition for operation, of actuators connected to said members and arranged in parallelism, said actuators having corresponding faces, the faces on each actuator varying in angularity, a selector movable along said actuators into successive registration with the pairs of corresponding faces on said actuators, and means for actuating said selector in consequence of which its engagement with said faces moves said actuators and thereby said members.

[Claims 6 to 26 not printed in the Gazette.]

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1,090,301. CONTROL OF SIGNAL-LAMPS. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Nov. 20, 1911. Serial No. 661,411. (Cl. 246—30.)

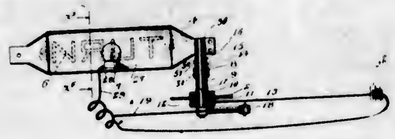


In railway signaling, a transmission line, transformers distributed along the line for supplying the signaling apparatus with current, electric lamps for the signals, means for connecting and disconnecting each lamp to

and from the secondary of an adjacent transformer, and a control circuit for said means including the conductors of the transmission line and a controlling device located at a distant point.

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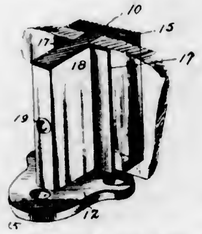
1,090,302. VEHICLE-SIGNAL. JOSEPH B. HAWKS and HOMER R. KENNEDY, Los Angeles, Cal. Filed July 17, 1912. Serial No. 710,072. (Cl. 177—311.)



A vehicle signal comprising a vertical tube, upper and lower nuts, a shaft, mounted in the tube, having an arm secured to its lower end, a spring surrounding the shaft and having its ends secured to the tube and shaft respectively, a pedal having an arm, a flexible connection between said arm of the shaft and said arm of the pedal, a contact arm secured to the tube, a semaphore of conducting material secured to the upper end of the shaft and adapted to contact with said contact arm, an electric lamp within the semaphore, having terminals, one of which is electrically connected to the semaphore, a battery, a wire connected at one end with the battery and at the other end to the lower nut, and a second wire connected at one end to the battery and at the other end to the other terminal of the lamp.

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1,090,303. SASH-BAR. GEORGE CONRAD HESTER, Portland, Oreg. Filed Sept. 8, 1909. Serial No. 516,770. (Cl. 189—78.)



1. A sash bar comprising a core, lugs projecting therefrom at intervals, blocks carrying the lugs engaging dovetail slots in the core, and a channel bar fitting over one edge of the core and engaging said lugs.

2. A sash bar comprising a core, a channel bar fitted over one edge of the core and a slotted angle foot piece receiving the end of the core and received by the end of the channel bar.

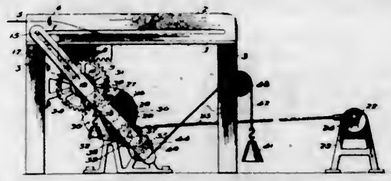
3. A sash bar comprising a core, an angle foot piece slotted to receive said core, a channel bar inclosing a portion of the core, and one member of said foot piece, and a second channel bar inclosing another portion of the core, and extending to the other member of said foot piece.

4. A sash bar comprising a core, an angle foot piece having its two members slotted, said members being, respectively, vertical and horizontal, the vertical member being bifurcated by the slot, the core being received by said slot, a channel bar inclosing a portion of the core and the vertical member of the foot piece, and a second channel bar inclosing another portion of the core and extending to the other member of the foot piece.

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1,090,304. PAPER-FOLDING MACHINE. FRANK P. HILDEBRANDT, Saugerties, N. Y. Filed May 20, 1913. Serial No. 768,826. (Cl. 101—46.)

1. A machine as described including a feeding device, a reciprocating device, an oscillatable device having operative means co-acting with said reciprocating device to receive the paper in folds, and adapted to roll said folded paper at predetermined intervals.



2. The combination with a device for feeding a strip of paper, of a reciprocating carrier, and an oscillatable device having operative means suspended within said carrier for rolling the folded paper from the carrier.

3. A machine as described including a feeding device for a strip of paper, a reciprocating carrier formed with a depression in its upper face and adapted to receive said paper in folds, and an apron located in said depression adapted to roll the folded paper from said carrier.

4. The combination with a device for feeding a strip of paper, of a carrier having a depression in its upper surface and adapted to receive the paper in folds, an apron suspended in said depression, a roller, and means for bodily moving the roller to wind the apron thereon to roll the folded paper.

5. The combination with a device for feeding a strip of paper, of a carrier having a depression in its upper surface and adapted to receive the paper in folds, an apron suspended in said depression, a roller, and a pair of oscillatable arms for bodily moving the roller to wind the apron thereon to roll the folded paper.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,305. SLIDING-DOOR LOCK. PETER L. HOFFMAN, Aurora, Ill., assignor to The Richards-Wilcox Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed July 31, 1912. Serial No. 712,384. (Cl. 70—31.)



1. A lock comprising an outer casing having apertures in its side walls and face plate, a case pivotally mounted in said casing, a hook-shaped bolt carried by said case and adapted to be projected through one of the openings in the face-plate, and means for holding said case against forward pivotal movement, said means comprising a pin slidably and yieldably mounted in said casing and adapted to be projected through the other opening in said face plate.

2. A lock comprising an outer casing having openings in its face-plate, a case pivotally mounted in said casing and accessible and adaptable for manual operation, a hook-shaped bolt carried by said case and adapted to be projected through one of the openings in the face plate, and a pin slidably mounted in said casing and adapted to be projected through the other opening in said face-plate, said pin and case having engaging portions whereby the case will be held against pivotal movement when the pin is projected, and released when the pin is retracted.

3. A lock comprising a casing having hand receiving apertures in its side walls, and bolt and pin openings in its face plate, a case mounted to swing within said casing, a bolt carried by said case and adapted to be projected from and retracted within the walls of said casing, and means for holding said case against swinging movements, said means comprising a pin adapted to be projected through one of the openings in said plate, and to be retracted by contact with a strike-plate, said pin and case having engaging members.

4. A lock comprising a casing having hand-receiving apertures in its side walls, and bolt and pin receiving openings in its face plate, a case pivotally mounted in said casing, a bolt carried by said case and adapted to be projected from and retracted within said casing by the movements of said case, key-operable means mounted in said case for holding it in locked position, and automatically operable means for holding said case in unlocked position, said automatic means operated by contact between said lock and a strike-plate.

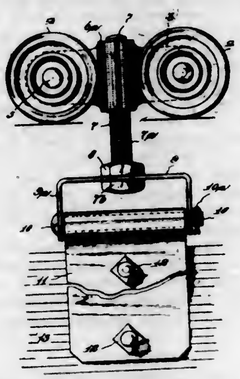
5. A lock comprising a casing having apertures in its side walls, a case pivotally mounted in said casing and accessible through said apertures, a bolt carried and operated by the movements of said case, a pin slidably and yieldingly mounted in and adapted to be projected from, said casing, interengaging means on said pin and case whereby the case will be held against pivotal movement in one direction, and means on said casing for limiting the pivotal movement of said case in the opposite direction.

[Claim 6 not printed in the Gazette.]



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1,090,306. DOOR-HANGER. PETER L. HOFFMAN, Aurora, Ill., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed July 18, 1913. Serial No. 779,671. (Cl. 16—90.)



1. In a door-hanger, the combination of a wheel-carrying truck having a vertical threaded opening midway its wheel axles, a bolt mounted in said opening with its head downward, a link having pendant ears, and a transverse slot slidably engaged by said bolt, a pin extending through said ears and removably held therein, and an apron swingingly connected with said pin.

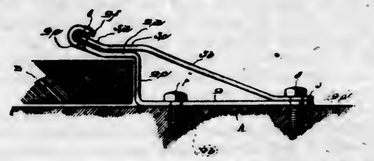
2. In a door-hanger, the combination of a one-piece cast metal wheel-carrying truck having a vertical threaded opening midway its wheel-axles, a link having pendant ears, and a transverse slot, a bolt slidably and non-rotatably arranged in said slot and adjustable in said threaded opening in the truck, a lock nut on said bolt adapted with the bolt head to clamp said link, an apron having a loop therein, and a pin detachably engaging said ears and loop.

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1,090,307. DOOR-BUMPER. PETER L. HOFFMAN, Aurora, Ill., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed July 18, 1913. Serial No. 779,672. (Cl. 16—89.)

1. A door-bumper comprising a base member adapted to be secured to its supporting structure and having an angular shoulder, and a brace member pivotally connected with one end of the base member and detachably connected with the other end, said brace member adapted to overlie the base member when in operative position.

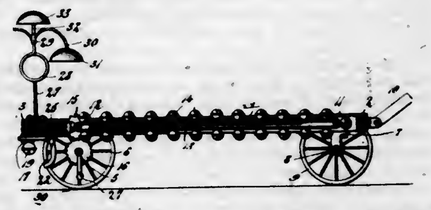
2. A door-bumper comprising a base member adapted to be secured to its supporting structure and having an angular shoulder and an outwardly flaring forward end, and a brace member pivotally connected with the forward end of the base member and adapted to overlie the base member when in operative position.



3. A door-bumper comprising a base member adapted to be secured to its supporting structure and bent to provide an angular shoulder, an outwardly flaring portion and a hook-shaped forward end, and a brace member pivotally connected to the hook-end of the base member, and adapted to overlie and be detachably connected at its rear end with said base member.

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1,090,308. PORTABLE WHEELED TOY. ROBERT HOLLINGWORTH, Hamilton, Ontario, Canada. Filed Aug. 27, 1912, Serial No. 717,327. Renewed Sept. 18, 1913. Serial No. 790,568. (Cl. 46—47.)

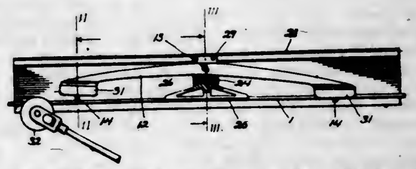


1. A toy comprising a wheeled frame, an endless belt carried thereby, means for moving the belt, sound producing devices carried by the belt, a flexible member carried by the frame and provided with sound producing devices, a vibrator connected with said flexible member and means operated by the belt driving means to operate said vibrator.

2. A sounding toy comprising a wheeled frame, spaced rollers carried thereby, an endless belt passing over the rollers, said frame including a driving axle, gearing between the driving axle and one of the rollers, sound producing devices carried by the belt, a flexible member, sound producing devices carried by said member, a vibrator supported by the frame and connected with the flexible member and means on the driving axle for operating the vibrator.

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1,090,309. ELECTRIC RAILWAY-SIGNAL. JOHN B. HOWELL, Leavenworth, Kans. Filed Aug. 30, 1910. Serial No. 579,758. (Cl. 246—54.)



1. A signal controller for electric trolley railways, comprising, in combination with the trolley wire, a supporting wire extending across and above the trolley wire, an insulating block mounted on said supporting wire, a lever fulcrum mounted on said block, a switch lever pivoted on said fulcrum above the trolley wire, said switch lever having at each end thereof a portion adapted to be ele-

vated by the passage of a trolley wheel therebeneath, an insulated contact device carried by each end of said lever, each of said devices being adapted to form electrical connection with the trolley wire when depressed, and flexible conductors connected to said contact devices respectively.

2. A signal controller for electric trolley railways, comprising, in combination with the trolley wire, a supporting wire extending across and above the trolley wire, an insulating block mounted on said supporting wire, a lever fulcrum mounuted on said block, a switch lever pivoted on said fulcrum above the trolley wire, said switch lever having at each end thereof a portion adapted to be elevated by the passage of a trolley wheel therebeneath, an insulated contact device carried by each end of said lever, each of said devices being adapted to form electrical connection with the trolley wire when depressed, flexible conductors connected to said contact devices respectivcly, and a housing inclosing the top and sides of the switch lever and secured to the lever fulcrum.

3. A signal controller for electric trolley railways, comprising, in combination with the trolley wire, a supporting wire extending across and above the trolley wire, an insulating block mounted on said supporting wire, a lever fulcrum mounted on said block, a switch lever pivoted on said fulcrum above the trolley wire, said switch lever having at each end thereof a portion adapted to be elevated by the passage of a trolley wheel therebeneath, an insulated contact device carried by each end of said lever, ea9ch of said devices being adapted to form electrical connection with the trolley wire when depressed, and flexible conductors connected to said contat devices respectively, either of said trolley-netuated portions being clear of a trolley wheel when in elevated position.

4. In combination, a trolley wire clamp, an insulating block mounted on said clamp, a lever fulcrum mounted on said block, a switch lever pivoted on said fulcrum above said clamp, tappet pieces secured to the ends of said lever, insulated trolley wire contact devices mounted on the lower sides of said tappet pieces, and flexible conductors connected to the respective contact devices.

5. A signal controller for electric trolley wires, comprising, in combination with the trolley-wire, a supporting wire extending across and above said trolley-wire, an insulating block mounted on said supporting-wire, a switch lever fulcrumed midway between its ends on said block, tappet pieces at the terminals of said switch-lever, said pieces having longitudinal grooves to alternately straddle the trolley-wire so that the trolley-wheel may alternately strike said tappet pieces and operate the lever, resilient contact fingers fixed in said grooves and adapted to alternately grip the trolley-wire, flexible conductors communicating with said fingers, and a housing to cover the switch-lever, substantially as described.

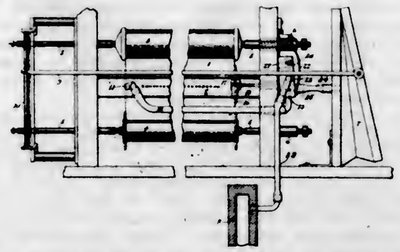
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1,090,310. TRACKING DEVICE. JOSEPH P. HULDER, New York, N. Y., assignor to Ludwig and Company, a Corporation of New York. Filed Mar. 29, 1912. Serial No. 687,057. (Cl. 84—161.)

1. In combination, a pneumatic having an exhaust port, a guide opening disposed under one edge of a note sheet and communicating with the pneumatic; an edge guide contacting with the opposite edge of the sheet; a valve operatively connected with the edge guide and controlling the exhaust port of the pneumatic; and means operated by the pneumatic for maintaining proper tracking relation between the note sheet and the tracker.

2. In combination, a note sheet; a guide opening located under one edge of the note sheet and partially covered thereby when the sheet is properly tracking; a laterally movable edge guide contacting with the opposite edge of the sheet; a pneumatic communicating with the guide opening and provided with an exhaust port; a valve operatively connected with the edge guide for controlling the effective cross sectional area of the exhaust port and equalizing it with the uncovered area of the guide opening; and means operated by the pneumatic for maintaining proper relation between note sheet and the tracker.

3. In combination with a traveling note sheet, and a tracker bar; a guide opening disposed in the path of and partially covered by one edge of the sheet when traveling accurately; a laterally movable edge guide contacting with the other edge of the sheet; and means for restoring normal relation between the tracker and the sheet upon any deflection of the latter, said means being governed by means which include the guide opening and the edge guide.

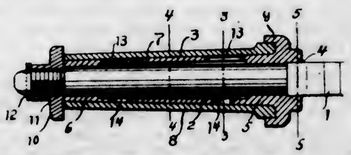


4. A tracking device for an instrument employing a traveling note sheet, comprising a guide opening, located under one edge of the note sheet and partially covered thereby when the sheet is properly tracking; a laterally movable edge guide contacting with the opposite edge of the sheet; a pneumatic communicating with the guide opening and provided with an exhaust port; exhaust apparatus communicating with the exhaust port of said pneumatic; a valve operatively connected with the edge guide for controlling the exhaust port adapted to be moved by the shifting of the sheet to gradually open or close said port, said valve being adjusted so that when the sheet is in normal position the effective cross sectional area of the exhaust port will be equal to the uncovered area of the guide opening, and that when the sheet shifts, the area of the exhaust port will be increased or decreased in inverse ratio to the decrease or increase of the uncovered area of the guide opening, thereby varying the air tension in the pneumatic; and means operative upon a variation of the air tension in the pneumatic to restore the sheet to normal position.

5. In a tracking device the combination of an edge guide, an expanding spring for drawing and holding the edge guide away from the sheet, and a pneumatic for compressing the spring during the tracking operation to permit the edge guide to contact with the edge of the sheet.

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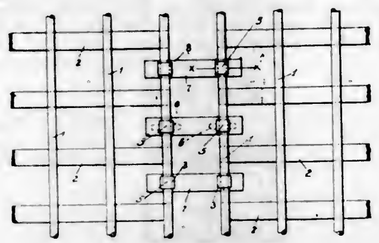
1,090,311. AXLE CONSTRUCTION. OTTO KUEPFER, Canton, Ohio, assignor to Cleveland Axle Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed July 5, 1913. Serial No. 777,424. (Cl. 21—4.)



An axle consiating of a main body portion, a spindle and screw threaded portion, the body portion formed angular in cross section, a skein provided with an angular socket adapted to receive a portion of the axle body adjacent the spindle, said skein formed of a length corresponding substantially with the length of the spindle and provided with spindle bearings at its opposite ends and elongated slots located upon the top or upper side of the skein and apertures upon the under side of the skein, and the inner surface of the skein spaced from the axle intermediate the spindle bearings and a nut located upon the screw threaded portion of the spindle and adapted to abut against the outer end of the skein, and a groove located between the outer end portion of the spindle and the screw threads of the screw threaded portion of the spindle.



1,090,312. METALLIC STRUCTURE. MAURICE LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed Jan. 26, 1909. Serial No. 474,266. (Cl. 72—110.)



1. A metallic fabric comprising individual sections, each made up of intersecting members, fastening clips electrically welded to the end members of each section, and a coupling bar extending between the clips of adjoining sections, said clips having their free ends attached to said coupling bar.

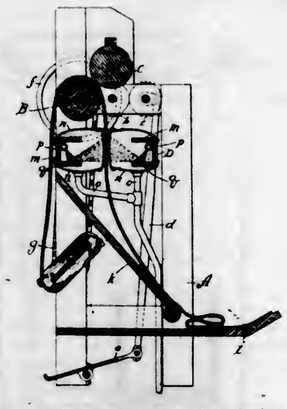
2. In a metal fabric, the combination with a number of sections of fabric consisting of intersecting members, of clips electrically welded to the end members of each section and connecting bars secured to adjoining sections by said clips.

3. In a metal fabric, the combination with a number of sections of fabric consisting of intersecting members, of clips electrically welded to the end members of each section and coupling bars joining the sections together, said clips being provided with means for fastening them to said coupling bars.

4. In a metallic fabric, the combination with a number of sections of fabric consisting of intersecting members, of clips electrically welded to the end members of each section, connecting rods or bars provided with openings therein, and free ends secured to said clips adapted to be clamped to said connecting bars through said openings.

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1,090,313. APPARATUS FOR SPONGING CLOTHS. BENJAMIN LAPIN, Baltimore, Md. Filed Mar. 25, 1913. Serial No. 756,813. (Cl. 26—7.)

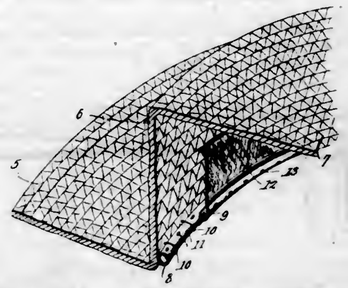


1. In a cloth moistening or sponging device, a cloth support, feed rolls through which the cloth passes, a support for the moistened cloth, and an intermediate moistening device for spraying opposite sides of the cloth, comprising spraying devices arranged facing each other with a space between for the passage of the cloth and protecting and draining casings for the spraying devices, substantially as described.

2. In combination a cloth support, feed rolls, a support for the moistened cloth, and an intermediate moistening device consisting of troughs set on edge and facing each other with a space between for the passage of the cloth, water pipes within the troughs, the water from the pipes being directed against a horizontal surface and directed thereby against the cloth, and means for carrying off the drainage, substantially as described.

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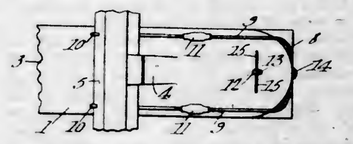
1,090,314. HAT-CUSHION. WILLIAM LEVY and JULIUS LEVY, Baltimore, Md. Filed Nov. 19, 1912. Serial No. 732,324. (Cl. 2—114.)



A device of the character described, comprising an elastic cushion secured to the interior of a hat at the junction of the rim and crown, a water-proof strip secured in the same place and extending partially around the inner surface of said cushion and upward into the hat, and an inner band wider than the strip covering said strip and located between said strip and the head of the wearer and extending upward into the hat higher than said strip, said cushion and band being perforated.

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1,090,315. RAIL TIE AND FASTENER. STEPHEN M. LEWIS, Argenta, Ark. Filed May 13, 1913. Serial No. 767,411. (Cl. 238—4.)



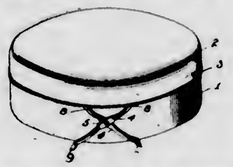
A rail tie and fastener, including a tie each end of which is provided with a transversely disposed groove, a rail brace attached to the upper face thereof adjacent each end, a tying member substantially U-shaped in elevation and having hooked terminals to engage the inner edge of the rail base with the junction portion fitted within the end groove of the tie to hold the rail base seated against the rail brace, the tie being provided with a bore leading inclinedly upward from the groove through the upper face of the tie, and a piece of wire bent upon itself and threaded through the bore, the free terminals being bent outwardly and astride the tie and the other doubled end being bent downwardly to hold the tying member seated in the groove.

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1,090,316. BOX-OPENER. PHILIP LIBONATI, New York, N. Y. Filed Nov. 26, 1912. Serial No. 733,660. (Cl. 220—6.)

A box opener comprising two levers having enlarged and flattened portions pivotally connected to the body of the box underneath the cover, said levers being curved to con-

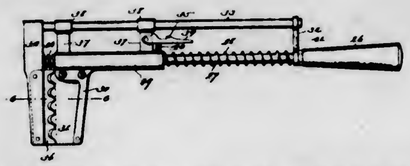
form to the contour of the box, said levers each having a rounded bearing portion to engage the lower edge of the box cover and a lip extending beyond the bearing portion



to engage the outer edge of the flange of the box cover, said levers each having an outwardly projecting finger-hold.

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1,090,317. DECAPITATING INSTRUMENT. CARL H. LINDSTROM, Milltown, N. J. Filed Apr. 22, 1913. Serial No. 762,882. (Cl. 17—30.)



1. A device of the kind described comprising a shank having a channeled and a handle portion, a cutting instrument also provided with a handle portion, and slidable parallel to said shank, means carried by the cutting instrument slidable upon said channeled portion of the shank, a cushion adapted to be engaged by the cutting instrument, and a spring adapted to draw said cutting instrument into engagement with said cushion.

2. A device of the kind described comprising a shank, a handle connected thereto, an arm at right angles to said shank, a spring pressed cushion carried by said arm, a cutting instrument having a handle, plates carried by said cutting instrument and slidable upon opposite sides of said shank, a second set of plates carried by the handle portion of the cutting instrument and overlapping said shank, a spring connected at one end to the arm and at the other end to the second mentioned plates, and a tripping device also carried by the second mentioned plates.

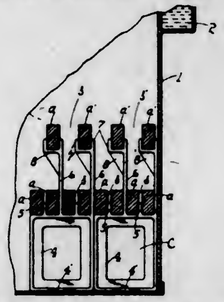
3. A device of the kind described comprising a handle, a channeled shank, a bracket carried by said shank, the bracket having an opening in the end adjacent the handle, and extending across the other end of the shank thereby forming an arm, a cushioned cap carried by said arm, a cutting instrument slidable along the channel of the shank, plates carried by the cutting instrument extending transversely across said shank, a spring connected at one end to the bracket and at the other end to said plates, a trigger pivoted between said pair of plates and adapted to enter the opening in said bracket, a spring engaging said trigger, and a lug on the trigger adapted to engage the bracket.

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1,090,318. GRID FOR PURIFIER-BOXES. ARCHIBALD S. B. LITTLE, Nashville, Tenn. Filed Oct. 24, 1913. Serial No. 797,094. (Cl. 48—139.)

1. A grid-support comprising a member having a top surface for the deposit of suitable grid-members, tongues projecting from said surface for spacing apart the members so deposited, extensions leading upward from the member and terminating at points above the depositing surface aforesaid, and serving to support complementary grid-members.

2. A grid-support comprising a member having a top surface for the deposit of suitable grid-members, tongues projecting from said surface for spacing apart the members so deposited, extensions leading upward from the member and terminating at points above the depositing surface aforesaid and serving to support complementary grid members, the spacing between the latter being in excess of the spacing between the bottom grid-members.



3. A grid for purifier-boxes comprising a series of parallel grid members disposed at fixed distances apart, means for supporting said members at a given elevation above the bottom of the box, and a complementary series of parallel grid members carried by the same supporting means and disposed in a plane above the first set of grid members.

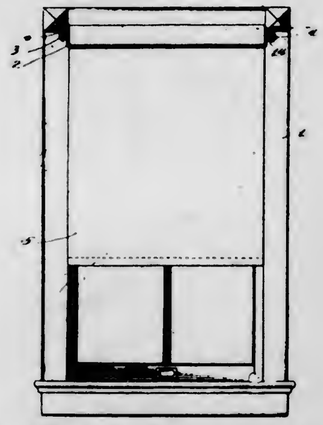
4. A grid-support comprising a member or casting having a top surface for the deposit of suitable grid-members, tongues projecting from said surface for spacing apart the members so deposited, extensions leading upward from the casting and terminating in a plane above the plane of the depositing surface aforesaid, pockets terminating the said extensions for the support of complementary grid-members, the spacing between contiguous pockets being in excess of the spacing between consecutive members forming the lower grid, whereby a coarse upper grid is formed by the members supported in the pockets.

5. A composite grid for purifier-boxes comprising a bottom grid having grid members spaced fixed distances apart and disposed in vertically staggered relation whereby a portion of the members is disposed at a higher level than another portion, and a coarse upper grid having grid members spaced at greater distances apart.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,319. WINDOW-SHADE BRACKET. THOMAS L. LOFLAND, Kansas City, Kans. Filed Nov. 9, 1909, Serial No. 526,985. Renewed Nov. 10, 1913. Serial No. 800,227. (Cl. 156—24.)

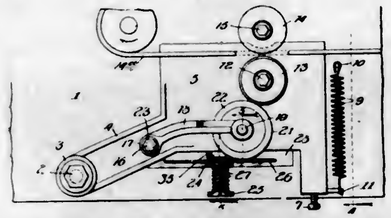


A window shade bracket member made from a single length of wire having a gimlet-pointed shank, said shank terminating at its outer end in a series of spiral coils, said coils being disposed toward the roller and below the horizontal plane of the shank, said coils separated one from the other to form a spring thrust bearing for the roller, the terminal coil bearing against the end of the shade roller to form a frictional brake for the latter, said coils serving as a finger hold for screwing the bracket into the window casing, and said shank provided with a mark to indicate the distance in which said shank may be inserted in the casing in order that the brackets will support the roller in proper alinement.

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1,090,320. LIQUID-DISTRIBUTING DEVICE. PATRICK J. MADIGAN, Chicago, Ill. Filed June 21, 1913. Serial No. 775,051. (Cl. 101—71.)



1. An inking device comprising an ink container, a rotary disk mounted upon a substantially horizontal axis, an absorbent member having its lower end arranged to extend into an ink supply in said container, a spring for pressing the upper portion thereof against the face of said disk, a distributing roller having a substantially vertical axis, the periphery of said roller being in frictional contact with the face of said disk, a rotary printing member having its periphery in contact with that of said distributing roller and means for rotating said printing member.

2. A device of the character specified, comprising a rotary marking die, an ink roller in frictional contact therewith, a disk mounted upon an axis at right angles to that of said roller, means for yieldingly pressing one face of said disk against the periphery of said ink-roller, an ink-well and means for conveying ink therefrom to the face of said disk.

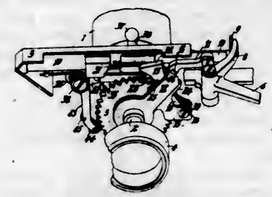
3. A device of the character specified, comprising a rotary marking die, an ink-roller in operative contact therewith, a disk journaled upon an axis at right angles to that of said roller, means for yieldingly pressing one face of said disk against the periphery of said ink-roller, an ink-reservoir, an absorbent member arranged to extend into the ink within said reservoir and means for yieldingly pressing the upper part of said absorbent member into contact with the distributing face of said disk.

4. A device of the character specified, comprising a rotary marking die, an ink roller in peripheral contact therewith, said die and roller being mounted upon vertical axes, a disk mounted upon a horizontal axis, said disk having one face in contact with the periphery of said ink-roller, a spring for pressing said disk against said roller, an ink-reservoir, an absorbent member suspended to contact with the ink therein and means for yieldingly holding the upper portion of said absorbent member in contact with that face of said disk which is adapted to engage with said ink-roller.

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1,090,321. TYPE-WRITING MACHINE. JOHN C. MCLAUGHLIN, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 8, 1910. Serial No. 591,270. (Cl. 197—114.)

1. A line-spacing mechanism, comprising the combination of a ratchet wheel, a carrier mounted to rotate on a pivot concentric with the ratchet wheel, a pawl pivotally mounted on said carrier, means for forcing the pawl into engagement with the ratchet wheel, and means mounted on the pivot of the ratchet wheel for turning the pawl carrier around its pivot with the pawl.



2. A line-spacing mechanism, comprising the combination of a ratchet wheel, a carrier mounted to rotate on a pivot concentric with the ratchet wheel, a pawl pivotally mounted on said carrier, means for forcing the pawl into engagement with the ratchet wheel, and means mounted on the pivot of the ratchet wheel and engaging the pawl to move the pawl and with it the pawl carrier and ratchet wheel around the pivot of the latter.

3. A line-spacing mechanism, comprising the combination of a ratchet wheel, a carrier mounted to rotate on a pivot concentric with the ratchet wheel, a pawl pivotally mounted on the carrier and shaped to form a wedge, and means for engaging the wedge to move the pawl with the ratchet wheel while forcing the pawl against the ratchet wheel.

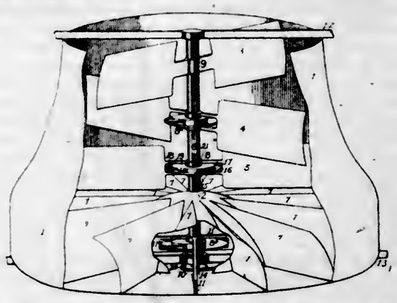
4. A line-spacing mechanism, comprising the combination of a ratchet wheel, a carrier mounted to rotate on a pivot concentric with the ratchet wheel, a pawl pivotally mounted on the carrier and formed with a wedge surface, and an actuating device engaging the pawl to give the pawl a preliminary movement independent of the ratchet wheel and thereafter engaging the wedge surface on the pawl to move the pawl with the ratchet wheel while forcing the pawl against the ratchet wheel.

5. A line-spacing mechanism, comprising the combination of a ratchet wheel, a pawl carrier, a pawl pivotally mounted thereon and formed with a wedge surface, and an actuating device engaging the pawl to give the pawl a preliminary movement independent of the ratchet wheel and thereafter engaging the wedge surface on the pawl to move the pawl with the ratchet wheel while forcing the pawl against the ratchet wheel.

[Claims 6 to 26 not printed in the Gazette.]

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1,090,322. CENTRIFUGAL AEROCYCLE. ROBERT J. MCLAUGHLIN, New York, N. Y. Filed May 5, 1913. Serial No. 765,600. (Cl. 244—18.)



1. In a centrifugal bell shaped vessel a series of blades geared together revolving in the same direction around the axis of the machine with regularly graduated increasing velocities, said blades being vertically disposed with their upper parts curving in the direction of revolution and their lower parts inclining vertically downward.

2. In a centrifugal vessel with a lesser circular opening above, and a greater circular opening below, and a

deflecting wall sloping from the lesser to the greater opening, a series of blades geared together revolving in the same direction around the axis of the machine with regularly graduated increasing velocities, said blades being vertically disposed with their upper parts curving in the direction of revolution and their lower parts inclining vertically downward, directly imparting a horizontal rotation, and indirectly imparting both a vertical deflection to the air against the inner sloping wall of the vessel, and a resultant spiral movement to the air, and indirectly exciting a partial vacuum around the axis of the vessel, and thereby inducing a vertical suction of air into the vessel from above.

3. In a centrifugal deflecting vessel a series of blades geared together revolving in the same direction around a stationary shaft with regularly graduated increasing velocities driven by a shaft revolving in the said stationary shaft and carrying cog wheels which gear into pinions attached to the said stationary axis shaft and transmit to the said blades regularly graduated increasing velocities.

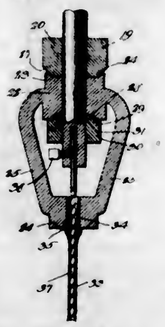
4. In a centrifugal aerocycle a bell shaped vessel, a series of blades revolving around the vertical axis of said bell shaped vessel, a gearing device between said vessel and said blades, the said blades tending to accelerate the revolution of the bell shaped vessel by the adhesion of the revolving air to the inner wall of the vessel by virtue of skin friction, and through the gearing device common to the said blades and the bell shaped vessel, receiving back the tendency to acceleration of the bell shaped vessel in a reciprocal manner so that the retardation of the blades by skin friction is in part counteracted.

5. The combination with a centrifugal bell shaped vessel and with a series of blades revolving horizontally around the axis of the said bell shaped vessel, of a series of curving vanes set in the lower part of the said bell shaped vessel, radially disposed, presenting their concave surfaces to a current of air descending spirally by virtue of the resultant motion of the air developed by the action of the said blades in revolving the air horizontally, and by the action of the said bell shaped vessel in deflecting the air vertically downward; said curving vanes having their upper parts nearly normal to the said descending current of air, which upon entering against the said vanes spirally, is deflected and discharged vertically, thereby imparting a vertical thrust and a rotary movement to the said vessel; said vanes having their lower parts curved backward from the direction of revolution, and having their convex surfaces facing the direction of revolution.

[Claims 6 to 11 not printed in the Gazette.]

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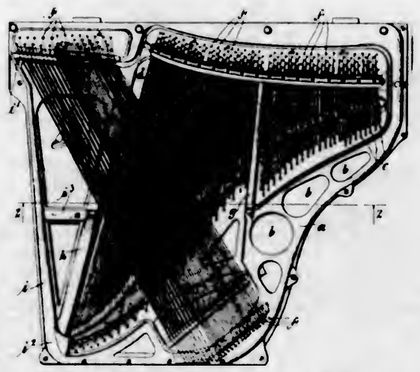
1,090,323. MORTISING-MACHINE. WILLIAM W. McMURTRY, New Castle, Pa. Filed July 8, 1912. Serial No. 708,299. (Cl. 144—78.)



In a device of the class described, a carrying member comprising primary and secondary heads, and a connection between the heads, the primary head having an opening and being provided in its ends with recesses concentric with the opening; a mortising chisel mounted in the secondary head and disposed concentrically with respect to the opening in the primary head; a shaft located in the opening in the primary head and a bit held in the end of the shaft and projecting into the chisel, the bit-receiving end of the shaft being of the same diameter as the body portion of the shaft, whereby the primary head may be slid onto the bit-receiving end of the shaft; clamping collars detachably secured to the shaft and journaled in the recesses of the primary head, thereby to center the bit in the chisel, the collars constituting the sole means for supporting the carrying member on the shaft, and serving to afford bearing areas.

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1,090,324. PIANO-PLATE FOR UPRIGHT PIANOS. CHARLES MEHLIN, Fort Lee, N. J. Filed Jan. 4, 1913. Serial No. 740,114. (Cl. 84—144.)



1. A string plate for over-strung upright pianos, comprising an upper, lower, and side portions, and two intermediate brace-bars only, said bars extending between the upper and lower portions and disposed at the opposite sides of the middle strings, one of said bars being parallel to the treble strings and shorter side portion, and the other said bar being substantially parallel to the middle strings and at a considerable angle to the other side portion, the space between the two said bars being open and unbridged, and means for attaching the over-strung strings at an angle to the second side portion.

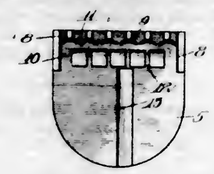
2. A string plate for over-strung upright pianos, comprising an upper, lower, and side portions, and two intermediate brace bars only, said bars extending between the upper and lower portions and disposed at the opposite sides of the middle strings, one of said bars being parallel to the treble strings and shorter side portion, and the other said bar being substantially parallel to the middle strings and at a considerable angle to the other side portion, the space between the two said bars being open and unbridged, means for attaching the over-strung strings at an angle to the second side portion, and a transverse bar extending between said second side portion and the adjacent brace bar.

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1,090,325. VENTILATOR. JOSEPH T. MERCIER, Chicago, Ill. Filed Feb. 15, 1912. Serial No. 677,724. (Cl. 98—22.)

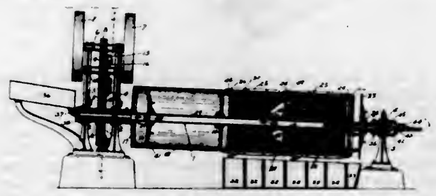
1. In a ventilator of the class described, the combination of a frame work comprising two side plates, a series of upper slats and a series of lower slats secured to said plates, said slats being arranged in offset relation to one another, a plate rigidly secured to said side plates at approximately the center thereof, said rigidly secured plate extending outwardly from said slats and from a point immediately below said slats to the outer end of the side plates, substantially as described.

2. In a ventilator of the class described, the combination of a frame work comprising two side plates, a series of upper slats and a series of lower slats secured to said plates, said slats being arranged in offset relation to one another, the lower of said slats being straight faced and the upper of said slats being of convex formation in cross section, a plate rigidly secured to said side plates at approximately the center thereof, said plate extending outwardly from said slats and from a point immediately below said slats to the lower edge of the side plates, substantially as described.



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1,090,326. ORE-CLASSIFIER. CHARLES O. MICHAELSEN, Omaha, Nebr. Filed June 25, 1912. Serial No. 705,858. (Cl. 83—56.)



1. In a machine of the class described, a revoluble shaft, a cylinder mounted thereon and having an open end, cylindrical screens forming a continuation of the cylinder beyond the open end thereof, means for feeding water and the material to be screened into the cylinder, and means for distributing water onto materials which have passed across a portion of the screens, said means comprising a pair of conical members slidable on the shaft and having an annular opening between them.

2. In a machine of the class described, a revoluble shaft, a cylindrical screen mounted thereon concentrically therewith, means for feeding water and materials to be screened into one end of the cylindrical screen, and means for distributing water onto materials which have passed over a part of the screen, said means comprising a conical member secured upon the shaft and extending adjacent to the screen surface, and means for supplying water upon the inner surface of said conical member.

3. In a machine of the class described, a revoluble shaft, rings slidably mounted thereon, means forming annular channels in the adjacent sides of the rings, and screen-frames having end-portions adapted to enter said channels, and removable therefrom by movement longitudinally of the shaft.

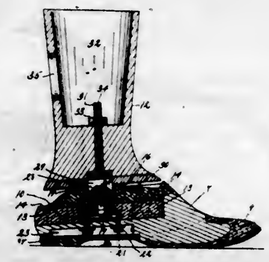
4. In a machine of the class described, a cylindrical screen comprising series of rectangular transversely curved integral screen-frames, means for holding said frames with the longitudinal edges thereof in contact, lugs at the inner longitudinal edges of the frames, said lugs having longitudinally extending channels therein, and screens having their longitudinal edges slidably disposed in said channels.

5. In a machine of the class described, a tubular revoluble shaft, a cylindrical screen mounted upon the shaft, means for feeding materials onto the screen, means for admitting water into the tubular shaft, the shaft having ports for the discharge of the water therefrom, and hollow cones slidably disposed on the shaft at each side of the ports and having an annular opening between them, one cone extending into proximity to the screen for the purpose set forth.

[Claim 6 not printed in the Gazette.]



1,090,327. ARTIFICIAL LIMB. GEORGE R. E. MILLIGAN, Los Angeles, Cal. Filed Aug. 18, 1913. Serial No. 785,398. (Cl. 3—3.)



1. An artificial limb comprising a foot portion, a leg portion, cushioning means interposed between the foot portion and the leg portion, and an ankle joint passing through the cushioning means and consisting of a comparatively long pin arranged in the lower part of the cushioning means in longitudinal relation to the foot portion, vertical bolts provided with flattened upper end portions in which the end portions of the pin are mounted, said bolts passing through and secured on the underside of the foot portion, a U-shaped link having the lower portions of the legs thereof enlarged and pivotally mounted on the pin adjacent to the upper end portions of the bolts, said lower portions being formed with curved shoulders thereon, cheek plates disposed adjacent to opposite sides of the U-shaped link and having the upper portions thereof slidably mounted in the lower part of the leg portion, said cheek plates having the lower ends thereof rounded and adapted to contact with said shoulders, a round bar movably arranged between said legs and connected to the cheek plates, and a stem connected with the cheek plates and secured to the leg portion, said stem provided with an oil duct therethrough, substantially as described.

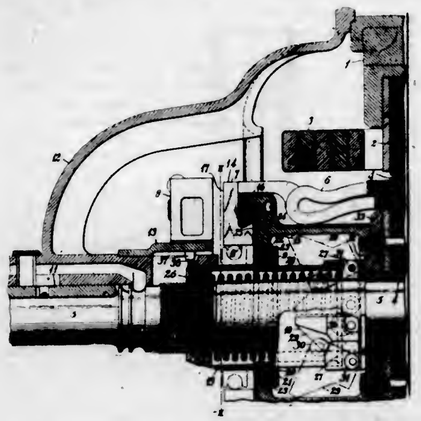
2. An improved artificial limb comprising a foot portion, a leg portion, cushioning means consisting of a block of rubber resting on the foot portion, a block of compressed felt secured fast on the top of the block of rubber and formed with a raised portion on which the leg portion normally rests and with downwardly inclined portions at the front and to the rear of the raised portion, and an ankle joint passing through the cushioning means and consisting of a comparatively long pin arranged in the lower part of the cushioning means in longitudinal relation to the foot portion, vertical bolts provided with flattened upper end portions in which the end portions of the pin are mounted, said bolts passing through and secured on the underside of the foot portion, a U-shaped link having the lower portions of the legs thereof enlarged and pivotally mounted on the pin adjacent to the upper end portions of the bolts, said lower portions being formed with curved shoulders thereon, cheek plates disposed adjacent to opposite sides of the U-shaped link and having the upper portions thereof slidably mounted in the lower part of the leg portion, said cheek plates having the lower ends thereof rounded and adapted to contact with said shoulders, a round bar movably arranged between said legs and connected to the cheek plates, and a stem connected with the cheek plates and secured to the leg portion, said stem provided with an oil duct therethrough, substantially as described.

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1,090,328. SINGLE-PHASE MOTOR. CHESTER B. MILLS, East McKeesport, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed May 27, 1912. Serial No. 700,016. (Cl. 171—279.)

1. A short-circuiting device for electrical apparatus comprising a garter spring having a shunt comprising a

tubular member of low-resistance conducting material inclosed within it.



2. A short-circuiting device for electrical apparatus comprising a ring having a circumferential groove, a garter spring disposed in the groove and having a shunt comprising a braided member of low-resistance conducting material inclosed within it.

3. A dynamo-electric machine comprising a commutator cylinder, a ring having an annular groove, a garter spring located in the groove and interposed between the ring and the cylinder and a relatively low-resistance short circuiting shunt comprising a braided tubular member inclosed within the garter spring.

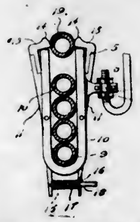
4. In a dynamo-electric machine, the combination with a commutator cylinder, a relatively stationary member insulated therefrom and having a cylindrical surface forming a continuation of the surface of the commutator, of a short-circuiting device comprising a ring having an annular groove, a helical spring bent into the form of a ring and disposed in the annular groove between the ring and the cylindrical surface adjacent to the commutator cylinder, and automatic means comprising a pivotally mounted weighted member dependent upon the speed of the machine for so adjusting the short-circuiting device as to move the spring into engagement with the commutator cylinder.

5. A short-circuiting device for electrical apparatus comprising a garter spring and an expansible conducting shunt comprising a braided tubular member inclosed within it.

[Claims 6 to 8 not printed in the Gazette.]

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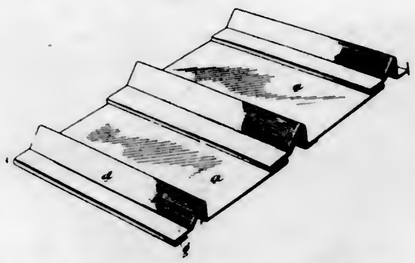
1,090,329. BOW-REST FOR AUTOMOBILES. MARTIN J. MOLITOR and MATHIAS BRITZ, Zions, Minn.; said Molitor assignor to Peter M. Britz and James S. Britz, Roscoe, Minn. Filed Apr. 4, 1913. Serial No. 758,861. (Cl. 21—61.)



A bow rest comprising a U-shaped channel frame, holding members pivoted in the channels of the arms of the frame, inwardly directed lateral extensions at the upper extremities of the holding members, the lower ends of the holding members being extended past the frame and a pin pivoted to one of the holding members and passed through the other member, an expansible spring surrounding the pin and engaging the ends of the members for resiliently forcing said ends apart and a shoulder formed on the pin for engagement with an adjacent holding member to hold the members in closed relation.

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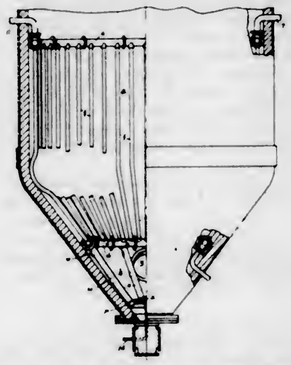
1,090,330. SHEET-METAL ROOFING-PLATE. HENRY E. MOOMAW, Chattanooga, Tenn. Filed Jan. 2, 1913. Serial No. 739,779. (Cl. 108—22.)



A sheet metal roofing plate having an upstanding ridge extending along near one of its longitudinal edges, a portion of the plate outside of this ridge being folded under to form a hook like pocket or channel which opens toward said ridge, a second ridge similarly dimensioned and shaped formed along the plate near its other longitudinal edge, the portion of the plate outside this latter ridge forming a nailing flange, and a longitudinal rebent portion folded down at the junction of the plate and the base of the last named ridge to form a longitudinal pocket or channel which opens toward the first mentioned ridge, the walls of the ridges on the opposite sides from the pockets and channels and the hooks respectively being at substantially right angles to the body of the plate, whereby the interlocking parts of the sheets cannot be unfastened by expansion of the body-portion.

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1,090,331. HEATING MEANS FOR VERTICAL DIGESTERS. CHARLES W. MORDEN, Portland, Oreg. Filed June 5, 1912. Serial No. 701,033. (Cl. 92—7.)



1. The combination in a digester, of two heater units supported one above the other; the lower heater unit comprising a hollow base and a plurality of upwardly extending pipes affixed on such base, said pipes opening into the base at their lower ends and being closed at their upper ends; the upper heater unit comprising upper and lower hollow rings; upwardly extending pipes connecting said rings; an inlet and an outlet, for the heating agent, for each heater unit; means for controlling the admission of the heating agent to said heater units; said controlling means comprising a reducing valve, a valve controlled bypass, and means for temporarily cutting out the reducing valve when the bypass is to be used; and an air relief for the heater units.

2. The combination in a digester, of two heater units supported one above the other; the lower heater unit comprising a hollow base and a plurality of upwardly extending pipes affixed on such base, said pipes opening into the base at their lower ends and being closed at their upper ends; the upper heater unit comprising upper and lower hollow rings; upwardly extending pipes connecting said rings; and an inlet and an outlet, for the heating agent, for each heater unit.

3. In a digester, a heater comprising upper and lower hollow rings, and upwardly extending pipes connecting said rings; pipes formed with an outwardly bent portion whereby the pipes of the heater are supported by the walls of the digester and spaced therefrom in greater part.

4. The combination in a digester, of two heater units supported one above the other; the lower heater unit comprising a hollow base and a plurality of upwardly extending pipes affixed on such base, said pipes opening into the base at their lower ends and being closed at their upper ends, the latter adapted for supporting the lower ring of the upper heater unit; the upper heater unit comprising upper and lower hollow rings, and upwardly extending pipes connecting said rings.

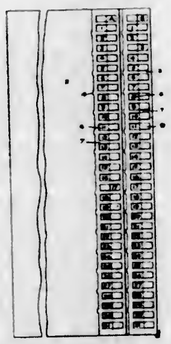
5. The combination in a digester, of two heater units supported one above the other; the lower heater unit comprising a hollow base and a plurality of upwardly extending pipes affixed on such base, said pipes opening into the base at their lower ends and being closed at their upper ends; the upper heater unit comprising upper and lower hollow rings, and upwardly extending pipes connecting said rings, said pipes formed to include a portion whereby they are supported by the walls of the digester and spaced therefrom in greater part.

[Claims 6 and 7 not printed in the Gazette.]



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1,090,332. FILE. LUCENA M. MORDEN, Waterbury, Conn. Filed Jan. 27, 1913. Serial No. 744,296. (Cl. 129—15.)



1. A file comprising a plurality of leaves each carrying alphabetical data and numerical data corresponding with the days of the month, and means for exposing any particular date of the numerical data to the exclusion of other dates.

2. A file comprising a plurality of leaves each carrying alphabetical data and numerical data corresponding with the days of the month located along the outer edge thereof from top to bottom, and means for exposing any particular date of the numerical data to the exclusion of other dates.

3. A file comprising a plurality of leaves each carrying alphabetical data and two columns of numerical data corresponding with the days of the month, and means for exposing any particular date of one of said columns to the exclusion of other dates of said column.

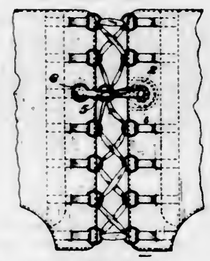
4. A file comprising a plurality of leaves each carrying alphabetical data and numerical data corresponding with the days of the month, and shiftable means for exposing any particular date of the numerical data to the exclusion of other dates.

5. A file comprising a plurality of leaves each carrying alphabetical data and numerical data corresponding with the days of the month and arranged in two columns, and shiftable means for exposing any particular date of the numerical data to the exclusion of other dates.

[Claims 6 to 25 not printed in the Gazette.]

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1,090,333. SHOE-LACING DEVICE. JOSEPH ONÉSIME NADEAU, Cochrane, Ontario, Canada. Filed May 10, 1912. Serial No. 696,399. (Cl. 24—140.)



1. In combination, a shoe upper, a rod revolubly mounted in one edge of said upper about midway between the top and bottom thereof, a spool of greater diameter than said rod and fixed thereto, a lacing threaded through eyelets of said upper above and below said rod, connections between the end of the upper lace section and said spool, and connections between the end of the lower lace section and said rod, and means for rotating said rod to tighten both lace sections simultaneously and at different rates.

2. In combination, a shoe upper, a rod revolubly mounted in one edge of said upper about midway between the top and bottom thereof, a lever handle secured to said rod and provided with a snap socket, a snap button carried by said shoe upper and coöperating with said socket, a spool of greater diameter than said rod and fixed thereto, a lacing threaded through eyelets of said upper above and below said rod, connections between the end of the upper lace section and said spool, connections between the end of the lower lace section and said rod, and means for rotating said rod to tighten both lace sections simultaneously at different rates.

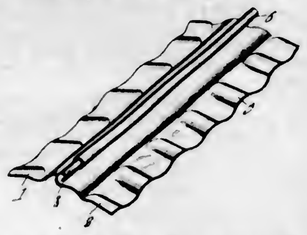
3. In combination, a shoe upper, a rod revolubly mounted between the layers of one edge of said upper about midway between the top and bottom thereof, a spool of greater diameter than said rod and fixed thereto, a U shaped spacing block seated in said upper and inclosing said rod and spool in a pocket formed thereby, a lacing threaded through eyelets of said upper above and below said rod, connections between the end of the upper lace section and said spool, connections between the end of the lower lace section and said rod, and means for rotating said rod.

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1,090,334. RIDGE-CAP. WILLIAM F. NORMAN, Nevada, Mo. Filed Apr. 1, 1912. Serial No. 687,886. (Cl. 108—24.)

A ridge cap embodying two anti-clinal leaves, the adjoining edge portions of which are curled to one side against one leaf, the curled portion of the said leaf fitting snugly within the curled portion of the other leaf, and terminating in a relatively small hook, the other curled portion terminating in a yieldable involute hook spaced from the aforesaid curled portion and entering the aforesaid hook, and the first mentioned hook working

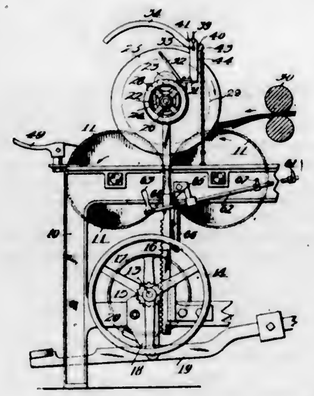
within the last mentioned hook to permit the leaves to have limited swinging movements with respect to each



other, and in order that when the leaves are spread, the hooks will tightly interlock.

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1,090,335. SAFETY DEVICE FOR LAP-MACHINES AND THE LIKE. JAMES J. O'MEARA, Fitchburg, Mass., assignor of one-seventh to William E. Keach and one-seventh to Robert A. Sprowson, Fitchburg, Mass., one-seventh to Edward W. Atkinson, Boston, Mass., one-seventh to Andrew W. Bell, one-seventh to Joseph D. Bell, and one-seventh to William A. Bell, Holyoke, Mass. Filed Nov. 21, 1912. Serial No. 732,632. (Cl. 19—8.)



1. In a machine of the character described, the combination with a frame, a pair of rotary supporting drums thereon adapted to carry a lap roll between them and a lap roll shaft, of a pair of brackets connected with the lap roll shaft to move up and down therewith, a shield pivotally supported by said brackets extending forwardly therefrom and adapted to swing up and down on its axis, means carried by said brackets for engaging said shield and locking it with respect to its pivot, and means connected with said frame for moving the locking means to inoperative position when the brackets rise beyond a certain limit.

2. In a machine of the character described, the combination of a pair of rotary drums, a lap roll carried between them, a shaft above said lap roll, a shield carried by said shaft and adapted to swing up and down thereon, a locking device, the shield having a notch for receiving the locking device, and means for automatically moving said locking device out of the notch when the lap roll is elevated to a predetermined height.

3. In a machine of the character described, the combination of a lap roll, a shield carried with the lap roll, and having a notch, a locking device mounted to move into said notch, a knock-off having a surface for engaging said locking device and lifting it out of said notch when the knock-off moves, and a flexible member connected with a stationary part of the machine and with said knock-off for moving it when the knock-off moves to a predetermined point.

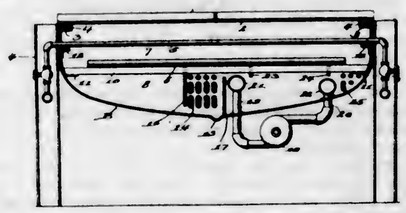
4. In a machine of the character described, the combination of a pair of rotary supporting drums adapted to carry a lap roll between them, and a lap roll shaft, of a pair of brackets supported by the lap roll shaft to move up and down therewith, a shield pivotally carried by said brackets extending forwardly from its pivot, and means carried by said brackets for locking said shield down with respect to its pivots.

5. In a machine of the character described, the combination of a pair of rotary supporting drums, a lap roll adapted to be carried between them, a pair of brackets mounted to move up and down with the lap roll, a shaft supported by said brackets, a shield carried by said shaft and adapted to swing up and down thereon, and means for locking said shield in its lowermost position, said means comprising a locking pin pivoted to swing on a horizontal axis, the shield having a notch for receiving the pin.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,336. COATING-MACHINE. ARTHUR S. O'NEIL, Warren, Pa. Filed Apr. 3, 1913. Serial No. 758,649. (Cl. 34—3.)



1. In a coating machine, a substantially air-tight drying chamber through which the coated material is passed, a false floor above which said material passes and which defines upper and lower air circulation passages communicating at their ends, heat supplying means located in the upper passage, vapor condensing means located in the lower passage, and means for inducing a circulation of air, internal to said chamber, in a definite direction whereby the air first takes up the liberated moisture in the upper passage and then carries such moisture in relation to the condensing means in the lower passage.

2. In a coating machine, a substantially air-tight drying chamber through which the coated material is passed, a false floor above which said material passes and which defines upper and lower air circulation passages communicating at their ends, heat supplying means located in the upper passage, vapor condensing means located in the lower passage, and air re-heating means located adjacent communicating ends of said passages, the communication of said passages at their other ends being unobstructed.

3. In a coating machine, a substantially air-tight drying chamber through which the coated material is passed, a false floor above which said material passes, and which defines upper and lower air circulation passages communicating at their ends, heat supplying means located in the upper passage, vapor condensing means located in the lower passage, an air pump, a suction pipe connected at one side of said pump and located adjacent said vapor condensing means, and a blast pipe connected at the other side of said pump and located adjacent the ends of the passages at the same side of the condensing means as the suction pipe.

4. In a coating machine, a substantially air-tight drying chamber through which the coated material is passed, a false floor above which said material passes and which defines upper and lower air circulating passages communicating at their ends, heat supplying means located in the upper passage, vapor condensing means located in the lower passage, an air pump, a suction pipe connected at one side of said pump and located adjacent said vapor condensing means, a blast pipe connected at the other side of said pump and located adjacent the ends of the passages at the same side of the condensing means as the suction pipe, and air re-heating means located between the blast pipe and the adjacent communicating ends of the passages, the communication of the passages at their other ends being unobstructed.

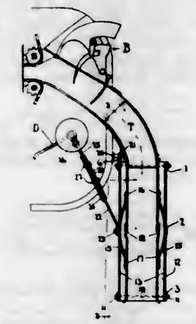
5. In a coating machine, a substantially air-tight drying chamber through which the coated material is passed, a false floor above which said material passes and which terminates short of the sides of said chamber, thereby defining upper and lower air circulation passages communicating with one another adjacent the sides of said chamber, heat supplying means arranged in the upper passages throughout the longitudinal extent of said chamber, vapor condensing means arranged in the lower passage throughout the longitudinal extent of said chamber, and means for inducing a circulation of air, internal to said chamber and in a definite direction through said passages transversely thereof, whereby the air first takes up the liberated moisture in the upper passage and then carries such moisture in relation to the condensing means in the lower passage.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,337. SHOCK-CONVEYER. GEORGE H. PALLADY, Allerton, Iowa. Filed Feb. 6, 1913. Serial No. 746,612. (Cl. 56—119.)



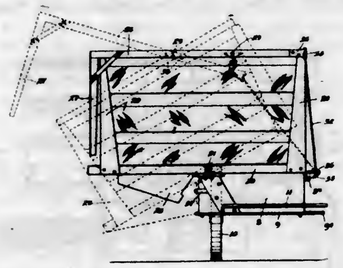
1. The herein described conveyer for corn shocks and the like, comprising a skeleton framework, a series of leaf-springs attached to the sides of the framework, and at each side of the conveyer a plate attached to one end portion of said springs and another plate attached to the other end portion of said springs with its forward edge engaging the rearward edge of the first-named plate, for the purpose set forth

2. The herein described conveyer for corn shocks and the like, comprising a series of upright U-shaped members, sills connecting their bends, a pan secured between their arms and constituting the floor of the conveyer, leaf-springs attached to the arms of the intermediate member, and at each side of the conveyer a plate attached to one end portion of said springs and a plate attached to the other end portion of said springs with its forward edge overlapping the rearward edge of said first-named plate, for the purpose set forth.

3. The combination with a shock conveyer comprising a skeleton framework having an extension from one of its inner lower corners pierced with an eye adapted to receive a stud projecting from a harvester, and spring-pressed plates within said framework constituting the sides of the conveyer; of a support consisting of one member adapted to be attached to the harvester and having slots in its body, a second member attached at its outer end to said framework and having a fork at its inner end standing astride the first-named member, and bolts through the fork-arms and said slots, for the purpose set forth.

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1,090,338. BUNDLE-CARRYING ATTACHMENT FOR GRAIN-HARVESTERS. JACOB J. PAYER, Adams, N. D. Filed Feb. 10, 1912. Serial No. 676,814. (Cl. 56—123.)



1. A bundle carrying attachment for harvesters and the like, comprising a laterally tilting rack having a vertically movable side member, connections whereby said side member is automatically actuated by the tilting movement of the rack, a support for said rack located inward of the median line thereof whereby the rack may be tilted by the weight of its contents, said movable side member and connections adapted to automatically return the rack to receiving position after the contents have been discharged.

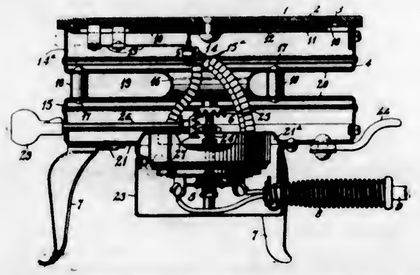
2. A bundle carrying attachment for harvesters and the like, comprising a laterally tilting rack, a support for said rack located inward of the median line thereof whereby the rack may be tilted by the weight of its contents, said rack having a vertically movable side member, levers pivoted to the ends of said rack and carrying said movable side, and connections between said levers and a fixed portion of the construction whereby said movable side is automatically actuated by the tilting movement of the rack, said movable side and connections adapted to automatically return the rack to receiving position after its contents have been discharged.

3. A bundle carrying attachment for harvesters and the like, comprising a laterally tilting rack provided with a vertically movable side member, levers having an intermediate pivotal connection with the ends of the rack and carrying said movable side, and connections between the inner ends of said levers and a fixed part of the attachment whereby said movable side is automatically actuated by the tilting movement of the rack, said levers, connections and the movable side adapted to automatically return the rack to receiving position when the contents of the rack have been discharged, said pivotal connection between the levers and the rack being adjustable transversely of the rack, for the purpose described.

4. A bundle carrying attachment for harvesters and the like, comprising a laterally tilting rack provided with a vertically movable side member, levers intermediately pivoted to the ends of said rack and carrying said movable side, and means connecting the inner ends of said levers with a fixed part of the attachment, whereby said movable side is automatically actuated by a tilting movement of the rack, the connection between the levers and said means being adjustable to vary the normal height of said movable side.

5. A bundle carrying attachment for harvesters and the like, comprising a laterally tilting rack provided with a vertically movable side member, levers having an intermediate pivotal connection with the ends of the rack and carrying said movable side, and means connecting the inner ends of said levers with a fixed part of the attachment whereby said movable side is automatically actuated by a tilting movement of the rack, said movable side, levers and means connecting the levers with the attachment being adapted to automatically return the rack to receiving position, the connection between said means and said fixed part being adjustable to vary the effect of the weight of the movable side on the rack.

1,090,339. ELECTRICALLY-HEATED STOVE. THOMAS S. PERKINS, Pittsburgh, and EDWARD E. ROSE, Swissvale, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 24, 1911. Serial No. 640,288. (Cl. 219—19.)



1. In an electrically heated stove, the combination with a heating element, a supporting standard having internal and external air spaces, and a switching device mounted beneath said standard for controlling the circuit connections of said heating element, of mechanical means embodying shafts and gear wheels for operating said switching devices.

2. In an electrically heated stove, the combination with a heating element, and a switching device for controlling the circuit connections thereof, of a casing embodying internal and external air spaces between said heating element and said switching device, said switching device being mounted beneath said casing.

3. In an electrically heated stove, the combination with a heater, a casing for supporting said heater, said casing embodying an air chamber and having a deep annular groove or depression therein, and a switching device secured to the under side of said casing and adapted to control the circuit connections of said heater, of means for operating said switching device from the side of said stove.

4. In an electrically heated stove, the combination with a heater, a plurality of shells or casings embodying internal and external air spaces and disposed below said heater, communicating means between said casings, and a switching device mounted below the lowermost casing and adapted to control the circuit connections of said heater, of means located on the exterior of said stove for operating said switching device.

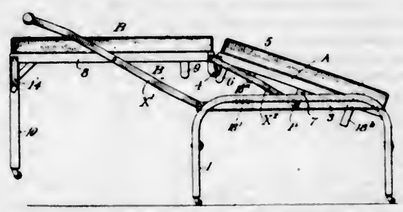
5. In an electrically heated stove, the combination with a circular heating element, and a cylindrical casing embodying an air chamber and adapted to support said heating element, said casing having a central portion of materially reduced diameter, of a switching device centrally disposed beneath said cylindrical casing and adapted to control the circuit connections of said heating element, and means for operating said switching device from the side of said stove.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,340. FOLDING BED. LOUIS EDWARD PITTONI, New York, N. Y., assignor to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1912. Serial No. 689,482. (Cl. 5—48.)

1. A folding bed comprising a stationary frame having transverse end bars, a reversible frame having each end provided with a central depending lug that is pivoted to the said end bars, a laterally movable frame having one side hinged to one side of the reversible frame, links connecting the corners of the hinged side of the laterally movable frame to the pivotal points of connection of the reversible frame and the stationary frame, and links pivoted to the centers of the ends of the laterally movable frame and having ends pivotally connected to the adjacent corners of the stationary frame, the last mentioned links being in parallel relation to the first mentioned links and being elongated to form operating levers.



2. A folding bed comprising a stationary frame, a reversible frame centrally pivoted to the ends of the stationary frame, a laterally movable frame having one side hinged to one side of the reversible frame, links connecting the corners of the hinged side of the laterally movable frame to the centers of the ends of the stationary frame, and a second set of links parallel with the first mentioned links and having intermediate connections with the centers of the ends of the laterally movable frame and end connections with adjacent corners of the stationary frame.

3. A folding bed comprising a stationary frame having transverse end bars, a rest carried by each end bar adjacent one end thereof, a reversible frame pivotally connected to the stationary frame and having end lugs that engage said rests when the reversible frame is in its normal and its reversed positions, a laterally movable frame hinged to the reversible frame, and link connections between the laterally movable frame and the stationary frame.

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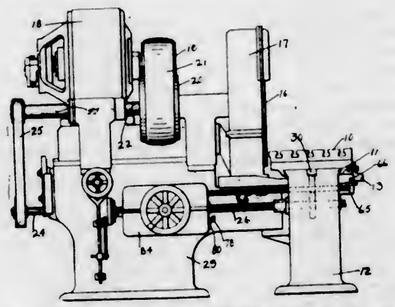
1,090,341. HAIR-CURLER. MARION MORTON POLLARD, Dobbs Ferry, N. Y. Filed Dec. 27, 1912. Serial No. 738,836. (Cl. 132—19.)



A hair curler comprising a plurality of tubular members hinged together, and a forked heating member adapted to be inserted longitudinally into said tubular members for the purpose set forth.

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1,090,342. METAL-WORKING MACHINE. DANA WILLIS POND, Providence, R. I., assignor to Diamond Machine Company, Providence, R. I., a Corporation of Rhode Island. Filed May 29, 1913. Serial No. 770,609. (Cl. 51—12.)



1. In a machine of the character described, a reciprocable work table, driving means therefor, a tool for operating upon work carried by said table, and auxiliary power transmitting means actuated by said driving means and independently of said table the same being controlled indirectly by the movement of the table for reversing the direction of table travel.

2. In a machine of the character described, a reciprocable work table, driving means therefor, auxiliary power transmitting means actuated by said driving means and independently of said table, and means actuated by the table at the end of its travel in each direction to release said transmitting means and permitting the same to reverse the direction of travel of the table.

3. In a machine of the character described, a reciprocable work table, driving means therefor, and auxiliary power transmitting means including a power driven cam controlled in its action by the movement of the table for reversing the action of said driving means at each end of the table stroke to move the table in the opposite direction.

4. In a machine of the character described, a reciprocable work table, driving means therefor, a tool for operating upon work carried by said table, and auxiliary power transmitting means including a frictionally driven cam controlled in its action by the movement of the table for reversing the action of said driving means at each end of the table stroke.

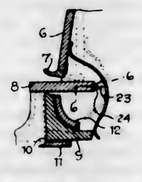
5. In a machine of the character described, a reciprocable work table, driving means therefor, a tool for operating upon work carried by said table, a continuously driven member, a rotatable cam under constant frictional tension by said member, means for controlling the time and amount of rotation of said cam, and means whereby said controlling means is actuated by the movement of the table at the end of its stroke in either direction.

[Claims 6 to 13 not printed in the Gazette.]



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1,090,343. PIANO MUSIC-DESK. ATTILIO A. PONSIGLIONE, New York, and ANTON D. ANDERSON, Harrison, N. Y. Filed July 16, 1913. Serial No. 779,337. (Cl. 84—118.)



1. The combination with a piano case including a pivoted music desk, a hinged fall board, and a shelf arranged between the board and desk, of a lever centrally provided with spaced curved bearings each having an opening therein, attaching screws extending loosely through said openings and threaded into the shelf board, the upper end of said lever engaging the inner face of the music desk, and the lower end of said lever being adapted for engagement by the fall board when the same is moved to its open position whereby said lever is oscillated and the music desk swung to its open position.

2. The combination with a piano case including a pivoted music desk, a hinged fall board and a shelf board arranged between said music desk and fall board, of a lever centrally provided with spaced convex bearings loosely mounted to oscillate on the rear edge of the shelf board, said lever including reversely curved portions extending in opposite directions from the bearings and adapted to engage at their extremities with the music desk and fall board respectively, whereby, when the fall board is moved to its open position, said lever is oscillated upon the rear edge of the shelf board and caused to exert an outward pressure at its upper end against the music desk to move said desk to its open position.

3. The combination with a piano case including a music desk, a hinged fall board and a shelf board arranged between said cover and music desk, of a lever centrally provided with spaced portions having curved bearing surfaces for engagement with the rear edge of the shelf board, each of said portions being provided with an opening, and attaching screws loosely disposed through said openings and threaded in the rear edge of the shelf board to support the lever for oscillatory movement in one direction, the lower end of said lever being engaged by the fall board when the same is opened to force the upper end of said lever outwardly against the music desk to move the latter to its open position.

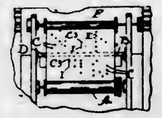
4. The combination with a piano case including a music desk, a fall board, and shelf board arranged between the fall board and music desk, of a longitudinally curved lever, a fulcrum for said lever having bearing portions adjustable toward or from each other, and means for mounting the bearing portions of said fulcrum member upon the rear edge of the shelf board.

5. The combination with a piano case including a music desk, a fall board and shelf board arranged between said fall board and music desk, of a lever, a pair of arms projecting from one side of said lever and adjustable toward and from each other, said arms being provided upon their extremities with curved ears for bearing engagement with the rear edge of the shelf board, each of said ears having an opening therein, attaching screws loosely disposed through said openings and threaded in the shelf board, said lever extending above and below the shelf board whereby when the fall board is opened the same engages the lower end of said lever and forces the upper end thereof outwardly to move the music desk to its open position, the adjustment of said arms regulating the extent of movement of said lever.

[Claim 6 not printed in the Gazette.]

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1,090,344. PERFORATED SHEET-MUSIC. HARRY E. PROPSON, Plainville, Conn., assignor of one-half to Louis M. Schmidt, New Britain, Conn. Filed Apr. 26, 1910. Serial No. 557,696. (Cl. 84—162.)



1. A music sheet having a series of perforations in longitudinal alinement and suitable for operation in combination with apertures in a tracker board for causing the striking and sustaining of a musical note, the consecutive perforations of the said series separated by holding bridges that are narrower in width than the length of the said apertures in the direction of the longitudinal movement of the said sheet, and the said series comprising an initial perforation of one dimension for the width and the rest of the series of less width than the said initial perforation.

2. A music sheet having a series of perforations in longitudinal alinement and suitable for operation in combination with apertures in a tracker board for causing the striking and sustaining of a musical note, the consecutive perforations of said series separated by holding bridges that are narrower in width than the length of the said apertures in the direction of the longitudinal movement of the said sheet, and the said series comprising an initial perforation of one size and the rest of the series smaller than the said initial perforation.

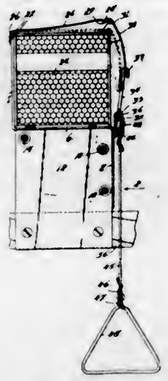
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1,090,345. COMBINED HONEY-SECTION PRESS AND FOUNDATION-FASTENER. HERMAN RAUCHFUSS, Englewood, Colo. Filed May 22, 1913. Serial No. 769,201. (Cl. 6—12.)

1. In a combined honey section press and foundation fastener, the combination of a base, an upright side member, a folding spring composed of a top part and a depending side member, and means for actuating the folding spring.

2. In a device of the class described, the combination of a base, an upright side member, a folding spring composed

of a top part and a depending side member arranged on the opposite side from the first-named side member, and means connected with the depending spring part for moving the same downwardly to form the honey section joint, substantially as described.



3. A honey section press, comprising a structure approximately rectangular in front outline and including a folding spring and operating means connected with the spring, substantially as described.

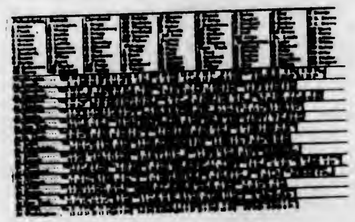
4. A device of the class described, comprising a base, an upright side member having a rear inwardly extending flange, a folding spring composed of a top part and a depending side part, the said spring having a lip extending inwardly in the plane of the said rear flange, and operating means connected with the depending spring part.

5. A combined honey section press and foundation fastener, comprising a base, an upright side member, a folding spring, a link connected with said spring, a rock spindle having a crank arm with which the link is also connected, a horizontally movable plate, the said spindle being also equipped with a second crank arm connected in operative relation with the said movable plate, and means connected with the first-named rock spindle crank for actuating the spindle and folding spring.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,346. TALLY. FRANK T. RILEY, Kansas City, Mo. Filed Apr. 9, 1912. Serial No. 689,636. (Cl. 11—19.)



1. A tally sheet having a division giving the names of different teams and the names of players, the names of players on each team being numbered and grouped after the name of the team, a column wherein the names of teams are paired, and paired columns of figures following the names of the paired teams, sets of the figure columns being separated and each set in the figure column having an index number corresponding to the number of a player in the name division.

2. A tally sheet having a division giving the names of different teams and the names of players, the names of players on each team being numbered and grouped after the name of the team, a column wherein the names of teams are paired, and paired columns of figures following the names of the paired teams, sets of the figure columns being separated and each set in the figure column having an index number corresponding to the number of a player in the name division, and some of the index numbers being in turn indexed, for the purpose set forth.

3. A tally sheet having paired columns headed by the names of contesting teams, sets of figures following the team names in paired relation, some of the sets of figures being differentialed from the other sets, and each set of figures being indexed for the purpose set forth.

4. A tally sheet having paired columns headed by the names of contesting teams, sets of figures following the team names in paired relation, some of the sets of figures being printed in type heavier than that used for other sets, and each set of figures being indexed for the purpose set forth.

5. A tally sheet having paired columns headed by the names of contesting teams, sets of figures following the team names in paired relation, minor division markings between said sets, major division marks between different series of sets, each set of figures being indexed and a date marking for each series.

[Claims 6 and 7 not printed in the Gazette.]

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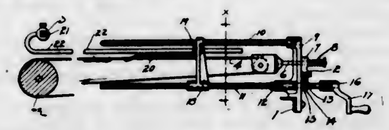
1,090,347. COTTON-PICKING NOZZLE OR TUBE. EUGENE H. SCHOFIELD, Atlanta, Ga.; Ray H. Schofield administrator of said Eugene H. Schofield, deceased. Filed Sept. 17, 1908. Serial No. 543,428. (Cl. 56—117.)



The combination with a cotton picking nozzle consisting of a rigid tubular member having a straight portion with a crook at one end and a restricted mouth opening at this end smaller than the cross-sectional area of the member, of a flexible non-collapsible tube, and an air-tight universal joint connecting the nozzle and the tube, the tubular member being of a length such that the universal joint may be disposed at the elbow of an operator with the crook of the member forming a handhold by means of which the tubular member may be freely rotated.

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1,090,348. GAGE FOR PAPER-FOLDING MACHINES. CLARK A. SIGAFOOS, Omaha, Nebr. Filed June 22, 1912. Serial No. 705,323. (Cl. 101—37.)



1. In a paper folding machine, carrier-belts, a gage-plate extending transversely to the belts, means extending parallel to the belts for supporting the gage-plate, a screw connected with the gage-plate for moving the same longitudinally of the supporting means, and fingers secured to the gage-plate above the carrier-belts and having end-portions extending below said belts to deflect paper therefrom against the gage, the said fingers being in a constant fixed relation to the gage at all positions thereof.

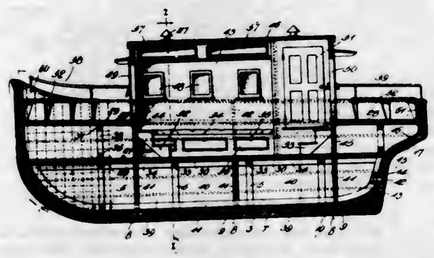
2. In a paper folding machine, the combination with continously moving carrying devices, of a gage extending transversely to the direction of movement of the carrying devices, means for supporting the gage, means for varying the position of the gage longitudinally of the carrying devices, and fingers secured to the gage and adapted to deflect paper from the carrying devices against the gage, the fingers being in a fixed constant relation to the gage at all positions thereof.

3. In a paper folding machine, the combination with carrier-belts, of a gage disposed above the belts and extending transversely thereto, a head supporting the gage and extending vertically between the belts, rods extending parallel to the carrier-belts and supporting the head, one of said rods being screwed through the head, guide-rods extending above the carrier-belts, one end of each of the guide-rods being slidably connected with the gage, and means for deflecting paper from the carrier-belts against the gage.

4. In a device of the class described, the combination with carrier-belts, of a gage positioned adjacent to the belts, a frame, parallel rods supporting the gage, one of the rods being revolubly mounted and the other fixedly mounted on the frame, the revoluble rod having a threaded connection with the cage, means for turning said rod to vary the position of the gage longitudinally thereof, and yieldable means for holding said rod in frictional engagement with the frame.

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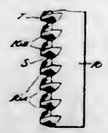
1,090,349. BOAT CONSTRUCTION. HARVEY ELVIN SMITH, Represa, Cal., assignor of one-half to Robert C. Johnson, Represa, Cal. Filed Oct. 12, 1911. Serial No. 654,419. (Cl. 114—65.)



A device of the character described including a concrete hull having a keel, lengthwise running reinforcing rods having eyes, embedded in said hull, embedded transverse U-shaped strut rods passing through said eyes, oppositely positioned apertured bars embedded within said hull the ends of said strut rods being secured within apertures of said bars, lengthwise running reinforcing wires embedded within said hull below said strut rods, and a plurality of strut wires threaded through the apertures of said bars and intertwined between said reinforcing wires, as shown.

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1,090,350. GEAR-CUTTING TOOL. SAM SUNDERLAND, High Utley, Keighley, England. Filed Dec. 31, 1912. Serial No. 739,520. (Cl. 29—97.)

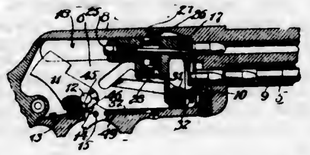


A cutting tool for cutting the teeth of double helical wheels, comprising a body portion having a plurality of angular teeth formed integral therewith and arranged in a row along one edge thereof, said teeth being suitably spaced apart, and inclined at an angle corresponding to the wheel teeth to be cut, the cutting face of each tooth being formed at right angles to the teeth and the line of movement of the cutters, substantially as described.





1,090,351. REPEATING FIREARM. CARL G. SWEBILIUS and HANS T. R. HANITZ, New Haven, Conn., assignors to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed May 27, 1913. Serial No. 770,124. (Cl. 42—17.)



1. In a repeating firearm, a receiver, action mechanism contained therein including a reciprocating breech block, a vertically movable locking bolt and a vertically movable carrier, both carried by said breech block, a reciprocating action rod leading into the front of the receiver and cooperating with said locking bolt and with the breech block through the locking bolt, a cam in the side of the receiver coöperating with the carrier to actuate the same as the breech block is moved to and fro, a hammer and trigger, the former being arranged to be cocked by the reciprocation of the breech block, and a safety bar carried by the receiver and coacting with the hammer and action rod and arranged to hold the latter against unlocking movement while the firearm is loaded and locked and the hammer is cocked.

2. In a repeating firearm, a receiver, action mechanism contained therein including a reciprocating breech block, a vertically movable locking bolt and a vertically movable carrier, both carried by said breech block, a reciprocating action rod leading into the front of the receiver and cooperating with said locking bolt and with the breech block through the locking bolt, a cam in the side of the receiver coöperating with the carrier to actuate the same as the breech block is moved to and fro, a hammer and trigger, the former being arranged to be cocked by the reciprocation of the breech block, and a safety bar carried by the receiver and coacting with the hammer and action rod and arranged to hold the latter against unlocking movement while the firearm is loaded and locked and the hammer is cocked, said safety bar being arranged to hold the hammer against descent from its retracted position until the breech block is locked.

3. In a repeating firearm, a receiver, action mechanism contained therein including a reciprocating breech block, a vertically movable locking bolt and a vertically movable carrier, both carried by said breech block, a reciprocating action rod leading into the front of the receiver and cooperating with said locking bolt and with the breech block through the locking bolt, a cam in the side of the receiver coöperating with the carrier to actuate the same as the breech block is moved to and fro, a hammer and trigger, the former being arranged to be cocked by the reciprocation of the breech block, and a safety bar carried by the receiver and coacting with the hammer and action rod and arranged to hold the latter against unlocking movement while the firearm is loaded and locked and the hammer is cocked, said safety bar being arranged to hold the hammer against descent from its retracted position until the breech block is locked, said safety bar having both a longitudinal sliding movement and an independent tilting movement.

4. In a repeating firearm, a receiver, action mechanism contained therein including a reciprocating breech block, a vertically movable locking bolt and a vertically movable carrier, both carried by said breech block, a reciprocating action rod leading into the front of the receiver and coöperating with said locking bolt and with the breech block through the locking bolt, a cam in the side of the receiver coöperating with the carrier to actuate the same as the breech block is moved to and fro, a hammer and trigger, the former being arranged to be cocked by the reciprocation of the breech block, and a safety bar carried by the receiver and coacting with the hammer and

action rod and arranged to hold the latter against unlocking movement while the firearm is loaded and locked and the hammer is cocked, said safety bar being arranged to hold the hammer against descent from its retracted position until the breech block is locked, said safety bar having both a longitudinal sliding movement and an independent tilting movement, and including an upwardly projecting locking nose for engagement with said action bar, and two laterally projecting noses coacting with the hammer alternately, said hammer having a downwardly facing shoulder on its hub end for engagement by one of said last mentioned noses and having an upwardly facing shoulder on its hub portion arranged to engage and tilt said action bar when the hammer descends to free the action rod.

5. In a repeating firearm, a receiver, action mechanism therein including a breech block arranged for longitudinal movement only, a vertically movable locking bolt carried by and arranged in substantially the longitudinal center of said breech block, a vertically movable carrier, with means for moving said parts, an under cut vertical guide slot in the front of the breech block to guide a cartridge from the elevation of the magazine to the elevation of the barrel as the carrier ascends, an ejector and an extractor both carried by said breech block in a plane above said guide slot arranged to receive the rim of a cartridge and hold the same while the same is being projected into the barrel, fired and extracted therefrom.

[Claims 6 to 13 not printed in the Gazette.]

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1,090,352. RED ALUMINA COLOR-LAKE. CARL THUN, Elberfeld, and PAUL TUST and PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed July 15, 1913. Serial No. 779,125. (Cl. 8—1.)

1. The new red alumina color lakes prepared from purpurin sulfonic acids and containing aluminum, said lakes being distinguished by their valuable bluish-red shade and their fastness to light, substantially as described.

2. The new red alumina color lake prepared from 1.2.4-trioxyanthraquinone-3-sulfonic acid and containing aluminum, said lake being distinguished by its valuable bluish-red shades and its fastness to light, substantially as described.

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1,090,353. RED ALUMINA COLOR-LAKES OBTAINED FROM AMINOXANTHOPURPURIN-SULFONIC ACIDS. CARL THUN, Elberfeld, and PAUL TUST and PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed July 17, 1913. Serial No. 779,543. (Cl. 8—1.)

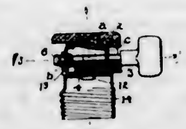
1. The new red alumina color lakes prepared from aminoxanthopurpurin sulfonic acids and containing aluminum, said lakes being distinguished by their valuable bluish-red shade and their fastness to light, substantially as described.

2. The new red alumina color lake prepared from 1-amino-2,4-dioxyanthraquinone-3-sulfonic acid and containing aluminum, said lake being distinguished by its valuable purple red shades and its fastness to light, substantially as described.

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1,090,354. SOCKET FOR INCANDESCENT ELECTRIC LAMPS. WILLIAM C. TREGONING, Cleveland, Ohio, assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio, a Corporation. Filed May 13, 1912. Serial No. 696,867. (Cl. 173—351.)

1. In electrical sockets, a porcelain member having a recess, a switch plate having a spring tongue bent back in overlapping relation therewith and seated within said recess and having a tumbler-opening opposite the free end of said tongue, a relatively thin fiber, disk engaged with said plate at each side of said tongue, a contact piece secured at the bottom of said disk, a key shaft having a rotatable bearing in said switch plate, and a tumbler fixed on said shaft between said tongue and contact piece opposite said tumbler-opening.

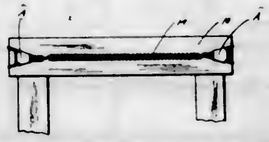


2. In electrical sockets, a non-conducting body, a switch-plate having a lip at one end and a tongue with a bowed shank opposite said lip and bent back into overlapping relation with the body of said plate and provided with a shaft opening in said shank, in combination with a key shaft rotatably supported in said plate, a tumbler on said shaft adapted to be rotated in said opening and an insulating disk in clamping relations with said plate.

3. In an electrical switch socket of the kind described, a key shaft having lateral projections at its inner end, in combination with a tumbler loosely mounted thereon consisting of a flat piece of metal having its opposite ends bent in the same direction to provide contact projections and having a central opening and two struck-up lips parallel to said ends and engaging the said shaft projections.

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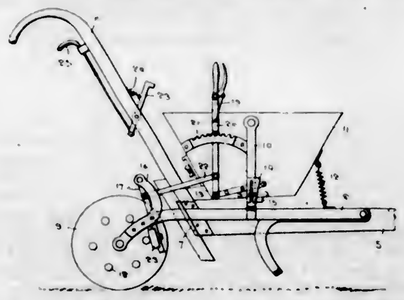
1,090,355. ADJUSTABLE BRACKET FOR WINDOW-SHADES. MARION E. WAGNER, Pickering, Mo., assignor of one-half to Frank M. Wallis, Pickering, Mo. Filed June 23, 1913. Serial No. 775,432. (Cl. 156—23.)



In a device of the class described, a resilient engaging device comprising diverging arms connected with each other at one end, and having hook members formed on their free ends for engaging the frame, a supporting device mounted on both arms of each engaging device and arranged to engage both of said arms at various points depending on the distance of said arms apart from each other and to limit the movement of said arms apart when so mounted, and resilient means for connecting the two engaging devices with each other.

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1,090,356. FERTILIZER-DISTRIBUTER. JAMES MONROE WALKER, Carrollton, Ga., assignor of one-fourth to W. W. Baskin, one-fourth to W. T. Herrin, and one-half to John M., J. R., Tommy and Mattie Walker. Filed July 3, 1913. Serial No. 777,261. (Cl. 111—33.)



1. A fertilizer distributer comprising a wheel mounted frame, a hopper pivoted thereover, means for holding the forward end of said hopper downward, adjustable means for limiting the downward movement of the forward end of said hopper, and means adapted to coöperate with the wheel of said frame to vibrate said hopper.

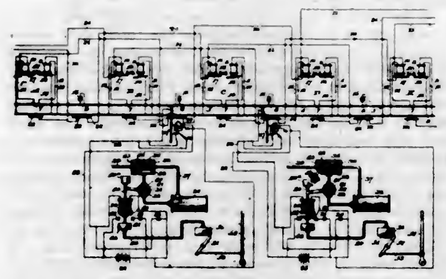
2. A fertilizer distributer comprising a wheel mounted frame, uprights secured to said frame, a hopper pivoted between said uprights, a stop bar carried by said hopper, and members adjustably secured to said uprights for adjustably limiting the movement of said hopper.

3. A fertilizer distributer comprising a wheel mounted frame, a hopper pivoted thereover, a lever pivoted to said frame, an abutment secured to said lever, pins carried by the wheel of said frame and adapted to successfully engage said abutment and the end of said lever, and connections between said lever and said pivoted hopper.

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1,090,357. ELECTRIC SIGNAL SYSTEM FOR RAILWAYS. HARRY J. WARTHEN, Washington, D. C. Filed June 16, 1910. Serial No. 567,300. (Cl. 246—31.)

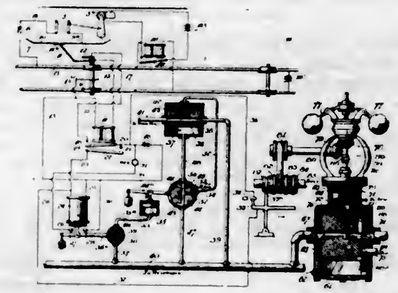


1. A system for controlling the operation of railway trains, comprising a railway divided into sections or blocks each having a pair of track-rails one continuous and the other in two sections for each block insulated from each other and from like track-rail sections of the adjoining blocks in both directions, batteries connected each to a track-rail section of one block and adjoining track-rail section of the next block, relays arranged in pairs for each block and each connected by one pole to one of the two track-rail sections of that block, respectively, and by the other pole to the continuous track-rail forming a closed track-circuit including relays of adjoining blocks and both track-rails in a single series circuit, a contact-piece for connecting the armatures of each pair of relays when said armatures are attracted, ramp-rails each connected to one of the armatures, of a pair of relays, and connections between the companion armature and continuous track-rail; together with an electric circuit on the cab of a locomotive, and means for connecting said cab-circuit to include the aforesaid ramp-rails, armatures and connections, substantially as shown and described.

2. A system for controlling the operation of railway trains, comprising a railway divided into sections or blocks each having ramp-rails and a pair of track-rails one of which latter is continuous and the other in two sections for each block insulated from each other and from like trackrail sections of the adjoining blocks in both directions, batteries connected each to a track-rail section of one block and adjoining track-rail section of the next block, relays arranged in pairs for each block and each connected by one pole to one of the two track-rail sections of each block, respectively, and by the other pole to the continuous track-rail forming a closed track-circuit including relays of adjoining blocks and both track-rails in a single series circuit, one of the relays of each station having two armatures insulated from each other, ramp-rails at a distance from said armatures in opposite directions and connected thereto respectively, a companion armature connected to the continuous track-rail, and a contact-piece for connecting said armatures; when attracted together with an electric circuit on the cab of a locomotive, gravity-operated devices controlled by said cab-circuit, and means for connecting the cab-circuit to include the ramp-rails, armatures and connections along the railway-track, substantially as shown and described.

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1,090,358. SYSTEM FOR CONTROLLING THE OPERATION OF RAILROAD-TRAINS. HARRY J. WARTHEN, Washington, D. C. Filed Oct. 24, 1911. Serial No. 656,443. (Cl. 246—58.)



1. In a system for controlling the operation of railroad trains, the combination with the air-brake mechanism and a cab-circuit on the train, of a partial electric track circuit and electric-switch included therein; and electromagnet and armatures therefor, the electro-magnet and one armature being included in the cab-circuit, a supplemental cab-circuit passing through another armature of the electro-magnet when the latter is energized, a solenoid in the last mentioned circuit, means operated by the solenoid when deënergized to apply the air-brakes, and means for opening the cab-circuit and switching the electro-magnet into circuit connection with the partial track-circuit; together with an auxiliary cab-circuit for energizing the solenoid independent of the circuit through the armature, an electric-switch included in said auxiliary circuit, a governor device for controlling the speed of the train, and means operated by the closing of the said switch to put the governor device in operation.

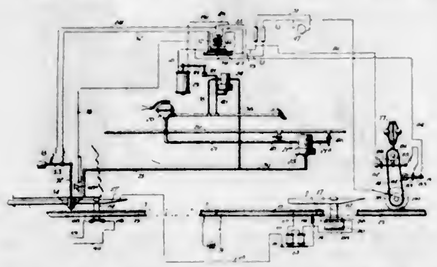
2. In a system for controlling the operation of railroad trains, the combination with the air-brake mechanism and a cab-circuit on the train, and a block system including signaling devices, of an electric-switch operated by one of the signal devices, a partial electric track-circuit including said switch, an electro-magnet and armatures therefor, the electro-magnet and one armature being included in the cab-circuit, a supplemental cab-circuit passing through another armature of the electro-magnet when the latter is energized, a solenoid in the last mentioned circuit, means operated by the solenoid when deënergized to apply the air-brakes, and means for opening the cab-circuit and switching the electro-magnet into circuit connection with the partial track-circuit; together with an auxiliary cab-circuit for energizing the solenoid independent of the circuit through the armature, an electric-switch included in said auxiliary circuit, a governor device for controlling the speed of the train, and means operated by the closing of said electric-switch to connect the governor with an axle of the train, substantially as shown and described.

3. In a system for controlling the operation of railroad trains, the combination with the air-brake mechanism and a cab-circuit on the train, and a block system including signaling devices, of an electric-switch operated by one of the signal devices, a partial electric track-circuit including said switch; an electro-magnet and armatures therefor, the electro-magnet and one armature being included in the cab-circuit, a supplemental cab-circuit passing through another armature of the electro-magnet when the latter is energized, a solenoid in the last mentioned circuit, means operated by the solenoid when deënergized to apply the air-brakes, and means for opening the cab-

circuit and switching the electro-magnet into circuit connection with the partial track-circuit; together with an auxiliary cab-circuit energising the solenoid independent of the circuit through the armature, an electric-switch included in the auxiliary cab-circuit, an auxiliary valve for applying the brakes, a governor connected to and operating said valve, and means for throwing the governor in gear with a driven shaft of the locomotive when the switch of the auxiliary cab-circuit is closed, substantially as shown and for the purpose set forth.

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1,090,359. ELECTRIC TRAIN-CONTROL SYSTEM FOR RAILROADS. HARRY J. WARTHEN, Washington, D. C. Filed June 24, 1912. Serial No. 705,618. (Cl. 246—58.)



1. An electric train-control system for railroads having a ramp-rail or conductor alongside the track, said system comprising a partial track-circuit including the ramp-rail and a relay controlling said partial track circuit, a differential relay and armatures carried by the train, a source of electric supply for the differential relay, an electric-switch, means for making connection with the ramp-rail and opening and closing said switch, a solenoid in a circuit including one of the armatures of the differential relay; conductors forming a circuit through one of the coils of the differential relay, the aforesaid means of electric connection, and partial track-circuit; and conductors forming a circuit through the other coil of the differential relay, electric-switch, and another of the armatures of said differential relay; together with auxiliary air-brake mechanism operated by the solenoid.

2. An electric train-control system for railroads divided into blocks each having a ramp-rail or conductor alongside the track, said system comprising a track-circuit including a relay and the track-rails, a supplemental partial track-circuit including the ramp-rail and armature of the relay; a differential relay and armatures carried by the train, a source of electric supply for the differential relay, an electric-switch, means for making connection with the ramp-rail and opening and closing said switch; a solenoid in a circuit including one of the armatures of the differential relay; conductors forming a circuit through one of the coils of the differential relay, the aforesaid means of electric connection, and partial track-circuit; and conductors forming a circuit through the other coil of the differential relay, electric-switch, and another of the armatures of said differential relay; together with auxiliary air-brake mechanism operated by the solenoid.

3. An electric train-control system for railroads divided into blocks each having a ramp-rail or conductor alongside the track, said system comprising a track-circuit including a relay, track-rails, and supports for the ramp-rail; a supplemental partial track-circuit including the ramp-rail and armature of the track-relay; a differential relay and armatures a source of electric supply for the differential relay; an electric-switch; a plow for making connection with the ramp-rail and opening and closing said switch; a solenoid in a circuit including one of the armatures of the differential relay; conductors forming a circuit through one of the coils of the differential relay, plow, and partial track-circuit; and conductors forming a circuit through the other coil of the differential relay, electric-switch, and another of the armatures of said differential relay; together with auxiliary air-brake mechanism operated by the solenoid.

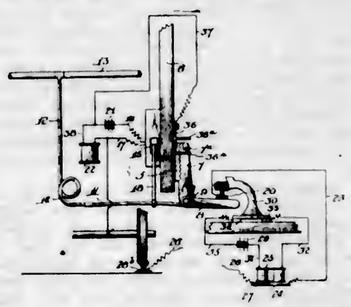
4. An electric train-control system for railroads having a ramp-rail or conductor alongside the track, said system comprising a partial track-circuit including the ramp-rail and a relay controlling said partial track circuit, a differential relay and armatures carried by the train; a source of electric supply for the differential relay; an electric switch; a plow for making connection with the ramp-rail and opening and closing said electric-switch; a solenoid in a circuit including one of the armatures of the differential relay; conductors forming a circuit through one of the coils of the differential relay, plow, and partial track-circuit; and conductors forming a circuit through the other coil of the differential relay, electric-switch, and another of the armatures of said differential relay; together with a governor, an electric-switch operated thereby, a supplemental circuit for the solenoid passing through the last mentioned electric-switch, and auxiliary air-brake mechanism operated by the solenoid.

5. An electric train-control system for railroads having a ramp-rail or conductor alongside the track, said system comprising a partial track-circuit including the ramp-rail and a relay controlling said partial track circuit; a differential relay and armatures carried by the train; a source of electric supply for the differential relay; an electric-switch; a plow for making connection with the ramp-rail and opening and closing said electric-switch; a solenoid in a circuit including one of the armatures of the differential relay; conductors forming a circuit through one of the coils of the differential relay, plow, and partial track-circuit; and conductors forming a circuit through the other coil of the differential relay, electric-switch, and another of the armatures of said differential relay; together with a piston-valve between the feed pipe from the engineer's brake-valve and the train-line pipe, a control-valve admitting air-pressure from the main reservoir to the aforesaid piston-valve, a pipe admitting air-pressure to the control-valve, and a plunger valve connected to said pipe and held normally closed by the solenoid.

[Claims 6 and 7 not printed in the Gazette.]

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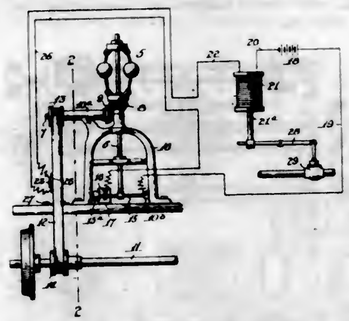
1,090,360. ELECTRIC SIGNAL FOR RAILROADS. HARRY J. WARTHEN, Washington, D. C. Filed June 24, 1912. Serial No. 705,619. (Cl. 246—58.)



In an electric signal and train control apparatus for railroads, the combination with a solenoid, an electric circuit controlling the same, a switch for opening and closing said circuit, a plow and a removable supporting member, a contact on said member, and connections between the plow and switch for operating the latter, of contact-plates above and below the aforesaid contact and normally out of contact, and electric connections between said plates and the conductors to the battery for shunting the current from the solenoid when the contact of said supporting member engages either one of the contact plates, substantially as shown and for the purpose set forth.



1,090,361. APPARATUS FOR CONTROLLING THE SPEED OF RAILROAD-TRAINS. HARRY J. WARTHEN, Washington, D. C. Filed June 24, 1912. Serial No. 705,620. (Cl. 188—72.)



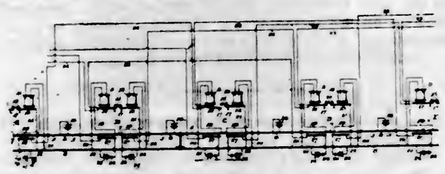
1. In an apparatus for controlling the speed of railroad trains, an electric circuit, a solenoid and an electric-switch included in said circuit, a governor geared to a driven shaft of the train and operating the switch, and a second electric-switch in the aforesaid circuit held normally closed by a part of the governor mechanism; together with means operated by the solenoid.

2. In an apparatus for controlling the speed of a railroad train, an electric circuit, a solenoid and an electric-switch included in said circuit, a governor connected to the electric-switch for operating the same, a belt forming a driving connection for the governor, and an electric-switch in the aforesaid circuit held normally closed by the belt; together with means operated by the solenoid.

3. In an apparatus for controlling the speed of a railroad train, an electric circuit, a solenoid and an electric-switch included in said circuit, a governor connected to the electric switch for operating the same, a belt forming a driving connection for the governor, a second electric-switch included in the aforesaid circuit and comprising a contact and companion lever, the latter being pivoted and provided with a roller bearing against the belt to maintain said switch closed, and means operated by the solenoid.

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1,090,362. ELECTRIC SIGNAL FOR RAILWAYS. HARRY J. WARTHEN, Washington, D. C. Filed Mar. 24, 1909, Serial No. 485,527. Renewed Feb. 5, 1914. Serial No. 816,842. (Cl. 246—27.)



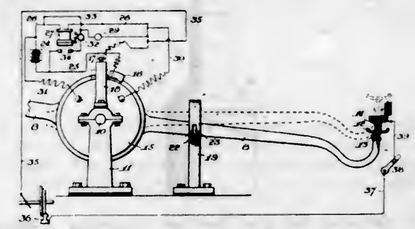
1. In an automatic electric railway signaling system, the combination with a track divided into blocks, a signal station at each block junction point, a wire extending from each signal station to a station in advance and to a station in the rear, such wires coöperating with a rail of the track to form signal circuits, means for normally connecting said wires to each other and to the track rail, and means controlled by the presence of a train in a block adjacent the station for disconnecting said wires from each other and from the rail, thereby opening both signal circuits.

2. In an automatic electric railway signaling system, the combination with a track divided into blocks, a signal station at each block junction point, a relay connected to the rails at each end of each block, whereby there are two relays adjacent each station, one of said relays having a single armature, and the other of said relays having a pair of armatures electrically insulated but mechanically connected, a wire extending from said single armature to a rail of the track, a second wire extending from one of the armatures of said pair to a signal station in advance, a third wire extending from the other of said armatures to a signal station in the rear, and a plate with which all three of said armatures are normally in engagement, whereby, when either relay is deënergized, and its armature falls away, the circuit to both signal stations is interrupted.

3. In an electric signal system for railways, a track divided into blocks, a signal station for each block, a relay connected to the rails of each block at each end thereof, whereby there are two relays adjacent each station, normally closed track circuits energizing said relays, one of said relays being provided with a pair of armatures electrically insulated but mechanically connected, and the other of said relays having a single armature, all of said armatures being normally magnetically suspended, a signal circuit extending from each station to a station on each side thereof, each of such circuits including one of said pair of armatures, respectively, and said single armature being included in both of said circuits, whereby, when either of said relays is deënergized, both said signal circuits are broken.

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1,090,363. TROLLEY FOR ELECTRIC SIGNALS FOR RAILWAYS. HARRY J. WARTHEN, Washington, D. C. Filed June 16, 1910, Serial No. 567,302. Renewed Feb. 5, 1914. Serial No. 816,844. (Cl. 246—26.)



1. In an electric signal system for railways, in combination with an external partial circuit, of a make and break device in the partial circuit, short rails or conductors also included in the partial circuit and connected to one member of the make and break device, a movable trolley-arm on the locomotive engaging the short rails or conductors and actuated thereby, an electric battery on the locomotive, a movable device carrying an electric-switch member connected to one pole of the battery, means operated by a closed circuit with the battery for connecting said movable device to the trolley-arm so that they may move together, a companion electric-switch member connected to the other pole of the battery, and electric connections from the last mentioned pole of the battery to that part of the external partial circuit leading to the other member of the aforesaid make and break device.

2. In an electric signal for railways, the combination with an external partial circuit, of a make and break device in the partial circuit, short rails or conductors also included in the partial circuit and connected to one member of the make and break device, a movable trolley-arm engaging the short rails or conductors and actuated thereby, an electric battery on the locomotive, an electro-magnet carrying an electric-switch member and movable with the trolley-arm when attracted thereto, said electric-switch member being connected to one pole of the battery, a companion electric-switch member connected by wire to the other pole of the battery, the electro-magnet being connected to said wire, and electric connections between said wire and that part of the partial circuit leading to the other member of the aforesaid make and break device; substantially as shown and described.

3. In an electric signal system for railways, the combination with an electric battery and an external partial circuit, of a make and break device in the partial circuit, short rails or conductors also included in the partial circuit and connected to one member of the make and break device, a spring-actuated trolley-arm for engagement with the short rails or conductors, a yielding shoe at the outer end of the trolley-arm, a wheel for supporting the trolley-arm and movable therewith, a rotatably mounted electro-magnet alongside the wheel attracting said wheel to turn therewith when the magnet is energized, an electric-switch member carried by said electro-magnet and connected to one pole of the battery, a companion electric-switch member connected by wire to the other pole of said battery, the electro-magnet being connected to said wire and electric connections between the wire and that part of the external partial circuit leading to the other member of the make and break device; substantially as shown and described.

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1,090,364. GARBAGE-RECEPTACLE. JOHN W. WILSON, Dorsey, Miss. Filed Dec. 23, 1911. Serial No. 667,465. (Cl. 57—37.)



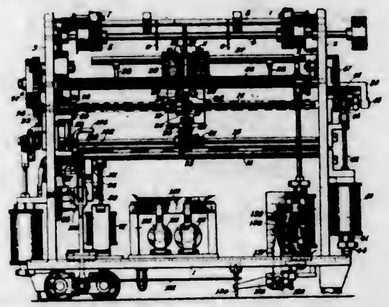
A device of the class described comprising a hopper enlarged at its upper end and having a tubular depending portion engaged through a floor, means connected with the enlarged upper end to prevent downward movement of the hopper, a ring frictionally engaged around the tubular depending portion of the hopper and engaged against the under face of the floor to prevent upward movement of the hopper, a plurality of depending and reversely curved spring arms carried by the ring, a cover slidably engaged upon the depending portion of the hopper and having a circular flange at its upper end for engagement beneath the reversely curved spring arms to support the cover in raised position, a receptacle, said cover being adapted when in its lower position to cover the receptacle, means for closing the upper end of the hopper, and means for normally closing the lower end of the tubular depending portion of the hopper.

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1,090,365. PRINTING-TELEGRAPH. JOHN EDWARD WRIGHT, Pittsburgh, Pa. Filed Dec. 9, 1912. Serial No. 735,682. (Cl. 178—141.)

1. In a printing telegraph instrument, the combination with a type-wheel and a carriage therefor, of rotary spindles in gear with the type-wheel, one adapted to impart rotary and the other longitudinal movement thereto, of rack bars capable of rectilinear movement and geared with the spindles, electro-magnets and armatures for imparting movement to said rack bars, stops in the paths of said bars, and electro-magnets for controlling the operation of said stops.

2. In a column printing telegraph instrument, the combination with a type-wheel, a carriage therefor and feeding means for advancing the carriage, of driving electro-magnets and intermediate connections between the same and the type-wheel, one adapted to impart rotary and the other longitudinal movement thereto, stops for limiting the extent of the movement imparted by such connections, and electro-magnets for controlling the operation of said stops.



3. In a printing telegraph instrument, the combination with a type wheel, of a driving electro-magnet and intermediate connections for imparting rotary movements of varying extent and in a given direction from its initial position, to said type wheel, stops for limiting and determining the extent of such movements, electro-magnets for controlling the operation of the stops, and means for imparting to the type wheel a rotary movement of definite extent and in the same direction, independently of the driving and stop controlling magnets.

4. In a printing telegraph instrument, the combination with a rotary type wheel, of a spindle in gear therewith and adapted to rotate the same, a driving electro-magnet and armature geared to and adapted to rotate the spindle in a given direction, electrically controlled stops for limiting the rotation of the spindle to arcs of varying lengths, and means for imparting to said spindle rotation in the same direction through an arc of fixed length independently of the driving magnet and electrically controlled stops.

5. In a printing telegraph instrument, the combination with a type wheel, of a driving electro-magnet and intermediate connections for imparting rotary movement to said type wheel from its initial position, stops for limiting such movement to arcs that include two character columns or multiples thereof, electro-magnets for controlling the operation of the stops and means for imparting to the type wheel from any position a rotary movement through an arc including one character column only, independently of the driving and stop controlling magnets.

[Claims 6 to 15 not printed in the Gazette.]

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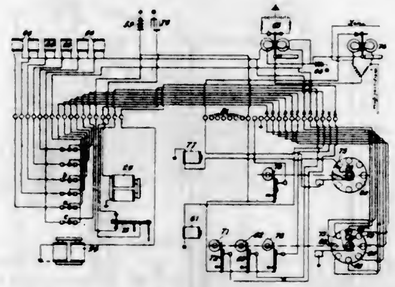
1,090,366. KEYBOARD FOR PRINTING-TELEGRAPH SYSTEMS. JOHN EDWARD WRIGHT, Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1913. Serial No. 743,510. (Cl. 178—69.)

1. In a key board for telegraph systems which comprise a transmitting sunflower instrument, the combination with a bank of keys, of means controlled by all of the keys for releasing the transmitting sunflower, key controlled circuit selectors and means controlled by the sunflower for connecting the selected circuits to their corresponding sunflower segments, as set forth.

2. In a key board for telegraph systems which comprise a transmitting sunflower instrument, the combination with a bank of keys, of a battery, a condenser in circuit therewith, a release magnet circuit for the sunflower, and a circuit controller adapted to be operated by all of the keys to discharge the condenser through the release magnet circuit when any key is depressed.



3. In a key board for sunflower transmitters, the combination, with a bank of keys, of a key controlled circuit common to all of the keys for releasing the sunflower, key controlled circuit selectors and contact devices controlled by the sunflower for connecting the selected circuits to the corresponding sunflower segments.



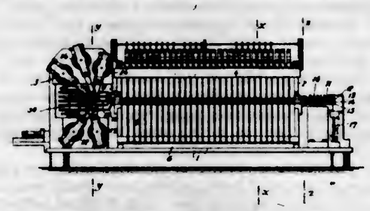
4. In a key board for sunflower transmitting instruments, the combination with a bank of keys, of a source of current, circuits from the same to the segments of the sunflower, circuit controllers in said circuits, key controlled selecting devices for permitting or preventing the operation of the circuit controllers, and an electromagnet, dependent for operation upon the movement of the sunflower, for actuating those circuit controllers which, by the adjustment of the selecting devices, are free to operate.

5. In a telegraph key board instrument, the combination with a bank of keys, of a series of circuits, circuit controllers therein, selecting devices for permitting or preventing the operation of the circuit controllers and connected mechanically with the keys, and a selecting device adapted to be operated by the depression of certain of said keys simultaneously with the operation of the selecting devices connected therewith.

[Claim 6 not printed in the Gazette.]

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1,090,367. TRANSLATOR FOR PRINTING-TELEGRAPH SYSTEMS. JOHN EDWARD WRIGHT, Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1913. Serial No. 743,511. (Cl. 178—141.)



1. In a translator for printing telegraph systems, the combination with a series of receiver controlling circuits and a series of line controlled circuits, of a plurality of circuit controllers, certain of which are adapted when operated to complete single receiver circuits, and others a plurality of such circuits simultaneously, and electromagnetically operated selecting devices connected with the line controlled circuits for bringing into operation the said circuit controllers corresponding to definite signals transmitted over the line.

2. In a translator for printing telegraph systems, the combination with a series of receiver controlling circuits and a series of line controlled circuits, of movable contact controlling levers, certain of which, when operated, complete single receiver circuits and others two of such circuits simultaneously, means connected with a line controlled circuit for operating said contact levers, and selecting magnets connected with line controlled circuits for determining the contact lever so operated, according to the signal transmitted to the translator.

3. In a translator for printing telegraph systems, the combination with a series of receiver controlling circuits, and a series of line controlled circuits, of a series of movable contact controlling levers, certain of which when operated complete single receiver circuits and others two of such circuits simultaneously, a set of sliding permutation bars normally restraining all of said contact controlling levers from operation, an electro-magnet on a line controlled circuit for shifting the bars and selecting magnets included in line controlled circuits for determining the particular bar or bars to be shifted to permit the operation of the contact levers corresponding to the signals transmitted to the translator.

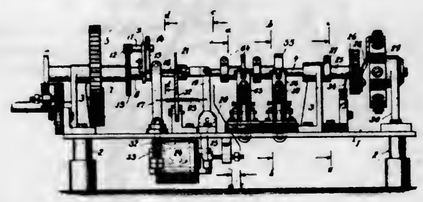
4. In a translator for printing telegraph systems, the combination with a series of receiver controlling circuits and a series of line controlled circuits, of circuit controllers in the receiver circuits, selecting devices in the line controlled circuits for operating the circuit controllers according to the signals transmitted over the line, an electromagnet in one of the line controlled circuits, and a circuit controller in one of the receiver controlling circuits adapted to be operated by the action of said magnet.

5. In a translator for printing telegraph systems, the combination with a series of receiver controlling circuits and a series of line controlled circuits, of circuit controllers in the receiver circuits, selecting devices in the line circuits for bringing the same into operation according to the character of the signals transmitted, a circuit breaker common to all of the receiver circuits and means controlled by a line circuit for operating the same to interrupt the receiver circuit for intervals during which the circuit controllers are making contact.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,368. TRANSMITTER FOR PRINTING-TELEGRAPH SYSTEMS. JOHN EDWARD WRIGHT, Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 22, 1913. Serial No. 743,512. (Cl. 178—69.)



1. A transmitting apparatus for printing telegraph systems, comprising in combination the following elements; sunflower instruments with corresponding contact segments and at opposite ends of a line; means for operating the same which are normally locked; circuits in both instruments and releasing means operated thereby for permitting the shafts to make one revolution, the releasing circuit of the sending instrument being a keyboard controlled circuit independent of the sunflower circuits and that in the receiving instrument being connected with the first contact segment to receive current from line.

2. A transmitting apparatus for printing telegraph systems, comprising in combination, two normally locked sunflower instruments having corresponding contact segments and located at opposite ends of a line; means for releasing the sending sunflower and means for releasing the receiving sunflower, and a circuit including the last named releasing means directly connected with that contact segment of the receiving sunflower which is first to receive current transmitted by the initial movement of the sending sunflower on the release and operation of the same.

3. A transmitting apparatus for printing telegraph systems, comprising in combination, two normally locked sunflower instruments having corresponding segments and at opposite ends of a line, means for releasing the sending instrument to make one revolution, and electrically controlled means for the same purpose in the receiving instrument, and a circuit, including said releasing means, connected directly with that contact segment which is first to receive current transmitted by the initial movement of the sending sunflower on the release and operation of the same.

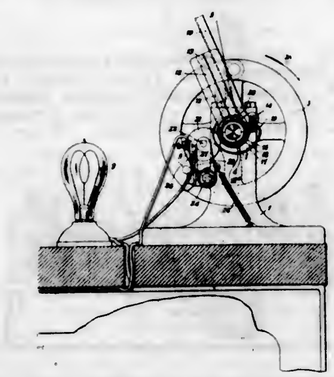
4. In a transmitting instrument for printing telegraph systems, the combination with the sunflower ring and rotatable shaft of the sending apparatus, of a series of keyboard controlled circuits one for starting the sunflower in operation and the others connected to sunflower segments for sending impulses to line, keyboard controlling circuits and circuit controllers therein adapted to be operated by the movement of the sunflower shaft.

5. In a transmitting instrument for printing telegraph systems, the combination with the sunflower ring and rotatable shaft of the sending apparatus, of a series of keyboard controlled circuits connected with the sunflower segments, a keyboard controlled circuit and a releasing device for the sunflower operated thereby, keyboard controlling circuits and circuit controllers therein, and cams on the shaft of the sunflower for operating said circuit controllers.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,369. INSULATING SLEEVE OR TUBE MACHINE. FREDERICH WUNDERLICH, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 8, 1909. Serial No. 506,607. (Cl. 93—81.)



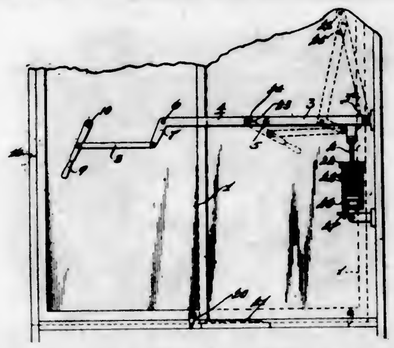
1. A tube machine comprising a rotatable shaft, a tubular resilient guide mounted upon said shaft, and a spring making engagement with the ends of the guide and serving to force them toward each other.

2. A tube machine comprising a rotatable shaft, a reinforced fabric sleeve mounted upon said shaft, a spring for forcibly wrapping the sleeve closely about the shaft, and a stationary inclined chute over which insulating strips may be fed into the sleeve.

3. A tube machine comprising a rotatable shaft or arbor, a stationary chute or guide, a flexible sleeve or wrapping surrounding the shaft, a yielding tubular member for forcibly wrapping the sleeve about the shaft, and means for automatically indicating a predetermined thickness of tube.

4. A machine for making insulating tubes comprising a rotatable shaft or arbor, a flexible sleeve, resilient means for wrapping the sleeve about the shaft, means for preventing the turning of the sleeve with the shaft or arbor, and a chute for feeding insulating strips into the sleeve.

1,090,370. DOOR-CONTROLLING DEVICE. EDWARD WYLDE, New York, N. Y., and CHARLES SCHENCK, Chicago, Ill., assignors to Elevator Supply & Repair Company, a Corporation of Illinois. Filed Feb. 28, 1913. Serial No. 751,251. (Cl. 39—94.)



1. In combination, a door, automatic means for closing and latching the door, and an automatic stop for the door during a portion of its closing movement but inoperative on movement of the door from its closed position.

2. In combination, a movable door, means automatically stopping said door against an opening movement at different points during a portion of its closing movement and comprising two parts, one of which is moved by the movement of the door, said parts being freely movable past each other and unengageable during the closing movement but arranged to engage automatically and only when said door is given an opening movement from a point short of its closed position.

3. In combination, a movable door, means automatically stopping said door against an opening movement at different points during a portion of its opening movement and comprising two parts, one of which is moved by the movement of the door, said parts being freely movable past each other and unengageable during the closing movement but arranged to engage automatically and only when said door is given an opening movement from a point short of its closed position, and automatic mechanism for closing and latching the door.

4. A movable door, means automatically stopping said door against an opening movement at different points during a portion of its closing movement and comprising two parts, one of which is moved by the movement of the door, said parts being normally freely movable past each other during a portion of the closing movement but arranged to engage automatically on a reverse movement of the door, one of said parts being automatically moved into non-engageable relation to the other substantially as said door reaches its closed position.

5. A movable door, means for checking said door against an opening movement during a portion of its closing movement and comprising a surface, and a detent adapted to travel over said surface and check an accidental opening movement, said detent being so arranged that when the door is completely closed the detent automatically moves into a position to pass freely by said surface during the opening movement of the door.

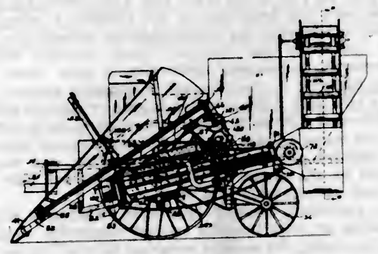
[Claims 6 to 10 not printed in the Gazette.]

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1,090,371. CORN GATHERER AND HUSKER. CHARLES YOUNGER, Rushville, Ind., assignor of one-half to Alpheus P. Walker and one-half to Charles B. Smith and Marshall E. Newhouse, Rushville, Ind. Filed Feb. 5, 1912. Serial No. 675,624. (Cl. 56—113.)

1. A corn gathering machine including a truck, means for gathering the corn from standing stalks and having dividers spaced apart to form a stalk passage between them, said gathering means being fulcrumed between its ends on said truck, means for oscillating the gathering means on a transverse axis whereby the ends will be vertically adjusted, and snapping rolls associated with said gathering means.





2. A corn gathering machine including a truck, means for gathering the corn from standing stalks and having dividers spaced apart to form a stalk passage between them, said gathering means being fulcrumed between its ends, means for oscillating the gathering means on a transverse axis whereby the ends thereof will be vertically adjusted, and snapping rolls associated with said gathering means.

3. A corn gathering machine including snap rolls journaled in fixed bearings, gathering means for gathering the corn from standing stalks and having dividers spaced apart to form a stalk passage between them and located above the snap rolls and fulcrumed between its ends near the forward end of the snap rolls and extending rearward beyond the snap rolls, and means for oscillatably adjusting the rear end of the gathering means, whereby its adjustment will not interfere with the snap rolls.

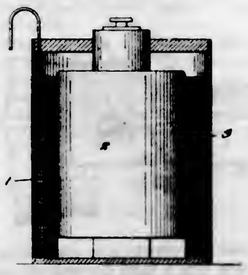
4. A corn gathering and husking machine including a frame, a gathering means having dividers spaced apart to form a stalk passage between them and fulcrumed between its ends in said frame, means for oscillatably adjusting said gathering means, snap rolls under the rear portion thereof, and husking rolls under the snap rolls and gathering means and extending rearward and longitudinally thereof.

5. A corn gathering machine including a truck adapted to be drawn through a corn field, a gathering frame oscillatably mounted on said truck, means for oscillatably and vertically adjusting said frame, chains movable longitudinally of said frame for drawing in the corn stalks and gathering the corn, and means actuated, by said adjusting means for stopping and starting the chains.

[Claim 6 not printed in the Gazette.]

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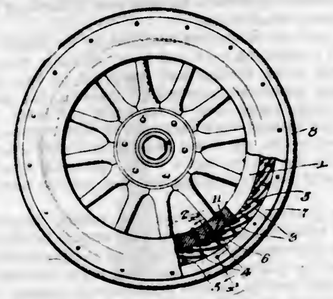
1,090,372. DRY BATTERY. JULIUS ADOLPH ERWIN ACHENBACH, Hamburg, Germany. Filed Jan. 7, 1913. Serial No. 740,625. (Cl. 204—34.)



A dry battery cell comprising the combination of a central rigid positive electrode, a negative electrode surrounding the same and consisting of a plurality of layers of corrugated, finely perforated zinc, and a semisolid electrolyte surrounding and contained within said zinc, whereby shrinking of the electrolyte does not affect its contact with the negative electrode.

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1,090,373. SPRING-WHEEL. FRANK P. BACON, Los Angeles, Cal. Filed May 28, 1913. Serial No. 770,507. (Cl. 152—37.)



1. In a spring wheel, an inner rim, a series of blocks with wedge shaped recesses secured to the inner rim, springs with wedge shaped heads in said recesses, said springs having laterally projecting lugs at their outer ends, an outer rim, and circular plates secured to the outer rim, said circular plates having radial ribs which are engaged by said lugs.

2. In a spring wheel, an inner rim, a series of blocks secured thereto, each of said blocks having a wedge shaped recess, a plurality of springs carried by a set of blocks, each of said springs having a wedge shaped head received in the associated recess in a block, the outer ends of said springs bearing against the outer rim.

3. In a spring wheel, an inner rim, springs coupled to said rim, said springs having laterally projecting lugs at their outer ends, an outer rim, circular plates secured to one of said rims, and ribs on said circular plates adapted to be engaged by said lugs.

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1,090,374. PORTABLE ELECTROLIER. GEORGE H. BARNHART, Ouray, Colo. Filed Jan. 6, 1913. Serial No. 740,507. (Cl. 240—67.)



1. A portable electrolier comprising a hook adapted to be suspended from the ordinary picture molding, a tubular member depending vertically from said hook, a hollow element attached to the lower extremity of the tubular member, said element having a flat surface for engagement with the wall of the room, a lamp bracket extending outwardly from said hollow element, an electric lamp mount-

ed in said bracket, and electrical conductors extending from said lamp through the bracket, hollow element and tubular member and out of the upper end of the latter.

2. A portable electrolier equipped at one extremity with a retaining device and freely movable, the body of the device being tubular and open at its lower extremity, electric conductors passing down through said body and forming a loop below the lower extremity of the device, the lower ends of said conductors being secured to the device, and a weight connected with said loop in running relation for the purpose set forth.

3. A portable electrolier equipped at its upper extremity with a retaining hook and freely movable, the body of the device being tubular and composed of two members adjustably connected in telescopic relation, the said body of the device being open at its lower extremity, electric conductors passing down through the said body and forming a loop below, the lower ends of said conductors being secured to the device, and a weight carrying a pulley engaging said loop in running relation for the purpose set forth.

4. An electrolier comprising two tubular members adjustably connected in telescopic relation and having a lamp mounted near the lower extremity of the lowermost member when in position for use, the lower member being open at the bottom, electrical conductors passing through the tubes and forming a loop below the lower extremity of the lower tube and passing thence to the lamp, and a weight carrying a roller engaging the said loop in running relation, substantially as described.

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1,090,375. PNEUMATIC-DESPATCH APPARATUS. THOMAS BEMIS, Indianapolis, Ind. Filed Nov. 13, 1911, Serial No. 660,106. Renewed Sept. 15, 1913. Serial No. 789,898. (Cl. 243—15.)



1. A pneumatic despatch apparatus including a terminal having an inlet tube, a main valve for closing the same, a weighted member for closing said main valve, means actuated by the air exhaust in the apparatus for elevating said weighted member, means for catching said weighted member when elevated, and means actuated by said elevating means for releasing said catching means, and timing means for controlling the releasing movement of said elevating means.

2. A pneumatic despatch apparatus including a terminal having an inlet tube, an exhaust connection, an air cylinder provided with communication between the exhaust connection and the upper end of said cylinder and also provided with a reduced timing air inlet, a valve for opening and closing the communication between the exhaust connection and said cylinder, means operable within the terminal for opening said valve, a main valve for closing the inlet to the terminal, a weighted member for closing said main valve, a piston in said cylinder, a piston rod connected with said weighted member so as to lift it when the piston ascends, a catch for engaging and holding said weighted member in its upper position, and means actuated by the piston as it reaches its lower limit of movement for releasing said catch.

3. A pneumatic despatch apparatus including a terminal having an inlet tube, an exhaust connection, an air cylinder provided with communication between the exhaust connection and the upper end of said cylinder and also provided with a reduced timing air inlet and also having an air port at its lower end, a ball valve for closing the port and lower end of the cylinder, a valve for opening and closing the communication between the exhaust connection and cylinder, means operable within the terminal for opening said valve, a main valve for closing the inlet to the terminal, a weighted member for closing said main valve, a piston in said cylinder, a piston rod connected with said weighted member so as to lift it when the piston ascends, a catch for engaging and holding said weighted member in its upper position, and means actuated by the piston as it reaches its lower limit of movement for releasing said catch.

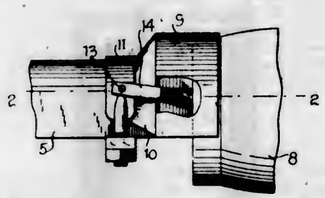
4. A pneumatic despatch apparatus including a terminal having an inlet tube, an exhaust connection, a main valve for closing the same, a weighted member pivoted to said terminal for closing said main valve, a vertical cylinder with the upper end in communication with the exhaust connection, a valve for controlling said communication, a valve-controlled inlet for air at the lower end of said cylinder, a piston in said cylinder, a piston rod operating through the lower end of the cylinder, a connection between said weighted member and piston rod so that the piston rod will lift the weighted member but can return independently of the weighted member, a catch pivotally mounted in the lower end of the cylinder and adapted to engage and hold the weighted member when elevated, means extending through the lower end of the cylinder and adapted to be actuated by the piston at the lower end of its movement for releasing said catch, and means for slowly admitting air into the upper end of said cylinder.

5. A pneumatic despatch apparatus including a terminal having an inlet tube, an exhaust connection, a main valve for closing the same, a weighted member pivoted to said terminal for closing said main valve, a vertical cylinder with the upper end in communication with the exhaust connection, a valve for controlling said communication, a valve-controlled inlet for air at the lower end of said cylinder, a piston in said cylinder, a piston rod operating through the lower end of the cylinder and having an enlarged lower end, a bracket pivoted to said weighted member with an opening through the upper end thereof for said piston rod, a catch pivotally mounted to the lower end of the cylinder and adapted to engage and hold the weighted member when elevated, means extending through the lower end of the cylinder and adapted to be actuated by the piston at the lower end of its movement for releasing said catch, and means for slowly admitting air into the upper end of said cylinder.

[Claims 6 to 15 not printed in the Gazette.]

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1,090,376. DUST-CAP. JOSEPH E. BILLUPS, Kellyton, Ala. Filed Oct. 13, 1613. Serial No. 794,932. (Cl. 21—40.)



1. A sand band for vehicle hubs comprising in combination with the axle clip, a band disposed over the inner end of the wheel hub and provided with extensions on one end secured to the axle clip, and brushes fixed to the clip and extending through the end wall of the band for engagement with the end of the vehicle hub.



2. A sand band for wheel hubs comprising in combination with the axle clip, the band proper extending over the end of the wheel hub and having an end wall provided with extensions secured to the axle clip, said extensions between the clip and the periphery of the band being spaced apart to provide an outlet opening, and brushes secured to opposite sides of the clip and extending through the end wall of the band, said brushes being adapted for engagement with the end of the vehicle hub.

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1,090,377. ROPE-CLAMP. JASPER BLACKBURN, Kirkwood, Mo. Filed May 15, 1911. Serial No. 627,369. (Cl. 24—136.)



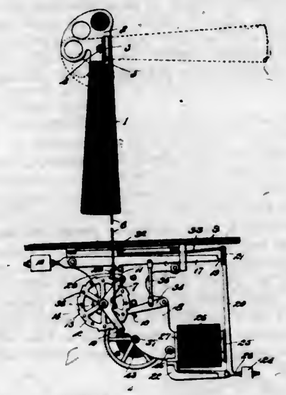
A rope clamp, comprising a female member having converging walls channeled on their inside faces, and an open side between said walls, and a wedge-shaped member arranged to be embraced by a rope and fitted together with the rope into the open side of the female member and drawn into the converging walls so that the channels will overlap the rope and thus hold the wedge-shaped member in place.

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1,090,378. RAILWAY-SIGNAL-OPERATING MECHANISM. JASPER BLACKBURN, Kirkwood, Mo. Filed May 15, 1911, Serial No. 627,370. Renewed Aug. 11, 1913. Serial No. 784,248. (Cl. 246—21.)

1. In a signal operating mechanism, the combination with a semaphore having means connected therewith for moving it to a signaling position, of a motor in which the energy is stored by winding, releasable means for connecting the motor with the semaphore to hold the semaphore in a non-signaling position against the action of the means connected with the semaphore, electrically controlled means for releasing said means from the motor to permit the semaphore to move to a signaling position, means simultaneously operated with said electrically controlled means for stopping the motor, and means connected with the motor for restoring said releasable means and said electrically-controlled means to normal positions after each operation.

2. In combination with a weighted semaphore and an actuating rod connected therewith, a motor whose energy is stored by winding, releasable means for connecting the motor with the actuating rod for holding the semaphore against its weight, in a non-signaling position, a weighted lever, means for connecting said lever with said last mentioned means, an electrically controlled device for holding said lever whereby when the electrically controlled device is moved the lever will be automatically moved and the semaphore released to fall to a signaling position, means connected with said electrically controlled device for stopping the motor when the electrically controlled device is moved, and a connection between said lever and the motor whereby when the electrically controlled device is moved to restore the semaphore to a non-signaling position the motor is released thereby restoring the semaphore to a non-signaling position and at the same time restoring the lever to its normal position.

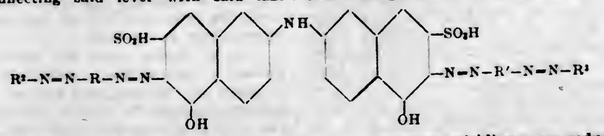


3. In combination with a weighted semaphore, an actuating rod connected therewith, a motor whose energy is stored by winding, a ratchet wheel connected with the motor and a pawl carrier connected with the actuating rod, a pawl pivoted to said carrier and engaging said ratchet wheel, a lever, an electrically-controlled means for holding the lever, a connection between said lever and pawl whereby, when said lever is released, the pawl is disengaged from the ratchet wheel and the semaphore permitted to fall to a signaling position, a fly connected with the motor, a stop, means for connecting the stop with the electrically-controlled means so that, when the electrically-controlled means is moved in one direction, the stop will engage one of the vanes of the fly and stop the motor, means connected with said lever and arranged to engage with said ratchet wheel so that, when the electrically-controlled means is moved in an opposite direction, the fly will be released and the motor will restore the lever to its normal position and through the medium of the ratchet wheel and pawl carrier restore the semaphore, against its weight, to a non-signaling position.

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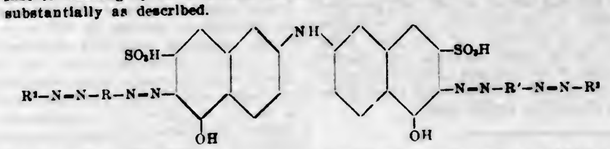
1,090,379. COTTON-DYES. AUGUST BLANK, CARL HEIDENREICH, and JOHANNES JANSEN, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 1, 1913. Serial No. 758,113. (Cl. 8—1.)

1. The herein described new dyestuffs having a constitution corresponding to the formula:



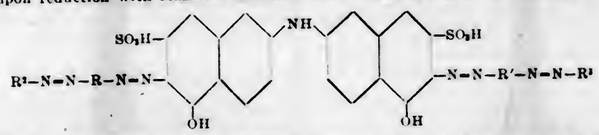
which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid the 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, a paradiamin and

an amin; and dyeing cotton generally blue bright shades 2. The hereindescribed new dyestuffs having a constiwhich are rendered fast to washing by an aftertreatmenttution corresponding to the formula:
with formaldehyde, substantially as described.



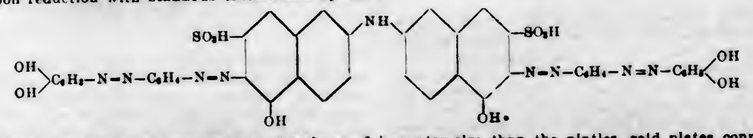
in which R and R′ are aromatic nuclei of the benzene series, and $R^2$ and $R^3$ end components of the benzene series having auxochrome groups in meta position to each other which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid the 6.6′-diamino-5.5′-dioxy-2.2′-dinaphthylamin-7.7′-disulfonic acid, a paradiamin and an amin; and dyeing cotton generally bright blue shades which are rendered fast to washing by an after-treatment with formaldehyde, substantially as described.

3. The hereindescribed new dyestuffs having a constitution corresponding to the formula:



in which R and R′ are aromatic nuclei of the benzene series, and $R^2$ and $R^3$ end components of the benzene series having auxochrome groups in meta position to each other one at least of which is an OH group which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid the 6.6′-diamino-5.5′-dioxy-2.2′-dinaphthylamin-7.7′-disulfonic acid, a para-diamin and an amin; and dyeing cotton generally bright blue shades which are rendered fast to washing by an after treatment with formaldehyde, substantially as described.

4. The herein described new dyestuff having in a free state most probably the formula:



which is after being dried and pulverized in the shape of its sodium salt a blue-black powder soluble in water with a blue and in concentrated sulfuric acid (66° B4.) with a blue colorntion; yielding upon treatment with stannous chlorid and hydrochloric acid the 6.6′-diamino-5.5′-dioxy-2.2′-dinaphthylamin-7.7′ disulfonic acid, paraphenylenediamin and amino-resorcin; and dyeing cotton blue shades; rendered fast to washing by an aftertreatment with formaldehyde, substantially as described.

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1,090,380. DRIVING-CHAIN. ARTHUR BRAMPTON and GEORGE WADHAMS, Birmingham, England. Filed Jan. 9, 1914. Serial No. 811,238. (Cl. 74—32.)



1. In a driving chain, the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain and a spring extending between the pintles having its extremities embracing said pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks, the said spring forming the contacting part which is engaged by the teeth of the sprocket wheel when the chain is in use; substantially as set forth.

2. In a driving chain, the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring extending between the pintles having its extremities embracing said pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; the said spring forming the contacting part which is engaged by the teeth of the sprocket wheel when the chain is in use; and a hardened steel liner located intermediate between the interior of each of the springs and the pintles; substantially as set forth.

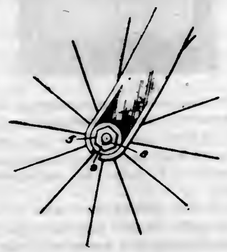
3. In a driving chain the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring of substantially C shape extending between the pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; extensions of the spring embracing the pintles and adapted to be engaged by the teeth of the sprocket wheel when the chain is in use; and a hardened steel liner located intermediate between the interior of each of the springs and the pintles; substantially as set forth.

4. In a driving chain the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring of substantially C shape extending between the pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; extensions of the spring embracing the pintles and adapted to be engaged by the teeth of the sprocket wheel when the chain is in use; a hardened steel liner located intermediate between the interior of each of the springs and the pintles; a supplemental spring member secured to the said C shaped spring and forming therewith a laminated spring member; substantially as set forth.



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1,090,381. BICYCLE-FORK. WILLIAM H. BUSTER and SIDNEY VARNELL, Kingsland, Ark. Filed Sept. 18, 1912. Serial No. 721,081. (Cl. 208—96.)



1. A bicycle fork having each prong provided with a shoulder and a slot, said slot dividing said shoulder at its greatest depth and at the lower end of said fork, an axle seated in said slot, washers fitted on the ends of the axle, said washers engaging said shoulder, said axle having its ends extended and screw threaded for the reception of the nuts.

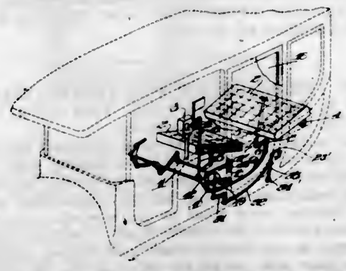
2. A bicycle fork having its lower end slotted and formed with a shoulder divided by the slot.

3. A bicycle fork having its lower end slotted, and formed with a shoulder, said shoulder being divided by said slot at the lower end of the fork; said shoulder conforming in outline to the outer periphery of the fork.

4. A bicycle fork having its lower end slotted and formed with a lateral shoulder, a washer, an axle inserted through the slot, and having said washer applied thereto, said shoulder conforming to the outer edge of said washer, said slot dividing said shoulder at its greatest depth and at the lower end of the fork.

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1,090,382. VEHICLE SERVICE-INDICATOR. JOHN F. BYRNES, San Francisco, Cal., assignor of forty-five one-hundredths to Robert Coleman and ten one-hundredths to F. M. McAuliffe, San Francisco, Cal. Filed Nov. 23, 1911. Serial No. 661,881. (Cl. 235—30.)



1. An apparatus for the indication of the letting of vehicles, said apparatus comprising a suitable timing and indicating device, means controlled by the seating of a passenger to actuate said device, and means controlled by the door of the vehicle to interrupt a movement of said device.

2. An apparatus for the indication of the letting of vehicles, said apparatus comprising a suitable timing and indicating device, means connected to and operable by the seats of the vehicle to actuate said device, and connections between the door of the vehicle and said apparatus to interrupt a movement of the latter.

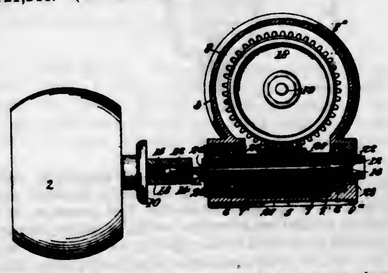
3. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle for interrupting a movement of said device, and means connected to the sides of the vehicle and to said connections for actuating said device.

4. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle, and means connected to said seats for controlling said device, said means including rocking levers, a link connecting one of said levers to the aforesaid device, and links and levers actuated by one of the seats and moving said first named lever.

5. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle, and means connected to said seats for controlling said device, said connections comprising a bolt engageable at one end with the edge of the door and connected to the first named lever.

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1,090,383. POWER-TRANSMITTING MECHANISM. EDWIN B. CANTRELL, Oakland, and GEORGE E. MILLER, San Francisco, Cal. Filed Sept. 19, 1912. Serial No. 721,146. (Cl. 74—36.)



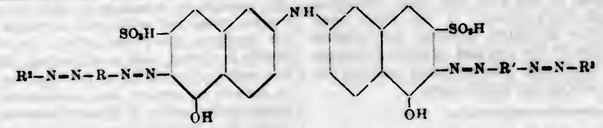
1. In power transmitting mechanism, a worm having a body portion, a casing in which the worm is mounted, antifriction bearings interposed between the body of the worm and the casing to reduce running friction and supporting the worm, a worm-gear meshing with and driven by said worm, antifriction bearings supporting the worm gear in the casing, the worm having a passage extending through the same, and communicating at its ends with the atmosphere so that air may circulate therethrough.

2. In a power transmitting mechanism, the combination with a driven member, of suitable bearings for said member, and a driving member for the driven member, said driving member being internally chambered from end to end for communication with the atmosphere, so that air may circulate through the driving member to convey away heat due to the friction of the operating parts.

3. In a power transmitting mechanism, the combination with a driven member, of suitable bearings for said member, a driving member for the driven member, said driving member being internally chambered from end to end for communication with the atmosphere, so that air may circulate through the driving member to convey away heat due to the friction of the operating parts, said driving member having means for maintaining the circulation of air through said chamber.

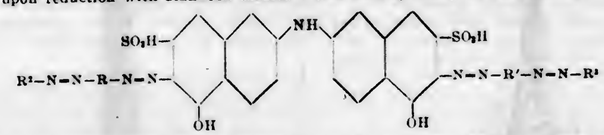
4. In a power transmitting mechanism, the combination of a shaft, antifriction bearings supporting the shaft, a driven gear secured on the shaft, and a driving gear meshing with the gear on said shaft, said driving gear being provided with means for preventing an undue increase of temperature therein.

an amin; and dyeing cotton generally blue bright shades 2. The hereindescribed new dyestuffs having a constiwhich are rendered fast to washing by an aftertreatmenttution corresponding to the formula:



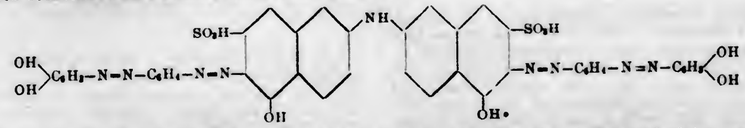
in which R and R' are aromatic nuclei of the benzene series, and $R^2$ and $R^3$ end components of the benzene series having auxochrome groups in meta position to each other which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid the 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, a paradiamin and an amin; and dyeing cotton generally bright blue shades which are rendered fast to washing by an after-treatment with formaldehyde, substantially as described.

3. The hereindescribed new dyestuffs having a constitution corresponding to the formula:



in which R and R' are aromatic nuclei of the benzene series, and $R^2$ and $R^3$ end components of the benzene series having auxochrome groups in meta position to each other one at least of which is an OH group which dyes are after being dried and pulverized in the shape of their alkaline salts dark powders soluble in water and in concentrated sulfuric acid generally with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid the 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7'-disulfonic acid, a para-diamin and an amin; and dyeing cotton generally bright blue shades which are rendered fast to washing by an after treatment with formaldehyde, substantially as described.

4. The herein described new dyestuff having in a free state most probably the formula:



which is after being dried and pulverized in the shape of its sodium salt a blue-black powder soluble in water with a blue and in concentrated sulfuric acid (66° B4.) with a blue coloration; yielding upon treatment with stannous chlorid and hydrochloric acid the 6.6'-diamino-5.5'-dioxy-2.2'-dinaphthylamin-7.7' disulfonic acid, paraphenylenediamin and amino-resorcin; and dyeing cotton blue shades; rendered fast to washing by an aftertreatment with formaldehyde, substantially as described.

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1,090,380. DRIVING-CHAIN. ARTHUR BRAMPTON and GEORGE WADHAMS, Birmingham, England. Filed Jan. 9, 1914. Serial No. 811,238. (Cl. 74—32.)



1. In a driving chain, the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain and a spring extending between the pintles having its extremities embracing said pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks, the said spring forming the contacting part which is engaged by the teeth of the sprocket wheel when the chain is in use; substantially as set forth.

2. In a driving chain, the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring extending between the pintles having its extremities embracing said pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; the said spring forming the contacting part which is engaged by the teeth of the sprocket wheel when the chain is in use; and a hardened steel liner located intermediate between the interior of each of the springs and pintles; substantially as set forth.

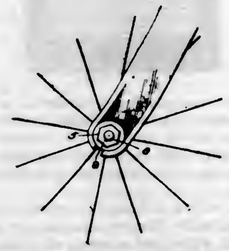
3. In a driving chain the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring of substantially C shape extending between the pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; extensions of the spring embracing the pintles and adapted to be engaged by the teeth of the sprocket wheel when the chain is in use; and a hardened steel liner located intermediate between the interior of each of the springs and the pintles; substantially as set forth.

4. In a driving chain the combination of a pair of pintles; a pair of inner check plates each having a pair of holes for receiving said pintles, the holes being of a greater size than the pintles, said plates connecting said pair of pintles together but allowing slight relative movement in the direction of the length of the chain; a spring of substantially C shape extending between the pintles and serving to normally retain the pintles at their minimum pitch or distance apart, but permitting them to separate to the maximum pitch allowed by the check plates under abnormal loads or shocks; extensions of the spring embracing the pintles and adapted to be engaged by the teeth of the sprocket wheel when the chain is in use; a hardened steel liner located intermediate between the interior of each of the springs and the pintles; and a supplemental spring member secured to the said C shaped spring and forming therewith a laminated spring member; substantially as set forth.



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1,090,381. BICYCLE-FORK. WILLIAM H. BUSTER and SIDNEY VARNELL, Kingsland, Ark. Filed Sept. 18, 1912. Serial No. 721,081. (Cl. 208—96.)



1. A bicycle fork having each prong provided with a shoulder and a slot, said slot dividing said shoulder at its greatest depth and at the lower end of said fork, an axle seated in said slot, washers fitted on the ends of the axle, said washers engaging said shoulder, said axle having its ends extended and screw threaded for the reception of the nuts.

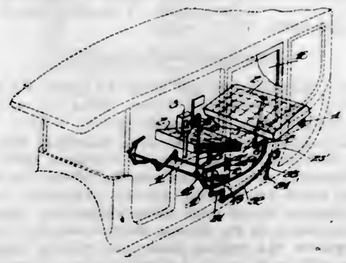
2. A bicycle fork having its lower end slotted and formed with a shoulder divided by the slot.

3. A bicycle fork having its lower end slotted, and formed with a shoulder, said shoulder being divided by said slot at the lower end of the fork; said shoulder conforming in outline to the outer periphery of the fork.

4. A bicycle fork having its lower end slotted and formed with a lateral shoulder, a washer, an axle inserted through the slot, and having said washer applied thereto, said shoulder conforming to the outer edge of said washer, said slot dividing said shoulder at its greatest depth and at the lower end of the fork.

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1,090,382. VEHICLE SERVICE-INDICATOR. JOHN F. BYRNES, San Francisco, Cal., assignor of forty-five one-hundredths to Robert Coleman and ten one-hundredths to F. M. McAuliffe, San Francisco, Cal. Filed Nov. 23, 1911. Serial No. 661,881. (Cl. 235—30.)



1. An apparatus for the indication of the letting of vehicles, said apparatus comprising a suitable timing and indicating device, means controlled by the seating of a passenger to actuate said device, and means controlled by the door of the vehicle to interrupt a movement of said device.

2. An apparatus for the indication of the letting of vehicles, said apparatus comprising a suitable timing and indicating device, means connected to and operable by the seats of the vehicle to actuate said device, and connections between the door of the vehicle and said apparatus to interrupt a movement of the latter.

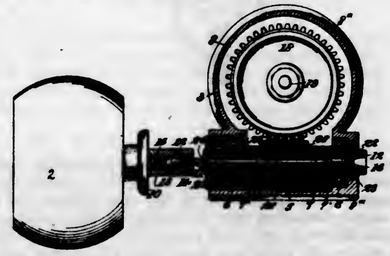
3. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle for interrupting a movement of said device, and means connected to the sides of the vehicle and to said connections for actuating said device.

4. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle, and means connected to said seats for controlling said device, said means including rocking levers, a link connecting one of said levers to the aforesaid device, and links and levers actuated by one of the seats and moving said first named lever.

5. The combination with a vehicle having seats for the reception of passengers, of a suitable registering device, connections between said device and the door of the vehicle, and means connected to said seats for controlling said device, said connections comprising a bolt engageable at one end with the edge of the door and connected to the first named lever.

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1,090,383. POWER-TRANSMITTING MECHANISM. EDWIN B. CANTRELL, Oakland, and GEORGE E. MILLER, San Francisco, Cal. Filed Sept. 19, 1912. Serial No. 721,146. (Cl. 74—36.)



1. In power transmitting mechanism, a worm having a body portion, a casing in which the worm is mounted, antifriction bearings interposed between the body of the worm and the casing to reduce running friction and supporting the worm, a worm-gear meshing with and driven by said worm, antifriction bearings supporting the worm gear in the casing, the worm having a passage extending through the same, and communicating at its ends with the atmosphere so that air may circulate therethrough.

2. In a power transmitting mechanism, the combination with a driven member, of suitable bearings for said member, and a driving member for the driven member, said driving member being internally chambered from end to end for communication with the atmosphere, so that air may circulate through the driving member to convey away heat due to the friction of the operating parts.

3. In a power transmitting mechanism, the combination with a driven member, of suitable bearings for said member, a driving member for the driven member, said driving member being internally chambered from end to end for communication with the atmosphere, so that air may circulate through the driving member to convey away heat due to the friction of the operating parts, said driving member having means for maintaining the circulation of air through said chamber.

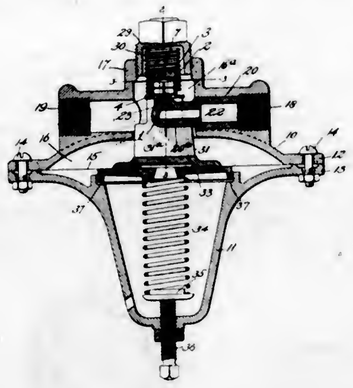
4. In a power transmitting mechanism, the combination of a shaft, antifriction bearings supporting the shaft, a driven gear secured on the shaft, and a driving gear meshing with the gear on said shaft, said driving gear being provided with means for preventing an undue increase of temperature therein.

5. In a power transmitting mechanism, the combination of a shaft, antifriction bearings supporting the shaft, a driven gear secured on the shaft and a driving gear meshing with the driven gear, said driving gear being provided with means for preventing an undue increase of temperature therein, said means comprising projections formed on the interior of the driving gear whereby air can be circulated through the interior of the same.

[Claims 6 to 12 not printed in the Gazette.]

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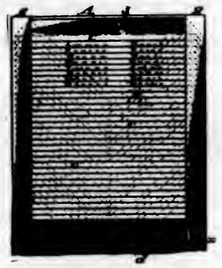
1,090,384. REDUCING REGULATING-VALVE. ARTHUR W. CASH, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed Oct. 8, 1913. Serial No. 794,164. (Cl. 50—23.)



1. In a fluid pressure reducing and regulating valve, the combination with a casing having a movable member capable of being deflected by the fluid pressure, of an inlet nipple projecting into the casing, a valve seat nipple extending from said inlet nipple provided with a small valve seat on its outer end, said outer end having polygonal sides the angles between which form slide-ways and having a circular restricting portion under said polygonal sides, a cup-shaped valve slidably mounted on said valve nipple and guided by said slide-ways, fluid passages formed by the wall of the valve and the polygonal sides of the valve seat nipple and its restricting portion, the inner surface of said valve being of greater area than the valve seat, a spring for normally seating said valve, a rigid standard between the upper side of said movable member and said valve, and a spring pressing against the opposite side of the member to deflect the same and through said rigid standard unseat the valve.

2. In a fluid pressure reducing and regulating valve, the combination with a casing having a flexible diaphragm therein capable of being deflected by fluid pressure, of an inlet nipple projecting into the casing on one side of said diaphragm, a valve seat nipple extending from said inlet nipple provided with a valve seat on its outer end, an inverted cup-shaped valve slidable on said valve seat nipple to close the same, said valve having a closing surface of greater area than the valve seat and an outwardly flaring open end, said valve seat nipple having polygonal sides below the valve seat, the angles between which sides form slide-ways for said valve and a circular restricting portion below the polygonal sides of slightly less diameter than the interior of said valve, fluid passages between the wall of the valve and the polygonal sides of the valve seat nipple, a spring for normally seating said valve, a post between said diaphragm and said valve and a spring pressing against the opposite side of said diaphragm to deflect the same and through the post to unseat the valve.

1,090,385. PERPETUAL INDEX. MAX M. COHN, Piedmont, Cal., assignor of one-half to Charles R. Hadley, Los Angeles, Cal. Filed Nov. 9, 1912. Serial No. 730,432. (Cl. 40—63.)



1. In an index, an index card consisting of a sheet folded on itself to provide a straight edge, the sheet thus folded being again folded on itself to provide a V-shaped pocket on one edge and an A-shaped wedge on the opposite edge adapted to fit into the V-shaped pocket of a preceding card.

2. In an index, the combination with a holder having parallel opposed guide flanges forming side pockets opening toward each other, and a series of index cards inserted into said pockets, said index cards each consisting of a sheet of paper folded upon itself to provide a V-shaped pocket on its under-side, said pocket opening toward one edge of the folded sheet, and the opposite folded edge of the sheet being folded to form an A-shaped guide designed to fit into a preceding V-shaped pocket.

3. An index card consisting of a sheet of paper folded upon itself and creased parallel to the fold to form an inscription panel and said folded portions again folded to form a pocket for the reception of a succeeding card.

4. In a renewable index, a series of index cards, each index card made from a sheet of paper which is adapted to have the inscription written across the middle portion of the sheet, the sheet then folded to bring the writing at the folded edge of the sheet, and to form a V-shaped pocket to receive, and to limit the amount of the insertion of a succeeding folded sheet, whereby each card projects a predetermined distance beyond a preceding one to expose to view the inscription on all the cards in the series.

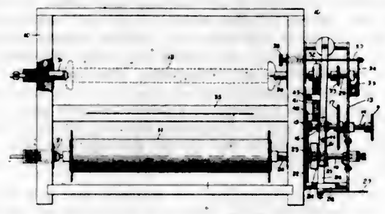
5. In a renewable index, a series of index cards, each index card made from a sheet of paper which is adapted to have the inscription written across the middle portion of the sheet, the sheet then folded to bring the writing at the folded edge of the sheet, and to form a V-shaped pocket to receive, and to limit the amount of the insertion of a succeeding folded sheet, whereby each card projects a predetermined distance beyond a preceding one to expose to view the inscription on all the cards in the series, and a holder for the cards.

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1,090,386. TRANSMISSION FOR PLAYER-PIANOS. FRANK V. CROFUT, Shelton, Conn. Filed Oct. 4, 1913. Serial No. 793,392. (Cl. 84—166.)

1. In a mechanism of the character described, the combination with the driving shaft, of a take-up shaft and re-winding shaft, of loose wheels on the driving and take-up shafts which are retained against longitudinal movement, a friction wheel fixed to the re-winding shaft, a sliding friction wheel keyed to the take-up shaft, said sliding members being provided with means for engaging the corresponding loose wheels, driving connection between the driving shaft and re-winding shaft, a lever pivoted at one end, connections between the lever and sliding members for shifting both the sliding members, curved friction pads normally engaging the periphery of the friction wheels, spring arms by which said pads are carried, and studs carried by the lever and engaging the spring arms to move the friction pads out of engagement with the friction wheels.



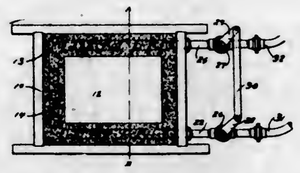


2. In a mechanism of the character described, the combination with the driving shaft, of a take-up shaft and re-winding shaft, of loose wheels on the driving and take-up shafts which are retained against longitudinal movement, a friction wheel fixed to the re-winding shaft, a sliding hub keyed to the driving shaft, a sliding friction wheel keyed to the take-up shaft, said sliding members being provided with means for engaging the corresponding loose wheels, driving connection between the driving shaft and re-winding shaft, a lever pivoted at one end, connections between the lever and sliding members for shifting both the sliding members, curved friction pads normally engaging the periphery of the friction wheels, spring arms by which said pads are carried having their fixed ends secured between the take-up and re-winding shafts and studs carried at intermediate points upon the lever and engaging the spring arms to move the friction pads out of the engagement with the friction wheels.

3. In a mechanism of the character described, the combination of a driving shaft, a take-up shaft and re-winding shaft, of loose wheels on the driving and take-up shafts, sliding members keyed to the driving and take-up shafts and provided with means for engagement with loose wheels, a driving connection from the driving shaft to the re-winding shaft, means for shifting the sliding members, a hinged arm bearing against the end of the re-winding shaft and means for operating said arm to adjust said shaft longitudinally.

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1,090,387. PROCESS FOR DRYING ARTIFICIAL STONE OR WET MOLDS. SAMUEL DAVIDSON, Buffalo, N. Y., assignor, by direct and mesne assignments, to Buffalo Cement Stone Company, Buffalo, N. Y., a Corporation of Arizona. Filed Oct. 16, 1911, Serial No. 654,967. Renewed Aug. 7, 1913. Serial No. 783,609. (Cl. 34—24.)



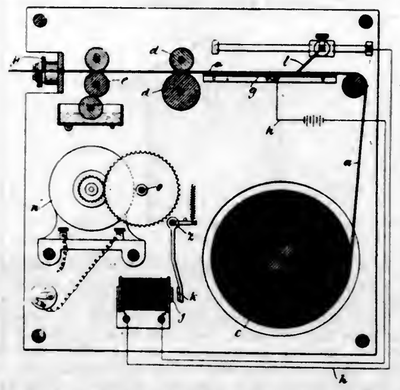
1. The process of drying artificial stone or wet molds which consists in filtering the moisture from said stone into the molding sand and then extracting said moisture from said molding sand through a filter by mechanical means.

2. The process of drying artificial stone or wet molds which consists in filtering the moisture from said stone into the molding sand, then extracting said moisture from said molding sand through a filter by mechanical means, and then forcing a fluid under pressure into said filter and through said sand, whereby said filter is kept clean and free from clogging deposits.

3. The process of drying artificial stone or wet molds which consists in filtering the moisture from said stone into the molding sand, then extracting said moisture from said molding sand through a filter by mechanical means, and then forcing a heated fluid under pressure into said filter and through said sand whereby the moisture is vaporized and the said filter is kept clean and free from clogging deposits.

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1,090,388. AUTOMATIC LABELING-MACHINE. THEODORE MARSHALL FOOTE, Allston, Mass., assignor to National Binding Machine Company, New York, N. Y., a Corporation of New York. Filed Apr. 15, 1913. Serial No. 761,175. (Cl. 211—33.)



1. In a label serving device, the combination of an electrical circuit, a strip adapted to alternately make and break the circuit, means to sever portions of the strip, and means operatively connected with the electrical circuit to feed the strip and operate the severing means.

2. In a label serving device, the combination of an electrical circuit having a contact and a brush, a strip adapted to be passed between the contact and the brush, a knife, means operatively connected with the electrical circuit to feed the strip and operate the knife, and means on the strip whereby the circuit is periodically completed.

3. In a label serving device, the combination of an electrical circuit having a contact and a brush, a perforated strip, a knife, means for moving the strip continuously across the contact, means for operating the knife, and means between the electrical circuit and the knife operating means to actuate the latter.

4. In a label serving device, the combination of an electrical circuit, a strip constituting means to alternately make and break the circuit, a knife, a motor, means operatively connected with the motor to feed the strip, and means connected with the motor and the electrical circuit to operate the knife.

5. In a label serving device, the combination of a strip, an electrical circuit normally held open by the said strip, means in the strip to periodically close the circuit, a knife, and means operatively connected with the circuit to actuate the knife.

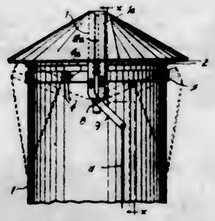
[Claims 6 to 8 not printed in the Gazette.]

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1,090,389. SMOKE-STACK PROTECTOR. ELMER C. FRENCH, Dallas, and THOMAS E. CRAIG, McKinney, Tex. Filed June 16, 1913. Serial No. 774,006. (Cl. 98—4.)

1. A smoke stack protector comprising two members pivoted at the top of a stack and adjustable between two limiting positions in one of which said members form a cone above the stack and in the other said members lie at opposite sides of the stack, the weight of said members tending to carry them to the last specified position, and a wire correlated with each member which when placed under tension serves to raise the member to its closed position.

2. In a device of the character described, the combination with the upper extremity of a stack, of a draw band mounted fast upon said extremity, a pair of brackets mounted oppositely upon the draw band and projecting above the stack at their upper ends, a pair of bars having their extremities pivoted at opposite points upon said bracket, said bars being adjustable between two positions which respectively place them parallel above the stack and divergently at opposite sides of the stack, and a member forming a half cone secured to the center portion of each of said bars, the weight of said members tending to shift said bars to positions at opposite sides of the stack, and a mechanism for manually shifting said bars to their position above the stack.

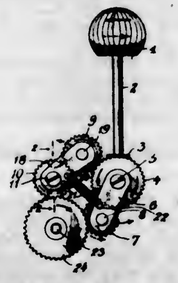


3. In a device of the character described, the combination with a smoke stack, of a pair of brackets oppositely mounted upon the top portion thereof, a pair of bars having their extremities respectively pivoted at opposite points upon said brackets, said bars being adjustable between two limiting positions in one of which they lie parallel above the stack and in the other divergently at each side of the stack, a protector member forming substantially a half cone secured to the center portion of each of said bars, an arm projecting downwardly from one end of each of said bars, and a wire depending from each of said arms, the weight of the protector members serving to deflect the same to their open positions when said wires are slack and a pull upon said wires serving to displace the members to their closed positions.

4. A smoke stack protector comprising two members pivoted upon a smoke stack at the top thereof, and adjustable between two limiting positions in one of which said members form a cone above the stack, and in the other position said members lie at opposite sides of the stack, the two members being overlapped in the position first specified, the diametral edge of the under lapped member being formed with a channel.

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1,090,390. WATCH WINDING MECHANISM. FRANK L. FRENCH, Meriden, N. H. Filed May 31, 1913. Serial No. 770,900. (Cl. 58—80.)



1. In winding mechanism for watches, etc., a winding stem and connected main wheel, a swinging direct carrier arm mounted to swing about said main wheel, a direct winding rotating click wheel pivoted in said carrier arm and meshing with said main wheel, a spring ratchet wheel connected to the spring to be wound, a reverse idler wheel meshing with said ratchet wheel, a reverse carrier arm mounted to swing about the axis of said idler wheel, a reverse winding rotating click wheel pivoted in said reverse carrier arm and meshing with said idler wheel, a click spring acting between said carrier arms to normally hold said direct winding click wheel in mesh with said spring ratchet wheel to prevent undesirable movement thereof and allow the turning moment acting on the direct carrier arm during the direct winding, to swing said rotating direct winding click wheel out of mesh with said spring ratchet wheel and to normally hold said reverse winding click wheel in mesh with said main wheel and allow the turning moment acting on said reverse carrier arm during reverse winding movement to swing said winding click wheel out of mesh with said main wheel.

2. In winding mechanism for watches, etc, a winding stem and connected main wheel, a swinging direct carrier arm mounted to swing about said main wheel, a direct winding rotating click wheel pivoted in said carrier arm and meshing with said main wheel, a spring ratchet wheel connected to the spring to be wound, a reverse idler wheel meshing with said ratchet wheel, a reverse carrier arm mounted to swing about the axis of said idler wheel, a reverse winding rotating click wheel pivoted in said reverse carrier arm and meshing with said idler wheel and means to normally hold said direct winding click wheel in mesh with said spring ratchet wheel to prevent undesirable movement thereof and to allow said rotating direct winding click wheel to swing out of mesh with said spring ratchet wheel during direct winding movement, and to normally hold said reverse winding click wheel in mesh with said main wheel and to allow said reverse winding click wheel to swing out of mesh with said main wheel during reverse winding movement.

3. In winding mechanism for watches, etc., a winding stem and connected main wheel, a swinging direct carrier arm, a retainer sleeve on which said main wheel is mounted and by which it is held in substantial axial alinement, means to prevent rotation of said sleeve, a bearing member entering said sleeve and revolubly supporting said direct carrier arm so as to swing about said main wheel, a direct winding rotating click wheel pivoted in said carrier arm and meshing with said main wheel, a spring ratchet wheel connected to the spring to be wound, a reverse idler wheel meshing with said ratchet wheel, a reverse carrier arm mounted to swing about the axis of said idler wheel, a reverse winding rotating click wheel mounted on said reverse carrier arm and meshing with said idler wheel and a click spring acting between said carrier arms to normally hold said direct winding click wheel in mesh with said spring ratchet wheel to prevent undesirable movement thereof and allow the turning moment acting on the direct carrier arm during the direct winding, to swing said rotating direct winding click wheel out of mesh with said spring ratchet wheel and to normally hold said reverse winding click wheel in mesh with said main wheel and allow the turning moment acting on said reverse carrier arm during reverse winding movement to swing said winding click wheel out of mesh with said main wheel.

4. In winding mechanism for watches, etc., a winding stem and connected main wheel, a spring ratchet wheel adapted to be connected to the spring to be wound and gearing between said main wheel and said spring ratchet wheel comprising rotating click wheels and swinging carrier arms in which said click wheels are mounted and held in mesh with a wheel rotating during the winding movement and spring devices normally swinging said click wheels into mesh with another wheel to prevent backward movement thereof while permitting the automatic release of one of said click wheels by the turning moment acting on its carrier arm during winding movement of said winding stem in one direction to impart a winding movement to said spring ratchet wheel by both a direct and reverse rotation of said winding stem.

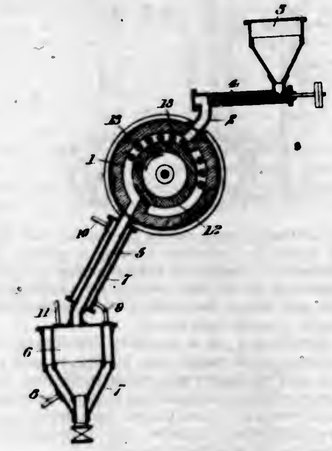
5. In winding mechanism for watches, etc., a winding stem and connected main wheel, a spring ratchet wheel adapted to be connected to the spring to be wound and gearing between said main wheel and said spring ratchet wheel comprising rotating click wheels and swinging carrier arms in which said click wheels are mounted and held in mesh with a wheel rotating during the winding movement and means normally swinging said click wheels into mesh with another wheel to prevent backward movement thereof while effecting the release of one of said click wheels during winding movement of said winding stem in one direction to impart a winding movement to said spring ratchet wheel by both a direct and reverse rotation of said winding stem.

[Claims 6 to 17 not printed in the Gazette.]



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1,090,391. APPARATUS FOR MANUFACTURING NITROGEN COMPOUNDS. TSUNEICHI FUJIYAMA, Tokyo, Japan. Filed Apr. 12, 1913. Serial No. 760,699. (Cl. 204—64.)



1. Apparatus for producing nitrogen compounds comprising a closed chamber, a traveling support in said chamber, said support being spaced from the walls of the chamber, electric heating means in such space, means for feeding material to be treated onto said support and means for causing a current of nitrogen to flow over such material.

2. Apparatus for producing nitrogen compounds comprising a closed chamber, a traveling support in said chamber, said support being spaced from the walls of the chamber, electric heating means in such space, means for feeding material to be treated onto said support in a thin layer, and means for causing a stream of nitrogen to flow through said chamber over the thin traveling layer of heated material.

3. Apparatus for producing nitrogen compounds comprising a closed chamber, a traveling support in said chamber, said support being spaced from the walls of the chamber, electric heating means in such space, means for feeding material to be treated onto said support, means for cooling the material as it is discharged from said chamber, and means for causing a current of nitrogen to flow over such material during its travel.

4. Apparatus for producing nitrogen compounds comprising a closed chamber, a traveling support in said chamber, said support being spaced from the walls of the chamber, electric heating means in such space, means for feeding material to be treated onto said support, a discharge conduit extending from said chamber, a cooling jacket surrounding said discharge conduit, and means for causing a current of nitrogen to flow up through said discharge conduit and over the material being treated.

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1,090,392. BOTTLE-HANGER. EDWARD F. GINGRAS, Buffalo, N. Y. Filed Oct. 24, 1913. Serial No. 797,118. (Cl. 248—20.)

1. In a bottle hanger, a body, a threaded portion of said hanger projecting from said body, elastic side portions extending from said body, and a horseshoe shaped loop having longitudinal elements connected with the free ends of said side portions and inclined in a position to said body, said loop being formed to receive and support by an elastic grip, a bottle near its neck.



2. In a bottle hanger, a body, threaded portion of said hanger projecting from said body, elastic side portions extending from said body, a horseshoe shaped loop having longitudinal elements connected with the free ends of said side portions and inclined in a position to said body, said loop being formed to receive and support by an elastic grip, a bottle near its neck, and a cover attached to said body.

3. In a bottle hanger, a body, a threaded portion of said hanger projecting from said body, a plurality of pairs of elastic portions extending from said body, and a horseshoe shaped loop having longitudinal elements connected with the free ends of each pair of said side portions and inclined in position to said body, each of said loops being formed to receive and support by an elastic grip, a bottle near its neck.

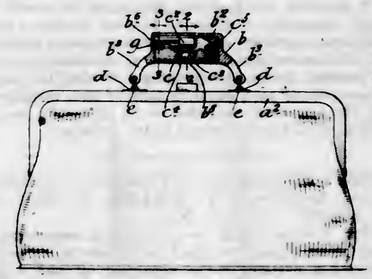
4. In a bottle hanger, a body, a threaded portion of said hanger projecting from said body, a plurality of pairs of elastic portions extending from said body, a horseshoe shaped loop having longitudinal elements connected with the free ends of each pair of said loops being formed to receive and support by an elastic grip, a bottle near its neck and a cover attached to said body.

5. In a bottle hanger, a body, formed from wire, a threaded portion of said wire projecting from said body, elastic elements having free ends formed from said wire and continuous with said body, and a loop having longitudinal sides continuous with the free ends of said elements, said loop being formed by a continuation of said wire and depending below said body.

[Claim 6 not printed in the Gazette.]

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1,090,393. BANK-MESSENGER'S HAND-BAG. BENJAMIN GOLDSTEIN, New York, N. Y. Filed Aug. 6, 1913. Serial No. 783,259. (Cl. 190—57.)



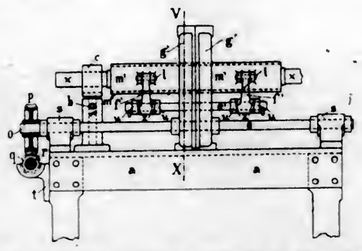
1. A hand bag provided with a handle the central part of which is provided with a casing adapted to receive a gun of ordinary construction, said casing being provided in one end with an aperture adapted to register with the bore of the gun when the latter is in position, and said casing being also provided with a door adapted, when closed, to hold the gun in a predetermined position.

2. The combination with the handle of a bag, of a casing adapted to receive a gun of ordinary construction, one end of said casing being provided with an aperture adapt-

ed to register with the bore of the gun, when the latter is in position, and said casing being also provided with a door adapted, when closed, to hold the gun in a predetermined position, and the bottom of the casing being provided with means whereby the trigger of the gun may be operated.

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1,090,394. COIL-INSULATING MACHINE. EMIL HAEFELY, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 20, 1911. Serial No. 622,388. (Cl. 173—244.)



1. A device for applying a covering or wrapping to stationary bodies comprising a hollow rotatable body having a pair of pressure members mounted therein and means tending to yieldingly force said members toward each other.

2. A device for applying insulation to an electric conductor comprising a pair of coöperating pressure members adapted to engage opposite surfaces of the conductor, means for continuously exerting a force tending to move the pressure members toward each other, a hollow cylindrical member within which said pressure members are mounted, and means for rotating said cylindrical member to effect revolution of the pressure members around the conductor.

3. A device for applying insulation to electric conductors comprising a rotatively supported hollow cylindrical member, a pair of coöperating pressure members disposed within the cylindrical member and operatively associated therewith and means for continuously rotating the cylindrical member.

4. A machine for applying insulation to electric conductors comprising a rotatable hollow member having a pair of internal pivoted arms, pressure members secured to the extremities of the arms and located near the axis of the rotatable member and means for yieldingly forcing the pressure members toward each other.

5. A machine for applying insulation to electric conductors comprising a rotatable member having a pair of pivoted arms, pressure members secured to the ends of the arms and located near the center of rotation of the rotatable member, means for yieldingly forcing the pressure members toward each other, a pair of cam members acting on the arms and connected by an adjustable spring.

[Claims 6 to 13 not printed in the Gazette.]

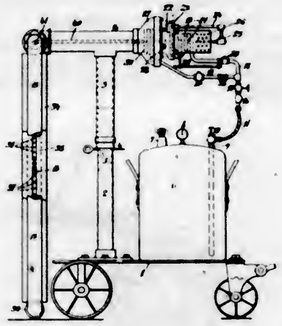
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1,090,395. OIL-BURNING APPARATUS. ARTHUR E. HAUCK, Brooklyn, N. Y. Filed May 31, 1911. Serial No. 630,525. (Cl. 158—28.)

1. The combination in an oil burning apparatus, with means for supplying vaporized oil, a burner for partially consuming a portion of the vaporized oil and a partial combustion chamber for said burner, of an extinguishing passage leading from said combustion chamber, and a final burner at the end of said extinguishing passage and connected to said oil supplying means.

2. The combination of a partially consuming burner having a nozzle, an oil supply pipe leading to said nozzle, a flame-extinguishing chamber communicating with said burner, a final burner in operative relation to said flame-extinguishing chamber, and a second oil supply pipe leading to said final burner.

3. The combination of a partially consuming burner having a nozzle, a source of vaporized oil, a supply pipe leading from said source to said nozzle, a flame-extinguishing chamber communicating with said burner, a final burner communicating with said flame-extinguishing chamber, and a second fuel supply pipe leading to said final burner.



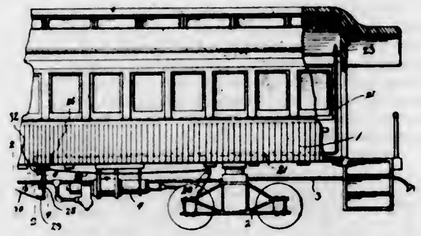
4. The combination with means for forcing and vaporizing oil, of means for partially burning a portion of the forced vaporized oil, means for extinguishing the partially burned vaporized oil, a final burner for completing the combustion, and means for feeding an additional supply of oil directly to said final burner.

5. The combination of a partially consuming burner having a nozzle, an oil supply pipe leading to said nozzle, a portion of said oil supply pipe being in heating relation to said burner, a flame-extinguishing chamber communicating with said burner, a final burner communicating with said flame-extinguishing chamber, and a second oil supply pipe leading to said final burner.

[Claims 6 to 15 not printed in the Gazette.]

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1,090,396. AUTOMATIC TRAIN-STOP. ALBERT R. HEATH, Norfolk, Va. Filed Mar. 31, 1913. Serial No. 757,960. (Cl. 246—59.)



1. The combination with a train pipe and car trucks, of a coupling connected to the train pipe and having a lateral opening, a cap carried by the coupling, an arm fixed to the cap, means connecting the trucks and arm for rocking the same to disengage the cap from the coupling, as and for the purpose set forth.

2. The combination with a train pipe and car trucks, of a coupling in communication with the train pipe and having a lateral opening, a cap carried by the coupling, an arm fixed to the cap, a whistle mounted in the car, a valve for normally cutting off communication of air from the train pipe to the whistle, cables connecting the trucks and arm to rock the arm when the trucks leave the track, and means carried by the arm to operate the valve to open the same to permit air to pass from the train pipe to sound the whistle.

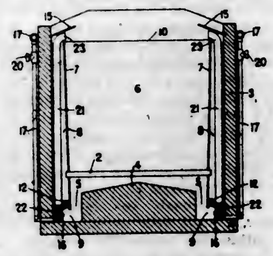
3. The combination with a train pipe and car trucks, of a coupling connected to the train pipe and in communication therewith, a lateral extension formed upon the coupling, threaded lugs mounted upon the extension and being arranged in spaced relation, a cap having threaded lugs carried thereby for engaging the first named lugs to hold the cap upon the extension, an arm fixed to the cap, cables connecting the arm to the trucks, said cables being operable to rock the arm when the trucks leave the track to partially rotate the cap to cause disengagement of said lugs, whereby air under pressure from the train pipe will dislodge said cap, as and for the purpose set forth.

4. The combination with a train pipe and car trucks, of a coupling connected to the train pipe and in communication therewith, a lateral extension formed upon the coupling, a cap detachably connected to the extension, an arm connected to the cap, a valve casing mounted upon the extension, a whistle mounted in the car and having communication with the train pipe through the valve casing and coupling, a valve stem projected from the valve casing, a cam plate carried by the arm, cables connecting the arm and trucks to rock said arm when the trucks leave the track, said cam plate being adapted to engage the valve stem to open the valve to sound the whistle during the rocking of said arm, said arm also serving to rotate the cap so that the air under pressure from the train pipe will force the cap from engagement with the extension, thereby reducing the pressure in the train pipe to apply the brakes.



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1,090,397. DYEING AND WASHING MACHINE. WALTER HIGGINS and JOHN RHODES, Bradford, England. Filed June 13, 1912. Serial No. 703,377. (Cl. 8—19.)



1. In dyeing and washing machines, in combination, a tank having a raised central portion spaced from the side walls to form canals, an inner vessel having sides spaced from the sides of the vat, and means positioned between the side of the vat and the side of the inner vessel for causing a rapid flow of the liquid through the material being treated.

2. In a dyeing and washing machine, in combination, a tank having a raised central portion spaced from the side walls to form canals, an inner vessel having sides spaced from the side of the vat, and a blower positioned between the side of the vat and the side of the inner vessel for causing a rapid flow of the liquid through the material being treated.

3. In dyeing and washing machines, in combination, a tank having a raised central portion spaced from the side walls to form canals, an inner vessel having sides spaced from the sides of the vat, said inner vessel being divided into a plurality of compartments, and blowers positioned between the side of the vat and the side of the inner vessel for causing a rapid flow of the liquid through the material being treated, there being a separate blower for each compartment.

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1,090,398. RAZOR-BLADE HOLDER. FREDERICK L. HUMESTON, New Haven, Conn., assignor to The Greist Manufacturing Company, a Corporation of Connecticut. Filed Nov. 7, 1913. Serial No. 799,688. (Cl. 30—25.)

1. A blade holder comprising detachable blade-holding and handle members and a locking lever all formed from sheet metal, said blade-holding member having integral therewith a flattened socket part, said locking lever being pivotally mounted between the leaves or doubled parts of said blade-holding member and extending into said socket part, and said handle member having a tapered end adapted to fit in said socket part and engage one end of said locking lever.



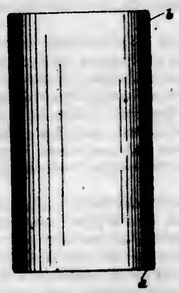
2. A blade holder comprising detachable blade-holding and handle members and a locking lever all formed from sheet metal, said blade-holding member having integral therewith a flattened socket part, said locking lever being pivotally mounted between the leaves or doubled parts of said blade-holding member and extending into said socket part, and said handle member having a tapered end adapted to fit in said socket part and engage one end of said locking lever, said locking lever being formed with a bend which will project outside of said socket part when said lever is in locking position, so that said lever may be conveniently released.

3. A blade holder comprising detachable blade-holding and handle members, said blade-holding member consisting of a doubled strip of sheet metal between the two leaves or parts of which is a blade-holding slit, said blade-holding member being closed at its outer end, a flattened socket part integral with said blade-holding member and formed into shape from said sheet metal strip, a locking lever separate from said socket part and pivoted between the parts or leaves of said blade-holding member, said locking lever extending into said socket part and having rounded-off ends, and said handle member consisting of a flat piece of metal having a tapered end adapted to enter said flattened socket part and engage one end of said locking lever.

4. A blade holder comprising detachable blade-holding and handle members, said blade-holding member consisting of a doubled strip of sheet metal between the two leaves or parts of which is a blade-holding slit, said blade-holding member being closed at its outer end, a flattened socket part integral with said blade-holding member and formed into shape from said sheet metal strip, a locking lever separate from said socket part and pivoted between the parts or leaves of said blade-holding member, said locking lever extending into said socket part and having rounded-off ends, and said handle member consisting of a flat piece of metal having a tapered end adapted to enter said flattened socket part and engage one end of said locking lever, said locking lever being formed with a bend which will project outside of said socket part when said lever is in locking position, so that said lever may be conveniently released.

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1,090,399. BOBBIN FOR USE IN CONNECTION WITH THE MANUFACTURE OF ARTIFICIAL SILK. HUGO KÜTTNER, Pirna, Germany. Filed Jan. 2, 1913. Serial No. 739,717. (Cl. 242—118.)



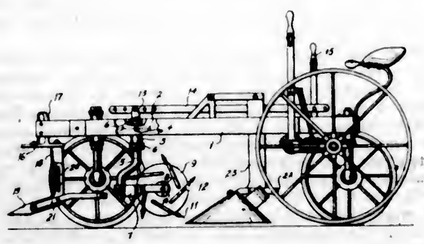
1. A bobbin for use in connection with the manufacture of artificial silk comprising an inner cylinder of aluminum,

and an outer cylinder of cardboard completely covering the outer surface of the aluminum cylinder and secured thereto whereby the said outer surface is protected against oxidation and other chemical attack, the ends of both cylinders being substantially flush.

2. A bobbin for use in connection with the manufacture of artificial silk comprising an inner cylinder of aluminum, an outer cylinder of cardboard completely covering the outer surface of the aluminum cylinder and secured thereto, whereby the said outer surface is protected against oxidation and other chemical attack, the ends of both cylinders being substantially flush and a coating of lacquer on the outer surface of said outer cylinder.

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1,090,400. STALK-CUTTER ATTACHMENT FOR PLOWS. EANESTER W. LANCASTER, Oenaville, Tex. Filed Mar. 25, 1913. Serial No. 756,675. (Cl. 55—61.)



1. In a device of the character described, the combination with a plow having the usual plow standard, of a sleeve mounted in the front portion of the frame adapted to pivot about an axis transverse of the frame, a colter standard having its upper portion rotatably mounted in said sleeve but restricted from vertical displacement relative thereto, the lower portion of said standard being forwardly offset, a stalk cutting wheel mounted upon the lower end of the colter standard in front of the plow standard and means for guiding stalks into the path of the said wheel.

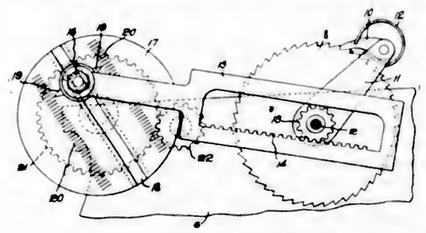
2. In a device of the character described, the combination with a frame and a plow carried thereby, of a pivoted bearing hinged on the frame, a lever connected with one of the pivots of the bearing, a swinging support mounted to rotate in the bearing, a stalk cutting wheel carried by the support in front of the plow, and means for guiding stalks into the path of said wheel.

3. In a device of the character described, the combination with a frame and a plow carried thereby, of a pivoted bearing hinged on the frame, a lever connected with one of the pivots of the bearing, a swinging support mounted to rotate in the bearing, a bracket projecting rearwardly from the support, a disk mounted in the rear end of the bracket, and transverse cutting blades mounted on the disk.

4. In a device of the character described, the combination with a frame and a plow carried thereby, of a pivoted bearing hinged on the frame, a lever connected with one of the pivots of the bearing, a swinging support mounted to rotate in the bearing, a bracket projecting rearwardly from the support, a disk mounted in the rear end of the bracket, transverse cutting blades mounted on the disk, and a stalk guide depending from the frame in advance of the disk.

5. In a device of the character described, the combination with a frame, and a plow carried thereby, of a stalk cutting wheel having transverse cutters depending from the frame in advance of the plow and arranged to be swung in a vertical plane co-incident to the vertical plane in which said wheel travels, and a lever mounted in the frame for swinging said wheel.

1,090,401. VARIABLE-SPEED-TRANSMISSION MECHANISM. CHARLES LEA, Boston, Mass., assignor to American Warp Drawing Machine Company, a Corporation of Maine. Filed Apr. 22, 1912. Serial No. 692,469. (Cl. 74—54.)



1. In a variable speed transmission device, the combination with a driving member of a driven member, a ratchet connected to the driven member, a pawl and pawl carrying arm, the latter mounted to turn about the axis of the ratchet and impart to the latter a positive step by step feeding movement, a pinion connected to turn the pawl-carrying arm, a rack meshing with the pinion, and an adjustable eccentric connection between the rack and the driving member thereby fixedly to adjust the stroke of the pawl by finely graduated steps.

2. In a variable speed transmission device, the combination with a driving member, a crank disk, a driven member having connected thereto a ratchet wheel, a pawl and pawl-carrying arm, said pawl adapted to impart to the ratchet a positive step by step feeding movement, a pinion connected to turn the pawl-carrying arm, a rack engaging the pinion, and means for adjustably connecting the rack at different radial distances from the center of the crank disk thereby adjustably to fix the throw of the pawl.

3. A variable speed transmission mechanism having a driving member and a driven member, a ratchet and pawl, a ratchet and pawl driving connection for the driving member including two reciprocatory driving gears, a rack connected to the driving member for reciprocating one of said gears, a rack member also connected to said driving member for simultaneously but reversely reciprocating said second gear, a crank disk driven by said driving member, and an adjustable connection between the driving member and the driven member whereby the latter may be connected to the crank disk at different radial distances from the center of the latter.

4. In a variable speed transmission mechanism, the combination with a rotary driving member, a pair of rack members eccentrically connected to the driving member, a driven member, a ratchet connected to said driven member, a pair of pawls and pawl arms disposed in operative relation on opposite sides of said ratchet, a gear connected to each arm meshing each with one of the racks but in reverse relation, and means for adjusting the eccentricity of the rack members relative to the driving member whereby the pawl-actuated movement of the ratchet may be adjusted by finely graduated steps.

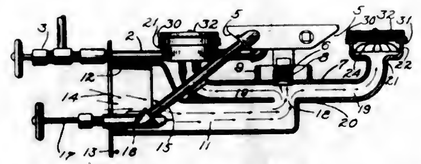
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1,090,402. BURNER. CHARLES E. LEIGH and FRANK CARROLL, Cedar Rapids, Iowa. Filed Aug. 19, 1912. Serial No. 715,810. (Cl. 158—59.)

1. A device of the class described comprising a casting having a mixing chamber and vapor ducts therein, burners communicating with said ducts, brackets mounted on said casting between said burners, a retort seated on said brackets and having an oil supply pipe and a vapor pipe discharging into said mixing chamber, and a nozzle arranged beneath said retort and communicating with said vapor ducts.

2. A device of the class described comprising a casting having a mixing chamber therein provided with an air intake opening at one end and a discharge port near its opposite end, vapor ducts communicating at one end with said port, burners communicating with the other ends of said ducts and equi-distant, substantially, from said discharge port, whereby a substantially equal volume of vapor will be delivered to each burner, a retort arranged between said burners and communicating with a source of oil supply, a retort burner arranged below said retort, and communicating with said ducts and located above and substantially opposite the discharge port of said mixing chamber, whereby a portion of the gas entering said ducts will pass to said retort burner.



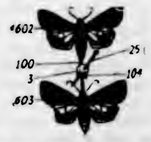


3. A device of the class described comprising a casting having a mixing chamber therein and vapor ducts communicating with said mixing chamber, said chamber having a comparatively large air intake opening at one end of said casting, a flanged plate having an opening therein fitting within the opening leading to said mixing chamber, and adapted to be mounted in a stove door, and burners communicating with said vapor ducts, a retort having an oil supply pipe and a vapor feed pipe communicating therewith, means for regulating the flow of gas from said vapor feed pipe to said mixing chamber, and a nozzle communicating with said mixing chamber and disposed beneath said retort.

4. A device of the class described comprising a casting having a mixing chamber therein provided with an air intake opening, and a discharge port, vapor ducts in communication with said mixing chamber through said port, said port having a square shoulder on one side to direct the vapor equally to the end portions of said ducts, burners communicating with said ducts, a retort disposed between said burners, a burner arranged opposite said port beneath said retort, an oil supply pipe communicating with said retort and a vapor feed pipe leading from said retort to said mixing chamber.

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1,090,403. MOUNT FOR SPECIMENS. MARVIN H. MEAD, Passaic, N. J. Filed May 21, 1913. Serial No. 769,011. (Cl. 35—12.)




1. A mount for articles of the class described; said mount comprising means to support a specimen rotatably about a longitudinal axis, substantially as described.

2. A mount for articles of the class described; said mount comprising means to support a specimen rotatably about a longitudinal axis, and means to turn said support about said axis; substantially as described.

3. A mount for articles of the class described; comprising a primary supporting member provided with holding means to engage a specimen; a secondary supporting member carrying said primary member; and means to permit rotation of said primary member and specimen about their longitudinal axis.

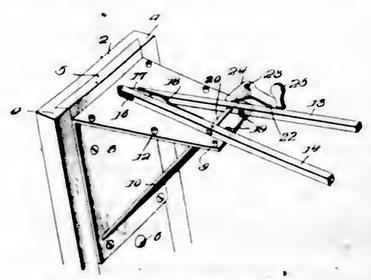
4. A mount of the class described; said mount comprising a pin to be fixed upright in a base, and constituting a secondary supporting member; a primary supporting device arranged transversely of said upright pin and provided with holding means for a specimen; and means to permit said upright pin to carry said transverse device rotatably about the longitudinal axis of the latter for exposure of different portions of said specimen.

5. A mount of the class described; comprising a pin having an angularly arranged prong to enter a specimen, and means to support said specimen-holding pin for rotation about the longitudinal axis of said pin to expose different portions of said specimen.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,404. BAG-HOLDER. AUGUST MINKE, Evansville, Ind. Filed May 13, 1913. Serial No. 767,425. (Cl. 83—26.)



1. In a bag-holder, the combination of a support, a pair of bag-supporting arms pivoted upon the support, means for holding the free ends of the arms normally apart, a cam disposed at one side of the support and arranged to ride on and in contact with one of the said arms, said cam being free of both arms and the support and a connection between the said cam and the other arm whereby movement of the cam will cause the arms to swing inwardly or outwardly in succession.

2. In a bag holder, the combination of a support, a pair of bag-engaging arms mounted thereon and having their outer ends normally separated, a cam lever disposed at one side of the support and having an arm adapted to ride upon the adjacent bag-engaging arm, a fulcrum pin carried by said lever and adapted to bear against the side of the support, and a link having one end pivoted to said fulcrum pin and its opposite end pivoted to the bag-engaging arm remote from the lever.

3. In a bag holder, the combination of a support, a pair of bag-engaging arms mounted thereon and having their outer ends normally separated, a lever disposed at one side of the support and having an arm provided with a straight side adapted to bear against the side of the adjacent bag-engaging arm and a convex end adapted to ride upon said arm, a fulcrum pin carried by said lever distant from the convex end and adapted to bear against the side of the support, and a link having one end pivoted to said fulcrum pin and its opposite end pivoted to the bag-engaging arm remote from the lever.

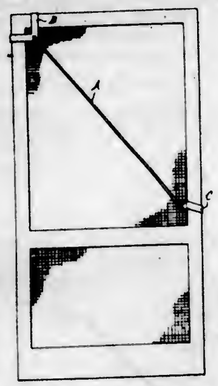
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1,090,405. SCREEN-DOOR BRACE. W. A. MORRISON, Hagerman, Tex. Filed July 5, 1913. Serial No. 777,520. (Cl. 20—38.)

1. A screen door brace comprising an elongated brace rod, and a pair of brackets engaged by the extremities of said rod, one of said brackets having engagement with the door at one of its corners, and the other bracket having the form of a hook engaging one of the vertical side pieces of the door, the tension created in the brace rod by the application of the device to a door serving to cause the last mentioned bracket to clamp upon the correlated side piece of the door.

2. A screen door brace comprising an elongated brace rod, means engaging one extremity of said rod with the door at one of its corners, and a bracket engaged by the other extremity of the rod mounted upon a vertical side piece of the door and having an inclined portion engaging two horizontal portions respectively contiguous with the edge faces of said piece, a downwardly inclined arm being formed on said bracket to engage the brace rod, the

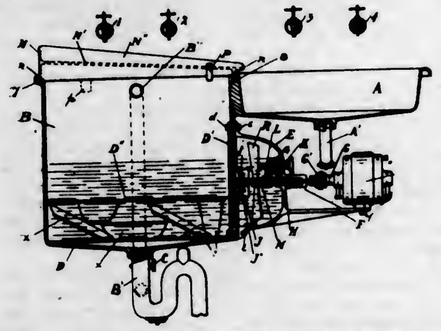
tension created in said rod by the adjustment of the brace to the door serving to cause those portions of the bracket



which engage the edge faces of said vertical side piece to clamp against said faces.

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1,090,406. WASHING-MACHINE. EDWIN J. NELSON, Utica, N. Y. Filed Feb. 1, 1912. Serial No. 674,684. (Cl. 141—9.)



1. In an apparatus of the character described, the combination of a tank, a chamber opening into the tank, rotating paddles mounted in said chamber and means for operating one set of said paddles alone or both in unison.

2. An apparatus of the character described comprising a tank, means for agitating the contents of the tank, a fan for directing air currents upon the said contents and means whereby to connect and disconnect the said agitating means and the said fan.

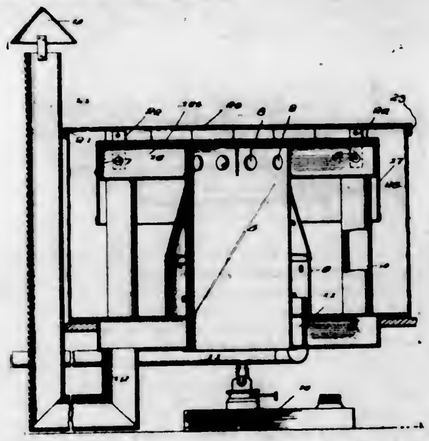
3. An apparatus of the character described comprising a tank, a chamber opening into the tank and having ports therein, an agitator in the chamber, a fan mounted in the chamber and means connecting the fan with the agitator and opening said ports.

4. In an apparatus of the character described, the combination of a tank, a shaft inside of said tank carrying an agitator fixed, and a fan loose thereon, and means outside of said tank whereby said fan may be thrown into engagement with said agitator.

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1,090,407. HOVER AND BROODER. ARTHUR M. NICHOLS, Marshall, Minn. Filed July 11, 1912. Serial No. 708,927. (Cl. 119—32.)

1. A hover and brooder of the character described including vertically spaced hot air chambers, a central flue leading through the lower chamber and into the upper chamber, partitions dividing the upper chamber into compartments, said flue having perforations leading to each of said compartments, circulating pipes leading from each of said compartments to the lower chamber and also constituting supports for the upper chamber, a discharge pipe leading from the lower chamber, a curtain support mounted upon the uppermost hot-air chamber and projecting laterally beyond the same, and curtains depending from the margin of said support.



2. A hover and brooder of the character described including vertically spaced hot air chambers defining between them a brooding space, a central flue leading to the upper hot air chamber and through the lower hot air chamber, heating means disposed in the lower end of the flue, return connections leading from the upper hot air chamber to the lower and disposed adjacent the outer margins of the hot air chambers, a discharge pipe leading from the lower chamber, a radiator surrounding the hot air flue and spaced therefrom and formed with perforations, and an air pipe entering the opening into the radiator.

3. A hover and brooder of the character described, including vertically spaced hot air chambers, a central flue passing up through the lower chamber opening into the upper chamber, return flues extending from the upper chamber to the lower chamber, a hood supported upon the upper chamber but of larger area than the upper chamber and having curtains extending downward approximately to the floor of the lower chamber, and a detachable auxiliary hood supported upon the upper chamber having a side wall extending downward below the upper chamber and inward of said curtains.

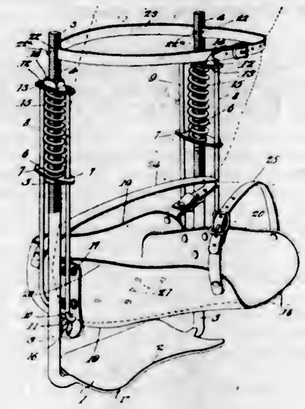
4. A hover and brooder of the character described, including upper and lower hot air chambers in fixed spaced relation to each other and defining between them a brooding space, means for heating and circulating air in said chambers, a covering member having curtains extending downward to the floor of the brooding space, and a detachable hood mounted upon the upper chamber, said hood extending downward therefrom part of the distance between the upper and lower members and being disposed within the space defined by the curtains.

5. A hover and brooder of the character described, including vertically spaced hot air chambers, a central flue, return connections between the upper hot air chamber and the lower, pins projecting from the wall of the hot air chamber, a removable auxiliary hood conforming in shape to the shape of the upper chamber and mounted thereon, and having a depending wall adapted to extend part of the distance between the upper chamber to the lower chamber, whereby to confine the heat within the upper portion of the brooding space, said hood having perforations for the passage of the pins, and a curtain supporting hood having depending perforated legs engaging with said pins.

[Claims 6 and 7 not printed in the Gazette.]



1,090,408. KNEE-REST. WILLIAM F. PEOPLES, Abilene, Tex. Filed Sept. 25, 1913. Serial No. 791,832. (Cl. 2—130.)



1. A knee rest including a flexible knee engaging portion forming a socket, bails pivotally connected to the sides of said portion, a ground engaging member, guides extending therefrom, slidable connections between the bails and guides, and cushioning springs upon the guides and coöperating with said connections for retarding the downward movement of the knee engaging portion relative to the ground engaging portion.

2. A knee rest including a ground engaging portion, guide rods extending therefrom, means for securing the upper end portions of the rods to the leg of the user, cushioning springs mounted on the rods, a knee engaging portion, means for attaching said portion to the knee of the user, means movable with the knee engaging portion for placing the springs under compression when said portion is subjected to weight, and means for varying the tension of the springs.

3. The combination with a ground engaging member and guide rods extending therefrom, of a knee engaging portion, means for securing the same to a knee, means for securing the upper ends of the rods to the leg of the user, plates mounted on the rods, a spring mounted on each rod between the plates thereon, means for adjusting the plates relative to each other, a bail slidably mounted in one plate and constituting means for shifting the other plate against the spring thereunder, and a pivotal connection between each bail and the knee engaging portion.

4. A knee rest including a flexible knee engaging portion forming a socket and having apertures, hooks connected to the sides of said portion, bails pivotally engaged by the hooks, a ground engaging member, guide rods extending therefrom, slidable connections between the bails and the rods, cushioning springs on the rods and coöperating with said connections for retarding the downward movement of the knee engaging portion relative to the ground engaging portion.

5. A knee rest including a flexible knee engaging portion forming a socket and having apertures, hooks connected to the sides of said portion, bails pivotally engaged by the hooks, a ground engaging member, guide rods extending therefrom, slidable connections between the bails and the rods, cushioning springs on the rods and cooperating with said connections for retarding the downward movement of the knee engaging portion relative to the ground engaging portion, means upon the rods for attaching them to the leg of the user, and means upon the knee engaging portion for attaching it to the knee of the user.

1,090,409. COAT. ADOLPH B. REISMAN, New York, N. Y. Filed Sept. 13, 1911. Serial No. 649,128. (Cl. 2—62.)



1. A coat having a collar, comprising front and back pieces cut to fit the neck of the wearer and extending unbroken up to the line at which the collar folds down; a separate under-collar fitted to the top of said pieces and having its upper edge outside of said pieces; a seam 22 securing the upper edge of the under-collar to the upper edges of said front and back pieces and providing a sharp crease when the collar is turned up, along which crease the collar must fold when turned down; and an outer-collar extending upwardly from the bottom edge of the under-collar, then downwardly over the upper edges of the under collar and said front and back pieces, the outer edge of the outer-collar being sewed to the bottom edge of the under-collar and the inner edge of the outer-collar being sewed to the body of the garment inside the same.

2. A coat comprising front and back pieces cut at the top to fit the neck of the wearer, a military under-collar adjoining the said pieces at the top, a seam-crease defining the line of fold of the collar across the back of the neck portion of the garment at the point where said under-collar joins said neck portion, said under-collar being provided with free end portions extending beyond said seam-crease, and an outer collar secured to the under-collar along the lower edge thereof and extending upwardly to the seam-crease then over and downwardly and secured to the neck portion of the garment on the inside, substantially as and for the purposes described.

3. A coat comprising front and back pieces cut at the top to fit the neck of the wearer, a military under-collar adjoining the said pieces at the top, a seam-crease defining the line of fold of the collar across the back of the neck portion of the garment at the point where said under-collar joins said neck portion, said under collar being provided with free end portions forming tabs extending beyond the said seam-crease and concealed under the lapels of the front pieces of the garment when the collar is folded down, an outer-collar sewed to the under-collar along the lower edge of the latter and extending upwardy to the seam-crease then over and downwardly and secured to the garment on the inside, and detachable means for fastening one of the tabs to the lapel of the opposite front piece of the garment when the collar is turned up to expose the military under-collar, substantially as and for the purposes set forth.

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1,090,410. TRACTION-WHEEL CLEAT. FRANK I. REMY, BENJAMIN P. REMY, and ARTHUR BERGER, Anderson, Ind., assignors to Remy Brothers Company, Anderson, Ind., a Copartnership. Filed Dec. 13, 1912. Serial No. 736,525. (Cl. 21—211.)



1. A tractor wheel rim having an opening therein, a bearing bracket on the inner surface thereof at said opening, a cleat pivoted in said bearing bracket and adapted to be turned inward and lie in said opening and not extend beyond the outer surface of the wheel rim and to be turned outward, and removable locking means in said bearing bracket for locking the cleat to said bracket when in its different positions.

2. A tractor wheel rim having an opening therein, a bearing bracket on the inner surface thereof at said open-

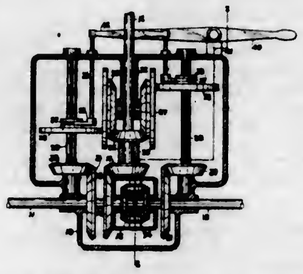
ing, a cleat pivoted in said bearing bracket and adapted to be turned inward and lie in said opening and not extend beyond the outer surface of the wheel rim and to be turned outward, and a removable bar in said bearing bracket, said cleat having openings through it away from its pivotal center through which said locking bar is adapted to project for locking the cleat in its different positions.

3. A tractor wheel rim having an opening therein, a bearing bracket on the inner surface thereof at said opening, a cleat pivoted in said bearing bracket and adapted to be turned inward and lie in said opening and not extend beyond the outer surface of the wheel rim and to be turned outward, and removable locking means in said bearing bracket for holding the cleat in its different positions, said parts being arranged so that when the cleat is in its outer position it will bear against the wheel rim along one portion of said opening in the wheel rim.

4. A tractor wheel rim having an opening therein, a bearing bracket on the inner surface thereof at said opening, a cleat pivoted in said bearing bracket and adapted to be turned inward and lie in said opening and not extend beyond the outer surface of the wheel rim and to be turned outward, and removable locking means in said bearing bracket for holding the cleat in its different positions, said parts being arranged so that when the cleat is in its outer position it will bear against the wheel rim along one portion of said opening in the wheel rim and the bearing bracket arranged so as to engage the free end of the cleat and limit the inward movement thereof.

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1,090,411. DIFFERENTIALLY-GEARED SPEED-CHANGING MECHANISM. FRANK I. REMY, BENJAMIN P. REMY, and ARTHUR BERGER, Anderson, Ind., assignors to Remy Brothers Company, Anderson, Ind., a Copartnership. Filed Dec. 9, 1912. Serial No. 735,740. (Cl. 74—26.)



1. A pair of shafts in alinement, a differential gear mechanism for driving the same, and additional means for frictionally driving each of said shafts arranged so as to vary the speeds of the shafts.

2. A pair of shafts in alinement, constantly driven differential gear mechanism for actuating the same, and additional means for frictionally driving each of said shafts arranged so as to vary the speeds of the shafts.

3. A pair of shafts in alinement with each other, differential gear mechanism for driving the same, additional means for frictionally driving each shaft, and means for controlling the said additional driving means so as to vary the speeds of said shafts.

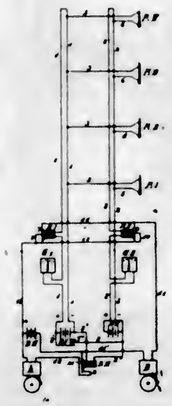
4. A pair of shafts in alinement with each other, differential gear mechanism for driving the same, additional means for frictionally driving each shaft, a single means for actuating all of said shaft driving means, and means for controlling said additional shaft driving means so as to vary the speeds of said shafts.

5. A frame, a pair of main driving shafts mounted in alinement with each other, a driving shaft, a differential gearing actuated by the driving shaft for driving said driven shafts, a pair of friction disks driven by said driving shaft, a driven friction disk driven by and operated at right angles to each driving friction disk, a shaft on which each driven friction disk is slidably mounted, means for transmitting power from each friction driven shaft to one of said main driven shafts, and means for simultaneously moving said friction disks toward or from the centers of their respective driving friction disks.

[Claim 6 not printed in the Gazette.]

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1,090,412. CIRCUITS FOR AUTOMATIC FIRE-INDICATORS. OTTO RENNERT, Munich, Germany. Filed May 22, 1911. Serial No. 628,716. (Cl. 178—160.)



1. A fire alarm system comprising a pair of normally closed circuits, a plurality of thermal circuit closers interposed in parallel relation between one side of each of said circuits, a pair of normally open alarm circuits, means controlled by each of said first mentioned circuits for closing one of said alarm circuits when said thermal circuit closers are actuated, and means controlled by said first mentioned circuits for closing one of said alarm circuits, should either of said first mentioned circuits be accidentally opened.

2. A fire alarm system comprising a pair of normally closed circuits, a plurality of thermal circuit closers connected in parallel between one side of each of said circuits, means interposed in said circuits for indicating operative condition of the circuits, a pair of normally open alarm circuits, means controlled by said first mentioned circuits for closing one of said alarm circuits when said thermal circuit closers are actuated and means controlled by said first-mentioned circuit for closing one of said alarm circuits should either of said first mentioned circuits be accidentally opened.

3. A fire alarm system comprising a pair of normally closed circuits, a plurality of thermal circuit closers adapted to connect one side of each of said circuits, means interposed in said circuits for indicating operative condition of the circuits, a pair of normally open alarm circuits, means controlled by said first mentioned circuits for closing one of said alarm circuits when said thermal circuit closers are actuated, means controlled by said first mentioned circuits for closing one of said alarm circuits should either of said first mentioned circuits be accidentally opened, and means for controlling one of said alarm circuits irrespective of the normal or abnormal condition of said first mentioned circuits.

4. A fire alarm system comprising a pair of normally closed circuits, a plurality of thermal circuit closers, adapted to connect one side of each of said circuits, means for adjusting said thermal circuit closers to operate at either of two desired degrees of temperature, means interposed in said closed circuits for indicating the operative conditions of the said circuits, a pair of normally opened alarm circuits, means controlled by said first mentioned circuits, for closing one of said alarm circuits when either or all of said thermal circuit closers are actuated, means controlled by said first mentioned circuits, for closing one of said alarm circuits, should either of said first mentioned circuits be accidentally opened, and manually operated means for controlling one of said alarm circuits irrespective of the normal or abnormal condition of the said first mentioned circuits.

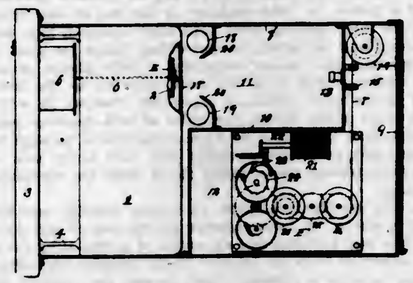
5. A fire alarm system comprising a pair of normally closed circuits, a plurality of thermal circuit closers, adapted to connect one side of each of said closed circuits, a supplemental circuit having one of its sides connected to said circuit closers at a point removed from the point of connection from one of said closed circuits, means interposed in one of said closed circuits whereby to open said circuit and adapted to connect in said supplemental circuit, means interposed in said closed circuits for indicating operative condition of said circuit, a pair of normally opened alarm circuits, means controlled by said first mentioned circuits for closing one of said alarm circuits when either or all of said thermal circuit closers are actuated, means controlled by said first mentioned circuits for closing one of said alarm circuits should either of said first mentioned circuits be accidentally opened, and manually operated means for controlling one of said alarm circuits irrespective of the normal or abnormal condition of said first mentioned circuits.

[Claims 6 to 15 not printed in the Gazette.]



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1,090,413. APPARATUS FOR PRODUCING PHOTOGRAPHIC TIME-RECORDS OF METER-READINGS. SAMUEL G. RHODES, New York, N. Y., assignor to Thomas E. Murray, New York, N. Y. Filed Apr. 16, 1912. Serial No. 691,174. (Cl. 234—35.)



1. An electric meter, a dial therefor, a clock, a dial therefor, a continuous sensitized record strip, means for projecting an image of said dials upon said strip, and means controlled by said clock and actuated by the current supplied to said meter for exposing a new portion of said strip to receive said projected image.

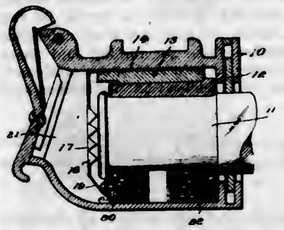
2. An electric meter, a dial therefor, a clock, a dial therefor, a continuous sensitized record strip, means for projecting an image of said dials upon said strip, a motor for actuating said strip to expose successive portions thereof to receive said projected image, an electro-magnet controlling said motor and in circuit with said meter, and a switch controlling said magnet and controlled by said clock.

3. An electric meter, a dial therefor, a clock, a dial therefor, a continuous sensitized record strip, means for projecting an image of said dials upon said strip, means for intermittently illuminating said dials, a motor for actuating said strip to expose successive portions thereof to receive said projected image, an electro-magnet controlling said motor, and a switch controlling said magnet and said illuminating means and controlled by said clock.

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1,090,414. PACKING-GUARD FOR JOURNAL-BOXES. NATHANIEL J. ROGERS, Tuscaloosa, Ala., assignor of one-half to Jake T. Newby, Jackson, Tenn. Filed Apr. 26, 1913. Serial No. 763,799. (Cl. 64—24.)

1. A packing guard for the journal boxes of railroad cars comprising a member disposed within the journal box and interposed between the packing which is arranged in the box and the opening in the box, and a projection formed on the member and adapted to be inserted between the wedge of the journal box and the top of the box, the member being formed with openings whereby oil may be applied to the packing.



2. A packing guard for the journal boxes of railroad cars comprising a member interposed between the packing which is arranged in the journal box and the opening of the box, said member including a curved toothed portion disposed to extend beneath the journal, said member including an extension disposed between the wedge of the journal box and the top of the box whereby it may be maintained against displacement by the weight of the car on the box.

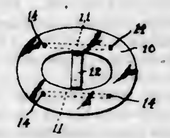
3. A packing guard for the journal boxes of railroad cars comprising a plate having an extension disposed to be inserted between the wedge of the journal box and the top of the box whereby it may be supported against removal by the weight of the car on the box, a guard formed integral with said plate, said guard including spaced members the edges of which are provided with teeth, and an edge member connecting the first-mentioned members and curved inwardly beneath the end of the journal, the edge of said member being toothed.

4. A packing guard for the journal boxes of railroad cars comprising a plate disposed to be inserted between the wedge of the journal box and the top of the box, a second plate disposed at right angles to the first-mentioned plate and interposed between the packing, and the opening of the box, said plate being formed with openings.

5. A packing guard for the journal boxes of railroad cars comprising a plate disposed to be inserted between the wedge of the journal box and the top of the box, a second plate disposed at right angles to the first-mentioned plate and interposed between the packing and the opening of the box, said plate being formed with openings, and a curved extension disposed beneath the journal.

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1,090,415. BUCKLE. AMBROSE HAROLD ROSENTHAL, Brooklyn, N. Y. Filed July 2, 1913. Serial No. 776,895. (Cl. 2—187.)



As a new article of manufacture, a buckle comprising a centrally open flexible base member, and a metallic frame adapted for attachment to said base member, said frame comprising a pair of elongated parallel arms each thereof having a point at each end turned at right angles to the plane of the arm and adapted for engagement with said base member, and an arched cross bar formed integrally with said arms intermediate their ends.

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1,090,416. KNIFE. KARL H. ROTH, Utica, N. Y. Filed Apr. 10, 1913. Serial No. 760,220. (Cl. 30—10.)

1. In a knife, the combination of a pair of blades, recesses in said blades, a spring, heads on either end of

said spring, said heads adapted to engage said recesses in said blades, whereby to hold said blades in open or in closed position, a second spring for opening said blades, members integral with pivots actuated by levers for controlling the actuation of said first named spring, slides for controlling the actuation of said levers, rearward extensions on said slides, said extensions having very little thickness, whereby to form a spring in said rearward extensions, knobs on said rearward extensions, members having beveled surfaces for forcing said knobs into given position, whereby to hold said slides stationary, and studs for actuating said members having beveled surfaces.



2. In a knife, the combination of members, cover portions on said members, a pair of blades, recesses in said blades, a spring, heads on either end of said spring, recesses in said spring, whereby the greater extent of the yield of said spring will be adjacent its end portions, recesses in said blades, said heads on said spring adapted to engage said recesses in said blades, whereby to hold said blades in open or in closed position, a spring for opening said blades, members integral with pivots actuated by levers for controlling the actuation of said first named spring, slides for controlling the actuation of said levers, rearward extensions on said slides, said rearward extensions having very little thickness, whereby to form a spring in said rearward extensions, knobs on said rearward extensions, members having beveled surfaces, recesses in said handle members for housing said knobs, said members having beveled surfaces adapted to force said knobs into said recesses in said handle members, whereby to lock said slides in given position, and studs for actuating said members having beveled surfaces.

3. In a knife, the combination of a pair of blades, recesses in said blades, a spring, recesses in said spring, whereby to create a given yield therein, heads on either end of said spring, said heads adapted to engage said recesses in said blades, whereby to hold said blades in open or in closed position, a second spring for opening said blades, members, pivots, and levers, for controlling the actuation of said first named spring for opening said blades, slides having corrugated surfaces for controlling the actuation of said levers, rearward extensions on said slides, said rearward extensions being of very little thickness, whereby to form a spring portion in said rearward extensions, knobs on the ends of said rearward extensions, members having beveled surfaces for forcing said knobs into given position, whereby to lock said slides in given position, and studs for actuating said members having beveled surfaces.

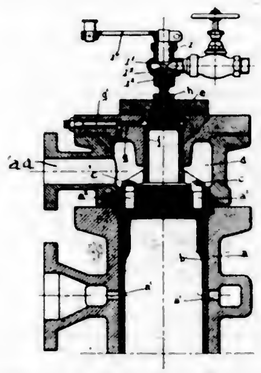
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1,090,417. ENGINE-GOVERNOR. WILHELM SCHMIDT, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf-Gesellschaft M. B. H., Cassel, Germany, a Corporation of Germany. Filed Dec. 16, 1911. Serial No. 666,275. (Cl. 121—45.)

1. The combination, with an engine cylinder provided with a piston, an inlet chamber at the end of said cylinder, an inlet opening from said inlet chamber into said cylinder, and an outlet, of controlling means for said inlet opening said means comprising a valve, means for leading steam from the inlet chamber to both sides of said valve, and a steam outlet from the outer side of the valve piston.

2. The combination, with an engine cylinder provided with a piston, an inlet chamber at the end of said cylinder, an inlet opening from said inlet chamber into said cylinder, and an outlet, of controlling means for said inlet opening, said means comprising a valve, means for leading steam from the inlet chamber to both sides of said valve, a steam outlet from the outer side of the valve, and means for regulating the steam pressure on said outer side of said valve.

3. The combination, with an engine cylinder provided with a piston, an inlet chamber at the end of said cylinder, an inlet opening from said inlet chamber into said cylinder, and an outlet, of controlling means for said inlet opening said means comprising a valve, means for leading steam from the inlet chamber to the inner side of the valve, a regulating chamber in which said valve moves, a contracted steam passage between said regulating chamber and the inlet chamber, and a steam outlet from the regulating chamber.



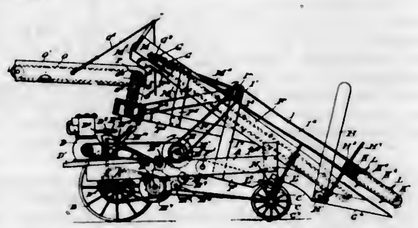
4. The combination, with an engine cylinder provided with a piston, an inlet chamber at the end of said cylinder, an inlet opening from said inlet chamber into said cylinder, and an outlet, of controlling means for said inlet opening, said means comprising a valve piston, means for leading steam from the inlet chamber to the inner side of the valve piston, a regulating chamber in which said valve piston moves, the walls of said chamber being spaced from the piston so as to constitute a passage between said regulating chamber and said lower side of the valve piston, and a steam outlet from the regulating chamber.

5. The combination, with an engine cylinder provided with a piston, an inlet chamber at the end of and opening into said cylinder, and an outlet, of a regulating chamber separated from the interior of the cylinder and adapted to contain a pressure fluid, means for varying the pressure of said fluid according to the loading of the engine, and a valve controlling the opening between inlet chamber and cylinder, said valve having one surface open to the interior of the cylinder and another surface open to the regulating chamber, said surfaces being so proportioned that the valve will periodically open and close as the piston moves to and fro.

[Claim 6 not printed in the Gazette.]

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1,090,418. LOADING-MACHINE. JOHN L. SCHNEIDER, Charles City, Iowa. Filed July 22, 1913. Serial No. 780,588. (Cl. 214—2.)



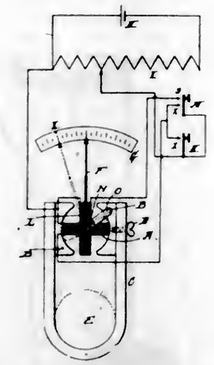
1. A loading apparatus comprising a truck, a conveyer frame and endless conveyer therein, said frame having beams projecting from the lower end thereof and at an angle to the conveyer and pivoted to said truck, adjusting screws mounted on the truck, gear mechanism for rotating the screws, nuts mounted upon the conveyer frame and having threaded openings for engagement with said screws, standards projecting from the beams upon said conveyer frame, a second conveyer frame pivoted to one of said standards, a conveyer supported by said second-referred-to frame, and means carried by said beam for adjusting the latter, as set forth.

2. A loading apparatus comprising a truck, a conveyer frame and endless conveyer therein, said frame having beams projecting from the lower end thereof and at an angle to the conveyer and pivoted to said truck, adjusting screws mounted on the truck, gear mechanism for rotating the screws, nuts mounted upon the conveyer frame and having threaded openings for engagement with said screws, standards projecting from the beams upon said conveyer frame, a second conveyer frame pivoted to one of said standards, a conveyer supported by said second-referred-to frame, means carried by said beam for adjusting the latter, strips fastened to the first referred to conveyer frame, and an endless conveyer frame and conveyer therein mounted upon said strips, as set forth.



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1,090,419. CALIBRATING DEVICE. SEVERN D. SPRONG, Brooklyn, N. Y. Filed Feb. 19, 1913. Serial No. 749,482. (Cl. 171—95.)



1. An electric measuring instrument, comprising a current generator, a fixed coil, a movable coil, means whereby the movable coil is subjected to a flux surrounding a conductor whose current is to be measured, means for indicating the angular displacement of said movable coil due to the mutual reaction of the fields of said coils, and means whereby said two coils may be included in parallel or the movable coil only included in the circuit of said generator.

2. An electric measuring instrument, comprising a current generator, a pivoted coil, a fixed coil set in a plane at an angle to the plane of said pivoted coil, means whereby said coils are subjected to a flux surrounding a conductor whose current is to be measured, means for indicating the angular displacement of said pivoted coil due to the mutual reaction of the fields of said coils, and means whereby said two coils may be included in parallel or the pivoted coil only included in the circuit of said generator.

3. An electric measuring instrument, comprising a current generator, a pivoted coil, a fixed coil set in a plane at an angle to the plane of said pivoted coil, means whereby said coils are subjected to a flux surrounding a conductor whose current is to be measured, means for indicating the angular displacement of said pivoted coil due to the mutual reaction of the fields of said coils, means whereby said two coils may be included in parallel or the pivoted coil only included in the circuit of said generator, and a variable resistance included in said generator circuit.

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1,090,420. DISH-WASHING MACHINE. ROBERT W. STEED, Maplewood, N. J. Filed Jan. 23, 1912. Serial No. 672,877. (Cl. 141—9.)



1. In a dish washing machine, the combination of a tank, means for supporting the articles to be washed, rotatable spray pipes in the tank, means for supplying water thereto, a pipe for spraying water into the tank and connected to and rotatable with the said rotatable spraying pipes, and means for pumping water from the tank into said last-named pipe.

2. In a dish washing machine, the combination of a tank, a hot water supply, means for introducing it into the tank consisting of vertical pipes having lateral outlets, said pipes being mounted for revolution, a centrifugal pumping mechanism having a discharge cylinder properly secured in connection with the aforesaid pipes, and combined and arranged in connection with a pumping means, whereby the water may be raised vertically to a point where it can be projected laterally over the dishes.

3. In a dish washing machine, the combination of a tank, means therein for supporting the dishes and other articles to be washed, a pumping mechanism in the base of the tank, a vertical cylinder connected with the pumping means and having lateral outlets throughout its vertical length, a water supply mechanism connected with said cylinder for the delivery of the water to the tank, said mechanism including vertical pipes having lateral outlets, a common head to which the pipes are connected, a supply pipe delivering into the common head, and a heating tank.

4. In a dish washing machine, the combination of a tank in which the dishes are supported, a rotatable vertically disposed pipe carrying a series of lateral outlets arranged at different levels, and means for supplying said pipe with water from outside the tank.

5. In a dish washing machine, the combination of a tank in which the dishes are supported, a vertically disposed pipe carrying a series of lateral outlets, means for controlling the supply of water from outside the tank to the said pipe, a rotary pump communicating with the tank, a pipe to which the pump delivers arranged to discharge laterally against the dishes in the tank, and means for revolving the pump and also the said vertically disposed supply pipe.

[Claim 6 not printed in the Gazette.]

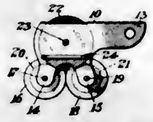
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1,090,421. KNIFE-SHARPENER. EUGENE J. STOLTZ, New York, N. Y. Filed May 28, 1913. Serial No. 770,298. (Cl. 76—87.)

1. A knife sharpener comprising a frame, sharpening disks so mounted therein that their peripheries contact with one another, wheels of smaller diameter than the sharpening disks lying beside the same within the frame, and means also secured within the frame for revolving the said wheels of smaller diameter to turn the sharpening disks.

2. A knife sharpener comprising a frame, knife sharpening disks mounted therein so their peripheries are in

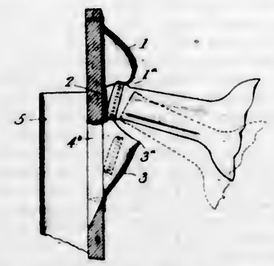
contact with one another, a toothed wheel secured within the said frame against the side of each sharpening disk, and a toothed wheel mounted in the side of the said frame in such a position that the teeth thereof mesh with the teeth of the aforesaid toothed wheels.



3. A knife sharpener comprising a frame having parallel sides, lugs in pairs projecting from the said sides, a knife sharpening disk mounted between each pair of lugs so that the peripheries of the said disk contact with one another, a toothed wheel of smaller diameter than the said knife sharpening disks connected to each of the said sharpening disks between the said projecting lugs, and a toothed wheel mounted in the sides of the said frame projecting through an aperture provided therefor in one edge of the frame, the teeth of which mesh with the teeth of the aforesaid toothed wheels.

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1,090,422. BOTTLE-SEAL-DETACHING DEVICE. JOHN W. STOVALL and JOHN T. FURNISS, Stovall, Miss. Filed July 22, 1912. Serial No. 710,792. (Cl. 65—46.)



1. A bottle seal detaching device comprising a plate having a projecting detaching device, said plate also having a projecting parti-globular seal catcher below the said detaching device.

2. A bottle seal detaching device comprising a plate having a projecting detaching device provided with a seal engaging lower edge, a corrugated slip preventing strip below the detacher, and a projecting seal catcher below the said strip.

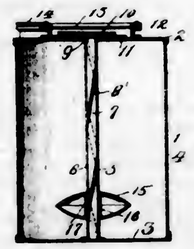
3. A seal detaching device comprising a plate having a projecting detaching device provided with a seal engaging inwardly curved lower edge, and a projecting parti-globular seal catcher below the detacher, the said detacher and catcher being made by stamping the metal outwardly from the plate so as to leave an intermediate strip.

4. The herein described seal detaching device comprising a plate having a projecting parti-globular detaching device provided with a seal engaging lower edge, a corrugated slip preventing strip below the detacher, and a projecting parti-globular seal catcher below the said strip, the said detacher and catcher being stamped outwardly from the plate.

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1,090,423. FLUID-GAGE. PERRY E. TANNER, Akron, Ohio. Filed July 11, 1912. Serial No. 708,796. (Cl. 73—82.)

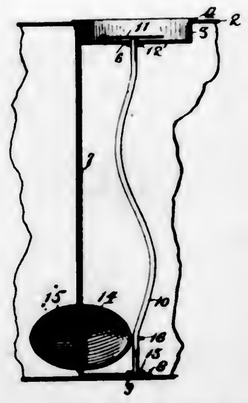
A gage for fluid containing vessels comprising in combination, a dial, a fixed cylindrical outer tube extending throughout the depth of said vessel and provided with a longitudinal slot throughout its length parallel with its axis, a rotatable tube within said outer tube provided throughout its length with a spirally-arranged slot, a spiral trough-shaped guide secured in said rotatable tube with its open side at the slot of said rotatable tube, a pin on the upper end of said rotatable tube projecting through the top of the vessel and said dial, an indicating finger carried by said pin, a hollow float, a central sleeve through said float slidingly mounted for movement in a fixed path



upon said outer tube, an inwardly-projecting radial guide pin carried by said float sleeve and extending through the slot in the outer tube and engaging in the spiral guide in said rotatable tube, whereby said indicating finger is actuated when the said float is shifted.

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1,090,424. FLUID-GAGE. PERRY E. TANNER, Akron, Ohio. Filed Aug. 5, 1912. Serial No. 713,423. (Cl. 73—82.)

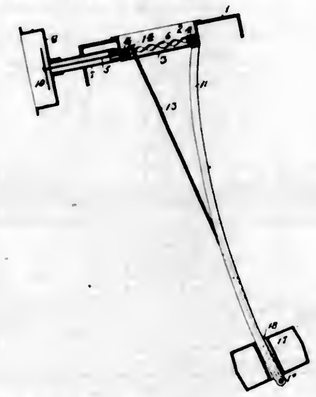


The combination with a fluid receptacle provided with an opening in its upper wall, of a removable cup-shaped member formed with a graduated dial positioned therein and constituting a closure member for said opening, said cup-shaped member further provided with a central perforation constituting a bearing, a depending L-shaped member with its upper end flattened on its inner side and engaging between the cup-shaped member and the side of said opening and extending into said receptacle, a laterally projecting flange upon said cup-shaped member overlying said flattened end, the horizontal portion of said L-shaped member provided with a bearing, a rotatable spiral mounted in said bearings, a hollow float, a central tube through said float mounted on the vertical portion of said L-shaped member, an eye upon said float receiving said spiral, and an index finger mounted upon the upper end of said spiral and movable across said dial.

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1,090,425. FLUID-GAGE. PERRY E. TANNER, Akron, Ohio. Filed Aug. 24, 1912. Serial No. 716,897. (Cl. 73—82.)

1. A fluid gage embodying two members pivotally hinged together to permit the free oscillation of one member, a float provided with an aperture, to receive both of said members and arranged when shifted longitudinally thereof to oscillate one of said members.



2. A fluid gage embodying a depending fixed member formed upon curvilinear lines, an oscillatory member pivotally hinged to said fixed member, a float provided with an aperture inclosing both members and arranged when shifted to oscillate said pivoted member to thereby indicate the volume of fluid contained in a receptacle.

3. A fluid gage embodying a receptacle provided with a slot, a fixed depending member in said receptacle, an oscillatory member pivotally secured to said fixed member, the upper end of said oscillatory member extending through said slot, a graduated dial near said slot, a float provided with an aperture to receive said fixed and oscillatory members and arranged when shifted to oscillate said pivoted member to indicate on said dial the volume of contents in said receptacle.

4. A fluid gage embodying a receptacle provided with a slot in its upper wall, a fixed depending member in said receptacle, an oscillatory member pivotally united to said fixed member, the upper end of said oscillatory member projecting through said slot, a graduated dial near said slot, an index finger carried by the upper end of said oscillatory member, a float provided with an aperture to receive said fixed and oscillatory members and arranged when shifted to oscillate said pivoted member to move said index finger over said graduated dial.

5. A fluid gage embodying a receptacle provided with a slot in its upper wall, a fixed depending member in said receptacle, an oscillatory member pivotally united to said fixed member, the upper end of which projects through said slot, a float provided with an aperture to receive said fixed and oscillatory members and arranged to oscillate the latter when vertically shifted, a rotary shaft mounted adjacent to said slot, an index finger carried by said shaft, and means carried by said oscillatory member and shaft to cause a rotation of the latter when the former is oscillated.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,426. DRUM. CALVIN W. THOMAS, Peoria, Ill., assignor of one-half to Leslie D. Short, Peoria, Ill. Filed Mar. 16, 1912. Serial No. 684,358. (Cl. 84—10.)

1. A drum comprising a shell, its heads, a tightening ring for each head, a series of tensioning means for one of said heads operable from one side of the drum, and a separate and independent series of tensioning means for the other head operable from the same side of the drum as said first series of tensioning means.

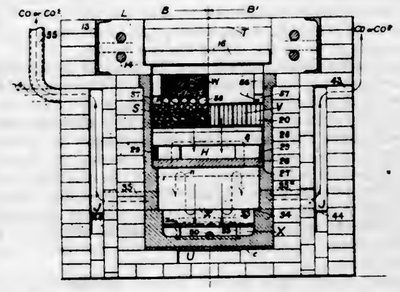
2. A drum comprising a single section shell, its heads, a separate tightening ring for each head, two series of posts secured to and arranged around the drum-shell, the posts of one series arranged in staggered relation to those of the other series, means for adjusting one tightening ring connected to alternate posts and means for adjusting the other tightening ring connected to the remaining alternate posts, both adjusting means operable from the same side of the drum.



3. A drum comprising a shell, its heads, a tightening ring for each head, a separate series of tightening means for each ring provided with rods and with hooks engaging the ring, posts on said shell each forming the mounting of a tightening means, one series of tightening means having swivel engagement with its posts and threaded engagement with its hooks, and the alternate series of tightening means having threaded engagement with its posts and swivel engagement with its hooks, all of said means operable from the same side of the drum.

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1,090,427. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,787. (Cl. 204—64.)



1. In an electric zinc furnace, a grate upon which a bed-of-carbon resistor is supported, the resistor being arranged to act upon a charge when the latter is placed in the furnace.

2. In an electric zinc furnace, a bed-of-carbon resistor supported by spaced grate members forming a longitudinally extending grate underneath the same a chamber for receiving through the spaces inert residual matter, and terminals located adjacent to the ends of the grate.

3. The combination with a bed-of-carbon resistor, upon which a charge of reacting materials is sustained, of carbon terminals in whose inner faces grooves are formed, whereby an increased area of contact is provided between the broken carbon of the resistor and the said terminals.

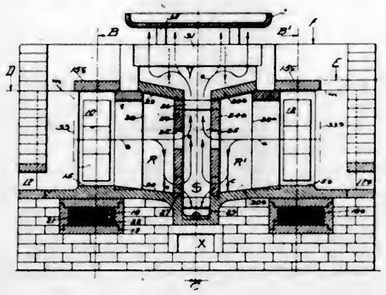
4. The combination with a horizontal carbon resistor upon which a charge of reacting material is sustained, of vertical carbon terminals whose lower inner faces are in contact with the resistor whose outer faces are in contact with the end walls of the resistor chamber and whose upper ends are connected by metallic electrodes to the power circuit.

5. The combination with a horizontal carbon resistor, of vertical carbon terminals whose lower portions are in

contact with the resistor and whose inner faces which are above the resistor are separated from the charge by insulating blocks.

[Claims 6 to 30 not printed in the Gazette.]

1,090,428. ELECTRIC ZINC-FURNACE WITH INTEGRAL CONDENSER. JOHN THOMSON, New York, N. Y. Filed Apr. 14, 1913. Serial No. 760,915. (Cl. 204—64.)



1. An electric zinc furnace essentially comprising compound parallel porous resistors adapted to act upon charge material disposed along one of the vertical sides of each resistor, and fume condensing systems disposed along vertical sides of said resistors opposite to the zones of the reaction.

2. An electric zinc furnace essentially comprising spaced porous resistors whose reaction zones are on one of each of their vertical sides while the means for condensation of fume are arranged along the sides of said resistors opposite to those at which the reaction takes place.

3. An electric zinc furnace having a porous resistor or resistors, a parallel condenser or condensers, all being disposed along the same horizontal plane, a zinc reservoir or reservoirs situated in an underlying plane, and a gas exit or exits in or at the top of the condenser.

4. An electric zinc furnace and an integral condensing system comprising in combination the following elements: parallel longitudinally-extending electrically energized carbon resistors formed so that fume can flow therethrough, and condensing chambers which are arranged to receive fume after it has passed through the resistors, the charge receiving portion being arranged so that the reaction takes place along vertical faces of said resistors and the volatilized products thereof pass laterally through the resistors, thence entering the condensers in horizontal planes, while the inert residue precipitates toward the bottoms of the reaction zones.

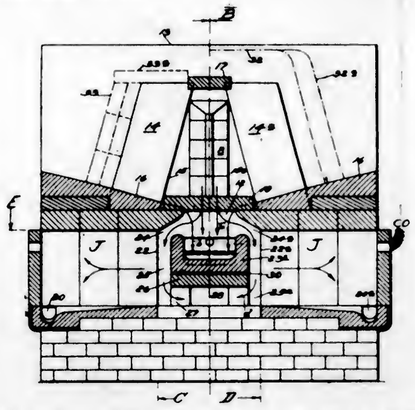
5. In an electric zinc furnace, parallel porous resistors, galleries or pockets arranged to supply charge material to one of each of the vertical faces of said resistors, condensing chambers containing broken carbon, members disposed along vertical sides of said resistors opposite the zones of reaction which members are constructed and arranged so as to permit the fume to flow from the resistors to the interior of the condensing chambers, the condensing chambers being provided with a space or gap for receiving the residual gases, with an overlying chamber from whence the said gases pass to atmosphere, and also with an underlying receptacle for receiving liquid metal.

[Claims 6 to 30 not printed in the Gazette.]

1,090,429. UNIVERSAL ELECTRIC FURNACE, COMBINED WITH MEANS FOR CONDENSING ZINC. JOHN THOMSON, New York, N. Y. Filed June 7, 1913. Serial No. 772,219. (Cl. 204—64.)

1. In an electric furnace, a resistor whose transverse form is trapezoidal, a supporting grating therefor and an underlying sump.

2. In an electric furnace, a resistor whose transverse form is trapezoidal, the reacting smelting or melting effect taking place along or contiguous to a sloped side or both sloped sides thereof.



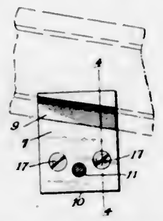
3. An electric zinc furnace having supported on a grate a longitudinally extending resistor of trapezoidal cross section and a charge receiving floor which slopes downwardly toward the grate.

4. An electric furnace having an open table, a resistor reposing thereon, abutments containing the terminals and an underlying sump.

5. An electric furnace having an open table, a longitudinally extending resistor reposing thereon, a plurality of vertically and transversely extending spaced plates resting upon the table, abutments containing the terminals and an underlying sump.

[Claims 6 to 18 not printed in the Gazette.]

1,090,430. AUTOMOBILE-JACK. FRANK TIRELLI, New York, N. Y. Filed May 21, 1913. Serial No. 768,920. (Cl. 57—118.)



1. As a new article of manufacture a detachable jack support for automobile axles comprising two separable jaws each diagonally recessed near one end and adapted to receive the lower flange of an I-beam axle between them, a bolt which passes through the jaws below the recesses adapted to force them together, the lower faces of the jaws projecting downwardly below the axle and presenting a substantially horizontal surface for the head of the jack.

2. As a new article of manufacture a detachable jack support for automobile axles comprising two separable and counterpart jaws each diagonally recessed near one end and adapted to receive the lower flange of an I-beam axle between them, each being perforated near its other end and a bolt adapted to loosely pass through the perforations and to force the jaws together, the lower faces of the jaws projecting downwardly below the axle and presenting a substantially horizontal surface for the head of the jack.

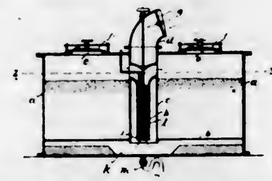
3. As a new article of manufacture, a detachable jack support for automobile axles comprising two jaws each so recessed near one end as to adapt them to grip the axle between them and to maintain the support in a vertical position upon the axle, each jaw being perforated below the axle and near its other end and a bolt loosely engaging in said perforations so that it shall be adapted to force the lower end of the jaws in contact with each other and their upper ends into crowding contact with the axle, the lower faces of the jaws projecting downwardly below the axle and presenting a substantially horizontal surface for the head of the jack.

4. As a new article of manufacture a detachable jack support for automobile axles comprising two jaws adapted to grip the axle between them, a bolt passing through the jaws below the axle and adapted to force them together, a thickening plate adapted to be fastened to one of the jaws and means for holding the plate to the jaw.

5. As a new article of manufacture a detachable jack support for automobile axles comprising two jaws adapted to grip the axle between them, a bolt loosely passing through the jaws below the axle and adapted to force them together, a thickening plate adapted to be fastened to one of the jaws, threaded and countersunk holes in the jaws adapted to receive screws for fastening the thickening plate thereto and threaded screws adapted to work in the threaded holes having heads adapted to enter the countersinks in the jaw whereby they may be made flush with the surface of the jaw when the thickening plate is present.



1,090,431. GERMINATING APPARATUS. LUDWIG TOPF, Erfurt, Germany. Filed Jan. 25, 1913. Serial No. 744,153. (Cl. 195—21.)



1. A germinating apparatus, comprising in combination, a box forming a germinating compartment, and having outlet openings in its top, a partition extending across the compartment to hold the material to be germinated and forming upper and lower chambers, said partition permitting passage of air therethrough, a conduit for introducing fresh air into said compartment extending vertically therethrough and having its lower end opening below said partition, means for closing said outlet openings, means for cutting off the passage of fresh air through said conduit, and means for drawing the carbonic acid gas laden air from the lower chamber and distributing it upon the upper surface of the material in the upper chamber when said means for cutting off the passage of fresh air is closed.

2. A germinating apparatus, comprising in combination, a box forming a germinating compartment and having outlet openings in its top, a partition extending across the compartment to hold the material to be germinated and forming upper and lower chambers, said partition permitting passage of air therethrough, a conduit for introducing fresh air into said compartment extending vertically therethrough and having its lower end opening below said partition, means for closing said outlet openings, means for cutting off the passage of fresh air through said conduit, a gas collecting chamber formed in communication with said lower chamber and means for drawing the gas laden air through said collecting chamber and passing it into said upper chamber above the mass of material therein.

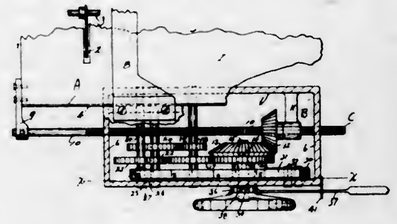
3. A germinating apparatus, comprising in combination, a box forming a germinating compartment, a perforate partition extending across said box to form upper and lower chambers and adapted to carry the germinating material, air outlet ports located in the top of said box, means for closing said outlet ports, a fresh air supply conduit extending vertically through the top of said box and having its lower end extending below said perforate partition, means for cutting off the air supply in said conduit, and means located in said conduit for drawing the gas laden air from below said perforate partition and distributing it over the mass of the material when said means for cutting off the air supply in said conduit is closed.

4. A germinating apparatus, comprising in combination, a box forming a germinating compartment, and having outlet openings in its top, a partition extending across the compartment to hold the material to be germinated and forming upper and lower chambers, said partition permitting passage of air therethrough, a conduit for introducing fresh air into said compartment extending vertically therethrough and having its lower end opening below said partition, means for closing said outlet openings, means for cutting off the passage of fresh air through said conduit, means for drawing the carbonic acid laden air from the lower chamber and distributing it upon the upper surface of the material in the upper chamber when said means for cutting off the passage of fresh air is closed, and means for regulating the temperature and condensation of the gas laden air during its circulation.

5. A germinating apparatus, comprising in combination, a box forming a germinating compartment and having outlet openings in its top, a partition extending across the compartment to hold the material to be germinated and forming upper and lower chambers, said partition permitting passage of air therethrough, a conduit for introducing fresh air into said compartment extending vertically therethrough and having its lower end opening below said partition, means for closing said outlet openings, means for cutting off the passage of fresh air through said conduit, a gas collecting chamber formed in communication with said lower chamber, means for drawing the gas laden air through said collecting chamber and passing it into said upper chamber above the mass of material therein, and a means for regulating the temperature and condensation of the gas laden air during its circulation.

[Claims 6 and 7 not printed in the Gazette.]

1,090,432. GAGE. OTTO VETTER, Seattle, Wash. Filed Mar. 17, 1913. Serial No. 755,012. (Cl. 143—174.)



1. In a saw table gage, the combination of a frame slidably mounted upon the saw table, a straight edge fixed to the said frame, a member upon the said frame and movable with respect thereto, the said member having graduations which have a definite relation to the distance between the straight edge and the saw, of means for sliding the said frame, means connected with the first mentioned means for operating the said member, and means for preventing movement of the said frame with respect to the saw table.

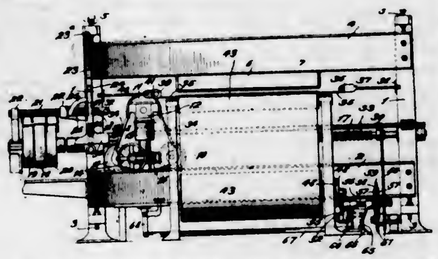
2. In a saw table gage, the combination of a frame slidably mounted upon an edge of the saw table, a straight edge fixed to the said frame and parallel to the saw, a flexible, graduated member upon the said frame and movable with respect thereto, the graduations of which member have a fixed relation to the distance between the straight edge and the saw, with means for sliding the said frame, means connected with the first mentioned means for operating the said graduated member, and means for preventing movement of the said frame with respect to the saw table.

3. In a saw table gage, the combination of a frame, means for slidably mounting the same upon the saw table, a straight edge fixed to the said frame and extending parallel with the saw, a symbol bearing tape measure wound upon a spring drum which is mounted within the said casing, means for winding up the said tape against its tension and for unwinding the same, so as to successively move the said symbols into register with a sight aperture in the said frame, with means for sliding the said frame with respect to the table and means connected to the first mentioned means for winding the said tape measure, and a common braking means for both of said means.

4. In a saw table gage, the combination of a screw threaded stem fixed to the saw table, a casing slidable upon the said stem, a straight edge fixed to the said casing and extending parallel with the saw, a symbol bearing tape measure wound within the said casing, the symbols having a definite relation to the distance between the straight edge and the saw, means for simultaneously winding and unwinding the said tape measure and sliding the said casing with respect to the saw table, so as to bring a symbol upon the said tape measure into register with a sight aperture in the said casing, and means for frictionally holding the said casing in its various adjusted positions.

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1,090,433. LEATHER ROLLING AND EMBOSSING MACHINE. CARL VOSS, Newark, N. J. Filed July 5, 1913. Serial No. 777,453. (Cl. 149—23.)



1. A leather rolling press comprising a frame, a carriage, a presser roller mounted in the upper end of said carriage, a die plate, a flexible table or support above the carriage and below the die plate, said table extending in the direction of the travel of the carriage and beyond the ends of the die plate, means for supporting said table at the ends thereof, means for placing a tension on said flexible table, a transversely movable endless carrier belt having one ply thereof only between the flexible table and the die plate, means for moving said endless carrier in one direction, and means for supporting said carrier at a tension throughout its entire length, said means being located at a distance from the main frame whereby the upper ply of the carrier belt will form a table to support the leather before and after it is embossed.

2. A leather rolling press comprising a frame, a carriage, a presser roller mounted in the upper end of said carriage, a die plate, a flexible table or support above the carriage and below the die plate, said table extending in the direction of the travel of the carriage and beyond the ends of the die plate, means for supporting said table at the ends thereof, means for placing a tension on said flexible table, a transversely movable endless carrier belt having one ply thereof only between the flexible table and the die plate, a pair of standards located on opposite sides of the machine frame, rollers carried by said standards near the upper and lower ends thereof, said rollers supporting the carrier belt at the proper tension throughout its length, the upper ply of the carrier belt between the standards forming a broad flat table or support for the leather, means for intermittently rotating one of the rolls in one of the standards to thereby intermittently move the carrier belt, said intermittently operating means feeding the carrier belt a predetermined distance during each step or movement.

3. A leather rolling press comprising a frame, a carriage, a presser roller mounted in the upper end of said carriage, a die plate, a flexible table or support above the carriage and below the die plate, said table extending in the direction of the travel of the carriage and beyond the ends of the die plate, means for supporting said table at the ends thereof, a transversely movable endless carrier belt having one ply thereof only between the flexible table and the die plate, a pair of standards located on opposite sides of the machine frame, rollers carried by said standards near the upper and lower ends thereof, said rollers supporting the carrier belt at the proper tension throughout its length, the upper ply of the carrier belt between the standards forming a broad flat table or support for the leather, a constantly driven clutch member, an intermittently operating clutch member, means for locking the intermittently operating clutch member, means for releasing said clutch member, and means for connecting the intermittently operating clutch member to one of the carrier belt supporting rolls to intermittently move said roll in one direction, whereby the carrier belt will be given a step-by-step motion in one direction.

4. A leather rolling press comprising a frame, a carriage, a presser roller mounted in the upper end of said carriage, a die plate, a flexible table or support above the carriage and below the die plate, said table extending in the direction of the travel of the carriage and beyond the ends of the die plate, means for supporting said table at the ends thereof, a transversely movable endless carrier belt having one ply thereof only between the flexible table and the die plate, a pair of standards located on opposite sides of the machine frame, rollers carried by said standards near the upper and lower ends thereof, said rollers supporting the carrier belt at the proper tension throughout its length the upper ply of the carrier belt between the standards forming a broad flat table or support for the leather, a constantly driven clutch member, a friction clutch member constantly engaging the driven clutch member, means for locking the friction clutch member, means for releasing said locking means, means for connecting the friction clutch member to one of the carrier belt supporting rolls to intermittently rotate said roll in one direction.

5. A leather rolling press comprising a frame, a carriage, a presser roller mounted in the upper end of said carriage, a die plate, a flexible table or support above the carriage and below the die plate, said table extending in the direction of the travel of the carriage and beyond the ends of the die plate, means for supporting said table at the ends thereof, a transversely movable endless carrier belt having one ply thereof only between the flexible table and the die plate, a pair of standards located on opposite sides of the machine frame, rollers carried by said standards near the upper and lower ends thereof, said rollers supporting the carrier belt at the proper tension throughout its length, the upper ply of the carrier belt between the standards forming a broad flat table or support for the leather, a constantly driven clutch member, a friction clutch member constantly engaging the driven clutch member, means for automatically locking the friction clutch member, means for releasing said locking means to permit the friction clutch member to make one revolution, means for connecting the friction clutch member to one of the carrier belt supporting rolls to intermittently rotate said roll in one direction.

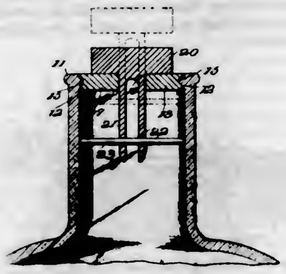
[Claims 6 to 8 not printed in the Gazette.]

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1,090,434. BOTTLE-STOPPER. JAMES O. WALSH, Bayonne, N. J. Filed Mar. 6, 1913. Serial No. 752,515. (Cl. 215—55.)

1. A bottle stopper in which the bottle is provided adjacent its open end with projections, a disk forming a closure for the bottle, the periphery of said disk being provided with grooves which receive the projections carried by the bottle, the outer face of the disk being flush with the edge portion of the bottle at its open end, said disk being formed with an opening, a stopper consisting of a head, having a stem projecting through the opening formed in the disk, said stem being bifurcated throughout the greater portion of its length, and a pin supported by the stem, said pin being of a length slightly less than the diameter of the neck of the bottle.





2. The combination with a bottle including a neck, of a closure seated in the neck of the bottle and provided with an opening, a stopper including a head of less size than the closure provided with a depending slotted stem slidably mounted in the opening in the closure, and a pin extending through the slotted stem for limiting the opening movement of the stopper, the head of said stopper being normally extended above the top of the neck of the bottle and adapted to rest on the adjacent face of the closure.

3. The combination with a bottle including a neck having a projection extending inwardly therefrom, of a closure seated in the neck of the bottle and provided with a peripheral groove adapted to receive said projection, said closure being formed with an opening, a stopper having a head of less size than the closure normally resting on the upper surface thereof and provided with a depending bifurcated stem extending through the opening in the closure, and a pin extending transversely through the bifurcated stem for limiting the opening movement of the stopper.

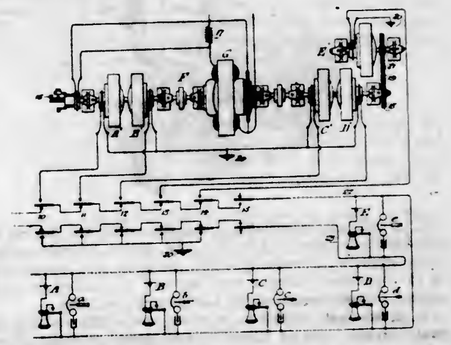
4. The combination with a bottle including a neck having projections extending inwardly therefrom, of a closure seated in the neck of the bottle and having its peripheral edge formed with inclined grooves terminating in sockets adapted to receive the projections on the neck of the bottle, said closure being provided with an opening and having its upper face normally disposed flush with the top of the neck and provided with spaced tool receiving depressions, a stopper including a head of less size than the closure normally resting on the upper surface thereof and provided with a depending bifurcated stem slidably mounted in the opening in the closure, and a pin extending through the bifurcated stem of the stopper for limiting the opening movement thereof.

5. The combination with a bottle including a neck having oppositely disposed projections extending inwardly therefrom and arranged in a common plane, of a closure seated in the neck of the bottle and provided with peripheral grooves adapted to receive said projections, said closure being formed with an opening, a stopper having an enlarged head normally supported by the closure and provided with a depending bifurcated stem extending through the opening in the closure, and means for limiting the opening movement of the stopper.

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1,090,435. HARMONIC SIGNALING SYSTEM. HARRY G. WEBSTER, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 682,994. (Cl. 179—87.)

1. A harmonic signaling system comprising sources of alternating current of different frequencies in combination with selectively operated reed-bells having reeds respectively tuned to said frequencies and each of said bells having reed-actuating means, including a permanent magnet and an electromagnet, for causing net magnetic stresses corresponding to the direction and frequency of the impressed current impulses independently of the momentary positions of the reed, whereby the reed of one of said bells is brought into conjunctive phase relation with the impressed current to cause its operation and the reed of the other of said bells has its amplitude of vibration restricted to prevent its operation.



2. A harmonic signaling system comprising sources of alternating current of frequencies some of which are substantially even multiples of others, in combination with selectively operated reed-bells each having reed-actuating means, including a permanent magnet and an electromagnet, for causing net magnetic stresses corresponding to the direction and frequency of the impressed current impulses independently of the momentary positions of the reed.

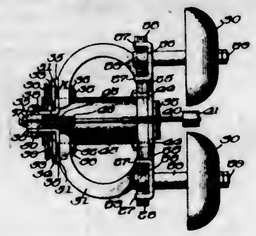
3. A harmonic signaling system comprising sources of alternating current of frequencies some of which are substantially even multiples of others, in combination with a multiple station signaling circuit having at each station a reed-bell, the reeds of said bells being respectively tuned to respond to currents of said frequencies, and having at each of certain of said stations reed-actuating means, including the bell magnet and a permanent magnet, for causing net magnetic stresses corresponding to the direction and frequency of the impressed current impulses independently of the momentary positions of the reed.

4. A harmonic signaling party-line telephone system comprising central office apparatus producing signaling currents of frequencies approximately 33⅓, 50 and 66⅔ cycles per second, other apparatus producing signaling currents of a frequency substantially dissimilar to one-third the frequency of, and lower than, any one of the other frequencies, in combination with a multiple station telephone line having at each station a reed-bell, said bells being respectively tuned to respond to currents of said frequencies, and having at each of certain of said stations actuating means, including a permanent magnet and an electromagnet, for causing net magnetic stresses corresponding to the direction and frequency of the impressed current impulses independently of the momentary positions of the reed.

5. A harmonic signaling party-line telephone system comprising central office apparatus producing signaling currents of frequencies approximately 33⅓, 50 and 66⅔ cycles per second, and other apparatus producing signaling currents of a frequency substantially dissimilar to one-third the frequency of, and lower than, any one of the other frequencies, in combination with a multiple station telephone line having at each station a reed-bell, said bells being respectively tuned to respond to currents of said frequencies, and having at each of certain of said stations actuating means, including a permanent magnet and an electromagnet, responsive to the current of that frequency to which the particular device is tuned, to bring said reed always into conjunctive phase relation with the impressed current.

[Claims 6 to 16 not printed in the Gazette.]

1,090,436. CALL-BELL. HARRY G. WEBSTER, Chicago, Ill. Original application filed Mar. 11, 1912, Serial No. 682,994. Divided and this application filed Dec. 30, 1912. Serial No. 739,830. (Cl. 177—7.)



1. A call bell comprising a tuned reed-striker having a characteristic rate of vibration and means whereby magnetic stresses corresponding in direction and frequency to the impressed current impulses will be applied to said striker independently of its momentary positions.

2. A call bell comprising a tuned reed-striker having a characteristic rate of vibration and means whereby sinusoidal currents will apply to said striker approximately sinusoidal stresses corresponding to said currents in direction and frequency independently of the momentary positions of said striker.

3. A call bell comprising a reed-member having a characteristic rate of vibration, and means, including a permanent magnet and an electromagnet of which said reed-member is a polar extension, whereby magnetic stresses corresponding in direction and frequency to the impressed current impulses will be applied to said member independently of its momentary positions.

4. A call bell comprising a reed-member having a characteristic rate of vibration, and means, including a permanent magnet and an electromagnet having in their magnetic circuits operating air gaps between said member and the poles of said permanent magnet, whereby magnetic stresses corresponding in direction and frequency to the impressed current impulses will be applied to said member independently of its momentary positions.

5. A call bell comprising a permanent magnet, a reed-member adapted to be tuned to vibrate at one rate only, said member including an armature mounted intermediate of the poles of said magnet and operatively related to said poles, and magnetic circuit connections rigidly secured to an intermediate point of said permanent magnet and extending therefrom to said armature.

[Claims 6 to 13 not printed in the Gazette.]

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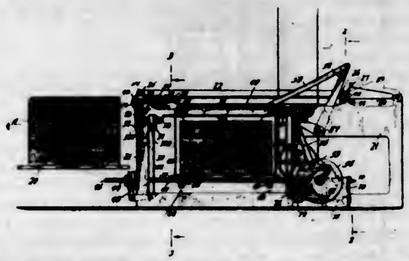
1,090,437. PRINTED AND SLIP SHEET SEPARATING APPARATUS. HENRY A. WISE WOOD, New York, N. Y., assignor to The Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Oct. 30, 1905. Serial No. 285,124. (Cl. 101—112.)

1. In an apparatus for separating intermingled printed and slip-sheets arranged alternately in a single pile, the combination of means for feeding sheets of this alternating character, means whereby every alternate sheet will be separated from the other sheets and delivered, a delivery table for receiving them, and means whereby said other sheets will be delivered.

2. An apparatus for separating intermingled printed and slip-sheets arranged alternately in a single pile, comprising means for advancing sheets from the pile, a sheet delivery mechanism, and means whereby every alternate sheet passing into the apparatus will be directed thereto and the remainder will be delivered from the machine.

3. An apparatus for separating intermingled printed and slip-sheets arranged alternately in a single pile, comprising means for advancing sheets from the pile, a sheet delivery mechanism, and means whereby every alternate sheet passing into the apparatus will be directed thereto.

4. An apparatus for separating intermingled printed and slip-sheets arranged alternately in a single pile, comprising means for advancing sheets from the pile, a sheet delivery mechanism, means for directing every alternate sheet thereto, and a sheet manipulating mechanism to which the sheets which do not pass to the delivery apparatus are directed.

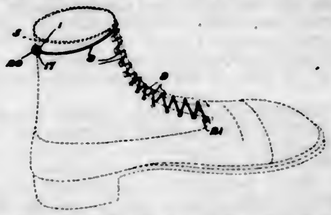


5. In an apparatus for separating intermingled printed and slip-sheets, the combination with means for advancing the sheet, a sheet delivery mechanism, a sheet manipulating mechanism, a switch, and means for operating the switch to direct every alternate sheet to the sheet delivery mechanism, and the rest of the sheets to the sheet manipulating mechanism.

[Claims 6 to 12 not printed in the Gazette.]

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1,090,438. LACING-HOLDER. CHARLES H. WORTH, Barrington, and BENJAMIN LEON, Camden, N. J. Filed Feb. 20, 1913. Serial No. 749,586. (Cl. 242—107.)



1. A device of the character described, comprising a cylindrical casing having notches in its wall, a drum having rotary mounting in the casing and adapted to be connected to one end of a lacing and wind the latter thereon, an annular flange on the drum of larger diameter than the casing, a ratchet tooth on the flange, and a spring pressing the drum inwardly in the casing tending to hold the ratchet tooth in one of the notches, substantially as described.

2. A device of the character described, comprising a cylindrical casing, a screw located centrally in the casing, a drum mounted to turn in the casing and around the screw, said drum having a central cylindrical recess with an annular shoulder at the inner end thereof, a coiled spring located between the enlarged outer end of the screw and said shoulder, pressing the drum within the casing, said casing having a circular series of notches in its outer edge, and said drum having a circular series of beveled teeth engaging in said notches, substantially as described.

3. A device of the character described, comprising a cylindrical casing, a screw located centrally in the casing, a drum mounted to turn in the casing and around the screw, said drum having a central cylindrical recess with an annular shoulder at the inner end thereof, a coiled spring located between the enlarged outer end of the screw and said shoulder, pressing the drum within the casing, said casing having a circular series of notches in its outer edge, said drum having a circular series of beveled teeth engaging in said notches, and an annular milled flange on said drum projecting beyond the wall of the casing, substantially as described.



4. A device of the character described, comprising a cylindrical casing, a screw located centrally in the casing, a drum mounted to turn in the casing and around the screw, said drum having a central cylindrical recess with an annular shoulder at the inner end thereof, a coiled spring located between the enlarged outer end of the screw and said shoulder, pressing the drum within the casing, said casing having a circular series of notches in its outer edge, said drum having a circular series of beveled teeth engaging in said notches, said drum having an annular groove adjacent its outer end, and a metal button having its edges sprung into said groove, substantially as described.

5. A device of the character described, comprising a cylindrical casing, a screw located centrally in the casing, a drum mounted to turn in the casing and around the screw, said drum having a central cylindrical recess with an annular shoulder at the inner end thereof, a coiled spring located between the enlarged outer end of the screw and said shoulder, pressing the drum within the casing, said casing having a circular series of notches in its outer edge, said drum having a circular series of beveled teeth engaging in said notches, an annular milled flange on said drum projecting beyond the wall of the casing, said drum having an annular groove adjacent its outer end, and a metal button having its edges sprung into said groove, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,439. PLASTIC MASSES AND METHOD OF PRODUCING THE SAME. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed Oct. 7, 1911. Serial No. 653,401. (Cl. 106—22.)

1. As a new composition of matter, a mixture comprising fusible phenol resin, an anhydrous methylene-containing hardening agent therefor, an inert filler, anhydrous phenol, and mono-chloro-naphthalene, the said phenol and mono-chloro-naphthalene being sufficient in quantity to render the mass plastic at comparatively low temperatures, and said hardening agent being sufficient in quantity to condense the phenol as well as the phenol resin, on subsequent heat treatment, substantially as described.

2. As a new composition of matter, a mixture comprising fusible phenol resin, an anhydrous methylene-containing hardening agent therefor, an inert filler, and an anhydrous organic fluid comprising a phenolic body, contained in and absorbed by the mass, the said fluid being sufficient to render the mass plastic at comparatively low temperatures, and the said hardening agent being sufficient to condense the phenol as well as the phenol resin, on subsequent heat treatment, substantially as described.

3. As a new composition of matter, a mixture comprising fusible phenol resin, an anhydrous methylene-containing hardening agent therefor, and an organic fluid comprising a substance capable of being condensed by said hardening agent, said fluid being contained in and absorbed by the mass and being sufficient to render the mass plastic at comparatively low temperatures, and the said hardening agent being sufficient to condense the said substance as well as the phenol resin, upon subsequent heat treatment, substantially as described.

4. As a new composition of matter, an anhydrous fusible mixture in solid form comprising a mass capable of transformation by chemical reaction upon application of sufficient heat to form a hard infusible phenol-methylene condensation product, and an organic fluid contained in and absorbed by the mass, adapted to render the same plastic at comparatively low temperatures, and comprising a material capable of condensation with methylene-containing elements in said mass during sufficient heat treatment, the said methylene-containing elements being present in the mixture in an amount sufficient not only to cause the said transformation of the mass but also to condense the said material as a part of the mass, substantially as described.

5. As a new composition of matter, a mass comprising substances capable of transformation by chemical reaction upon application of sufficient heat to form a hard infusible phenolic condensation product, and a mixture of organic substances, which is fluid at room temperatures, contained in and absorbed by the mass, adapted to render the mass plastic at comparatively low temperatures, and comprising a material capable of condensation with said first named substances during sufficient heat treatment, and a material which is not capable of such condensation, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,440. POLISHING COMPOSITION. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Halogen Products Company, Glen Ridge, N. J., a Corporation of New Jersey. Filed May 12, 1913. Serial No. 767,153. (Cl. 134—24.)

1. As a new article of manufacture, a polish composition comprising a higher halogen substitution product of naphthalene, a hard amorphorous resin and a volatile solvent for the said product and resin, substantially as described.

2. As a new article of manufacture, a polish composition comprising a higher halogen substitution product of naphthalene, a permanently fusible, soluble phenolic resin and a volatile solvent for the said product and resin, substantially as described.

3. As a new article of manufacture, a polish composition comprising a higher halogen substitution product of naphthalene, a permanently fusible, soluble phenolic resin and a solvent for the said product and resin consisting of a slowly-volatile liquid and a rapid drying liquid, substantially as described.

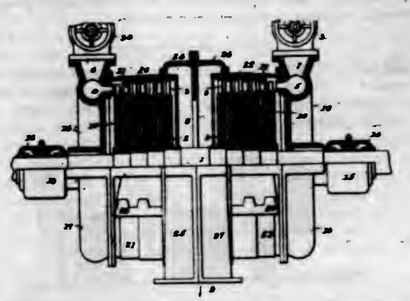
4. As a new article of manufacture, a polish composition comprising a higher halogen substitution product of naphalene, a permanently fusible, soluble phenolic resin and a volatile solvent for the said product and resin comprising acetylene-tetra-chlorid, substantially as described.

5. As a new article of manufacture, a polish composition comprising a higher solid chloro-naphthalene, a permanently fusible, soluble, cresol resin having a melting point of at least 100° C. acetylene-tetra-chlorid and a rapid-drying solvent, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,441. TURBINE. OTTO BANNER, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 27, 1911. Serial No. 668,033. (Cl. 121—58.)



1. A turbine engine comprising a casing divided in transverse vertical planes to form two end members having inlet chambers therein, an intermediate ring member having an outlet chamber therein and cylinder members located between the ring member and end members.

2. A turbine engine comprising a casing including two end members having inlet chambers and an intermediate ring member having an outlet chamber, said end members and intermediate ring member being divided longitudinally into half sections.

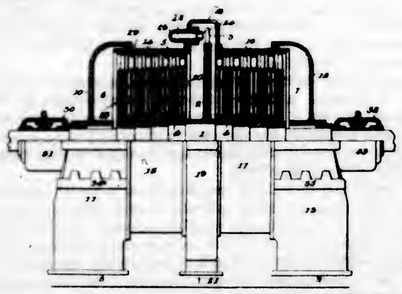
3. A turbine engine comprising a casing including two end members having inlet chambers and an intermediate divided ring member having an outlet chamber, said end members and intermediate ring member being divided longitudinally into half sections.

4. A turbine engine comprising a casing divided in horizontal and transverse vertical planes to form upper and lower end members, upper and lower cylinder members and upper and lower intermediate ring members, the end members containing the inlet chambers, and the intermediate ring member the outlet chamber.

5. A turbine engine comprising a casing divided in horizontal and transverse vertical planes to form upper and lower end members, upper and lower cylinder members and intermediate divided upper and lower ring members, the end members containing the inlet chambers and the ring members containing the outlet chamber.

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1,090,442. TURBINE. OTTO BANNER, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 27, 1911. Serial No. 668,034. (Cl. 121—58.)

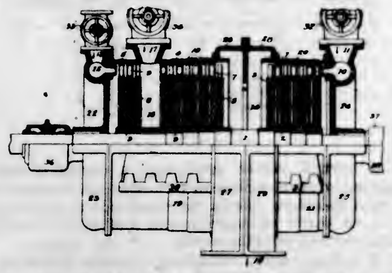


1. A mixed pressure turbine engine including a casing divided transversely vertically into end members containing the outlet chambers for the low pressure elements, cylindrical members containing the low pressure elements, and an intermediate ring member containing the hight pressure element and low pressure inlet chamber.

2. A mixed pressure turbine engine including a casing divided horizontally into upper and lower half sections and transversely vertically into end members containing the outlet chamber for the low pressure elements, cylindrical members containing the low pressure elements and an intermediate ring member containing the high pressure element and low pressure inlet chamber.

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1,090,443. TURBINE. OTTO BANNER, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 27, 1911. Serial No. 668,035. (Cl. 121—58.)



1. A mixed pressure turbine engine including a casing divided transversely vertically into a low pressure element member, a combined high and low pressure element member and an intermediate outlet member.

2. A mixed pressure turbine engine including a casing having high and low pressure element members and divided transversely vertically into end inlet members and an intermediate outlet member.

3. A mixed pressure turbine engine including a casing divided transversely vertically into end members, cylinder members and an intermediate ring member, one end member containing a low pressure inlet chamber, the other member containing a high pressure inlet chamber, the ring member containing the outlet chamber, and one of the cylinder members containing a low pressure inlet chamber intermediate the high pressure inlet chamber and the outlet chamber.

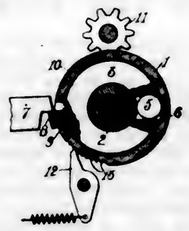
4. A mixed pressure turbine engine including a casing divided transversely vertically into end members, cylinder members and a divided ring member, one end member containing a low pressure inlet chamber, the other end member containing a high pressure inlet chamber, the divided ring member containing the outlet chamber and one of the cylinder members containing a low pressure inlet chamber interposed between the high pressure inlet chamber and the outlet chamber.

5. A mixed pressure turbine engine including a casing having high and low pressure element members and divided horizontally into upper and lower half sections and transversely vertically into end inlet members and an intermediate outlet member.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,444. CLUTCH. WALTER E. BARNARD, Hartford, Conn., assignor to John T. Underwood, Brooklyn, N. Y. Filed Oct. 28, 1912. Serial No. 728,034. (Cl. 192—22.)



1. The combination with a shaft forming a driving member, of a driving member encircling said shaft, a normally ineffective dog adapted to lock said shaft to said driven member, a dog carrier loose on said shaft, a projection on said carrier, a spring between said carrier and the driven member, a catch adapted to arrest said driven member by holding said projection so as to hold the dog at ineffective position, a pawl for preventing backward movement of said driven member under tension of said spring, and a plurality of teeth on said driven member cooperating with said pawl.

2. The combination with a shaft and a driven member encircling it, of a gripping roll between said shaft and said member, a dog carrier loose on said shaft to hold said roll in effective or ineffective position, a projection on said dog carrier extending beyond said driven member, a stop for holding said dog carrier by said projection in ineffective position, a spring between said projection and said driven member tending to throw said carrier to cause its roll to grip and whereby the clutch is arrested after a revolution, a plurality of teeth on said driven member, and a pawl adapted to coöperate with said teeth to hold said driven member in any position it is arrested with the spring compressed between the projection and the driven member.

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1,090,445. CARTRIDGE-FUSE. LEON D. BLACKMAN, Battle Creek, Mich. Filed Mar. 29, 1913. Serial No. 757,661. (Cl. 175—273.)

1. In a cartridge fuse, the combination of an insulating cylindrical shell exteriorly threaded at its ends and screw-threaded ferrule members received by said ends, of head members seated on the ends of said shell and having centrally alined apertures for the reception of a fuse and oppositely-disposed perforations, cap members having lugs fitting through said perforations and seating on said fuse when wound about said lugs, said screw ferrule members seating on said cap members.



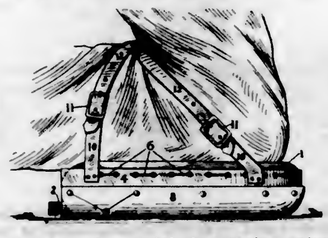
2. In a cartridge fuse, the combination of an insulating cylindrical shell exteriorly threaded at its ends and provided with correspondingly-threaded detachable ferrule members, of head members received by said ends and provided with depending lugs to prevent lateral thrust, said head members having centrally alined apertures for the reception of a fuse and having oppositely-disposed perforations, cap members having lugs fitted through said perforations and seating on said fuse when wound about said lugs, said detachable ferrules seating on said cap members.

3. In a cartridge fuse, the combination of an insulating cylindrical shell exteriorly screw-threaded and provided at its ends with correspondingly-screw-threaded ferrules, of head members seated at the ends of said shell and provided with centrally alined apertures for the reception of a fuse and having oppositely-disposed apertures, cap members having a radial open-ended slot through which said fuse may be bent to clear the same, lugs depending from said caps extending through the perforations in said heads, said fuse bending about said lugs and between said cap and head at either end of said shell, said screw ferrule members seated on said caps.

4. In a cartridge-fuse, the combination of an insulating cylindrical shell exteriorly threaded at its ends, of head members seated at the ends of said shell and having centrally-alined apertures for the reception of a fuse and oppositely-disposed perforations; cap members having lugs adapted to fit through said perforations and to receive the bent ends of said fuse when wound thereabout between said cap and head members; a knife-blade ferrule screw-threaded onto said shell at either end thereof to effect positive electrical transmission from end to end of said fuse.

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1,090,446. COTTON-PICKER'S KNEE-PAD. WILLIE A. BOYNTON, Newcastle, Tex. Filed Jan. 24, 1913. Serial No. 743,902. (Cl. 2—130.)

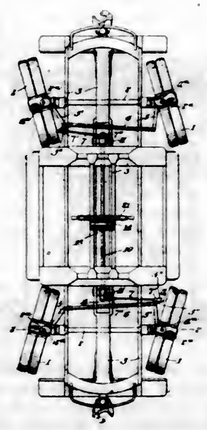


1. In a knee pad, a metal shoe having upturned marginal portions, a leather base member fitting in the shoe and having marginal portions projecting above the margin of the shoe, a pneumatic tube mounted in the base and attached thereto, and straps secured to the projecting marginal portions of the base.

2. In a knee pad, a metal shoe having upturned marginal portions, a leather base member secured in the shoe, a pneumatic tube disposed in the base, a flange projecting from the tube longitudinally thereof, means for detachably securing the flange to the base, and straps secured to the base.

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1,090,447. TRACTOR. TRACY V. BUCKWALTER, Altoona, Pa. Filed Jan. 21, 1913. Serial No. 743,291. (Cl. 21—193.)



1. The combination with two sets of traction wheels, knuckles connected therewith and arms on said knuckles whereby they are oscillatable on their axes, of a journaled shaft, arms fixed on said shaft, means for connecting the arms of said shaft with the arms of said knuckles, whereby said shaft is adapted to shift the respective sets of wheels simultaneously in opposite directions, a revoluble steering wheel, and means comprising gears connecting said wheel and shaft.

2. The combination with traction wheels and knuckles connected therewith, of a journaled shaft, means connecting said shaft and knuckles, a pair of arms fixed to said shaft, a pair of gear wheels, rods connecting said gear wheels with said arms, a toothed member by which said gear wheels are fulcrumed and means comprising a pinion engaging said gear wheels.

3. The combination of a frame, traction wheels, and knuckles connecting said frame and wheels, with a journaled shaft extending longitudinally of said frame, means connecting said shaft and knuckles whereby the rocking of said shafts shifts said wheels, and means for rocking said shaft, said last named means comprising a pair of reciprocating rods, gear wheels journaled on said rods, a spur gear engaging said gear wheels, and a circular rack concentric to said spur gear and engaging said gear wheels.

4. The combination of the traction wheels, knuckles therefor, arms on said knuckles, a journaled shaft, an arm fixed on said shaft, means comprising a rod connecting the arm on said shaft with the arms on said knuckles, and means for rocking said shaft, said last named means comprising a pair of rods, gear wheels journaled on said rods, a toothed member by which said gear wheels are engaged, a journaled steering wheel, and a second toothed member movable by said steering wheel and engaging said gear wheels.

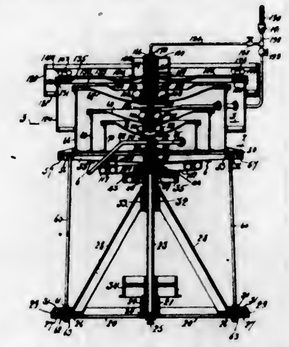
5. The combination of a frame, traction wheels, knuckles whereby said wheels support said frame, arms whereby said knuckles are oscillated on their axes to shift

said wheels, a longitudinal shaft journaled on said frame, means comprising arms fixed to said shaft and rods connected to said last named arms whereby said first named arms are shifted, a lever fixed on said shaft, rods connected to the arms of said lever, revoluble gear wheels carried by said last named rods, a toothed member on which said gear wheels are fulcrumed, a revoluble steering wheel, and a toothed member revoluble by said steering wheel and engaging said gear wheels.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,448. PANNING AND CONCENTRATING MACHINE. CHARLES ANDERSON CASE, New York, N. Y. Filed Apr. 9, 1910. Serial No. 554,449. (Cl. 83—87.)



1. In a panning and concentrating machine the combination of a plurality of concentrating pans supported in relatively fixed overlying relation, each having a port, the ports being in alinement, a vertically adjustable valve having a valve face coacting with a port of a lower pan, and an adjustable sleeve mounted upon the valve and adapted to coact with the port of the upper pan.

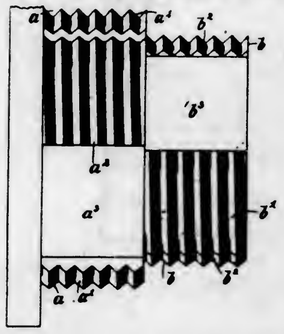
2. In a panning and concentrating machine the combination of a plurality of concentrating pans supported in relatively fixed overlying relation and mounted for conjoint movement, means for actuating the pans, each pan having a port, the ports being in alinement, a vertically adjustable valve coacting with a port of a lower pan, and an adjustable sleeve mounted upon the valve and adapted to coact with the port of the upper pan.

3. In a panning and concentrating machine the combination of a plurality of concentrating pans supported in relatively fixed overlying relation each having a port, the ports being in alinement, a vertically adjustable valve having a valve face smaller in diameter than the body of the valve coacting with a port of a lower pan, stirring balls in the said lower pan, the said valve adapted to space the balls in said pan from its port to maintain the latter open, a feed sleeve surrounding the valve at the upper portion thereof and coacting with the port in the upper pan, a protecting sleeve surrounding the feed sleeve above the upper pan, stirring balls in the upper pan, said protecting sleeve adapted to space the balls in said upper pan from its port to maintain said port open, a guide cage surrounding the lower portion of the valve and extending from the lower face of said lower pan and stirring balls in the lowest pan, said cage adapted to space the balls in said lowest pan from its port to maintain the latter port open.

4. In a panning and concentrating machine the combination of a plurality of concentrating pans supported in relatively fixed overlying relation, each having a port, the ports being in alinement, means to impart an oscillating and undulating movement to the pans, a vertically adjustable valve in the axial center line of the pans and coacting with the port in a lower pan, a feed sleeve surrounding said valve and coacting with the port in the upper pan, stirring balls in the upper pan, means adapted to space the balls from the port in the upper pan to maintain the port open, stirring balls in the lower pan, the valve adapted to space the balls from the port in the lower pan to maintain the port of said lower pan open, stirring balls in the lowest pan and means adapted to space the balls from the port in the lowest pan to maintain the latter port open.

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1,090,449. ORDNANCE BREECH MECHANISM. SEVERIANO ANTONIO DE CASTILHO, Rio de Janeiro, Brazil. Filed Apr. 9, 1913. Serial No. 759,895. (Cl. 89—20.)



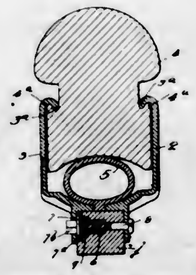
1. A breech block fashioned with a plurality of portions of different diameters, said portions being provided with radially stepped interrupted threads that is having plain parts and threaded parts so arranged that the plain parts on one portion are out of alinement with the plain parts of another portion, the construction being such that the threaded portion extends from end to end of the plug axially in certain places.

2. A breech block fashioned with a plurality of portions of different diameters said portions being provided with radially stepped interrupted threads, that is having plain parts and threaded parts, so arranged that the plain parts of one portion are out of alinement with the plain parts of another portion, one of said portions being tapered, the construction being such that the threaded portion extends from end to end of the plug axially in certain places.

3. A breech block fashioned with a plurality of portions of different diameters said portions being provided with radially stepped interrupted threads, that is having plain parts and threaded parts, so arranged that the plain parts of one portion are out of alinement with the plain parts of another portion one of said portions being parallel, the construction being such that the threaded portion extends from end to end of the plug axially in certain places.

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1,090,450. VEHICLE WHEEL-TIRE. MELVILLE CLARK, Chicago, Ill. Filed Dec. 14, 1912. Serial No. 736,675. (Cl. 152—21.)



1. In a vehicle wheel, in combination with the felly, metal guards bound onto the opposite sides of the felly for retaining a tread member between them; means for clamping the guards onto the felly, and means for forcing one of the guards off the felly, consisting of interiorly threaded sockets mounted in the felly; bolts threaded for screwing into the sockets having each a head adapted for engagement for rotating it and a transverse flange back of the head, the guard having apertures through which the heads protrude for exterior engagement to rotate them.

2. In a vehicle wheel, in combination with the felly, lateral guards bound onto opposite sides of the felly for retaining a tread member; means for clamping the lateral guards onto the felly and means for forcing one of the guards off the felly, said last mentioned means consisting of a multiplicity of devices distributed over the entire circumference of the felly, each comprising an interiorly threaded socket having a flange head and set into the felly from the outer side, the felly being bored to receive it and counter-bored to receive the flange, a headed bolt set into the felly from the opposite side and screwed into the inner end of the socket for clamping the felly between the flange of the socket and the head of said bolt, and another bolt having a head adapted for engagement to rotate it and transversely flanged back of the head, said last mentioned bolt being screwed into the outer end of the socket, its flange being accommodated in a counter-bore which receives the socket flange, the outer guard having apertures through which the heads of such bolts protrude for engagement to rotate them.

3. In a vehicle wheel, in combination with the felly, metal guards bound onto opposite sides of the felly for retaining a tread member between the guards, a plurality of devices distributed throughout the circumference of the wheel, each comprising an interiorly threaded socket flanged at one end, two bolts screwed into said socket from opposite ends thereof, the felly being bored from side to side and counter-bored from one side to receive the socket, and further counter-bored to accommodate its flange, one of the bolts having a head adapted to be engaged for rotating it, and a transverse flange back of the head adapted to be accommodated in the counter-bore which receives the socket flange, the outer guard being apertured to permit said bolt head to protrude for engagement of a rotating means, the inner guard being apertured to receive the other bolt, and said other bolt having a head for engaging outside said inner guard, and means for clamping the outer guard onto the felly.

4. In a vehicle wheel, in combination with the felly, metal guards bound onto the opposite sides of the felly for retaining a tread member between them; means for clamping the guards onto the felly, and means for forcing one of the guards off the felly, consisting of interiorly threaded sockets mounted in the felly; bolts threaded for screwing into the sockets each having a head adapted for engagement for rotating it and a transverse flange back of the head through which the head protrudes for exterior engagement to rotate it, the means for clamping the outer guard to the felly consisting of interiorly threaded sockets headed at one end, set into the inner side of the felly and headed bolts set through the outer guard and into the felly and screwed into said sockets.

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1,090,451. FOLDING TABLE. CHARLES W. COFFIN, Portland, Me., assignor to The E. T. Burrowes Company, Portland, Me., a Corporation of Maine. Filed Mar. 25, 1913. Serial No. 756,774. (Cl. 45—11.)



1. An article of manufacture of the character described, consisting of a light, portable, folding table, comprising a skeleton or frame including a surrounding member, reinforcing bars in the space within the surrounding member terminating short of the center of said space, to leave an unobstructed central space defined by the ends of said bars, means spanning the space between the inner ends of the bars and connected thereto, a covering on the frame constituting therewith a suitable top, and legs pivotally mounted on the frame and foldable into the space within the surrounding member of the frame.

2. An article of manufacture of the character described, consisting of a light, portable, folding table, comprising a skeleton or frame including a surrounding member, reinforcing bars in the space within the surrounding member terminating short of the center of said space, a thin metal plate spanning the space between the inner ends of the bars and connected thereto, a covering on the frame constituting therewith a suitable top, and legs pivotally mounted on the frame and foldable into the space between the inner ends of the bars.

3. An article of manufacture of the character described consisting of a light, portable, folding table comprising a skeleton or frame including a surrounding member, reinforcing bars extending inwardly from said surrounding members, bars arranged at right angles to said first mentioned bars, the reinforcing bars being separated at their inner ends, to provide an unobstructed central space defined by said ends, a covering on the frame constituting therewith a suitable top, legs pivotally mounted on the frame and foldable into the space within the surrounding member of the frame, said legs being arranged in pairs adapted to fold at right angles to each other, a pair parallel to the first mentioned bars and within the space between the inner ends of the other bars and the other pair parallel to said other bars and under the first mentioned pair of legs, and means for causing a holding engagement between the ends of the bars and the legs adjoining the same.

4. An article of manufacture of the character described consisting of a light, portable, folding table, comprising a skeleton or frame including a surrounding member, reinforcing bars extending inwardly from different angles and separated at their inner ends, a thin metal plate spanning the space between the inner ends of the bars connected thereto, a covering on the frame constituting therewith a suitable top, and legs pivotally mounted on the frame and foldable into the space within the surrounding member of the frame and between the ends of the separated reinforcing bars.

5. An article of manufacture of the character described, consisting of a light, portable, folding table, comprising a skeleton or frame including a surrounding member, reinforcing bars within said surrounding member, a covering on the frame constituting therewith a suitable top, pivot members secured to the surrounding member of the frame at points adjacent to the outer ends of the bars, and legs pivotally mounted between said pivot members and bars adapted to fold into the space within the surrounding member of the frame, said pivot members comprising brackets secured to the surrounding member of the frame having an offset portion constituting a support for the outer end of the pivot of the leg, the base portion of the bracket being interposed between said surrounding member and the end of the reinforcing bar with the end of the bar directly against said base, and secured to both said member and bar.

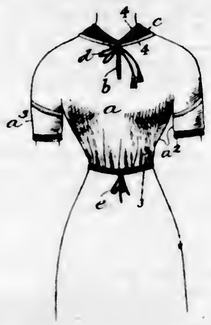
[Claims 6 to 13 not printed in the Gazette.]

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1,090,452. SHIRT-WAIST. MAX COHN, New York, N. Y. Filed Apr. 8, 1911. Serial No. 619,638. (Cl. 2—98.)

A lady's body garment composed of a front portion and a back portion each formed in one piece, said portions being united at their meeting edges at the sides of the garment, and having a waist portion of a size sufficient to permit the passage of the shoulders of the wearer, and a neck opening, the front portion provided with a vertical slit extending downwardly a short distance only and communicating at its upper end with the neck opening to enlarge the neck opening temporarily to permit the pas-

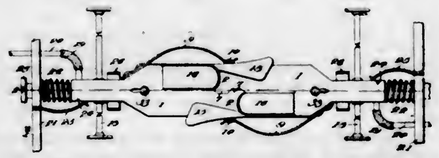
sage therethrough of the head, means for contracting the waist portion and holding it in contracted position while



being worn, and means for detachably uniting the upper edges of the slit adjacent to the neck opening.

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1,090,453. TRAIN-PIPE COUPLING. PROCTOR O. COLE, Gould, Okla. Filed May 7, 1912. Serial No. 695,704. (Cl. 188—13.)



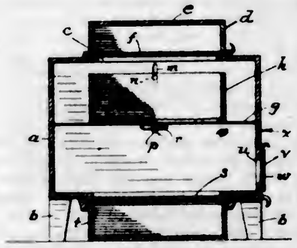
1. A train pipe coupling comprising a coupling head having a forwardly projecting arm at one side and a lateral port in the inner side wall of said arm, the portion of the side wall containing said port extending longitudinally of the coupling head and being provided with lateral projections in advance and above and below the port, the front face of said arm extending obliquely forwardly and outwardly and terminating in a short rearwardly and outwardly beveled face, and the coupling head having a front rearwardly inclined face in rear of the port and a short forwardly and outwardly inclined face adapted to engage the inclined faces on the forwardly projecting arm of an opposed coupling head, a guide secured to the rear end of the head at the side opposite the arm and resting flat against said side of the head and projecting forwardly beyond the said side to engage the projecting arm of an opposed head, keepers upon the top and bottom of the head adjacent the oppositely inclined faces of the same and projecting forwardly beyond said faces and terminating short of the top and bottom of the adjacent guide, and a retaining spring secured to the rear end of the head and extending outwardly and forwardly from the head in spaced relation to the outer face of the guide, and then extending toward and projecting through the guide in rear of the front end thereof to bear laterally upon the outer side of the projecting arm of an opposed head approximately in the plane of the lateral port.

2. In a train-pipe coupling, the combination with a fixed support, of a coupling head yieldably and slidably mounted in said support and provided with a notch in one side, and a spring secured to the support and having its free end adapted to engage said notch whereby to hold the coupling head in its forward position.

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1,090,454. ASH-SIFTER. PATRICK CONNOR, Philadelphia, Pa. Filed Nov. 27, 1912. Serial No. 733,782. (Cl. 83—60.)

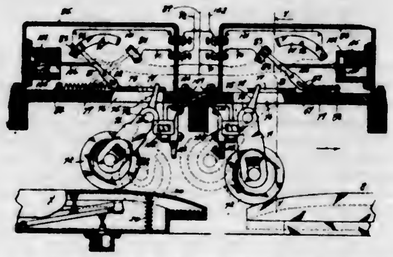
1. In an ash sifter, the combination with a sifter box having an opening to receive the cinders and ashes, of screen-supporting bars extending horizontally through the box between opposite end walls thereof, a screen loosely resting on said supporting bars, arms on the screen projecting respectively through vertical slots in opposite sides of the box, one of the walls of the box having an opening to permit the removal of the screen, and a door closing said opening.



2. In an ash sifter, the combination with a sifter box having an opening to receive the cinders and ashes, of a screen supported within the box so as to be free to rock, there being an opening in the upper part of one side, a hinged door for the opening, there being a slot in the door and a corresponding slot in the side of the box opposite the door, and arms on the screen projecting respectively through said slots, thereby permitting the screen to be rocked and also allowing the door to open to permit the removal of the screen.

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1,090,455. RAILWAY SIGNALING APPARATUS. WILLIAM J. COOK, Denver, Colo., assignor to The Cook Railway Signal Company, Denver, Colo., a Corporation of Colorado. Filed Mar. 4, 1911. Serial No. 612,349. (Cl. 246—25.)



1. In railway signaling apparatus, the combination with warning signals carried by the train, of two sets of make-and-break devices mounted on the train in multiple for closing the circuit to operate said signals, two operating devices carried by the train and respectively connected with the two sets of make-and-break devices, the operating devices being movable in opposite directions to actuate the make-and-break devices, means for locking each operating device against movement in one direction, and projections arranged along the track in the path of the respective operating devices, one of the operating devices being actuated by one set of projections when the train is traveling forwardly, and the other device by the other set of projections when the train is traveling rearwardly.

2. In railway signaling apparatus, the combination with warning signals carried by the train, of two sets of make-and-break devices mounted on the train in multiple for closing the circuit to operate said signals, two operating devices carried by the train and respectively connected with the two sets of make-and-break devices, the operating devices being movable in opposite directions to actuate the make-and-break devices, means for locking each operating device against movement when the other operating device is actuated, and projections arranged along the track in the path of the respective operating devices, one of the operating devices being actuated by one set of projections when the train is traveling forwardly, and the other device by the other set of projections when the train is traveling rearwardly, each projection having a top yielding member which is depressed by the operating device which is locked against movement when traveling in either direction.

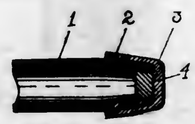
3. The combination of warning and safe signals carried by the train, an electrical circuit normally closed through the safe signal and broken through the warning signal, make-and-break devices carried by the train and located in the signaling circuit, means carried by the train and connected in operative relation with the make-and-break devices for actuating the latter when the train is traveling both forwardly and rearwardly, each operating device being locked against movement when the other operating device is actuated, and projections having yielding top members arranged in the path of each operating device, the yielding member being sufficiently rigid to move the unlocked operating device, and sufficiently yielding to be depressed by the locked operating device.

4. In railway signaling apparatus, the combination with a make-and-break device mounted on the train, of an operating device pivoted upon the train and connected at its proper extremity with the make-and-break device, the operating device being movable in one direction from its normal position for actuating the make-and-break device, projections arranged along the track in the path of the operating device, each projection having a top yielding member and means for locking said operating device against movement in one direction whereby when it strikes one of said projections the yielding top of the latter will be depressed.

5. In combination with a warning signal carried by a train, a make-and-break device carried by the train, a normally open electric circuit through the said signal and make-and-break device, means carried by the train and connected in operative relation with the make-and-break device, a projection having a yielding top member located near the track in the path of said means whereby when the train is moving in one direction said means is shifted to operate the make-and-break device to close the circuit, and a lock for preventing the movement of said means in the opposite direction whereby when the train is moving in a reverse direction said yielding top member will be depressed.

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1,090,456. PROCESS OF FORMING JOINTS. WILLIAM AUSTIN DARRAH, Brooklyn, N. Y. Filed July 22, 1911. Serial No. 640,021. (Cl. 204—8.)



1. The method of joining a conductor to an insulator, which consists in rendering the surface of the insulator conducting, and forming a conducting layer thereon, by electro-deposition at a temperature of approximately as high as any to which the joint will be subjected under conditions of subsequent treatment or operation.

2. The method of joining a conductor to an insulator by rendering the surface of the insulator conducting and electrolytically depositing thereon the said conductor while both conductor and insulator are at a temperature such that at any temperature to which they will be subjected under subsequent treatment or operation the joint will be in compression.

3. The method of making a seal between a conductor and an insulator which consists in rendering the surface of the insulator conducting and attaching the conductor thereto by electrodeposition, at a temperature approximately as high as any to which the seal, will be subjected under subsequent treatment or operation.

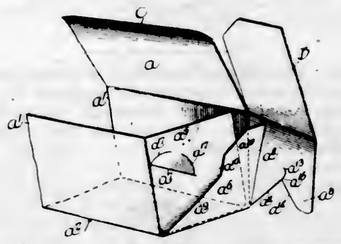
4. The method of joining an insulator to a conductor by rendering the surface of the insulator conducting and depositing the conductor thereon electrolytically, said deposition taking place from a bath, the temperature of which is approximately as high as any to which the joint will be subjected, under subsequent conditions of manufacture or performance.

5. The method of making a seal between a conductor and an insulator which consists in rendering the surface of the insulator conducting, and attaching the conductor thereto by electrodeposition at a temperature such that the joint will be under compression at any temperature to which it will be subjected under subsequent treatment or operation.

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1,090,457. CARTON. FRANK B. DAVIDSON and HARRY P. SHOTTS, Marseilles, Ill., assignors to Howe and Davidson Company, a Corporation of New Jersey. Filed Dec. 6, 1911. Serial No. 664,257. (Cl. 229—36.)



A paper box or carton having connected bottom and side walls, and provided on its side walls with interlocking flaps, and on its bottom wall with a flap adapted to be interposed between the interlocking flaps when the flaps are folded, one of said interlocking flaps being provided with a locking slit extending from its base toward its free end, and the other locking flap provided with an angular notch having obliquely arranged edges, and forming a laterally extending locking tongue for insertion in the locking slit of the other interlocking flap, with its oblique edge engaging the end of said locking slit, and a curved locking slit extending above the intersection of the oblique edges of said notch and forming a continuation of the oblique edge thereof, said slit being adapted to engage the end of the locking slit of the other interlocking flap and to lock said flaps together before the same are brought to their final relative positions.

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1,090,458. RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 1, 1909. Serial No. 493,326. (Cl. 246—20.)



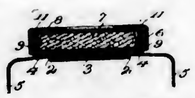
A railway torpedo comprising an open-ended single wall tube formed from a wrapped and cemented sheet of paper, the wall of the tube having an open-ended strap receiving opening formed between the wrapped layers of the wall, and a rail-engaging strap passing through said opening, whereby a cheap and effective torpedo carrying a rail attaching strap is produced.

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1,090,459. PAPER OR FIBER RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 25, 1910. Serial No. 578,980. (Cl. 246—20.)

1. A fiber torpedo comprising cup-shaped fiber members placed one within the other, an explosive within the mem-

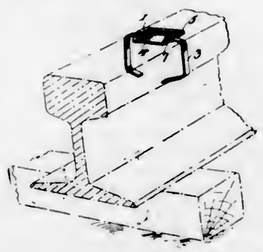
bers and a ring of sealing cement uniting the members, said members being composed of materials to which said cement will adhere under the normal varying atmospheric changes of moisture and temperature, the cement being applied when melted, and under normal temperatures being sufficiently hard to hold said members together under ordinary torpedo usage and forming with said members a water-tight compartment.



2. A fiber torpedo comprising three cup-shaped fiber members, two of them placed one within the other with their bottoms together, the third one telescoping within the inner one in inverted position, and explosive within the two inner members, a single ring of combined sealing and strengthening cement applied to the top of the inner member, to the edge of the outer member, and to the edge of the cup-shaped member forming the bottom of the inner member for the purpose described.

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1,090,460. FIBER-CASE RAILWAY SIGNAL-TORPEDO. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 25, 1910. Serial No. 578,983. (Cl. 246—20.)



A fiber torpedo comprising a fiber case, an explosive compound therein, a combined strap holding and case strengthening and stiffening plate composed of fiber and applied thereto and fitting the bottom of the case, said plate having apertures, a rail engaging strap passing between the fiber plate and the bottom of the case, and cement between the plate and the bottom of the case and passing through said apertures, all combined for the purpose described.

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1,090,461. TIME-BURNING RAILWAY SIGNAL-FUSEE. FRANK DUTCHER, Versailles, Pa., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed May 28, 1912. Serial No. 700,257. (Cl. 102—24.)



1. A time burning railway signal fusee, comprising a tube, a relatively slow time burning fusee compound within the tube, a lighting member consisting of a plug fitting within the tube and substantially filling the lighting end of the tube, the tube having a closure outside of the lighting member, the lighting member and tube closure having communicating openings and a match compound extending through the said openings into the lighting members.

2. A time burning railway signal fusee, comprising a tube having a time burning signal compound therein, a lighting member consisting of a stopper placed in the lighting end of the tube, the tube having a closure extending over the lighting member, the lighting member having a recess and the tube closure having an opening smaller than the recess, and a match compound extending through the opening and filling the recess for the purpose described.

3. A time burning railway signal fusee, comprising a tube, a time burning signal compound therein, a lighting compound within the lighting end of the tube, the lighting compound having an inclosing tube to form with the said fusee tube, a double wall for the lighting end of the fusee for the purpose described.

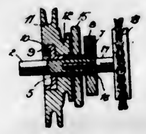
4. A time burning railway signal fusee, comprising a tube, a time burning signal compound therein, a fast burning lighting compound in the lighting end of the tube, the said compound inclosed within a tube having a closure at its outer end, the fusee tube having a closure outside of the lighting compound closure, both of said closures having openings and the lighting compound a recess, and a match compound extending from the outside of the fusee through the said opening and into the said recess, for the purpose described.

5. A time burning railway signal fusee, comprising a tube, a time burning signal compound therein, a lighting compound in the lighting end of the tube made in the form of a stopper, the compound being inclosed within a tube, having a closure at its outer end, a fusee tube having a closure, both of the closures having registering openings, the outer closure opening being smaller than the inner closure opening, the lighting compound having a recess of a size corresponding to the size of the opening in the inner closure, and a match compound extending from the outside of the fusee tube through said openings and into the said lighting compound recess, for the purpose described.

[Claim 6 not printed in the Gazette.]

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1,090,462. FRICTION-PULLEY. ALFRED R. EBENREITER, Spokane, Wash. Filed Dec. 18, 1912. Serial No. 737,522. (Cl. 192—8.)



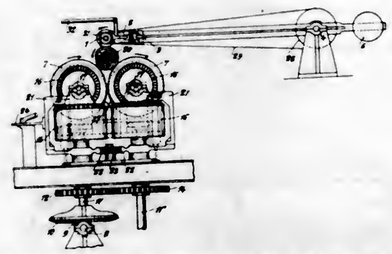
A device of the class described including a shaft, a sleeve mounted upon said shaft, a wheel secured to one end of the sleeve, an annular enlarged portion formed on the other end of said sleeve, a pulley loosely mounted upon the sleeve and provided with an annular recess adapted to receive said enlarged portion and a collar in threaded engagement with said sleeve and adapted to be rotated to frictionally engage the pulley whereby the pulley may be rotated with the sleeve.

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1,090,463. LOG-PEELING MACHINE. OLAV EIDSÆTHER, Mjöndalen, Norway. Filed Oct. 24, 1912. Serial No. 727,549. (Cl. 144—208.)

1. In a machine for peeling logs and the like, the combination of a single pair of feeding disks rotatable in planes in parallel relation to each other, and adapted to feed and support a log; means for rotating disks; an operative connection between the disks for holding them in said parallel relation and turning the disks so that the planes of the disks turn upon axes; and a bark-peeling device associated with the disks.





2. In a machine for peeling logs and the like, the combination of a single pair of feeding disks rotatable in planes in parallel relation to each other, and adapted to feed and support a log; means for rotating disks; an operative connection between the disks for holding them in said parallel relation and turning the disks so that the planes of the disks turn upon axes; a bark-peeling device associated with the disks; a carriage movable in the direction of the log; and a pair of supporting disks mounted on said carriage.

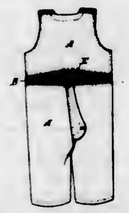
3. In a machine for peeling logs and the like, the combination of a single pair of supporting means each adapted to turn on a substantially vertical axis; a serrated disk mounted on each supporting means and to rotate thereon on a horizontal axis; means for rotating the disks in the same direction; an operative connection between said supporting means for turning the latter together and holding said disks parallel to each other; and a bark-peeling device associated with said disks.

4. In a machine for peeling logs and the like, the combination of a single pair of supporting means each adapted to turn on a substantially vertical axis; a serrated disk mounted on each supporting means and to rotate thereon on a horizontal axis; means for rotating the disks in the same direction; a toothed sector on each of said supporting means; a gear intermeshing with both sectors; and a bark-peeling device associated with the disks.

5. In a machine for peeling logs and the like, the combination of a single pair of supporting means each adapted to turn on a substantially vertical axis; a serrated disk mounted on each supporting means and to rotate thereon on a horizontal axis; means for rotating the disks in the same direction; a toothed sector on each of said supporting means; a gear intermeshing with both sectors; and a bark-peeling device associated with the disks; and a handle lever connected to one of the supports.

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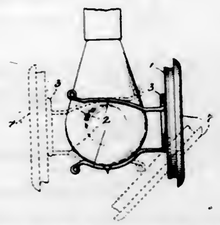
1,090,464. GARMENT. SIDNEY C. EHLANGER, New York, N. Y., assignor to The B. V. D. Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 13, 1911. Serial No. 659,989. (Cl. 2—144.)



In a garment, an elastic, knit, ribbed fabric strip adapted to yield transversely of the ribs or wales, and a reinforcing strip of similar material placed upon and adapted to partially cover the first named strip, the ribs or wales of said strip being parallel to the ribs or wales of the first named strip so that the two fabrics are yieldable in the same direction, such reinforcing strip being secured to the first strip by an elastic seam extending transversely of the ribs and composed of zig-zag stitching, the threads of which pass alternately from one hole to the other of two parallel rows of needle holes within and in proximity to the edge of said reinforcing strip but distant from the end of the strip being reinforced so that the individual stitches all extend at an acute angle to the wales of the two elastic fabrics.

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1,090,465. ADJUSTABLE LAMP-SHADE. FRED EVANS, Summit, N. J., assignor to Patented Devices Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 3, 1913. Serial No. 758,654. (Cl. 240—108.)

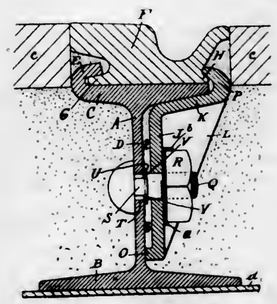


1. An adjustable shade for electric light bulbs comprising a screen part, and a part for yieldingly engaging the glass portion of the bulb, the last mentioned part comprising a plurality of spring fingers, a carrier for said spring fingers spacing said spring fingers apart, and said carrier comprising a hollow ring-shaped member into which portions of the spring fingers extend, and said carrier having struck out portions forming gripping fingers extending through apertures formed in the screen part and being bent over to prevent detachment from said apertures.

2. An adjustable shade for electric light bulbs comprising a screen part, and a part for yieldingly engaging the globular portion of the bulb, the last mentioned part comprising a plurality of spring fingers, a carrier for said spring fingers spacing said spring fingers apart, means connecting said carrier with one face of said screen part projecting through apertures in said screen part to a relatively opposite face thereof, said screen part being formed with a flange, and means retained by said flange covering and concealing the connecting means of said carrier.

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1,090,466. COMPOSITE RAIL. WALTON FERGUSON, JR., Stamford, Conn., and ALBERT W. BUEL, New York, N. Y. Filed Feb. 6, 1912. Serial No. 675,815. (Cl. 239—16.)

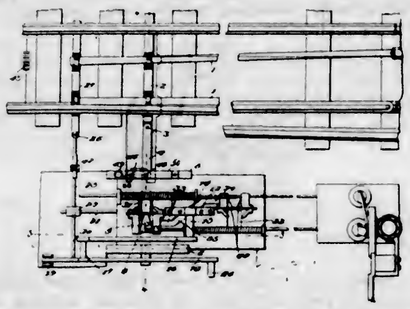


A composite rail comprising a stringer having head and base flanges, the edge of one head flange being bent upwardly and then inwardly substantially parallel to the head of the stringer to form a securing lip, a wearing

head supported by the stringer and having base flanges, one of which is adapted to be wedged underneath said inturned lip for a portion of the width of the lip, leaving a clearance between the edge of the flange and the base of the lip, adapted to receive a shim or filler, thereby permitting transverse adjustment of the wearing head to and from the base of the lip to take up wear and keep the flange of the wearing head tight under the lip.

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1,090,467. SWITCH-ACTUATING MECHANISM. GEORGE W. FISHER and FREDERICK HOYLAND, Jackson, Mich. Filed June 21, 1912. Serial No. 705,104. (Cl. 104—12.)



1. An apparatus of the character described, including switch points, a switch actuating bar, connected thereto, a plate formed with an angular slot, the switch actuating bar being provided with a stud accommodated in said slot, the slot embodying transversely extending portions and an intermediate oblique portion, and yielding means adapted to engage the stud in either of said laterally extending portions so as to permit the switch actuating bar to yield upon the switch being run through.

2. An apparatus of the character described, including switch points, a switch actuating bar connected thereto and provided with a stud, an actuating plate formed with a slot accommodating said stud, said slot including laterally extending portions and an intermediate oblique portion, and blocks yieldingly held in the transverse portions of the slot and designed for engagement by said stud, for the purpose specified.

3. An apparatus of the character described, including switch points, a switch actuating bar connected thereto and provided with a stud, a plate formed with a slot accommodating said stud, said slot embodying laterally extending portions and an intermediate oblique portion, blocks movable over the laterally extending portions of the slot and formed with lugs adapted to embrace said stud, and pliable pins secured to the plate and extending across the slot and engageable by said lugs, for the purpose specified.

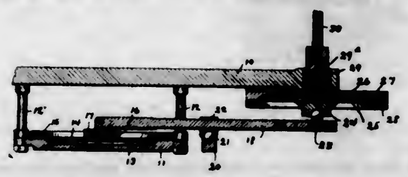
4. An apparatus of the character described, including switch points, a switch operating bar connected thereto and provided with a stud, an actuating plate formed with a slot accommodating said stud, the slot embodying laterally extending portions and an intermediate oblique portion, pins secured to the plate and extending across said transverse portion of the slot, and blocks movable over said transverse portions and engageable by the stud, said blocks engaging the pins and formed with shoulders for the purpose specified.

5. An apparatus of the character described, including switch points, a switch operating bar connected thereto and provided with a stud, an actuating plate formed with a slot accommodating said stud, means for moving said plate, the slot of said plate including an oblique portion, for the purpose specified, a locking bar connected to the switch points, and a co-acting locking bar carried by the plate and engageable with the first-named locking bar, means being provided whereby the initial movement of the plate will release the locking bars from their interlocking connection and whereby the final movement of said plate will again effect the interlocking engagement between said bars.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,468. APPARATUS FOR COMPENSATING FOR EXPANSION OF FLOW IN INDICATING DEVICES. THOMAS FRENCH, Rumford, Me. Filed Jan. 2, 1913. Serial No. 739,606. (Cl. 73—151.)



1. A plurality of pressure chambers provided with diaphragms and containing expansible liquids, one of said chambers being sealed and the other connected with an indicator, means connecting the two pressure chambers, whereby the movement of one diaphragm by variations of pressure within its chamber shall be offset and compensated by a corresponding but opposite movement of the second diaphragm, and a pressure plate or block connecting with the diaphragm of the indicator chamber and adapted to be acted on by the force to be measured.

2. An apparatus such as described comprising a liquid containing chamber connected with an indicator and provided with a diaphragm, a second liquid containing chamber also provided with a diaphragm, a lever pivotally supported on the second diaphragm and having its free end arranged to act against the first diaphragm, and means adapted to be acted on from the force to be measured or indicated, and operating against the aforesaid lever.

3. An apparatus such as described comprising a liquid containing registering chamber connected with an indicator and provided with a diaphragm, a second liquid containing chamber sealed and having a diaphragm, a lever pivotally supported on the diaphragm of the second chamber so as to be acted on by the said diaphragm, a connection between the free end of the lever and the first diaphragm, and a block or sleeve adjustable on the lever and adapted to be acted upon by the force or thing to be measured.

4. An apparatus such as described comprising a registering chamber connected with an indicator and provided with a diaphragm, said chamber being adapted to contain a liquid, a second liquid containing chamber sealed and having a diaphragm, a lever pivoted on the second diaphragm, a free connection between the free end of the lever and the first diaphragm, and a block or sleeve adjustable on the lever and adapted to receive impulses from the force or thing to be measured or indicated.

5. An apparatus such as described comprising a registering liquid containing chamber having a diaphragm and connected with an indicator, a second liquid containing chamber sealed and also provided with a diaphragm, a lever pivotally supported on and acted on by the second diaphragm, a ball-joint connection between the free end of the lever and the first diaphragm, and a sliding abutment on the lever adapted to be acted on by the force or thing to be measured or indicated.

[Claim 6 not printed in the Gazette.]

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1,090,469. PROCESS FOR SHARPENING THE ENDS OF FINE WIRES. PAUL FRIEDRICH, Wendenschloss, near Cöpenick, Germany, assignor to Julius Pintsch Aktiengesellschaft, Berlin, Germany. Filed Dec. 12, 1911. Serial No. 665,247. (Cl. 29—148.)

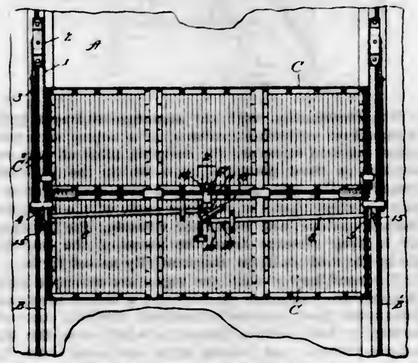
1. A process for sharpening or producing points on the ends of metallic filaments of highly refractory metals, said process consisting in surrounding the end of the filament with a gas containing oxygen and applying heat to said end, whereby the filament is oxidized; and removing the oxidized portion.

2. A process for sharpening or producing points on the ends of metallic filaments of highly refractory metals, said process consisting in oxidizing the end of the filament by heating the end in a gas containing oxygen, and increasing the degree of oxidization toward the end of the filament.

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1,090,470. LATCH MECHANISM FOR FIRE-DOORS. WAINWRIGHT B. GERVAIS and MILLARD GILMORE, Chicago, Ill., assignors to Variety Manufacturing Company, Chicago, Ill. Original application filed Sept. 9, 1912, Serial No. 719,343. Divided and this application filed Mar. 17, 1913. Serial No. 754,759. (Cl. 70—102.)



1. In a construction of the character set forth, the combination of a pair of guides, upper and lower door-sections movable in said guides, stops carried by said guides, latch-bars connected with the lower door-section and adapted to engage said stops, actuating means for the latch-bars, an automatically locking intermediate latch-member carried by one of said door-sections and engaging the other door-section, and means serving to release said last-named latch-member during the operation of withdrawing the latch-bars from latching engagement.

2. In a construction of the character set forth, the combination of a pair of guides, upper and lower door-sections movable in said guides, stops carried by said guides, latch-bars connected with the lower door-section and adapted to engage said stops, actuating means for the latch-bars, an automatically locking intermediate latch-member connected with the lower portion of the upper door-section and engaging the upper portion of the lower door-section, and means serving to release said last-named latch-member during the operation of withdrawing the latch-bars from latching engagement.

3. In a construction of the character set forth, the combination of upper and lower door-sections movable toward and away from each other, stops adjacent the lateral edges of said door-sections, latch-bars mounted on the lower door-section and engaging said stops, an automatically locking central latch-member carried by one of said door-sections and engaging the other door-section, and means for simultaneously withdrawing said latch-bars and releasing said central latch-member.

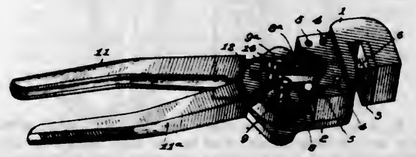
4. In a construction of the character set forth, the combination of a pair of guides, upper and lower door-sections movable in said guides, stops carried by said guides, latch-bars carried by the lower door-section and engaging said stops, means for actuating said latch-bars, an automatically locking central latch-member carried by the upper door-section and engaging the lower door-section, and a cam carried by one of said latch-bars serving to release said central latch-member in the operation of withdrawing the latch-bars.

5. In a construction of the character set forth, the combination of a pair of guides, upper and lower door-sections movable in said guides, stops carried by said guides, latching mechanism serving to secure the lower door-section to said guides, and an automatically locking latch-device serving to secure the door-sections together and adapted to be released in the operation of releasing the lower door-section from the guides.

[Claim 6 not printed in the Gazette.]

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1,090,471. TOOL-OPERATING MECHANISM. HENRY R. GILSON, Baden, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 27, 1913. Serial No. 776,047. (Cl. 164—120.)



1. A tool operating means comprising in combination, a reciprocatory member having a tool operatively connected thereto, a link pivotally connected at one end to said member and extending obliquely therefrom, a pin engaging said link at its other end, a guideway transversely disposed with relation to the line of action of said reciprocatory member and immovable with relation thereto, said pin being engaged and its path of movement fixed by said guideway, and means for moving said pin through such path.

2. A tool-operating means comprising in combination, a reciprocatory member having a tool operatively connected thereto, a link pivotally connected at its inner end to said member and extending obliquely therefrom, a guideway transversely disposed with relation to the line of action of said reciprocatory member and immovable with relation thereto, the outer end of said link being engaged and its path of movement fixed by said guideway, and means for moving the outer end of said link through such path.

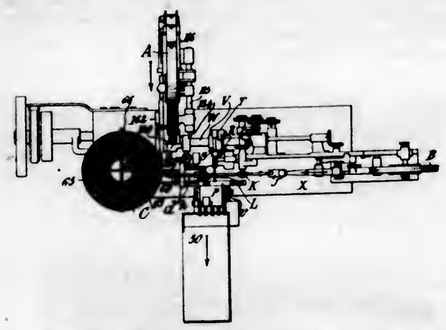
3. A tool operating means comprising in combination a reciprocatory member having a tool operatively connected thereto, a pair of links pivotally connected to said member and extending obliquely from opposite sides thereof, a pin extending through each of said links, a guideway transversely disposed with relation to the line of action of said reciprocatory member, said pins being engaged and their path of movement fixed by said guideway, and means for moving said pins through such path.

4. A tool operating means comprising in combination, a reciprocatory plunger having a tool operatively connected thereto, a link pivotally connected at one end of said plunger and extending obliquely therefrom, a pin engaging said link at its opposite end, a guideway transversely disposed with relation to the line of action of said plunger, said pin being engaged and its path of movement fixed by said guideway, and a pivoted operating lever one arm thereof having sliding engagement with said link.

5. In a hand tool, the combination of a frame comprising a head and side plates, a plunger mounted for reciprocatory movement in said head and fitted with a tool, a pair of links pivotally connected to said plunger and extending obliquely from opposite sides thereof, a pin extending through each of said links, a pair of pin-receiving guideways transversely disposed with relation to the line of reciprocation of said plunger and formed in said frame plates, and a pair of operating arms pivoted to said frame and adapted to move said pins through said guideways, whereby said plunger is reciprocated.

[Claim 6 not printed in the Gazette.]

1,090,472. CIGARETTE TUBE AND MOUTHPIECE MACHINE. JULIEN GUENIFFET and JULES NICAULT, Paris, France, assignors to Societe Anonyme des Usines A. E. Decoufle, Paris, France. Filed Oct. 13, 1909. Serial No. 522,410. (Cl. 131—5.)



1. In a machine of the class described in combination, a tube with a longitudinal slot in one side thereof, a gripping device, a pair of rollers at least one of which is positively driven for supplying a continuous sliver of cotton to said tube, and means for moving said gripping device through said slot and forward to engage and feed the sliver through the tube and then outward and backward in position to reëngage said sliver, the end of the sliver being free during the backward movement of said gripping device.

2. In a machine of the class described in combination, a pair of rollers at least one of which is positively driven for supplying a continuous sliver of cotton, a gripping device for engaging and carrying forward said sliver of cotton, a link upon which said gripping device is pivoted, means for oscillating said link to cause a forward and backward movement of the gripping device, and means for oscillating the gripping device on said link to cause an inward movement of the gripping device at the beginning of its forward movement and an outward movement thereof at the beginning of its backward movement, the end of the sliver being free during the backward movement of said gripping device.

3. In a machine of the class described in combination, a fixed tube, movable means engaging the sliver of cotton in said tube and feeding it therethrough so that its free end projects out of said tube, shears adjacent to the end of said tube for cutting off the projecting portion of the sliver, a support below the end of said tube for the plug formed by the cut-off end of the sliver and upon which said plug may fall freely, and a pusher adapted to be reciprocated across said support and to push said plug into a tube.

4. In a machine of the class described in combination, means for forming a mouthpiece with inwardly projecting prongs, and means for introducing the plug of cotton into engagement with said prongs so as to be held in place thereby.

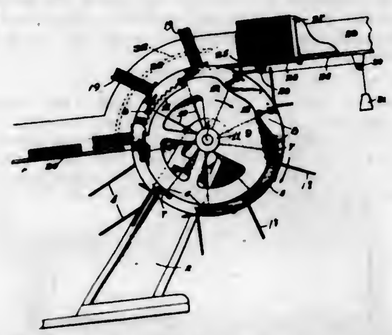
5. In a machine of the class described in combination, means for forming a tubular mouthpiece with inwardly projecting prongs near its inner end and means for introducing a plug of cotton through the outer end of said mouthpiece so as to press said prongs toward the inner end and cause them to enter and prevent backward movement of the plug toward the outer end.

[Claims 6 to 18 not printed in the Gazette.]

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1,090,473. JOGGING ATTACHMENT FOR SIGNATURE-GATHERING MACHINES. ALEX GULLBERG, Arlington, N. J., and CHARLES L. SMITH, New York, N. Y. Filed June 12, 1912. Serial No. 703,160. (Cl. 11—25.)

1. The combination with the signature conveyer guide of a signature gathering machine, of a rotary structure, supports carried by the said structure for carrying piles of gathered signatures, and means for vibrating said supports while carrying said piles of gathered signatures, substantially as set forth.



2. The combination with the signature conveyer guide of a signature gathering machine, of a rotary structure, supports on said structure for carrying piles of gathered signatures, a fixed platform upon which the piles are delivered by the said supports, said platform being at a higher elevation than the conveyer guide of the signature gathering machine, and means for vibrating the book supports in their passage from the plane of the conveyer guide to the said platform, substantially as set forth.

3. The combination with the signature conveyer guide of a signature gathering machine, of a rotary structure, right angled book supports mounted pivotally on said structure, a fixed cam, adjacent to which cam the said structure rotates, and tilting arms connected with the supports and acted upon by the cam, and means for vibrating the book supports in their passage from the plane of the conveyer guide to said platform, substantially as set forth.

4. The combination with the conveyer guide of a signature-gathering machine, of a rotary structure, rocking shafts on the same, signature supports on said rocking shafts, a fixed cam adjacent to the rotary structure, and arms on the rocking shafts traveling on said cam, and means for vibrating the book supports in their passage from the plane of the conveyer guide to said platform, substantially as set forth.

5. The combination with the conveyer guide of a signature-gathering machine, of a rotary structure, a rigid supporting platform at a higher elevation than the conveyer guide, supports on the rotary structure for conveying piles of gathered signatures from the conveyer guide to said supporting platform and to bring them from a horizontal to a vertical position, a fixed cam adjacent to the rotary structure and means for controlling the positions of said supports on the rotary structure by said cam, and means for vibrating the book supports in their passage from the plane of the conveyer guide to said platform, substantially as set forth.

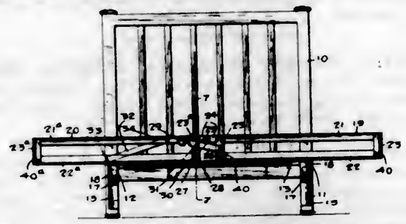
[Claims 6 and 7 not printed in the Gazette.]

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1,090,474. SOFA-BED. GEORGE M. B. HAWLEY, Geneva, N. Y. Filed Nov. 5, 1912. Serial No. 729,664. (Cl. 5—48.)

1. In a sofa bed, the combination of end pieces to rest on the floor, a metal underframe detachably connecting said end pieces, a back member and a seat member both of metal frame-work located between said end pieces and hinged together so that they may be spread out, in which condition they are supported horizontally on said metal underframe, and pivotal links detachably connecting said members with the end pieces and governing the movement of the former.

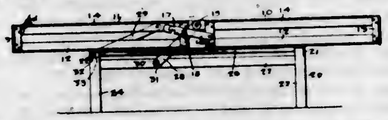
2. In a sofa bed, the combination of end pieces having headed studs on their inner sides, back and front angle bars having their ends bent down vertically and provided with diagonal braces riveted to the vertical ends and the bodies of the bars, said bent-down ends having key-hole slots receiving said headed studs, metal back and seat sections hinged together so that they may be spread out to form a bed, pivotal links connecting said members with the end pieces and governing the movement of the former, and detachable pivotal connections between said links and the end pieces.



3. In a sofa bed, the combination with a supporting structure, of hinged metal back and seat members, means connecting said members with said supporting structure and means connecting them with each other whereby said members may be turned and simultaneously moved laterally in fixed angular relation, the upright seat member being then swung down to horizontal position in line with the prone back member, each of said members comprising back and front angle bars with their end portions bent upward and braced, end angle bars secured to and connecting said back and front angle bars and forming therewith a bottom frame to rest on the supporting structure, the flanges of said end angle bars receiving the corners formed by bending up the end portions of the front and back angle bars, and spring-fabric supporting angle bars secured to and connecting the tops of said bent-up end portions, the adjacent end portions of said spring-fabric supporting bars being extended from the seat and back members and pivoted together, their horizontal flanges being cut away.

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1,090,475. SOFA-BED. GEORGE M. B. HAWLEY, Geneva, N. Y. Filed Nov. 5, 1912. Serial No. 729,665. (Cl. 5—48.)

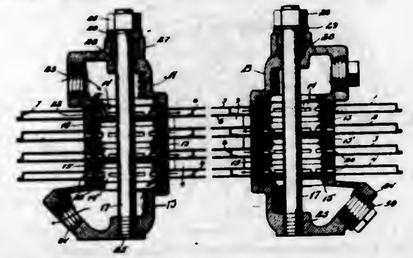


In a sofa bed, a metal supporting frame comprising front and back members each of which consists of a single angle bar bent and braced at the ends and extended vertically downward to form legs to stand on the floor, and bars extending from front to back and detachably connecting said front and back members, in combination with hinged seat and back bed sections of metal frame-work adapted to be spread out on said supporting frame to form a bed, said frame being entirely beneath the bed sections and said bed sections being adapted to rest on said front and back members having the down-bent legs, and standards and throw-bars pivotally connected with said sections and pivotally and detachably connected with said supporting frame.

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1,090,476. RADIATOR. PRIMM R. HAWTHORNE, Battle Creek, Mich., assignor to Nichols & Shepard Company, Battle Creek, Mich. Filed Feb. 10, 1913. Serial No. 747,340. (Cl. 62—28.)

1. A radiator for internal combustion motors, comprising a vertical series of horizontal hollow cooling sections superimposed in substantially parallel relation, each cooling section composed of top and bottom sheets which are spaced apart and joined together at their marginal edges, bracing strips all parallel to each other, interposed between and crossing the space between said top and bottom sheets, extending transversely of the path of the air between the sections and arranged in staggered relation forming baffles which cause the cooling medium to take a corresponding direction, and spacing members, located exteriorly of and interposed between the cooling sections, said spacing members all being parallel to each other, crossing the space between adjacent sections and extending parallel to the path of movement of the air, and perpendicularly to said bracing strips.



2. A radiator for internal combustion motors, comprising a vertical series of horizontal hollow cooling sections superimposed in substantially parallel relation, hollow columns arranged in spaced relation to each other piercing the cooling sections and each embodying a vertical series of superimposed heads, each of which is formed with lateral openings communicating with one of the cooling sections, certain of said heads being centrally open and the others closed, the closed heads alternating with the open heads and being arranged in such relation to each other and the cooling sections as to impart a definite path of circulation to the entire body of the cooling medium, all of the heads being rabbeted to receive the top and bottom sheets of the cooling sections, spacing rings interposed between the heads, and tie bolts passing vertically through said columns and serving to clamp all of the heads and cooling sections together, the closed heads being formed with central bolt holes sufficiently larger than the bolts to permit drainage.

3. A radiator for internal combustion motors, comprising a vertical series of horizontal hollow cooling sections superimposed in substantially parallel relation, hollow columns arranged in spaced relation to each other piercing the cooling sections and each embodying a vertical series of superimposed heads, each of which is formed with lateral openings communicating with one of the cooling sections, certain of said heads being centrally open and the other closed, the closed heads alternating with the open heads and being arranged in such relation to each other and the cooling sections as to impart a definite path of circulation to the entire body of the cooling medium, and tie bolts passing vertically through said columns and serving to clamp all of the heads and cooling sections together, the closed heads being formed with central bolt holes sufficiently larger than the bolts to permit drainage.

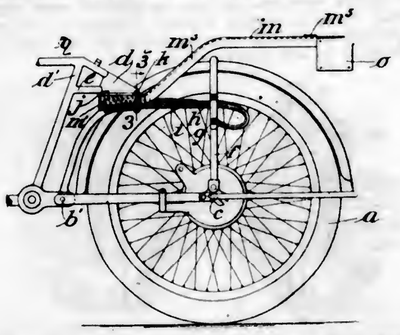
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1,090,477. MOTOR-CYCLE. CARL O. HEDSTROM, Portland, Conn. Filed Apr. 5, 1913. Serial No. 759,105. (Cl. 208—24.)

1. In a motor-cycle, the combination, a main frame, front and rear supporting springs therefor, of a supplemental frame, means to attach the forward ends only of the supplemental frame to the forward ends of the rear supporting springs of the main frame, and comprising a pair of channel-iron members having their flange portions engaging the sides of the rear supporting springs of the main frame and their webs engaging the upper sides of said springs, and means to secure the channel-irons to the springs, as described

2. In a two-wheeled vehicle, the combination, a main frame including a saddle support and an upright at the rear, the upright and axle of the rear wheel having a

pivotal connection with the main frame, a supplemental frame formed with an upwardly extending bent portion over the rear wheel, and rigidly secured at its forward end to the saddle support, and a spring support extending from the saddle support to the upright, whereby said rear wheel and upright is permitted to have free vertical movements below the supplemental frame as described.



3. In a motor cycle, the combination, a main frame including a saddle support, the rear wheel of the motor cycle being pivotally connected to the main frame to permit free vertical movements thereof, a rigid supplemental frame, the forward end only of which is secured to the saddle support and its rear end is in a plane that is above its forward end and also above the upper side or edge of the rear wheel, whereby said wheel may have a free and unobstructed vertical movement as described.

4. In a two wheeled vehicle, a main frame including a saddle support, and an upright at the rear, a resilient member rigidly secured at one end to said saddle support and at the other to said upright, a rearwardly extending supplemental load carrier, comprising a frame rigidly fastened to said resilient member at one end and free at the other.

5. In a two wheeled vehicle, a main frame including a saddle support, and a support at the rear, a resilient member rigidly secured at one end to said saddle support and at the other to said support at the rear, a rearwardly extending supplemental load carrier, comprising a frame rigidly fastened to said resilient member at one end and free at the other.

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1,090,478. DREDGE-BUCKET. FRANK Z. HUNT, Breckenridge, Colo. Filed Dec. 28, 1910. Serial No. 599,725. (Cl. 74—32.)



An endless chain, one extremity of each link of which has an elongated eye, and the other extremity of each link of which has separated perforated lugs occupying positions at the opposite extremities of the elongated eye of the next link, pins passed through the elongated eyes and fitting in the adjacent perforations of the said lugs, means for preventing rotation of said pins in the lugs, bushings applied to the outer extremities of the elongated eyes to compensate for the wear on the pins, said eyes being elongated in the direction of the length of the chain in order to permit the passage therethrough of the unworn ends of the pins regardless of the amount of bushing employed.

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1,090,479. METHOD OF MAKING ALUMINA. HERBERT T. KALMUS and WALTER L. SAVELL, Kingston, Ontario, Canada, assignors to said Kalmus. Filed June 14, 1913. Serial No. 773,734. (Cl. 23—13.)

1. The method of making alumina which consists in subjecting sulfitable aluminous materials to a sulfiting operation by the action of sulfur dioxid and water to transform alumina content into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid, and in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina from the solution, substantially as described.

2. The method of making alumina which consists in subjecting sulfitable aluminous and siliceous materials to a sulfiting operation by the action of sulfur dioxid and water to transform alumina content into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid, with which is present some dissolved silica, in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina and silica from the solution, in resulfiting the precipitate by the action of sulfur dioxid and water to transform alumina into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid leaving silica undissolved, and in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina from the solution, substantially as described.

3. The method of making alumina which consists in subjecting sulfitable aluminous and siliceous materials to a sulfiting operation by the action of sulfur dioxid and water to transform alumina content into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid, with which is present some dissolved silica, in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina and silica from the solution, in resulfiting the precipitate by the action of sulfur dioxid and a small amount of water to transform alumina into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid leaving substantially all of the silica undissolved, and in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina from the solution, substantially as described.

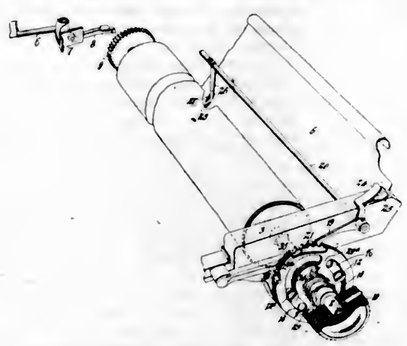
4. The method of making alumina which consists in subjecting sulfitable aluminous materials to a sulfiting operation wherein the materials in the presence of water are acted upon by sulfur dioxid gas passed into the mixture to transform alumina content into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid, and in desulfiting the solution to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina from the solution, substantially as described.

5. The method of making alumina which consists in subjecting sulfitable aluminous materials to a sulfiting operation by the action of sulfur dioxid and water to transform alumina content into a relatively unstable soluble compound or compounds of alumina and sulfur dioxid, and in desulfiting the solution by heating it to break down the unstable compound or compounds of alumina and sulfur dioxid and precipitate alumina from the solution, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]



1,090,480. TYPE-WRITING MACHINE. ALFRED G. F. KUROWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 16, 1910. Serial No. 597,648. (Cl. 197—141.)



1. In a typewriting machine, the combination with a rotatable platen, of a driver fast on the axle of said platen, an interponent to be engaged by the driver to indicate some conditions, said interponent normally turning with the platen, a sheet-controlled dog to arrest the interponent, and means to reset the interponent upon release of the dog.

2. In a typewriting machine, the combination with a rotatable platen, of a driver fast on the axle of said platen, an interponent spaced apart from the driver to provide lost motion, said interponent normally turning with the platen, a sheet-controlled dog to arrest the interponent in the path of the driver to indicate something to the operator, and means to reset the interponent upon release of the dog.

3. In a typewriting machine, the combination with a rotatable platen, of a driver turning therewith, an interponent normally spaced apart from the driver and turning with the platen, a sheet-controlled trip moving a dog to arrest the interponent in the path of the driver to indicate something and means to reset the interponent upon the release of the dog.

4. In a typewriting machine, the combination with a rotatable platen of a driver turning therewith, an interponent normally spaced apart from the driver and turning with the platen, a sheet-controlled trip moving a dog to arrest the interponent in the path of the driver to indicate something, and means tensioned by the rotation of the platen after the arrest of the interponent, to reset the interponent upon the release of the dog.

5. In a type-writing machine, the combination with a rotatable platen, of paper-end indicating mechanism including a sheet-controlled dog, a rotatable interponent turning on an axis concentric with the platen arrested by said dog, a driver fast on the platen axle to engage said interponent when arrested, to indicate something, and means to yieldingly hold the interponent in advance of the driver until arrested by the dog, and to reset the interponent after the release of the dog.

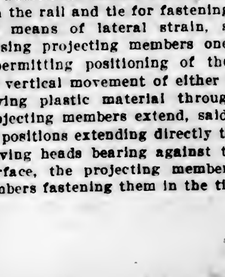
[Claims 6 to 34 not printed in the Gazette.]

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1,090,481. FAN. FRANK LAMBERT, Brooklyn, N. Y. Filed July 25, 1910. Serial No. 573,679. (Cl. 230—1.)

1. A fan comprising in combination a fan-wheel, a motor for driving the same, a carrier to which said motor is pivoted, a support to which said carrier is pivoted, a crank, the free end of which is mounted to move with bodily movement of said motor, and reducing transmission mechanism imparting motion from said motor to said crank.

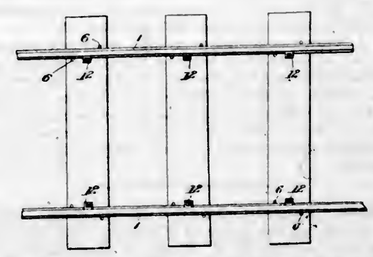
2. A fan comprising in combination a fan-wheel, a motor for driving the same, a carrier to which said motor is pivoted, a support to which said carrier is pivoted, a crank, the free end of which is mounted to move with bodily movement of said motor, the pivot of said crank mounted for motion in a restrained path, and transmission mechanism driven by said motor arranged to impart motion to the crank.



3. A fan comprising in combination a fan-wheel, a motor for driving the same, a carrier to which said motor is pivoted, a support to which said carrier is pivoted, said support having in it a guide groove, a crank, the free end of which is mounted to move with bodily movement of said motor, said crank having a pin mounted to move in said guide groove, adjustable means limiting the motion of such pin in said groove, and transmission mechanism driven by said motor and arranged to impart motion to said crank.

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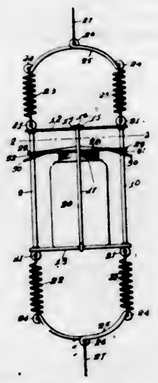
1,090,482. RAILROAD-TIE. GEORGE M. LAUDERMILCH, Derry Church, Pa. Filed Sept. 11, 1911. Serial No. 648,821. (Cl. 238—5.)



1. In a tie having a body, in combination with a rail passing thereover, fastening means securing the rail thereto and means additional thereto serving as means to correctly position the rail and tie for fastening and to relieve the fastening means of lateral strain, said additional means comprising projecting members one on each side of the rail permitting positioning of the rail between them through vertical movement of either the rail or tie, the body having plastic material through which the projecting members extend, said material by adhesion with said members fastening them in the tie.

2. In a tie having a body, in combination with a rail passing thereover, fastening means securing the rail thereto and means additional thereto serving as means to correctly position the rail and tie for fastening and to relieve the fastening means of lateral strain, said additional means comprising projecting members one on each side of the rail permitting positioning of the rail between them through vertical movement of either the rail or tie, the body having plastic material through and beyond which the projecting members extend, said members having elongated positions extending directly through the material and having heads bearing against the material at its under surface, the projecting members by adhesion with said members fastening them in the tie.

1,090,483. CHURN. ALBERT H. LAWRENCE, St. Louis, Mo., assignor, by direct and mesne assignments, to Earl Hewson. Filed Nov. 15, 1913. Serial No. 801,113. (Cl. 31—18.)



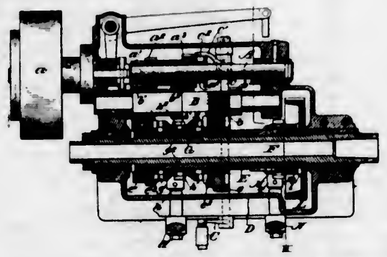
1. A churn comprising a body portion in which a receptacle is supported, an adjustable clamping top, a resilient means connected to the top and bottom of the body and by which the body is kept in reciprocatory movement when started, and clamps located on the adjustable top for supporting the same in position, substantially as specified.

2. A churn comprising a body portion consisting of a top and bottom, rods spacing the same, a removable rod for permitting the insertion of a receptacle in the body portion, an adjustable top supported by the rods, clamps carried by the top and communicating with two of the rods, springs attached to the top and bottom, and brackets connecting the same for supporting the churn in elevated suspended position, substantially as specified.

3. A churn comprising a skeleton receptacle supporting body, an adjustable top mounted therein, clamping means carried by the top for holding the top in adjusted position, springs of desired tension attached to the bottom and top for applying reciprocatory movement to the body when pressure is once applied, and a detachable rod for supporting the receptacle in the body, substantially as specified.

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1,090,484. VARIABLE-SPEED MECHANISM. RICHARD K. LE BLOND and WILLIAM F. GROENE, Cincinnati, Ohio, assignors to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 12, 1913. Serial No. 760,672. (Cl. 74—58.)



1. The combination with a spindle, of a sleeve loose thereon, means to drive the sleeve, a clutch member fast on the spindle, a supplemental clutch member splined on the sleeve, whereby the spindle may be driven directly from the sleeve, means for indirectly driving the spindle from the sleeve including a gear fast on the spindle, a back gear shaft mounted to slide in its bearings, a gear fast thereon and adapted to mesh with the gear which is fast on the spindle, constantly intermeshing gears on the sleeve and back gear shaft, and means for shifting the clutch member on the sleeve and for moving the back gear shaft axially.

2. The combination with a spindle, of a sleeve loose thereon, means to drive the sleeve, a gear fast on the spindle, a clutch member on said gear, a supplemental clutch member splined on the sleeve, whereby the spindle may be driven directly from the sleeve, means for indirectly driving the spindle from the sleeve including the gear fast on the spindle, a back gear shaft mounted to slide in its bearings, a gear fast thereon and adapted to mesh with the gear which is fast on the spindle, constantly intermeshing gears on the sleeve and back gear shaft, and means for shifting the clutch member on the sleeve and for moving the back gear shaft axially.

3. The combination with a spindle, of a sleeve loose thereon, means to drive the sleeve, a clutch member fast on the spindle, a supplemental clutch member splined on the sleeve, whereby the spindle may be driven directly from the sleeve, means for indirectly driving the spindle from the sleeve including a gear fast on the spindle, a back gear shaft mounted to slide in its bearings, a gear fast thereon and adapted to mesh with the gear which is fast on the spindle, a gear on the sleeve, a second gear mounted on the back gear shaft to turn therewith, but held against axial movement with the same so as to constantly mesh with the gear on the sleeve, and means for shifting the clutch member on the sleeve and for moving the back gear shaft axially.

4. The combination with a spindle, of a sleeve loose thereon, means to drive the sleeve, a clutch member fast to the spindle, a supplemental clutch member splined on the sleeve, whereby the spindle may be driven directly from the sleeve, means for indirectly driving the spindle from the sleeve including a gear fast on the spindle, a back gear shaft mounted to slide in its bearings, a gear fast thereon and adapted to mesh with the gear which is fast on the spindle, a gear on the sleeve, a second gear mounted on the back gear shaft and constantly in mesh with the gear on the sleeve, a bushing interposed between said shaft and second gear thereon, said bushing being keyed to said second gear and splined to the back shaft, and means for shifting the clutch member on the sleeve and for moving the back gear shaft axially.

5. The combination with a spindle, of a sleeve loose thereon, means to drive the sleeve, supplemental clutch members on the spindle, and sleeve, one of said clutch members being movable to and from the other, a gear fast on the spindle, a back gear shaft mounted to slide axially in its bearings, a gear fast on said shaft and adapted to mesh with the gear on the spindle, constantly intermeshing gears on the sleeve and shaft, a hand lever, and means for operating the movable clutch and moving the back gear shaft axially by swinging said lever in one direction.

[Claims 6 to 8 not printed in the Gazette.]

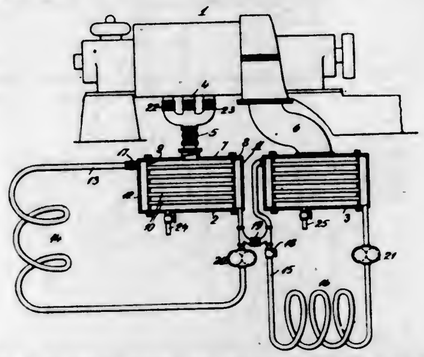
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1,090,485. COMBINED POWER AND HEATING SYSTEM AND PROCESS. TORE G. E. LINDMARK, Stockholm, Sweden, assignor to De Laval Steam Turbine Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 20, 1913. Serial No. 755,691. (Cl. 121—58.)

1. A combined power and heating system, comprising in combination a motor adapted to be operated by a heated expansible working fluid, and two heaters connected to such motor at different points of expansion of the working fluid therein, two circulating conduits, one connected to one of said heaters and the other connected to the other of said heaters and each arranged to conduct heated fluid from and then to return such fluid to its corresponding heater, one of said heaters being provided with means for varying its heat absorbing capacity without varying the heat absorbing capacity of the other said heater.

2. A combined power and heating system, comprising in combination a motor adapted to be operated by a heated expansible working fluid, and two heaters connected to such motor at different points of expansion of the working fluid therein, two circulating conduits, one connected to one of said heaters and the other connected to the other of said heaters and each arranged to conduct heated fluid from and then to return such fluid to its corresponding heater, one of said heaters being provided with means for varying its heat absorbing capacity, and a connection between said heaters whereby the one heater may serve as a preheater for the other heater.





3. A combined power and heating system, comprising in combination a motor adapted to be operated by a heated expansible working fluid, two heaters connected to such motor at different points of expansion of the working fluid therein, two circulating conduits, one connected to one of said heaters and the other connected to the other of said heaters and each arranged to conduct heated fluid from and then to return such fluid to its corresponding heater, one of said heaters being provided with means for varying its heat absorbing capacity, and a connection between said heaters whereby the one heater may serve as a preheater for the other heater.

4. A combined power and heating system comprising in combination a heat motor adapted to be operated by, and in its operation to expand, a heated expansible working fluid, and two heaters connected to said motor, one of said heaters connected to the terminal exhaust connection of such motor, the other connected at an intermediate expansion point of such motor, two circulating conduits, one connected to one of said heaters and the other connected to the other of said heaters and each arranged to conduct heated fluid from and then to return such fluid to its corresponding heater, said second heater provided with means for varying its heat absorbing capacity without varying the heat absorbing capacity of the other said heater.

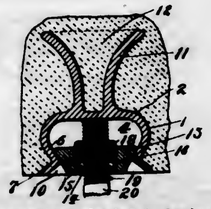
5. A combined power and heating system comprising in combination a heat motor adapted to be operated by, and in its operation to expand, a heated expansible working fluid, and two heaters connected to said motor, one of said heaters connected to the terminal exhaust connection of such motor, the other connected at an intermediate expansion point of such motor, two circulating conduits, one connected to one of said heaters and the other connected to the other of said heaters and each arranged to conduct heated fluid from and then to return such fluid to its corresponding heater, and regulating means interposed between said motor and said second heater.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,486. ANCHORING DEVICE FOR USE IN CONNECTION WITH CONCRETE STRUCTURES. ALFRED P. LOHMANN, Akron, Ohio. Filed Oct. 2, 1911, Serial No. 652,231. Renewed Nov. 6, 1913. Serial No. 799,626. (Cl. 72—105.)

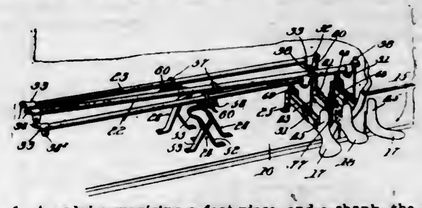
An anchoring device for the purpose set forth comprising a body-portion having a recess formed in the lower portion thereof and provided with side walls inclined inward toward the lower face thereof to constitute a wedge-shaped abutment, each of said side walls being provided with centrally-disposed lateral extensions arranged to form recesses communicating with the first-mentioned recess and inclined at angles thereto; in combination



with a coupling member adapted to be inserted in and fit said first-mentioned recess, said coupling member being arranged to pass through a selected one of the last-mentioned recesses in entering the first recess.

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1,090,487. PEDAL-ACTION FOR PIANOS. THEODORE H. LUNDE and RUDOLF MOE, Chicago, Ill. Filed June 11, 1910. Serial No. 566,457. (Cl. 74—81.)



1. A pedal comprising a foot piece, and a shank, the latter formed of a single strip of metal bent upon itself to provide laterally separated, vertical members, said foot piece being provided with rearwardly extending arms embracing the vertical members of the shank at the forward end of the latter, a spacing piece between said members and rivets extending through said arms, said vertical members and spacing piece, said members being punched outwardly to form integral pivot lugs.

2. A pedal comprising a foot piece, and a shank embracing laterally separated members, the foot piece being provided with rearwardly extending arms arranged in overlapping relation to said members at the forward end of the shank, rivets extending through said arms and said members, and a separate spacing piece between said members of the shank at the riveted end thereof and held in place by said rivets.

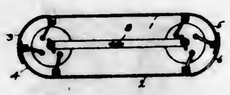
3. A pedal comprising a foot piece and a shank, the latter made of a single piece of metal bent upon itself at a point intermediate its ends to form parallel shank members, the ends of said strip being brought toward each other with a spacing piece between them, and said foot piece being provided with rearwardly extending arms which are arranged in overlapping relation to the shank strip and are riveted thereto, said strip being punched outwardly to form outwardly extending lugs.

4. A pedal comprising a foot piece, and a shank made of a single strip of metal bent to form parallel shank members, the ends of said strip being brought toward each other at the front end of the shank and the foot piece being provided with rearwardly extending arms which overlap the strip ends, rivets extending through said arms and strip ends and a U-shaped filling piece arranged between the ends of said strip with its members arranged above and below said rivets.

5. In a pedal action, the combination with a pedal provided with oppositely disposed pivot means, of a two-part bracket comprising two separated side members provided with pivot means complemental to the pivot means of the pedal, and a bolt for springing the members of the two-part bracket together and for fastening the parts together.

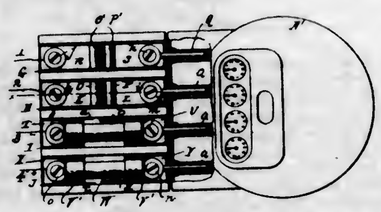
[Claims 6 to 14 not printed in the Gazette.]

1,090,488. CONCRETE-WALL MOLD. GEORGE MILLER, Fairfield, Wash., assignor to Miller Concrete Form Company. Filed Jan. 2, 1913. Serial No. 739,583. (Cl. 25—128.)



An internal form for concrete or like construction comprising in combination, a pair of sheet like sections having overlapping ends, one end of one section extending inwardly with respect to the end of the other section adjacent thereto and the remaining end of said first named section extending outwardly with respect to the adjacent end of its companion section, the outermost free ends of alternate sections being tensioned to spring against the innermost or underlying ends, pairs of rotatable disks adjacent the ends of said sections and disposed inwardly with respect thereto, links pivoted to said disks and connected with the innermost ends of alternate sections and with the sides of each section and adapted for rotation to bring the pivotal centers of said links on a dead lock center with the axes of rotation of said disks to lock said sections in expanded positions, substantially as described.

1,090,489. METER-TESTING CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed Feb. 7, 1912. Serial No. 675,993. (Cl. 175—183.)



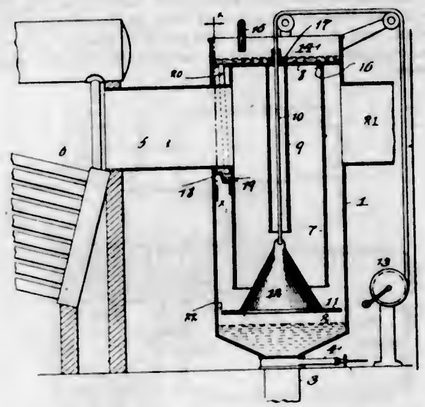
1. An electric cut-out, comprising a base block, two groups of four circuit terminals disposed near opposite edges of one face thereof, contact clips connected to each member of two oppositely disposed pairs of said terminals, two fuse plugs respectively seated in said contact clips, contact clips interposed between the members of the remaining oppositely disposed pairs, and a testing plug cooperating with said last-named contact clips and with the fuse plug receiving contact clips connected to two members of one of said groups.

2. An electric cut-out, comprising a base block having four channels, two pairs of contact clips in each of two of said channels, fuses in said channels coöperating with said clips, one pair of contact clips in each of the remainder of said channels, and a testing plug coöperating with said last-named pairs of contact clips and with one of said contact clips in each of said first-named channels.

3. An electric cut-out, comprising a base block, having two recesses, two circuit terminals in each recess, each of said terminals being in the form of a spring clip, a contact plate on one arm of one clip in each recess, a gang plug having circuit terminals coöperating with said contact plates, and fuses received in said clips.

1,090,490. APPARATUS FOR TRAPPING SOLID PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY, New York, N. Y. Filed June 9, 1913. Serial No. 772,527. (Cl. 110—183.)

1. An apparatus for trapping solid particles in suspension in a gas current, comprising a duct for said current, a plate disposed in front of the outlet of said duct and receiving the impact of said particles, means for delivering water upon the impact surface of said plate, and means for varying the distance between said plate and said duct.



2. An apparatus for trapping solid particles in suspension in a gas current, comprising a vertical duct for said current, a series of circularly disposed water inlets above said duct and delivering into the same substantially a tubular shell of water inclosing said current, and a plate below the outlet of said duct and at a distance therefrom and receiving the impact of said water and said particles escaping from said duct.

3. An apparatus for trapping solid particles in suspension in a gas current, comprising a vertical duct for said current, means for delivering into said duct a plurality of water streams inclosing said current, a plate below said duct, and a conical projection on said plate entering said duct; the said plate and projection receiving the impact of said water and said particles.

4. An apparatus for trapping solid particles in suspension in a gas current, comprising a casing having an outlet for said current, a vertical duct in said casing, a gas inlet duct communicating with said vertical duct, means for delivering water into said vertical duct, a plate disposed below the outlet of said duct and at a distance therefrom and receiving the impact of said water and said particles, and means for raising and lowering said plate; there being a clearance between said casing and said plate.

5. An apparatus for trapping solid particles in suspension in a gas current, comprising a vertical duct for said current, a plate disposed below the outlet of said duct, a conical projection on said plate entering said duct, two concentric series of circularly disposed water inlets above said duct; one of said series delivering substantially a tubular shell of water into said duct and upon said projection, and the other of said series delivering substantially a tubular shell of water into said duct and upon the face of said plate outside of said projection.

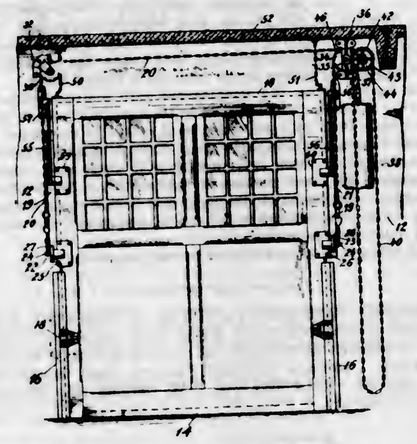
[Claim 6 not printed in the Gazette.]

1,090,491. DOOR AND MEANS FOR OPERATING THE SAME. FREDRIC D. OGDEN, deceased, Bayonne, N. J., by John Edward Ogden, administrator, Brooklyn, N. Y., assignor to The Patent Appliance Company, New York, N. Y., a Corporation of New York. Filed Feb. 23, 1912. Serial No. 679,751. (Cl. 20—16.)

1. A door, hoisting means therefor, pivotal connections between the hoisting means and the door at opposite edges of the door and intermediate its length, the part of the door above the pivotal connections being wider than the doorway and the part of the door below said connections being narrower than the doorway, and edge strips for engaging the narrow portion of the door, whereby the door can only be swung in one direction on its pivots as it is raised by said hoisting means.



2. The combination with a doorway having offset side strips extending from the base upward approximately half way to the top, a door which is vertical when closed, the upper part of the door being wider and overlapping the sides of the doorway and the lower part being narrower and adapted to close against said offset side strips, pivots projecting outward from the respective sides of the door at corresponding intermediate points therein, hoisting means pivotally connected to said pivots and a link connected with the door above said pivots and to a relatively stationary part over the doorway, and means for actuating the hoist whereby the lower part of the door swings through the doorway and the door is raised to a position slightly inclined from the horizontal.



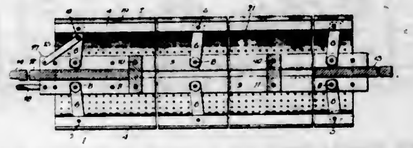
3. The combination with a vertically movable door, of means connected to said door at opposite edges thereof intermediate its length for hoisting the door, links pivotally connected to the door at opposite edges thereof above and inside of the point of attachment of the hoisting means for forcing the upper portion of the door inward as the door is raised, rollers on said door arranged to roll along the wall adjacent the doorway and providing a pivotal support for the door, the upper part of the door above the pivotal connections being wider than the doorway and the part of the door below said connections being narrower than the doorway, and offset edge strips of Z-section for engaging the narrow portion of the door whereby the door can only be swung in one direction on its pivots.

4. The combination with a doorway having offset side-strips extending from the base upward approximately half way to the top, a door which is vertical when closed, the upper part of the door being wider and overlapping the sides of the doorway and the lower part being narrower and adapted to close against said offset side strips, a base strip on the lower edge of the door, pivots projecting outward from the respective sides of the door at corresponding intermediate points therein, guide rollers for the door rotatively mounted upon said pivots, hoisting chains each having one of its ends pivotally connected to one of said pivots and a link connected with the door above said pivots and to a relatively stationary part over the doorway, a counterweight for the door, said chains being connected with the counterweight, a pocket sheave for said chains, and means for imparting rotation to said sheave whereby the lower part of the door swings through the doorway when the door is raised by said hoist to a position slightly inclined from the horizontal, the lower portion of the door constituting a shed over the doorway and the said base strip constituting a water deflector therefor.

5. The combination with a door which is vertical when closed, of a pair of chains arranged to hoist said door, rollers at the edges of the door arranged to engage the inner face of the wall adjacent the doorway, a pair of links each connected at one end to the door and at its other end to the wall adjacent the doorway, arranged to force in and to guide the upper end of the door whereby the latter is swung inwardly as the door is raised with its lower portion projecting outward over the doorway; and a water shedding strip on the lower edge of the door.

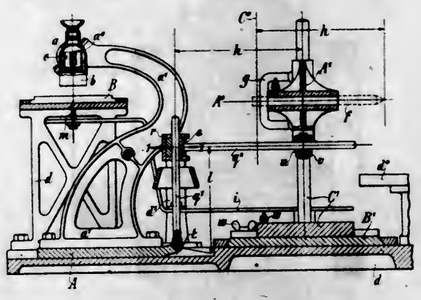
[Claims 6 and 7 not printed in the Gazette.]

1,090,492. CORE-DRUM. OSCAR ONSRUD, Chicago, Ill. Filed May 12, 1913. Serial No. 767,053. (Cl. 22—173.)



A contractible core drum adapted to contract through pressure of a cooling surrounding casting, means normally preventing the contraction of the core drum, said means including a member adapted to make said means ineffective when a predetermined pressure is applied to the drum.

1,090,493. STEREO APPARATUS FOR PLASTIC REPRODUCTION. EDUARD VON OREL, Vienna, Austria-Hungary, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Dec. 13, 1911. Serial No. 665,573. (Cl. 33—174.)



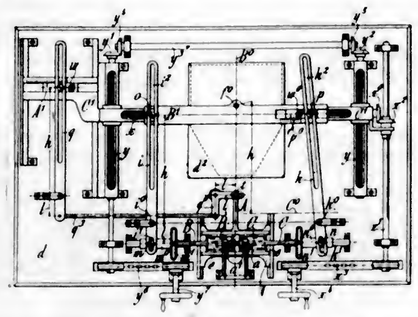
The combination with a stereo-comparator of a triple cross-slide, the three slides of which are arranged one above the other, a pointed member carried by the topmost of the three slides, a coupling positively connecting the stereo-comparator and the triple slide and a system of devices adapted to actuate the slides and stereo-comparator and accessible to the operator while he is looking into the stereo-comparator.

1,090,494. STEREO-ISOHYPSOGRAPH, EDUARD VON OREL, Vienna, Austria-Hungary, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Dec. 13, 1911. Serial No. 665,574. (Cl. 33—23.)

1. An apparatus for reproducing from a stereoscopic pair of photograms of a landscape a map of this landscape, comprising a stereo-comparator, a drawing device, means for positively coupling the stereo-comparator and said device together and a system of actuating devices controlling the said stereo-comparator and drawing device, the said system being accessible to the operator while the latter is looking into the stereo-comparator.

2. The combination of a stereo-comparator comprising three interdependent slides, a drawing device also com-

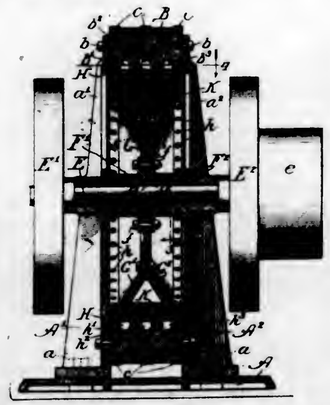
prising three interdependent slides $A^1$, $B^1$ and $C^1$, of which $A^1$ and $B^1$ are carried by $C^1$, means for positively coupling the slides of the said stereo-comparator with those of the



said drawing device and a system of actuating devices controlling the said stereo-comparator and the said drawing device, the said system being accessible to the operator, while the latter is looking into the stereo-comparator.

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1,090,495. TURBINE. SPENCER OTIS, Chicago, Ill., assignor to National Patent Holding Company, Chicago, Ill., a Corporation of Illinois. Filed June 17, 1907. Serial No. 379,407. Renewed June 29, 1911. Serial No. 636,229. (Cl. 121—57.)



1. In a turbine, the combination with a stator having a plurality of parallel longitudinal channels, of a rotor, a plurality of parallel series of vanes carried by such rotor and extending within the channels in the stator, a non-heat radiating packing carried by said rotor adjacent said vanes, and means for permitting motive fluid to pass successively through such channels.

2. In a turbine, the combination with a stator having a plurality of parallel longitudinal channels, of a rotor, a plurality of parallel series of vanes carried by the rotor and extending within the channels of the stator, ports and passages being provided in the walls of said channels for permitting the motive fluid to successively pass through limited portions of said channels, non-heat radiating packing secured around said stator, and non-heat radiating packing carried by said rotor within said vanes.

3. In a turbine, the combination with a circular stator having a plurality of parallel longitudinal channels in its inner surface, of a rotor located within and closely engaging at its outer periphery the inner surface of the stator, a plurality of parallel series of radial vanes carried by the rotor and extending within the channels in the stator, a series of spaced admission ports being formed through the wall leading to the first channel, a series of spaced ports being formed in the stator extending from the first to the second channel, a third series of spaced ports being formed in the stator leading from the second chamber, the ports in the succeeding series being located in advance of the corresponding ports in the preceding series, non-heat radiating packing secured around said stator, and non-heat radiating packing carried by said rotor within said vanes.

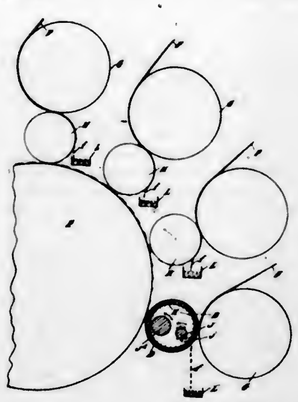
4. In a turbine, the combination with a stator having a longitudinal channel in its inner surface, of a rotor located within the stator and having a longitudinal series of vanes on its outer periphery extending within the channel in the stator, said rotor comprising a circular plate closely engaging the inner surface of the stator and annular supporting plates, and means for connecting the supporting plates of the rotor to a driven shaft.

5. In a turbine, the combination with a circular stator having a longitudinal channed in its inner surface, of supporting frames between which said stator is supported, a shaft extending through journals formed in said supporting frames, a rotor surrounding said shaft and closely engaging the inner surface of said stator, a longitudinal series of vanes around the periphery of said rotor extending within the channel in the stator, and means for securing said rotor to said shaft.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,496. PATTERN-CYLINDERS OR THE LIKE FOR USE IN CONNECTION WITH THE MANUFACTURE OF INLAID LINOLEUM OR OTHER SIMILAR MATERIAL. RICHARD HERBERT PARFITT, East Greenwich, England. Filed May 20, 1911. Serial No. 628,430. (Cl. 154—24.)

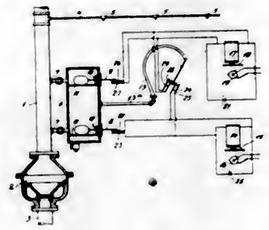


In a linoleum machine, a plurality of knife carriers each having thereon a plurality of groups of main knives arranged to cut patterns of complex multi-point design, and a set of subsidiary design cutting knives connecting together said groups of main knives, the knives of each carrier being like those of all others in design, and an adjustable selective ejecting mechanism for each carrier.

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1,090,497. SPRINKLER SUPERVISORY SYSTEM. CHARLES F. PATTERSON, New York, N. Y. Filed Aug. 1, 1912. Serial No. 712,739. (Cl. 178—103.)

1. The combination with a dry-pipe sprinkler system comprising a liquid supply main and a riser provided with sprinklers connected thereto, of a check valve between the supply main and riser, means including signal-transmitting means for indicating rise of level of liquid in the riser above said check valve, and means including signal transmitting means for indicating increase of pressure above normal in the riser above said check valve, whereby indication of material flow through said riser will be given by the combined operation of said level-actuated and pressure-actuated signal-transmitting means.



2. The combination with a dry-pipe sprinkler system comprising a liquid supply main and a riser provided with sprinklers connected therewith, of a check valve between the supply main and riser, means actuated by rise of level of liquid, unaccompanied by material increase of pressure, in the riser above the check valve, means operated by increase of pressure above normal in the riser, and separate signal-transmitting means arranged one to be operated by said level actuated means, the other to be operated by said pressure-actuated means, whereby indication of material flow through said riser will be given by the combined operation of said separate signal-transmitting means.

3. The combination with a dry-pipe sprinkler system comprising a liquid supply main and a riser provided with sprinklers connected thereto, of a check valve between the supply main and riser, means including signal transmitting means for indicating material increase in pressure above normal in the riser above said check valve, means including other signal transmitting means for indicating decrease in pressure below normal in said riser, and means actuated by rise of liquid in the riser above the check valve arranged to actuate the former of said signal transmitting means, whereby indication of material flow will be given by the substantially simultaneous operation of said signal transmitting means due to a decrease in pressure in the riser above the check valve followed immediately by material increase in pressure or rise of liquid level in said riser.

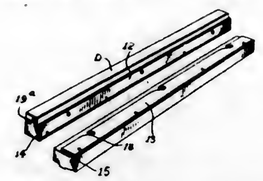
4. The combination with a dry-pipe sprinkler system comprising a liquid supply main and a riser provided with sprinklers connected thereto, of a check valve between the supply main and riser, means including signal transmitting means for indicating material increase in pressure above normal in the riser above said check valve, means including other signal transmitting means for indicating decrease in pressure below normal in said riser, and means actuated by rise of liquid in the riser above the check valve arranged to actuate the latter of said signal transmitting means, whereby indication of material flow will be given by the substantially simultaneous operation of said signal transmitting means due to a decrease in pressure or a rise of level of liquid in the riser above the check valve, followed immediately by a material increase in pressure in said riser.

5. The combination with a dry-pipe sprinkler system comprising a liquid supply main and a riser provided with sprinklers connected therewith, of a check valve between the supply main and riser, a plurality of contact devices arranged to be actuated independently by rise of liquid to different heights in the riser above said check valve, and signal transmitting means operated by said contact devices, whereby indication of material flow through said riser will be given by the successive actuation of said contact devices.

[Claims 6 to 11 not printed in the Gazette.]



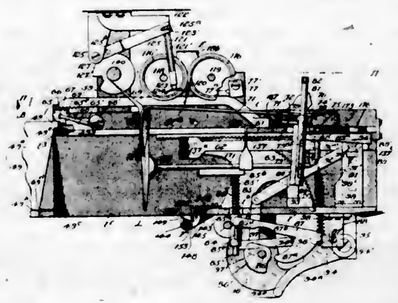
1,090,498. LOCK-JOINT FOR WINDOW-STILES. LOUIS HYACINTH PETERS, Quebec, Quebec, Canada. Filed Aug. 20, 1913. Serial No. 785,731. (Cl. 20—52.3.)



A lock joint for window stiles comprising a locking bar, and means operated by longitudinal sliding movement thereof, for locking the same to the stile, said means comprising complementary overlapping plates, one of said plates being formed with inclined open slots, and pins beneath the other plate adapted to engage said slots.

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1,090,499. MACHINE FOR PREPARING MAIL-MATTER FOR POSTING. JOHN W. POLER, Takoma Park, Md., assignor to Molyneux Mailing Machines Company, Buffalo, N. Y., a Corporation of South Dakota. Filed Dec. 18, 1905. Serial No. 292,386. (Cl. 93—6.)



1. In a machine of the type described, the combination of mechanism to fold a sheet of paper into flat form, mechanism for positioning an envelop to receive the said sheet after it is folded, and means for directing the said sheet from the said folding mechanism and inserting it into the said envelop.

2. In a machine of the class described, the combination of means for folding a sheet of paper into flat form, means for opening and positioning an envelop to receive said folded sheet, and means for directing the folded sheet from the folding mechanism into the said envelop.

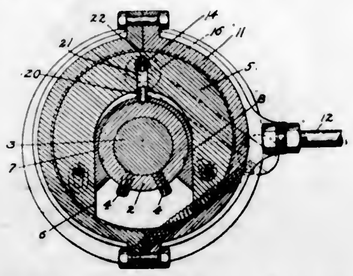
3. In a machine of the type described, the combination of mechanism adapted to make three various folds in a sheet of paper into flat form to accommodate it for insertion into an envelop of a certain size, means for positioning an envelop to receive the said folded sheet, and means for directing the said folded sheet from said folding mechanism into the envelop.

4. In a machine of the type described, the combination of a mechanism adapted to fold up a sheet of paper into flat form for insertion into an envelop of a given size, means for removing an envelop from a pack of envelops and for positioning it to receive the said folded sheet, and means for inserting the folded sheet into the envelop.

5. In a machine of the class described, the combination of a mechanism adapted to fold up a sheet of paper into flat form for insertion into an envelop of a given size, means for removing the envelop from a pack of envelops and for opening and positioning it to receive the said folded sheet as it is delivered from the said folding mechanism, and means for directing said sheet into the said opened envelop.

[Claims 6 to 75 not printed in the Gazette.]

1,090,500. GOVERNOR. JOHN M. PRIMM, Lima, Ohio, assignor to Power Manufacturing Company, Lima, Ohio, a Corporation of Ohio. Filed Aug. 7, 1913. Serial No. 783,608. (Cl. 121—101.)



1. In a governor, the combination with a rotary member, of an annular block concentrically secured thereto, an eccentric movably mounted upon said block, and a weighted movable arm pivotally mounted in said block and operatively engaging said eccentric, the movement of said arm being effective to adjust the center of said eccentric radially and angularly with relation to the center of said rotary member.

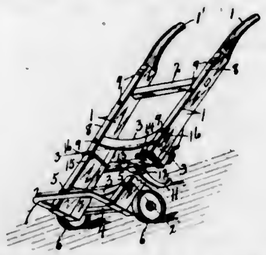
2. In a governor, the combination with a rotary member, of a block secured thereto and having as a part thereof a sleeve concentric with the axis of rotation of said rotary member, an eccentric slidably mounted with relation to said sleeve, and a weighted crank arm pivoted in said block and provided with a projection adapted to engage said eccentric and move it radially and angularly with relation to the center of rotation of said rotary member.

3. In a governor, the combination with a rotary member, of a block secured thereto and having as a part thereof a sleeve concentric with the axis of rotation of said rotary member, a ring rotatably mounted upon said sleeve and provided with parallel guide surfaces, an eccentric slidably mounted upon said guide surfaces, and a weighted crank arm pivoted in said block and provided with a projection adapted to engage and move said eccentric.

4. In a governor, the combination with a rotatable shaft, of a block adjustably secured thereto and having as a part thereof a sleeve concentric with the axis of said shaft, a ring rotatably mounted on said sleeve and provided with parallel guide surfaces, an eccentric slidably mounted upon said guide surfaces, and a weighted crank arm pivotally mounted in said block and provided with a projection adapted to engage and move said eccentric radially and angularly with relation to the axis of said shaft.

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1,090,501. HAND-TRUCK. FRANK S. RICKER, Oneida Castle, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Aug. 11, 1913. Serial No. 784,257. (Cl. 21—65.)

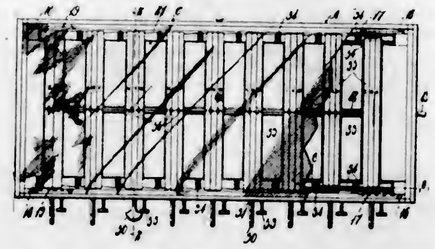


1. A hand truck having a pair of handle bars, a cross bar adjustable lengthwise of the handle bars, means for clamping the cross bar in its adjusted position, a bracket on the cross bar, and a leg hinged to the bracket to swing lengthwise of the truck.

2. A hand truck having a pair of handle bars, a cross bar attached to the handle bars, a bracket adjustable lengthwise of and upon the cross bar, means for clamping the bracket in its adjusted position, and a leg pivoted to the bracket to swing lengthwise of the truck.

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1,090,502. MECHANICAL BOOK. WILLIAM H. ROBINSON, Paris, Ky. Filed Apr. 12, 1913. Serial No. 760,663. (Cl. 40—93.)



1. A device of the character described, the combination of a casing, a plurality of spaced transverse partitions in said casing, an operating shaft journaled longitudinally of the casing and passing through said partitions, a plurality of gears fixed on said shaft and corresponding in number to the number of partitions, a frame slidably mounted between each pair of adjacent partitions, a pair of reel shafts journaled in each frame, a web having its ends secured to respective reel shafts, said web being movable between adjacent partitions at the top of the latter, and gears fixed on the reel shaft of each frame respectively and adapted to be moved selectively into mesh with the adjacent gear on the operating shaft by sliding a respective frame in opposite directions.

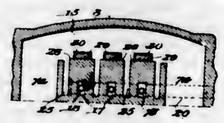
2. In a device of the character described, the combination of a casing, a plurality of spaced removable transverse partitions in said casing, an operating shaft journaled longitudinally of the casing and passing through said partitions, a plurality of gears fixed on said shaft and corresponding in number to the number of partitions, a frame slidably mounted between each pair of adjacent partitions, a pair of reel shafts journaled in each frame, a web having its ends secured to respective reel shafts, said web being movable between adjacent partitions at the top of the latter, and gears fixed on the reel shaft of each frame respectively and adapted to be moved selectively into mesh with the adjacent gear on the operating shaft by sliding a respective frame in opposite directions.

3. In a device of the character described, the combination of a casing, an operating shaft rotatably mounted therein, a gear mounted on said shaft, a frame slidable in the casing, a pair of reel shafts journaled in said frame, a web having its ends secured to respective reel shafts, gears fixed on said reel shafts respectively adapted to be moved selectively into mesh with the gear on the operating shaft by sliding said frame in opposite directions, an operating handle secured to the frame and extending through an opening in one wall of the casing, a cross arm on said handle, and stops adjustably mounted on the wall of the casing for engagement with said cross arm respectively to determine the correct positions of the sliding frame to effect the desired meshing relation of the gears on the reel shaft with the gear on the operating shaft.

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1,090,503. OPEN-HEARTH FURNACE. OSCAR SIMMERSBACH, Breslau, Germany. Filed Aug. 31, 1912. Serial No. 718,015. (Cl. 75—94.)

1. A reverberatory furnace provided in its head with a fuel-supply channel, a main air-supply channel located at a higher level than the said fuel-supply channel, and auxiliary air-supply channels located at each side of the fuel-supply channel, at practically the same level therewith.



2. A reverberatory furnace provided in its head with a fuel-supply channel, a main air-supply channel located at a higher level than the said fuel-supply channel, auxiliary air-supply channels located laterally of the fuel-supply channel at each side thereof and at practically the same level therewith, and an adjustable device for throttling the passage of waste-gases through the main air-supply channel.

3. A reverberatory furnace provided in its head with lower channels located at practically the same level, alternate channels being connected with a supply of fuel and of air respectively, and an additional air-supply channel located at a higher level than the said lower channels.

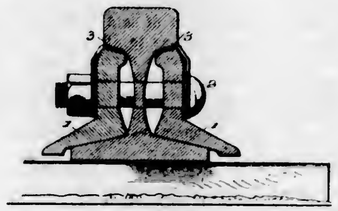
4. A furnace of the reversible regenerative type, provided with a flame chamber and with channels located at each side of said chamber and opening directly into said chamber at different levels, said channels being adapted to serve alternately, during successive operations, for the supply of air and for the escape of combustion products respectively, and additional channels, located laterally of the lower ones of the first-named channels and at practically the same level therewith, said additional channels being adapted to serve for supplying fuel.

5. A furnace of the reversible regenerative type, provided with a flame chamber and with channels located at each side of said chamber and at different levels, said channels being adapted to serve alternately, during successive operations, for the supply of heated air and for the escape of combustion products respectively, additional channels, adapted to supply fuel to said chamber, located laterally of the lower ones of the first-named channels and at practically the same level therewith, and regulating devices for variably proportioning the amounts of combustion products flowing through the upper and the lower channels respectively.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,504. RAIL-JOINT. EDGAR M. SMITH, Chicago, Ill. Filed Mar. 29, 1913. Serial No. 757,530. (Cl. 239—9.)



A joint for railway rails comprising a pair of joint-plates designed to be located at opposite sides of the adjoining ends of rails, nutted bolts for securing the joint-plates to the rails, and plates of hard metal extending along the upper longitudinal faces of the joint-plates, and having depending prongs of resilient material with which the nutted bolts are designed to engage, said prongs having inwardly projecting shoulders which are designed to bear against the faces of the plates.



1,090,505. SHEET-METAL PULLEY. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Jackson, Mich., a Corporation of Michigan. Filed Aug. 8, 1912. Serial No. 713,990. (Cl. 64—17.)



1. A pulley comprising a sheet metal hub section formed with a stepped portion, a bushing in the larger portion of the hub section, and sheet metal flange sections fitted upon the periphery of said larger portion of the hub section and diverging outwardly from the hub section to form a circumferential channel.

2. A grooved pulley comprising a sheet metal hub section having stepped portions gradually increasing in diameter from one end to the opposite end, a bushing within the larger section and fitting against the shoulder of the adjacent stepped portion, and sheet metal flange sections tightly fitted upon the periphery of the larger portion of the hub section and spaced apart from each other.

3. A grooved pulley comprising a sheet metal hub section having stepped portions gradually increasing in diameter from one end to the opposite end forming annular shoulders at the junctions of said portions, a sheet metal bushing tightly fitted in the larger end of the hub section and having its inner end abutting against one of the annular shoulders, a ring also tightly fitted within the large end of the hub section and abutting against the outer end of the bushing, and outwardly diverging flange sections tightly fitted upon the periphery of the large portion of the hub section and spaced apart from each other.

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1,090,506. ADJUSTABLE JOINTED-HANDLE WRENCH. HORACE M. SPRAGUE, Denver, Colo. Filed Mar. 25, 1913. Serial No. 756,732. (Cl. 81—177.)



1. In an adjustable jointed handle wrench, the combination of the handle casing provided with a joint intermediate of its ends, arranged to permit one part to swing from a straight alinement to an angular position with the other, a segment on one part extending over the other part, and a finger screw connected to the other part and arranged to lock said segment and one part of said handle at any predetermined angle to or in straight alinement with the other part.

2. An adjustable jointed handle wrench, comprising a suitable jointed handle portion and means for securing said jointed handle portion in adjusted positions, a casing secured to one part of said jointed handle portion, jaws secured in one end of said casing, means, including a thumb nut connected to said casing for opening and closing said jaws, an extension member rotatably mounted within said handle and connected to said casing member by a universal joint, and extending beyond said handle member, and means attachable to said extension member

for rotating it and said casing and said jaws in either direction.

3. An adjustable jointed handle wrench, comprising a suitable casing jointed intermediate of its ends, and a jaw supporting casing rotatably mounted in one end of said casing, a pair of jaws mounted in the jaw supporting end of said casing, means connected to said casing for moving said jaws to open and close the same, a rotatable member within said handle portion of said casing connected to said jaw supporting casing by a universal joint, means for rotating said universally connected jaw supporting members and said jaws in either direction, and means for adjustably setting said jointed and universally joint connected members in different positions relative to each other.

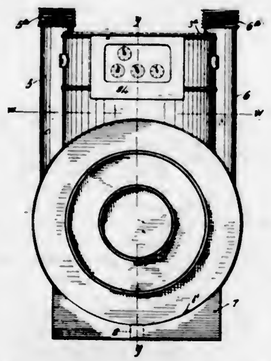
4. In an adjustable jointed handle wrench, the combination of the jointed handle casings, a jaw supporting casing revolubly secured to one end of one of said handle casings, a tube rotatably mounted in the free end of one of said handle casings and connected to said jaw supporting casing by a universal joint, and a pair of jaws supported in said jaw supporting casing, means including a finger nut for moving said jaws to open and close the same, and a suitable friction wrench member secured to the rotating tube within said handle member for rotating said jaw supporting casing and said jaws.

5. In a wrench as specified, the combination of a jointed handle member, a jaw supporting casing and a jaw turning tube within said handle member and connected by a universal joint to said jaw supporting casing, with a pair of jaws having opposing beveled shank portions extending into said casing and provided also with intersecting apertures arranged at opposite angles to the longitudinal axis of said jaws, and fixed pins extending through said casing through said apertures, a cross head in said casing provided with slideways extending transversely across the longitudinal axis of said jaws, guideways in the shank portions of said jaws fitting slidably on the slideways of said cross head, a threaded stem on said cross head, a knurled nut rotatably mounted in said casing threaded on said stem and arranged to be grasped and turned by the finger of an operator to move said cross head and jaws to open or close the same, and means for rotating said jaw turning tube.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,507. GAS-METER. HARRY B. THORNTON, Cincinnati, Ohio, and JOHN W. HAMMOND, Longbeach, Cal., assignors to Al. E. Davis, San Diego, Cal. Filed Dec. 9, 1912. Serial No. 735,754. (Cl. 73—1.)



1. In a gas meter, a main casing, diaphragms dividing it into compartments, a valve gallery, a valve box in the valve gallery and a valve rotatable on the valve box, operative connections from the diaphragms in the main casing to the rotatable valve in the valve gallery comprising a crank arm in the main casing, and means extending from the crank arm up into the valve gallery and having adjustment for the operative length of the crank arm without access to the main casing.

2. In a gas meter, a main casing, diaphragms in the main casing dividing it into compartments, a valve gallery, a valve in the valve gallery, operative connections between the diaphragms and the main casing and the valve in the valve gallery, said operative connections comprising a crank arm in the main casing, means extending from the crank arm up into the valve gallery for adjusting the operative length of the crank arm without access to the main casing, and means in the valve gallery for adjusting the operative connections with respect to said valve.

3. In a gas meter, a main casing, diaphragms therein dividing it into compartments, a valve gallery, a valve box in the valve gallery, a valve on said box, operative connections extending from the diaphragm in the main casing up to the valve into the valve gallery, engaging means between the operating connections and the valve allowing said valve to be lifted away from said valve box and said engaging means, the operative connections comprising a crank arm in the main casing and means extending from said crank arm up into the valve gallery, under said valve, within said valve box, for adjusting the operative length of said crank arm without access to said main casing, access to said adjusting means being had by lifting said valve as aforesaid.

4. In a gas meter, a main casing, diaphragms in the main casing dividing it into compartments, a valve gallery, a valve box in the valve gallery, a valve mounted on the valve box, operative connections between the diaphragms in the main casing and the valve in the valve gallery comprising a crank arm in the main casing, means extending from the crank arm up into the valve gallery, in the valve box, under the valve, for adjusting the operative length of said crank arm, and means for adjusting the engagement of the operative connection with the valve in said valve box under the valve, the adjusting means of the operative connection with the valve permitting said valve to be lifted away from said operative connection and said valve box to allow access to the several adjusting means.

5. In a gas meter, a main casing, diaphragms in the main casing dividing it into compartments, a valve gallery, a valve box in the valve gallery, a valve rotatable on the valve box, operative connection from the diaphragms in the main casing to the valve in the valve chamber comprising a crank arm in the main casing, means extending from said crank arm up into the valve gallery inside the valve box under the valve, for adjusting the throw of the crank arm, means for the engagement of the operative connection with the rotatable valve, said means permitting the valve to be lifted away from the operative connection and from the valve box to allow access to the several adjusting means, a dial mechanism extending into the valve gallery, a bracket removably mounted on the dial mechanism, means carried by the bracket to operatively connect the valve with the dial mechanism, the mounting of said bracket and the engagement of said operative connection with said valve being such as to allow said bracket and the operative connecting means carried thereby to be removed across the axis of rotation of said valve, whereby when said bracket and operative connecting means are thus removed the valve may be drawn away from said valve box and from the operative connection that extends from the main casing.

[Claims 6 to 35 not printed in the Gazette.]

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1,090,508. CLOSET. MONTREVILLE RUSSELL WILCOX, Minneapolis, Minn. Filed Nov. 9, 1912. Serial No. 730,502. (Cl. 4—32.)

1. The combination, with a plate having a seat opening therein, of a ring fitting within said opening and secured to said plate, said ring having inwardly and outwardly projecting flanges, a seat hinged to said inner flange on one side of said opening and having a bearing on said inner flange on the opposite side of said opening, a hinged cover, a gasket mounted in the underside of said cover and arranged to bear on said outwardly projecting flange when the cover is closed and encircle and seal said seat opening and said seat.



2. A closet comprising a metallic casing having a top provided with an opening therein, a plate fitting over said top and also having an opening co-inciding with the opening in said top, the metal forming the edge of the opening in said top being upwardly turned and secured to the edge of the opening in said plate, a ring fitting within the opening in said plate and having an outwardly projecting flange overlapping and concealing the joint between said ring and plate, a seat hinged to said ring on one side of said opening and having a bearing on said ring on the opposite side of said opening, said flange projecting outwardly beyond said seat, a hinged cover, a gasket provided in the underside of said cover and adapted to contact with said flange when the cover is closed and encircle and seal said seat and said opening.

3. A closet comprising a casing having a seat opening in the top thereof, a metallic ring fitting within said opening and having an outwardly projecting annular flange overlapping and concealing the joint between said ring and the edge of said opening, a seat hinged to said ring on one side of said opening and having a bearing on said ring on the opposite side of said opening, said flange projecting outwardly beyond said seat and provided with outwardly and upwardly projecting arms, a cover hinged on said arms, and a gasket mounted in the underside of said cover and adapted to contact with said flange and encircle and seal said seat and said seat opening.

4. A closet comprising a casing having a top provided with a seat opening, a ring fitting within said opening and secured to the edges thereof and provided with an outwardly projecting annular flange adapted to rest on the top of said casing, a seat hinged to said ring on one side of said opening and having a bearing upon said ring on the opposite side of said opening, a hinged cover, and a gasket mounted in the underside thereof and adapted to contact with said flange when the cover is closed and encircle and seal said seat and said seat opening.

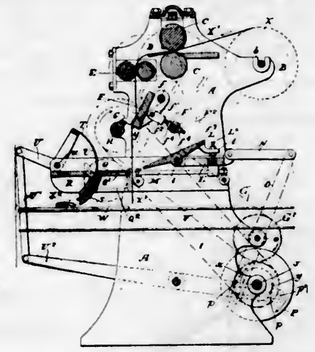
5. A closet having a top provided with a seat opening encircled by a metallic top-facing plate, a seat hinged at one side of said opening, a cover encircling said seat and spaced therefrom at the top and sides of the seat and hinged at one side of the seat opening, and a gasket interposed between the lower edge of the cover and the metallic top-facing plate and encircling the seat so as to prevent contact between the lower edge of the cover and the metallic top-facing plate and constitute a seal around the seat and the opening in the closet top, substantially as described.

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1,090,509. MACHINE FOR FORMING NOODLES. ANTON WILD, Saginaw, Mich., assignor to Werner & Pfleiderer, Saginaw, Mich., a Firm. Filed June 10, 1909. Serial No. 501,302. (Cl. 107—7.)

1. The combination of means for cutting a sheet of dough into strips, an inclined guide board for receiving the ribbons of dough, means for adjusting the inclination of this board, a cutter for severing the ribbons into suitable lengths while supported on the guide board, folding devices for said ribbons, and means for adjusting the folding devices to cause the ribbons to be folded at different points between their opposite ends.

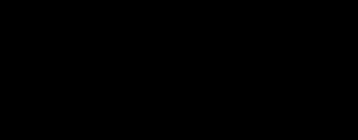
2. The combination of means for feeding a strip or ribbon of dough, a folding member past the edge of which the ribbon is fed, a board constituting another folding member and adapted to engage the strip of dough intermediate its ends, a slide to which said last mentioned folding member is pivotally connected, a guide in which said slide reciprocates, and means connecting the slide and board for adjusting the inclination of said board for



the purpose of causing the ribbons to be folded at different points between their opposite ends.

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1,090,510. UNLOADING APPARATUS. GEORGE D. WILLIAMS, Durhamville, N. Y. Filed July 21, 1913. Serial No. 780,341. (Cl. 214—3.)



1. A loading and unloading apparatus comprising upright standards having clamps for securement to a suitable support, a hoisting drum journaled in said standards and having drum heads spaced some distance apart to receive a bucket between them, a pulley block on the drum between the heads, a cable passed through the pulley block, a bucket attached to one end of the cable, the other end of the cable having means for attachment to a suitable power for operating the same.

2. A loading and unloading apparatus comprising a drum having heads spaced some distance apart, cable guides on the drum between the heads, a cable rendering over said guides, a bucket attached to one end of the cable, the other end of the cable having means for attachment to suitable power for drawing the bucket and cable endwise, said bucket having means coöperating with the drum to rotate the latter as the cable is drawn endwise whereby the bucket is raised and carried between the heads by the rotation of the drum for dumping.

3. A loading and unloading apparatus comprising a rotary drum having heads spaced some distance apart, a chute below the drum, cable-supporting sheaves on the drum, a cable passed around said sheaves, means on the cable for engaging one of the sheaves and rotating the drum as the cable is drawn in one direction, and a bucket attached to said cable.

4. A loading and unloading apparatus comprising a drum having heads spaced some distance apart for receiving a bucket between them, cable-supporting sheaves on the drum between the heads, a bucket attached to one end of the cable and means for holding the drum against rotation while the bucket is being drawn toward the drum, and additional means actuated by the cable for rotating the drum when the bucket is drawn into close proximity thereto whereby the bucket is carried upwardly between the heads to its dumping position.

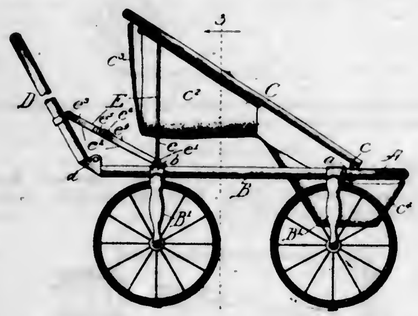
5. A loading and unloading apparatus comprising upright standards, axle sections mounted on said standards in axial alinement and having their inner ends spaced

some distance apart to receive a bucket between them, drum heads mounted on said axle studs and also spaced some distance apart, a bar secured to the peripheries of said drum heads, a cable guide mounted on the bar between the heads, a cable passed through said guide, means on the cable for rotating the drum when the cable is drawn in one direction a predetermined distance and a bucket attached to the cable and adapted to be lifted and carried between the drum heads when the drum is rotated.

[Claim 6 not printed in the Gazette.]

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1,090,511. BABY-CARRIAGE. ARTHUR J. ADAMS, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Nov. 19, 1904. Serial No. 233,489. (Cl. 21—83.)



1. The combination of a running-gear frame, an inclined seat-support having pivotal connection at its front end with the front portion of said frame, a forwardly swinging handle having its lower end pivoted to the rear portion of said frame, a forwardly swinging brace-link pivoted at its upper end to the rear portion of said seat-support, the lower portion of said brace-link finding a support on said frame during the swinging movement, and a flexible two-part link having pivotal connection at its rear end with said handle and pivotal connection at its front end with said brace-link, for the purpose set forth.

2. The combination of a running-gear frame, a pivoted seat-support, a pivoted handle, pivoted wheel-supports, a pair of brace-links pivoted at their upper ends to said seat-support and provided at their lower ends with wheel-support locks, and a pair of two-part links having pivotal connections with said handle and the lower ends of said brace-links, each two-part link having a stop for preventing downward flexing, substantially as and for the purpose set forth.

3. The combination of a running-gear frame, a pivoted seat-support, a pivoted handle, pivoted wheel-supports, a pair of brace-links pivoted at their upper ends to said seat-support and provided at their lower ends with wheel-support locks, and a pair of two-part links having pivotal connections with said handle and the lower ends of said brace-links, one member of each two-part link having a projection adjacent to the connection between the members serving as a thumb-piece, guard and stop, substantially as and for the purpose set forth.

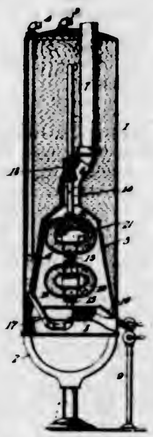
4. The combination of a substantially horizontal running-gear frame, an inclined seat-support having its front end pivoted on the front portion of said frame, wheel-supports equipped with two pairs of locking-shoulders, a pair of upright brace-links having their upper ends pivoted to the rear portion of said seat-support and equipped at their lower ends with locking shoulders engaging said mentioned locking shoulders, a handle having its lower end pivoted on the rear portion of said frame, and a pair of flexible two-part links having their rear ends pivoted to the lower portion of said handle and their front ends pivoted to the lower ends of said brace-links, substantially as and for the purpose set forth.

5. The combination of a substantially horizontal running-gear frame, an inclined seat-support having its front end pivoted on the front portion of said frame, a handle having its lower end pivoted on the rear portion of said frame, wheel-supports pivoted on said frame and equipped with lugs having vertical shoulders, a pair of brace-links having their upper ends pivoted on the rear portion of said seat-support and their lower ends equipped with shoulders engaging said first-named shoulders, and a pair of flexible links connecting the handle with the lower ends of said brace-links, whereby actuation of the brace-links and locking of the brace-links and wheel-supports may be effected, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,090,512. WATER-HEATER. FRANK ANTONUCCIO, Stockton, Cal. Filed Dec. 27, 1912. Serial No. 738,811. (Cl. 122—18.)



1. In a water heater, a heating drum including an upper hollow and substantially hemispherical head having a convex upper surface and a concave lower surface, the latter providing a closed downwardly facing pocket, a lower head arranged axially under the upper head, a series of vertically disposed and substantially quadrant shaped curved arms connecting the edges of the upper head to the lower head, the arms having flat outer and inner faces which are continuations of the curvature of the corresponding surfaces of the upper head, and axially disposed circulation pipes connected to the upper head and lower head respectively.

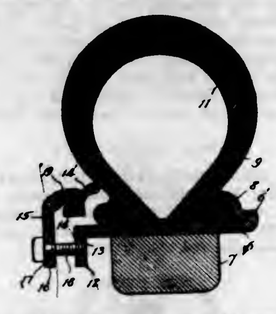
2. A water heater including a boiler formed with a concave bottom, an offset member communicating with the top of the concave bottom, a flue extending from the offset member through the top of the boiler, a bushing extending through the offset member and arranged substantially axially with respect to the lower end thereof, a circulation pipe extending through the bushing and fitting tightly therein, a heating drum arranged within the hollow bottom of the boiler and connected with the circulation pipe, and a burner, the products of combustion from the burner escaping through the offset and flue.

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1,090,513. SECTIONAL WHEEL-RIM. SAMUEL M. BERRY, Indianapolis, Ind. Filed Aug. 20, 1913. Serial No. 785,622. (Cl. 152—21.)

1. A sectional tire-rim comprising, in combination, an annulus adapted to encircle and be secured to a wheel felly, means co-acting with one edge of said annulus adapted to co-act with and hold one side of a tire, a split ring having its radially outer face beveled encircling the other edge of said annulus, and means having a lateral movement toward the felly adapted to co-act with the beveled face of said split ring to clamp the tire to the rim.





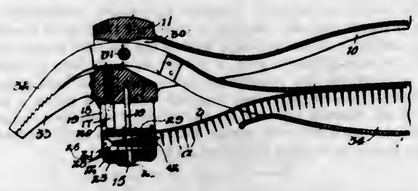
2. A sectional tire-rim comprising, in combination, an annulus to encircle and be secured about a wheel felly, and provided about one edge with a retaining ring, a split ring having its radially outer face beveled encircling the annulus at its opposite edge, and a ring releasably fastened to said opposite edge of the annulus, and provided with lips adapted to engage with a wedge-action the said inclined face of the split ring, for the purpose set forth.

3. A sectional tire-rim comprising, in combination, an annulus to encircle and be secured to a wheel-felly and provided about its inner edge with a ring having an undercut inner face, a split-ring encircling the annulus, having an undercut inner face and a beveled outer face, and an outer ring releasably fastened to the outer edge of the annulus and provided with wedging lips engaging the beveled face of the split ring, for the purpose set forth.

4. A sectional tire-rim comprising, in combination, an annulus to encircle and be secured to a wheel-felly and provided about its inner edge with a flange and about its outer edge with inwardly-projecting ears, a ring about the annulus confined by said flange, a split ring encircling the annulus and having a beveled outer face, said flange-confined ring and split ring being formed to confine between them a tire casing at its beaded edges, an outer ring having inwardly-projecting ears and wedging lips, and bolts passing through coincident ears on the annulus and said outer ring to fasten the outer ring to the annulus and wedge said lips against the beveled face of the split ring, for the purpose set forth.

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1,090,514. TACKING AND LASTING PINCERS. CLARENCE S. BODEN, San Francisco, Cal., assignor to Boden's Automatic Hammer Co., a Corporation of California. Filed Oct. 26, 1911. Serial No. 656,950. (Cl. 12—108.)

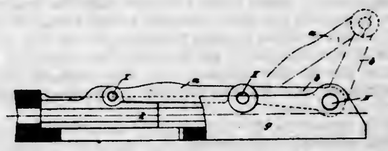


1. A tool of the character described, comprising a pair of crossed members pivoted together adjacent one end forming a pincer, that part of each member lying on one side of the pivotal point forming a jaw, and that part of each member lying on the other side of the pivotal point forming a handle, tack driving means arranged on one side of said members at the pivotal point, and a tack tape magazine arranged in the handle part of the other member.

2. In a combined pincer and hammer, the combination of a pair of jaws hinged together with crossed handles, one jaw and handle carrying a tack-driving head, the other jaw handle providing a tack-tape magazine, said head comprising two members movably connected, one of said members forming a slide and the other member carrying a driver working through the slide, and means by which the tape from said magazine is fed to the head with the tacks in line with the driver.

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1,090,515. TOGGLE-BREECH MECHANISM FOR AUTOMATIC FIREARMS. HUGO BORCHARDT, Charlottenburg, Germany. Filed Oct. 21, 1912. Serial No. 726,961. (Cl. 42—3.)



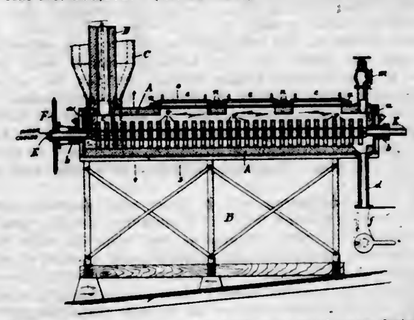
1. Breech mechanism for automatic firearms with fixed barrel comprising a breech block, a breech casing, a spring influenced toggle joint connecting said breech block with said breech casing and adapted to hold said breech block in the closed position, said toggle joint being adapted to be broken by flexure of said breech casing due to the gas pressure.

2. Breech mechanism for automatic firearms with fixed barrel comprising a breech block, a breech casing, a spring influenced toggle joint connecting said breech block with said breech casing and adapted to hold said breech block in the closed position, said toggle joint bearing snugly against said breech casing in such a manner that it is forced upward by the flexure thereof due to the discharge of the firearm.

3. Breech mechanism for automatic firearms with fixed barrel comprising a breech block, a breech casing, a spring influenced toggle joint connecting said breech block with said breech casing and adapted to hold said breech block in the closed position, the middle hinge of said toggle joint bearing snugly against said breech casing in such a manner that it is forced upward by the flexure thereof due to the discharge of the firearm.

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1,090,516. APPARATUS FOR MAGNETIZING DESULFURIZED ORES. GEORGE SAGE BROOKS, Depue, Ill., assignor to Mineral Point Zinc Company, Depue, Ill., a Corporation of New Jersey. Filed July 17, 1909. Serial No. 508,171. (Cl. 75—57.)



1. Apparatus for increasing the magnetic gap between the iron ore constituent and the zinc ore constituent of dead roasted mixed sulfid ore, consisting of a chamber having refractory walls, a feed hopper for supplying the roasted ore to one end of said chamber, means for progressing the ore through the chamber and for lifting and dropping it during its progress, a gas inlet flue for supplying a reducing gas to the chamber, and exit passages for the waste gases and for the reduced ore product, said

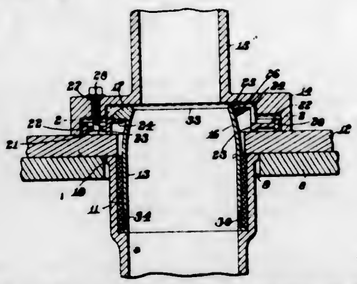
chamber being further provided with explosion doors resting in sand seals and constituting a part of the top wall or cover of the chamber; substantially as described.

2. Apparatus for increasing the magnetic gap between the iron ore constituent and the zinc ore constituent of dead roasted mixed sulfid ore, consisting of a chamber whose interior is substantially U-shaped in cross section and having refractory walls, a supporting frame arranged to give a longitudinal inclination to the chamber, a feed hopper for supplying the roasted ore to said chamber at its upper portion through an opening in one of its sides, a regulating gate for said opening, stuffing boxes at the ends of the chamber, a rotary shaft passing through the stuffing boxes, lifting cups mounted upon the shaft and operating along the curved bottom of the U-shaped chamber, explosion doors forming a portion of the top wall or cover of the chamber, a gas inlet flue for supplying a reducing gas to the chamber, and exit passages for the waste gases and for the reduced ore product; substantially as described.

3. In apparatus for the purposes described, the combination with the inclined reducing chamber of means for lifting and dropping ore, consisting of a rotary shaft having mounted thereon a series of cups or pockets provided with sectional hub portions with keys cast therein engaging corresponding key-ways on the shaft, and clamping bolts and nuts for removably locking the cups to the shaft; substantially as described.

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1,090,517. FLOOR CONNECTION. THOMAS E. CROSBY, Boston, Mass. Filed July 19, 1911. Serial No. 639,681. (Cl. 137—94.)



1. In a floor connection, the combination of a closet bend; a plumbing fixture; a sleeve extending upwardly from the closet bend and encircling the outlet of the fixture; a floor plate having a series of segmental slots; a flange extending around the outer edge of the plate; inclined flanges on the inner portion of the plate extending around the central opening; inclined toothed racks carried by the inclined flanges having teeth on the bottom and upper faces thereof; a plurality of teeth formed integral with said sleeve whereby the sleeve may be locked against the fixture; and means for holding the plate and the sleeve in the locked position and the fixture in place above the closet bend, substantially as shown and described.

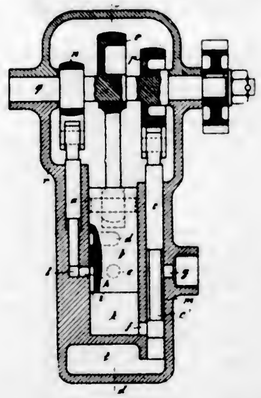
2. The combination with a closet bend provided with outwardly extending lugs, of a plumbing fixture; and a reversible floor plate adapted to rest upon the floor and be adjusted about its axis independently of said plumbing fixture, said plate being provided with a plurality of inclined lug engaging flanges, each flange being provided with a plurality of steps on the opposite sides thereof.

3. The combination with a closet bend provided with outwardly extending teeth, of a plumbing fixture; and a reversible floor plate adapted to rest upon the floor and be adjusted about its axis independently of said plumbing fixture, said plate being provided with a plurality of segmental inclined flanges having teeth on opposite sides thereof.

4. The combination with a closet bend extending above the floor and provided with outwardly extending lugs; a plumbing fixture provided with a recessed base to receive the upper end of said closet bend; and a floor plate adapted to rest on the floor and be adjusted about its axis independently of said plumbing fixture and closet bend, said floor plate being provided with an inner cylindrical wall extending beyond the end face of said plate and having inwardly extending flanges formed integral therewith at the outer end of said wall, these flanges having serrations on opposite sides thereof to engage said lugs either when positioned above the floor or below the upper surface thereof.

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1,090,518. OIL-CIRCULATORY LUBRICATING SYSTEM. PAUL DAIMLER and ALBERT HEESS, Cannstatt, Germany, assignors to The Firm of Daimler-Motorengesellschaft, Untertürkheim, Germany. Filed May 10, 1913. Serial No. 766,833. (Cl. 184—27.)



1. An oil-circulatory lubricating system comprising a main pump cylinder having a fresh oil inlet port therein, an auxiliary pump cylinder, a single port connecting said cylinders, a piston in said main cylinder adapted to control communication between said single port and main cylinder and between said single port and said fresh oil inlet port and a piston in said auxiliary cylinder.

2. An oil-circulatory lubricating system comprising a main pump cylinder, having a fresh oil inlet port therein, an auxiliary pump cylinder connected to said main cylinder through a single port, a piston in said main cylinder having two oil passages adapted to alternately establish communication between said ports and between said single port and the main cylinder, and a piston in said auxiliary cylinder.

3. An oil-circulatory lubricating system comprising a main pump cylinder, having a fresh oil inlet port therein, an auxiliary pump cylinder connected to said main cylinder through a single port, a piston in said main cylinder, a circumferential horizontal oil passage in said piston adapted to simultaneously register with said ports, a vertical oil passage adapted to periodically establish communication between said single port and the main cylinder and a piston in said auxiliary cylinder.

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1,090,519. PROTECTIVE WATER-GAGE GLASS FOR BOILERS. JOHN JAMES DAVIS and THOMAS F. TERRY, Cleveland, Ohio. Filed Mar. 10, 1913. Serial No. 753,306. (Cl. 73—54.)

1. In a water gage glass for boilers, inner and outer glass tubes of different diameters, supports for the ends of said tubes and gaskets therein for said inner tube, a metal sheath about the outer of said tubes having threaded connection at its ends in said supports and binding the same upon said tubes and pipe connections for said supports and tubes, the upper of said supports having an outlet open to the space between said tubes.



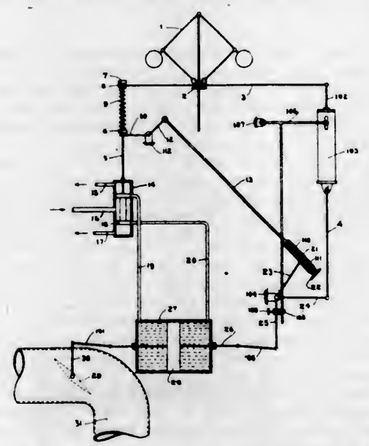
2. In a water gage glass for boilers, an inner glass tube and a protecting glass tube about the same and apart therefrom, supports for the ends of said tubes having seats therefor and gaskets therein and a metal sheath about said protecting tube connecting said supports and binding said parts on said tubes, boiler connections detachably engaged with said supports for the inner tube and a waste pipe connection open to the space between said tubes having its discharge through the upper of said supports.



3. In a water gage glass for boilers, a head having a central bore and a side outlet, a glass tube passing through said bore and packed therein, a second glass tube surrounding said first tube seated at one end in said head and in a coupling at the other, a cylindrical metal sheath uniting said head and coupling and fitting about said second tube and a boiler connection open to the said inner tube, and a waste pipe connection for said head open to the second tube.

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1,090,520. PRIME-MOVER-POWER-LIMITING DEVICE. JOHN ELOV ENGLESSON, Karlskrona, Sweden, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed June 27, 1912. Serial No. 706,308. (Cl. 121—112.)



1. In an indirect governor for prime movers, a speed responsive means, a motor for actuating the main valve of the prime mover, a means for controlling said motor, a lost motion connection between said speed responsive means and said motor controlling means, and a stop positioned by said motor, and, without limiting the motion of said speed responsive means, limiting the motion of said controlling means which said motion, if permitted, would set the motor for farther opening of said main valve.

2. In an indirect governor for a prime mover, a speed responsive means, a motor for actuating the main valve of said prime mover, a means for controlling said motor, means connecting said controlling means to said speed responsive means, said connecting means being positive in one direction and yieldable in the opposite direction, and a stop positioned by said motor, and, without limiting the motion of said speed responsive means, limiting the motion of said controlling means which said motion, if permitted, would set the motor for farther opening of said main valve.

3. In an indirect governor for a prime mover, a speed responsive means, a motor for actuating the main valve of the prime mover, a means for controlling said motor, said means being governed by said speed responsive means, and means acting directly on said controlling means for preventing the valve from assuming a position beyond a predetermined limiting position.

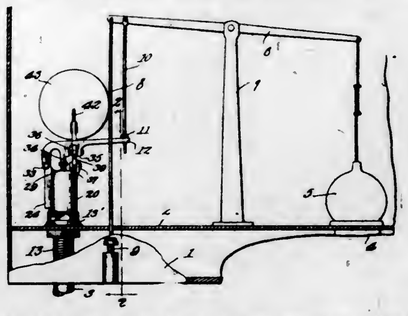
4. In an indirect governor for a prime mover, a speed responsive means, a motor for actuating the main valve of the prime mover, a means for controlling said motor, a lost-motion connection between said speed responsive means and said controlling means, and motor affected means acting directly on said controlling means for preventing the valve from assuming a position beyond a predetermined limiting position.

5. In combination with a prime mover main valve for controlling flow of fluid to said prime mover, a speed responsive means, a lost-motion connection between said speed responsive means and said main valve and adapted to determine the position of said main valve, and a stop for said lost-motion connection.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,521. VALVE. WILLIAM G. ESTEP, Duquesne, Pa. Filed Nov. 27, 1912. Serial No. 733,907. (Cl. 137—68.)



1. A valve, including an attaching member provided with an inlet channel therethrough, a casing removably attached to the member and into which the inlet channel empties, said casing having a valve seated outlet port, a valve guiding and containing cup carried by the attaching member concentrically of and within the casing, a disk valve mounted in the cup in the nature of a plunger, a stem carrying the disk valve, said stem extending in opposite directions upon each side of the valve and guided by the casing and the attaching member, said valve being disposed for movement into and out of engagement with the valve seated port, a lever pivoted to the casing and disposed to engage the valve stem to move the valve from the valve seated port, a float actuated lever pivoted to the casing and at right angles to the valve stem actuating lever, and coöperable means carried by both of said levers, whereby the float by its descending will lock the valve stem actuating lever in its lowermost position and will release the same when elevated by the rise of the water.

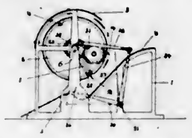
2. A valve, including an attaching member provided with an inlet channel therethrough, a casing removably attached to the member and into which the inlet channel

empties, said casing having a valve seated outlet port, a valve guiding and spring containing cup carried by the attaching member concentrically of and within the casing, a spring in said cup, a valve stem slidably mounted in the casing and attaching member and concentrically of the cup, a valve carried by the stem within the cup and casing, said valve being normally held by the spring upon the valve seated port, a lever pivoted to the casing and disposed to engage with the valve stem to depress the valve, a float actuated lever pivoted to the casing and at right angles to the valve stem actuating lever, and coöperable means carried by both of said levers, whereby the float, by its descending will lock the valve stem actuating lever in its lowermost position and will release the same when elevated by the rise of water.

3. A valve, including an attaching member provided with an inlet channel therethrough, a casing removably attached to the member and into which the inlet channel empties, said casing having a valve seated outlet port, a valve guiding and spring containing cup carried by the attaching member concentrically of and within the casing, a spring in said cup, a valve stem slidably mounted in the casing and attaching member and concentrically of the cup, a valve carried by the stem within the cup and casing, said valve being normally held by the spring upon the valve seated port, a lever pivoted to the casing and disposed to engage with the valve stem to depress the valve, a float actuated lever pivoted to the casing and at right angles to the valve stem actuating lever, said float actuated lever being provided with a cam slot in the end thereof, and a pin carried by the valve stem actuating lever and disposed within said slot to coact therewith to form a lock to hold the stem actuated lever depressed and the valve open when the float is in its lowermost position and so as to permit of the release of the stem actuated lever upon the elevation of the float.

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1,090,522. BAND-CUTTER AND FEEDER. OTTO FACKLAM, Gantenbeck, near Klitz, Germany. Filed July 17, 1913. Serial No. 779,610. (Cl. 130—1.)



1. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above the chute and provided with apertures, a rod suspended in said drum parallel to the drum shaft, a cam connected to the frame so as to contact with and reciprocate the rod when the latter passes the chute, means for raising the sheaves from the chute and holding them against the drum when the rod passes, cutters connected to said rod and movable in said apertures in the drum so as to cut the bands of the sheaves when the rod is reciprocated, and means connected to the drum for discharging the opened sheaf from the chute.

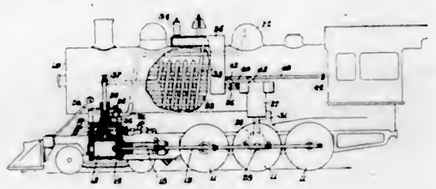
2. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above said chute, a rock-shaft arranged under the chute, means for rocking the shaft through the medium of the drum shaft, arms connected to the rock-shaft having their free ends movable up and down through said chute slots, tines connected to said arms and movable in said slots so as to hold the sheaves against the drum, cutters movably arranged at the circumference of the drum, means for moving the cutters longitudinally of the drum while the sheaf is held by the said tines for cutting the band of said sheaf, and means for discharging the opened sheaf from the chute.

3. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above said chute and having slots therein, a rock-shaft arranged under the chute, means for rocking said shaft through the medium of the drum shaft, arms connected to said rock shaft so that their free ends move up and down through said chute slots, tines connected to the arms and adapted to hold the sheaves against the drum, cutters movably arranged at the circumference of said drum, means for moving said cutters longitudinally of the drum so as to cut the band of said sheaves, an eccentric shaft arranged in the drum parallel to the shaft of the latter and adapted to work behind the cutters, a gear wheel connected to one end of said latter shaft outside the drum, a stationary gear wheel, concentric with the drum shaft, secured to the frame so as to mesh with the wheel of the eccentric shaft and turn the latter, and tines connected to said eccentric shaft operating through said drum slots after the cutters have been in operation and discharged the open sheaves from the chute.

4. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves, a revolving drum mounted in the frame above the chute and having a longitudinal slot therein, a rod suspended by links in said drum parallel to the drum shaft, means for raising the sheaves against the drum when the rod passes, means for reciprocating the rod, cutters and tines connected to the rod operating through said drum slot when the rod is reciprocated, the cutters being arranged so as to cut the band of the sheaves, and a revolving rake connected to the drum so as to work behind the cutters and discharge the opened sheaves from the chute.

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1,090,523. COMBINED STEAM AND COMPRESSED-AIR ENGINE. HIRAM G. FAKR, Melrose, Mass. Filed Aug. 16, 1911. Serial No. 644,449. (Cl. 60—29.)



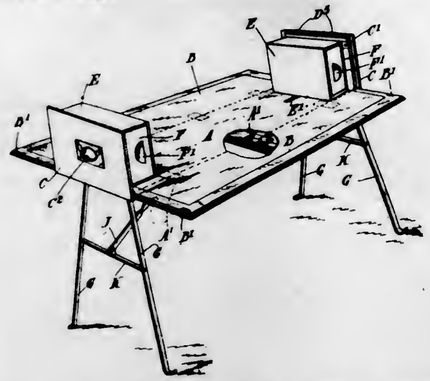
1. The combination with a steam-driven locomotive having a steam chest and a cylinder supplied thereby, of means mounted on and actuated by movements of the locomotive for storing air under compression, and connections between the stored air and the steam chest for admitting air to the chest at will independently of the steam supply, whereby the cylinder supply may be composed of either steam or air or a combination of both, said connections extending into the steam space of the locomotive whereby the air supplied to the chest will be heated.

2. The combination with a steam-driven locomotive having a steam chest and a cylinder supplied thereby, of means mounted on and actuated by movements of the locomotive for storing air under compression, and connections between the stored air and the steam chest for admitting air to the chest at will independently of the steam supply, whereby the cylinder supply may be composed of either steam or air or a combination of both, said connections extending into the steam space of the locomotive whereby the air supplied to the chest will be heated, the connections outlet being at the steam entrance to the steam chest to provide a mixture where air and steam are used in combination.

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1,090,524. CONVERTIBLE CABINET, CASE, OR THE LIKE. JOHN HENRY FAULKNER, London, England. Filed July 7, 1911. Serial No. 637,317. (Cl. 45—116.)

1. A combined box and table comprising a sectional table top, the members of which are adapted to be adjusted to form opposite sides and bottom of a box-like case or to be arranged in horizontal alinement, legs pivotally connected with the member constituting the bottom of the box to fold against the outer surface thereof, stays pivotally connected to the same member, and struts pivotally connected to the stays whereby they may extend parallel with the stays or transversely thereof, each strut when in the last said position being adapted to engage two of the legs.

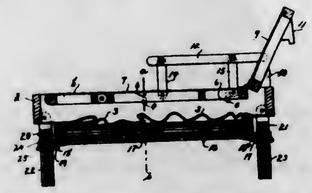


2. A combined box, table and seat comprising a member which constitutes the bottom of the box and midsection of the table top, two members hinged to opposite edges of the first said member and adapted to be adjusted into horizontal alinement therewith to form a table top or into position at an angle thereto to form sides of the box, legs pivotally connected with and adapted to fold against the lower face of the member constituting the bottom of the box, a lid or cover for the box, and legs connected with and adapted to fold against the inner face of the lid.

3. A combined box and table comprising a sectional table top having its members connected so that they may be adjusted to form opposite sides and the bottom of a box or be held in horizontal alinement, legs pivotally connected with and adapted to fold beneath the member forming the bottom of the box, stays similarly connected with said member, a strut connected with each stay by means permitting it to be turned into alinement with or at right angles to the stay, the ends of each strut being reduced and adapted to enter apertures in two of the legs when the latter are positioned for use and the strut extends at right angles to its supporting stay.

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1,090,525. LIFE-SAVING STEAMER-CHAIR. LOUIS FERRY, UMBERTO MOSCARIELLO, and RAFFAELE AMODIO, Derby, Conn. Filed Sept. 26, 1913. Serial No. 791,925. (Cl. 9—12.)

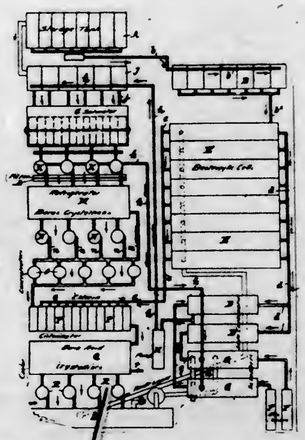


1. A life-saving steamer chair comprising a rectangular frame, transverse bars detachably connected therewith, a seat adapted to rest upon said bars, a back-rest hinged to said seat, a flexible bottom connected with the frame, wings hinged to opposite sides of the frame and adapted to be folded inward one beneath the other, legs hinged to opposite ends of the frame, and feet hinged to the legs and adapted to be folded beneath said wings, said wings and legs also adapted to be opened outward beyond said frame.

2. A life-saving steamer chair comprising a rectangular frame, a foot-piece hinged within said frame, a seat hinged to said foot-piece, a back hinged to said seat, said back formed with lugs adapted to rest upon the upper edge of the frame, a flexible bottom connected with the lower edge of the frame, wings connected with opposite sides of the frame and adapted to be folded inward one beneath the other, legs pivoted to opposite ends of the frame, feet hinged to said legs and adapted to be folded beneath the wings, said legs and wings adapted to be opened outward beyond the edges of said frame.

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1,090,526. MANUFACTURE OF BORAX AND BORIC ACID. ERNEST LAREMONT FLEMING, Chester, England. Filed July 10, 1911. Serial No. 637,762. (Cl. 23—13.)



A process of producing borax, boric acid and sodium chlorate, which comprises reacting upon a borate of an alkaline earth metal with a solution of a carbonate, separating a fraction of the borax from the resulting solution by crystallization, concentrating the mother liquor still containing borax to produce a hot concentrated solution of borax, treating said hot solution with chlorin gas, and thereafter separately crystallizing boric acid and sodium chlorate from said liquor.

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1,090,527. CAP AND SHELL FASTENING FOR LAMP-SOCKET CASINGS. EDGAR H. FREEMAN, Trenton, N. J. Filed Apr. 11, 1912. Serial No. 689,967. (Cl. 173—362.)



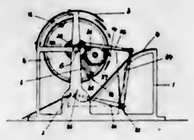
A cap and shell fastening for lamp socket casings comprising, in combination, a cap member provided with a plurality of equidistant lugs, a shell member provided with a plurality of equidistant bayonet slots corresponding in number and spacing to said lugs, and a resilient locking tongue permanently fitted to one of said members and having an exteriorly exposed operating means, the said locking tongue being normally sprung into the mouth of one of the bayonet slots substantially flush with the edges thereof.

empties, said casing having a valve seated outlet port, a valve guiding and spring containing cup carried by the attaching member concentrically of and within the casing, a spring in said cup, a valve stem slidably mounted in the casing and attaching member and concentrically of the cup, a valve carried by the stem within the cup and casing, said valve being normally held by the spring upon the valve seated port, a lever pivoted to the casing and disposed to engage with the valve stem to depress the valve, a float actuated lever pivoted to the casing and at right angles to the valve stem actuating lever, and coöperable means carried by both of said levers, whereby the float, by its descending will lock the valve stem actuating lever in its lowermost position and will release the same when elevated by the rise of water.

3. A valve, including an attaching member provided with an inlet channel therethrough, a casing removably attached to the member and into which the inlet channel empties, said casing having a valve seated outlet port, a valve guiding and spring containing cup carried by the attaching member concentrically of and within the casing, a spring in said cup, a valve stem slidably mounted in the casing and attaching member and concentrically of the cup, a valve carried by the stem within the cup and casing, said valve being normally held by the spring upon the valve seated port, a lever pivoted to the casing and disposed to engage with the valve stem to depress the valve, a float actuated lever pivoted to the casing and at right angles to the valve stem actuating lever, said float actuated lever being provided with a cam slot in the end thereof, and a pin carried by the valve stem actuating lever and disposed within said slot to conduct therewith to form a lock to hold the stem actuated lever depressed and the valve open when the float is in its lowermost position and so as to permit of the release of the stem actuated lever upon the elevation of the float.

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1,090,522. BAND-CUTTER AND FEEDER. OTTO FACKLAM, Gantenbeck, near Klitz, Germany. Filed July 17, 1913. Serial No. 779,610. (Cl. 130—1.)



1. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above the chute and provided with apertures, a rod suspended in said drum parallel to the drum shaft, a cam connected to the frame so as to contact with and reciprocate the rod when the latter passes the chute, means for raising the sheaves from the chute and holding them against the drum when the rod passes, cutters connected to said rod and movable in said apertures in the drum so as to cut the bands of the sheaves when the rod is reciprocated, and means connected to the drum for discharging the opened sheaf from the chute.

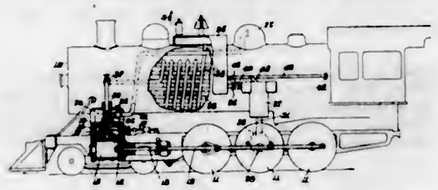
2. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above said chute, a rock-shaft arranged under the chute, means for rocking the shaft through the medium of the drum shaft, arms connected to the rock-shaft having their free ends movable up and down through said chute slots, tines connected to said arms and movable in said slots so as to hold the sheaves against the drum, cutters movably arranged at the circumference of the drum, means for moving the cutters longitudinally of the drum while the sheaf is held by the said tines for cutting the band of said sheaf, and means for discharging the opened sheaf from the chute.

3. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves and having slots therein, a revolving drum mounted in the frame above said chute and having slots therein, a rock-shaft arranged under the chute, means for rocking said shaft through the medium of the drum shaft, arms connected to said rock shaft so that their free ends move up and down through said chute slots, tines connected to the arms and adapted to hold the sheaves against the drum, cutters movably arranged at the circumference of said drum, means for moving said cutters longitudinally of the drum so as to cut the band of said sheaves, an eccentric shaft arranged in the drum parallel to the shaft of the latter and adapted to work behind the cutters, a gear wheel connected to one end of said latter shaft outside the drum, a stationary gear wheel, concentric with the drum shaft, secured to the frame so as to mesh with the wheel of the eccentric shaft and turn the latter, and tines connected to said eccentric shaft operating through said drum slots after the cutters have been in operation and discharged the open sheaves from the chute.

4. A sheaf opener, comprising a frame, a chute arranged in said frame for the reception of the sheaves, a revolving drum mounted in the frame above the chute and having a longitudinal slot therein, a rod suspended by links in said drum parallel to the drum shaft, means for raising the sheaves against the drum when the rod passes, means for reciprocating the rod, cutters and tines connected to the rod operating through said drum slot when the rod is reciprocated, the cutters being arranged so as to cut the band of the sheaves, and a revolving rake connected to the drum so as to work behind the cutters and discharge the opened sheaves from the chute.

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1,090,523. COMBINED STEAM AND COMPRESSED-AIR ENGINE. HIRAM G. FARR, Melrose, Mass. Filed Aug. 16, 1911. Serial No. 644,449. (Cl. 60—29.)



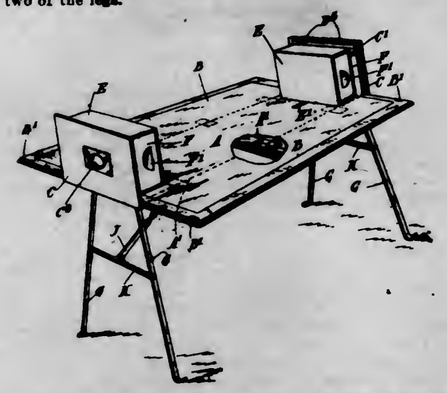
1. The combination with a steam-driven locomotive having a steam chest and a cylinder supplied thereby, of means mounted on and actuated by movements of the locomotive for storing air under compression, and connections between the stored air and the steam chest for admitting air to the chest at will independently of the steam supply, whereby the cylinder supply may be composed of either steam or air or a combination of both, said connections extending into the steam space of the locomotive whereby the air supplied to the chest will be heated.

2. The combination with a steam-driven locomotive having a steam chest and a cylinder supplied thereby, of means mounted on and actuated by movements of the locomotive for storing air under compression, and connections between the stored air and the steam chest for admitting air to the chest at will independently of the steam supply, whereby the cylinder supply may be composed of either steam or air or a combination of both, said connections extending into the steam space of the locomotive whereby the air supplied to the chest will be heated, the connections outlet being at the steam entrance to the steam chest to provide a mixture where air and steam are used in combination.

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1,090,524. CONVERTIBLE CABINET, CASE, OR THE LIKE. JOHN HENRY FAULKNER, London, England. Filed July 7, 1911. Serial No. 637,317. (Cl. 45—116.)

1. A combined box and table comprising a sectional table top, the members of which are adapted to be adjusted to form opposite sides and bottom of a box-like case or to be arranged in horizontal alinement, legs pivotally connected with the member constituting the bottom of the box to fold against the outer surface thereof, stays pivotally connected to the same member, and struts pivotally connected to the stays whereby they may extend parallel with the stays or transversely thereof, each strut when in the last said position being adapted to engage two of the legs.

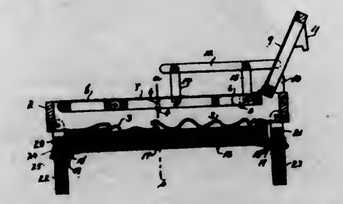


2. A combined box, table and seat comprising a member which constitutes the bottom of the box and midsection of the table top, two members hinged to opposite edges of the first said member and adapted to be adjusted into horizontal alinement therewith to form a table top or into position at an angle thereto to form sides of the box, legs pivotally connected with and adapted to fold against the lower face of the member constituting the bottom of the box, a lid or cover for the box, and legs connected with and adapted to fold against the inner face of the lid.

3. A combined box and table comprising a sectional table top having its members connected so that they may be adjusted to form opposite sides and the bottom of a box or be held in horizontal alinement, legs pivotally connected with and adapted to fold beneath the member forming the bottom of the box, stays similarly connected with said member, a strut connected with each stay by means permitting it to be turned into alinement with or at right angles to the stay, the ends of each strut being reduced and adapted to enter apertures in two of the legs when the latter are positioned for use and the strut extends at right angles to its supporting stay.

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1,090,525. LIFE-SAVING STEAMER-CHAIR. LOUIS FERRY, UMBERTO MOSCARIELLO, and RAFFAELE AMODIO, Derby, Conn. Filed Sept. 26, 1913. Serial No. 791,925. (Cl. 9—12.)

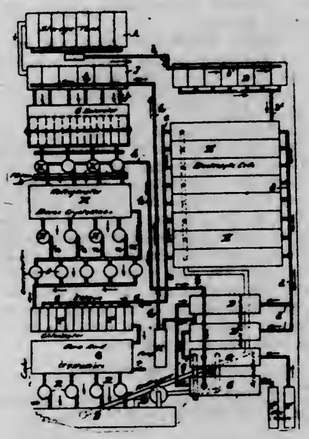


1. A life-saving steamer chair comprising a rectangular frame, transverse bars detachably connected therewith, a seat adapted to rest upon said bars, a back-rest hinged to said seat, a flexible bottom connected with the frame, wings hinged to opposite sides of the frame and adapted to be folded inward one beneath the other, legs hinged to opposite ends of the frame, and feet hinged to the legs and adapted to be folded beneath said wings, said wings and legs also adapted to be opened outward beyond said frame.

2. A life-saving steamer chair comprising a rectangular frame, a foot-piece hinged within said frame, a seat hinged to said foot-piece, a back hinged to said seat, said back formed with lugs adapted to rest upon the upper edge of the frame, a flexible bottom connected with the lower edge of the frame, wings connected with opposite sides of the frame and adapted to be folded inward one beneath the other, legs pivoted to opposite ends of the frame, feet hinged to said legs and adapted to be folded beneath the wings, said legs and wings adapted to be opened outward beyond the edges of said frame.

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1,090,526. MANUFACTURE OF BORAX AND BORIC ACID. ERNEST LAREMONT FLEMING, Chester, England. Filed July 10, 1911. Serial No. 637,762. (Cl. 23—13.)



A process of producing borax, boric acid and sodium chlorate, which comprises reacting upon a borate of an alkaline earth metal with a solution of a carbonate, separating a fraction of the borax from the resulting solution by crystallization, concentrating the mother liquor still containing borax to produce a hot concentrated solution of borax, treating said hot solution with chlorin gas, and thereafter separately crystallizing boric acid and sodium chlorate from said liquor.

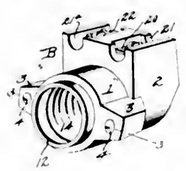
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1,090,527. CAP AND SHELL FASTENING FOR LAMP-SOCKET CASINGS. EDGAR H. FREEMAN, Trenton, N. J. Filed Apr. 11, 1912. Serial No. 689,967. (Cl. 173—362.)



A cap and shell fastening for lamp socket casings comprising, in combination, a cap member provided with a plurality of equidistant lugs, a shell member provided with a plurality of equidistant bayonet slots corresponding in number and spacing to said lugs, and a resilient locking tongue permanently fitted to one of said members and having an exteriorly exposed operating means, the said locking tongue being normally sprung into the mouth of one of the bayonet slots substantially flush with the edges thereof.

1,090,528. ELECTRICAL BORDER-LIGHT RECEPTACLE. EDGAR H. FREEMAN, Trenton, N. J., assignor to E. H. Freeman Electric Company, Trenton, N. J., a Corporation of New Jersey. Filed Aug. 22, 1913. Serial No. 786,152. (Cl. 173—339.)



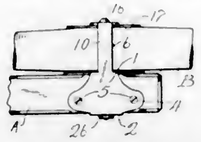
1. An electrical border-light receptacle comprising a body formed with integral right angularly disposed members, one of which members is provided with a socket for the lamp plug, and the other of which members is provided with line wire grooves disposed wholly at one side of the socket member and arranged parallel with the longitudinal axis thereof.

2. An electrical border-light receptacle comprising a substantially L-shaped body including a socket member carrying the plug contacts, and a wiring base projecting from the socket member at substantially right angles thereto and carrying the line wire terminals, said base being provided in its exposed end with a pair of line wire grooves disposed substantially parallel with the longitudinal axis of the socket member.

3. An electrical border-light receptacle comprising a receptacle body including a socket member carrying the plug contacts, and an integral solid wiring base projecting to one side of the socket member at substantially right angles thereto, said wiring base carrying the line wire terminals and provided with line wire grooves disposed substantially parallel with the longitudinal axis of the socket member, and angle connector plates seated in said base and having metallic connections respectively with the line wire terminals and with the plug contacts.

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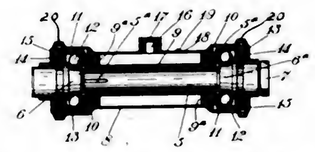
1,090,529. CLEVIS. CARL A. GORDER, Belgrade, Minn. Filed Oct. 25, 1913. Serial No. 797,306. (Cl. 21—78.)



1. A device of the character described including a plate provided with securing means, a frame carried by such plate, a substantially U-shaped frame positioned within and movable through the first named frame, a barrel carried by the outer face of the base of said U-shaped frame, and a pintle carried by the first named frame and directed through the barrel whereby said U-shaped frame is pivotally supported relatively to the main frame, the adjacent wall of the main frame being provided with a channel to accommodate the barrel.

2. A device of the character described including a plate provided with securing means, a frame carried by such plate, a substantially U-shaped frame positioned within and movable through the first named frame, a barrel carried by the outer face of the base of said U-shaped frame, and a pintle carried by the first named frame and directed through the barrel whereby said U-shaped frame is pivotally supported relatively to the main frame, the adjacent wall of the main frame being provided with a channel to accommodate the barrel, the marginal portions of such wall of the first frame to either side of the channel being disposed in outwardly diverging planes with which the base of the U-shaped frame is adapted to contact.

1,090,530. LUBRICATING VEHICLE-HUBS. WILLIAM J. GRUBE, Delaware, Ohio. Filed Apr. 27, 1912. Serial No. 693,628. (Cl. 64—27.)



1. Means for lubricating hubs comprising, in combination, a hub shell, an axle sleeve, a spool-shaped member forming in conjunction with the hub shell a lubricant reservoir between said hub shell and axle sleeve, and an absorbent member on the end of said sleeve beyond the head of the spool and externally of the lubricant chamber to take lubricant from the reservoir, said axle sleeve provided with a duct for taking lubricant from said absorbent member.

2. Means for lubricating hubs comprising, in combination, a hub shell, an axle sleeve, a headed spool-shaped member forming in conjunction with the hub shell a lubricant reservoir between said hub shell and the axle sleeve, a head of said spool-shaped member provided with an oil duct, and an absorbent member on the end of said sleeve beyond the head of the spool and externally of the lubricant chamber to take lubricant from the reservoir, said axle sleeve provided with a duct for taking lubricant from said absorbent member.

3. Means for lubricating hubs comprising, in combination, a hub shell, an axle sleeve, a spool-shaped member forming in conjunction with the hub shell a lubricant reservoir between said hub shell and axle sleeve, and an absorbent member on the end of said sleeve beyond the head of the spool and externally of the lubricant chamber to take lubricant from the reservoir, said axle sleeve provided with a duct extending to the opposite faces of said absorbent member.

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1,090,531. SHINGLE FOR REPAIRING OLD OR LEAKY ROOFS. RICHARD B. HALL, Fairton, N. J. Filed Oct. 22, 1913. Serial No. 796,603. (Cl. 108—17.)



A sheet metal shingle for repairing leaky shingle roofs, the said sheet metal shingle being in the form of a hollow shell adapted to fit over the projecting ends of a series of shingles, the said shell being provided with grooves or depressions corresponding to and fitting between the joints between the wooden shingles being covered.

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1,090,532. MOTOR-CYCLE OIL-TANK. WILLIAM S. HARLEY, Milwaukee, Wis. Filed Apr. 10, 1913. Serial No. 760,205. (Cl. 21—90.)

1. In a motorcycle frame having upper and lower horizontally disposed reach-bars; the combination of an oil reservoir formed from two flat, separable tank members adapted to sandwich said bars, the tank members being provided with lapped flanges that are nested over the upper reach-bar, whereby the tank members are suspended, means for securing the top flanges to the reach-bar, and other means for transversely clamping the tank members and incased reach-bars together.



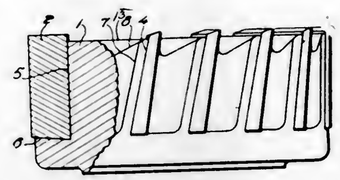
2. In a motorcycle frame having upper and lower reach-bars; the combination of an oil reservoir composed of separable tank members, flanges extending from the tank members for engagement with the upper reach-bar, means for securing the flanges to said reach-bar, an offset pocket extending from one of the tank members between the reach-bars, and means for transversely clamping the tank members to the incased bars.

3. In a motorcycle frame having upper and lower horizontally disposed reach-bars; the combination of an oil reservoir formed from duplicate flat separable tank members adapted to sandwich said bars, the tank members being provided with lapped flanges that are nested over the upper reach-bar, whereby the tank members are suspended, means for securing the top flanges to the reach-bar, ears extending from the tank members below the bottom reach-bar, and clamping bolts connecting the ears.

4. In a motorcycle frame having an upper and lower horizontally disposed reach-bar; the combination of a pair of flat, separable tank members incasing the reach-bars the same being duplicates in their exterior outlines, one of said tank members being provided with an offset pocket between the bars, and means for securing the tank members to the bars.

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1,090,533. METHOD OF JOINING MATERIALS. CHRISTIAN F. HEINKEL, Cleveland, Ohio. Filed Mar. 22, 1910. Serial No. 550,953. (Cl. 22—206.)

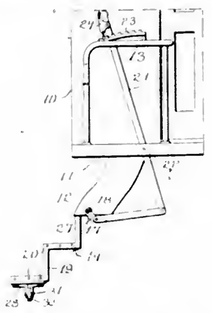


The method of forming a composite casting consisting in spacing in a mold and at the periphery thereof a series of hardened inserts having wedge-shaped sections in two planes substantially at right angles to each other, positioning them to present their bases toward the interior of the casting to firmly seat them in the surrounding metal, proportioning the space filled by the surrounding metal to confine its bulk and limit its heating effect upon the inserts, casting a softer metal around the inserts and cooling the casting before the heat of the cast-in metal anneals the inserts.

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1,090,534. CAR-STEP. GEORGE W. HERSEY, Loggieville, New Brunswick, Canada. Filed Oct. 11, 1912. Serial No. 725,216. (Cl. 105—86.)

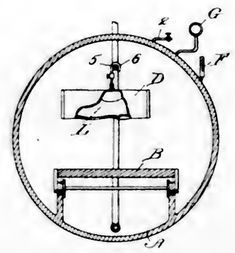
The combination with the stationary step section of a car; of an extension step section pivoted thereto, said extension section comprising spaced side rails and tread rails connecting the same, pivots extending through the adjacent portions of the stationary step and the side members of the extension steps, a lever pivotally mounted and having link connection with the extension step near its pivot, said connection including an arcuate arm, means for holding the lever in an adjusted position, a frame secured to the lowermost of the extension steps and having a depressed portion, wheels mounted therein and shafts engaged



through said depressed portions to rotatable support the wheels.

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1,090,535. PROCESS OF VULCANIZATION. WILLIAM G. HILL, Hudson, Mass., assignor to Apsley Rubber Company, Hudson, Mass., a Corporation of Massachusetts. Filed Feb. 12, 1913. Serial No. 747,898. (Cl. 18—53.)



1. The herein described process of vulcanizing rubber articles which consists in placing an article of unvulcanized rubber, in soft condition, on a form, inclosing the form with the article thereon in an impervious bag-like flexible envelop which will exclude all air or steam, so that no air except what may be naturally contained within the envelop can come in contact with said article, placing the inclosed article in a vulcanizing chamber, and then submitting said article in said chamber to pressure and heat by means of a heated fluid, and maintaining the heat and pressure for a time sufficient to vulcanize the article.

2. The herein described process of vulcanizing rubber boots or shoes which consists in placing a boot or shoe of unvulcanized rubber, in soft condition, on a last, inclosing the last with the boot or shoe thereon in an impervious flexible envelop which will exclude air or steam, to avoid oxidation, placing the inclosed boot or shoe in a vulcanizing chamber, and then submitting said boot or shoe in said chamber to the simultaneous action of heat and pressure by a fluid heated to a vulcanizing temperature, and maintaining the heat and pressure for a time sufficient to vulcanize the boot or shoe.

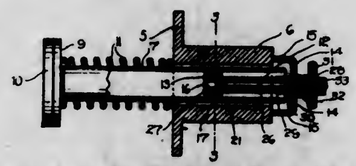
3. The herein described process of vulcanizing rubber articles which consists in placing an article of unvulcanized rubber, in soft condition, on a form, inclosing the form with the article thereon in an impervious flexible envelop which will exclude air or steam, removing the excess of air from the envelop to avoid oxidation, placing the inclosed article in a vulcanizing chamber, and then submitting said article in said chamber to the simultaneous action of heat and pressure by a fluid heated to a vulcanizing temperature, and maintaining the heat and pressure for a time sufficient to vulcanize the article.

1,090,536. ACTUATING MEANS FOR THE HEDDLE-FRAMES OF WEAVING-LOOMS. FERNAND HOUCET, Verviers, and LOUIS RAHIER, Ensival-Verviers, Belgium, assignors to Société Anonyme Vervietoise pour la Construction de Machines, Verviers, Belgium. Filed Nov. 25, 1911. Serial No. 662,385. (Cl. 139—79.)



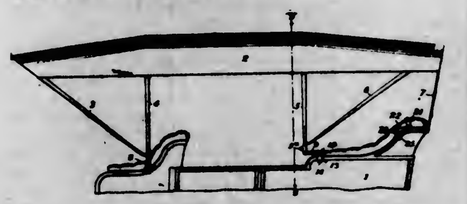
In an actuating mechanism for heddle-frames of weaving looms, in combination with a heddle-frame, a lower shaft for said heddle frame, an actuating bar, connecting members between the lower shaft of the heddle frame and the actuating bar, said members comprising two parts, one fixed to the heddle-frame and the other on the actuating bar, each of said parts being provided with a projection and recess, and means including a rack and toothed wheel drive for actuating said bar, substantially as described.

1,090,537. PISTON-HOLDING TOOL. JEROME A. HOUSTON, Springfield, Mo. Filed Apr. 19, 1913. Serial No. 762,441. (Cl. 29—87.1.)



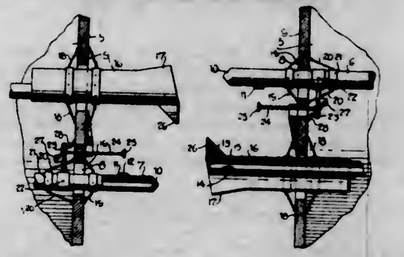
A tool of the character described comprising a stock having oppositely disposed arms formed upon one end, the extremities of such arms being extended in parallel relation to the stock body, the opposite extremity of such stock being provided with radially disposed openings, the upper walls of which being offset to afford shoulders, a spindle longitudinally movable in the stock, radially movable gripping bits mounted in the radial openings of the stock and having extended portions adjacent their inner ends adapted to contact with the shoulders within the radial openings whereby outward movement of such bits is limited, such spindle and bits being provided with coacting means whereby movement of the spindle in one direction serves to force the bits outwardly, means coacting with the spindle exteriorly of the stock for imparting reciprocal movement to the spindle, and coacting means carried by the stock and the spindle for holding the spindle against axial rotation and limiting the endwise movement of the spindle.

1,090,538. FOLDING-TOP-SUPPORT BRACKET. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 26, 1907. Serial No. 364,722. (Cl. 21—62.)



The combination with a vehicle body, of a folding top including a frame consisting of suitable bows and front and rear supports for said bows, the rear bow supports each comprising a pivotally mounted arm adapted to be adjusted to extend forwardly, rearwardly or upwardly from its pivotal point, and means for locking said arm in any of said positions, said arms extending rearwardly when the top is in folded position.

1,090,539. TRAIN-PIPE COUPLING. JOHN C. HUNT and JOSEPH L. MCKENNA, Henry, Colo. Filed Aug. 27, 1913. Serial No. 786,978. (Cl. 188—13.)



1. The combination with the pipe sections adapted to be coupled together, of a tube fixed to one of said pipe sections, said pipe section being eccentrically disposed within the tube, said pipe sections having ports adapted to register with each other when the pipe sections are coupled together, a valve arranged in the other pipe section, operating means for said valve including a longitudinally movable member, and means fixed to the end of the tube to engage said member and actuate the same when the pipe sections are coupled together.

2. The combination with the pipe sections, of a metal tube, one of said pipe sections being eccentrically disposed within the tube and secured thereto, said tube having a flared end the other of said pipe sections being adapted to engage the flared end of the tube and enter the same, said pipe sections being provided with ports adapted to register with each other when the sections are coupled together, a valve arranged in the other of said pipe sections, an arm fixed to the stem of the valve, a longitudinally movable member connected to said arm, means fixed upon said tube on the other pipe section to engage said rod and actuate the same to open the valve when the pipe sections are coupled, and a spring acting to close said valve when the pipe sections are uncoupled.

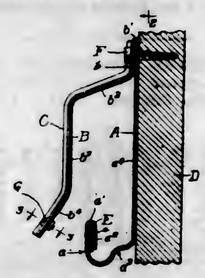
3. The combination with the pipe sections adapted to be coupled together, a metal tube of appreciably greater diameter than the pipe sections, one of said sections being eccentrically disposed within the tube and secured to the wall thereof, said metal tube having a flared end to provide an entrance mouth for the other pipe section, said flared end of the tube being provided with a wall extending across and closing the end of the pipe section which is arranged therein, said latter pipe section frictionally engaging the first named pipe section and the wall of the metal tube at a point opposite thereto, each of said pipe sections having a port, said ports registering with each other when the pipe sections are coupled together.

1,090,540. BARN-DOOR TRACK. WILLIAM F. JACOBS, Ottawa, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Filed Feb. 15, 1913. Serial No. 748,548. (Cl. 16—7.)

1. A door hanger supporting track, comprising sheet metal sectional track members adapted to be secured to the wall of a building, each of said track members being provided with an upright track portion the margin of which being folded upon itself to provide a space between the folded parts; the upwardly facing surface formed by the fold constituting the tread of the track, and a joint plate inserted within the spaces between said folded parts at the ends of said track members, and said joint plate being secured to at least one of said track members.

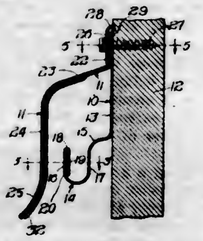
2. In a door-hanger supporting track, the combination with a hood member, of sheet metal sectional track members adapted to be secured in abutting relation at their ends to the wall of a building, each of said track members having its lower portion bent outwardly and upwardly, and having the vertical marginal portion thereof bent inwardly and downwardly upon itself, there being formed a space between the adjacent surfaces of said vertical folded parts, and a joint for said track members comprising plates inserted in the spaces between the said folded parts and at the abutting ends of said track members, and means for securing said joint plates.





3. In a door-hanger supporting track, the combination with a hood member, of sheet metal sectional track members adapted to be secured in abutting relation at their ends to the wall of a building, each of said track members having its lower portion bent outwardly and upwardly, and having the vertical marginal portion thereof bent inwardly and downwardly upon itself, there being formed a space between the adjacent surfaces of the vertical folded parts, and a joint for said track members comprising joint plates inserted in the spaces between the said folded parts and at the abutting ends of said track members, said plates being provided with apertures into which the metal of one of the track members is pressed to rigidly hold the joint plate in position.

1,090,541. BARN-DOOR TRACK. WILLIAM F. JACOBS, Ottawa, Ill., assignor to J. E. Porter Company, Ottawa, Ill., a Corporation of Illinois. Original application filed Feb. 15, 1913, Serial No. 748,548. Divided and this application filed Aug. 21, 1913. Serial No. 785,831. (Cl. 16—7.)



1. A barn door track structure comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having a portion in contact with the wall and supporting the track portion, said portion in contact with the wall having its upper marginal portion folded upon itself to permit a fold of metal at its upper edge, and a hood secured to said track member.

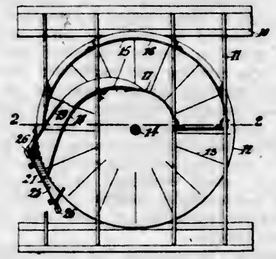
2. A barn door track structure, comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having its upper marginal portion folded upon itself to provide a fold of metal at its upper edge, said fold of metal at the upper edge of said track member being bent inwardly and adapted to be embedded in said wall, and a hood secured to said track member.

3. A barn door track structure, comprising a sheet metal track member adapted to be secured to the wall of a building, said track member having its upper marginal portion folded upon itself outwardly and downwardly to provide a vertical space between such folded parts, a hood for said track member having its upper portion inserted in said vertical space, and means for securing said track and hood members to the wall.

4. A barn door track structure comprising sheet metal track and hood members adapted to be secured to the wall of a building, one of said members having its upper marginal portion bent upon itself to provide a vertical space between said folded parts, the other of said members having its upper portion inserted in said vertical space, and means for securing said track and hood members to the wall.

5. A barn door track structure comprising sheet metal track and hood members adapted to be secured to the wall of a building, one of said members having its upper marginal portion folded upon itself to provide a fold of metal at the upper edge, said fold of metal being bent inwardly and adapted to be embedded in said wall, the other of said members having its upper part inserted between said folded parts, and means for securing said track and hood members to the wall.

1,090,542. CLAY-CLEANER. BERNARD JACQUART, South River, N. J., and JOHN V. V. BOORAEM, New York, N. Y. Filed Dec. 2, 1912. Serial No. 734,473. (Cl. 83—6.)



1. In a clay cleaner, a hopper having an involute end-wall in proximity to the knives, and an auxiliary wall involute to said first wall in advance thereof and having its lower edge below the plane of the top of the material in the hopper, and distant from the knives to permit the passage of pebbles therebetween, whereby the material in the space between the walls is protected from the weight of the material in the main portion of the hopper.

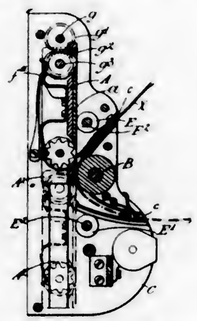
2. In a clay cleaner, a hopper having an end wall in proximity to the knives, an auxiliary wall having its lowermost end distant from the knives, said hopper and auxiliary wall forming a space-chamber therebetween, an extension plate adapted to receive the material discharged from the chamber, and a vertically-movable door permitting the discharge of the material on the plate.

3. In a clay cleaner, a carrier with knives, provided with an extension at its periphery, a hopper having a chamber for pebbles and uncut material, a discharge plate extending below the extension of the carrier, and a vertically-movable door adjustable in relation to the plate for varying the discharge of the material from the chamber and plate.

1,090,543. TICKET PRINTING AND ISSUING MACHINE. ALFRED JAMES JUNG, Kensington West, London, England. Filed Feb. 21, 1911. Serial No. 610,111. (Cl. 101—187.)

1. In a machine for printing and issuing single or separate tickets, the combination of a reciprocating type carrying member, an impression member adapted to coöperate with the type carrying member, means for reciprocating the type carrying member, a casing inclosing said parts and having apertures for the admission of ticket blanks and the discharge of printed tickets arranged respectively at opposite sides of the impression member, the

latter and the type carrying member being so related that a single movement thereof in one direction will feed a blank to printing position, print such blank, and deliver it as a printed ticket, and means for preventing retrograde movement of the type carrying member after a blank has been engaged thereby until said blank has been completely printed.



2. In a machine for printing and issuing single or separate tickets the combination with a fixed type carrying member movable in single plane, an impression member coöperating therewith to draw in, print, and deliver a ticket by a single or simple movement and means for moving the type carrying and impression members, of a movable type carrying member mounted on the fixed type carrying member, stationary means for adjusting the movable type carrying member, means for automatically connecting the adjusting means and type carrying member when the type carrying member is in one position only and means controlled by the type carrying member for automatically locking the adjusting means against operation when out of gear with the movable type carrying member.

3. In a machine for printing and issuing single tickets, the combination with a fixed type carrying member movable to and fro in a single plane, a movable type carrying member mounted to travel with the fixed type carrying member, an impression member coöperating with the fixed type carrying member to draw in, print, and deliver a ticket by a single or simple movement, and means for moving the type carrying and impression members, of stationary means for adjusting the movable type carrying member, means for automatically connecting the adjusting means with the movable type carrying member, in one position only of the fixed type carrying member, means for automatically locking the type carrying member against return movement until a ticket has been printed, and means for automatically locking the adjusting means against operation when out of gear with the movable type carrying member.

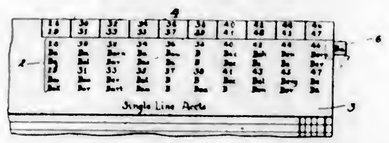
4. In a machine for printing and issuing single or separate tickets, the combination of a casing provided with apertures adapted respectively for the admission of blanks to the printing devices and the discharge of printed tickets, a reciprocating type carrying member mounted within the casing, and provided with relatively fixed and adjustable type, or printing surfaces, an impression member within the casing adapted to coöperate with the type-carrying member so that a single movement of the latter in one direction will feed a blank, inserted through the proper opening in the casing, to printing position, print and deliver a complete ticket to the discharge opening, means for actuating the type-carrying and impression members, means for adjusting the adjustable type of the type-carrying member when said member is stationary at the limit of its movement in one direction, said means being rendered inoperative as the type carrying member moves from such position, and means insuring a complete reciprocation of the type carrying member at each actuation of the machine.

5. In a machine for printing and issuing single or separate tickets, the combination with a type carrying plate, guides in which the plate moves to and fro in a single plane, an impression roller, a handle, gearing between the handle the plate and the roller, a type drum mounted on the plate, an adjusting handle therefor, a gear wheel on the drum a gear wheel on the handle and adapted to engage the drum gear wheel in one position only of the plate, a spring controlled catch, and means on the plate for disengaging said catch from the handle gear wheel.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,544. INDEXED LEDGER OR OTHER BOOK. SIMEON B. KIRTLEY, Columbia, Mo. Filed Nov. 23, 1909. Serial No. 529,589. (Cl. 11—7.)




1. A book including a group of leaves numbered and arranged in sets and cut away along one edge so as to leave exposed portions in a stepped series and having on said exposed portions page-indicating characters, and a separate index for each set of leaves, the index being sub-divided, and the characters thereof being arranged in rows which are respectively separated into sets, each set of characters being designated by the number of the page of the book to which the subjects indexed by such characters are assigned.

2. A book including a group of leaves arranged in sets which are cut away along one edge to leave exposed portions in stepped series and having on said exposed portions page-indicating characters, a separate index for each set of leaves appearing upon the uppermost leaf of the set and alphabetically sub-divided, the index being reproduced upon each of the sheets of the set to which it relates to facilitate consecutive posting.

3. A book including a group of leaves arranged in sets which are cut away along one edge so as to leave exposed portions arranged in stepped series and having on said exposed portions page-indicating characters, a separate index for each set of leaves appearing upon the uppermost leaf of the set, and extra leaves for long accounts arranged next to the page to which the account is first assigned and which page is referred to in the index, the supplemental leaves being cut away to leave portions thereof exposed in a stepped series, the cuts of the said supplemental leaves extending back to a greater extent than the cuts of either of the leaves between which they are placed.

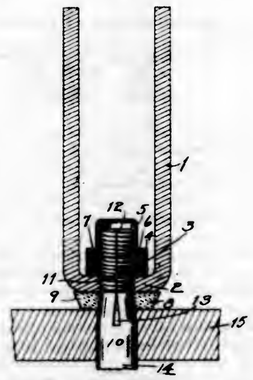
4. A book including a group of leaves arranged in sets, the leaves of a set being cut away along one edge so as to leave portions thereof exposed in a stepped series, and having on the exposed portions page-indicating characters, and a separate index for each set of leaves, the index being subdivided and the characters thereof being arranged in a series and respectively separated into sets, each set of characters of the index being designated by the page-indicating character of the book to which the subjects indexed by such characters are assigned.

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1,090,545. HANGER-SOCKET. FRANK N. KNEAS, Norristown, Pa. Filed Jan. 27, 1910. Serial No. 540,374. (Cl. 72—101.)

1. In a device of the character stated an apertured flat base, a threaded socket resting thereon, upwardly extending spaced wings, separated throughout their lengths, attached to the outer edges of the said base, said base being wider than the socket so that the wings are spaced beyond the socket, permitting plastic material to surround the socket and engage with the inner faces of the wings, a pin passing through the aperture of the base, engaging the socket and passing above the socket to core the material within which the device is placed, and means upon the lower portion of the pin adapted to engage with a mold board.



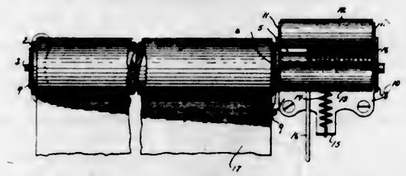


2. In a device of the character stated, an apertured flat base, a threaded socket resting thereon, upwardly extending spaced wings, separated throughout their lengths, attached to the outer edges of the said base, said base being wider than the socket so that the wings are spaced beyond the socket permitting plastic material to surround the socket and engage with the inner portions of the wings, and a cap carried by and entering a recess in the upper part of the socket and secured to the socket by the engagement with the inner walls of the recess.

3. In a device of the character stated, an apertured flat base, a threaded socket resting thereon and having its upper surface exposed, upwardly extending spaced wings, separated throughout their lengths, attached to the outer edges of the said base, said base being wider than the socket so that the wings are spaced beyond the socket permitting plastic material to surround the socket and engage with the inner faces of the wings, a pin passing through the aperture of the base, engaging the socket, and means upon the lower portion of the pin adapted to engage with a mold board.

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1,090,546. WINDOW-SHADE FIXTURE. ANTON C. KUBLA, Meriden, Conn. Filed Oct. 13, 1913. Serial No. 794,847. (Cl. 156—34.)

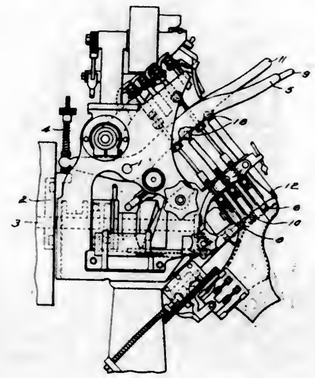


A window shade fixture comprising a roller, a drum projecting beyond one end thereof, a bracket formed with two outwardly projecting arms between which the drum is supported, a yoke pivotally connected with said arms, two rollers carried by said yoke parallel with said drum, a spring connected with said yoke and with said bracket, and a cord connected at one end to said drum.

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1,090,547. LASTING-MACHINE. EUCLID I. LA CHAPELLE, Beverly, Mass. Filed Mar. 21, 1913. Serial No. 755,900. (Cl. 12—4.)

1. A lasting machine, having, in combination, a set of grippers adapted to be positioned at opposite sides of a last, to pull the work on the last, additional grippers adapted to be positioned at opposite sides of the last to pull the work on the last, means at one side of the last to support the grippers included in the set of grippers, independently of the grippers included in the additional grippers at that side of the last, means at the opposite side of the last to support the grippers included in the set of grippers independently of the grippers included in the additional grippers at that side of the last, and means to permit positive predetermination of the time of action of the set of grippers relatively to the time of action of the additional grippers.



2. A lasting machine, having, in combination, a toe-end gripper 12, having moving lever 11, lining grippers 10, having moving levers 9, upper grippers 8, having moving levers 7, grippers 6, to engage and pull both the upper and the lining, having moving levers 5, direct connections between the grippers 12 and 10 and their coöperating moving levers, and adjustable collars 22, to allow lost motion between the grippers 8 and 6 and their coöperating moving levers.

3. A lasting machine, having, in combination, grippers adapted to be positioned at opposite sides of a last to engage an upper on the last grippers adapted to be positioned at opposite sides of the last to engage the lining and grippers adapted to be positioned at opposite sides of the last to engage the upper and the lining collectively, means at one side of the last to support the upper engaging grippers independently of the lining engaging grippers at that side of the last, means at the opposite side of the last to support the upper engaging grippers independently of the lining engaging grippers at that side of the last, and independent means to permit variation of the time of action of the grippers.

4. A lasting machine, having, in combination, grippers adapted to be positioned at opposite sides of a last, to engage an upper on the last, grippers adapted to be positioned at opposite sides of the last to engage the lining, grippers adapted to be positioned at opposite sides of the last to engage collectively the lining and the upper, means at one side of the last to support the upper engaging grippers independently of the lining engaging grippers at that side of the last, means at the opposite side of the last to support the upper engaging grippers independently of the lining engaging grippers at that side of the last, and means to permit movements firstly, of the grippers engaging collectively the lining and the upper; secondly, of the grippers engaging the lining; and thirdly, of the grippers engaging the upper.

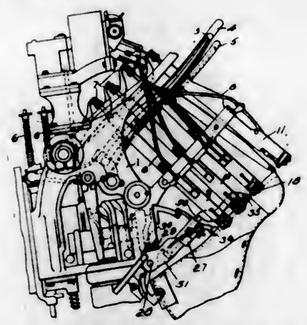
5. A lasting machine, having, in combination, one set of grippers adapted to be positioned at opposite sides of a last, to engage and pull an upper on the last, one set of grippers adapted to be positioned at opposite sides of the last to engage and pull the lining, means at one side of the last to support the upper grippers independently of the lining grippers at that side of the last, means at the opposite side of the last, to support the upper grippers

independently of the lining grippers at that side of the last, and means to permit greater pulling force to one set of grippers than to the remainder of the sets of grippers.

[Claims 6 to 24 not printed in the Gazette.]

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1,090,548. LASTING-MACHINE. EUCLID I. LA CHAPELLE, Beverly, Mass. Filed Sept. 11, 1913. Serial No. 789,286. (Cl. 12—4.)



1. A lasting machine, having, in combination, grippers adapted to engage an upper on a last, and automatic power actuated means to move the last intermittently into the upper during the time the upper is engaged by the grippers.

2. A lasting machine, having, in combination, grippers adapted to be positioned at opposite sides of a last to pull an upper on the last, means to actuate the said grippers, and means, under control of the operator, whereby the pulling action of the said grippers at one side of the last may be stopped by friction against the pulling action of the said grippers at the opposite side of the last.

3. A lasting machine, having, in combination, grippers adapted to pull an upper on a last, means to actuate the said grippers, means to force the last into the upper, and automatic means to vary successively the lateral angle of the last relatively to the plane of the grippers during the time the last is being forced into the upper.

4. A lasting machine, having, in combination, grippers adapted to engage an upper on a last, means, under control of the operator, whereby the grippers may be moved toward and from the last to work the upper on the last, and additional means, under control of the operator, whereby some of the grippers may be held from movement in either direction, substantially as described.

5. A lasting machine, having, in combination, grippers adapted to be positioned at opposite sides of a last to pull an upper on the last, means to actuate the grippers, and means, under control of the operator, for frictionally retarding the pulling action of the grippers.

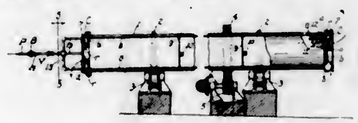
[Claims 6 to 21 not printed in the Gazette.]

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1,090,549. ORE-COOLER. FREDERICK LAIST, Anaconda, Mont. Filed Nov. 8, 1913. Serial No. 799,907. (Cl. 75—138.)

1. In combination with a vessel traversable by a charge of hot material and provided with intake and discharge means, means rigidly coupled to one end of the vessel and interposed in the path of traverse of the material, for conducting a cooling medium through the vessel, the walls and the opposite end of the vessel being free from the means traversed by the cooling medium, whereby the vessel is free to expand and contract under variations in temperature.

2. In combination with a rotatable open-ended tube having a feed and discharge end and traversable by a charge of hot material, a water-head at the discharge end of the tube, circulating pipes leading from and rigidly connected at one end to, said water-head on the inside of the tube and free from the tube walls and from the feed end of the tube, the said pipes discharging at points adjacent to the feed end of the tube, the latter being free to expand and contract under variations of temperature without affecting the circulating pipes.



3. In combination with a rotatable open-ended tube having a feed and discharge end and traversable by a charge of hot material, a chambered member at the discharge end of the tube, means for supplying a cooling medium to the chamber of said member, circulating pipes leading from and rigidly connected at one end to, said chambered member on the inside of the tube and free from the tube walls and from the feed end of the tube, the said pipes discharging at points adjacent to the feed end of the tube, the latter being free to expand and contract under variations of temperature.

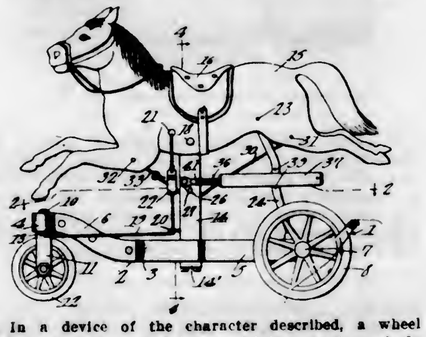
4. In combination with a rotatable tube traversed by a charge of hot material and provided with an intake and discharge for said material, a chambered member at the discharge end of the tube, means outside the tube for introducing a cooling medium into said chamber, circulating pipes leading from the chamber on the inside of the tube, for conducting the cooling medium to the opposite end of the tube, a chambered member coupled to the discharge ends of the pipes and provided with discharge means, said last mentioned chambered member and the pipes being free from the walls of the tube whereby the latter may freely expand and contract under variations in temperature.

5. In combination with a rotatable open-ended tube having a feed and discharge end and traversable by a charge of hot material, a chambered member at the discharge end of the tube, means for supplying a cooling medium to the chamber of said member, circulating pipes leading from and rigidly connected at one end to said chambered member on the inside of the tube and free from the tube walls and from the feed end of the tube, a chambered member free from the feed end of the tube, into which said circulating pipes discharge, said last named chambered member being provided with discharge means for the cooling medium, the tube being free to expand and contract under variations of temperature.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,550. HOBBY-HORSE VELOCIPEDE. BERT E. LAMKIN, Springfield, Ill., assignor of one-half to Robert G. Osten, Springfield, Ill. Filed July 21, 1913. Serial No. 780,247. (Cl. 208—30.)



1. In a device of the character described, a wheel mounted carriage embodying a driving crank, a body mounted for rocking movements upon the carriage, a pitman connecting the said body and crank, and means operated by the said body and operatively connected to the said pitman for throwing the same beyond its points of dead center.

2. In a device of the character described, a wheel mounted carriage including a driving crank, a body mounted for rocking movements upon the carriage, a pitman connecting the body and crank, a reciprocatory member engaging the said pitman, and means operatively connecting the body and the said reciprocatory member for throwing the pitman past dead center at the ends of its strokes.

3. In a device of the character described, a wheel mounted carriage including a driving crank, a rocking body mounted on the carriage, a pitman connecting the body and crank, a reciprocatory member, springs carried by the said member and engaging opposite portions of the pitman, and means operatively connecting the body and reciprocatory member for forcing the respective springs against the pitman at the ends of the strokes of the pitman.

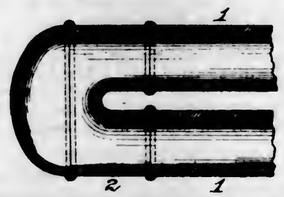
4. In a device of the character described, a wheel mounted carriage including a driving crank, a rocking body carried by the carriage, a pitman connecting the body and crank, a tubular casing having slots through which the pitman passes, springs confined within the end portions of the casing and engaging opposite portions of the pitman, and means operatively connecting the body and casing for pressing the respective springs against the pitman at the ends of the strokes of the pitman.

5. In a device of the character described, a wheel mounted carriage, including a driving crank, a rocking body mounted on the carriage, a pitman connecting the body and crank, a rocking shaft carried by the carriage and operatively connected with the body to rock therewith, and means operatively connecting the said shaft and the pitman to throw the pitman beyond dead center at the ends of its strokes.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,551. MANUFACTURE OF SUPERHEATER UNITS. COLUMBUS K. LASSITER, Richmond, Va. Original application filed June 5, 1913, Serial No. 771,852. Divided and this application filed Dec. 2, 1913. Serial No. 804,197. (Cl. 219—6.)

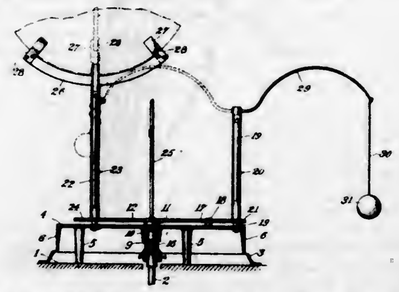


The improvement in the manufacture of superheater units which consists in forming a return bend body and a return bend cap, in separate sections having matching end surfaces, electrically welding each of the lines of pipe to a matching surface on one end of the return bend body, removing inward projections of metal at the welds by the application of a cutting tool, and thereafter electrically welding the cap section to the matching surface of the opposite end of the return bend body section.

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1,090,552. AUTOMATIC DISPLAY DEVICE. THOMAS H. MACDONALD, deceased, Bridgeport, Conn., by Sophie B. Macdonald, executrix, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Aug. 2, 1912. Serial No. 712,962. (Cl. 40—33.)

1. A display-device, comprising a base-plate adapted to be located on a talking-machine, a slotted tubular arbor journaled upon said plate and carrying a toothed-wheel located above the same, a link located within said arbor and carrying at each end a transverse pin one of which is seated in said slot, a slotted bushing detachably secured to the main shaft of said talking-machine and having its slot detachably engaged by the other transverse pin of said link, a rotatable device journaled upon said plate and driven from said toothed-wheel, means carried by said device for displaying a disk sound-record in vertical position, a second rotatable device journaled on said plate and driven from said toothed-wheel and having a transverse arm supporting from its end a flexible weighted cord to act as an escapement for the first-named rotatable device.



2. A display-device, comprising a base-plate adapted to be located on a talking-machine, an arbor journaled upon said plate and carrying a toothed-wheel located above said plate, a vertically-slidable link keyed to said arbor, means for detachably connecting said link to the main shaft of the talking-machine, a rotatable device journaled upon said plate and driven from said toothed-wheel, means carried by said device for displaying a disk sound-record in vertical position, a second rotatable device journaled upon said plate and driven from said toothed-wheel and having a transverse arm supporting from its end a flexible weighted cord to act as an escapement for the first-named rotatable device.

3. A display-device, comprising a base-plate adapted to be located on a talking-machine, an arbor journaled upon said shaft and carrying a toothed-wheel located above said plate, detachable means for rotating said arbor from the main shaft of said talking-machine and for permitting vertical movement of said arbor without disengagement from said shaft, a rotatable device journaled upon said plate and driven from said toothed-wheel, means carried by said device for displaying a disk sound-record in vertical position, and a second rotatable device journaled upon said plate and driven from said toothed-wheel and having a transverse arm supporting from its end a flexible weighted cord to act as an escapement for the first-named rotatable device.

4. A display-device, comprising a base-plate adapted to be located upon a talking machine, an arbor journaled thereon and detachably engageable with the motor of said machine, a toothed-wheel fast on said arbor, axially-adjustable means rotated from said toothed-wheel for displaying a disk sound-record in vertical position, and separate axially-adjustable means also rotated from said wheel to act as an escapement for interrupting the continuous rotation thereof.

5. A display-device, comprising a base-plate, a toothed-wheel journaled thereon and adapted to be rotated from a suitable motor, an axially-adjustable placard-holding device rotated from said toothed-wheel, and a separate axially-adjustable rotatable device driven from said wheel and sustaining a flexibly-supported weight for intermittently engaging said placard-carrying device as an escapement therefor.

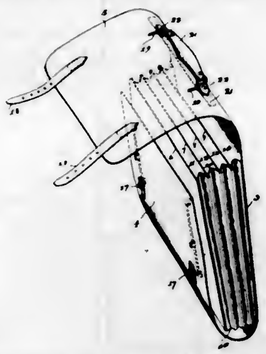
[Claim 6 not printed in the Gazette.]

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1,090,553. HAND-BAG. FRANK MASHEK, Chicago, Ill., assignor to Lloyd B. Taylor, Chicago, Ill. Filed June 15, 1912. Serial No. 703,941. (Cl. 150—30.)

A hand bag comprising a single piece of flexible material doubled upon itself and having overlapping ends, a plu-

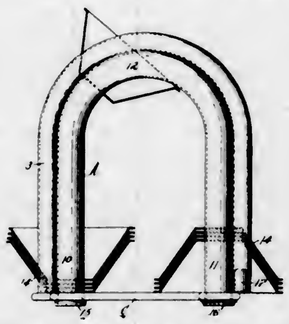
rality of laterally expansible pockets permanently secured to one side of said flexible material only and having a sliding connection with the other side thereof permitting



of the expansion of said pockets but preventing displacement thereof and means for securing the overlapping ends of said flexible material together.

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1,090,554. DEVICE FOR CLEANING SEPARATOR-DISKS. HERBERT MCCORNACK, West Chester, Pa. Filed Nov. 27, 1911. Serial No. 662,584. (Cl. 29—84.)



1. A U-shaped holder for separator disks comprising two branches spaced apart and adapted each to be engaged in the central openings of the disks for holding the disks during the cleaning operation, releasable holding means permitting the disks to be applied to and removed from one of said branches, and means for supporting the disks in an inverted position on the other branch.

2. A U-shaped holder for separator disks comprising two branches spaced apart and adapted each to be engaged in the central openings of the disks for holding the disks during the cleaning operation, releasable holding means attached to one of said arms and supporting the disks thereon in an inverted position, said holding means being adapted to be releasably engaged with the other branch for permitting the disks to be applied to said branch, to support the disks thereon during the cleaning operation and to permit the disks to be removed.

3. A U-shaped holder for separator disks comprising two branches spaced apart and adapted each to be engaged in the central openings of the disks for holding the disks during the cleaning operation, and a retaining device pivotally attached to one of said branches and adapted to be engaged with or disengaged from the other branch.

4. A holder for separator disks comprising two branches spaced apart to hold each a series of disks separately, and a curved portion which connects said branches and enables the disks to be moved along the holder from one branch to the other, said holder being adapted to pass through the central openings of the disks and being provided on its outer side with a longitudinal registering rib which engages in notches in the disks, substantially as set forth.

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1,090,555. INK-BOTTLE. JAMES L. MCWHORTER, La Fayette, Ga. Filed May 29, 1912. Serial No. 700,438. (Cl. 120—61.)



1. In an ink bottle, the combination with a receptacle, of a tube or casing extending into the receptacle, a floating member guided by the tube or casing and provided with a chamber communicating with the receptacle, and depressible means within the chamber and forming a closure for the same.

2. In an ink bottle, the combination with a receptacle, of a tube extending downward into the receptacle, a floating casing guided in the tube and provided with a chamber communicating with the receptacle, and depressible means operating within the chamber and forming a closure for the same and controlling the flow of ink into the chamber.

3. In an ink bottle, the combination with a receptacle, of a stationary tube extending downward into the same, a floating casing guided in the tube and having a chamber provided with an inlet opening, and a depressible member operating within the chamber and normally forming a closure for the top of the same and adapted when depressed to form a closure for the inlet opening.

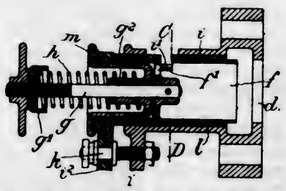
4. In an ink bottle, the combination with a receptacle, of a tube extending downward into the same, a floating casing guided in the tube and having a chamber provided at the lower portion with an inlet opening and a float operating within the chamber and normally forming a closure at the top of the same and adapted to be depressed to form a closure for the inlet opening.

5. In an ink bottle, the combination with a receptacle, of a floating casing operating therein and having a chamber provided with an inlet and a depressible member operating within said chamber and normally forming a closure to prevent the ink from flowing from the chamber.

[Claims 6 to 21 not printed in the Gazette.]

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1,090,556. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. CHARLES JULES MÉGEVET and LUCIEN PICKER, Geneva, Switzerland. Filed Feb. 8, 1912. Serial No. 676,223. (Cl. 48—135.1.)



1. A carbureter comprising a casing having a passage therein leading from an air inlet to an inlet for an engine cylinder, a spraying nozzle in the said passage, a cylindrical valve, a sleeve valve placed concentrically on the cylindrical valve, the said valves being provided with apertures and being revolubly adjustable to regulate the available area of said apertures, and means for moving said valves together longitudinally to adjust the cylindrical valve to position to control the inlet to the said engine cylinder without changing the available area of said apertures.

2. In a carbureter and in combination, a casing having a passage therein leading from a free air inlet to an inlet for an engine cylinder, a spraying nozzle in said passage, a sleeve valve having an air inlet therein, a revoluble head seated upon the end of said sleeve valve and provided with an inturned hub having a longitudinal slot therein, a cylindrical valve slidably mounted within said sleeve valve and provided with an air inlet, a rod having one end connected to said cylindrical valve and passing through the hub on said head, a stud fixed on said rod and entering the longitudinal slot in said hub, a helical spring surrounding said rod, a nut upon the free end of said rod, one end of the said helical spring contacting with said nut, and its other end resting in a depression in the said head around its hub.

3. In a carbureter and in combination, a casing having a passage therein leading from the free air inlet to an inlet for an engine cylinder, and provided with a lug on one side, a spraying nozzle in said passage, a sleeve valve having an air inlet therein and provided with a lug corresponding with and in alinement with the said lug upon the casing, an adjusting screw connecting said lugs, a revoluble head seated upon the free end of said sleeve valve and provided with an inturned hub having a longitudinal slot therein, a cylindrical valve slidably mounted within said sleeve valve and provided with an air inlet, a rod having one end connected to said cylindrical valve and passing through the hub on said head, a stud fixed on said rod and entering the longitudinal slot in said hub, a helical spring surrounding said rod, a nut upon the free end of said rod, one end of said helical spring contacting with said nut and its other end resting in a depression in the said head around its hub.

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1,090,557. TRANSMITTER. RICHARD S. M. MITCHELL, Syracuse, N. Y., assignor to The Talking Moving Picture Co. Inc., Syracuse, N. Y., a Corporation of New York. Filed May 10, 1913. Serial No. 766,726. (Cl. 179—135.)



1. In a 3-way transmitter, the combination with the opposed solid carbon electrodes, and a vibrating diaphragm interposed between the electrodes, of a spiral resistant interposed between the diaphragm and each of said electrodes, said spiral resistants forming the electric connections between the diaphragm and said electrodes and capable of being alternately compressed and relaxed for simultaneously decreasing the resistance of one of said resistants, and for increasing the resistance of the other of said resistants.

2. In a 3-way transmitter, a pair of opposed electrodes spaced apart, a support for each electrode, a diaphragm interposed between said electrodes, a variable and resilient resistance interposed between the diaphragm and each of said electrodes and forming the electric circuit between the diaphragm and said electrodes, said resistants comprising spiral springs adapted to be compressed against the face of the electrodes for alternately decreasing the resistance of the variable resistance elements.

3. In a 3-way transmitter, the combination with a diaphragm and a solid carbon electrode disposed on each side of the diaphragm and spaced therefrom, a conductor for each electrode, a separate conductor for the diaphragm, and a pair of resilient spiral resistants, said resistants disposed on the opposite sides of the diaphragm, one end of each resistant connecting with the diaphragm, the opposite end of each resistant connecting with the corresponding electrode, the said resistants adapted to be simultaneously compressed and relaxed for increasing and decreasing the fluctuations in the transmitting lines formed by said conductors.

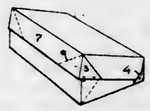
4. In a 3-way transmitter, the combination with a pair of spaced electrodes and a diaphragm interposed between said electrodes and insulated therefrom, of spiral resistants interposed between and connecting the diaphragm with each electrode, each of said resistants forming a part of an independent transmitting circuit, each of said resistants capable of being moved toward or away from the adjacent electrode for decreasing or increasing the resistance in one of said circuits, the variation in the resistance of said circuits being effected by the contact of the convolutions of said resistance with, or their release from the said electrodes.

5. In a 3-way transmitter, the combination with a pair of spaced electrodes, one being solid, the other having a series of perforations for the passage of sound-waves, of a vibrating diaphragm disposed between said electrodes, a pair of sensitive spiral springs, said springs disposed on the opposite sides of the diaphragm and connecting the diaphragm with the corresponding electrodes, and a horn for carrying the sound-waves to the perforated electrode.

[Claim 6 not printed in the Gazette.]

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1,090,558. COLLAPSIBLE BOX. GEORGE LEWELLYN MORRISON, Hudson, and ALEXANDER A. FORDON, Detroit, Mich. Filed Nov. 16, 1912. Serial No. 731,731. (Cl. 229—31.)



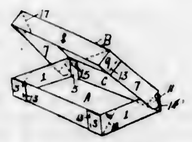
1. A collapsible box having hingedly connected bottom and cover sections, the bottom section having an obliquely disposed slit at each lower rear corner thereof and the cover section having the rear ends of its end walls free to provide corners for insertion into said slits when the cover section is closed over the bottom section.

2. A collapsible box having hingedly connected bottom and cover sections, the bottom section having the ends and rear side wall thereof connected at their ends by gussets, which gussets fold inward, at the inner sides of the end walls and are secured thereto, and said ends having their lower rear corners provided with obliquely disposed slits which are at least partially covered at their inner sides by said gussets, and the cover section having the rear ends of its end walls free to provide corners for insertion into said slits when the cover section is closed over the bottom section.

3. A collapsible box having hingedly connected bottom and cover sections in a single piece, one section having its end walls provided with oblique scorings to adapt such ends to have outward collapsing movements and the connected side walls to have inward folding movements, and the other section having its side wall provided with oblique scorings to adapt such wall to have outward collapsing movements and the end walls thereof to have inward folding movements.

4. A collapsible box having hingedly connected bottom and cover sections with the end walls of the bottom section adapted to have outward collapsing movements and the side walls of such section to have inward collapsing movements to project the hinged edge of the cover section forwardly over the bottom section, and the cover section having its front wall adapted to collapse outwardly and its end walls adapted to fold inwardly under the top of the cover section, the cover section when collapsed down upon the bottom section having its forward edge projected beyond the forward edge of the bottom section, and the bottom section having its ends projected outwardly beyond the end edges of the cover section.

1,090,559. PAPER-BOARD BOX. GEORGE L. MORRISON, Hudson, Mich., assignor to The Morrison Box Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 1, 1913. Serial No. 745,607. (Cl. 229—36.)



1. A box having hingedly connected bottom and cover sections each provided with three sides and a common fourth side, the bottom section being provided at its rear corners with pockets and the cover section being provided at its rear corners with tongues adapted to fit into said pockets when the sections are in closed relation, substantially as described.

2. A box having a common rear wall and bottom and cover sections hingedly connected thereto with the opposite side walls of the bottom section provided at their rear ends with tongues which lap and are secured to the inner side of the common rear wall of the sections and cooperate therewith to form outwardly opening rear corner pockets, and with the sides of the cover section provided at their rear ends with rearwardly projecting tongues adapted to be inserted into said pockets at an angle to the box sides when the box sections are in closed relation.

3. A single-piece paper-board box having hingedly connected bottom and cover sections each provided with a front and opposite side walls and with a common rear wall, with the bottom section provided at its rear corners with pockets which open outwardly in the plane of the rear wall and with the rear ends of the cover section side walls provided with tongues adapted to be turned at right angles to said side walls and to project into the registering corner pockets of the bottom section when the two sections are in closed relation.

4. A single-piece box blank having bottom and cover sections each provided with scorings adjacent to its outer edges to form front and side walls and each being slitted adjacent to its outer corner to provide tongue extensions from the ends of certain of said walls for lapping and securing to the end portions of the other walls when the blank is folded to form a box, a center section hingedly connected to each of the adjacent edges of the bottom and cover sections and adapted to form a common rear wall therefor, the inner or rear ends of the side walls of the respective sections each having a tongue projecting therefrom transversely of said center section and separated therefrom, with the tongues of the cover section of less depth and separated a greater extent from the center section than the tongues of the bottom section, substantially as and for the purpose described.

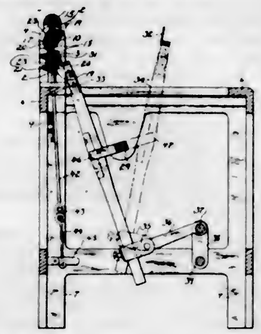
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1,090,560. MACHINE FOR SORTING HAIR. JOSEPH NOGUES-USALL, New Haven, Conn. Filed Nov. 11, 1912. Serial No. 730,650. (Cl. 132—24.)

1. A machine for sorting hair having two pads arranged one above the other each provided with a narrow, curved, frictional contacting surface, one pad limited to vertical movement, means for moving the frictional surface of the other pad tangentially across the frictional surface of the vertically movable pad which normally stands in the path of the second named movable pad.

2. In a machine for sorting hair, the combination of two pads having narrow curved frictional surfaces, means for rocking one of the pads, the frictional surfaces of the pads having smaller radii than the radius of the motion of the curved surface of the rocking pad.

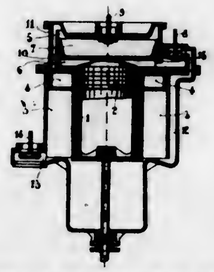
3. In a machine for sorting hair, the combination of two pads one above the other, means for rocking the upper pad, means for exerting an upward pressure on the lower pad, each pad provided with a curved frictional surface, said surfaces being maintained in contact for a portion of their extent by said upward pressure, said curved surfaces each having a smaller radius than the radius of the motion of the contacting portions of said rocking pad whereby the plane of the tangency of the two pads is constantly changed during the time of operation.



4. In a machine for sorting hair, the combination of two pads, one pad mounted above the other, a pair of comb-arms carrying combs at their upper ends, said combs arranged parallel with the axes of and on one side of said pads, a driving shaft, connections between the driving shaft and pads, whereby the upper pad will sweep back and forth across the upper edge of the lower pad, and crank and link connections between the driving shaft and comb arms whereby the combs successively describe closed curves moving away from the lower edge of the upper pad.

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1,090,561. COMBINED EXPLOSION OR INTERNAL-COMBUSTION AND COMPRESSED-AIR ENGINE. PAUL NOLET, Brussels, Belgium. Filed Sept. 10, 1912. Serial No. 719,594. (Cl. 123—4.)



1. A combined internal combustion and compressed air engine comprising in combination an internal combustion engine, a compressed air engine, a compression chamber common to both engines and a floating piston in said compression chamber for separating the combustion gases from the air.

2. A combined internal combustion and compressed air engine comprising in combination a combustion cylinder, a compressed air cylinder, a pair of pistons, a common compression chamber for both the said pistons, a floating piston in said compression chamber for separating the combustion gases from the air and said compression chamber being formed with a circular shoulder for limiting the travel of the said floating piston.

3. A combined internal combustion and compressed air engine comprising in combination a combustion cylinder, a compressed air cylinder, a pair of mutually connected pistons, a common compression chamber for both the said pistons and a floating piston in said compression chamber for separating the combustion gases from the air.



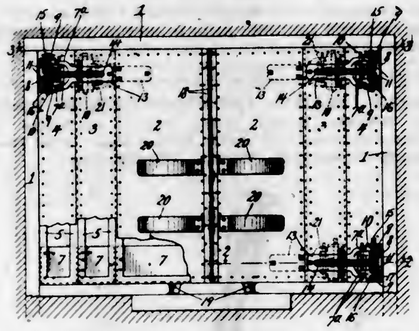
4. A combined internal combustion and compressed air engine comprising in combination a pair of concentrically arranged cylinders, a pair of pistons, one of the said pistons being annular, a common compression chamber for both the said pistons and a disk piston in said compression chamber for separating the combustion gases from the air.

5. A combined internal combustion and compressed air engine comprising in combination a pair of concentrically arranged cylinders, a pair of pistons, one of the said pistons being annular, a compression chamber common to both the said pistons, a disk piston in said compression chamber for separating the combustion gases from the air and means for limiting the travel of said disk piston in said compression chamber.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,562. MINE-DOOR. JOHN K. ORR and LOUIS F. JONES, Zeigler, Ill. Filed Apr. 7, 1910. Serial No. 554,008. (Cl. 39—43.)



1. A mine door comprising a solid, substantially air-tight hinged section and a preliminary strain relieving part forming a part of said section, said preliminary strain relieving part pivotally connected to the remaining portion of the section intermediate the edges of the remaining portion of the section, so as to move under the preliminary strain and transmit such strain to the remaining portion of the section.

2. A mine door comprising two sections hinged at opposite sides of the passageway, each section provided with a separate preliminary strain relieving part pivoted to the other part, the edges of the strain relieving part and other part coming together so as to limit the pivotal movement of the strain relieving part, said strain relieving part adapted to be moved by abnormal air pressures to relieve such pressures, and means for normally holding said sections in their closed position.

3. A mine door comprising two sections hinged at opposite sides of the passageway and adapted to be opened by contact to provide a passageway for the mine car, and means associated therewith for securing a greater clearance for the car during its movement in one direction than that secured during its movement in the other direction.

4. A mine door comprising two sections each having two panels extending the entire length of the opening to be closed and forming a substantially air-tight closure for said opening, said panels hinged together so as to be normally in alinement, one panel of each section hinged to a stationary part so as to move in either direction, the other panel hinged to the first panel so as to move in one direction separate from the first panel and to carry the first panel with it when moved in the other direction, and means for automatically holding the several panels in alinement under predetermined conditions so as to keep the door closed, one panel of each section free to move with relation to the other panel when force is applied thereto from the inside.

5. A mine door comprising two sections each having two panels extending the entire length of the opening to be closed and forming a substantially air-tight closure for said opening, said panels hinged together so as to be normally in alinement, one panel of each section hinged to a stationary part so as to move in either direction, the other panel hinged to the first panel so as to move in one direction separate from the first panel and to carry the first panel with it when moved in the other direction, and means for automatically holding the several panels in alinement under predetermined conditions so as to keep the door closed, one panel of each section free to move with relation to the other panel when force is applied thereto from the inside and a spring bumper connected with each section.

[Claims 6 to 8 not printed in the Gazette.]

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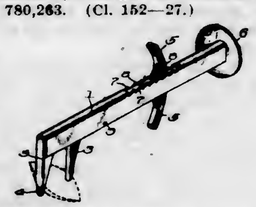
1,090,563. RECEPTACLE. JOHN H. PARKER, Haverhill, Mass. Filed Oct. 21, 1912. Serial No. 727,066. (Cl. 217—33.)



A box comprising a bottom blank of cardboard, or similar flexible material bent in longitudinal parallel lines, alternately in opposite directions, relatively arranged to provide two series of alternating longitudinal sections of different widths, and forming angle portions pointing alternately in opposite directions, the angle portions which point in one direction having a series of parallel slots leading therethrough and extending to points adjacent the vertices of the other angle portions, and a series of partitions arranged in said slots, each having notches in its upper edge portion in which the unslotted angle portions of said sections are located, the edges of said notches extending divergently from its upper edge, one at approximately right angles and bearing against the longitudinal section of lesser width, and the other at an acute angle bearing against the section of greater width to provide a series of compartments each having an inclined front side and bottom, and upright back.

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1,090,564. TOOL FOR SPREADING TIRE-CUTS. WALTER PETERSEN, Chicago, Ill. Filed July 21, 1913. Serial No. 780,263. (Cl. 152—27.)



1. A tool for spreading a tire-cut provided with two members sliding relatively to each other, a jaw on each of said members, means for separating the jaws from each other by sliding said members relatively to each other, and a pawl and ratchet mechanism operating in conjunction with said members for preventing the approach of said jaws by pressure on them.

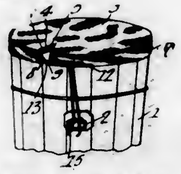
2. A tool for spreading a tire-cut provided with two members, an inner and an outer, each of said members being provided with a jaw for inserting within the cut, the inner member being adapted to be slid relatively to the outer one and also having freedom to turn a slight amount relatively to the outer one, the fulcrum of the turning of the inner one being approximately in the plane of its jaw, whereby pressure upon said jaw produces a tendency to both slide and turn said inner member relatively to the outer one.

3. A tool for spreading a tire-cut provided with two members, an inner and an outer, each of said members being provided with a jaw for inserting within the cut,

the inner member being adapted to be slid relatively to the outer one and also having freedom to turn a slight amount relatively to the outer one, the fulcrum of the turning of the inner one being approximately in the plane of its jaw, whereby pressure upon said jaw produces a tendency to both slide and turn said inner member relatively to the outer one, and pawl and ratchet mechanism preventing the approach of the jaws to each other when the inner member is in its turned position.

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1,090,565. RECEPTACLE-COVER. SAMUEL R. PORT, Martinsville, Ind. Filed July 12, 1913. Serial No. 778,705. (Cl. 217—81.)



1. A receptacle cover comprising a top, said top including an outer body member, a member secured thereto and having a high thermal resistance, a lining secured to said body member and protecting said heat resisting member, the body portion of said top bent downward at its outer edge, looped upon itself and forming a rim including a plurality of layers, said rim provided with a reinforced opening extending entirely therethrough, said rim further provided with two reinforced openings extending through the outer layer of the rim, and a tying rope slidably disposed between the rim layers and extending through the said last mentioned openings.

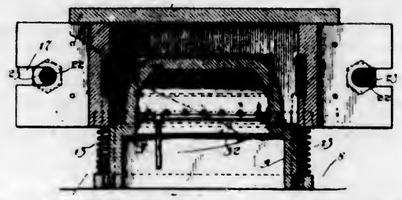
2. A receptacle cover comprising a top, said top including an outer body member, a member secured thereto and having a high thermal resistance, a lining secured to said body member and protecting said heat resisting member, the body portion of said top bent downward at its outer edge, looped upon itself and forming a rim including a plurality of layers, said rim provided with a reinforced opening extending entirely therethrough, said rim further provided with two reinforced openings extending through the outer layer of the rim, a tying rope slidably disposed between the rim layers and extending through the said last mentioned openings, and means extending between the layers of the rim confining the said tying rope to the lower extremity thereof.

3. A cover for a frusto-conical receptacle comprising a top, a lining secured thereto, a member interposed between the lining and the top and having a high thermal resistance, the outer edge of said top bent downward and looped upon itself at its lower edge to form a rim including a plurality of layers, said rim provided with a reinforced opening extending therethrough, means extending through said opening securing the same to the said receptacle, said rim provided at diametrically opposed portions with two reinforced openings extending through the outer layer of said rim, a tying rope extending through the last mentioned openings and slidably disposed between the rim layers, means for confining the said tying rope to the lower extremity of said rim, said receptacle provided with an outstanding member, said tying rope engaging said outstanding member and holding the receptacle cover in position.

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1,090,566. MOLD. HENRY B. PROSSER, Chicago, Ill., assignor to Advance Terra Cotta Company, Chicago, Ill., a Corporation of Illinois. Filed July 22, 1912. Serial No. 710,874. (Cl. 25—122.)

1. In a mold of the character described, the combination of a base having an elevated box or head surmounted by a projecting dome integral with and of less diameter than the head, a body telescopically interfitting with said box and comprising separable side and end pieces, lateral flanges extending from the base and from the side pieces, guide rods carried by flanges and passing through perforations in the side flanges, and means of engagement between the side and end pieces.



2. In a mold of the character described, the combination of a base comprising a base plate, a rectangular box elevated above said plate, and a central dome projecting above said box, a body comprising side plates, end members included between said side plates each having flanges at right angles thereto for coaction with said side plates, a tension rod at each end of the body, said side plates and the flanges of the end plates being formed to receive said rods, said assembled parts telescopically interfitting with the base box, and a cover plate overlying said body.

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1,090,567. BEATING AND MIXING DEVICE. HENRY P. ROBERTS, Boston, Mass., assignor to George R. Moore and Joseph W. Hawes, Boston, Mass. Filed June 21, 1912. Serial No. 705,051. (Cl. 107—39.)



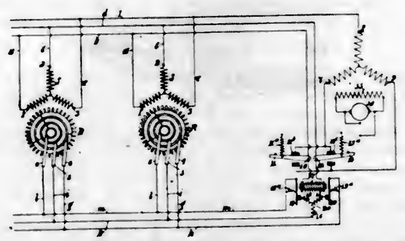
An article of the character described, comprising a handle, a support depending from said handle, a dasher rotatably mounted on said support, a spiral stem passing through said dasher, a spring within said handle tending normally to force said stem out of the latter, said stem being arranged to rotate said dasher when the former is reciprocated therethrough, and a catch arranged to hold said stem in retracted position.

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1,090,568. MEANS FOR COLLECTIVELY ACTUATING AND CONTROLLING ALTERNATING-CURRENT MOTORS. JOSEPH LOUIS ROUTIN, Paris, France. Filed Dec. 16, 1912. Serial No. 737,087. (Cl. 172—237.)

1. The combination, with a polyphase electric current generator, of a plurality of asynchronous motors each having a rotor and a stator, conducting means connecting said generator to the stators of said motors, means controlling said conducting means whereby said stators can be supplied from said generator with monophase current and polyphase current alternatively, and conducting means connecting the phase windings of the several rotors, whereby current generated by rotation of any of said rotors is transmitted to the other rotors and produces synchronous rotation thereof.

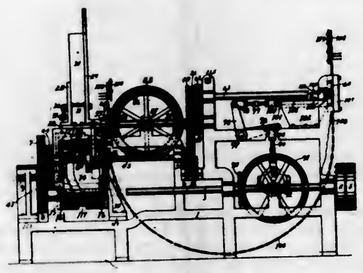
2. The combination, with a polyphase electric current generator, of a plurality of asynchronous motors each having a rotor and a stator, conducting means connecting said generator to the stators of said motors, switch mechanism controlling said conducting means whereby said stators can be supplied from said generator with monophase current and polyphase current alternatively, conducting means connecting the phase windings of the several rotors, whereby current generated by rotation of



any of said rotors is transmitted to the other rotors and produces synchronous rotation thereof, a rheostat, and means associated with said switch mechanism, whereby the rotors are automatically connected to said rheostat when said switch mechanism is operated for supplying polyphase current to the stators.

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1,090,569. MATCH-MAKING MACHINE. FRANK SCHAFER, Ronda, N. C., assignor to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed May 21, 1908, Serial No. 434,063. Renewed Sept. 9, 1913. Serial No. 788,934. (Cl. 144—64.)



1. In a match making machine, a grooved splint plate having grooves for the reception of splints, a hopper adapted to contain splints, vibrating partitions therein and a tongue or part thereof extending into or below the top of said grooved splint plate.

2. In a match making machine, a grooved splint plate having grooves for the reception of splints, a hopper adapted to contain splints, pivoted vibrating partitions therein and a tongue or part thereof extending into or below the top of said grooved splint plate.

3. In a match making machine, a grooved splint plate having grooves for the reception of splints, a hopper adapted to contain splints, pivoted vibrating partitions therein and a tongue or part thereof extending into or below the top of said grooved splint plate and said partitions vibrating in unison.

4. In a match making machine, a stationary grooved splint plate having grooves for the reception of splints, a hopper adapted to contain splints and having vibrating partitions therein and a cut-off device adapted to be slidably inserted between the splints in the hopper and the grooved splint plate to prevent the splints from entering the grooves in said plate.

5. The combination of a hopper adapted to contain splints and having vibrating partitions therein with openings therethrough of a cut-off device movable into and through such openings.

[Claims 6 to 32 not printed in the Gazette.]



1,090,570. ROPE-SOCKET. OSCAR SCHELLING and ARTHUR A. PHILLIPS, Los Angeles, Cal., assignors of one-third to George Gartling, Los Angeles, Cal. Filed Apr. 22, 1913. Serial No. 762,793. (Cl. 255—26.)



1. A swivel rope socket, comprising an outer body having an interior longitudinal cylindrical bore, a rope receiving mandrel revoluble within said bore, ratchet teeth cut directly on the mandrel, there being apertures in the body extending radially outwardly from its inner bore adjacent the ratchet teeth on the mandrel, pawls fitting in said apertures so as to be guided in movements radially to and from the ratchet teeth, said pawls adapted to engage the ratchet teeth at their inner ends, and springs to hold said pawls against said ratchet teeth.

2. A swivel rope socket, comprising an outer body having an interior bore, a rope receiving mandrel in said bore, an end thrust bearing between the mandrel and the body, a set of ratchet teeth formed integrally on said mandrel, and pawls mounted in apertures in the body with broad bearing surfaces between the pawls and body.

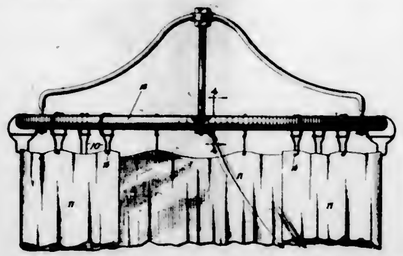
3. A swivel rope socket comprising an outer body having an interior cylindrical bore, a rope receiving mandrel having a cylindrical portion revolubly fitting within said bore, an end thrust bearing between the mandrel and body, ratchet teeth formed integrally in said mandrel and extending around the cylindrical part thereof, said teeth being parallel to the axis of the mandrel, the said body having squared apertures extending radially from its interior bore through its walls, pawls of square cross section adapted to reciprocate in said apertures and to engage the said ratchet teeth at their inner ends, and springs for pressing said pawls into engagement with the ratchet teeth.

4. A swivel rope socket comprising an outer body having an interior cylindrical bore, a rope receiving mandrel having a cylindrical portion revolubly fitting within said bore, an end thrust bearing between the mandrel and body, ratchet teeth formed integrally in said mandrel and extending around the cylindrical part thereof, said teeth being parallel to the axis of the mandrel, the said body having squared apertures extending radially from its interior bore through its walls, pawls of square cross section adapted to reciprocate in said apertures and to engage the said ratchet teeth at their inner ends, coiled springs adapted to press the pawls into engagement with the ratchet teeth, and cap plates on the outside of the body to confine the springs.

5. A swivel rope socket comprising an exterior body having a cylindrical bore extending from end to end thereof and enlarged at one end, a rope receiving mandrel of cylindrical configuration similar to the bore of the body and adapted to revolubly fit therein, an end thrust ball bearing between the mandrel and the body, ratchet teeth

cut directly in the mandrel around its larger cylindrical surface, there being square apertures opposite said ratchet teeth leading radially through the walls of the body, pawls of square cross section adapted to reciprocate in said apertures to and from the ratchet teeth, teeth on the inner end of the pawls to engage said ratchet teeth, cap plates on the outside of the body covering said apertures, and coiled springs arranged between said cap plates and the pawls to press the pawls into engagement with the ratchet teeth.

1,090,571. CURTAIN-HOOK. MILTON SCHNAIER, New York, N. Y. Filed May 20, 1913. Serial No. 768,741. (Cl. 156—21.)



1. A curtain hook comprising a segment-shaped body consisting of a pair of side members having two of their corresponding ends united, and a member rigidly secured to and extending from one of said side members and slidably embracing the other of said side members, substantially as specified.

2. A curtain hook comprising a segment-shaped body consisting of a pair of side members having two of their corresponding ends united and their opposing ends free and separated from each other and a transverse member secured to one of said side members, and slidably embracing the other of said side members, substantially as specified.

3. A curtain hook comprising a segment-shaped body consisting of a pair of side members having two of their corresponding ends united, and their other ends free and separated, and a locking member secured to one of said side members and extending across the body of said hook near its middle and embracing the other of said side members, substantially as specified.

4. A curtain hook comprising a segment-shaped body consisting of a pair of side members having two of their corresponding ends united, and a transverse member having one end secured to one of said side members and its other end slidably embracing the other of said side members, substantially as specified.

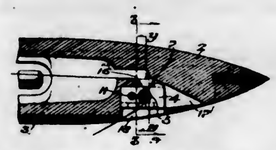
5. A curtain hook comprising a segment-shaped body consisting of a pair of curved side members united at two of their corresponding ends, and separated at their opposite ends, a member extending from the free end of one of said side members and conforming thereto for a part of its length and having its end extending across said body, and a hook provided at the free end of said member loosely embracing the other of said side members, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

1,090,572. SHUTTLE. JAMES C. SERGESON, Philadelphia, Pa. Filed Mar. 17, 1913. Serial No. 754,677. (Cl. 139—46.)

1. In a loom shuttle, a body having a recess in the eye thereof, friction plates therein and imposed one on the other and one having its side separated depending horns forming a throat therebetween, said horns freely embracing and receiving the other plate.

2. In a loom shuttle, a body having a recess, friction plates therein and imposed one upon the other and one having on its face depending horns forming a throat therebetween, said horns freely embracing and receiving the other plate and said plate being further provided with a depending horn on the face opposite the first-named horns.



3. In a loom shuttle, a body having a recess, friction plates therein and imposed one upon the other and one having on its face separated depending horns forming a throat therebetween, said horns freely embracing and receiving the other plate and said plate being further provided with a depending horn on the face opposite the first-named horns, said plates having their ends rounded.

4. In a loom shuttle, a body having a recess therein in the eye thereof, friction plates in said recess, one plate being imposed separately on the other, means for adjusting pressure on said plate, means in addition to said adjusting means for guiding said plates on each other, and a finger in said body adjacent to said plates, said finger having a limb at an angle thereto on said body.

1,090,573. AUTOMOBILE RADIATOR-CAP ATTACHMENT. DAVID P. SHANER, Mount Healthy, Ohio. Filed Oct. 10, 1912. Serial No. 724,918. (Cl. 248—37.)

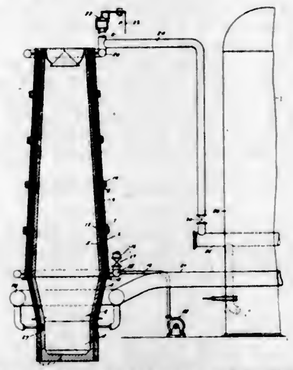


1. In a device of the character described, in combination with a radiator cap having an opening through its top, said opening being threaded, a holding element for an accessory part, comprising an upper enlarged portion exposed outside the cap, and a lower reduced threaded portion screwed through the threaded opening in the cap with its upper enlarged portion closely contacting with the upper side of the cap around the threaded opening, a washer around said lower threaded portion inside the cap, a nut screwed onto the threaded portion, binding said washer tightly against the under side of the top of the cap and locking said threaded portion where it is screwed through the opening in the cap, and a lock nut screwed onto said threaded portion up against said nut and locking the nut, substantially as and for the purposes specified.

2. In a device of the character described, in combination with a radiator cap having an opening through its top, said opening being threaded, a holding element comprising an upper outwardly exposed socket for a pennant staff, and a lower reduced threaded portion screwed through the threaded opening in the cap and having a shoulder at its junction with the socket, said shoulder being drawn tightly against the upper side of the cap around the threaded opening, a washer around said lower threaded portion and binding said washer tightly against the under side of the top of the cap and locking said threaded portion where it is screwed through the opening in the cap, and a lock nut screwed onto said threaded portion up against said nut and locking the nut, substantially as and for the purposes specified.



1,090,574. AIR-COOLED BLAST-FURNACE STACK. JOHN J. SHANNON, Birmingham, Ala., assignor of one-third to James P. Dovel, Birmingham, Ala. Filed Mar. 28, 1912, Serial No. 686,899. Renewed Aug. 23, 1913. Serial No. 786,348. (Cl. 75—116.)



1. A blast furnace stack having a thin lining of refractory material, a sectional metallic wall surrounding said lining and provided with alining vertical air flues in the sections thereof, means to connect said flues to provide continuous parallel straight air passages from bottom to top of the stack, a metallic jacket surrounding said sectional wall, and flanges on both sides of the sections, the inner flanges being tied into the refractory lining and the outer flanges being connected to said jacket, substantially as described.

2. A blast furnace stack having a thin inner lining of refractory material, a wall surrounding said lining and comprising metallic sections, vertical air passages formed in said sections which are arranged to bring the passages into vertical alinement, means to connect the alining passages between the superposed sections, and a common valve means for controlling the flow of air through said passages.

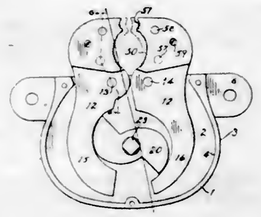
3. In a blast furnace, a cooling means for the stack thereof comprising a plurality of segmental metallic plates, a jacket surrounding said plates, a thin inner lining for said plates, vertical passages formed in the plates which are arranged to bring their respective passages into position to form series of vertical alining passages extending substantially from bottom to top of the stack, means to connect the alining passage ways, a common chamber into which said passages are adapted to discharge heated air, and valve means to control the flow of air from said chamber, substantially as described.

4. In a blast furnace, a cooling means for the stack wall thereof comprising a plurality of segmental metallic plates which surround the wall, vertical passages provided in the plates which are arranged to bring their respective passages into position to form series of vertical alining passages extending substantially from bottom to top of the stack, means to connect the alining passage ways forming a series, an annular pipe surrounding the top of the furnace and connected to the upper ends of the series of passage ways, and valve means to control the discharge of heated air from said pipe.

5. In a blast furnace, a stack wall thereof comprising an outer jacket, an inner wall of metal cooling plates, and a refractory lining for said wall, vertical passages in the plates which are arranged to bring their respective passages into position to form series of vertical alining passages extending substantially from bottom to top of the stack, means to connect the alining passage ways forming a series, an annular pipe surrounding the top of the furnace and connected to the tops of the passage ways, and a valve controlled discharge pipe leading from said annular pipe and forming a draft stack.

[Claims 6 to 14 not printed in the Gazette.]

1,090,575. VISE. WILLIAM SHANNON, East Cleveland, Ohio. Filed Oct. 26, 1912. Serial No. 727,855. (Cl. 81—25.)



1. In a vise, the combination of a casing consisting of a body and cover plate leaving a recess between them, a pair of jaws pivotally mounted within the recess and extending outside thereof, a double-faced cam within the recess between the jaws, said cam having a journal extending in opposite directions mounted in the frame and cover plate, the journal mounted in the cover plate extending in front of the cover plate in the form of a non-circular shank, a lever on said shank adapted to move the cam to spread the inner ends of the jaws, and rack teeth on the cover plate and a coöperating dog mounted in a recess in the lever for holding the lever in the position it assumes when the jaws are in gripping action.

2. In a portable vise, the combination of a casing having an upwardly opening recess, said recess having parallel sides, jaws pivoted within the recess when opening and having extensions fitting within the recess and guided by the parallel sides thereof, a cam within the recess between these extensions journaled in the casing and guided by the sides of the recess, a lever outside of the casing for rotating the cam, and means for securing the casing to a suitable support.

3. In a portable vise, the combination of a casing consisting of a body and a cover plate leaving a recess between them and a pair of jaws pivotally mounted within the recess and extending outside thereof, said jaws having extensions within the recess adapted to be guided by the sides of the recess a cam within the recess guided by the sides thereof, and pivotally mounted between these extensions, said pivot extending outside of the casing, a lever mounted on the extension of said pivot for rotating the cam, ears rigid on the casing, a rearwardly extending plate rigid on the casing, rearwardly projecting brackets secured to the casing and carrying clamping means whereby the vise may be removably secured to a suitable support.

4. In a vise, the combination of a casing consisting of a body and a cover plate leaving a recess between them, a pair of jaws pivotally mounted within the recess and extending outside thereof, reinforcing plates carried on the sides of said jaws outside of the casing, curved extensions integral with said jaws inside of the casing, a double faced cam between these extensions journaled in the cover and in the casing, said cam lying substantially in the same plane with the extensions of the jaws, and a lever outside of the casing for rotating the cam to move the jaws.

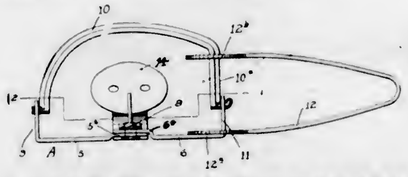
5. In a vise, the combination of a casing consisting of a body and a cover plate leaving a recess between them, jaws pivotally mounted within the recess and extending outside thereof, curved extensions on the jaws within the

recess, a double faced cam mounted between these extensions and having an angular projection outside of the casing, a lever on said projection, said extensions and the cam being so curved that the movement of the jaws is substantially equal upon a movement of the cam, ratchet teeth on the face of the cover, a dog pivotally carried by the handle engaging said teeth and adapted to be released by the thumb of the operator, ears projecting from the casing in a plane parallel in the back thereof, a rearwardly projecting flange, rearwardly projecting brackets, and thumb screws carried by the brackets.

[Claim 6 not printed in the Gazette.]

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1,090,576. GAME-TRAP. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed June 5, 1912. Serial No. 701,815. (Cl. 43—23.)



1. In a game trap, the combination of jaws, a base for said jaws composed of separate sections, a bait pan support, and a single member for inter-connecting the base sections detachably and securing the bait pan support detachably to the base; substantially as described.

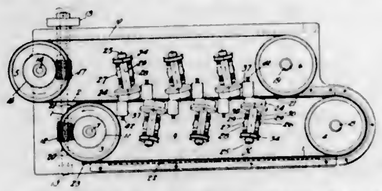
2. In a game trap, the combination of jaws, operating means therefor, a base for said jaws composed of sections having their adjacent ends located intermediate of the ends of the base, means securing said jaws to said base and providing for the release of the same from the base as said sections are separated, a bait pan, a bait pan support, and a bolt for detachably securing together the base sections and the bait pan support, substantially as described.

3. In a game trap, a base comprising sections having ends which overlap intermediate of the length of the base, said overlapping ends being offset to provide a transverse recess in the base, a bait pan supporting bar located in said recess, and means for detachably securing the overlapping ends of the base sections to each other and to the bait pan support; substantially as described.

4. In a game trap, the combination of jaws, operating means therefor, a base for said jaws divided intermediate of the ends of the base into separate sections, means securing said jaws to said base and providing for the release of the same from the base as said sections are separated, means to secure said sections detachably together, a bait pan, and a bait pan support carried by said base, substantially as described.

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1,090,577. HONING-MACHINE. THOMAS C. SHEEHAN, Jersey City, N. J., assignor to Durham Duplex Razor Company, New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,718. (Cl. 51—7.)



1. In a honing machine, the combination with means including a pair of belts contacting with and coöperating to forward a blade with one of its edges exposed, and a rotating hone in the path of the exposed edge of the blade.

2. In a honing machine, the combination with means comprising a pair of belts contacting with and coöperating to forward a blade with one of its edges exposed, and a rotating hone in the path of the exposed edge of the blade and with its axis lying in a plane intersecting the edge of the blade.

3. In a honing machine, the combination with means comprising a pair of belts contacting with and coöperating to forward a blade in a right line with one of its edges exposed, and a rotating hone in the path of the exposed edge of the blade, and with its axis lying in a plane intersecting the edge of the blade.

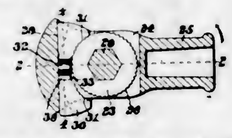
4. In a honing machine, the combination with means for forwarding a blade with one of its edges exposed, and a rotating hone in the path of the exposed edge of the blade and with its axis lying in a plane intersecting the edge of the blade and also in a plane crossing the forwarding means at an obtuse angle.

5. In a honing machine, the combination with means for forwarding a blade with one of its edges exposed, of a series of rotating hones alternately positioned on either side of and in the path of the exposed edge of the blade and with their axes lying in planes intersecting the edge of the blade and also in planes crossing the forwarding means at obtuse angles.

[Claims 6 to 17 not printed in the Gazette.]

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1,090,578. RATCHET MECHANISM. JOSEPH B. SMYTHE, Coaticook, Quebec, Canada. Filed June 10, 1911. Serial No. 632,510. (Cl. 74—16.)



1. In a device of the class described, the combination of a spindle, an oscillating lever on said spindle provided with a socket having a transverse slot therein one wall of which is straight and unobstructed; a wheel within said slot secured to said spindle and provided with a serrated peripheral surface; a slidable wedge member in said slot restricted in its movement to a path tangential to said wheel by a flat face contacting with said straight wall and provided on its opposite face with a curved serrated surface coacting with the periphery of said wheel; and means providing a limited sliding movement of said wedge member during each oscillation of said lever.

2. In a device of the class described, the combination of a spindle, an oscillating lever on said spindle provided with a socket having a transverse slot therein one wall of which is straight and unobstructed; a wheel within said slot secured to said spindle and provided with a serrated peripheral surface; a slidable double-ended wedge member in said slot having a flat face contacting with said straight wall and thereby restricted in its movement to a path tangential to said wheel and provided on its opposite face with a curved serrated surface at each end either of which is adapted to coact with the periphery of said wheel; and means providing a limited sliding movement of said wedge member during each oscillation of said lever.

3. In a device of the class described, the combination of a spindle; an oscillating lever on said spindle provided with a socket having a transverse slot therein having parallel unobstructed end walls; a wheel within said slot secured to said spindle and provided with a serrated peripheral surface; a slidable double-ended wedge member in said slot having a flat base contacting with the outer end wall of said slot and thereby restricted in its movement to a path tangential to said wheel and provided on its opposite face with a curved serrated surface at each end either of which is adapted to coact with the periphery of said wheel, said curved serrated surfaces being connected by a flat face contacting with the periphery of said wheel; and means providing a limited sliding movement of said wedge member during each oscillation of said lever.



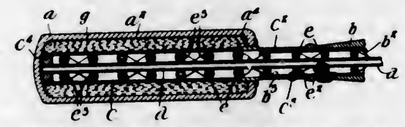
4. In a device of the class described, the combination of a spindle; an oscillating lever on said spindle provided with a socket having a transverse slot therein; a wheel within said slot secured to said spindle and provided with a serrated peripheral surface; a slidable double-ended wedge member in said slot restricted in its movement to a path tangential to said wheel and provided with a curved serrated surface at each end either of which is adapted to coact with the periphery of said wheel, said member being provided with two notches intermediate its ends; and means coöperating with either of said notches to retain said member in position for one selected curved serrated surface to coact with said wheel while permitting a limited reciprocation to said member during each oscillation of said lever.

5. In a device of the class described, the combination of a spindle; an oscillating lever on said spindle provided with a socket with a transverse slot therein; a ratchet wheel within said slot secured to said spindle and provided with V-teeth; a slidable member in said slot provided with two sets of V-teeth adapted to coact independently with said ratchet teeth and having two notches therein; and a spring-pressed member having an end adapted to engage either notch which end is of less width than that of the coacting notch.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,579. ELECTRIC HAIR-DRIER. JOHN T. STAPLETON, Jersey City, N. J., assignor of one-half to Victor H. Skinner, Balboa, Canal Zone. Filed June 28, 1913. Serial No. 776,338. (Cl. 219—21.)



1. An electric hair drier comprising a tubular head having teeth, a tubular handle connected with said head, a sleeve passed into said head through one end thereof, and a sleeve passed through said handle and connected with the sleeve in the head, the inner end of the sleeve within the head being closed and being provided with a central tube which extends therethrough and through the handle, and the space within said sleeve around said central tube being provided with electric circuit wires or cables which are wound thereon and which extend outwardly through the handle.

2. An electric hair drier comprising a tubular head having a sleeve passed inwardly through one end thereof and with the outer end of which is connected a tubular handle, and electric circuit wires wound in said sleeve and extending outwardly through said handle, said sleeve being also provided with an exhaust tube which communicates with a space within said head.

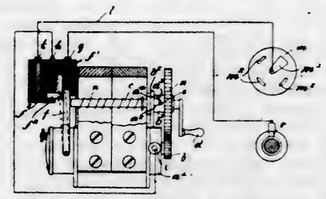
3. An electric hair drier comprising a tubular head provided with teeth, a part inserted into said head and forming a chamber therein, a tubular handle connected with said part, and electric circuit wires wound in said chamber and extending out through said handle, said chamber being also provided with an exhaust which communicates with the interior of the head and extends outwardly through the handle.

4. An electric hair drier comprising a head provided with a water chamber, a tubular member adapted to be inserted into said head and forming a central chamber therein, a tubular handle adapted to be connected with said member, and electric circuit wires wound in said central chamber and extending outwardly through the handle, said water chamber being also provided with an exhaust.

5. An electric hair drier comprising a hollow head provided at one end with a tubular handle, a tubular member passed into said head and with which the handle is connected, said tubular member forming an outer water chamber and an inner closed chamber in which are wound electric wires which pass out through the handle, and said water chamber being provided with an exhaust device which also passes through the handle.

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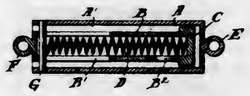
1,090,580. APPARATUS FOR STARTING MULTIPLE-CYLINDER INTERNAL-COMBUSTION MOTORS. HANS STÖCKER, Nuremberg, Germany, assignor to The Firm of Weckerlein & Stöcker, Nuremberg, Germany. Filed June 19, 1912. Serial No. 704,590. (Cl. 123—184.)



An apparatus for starting internal combustion motors, comprising a main magneto having a distributer, a manually-operable auxiliary magneto, a switch adapted to break the high-tension circuit of the main magneto and place the auxiliary magneto in connection with the main magneto distributer, manually-operable means for moving said switch prior to operation of the auxiliary magneto, automatically acting means for returning said switch to establish the high tension circuit through the main magneto on discontinuance of manual operation of the auxiliary magneto, and a circuit-breaker connected with the primary of the auxiliary magneto, and operated by the main magneto, for breaking the primary circuit during the initial portion of the ignition contact at the distributer for each cylinder respectively.

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1,090,581. EXPANSIBLE METAL LINK. JOHN HENRY THEBERATH, South Orange, N. J. Filed Oct. 2, 1912. Serial No. 723,461. (Cl. 74—74.)



1. The combination of an outer member of substantially U-shape form forming three sides of a hollow frame, with the concave portion inside, an inner member also of U-shape form with the concave portion in a plane at right angles to the concave portion of the outer member, a pin extending through the outer and inner members near one end, a flange at one end of the inner member extending beyond the same and entering the concave portion of the outer member, said inner member having a longitudinal opening through it through which said pin passes, a spring housed within the inner member between the pin and one of its ends and said inner member having a second opening in one side thereof near one end of greater diameter than the spring and adapted to permit the spring to be inserted or withdrawn therethrough, said openings of the inner member being normally covered by the outer member.

2. The combination of an outer member of open hollow form forming three sides of a frame with the opening of the hollow portion inside, an inner member also of hollow form, the inner member having slots in its sides, a pin secured at its ends to the outer member and passing through said slots, said slots extending part way of the length of the inner member, limiting the movement of said inner member on the pin and covered by the outer member, a flange projecting from three sides of the inner member and through the opening of the hollow portion of

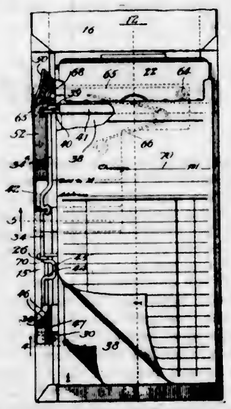
the outer member, a spring housed within said inner member between the pin and one end of said member, said spring adapted to be compressed when the inner member is moved on the pin and to normally hold the said inner member within the outer member and the said flange within said hollow portion.

3. The combination of an outer member of open hollow form forming three sides of a frame with the opening of the hollow portion inside, an inner member also of hollow form and having slots in its sides, a pin secured at its ends to the outer member and passing through said slots, said slots extending part way of the length of the inner member, limiting the movement of said inner member on the pin and covered by the outer member, a spring housed within said inner member between the pin and one end of said member, said spring adapted to be compressed when the inner member is moved on the pin and to normally hold the said inner member within the outer member, and said inner member having an opening in it of greater diameter than the spring adapted to permit the spring to be inserted or withdrawn therethrough.

4. An expansible link for bracelets, chains and other articles comprising an outer member of substantially U-shaped metal formed into a three-sided frame or border with the open side of said metal on the inside, an inner member filling the said frame or border composed of curved sheet metal pieces with their concave surfaces opposed, secured together at their ends and thus forming an elongated casing, a spring confined within said inner member and a pin secured to said outer and extending through said inner member, said member being provided with parallel longitudinal slots through which said pin extends so that the movement of the inner member longitudinally of the outer member is limited by the contact of said pin with the ends of said slots, and said inner member being provided with an opening of greater diameter than the spring extending a minor part of its length and permitting the insertion and withdrawal of said spring.

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1,090,582. MANIFOLDING-SALES-BOOK MANIPULATOR. ALBERT R. TURK, Chicago, Ill. Filed Feb. 1, 1913. Serial No. 745,614. (Cl. 11—23.)



1. In a device of the character described, a base adapted to support a sales book, a carbon sheet carrying arm movably mounted on said base, means for moving said arm in a plane parallel with said base, and means for swinging said arm outwardly away from said base at a predetermined point in its longitudinal travel.

2. In a device of the character described, a base adapted to support a sales-book, a longitudinally movable shaft mounted thereon, a carbon sheet carrying arm carried by said shaft, means for moving said shaft longitudinally, and means adapted to revolve said shaft at a predetermined point in its longitudinal travel.

3. In a device of the character described, the combination of a base and a sales or order book secured thereto, a longitudinally movable shaft mounted on said base at one side of said book, a carbon sheet carrying arm carried by said shaft and normally extended across a page of the book, means for moving said shaft longitudinally, and means for automatically rotating said shaft at a predetermined point in its longitudinal travel for swinging the carbon carrying arm away from said page.

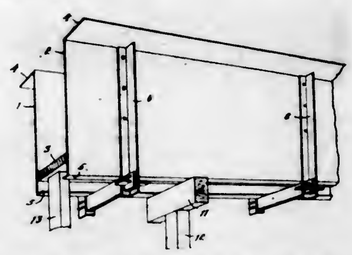
4. In a device of the character described, the combination of a base adapted to support a sales-book, a longitudinally movable shaft mounted on said base, said shaft being provided with a projection, a cam located to engage said projection at a predetermined point in its longitudinal travel and rotate said shaft, a carbon sheet carrying arm carried by said shaft, means for moving said shaft longitudinally, and means for returning it to normal position.

5. In a device of the character described, the combination of a base adapted to receive a sales-book, a longitudinally movable shaft mounted on said base, a carbon sheet holding arm carried by said shaft, means for rotating said shaft during its longitudinal travel, hand operated means for longitudinally moving said shaft, in one direction and automatic means for longitudinally moving said shaft in the opposite direction.

[Claim 6 not printed in the Gazette.]

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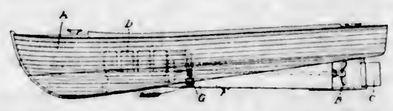
**1,090,583.** BEAM-MOLD. WILLIAM MAYO VENABLE, Pittsburgh, Pa., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 10, 1912. Serial No. 670,430. (Cl. 25—131.5.)



In combination in a beam mold, side plates adjustable toward and from each other to form beams of different width, means for holding the side plates to the positions to which they are adjusted, a bottom closure member fitting between the side plates with its side edges in frictional engagement with the inner faces of the side plates and vertically adjustable between the side plates to form beams of varying depth, vertical supports for the bottom closure member, and supports for the side plates upon which the side plates are releasably supported, the supports for the bottom member lying between the side plates and permitting the vertical downward movement of the side plates without substantial lateral movement thereof, leaving the bottom closure member and its supports in operative position.

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1,090,584. WATER-INTAKE FOR POWER-BOATS. BARTOLO VENTRICE, Collinsville, Cal. Filed Sept. 19, 1913. Serial No. 790,747. (Cl. 115—0.5.)

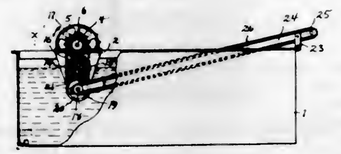


In combination in a motor boat having a pump for water circulation, an intake pipe of uniform diameter throughout, its lower end projecting through the hull of the boat and having its face cut off at an angle and screened, the inclined part facing the bow and the rounded part facing the stern, substantially as described.



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1,090,585. VEGETABLE-WASHER. WILLIAM J. WEBER, Fort Wayne, Ind. Filed Aug. 8, 1912. Serial No. 714,057. (Cl. 146—14.)

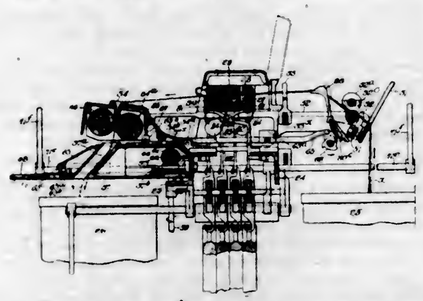


1. In a vegetable washer, a tank; a bracket upon each side of the tank; a drive-shaft rotatably mounted in said brackets; an adjustable casting in each bracket; a driven shaft rotatably mounted in said castings; two gears in mesh with each other and fixed respectively upon said shafts; a cylindrical brush on each of said shafts; a second driven shaft carried by said adjustable castings; means in connection with the other driven saft for actuating the second driven shaft; and a conveyer having driven relation with the latter shaft.

2. In a vegetable washer, a tank; brackets upon the opposite sides of the tank; an adjustable casing in each bracket; a spring acting against each casting; bolts in connection with the respective brackets for supporting the corresponding castings; two cylindrical brushes, one rotatably mounted in the brackets and the other in the castings; means for rotating the brushes in opposite directions; an endless belt conveyer extending into the tank and adapted to receive vegetables from between the brushes and convey them therefrom; supporting connections between the adjustable castings and the adjacent end of the conveyer; and means to actuate the conveyer.

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1,090,586. DRAWING-FRAME. ARTHUR L. WILLEY, Providence, R. I., and ARTHUR C. MASON, Yonkers, N. Y., assignors to Woonsocket Machine & Press Company, Woonsocket, R. I., a Corporation of Rhode Island. Filed Jan. 6, 1912. Serial No. 669,832. (Cl. 118—17.)



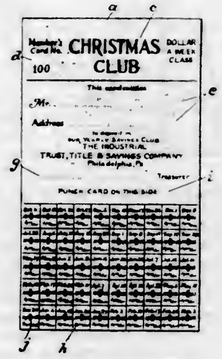
1. A drawing frame comprising a coiler, rolls for acting upon the sliver, means for driving said rolls, a movable trumpet arm, stop mechanism including a gravity stop member for disconnecting the power from said rolls, and a movable tripping device held by said trumpet arm for restraining said stop member from acting, said tripping device being arranged to be moved by upward movement of said coiler to release said stop member from said trumpet arm.

2. A drawing frame comprising a coiler, rolls for acting upon the sliver, means for driving said rolls, a movable trumpet arm, stop mechanism including a gravity stop member for disconnecting the power from said rolls, and a tilting device held by said trumpet arm for restraining said stop member from acting, said tilting member being arranged to be tilted by upward movement of said coiler to release said stop member from said trumpet arm.

3. A drawing frame comprising a coiler, rolls for acting upon the sliver, means for driving said rolls, a movable trumpet arm, stop mechanism including a gravity stop member for disconnecting the power from said rolls, and a movable device carried by said stop member for abutting against said trumpet arm to restrain said stop member from acting, said device being movable by upward movement of said coiler to release said stop member from said trumpet arm.

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1,090,587. RECORDING AND COMPUTING CARD. CHARLES M. WRIGHTSON, Melrose Park, Pa. Filed July 31, 1912. Serial No. 712,388. (Cl. 11—19.)



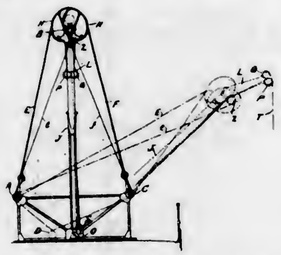

1. A card of the character described having opposite recording and computing faces, the recording face of the card having spaces containing a consecutively arranged series of numerals indicating respectively payments to be made, and the computing face of the card having spaces containing a consecutively arranged series of numerals and located respectively opposite all the spaces on the recording face except the first and having also an extra space opposite one of said spaces on the recording face, each of said numerals on the computing face representing the sum of the numerals in the spaces preceding the immediately opposite space on the recording face, said extra space containing a numeral representing the sum of all the numerals on the recording face.

2. A card of the character described having opposite recording and computing faces, the recording face of the card having a number of consecutive spaces containing numerals and indicating respectively payments to be made, and the computing face of the card having immediately opposite spaces and also an extra space, all the spaces on the computing face except the first containing numerals each of which represents the sum of the numerals in the spaces preceding the immediately opposite space on the recording face, whereby when spaces containing consecutive numerals on the recording face are consecutively punched, the lowest numeral in the unpunched spaces on the computing face will, as the result of any given punching operation, indicate the sum of the payments made while at the same time the numeral indicating the sum of the preceding payments will be obliterated.

3. A card of the character described having a number of consecutive spaces containing numerals and indicating payments to be made and a number of consecutive spaces containing an equal number of numerals each of which represent the sums of all the payments after each payment, all of the second set of spaces and numerals ex-

cept the last of the series being arranged respectively opposite all of the first set of spaces and numerals except the first of the series, whereby the card may be punched to simultaneously record a payment made and compute the sum of the payments made and cancel the computed sum of the previous payments and whereby after all the payments made are so recorded by punching all the computations will be canceled except the sum of the total payments.

1,090,588. SHIP'S DAVIT OR THE LIKE. HAMILTON NEIL WYLIE, Edinburgh, Scotland, assignor to Babcock & Wilcox Limited, London, England. Filed Sept. 16, 1913. Serial No. 789,993. (Cl. 9—22.)



1. The combination with a jib, of a lever having a swivel connection with said jib, a plurality of curved rests adapted to participate in the swiveling movements of said lever, and flexible means engaging said curved rests.

2. The combination with a jib adapted to swing in a single plane, of a lever having a swivel connection with said jib, a group of curved rests adapted to participate in the swiveling movements of said lever, flexible means engaging said curved rests, a second group of curved rests adapted to participate in the swiveling movements of said lever, and flexible means engaging said second group of curved rests.

3. The combination with a jib, of a lever having a swivel connection with said jib, a pair of curved rests formed with extensions, said rests and extensions adapted to participate in the swiveling movements of the lever, and flexible means in engagement with said rests and extensions.

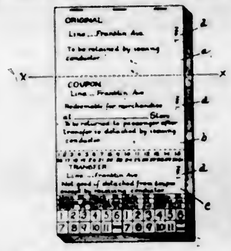
4. The combination with a jib adapted to swing in a single plane, of a lever having a swiveled connection with said jib, a pair of curved rests adapted to participate in the swiveling movements of said lever, flexible means engaging said curved rests, a second pair of curved rests and extensions adapted to participate in the swiveling movements of said lever, and flexible means engaging said second pair of curved rests and extensions.

5. The combination with a jib adapted to swing in a single plane, of a lever having a swivel connection with said jib, a pair of curved rests and extensions adapted to participate in the swiveling movements of said lever, flexible means engaging said curved rests and extensions, a second pair of curved rests and extensions adapted to participate in the swiveling movements of said lever, and flexible means engaging said second pair of curved rests and extensions.

[Claims 6 to 11 not printed in the Gazette.]

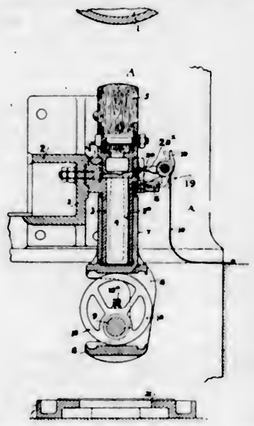
1,090,589. TRANSPORTATION-TICKET. ALEXANDER C. ADAMS, Hartford, Conn. Filed Oct. 6, 1911. Serial No. 653,251. (Cl. 11—15.)

A transfer and receipt ticket comprising a stub section, a redemption section, and a transfer section readily separable from each other, the transfer section being provided with a notice that said section confers the right to transfer only when said section is unseparated from the redemption section, said redemption section having a notice thereon indicating that the said section is to be returned to the passenger after the transfer section has been detached therefrom by the receiving conductor and further having a




notice that said redemption section has a redeemable value.

1,090,590. BEETLING-MACHINE. THOMAS OWEN ARNFIELD and WILLIAM BOOTH, New Mills, England. Filed Dec. 5, 1913. Serial No. 804,848. (Cl. 26—10.)



1. In a pneumatic beetling machine a lower movable cylinder, a fixed cylinder, a sliding hammer support inside said fixed cylinder, a hammer on said support to act against a beam the movable cylinder charging the fixed cylinder during its downward stroke and actuating the sliding hammer support on its return stroke to drive the hammer upward to the beam, the sliding hammer support falling by gravity assisted by air suction as set forth.

2. In a pneumatic beetling machine a fixed cylinder, a sliding hammer support mounted therein, a hammer on said support, and an outside movable cylinder sliding on said fixed cylinder, a stirrup device on said outside movable cylinder, an eccentric engaging said stirrup and a shaft for the eccentric said eccentric being in constant contact with the stirrup at all positions during revolution as described.

3. In a pneumatic beetling machine a fixed cylinder, a sliding hammer support fitted therein, a hammer on said support an air valve device on the fixed cylinder, an outside movable cylinder around the fixed cylinder, a stirrup on the outside movable cylinder and an eccentric engaging said stirrup and a shaft to support the eccentric, means to drive said shaft, the sliding hammer support falling due to gravity and air suction and being actuated to strike the blow on the ascent of the outside movable cylinder as described.

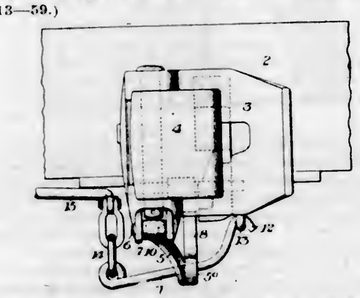
4. A pneumatic beetling device comprising an over-head cloth beam, a fixed cylinder, an air valve carried thereby, a sliding support therein, a hammer on said support, an outside movable cylinder, a stirrup connected thereto, an eccentric engaging the stirrup, and a shaft carrying said eccentric, all arranged below the cloth beam, and means to drive the shaft carrying the eccentric.

5. A pneumatic beetling machine comprising a number of beetling heads with over-head cloth beam, each beetling head comprising a fixed cylinder, supporting means therefor, a sliding support in each cylinder, a hammer on each support, an outside movable cylinder for each head, an attached stirrup for each movable cylinder, eccentrics for each stirrup differently disposed angularly, a shaft supporting the eccentrics, means to drive the shaft and means to stop said shaft as described.

[Claim 6 not printed in the Gazette.]

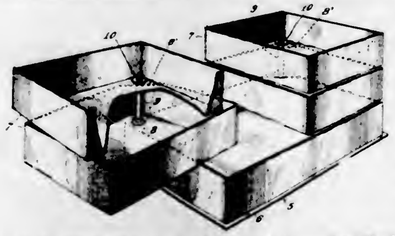


1,090,591. UNCOUPLING MECHANISM FOR CARS. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed May 9, 1910, Serial No. 560,127. Divided and this application filed Sept. 14, 1911. Serial No. 649,336. (Cl. 213—59.)



In a car coupler of the M. C. B. type, a knuckle pivotally connected to said coupler by means of pivot ears, lugs connected to one of said pivot ears, an arm pivoted to said lugs and extending rearwardly and longitudinally of said coupler, said arm having an eye therein intermediate its ends and being adapted to operate the coupler lock, a lever pivoted to the guard arm of said coupler and extending transversely of said coupler and through the eye of said arm, said lever being arranged so as to always act against the upper side of said eye, and means to move said lever so as to revolve said arm about its pivot to unlock the coupler.

1,090,592. BOX. WILLIAM R. BETHAM, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,812. (Cl. 206—44.)



1. In a paste-board box of the character described, a base having side and end walls and a top web overlying a corner of said base and constituting a pivot-supporting and tray-bearing means leaving the interior and exterior surfaces of the vertical walls of said base unoccupied, a pivot and bearing on the web connected with said web, and a tray mounted upon said pivot for pivotal movement over the web relative to the base.

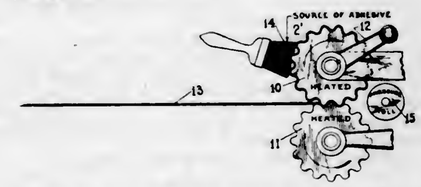
2. In a paste-board box of the character described, a base having side and end walls and a horizontal top-web at a corner of said base, a tray superposed on said base bearing on said web and provided with a similar web, another tray similarly arranged above the first tray, and pivotal connections between the bottom of each tray and the subjacent web, fixing said elements in unalterable vertical relation and leaving each tray free for pivotal movement in its own plane, each said web constituting a pivot-receiving and tray-bearing means carried by meeting side and end walls of the box and tray leaving the space upon both sides of said walls unoccupied.

3. In a device of the character described, the combination of a base, a tray pivoted to the base adjacent its corner for lateral movement relative to the base, and a cover having top, side, and end walls, the lower edges of said side and end walls fitting snugly against the base, and the inner surface of said walls being spaced from the adjacent outer surfaces of the base and trays when the trays are folded in above the base.

4. In a box, the combination of a base having side and end walls and top-webs spanning two corners thereof, trays arranged in tiers, each tier comprising a pair, top-webs in the appropriate corners of all trays intermediate the base and the topmost tray, pivot means for connecting the bottom of each tray with the corner web of the subjacent tray, whereby each tray may swing pivotally in its plane and be supported upon a subjacent corner web, said trays when folded conforming to the plan area of the base, and a cover having a bottom opening conforming to the plan area of the base, the walls of said cover diverging from said bottom opening to leave a clearance between the trays and the cover.

5. An article of manufacture comprising a cardboard structure having a bottom, and vertical side and end walls, the cardboard of one of said vertical walls at its upper edge adjacent one corner of the structure having an extension bent inwardly at right angles to the wall and connected to the vertical wall which meets the extension-carrying vertical wall at that corner, to provide a horizontal cardboard web, said web being perforated to provide support for a pivot post, and a pivot post carried by said web for pivotal support of other like structures.

1,090,593. METHOD OF FORMING BOXES AND TUBES. ROBERT S. BOLGER, New York, N. Y., assignor of one-half to Charles Leffler & Company, a Corporation of New York. Filed Feb. 1, 1912. Serial No. 674,697. (Cl. 93—81.)



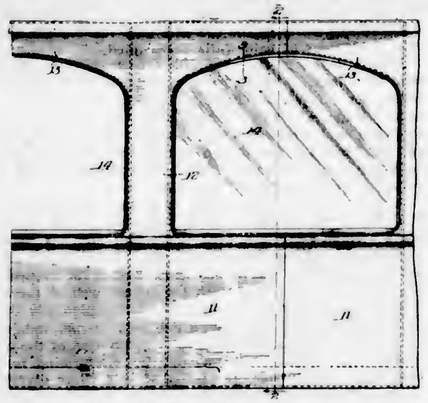

1. The method of forming bodies for boxes, tubes and the like consisting in pressing lateral projections into limited portions of a continuous strip of sheet material leaving the remainder of the strip plain and then wrapping or rolling said strip upon itself to form at least one complete layer of plain material and at least one complete layer of the projection bearing material substantially as described.

2. The method of forming bodies for boxes, tubes and the like, consisting in corrugating the middle portion of a continuous strip of material leaving the end portions plain, then wrapping or rolling the strip upon itself thereby superposing alternate layers of plain and corrugated material, substantially as described.

1,090,594. UNIT-SECTION SIDE FRAME FOR CARS. FRANCIS M. BRINCKERHOFF, Englewood, N. J., assignor to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed July 18, 1912. Serial No. 710,136. (Cl. 105—201.)

1. In a side frame for cars, the combination of a series of sheathing units providing window openings, the sheathing flanged inwardly at the sides of the openings, and

side posts interposed between and bearing against the adjacent flanges of contiguous openings, the sheathing units secured to the side posts, substantially as described.



2. In a side frame for cars, the combination of a series of sheathing units providing window openings, the sheathing flanged inwardly around the entire opening and side posts interposed between and bearing against the adjacent flanges of contiguous openings, the sheathing units secured to the side posts, substantially as described.

3. In a side frame for cars, the combination of a metallic sheathing providing window openings, the sheathing flanged inwardly around the openings, and side posts interposed between and bearing against the adjacent flanges of contiguous openings, substantially as described.

4. In a side frame for cars, the combination of a series of sheathing units providing window openings, the sheathing flanged inwardly to form a continuous flange surrounding the openings, and side posts interposed between and bearing against the adjacent flanges of contiguous openings, the sheathing units secured to the side posts and above and below to the side plate and side sill of the car, substantially as described.

5. In a side frame for cars, the combination of a metallic sheathing providing window openings, said sheathing flanged inwardly at substantially right angles around the window opening and then offset in a plane parallel to the general plane of the sheathing, and reinforcing members interposed between the flanges of adjacent openings, substantially as described.

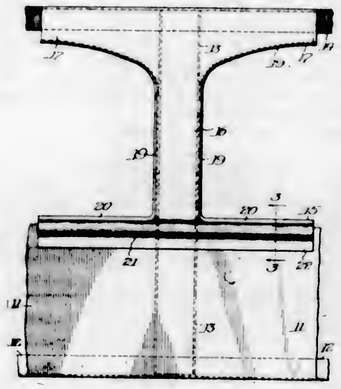
[Claims 6 to 18 not printed in the Gazette.]

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1,090,595. UNIT-SECTION SHEATHING FOR CARS. FRANCIS M. BRINCKERHOFF, Englewood, N. J., assignor to Forsyth Brothers Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 27, 1913. Serial No. 797,418. (Cl. 105—201.)

1. In a sheathing for cars, the combination of an upper sheathing terminating substantially at the line of the belt rail and providing window openings, that portion of the sheathing between the window openings being integral with the portion at the bottom of the openings, and a lower sheathing extending longitudinally of the car beneath the line of the belt rail, the lower margin of the upper sheathing overlapping the upper margin of the lower sheathing, substantially as described.

2. In a sheathing for cars, the combination of an upper sheathing terminating substantially at the line of the belt rail and providing window openings, that portion of the sheathing between the window openings being integral with the portion at the bottom of the openings, and a lower sheathing extending longitudinally of the car beneath the line of the belt rail, the lower margin of the upper sheathing overlapping the upper margin of the lower sheathing, the window openings bounded below and at the sides by integral portions of the upper sheathing extending inwardly therefrom at an angle thereto, substantially as described.



3. In a sheathing for cars, the combination of a series of sheathing units providing window openings and terminating immediately below the window sill, a sheet of sheathing extending longitudinally of the car below the windows, the sheathing units outwardly bent along their lower edges and overlapping the lower side sheathing to form a belt rail, substantially as described.

4. In a sheathing for cars, the combination of a series of sheathing units providing window openings and terminating immediately below the window sill, and a sheet of sheathing extending longitudinally of the car below the windows, the sheathing units flanged inwardly at the sides of the windows to form a window frame and outwardly bent and inwardly flanged below the openings to form a belt rail and window sill, substantially as described.

5. In a sheathing for cars, the combination of a series of sheathing units providing window openings and terminating immediately below the window sill, and a sheet of side sheathing extending longitudinally of the car below the windows, the sheathing units flanged inwardly at the top and sides of the windows to form a window frame and outwardly bent and inwardly flanged below the openings to form a belt rail and window sill, the belt rail overlapping the underlying side sheathing, substantially as described.

[Claims 6 to 8 not printed in the Gazette.].

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1,090,596. FLOATING-JACKET. WILLIAM N. BRYERS, Helmer, Mich. Filed Jan. 11, 1913. Serial No. 741,454. (Cl. 9—20.)

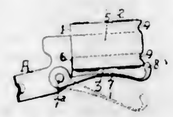


The combination with a garment, of an inflatable air tube laid zig-zag on both the front and back portions of said garment and having both of its ends closely adjacent each other at the front portion of said garment, and having the connecting portions of its front and back sections disposed near the waist line of the said garment, a single device attached to one tube-end for inflating said tube throughout its length, and a casing following and covering the entire tube and secured by its marginal edges to the garment.

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1,090,597. TYPE-WRITING MACHINE. STANISLAS DANIELSKI BUSZ, Moscow, Russia, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 2, 1909. Serial No. 530,919. (Cl. 197—36.)



1. In a typewriting machine, the combination with a duplex reversible type head having surfaces, a type bar having coöperating surfaces substantially parallel to each other sliding on said first surfaces, and type faces on said head positively positioned and supported by engagement of said surfaces.

2. In a typewriting machine, the combination with a duplex reversible type head having surfaces, a type bar having coöperating surfaces substantially parallel to each other sliding on said first surfaces, and type faces on said head positively positioned and supported by engagement of said surfaces, each side of said head having a plurality of type thereon.

3. In a typewriting machine, the combination with a duplex reversible type head having surfaces, a type bar having coöperating surfaces substantially parallel to each other sliding on said first surfaces, type faces on said head positioned and supported by engagement of said surfaces, and a detent entering an opening in said head for securing the type head on the bar.

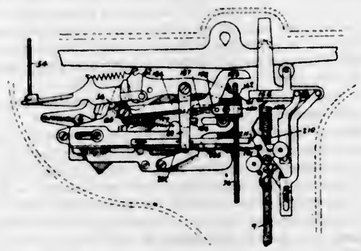
4. In a typewriting machine, the combination with a type bar, of a type block removably mounted on the bar, and a latch pivoted to the bar and lying in the same plane with the bar to engage the type block and secure it against displacement relative to the type bar.

5. In a typewriting machine, the combination with a type bar, of a type block removably mounted on the bar, and a swinging latch pivoted to the bar and engaging the outer end of the type block to prevent accidental displacement thereof.

[Claims 6 to 20 not printed in the Gazette.]

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1,090,598. SCALE. ADOLPH A. CAILLE, Detroit, Mich. Filed Oct. 22, 1913. Serial No. 796,555. (Cl. 104—56.)



1. In a scale, a frame, a platform and a scale beam mounted thereon, a main connecting rod and an auxiliary connecting rod connected to the platform so as to be actuated by a load placed thereon, a locking device adapted to be moved into position to prevent the scale beam from vibrating freely, means whereby the auxiliary connecting rod may be connected to the locking device so as to move the same to locking position, means for breaking the connection between the auxiliary connecting rod and the locking device, said means comprising a movable plate, means for normally holding the plate at one limit of its movement, and means for locking the plate at the other limit of its movement, the main connecting rod having a spring secured thereto, a member connected to the scale beam and to the spring, the length of the latter being changed by the weight of a load on the platform, and means, actuated by the spring as its length increases, for releasing the plate locking means to allow the plate to be returned to its normal position when the load on the platform is decreased.

2. In a scale, a frame, a platform and a scale beam mounted thereon, a main connecting rod and an auxiliary connecting rod connected to the platform so as to be actuated by a load placed thereon, a locking device adapted to be moved into position to prevent the scale beam from vibrating freely, means whereby the auxiliary connecting rod may be connected to the locking device so as to move the same to locking position, means for breaking the connection between the auxiliary connecting rod and the locking device, said means comprising a movable plate, means for normally holding the plate at one limit of its movement, and means for locking the plate at the other limit of its movement, the main connecting rod having a spring secured thereto, a member connected to the scale beam and to the spring, the length of the latter being changed by the weight of a load on the platform, and means, actuated by the spring as it returns to normal length, for releasing the plate locking means to allow the plate to be returned to its normal position when the load on the platform is decreased.

3. In a scale, a frame, a platform and a scale beam mounted thereon, a main connecting rod and an auxiliary connecting rod connected to the platform so as to be actuated by a load placed thereon, a locking device adapted to be moved into position to prevent the scale beam from vibrating freely, means whereby the auxiliary connecting rod may be connected to the locking device so as to move the same to locking position, means for breaking the connection between the auxiliary connecting rod and the locking device, said means comprising a sliding plate, means for normally holding the plate at one limit of its movement, and means for locking the plate at the other limit of its movement, the main connecting rod having one end of a spring attached thereto, a member secured to the other end of the spring, the length of the spring being changed by the weight of a load on the platform, said member being adapted to actuate the scale beam, a pivot on the member, a lever mounted on the pivot, said lever being adapted to release the plate locking means from engagement with the plate, and means actuated by the spring for turning the lever, as the spring returns to normal length, to release the plate locking means and allow the plate to be returned to its normal position when the load on the platform is decreased.

4. In a scale, a frame, a platform and a scale beam mounted thereon, a main connecting rod and an auxiliary connecting rod connected to the platform so as to be actuated by a load placed thereon, a locking device adapted to be moved into position to prevent the scale beam from vibrating freely, means whereby the auxiliary connecting rod may be connected to the locking device so as to move the same to locking position, means for breaking the connection between the auxiliary connecting rod and the locking device, said means comprising a sliding plate, means for normally holding the plate at one limit of its movement, and means for locking the plate at the other limit of its movement, the main connecting rod having one end of a spring attached thereto, a member secured to the other end of the spring, said member being adapted to actuate the scale beam, the length of the spring being changed by the weight of a load on the platform, a pivot on the member, a lever mounted on the pivot, said lever being adapted to release the plate locking means from engagement with the plate, and means actuated by the spring for turning the lever, as the length of the spring

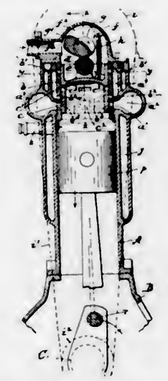
increases, to release the plate locking means and allow the plate to be returned to its normal position when the load on the platform is increased.

5. In a scale, a frame, a platform and a scale beam mounted thereon, a main connecting rod and an auxiliary connecting rod connected to the platform so as to be actuated by a load placed thereon, a locking device adapted to be moved into position to prevent the scale beam from vibrating freely, means whereby the auxiliary connecting rod may be connected to the locking device so as to move the same to locking position, means for breaking the connection between the auxiliary connecting rod and the locking device, said means comprising a movable plate, means for normally holding the plate at one limit of its movement, means for locking the plate at the other limit of its movement, the main connecting rod having one end of a spring attached thereto, a member secured to the other end of the spring, said member being adapted to actuate the scale beam, a pivot on the member, a lever mounted on the pivot, said lever being adapted to release the locking means from engagement with the plate, a ratchet-bar secured to the lever at one side of the pivot, a block attached to the main connecting rod, and a ratchet mounted on the block and adapted to engage with the teeth of the ratchet-bar to turn the lever about its pivot to release the plate locking means from engagement with the plate when the load on the platform is decreased.

[Claims 6 to 22 not printed in the Gazette.]

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1,090,599. VALVE STRUCTURE FOR EXPLOSIVE-ENGINES. EVERETT S. CAMERON, Beverly, Mass. Filed Mar. 4, 1912. Serial No. 681,362. (Cl. 123—188.)



1. In combination with the cylinder, of a closure member for the end of said cylinder having a gas supply chamber; an auxiliary gas chamber surrounding the cylinder-bore, near the outer part thereof, and also an exhaust chamber leading from the bore; a tubular bushing fixed in the cylinder-bore, said bushing having a series of intakes communicating with the outer part of the auxiliary chamber, a series of inlets leading from the inner part of the latter, and a series of exhaust ports communicating with the exhaust chamber; a dome-shaped piston valve slidable in the bushing, said valve having a series of ports to register with the inlets of the latter; a cam adapted to impart an inward movement to said valve to admit the supply through the intakes, through the auxiliary chamber, through the inlets, and through the ports of said valve, during the period of suction stroke, and means to return said valve to uncover the exhaust ports, substantially as set forth.

2. In combination with the cylinder, of a closure member for the end of said cylinder having a gas supply chamber; an auxiliary gas chamber surrounding the cylinder-bore, near the outer part thereof said chamber having a series of intakes and a series of inlets leading from the bore; an exhaust chamber surrounding the cylinder-bore, said chamber having a series of outlets leading from the bore; a dome-shaped piston valve slidable in the cylinder-bore, said valve having a series of ports to register with the series of inlets from the auxiliary chamber; a rotary cam to impart an inward movement to said valve to uncover and admit the supply through the intakes, through the auxiliary chamber, through the inlets, and through the ports of said valve, during the period of suction stroke, and means to return said valve to uncover the outlets leading to the exhaust chamber, substantially as set forth.

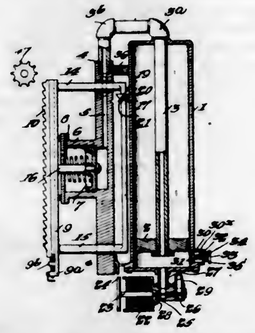
3. In combination with the cylinder, of a closure member for the end of said cylinder having a gas supply chamber; an auxiliary gas chamber formed in the cylinder-bore, near the outer part thereof, and also an exhaust chamber leading from the bore; a tubular bushing fixed in the cylinder-bore, said bushing having three transversely-arranged series of ports, one series to form intakes communicating with the outer part of the auxiliary chamber, an intermediate series to form inlets leading from the inner part of the last said chamber, and a series of exhausts to form outlets communicating with the exhaust chamber; a dome-shaped piston valve slidable in the bushing, said valve having a series of ports to register with the series of inlets from the auxiliary chamber; a roller carried upon the dome of said valve; a rotary shaft having an integral cam for said roller to move upon, said cam designed to impart an inward movement to said valve to uncover and admit the supply through the intakes, through the auxiliary chamber, through the inlets, and through the ports of said valve, during the period of suction stroke, and means to return said valve to uncover the outlets during the period of exhaust stroke, substantially as set forth.

4. In combination with the cylinder, of a gas supply chamber above said cylinder; an auxiliary gas chamber formed in the cylinder-bore, near the outer part thereof, and also an exhaust chamber leading from the bore; a tubular bushing fixed in the cylinder-bore and having three series of ports arranged transverse of and in a horizontal plane through its wall, one series to form intakes communicating with the outer part of the auxiliary chamber, an intermediate series to form inlets leading from the inner part of the auxiliary chamber, and an inner series to form outlets communicating with the exhaust chamber; a dome-shaped piston valve slidable in said bushing and provided with an explosive chamber, said valve having a series of ports to register with the series of inlets from the auxiliary chamber; a roller carried by said valve; a shaft; a cam carried by said shaft and having an irregular flat working face for said roller to move upon, said cam designed to impart an inward movement to said valve to uncover and admit the supply through the intakes, through the auxiliary chamber, through the inlets and into the explosive chamber, during the period of suction stroke; means to respectively keep the said roller in contact with the cam face and to return said valve to uncover the outlets to the exhaust chamber, and means to rotate said shaft in one direction, substantially as set forth.

5. In combination with the cylinder having the auxiliary gas chamber —*a*— and exhaust chamber —$a^2$—; the closure member —*f*— having a main gas supply chamber; the fixed bushing —*b*— having the intakes —$b^1$—, intermediate inlets —$b^2$—, and outlets —$b^3$—; the valve —*o*— having ports —$c^2$— to register with the inlet; the roller —*d*— carried by said valve; the shaft —*g*— having integral cam —$g^1$— and the said cam designed to impart an inward movement to said valve to uncover the intakes and the inlets, during the period of suction stroke; the pull-springs —*h*— to keep the roller in contact with the cam face and to return the valve to uncover the outlets to the exhaust chamber, and driving arrangement consisting of the sprocket wheel —*i*—, pinion —$i^2$—, and chain connection —$i^1$—, substantially as set forth.



1,090,600. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. DAVID E. CROUSE, Annapolis, Md., assignor to The Auto Air Appliance Company, Baltimore, Md., a Corporation of Maryland. Filed Apr. 5, 1912. Serial No. 688,584. (Cl. 123—179.)



1. In a device for starting internal combustion engines, a gear on the engine shaft, a rack normally out of alinement with said gear, said rack comprising two portions movable with respect to one another, means for moving said rack into alinement with said gear, means for moving the rack into engagement with the gear, an electrical circuit for controlling each of said rack moving means, and contacts carried by the rack and forming part of the electrical circuit, said contacts being arranged to be separated by the movement of one of said rack portions relatively to the other rack portion thereby breaking the circuit.

2. In a device for starting internal combustion engines, a rack, said rack comprising a support, a slidable member carried by said support and provided with teeth, a pair of contacts carried by said support, one of said contact members being arranged to be engaged by the toothed portion of the rack, a spring for holding said contacts normally out of engagement, means for moving the rack into alinement with the pinion, means for moving the rack into engagement with the pinion, the engagement of the rack with the pinion serving to force the contact together against the tension of the spring.

3. In a device for starting internal combustion engines, a gear on the engine shaft, a rack normally out of alinement with said gear, means for moving the rack into alinement with said gear, means for moving the rack into engagement with the gear, magnetic controlling means for each of said rack moving means, a source of current, a pair of contacts, one of said contacts being carried by said rack, connections between said source of current, said contacts and said magnetic controlling means, the movement of said rack serving to separate said contacts, and a second pair of contacts in multiple with said first named contacts, the engagement of the rack with the pinion serving to close said second pair of contacts.

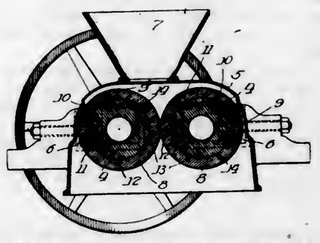
4. In a device for starting internal combustion engines, a gear on the engine shaft, a rack normally out of alinement with said gear, a piston for moving said rack into alinement with said gear, a second piston for moving the rack into engagement with the gear, auxiliary means for moving the rack into alinement with the gear, said auxiliary means comprising a spring controlled pivoted cam member, a pin carried by the rack and arranged to engage said cam member, and means for holding the cam member rigid during the engagement of the pin on one side of said cam member.

5. In a device for starting internal combustion engines, a gear on the engine shaft, a rack normally out of alinement with said gear, pneumatic means for moving the rack into alinement with the gear, pneumatic means including a cylinder and a piston for moving the rack into engagement with the gear, spring means for again moving the rack out of alinement with the gear, magnetic means for controlling the pneumatic means, an energizing circuit for said magnetic means, a spring-pressed plunger arranged to be operated by abnormal pressure within said cylinder, and normally closed contacts in said energizing circuit arranged to be broken by the movement of said plunger.

[Claim 6 not printed in the Gazette.]

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1,090,601. CRUSHING-ROLL. THOMAS B. CROWE, Colorado Springs, Colo., assignor to Portland Gold Mining Company, Colorado Springs, Colo., a Corporation of Wyoming. Filed Nov. 7, 1913. Serial No. 799,655. (Cl. 83—12.)



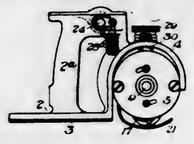
1. A crushing roll provided with a cylindrical shell having therein a longitudinal hole located adjacent to the surface of said shell and adapted to be opened up so as to form a longitudinal groove in said shell as the surface of the shell is worn out.

2. A crushing roll provided with a cylindrical shell having a plurality of holes extending longitudinally through said shell and arranged radially around said shell, and disposed at varying distances from the surface of said shell.

3. A crushing roll provided with a cylindrical shell having a plurality of holes extending longitudinally through said shell and arranged radially around said shell, and disposed at varying distances from the surface of said shell, the top of one hole being substantially the same distance from the surface of said shell as the bottom of the preceding hole.

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1,090,602. POWER-OPERATED HAND PLANER OR SMOOTHER. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1913. Serial No. 743,537. (Cl. 144—117.)



1. A portable tool of the character described, comprising a central handle portion, a combined motor and tool-supporting frame suspended from the handle portion and extending laterally to each side thereof, a tool shaft journaled in the central portion of said frame, and a motor mounted at each end portion of the frame and geared to the tool shaft, substantially as described.

2. A portable tool of the character described, comprising a central handle member having a forwardly projecting upwardly arched portion, a combined tool and motor-supporting frame adjustably suspended from and within said arched portion, said frame having a tool shaft journaled longitudinally at the central portion thereof, and a motor supported by each end portion of the frame and

having a driving connection with said tool shaft, substantially as described.

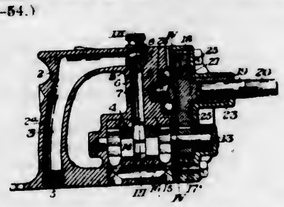
8. A portable tool of the character described, comprising a handle member having a bottom guiding surface and also having a forward extension, a combined tool and motor-supporting frame, a casing adjustably suspended from said extension and movable vertically with reference to said guiding surface, a tool shaft journaled in the central portion of the frame and casing, and a motor mounted within each end portion of said frame and casing and having a driving connection with the tool shaft, substantially as described.

4. A portable tool of the character described, comprising a central handle member, a combined motor and tool-supporting frame carried by said handle member and extending laterally to each side thereof, a motor shaft journaled longitudinally in said frame, a motor member connected to each end portion of said shaft, and a tool shaft also journaled in said frame and having a plurality of driving connections with the motor shaft, substantially as described.

5. A portable tool of the character described, comprising a handle portion, a tool carrier supported thereby and having a rotary tool, and motors for driving said tool, a device on the handle portion for controlling the said motors, a thumb piece for actuating the said device, a movable guard for the tool, and an actuating connection between the thumb piece and the guard; substantially as described.

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1,090,603. PORTABLE PNEUMATIC TOOL. ETHAN I. DODDS, Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 22, 1913. Serial No. 743,538. (Cl. 121—54.)



1. A tool of the character described, comprising a frame, there being a motor chamber within said frame, a plurality of inter-geared pistons rotatably mounted in said chamber, there being an inlet conduit leading to said chamber, shafts to which the pistons are attached, a tool spindle out of alinement with the piston shafts, and gearing connecting one of said piston shafts with a tool shaft; substantially as described.

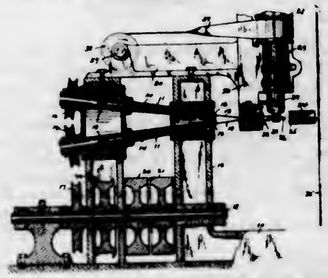
2. A tool of the character described, comprising a handle portion having an inlet conduit, a motor chamber carried by the handle portion, a casing connected to the front end of said handle portion, a plurality of shafts rotatably mounted in the handle portion and the gear casing, there being a piston chamber within the handle portion through which said shafts extend, a plurality of intergeared rotary pistons in the piston chamber connected to said shafts, a tool spindle out of alinement with the piston shafts and mounted in the handle portion and the gear casing, and gearing within the gear casing connecting one of the piston shafts with the tool spindle; substantially as described.

3. A portable tool of the character described, comprising a frame portion having a longitudinally extending piston chamber therein, there being a conduit leading to the piston chamber and a plurality of exhaust ports leading from the piston chamber, a gear casing connected to the front end of said frame portion, a plurality of shafts rotatably mounted in the frame portion and the gear casing and extending through the piston chamber, a plurality of intergeared pistons in the piston chamber connected to said shafts, a tool spindle out of alinement with the piston shafts and mounted in the handle portion of the gear casing, and gears within the gear casing connected to one of the piston shafts and the tool spindle for driving the tool spindle; substantially as described.

4. A tool of the character described, comprising a handle portion connected to a frame portion, said handle portion being in the form of a hand grip, a motor chamber carried by the frame portion, there being an inlet conduit leading through the handle portion and the frame portion to the piston chamber, a plurality of exhaust ports leading from the cylinder chamber to the atmosphere, a valve for controlling the admission of fluid to the piston chamber, a tool spindle bearing seat in said frame portion, a gear frame connected to the front end of the handle frame having bearings for the motor and the tool spindle, and gearing within said casing connecting the motor and the spindle; substantially as described.

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1,090,604. MACHINE FOR DRILLING AND SHAPING BUTTONS. ANTOINETTE V. DEDA, Astoria, N. Y. Filed Nov. 26, 1912, Serial No. 733,716. Renewed Jan. 31, 1914. Serial No. 815,800. (Cl. 79—13.)



1. In a machine of the kind described, the combination with the hollow guide block having outwardly diverging holes through the end thereof, the drilling needles crossing within the block and projecting through the holes thereof, and a chuck arranged opposite the needles, of a vertically movable and rotatable shaft, a cutting tool carried by the shaft, and a driving pulley keyed to the shaft, whereby the shaft can move vertically through the pulley thereby bringing the cutting tool into and out of alinement with the needles and chuck.

2. In a machine of the kind described, the combination with the rotatable spindles and the needles carried thereby and projecting therefrom, of a guide block spaced apart from the spindle ends and provided with diverging holes to guide the needles, a chuck arranged opposite the needle ends, and a rotatable cutting tool movable up and down between the needle ends and the aforesaid chuck.

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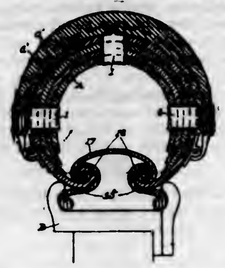
1,090,605. TIRE CONSTRUCTION. HARRY W. DYER, East Orange, N. J. Filed Mar. 17, 1911. Serial No. 615,053. (Cl. 152—8.)

1. A resilient tire consisting of a body of approximately circular form, and the opposite sides of which are formed with inwardly and upwardly extending hooks, clips connecting said hooks together, a rim, and spaced hooks of S-shape interlocked at their outer ends with opposite sides of the rim and interlocked at their inner ends with the interlocked portions of the clips and hooks of the tire body.

2. A resilient tire comprising a body composed of sections, each section consisting of a spring or resilient member of approximately circular form provided at its lower edges with spaced hooks curving upwardly into the space surrounded by the body of the section, clips connecting the hooks of the section together, a rim, and hooks interlocking with the rim and with the hooks of the spring section, connecting the latter with the rim.

3. A resilient tire composed of a body comprising a plurality of superposed spring members of approximately circular form, the lowermost of said members being inclosed by the outermost member, a rim, means connecting the rim with the outermost spring members, the superposed spring

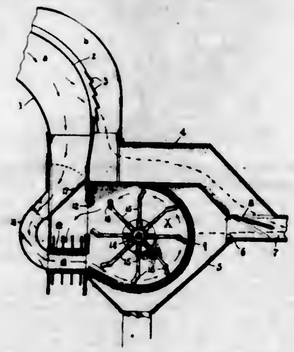




members being provided with registering slots, and bands passing through said slots and connecting the spring members together.

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1,090,606. COTTON-CLEANER. CLINTON C. EPPS, Eufaula, Okla. Filed Dec. 23, 1912. Serial No. 738,196. (Cl. 13—19.)



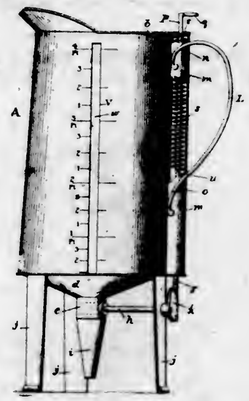
1. In a cotton cleaner, a case having a separator duct 1 for the ingress of boll cotton, said separator duct having a perforated partition 2 subdividing it into a main channel *a* and a refuse channel *b*, a screen in said case, a breaker movable along said screen, a duct providing communication between said main channel *a* and the portion of said case in which said breaker is confined by said screen, a suction outlet duct adapted to receive the refuse passing through said screen, and a suction duct leading from said refuse channel *b* to said outlet duct.

2. In a cotton cleaner, a case having a separator duct 1 for the ingress of boll cotton, said separator duct having a perforated partition 2 subdividing it into a main channel *a* and a refuse channel *b*, a screen in said case, a breaker movable along said screen, a duct providing communication between said main channel *a* and the portion of said case in which said breaker is confined by said screen, a suction outlet duct adapted to receive the refuse passing through said screen, and a suction duct leading from said refuse channel *b* to said outlet duct, and a gate valve at the junction of the last named ducts operable to close either of said ducts and movable to permit said ducts to communicate with each other.

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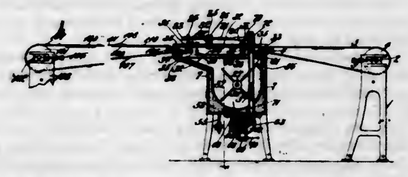
1,090,607. LIQUID-MEASURE. CHARLES FRITZ, Baltimore, Md. Filed Feb. 1, 1912. Serial No. 674,659. (Cl. 226—33.)

The combination with a vessel having a depending discharge-nozzle in its bottom of supporting legs around the nozzle and depending from the periphery of the vessel; a valve extending crosswise of the nozzle and having a horizontal stem whose outer end projects through and has bearing in one of the supporting legs; a segment gear on the end of the stem and at the outer side of the leg in which the stem has bearing; a vertical tube on the exterior of the vessel directly above the periphery of the segment gear; a vertical rack-bar depending from the tube and projecting downwardly at the leg which sustains the gear-stem and engaging said gear, and a handle attached to the vessel in alinement with the rack-bar.



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1,090,608. CANDY-COATING MACHINE. WILLIAM FRITZ, Philadelphia, Pa. Filed Apr. 30, 1913. Serial No. 764,508. (Cl. 91—3.)



1. In a coating machine, a plurality of spaced laterally alined endless belts formed of coil springs, means to effect the longitudinal travel of the endless belts, means for retaining portions of certain of the endless belts in a different horizontal plane from corresponding portions of the other endless belts, and means to supply coating material to the articles carried by the endless belts.

2. A coating machine comprising a plurality of spaced laterally alined endless belts formed entirely of coil springs, means to vertically vibrate the endless belts, and means for supplying coating material to the articles upon the endless belts.

3. A coating machine comprising a plurality of spaced laterally alined endless belts formed of coil springs, means to effect a longitudinal travel of the endless belts, pulleys engaging portions of certain of the endless belts, means to vertically adjust the pulleys, and means to supply a coating material to the articles upon the endless belts.

4. In a coating machine, a conveyer comprising laterally alined spring cables, means to impart a travel to said conveyer, a U-shaped discharge conduit between the arms of which said conveyer travels and having a slot through its inner wall on both sides of said conveyer, and means to feed coating material to said discharge conduit.

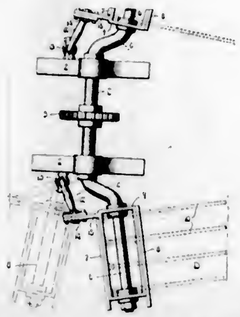
5. In a coating machine, a conveyer comprising laterally alined spring cables, means to impart a travel to said conveyer, a U-shaped discharge conduit between the arms

of which said conveyer travels and having a slot through its inner wall on both sides of said conveyer, means to feed coating material to said discharge conduit, means to regulate the amount of coating material passing through said slot, devices to agitate said cables, and means to vary the amount of agitation imparted to said cables.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,609. FLYING-MACHINE. ELLIOTT E. FURNEY, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,087. (Cl. 244—27.)



1. A flying machine, comprising a body, a power shaft, crank pins carried by said power shaft, wings supported by said crank pins adapted to oscillate about the axes thereof, links, and universal connections joining said links to said wings and body.

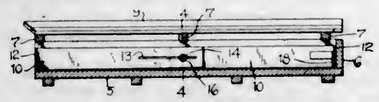
2. A flying machine, comprising a body, a power shaft, crank pins carried by said power shaft, wings supported by said crank pins adapted to oscillate about the axes thereof, said crank pins being at an angle to the axis of said power shaft, links, and universal connections joining said links to said wings and body.

3. A flying machine comprising a body, wings extending from said body, and wing operating devices connecting the front inner corners of said wings to said body, each of said wing operating devices including a power shaft, a crank pin carried by said shaft and extended into the wing so as to constitute a firm support for the wing, and a link, adjacent to said crank pin, forming a support for said wing.

4. A flying machine comprising a body, wings extending from said body, and wing operating devices connecting the front inner corners of said wings to said body, each of said wing operating devices including a power shaft, a crank pin, the axis of which diverges from the axis of said shaft, said crank pin being carried by said shaft and extended into the wing so as to constitute a firm support for the wing, and a link, adjacent to said crank pin, forming a support for said wing.

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1,090,610. ATTACHMENT FOR GRAIN-RACKS. EDWIN GERDIN, Park River, N. D. Filed Aug. 16, 1913. Serial No. 785,102. (Cl. 21—74.)

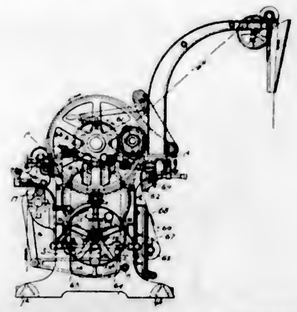


1. The combination with a vehicle body, of a false bottom therefor consisting of two metal sections each having longitudinal side walls and a vertical wall connecting the side walls at one end, said bottom sections at their other ends being slidable upon each other, and means mounted upon the side walls of the vehicle body and connecting the engaged ends of the side walls of the bottom sections to limit their sliding movement and secure the sections in their adjusted positions.

2. The combination with a vehicle body, of a false bottom therefor consisting of two metal sections each having longitudinal side walls and a vertical end wall, the side walls of one of said sections being provided with longitudinal slots, the side walls of the other section having openings to register with said slots, and bolts extending through said slots and openings and through the side walls of the vehicle body to detachably secure the bottom sections in their adjusted position to said body.

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1,090,611. CLOTH-PRESSING MACHINE. DAVID GESSNER, Worcester, Mass. Filed Apr. 21, 1910. Serial No. 556,780. (Cl. 26—5.)



1. In a cloth-pressing machine, in combination, a cylinder, a bed plate arranged to gravitate away from the cylinder, pressure mechanism to move the bed plate toward the cylinder, said mechanism including means to lock the bed plate in pressing position, and brake means to control the fall of the bed plate when released by the pressure mechanism.

2. In a cloth-pressing machine, in combination, a cylinder, a bed plate arranged to gravitate away from the cylinder, operating means for applying bed plate pressure, said means being driven by the bed plate when gravitating, and a brake means operable on said operating means to control gravitation of the bed.

3. In a cloth-pressing machine, in combination, a cylinder, a bed plate arranged to gravitate away from the cylinder, a pressure actuating mechanism for applying or releasing the bed plate pressure, a rotary member driven by the bed plate when gravitating, and a brake operable on said rotary member to control gravitation of said bed plate.

4. In a cloth-pressing machine, in combination, a cylinder, a bed plate arranged to gravitate away from the cylinder, means movable in one direction for applying bed plate pressure, said means being connected to the bed plate whereby gravitation of the latter moves said means in the opposite direction, and a brake operable on said means during gravitation of the bed plate.

5. In a cloth-pressing machine, in combination, a cylinder, a bed plate arranged to gravitate away from the cylinder, a pressure mechanism to move the bed plate toward the cylinder, said means including a rotary member, a brake wheel driven by the rotary member when the bed gravitates, and a brake operable on said brake wheel during gravitation of the bed plate.

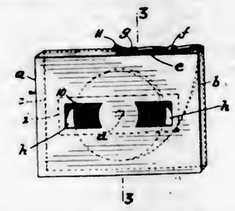
[Claims 6 to 16 not printed in the Gazette.]

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1,090,612. BRAID-HOLDER. EDWIN M. GOLDSMITH, Philadelphia, Pa. Filed June 23, 1913. Serial No. 775,192. (Cl. 206—52.)

A braid holder comprising a rectangular shaped box of relatively small depth closed on all six sides except for the provision of a sight orifice through one of its two sides of relatively large area and of a hinged flap adapted to be operated to open or close one of its sides, and a separate plate substantially corresponding in dimensions to one of the box sides of larger area and insertible into the box through the open sides adapted to be closed by said

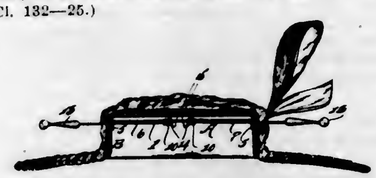




flap, said plate having a central pin projecting from one face thereof and being inserted within the box in such position that the said pin extends toward the orificed side of the box to allow a roll of braid placed on the plate to lie between said plate and the orificed side of the box.

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1,090,613. HAT-FASTENER. JULIUS GORELOVITZ, New York, N. Y. Filed Nov. 14, 1913. Serial No. 800,912. (Cl. 132—25.)



1. A hat fastener consisting of a rotatable frame adapted for insertion into a hat, pins carried by said frame adapted to pass through the hat, said pins being slidably supported by said frame, means carried by said pins adapted to engage the hair, and means also carried by said pins adapted to bear against said frame to prevent the rotation of said pins relative to the frame but to facilitate the rotation of said frame and pins as a whole.

2. A hat fastener consisting of a frame adapted for insertion into a hat and adapted for rotation therein, said frame being provided with openings at each end thereof, a plurality of pins adapted to pass through the hat and through said openings, slidable blocks carried by said frame provided with channels receiving said pins, the openings in said frame and channels in said blocks being located on the opposite sides of said frame whereby said pins take a diagonal course across said frame, and hooks carried by said pins adapted to engage the hair, a portion of said hooks bearing against said frame.

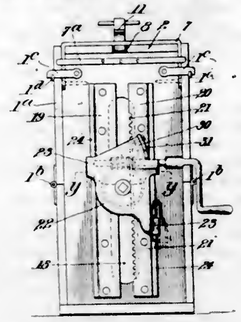
3. A hat fastener consisting of a frame adapted for insertion into a hat and adapted for rotation therein, said frame being provided with openings at each end thereof, said openings being flush with the adjacent surface of said frame, a plurality of pins adapted to pass through the hat and through said openings, slidable blocks carried by said frame provided with channels receiving said pins, said channels being flush with the adjacent surface of said frame, the openings in said frame and channels in said blocks being located on the opposite sides of said frame whereby said pins take a diagonal course across said frame, and hooks carried by said pins adapted to engage the hair, a portion of said hooks bearing against said frame.

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1,090,614. BALING-PRESS. WESTLEY L. GREIDER, Strasburg, Pa. Filed Apr. 10, 1913. Serial No. 760,270. (Cl. 100—5.)

1. A baling press, including a plunger or piston, a sleeved shaft carrying said plunger, an actuating shaft geared to said plunger-carrying shaft, vertically movable bearings for said shafts, guides upon the press-box for said bearings, the press-box having racks thereon, said sleeved plunger-carrying shaft being geared to said racks.

2. A baling press, including a plunger or piston, a baling chamber containing the latter, a shaft carrying said piston or plunger, an actuating shaft, intergeared worm and gear effecting connection between said piston carrying shaft and said actuating shaft, and slidable bearings for said actuating and piston carrying shafts, said intergeared worm and gear controlling said shaft.



3. A baling press, including a piston or plunger, a shaft with sleeves thereon, said sleeves carrying said plunger and equipped with pinions, an actuating shaft geared to the aforesaid shaft, racks provided upon walls of the baling chamber, slidable bearings for said shafts forming housings for said gears, said pinions gearing with said racks.

4. A baling press, including a baling chamber having a plunger, a shaft equipped with sleeves, themselves having pinions, slidable bearings for said shaft sleeves, said baling chamber being equipped with guide members, one upon each end wall of said chamber, said chamber end walls having vertical slots, one wall of each slot having a rack thereon, said pinions meshing with said racks, and a handle equipped shaft, worm and gear wheel connection between said latter shaft and the aforesaid shaft, one of said slidable bearings also carrying said handle-equipped shaft.

5. A baling press, including a baling chamber, a plunger within said baling chamber, a shaft equipped with sleeves bearing said plunger, said sleeves being provided with pinions, said baling chamber having vertical slots in its end walls, one wall of each slot being provided with a rack, said pinions meshing with said racks, slidable housings or hangers, guiding members upon the end walls of said baling chamber for said housings, one of said housings being provided with an arcuate slotted upward extension having pivotally hung therefrom a latch or dog adapted to swing in a direction at right angles with respect to said extension, said housing also having at its end opposed to said upward extension and said dog a cavity, an operating shaft having one end rounded and received by said cavity, said shaft extending through the slot of said upward extension and engaged by said pivotally hung latch or dog, and a gear wheel and worm connection between said operating shaft and one of said shaft carried sleeves.

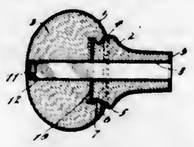
[Claim 6 not printed in the Gazette.]

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1,090,615. DOOR-KNOB. RICHARD GRIESER, New York, N. Y. Filed May 29, 1913. Serial No. 770,583. (Cl. 70—10.)

1. A door-knob comprising a metallic shell having a filler therein said shell consisting of a jointless hand member and a separate sheet metal hub, said hub extending into said hand member and having means co-acting with said filler and with the hand member to firmly secure said parts together.

2. A door-knob comprising a metallic shell having a filler therein, said shell consisting of a jointless hand member and a hub said hub extending into said hand member and having a groove therein, said groove co-acting with said filler to securely fasten the parts together.

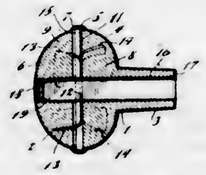


3. A door-knob comprising a metallic shell having a filler therein, said shell consisting of a jointless hand member and a hub, a sleeve within said knob for attachment to the door spindle, and means for positioning said sleeve centrally of said hub.

4. A door-knob comprising a metallic shell having a suitable filler therein, said shell consisting of a jointless hand member and a hub, said jointless hand member having an opening therein through which said hub passes and a head on said hub for limiting the relative movements of the parts of the shell and for concealing the joint.

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1,090,616. DOOR-KNOB. RICHARD GRIESER, New York, N. Y. Filed May 29, 1913. Serial No. 770,584. (Cl. 70—10.)



1. A door-knob comprising a jointed two-part shell each part containing an independent solid filler and an independent rigid spacer interposed between the fillers and anchored to both of them.

2. A door-knob comprising a two-part shell having a joint, a two-part filler in said shell, the parts of said filler being separated at the zone of the joint, and a single support between the parts of the filler having portions embedded in the respective parts thereof.

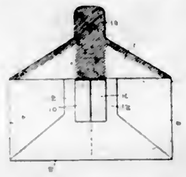
3. A door-knob comprising a two-part shell having a joint, a two-part filler, the parts of said filler being separated at the zone of the joint, a sleeve in said knob, a support between the parts of the filler having an opening therein through which said sleeve passes for centrally positioning said sleeve in said knob, said support having sector-like portions embedded in the respective parts of said filler.

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1,090,617. SAFETY-ENVELOP. HERVIE M. HILL, Achilles, Kans. Filed Sept. 2, 1913. Serial No. 787,748. (Cl. 229—82.)

1. A safety envelop comprising a back, side flaps, said side flaps being slit from their upper edges downwardly to the middle portion thereof, said slits occurring in spaced relation to the ends of said flaps to form tabs, said side flaps adapted to be folded inwardly on said back, a bottom flap adapted to be folded upwardly on said side flaps, said bottom flap provided with a cross slit through which said tabs are adapted to extend, a top flap adapted to be folded downwardly on said side flaps and projection tabs, said top flap provided with a tongue adapted to extend through said cross slit against the lower contiguous portions of said side flaps.

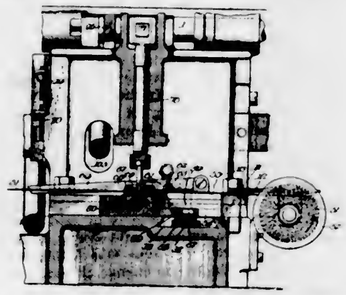
2. A safety envelop comprising a back, side flaps, said side flaps slitted to form tabs at the outer edges thereof, said side flaps adapted to be folded inwardly against said back, the outer edges of said side flaps lying in contiguous relation when so folded, a lower flap adapted to be folded upwardly on said side flaps, said lower flap provided with a projection, said lower flap provided with a cross slit spaced from the lower edge of said projection, said tabs adapted to extend through said slit when said bottom flap is folded against said side flaps, said tabs when ex-



tending through said slit lying against said projection, a top flap adapted to be folded downwardly on said side flaps and tabs, said top flap provided with a tongue adapted to extend through said cross slit and lie against the lower contiguous edge portions of said side flaps, said upper and lower flaps being gummed at their edges, the opposite edges of said projection being gummed, said tongue being gummed, said top flap being gummed on the line with said tongue to the upper edge of said back, said gummed portions occurring on the inner faces of said flaps and contiguous portions.

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1,090,618. PROCESS AND MACHINE FOR MAKING SWITCH PARTS. WILLIAM F. HOSFORD, Chicago, Ill., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 12, 1912. Serial No. 725,532. (Cl. 219—4.)



1. The continuous process of making switch-parts having contacts affixed thereto, which consists in successively punching out disks of contact forming material, feeding said disks successively between the electrodes of the secondary of a transformer, feeding said switch parts successively in superposed relation to said disk between said electrodes, successively closing said electrodes upon a disk and its switch-part as they are fed thereto, and then momentarily closing the circuit of the primary of the transformer.

2. In an electric welding machine, the combination with a rotary shaft and means for driving the same, of a transformer, a pair of relatively movable opposed electrodes constituting the terminals of the secondary of said transformer, means controlled from said shaft for positioning a switch-part and a small platinum disk in superposed relation between said electrodes, means controlled from said shaft for closing said electrodes upon said switch-part and said disk, and switching means controlled by said rotary shaft for momentarily closing the primary circuit of said transformer.



3. In an electric welding machine, the combination with means for punching a small plate from a strip of platinum or other material suitable for contacts, of means for pressing said plate against the surface of a switch-part, and means for passing a welding current through said plate and switch-part.

4. In an electric welding machine, the combination with a pair of relatively movable opposed electrodes constituting the terminals of a source of welding current, of means for punching a small disk from a strip of platinum or other material suitable for switch contacts, means for presenting said disks and a switch-part in superposed relation between said electrodes, and means for closing said electrodes upon said disk and switch-part and for passing a welding current through the same.

5. In an electric welding machine, the combination with a pair of relatively movable opposed electrodes constituting the terminals of a source of welding current, of a reciprocating slide for feeding a switch-part in position between said electrodes, means for punching small plates from a strip of platinum or other material suitable for switch contacts, means operated by said slide for feeding said strip to said punching means, a reciprocating slide for moving a punched out plate into a superposed relation to said switch-part between said electrodes, and means for closing said electrodes upon said disk and switch-part and for passing a welding current through the same.

[Claims 6 to 12 not printed in the Gazette.]

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1,090,619. PROCESS AND MACHINE FOR FORMING AND AFFIXING SWITCH-CONTACTS. WILLIAM F. HOSFORD, Chicago, Ill., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 12, 1912. Serial No. 725,533. (Cl. 219—4.)



1. The process of affixing contacts, which consists in welding the end of a platinum or other suitable wire to the part to which the contact is to be affixed, and cutting the wire so as to leave a portion thereof as a contact welded to said part.

2. The process of affixing contacts, which consists in pressing the end of a wire from which the contact is to be formed against the work upon which the contact is to be affixed; passing an electric current through the point of contact of the wire and the work, thereby welding the end of the wire to the work; and cutting the wire so as to leave a point of the wire welded to the work.

3. The process of affixing contacts, which consists in welding the end of a platinum or other suitable wire to the part to which the contact is to be affixed, cutting the wire so as to leave a portion thereof as a contact welded to said part, and then shaping the welded point to the desired shape.

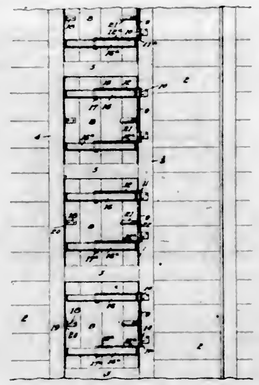
4. In an electric welding machine, the combination with means for pressing contact-forming material against the surface of the work upon which it is desired to affix a contact, of means for passing a welding current through the point of contact of said contact-forming material and said work, thereby welding said contact-forming material to said work, and means for shaping the welded contact-forming material to the required form of contact.

5. In an electric welding machine, the combination with means for pressing a point of contact-forming material against the surface of the work upon which it is desired to affix a contact, of means for passing a welding current through said point, and means for shaping said point to the required form of contact.

[Claims 6 to 20 not printed in the Gazette.]

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1,090,620. SILO-DOOR. ARTHUR O. HUBBARD, Minneapolis, Minn. Filed Apr. 25, 1913. Serial No. 763,537. (Cl. 20—1.4.)



1. The combination, with a silo having a door opening and a door therefor, provided with cross bars and sockets therein, of a hinge supported on the frame of said door and having end portions which extend in front of the door and spaced therefrom to form ladder rungs, said end portions being seated on said cross bars and supported thereby and having ends fitting within said cross bar sockets.

2. The combination, with a silo having a door opening and a door therefor provided with cross bars and sockets therein, of a combined hinge and ladder consisting of a single rod having an upright middle portion and means supporting it at one side of the door opening, said rod having end portions which extend in front of the door and are spaced therefrom to form ladder rungs, said end portions being seated on said cross bars and supported thereby and having ends fitting within said cross bar sockets.

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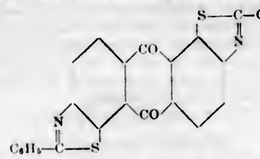
1,090,621. ANTHRAQUINONE VAT DYES. MAX HENRY ISLER, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Oct. 1, 1912. Serial No. 723,307. (Cl. 8—1.)

1. The new vat dyes of the anthraquinone series being anthraquinone-di-aryl-dithiazoles, which possess a constitution corresponding to the formula



in which A represents an anthraquinone residue and R an aryl residue, which new vat dyes consist, when dry, of yellow powders which are insoluble in dilute acids and alkalis, but are soluble in concentrated sulfuric acid giving reddish yellow solutions, and dye cotton, from a hydrosulfite vat, yellow to yellow-orange shades.

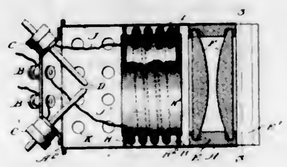
2. The new coloring matter of the anthraquinone series which is 1.2.5.6-anthraquinone-diphenyl-dithiazole, which possesses a constitution corresponding to the formula



which consists, when dry, of a yellow powder, which is insoluble in dilute acids and alkalis, but is soluble in concentrated sulfuric acid giving a reddish yellow solution, and dyes cotton, from a hydrosulfite vat, yellow shades.

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1,090,622. PICTURE-PROJECTING DEVICE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Mar. 20, 1913. Serial No. 755,750. (Cl. 240—41.)



1. In apparatus of the class described, the combination with an electric light, a projecting lens, a rheostat in series with the light, and a casing inclosing the light, lens and rheostat, the parts being arranged to permit cooling air to pass freely into the casing, upwardly through the interior chamber, and out of the casing.

2. In apparatus of the class described, the combination with a casing or box, of a rear electric light, a front projecting lens and an intermediate rheostat in series with the light, all inclosed by the casing, said casing having apertures to permit cooling air to pass freely upward through the rear end of the box and to allow the escape of cooling air entering around the lens.

3. The combination with a sheet metal casing having near one end an inclosed externally regulated arc light and provided with openings below and above the light for the entrance and escape of cooling air, of a lens inclosed in the casing near its opposite end and held by devices allowing air to pass freely over its edge and face surfaces, and a rheostat also inclosed in the casing and arranged to be cooled by air currents which have passed over the lens surfaces.

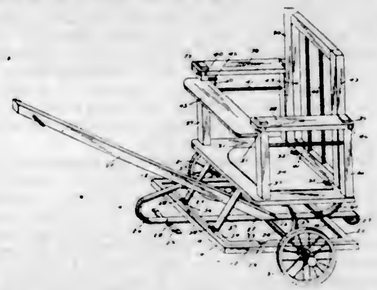
4. The combination with a sheet metal casing, of an arc light mounted in one end portion of the casing, a projecting lens mounted in the opposite end of the casing in a frame permitting cooling air to pass freely over its edges at various points, and a tubular rheostat in the path of cooling air, passing rearward from the lens, and outside the path of light passing to the lens, said casing having perforations above and below said light and rheostat to allow free passage of cooling air.

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1,090,623. COMBINED CHILD'S GO-CART AND NURSERY-CHAIR. KARL J. JOHNS, Kansas City, Mo. Filed July 3, 1912. Serial No. 707,446. (Cl. 21—12.)

1. In a combined chair and go-cart, a grooved body frame for the go-cart, and a handle connected with the said frame, and an independent base frame for said chair, slidable within the grooves of the body frame, and having an opening for movement past said handle.

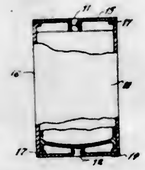
2. In a combined chair and go-cart, a body frame having longitudinal grooves in the sides of said frame, a longitudinal plate connected with the lower surfaces and ends of said frame, and an independent base frame for said chair, slidable within the grooves of the said body frame, a handle connected with the longitudinal plate, in the body frame, said base frame having a segregated portion for its forward movement past said handle.



3. In a combined chair and go-cart, a grooved body frame for the go-cart and a handle connected with said frame, an independent base frame for said chair, slidable within the grooves of the said body frame and having an opening at one end for movement past said handle, and supporting bars for said chair connected therewith and with the portions of the end of the base frame having the opening therein and adjacent the sides of said opening.

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1,090,624. CASING FOR ELECTRIC CELLS. ISABELLA KAEMPFER, New York, N. Y. Filed Dec. 18, 1912. Serial No. 737,488. (Cl. 204—53.)



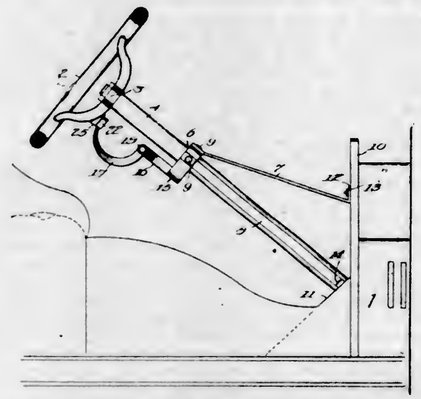
1. A sealed paper carton completely incasing a battery having a contact in each end thereof, a contact in each end of the paper carton, each of said last mentioned contacts being adjacent to and adapted to electrically contact with one of the contacts of the said battery and embedded substantially flush with the external face of the carton, whereby the battery may be tested by contacting wires temporarily with the external face contacts without removing the battery from the said carton before the actual use of the same.

2. A sealed paper carton surrounding the contacts of a battery having a contact in each end thereof, contacts in the said carton contiguous with the contacts of the said battery and adapted to electrically connect therewith, the contacts in the said carton being embedded substantially flush with the external face of the carton, whereby the said battery may be tested by contacting wires temporarily with the said external face contacts without removing the battery from the said carton before the actual use of the same.

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1,090,625. AUTOMOBILE-LOCK. THOMAS SHILLINGSFORD KEFFER, Atlantic City, N. J. Filed May 1, 1913. Serial No. 764,841. (Cl. 70—90.)

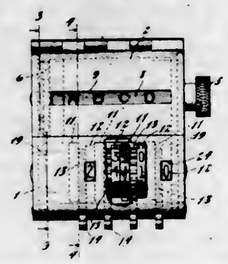
An attachment of the character specified, comprising a collar having a radial extension, a series of braces connected at one end to the collar and adapted for connection at the other end with the body of an automobile to support the collar on the sleeve of the steering post, a locking bolt supported by the post, and a lock casing having means for engagement by the bolt to lock the bolt to the casing.



said casing having means whereby it may be secured to the steering wheel of the automobile.

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1,090,626. SCORE INDICATING AND RECORDING DEVICE. ROBERT S. KELLEY, New York, N. Y. Filed Sept. 28, 1912. Serial No. 722,825. (Cl. 234—1.)



1. A device of the character described comprising a casing, a rotatable printing surface supported in said casing, wheels having thereon type surfaces one for printing and the other for indicating the score, and means for moving the type wheels to effect the printing of a given number.

2. A device of the character described comprising a casing, a rotatable cylindrical platen supported in said casing, a score card detachably mounted on said platen, a type surface below said platen, and means for adjusting said type surface and for moving it to effect the printing of a given number.

3. A device of the character described comprising a casing, a rotatable platen having a score card supported thereon, printing and indicating wheels mounted below said platen, and means for adjusting and moving said wheels so as to print a desired number and to visually indicate the number through a sight opening.

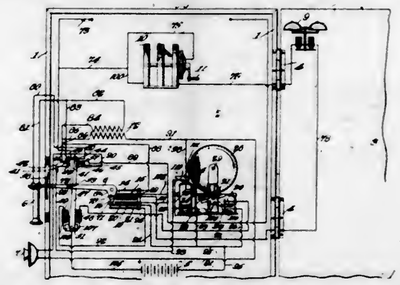
4. A device of the character described comprising a casing, a rotatable platen having a removable score card thereon, a printing and indicating mechanism comprising wheels having numbers on their peripheries, and means for adjusting and moving said wheels to effect the printing of a given number and to visually indicate the number through a sight opening.

5. A device of the character described comprising a casing, a rotatable platen having a removable score card thereon, type surfaces comprising a printing wheel and an indicating wheel, a shaft on which said wheels are mounted, and means for moving said wheels to effect the printing of a given number on the score card and to visually indicate the number through a sight opening.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,627. SIGNALING DEVICE FOR PARTY-LINE TELEPHONES. THOMAS KERNAN, East St. Cloud, Minn. Filed Aug. 8, 1912. Serial No. 714,036. (Cl. 179—30.)



1. In a party line telephone system, a receiver, a transmitter, a receiver hook, means for raising the receiver hook when the receiver is removed, spring contacts operated by said receiver hook, a switch controlled by said spring contacts, a signal sending device, a motor for operating said signal device, said motor being controlled by said switch, and means for preventing the lowering of the receiver hook until after the signal is sent.

2. In a party line telephone system, a receiver, a transmitter, a receiver hook, means for raising the receiver hook when the receiver is removed, spring contacts operated by said receiver hook, a switch controlled by said spring contacts, a signal sending device, a motor for operating said signal device, said motor being controlled by said switch, means carried by said switch for engaging the receiver hook to prevent the lowering of the latter, and electro-magnetic means controlled by said signaling device for causing the operation of the switch and the release of the receiver hook.

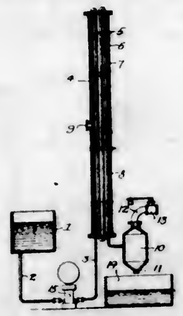
3. In a party line telephone system, a receiver, a transmitter, a receiver hook, means for raising the receiver hook when the receiver is removed, spring contacts operated by said receiver hook, a switch controlled by said spring contacts, a signal sending device, a motor for operating said signal device, said motor being controlled by said switch, means carried by said switch for engaging the receiver hook to prevent the lowering of the latter, and electro-magnetic means controlled by said signaling device for causing the operation of the switch and the release of the receiver hook, the return of the switch to its normal position serving to establish a talking circuit through the receiver and transmitter.

4. In a party line telephone system, a receiver, a transmitter, line wires, means actuated by the removal of the receiver from the hook for automatically transmitting an audible signal over the line wires for identifying the telephone, means for preventing the lowering of the receiver hook until said signals are sent, and means actuated by the lowering of the receiver hook for causing a repetition of the signal.

5. In a party line telephone system, a receiver, a transmitter, line wires, means actuated by the removal of the receiver from the hook for automatically transmitting an audible signal over the line wires for identifying the telephone, means for preventing the lowering of the receiver hook until said signals are sent, means actuated by the lowering of the receiver hook for causing a repetition of the signal, and means for preventing the subsequent raising of the receiver hook until the repeated signal has been sent.

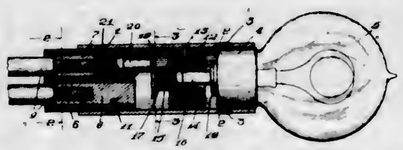
[Claims 6 to 10 not printed in the Gazette.]

1,090,628. APPARATUS FOR CONCENTRATING LIQUIDS TO HIGH DENSITIES. PAUL KESTNER, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed June 20, 1910, Serial No. 567,956. Divided and this application filed June 23, 1911. Serial No. 634,910. (Cl. 127—9.)



An evaporating apparatus consisting of a plurality of more than two vertical tubes connected in series, means for supplying liquid to be evaporated to one end of said series of tubes; heating means for the tubes; with a separator connected to the lower end of the last tube of the series; said separator being provided with an outlet for liquid and a vapor outlet having a back pressure valve.

1,090,629. ELECTRIC SOCKET. GEORGE C. KNAUFF, Chicago, Ill. Filed Apr. 7, 1913. Serial No. 759,399. (Cl. 173—328.)



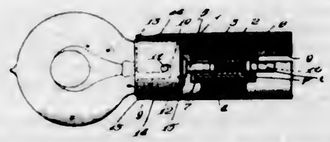
1. In a socket for a contact carrier provided with a contact, a casing connected to one terminal of a circuit and equipped at its forward end with means for coupling the casing with the contact carrier; a main and an auxiliary insulating body mounted in the casing, the latter forwardly of the former; a wire terminal member carried by the main insulating body and connected to the other terminal of the said circuit, and a contact member slidably mounted upon the auxiliary insulating body, each of the said members including two relatively slidable portions and a spring interposed therebetween; the free ends of the contact member abutting respectively against the forward end of the wire terminal member and against the said contact of the contact carrier; the said springs simultaneously tending to separate the said relatively slidable portions to effect the said abutting engagements, and coacting with the said coupling means for maintaining the casing in its coupled relation to the contact carrier.

2. In a socket for a contact carrier equipped with projections and carrying a contact, a casing equipped with notched slots receiving the said projections, the notches of the said slots interlocking with the said projections to couple the contact carrier to the casing; a contact member axially mounted within the casing and insulating therefrom, one end of the said member abutting against the said contact of the contact carrier, the other end of the said member radially enlarged; a wire terminal member out of axial alinement with the contact member and bearing at one end against the said radially enlarged portion of the contact carrier; one of the said members comprising a pair of relatively slidable portions and a spring interposed therebetween, the said spring coacting with the said members to tend to eject the contact carrier from the casing the said ejectional tendency coacting with the notches of the slots and the said projections on the contact carrier to maintain the latter coupled to the casing.

3. A socket for a contact carrier equipped with an axially disposed contact and with lateral projections, comprising a casing equipped at its forward end with notched slots respectively receiving the said projections, the notches of the said slots interlocking with the said projections to couple the contact carrier to the casing; main and auxiliary insulating bodies mounted within the casing, the latter forwardly of the former; a contact member mounted upon the auxiliary insulating body axially thereof, one end of said member abutting against the said contact of the contact carrier, the other end thereof radially enlarged; and a wire terminal member carried by the main insulating member out of axial alinement with the said contact member and bearing at its forward end against the said enlarged end of the contact member, one of said members comprising two relatively slidable portions and a spring interposed therebetween, the said spring serving to effect the said abutting of the members and coacting with the said notches and projections to maintain the contact carrier coupled to the casing.

4. A socket for a contact carrier equipped with an axially disposed contact and with lateral projections, comprising a casing equipped at its forward end with notched slots respectively receiving the said projections, the notches of the said slots interlocking with the said projection to couple the contact carrier to the casing; main and auxiliary insulating bodies mounted within the casing, the latter forwardly of the former; a contact member mounted upon the auxiliary insulating body axially thereof, one end of said member abutting against the said contact of the contact carrier, the other end thereof radially enlarged; and a wire terminal member carried by the main insulating member out of axial alinement with the said contact member and bearing at its forward end against the said enlarged end of the contact member the said terminal member connected to one terminal of a circuit, one of said members comprising two relatively slidable portions and a spring interposed therebetween, the said spring serving to effect the said abutting of the members and coacting with the said notches and projections to maintain the contact carrier coupled to the casing; and a second wire terminal carried by the main insulating body and electrically connected to the casing, the said second terminal being connected to the other terminal of the said circuit.

1,090,630. SOCKET FOR ELECTRIC LAMPS. GEORGE C. KNAUFF, Chicago, Ill. Filed May 26, 1913. Serial No. 769,948. (Cl. 173—328.)

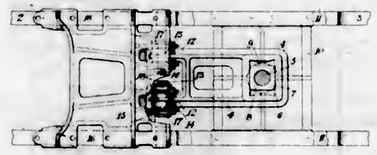


1. In a socket for a lamp having its base equipped with a cylindrical contact shell and diametrically opposite projections upon said shell, a casing having one end larger in bore than the diameter of said shell, the said casing equipped with notched slots receiving the said projections respectively when the shell is inserted in the said end of the casing, the notches of said slots interlocking with the said projections to pivotally couple the lamp to the casing; and spring fingers bent from the said casing at points substantially at right angles to the common axis of the said projections and bearing against the said shell, the resiliency of the said fingers causing the latter to hold the adjacent parts of the said shell out of contact with the end portion of the said casing and to prevent a forcible impact of the shell against the casing upon relative motion of the lamp and casing about their said pivotal coupling.

2. In a socket for a lamp having its base equipped with a cylindrical contact shell and diametrically opposite projections upon said shell, a casing connected to one terminal of a circuit and having one end larger in bore than the diameter of said shell, the said casing equipped with notched slots receiving the said projections respectively when the shell is inserted in the said end of the casing, the notches of said slots interlocking with the said projections to pivotally couple the lamp to the casing; and spring fingers bent from the said casing at points substantially at right angles to the common axis of the said projections and bearing against the said shell to carry current from the casing to the shell, the resiliency of the said fingers causing the latter to hold the adjacent parts of the said shell normally out of contact with the end portion of the said casing and to prevent a forcible impact of the shell against the casing upon relative motion of the lamp and casing about their said pivotal coupling.



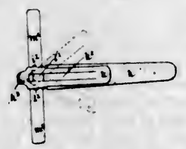
1,090,631. PIVOTAL CONNECTION FOR LOCOMOTIVES OF THE MALLET ARTICULATED TYPE. HARRY T. KRAKAU, Cleveland, Ohio, assignor to The National Malleable Castings Company. Filed Aug. 31, 1912. Serial No. 717,991. (Cl. 105—17.)



1. In a locomotive of the Mallet articulated type, a connection between the two engines thereof, said connection comprising a member of substantially U-shape pivoted to one engine to swing in a vertical plane, and lying normally in a horizontal plane, said member having a rectangular aperture, a bearing block slidably mounted in said aperture, carried by the said member, and a pin mounted on the other engine and passing through said bearing block.

2. In a locomotive of the Mallet articulated type, a connection between the two engines thereof, said connection being comprised of a rectangularly shaped horizontally disposed member having an aperture therein, the said member being pivoted to one engine by a horizontally disposed pivot and to the other engine by a vertically disposed pivot, a bearing block mounted in and carried by the said member taking about the vertically disposed pivot, the said bearing block being held from vertical movement and being free to move in said aperture laterally in a horizontal plane.

1,090,632. LEAF AND COVER HOLDER FOR BOOKS. REINHOLD KRUMMING, Milwaukee, Wis. Filed Jan. 2, 1906. Serial No. 294,147. (Cl. 11—12.)



1. A device for holding books in open position comprising a flat bar adapted to be inserted into the back between the outer cover and binding of the book projecting at one end of the back, and wings on said bar extending at right-angles to said bar beyond the sides of the back and lying in the plane of the back when said bar is so inserted.

2. A device for holding books in open position comprising a flat bar adapted to be inserted into the back between the outer-cover and binding of the book projecting at one end of the back, and wings on said bar extending at right angles to said bar beyond the sides of the back and lying in the plane of the back when said bar is so inserted; said wings being each pivoted upon said bar whereby they are adapted to fold into superposed relation when said bar is withdrawn.

1,090,633. ARTIFICIAL ZENITH. ERIK H. LINDMAN, Seattle, Wash. Filed Nov. 28, 1911. Serial No. 662,847. (Cl. 88—24.)



1. A device of the character described comprising a body, a zenith indicator supported on said body for rotary movement, said indicator comprising a chamber partly filled with a fluid to thereby provide a bubble, a reflector supported for movement in common with said indicator and arranged to receive a reflection of the bubble thereof, and means for sighting an object and simultaneously observing the reflection from said reflector.

2. A device of the character described comprising a body, a zenith indicator supported on said body for rotary movement, said indicator comprising a chamber partly filled with a fluid to thereby provide a bubble, a reflector supported for movement in common with said indicator and arranged to receive a reflection of the bubble thereof, an object glass on said body having mirror and transparent sections, the mirror section being arranged to receive a reflection from said reflector, and an eye piece on said body for sighting an object through the transparent section of said glass.

3. A device of the character described comprising a body, a zenith indicator supported on said body for rotary movement, said indicator comprising a transparent chamber curved concentrically to its center of movement and partly filled with a colored fluid, a reflector for reflecting the bubble of said indicator supported for movement in common with the latter, and means for simultaneously sighting an object and the reflection from said reflector.

4. In combination with a sextant or like instrument, a zenith indicator supported for movement with the index glass thereof to cast a reflection thereon.

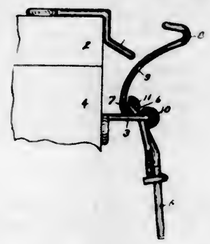
5. In combination with a sextant or like instrument, a zenith indicator supported for movement with the index glass thereof to cast a reflection thereon, said indicator comprising a transparent chamber partly filled with a fluid.

[Claims 6 and 7 not printed in the Gazette.]

1,090,634. COVER-FASTENING DEVICE. CHARLES E. LINTON and EDGERTON K. LINTON, Saginaw, Mich., assignors to Mika Cooker Company, Saginaw, Mich., a Corporation of Michigan. Filed July 21, 1911. Serial No. 639,848. (Cl. 70—3.)

In a cover fastening device, the combination with an eye, of a bracket formed with a bar; a handle pivotally mounted on the bar of said bracket, a projecting loop having a bar on the opposite end of said handle; a hook

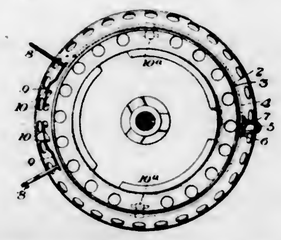
formed of a single piece of wire and having its middle part bent inwardly, the lower ends of said hook bent



around the bar of said handle to slightly bind thereon, for the purposes set forth.

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1,090,635. SPRING-RING SHADE-HOLDER. THOMAS JAMES LITLE, Jr., Woodbury, N. J., assignor to Welsbach Light Company, Gloucester City, N. J., a Corporation of New Jersey. Filed July 16, 1912. Serial No. 709,776. Renewed Dec. 15, 1913. Serial No. 806,882. (Cl. 240—115.)



1. In a shade or globe holder, an annular flange, a ring-like wire shade retaining element having a U-shaped projection adjacent its middle portion, a slot formed in said annular flange through which said projection is adapted to extend, said slot being provided with a central restricted portion adapted to be positioned to retain said projection in engagement with said flange, said ring-like element having its ends offset to form operating handles, and a second and elongated slot formed in said annular flange through which said handles pass to the outside of the flange; substantially as described.

2. In a shade or globe holder, an annular flange, a ring-like wire shade retaining element having a projection adjacent to its middle portion, the annular flange having a slot through which said projection is adapted to extend, said slot being provided with a central restricted portion arranged to retain said projection in engagement with said flange, the ring-like wire retaining element having operating handles; substantially as described.

3. A shade or globe holder having an annular flange, a ring-like wire shade retaining element having a loop in its intermediate portion, there being a slot formed in the said annular flange through which the loop extends, said loop and slot being shaped to permit the loop to move freely a predetermined distance and to prevent the removal of the loop when the shade retaining element is in its normal position within the shade holder; substantially as described.

4. A shade or globe holder having an annular flange, a ring-like wire shade retaining element having a loop in its intermediate portion, there being an opening formed in the said annular flange through which the loop extends, the opening being shaped to permit the loop to move a predetermined distance to prevent removal of the loop when the shade retaining element is in its normal position within the shade holder; substantially as described.

5. A shade or globe holder having an annular flange, a ring-like wire shade retaining element having a loop in its intermediate portion, there being an opening formed in said annular flange through which the loop extends, and a holding member coacting with the opening to prevent the loop from accidental displacement from the slot, while allowing some movement of said loop; substantially as described.

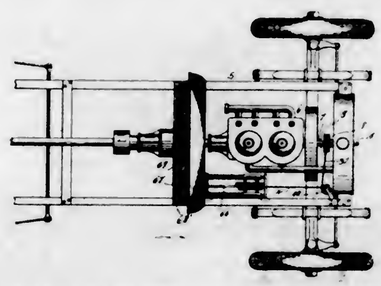
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1,090,636. BROWN VAT DYE. ARTHUR LÜTTRINGHAUS, Mannheim, and OTTO LOHSE and AUGUST SAPPER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 8, 1913. Serial No. 747,077. (Cl. 8—1.)

The new dye derived from diphenyl containing an anthraquinone-acridone group on the one side and an anthraquinone-acridin group on the other side of the diphenyl linking, which is free from salt-building groups and which dyes cotton, from a vat, reddish brown shades.

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1,090,637. ENGINE-STARTER FOR AUTOMOBILES. CARL LYNNOCK, Denver, Colo., assignor, by mesne assignments, to Modern Sales Bureau, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1911. Serial No. 649,802. (Cl. 123—185.)



1. In an engine starter for automobiles, the combination with the engine shaft, and a stationary spindle located adjacent said shaft, of a pulley journaled on the said spindle, a member mounted in the pulley and also adapted to turn on the spindle, a coil spring having one extremity connected with the spindle and its opposite extremity with the pulley, dogs carried by the said member and protruding into recesses in the pulley, each dog having arms projecting at right angles to each other, one arm being arranged to be operated on by the pulley to throw the other arm out of the pulley into interlocking relation with the engine shaft, the pulley and said member rotating in harmony after the dogs are interlocked with the engine shaft, and a suitable connection with the said pulley for operating the latter, substantially as described.

2. The combination with the engine shaft, of a pulley normally free from the engine shaft and equipped with dogs, each dog having arms projecting at right angles to each other, and one of said arms arranged to be thrown out of the pulley into interlocking arrangement with the shaft by the rotation of the pulley, a spring connected with the pulley to be placed under tension by such movement, and a flexible device connected with the pulley for operating the latter, substantially as described.

3. The combination with an engine shaft, of a stationary spindle arranged adjacent the engine shaft, a pulley journaled on the spindle and carrying a disk which the pulley is recessed to receive, dogs journaled in the pulley and disk and comprising a part having arms projecting from opposite extremities thereof, one arm projecting into a recess formed in the pulley, the pulley being movable on the spindle independently of the disk sufficiently to act upon one arm of the dog to throw the other arm outwardly to interlocking engagement with the engine shaft, after



which the pulley and disk rotate in harmony, a spring connection between the pulley and spindle, whereby the spring is placed under tension by the movement of the pulley to operate the engine shaft, and a flexible connection with the pulley for operating purposes, substantially as described.

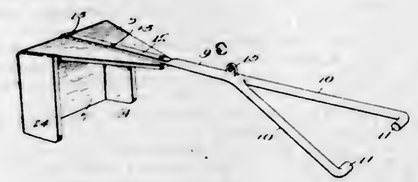
4. The combination with an engine shaft, equipped with projections, and a stationary spindle arranged adjacent the engine shaft, of a pulley journaled to move freely on the spindle and carrying a disk also movable on the spindle, but with more friction than the pulley, dogs carried by the pulley and disk and having arms normally concealed, one of the arms projecting into a recess formed in the pulley and arranged to be acted on by the pulley to operate the dog by the movement of the pulley in either direction, the dog having an arm arranged to be thrown out of the pulley into interlocking engagement with the pins on the engine shaft by the movement of the pulley in one direction, and an operative connection with the pulley extending to a suitable position on the machine, substantially as described.

5. The combination with the engine shaft, of a stationary spindle located adjacent the engine shaft, a pulley journaled on the spindle and freely movable, a disk carried by the pulley and connected with the spindle, to move thereon, but with greater friction than the pulley, and dogs carried by the pulley and disk and operable by the movement of the pulley independently of the disk to interlock with the engine shaft, a spring connection between the pulley and the stationary spindle, and an operative connection with the pulley for rotating the latter and starting the engine, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,638. STRAW-STACKER. JOHN MASERANG, St. Louis, Mo. Filed Aug. 13, 1913. Serial No. 784,529. (Cl. 193—21.)



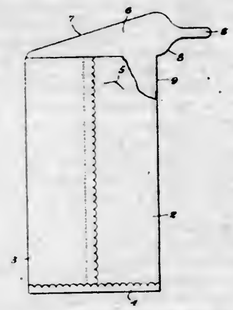
1. In combination with the discharge pipe of a wind stacker, of a deflecting plate, a bracket of substantially Y shape and comprising a body and arms diverging from the body, each arm having an inwardly extending journal pin at the end remote from the body, the discharge pipe having openings for receiving the journal pins, the body having an extension secured to one of the portions of the deflecting plate, a lever pivoted to the discharge pipe near the inner end thereof, and means in connection with the lever and the discharge pipe for holding the lever in adjusted position, and a connection between the lever and the body of the bracket for swinging the said bracket with respect to the axis of the discharge tube.

2. In a device of the character specified, an angle plate consisting of two portions arranged at an angle with respect to each other, one of the said portions being approximately rectangular and the other portion tapering away from the first-named portion, said angle plate having integral braces between the two said portions and the tapering portions being adapted for connection with supporting means for holding the rectangular portion in front of the outlet of the discharge pipe of a wind stacker.

3. In a device of the character specified, a supporting bracket of approximately Y shape and comprising a body and arms integral with the body and diverging from each other away from the body, each arm having an inwardly extending journal pin at its free end, said pins being in alinement and the body having a perforate lug near the junction of the arms therewith for connection with adjusted mechanism for the bracket, said body having a flattened extension extending in the opposite direction from the arms and adapted for connection with a deflecting plate.

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1,090,639. ENVELOP. KINTARO MIYANAGA, Seattle, Wash. Filed Apr. 21, 1913. Serial No. 762,639. (Cl. 229—84.)



1. An envelop comprising a body provided with a mouth and a slit leading from the mouth for the insertion of an opening implement, and closure means for the mouth of the body provided with an angular extension for closing the slit in said body.

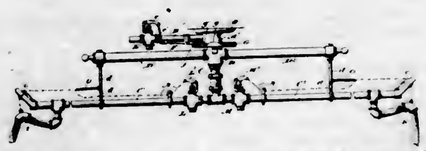
2. An envelop comprising a body provided with a mouth and a slit leading from one end of the mouth in a fold of the body, a closure flap on the front of the body for the mouth thereof, said flap being adapted to engage over the back of the body, and a tongue on one side edge of the flap for closing the slit in the body and adapted to engage over the front of the body.

3. An envelop comprising a body portion having a mouth and a slit adjacent the mouth, a retaining tab on one side of the body, a closure flap for the mouth of the body adapted to engage by a springing action under the tab, and a tongue carried on the side edge of the flap and adapted to engage the opposite side of the body from the tab, close the slit in the body and be secured to the latter.

4. An envelop comprising a body provided with a mouth and a slit leading from the mouth, a closure flap joined to the body for closing the mouth thereof by folding thereover, the free edge of the flap being inclined, relative to the edge joined to the body, to provide a wide side edge on the flap adjacent the slit in the body, a tongue carried on the last edge of the flap and adapted to engage the opposite side of the body from that engaged by said flap for closing the slit, and a retaining tab on the body for engaging over the free edge of the flap.

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1,090,640. VEHICLE-WASHER. EDWARD MULLER, East New Durham, N. J. Filed July 18, 1912. Serial No. 710,200. Renewed Sept. 10, 1913. Serial No. 789,173. (Cl. 137—14.)



1. In a device of the character described, a fixed inlet pipe, a laterally disposed delivery pipe rotatably connected thereto, a valve in the inlet pipe, an operating member for said valve, and a plurality of members rotatable with said delivery pipe and positioned to engage said actuating member upon rotation of the delivery pipe.

2. In a device of the character described, a fixed inlet pipe, a laterally disposed delivery pipe rotatably connected

thereto, a valve in said inlet pipe, an operating lever for said valve, and an annular member rotatable with said delivery pipe and provided with a plurality of portions fashioned to engage said lever and shift the same to a position to open the valve in the inlet pipe upon rotation of said delivery pipe.

3. In a device of the character described, a fixed downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, an annular member rotatable with the delivery pipe and surrounding the inlet pipe, said annular member being provided with a plurality of raised portions, and a valve in the inlet pipe, said valve being provided with an operating portion lying in the path of the raised portions of said annular member so as to be actuated thereby upon rotation of the delivery pipe.

4. In a device of the character described, a fixed downwardly extending inlet pipe, a delivery pipe rotatably connected to said inlet pipe, an annular member surrounding the downwardly extending inlet pipe and rotatable with said delivery pipe, said annular member being provided on its upper surface with a plurality of separated raised portions, a valve for controlling the flow of fluid in the inlet pipe, and operating means for said valve including a lever, one end of which is adapted to overlie said annular member so as to be engaged by the raised portions thereof when the delivery pipe is shifted.

5. In a device of the character described, an inlet pipe provided with a downwardly extending portion, a delivery pipe rotatably supported in the downwardly extending portion of said inlet pipe, an arm rotatably supported on the downwardly extending portion of said inlet pipe, and connected to said delivery pipe so as to rotate therewith, a valve for controlling the flow of fluid through the inlet pipe, an operating member for said valve, and an annular member carried by said arm and underlying the operating member of said valve, said annular member being provided with a plurality of separated portions adapted to engage said valve operating member.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,641. EXPLOSIVE. FREDERIC LEWIS NATHAN, WILLIAM RINTOUL, and FRANK BAKER, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed June 4, 1913. Serial No. 771,620. (Cl. 52—3.)

1. An explosive containing at least one nitric ester and a urea derivative containing in the amido groups at least one unsubstituted hydrogen atom and at least one aromatic radical containing only carbon and hydrogen in substitution for a hydrogen atom of said groups.

2. An explosive containing nitroglycerin, nitrocellulose and a urea derivative containing in the amido groups at least one unsubstituted hydrogen atom and at least one aromatic radical in substitution for a hydrogen atom of said groups.

3. An explosive containing nitroglycerin, nitrocellulose and ethyl phenyl urea.

4. An explosive containing, gelatinized together, nitroglycerin, nitrocellulose and a urea derivative containing in the amido groups at least one unsubstituted hydrogen atom and at least one aromatic radical in substitution for a hydrogen atom of said groups.

5. An explosive containing, gelatinized together, nitroglycerin, nitrocellulose and ethyl phenyl urea.

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1,090,642. EXPLOSIVE. FREDERIC LEWIS NATHAN, WILLIAM RINTOUL, and FRANK BAKER, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed June 4, 1913. Serial No. 771,621. (Cl. 52—3.)

1. An explosive containing nitrocellulose, nitroglycerin and phenyl acetanilid.

2. An explosive containing, gelatinized together, nitrocellulose and a derivative of an organic acid amid, in which one of the hydrogen atoms of the amino group is replaced by an aromatic radical, and the radical of the acid contains, at most, carbon, hydrogen and oxygen.

3. An explosive containing, gelatinized together, nitrocellulose, nitroglycerin and a derivative of an organic acid amid, in which one of the hydrogen atoms of the amino group is replaced by an aromatic radical, and the radical of the acid contains, at most, carbon, hydrogen and oxygen.

4. An explosive containing, gelatinized together, nitrocellulose, nitroglycerin and phenyl acetanilid.

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1,090,643. EXPLOSIVE. FREDERIC LEWIS NATHAN, WILLIAM RINTOUL, and FRANK BAKER, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed June 4, 1913. Serial No. 771,622. (Cl. 52—3.)

1. An explosive containing at least one highly nitrated nitric ester and an ether containing an aryl group containing only carbon and hydrogen.

2. An explosive containing nitroglycerin, nitrocellulose and an ether containing an aryl group containing only carbon and hydrogen.

3. An explosive containing nitroglycerin, nitrocellulose and ethyl $\beta$ naphthyl ether.

4. An explosive containing gelatinized together at least one highly nitrated nitric ester and an ether containing an aryl group containing only carbon and hydrogen.

5. An explosive containing gelatinized together nitroglycerin, nitrocellulose and an ether containing an aryl group containing only carbon and hydrogen.

[Claim 6 not printed in the Gazette.]

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1,090,644. EXPLOSIVE. FREDERIC LEWIS NATHAN, WILLIAM RINTOUL, and FRANK BAKER, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed June 4, 1913. Serial No. 771,623. (Cl. 52—3.)

1. An explosive containing at least one highly nitrated nitric ester and an ester of a substituted carbamic acid containing at least one aromatic radical.

2. An explosive containing at least one nitric ester and an ester of a substituted carbamic acid containing an alkyl, and an aromatic radical in substitution respectively for the hydrogen atoms of the amino group.

3. An explosive containing nitrocellulose, nitroglycerin and methyl phenyl urethane.

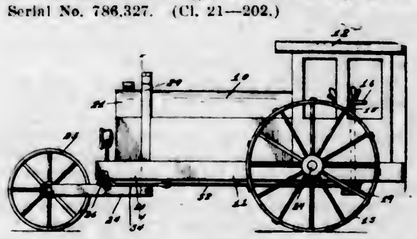
4. An explosive containing, gelatinized tobether, nitrocellulose, nitroglycerin and an ester of a substituted carbamic acid containing at lenst one aromatic radical.

5. An explosive containing gelatinized together, nitrocellulose, nitroglycerin and an ester of a substituted carbamic acid containing an alkyl and an aromatic radical in substitution respectively for the hydrogen atoms of the amino group.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,645. GASOLENE TRACTION-ENGINE. LAURITS C. OLESEN, Emmetsburg, Iowa. Filed Aug. 23, 1913. Serial No. 786,327. (Cl. 21—202.)

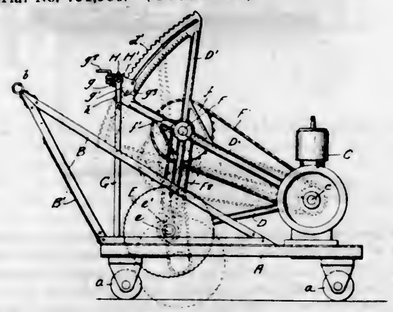


A vehicle comprising a frame, arms at the forward end of said frame, a bolster pivotally mounted between said arms, a supporting frame carried by said arms, a fork pivotally connected with said bolster intermediate the length of said fork, whereby the inner end of the fork will extend to a point approximately in alinement with said supporting frame carried by said arms, resilient means yieldably connecting the inner end of said fork with said supporting frame, and means for turning said fork upon its pivot to direct the course of travel of said vehicle.



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1,090,646. MACHINE FOR CUTTING PAVING. GREGORY PERKINS, Los Angeles, Cal. Filed Sept. 26, 1913. Serial No. 791,986. (Cl. 125—18.)



1. A machine of the character described comprising a roller supported frame, a motor and the like mounted upon the forward portion of the machine and having a laterally projected driving shaft, a cutter frame the forward portion of which is fulcrumed upon the driving shaft, a cutter shaft supported in the lower rear portion of the cutter frame, a circular saw secured upon the cutter shaft, connections between the cutter shaft and the said driving shaft and including an intermediate shaft journaled through the upper rear portion of the cutter frame, handles for moving and guiding the main frame, an extension frame projecting from the upper rear portion of the cutter frame and provided with a segmental rack, and means engaging the said rack for adjusting the main frame and its saw toward and away from the surface of the ground.

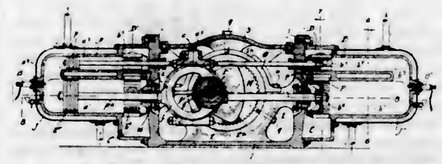
2. In a machine of the character described the combination of a vertically adjustable cutter frame having a supporting fulcrum at its forward end and a rear circular cutter, and provided with a segmental rack, an adjusting shaft, standards having bearings for the said adjusting shaft and one of which bearings is in the form of a split sleeve, a handle for rotating the adjusting shaft, a clamping screw engaging the split sleeve for locking the adjusting shaft, and a gear carried by the adjusting shaft and in mesh with the segmental rack, all for the purpose described.

3. In a machine of the character described, the combination of a vertically adjustable cutter frame having a grooved segmental rack, a circular saw carried by the cutter frame, a transverse adjusting shaft having a gear in engagement with the segmental rack and provided with a handle, standards having bearings at their upper ends for the adjusting shaft and one of which bearings is in the form of a split sleeve, guide plates carried by the said bearings and provided with members engaging the grooves of the rack whereby to hold the rack and gear in engagement, and a clamping screw for clamping the portions of the split sleeve whereby to lock the adjusting shaft and cutter frame in desired adjustment.

4. In a machine of the character described, the combination of a vertically adjustable cutter frame having a supporting fulcrum at one end and a circular cutter at its opposite end and provided with an extension located substantially above the cutter and having a segmental rack, an adjusting shaft provided with a gear in engagement with the rack and having means whereby it may be rotated, and a clamp engaging the said adjusting shaft in order to lock the same and the cutter frame in adjusted position, all for the purpose described.

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1,090,647. INTERNAL-COMBUSTION ENGINE. JOHN W. PITTS, Bisbee, Ariz., assignor to Pitts Royalty Company, Bisbee, Ariz., a Corporation of Arizona. Filed Mar. 1, 1911. Serial No. 611,551. (Cl. 123—53.)



1. In an internal combustion engine, a casing, a main cylinder, an auxiliary cylinder, each of said cylinders being provided with a series of openings near one end thereof, a common passage connecting said cylinders at the opposite end thereof, a piston for each cylinder, an exhaust pipe communicating with the auxiliary cylinder through the openings of the latter, an air port for admitting air through the openings in the auxiliary cylinder, and a valve for said air port arranged to open on the movement of the piston of the auxiliary cylinder toward said common passage.

2. In an internal combustion engine, a casing, a main cylinder, an auxiliary cylinder, each of said cylinders being provided with a series of openings near one end thereof, a common passage connecting said cylinders at the opposite end thereof, a piston for each cylinder arranged to uncover its respective openings, an exhaust pipe having free communication with the openings in said auxiliary cylinder, an air chamber also having free communication with the openings in said auxiliary cylinder, a check valve disposed in said air chamber and arranged to open to admit air on the movement of the piston of the auxiliary cylinder toward said common passage.

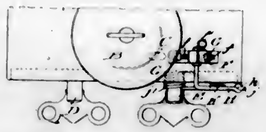
3. In an internal combustion engine, a casing, a main cylinder and an auxiliary cylinder within said casing, a communicating passage at the rear end of said cylinders, each of said cylinders being provided with a series of lateral openings at its forward end, a piston and a piston rod for each cylinder, each of said piston rods being connected to a common reciprocating member, the main piston being adapted to uncover the openings in said main cylinder, and the auxiliary piston being adapted to uncover the openings of said auxiliary cylinder, a compression chamber disposed adjacent said main cylinder and adapted to communicate with it through the lateral openings in said main cylinder, an exhaust pipe disposed adjacent said auxiliary cylinder and adapted to communicate with it through the openings in said auxiliary cylinder, the movement of said auxiliary piston being in advance of said main piston in the forward stroke, thereby permitting the discharge of the gases of combustion before the entrance of the compressed charge through the inlet openings.

4. In an internal combustion engine, a casing, a main cylinder and an auxiliary cylinder within said casing, each of said cylinders being provided with a series of longitudinal openings near one end thereof, a common passage connecting said cylinders at the opposite end thereof, a piston rod for each piston, a common rigid connection for said main piston rod and said auxiliary piston rod, and means for adjustably securing each of said pistons through said common rigid connection so as to vary the relation of the pistons to their respective openings.

5. In an internal combustion engine, a casing, a main cylinder, an auxiliary cylinder within said casing, each of said cylinders being provided with a series of openings near one end thereof, a common passage connecting said cylinders at the opposite end thereof, a piston rod for each piston, a common rigid connection for said main piston rod and said auxiliary piston rod, and means for adjusting the position of the auxiliary piston with respect to the main piston.

[Claim 6 not printed in the Gazette.]

1,090,648. ATTACHMENT FOR ALARM-CLOCKS. EDWIN H. PRATT, Lompoc, Cal. Filed Jan. 31, 1913. Serial No. 745,391. (Cl. 58—16.)



1. The combination with an alarm clock including a casing, an alarm mechanism within the casing and having a winding arbor extending exteriorly of the casing, an alarm bell superposed on the casing and a vibratory hammer operating within the said bell, of a locking block slidably mounted on the casing and movable to a position in contact with the said hammer whereby to prevent the same from vibrating, an arm connected to and extending from the said locking block and provided with an eye at its free end, another arm having an eye at one end engaged with the eye of the first mentioned arm and provided at its opposite end with a coil extending laterally therefrom and surrounding the winding arbor, the convolutions of said coil being gradually reduced in diameter in a direction away from the arm whereby to effect a gradually increasing tension in the engagement of the convolutions with the winding arbor to effect movement of the locking block away from the hammer to released position, and a spring arm secured to the clock face and extending at an angle therefrom whereby to frictionally engage the last mentioned arm when the block is in released position.

2. The combination with an alarm clock including a casing containing the time and alarm mechanisms, an alarm bell superposed on the casing, a vibratory hammer operating within the bell, and a winding arbor for the hammer mechanism extending outwardly from the casing, of a locking block slidably mounted on the casing for movement to engage and lock the vibratory hammer, an operating arm having connection at one end with the said locking block and provided with a coil at its opposite end surrounding and adapted to frictionally engage the said winding arbor, and means adapted to engage and hold the said arm when moved to release the block from the hammer.

3. The combination with an alarm clock having an alarm mechanism including a winding arbor, an alarm bell, and a vibratory hammer operating within the bell, of a locking block mounted on the clock for movement to engage and lock the said hammer, an operating arm having connection with the said block at one end, and a coil formed upon the opposite end of the said arm, said coil being disposed upon the said winding arbor and adapted for frictional engagement therewith when the alarm mechanism is wound whereby to automatically move the locking block to released position.

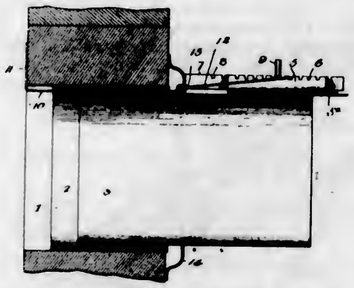
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1,090,649. STOVEPIPE-FASTENER. WILLIAM CHARLES PRATT, Augusta, Ark. Filed July 23, 1913. Serial No. 780,704. (Cl. 126—318.)

1. The combination with a stove pipe, a notched guideway carried thereby, a slidable and notched plate working in the guideway and means adapted to engage the inner wall of a flue and also adapted to engage notches of the guideway and slidable plate.

2. A device of the kind described comprising a stove pipe and a collar fitting thereupon and adapted to encircle the pipe opening, a notched guide way carried by the stove pipe, rods loosely connected together, one of said rods being bent to engage the inner wall of the flue, and the other rod being bent to engage the notches of the guide way, and a notched plate slidable in said guideway and adapted to engage said collar, the last mentioned rod also locking said slidable plate in position in the guideway.

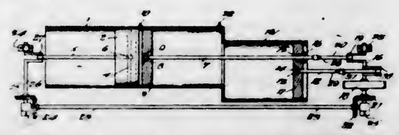
3. A device of the kind described comprising a thimble adapted to fit within a flue, a stove pipe adapted to fit within said thimble, a collar carried by the stove pipe, means arranged between the pipe and the thimble for engaging the inner face of the flue, a vertically arranged guideway having its upper edge notched, said guideway being permanently secured to the stove pipe, a rod loosely connected to the flue engaging means having an angled



end portion adapted to engage notches of the guideway, and a plate slidable in said guideway, said plate being also notched and adapted to receive the angled portion of the rod, the said plate normally bearing against said collar, the said collar having an opening to permit passage of said rod.

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1,090,650. ENGINE. JOHN HARISON RICHARDSON, Shubert, Nebr. Filed Sept. 24, 1913. Serial No. 791,533. (Cl. 123—51.)



An engine comprising a cylinder consisting of portions offset laterally at their meeting ends and having their axes parallel, one of the said portions being of greater length than the other, pistons in the said longer portion and a piston in the shorter portion, a rod connected with the central piston, a rod connected with each of the lateral pistons and extending in opposite directions, the rod of the central piston passing through the piston in the smaller portion, a crank shaft at the outer end of each of the said portions, a connecting shaft arranged longitudinally of the cylinders and having a driving connection at each end with the adjacent crank shaft, the crank shafts having cranks for connection with the adjacent piston rods.

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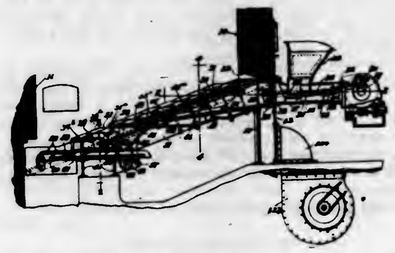
1,090,651. POSITIVE-CLEANING AND SELF-DUMPING STOKER. ROBERT SANFORD RILEY, Providence, R. I. Filed Aug. 31, 1912. Serial No. 718,106. (Cl. 110—44.)

1. A furnace comprising in combination with a fuel-guiding channel, a pusher movable reciprocatively along said channel, a connection to said pusher having a guideway, a driving member for operating said pusher contained in said guideway with provision for movement therein, and a member arranged to transmit the power of said driving member to the pusher and constructed to fail when the pusher encounters an exceptional resistance.

2. In a stoking mechanism in combination with a reciprocating fuel pusher, a yoke pivoted to said pusher, a connecting rod slidingly engaged with said pusher, a collar on said rod bearing against a portion of the yoke and a pin passing through said collar and rod, the collar being harder than the pin, whereby to shear the projecting ends thereof and allow the connecting rod to move



independently of the collar and pusher, when the pusher is opposed by extraordinary resistance.



3. In a fuel feeding mechanism, a reciprocating pusher, a sleeve pivotally connected to said pusher, a connecting rod passing through said sleeve and movable therein, a collar having a sliding fit on said rod and bearing against the end of said sleeve, and a pin passing through the collar and rod, said collar being sufficiently harder than the pin to shear the same and permit free movement of the connecting rod when the pusher encounters an extraordinary resistance.

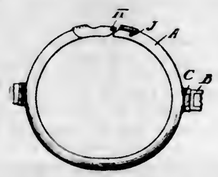
4. A fuel feeding mechanism including a fuel channel, a pusher for feeding fuel into said channel, means for further propelling the fuel, and a mechanism for actuating said pusher and propelling means with provision for yielding in case of obstruction, comprising a pitman, a sleeve in which said pitman is contained and is movable endwise, pivoted to said pusher, and a pin passing through said pitman, and arranged to transmit pressure to said sleeve and to be broken in case of excessive resistance opposed to the movement of the sleeve, and lost motion connections for imparting movement from the pusher to the further propelling means.

5. A fuel feeding mechanism including a reciprocating pusher, a yoke pivoted to said pusher and having a guideway, a pitman having one end contained in said guideway, means for moving said pitman in the general direction of travel of the pusher, and abutments on said pitman at opposite ends of said guideway, the abutment at the outer end being relatively fragile, whereby to fail before any other part of the mechanism breaks when an obstruction is encountered.

[Claims 6 to 34 not printed in the Gazette.]

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1,090,652. BRACELET. PHILIP RITTERSBACHER, Newark, N. J. Filed June 4, 1913. Serial No. 771,596. (Cl. 224—4.)




1. In a device of the character described the combination of a ring having a continuous concave inner surface adapted to receive and embrace the case of a watch or similar article of greater diameter than the internal diameter of the ring, said ring being provided with disconnected ends and constructed and arranged so that the disconnected ends may be withdrawn from each other and the ring thereby expanded, a detachable connection between said ends comprising an extending portion on one end normally overlapping the opposite end, a boss on the opposite end adjacent thereto when the ring is closed, an opening in said extending portion and a projection on the said opposite end adapted to engage said opening when the ring is closed.

2. In a device of the character described the combination of a ring having a continuous concave inner surface adapted to receive and embrace the case of a watch or similar article of greater diameter than the internal diameter of the ring, said ring being provided with disconnected ends and constructed and arranged so that the disconnected ends may be withdrawn from each other and the ring thereby expanded, a detachable connection between said ends comprising two separated extending portions on one end adapted to overlap the opposite end, and a recess in the said opposite end which, together with a recess in the first named end, forms when the ends are brought together an aperture through which the stem of the watch may project.

3. In a device of the character described the combination of a ring having a continuous concave inner surface adapted to receive and embrace the case of a watch or similar article of greater diameter than the internal diameter of the ring, said ring being provided with disconnected ends and constructed and arranged so that the disconnected ends may be withdrawn from each other and the ring thereby expanded, a detachable connection between said ends comprising a plate secured to one end and having fingers projecting beyond the same at two sides thereof, and a plate on the opposite end filling the space between the said fingers when the ring is closed.

4. In a device of the character described the combination of a ring having a continuous concave inner surface adapted to receive and embrace the case of a watch or similar article of greater diameter than the internal diameter of the ring, said ring being provided with disconnected ends and constructed and arranged so that the disconnected ends may be withdrawn from each other and the ring thereby expanded, a detachable connection between said ends comprising a plate secured to one end and having fingers projecting beyond the same at two sides thereof, a plate on the opposite end filling the space between the said fingers when the ring is closed, said ends of the ring and plates being recessed to form when the parts are in normal position an aperture for the stem of a watch or similar article and permitting the passage of said stem through one side of the ring when the same is expanded.

5. In a device of the character described the combination of a ring having a continuous concave inner surface adapted to receive and embrace the case of a watch or similar article of greater diameter than the internal diameter of the ring, said ring being provided with disconnected ends and constructed and arranged so that the disconnected ends may be withdrawn from each other and the ring thereby expanded, a detachable connection between said ends comprising a plate secured to one end and having fingers projecting beyond the same at two sides thereof, a plate on the opposite end filling the space between the said fingers when the ring is closed, said ends of the ring and plates being recessed to form when the parts are in normal position an aperture for the stem of a watch or similar article and permitting the passage of said stem through one side of the ring when the same is expanded, and means for causing one of the said fingers to engage the opposite end of the ring and prevent movement of the parts when they are brought to their normal closed position.

[Claims 6 and 7 not printed in the Gazette.]

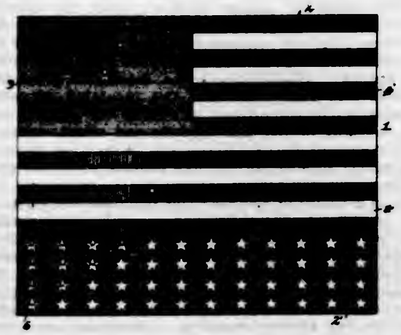
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1,090,653. GAME APPARATUS. ISIDORE ROTHSTEIN, Pittsburgh, Pa. Filed Sept. 9, 1912. Serial No. 719,285. (Cl. 46—21.)

1. A game apparatus comprising a sheet of material having red and white stripes and a blue field, said field having a star in the center of the same to represent the political center of the United States, and a series of loose stars each representing one of the United States and adapted to be placed near to the star in said field by blindfolded players.

2. A game apparatus comprising a sheet of material for the representation of an emblematic design, said sheet having a colored field and a star in the center of the

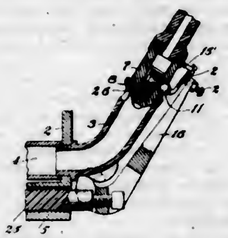
same to represent the political center of a nation, and a series of loose stars each representing a political division



and adapted to be placed near to the star in said field by blindfolded players.

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1,090,654. THERMOSTATIC VALVE MECHANISM. EDWIN RUUD, Pittsburgh, Pa. Filed May 14, 1913. Serial No. 767,627. (Cl. 236—5.)



1. The combination of a valve casing and valve for controlling a flow of gas, the casing provided with a bearing-forming lever opening, a valve actuating lever extending through the opening, a fulcrum for the lever movably fitting the bearing, and means for transmitting valve actuating force to the lever in direction to hold the fulcrum in gas-tight engagement with its bearing.

2. The combination of a valve casing and a valve for controlling a flow of gas, a valve actuating lever having its fulcrum loosely bearing in the casing with the fulcrum movable away from the latter, a spring for moving the valve in one direction, and a thermostatic device operatively connected to the lever for moving the valve in an opposite direction with the resultant force of the spring and thermostatic device pressing the lever fulcrum toward its bearing.

3. The combination of a valve casing and a valve for controlling a flow of gas, the exterior of the casing formed with a curved bearing and with a passage extending inwardly from the bearing, a lever having a curved fulcrum loosely fitting the bearing, an arm projecting inwardly from the ball fulcrum and operatively connected to the valve, a spring for moving the valve in one direction, and a thermostatic device operatively connected to the lever for moving the valve in opposition to the spring with the resultant force of the spring and thermostatic device pressing the ball fulcrum into gas-tight engagement with its bearing.

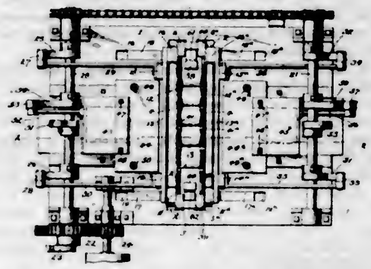
4. The combination of a valve casing and a valve slidable within the casing for controlling a flow of gas, the exterior of the casing formed with a bearing and with a slot extending inwardly from the bearing to the valve, a lever at the exterior of the casing, a fulcrum carried by the lever and loosely seated in said bearing, an arm projecting inwardly from the fulcrum and operatively engaging the valve for sliding the latter, a spring for moving the valve in one direction, and a thermostatic device operatively connected to the valve for moving it in an opposite direction with the resultant force of the spring and thermostatic device holding the fulcrum in gas-tight engagement with its bearing.

5. The combination of a valve and valve casing for controlling a flow of gas, a lever fulcrumed to the casing and operatively connected to the valve, a thermostatic device, a second lever operatively engaged by the thermostatic device, a bolt movable in the second lever, and a spring for holding the bolt normally extended from the second lever in position to engage the first mentioned lever.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,655. CRATE OR RACK MAKING MACHINE. JOHN W. SCHLEICHER, St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky., a Corporation of New Jersey. Filed Oct. 16, 1912. Serial No. 726,099. (Cl. 144—2.)



1. In a machine for assembling racks, the combination of a pair of relatively movable heads; mechanism working in conjunction with said heads and adapted to hold a series of strips; means for positioning a series of notched bars between said heads; and means for ejecting the strips and forcing the same into the notches of the bars when the heads are brought toward each other.

2. In a machine for assembling racks, the combination of a pair of heads; means carried by said heads for positioning a series of notched bars between the same; means for securing a relative movement of said heads toward and from each other; a series of strip-holding magazines carried by each head; and means for ejecting the strips from said magazines and forcing the same into the notches of adjacent bars.

3. In a machine for assembling racks, the combination of a pair of heads; means carried by said heads for positioning a series of notched bars between the same; a series of magazines carried by each head; means for securing a relative movement of the heads toward and from each other; and a series of ejecting and driving plates, one for each magazine, adapted to eject the lowermost strip and to force the same into the adjacent notches of the bars.

4. In a machine for assembling racks, the combination of a pair of heads; guides mounted upon the adjacent faces of said heads, the guides being adapted to hold and position a plurality of notched bars; means for moving said heads toward and from each other; a series of magazines carried by each of said heads; a plurality of ejecting and driving plates, one for each of the magazines; and means for moving said ejecting and driving plates inwardly to cause the same to eject the lowermost strip in each of the magazines and force the same inwardly into the notches of the bars.

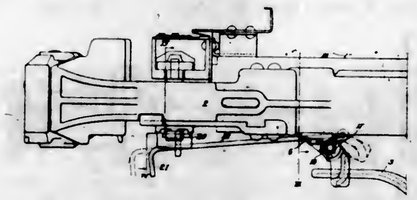
5. In a machine for assembling racks, the combination of a pair of heads; a series of guides mounted upon the forward face of each head; means carried by the heads adapted to coöperate with said guides and to hold between the heads a plurality of notched bars; means for moving said heads toward and from each other; a series of magazines carried by each of the heads and adapted to contain strips; a frame located upon the table adjacent to each of said heads; means for moving said frames toward and from the heads; and a series of ejecting and driving plates carried by each head, one plate for each frame, said plates being adapted to pass into the lower portion of each magazine and to force the lowermost strip outwardly therefrom and into the alined notches of the adjacent bars.

[Claims 6 to 11 not printed in the Gazette.]



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1,090,656. RADIAL-DRAFT GEAR. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 3, 1913. Serial No. 739,953. (Cl. 213—42.)



1. In a radial draft gear, a draft member pivotally mounted on a car to swing in a horizontal plane, a guiding connection mounted on the car truck, and a clutch intermediate the draft member and the guiding connection, and adapted to form an interengagement therebetween, said clutch being mounted to move in and out of the path of the guiding connection, and having means coöperating with the guiding connection to permit said connection to lift the clutch to cause it to drop into interengaging position.

2. In radial draft gear, a draft member pivotally attached to a car, a guiding connection attached to the truck, a member intermediate the draft member and the guiding connection, comprising interengaging means therebetween, the said intermediate member lying normally in the horizontal plane of the guiding connection and being arranged to be thrown out of action at will to permit the draft member to be abnormally deflected, the said intermediate member being adapted to be raised by the guiding connection on its return to normal position and to fall into interengagement therewith.

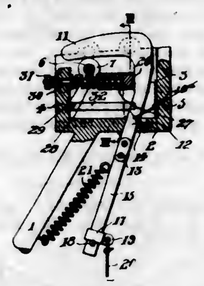
3. In a radial draft gear, a draft member pivotally attached to a car, a guiding connection attached to the truck, a member intermediate the draft member, and the guiding connection, comprising a normal connection therebetween and arranged to be thrown out of action at will, outwardly inclined faces on the intermediate member with which the guiding connection is adapted to coact when the draft member is returned into alinement with the guiding connection to raise the intermediate member into position to drop again into interengagement with the guiding connection.

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1,090,657. TROLLEY. HENRY SHAFFERT, East Pittsburgh, Pa. Filed Feb. 19, 1913. Serial No. 749,419. (Cl. 191—80.)

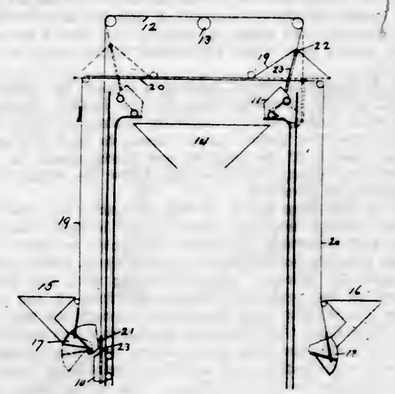
1. In a trolley harp, the combination with a pole, of a box-like hollow harp carried by the upper end thereof, arms extending through the bottom of said harp, a cord attached to the lower ends of said arms, parallel retaining members carried by the upper ends of said arms, spring pressed pins engaging the outer sides of said members, a trolley wheel journaled in said harp below said members, a spring pressed bar engaging said arms within said harp, and means within said harp and engaging said arms for separating said arms.

2. In a trolley harp, the combination with a trolley pole, of a box-like harp formed integral with the end thereof, arms extending through the bottom of said harp, spring pressed retaining members carried by said arms, a trolley wheel journaled in said harp below said retaining members, a spring pressed bar arranged within said harp and engaging said arms, a separating member arranged in said harp and engaging said arms for separating said arms when shifted, and connections between said pole and said arms for maintaining said arms in their normal position.



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1,090,658. LOADING DEVICE. AUGUSTUS SMITH, North Plainfield, N. J., assignor to The Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed Dec. 21, 1911. Serial No. 667,073. (Cl. 214—12.)



1. A hoisting mechanism comprising a skip, means for hoisting the same, and a filler device for charging the skip, in combination with means operated by the continued actuation of said hoisting means after the skip has reached its filling position, for operating said filler device.

2. A hoisting mechanism comprising a skip, means for hoisting the same, a filler device for charging the skip and a harness controlling said filler device, in combination with means controlled by said hoisting mechanism for engaging said harness, said harness engaging means being brought into actuating position by the continued actuation of said hoisting mechanism after the skip has reached its filling position.

3. A hoisting mechanism comprising a skip and a conjugate therefor, a filling device for the skip and a harness controlling said filling device arranged in the path of said conjugate and means for moving said conjugate after the skip has reached its filling position, to actuate said filler.

4. A hoisting mechanism comprising a skip and a conjugate therefor and means for imparting a supplemental

travel to said conjugate after the skip has reached its filling position, in combination with a filling device and operating means therefor engaged by said conjugate during its supplemental travel, substantially as described.

5. A hoisting mechanism of the type described, comprising a skip and a conjugate therefor and hoisting rope and drum means for operating the same, in combination with a filling device and operating means therefor arranged in the path of said conjugate member, the winding of said hoisting rope being so arranged as to continue the travel of said conjugate member after the skip has reached its filling position and thus bring said conjugate member into actuating engagement with said operating means for the filling device.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,659. LIGHTERING VESSEL. AUGUSTUS SMITH, Bayonne, N. J. Filed Mar. 23, 1912. Serial No. 685,817. (Cl. 214—1.)



1. A lightering vessel, having a bunker for granular cargo, sliding discharge gates in the bottom of the bunker, traveling cars with removable tubs under the bunker to receive the cargo from the bunker through open gates, the tubs being of such size and relation to the gates that the flow will cease when a certain quantity has entered the tub, means for closing the gates so that the tubs can then be withdrawn, and means for hoisting the tubs off the cars when moved from below the bunker, substantially as described.

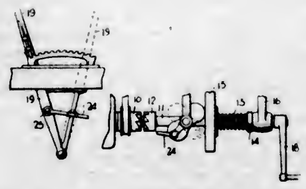
2. A lightering vessel, having a bunker for granular cargo, sliding discharge gates in the bunker, traveling cars with removable tubs under the bunker to receive the cargo from the bunker, power means to open the gates under control of the operator and power means on the vessel for hoisting the tubs from below the bunker, substantially as described.

3. A lightering vessel, having a bunker for granular cargo, sliding discharge gates in the bunker, traveling cars with removable tubs under the bunker to receive the cargo from the bunker through opened gates, power means to open the gates, a vertical hoisting well, and power means on the vessel for hoisting the tubs off the cars, when moved from below the bunker, through the well and for discharging their contents, substantially as described.

4. A bunker provided with a series of sliding discharge gates in combination with a horizontally slidable frame, a motive power means to reciprocate the sliding frame, and means to connect any of the gates with said sliding frame to operate the selected gates.

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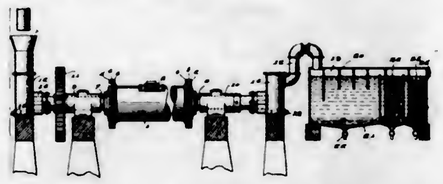
1,090,660. SAFETY ATTACHMENT FOR AUTOMOBILE CRANKING MECHANISM. HENRY C. TUNIS, Newark, N. J. Filed Feb. 4, 1913. Serial No. 746,170. (Cl. 123—179.)



In combination, an automobile having an internal combustion engine, a driving shaft therefor, and a controlling lever; a movable cranking shaft having a clutch to operatively engage said driving shaft; a crank handle rigidly mounted on said cranking shaft; a disk rigidly mounted on said cranking shaft; a spring infolding said cranking shaft to bear against said disk to move said cranking shaft to engage said driving shaft; a double-ended rocking lever disposed adjacent said disk to engage the same to move said cranking shaft out of engagement with said driving shaft; and a connecting rod operatively uniting said controlling lever and said rocking lever, said rocking lever, controlling lever, and connecting rod being arranged to permit the engagement of said cranking shaft and driving shaft only when said controlling lever is in neutral position.

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1,090,661. PROCESS OF PRECIPITATING AND RECOVERING METALS. CHARLES H. URQUHART, Newark, N. J. Continuation of application Serial No. 775,165, filed Mar. 18, 1913. This application filed Sept. 9, 1913. Serial No. 788,893. (Cl. 75—185.)



1. The process of precipitating and recovering metals from solution, which consists in passing the pregnant solution into and through a mass of specified granulated zinc in a closed chamber, the pregnant solution entirely filling the said chamber, thereby excluding air from the granulated zinc; agitating the solution and granulated zinc to free the precipitated metals from the zinc by abrasion; then separating the free metal particles from the solution.

2. The process of precipitating and recovering metals from solution, which consists in submerging a mass of specified granulated zinc by the pregnant solution; comminuting the granulated zinc while so submerged, thereby also freeing the precipitated metal; and then recovering the free metal from solution.

3. The process of precipitating and recovering metals from solution, which consists in submerging a mass of specified granulated zinc by a substantially continuous flow of pregnant solution; agitating the mass of granulated zinc during the flow of the pregnant solution to free the precipitated metal; then recovering the free metal from the solution.

4. The process of precipitating and recoverable metals from solution, which consists in passing the solution through granulated zinc repaired as specified; excluding air from said granulated zinc during the passing of said solution; agitating said granulated zinc to produce a grinding action between the particles; then separating the free metal particles from the solution.

5. The process of precipitating and recovering metals from solution, which consists in passing the metal bearing solution into a mass of granulated zinc repaired as specified; excluding air from said granulated zinc when the solution is present; agitating the granulated zinc to remove the precipitated metals by abrasion; then separating the free metal particles from the solution.

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1,090,662. NUT-LOCK. JOSEPH E. VILKIE, Titusville, Pa. Filed Apr. 21, 1913. Serial No. 762,554. (Cl. 151—9.)

1. The nut lock herein described, consisting of the nut formed with the circular ratchet, the threaded bolt fitting the nut, and the coiled helix surrounding the threaded portion of the bolt, and having one end secured to the bolt and its other free end formed with a detent to engage the ratchet of the nut.



2. A nut lock consisting of the threaded bolt, a nut mounted on the threaded bolt and formed with a ratchet, a pin secured in the upper end of the bolt and formed with an eye, and a coiled locking helix surrounding the



threaded portion of the bolt and having at its lower end a detent to engage the ratchet of the nut and at its upper end formed with a hook to engage the eye of the pin for securing said locking coil in position.

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1,090,663. BOOKBINDING. WILLIAM B. WAIT, New York, N. Y. Filed Mar. 27, 1913. Serial No. 757,118. (Cl. 11—16.)



1. A book comprising covers provided with an inflexible flat back having hinge joints, a plurality of signatures positioned between the covers, flexible fly strips secured to the backs of the first and last signature, a flexible fly member fastened to all the signatures, an intermediate stiff back secured to the latter member and the inflexible back, said intermediate back being provided with fly margins which in connection with the flies of the strips and the flies of the flexible member are fastened to the inner portions of the covers.

2. A book comprising covers provided with an inflexible flat back having hinge joints, a plurality of signatures positioned between the covers, flexible fly strips secured to the backs of the first and last signature, a flexible fly member secured to all the signatures, an intermediate stiff back secured to the signatures and the inflexible back, a flexible cover fixed to the back and having fly margins which in connection with the flies of the strips and the flies of the flexible member are fastened to the inner portions of the covers.

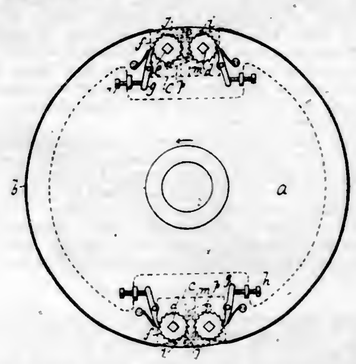
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1,090,664. PLATE-HOLDING DEVICE. WILLIAM B. WAIT, New York, N. Y. Filed June 5, 1913. Serial No. 771,912. (Cl. 101—168.)

1. In a plate holding device, the combination with a support having a plate mounted thereon, of a shaft carried by the support, a jaw to engage the shaft for clamping the plate against the shaft, and means actuated by the shaft for oscillating the jaw.

2. In a plate holding device, the combination with a cylindrical support having a plate mounted thereon, of a shaft carried by the support, a jaw to engage the shaft for clamping the plate against the shaft, and means operated by the shaft for oscillating the jaw to release the plate.

3. In a plate holding device, the combination with a cylindrical support having a plate mounted thereon, of a shaft rotatively carried by the support, a jaw to engage the shaft for clamping the plate against the shaft, means operated by the shaft for oscillating the jaw, and means for locking the jaw.



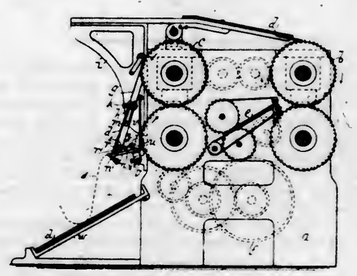
4. In a plate holding device, the combination with a cylindrical plate support having a plate mounted thereon, of a shaft rotatively carried by the support, a jaw to engage the shaft for clamping the plate against the shaft, means operated by the shaft for oscillating the jaw, and means engaging the shaft for locking the jaw.

5. In a plate holding device, the combination with a cylindrical support having a plate mounted thereon, of a shaft rotatively carried by the support, a jaw to engage the shaft for clamping the plate against the shaft, a plunger connected to the jaw, and means operated by the shaft for actuating the plunger to move the jaw.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,665. SHEET-DELIVERY APPARATUS. WILLIAM B. WAIT, New York, N. Y. Filed Aug. 14, 1913. Serial No. 784,781. (Cl. 101—29.)



1. In a sheet delivery apparatus the combination with a plurality of cylinders, of fingers adjustably arranged to guide the head of the sheet, means located below the fingers for supporting the head of the sheet, adjustable detents positioned to coact with the means for momentarily stopping the head of the sheet, and a delivery board located below the detents.

2. In a sheet delivery apparatus the combination with a plurality of cylinders for embossing sheets of paper on both sides, fingers swingingly arranged to guide the head of the sheet after it has been embossed on both sides, a shelf positioned in the path of the sheet, detents mounted on the shelf for momentarily holding the head of the sheet, and a delivery board located below the detents.

3. In a sheet delivery apparatus the combination with a plurality of cylinders for embossing sheets of paper on both sides, fingers swingingly arranged to guide the head of the sheet after it has been embossed on both sides, a shelf swingingly mounted in the path of the sheet, detents adjustably arranged on the shelf for momentarily

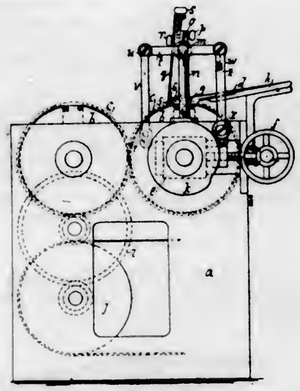
holding the head of the sheet, and a delivery board situated below the shelf.

4. In a sheet delivery apparatus the combination with a plurality of cylinders for embossing sheets of paper on both sides, fingers swingingly arranged to guide the head of the sheet after it has been embossed on both sides, a shelf having a projecting rim, said shelf being swingingly mounted in the path of the sheet, detents adjustably positioned on the shelf, and an inclined delivery board situated below the shelf.

5. In a sheet delivery apparatus the combination with a plurality of cylinders for embossing sheets of paper on both sides, fingers swingingly arranged to guide the head of the sheet after it has been embossed on both sides, a shelf having a projecting rim, said shelf being swingingly mounted in the path of the sheet, detents adjustably positioned on the shelf, a curtain located at the back of the fingers, and a delivery board situated below the shelf.

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1,090,666. SHEET-GAGE. WILLIAM B. WAIT, New York, N. Y. Filed Aug. 14, 1913. Serial No. 784,782. (Cl. 101—38.)



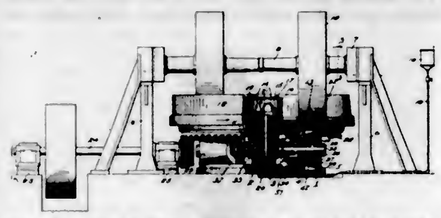
1. In a sheet gage the combination with a pair of embossing or printing cylinders, grippers carried by one of the cylinders, a rock shaft located over the gripper cylinder, an adjustable clamp mounted on the rock shaft, a sheet stop carried by the clamp, means carried by the stop and coacting with the clamp for adjusting the stop relative to the cylinder, a lever connected to the rock shaft, a link pivoted to the lever, and a cam carried by the gripper cylinder to actuate the link.

2. In a sheet gage the combination with a pair of embossing or printing cylinders, grippers carried by one of the cylinders, a rock shaft located over the gripper cylinder, an adjustable clamping sleeve mounted on the rock shaft, a sheet stop depending from the clamp, a set screw mounted on the stop for vertically adjusting the stop, a lever connected to the rock shaft, a link pivoted to the lever, and a cam carried by the gripper cylinder to actuate the link.

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1,090,667. CENTER-BEARING FOR GRINDING-PANS. CHARLES M. WALL, Curwensville, Pa., assignor of one-half to James A. Bickford, Curwensville, Pa. Filed Apr. 12, 1913. Serial No. 760,780. (Cl. 64—50.)

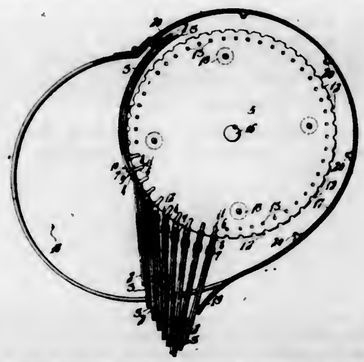
The combination of an annular bearing member, a pivot post, a revoluble member having a hub surrounding the pivot post, a bearing member of annular form carried by the revoluble member and disposed above the first named bearing member, anti-friction devices grouped about the post and interposed between the annular bearing members, means for supplying lubricant between the upper portions of the post and revoluble-member hub, an annular gutter surrounding the post and disposed below the revoluble-member hub in position to receive lubricant from between the post and the lower end of the revoluble-member



hub, and conduits leading from said gutter and arranged to supply lubricant therefrom to said anti-friction devices.

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1,090,668. DISPLAY ADVERTISING MECHANISM. DAVID H. WARD, Vancouver, British Columbia, Canada. Filed Apr. 12, 1913. Serial No. 760,667. (Cl. 40—72.)



1. A mechanical means for the display of advertisements or the like, said means comprising the combination with a casing, a reel or drum rotatably mounted within said casing, said casing having an exposure aperture along the front, of a series of sheets folded lengthwise, and means for flexibly connecting these sheets at the fold to the reel or drum.

2. A mechanical means for the display of advertisements or the like, said means comprising the combination with a casing, a drum rotatably mounted within said casing, of a series of sheets folded lengthwise and dividing the sheet into unequal parts, and means for flexibly connecting these sheets to the drum along the fold with the narrower fold of the sheet leading in the direction of rotation.

3. A mechanical means for the display of advertisements or the like, said means comprising a reel composed of two or more flanges, a common shaft on which said flanges are secured, a casing within which the flanges and their shaft are rotatably mounted, said casing having an exposure aperture, a series of sheets folded lengthwise, and means for flexibly connecting the sheets at the folds to the periphery of the flanges.

4. A mechanical means for the display of advertisements or the like, said means comprising a reel, a casing within which the reel is rotatably mounted said casing having an aperture extending across the width of the reel, a series of sheets folded lengthwise, and means for flexibly connecting these sheets along the fold to the periphery of the reel.

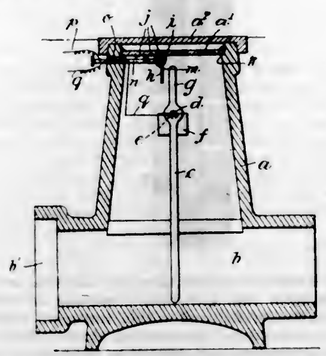
5. A mechanical means for the display of advertisements or the like, said means comprising flanges each composed of two disks of thin sheet metal secured together a short distance apart, a shaft on which these flanges are secured at intervals apart, a casing within which the shaft and its flanges are rotatably mounted said casing having an exposure aperture extending across it, a series of flexible sheets corresponding in one dimension approximately to the width of the casing aperture each sheet being folded lengthwise to divide it into two parts of unequal width, and means for flexibly connecting the fold of each sheet with said disks.

[Claims 6 to 11 not printed in the Gazette.]



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1,090,669. INDICATING DEVICE FOR DRAINS AND THE LIKE. JOSEPH HENRY WOODINGTON and ERNEST HENRY COLES, Clevedon, England. Filed Nov. 7, 1913. Serial No. 799,785. (Cl. 177—311.)



1. An indicating device for drains and the like comprising, in combination with a pipe section having a casing member, an adjustable binding post element extending within the casing member, and having forked arms and a spindle, a swinging contact tongue pivotally suspended from the central portion of said spindle, a contact needle pivotally hung within the casing member and having one end disposed in the passage way through the pipe section and the other end arranged to engage and disengage said swinging contact tongue, and electrical connections respectively with said binding post element and with said needle.

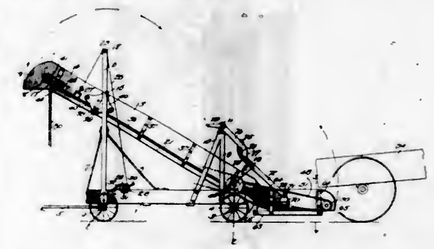
2. An indicating device for drains and the like comprising, in combination with a pipe section having a casing member provided with a plurality of supporting notches, a detachable plate arranged to cover said notches, an adjustable binding post element carrying a spindle retained in any of said notches, a contact tongue pivotally hung from said spindle, a contact needle pivotally hung within the casing member and having one end disposed in the passage way through the pipe section and the othe end arranged to engage and disengage said contact tongue, and electrical connections respectively with said binding post element and with said needle.

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1,090,670. ELEVATOR. ERVIN H. ZIMMERMAN, Perry, Ill. Filed Aug. 29, 1912. Serial No. 717,689. (Cl. 193—14.)

1. In combination, a fixed support, and a dumping frame pivoted to the support, and means for swinging the dumping frame into an approximately vertical position, said means comprising an upright at each side of the support, a shaft journaled in the uprights transversely of the dumping frame, arms on the shaft, a lever pivoted to each side of the dumping frame, each lever and each arm being curved at its outer end, a pivotal connection between the outer end of each arm and the adjacent lever near the junction of the curved and straight portions of the lever, the free end of each lever having a lateral lug overlying the upper edge of the adjacent arm, and means for oscillating the shaft.

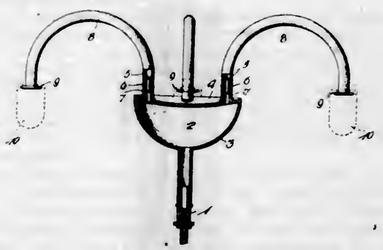
2. In combination, a fixed support, and a dumping frame pivoted to the support, and means for swinging the dumping frame into an approximately vertical position, said means comprising a shaft on the support above the adjacent end of the dumping frame, a lever pivoted to each side of the dumping frame, and arms rigid with the shaft at one end and pivoted to the adjacent lever at the other, and means for oscillating the shaft.



3. In a device of the character specified, a dumping frame, and a support, and means on the support for swinging the dumping frame, said means comprising a shaft provided with radial arms, levers pivoted to the dumping frame at one end and to the free ends of the arms at the other, each lever being extended beyond its pivotal connection with the arm, and having means for engaging above the arm to limit the downward movement of the arms and levers, and means for oscillating the shaft.

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1,090,671. APPLIANCE FOR GAS-LIGHTS. JOHN A. ABRAMS, Wadsworth, Ohio. Filed Apr. 7, 1913. Serial No. 759,485. (Cl. 67—94.)



1. In combination with a mixing tube adapted to be secured to a gas supply pipe, a mixing chamber mounted upon and secured to said tube, said chamber being bowl shaped and having a concaved top, nipples secured to and projecting from the concaved top of said chamber and located adjacent to the annular edge thereof, and fuel supply pipes detachably mounted on said nipples and provided with light producing mantles.

2. In a lamp the combination with an air and gas mixing tube, of an enlarged mixing chamber into which said air and gas is conducted and expanded, said chamber being bowl shaped and having a concaved top, a plurality of nipples secured to said concaved top of the chamber and located adjacent to the annular edge thereof, said nipples having upper reduced ends terminating in shoulders, the latter being located above said top of the chamber, and fuel supply pipes adapted to be adjustably and removably mounted upon the reduced ends of said nipples and located above the top of the chamber by the shoulders of the nipples, said pipes being semi-circular in shape, and light supplying devices secured to the outer ends of said pipes.

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1,090,672. ELECTRIC CURLING-IRON HEATER. CHARLES H. AUSTIN, Palmyra, N. Y. Filed Oct. 21, 1912. Serial No. 726,959. (Cl. 219—23.)

An electric heater embodying a casing of non-conducting material having a socket plug at one end thereof, a cylindrical resistance element within the casing and having

its terminals leading to the plug, a non-heat-conducting grasping member at the other end of the casing and a spring carried by the casing for holding a curling iron



therein, said spring having opposite branches extending within and without the heating space within the resistance element.

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1,090,673. METHOD FOR LOCATING THE PLACE AND CHARACTER OF A LIQUID COMING FROM STRATA IN A WELL. TITUS ANDREW BEECHER, Taft, Cal. Filed Oct. 1, 1912. Serial No. 723,271. (Cl. 73—51.)



The method of ascertaining the character and location of liquid flowing into a well, which consists in placing coloring matter near the supposed path of the inflowing liquid, then discharging from the well the portion of the liquid above the point at which the coloring matter is placed whereby the coloring matter, if in the path of the inflowing liquid, is forced to the discharge of the well by the inflowing liquid rising to the said discharge, and thereby the location of the inflow is determined, substantially as described.

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1,090,674. METHOD FOR LOCATING THE PLACE OF A LIQUID STRATUM IN A WELL. TITUS ANDREW BEECHER, Taft, Cal. Filed Dec. 13, 1912. Serial No. 736,519. (Cl. 73—51.)

1. The method of ascertaining the location at which liquid flows into a well consisting in diffusing coloring matter in the well within the space where the flow of the liquid may be expected, then substituting a liquid not contaminated with said coloring matter in the well, and then getting samples of liquid from different known depths of the space in the well where the said coloring matter was diffused, and ascertaining if the extracted samples contain said coloring matter.

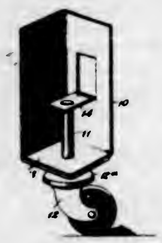


2. The method of ascertaining the location at which the liquid flows into the well, consisting in diffusing coloring matter in the well within the space where the inflow of the liquid may be expected, then tending to displace the colored liquid in the well by pumping or bailing, and then getting samples of liquid from different known depths of the space in the well where the said coloring matter was diffused, and ascertaining if the extracted samples contain said coloring matter.

3. The method of ascertaining the location at which liquid flows into a well, consisting in diffusing coloring matter in the well within the space where the inflow of the liquid may be expected, then pumping or bailing the liquid from the natural level of the well so as to remove the coloring matter lying in the path of the inflowing liquid, and then getting samples of liquid from different known depths of the space in the well where the said coloring matter was diffused, and ascertaining if the extracted samples contain said coloring matter.

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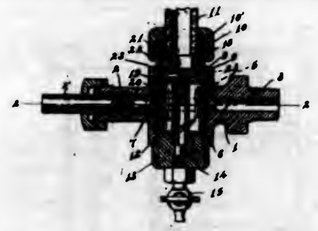
1,090,675. DEVICE FOR MOUNTING CASTERS. CHARLES J. BELL, Miami, Fla. Filed Jan. 5, 1914. Serial No. 810,371. (Cl. 16—4.)



A metallic article formed with an angle iron leg, the lower end of the leg being slitted at the angle and the terminals of the sides being bent to the horizontal position to lie adjacent to each other, one member of the angle iron leg having a U-shaped cut forming a tongue, and the said tongue being bent inwardly to overhang horizontally above the lower bent terminals, the said terminals and the tongue having alining holes and constituting vertically spaced bearings to receive a caster spindle.



1,090,676. VALVE. LEWIS A. BELLIS, Douglas, Ariz. Filed Dec. 3, 1912. Serial No. 734,736. (Cl. 73—54.)



1. A water glass gage valve including a body formed to provide a chamber and formed with a valve seat, a valve arranged to coöperate with the seat and formed to establish communication between opposite sides of the valve when the valve is open, means for holding the valve against more than a predetermined movement in a direction from its seat, a glass gage, the glass gage holding the valve in fixed coöperation with such means, whereby the valve is fixed against movement in either direction while said glass gage remains intact.

2. A water gage valve including a body formed with a chamber, a glass gage, a hollow valve guide arranged in the chamber, a valve operative in the chamber to control communication between the chamber and the glass gage, said valve being slidably mounted in the guide and held against more than a predetermined movement by said guide, the end of the valve opposite the guide connection being formed to contact with the end of the glass gage, said valve guide being formed with openings to establish communication between the interior of said guide and the chamber.

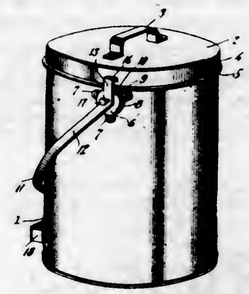
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1,090,677. BOTTLE-CLOSURE. EDWARD C. BRANDES, Two Rivers, Wis. Filed July 29, 1913. Serial No. 781,897. (Cl. 215—25.)



In a bottle closure, the combination with a bottle neck having its upper extremity reduced to form an inwardly extending shoulder, of a closure adapted to seal the upper terminal of the neck, said closure comprising a cylindrical resilient body portion having a flat upper terminal and a rounded lower terminal, said rounded lower terminal adapted for engagement with the upper edges of the bottle neck and to extend slightly therewithin, a spring catch formed of a single piece of metal being bent centrally of its ends to provide parallel portions, said parallel portions being extended through the body portion centrally thereof and arranged in spaced relation to each other, the centrally bent portions of said spring catch being slightly spaced from the upper flat terminal of the body portion, said parallel portions continuing from the rounded terminal of the body portion in a downwardly extending divergent plane and forming divergent arms, said divergent arms having their free terminals bent inwardly to provide rounded portions adapted to engage the inwardly extending shoulder of the neck, a pin mounted between the centrally bent portion and upper flat terminal of the body portion and a cap fitted upon the upper portion of the body portion.

1,090,678. CAN. JAMES K. BILLIG, Reading, Pa. Filed Mar. 15, 1913. Serial No. 754,417. (Cl. 220—32.)



1. A can provided with a removable cover, a swinging bail supported from the can below the cover and having normally projected extensions lying above the cover for holding the latter against opening when the bail is in an inactive position, and means for moving said extensions to inoperative positions laterally of the cover when the bail is adjusted to a carrying position.

2. A can provided with a removable cover, a swinging bail mounted on the can and having retaining extensions normally lying above the cover to hold the latter against removal when the bail is adjusted to one side of the can, means supporting the extensions for sliding movements relatively of the sides of the cover, and means for moving the extensions laterally beyond the cover when the bail is adjusted to a carrying position.

3. A can provided with a removable cover, a bail mounted for swinging movements on the can and having retaining portions normally overlying the cover and disposed in the direct path of movement thereof to prevent its withdrawal when the bail is swung to an inoperative position at one side of the can and cams fixedly mounted on the can and disposed in the path of the cover retaining portions of the bail and normally lying to one side of the axes of the bail.

4. A can, fixed disks secured to the sides thereof, a removable cover fitted to the can, a bail having laterally movable branches mounted upon the disks and provided with extensions normally overlying the cover and spaced therefrom, and means on the disk for moving the extensions of the bail to released position relatively of the cover when the bail is adjusted to a carrying position.

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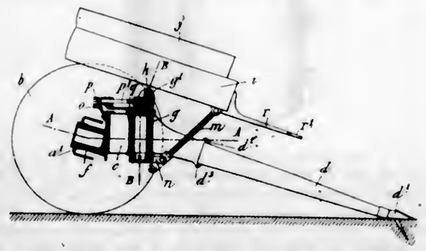
1,090,679. APPARATUS FOR THE PRODUCTION OF FILMS. BENNO BORZYKOWSKI, Berlin, Germany. Filed Aug. 18, 1913. Serial No. 785,327. (Cl. 18—15.)

1. An apparatus for the manufacture of film comprising an endless band for receiving the dissolved material, a plurality of rollers arranged beneath the upper portion of said band to support the same and prevent sagging, an endless supporting band mounted at the forward portion of said first-named band for assisting to prevent sagging, means for receiving the film from said first-named band, heating means for driving off the solvent from the material, a casing for inclosing all of said above-named elements, and means for removing the vaporized solvent from said casing.

2. An apparatus for the manufacture of film comprising an air-tight casing, a pair of continuously-rotating rollers supported in spaced relation in said casing, an endless transporter band running over said rollers, a nozzle projecting through said casing above one of said rollers for delivering the dissolved material to said transporter band, a plurality of rollers arranged beneath the upper portion of said transporter band to support the same and prevent sagging, an endless supporting band running over the rollers in proximity to said nozzle and assisting to prevent sagging of said transporter band, a winding device mounted in said casing in front of said transporter band

for receiving the film from the same, radiators arranged on said casing below said endless transporter band for producing the heat necessary for driving off the solvent, and means for removing the vaporized solvent from said casing.

1,090,680. WHEELED GUN-CARRIAGE. EMILE BOURDELLES, Paris, France, assignor to Schneider & Cie., Paris, France, a Limited Joint-Stock Company of France. Filed Apr. 15, 1913. Serial No. 761,258. (Cl. 89—40.)



1. In a wheeled gun carriage, a gun or gun cradle supporting frame comprising a supporting member articulated to the axle of the carriage and adapted to rotate about a line normal to said axle, and prop members secured to said gun supporting member and adapted to be divergently extended rearwardly into firing position and to be folded up into transporting position.

2. In a wheeled gun carriage, a gun or gun cradle supporting frame comprising a supporting member articulated to the axle of the carriage and adapted to rotate about an axis normal to said axle, and props hinged to said support adapted to swing rearwardly into firing position and to fold forwardly into transporting position.

3. In a wheeled gun carriage, a gun or gun cradle supporting frame comprising a supporting member articulated to the axle of the carriage and adapted to rotate about an axis normal to said axle, props hinged to said support adapted to swing rearwardly into firing position and to fold forwardly into transporting position, and means for locking said props in firing position.

4. In a wheeled gun carriage, a gun cradle supporting frame and a gun cradle supported thereon, said frame comprising a gun cradle supporting member articulated to said axle and adapted to rotate about an axis normal to said axle, props hinged to said supporting member adapted to swing into firing position and fold forwardly into transporting position, and means on said cradle between said props for attaching the cradle to a limber.

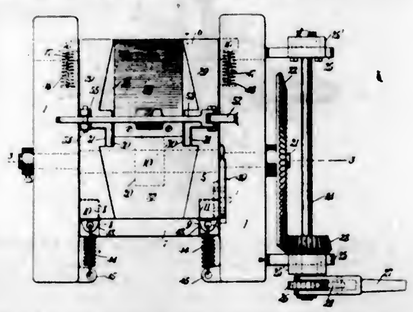
5. In a wheeled gun carriage, the combination of a pair of wheels and an axle in which is located a socket normal to the length of the axle, a gun supporting frame having rearwardly extending arms forming props for the frame, and a cross member having a pivot fitting said socket and a socket for receiving a training pivot.

[Claim 6 not printed in the Gazette.]

1,090,681. TIRE UPSETTER AND SHRINKER. JAMES F. BOYD, Bigelow, Ark. Filed Feb. 15, 1912. Serial No. 677,680. (Cl. 78—59.)

1. In a tire shrinker and upsetter, the combination of a pair of movably-mounted members having opposed surfaces, gripping means carried upon said members to engage the body of a tire to be shrunk and compress the same, means engaging the opposed surfaces of the members to move the same to cause the gripping means to compress the tire, and means engaging said members to move the same in the opposite direction.

2. In a tire shrinker and upsetter, the combination of a pair of movably-mounted members, gripping means carried by said members to engage and grip the body of a tire and compress the same, means for moving said members in one direction, means for moving said members in the opposite or return direction, and a lever for returning said members in the opposite direction in case the first-named returning means fails to operate.

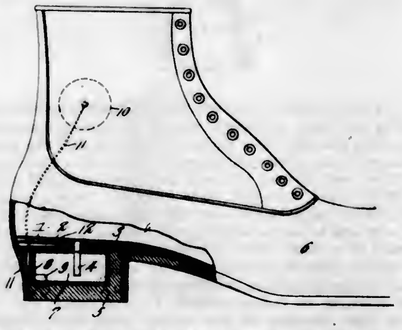


3. In a tire shrinker and upsetter, the combination of a pair of blocks, one of said blocks having a rest at one end and a projection at the opposite end, the said rest and the said projection being separated by a recess or depression, and the other of said blocks being received by said recess and having a portion supported by said rest on the first block, the said block also having a guide which passes through an aperture in the projection at the other end of said first block.

4. In a tire shrinker and upsetter, the combination of a pair of movably-mounted members each having a recess therein, said recesses having shoulders, gripping means carried in said recesses and engaging said shoulders, to grip the body of the tire and compress the same, and guiding-lugs carried by one of said members and extending from the shoulder-forming portions of said member past the shoulder-forming portions of the other member.

5. In a tire shrinker and upsetter, a pair of movable members having opposed surfaces, each of said members carrying gripping devices to engage a tire and compress the same, a shaft having a double cam thereon to engage said opposed surfaces and move the members to cause the gripping devices to make their working strokes.

1,090,682. ELECTRIC SHOE. KATHERINE HAUSER BROWN, Chicago, Ill. Filed Mar. 26, 1909. Serial No. 485,963. (Cl. 174—174.)

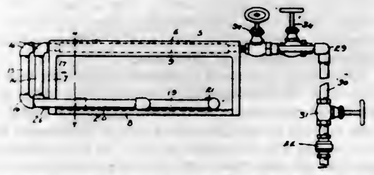


The combination with a shoe, of an insulated cell disposed in the heel thereof, a metallic electrode located within said shoe and having a movable portion disposed above the cell, the said electrode and the insole of the shoe being provided with alining openings communicating with the interior of the cell, a vertically yieldable electrode of dissimilar metals disposed above the first electrode and having a depending portion movable through said openings and adapted to project into the cell to form the cathode thereof, an electrolyte provided within the cell,



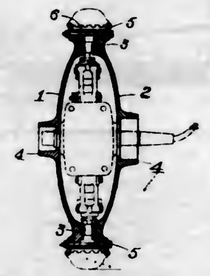
an anode disposed within the bottom of the cell, and a body contact plate connected electrically with the anode of the cell.

1,090,683. OIL-BURNER. WILLIAM E. CARLETON, Goshen Junction, Cal. Filed Oct. 21, 1913. Serial No. 796,503. (Cl. 158—63.)



In an oil burner of the character described, a gas generating element having a plurality of chambers formed therein and extending longitudinally therethrough, a starting pan integrally connected to the generating element and positioned under the same, means for conveying oil into the forward ends of the generating chambers, a plurality of burner tubes positioned in a horizontal plane above the starting pan and having discharge openings positioned above the center line of said pan, and pipes connecting the burner tubes with the rear ends of the generating chambers.

1,090,684. MOTOR TRACTION-WHEEL. MELVIN B. CHURCH, Grand Rapids, Mich. Filed June 30, 1913. Serial No. 776,735. (Cl. 21—90.)



1. A hollow wheel having sides, each with an annular rack on its inner face, and driving connections within the wheel geared to said racks, each of said sides having integral therewith an annular thickened portion at the rack and an integral thickened hub portion to hold said racks in parallel planes and the driving connections in proper working relation thereto.

2. A hollow motor wheel having inclosing sides with an annular thickened portion integral with and on the inner face of each side and a thickened hub portion integral with each side, a rack on each annular thickened portion, a motor supported between the hubs of the sides and a transmitting connection between the motor and racks, said annular thickened portion and said thickened hub portions holding the motor, transmission connection, and annular racks in proper working relation, substantially as described.

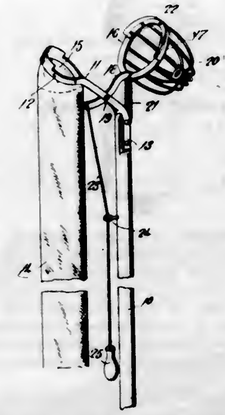
3. A hollow wheel having a side with an annular rack on its inner face and driving connections within the wheel geared to said rack, said side having integral therewith an annular thickened portion at the rack and an integral thickened hub portion to hold said rack and driving connections in proper working relation, substantially as described.

4. A hollow wheel having a side with an annular integral thickened portion on its inner face provided with rack teeth integral with said thickened portion, said side having also an integral thickened hub portion, driving connections within the wheel geared to the rack, said thickened portions holding the rack and driving connections in proper working relation, substantially as described.

5. A hollow wheel having a side with an annular rack on its inner face, driving connections within the wheel geared to said rack, said side having integral therewith an annular thickened portion at the rack to hold the said rack and driving connections in proper working relation, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,090,685. FRUIT-PICKER. WILLIAM A. CISNE, Independence, Mo. Filed July 13, 1912. Serial No. 709,173. (Cl. 56—99.)



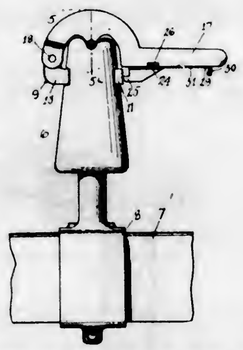
In a fruit picker, the combination with a handle, of a poke frame supported thereon and consisting of a single piece of material bent upwardly and away from the handle and looped to form a knife, a poke carried on the loop of the frame and depending therefrom in parallel relation to the said handle, a basket frame mounted to swing on the poke frame and bent upwardly and away therefrom to lie outside of the longitudinal plane of the handle, a spring secured to the basket frame and having connection with the handle, and a cord having connection with a projecting portion of the basket frame and depending between the handle and the poke for swinging the basket frame against the action of the spring and into engagement with the poke frame.

1,090,686. INSULATOR-CLAMP. WILLIAM A. COOK, Shinnston, W. Va. Filed Apr. 9, 1913. Serial No. 760,061. (Cl. 173—313.)

1. The combination with an insulator, of an insulator clamp including a rigid member having downwardly facing teeth formed on one end thereof, a movable member pivoted at one end to the other end of the fixed member and adapted to swing over the top of the insulator, a latch slidable upon the movable member and means for forcing said latch toward the insulator, the latch being formed with a beveled face whereby it automatically engages under said teeth when the movable member is carried toward the insulator.

2. The combination with an insulator, of an insulator clamp comprising a fixed member extending through said insulator having teeth formed upon one end thereof, a movable member pivoted to the other end of said fixed member and extending over the end of the insulator, and spring pressed locking means carried by the movable member for automatic engagement with the teeth upon said fixed member when the movable member is swung toward the insulator.

3. The combination with an insulator, of an insulator clamp comprising a fixed member having teeth formed upon one end thereof, a movable member pivoted to the other end of said fixed member and extending over the end of the insulator, a latch slidably mounted upon said movable member, and means for automatically engaging said latch with the teeth when the removable member is forced toward the top of the insulator.

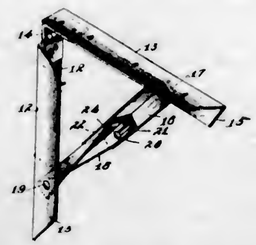


4. In combination with an insulator, an insulator clamp including a movable member pivoted to one side of said insulator, said movable member comprising a yoke extending over the end of the insulator and a lever formed upon the free end of the yoke, said lever being formed with a channel, a spring pressed latch slidable in said channel, and means carried upon the insulator for engagement by said latch whereby the movable member is held rigid.

5. The combination with an insulator, of an insulator clamp comprising a fixed member extending transversely through said insulator and having teeth formed upon one end thereof, a movable member pivotally attached to the other end of said fixed member comprising a yoke extending over the end of the insulator, and a lever formed upon the free end of the yoke, a latch slidable within a longitudinal channel formed in said lever for engagement with the teeth, a latch rod having a finger extension thereon, and spring means surrounding said latch rod for holding the latch normally at the extremity of its inward movement.

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1,090,687. WALL-BRACKET. RAY E. COON, Yates, N. Y. Filed Oct. 3, 1913. Serial No. 793,181. (Cl. 248—19.)



1. A bracket comprising angular leaves hinged together, one angular and one U-shaped strut member, one of each being pivoted to the projecting side of said leaves, and an interlocking slidable connection between said strut members.

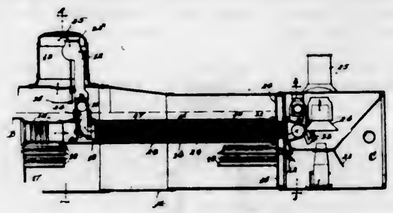
2. A bracket comprising angular leaves, an angle metal strut member pivoted to the projecting side of one of said leaves and having a notch in its free end, a U-shaped strut member pivoted at one end through all of said leaves and having a slot adjacent its free end, a headed stud carried upon said upper member and slidingly secured in said slot, and a stud upon the free end of said lower strut member adapted for removable engagement with said notch.

3. A device of the class described comprising two angle metal leaves hinged together, the projecting sides of said leaves being oppositely positioned, an angle metal strut member pivoted to the projecting side of said upper leaf, a channel metal strut member pivoted to the opposite projecting side of said other leaf, and a sliding interlocked hinge between said strut members.

4. A device of the class described comprising two augle metal leaves hinged together, the projecting sides of said leaves being oppositely positioned, an angle metal strut member pivoted to the projecting side of said upper leaf, a channel metal strut member pivoted to the opposite projecting side of said other leaf, a sliding interlocked hinge between said strut members, said upper strut member provided with a stud upon one side thereof and a notch at the end of its other side, said lower strut member provided with a slot slidably-mounted upon said stud and also having a headed stud upon another one of its sides adapted for the reception of said notch beneath the head thereof upon the open position of said strut and bracket.

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1,090,688. STEAM-SUPERHEATER FOR BOILERS. MILLARD F. COX, Louisville, Ky. Filed Feb. 3, 1913. Serial No. 746,007. (Cl. 122—463.)

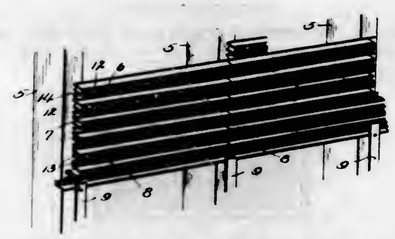


1. A steam boiler having a plurality of flue tubes of small diameter extending from the fire box to the smoke box, a cylindrical combustion chamber of relatively large diameter also extending from the fire box to the smoke box, and baffle plates positioned in said combustion chamber to compel the combustion gases to take a helical course therethrough; a self contained superheater within said combustion chamber and a duct leading the generated steam to said superheater from the dome of the boiler, and a collector in the smoke box for collecting the steam from the superheater and conducting it to the engine cylinders; said duct forming an elbow with its horizontal branch situated within said combustion chamber and its vertical branch extending through the cylindrical wall of the combustion chamber, said vertical branch having double walls forming a water jacket around said vertical branch.

2. A steam boiler having a plurality of flue tubes of small diameter extending from the fire box to the smoke box, a cylindrical combustion chamber of relatively large diameter also extending from the fire box to the smoke box, baffle plates positioned in said combustion chamber to compel the combustion gases to take a helical course therethrough, a self-contained superheater within said combustion chamber, a duct leading the generated steam into said superheater from the dome of the boiler, a collector in the smoke box for collecting the steam from the superheater and conducting it to the engine cylinders; said duct comprising an elbow pipe within said combustion chamber, and a stand pipe extending through the cylindrical wall of said combustion chamber and opening into the dome of the boiler, and a throttle valve for closing said opening and means for regulating said throttle valve, said stand pipe having double walls forming a water jacket around said stand pipe.



1,090,689. LATH. GEORGE P. CRUMBAUGH, St. Louis, Mo., assignor of one-half to Edwin W. Grove, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,220. (Cl. 20—13.)



1. A lath or key base comprising distinct pairs of corrugated members, the two members of each pair being arranged at angles to each other and having side edges thereof exposed to form margins for distinct openings, and channel members forming unbroken longitudinal grooves and disposed between and in alternate relation with each of the corrugated members to receive the plaster covering.

2. A lath or key base comprising distinct pairs of corrugated members, the two members of each pair being at angles to each other and forming openings therebetween, and angular connectors arranged in alternation with respect with each of the corrugated members and providing straight unbroken channels between the said members for receiving portions of a plaster covering.

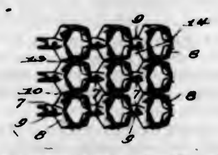
3. A lath or key base comprising distinct pairs of corrugated members, the two members of each pair being disposed at an angle to each other and having a plurality of openings produced therebetween and exposed at the edges thereof, and channeled members arranged in alternation relatively with each of the corrugated members and having unbroken straight channels of V-form between the said corrugated members for receiving portions of a plaster covering.

4. A lath or key base comprising alternately arranged corrugated and channeled members, the corrugated members being disposed in pairs at angles relatively to each other to provide alternate downwardly and upwardly exposed openings, and the channeled members also disposed at an angle relatively to each other and alternately opening to the front and to the rear and serving as connectors for the corrugated members.

5. A lath or key base comprising alternately arranged corrugated and channeled members, the corrugated members being disposed at angles relatively to each other to provide alternate downwardly and upwardly exposed openings, and the channeled members also disposed at an angle relatively to each other and serving as connectors for the corrugated members, and wires threaded between and around portions of the corrugated members at intervals.

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1,090,690. METAL LATH. GEORGE P. CRUMBAUGH, St. Louis, Mo., assignor of one-half to Edwin W. Grove, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,221. (Cl. 72—117.)



1. A metal lath comprising a plurality of successive cell members having connecting necks between them with fully open rear sides for producing bracing arches and also having openings therethrough, the said cells being intermittently bent to dispose the sides in rearwardly diverging planes.

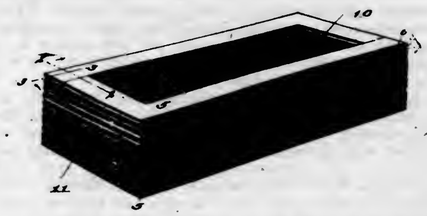
2. A metal lath comprising a plurality of successively arranged cell members each intermediately bent to dispose the sides at an angle to each other and having connecting necks between them and a portion of the walls bent and uniting the said members in a direction at right angles to the said necks, the necks at the bent portions of the walls being approximately V-shaped and opening out at reverse sides of the lath.

3. A metal lath comprising a plurality of cell members intermediately bent to dispose the sides at an angle to each other and provided with connecting necks all extending in one direction and also having portions of the walls of each two adjacent cell members united by bends in a direction at right angles to the necks, the necks and the bends having openings formed therein for the reception of fastening devices and also to provide additional key means.

4. A metal lath of the class specified, comprising a plurality of cell members each intermediately bent to dispose the sides at an angle to each other and having the openings therein exteriorly exposed and increasing in dimensions toward the rear thereof, the cell members being united by necks intermediately connected thereto and all extending in one direction, portions of the walls of each pair of cell members being also connected by bends in a direction at right angles to the necks, the necks and the bends of the walls having openings formed therein.

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1,090,691. BUILDING TILE OR BLOCK. GEORGE P. CRUMBAUGH, St. Louis, Mo., assignor of one-half to Edwin W. Grove, St. Louis, Mo. Filed Feb. 19, 1913. Serial No. 749,521. (Cl. 72—41.)



1. A building tile or block having parallel sides and ends with an opening extending therethrough completely from the top to the bottom, the said tile or block being of integral construction and comprising a plurality of superposed layers of parallel members each comprising longitudinally straight flat strips with corrugated strips therebetween providing a series of openings extending fully through the opposite side portions of the tile or block and communicating with the central opening through the block, the ends of the block being closed and provided with a series of grooves forming key means to receive plastic material for uniting the ends of adjacent blocks.

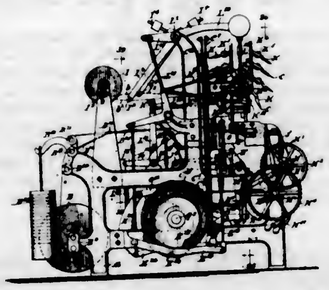
2. A building tile or block having a central open space extending from the top to the bottom thereof and provided with parallel sides and ends, the block being composed of a plurality of superposed fixed layers of alternately arranged corrugated and straight strips in parallel relation and longitudinally straight relatively to each other, the corrugated and straight strips having their side edges exposed to provide openings which extend through the sides to the central open space of the block and also to form roughened surfaces for receiving and holding a plaster covering, the ends of the blocks being closed and having parallel grooves to form key means to receive the plastic material for uniting the ends of the block to adjacent blocks.

3. A building tile or block having a central open space extending therethrough fully from the top to the bottom thereof and formed with opposite parallel sides and ends and composed of a plurality of layers secured to each other to provide an integral structure, the said layers embodying

corrugated members with flat bases with the corrugations of the corrugated members secured to adjacent flat bases the corrugated members forming openings extending fully through the sides to the central open space of the block, the ends of the block being closed and provided with means for receiving a plastic material for uniting the ends of the block to the adjacent blocks.

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1,090,692. LOOM FOR WEAVING ORIENTAL KNOT-PILE FABRICS. JAMES KARMI DALKRANIAN, West Hoboken, N. J., assignor to Nazar Costikyan, New York, N. Y. Filed Dec. 11, 1906, Serial No. 347,342. Renewed Aug. 5, 1913. Serial No. 783,195. (Cl. 139—66.)



1. A pile fabric loom comprising a lay, means for intermittently actuating the said lay, a shogging device for crossing and uncrossing the ground warp threads, a tuft yarn tube carrying the pile thread, and means for moving the said yarn tube twice between the said ground warp threads and relative to the movement given to the lay and the shogging device to form a Persian knot.

2. A pile fabric loom comprising a lay, means for intermittently actuating said lay, a pair of heddles for the ground warp threads, a fixed reed for the passage of the ground warp threads, a shogging device for crossing and uncrossing the ground warp threads, a tuft yarn tube, and means for moving the said tuft yarn tube twice between the said ground warp threads and relative to the movement given to the lay and the rocking device.

3. A pile fabric loom, comprising a lay, means for intermittently actuating the said lay, a pair of heddles for the ground warp threads, a fixed reed for the passage of the ground warp threads and arranged in front of the heddles, a shogging device interposed between the said reed and the said lay for crossing and uncrossing the ground warp threads, tuft yarn tubes carrying the pile threads, and means for moving the said tuft yarn tubes twice between the said ground warp threads and relative to the movement given to the said lay and the said shogging device to form Persian knots on the said ground warp threads.

4. A pile fabric loom comprising a lay, means for intermittently actuating the said lay, a pair of heddles for the ground warp threads, a fixed reed for the passage of the ground warp threads and arranged in front of the heddles, a shogging device interposed between the said reed and the said lay, tuft yarn tubes carrying the pile threads, means for operating the said tuft yarn tubes in conjunction with the said lay and the said shogging device to form Persian knots on the said ground warp threads, yarn tubes carrying reinforcing warp threads, and means for actuating the same in unison with the said heddles.

5. A pile fabric loom comprising a lay, means for intermittently actuating the said lay, a pair of heddles for the ground warp threads, a fixed reed for the passage of the ground warp threads and arranged in front of the heddles, a shogging device interposed between the said reed and the said lay, tuft yarn tubes carrying the pile threads, means for operating the said tuft yarn tubes in conjunction with the said lay and the said shogging device to form Persian knots on the said ground warp threads, and yarn tubes carrying reinforcing warp threads and arranged between the said lay and the said shogging device.

[Claims 6 to 43 not printed in the Gazette.]

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1,090,693. HUMIDOR. CHARLES E. DANFORTH, West Somerville, Mass. Filed Nov. 12, 1912. Serial No. 731,041. (Cl. 131—30.)



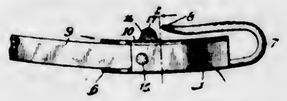
1. In a humidor, the combination with a casing, of a lid therefor, a cover carried on the lid and forming a moisture holding chamber, a tray including perforated sides and a perforated bottom, supported in the said casing and adapted to have the cover moved therein when the lid is closed to form a closure for the said tray, and a jacket carried within the casing and inclosing the sides and bottom of the said tray.

2. In a humidor, the combination with a casing, of a lid therefor, a cover carried on the lid and forming a moistening chamber having apertures therein, and a tray supported in the casing and provided with apertures adapted to register with the apertures in the cover when the said lid is arranged in closed position on the casing, to establish communication between the said cover and the said casing.

3. In a humidor, the combination with a casing, of a lid therefor, a cover depending from the lid and forming a moisture holding chamber provided with a plurality of apertures, and a tray including perforated sides and a perforated bottom, the said tray being supported in the said casing and adapted to have the cover extend therein when the said lid is arranged in closed position on the casing, with apertures in the said tray registering with the apertures in the said cover.

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1,090,694. DETACHABLE STRAP TERMINAL AND HOOK. CHARLES L. DEPOLLIER, New York, N. Y. Filed May 17, 1913. Serial No. 768,358. (Cl. 24—231.)



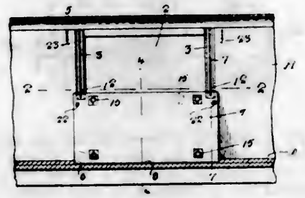
1. A detachable strap terminal comprising a box or body portion having lateral integrally formed outer walls, each wall converging at its forward end, and an integral hook formed on the forward end, said hook being upwardly turned and bent over inwardly to overlap the upper side of said box, a cover having integral downwardly extended side portions adapted to fit within the box and provided with an integral transversely disposed guard having a notch or pocket at its central portion, and securing pins adapted to pass transversely through the side walls of the box and cover and through the end portion of a strap for securely fastening the strap to the said box and cover.

2. A detachable strap terminal comprising a box or body portion having integrally formed outer walls, and an integral hook formed on its forward end, said hook being upwardly turned and bent over inwardly to overlap the upper side of said box, the rear lower end portion of the box terminating with an extending lip portion, a cover having integral downwardly extended side portions adapted to interfit with the walls of said box and provided with an integral transversely disposed guard on its upper portion having a notch or pocket at its central portion, and securing pins adapted to pass transversely through the box and cover and through the end portion of a strap for securely fastening the strap to the said box and cover, substantially as described.



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1,090,695. GRAIN-DOOR. GEORGE WILLIAM DRAKE, Chicago, Ill. Filed Jan. 31, 1913. Serial No. 745,438. (Cl. 20—27.)



1. A car having a floor provided with a recess and door jambs provided with vertical slots extending from the floor upward and with straps overhanging said slots, in combination with a grain door accommodated in the recess in the car floor, and T-heads hingedly connected with the grain door and extending within and slidably engaging the slots in the door jambs.

2. A car having a floor provided with a recess and door jambs provided with slots extending from the floor upward and with straps overhanging the same, a grain door accommodated in the recess in the car floor, T-shanks hingedly connected with the grain door and extending within and slidably engaging the slots of the door jambs, and anti-friction rollers on said T-heads engaging the straps, said straps having inwardly offset cam portions near their upper ends, and said cam portions having upwardly extended flat faces substantially parallel to the faces of the straps.

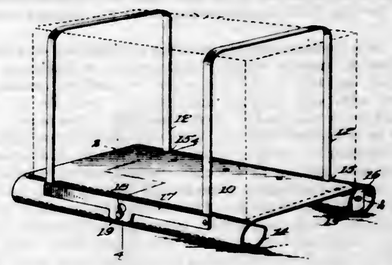
3. A car having a floor provided with a recess and door jambs provided with vertical slots extending from the floor upward and with straps overhanging said slots, said floor being also provided with a groove adjacent to the door opening which is bounded at the sides thereof by the jambs, a grain door accommodated in the recess in the floor and having T-heads carrying friction rollers extending within and slidably engaging the slots of the door jambs, said T-heads being hingedly connected with the grain door to permit the latter to be lifted and one edge thereof to be seated in the groove adjacent to the door opening.

4. A car having door jambs provided with vertical slots extending from the floor upward and with straps overhanging said slots, a grain door, T-shanks hingedly connected with said grain door at one edge thereof, said shanks extending within the slots of the door jambs and having anti-friction rollers riding on the overhanging straps; said straps being provided near their upper ends with inwardly offset cam portions having upwardly extended faces lying substantially parallel to the faces of the straps and the car floor being provided adjacent to the door opening with a groove adapted to receive one edge of the grain door.

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1,090,696. PACKAGE-TIE. ZEPHIRE L. DUCHENE, Kankakee, Ill. Filed Nov. 20, 1912. Serial No. 732,575. (Cl. 24—17.)

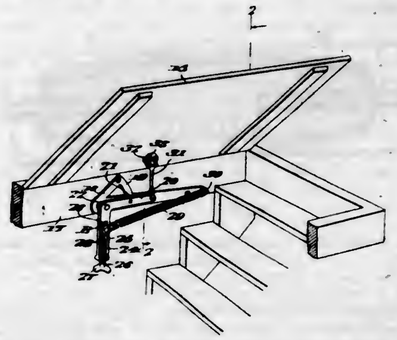
A package tie comprising a base plate having opposite edges bent around and downward to form beads, one of said beads forming a housing, bearings in said housing, a spring-roller located in said housing and supported by the aforesaid bearings, said housing having top apertures, a fastener mounted on the outside of the other bead, tapes connected to the spring-roller and passing through the aforesaid apertures, and a cross-bar connecting the free



ends of the tapes and adapted to be engaged by the aforesaid fastener.

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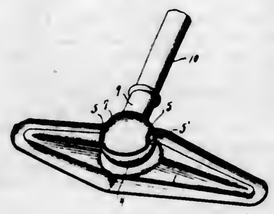
1,090,697. ATTACHMENT FOR TRAP-DOORS. EDGAR EDDELMAN, Westport, Ind. Filed July 23, 1913. Serial No. 780,733. (Cl. 39—96.)



An attachment for trap doors comprising a bracket secured on the door frame and having an arcuate arm constituting a track, a bell crank fulcrumed on the bracket, a track engaging anti-friction roller on one arm of the bell crank, a link connecting the roller carrying arm of the bell crank with the door, and a spring connected with the other arm of the bell crank to exert tension thereon.

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1,090,698. CLEANING-TOOL. OTTO ELBE, Chicago, Ill. Filed July 24, 1911. Serial No. 640,237. (Cl. 15—60.)



1. In a vacuumcleaning tool the combination of a base forming a vacuum chamber, a socket communicating therewith and connected to the base, and a ball provided with a handle and an inlet opening mounted in the socket, said socket having elongated journal bearings, and the ball having journals extending into and rotatable in the bearings and movable along the same, the journals being ec-

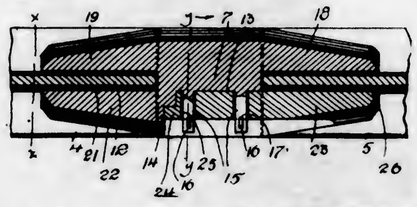
centric to the axis of the ball for permitting rotary movement of the ball to bring said opening into or out of communication with the base, and an exhaust connection for the ball communicating with the exhaust opening.

2. In a vacuum cleaning tool the combination of a base forming a vacuum chamber and having a discharge or exhaust opening, a ball and socket connection communicating with said opening, and eccentric journals on one of said parts mounted in curved bearings in the other.

3. In a vacuum cleaning tool, the combination with a base forming a vacuum chamber and having a discharge or exhaust opening, of a socket communicating therewith and having upstanding transversely slotted ears, and a tubular ball having means of discharge and means of communication with the exhaust opening, and journals projecting laterally from the ball and disposed eccentric to the axis thereof and extending into the slots of said ears for permitting rotation of the ball and limiting the extent thereof, said journals being movable longitudinally of their respective slots.

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1,090,699. RAIL-JOINT. HECTOR G. EVANS, Pittsburgh, Pa., assignor of one-half to James F. Ewing, Pittsburgh, Pa. Filed Dec. 29, 1913. Serial No. 809,292. (Cl. 239—8.)



1. A rail joint comprising a bridge piece having formed integral at one side thereof a pair of longitudinally extending spaced parallel fish plates and at its other side with a longitudinally extending integral fish plate, said bridge piece formed with laterally projecting tongues, a fish plate mounted upon said tongues and arranged parallel to and spaced from said first fish plate, and means extending through said tongues for maintaining the separable fish plate in position.

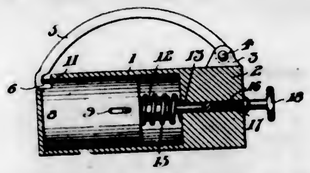
2. A rail joint including a bridge piece having the top thereof of a contour of the head of a rail and said bridge piece adapted to be interposed between the ends of a pair of rails, a pair of fish plates integral with one side of said bridge piece and adapted to be positioned at the sides of the web of a track rail, a fish plate integral with the other side of said bridge piece and adapted to be positioned one side of the web of the other rail, and a fish plate detachably connected to said bridge piece and adapted to be positioned against the other side of the web of the other rail.

3. A rail joint comprising a bridge piece having one side provided with a stepped extension and a plurality of tongues, a fish plate abutting against said extension and mounted upon said tongues, means extending through the tongues for detachably connecting said fish plate to said bridge piece, a pair of oppositely disposed fish plates integral with said bridge piece, and a fish plate integral with said stepped extension, said bridge piece having the upper portion thereof conforming in contour to the head of a rail and adapted to be interposed between the ends of a pair of rails.

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1,090,700. LOCK. JOHN FEKETTE, Elizabeth, N. J. Filed Apr. 21, 1913. Serial No. 762,671. (Cl. 70—105.)

1. A lock comprising a barrel having one end wall of greater thickness than the other, said thinner end wall cut away adjacent the periphery to provide an opening, a curved shackle pivotally connected at one terminus to said thicker end and provided with a hook adapted to extend in said opening, a cylindrical bolt slidably mounted in said barrel and having one end adjacent the periphery recessed for the reception of said hook, said bolt having a reduced end provided with a stem projecting from the thickened end of the barrel, a coiled compression spring mounted upon the reduced end of the bolt, and a screw adapted to be mounted in said stem to facilitate shifting the bolt to release the shackle.



2. A lock comprising a barrel having one end wall of greater thickness than the other, said thinner end wall cut away to provide an opening, a curved shackle pivotally connected at a terminus to said thicker end and provided with a hook adapted to extend in said opening, a cylindrical bolt slidably mounted in said barrel and having one end adjacent the periphery recessed for the reception of said hook, said bolt having a reduced end provided with a stem projecting from the thickened end of the barrel, a coiled compression spring mounted upon the reduced end of the bolt, a screw adapted to be mounted in said stem to facilitate shifting the bolt to release the shackle, and means for limiting the movement in either direction of said bolt.

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1,090,701. CONCRETE-FENCE-POST MOLD. GUSTAV H. FENSKE, Clark, Mo. Filed Apr. 27, 1912. Serial No. 693,624. (Cl. 25—118.)



A mold comprising a section tapered toward one end and provided with side walls terminating in right angularly-disposed flanges, said flanges being disposed in converging relation from one end of said section to the other end thereof, a second section tapered throughout to fit within the first section and provided with a flat wall lying parallel with one of the walls of the first section and disposed beyond the plane of the flanges, and clamping devices adjustable longitudinally of the mold and each having an intermediate body overlying the flat wall and end hooked portions extending over and beneath the flanges and operable when the clamp is moved in one direction on the mold to advance the body portion of the clamp against the flat wall and to move the second section into lateral engagement with the first section whereby to cause the free edges of the second section to mutually engage one of the walls of the first section.

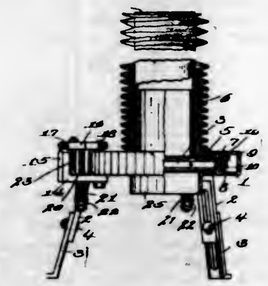
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1,090,702. BASE OR STAND. JOSEPH A. FIRSCHING, Utica, N. Y. Filed Mar. 1, 1913. Serial No. 751,621. (Cl. 26—16.)

1. A base or stand for fabric drying tubes embodying a relatively fixed table, a relatively rotatable tube-supporting head arranged above the same, and anti-friction roller bearings arranged between the table and head for rotatably supporting the latter.

2. A base or stand for fabric drying tubes embodying a relatively fixed table, a relatively rotatable tube-supporting head arranged above the same, and two sets of anti-friction rollers interposed between the table and head and operative respectively to support and to center said head.





3. A base or stand for fabric drying tubes embodying a relatively fixed table, a relatively rotatable tube-supporting head, said table having two pairs of tracks arranged between them, a set of rollers coöperative with one of said pairs of tracks for rotatably supporting the head, and another set of rollers coöperative with the other pair of tracks for centering the head relatively to said table.

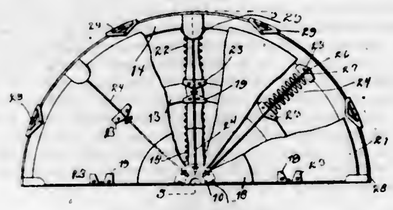
4. A base or stand for fabric drying tubes embodying a relatively fixed table, a relatively rotatable tube-supporting head, said table having two pairs of tracks arranged between them, a set of rollers coöperative with one of said pairs of tracks for rotatably supporting the head, another set of rollers coöperative with the other pair of tracks for centering the head relatively to said table, and a spider operative to guide and space both sets of rollers.

5. A base or stand for fabric drying tubes embodying a relatively fixed table provided with an annular flange, a tube-supporting head rotatable relatively to the table and having an annular edge coöperative with said flange to form a close substantially fluid-tight fit therewith, and an anti-friction bearing between said table and head to rotatably support the latter and to center said edge of the head relatively to said flange on the table.

[Claims 6 to 12 not printed in the Gazette.]

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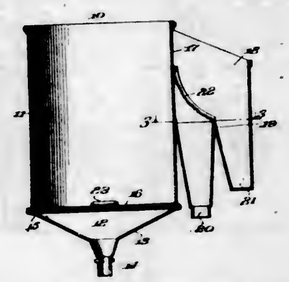
1,090,703. SPRING-WHEEL. LOYD A. FURUSETH, Belmond, Iowa. Filed July 31, 1913. Serial No. 782,299. (Cl. 152—30.)



A spring wheel comprising a hub having spaced circumscribing flanges, inner and outer rims surrounding the hub, spokes having their inner ends pivotally connected to said flanges respectively, and their outer ends loosely engaged with the outer rim, eye members mounted on the inner rim in which said spokes are movably engaged respectively, springs interposed between the hub and inner rim, springs interposed between the inner rim and outer rim, guard plates carried by said flanges, and guard plates carried by the inner rim and having opposite portions disposed in overlapping relation to the guard plates carried by the flanges and outer rim respectively.

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1,090,704. SINK. JESSE GARDNER, Austin, Tex. Filed June 3, 1913. Serial No. 771,454. (Cl. 4—36.)

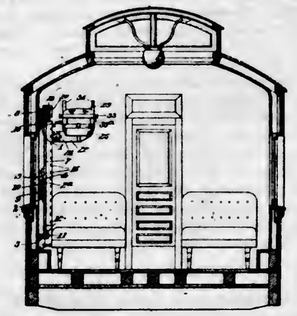


1. In a sink, the combination with a receptacle constituting a basin, of a supply pipe for connection with the receptacle, a perforated floor supported within the receptacle, a box projecting from the medial portion of the side wall of the receptacle adjacent an outlet opening thereof, and a partition in the box to provide a drain pipe depending adjacent the receptacle, and a waste reservoir lying adjacent the drain pipe.

2. In a sink, the combination with a receptacle constituting a basin, of a supply pipe for connection with the receptacle, a box projecting from a medial portion of the side wall of the receptacle, adjacent an outlet opening thereof, a partition in the box to provide a drain pipe and a reservoir, and a curved screen within the box and having connection with the receptacle and the partition to cover the upper end of the said drain pipe.

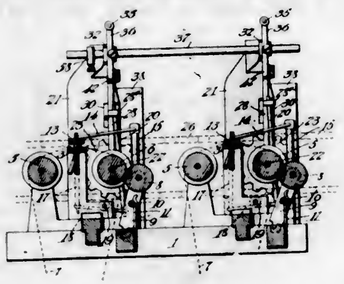
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1,090,705. CHILD'S CRIB OR BERTH ATTACHMENT FOR RAILROAD-CARS. LOUIS W. GEEBEKEY, Douglas, Ariz. Filed Jan. 21, 1910. Serial No. 539,299. Renewed May 12, 1913. Serial No. 767,191. (Cl. 105—19.)



In a crib attachment for railway cars, the combination with a car body, of three horizontal rails extending along the side of the car interiorly and spaced apart vertically, the upper rail having an upwardly projecting flange, the middle rail being T-shaped in cross section, and the lower rail having a lengthwise groove, of a crib carrier comprising a vertical back plate having two wheels at the top that run on said upper rail and two middle wheels that run underneath the middle rail, the lower end of the said back plate being slidable in the grooved bottom rail, and slidable catches attached to the back plate and adapted to enter notches in the middle and lower rails, as described.

1,090,706. SELECTIVE PIANO-PLAYER MECHANISM. FRED R. GOOLMAN, Binghamton, N. Y., assignor to Harris Player Piano Company, Binghamton, N. Y., a Corporation of New York. Filed Dec. 2, 1912. Serial No. 734,536. (Cl. 84—180.)



1. A piano player mechanism including means for maintaining a plurality of independent note sheets in operative position at all times, and selective mechanism comprising means for causing any one of the note sheets to be instantly started to play and to simultaneously and instantly arrest the play of any other note sheet in action.

2. A piano plaer mechanism including mechanical means for simultaneously maintaining a plurality of independent note sheets in operative position at all times, selective means for causing any one of the note sheets to be instantly played, and means actuated by the said selective means for instantly stopping the playing of any other note sheet in action.

3. A piano plaer mechanism including a series of independent player units each of which has its own note sheet and duct bridge, selective means for causing any one of the note sheets to be instantly played, and means actuated by the said selective means for instantly stopping the playing of any other note sheet in action.

4. A piano player mechanism including a series of independent player units each of which is provided with its own note sheet and duct bridge, a duct closing valve for each of the duct bridges, selective means for bringing any one of the player units into action and opening the duct closing bridge thereof, and means actuated by the said selective means for automatically shutting off any of the other player units which may have been in action and closing the duct closing valves thereof.

5. A piano player mechanism including a series of independent player units maintained in operative position at all times, independent driving elements for each of the units, clutch means controlling the driving elements, selective means controlling the clutch means for bringing any selected one of the player units instantly into action, and means actuated by the said selective means for automatically and simultaneously shutting off any of the other player units which may have previously been in action.

[Claims 6 to 24 not printed in the Gazette.]

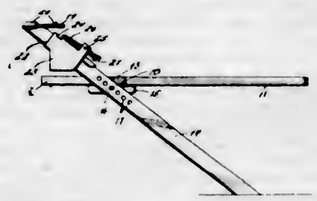
1,090,707. ADVERTISING SIGN OR DEVICE. HERBERT G. DE HAMEL, Aldbury, Tring, England, and GEORGE MAKGILL, Kemback, Scotland. Filed Jan. 4, 1913. Serial No. 740,215. (Cl. 46—40.)

1. In an advertising device, the combination of a screen provided with an aperture and bearing a portion of a pictorial representation upon its outer face; a member separate from the screen and movable in front thereof across said face, said member bearing the remainder of such representation upon its outer face; and an oscillatory member located behind said screen and having one end thereof laterally bent and projecting loosely through said aperture and the other end provided with a roller, the first-named member being rigidly connected directly to the bent end of said oscillatory member and wholly supported by the same, whereby movement is imparted to said first-named member when sudden shocks are transmitted to the device from an external source.




2. In an advertising device, the combination of a screen having a convex inner face and bearing upon its outer face a portion of a pictorial respesentation; a member separate from the screen and movable in front thereof across said outer face, said member bearing the remainder of such representation upon its outer face; an oscillatory member located behind said screen and having the first-named member connected directly to it; and a roller secured to said oscillatory member and arranged to travel over the said inner face of the screen for wholly supporting said oscillatory member and for imparting movement thereto and to the said first-named member when sudden shocks are transmitted to the device from an external source.

1,090,708. IRONING-BOARD. DENVER W. HAMLIN, Los Angeles, Cal. Filed Nov. 9, 1912. Serial No. 730,368. (Cl. 68—10.)

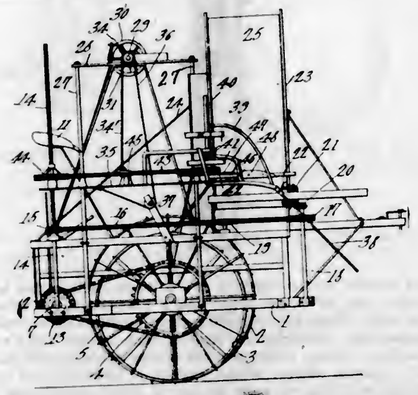


The combination with an ironing board having a slot in one end, of a supporting leg pivotally and adjustably mounted in said slot and projecting above the top face of said ironing board, said leg being substantially square in cross section at the top and being provided with a series of notches in one longitudinal edge, a casing of substantially square cross section slidably engaging on the upper end of said leg and provided with substantially right angular side projections that depend below the casing and have the lower edges parallel with the top face of said ironing board, said edges being adapted to engage with the top face of a table or other support and coöperate with the pivot of said leg in supporting said ironing board, a substantially U-shaped keeper on the upper edge of said casing, a slot in said casing in advance of said keeper, a rightangular catch pivoted within said keeper and engaging through said slot, and a leaf spring interposed between said casing and said catch and yieldably holding the working end of said catch selectively in engagement with one of said notches.

1,090,709. MACHINE FOR HEADING KAFIR CORN. ORVAL HAYES, Braman, Okla. Filed Feb. 19, 1913. Serial No. 749,427. (Cl. 56—131.)

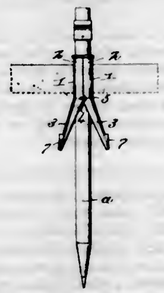
1. A machine for topping corn, including a wheel supported structure, an elevator extending upwardly and laterally therefrom, a vertically adjustable table, fixed and revoluble cutting elements carried by the table, a reel revoluble with the revoluble cutting elements for directing severed tops onto the elevator, a guard arm extending across the receiving end of the elevator and curved forward and laterally therefrom, another guard arm carried by the table and extending forwardly, downwardly and laterally, said guard arms constituting means for gathering the stalks of a row into position to be acted on by the cutting elements, fingers extending from the back portion of the last named guard arm and extending laterally toward the elevator, said reel having arms movable between the fingers, and means for actuating the movable cutting element.





2. A machine for topping corn including a wheel supported structure, an elevator extending upwardly and laterally therefrom, a table mounted for vertical adjustment relative to the structure, fixed and movable cutting elements carried by the table, said fixed element extending across the receiving end of the elevator, a backing plate upon the fixed element, a reel revoluble with the movable cutting element for directing severed tops onto the elevator, a guard arm extending across the receiving end of the elevator and curved forwardly and laterally therefrom, another guard arm carried by the table and extending forwardly, downwardly and laterally, said guard arms constituting means for gathering the stalks of a row into position to be acted on by the cutting elements, fingers extending from the back portion of said last named guard arm and extending laterally toward the elevator, said reel having arms movable between the fingers, and means for transmitting motion to the movable cutting element from one of the supporting wheels irrespective of the adjustment of the table, the elevator being located entirely at one side of the gathered stalks.

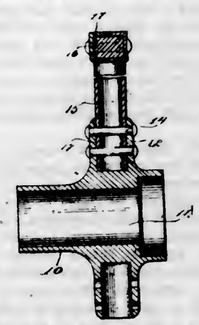
1,090,710. COMBINED PENCIL HOLDER AND SHARPENER. ROY RAEBURN HAZLETT, Warsaw, N. C. Filed Dec. 20, 1912. Serial No. 737,897. (Cl. 120—93.)



1. A combined pencil holder and sharpener comprising a pair of members each having a semi-tubular clamping arm and a cutter arm at an angle to the clamping arm, said members being pivotally connected together at a point in the angles between said clamping arms and cutter arms, and provided with inwardly projecting springs in the said angles, for the purpose set forth.

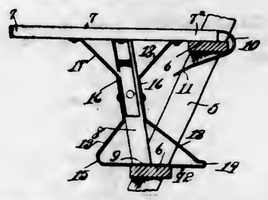
2. A combined pencil holder and sharpener comprising a pair of members each having a semi-tubular clamping arm and a cutter arm at an angle to the clamping arm, said members being pivotally connected together at a point in the angle between said clamping arms and cutter arms, and springs arranged to bear against the pencil when the latter is placed in the device and to close the clamping arms against the pencil.

1,090,711. WHEEL. WILLIAM HAMMACK, JABEZ HEDGES, and LAUREN MARTIN, Lancaster, Ohio. Filed Nov. 25, 1911. Serial No. 662,319. (Cl. 21—69.)



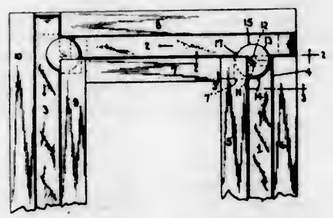
A wheel provided with a rim formed of two angular metal members between which wooden felly sections are placed, said angular members having their abutting edges disposed in the center of the periphery of the bearing portion of the wheel, and at the center of the inner side of the rim, spokes extending into said rim and bearing at their outer ends against the inner sides of the angular members, and bolts extending transversely through said angular members and through the spokes.

1,090,712. DETACHABLE SEAT FOR LADDERS. JAMES R. HEICHEL and GEORGE E. GORZ, Ashland, Ohio. Filed Oct. 16, 1911. Serial No. 654,820. (Cl. 20—86.)



A detachable seat for ladders including in combination, a seat adapted to have its rear end seated upon a rung of a ladder, means to hold said seat on said rung comprising a pair of U-shaped hooks having diverging arms, one arm of each hook being secured to the upper side of said seat and the other arm of each hook extending beneath said seat in spaced relation to the bottom of the seat, a supporting leg centrally depending from the seat for engagement with the next lower rung, said leg being formed from a single length of strap metal having its central portion bent to form a foot arranged at right angles to the rung, said foot being elongated in the direction transverse to the rung whereby the rung may engage the foot at different portions of its length, the ends being bent inwardly from the foot in spaced parallel relation and terminating in outwardly directed end portions and having connections with the seat.

1,090,713. CONVEYER-TRANSFER. HERMAN HILDENBRAND, Chapeze, Ky. Filed May 5, 1913. Serial No. 765,621. (Cl. 193—4.)

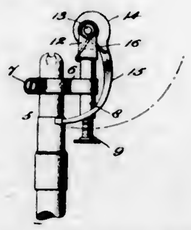


1. In a transfer device of the character set forth, the combination with an endless conveyer belt whose upper stretch moves horizontally, and feed mechanism directed laterally toward said belt; of a disk closely overlying the belt and the mechanism and having a hub bearing against the edge of the belt whereby the disk is rotated, and means for holding the disk in operative position, substantially as described.

2. In a transfer device of the character set forth, the combination with two conveyers standing in a horizontal plane, the second moving across the delivery end of the first; of an upright pin fixed between said conveyers, a disk closely overlying said conveyers and having a hub journaled on said pin and bearing against the edge of the second conveyer whereby rotary motion is imparted to the disk, and guides alongside said conveyers.

3. In transfer device of the character set forth, the combination with a pair of parallel spaced guides producing a channel, a second pair of similar guides producing a second channel at an angle to the first, an endless conveyer belt whose upper stretch moves along the second channel, and an endless feed belt whose upper stretch moves along the first channel and whose delivery end is spaced from the side of said second belt; of a disk mounted on an upright axis in the space between the belts with its body closely overlying said belts, and means for rotating said disk in a direction to cause its front edge to move transversely of the feed belt and its rear edge to follow the direction of movement of said second belt, the guide on that side of the disk whose edge is moving reversely to the direction of the feed belt being notched to receive the disk.

1,090,714. GAS-LIGHTER. JOHN HOLTZMAN and LOUIS GEFON, New York, N. Y. Filed Apr. 10, 1912. Serial No. 689,894. (Cl. 67—20.)



A gas lighter comprising a support adapted to be secured to a burner, a cylinder provided upon the support and having spaced arms mounted at its end, a pyrophoric material resiliently supported in the cylinder between said arms, a serrated member journaled between the arms and having contact with the said material, a handle provided upon said member and a spring coiled about the axis of said member and engaging the member and being under tension to normally hold the free end of the handle upon the member toward the support.

1,090,715. WINDOW. WILLIAM HOOK, New York, N. Y. Filed Aug. 2, 1913. Serial No. 782,631. (Cl. 20—56.5.)



A window sash comprising two sections, each section including two stiles, an upper and a lower rail, the stiles and rails of said two sectons contacting throughout their lengths, the contacting surfaces of each section being recessed, a window pane mounted in the recess of one section, a frame located in the recesses of both sections for holding said window pane in one of said sections, and a window pane mounted in the other section.

1,090,716. CIGAR-SUPPORT ATTACHMENT. EARL W. HOWE, Washington, D. C. Filed Feb. 6, 1914. Serial No. 816,984. (Cl. 131—51.)



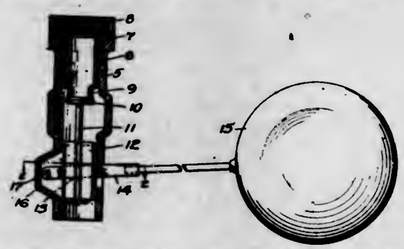
1. A combination cigar band and support comprising a central body portion having a plurality of substantially radial arms, said arms being arranged to be normally clasped around a cigar, and certain of said arms being flexible to be bent to provide supports whereby said cigar may be supported in a substantially horizontal plane.

2. A combination cigar band and cigarette support comprising a central body portion having a plurality of substantially radial arms, said arms being arranged to be normally clasped around a cigar, certain of said arms being flexible to be bent to provide supports whereby said cigar may be supported in a substantially horizontal plane, and a spur device projecting from the body portion engaging either a cigar or cigarette to insure attachment of the same thereto.

3. A combination cigar and cigarette band and cigar support, comprising a body portion having arms projecting therefrom passing normally about the cigar or cigarette, certain of said arms being bent to construct supporting means, and a spur device projecting from the body portion engaging either the cigar or cigarette to insure attachment of the same thereto.

1,090,717. BALL-COCK. WARREN HYDE and JACOB SCHWARZLER, New York, N. Y. Filed Jan. 17, 1911. Serial No. 603,118. (Cl. 137—104.)

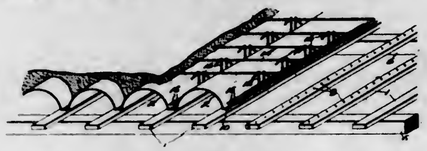
In a ball cock, the combination with a float and lever; of a vertically disposed casing having an inlet and an outlet, and provided with a longitudinal opening in the side, and further provided with a laterally extending channeled portion, a second casing fitted within and being substantially shorter than the first-named casing, the said second casing being provided with a narrowed portion forming a valve seat, a valve bearing up and against the said valve seat, the stem of the valve being provided with



an extended spider having an opening, the lever being pivoted in the said channel and extending through both of the said openings.



1,090,718. REINFORCED CONCRETE CONSTRUCTION. CHARLES J. HYER, Tampa, Fla. Filed Dec. 19, 1912. Serial No. 737,720. (Cl. 72—70.)



1. A reinforced concrete construction comprising a longitudinally-extending series of integral concrete joists and connecting arches forming a floor slab, a series of parallel supporting rods extending transversely through said slab for attachment to supporting walls or beams, a series of longitudinal rods in sets spaced below said supporting rods and extending perpendicular thereto through said joists, a series of independent stirrups supporting said longitudinal rods said stirrups having their upper ends bent into oppositely directed, downwardly extending hooks, and being engaged with said several transverse supporting rods and diverging into the adjacent concrete arches for firmly supporting and anchoring said stirrups against swing on said transverse supporting rods.

2. A reinforced concrete construction comprising a longitudinally-extending series of integral concrete joists and connecting arches forming a floor slab, a series of parallel supporting rods extending transversely through said slab above said connecting arches for attachment to supporting walls or beams, a series of parallel tension rods in pairs extending longitudinally through the lower portions of said joists perpendicular to said series of supporting rods, a series of independent stirrups supporting said longitudinal rods said stirrups having their upper ends bent into oppositely directed downwardly extending obliquely divergent hooks, and being supported upon said several transverse supporting rods and diverging into the adjacent concrete arches for firmly supporting and anchoring said stirrups against swing on said transverse supporting rods, metal anchors partially embedded in the lower faces of said joists, a ceiling provided with metal lathe work secured in position by said anchors, and a filling of insulating material confined in said arches by said metal lathe work.

3. A reinforced concrete construction comprising a longitudinally-extending series of integral concrete joists and connecting arches forming a floor slab, a series of parallel supporting rods extending transversely through said slabs for attachment to supporting walls or beams, a series of longitudinal rods in sets spaced parallel to said supporting rods and extending at an angle thereto through said joists, a series of independent stirrups supporting said longitudinal rods and each of said stirrups having its upper ends bent into oppositely directed, downwardly extending hooks, each hook engaging one of said transverse supporting rods and diverging into the adjacent concrete arches for firmly supporting and anchoring said stirrups against swing on said transverse supporting rods.

1,090,719. NECKTIE. JACK F. JACOBSON, Mobile, Ala. Filed Sept. 29, 1913. Serial No. 792,373. (Cl. 2—11.)

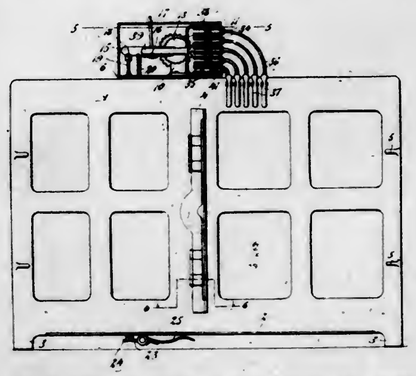


1. A necktie having two main ends and a lining made fast to the outer material of the tie intermediate of its ends and having an end detached from the outer material, and an auxiliary tie end attached to said end of said lining but detached from the adjacent main tie end.

2. A necktie having two main flowing ends and a lining made fast to the outer material of the tie at a point intermediate of said ends and free from said material adjacent at least one of said ends, and an auxiliary flowing tie end attached to said free end of said lining but detached from said outer material except through said lining at said intermediate points of attachment, said auxiliary end adapted to be pulled by the user without pulling the adjacent main end of the tie, thereby transmitting said pull directly through the lining to the outer material of the tie at said intermediate point of attachment, said auxiliary end being of an ornamental character.

3. A necktie having two main ends and a lining made fast to the outer material of the tie intermediate of its ends and having an end detached from the outer material, and an auxiliary tie end stitched to said end of said lining but detached from the adjacent main tie end, said stitching being directed diagonally inward to approximately the center line of the lining in two directions to form a V-shaped figure, substantially as described.

1,090,720. MUSIC-LEAF TURNER. JAMES H. JORDAN, Madison, Wis. Filed Aug. 7, 1912. Serial No. 713,857. (Cl. 84—135.)



1. In a music leaf turner, a music supporting frame, a shaft carried thereby, a plurality of sheet turning fingers journaled on the shaft and each having a holding member, a guiding and supporting element, dogs mounted for movement in the guiding and supporting element to engage and disengage the holding members of the fingers, springs to move the dogs to disengaging position, and a rod movable across the paths of the dogs to engage the latter and normally hold them in engaged position with respect to the holding members and against the tension of their springs, said rod having a longitudinal slot to successively receive the dogs when the rod is moved in one direction,

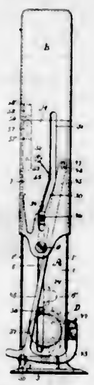
to permit the dogs to successively disengage the holding members of the fingers.

2. In a music leaf turner, a music supporting frame, a shaft carried thereby, a plurality of sheet turning fingers journaled on the shaft and each having a holding member, a guiding and supporting element, dogs mounted for movement in the guiding and supporting element to engage and disengage the holding members of the fingers, springs to move the dogs to disengaging position, and a rod movable across the paths of the dogs to engage the latter and normally hold them in engaged position with respect to the holding members and against the tension of their springs, said rod having a longitudinal slot to successively receive the dogs when the rod is moved in one direction, to permit the dogs to successively disengage the holding members of the fingers, and means to operate said rod.

3. In a music leaf turner, a music supporting frame, a shaft carried thereby, a plurality of sheet turning fingers journaled on the shaft and each having a holding member, means to turn the fingers when their holding members are released, a guiding and supporting element, dogs mounted in the guiding and supporting element for movement therein to engage and disengage the holding members of the fingers, springs to move the dogs to disengaging position, and a rod movable across the paths of the dogs to engage the latter and normally hold them in engaging position with respect to the holding members and against the tension of their springs, said rod having a longitudinal slot to successively receive the dogs when the rod is moved in one direction, to permit the dogs to successively disengage the holding members of the fingers.

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1,090,721. APPARATUS FOR STICKING STAMPS. FRANZ KASPAR, Prague, Austria-Hungary. Filed June 3, 1912. Serial No. 701,436. (Cl. 216—55.)

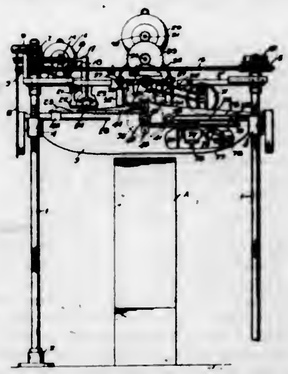


1. In an apparatus for sticking stamps the combination of a framework comprising a base plate, a moistening device, means for pivotally mounting the said moistening device in the said base plate, a pressure member connected with the same framework, means for positively connecting said pressure member with said moistening device, a block of stamps, means for supporting said block of stamps on the said framework, an air pump, means for tiltably supporting this air pump in said framework, means for positively coupling the said air-pump with said pressure member the arrangement being such that during a single application of the apparatus against the place of destination of the stamp, this place is moistened by the moistening device, then freed again whereafter the stamp which has been sucked off the block of stamps by the air pump and carried downward, is applied against the said moistened place of destination, substantially as set forth.

2. In an apparatus for sticking stamps the combination with the framework of a block of stamps, means for holding said block of stamps in the said framework, an air pump cylinder, means for supporting the said air pump cylinder in a rotary manner in said framework, a pressure member, means for slidingly connecting this pressure member with said framework, means for positively connecting said pressure member with said air pump cylinder, a sleeve shaped piston mounted in said cylinder so as to project therefrom, a perforated india-rubber plate secured to the projecting outer end of said piston, a spiral spring adapted to force the said piston outward and to apply the said india-rubber plate against the said block of stamps in the position of rest, a valve provided in the said pump cylinder and adapted to close the cylinder chamber when the apparatus is at rest the arrangement being such that at the beginning of the lowering of the said pressure member, the said pump cylinder is pressed downward while the piston remains applied by its india-rubber plate against the block of stamps under the action of the spring, whereby a partial vacuum is produced in the pump cylinder which partial vacuum causes the lowermost stamp to be removed from the block of stamps, while, when the pump has been tilted together with the stamp and after the pump has been applied on the place of destination of the stamp with a view of sticking the stamp thereto, the said partial vacuum ceases to exist and the valve opens thus allowing the pump to move backward without exerting any further influence on the stamp, substantially as set forth.

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1,090,722. SHEET-SEPARATING MACHINE. WILLIAM RAYMOND KINNEAR, New Castle, Pa. Filed Sept. 17, 1909. Serial No. 518,196. (Cl. 29—17.)



1. A sheet separating machine adapted to be supported upon the sheets to be separated and be lowered therewith progressively as the sheets are separated, and means for temporarily supporting the frame upon the sheets during the separation of said sheets.

2. A sheet separating machine adapted to be supported upon a pile of sheets to be separated and be lowered therewith progressively as the sheets are removed, and means adapted to engage the sides of the pile on the actual separation of each sheet and support the machine.

3. In a sheet separating machine, the combination with a suitably supported frame, of a suction device, a stripping means coöperating therewith and adapted to engage beneath and completely separate a sheet from a pile, and means carried by the stripping mechanism for removing the sheet separated.

4. In a sheet separating machine, the combination with a suitably supported frame, of suction means for raising the corners of the sheets in advance of their separation, a reciprocating knife adapted to engage under said raised portions and completely separate the sheets from the pile, and means carried with the knife for removing the separated sheets.

5. In a sheet separating machine, the combination with a suitably supported frame, of suction means for raising

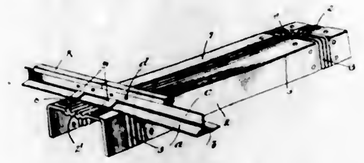


the corners of the sheets in advance of their separation, a pair of oppositely and simultaneously operated knives adapted to engage under said raised corners and completely separate the sheets from the pile, and means carried with one of said knives for removing said sheets.

[Claims 6 to 19 not printed in the Gazette.]

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1,090,723. RAILWAY-TIE. NOAH M. KINSEY, Farmersville, Ohio. Filed Aug. 1, 1913. Serial No. 782,484. (Cl. 238—5.)



1. A metallic tie comprising an auxiliary flat face and vertically straight sides integrally formed with the face, the face being provided with longitudinally extending corrugations, the tie, at its rail receiving portions being provided with transverse corrugations which intersect the longitudinal corrugations, and means provided upon the tie for sustaining the rails upon the intersecting corrugated portions of the tie.

2. A tie formed from a rectangular strip of metal having central longitudinal corrugations and transverse corrugations arranged adjacent its ends, the tie being rolled to provide an auxiliary flat face and vertically straight sides, the intersecting corrugated portions of the tie adapted to provide seats for the rails, the flat faces of the tie adjacent the intersecting corrugations being formed with openings and said openings being adapted to receive bolts for securing rail engaging clips to the ties, and the nuts for the bolts adapted to be contacted by the walls upon the inner face of the tie provided by the longitudinal corrugations.

3. A tie comprising sides and a top connecting the sides, the top being formed with centrally arranged longitudinally extending corrugations, the said top as well as the sides being provided with corrugations which run transversely of the longitudinal corrugations on the top of the tie and the intersecting corrugations on the face of the tie adapted to receive the base flanges of the rail, means provided upon the tie for securing the rails upon their seats, and removable bracket members connected with the sides of the tie and forming additional seats for the base flanges of the rails.

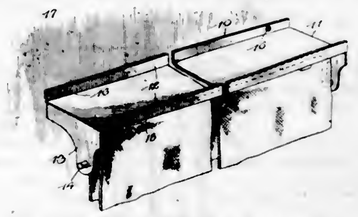
4. A metallic tie formed from a sheet of metal and providing sides and a top, the top having longitudinally extending corrugations and intersecting transverse corrugations which are continued from the sides of the tie, the intersecting corrugations adapted to provide a seat for the rails, L-shaped brackets for the sides of the tie, said brackets having their vertical members grooved to engage with the corrugations upon the sides of the tie, means for securing the said brackets to the sides of the tie, the brackets having their upper faces serrated and adapted to provide additional rests for the rails.

5. In combination, a tie having its upper face provided with centrally arranged corrugations and intersecting transverse corrugations, L-shaped brackets arranged upon the sides of the tie and having their upper members disposed in a plane with the transverse corrugations, a rail chair arranged upon the upper faces of the brackets and the intersecting corrugations, means for securing the chair to the brackets, two rails within the chair and secured to the chair, and clips adjustably connected to the tie and contacting with the opposite faces of the rail engaging sides of the chair.



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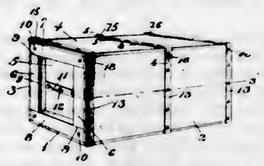
1,090,724. COMBINED SHELF AND TOWEL-RACK. FREDERICK W. KOEHLER, Chicago, Ill. Filed Mar. 18, 1913. Serial No. 755,250. (Cl. 45—32.)



As a new article of manufacture, a towel rack comprising a single piece of flat material having its ends bent downwardly to form bearings, a crank shaped towel bar mounted to swing on the bearings and normally depending beneath the flat portion of the said piece of material, with the said towel bar adapted to receive a towel and movable upwardly to wedge the towel between the flat portion of the piece of material and the said towel bar, and ears struck downwardly from the piece of material and adapted to limit the swinging movement of the towel bar.

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1,090,725. RECEPTACLE. JOSEPH S. KUNKEL and EDWARD R. KUNKEL, Cincinnati, Ohio. Filed June 12, 1912. Serial No. 703,276. (Cl. 217—57.)



A receptacle having a swinging closure, and relatively springy and flexible metallic reinforcing strips secured to the walls of the receptacle and to the closure and each having portions beyond the joint between the closure and the adjacent side of the receptacle, struck up and spaced outwardly from the receptacle to form relatively springy hinges operating under the inherent elasticity of the strips to hold the closure against opening and locking terminals formed on the strips and having means for engagement with adjacent portions of the receptacle to hold the closure in a sealed condition.

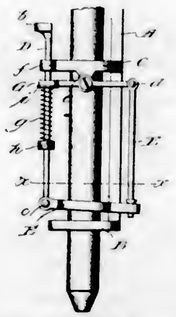
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1,090,726. CARBON-HOLDER FOR ELECTRIC-ARC LAMPS. BENJAMIN BURTON LACY, Houston, Tex., assignor to Henry E. Elrod. Filed July 24, 1911. Serial No. 640,273. (Cl. 176—105.)

1. In a carbon-holder for electric-arc lamps, the combination of a vertical bar formed with a carbon-guiding ring and an arm, a clutch ring for the carbon, a lifting rod for said clutch ring mounted in the said arm, a lever pivotally mounted on the arm and having connections with said lifting rod, a canting rod connected with said lever and with the clutch ring and adapted to depress its adjacent side of said clutch ring when the lifting rod raises the opposite side thereof.

2. In a carbon-holder for electric-arc lamps, the combination of a vertical bar formed with a carbon-guiding ring and an arm, a clutch ring for the carbon, a lifting rod for said clutch ring mounted to have movement within said arm, a lever pivotally mounted on said arm and having one end formed with an eye through which the lifting rod passes, a spring mounted on said lifting rod and having one end disposed against the eye of said lever, and a canting rod pivotally mounted on the opposite end of said lever and having connection with the said clutch ring, said canting rod being actuated through the pivoted lever

and lifting rod, and operable to effect the depression of one side of said clutch ring simultaneously with the lifting of the opposite side thereof.

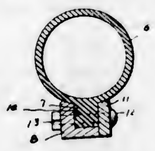


3. In an electric arc lamp, the combination of a vertical member provided with a carbon guiding ring and an arm, a carbon sliding in said ring, a clutch for the carbon, a lifting rod for said clutch having one end slidably mounted in the said arm, a lever pivotally mounted on the arm, and having connection at oue end with said lifting rod, a second rod connected with the other end of said lever and with the clutch and adapted to depress one part of said clutch when the lifting rod raises the opposing part thereof.

4. In an electric arc lamp, the combination of a vertical member provided with a carbon guiding ring and an arm, a carbon sliding in the ring of said member, a clutch acting on said carbon, a rod connected to one part of said clutch, a second rod connected to another part of said clutch, a lever pivotally mounted on the arm, a pivotal connection between one rod and the lever on one side of the pivot of the latter and a yielding connection between the other rod and said lever on the other side of said pivot including an eye on the lever through which the rod passes and a spring having one end connected to the rod and the other abutting against the eye of said lever.

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1,090,727. PNEUMATIC TIRE AND FASTENER THEREFOR. JOHN A. LEACH, Jr., Effingham, S. C. Filed July 19, 1913. Serial No. 779,991. (Cl. 152—21.)

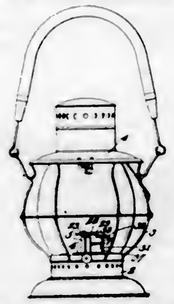


The combination with a tire of a plurality of rectangular spaced lugs formed integral therewith upon the inner side thereof, a rim provided upon half its circumference with a plurality of spaced rectangular recesses disposed centrally of the side edges of said rim and upon the other half of its circumference with a plurality of spaced laterally extending recesses open at one end adjacent the side edges of the rim and closed at its other end adjacent the other side edge of the rim, said lugs adapted to be fitted within said recesses, a semi-circular plate removably mounted upon said rim adjacent the open ends of said laterally extending recesses and disposed flush at its inner and outer terminals with the inner and outer faces of said rim.

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1,090,728. LANTERN. ROBERT LEWIS, Topeka, Kans. Filed Dec. 13, 1913. Serial No. 806,491. (Cl. 67—9.)

1. In a lantern, a match holding compartment, a guide extending therefrom, means for feeding matches one at a time from said compartment and into the guide, a striking element adjacent the guide, means for locking said element in one position, and means operated by the match feeding means for releasing the striking element when a match is brought into position to be engaged thereby, and means for automatically actuating the match striking element when released.



2. In a lantern the combination with a fuel reservoir having a compartment therein and out of communication therewith, of a burner including a wick tube communicating with the reservoir and a guide tube extending along the wick tube and communicating with the compartment in the reservoir, a magazine within the compartment, means for feeding matches one at a time from the magazine and into the guide tube, a striking element adjacent the upper end of the guide tube, means for locking the striking element in position above the tube, and means operated by the match feeding means for releasing the striking element when a match is brought into position to be engaged thereby, and means for automatically actuating the match striking element when released.

3. The combination with a fuel reservoir, a wick tube extending therefrom, a compartment within and out of communication with the reservoir, and a guide tube communicating with the compartment and lying close to the wick tube, of means for feeding matches one at a time from the compartment and into the guide tube, a spring actuated striking element movably mounted adjacent the guide tube, means for holding said element in position over the tube, and means operated by the match feeding means for releasing the striking element automatically when a match is brought into contact therewith.

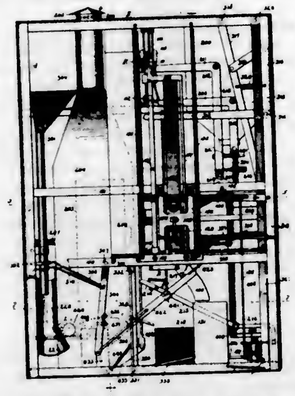
4. The combination with a fuel reservoir, a compartment therein and out of communication therewith, a wick tube extending from the reservoir, and a guide tube communicating with the compartment and close to the wick tube, of a plunger slidably mounted within the compartment for feeding matches one at a time to the guide tube, a striking element mounted to swing across the upper end of the guide tube, means for actuating said striking element, means for holding the striking element in position above the tube, and means operated by the plunger while moving a match against the striking element, to release said element.

5. The combination with a fuel reservoir and a compartment therein but out of communication therewith, of a wick tube extending from the reservoir, a guide tube communicating with the compartment and close to the wick tube, a magazine removably mounted in the compartment, a plunger mounted to slide within the magazine for directing matches one at a time into the guide tube from the magazine, means for automatically feeding matches into the path of the plunger when the plunger is retracted out of normal position, yielding means for holding the plunger normally in one position, a striking element, means for securing said element in position above the upper end of the guide tube, and means operated by the plunger while elevating a match, for releasing said striking element, and means for automatically actuating the striking element when released.

[Claims 6 to 9 not printed in the Gazette.]



1,090,729. POPCORN-VENDING MACHINE. GUSS A. LIGHTNER, Olustee, Okla., assignor of one-half to Robert B. Sifers, Olustee, Okla. Filed June 27, 1912. Serial No. 706,167. (Cl. 194—93.)



1. In a vending machine, a coin-controlled mechanism, comprising a frame having a coin chute provided with a discharge opening, a coin-carrying plate having a coin recess therein in communication with said opening in one position of the plate, a member for closing said opening and means actuated during the movement of the plate from its communicating position for locking said member in position to close said opening.

2. In a vending machine, a coin-controlled mechanism comprising a frame having a coin chute therein provided with a discharge opening, a coin-carrying plate having a coin recess therein in communication with said opening in one position of the plate, a member for closing said opening, means actuated during the movement of the plate from its communicating position for locking said member in position to close said opening, and means for unlocking said member.

3. In a vending machine, a coin-controlled mechanism comprising a frame having a coin chute therein provided with a discharge opening, a coin-carrying plate having a coin recess therein in communication with said opening in one position of the plate, a member for closing said opening, means actuated during the movement of the plate from its communicating position for locking said member in position to close said opening, means for unlocking said member, and spring controlled means acting on said member when unlocked to move the same into position uncovering said opening.

4. In a vending machine, a coin-controlled mechanism comprising a vertically movable actuating frame including two parallel members fastened together, one of said members being a coin-carrying plate having a coin recess therein and the other of said members having a rack thereon adapted to actuate a coin detector, a coin detector mounted in rear of said coin-carrying plate and adapted to rotate in said recess, and an actuating connection between said coin detector and said rack.

5. In a vending machine, a coin-controlled mechanism comprising a frame having a coin chute therein provided with a discharge opening in its lower end, a main actuating frame provided with a coin carrying plate, the said plate having a coin recess therein in communication with the said opening in one position of the plate, means for locking the coin plate in position when there is no coin in the recess, means controlled by a coin inserted in said recess for unlocking the coin plate to permit the main actuating frame to move downward, means for moving the said frame downward, a device for closing the coin discharge opening, the said device being actuated by the downward movement of the said frame to cover said coin discharge opening, a spring for normally holding said device in position to uncover said opening, means for locking said device in position to close said opening, and means for unlocking said device to permit the same to move into position to uncover said opening.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,730. PROCESS OF MANUFACTURING COMPOSITIONS OF MATTER. LEON LILIENFELD, Vienna, Austria-Hungary. Filed July 10, 1912. Serial No. 708,636. (Cl. 106—39.)

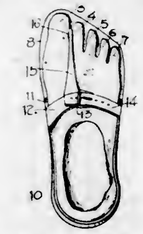
1. A process for manufacturing compositions of matter, which consists in heating a drying oleaginous substance with an aromatic substance in the presence of a condensing agent and treating the product of reaction with formaldehyde.

2. A process for manufacturing compositions of matter, which consists in treating a drying oleaginous substance with an aromatic substance in the presence of a condensing agent and carrying out the reaction in the presence of formaldehyde.

3. A process for manufacturing compositions of matter, which consists in heating wood oil with amidoderivatives of aromatic hydrocarbons together with a suitable condensing agent and treating the product of reaction in liquid state with formaldehyde.

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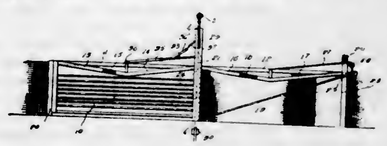
1,090,731. SANDAL. MADS LINDBERG, Boston, Mass. Filed Oct. 21, 1913. Serial No. 796,504. (Cl. 36—45.)



The hereindescribed sandal adapted to be worn with a stocking having separate toe members, said sandal comprising a sole having a broad toe portion and conforming substantially to the bottom of the foot, a quarter extending around the heel portion of the sole and to the front portion of the arch or shank of the sole, said quarter having an integral, adjustable instep strap, and a toe strap extending forward from the instep strap, said toe strap being narrowed at its front end, and secured to the sole at the point between the great toe and the next toe of the wearer.

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1,090,732. GATE. JOHN LONG, Panora, Iowa. Filed May 23, 1913. Serial No. 769,503. (Cl. 39—29.)



1. The combination of a pair of spaced supporting posts, a guide post, a pulley journaled between the supporting posts, vertically spaced pulleys journaled on said guide posts, a gate slidable between the supporting posts and including a top bar having a rearward extension movable between the pulleys on the guide posts, an angular rail secured to the under side of the top bar of the gate and engaging the pulley between the supporting posts an angular rail secured to the under side of the extension of said top bar, and engaging the lowermost pulley on the guide post, a rail pivoted to the upper side of said bar

and adapted to engage the uppermost pulley on the guide post during the closing movement of the gate to support the forward end of the gate against downward movement, means for adjusting the free end of said rail toward and away from said extension, and lever operated means for sliding the gate.

2. The combination of a pair of spaced supporting posts, a guide post, a pulley journaled between the supporting posts, a pulley journaled on the guide post, a gate slidable between the supporting post and including a top bar having a rearward extension, an angular rail secured to the under side of the top bar of the gate, said rail being formed of channel iron and having a bearing rod mounted in the channel thereof and engaging the pulley between the supporting posts, an angular rail secured to the under side of said extension, said last named rail being formed of channel iron and having a bearing rod mounted in the channel thereof and engaging the pulley carried by the guide post, and means for sliding said gate.

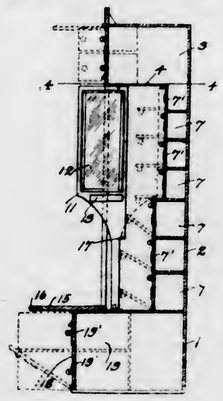
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1,090,733. SHAVING-CREAM. PETER C. MAGDLEN, New York, N. Y. Filed Mar. 19, 1913. Serial No. 755,433. (Cl. 167—9.)

A shaving cream consisting of stearin, water, ammonia, and liquid petrolatum in substantially the following proportions, four ounces of stearin, twenty-three ounces of water, one ounce of ammonia, and four ounces of liquid petrolatum.

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1,090,734. CABINET. JAMES A. MARK, Madison, Kans. Filed Nov. 23, 1912. Serial No. 733,147. (Cl. 45—5.)



1. A cabinet comprising a main compartment, a closure therefor, revoluble sets of pigeon-hole compartments pivotally mounted in the main compartment, a supporting member pivotally mounted to swing into the main compartment aforesaid, and means coöperating with the pigeon-hole compartments and support to lock said compartments and support in inoperative or closed position.

2. A cabinet comprising a main compartment, a door therefor, revoluble sets of pigeon-hole compartments pivotally mounted in the main compartment, a mirror support pivotally mounted to swing into the main compartment aforesaid, and a folding shelf adapted to coöperate with the pigeon-hole compartments and mirror support when in closed position to hold said compartments and support in inoperative position.

3. A cabinet comprising a main compartment, a door therefor, a mirror support pivotally mounted to swing into the main compartment, a folding shelf, and means on the shelf adapted to coöperate with the mirror support to hold both support and shelf in inoperative position.

4. A cabinet comprising a main compartment, a door therefor, sets of pigeon-hole compartments pivotally mounted in the main compartment and having lateral openings, said sets of pigeon-hole compartments being adapted to swing against the sides of the main compartment to close said openings, and a shelf member coöperating with said pigeon-hole compartments to hold the same in the closed position aforesaid when the door is closed.

5. A cabinet comprising a main compartment, a door therefor, sets of pigeon hole compartments pivotally mounted in the main compartment and having lateral openings accessible when swung into outward operative position, said sets of pigeon hole compartments being adapted to swing against the sides of the main compartment into inoperative position to close said openings, a revoluble mirror support mounted in the main compartment, a shelf member mounted for movement in the main compartment and coöperating with said pigeon hole compartments to hold the same in the closed position aforesaid when the door is closed, and locking means on the shelf member adapted to engage with the mirror support aforesaid for holding said shelf member in the position co-operating with the pigeon hole compartments and maintaining the latter in the closed position aforesaid.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,735. CUSHION-WHEEL. PERLEY H. MARTIN, Vershire, Vt. Filed Mar. 12, 1913. Serial No. 753,874. (Cl. 152—36.)



1. A resilient wheel providing a spindle, a hub secured thereon, circular inner guards secured on said hub on both sides thereof, and extending beyond the periphery of the hub, a rim, resilient spokes frictionally engaging said hub and rim, outer annular guard flanges secured on said rim and telescopically engaging said inner guards on the outer sides thereof, depending fingers on said outer guards, and a pair of rotatable collars secured to the inner guards, said collars engaging said fingers to prevent creeping in the wheel parts.

2. A resilient wheel providing a spindle, a hub secured thereon, plane circular inner guards on said hub on both sides thereof, and extending beyond the periphery of the hub, a rim, solid resilient separate spokes wider at their inner than at their outer ends, the inner ends of said spokes bearing directly against, but unattached to, said hub, the sides of the spokes at their inner ends lying directly against, but unattached to, said inner guard flanges, the inner ends of said spokes occupying collectively the periphery of said hub, and abutting against each other, outer annular guard flanges secured on said rim and telescopically and slidably engaging said inner guards on the outer sides thereof, the outer ends of said spokes bearing against, but unattached to, said rim, said outer ends being spaced from each other, and co-acting means on said outer and inner guard flanges to prevent creeping of the wheel parts.

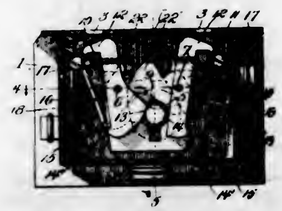
3. A resilient wheel providing a spindle, a hub secured thereon, circular inner guards secured on said hub on both sides thereof and extending beyond the periphery of the hub, a rim, resilient spokes frictionally engaging said hub and rim, outer circular guard flanges secured on said rim and telescopically engaging said inner guards on the outer sides thereof, depending fingers on said outer guards, and means on said inner guards for frictionally engaging said fingers to prevent creeping of the wheel parts.

4. A resilient wheel providing a spindle, a hub secured thereon, circular inner guards secured on said hub on both sides thereof and extending beyond the periphery of the hub, a rim, resilient spokes frictionally engaging said hub and rim, outer circular guard flanges secured on said rim and telescopically engaging said inner guards on the outer sides thereof, a pair of rotatable collars secured to each of the inner guards, and means on said outer guard flanges for engaging said rotatable collars to prevent creeping of the wheel parts.



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1,090,736. TRUNK-LOCK. SARPALA MARTIN, Marquette, Mich. Filed Sept. 10, 1913. Serial No. 789,218. Cl. 70—27.)



1. A lock including a pivoted locking bolt, a releasing tumbler movable in the same direction as the bolt, and a spring normally holding the bolt from movement and movable by said releasing tumbler in a direction away from the bolt and at an angle to its swinging movement for releasing said bolt.

2. A lock including a pivoted bolt having a locking shoulder at one end and a keeper engaging member at its opposite end, a releasing tumbler movable in the same direction as the bolt, and a spring adapted to engage and retain the bolt and tumbler in normal position and lying in the path of said locking shoulder to normally lock the bolt from movement, said spring being adapted to be released and moved out of the path of movement of the bolt by the action of the tumbler.

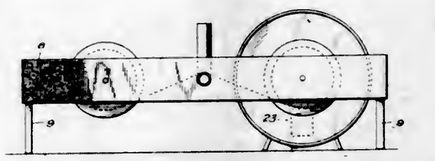
3. A lock including a casing having a keyhole therein, a partition plate arranged within and spaced from the walls of the casing and having a keyhole registering with the keyhole therein, locking bolts pivotally mounted upon one side of said partition plate and on opposite sides of the keyhole therein, releasing tumblers mounted upon the opposite side of the keyhole plate in line with the respective tumblers, said bolts and tumblers being adapted to be engaged and simultaneously operated by a double-bitted key, and springs for normally locking the bolts from releasing movement and adapted to be moved out of the paths of the bolts by the action of the tumblers.

4. A lock including a casing having a keyhole therein, a partition plate disposed within the casing between the walls thereof and provided with a similar keyhole, pivoted locking bolts upon one side of said plate, said bolts having keeper engaging members at one end and locking shoulders at their opposite ends, tumblers pivotally mounted upon the opposite side of the keeper plate in line with the bolts and movable in paths parallel with the bolts, co-acting surfaces upon the tumblers and key engaging ends of the bolts to hold such ends of the bolts from releasing movement, and springs arranged to engage and hold the tumblers and bolts normally retracted, said springs being arranged to lie in the paths of movement of the locking shoulders of the bolts to lock said bolts from movement and to be moved out of the paths of movement of said locking shoulders by the action of the tumblers.

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1,090,737. METHOD OF INDICATING THE FLOW AND LEAKAGE OF GAS. DONALD MCDONALD, Louisville, Ky. Filed Apr. 20, 1912. Serial No. 692,072. (Cl. 234—1.)

1. The method of ascertaining the flow and leakage of gas, consisting in modifying the gas by developing an inherent characteristic therein capable of manifesting itself at a given point and permitting some of the gas to escape at said point and impinge against a recording medium having a characteristic amenable to said inherent characteristic of the gas.



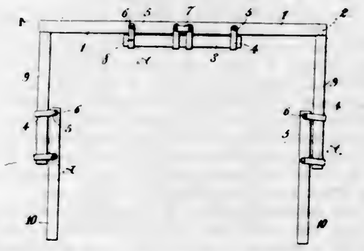
2. The method of ascertaining the flow and leakage of gas in a gas distributing system, which consists in modifying a gas by introducing therein at a central point a modifying medium developing an inherent characteristic therein capable of manifesting itself, passing the modified gas through the system, introducing recording devices in the system at predetermined distance from the central point which have an inherent characteristic amenable to the inherent characteristic of the modified gas and permitting some of the gas to come in contact with the recording devices and manifesting itself.

3. The method of ascertaining the flow and leakage of gas consisting in adding sulfureted hydrogen to the gas and permitting the modified gas to come into contact with a recording device on which it manifests itself.

4. The method of ascertaining the flow and leakage of gas, which consists in introducing sulfureted hydrogen into the gas and permitting the modified gas to impinge against a recording medium treated with acetate of lead.

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1,090,738. TENT-SUPPORT. ROY A. MCDONALD, Detroit, Mich. Filed Apr. 18, 1913. Serial No. 762,000. (Cl. 135—15.)



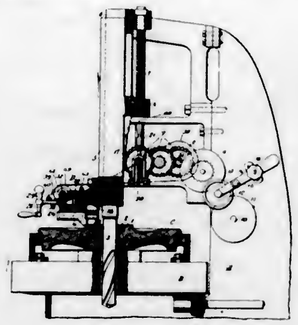
A ridge pole comprising alined parts with their inner ends abutting, a plurality of connectors for each of such connectors comprising a band and spaced lugs, the spaced lugs embracing opposite sides of the parts of the ridge pole, fasteners passing through openings of the spaced lugs and parts of the ridge pole to secure the connectors thereto, links embracing opposite sides of the parts of the ridge pole opposite the joint formed between them and connected to such parts by the same fastenings employed for attaching the inner connectors thereto and a coupling and bracing bar underlapping the parts of the ridge pole and fitted in the bands of the connectors.

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1,090,739. HUB-FACING ATTACHMENT FOR CAR-WHEEL-BORING MILLS. FRED VANCE MCDONNELL, Logansport, Ind. Filed Oct. 24, 1913. Serial No. 797,043. (Cl. 29—29.)

1. A car wheel boring mill comprising a boring tool holder, a feed screw therefor, a driving mechanism, and means for clutching and unclutching the mechanism and screw, in combination with a hub facing attachment including a facing tool holder, a feed screw therefor, a gearing for driving the screw including a worm and worm

wheel, means for movably mounting the worm of the gearing to engage and disengage the wheel, and a driving connection between the movable element of the gearing and the driving mechanism of the boring mill.



2. The combination of a car wheel boring mill including a boring tool carrier, in combination with a hub facing attachment mounted on the carrier, said attachment comprising a facing tool holder, a feed screw therefor, a worm wheel on the screw, a worm movably mounted to engage or disengage the worm wheel, and means for throwing the worm into and out of mesh with the wheel.

3. The combination of a car wheel boring mill including a boring tool carrier, in combination with a hub facing attachment mounted on the carrier, said attachment comprising a frame, a worm, eccentric bushings in which the worm is mounted, means for turning the bushings to shift the worm to and from operative position, a worm wheel with which the worm is adapted to mesh, a feed screw operatively connected with the worm wheel, and a facing tool holder operated by the feed screw.

4. The combination of a car wheel boring mill including a boring tool carrier, in combination with a hub facing attachment mounted on the carrier, said attachment comprising a body, a frame detachably mounted on the body, a facing tool holder on the body, a feed screw mounted on the body and arranged to feed the holder, a worm wheel on the screw, a worm adapted to mesh with the worm wheel, eccentric bushings in which the worm is rotatably mounted, a handle connecting both bushings together and movable to throw the worm into and out of mesh with the worm wheel, and means for rotating the worm.

5. The combination of a car wheel boring mill including a boring tool carrier, in combination with a hub facing attachment mounted on the carrier, said attachment comprising a body, a tool holder slidably mounted thereon, a screw for feeding the holder, a hand-operated device connected with the screw for turning the same, a worm wheel on the screw, a worm movable into and out of mesh with the worm wheel, a frame mounted on the body, eccentrics journaled in the frame and in which the worm is journaled, and a handle connecting the eccentrics together and normally bearing on the said hand-operated device when the worm is meshing with the worm wheel.

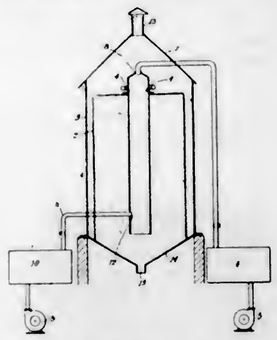
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1,090,740. METHOD FOR DESICCATING FLUID SUBSTANCES. WHARTON B. MCLAUGHLIN, New York, N. Y. Filed Apr. 3, 1911. Serial No. 618,766. (Cl. 99—5.)

1. The method of desiccating liquids which consists in spraying the liquid to be dried into a current of gas at a temperature exceeding 212° F. with means for rapidly cooling said gas when desiccation is completed.

2. The method of desiccation which consists in spraying the substance to be desiccated into a current of heated gas and upon the completion of desiccation rapidly reducing the temperature by the injection into the current of another current of cooler gas.

3. The method of desiccation which consists in spraying the material to be desiccated into a current of heated gas and subsequently rapidly cooling this gas without precipitating the moisture contained therein.

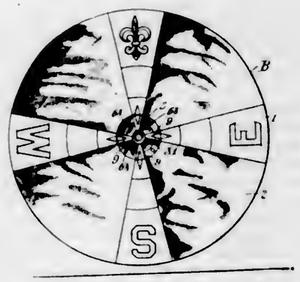


4. The method of desiccating liquids containing solids which are subject to chemical change at certain temperatures, which consists in spraying the liquid to be desiccated into a body of gas at a temperature above that at which the solids would be chemically altered, and effecting the cooling of said gas to a temperature below that at which the solids would be chemically altered before the desiccation is completed.

5. The method of desiccation which consists in subjecting the material to be desiccated in the form of a spray to the action of a current of gas at a temperature exceeding 212° F., and thereafter, before the desiccation is completed, subjecting the material to the action of a second current of gas at a temperature below 212° F.

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1,090,741. ILLUSORY THEATRICAL DEVICE FOR VAUDEVILLE ACTS. HENRY JAMES MOORHOUSE, Superior, Wis. Filed Sept. 2, 1913. Serial No. 787,640. (Cl. 46—70.)




1. A revolving moving picture or other screen consisting of a wheel having white sections and intermediate dark sections.

2. A revolving picture screen consisting of a wheel having radially-disposed white panels with intermediate dark areas.

3. A picture screen having a central opening through which the bust portion of a person can be exposed from the rear, and means applied to and removable from the opening for closing the opening to complete the continuity of the screen when the person is removed from the opening.

4. A picture screen having a central opening, a tubular axle at the said opening, a bearing in which the axle extends, and means for rotating the screen.

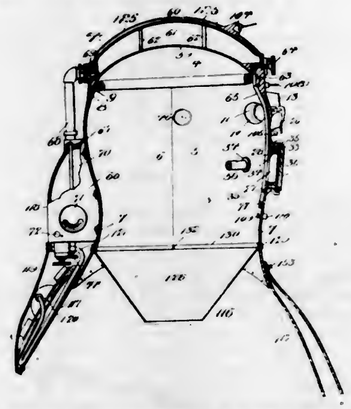
5. A picture screen having a central opening, a tubular hub on the rear of the screen, a tubular axle disposed in the hub, the bore of the axle being large enough for a person to pass therethrough, and means for rotating the screen.

[Claims 6 to 30 not printed in the Gazette.]



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1,090,742. PROTECTIVE UNIFORM. WILLIAM JOSEPH MORAN, Yonkers, N. Y. Filed Oct. 7, 1907. Serial No. 396,305. (Cl. 128—42.)



1. A protective uniform including a mask comprising a body and a detachable crown, said crown being provided with an air reservoir, and means for reinforcing said crown and the walls of said reservoir.

2. A protective mask, a reservoir carried thereby and in combination therewith, said reservoir being provided with a pocket, and an additional mask carried in said pocket, said latter mask being in valve communication with the reservoir.

3. A protective mask having an air reservoir, and a pressure gage in communication with said reservoir, said gage being readable from both the inner and outer sides of the mask.

4. A protective mask formed with an air reservoir, and a pressure gage in communication with the reservoir, said mask being provided with an opening in the side thereof, said gage being readable from both the inner and outer sides of the mask.

5. A protective mask, an illuminator therefor, and means for removably connecting the illuminator to the mask, said means being arranged to permit a swinging of the illuminator with relation to the mask without disconnecting the illuminator from the mask.

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1,090,743. VEHICLE-WHEEL. JACQUES MORAT, Yonkers, N. Y., assignor to Isaac G. Johnson & Co., Spuyten Duyvil, New York, N. Y., a Corporation of New York. Filed Feb. 28, 1913. Serial No. 751,267. (Cl. 21—69.)

1. A metal wheel comprising a rim, a hub, spokes joined with the hub, said spokes formed of ribs arranged to be cross-shaped in transverse section, and one of said ribs positioned to lie in a plane parallel to the plane of rotation of the wheel and branched out to unite with the rim near the edges thereof in a parallel plane and brace the rim transversely.

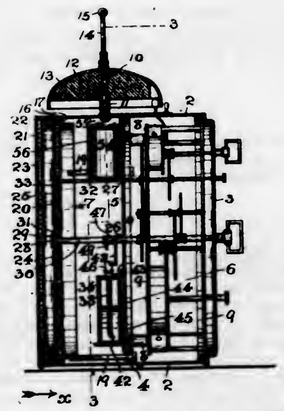
2. A cast-metal wheel comprising a rim having reëntrant flanges adjacent the edges thereof, a hub, a plurality of spokes formed integral with the hub to extend radially therefrom, said spokes composed of ribs so arranged as to be cross-shaped in transverse section, one of said ribs positioned to lie in a plane parallel to the plane of rotation of the wheel and divided adjacent the rim in its direction of longitudinal extent to form branches, said branches joined with the reëntrant flanges of the rim to extend in the direction of the circumferential extent of the flanges, the other of said ribs formed to reinforce and brace said branches from the outside, and a filler-block formed with-



in the branches and the rim approximately in alinement with said second rib to brace the structure as described.

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1,090,744. ILLUMINATED CLOCK. ANTHONY MORINA, Newark, N. J. Filed Oct. 9, 1911. Serial No. 653,497. (Cl. 58—50.)



1. An illuminated clock, comprising a shell having within it a fixed ring adjacent to the inner periphery of the shell, a transparent dial, an adjacent ring-shaped frame having a rearwardly projecting flange, and an offset or shoulder against which the dial rests, and horizontal bolts having their outer ends provided with slits to receive the aforesaid flange, as described.

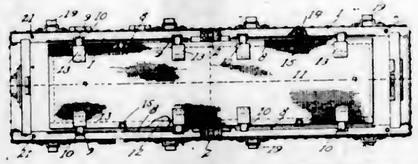
2. In an illuminated clock, the combination, with a burner and a rotary shaft carrying a clock hand, of a finger projecting radially from said shaft and rotating with it, and a hinged plate arranged adjacent to the said burner and in the path of the rotatable finger, so that the plate is closed upon the burner by gravity when tripped by the finger, as described.

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1,090,745. TRUNK STRUCTURE. PEDER MYRHOLM, Volga, S. D., assignor of one-half to Albert H. Norvold, Volga, S. D. Filed Sept. 19, 1913. Serial No. 790,726. (Cl. 190—2.)

1. In a trunk structure, the combination of trunk sections adapted to be longitudinally alined, plates extending along the sides of the trunk sections, a bed fabric ex-

tending along the trunk sections, hooks connected with the bed fabric and adapted to overhang and be supported by the plates, and means for preventing dislocation of the hooks.

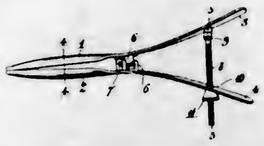


2. In a trunk structure, the combination of trunk sections adapted to be longitudinally alined, plates extending along the sides of the trunk sections, a bed fabric extending along the trunk sections, hooks connected with the bed fabric and adapted to overhang and be supported by the plates, and brackets detachably engaging the side portions of the trunk sections and overhanging the bed fabric for retaining the same against displacement.

3. In a trunk structure, the combination of trunk sections adapted to be longitudinally alined, plates extending along the inner faces of the sides of the trunk sections, the fabric being adapted to be disposed substantially between said plates along the trunk sections, rods fixed along the borders of the fabric, hooks fixed to the rods and overhanging the plates for sustaining the fabric, and means detachably engaging the trunk sections and overhanging the rods for retaining the parts against dislocation.

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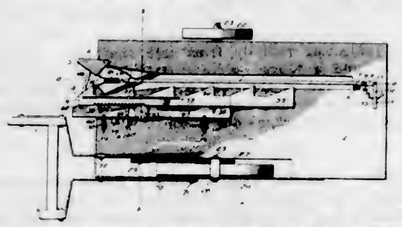
1,090,746. SPECULUM. FRANK P. NOURSE, Lewiston, Idaho. Filed Apr. 26, 1913. Serial No. 763,812. (Cl. 128—28.)



An anal dilator comprising longitudinal and transversely diverging concavo-convex blades and divergent handles connected with the blades, each handle being integral with its blade and the blades and handles having their inner and outer surface arranged in the same general plane, the said blades being connected with the handles by narrow neck portions set edgewise in planes at right angles to the movements of the blades, and a pivotal connection between the narrow neck portions arranged to form an axis inclined to the plane of motion of the blades.

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1,090,747. TOBACCO-HARVESTER. HERBERT L. NUNNELLEY and SPENCER C. NUNNELLEY, Greendale, Ky. Filed Sept. 10, 1912. Serial No. 719,629. (Cl. 131—21.)



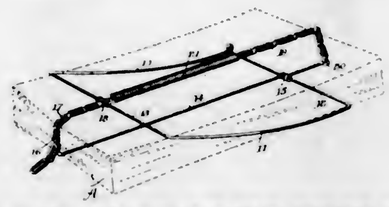
1. In a tobacco harvester, yieldable guides, an impaling head held between the yieldable guides, holding means coacting with the impaling head to support a tobacco stick in line with the impaling head, and means to cause standing tobacco stalks to be impaled on the impaling head and to be forced therefrom onto the stick and means to cut the impaled stalks.

2. In a tobacco harvester, guides, an impaling device to which standing tobacco stalks are directed by the guides, a laterally movable shifter, a longitudinally movable packer, means to operate the shifter and the packer and means to cut the impaled stalks.

3. In a tobacco harvester, a frame, a master wheel, a gear operated by the master wheel, guides, a cutter, a shifter movable laterally on the frame, an operating arm extending across the path of the guides, connections between the operating arm and the shifter to cause the operating arm to move the shifter in one direction, springs to move the shifter in the reverse direction, a spring pressed detent carried by the shifter to lock the latter in one position, a countershaft carried by the shifter and having a gear to momentarily engage the first-mentioned gear, the said countershaft being also provided with a pinion, a packer movable longitudinally on and carried by the shifter and having a rack to engage the pinion and also having a trip to release the detent, and a spring to move the packer in one direction.

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1,090,748. LETTER-BINDER. CHARLES E. O'NEILL, Butte, Mont. Filed May 13, 1913. Serial No. 767,289. (Cl. 24—17.)



1. The herein described letter binder comprising a rib, a substantially rectangular yoke pivoted at one end to said rib, and flexible connections between the ends of the rib and the other end of the yoke, substantially as set forth.

2. The herein described letter binder comprising a rib having one end upturned and terminating in a hook, a substantially rectangular yoke pivoted at one end to the rib adjacent the end thereof opposite the hook, a flexible connection extending from the opposite end of the yoke into coöperation with said hook, and flexible means extending from the end of the rib remote from the hook upwardly and forwardly to the outer end of the yoke adjacent the point of connection of said first-mentioned flexible connection.

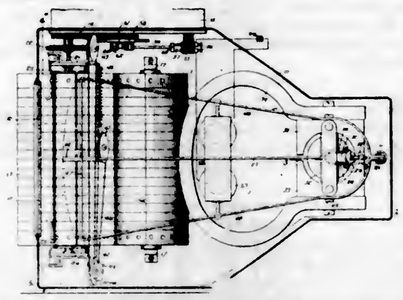
3. The herein described letter binder comprising a substantially rectangular spring wire yoke, a rib pivotally connected adjacent one end to one end of the yoke, the other end of the rib being provided with a hook, a chain connected to the opposite end of the yoke and adapted to coöperate with said hook, and flexible means extending from said chain rearwardly and downwardly and connected to the first-mentioned end of the rib, said flexible means including a spring, substantially as set forth.

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1,090,749. RECORDING MECHANISM. HUGH WILFRED PAYNE, Rochester, N. Y. Filed Apr. 24, 1913. Serial No. 763,395. (Cl. 234—55.)

1. In a recording mechanism, the combination of a horizontal roller, a chart having rectangular coördinates thereon, means to cause movement of the chart over the roller, impression mechanism operating above the roller and shiftable in a plane parallel to and normally spaced therefrom, said impression mechanism including a head extending transversely of the roller and having secured thereto a capillary member, ink supplying mechanism including a cord stretched parallel to the roller and above the upper edge thereof, and means to cause depression of said head whereby the capillary member thereof will first receive a supply of ink from the cord and secondly deliver ink to the chart in contact with the roller.



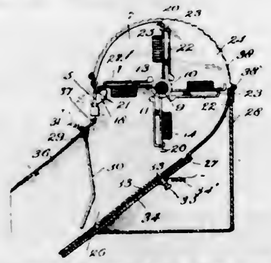


2. The combination with a galvanometer including a boom mounted on a horizontal pivot and shiftable in a horizontal plane, of an anvil roller, a chart, means to cause the chart to move over the roller, said galvanometer boom having a head spanning the roller throughout the shifting of the boom and normally spaced therefrom, ink supplying means adjacent the roller and normally spaced therefrom and from said head, and means to cause the head to be periodically depressed into coöperation with said ink supplying means and to cause an impression to be made on the chart passing over the roller, the ink supplying means delivering a modicum of ink to the head equal to that delivered by the head to the chart.

3. The combination with a galvanometer including a boom, the free end of the boom having a longitudinal head provided with a capillary member along its lower surface, of an anvil roller below said head and normally spaced therefrom, means to supply ink periodically to said capillary member, a presser bar extending parallel to the roller and above the axis thereof and normally spaced from the boom head, said head being normally free from both the presser bar and said roller, and time controlled means to periodically cause the presser bar to impinge upon said head to produce a dot impression upon the chart passing over the roller and also to cause the head to receive a modicum of ink from said ink supplying means equal to that forming the dot.

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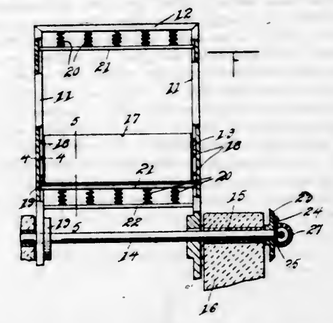
1,090,750. ANIMAL-TRAP. CHARLES E. PEACH, Brooklyn, N. Y. Filed May 7, 1912. Serial No. 695,665. (Cl. 43—24.)



A trap comprising a casing a platform mounted therein for movement about an axis, and having at its free edge an angularly bent portion, a tread pivoted upon the platform and having a tongue which passes through the platform, a bar pivoted to the casing and hanging pendant beyond the edges of the platform and having at its side a laterally disposed nose portion, provided at its upper edge with a detent, the angularly bent portion of the platform normally engaging in the detent and the tongue normally engaging the upper edge of the nose portion at the opposite side of the detent from the bar.

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1,090,751. WAVE-MOTOR. FRANK D. PROUTY, Banning, Cal. Filed Aug. 18, 1913. Serial No. 785,422. (Cl. 170—100.)

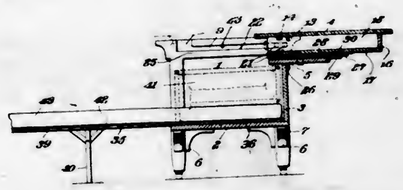


1. In a wave motor, a paddle wheel including a plurality of rectangular paddle frames, the side bars of said paddle frames being longitudinally grooved, plurality of spiral springs secured to the end bars of the paddle frame, cross bars secured to said springs and projecting into the longitudinal grooves, whereby they are guided, and a float slidably connected to each frame for engagement with said cross bars.

2. In a wave motor, a paddle wheel including a plurality of radial paddle frames of rectangular formation, springs secured to the inner bars of said frame, a second cross bar connected to each of said springs and movable with relation to the frame, a paddle slidable within each of the frames and a cushioning device carried by the outer end of each of the frames.

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1,090,752. TABLE. CHARLES G. QUACKENBUSH, Toledo, Ohio. Filed Aug. 26, 1913. Serial No. 786,751. (Cl. 45—31.)



1. In a convertible article of furniture, a table having a slidably mounted top, and a hinged side wall forming a part of the table and mounted for sliding movements on said top, the other side wall forming a support for engaging the hinged wall when the top is in one position, whereby to hold said hinged wall against swinging movement.

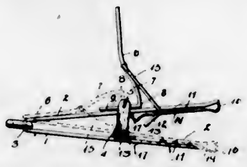
2. In a convertible article of furniture, a table provided with a sliding top, means for limiting the sliding adjustment of the top, rails supported from the top, a vertically swingipg side slidably supported from said rails, and means for supporting said side in a horizontal position.

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1,090,753. GARMENT-CLASP. CHARLES E. RICKS, Dillon, Colo., assignor of two-fifths to Charles A. Kellar, Dillon, Colo. Filed Nov. 26, 1912. Serial No. 733,646. (Cl. 24—243.)

1. A garment clasp comprising a pair of jaws, a feeder carried by one of said jaws and adapted for sliding movement along the inner face thereof, and a lever for moving said jaws to closed position and sliding said feeder between said jaws.

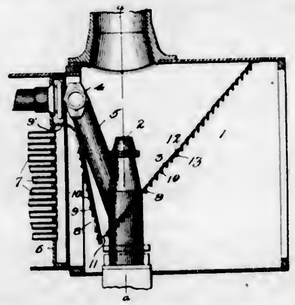
2. A garment clasp comprising a stationary jaw, a movable jaw movable toward and away from the stationary jaw, pivot posts upstanding from said stationary jaw, a manipulating lever pivoted between said posts above said movable jaw, said lever being formed to provide a locking lug adapted to move the movable jaw toward the stationary jaw and lock the jaws in closed position in the rearward movement of the lever, and a heel adapted to move the movable jaw toward the stationary jaw in the forward movement of the lever, guides carried by said movable jaw, a feeder slidably disposed within said guides, and connections between said feeder and manipulating lever whereby the feeder will be moved outwardly of the jaws in the forward movement of the lever and moved between the jaws in the rearward movement of the lever.



3. A garment clasp comprising a stationary jaw, a movable jaw movable toward and away from the stationary jaw, a lever for manipulating said movable jaw and capable of movement in a forward and rearward direction and formed to provide a locking lug adapted to move the movable jaw into closed position and hold the same in such position in the rearward movement of the lever, and a heel adapted to move the movable jaw toward the stationary jaw in the forward movement of the lever, a feeder carried by said movable jaw and adapted to grip the garment to draw the same into the clasp, and connections between said feeder and manipulating lever whereby the feeder will be moved outwardly of the jaws in the forward movement of the lever and moved between the jaws in the rearward movement of the lever.

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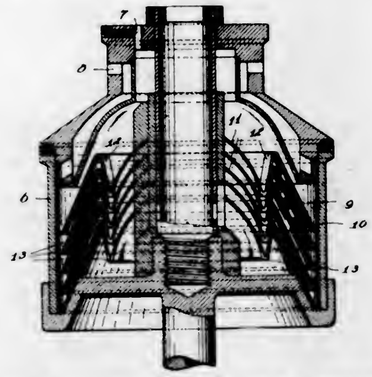
1,090,754. LOCOMOTIVE DIAPHRAGM AND SPARK-ARRESTER. EDWARD M. ROBERTS, deceased, Ashland, Ky., by Annie C. Roberts, administratrix, Ashland, Ky. Filed Feb. 14, 1912. Serial No. 677,477. (Cl. 110—124.)



The combination with a tubular locomotive boiler having a smoke box at its forward end, the front wall of which is vertical, of a perforated draft plate disposed in front of the fire tubes of the boiler and extending forwardly and downwardly therefrom, hoods projecting downwardly from the rear face of said plate and overlying said perforations, of a perforated spark arrester secured to the top of the smoke box near the front thereof and extending rearwardly and downwardly therefrom and terminating at a point near the lower edge of the draft plate, downwardly extending hoods on the forward side of and overlying the perforations in the spark arrester and disposed in planes substantially parallel to the plane of the front wall of the smoke box, whereby cinders in the outer portion of the vortex developed by the flow of the gases are deflected from said perforations inward to the inner portion of the vortex, to be precipitated by the latter.

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1,090,755. LINER-PLATE FOR CREAM-SEPARATORS. GEORGE L. RUBERT, La Crosse, Wis., assignor of one-half to Lew W. Warren, La Crosse, Wis. Filed Jan. 4, 1913. Serial No. 740,192. (Cl. 127—20.)



1. In a centrifugal machine, a series of superimposed coaxially arranged liners, each comprising an inner wall and an outer wall inclined in the same general direction to the axis; corresponding walls of the respective liners being spheroidal, whereby upwardly enlarging spaces are provided between said last-named walls.

2. In a centrifugal machine, a series of superimposed coaxially arranged liners, each comprising an inner wall and an outer wall inclined in the same general direction to the axis; the inner wall of each liner being spheroidal, whereby upwardly enlarging spaces are provided between said last-named walls.

3. In a centrifugal machine, a series of superimposed coaxially arranged liners, each comprising an inner wall and an outer wall inclined in the same general direction to the axis; the inner wall of each liner being spheroidal, whereby upwardly enlarging spaces are provided between said last-named walls, and the outer wall of each liner being frusto-conical.

4. In a centrifugal machine, a series of superimposed coaxially arranged liners, each comprising an inner wall and an outer wall inclined in substantially the same direction to the axis, but at slightly different angles thereto.

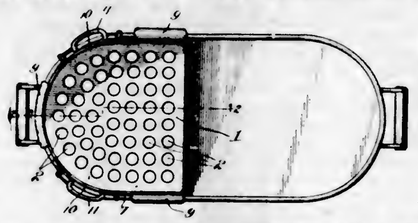
5. In a centrifugal machine, a series of superimposed coaxially arranged liners, each comprising an inner wall and an outer wall inclined in the same general direction to the axis; the inner wall of each liner being spheroidal, whereby upwardly enlarging spaces are provided between said last-named walls, and the outer wall of each liner being frusto-conical; said inner and outer walls of each liner being radially overlapped.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,756. CLOTHES-DRAINING ATTACHMENT FOR WASHBOILERS. ASSUNTA SGARLATA, Milwaukee, Wis. Filed Sept. 9, 1913. Serial No. 788,858. (Cl. 68—30.)

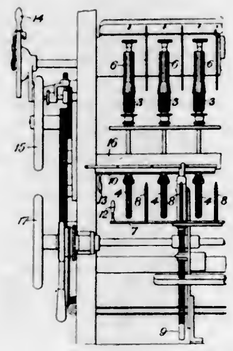
1. A drainer of the class described comprising a shelf having downturned lugs and of a size and shape adapted to fit in one end of a wash boiler, and a wall extending around the sides and one end of the shelf and provided at its lower side with an inturned upwardly extending flange over which the lugs of the shelf are engaged, the said wall being also provided with supporting hooks to engage over the wall of a boiler and hang the drainer therein.



2. A drainer of the class described comprising a shelf having downturned lugs and of a size and shape adapted to fit in one end of a wash boiler, and a wall extending around the sides and one end of the shelf and provided at its lower side with an inturned upwardly extending flange over which the lugs of the shelf are engaged, the said wall being also provided with supporting hooks to engage over the wall of a boiler and hang the drainer therein, the said shelf being provided at its outer end with a reinforcing wire extending across the same, the said wire having projecting ends passing through openings in the said wall and provided with nuts engaging the outer sides of the wall.

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1,090,757. SPINNING, TWISTING, AND ANALOGOUS MACHINE. HERBERT SHACKLETON, Malsis Mount, Keighley, England. Filed Aug. 4, 1913. Serial No. 782,873. (Cl. 118—13.)



1. In spinning, twisting and analogous machines means for "piecing-up" the threads between the full bobbins when doffed and the empty bobbins, comprising a series of devices for carrying said full bobbins and a series of devices for carrying said empty bobbins, said two series of devices being capable of displacement relatively to one another to cause each thread to become looped or tied about its appropriate empty bobbin.

2. In spinning, twisting and analogous machines means for "piecing-up" the threads between the full bobbins when doffed and the empty bobbins, comprising a series of carriers for said full bobbins, and a series of carriers for said empty bobbins, said two series of carriers being capable of movement relatively to one another to cause all the threads simultaneously to become looped or tied about their appropriate empty bobbins.

3. In spinning, twisting and analogous machines means for "piecing-up" the threads between the full bobbins when doffed and the empty bobbins, comprising a series of pegs carried by a rail for the reception of said full bobbins, and a series of carriers for said empty bobbins, said series of pegs and said series of carriers being capable of movement relatively to one another to cause all the threads simultaneously to become looped or tied about their appropriate empty bobbins.

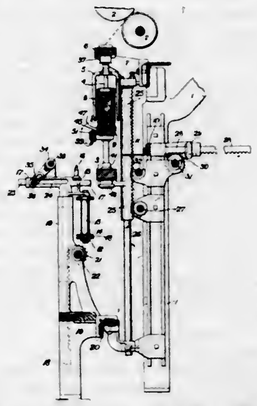
4. In spinning, twisting and analogous machines means for "piecing-up" the threads between the full bobbins when doffed and the empty bobbins, comprising a series of pegs carried by a rail for the reception of said full bobbins, said rail being slidable longitudinally, and a series of carriers for said empty bobbins, said carriers being mounted upon a rail, said series of pegs and said series of carriers being capable of coöperative relative movement to cause all the threads simultaneously to become looped or tied about their appropriate empty bobbins.

5. In spinning, twisting and analogous machines means for "piecing-up" the threads between the full bobbins when doffed and the empty bobbins, comprising a series of pegs carried by a rail for the reception of said full bobbins, said rail being slidable longitudinally, and a series of carriers for said empty bobbins, said carriers being mounted upon a rail, said rail being movable angularly to cause said carriers to coöperate with said longitudinally slidable series of pegs to constrain all the threads simultaneously to become looped or tied about their appropriate empty bobbins.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,758. DOFFING MECHANISM. SUGDEN SHACKLETON, Malsis Mount, Keighley, England. Filed Jan. 5, 1912. Serial No. 669,652. (Cl. 118—13.)



1. In doffing mechanism for flier spinning and analogous machines, vertically reciprocatory racks supporting a spindle rail, bobbin spindles having tapered upper ends, said spindles being carried by said spindle rail, fliers having tapered openings to receive said tapered spindle ends in driving engagement, a fixed rail having bearings in which said fliers are carried, spring means carried by said spindle rail to exert a normal upward pressure on said spindles, vertically reciprocatory columns supporting upper and lower peg carrying bars, the upper peg carrying bar being horizontally reciprocatory, and a horizontally reciprocatory single series of bobbin carriers constructed to grip the bottom flanges of the full bobbins as well as of the empty bobbins and operative to coact with said peg carrying bars in effecting the horizontal transfer of said full and empty bobbins respectively from and toward said spindles.

2. In doffing mechanism for flier spinning and analogous machines, vertically reciprocatory racks supporting a spindle rail, bobbin spindles having tapered upper ends, said spindles being carried by said spindle rail, fliers having tapered openings to receive said tapered spindle ends in driving engagement, a fixed rail having bearings in which said fliers are carried, spring means carried by said

spindle rail to exert a normal upward pressure on said spindles, vertically reciprocatory columns supporting upper and lower peg carrying bars, the upper peg carrying bar being horizontally reciprocatory, a horizontal series of spring clips constructed to grip the bobbin flanges of the full as well as of the empty bobbins, and a horizontally reciprocatory element carrying said clips and operable to effect the transfer of said full and empty bobbins respectively from and toward said spindles.

3. In doffing mechanism for flier spinning and analogous machines, vertically reciprocatory racks supporting the spindle rail, bobbin spindles having tapered upper ends, said spindles being carried by said spindle rail, fliers having tapered openings to receive said tapered spindle ends in driving engagement, a fixed rail having bearings in which said fliers are carried, spring foot step bearings for said spindles carried by said spindle rail to exert a normal upward pressure on said spindles, vertically reciprocatory columns supporting upper and lower peg carrying bars, the upper peg carrying bar being horizontally reciprocatory, and a horizontally reciprocatory single series of bobbin carriers constructed to grip the bottom flanges of the full bobbins as well as of the empty bobbins, and operative to coact with said peg carrying bars in effecting the horizontal transfer of said full and empty bobbins respectively from and toward said spindles.

4. In doffing mechanism for flier spinning and analogous machines, vertically reciprocatory racks supporting a spindle rail, bobbin spindles having tapered upper ends, said spindles being carried by said spindle rail, fliers having tapered openings to receive said tapered spindle ends in driving engagement, a fixed rail having bearings in which said fliers are carried, sleeves fitted in said spindle rail and inclosing the lower portions of the spindles, spindle foot step bearings slidable within the sleeves, caps closing the lower ends of the sleeves, expansive springs engaging said caps and said foot step bearings, vertically reciprocatory columns supporting upper and lower peg carrying bars, the upper peg carrying bar being horizontally reciprocatory, and a horizontally reciprocatory single series of bobbin carriers constructed to grip the bottom flanges of the full bobbins as well as the empty bobbins and operative to coact with said peg carrying bars in effecting the horizontal transfer of said full and empty bobbins respectively from and toward said spindles.

5. In doffing mechanism for flier spinning and analogous machines, vertically reciprocatory racks supporting a spindle rail, bobbin spindles carried thereby, fliers having openings to receive the upper ends of said spindles in driving engagement, a fixed rail having bearings in which said fliers are carried, vertically reciprocatory columns supporting upper and lower peg carrying bars, the upper peg carrying bars being horizontally reciprocatory and serving to receive the full bobbins, the lower peg carrying bars supporting the empty bobbins, and a single series of horizontally reciprocatory bobbin carriers constructed to engage the bottom flanges of the bobbins to furnish support therefor and movable horizontally from a position in the rear of said bobbin spindles to a position in alinement with said spindles and from the latter position to a position in advance of said spindles and in alinement with said lower peg carrying bar.

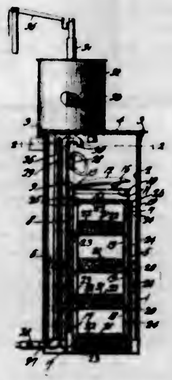
[Claims 6 to 13 not printed in the Gazette.]

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1,090,759. ACETYLENE-GAS GENERATOR. ERASMUS W. SHOWALTER, Claypool, Ind. Filed July 16, 1912. Serial No. 709,789. (Cl. 48—8.)

1. In a device of the class described, a generator; an outlet therefor; a container within the generator; a closure for the container; a water conduit communicating with the interior of the container; an inclined deflector supported solely by the closure and discharging into the conduit, the closure being movable upon the container to aline the discharge end of the deflector with the intake end of the conduit; and a source of water supply discharging on the deflector.

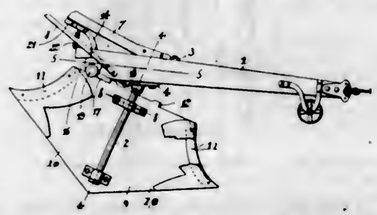
2. In a device of the class described, a generator; an outlet therefor; a removable container in the generator; a water conduit secured to one side of the container and opening adjacent its lower end into the container, the upper end of the conduit being extended above the upper end of the container; a movable closure resting on the upper end of the container; an inclined deflector supported solely by the closure and discharging into the upper end of the conduit; and means for discharging water upon the deflector.



3. In a device of the class described, a generator having an outlet; a container in the generator; means for discharging water into the container; superposed carbid pans in the container and having openings in their side walls; a filter resting directly upon the top of the uppermost pan and engaging the container to effect a filtering of the gas rising between the pans and the container, and to effect a filtering of the gas rising from the uppermost pan; and a closure resting on the upper end of the container and spaced from the filter.

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1,090,760. PLOW. GEORGE A. STANBERY, Zionville, N. C. Filed Dec. 18, 1912. Serial No. 737,477. (Cl. 97—27.)



1. In a hillside plow, a beam, a shaft connected therewith, said shaft being inclined downwardly and rearwardly to constitute a standard, a landside plate supported for rotation on said standard, a spring actuated lever fulcrumed upon the beam, a stem extending transversely through said lever, and conical members mounted terminally on the stem and having annular grooves adapted to engage the top edge of the landside.

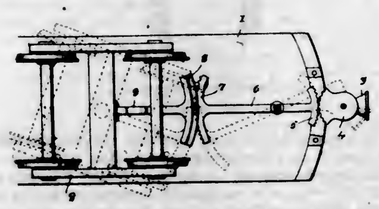
2. In a hillside plow, a beam having a slot at its rear end and provided also with a recess at the rear end and in the underside thereof, a downwardly and rearwardly inclined shaft connected with the beam and constituting a standard, a landside plate supported for rotation on the standard, a spring actuated lever fulcrumed adjacent to the standard and extending upwardly through the slot, a portion of said lever being accommodated in the recess of the beam, a stem extending transversely through the part of the lever within the recess, and cones mounted on the ends of the stem and having annular grooves adapted to engage the top edge of the beam.



3. In a hillside plow, a beam, bearing members on the upper and undersides of the beam, the bearing member on the underside having rearwardly extending arms and the beam being provided with a vertical slot and with a transverse recess at the rear end thereof, an inclined shaft extending through the beam and the bearing members and constituting a standard, a landside plate supported for rotation on the standard, a lever pivoted between the rearwardly extending arms of the bearing member on the underside of the beam, said lever extending upwardly through the slot and having a portion accommodated within the recess, a stem extending transversely through the lever and having annularly grooved conical members adapted to engage the top edge of the landside plate, a transverse plate on the underside of the beam, stop members on the top edge of the landside plate adapted to engage said plate, and handles connected with the bearing member on the upper side of the beam.

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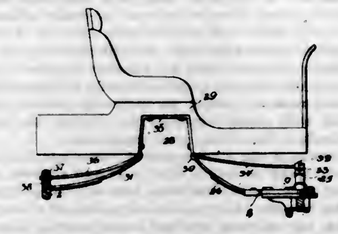
1,090,761. MOVABLE HEADLIGHT. JORDAN N. STONER, Scottdale, Pa. Filed Apr. 25, 1913. Serial No. 763,611. (Cl. 240—62.)



In a vehicle provided with a truck or like part mounted to turn about a vertical axis, a headlight mounted upon the vehicle to turn about a vertical axis, a toothed gear element connected with the headlight and comprising a plate having its rear edge curved and toothed concentric with the axis of the headlight, a longitudinal lever having toothed segments at opposite ends, the toothed segment at one end meshing with the toothed portion of the gear element connected with the headlight, and an arm projecting from the truck and having a toothed segment at its front end in mesh with the toothed segment at the rear end of the longitudinal lever, the toothed segment of said arm having flanges above and below the toothed portion thereof embracing opposite sides of the toothed segment at the rear end of the longitudinal lever.

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1,090,762. RUNNING-GEAR. DANIEL GODFREY TATUM, Hendersonville, N. C. Filed Sept. 20, 1912. Serial No. 721,427. (Cl. 21—100.)

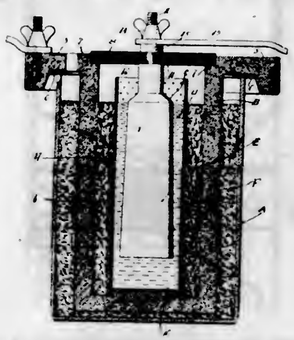


1. In combination, front and rear axles, a fifth wheel connected to the front axle, a rocker member mounted for horizontal pivoting upon the fifth wheel, a spring mounted upon the rocker member, springs slidably engaged with the same and with the rear axle, and a body mounted upon the springs.

2. In combination, an under cut vehicle body having front and rear axles, a fifth wheel secured to the front axle, a rocker member mounted upon the fifth wheel for horizontal pivoting, a spring mounted upon the rocker member, springs slidably engaged with the same and with the rear axle and extending throughout the under cut portion of the body and connected thereto, a frame extending throughout the under cut portion of the body, and spring members hinged to the frame and rigidly connected to the rocker member and rear axle.

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1,090,763. ELECTRIC-BATTERY CELL. HARRY A. THOMAS, Springfield, Ill. Filed May 17, 1912. Serial No. 697,948. (Cl. 204—41.)



1. An electric battery including an anode of zinc, bismuth, mercury and platinum, a suitable cathode and an electrolyte including hydrochloric acid, sulfuric acid, sodium silicate and water.

2. An electric battery including an anode of zinc, bismuth, mercury and platinum, a suitable cathode and an electrolyte including one part of hydrochloric acid, one part sodium silicate and eight parts water.

3. An electric battery including an anode of zinc, bismuth, mercury and platinum, a suitable cathode, an electrolyte including hydrochloric acid, surfuric acid, sodium silicate and water, and a depolarizing liquid comprising hydrochloric acid, sodium silicate, nitric acid and water.

4. An anode for primary cells comprising zinc, bismuth, mercury and platinum.

5. An anode for primary cells comprising 92% zinc shavings, ½ of 1% bismuth, ½ of 1% platinum and 7% mercury.

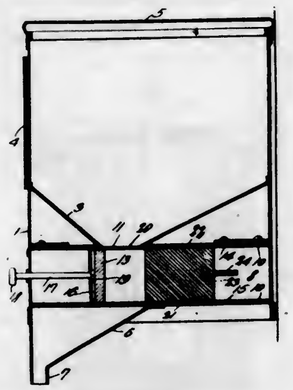
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1,090,764. COMBINED MEASURING AND DISPENSING BIN. LUTHER B. THOMAS, Shreveport, La., assignor of one-tenth to J. M. Robinson, Bayou La Chute, La. Filed Jan. 9, 1913. Serial No. 741,122. (Cl. 221—105.)

1. A combined measuring and dispensing bin including a bulk holder having an outlet in the bottom thereof, guides below and at opposite sides of the outlet, a stationary member mounted between and supported by the guides and constituting one wall of a measuring compartment, said member being located adjacent one edge of the outlet, a movable member interposed between the guide members and constituting another wall of the measuring compartment, means accessible outside of the bin for adjusting the movable member and a slide including upper and lower leaves extending above and below said members respectively, a head connecting the leaves, and an actuating device connected to the head, said leaves having openings therein, the opening in the upper leaf normally registering with the outlet of the bulk holder and the opening in the lower leaf being normally closed, said leaves being shiftable to bring the openings successively to position to close the outlet and to open the bottom of the measuring compartment.

2. A combined measuring and dispensing bin including a bulk holder having an outlet in the bottom thereof, guide plates below and at the sides of the outlet, said

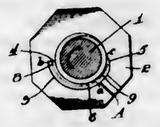
plates having upper and lower guide channels, leaves slidably mounted within the channels, a connection between the leaves, an actuating device extending from said connection, a stationary member extending between the leaves and connected to and supported by the guides, said member constituting one wall of a measuring compartment, a movable member extending between the guides



and the leaves and constituting another wall of a measuring compartment, and means accessible outside of the bin for adjusting the movable member, said leaves having apertures therein, the aperture in the upper leaf normally registering with the outlet and the aperture in the lower leaf being normally closed, said leaves being shiftable in one direction to successively close the outlet and open the bottom of the measuring compartment.

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1,090,765. NUT-LOCK. CHARLES J. TRESSLER, Glencoe, Pa. Filed June 20, 1913. Serial No. 774,868. (Cl. 151—19.)

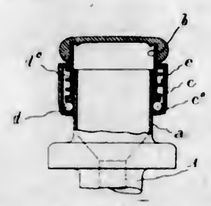


1. In a nut lock, the combination with a nut and a bolt therefor, said nut having a depression which opens into its bore, the said depression having an inner elliptical wall, one end of which is rounded to its communication with the bore of the nut and its second end terminating in an abrupt shoulder which is arranged at an angle to the bore, a curved locking member of a less length than the recess adapted to be received within the said recess, means arranged upon the curved wall of the depression and engaging in a groove of the locking element for preventing the longitudinal displacement of the locking element from the recess, said locking element having one of its ends terminating in an abrupt shoulder which normally contacts with the shoulder provided by the recess, the opposite end of the member being curved and its inner face formed with teeth which are adapted to slightly contact with the threads of the bolt to permit of the bolt being rotated in one direction, and to cause the said bolt to draw the toothed end of the locking element toward the bore of the nut to prevent the rotation of the nut in a second or opposite direction.

2. In a nut lock, a nut and a bolt therefor, said nut having an elliptical recess which opens into the bore of the nut, one of the ends of the recess terminating in an abrupt shoulder, the opposite end being curved toward the bore of the nut, the inner rounded wall of the recess being provided with a circumferentially extending tongue, a curved locking element adapted to be received within the recess, said element having a groove adapted to engage with the tongue of the recess, one of the ends of the locking element terminating in a shoulder, the second end being rounded toward its inner face, the inner face of the locking element adjacent its said curved end being provided with teeth, the said curved end adapted to be arranged within the curved end of the depression which enters the bore of the nut and the teeth of the element adapted to frictionally engage with the threads of the bolt when the nut is arranged upon the bolt.

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1,090,766. LOCKING DEVICE FOR GREASE-CUPS. ANDRÉ TRIOU, Seine, France. Filed Aug. 19, 1912. Serial No. 715,928. (Cl. 184—48.)



1. In a device of the class specified, the combination of a body part; an adjustable cap encircling said body and slidable endwise thereon; a series of clutch elements carried by said cap; and an annular member encircling said cap and slidable endwise thereon for forcing said clutch elements into binding engagement with said body to hold the cap in adjusted position thereon.

2. In a device of the class specified, the combination of a hollow, open-topped cylindrical container; an adjustable cap slidably encircling said container and covering the top thereof; a series of clutch elements carried by said cap; and an annular member slidably encircling said cap for forcing said clutch elements into binding engagement with said container, to hold the cap in adjusted position thereon.

3. In a device of the class specified, the combination of a body part; an adjustable cap encircling said body and slidable endwise thereon; a series of clutch elements carried by said cap; an annular member encircling said cap and slidable endwise thereon for forcing said clutch elements into binding engagement with said body to hold the cap in adjusted position thereon; and means for normally holding said member in operative position.

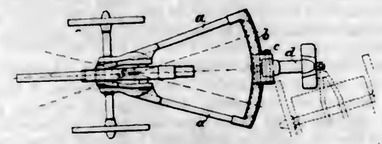
4. In a device of the class specified, the combination of a body part; a cap encircling said body and slidable endwise thereon in opposite directions, said cap being formed with a series of seats; a series of clutch elements mounted in said seats and movable into and out of binding engagement with said body to hold said cap in adjusted position thereon; and an annular member encircling said cap and slidable endwise thereon in opposite directions, said member having an in-turned portion coöperative with said clutch elements for forcing the same into, or releasing them from, such engagement.

5. In a device of the class specified, the combination of a body part; a cap encircling said body and slidable endwise thereon in opposite directions, said cap being formed with a series of seats; a series of clutch elements mounted in said seats and movable into and out of binding engagement with said body to hold said cap in adjusted position thereon; an annular member encircling said cap and slidable endwise thereon in opposite directions, said member having an inturned portion coöperative with said clutch elements for forcing the same into, or releasing them form, such engagement; and means for normally holding said member in position to effect such engagement.

[Claims 6 and 7 not printed in the Gazette.]



1,090,767. FIELD-GUN CARRIAGE. KARL VÖLLER, Dusseldorf, Germany. Filed June 27, 1913. Serial No. 776,173. (Cl. 89—42.)



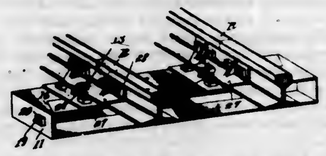
1. A field carriage for guns having an extended horizontal traverse, comprising, in combination with carrying wheels and an axle therefor, divergent side members secured to said axle, a continuous curved trail piece connecting said side members at their ends, and a spade extending from said trail piece approximately the full length thereof.

2. A field carriage for guns forming an extended horizontal traverse, comprising, in combination with carrying wheels and an axle therefor, divergent side members secured to said axle, a trail piece connecting said members at their outer ends, said trail piece being formed on an arc struck from near the middle of the axis or center of gravity of the gun, and a spade forming part of said trail piece and extending approximately throughout its length.

3. A field carriage for guns forming an extended horizontal traverse, comprising, in combination with carrying wheels and an axle therefor, divergent side members secured to said axle, a trail piece connecting said members at their outer ends, said trail piece being formed on an arc struck from near the middle of the axis or center of gravity of the gun, and a spade pivotally connected to said trail piece at the center thereof.

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1,090,768. TIE. DAVID J. WEIGEL, Platteville, Wis. Filed Sept. 19, 1913. Serial No. 790,707. (Cl. 238—5.)



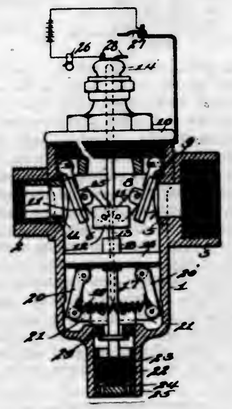
1. A tie comprising companion shaped members which, when assembled, are I-shaped in cross section, the sections having ends, one of the ends of each of the sections having its top and bottom wall stepped, the opposite end of each of the sections having its top and bottom wall and its end extended, the top and bottom extensions engaging with the stepped ends of the co-acting tie sections and the extended end of one of the tie sections overlapping the end of the adjacent tie section, and means arranged between the ends for securing the tie sections.

2. A rail tie comprising two companion shaped sections which, when assembled are I-shaped in cross section, the meeting walls of the sections being provided with integrally formed rail engaging hooks, the opposite ends of each of the ties being depressed upon their upper and lower surfaces and having an angular shoulder connecting the said faces with the depressions, the opposite ends of the tie sections being extended beyond their inner faces, and the top and bottom walls extended angularly and connected with the ends, the said angular portions adapted to abut with the angular shoulders provided by the depression, the ends being formed with registering openings, bolts passing through the openings and nuts for the bolts.

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1,090,769. AUTOMATIC SAFETY GAS-VALVE. JAMES M. WESCOTT, Hornell, and CHARLES B. SMITH, Prattsburg, N. Y. Filed Aug. 5, 1913. Serial No. 783,204. (Cl. 67—115.)

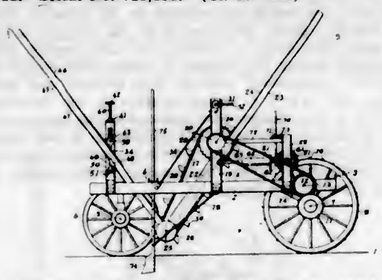
1. An automatic safety gas valve comprising a casing having an inlet and an outlet, a pair of valve bodies controlling said inlet and outlet, connections between said valve bodies and operative to effect simultaneously opening or closing movements thereof, a plunger movable axially of the casing and subject to the pressure of the gas therein, means associated with the plunger to operate said connections in closing the valve bodies, spring means for moving the plunger to engage said connections, operative connections between said plunger and spring means and having a locked relation in the lower-most position of the plunger, and a second spring means operative to initiate the operative movement of the plunger and to disestablish the normal locked relation of said operative connections when the pressure in the casing falls below a determined degree.



2. An automatic safety gas valve comprising a casing having an inlet and an outlet, a pair of valve bodies controlling said inlet and outlet, connections between said valve bodies and operative to effect simultaneously opening or closing movements thereof, a plunger movable axially of the casing and subject to the pressure of the gas therein, means associated with the plunger to operate said connections in closing the valve bodies, links pivoted to the under face of the plunger at opposite sides thereof, links pivoted to said first named links and to the base of the casing, coil springs extending transversely of the casing and connecting said first named links, the pivots of said second named links being in a common line parallel to said springs when the plunger is in its lower-most position, a rod depending from the plunger and upon which the plunger is mounted, and a spring engaging the lower end of said rod and effective to initiate the operative movement of the plunger when the pressure in the casing falls below a determined degree.

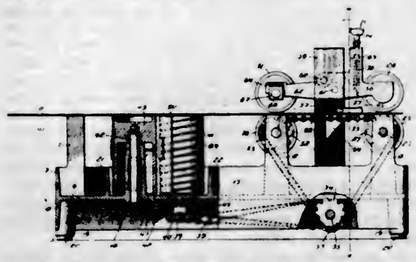
3. An automatic safety gas valve comprising a casing having an inlet and an outlet, a pair of valve bodies controlling said inlet and outlet, connections between said valve bodies and operative to effect simultaneously opening or closing movements thereof, a plunger movable axially of the casing and subject to the pressure of the gas therein, means associated with the plunger to operate said connections in closing the valve bodies, links pivoted to the under face of the plunger at opposite sides thereof, links pivoted to said first named links and to the base of the casing, coil springs extending transversely of the casing and connecting said first named links, the pivots of said second named links being in a common line parallel to said springs when the plunger is in its lower-most position, a rod depending from the plunger and upon which the plunger is mounted, a spring engaging the lower end of said rod and effective to initiate the operative movement of the plunger when the pressure in the casing falls below a determined degree, and a cup carrying said last named spring and adjustable in the direction of the axis of the casing whereby to regulate the tension of said spring.

1,090,770. TRENCHING AND GRADING MACHINE. JOHN WHEELWRIGHT, Ogden, Utah. Filed Sept. 4, 1912. Serial No. 718,493. (Cl. 37—24.)



In a machine or the class described, a vehicle, standards thereon, a shaft having fixed bearings in said standards and also provided with a sprocket wheel, guides pivotally mounted on the said shaft and arranged to be swung forwardly and rearwardly, elevator bars movable longitudinally in said guides and provided with racks, a lower shaft carried by said bars and having a sprocket wheel, an endless elevator chain connecting the sprocket wheels, means to drive the endless elevator, an upper shaft also having fixed bearings in said standards and provided with pinions and also with means whereby said upper shaft may be rotated, a brace bar connected to the lower portion of the endless elevator and extending upwardly and forwardly therefrom, a support for the brace bar and means to raise and lower the brace bar to change the angle of the endless elevator as may be required and to also cause the racks of the elevator bar to be engaged with the pinions of the upper shaft when the elevator is in one position.

1,090,771. ENVELOP-SEALING MACHINE. SAMUEL B. WHITE, Providence, R. I., assignor to Office Appliance Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed May 23, 1912. Serial No. 699,341. (Cl. 120—6.)



1. In a machine of the class described, the combination of a table, moistening mechanism, a rigidly mounted feeding roll, a rigidly mounted sealing roll, a pair of pivotally mounted levers, an idler roll carried by said levers and coöperating with said feeding roll, a second pair of pivotally mounted levers, an idler roll carried by said second pair of levers and coöperating with said sealing roll, and springs common to both of said pairs of levers for adjusting the pressure of said idler rolls on said feeding and sealing rolls.

2. In a machine of the class described, the combination of a table, moistening mechanism, a feeding roll, a sealing roll, idler rolls coöperating with said feeding and sealing rolls, springs for forcing said idler rolls against said sealing and feeding rolls, and means for adjusting the tension of said springs comprising a pivotally mounted polygonal disk, the sides of which are at different distances from the pivot thereof.

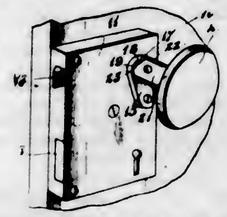
3. In a machine of the class described, the combination of a table, moistening mechanism, a feeding roll, a sealing roll, a pair of pivotally mounted levers, an idler roll carried by said levers and coöperating with said feeding roll, a second pair of said pivotally mounted levers, an idler roll carried by said second pair of levers and coöperating with said sealing roll, and a pair of springs each of which is connected with one of each of said pairs of levers for the purpose of pressing said idler rolls against said feeding and sealing rolls.

4. In a machine of the class described, the combination of a table, feeding mechanism, sealing mechanism, a moistening mechanism comprising a roll having spirally arranged grooves in its outer surface, means for applying a liquid to the lower part of said roll, and means for causing said liquid to be conveyed to the upper part of said roll.

5. In a machine of the class described, the combination of a table, feeding mechanism, sealing mechanism, a moistening roll arranged below the plane of said table and having spirally arranged grooves in its outer surface, a plate arranged to press against the outer surface of said roll, and means for applying liquid to the lower portion of said roll.

[Claims 6 to 16 not printed in the Gazette.]

1,090,772. KNOB-LOCK. GEORGE WILSON, Merrill, Oreg. Filed Apr. 2, 1913. Serial No. 758,405. (Cl. 70—29.)



1. The combination with a pair of knobs, of a spindle fixed to one knob and detachably engageable with the other knob, stationary means engaged by the knob fixed to the spindle for holding the latter out of engagement with the other knob, a lock having a sliding latch bolt provided with spaced lugs, and a hub carried by the spindle and having a roll back wing arranged between the lugs for automatically releasing the knob fixed to the spindle from the first-named means on the riding of the latch bolt over a keeper.

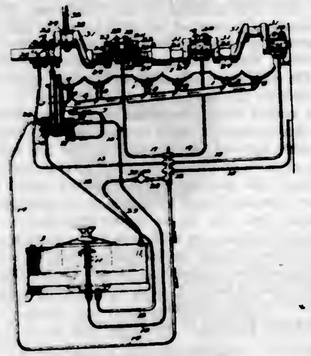
2. The combination with a pair of knobs, of a spindle fixed to one knob and detachably engageable with the other knob, stationary means engaged by the knob fixed to the spindle for holding the latter out of engagement with the other knob, a lock having a sliding latch bolt provided with spaced lugs, a hub carried by the spindle and having a roll back wing arranged between the lugs for automatically releasing the knob fixed to the spindle from the stationary means on the riding of the latch bolt over a keeper, and means normally extending the latch bolt.

3. The combination with a pair of knobs, of a spindle fixed to one knob and detachably engageable with the other knob, stationary means engaged by the knob fixed to the spindle for holding the latter out of engagement with the other knob, a lock having a sliding latch bolt provided with spaced lugs, a hub carried by the spindle and having a roll back wing arranged between the lugs for automatically releasing the knob fixed to the spindle from the first-named means on the riding of the latch bolt over a keeper, means normally extending the latch bolt, and means for automatically moving the spindle to lock both knobs thereto on the releasing of one knob from the stationary means.

1,090,773. LUBRICATING SYSTEM FOR AUTOMOBILE-ENGINES. ALEXANDER WINTON, Cleveland, Ohio. Filed Mar. 9, 1912. Serial No. 682,674. (Cl. 184—7.)

1. A lubricating system for engines, comprising a crank shaft bearing, the shaft having crank arms at each side of the said bearing, grooves arranged on the surface of the said bearing adjacent the moving part, forming channels therebetween, each of the said crank arms having a diagonally arranged oil duct, one end of each duct communicating with one of the annular grooves, the other located at the connecting rod bearing, a supply port in communication with the said annular grooves, and means for supplying oil under pressure to the said supply port.





2. A lubricating system for engines, comprising a crank shaft bearing, the shaft having crank arms at each side of the said bearing, annular grooves arranged on the surface of the said bearing adjacent the moving part and forming channels therebetween each of the said crank arms having a diagonally arranged oil duct, one end of each duct communicating with one of the annular grooves, the other located at the connecting rod bearing, a groove on the crank shaft bearing connecting the said annular grooves, a supply port in communication with the grooves on the said bearing, and means for supplying oil under pressure to the said supply port.

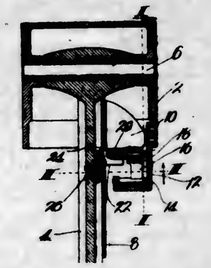
3. A lubricating system for engines, comprising a crank shaft bearing, the shaft having crank arms at each side of the said bearing, annular grooves arranged on the surface of the said bearing adjacent the moving part and forming channels therebetween, lateral grooves on the said bearing connecting the said annular grooves, a supply port in communication with the said lateral grooves, each of the crank arms having a diagonally arranged oil duct, one end of each duct communicating with one of the annular grooves, the other located at the connecting rod bearing, and means for supplying oil under pressure to the said supply port.

4. A lubricating system for engines, comprising a crank shaft bearing, the shaft having crank arms at each side of the said bearing, grooves arranged on the surface of the said bearing adjacent the moving part, the said grooves forming channels between the two coöperating parts, each of the said crank arms having a diagonally arranged oil duct, one end of each duct communicating with one of the grooves, the other located at the connecting rod bearing, a supply port in communication with the said annular grooves and means for supplying oil under pressure to the said supply port.

1,090,774. PISTON-COOLING DEVICE. NATHAN S. BAER, Kansas City, Mo. Filed July 26, 1913. Serial No. 781,299. (Cl. 123—171.)

1. In a device of the character described, the combination of a hollow sliding piston, the interior of said piston being partially divided by a partition, a connecting rod, fanning means carried by said piston, and connections between said means and said connecting rod whereby the angular movement of the latter will operate the former to generate an air current within the piston around said partition.

2. In a device of the character described, the combination of a hollow sliding piston, the interior of said piston being partially divided by a partition, a connecting rod, a fan pivotally mounted within the piston, and connections between said fan and rod and extending through said partition whereby the oscillation of said rod within the piston oscillates said fan to generate an air current within the piston around said partition.



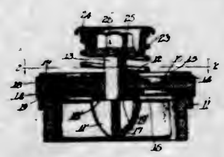
3. In a device of the character described, the combination of a hollow sliding piston, the interior of said piston being partially divided by a partition, a connecting rod, a fan pivotally mounted within the piston, and a sliding pivotal connection between said fan and rod and extending through said partition, whereby the oscillation of said rod within the piston will oscillate said fan to generate an air current within the piston around said partition.

4. In a cooling device for pistons, the combination of a hollow sliding piston, the interior of said piston being partially divided by a baffle partition, a bracket secured to said piston, a fan pivoted upon said bracket and extending within the piston to one side of said partition, said partition being provided with a curved slot, a slide block journaled on said fan adjacent said slot, a connecting rod, and a forked bracket carried by said rod adjacent said slot and extending through the latter into sliding engagement with said block, whereby oscillation of said rod will oscillate said fan to generate air currents within the piston around said partition.

5. In a cooling device for pistons, the combination of a sliding piston, a connecting rod, a fan pivoted to said piston, and connections between said rod and fan whereby angular movement of the rod relatively to the piston will oscillate the fan.

[Claim 6 not printed in the Gazette.]

1,090,775. PUMP-VALVE. WILLIAM T. BIRCH, Chicago, Ill. Continuation of application Serial No. 706,253, filed June 27, 1912. This application filed Jan. 30, 1913. Serial No. 745,083. (Cl. 103—66.)



1. In a device of the character described, a ring-carrying valve-body part having a plurality of laterally projecting, integral, concentric ribs on its face to provide therebetween a seat for a packing ring; a packing ring seated between said ribs, a portion of one of said ribs being rolled over after the insertion of said ring to retain said ring in place.

2. In a device of the character described, a ring-carrying valve-body part having a plurality of laterally projecting, integral, concentric ribs on its face to provide therebetween a seat for a packing ring; a packing ring having its base wider than its face, seated between said ribs; a portion of the rib nearest the extended portion of said ring being rolled over, after the insertion of said ring,

to overlie said extended portion thereof to retain the ring in place.

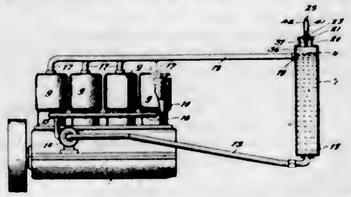
3. In a device of the character described, a ring-carrying body having extending from its side face two concentric parallel ribs integral with said body, and a packing ring having a vertical edge for coaction with one of said ribs and an outwardly inclined edge, the other rib being rolled down over said inclined edge, of the ring after the insertion of said packing ring.

4. In a device of the character described, the combination with a vulcanized packing ring having an inclined edge, of a valve body having concentric ribs spaced apart a distance substantially equal to the greatest width of said ring, a portion of one of said ribs being rolled over said inclined edge of the ring after the insertion of said ring, whereby, in the rolling process, said ring is secured between said deflected and undeflected rib.

5. In a device of the character described, a valve body having a central stem-receiving aperture, and having integral, laterally extending, concentric pairs of ribs adjacent said perforation in the body and adjacent the periphery of the body, respectively; the ribs of each said pair being spaced to provide a ring-receiving groove therebetween; and tapering valve rings, each having a base of substantially the width of the groove, seated between each pair of vertically extending ribs, one edge of each ring being inclined away from the adjacent rib, and a portion of said rib being rolled or otherwise deflected over said inclined edge, to hold the ring in place after the rings have been inserted in said grooves.

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1,090,776. INDICATING SYSTEM AND APPARATUS FOR INTERNAL-COMBUSTION ENGINES. HARRISON HURLBERT BOYCE, Oyster Bay, N. Y. Filed Jan. 3, 1913. Serial No. 739,978. (Cl. 73—52.)



1. In a system for indicating abnormal conditions in an internal combustion engine having a liquid circulation cooling system for the cylinders of the engine, the combination with means forming an inclosed space above the level of the circulating liquid, of an indicating device having a temperature responsive element normally permanently so located with reference to said inclosing means as to respond to temperature changes in said inclosed space and means controlled by said element for giving a temperature change indication outside said space.

2. In a system for indicating abnormal conditions in an internal combustion engine provided with a liquid circulation cooling system for the cylinders of the engine, said cooling system including a radiator having an air space at the top thereof, the combination with the radiator of an indicating device having an indicating part outside the radiator and having a temperature responsive element controlling the operation of said indicating part and exposed to the temperature in said air space above the level of the liquid in the radiator and means for maintaining the temperature responsive element in place in the radiator during the normal operation of the engine.

3. In a system for indicating abnormal conditions in an internal combuation engine provided with a liquid circulation cooling system for the cylinders of the engine, said cooling system including a radiator having an air space therein above the level of the circulating liquid and having a filler opening closed by a cap, the combination with the radiator and cap of an indicating device normally permanently mounted on said cap and having a normally visible indicating part and a temperature responsive element controlling the operation of said indicating part and exposed to temperatures within the air space.

4. In a system for indicating abnormal conditions in an internal combustion engine provided with a liquid circulation cooling system for the cylinders of the engine, said cooling system including a radiator having an air space therein above the level of the circulating liquid, the combination with the radiator of an indicating device normally permanently carried by said radiator and comprising an exposed protective casing, a visible indicating part in said casing, and a temperature responsive element controlling the operation of said indicating part and normally located in the air space in the radiator.

5. In a system for indicating abnormal conditions in an internal combustion engine provided with a liquid circulation cooling system for the cylinders of the engine, said cooling system including a radiator having an air space therein above the level of the circulating liquid and having a filler opening closed by a cap, the combination with the radiator and cap of an indicating device normally permanently attached to said cap and comprising an exposed protective casing, an indicating part in said casing and a temperature responsive element controlling the operation of said indicating part and normally located in the air space in said radiator.

[Claim 6 not printed in the Gazette.]

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1,090,777. CONVEYER. HARRISON T. CLARK, San Francisco, Cal. Filed May 25, 1912. Serial No. 699,657. (Cl. 57—37.)



1. A device of the character described comprising a plurality of paddles journaled at points intermediate their ends, each paddle interlocking with its adjacent paddle in such a manner as to prevent any one of said paddles from tilting until the preceding paddle has tilted, each of said paddles being free to tilt on its journaled point independently of its preceding paddle as soon as its preceding paddle is tilted, as described.

2. A device of the character described comprising a plurality of paddles journaled at points intermediate their ends, each paddle interlocking with its adjacent paddle immediately adjacent its journaled point whereby each paddle acts as a lock against the independent tilting of its adjacent paddle until it is tilted, as described.

3. A device of the character described comprising a plurality of paddles journaled at points intermediate their ends, each of said paddles interlocking with its adjacent paddle at a point immediately adjacent its journaled point whereby one of said paddles cannot tilt until its preceding paddle has first tilted, all of said paddles when in locked position forming a smooth uninterrupted surface, as described.

4. A device of the character described comprising a plurality of paddles journaled at points intermediate their ends, each paddle being provided with a shoulder immediately adjacent its journal point, those portions of the paddles on opposite sides of said shoulder being in different horizontal planes, each paddle overlapping its adjacent paddle and abutting against said shoulder whereby each paddle acts as a lock against independent tilting of its adjacent paddle until it is tilted, as described.

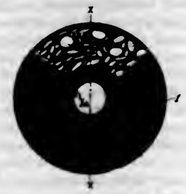
5. A device of the character described comprising the combination of a flat runway, of a plurality of paddles pivotally mounted in successive order, a bar pivotally mounted at a spaced distance from said paddles, a plurality of depending stop members on said bar, means on each paddle for engaging one of said stop members and means on one of said paddles for engaging said bar to move it on its pivotal point to release said stop members from the engaging means on said paddles, as described.

[Claim 6 not printed in the Gazette.]



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1,090,778. CONFETTI-BOMB. HARRISON T. CLARK, San Francisco, Cal. Filed Oct. 21, 1913. Serial No. 796,550. (Cl. 46—37.)



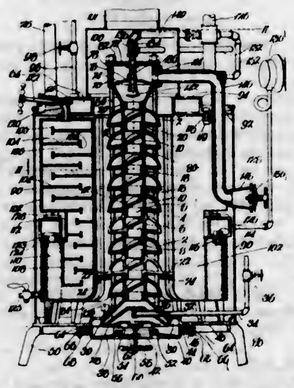
1. A device of the character described comprising a paper roll having a portion of its interior convolutions cut to form a pocket, its outer convolutions being uncut and adapted to form a closure for said pocket, such pocket being filled with confetti, as described.

2. A device of the character described comprising a paper roll, a portion of the convolutions of said paper roll being cut to form a pocket, the outer convolutions of such paper roll forming a closure for such pocket, said outer convolutions being cut centrally along their lengths, as described.

3. A device of the character described comprising a paper roll having a portion of its inner convolutions cut to form a pocket, its innermost convolutions forming a closure for said pocket, such innermost convolutions being split centrally along their length, as described.

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1,090,779. STEAM-GENERATOR. RUSSELL L. DAILEY, Kansas City, Kans. Filed Apr. 7, 1913. Serial No. 759,289. (Cl. 122—39.)



1. In an apparatus of the character described, a hollow casing, a plurality of horizontal partitions dividing a portion of the space within the casing into a zigzag passage, a vertical partition supporting certain of said horizontal partitions and forming a vertically extending passage communicating with the lower end of said zigzag passage, and lugs projecting vertically from the inner ends of said horizontal partitions, said casing being provided with receiving and discharge openings.

2. In a steam generating apparatus, a hollow casing, a plurality of horizontal partitions dividing a portion of the interior of said casing into a zigzag passage, a vertical partition supporting certain of said horizontal partitions and forming a vertically extending passage communicating with the lower end of said zigzag passage, a water-supply chamber communicating with the upper end of said zigzag passage, and a steam-collecting casing communicating with the upper end of said vertically extending passage.

3. In a steam generating apparatus, a heater, a plurality of steam generator sections arranged in slightly spaced relation about said heater, each of said generator sections comprising a chamber divided by baffle partitions into a zigzag passage, and a steam collecting ring communicating with each of said generator sections.

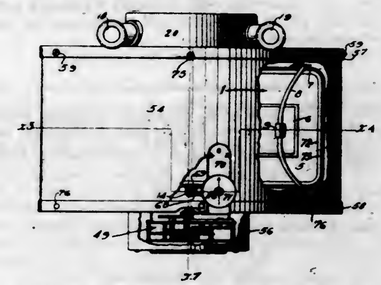
4. In a steam generating apparatus, a heater, a plurality of steam generator sections arranged in slightly spaced relation around said heater, each of said generator sections comprising a chamber divided by baffle partitions into a zigzag passage, a water-supply chamber overlying said generator sections and having a valve-controlled opening communicating with each of said sections, and a steam collecting ring communicating with each of said generator sections.

5. In an apparatus of the character described, a hollow steam generator casing, said casing having a series of horizontal baffle partitions dividing its interior into a zigzag passage and a vertical partition forming a vertical passage to one side of said zigzag passage, said passages communicating at their lower ends, and a steam chamber casing communicating with said vertical passage at the upper end of the latter.

[Claim 6 not printed in the Gazette.]

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1,090,780. ROTARY GAS-METER. ELIAS B. DE LA MATYR, Los Angeles, Cal. Filed Oct. 10, 1912. Serial No. 725,077. (Cl. 73—1.)



1. A gas meter comprising a drum provided with pairs of oppositely arranged chambers having ports and also having flexible outer walls; rigid plates centrally located on said outer walls; bell-crank levers journaled on said chambers and provided with arms to contact with said plates respectively to depress said walls into said chambers; said bell-crank levers being also provided with crank arms outside the chambers; rigid means pivotally connecting the outside arms of oppositely arranged bell-crank levers; a supply conduit, a discharge conduit, and valve means to simultaneously connect the ports of opposite chambers with the supply and discharge conduits respectively.

2. A gas meter comprising a drum provided with pairs of oppositely arranged chambers having ports and also having flexible outer walls forming the periphery of the drum; rigid plates centrally located on said outer walls; bell-crank levers journaled on said chambers and provided with arms to contact with said plates respectively to depress said walls in said chambers; said bell-crank levers being also provided with arms outside the chambers; rigid adjustable means pivotally connecting the outside arms of oppositely arranged bell-crank levers; a supply conduit; a discharge conduit; and valve means to simultaneously connect the ports of opposite chambers with the supply and discharge conduits respectively.

3. In a gas meter a drum comprising oppositely arranged pairs of measuring chambers, the walls of which chambers at the periphery of the drum are formed of flexible dia-

phragms; diaphragm operated and actuating devices to act centrally upon said diaphragms to depress them into the chambers; and adjustable means consisting of a single diaphragm cross-wire connecting the oppositely arranged diaphragm actuating devices for one pair of chambers to increase and decrease the space between such devices.

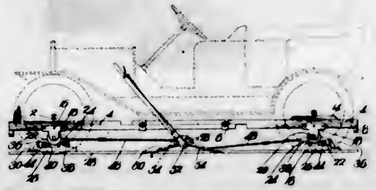
4. A gas meter comprising a case and a chambered measuring drum mounted to rotate in the case; said case being provided with an inlet port and a discharge port and said drum having oppositely arranged pairs of chambers and ports, there being in the drum a port for each chamber; the combination with a valve-member carried by the drum and provided with pairs of ports corresponding to and communicating respectively with the drum ports; of a two-port valve member the ports of which register simultaneously with opposite ports of the drum-carried valve-member; a flexible connection connecting the two-port valve-member with the case and forming a passage between one of the ports of said two port valve-member and one of the ports of the case, the other port of the two-port valve-member being open to the other port of the case; means to prevent rotation of the two-port valve-member; and means to yieldingly hold the two-port valve-member against the drum-carried valve member.

5. A gas meter drum comprising measuring pans arranged around a common axis and each provided with a port; flexible diaphragms closing the mouths of the pans; rigid run-ways fixed to the diaphragms respectively and spaced apart from the margins thereof; bell-cranks journaled on the rims of the pans and provided with anti-friction means to run on the run-ways respectively; inlet and discharge conduits; valve mechanism to connect the ports of oppositely arranged pans with said conduits respectively, and connecting rods extending diagonally across the drum and across each other and connecting the opposite bell-cranks respectively.

[Claims 6 to 24 not printed in the Gazette.]

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1,090,781. VEHICLE-JACK. HARRY C. EDWARDS, Kansas City, Mo., assignor of one-half to John T. Megredy, Kansas City, Mo. Filed June 4, 1913. Serial No. 771,670. (Cl. 57—15.)



1. A vehicle jack comprising a frame for engaging the axles of the vehicle, said frame being provided with a series of rollers, a second series of rollers journaled beneath said first series of rollers in position to engage the same, and means to operate certain of said second series of rollers to crowd the first series of rollers into elevated position to lift the frame and thereby lift the weight of the vehicle off the wheels.

2. A vehicle jack comprising a frame for engaging the axles of the vehicle, said frame being provided with a series of rollers, a pair of rollers journaled beneath each of said first series of rollers in position to operatively engage the same, said pairs of rollers being journaled upon relatively movable axes, and means to produce relative approaching movement between the rollers of each pair in order to crowd the first series of rollers into elevated position to lift the frame and thereby lift the weight of the vehicle off the wheels.

3. A vehicle jack comprising a frame for engaging the axles of the vehicle, said frame being provided with a series of rollers, a pair of rollers journaled beneath each of said first series of rollers in position to operatively engage the same, one of the rollers of each pair being journaled about a fixed axis and the other being journaled about a movable axis and provided with teeth along a portion of its periphery, a fixed rack for engagement with each of said toothed rollers, and means to roll said toothed rollers along said racks toward their companion rollers in order to crowd the first series of rollers upward to lift the frame, and thereby remove the weight of the vehicle from the wheels.

4. A vehicle jack comprising a frame for engaging the axles of the vehicle, said frame being provided with a series of flanged rollers, a pair of rollers journaled beneath each of said flanged rollers in position to operatively engage the same, one of the rollers of each pair being journaled about a fixed axis and the other being fixed upon a shaft movable toward and from said fixed axis, the rollers on said shafts being each provided with teeth along a portion of its periphery, a fixed rack for engagement with each of said toothed rollers, pulleys fixed on said shafts adjacent each of the toothed rollers, chains operating over said pulleys, and common actuating means for causing said chains to rotate said pulley and cause each toothed roller to approach its companion roller in order to crowd said flanged rollers upward to lift the frame and thereby remove the weight of the vehicle from the wheels.

5. A vehicle jack comprising an oblong frame for engaging the axles of a vehicle, said frame being provided with a flanged roller depending therefrom near each corner thereof, a block located beneath each roller and supporting a pair of rollers in position to operatively engage the adjacent flanged roller, one of the rollers of each block being journaled upon a fixed axis and the other roller fixed upon a shaft movable toward and from said fixed axis, the rollers on said shafts being each provided with teeth along a portion of its periphery, each block being provided with a stop face limiting the movement of its toothed roller in one direction and with a rack for engaging the teeth of said toothed roller, pulleys fixed on said shafts adjacent each of the toothed rollers, a shaft mounted at the middle portion of the frame, and connections between said shaft and said pulleys for rotating the latter to cause said toothed rollers to roll along said racks toward their companion rollers and crowd said flanged rollers upward to lift the frame and thereby remove the weight of the vehicle from the wheels.

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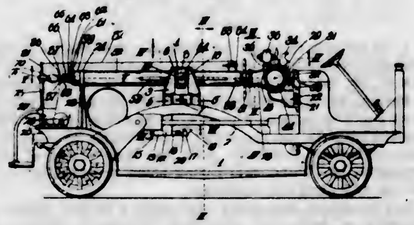
1,090,782. PROCESS OF TREATING POTATOES. EMIL ENDERS, Breslau, Germany. Filed Aug. 19, 1913. Serial No. 785,472. (Cl. 99—11.)

1. A process of treating potatoes which comprises comminuting raw potatoes, expressing juice therefrom by pressing the same, then boiling the potato substance from which the juice has been expressed, then drying the residue.

2. The process of treating potatoes which comprises peeling the potatoes, cutting up the potatoes, expressing the juice from said cut up potatoes while in an uncooked condition, then boiling the potatoes from which the juice has been removed, and then drying the material.

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1,090,783. PORTABLE WATER-TOWER. CLYDE W. FINK, Kansas City, Mo. Filed Apr. 18, 1912. Serial No. 691,722. (Cl. 169—18.)



1. The combination of a wheeled truck, a water tower pivoted on said truck, and means supporting said tower in a horizontal position including a support movable out



of the path of one of the arms of the tower as the latter swings to vertical position.

2. The combination of a wheeled truck, a water tower pivoted on said truck, and supports carried on the truck for holding the tower in horizontal position, one of said supports being movable into and out of the path of the downward moving arm of the tower as the tower swings into vertical position.

3. The combination with a wheeled truck and a frame carried thereby, of a casing pivotally carried by said frame, a water tower extending through the casing, and supports carried by the truck for holding the casing and tower in a substantially horizontal position; one of said supports being capable of swinging out of the path of pivotal movement of the tower.

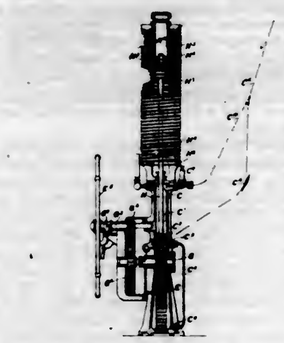
4. The combination of a wheeled truck, a water tower pivoted on said truck, an adjustable device for limiting the pivotal movement of the tower in one direction, and means acting automatically to secure the tower at the limit of said pivotal movement.

5. The combination of a wheeled truck, a water tower pivoted on said truck, an adjustable stop for limiting the movement of the tower as it swings into vertical position, and means acting automatically to lock the tower in said position.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,784. HYDRAULIC BULKHEAD-DOOR APPARATUS. WILLIAM GREGORY GIBBONS, Edinburgh, Scotland, and FREDERICK JOHN BLAKE, Bassett, England, assignors to J. Stone & Company Limited, Deptford, England. Filed Sept. 15, 1913. Serial No. 789,950. (Cl. 138—2.)



1. A self-contained hydraulic power plant comprising a plurality of hydraulic mechanisms, a main hydraulic piston and cylinder, the displacement of which piston is at least equal to the sum of the liquid displacements required for the operation of said hydraulic mechanisms, a liquid supply tank connected to said cylinder, the supply of liquid to the cylinder being controlled in accordance with the movement of the piston, hand and power means for moving the piston, and means to control the power.

2. In a hydraulic power plant, a main hydraulic cylinder and piston, means for supplying pressure fluid to the cylinder, a spring connected with the piston, means for compressing the spring, means for locking the latter in its compressed position, means for releasing the locking means, and means for checking the expansion of the spring.

3. In a hydraulic power plant, a main hydraulic cylinder having an outlet at one end and an inlet port near its opposite end, a liquid supply connected with the inlet port, a piston in the cylinder adapted to close the inlet port during its forcing stroke, a spring connected with one end of the piston adapted to impart the forcing stroke thereto, and a rack and pinion connected with the other end of the piston to draw the latter against the action of the spring.

4. In a hydraulic power plant, a main hydraulic cylinder having pressure fluid inlet and outlet ports at opposite ends thereof, a piston in the cylinder controlling the inlet port, a rod connected to the piston, a spiral spring mounted at one end of the cylinder, means connecting the rod to the outer end of the spring, means to depress the spring to position the piston for its forcing stroke, means to lock the spring in its depressed position, means to release the locking means, and means to cushion the action of the spring during its expansion.

5. In a hydraulic power plant, a main hydraulic cylinder and piston, means for supplying pressure fluid to the cylinder, spring actuated mechanism for imparting the forcing stroke to the piston, means for retracting the piston against the action of the spring, means for locking the piston against the action of the spring, means for releasing the locking means and cataract cylinders connected with the spring actuated mechanism for cushioning the action of the spring.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,785. ARTIFICIAL LIGHTING MEANS. HERBERT E. IVES, Mount Airy, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 18, 1913. Serial No. 749,145. (Cl. 240—1.)



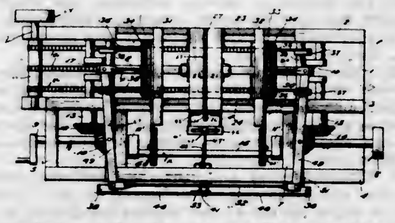
1. A color filter or absorbing screen for the purposes described comprising the combination of superposed signal green and purple colors, substantially as described.

2. A color filter or absorbing screen for the purpose described, comprising a signal-green, glass element with other superposed elements of purple color.

3. A color filter or absorbing screen for the purposes described comprising the combination of a signal green glass element with another superposed element containing dyes or pigments of purple color, substantially as described.

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1,090,786. TIN-SHEET-DOUBLING MACHINE. WILLIAM L. JENKINS, New Castle, Pa. Filed Oct. 16, 1909, Serial No. 523,030. Renewed Aug. 16, 1913. Serial No. 785,125. (Cl. 153—13.)



1. A device of the character described comprising oppositely arranged supports for a sheet, sliding jaws moving between said supports, means for slidably and successively opening and closing said jaws, a doubling member having a tongue at the top and a lug at the bottom, means engaging said lug to cause said tongue to bow said sheet between said jaws before the latter are closed, and means for spacing said tongue from the line of fold of said sheet before said jaws have closed against the bowed sheet.

2. A device of the character described comprising oppositely arranged supports for a sheet, sliding jaws sliding between said supports, a reciprocating member having a

tongue at one end and a lug at the other, means for slidably and successively opening and closing said jaws, and means for actuating said lug to cause said tongue to bow said sheet between said jaws before they are closed.

3. A device of the character described comprising a frame, oppositely arranged jaws slidably mounted on said frame and supporting a sheet, means for slidably and successively opening and closing said jaws, a doubling member having a tongue at one end and an outwardly extending lower part, and means acting in time with said first-named means engaging said outwardly-extending part to actuate said tongue, said tongue when actuated bowing said sheet between said jaws and coming to rest before they are closed.

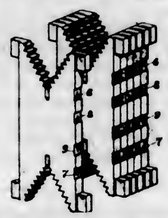
4. A device of the kind described comprising a frame, oppositely arranged supports for a sheet upon a frame, jaws slidably mounted upon said frame, a doubling member having a tongue, means for slidably opening and closing said jaws and for actuating said tongue before the jaws close, and means for causing said tongue to come to rest before said jaws close, said tongue when actuated bowing said sheet between said jaws before they close.

5. In a doubling machine in combination with means for gaging the ends of a sheet, laterally movable jaws formed each at one end with a shoulder against which the side of a sheet bears, longitudinal bars sliding at the sides of said jaws, upstanding lever members pivoted to said jaws at the end opposite said shoulders and pivotally connected to said longitudinal members to bear against the opposite side of the sheet, when said bars are actuated, means for actuating said bars and means reciprocating at right angles between said jaws to double said sheet.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,787. MATRIX. CARL LUCKE, New York, N. Y., assignor to Lucke D'Aix, Brooklyn, N. Y. Filed May 6, 1908. Serial No. 431,253. (Cl. 199—12.)



1. A matrix having a plurality of distributing devices thereon reversely arranged with reference to each other, said matrix also having a character thereon in multiplicate and footing in opposite directions, one character bearing the same relation to one of said distributing devices that another of said characters does to another of said distributing devices.

2. A matrix having a plurality of distributing devices thereon and having upon one face thereof a character thereon in multiplicate, one character bearing the same relation to one of said distributing devices that another of said characters does to another of said distributing devices.

3. A matrix having a plurality of distributing devices thereon, one distributing device bearing the same relation to one end of the matrix that another distributing device does to another, and having upon one face thereof a character therein in multiplicate, one character bearing the same relation to one of said distributing devices that another of said characters does to another of said distributing devices.

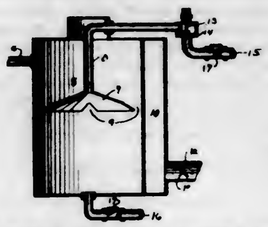
4. A matrix having a plurality of alining devices thereon and having upon one face thereof a character thereon in multiplicate and footing in opposite directions, one character bearing the same relation to one of said alining devices that another of said characters does to another of said alining devices all the matrices of the font being of the same length.

5. A matrix having a plurality of alining devices thereon, one alining device bearing the same relation to one end of the matrix that another alining device does to another, and having upon one face thereof a character thereon in multiplicate and footing in opposite directions, one character bearing the same relation to one of said alining devices that another of said characters does to another of said alining devices all the matrices of the font being of the same length.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,788. EXHAUSTER FOR HEATING SYSTEMS. HENRY W. MICHAEL, Denver, Colo. Filed June 1, 1912. Serial No. 701,066. (Cl. 160—3.)



1. An exhauster for heating systems, comprising a receptacle, the said receptacle communicating with the heating system, the said exhauster having a cold air chamber adjacent thereto, said cold air chamber being in communication with the atmosphere, and a deflector arranged in the receptacle, for the purpose set forth.

2. An exhauster for heating systems, comprising a receptacle in communication with the heating system, the said receptacle having a cold air chamber adjacent thereto and in communication with the atmosphere, a deflector arranged in the receptacle beneath its communication with the system, a pipe leading from the said deflector to the atmosphere, and a thermostat controlling said pipe, for the purpose set forth.

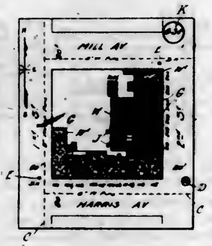
3. An exhauster for heating systems, comprising a receptacle in communication with the heating system, the exhauster having a cold air chamber in communication with the atmosphere and arranged adjacent the said receptacle, a pipe leading from the bottom of the receptacle to the boiler, a pipe also leading from the receptacle to the atmosphere, and a deflector arranged in the receptacle beneath the latter's communication with the heating system and provided with openings therein for the passage of the steam and air to the lower side of the deflector.

4. Means for exhausting air from heating systems, comprising a receptacle located in the heating system, a deflector arranged in the said receptacle below the induction to the said receptacle from the heating system, the said deflector being of conical shape and inclined downwardly to the wall of the receptacle, the said deflector having openings therein adjacent the wall of the receptacle to permit the air and water to pass below the said deflector, a pipe connected with the said deflector and communicating with the lower side of the latter, said pipe leading to the atmosphere, a second pipe connected with the bottom of the said receptacle and forming the return to the heating system, and the said receptacle having a cold air chamber arranged adjacent thereto, for the purpose set forth.

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1,090,789. INSURANCE REFERENCE-SHEET. HENRY A. MORISON, Seattle, Wash. Filed Mar. 7, 1910. Serial No. 547,935. (Cl. 11—19.)

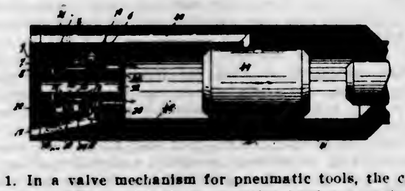
In a card index, the combination with a key map, of a series of maps, the series of maps being sub-divisions of the aforesaid key map, each section of the key map having a number corresponding to a number on the sub-division maps, each sub-division map having conventional means thereon to indicate respectively a certain area, the relative positions of structures within said area, the material of which said structures are built, fire protective devices, the opposite sides of each map constituting a rate sheet having means to constitute a heading and appropriately numeral designated spaces below said heading for entry respectively of indications of the structures within said




area subjected to insurance, the names of the streets upon which the structures abut, street numbers of the represented structures, class of the risk, occupations conducted in the enumerated structures, and rates of insurance on the building and its contents.

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1,090,790. VALVE MECHANISM FOR PNEUMATIC TOOLS. GEORGE A. OLIVER, Denver, Colo., assignor to The Standard Rock Drill Company, Denver, Colo., a Corporation of Colorado. Filed Apr. 7, 1913. Serial No. 759,307. (Cl. 121—20.)



1. In a valve mechanism for pneumatic tools, the combination with a valve cheat or casing having a centrally located stem or core, of a motive fluid actuated cylindrical valve piece located in a cavity of the chest surrounding the stem, the said valve piece being exteriorly grooved for the passage of the motive fluid during the operation of the tool, the stem being also exteriorly grooved adjacent the valve piece, the two grooves being substantially the same size, the valve piece being perforated to permit the fluid to fill the groove of the stem simultaneously with its entrance to the groove of the valve piece to produce a balanced result.

2. The combination of a valve chest having a centrally located exteriorly grooved stem surrounded by a cavity in the chest and a motive fluid actuated valve piece located in said cavity and also exteriorly grooved for the passage of the motive fluid during the operation of the tool, the grooves of the valve piece and stem being of substantially equal capacities, and in communication, for the purpose set forth.

3. The combination of a valve chest having a centrally located core separated from the body of the cheat by a cavity and having a circumferential groove in communication with the cavity, and a cylindrical valve piece slidably mounted in said cavity and also exteriorly grooved, the two grooves being in communication and of substantially equal capacities for balancing purposes.

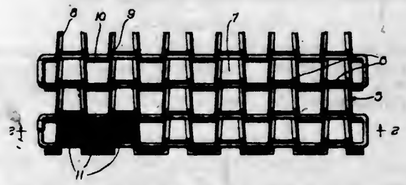
4. The combination of a valve chest or casing having a centrally located core and a cylindrical valve located in a cavity surrounding the core and mounted to reciprocate therein, the valve piece and the core having intercommunicating circumferential grooves of similar capacities adapted to receive motive fluid during the operation of the tool.

5. The combination of a valve chest or casing having a central stem and an annularly arranged cavity between the stem and the body of the chest, and a valve piece located in said cavity, the valve and core having intercommunicating circumferential grooves of substantially equal capacities adapted to receive motive fluid during the operation of the tool, the valve piece having differential pressure areas and being mounted to reciprocate under the influence of the motive fluid employed in the operation of the tool.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,791. MAT. CHRISTEN J. PETERSON, Chicago, Ill., assignor to Wearproof Mat Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 7, 1913. Serial No. 759,391. (Cl. 15—63.)



1. A mat of the class described, comprising bent plate-like metallic strips, said strips being flanged on their under side to provide a relatively broad flat metallic underfacing for the mat body and strengthening the mat against torsional strain and means for joining said strips together to permit relative movement therebetween, substantially as described.

2. A mat of the class described, comprising a series of plate-like metallic strips each bent to provide an independent pocket member, the lower portions of said strips being bent to provide a flange whereby a relatively broad flat metallic underfacing for the mat body is produced and the mat strengthened against torsional strains and means for joining said members together to provide relative movement therebetween, substantially as described.

3. A mat of the class described, comprising a series of plate-like metallic strips each bent to provide an independent pocket member, the lower portions of said strips being bent to provide a flange whereby a relatively broad flat metallic underfacing for the mat body is produced and the mat strengthened against torsional strains and flexible means for joining said members together to permit relative movement therebetween in a plurality of directions, substantially as described.

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1,090,792. PROCESS OF MANUFACTURING AND LAYING BITUMINOUS SHEET-PAVEMENTS AND MATERIALS THEREFOR. CLIFFORD RICHARDSON, New York, N. Y., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Jan. 12, 1910. Serial No. 537,641. (Cl. 94—1.)

The process of manufacturing and laying a bituminous paving material, which consists in heating a stone or mineral aggregate and a bituminous cementing material, combining the two while hot, suddenly chilling and wetting the mixture by application of cold water, and thereafter without reheating spreading and compacting the mixture to form a pavement.

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1,090,793. BUTTON-TAB END FOR HOSE-SUPPORTERS. JOHN B. RUSS, Shelton, and HENRY J. STUART, Ansonia, Conn., assignors to The Robert N. Bassett Company, Derby, Conn., a Corporation of Connecticut. Filed Apr. 19, 1913. Serial No. 762,219. (Cl. 24—245.)

In a button tab end for button and loop hose supporters, a button, a base plate support therefor having three transverse slots, one of said slots being near the lower edge of the base plate, two of said slots being near the upper edge of the base plate, combined with a strip of webbing threaded through said slots as follows: through

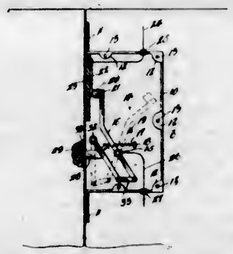
the uppermost slot from the rear to the front; thence down to and through the next adjacent slot from the front to the rear; thence down to and through the lowermost slot from the rear to the front; thence down to



and around the lower edge of the plate and up along the back thereof to and again through the uppermost slot from the rear to the front; thence down to and again through the next adjacent slot from the front to the rear, the extreme end terminating below said slot.

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1,090,794. AUTOMATIC CIRCUIT-CLOSING DEVICE FOR ELEVATORS. CHARLES W. SAUER, Jr., Elizabeth, N. J. Filed Sept. 16, 1912. Serial No. 720,654. (Cl. 177—203.)



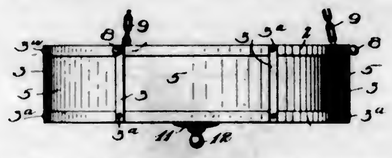
1. In combination with a door and door frame, of a casing carried by said frame, said casing having conductors introduced therein, a contact point carried with said casing, a shaft journaled through said casing, said shaft having an arm pivotally mounted thereon, one of said conductors having connection with said arm, a lug positioned within said casing, a coil spring connecting said lug and said arm, whereby the latter is held out of engagement with said contact point, a finger pivoted within said casing, a link connecting said finger and said arm and means carried by said door frame and engaging said link for throwing said arm into engagement with said contact point as and for the purpose set forth and described.

2. In combination with a door and door frame, of a casing carried by said door frame, said casing having electrical conductors introduced therein, a block supported within said casing, a plate upon said block, a contact point carried upon said plate, one of said conductors connecting with said plate, a shaft journaled in said casing, an arm on said shaft, said arm having an enlargement on one end for engagement with said contact point, a lug positioned within said casing, a coil spring connecting said lug and said arm, normally holding said arm out of engagement with said contact point, a finger pivoted within said casing, a link connecting said finger to said arm, the other of said conductors having connection with said shaft, and a projection carried by said door for engaging said finger and throwing said arm into engagement with said contact point as and for the purpose set forth and described.

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1,090,795. LIGHTING-FIXTURE. FERDINAND P. SCHOENHARDT, Meriden, Conn., assignor to Edward Miller & Company, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 8, 1913. Serial No. 798,850. (Cl. 240—91.)

1. A reflecting lighting fixture of the character described comprising a frame work having an open top and a bottom opening therein and having a plurality of openings in its sides, a covering for said bottom opening, means carried by said frame for supporting said covering, translucent material carried by said frame work and covering the openings in the sides thereof, and means for retaining said side and bottom covering on said frame.



2. A reflecting lighting fixture of the character described comprising a frame work having an open top and a bottom opening therein and having a plurality of openings in its sides, a covering for said bottom opening including translucent material, means carried by said frame work for engaging and supporting said covering, a plurality of separate panels of translucent material carried by said frame and covering said side openings, and means for retaining said panels and said bottom on said frame work.

3. A reflecting lighting fixture of the character described embodying an open top frame work comprising side walls having a plurality of openings therein and having transversely extending supporting means adjacent the base, said base having an opening therein, a covering for said base opening supported by said transverse means, said covering including translucent material, other translucent material carried by the sides of said frame work and covering the openings therein, and means for retaining said base covering and said side covering on said frame work.

4. A reflecting lighting fixture of the character described embodying an open top frame work comprising sides having a plurality of openings therein and thereabout and a transversely extending bottom flange providing a bottom opening for the frame, a covering for said bottom opening resting upon said flange, said covering including translucent material, a plurality of separate panels of translucent material carried by the sides of said frame work, and means for holding said panels to said frame work.

5. A reflecting lighting fixture of the character described embodying an open top frame work comprising sides having a transverse flange adjacent the base thereof and having apertures therein and thereabout, said flange providing a bottom opening for the frame, a covering for said bottom opening supported by said flange and composed, at least in part, of translucent material, a plurality of separate panels of translucent material seated over said bottom covering and covering the apertures in the sides of said frame, and means for detachably holding said panels to said frame sides.

[Claim 6 not printed in the Gazette.]

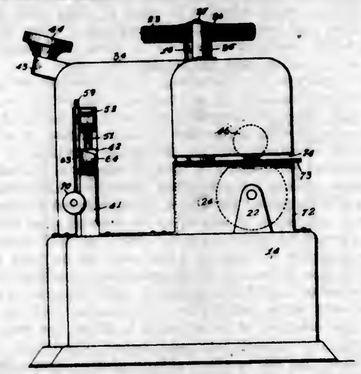
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1,090,796. FABRIC MEASURING AND CUTTING MACHINE. CARL SCHWARTZ, St. Louis, Mo. Filed Nov. 12, 1912. Serial No. 731,016. (Cl. 73—9.)

1. A fabric measuring and cutting machine comprising a pair of friction rollers, a movable carrier for one of said rollers for bringing it into contact with and separating it from the other roller, an indicator operated by the movement of said other roller, a shear for slitting the fabric at its correct measured length and means operated by the movement of said carrier as it separates the one roller from the other, to actuate said shear.

2. A fabric measuring and cutting machine comprising a pair of friction rollers, a movable carrier for one of said rollers for bringing it into contact with and separating it from the other roller, an indicator operated by the movement of said other roller, a shear for slitting the fabric at its correct measured length, means operated by the movement of the said carrier as it separates the one roller from the other to actuate said gear, and releasable means for holding one of said rollers out of contact with the other.





3. A fabric measuring and cutting machine comprising a pair of friction rollers adapted to be rotated by frictional contact with fabric drawn between them, a movable carrier for one of said rollers for bringing it into contact with and separating it from the other roller, an indicator operated by the movement of said other roller, a shear for slitting the fabric at its correct measured length, means operated by the movement of the said carrier as it separates the one roller from the other to actuate said shear, releasable means for holding one of said rollers out of contact with the other, and means for automatically actuating the carrier to cause it to bring its roller into contact with the other roller when the holding means has been released.

4. A fabric measuring and cutting machine comprising a pair of friction rollers adapted to be rotated by frictional contact with fabric drawn between them, a movable carrier for one of said rollers for bringing it into contact with and separating it from the other roller, an indicator operated by the movement of said other roller, interlocking means carried, respectively, by the rollers and a brake mounted on said carrier for preventing the free rotation of its roller, whereby to prevent the relative positions of said interlocking means from being changed.

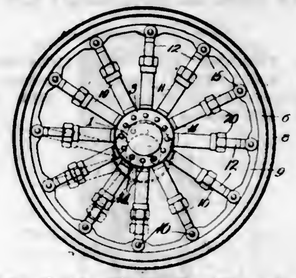
5. A fabric measuring and cutting machine comprising a pair of friction rollers adapted to be rotated by frictional contact with fabric drawn between them, a movable carrier for one of said rollers for bringing it into contact with and separating it from the other roller, an indicator operated by the movement of said other roller, a brake for the roller in the carrier, interlocking means carried by the respective rollers and adapted to be brought into engagement at the completion of a rotation of the said other roller, and means for locking said other roller against further movement at such period.

[Claims 6 to 10 not printed in the Gazette.]

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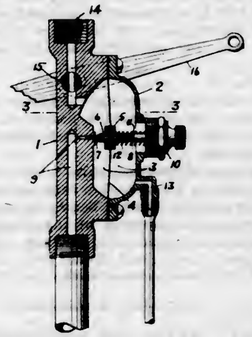
1,090,797. SPRING-WHEEL. JEFFERSON D. SHORT, Texhoma, Tex. Filed July 27, 1910. Serial No. 574,154. (Cl. 152—47.)

A spring wheel, comprising a hub provided with a pair of parallel circumferential ribs 3 and circumferential ribs 2, a rim provided externally with a plurality of circular ribs 9, telescopic spokes consisting of cylindrical inner members closed at their inner ends, and outer members fitting telescopically within the inner members, stuffing boxes secured on the outer ends of the inner members and around the outer members, springs within the inner members and bearing at their opposite ends against the closed ends of said members and the said outer members; the inner members fitting at their inner ends between the circumferential ribs of the hub and provided with perforated lugs occupying the spaces between said circumferential ribs 2 and 3 of the hub, and the outer members having perforated lugs at their outer ends engaging the opposite sides of the ribs of the rim, pivot pins pivotally connecting the inner ends of the inner members of the spokes to the hub, and pivot pins pivotally connecting the outer ends of the spokes to the rim.



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1,090,798. AUTOMATIC GAS-DISTRIBUTER. VICTOR H. SLINACK, Philadelphia, Pa., assignor to The Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 17, 1912. Serial No. 737,192. (Cl. 67—18.)



1. In an automatic gas distributer the combination of a housing having a distribution chamber, a diaphragm subdividing the chamber, a valve seat and a valve arranged in alinement on opposite walls of the chamber and the valve provided with an extension guide, and a tubular fitting carried by the diaphragm and receiving the guide extension and provided with a seat for said valve and with a valve for the first mentioned seat, and said last mentioned valve provided with an extension guide, substantially as described.

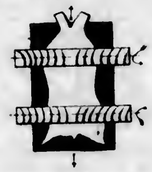
2. An automatic gas distributer comprising the combination of a housing, a spring pressed diaphragm subdividing the housing into two chambers and having a duct through its center portion, an outlet from one of said chambers constituting the sole pilot light supply, a gas inlet to and a main burner supply outlet from the other chamber, a valve carried by the diaphragm for opening and closing the main burner outlet, and a valve in the first mentioned chamber for opening and closing said duct to admit and exclude gas to and from said chamber for lighting and extinguishing a pilot light.

3. An automatic gas distributer comprising the combination of a housing, a spring pressed diaphragm subdividing the housing into two chambers and having a duct through its center portion, an outlet from one of said chambers constituting the sole pilot light supply, a gas inlet to and a main burner supply outlet from the other chamber, a valve carried by the diaphragm for opening and closing the main burner outlet, and a valve adjust-

able toward and away from the diaphragm and arranged in the first mentioned chamber for opening and closing said duct to admit and exclude gas to and from said chamber for lighting and extinguishing a pilot light.

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1,090,799. PROCESS FOR THE TREATMENT OF HIDES AND SKINS. GIOVANNI BATTISTA MARIO SPIGNO, Genoa, Italy. Filed Aug. 31, 1910. Serial No. 579,847. (Cl. 149—4.)



1. The process of treating hides and skins consisting in attaching the hides and skins to extensible bands, and while so attached stretching said hides and skins and submitting them to tanning operations.

2. The process of treating hides which consists in attaching the hides to an extensible band and subjecting the band and the hide to flexing and stretching while undergoing tanning treatments.

3. The process of treating hides which consists in attaching the hide to an extensible band and subjecting band and hide to flexing and stretching in a plurality of directions while traveling and undergoing tanning and dyeing treatment.

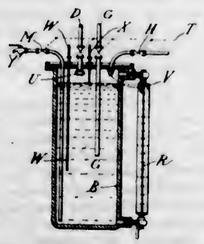
4. The process of treating hides which consists in attaching the hide to an extensible band and subjecting the band and the hide to repeated flexing in the form of corrugations while traveling and undergoing tanning and dyeing treatments.

5. The process of treating hides which consists in attaching the hide to an extensible band and subjecting the band and the hide to repeated flexing in the form of corrugations ranging transversely of the direction of travel and to stretch said band with the hide while traveling and undergoing tanning and dyeing treatments.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,800. MEANS FOR DELIVERING OIL AND OTHER LIQUIDS. JAMES CALDWELL STELFOX, Westminster, London, England, assignor to Arthur Graham Glasgow, Richmond, Va. Filed Dec. 15, 1911. Serial No. 665,936. (Cl. 103—8.)




1. In apparatus for delivering oil by direct steam pressure, the combination of a chamber adapted to receive in its upper portion charges of the oil to be delivered and in its lower portion water due to condensation of steam, means for supplying oil to the upper portion of said chamber, a valve adapted to open or close said oil supplying means, means for admitting steam to said chamber above the oil supplied thereto, a valve adapted to open or close said admission of steam, an oil delivery pipe extending downward to about half the depth of said chamber, a valve adapted to open or close said oil delivery pipe, an outlet pipe for water of condensation below the oil delivery pipe, a valve adapted to open or close said water outlet pipe, and means adapted to open or to close the oil supply valve, and simultaneously to close or to open the steam supply valve, and the oil delivery valve.

2. In apparatus for delivering oil by direct steam pressure, the combination of a chamber adapted to receive in its upper portion charges of the oil to be delivered and in its lower portion water due to condensation of steam, means for supplying oil to the upper portion of said chamber, a valve adapted to open or close said oil supplying means, means for admitting steam to said chamber above the oil supplied thereto, a valve adapted to open or close said admission of steam, an oil delivery pipe extending downward to about half the depth of said chamber, a valve adapted to open or close said oil delivery pipe, a valve adapted to open or close said water outlet pipe, a regulating cock on said outlet pipe adapted to be adjusted to allow the water to escape at any desired rate, and means adapted to open or to close the oil supply valve, and simultaneously to close or to open the steam supply valve and the oil delivery valve.

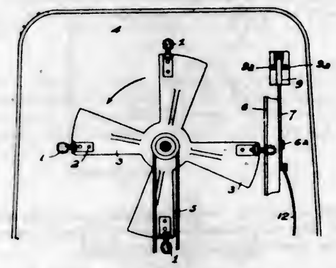
3. In apparatus for delivering oil by direct steam pressure, the combination of a chamber adapted to receive in its upper portion charges of the oil to be delivered and in its lower portion water due to condensation of steam, means for supplying oil to the upper portion of said chamber, a valve adapted to open or close said oil supplying means, means for admitting steam to said chamber above the oil supplied thereto, a valve adapted to open or close said admission of steam, controllable means for permitting the escape of air from said chamber at a point below the steam admission, an oil delivery pipe extending downward to about half the depth of said chamber, a valve adapted to open or close said oil delivery pipe, an outlet pipe for water of condensation below the oil delivery pipe, a valve adapted to open or close said water outlet pipe, and means adapted to open or to close the oil supply valve, and simultaneously to close or to open the steam supply valve and the oil delivery valve.

4. In apparatus for delivering oil by direct steam pressure, the combination of a chamber adapted to receive in its upper portion charges of the oil to be delivered and in its lower portion water due to condensation of steam, means for supplying oil to the upper portion of said chamber, a valve adapted to open or close said oil supplying means, means for admitting steam to said chamber above the oil supplied thereto, a valve adapted to open or close said admission of steam, an oil delivery pipe extending downward to about half the depth of said chamber, a valve adapted to open or close said oil delivery pipe, a valve adapted to open or close said water outlet pipe, and means adapted to open or to close the oil supply valve, and simultaneously to close or to open the steam supply valve and the oil delivery valve and the water outlet valve.

5. In apparatus for delivering oil by direct steam pressure, the combination of a chamber adapted to receive in its upper portion charges of the liquid to be delivered and in its lower portion water due to condensation of steam, means for supplying oil to the upper portion of said chamber, a valve adapted to open or close said oil supplying means, means for admitting steam to said chamber above the oil supplied thereto, a valve adapted to open or close said admission of steam, an oil delivery pipe extending downward to about half the depth of said chamber, a valve adapted to open or close said oil delivery pipe, a valved outlet pipe for water of condensation, means adapted to open or to close the oil supply valve, and simultaneously to close or to open the steam supply valve, and the oil delivery valve, a gage glass, cocks connected to the upper and lower ends of said gage glass and to the upper and lower ends of said chamber and a scale mounted in proximity to said gage glass and adapted to be adjusted lengthwise thereof.



1,090,801. AUDIBLE ALARM FOR MOTOR-VEHICLES. WILLIAM SUMNER, Liverpool, England, assignor of one-half to Herbert Lodge, Liverpool, England. Filed Dec. 17, 1912. Serial No. 737,160. (Cl. 116—1.)

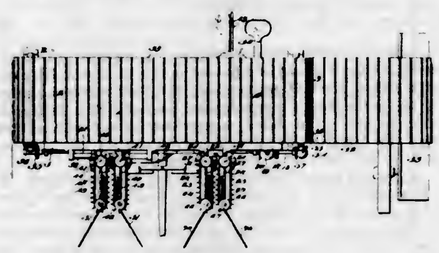


1. In a motor car alarm mechanism, in combination; a fan, a series of hammers fitted to the blades of the fan, a gong mounted in proximity to the hammers, a spring tending to move the gong into the path of the hammers, and means controlled by a push or the like for holding the gong out of the hammer path.

2. In a motor car alarm mechanism, in combination, a fan, a series of hammers fitted to the blades of the fan, a gong carried upon a pivoted support in proximity to the hammers, a spring tending to move the gong into the path of the hammers, a spring holding the gong normally out of the path of the hammers, and a push articulated to the pivoted gong support.

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1,090,802. HEADER. HENRY S. THOMAS and CHARLES H. MCFARLING, Fargo, Okla. Filed Dec. 7, 1912. Serial No. 735,504. (Cl. 56—131.)



In a header, the combination of a vehicle body, traction wheels therefor, a main frame carried by said body, means for vertically adjusting said main frame, an endless conveyer mounted rearwardly on said main frame, a pair of coöperating cutter disks journaled on said main frame in front of said conveyer, a square line shaft journaled on said main frame, drive connections between said line shaft and said conveyer and disk cutters, an auxiliary frame slidably mounted on said main frame, a pair of vertical spindles journaled on said slidably mounted frame, coöperating cutter disks carried by said vertical spindles, gears secured on said spindles, gears journaled on said slidably mounted frame in mesh with said spindle gears and provided with square axial bores slidably engaging said square line shaft, means for shifting said slidably mounted frame on said main frame, a gear secured on said line shaft, a drive gear journaled on said main frame in mesh with said shaft gear and provided with a square axial bore, a vertical shaft journaled on said vehicle body and provided with a square portion extending slidably through the bore of said drive gear, and drive connections on said vehicle body between said tractions wheels and vertical shaft.

1,090,803. STORE-LADDER. LEWIS VAN BROWN, Asheville, N. C. Filed Jan. 24, 1913. Serial No. 743,939. (Cl. 228—26.)

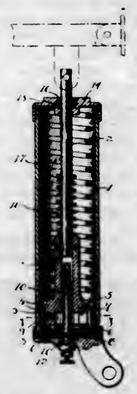


1. In a store ladder, the combination with an elevated track, of a hanger slidably carried on the track, a ladder carried on said hanger and vertically adjustable thereon, stops to limit the upper and lower adjustment of the ladder on the hanger, a double-acting latch carried on the ladder adapted to engage the hanger when adjusted in extreme upper and lower positions, and a lever for releasing said latch from locked position, substantially as described.

2. In a store ladder, the combination with an elevated track, of a telescoping sectional ladder slidably carried on the track, the sections of said ladder being vertically adjustable on each other, stops to limit the upper and lower adjustment of the sections, a double-acting spring-pressed pivoted latch carried on one of said sections and adapted to engage the other section and rigidly lock them at their extreme upper and lower positions, and a lever for releasing said latch from locked position, substantially as described.

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1,090,804. DOOR-CHECK. HENRY G. VOIGHT, New Britain, Conn. Filed Jan. 28, 1914. Serial No. 814,857. (Cl. 16—88.)



1. In a check, a cylinder, a checking means comprising a piston rod, a coupling carried thereby, a piston head carried by said coupling and having limited longitudinal movement relatively thereto, an escape passage through said piston head, a valve carried by said coupling arranged to close said passage on the checking stroke, a passage

through said valve and a baffle plate carried by said coupling above said passage to divert a stream of liquid flowing through said passage when the piston is being moved in the checking direction.

2. In a check, a cylinder, a checking piston, a checking means comprising a piston rod, a coupling carried thereby, a piston head carried by said coupling and having limited longitudinal movement relatively thereto, an escape passage through said piston head, a valve carried by said coupling arranged to close said passage on the checking stroke, a passage through said valve, a valve pin carried by the cylinder and extending into the last mentioned passage to restrict the area of the same, a baffle plate carried by the coupling above said passage and having a pin clearance passage, said baffle-plate being arranged to divert a stream of liquid flowing through said passage and around said pin when the piston is being moved in the checking direction.

3. In a check, a cylinder, a checking piston, a checking means comprising a piston rod, a coupling carried thereby, a piston head carried by said coupling and having limited longitudinal movement relatively thereto, an escape passage through said piston head, a valve carried by said coupling arranged to close said passage on the checking stroke, a passage through said valve, a valve pin carried by the cylinder and extending into the last mentioned passage to restrict the area of the same, a baffle plate carried by the coupling above said passage and arranged to divert a stream of liquid flowing through said passage and around said pin when the piston is being moved in the checking direction, said baffle plate having a passage in line with said valve pin to permit the latter to pass therethrough as the piston is being moved to and fro, a passage through said valve pin having a lateral vent and manually operable valve for controlling the operative size of said vent in said pin.

4. In a liquid check, a cylinder, a checking means comprising a piston head arranged within the cylinder and a piston rod operatively connected with said head and leading externally of said cylinder, means to permit the fluid to flow freely from one side of the piston to the other side when the piston moves in one direction, said piston having a restricted passage through which the liquid is forced in a stream when the piston moves in the opposite direction, with a baffle means arranged close to said passage and movable with said moving parts and arranged in the path of said stream of liquid to check the force thereof and deflect said stream laterally toward the side walls of said cylinder.

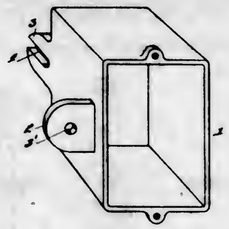
5. In a liquid check, a cylinder, a checking means comprising a piston head arranged within the cylinder and a piston rod operatively connected with said head and leading externally of said cylinder, means to permit the fluid to flow freely from one side of the piston to the other side when the piston moves in one direction, said piston having a restricted passage through which the liquid is forced in a stream when the piston moves in the opposite direction, with a baffle means movable with said moving parts and arranged in the path of said stream of liquid to check the force thereof, a valve pin carried by said cylinder and projecting into said restricted passage, said baffle means having a clearance passage for said pin to permit said baffle means to move over said pin as the piston is reciprocated.

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1,090,805. JUNCTION-BOX. JOSEPH F. WAGNER, South Bend, Ind., assignor to Arnold-Wagner Electric Co., South Bend, Ind., a Corporation of Indiana. Filed Aug. 28, 1911. Serial No. 646,348. (Cl. 247—5.)

1. A junction box comprising integrally formed lugs, one of which lugs extends laterally from one of the side walls thereof, and the other forming a continuation of the side wall from which the first mentioned lug extends and provided with an open-ended slot therein, substantially as and for the purpose described.

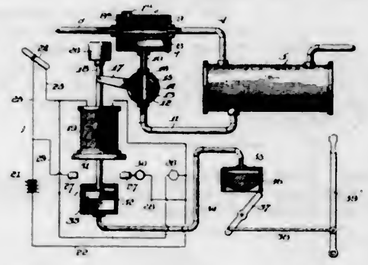
2. A junction box comprising side walls and a rear wall with the front end of the box being open, a lug extending laterally from one of the side walls and spaced from the open end of the box, said lug having an opening in its free end, a second lug projecting from the rear end



wall, said second lug being a prolongation of the side wall carrying the first-mentioned lug, and said second lug having an open-ended slot in its free end.

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1,090,806. AUTOMATIC AIR-BRAKE CONTROL FOR RAILWAYS. HARRY J. WARTHEN, Washington, D. C. Filed June 16, 1910, Serial No. 567,301. Renewed Feb. 5, 1914. Serial No. 816,843. (Cl. 188—4.)



1. An air-brake control device for railway trains, in combination with a fluid-pressure supply and train-pipe, of a piston-valve through which the fluid-pressure passes to the train-pipe, a control-valve for admitting fluid-pressure to the piston-valve, a solenoid having a weighted staff for closing the control-valve, and an electric circuit for the solenoid to open said control valve.

2. An air-brake control device for railway trains, in combination with a fluid-pressure supply and train-pipe, of a piston-valve through which the fluid-pressure passes to the train-pipe, a control-valve for admitting fluid-pressure to the piston-valve, a solenoid or electro-magnet for operating the control-valve, an electric circuit energizing the solenoid or electro-maguet, a make and break device for the electric-circuit, and means operated by the engineer's starting lever for restoring the solenoid or electro-magnet to normal position.

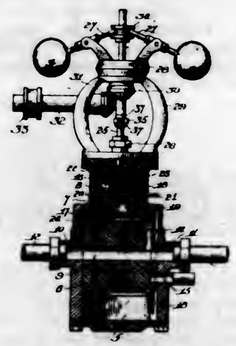
3. An air-brake control device for railway trains, in combination with a fluid-pressure supply and train-pipe, of a valve through which the fluid-pressure passes to the train-pipe, a solenoid or electro-magnet and means operated thereby for controlling the valve, an electric-circuit energizing the solenoid or electro-magnet, a make and break device for the electric circuit, and means operated by the engineer's starting-lever for restoring the solenoid or electro-magnet to normal position independently of the circuit.

4. An air-brake control device for railway trains, in combination with a fluid-pressure supply and train-pipe, of a piston-valve having a gravity-operated piston through which fluid-pressure passes to the train-pipe when said piston is raised, a control-valve for admitting pressure to the piston-valve to hold the piston normally raised, a solenoid having a weighted staff connected to the control-valve for holding the latter normally open and for closing it by gravity when the solenoid is deenergized, an electric-circuit for the solenoid, a piston connected to the staff of the solenoid and inclosed in a cylinder, a second cylinder connected to the lower part of the first mentioned cylinder, a piston in the last mentioned cylinder, and means for operating said piston from the engineer's operating lever, substantially as shown and described.

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1,090,807. DEVICE FOR CONTROLLING THE SPEED OF RAILROAD-TRAINS. HARRY J. WARTHEN, Washington, D. C. Filed Oct. 24, 1911, Serial No. 656,444. Renewed Feb. 5, 1914. Serial No. 816,845. (Cl. 188—72.)



1. A speed control mechanism for use in connection with an air-brake system, comprising a piston-valve through which the air pressure passes for application of the air-brakes, means for admitting pressure to opposite sides of said piston-valve, respectively, and a governor for operating said means.

2. A speed control mechanism for use in connection with an air-brake system, comprising a piston-valve through which the air-pressure passes for application of the brakes, a slide-valve for admitting pressure to opposite sides of the piston-valve, respectively, and a governor operating the slide-valve, substantially as shown and described.

3. A speed control mechanism for use in connection with an air-brake system, comprising a piston-valve through which the air-pressure passes for application of the brakes, a slide-valve for admitting pressure to opposite sides of the piston-valve, respectively, a governor operating said slide-valve, and a tension device for regulating the governor, substantially as shown and described.

4. A speed control mechanism for use in connection with an air-brake system, comprising a piston-valve through which the air-pressure passes for application of the brakes, a slide-valve for admitting pressure to either side of the piston valve, a governor connected to the stem of the slide-valve for operating the latter, and a regulating device consisting of a lever connected to the stem, and a compression spring engaging said lever, substantially as shown and described.

5. A speed control mechanism for use in connection with an air-brake system, comprising a piston-valve through which the air-pressure passes for application of the brakes, a slide-valve for admitting pressure to either side of the piston-valve, a governor connected to the stem of the slide-valve for operating the latter, and a regulating device consisting of a lever centrally fulcrumed on a support and engaging the stem, a rod connected to the outer end of the lever, an adjusting-nut threaded on the rod, and a compression-spring bearing against the nut, substantially as shown and described.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,808. COFFEE-POT HANDLE. LOUIS WOJTKOW, Brooklyn, N. Y., assignor to New York Stamping Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 20, 1913. Serial No. 749,698. (Cl. 53—3.)



1. A bracket for attaching to a vessel a handle of the type which has a plurality of terminals, said bracket constructed of a single strip of metal of a profile to conform to the place of attachment to the vessel and formed with offstanding steps equal in number to the number of attaching terminals on the handle, whereby the steps are definitely and accurately alined in fixed relation one with the other and may be properly positioned on the vessel to receive the handle.

2. The combination with a vessel, of a handle which has a plurality of attaching terminals, and a handle-attaching bracket composed of a strip of sheet metal bent to conform to the contour of the vessel and having in one piece therewith offstanding steps equal in number to the number of attaching terminals, whereby the steps are definitely and accurately alined in fixed relation one with the other and properly positioned on the vessel to receive the handle, said steps having outwardly projecting sockets adapted to engage the attaching terminals and to receive the means for fastening the handle to the bracket, and said steps furthermore affording air spaces between the vessel and the handle terminals.

3. The combination with a vessel, of a handle-attaching bracket permanently applied to the vessel and constructed of a single strip of metal formed with offstanding steps to receive the ends of the handle and permanent screw sockets in said steps, said steps affording air spaces between themselves and the vessel, a handle having ends adapted to conform to the shape and location of the steps, and screws passed through the handle ends and into the screw sockets in the steps to affix the handle to the steps.

4. The combination with a vessel, of a handle-attaching bracket constructed of a single strip of metal having a profile matching that of the vessel whereon it is used and permanently applied to such vessel and having offstanding steps, and outwardly projecting screw sockets on said steps, a handle having recesses into which these projecting screw sockets extend, and screws passed through the handle into binding engagement with the screw sockets.

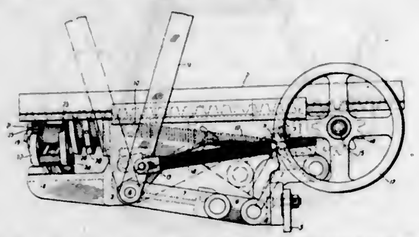
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1,090,809. GAGE-LOCKING DEVICE. WILLIAM AHLEN, Duquesne, Pa. Filed Sept. 4, 1913. Serial No. 788,145. (Cl. 164—59.)

1. In a shear gage locking device, the combination with a horizontally extending gage bar having rack teeth in the lower surface thereof and a sliding carriage movable lengthwise on said bar, of means on said carriage for locking the carriage on said bar, said means comprising a screw arranged to raise and lower into and out of engagement with the rack teeth on the bar, and means whereby said screw is moved into and out of engagement with said rack teeth.

2. In a shear gage locking device, the combination with a horizontally extending gage bar having rack teeth in the lower surface thereof and a sliding carriage movable

lengthwise on said bar, of means on said carriage for locking the carriage on said bar, said means comprising a screw arranged to raise and lower into and out of engagement with the rack teeth on the bar, means whereby said screw is moved into and out of engagement with said rack teeth, and means for holding said screw in engagement with the rack teeth.



3. In a shear gage locking device, the combination with a horizontally extending gage bar having rack teeth in the lower surface thereof and a sliding carriage movable lengthwise on said bar, of means on said carriage for locking the carriage on said bar, said means comprising a screw arranged to engage said rack teeth to hold the carriage in adjusted position on said gage bar, a rotatable eccentric shaft on which said screw is mounted, and means for holding said shaft to prevent disengagement of the screw and rack teeth.

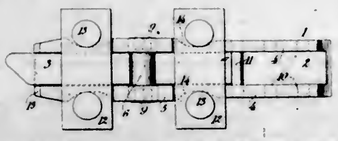
4. In a shear gage locking device, the combination with a horizontally extending gage bar having rack teeth in the lower surface thereof and a sliding carriage movable lengthwise on said bar, of means on said carriage for locking the carriage on said bar, said means comprising a screw arranged to engage said rack teeth to hold the carriage in adjusted position on said gage bar, a rotatable eccentric shaft on which said screw is mounted, means on said shaft whereby the shaft is turned to move the screw into and out of engagement with the rack teeth, and means for holding said shaft to prevent disengagement of the screw and rack teeth.

5. In a shear gage locking device, the combination with a horizontally extending gage bar having rack teeth in the lower surface thereof and a sliding carriage movable lengthwise on said bar, of means on said carriage for locking the carriage on said bar, said means comprising a screw arranged to engage said rack teeth to hold the carriage in adjusted position on said gage bar, a rotatable eccentric shaft on which said screw is rotatably mounted, and means whereby the screw is rotated on said eccentric shaft.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,810. TOOL-HOLDER. GEORGE AMBORN, Chapinville, Conn., assignor to J. H. Williams & Co., Brooklyn, N. Y., a Corporation of New York. Filed July 17, 1913. Serial No. 779,602. (Cl. 29—96.)



1. A tool holder comprising a body having a tool-receiving channel therein, and a cam extending across said channel and adapted to bear upon the upper side of a tool within said tool holder.

2. A tool holder comprising a body having a tool-receiving channel therein open at its top and extending from end to end of the tool holder, and a cam extending across said channel and adapted to bear upon the upper side of a tool within said tool holder.

3. A tool holder having bays on its sides adapted to partially receive bolts of a clamp and prevent longitudinal movement of the tool holder.

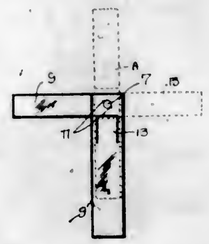
4. A tool holder comprising a body having a tool-receiving channel therein, a bottom wall, and side walls on two sides, said channel being open at its upper side to permit a cleat of a clamping device extending transversely across said tool body to press upon a tool in said channel.

5. A tool holder comprising a body having a tool-receiving channel therein, a bottom wall, and side walls on two sides, means for clamping a tool in position in said holder, said channel being open at its upper side to permit a cleat of a clamping device extending transversely across said tool body to press upon a tool in position in said holder.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,811. FOLDING SQUARE. BERT L. BRONSON, Blairsville, Pa., assignor of one-half to John S. Baughman, Blairsville, Pa. Filed July 30, 1913. Serial No. 782,108. (Cl. 33—117.)



The hereindescribed folding square comprising a body member consisting of a metal blade having an elongated longitudinally extending spring tongue cut therefrom adjacent one of its ends, an adjustable arm or blade pivotally connected to the body member adjacent the free end of the spring tongue and adapted to be disposed at right angles thereto or folded to lie in superposed relation to the body member, the free end of said spring tongue and the longitudinal edges of the adjustable blade at its pivoted end being beveled, the end of said tongue engaging one of the beveled edges of the blade and holding the same in a position at right angles to the body member, said blade when in its folded position being disposed longitudinally upon the body member over said tongue and held in such folded position by the frictional engagement of the tongue therewith.

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1,090,812. MAUSOLEUM. CECIL E. BRYAN, Chicago, Ill. Filed Oct. 27, 1913. Serial No. 797,609. (Cl. 72—7.)

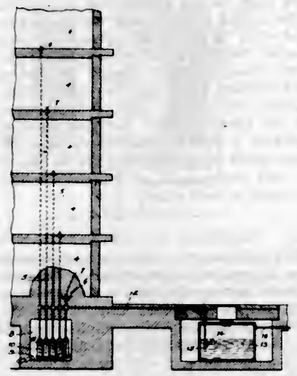
1. In a mausoleum, the combination with a crypt, of a downwardly extending combined drain and gas pipe, a liquid seal at the lower end of said pipe, a gas pipe directly connected with said first named pipe above the seal, and a second liquid seal for the open end of said gas pipe.

2. In a mausoleum, the combination with a crypt, of a downwardly extending pipe adapted to serve for the escape of fluids or gases from said crypt, a liquid seal at the lower end of said pipe, a second pipe connected with said first named pipe above the seal, and a liquid seal for the end of said second named pipe, the head of fluid in the second named seal being less than that in the first named seal whereby gases may escape from the crypt through said second named seal.

3. The combination with a sepulcher having means for tightly closing the same, of a pipe extending downwardly from the bottom thereof and adapted to serve as an exit for liquids or gases, a bed of disinfecting material at the lower end of said pipe, a branch pipe for gases connected with said pipe, and a tank having a disinfecting liquid therein into which said branch pipe leads.

4. In a structure of the character set forth, the combination of a plurality of vaults or crypts having means for tightly closing the same, of downwardly extending pipes from the bottoms of each of said vaults, receptacles into which the lower ends of each of said pipes project, branch pipes for gases leading from each of said pipes, a tank, and liquid in said tank into which the open ends of the branch pipes extend.



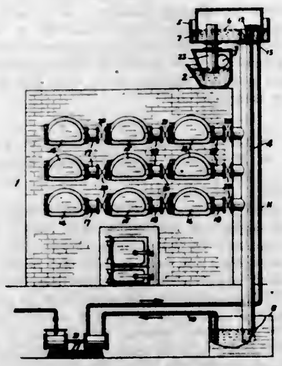


5. In a structure of the character set forth, the combination of a plurality of burial vaults having means for sealing the same, of downwardly extending pipes from the bottoms of each of said vaults, removable plugs or closures for the upper ends of each of said pipes, a drain pit in the bottom of the structure into which said pipes extend receptacles fitting over the lower ends of said pipes, gas outlet pipes connected with each of said first named pipes, and a tank having a disinfecting liquid therein into which the open ends of said gas outlet pipes extend, said receptacles being proportioned so that when liquid is poured therein the head of the liquid above the lower ends of the first named pipes will be greater than the head of the liquid in said tank above the discharge ends of said gas outlet pipes.

[Claim 6 not printed in the Gazette.]

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1,090,813. APPARATUS FOR THE MANUFACTURE OF COAL-GAS. RICHARD CROMWELL CONGDON, Atlanta, Ga. Filed Apr. 29, 1913. Serial No. 764,310. (Cl. 48—126.)



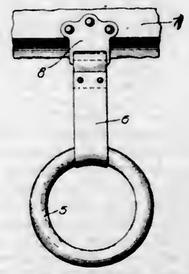
1. In apparatus for the manufacture of coal gas the combination of a group of retorts, a stand-pipe in communication with each of the retorts and extending past the retorts, liquid seals at and for the top and bottom of said stand-pipe common to all the retorts of the group, and means for supplying liquid through the stand-pipe past the retorts without entering the latter.

2. In apparatus for the manufacture of coal gas the combination of a retort, a stand pipe in communication with and extending above and below the retort, a tank or bell with which the stand-pipe connects and arranged to discharge overflow inside the stand pipe, and a liquid seal at the base of the stand pipe and below the retorts.

3. In apparatus for the manufacture of coal gas the combination of a retort, a stand pipe in communication with and extending above and below the retort, fluid seals for the top and bottom of the stand-pipe, means for supplying liquid downward through the stand-pipe and past the retort, and means for withdrawing gas from the retort upward through the stand-pipe.

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1,090,814. HANDHOLD FOR PASSENGERS. DWIGHT I. COOKE and EPHRAIM BANNING, Chicago, Ill., assignors to H. F. Keegan Company, Chicago, Ill., a Corporation of Illinois. Filed June 16, 1913. Serial No. 773,947. (Cl. 105—35.)



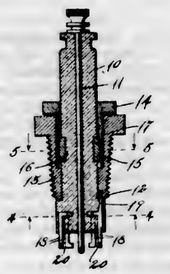
1. A device of the class described, consisting of a supporting loop and ring held freely within the same, said ring being arranged normally to assume a predetermined position within the loop, substantially as described.

2. A device of the class described consisting of a supporting loop, one portion of which is provided with a surface having germicidal properties, a ring held within said loop in contact with said germicidal surface and free to revolve thereagainst, the engagement of said germicidal surface with said ring being at one point only at any given time, substantially as described.

3. A device of the class described consisting of a supporting loop and ring held freely within the same, the periphery of said ring being constructed with a weighted portion, whereby it tends normally to assume a predetermined position within the said supporting loop, substantially as described.

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1,090,815. SPARK-PLUG. FRANK E. HARTER, Olympia, Wash. Filed July 26, 1912. Serial No. 711,682. (Cl. 123—169.)

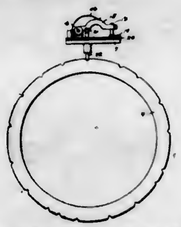


In a spark plug, a metallic base, a core of insulating material in said base, a straight central electrode in said

core having an exposed straight lower end terminating in a laterally directed spark point, and a second electrode comprising a circular series of T-shaped metallic pins concentrically arranged with respect to the exposed straight lower end of said central electrode and having parallel shanks extending longitudinally in said core and having arcuate exposed heads spaced apart with resultant spark gaps therebetween, the shank of one of said pins being longitudinally prolonged and terminally connected to said base, said spark point extending toward but not contacting with one of said heads.

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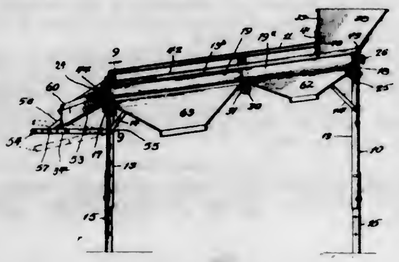
1,090,816. SIGNALING DEVICE. CHARLES HENSCHEL, New York, N. Y., assignor to Chas. Cory & Son, Inc., a Corporation of New York. Filed Apr. 18, 1910. Serial No. 556,009. (Cl. 177—348.)



As an article of manufacture a signaling device comprising a rotatable control disk provided on a side thereof with a plurality of concentric grooves whose ends slope gradually to the surface of the disk, a switch plate adjacent to and parallel with said control disk, a plurality of circuit controlling switches mounted upon said switch plate, and a series of pins slidably supported in said switch plate adjacent to said switches, and normal to the control disk and adapted to have their ends received by said grooves so as to actuate said switches, substantially as and for the purpose described.

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1,090,817. POTATO-SORTER. OTTO KNOERZER, Hammond, Ind., assignor to Champion Potato Machinery Company, Hammond, Ind., a Corporation of Indiana. Filed Sept. 12, 1912. Serial No. 719,917. (Cl. 130—32.)

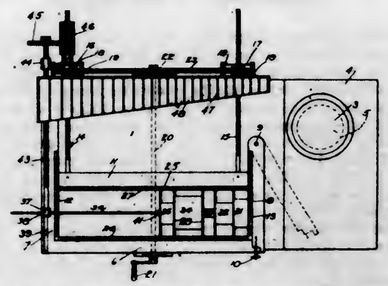


1. In a potato sorter, the combination of a supporting frame, a plurality of rotary potato sorting rolls, arranged in pairs, and extending in an inclined plane, said rolls being journaled upon said frame, roll driving mechanism including gearing for driving the rolls of each pair in opposite directions, inverted V shaped bars supported upon said frame and extending the full length of said rolls, there being one bar between the adjacent pairs of rolls, and an open bottomed hopper supported on said frame and located above the upper end portions of said rolls and bars, the forward frame wall of said hopper having portions extending down to and secured to said bars, and therebetween having discharge openings above the rolls of each pair for the discharge of potatoes.

2. In a potato sorter, the combination of a supporting frame having end frame members, one of said frame members being formed with upper and lower series of horizontal, elongated slots, the upper slots having transverse portions opening out through the upper edge of the frame member, bearing blocks carried by said slotted end frame member, bolts, one secured in each block and extending through one of the lower slots of said slotted end frame member, two shift bars, each having round and elongated slots formed therein and alternating with each other, the round slots of one bar registering with the elongated slots of the other, pins, one projecting from each bearing block and extending through the registering, round and elongated slots, means for moving said shift bars, and inclined rolls, one for each bearing block, said rolls having shafts, the upper ends of which are journaled in one frame member, and the lower ends of which are journaled in said bearing blocks and extend through the upper series of horizontal slots in the slotted frame member, and are capable of removal through the transverse portions of said slots.

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1,090,818. PROCESS OF JUSTIFYING WITH HOT METAL. RANDOLPH LANGSETH, Hammond, Ind., assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind., a Corporation of Indiana. Original application filed Sept. 27, 1912, Serial No. 722,710. Divided and this application filed May 26, 1913. Serial No. 769,855. (Cl. 22—202.)



1. The process of justifying which consists in forming about the cut a mold two of whose sides engage with the ends of the cut and project beyond the sides of the cut so as to leave a space on two opposed sides, and filling said spaces with the molten metal.

2. The process of justifying a piece of composition which consists in casting beside the same one or more detached justifying blocks.

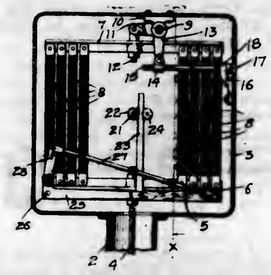
3. The process of justifying a piece of composition which consists in placing the same in a mold having a length equal to the piece of composition to be justified and a width equal to the width of the space in which the piece of composition is to be set in the typographical matter and then pouring molten metal into the mold beside the piece of composition.

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1,090,819. SCALE. ROBERT MCFARLANE, St. Paul, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill., a Corporation. Filed July 1, 1912. Serial No. 706,996. (Cl. 73—46.)

1. In a scale, the combination, with a scale rod, of a wooden bar connected thereto, a bell crank pivoted on one end of said bar, an indicator hand and dial, means operatively connecting one arm of said bell crank with said indicator hand, a rod pivotally connecting the other arm of said bell crank with the opposite end of said wooden bar, and springs connected with said wooden bar and arranged to be put under tension by the pull of said scale rod, said bell crank and its connections with said wooden bar compensating for the expansion and contraction of said springs, due to temperature changes.

2. In a scale, a rod for communication with the platform levers, a bar mounted thereon, coiled springs connected at one end to said bar and put under tension by the pull of said rod, an indicator hand and dial, a rack bar and pinion for operating said indicator hand, and mechanism operatively connecting said first named bar with said rack bar for compensating the expansion and contraction of said springs due to temperature changes.

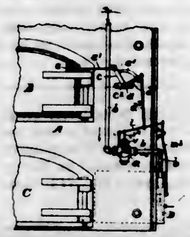


3. A scale comprising a rod for communication with the platform levers, parallel bars, coiled springs connected at their ends to said bars respectively, one of said bars being pivotally supported and the other connected to said rod, an indicator hand and scale therefor, a rack bar and pinion for operating said indicating hand, and compensating means including a member pivotally connecting one of said parallel bars with said rack bar, said compensating means counteracting the variation in said springs due to expansion and contraction with temperature changes.

4. In a scale, the combination, with a scale rod, of a bar connected thereto, a bell crank pivoted on said bar, an indicator hand and dial, a rack bar and pinion, said rack bar being connected to one arm of said bell crank, means pivotally connecting the other arm of said bell crank with said bar, and springs connected to said bar and adapted to be put under tension by the pull of said scale rod, said bell crank and its connections compensating for the expansion and contraction of said springs due to temperature changes.

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1,090,820. FIRING-DOOR-CONTROLLED FORCED-DRAFT BLOWER FOR STEAM-BOILER FURNACES. EARL R. MULCHAHEY, Providence, R. I., assignor to Draft Regulator Company, Providence, R. I., a Corporation of Maine. Filed Mar. 26, 1912. Serial No. 686,340. (Cl. 110—158.)

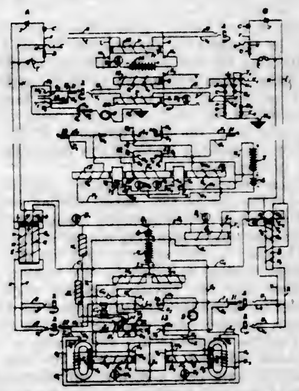


In a steam boiler furnace, the combination of a normally open steam valve arranged to receive a supply of steam from the boiler, means connected with said valve and with the fire door of the furnace arranged to close the valve upon opening said door, as in firing, a forced draft blower connected to and normally actuated by said valve, said blower having a controlled air inlet, means connected with an element of said valve-actuating device arranged to automatically cut off the supply of air to said blower simultaneously with the closing of the steam supply valve, and means arranged to open the respective air and steam passages to cause an inflow of steam and air into the blower concurrently with the act of closing the fire door, substantially as described.





1,090,821. TELEPHONE SYSTEM. FREDERICK R. PARKER, Chicago, Ill. Filed June 20, 1904. Serial No. 213,284. (Cl. 179—58.)



1. The combination with a telephone line and connection terminals therefor, of a signal-controlling electromagnet normally connected with the said line, a source of electricity also normally connected with the said line, a relay for disconnecting the said electromagnet and source of electricity from the said line, the said relay being included in the talking limbs of the said line, a cord circuit terminating in a connecting plug and adapted to be conductively connected to the line, a source of electricity associated with the said cord circuit and adapted to be bridged across the metallic circuit of the line, and means for conductively connecting the last-mentioned said source with the said included relay, when connection is made with the line, through a portion of the metallic circuit including the talking strands of the cord circuit, the main terminals of the connecting plug, the main terminals of the line, and a portion of the talking limbs of the telephone line, substantially as described.

2. The combination with a telephone line and connection terminals therefor, of a signal-controlling electromagnet normally connected with the said line, a relay for disconnecting the said electromagnet from the line and having windings included in the talking limbs of the line, a cord circuit terminating in a connecting plug and adapted to be conductively connected to the line, a source of electricity associated with the said cord circuit and adapted to be bridged across the metallic circuit of the line, and means for conductively connecting the said source with the windings of the said included relay, when connection is made with the line, through a portion of the metallic talking circuit including the talking strands of the cord circuit, the main terminals of the connecting plug, the main terminals of the line, and a portion of the talking limbs of the telephone line, substantially as described.

3. The combination with a telephone line, of connection terminals connected to the line, a signal-controlling electromagnet normally connected with said line, a relay for disconnecting said electromagnet from the line and included in both talking limbs of the line, a cord circuit terminating in a connecting plug and adapted to be placed in conductive relation with the line, a source of electricity associated with the said cord circuit and adapted to be connected to the line, and means for conductively connecting the said source with the said included relay, when connection is made with the line, through a portion of the talking circuit including the talking strands of the cord circuit, the main terminals of the connecting plug, the main terminals of the line, and a portion of the talking limbs of the telephone line, substantially as described.

4. The combination with a telephone line, of connection terminals connected to said line, a signal-controlling

electromagnet normally connected with the line, a relay for disconnecting said electromagnet from the line and having windings included in both talking limbs of the line, a cord circuit terminating in a connecting plug and adapted to be placed in conductive relation with the line, a source of electricity connected to the said cord circuit and adapted to be connected to the line, and means for conductively connecting the said source with the windings of said included relay, when connection is made with the line, through a portion of the talking circuit including the talking strands of the cord circuit, the main terminals of the connecting plug, the main terminals of the line, and a portion of the talking limbs of the telephone line, substantially as described.

5. The combination with a metallic telephone line, of connection terminals at the central station connected to the line, a signaling device normally connected to one limb of the telephone line, a signaling source of electricity normally connected to the opposite limb of the telephone line, a relay winding included in the talking circuit of the telephone line and having a switch under its control adapted to disconnect the said signaling device from the said line, another relay winding included in the talking circuit of the telephone line and having a switch under its control adapted to disconnect the said signaling source from the said line, a cord circuit terminating in a connecting plug and adapted to be placed in conductive relation with the said line, a talking source of electricity associated with the cord circuit and adapted to furnish the subscriber's station and said included relay windings with energizing current when connection is made with the line, and means for connecting the said talking source with the subscriber's station, through the talking circuit including the main strands of the cord circuit, the main terminals of the connecting plug, the line terminals, the said included relay windings and the limbs of the telephone line, substantially as described.

[Claims 6 to 71 not printed in the Gazette.]

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1,090,822. TONGUE-SWITCH. EDWIN H. STEEDMAN, St. Louis, Mo. Filed Jan. 17, 1914. Serial No. 812,648. (Cl. 104—115.)



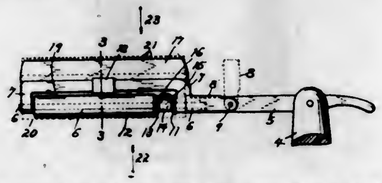
1. A tongue switch comprising a body part having wheel flange grooves and provided with a floor whose rear portion is located in a lower horizontal plane than the front portion of the floor, and a tongue provided at its heel end with a curved pivotal portion whose lower end rests on the rear portion of the floor of the body part, the lower end of said pivotal portion being wider than the horizontal distance between the inner edges of the wheel flange grooves in the body part of the switch.

2. A tongue switch comprising a body part having wheel flange grooves and provided with an undercut pocket whose bottom is flat and extends laterally underneath the portion in which said grooves are formed, a horizontal supporting surface arranged in advance of said pocket in a higher horizontal plane than the bottom of the pocket, a movable tongue resting on said supporting surface, and a depending pivotal portion at the heel end of the tongue conforming to the shape of said pocket and provided with a flat lower end that rests upon the floor of the pocket.

3. A tongue switch comprising a body part provided with wheel flange grooves, a floor on said body part made up of a front portion and a flat rear portion which is located in a lower horizontal plane than said front portion and extends laterally underneath the portions of said body part in which said wheel flange grooves are formed, a movable tongue resting on the front portion of said floor, and a tapered pivotal portion at the heel end of the tongue fitting in an undercut pocket in said body part and having its lower end projecting downwardly below the tongue proper and resting upon the flat rear portion of said floor.

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1,090,823. COMBINED RAZOR AND STROPPER. RAYMOND ALBERT WITTI, Chicago, Ill. Filed May 27, 1912, Serial No. 699,988. Renewed Aug. 14, 1913. Serial No. 784,826. (Cl. 30—12.)



1. A device of the kind described comprising a tang; a blade holder journaled on said tang; a roller journaled on said tang and connected with said blade holder to cause rotation thereof; a lock on said tang adapted to engage said blade holder to arrest rotation thereof to enable the device to be used for shaving, substantially as described.

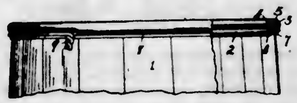
2. A device of the kind described comprising a tang; a spindle on said tang; a slitted substantially C-shaped blade holder pivotally mounted on said spindle; a roller journaled on said spindle between the pivotal ends of said blade holder; bevel gears connecting said blade holder and said roller; and a lock pivoted on said tang for arresting the rotation of said blade holder on said spindle to enable the same to be used for shaving, substantially as described.

3. A device of the kind described comprising a tang; a spindle on said tang; a slitted substantially C-shaped blade holder pivotally mounted on said spindle, said blade holder being longitudinally wedged shaped; a roller journaled on said spindle between the pivotal ends of said blade holder; bevel gears connecting said blade holder and said roller, a blade in the slit of said blade holder; a clamp mounted for sliding longitudinally on said blade holder to lock said blade therein; and a lock pivoted on said tang for arresting the rotation of said blade holder on said spindle to enable the same to be used for shaving, substantially as described.

4. A device of the kind described comprising a tang; a spindle on said tang; a blade holder journaled on said spindle; a roller journaled on said spindle between the end portions of said blade holder; bevel gears connecting said blade holder and said roller; a lock on said tang adapted to arrest the rotation of said blade holder on said spindle to enable the same to be used for shaving, substantially as described.

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1,090,824. CLOSURE FOR THE OPENINGS OF CONTAINERS. LOUIS O. BROWN and LEONHARD BAUROTH, Toledo, Ohio, assignors to The Metallic Barrel Company, Chicago, Ill., a Corporation of Maine. Filed June 26, 1909. Serial No. 504,453. (Cl. 220—1.)



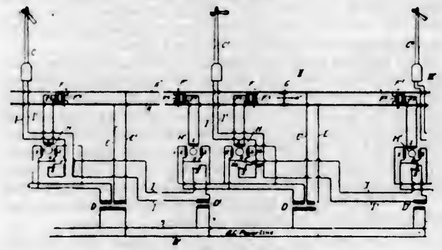
1. In a container of the class described, a ring having an end edge of the container wall wrapped thereabout and coöperating therewith to form a chime with an internal and external ridge, a pan-like closure fitted into said chime with its bottom disposed below the chime ridges and having its side wall embracing said chime with opposing portions drawn under the respective ridges, an expanding ring-like member disposed within the closure and seating within the portion thereof which is expanded outwardly under the inner chime ridge, and a ring-like member seating within the portion of the closure wall which is drawn inwardly under said external ridge, said members coöperating with each other and with the bead ring to form a rigid chime.

2. A container of the class described having an end edge of its body wall beaded to form its chime with an internal and external ridge, a pan-like closure fitted into said chime with its bottom disposed below the chime ridges and having its side wall embracing said chime with opposing portions drawn under the respective ridges in opposing contact with the container wall, an expanding ring disposed within the closure and seating within the expanded portion of the closure under the internal ridge, and a ring-like band drawn closely around the inwardly drawn portion of the closure wall whereby said expanding ring and band cause the portions of the closure wall against which they respectively seat to be held in opposing contact with the container wall below the edge bead thereof.



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1,090,825. RAILWAY SIGNALING SYSTEM. MICHAEL H. COLLINS, West Hoboken, N. J. Filed Mar. 5, 1913. Serial No. 752,059. (Cl. 246—36.)



1. In a railway block signal system, conductively continuous cross-bondless track rails of substantially uniform impedance, a source of electrical energy connected with the rails at each block, a pair of relay controlling transformers for each block, one of the transformers of each pair being located at the entrance end of a block and the other at the exit end thereof, each transformer having a primary coil and a secondary coil, the primary coil being connected with the said rails and having a resistance corresponding approximately to the resistance of the track rail portion between the adjacent transformers of adjacent blocks, and relays controlling the signal and connected with the said secondary coil of the said relay controlling transformers.

2. In a railway block signal system, conductively continuous cross-bondless track rails of substantially uniform impedance, a source of electrical energy connected with the rails at each block and with the polarity reversed for succeeding blocks, a pair of relay controlling transformers for each block, one of the transformers of each pair being located at the beginning end of the block and the other at the exit end thereof, each transformer having a primary coil and a secondary coil, the primary coil being connected with the said rails and having a resistance corresponding approximately to the resistance of the track rail portion between the adjacent transformers of adjacent blocks, and relays controlling the signal at the entrance of a block and connected with the said secondary coil of the relay controlling transformers of the same block.

3. In a railway block signal system, conductively continuous cross-bondless track rails of substantially uniform impedance, signal-controlling circuits, a source of electrical energy connected with the rails of a block, relays at opposite sides of the said source for jointly controlling one of said circuits, relay controlling transformers arranged at the ends of each block and each having a primary coil and a secondary coil, the primary coil being connected with the track rails, and having a resistance corresponding approximately to that of the length of the track rails between the adjacent transformers of adjacent blocks, and the secondary coil being connected with the corresponding relay.

4. In a railway block signal system, conductively continuous cross-bondless track rails of substantially uniform impedance, signal-controlling circuits, a source of electrical energy connected with the rails of a block, relays at opposite sides of the said source for jointly controlling one of said circuits, relay controlling transformers arranged at the ends of each block and each having a primary coil and a secondary coil, the primary coil being connected with the track rails and having a resistance corresponding approximately to that of the length of the track rails between the adjacent transformers of adjacent blocks, and the secondary coil being connected with the corresponding relay, one of said relays having two parts, one of said parts being controlled by the other part to open and close said circuit in response to said other part, and a signal operated by said signal circuit.

5. In a railway block signal system, conductively continuous cross-bondless track rails of substantially uniform impedance, a source of electrical energy connected with the track rails at each block, a signal at the beginning end of each block, two relays for each signal, and relay controlling transformers at the entrance and exit ends of each block, each transformer having a primary coil and a secondary coil, of which the primary coil is connected with the track rails and has a resistance corresponding approximately to that of the portion of the track rails between the entrance transformer of one block and the exit transformer of the adjacent block in the rear, the said secondary coil of a signal being connected with one of the relays for this signal.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,826. GLOVE, MITTEN, OR THE LIKE. ERVIN C. HUNTER, Galesburg, Ill. Filed June 6, 1913. Serial No. 772,150. (Cl. 2—9.)



1. A glove comprising a body, a finger secured thereto, and a pocket wall secured to said body and finger but unsecured at that portion of its border which is directed toward the thumb.

2. A glove comprising a body and fingers, and a pocket wall secured to said body and to one of said fingers, but one portion of its border unsecured to either, and a reinforce piece secured to another of said fingers to prevent it from wear.

3. A glove comprising an elastic back portion, a front portion of less elastic material secured thereto, a finger secured to said back and front portions, and a pocket wall secured to said front and finger but unsecured at that portion of its border which is directed toward the thumb of the wearer.

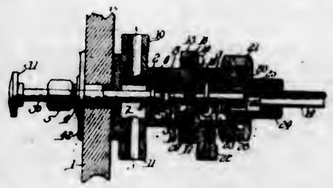
4. A glove comprising a body and a finger, and a pocket wall secured on one of its faces to said body and on its other face to said finger, one portion of its border being free.

5. A glove comprising a body and a centrally arranged finger, and a pocket wall secured to the palm of said body

and to said finger, said securement being at all portions of the border of the pocket wall excepting the one toward the thumb side of said body, where it is free and whereby a pocket is provided.

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1,090,827. DISTRIBUTING-VALVE. CARL E. L. LIPMAN, Beloit, Wis., assignor to The Lipman Manufacturing Company, Beloit, Wis., a Corporation of Wisconsin. Filed July 5, 1912. Serial No. 707,901. (Cl. 123—179.)



1. A device of the character set forth, comprising a passage leading from an air storage-tank to a starting device, a check-valve located in the passage, a manually operated valve located in the passage to the side of said check-valve nearest the starting device, and an opening in the passage intermediate said valves and communicating with an air-pump, the opening of said manually operated valve unseating the check-valve and opening the passage from the storage-tank to the starting device.

2. A device of the character set forth, comprising a passage leading from an air storage-tank to a starting device, a check-valve located in the passage, a manually operated valve located in the passage to the side of said check-valve nearest the starting device, an opening in the passage to the side of said manually operated valve nearest the starting device and leading to an air-pump, and an opening leading from the air-pump and communicating with said passage at a point intermediate said valves, the opening of said manually operated valve unseating the check-valve and opening the passage from the storage-tank to the starting device, and also communicating the storage-tank with the air-pump through said opening leading to the air-pump.

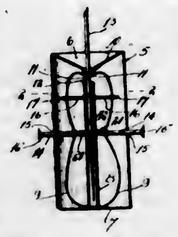
3. A device of the character set forth, comprising a passage leading from an air storage-tank to a starting device, a check-valve located in said passage at the inlet side thereof from said storage-tank, openings in said passage leading to and from an air-pump, a manually operated valve located in the passage, closing the passage at a point between said air-pump openings; the manually operated valve being adapted to unseat said check-valve and allow air to pass from the storage-tank to the starting device and also to the air-pump.

4. A device of the character set forth, comprising a casing having three compartments, a check-valve located in one end compartment and yieldingly held closed, a manually operated valve located in the center compartment, and an opening leading from the remaining compartment to a starting device; the manually operated valve being adapted to unseat said check-valve and allow air to pass to said starting device.

5. A device of the character set forth, comprising a casing having three compartments, a check-valve located in one end compartment and yieldingly held seated, an opening leading from said end compartment to a storage-tank, a manually operated valve located in the center compartment, an opening leading from the center compartment to the exhaust of an air-pump, and an opening in the remaining compartment leading to said air-pump; the actuation of said manually operated valve unseating said check-valve and allowing air to pass from said storage-tank to the said remaining compartment and thence to said air-pump, causing the air-pump to operate and furnish new air to the storage-tank by way of the center compartment opening and thence through the check-valve.

[Claims 6 and 7 not printed in the Gazette.]

1,090,828. HAT-PIN GUARD. VICTOR MICHET, Knife River, Minn. Filed May 20, 1913. Serial No. 768,897. (Cl. 24—155.)



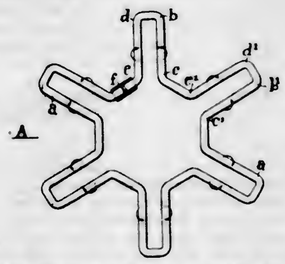
1. A hat pin guard comprising a casing, a tubular member disposed within the casing and terminating short of the receiving end thereof, leaf springs disposed within the casing and provided with jaw portions for engaging the pin outwardly of the tubular portion, arms extending outwardly from the receiving end of the tubular member and provided with portions slidably engaging the springs, and pins slidably passed through the casing and secured to the springs rearwardly of the said arms.

2. A hat pin guard comprising a casing, a tubular member disposed within the casing, leaf springs disposed on each side of the member and provided with jaw portions for engaging the pin adjacent the receiving end of the tubular portion, arms extending outwardly from the receiving end of the tubular member and provided with portions slidably engaging the springs, pins slidably passed through the casing and secured to the springs rearwardly of the said arms and expansible springs disposed between the springs and the tubular portion.

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# REISSUES.

13,699. METAL SPRING. LUC LÉON BASILE DENIS, Paris, France. Filed Nov. 6, 1913. Serial No. 799,619. Original No. 1,008,794, dated Nov. 14, 1911, Serial No. 475,904. (Cl. 74—68.)



1. A spring formed from a rod of metal bent into star-shape with double arms, the side members of which are straight and incline upwardly and inwardly, whereby a conical torsional spring is produced.

2. A spring formed of a single piece of wire bent into star-shape with double arms having its ends united in one of the connecting portions of said arms, the side members of the arms being straight and inclined upwardly and inwardly.

3. A spring comprising a ring-like body and a plurality of arms projecting from said body, the whole being formed from a single piece of wire having its ends united and each arm including two side members lying in the same plane, the outer ends of said arms and said ring-like body being relatively movable in the direction of the axis of said ring-like body when said spring is in use and said movement being resisted by torsional stresses set up in the portions of the wire forming the side members of said arms.

4. A spring formed of a single piece of wire bent into star shape with double arms, said wire having its ends united in one of the connecting portions of said arms, the two side members of each of said arms lying in the same plane and all of said members being subjected to torsional stresses upon a relative movement of the inner and outer ends of said arms in a direction of the axis of the star-shaped spring.

5. A spring formed of a single piece of wire bent into star shape with double arms having its ends united in one of the connecting portions of said arms, the side members of said arms being substantially straight, and the opposite ends of said arms being adapted to engage with bodies relatively movable in the direction of the axis of said star, said movement being resisted by resulting torsional stress to which the side members of said arms are subjected.

6. A spring formed from a rod of metal bent into star shape with double arms, the side members of which are substantially straight and the opposite ends of said arms being adapted to engage with bodies relatively movable in the direction of the axis of said star, said movement being resisted by resulting torsional stress to which the side members of said arms are subjected.

7. A spring including a plurality of substantially straight rods, each rod having portions integral therewith at opposite ends and at an angle thereto and at an angle to each other, the portions at one end of all of said rods lying in one plane and the portions at the opposite ends of all of said rods lying in a plane, said rods being subjected to torsional stresses upon a relative movement of one set of end portions toward and from the plane of the other set of end portions, the oppositely acting forces being applied at the ends of said rods.

8. A spring including a plurality of substantially straight and substantially radially disposed rods, each rod being connected to one adjacent rod at the inner end and to the other adjacent rod at the other end, the inner ends of all of said rods being disposed in one plane and the outer ends of all of said rods being disposed in another plane, the opposite ends of said rods being adapted to engage with bodies relatively movable in the direction of the axis of the spring, said movement being resisted by the resulting torsional stress to which said rods are subjected.

9. A spring including a plurality of substantially straight and substantially radially disposed rods, each having portions integral therewith at opposite ends and at an angle thereto and at an angle to each other, the angular portions at the inner ends of all of said rods being disposed in one plane and the angular portions at the outer ends of all of said rods being disposed in another plane, the opposite ends of said rods being adapted to engage with separate bodies relatively movable in the direction of the axis of said spring, said movement being resisted by the resulting torsional stress to which said rods are subjected.

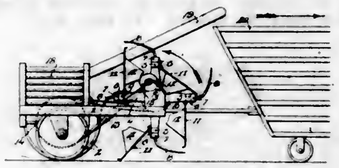
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13,700. SHOCK-LOADER. PATRICK J. DONOVAN, Collins, Wis. Filed Nov. 18, 1912. Serial No. 732,174. Original No. 1,032,124, dated July 9, 1912, Serial No. 643,174. (Cl. 56—61.)

1. In a shock loader of the class described, the combination with a frame supported on wheels; of a reel rotatably mounted thereon, a plurality of sectional bars hingedly carried on the periphery of said reel, the sections of said bars being arranged end to end thereon, a plurality of teeth carried on the sectional bars, and means to yieldingly retain said sectional bars in position on the reel.

2. In a shock loader of the class described, the combination with a frame supported on wheels; of a reel rotatably mounted on said frame, a plurality of sectional bars hingedly carried on said reel, the sections of said bars being arranged end to end thereon, teeth carried on said sectional bars and a plurality of spring members co-operating with said sectional bars to yieldingly support the same on the reel.





3. In a shock loader of the class described, the combination with a frame supported on wheels; of a reel rotatably mounted on said frame, a plurality of sectional bars hingedly mounted on the periphery of said reel, the sections of said bars being arranged end to end thereon, a plurality of teeth carried on each of said bars and a plurality of spring members adapted to coöperate with the sections of said bars to yieldingly support the same on the reel, each spring member co-acting with a pair of sections of bars arranged on opposite sides of the reel.

4. In a machine of the class described, the combination with a frame supported on wheels; of a reel rotatably supported on the frame, a plurality of teeth carried on said reel and arranged in rows thereon, and a plurality of plates hingedly carried on said reel and in position to coöperate with the rows of teeth thereon.

5. In a device of the class described, the combination with a frame supported on wheels; of a reel rotatably mounted thereon, said reel comprising a central shaft, radial bars and peripheral bars, sectional bars hingedly carried on the peripheral bars of said reel, the sections thereof being arranged end to end thereon, teeth carried on said sectional bars and spring bars coöperating with said sectional bars to yieldingly support the same on said reel, each spring bar coacting with sections of bars arranged on the opposite peripheral bars of the reel.

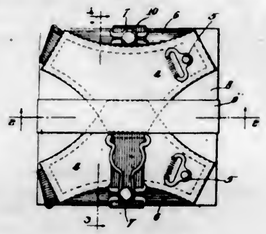
6. In a device of the class described, the combination with a frame supported on wheels; of a reel rotatably carried on said frame comprising a central shaft, radial bars and peripheral bars, sectional bars hingedly mounted on said peripheral bars and having the sections thereof arranged end to end thereon, teeth carried on said sectional bars, a plurality of coil springs disposed across the central shaft of the reel, spring strips having one of their ends engaged with the springs, the opposite ends of said strips being secured to sectional bars arranged on the opposite peripheral bars of the reel and means to revolve said reel.

7. In a device of the class described, the combination with a frame supported on wheels; of a reel rotatably mounted thereon, said reel comprising a central shaft, radial bars and peripheral bars, a plurality of sectional bars hingedly carried on said peripheral bars and having the sections thereof arranged end to end thereon, teeth carried on the sectional bars, coil spring bars resting across said central shaft, spring strips engaged with the ends of said spring bars and also secured to sectional bars arranged on the opposite peripheral bars of the reel, and a plurality of plates also hingedly carried on said reel and adapted to coöperate with the teeth thereon.

8. In a device of the class described, a reel comprising a central shaft, radial bars thereon, horizontal peripheral bars secured to the ends of said radial bars, a plurality of sectional bars hingedly secured to the outer faces of said peripheral bars, picker teeth carried on said sectional bars, and means to yieldingly retain said sectional bars in their normal positions against the outer faces of the peripheral bars.

9. A reel of the class described, comprising a central shaft, radial bars thereon, horizontal peripheral bars secured to said radial bars, rows of teeth carried on the peripheral bars, and a plate hingedly carried on each of said peripheral bars and in position to coöperate with the teeth on the succeeding bar as said reel is revolved.

13,701. GARTER-PACKAGE. FRANK A. FREEMAN, Overbrook, Pa., assignor to Pioneer Suspender Company, a Corporation of Pennsylvania. Filed Feb. 5, 1914. Serial No. 816,855. Original No. 1,082,265, dated Dec. 23, 1913, Serial No. 616,614. (Cl. 206—46.)



A package comprising a substantially square card, a pair of pad garters, each having the leg band folded back of the pad, the garters so assembled that the clasp end of one pad superimposes the clasp end of the other, the button of one clasp projecting approximate the curved top of the other pad, the said curved tops of the pads lying along the opposite parallel margins of the card, and a retainer for securing the garters to the card midway said opposite parallel card margins.

# DESIGNS.

45,407. IGNITER. LOUIS V. ARONSON, Newark, N. J. Filed Jan. 16, 1914. Serial No. 812,607. Term of patent 7 years.



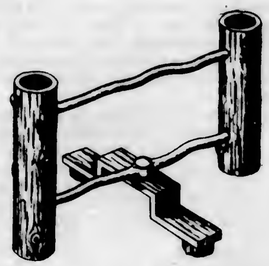
The ornamental design for an igniter as shown and described.

45,408. PLOW-CLEANER. JOHN BECKER, Marengo, Iowa. Filed Jan. 15, 1914. Serial No. 812,847. Term of patent 14 years.



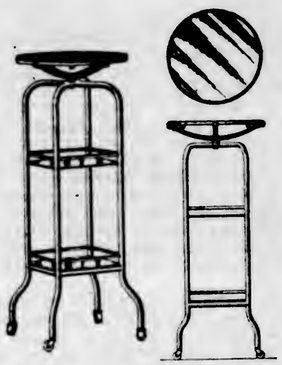
The ornamental design for a plow cleaner, as shown.

45,409. FLOWER-HOLDER. ARTHUR E. BOND, Chicago, Ill. Filed June 16, 1913. Serial No. 774,044. Term of patent 7 years.



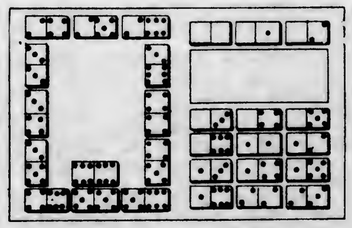
The ornamental design for a flower holder, as shown.

45,410. TABLE. ALLEN G. CLAMPITT, Two Rivers, Wis., assignor to The Hamilton Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed Jan. 12, 1914. Serial No. 811,766. Term of patent 7 years.



The ornamental design for a table, as shown.

45,411. COMPOSITION OR BLANK BOOK COVER. WARREN V. DARLING, New York, N. Y. Filed Oct. 8, 1913. Serial No. 794,173. Term of patent 3½ years.



The ornamental design for a composition or blank book cover, as shown.

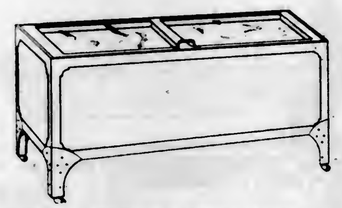


45,412. SHOE. HARRY G. DEAN, Cleveland, Ohio. Filed Apr. 18, 1913. Serial No. 762,122. Term of patent 7 years.



The ornamental design for a shoe, as shown.

45,413. DISPLAY-CABINET FOR FISH AND OTHER FOODS. CHARLES DOERING, Jr., Chicago, Ill. Filed Oct. 20, 1913. Serial No. 796,348. Term of patent 7 years.



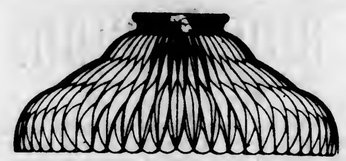
The ornamental design for a display cabinet for fish and other foods, substantially as shown.

45,414. POST-CARD. SYLVESTER DUGAN, Tarentum, Pa. Filed Jan. 21, 1914. Serial No. 813,590. Term of patent 3½ years.



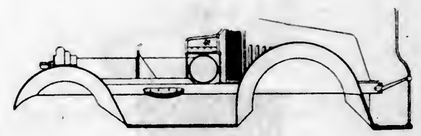

The ornamental design for a post card, as shown.

45,415. LAMP-SHADE. HOWARD S. EVANS, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 14, 1912. Serial No. 736,847. Term of patent 14 years.



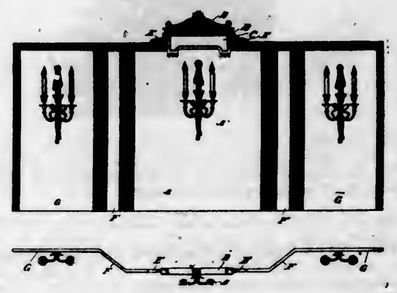
The ornamental design for lamp shade as shown.

45,416. AUTOMOBILE FIRE-ENGINE BODY. HERMAN G. FARR, Springfield, Mass. Filed Jan. 17, 1914. Serial No. 812,854. Term of patent 14 years.



The ornamental design for automobile fire engine body, as shown.

45,417. DISPLAY-BOARD. FRANK J. GOLDSOLL, New York, N. Y., assignor to M. Tecla & Company, a Corporation of New York. Filed Mar. 14, 1912. Serial No. 683,864. Term of patent 14 years.



The ornamental design for a display board having the panels and candelabra substantially as shown and described.

45,418. BRIDGE FOR SPECTACLES AND EYEGLASSES. ROBERT R. HALL, Millbrae, Cal. Filed Aug. 10, 1912. Serial No. 714,477. Term of patent 14 years.



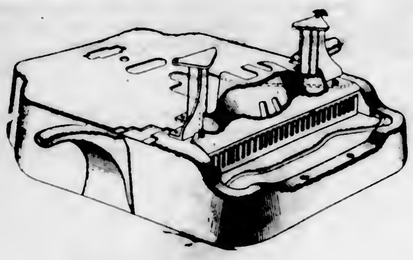
The ornamental design for a bridge for spectacles and eyeglasses, as shown.

45,419. KNITTED MILLINERY FABRIC. JACOB A. HARTENSTEIN, Philadelphia, Pa., assignor to Lipper Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 10, 1913. Serial No. 805,856. Term of patent 3½ years.



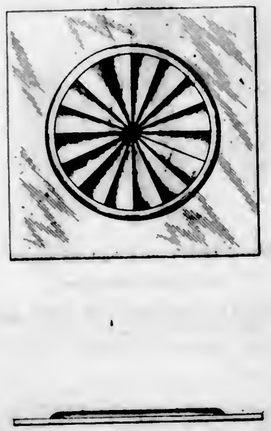
The ornamental design for a knitted millinery fabric, substantially as shown and described.

45,420. TYPE-WRITING-MACHINE FRAME. CLAYTON C. HARTING and THERON L. KNAPP, Woodstock, Ill., assignors to The Oliver Typewriter Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 26, 1914. Serial No. 814,599. Term of patent 14 years.



The ornamental design for a typewriting machine frame, as shown.

45,421. COMBINED PAINT PRODUCT AND PALETTE. JOHN W. HASSUM, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 660,149. Term of patent 14 years.



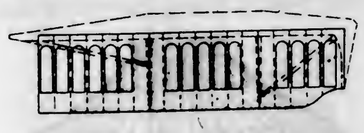
The ornamental design for a combined paint product and palette, as shown.

45,422. LACE. MAX HENKELS, Langerfeld, near Barmen, Germany. Filed Dec. 19, 1913. Serial No. 807,800. Term of patent 14 years.



The ornamental design for lace as shown.

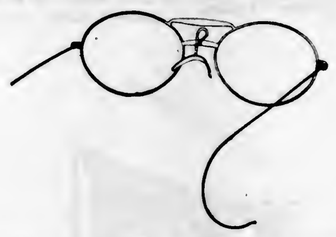
45,423. AUTOMOBILE-CURTAIN. FRANK H. ILSE, Detroit, Mich. Filed Apr. 24, 1913. Serial No. 763,452. Term of patent 14 years.



The ornamental design for an automobile curtain comprising a multiplicity of long and narrow panels adjoining each other at their sides, a number of the said long and narrow panels being provided with long and narrow windows, substantially as shown and described.

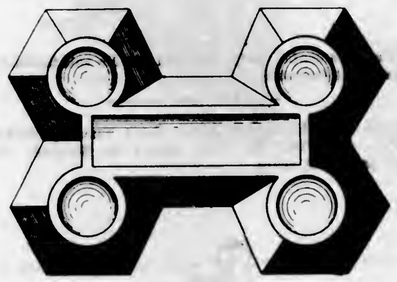


45,424. SPECTACLES. FREDERICK W. KING, Cleveland, Ohio. Filed Nov. 26, 1912. Serial No. 733,537. Term of patent 7 years.



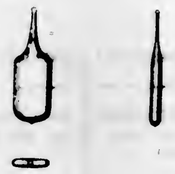
The ornamental design for spectacles substantially as shown.

45,425. PAPER-WEIGHT. ALFRED J. KULL, Far Hills, N. J. Filed Jan. 7, 1914. Serial No. 810,886. Term of patent 7 years.



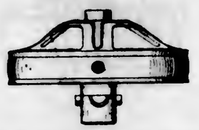
The ornamental design for a paperweight as shown.

45,426. AMPULE. JACOB LEON LASCOFF, New York, N. Y. Filed Dec. 27, 1913. Serial No. 809,134. Term of patent 7 years.



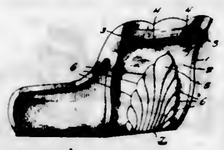
The ornamental design for an ampule as shown.

45,427. INVERTED-GAS-BURNER CROWN. LOUIS B. LONDON, New York, N. Y. Filed Jan. 17, 1914. Serial No. 812,856. Term of patent 7 years.



The ornamental design for an inverted gas burner crown, as shown.

45,428. BUGGY-SEAT. CHARLES O. MAENER, Owensboro, Ky. Filed Dec. 15, 1913. Serial No. 806,935. Term of patent 7 years.



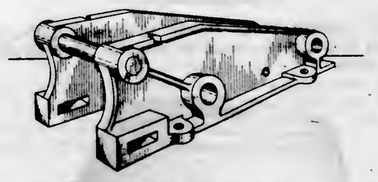
The ornamental design for a buggy seat as shown and described.

45,429. PAPER SHEET OR SIMILAR ARTICLE. CLARA L. MEAD, Rahway, N. J., assignor to Dennison Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 19, 1914. Serial No. 813,116. Term of patent 14 years.



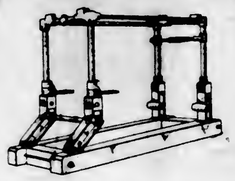
The ornamental design for a paper sheet or similar article, substantially as shown and described.

45,430. FRAME FOR CRUSHERS. EDWARD H. MOYLE, Los Angeles, Cal. Filed Dec. 23, 1913. Serial No. 808,503. Term of patent 14 years.



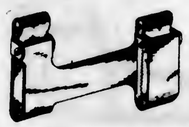
The ornamental design for a frame for crushers, as shown.

45,431. CONCENTRATOR-FRAME. EDWARD H. MOYLE, Los Angeles, Cal. Filed Jan. 19, 1914. Serial No. 813,118. Term of patent 14 years.



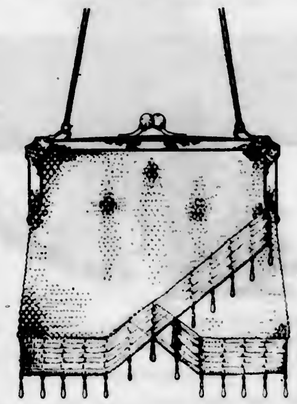
The ornamental design for a concentrator frame, as shown.

45,432. SHOE-CLASP. JOHN F. REEDER, Shelbyville, Ill. Filed Jan. 17, 1914. Serial No. 812,853. Term of patent 7 years.



The ornamental design for a shoe clasp as shown.

45,433. MESH-BAG. WILLIAM H. SAART, Attleboro, Mass., assignor to The W. H. Saart Company, a Corporation of Massachusetts. Filed Jan. 14, 1914. Serial No. 812,147. Term of patent 3½ years.



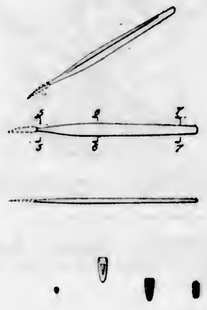
The ornamental design for a mesh bag, as shown.

45,434. INCUBATOR. HENRY M. SHEBB, Quincy, Ill. Filed Dec. 2, 1913. Serial No. 804,325. Term of patent 14 years.



The ornamental design for an incubator, as shown.

45,435. TOOL-HANDLE. EDWARD F. SIMPSON, Jr., Oak Lane, Pa., assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 26, 1913. Serial No. 803,341. Term of patent 14 years.



The ornamental design for tool handle substantially as shown and described.

45,436. NAPKIN-HOLDER. ROSE THAMM, Berkeley, Cal. Filed Dec. 15, 1913. Serial No. 806,943. Term of patent 3½ years.



The ornamental design for a napkin-holder, as shown.

45,437. GARMENT-HANGER. ROSE THAMM, Berkeley, Cal. Filed Dec. 15, 1913. Serial No. 806,944. Term of patent 3½ years.



The ornamental design for a garment hanger, substantially as shown.

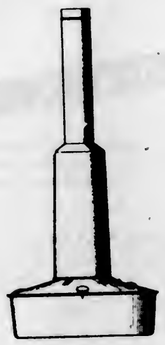


45,438. CUFF-BUTTON TRAY. EARL UNDERWOOD, New York, N. Y., assignor to Krements & Co., a Copartnership of George Krementz and Carl H. Lebkuecher, Newark, N. J. Filed Nov. 17, 1913. Serial No. 801,540. Term of patent 7 years.



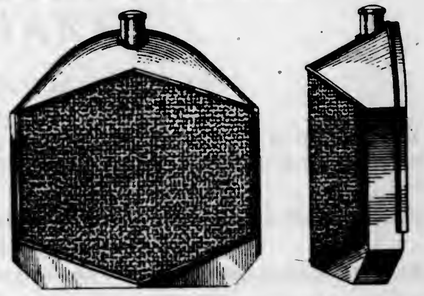
The ornamental design for a cuff button tray, as shown.

45,439. HEATER. THEODORE C. VERMILYE, Ontario, and DAVID BLAIKIE HISLOP, Upland, Cal. Filed July 2, 1913. Serial No. 777,089. Term of patent 7 years.



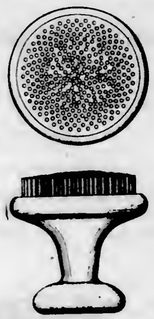
The ornamental design for a heater as shown.

45,440. AUTOMOBILE RADIATOR-CASING. GARDNER E. WHEELER, New Haven, Conn., assignor to The English & Mersick Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 15, 1914. Serial No. 812,350. Term of patent 14 years.



The ornamental design for an automobile radiator casing, substantially as shown.

45,441. RUBBER-NEEDLE MASSAGE-BRUSH. BRADFORD L. WILLIAMS, Camden, N. J. Filed Nov. 5, 1913. Serial No. 799,403. Term of patent 3½ years.



The ornamental design for a rubber needle massage brush, as shown and described.

45,442. TICKET-BOOTH. WILLIAM YARGER, New York, N. Y., assignor to Strauss & Co., Inc., New York, N. Y. Filed Nov. 21, 1913. Serial No. 802,318. Term of patent 7 years.



The ornamental design for a ticket booth as shown.

# TRADE-MARKS

## PUBLISHED MARCH 17, 1914.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 39,859. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR ATWATER KENT, Philadelphia, Pa. Filed Jan. 13, 1909.

**UNISPARKER**

*Particular description of goods.*—Contact-Makers for the Sparking Circuits of Internal-Combustion Engines.
*Claims use* since on or about Dec. 10, 1908.

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Ser. No. 42,348. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) MT. CLEMENS MINERAL SPRINGS WATER CO., Mount Clemens, Mich. Filed May 10, 1909. Under ten-year proviso.

BITTER WATER

*Particular description of goods.*—Mineral Water.
*Claims use* since January, 1886.

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Ser. No. 40,704. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADVANCE PHARMACAL CO., New York, N. Y. Filed May 13, 1910.

ELIAX

*Particular description of goods.*—Candy Tablets for Liver and Stomach Troubles.
*Claims use* since August, 1904.

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Ser. No. 51,642. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CRESCENT FORGE & SHOVEL CO., Havana, Ill. Filed Aug. 31, 1910.



*Particular description of goods.*—Seeder-Points, Grain-Drill Points, and Planter-Shoes.
*Claims use* since 1903.

Ser. No. 51,962. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DE VASHER MANUFACTURING AND SUPPLY COMPANY, Kansas City, Mo. Filed Sept. 26, 1910.

**The Cleaners Friend**

*Particular description of goods.*—Laundry Detergent Liquids.
*Claims use* since Feb. 20, 1909.

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Ser. No. 54,495. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. H. HAVILAND, Elizabeth, N. J. Filed Feb. 14, 1911.




No claim being made to the surname "Burlis."
*Particular description of goods.*—An External Remedy for Acute Eczema, Chronic Eczema, and Salt-Rheum.
*Claims use* since Dec. 1, 1910.

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Ser. No. 56,190. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) J. L. STIFEL & SONS, Wheeling, W. Va. Filed May 5, 1911.



*Particular description of goods.*—Cotton Piece Goods.
*Claims use* since Dec. 10, 1909.

Ser. No. 58,084. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE HENDEE MANUFACTURING CO., Springfield, Mass. Filed Aug. 8, 1911.

INDIAN

*Particular description of goods.*—Self-Propelled Vehicles, Bicycles, and Motor-Cycles, Spring-Forks, Pedals, Foot-Rests, Grips, Tandem Attachments, Luggage-Carriers.
*Claims use* since about the 1st day of January, 1898.

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Ser. No. 58,426. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HARING COMPANY, Philadelphia, Pa. Filed Aug. 28, 1911.



*Particular description of goods.*—Cough-Syrup, Headache and Neuralgia Powders, Cholera and Dysentery Cordial, Eye-Water, Liver-Granules, Hair-Restorer, Liniment, Uterine Tablets, Tooth-Powder, Neuralgia and Toothache Pills, Tooth-Wash, Digestive and Nerve Tonic, Worm-Candy, Fig-Syrup for Constipation, Antiseptic Salve, Complexion-Cream, and Plasters for Truss Users; Remedies for Rheumatism, Catarrh, Sore Throat, Asthma, Corns, Whooping-Cough, Offensive Perspiration and Colds, and Remedies for Diseases of the Skin, Genital Organs, Urinary Organs, Kidneys, Bladder, and Liver.
*Claims use* since May 21, 1910.

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Ser. No. 60,484. (CLASS 39. CLOTHING.) MILLS & GIBB, East Orange, N. J., and New York, N. Y. Filed Dec. 28, 1911.

Ronsard

The trade-mark consists of the "fanciful" name "Ronsard."
*Particular description of goods.*—Gloves.
*Claims use* since about Nov. 1, 1911.

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Ser. No. 60,551. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHAS. R. LONG JR. CO., Louisville, Ky., and Chicago, Ill. Filed Jan. 2, 1912.



*Particular description of goods.*—Mixed Paints.
*Claims use* since the 24th day of November, 1911.

Ser. No. 60,768. (CLASS 39. CLOTHING.) A. SHUMAN & Co., Boston, Mass. Filed Jan. 12, 1912. Under ten-year proviso.

"WEAR RESISTER"

*Particular description of goods.*—Boys' Coats, Trousers, Vests, Overcoats, Caps, Sweaters, Shirts and Undershirts, Drawers, and Union Suits.
*Claims use* since October, 1879.

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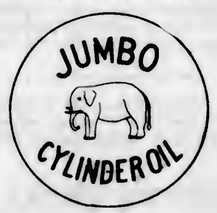
Ser. No. 60,801. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BIRDSEY-SOMERS CO., New York, N. Y. Filed Jan. 15, 1912.

PRIMO BONE

No claim being made to the word "Bone."
*Particular description of goods.*—Corset-Steels.
*Claims use* since Sept. 5, 1911.

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Ser. No. 61,515. (CLASS 15. OILS AND GREASES.) ABRAHAM WALTER HARRIS, Providence, R. I.; Annie Corey Harris, Warwick, R. I., and Seeber Edwards, Providence, R. I., executors of said Abraham Walter Harris, deceased, assignors to A. W. Harris Oil Company, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 15, 1912. Under ten-year proviso.




*Particular description of goods.*—Lubricating-Oils.
*Claims use* since Mar. 1, 1894.

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Ser. No. 61,696. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. J. STRASSENBURGH COMPANY, Rochester, N. Y. Filed Feb. 23, 1912.



*Particular description of goods.*—Chemicals, Medicines, and Pharmaceutical Products, Such as Digestive Tablets, Heroin and Terpin Hydrate, Morphin Sulfate, Chromium Sulfate, Copper Arsenite, Santonin and Calomel, Dover's Powder, Calomel and Phenolphthalein, Calomel and Sodium Bicarbonate, Ammonium Chlorate and Codein, Hexamethylenetetramin, Sodium Salicylate, Rhubarb and Ipecac Compound, Codein Sulfate, Aloin and Cascarin Compound, Acetanilid and Sodium Compound, Urinary Antiseptics, Fluid Extract of Sandalwood, Fluid Extract of Nux Vomica, Acetic; Fluid Extract of Nux Vomica; Antiseptic Preparations; a Remedy for Coryza, Compounds of Camphor, Hyoscyamus, and Valerian; a Remedy for Migraine, Hydrogen Peroxid, Quaiacum, Echinacea Compound, a





Remedy for Rhinitis, Magnesia Salicylate, Rhubarb Compound, Intestinal Antiseptic, Extract of Lobelia-Herb, Extract of Lavender Compound, Extract Jamaica Dogwood, Extract Jamaica Ginger, Medical Compounds for the Treatment of Obesity, Tonsilitis, Grip, Gonorrhea, Rheumatism, Cholera, Throat Troubles, and Pulmonary Diseases; Cough-Syrup, Bladder, Kidney, and Liver Remedies; Eye-Washes, Elixir for Administering Nauseous Drugs, Laxatives and Cathartics, Dyspepsia-Tablets, Sedatives, Corrective Medicines for Infants; Heart, Nerve, Blood, Liver, and Digestive Tonics; Stimulants and Expectorants, Liniments for External and Internal Use, Headache and Nasal Creams, Blistering-Ointment, Ointments for Chapped Hands and Diseases of the Skin, Astringents, Vaginal Suppositories, and Vaginal Douche-Powder.
*Claims use* since Dec. 1, 1911.

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Ser. No. 62,648. Renewal. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JOSEPHINE L. HIBBS, Philadelphia, Pa.; William L. Levis, Charles U. Levis, and Thomas J. Close executors of said Josephine L. Hibbs, deceased. Filed Apr. 14, 1912.




I hereby disclaim any exclusive right to the use of the words "Boiler" and "Trade-Mark."
*Particular description of goods.*—Range-Boilers, Bath-Boilers, and Hot-Water Generators.
*Claims use* since Aug. 5, 1881.

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Ser. No. 63,522. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ALEX D. SHAW & CO., New York, N. Y. Filed May 14, 1912.



The trade-mark consists of the arbitrary symbol of the head of a saint on a shield with three fleurs-de-lis and the letters "S. M."
*Particular description of goods.*—Brandy.
*Claims use* since the 10th day of December, 1859.

Ser. No. 65,269. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) YOUNG MANUFACTURING COMPANY, Seattle, Wash. Filed Aug. 14, 1912.



The words "Sweep," "Scrub," "Clean" being disclaimed.
*Particular description of goods.*—Floor-Sweeping Compound.
*Claims use* since July 23, 1912.

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Ser. No. 65,404. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CEDAR RAPIDS CANDY COMPANY, Cedar Rapids, Iowa. Filed Aug. 23, 1912.

Ceraco

*Particular description of goods.*—Cocoa Confections Adapted for Use as an Ingredient of a Beverage.
*Claims use* since Aug. 10, 1912.

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Ser. No. 65,887. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHICAGO RAILWAY SIGNAL AND SUPPLY COMPANY, Carpentersville, Ill. Filed Sept. 20, 1912.




No claim is made to the geographical word "Chicago," to the descriptive phrase "Railway Signal and Supply," nor to the abbreviation "Co."
*Particular description of goods.*—Semaphore Apparatus.
*Claims use* since Aug. 14, 1912.

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Ser. No. 66,179. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANNIE Z. HOLMES, Waco, Tex. Filed Oct. 7, 1912.



*Particular description of goods.*—A Washing-Powder.
*Claims use* since Sept. 1, 1911.

Ser. No. 58,084. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE HENDEE MANUFACTURING CO., Springfield, Mass. Filed Aug. 8, 1911.

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*Particular description of goods.*—Self-Propelled Vehicles, Bicycles, and Motor-Cycles, Spring-Forks, Pedals, Foot-Rests, Grips, Tandem Attachments, Luggage-Carriers.
*Claims use* since about the 1st day of January, 1898.

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Ser. No. 58,426. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HARING COMPANY, Philadelphia, Pa. Filed Aug. 28, 1911.



*Particular description of goods.*—Cough-Syrup, Headache and Neuralgia Powders, Cholera and Dysentery Cordial, Eye-Water, Liver-Granules, Hair-Restorer, Liniment, Uterine Tablets, Tooth-Powder, Neuralgia and Toothache Pills, Tooth-Wash, Digestive and Nerve Tonic, Worm-Candy, Fig-Syrup for Constipation, Antiseptic Salve, Complexion-Cream, and Plasters for Truss Users; Remedies for Rheumatism, Catarrh, Sore Throat, Asthma, Corns, Whooping-Cough, Offensive Perspiration and Colds, and Remedies for Diseases of the Skin, Genital Organs, Urinary Organs, Kidneys, Bladder, and Liver.
*Claims use* since May 21, 1910.

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Ser. No. 60,484. (CLASS 39. CLOTHING.) MILLS & GIBB, East Orange, N. J., and New York, N. Y. Filed Dec. 28, 1911.

Ronsard

The trade-mark consists of the "fanciful" name "Ronsard."
*Particular description of goods.*—Gloves.
*Claims use* since about Nov. 1, 1911.

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*Particular description of goods.*—Mixed Paints.
*Claims use* since the 24th day of November, 1911.

Ser. No. 60,768. (CLASS 39. CLOTHING.) A. SHUMAN & Co., Boston, Mass. Filed Jan. 12, 1912. Under ten-year proviso.

"WEAR RESISTER"

*Particular description of goods.*—Boys' Coats, Trousers, Vests, Overcoats, Caps, Sweaters, Shirts and Undershirts, Drawers, and Union Suits.
*Claims use* since October, 1879.

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Ser. No. 60,801. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BIRDSEY-SOMERS CO., New York, N. Y. Filed Jan. 15, 1912.

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*Claims use* since Mar. 1, 1894.

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Remedy for Rhinitis, Magnesia Salicylate, Rhubarb Compound, Intestinal Antiseptic, Extract of Lobelia-Herb, Extract of Lavender Compound, Extract Jamaica Dogwood, Extract Jamaica Ginger, Medical Compounds for the Treatment of Obesity, Tonsilitis, Grip, Gonorrhea, Rheumatism, Cholera, Throat Troubles, and Pulmonary Diseases; Cough-Syrup, Bladder, Kidney, and Liver Remedies; Eye-Washes, Elixir for Administering Nauseous Drugs, Laxatives and Cathartics, Dyspepsia-Tablets, Sedatives, Corrective Medicines for Infants; Heart, Nerve, Blood, Liver, and Digestive Tonics; Stimulants and Expectorants, Liniments for External and Internal Use, Headache and Nasal Creams, Blistering-Ointment, Ointments for Chapped Hands and Diseases of the Skin, Astringents, Vaginal Suppositories, and Vaginal Douche-Powder.
*Claims use* since Dec. 1, 1911.

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Ser. No. 62,648. Renewal. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JOSEPHINE L. HIBBS, Philadelphia, Pa.; William L. Levis, Charles U. Levis, and Thomas J. Close executors of said Josephine L. Hibbs, deceased. Filed Apr. 14, 1912.




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*Particular description of goods.*—Range-Boilers, Bath-Boilers, and Hot-Water Generators.
*Claims use* since Aug. 5, 1881.

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Ser. No. 63,522. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ALEX D. SHAW & CO., New York, N. Y. Filed May 14, 1912.



The trade-mark consists of the arbitrary symbol of the head of a saint on a shield with three fleurs-de-lis and the letters "S. M."
*Particular description of goods.*—Brandy.
*Claims use* since the 10th day of December, 1859.

Ser. No. 65,269. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) YOUNG MANUFACTURING COMPANY, Seattle, Wash. Filed Aug. 14, 1912.




The words "Sweep," "Scrub," "Clean" being disclaimed.
*Particular description of goods.*—Floor-Sweeping Compound.
*Claims use* since July 23, 1912.

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Ser. No. 65,404. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CEDAR RAPIDS CANDY COMPANY, Cedar Rapids, Iowa. Filed Aug. 23, 1912.

Ceraco

*Particular description of goods.*—Cocoa Confections Adapted for Use as an Ingredient of a Beverage.
*Claims use* since Aug. 10, 1912.

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Ser. No. 65,887. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHICAGO RAILWAY SIGNAL AND SUPPLY COMPANY, Carpentersville, Ill. Filed Sept. 20, 1912.




No claim is made to the geographical word "Chicago," to the descriptive phrase "Railway Signal and Supply," nor to the abbreviation "Co."
*Particular description of goods.*—Semaphore Apparatus.
*Claims use* since Aug. 14, 1912.

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Ser. No. 66,179. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANNIE Z. HOLMES, Waco, Tex. Filed Oct. 7, 1912.



*Particular description of goods.*—A Washing-Powder.
*Claims use* since Sept. 1, 1911.

Ser. No. 66,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Oct. 21, 1912.




*Particular description of goods.*—Wheat-Flour.
*Claims use* since June 8, 1911.

Ser. No. 67,572. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN SALESTHYL MFG. CO., New York, N. Y. Filed Dec. 23, 1912.

SAL-HYL

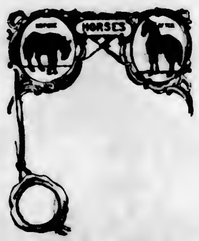
*Particular description of goods.*—Menthylated Oil of Wintergreen Incorporated in Vehicles in Form of a Salve.
*Claims use* since the latter part of November, 1910.

Ser. No. 67,573. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN SALESTHYL MFG. CO., New York, N. Y. Filed Dec. 23, 1912.

SAL-EST-HYL

*Particular description of goods.*—Menthylated Oil of Wintergreen.
*Claims use* since the latter part of November, 1910.

Ser. No. 68,015. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. MECHEL, Milwaukee, Wis. Filed Jan. 20, 1913.




*Particular description of goods.*—Horse Remedies for Weak, Sprained, and Ruptured Tendon, Sprung Knee, Cocked Ankle, Capped Elbow, Capped Hock, Capped Knee, Spavin, Ring-Bone, Side Bone, Thorough-Pin, Founder, Curb, Splint, Grease-Heel, Sweeney, Wind-Puff, Rheumatism, and Any other Lameness.
*Claims use* since Jan. 3, 1913.

Ser. No. 68,190. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH C. SCHROEDER, St. Louis, Mo. Filed Jan. 29, 1913.

Woodcock



*Particular description of goods.*—Baking-Powder, Medicinal Bitters, Medicinal Tonic, Hair-Tonic, Laxative Compound, Skin-Lotion, Fluid Extracts (for Medicinal Use) of Almond, Cascara Sagrada, Cinchona, Aloes, Gentian, Dandelion, and Belladonna, Talcum Powder, a Remedy for Mental Fatigue, Sedlitz-Powder, Complexion-Salve, Citrate of Magnesia, Cough and Cold Balsam, Cough-Syrup, Petroleum-Jelly, Medicated Quinin and Whisky, Elixir of Iron, Quinin, and Strychnin, Peppermint, Blackberry, Buchu, Pepsin, Celery, Sarsaparilla, Damiana, Cinchona, Coca, and Gentian, Toilet Lotion, Shampoo Preparations, Hydrogen Peroxid, Liniment, Beef, Wine, and Iron, Antiseptics, Epsom Salts, and Pine-Tar and Whisky.
*Claims use* since about June 1, 1892.

Ser. No. 68,380. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADMIRALTY TRADING CO., Seattle, Wash. Filed Feb. 7, 1913.



The trade-mark consists of the representation of a flag having a blue background with a horizontally-arranged white stripe, with three white stars, and the monogram "A. T. Co." in red. The whole represents the ship-flag of the applicant.
*Particular description of goods.*—Canned Salmon.
*Claims use* since Feb. 1, 1912.

Ser. No. 68,643. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill. Filed Feb. 20, 1913.

SEMDAC

*Particular description of goods.*—A Metal Polish or Gloss for Cleaning, Brightening, or Polishing All Kinds of Metal-Finished Surfaces.
*Claims use* since Aug. 24, 1912.

Ser. No. 69,043. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUMPHREYS CANNON & CO., Memphis, Tenn. Filed Mar. 14, 1913.

CHICKASAW CLUB

*Particular description of goods.*—Coffee.
*Claims use* since Jan. 1, 1910.





Ser. No. 69,247. (CLASS 17. TOBACCO PRODUCTS.) CARDENAS Y CO., Habana, Cuba. Filed Mar. 22, 1913.



*Particular description of goods.*—Cigars.
*Claims use* since Oct. 14, 1912.

Ser. No. 69,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR LETTS, Los Angeles, Cal. Filed Mar. 26, 1913.

El Camino

*Particular description of goods.*—Face-Powder, Toilet Cream, Toilet Water, Nail-Bleach, Nail-Polish, Nail-Salve, Nail-Tint, Tooth-Powder, Tooth-Paste, Tooth-Wash, Bath-Powder, Depilatory, Hair-Tonic, Shampoo-Brilliantine, Witch-Hazel, Ammonia, Sachet-Powder, Perfumes, Rouge.
*Claims use* since Apr. 15, 1910.

Ser. No. 69,691. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BLANKE-BAER CHEMICAL CO., St. Louis, Mo. Filed Apr. 10, 1913.



*Particular description of goods.*—Cherries and Bouillon.
*Claims use* since Feb. 26, 1906.

Ser. No. 69,979. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VAN ANTWERP'S DRUG CORPORATION INC., Mobile, Ala. Filed Apr. 21, 1913.

BEAU REVE

*Particular description of goods.*—Liquid Face-Powder, Face-Powder, Liquid Rouge, Nail-Powder, Dentifrice, Shampooing Preparations, and Hair-Tonic.
*Claims use* since the 1st day of January, 1913.

Ser. No. 70,178. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE B. A. FARGO COMPANY, Taunton, Mass. Filed May 2, 1913.




No claim is made for the words "Pure Aluminum."
*Particular description of goods.*—Aluminum Ware.
*Claims use* since Apr. 28, 1913.

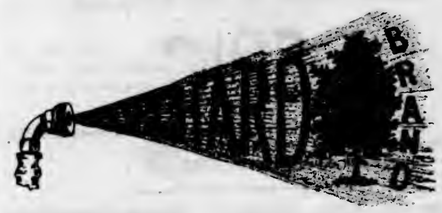
Ser. No. 70,414. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WEBB C. BALL WATCH COMPANY, Cleveland, Ohio. Filed May 14, 1913.

SAFETY

FIRST

*Particular description of goods.*—Watches and Clocks.
*Claims use* since Apr. 16, 1913.

Ser. No. 70,885. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMSEN CHEMICAL CO., Baltimore, Md. Filed June 5, 1913.




No claim is made to the word "Brand."
*Particular description of goods.*—Fungicides and Insecticides.
*Claims use* since Apr. 1, 1908.

Ser. No. 70,988. (CLASS 37. PAPER AND STATIONERY.) THE F. C. TRAVER PAPER CO., Chicago, Ill. Filed June 9, 1913.

CELL-U-ART

*Particular description of goods.*—Special Wrapping-Paper.
*Claims use* since Apr. 1, 1912.

Ser. No. 71,140. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WADSWORTH WATCH CASE COMPANY, Dayton, Ky. Filed June 16, 1913.

Referee

*Particular description of goods.*—Watchcases.
*Claims use* since Apr. 15, 1913.

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Ser. No. 71,141. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WADSWORTH WATCH CASE COMPANY, Dayton, Ky. Filed June 16, 1913. Under ten-year proviso.



*Particular description of goods.*—Watchcases.
*Claims use* since Dec. 15, 1889.

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Ser. No. 71,143. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WADSWORTH WATCH CASE COMPANY, Dayton, Ky. Filed June 16, 1913. Under ten-year proviso.




*Particular description of goods.*—Watchcases.
*Claims use* since June 1, 1890.

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Ser. No. 71,285. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WALTER EDWIN BRICKMAN, Chicago, Ill. Filed June 23, 1913.

SPIC

*Particular description of goods.*—Fluid Detergents Used in Cleansing and Renovating.
*Claims use* since June 14, 1913.

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Ser. No. 71,698. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WASHINGTON AUTO SUPPLY CO., Washington, Ill. Filed July 14, 1913.




No claim being made to the words "Dry Battery."
*Particular description of goods.*—Dry Batteries.
*Claims use* since on or about the 1st day of March, 1912.

Ser. No. 72,165. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE YOUNGSTOWN MACARONI CO., Youngstown, Ohio. Filed Aug. 4, 1913.




The picture being that of King Victor Emanuel II of Italy, deceased, with the words "Vittorio Emanuele II" thereover, and the olive branches thereunder, no claim being made to the coat-of-arms.
*Particular description of goods.*—Olive-Oil and Macaroni.
*Claims use* since at least May 1, 1912.

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Ser. No. 72,279. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BESSIRE & COMPANY, Indianapolis, Ind., and Louisville, Ky. Filed Aug. 12, 1913.

HONEY-COMB

*Particular description of goods.*—Ice-Cream Cones.
*Claims use* since Mar. 1, 1909.

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Ser. No. 72,283. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CONTINENTAL SOAP COMPANY, Cincinnati, Ohio. Filed Aug. 11, 1913.

FLOTO

The trade-mark consists of the word "Floto" surrounded by an elliptical border.
*Particular description of goods.*—Toilet and Laundry Soaps.
*Claims use* since June 1, 1913.

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Ser. No. 72,288. (CLASS 38. PRINTS AND PUBLICATIONS.) ANNA JARVIS, Philadelphia, Pa. Filed Aug. 11, 1913.



*Particular description of goods.*—Hymns, Magazines, Printed Books, Posters, Programs, Post-Cards, Menus, Calendars, Greeting-Cards, Message-Cards, Invitation-Cards, and Wall-Cards.
*Claims use* on posters, programs, post-cards, menus, calendars, greeting-cards, message-cards, invitation-cards, wall-cards since about February, 1909, and on hymns, magazines, and printed books since about April, 1912.





Ser. No. 72,716. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALFOCORN MILLING COMPANY, St. Louis, Mo. Filed Sept. 8, 1913.

ALFOCORN

*Particular description of goods.*—Stock Feed and Poultry Feed.
*Claims use* since about Aug. 27, 1913.

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Ser. No. 72,802. (CLASS 17. TOBACCO PRODUCTS.) THE ALLEN & WHEELER CO., Troy, Ohio. Filed Sept. 12, 1913.

TAWCO

*Particular description of goods.*—Leaf-Tobacco, Cigars, Cigarettes, Pipe Mixtures, and Chewing-Tobacco.
*Claims use* since the month of March, 1913.

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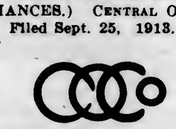
Ser. No. 72,874. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLIMAX COFFEE AND BAKING POWDER CO., Indianapolis, Ind. Filed Sept. 16, 1913. Under ten-year proviso.

Gates'

*Particular description of goods.*—Blended Coffee.
*Claims use* since 1873.

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Ser. No. 73,042. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CENTRAL OPTICAL CO., Southbridge, Mass. Filed Sept. 25, 1913.



*Particular description of goods.*—Eyeglasses, Spectacles, Lenses, Nose-Guards, Frames, Bridges, Mountings, Lens-Gages, Eye-Testing Instruments, Magnifying Instruments and Lens-Testing Instruments, Auto-Goggles, Driving and Shooting Spectacles, Optical Machinery for Grinding, Polishing, Mounting, and Fitting Lenses, and Tools and Supplies Used in That Connection.
*Claims use* since November, 1900.

Ser. No. 73,089. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PERFECTION SILVER AND GOLD CLEANING CO., Seattle, Wash. Filed Sept. 27, 1913.

JAX

*Particular description of goods.*—Metal Cleaner and Polisher.
*Claims use* since Sept. 17, 1913.

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Ser. No. 73,177. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WM. A. ROGERS, LIMITED, New York and Niagara Falls, N. Y. Filed Oct. 2, 1913.

1881 (R) ROGERS (R)

*Particular description of goods.*—Silver-Plated Flat and Hollow Ware and Cutlery.
*Claims use* since July, 1901.

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Ser. No. 73,184. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FONES BROTHERS HARDWARE CO., Little Rock, Ark. Filed Oct. 3, 1913.

Arkansas
Traveler

*Particular description of goods.*—Axes, Adzes, Bits, Augers, Pocket-Knives, Shears, Razors, Hammers, Hatchets, Files, Table-Knives, Wedges, Hoes, Saws, Screw-Drivers, Chisels, Drawing-Knives, Planes, Trowels, Pliers, Frows, Punches, Nippers, Clippers, Shovels, Spades, Agricultural Forks, Cleavers, Scythes, and Scissors.
*Claims use* since August, 1881.

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Ser. No. 73,381. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KETTLER BRASS MFG. CO., Houston, Tex. Filed Oct. 15, 1913.

QUIKWORK

*Particular description of goods.*—Brass and Metal Polishers in Both Liquid and Powder Form.
*Claims use* since May 9, 1910.

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Ser. No. 73,461. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE AUTOMATIC MIST COMPANY, Cleveland, Ohio. Filed Oct. 18, 1913.

AUTOMATIC
MIST
"AUTO MIST"

*Particular description of goods.*—Prepared Oils for Cleaning and Polishing Wood Surfaces.
*Claims use* since Oct. 3, 1913.

Ser. No. 73,542. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BADGER CHEESE COMPANY, Monroe, Wis. Filed Oct. 22, 1913.

BADGER BRAND



No claim being made to the word "Brand" as a technical trade-mark.

*Particular description of goods.*—Cheese.

*Claims use* since the 1st day of September, 1911.

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Ser. No. 73,672. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PETER DAWSON, LTD., Dufftown and Glasgow, Scotland. Filed Oct. 30, 1913.

CURIO

*Particular description of goods.*—Whisky.

*Claims use* since Jan. 18, 1896.

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Ser. No. 73,745. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SPENCER KELLOGG & SONS, INCORPORATED, Buffalo, N. Y. Filed Nov. 3, 1913.



The word "Kellogg's" on said drawing is a facsimile of the signature of the president of this corporation.

*Particular description of goods.*—Liquid Castor-Oil.

*Claims use* since October, 1913.

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Ser. No. 73,824. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) RUTLEDGE AND TAYLOR COAL CO., St. Louis, Mo. Filed Nov. 5, 1913.

SECURITY COAL

No claim is made to the word "Coal" appearing on the mark.

*Particular description of goods.*—Coal.

*Claims use* since Mar. 15, 1911.

Ser. No. 73,890. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEVEN STANISLAUS STACHECK, Gilbertville, Mass. Filed Nov. 10, 1913.



*Particular description of goods.*—Seed-Oils for Food.

*Claims use* since Sept. 1, 1913.

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Ser. No. 74,022. (CLASS 2. RECEPTACLES.) ANNIE G. WIENER, New York, N. Y. Filed Nov. 15, 1913.

CARFONE

*Particular description of goods.*—Decorative Metallic Money-Receptacles for Bracelets, Umbrella-Handles, Fobs, Pendants, Lockets, Buckles, Garters, Canes, Crops and Whips, Bag-Handles, and Belts.

*Claims use* since on or about the 5th day of November, 1913.

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Ser. No. 74,111. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) José B. LOZANO, Laredo, Tex. Filed Nov. 21, 1913.




The portrait being that of myself.

*Particular description of goods.*—Chemical Compound Used as a Remedy for Syphilis, Rheumatism, Sciatic Pains, Fistulas, Ulcers, Anemia, Kidneys, Blood, and All Syphilitic Diseases, Both Internal and External.

*Claims use* since Oct. 1, 1913.

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Ser. No. 74,128. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. F. BOEHRINGER & SOEHNE, Mannheim-Waldhof, Germany. Filed Nov. 21, 1913.

CEROLIN

*Particular description of goods.*—Yeast-Fat, the Active Principle of Yeast as a Remedy for Boils, Furunculosis, Acne, and Constipation.

*Claims use* since October, 1903.





Ser. No. 74,154. (CLASS 39. CLOTHING.) HENRY A. DIX & SONS COMPANY, Millville, N. J., and New York, N. Y. Filed Nov. 24, 1913.

DixMake

*Particular description of goods.*—Ladies Tub-Dresses, House-Dresses, and Nurses' and Waitresses' Uniforms.

*Claims use* since from the 1st day of January, 1913.

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Ser. No. 74,225. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BUBENIK CHEMICAL MANUFACTURING CO., St. Louis, Mo. Filed Nov. 28, 1913. Under ten-year proviso.

POLYPIN

*Particular description of goods.*—A Remedy for Catarrh, Headache, Nasal Discharges, Stopped-Up Nose, Dry Mucus in Nose, Snoring at Night, Hay-Fever, Difficult Breathing, Suppuration of the Ear, Frontal-Cavity Suppuration, Phlegm Obstruction, and Asthma.

*Claims use* since about 1893.

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Ser. No. 74,357. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) ESMOND MILLS, Esmond, R. I. Filed Dec. 4, 1913.



*Particular description of goods.*—Blankets.

*Claims use* since Sept. 20, 1907.

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Ser. No. 74,367. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE PA PRO COMPANY, Lowville, N. Y. Filed Dec. 4, 1913.

Pa Pro

*Particular description of goods.*—Paper Caps for Bottles, Jars, &c.

*Claims use* since July 16, 1912.

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Ser. No. 74,382. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARK & TILFORD, New York, N. Y. Filed Dec. 5, 1913.

*Biltmore*

*Particular description of goods.*—Candy.

*Claims use* since Nov. 13, 1913.

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Ser. No. 74,384. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PARK & TILFORD, New York, N. Y. Filed Dec. 5, 1913.

*Golf*

*Particular description of goods.*—Candy.

*Claims use* since Nov. 20, 1903.

Ser. No. 74,430. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EMBERT CLAYTON WOODCOCK, East Orange, N. J. Filed Dec. 6, 1913.

CA-LA-SOTE

*Particular description of goods.*—An Intestinal and Pulmonary Antiseptic.

*Claims use* since Mar. 5, 1913.

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Ser. No. 74,455. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARNT H. SCOTT, Chicago, Ill. Filed Dec. 8, 1913. Under ten-year proviso.




*Particular description of goods.*—A Medicine for All Kinds of Sore Throat and Cold and a Preventive from Diphtheria.

*Claims use* since Nov. 27, 1888.

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Ser. No. 74,473. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SAUL D. MODIANO, Trieste, Austria-Hungary. Filed Dec. 9, 1913.




The word "Ottoman" being disclaimed.

*Particular description of goods.*—Cigarette-Paper.

*Claims use* since Oct. 14, 1908.

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Ser. No. 74,476. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WALTER ROHNER, New York, N. Y. Filed Dec. 9, 1913.

MONDEX

The word "Mondex" in white letters upon a red background.

*Particular description of goods.*—Fluid Polishes Adapted to be Used on Furniture and Woodwork.

*Claims use* since Sept. 12, 1913.

Ser. No. 74,477. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROSSENDALE-REDDAWAY BELTING & HOSE CO., Newark, N. J. Filed Dec. 9, 1913.



*Particular description of goods.*—Driving-Belts, Machine-Belting, and Woven Machine-Belting.
*Claims use* since April, 1890.

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Ser. No. 74,483. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WARWICK STERLING COMPANY, Providence, R. I. Filed Dec. 9, 1913.



*Particular description of goods.*—Sterling-Silver Flat Ware, Hollow Ware, Tableware, Toilet Articles, Manicure Articles, Desk Articles, and Sewing Articles, Silver Trimmings for Leather, Glass, Wood, Metal, Fabric, Paper, and Ivory Articles, and Jewelry for Personal Wear.
*Claims use* since Jan. 1, 1913.

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Ser. No. 74,488. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CHARLES A. DANIEL, Philadelphia, Pa. Filed Dec. 10, 1913.

Ringmeter

*Particular description of goods.*—Rubber Hose.
*Claims use* since Dec. 20, 1912.

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Ser. No. 74,498. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALMSLEY & BIACHALL, Philadelphia, Pa. Filed Dec. 10, 1913.

LASCO

*Particular description of goods.*—Food-Meals for Poultry, Game, and Cattle.
*Claims use* since on or about the 15th day of March, 1910.

Ser. No. 74,561. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CRENSHAW BROS. SEED CO., Tampa, Fla. Filed Dec. 13, 1913.



*Particular description of goods.*—Garden, Field, and Flower Seeds.
*Claims use* since Jan. 1, 1913.

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Ser. No. 74,563. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) EDGAR CAYCE, Selma, Ala. Filed Dec. 13, 1913.

"DrinX"

*Particular description of goods.*—Playing-Cards.
*Claims use* since Dec. 1, 1913.

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Ser. No. 74,590. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Dec. 13, 1913.

TANGO

*Particular description of goods.*—A Spinning Game.
*Claims use* since Dec. 10, 1913.

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Ser. No. 74,592. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE 3-L REMEDY COMPANY, Harrisburg, Pa. Filed Dec. 13, 1913.

Rheum-Tabs

*Particular description of goods.*—Tablets for Rheumatism; Sore Joints; Stiff Joints, Muscles, and Ligaments; Lame Back; Pains in the Legs and Arms; Lumbago; and Shooting Pains in Any Part of the Body.
*Claims use* since Oct. 15, 1913.

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Ser. No. 74,702. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) E. I. HORSMAN CO., New York, N. Y. Filed Dec. 20, 1913.

BABY BUTTERFLY

*Particular description of goods.*—Dolls.
*Claims use* since Dec. 12, 1913.





Ser. No. 74,716. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Dec. 20, 1913. Under ten-year proviso.

Plano

*Particular description of goods.*—Binders, Reapers, Headers, Header-Binders, Mowers, Rakes, Tedders, Hay-Loaders, Hay-Presses, Stackers, Combined Rakes and Stackers, Corn-Binders, Corn-Pickers, Corn-Shellers, Cornstalk-Cutters, Seeders, Planters, Huskers and Shredders, Ensilage-Cutters, Feed-Grinders, Harrows, Cultivators, Knife and Tool Grinders, and Binder-Hitches and Separate Parts for Each of Said Machines.
*Claims use* since 1881.

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Ser. No. 74,718. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Dec. 20, 1913. Under ten-year proviso.

MILWAUKEE

*Particular description of goods.*—Binders, Reapers, Headers, Header-Binders, Mowers, Rakes, Tedders, Hay-Loaders, Hay-Presses, Stackers, Combined Rakes and Stackers, Corn-Binders, Corn-Pickers, Corn-Shellers, Cornstalk-Cutters, Seeders, Planters, Huskers and Shredders, Ensilage-Cutters, Feed-Grinders, Harrows, Cultivators, Knife and Tool Grinders, and Binder-Hitches and Separate Parts for Each of Said Machines.
*Claims use* since 1887.

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Ser. No. 74,724. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Dec. 20, 1913.

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608

*Particular description of goods.*—Pitman-Boxes for Mowers.
*Claims use* since January, 1900.

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Ser. No. 74,731. (CLASS 12. CONSTRUCTION MATERIALS.) MORETTI-HARRAH MARBLE COMPANY, Sylacauga, Ala. Filed Dec. 20, 1913.

MM

*Particular description of goods.*—Rough Quarry Blocks, Slabs, and Marble.
*Claims use* since December, 1912.

Ser. No. 74,766. (CLASS 39. CLOTHING.) R. WALKER & SONS LTD., Leicester, England. Filed Dec. 20, 1913.




*Particular description of goods.*—Blouses, Aprons, Knitted Leggings, Bodices, Bonnets, Hats, Gaiters, Outer Coats, Cloaks, Undercoats, Caps, Pelisses, Bloomers, Capes, Knickers, Jerseys, Singlets, Jackets, Dresses, Dress-Shirts, Negligée Shirts, Work-Shirts, Undershirts, Underdrawers, Muffs, Vests, Mittens, Hosiery, Petticoats, Corsets, Waistcoats, Trousers, Dress-Skirts, Underskirts, Gloves, Cardigan Jackets, Combination Shirt and Pants.
*Claims use* since Apr. 8, 1911.

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Ser. No. 74,819. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTERN TEA & COFFEE CO., St. Paul, Minn. Filed Dec. 23, 1913.

DELLWOOD

*Particular description of goods.*—Coffees, Teas, Spices, and Flavoring Extracts for Foods.
*Claims use* since Aug. 4, 1913.

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Ser. No. 74,823. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS LAPRÉ AND COMPANY, New Bedford, Mass. Filed Dec. 24, 1913.

L.L.

*Particular description of goods.*—Lapré's Vegetable Herb Tablets, a Medicine for Blood, Stomach, Liver, and Bowel Disease.
*Claims use* since Dec. 1, 1913.

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Ser. No. 74,831. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES K. TWEEDY, Downey, Cal. Filed Dec. 24, 1913.

DEFIANCE

*Particular description of goods.*—Citrus Fruits.
*Claims use* since Dec. 1, 1912.

Ser. No. 74,840. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ACME MILLING CO., Oklahoma, Okla. Filed Dec. 26, 1913.

Classy

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Oct. 23, 1913.

Ser. No. 74,862. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JAMES OLWELL & COMPANY, New York, N. Y. Filed Dec. 27, 1913.




A part of which consists of the color red contained within the shield and which acts as a basis for the letter "O," also contained within the shield.
*Particular description of goods.*—Blended Whisky.
*Claims use* since 1896.

Ser. No. 74,880. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKE OF THE WOODS MILLING CO. LTD., Montreal, Canada. Filed Dec. 29, 1913.

CANUSA

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Mar. 31, 1913.

Ser. No. 74,914. (CLASS 33. GLASSWARE.) IMPERIAL GLASS COMPANY, Bellaire, Ohio. Filed Dec. 31, 1913.

IMPERIAL

*Particular description of goods.*—Table-Glassware.
*Claims use* since Aug. 5, 1913.

Ser. No. 74,915. (CLASS 33. GLASSWARE.) IMPERIAL GLASS COMPANY, Bellaire, Ohio. Filed Dec. 31, 1913.



*Particular description of goods.*—Glass Tableware.
*Claims use* since Aug. 5, 1913.

Ser. No. 74,918. (CLASS 2. RECEPTACLES.) MCNUTT NON-EXPLOSIVE CAN CO., New York, N. Y. Filed Dec. 31, 1913.

GLOBE

*Particular description of goods.*—Safety-Containers for Explosives and Inflammable Fluids.
*Claims use* since Feb. 1, 1913.

Ser. No. 74,960. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GILBERT TOILET COMPANY, Beatrice, Nebr. Filed Jan. 3, 1914.

BLUE RIBBON



*Particular description of goods.*—Hand-Lotion, Face-Bleach, Hair-Tonic, and Massage-Cream.
*Claims use* since July, 1913.

Ser. No. 74,974. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) MORRIS, MANN & REILLY, Chicago, Ill. Filed Jan. 5, 1914.

Platonyx

*Particular description of goods.*—Jewelry for Personal Adornment.
*Claims use* since Dec. 16, 1913.

Ser. No. 75,030. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN F. JELKE CO., Chicago, Ill. Filed Jan. 8, 1914.

Carmela

*Particular description of goods.*—Oleomargarin.
*Claims use* since Dec. 1, 1913.

Ser. No. 75,050. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WM. EDWARDS COMPANY, Cleveland, Ohio. Filed Jan. 9, 1914.

GLEE CLUB

*Particular description of goods.*—Blended Coffee.
*Claims use* since Mar. 16, 1906.





Ser. No. 75,057. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAURICE LUNDIN, Binghamton, N. Y. Filed Jan. 9, 1914.

Calvacura

*Particular description of goods.*—A Hair-Tonic.
*Claims use* since Jan. 2, 1914.

Ser. No. 75,069. (CLASS 2. RECEPTACLES.) ARKELL & SMITHS, Canajoharie, N. Y. Filed Jan. 10, 1914.

SANISACK

*Particular description of goods.*—Cotton and Paper Bags and Sacks.
*Claims use* since Jan. 7, 1914.

Ser. No. 75,089. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILLIAM H. HUFF, Los Angeles, Cal. Filed Jan. 10, 1914.

GET MY GOAT

*Particular description of goods.*—Games and Puzzles.
*Claims use* since Dec. 1, 1913.

Ser. No. 75,113. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CUDAHY PACKING COMPANY, Chicago, Ill. Filed Jan. 12, 1914.




*Particular description of goods.*—A Laundry Soap.
*Claims use* since Jan. 2, 1914.

Ser. No. 75,115. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) R. B. GRAINGER DISTILLING CO., INC., Louisville, Ky. Filed Jan. 12, 1914.



The picture is fanciful.
*Particular description of goods.*—Whisky.
*Claims use* since Jan. 1, 1911.

Ser. No. 75,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE McKESON CO., Holyoke, Mass. Filed Jan. 14, 1914.

MACOMULSION

*Particular description of goods.*—A Medicinal Preparation for the Treatment of Nervous Breakdown, Coughs, Colds, Bronchitis, Whooping-Cough, All Bronchial Troubles, and Diseases of the Throat and Lungs.
*Claims use* since Feb. 1, 1912.

Ser. No. 75,203. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio. Filed Jan. 15, 1914.

PAT-SAR-CO

*Particular description of goods.*—Dry and Ready-Mixed Paints, Enamels, Stains, Wall-Paints, Lacs, Fillers, and Varnish.
*Claims use* since Dec. 1, 1913.

Ser. No. 75,243. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WESTERN CLOCK CO., Peru, Ill. Filed Jan. 16, 1914.

BLUE BIRD

*Particular description of goods.*—Clocks and Watches.
*Claims use* since Jan. 13, 1914.

Ser. No. 75,269. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALTS TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Jan. 17, 1914.

MERITEX

*Particular description of goods.*—Velvets and Plushes in the Piece.
*Claims use* since about Dec. 1, 1913.

Ser. No. 75,297. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROCKEFELLER SOAP COMPANY, Brooklyn, N. Y. Filed Jan. 19, 1914.

ADVICE

*Particular description of goods.*—Laundry Soap.
*Claims use* since Nov. 18, 1913.

Ser. No. 75,305. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE C. B. WOODWORTH SONS CO., Rochester, N. Y. Filed Jan. 19, 1914.

MANDARIN ROSE

The words "Mandarin Rose."
*Particular description of goods.*—Perfumes, Toilet Waters, Talcum Powder, and Sachet-Powder.
*Claims use* since June 1, 1913.

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Ser. No. 75,307. (CLASS 39. CLOTHING.) BELLON, COCHET & CO., Lyon, France. Filed Jan. 20, 1914.

TORPEDO

*Particular description of goods.*—Gloves.
*Claims use* since Oct. 22, 1910.

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Ser. No. 75,308. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 20, 1914.

BUTTERFLY



*Particular description of goods.*—Articles Composed of Chinaware or Porcelain; Table Sets, Vases, Jardinières, Washstand Sets, Dresser Sets, Writing-Desk Sets, Plaques, Bric-à-Brac, and Fern-Dishes.
*Claims use* since about Dec. 1, 1913.

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Ser. No. 75,310. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 20, 1914.

HAPPIFAT

*Particular description of goods.*—Dolls.
*Claims use* since Dec. 1, 1913.

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Ser. No. 75,321. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) DE WITT C. BAKER, New York, N. Y. Filed Jan. 21, 1914.

"SKIBO"

The word "Skibo."
*Particular description of goods.*—A Juvenile Set of Golf in a Carrying-Case.
*Claims use* since early in December, 1913.

Ser. No. 75,339. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VINCENT MARINO, Washington, D. C. Filed Jan. 21, 1914.

RED LION



My trade-mark consists of the words "Red Lion" and the pictorial representation of a red lion arranged beneath the said words.
*Particular description of goods.*—Liniment.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,389. (CLASS 39. CLOTHING.) RICE & HUTCHINS, INCORPORATED, Portland, Me., and Boston, Mass. Filed Jan. 23, 1914.

Bent Bones

*Particular description of goods.*—Men's, Women's, and Children's Shoes Made in Whole or in Part of Leather.
*Claims use* since Jan. 5, 1914.

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Ser. No. 75,457. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LAXIGO BITTERS CO., Detroit, Mich. Filed Jan. 26, 1914.

LAXAGO

*Particular description of goods.*—Bitters—Remedy for the Kidneys and Liver.
*Claims use* since Jan. 19, 1914.

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Ser. No. 75,458. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. MECHEL, Milwaukee, Wis. Filed Jan. 26, 1914.

POLOSIN

*Particular description of goods.*—Horse Remedies for Weak, Sprained, and Ruptured Tendon, Sprung Knee, Cocked Ankle, Capped Elbow, Capped Hock, Capped Knee, Spavin, Ring-Bone, Side Bone, Thorough-Pin, Founder, Curb, Splint, Grease-Heel, Sweeney, Wind-Puff, Rheumatism, and Any other Lameness.
*Claims use* since Jan. 24, 1914.

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Ser. No. 75,470. (CLASS 27. HOROLOGICAL INSTRUMENTS.) WESTERN CLOCK CO., Peru, Ill. Filed Jan. 26, 1914.

THE SPHINX

*Particular description of goods.*—Clocks and Watches.
*Claims use* since Jan. 22, 1914.





Ser. No. 75,485. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MANNING SAND PAPER COMPANY, Watervliet, N. Y. Filed Jan. 27, 1914.

DURUNDUM

*Particular description of goods.*—Abrasive Paper and Cloth.
*Claims use* since about Dec. 20, 1913.

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Ser. No. 75,486. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MANNING SAND PAPER COMPANY, Watervliet, N. Y. Filed Jan. 27, 1914.

DURITE

*Particular description of goods.*—Abrasive Paper and Cloth.
*Claims use* since about Dec. 20, 1913.

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Ser. No. 75,487. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MANNING SAND PAPER COMPANY, Watervliet, N. Y. Filed Jan. 27, 1914.



*Particular description of goods.*—Abrasive Paper and Cloth.
*Claims use* since about Nov. 20, 1913.

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Ser. No. 75,488. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MANNING SAND PAPER COMPANY, Watervliet, N. Y. Filed Jan. 27, 1914.

METALITE

*Particular description of goods.*—Abrasive Paper and Cloth.
*Claims use* since about Dec. 20, 1913.

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Ser. No. 75,565. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE DE FREE CHEMICAL COMPANY, Holland, Mich. Filed Jan. 31, 1914.

SanTox

*Particular description of goods.*—Shaving-Powder, Shaving-Lotion, and Soaps other than Tooth-Soaps.
*Claims use* since the 15th day of February, 1913.

Ser. No. 75,625. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RALPH L. MARTEAU, Washington, D. C. Filed Feb. 2, 1914.

Bio-Ped

*Particular description of goods.*—Foot-Powders.
*Claims use* since Jan. 5, 1914.

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Ser. No. 75,629. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN R. MORTON, Stockton, Cal. Filed Feb. 2, 1914.



Consisting of my portrait.
*Particular description of goods.*—Ointments.
*Claims use* since July 15, 1913.

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Ser. No. 75,635. (CLASS 2. RECEPTACLES.) THE ULLMAN-PHILPOTT COMPANY, Cleveland, Ohio. Filed Feb. 2, 1914.

SAVINK

*Particular description of goods.*—Containers for Printers' Inks.
*Claims use* since Jan. 2, 1914.

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Ser. No. 75,697. (CLASS 43. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed Feb. 5, 1914.




Said trade-mark consists of a gilt band having printed thereon the words "Gold Band."
*Particular description of goods.*—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
*Claims use* since Feb. 1, 1912.

Ser. No. 75,719. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE STANDARD COMPANY, Torrington, Conn. Filed Feb. 5, 1914.

PIRATE

*Particular description of goods.*—Pedals.
*Claims use* since Sept. 1, 1910.

Ser. No. 75,771. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHRISTIAN SIPPEL, Chicago, Ill. Filed Feb. 7, 1914.

COLLRAP

*Particular description of goods.*—An Effervescent Beverage Containing Pure Grape Extract, Cane-Sugar Extract, Tartaric Acid, Preservative, and Artificial Color.
*Claims use* since Apr. 21, 1913.

Ser. No. 75,891. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PILOT COTTON MILLS COMPANY, Raleigh, N. C. Filed Feb. 13, 1914.

RALEIGH




The picture shown being that of Sir Walter Raleigh, deceased.
*Particular description of goods.*—Cheviots.
*Claims use* since July, 1908.

Ser. No. 75,962. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE GLENCOE MILLS, Burlington, N. C. Filed Feb. 17, 1914.



*Particular description of goods.*—Cotton Flannels, Outings, Dometts, Mottled Flannels, Ginghams, Fancy Cotton Plaids, Tickings, Chambrays, Cheviots, and Checks.
*Claims use* since May, 1903.

Ser. No. 75,979. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ALMA MANUFACTURING COMPANY OF BALTIMORE CITY, Baltimore, Md. Filed Feb. 18, 1914.

NUHORN

*Particular description of goods.*—Snap-Fastener Tops.
*Claims use* since Nov. 15, 1913.

Ser. No. 76,016. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SAXTON WOOLEN CORP., Norwich, Conn. Filed Feb. 18, 1914.

TOXSAN

*Particular description of goods.*—Billiard-Cloth, Broadcloth, Automobile and Carriage Cloth, Linings for Carriages, Sackings, Shirtings, Under-Collar Cloth, and Cloaking.
*Claims use* since Jan. 27, 1914.





# TRADE-MARKS

## REGISTERED MARCH 17, 1914.

95,817. ADDITIONS TO DISCHARGES FOR PRINTING TEXTILE MATERIAL. BADISCHE ANILIN- & SODA-FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed December 4, 1913. Serial No. 74,350. PUBLISHED JANUARY 13, 1914.

95,818. EMBROIDERIES AND PILLOW-TOPS. ARON BAILL, New York, N. Y.
Filed November 17, 1913. Serial No. 74,024. PUBLISHED JANUARY 20, 1914.

95,819. HORSE-NAILS. THE CAPEWELL HORSE NAIL COMPANY, Hartford, Conn.
Filed December 5, 1913. Serial No. 74,378. PUBLISHED JANUARY 13, 1914.

95,820. FIBER FORMS USED IN EMBROIDERY. CHARLES H. CROWLEY, New York, N. Y.
Filed November 18, 1913. Serial No. 74,052. PUBLISHED JANUARY 20, 1914.

95,821. OSTRICH PLUMES AND FEATHERS. E. EISEMANN & Co., New York, N. Y.
Filed February 10, 1913. Serial No. 66,428. PUBLISHED JANUARY 20, 1914.

95,822. INSULATORS. ELECTROSE MANUFACTURING COMPANY, Brooklyn, N. Y.
Filed December 2, 1913. Serial No. 74,206. PUBLISHED JANUARY 13, 1914.

95,823. PENHOLDERS. EVERETT H. EMBRY, Lenoir City, Tenn.
Filed July 10, 1913. Serial No. 71,682. PUBLISHED JANUARY 13, 1914.

95,824. LACES AND RIBBONS. A. & L. FELDHEIM, Barmen, Germany.
Filed September 30, 1913. Serial No. 73,127. PUBLISHED JANUARY 20, 1914.

95,825. GARMENT-SHIELDS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed December 2, 1913. Serial No. 74,309. PUBLISHED JANUARY 20, 1914.

95,826. WORSTED AND COTTON PIECE GOODS, WORSTED PREDOMINATING. G. GARNETT & SONS, LIMITED, Apperley Bridge, near Bradford, England.
Filed December 4, 1913. Serial No. 74,361. PUBLISHED JANUARY 20, 1914.

95,827. ELECTRIC INCANDESCENT LAMPS. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed August 14, 1913. Serial No. 72,336. PUBLISHED JANUARY 13, 1914.

95,828. PENCILS, PENHOLDERS, AND FOUNTAIN-PENHOLDERS OF PRECIOUS METAL, AND GOLD TOOTHPICKS. EDWARD D. HICKS, Cranford, N. J., and New York, N. Y.
Filed August 8, 1913. Serial No. 72,224. PUBLISHED JANUARY 13, 1914.

95,829. MADRAS MUSLINS, LACE FABRICS, DRAPERY FABRICS, AND COTTON GOODS MADE WITH LENO LOOM. ALEXANDER JAMIESON & Co., New York, N. Y.
Filed September 11, 1913. Serial No. 72,784. PUBLISHED JANUARY 20, 1914.

95,830. ASBESTOS YARN. H. W. JOHNS-MANVILLE Co., New York, N. Y.
Filed November 29, 1913. Serial No. 74,258. PUBLISHED JANUARY 13, 1914.

95,831. LIQUID COMPOSITION FOR FIREPROOFING ANY INFLAMMABLE TEXTILE. H. W. JOHNS-MANVILLE Co., New York, N. Y.
Filed November 29, 1913. Serial No. 74,261. PUBLISHED JANUARY 13, 1914.

95,832. PIECE GOODS OF LINEN, COTTON, SILK, WOOLEN, AND MIXTURES OF THESE FIBERS. J. ARNOLD KAHL, New York, N. Y.
Filed November 14, 1913. Serial No. 73,963. PUBLISHED JANUARY 20, 1914.

95,833. [WITHDRAWN.]

95,834. RUBBER BOOTS AND SHOES. LAMBERTVILLE RUBBER COMPANY, Lambertville, N. J.
Filed December 5, 1913. Serial No. 74,379. PUBLISHED JANUARY 13, 1914.

95,835. BRANDIES AND LIQUORS. MR. ANDRÉS MORALES MÁRQUEZ, trading under the firm-name Hijo de Pedro Morales, Malaga, Spain.
Filed December 4, 1913. Serial No. 74,366. PUBLISHED JANUARY 6, 1914.

95,836. CERTAIN NAMED HARDWARE AND PLUMBING SUPPLIES. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed November 27, 1911. Serial No. 59,950. PUBLISHED AUGUST 26, 1913.

95,837. THREAD. JOHN C. MEYER, Lowell, Mass.
Filed February 4, 1913. Serial No. 68,312. PUBLISHED JANUARY 20, 1914.

95,838. THREAD. JOHN C. MEYER, Lowell, Mass.
Filed February 4, 1913. Serial No. 68,314. PUBLISHED JANUARY 20, 1914.

95,839. CHAMPAGNE-WINE. ALFRED DE MONTEBELLO & Co., Mareuil-sur-Ay, Marne, France.
Filed September 24, 1910. Serial No. 51,945. PUBLISHED JANUARY 13, 1914.

95,840. REMEDY FOR REMOVING SUPERFLUOUS HAIR. MORROW CHEMICAL COMPANY, Platteville, Wis.
Filed November 26, 1913. Serial No. 74,215. PUBLISHED JANUARY 13, 1914.

95,841. PREPARATION FOR THE TREATMENT OF CHRONIC CONSTIPATION. HENRY A. MULLINS, New York, N. Y.
Filed October 22, 1913 Serial No. 73,556. PUBLISHED DECEMBER 16, 1913.

95,842. MUSICAL INSTRUMENTS AND SUPPLIES FOR SAME. MUSICIANS SUPPLY COMPANY, Boston, Mass.
Filed July 7, 1913. Serial No. 71,568. PUBLISHED JANUARY 13, 1914.

95,843. DRILL-CHUCKS. NARRAGANSETT MACHINE CO., Pawtucket, R. I.
Filed October 30, 1913. Serial No. 73,680. PUBLISHED JANUARY 13, 1914.

95,844. DEVICE HAVING FOR ITS OBJECT A LOUD-SPEAKING TELEPHONE SYSTEM. THE NATIONAL CALLOPHONE CO., San Francisco, Cal.
Filed May 12, 1913. Serial No. 70,381. PUBLISHED JANUARY 13, 1914.

95,845. HAIR-CURLERS. NANCY L. OZMUN, Cleveland, Ohio.
Filed October 31, 1913. Serial No. 73,716. PUBLISHED JANUARY 20, 1914.

95,846. HAIR-PINS MADE OF BONE, METAL, AND CELLULOID. PACIFIC NOVELTY COMPANY, New York, N. Y.
Filed December 9, 1913. Serial No. 74,475. PUBLISHED JANUARY 20, 1914.

95,847. MUFFLER CUT-OUTS, FLEXIBLE SHAFTS FOR MACHINES, AND CARBURETERS. THE G. PIEL COMPANY, New York and Long Island City, N. Y.
Filed November 18, 1913. Serial No. 74,147. PUBLISHED JANUARY 13, 1914.

95,848. DIAPERS AND INFANTS' PANTS OF WATERPROOF FABRIC OF COTTON AND SILK. HENRY P. RINDSKOPF, New York, N. Y.
Filed December 12, 1913. Serial No. 74,531. PUBLISHED JANUARY 13, 1914.

95,849. WOOLEN AND WORSTED SERGES IN THE PIECE. GUS. L. ROSENBERG, New York, N. Y.
Filed November 12, 1913. Serial No. 73,934. PUBLISHED JANUARY 20, 1914.

95,850. CERESIN-WAX. ERNST SCHLIEMANN'S EXPORT-CERESIN-FABRIK, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Hamburg, Germany.
Filed October 29, 1913. Serial No. 73,660. PUBLISHED JANUARY 13, 1914.

95,851. MEDICINES USED IN HOMEOPATHIC TREATMENT. ORREN I. SEARLES, Joplin, Mo.
Filed October 27, 1913. Serial No. 73,632. PUBLISHED JANUARY 13, 1914.

95,852. MANICURING HAND POLISHERS, BUFFERS, AND ENAMELERS. HORACE A. SEYMOURE, New York, N. Y.
Filed October 7, 1913. Serial No. 73,262. PUBLISHED JANUARY 13, 1914.

95,853. SEWING-NEEDLES, SAFETY-PINS, HAIR-PINS, AND CROCHET-NEEDLES. THÜRINGISCHE NADEL- & STAHLWAREN-FABRIK WOLFF, KNIPPENBERG & Co. ACTIEN-GESELLSCHAFT, Ichtershausen, Germany.
Filed December 2, 1913. Serial No. 74,319. PUBLISHED JANUARY 20, 1914.

95,854. PERFUMERY. TOKALON, INCORPORATED, New York, N. Y.
Filed December 3, 1913. Serial No. 74,342. PUBLISHED JANUARY 13, 1914.

95,855. ROCK-CRUSHERS, BIN-JACKS, AND STREET-SWEEPING MACHINES. UNIVERSAL ROAD MACHINERY CO., Kingston, N. Y.
Filed December 2, 1913. Serial No. 74,321. PUBLISHED JANUARY 13, 1914.

95,856. GLOVES. JOHN WANAMAKER, PHILADELPHIA, Philadelphia, Pa.
Filed December 3, 1913. Serial No. 74,349. PUBLISHED JANUARY 13, 1914.

95,857. PRESSOR SUBSTANCES POSSESSING THE PROPERTIES OF AN EXTRACT OF THE POSTERIOR LOBE OF THE PITUITARY GLAND. HENRY SOLOMON WELLCOME, London, England.
Filed November 25, 1913. Serial No. 74,198. PUBLISHED JANUARY 13, 1914.

95,858. BELTS FOR PERSONAL WEAR. GEORGE E. ZELTMACHER, New York, N. Y.
Filed November 20, 1913. Serial No. 74,108. PUBLISHED JANUARY 20, 1914.

## TRADE-MARKS RENEWED.

10,974. LIQUID PURGATIVE COMPOUNDS. CALIFORNIA FIG SYRUP CO., San Francisco, Cal.
Registered March 4, 1884. Renewed March 4, 1914.

11,038. SOAP. PROCTER & GAMBLE, Cincinnati, Ohio.
Registered March 25, 1884. Renewed March 25, 1914.

11,039. SOAP. PROCTER & GAMBLE, Cincinnati, Ohio.
Registered March 25, 1884. Renewed March 25, 1914.

11,450. SOAP. PROCTER & GAMBLE, Cincinnati, Ohio.
Registered August 26, 1884. Renewed August 26, 1914.

## TRADE-MARKS CANCELED.

76,852. HARNESS. COVERT MFG. CO., Watervliet, N. Y.
Registered February 22, 1910. Canceled February 19, 1914.



# DECISIONS
OF THE
# COMMISSIONER OF PATENTS
AND OF
# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### EX PARTE SHELLABARGER.

*Decided December 29, 1913.*

APPLICATION — EXAMINATION — APPLICATION OF REFERENCES.

Where in the first Office action the Examiner cited four references and specifically applied the same to the claim and in the further prosecution of the case only one new reference was cited, which was not relied upon as an anticipation, and the applicant repeatedly amended his claims in view of these references, *Held* that no further application of the references is necessary.

ON PETITION.

FOLDABLE CHAIR.

*Messrs. Chandlee & Chandlee* for the applicant.

FRAZIER, *First Assistant Commissioner:*

This is a petition asking that the Primary Examiner be instructed to apply the references to the claims rejected.

The record shows that in the first official action of October 3, 1908, the Examiner cited four references and specifically applied the same to the claims. In the second action, following the substitution of the single claim for the six claims rejected, the Examiner again specifically applied the references to that claim. In the third official action this claim was again rejected on the references and for the reasons set forth in the previous official letter. This action was repeated in the fourth official letter in respect to two new claims presented, still using the references of record, and the single claim was similarly treated in the fifth official letter, and again in the sixth official letter. In the official letter of July 16, 1912, the Examiner specifically stated that the claim presented is substantially the same in substance as those previously considered, and using the same references, a clear issue having been reached, the rejection was made final. Applicant's action in repeatedly changing the claims to avoid the references cited warrants the conclusion that he had no difficulty in understanding the application of the references. Otherwise it is not easy to reconcile his action in changing the claims in the absence of a clear understanding of those references. The citation of an additional reference in the official letter of June 27, 1911, was unnecessary, since the action was based, not on this additional reference, but upon the references already fully considered and explained in the first official letter. The explanation of the Examiner, however, of the applicability of the references in the first official action was sufficient for all purposes, in my judgment, and the applicant appears to have conducted the further prosecution of the case in the light of that explanation.

In view of the facts shown no good reason is seen why the Examiner should be required to repeat in each letter an explanation of the references once given.

The petition is accordingly denied.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

IN RE CAPRON.

*Decided January 5, 1914.*

1. PATENTABILITY—TRACK OF T-SECTION RAILROAD-RAIL BENT INTO CIRCULAR FORM.

Where the prior art shows endless tracks of T-shape made of cast-steel, *Held* that claims for a track consisting of a T-section railroad-rail bent into circular shape are not patentable, whatever invention applicant has made being confined to his apparatus and process.

2. SAME—SAME—SUBSTITUTION OF ONE KNOWN MATERIAL FOR ANOTHER—PROVISION FOR EXPANSION.

"There can be no invention in substituting one known material for another to accomplish a known result. Neither can invention be predicated on the known expedient of making a track of circular formation with a break therein, so that its size may be slightly enlarged or diminished as occasion may require."

*Mr. O. R. Barnett* for the appellant.

*Mr. W. S. Ruckman* for the Commissioner of Patents.

VAN ORSDEL, *J.:*

This is an appeal from a decision of the Commissioner of Patents refusing to grant appellant the following claims on an improvement in concrete-mixers:

1. A circular track for a revoluble element consisting of a steel T-section railroad rail bent into circular form with its ends secured together.

2. A circular track for a revoluble element consisting of a single length of steel T-section railroad rail bent in circular form with its ends brought together and having the outer portions of its base flanges flattened to a substantially uniform thickness for a sufficient distance inwardly of the edges to give room for perforations for attaching devices.

3. In a machine of the character described the combination with the revoluble drum, of supporting rollers for the same, and a circular track on said drum by means of which it is revolubly supported on said rollers comprising a steel T-section railroad rail bent into circular form and secured to said drum.

4. In a machine of the character described the combination with the revoluble drum, of supporting rollers for the same, a circular track on said drum by means of which it is revolubly supported on said rollers, comprising a single length of steel T-section railroad rail bent into circular form with its ends brought together, and rivets or the like which extend through the base flanges of the track and the drum, by means of which the track is secured to said drum, the outer portions of said base flanges being flattened to a substantially uniform thickness for a sufficient distance inwardly of the edges to give room for said rivets substantially as and for the purpose described.

As will be seen from a reference to the above claims, the application on which a patent is here sought is drawn to cover an article of manufacture which consists of a steel T-section railroad-rail bent into a circular track, the ends being secured together by rivets. It is designed for use on concrete-mixers.

The Primary Examiner rejected the claims on patents to Moore and to Hambleton which show endless tracks of T shape. Appellant contends that his application discloses invention over the prior art, first, in that in the patents to Moore and to Hambleton the tracks are made of cast steel, while his track is made of rolled steel, which possesses greater durability; and, second, in that the track here under consideration, not being endless, but having ends joined by rivets or fish-plates, possesses an adaptability to slight variations in the size of the revoluble drum of the concrete-mixer not present in those heretofore known.

It must be conceded that the superiority of rolled steel over cast-steel for this purpose was well known. Appellant bases his claim for a patent on the ground that, prior to the invention of his apparatus, on which he has obtained a patent, and his process, on which an application is pending, it was not regarded as commercially feasible to bend rolled steel rails into circular tracks. It does not even appear in the record before us that, without the aid of appellant's apparatus and process, it was impossible to accomplish this, but merely that it was commercially impracticable. Therefore, we must agree with the tribunals below that whatever invention resides in appellant's improvements must be confined to his apparatus and process. There can be no invention in substituting one known material for another to accomplish a known result. Neither can invention be predicated on the known expedient of making a track of circular formation with a break therein, so that its size may be slightly enlarged or diminished as occasion may require.

Appellant relies chiefly upon the case of *Krementz* v. *Cottle*, (148 U. S., 556,) where a collar-button made of a continuous piece of metal with a hollow shank was held to be patentable as an article of manufacture. In that case, however, the button was structurally different from anything known to the prior art, while here the particular structure is fully disclosed in the patents cited by the Examiner.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

Court of Appeals of the District of Columbia.

IN RE GROVES.

*Decided January 5, 1914.*

PATENTABILITY—ROAD-PAVEMENTS.

Claims for a road-pavement consisting of a monolithic body of concrete and a semi-elastic wearing-surface of substantially pure bitumen *Held* unpatentable in view of the prior art.

*Mr. W. H. Swenarton*, *Mr. T. D. Merwin*, *Mr. W. B. Morton*, and *M. J. B. Macauley* for the appellant.

*Mr. W. S. Ruckman* for the Commissioner of Patents.

ROBB, *J.*:

Appeal from a decision of the Commissioner of Patents refusing a patent on two claims. Claim No. 1 is sufficient for our purposes here:

1. A road pavement comprising in combination, an integral, smooth surfaced, monolithic body of cement concrete of sufficient thickness to carry a maximum designed traffic load without deformation, and a semi-elastic, impervious, carpet coat wearing surface of substantially pure bitumen, in direct and permanent physical union with said concrete, and having superficially applied inert granular material embedded therein, said blanket-coat being of sufficient thickness to hold said embedded granular material in place, and to constitute a resilient, protective, wearing surface for said concrete, substantially as described.

According to appellant's present contention his invention consists of a road-pavement in two parts, a base and a wearing-surface, the base being composed of a monolithic or integral cement-concrete structure and the wearing-surface being a tough, impervious, semi-elastic covering consisting of substantially pure tar "or other suitable bitumen." In his original specification, however, appellant said his invention related "to a method of surfacing concrete roadways" and that in carrying out his process the road bed was to be "formed in the usual manner of concrete or the like." He further suggested that by his method "a surface is readily applied to the concrete roadway", and that "it may also be used to repair old brick roadways". The difference between his original and present conception of the scope of his alleged invention is apparent. Even now, his only specification for the construction of his concrete base is that it shall be of—

cement-concrete of such depth, usually about six inches, as will carry the maximum load,

and that it shall be an integral mass. Each of the three tribunals of the Patent Office that passed upon these claims carefully reviewed the prior art and unhesitatingly reached the conclusion that appellant has contributed nothing patentably novel thereto.

Owing to appellant's insistence that his alleged invention was not fully understood and appreciated by the Patent Office, we have very carefully reviewed the prior art, as well as the history of his application, but we are forced to the conclusion that the decision appealed from was right. In the second patent to Hubbell, (No. 158,415) he shows a foundation which does not materially differ from that required by appellant, for it is constructed of broken stone bound together by cement and coal-ashes or sand—

and forming a wearing-surface immediately above the surface of the broken stone.





After the foundation, with its concrete surface, is completed, it is slushed or saturated with "thin hot bitumen or pitch" and this is dusted over with dry cement. Appellant, however, points out that in his coating "inert granular material" or sand is embedded in the bitumen. But the use of sand for such a purpose is shown in several prior patents, notably in that to Robinson, (No. 496,099), whose foundation was to be prepared with concrete "or any other suitable resisting medium". Instead of putting the bitumen covering directly upon the concrete, as do Hubbell and appellant, Robinson first places bricks upon the concrete and then treats the bricks with a very hot composition of asphaltum, which is—

allowed to flow into their interstices, and also to penetrate the porous material of which the bricks are made, also making a thin covering over the bricks as well as filling in the spaces between the same.

Before this covering becomes thoroughly hardened Robinson then spreads sand or other inert material to increase its durability. Martineau, (August 11, 1834), Kelly, (British Patent, No. 5,593) and Cass, (British Patent, No. 18965), all use a coating of bitumen and sand.

The decision will therefore be affirmed.

Affirmed.

Court of Appeals of the District of Columbia.

THE ASBESTONE COMPANY *v.* THE PHILIP CAREY MANUFACTURING COMPANY.

*Decided February 2, 1914.*

TRADE-MARKS—OPPOSITION—NAME OF OPPOSER—SHOWING OF DAMAGE NOT NECESSARY.

"Where the name of an 'individual, firm, corporation, or association' is sought to be registered, as in this instance, the right of opposition is statutory, and proof of actual damage is not required. Neither is it important that appellant had not engaged actively in the business for which it was alleged it was incorporated. It is not the business which the statute in this particular aims to protect. It is the corporate name, and it is sufficient that possible damage may be inferred from invading the property right which the corporation possesses in its name."

*Mr. C. L. Sturtevant*, *Mr. E. G. Mason*, and *Mr. H. N. Paul* for the appellant.

*Mr. Paul Finckel* and *Mr. A. M. Allen* for the appellee.

VAN ORSDEL, *J.*:

This is a trade-mark opposition. Appellee company filed an application in the Patent Office for the registration of the word "Asbestone" as a trade-mark for hard asbestos boards. It alleges adoption and continuous use since June 1, 1912.

Notice of opposition was filed by appellant, a corporation, duly incorporated under the laws of Pennsylvania on June 3, 1900. The ground of opposition is stated as follows:

That deponent would be damaged by the registration of the alleged advertised mark, and that said advertised mark cannot lawfully be claimed as a trade-mark, because it consists merely in the name of a corporation, to wit: this opposer, not written, printed, impressed or woven in some particular or distinctive manner, or in association with a portrait. The said Asbestone Company was formed for the purpose of the manufacture and sale of non-heat conducting and fire-proofing materials of asbestos and other mineral and chemical substances.

Appellee moved to dismiss the opposition on the ground that the notice did not state facts sufficient to constitute a cause of opposition. On hearing, the notice was dismissed by the Examiner of Interferences, which ruling was affirmed by the Commissioner. From the Commissioner's decision, the present appeal was taken.

It must be conceded that appellee is seeking to register the name of a corporation in existence at the time it adopted and began to use the mark. In general terms this is forbidden under section 5 of the Trade-Mark Act of February 20, 1905, which provides, in part, as follows:

Provided, that no mark which consists merely in the name of an individual, firm, corporation, or association, not written, printed, impressed, or woven in some particular or distinctive manner or in association with a portrait of the individual * * * shall be registered under the terms of this act.

Section 6 of the act provides that—

any person who believes he would be damaged by the registration of a mark may oppose the same by filing notice of opposition, stating the grounds therefor.

The decisions below turned upon the alleged failure of appellant to establish damage as a fact. They applied to this case the rule of opposition applicable to the registration of a mere arbitrary technical trade-mark. This, we think, was error. The statute takes from the realm of possible registration the name of an individual, firm, corporation, or association, except under conditions not existing in this case. This limitation is founded upon sound principles of public policy.

A man's name is his own property, and he has the same right to its use and enjoyment as he has to that of any other species of property. (*Brown Chemical Co.* v. *Meyer*, 139 U. S., 540.)

The same rule applies to a corporation.

That the name of a corporation is an essential part of its being, and that courts, independent of statutory provision, will protect the corporation in the use of its name, seems to be well settled by the authorities, and the controlling principles in such a case are those applicable to trade-marks. (*Investor Pub. Co.* v. *Dobinson*, 72 Fed., 603.)

The converse is equally true. Had appellee been using the mark when appellant incorporated, it could not by mere adoption of the name have created an exclusive right to its use. (*Goodyear's India Rubber Co.* v. *Goodyear Rubber Co.*, 128 U. S., 598.)

It follows, that, where the name of an "individual, firm, corporation, or association" is sought to be registered, as in this instance, the right of opposition is statutory, and proof of actual damage is not required. Neither is it important that appellant had not engaged actively in the business for which it was alleged it was incorporated. It is not the business which the statute in this particular aims to protect. It is the corporate name, and it is sufficient that possible damage may be inferred from invading the property right which the corporation possesses in its name.

The decision of the Commissioner of Patents is reversed, and the clerk directed to certify these proceedings as by law required.

Reversed.

## ADJUDICATED PATENTS.

(U. S. D. C.) The Painter patent, No. 638,354, for a machine for automatically sealing bottles,

*Held* not infringed. *Crown Cork & Seal Co. of Baltimore City* v. *Sterling Cork & Seal Co.*, 210 Fed. Rep., 26.

(U. S. D. C.) The Painter and Hawkins patent, No. 643,973, for an apparatus for feeding crowns to a bottle-sealing machine, construed and as limited *Held* not infringed. *Crown Cork & Seal Co. of Baltimore City* v. *Sterling Cork & Seal Co.*, 210 Fed. Rep., 26.

## Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 4, 1914.*

*Sea Breeze Chemical Co., its assigns or legal representatives, take notice:*

A cancelation proceeding having been instituted by this Office upon the application of J. W. Brooks & Co., inc., of No. 20 Bradley street, Portland, Me., to effect the cancelation of the trade-mark registration of the Sea Breeze Chemical Co., of Birmingham, Ala., No. 43,390, dated May 15, 1904, and the notice of such proceeding sent by registered mail to the said Sea Breeze Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Sea Breeze Chemical Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 9, 1914.*

*William H. Lewis, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of John A. Chambers, of 90 West Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered June 21, 1892, No. 21,328, to William H. Lewis, of 1024 Arch street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said William H. Lewis at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Lewis, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 6, 1914.*

*Hancock & Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Wayne County Driers & Packers Fruit Company, 145 Railroad street, Rochester, N. Y., for registration of a trade-mark and trade-mark registered October 7, 1902, No. 38,996, to Hancock & Co., of Bourse, 20 South Fifth street, Philadelphia, Pa., and the registry return receipt for the notice of such declaration sent to Hancock & Co. having been returned signed by the Hancock Grain Co., and the Hancock Grain Co. having failed to file evidence of its right to intervene on behalf of Hancock & Co. within the time allowed for that purpose notice is hereby given that unless said Hancock & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 26, 1914.*

*R. M. Connable & Co., their assigns or legal representatives, take notice:*

Interferences Nos. 37,171 and 37,172 having been declared by this Office between the applications of Monnig Dry Goods Co., 1302–1310 Main street, Fort Worth, Tex., for registration of trade-marks and trade-mark registered June 10, 1890, No. 18,019, to R. M. Connable & Co., Dayton, Ohio, and notices of such declarations sent by registered mail to the said R. M. Connable & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said R. M. Connable & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interferences will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 27, 1914.*

*Marline Manufacturing Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of William Brueser, 3426 Woodland avenue, Kansas City, Mo., for registration of a trade-mark and trade-mark registered February 14, 1893, No. 22,467, to the Marline Manufacturing Company, Minneapolis, Minn., and a notice of such declaration sent by registered mail to said Marline Manufacturing Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Marline Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 25, 1914.*

*Anthony Shaw & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Worcester Royal Porcelain Company, Limited, Worcester, England, for registration of a trade-mark and trade-mark registered September 30, 1884, No. 11,534, to Anthony Shaw & Son, Burslem, England, and a notice of such declaration sent by registered mail to the said Anthony Shaw & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Anthony Shaw & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

*Benjamin Ward, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Seth William Eddy, of Fourteenth and N streets, Lincoln, Nebr., for registration of a trade-mark and trade-mark registered June 1, 1886, No. 13,366, to Benjamin Ward, of northwest corner of Dauphin and Conception streets, Mobile, Ala., and the Office having failed to secure service upon Ward, and Dave S. Bauer, of Mobile, Ala., claiming to be the successor of Ward, having failed to file evidence of his right to intervene on behalf of Ward within the time allowed for that purpose, notice is hereby given that unless said Benjamin Ward, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF MARCH 24, 1914 | 859 |
| ADVERSE DECISIONS IN INTERFERENCE | 859 |
| AMENDMENT OF RULE 80, RULES OF PRACTICE | 859 |
| APPLICATIONS UNDER EXAMINATION | 860 |
| PATENTS GRANTED | 861 |
| REISSUES | 1077 |
| DESIGNS | 1080 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 1095 |
| TRADE-MARKS—REGISTERED | 1109 |
| TRADE-MARKS CANCELED | 1112 |
| LABELS AND PRINTS | 1113 |
| COMMISSIONER'S DECISIONS— | |
| S. Galle & Company v. Western Grocer Company | 1115 |
| DECISIONS OF THE U. S. COURTS— | |
| E. A. Bromund Company v. Columbia Wax Products Co. | 1115 |
| In re Fleuss and Davis | 1115 |
| In re Ochs | 1116 |
| The Peter Schoenhofen Brewing Company v. John Sexton & Company | 1117 |
| ADJUDICATED PATENTS | 1117 |
| CHANGES IN CLASSIFICATION | 1117 |
| INTERFERENCE NOTICES | 1118 |

## ISSUE OF MARCH 24, 1914.

| | | | |
|---|---|---|---|
| Patents | 641—No. | 1,090,829 to No. | 1,091,469, inclusive. |
| Designs | 71—No. | 45,443 to No. | 45,513, inclusive. |
| Trade-Marks | 113—No. | 95,859 to No. | 95,971, inclusive. |
| Labels | 12—No. | 17,601 to No. | 17,612, inclusive. |
| Prints | 7—No. | 3,525 to No. | 3,531, inclusive. |
| Reissues | 4—No. | 13,702 to No. | 13,705, inclusive. |
| Total | 848 | | |

TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 8 | ..... | North Carolina | 1 | 1 |
| Arizona | 3 | ..... | North Dakota | 1 | ..... |
| Arkansas | 2 | ..... | Ohio | 53 | 7 |
| California | 26 | 7 | Oklahoma | 7 | 1 |
| Colorado | 9 | ..... | Oregon | 4 | 1 |
| Connecticut | 23 | 2 | Pennsylvania | 50 | 13 |
| Delaware | 1 | ..... | Rhode Island | 4 | ..... |
| Florida | 2 | ..... | South Carolina | 2 | ..... |
| Georgia | 3 | ..... | South Dakota | 1 | ..... |
| Idaho | ..... | ..... | Tennessee | 2 | 2 |
| Illinois | 55 | 7 | Texas | 6 | 2 |
| Indiana | 5 | 2 | Utah | 2 | ..... |
| Iowa | 17 | ..... | Vermont | 1 | ..... |
| Kansas | 7 | 4 | Virginia | 3 | 3 |
| Kentucky | 5 | 1 | Washington | 4 | 1 |
| Louisiana | 2 | ..... | West Virginia | 4 | ..... |
| Maine | 4 | ..... | Wisconsin | 20 | 3 |
| Maryland | 10 | 3 | Wyoming | ..... | ..... |
| Massachusetts | 49 | 5 | | | |
| Michigan | 31 | 2 | Alaska, District of | ..... | ..... |
| Minnesota | 8 | 1 | Canal Zone | ..... | ..... |
| Mississippi | 2 | ..... | District of Columbia | 8 | 1 |
| Missouri | 24 | 7 | Hawaii Territory | ..... | ..... |
| Montana | 5 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 3 | ..... | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 2 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 28 | 13 | | | |
| New Mexico | 3 | ..... | Total to residents of the United States | 630 | 122 |
| New York | 120 | 32 | | | |

TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | ..... | ..... |
| Austria-Hungary | 3 | ..... | Newfoundland | ..... | ..... |
| Belgium | 2 | ..... | New South Wales | ..... | ..... |
| British India | ..... | ..... | New Zealand | 3 | ..... |
| Brazil | ..... | ..... | Norway | 3 | ..... |
| British West Indies | ..... | ..... | Portugal | ..... | ..... |
| Canada | 7 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Rhodesia | 1 | ..... |
| Chile | ..... | ..... | Russia | 2 | ..... |
| Costa Rica | ..... | ..... | Scotland | 2 | 2 |
| Cuba | ..... | ..... | South Australia | ..... | ..... |
| Denmark | 1 | ..... | Spain | ..... | ..... |
| Dominican Republic | ..... | ..... | Sweden | 1 | ..... |
| England | 16 | 3 | Switzerland | ..... | ..... |
| France | 12 | ..... | Transvaal, South Africa | ..... | ..... |
| Germany | 23 | 3 | India | ..... | ..... |
| India | ..... | ..... | Victoria | 1 | ..... |
| Ireland | 2 | ..... | Wales | 1 | ..... |
| Italy | 1 | 1 | | | |
| Japan | ..... | 1 | Total to residents of foreign countries | 82 | 10 |
| Mexico | 1 | ..... | | | |

## Adverse Decisions in Interference.

PATENT No. 849,840.

On January 28, 1911, a decision was rendered that Clair Foster was not the first inventor of the subject-matter covered by claims 1, 2, 3, 4, 5, 6, 8, 9, 15, and 17 of his Patent No. 849,840, subject, "Elevators," and no appeal having been taken within the time allowed such decision has become final.

## Amendment of Rule 80, Rules of Practice.

(ORDER No. 2,102.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 80 of the Rules of Practice in the United States Patent Office is amended by adding the following paragraph:

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term,

so that the rule as amended will read as follows:

80. Patents for designs are granted for the term of three and one-half years, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term.

THOMAS EWING,
*Commissioner.*

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business March 21, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Jan. 26 | Jan. 30 | 652 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Nov. 11 | Feb. 2 | 510 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Feb. 24 | Mar. 9 | 212 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 16 | Feb. 24 | 676 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Dec. 13 | Jan. 17 | 498 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Nov. 25 | Jan. 12 | 736 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 1 | Feb. 4 | 735 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Sept. 17 | Feb. 7 | 1040 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Oct. 23 | Feb. 20 | 615 |
| 235 | 10. Carriages and Wagons | Dec. 1 | Jan. 16 | 1114 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Jan. 22 | Feb. 9 | 431 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Oct. 31 | Dec. 18 | 1399 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Jan. 28 | Feb. 21 | 475 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 11 | Feb. 24 | 480 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Oct. 1 | Jan. 9 | 1418 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 3 | Jan. 17 | 833 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Jan. 27 | Feb. 26 | 223 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Feb. 5 | Feb. 18 | 242 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Jan. 29 | 468 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended | No. of applications awaiting action. |
|---|---|---|---|---|
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Jan. 10 | Feb. 14 | 297 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Nov. 26 | Feb. 6 | 480 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Dec. 19 | Feb. 16 | 373 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Nov. 22 | Jan. 21 | 517 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Jan. 5 | Feb. 2 | 541 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Feb. 6 | Feb. 10 | 280 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Dec. 1 | 780 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Jan. 6 | Feb. 6 | 468 |
| 65 | 28. Internal-Combustion Engines | Oct. 14 | Feb. 2 | 849 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Jan. 20 | Jan. 22 | 508 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 20 | Mar. 9 | 347 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Dec. 1 | Feb. 6 | 382 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 3 | Feb. 16 | 619 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Jan. 27 | Feb. 7 | 288 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Feb. 9 | Feb. 27 | 339 |
| 57 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Jan. 6 | Feb. 21 | 556 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Feb. 4 | Jan. 27 | 736 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Sept. 24 | Jan. 26 | 848 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 1 | Jan. 15 | 821 |
| 321 | 39. Water Distribution | Nov. 11 | Jan. 9 | 568 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Nov. 25 | Jan. 23 | 1155 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Feb. 11 | Feb. 18 | 467 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Oct. 20 | Feb. 12 | 523 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Jan. 27 | Feb. 9 | 288 |

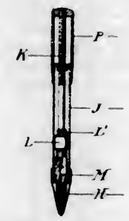
Oldest new case, Aug. 1; oldest amended, Dec. 1.
Total number of applications awaiting action ..... 25,887

| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Jan. 11 | Feb. 19 | 1073 |
| | Designs | Feb. 11 | Feb. 21 | 262 |
| | Labels and Prints | Mar. 14 | Mar. 16 | 89 |

# PATENTS

## GRANTED MARCH 24, 1914.

1,090,829. ERASER. FRANCIS H. BALDWIN, New Rochelle, N. Y. Filed Aug. 30, 1912. Serial No. 717,928. (Cl. 120—35.)




1. An eraser having in combination an erasing brush of glass and a mouthpiece therefor which is adjustable relative thereto and which has one or more substantially sharp corners or angles adapted to conform the side of the brush adjacent to its end to one or more substantially sharp dihedral angles forming one or more substantially sharp erasing points at the exposed end of the brush.

2. An eraser having, in combination, an erasing brush of fine filaments of glass and a convergent mouthpiece therefor having one or more angles for confining the protruding portion of the brush to form an approximately sharp dihedral angle, whereby the said angle may form at the end of the brush a substantially pointed corner.

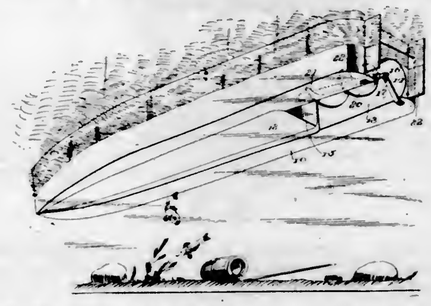
3. An eraser combining an erasing brush of fine filaments of glass and a mouthpiece therefor in which the said brush is adjustably supported, the mouthpiece having an angular mouth with one or more substantially sharp angles adapted to bear against the filaments and laterally confine and conform them into one or more substantially sharp dihedral angles and thereby adapted to form one or more substantially sharp, hard and closely supported erasing points at the exposed end of the brush, and means for adjusting the extent of protrusion of the brush from the mouthpiece.

4. An eraser combining an erasing brush of fine filaments of glass and a mouthpiece therefor in which the said brush is supported, the mouthpiece having an angular mouth with one or more substantially sharp angles adapted to bear against the filaments and laterally confine and conform them into one or more substantially sharp dihedral angles and thereby adapted to form one or more substantially sharp, hard and closely supported erasing points at the exposed end of the brush.

5. An eraser combining an erasing brush of fine filaments of glass and a cap for the brush in which the filaments are secured and a handle or holder provided with an angular mouthpiece adapted to confine and conform the brush to one or more approximately sharp dihedral angles, the said handle or holder being also provided with means for adjusting the said brush relatively to the mouthpiece, and the said cap of the said brush being provided with a detachable securing device for securing it to the said adjusting means, whereby the said cap and brush may be actuated in both directions and readily detached.

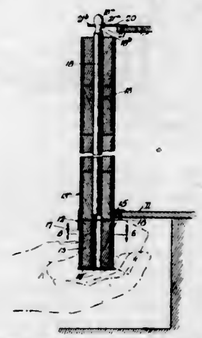
1,090,830. MARINE PROPULSION. GEORGE W. BEESON, Eagle Pass, Tex. Filed Feb. 11, 1911. Serial No. 608,069. (Cl. 115—39.)

A vessel construction including a hull provided on its bottom with a longitudinally and centrally extending channel which tapers toward the bow of the vessel, there being an enlarged chamber formed in the hull at the stern end thereof, and an enlarged duct merging into the cham-



ber and channel and providing communication therebetween, said chamber being tapered toward the stern of the hull, the greatest width of the chamber being adjacent the point where the duct and channel merge.

1,090,831. DISPLAY-RACK FOR SPOOLS, &c. HIRAM H. BELDING and LEON L. PEARCE, Chicago, Ill., assignors to Belding Bros. & Co., Chicago, Ill., a Corporation of Connecticut. Filed Oct. 1, 1913. Serial No. 792,711. (Cl. 211—10.)



1. A magazine rack, comprising spaced supporting members, one or more discharge cups fixed to one of said supporting members, and one or more spindles detachably carried by the other supporting member, each spindle being in axial alinement with the central axis of an associated discharge cup.

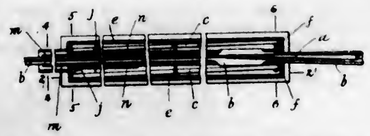
2. A magazine display rack, comprising upper and lower supporting members, a plurality of discharge cups fixed to the bottom supporting member, and a plurality of spindles detachably carried by the upper supporting member, each spindle being in vertical alinement with the central vertical axis of an associated discharge cup.

3. A magazine display rack, comprising upper and lower supporting members, a plurality of discharge cups fixed to the bottom supporting member, each display cup con-

sisting of a cylinder shell open at the top, closed at the bottom and having a front sight opening and a rear discharge opening and a plurality of spindles detachably carried by the upper supporting member, each spindle being in vertical alinement with the central vertical axis of an associated discharge cup and depending into the upper end thereof.

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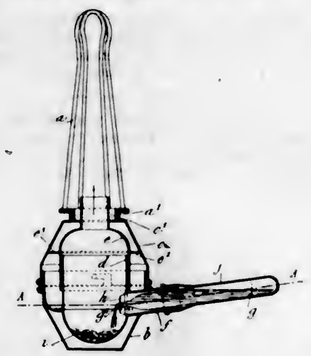
1,090,832. TRAMWAY-TRACK POINT. JOSEPH BELLVE and THOMAS WILSON POTTS, Dunedin, New Zealand. Filed July 1, 1911. Serial No. 636,509. (Cl. 104—24.)



In a tramway switch, the combination of a rail; a rail joint provided with slots; a track point pivoted therein; operating levers arranged on both sides of the rail and pivoted at their middle part; inwardly pointing cams on the inner faces of the levers; an adjustable pin disposed transversely of the track point; and pins in said levers engaging the ends of said adjustable pin.

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1,090,833. APPARATUS FOR GASEOUS INJECTIONS. MARCEL BRAUNBERGER, Paris, France. Filed Apr. 24, 1913. Serial No. 763,208. (Cl. 23—10.)



1. A gas generator, embodying an exterior casing consisting of telescopic sections, means substantially midway between the ends of said casing for locking said sections together, an interior generating chamber consisting of a chamber section carried interiorly by each of the said telescopic sections and said chamber sections being adapted to telescope one with the other.

2. A gas generator, embodying an exterior casing consisting of telescopic sections, means substantially midway between the ends of said casing for locking said sections together, an interior generating chamber comprising casing sections carried, respectively, by said telescopic sections and themselves adapted to telescope, said interior casing sections being spaced away from the telescopic sections forming the exterior casing, and means carried by and bridging the space between an exterior and an interior casing section for introducing substances into said generating chamber.

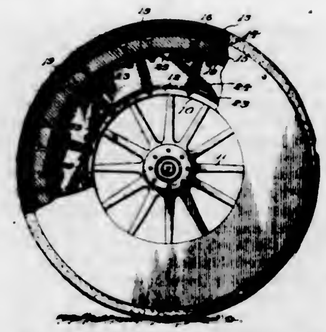
3. A gas generator, embodying therein an exterior sectional casing, a generating chamber within said casing and adapted to contain a gas evolving medium, said generating chamber comprising casing sections carried, respectively, by said exterior casing sections, said exterior casing having a hollow lateral projection communicating with the interior of said chamber and through which projection a substance may be introduced into said chamber to cause evolution of gas by said gas evolving medium.

4. A gas generator, embodying therein an exterior sectional casing, a generating chamber within said casing and comprising casing sections and insulating material between said sections, the sections of said generating chamber being carried, respectively, by the sections of the exterior casing, and means carried by the exterior casing and one of said casing sections for introducing substances into said generating chamber.

5. A gas generator, embodying therein an exterior sectional casing, an insulated generating chamber within said casing and adapted to contain a gas evolving medium, said generating chamber comprising casing sections carried, respectively, by the sections of the exterior casing, a hollow lateral projection carried by said casing and leading to said generating chamber, a valve controlling the passage of substances out of said projection, and means carried by said projection for introducing a substance into said projection and said generating chamber to cause evolution of gas by said gas evolving medium.

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1,090,834. RESILIENT WHEEL. JOHN H. BRIZENDIN, Lees Summit, Mo. Filed Nov. 4, 1912. Serial No. 729,428. (Cl. 152—38.)



A resilient wheel comprising spaced inner and outer rims, means hingedly supported by the outer rim, said means being formed with extensions the terminals of which project through the inner rim, springs embracing said extensions and interposed between the rims, and other springs connecting the inner and outer rims and projecting between certain of said extensions.

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1,090,835. LIQUID-EVAPORATOR FOR HEATERS. FRANK E. BUDDINGTON, Chicago, Ill. Filed Apr. 3, 1913. Serial No. 758,738. (Cl. 98—44.)



1. A liquid evaporator comprising the combination of a liquid receptacle, an openwork fabric support secured to said receptacle adjacent its top and extending laterally therefrom, and a hood around the edges of said openwork fabric support and depending therefrom.

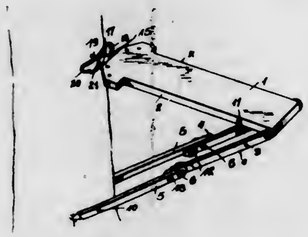
2. A liquid evaporator comprising the combination of a pan-shaped liquid receptacle having an open top as broad as the body of said receptacle, an open work fabric support secured to said receptacle adjacent its top and extending laterally therefrom at opposite sides thereof, and a thin open material of lace-like texture to admit the passage of air therethrough resting upon said fabric support and extending into said receptacle.

3. A liquid evaporator comprising the combination of a pan-shaped liquid receptacle having a broad open top, an openwork fabric support secured to said receptacle adjacent its top and extending laterally therefrom on opposite sides thereof, a hood extending around the outer edge of said openwork fabric support and above and below the same, and a fabric of thin open material extending over said openwork support and into said pan-shaped receptacle.

4. A liquid evaporator comprising the combination of a pan-shaped liquid receptacle having a broad open top of substantially the same area as the body of the receptacle and having a flat bottom, a laterally projecting openwork base at the bottom of said receptacle and extending outwardly therefrom at opposite sides thereof, an openwork fabric support secured to said receptacle adjacent its open top and extending laterally therefrom, a hood extending around the outer edges of said openwork fabric support, and a sheet of thin fabric extending into said vessel and over said openwork fabric support.

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1,090,836. SPRING-BOARD. MARSTON W. BUSH, Willits, Cal. Filed Nov. 22, 1912. Serial No. 732,973. (Cl. 20—84.)



A spring board for use in felling trees comprising a platform provided with longitudinal side recesses, props each including two sections co-extensive with the length of the recesses and pivotally connected together and foldable to lie wholly within the plane of the recesses, means for holding the prop sections against pivotal movement when extended to operative platform folding positions and operable also for engagement with the platform to hold both prop sections in folded positions against the sides of the platform.

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1,090,837. CLOTHES-DRIER. JOHN LEE CLARKE, Albuquerque, N. Mex. Filed Nov. 13, 1912. Serial No. 731,099. (Cl. 68—34.)



1. A clothes drier including a body member, a plurality of arms hingedly connected in pairs, and means for detachably connecting said pairs of arms to the body member.

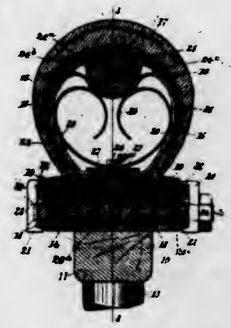
2. A clothes drier including a body member provided with a plurality of transversely extending bores, and a plurality of supporting arms hingedly connected in pairs, said hinges being so formed and applied as to engage the body member when the inner ends of said arms are seated in the bores of the body member.

3. A clothes drier including a supporting bar provided with a plurality of transverse bores, a pair of clothes supporting arms, a pair of hinge plates mounted one adjacent one end of each of said arms, arcuate hinge extensions projecting from said hinge plates, and having interengaging ears, and pintle pins passed through said ears, said hinge extensions being so arranged that when the adjacent ends of the supporting arms are seated in opposite ends of the bores of the supporting body, said extensions will engage the upper face thereof.

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1,090,838. VEHICLE-TIRE. CHARLES H. DE VOLL, New York, N. Y. Filed Mar. 30, 1909. Serial No. 486,770. (Cl. 152—8.)



1. A vehicle tire comprising a flexible outer casing, an annular support therefor, an annular, elastic rib arranged upon the inner surface of said flexible outer casing, a casing inclosing said annular rib, a series of graduated resilient members secured upon said annular support, and within said flexible outer casing, said graduated, resilient members having inwardly projecting portions embracing said annular rib and its inclosing casing, and supplemental, resilient reinforcing members arranged within said graduated resilient members having their free ends extending inwardly and engaging, adjacent to said free ends, the projecting portions of said series of graduated resilient members whereby to resist the inward movement thereof, substantially as specified.

2. A vehicle tire comprising a casing, an annular support therefor, a series of segmental plates arranged thereon, supports on said segmental plates, a series of resilient reinforcing members having their ends disposed within said supports, and supplemental, resilient reinforcing members disposed within said first-named reinforcing members having their free ends extending inwardly and having portions adjacent to their free ends engaging said first-named reinforcing members intermediate the ends thereof, substantially as specified.

3. A vehicle tire comprising an outer casing, a casing therein, an annular rib arranged within said inner casing adjacent to the tread portion of said outer casing, an annular support arranged below said casing, a series of vertical supports thereon, sectional plates mounted upon said supports having recesses in their opposite edges, a plurality of curved, resilient reinforcing members secured to said sectional plates and engaging the inner surface of said outer casing and the annular rib inclosed within said inner casing, and supplemental, resilient reinforcing members supported intermediate their ends upon said sectional plates and having the free ends extending inwardly and having portions adjacent to their free ends in engagement with said reinforcing members first-mentioned, substantially as specified.

4. The combination with a vehicle wheel, of an annular plate secured thereon, a flexible casing having its edges in contact and supported upon said annular plate, sectional plates disposed within said flexible casing having recesses in their opposite edges, segmental plates disposed intermediate said annular plate and said casing, a series of vertical supports on said segmental plates for supporting said sectional plates, a series of resilient reinforcing members disposed in said casing having their ends secured with-

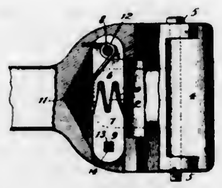
in the recesses in said sectional plates, supplemental reinforcing members supported intermediate their ends upon said sectional plates and having their ends extending outwardly and inwardly and contacting adjacent to their ends with the inner surface of said resilient reinforcing members first-named, and means for securing the edges of said casing together and to said wheel, substantially as specified.

5. The combination with a vehicle wheel, of an annular plate secured thereon, a flexible casing having its edges disposed upon said annular plate, segmental plates disposed upon said annular plate, a series of vertical supports thereon extending upwardly between the edges of said flexible casing, sectional plates mounted upon said vertical supports having recesses in their opposite edges and arranged within said flexible casing, a series of curved, resilient reinforcing members disposed within said casing having their ends secured in the recesses in said sectional plates, supplemental, resilient reinforcing members supported intermediate their ends upon said sectional plates and having their ends bent outwardly and inwardly and contacting adjacent to their free ends with the inner surface of said resilient reinforcing members first-named, and means for securing the edges of said casing together and to said wheel, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,839. CAR-COUPLING. HARRY G. DODDS, Mobile, Ala. Filed May 6, 1913. Serial No. 765,968. (Cl. 213—12.)



1. In a car coupler, the combination with the drawhead and a pivoted knuckle, of a locking detent arranged in the path of movement of the knuckle and comprising a pair of oppositely disposed elements, and means for operating said elements.

2. In a car coupler, the combination with the drawhead and a pivoted knuckle, of a locking detent arranged in the path of movement of the knuckle and comprising a pair of elements, one of said elements being pivoted at the top of the coupler and depending therefrom, while the other element is pivoted at the bottom of the coupler and extending vertically therefrom, both of said elements having interengaging terminals, and means for operating said elements.

3. In a car coupler, the combination with the drawhead and a knuckle, of a locking detent arranged in the path of movement of the knuckle and comprising a pair of opposed intermeshing elements, said elements being adapted to move rearwardly to permit the passage of said knuckle, and means for operating said elements.

4. In a car coupler, the combination with the drawhead and a knuckle, of a locking detent arranged in the path of movement of the knuckle and comprising a pair of elements, said elements being pivoted at opposite sides of the coupler and extending toward each other in opposite direction, said elements further being provided with interengaging terminals, and means for operating said elements.

5. In a car coupler, the combination with a drawhead and a pivoted knuckle, of a locking detent arranged in the path of movement of the said knuckle and comprising a pair of separable elements, said elements being provided with interengaging projections, a spring coöperating with one of the elements, and operating means attached to the other of said elements.

[Claim 6 not printed in the Gazette.]

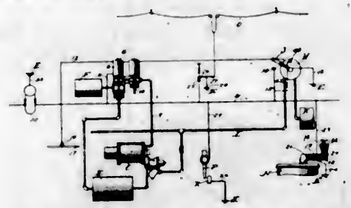
1,090,840. FASTENER. EVERETT M. DOUGHERTY, Escanaba, Mich. Original application filed Dec. 21, 1912, Serial No. 737,996. Divided and this application filed July 28, 1913. Serial No. 781,602. (Cl. 211—22.)



In a display apparatus, a supporting arm, and a member passing around said arm, and having end portions which extend in opposite directions cross the arm and terminate in outstanding prongs, said member being resilient to grip the arm.

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1,090,841. ELECTROPNEUMATIC BRAKE SYSTEM. JAMES S. DOYLE, New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 17, 1910. Serial No. 549,978. (Cl. 188—4.)



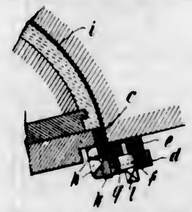
1. The combination with car brake mechanism, and means for controlling the supply of pressure medium thereto, of means for supplying additional pressure to the brake mechanism, electrically operated devices for controlling the same, and a power controller, a brake valve, and means controlled by the power controller and the brake valve for controlling the circuit of the electrical devices.

2. The combination with car brake mechanism, of a pressure supply reservoir, a valve for controlling the supply of pressure medium from the reservoir to the brake mechanism, electrical devices for operating said valve, a power controller, a brake valve, and means controlled by said power controller and brake valve for controlling the circuit of said electrical devices.

3. The combination with an electrically controlled car brake operative to effect an application of the brakes upon grounding the electric circuit thereof, of a brake valve, an electric car controller and a conductor's cord, each adapted to ground the circuit of said electrically controlled car brake.

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1,090,842. LOCKING DEVICE FOR STEREOTYPE-MATRICES. ARNOLD EGLI, Plauen, Germany, assignor to Vogtländische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Aktiengesellschaft, Plauen, Germany. Filed Feb. 9, 1911. Serial No. 607,606. (Cl. 22—2.)

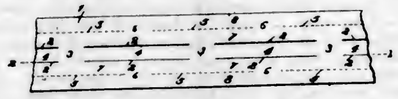


A clamping device for stereotype matrices forming part of a casting mold, comprising two sets of bars, each set forming a separate clamp for one edge of the matrix, locking bolts on one bar of each set for clamping the bars together, cams for operating the said locking bolts, the other bar having recesses for said locking bolts permitting adjustment of the bars relative to each other, and pintles on one bar permitting the clamping device to be removably attached to the casting mold.



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1,090,843. PROCESS FOR MAKING METAL FABRIC. JOHN F. GOLDING, Washington, D. C. Filed Jan. 29, 1912. Serial No. 674,134. (Cl. 164—6.5.)



1. The herein described process of making metal fabric, which consists in first forming slits in a metal sheet or plate which partly cut out and free the opposite edges of intermediate chord strands for one side of the fabric, and then cutting other slits at the sides of but alternating with the first mentioned slits to form diagonal trussing strands, and chord strands located at the sides of the said intermediate chord strands for the other side of the fabric, and simultaneously stretching the diagonal strands relative to the chord strands, thus separating the chord strands of the metal into two planes at a distance from each other at opposite sides of the fabric.

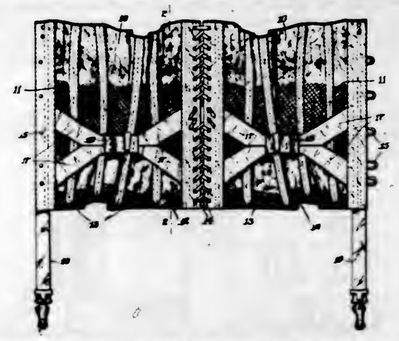
2. The herein described process of making metal fabric, which consists in first forming slits in a metal sheet or plate which partly cut out and free the edges of the chord strands for one side of the fabric, and then cutting other slits at the sides of but alternating with the first mentioned slits to form diagonal trussing strands and chord strands for the other side of the fabric and simultaneously stretching the diagonal strands relative to the chord strands, thus separating the chord strands of the metal into two planes at a distance from each other at opposite sides of the fabric, and corrugating and narrowing certain of the strands during the said process.

3. The herein described process of making metal fabric from a single bar of metal which consists in forming a series of pairs of slits in the bar, leaving uncut portions between the ends of one pair of slits and the ends of the next pair, thus partially cutting out strands which become the chord strands of one surface of the fabric, forming in the bar other slits parallel with the edges of the bar and alternating with the slits which form the aforesaid intermediate strands, and thus partially cutting out parallel strands which become the chord strands for the other surface of the fabric and are arranged laterally on opposite sides of the said intermediate strands and in staggered relation thereto, and then separating the said intermediate and parallel strands from each other and simultaneously stretching the metal uniting them, which form diagonal connecting strands between the chord strands.

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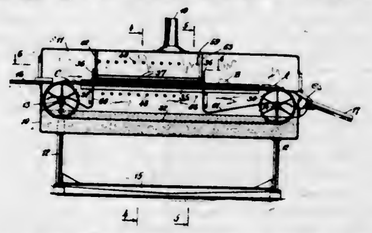
1,090,844. COMBINED CORSET AND ABDOMINAL SUPPORTER. MOSES GOODSIDE, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,273. (Cl. 2—73.)

A combined corset and abdominal supporter consisting of two like parts, each embodying an integral web consisting of a single continuous upper inelastic member adapted to support the bust of the wearer and extending from the front to the rear of the device in a direction at right angles to its length, a single continuous intermediate elastic longitudinally yielding member adapted to extend from the waist line to the pelvic region of the wearer and extending from the front to the rear of the device in a direction at right angles to its length, a relatively narrow continuous inelastic member adapted to be positioned against the extreme lower part of the wearer's abdomen and extending from the front to the rear of the device in a direction at right angles to its length, a continuous lowermost elastic strip or member extending to a point below the hips of the wearer, and extending from the front to the rear of the device in a direction at right angles to its length, a bifurcated lappet connected to the front and rear edge of each of the corset parts, said lappets extending toward each other, and means for adjustably connecting the lappets on each of the corset parts to each other.



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1,090,845. DISH-WASHING MACHINE. HARRY T. GOSS, Rutherford, and JAMES WARES BRYCE, Bloomfield, N. J. Filed Apr. 3, 1911. Serial No. 618,719. (Cl. 141—9.)



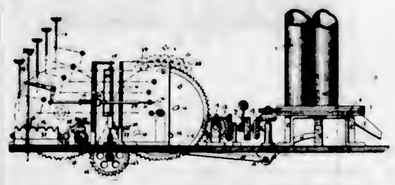
1. In a dish washing machine, an endless carrying belt having a substantially flat open carrying surface, means for producing a movement of said belt in one direction, oppositely directed stationary shower pipes on opposite sides of said belt, a tank, an overflow therefor, means for circulating the water in the tank through the shower pipes and causing it to impinge against articles on the belt in different directions; and oppositely directed rinsing pipes on opposite sides of said belt beyond said shower pipes in relation to the movement of the belt for rinsing the articles on the belt, which serve as means for introducing fresh hot water into the tank.

2. In a dish washing machine an endless belt having a substantially flat open carrying surface, means for producing a constant movement of said belt in one direction, a pair of stationary supporting guides arranged to engage the edges of said belt and to hold the carrying portion thereof in a horizontal plane, a set of stationary shower pipes above the supported portion of the belt and another set of stationary shower pipes below said portion of the belt, independent valves for controlling the inlet to each set of shower pipes, each of said shower pipes being provided with a plurality of sets of orifices for discharging water under pressure toward the other set of shower pipes but in different directions and arranged to have said water jets impinging upon articles upon the belt, a tank, means for circulating water from said tank through said shower pipes, said shower pipes being so arranged as to cause the effective pressure of the water from the upper shower pipes to be greater than that from the lower shower pipes; a pair of rinsing pipes one above and one below said supported portion of the belt and beyond the shower pipes in relation to the movement of the belt, which serve as means for introducing water into the tank and an overflow pipe from the tank.

3. In a dish washing machine, a conveyer having an open carrying surface arranged to have a constant movement in one direction, a stationary guiding frame over the carrying surface, a stationary shower pipe above said surface, and another stationary shower pipe below said surface, and means for forcing water from each of said shower pipes against said surface of the conveyer.

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1,090,846. AUTOMATIC CASHIER. PAUL GREINDL, Brussels, Belgium. Filed Apr. 29, 1913. Serial No. 764,371. (Cl. 133—4.)



1. In an automatic cashier of the class described, the combination of vertical tubular coin containers, a suitable coin ejecting disk, rotatably arranged in a horizontal plane below each of said coin containers, a bulged portion in the wall of each container, a horizontally movable slide, adapted to be inserted partially into said bulged portion, means for actuating said slide at the same time as the ejecting disk, a key board, suitable connections between the keys and the ejecting disk for controlling the angular movements of the latter, a recording and a ticket printing mechanism, and means for causing the latter to be controlled at the same time as the ejecting disk, substantially as set forth.

2. In an automatic cashier of the class described, a key board, horizontally movable bars actuated by the keys, stop-pins movable at right angles to said bars and adapted to be actuated by the latter, a vertically arranged toothed wheel laterally projecting lugs on said wheel coöperating with said stop-pins, a spring actuating said wheel when it is released, a latch, normally locking said wheel against rotation and adapted to be unlocked by said bar, a horizontally rotatable coin ejecting disk, suitable gear-wheels between the toothed wheel and said disk, a clutch for said gear-wheels whereby the latter do not actuate the disk if the toothed wheel is rotated by its spring, a crank-handle, a shaft carrying the same, suitable gearings between the latter and the shaft of said toothed wheel, whereby the latter is rotated in opposite directions when the crank-handle is rotated, a recording mechanism, suitable connections between the latter and the toothed wheel, a ticket printing mechanism and suitable connections between the latter and the shaft of the crank-handle, substantially as set forth.

3. In an automatic cashier of the class described, the combination of a key-board, horizontally movable bars, actuated by the keys, stop-pins movable at right angles to said bars and actuated by the same, a vertical toothed wheel, laterally projecting lugs coöperating with said stop-pins, a spring for actuating the toothed wheel to an extent limited by the adjusted stop-pin, a crank-handle, suitable gearings between the same and the toothed wheel for rotating the latter in opposite direction, an elongated guideway, balls arranged within the same, and a bolt adapted to be inserted between said balls upon the depression of a single key for preventing another key from being depressed simultaneously, a horizontally rotatable coin ejecting disk, suitable gearings between the latter and the toothed wheel whereby the disk is actuated only when the crank-handle is rotated, a group of vertical tubular coin containers arranged above said ejector, and a recording mechanism actuated by the toothed wheel, substantially as set forth.

4. In an automatic cashier of the class described, the combination of a key-board, a toothed wheel a spring actuating the same in one direction, means for controlling the angular movement of said wheel by the depression of a key, a rotatable coin ejector, suitable connections between the toothed wheel and said ejector, a shaft, a crank-handle on said shaft and connections between the latter and the toothed wheel, the ejector being actuated only as the crank-handle is rotated, toothed gear-wheels corresponding to units, tens and hundreds, operative connections between the same and the said toothed wheel, type-wheels operatively connected to said gear-wheels, an inking device for said type-wheels, recording wheels also operatively connected to said gear-wheels, means for feeding an endless strip of paper in front of the type-wheels, another strip of paper, means for feeding the same between the endless strip and the type-wheels, means for cutting off said second strip to the ticket length, and means for pressing the paper against the inked type-wheels, substantially as set forth.

5. In an automatic cashier of the class described, the combination of a key-board, a toothed wheel, a spring actuating the same upon the depression of a key, means operated by the keys for controlling the angular movements of said wheel, a crank-handle for actuating the latter in opposite direction, a rotatable coin ejecting disk, connections between the same and the toothed wheel whereby said disk is actuated only as the crank-handle is operated, type-wheels and recording indicating wheels, operative connections between said wheels and the said toothed wheel, an oscillating frame over which passes an endless strip of paper and arranged in front of the type-wheels, paper feeding means carried by said oscillating frame, suitable connections between the crank-handle and said oscillating frame whereby the latter is caused to swing toward and away from the type-wheels, an inclined guide for the same for another strip of paper, reciprocating feeding means on said guide, connections between the crank-handle and said feeding means for reciprocating the same and feeding the second strip of paper between the type-wheels and the endless strip of paper, substantially as set forth.

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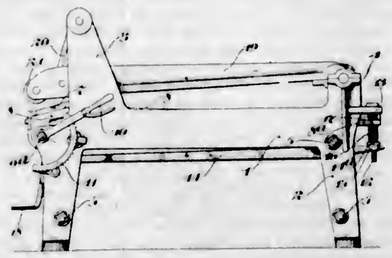
1,090,847. PROCESS FOR MANUFACTURING SYNTHETIC CAOUTCHOUC. COUNT KARL FRIEDRICH LEO GROSS, Christiania, Norway. Filed June 12, 1913. Serial No. 773,249. (Cl. 23—24.)

1. The process of manufacturing caoutchouc from isoprene which comprises heating the isoprene in contact with trioxymethylene until a viscous mass is obtained.

2. The process of manufacturing caoutchouc from isoprene which consists in heating isoprene and dissolved trioxymethylene in a closed chamber to a temperature of from 100° C. to 200° C. for from 1 to 3 hours, cooling the materials and separating the caoutchouc so formed.

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1,090,848. DEVICE FOR DRAWING SHARP EDGES ON METALLIC BODIES. CHARLES O. HALLING, Milan, Minn. Filed May 9, 1913. Serial No. 766,513. (Cl. 29—83.)



1. In a machine of the kind described, the combination with a support and bar provided with a drawing head and mounted on said support, and means for imparting a limited endwise movement thereto, of a pivoted anvil bar having an anvil with which said drawing head coöperates, and yielding means for holding said anvil bar in normal position.

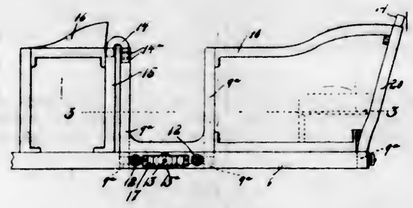
2. In a machine of the kind described, the combination with a support and a crank and a link mounted thereon, and a bar carried by said crank and link, and provided, at one end, with a drawing head, of an eccentric shaft adjacent to the head equipped end of said bar, an anvil bar pivoted on said eccentric shaft, and provided with an anvil and coöperating with the said drawing head, and a spring operative on said anvil bar to yieldingly hold the same in a normal position.

3. In a machine of the kind described, the combination with a support and a crank and a link mounted thereon, and a bar carried by said crank and link, and provided, at one end, with a drawing head, of an eccentric shaft adjacent to the head equipped end of said bar, an anvil bar pivoted on said eccentric shaft, and provided with an anvil and coöperating with the said drawing head, and a spring operative on said anvil bar to yieldingly hold the same in a normal position, and means for shifting the base of reaction of the said spring substantially as described.

4. In a machine of the kind described, the combination with a support and a crank and a link mounted thereon, and a bar carried by said crank and link, and provided, at one end, with a drawing head, of an eccentric shaft adjacent to the head equipped end of said bar, an anvil bar pivoted on said eccentric shaft and provided with an anvil and coöperating with the said drawing head, and a spring operative on said anvil bar to yieldingly hold the same in a normal position, and means comprising a lever, pivoted to said support and having a foot piece at one end, and a head at its other end.

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1,090,849. VEHICLE-BODY. JOHN HAMMEL, Cleveland, Ohio. Filed Apr. 9, 1913. Serial No. 759,855. (Cl. 21—7.)



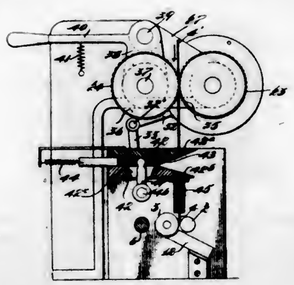
1. A vehicle body comprising a base frame having side and back bars and sockets therein, separate side and rear body sections mounted on said frame and having posts the lower ends of which fit in said sockets, clamping bars extending along the inner sides of said side and back bars and engageable with the inner sides of the ends of said posts to hold them in the sockets, and means accessible at the outer sides of the frame to clamp said clamping bars against the posts.

2. A vehicle body comprising a base frame, a fixed front frame having posts with sockets in the top thereof, removable body sections mounted on the base frame behind said front frame, the said sections having posts at the front ends thereof with a hooked part engaging in said sockets, and means to fasten said sections to the base frame.

3. A vehicle body comprising a base frame with side and rear sockets, a fixed front seat frame thereon, and removable side and rear body sections each of which has posts fitting in said sockets, the posts of each side section being located on opposite sides of the doorway and the post at the front side of the doorway being attached to the said front frame.



1,090,850. WIRE-SHAPING MACHINE. BERNARD HAUSHEER, Norwich, N. Y., assignor to Borden's Condensed Milk Company, New York, N. Y., a Corporation of New Jersey. Filed May 14, 1912. Serial No. 697,139. (Cl. 140—88.)



1. In a wire-shaping machine, means to feed the wire; means to movably support and guide the wire in a straight downwardly projected line while so fed; means to intercept said feed; means to transversely sever a length from said wire while said feed is intercepted; means to guide, in said line, said severed length while falling; beneath said last mentioned means a rotary mandrel and a therewith co-acting oppositely rotating disk disposed to receive between them the downwardly presented end of said length when it falls; and, adjacent said mandrel, a member disposed to thereafter bend said length in conformity with the periphery of said mandrel.

2. A wire-shaping machine comprising a rotatory cylindrical mandrel having its axis of rotation disposed in a horizontal plane, means to rotate said mandrel, means to vertically feed a length of wire equal to the periphery of said mandrel to contact therewith in said plane, a feed disk disposed to direct said wire toward said axis in said plane, below said plane a member disposed to direct said wire toward said axis, and means to horizontally reciprocate said mandrel after a rotation thereof, substantially as and for the purposes described.

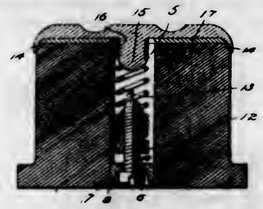
3. In a wire-shaping machine, means to downwardly feed the wire in a straight line; means to movably support the wire in said line; means to transversely sever a length from said wire so supported; means to guide in said line said severed length while falling; beneath said last mentioned means a rotatory mandrel and a therewith co-acting oppositely rotating disk disposed to receive between them the downwardly presented end of said length when it falls; and, adjacent said mandrel, a member disposed to thereafter bend said length in conformity with the periphery of said mandrel.

4. A wire-shaping machine comprising a rotatory cylindrical mandrel having its axis of rotation disposed in a horizontal plane, means to vertically feed a length of wire equal to the periphery of said mandrel to contact therewith in said plane, a rotatory feed disk disposed to direct in said plane said wire toward said axis, means to rotate said member and said mandrel in opposite directions, below said plane a member disposed to direct said wire toward said axis, and means to horizontally reciprocate said mandrel after a rotation thereof, substantially as and for the purposes described.

5. A wire-shaping machine comprising a rotatory mandrel of circular periphery having its axis of rotation in a horizontal plane, disposed to grip the wire with said mandrel a rotatory feed disk of circular periphery having its axis of rotation parallel with said mandrel's in said plane, means to rotate said peripheries in opposite directions, above said plane a member containing a vertical bore dimensioned and directed to guide therethrough, to said peripheries, a gravity-impelled length of wire equal to the periphery of said mandrel, and, below said plane, a member disposed to direct said wire toward said mandrel.

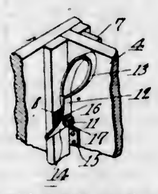
[Claim 6 not printed in the Gazette.]

1,090,851. METAL TREAD FOR BLOCK-TIRES. CLIFTON E. HERMAN, Columbus, Ohio, assignor of one-half to Sterling C. Munson, Columbus, Ohio. Filed Feb. 8, 1913. Serial No. 747,019. Renewed Jan. 8, 1914. Serial No. 811,099. (Cl. 152—3.)



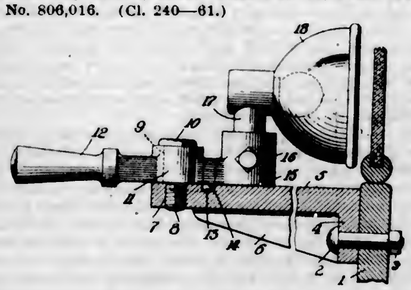
In combination, a metal tread plate for block tires provided with an inwardly extending exteriorly threaded nipple, a bearing plate extending into the base of the corresponding tread member of the tire in alinement with the nipple of the tread plate, a bolt arranged with its shank extending through the bearing plate into the tread member of the tire, an exteriorly threaded nipple screwing on the shank of the bolt and a spiral spring arranged with opposite ends screwing on said nipples, the tread member of the tire having a central opening formed therein to receive said nipples, the bearing plate, the spiral spring and the bolt.

1,090,852. WAGON-BOX STEP. JASPER N. HIERONYMUS, Fairbury, Ill. Filed Feb. 5, 1913. Serial No. 746,408. (Cl. 21—55.)



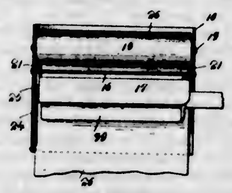
The combination with a side panel, an end panel, and a cleat, of a wear plate embracing one corner portion of the cleat, a bolt extending transversely through the wear plate, cleat and adjacent panel for securing them together, an arm pivotally mounted upon the bolt, a tread portion carried by the arm, and a finger movable with the arm and extending at an angle therefrom, said finger coöperating with the adjacent panel for holding the tread portion extending substantially horizontally, said tread portion being adapted to swing upwardly and outwardly against the panel, thereby to be held by its own weight in inactive position.

1,090,853. AUTOMOBILE SIGNAL-LAMP. GEORGE HOLINKA, Detroit, Mich. Filed Dec. 11, 1913. Serial No. 806,016. (Cl. 240—61.)



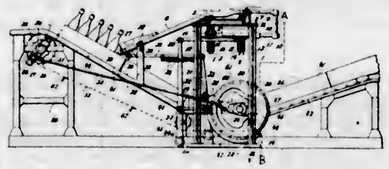
In an automobile signal lamp, a horizontally disposed bracket, a post carried thereby, an operating lever pivotally mounted upon said post, a lamp holder carried by said lever, and a depending pin carried by said lever and adapted to engage in said bracket for limiting a movement of said lever thereon.

1,090,854. STROPPING-MACHINE. IRA W. IRVING, New York, N. Y., assignor to The Traut & Hine Mfg. Co., Inc., New York, N. Y., a Corporation of Connecticut. Filed Nov. 22, 1911, Serial No. 661,830. Renewed Aug. 12, 1913. Serial No. 784,438. (Cl. 51—16.)



A stropping machine comprising a casing presenting a pair of parallel side walls, guides upon the casing in spaced relation to said walls, superposed shafts within the casing above said guides, a guide roller upon the upper shaft comprising a cylinder having openings at the ends thereof, a blade holder pivotally mounted upon the lower shaft and comprising a body portion having upstanding lugs at the ends thereof forming cranks engaging said openings in the guide roller, whereby in the reverse oscillations of the latter, the holder will be oscillated in opposite directions, downwardly converging spring blade clamping members carried by the holder, a bowed spring carried by the holder and disposed between the upper ends of said clamping members to engage the back of an inserted blade a vertically disposed spring secured at one end to the casing and having the bent end engaging between said clamping members to permit the holder to oscillate laterally and return it automatically to normal position, a strop passing around the guide roller and downwardly against the sides of the casing and between the same and the first named guides, and handles attached to the ends of the strop for actuating the same.

1,090,855. MACHINE FOR PLACING BOTTLES IN TRANSPORT-CASES. EMIL JAGENBERG, Dusseldorf, Germany. Filed Oct. 21, 1913. Serial No. 796,408. (Cl. 193—24.)



1. A machine for charging cases with bottles, comprising a plurality of inclined chutes, means for charging bottles into the upper ends of said chutes, a foot adapted to be projected across the lower ends of the chutes, means for withdrawing the foot, and means for supporting a case opposite the chutes.

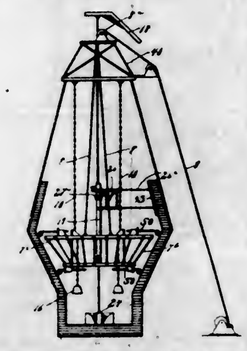
2. A machine for charging cases with bottles, comprising a plurality of inclined chutes, having pivoted lower sections that are adapted to engage a case, means for charging bottles into the upper ends of the chutes, a foot adapted to be projected across the lower pivoted sections of the chutes, means for withdrawing said foot, and means for supporting the case opposite the chutes.

3. A machine for charging cases with bottles comprising a plurality of inclined chutes, a conveyer extending across the upper ends of the chutes, bottle-rests on the conveyer, a plunger adapted to push the bottles from the bottle-rests into the chutes, a foot adapted to be projected across the lower ends of the chutes, means for withdrawing the foot, and means for supporting a case opposite the chutes.

4. A machine for charging cases with bottles, comprising a plurality of inclined chutes, means for charging bottles into the upper ends of said chutes, a foot adapted to be projected across the lower ends of the chutes, means for withdrawing the foot from the chutes, an inclined case-support arranged opposite the chutes, and means for intermittently advancing a case along said support.



1,090,856. HANGING SCAFFOLD. GUSTAVE JOHNSON, Cleveland, Ohio. Filed Apr. 17, 1913. Serial No. 761,752. (Cl. 20—82.)



1. The combination of a scaffold adapted for use within a tubular structure, means to raise or lower the same, means to center the same, and a revolving tram mounted on the scaffold, to gage the wall of the structure.

2. The combination of a scaffold adapted for use within a tubular structure, means to raise or lower the same, means to center the same, including a plumb line suspended adjacent the scaffold, and a revolving tram mounted on the scaffold and adjustable to center the same with respect to the plumb line.

3. The combination of a scaffold adapted for use within a tubular structure, a plumb line extending through the scaffold at the center, a centering tube supported on the scaffold and through which the line extends, and a revolving tram mounted on the tube.

4. The combination of a scaffold adapted for use within a tubular structure, a plumb line extending through the scaffold at the center, a centering tube supported on the scaffold and through which the plumb line extends, means to adjust the tube laterally to exactly center the same with respect to the plumb line, and a revolving tram mounted on the tube.

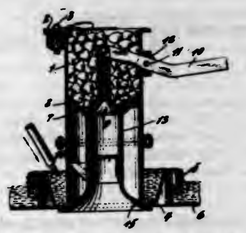
5. The combination of a scaffold adapted for use within a tubular structure, hoisting cables connected to said scaffold, a plumb line extending through the scaffold at the center, and means to center the scaffold with respect to the plumb line, said means including peripheral adjustable braces engageable with the wall of the structure.

[Claims 6 to 11 not printed in the Gazette.]

1,090,857. HOPPER FOR GAS-PRODUCERS. WILLIAM A. JONES, West New Brighton, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed June 15, 1912. Serial No. 703,788. (Cl. 75—115.)

1. In a charging apparatus for furnaces in combination, a hopper having two seating surfaces, a bell having two valves adapted to seat against said surfaces, the lower of said valves serving as a spreader for the charge, and means for moving said bell so as to open and close said valves simultaneously.

2. In a charging apparatus for furnaces in combination, a hopper having two seating surfaces, a bell having two valves adapted to seat against said surfaces, the lower of said valves being of greater diameter than the upper and serving as a spreader for the charge, and means for moving said bell so as to open and close said valves simultaneously.



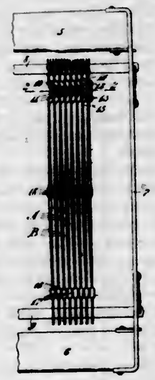
3. In a charging apparatus for furnaces in combination, a hopper having two seating surfaces one within the hopper and the other at its lower edge, a bell having two valves adapted to seat against said surfaces, the lower of said valves serving as a spreader for the charge, and means for moving said bell so as to open and close said valves simultaneously.

4. In a charging apparatus for furnaces in combination, a hopper having two seating surfaces, a bell having a body and a valve at its upper end both of less diameter than the internal diameter of the hopper and a valve at its lower end of greater diameter than the internal diameter of the hopper, an annular seat for the upper valve, and an operating lever for the bell whereby the valves may be moved simultaneously.

5. In a charging apparatus for furnaces in combination, a hopper having within it a loose seating surface, a bell having two valves the upper of which is adapted to seat against said surface and the lower to seat against the lower end of the hopper, and means for raising and lowering said bell to thereby open and close said valves simultaneously.

[Claims 6 and 7 not printed in the Gazette.]

1,090,858. LOOM-HARNESS. JACOB KAUFMANN, Philadelphia, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 8, 1912. Serial No. 724,589. (Cl. 139—14.)



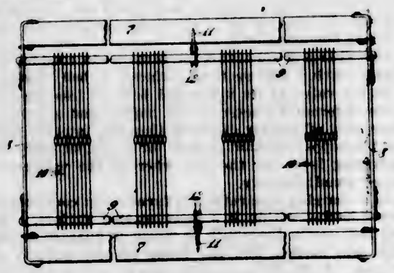
1. In harness for looms, a plurality of heddles mounted in a suitable frame, said heddles being arranged in pairs, one of each pair having a portion offset out of the main plane of the heddle proper, and the other of each pair having a similarly located portion offset out of the main plane of the heddle proper to an extent substantially double that of the offset portion of the other heddle.

2. In harness for looms, a plurality of heddles mounted in a suitable frame, said heddles being arranged in pairs, one of each pair having a portion offset out of the main plane of the heddle proper, and the other of each pair having a similarly located portion offset out of the main plane of the heddle proper to an extent substantially double that of the offset portion of the other heddle and of a longitudinal extent greater than that of the offset portion of the other heddle.

3. In harness for looms, a plurality of heddles mounted in a suitable frame, said heddles being arranged in pairs, one of each pair having a portion offset out of the main plane of the heddle proper, and the other of each pair having a portion offset out of the main plane of the heddle proper to an extent substantially double that of the offset portion of the other heddle and extending above and below the offset portion of the other heddle.

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1,090,859. HEDDLE-FRAME. JACOB KAUFMANN, Philadelphia, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 19, 1912. Serial No. 726,818. (Cl. 139—73.)



1. In a heddle frame, the means for supporting the heddle bars intermediate their ends comprising a device having two extending plates separated to permit the heddle bar to be inserted therebetween, and each of said plates having a recess to receive the bar and support the same against undue movement, the device being rotatably mounted in the frame to cause the space between said plates to extend either longitudinally or transversely for the purpose set forth.

2. In a heddle frame, the means for supporting the heddle bars intermediate their ends comprising a device having two extending plates separated to permit the heddle bar to be inserted therebetween, and each of said plates having a recess to receive the bar and support the same against undue movement, said recesses extending to the side edges of their respective plates, the device being rotatably mounted in the frame to cause the space between said plates to extend either longitudinally or transversely for the purpose set forth.

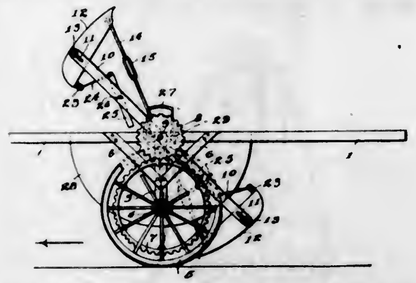
3. In a heddle frame, the means for supporting the heddle bars intermediate their ends comprising a device having two extending plates separated to permit the heddle bar to be inserted therebetween, and each of said plates having a recess to receive the bar and support the same against undue movement, the recess in one plate extending to one side edge and the recess in the other plate extending to the other side edge thereof, the device being rotatably mounted in the frame to cause the space between said plates to extend either longitudinally or transversely for the purpose set forth.

4. In a heddle frame, the means for supporting the heddle bars intermediate their ends comprising a device having a shank in rotatable frictional engagement with the heddle frame rail and having two plates extending from said shank, each of said plates having a recess to receive and support the heddle bar, said recesses being oppositely disposed.

5. In a heddle frame, the means for supporting the heddle bar intermediate its ends comprising a device having a shank in threaded engagement with the heddle frame rail, and having two plates extending from said shank and separated to permit the insertion of the heddle bar therebetween, and each of said plates having a recess to receive the bar and support the same against undue movement, the recess in one plate extending to one side edge and the recess in the other plate extending to the opposite side edge thereof.

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1,090,860. CRANBERRY-HARVESTER. GEORGE F. KEENE, Whitman, Mass., assignor of one-half to Alfred O. Pardey, Whitman, Mass. Filed Oct. 25, 1912. Serial No. 727,800. (Cl. 56—90.)



1. In a cranberry harvester, the combination of a wheeled frame carrying a bin, a shaft mounted transverse of said frame and connected with the wheels thereof for revoluble movement, arms fixedly secured to said shaft and carrying scoops at their outer ends, each scoop having a trap door, an eccentric rigidly mounted on said frame, an eccentric-strap in operative relation with said eccentric, a connection between the forward end of each scoop and said eccentric-strap for tilting the scoop, arms pivoted to respective scoop supporting arms and connected respectively to said trap doors, and a tripper mounted in the path of movement of said pivoted arm.

2. The combination of a wheeled frame carrying a bin, a shaft mounted transversely of said frame and connected with the wheels thereof for revoluble movement, arms secured to said shaft and carrying scoops at their outer ends, each scoop having a trap-door, arms pivoted to respective scoop supporting arms and connected respectively to said trap doors, a tripper mounted in the path of movement of said pivoted arms for opening the trap doors, and means connected to the forward end of said scoops for tilting the same when they reach the height of their upward movement.

3. The combination of a wheeled frame carrying a bin, a shaft mounted transversely of said frame and connected with the wheels thereof for revoluble movement, arms secured to said shaft and carrying scoops at their outer ends, each scoop having a trap door, an eccentric rigidly mounted on said frame, an eccentric-strap in operative relation with said eccentric, a connection between the forward ends of said scoops and said eccentric-strap for tilting said scoops, and means for opening the trap-doors as the scoops approach their highest point.

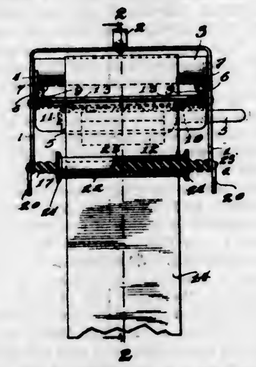
4. In a cranberry harvester, the combination of a wheeled frame carrying a bin, a shaft mounted transversely of said frame and connected with the wheels thereof for revoluble movement, a frame mounted upon said shaft, scoops pivotally mounted at each end of said frame, means for rocking each scoop when in its uppermost position, a closure for a portion of each scoop, and means for actuating said closure to permit emptying of the scoops.

5. In a cranberry harvester, the combination of a frame provided with wheels, a bin mounted upon said frame, a pair of scoops, a support for said scoops, means connecting the wheels and said support for rotating the latter, berry-picking devices carried by said scoops, said scoops being pivotally mounted and each provided with a movable closure for a portion thereof, means for moving each scoop upon its pivot when it reaches a point above said bin, and means for moving said closures to permit emptying of the scoops.



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1,090,861. RAZOR-STROPPER. GEORGE F. KEENE, Whitman, Mass., assignor of one-half to Frederick O. Churchill, Brockton, Mass. Filed Nov. 18, 1912. Serial No. 732,009. (Cl. 51—16.)



1. In a razor stropping machine, the combination with a frame involving a rockable support, a blade holder in operative relation with said support, a razor strop adapted to frictionally engage said support, and yieldably connected means operated by the movement of said strop for causing the same to travel endwise of said support.

2. In a razor stropping machine, the combination of a frame, a rockable support carried by said frame, a blade holder connected to said support, a strop adapted for frictional engagement with said support, a right hand screw, a left hand screw, rollers mounted one upon each screw for endwise movement thereon and adapted for frictional engagement with said strop, and a pair of idlers arranged adjacent said rollers.

3. In a razor stropping machine, the combination of a frame, a rockable support carried by said frame, a blade holder connected to said support, a strop adapted for frictional engagement with said support, a right hand screw, a left hand screw, rollers mounted one upon each screw for endwise movement thereon and adapted for frictional engagement with said strop, a pair of idlers arranged adjacent said rollers, and a resilient connection for said screws.

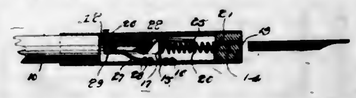
4. A razor stropping machine comprising a frame, a rockable support, a blade holder connected to said support, a pair of rigid supports, elements mounted on the last mentioned supports and adapted for rectilineally endwise movement thereon, a strop engaging said first mentioned support and elements, said frame having elongated slots for receiving the extremities of said rigid supports, and springs connecting the terminals of said supports.

5. In a razor stropping machine, the combination of a frame involving a rockable support, a blade holder in operative relation with said support, rotary endwise movable devices resiliently connected together, a strop engageable with the support and the devices, and means whereby said strop together with the devices is caused to travel endwise of the support when the strop is operated.

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1,090,862. PEN-EJECTING HOLDER. HOWARD A. KNEIL, Northport, Mich. Filed May 23, 1913. Serial No. 769,480. (Cl. 120—101.)

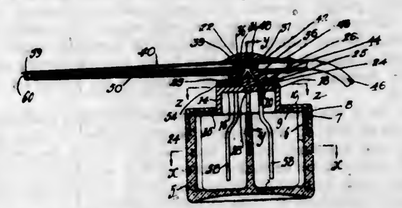
1. A pen holder comprising a body, a sleeve carried thereby, pen guiding means carried by one end of said sleeve, a pen positioned in said guiding means and provided with an aperture adjacent one end, an angle support carried by said sleeve, said support provided with a plurality of downwardly bent tongues adapted to engage one end of the coil spring, the other end of said coil spring engaging a pen engaging disk to normally exert said pen engaging disk outwardly, and a lever engaging said pen for holding the same in said sleeve.



2. A pen holder comprising a body, a sleeve carried thereby provided with an aperture adjacent the end of said body, pen guiding means carried by said sleeve, a pen positioned in said pen guiding means, said pen provided with an opening adjacent one end thereof, means for normally exerting said pen outwardly, a lever pivotally mounted in said sleeve, comprising a body, a downwardly extending foot at one end of said body adapted to engage said opening in said pen, and an upwardly extending member at the opposite end of said lever, said member passing through said opening in said sleeve and a spring carried by said sleeve provided with upwardly extending ears at its end, said ears adapted to straddle one end of said lever for normally holding said lever in engagement with said pen.

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1,090,863. ATOMIZER. GEORGE J. KELLEY, Attleboro, Mass. Filed Feb. 19, 1913. Serial No. 749,375. (Cl. 215—71.)



1. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a closure upon the receptacle, supply tubes annularly arranged in the closure and extending into the compartments, a valve member provided with a flat face in contact with the closure and rotatably mounted thereon, and a discharge tube held in the valve member, said valve member being provided with annularly arranged passages communicating with the discharge tube and extending to the contacting face of the valve member at points corresponding to the radial distances of the supply tubes but at non corresponding arcuate distances.

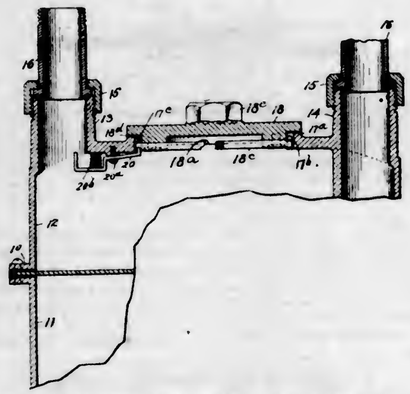
2. In an atomizer, the combination of a receptacle provided with a plurality of compartments, a closure upon the receptacle provided with a series of cavities in its upper face, a valve member rotatably mounted upon the closure with its operating face in contact with the closure and provided with a cavity, a locking pin in the cavity adapted to register in the cavities of the closure when the valve member is rotated, a discharge tube in the valve member, said valve member being provided with passages extending from the discharge tube to the operating face of the valve member and supply tubes carried by said closures, said cavities and said supply tubes being so arranged with relation to the passages in the valve member that in each locking position of the valve member a single passage and supply tube are in communication with each other.

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1,090,864. GAS-METER. WILLIAM H. KNIGHT, Cleveland, Ohio. Filed Nov. 3, 1911. Serial No. 658,340. (Cl. 73—1.)

1. A gas meter comprising a casing having a gas receiving compartment provided with gas inlet and outlet openings and having an aperture, a cover adapted to close

and seal the aperture, and an automatic concealed lock located wholly within the casing and having a portion which is adapted to engage a portion of the cover to prevent removal of the latter.



2. In a gas meter, a casing having a gas receiving compartment provided with gas inlet and outlet openings and having an aperture, a cover adapted to close and seal the aperture when inserted and turned in one direction, and an automatic concealed lock located within the casing and having means which is automatically actuated when the cover is turned to tighten the same for preventing complete turning in the reverse direction to withdraw the cover.

3. In a gas meter, a casing having gas inlet and outlet openings and an aperture, a cover adapted to close and seal the aperture, and a lock located within the casing and arranged to normally prevent the withdrawal of the cover, said lock being accessible from one of said openings to withdraw it from operative position.

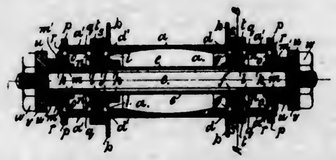
4. A gas meter comprising a casing having an aperture, a cover, the casing and cover having respectively grooves and projections adapted to interlock to clamp the cover in place when the latter is turned, a proving glass adapted to be inserted in and to seal the aperture, and a lock located on the interior of the casing and serving when in normal position to prevent the removal of the cover and arranged to be shifted to inoperative position during the use of the proving glass.

5. A gas meter comprising a casing having an aperture, a cover adapted to normally close and seal the aperture, a proving glass adapted to seal the aperture when the cover is removed, and a lock located on the interior of the casing and serving when in normal position to prevent the removal of the cover, said lock being pivoted, whereby it may be shifted to inoperative position during the use of the proving glass.

[Claim 6 not printed in the Gazette.]

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1,090,865. MEANS FOR THE ATTACHMENT OF WHEELS. JOHN MCGHIE LAMB, Kirby, England. Filed June 21, 1912. Serial No. 705,061. (Cl. 208—11.)



1. A wheel for vehicles, comprising a hub barrel proper; a sleeve disposed within said barrel, flanges or ring pieces one of which is adjustable, provided on both ends of said sleeve, which flanges or ring pieces constitute parts of bearings between said sleeve and said hub barrel; a side extension of said hub barrel; a sleeve disposed within said hub extension, which sleeve extends outwardly beyond said hub extension in order to provide a bearing for a stay or fork member; a flange or ring piece provided at the inner end of said hub extension sleeve, which flange or ring piece abuts against one of the flanges or ring pieces of said hub sleeve and also constitutes a part of a bearing between said hub extension sleeve and said hub extension; an adjustable ring piece provided on said hub extension sleeve, which ring piece constitutes a part of a bearing between said hub extension sleeve and said hub extension; means for coupling or clutching said hub and hub extension together and an axle passing through said sleeves transversely between the stay or fork members of the vehicle.

2. A wheel for vehicles, comprising a hub barrel proper; a sleeve disposed within said barrel, flanges or ring pieces, one of which is adjustable provided on both ends of said sleeve, which flanges or ring pieces constitute parts of bearings between said sleeve and said hub barrel; an extension arranged on each side of said hub barrel; a sleeve disposed within each hub extension, which sleeve extends outwardly beyond said hub extension in order to provide a bearing for a stay or fork member; a flange or ring piece provided at the inner end of each hub extension sleeve, which flange or ring piece abuts against one of the flanges or ring pieces of said hub sleeve and also constitutes a part of a bearing between said hub extension sleeve and said hub extension; an adjustable ring piece provided on each hub extension sleeve, which ring piece constitutes a part of a bearing between said hub extension sleeve and said hub extension; means for coupling or clutching said hub and hub extensions together; and an axle passing through said sleeves transversely between the stay or fork members of the vehicle.

3. A wheel for vehicles, comprising a hub barrel proper; race cups or cones formed in the interior of said hub barrel, a sleeve disposed within said hub barrel; flanges or ring pieces, one of which is adjustable provided on both ends of said sleeve; race cups or cones formed in said flanges or ring pieces adapted to pair with those of the hub barrel, and balls or rollers arranged between the respective pairs of said race cups or cones; a side extension of said hub barrel; race cups or cones formed in the interior of said side extension; a sleeve disposed within said hub extension, which sleeve extends outwardly beyond said hub extension in order to provide a bearing for a stay or fork member; flanges or ring pieces one of which is adjustable, and one of which abuts against a flange or ring piece of said hub sleeve, provided on said hub extension sleeve; race cups or cones formed in said flanges or ring pieces of said hub extension sleeve, adpated to pair with those of said hub extension, and balls or rollers arranged between the respective pairs of said race cups or cones; means for coupling or clutching said hub and hub extension together, and an axle passing through said sleeve transversely between the stay or fork members of the vehicle.

4. A wheel for vehicles comprising a hub barrel proper; race cups or cones formed in the interior of said hub barrel; a sleeve disposed within said hub barrel; flanges or ring pieces, one of which is adjustable, provided on both ends of said sleeve; race cups or cones formed in said flanges or ring pieces adapted to pair with those of the hub barrel, and balls or rollers arranged between the respective pairs of said race cups or cones; an extension arranged at each side of said hub barrel; race cups or cones formed in the interior of each side extension; a sleeve disposed within each hub extension, which sleeve extends outwardly beyond said hub extension in order to provide a bearing for a stay or fork member; flanges or ring pieces, one of which is adjustable and one of which abuts against a flange or ring piece of said hub sleeve, provided on each hub extension sleeve; race cups or cones formed in said flanges or ring pieces of each hub extension sleeve adapted to pair with those of a hub extension, and balls or rollers arranged between the respective pairs of said race cups or cones; means for coupling or clutching said hub and hub extensions together; and an axle passing through said sleeves transversely between the stay or fork members of the vehicle.

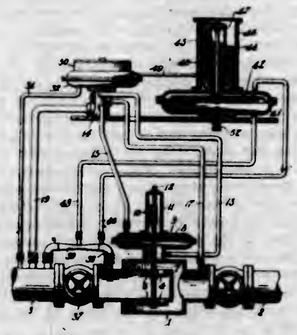
5. A wheel for vehicles, comprising a hub barrel proper; a sleeve disposed within said barrel; flanges or ring pieces, one of which is adjustable, provided on both ends of said sleeve which flanges or ring pieces constitute parts of bearings between said sleeve and said hub barrel; a side extension of said hub barrel; a sleeve disposed within said hub extension, which sleeve extends outwardly beyond said hub extension in order to provide a bearing for a stay or fork member; a flange or ring piece provided at the inner end of said hub extension sleeve, which flange or ring piece abuts against one of the flanges or ring pieces of said hub sleeve and also constitutes a part of a bearing between said hub extension sleeve and said hub extension; an adjustable ring piece provided on said extension sleeve, which ring piece constitutes a part of a bearing between said hub extension sleeve and said hub extension; a clutch element formed or provided on a side of said hub barrel, and a second clutch element formed or provided on the adjacent side of said hub extension; and an axle passing through said sleeves transversely between the stay or fork members of the vehicle.

[Claims 6 to 8 not printed in the Gazette.]



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1,090,866. PRESSURE-INCREASER. ERNEST F. LLOYD, Detroit, Mich. Filed Dec. 21, 1911. Serial No. 667,097. (Cl. 50—11.)



1. The combination with a conduit, of regulating means controlled by fluid pressure for automatically maintaining a constant pressure in the outlet side of the conduit, means for controlling the admission of fluid under pressure to operate the regulator, means for setting up a drop in pressure in the conduit, and means controlled by variations in the drop in pressure and adapted to control the pressure fluid admitting means by gravity to raise the pressure in the conduit as the flow past the point of drop increases.

2. The combination with a conduit, of a fluid pressure operated regulator therein for maintaining constant pressure in the conduit on the outlet side of the regulator, means controlled by fluid pressure for admitting fluid under pressure to operate the regulator, means for causing a drop in pressure at a point in the conduit, and means operated by the variations in this drop in pressure and adapted to impose a gravity load upon the pressure fluid admitting means to increase the pressure in the conduit as the flow past the point of drop increases.

3. The combination with a conduit, of a regulator operated by fluid under pressure and adapted to automatically maintain a constant outlet pressure in the conduit, a master valve controlled by fluid under pressure in the conduit acting in opposition to gravity to admit fluid under pressure to operate the regulator, means for causing drop in pressure at a point in the conduit, and means operated by fluid pressures on each side of the point of drop and adapted to increase the gravity load on the master valve as the flow past the point of drop increases.

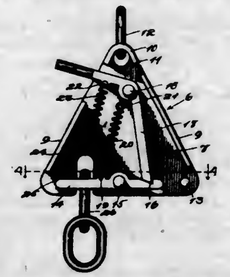
4. The combination with a conduit, of a regulating valve therein, means operated by fluid under pressure for shifting the valve to maintain a constant outlet pressure in the conduit, a master valve controlled by the outlet pressure of the conduit operating in opposition to gravity to admit fluid under pressure to the regulating valve operating means to close the valve as the pressure increases and open it as it decreases, means for causing a drop in pressure at a point in the conduit, and means operated by the fluid pressures on opposite sides of the point of drop and adapted to increase the effect of gravity upon the master valve.

5. The combination with a conduit, of a regulating valve, fluid pressure operating means for shifting the regulating valve, a master valve controlled by fluid pressure in the conduit operated in opposition to a gravity load on the master valve for admitting fluid under pressure to the regulating valve operating means, and means controlled by a differential pressure at a point in the conduit and adapted to increase the gravity load on the master valve as the flow past the point of differential pressure increases.

[Claim 6 not printed in the Gazette.]

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1,090,867. DETACHABLE LATCH APPARATUS. LEROY LESLIE LONGSHORE, Fort Wayne, Ind. Filed July 10, 1913. Serial No. 778,328. (Cl. 9—23.)



1. In apparatus of the character described, the combination with an approximately triangular body portion having its base arranged lowermost, of a normally horizontally arranged holding lever provided at one end with a notch, means pivotally connecting the holding lever between its ends with the body portion, a spring connected with the holding lever to swing the holding end thereof upwardly, a locking bell-crank lever having its lower end adapted to enter the notch formed upon the holding lever with its upper end extending outwardly beyond the body portion, and a spring connected with the upper arm to move the same downwardly.

2. In apparatus of the character described, the combination with a casing provided near its lower end with a recess, of a holding lever pivotally connected with the casing and having the holding end thereof traversing the recess, an element surrounding the holding end of the holding lever and extending into the recess, a retractile coil spring connected with the holding end of the holding lever to swing such end upwardly when the same is released, a bell-crank lever pivotally connected with the casing and having its lower end detachably engaging the opposite end of the holding lever with its upper end extending outwardly beyond the casing, a retractile coil spring connected with the upper arm of the bell-crank lever and adapted to swing the same downwardly upon being released, and means connected with the upper end of the casing to support the same.

3. Apparatus of the character described, comprising a casing provided near its lower end with a transverse opening, a holding lever pivotally mounted within the casing and having one end thereof normally passing across the transverse opening for receiving a connecting element thereon and holding the same within the transverse opening, a locking lever pivotally mounted within the casing

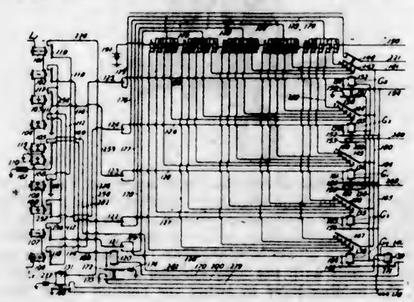
above the holding lever and detachably engaging the opposite end thereof, and a suitably stiff retractile coil spring connected with the casing and the link engaging end of the holding lever to swing the same upwardly when the weight is removed from the link whereby the locking lever will disengage the holding lever and said holding lever be free to swing to allow the connecting element to move out of the transverse opening and off of said holding lever.

4. Apparatus of the character described, comprising a substantially triangular body having its base arranged lowermost, a normally substantially horizontally arranged holding lever pivoted to the body near its base, a spring connected with the holding lever to swing one end thereof upwardly when the load is removed from one end thereof, and a locking lever pivoted to the body above the holding lever and having one end thereof adapted to engage with the opposite end of the holding lever.

5. Apparatus of the character described, comprising a body, a normally approximately horizontally arranged holding lever pivoted between its ends with the body, means for positively swinging one end of the normally approximately horizontally arranged holding lever upwardly when the load is removed from one end thereof, and a locking lever pivoted to the body above the holding lever and arranged at approximately a right angle thereto with its lower end detachably engaging the opposite end of the holding lever.

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1,090,868. PRINTING-TELEGRAPH SYSTEM. FRANK R. MCBERTY, New Rochelle, and ARTHUR H. ADAMS, Sparkhill, N. Y., assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed May 31, 1912. Serial No. 700,759. (Cl. 178—141.)



1. In a printing telegraph receiver, the combination of a stop magnet, a movable character carrier controlled thereby, a series of type magnets having two energizing windings, a circuit including, in series, one winding of all the type magnets and having a break point therein, a selecting circuit for said type magnets comprising a plurality of branches, the other windings of each of the type magnets being each in one of said branches, a plurality of line relays responsive to current impulses for closing break points in said selecting circuit, and in said type magnet series circuit to selectively operate said type magnets, a printing magnet and an energizing circuit therefor controlled by the armature of the selecting type magnet to print the selected character.

2. In a printing telegraph, the combination of a stop magnet, a movable character carrier controlled thereby, a series of type magnets having two windings, a circuit including in series one winding of all the type magnets, a selecting circuit for said type magnets comprising a plurality of branches, the other winding of each of the type magnets being each in one of said branches, a plurality of line relays responsive to current impulses for closing break points in said selecting circuit to selectively operate said type magnets, a printing magnet and an energizing circuit for said printing magnet controlled by the armature of the selected type magnet to print the character selected by the type magnet.

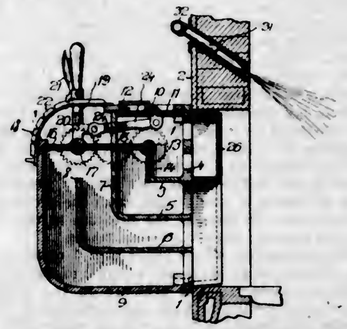
3. In a printing telegraph, the combination of a rotatable carrier, having a plurality of characters thereon, a plurality of type magnets, having two windings, for positioning said carrier, a circuit-holding relay having an energizing winding and a holding winding, a stop magnet for controlling said character carrier, an operating circuit for said type magnets, having a plurality of branches, one branch including the energizing winding of a type magnet and the energizing winding of a circuit-holding relay, another branch including, in series, the holding circuit of all the type magnets, the stop magnet and the holding winding of the circuit-holding relay, a plurality of line relays for closing said operating circuit to select a type magnet, a printing magnet and a circuit therefor closed by the armature of the selecting type magnet whereby the printing magnet is operated and the selected character printed.

4. In a printing telegraph, the combination of a stop magnet, a movable character carrier controlled thereby, a series of type magnets, having two windings, associated therewith, a circuit including, in series, one winding of all the type magnets and stop magnet, a selecting circuit for said type magnets comprising a plurality of branches, the other winding of each of the type magnets being each in one of said branches, a plurality of line relays, including a neutral relay, responsive to current impulses for closing break points in said selecting circuit to select predetermined ones of said type magnets, a printing magnet, an energizing circuit for said printing magnet operated by the armature of the selecting type magnet to print the character on the character carrier selected by the type magnet.

5. In a printing telegraph receiver, the combination of a rotatable type shaft, a character carrier movable longitudinally thereof and having two rows of characters thereon, means for moving said carrier longitudinally of the type shaft to bring either row of characters into printing position, said means including a shift magnet having an armature therefor associated with the carrier, a shift relay having an energising winding and a holding winding, a selecting circuit for the shift relay including a pair of group magnets, the armatures of said group magnets being electrically connected together, an energizing circuit for the shift relay including a source of current and the armatures of the group magnets, a series of line relays operatively connected to the group magnets and operating the same in response to a combination of impulses, an energizing circuit for the shift magnet including the holding winding of the shift relay, whereby the shift magnet is locked in energized condition after the cessation of the combination of impulses.

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1,090,869. CONTROLLER FOR COMBUSTION-CHAMBERS. WILLIAM RILEY MILLS, Jackson, Mich. Filed Oct. 27, 1913. Serial No. 797,401. (Cl. 110—175.)



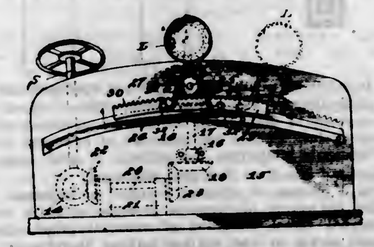
1. A controller for combustion chambers of furnaces, comprising a grid adapted to be secured over an opening through a fire wall of a combustion chamber, a shell in communication with the upper openings of the grid forming an air jacket around the interior face of the grid, division walls extending outwardly and upwardly from between the other openings of the grid, a casing coöperating with the walls to form air distributing passages, a register in the upper part of the casing, a damper adapted when closed to throw the register into communication with the openings into the shell and when open to coöperate with the adjacent walls in forming passages in the upper part of the casing into the shell and through the grid, a slide plate for cutting off the register and the adjacent casing opening alternately, a damper for controlling the remaining passage, and manually operable means connected to the dampers and to the slide plates for simultaneously operating them, the slide being arranged to close the opening when the companion damper is closed and to close the register when the companion damper is open.

2. A controller for combustion chambers of furnaces comprising a grid adapted to span an opening in the fire wall of a chamber and provided with a series of longitudinal openings, a shell around the inner face of the grid having discharge openings in its lower portion that communicate with upper grid openings covered by the shell whereby an air jacket is formed around the face of the grid, walls extending outwardly and upwardly from the grid between the other openings thereof, a casing coöperating with the walls to form air distributing passages through the regulator and having a register opening and a grid opening in the upper part thereof, a register for the register opening, a slide plate adapted to cut off either the register opening or the adjacent casing opening, and a damper adapted to throw the register and opening into communication either with the openings into the shell or with one of the openings into the shell and an air distributing passage, a damper regulating the other passages, a lever for operating the latter damper coupled to the slide, means for locking the lever in adjusted position, and means for coupling the other damper to the handle to turn in unison with the handle damper.

3. A controller for combustion chambers of furnaces comprising a grid adapted to span an opening in a fire wall of a combustion chamber and provided with division walls extending outwardly and upwardly therefrom, a shell forming an air jacket around a portion of the inner face of the grid, a casing coöperating with the walls and grid to form air distributing passages discharging into the shell and through the grid, a register opening through the top of the casing, a slide plate controlling another opening through the top of the casing, a damper adapted to throw the register and slide opening into communication with an adjacent passage and with openings into the shell, a damper controlling the other passages, gearing coupling the dampers to turn in unison, a link coupling the slide plate and one of the dampers whereby the slide cuts off the register when the adjacent damper opens the companion distributing passage, a lever for turning the dampers, and a quadrant for locking the lever in adjusted position.

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1,090,870. DIRIGIBLE HEADLIGHT FOR MOTOR-VEHICLES. NICOLAS MIENTA, Bettendorf, Iowa. Filed Nov. 19, 1913. Serial No. 801,842. (Cl. 240—62.)



1. The combination with the steering post of an automobile, of a lamp mounted for movement bodily across the front of the automobile, a track on which said lamp travels, and means connecting the lamp and steering post whereby the operation of the steering post imparts movement to the lamp.

2. A lamp for automobiles comprising in combination with the steering post of an automobile, a track extending across the front of the automobile, a rack-bar movable on said track, a lamp carried by said rack-bar, and gear connections between said rack-bar and the steering post whereby the lamp is moved bodily across the front of the automobile as the steering post is operated.

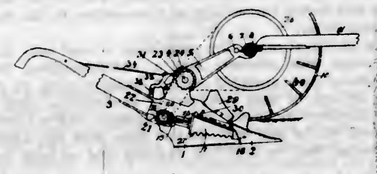
3. Automobile lamp operating means comprising in combination with the steering post of an automobile, and a lamp movable bodily across the front of the automobile, a support on which said lamp is movable, and gear connections between the steering post and the lamp for moving the latter as the steering post is operated.





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1,090,871. BEET-HARVESTER. ALEXANDER MORISON, Saginaw, Mich. Filed Aug. 16, 1912, Serial No. 715,347. Renewed Aug. 21, 1913. Serial No. 786,008. (Cl. 55—106.)



1. The combination with a land side and a plow point secured thereto, of a revoluble digger pivoted at its front end to the rear of the plow point and revolubly supported at its rear end in bearings secured to the land side, and a shoe hinged to the land side and adapted to overlie the digger.

2. In combination with a land side, a digger carried by said land side, said digger comprising a revoluble member smaller at its forward end than at its rear end, said member being rectangular in cross-section and having laterally disposed edges projecting beyond its sides.

3. In combination with a land side, a digger carried by said land side, comprising a revoluble member, smaller at its forward end than at its rear end, said member being rectangular in cross-section and having laterally disposed serrated edges projecting beyond the sides, said lateral edges being curved outwardly near their rear ends.

4. The combination with a land side and a plow point secured thereto, of a revoluble digger pivoted at its front end to the rear of the plow point and revolubly supported at its rear end in bearings secured to the land side, and a shoe hinged to the land side and adapted to overlie the digger, and a lug fixed to the land side, the upper face of said lug supporting the hinged shoe out of contact with the digger.

5. In a machine of the class described, a land side, a pair of vehicle wheels, an axle mounted thereon, an arm pivotally secured at its rear end to the upper part of said land side and pivotally supported at its front end by said axle, means for locking said arm to said land side in various angularly adjusted positions, together with a revoluble digger mounted on said land side and geared to said axle.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,872. ELECTRICAL CONDUCTOR. PHILIP P. NUNGESSER, Cleveland, Ohio, assignor to The Nungesser Carbon & Battery Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 5, 1913. Serial No. 804,803. (Cl. 171—210.)

1. An electrical conductor, comprising a solid body, a flexible metallic connection, and a pair of clamping members to clamp said connection upon said body, one of said members having a concaved clamping face to engage said

connection and localize the pressure in a circumscribed area of said body.



2. An electrical conductor, comprising a solid body, a flexible metallic connection, and a pair of clamping members comprising a screw and nut, one of said members having a circular channel to confine and compress said connection against said body.

3. An electrical conductor comprising a solid body having an opening for a clamping screw, a flexible connection, a clamping screw, and a nut having a clamping face provided with a circular channel to seat said flexible connection and center the strains of compression in the body about said screw.

4. An electrical conductor comprising a solid body having shallow side recesses and a communicating bore therebetween and provided with a passage open to the bottom of one of said recesses, in combination with a flexible metallic conductor in said passage and a headed screw and nut in said recesses and bore, said nut having a channeled face to seat the confined end of said connection.

5. An electrical conductor, comprising a solid body having intersecting passages therein, a flexible metallic connection extending through one of said passages and having a looped end, a screw having a relatively large head seated within the other passage, and a nut having a central screw-threaded opening and a rounded channeled clamping face opposite said looped end of said flexible connection.

[Claim 6 not printed in the Gazette.]

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1,090,873. PNEUMATIC PUMP. OTTO R. PFAU, Milwaukee, Wis. Filed July 24, 1911. Serial No. 640,203. (Cl. 103—8.)



1. A pneumatic pump, comprising a pressure medium cylinder, a piston within said cylinder, a liquid chamber, and a means actuated by the movement of the piston for directing the pressure medium from the cylinder to the liquid chamber to force the liquid out thereof, said pressure medium moving the piston before being so directed.

2. A pneumatic pump, comprising a pressure medium cylinder, a piston within said cylinder, a liquid chamber, and a means actuated by the reciprocation of the piston for alternately directing the pressure medium from the cylinder to each liquid chamber to alternately force the liquid out thereof, said pressure medium moving the piston before being so directed.

3. A pneumatic pump, comprising a pressure medium cylinder, a floating piston within said cylinder, liquid chambers provided with inlet and outlet openings having check valves, ducts connecting the pressure medium cylinder to the liquid chambers, and means actuated by the reciprocation of the piston for alternately directing the pressure medium from the cylinder through the ducts to each liquid chamber to alternately force the liquid out thereof, said pressure medium moving the piston before being so directed.

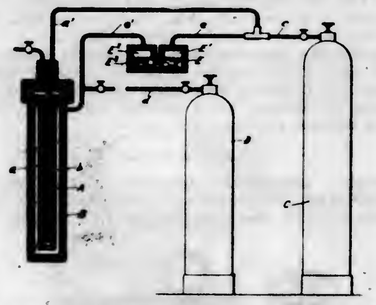
4. A pneumatic pump, comprising a pressure medium cylinder, a floating piston within said cylinder, liquid chambers provided with inlet and outlet openings having check valves, ducts connecting the pressure medium cylinder to the liquid chambers, valves controlling said ducts to alternately direct the pressure medium from the cylinder to one of the liquid chambers to alternately force the liquid from said chambers, said pressure medium moving the piston before being so directed, and a means actuated by the reciprocation of the piston for moving the valves.

5. A pneumatic pump, comprising an air cylinder, a rod extending into said cylinder and provided with shoulders, a floating piston within the cylinder and adapted to engage the shoulders, water chambers provided with water inlet and outlet openings having check valves, ducts connecting the cylinder to the water chambers, valves controlling said ducts to alternately direct the air from the cylinder to one of the water chambers to alternately force the water from said chambers, the air moving the piston before being directed into a water chamber, a lever member for moving all of the air valves simultaneously, and a means actuated by the movement of the piston rod for moving the lever member.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,874. PROCESS OF BRINGING HYDROGEN OR HYDROGEN-CONTAINING GAS MIXTURES TO REACTION AND APPARATUS THEREFOR. MATHIAS PIER, Zehlendorf, near Berlin, Germany. Filed June 28, 1913. Serial No. 776,340. (Cl. 23—21.)



1. In a process of effecting reaction of hydrogen and the like, subjecting the same to pressure within a closed vessel composed of material proof against chemical action by and against leakage therethrough of hydrogen, while simultaneously subjecting the exterior of said vessel to pressure not less than that first mentioned.

2. In a process of effecting reaction of hydrogen and the like, subjecting the same to pressure within a closed and heated vessel composed of material proof against chemical action by and against leakage therethrough of hydrogen, while simultaneously subjecting the exterior of said vessel to pressure.



3. In a process of effecting reaction of hydrogen and the like, subjecting the same to pressure within an inner closed vessel composed of material proof against chemical action by and against leakage therethrough of hydrogen, while simultaneously subjecting the space between the aforesaid vessel and an outer heated vessel to pressure.

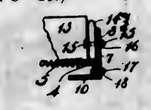
4. In a process of effecting reaction of hydrogen and the like under pressure and increased temperature, subjecting the same to pressure within a suitable inner non-metallic vessel composed of material proof against chemical action by and against leakage therethrough of hydrogen, while simultaneously subjecting the space between that vessel and an outer metallic vessel to pressure, the apparatus being heated during the steps aforesaid.

5. In a process of effecting reaction of hydrogen and the like, subjecting the same to pressure within an inner closed vessel composed of material proof against chemical action by and against leakage therethrough of hydrogen, while simultaneously subjecting the space between the aforesaid vessel and an outer heated vessel to pressure, and utilizing a difference of pressure within the two vessels to equalize the pressures in both.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,875. MATTRESS-RETAINER. EPHRAIM W. POLAND, Galesburg, Ill. Filed Sept. 18, 1913. Serial No. 790,473. (Cl. 5—39.)



1. The combination with a bedspring frame, of an L-shaped bracket the horizontal arm of which is adapted to pass beneath said frame, means for securing it thereto, a mattress-retaining plate secured to the vertical arm of said bracket, and means for effecting such engagement.

2. In combination with a bedspring frame, a bracket securable thereto and adjustable longitudinally thereof, and a mattress-retaining plate securable to said bracket and adjustable vertically thereon.

3. In combination with a bedspring frame-bar having a horizontal and a vertical arm, a bracket having similar arms, means for connecting the horizontal arms of said elements slidably together in such manner that the bracket may move horizontally transversely of the frame-bar, and a mattress-retaining plate carried by the bracket and movable vertically thereon.

4. The combination with an end frame-bar of a bedspring frame, of a pair of brackets disposed intermediate its ends and arranged for movements transversely of said bar, means for securing said brackets after such movements, and a mattress-retaining plate movable vertically on and with reference to said brackets.

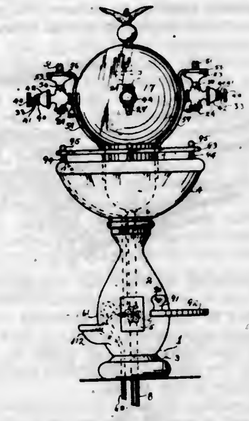
5. In combination with a bedspring frame, an L-shaped bracket the horizontal arm of which is secured to said frame and the vertical arm of which rises above it, and a mattress-retaining plate carried by said vertical arm and its upper edge lying in a horizontal plane relatively much higher than said frame.

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1,090,876. DRINKING-FOUNTAIN. EFFINGHAM LAURENCE POLLARD, Dobbs Ferry, N. Y. Filed May 10, 1911. Serial No. 626,177. (Cl. 137—109.)

1. A driking fountain, having a liquid inlet passage, a filter arranged within said passage, a glass distributing dome arranged upon said filter, and provided with a plurality of outlet passages, each provided with a crystal nipple, said dome performing the double function of a distributing head and display chamber as herein specified.

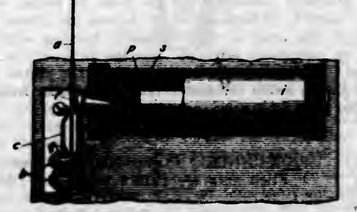
2. In combination with a drinking fountain having inlet and outlet passages, a crystal display and distributing head arranged between said passages and provided with a plurality of perforations arranged about said display head at mid-height thereof, a plurality of crystal nipples connected to said display head, each said nipple being supported in a metallic cup and retained therein by a screw-threaded bezel and soft rubber packing as herein specified.



3. In combination with a drinking fountain having inlet and outlet passages, of a crystal display and distributing head arranged between said passages, said display head provided with a plurality of passages arranged at mid-height thereof, and a crystal nipple connected to each said passage and a regulating valve between said nipple and said display head as specified.

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1,090,877. VIBRATING CIRCUIT-BREAKER. PAUL M. RAINEY, West Hoboken, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 17, 1910. Serial No. 567,451. (Cl. 171—253.)



1. An interrupter comprising an induction coil, an armature, a support for said coil and armature, said armature being in the form of a long broad vane anchored at one end to said support and passing through and beyond the field of force of said coil, and a circuit including said coil adapted to be opened and closed by said armature in its movement.

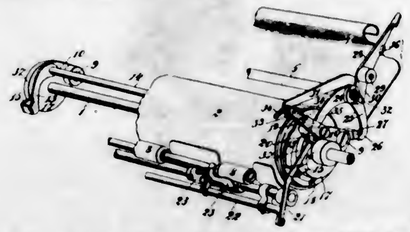
2. An interrupter comprising an induction coil, an armature, a support for said coil and armature, said armature being in the form of a long broad vane anchored at one end to said support and passing near its anchored end through and extending beyond the field of force of said coil, and a circuit adapted to be opened and closed by said armature in its movement.

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1,090,878. TYPE-WRITING MACHINE. JOHN A. RENNIE, Lyndhurst, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 21, 1910. Serial No. 598,581. (Cl. 197—127.)

1. In a typewriting machine, the combination with a platen frame, and a platen axle journaled therein, of a

platen, a pivot supported in said frame therefor eccentric of the ends of the platen, a movable latch normally connecting the platen to its axle, and means to move the latch from normal position to release the platen, and means to swing the platen on said pivotal support.



2. In a typewriting machine, the combination with a platen frame, and a platen axle journaled therein, of a platen, arms fast on the axle and pivotally connected to the platen eccentrically thereof, a latch to lock the platen to the axle to turn therewith, and means to release the latch and swing the platen on its pivotal connection with the arms relatively to the frame.

3. In a typewriting machine, the combination with a platen frame and a platen axle journaled therein, of a platen pivotally supported eccentrically of its ends, means to lock the platen to the axle so as to turn therewith, means to arrest the rotation of the platen, and means to swing the platen on its pivotal supports relatively to the frame and axle, subsequently to its release from the latter.

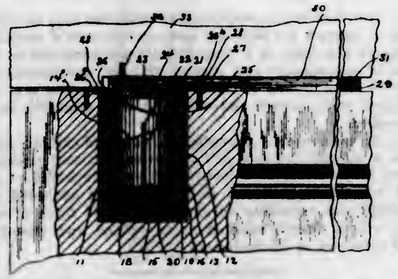
4. In a typewriting machine, the combination with a platen frame and platen axle journaled therein, of a platen connected to the axle to swing relatively thereto, means to lock the platen against swinging, pressure rolls, means to cast off and return said rolls, an abutment shiftable by the release of the rolls, into the path of a stop normally turning with the platen to arrest the platen, and means to release the platen from its axle and to swing the platen relatively to the frame.

5. In a typewriting machine, the combination with a platen frame and a platen axle journaled therein, of a platen pivotally connected to the axle to swing eccentrically thereof, locking means to fasten the platen concentric to the axle, a stop normally turning with the platen, an abutment shiftable into the path of the stop to arrest the platen, and means to release the platen from its axle and to swing the platen relatively to the frame.

[Claims 6 to 42 not printed in the Gazette.]

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1,090,879. DOOR-CHECK. CLARENCE T. ROGERS, New York, N. Y. Filed May 28, 1913. Serial No. 770,526. (Cl. 16—88.)



1. The combination with a door and its frame, of a door check sunk in the top edge of the door, a pair of arms folding one over the other and adapted to lie parallel upon the door top, an operative connection between one of the arms and the door check, whereby the swinging of the arm operates the check, and a connection between the second arm and the door frame.

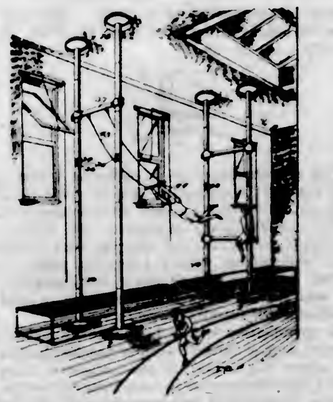
2. The combination with a door and its frame, of a stationary casing sunk in the top end of the door, a piston having a guided longitudinal movement in the casing, means for holding the piston against rotation, means for retarding the downward movement of the piston, a rotatable cam held in the casing and acting against the piston to depress it, and a pair of folding arms pivoted together, one of said arms being operatively connected with the cam to rotate it, and the second arm being secured to the frame of the door.

3. The combination with a door and its frame, of a stationary casing sunk in the top edge of the door, a spring pressed piston held in the casing, valve mechanism to control the passage of liquid through the piston, a rotatable cam arranged in the casing above and acting against the piston, a projection on the cam, an arm secured to the projection and adapted to lie upon the door top, and a second arm pivoted to the first arm and also secured to the door frame.

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1,090,880. GYMNASTIC APPARATUS. CHARLES G. ROSENBERG[illegible]. Filed [illegible], 1912. Serial No. 711,851. (Cl. 16—89.)

WITHDRAWN.



1. In an apparatus of the class described, spaced uprights, smooth and cylindrical, bearing heads at the upper and lower ends of the uprights, means for adjusting the uprights as to length, and a bar extending between the uprights and connected at its ends thereto and vertically adjustable thereon, the said bar constituting the sole connection between the uprights.

2. In an apparatus of the class described, spaced uprights, cylindrical and straight and free from projections throughout their entire length, bearing heads at the upper and lower ends of the uprights, means for adjusting the uprights as to length, a bar, and clamping sleeves at the ends of the bar adjustably fitting the uprights and adjustable vertically thereon throughout the entire lengths of the uprights, the said bar constituting the sole connection between the uprights.

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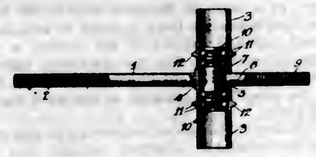
1,090,881. ANKLE-JOINT FOR ARTIFICIAL LIMBS. JAMES F. ROWLEY, Chicago, Ill. Filed Oct. 18, 1913. Serial No. 794,876. (Cl. 3—3.)

1. In a joint for artificial limbs, the combination of a tubular outer member having a shank extending outwardly from its side, a cylindrical member in said tubular member having a plurality of annular ball races and balls in said races contacting with the inner surface of said tubular member, a slot extending part way around the circumference of said tubular member, and a shank secured to said cylindrical member and extending outwardly through said slot.

2. In a joint for artificial limbs, the combination of a tubular outer member, a coöperating inner member in said



tubular member having a plurality of annular ball races and balls in said races contacting with the inner surface of said tubular member, a slot extending part way around the circumference of said tubular member, and a shank secured to said coöperating inner member and extending outwardly through said slot.



3. In a joint for artificial limbs, the combination of an outer member, an inner member, one of said members having a race therein, rollers interposed between said members in said race, and a shank on said inner member coacting with said outer member to retain said members and rollers in their assembled relation.

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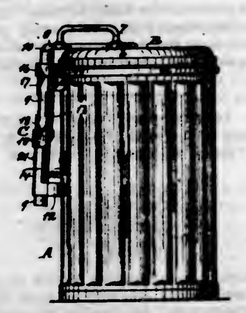
1,090,882. SHOE-BOW. GEORGE SACHSE, Baltimore, Md. Filed Apr. 21, 1913. Serial No. 762,633. (Cl. 2—187.)



The combination with a shoe having a reinforcing member therein and staples having an offset at each end forming shoulders and the points extending through the reinforcing member, of a removable bow having oppositely extending hook members adapted to engage the staples between the shoulders.

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1,090,883. CAN WITH SELF-CLOSING LID. LOUIS SCHOTT, Cincinnati, Ohio, assignor to Cincinnati Galvanizing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 2, 1912. Serial No. 694,596. (Cl. 220—47.)



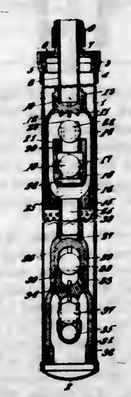
1. In a can of the kind described, the combination of a body, a lid for the same, a bracket on the former secured thereto in an inclined position and a stem on the lid fitted to the bracket so as to be rotatable therein and axially movable with respect thereto.

2. In a can of the kind described, the combination of a body, a bracket secured to the same and comprising two semi-tubular parts and a short tubular part between them, all these parts being axially concentric, the semi-tubular parts extending in opposite directions from the tubular part between them, they being so positioned with reference to this part and with reference to each other as to be on opposite sides of their common axis, the lower semi-tubular part having a longitudinal slot, a lid for the can, a stem secured to the side of the lid and movably fitted into the bracket and a pin on this stem adapted to occupy the slot mentioned and preventing rotary movement of the stem until withdrawn from said slot in the lower semi-tubular part in the bracket and moved into the upper part thereof.

3. In a can of the kind described, the combination of a body, a lid for the same, a stem on the lid provided with a pin and arranged to project down over the body, a bracket on this latter which receives the stem and is provided with a slot in its lower part adapted to be occupied by the pin on said stem when the lid is seated and with an open space above this slot which permits rotation of the stem and sidewise movement of the lid with reference to the can after the lid has been raised to cause the pin mentioned to move into said open space and cams intermediate this open space and the slot below whereby the pin is directed to move into said slot to cause the lid to become re-seated.

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1,090,884. PUMP. JULIUS AUGUST SCHWANTES, Green Bay, Wis. Filed Mar. 21, 1913. Serial No. 756,040. (Cl. 103—70.)



1. A pump including a casing having a closed lower end and an inlet above said end, upper and lower hollow pistons, a lower sucker rod connecting the pistons and opening thereinto, an upper sucker rod extending from the upper piston, an upper valve within each piston and held upon its seat by downward pressure thereon, thereby to shut off the passage of liquid longitudinally through the piston from the sucker rod thereabove, that portion of each piston below its upper valve being hollow and in constant communication with the space below the piston, a transverse passage in each piston and in constant communication with the space above the piston, and a gravity seated valve in each piston and normally closing communication between the transverse passage and the lower interior portion of the piston.

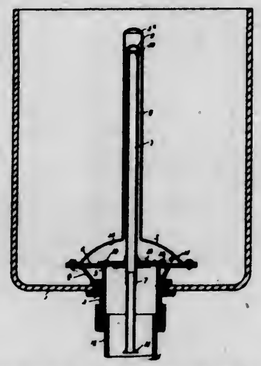
2. A pump including a casing, a hollow piston therein and having a bottom opening and a top outlet, an upper gravity valve in the piston and normally closing the outlet, a transverse passage in the piston and communicating with the space above the piston, and a gravity valve for normally closing communication between said passage and the bottom opening of the piston.

3. A pump including a casing, upper and lower hollow pistons therein each having a bottom opening and a top outlet, an upper gravity valve in the piston and normally closing the outlet, a transverse passage in the piston and communicating with the space above the piston, and a gravity valve for normally closing communications between said passage and the bottom opening of the piston, a sucker rod extending from the outlet of the upper pis-

ton, a sucker rod connecting pistons for directing liquid between the valves in the upper piston, said casing having an inlet constantly opening into the space between the pistons.

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1,090,885. COMBINED VALVE AND SIPHON. JOHN SHANKS, Barrhead, Scotland. Filed Mar. 18, 1913. Serial No. 755,190. (Cl. 4—5.)



1. The combination with a tank having an outlet provided with a valve seat, of a casing within said tank having a closed upward extension and provided with means for admitting fluid thereto, a valve coöperating with said valve seat and exposed to the fluid pressures in said tank and casing respectively, and a siphon pipe carried by said valve, arranged coaxial with said extension, and communicating with said outlet.

2. The combination with a tank having an outlet provided with a valve seat, of a casing within said tank having a closed upward extension and a relatively small opening communicating with said tank, a valve coöperating with said valve seat and exposed to the fluid pressures in said tank and casing respectively, and a siphon pipe carried by said valve, arranged coaxial with said extension, and communicating with said outlet.

3. The combination with a tank having an outlet provided with a valve seat, of a casing within said tank having a closed upward extension and provided with means for admitting fluid thereto, a diaphragm closing the lower end of said casing and constituting a valve coöperating with said valve seat, and a siphon pipe carried by said diaphragm, arranged coaxial with said extension, and communicating with said outlet.

4. The combination with a tank having an outlet provided with a valve seat, of a casing within said tank having a closed upward extension and provided with means for admitting fluid thereto, a valve coöperating with said valve seat and exposed to the fluid pressures in said tank and casing respectively, and a siphon pipe carried by said valve, arranged coaxial with said extension, and communicating with said outlet, said siphon pipe being provided at its upper end with a cap arranged to afford a narrow opening between the same and the end of said pipe.

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1,090,886. PROCESS OF MAKING NEGATIVE OR POSITIVE PLATES. HENRY LIONAL SHAWCROSS, New Brighton, England. Filed May 8, 1907. Serial No. 372,588. (Cl. 95—88.)

1. In a photographic process subjecting to the action of potassium ferrocyanid a sensitive colloidal film carried on the surface of a suitable material and which has been exposed to light beneath a translucency and thereby rendering solvent the unexposed parts of said light impressed colloidal film, substantially as set forth.

2. In a photographic process subjecting to the action of potassium ferrocyanid a sensitive colloidal film carried on the surface of a suitable material and which has been exposed to light beneath a translucency thereby rendering solvent the unexposed portions of the light impressed colloidal film and subsequently removing these unexposed portions of the film.

3. In a photographic process subjecting to the action of potassium ferrocyanid a sensitive colloidal film carried on the surface of a suitable material and which has been exposed to light beneath a lined, grained, or stippled translucency, and has had applied to the surface a pigment or transfer or printers' ink, for rendering solvent the unexposed parts of said light impressed colloidal film and removing the superfluous pigment or ink with the soluble unexposed parts.

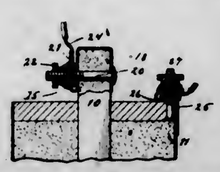
4. In a photographic process subjecting to the action of potassium ferrocyanid a sensitive colloidal film carried on the surface of a suitable material and which has been exposed to light beneath a translucency, thereby rendering solvent the unexposed parts of said light impressed colloidal film, and removing the unexposed parts of the film by water until the surface of the material is bare in those parts.

5. In a photographic process subjecting to the action of potassium ferrocyanid a sensitive colloidal film carried on a hard inert impervious surface of a suitable material, and which has been exposed to light beneath a translucency and thereby rendering solvent the unexposed parts of said light impressed colloidal film.

[Claim 6 not printed in the Gazette.]

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1,090,887. BINDING-POST FOR ELECTRIC TERMINALS. ALEXANDER B. SIMPSON, Jersey City, N. J. Filed Nov. 29, 1912. Serial No. 734,052. (Cl. 173—259.)



The combination, with an electric terminal, and a threaded binding post fixed thereto, of a folded strip of pliable conducting metal through both of whose arms the binding post passes, a nut screwed on said binding post outside the inner arm to bind the same against the terminal, and a binding-nut on said binding post outside the outer arm to bind the connecting wire between said arms and the binding post, substantially as described.

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1,090,888. CONNECTOR FOR ELECTRIC WIRES. ALEXANDER B. SIMPSON, Jersey City, N. J. Filed Apr. 3, 1913. Serial No. 758,549. (Cl. 173—324.)



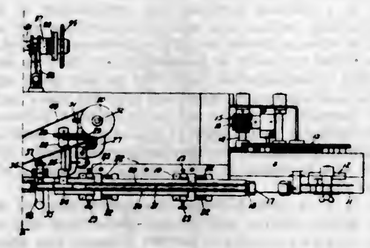
1. A connector consisting of a strip of pliable conducting metal bent into a plurality of folds with alined post holes in opposite folds, one or more threaded binding posts passed through said alined post holes and having a head on one end and a nut screwed on the other end respectively bearing against the outer folds, and a plurality of wires passed through the respective folds and wrapped around the parts of the binding post between the respective folds, the nuts being screwed upon the binding posts to clamp the several folds together and clamp and connect the wire loops between said folds, substantially as set forth.

2. A connector consisting of a strip of pliable conducting metal folded two or more times reversely upon itself and having post holes alined through the several folds, a headed binding post passed through said alined holes, a nut screwed on the threaded end of said binding post and a plurality of wires passed through the respective folds and wrapped around the respective parts of the binding post, the binding nuts clamping the loops of said wires between the respective folds and around the binding post, substantially as set forth.



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1,090,889. CIGARETTE-MACHINE. ELBERON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 30, 1912. Serial No. 739,277. (Cl. 131—43.)



1. In a cigarette machine, the combination with means for guiding a shower of tobacco upon a strip of paper traveling in the direction of its length, of means for incasing the tobacco in the paper to form a cigarette rod, means for cutting the rod into individual cigarettes, and means operative while the machine is running for controlling the operation of the cutting means to compensate for any irregularity in the operation of the incasing means.

2. In a cigarette machine, the combination with means for marking a strip of paper traveling in the direction of its length, of means for guiding a shower of tobacco upon the traveling paper, means for incasing the tobacco in the paper to form a cigarette rod, means for cutting the rod into individual cigarettes, and means operative while the machine is running for controlling the operation of the cutting means to regulate the position of the cut with respect to the position of the marking on the paper.

3. In a cigarette machine, the combination with a printing mechanism, of a rod forming mechanism adapted to draw a strip of wrapper paper through the printing mechanism, means for guiding a shower of tobacco upon the paper between the printing mechanism and the rod forming mechanism, a rod sealing device to which the rod forming mechanism delivers a formed rod, and means operative while the machine is running for varying the relative speeds of the rod forming mechanism and the sealing device.

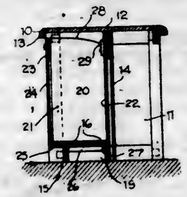
4. In a cigarette machine, the combination with a printing mechanism, of a rod forming mechanism adapted to draw a strip of wrapper paper through the printing mechanism, means for guiding a shower of tobacco upon the paper between the printing mechanism and the rod forming mechanism, a rod sealing device to which the rod forming mechanism delivers a formed rod, and driving means for the sealing device operative while the machine is running and adapted to vary its speed with respect to the speed of the rod forming mechanism.

5. In a cigarette machine, the combination with a printing mechanism, of a rod forming mechanism adapted to draw a strip of wrapper paper through the printing mechanism, means for guiding a shower of tobacco upon the paper between the printing mechanism and the rod forming mechanism, a cut-off mechanism to which the rod forming mechanism delivers a formed rod, and means operative while the machine is running for adjusting the position of the cut-off mechanism with respect to the rod forming mechanism.

[Claims 6 to 9 not printed in the Gazette.]

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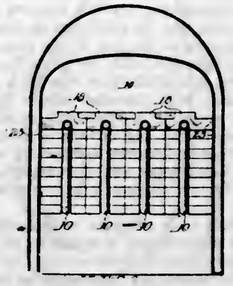
1,090,890. CABINET. WARREN S. SMITH, Bangor, Pa. Filed Apr. 1, 1913. Serial No. 758,273. (Cl. 211—6.)



In a device of the character described, a frame including a pair of horizontal side bars and a pair of horizontal end bars, one of the side bars having its top surface outwardly and downwardly inclined and forming an acute angular edge at its upper and inner extremities, a bin having spaced battens on its bottom and being seated upon said side bars with one end of the battens in contact with the outwardly and downwardly inclined bars, so that the acute angular edge combines with the notches at the junction of the floor and the battens for providing substantially frictionless pivotal points on which the bin may be tilted.

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1,090,891. LOCOMOTIVE-ARCH CONSTRUCTION. ENOCH P. STEVENS, Chicago, Ill., assignor to Locomotive Arch Brick Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 23, 1911. Serial No. 645,643. (Cl. 110—87.)



1. In a locomotive having a fire box therein, the combination of a plurality of arch tubes extending through said fire box, a plurality of rows of bricks supported on said arch tubes, each of said rows being supported on a corresponding arch tube, said bricks having recesses in their lower surfaces for the reception of said arch tubes, and a plurality of rows of locking bricks engaging adjacent rows of bricks and filling the space therebetween, substantially as described.

2. In a locomotive having a fire box therein, the combination of a plurality of arch tubes extending through said fire box, a plurality of rows of bricks supported on said arch tubes, each of said rows being supported on a corresponding arch tube, said bricks having recesses in their lower surfaces and lateral recesses on their upper surfaces, and locking bricks engaging said upper recesses and filling the space between said bricks, whereby the latter are prevented from rotating on said arch tubes, substantially as described.

3. In a locomotive furnace, the combination of a plurality of inclined water tubes, and an arch supported by said tubes, said arch including two series of brick, the brick of one series being supported by said tubes, each brick by a single tube and the brick of the other series being adapted to lock the brick of the first series against rotation upon their respective supporting tubes, each of the brick of the first series being adapted as a whole to be applied to or removed from its respective supporting

tube by lateral motion thereof to said tube, and the brick of the two series being arranged to practically exclude the passage of gases therebetween, substantially as described.

1,090,892. BRAKE-SHOE. ALFRED L. STREETER, Chicago, Ill. Filed June 28, 1913. Serial No. 776,224. (Cl. 188—28.)



1. Brake shoes provided with interlocking parts on their backs and faces, the interlocking parts of different shoes coöperating to secure said shoes together and being constructed and arranged for engagement and disengagement by turning said shoes relatively to each other, substantially as described.

2. Brake shoes provided with interlocking parts on their backs and faces, the interlocking parts of different shoes coöperating to secure said shoes together and being constructed and arranged for engagement and disengagement by turning said shoes relatively to each other, said interlocking parts comprising such parts located adjacent to the ends of said shoes, substantially as described.

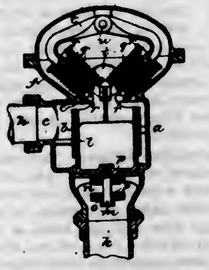
3. Brake shoes provided with interlocking parts on their backs and faces, the interlocking parts of different shoes coöperating to secure said shoes together and being constructed and arranged for engagement and disengagement by turning said shoes relatively to each other, said interlocking parts comprising dovetail grooves formed in the faces of said shoes, and the guide lugs on the backs thereof, the dovetail grooves in the face of one shoe being adapted to receive and interlock with the guide lugs on the back of another shoe, substantially as described.

4. Brake shoes, each provided with a lug on the back thereof and a recess in its face, the recess of one shoe adapted to receive the lug on another, and interlocking parts on said lugs and within said recess, constructed and arranged for engagement and disengagement by turning said shoes relatively to each other, substantially as described.

5. Brake shoes each provided with projections on the attaching lugs thereof, and a recess in its face provided with grooves adjacent to its inner end, the recess in one shoe adapted to receive the attaching lug on another, and the projections on said attaching lug being constructed and arranged for engagement and disengagement with the grooves within said recess by turning the shoes relatively to each other, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,090,893. VACUUM-GOVERNOR. FRANK W. VAN NESS, Milwaukee, Wis., assignor to Frank J. Matchette, Milwaukee, Wis. Filed June 12, 1909. Serial No. 501,732. (Cl. 230—24.)



1. In a vacuum governor the combination of a three-way valve case, a valve subjected to service pressure and adapted to close either of two ports and afford communication between the other and the third port, and a spring arranged obliquely to the movement of the valve and tending to hold it against service pressure in position to close one of said two ports.

2. In a vacuum governor the combination of a valve case having suction and service connections and a relief port, a piston valve subjected to service pressure and adapted to close either the relief or the service port leaving the other in open communication within the suction port, and a spring arranged obliquely to the movement of the valve and tending to hold it in position to close the relief port, the arrangement of the spring being such that its obliquity to the movement of the valve increases and its pressure upon the valve diminishes as the valve moves away from the relief port.

3. In a vacuum governor the combination of a valve case having suction and service connections and a relief port, a valve subjected to service pressure and adapted to close either the relief or the service port leaving the other in open communication with the suction port, opposing spring seats pivotally connected with the valve and valve case respectively and a spring interposed between said seats obliquely to the axis of the valve and tending with diminishing pressure as the valve moves away from the relief port to return it to its normal position in which it closes said port.

4. In a vacuum governor the combination of a valve case having suction and service connections and a relief port, a valve subjected to service pressure and adapted to close either the relief or the service port while the other is left in open communication with the suction port, an evener pivoted to the case, opposing spring seats pivoted to the evener and to the valve respectively, and springs interposed between said seats obliquely to the axis of the valve and tending to hold the valve in its normal position closing the relief port, the arrangement of the springs being such that their obliquity to the axis of the valve increases and their pressure tending to move the valve toward the relief port diminishes as the valve is moved in the opposite direction.

5. In a vacuum governor the combination of a valve case having an internal valve-guiding sleeve, relief and service ports in axial alinement with said sleeve and a suction connection in open communication with the ends of said sleeve, a piston valve fitted in said sleeve and movable axially therein to close either the relief or the service port and open communication between the other and the suction connection, said valve being subjected to the vacuum or service pressure, and means acting in opposition to the vacuum service pressure and tending with increasing force to move said valve toward the relief port into position to close the same.

[Claims 6 to 8 not printed in the Gazette.]

1,090,894. INTERNAL-COMBUSTION ENGINE. LOUIS EUGÈNE VIAAD, Bar-sur-Seine, France. Filed Feb. 8, 1912. Serial No. 675,293. (Cl. 123—50.)

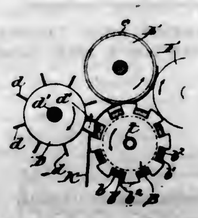
1. In an internal combustion engine of the character described, the combination with a cylinder provided with an exhaust port *e*, an admission port *i*, and two other ports *h*, *j*, arranged respectively above and below the admission port, of a hollow piston arranged within the cylinder and provided with two ports *l*, *m*, which, when the piston is at the end of its upward stroke will coincide with the exhaust port and the port *j*, respectively, and the port *i*, at the same time being covered by the piston, a connection between the ports *h* and *j*, a fixed abutment arranged within the piston and constituting an internal guide for the latter, a spark plug carried by the head of the piston, a terminal carried by the head of the cylinder, and an electric connection between the said plug and terminal.

2. In an internal combustion engine of the character described, the combination with a cylinder provided with an exhaust port *e*, an admission port *i*, and two other ports *h*, *j*, arranged respectively above and below the admission port, of a hollow piston arranged within the cylinder and provided with two ports *l*, *m*, which, when the piston is at the end of its upward stroke will coincide with the exhaust port and the port *j*, respectively, and the port *i*, at the same time being covered by the piston, a connection between the ports *h* and *j*, a fixed abutment arranged within the piston and constituting an internal guide for the latter, a spark plug carried by the head of the piston, a terminal carried by the head of the cylinder, an electric connection between the spark plug and terminal, and a spring-pressed cylindrical member arranged within the port *j*, and bearing against the external wall of the piston.



3. In an internal combustion engine of the character described, the combination with a cylinder provided with an exhaust port *e*, an admission port *i*, and two other ports *h*, *j*, arranged respectively above and below the admission port, of a hollow piston arranged within the cylinder and provided with two ports *l*, *m*, which, when the piston is at the end of its upward or power stroke will coincide respectively with the exhaust port and the port *j*, and the port *i*, at the same time being covered by the piston, a connection between the ports *h* and *j*, a fixed abutment arranged within the piston and constituting an internal guide for the latter, said abutment being provided with diametrically opposite slots, a wrist-pin having bearings in the piston and adapted to reciprocate in the said slots, and a connecting rod pivotally mounted on the wrist-pin.

1,090,895. LEATHER-WORKING MACHINE. FRANK WAYLAND, Salem, Mass. Filed July 8, 1911. Serial No. 637,397. (Cl. 149—16.)



1. In a leather working machine, a pair of rolls, one having helical blades, and the other having corresponding helical channels into which said blades project, and means automatically to cause the sides of said blades and the sides of said channels yieldingly to press one toward the other.

2. In a leather working machine, a pair of rolls, one having helical blades, and the other having corresponding helical channels into which said blades project, and means automatically to cause the sides of said blades and the sides of said channels yieldingly to press one toward the other irrespective of the position of the blades within the grooves.



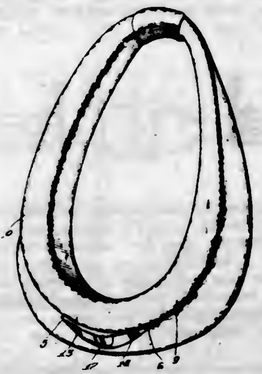
3. In a leather working machine, a pair of rolls, one having helical blades, and the other having corresponding helical channels into which said blades project, and cushions in the bottom of said channels protected by a flexible covering of metal.

4. In a leather working machine, a pair of rolls, one having helical blades and the other having corresponding helical channels into which said blades project, and a pair of feed rolls, one of said feed rolls pressing toward the smooth surface of said channeled roll and constituting there with an ironing mechanism.

5. In a leather working machine, a pair of work rolls having coöperating helices, the helices of one roll overlapping the helices of the other roll when the rolls are in working position, one of said rolls being mounted on the machine frame, a movable support carrying the other roll adapted to move the latter roll bodily out of working position and wholly away from the other roll to provide a clear open space between said rolls and their helices for the insertion of a skin therebetween, and mechanism to operate said movable support to open and close said work rolls, said work rolls being connected by a train of gears adapted to cause said rolls to rotate in opposite directions and to remain in train in all positions of said working rolls.

[Claims 6 to 12 not printed in the Gazette.]

1,090,896. HAME-FASTENER AND REINFORCEMENT FOR HORSE-COLLARS. JOSEPH C. WEINMAN, Boone, Iowa. Filed Apr. 1, 1913. Serial No. 758,146. (Cl. 54—19.)



1. A reinforcement for horse collars comprising one integral piece of metal having the medial portion thereof cut away, side members for connecting the ends together, and a cross arm connecting said side members.

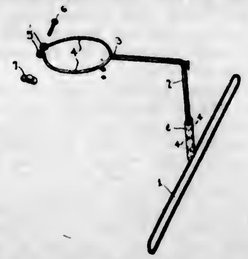
2. A device of the character described comprising one integral piece of metal adapted to fit within the groove of a horse collar, the medial portion thereof being cut away to form side members, a cross bar connecting the side members, and means for permanently connecting the ends to the collar for the purpose specified.

3. As a new article of manufacture a hame fastener formed of an integral piece of metal and having an arcuate configuration, the outer face thereof being concave, the sides thereof being convex and tapering to a point, the medial portion thereof being cut away and forming side members, a cross bar connecting said side members, and means for permanently connecting the ends to a horse collar for the purpose specified.

1,090,897. BRACKET FOR LICENSE-NUMBER PLATES. FREDERICK A. WERNIG, New York, N. Y. Filed Dec. 25, 1912. Serial No. 738,267. (Cl. 40—129.)

The herein described bracket made from a single piece of wire bent at its central portion into a horizontally dis-

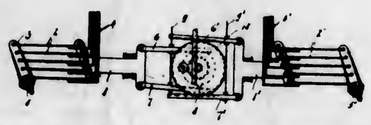
posed elongated loop, the two stretches of wires extending side by side upwardly from the loop to form a vertical shank and then bent at right angles and then extending horizontally to the rear and crossing each other and then curved outwardly in opposite directions from where they cross and terminating in eyes, a member engaging with



said eyes, a clamping sleeve firmly fastened around the arms forming the vertical shank, the lower end of which is in contact with the loop, whereby the vertical portions of the wire are held firmly together but the upper horizontal portions of the wire may be separated to spring the curved portions about a suitable support, and means for detachably securing a number-plate to the loop.

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1,090,898. JACQUARD EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany. Original application filed Feb. 5, 1910, Serial No. 542,305. Divided and this application filed June 17, 1912. Serial No. 704,108. (Cl. 112—7.)



1. In an automatic embroidering machine, the combination with two rocking members and two series of jacquard controlled allotting members connected to said rocking members, of a mechanism for combining the different movements of said two series of allotting members and comprising a differential gear interposed between said two series of allotting members and means for transmission of movement from said differential gear to the fabric frame.

2. In an automatic embroidering machine, the combination with two rocking members and two series of jacquard controlled allotting members connected to said rocking members, of a mechanism for combining the different movements of said two series of allotting members and comprising jacquard controlled racks connected to said two series of allotting members, a differential gear operated from said racks and means for the transmission of movement from said gear to the fabric frame.

3. In an automatic embroidering machine, the combination with two rocking members and two series of jacquard controlled allotting members connected to said rocking members, of a mechanism for combining the different movements of said two series of allotting members and comprising a pair of jacquard controlled racks connected to each series of said allotting members, a differential gear operated from said racks, the racks of each pair being adapted to alternately engage the said differential gear, and means for the transmission of movement from said gear to the fabric frame.

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1,090,899. GROUND-ANCHOR. ARTHUR T. BALLENGER, Wayne county, Ind. Filed May 12, 1913. Serial No. 766,929. (Cl. 189—92.)

1. A ground anchor formed from a single piece of sheet material having its three edges equal in length with two of the converging edges forming a driving point, the edge opposite to the driving point being relatively horizontal, there being two incisions formed vertically through the horizontal edge and dividing the upper portion of the anchor into three tongues, the two outer tongues being deflected to one side at an angle to the body of the anchor, all substantially as shown and described.

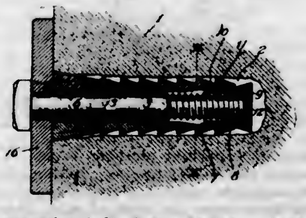


2. A ground anchor formed from a single piece of sheet metal having its three edges substantially equal in length with each other with two of the converging edges forming a driving point, the edge opposite to the driving point being relatively horizontal, the upper or horizontal edge of the device being divided into three tongues the two outermost of which are deflected to one side with relation to the body of the device, there also being two apertures formed through the central portion of the device, said apertures being arranged in alinement with said driving point, all substantially as set forth.

3. A ground anchor comprising the triangular body having three straight edges, one of the edges being divided into three parts: a tongue portion parallel with the body and the two outer portions deflected to one side at an angle to the body, there being two apertures formed through the central portion of the body; and a wire extending through one of said apertures with its end portion hooked through the other one of said apertures, all substantially as shown and described.

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1,090,900. EXPANSION-BOLT. ARTHUR C. BARRETT, Chicago, Ill. Filed June 4, 1912. Serial No. 701,573. (Cl. 85—2.4.)



1. An expansion bolt sleeve, having a bore the rear portion of which is formed with an expanded cylinder portion and with a flaring rear end portion in connected relation, a coöperating tapered nut having a cylindrical extension at its forward end, and a bolt extending through the bore of the sleeve and threaded into the nut.

2. An expansion bolt sleeve having a bore the rear portion of which is formed with an expanded cylindrical portion and with a flaring rear end portion circular at its point of juncture with said expanded portion and merging therefrom into an elliptical form at its rear end, a coöperating tapered nut of an elliptical form at its rear end and having a cylindrical extension at its forward end, and a bolt extending through the bore of the sleeve and threaded into the nut.

3. An expansion bolt sleeve having a bore the rear portion of which is formed with an expanded cylindrical portion and with a flaring rear end portion circular at its point of juncture with said expanded portion and merging therefrom into an elliptical form at its rear end, a coöperating tapered nut of an elliptical form at its rear end and having a cylindrical extension at its forward end, the bore of said nut having an unthreaded forward portion and a threaded rear portion, and a bolt extending through the bore of the sleeve and threaded into the nut.

4. A sectional expansion bolt sleeve, the sections of which are locked together at one end only and relatively spaced to provide intervening tapering slots the rear ends of which are closed by meeting lugs, a nut having projections disposed in said slots and having straight transverse rear bearing faces, the rear ends of said projections having straight transverse bearing surfaces adapted to afford a straight transverse bearing against the lugs aforesaid in the initial operation of introducing the sleeve into place, and a bolt adapted to draw the nut into the bore of the sleeve.

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1,090,901. PLUG-GAGE. DANIEL P. BECKWITH, Hartford, Conn., assignor to The Pope Manufacturing Company, Hartford, Conn., a Corporation of Massachusetts. Filed May 5, 1913. Serial No. 765,458. (Cl. 73—147.)



1. A plug gage having a cylindrical body with a longitudinal slot the bottom of which slopes from one end to the other, a slide that is thicker at one end than the other and is movable longitudinally in the slot, there being index marks on the body and on the slide that are adapted to register and indicate the amount of radial displacement of the slide as it is moved longitudinally.

2. A plug gage having a cylindrical body with a tapering longitudinal slot, a tapering slide movable lengthwise in said slot, there being index mark on the slide and an index mark on the body, said marks being adapted to register when the slide is in such position that the diameter of the plug through the slide is of the exact predetermined dimension.

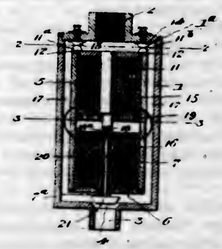
3. A plug gage having a cylindrical sectional body with the sections put together so as to leave a tapering slot between them, a tapering slide movable longitudinally in said slot between the sections, there being index marks on the slide and body arranged to register with each other and indicate the lateral displacement of the slide as it is moved longitudinally.

4. A plug gage having a handle, a cylindrical body with a tapering longitudinally extending slot, a tapering slide movable lengthwise in the slot, the inner end of the slide being provided with a thumb piece, there being index marks on the slide and body arranged to register when the slide is moved to such position that the diameter of the gage through the slide is of the exact desired dimension.

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1,090,902. ELECTRICAL VALVE. JOHN W. BECKWITH, Spokane, Wash., assignor of one-half to H. A. & L. D. Holland Company, Spokane, Wash., a Corporation of Washington. Filed Sept. 30, 1912. Serial No. 723,108. (Cl. 137—4.)

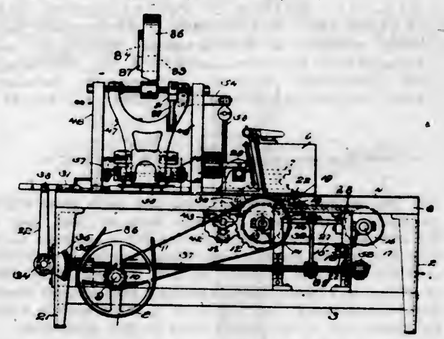
1. In an electrical valve, the combination with an outer shell provided with a valve seat, of an inner shell of smaller size than the outer shell, independent electromagnet coils contained within said inner shell, permanent magnet cores for said coils, a bodily movable and slidable armature adapted to play between the ends of the coils, a valve adapted to bear on said seat, and a valve stem connecting said valve and armature and extending loosely through one of the cores, said permanent magnet cores retaining the armature when attracted by them and thereby maintaining the valve where positioned.



2. In an electrical valve, the combination with an outer shell provided with a valve seat, of a detachable clamping head for said shell, contact members on the shell and also on the detachable head aforesaid, and a self-contained electrically operated valve mechanism located within the shell but also bodily removable therefrom whose valve is adapted to coöperate with the seat aforesaid, said valve mechanism being provided with contact members respectively adapted to engage all of the contact members aforesaid, the electrically operated valve mechanism being clamped within the shell by the detachable head.

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1,090,903. MACHINE FOR BUILDING UP BOARDS. EDWIN J. BELL, Oshkosh, Wis. Filed Apr. 13, 1911. Serial No. 620,825. (Cl. 144—7.)



1. In a machine of the class described, a table, a saw frame mounted therein and arranged to swing transversely of the table, saws carried by the frame and arranged to engage a board during the swinging movement, board feeding means, a trigger adapted to be engaged by a board and controlling the feeding means, a counter-balanced safety trigger engaged by the saw frame during the full sawing operation and connected with the feeding means, preventing the feeding of a board while another board is being cut.

2. In a machine of the class described, a table, a saw frame mounted therein and arranged to swing transversely of the table, saws carried by the frame and arranged to engage a board during the swinging movement, board-feeding means including a plurality of members one of which is pivoted and counter-balanced, a trigger adapted to be engaged by a board and controlling the feeding means, a counter-balanced safety trigger engaged by the saw frame during the full sawing operation, and connected with the feeding means, preventing the feeding of a board while another board is being cut.

3. In a machine of the class described, a table, a plurality of saws mounted thereon, a hopper mounted on the table, a member arranged to reciprocate transversely of the table, a pusher head, a traveling device carrying the pusher head, supporting means for said pusher head mounted on the reciprocating member, and comprising a plurality of members in substantially parallel relation, one of which is pivotally mounted, the said pusher head feeding the boards from the hopper.

4. In a machine of the class described, a hopper, a pusher head supporting member arranged to reciprocate beneath the said hopper, a traveling member, a pusher head mounted beneath the hopper, and carried by the traveling member, the supporting member holding said pusher head in operative position for a given interval, and a second supporting member pivotally mounted adjacent to that first mentioned and arranged to support the pusher head for an interval preceding the interval first mentioned.

5. In a machine of the class described, a hopper, a member mounted beneath said hopper, and arranged to reciprocate in a transverse direction with referenee to the path of feed from said hopper, a continuously traveling member, a shaft connected therewith, and arranged to move across the reciprocating member, a pusher head mounted on the shaft, a member movable with the reciprocating member and supporting said pusher head for a given interval, a second pusher head supporting member pivotally mounted adjacent to that first mentioned and substantially parallel therewith, the upper surface being flush with the surface of the supporting member first mentioned, said second supporting member reaching the pusher head before the first has passed the path of movement thereof, and means for counter-balancing the pusher head when retained in position by the second supporting member.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,904. METHOD OF MANUFACTURING RAW PLATE-GLASS. MAX BICHEROUX, Herzogenrath, Germany, assignor to Herzogenrather Spiegelglas- und Spiegel-Fabrik Bicheroux, Lambotte & Cie., Gesellschaft mit beschrankter Haftung, Herzogenrath, Germany. Filed June 22, 1910. Serial No. 568,260. (Cl. 49—87.)



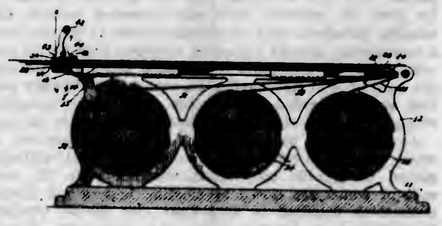
1. The method of manufacturing raw plate glass which consists in pouring out a molten mass of glass upon a flat and relatively cool table rolling out a coherent plate from said molten mass, consecutively severing a plurality of sheets from said coherent plate in the rear of the line of rolling, and consecutively removing said severed sheets from the relatively cool surface on to a hot surface while the rolling out of the molten mass is still proceeding.

2. The method of manufacturing raw plate glass which consists in pouring out a molten mass of glass upon a flat and relatively cool table, rolling out a coherent plate therefrom progressively from one end of the flat surface to the other, consecutively severing a plurality of sheets from said coherent plate in the rear of the line of rolling and pushing the severed sheets with a pressure applied on the longitudinal edge of the sheet in a direction transverse to the direction of rolling and over said cool surface on to a hot surface while said rolling of the molten mass is proceeding.

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1,090,905. AUTOGRAPHIC REGISTER. WILLIAM N. BOLLER, Syracuse, N. Y., assignor to Autographic Register Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 11, 1908. Serial No. 466,944. (Cl. 11—36.)

1. In combination, with a casing and a suitable platen, of means for directing the end portions of a plurality of paper strips over said platen, a sliding carriage mounted to reciprocate from the end of said casing, said carriage including two parallel superposed bars between which the end portions of said strips are directed and the upper of said bars being slotted, and a suitable handle for reciprocating said carriage, said handle being provided with a portion operating through the slot in the upper bar to automatically engage said strips when said handle is actuated to move said carriage away from said casing.

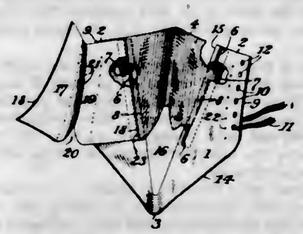


2. In combination, with a casing and a suitable platen, of means for directing the end portions of a plurality of paper strips over said platen, a sliding carriage mounted to reciprocate from the end of said casing, said carriage including two parallel superposed bars between which the end portions of said strips are directed the upper of said bars being provided with a slot, a pivoted handle for reciprocating said carriage, said handle being provided with a portion which operates through said slot to engage said strips during movement of said carriage away from said casing.

3. In combination, with a casing and a suitable platen, of means for directing the end portions of a plurality of paper strips over said platen, a sliding carriage mounted to reciprocate from the end of said casing, said carriage including two parallel superposed bars between which the end portions of said strips are directed and the upper of said bars being provided with a slot, a pivoted handle for reciprocating said carriage, said handle being provided with a portion which operates through said slot to engage said strips during movement of said carriage away from said casing, automatically releasing said strips during movement toward said casing.

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1,090,906. ANKLE SUPPORT AND PROTECTOR. HENRY JAMES COLLIS, Taunton, Mass. Filed Nov. 15, 1911. Serial No. 660,338. (Cl. 128—52.)



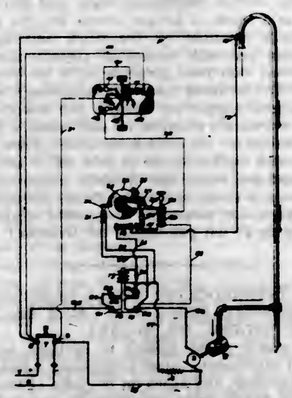
1. An improved ankle support and protector of the class described, comprising a pliable and non-elastic front member constituted by the front retaining portions 2 at the upper part thereof and the instep strip portion at the lower part thereof, said front member being in strip form whereby the top retaining portions 2 form narrow non-elastic members to cover the front of the ankle over the instep and the instep strip portion forms a narrow member to pass under the instep, the top retaining portions 2 of said non-elastic front member being provided with slits or slots extending continuously parallel with and adjacent to their respective rear edges, a main elastic body portion extending at right angles to said narrow non-elastic front member and forming a relatively broad band extending continuously to surround the sides and rear of the ankle, said elastic main body portion having its front end edges inserted in said slits or slots at the rear edges of the said front top retaining portions 2, and a stay strip secured longitudinally at the face of the rear edges of said front retaining portions 2 and covering the exposed edges of said elastic main body portion which project at the slit or slot.

2. An improved ankle support and protector of the class described, comprising a pliable front member adapted to extend at the front of the ankle over the instep and constituting front retaining members by which the body of the device which surrounds the ankle is secured in position and having an instep strip adapted to pass under the ankle, a body portion extending at an angle to said front retaining portions and adapted to surround the sides and rear of the ankle, fastening means at the front edges of said front retaining portions, and a pliable tongue member having one of its side edges secured in connection with and at the rear of one of said front retaining portions and extending longitudinally with relation thereto above the instep strip, said tongue member having its middle or body portion crimped to conform to the front of the ankle over the instep and extending across the open front of said front member beneath and between the front retaining portions which are constituted thereby.

3. An improved ankle support and protector of the class described, comprising a pliable front member adapted to extend at the front of the ankle over the instep and constituting front retaining members by which the body of the device which surrounds the ankle is secured in position and having an instep strip adapted to pass under the ankle, a body portion extending at an angle to said front retaining portions and adapted to surround the sides and rear of the ankle, fastening means at the front edges of said front retaining portions, and a pliable tongue member having one of its side edges secured in connection with and at the rear of one of said front retaining portions and extending longitudinally with relation thereto above the instep strip, said tongue member having its middle or body portion crimped to conform to the front of the ankle over the instep and extending across the open front of said front member beneath and between the front retaining portions which are constituted thereby and having its transverse area coincident with the area of said front retaining portions which are constituted by said front member.

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1,090,907. PNEUMATIC-DESPATCH-TUBE SYSTEM. FERNAND E. D'HUMY, Englewood, N. J., assignor to The Western Union Telegraph Company, a Corporation of New York. Filed June 6, 1912. Serial No. 701,955. (Cl. 243—18.)



1. The combination with a despatch tube system and an electric motor for operating the same, of an energising circuit for the motor, an electromagnetic switch for governing the motor circuit, a circuit including the winding of the switch, means for closing this switch circuit, another circuit completed upon the energization of the switch through contacts and winding, a shunt for the switch winding, and means for closing the shunt.

2. The combination with a despatch tube system and an electric motor for operating the same, of an energising circuit for the motor, an electromagnetic switch for governing the motor circuit, a circuit including the winding of the switch, means for closing this switch circuit, another circuit completed upon the energization of the switch through its contacts and winding, a shunt for the switch winding, and a timing device for closing the shunt.

3. The combination with a despatch tube system and an electric motor for operating the same, of an energizing circuit for the motor, a switch governing the motor circuit, a step-by-step electromagnetic timing device for the switch, means for setting the timing device, and a source of current impulses for actuating the timing device.

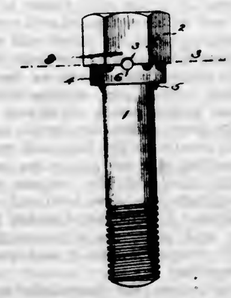
4. The combination with a despatch tube system and an electric motor for operating the same, of an energizing circuit for the motor, a switch governing the motor circuit, a step-by-step electromagnetic timing device for the switch, a source of current impulses for the timing device, and a circuit for said timing device and source of current impulses extending through contacts of the switch.

5. The combination with a despatch tube system and an electric motor for operating the same, of an energising circuit for the motor, a switch governing the motor circuit, an electro-magnetic timing device for the switch, an energising circuit for setting the timing device, a contact device associated with the tube and included in the setting circuit, and a source of current impulses for returning the timing device from its set position to normal.

[Claims 6 to 9 not printed in the Gazette.]

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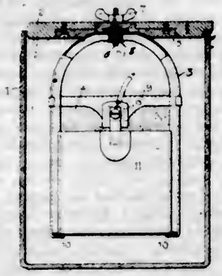
1,090,908. SCREW AND BOLT LOCK. IRA DIMOCK, West Hartford, Conn. Filed Mar. 17, 1913. Serial No. 754,909. (Cl. 151—5.)



1. The combination of a screw having a diametrical perforation adjacent to its head, an anchor member loosely surrounding the screw adjacent to the inner side of the head and having a plural number of radial openings adapted to register with the perforation through the screw, there being relative rotation but no relative longitudinal movement between the screw and anchor member when in position for use, and a pin adapted to be thrust through the openings in the anchor member that register with the perforation through the screw for the purpose of locking said parts against relative rotation.

2. The combination of a screw having a diametrical perforation adjacent to its head, a washer with an opening that loosely fits the stem of the screw adjacent to the head and having radial grooves in its outer face and teeth projecting from its inner face, and a pin adapted to be thrust through the registering radial grooves in the washer and perforation through the screw to lock the screw against turning.

1,090,909. PRIMARY BATTERY. EBEN G. DODGE, Maplewood, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Original application filed June 12, 1909, Serial No. 501,821. Divided and this application filed Aug. 23, 1910. Serial No. 578,515. (Cl. 204—38.)



1. In a voltaic battery, the combination of a negative electrode plate and a pair of positive electrode plates, said positive plates being supported one on each side of said negative plate and substantially parallel thereto, each of said positive plates being substantially co-extensive with said negative plate except at the tops of said plates, and the tops of said positive plates being located a considerable distance lower than the top of said negative plate, said distance being sufficient to permit a substantially uniform utilization of said negative plate, substantially as described.

2. In a voltaic battery, the combination of a negative electrode plate, a pair of positive electrode plates, all of said plates having substantially the same width and the said negative plate having considerably greater height than said positive plates, and means for supporting said positive plates one on each side of said negative plate with the bottoms of all of said plates at substantially the same level and with the tops of said positive plates a considerable distance below the top of said negative plate, said negative plate being beveled upwardly above the tops of said positive plates, substantially as described.

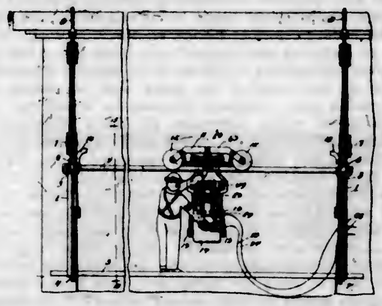
3. In a voltaic battery, the combination of a copper oxid plate, a pair of zinc plates, all of said plates having substantially the same width, the copper oxid plate having considerably greater height than said zinc plates, and means for supporting said zinc plates one on each side of said copper oxid plate with the bottoms of all of said plates at substantially the same level and with the tops of said zinc plates a considerable distance below the top of said copper oxid plate, the copper oxid plate being beveled upwardly above the tops of said zinc plates, substantially as described.

4. In a voltaic battery, the combination of an electrode plate of one polarity, a pair of electrode plates of opposite polarity thereto, a supporting cross piece, a split tapered insulator supported by said cross piece, and means supported by said insulator for supporting said pair of plates one on each side of said first named plate and electrically joining the same, substantially as described.

5. In a voltaic battery, the combination of an electrode plate of one polarity, a pair of electrode plates of opposite polarity thereto, a supporting cross piece, a split tapered insulator supported within a tapered recess in said cross piece, and means passing through and supported by said insulator for supporting said pair of plates one on each side of said first named plate and electrically joining the same, said means having a lug adapted to contact with one end of said split insulator and being screw threaded and provided with a nut beyond the other end of said insulator, for drawing said parts firmly together, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,090,910. SCRAPING-MACHINE. ARTHUR H. FARGO, West Newton, Mass. Filed Jan. 17, 1913. Serial No. 742,748. (Cl. 144—2.)



1. A portable scraping machine comprising a suspension frame, overhead supporting raising and lowering means therefor, a workman's platform on said frame, a horizontal track rail carried by the suspension frame above said platform, a wheeled truck movable on said rail, a motor driven scraper suspended below and pivotally supported by said truck, and brake mechanism for holding the truck stationary.

2. A portable scraping machine comprising a suspension frame, overhead supporting raising and lowering means therefor, a workman's platform on said frame, a horizontal track rail carried by the suspension frame above said platform, a wheeled truck movable on said rail, a motor driven scraper suspended below and pivotally supported by said truck, and manually controlled means for setting the brake mechanism.

3. A portable scraping machine comprising a suspension frame, overhead supporting raising and lowering means therefor, a workman's platform on said frame, a horizontal track rail carried by the suspension frame above said platform, a wheeled truck movable on said rail, a motor driven scraper suspended below and pivotally supported by said truck, a hanger frame by which the scraper is supported, and a supporting yoke pivotally mounted on the truck and having the hanger frame pivotally connected thereto.

4. A portable scraping machine comprising a suspension frame, overhead supporting raising and lowering means therefor, a workman's platform on said frame, a horizontal track rail carried by the suspension frame above said platform, a wheeled truck movable on said rail, a motor driven scraper suspended below and pivotally supported by said truck, a hanger frame for the scraper, a yoke pivotally mounted on the truck and having the hanger frame pivotally connected thereto, and a king bolt connecting said yoke pivotally with the truck.

5. A portable scraping machine comprising a suspension frame, overhead supporting raising and lowering means therefor, a workman's platform on said frame, a horizontal track rail carried by the suspension frame above said platform, a wheeled truck movable on said rail, a motor driven scraper suspended below and pivotally supported by said truck, a motor, a motor supporting frame pivotally mounted on the truck, and means for tilting said scraper.

[Claims 6 to 17 not printed in the Gazette.]

1,090,911. INTERLOCKING METAL SHEETING. JOHN B. GOLDSBOROUGH, Croton, N. Y. Filed Aug. 29, 1912. Serial No. 717,726. (Cl. 61—52.)

1. Sheet metal piling formed in sections and having longitudinal interlocking edges comprising a flange on the edge of one section, and hooks on the edge of the adjacent section, said flange being substantially perpendicular to the face of its section, and said hooks having their ends separated forming a side entrance for said flange.



2. Sheet metal piling formed in sections having longitudinal interlocking edges and adapted to interlock by a lateral entrance, said interlocking edges comprising a substantially rectangular flange on the edge of one section and a corresponding rectangular flange on the edge of the adjacent section, and a retaining hook on said adjacent section having its edge projecting inwardly and situated outside of said flange a distance substantially equal to the thickness of the interlocking flange, and having its inner surface curved forming an entrance and guiding channel for said interlocking flange, whereby a plurality of points of contact between said interlocking edges is obtained and a tight joint is provided.



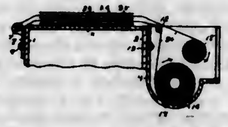
3. Sheet metal piling formed in sections having longitudinal interlocking edges and adapted to interlock by a lateral entrance, said interlocking edges comprising a substantially rectangular flange on the edge of one section and a corresponding rectangular flange on the edge of the adjacent section, and a retaining hook integral with said adjacent section having its edge projecting inwardly and situated outside of said flange a distance substantially equal to the thickness of the interlocking flange, and having its inner surface curved forming an entrance and guiding channel for said interlocking flange, whereby a plurality of points of contact between said interlocking edges is obtained and a tight joint is provided.

4. Sheet metal piling formed in sections and having longitudinal interlocking edges, said interlocking edges adapted to engage by a lateral entrance and providing a plurality of points of contact between said interlocking edges.

5. Sheet metal piling formed in sections and having longitudinal interlocking edges, said interlocking edges adapted to engage by a lateral entrance and providing a plurality of points of contact between said interlocking edges throughout the length thereof.

[Claim 6 not printed in the Gazette.]

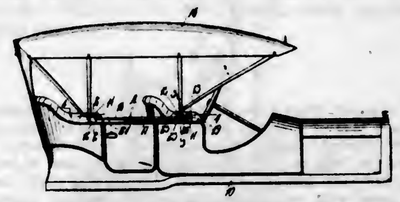
1,090,912. MANIFOLDING DEVICE. WALTER J. GRAY, Jr., Hamilton, Ohio. Filed Aug. 9, 1912. Serial No. 714,231. (Cl. 11—36.)



1. A manifolding device comprising a frame, a platen thereon for supporting superposed strips of record paper, a casing secured on one side of the frame and formed with a curved bottom, guides supported respectively on the casing and on the opposite side of the frame adjacent to the platen, an actuating roller journaled in the casing, a strip of carbon paper formed into a roll and supported on the bottom of the casing, said strip of carbon paper being directed by the guides transversely across and back again over the platen and between corresponding strips of record paper and terminating in engagement with the roller whereon the strip of carbon paper may be wound at intervals from the roll as desired.

2. In a manifolding device the combination with a frame, a platen thereon for supporting superposed strips of record paper, and a guide on one side of the frame, of a casing removably secured on the other side thereof and formed with a curved bottom, said casing being provided with a corresponding guide and with a removable roller, and a strip of carbon paper formed into a roll and supported within the curved bottom of the casing, said strip being directed by the guides transversely across and back again over the platen and between corresponding strips of record paper thereon, and terminating in detachable engagement with the removable roller, for the purpose specified.

1,090,913. VEHICLE TOP-RAISER. CLARENCE L. GREEN and ZACK R. GREEN, Prescott, Ark. Filed May 24, 1913. Serial No. 769,550. (Cl. 21—62.)



1. A device for facilitating the raising and lowering of vehicle tops comprising a bar having portions adapted respectively for insertion through socketed members carried by a vehicle, shoulders on said portions engageable with the inner sides of respective members when said bar is released and moves downward by gravity, and a carrier slidably mounted on the bar and having means for connection with a bow of a vehicle top.

2. A device for facilitating the raising and lowering of vehicle tops comprising an extensible rod having portions adapted respectively for insertion through socketed members carried by a vehicle, shoulders on said portions engageable with the inner sides of respective members when said bar is released and moves downward by gravity, and a carrier slidably mounted on the bar and having means for connection with a bow of a vehicle top.

3. A device for facilitating the raising and lowering of vehicle tops comprising two slidably connected sections each of which has formed integral therewith a projecting portion adapted for insertion through the bow socket pin opening of a top iron of a vehicle, a shoulder formed on each projecting portion for engagement with the inner side of the top iron to hold said projecting portion against disengagement from the top iron, and a carrier slidably mounted on said sections and having means for connection with the bow of a vehicle top.

4. A device for facilitating the raising and lowering of vehicle tops comprising a bar formed of telescoping sections, the limiting sections of said bar having integral portions adapted to project through the bow socket pin openings of and detachably interlock with respective top irons of a vehicle, and means slidable on the bar for supporting the bow of a vehicle top.

5. A device for facilitating the raising and lowering of vehicle tops comprising a bar formed of telescoping sections, the limiting sections of said bar having their outer ends terminating in laterally directed portions adapted for engagement in the openings of the front and rear top irons of a vehicle respectively, said laterally directed portions being of less diameter than the openings of the top irons and provided respectively with shoulders adapted to engage the inner sides of the top irons when the laterally directed portions are disposed at an angle to the longitudinal axes of the openings whereby the bar is held against disengagement from the top irons, and a carrier slidably mounted on said bar and having means for connection with the bow of a vehicle top.

[Claim 6 not printed in the Gazette.]

1,090,914. PAPER-COMMINUTING MACHINE. FRITZ GÜNTTLER, Frankfort-on-the-Main, Germany. Filed Mar. 6, 1912. Serial No. 681,951. (Cl. 19—9.)

1. A comminuting machine embodying a pair of coacting cutting rolls for cutting the material operated on into strips, a pair of coacting tearing rolls for dividing said strips into short lengths, and means for actuating both pairs of rolls at such relative speeds that the circumferential speed of the pair of tearing rolls exceeds that of the cutting rolls.

2. In a paper comminuting machine, the combination of a pair of paper slitting rolls and tearing rolls for receiving the slitted paper and operating at a greater peripheral speed than the slitting rolls whereby sufficient tension is placed upon the slitted paper to tear the same into short lengths.



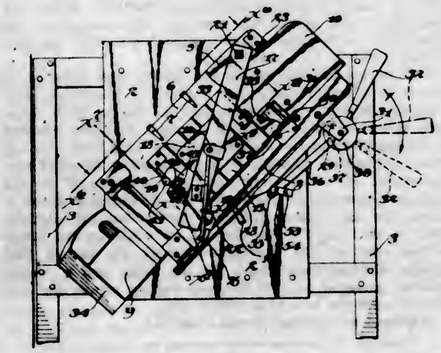
3. A paper comminuting machine embodying in combination a pair of coacting cutting rolls having a plurality of flat rimmed circular ribs extending circumferentially around the rolls in planes transversely of the axes of said rolls, said rolls being so positioned that the ribs of the two rolls mesh with one another, a pair of coacting tearing rolls, means intermediate the cutting and tearing rolls whereby paper cut into strips by said cutting rolls is fed to said tearing rolls, and means for actuating said cutting and tearing rolls so that the circumferential speed of the tearing rolls exceeds that of the cutting rolls.

4. A paper comminuting machine embodying a pair of coacting cutting rolls having a plurality of flat rimmed circular ribs extending circumferentially around the rolls in planes transversely of the axes of said rolls, said rolls being so positioned that the ribs of the two rolls mesh with one another, two guide plates spaced apart and arranged between said cutting rolls, said plates having apertures for the ribs of said cutting rolls, a pair of coacting tearing rolls, means intermediate the cutting and tearing rolls whereby paper cut into strips by said cutting rolls is fed to said tearing rolls, and means for actuating said cutting and tearing rolls so that the circumferential speed of the tearing rolls exceeds that of the cutting rolls.

5. In a paper comminuting machine, the combination of paper feeding mechanism, cutting rolls for cutting the paper into strips, rolls for dividing the cut strips into short lengths, said dividing rolls operating at a greater speed than the cutting rolls, and means for guiding the paper from the cutting rolls to the dividing rolls.

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1,090,915. PHOTOGRAPHIC-PRINTING MACHINE. CHRISTIAN L. HANSON, Minneapolis, Minn. Filed Aug. 4, 1913. Serial No. 782,806. (Cl. 95—73.)



1. The combination with a negative holder and a co-operating platen, of an oblique guide bar for directing cards between said platen and negative holder, a platen operating device, and feed and discharge escapements operated with a properly timed action by said platen operating device, to control the delivery of cards between said platen and negative holder.

2. The combination with a printing frame having an oblique card guide bar, of a negative holder applied to said printing frame adjacent to said guide bar, a platen supporting bar movable to and from an operative position, a platen supported by said bar, and platen operating connections.

3. The combination with a printing frame having an oblique card guide bar, of a negative holder applied to said printing frame adjacent to said guide bar, a platen supporting bar movable to and from an operative position, a platen supported by said bar, and platen operating connections, including a crank head having an operating handle, and a link conected to said crank head and movable from one side to another from a dead center and serving, in one position to hold the said platen pressed toward said negative holder.

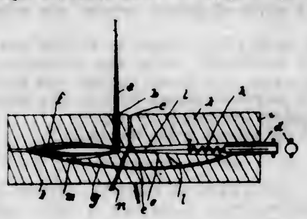
4. The combination with a printing frame having an oblique card guide bar, of a negative holder applied to said printing frame adjacent to said guide bar, a platen supporting bar movable to and from an operative position, a platen supported by said bar, and platen operating connections, including parts that are moved into and out of operative connection by movements of said platen supporting bar.

5. The combination with a printing frame having an oblique card guide bar, of a negative holder applied to said printing frame adjacent to said guide bar, a platen supporting bar movable to and from an operative position, a platen supported by said bar, and platen operating connections, the said platen operating connections including parts that are moved into and out of operative connection by movements of said platen supporting bar.

[Claims 6 to 17 not printed in the Gazette.]

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1,090,916. DEVICE FOR THREADING NEEDLES. HERMANN HERTEL, Gera R. j. L.-Debschwitz, Germany. Filed Apr. 11, 1912. Serial No. 690,127. (Cl. 223—36.)

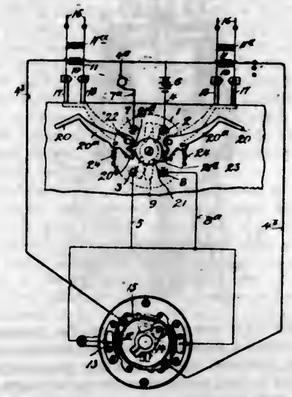


An improved needle threader comprising in combination a rectangular block of convenient material having a longitudinal channel with an enlarged inner end, said enlarged end of the channel being connected with the opposite end of the channel by means of a curved passage, said block having in its upper surface a vertical hole for the reception of the sewing needle and a transverse vertical slot for the reception of the thread, this hole and this slot reaching down to said longitudinal channel, pincers located in the enlarged part of the longitudinal channel and having their free ends turned toward the needle hole, a push rod located in the open end of said channel so that it projects from the end wall of the block, a push wire connecting said push rod with said pincers and located in said curved passage, a spiral spring in said longitudinal channel with one end fixed in the block and bearing with the other end against said push rod, a straight wire fixed in the inner end of the push rod and an india-rubber cap upon the free end of said straight wire designed to force the thread into the eye of the needle, substantially as described and shown and for the purpose set forth.

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1,090,917. ELECTRIC IGNITION SYSTEM. THEODORE HUBERT, Cranford, and CHARLES E. LOCKWOOD, Plainfield, N. J.; said Hubert assignor, by mesne assignments, to American Circular Loom Company, Portland, Me., a Corporation of Maine. Filed Aug. 5, 1909. Serial No. 511,418. (Cl. 123—148.)

1. An electric ignition system comprising a generator circuit including a transformer, a switch to control said circuit, and means controlled by said switch for preventing the discharge from the secondary winding of the transformer through the ignition circuit upon breaking said generator circuit.



2. An electric ignition system comprising a circuit including a generator and a transformer, spark plugs in the circuit of the secondary of the transformer, contacts associated with the secondary of the transformer, a contact to open and close the circuit at the first named contacts, a switch for the first named circuit, and means controlled by said switch for operating the second named contact to make and break the circuit through said first named contacts upon a break in the circuit by said switch.

3. An electric ignition system comprising a circuit including a generator and a transformer, a switch to control said circuit, an arm, means to operate said arm by said switch, a contact controlled by said arm, and contacts associated with the secondary winding of the transformer to co-act with the first named contact.

4. An electric ignition system comprising a circuit including a generator and a transformer, a switch to control said circuit, spark plugs connected with the secondary of the transformer, and means controlled by said switch for short circuiting the transformer secondary winding upon said generator circuit being broken.

5. An electric ignition system comprising a circuit including a generator and the primary winding of a transformer, a switch to control said circuit, a member operated by said switch, an arm operated by said member, a contact controlled by said arm, and contacts associated with the secondary winding of said transformer to be engaged by the first named contact for preventing the discharge of current from the secondary winding through the plugs as the circuit of said generator is broken.

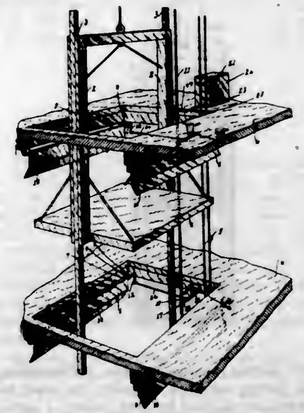
[Claims 6 and 7 not printed in the Gazette.]

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1,090,918. AUTOMATIC STOP OR SAFETY DEVICE FOR ELEVATORS. JOHN F. KING and JAMES P. NEARY, Kalamazoo, Mich. Filed Mar. 22, 1913. Serial No. 756,152. (Cl. 187—40.)

1. In an automatic stop device for elevators, the combination of a control shaft, apron-like guard and actuating members arranged below the elevator shaft opening at the edges thereof, the lower portions of said members being outwardly and downwardly inclined, rock shafts for said actuating members, supports having outwardly and upwardly inclined slot-like bearings for said rock shafts, arms on said rock shafts, an arm on said control shaft, a pivoted lever having slotted engagement with said arm on said control shaft, and links connected to said arms on said rock shafts, one of the links having slotted engagement with said arm on said control shaft and the other having slotted engagement with said lever.

2. In an automatic stop device for elevators, the combination of a control shaft, apron-like guard and actuating members arranged below the elevator shaft opening at the edges thereof, rock shafts for said actuating members, supports having outwardly and upwardly inclined slot-like bearings for said rock shafts, arms on said rock shafts, an arm on said control shaft, a pivoted lever having slotted engagement with said arm on said control shaft, and links connected to said arms on said rock shafts, one of the links having slotted engagement with said arm on said control shaft and the other having slotted engagement with said lever.



3. In an automatic stop device for elevators, the combination of a control shaft, apron-like guard and actuating members arranged below the elevator shaft opening at the edges thereof, the lower portions of said members being outwardly and downwardly inclined, rock shafts for said actuating members, arms on said rock shafts, an arm on said control shaft, a pivoted lever having slotted engagement with said arm on said control shaft, and links connected to said arms on said rock shafts, one of the links having slotted engagement with said arm on said control shaft and the other having slotted engagement with said lever.

4. In an automatic stop device for elevators, the combination of a control shaft, apron-like guard and actuating members arranged below the elevator shaft opening at the edges thereof, rock shafts for said actuating members, arms on said rock shafts, an arm on said control shaft, a pivoted lever having slotted engagement with said arm on said control shaft, and links connected to said arms on said rock shafts, one of the links having slotted engagement with said arm on said control shaft and the other having slotted engagement with said lever.

5. In an automatic stop device for elevators, the combination of a control shaft, actuating members supported below the elevator shaft opening at the edges thereof for vertical movement, rock shafts operatively associated with said actuating members, arms on said rock shafts, an arm on said control shaft, a pivoted lever having slotted engagement with said arm on said control shaft, and links connected to said arms on said rock shafts, one of the links having slotted engagement with said arm on said control shaft and the other having slotted engagement with said lever.

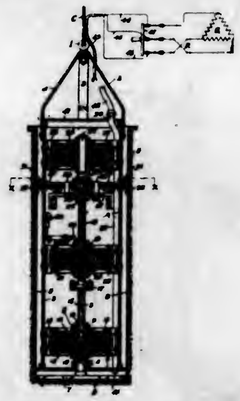
[Claims 6 to 21 not printed in the Gazette.]

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1,090,919. WELL-BORING APPARATUS. ISIDOR KITSEE, Philadelphia, Pa. Filed Aug. 25, 1908, Serial No. 450,126. Renewed Aug. 22, 1913. Serial No. 786,181. (Cl. 255—4.)

1. In well boring apparatus, the combination with a casing, of a cutting instrument carried thereby, a motor carried by said casing for driving said cutting instrument, electrically controlled means for clamping said casing in position, and means for advancing said cutting instrument.

2. In well boring apparatus, the combination with a casing, of a cutting instrument carried thereby, a motor within said casing for driving said cutting instrument, a rotary motor within said casing for advancing said cutting instrument, and means at the mouth of the well for reversing said motors.



3. In well boring apparatus, the combination with a casing, said casing adapted to enter the well bore, of a cutting instrument carried by said casing, a motor within said casing for driving said cutting instrument, a motor within said casing for advancing said cutting instrument, means for clamping said casing in position, a motor within said casing for operating said clamping means, and means for simultaneously reversing all of said motors.

4. In well boring apparatus, the combination with a casing adapted to enter the well bore, of a cutting instrument carried by said casing, a motor within said casing for driving said cutting instrument, means for feeding said cutting instrument, electro-magnetic means within said casing for operating said feeding means, means for clamping said casing in position, and electro-magnetic means within said casing for operating said clamping means.

5. In well boring apparatus, the combination with a casing, of cutting apparatus carried thereby, an electric motor for driving said cutting apparatus, means for feeding said cutting apparatus, an electric motor constantly exerting force upon said feeding means, means for clamping said casing in position, and electro-magnetic means for operating said clamping means.

[Claims 6 and 7 not printed in the Gazette.]

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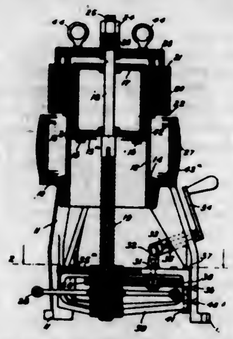
1,090,920. MEANS FOR ASSEMBLING CORES OF DYNAMO-ELECTRIC MACHINES. EARLE R. KNIGHT, Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Nov. 30, 1910. Serial No. 594,813. (Cl. 29—84.)

1. In a device for assembling a core of a dynamo-electric machine, means upon which to form and support a core, and means for moving and pressing said core as a unit into said machine.

2. In a device for assembling cores of dynamo-electric machines, a movable member for forming and supporting a core, and means for actuating said movable member for pressing said core into said machine.

3. In a device for assembling a core of a dynamo-electric machine, a member upon which to form and support a core and adapted to be moved axially of said machine, and means for actuating said member for pressing said core into said machine.

4. In a device for assembling a core of a dynamo-electric machine, a movable member upon which to form and support a core, means for actuating said movable member for pressing said core into said machine, and means for guiding the movement of said member.

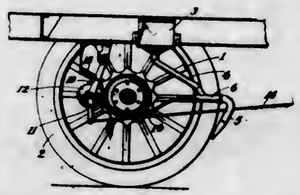


5. In a device for assembling a core of a dynamo-electric machine, a member having a base adapted to support the yoke of said machine, means movable through said base for supporting a core, and means for forcing said core into the yoke of said machine.

[Claims 6 to 22 not printed in the Gazette.]

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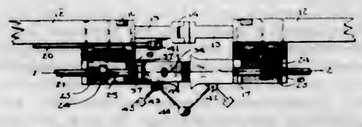
1,090,921. SANDING DEVICE FOR SELF-PROPELLED ROAD-VEHICLES. MAX H. KORN, Hackensack, N. J. Filed Dec. 2, 1913. Serial No. 804,232. (Cl. 105—180.)



The combination in a self propelled road vehicle of a wheel, a reservoir of friction material mounted on the vehicle, a discharge conduit extending therefrom and terminating in a discharge spout disposed in advance of said wheel, a spring pressed gate in said conduit at its discharge end, an ejector disposed in said conduit in the rear of said gate and driving mechanism for said ejector comprising a gear on said wheel arranged to mesh with a gear connected to said ejector and means for connecting and disconnecting said driving mechanism, substantially as described.

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1,090,922. COUPLING. WALTER LA FARY, Herndon, Iowa, assignor of one-half to L. M. Swindler, Yale, Iowa. Filed Dec. 28, 1912. Serial No. 739,090. (Cl. 188—13.)



1. In a device of the kind described, a coupler head having an opening therethrough, a valve controlling said opening, a lever controlling said valve, and means to automatically lock said lever when the valve is in open position.

2. In a device of the kind described, a coupler head having an opening therethrough, a valve controlling said opening, a lever controlling said valve, means to automatically lock said lever when the valve is in open position, and a hand lever for throwing said means to inoperative position.

3. In a device of the kind described, a coupler head having an air opening therethrough, a valve controlling said air opening, a lever connected to said valve and pivoted to said head, a cam head on said lever adapted to be acted on by a second coupler head to move the lever and open the valve, a spring normally urging said lever to close said valve, a safety lever pivoted to said coupler and adapted to have its end inserted between the coupler head and lever when the valve is open, and means to move said safety lever end from between the first-mentioned lever and coupler head.

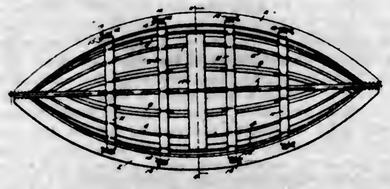
4. In a device of the kind described, a coupler head having an air passage therethrough, said head being cut away at its forward end to provide a beveled shoulder, and a beveled end extending beyond said shoulder, said opening being extended at right angles to open through the face of the cut away portion, lugs on said coupler head, a lever pivoted between said lugs and having a cam head adapted to lie within the space formed by the cut away portion, a spring carried by said head and constantly urging the cam head into said space, a valve carried by said lever and controlling an air opening, a safety device adapted for automatic insertion between said lever and coupler head, and manual means for moving said safety device from between said lever and coupler head.

5. In a device of the kind described, a coupler head having an air passage therethrough, said head being cut away at its forward end to provide a beveled shoulder, and a beveled end extending beyond said shoulder, said opening being extended at right angles to open through the face of the cut away portion, lugs on said coupler head, a lever pivoted between said lugs and having a cam head adapted to lie within the space formed by the cut away portion, springs carried by said head and constantly urging the cam head into said space, a valve carried by said lever and controlling an air opening, a safety device adapted for automatic insertion between said lever and coupler head, manual means for moving said safety device from between said lever and coupler head; a pair of depending plates secured to the car frame, a pair of guide castings having notches adapted to coincide with the castings positioned between said plates, a pipe extending from the rear end of said head, a shoulder on said pipe, and a spring surrounding said pipe and bearing at one end against said shoulder and at the other end against said castings.

[Claim 6 not printed in the Gazette.]

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1,090,923. LIFE-BOAT. LAURITS OLUF LARSEN, Perth Amboy, N. J. Filed Jan. 17, 1913. Serial No. 742,674. (Cl. 9—2.)



1. In a collapsible life boat comprising longitudinal ribs and cross ribs adapted to interlock therewith, friction fingers carried by said longitudinal ribs for releasable engagement with said cross ribs, pins carried by said longitudinal ribs for releasable engagement with the terminations of said cross ribs and yieldable locking means carried by said longitudinal ribs for engagement with said pins to retain them in operative position.

2. In a collapsible life boat comprising longitudinal ribs and cross ribs adapted to interlock therewith, friction fingers carried by said longitudinal ribs for releasable engagement with said cross ribs, pins carried by said longitudinal ribs for releasable engagement with the terminations of said cross ribs, flexible locking means carried by said longitudinal ribs for engagement with said pins to normally retain them in operative position and handles for said pins whereby the said flexible locking means may be thrown out of operative position to permit the collapse of the boat.

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1,090,924. ELECTRIC COOKING APPARATUS. JAMES LAWRENCE, London, England, assignor to Electric Heat Storage Company, a Corporation of New York. Filed Mar. 6, 1912. Serial No. 681,899. (Cl. 219—19.)



1. A cooking grill having a heat storage mass provided with a series of substantially parallel grilling ribs, an electrical heating element extending along and substantially within each rib for heating the mass, and heat insulating means partially surrounding said mass.

2. A cooking grill having a solid unitary heat storage mass provided with grilling ribs on one face thereof, electrical heating elements extending within said mass, heat insulating walls covering the bottom and sides of said mass, and a heat insulating cover fitting closely over the top of the mass.

3. A cooking grill having a solid unitary heat storage mass provided with grilling ribs on its top surface, electrical means for internally heating said mass, means for holding one end of the mass elevated whereby the grill may be inclined, said holding means being hinged whereby the mass may be placed in horizontal position.

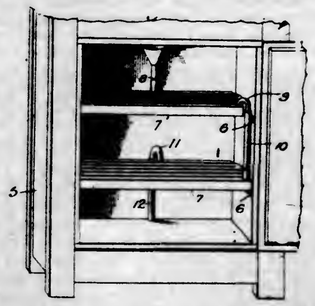
4. A cooking device having a relatively flat heat storage mass of solid material with grilling ribs thereon, electrical resistance means for internally heating said mass, heat insulating means surrounding said mass on the bottom and sides thereof, and a heat insulating cover for the top of the mass adapted to fit closely over the same.

5. A cooking grill having a heat storage mass provided with ribs on one side thereof, electrical conductors extending within the mass for heating the mass internally, a heat insulating covering surrounding the bottom and sides of the mass, and a heat insulating cover for the top of the mass, said cover being movable to permit the placing of the material on the grill for cooking, after the mass has been heated.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,925. REFRIGERATOR ATTACHMENT. FLORENCE P. LAYMAN and HIRAM D. LAYMAN, Hoboken, N. J. Filed Aug. 25, 1911, Serial No. 645,998. Renewed July 22, 1913. Serial No. 780,574. (Cl. 62—10.)

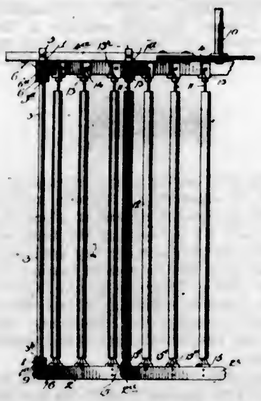


In combination, a refrigerator having an ice box, a cold water drain pipe leading from said ice box, a series of shelves formed of coils disposed under the ice box and removably supported in place thereunder, and inverted U-

shaped pipes connecting said coils to each other and forming an outlet for the lowermost coil and having loose connection with said coils.

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1,090,926. ELECTROPLATING APPARATUS. GEORGE A. LUTZ, Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me., a Corporation of Maine. Filed Dec. 30, 1911. Serial No. 668,602. (Cl. 204—11.)



1. A cathode comprising a frame having inner and outer upper rings, bars connecting said rings, and inner and outer lower rings suspended from the upper rings, seats on the lower rings for articles to be plated, and guides on the upper rings for said articles.

2. A cathode comprising a frame having inner and outer upper rings, bars connecting said rings, a plate secured to the inner ends of said bars, and inner and outer lower rings suspended from the upper rings, seats on the lower rings for articles to be plated, said seats having upwardly projecting cone-like portions to receive said articles, and guides on the upper rings for said articles.

3. A cathode comprising a frame having inner and outer upper rings, radial bars connecting said rings, a plate secured to the inner ends of said bars, inner and outer lower rings suspended from the upper rings, seats on the lower rings for articles to be plated, said seats having upwardly projecting cone-like portions to receive said articles, said cone-like portions having recesses, and guides on the upper rings for said articles.

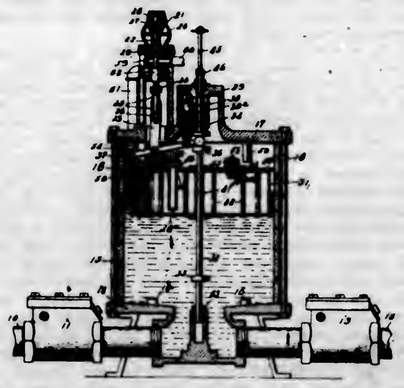
4. A cathode comprising a frame having inner and outer upper rings spaced apart, radial bars connecting said rings, a metallic plate substantially in line with the inner ring and secured to the inner ends of said bars, spaced guides depending from said rings, inner and outer lower rings suspended respectively from the inner and outer upper rings, and seats on the lower rings beneath the corresponding guides.

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1,090,927. TRAP. JARARD W. LYTTON, Franklin, Va., assignor to Lytton Manufacturing Corporation, Franklin, Va., a Corporation of Virginia. Filed June 27, 1913. Serial No. 776,198. (Cl. 137—101.)

1. In a device of the class described, the combination with a casing having a fluid inlet, a fluid outlet, a valved pressure inlet, and a valved pressure outlet; of means in said casing to positively actuate said pressure outlet valve and to by-pass pressure around the pressure inlet valve, a float adapted to rise and fall with the fluid in the casing and move said valve actuating means only at the upper and lower limits of its travel, and a telescoping friction device to maintain said actuating means and the pressure valves in the position to which they have been moved by the float at either limit of its travel until it reaches its other limit of movement.

2. In a device of the class described, the combination with a casing having a fluid inlet, a fluid outlet, a valved pressure inlet, a valved pressure outlet; of a rising and falling float in said casing, means operated by said float only at the limit of its upward movement to positively close the pressure outlet valve and by-pass pressure around the pressure inlet valve at the limit of the downward movement of said float to change the relative positions of said valves, and a telescoping friction device connected with said valve operating means to maintain said valves in the positions to which they have been moved by the float at either limit of its travel until it reaches its opposite limit of movement.



3. In a device of the class described, the combination with a casing having a fluid inlet, a fluid outlet, a pressure inlet, and a pressure outlet; of a valve controlling said pressure inlet, a valve controlling said pressure outlet, a rising and falling float in said casing, means operated by said float at the extreme limits of its travel to positively actuate said pressure outlet valve and indirectly actuate the pressure inlet valve; and a two-part link frictionally connected to maintain said valves in the respective positions to which they have been moved while said float is rising or falling.

4. In a device of the class described, the combination with a casing having a fluid inlet, a fluid outlet, a pressure inlet, and a pressure outlet; of a valve controlling said pressure inlet, a valve controlling said pressure outlet, a preliminary valve movable with the pressure outlet valve for controlling a passage through the pressure inlet valve, a rising and falling float in said casing, means operated by said float at the extreme limits of its travel to positively actuate said pressure outlet, and preliminary valves, and indirectly actuate the pressure inlet valve, a two-part link with an adjustable friction connection between said parts to maintain said valves in the respective positions to which they have been moved while said float is rising and falling between its limits of travel, and means for varying the length of travel of said float.

5. In a device of the class described, the combination with a casing having a fluid inlet, a fluid outlet, and a pressure inlet; of a valve controlling said pressure inlet, a by-pass valve controlling pressure to actuate said pressure valve, a stem for opening said by-pass valve, a lever in said casing for moving said stem, a rising and falling float to actuate said lever only at the limits of travel of said float, and a two-part locking link frictionally connected together to maintain said by-pasa valve in open or closed position, during the travel of the float between its limits of movement.

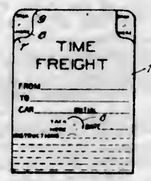
[Claims 6 to 9 not printed in the Gazette.]

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1,090,928. CARD FOR RAILWAY-CARS. DUNCAN S. MCEWING, Chicago, Ill. Filed June 16, 1911. Serial No. 633,483. (Cl. 11—15.)

1. A card for railway cars folded upon itself to produce two members one of which is superposed upon the other, the under member having one of the corners cut away at the free end to permit one corner of the upper member to be grasped without disturbing the under member, and there being suitably designated spaces on the upper face of each of said members for the reception of car data.






2. A card for railway cars folded upon itself to produce two members one of which is superposed upon the other, the under member being shorter than the upper member and having one of the corners cut away at the free end, and there being suitably designated spaces on the upper face of each of said members for the reception of car data.

3. A card for railway cars folded upon itself to produce two members one of which is superposed upon the other, the under member being smaller than the upper member to permit the latter to be grasped at one edge without disturbing the under member, marks for locating tacks so arranged that at least one of the tacks placed in the positions indicated by the marks will pass through each of said members.

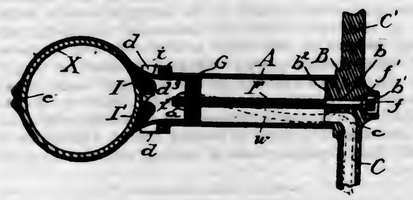
4. A card for railway cars folded upon itself to produce two members one of which is superposed upon the other, the under member being smaller than the upper member to permit the latter to be grasped at one edge without disturbing the under member, marks for locating tacks so arranged that at least one of the tacks placed in the positions indicated by the marks will pass through each of said members and at least one of the tacks will pass through only one of said members.

5. A card for railway cars folded upon itself to produce two members one of which is superposed upon the other, the under member being smaller than the upper member to permit the latter to be grasped at one edge without disturbing the under member, the upper member having a short slit cut therein at a point above and near the free end of the under member to form a tack-receiving tab.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,929. LAMP-FIXTURE. HARRISON D. MCFADDIN, East Orange, N. J. Filed Mar. 31, 1913. Serial No. 757,804. (Cl. 211—30.)



1. In a lamp bracket, the combination of a substantially closed casing, a flexible clamping strap coöperating therewith and adapted to engage a bed-post or other support, and means for drawing a portion of the strap within the casing whereby said strap is tightly wrapped around the supporting post.

2. In a lamp bracket, the combination of a casing, a flexible clamping strap positioned at one end thereof, said strap being adapted to engage a bed-post or other support, a threaded spindle extending longitudinally through the casing from the end opposite that whereat the strap is positioned, and a threaded member in engagement with said strap and operating with the threaded spindle whereby a portion of the strap may be drawn within the casing for tightly wrapping said strap about the supporting post.

3. In a lamp bracket, the combination of a casing open at both ends, a clamping strap coöperating with one end of the casing and adapted to engage a bed-post or other support, an apertured plug at the opposite end of the casing adapted to carry a lamp, a threaded spindle extending through the aperture in the plug and longitudinally of the casing into operative relation with a threaded nut coöperating with the flexible strap, whereby the turning of said threaded spindle will operate to draw a portion of the strap within the casing and tightly wrap it about the supporting post.

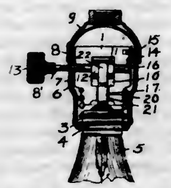
4. In a lamp bracket, the combination of a casing, a flexible strap coöperating therewith and adapted to engage a bed-post or other support, a threaded member within the casing for the purpose of tightly wrapping said strap about the supporting post, and clamping members mounted on the casing for coöperation with said post, said members being so positioned that the tension on the strap will force them into rigid engagement with the supporting post.

5. In a lamp bracket, the combination of a casing, a flexible strap coöperating therewith and adapted to engage a bed-post or other support, a threaded member within the casing for the purpose of tightly wrapping said strap about the supporting post, and a pair of clamping members pivoted on the casing for coöperation with said post, said members being so positioned that the tension exerted by the pivoted member upon the strap will force the clamping members into rigid engagement with the supporting post.

[Claims 6 to 8 not printed in the Gazette.]

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1,090,930. ELECTRIC-LAMP SOCKET. RALPH R. MCILVAINE, Wilkinsburg, Pa. Filed July 16, 1913. Serial No. 779,236. (Cl. 173—356.)



1. In a holder for an electric lamp, an insulating body composed of longitudinal members provided with screw-threads on one end, a coiled spring into which the said body is screwed and by which the members are held together, a lamp terminal projecting through the center of the end of the body which is provided with the spring, and a rotatable key having a contact block rotatable in recesses in opposing faces of the members and having bearings in the meeting walls of the said members and in sliding contact with the inner end of the said terminal.

2. In a holder for an electric lamp, an insulating body composed of internally-recessed members, means for securing them together, a rotatable key provided with a stem having bearings in recesses in the opposing faces of the said member, and a contact block secured to the stem and provided with a contact strip, a center lamp terminal having a bend fitting the lower wall of one of the recesses, a head below the outer bend, and a brush in one of the recesses and adapted to be engaged by the contact strip when the key is suitably operated.

3. In a holder for an electric lamp, an insulating body composed of internally-recessed members, means for securing them together, a rotatable key provided with a stem, and a contact block secured to the stem and provided with a contact strip, a center lamp terminal having a bend fitting the lower wall of one of the recesses, a head below the outer bend, and a brush in one of the recesses and adapted to be engaged by the contact strip when the key is suitably operated.

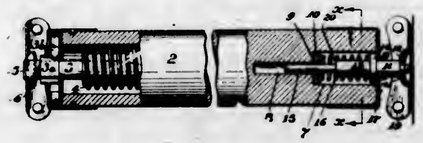
4. In a holder for an electric lamp, an insulating body composed of internally-recessed members, means for securing them together, a rotatable key provided with a stem, and a contact block secured to the stem and provided with a contact strip, a line terminal secured to the stem, and a center lamp terminal held in position by the said members.

5. In a holder for an electric lamp with a threaded plug, a body comprising a plurality of longitudinal members provided at one end with screw-threads, a coiled spring into which the said members are screwed and by which they are held together, and a line terminal held by and between the said spring and the said body.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,931. SHADE-ROLLER. ANDREW MCLEAN, Passaic, N. J. Filed Apr. 30, 1913. Serial No. 764,497. (Cl. 156—36.)



1. In a shade roller, the combination of the roller having a wooden end bored inward with two diameters, the larger being arranged at the outer end, an annular metallic disk set into the bottom of the larger hole of the roller and providing an axial bearing in alinement with the smaller hole, an outer metallic bearing axially arranged with the roller and holes therein and attached to the end thereof, a pintle consisting of a body extending through the outer bearing and having an inwardly directed guiding extension working through the hole of the annular disk, and said pintle further having a collar about the body portion to limit the outward movement of the pintle by coming in contact with the outer bearing and also having a journal at the extreme outer end of the body, and a coil spring surrounding the body of the pintle and having one end pressing against the collar thereof and the other end pressing against the annular disk, whereby the pintle is normally held in an outward position of adjustment but is at all times free to be forced inward in its metallic bearings in adapting the roller to the supports or to compensate for varying distances between the supports.

2. In a shade roller, the combination of the roller having a wooden end bored inward with two diameters, the larger being arranged at the outer end, an annular metallic disk set into the bottom of the larger hole of the roller and providing an axial bearing in alinement with the smaller hole, an outer metallic bearing axially arranged with the rollers and holes therein and attached to the end thereof, a pintle consisting of a body extending through the outer bearing and having an inwardly directed guiding extension working through the hole of the annular disk and providing a shoulder at the iner end of the body to come into contact with the annular disk to prevent the body being forced inward beyond the outer bearing, and said pintle further having a collar about the body portion to limit the outward movement of the pintle by coming in contact with the outer bearing and also having a journal at the extreme outer end of the body, and a coil spring surrounding the body of the pintle and having one end pressing against the collar thereof and the other end pressing against the annular disk, whereby the pintle is normally held in an outward position of adjustment but is at all times free to be forced inward in its metallic bearings in adapting the roller to the supports or to compensate for varying distances between the supports.

3. In a shade roller, the combination of the roller body having at one end a shaft having a polygonal end and a winding-spring between the shaft and the roller body, a support for the polygonal end of the said shaft, a support having a journal bearing for the other end of the roller, and means at said other end of the roller for connecting it with the journal bearing of the last mentioned support, consisting of a longitudinally adjustable pintle having a collar intermediate of its ends and a journal at the extreme end, metallic guides for the pintle secured to the roller at opposite sides of the collar of the pintle, and a coil spring surrounding the pintle and having one end pressing against the collar and the other end pressing upon the inner of the metallic guides.

4. A shade roller, having an end portion bored with a hole of two diameters, the larger extending to the end of the roller, combined with a pintle having a collar intermediate of its ends and having a journal at its extreme outer end, a metallic guide arranged at the bottom of the hole of larger diameter for directly guiding the pintle, a metallic guide at the end of the roller and outside of the collar of the pintle for guiding the pintle and limiting its outward movement, and a coil spring surrounding the pintle and having one end pressing against the collar thereof and the other end pressing against the inner metallic guide.

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1,090,932. CORSET. LARKIN J. MEAD, Aurora, Ill., assignor to Aurora Corset Company, Aurora, Ill., a Corporation of Illinois. Filed Oct. 7, 1912. Serial No. 724,273. (Cl. 2—74.)



In a corset, in combination with a body opening in front and having a stiffening strip provided with eyelets at one margin, a second stiffening strip having eyelets spaced from said first-mentioned stiffening strip, lacing connecting the eyelets of the first and second mentioned stiffening strips, coacting members of attaching devices carried respectively on said second mentioned stiffening strip and the other margin of said corset body, a shield member adapted to lie beneath the lacing and coacting devices placed respectively on the margins of said shield and on said corset body for detachably connecting the lateral margins of said shield to said stiffening members, said shield member having stiffening members of whalebone and the like adjacent its lateral edges inside of the lines of the co-acting members of the attaching devices thereon and a centrally disposed non-rigid stiffening member consisting of a strip of netting having a plurality of closely spaced parallel rows of cording arranged adjacent thereto.

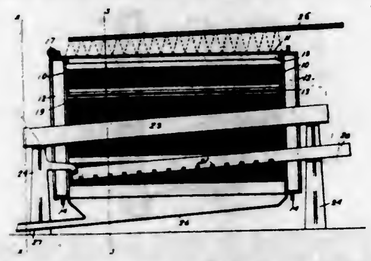
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1,090,933. MINING-SCREEN. HERBERT A. MEGRAW, New York, N. Y. Filed May 1, 1913. Serial No. 764,787. (Cl. 83—56.)

1. An ore-sizing screen, comprising, in combination, a non-vibratory rotary tubular sieve supported to rotate on bearings which leave its interior and ends substantially unobstructed, means for conducting ore pulp and distributing it lengthwise of the sieve, said means entering at one end and extending longitudinally of the sieve adjacent the lower portion thereof, an over-size launder at a greater height in the interior of the sieve extending lengthwise thereof and inclining toward the opposite end from that at which the pulp enters, and means in the nature of



shelves on the inside of the screen to limit the sliding of the ore and to elevate the oversize material and dump it into the over-size launder.



2. An ore-sizing screen, comprising in combination a rotatably mounted tubular sieve open at the ends and interiorly so as to afford passageway therethrough for the over-size material, an entry launder extending in at one end of the sieve, an over-size launder above the entry launder and inclined toward the opposite end of the sieve so as to carry the over-size material onward in the same direction, and means comprising shelves on the inside of the sieve adapted to limit the sliding of the ore thereon and to elevate the over-size material and to dump it into the over-size launder.

3. An ore-sizing screen, comprising in combination a rotatably mounted tubular sieve open at the ends and interiorly so as to afford passageway therethrough for the oversize material, means for conducting ore pulp in at one end of the sieve and for delivering it to the screen fabric throughout the length thereof, an over-size launder above said means and inclined toward the opposite end of the sieve so as to carry the over-size material onward in the same direction, means comprising shelves on the inside of the sieve adapted to limit the sliding of the ore thereon and to elevate the oversize material and to dump it into the oversize launder, and means for applying a spray externally to the top of the sieve above the over-size launder.

4. An ore-sizing screen, comprising in combination a rotatably mounted tubular sieve open at the ends and interiorly so as to afford passageway therethrough for the over-size material, an entry launder extending in at one end of the sieve, an over-size launder above the entry launder and inclined toward the opposite end of the sieve so as to carry the over-size material onward in the same direction, means comprising shelves on the inside of the sieve adapted to limit the sliding of the ore thereon and to elevate the over-size material and to dump it into the over-size launder, and means for supplying liquid to the over-size launder to wash away the over-size material.

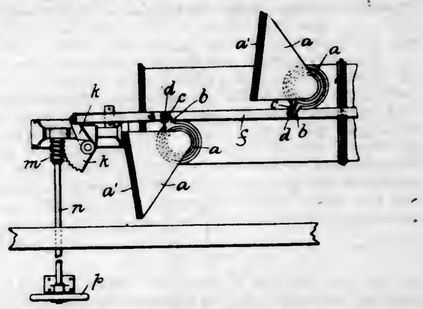
5. An ore-sizing screen, comprising in combination a rotatably mounted tubular sieve open at the ends and interiorly so as to afford passageway therethrough for the over-size material, an inclined entry launder entering and extending lengthwise of the lower part of the sieve and provided with means for uniformly distributing the material throughout the length of the screen, an over-size launder also extending lengthwise of the screen, at a greater elevation than the entry launder, and inclined in the same direction, and means comprising shelves on the inside of the sieve adapted to limit the sliding of the ore thereon and to elevate the over-size material and to dump it into the over-size launder.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,934. APPARATUS FOR DRYING FABRICS. ALFRED TOWNLEY METCALF and HARRY VAUGHAN NUNN, Bradford, England, assignors to Bradford Dyers' Association, Bradford, England, a Limited Company. Filed Mar. 19, 1912. Serial No. 684,793. (Cl. 34—48.)

1. In apparatus for drying fabric, a plurality of movably supported air-nozzles, and means for simultaneously adjusting the nozzles toward a plane between them or simultaneously away from said plane to vary the width of the combined air delivery from the nozzles.



2. In apparatus for drying fabric, a plurality of air-nozzles mounted to swing in parallelism, said nozzles having their outlets inclined relatively to their axes of adjustment, and means for simultaneously adjusting said nozzles to shift their outlets toward and from a plane between them.

3. In apparatus for drying fabric, a plurality of air-nozzles mounted to swing in parallelism, said nozzles having their outlets inclined relatively to their axes of adjustment, and means for simultaneously adjusting said nozzles to shift their outlets toward and from a plane between them, said means comprising a longitudinally movable rod, and operative connections between said rod and the nozzles.

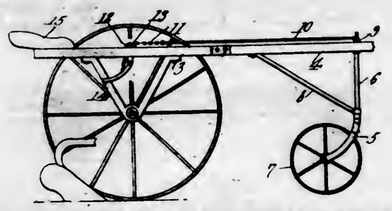
4. In apparatus for drying fabric, a plurality of air-nozzles mounted to swing in parallelism, said nozzles having their outlets inclined relatively to their axes of adjustment, a longitudinally movable rod, operative connections between said rod and the nozzles for simultaneously adjusting their outlets toward and from a plane between them, and screw and lever devices for actuating said rod.

5. In apparatus for drying fabric, a plurality of air-nozzles mounted to swing in parallelism, said nozzles having their outlets inclined relatively to their axes of adjustment, means for simultaneously adjusting said nozzles to shift their outlets toward and from a plane between them, an adjusting-screw, and connections between said adjusting-screw and the means for adjusting the nozzles, to actuate the latter from the former.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,935. STEERING-WHEEL FOR PLOWS. JAMES H. MILLER, Geneseo, Kans. Filed Aug. 9, 1912. Serial No. 714,291. (Cl. 21—202.)



In combination with a wheel mounted frame, a front steering wheel carried thereby, a pair of rotary guides carried by the frame, a pair of treadles fulcrumed to the frame directly below the respective guides, and flexible members connecting the respective treadles and steering wheel and passing over the guides, the free ends of the treadles projecting rearwardly so that when the respective treadles are swung, those portions of the flexible members between the guides and treadles will move to and from the fulcrums of the treadles.

1,090,936. BREATHING DEVICE. GARRETT A. MORGAN, Cleveland, Ohio, assignor to The National Safety Device Company, Oberlin, Ohio, a Corporation of Ohio. Filed Sept. 21, 1912. Serial No. 721,648. (Cl. 128—42.)



1. In combination with a hood adapted to inclose the head of the operator, and an air tube depending therefrom, an exhaling tube, a mouthpiece therefor located within the hood and a lower extremity for said exhaling tube communicating with the lower end of said air tube.

2. In a breathing device, the combination with a hood, an air tube depending therefrom, the said hood provided with an opening at its upper end, of an exhaling tube having one extremity inserted in said hood, and accessible to the mouth of the wearer, the lower extremity of said exhaling tube turned upward to inject a stream of air from said exhaling tube into the lower end of said air tube, and thereby draw fresh air into the lower end of the tube.

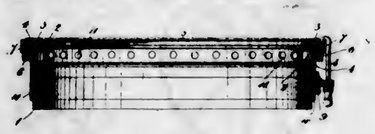
3. In a breathing device, the combination of a hood having an opening, an air tube connected with the hood, and means operated by the breath of the wearer for clearing the tube from foul air.

4. In a breathing device, the combination of a hood adapted to inclose the head of the operator, an air tube depending therefrom, an exhaling tube accessible for the operator within the hood, said exhaling tube discharging upwardly within the air tube.

5. In a breathing device, the combination of a hood adapted to inclose the head of the operator, an air tube depending therefrom, an exhaling tube extending downwardly within the air tube from a point adjacent to the operator's mouth, the lower end of the exhaling tube being turned upwardly.

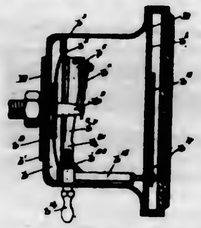
[Claims 6 to 9 not printed in the Gazette.]

1,090,937. BANJO. NELON J. NELSON, Somerville, Mass., assignor to Vega Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 31, 1911. Serial No. 657,789. (Cl. 84—124.)



In a banjo, the combination with the head of the banjo, of a main supporting body, a band wire over which said head is stretched, a resonating ring bound tightly between said band wire and said body whereby said band wire, resonating ring and body will present a unitary structure, said resonating ring comprising an unyielding but vibratory hollow metallic shell of uniform rectangular cross section throughout the circumference of the ring with a series of openings on the interior side thereof and means for binding said body, band wire and resonating ring tightly together.

1,090,938. SPEEDOMETER. WILLIAM O. NELSON, Baltimore, Md. Original application filed Jan. 26, 1910, Serial No. 540,208. Divided and this application filed June 27, 1910. Serial No. 569,192. (Cl. 73—123.)



1. In a speedometer for vehicles, a pivoted lever having a bifurcated end, means controlled by the speed of the vehicle for imparting to said lever a movement proportionate to the speed of said vehicle, a rotatable shaft having an indicating hand, and a spiral-shaped projection on said shaft straddled by the bifurcated end of said lever to cause the movement of said lever in either direction to be imparted to said indicating hand.

2. In a speedometer for vehicles, a gas receptacle, a flexible diaphragm connected with said receptacle, means controlled by the motion of the vehicle for creating pressures of gas in said receptacle to impart movements to said diaphragm proportionate to the speed of the vehicle, a lever pivoted at one end, means for connecting said lever with said diaphragm, the other end of said lever being bifurcated, a rotatable shaft carrying an indicating hand, and a spiral-shaped projection on said shaft straddled by the bifurcated end of said lever to cause the movement of said lever in either direction to be imparted to said indicating hand.

3. In a speedometer for vehicles, a fluid receptacle, a movable part connected with said receptacle, means controlled by the speed of said vehicle for generating varying pressures of the fluid contained in said receptacle for imparting movement to said movable part, a pivoted lever having a bifurcated end, means for connecting said lever to said movable part, a rotatable shaft having an indicating hand, and a spiral-shaped projection on said shaft straddled by the bifurcated end of said lever to cause the movement of said lever in either direction to be imparted to said indicating hand, the inclination of said spiral-shaped projection being varied to correspond to the varying pressures created in said receptacle so as to cause a uniform movement of said indicating hand.

4. In a speedometer for vehicles, a pivoted lever, means controlled by the speed of the vehicle for imparting to said lever a movement proportionate to the speed of the vehicle, a rotatable shaft having an indicating hand, and a spiral-shaped projection on said shaft engaged by said lever, the connection between said spiral-shaped projection and lever being such as to cause said lever to impart to said shaft a positive movement in either direction, substantially as and for the purpose specified.

5. In a speedometer for vehicles, a fluid receptacle, a movable part connected to said receptacle, means controlled by the speed of the vehicle for imparting movement to said movable part through the medium of the fluid contained in said receptacle, a pivoted lever, means for connecting said lever with said movable part, a rotatable shaft carrying an indicating hand, and a spiral-shaped projection on said shaft engaged by said lever, substantially as and for the purpose specified.

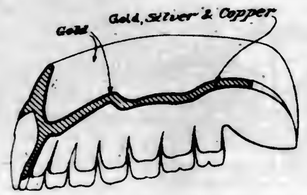
[Claims 6 to 10 not printed in the Gazette.]

1,090,939. COMPOSITION OF MATTER TO BE USED FOR THE MANUFACTURE OF PLATES FOR ARTIFICIAL TEETH. RICHARD HENRY NEWTON, Montpelier, Vt. Filed June 16, 1913. Serial No. 773,865. (Cl. 29—181.)

1. As an article of manufacture an integral dental plate having an interior of gold alloy and an exterior surface of substantially pure gold.

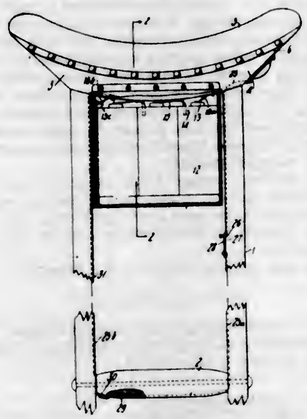


2. As an article of manufacture a dental plate consisting of an alloy of gold with a baser metal and having the baser metal removed from the surface and leaving a layer of substantially pure gold.




3. As an article of manufacture a dental plate consisting of an alloy composed of gold 35 parts; of silver 55 parts; and of copper 10 parts, and having the silver and copper removed from the surface leaving a layer of substantially pure gold.

1,090,940. CRUTCH. SAMUEL H. NORTON, Meadville, Pa. Filed July 12, 1913. Serial No. 778,637. (Cl. 240—8.4.)



1. The combination of a crutch having side members and a connecting head, said head having an end portion inclined to the horizontal and provided with a seat, a handle connecting said side members below said head, an electric lamp lying in said seat and arranged to throw a beam of light forwardly and downwardly, a battery also carried by said crutch, connections between said battery and lamp, and a circuit controlling switch located in said connections and lying at or near said handle, whereby the light may be turned on or off while the crutch is being used as a support in walking.

2. In a construction of the character described, the combination of a crutch comprising side members and a head connecting the same, a flexible support carried by said head and lying between said side members, a battery carried by said support, said head being provided with an electric lamp arranged to throw a beam of light forwardly and downwardly, and connections between said battery and lamp.

3. The combination of a crutch comprising side members, a head and a handle connecting the same, a battery carried by said crutch and lying between said side members, an electric lamp also carried by said crutch, circuit connections between said battery and lamp, and two switches in said connections, one of said switches being located on said handle and being normally open and arranged to be closed manually, and the other of said switches having open and closed positions.

4. In a construction of the character described, the combination of a crutch having side members and a head connecting the same, a battery case formed of flexible material and secured to said crutch between said side members and adapted to swing therebetween, a battery carried by said case, a lamp carried by said crutch, and electrical connections between said battery and lamp.

5. In a construction of the character described, the combination of a crutch having side members and a rigid head connecting the same, a battery case formed of flexible material and secured to said crutch and adapted to swing between said side members, a battery carried by said case, a lamp carried by said crutch, and electrical connections between said battery and lamp and embodying spring contact members carried by said crutch and battery and adapted to follow each other as the battery case swings.

1,090,941. PLIERS. ZACHARIE B. RICHARD, La Fayette, La., assignor of one-eighth to Oscar Kilpatrick and one-eighth to William Davis, La Fayette, La. Filed Feb. 28, 1913. Serial No. 751,347. (Cl. 140—121.)



1. The combination with pivotally connected handles, of a lever pivoted to the free end of one handle and adapted to swing against the outer side thereof, and a link pivoted to the lever and engageable with the other handle.

2. The combination with pivotally connected handles, of a lever having a pair of ears at one end straddling and pivoted to the end of one handle, and a U-shaped link designed to engage the other handle and having its ends pivoted to the lever.

3. The combination with pivotally connected handles, of a lever of U-shaped cross-section, the flanges of which terminate in ears at one end straddling and pivoted to the free end of one handle, the intermediate portion of the lever being curled back from between the ears to provide an eye, a pin passing through the eye, and a U-shaped link designed to engage the other handle and having its ends connected to the said pin.

4. An attachment for pliers, including a lever designed to be pivoted to the free end of one handle so as to swing against the outer side of the handle, and a link pivoted to the lever and engageable with the other handle.

5. An attachment for pliers, embodying a lever having a pair of ears at one end designed to straddle and to be pivoted to the free end of one handle so that the lever may swing against the outer side of the handle, and a U-shaped link engageable with the other handle and having its ends pivoted to the lever.

[Claims 6 to 15 not printed in the Gazette.]

1,090,942. LACING HOOK OR STUD. EDWARD H. ROBERTSON, Irvington, N. J., assignor of one-half to William F. Mahony, Washington, D. C. Filed Feb. 21, 1912. Serial No. 679,164. (Cl. 24—147.)



1. A lacing stud comprising a tubular body designed to be fastened in an article to be laced and a resilient lacing hook or member hinged at one end to said body, its other free end opening on the side subjected to the lacing strain and adapted to engage and hold a lacing, the extreme end of said lacing member being drawn within said tubular body by the act of lacing and retained therein by the tension of the lacing.

2. A lacing stud comprising a hollow body designed to be fastened in an opening in an article to be laced, and a resilient lacing hook or member hinged at one end to said body, its other free end opening on the side subjected to the lacing strain and adapted to engage and hold a lacing, the extreme end of said lacing member normally engaging the edge of said hollow body when swung into closed position by the act of lacing and sprung into said hollow body and retained therein by the tension of the lacing.

3. A lacing stud comprising a body in the form of an eyelet to be fastened in an article to be laced, and a resilient lacing hook hinged at one end to said body and opening at its free end on the side subject to the lacing strain, said free end arranged to strike the edge of said eyelet when the hook is closed by the act of lacing, and through the resiliency of said hook, said free end will swing past said edge and spring into the eyelet under the tension of the lacing and be held therein by the lacing and by said edge from freely swinging away therefrom when the lacing becomes loose.

4. A lacing stud comprising a hollow body adapted to be fastened in an article to be laced, and having an interior shoulder, and a lacing-hook member hinged to said body, its free end having a bill thereon to resiliently engage said shoulder when closing the lacing-hook member, said member opening to disengage a lacing on the side subject to the strain of said lacing.

5. A lacing stud comprising a hollow eyelet-like body having an annular shoulder within the same, and a segmental lacing-hook member hinged on the rim of said body and opening in the direction of the lacing strain, said lacing-hook member having a reversely curved bill at its free end adapted to spring into the body past the shoulder when the member is closed and prevent unintentional opening of the lacing-hook member.

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1,090,943. NUT-LOCK. FRED ROWE, Joplin, Mo. Filed Aug. 23, 1913. Serial No. 786,322. (Cl. 151—59.)



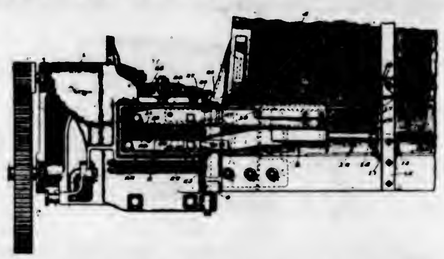
A nut lock comprising an anchoring plate adapted to be secured to a support, a locking plate stamped from the inner portion of said anchoring plate, said plates provided with an integral portion for hingedly securing said locking plate to said anchoring plate, said locking plate provided with a central opening adapted to fit over a nut for holding the same against rotation, said locking plate provided with a plurality of lugs upon its outer periphery, said anchoring plate provided with a plurality of notches upon its inner periphery, said lugs adapted to fit in said notches for holding said locking plate against rotation.

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1,090,944. REAPER. FRANK A. RYTHER, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed July 26, 1912. Serial No. 711,631. (Cl. 56—33.)

1. A reaper including, in combination, a gear frame, a grain platform pivotally connected with said gear frame in a manner to swing upward and stubbleward, a swinging support pivotally connected with said gear frame, and a self-locking toggle connection between said gear frame and said support operative to secure said support in a vertical position relative to said gear frame.

2. A reaper including, in combination, a gear frame, a grain platform pivotally connected with said gear frame in a manner to swing upward and stubbleward, a swinging support pivotally connected with said gear frame in a manner permitting it to swing to a vertical position, and a spring-pressed hand piece carried by said support and adapted to engage with a fixed part of said gear frame in a manner to secure said support in a folded position against the bottom of said gear frame.



3. A reaper including, in combination, a gear frame, a grain platform pivotally connected with said gear frame in a manner to swing upward and stubbleward, a supplemental frame secured to said gear frame and extending grainward therefrom, a swinging leg carried by said grain platform and adapted to engage automatically with said supplemental frame in a manner to retain said grain platform in a raised position, and means on said supplemental frame guiding and limiting the movement of said leg.

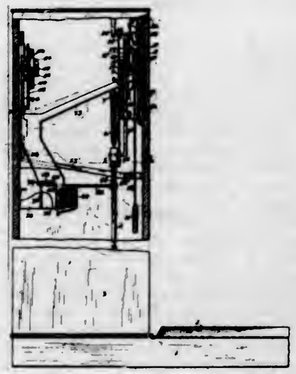
4. A reaper including, in combination, a gear frame, a grain platform pivotally connected with said gear frame in a manner to swing upward and stubbleward, a supplemental frame secured to said gear frame and extending grainward therefrom, a swinging leg pivotally connected with said grain platform, and a spring operative between said platform and leg in a manner to swing said leg into engagement with said supplemental frame when said platform is in a raised position.

5. In a reaper, a reaper frame, a grain platform pivotally mounted thereon, a stub axle carried by said reaper frame and underlying said grain platform, and latching mechanism carried on said platform locking the latter to said stub axle.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,945. COIN-CONTROLLED MECHANISM. GUSTAV F. W. SCHULTZE, Oakland, Cal. Filed Sept. 6, 1912. Serial No. 718,970. (Cl. 194—9.)



1. In a coin actuated machine, the combination with a casing provided with a plurality of coin receiving openings and coin discharge means, weight indicating mechanism situated within the casing, and means thrown into action upon the deposit of a coin within one of said receiving openings for releasing the weight-indicating mechanism and for controlling the discharge of the actuating coin from within the casing or the retention thereof within the casing in accordance with the receiving opening within which the same is deposited.

2. In a coin actuated weighing machine, the combination with a casing provided with a plurality of coin receiving openings and coin discharge outlets, coin runways extended from said receiving openings and adapted to communicate with said discharge outlets, weight-indicating mechanism situated within the casing, means interposed between the coin runways and the coin discharge outlets for controlling the communication therewith, and means thrown into action by the weight of a deposited coin within one of said receiving openings for releasing the weight-indicating mechanism and for actuating the means interposed between the coin runways and the coin discharge outlets for controlling the discharge of the actuating coin from within the casing or the retention thereof within the casing, in accordance with the receiving opening within which the same is deposited.

3. In a coin actuated machine, the combination with a casing provided with a plurality of coin receiving openings and coin discharge outlets, a coin actuated weight-indicating mechanism situated within the casing, and means thrown into operation on the deposit of a coin for releasing the weight indicating mechanism for controlling the discharge of the actuating coin from within the casing through the discharge outlets or the retention thereof within the casing in accordance with the receiving opening within which the same is deposited.

4. In a coin actuated machine, the combination with a casing provided with a plurality of coin receiving openings and coin discharge devices, a coin runway extended from each of said receiving openings and adapted to communicate with said discharge devices, means interposed between each coin runway and the discharge devices for controlling the communication therewith, coin controlled weight-indicating mechanism situated within the casing, and means thrown into action upon the deposit of a coin within either of said receiving openings for releasing the said weight-indicating mechanism and for actuating the means interposed between each coin runway and the corresponding discharge device dependent upon the receiving opening within which the actuating coin is deposited, for controlling the discharge of the actuating coin or token from within the casing through the discharge device or the retention thereof within the casing.

5. In a coin actuating machine, the combination with a casing provided with a plurality of coin receiving openings, and a plurality of coin discharge outlets, and coin runway extended from each of said receiving openings and adapted to communicate with the discharge outlets, weight indicating mechanism situated within the casing; devices for releasing the weight indicating mechanism upon the insertion of a coin in either of said receiving openings, devices within the runways for controlling the discharge of the actuating coin or token from within the casing, or the retention thereof within the same, and electrically operated means for actuating said devices to govern the travel of the said coin.

[Claim 6 not printed in the Gazette.]

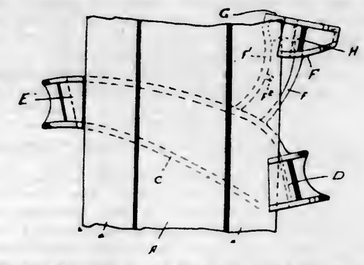
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1,090,946. RAIL-ANCHOR. JOHN M. SCOTT, Racine, Wis., assignor to Otto R. Barnett, Chicago, Ill. Filed Aug. 26, 1913. Serial No. 786,647. (Cl. 238—4.)

1. A rail anchor comprising a cross-bar provided at opposite ends with jaws adapted to engage the opposite sides of the base flange of a railroad rail, and a strut provided with an abutment and carrying a third jaw, said strut being bendable so as to bring the third jaw into operative engagement with a rail to which the device has been applied.

2. A rail anchor consisting of a single integral casting formed at opposite ends with rail gripping members and provided with a strut carrying an abutment and a rail engaging member, said strut being bendable to bring said rail engaging member into engagement with a rail to which the device has been applied.

3. A rail anchor consisting of a single integral casting formed at opposite ends with rail gripping members and provided with a bendable element adapted to bear against a tie on which said rail is supported which consists of two relatively thin webs spaced apart and a tie abutting flange.



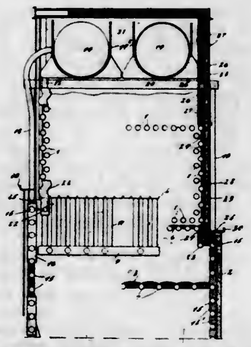

4. A rail anchor consisting of a single integral casting formed at opposite ends with rail gripping members and provided with a bendable element adapted to bear against a tie on which said rail is supported which consists of two relatively thin webs spaced apart and a tie abutting flange, said element being formed with a jaw adapted to engage the base flange of said rail.

5. A rail anchor consisting of a single integral casting provided with two rail engaging members on one side thereof, a rail engaging member on the opposite side thereof, and a strut provided with an abutment and carrying one of said first-named rail engaging members, said strut being arranged to hold the rail engaging member on the opposite side of the rail away from the tie and being bendable to bring the member carried by said strut into engagement with a rail after the device has been applied thereto.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,947. STEAM-BOILER SETTING. MINOTT W. SEWALL, New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed May 27, 1912. Serial No. 699,861. (Cl. 122—292.)



1. A boiler setting comprising side walls having a lining of water tubes divided into sections offset from each other, and means to permit the movement of said sections relative to each other vertically in opposite directions without distortion of the walls.

2. A boiler setting comprising side walls having one section lined with water tubes, front and rear manifolds into which said tubes are expanded, and another section lined with water tubes, front and rear headers into which said latter tubes are expanded, and means to permit the movement of said manifolds and headers with their connecting tubes in opposite directions without distortion of the walls.

3. A boiler setting comprising side walls having one section lined with water tubes, front and rear manifolds into

which said tubes are expanded, another section lined with water tubes and front and rear headers into which said latter tubes are expanded, said manifolds being supported at their bases permitting their expansion upward, and said headers supported from overhead permitting their expansion downward, and means to permit such relative vertical movement without distortion of the walls.

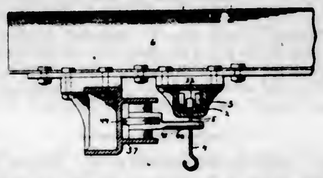
4. A steam boiler setting comprising side walls having a lining of water tubes divided into sections offset from each other so as to be capable of movement in opposite directions, and a movable bridge between the said sections to permit vertical movement of the sections without distortion of the walls.

5. A boiler setting comprising side walls having a lining of water tubes divided into sections offset from each other and capable of movement in opposite directions, fire bricks supported on said tubes, and a bridge resting upon the uppermost tube of the lower section and the lowermost tube of the upper section to permit a relative movement in opposite directions of said sections without distortion of the walls.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,948. CONVEYER. MAX SKLOVSKY and GEORGE W. MIXTER, Moline, Ill., assignors to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Dec. 1, 1906. Serial No. 345,963. (Cl. 193—2.)



1. In a conveyer, the combination of an inclined main slide or track along which articles being moved travel, means for suspending such articles under the track, branch tracks connecting therewith at various levels, a guide arranged adjacent and substantially parallel to said track, and a controlling device supported in said guide arranged to govern the movements of the articles when traveling along the slide or track, substantially as set forth.

2. In a conveyer, the combination of the helically arranged track 2 for supporting and guiding the objects to be moved, a guide 37 arranged to one side of the track, substantially parallel therewith and adjacent thereto and open on the side toward the track, an endless chain arranged to run in the said guide, a series of projections 42 carried by the chain and extending outward toward the track, the sprocket wheels 33 and 34 with which the chain engages, and the guide wheels 35 and 38 interposed between the sprocket wheels and the ends of the guides 37, substantially as set forth.

3. In a conveyer, the combination of a series of carriers, each having a vertically extending hook and oppositely disposed wheels connected with the hook near the upper end thereof, a track for the wheels having two parallel rails arranged oppositely and having rail supports above the rails and symmetrically disposed with respect to the center lines of the carriers, a guide parallel to the said track, and an endless controlling device mounted to run in the said guide and having projections extending laterally into the path of the hooks of the carriers, the construction being such that the space beneath the track is unobstructed and free for the movement of bodies suspended from the carriers, substantially as set forth.

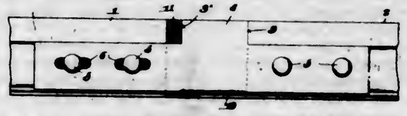
4. In a conveyer, the combination of a track consisting of a tube closed at its upper side and centrally slotted at its lower side, means above the tube for supporting it, carriers having wheels arranged to travel on the lower inner surface of the tube at opposite sides of the slot and having hooks arranged to extend through the slot, a guide parallel to the said tube, an endless controlling device mounted to run in the said guide and having projections extending laterally into the path of the hooks of the carriers, the construction being such that the space beneath the track is unobstructed and free for the movement of bodies suspended from the carriers, substantially as set forth.

5. In an overhead conveyer, the combination of a helically arranged track, carriers mounted thereon, a channel-like guide extending substantially parallel to and on the inner side of the track the guide being entirely open at its inner side, an endless controlling means mounted in said guide and having projections extending into the path of the carriers on the track, and means engaging the said controlling means near the ends of the guide for tensioning it and thus causing it to be held in place in the guide by its own tension, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,090,949. RAIL-JOINT. RICHARD JOHN SMITH, Gwanda, Rhodesia, South Africa. Filed Oct. 25, 1912. Serial No. 727,708. (Cl. 239—3.)



1. In a rail joint, the adjacent rail ends, and a pair of fish plates, said fish plates being rigidly connected at one end with the respective rail ends, and in sliding engagement with the opposite rail ends, said fish plates being provided at a point intermediate their ends with upwardly extending ball forming portions, said ball forming portions being coextensive in length, the inner faces of said portions abutting on a longitudinal plane, and one of said ball forming portions being of greater transverse thickness than the other of said portions, substantially as described.

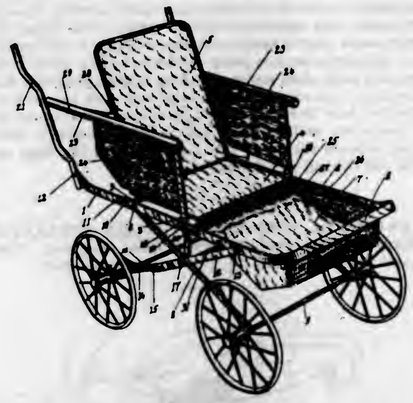
2. In a rail joint, the adjacent rail ends, and a pair of fish plates, said fish plates being rigidly connected at one end with the respective rail ends and in sliding engagement with the opposite rail ends, said fish plates being provided at a point intermediate their ends with upwardly extending ball forming portions, one of said portions being of a thickness equal to that of its respective fish plate, the ball forming portion upon the opposite fish plate being extended to abut the inner face of the first mentioned ball forming portion, substantially as described.

3. In a rail joint, the adjacent rail ends, in combination with an inner and an outer fish plate, said fish plates being rigidly connected at one end with the respective rail ends and in sliding engagement with the opposite rail ends, said fish plates being provided at a point intermediate their ends with upwardly extending ball forming portions, the ball forming portions on the inner plate being of a thickness equal to that of the plate, and the ball forming portion upon the outer fish plate being extended inwardly to abut the inner face of the ball forming portion upon the inner fish plate, substantially as described.

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1,090,950. COLLAPSIBLE CARRIAGE. CHRISTOPHER S. SPOFFORD and FREDERICK W. JONAS, Sturgis, Mich., assignors to Sturgis Steel Go-Cart Company, Sturgis, Mich. Filed May 9, 1913. Serial No. 766,548. (Cl. 21—83.)

1. In a collapsible carriage, the combination with the wheels and axles, of a frame comprising longitudinal members; a handle pivoted to the rear end of the frame to collapse forwardly; a seat carried by said frame; a back adapted to collapse forwardly upon said seat; crossed supports connected to said axles and pivotally connected to each other, the upper ends of the front supports being provided with pins engaging longitudinal slots in said frame members, the upper ends of the rear supports being pivoted to said frame members; levers mounted on the connecting pivots for said supports and having pins engaging longitudinal slots in said frame members; links connecting said levers to said handle; a toggle for locking the parts in their erected position comprising a bail-like bar pivoted on said frame to swing down in front of said seat; and links connecting said bar to said levers.



2. In a collapsible carriage, the combination with the wheels and axles, of a frame comprising longitudinal members; a handle pivoted to the rear end of the frame to collapse forwardly; a seat carried by said frame; a back adapted to collapse forwardly upon said seat; crossed supports connected to said axles and pivotally connected to each other, the upper ends of the front supports being provided with pins engaging longitudinal slots in said frame members, the upper ends of the rear supports being pivoted to said frame members; levers mounted on the connecting pivots for said supports and having pins engaging longitudinal slots in said frame members; links connecting said levers to said handle; and means for locking the parts in their erected position.

3. In a collapsible carriage, the combination with the wheels and axles, of a frame comprising longitudinal members; a handle pivoted to the rear end of the frame to collapse forwardly; a seat carried by said frame; a back adapted to collapse forwardly upon said seat; crossed supports connected to said axles and pivotally connected to each other, the upper ends of the front supports being provided with pins engaging longitudinal slots in said frame members, the upper ends of the rear supports being pivoted to said frame, the lower ends of the rear supports being disposed above the rear axle and constituting stops and being connected to the axle by spring members; levers mounted on the connecting pivots for said supports and having pins engaging longitudinal slots in said frame members; links connecting said levers to said handle; and means for locking the parts in their erected position.

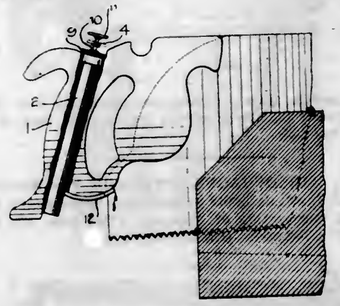
4. In a collapsible carriage, the combination with the wheels and axles, of a frame comprising longitudinal members; a handle pivoted to the rear end of the frame to collapse forwardly; a seat carried by said frame; a back adapted to collapse forwardly upon said seat; crossed supports connected to said axles and pivotally connected to each other, the upper ends of the front supports being provided with pins engaging longitudinal slots in said frame members, the upper ends of the rear supports being pivoted to said frame members, the lower ends of the rear supports being connected to the axle by spring members; levers mounted on the connecting pivots for said supports and having pins engaging longitudinal slots in said frame members; links connecting the upper ends of said levers to said handle; and means for locking the parts in their erected position.

5. In a collapsible carriage, the combination with the wheels and axles, of a frame; a handle pivoted to said frame to collapse forwardly; crossed supports connected to said axles and pivotally connected to each other, the upper ends of the front supports being slidably connected to said frame, the upper ends of the rear supports being pivotally connected to said frame; levers pivotally connected to said supports and having a sliding connection with said frame; links connecting said levers to said handles; a toggle for locking the parts in their erected position comprising a member pivoted on said frame; and links connecting said member to said levers.

[Claims 6 to 14 not printed in the Gazette.]

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1,090,951. SAW-OILER. HARMON A. SCRIBER, Sullivan, Mo. Filed Mar. 12, 1913. Serial No. 753,865. (Cl. 145—35.)



1. The combination with a tool handle provided with an obliquely disposed opening, of a cylindrical container removably mounted in said opening, a threaded closure cap for one end of said container adapted for engagement with one edge of the handle to prevent longitudinal movement of the container in one direction, a curved tube extending laterally from the container adjacent its other end and closely engaged with the opposite edge of the handle to prevent longitudinal movement of the container in said handle in the other direction, the extremity of said tube being longitudinally split to provide a divided bore and to receive the tool blade, and manually operable means arranged within the container to open communication between the same and the other end of said tube.

2. The combination with a saw of the character described, having a longitudinal recess formed in the grip portion of the handle thereof, of a lubricant container positioned within said recess, a lubricant conveying tube extending at an angle to the container and from the latter to the blade, said tube communicating at one end with the container and being adapted to feed a lubricant from its other end upon the blade, an apertured cap closing the upper end of the container, a spring pressed slide valve normally closing the inner end of the conveying tube, and a valve stem carried by the valve and extending through the apertured cap whereby it may be conveniently operated by thumb pressure to open the conveying tube.

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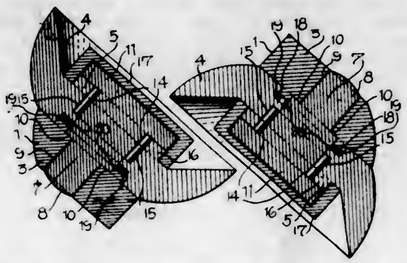
1,090,952. DRILL. ROBERT E. VANDERGRIFF, Fellows, Cal. Filed Sept. 13, 1913. Serial No. 789,681. (Cl. 255—71.)

1. A drill including a head having spaced legs, a pin detachably secured to each of the legs, a disk rotatably supported on the pin, such disk having a projected hub portion, and a closure detachably engaging the projected hub portion and inclosing the pin.

2. A drill including a head having spaced legs, a pin inwardly projected from each of the legs and terminating in a head, a disk rotatably mounted on the pin, the hub portion of such disk having a plurality of recesses provided in the face of the hub portion adjacent the pin, and rollers seated within one of the recesses and adapted to contact with the pin.

3. A device of the character described including a leg, a pin projecting from such leg, an annular flange on the

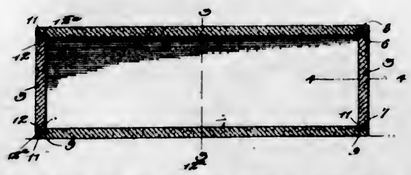
leg surrounding the pin and adapted to contact therewith, a disk mounted on the pin and having an annular recess in its hub portion adapted to accommodate the flange of



the leg, and a gasket surrounding such pin and interposed between the flange of the leg and the base of the recess of the disk.

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1,090,953. SARCOPHAGUS. CHARLES L. VAN NOSTRAND, Bedford, Iowa, assignor to American Sarcophagus Company, a Corporation of Arizona. Filed June 12, 1912. Serial No. 703,306. (Cl. 72—7.)



1. A device of the character described including a bottom formed on its upper edge with an outwardly and upwardly inclined recess, a top formed on its lower edge with a downwardly and outwardly inclined recess and interposed sides and ends having vertical and outwardly separable joints with each other and engaging the said top and bottom in the recesses thereof, the upper and lower edges of the sides and ends conforming in inclination to the recessed edges of the top and bottom, said inclined recesses of the top and bottom extending inwardly beyond the inner faces of the sides and ends, and a plastic joint sealing substance interposed between the upper and lower edges of the sides and ends and the recessed edges of the top and bottom and constituting the securing means between the sides and ends on the one hand and the top and bottom on the other hand.

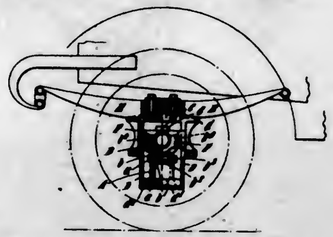
2. A device of the character described, including a bottom, a top and interposed sides and ends formed with vertical joints, the sides and ends forming horizontal joints with the top and bottom and the construction of such joints serving to compress the sides and ends inwardly toward the center, the adjoining surfaces between the upper and lower edges of the sides and ends and the overlying top and underlying bottom being formed one with sockets and the other with slots registering with said sockets, the slots extending transversely of the sides and ends, respectively, and keys mounted in said sockets and accommodated by said slots.

3. A device of the character described, including a bottom, a top and interposed sides and ends formed with vertical joints, the sides and ends forming horizontal joints with the top and bottom and the construction of such joints serving to compress the sides and ends inwardly toward the center, the adjoining surfaces between the upper and lower edges of the sides and ends and the overlying top and underlying bottom being formed one with sockets and the other with slots registering with said sockets, the slots extending transversely of the sides and ends, respectively, and spherical keys mounted in said sockets and accommodated by said slots.

4. A device of the character described, including a bottom, a top and interposed sides and ends formed with vertical joints, said joints being separable in an outward direction, the sides and ends forming horizontal joints with the top and bottom and the construction of such joints serving to compress the sides and ends inwardly toward the center, the adjoining surfaces between the upper and lower edges of the sides and ends and the overlying top and underlying bottom being formed one with sockets and the other with slots registering with said sockets, the slots extending transversely of the sides and ends respectively, spherical keys mounted in said sockets and accommodated by said slots, and a plastic joint sealing substance interposed between the upper and lower edges of the sides and ends and the top and bottom, respectively.

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1,090,954. VEHICLE SUSPENSION APPARATUS. FREDERICK WALTON, Holborn, London, England. Filed Apr. 16, 1913. Serial No. 761,495. (Cl. 21—50.)



1. In vehicle suspension apparatus, a laminated spring, a secondary spring of india rubber placed in tension, means for suspending the said india rubber spring from the vehicle axle and an extension member on the laminated spring supported by the lower end of the india rubber spring.

2. In vehicle suspension apparatus, a laminated spring, a secondary india rubber spring of tubular form having thickened and reinforced ends, means for suspending the said india rubber spring from the vehicle axle and an extension member on the laminated spring mounted upon the lower reinforced end of the said tubular spring.

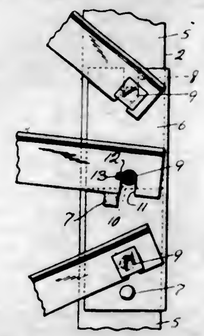
3. In vehicle suspension apparatus, a laminated spring, a secondary spring of india rubber placed in tension, means for suspending the said india rubber spring from the vehicle axle, a frame on the bottom of the laminated spring carried by the lower end of the india rubber spring, a guide for the said frame and trunnions for the guide to allow of angular movement of the frame.

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1,090,955. METALLIC DERRICK. PATRICK YORKE, Washington, Pa., assignor to Patrick Henry Yorke, Washington, Pa. Filed Oct. 18, 1913. Serial No. 795,987. (Cl. 189—19.)

1. In a structure of the character described, legs constructed in sections designed for longitudinal alinement with each other with their ends in abutting relation, splice bars connected to the upper end of one section and overlapping the lower end of a superjacent section, said last named section being formed in its lower edge with a downwardly opening recess, the splice bar being formed in its upper edge with an upwardly opening recess, said recesses being designed to accommodate bolts, a girt formed in its lower edge with a downwardly opening recess by which it is adapted to slip over a bolt received in the leg recess, and a brace formed in its lower edge with a downwardly opening recess by which it is adapted to be slipped over a bolt in the splice bar recess, bolts in said recesses, the recesses in the girt and brace being formed in the walls with laterally extending notches and the bolts being formed with lugs receivable in said notches.

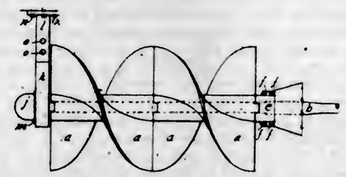
2. In a structure of the character described, legs formed in sections designed to be placed in abutting relation with each other, splice bars rigidly connected to the upper ends of a section and adapted to extend above a superjacent section, bolts carried by the splice bars one above the other and the upper one being located above the upper edge of said superjacent section, another bolt carried by said superjacent section above said last named bolt, there being an upper and a lower and an intermediate bolt, said superjacent section being formed in its lower edge with a downwardly opening recess whereby it is adapted to be slipped down into the upper end of the splice



bar over the intermediate bolt, the splice bar being formed in its upper edge with an upwardly opening recess adapted to receive the upper bolt, and braces and an intermediate girt, the braces being formed with downwardly opening recesses by which they are adapted to be slipped down over the upper and lower bolts and the girt being formed with a downwardly opening recess by which it is adapted to be slipped over the intermediate bolt, the recesses of the braces and girt being formed in their walls with laterally extending notches and the bolts being formed with lugs receivable in said notches for the purpose specified.

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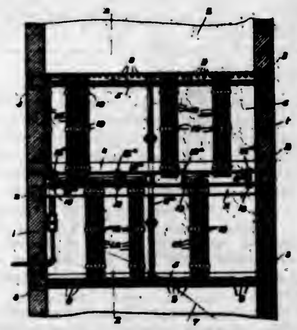
1,090,956. TURBINAL SCREW-PROPELLER. WILLIAM J. ZINTECK, St. Paul, Minn. Filed June 24, 1912. Serial No. 705,414. (Cl. 170—158.)



A propeller for boats comprising the combination of a propeller shaft provided adjacent its joint of exit from the stern of the boat with a pair of diametrically disposed key slots, a two-part clamp adapted to embrace said shaft and provided with keys for engagement with said slots, said clamp being further provided with a pair of clutch sockets, a sleeve mounted on said shaft, said sleeve being formed of a plurality of sections each section being provided at one end with a pair of diametrically disposed clutch teeth and at the other end with a pair of sockets oppositely disposed on a diameter at right angles to that on which said teeth are mounted, and a pair of helical blades arranged in alinement with the blades of the adjacent sections, the teeth of the section adjacent the clamp being adapted to engage with the sockets on said clamp, said shaft being further provided with a hexagonal portion ending in a threaded part at the extremity of the shaft, a locking head with a hexagonal bore for engagement with said hexagonal portion and a nut adapted to engage said threaded part to hold said locking head in place, clutch teeth on said locking head for engagement with the sockets of the adjacent sleeve section, a hollow cap mounted for threaded engagement with said locking head and adapted to inclose the nut and shaft end, and a supporting bracket depending from the stern of the boat and provided with a bearing in which said hollow cap is adapted to revolve.

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1,090,957. FURNACE. WILLIAM E. ADAMS, Philadelphia, Pa. Filed Sept. 9, 1913. Serial No. 788,825. (Cl. 126—152.)



1. In a furnace, the combination with two bars extending transversely of the furnace and having their ends movably supported in the walls of the furnace, whereby the bars are permitted movement toward and away from each other, elastic means connecting the bars, and grate bars movably supported at their outer ends, and at their inner ends supported on said first-mentioned bars, substantially as described.

2. In a furnace, the combination with side walls, a front wall, and a bridge wall connecting the side walls, of draft pipes projecting through the side walls adjacent the front wall and the bridge wall, parallel bars supported at their ends in the side walls and movable longitudinally of the furnace and relative to each other, elastic means connecting said bars, and grate bars supported at their inner ends on said first-mentioned bars and at their outer ends on said pipes, substantially as described.

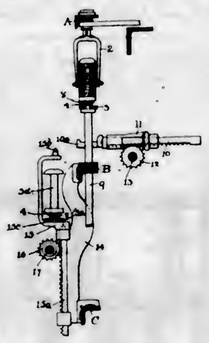
3. In a furnace, the combination with side walls, a front wall, and a bridge wall connecting the side walls, of draft pipes projecting through the side walls adjacent the front wall and the bridge wall, angle bars supported midway between the pipes and movable longitudinally of the furnace and relative to each other, bolts projected through the angle bars, springs around the bolts exerting pressure on the angle bars, and grate bars supported on the angle bars and on the pipes, substantially as described.

4. In a furnace, the combination with side walls, a front wall, and a bridge wall connecting the side walls, of draft pipes projecting through the side walls adjacent the front wall and the bridge wall, angle bars supported midway between the pipes and movable longitudinally of the furnace and relative to each other, bolts projected through the angle bars, springs around the bolts exerting pressure on the angle bars, and grate bars having notched ends supported on the angle bars and having fingers at their other ends supported on the pipes, substantially as described.

5. In a furnace, the combination with side walls, a front wall, and a bridge wall connecting the side walls, of draft pipes projecting through the side walls adjacent the front wall and the bridge wall, three boxes located in each side wall, two of said boxes in each wall supporting the said pipes, angle bars supported in the intermediate boxes and movable longitudinally of the furnace and relative to each other, elastic means pressing the angle bars apart, and grate bars supported on the angle bars and on the pipes, substantially as described.

[Claim 6 not printed in the Gazette.]

**1,090,958. DOFFING MECHANISM FOR SPINNING-MACHINES.** THOMAS OSWALD AKED, St. Thomas, Ontario, Canada. Filed May 29, 1912. Serial No. 700,472. (Cl. 118—13.)



1. In spinning apparatus of the character described, duplicate detachable lifter rails each adapted to support a series of spindles, and means for moving and adjusting said lifter rails.

2. In spinning apparatus of the character described, duplicate lifter rails each adapted to carry a series of bobbins, adjustable supporting devices adapted to receive either of the detachable lifter rails and their bobbins, and means for actuating said supporting devices.

3. In spinning apparatus, doffing mechanism comprising duplicate detachable interchangeable plates to support the bobbins, and means for shifting either plate and the bobbins carried thereby to and from position for spinning.

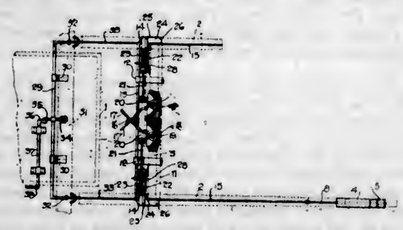
4. In spinning apparatus, doffing mechanism comprising duplicate detachable interchangeable plates to support the bobbins, and manually controlled mechanism for substituting one plate for another in position for spinning.

5. In spinning apparatus having fliers, doffing mechanism comprising detachable interchangeable plates to support the bobbins, said fliers being mounted independently of the spindles carrying the bobbins, and means for shifting either plate and the bobbins carried thereby to and from position for spinning.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,959. HORSE-DETACHER. OSCAR E. ALBRIGHT, Gallatin, Tenn. Filed June 7, 1913. Serial No. 772,454. (Cl. 21—75.)

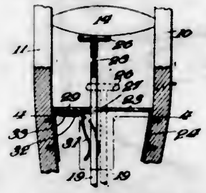


1. A device of the class described including a whiffletree having recesses formed therein, a pin extending across said recesses, rods having loops mounted upon said pins within the recesses, an actuating shaft, a loop formed on said shaft, trace holding bolts movably mounted upon the ends of said whiffletree, one end of said rods being connected with said bolts and having their other ends movably mounted within the loop on the actuating shaft whereby rotary movement of the shaft will actuate said bolts and release the trace ends.

2. A device of the class described including a whiffletree having recesses formed therein, pins extending across said recesses, rods having loops mounted upon said pins within the recesses, an actuating shaft, a loop carried by said shaft, trace holding bolts movably mounted upon the ends of said whiffletree, one end of said rods being connected with said bolts and having their other ends movably mounted within the loops on the actuating shaft, the ends of said actuating shaft being disposed at right angles, an operating shaft, means for rotating said operating shaft, and means connecting the operating shaft with the actuating shaft whereby rotary movement of the operating shaft will actuate said bolts and release the trace ends.

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1,090,960. CALK ATTACHMENT FOR CRUTCHES. SAMUEL H. APPELMAN, Bloomsburg, Pa. Filed May 20, 1913. Serial No. 768,893. (Cl. 3—4.)



1. In a crutch having spaced side members connected intermediate their length by a handle and merging at their lower ends into a staff portion having a longitudinal bore, a bracket extending between the side members and provided with a bore and a longitudinal slot communicating with the bore and less in width than the diameter of the bore, the bore being offset vertically with respect to the bore of the staff and the remote end of the slot being in vertical alinement with the bore of the staff, a resilient operating rod carrying a calk at its lower end slidable through the bore of the bracket and staff to extend or retract the calk below the lower end of the staff, said operating rod being provided with a reduced portion to permit the seating of the rod in the slot through the resiliency of the rod when the rod is lowered to extend the calk, and additional means for forcing the rod into the slot.

2. In a crutch having spaced side members connected intermediate their length by a handle and merging at their lower ends into a staff portion having a longitudinal bore, a bracket extending between the side members and provided with a bore and a longitudinal slot communicating with the bore and less in width than the diameter of the bore, the bore being offset vertically with respect to the bore of the staff and the remote end of the slot being in vertical alinement with the bore of the staff, a resilient operating rod carrying a calk at its lower end slidable through the bore of the bracket and staff to extend or retract the calk below the lower end of the staff, said operating rod being provided with a reduced portion to permit the seating of the rod in the slot through the resiliency of the rod when the rod is lowered to extend the calk, and additional means for forcing the rod into the slot, said means including an angular leaf spring secured by one arm to the lower face of the bracket and having a reduced end seating in a socket formed in the bracket, the opposite arm of said spring bearing against the rod.

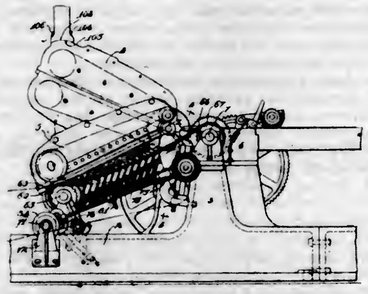
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1,090,961. MACHINE FOR EXPANDING SHEET METAL. FRED C. ABEY, Oak Park, Ill., assignor to Northwestern Expanded Metal Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 7, 1912. Serial No. 724,298. (Cl. 164—6.6.)

1. In a machine of the character described, a guide for sheets to be expanded, expander arms diverging from a point adjacent to the delivery end of the guide, and means for bodily adjusting the expander arms at the ends adjacent to the guide transversely to the plane of a sheet in the guide.

2. In a machine of the character described, expander arms arranged on opposite sides of a horizontal plane and diverging from one end toward the other, and means for adjusting the ends of the arms nearest each other transversely of said plane.





3. In a machine of the character described, expander arms arranged on opposite sides of a vertical plane and diverging from each other on opposite sides of a horizontal plane, and means for simultaneously adjusting both ends of one of said arms relatively to said vertical plane.

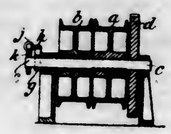
4. In a machine of the character described, expander arms arranged on oposite sides of a vertical plane and diverging from each other on opposite sides of a horizontal plane, and means for simultaneously adjusting both ends of either of said arms relative to said vertical plane.

5. In a machine of the character described, expander arms arranged on opposite sides of a vertical plane and diverging from each other on opposite sides of a horizontal plane, and means for adjusting both ends of each of said arms bodily in directions transverse to each of said planes.

[Claims 6 to 19 not printed in the Gazette.]

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1,090,962. APPARATUS FOR RAISING, LOWERING, AND STORING SHIPS' BOATS. WILLIAM EDWARD ARMSTRONG, Belfast, Ireland, assignor to Harland & Wolff, Limited, Belfast, Ireland. Filed Apr. 18, 1913. Serial No. 762,081. (Cl. 57—22.)



1. The combination of a pair of drums, a worm and worm wheel normally locking the drums together and means for simultaneously rotating the drums.

2. The combination of a shaft, a drum fixed to the shaft, a sleeve on the shaft, a drum fixed to the sleeve, a worm and worm wheel normally locking the sleeve to the shaft and means for rotating the shaft.

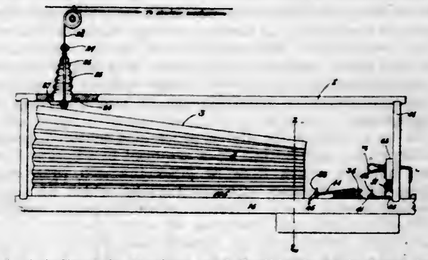
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1,090,963. SHUTTER-OPERATING MECHANISM FOR PIPE-ORGANS. JOHN T. AUSTIN, Hartford, Conn., assignor to Austin Organ Company, Hartford, Conn., a Corporation of Maine. Filed May 27, 1913. Serial No. 770,206. (Cl. 84—23.)

1. A bellows in sections, and ducts inclosed by the bellows and in communication with the interiors of the respective sections thereof.

2. A bellows in sections, a pressure box inclosing said bellows, ducts inclosed by the bellows and in communication with the interiors of the respective sections thereof, and mechanism operable at will, for putting said ducts into communication with the interior of the pressure box or with the atmosphere.

3. A bellows in sections comprising hinged leaves, and ducts within the bellows, in communication with the interiors of sections thereof and in proximity to the hinges of the leaves.



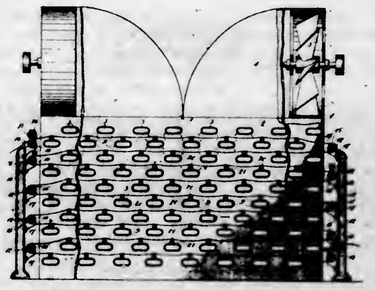
4. A bellows in sections, and flexible ducts inclosed by the bellows and in communication with sections thereof.

5. A bellows in sections comprising hinged leaves, and ducts within and extending from the bottom toward the top of the bellows adjacent the centers of motion of said leaves, the ducts being in communication with the interiors of sections of the bellows.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,964. PAPER-DRYING MACHINE. WILLIAM M. BARBER, Somerville, Mass., assignor of one-half to Edgar W. Anthony, Brookline, Mass. Filed Mar. 7, 1913. Serial No. 752,581. (Cl. 34—48.)



1. In a machine for drying paper in a continuous web, series of air distributing pipes arranged in adjacent lines and between which the web runs, said pipes being provided with openings by which air compressed therein may be directed to issue therefrom against said web, means for supplying air under compression to said pipes, and means for carrying said web to run slack between said lines of pipes.

2. In a machine for drying paper in a continuous web, series of air distributing pipes arranged in adjacent lines and between which lines of pipes the web runs, said pipes being provided with openings by which air compressed therein may be directed to issue therefrom against said web, means for supplying air under compression to said pipes, driven rolls by which said web is carried and directed to pass between said lines of pipes, and means for controlling said rolls whereby said web may run slack between said lines of pipes.

3. In a machine for drying paper in a continuous web, series of air distributing pipes arranged in adjacent lines and between which lines of pipes the web runs, said pipes being provided with openings by which air compressed therein may be directed to issue therefrom against said web, means for supplying air under compression to said pipes, driven rolls by which said web is carried and directed to pass between said lines of pipes, means for controlling said rolls whereby said web may run slack between said lines of pipes, and other means located between said lines of pipes for supporting the slack portion or portions of said web.

4. In a machine for drying paper in a continuous web, series of air distributing pipes arranged in adjacent lines and between which lines of pipes the web runs, said pipes being provided with openings by which air compressed therein may be directed to issue therefrom against said web, means for supplying air under compression to said pipes, driven rolls by which said web is carried and directed to pass between said lines of pipes, and means whereby the speed of each of said rolls may be controlled.

5. In a machine for drying paper in a continuous web, series of air distributing pipes arranged in adjacent lines and between which lines of pipes the web runs, said pipes being provided with openings by which air compressed therein may be directed to issue therefrom against said web, means for supplying air under compression to said pipes, driven rolls at opposite ends of the machine by which said web is carried and directed to pass between said lines of pipes, means for controlling said rolls whereby said web may run slack between said lines of pipes, and means coöperating with said rolls whereby said web passing around the same may be prevented from slipping thereon and the slack in said running portions of the web be thereby maintained.

[Claims 6 to 9 not printed in the Gazette.]

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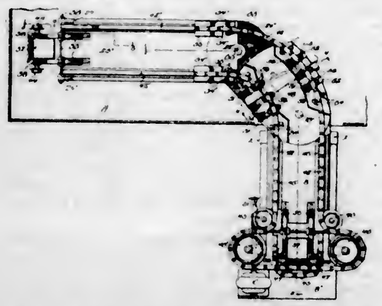
1,090,965. UNDERSCORING-RULE. JOSEPH T. BARTON, Chicago, Ill., assignor to Frank G. Forbes, Chicago, Ill. Filed Mar. 10, 1913. Serial No. 753,245. (Cl. 101—179.)



A printer's underscoring rule, comprising a flat body portion and a flange on one edge thereof that extends laterally of and overhangs one side of said body portion and is adapted to overlap a type-block below the type-letter on the latter, the inner portion of the upper surface of said flange being countersunk to afford a relatively narrow printing edge laterally offset relatively to that side of the body portion which said flange overhangs.

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1,090,966. BOX-CAR-LOADING APPARATUS. CHARLES BERGHOEFER, Milwaukee, Wis.; Edward C. Berghoefer executor of said Charles Berghoefer, deceased. Filed May 5, 1913. Serial No. 765,558. (Cl. 193—19.)



1. A loading apparatus comprising a main platform, a horizontally swinging bridge carried thereby, a flexible track mounted upon the bridge, and an endless conveyer supported upon the flexible track.

2. A loading apparatus comprising a truck-supported platform, a horizontally swinging sectional bridge carried thereby, a flexible track mounted upon the bridge and platform, and an endless bucket-carrying conveyer supported upon the flexible track.

3. A loading apparatus comprising a platform, a sectional horizontally swinging bridge carried thereby, a flexible track mounted upon the bridge and platform, a flexible endless bucket-carrying conveyer supported upon the flexible track, and means for shifting the position of the bridge with relation to the platform.

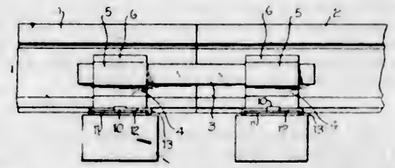
4. A loading apparatus comprising a platform, a sectional horizontally swinging bridge carried thereby, a flexible track mounted upon the bridge and platform, a flexible endless bucket-carrying conveyer supported upon the flexible track, and means for selectively shifting the position of the bridge sections.

5. A loading apparatus comprising a truck-supported platform, a series of bridge leaves in hinge connection with each other and the platform, the bridge leaves being adapted to swing in a horizontal plane, a drive-shaft mounted upon the platform, an idle sheave mounted upon the end leaf of the bridge, an endless flexible conveyer carried by the sheaves, a horizontally flexible track mounted upon the bridge-leaves and platform for the support of the conveyer stretches, and mechanism for shifting the position of the aforesaid series of bridge leaves relative to said platform.

[Claims 6 to 10 not printed in the Gazette.]

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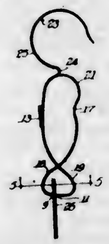
1,090,967. RAIL-JOINT. ALBERT VAN BEUNING and BENJAMIN F. KILLAM, Edgewater, Colo. Filed May 21, 1913. Serial No. 769,105. (Cl. 239—6.)



The combination with the meeting ends of two rails having parallel bars arranged upon opposite sides thereof, of clamping plates provided with offsets adapted to engage over said bars, the clamping plates being provided at one end with a bent portion to engage over the base flanges of the rails, a base plate having sleeves formed integral therewith and the clamping plates provided with slots to receive said sleeves and pins removably arranged within said sleeves to hold the clamping plates in position.

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1,090,968. DISPLAY-HANGER. THOMAS H. BLACKNALL, Chicago, Ill., assignor of one-half to Henry Jansen, Chicago, Ill. Filed July 10, 1911. Serial No. 637,687. Renewed Aug. 21, 1913. Serial No. 786,007. (Cl. 24—84.)



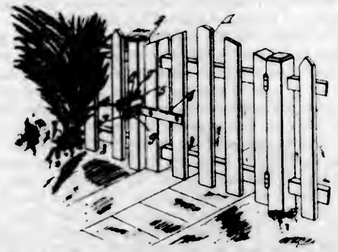
1. As a new article of manufacture, a display hanger, consisting of a single piece of metal comprising opposing jaws, yielding contiguous shanks for both said jaws, the adjacent ends of which shanks are curved on the arc of the same circle with one of them passing through the other toward their opposite ends, and a hook from the opposing members of which, in its entirety, one of said jaws and its shank is struck.

2. As a new article of manufacture, a display hanger, consisting of a single piece of metal comprising opposing jaws provided with yielding contiguous shanks, one of which passes through the other, the adjacent contiguous ends of which are curved on the arc of the same circle, and a hook integral with said curved portion, and from the opposing members of which one jaw and its shank is struck.



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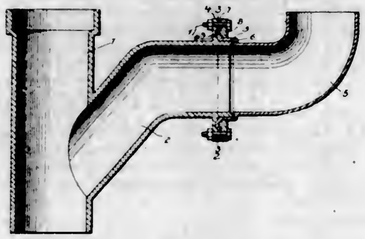
1,090,969. GATE-LATCH. THOMAS J. BROWNING, Waynesboro, Miss. Filed Nov. 5, 1913. Serial No. 799,372. (Cl. 70—28.)



In combination with parts movable to and from each other, a carrier attached to one part, a keeper ring loosely supported by the carrier, and a latch bar attached to the other part to move snugly under the carrier for the engagement of the keeper ring, the latch bar having an apertured ear so arranged as to project along the lower portion of the keeper ring when the latch bar is engaged by the keeper ring, said apertured ear and keeper ring being adapted to be engaged by a padlock.

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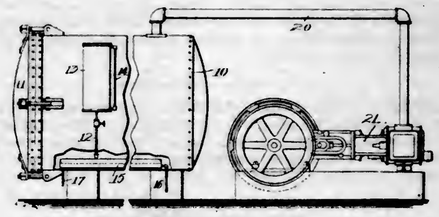
1,090,970. PIPE-COUPLING. JOHN P. BUTLER, Haverhill, Mass. Filed Dec. 18, 1912. Serial No. 737,543. (Cl. 137—28.)



In a pipe coupling, the combination with a pipe section having an annular flange formed on the outer periphery thereof, at a point rearward of the free end of the same, the peripheral edge of said pipe section being beveled inwardly to form a sharpened edge and the outer face of said flange being provided with an annular groove therein; of a second pipe section formed of pliable material having one end thereof offset outwardly to receive the free end of the aforesaid section therein, the beveled peripheral edge of the first named section being embedded in the shoulder at the offset end of the second mentioned section, when said sections are brought together, whereby to form a water tight joint therebetween, the extreme free end of the second mentioned pipe section being bent to form an annular flange thereon, and adapted to contact with the outer face of the flange on the first mentioned section, an annulus applied to the second pipe section to contact with the annular flange formed thereon, said annulus and flanges on said sections being provided with alining openings, an annular rib formed on the inner face of the annulus in registration with the groove of the first mentioned flange, and fastening means extending through the openings in the annulus and through said flanges to secure said pipe sections together.

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1,090,971. METHOD OF AND APPARATUS FOR MOISTENING YARNS. OSBORN H. CILLEY, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed July 2, 1912. Serial No. 707,170. (Cl. 28—7.)



1. A method of moistening yarn which consists in placing the yarn in a receptacle having a surface evaporator entirely inclosed therein, placing a predetermined quantity of water on said evaporator within said receptacle, reducing the air pressure in said receptacle and evaporating the water by heating said evaporator by steam circulating within the evaporator but out of contact with the water therein.

2. A method of moistening yarn, which consists in inclosing the yarn in an air-tight receptacle, supplying a predetermined quantity of water to said receptacle, exhausting the air from the receptacle, and completely evaporating said water in said receptacle.

3. An apparatus for moistening yarn having in combination an air tight chamber for the yarn, means for exhausting the air therefrom, a surface evaporator therein, means for introducing a measured quantity of water into the evaporator, and means for heating the evaporator and completely evaporating the water therein thereby causing a predetermined quantity of moisture to be added to the yarn.

4. An apparatus for moistening yarn having in combination an air tight chamber for the yarn, a surface evaporator therein, a receptacle for water outside the chamber having a gage for showing the amount of water in said receptacle, and a pipe with a valve therein connecting said receptacle to said evaporator whereby a predetermined quantity of water as shown by the gage may be introduced through the pipe and valve into said evaporator within said chamber.

5. In an apparatus for moistening yarn, the combination of a closed chamber for the yarn, a surface evaporator inclosed therein, means for introducing a measured quantity of water into said evaporator and means for entirely evaporating said water.

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1,090,972. ANCHOR FOR POSTS, POLES, &c. IRA E. CLUM, Lima, Ohio, assignor of one-half to George H. Metheany, Lima, Ohio. Filed Sept. 2, 1913. Serial No. 787,738. (Cl. 189—90.)



1. An anchor embodying a conical shell, the exterior surface of which is provided with an annular series of

channels, which decrease in width from their upper to their lower ends.

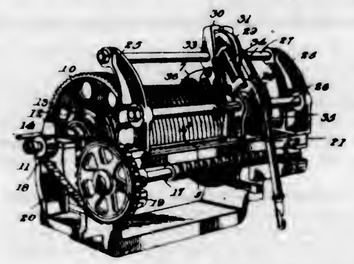
2. An anchor comprising a conical shell, the exterior surface of which is provided with inverted V-shaped ribs arranged in an annular series.

3. An anchor comprising a conical shell, the exterior surface of which is provided with an annular series of triangular ribs the apices of the ribs projecting toward the apex of the shell.

4. An anchor comprising a conical shell, the exterior surface of which is provided with an annular series of triangular ribs, the apices of which project toward the apex of the shell, and the bases of which are parallel with the periphery of the shell, and the exterior surface of the shell being provided with lugs within the said ribs forming upwardly facing shoulders.

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1,090,973. CABLE-REELING MECHANISM. FREDERICK C. COSEO, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Aug. 4, 1911. Serial No. 642,391. (Cl. 242—92.)



1. In a cable reeling mechanism for electric locomotives, the combination of a reel mounted for rotation about a horizontal transverse axis, a cable connected with the reel to be wound thereon, means for driving the reel, and a cable guiding mechanism mounted adjacent the reel, the said mechanism comprising two axially fixed sheaves mounted close to each other and on the same side of the reel, one of the sheaves being positioned to support the cable when it is paid out at one end of the locomotive and the other of the said sheaves being positioned with its top edge above the top edge of the reel to support the cable above the reel when it is being paid out and taken up at the other end of the locomotive.

2. In a cable reeling mechanism for electric locomotives, the combination of a reel mounted for rotation about a horizontal transverse axis, means for driving the reel, a cable connected with the reel to be wound thereon, a cable guiding carriage, means for causing the carriage to move backward and forward transversely at one side of the reel, and two axially fixed sheaves mounted one partly above the other on the same side of the reel and movable with the carriage, one of the said sheaves being positioned to support the cable when it is being paid out or taken up at one side of the reel, and the other being positioned with its top edge above the top edge of the reel to support the cable above the reel when it is being paid out or taken up at the other side of the reel.

3. In a cable reeling mechanism for electric locomotives, the combination of a reel mounted to rotate about a horizontal transverse axis, a cable connected with the reel to be wound thereon, means for driving the reel, a carriage reciprocably mounted at one side of the reel, means for moving the said reciprocable carriage, two axially fixed sheaves mounted in alinement for rotation about parallel transverse axes on the same side of the reel to move with the carriage and arranged to engage a cable between them to guide it onto the reel, one of the sheaves being positioned to support the cable when it is paid out or taken up from one end of the locomotive and the other of the sheaves being positioned with its top edge above the top edge of the reel to support the cable above the reel when it is paid out or taken up at the other end of the locomotive.

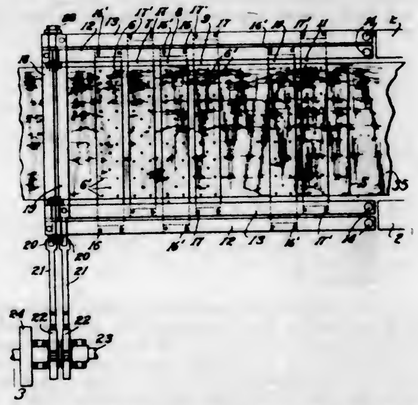
4. In a cable reeling mechanism for electric locomotives, the combination of a reel rotatable about a transverse horizontal axis, a cable connected with the reel to be wound thereon, means for driving the reel, a transversely reciprocable carriage mounted adjacent the reel, means operative with the reel for causing regular reciprocations of the carriage, two parallel transverse shafts mounted adjacent the reel, two sheaves each rotatably and slidably mounted on one of the said shafts, and means mounted on the carriage for holding the sheaves in the same plane and for reciprocating them along the shafts, one sheave serving to support a cable when it is paid out or taken up from one end of the locomotive and the other sheave serving to support the cable when it is paid out or taken up at the other end of the locomotive.

5. In a cable reeling mechanism for electric locomotives, the combination of a reel mounted for rotation about a horizontal transverse axis, a cable connected with the reel to be wound thereon, power mechanism for driving the reel, a transversely reciprocable carriage mounted adjacent the reel, means operable with the reel for causing regular reciprocations of the carriage, two sheaves mounted in the same plane to rotate about horizontal transverse axes and to reciprocate with the carriage, one sheave serving to support the cable when it is paid out or taken up at one end of the locomotive and the other sheave serving to support the cable when it is paid out or taken up at the other end of the locomotive, and guide rollers mounted to reciprocate with the carriage and with the sheaves, the said rollers being mounted with their axes in longitudinal vertical planes at the sides of the pulleys and serving to guide the cable and prevent transverse movement with respect to the pulleys.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,974. FOURDRINIER MACHINE. ALBERT J. DAVIES, Woodland, Me. Filed Dec. 7, 1911. Serial No. 664,416. (Cl. 92—51.)



1. In a Fourdrinier machine, a pair of rails on each side of the paper making wire, a pair of suction boxes, one attached to one and the other to the other member of each pair of rails on each side, and means for imparting to said rail members opposite transverse movement to cause the opposite lateral movement of said suction boxes.

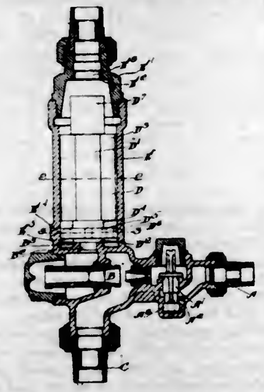
2. In a Fourdrinier machine a plurality of closely adjacent suction boxes and means for imparting to each of said boxes a reciprocating motion opposite at all times to the motion of the box next adjacent.

3. In a Fourdrinier machine, a pair of rails on each side of the paper making wire, a pair of suction boxes, one attached to one and the other to the other member of each pair of rails on each side, a pair of links connecting corresponding members on each of the rail pairs, a pair of oppositely phased cams operatively associated with said links and means for rotating said cams.

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1,090,975. JET APPARATUS. WILLIAM DOBSON, Roxbury, Mass., assignor to United Injector Company, New York, N. Y., a Corporation of New York. Filed Jan. 2, 1914. Serial No. 810,034. (Cl. 162—1.)



1. The combination of jet pump apparatus, steam and water supply means thereto, a delivery conduit therefrom, and a delivery control valve, provided with through passages, and a seating face on the side remote from the jet pump to coöperate with a seat to close the delivery conduit, and said seat.

2. The combination of jet pump apparatus, steam and water supply means thereto, a delivery conduit therefrom, and a two-faced delivery control valve, one face seating toward and the other away from the jet pump, and through passages in the valve.

3. The combination of jet pump apparatus, steam and water supply means thereto, a delivery conduit therefrom, a delivery control valve and a casing therefor, said valve mounted to slide in the casing, provided with through passages and a seating face on the side remote from the jet pump, to coöperate with a seat to close the delivery conduit, and said casing having an expansion chamber between the valve and the jet pump.

4. The combination of jet pump apparatus, steam and water supply means thereto and a delivery conduit therefrom, a delivery control valve and casing therefor, said valve mounted to slide in the casing, provided with through passages, a seating face on the side away from the jet pump, to close the delivery conduit, and a piston portion, said casing provided with a drip opening controlled by said piston portion of the valve.

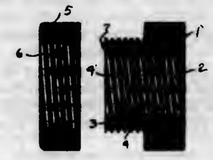
5. The combination of jet pump apparatus, steam and water supply means thereto, and a delivery conduit therefrom, a delivery control valve and casing therefor, said valve mounted to slide in the casing provided with through passages, a seating face on the side away from the jet pump, to close the delivery conduit, and a piston portion, said casing provided with a drip opening controlled by said piston portion of the valve and having an expansion chamber between the valve and the jet pump.

[Claims 6 and 7 not printed in the Gazette.]

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1,090,976. LOCK-NUT. ARTHUR R. ENCINAS, San Francisco, Cal. Filed Aug. 1, 1912. Serial No. 712,813. (Cl. 151—37.)

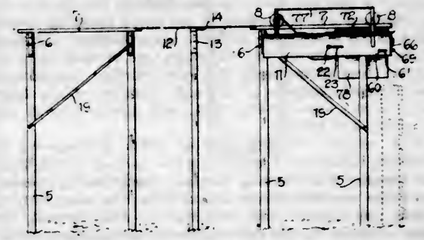
1. A device of the class described including a male section adapted to removably engage the threaded end of the bolt, an internally and externally threaded sleeve formed integral with one face of the male section, engaging points formed upon the outer end of said sleeve for engagement with the sub-structure to prevent backward rotary movement of the nut, and a female section movably mounted upon said sleeve, as and for the purpose set forth.



2. A device of the class described including a male section comprising a body adapted to be removably engaged with the threaded end of a bolt, an internally and externally threaded sleeve formed integral with one face of the body, diametrically opposite engaging members formed upon the outer end of said sleeve, a female portion movably mounted upon the sleeve and having its outer face normally flush with the outer end of the sleeve and said female section being adapted for advancement against the sub-structure to which the bolt is applied to release said engaging points.

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1,090,977. MAIL-DELIVERY APPARATUS. WILLIAM E. FISHER, Miller, Nebr. Filed July 28, 1913. Serial No. 781,677. (Cl. 104—146.)



1. In an apparatus of the character described, a carrier and a suspended track therefor, supporting wheels mounted upon said carrier to travel on said track, a motor for operating said carrier, said motor including a gear train, a reversing pinion in said gear train, a driving connection between the gear train and one of said carrier wheels, said carrier having a mail compartment provided with a door, a rod for operating the reversing pinion, and means mounted upon the door of the mail compartment to engage and shift said rod when the door is closed whereby the reversing pinion is shifted to reverse the rotation of the drive wheel.

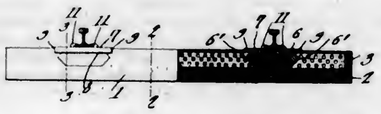
2. In an apparatus of the character described, a carrier and a suspended track therefor, supporting wheels mounted upon said carrier to travel on said track, a motor for operating said carrier, said motor including a gear train, a reversing pinion in said gear train, a driving connection between the gear train and one of said carrier wheels, said carrier having a mail compartment provided with a door, a slidable rod connected to said reversing pinion, a bell crank lever, one arm of which is connected to said rod, a reversing rod connected to the other arm of said lever, said rod being provided with a pin movably disposed in the slot in the carrier casing whereby said rod may be manually actuated, a spring pressed bolt mounted upon the door of the mail compartment to engage the reversing rod and hold the same in one of its adjusted positions, said bolt being adapted to engage said rod when the door is closed and shift the same to actuate the reversing pinion and reverse the rotation of the drive wheel.

3. In an apparatus of the character described, a carrier and a suspended track therefor, supporting wheels mounted upon said carrier to travel on said track, a motor for operating said carrier, said motor including a gear train, a reversing pinion in said gear train, a driving connection between the gear train and one of said carrier

wheels, said carrier having a mail compartment provided with a door, means for actuating the reversing pinion including a longitudinally shiftable reversing rod slidably mounted upon one wall of the carrier casing, a spring-pressed sliding bolt mounted upon the inner face of the door of the mail compartment and adapted to engage the reversing rod to hold the same in one of its adjusted positions, said bolt being also adapted to engage the reversing rod when the door is moved to its closed position to shift said rod and actuate the reversing pinion whereby the rotation of the carrier drive wheel is reversed.

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1,090,978. RAILROAD-TIE. DANIEL S. GRAEFF, Hershey, Pa. Filed Sept. 29, 1913. Serial No. 792,472. (Cl. 238—3.)



1. A railroad tie, the body of which is composed of reinforced concrete, a channel plate carried in the body and forming a reinforcing member longitudinally thereof, two spike receiving members mounted in the concrete body within the channel plate adjacent the ends thereof, the upper surfaces and side faces of the spike receiving blocks being in the same plane with the upper surface and sides of the concrete body, two tie plates, one to each spike receiving block fitting upon the upper surface thereof and the adjacent portions of the side surfaces of the body and also the sides of the block, and spikes piercing the tie plates and blocks.

2. A railroad tie, the body of which is composed of reinforced concrete, a channel plate carried in the body and forming a reinforcing member longitudinally thereof, two spike receiving blocks mounted in the concrete body within the channel plate adjacent the ends thereof, the upper surfaces of the spike receiving blocks being in the same plane with the upper surface of the concrete body, two tie plates, one to each spike receiving block fitting upon the upper surface thereof and the adjacent portions of the top surface of the body, said plates being provided with two parallel flanges adapted to fit upon each side of the concrete body to hold the plate and block against transverse movement.

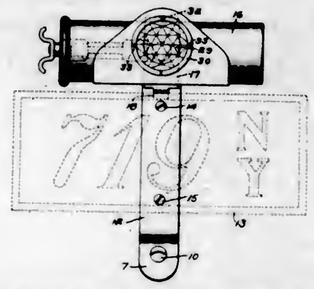
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1,090,979. CATTLE-GUARD. DANIEL GRANT, Hamilton, Mont., assignor, by direct and mesne assignments, of thirty-two and one-third one-hundredths to Pearl Remington, Hamilton, Mont., and thirty-three and one-third one-hundredths to Edward Hoffenbrodel, Butte, Mont. Filed Jan. 10, 1913. Serial No. 741,254. (Cl. 39—42.)



A cattle guard for railways comprising a depressible platform, a gate forming a counterbalance for the platform to hold it elevated and mounted to swing toward and from a vertical plane, a buffer arranged to come between the hinged end of the gate and the part to which such gate is hinged and serving as cushioning means as well as providing a stop to limit the movement of the gate to prevent it reaching and stopping on a dead center, and connecting means between the gate and platform to cause both to move in unison.

1,090,980. LIGHTING APPARATUS. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Dec. 6, 1912. Serial No. 735,185. (Cl. 240—57.)



1. In a lighting apparatus, the combination with a supporting bracket, of an electric lamp, a lamp-casing, a battery, a battery-casing, a member to which said casings are attached, and means for detachably attaching said member to said supporting bracket at two points, said battery casing being disposed between said points and embraced by said member and said bracket.

2. In a lighting apparatus, the combination with a supporting bracket, of an electric lamp, a lamp-casing, a battery, a battery-casing, an attaching member partially encircling said battery-casing and to which said lamp-casing is attached, and means for attaching said attaching member to said supporting bracket.

3. In a lighting apparatus, the combination with a supporting bracket, of an electric lamp, a lamp-casing, a battery, a battery-casing, an attaching member holding said casings and interlocked at one point with said bracket, and attaching means for attaching said member at another point to said bracket.

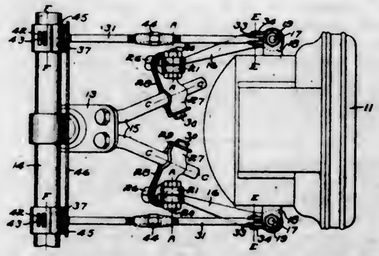
4. In a lighting apparatus, the combination with a supporting bracket, of an electric lamp, a lamp-casing, a battery, a battery-casing, an attaching member partially encircling said battery-casing, extending between said casings and attached to said lamp-casing, said member having one end interlocked with said bracket, and means for securing the other end of said member to said bracket.

5. In a lighting apparatus, the combination with a supporting bracket, of an electric lamp, a lamp-casing, a battery, a battery-casing, an attaching member partially encircling said battery-casing and extending between said casings, said lamp having a screw-threaded part extending through said lamp-casing, attaching member and battery-casing into electrical connection with said battery, and means for attaching said member to said bracket.

[Claim 6 not printed in the Gazette.]

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1,090,981. LAMP-MOUNTING. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Mar. 24, 1913. Serial No. 756,492. (Cl. 240—58.)



1. The combination with a lamp and a suitable support, of a pair of lamp-supporting arms extending in general direction horizontally and pivotally mounted on said support to permit said lamp to be adjusted in a vertical plane, and means connected to the outer ends of said arms rigidly to hold said arms in the selected position of adjustment.

2. The combination with a lamp and a suitable support, of a rigid mounting comprising a pair of lamp-supporting arms extending laterally from said support and pivotally mounted on said support to permit said lamp to be adjusted in a vertical plane, and brace means also extending laterally from said support to hold said arms rigidly in the selected position of adjustment.

3. The combination with a lamp and a suitable support, of a rigid mounting comprising a pair of lamp-supporting arms extending laterally from said support and pivotally mounted on said support to permit said lamp to be adjusted in a vertical plane, and a pair of brace members also extending laterally from said support and rigidly connecting said arms to said support.

4. The combination with a lamp, of a rigid mounting therefor comprising pivoted lamp-supporting means extending in general direction horizontally and permitting vertical adjustment of said lamp, and brace means also extending in general direction horizontally to hold said lamp rigidly in the selected position of adjustment.

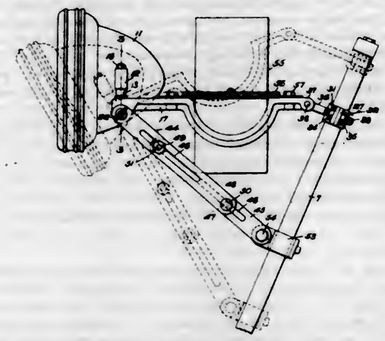
5. The combination with a lamp, of a rigid mounting therefor comprising pivoted lamp-supporting means permitting vertical adjustment of said lamp, brace means to hold said lamp rigidly in the selected position of adjustment, lamp-supply means mounted on said brace means, and means upon which said mounting as a whole is mounted to swing laterally thereby to carry said lamp and said supply means as a unitary structure.

[Claims 6 to 20 not printed in the Gazette.]



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1,090,982. LAMP-MOUNTING. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed May 10, 1913. Serial No. 766,682. (Cl. 240—58.)



1. In a mounting of the class described, the combination with a suitable support, of a pair of arms pivoted on said support, and a pair of braces pivoted to said arms and to said support, said braces having provision for longitudinal adjustment.

2. In a mounting of the class described, the combination with a suitable support, of upper and lower clamping means secured to said support, a pair of arms pivoted to said upper clamping means to swing in vertical planes, and a pair of braces pivoted to said arms and to said lower clamping means, each of said braces comprising two longitudinally adjustable members, and means to secure said members to each other in the selected position of adjustment.

3. In a mounting of the class described, the combination with a suitable support, of a pair of arms, means forming universal joints between said arms and said support, a pair of braces to brace said arms, and means forming universal joints between said braces and said support.

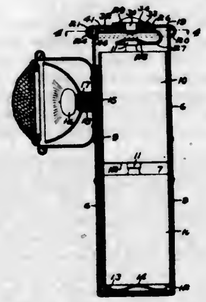
4. In a mounting of the class described, the combination with a suitable support, of a pair of arms, means forming universal joints between said arms and said support, a pair of braces to brace said arms, said braces having provision to permit the angular position of said arms to be varied by varying the length of said braces, and means forming universal joints between said braces and said support.

5. In a mounting of the class described, the combination with a suitable support, of a pair of arms pivoted on said support, and a pair of braces pivoted to said arms and to said support, each of said braces comprising two members one of which is provided with a longitudinal slot, and clamping means extending through said slot.

[Claims 6 to 16 not printed in the Gazette.]

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1,090,983. ELECTRIC LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed June 25, 1913. Serial No. 775,636. (Cl. 240—8.5.)



1. The combination with a battery, of a battery casing, and means to complete the battery circuit including a member rotatably mounted on said casing, and means carried by said member to close the battery circuit and hold said member against rotation.

2. The combination with a battery, of a battery casing, and means to complete the battery circuit including a member rotatably mounted on said casing, and means carried by said member adapted to interengage with said casing to close the battery circuit and hold said member against rotation.

3. The combination with a battery, of a battery casing having a rotatable cap, and means carried by said cap for closing the battery circuit and holding the cap against accidental rotation.

4. The combination with a battery, of a battery casing having a rotatable cap, and means carried by said cap for closing the battery circuit and holding the cap by spring pressure against accidental rotation.

5. The combination with a battery, of a metallic battery casing constituting a part of the battery circuit, a movable metallic cap for said casing, and means carried by movement of said cap for completing the battery circuit through said casing.

[Claims 6 to 13 not printed in the Gazette.]

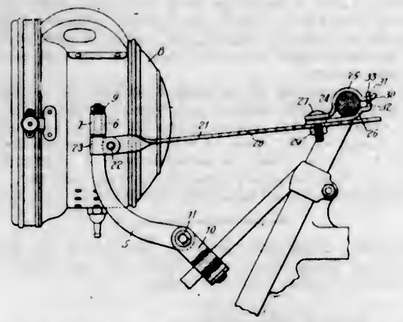
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1,090,984. LAMP-MOUNTING. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed July 14, 1913. Serial No. 778,822. (Cl. 240—58.)

1. A mounting of the class described comprising, in combination, a clamp, a support pivotally mounted on said clamp, a second clamp, a brace pivotally connected to said support and provided with a longitudinal series of perforations, and fastening means extending from said second clamp through one of said perforations.

2. A mounting of the class described comprising, in combination, a clamp, a support pivotally mounted on said clamp, a second clamp comprising a pair of clamping members, a brace pivotally connected to said support and

provided with a longitudinal series of perforations, and fastening means exteuding through said clamping members and through one of said perforations.



3. A mounting of the class described comprising, in combination, a support, a supporting member pivotally mounted on said support, and means to rigidly brace said supporting member including a brace member pivotally connected to said supporting member and provided with a longitudinal series of perforations, and clamping means including a fastening member passing through one of said perforations.

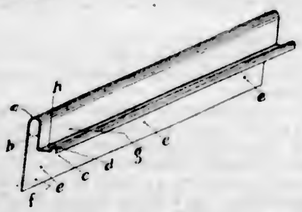
4. A mounting of the class described comprising, in combination, a support, a supporting member pivotally mounted on said support, a brace for said supporting member, and means for rigidly securing said brace in a plurality of predetermined positions of lengthwise adjustment.

5. A mounting of the class described comprising, in combination, a support, a supporting member pivotally mounted on said support, a brace attached at one end to said supporting member, and means for rigidly securing said supporting member including a device interlocking with said brace to secure the same in a plurality of positions of longitudinal adjustment.

[Claim 6 not printed in the Gazette.]

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1,090,985. ROOF-EDGING. RANOLD M. HOPKINS, Portland, Oreg. Filed Dec. 11, 1912. Serial No. 736,198. (Cl. 108—26.)



A roof edging, consisting of a strip doubled upon itself to form a downwardly facing channel, said channel being of a width to accommodate a strip of roofing and of a height on its inner wall to produce a watershed, one side of the strip being extended laterally and the side walls of the channel extending parallel to each other and at right angles to the laterally extending portion, said laterally extending portion terminating in an edge extremity which projects below the plane of said laterally extending portion for the purpose specified, and the other side of the strip being extended downwardly below the channel and the laterally extending portion, in combination with roofing which extends underneath the laterally extending portion of the edging and has the aforesaid edge extremity embedded therein, the edge portion of the roofing being extended upwardly at right angles to the main portion thereof and received and accommodated in said channel with the edge of said roofing terminating in an upwardly projected manner at the highest point of the channel and entirely above the main portion of the roofing and fastening devices extending through the said downwardly extending side of the strip which is formed for attachment to the edge of the roofing, the other side of the strip, including its laterally extending portion being devoid of fastening devices and entirely free from fastening relation to the roofing, whereby the strip and roofing may freely contract and expand one independently of the other.

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1,090,986. RAZOR-BLADE STROPPING AND HONING MACHINE. EMANUEL JACOBS, Detroit, Mich. Filed Sept. 23, 1912. Serial No. 721,781. (Cl. 51—16.)



1. A machine of the type described comprising a frame, disks pivoted in said frame and flush with the inner side thereof, shafts integral with said disks, abrading rolls detachably mounted on said shafts, means on said shafts between said disks and the inner ends of said rolls for imparting movement thereto, and a blade holder above the pass between said rolls.

2. In a razor blade stropping and honing machine, a frame capable of being secured to a support, non-rotatable shafts having the ends thereof pivotally supported by said frame whereby the outer ends of said shafts can be swung in a horizontal plane, cams revolubly supported by said shafts, abrading rolls revolubly supported by said shafts and adapted to have movement imparted thereto by said cams, a blade holder arranged above the pass of said rolls and adapted to support a razor blade in the pass of said rolls, means carried by said blade holder and actuated by the turning of the rolls for swinging the holder to bring the blade alternately into contact with each of the rolls, and means carried by said frame for imparting movement to said cams.

3. In a razor blade stropping and honing machine, spaced parallel abrading rolls having inner ends thereof pivotally supported whereby the outer ends of said rolls can be swung in a horizontal plane, a blade holder extending longitudinally of said rolls, cams at the inner ends of said rolls for simultaneously imparting movement to said rolls and to said blade holder, and a train of gears for imparting movement to said cams.

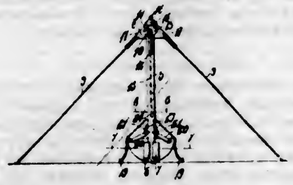
4. In a razor blade stropping and honing machine, spaced abrading rolls having inner ends thereof pivotally supported whereby the outer ends of said rolls can be separated in a horizontal plane, means for locking said rolls against lateral movement during the operation thereof, pins carried by said rolls, cams adapted to engage said pins and impart movement to said rolls, a blade holder pivotally supported above said rolls and longitudinally of the pass thereof, and means for simultaneously imparting movement to said cams and to said blade holder whereby a blade held thereby is alternately brought into engagement with adjacent sides of said rolls.

5. In a razor blade stropping and honing machine, spaced abrading rolls having inner ends thereof pivotally supported whereby the outer ends of said rolls can be separated in a horizontal plane, cam members for imparting movement to said rolls, a blade holder, means for pivotally supporting said blade holder above the pass between the rolls, means for vertically adjusting said blade holder relatively to the pass between said rolls, a depending arm carried by the blade holder and provided with adjustable means adapted to be engaged by said cams, and a train of gears for imparting movement to said cams.

[Claims 6 to 9 not printed in the Gazette.]



1,090,987. FEEDING-TROUGH. JOHN W. JEWELL, Jewell, Iowa. Filed Apr. 15, 1913. Serial No. 761,396. (Cl. 119—61.)



1. A feed trough comprising a pair of spaced uprights, a trough proper having its ends slidably engaged with the uprights, a shaft journaled in the upper ends of the uprights, means for locking the trough against undesired movement, and flexible connections between the locking means and the shaft for releasing said locking means and raising the trough upon rotation of the shaft.

2. A feed trough comprising a pair of spaced uprights, a trough proper having its ends slidably engaged with the uprights, means for locking the trough against undesired movement comprising a plurality of bars pivoted at their ends to the trough and engaging the uprights above their pivotal connection, flexible members connecting the bars and the shaft for releasing the bars from binding engagement with the uprights and raising the trough upon rotation of the shaft.

3. A feed trough comprising a pair of spaced vertical uprights, a trough proper having its ends slidably engaged with the uprights, means for locking the trough against undesired movement comprising a plurality of bars pivoted at their ends to the ends of the drum and each bar provided with a twisted extension having a V-shaped groove in its free end adapted for binding engagement with the adjacent upright above the pivotal connection of the bar and flexible members connecting the bars and the shaft whereby rotation of the shaft will release the bars from binding engagement and raise the trough proper.

4. A feed trough comprising spaced vertical uprights, a trough proper having its ends slidably engaged with the uprights, braces attached to the upper ends of the uprights, a cover comprising two plates pivoted together and supported by the uprights and braces, one of the plates being fixed to the uprights and braces, a shaft journaled in the upper ends of the uprights, flexible members connecting the shaft and the trough, means for locking the trough against undesired movement, means for preventing undesired retrograde movement of the shaft and the mouth of the trough being adapted to move to lie between the cover plates.

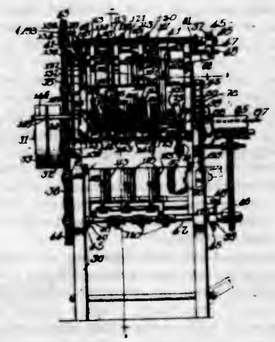
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1,090,988. CORN-FORWARDING DEVICE FOR GREEN-CORN-CUTTING MACHINES. JOHN M. C. JONES, Onarga, Ill. Original application filed Feb. 27, 1911, Serial No. 611,065. Divided and this application filed Aug. 1, 1912. Serial No. 712,641. (Cl. 130—9.)

1. The combination of a frame, two pairs of spur rollers arranged in said frame a short distance apart, the rollers of each pair being substantially parallel to each other and each roller being substantially opposite to and parallel to the corresponding roller of the other pair, a third pair of spur rollers arranged substantially parallel to each other and arranged between and substantially perpendicular to said first-mentioned pairs of rollers, and means for rotating said rollers whereby they are adapted to grasp and draw an ear of corn between them.

2. The combination of a frame, a pair of spur rollers arranged substantially parallel to each other in said frame, a second pair of spur rollers arranged opposite to and at an angle to said first-mentioned pair of spur rollers, one of the rollers of each of said pairs being movable toward and from the other roller of said pair on a line substantially at right angles to the axis of rotation of said roller, and means for rotating said rollers whereby they are adapted to grasp and draw an ear of corn between them.

3. The combination of a frame, a pair of spur rollers arranged substantially parallel to each other in said frame, a second pair of spur rollers arranged opposite to and at an angle to said first-mentioned pair of spur rollers, the lower roller of each pair being held rotatably in fixed position and each of the upper rollers being adapted to move upward relative to its lower roller, means for rotating the upper rollers in one direction, and means for rotating the lower rollers in the opposite direction.



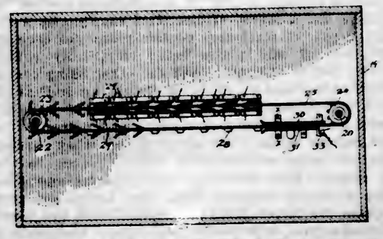
4. The combination of a frame, a plurality of pairs of spur rollers each arranged in said frame a short distance from the adjacent pair, one roller of each pair being above the other, each roller being opposite to and parallel with the corresponding rollers of the other pairs, a plurality of pairs of spur rollers arranged at an angle to said first-mentioned rollers, one pair of which are positioned between each adjacent two pairs of the first-mentioned rollers, each of said second-named rollers being opposite to and parallel with the corresponding rollers of the other pairs of said second-named rollers, means for rotating the upper rollers in one direction, means for rotating the lower rollers in the opposite direction, said lower rollers being held rotatively in fixed position, each of said upper rollers being adapted to move upward relative to its lower roller, and yielding means tending to hold said upper rollers against moving upward.

5. The combination of two diagonally-disposed spur wheels rotatably mounted with their lower ends directly opposite each other and with their adjacent edges only a short distance apart, a third spur wheel rotatably mounted on a horizontal axis with its lower edge a short distance above the adjacent edges of said first-mentioned spur wheels, and means for rotating said spur wheels whereby they are adapted to grasp and draw between them an ear of corn.

[Claims 6 to 11 not printed in the Gazette.]

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1,090,989. ELECTRIC SIGN. GEORGE T. KELLY, Chicago, Ill. Filed July 30, 1908. Serial No. 446,194. (Cl. 177—346.)



1. In a device of the class described, the combination of a frame, a number of sets of incandescent electric lamps on the frame, a source of electrical supply and a return

circuit, a pair of stationary contact plates for each set of lamps, one of said plates being electrically connected with the source of supply, and the other being connected through said lamps to the return circuit, an endless chain, means for advancing said chain between said pairs of stationary contact plates, and a number of pairs of contact plates carried by the chain and designed, when passing between the pairs of stationary contact plates, to electrically connect the stationary contact plates and thus establish a circuit between them.

2. In a device of the class described, the combination of a frame, a number of sets of incandescent electric lamps on the frame, a source of electrical supply and a return circuit, a pair of stationary contact plates for each set of lamps, one of said plates being electrically connected with the source of supply, and the other being connected through said lamps to the return circuit, an endless chain, means for advancing said chain between said pairs of stationary contact plates, and a number of pairs of contact plates carried by the chain and designed, when passing between the pairs of stationary contact plates, to electrically connect the stationary contact plates and thus establish a circuit between them, said contact plates on the chain being detachable.

3. In a device of the class described, the combination of a frame, a number of sets of incandescent electric lamps on the frame, a source of electrical supply and a return circuit, a pair of stationary contact plates for each set of lamps, one of said plates being electrically connected with the source of supply, and the other being connected through said lamps to the return circuit, an endless chain, means for advancing said chain between said pairs of stationary contact plates, and a number of pairs of contact plates carried by the chain and designed, when passing between the pairs of stationary contact plates, to electrically connect the stationary contact plates and thus establish a circuit between them, and means actuated by the chain for interrupting the circuit from the source of electrical supply.

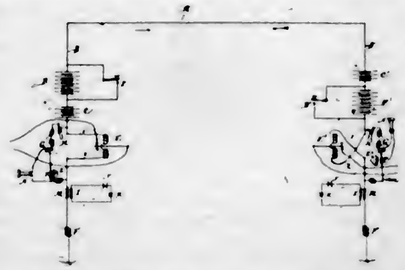
4. In a device of the class described, the combination of a frame, a number of sets of incandescent electric lamps on the frame, a source of electrical supply and a return circuit, a pair of stationary contact plates for each set of lamps, one of said plates being electrically connected with the source of supply, and the other being connected through said lamps to the return circuit, an endless chain, means for advancing said chain between said pairs of stationary contact plates, and a number of pairs of contact plates carried by the chain and designed, when passing between the pairs of stationary contact plates, to electrically connect the stationary contact plates and thus establish a circuit between them, and means actuated by the chain for interrupting the circuit from the source of electrical supply, said means comprising a stationary plate above the chain, a hinged plate below it, the latter plate being connected to form a terminal of the circuit, a pin in position to be engaged by said plate when the latter is elevated said pin being connected to form the other terminal of the circuit and a lug carried by said chain and designed to engage the hinged plate and force it out of contact with the pin, for the purposes stated.

5. In a device of the class described, the combination of a frame, a number of sets of incandescent electric lamps on the frame, a source of electrical supply and a return circuit, a pair of stationary contact plates for each set of lamps, one of said plates being electrically connected with the source of supply, and the other being connected through said lamps to the open circuit, an endless chain, means for advancing said chain between said pairs of stationary contact plates, and a number of pairs of contact plates carried by the chain and designed, when passing between the pairs of stationary contact plates, to electrically connect the stationary contact plates and thus establish a circuit between them, and means actuated by the chain for interrupting the circuit from the source of electrical supply, said means comprising a stationary plate above the chain, a hinged plate below it, the latter plate being connected to form a terminal of the circuit, a pin in position to be engaged by said plate when the latter is elevated, said pin being connected to form the other terminal of the circuit, and a lug carried by said chain and designed to engage the hinged plate and force it out of contact with the pin, and a spring for yieldingly holding the hinged plate in position adjacent to the chain.

[Claims 6 to 9 not printed in the Gazette.]

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1,090,990. ELECTRIC TRANSMISSION OF ENERGY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Feb. 20, 1906, Serial No. 302,037. Renewed Jan. 13, 1914. Serial No. 811,900. (Cl. 179—3.)



1. A line of transmission provided with telephonic and telegraphic transmitting and receiving devices, the telegraphic transmitting device comprising two sources of current in opposition as to each other and normally in the line, a shunt around one of said sources and a transmitting key adapted to open and close said shunt; the telegraphic receiving device comprising a polarized relay inserted in said line; the telephonic transmitting device comprising a microphonic transmitter, a source of current and an inductorium, the secondary of said inductorium connected in the line, the telephonic receiving device comprising a telephonic receiver connected in shunt as to the polarized relay.

2. Means to simultaneously transmit telegraphic and telephonic impulses over a line, said means comprising a line of transmission and comprising for the telegraphic communication a telegraphic transmitting device and a polarized relay inserted in the line in series, and comprising for the telephonic communication a telephonic transmitting device and an inductorium as sender and a telephonic receiver, said receiver connected, with the interposition of a condenser, or both terminals of the telegraphic receiving relay directly.

3. In combination, a line of transmission, a station for each terminal of said line and means for each of said stations to transmit and receive simultaneously telegraphic and telephonic messages, the means to transmit telegraphic messages comprising means to transmit an impulse of one polarity as the beginning and an impulse of opposite polarity as the ending of one telegraphic character and the means to receive telegraphic messages comprising a polarized relay; the means to transmit telephonic messages comprising a microphonic transmitter, a source of current, an inductorium, the secondary thereof connected in the line of transmission and the means to receive telephonic messages comprising a telephonic receiver connected in shunt as to the polarized relay.

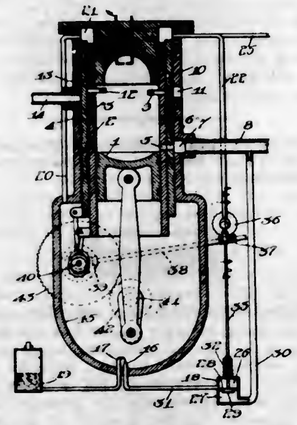
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1,090,991. INTERNAL-COMBUSTION ENGINE. CHARLES Y. KNIGHT, Oak Park, Ill., assignor to Knight and Kilbourne Patents Company, Chicago, Ill., a Corporation of Delaware. Filed June 4, 1906. Serial No. 320,048. (Cl. 123—188.)

1. In an apparatus of the character described the combination of an internal combustion engine having ports and embodying a main cylinder or casing, a crank case on which said cylinder is mounted and into which it opens,



two telescoped sleeve valves for controlling the ports of the engine sliding axially within said main cylinder, a working piston reciprocating in the inner one of said sleeve valves, a head fixed to the main cylinder and projecting into the inner sleeve valve whereby a chamber is created at the ends of said sleeve valves removed from the crank case, the outer one of the sleeve valves being in working relation to the main cylinder, and means operatively connected with the piston for reciprocating said sleeve valves in said chamber whereby suction and compression is created therein alternately as the piston alternately creates suction and compression in the crank case, and means for supplying the crank case with lubricant whereby such lubricant will be caused to contact with the end faces of the sleeve valves and to be distributed between such valves lengthwise thereof.



2. In an apparatus of the character described the combination with an internal combustion engine having intake and exhaust ports and embodying a crank case, a main cylinder opening into the crank case and having its outer end closed, a head fixed against movement relatively to the said main cylinder and projecting thereinto and spaced from the walls thereof, two telescoped sleeve valves for controlling said ports telescoped with said head and open at both ends and communicating with the crank case at one end and with the space between said head and main cylinder at the other end, a working piston reciprocating in the inner one of said sleeve valves relatively thereto, the outer one of said sleeve valves being arranged in operative relation to the inner of said sleeve valves for controlling the parts aforesaid, and means operatively connecting the piston with the sleeve valves for reciprocating them, of means for supplying lubricant to the crank case whereby the alternate rarefaction and compression of the air in the space between said head and main cylinder and in the crank case will cause lubricant to flow between and lengthwise of the sleeve valves.

3. In an apparatus of the character described the combination with an internal combustion engine having intake and exhaust ports and embodying a crank case, a main cylinder closed at its outer end and opening into the crank case at its inner end, two telescoped reciprocating sleeve valves telescoped in said main cylinder and relatively movable for controlling the said ports, a working piston reciprocating in the inner one of said sleeve valves relatively thereto, the outer one of said sleeve valves being arranged in working fit with the face of the main cylinder, and means operatively connecting the sleeve valves with the piston for reciprocating them, of means for supplying lubricant to the crank case whereby such lubricant will be supplied to the ends of the sleeve valves and distributed lengthwise between them as they reciprocate.

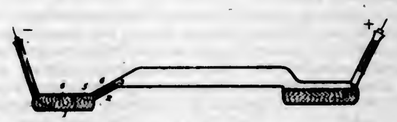
4. In a lubricator, the combination of an atomizer, means for supplying the same with lubricant, means whereby the atomizer may be supplied with fluid under pressure, a valve for regulating the pressure supplied to the atomizer, a cam for opening said valve, and means for rotating said cam.

5. In a lubricator, the combination with an atomizer, means for supplying the same with lubricant, means for supplying the atomizer with fluid under pressure, a valve for regulating the pressure supplied to the atomizer, a cam for opening the valve, having an active face varying in extent longitudinally of its axis, means for rotating the cam, and means for adjusting it lengthwise of its axis.

[Claims 6 to 43 not printed in the Gazette.]

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1,090,992. GAS OR VAPOR ELECTRIC LAMP. RICHARD KÜCH, Hanau, Germany, assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Mar. 20, 1906. Serial No. 307,107. (Cl. 176—42.)



1. The herein-described gas or vapor electric lamp comprising a tube having electrode chambers at its ends, the passage connecting one of said chambers with the tube having a relatively smaller area exposed to the action of the electric arc produced in the tube when the lamp is in operation than the passage connecting the other chamber and tube, a liquid cathode in said contracted passage and adjacent chamber, and a liquid anode in the other chamber.

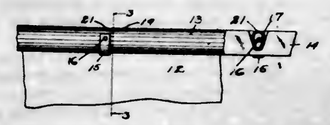
2. The herein-described gas or vapor electric lamp comprising a tube having electrode chambers at its ends, the cathode chamber being connected with the tube by a passage that is smaller than that connecting the tube and anode chamber, a body of mercury in the cathode chamber and partly filling the passage connecting said chamber with the body of the tube, and a body of mercury in the anode compartment.

3. A vapor electric device comprising an anode bulb partly filled with mercury, a cathode bulb entirely filled with mercury, a main illuminating tube communicating with said anode chamber and a tube of lesser diameter than said illuminating tube connecting the latter with the cathode chamber.

4. A mercury vapor lamp comprising the combination of an anode bulb partly filled with mercury, a cathode bulb entirely filled with mercury, connecting illuminating tube and a tube partly filled with mercury connecting the cathode bulb with the illuminating tube and of lesser diameter than said illuminating tube, the heat dissipating surfaces of said anode bulb and said cathode bulb being in proportion to the amount of heat developed therein respectively, said narrow connecting tube being adapted to regulate the agitation of the mercury in the cathode bulb, thereby to regulate the heat dissipating capacity thereof.

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1,090,993. HANGING FOR FLEXIBLE STRUCTURES. SIDNEY S. LAKE, San Jose, Cal. Filed Nov. 13, 1913. Serial No. 800,714. (Cl. 156—46.)



1. A hanging for flexible structures comprising a pair of battens to which the structure is attached at its upper end, a strap encircling the lower portion of said battens,

a pin passing through said battens and the ends of a strap and a link engaging said pin and adapted to extend above the upper edge of said battens, said battens being provided with a pocket in which said link is disposed.

2. A hanging for flexible structures comprising a batten to which said structure is attached at its upper end, a pin extending through said batten, a strap engaging the lower surface of said batten and said pin, and a link engaging said pin and projecting above the upper edge of said batten, said batten being provided with a pocket arranged midway between its sides in which the link is disposed.

3. A hanging for flexible structures comprising a pair of contiguous battens between which the upper edge of the structure is disposed, a plurality of straps spaced apart longitudinally of the battens engaging the lower surface thereof and extending upward at the sides of the battens, pins passing through the upper portions of said straps and through said battens, said battens being provided at their contiguous surfaces with pockets surrounding said pins and links disposed in said pockets and engaging said pins.

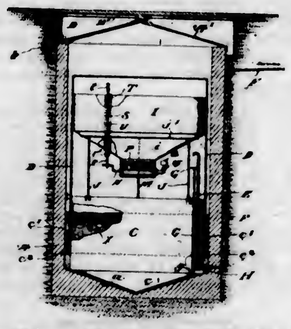
4. A hanging for flexible structures comprising a pair of contiguous battens between which the upper edge of the structure is disposed, a pin extending transversely through said battens, said battens being provided with an elongated pocket contiguous to said pin, and a link engaging said pin adapted to be moved completely into said pocket.

5. A hanging for flexible structures comprising a pair of contiguous battens between which the upper edge of the structure is disposed, said battens being provided with a common pocket opening at the upper surface thereof, a pin passing through said battens and said pocket, a U-shaped strap engaging said pin and contacting with the lower surface of said battens and a link mounted on said pin, said link being greater in length than the width of said battens and being arranged to be moved entirely into said pocket.

[Claim 6 not printed in the Gazette.]

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1,090,994. ACETYLENE-GAS GENERATOR. ALBERT L. LEACH, Burden, Kans. Filed July 30, 1913. Serial No. 781,992. (Cl. 48—55.)



1. An acetylene gas generator, comprising an outer casing having a conical bottom, a water tank therein having a correspondingly shaped bottom but of less diameter whereby said tank is centered when placed in the outer casing, a bell within the casing overlapping at its lower end the water tank, and means within the bell for feeding carbid to the water tank.

2. An acetylene gas generator, comprising an outer casing having a conical bottom, a water tank having a correspondingly shaped conical bottom, a bell above the water tank and overlapping it, a guide ring on the bell, a carbid container within the bell and a frame resting on the water tank and supporting the carbid container.

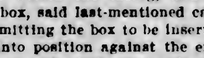
3. The combination with a carbid container, of a valve casing, a valve therein, a weighted arm connected with the valve and operating to open it, a rod extending through the container, a spring for holding the valve closed and connections between said rod and the valve whereby when the rod is depressed it turns the valve to partially open it and allows the weighted arm to fully open the valve.

4. The combination with a carbid container, of a valve casing, a valve therein, a valve shaft for operating the valve, a weighted arm on one end of said shaft and which operates to open the valve, means for guiding said weighted arm, a crank arm on the opposite end of said shaft, a vertically arranged rod having a link connection with said crank arm, and a spring for moving the rod vertically upward to close the valve.

5. The combination with a carbid container, of a valve casing and a valve therein, comprising a cylindrical shell having a pocket provided with a shelf projecting from the valve, means for operating the valve, and a brush attached to the container and having fingers which engage the shelf and prevent the escape of carbid from the container when the valve is in either its closed or open position but will permit carbid to be delivered from the valve when the latter is open.

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1,090,995. MATCH-BOX HOLDER. WILLIAM J. LEARY, Erie, Pa. Filed May 31, 1913. Serial No. 770,815. (Cl. 206—31.)



1. A device of the character described, comprising a rectangular casing having a hinged door normally closing one end of the casing, said casing adapted to receive a box having a sliding drawer therein, inwardly projecting spring catches in the sides of the casing adjacent the hinge door, said catches normally projected inwardly a distance approximating the thickness of the material of the box and bearing against the end of the box, holding the latter against outward movement, and a spring-pressed device in the inner end of the casing bearing against the drawer, substantially as described.

2. A device of the character described, comprising a rectangular casing having a hinged door normally closing one end of the casing, said casing adapted to receive a box having a sliding drawer therein, inwardly projecting spring catches in the sides of the casing adjacent the hinge door, said catches normally projected inwardly a distance approximating the thickness of the material of the box and bearing against the end of the box, holding the latter against outward movement, a spring-pressed device in the inner end of the casing bearing against the drawer, said spring-pressed device comprising a plate located against the end of the drawer with a coiled spring between the plate and the end of the box, and a catch normally holding the door in closed position, substantially as described.

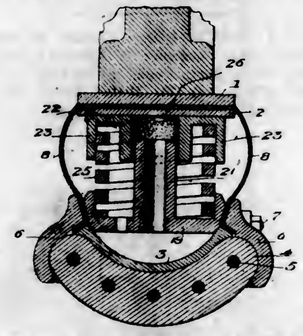
3. The combination with a rectangular casing, and a rectangular match box in the casing having a sliding drawer, said casing having a hinged cover at one end, and a catch holding the cover in closed position, spring catches secured within the casing, and bearing against the end of the box, said last-mentioned catches positioned at an angle permitting the box to be inserted in the casing and springing into position against the end of the box, a plate at the inner end of the casing bearing against the end of the match box drawer, and a spring between said plate and the end of the casing, substantially as described.

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1,090,996. SPRING-TIRE FOR VEHICLE-WHEELS. JOHN W. LEONARD, Newburgh, N. Y. Filed Oct. 18, 1912. Serial No. 726,434. (Cl. 152—38.)

In a spring tire for vehicle wheels, the combination with the wheel proper and a tire movable in relation thereto, of abutment blocks carried by the wheel and the tire and arranged in alternation, said abutment blocks being provided with inclined cups at their end parts and a cup at their center part, inclined coil springs whose ends are seated in and retained by the cups at the end





parts of the alternating abutment blocks on the wheel and tire, respectively, cups carried by the tire at points opposite the cups at the centers of the abutment blocks, and coil springs seated in said cups and in the cups at the centers of the abutment blocks, said springs being arranged radially of the wheel.

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1,090,997. HOUSE LETTER-BOX. ALBERT J. LINCK, St. Louis, Mo., assignor to Northwestern Mail Box Co., St. Louis, Mo. Filed Apr. 8, 1912. Serial No. 689,383. (Cl. 232—19.)

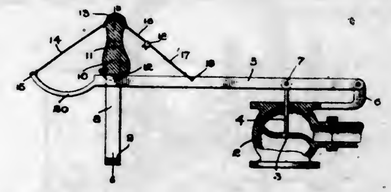


A mail box including an inner fixed section having a slotted top, a closure movably connected to the section and extending over said slotted top, a movable section hingedly connected at its lower end to the fixed section and having a slotted top extending between the closure and the slotted top of the fixed section, the slots in the tops normally registering, and a gravity operated closure moving element bearing upwardly against the slotted top of the movable section when the box is closed.

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1,090,998. APPARATUS FOR PREVENTING RAILWAY ACCIDENTS. HAVARD L. LOCKART, Philadelphia, Pa. Filed Feb. 26, 1913. Serial No. 750,751. (Cl. 246—59.)

1. The combination with a railway vehicle having an air brake and a valve casing connected with the air brake, a valve in said casing, a stem on the valve projecting through the casing, a pivoted arm connected to the stem and normally holding the valve in closed position, a cam lever engaging the arm, breakable means holding the lever, and a tripping arm operated in unison with a signal and adapted when the signal is at danger to strike the cam lever and cause the latter to move and permit the valve to open, substantially as described.



2. The combination with a railway vehicle having an air brake and a valve casing connected with the air brake, a valve in said casing, a stem on the valve projecting through the casing, a pivoted arm connected to the stem and normally holding the valve in closed position, a cam lever engaging the arm, a tripping arm operated in unison with a signal and adapted when the signal is at danger to strike the cam lever and cause the latter to move and permit the valve to open, and breakable flexible devices connecting the cam lever with the arm in front and rear of the cam lever, substantially as described.

3. The combination with a railway vehicle having an air brake and a valve casing and connected with the air brake, a valve in said casing, a stem on the valve projecting through the casing, a pivoted arm connected to the stem and normally holding the valve in closed position, a cam lever engaging the arm, a tripping arm operated in unison with a signal and adapted when the signal is at danger to strike the cam lever and cause the latter to move and permit the valve to open, breakable flexible devices connecting the cam lever with the arm in front and rear of the cam lever, and the flexible connecting device in advance of the cam lever having a seal between its ends, whereby the seal is broken when the cam lever is operated.

4. The combination with a railway vehicle having an air brake and a valve casing connected with the air brake, a valve in said casing, a stem on the valve projecting through the casing, a pivoted arm connected to the stem and normally holding the valve in closed position, a cam lever engaging the arm, a tripping arm operated in unison with a signal and adapted when the signal is danger to strike the cam lever and cause the latter to move and permit the valve to open, breakable flexible devices connecting the cam lever with the arm in front and rear of the cam lever, a bifurcated bracket through which said arm projects, said bracket pivotally supporting the lever, and said lever having a grooved lower end into which the arm is positioned, substantially as described.

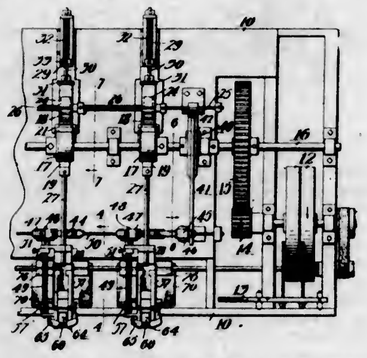
5. The combination with a railway vehicle having an air brake and a valve casing connected with the air brake, a valve in said casing, a stem on the valve projecting through the casing, a pivoted arm connected to the stem and normally holding the valve in closed position, a cam lever engaging the arm, a tripping arm operated in unison with a signal and adapted when the signal is at danger to strike the cam lever and cause the latter to move and permit the valve to open, breakable flexible devices connecting the cam lever with the arm in front and rear of the cam lever, a bifurcated bracket through which said arm projects, said bracket pivotally supporting the lever, said lever having a grooved lower end into which the arm is positioned, said arm at its extreme rear end curved downwardly, substantially as described.

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1,090,999. BOBBIN-CLEANER. WILLIAM LONZO, Fitchburg, Mass., assignor, by mesne assignments, to Fitchburg Bobbin Cleaning Machine Co., a Corporation of Massachusetts. Filed May 21, 1913. Serial No. 768,951. (Cl. 118—26.)

1. In a machine for stripping bobbins, the combination of a horizontal hopper having means for receiving and

guiding a bobbin, and having a discharge opening in the lower side thereof, a plunger movable into the end of the hopper horizontally, means for periodically forcing the plunger positively forward into the hopper, means for yieldingly retracting it after its forward motion is completed, and means for discharging the stripped bobbin through said opening.



2. In a machine for stripping bobbins, the combination of a hopper having means for receiving and guiding a bobbin, a plunger movable into the end of the hopper, means for periodically forcing the plunger positively forward into the hopper, means for yieldingly retracting it after its forward motion is completed, and an adjustable buffer for checking the retraction of the plunger and properly positioning it relative to the operating means.

3. In a machine for stripping bobbins, the combination of a hopper having a guide for a bobbin, a stationary jaw at the other end of the hopper for receiving the end of the bobbin, a movable jaw adjacent to the stationary jaw, means for moving the second jaw toward the first jaw, a plunger, means for moving said plunger into the hopper to force the bobbin longitudinally between said jaws, means for retracting said plunger and lifting the movable jaw, and means beyond said jaws for moving the bobbin back over the fixed jaw into position to drop through the bottom of said hopper into a receiver beneath the hopper.

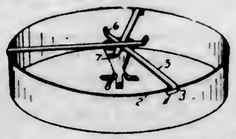
4. In a machine for stripping bobbins, the combination of a hopper adapted to receive a bobbin in horizontal position, said hopper having a passage through the bottom thereof, means for forcing the bobbin longitudinally of the hopper, means for simultaneously stripping the filling from the bobbin, and means for thereafter moving the bobbin in the reverse direction into position to drop through the passage in the bottom of said hopper.

5. In a machine for stripping bobbins the combination of a hopper adapted to receive a bobbin said hopper having a passage through the bottom thereof, means for stripping the filling from the bobbin and leaving the filling in position to drop through said passage, and means for thereafter moving the bobbin into position to drop through said passage.

[Claims 6 to 11 not printed in the Gazette.]

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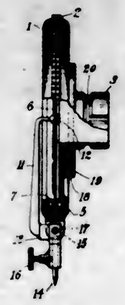
1,091,000. CHRISTMAS-TREE SUPPORT. BENJAMIN K. LYMAN, Chicago, Ill., assignor to Benjamin K. Lyman & Co., Chicago, Ill. Filed Feb. 10, 1913. Serial No. 747,455. (Cl. 248—38.)



A Christmas tree support, comprising a shallow sheet metal vessel, open at its top and adapted to contain water, a tree seat in the bottom of the vessel, and tree supporting bars arranged to be secured to the tree at their free ends, said bars being of less length than the diameter of the vessel and hinged to the sides thereof so that they may be folded into the same.

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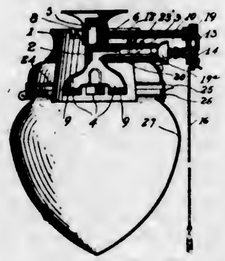
1,091,001. SOUND-BOX. THOMAS H. MACDONALD, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed July 21, 1910. Serial No. 573,061. (Cl. 181—11.)



A sound-box comprising an integral cup with a central opening and having around the periphery of the floor of its concavity an annular groove and near the top of the cup an annular recess, two lugs projecting outwardly from the walls of said cup, two yielding gaskets in said concavity, one of which is located in said groove, a diaphragm interposed between said gaskets, a split ring having an outwardly projecting peripheral flange, which ring rests upon said second gasket with its flange in said recess to hold said gaskets and said diaphragm in place, said flange being of less thickness than the width of said recess to provide a clearance to permit of the ready removal of said ring, a reproducing needle lying in the plane of said diaphragm and extending radially therefrom, a stylus-lever connecting said diaphragm and said needle, said lever being provided with a pivot lying in the plane of the needle and the diaphragm and having bearing in said lugs, substantially as described.

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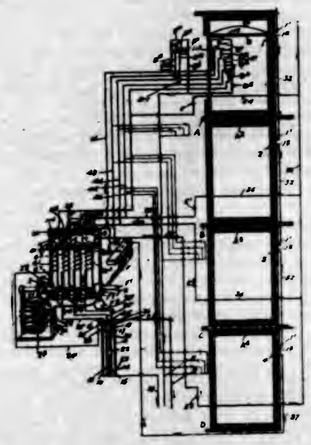
1,091,002. INVERTED GAS-LIGHT. JULIUS H. MAERTIN, Chicago, Ill. Filed May 19, 1913. Serial No. 768,497. (Cl. 158—118.)



In a gas burner, a mixing chamber, a nozzle for directing a jet of gas thereinto, a mixer arranged within said mixing chamber in the path of said jet of gas, said mixer comprising a single strip of sheet metal having one end curved and provided with a plurality of fingers through which the jet of gas is adapted to pass for spreading the same to cause it to intermingle thoroughly with the air drawn into said chamber.



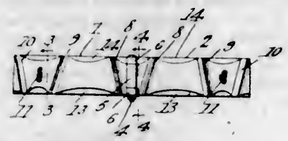
1,091,003. ELECTRICALLY-CONTROLLED ELEVATOR. THOMAS GABRIEL MASON, Toronto, Ontario, Canada. Filed Dec. 10, 1910. Serial No. 596,671. (Cl. 172—152.)



In a controlling device for electric elevators comprising a push button located at each floor in proximity to the elevator shaft, an electric circuit comprising the main feed wire leading through the elevator shaft, the up and down wires, branch wires leading from the main feed wire through the push button to the up and down wires, a switch connection for cutting the push buttons out of circuit, immediately after the car has started into motion, and comprising a knife switch, a rock shaft on which the knife of the switch is mounted, a counter balancing arm and weight connected to the rock shaft, an electric magnetic means for raising the weight up on one of the push buttons being pressed, and a retarding fan mounted on the shaft, and designed to control the gradual descent of the weight, as and for the purpose specified.

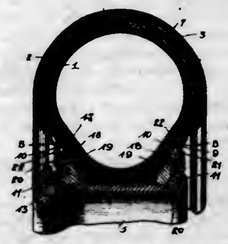
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1,091,004. TRACTION GRIPPING ATTACHMENT FOR WHEELS. WILLIAM JOHN MATTHEWS, Detroit, Mich. Filed July 12, 1913. Serial No. 778,815. (Cl. 152—14.)



A device of this character, including two members, two transversely disposed apertured lugs carried at one end of one of the members and in spaced relation to each other, a single transversely disposed apertured lug carried at one end by the remaining member for axial alinement with the two apertured lugs of the first member, a bolt projecting through the three lugs and hingedly connecting the members together, said bolt and the lugs constituting a transversely disposed traction rib at the junction of the members, the inner face of both members being concaved to receive the tread surface of a tire, a plurality of transversely disposed ribs carried upon the outer face of each member, a chain attaching lug carried upon the outer face adjacent the free end of each member, and a chain connected to each lug for embracing the rim and tire of a wheel to secure the device in place, the ribs of each member being inclined relatively to the longitudinal length of the members and the edges of the member between the ribs being beveled.

1,091,005. AUTOMOBILE-TIRE. ELLIHU G. MCDILL, Sparta, Ill. Filed Dec. 18, 1912. Serial No. 737,461. (Cl. 152—17.)

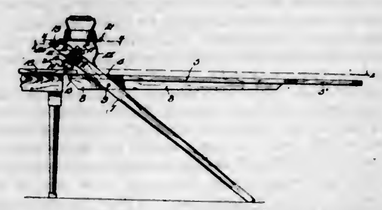


1. In a tire of the class described, a tire shoe adapted to be mounted upon a rim and including a flexible tread portion of metallic mesh, annular members attached to the side edges of the mesh, a pair of annular attaching members adapted to be mounted upon the rim and having lateral flanges adapted for engagement with the rim flanges, each attaching member being disposed adjacent to and inwardly of one of the said annular members of the tire tread, a plurality of attaching links formed upon each annular member of the tread so as to project radially with respect thereto, a locking element mounted upon each attaching member for circumferential movement with respect thereto, and a plurality of fingers provided upon each locking element having circumferentially extending portions adapted for engagement within the attaching links of the adjacent annular member of the tread.

2. In a tire of the class described, a tire shoe adapted to be mounted upon a rim and including a flexible tread portion of metallic mesh, annular members attached to the side edges of the mesh, a pair of annular attaching members adapted to be mounted upon the rim and having lateral flanges adapted for engagement with the rim flanges, each attaching member being disposed adjacent to and inwardly of one of the said annular members of the tire tread, a plurality of attaching links formed upon each annular member of the tread so as to project radially with respect thereto, a locking element mounted upon each attaching member for circumferential movement with respect thereto, a plurality of fingers provided upon each locking element having circumferentially extending portions adapted for engagement within the attaching links of the adjacent annular member of the tread, and means for limiting the circumferential movement of the locking element upon the corresponding attaching member.

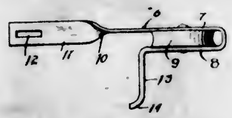
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1,091,006. IRONING-TABLE. FRANK J. MULDOON, West Bend, Wis., assignor of one-half to Henry Lochen, West Bend, Wis. Filed Sept. 28, 1912. Serial No. 722,895. (Cl. 68—10.)



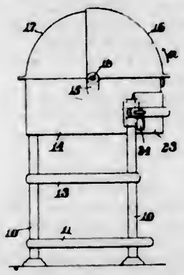
In a folding ironing-table of the type comprising a board and a pivotal center leg which leg extends obliquely above the board when the table is set up, the combination with the leg of a bolt extending through a longitudinal slot of the same adjacent to said end thereof, a clamping-nut on the outer end of the bolt, and a shell non-rotary on said bolt under said leg at right-angles thereto, the shell being curvilinear in cross-section and provided with an under clearance aperture for the head of said bolt.

1,091,007. GUIDE-PULLEY. JOHN MURRAY, Mount Vernon, Minn., assignor of ninety one-hundredths to Andrew Greden, Mount Vernon, Minn. Filed May 14, 1913. Serial No. 767,628. (Cl. 57—34.)



A guide pulley comprising a frame formed from a single length of sheet metal and bent to provide upper and lower spaced plates, a pulley rotatably mounted between the plates, the upper plate being twisted at its inner end to provide a vertically disposed plate which is adapted to be pivotally connected to a support, the lower plate of the frame terminating in a downwardly extending plate, the lower end of which is curved for guiding a rope to the pulley, and a chain for connecting the frame to a support, as and for the purpose set forth.

1,091,008. ASH-BARREL HOLDER. MARGARET NAGLE, Roxbury, Mass. Filed Nov. 6, 1912. Serial No. 729,915. (Cl. 220—115.)



1. In a device of the class described, the combination of an open framework consisting in part of a plurality of vertical members; a platform secured thereto above the lower ends of said members, adapted to support a barrel; a cylindrical jacket on the upper part of said framework adapted to surround the upper end of the barrel and provided with an opening in its lower edge; a door for closing said opening; and a hood above said jacket.

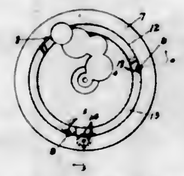
2. In a device of the class described, the combination of an open framework consisting in part of a plurality of vertical members; a platform secured thereto adapted to support a barrel; a cylindrical jacket on the upper part of said framework having an inwardly extending flange adapted to surround and contact with the upper end of the barrel and provided with an opening in its lower edge; a door for closing said opening; and a hood above and pivoted to said jacket adapted to be moved about said pivot to give access to said barrel.

3. In a device of the class described, the combination of a framework; a platform secured thereto adapted to support a barrel; a cylindrical jacket on said framework adapted to surround the upper end of the barrel and provided with an opening in its lower edge; an annular flange extending downwardly from the upper inner wall of said jacket over the edge of said barrel; a door for closing said opening; and a hood above said jacket.

4. In a device of the class described, the combination of a framework; a platform secured thereto adapted to support a barrel; a cylindrical jacket on said framework adapted to surround the upper end of the barrel and provided with an opening in its lower edge; an annular flange extending downwardly from the upper inner wall of said jacket; means on said jacket for positioning a barrel beneath said downwardly extending flange; a door for closing said opening; and a hood above said jacket.

5. In a device of the class described, the combination of a plurality of vertical members; an annular barrel supporting platform secured to said vertical members above the lower ends thereof; a stiffening member connecting the front vertical members with a rear vertical member; a cylindrical member secured to the upper ends of said vertical members having a front opening therein extending upwardly from its lower edge to a point below its upper edge; a door for closing the front opening; and a hood for said cylindrical jacket adapted to give access to said barrel.

1,091,009. WATCH-DIAL FASTENER. EMIL NELSON, Portland, Oreg. Filed Oct. 2, 1912. Serial No. 723,621. (Cl. 58—127.)

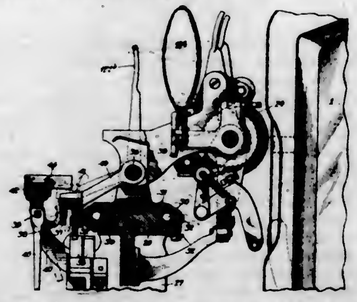


1. In a watch movement, a pillar plate provided in its front face with a circumferentially extending groove, and with a recess in its rear face at one side of and adjoining said groove, a ring like locking member mounted within the said groove for sliding movement and having a toothed portion at one side edge thereof, a dial plate resting directly upon the front face of the pillar plate, means on the dial plate to be engaged by the locking ring to hold the dial in place, and actuating means for the locking ring including a pinion mounted in the said recess and engaging the toothed portion of the ring, said pinion having an operating stem projecting rearwardly of the pillar plate.

2. In a watch movement, a pillar plate, a dial plate, locking means housed between the faces of the pillar plate and engaging the dial plate, and means for actuating said locking means to engage and disengage the dial plate.

3. In a watch movement a pillar plate, a ring like locking member housed between the faces of the pillar plate, a dial plate engaged by the locking member, and means operating between the faces of the pillar plate for engaging the locking member to bring the same into and out of engagement with the dial plate.

1,091,010. CARRIAGE-STOP MECHANISM FOR TYPEWRITERS. ENOS S. NEWMAN, Washington, D. C., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Original application filed Feb. 7, 1901, Serial No. 46,379. Divided and this application filed Nov. 15, 1901, Serial No. 82,442. Renewed Aug. 30, 1913. Serial No. 787,519. (Cl. 197—176.)



1. The combination in a typewriting machine of the frame including rearwardly projecting stationary brackets, the carriage slidably mounted on the frame, rearwardly projecting arms pivoted to the carriage, the feed rack carried at the ends of the pivoted arms, a tabulating rail fixedly mounted in the rearwardly projecting brackets, removable stops on said tabulating rail, an arm pivoted in said brackets and projecting forwardly under the feed rack, and means for rocking the arm to raise the feed rack for contact with one of said stops.

2. The combination in a typewriting machine with the frame and the carriage slidably mounted thereon, of pivoted arms projecting rearwardly from the carriage, the feed rack carried at the ends of said pivoted arms and having a stop projection, a tabulating rail mounted in the frame in the rear of and above the normal position of the feed rack and having a stop projecting over the latter for coöperation with its stop projection, a lever pivoted in the frame in the rear of the rack projecting forwardly under the same, and means for operating said lever to raise the rack from its normal position.

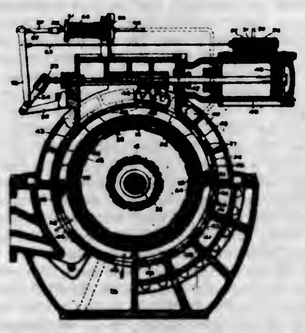
3. The combination in a typewriting machine with the frame and the carriage slidably mounted thereon, of arms pivotally mounted on the carriage, the feed rack secured to the arms, said rack being provided with an integral lug on its upper face and having a rearwardly projecting portion with smooth under surface, brackets projecting rearwardly from the frame, an arm pivoted in the brackets and projecting forwardly and carrying a roller under said smooth surface, a tabulating rail mounted in the brackets and having rack teeth in its front and rear edges, a stop removably secured upon the tabulating rail and adjustable in its rack teeth, and means for operating the roller lever to raise the feed rack to bring its lug into line with said stop when in position on the rail.

4. The combination, with a longitudinally movable carriage and with escapement mechanism, of a longitudinal bar carried by and arranged to oscillate upon the carriage, said bar being normally under the control of the escapement mechanism, means for oscillating said bar at the will of the operator, and an adjustable fixed stop with which said bar is arranged to coöperate, the oscillation of the bar disengaging it from the escapement mechanism and moving a portion of it into line with said stop.

5. The combination, with a longitudinally movable carriage and with escapement mechanism, of a longitudinal bar carried by and arranged to oscillate upon the carriage, said bar being normally under the control of the escapement mechanism, means for oscillating said bar at the will of the operator, comprising a lever having one arm movable in the path of the bar, and an adjustable fixed stop with which said bar is arranged to coöperate, the oscillation of the bar disengaging it from the escapement mechanism and moving a portion of it into line with said stop.

[Claims 6 to 14 not printed in the Gazette.]

1,091,011. ELASTIC-FLUID TURBINE. FRED E. NORTON, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 31, 1913. Serial No. 757,809. (Cl. 121—118.)



1. The combination with a multi-stage turbine, of a supply valve, a valve for regulating the passage of fluid between stages, said valve having ports which are normally active in supplying fluid to a later stage and also a port that is normally inactive for conveying exhaust fluid from one of the rotors to a chamber, a motor for operating the valve, a means sensitive to pressure changes in one of the stages for normally controlling the motor, and means for rendering said pressure means inoperative and causing the motor to move the valve to a position where the exhaust port is active.

2. The combination in a typewriting machine with the supply valve, a valve for regulating the passage of fluid between stages, said valve having ports which are normally active in supplying fluid to a later stage and also a port that is normally inactive for conveying exhaust fluid from one of the rotors to a chamber, a motor for operating the valve, a means sensitive to pressure changes in one of the stages, a controller for the motor that is connected to and actuated by said pressure responsive means, and means for modifying the connection between the pressure means and the controller for causing the motor to move the valve to the position where said exhaust port is open.

3. The combination with a multi-stage turbine, of a supply valve, a valve for regulating the passage of fluid between stages, said valve having ports which are normally active in supplying fluid to a later stage and also a port that is normally inactive for conveying exhaust fluid from one of the motors to a chamber, a motor for operating the valve, a means sensitive to pressure changes in one of the stages for normally controlling the motor, a floating lever that is moved by the motor and is attached to the pressure responsive means, and means interposed between the lever and pressure means for rendering the pressure sensitive means inactive and causing the motor to move the valve to one of its extreme positions.

4. The combination with a multi-stage turbine, of a supply valve, a valve for regulating the passage of motive fluid between stages, said valve having ports for supplying fluid from one stage to another and a normally inactive port for conveying exhaust from one of the stages when the turbine is operating non-condensing, a motor for operating the valve, a pilot valve for controlling the motor, a means movable in response to changes in stage pressure, a floating lever that is moved by the motor and is connected to the pressure sensitive means and to the pilot valve, and a two-position device that pivotally unites the lever and means and is so arranged that when in one of its positions said means controls the motor through the pilot valve and when in its other position the means is rendered inoperative and the pilot valve moved to a position to cause the motor to move to one of its extreme positions.

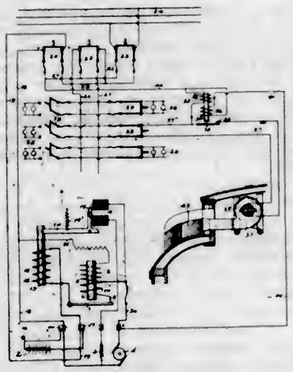
5. The combination with a multi-stage turbine, of a supply valve, a valve for regulating the passage of motive fluid between stages, said valve having ports for supplying fluid from one stage to another and a normally inactive port for conveying exhaust from one of the stages when the turbine is operating non-condensing, a motor for operating the valve, a pilot valve for controlling the motor, a means movable in response to changes in stage pressure, a floating lever that is moved by the motor and is connected to the pressure sensitive means and to the pilot valve, and an eccentric that pivotally unites the lever and means and which is so arranged that when turned it changes the relation between the pressure sensitive means and the pilot valve.

[Claims 6 to 14 not printed in the Gazette.]

1,091,012. ELECTRICAL SWITCH MECHANISM, ROBERT W. PACHALY, Chicago, Ill., assignor of one-half to Thomas H. Garland, Chicago, Ill. Filed Feb. 15, 1913. Serial No. 748,540. (Cl. 171—313.)

1. In an electrical system for railway trains, the combination of a current supply circuit, a dynamo operated by the train when in motion to supply current to said circuit, a battery for supplying current to said circuit when the train is at rest, an electrical device having a circuit adapted for connection with said supply circuit, a switch

for controlling said electrical device circuit, an electro-magnet for controlling said switch, two windings for said electro-magnet one winding being connected to receive current from said battery to cause energization to effect closure of said switch and the second winding being connected directly with said dynamo and wound in opposition to said first winding whereby when said dynamo is operated by the train when moving the energization by said first winding will be counter-acted and said electro-magnet deënergized to allow opening of said switch and thereby disconnection of said electrical device from circuit.



2. In an electrical system for railway trains, the combination of a main supply circuit, a battery connected with said main circuit, a dynamo operated by the train when in motion, means for effecting electrical connection of said dynamo with said main circuit when the train has reached a predetermined speed, an electrically driven device and a circuit therefor for effecting connection thereof with the main circuit and thereby with said battery, an electro-magnet device having an armature for controlling the continuity of said electrical device circuit, a winding for said electro-magnet connected with said battery for energizing said electro-magnet to cause its armature to close said electrical device circuit when the train is running below said predetermined speed, a second winding for said electro-magnet, and a circuit directly connecting said dynamo with said second winding and for causing current flow through said second winding in opposition to the current flow through said first winding when the train starts, said windings being so proportioned that said second winding will entirely neutralize said first winding when the train reaches said predetermined apeed whereby said armature will be released and said electrical device circuit opened.

3. In an electrical system for railway trains, the combination of a main supply circuit, a battery permanently connected with said supply circuit, a dynamo connected to be driven by the train when in motion, electro-magnetic means for effecting connection of said dynamo with said main circuit when the train reaches a predetermined speed and the voltage generated by said dynamo becomes equal to or greater than the battery voltage whereby said main circuit will be fed from said dynamo and said battery charged, an electrical device and a circuit for connecting said device with said main circuit, an electro-magnetic switch mechanism having an armature for controlling the continuity of said electrical device circuit, a winding for said electro-magnetic switch mechanism connected with said main circuit to receive current flow from the battery before the dynamo becomes effective and to thereby attract the armature to close the electrical device circuit, a second winding for said electro-magnetic switch mechanism, and a circuit for connecting said second winding directly with the dynamo and independently of said main circuit, said windings being differentially applied so that current flow from the dynamo through said second winding will act in opposition to the current flow through the first winding and said windings being proportioned so that the energizing effect of the first winding will be completely neutralized when the train reaches said predetermined speed.

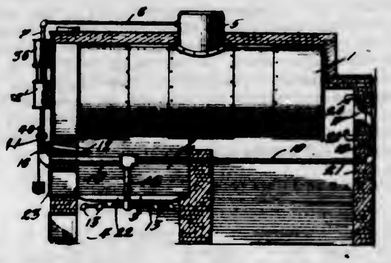
4. In an electrical system for railway trains, the combination of one source of current for supplying current when the train is at rest, a second source of current operative only when the train is in motion, an electrical device, a circuit connecting said electrical device with said first source, electro-magnetic switch mechanism for controlling said circuit, a winding for said electro-magnetic switch mechanism connected with said first source to energise said switch mechanism to close said circuit, and a second winding for said electro-magnetic switch connected with said second source and receiving current from said second source in the direction to effect counted-energization of said electro-magnet switch device and complete neutralization thereof when the train reaches a certain speed whereby said electrical device circuit is opened.

5. In an electrical system for railway trains, the combination of an electrical device, a source of current, an electro-magnetic switch device for controlling the connection of said electrical device with said source, said electro-magnet device having two differentially applied windings, one of said windings being connected with said source to effect energization to cause closure of the electrical device circuit, and a second source of current controlled by the train in running and connected with the second winding whereby said electro-magnetic switch device is deënergized to cause opening of the electrical device circuit when said second source of current is set in operation by the moving train.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,013. SMOKE-CONSUMER. JAMES A. PACKARD, Milwaukee, Wis. Filed July 25, 1910. Serial No. 573,630. (Cl. 110—52.)



1. In a device of the described class, the combination of a steam generator, a combustion chamber, a grate, a nozzle having its discharge end in said combustion chamber, a steam duct leading from the steam space in the boiler to said nozzle, a duct for establishing communication from the ash pit beneath the grate to said nozzle above the grate, a plurality of branch ducts so arranged as to effect a substantially uniform down draft throughout the area of the fuel bed connected with said last named duct, an additional duct for establishing communication from the smoke flue near the rear end of the boiler with the duct leading to said nozzle, and means for controlling the admission of steam through said steam duct to said nozzle, whereby when said nozzle is in action for a predetermined period of time after the furnace door is closed, a down draft is produced through the grate, and the distilled gases of fresh fuel are consumed.

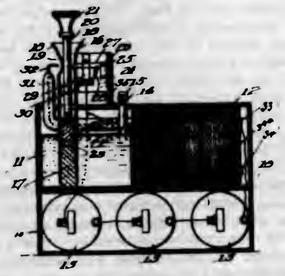
2. In a device of the described class, the combination of a steam generator, a combustion chamber, one or more nozzles having their discharge ends in said combustion chamber, a steam duct leading from the steam space in the boiler to said siphon nozzles, a duct having open communication from the ash pit beneath the grate to said nozzles above the grate, a plurality of branch air ducts located in close proximity with the lower side of the grate so arranged as to effect a substantially uniform draft through the fuel bed communicating with said duct, an additional duct communicating from the smoke flue near the rear end of the boiler with said duct, a valve located in said steam duct for controlling the admission of steam from the boiler to said nozzles, means for opening said steam valve, and means for closing said valve after the same has remained open a predetermined time.



3. In a device for producing a down draft from the combustion chamber of a steam generator through the fuel and fuel supporting grate to the ash pit, the combination of a steam generator, a combustion chamber, one or more nozzles having their discharge ends in the combustion chamber, a steam duct leading from the steam space in the boiler to said nozzles, a duct for establishing communication between said ash pit beneath the grate and said nozzles above the grate, a plurality of branch air ducts located in close proximity with the lower side of the grate in open communication with said duct, an additional duct communicating from the smoke flue near the rear end of the boiler with said hot air duct, air ducts communicating from the exterior on the rear end of the furnace with said additional duct, a valve located in said steam duct for controlling the admission of steam from the boiler to said nozzles and means for opening said valve and means for closing said valve after it has been opened a predetermined time.

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1,091,014. CIGAR-LIGHTER. GEORGE F. PALDANI, Waukegan, Ill. Filed Dec. 9, 1912. Serial No. 735,765. (Cl. 175—296.)



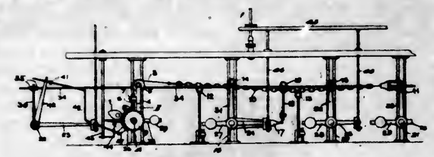
1. In an electric cigar-lighter, a fuel tube having a slit and an opening in its outer end, a bracket mounted on the tube, a pivoted circuit-controlling finger carried by the bracket and projecting into the tube through the aforesaid slit, a contact in the path of the finger, a torch removably mounted in the tube and having a head into the path of which the finger extends, and a sparking terminal located opposite the aforesaid opening in the tube, past which opening the torch is movable.

2. In an electric cigar-lighter, a fuel tube having a slit and an opening in its outer end, a bracket mounted on the tube, a pivoted circuit-controlling finger carried by the bracket and projecting into the tube through the aforesaid slit, a contact toward and from which the finger is movable, said finger being normally disengaged from the contact, a torch removably mounted in the tube and having a head which engages the finger when the torch is removed from the tube, to carry the finger against the contact, means for restoring the finger to its normal position when the head of the torch clears the same, and a sparking terminal located opposite the aforesaid opening in the tube past which opening the torch is movable.

3. In an electric cigar lighter, a fuel tube having a side opening adjacent to its outer end, a pivoted primary-circuit controlling finger projecting into the tube, a contact on the outside of the tube in the path of said finger, a torch removably mounted in the tube and having a head into the path of which the aforesaid finger extends, and a secondary sparking terminal located opposite the aforesaid opening in the tube, past which opening the torch is movable.

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1,091,015. BUILDING-MOTION FOR RING-SPINNING MACHINES. JOSEPH POISSON, Fall River, Mass., assignor, by direct and mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 5, 1911. Serial No. 625,315. (Cl. 118—1.)



1. A ring spinning frame having, in combination, a ring rail; rockers operatively connected with the ring rail and having connected rocker arms 11 and 42; a cam-actuated swinging builder arm 4; a nut 7, sliding on said builder arm; a pick chain connected at one end to said nut and at its other end to the rocker arm 11; supports 12, and 13, for the pick chain between said builder arm 4, and said rocker arm 11; a bearer 19, above the pick chain and located in a plane between said supports 12, and 13, said bearer being operatively connected with the ring rail to rise and fall therewith, and to produce a bight in said pick chain when the ring rail is at and near its lowest position; a pick wheel operatively connected with said nut to gradually feed the pick chain as the spinning progresses; a movable pawl which feeds said pick wheel; a movable shield governing the effective stroke of said pawl; a rod 40, connected with said shield having a stop 41, which is encountered by said rocker arm 42, when the ring rail is at and near its lowest position; a weight moving the shield in opposition to said arm 42; and a stop 44, which limits the movement of the shield caused by said weight.

2. A ring spinning frame having, in combination, a ring rail; a rocker operatively connected with the ring rail and having a rocker arm 11; a cam-actuated swinging builder arm 4; a nut 7, sliding on said builder arm; a pick chain connected at one end to said nut and at its other end to the rocker arm 11; supports 12, and 13, for the pick chain between said builder arm 4, and said rocker arm 11; and a bearer 19, above the pick chain and located in a plane between said supports 12, and 13, said bearer being operatively connected with the ring rail to rise and fall therewith, and to produce a bight in said pick chain when the ring rail is at and near its lowest position.

3. A ring spinning frame having, in combination, a ring rail; a rocker operatively connected to move with the ring rail and having a rocker arm 42; a pick chain; a pick wheel operatively connected with said pick chain to gradually feed the pick chain as the spinning progresses; a movable pawl which feeds said pick wheel; a movable shield governing the effective stroke of said pawl; a rod 40, connected with said shield having a stop 41, which is encountered by said rocker arm 42, when the ring rail is at and near its lowest position; a weight moving the shield in opposition to said arm 42; and a stop 44, which limits the movement of the shield caused by said weight.

4. A ring spinning frame having, in combination, a ring rail; a rocker operatively connected with the ring rail and having a rocker arm; a cam-actuated builder motion; a pick chain connected at one end to said builder motion and at its other end to said rocker arm; supports for the pick chain between said builder motion and said rocker arm; and a bearer above the pick chain and located in a plane between said supports, said bearer being operatively connected with the ring rail to rise and fall therewith, and to produce a bight in said pick chain when the ring rail is at and near its lowest position.

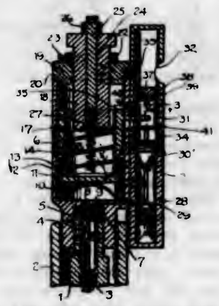
5. A ring spinning frame having, in combination, a ring rail; actuating mechanism therefor; a builder motion; a

pick chain connected at one end to said builder motion and at its other end to said actuating mechanism; and a bearer operatively connected with and depressed by the ring rail to produce a bight in said pick chain between said actuating mechanism and said builder motion when the ring rail is at and near its lowest position.

[Claim 6 not printed in the Gazette.]

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1,091,016. ALARM FOR PNEUMATIC TIRES. JOSEPH B. POLO, Clear Lake, S. D. Filed Jan. 4, 1913. Serial No. 740,249. (Cl. 116—1.)



1. A pneumatic signal removably engaged with the end of a valve tube and comprising a chamber, a sliding thimble within the chamber, a cylinder carried by the chamber and having communication therewith, a second cylinder carried by the chamber and in alinement with the first cylinder, the adjacent walls of the chamber and the second cylinder being provided with registering openings, a stud carried by the thimble and projecting through the registering openings and into the second chamber, a check valve carried by the first cylinder, the second cylinder having an air escape opening and a plate therein and located adjacent said opening, means for sliding the thimble in one direction upon increase of the pressure within the valve stem, means for limiting movement of the thimble in this direction, means for sliding the thimble in an opposite direction upon a decrease of the pressure in the valve stem, means for limiting movement of the thimble in this direction, and means carried by the second cylinder for operating the check valve in the first cylinder to permit air to travel from the first cylinder to the second cylinder and pass the plate to the atmosphere by means of the air escape opening to give a signal upon movement of the sliding thimble.

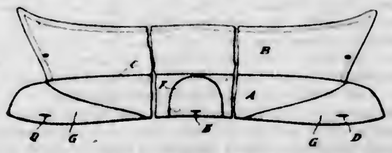
2. A pneumatic signal comprising the combination with a valve controlled tube, of a chamber positioned on the end of the tube and communicating therewith, a cylinder carried by the chamber and communicating with one end thereof, a check valve in the cylinder, a second cylinder carried by the chamber and in alinement with the first cylinder, said cylinders being connected at their open ends, the second cylinder having an air escape opening, a plate positioned in the second cylinder below the air escape opening, a rock arm pivoted to the plate and having a depending end, a right angled slide member having one arm engaged against the straight end of the rock arm, the other arm of the slide member being engaged against the check valve in the first cylinder, a thimble within the chamber, a stud carried by the thimble and projecting into the second cylinder, said stud being normally spaced between the rock arm and the slide member, means carried by the chamber for forcing the thimble downwardly upon decrease of the pressure within the tube, the stud being adapted to engage the slide member to force the same downwardly and open the check valve to give the signal upon downward movement of the thimble, means for forcing the thimble upwardly and causing the stud to engage the depending end of the rock arm to operate the slide member and give the signal upon an increase of the pressure above a predetermined point, and means for controlling movement of the thimble.

3. A pneumatic signal removably engaged with the end of a valve tube and comprising a chamber, a sliding thimble within the chamber, a cylinder carried by the chamber and having communication therewith, a second cylinder in alinement with the first cylinder and communicating with the same, the chamber and second cylinder having registering openings forming communication between said chamber and second cylinder, a check valve carried by the first cylinder, the second cylinder having an air escape opening and a plate adjacent said opening and within the cylinder, a pivoted member carried by the plate, a slidable member between the pivoted member and the check valve in the first cylinder, and means carried by the sliding thimble and projecting into the second cylinder for engagement with the slidable member when the thimble is moved in one direction upon decrease of pressure within the valve stem, said thimble being adapted to be moved in an opposite direction upon increase of the pressure, the means carried by the thimble being adapted to engage the pivoted member when the thimble is moved in the last mentioned direction, the signal being given by the slidable member opening the check valve in the first cylinder to permit air to travel from said first cylinder to the second cylinder and pass the plate to the atmosphere by means of the air escape opening, and means for resiliently retaining the thimble in normal position.

4. A pneumatic signal comprising the combination with a valve controlled tube, of a chamber positioned on the end of the tube and communicating therewith, a cylinder carried by the chamber and communicating with one end thereof, a check valve in the cylinder, a second cylinder carried by the chamber and removably engaged with one end of the first cylinder, said cylinders having their connected ends open to form communication between said cylinders, the second cylinder having an air escape opening, a plate carried by the second cylinder below the air escape opening, a right angled rock member pivoted by one of its arms to the plate while its other arm depends from the first arm adjacent the chamber, the chamber and second cylinder having registering openings forming communication between said chamber and cylinder, the free end of the depending arm of the right angled rock member extending below said registering openings, a right angled slide member having its long arm engaged against the first mentioned arm of the rock member, the other arm of the slide member being engaged against the check valve in the first cylinder, a thimble within the chamber, a stud carried by the thimble and projecting into the second cylinder, said stud being normally spaced between the depending arm of the rock member and one arm of the slide member, means carried by the chamber for forcing the thimble downwardly upon decrease of the pressure within the tube, the stud being adapted to engage the slide member to force the same downwardly and open the check valve to give the signal upon downward movement of the thimble, means for forcing the thimble upwardly and causing the stud to engage the depending arm of the rock member to operate the slide member and give the signal upon an increase of the pressure above a predetermined point, and means for controlling movement of the thimble.

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1,091,017. COLLAR. EDWARD J. QUIGLEY, Newark, N. J. Filed Apr. 2, 1913. Serial No. 758,300. (Cl. 2—67.)



1. A soft turned down collar comprising an inner neckband portion having button holes at its ends and middle and an outer turned down portion, and stiffening means secured to said neckband around said button holes and extending to the top of the neckband at the ends and middle, but spaced apart along the top of the neckband, whereby the top of the neckband is supported at the ends and middle but remains soft and unstiffened therebetween.

2. A soft turned down collar comprising an inner neckband portion having button holes at its ends and middle and an outer turned down portion, and stiffening means comprising extra plies of cloth secured to said neckband around said button holes and extending to the top of the neckband at the ends and middle, but spaced apart along the top of the neckband, whereby the top of the neckband is supported at the ends and middle but remains soft and unstiffened therebetween.

3. A soft collar comprising a top portion and a neck band having end tabs, button holes in said end tabs and back portion of said neck band, front stiffening members comprising extra plies of cloth secured to said end tabs and extending from the top of said tabs rearwardly to the bottom of said neck band, and a back substantially semicircular stiffening member comprising extra plies of cloth secured to the neck band adjacent the back button hole and extending to the top of said neckband, whereby the upper portion of the neckband is supported at the ends and middle but remains unstiffened therebetween.

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1,091,018. SAFETY-RAZOR. RUDOLPH RABAS, Chicago, Ill. Filed Aug. 5, 1912. Serial No. 713,487. (Cl. 30—12.)



1. A safety razor comprising a holder substantially U-shaped in formation constructed of spring material, the extremities tending to spring apart and being of substantial width with a blade-holding projection on each end of each extremity, and a blade having a single recess at each end the sides of which are engaged by the projections as they spring outwardly.

2. A device of the class described comprising a holder for a double-edged blade having a single recess in each end consisting of a U-shaped member of spring material having the edges of its outer extremities formed with teeth and blade-holding projections and the extremities tending to spring apart to grip the single recess in each end of the blade and the said extremities being bent in opposite directions at the ends and rounded outwardly to form a substantially plane surface at the ends of the holder with the teeth bent slightly downward therefrom.

3. In a device of the class described, a holder for blades comprising a substantially U-shaped member formed of spring material with teeth at the edges of the extremities, the said extremities tending to spring apart and being bent in opposite directions to form a substantially plane surface at the ends of the holder, the said holder being also provided with projections at the opposite ends of each of the extremities which extend outwardly therefrom and project beyond the plane surface formed by the teeth, and a blade with a single recess extending from each end the sides of which are adapted to be engaged and held by the projections when the holder is compressed and allowed to spring apart.

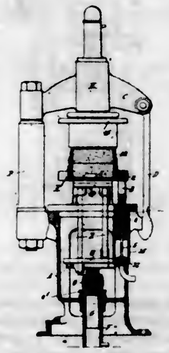
4. In a device of the class described, a holder constructed of spring material substantially U-shaped in form with teeth in the edges at the extremities thereof, the sides being bent inwardly to form a finger hold for said holder and tending to spring apart to dispose the extremities at diverging angles with respect to each other, projections at the edges of each extremity less in length than the teeth and the teeth of each extremity being bent in opposite directions to form a plane supporting surface at the end of the holder with the extremities of the teeth rounded downwardly from said plane, the projections at the edges of said extremities being above the plane and inclined outwardly from each other.

5. In a device of the class described, the combination of a resilient U-shaped holder formed with the extremities bent outwardly with respect to each other and having teeth and projections at the edges of each extremity, the teeth of the extremities being bent in opposite directions to form a plane supporting surface with the projections extending above the plane, and a blade with a single recess extending from each end adapted to be engaged by the projections of the holder as the holder springs outwardly after being compressed.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,019. MOLDING APPARATUS. EUGÈNE RONCERAY, Paris, France, assignor to Societe Anonyme des Etablissements Ph. Bonvillain & E. Ronceray, Paris, France, a Corporation of France. Filed June 20, 1913. Serial No. 774,784. (Cl. 22—28.)



1. A molding machine comprising in combination a relatively fixed pattern support, a movable frame adjacent thereto and together with the support constituting in effect a false flask, a flask above the frame, a ramming member adapted to advance the flask and frame toward the pattern support, a means for drawing the mold, and means whereby the frame is yieldingly held in position adjacent the pattern support.

2. A molding machine comprising in combination a relatively fixed pattern support, a stripping plate, a movable sand frame around the support and plate, a flask on the frame, a ramming member adapted to move the flask and frame toward the support and plate, means for elevating the stripping plate, mold, and flask to draw the mold, and means yieldingly maintaining the frame in operative position around the support and plate.

3. A molding machine comprising in combination a table, a pattern plate and a stripping plate carried thereby, a movable sand frame adapted to retain the sand over the pattern and stripping plates, a flask over the frame, means for moving the flask and frame to ram the sand, means for elevating the stripping plate and with it the mold and flask to strip the mold from the pattern, and a fluid pressure means for yieldingly maintaining the frame in upper position.

4. A molding machine comprising in combination a table, a pattern plate and a stripping plate carried thereby, a movable sand frame adapted to retain the sand over the pattern and stripping plates, a flask over the frame, means for moving the flask and frame to ram the sand,

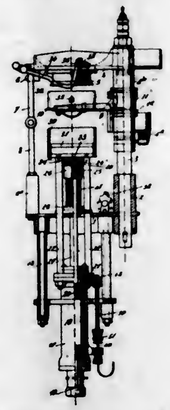
means for elevating the stripping plate and with it the mold and flask to strip the mold from the pattern, and means independent of the means for elevating the stripping plate for yieldingly maintaining the frame in upper position.

5. The combination of a molding machine comprising a table, pattern plate and stripping plate, of a sand frame having telescopic relation with the table and adapted to retain the sand in position over the pattern and stripping plates, means for yieldingly maintaining the frame in upper position, means for ramming the sand, and means elevating the stripping plate to strip the mold.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,020. MOLDING-MACHINE. EUGÈNE RONCERAY, Paris, France, assignor to Societe Anonyme des Etablissements Ph. Bonvillain & E. Ronceray, Paris, France, a Corporation of France. Filed June 20, 1913. Serial No. 774,785. (Cl. 22—26.)



1. In molding apparatus the combination of a ramming member, a cylinder, a hollow piston therein, a second piston in the hollow piston, a flask carried on one of the pistons, a false bottom carried by the other, means for admitting fluid pressure to advance the pistons substantially simultaneously to the ramming member to ram the sand, and means for admitting fluid pressure into the hollow piston above the second piston whereby said pistons move relatively to each other.

2. In molding apparatus the combination of a ramming member, a cylinder, a hollow piston therein, a second piston in the hollow piston, a flask carried on one of the pistons, a false bottom carried by the other, means for admitting fluid pressure in the lower portion of the cylinder to raise both pistons to the ramming member to ram the sand in the flask, means for admitting fluid pressure into the hollow piston above the second piston, whereby the two pistons move relatively with respect to one another.

3. In molding apparatus the combination of a ramming member, a cylinder, a hollow piston mounted in the cylinder, a second piston mounted in the hollow piston, there being a cushion of air beneath the bottom of the second piston, a flask mounted on one of the pistons, a false bottom on the other, means for admitting fluid pressure into the cylinder to raise the pistons toward the ramming member, and means for admitting fluid pressure into the hollow piston above the second piston.

4. In molding apparatus the combination of a frame, a ramming member, a cylinder on the frame, a hollow piston in the cylinder, a second piston in the first piston, a flask carried by one of said pistons, a false bottom carried by the other piston, means for admitting fluid pressure into the cylinder to elevate the pistons toward the ramming member, means for admitting fluid pressure into the hollow piston above the second piston, and means for limiting the downward movement of the second piston.

5. In molding apparatus the combination of a ramming block, a hollow movable member, a piston member in said hollow member, a flask carried by one of said members, a false bottom carried by the other, means for elevating the movable member toward the ramming block, and means for admitting fluid pressure into the hollow member above the piston member whereby said members are moved relative to each other.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,021. ELECTRIC IGNITION-FUSE. KONRAD SCHAFFLER, *rekte* GLÖRSL, Vienna, Austria-Hungary. Filed Oct. 1, 1912. Serial No. 723,326. (Cl. 102—10.)



1. An electric ignition fuse, comprising a casing, a charge chamber therein, electrical conductors for effecting ignition in said chamber, and an insulating disk back of the charge chamber for maintaining the conductors insulated and operating upon ignition of the charge to short circuit the conductors.

2. An electric ignition fuse, comprising a casing, a charge chamber therein, conductors for effecting ignition in said chamber, and an insulating disk behind the chamber and forming the rear wall of said chamber, said disk maintaining said conductors insulated and operating to short circuit the conductors upon ignition of the charge.

3. An electric ignition fuse, comprising a casing, a charge chamber therein, conductors for effecting ignition in said chamber, and an insulating disk behind the chamber having a peripheral flange and forming the rear wall of said chamber, said disk maintaining said conductors insulated and operating to short circuit the conductors upon ignition of the charge.

4. An electric ignition fuse, comprising a casing, a charge chamber therein, conductors for effecting ignition in said chamber, and an insulating disk behind the chamber having a peripheral flange directed into the charge chamber and in frictional engagement with said casing and forming the rear wall of said chamber, said disk maintaining said conductors insulated and operating to short circuit the conductors upon ignition of the charge.

5. An electric ignition fuse, comprising a casing, a charge chamber therein, electrical conductors for igniting the charge, and terminating in said chamber, an insulating disk for maintaining the conductors spaced apart, and means on the conductors actuated by said disk upon explosion of a charge in said chamber to short-circuit the conductors.

[Claims 6 to 8 not printed in the Gazette.]

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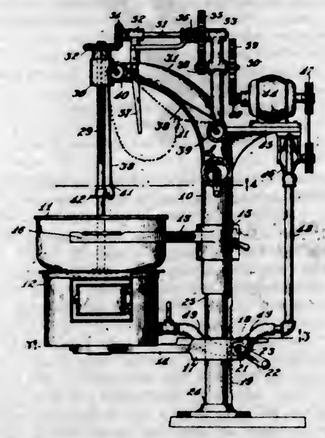
1,091,022. CANDY-MAKING MACHINE. PETER H. SCHLUETER, Chicago, Ill. Filed Feb. 5, 1913. Serial No. 746,292. (Cl. 127—4.)

1. In a candy making machine, in combination, a standard, a kettle supporting arm and a furnace supporting arm mounted on said standard at different levels, one of said arms being both angularly and vertically movable, and elevating means acting on said movable arm independent of its angular position.

2. In a candy making machine, in combination, a standard, a kettle supporting arm and a furnace supporting arm mounted on said standard at different levels, the furnace supporting arm being both vertically and angularly movable, and elevating means acting on the furnace supporting arm independent of its angular position.



3. In a candy making machine, in combination, a standard, a kettle supporting arm mounted thereon, a furnace supporting arm slidingly mounted on the standard below the kettle supporting arm, and crank operated means for raising and lowering the furnace supporting arm.

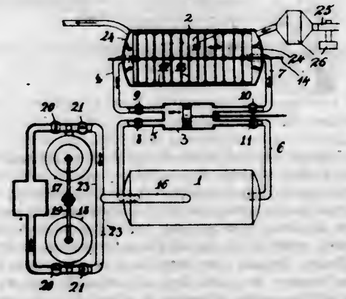


4. In a candy making machine, in combination, a standard having an upwardly facing stop shoulder, an angularly movable furnace supporting arm running on the standard above said shoulder, a gear rack resting on the said shoulder and extending upwardly therefrom through the arm whereby the rack is shifted upon the angular movement of the arm, crank and gear mechanism mounted in the said arm for engagement with said rack, and a kettle supported by the standard above the furnace supporting arm.

5. In a candy making machine, in combination, a standard having an upwardly facing stop shoulder, a kettle supporting arm and a furnace supporting arm carried by said standard at different levels, one of said arms being angularly movable and running on the standard above the said stop shoulder, a gear rack resting on the stop shoulder and extending upwardly therefrom through the angularly movable arm whereby the rack is shifted upon the angular movement of said arm, and crank and gear mechanism mounted in the angularly movable arm for engagement with said rack.

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1,091,023. SEPARATING MIXTURES OF GASES. ALF SINDING-LARSEN, Christiania, Norway. Filed Mar. 26, 1910. Serial No. 551,679. (Cl. 23—10.)



1. The process of separating oxygen containing constituents of gas mixtures, which comprises passing the gas mixture through an absorption chamber supplied with a solution containing hemoglobin, said solution presenting a large surface to the action of the mixture, subjecting the resulting compound containing an oxygen containing gas in a second chamber to the action of a lower pressure to remove the gas contained therein, and returning the solution again to the absorption chamber for the absorption of a fresh quantity of gas.

2. The process of separating oxygen containing constituents of gas mixtures, which comprises passing the mixture at a pressure slightly above atmospheric pressure through an aborption chamber supplied with a solution containing hemoglobin, said solution presenting a large surface to the action of the mixture, and then subjecting the resulting compound to evacuation to liberate the oxygen containing gas contained in said compound.

3. The process of separating oxygen containing gases from mixtures of gases, which comprises absorbing the gases by blood, maintaining the blood sterile during the process, and then removing the absorbed gas by evacuation.

4. The process of separating oxygen containing gases from mixtures of gases, which comprises conducting the gas mixture into a closed chamber in contact with blood, maintaining the blood sterile during the process and exhausting the absorbed gas from the blood in a separate closed chamber.

5. The process of separating oxygen containing gases from mixtures of gases, which comprises absorbing the gases by blood, maintaining the blood sterile during the process by the action of light thereon, and then removing the absorbed gas by evacuation.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,024. SHAFT ATTACHMENT. JAMES H. SMITH, Buckeystown, Md. Filed Jan. 7, 1914. Serial No. 810,778. (Cl. 21—27.)



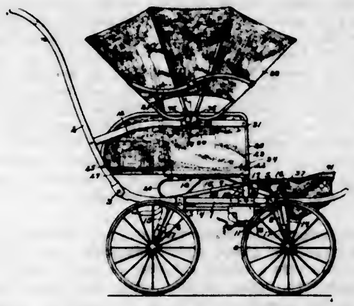
In a device of the character described, the combination of a vehicle shaft, an elongated transversely curved plate formed of spring material and adapted to be fitted to the shaft, said plate being provided at opposite ends thereof with outwardly projecting eyes, clamping plates applied to opposite sides of the shaft and overlapping the edges of the first mentioned plate, fastening members for securing the plates in position upon the shaft, and oppositely extending strap connections provided with means for detachably engaging the respective eyes of the first mentioned plate.

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1,091,025. COLLAPSIBLE CARRIAGE. CHRISTOPHER S. SPOFFORD and JAMES A. HENRY, Sturgis, Mich., assignors to Sturgis Steel Go-Cart Co., Sturgis, Mich. Filed Sept. 1, 1911. Serial No. 647,256. (Cl. 21—88.)

1. In a collapsible carriage, the combination with a running gear frame, of collapsible wheel supports; levers for actuating said wheel supports, pivotally mounted on said running gear frame; a handle pivotally mounted on said frame to collapse forwardly thereon; links connecting said handle and levers whereby the wheel supports are collapsed and erected upon the collapsing and erecting of the handle; sides pivotally mounted on the said levers and handle, said sides being arranged on the inside of said links and handle and on the outside of said levers, said levers being offset at their upper ends, the forward ends of the sides being slotted to receive said offsets when the carriage is erected; side bars for said sides, mounted on the side supporting pivots; a collapsible top mounted upon said links, said top being adapted when collapsed to embrace the rear ends of the sides, said handle being adapted when collapsed to swing over said top and sides; a seat mounted on said running gear frame between said sides and independently thereof and independently of said levers and handle; a back mounted on

said seat to fold forwardly thereon between said sides; and connections for said back to said levers whereby said back is automatically collapsed and erected upon the collapsing and erecting of the handles.



2. In a collapsible carriage, the combination with a running gear frame, of collapsible wheel supports; levers for actuating said wheel supports, pivotally mounted on said running gear frame; a handle pivotally mounted on said frame to collapse forwardly thereon; links connecting said handle and levers whereby the wheel supports are collapsed and erected upon the collapsing and erecting of the handle; sides pivotally mounted on the said levers and handle; a collapsible top mounted upon said links, said top being adapted when collapsed to embrace the rear ends of the sides, said handle being adapted when collapsed to swing over said top and sides; a seat mounted on said running gear frame between said sides and independently thereof and independently of said levers and handle; a back mounted on said seat to fold forwardly thereon between said sides; and connections for said back to said levers whereby said back is automatically collapsed and erected upon the collapsing and erecting of the handles.

3. In a collapsible carriage, the combination with a running gear frame, of collapsible wheel supports; levers for actuating said wheel supports, pivotally mounted on said running gear frame; a handle pivotally mounted on said frame to collapse forwardly thereon; links connecting said handle and levers whereby the wheel supports are collapsed and erected upon the collapsing and erecting of the handle; sides pivotally mounted on the said levers and handle; a seat mounted on said running gear frame between said sides and independently thereof and independently of said levers and handle; a back mounted on said seat to fold forwardly thereon between said sides; and connections for said back to said levers whereby said back is automatically collapsed and erected upon the collapsing and erecting of the handles.

4. In a collapsible carriage, the combination with a running gear frame, of collapsible wheel supports; levers for actuating said wheel supports, pivotally mounted on said running gear frame; a handle pivotally mounted on said frame to collapse forwardly thereon; links connecting said handle and levers whereby the wheel supports are collapsed and erected upon the collapsing and erecting of the handle; sides pivotally mounted on the said levers and handle; and a collapsible top mounted upon said links, said top being adapted when collapsed to embrace the rear ends of the sides, said handle being adapted when collapsed to swing over said top and sides.

5. In a collapsible carriage, the combination with a running gear frame, of collapsible wheel supports; levers for actuating said wheel supports, pivotally mounted on said running gear frame; a handle pivotally mounted on said frame to collapse forwardly thereon; links connecting said handle and levers whereby the wheel supports are collapsed and erected upon the collapsing and erecting of the handle; and sides pivotally mounted on the said levers and handle.

[Claims 6 to 14 not printed in the Gazette.]

1,091,026. INKSTAND. ALBERT A. TRAUGOTT, Portland, Oreg. Filed Jan. 31, 1913. Serial No. 745,439. (Cl. 120—4.)



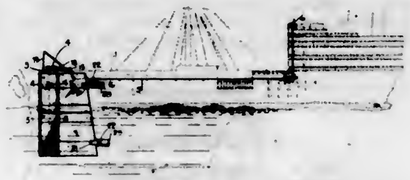
1. A one-piece, U-shaped stand having an inclined front plate the center portion of which is bent forward to form a horizontal bracket, said bracket perforated to receive an ink well, the side pieces of the stand having each a series of notches, the two series alined to form an inclined penrack, the bottom edges of said side pieces and said front plate forming the base or feet of the stand.

2. A box shaped stand comprising an inclined front plate and a pair of side plates bent at right angles to the former, the center portion of said front plate bent forward to form a horizontal bracket, said bracket perforated to receive an ink well, the side edges of the opening in the front plate, caused by the bending of said bracket, set back so as to form guides for supporting suitable inserts, the top edges of said side pieces having notches forming an inclined rack for supporting penholders.

3. A U-shaped one-piece stand having an inclined front, a horizontal ink well support forwardly projecting from said front, an inclined pencil rack cut in the top edge of the sides of the stand, the bottom edge of said front and sides forming the base of the stand.

4. A one-piece stand comprising a rearwardly inclined front plate and side plates bent at right angles to said front plate, a horizontal shelf on said front plate perforated to receive an inkwell, said shaft formed by bending the center-portion of said front plate forward so as to project in front of the stand, said side plates having rearwardly inclined top edges in which are cut notches forming a pen rack, the edges of the perforation in said front plate being rearwardly bent so as to form a receptacle on the back of said plate for insertion of suitable reading matter.

1,091,027. COMBINED RUDDER AND FENDER. MARKOS VASSALAKIS, Washington, D. C. Filed June 9, 1913. Serial No. 772,633. (Cl. 114—219.)



1. A device of the class described comprising a collapsible frame formed of an upper and lower section, each section being composed of a plurality of plates hinged one to the other, means to operatively support the sections of said frame on the bow of a boat, means in connection with portions of the sections of said frame to yieldingly dispose the same in a predetermined position, and means for actuating one of said sections independent of the other, whereby to form a rudder for the boat.

2. A device of the class described comprising a collapsible frame formed of a plurality of plate-like sections hinged one to the other, said frame being divided into an upper and lower section operable independent of one another, means to operatively support the sections of said frame on the bow of a boat, spring means in connection with certain of the plate-like sections of the upper and lower sections of said collapsible frame to dispose the same in forwardly converging position, and means for operating the lower section of the collapsible frame independent of the upper section thereof.

3. A device of the class described comprising a collapsible frame formed of an upper and lower section, each composed of a plurality of plates hinged one to the other, means for operatively supporting said frame on the bow of a boat, spring means in connection with the inner hinged plates of the upper and lower sections to dispose the same in forwardly converging position, means to movably retain the outer hinged plates to the sides of the boat, immediately adjacent the bow, and means for actuating the lower section of the frame independent of the upper section thereof, whereby to form a rudder for the boat.

4. A device of the class described comprising a collapsible frame formed of an upper and lower section, each composed of a plurality of plates hinged one to the other, means for operatively supporting the sections of said frame on the bow of a boat, spring means in connection with the inner hinged plates of the upper section to retain the same in forward converging position, additional spring means in connection with the lower section to normally dispose the inner plate sections of the latter in alining position with the similar plates of the upper section, means in connection with the outer hinged plates of said upper and lower sections to movably support the same against the sides of the boat, immediately adjacent the bow thereof, and means to actuate the lower section of the frame independently of the upper section thereof, whereby to form a rudder for the boat.

1,091,028. ENVELOP. HARMON WROEGER, Winthrop, Mass. Filed Aug. 28, 1912. Serial No. 717,609. (Cl. 229—68.)



1. An envelop the entire surface of one face of which is covered by a pattern composed of a plurality of opaque straight and curved lines leaving a plurality of small irregularly shaped transparent spaces thereon.

2. An envelop the entire surface of the inner face of which is covered by a pattern composed of a plurality of opaque straight and curved lines leaving small irregularly shaped transparent spaces thereon.

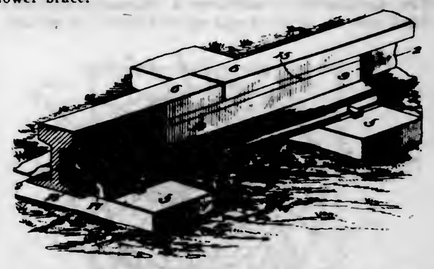
1,091,029. RAIL-JOINT. CHARLES C. ACKER, Winnsboro, Tex. Filed May 16, 1913. Serial No. 768,006. (Cl. 239—6.)

1. The combination with mating rail sections, of a chair embracing the rail sections and provided with spaced upstanding braces one of which is formed with a seating recess defining an inclined shoulder, and a locking key interposed between the webs of the rail sections and the adjacent brace and having its lower longitudinal edge inclined to conform to and adapted to bear against the shoulder.

2. The combination with mating rail sections having transverse apertures formed therein, of a chair embracing said rail sections and provided with spaced upstanding braces, the inner face of one of which is formed with a seating recess defining an inclined shoulder extending the entire length of the chair, and a locking key having laterally extending studs projecting within the apertures in the webs of the rails and provided at its lower longitudinal edge with an inclined face conforming to and adapted to bear against the inclined shoulder in the adjacent brace.



3. The combination with mating rail sections having transverse apertures formed in the webs thereof, of a chair embracing the rail sections and provided with spaced upstanding braces of different heights, the inner face of the lower brace being formed with a seating recess defining an inclined shoulder, and a locking key having laterally projecting studs extending within the apertures in the webs of the rails, the lower longitudinal edge of the locking key being inclined to conform to and adapted to bear against the shoulder in the lower brace, and the upper edge of the locking key being cutaway to form a shoulder adapted to bear against the upper longitudinal edge of the lower brace.

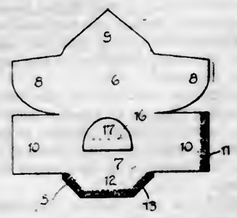


4. The combination with mating rail sections having transverse apertures formed in the webs thereof, of a chair provided with spaced upstanding braces of different heights, the lower brace having its inner face cut-away to form a downwardly inclined shoulder, and a locking key having spaced studs projecting within the apertures in the webs of the rails, the lower longitudinal edge of the locking key being inclined to conform to and adapted to bear against the shoulder in the lower brace, and the upper edge of the locking key being formed with a shoulder adapted to bear against the upper longitudinal edge of the lower brace, the outer faces of the lower brace, locking key, and heads of the rails being disposed in vertical alinement.

5. The combination with mating rail sections having apertures formed in the webs thereof, of a chair having a seating recess adapted to snugly engage the base of the rails and provided with spaced upstanding braces of different heights, the inner face of the lower brace being provided with a seating recess defining a downwardly inclined shoulder extending the entire length of the chair, and a locking key having spaced studs projecting within the apertures in the webs of the rails and having its lower longitudinal edge inclined to conform to and adapted to bear against the shoulder, and its outer face at the upper end thereof cut-away to form a longitudinally disposed rib extending the entire length of the chair and adapted to bear against the upper face of the lower brace.

[Claims 6 and 7 not printed in the Gazette.]

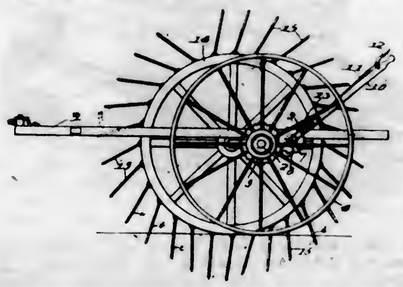
1,091,030. ENVELOP. JAMES P. ANDERSON, Lisbon, N. D. Filed Mar. 1, 1913. Serial No. 751,580. (Cl. 229—75.)



An envelop comprising front and back walls, said back wall being provided with foldable flaps adapted to be adhesively secured together to form a pocket to receive

the letter sheets, a flap on one of the longitudinal edges of said back wall foldable upon said end flaps, said back wall being centrally provided with a longitudinal slit, flaps formed on the longitudinal and end edges of the front wall, the flap on the longitudinal edge of said front wall being adapted for insertion through the slit in said back wall, said end flaps being provided with an adhesive and foldable upon said back wall and the flap on the longitudinal edge thereof and over the slit in said back wall to adhere to said flap and the back wall and to each other.

1,091,031. SUBSOILER. JAMES M. AYDLOTT, Ravenna, Tex., assignor of one-half to W. A. Hanks, Ivanhoe, Tex. Filed Nov. 17, 1913. Serial No. 801,420. (Cl. 97—63.)



1. In combination with a drum, a series of points pivoted to the periphery thereof so as to have arc-like movement radially of the drum, and adjustable means to enable the extent of movement of the points to be controlled.

2. In combination with a drum, a series of base plates attached thereto, spaced perforated ears on the plates, points pivoted between the ears, and a pair of stops adjustably carried by each plate and arranged on opposite sides of the points to engage the latter to thereby enable the extent of arc-like movement of the points to be controlled.

3. In combination with a drum, a series of base plates attached thereto, spaced perforated ears on the plates, points pivoted between the ears, a shoulder on each side of each point, and a pair of stops adjustably carried by each plate and having curved ends the extreme edges of which are for engagement with said shoulders.

1,091,032. GREASE-CUP. WALTER D. BANES, Philadelphia, Pa., assignor to General Pressed Metal Company, a Corporation of Pennsylvania. Filed Sept. 19, 1912. Serial No. 721,137. (Cl. 184—48.)



1. A grease cup having a converging interior contour, a coöperating cap and a detent for maintaining the relative positions of adjustment of cup and cap, said detent conforming to the converging portion of the cup and adapted to extend into the same.

2. A receptacle, a cap having threaded engagement therewith, a spring secured to the cap, said spring having a permanently inclined portion adapted to project into the receptacle and to scrape the sides thereof, the receptacle provided near its mouth with serrations for coöperating with the spring.

3. A receptacle, a cap having threaded engagement therewith, a member secured to the cap and adapted to extend into the receptacle and to scrape the sides thereof and to remove therefrom the residue of grease in the receptacle when the cap has reached the final position.

4. A receptacle, a cap having threaded engagement therewith, a resilient member secured to the cap and adapted to extend into the receptacle and to scrape the sides thereof and to remove therefrom the residue of grease in the receptacle when the cap has reached the final position, the receptacle provided with projections for coöperating with the resilient member to maintain the adjustment between receptacle and cap.

5. A grease cup, a telescoping cap therefor, threaded means for adjusting the cap with respect to the cup, automatic means for maintaining said adjustment, and for withdrawing the residue of grease from the cup upon the removal of the cap.

[Claims 6 to 11 not printed in the Gazette.]

1,091,033. PROCESS OF SEPARATING SODIUM AND POTASSIUM SALTS. HARRY P. BASSETT, Baltimore, Md., assignor to The Spar Chemical Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 7, 1911. Serial No. 648,008. (Cl. 23—22.)

1. The herein described process which consists in adding sodium chlorid to a solution of sodium sulfate and potassium sulfate, crystallizing a portion of the salt in solution, and separating the crystals from the mother liquor.

2. The herein described process which consists in adding sodium chlorid to a solution of sodium sulfate and potassium sulfate, heating the solution until crystals form therein, and separating the crystals from the mother liquor.

3. The herein described process which consists in adding sodium chlorid to a substantially saturated solution of sodium sulfate and potassium sulfate, maintaining the solution at an elevated temperature and withdrawing sodium sulfate crystals therefrom.

4. The herein described process which consists in adding sodium chlorid to a substantially saturated solution of sodium sulfate and potassium sulfate, crystallising a portion of the salt in solution, withdrawing the crystals formed into a substantially saturated solution of sodium sulfate and separating the cryatals therefrom.

5. The herein described process which consists in adding sodium chlorid to a substantially saturated solution of sodium sulfate and potassium sulfate, maintaining the solution at a temperature of from 60° C. to 107° C., withdrawing the sodium salt crystals formed therein into a substantially saturated solution of sodium sulfate, maintaining the last named solution at approximately from 60° C. to 107° C. and withdrawing the crystals from the last named solution.

1,091,034. PROCESS OF OBTAINING POTASH FROM FELDSPAR. HARRY P. BASSETT, Catonsville, Md., assignor to The Spar Chemical Company, Baltimore, Md., a Corporation of Maryland. Filed Sept. 18, 1912. Serial No. 720,959. (Cl. 23—22.)

1. The herein described process of recovering potash from feldspar or similar material containing potash in an insoluble form which consists in mixing the same with an alkali metal acid sulfate, an alkali metal chlorid and a reducing agent, the reducing agent being employed in such quantity as to reduce only a part of the sulfate, heating the mixture and separating the soluble portion from the remaining portion of the resulting mixture.

2. The herein described process of recovering potash from feldspar or similar material containing potash in an insoluble form which consists in mixing the same with an alkali metal acid sulfate, an alkali metal chlorid and a reducing agent, the reducing agent being employed in such quantity as to reduce only a part of the sulfate, heating the mixture to a bright red heat for approximately from one to two hours, and separating the soluble portion from the remaining portion of the resulting mixture.

3. The herein described process of recovering potash from feldspar or similar material containing potash in an insoluble form which consists in mixing the same with an alkali metal acid sulfate, an alkali metal chlorid and a reducing agent in the approximate proportions of 40 parts of feldspathic rock, 40 parts of the alkali metal sulfate, 14.4 parts of the alkali metal chlorid and 1 to 3 parts of the reducing agent, heating the mixture to a bright red heat and separating the soluble portion from the remaining portion of the resulting mixture.

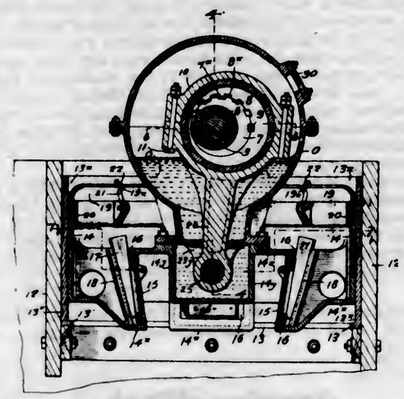
4. The herein described process of recovering potash from feldspar or similar material containing potash in an insoluble form which consists in mixing the same with sodium acid sulfate, sodium chlorid and carbon, heating the mixture, separating the sodium sulfate and potassium sulfate from the remaining portion of the fused mass and separating the sodium sulfate from the potassium sulfate.

5. The herein described process of recovering potash from feldspar or similar material containing potash in an insoluble form which consists in mixing the same with sodium sulfate, sodium chlorid and carbon in the approximate proportions of 40 parts of feldspar, 40 parts of sodium acid sulfate, 14.4 parts of sodium chlorid and 1 to 3 parts of carbon, heating the mixture to a bright red heat for approximately from one to two hours, separating the resulting potassium sulfate and sodium sulfate from the insoluble portion of the mass and separating the potassium sulfate from the sodium sulfate, substantially as described.

[Claim 6 not printed in the Gazette.]



1,091,035. JIGGING-MACHINE. OSCAR H. BOHM and WALTER M. MCCOY, Birmingham, Ala. Filed Apr. 9, 1913. Serial No. 759,901. (Cl. 103—80.)



1. In a jigging machine, a plunger, a casing in which the plunger moves, means to reciprocate the plunger comprising an arm which is pivoted thereto, and an oil containing casing carried by the plunger and inclosing said arm.

2. In a jigging machine, a cylinder, a vertically reciprocatory plunger therefor, overhead means for reciprocating the plunger comprising a drive shaft and an arm pivoted to the plunger and eccentrically connected to said shaft, and an oil containing casing inclosing the arm and its connections to both shaft and plunger and movable with the latter, said movable casing having an opening to receive said shaft.

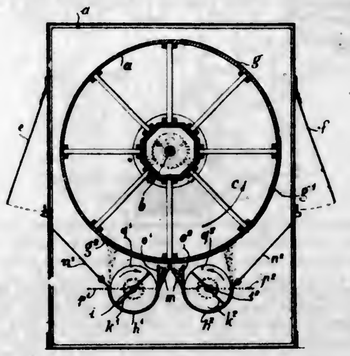
3. In a jigging machine, a cylinder, a plunger or piston therefor, a drive shaft, an eccentric connected with said plunger for operating the latter, and an oil reservoir which travels with the plunger and incloses said eccentric, said reservoir forming an oil housing which has side openings to receive the drive shaft.

4. In a jigging machine, a cylinder, a plunger or piston therefor, a drive shaft, an eccentric connected with said plunger for operating the latter, an oil well carried by said plunger, and a casing for said eccentric, said casing forming together with the oil well an oil housing.

5. In a jigging machine, a plunger compartment, a plunger therein having ports in its bottom, means to reciprocate the plunger, and valve means carried by the plunger and which, on the down stroke thereof, seal said ports, said means being removable from the top side of the plunger.

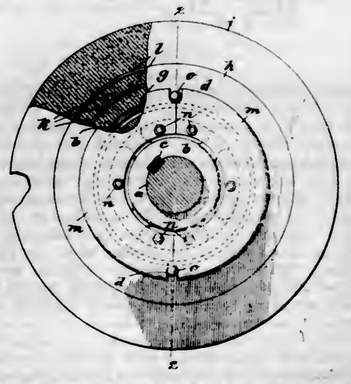
[Claims 6 to 15 not printed in the Gazette.]

1,091,036. MACHINE FOR CLEANING AND GRAINING LITHOGRAPHIC STONES, ZINC, &c. JEAN BOUILLET, Levallois-Perret, France, assignor to Company "Le Sablage Industriel," Paris, France. Filed Nov. 4, 1912. Serial No. 729,497. (Cl. 51—12.)



An apparatus for cleaning and for graining lithographic stones, zinc, etc., comprising in combination a box, doors in the side walls of said box, a drum revolubly mounted in said box designed to carry the plates to be grained, troughs under said drum, revoluble blades extending through the entire length of said troughs and being of almost double the height of said troughs, a device for feeding sand to the inner sides of the troughs along the entire edge of the same, said sand to be seized by the blades and thrown from below up against the surface of the drum, and adjustable means for regulating the thickness of the layer of sand fed to the troughs, substantially as described and shown and for the purpose set forth.

1,091,037. PULP-GRINDING STONE. JOHN JEROME CASH, Fort Edward, N. Y. Filed Sept. 8, 1913. Serial No. 788,777. (Cl. 51—1.)



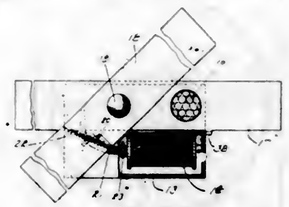
1. In a pulp grinding device, the combination of a shaft, a hub thereon, a pulp stone structure embodying a metallic sleeve adapted to fit over said hub and carrying

an artificial stone body molded thereon, and means for clamping, as well as centering, the pulp stone structure, said means serving to interlock said hub with said ring of the pulp stone structure.

2. In a pulp grinding device, the combination of a shaft, a cylindrical hub affixed thereto and having an annular beveled surface at each end, a metallic ring carrying a pulp stone and adapted to fit over said hub, said ring having an annular beveled surface at each end of its interior surface, and a removable clamp ring having a wedge-shaped annular flange for the purpose set forth.

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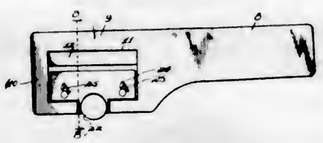
1,091,038. SIGNALING DEVICE. SAMUEL CHASE, Los Angeles, Cal. Filed Feb. 3, 1913, Serial No. 745,919. Renewed Feb. 3, 1914. Serial No. 816,317. (Cl. 177—311.)



A signal comprising a housing, a stationary arm carried by said housing and provided with a bull's-eye, a lamp positioned in said housing in alinement with said bull's-eye, a movable arm carried by said housing, a pin extending from said movable arm through a slot in said housing and provided with an armature head at its inner end, an electro-magnet positioned in said housing for attracting said armature to move said movable arm, a spring having one end connected with said housing and the remaining end with said pin for normally holding said movable arm in a position to cover said stationary arm, and means for illuminating said lamp and energizing said electro-magnet.

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1,091,039. PENCIL-SHARPENER. WILEY E. CLARK, Savannah, Ga. Filed May 29, 1913. Serial No. 770,636. (Cl. 120—90.)



A pencil sharpener of the character described, comprising a handle provided at one end with an enlarged head having a longitudinally extending opening formed therethrough which has one side wall thereof vertically inclined and provided with a screw-threaded opening arranged near one side of the longitudinal opening, a cutting blade slidably mounted upon the vertically inclined side wall to be moved through the lower end of the longitudinally extending opening, spaced ears attached to the outer longitudinal edge of the cutting blade and disposed at an angle with relation thereto, an adjusting screw operating within the screw-threaded opening formed in the head and extending between the spaced ears and having a contracted portion extending between the spaced ears, said cutting blade being provided near its opposite ends with key-hole openings having their enlarged portions arranged uppermost, and clamping screws extending through the key-hole openings and operating with screw-threaded openings formed in the vertically inclined side wall of the longitudinally extending opening.

1,091,040. AUTOMATIC INFLATER FOR PNEUMATIC TIRES. ROGER CONNELL, Christchurch, New Zealand. Filed Jan. 19, 1910. Serial No. 538,944. (Cl. 152—11.)



1. In an inflater for pneumatic tires, a piston rod having its lower part made of flexible wire cord, substantially as set forth.

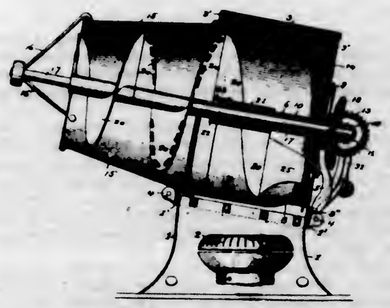
2. In an inflater for pneumatic tires, a pump having a shoulder, a valve casing, a circular nut screwed upon the valve casing, and provided with a screw thread in its periphery, a washer having a hole with flat sides fitting upon flat sides formed upon the valve casing, a pin projecting from the face of the washer, and fitting into holes formed in the nut, and a union fitting around the pump and engaging the shoulder thereof and screwed upon the circular nut, as set forth.

3. In an inflater for pneumatic tires, a pump having a shoulder, a valve casing, a circular nut screwed upon the valve casing and provided with a screw thread and grooves in its periphery, a washer having a hole with flat sides fitting upon flat sides formed upon the valve casing, a pin projecting from the face of the washer and fitting into holes formed in the nut, a union fitting around the pump and engaging the shoulder thereof and screwed upon the circular nut, and a spring catch upon the union and adapted to engage the grooves in the circular nut, as set forth.

4. In an inflater for pneumatic tires, a pump, piston and piston rod, a jaw upon the end of the piston rod, a spring operated bolt slidable across the jaw, a washer upon the bolt, there being a groove in the jaw leading downward and below the said washer, as set forth.

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1,091,041. CORN-POPPER. CHARLES CRETORS, Chicago, Ill. Filed Dec. 13, 1911. Serial No. 665,500. (Cl. 53—4.)



1. In a corn popper, the combination of a revoluble popping vessel having a closed rear end and an open forward end, a revoluble spiral supported longitudinally in said vessel, there being a clearance between the inner wall of the popping vessel and the perimeter of the spiral slightly greater than that necessary to allow the unpopped corn to remain as the popped corn is discharged from the apparatus by said spiral, a stationary casing inclosing the



popping vessel, a heater disposed in said casing, and means for imparting rotation to the popping vessel and to the spiral.

2. In a popper, the combination of a revoluble popping vessel closed at its rear end, a forward extension on said vessel of a truncated cone form and open at its forward end, a revoluble spiral supported longitudinally in said vessel and extension, there being a clearance between the inner wall of the popping vessel and the perimeter of the spiral slightly greater than that necessary to allow the unpopped corn to remain as the popped corn is discharged from the apparatus by said spiral, a stationary casing inclosing the popping vessel, a heater disposed in said casing, and means for imparting rotation to the popping vessel and to the spiral.

3. In a corn popper, the combination of a revoluble popping vessel disposed on an inclined plane and having a closed lower end and an open upper end, a revoluble spiral supported longitudinally in said vessel, there being a clearance between the inner wall of the popping vessel and the perimeter of the spiral slightly greater than that necessary to allow the unpopped corn to pass back as the popped corn is discharged from the apparatus by said spiral, a stationary casing inclosing the popping vessel, a heater disposed in said casing, and means for imparting rotation to the popping vessel and to the spiral.

4. In a corn popper, the combination of a revoluble popping vessel disposed on an inclined plane and having a closed lower end, a forward extension on said vessel of a truncated form and open at its upper end, a revoluble spiral supported longitudinally in said vessel, there being a clearance between the inner wall of the popping vessel and the perimeter of the spiral slightly greater than that necessary to allow the unpopped corn to pass back as the popped corn is discharged from the apparatus by said spiral, a stationary casing inclosing said popping vessel, a heater disposed in said casing, and means for imparting rotation to the popping vessel and to the spiral.

5. In a corn popper, the combination of a revoluble popping vessel having a closed rear end and an open forward end, a revoluble spiral supported longitudinally in said vessel, there being a clearance between the inner wall of the popping vessel and the perimeter of the spiral slightly greater than that necessary to allow the unpopped corn to remain as the popped corn is discharged from the apparatus by said spiral, a stationary casing inclosing the popping vessel, a heater disposed in said casing, and means for imparting differential rotation to the popping vessel and to the spiral.

[Claims 6 to 15 not printed in the Gazette.]

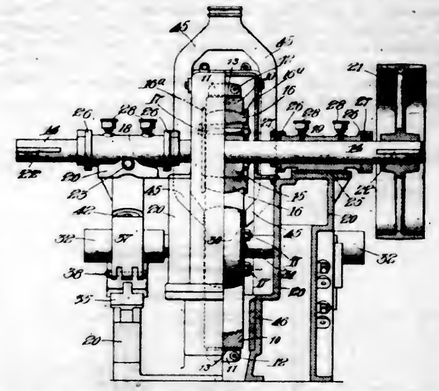
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1,091,042. PULVERIZING-MILL. CLIFFORD CROWELL, Monterey, Mexico. Filed Sept. 24, 1909. Serial No. 519,416. (Cl. 83—9.)

1. In a pulverizing mill, the combination with a main frame, of a flanged driving roll, a free ring carried on its interior by the flanged driving roll, and a plurality of flangeless crushing rolls held under elastic tension against the interior crushing surface of the free ring.

2. In a machine of the class described, in combination, a main frame, a driving shaft secured thereto and provided with a flanged driving roll, a flangeless single free ring carried by the driving roll, a crushing roll engaging the inner periphery of the free ring, a shaft on which the said crushing roll is mounted, a plurality of bearings for supporting the last said shaft in relation to the main frame, and independent elastic means interposed between each of said bearings and the main frame whereby the crushing roll is held under elastic pressure against the inner periphery of the free ring.

3. In a machine of the class described, in combination a main frame, a driving shaft mounted in bearings rigidly secured thereto and provided with a flanged driving roll, a single free ring carried by the driving roll, a flangeless crushing roll engaging the inner periphery of the free ring, a shaft on which the said crushing roll is mounted, a plurality of bearings for supporting the last said shaft in relation to the main frame, and independent elastic means interposed between each of the last said bearings and the main frame whereby the crushing roll is held under elastic pressure against the inner periphery of the free ring.

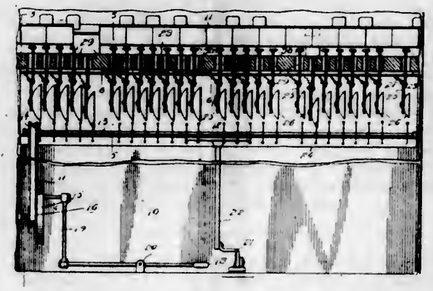


4. In a machine of the class described, in combination, a main frame, a driving shaft mounted thereon and provided with a flanged driving roll, a single free ring supported on its interior by the flanged driving roll, a flangeless crushing roll engaging the inner periphery of the free ring below the driving roll, a shaft on which the said crushing roll is mounted, a plurality of bearings for supporting the last said shaft in relation to the main frame, and independent means for adjusting each of the bearings in relation to the main frame whereby the crushing roll may be brought into the desired relation with the free ring and the driving roll.

5. In a machine of the class described, in combination, a main frame, a driving shaft mounted thereon and provided with a flanged driving roll, a single free ring supported on its interior by the flanged driving roll, a plurality of flangeless crushing rolls engaging the inner periphery of the free ring below the driving roll, a plurality of bearings for supporting each of the crushing rolls on the main frame, and independent means for adjusting each of said bearings in relation to the main frame, whereby the crushing rolls may be brought into the desired relation with the free ring and the driving roll.

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1,091,043. BELL ATTACHMENT FOR PIANOS. ERNST W. DAAB, Belleville, Ill. Filed Apr. 9, 1913. Serial No. 760,076. (Cl. 84—27.)



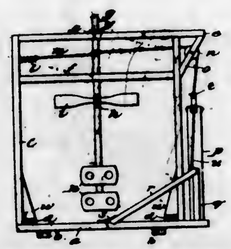
1. The combination with a piano, of a vertically movable member slidably mounted on the piano beneath the keyboard, a chromatic series of tone-producing elements movably carried on the member, means for striking the tone producing elements, and means actuated by the key-

levers of the piano for moving the tone elements into position to be engaged by the striking means.

2. The combination with a piano, of a vertically movable board, a plurality of levers pivotally mounted on the board, a chromatic series of tone elements movably mounted on the levers in correspondence with the keys of the piano, a rotating shaft adjacent the tone elements, hammers carried by the shaft, means carried by the levers for engagement by the keys of the piano to move the tone-elements into the paths of the hammers, and means for continuously rotating said shaft.

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1,091,044. CHURN. JOSEPH WALTER DELZELL, Chattanooga, Tenn. Filed Feb. 21, 1913. Serial No. 749,835. (Cl. 31—17.)



A churn apparatus comprising in combination, a base, a pair of vertical standards fastened to said base, a horizontal brace intermediate said standards relatively near the top thereof, a second brace extending between said standards at the top thereof and being prolonged at one end to the outside of one of said standards, a diagonal brace extending from the end of said last mentioned horizontal brace to the side of one of said standards, a treadle carried on said base substantially parallel to the plane of said standards, a lever pivotally mounted on said base and extending substantially at right angles to the plane of said standards, connection between said treadle and said lever, a wheel pivotally mounted on said intro- diagonal brace, a flexible member connected to said lever passing then over said wheel and being wrapped around said shank spindle, and a spring connecting the end of said flexible member to one of said standards.

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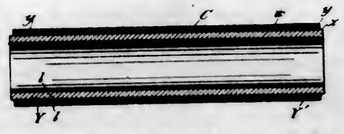
1,091,045. BURGLAR-PROOF SCREEN. ALBERT R. DERGE, Oakland, Cal. Filed May 17, 1913. Serial No. 768,260. (Cl. 20—71.)



In combination with a window frame, and a slidable sash therefor, a screen, a bolt for securing said screen in position in the window frame, and having a handle located, when the screen is so secured, between the screen and the path of a side stile of said sash, and of a length sufficiently great to be prevented by said side stile and screen, when therebetween, from turning from a locking position of the bolt to an unlocking position thereof, and means for securing said sash in its said preventive position.

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1,091,046. COIL FOR ELECTRICAL PURPOSES AND METHOD OF PRODUCING SAME. ERNEST A. DE WOLF, Mansfield, Mass., assignor to Joseph Robert Leeson, Boston, Mass. Filed Apr. 15, 1913. Serial No. 761,286. (Cl. 175—21.)



1. A coil for electrical purposes composed of a series of layers of conducting material built up with substantially flat ends, and abutments of insulating material wound in the form of disk-like cops and built up adjacent said ends to support and protect the windings of the coil.

2. A coil for electrical purposes comprising a series of layers of conducting material, and windings of insulating material built up adjacent the ends of said layers and disposed with a cross-wind to form self-sustaining disk-like abutments for supporting and protecting the ends of the coil.

3. In a coil for electrical purposes, the combination with a series of layers of wire wound with closely adjacent helices, of two series of layers of yarn wound with a diagonal or cross-wind to build up disk-like cops abutting the ends of the wire layers and serving to support and protect the ends of the coil.

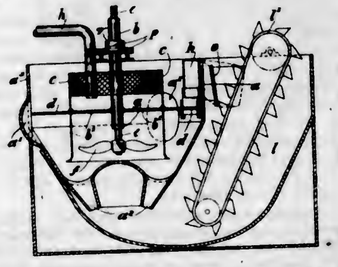
4. An improved method of manufacturing electrical coils consisting in winding wire in layers of adjacent helices and simultaneously winding yarn with a cross-wind in layers abutting the ends of the wire layers to build up self-sustaining and self-conforming disk-like flanges adjacent the ends of the coil.

5. An improved system of winding electrical coils consisting in winding a conducting material on a core, with a traverse of predetermined length and simultaneously winding an insulating material with a diagonal or cross-wind at the ends of the core with a traverse of relatively less length to build up abutments for supporting and protecting the ends of the coil.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,047. APPARATUS FOR WASHING MINERALS. JOSEPH DODDS, Rutherglen, Glasgow, Scotland. Filed Aug. 19, 1912. Serial No. 715,699. (Cl. 83—87.)



1. Apparatus for washing minerals comprising in combination, a stationary vessel, a hollow drum rotatably mounted therein, means for rotating said drum, a perforated table attached to said drum so as to rotate therewith, a propeller rotatably mounted within said drum, and means for rotating the same.

2. Apparatus for washing minerals comprising, in combination, a stationary vessel, a hollow drum rotatably mounted therein, means for rotating said drum, a perforated table attached to said drum so as to rotate therewith, a propeller rotatably mounted within said drum, and means for rotating the same at a speed greater than the speed of said drum.

3. Apparatus for washing minerals comprising, in combination, a stationary vessel, a hollow shaft rotatably mounted therein, a propeller shaft rotatably mounted within said hollow shaft, a hollow drum attached to said hollow shaft so as to rotate therewith, and a perforated table secured to said hollow drum.

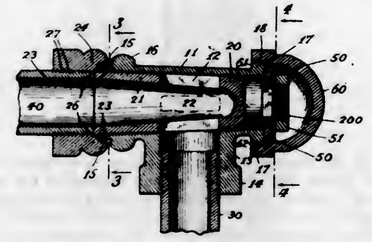
4. Apparatus for washing minerals comprising, in combination, a stationary vessel, a hollow shaft rotatably mounted therein, a propeller shaft rotatably mounted within said hollow shaft, a hollow drum having perforations at the upper end thereof secured to said hollow shaft and a perforated table secured to said hollow drum.

5. Apparatus for washing minerals comprising, in combination, a stationary vessel, a hollow shaft rotatably mounted therein, a propeller shaft rotatably mounted within said hollow shaft, a hollow drum having a bell-mouthed lower end secured to said hollow shaft, and a perforated table secured to said hollow drum.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,048. VALVE. WARREN F. DREW, New York, N. Y., assignor, by mesne assignments, to Rotico Fitting and Supply Company, New York, N. Y., a Corporation of New York. Filed June 26, 1912. Serial No. 705,915. (Cl. 137—7.)

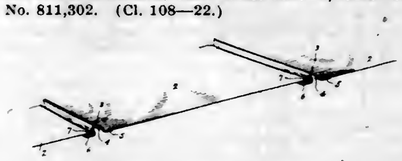


1. In a valve, a fixed tapered plug having an external cylindrical surface and a longitudinal bore having an inlet opening through the larger end, and an outlet opening through one side, said bore terminating short of the smaller end, said larger end having an enlarged extension provided with an annular groove in the side that faces the cylindrical surface, a valve body rotatably mounted on the plug and having a tapered bore that receives the same, said body having a port movable into and out of communication with the discharge end of the plug bore, fastening means detachably mounted on the smaller end of the plug and abutting against the adjacent end of the body, the opposite end engaging in the annular groove, and yielding means located in said groove and constituting both a packing at the larger end of the valve body and also means for urging said body outwardly against the fastening means.

2. In a valve, a fixed tapered plug having an external cylindrical surface and a longitudinal bore opening through its larger end and through one side, but terminating short of the smaller end, said larger end having an enlarged extension formed integrally therewith and provided with an annular groove in the side that faces the cylindrical surface, the smaller end of the plug having a restricted portion for the reception of a holding device, a valve body rotatably mounted on the plug and having a tapered bore that receives the same, said body having a port moving into and out of communication with the bore of the plug and also having a circular lip that enters the groove of the extension, fastening means detachably mounted on the restricted portion of the plug and abutting against the end of the body, and a yielding ring located in the groove and compressed between the bottom thereof and the lip of the body, said ring constituting a packing at the larger end of the body and urging the smaller end of the body into close contact with the fastening means to prevent leakage thereat.

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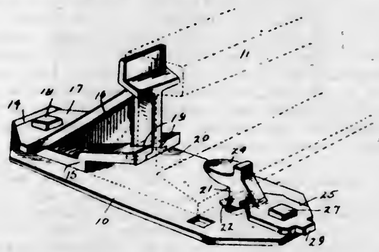
1,091,049. SHEET-METAL ROOFING. EDWARD WM. EDWARDS, Cincinnati, Ohio. Filed Jan. 10, 1914. Serial No. 811,302. (Cl. 108—22.)



A sheet metal roofing plate having a ridge parallel with and a short distance from each of its side edges, these ridges being approximately the same shape in cross section, the outer wall of one of the ridges being inclined toward the adjacent edge of the sheet and the inner wall of the other ridge being inclined away from the edge of the sheet, the sheet at a point close to the last named inclined ridge wall being longitudinally folded upon itself to form a channel facing said inclined wall, the folded part of the metal extending close to said inclined wall, for the purposes set forth.

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1,091,050. COMBINED TIE-PLATE AND BRACE. ISAAC L. EDWARDS, Aurora, Ill. Filed Sept. 11, 1913. Serial No. 789,359. (Cl. 238—2.)



1. The combination of a tie-plate, a brace extending between the same and the rail at one side of the latter, and a rail-locking key for the opposite side of the rail having a removable pivotal connection with said tie-plate comprising a shank, a rail-engaging finger at one side of the shank, and an extension on the opposite side of the shank having a spike-receiving hole.

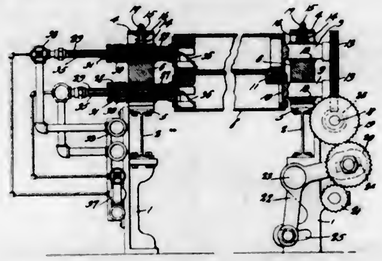
2. The combination of a tie-plate having on its upper side an upturned lip, and a block that overhangs the rail flange, and a brace that extends between the rail and said lip, and has next to the rail web a downward extension with oppositely projecting flanges, said extension engaging a slot in said block that extends from the inner edge of the portion that overhangs the rail flange.

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1,091,051. DRYING-MACHINE. BION B. FARNHAM, Kenmore, N. Y. Filed Mar. 25, 1913. Serial No. 756,812. (Cl. 34—31.)

1. In a drying machine, the combination of a pair of spaced base beams, a pair of spaced top beams mounted above the said base beams and carried thereby, bearing supporting members arranged in pairs and rigidly secured to the top and base beams, bearings slidably disposed be-

tween the said bearing supporting members, resilient means engaging said bearings and the top beams adapted to hold the same resiliently in place, hollow cylindrical carrying and compress rolls rotatably carried by said bearings and arranged in pairs, means for admitting steam and exhausting the water of condensation to and from said cylindrical rolls, and means for positively driving each of said rolls.



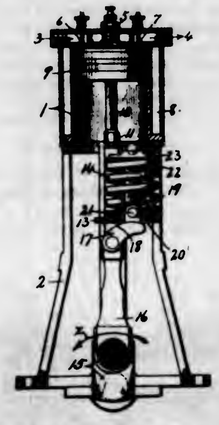
2. In a drying machine, the combination of a pair of base beams, bearing supporting members rigidly secured to said beams and extending upwardly therefrom, top beams carried by the upper extremities of said bearing supporting members, bearings slidably disposed within said bearing supporting members, resilient means engaging the top bearing and the top beam to resiliently hold the former in place, hollow cylindrical carrying rolls extending transversely of the base beams, and arranged in pairs, one end of said cylindrical rolls provided with flanged trunnions, said trunnions journaled within said bearings, gear wheels rigidly secured to the extremities of the trunnions, a shaft extending parallel to the said base beams provided with worm gears secured thereto meshing with the gear wheels of the lower cylindrical rolls, the opposite ends of said hollow cylindrical carrying and compress rolls provided with flanged trunnions secured thereto, said trunnions provided with apertures extending axially therethrough and provided with packing joints at the outer extremities thereof, steam inlet pipes extending through said trunnion apertures and effecting a steam-tight and rotatable joint therewith, steam controlling valves communicating with said steam inlet pipes of the upper rolls, steam mains communicating with said steam valves and said steam inlet pipes, discharge pipes fitting within said steam inlet pipes and provided with the inner extremities thereof bent downward within the carrying rolls and terminating adjacent the lower inner surfaces thereof adapted to conduct the water of condensation therefrom, discharge mains communicating with said discharge pipes, the said valves adapted to control the supply of steam to the upper cylindrical rolls.

3. In a drying machine, the combination of a pair of base beams, bearing supporting members rigidly secured to said beams and extending upwardly therefrom, top beams carried by the upper extremities of said bearing supporting members, bearings slidably disposed within said bearing supporting members, resilient means engaging the top bearing and the top beam to resiliently hold the former in place, hollow cylindrical carrying rolls extending transversely of the base beams, and arranged in pairs, one end of said cylindrical rolls provided with flanged trunnions, said trunnions journaled within said bearings, gear wheels rigidly secured to the extremities of the trunnions, a shaft extending parallel to the said base beams provided with worm gears secured thereto meshing with the gear wheels of the lower cylindrical rolls, the opposite ends of said hollow cylindrical carrying and compress rolls provided with flanged trunnions secured thereto, said trunnions provided with apertures extending axially therethrough and provided with packing joints at the outer extremities thereof, means for admitting steam and exhausting the water of condensation to and from said cylindrical rolls.

1,091,052. PROCESS OF PRODUCING SHAVING-CREAM. KARL FISCHMANN, Archdale, N. C., assignor to William G. Brokaw, Archdale, N. C. Filed Jan. 17, 1913. Serial No. 742,692. (Cl. 167—9.)

The process of producing a shaving cream consisting in melting one and one quarter pounds of stearin in a suitable receptacle, adding eight ounces of lanolin to one gallon of heated water of a temperature to melt the lanolin, dissolving one ounce of a 25% solution of spirits of ammonia in five ounces of boiling water, adding the lanolin and ammonia solutions gradually to the stearin while the mass is being stirred, and so timing these additions that the last ounce of each is added to the stearin at substantially the same time, and finally stirring the mixture until a cream of the proper consistency is produced.

1,091,053. INTERNAL-COMBUSTION ENGINE. LUCIAN M. FOSTER, Norwich, N. Y. Filed July 8, 1911. Serial No. 637,505. (Cl. 123—78.)



1. In an internal combustion engine, a cylinder, a piston, a piston rod and a cross head secured to the rod, a bearing plate on the cross head, a spring bearing against the inner side of the plate, and wholly outside of the cylinder, a bearing member for the opposite end of the spring movable relatively to said plate, a crank shaft and a pitman thereon, a rock arm on the pitman, and connections between said rock arm and bearing member, said rock arm being engaged with the outer side of said plate.

2. In an internal combustion engine, a cylinder, a piston, a cross head, connections between the piston and cross head, and wholly outside of the cylinder, a bearing plate on the cross head, a crank shaft and a pitman thereon, and a rock arm on the crank shaft in rolling contact with and spring pressed against said plate.

3. In an internal combustion engine, a cylinder, a piston, a bearing plate, connections between the piston and bearing plate for reciprocating the latter, a crank shaft and pitman thereon, a rock arm on the pitman in rolling contact with the outer surface of the plate, a rod pivotally connected to the rock arm at a point inside of its line of contact with said plate and provided with a head, and a coil spring external to the cylinder and interposed between said head and plate.

4. In an internal combustion engine, a cylinder, a piston, a bearing plate, connections between the piston and bearing plate for reciprocating the latter, a crank shaft and pitman thereon, a rock arm on the pitman having a curved bearing face in rolling contact with said plate, and resilient means external to the cylinder for holding said plate and rock arm in contact.

5. In an internal combustion engine, a cylinder, a piston, a cross head, connections between the cross head and piston, a bearing plate on the cross head, a coil spring wholly external to the cylinder having one end seated on the plate, a crank shaft having a pitman, a rock arm having a curved face in rolling contact with said plate, an ear on the rock arm extending through an opening in said plate, a rod pivotally connected to said ear, and a head on the rod engaged with the opposite end of the spring.

[Claims 6 to 8 not printed in the Gazette.]



1,091,054. COMPOSITION FOR PRODUCING LACTIC FOOD PRODUCTS. JOHAN D. FREDERIKSEN, Little Falls, N. Y. Filed July 23, 1913. Serial No. 780,662. (Cl. 99—11.)

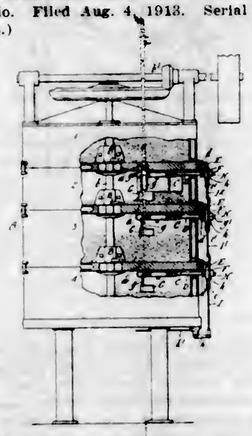
1. A dry composition for producing lactic food products, comprising milk powder and rennet powder intimately mixed, which composition dissolves and curdles upon the addition of water.

2. A dry composition for producing lactic food products, comprising milk powder, rennet powder and a calcium salt intimately mixed, which composition dissolves and curdles upon the addition of water.

3. A dry composition for producing lactic food products comprising milk powder and a pulverized mixture of rennet ferment, a calcium salt and sugar.

4. A dry composition for producing lactic food products comprising milk powder, rennet powder, a calcium salt, sugar and a flavoring ingredient.

1,091,055. GATE-OPERATING MECHANISM FOR MEAL-COOKERS AND THE LIKE. ALFRED W. FRENCH, Piqua, Ohio. Filed Aug. 4, 1913. Serial No. 782,800. (Cl. 87—6.)



1. The combination with a plurality of chambers arranged to permit material to discharge from one chamber into another, and a gate which controls the discharge of the material from one chamber into the next, of an actuating device for said gate which is governed by the quantity of the material in the receiving chamber for closing said gate, and means accessible at the exterior of said chambers for changing the relative position of said gate and actuating device for regulating the quantity of material delivered to the receiving chamber.

2. The combination with a plurality of chambers arranged to permit material to discharge from one chamber into another, and a gate which controls the discharge of the material from one chamber into the next, of an actuating device for said gate which is connected to the gate to move therewith and is governed by the quantity of the material in the receiving chamber for closing said gate, and means accessible at the exterior of said chambers for changing the relative position of said gate and actuating device for regulating the quantity of material delivered to the receiving chamber.

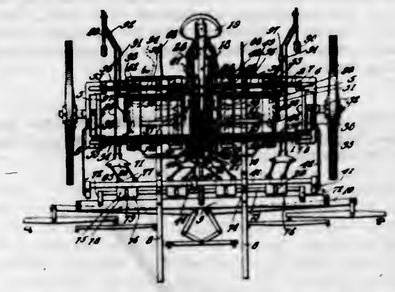
3. The combination with a plurality of chambers arranged to permit material to discharge from one chamber into another, and a gate which controls the discharge of the material from one chamber into the next, of a device which is governed by the level of the material in the receiving chamber for closing said gate, said gate and closing device having a common pivotal connection, and means for changing the angular relation of said gate and device to vary the controlling action of said gate.

4. The combination with a plurality of chambers arranged to permit material to discharge from one chamber into another, and a gate which controls the discharge of the material from one chamber into the next, of a device which is governed by the level of the material in the receiving chamber for closing said gate, said gate and closing device having a common pivotal connection, and means located exteriorly of said chambers for changing the angular relation of said gate and device to vary the controlling action of said gate.

5. The combination with a plurality of chambers arranged to permit material to discharge from one chamber into another, and a gate which controls the discharge of the material from one chamber into the next, of a float which is connected to said gate to move therewith and is adapted to ride on the material in the receiving chamber for closing said gate, and means exterior to said chambers for adjustably securing said float to said gate.

[Claims 6 to 18 not printed in the Gazette.]

1,091,056. CULTIVATOR. HAYES GADDIS, Wellington, Kans. Filed Feb. 27, 1912. Serial No. 680,223. (Cl. 97—35.)



1. In a cultivator the combination with a frame including upper and lower guide members at the sides thereof, of supporting wheels, means carried by the wheels and slidably mounted within and supporting the guide members, and means upon the frame for shifting the same relative to said wheel supported means.

2. In a cultivator, the combination with a frame including upper and lower guide members at the sides thereof, of supporting wheels, means carried by the wheels and slidably mounted within and supporting the guide members, means upon the frame for shifting the same relative to said wheel supported means, and means upon the frame for simultaneously rotating the wheels about substantially vertical axes independently of the movement of the frame.

3. In a cultivator, the combination with front and rear frame members, arms depending from the ends thereof, and guide members connecting the upper and lower portions of the arms, of supporting wheels, upwardly projecting stems supported by the wheels, blocks carried by the stems and slidably engaged by the guide members, a draft beam fixedly connected to the frame members, and means mounted on said beam and connected to the stems for shifting the guide members and the stems horizontally relative to each other.

4. In a cultivator, the combination with front and rear frame members, arms depending from the ends thereof, and guide members connecting the upper and lower por-

tions of the arms, of supporting wheels, upwardly projecting stems supported by the wheels, blocks carried by the stems and slidably engaged by the guide members, a draft beam fixedly connected to the frame members, means mounted on said beam and connected to the stems for shifting the guide members and the stems horizontally relative to each other, a carriage mounted to slide longitudinally of and upon the frame members, and a soil engaging device suspended from and movable with the carriage.

5. In a cultivator the combination with supporting wheels and upstanding stems carried thereby, of supporting elements carried by the stems, guide members movably mounted on said devices, frame members connected to and movable with the guide members, and means supported by the frame members for shifting the guide members relative to the supporting elements.

[Claims 6 to 13 not printed in the Gazette.]

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1,091,057. PROCESS OF TREATING METALS. EMERY G. GILSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 12, 1913. Serial No. 753,665. (Cl. 91—70.1.)

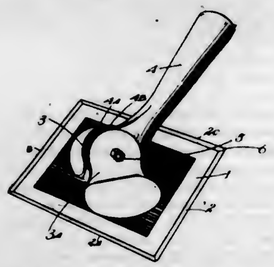
1. The process of treating metals to render them inoxidizable which consists in heating the metal in a non-oxidizing atmosphere in contact with a powdered mixture of pure aluminum, aluminum oxid and a chlorid.

2. The process of treating metals to render them inoxidizable which consists in heating the metals in a non-oxidizing atmosphere in contact with a powdered mixture composed mainly of pure aluminum and aluminum oxid to which is added a small percentage of a chlorid.

3. The process of treating iron, copper or the like to render them inoxidizable which consists in heating the metal in a non-oxidizing atmosphere to a temperature from 600° to 900° C. depending upon the particular metal, in contact with a powdered mixture of pure aluminum, aluminum oxid and a chlorid.

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1,091,058. COMBINATION-HOE. ERNEST ROBERT GODWARD, Dunedin, New Zealand. Filed Apr. 8, 1913. Serial No. 759,706. (Cl. 55—42.)

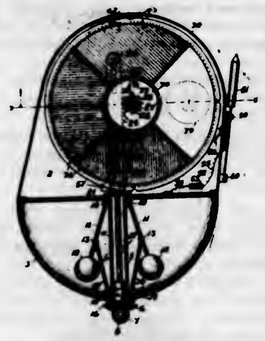


A hoe of the class described comprising a flat metal plate provided with a plurality of cutting edges, and having cuts made therein partially severing parts thereof, the said parts being bent upward approximately at right angles to the surface of the plate forming a pair of spaced brackets providing part of an adjustable handle joint, and a tapered socket having lugs formed thereon which are fitted between and coupled to said brackets.

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1,091,059. SPEED-INDICATOR FOR AUTOMOBILES. CHARLES GOBB, San Francisco, Cal. Filed Apr. 24, 1911. Serial No. 622,926. (Cl. 73—123.)

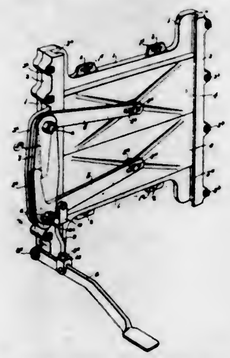
In combination with a centrifugal governor, a device movable longitudinally with a change of speed in said governor, a disk having variously colored sectors, a lamp behind the disk arranged to shine through one of said sectors, spring-actuated means arranged to engage in turn each sector as the disk is rotated, members movable with the device and disk, the member movable with the device



having an engagement wholly propulsive with the member movable with the disk.

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1,091,060. FURNACE-DOOR-OPERATING DEVICE. GEORGE H. GREGORY, Mount Carmel, Ill. Filed May 22, 1913. Serial No. 769,145. (Cl. 110—178.)



1. In a furnace-door operating device, the combination with a frame provided with vertical guide-ways, door members slidably mounted therein, the upper door being weighted to overbalance the weight of the lower door and the operating attachments and bell-cranks pivotally mounted at one side of said frame, one pair of arms being operatively connected in one direction by the weight of said upper door only and the other pair of arms being provided at the ends with slot openings; of guide bearing pins extending through said slot openings and carried by the front central portions of said door members, a guide plate mounted in front of said first mentioned pair of arms, and a foot lever pivotally carried at one side of said frame and operatively connected to one of said bell-cranks.

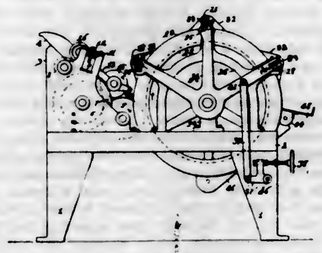
2. A furnace-door operating device, comprising a door frame having vertical guide members one of said guide members being provided with a bearing plate, vertically movable door members slidably mounted therein and provided at their central front portions with bearing pins, bell-cranks having their shorter arms operatively connected to each other by the weight of the upper door only and having their longer arms provided with slots taking over said bearing pins, a keeper plate mounted in front of said shorter arms of said bell-cranks, bearing bolts extending through said keeper and bearing plates and said bell-cranks, a foot lever pivotally mounted at one side of said door frame and beneath said bell-cranks, and a connecting link adjustably connected to said foot lever and the lower of said bell-cranks.

3. A furnace door operating device, comprising a door frame, vertical door guide members, one of said members being provided with a vertically extending bearing plate, door members mounted in said guide members the upper door member being weighted to overbalance the weight of the lower door member and operative weight of the door operating attachments, bell-cranks having one pair of arms disposed in front of said vertically extending bearing plate and held in contact with each other by said weighted upper door only and the other pair of arms extending in front of and pivotally connected to the central portions of said door members, a keeper plate mounted in front of said first mentioned arms of said bell-cranks, bearing bolts extending through the latter and said keeper and bearing plates, an operating foot lever, and a connecting link between the latter and one of said bell-cranks.



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1,091,061. LOAF-FORMING MACHINE. HERBERT HACKSTEDDE, Cincinnati, Ohio. Filed June 29, 1912. Serial No. 706,639. (Cl. 107—9.)



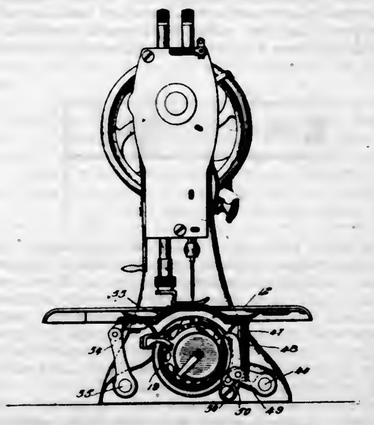
The combination of a rotative drum, fixed brackets adjacent to its respective ends and formed with a series of slots extending beyond the periphery of the drum, members adjacent to the respective brackets formed with similar coöperating slots, the slots in the brackets being successively inclined at increasing angles to the radii of the drum, and the coöperating slots in said members being correspondingly inclined in the opposite direction to form shearing angles therewith, transverse rods slidably engaging with corresponding slots in the brackets and members, a pressure plate secured on the rods concentric to the drum, and connections for rotatively adjusting said members for sliding the rods in the slots whereby the pressure plate may be adjusted in distance relations to the drum and with one of its ends in the same radial plane.

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1,091,062. REVOLVING-HOOK SEWING-MACHINE. RICHARD K. HOHMANN, Belvidere, Ill., assignor to National Sewing Machine Company, Belvidere, Ill., a Corporation of Illinois. Filed May 5, 1913. Serial No. 765,417. (Cl. 112—15.)

1. In a revolving hook sewing machine, the combination with a bobbin holder, of a rotary hook for passing a loop of thread around said holder, a fixed arm projecting slightly into an opening in the face of said holder on one side to prevent its rotation, and a rocking arm on the opposite side of said holder below the top for engaging said holder on its inward movement to turn it sufficiently to bring it to a position where the fixed arm will be out of contact with the walls of said opening in said holder and means for operating said rocking arm at each alternate revolution of the rotary hook.

2. In a sewing machine, the combination with a bobbin holder having a hook for spreading a loop of thread and an opening in the upper part of its face behind said hook, of a revolving hook for passing said loop around said holder, a fixed arm having a downwardly inclined end projecting slightly into said opening to prevent the rotation of said holder, and means for moving said holder to such an extent that said arm will be out of contact with the walls of said opening in said holder when said loop approaches said arm thus allowing a free passage of the loop beneath said arm.



3. In a sewing machine, the combination with a bobbin holder having a hook for spreading a loop of thread and an opening in the upper part of its face behind said hook, of a revolving hook for passing said loop around said holder, a fixed arm having a downwardly inclined end projecting slightly into said opening to prevent the rotation of said holder, and a movable finger having an upwardly inclined under surface adapted to engage the upper portion of said holder on the side opposite to said fixed arm and below the top to move it slightly, and means for operating said movable finger.

4. In a sewing machine, the combination with a bobbin holder having a hook for spreading a loop of thread and an opening in the upper part of its face behind said hook, of a revolving hook for passing said loop around said holder, a fixed arm having a downwardly inclined end projecting slightly into said opening to prevent the rotation of said holder, a projection on the upper portion of the holder on the side opposite to said opening having an upwardly inclined lower surface, a movable finger having an upwardly inclined lower surface adapted to engage the upper end of said projection to move said holder slightly, and means for operating said movable finger.

5. In a sewing machine, the combination with a bobbin holder having a hook for spreading a loop of thread and an opening in the upper part of its face behind said hook, of a revolving hook for passing said loop around said holder, a fixed arm having a downwardly inclined end projecting slightly into said opening to prevent the rotation of said holder, a projection on the upper portion of the holder on the side opposite to said opening having an upwardly inclined lower surface, a rocking arm pivoted at its lower end and carrying a laterally projecting finger at its upper end having an upwardly inclined lower surface adapted to engage the top of said projection, and means for rocking said arm.

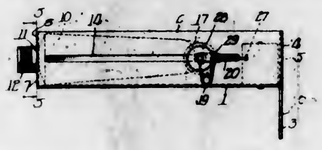
[Claims 6 to 9 not printed in the Gazette.]

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1,091,063. TUBE-HOLDER. THOMAS C. HUTCHINSON, Decorah, Iowa. Filed Apr. 29, 1910. Serial No. 558,502. (Cl. 221—60.)

1. A device of the kind described, comprising a frame and means rigidly mounted upon said frame adapted to engage a collapsible container near its outlet, in combination with a pair of rotatable members mounted upon the frame adapted to engage the opposite end of the container between them to support the same and to gradually collapse said container and resilient means tending normally to maintain said container extended.

2. A device of the kind described, comprising a frame and means rigidly mounted upon said frame adapted to engage a collapsible container near its outlet, in combination with a pair of rotatable members mounted upon the frame and adjustable longitudinally thereof adapted to engage the opposite end of the container between them to support the same, and means for manually operating said rotatable members to gradually collapse said container.



3. A device of the kind described, comprising a frame and means rigidly mounted upon said frame adapted to engage a collapsible container near its outlet and maintain said outlet in a conveniently accessible position, in combination with a pair of rotatable members, slidably mounted upon the frame adapted to engage the opposite end of the container between them to support the same and to gradually collapse said container, and means for rigidly securing said frame in position.

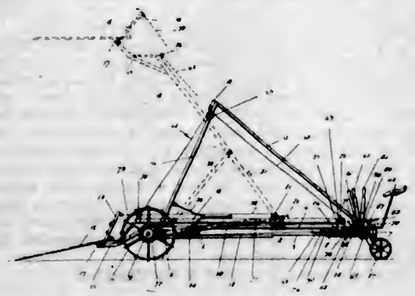
4. A device of the kind described, comprising a frame and means rigidly mounted upon said frame adapted to engage a collapsible container near its outlet and maintain said outlet in a conveniently accessible position, in combination with a pair of rotatable members slidably mounted upon the frame adapted to engage the opposite end of the container to support the same and to gradually collapse the container, and means for locking said members against rotation in one direction.

5. A device of the kind described, comprising a frame and means rigidly mounted upon said frame adapted to engage a collapsible container near its outlet, in combination with rotatable mechanism adapted to engage the opposite end of the container to support the same and to gradually collapse said container, and resilient means tending to normally maintain said container extended.

[Claims 6 to 17 not printed in the Gazette.]

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1,091,064. HAY RAKE AND STACKER. MARION R. JENKINS, Chillicothe, Mo. Filed Feb. 20, 1913. Serial No. 749,597. (Cl. 57—53.)



1. In a rake and stacker, the combination, with a main frame comprising a single central longitudinal bar provided with a guide, and crossbars having their middle parts secured to the end portions of the said bar, leaving their end portions free to spring independent of each other; of ground wheels supporting the end portions of the crossbars, a single shoe engaging with said guide, a lifting frame pivoted to the said shoe, a fork pivoted to the lifting frame, a radius frame pivoted to the front portion of the main frame and the middle part of the lifting frame, and a lifting tackle for sliding the shoe forwardly to raise the fork.

2. In a rake and stacker, the combination, with a main frame comprising a single central longitudinal bar provided with a guide, a rear crossbar having its middle part secured to the said bar, a front crossbar having its middle part secured to the said bar, and diverging bars having their rear end portions secured to the middle part of the said central bar and their front end portions secured to the free end portions of the front crossbar; of front ground wheels carried by the said central bar and diverging bars and arranged in front of the front crossbar, rear ground wheels carried by the rear crossbar, a single shoe engaging with the said guide, a lifting frame pivoted to the said shoe, a fork pivoted to the lifting frame, a radius frame pivoted to the front portion of the main frame and the middle part of the lifting frame, and a lifting tackle for sliding the shoe forwardly to raise the fork.

3. In a rake and stacker, the combination, with a main frame provided with a longitudinal bar, and a guide rail secured to the said bar; of a shoe slidable on the said guide rail and provided with a tappet; a fork, a lifting frame and a radius frame pivoted together and to the said shoe, an axle provided with ground wheels and journaled in the main frame, a winding barrel, means for driving the said barrel, a clutch for connecting the barrel with its driving means, a pivoted clutch lever provided with a laterally inclined portion, a slide engaging with the said inclined portion, a guide link pivoted to the main frame and to the said slide, a clutch-operating rod pivoted to the said slide and extending alongside the guide rail and provided with a projection arranged in the path of the said tappet, and lifting tackle which raises the fork and slides the shoe along the guide rail.

4. In a rake and stacker, the combination, with a main frame provided with a longitudinal bar, and a guide rail secured to the said bar; of a shoe slidable on the said guide rail; a fork, a lifting frame and a radius frame pivoted together and to the said shoe, a block slidable on the guide rail behind the said shoe, a spring for moving the said block rearwardly, guide sheaves carried by the main frame and lifting frame, a flexible connection passing over the said guide sheaves and connecting the fork with the said block, and a pivoted lever, for leveling the fork, provided with a catch for engaging with the said block.

5. In a rake and stacker, the combination, with a main frame provided with a longitudinal bar; and a guide rail secured to the said bar; of a shoe slidable on the said guide rail; a fork, a lifting frame and a radius frame pivoted together and to the said shoe, a block slidable on the guide rail behind the said shoe and provided with a longitudinal rod, a guide for the said rod secured to the main frame, a collar on the said rod, a spring arranged between the said guide and collar and operating to slide the block rearwardly, guide sheaves carried by the main frame and lifting frame, a flexible connection pasaing over the said guide sheaves and connecting the fork with the said rod, and a pivoted lever, for leveling the fork, provided with a catch for engaging with the said block.

[Claims 6 to 8 not printed in the Gazette.]

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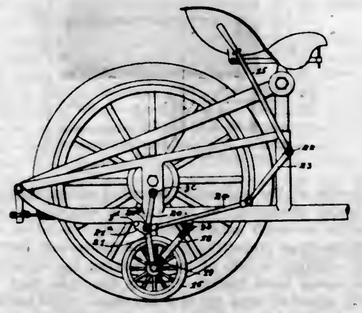
1,091,065. AUXILIARY-WHEEL MECHANISM FOR MOTOR-CYCLES. DAVID JAMES JOHNSTON, Toronto, Ontario, Canada, assignor to The Militaire Auto Company, Inc., Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 29, 1913. Serial No. 744,852. (Cl. 208—78.)

1. In a motor-cycle having a frame, the combination of a pair of auxiliary wheels mounted in hangers pivotally attached to the frame adjacent the rear end thereof, toggle connections between said hangers and the frame, means for actuating said toggles, whereby the wheels are raised and lowered and a stop to govern the throw of the toggle.

2. In a motor-cycle having a frame, the combination of a pair of auxiliary wheels mounted in hangers pivotally attached to the frame adjacent the rear end thereof, toggle connection between said hangers and the frame, a lever and link connection for actuating said toggle to raise and lower the wheels, and a stop to govern the throw of the toggle.



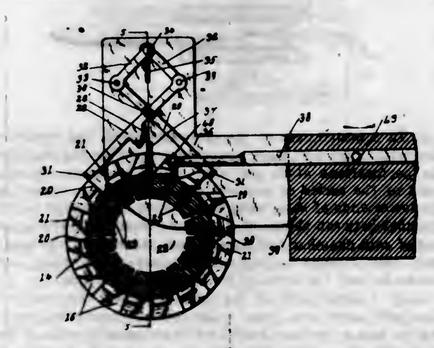
3. In a motor-cycle having a frame, the combination of a pair of auxiliary wheels mounted in hangers pivotally attached to the frame adjacent the rear end thereof, means for adjusting the wheel axles in the hangers, toggle connections between said hangers and the frame, arms mounted on the frame, links connecting said arms with the toggle, a hand lever adapted to coöperate with said arms, links and toggles, whereby the wheels are raised and lowered, and a stop to govern the throw of the toggle.



4. In a motor cycle, the combination with a pair of auxiliary wheels mounted in hangers, of an axle for each of said wheels, bearings for said axles adapted to be rotatably shifted, circumferentially notched flanges on said bearings, spanners secured to said hangers having teeth engaging within said notches, said axle being eccentrically mounted in said bearings, and means for raising and lowering said hanger and wheel.

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1,091,066. VENDING-MACHINE. HUGH J. KEENAN, Jackson, Mich., assignor of two-thirds to Charles M. Braund and Louis R. Braund, Jackson, Mich. Filed July 17, 1913. Serial No. 779,502. (Cl. 194—57.)



1. In a vending machine, in combination with a casing, a rotatable magazine, an internal gear connected to said magazine to rotate therewith, a cylindrical coin holder having a series of coin pockets, a gear on one side of said coin holder meshing with said internal gear on said magazine, spaced ratchet teeth on the other side of said coin holder, a pawl coacting therewith, a plunger arranged with its end in the groove of the coin holder to engage a coin held thereby when the plunger is actuated, and means for actuating the plunger, the coin constituting a connector between the plunger and holder and engaging the said pawl whereby the pawl is released during the initial movement of the coin holder and the actuation of said plunger rotates the coin holder.

2. In a vending machine, in combination with a casing, a magazine, a cylindrical rotatable coin-holder having a series of peripheral coin pockets, said coin holder being geared to said magazine, spaced ratchet teeth on said coin holder, a pair of pawls co-acting therewith, said pawls being mounted in a crossed relation on a pivot common to both and being adapted to simultaneously engage the teeth of the coin holder ratchet, whereby the coin holder is held against rotation in either direction, the ratchet teeth being spaced to permit a limited movement of the coin holder while the pawls are engaged therewith, a pair of links pivotally mounted on the upper ends of the pawls and pivotally connected to each other, a guide slot with which the pivot connecting the links engages, a cam disposed on one of said pawls to be engaged by a coin in the coin holder when the holder is rotated, a plunger arranged to engage a coin held by the coin holder when the plunger is actuated, and means for actuating the plunger, the coin constituting a connector between the plunger and holder and engaging the said cam on said pawl whereby the pawls are released during the initial movement of the coin holder.

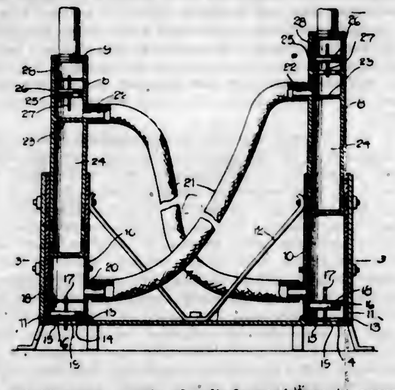
3. In a vending machine, in combination with a casing, a rotatable magazine, an internal gear connected to said magazine to rotate therewith, a cylindrical coin holder having a peripheral groove therein and a series of coin pockets, a gear on one side of said coin holder meshing with said internal gear on said magazine, ratchet teeth on the other side of said coin holder, a locking pawl coacting therewith, a plunger arranged with its end in the groove of the coin holder to engage a coin held thereby when the plunger is actuated, and means for actuating the plunger, the coin constituting a connector between the plunger and holder and engaging the said pawl whereby the pawl is released during the initial movement of the coin holder and the actuation of said plunger rotates the coin holder.

4. In a vending machine, in combination with a casing, a rotatable magazine, an internal gear connected to said magazine to rotate therewith, a cylindrical coin holder having a series of coin pockets, a gear on one side of said coin holder meshing with said internal gear on said magazine, ratchet teeth on the other side of said coin holder, a locking pawl coacting therewith, a plunger arranged to engage a coin held by the coin holder when the plunger is actuated, and means for actuating the plunger, the coin constituting a connector between the plunger and holder and engaging the said pawl whereby the pawl is released during the initial movement of the coin holder and the actuation of said plunger rotates the coin holder.

5. In a vending machine, in combination with a casing, a rotatable magazine, a gear connected to said magazine to rotate therewith, a cylindrical coin holder having a peripheral groove therein and a series of pockets formed by opposed slot-like notches in the walls of the groove, the front walls of the notches being radial, the rear walls being inclined rearwardly, there being radial slots leading from each pocket to a central opening in the holder, the width of said slots being slightly less than the width of said pockets, a gear on one side of said coin holder meshing with said gear on said magazine, spaced ratchet teeth on the other side of said coin holder, a locking pawl coacting therewith, a plunger arranged with its end in the groove of the coin holder to engage a coin held thereby and means for actuating the plunger, the coin constituting a connection between the plunger and holder whereby the actuation of said plunger rotates said holder, and said coin engaging said pawl to release the same during the initial movement of the coin holder.

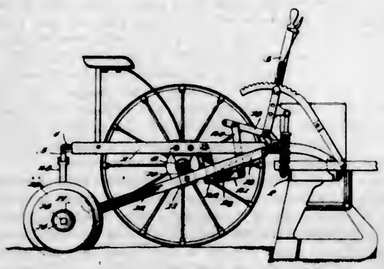
[Claims 6 to 10 not printed in the Gazette.]

1,091,067. FLUID-PUMP. GEORGE LEESON, Delta, Colo. Filed May 31, 1913. Serial No. 771,105. (Cl. 103—77.)



In a fluid pump, a pair of cylinders, pistons to operate in the respective cylinders, water elevating pipes detachably connected to the upper ends of the pistons, a suction valve mounted in the lower end of each cylinder and opened in the upward movement of the piston therein, each of said pistons being provided with an internal horizontal wall dividing the same into upper and lower chambers, a fluid pressure valve mounted in the upper chamber, said piston being provided with a nipple projecting laterally from the lower end of said chamber, each of the piston cylinders having an outlet nipple adjacent its lower end, a conducting tube connecting the nipple of one cylinder with the nipple of the piston in the other cylinder whereby fluid is discharged into the upper chamber of each piston and the pressure valve unseated in the downward stroke of the other piston to permit the water to enter the elevating pipe, and operating means connecting the water elevating pipes for reciprocating the pistons in relatively opposite directions.

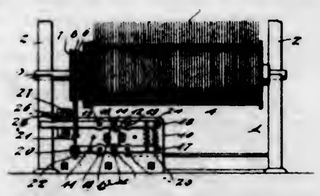
1,091,068. ATTACHMENT FOR CORN-PLANTERS. HENRY S. LUBBEN, Le Mars, Iowa. Filed Oct. 16, 1913. Serial No. 795,520. (Cl. 111—11.)



1. The combination with a planter comprising a main frame, a supporting axle, seed shoes carried by said main frame, a marking rod carried by said frame and a lever for raising and lowering said seed shoes, of a supplemental covering implement, connections to said lever whereby said implement may be raised or lowered simultaneously with the raising and lowering of said seed shoes, and a bracket carried by said supplemental implement for raising or lowering said marking rod simultaneously with the raising or lowering of said seed shoes and covering implement.

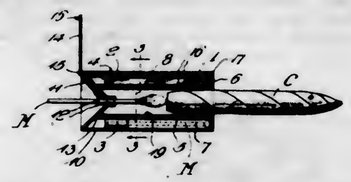
2. The combination with a planter comprising a main frame, a supporting axle, seed shoes carried by said main frame, and a lever for raising and lowering said seed shoes, of a plurality of draw bars pivotally carried by said axle, a shaft carried by the rear ends of said draw-bars, disks carried by said shaft, a rock shaft having rigid arms pivoted to said draw-bars ,and an arm connected by a link to said lever.

1,091,069. FRICTION-CLUTCH. JAMES MARVEL, New Bedford, Mass. Filed Mar. 7, 1912. Serial No. 682,155. (Cl. 74—13.)



A device of the character described comprising a tension device consisting of an upright support, a casting adjustably mounted longitudinally upon the latter, a pair of stub bearings projecting from the upper and lower ends of said casting, a pair of levers having openings formed therein along their length, whereby the same may be adjustably mounted upon the stub bearings, coiled contractile tension springs connecting one end of said lever beyond the casting, a flexible connection leading from the opposite end of the lower lever to a revolubly mounted member, and a cam movably secured to the upright support for interlocking engagement with the projecting free end of the upper lever, said cam also forming a stop for the latter when released.

1,091,070. POCKET MATCH-SAFE. JOSEPH MAST, Miami, Ariz. Filed July 28, 1913. Serial No. 781,702. (Cl. 206—36.)



1. In a match safe of the class described, the combination with outer and inner concentric walls having registering perforations along one side, radial walls at opposite sides of the series of perforations, and a ring connecting the lower ends of said walls and leaving an annular match chamber between them; of a movable closure for the upper end of said chamber and for the bore throughout the inner wall, such closure having a match-entrance opening, and means around the opening for igniting the match.

2. In a match safe of the class described, the combination with outer and inner walls having registering perforations along one side, radial walls at opposite sides of the series of perforations, and a ring connecting the lower ends of said walls and leaving an annular match chamber between them; of a band around inside the open mouth of the outer wall and projecting above the same so as to produce a shoulder, a closure consisting of a tube-section adapted to surround the projecting end of said band, and a funnel whose larger upper end is connected with the upper end of said section and whose smaller lower end is slitted into spring fingers for the purpose described, its body when in place resting on the upper end of said inner wall, for the purpose set forth.

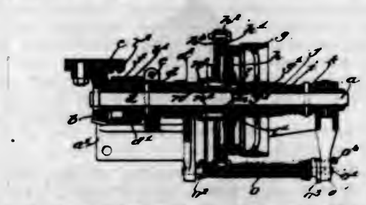
3. In a match safe of the class described, the combination with outer and inner walls having registering perforations along one side, radial walls at opposite sides of the series of perforations, and a ring connecting the lower ends of said walls and leaving an annular match chamber between them; of a band around inside the open mouth of the outer wall and projecting above the same so as to produce a shoulder, a closure consisting of a tube-section adapted to surround the projecting end of said band and a funnel whose larger upper end is connected with the upper end of said section and whose smaller lower end is slitted into spring fingers for the purpose described, its body when in place resting on the upper end of said inner wall, and a cover for said closure movably connected at one side to the upper end of said funnel and detachably connected at the other side to the opposite side of the funnel, the cover being bodily removable with the closure.

4. A match safe of the class described comprising outer and inner walls forming an annular match-chamber between them, a lower end wall closing said chamber, asbestos lining within the bore of the inner wall, both walls being perforated along one side, radial walls connecting the walls on opposite sides of said perforations, and a closure for the upper end of the device including a tube section adapted to detachably engage the upper end of the outer wall and a funnel carried by said tube section and adapted to rest on the upper end of the inner wall, the mouth of the funnel being slitted into fingers, for the purpose set forth.

5. A match safe of the class described comprising outer and inner walls forming an annular chamber between them, asbestos lining within the bore of the inner wall, both walls being perforated along one side, and a closure for the upper end of the device including a tube section adapted to detachably engage the upper end of the outer wall and a funnel carried by said tube section and adapted to rest on the upper end of the inner wall, the mouth of the funnel being slitted into fingers, for the purpose set forth.



1,091,071. STOP MECHANISM. BENJAMIN F. MAYO, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 7, 1902. Serial No. 130,385. (Cl. 74—46.)



1. A stop mechanism, having, in combination, a shaft, means for actuating said shaft, means for connecting and disconnecting said shaft and its actuating means and stopping said shaft mechanism driven by said shaft, and a spring connection between said shaft and said mechanism arranged to allow an independent substantial forward movement of said mechanism and to impart a return movement thereto after said shaft is stopped, substantially as described.

2. A stop mechanism, having, in combination, a shaft, means for actuating said shaft, means for connecting and disconnecting said shaft and its actuating means, a gear driven by said shaft, means for imparting a positive forward movement to said gear from the shaft, and a spring connection between said shaft and said gear arranged to allow an independent substantial forward movement of the gear and to impart a return movement thereto, substantially as described.

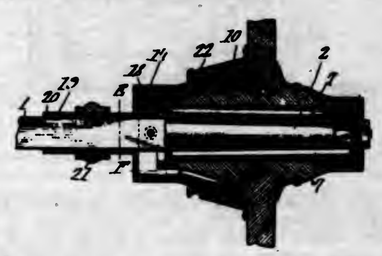
3. A stop mechanism, having, in combination, a shaft, a gear loosely mounted upon said shaft provided with a clutch projection, mechanism driven by said gear, a collar secured to said shaft provided with a coöperating clutch projection, a spring coiled around said shaft connecting said collar and gear and arranged to allow an independent substantial forward movement of said gear, means for actuating said shaft, and means acting automatically to disconnect said shaft from its actuating means and stop the rotation of said shaft, substantially as described.

4. A stop mechanism, having, in combination, a shaft, mechanism driven by said shaft, a spring connection between said shaft and said mechanism arranged to allow an independent forward movement of said mechanism and to impart a return movement thereto, an independent cushion device for stopping the return movement of said mechanism, means for actuating said shaft, and means acting automatically to disconnect said shaft from its actuating means and stop the rotation of said shaft, substantially as described.

5. A stop mechanism, having, in combination, a shaft, a gear loosely mounted upon said shaft provided with a clutch projection, a collar secured to said shaft provided with a coöperating clutch projection, a cushion device interposed between said projections, a spring connecting said shaft and gear, means for actuating said shaft, and means acting automatically to disconnect said shaft from its actuating means and stop the rotation of said shaft, substantially as described.

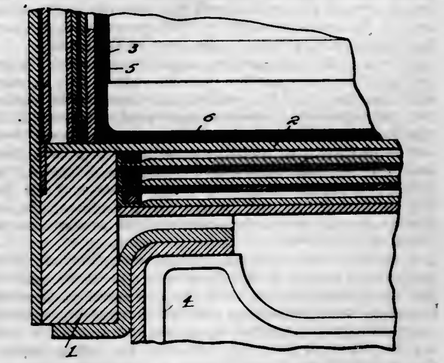
[Claims 6 to 18 not printed in the Gazette.]

1,091,072. DUST-CAP FOR VEHICLE-WHEELS. DONALD MCKAY, Montgomery, Ala. Filed June 19, 1913. Serial No. 774,665. (Cl. 21—40.)



The combination with an axle, of a hub adapted to rotate thereon, a dust cap extending around the inner portion of the hub and including upper and lower interfitting sections, said upper section lapping the outer sides of the lower section, there being upper and lower trough-like extensions upon the upper and lower sections respectively and embracing the axle, means for binding the extensions upon the axle, and a shield secured to the hub and extending around that end portion of the dust cap nearest the hub.

1,091,073. WATER-TIGHT, SANITARY FLOOR FOR CARS AND SIMILAR STRUCTURES. JOHN EMORY MEEK, New York, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Nov. 16, 1912. Serial No. 731,786. (Cl. 94—1.)



1. A hard, but flexible waterproof covering for floors of railroad cars and the like comprising in combination

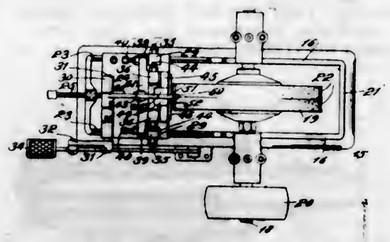
a bottom layer of cement, a top layer of hard mastic containing a metal reinforcement embedded therein, and an intermediate layer of fibrous fabric saturated with bituminous material.

2. A floor covering for railroad cars and the like comprising in combination a bottom layer of bituminous cement, a top layer of hard mastic, with strips of elastic bitumen inset therein, and an intermediate layer of fabric saturated with bituminous material.

3. A floor covering for railroad cars and the like comprising in combination a bottom layer of bituminous cement, a top layer composed of panels of hard mastic with a skeleton metal reinforcement embedded therein and strips of elastic bitumen between said panels, and an intermediate layer comprising asbestos fabric saturated with bituminous materials.

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1,091,074. KNIFE-BLADE-SWAGING MACHINE. THOMAS R. MOORE, Walden, N. Y. Filed Aug. 27, 1912. Serial No. 717,261. (Cl. 51—4.)



1. In a knife-blade swaging machine, an abrasive wheel having a peripheral groove, a bed having means for detachably holding a blade thereon with one face of the blade partly exposed, and means for moving the bed to present the side edge of the forward back portion only of the blade angularly to the groove in said wheel, for swaging said portion to the point of the blade.

2. In a knife-blade swaging machine, an abrasive wheel having two corresponding parallel peripheral grooves, a bed having means for detachably and reversibly holding two corresponding blades on corresponding inwardly converging lines, and means for moving said bed to present the side edges of the forward back portions only of the blades angularly to the grooves in said wheel, for swaging said portions to the points of the blades.

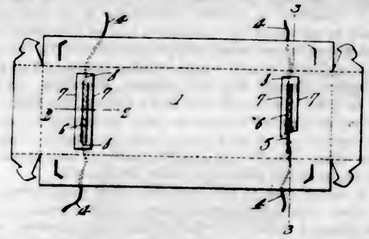
3. In a knife-blade swaging machine, an abrasive wheel having a peripheral groove, a bed having means for detachably holding a blade thereon with one face of the blade partly exposed, a clamp to engage the exposed face of the blade to bind the blade against said bed, and lever means for moving the clamp against the blade and the bed to present the side edge of the forward back portion only of the blade angularly to the groove in said wheel, for swaging said portion to the point of the blade.

4. In a knife-blade swaging machine, an abrasive wheel having two corresponding parallel peripheral grooves, a bed having means for detachably and reversibly holding two corresponding blades on corresponding inwardly inclined lines, a clamp to engage the exposed faces of both blades to bind the blades against said bed, and lever means for moving the clamp to engage said faces of the blades and the bed to present the side edges of the forward back portions only of the blades angularly to the grooves in said wheel, for swaging said portions to the points of the blades.

5. A knife-blade swaging machine comprising an abrasive wheel having a peripheral groove, a pivotally mounted bed for supporting the blade to be swaged, a pivotally mounted frame supporting said bed, a pivotally mounted clamp for binding against the blade, and means for turning the clamp against the blade and the bed to present the clamped blade to said wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,091,075. SUIT-BOX. JACOB B. MOSES, Dallas, Tex. Filed May 27, 1910. Serial No. 563,729. (Cl. 229—46.)



A box forming member provided along its longitudinal edges with foldable wings and provided adjacent its ends with pairs of openings; flexible elements extended through the openings transversely of the box forming member and having their ends free, the intermediate portions of the flexible elements bearing against the lower or inner face of the box forming member between the openings; and keepers secured to the box forming member transversely of the same, the keepers covering the intermediate portions of the flexible elements completely and constituting closures for the openings, the ends of the keepers terminating between the openings and the inner edges of the wings, thereby to prevent the openings from splitting outwardly toward the wings when the ends of the flexible elements are united.

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1,091,076. LABEL FOR HAIR SWITCHES. MAX MULLER, Chicago, Ill. Filed Feb. 25, 1913. Serial No. 750,569. (Cl. 40—2.)



1. A switch, comprising, a plurality of tufts secured together at their upper ends to form a head, a label, an outer binding or wrapping-thread secured to said head at one end and threaded through the upper end of the label and subsequently wound about said upper end of the label and the said head to form a finished head for the switch and hold the said label, substantially as described.

2. A switch, comprising, a plurality of tufts secured together at their upper ends to form a head, a label, an outer binding or wrapping-thread secured to said head and partially wound thereabout, subsequently threaded through the upper end of the label and beyond that point wound about the label and the head to form a finished head for the switch and hold the label, substantially as described.

3. A device of the kind described, comprising a hair switch having a head made up of many turns of thread wound around the top thereof; and a ribbon label perforated near one end, a part of said thread being wound under said label, a portion passing through the perforations therein and the remainder of said thread being wound over said end, substantially as described.

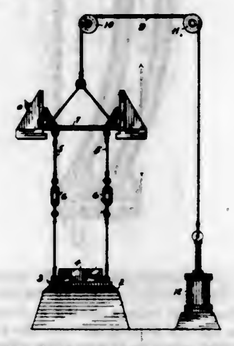
4. A switch, comprising, a plurality of tufts secured together at their upper ends to form a head, and a label, formed of fabric, and in addition to serving as a label, also adapted to serve as a suspending-means, secured at one end to the said head and projecting therefrom.

5. A switch, comprising, a plurality of tufts secured together at their upper ends to form a head, and a label, formed of fabric, and, in addition to serving as a label, also adapted to serve as a suspending means, secured at one end and bound to said head by the external binding thereof.



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1,091,077. JOLT-RAMMING MECHANISM. EDGAR H. MUMFORD, Plainfield, N. J. Filed Sept. 13, 1910. Serial No. 581,831. (Cl. 22—45.)



1. A jolt ramming mechanism comprising in combination a mold table, an impact anvil, and means for jolting the mold table comprising an operating motor, an overhead reciprocable guide member, a connection between the motor and the guide member, and a plurality of flexible cables for supporting the mold table from the guide member, the guide member, anvil and table being so arranged that unobstructed access is had to the anvil to manipulate the mold parts.

2. A jolt ramming mechanism comprising in combination an impact anvil mounted on the foundry floor, a mold table, and means for jolting the mold table comprising an operating motor, an overhead reciprocable guide member supported from the superstructure of the foundry, a connection between the motor and the guide member, and a plurality of cables for supporting the mold table from the guide member, the guide member and anvil being so arranged that unobstructed access is had to the anvil to manipulate the mold parts.

3. In jolt ramming apparatus, the combination of a motor, an anvil, an overhead substantially vertically reciprocable guide member, a cradle for supporting the mold flask, a flexible connection between the guide member and the cradle, and a flexible operative connection between the motor and the guide member.

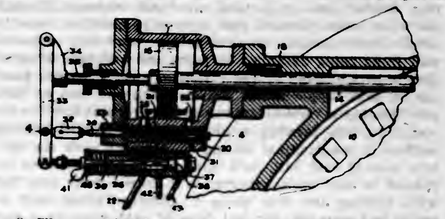
4. In jolt ramming apparatus, the combination of a motor, an anvil, an overhead substantially vertically reciprocable guide member, a cradle for supporting the mold flask, a flexible connection between the guide member and the cradle, a flexible operative connection between the motor and the guide member, guide ways for the guide member and means on the guide ways for arresting the downward movement of the guide member.

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1,091,078. EXTRACTING STEAM FROM STEAM-TURBINES. FRED E. NORTON, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 11, 1913. Serial No. 741,442. (Cl. 121—118.)

1. The combination with a multistage turbine, of a conduit for extracting steam from a stage of higher pressure, an annular overflow valve between said stage and the one next lower, a motor for opening and closing said valve, and means responsive to the steam pressure in said extraction stage for controlling said motor for the purpose of maintaining constant pressure in said stage.

2. The combination with a multistage turbine, of a gridiron overflow valve between stages, a motor for operating said valve, a pilot valve controlling said motor, a movable abutment for actuating the pilot valve and exposed to a higher stage pressure, a spring opposing said pressure on said abutment, and a pipe opening out of said higher stage for supplying steam for industrial purposes.



3. The combination with a multistage turbine, of an annular valve revoluble on a diaphragm and controlling the flow of steam to a lower stage, a motor for operating said valve, a pilot valve for said motor, a pipe connected to a stage of higher pressure through which steam flows, and a device responsive to variations in steam pressure in said stage of higher pressure for controlling said pilot valve.

4. The combination with a multistage turbine, of a conduit for steam connected to a stage of higher pressure, an annular valve controlling ports between said stage and the next lower, a piston motor for actuating said valve, a pilot valve controlling said motor, a piston working in a cylinder and exposed to the pressure in said higher stage, a spring opposing said pressure, and a floating lever pivotally connected to the piston pilot valve stem and the movable element of the motor.

5. The combination with a multistage turbine, of an annular gridiron valve revolubly mounted on a diaphragm between two stages and controlling the flow of steam to the nozzles of the next lower stage, a conduit extracting steam for industrial purposes from the higher stage, and means responsive to the pressure in said higher stage for opening and closing said valve.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,079. DRAWER-GUIDE. EDWARD F. POOLEY, Philadelphia, Pa. Filed Aug. 29, 1910. Serial No. 579,471. (Cl. 45—77.)



1. In combination, a drawer housing at its ends having fixed horizontal supports projecting inwardly, angle irons having their horizontal flanges arranged longitudinally of and resting on and secured to said supports with their vertical flanges rising therefrom and forming narrow-edge drawer-supporting rails, a sliding drawer having its ends externally formed with longitudinal recesses of a height and depth to receive said supports and rails, and angle irons having their vertical flanges fitting and fixed to the vertical faces of said drawer ends above said recesses and said supports and their horizontal flanges forming longitudinal flat unobstructed bearing surfaces along the top edge walls of said recesses and resting on the narrow top edges of said rails in sliding adjustment, and rubbing strips 9, parallel with and remote from said recesses and limiting endwise movement of the drawer to prevent lateral disengagement of said bearing surfaces and rail edges.

2. In combination, a drawer having a projecting front and having its ends externally formed throughout their

lengths and behind said front with recesses longitudinally open at their outer sides, a housing for said drawer at its ends having supports 6, 60, extending from front to rear thereof and projecting into said recesses through the open sides thereof, and drawer supporting irons in length approximately equal to said recesses and supports, said irons being arranged in pairs and arranged longitudinally of and fixed to and throughout their lengths bearing on said supports and drawer ends, one iron of each pair forming a vertical drawer supporting rail and the cooperating iron forming a wide flat unobstructed bearing surface in longitudinal sliding engagement with the narrow edge of said rail, said rails and bearing surfaces arranged in said open recesses, said drawer ends provided with rubbing and stop strips 9, arranged below said recesses and engaging vertical faces of said supports 6, and limiting independent lateral movement of said rails and bearing surfaces and holding vertical faces thereof and of said recesses from lateral engagement.

3. In combination, a drawer housing, a sliding drawer in said housing with its ends held from binding contact with the housing ends, and drawer supports arranged horizontally from front to rear of and between and fixed to the drawer and housing ends intermediate the top and bottom edges of the drawer ends and holding said drawer centered in the housing with the top and bottom edges of its ends held from rubbing contact with the housing, said supports consisting of two pairs of rails and plates, each rail being fixed and arranged vertically or on edge and presenting a relatively narrow longitudinal edge, and each plate being fixed and arranged horizontally and unobstructed at its outer longitudinal edge to form a wide flat bearing surface having drawer-supporting longitudinal and lateral sliding engagement with said longitudinal edge of its coöperating rail, said drawer held against rubbing contact between the side faces of said rails and the adjacent vertical faces of the parts to which said plates are secured.

4. A sliding drawer, at the outer surfaces of its ends and intermediate the top and bottom edges thereof, provided with exposed horizontally-arranged plates fixed to and extending from front to rear of said ends and unobstructed at their outer longitudinal edges forming wide flat bearing surfaces in combination with a drawer housing at its ends having fixed drawer-supporting rails extending from front to rear thereof intermediate the top and bottom walls of the housing, said rails arranged vertically and presenting narrow longitudinal top edges on which said unobstructed horizontal wide bearing surfaces rest in longitudinal and lateral sliding engagement, said rails and surfaces upholding said drawer centered in said housing with the top and bottom edges of the drawer ends held from rubbing contact with the top and bottom portions of the housing, said drawer being centered horizontally in said housing with the vertical surfaces of the drawer ends held from rubbing contact with the vertical faces of said rails.

5. In combination, a drawer housing at its ends having fixed horizontal supports projecting inwardly, angle irons having their horizontal flanges arranged longitudinally of and resting on and secured to said supports with their vertical flanges rising therefrom and forming narrow-edge drawer-supporting rails, a sliding drawer having its ends externally formed with longitudinal recesses of a height and depth to receive said supports and rails, and angle irons having their vertical flanges fitting and fixed to the vertical faces of said drawer ends above said recesses and said supports and their horizontal flanges forming longitudinal flat unobstructed bearing surfaces along the top edge walls of said recesses and resting on the narrow top edges of said rails in sliding adjustment.

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1,091,080. FILTER-PLATE. PHILIPP PORGES, Vienna, Austria-Hungary, assignor of one-half to Leo Steinschneider, Brunn, Austria-Hungary. Filed June 3, 1912. Serial No. 701,246. (Cl. 210—13.)

1. A filter plate comprising a body portion of sheet metal, and a rim portion comprising frames attached to said body portion, said frames having a channel extending around the rim portion formed between the same, in which channel the liquid escaping to the sides of the filter plate is adapted to collect.



2. A filter plate comprising a body portion of sheet metal, and a rim portion comprising frames attached to said body portion, said frames having a channel extending around the rim portion formed between the same, in which channel the liquid escaping to the sides of the filter plate is adapted to collect, and strainers arranged over the face of said body portion and extending to said channel.

3. A filter plate comprising a circular body portion of sheet metal, and an annular rim portion comprising annular frames attached to said body portion, said frames having an annular channel formed between the same in which the liquid escaping to the sides of said filter plate is adapted to collect.

4. A filter plate comprising a body portion of sheet metal and a rim portion comprising frames attached to said body portion opposite one another, said frames having a channel formed between the same and extending around said rim portion, said rim frames extending beyond the edges of said body portion and joined at their outer edges.

5. A filter plate comprising a body portion of sheet metal and a rim portion comprising frames attached to said body portion opposite one another, said frames having a channel formed between the same and extending around said rim portion, said rim frames extending beyond the edges of said body portion, and an intermediate strip joining the outer edge portions of said rim frames.

[Claim 6 not printed in the Gazette.]

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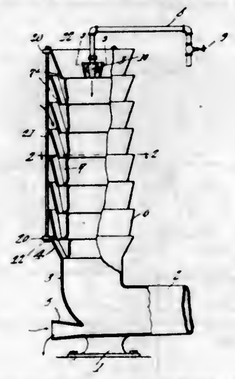
1,091,081. STEAM OR AIR BLOWER. EDWARD RENARD, Lewistown, Pa. Filed Apr. 1, 1913. Serial No. 758,288. (Cl. 230—13.)

1. In a device of the class described, a conduit comprising separable, telescopic, conical thimbles, each thimble being provided upon its outer surface and adjacent its smaller end with a rib which extends approximately parallel to the axis of the conduit beyond the smaller end of said thimble and engages the inner face of the larger end of an adjoining thimble.

2. In a device of the class described, a conduit comprising primary and secondary conical thimbles, the smaller end of the primary thimble being located within the larger end of the secondary thimble, one thimble being provided with ribs which extend but part way across the outer face of the primary thimble above the secondary thimble and extend across the inner face of the secondary thimble below the smaller end of the primary thimble.

3. In a device of the class described, a discharge member having an angularly disposed neck provided with an outlet and with an opening located adjacent the bottom of the discharge member; a conduit supported upon the neck; and a nozzle discharging into the conduit.

4. In a device of the class described, a discharge member comprising a neck, the neck being provided with an outstanding funnel, located adjacent the bottom of the discharge member and constituting a combined air inlet



and an outlet for water of condensation; a conduit supported upon the neck; and a nozzle discharging into the conduit.

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1,091,082. SASH-BALANCE. JOHN EDWARD RICHARDSON, Wilcoe, W. Va. Filed Oct. 30, 1913. Serial No. 798,275. (Cl. 16—149.)



A sash balance of the character described comprising a frame consisting of a rear member and an apertured face member, said members having inturned overlapping end portions adapted to form a sliding connection, friction rollers mounted in the face portion and projecting through said apertures, springs to offer a yielding resistance to rotation of said rollers, lugs at the ends of the face member, compression springs interposed between said lugs and the rear members, registering slots in the inturned end portions of the frame members, and members engaging the said slotted end portions to limit the relative sliding movement of the frame members and also forming braces for said lugs.

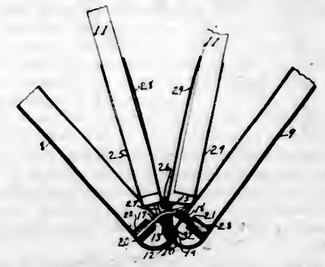
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1,091,083. CIGARETTE-CASE. MEYER L. ROBBINS, New York, N. Y. Filed July 18, 1913. Serial No. 779,746. (Cl. 206—41.)

1. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a supporting member located within said body portion and pivotally supported at the hinge connection aforesaid, and which supporting member is provided with openings; a cigarette carrying member pivotally connected with said supporting member; an arm secured to each of said lids and the free ends of which arms extend through the opening aforesaid in said supporting member; and a spring surrounding each of said arms and which springs tend to force said lids apart and to hold said supporting member in a central position between the lids when the case is open.



2. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; and means for holding said supporting member in a central position between the lids when the case is open.



3. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms are adapted to engage said supporting member; and spring mechanism acting upon said lids and tending to force them apart.

4. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion and provided with openings; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms extend through openings provided in said supporting member; and a spring surrounding each of said arms and which springs tend to force said lids apart and to hold said supporting member in a central position between the lids when the case is open.

5. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a supporting member located within said body portion and pivotally supported at the hinge connection aforesaid; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms are adapted to engage said supporting member; and spring mechanism acting upon said lids and tending to force them apart.

[Claim 6 not printed in the Gazette.]

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1,091,084. SHIELD FOR RADIATORS. HERMANN ROMÜNDER, Mishawaka, Ind. Filed Apr. 16, 1913. Serial No. 761,554. (Cl. 237—19.)

1. A shield including a frame comprising a rear strip, uprights depending therefrom, and cleats projecting forwardly and at approximately right angles to the rear

lengths and behind said front with recesses longitudinally open at their outer sides, a housing for said drawer at its ends having supports 6, 60, extending from front to rear thereof and projecting into said recesses through the open sides thereof, and drawer supporting irons in length approximately equal to said recesses and supports, said irons being arranged in pairs and arranged longitudinally of and fixed to and throughout their lengths bearing on said supports and drawer ends, one iron of each pair forming a vertical drawer supporting rail and the cooperating iron forming a wide flat unobstructed bearing surface in longitudinal sliding engagement with the narrow edge of said rail, said rails and bearing surfaces arranged in said open recesses, said drawer ends provided with rubbing and stop strips 9, arranged below said recesses and engaging vertical faces of said supports 6, and limiting independent lateral movement of said rails and bearing surfaces and holding vertical faces thereof and of said recesses from lateral engagement.

3. In combination, a drawer housing, a sliding drawer in said housing with its ends held from binding contact with the housing ends, and drawer supports arranged horizontally from front to rear of and between and fixed to the drawer and housing ends intermediate the top and bottom edges of the drawer ends and holding said drawer centered in the housing with the top and bottom edges of its ends held from rubbing contact with the housing, said supports consisting of two pairs of rails and plates, each rail being fixed and arranged vertically or on edge and presenting a relatively narrow longitudinal edge, and each plate being fixed and arranged horizontally and unobstructed at its outer longitudinal edge to form a wide flat bearing surface having drawer-supporting longitudinal and lateral sliding engagement with said longitudinal edge of its coöperating rail, said drawer held against rubbing contact between the side faces of said rails and the adjacent vertical faces of the parts to which said plates are secured.

4. A sliding drawer, at the outer surfaces of its ends and intermediate the top and bottom edges thereof, provided with exposed horizontally-arranged plates fixed to and extending from front to rear of said ends and unobstructed at their outer longitudinal edges forming wide flat bearing surfaces in combination with a drawer housing at its ends having fixed drawer-supporting rails extending from front to rear thereof intermediate the top and bottom walls of the housing, said rails arranged vertically and presenting narrow longitudinal top edges on which said unobstructed horizontal wide bearing surfaces rest in longitudinal and lateral sliding engagement, said rails and surfaces upholding said drawer centered in said housing with the top and bottom edges of the drawer ends held from rubbing contact with the top and bottom portions of the housing, said drawer being centered horizontally in said housing with the vertical surfaces of the drawer ends held from rubbing contact with the vertical faces of said rails.

5. In combination, a drawer housing at its ends having fixed horizontal supports projecting inwardly, angle irons having their horizontal flanges arranged longitudinally of and resting on and secured to said supports with their vertical flanges rising therefrom and forming narrow-edge drawer-supporting rails, a sliding drawer having its ends externally formed with longitudinal recesses of a height and depth to receive said supports and rails, and angle irons having their vertical flanges fitting and fixed to the vertical faces of said drawer ends above said recesses and said supports and their horizontal flanges forming longitudinal flat unobstructed bearing surfaces along the top edge walls of said recesses and resting on the narrow top edges of said rails in sliding adjustment.

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1,091,080. FILTER-PLATE. PHILIPP POAGES, Vienna, Austria-Hungary, assignor of one-half to Leo Steinschneider, Brunn, Austria-Hungary. Filed June 3, 1912. Serial No. 701,246. (Cl. 210—13.)

1. A filter plate comprising a body portion of sheet metal, and a rim portion comprising frames attached to said body portion, said frames having a channel extending around the rim portion formed between the same, in which channel the liquid escaping to the sides of the filter plate is adapted to collect.



2. A filter plate comprising a body portion of sheet metal, and a rim portion comprising frames attached to said body portion, said frames having a channel extending around the rim portion formed between the same, in which channel the liquid escaping to the sides of the filter plate is adapted to collect, and strainers arranged over the face of said body portion and extending to said channel.

3. A filter plate comprising a circular body portion of sheet metal, and an annular rim portion comprising annular frames attached to said body portion, said frames having an annular channel formed between the same in which the liquid escaping to the sides of said filter plate is adapted to collect.

4. A filter plate comprising a body portion of sheet metal and a rim portion comprising frames attached to said body portion opposite one another, said frames having a channel formed between the same and extending around said rim portion, said rim frames extending beyond the edges of said body portion and joined at their outer edges.

5. A filter plate comprising a body portion of sheet metal and a rim portion comprising frames attached to said body portion opposite one another, said frames having a channel formed between the same and extending around said rim portion, said rim frames extending beyond the edges of said body portion, and an intermediate strip joining the outer edge portions of said rim frames.

[Claim 6 not printed in the Gazette.]

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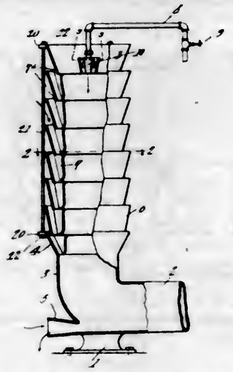
1,091,081. STEAM OR AIR BLOWER. EDWARD RENARD, Lewistown, Pa. Filed Apr. 1, 1913. Serial No. 758,288. (Cl. 230—13.)

1. In a device of the class described, a conduit comprising separable, telescopic, conical thimbles, each thimble being provided upon its outer surface and adjacent its smaller end with a rib which extends approximately parallel to the axis of the conduit beyond the smaller end of said thimble and engages the inner face of the larger end of an adjoining thimble.

2. In a device of the class described, a conduit comprising primary and secondary conical thimbles, the smaller end of the primary thimble being located within the larger end of the secondary thimble, one thimble being provided with ribs which extend but part way across the outer face of the primary thimble above the secondary thimble and extend across the inner face of the secondary thimble below the smaller end of the primary thimble.

3. In a device of the class described, a discharge member having an angularly disposed neck provided with an outlet and with an opening located adjacent the bottom of the discharge member; a conduit supported upon the neck; and a nozzle discharging into the conduit.

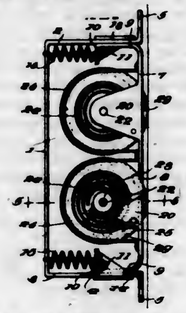
4. In a device of the class described, a discharge member comprising a neck, the neck being provided with an outstanding funnel, located adjacent the bottom of the discharge member and constituting a combined air inlet



and an outlet for water of condensation; a conduit supported upon the neck; and a nozzle discharging into the conduit.

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1,091,082. SASH-BALANCE. JOHN EDWARD RICHARDSON, Wilcoe, W. Va. Filed Oct. 30, 1913. Serial No. 798,275. (Cl. 16—149.)



A sash balance of the character described comprising a frame consisting of a rear member and an apertured face member, said members having inturned overlapping end portions adapted to form a sliding connection, friction rollers mounted in the face portion and projecting through said apertures, springs to offer a yielding resistance to rotation of said rollers, lugs at the ends of the face member, compression springs interposed between said lugs and the rear members, registering slots in the inturned end portions of the frame members, and members engaging the said slotted end portions to limit the relative sliding movement of the frame members and also forming braces for said lugs.

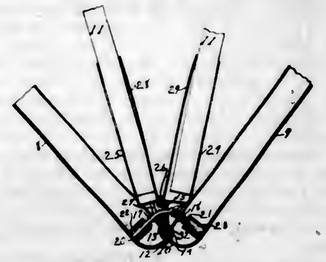
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1,091,083. CIGARETTE-CASE. MEYER L. ROBBINS, New York, N. Y. Filed July 18, 1913. Serial No. 779,746. (Cl. 206—41.)

1. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a supporting member located within said body portion and pivotally supported at the hinge connection aforesaid, and which supporting member is provided with openings; a cigarette carrying member pivotally connected with said supporting member; an arm secured to each of said lids and the free ends of which arms extend through the opening aforesaid in said supporting member; and a spring surrounding each of said arms and which springs tend to force said lids apart and to hold said supporting member in a central position between the lids when the case is open.



2. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; and means for holding said supporting member in a central position between the lids when the case is open.



3. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms are adapted to engage said supporting member; and spring mechanism acting upon said lids and tending to force them apart.

4. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a pivotally supported supporting member located within said body portion and provided with openings; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms extend through openings provided in said supporting member; and a spring surrounding each of said arms and which springs tend to force said lids apart and to hold said supporting member in a central position between the lids when the case is open.

5. In a cigarette case, a body portion comprising a pair of dished lids pivotally connected with one another to thereby provide a hinge connection; a supporting member located within said body portion and pivotally supported at the hinge connection aforesaid; two cigarette carrying members pivotally connected with said supporting member and adapted to overlie one another when the case is closed; a spring acting upon said carrying members and tending to force them apart; means for limiting the movement of said carrying members; an arm carried by each of said lids and the free ends of which arms are adapted to engage said supporting member; and spring mechanism acting upon said lids and tending to force them apart.

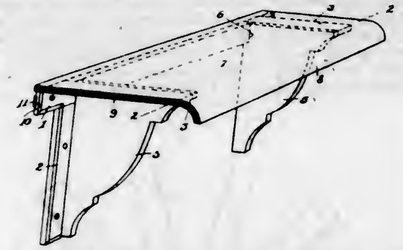
[Claim 6 not printed in the Gazette.]

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1,091,084. SHIELD FOR RADIATORS. HERMANN ROMÜNDER, Mishawaka, Ind. Filed Apr. 16, 1913. Serial No. 761,554. (Cl. 237—19.)

1. A shield including a frame comprising a rear strip, uprights depending therefrom, and cleats projecting forwardly and at approximately right angles to the rear

strip, ends secured to the uprights and cleats, a top secured to the cleats and ends, said rear strip being formed with a longitudinal channel, and a sealing strip seated in the channel and having a normal thickness exceeding the depth of the channel.

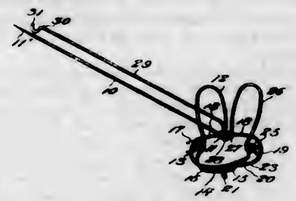


2. A shield including a frame comprising a rear strip, uprights depending therefrom, ends secured to the uprights, a top secured to the rear strip and ends and projecting forwardly of said ends and curving downwardly, and a sealing strip secured to and longitudinally of the rear strip.

3. A shield including a frame comprising a rear strip, a top secured to the rear strip, end brackets secured to the top and the rear strip, the top projecting forwardly of the end brackets and curving downwardly, and a sealing strip secured to and longitudinally of the rear strip.

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1,091,085. BASTING-PIN. HELENA ROUCHER, White Castle, La. Filed July 6, 1911. Serial No. 637,114. (Cl. 17—14.)



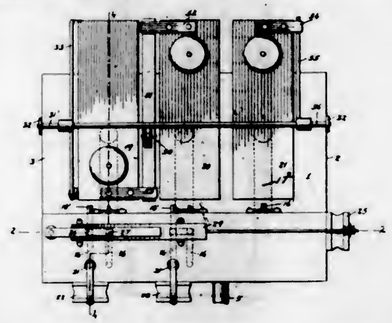
1. A device of the character described made of a single length of wire comprising a safety pin having a laterally extending head including a clasping collar ending in a hook and eye and having two laterally extending loops said loops held in parallel spaced relation.

2. A device of the character described, made of a single length of spring wire including a pin stem ending in an ear, from which the wire is continued in a leg holding loop said loop ending in the spring coil from which the wire is continued in the form of an eye ending in a spring coil held parallel to said first mentioned spring coil, from this coil the wire is continued in the bar portion terminating in a spring coil from which the wire is continued in the form of a hook ending in the spring coil held adjacent to said last mentioned spring coil, said hook at times being engaged within said eye, said wire being continued from said last mentioned spring coil in a leg holding loop, from which the wire is continued in a stem, ending in a hook to engage said pin.

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1,091,086. EXPRESSION-REGULATOR. JOSE SAMPERE, New York, N. Y., assignor to The Regina Company, Rahway, N. J., a Corporation of New Jersey. Filed June 10, 1911. Serial No. 632,319. (Cl. 84—168.)

1. An expression regulator comprising a valve chest provided with separate suction sources adapted to be connected with the pneumatic mechanism leading to the piano action, means including a slide for selectively connecting the sources with the pneumatic mechanism, a pneumatic connected to said means for moving said slide, other pneumatics controlling the degree of collapse of said first named pneumatic, and means controlled by the note sheet for actuating said pneumatics in varying combination.

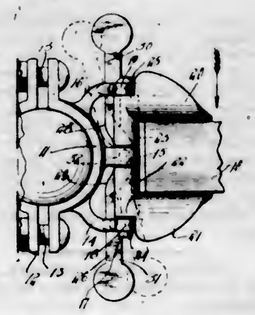


2. An expression regulator comprising a valve chest provided with separate suction sources adapted to be connected with the pneumatic mechanism leading to the piano action, means including a slide for selectively connecting the sources with the pneumatic mechanism, a pneumatic connected to said means for moving said slide, other pneumatics controlling the degree of collapse of said first named pneumatic, means controlled by the note sheet for actuating said pneumatics in varying combination, and means for restoring said pneumatics to normal position.

3. An expression regulator comprising a valve chest provided with separate suction sources adapted to be connected with the pneumatic mechanism leading to the piano action, means including a slide for selectively connecting the sources with the pneumatic mechanism, a pneumatic connected to said means for moving said slide, the degree of collapse of said pneumatic determining the effective suction source, and means controlled by the note sheet for fixing said degree of collapse.

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1,091,087 GATE-LATCH LIFT. MATTI SARVALLA and CHARLES NEUMAN, De Kalb, Ill. Filed June 11, 1913. Serial No. 773,051. (Cl. 70—28.)



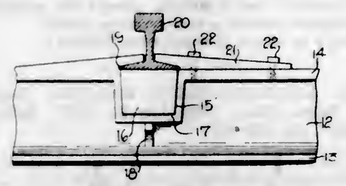
1. A gate latch including an attaching member, a pair of vertically rocking ears hingedly secured independently of each other to said member and disposed to project in the path of swinging movement of the gate in either direction, a lever centrally pivoted to said member between said ears and adapted to swing horizontally beneath and to contact with said ears independently of each other, rocking of said lever from either end serving to raise the ear on the opposite side of the pivot from said end out of the path of movement of the gate.

2. A gate latch including an attaching member, a pair of vertically rockable ears hingedly secured independently of each other to said member and disposed to project in the path of swinging movement of the gate in either direction, lugs depending from said ears, a horizontally swinging lever pivoted centrally to said member between said ears and upstanding lugs on said lever engageable with respective lugs of said ears, rocking movement of said lever from either end serving through the engagement of the ear and lever lugs to raise the ear on the opposite side of the lever pivot from said end out of the path of movement of said gate.



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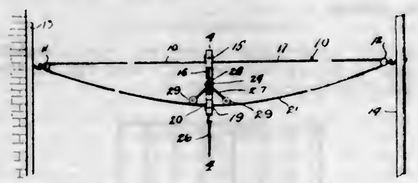
1,091,088. METALLIC RAILWAY-TIE. EDWARD C. SHAW, Portsmouth, N. H. Filed Mar. 26, 1913. Serial No. 757,008. (Cl. 238—5.)



A device of the class described comprising a metallic tie having a transverse pocket formed therein and extended beyond the opposite sides of the tie, vertical bracing walls beneath the extended portions of the pocket, a bearing block positioned in the pocket and adapted to receive a rail upon its upper face, a clamping finger formed with the tie to one side of the pocket and adapted to bear against one side of a rail base positioned upon the bearing block, and a second finger removably secured to the tie to the opposite side of the pocket and adapted to bear against the opposite side of the rail base.

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1,091,089. DEVICE FOR SPACING THE UPPER AND LOWER LAPS OF ENDLESS CLOTHES-LINES. CHARLES JOSEPH STEELE, Jersey City, N. J. Filed Sept. 22, 1913. Serial No. 791,182. (Cl. 68—3.)

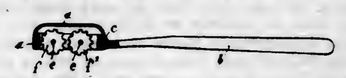


1. The combination with an endless loop clothes line of means for separating the upper lap and lower lap of the clothes line including an upper sheave engaging the top side of said upper lap, a lower sheave engaging the bottom side of said lower lap, respective rods carrying said sheaves and having shanks overlapping between said upper lap and said lower lap, means adjustably securing said shanks together, and a weight carried by the rod of said lower sheave.

2. The combination with an endless loop clothes line of means for spacing the upper lap and lower lap of the clothes line apart including an upper sheave engaging the upper side of said upper lap, a lower sheave engaging the lower side of said lower lap, respective rods carrying said sheaves and having overlapping ends, a bolt passed through said overlapping portions and adjustably securing the same together, an inverted V-shaped rod having an eye at the apex engaged on said bolt, and rollers on the legs of said rod engaging the top side of said lower lap on opposite sides of and at equal distances from said lower sheave, and a weight carried by one of said rods.

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1,091,090. APPARATUS FOR MASSAGING GUMS. CHARLES PAUL TACAIL, Paris, France. Filed Feb. 19, 1913. Serial No. 749,367. (Cl. 128—16.)

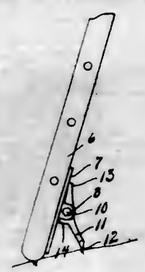


1. A massage device adapted to fit alongside of the gums within the mouth of a person, comprising two rollers, a frame in which said rollers are mounted in tandem provided with a suitable handle, the surfaces of the rollers being provided with helical ridges having opposite inclinations and adapted when the device is in use to slidingly engage with and roll upon the surfaces of the gums and exercise the flesh thereof, and to produce a movement toward the neck of the teeth of any septic matter contained in the gums.

2. A massage device adapted to fit alongside of the gums within the mouth of a person, comprising two rollers, a frame in which said rollers are mounted in tandem provided with a closed smooth casing over the back of said rollers, and a suitable handle in line with said frame, the surfaces of the rollers being provided with helical ridges adapted when the device is in use to slidingly engage with and roll upon the surfaces of the gums and exercise the flesh thereof.

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1,091,091. DEVICE FOR PREVENTING LADDERS FROM SLIPPING. VICTOR TAKACH, Cleveland, Ohio. Filed Oct. 30, 1913. Serial No. 798,292. (Cl. 228—5.)



1. A device for preventing ladders from slipping, comprising a plate adapted to be attached to the rear side of the ladder leg, and a catch lever pivoted to the plate, with its lower end adapted to engage the surface on which the ladder stands, and its upper end adapted to stop against the plate.

2. A device for preventing ladders from slipping, comprising a plate adapted to be attached to the rear side of the ladder leg, and a catch lever pivoted to the plate, with its lower end adapted to engage the surface on which the ladder stands, and its upper end adapted to stop against the plate, the lever having a projection below the pivot, adapted to stop against said plate and hold the lower end of the lever at a distance from the ladder leg, in position to engage the surface on which the ladder stands.

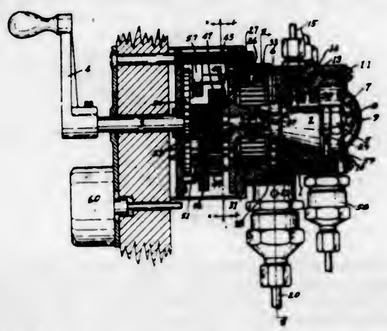
3. A ladder the leg of which is provided at its lower end and on its rear side with an upright catch lever pivoted thereto, the lower end of which engages the ground adjacent the foot of the leg and the upper end of which extends above the pivot in position to stop against the leg when the lower end is so engaged.

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1,091,092. STARTING DEVICE. CHARLES G. TATE, Chicago, Ill., assignor to United Motor Equipment Co., Chicago, Ill., a Corporation of Maine. Filed Jan. 27, 1913. Serial No. 744,307. (Cl. 123—187.5.)

1. A starter for gas engines comprising the combination of a cone valve, a cylindrical sleeve in which said valve

turns, there being a chamber in said sleeve at the large end of the valve, said valve having a horizontal port and a plurality of radial ports extending therefrom to the periphery of the cone valve, the said ports being adapted to register with a plurality of ports leading from the interior of said sleeve, a source of gaseous fluid supply, a valve to shut off said fluid, a cam secured to the large end of the cone adapted to open said valve at a predetermined time, a cam at the small end of said valve, a bell crank lever, one arm of which is engaged by said cam, the other arm of which is adapted to engage a valve stem, a valve having a stem mounted in a passage which leads to the explosion chambers of an engine, ports or passages leading from said valve to the atmosphere, means to hold said bell crank lever normally out of engagement with said valve stem, means to hold said cone valve to its seat, a shaft flexibly connected to said cone valve, a handle on said shaft, a spring hub and stop arm rotatably mounted on said shaft, a spring, the inner end of which is secured to said spring hub, the outer end of which is secured to an annular member mounted inside of the cylindrical shell, means to regulate the tension of said spring, a spur gear having a laterally extending hub, a ratchet wheel fixedly mounted upon said hub, said gear being rotatably mounted upon the said shaft, a pawl secured to the stop arm adapted to engage the teeth of said ratchet wheel, a pinion in mesh with the teeth of a gear, said pinion having a laterally extending hub, a gear fixedly mounted upon said hub, the teeth of which mesh with the pinion rotatably mounted upon the shaft, which actuates the cone valve, an escapement wheel and escapement arm, a pin or pivot upon which said escapement arm is mounted and a pendulum rigidly secured to the escapement arm.



2. A starter for gas engines comprising the combination of a cone valve, a cylindrical sleeve in which said valve turns, there being ports through said valve and sleeve leading to the cylinders of an engine, a valve to relieve the compression in the engine cylinders, and means operated by the rotation of the cone valve to open said valve just prior to the opening of the ports which lead to the engine.

3. In a starter for gas engines the combination with a spring-actuated cone valve, of means to cause the spring to act indirectly to rotate the valve, and means to impart a uniform speed to said rotation.

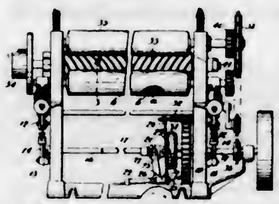
4. A starter for gas engines comprising the combination of a cone valve, a cylindrical sleeve in which said valve oscillates, a shaft flexibly connected to said cone valve, a handle on said shaft, a spring hub and stop arm rotatably mounted on said shaft, a spring, the inner end of which is secured to said spring hub, the outer end of which is secured to an annular member mounted inside of the cylindrical shell, means to regulate the tension of said spring, a spur gear having a laterally extending hub, a ratchet wheel fixedly mounted upon said hub, said gear being rotatably mounted upon the said shaft, a pawl secured to the stop arm adapted to engage the teeth of said ratchet wheel, a pinion in mesh with the teeth of a gear, said pinion having a laterally extending hub, a gear fixedly mounted upon said hub, the teeth of which mesh with the pinion rotatably mounted upon the shaft, which actuates the cone valve, an escapement wheel and escapement arm, a pin or pivot upon which said escapement arm is mounted, and a pendulum rigidly secured to the escapement arm.

5. A starter for gas engines comprising the combination of a cone valve, a cylindrical sleeve in which said valve turns, there being ports through said valve and sleeve leading to the cylinders of an engine, a valve to relieve the compression in the engine cylinders, means operated by the rotation of the cone valve to open said valve just prior to the opening of the ports which lead to the engine, manually operated means to rotate said cone valve in one direction and spring actuated means to return it to its normal position, and a stop to prevent its rotation in either direction beyond a predetermined point.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,093. LEATHER-WORKING MACHINE. FRANK H. TEEL, Salem, Mass. Filed July 21, 1913. Serial No. 780,095. (Cl. 149—16.)

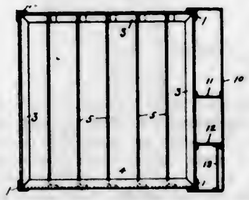


1. A roll of the character described for hide and leather working machines, comprising a roll of yielding material, and a sleeve of leather enveloping said yielding roll and capable of being turned thereon, substantially as described.

2. A roll of the character described for hide and leather working machines, comprising a roll of yielding material, and a sleeve of leather enveloping said yielding roll and capable of being turned thereon and having its ends beveled and overlapped and cemented together, for the purpose specified.

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1,091,094. PORTABLE SANITARY PAN-CLEANER. JOHN R. THOME, Baltimore, Md. Filed Feb. 28, 1913. Serial No. 751,223. (Cl. 107—7.)



A portable pan cleaner comprising a stand formed of four upright angle irons, the two rear uprights being higher than the two front uprights, and all four of said uprights being connected at their upper ends by four angle irons, the angle irons at the sides and back having their flanges projecting upwardly and the angle iron at the front having its flange projecting downwardly, the two front upright angle irons having cut-outs in the front thereof, a number of rods projecting across the top of the stand from front to back thereof on an upward incline, the upper edges of said rods being flush with the surface of the irons which connect the four uprights, a rest below said rods formed of four angle irons connected to said uprights on a line with the cut-outs in the front uprights, the two side angle irons and the back angle iron of said rest having their flanges projecting upwardly and the front angle iron of said rest having its flange projecting downwardly, and a pan adapted to be slid in and out of said stand upon said rest.



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1,091,095. ROLLER WINDOW-SCREEN. GEORGE B. THORPE, Chicago, Ill. Filed Sept. 7, 1912. Serial No. 719,084. (Cl. 156—39.)



1. A window screen comprising cloth attached to a spring actuated roller, having a revolving pintle on one end and on the reverse end a stationary pintle having automatic working pawls, a spring bolt to control the action of the pawls; a follower cap suspended by hangers to the top of a window frame, with the lower side resting on the screen and adjusted to automatically follow by gravity the diminished bulk of the screen on the roller and raised by pressure of the increasing bulk on the roller caused by the raising of the screen in the window; a weight attached to the bottom of the screen which counteracts the tension of the spring in the roller; substantially as set forth.

2. The combination of a window screen with a spring actuated roller, having automatic working pawls, which engage in an opening in the pintle and prevent the revolving of the roller; and a spring controlled bolt which, when the roller is placed in the brackets, ascends through the opening in the pintle, expelling the pawl therefrom; and thereby permitting the roller to revolve freely; substantially as and for the purpose specified.

3. The combination of a screen with a spring actuated roller, the roller having a revolving pintle on one end and on the reverse end, a stationary pintle having an opening therethrough, said roller; having automatically working pawls, which engage in the opening in the pintle to prevent the spring roller revolving; a springbolt, which ascends through the opening in the pintle, thereby disengaging the pawls and permitting the roller to revolve freely; a follower cap which is secured by hangers to the top of window frame, with the lower edge resting on the screen which is rolled upon the roller, and is by gravity and the increased or decreased bulk of the screen cloth wound on the roller, raised or lowered automatically following the screen and keeping the opening in the window above the roller closed; substantially as and for the purpose described.

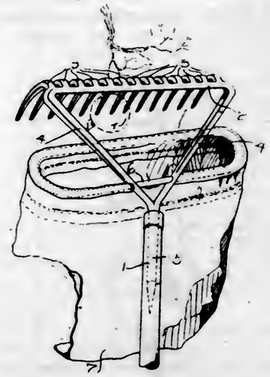
4. The combination of a spring actuated roller with a screen attached thereto, said roller having self acting pawls and a pintle attached thereto, said pintle having an opening therethrough into which a bolt ascends, thereby preventing the pawls engaging in said opening when the roller is revolving, a follower cap attached to the top of a window frame by hangers on one side, with the other side resting on the screen, wound on a roller, and automatically raised or lowered by the winding of the screen on or off the roller; substantially as described.

5. The combination in a roller window screen, of a flexible screen cloth, with a spring actuated convertible roller, having a revolving pintle on one end, on the reverse end self acting pawls and a stationary pintle, said stationary pintle having an opening therethrough in which the pawls engage and prevent the roller revolving, and a bolt which ascends through the said opening, thereby dislodging the pawls and permitting the roller to revolve freely; substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

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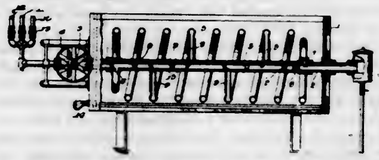
1,091,096. FRUIT-PICKER. PETER A. ULRICH, Deer Creek, Ill. Filed Apr. 28, 1913. Serial No. 764,232. (Cl. 56—99.)



A device of the class described comprising a handle member, a pair of downwardly convergent arms secured to said handle member and arranged in the same longitudinal plane therewith, a bar formed integral at its ends with the outer ends of said arms, an additional bar formed on said arms adjacent the meeting ends thereof, said last mentioned bar being elongated laterally and designed to form a closed loop projecting outwardly from the longitudinal plane of said arms, and a plurality of downwardly curved rake teeth formed on said first mentioned bar, the extremities of said teeth being directed toward the outer side edge of said closed loop and terminating above the same in spaced relation thereto, the outer side edge of said closed loop occupying a plane beyond the longitudinal plane of the outer extremities of said teeth.

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1,091,097. MEANS FOR TEMPERING LIQUIDS. THEODORE L. VALERIUS, Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 5, 1913. Serial No. 777,375. (Cl. 31—92.)



1. In a machine for tempering liquid, the combination of a vat, a tubular central shaft rotatably mounted in said vat, a spirally coiled pipe surrounding said shaft within said vat, the ends of said pipe communicating with said shaft, a plug in said shaft intermediate the ends of said spiral pipe, and a plurality of independent tubular arms extending radially outward from said central shaft to said spiral pipe and each communicating at opposite ends with said shaft and said pipe, said tubular arms serving to support the spiral pipe from the central shaft and also serving as feeder connections for distributing the tempering fluid along the length of said spiral pipe.

2. In a machine for tempering liquid, the combination of a vat, a tubular central shaft rotatably mounted in said vat, a spirally coiled pipe surrounding said shaft within

said vat, the ends of said pipe communicating with said shaft, a plug in said shaft intermediate the ends of said spiral pipe, a plurality of independent tubular arms extending radially outward from said central shaft to said spiral pipe and each communicating at opposite ends with said shaft and said pipe, and individual agitating blades fixed on said tubular arms, said blades being angularly disposed with respect to the path of motion of said arms, whereby to agitate the fluid being tempered.

1,091,098. ELECTRIC HAMMER. BENJAMIN VALIQUET, Chicago, Ill. Filed Jan. 20, 1913. Serial No. 743,100. (Cl. 78—26.)



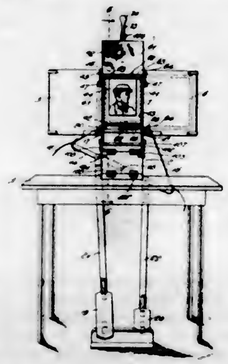
1. A shell, a longitudinally movable hammer in said shell, said hammer provided with slots therethrough, a shaft extending through one of said slots, said shaft rotatably journaled in said shell, a cam, said cam positioned in the other of said slots and adapted to move said hammer longitudinally, and said cam mounted on said shaft to turn therewith, a motor mounted in said shell and connections between said motor and said shaft to actuate said shaft by the movement of said motor.

2. A shell, a base adapted to form a transverse partition in said shell, an electric motor mounted on said base, a hammer mounted in said shell and adapted to move longitudinally with the end of said hammer projecting beyond said shell, and said hammer provided with slots therethrough, a shaft rotatably mounted in said shell to extend through one of said slots, a cam positioned in the remaining slot, said cam secured on said shaft to turn therewith, a worm wheel on said shaft and attached thereto to turn therewith, an additional shaft rotatably mounted in said shell, a spiral worm and a beveled gear wheel secured on said additional shaft to turn therewith, and a beveled gear wheel on the shaft of said motor adapted to intermesh with the beveled gear wheel on said additional shaft.

3. A two-part shell, a base adapted to form a transverse partition in said shell interposed between the parts thereof, an electric motor mounted on said base and in one part of said shell, a hammer mounted in the other part of said shell and adapted to move longitudinally with one end of said hammer projecting beyond said shell, and said hammer provided with slots therethrough, a shaft rotatably mounted to extend through one of said slots, a cam positioned in the other one of said slots, said cam secured on said shaft to turn therewith, a worm wheel on said shaft and attached thereto to turn therewith, an additional rotatably mounted shaft, a spiral worm and a beveled gear secured on said additional shaft to turn therewith, and a beveled gear wheel on the shaft of said motor adapted to intermesh with the beveled gear wheel on said additional shaft.

4. A shell, a longitudinally movable hammer mounted in said shell with one end of said hammer projecting beyond said shell, said hammer provided with slots, a shaft extending through one of said slots and a cam positioned in the remaining slot, said cam rigidly secured to said shaft, a well in said hammer and a stem in said well, the end of said stem adapted to come in contact with the periphery of said cam, means to yieldingly hold said stem against said cam, a motor in said shell, and a connection between said motor and said shaft to rotate said shaft on the rotation of said motor.

1,091,099. PHOTOGRAPHIC-PRINTING MACHINE. GERHARD VINNEMEIER, Claremore, Okla. Filed Apr. 17, 1913. Serial No. 761,839. (Cl. 95—73.)



1. The combination with a printing frame open at its front for admitting light, a pane across the frame, and a spring catch at the bottom of the pane; of a back, a hinge connecting its upper edge with the top of said frame, a spring throwing the back normally upward to open the frame, manually operable mechanism for holding it raised, a keeper carried by said back and adapted to be engaged with said catch when the back is closed, and treadle mechanism connected with said catch for tripping the latter at will.

2. The combination with an upright printing frame having an opening through it exposed to the light, a spring catch at the bottom of said opening, and a hinge at the top of the opening; of a back carried by said hinge and made in two members hinged together, a normally bent spring lever connected with the upper member, a loop on the lower member through which said lever projects, a pin in the lever adapted to strike said loop as the lever rises and a keeper on said lever adapted to be engaged with said catch.

3. The combination with an upright printing frame open at its front for admitting light, and a spring catch at the bottom of said opening; of a back made in two members hinged together, a hinge connecting the upper member with the top of said frame, a spring associated with said hinge for throwing this member upward, a normally bent spring lever connecting this lever with the lower member for throwing the latter upward, a loop on the lower member and a pin in the lever adapted to strike said loop as the lever rises, a keeper on the lever adapted to engage said catch when the back is closed, treadle mechanism for tripping this catch, and a manually operable catch for engaging the lever when the back is raised.

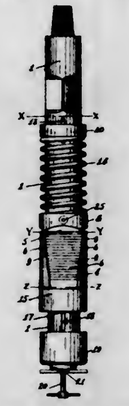
4. The combination with an upright printing frame open at its front for admitting light, and a spring catch at the bottom of said opening; of a back made in two members hinged together, a hinge connecting the upper member with the top of said frame, a spring associated with said hinge for throwing this member upward, a normally bent spring member connecting this member with the lower member for throwing the latter upward, a loop on the lower member and a pin in the lever adapted to strike said loop as the lever rises, a keeper on the lever adapted to engage said catch when the back is closed, a screen movable across said opening and having a ruby panel, tripping mechanism for said catch actuated by the screen as its ruby panel comes over said opening, and means for moving said screen.



5. The combination with an upright printing frame open at its front for admitting light, and a spring catch at the bottom of said opening; of a back made in two members hinged together, a hinge connecting the upper member with the top of said frame, a spring associated with said hinge for throwing this member upward, a normally bent spring lever connecting this member with the lower member for throwing the latter upward, a loop on the lower member and a pin in the lever adapted to strike said loop as the lever rises, a keeper on the lever adapted to engage said catch when the back is closed, a screen movable across said opening and having a ruby panel, tripping mechanism for said catch actuated by the screen as its ruby panel comes over said opening, pedal mechanism for moving said screen, and manually operable mechanism for supporting the lever when the back is raised.

[Claims 6 to 21 not printed in the Gazette.]

1,091,100. WELL-CASING SPEAR. SMITH VROMAN, San Francisco, Cal., assignor to Samuel Allen Gulberson, Jr., San Francisco, Cal. Filed Oct. 4, 1913. Serial No. 793,866. (Cl. 57—9.)



1. In a well-casing spear, the combination of a stock having a body portion with upwardly tapered seats, a central bore, and elongated slots traversing said bore above and below the body portion; a mandrel longitudinally slidable in the bore of the stock; an upper and a lower cross-key carried by said mandrel, said keys projecting through and playing in the elongated slots of said stock; a loose head-ring slidably fitted around the stock and arranged to bear up under the upper cross key; a spring around the stock between its body portion and the loose head-ring to hold the ring to the key; a loose foot ring slidably fitted around the stock below its tapered seats and arranged to bear down upon the lower cross key; gripper slips slidably fitted to the tapered seats of the stock above the loose foot-ring; and a trigger carried by the stock, said trigger engaging the mandrel to hold it down when set, and adapted to trip the mandrel to release it when the slips engage the casing in lifting.

2. In a well-casing spear, the combination of a stock having a body portion with upwardly tapered seats, a central bore, and elongated slots traversing said bore above and below the body portion; a mandrel longitudinally slidable in the bore of the stock; an upper and a lower cross-key carried by said mandrel, said keys projecting through and playing in the elongated slots of said stock; a loose head-ring slidably fitted around the stock and arranged to bear up under the upper cross-key; a spring around the stock between its body portion and the loose head-ring to hold the ring to the key; a loose foot ring slidably fitted around the stock below its tapered seats and arranged to bear down upon the lower cross key; gripper slips slidably fitted to the tapered seats of



the stock above the loose foot-ring; a trigger carried by the stock, said trigger engaging the mandrel to hold it down when set, and adapted to trip the mandrel to release it when the slips engage the casing in lifting, and a safety-latch carried by the stock, said latch engaging the mandrel to lock it against resetting movement when tripped by the trigger.

3. In a well-casing spear, the combination of a stock having a body portion with tapered seats, a central bore, and elongated slots traversing said bore above and below the body portion; a mandrel longitudinally slidable in the bore of the stock; a loose head-ring slidably fitted around the stock above the body portion, said ring having in its upper face an annular recess; a loose foot-ring slidably fitted around the stock below its body portion, said ring having in its lower face an annular recess; an upper cross key fitted in the mandrel, said key playing in the upper slots of the stock and lying in the recess of the head-ring; a lower cross-key fitted in the mandrel, said key playing in the lower slots of the stock and lying in the recess of the foot-ring; a spring around the stock between its body portion and the loose head ring to hold said ring to its cross key; gripper slips slidably fitted to the tapered seats of the stock above the loose foot-ring; and a trigger carried by the stock, said trigger engaging the mandrel to hold it down when set, and adapted to trip the mandrel to release it when the slips engage the casing in lifting, and a safety latch carried by the stock, said latch engaging the mandrel to lock it against resetting movement when tripped by the trigger.

4. In a well-casing spear, the combination of a stock having a body portion with tapered seats, a central bore, and elongated slots traversing said bore above and below the body portion; a mandrel longitudinally slidable in the bore of the stock; a loose head-ring slidably fitted around the stock above the body portion, said ring having in its upper face an annular recess; a loose foot-ring slidably fitted around the stock below its body portion, said ring having in its lower face an annular recess, an upper cross key fitted in the mandrel, said key playing in the upper slots of the stock and lying in the recess of the head-ring; a lower cross-key fitted in the mandrel, said key playing in the lower slots of the stock and lying in the recess of the foot-ring; a spring around the stock between its body portion and the loose head ring to hold said ring to its cross key; gripper slips slidably fitted to the tapered seats of the stock above the loose foot-ring; a trigger carried by the stock, said trigger engaging the mandrel to hold it down when set, and adapted to trip the mandrel to release it when the slips engage the casing in lifting, and a safety latch carried by the stock, said latch engaging the mandrel to lock it against resetting movement when tripped by the trigger.

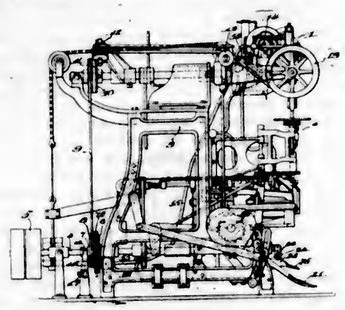
5. In a well-casing spear, the combination of a stock having a body portion with upwardly tapered seats, a central bore, and elongated slots traversing said bore above and below the body portion; a mandrel longitudinally slidable in the bore of the stock; an upper and a lower cross-key carried by said mandrel, said keys projecting through and playing in the elongated slots of said stock; a loose head-ring slidably fitted around the stock and arranged to bear up under the upper cross-key; a spring around the stock between its body portion and the loose head-ring to hold the ring to the key; a loose foot-ring slidably fitted around the stock below its tapered seats and arranged to bear down upon the cross-key; gripper slips slidably fitted to the tapered seats of the stock above the loose foot-ring; means adapted to engage the lower end of the mandrel to pull said mandrel down to set it; and a trigger device carried by the stock to hold the mandrel down when set and to grip it when the slips engage the casing in lifting.

[Claims 6 to 10 not printed in the Gazette.]

1,091,101. SEWING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed July 11, 1906. Serial No. 325,567. (Cl. 112—29.)

1. A wax thread shoe sewing machine having, in combination, stitch forming mechanism including a hooked needle, a stop device, and mechanism for controlling the

thread during the formation of a stitch including a spring pressed member operating independently of the stop device and engaging, and controlled in its movement by, the thread, said stop device being controlled by said thread engaging member and operating automatically to stop the machine upon the failure of said member to occupy its normal position.



2. A wax thread shoe sewing machine having, in combination, stitch forming mechanism including a hooked needle, a stop device tending to operate at a certain point in each cycle of operations of the machine, and thread controlling mechanism including a spring pressed auxiliary take up operating independently of said stop device and acting during the normal operation of the machine to hold the stop device inoperative at the point in the cycle of operations at which said stop device tends to operate.

3. A wax thread shoe sewing machine having, in combination, stitch forming mechanism including a hooked needle, a stop device, thread controlling mechanism including a spring pressed auxiliary take up operating independently of said stop device and acting at certain times during the operation of the machine to hold the stop device inoperative, and a cam for holding the stop device inoperative at other times.

4. A chain stitch wax thread shoe sewing machine having, in combination, stitch forming mechanism including a curved hooked needle, a main take up operating while the needle is in the work, a stop device operating automatically to stop the machine upon the occurrence of a mis-stitch, and a spring pressed auxiliary take up operating independently of said stop device, said stop device including a member arranged to be engaged by the auxiliary take up and held in inoperative position at certain times during the normal operation of the machine and to be released so as to move into operative position upon the occurrence of a mis-stitch.

5. A wax thread shoe sewing machine having, in combination, stitch forming mechanism, a clutch to connect said mechanism to a source of power, mechanism for actuating said clutch to render it operative, a detent to hold the clutch in operation, mechanism acting automatically to trip the detent at the completion of sewing a shoe, and a stop device acting automatically to trip the detent upon the occurrence of a mis-stitch.

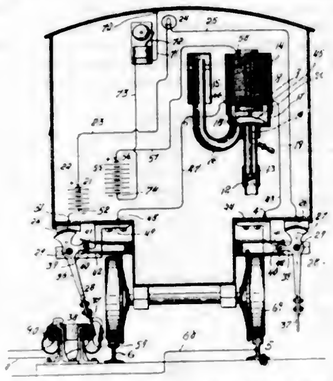
[Claims 6 to 8 not printed in the Gazette.]

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1,091,102. RAILWAY SIGNALING APPARATUS. BENJAMIN FRANKLIN WOODING, Denver, Colo. Filed May 23, 1911. Serial No. 628,989. (Cl. 246—58.)

1. In combination with an engine cab, a contact brush comprising a lever pivoted upon said cab to swing vertically transversely of the cab, said lever being constructed of conducting material and a conductor extending through said lever from end to end and insulated therefrom except at its lower extremity.

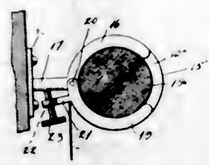
2. In combination with an engine cab, a bracket mounted upon said cab, a lever mounted intermediate its ends upon a horizontal pivot in said bracket, an arm extending outwardly at an angle from said lever, a double spring device secured upon and insulated from the cab, said spring device being adapted to bear against the opposite sides of said arm, tending to hold the latter in a



predetermined position and to return it to said position when moved therefrom and an electric conductor extending through said lever from end to end and insulated therefrom except at the lower extremity.

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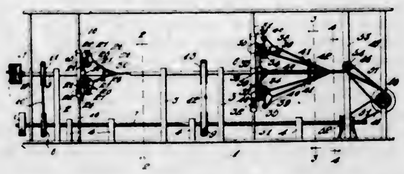
1,091,103. TENSIONING DEVICE FOR SHADE-ROLLERS. JOHN A. WOOTON, Fort Meade, Fla. Filed Feb. 8, 1912. Serial No. 676,209. (Cl. 156—34.)



The combination with a shade roller having a slightly reduced portion at one end, and a further reduced portion beyond the slightly reduced portion, of a tortuously grooved pulley engaged with the second-mentioned reduced portion and lying against the first-mentioned reduced portion, said pulley being of greater size than the first-mentioned reduced portion, to form a circumscribing groove between the pulley and the main portion of the shade roller, pivoted arms engaged in the said circumscribing groove, means for moving the arms with respect to each other to grip the first-mentioned reduced portion of the shade, a second tortuously grooved pulley and a cable engaged in the tortuous grooves of the pulleys.

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1,091,104. CABLE-FORMING MACHINE. ERNEST WROUGHTON, Nelson, Nebr. Filed Dec. 19, 1910. Serial No. 597,987. (Cl. 28—21.)



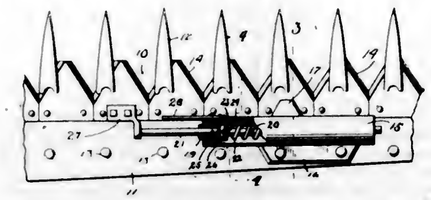
A cable forming machine comprising a supporting frame having tubular shafts mounted thereon but separated from each other, a drive shaft operatively connected to



said tubular shafts for turning the same in opposite directions, a pair of fixed internal gear rings through which each of said tubular shafts pass, arms radially projecting from said tubular shafts adjacent to the fixed internal gear rings, short shafts revolubly mounted in the ends of said arms, pinions fixed to one end of said short shafts and meshing with the interoal gear rings, cross heads fixed to the opposite ends of said short shafts, the ends of which terminate in brackets, wire carrying spools mounted in said brackets on the cross heads, whereby the latter are located to one side of the internal gear rings but adjacent thereto, perforated twisting plates secured to the tubular shafts in advance of the spool carrying cross heads, means for providing a core wire, and means for receiving the finished cable.

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1,091,105. KNIFE-ARRESTER FOR MOWERS OR BINDERS. LISTEN B. YOUNG, Guthrie Center, Iowa. Filed Feb. 19, 1913. Serial No. 749,495. (Cl. 56—44.)

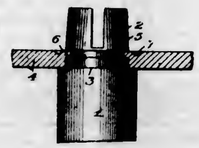


1. The combination with a cutter bar mechanism including a guard bar and its fingers and a cutter bar operable therethrough, of a cushion member for the cutter bar, said cushion member including a cylinder having a flanged portion attached to the guard bar and a projection overlying the cutter bar, a plunger movable through the cylinder, a spring engaged on the plunger and within the cylinder, said plunger having a projecting end and a collar normally engaged by the spring to force the plunger in one direction and an abutment member carried by the cutter bar to engage the plunger and compress the spring.

2. The combination with a cutter bar mechanism including a guard bar and its fingers and a cutter bar operable therethrough; of a cushion member for the cutter bar, said cushion member including a cylinder carried by the guard bar and a projection overlying the cutter bar, a plunger movable through the cylinder, a spring engaged on the plunger and within the cylinder, said plunger having a projecting end and a collar normally engaged by the spring to force the plunger in one direction, an abutment member carried by the cutter bar to engage the plunger and compress the spring and a guard plate carried by the cylinder to protect the plunger from the material cut.

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1,091,106. SPOOL. GEORGE W. ADAMS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 12, 1912. Serial No. 677,104. (Cl. 242—71.)



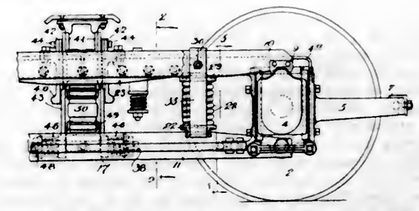
1. A spool comprising a spindle having a body portion, and a reduced portion, the reduced portion having an annular groove formed thereon, and a disk positioned about the reduced portion and supported against the body portion, said disk having an inwardly directed flange engaging the aforesaid mentioned groove and provided with an annular recess or indentation adjacent to said flange on the side farthest from the body portion.

2. A spool comprising a spindle having an annular groove thereon, and a disk arranged on the spindle and provided with a plurality of inwardly extending projections engaging said groove, the thickness of the projections being less than the thickness of the disk.

3. A spool comprising a spindle having an annular groove thereon, and a disk arranged on the spindle and provided with a plurality of inwardly extending projections engaging said groove, the disk having a plurality of recesses or indentations in the face adjacent to said projections and coextensive with the latter.

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1,091,107. CAR-TRUCK. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 23, 1913. Serial No. 796,771. (Cl. 105—239.)



1. In a truck of the class described, a frame with axle boxes mounted to move therein, equalizing bars connecting said axle boxes, springs between said bars and the truck frame, means for suspending said springs from one of said equalizing bars, and means for supporting said springs from the other equalizing bar.

2. In a truck of the class described, a frame with axle boxes mounted therein, equalizing bars connecting said axle boxes, hooks suspended from one of said equalizing bars, spring seats supported by said hooks and said other equalizing bars, springs resting on said seats, caps resting on said springs and under said frame whereby said frame is supported from said axle boxes through said bars and springs.

3. In a truck of the class described, a frame, springs, straight equalizing bars, axle boxes and means for supporting said equalizing bars from said axle boxes, and at the top and bottom of them, springs, and means for supporting said springs from said equalizing bars whereby the frame is carried from said axle boxes.

4. In a truck of the class described, axle boxes, a truck frame with pedestals for guiding said axle boxes, an equalizing bar carried by two of said axle boxes on the exterior of said frame, and a second equalizing bar carried by said axle boxes on the interior of said frame, hooks carried by the exterior equalizing bar, seats carried by said hooks and said lower equalizing bar and springs on said seats adapted to support the frame.

5. In a truck of the class described, axle boxes, a frame with pedestals in which axle boxes are guided, exterior equalizing bars carried on top of said axle boxes, interior equalizing bars carried at the bottom of said axle boxes, springs for carrying the same from said equalizing bars, mechanism supporting said springs from said equalizing bars, and means connecting said springs with said frame, so that said frame is carried from said axle boxes.

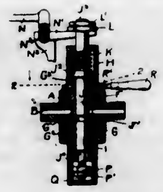
[Claims 6 to 15 not printed in the Gazette.]

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1,091,108. VALVE FOR GAS-BURNERS. EUGENE S. ALLEN, New York, N. Y. Filed Oct. 26, 1912. Serial No. 727,865. (Cl. 137—4.)

1. A valve, comprising a valve body having a fluid passage, and a seat intersecting the said passage, an open ended sleeve mounted to turn in the seat and provided with openings adapted to register with the fluid passage of the body, a valve mounted to slide in the sleeve and having a passage adapted to register with the sleeve openings, said valve projecting beyond the ends of the sleeve

and provided with stops for limiting the sliding movement thereof, a spring for holding the valve with its passage out of register with the sleeve openings, means for sliding the valve to bring its passage in register with the openings of the sleeve, and means for turning the sleeve to bring its openings in and out of register with the fluid passage of the body.



2. A valve comprising a valve body having a fluid passage and a conical seat intersecting the passage, an open ended conical sleeve in the seat and having its lower end screwthreaded and projecting through the body, the sleeve being provided with openings registering with the fluid passage of the body, a nut on the lower end of the sleeve, a cylindrical valve mounted to slide in the sleeve and having an annular groove adapted to register with the sleeve openings, said valve projecting beyond the ends of the sleeve and provided with stops for limiting the sliding movement thereof, a spring engaging one of the said stops for holding the valve with its groove out of register with the sleeve openings, and means for sliding the valve to bring its groove in register with the openings of the sleeve.

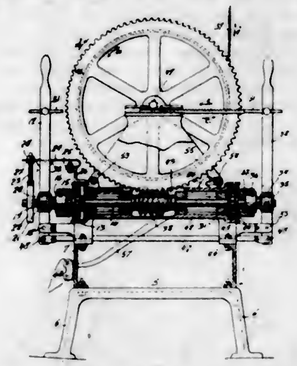
3. A valve, comprising a valve body having a fluid passage and a conical seat intersecting said passage, a conical sleeve in the seat and having its lower end screw threaded and projecting through the valve body, the sleeve being provided with openings registering with the fluid passage of the body, a nut on the lower end of the sleeve, a cylindrical valve in the sleeve and having its lower end screw threaded and projecting through said sleeve, the valve being provided with an annular groove adapted to register with the sleeve openings, nuts on the lower end of the valve, and a spring for holding the valve with its groove out of register with the sleeve openings.

4. A valve, comprising a valve body having a gas passage and a conical seat intersecting the said passage, a sleeve fitting into the said seat and having a diametrical opening in register with the gas passage and having a central bore intersecting the said opening, a cylindrical valve slidable in the bore of the sleeve and having an annular groove adapted to register with the said sleeve opening, a collar on the upper portion of the said valve and normally seated on the top of the said sleeve, a top cap screwing on the upper end of the said sleeve and through which extends the upper end of the said valve, a spring in the cap and bearing on the said collar, nuts screwing on the lower end of the valve and adapted to abut against the lower end of the said sleeve, and a bottom cap screwing on the lower end of the sleeve and abutting against the under side of the said valve body, the said bottom cap inclosing the said reduced end of the valve and the nuts screwing on the said lower valve end.

5. In a gas stove, a valve comprising a valve body provided with a gas passage, and a conical seat intersecting the said gas passage, a conical sleeve seated on the said seat and having a diametrical opening and a central bore intersecting the said opening, the latter registering with the said gas passage, a cylindrical valve slidable in the bore of the said sleeve and having an annular groove normally out of register with the said sleeve opening, means for operating the valve to move it into open position, a spring pressing the said valve to normally hold the valve in closed position, means to limit the sliding movement of the valve in the sleeve, and a handle connected with the said sleeve for turning the latter to move the sleeve opening into or ont of register with the said gas passage in the valve body.

[Claim 6 not printed in the Gazette.]

1,091,109. SCENERY-HANDLING APPARATUS. SETH G. BAILEY, Denver, Colo., assignor to The Bailey Theater Fly-Rail Machine Company, Denver, Colo., a Corporation of Colorado. Original application filed Dec. 2, 1911, Serial No. 663,626. Divided and this application filed Feb. 1, 1913. Serial No. 745,557. (Cl. 57—83.)



1. In combination a series of drums mounted to rotate, operating shafts normally inactive, means for successively imparting rotary movement to any shaft in reverse directions, worm gear connections between the said shafts and the respective drums, the drums being tiltably mounted to permit the breaking of the worm gear connection between the drums and shafts, the drums being all connected with their loads on the same side, whereby there is a tendency to tilt the drums through the instrumentality of the weight of their respective loads, means for locking the drums against tilting movement, and means for simultaneously unlocking all of the drums to permit the said tilting action, substantially as described.

2. In combination, a series of drums mounted to rotate operating shafts normally inactive, means for successively imparting rotary movement to any shaft in reverse directions, operative, rotative connections between the said shafts and the respective drums, the drums being tiltably mounted to permit the breaking of the said operative rotative connections, the drums being all arranged to rotate in the same direction for raising their loads, whereby there is a tendency to tilt the drums through the instrumentality of the weight of their respective loads, means for locking the drums against tilting movement and means for simultaneously unlocking all of the drums to permit the said tilting action, substantially as described.

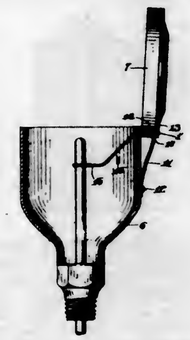
1,091,110. GREASE-CUP CLOSURE. WALTER D. BANES, Philadelphia, Pa., assignor to General Pressed Metal Company, a Corporation of Pennsylvania. Filed Aug. 1, 1912. Serial No. 712,661. (Cl. 184—90.)

1. A grease cup closure comprising a substantially flat body with a flange at an angle therewith, the flange provided with a horizontally extending slot, and a spring secured to the cup having a straight substantially vertical extension with an adjacent extension at an approximate right angle therewith, the spring adapted to seat in the slot and normally maintain the closure in open or closed position.

2. A closure for a receptacle comprising a lid with a substantially vertical flange having a horizontal slot therein, a flat spring secured to the vessel having a substantially vertical extension and a substantially horizontal extension adapted to engage in the slotted flange, said spring provided with shoulders for limiting the movement of the slotted flange thereon.

3. A receptacle and a closure therefor comprising a lid having a substantially vertical flange, said flange provided with a horizontal slot and a narrower opening communicating therewith, a spring member secured to the receptacle having an extension adapted to fit the horizontal slot and a narrower extension adapted to pass through the narrower opening communicating with the slot.



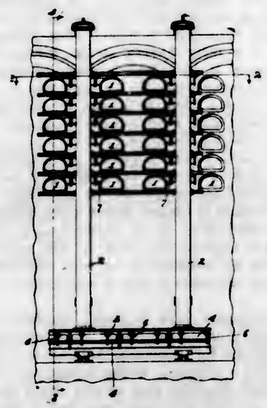


4. A receptacle and a closure therefor comprising a lid having a substantially vertical flange, said flange provided with a horizontal slot and a narrower opening communicating therewith, a spring member secured to the receptacle having an extension adapted to fit the horizontal slot and a narrower extension adapted to pass through the narrower opening communicating with the slot, and a projection on the spring adapted to limit the relative movement between lid and spring.

5. A receptacle and a closure therefor, comprising a lid with a vertical flange, a recess in the flange, a spring secured to the receptacle having a vertical extension and a horizontal extension and adapted to engage in the recess of the flange so that the flange will pass from the horizontal portion of the spring to the vertical portion and vice versa, as and for the purpose specified.

[Claims 6 to 16 not printed in the Gazette.]

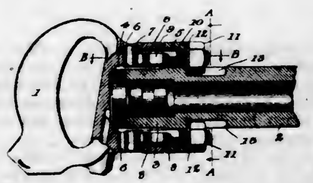
1,091,111. APPARATUS FOR GENERATING GAS. DANA DWIGHT BARNUM, Worcester, Mass., and HENRY A. CARPENTER, Sewickley, Pa., assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Dec. 2, 1910. Serial No. 595,226. (Cl. 48—101.)



1. In an apparatus for generating gas, the combination with two rows of superposed parallel retorts, of a stand pipe located between the two rows of retorts and between the vertical planes passing through the longitudinal axes of the retorts in each row and in common communication with the retorts of the two rows, and a take-off pipe in communication with the stand pipe.

2. In an apparatus for generating gas, the combination with two gas benches arranged side by side, a retort in each bench, said retorts extending back from a common face of the generator, a stand pipe located between the vertical planes passing through the longitudinal axis of each of the said retorts, and means connecting the stand pipe with the retort of each bench.

1,091,112. FLUID-PRESSURE-OPERATED HAND-TOOL. LEWIS C. BAYLES, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 11, 1911. Serial No. 665,021. (Cl. 121—20.)



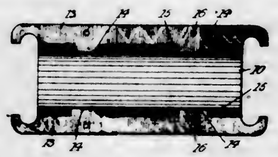
1. A hand tool of the character described comprising a cylinder, its handle having a grip extending transversely of the tool and separate bolts engaging the cylinder and handle upon opposite sides of the tool for rigidly securing them together, said bolts having their heads housed within the handle.

2. A hand tool of the character described comprising a cylinder, its handle and bolts for securing them together, said handle having a central bore and lateral recesses in the walls of the bore for housing the heads of the bolts.

3. A hand tool of the character described comprising a cylinder, its handle and bolts for securing them together, said handle having a central bore and lateral recesses and longitudinal recesses in the walls of the bore for housing the heads and shanks of the bolts.

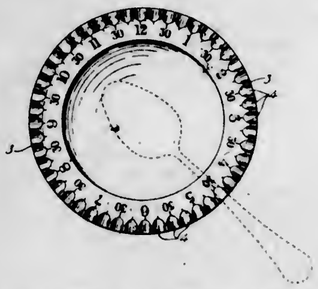
4. A hand tool of the character described comprising a cylinder, its handle and bolts for securing them together, said handle having a central bore and lateral recesses in the walls of the bore for housing the heads of the bolts, and said cylinder having a flange through which the shanks of the bolts extend and nuts engaging the shanks beyond said flange.

1,091,113. BUSHING. ERNST JULIUS BELL and OSCAR TREIBER, Foche, near Solingen, Germany, assignors to Vereinigte Walz- und Röhrenwerke Act.-Ges. vormals Friedr. Boecker Ph's Sohn & Co. und Friedr. Koenig, Hohenlimburg, Germany. Filed Feb. 27, 1912. Serial No. 680,359. (Cl. 64—10.)



A bushing comprising a pair of semi-tubular pillows having notched longitudinal edges and formed of fibers curved concentric to the bearing surface of the pillows, and a pair of ribs extending along said edges and having spacing lugs that engage the edge-notches, said spacing lugs being of a thickness to spread the pillows along such edges.

1,091,114. DOSE-INDICATOR. ITHAMAR P. BERTHRONG, Washington, D. C. Filed May 24, 1913. Serial No. 769,704. (Cl. 116—60.)



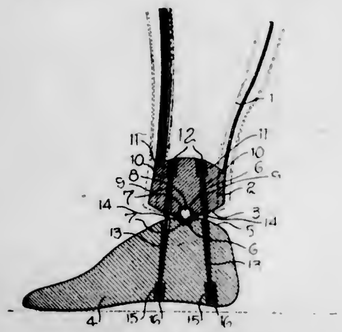
1. As a new article of manufacture, a glass cover and medicine-dose indicator having a central concavity to receive and support a spoon bowl, and an upstanding flange surrounding the concavity, in which flange are seats to receive a spoon handle, and also having dial figures arranged adjacent the seats in the flange.

2. As a new article of manufacture, a glass cover and medicine-dose indicator having a central portion to support a spoon bowl, and an upstanding annular flange surrounding the said central portion, in which flange are seats to receive a spoon handle, and also having dial figures arranged adjacent the seats in the flange.

3. As a new article of manufacture, a glass or receptacle cover and medicine-dose indicator having a central portion to support a spoon bowl, and a plurality of seats for a spoon handle grouped about the central portion, and also having dial figures arranged adjacent the said seats.

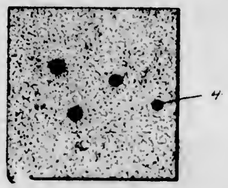
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1,091,115. ARTIFICIAL LIMB. CHARLES V. BLON, Bellaire, Ohio. Filed Oct. 29, 1913. Serial No. 798,140. (Cl. 3—3.)



An artificial limb comprising two members, one of which is a leg section and the other a foot section, the opposed faces of such sections being convexed, such convexed portions being provided at their centers with sockets adapted to be in superimposed relation when the sections are assembled, a compressible spherical body positioned within such sockets and of such diameter as to maintain the sections normally separated, adjacent portions of the sections being provided with openings therethrough, the openings of one section being substantially in alinement with the openings of the second section, tie rods directed through each series of alined openings of the sections and being hingedly connected at a point intermediate the sections, such hinged connections being in a horizontal plane intersecting the center of the compressible body, and compressible means coacting with the free extremities of the rods.

1,091,116. IMPACT-ILLUMINATED TARGET FOR PLEASURE-SHOOTING. WILLIAM H. BUELL, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Oct. 11, 1913. Serial No. 794,592. (Cl. 124—15.)



As a new article of manufacture, an impact-illuminated target for pleasure-shooting, having its impact surface prepared with a flash-light composition ignited by the impact of a bullet at the point of the impact thereof with the said surface, whereby a circumscribed area about the point of impact is illuminated and the user of the gun from which the bullet was fired informed of the point hit.

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1,091,117. SAFETY DEVICE FOR POWER-PRESSES. THEODORE BUMANN, Litchfield, Ill. Filed June 5, 1913. Serial No. 771,986. (Cl. 164—107.)



1. The combination with a power press having a tripping treadle; of an upright swinging lever having means for engaging the treadle to support it in raised position, resilient means for holding said lever normally in engagement with said treadle, and a pivotally mounted member swinging in a plane at right angles to that in which the lever swings for locking said lever in engagement with said treadle when the treadle is in inoperative position.

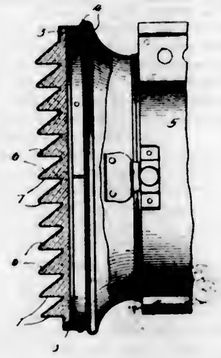
2. The combination with a power press having a tripping treadle, of a lever having means for engaging the treadle to support it in raised position, resilient means for holding said lever normally in engagement with said treadle, and pivotally mounted means for locking said lever in engagement with said treadle when the treadle is in inoperative position.

3. The combination with a power press having a tripping treadle, of a lever fulcrumed adjacent said treadle and having means for supporting it normally in raised inoperative position, a hinged guard plate adapted to be lowered when said lever is in locking engagement with said treadle for holding the lever in this position, said lever projecting in position to prevent the lowering of said plate when the lever is out of engagement with said treadle.

4. The combination with a power machine having a tripping treadle, a lever fulcrumed adjacent said treadle and having means for normally holding the treadle in raised inoperative position, guide means for said lever mounted on said machine and having stops for limiting its movement in opposite directions, and a hinged plate mounted to be lowered when said lever is at its extreme limit in one direction whereby said lever is locked in this position, said plate being held against lowering when the lever is moved in the opposite direction.



1,091,118. LAMP. WILLIAM E. BURCKY, Chicago, Ill. Filed Aug. 14, 1913. Serial No. 784,744. (Cl. 240—106.)



1. A glass lamp-face covered on one side with a series of ridges of angular cross-section formed with downwardly-inclined translucent outer surfaces and lower transparent surfaces extending at an angle to said inclined surfaces, for the purpose set forth.

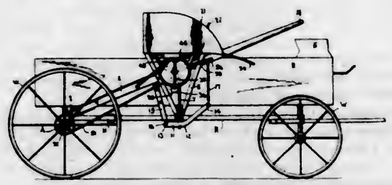
2. A lamp-face comprising a body of transparent glass covered on one side with a series of ridges of angular cross-section formed with downwardly-inclined translucent outer surfaces and lower transparent horizontally-extending surfaces, for the purpose set forth.

3. A lamp-face comprising a body of transparent glass provided on one side with a series of ridges of angular cross-section formed with downwardly-inclined outer surfaces coated with translucent material and lower transparent surfaces extending at an angle to said inclined surfaces, said translucent surfaces adapted to act on and diffuse the rays striking normal to the other side of said lamp face.

4. A glass lamp having on one side a plurality of ridges, a portion of each ridge being transparent and the remaining portion being translucent, the translucent portions covering the entire surface acted upon by rays normal to the other side of said lamp face.

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1,091,119. CORN-TOPPER. ELMER E. CANNON, Waukomis, Okla. Filed Jan. 6, 1913. Serial No. 740,490. (Cl. 56—131.)



1. In a topping machine of the class described, the combination with a wagon running gear and body, a main lever, means for connecting its rear end to said running gear, an L-shaped member having its upright arm connected with said lever and its horizontal arm passing beneath the wagon body, supports secured to the sides of said body, and connections between one of said supports and the inner end of the horizontal arm of said member; of a bent lever pivoted to the lower end of the other support with its bend passing under said member, a contractile spring connecting the forward end of this lever with said main lever, a pan carried by the main lever and having a notch in its front edge and an open mouth directed toward said wagon body, and the cutting apparatus within said pan.

2. In a topping machine of the class described, the combination with a wagon running gear and body, a main lever connected at its rear end to said running gear, an L-shaped member having its upright arm connected with said lever and its horizontal arm passing beneath the wagon body, supports secured to the sides of said body, and connections between one of said supports and the inner end of the horizontal arm of said member; of a bent lever pivoted at one end to the lower end of the other support with its bend passing under said member, and a contractile spring connecting the opposite end of this lever with said main lever, a pan carried by the main lever and having a notch in its front edge and an open mouth directed toward said wagon body, the cutting apparatus within said pan, a driving shaft therefor journaled through said main lever, a driving sprocket loose on said shaft, a sprocket on the rear wheel of said wagon, a chain belt connecting said sprockets and manually controlled clutch mechanism between said driving sprocket and cutting apparatus.

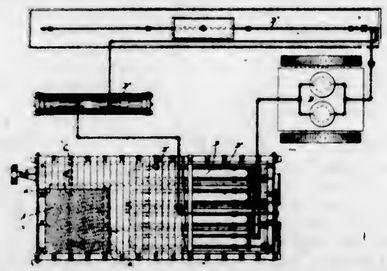
3. In a topping machine of the class described, the combination with a wagon, a main lever hingedly connected with the wagon, a V-shaped brace secured to and depending from said lever, an L-shaped member whose horizontal arm is secured to said brace, a support secured to the wagon body, a bent lever pivoted at one end to the support with its bend passing under the horizontal arm of said member, and a contractile spring connecting its other extremity with said main lever; of a Y-shaped casting carried by said member, a pan mounted on said casting and having a notch in its front edge and a mouth adapted to deliver into the wagon body, an upright shaft mounted in bearings in said Y-shaped casting and through the bottom of the pan, a rotary cutting mechanism mounted on the upper end of said shaft, and driving connections between the lower end of said shaft and the rear wagon wheel.

4. In a topping machine of the class described, the combination with a wagon, a main lever hingedly connected with the wagon, a V-shaped brace secured to and depending from said lever, an L-shaped member whose horizontal arm is secured to said brace, a bent lever pivoted at one end to the wagon body with its bend passing under the horizontal arm of said member, and a contractile spring connecting its other extremity with said main lever; of a Y-shaped casting carried by said member, a pan mounted on said casting and having a notch in its front edge and a mouth adapted to deliver into the wagon body, an upright shaft mounted in bearings in said Y-shaped casting and through the bottom of the pan, a rotary cutting mechanism mounted on the upper end of said shaft, a horizontal shaft journaled through said casting and in the main lever and driving connections between said shaft and the rear wagon wheel, and intermeshing gears on said upright and horizontal shafts, for the purpose set forth.

5. In a topping machine of the class described, the combination with a wagon running gear and body, a main lever hingedly connected at its rear end to said running gear, a brace depending from said lever, a supporting member connected with said lever and brace, a rock-lever having one end hingedly connected with the wagon body and its body standing beneath said member, and a spring connecting its other end with said main lever; of a pan carried by the latter and having a notch in its front edge and a mouth directed toward said wagon body, the cutting apparatus within the pan, a shaft journaled through said main lever and connected with said apparatus, a driving sprocket loose on the shaft, a sprocket on the rear wagon wheel, a chain belt connecting the sprockets and manually-controlled clutch mechanism between said driving sprocket and the cutting apparatus.

[Claim 6 not printed in the Gazette.]

1,091,120. TEMPERING PROCESS. AUBIN M. CHASE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Original application filed Mar. 7, 1899, Serial No. 708,071. Divided and this application filed Aug. 24, 1903, Serial No. 170,575. Renewed July 28, 1911. Serial No. 641,173. (Cl. 148—22.)



1. The herein described process for maintaining a fluid tempering bath substantially uniform in composition and temperature, and such temperature at approximately the freezing point of water, consisting in confining the bath in a container, disposing a minor portion of the bath in the form of an unobstructed pool for the reception of the articles to be tempered, and constantly circulating through a major portion of the bath, located outside of said pool, an expansible refrigerating medium, substantially as and for the purpose described.

2. The herein described process for maintaining a fluid tempering bath substantially uniform in composition and temperature, and such temperature at approximately the freezing point of water, consisting in confining the bath in a container, disposing a minor portion of the bath in the form of an unobstructed pool for the reception of the articles to be tempered, constantly circulating through a major portion of the bath located outside of said pool an expansible refrigerating medium and positively circulating the fluid of the entire bath, substantially as and for the purpose specified.

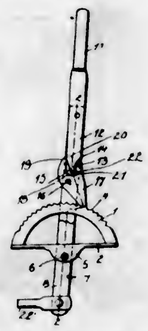
3. The herein-described process of tempering metallic articles, which consists in providing a bath of liquid, circulating an expansible refrigerating medium therethrough to form ice within the bath, immersing in said bath the first of a series of articles to be treated, maintaining a sufficient circulation of refrigerating medium to counteract the heat given off by the article under treatment and the heat taken from the surrounding atmosphere, removing the first article immersed from the bath, and then immersing in the bath another article of the series to be treated.

4. The herein-described process of tempering, which consists in providing a bath of liquid; immersing therein, in succession, a number of articles to be treated; and circulating therethrough a refrigerating medium so proportioned thereto and to the heat given off by said articles that a portion of the liquid of the bath, less than the whole, will be congealed and maintained in substantially a congealed condition.

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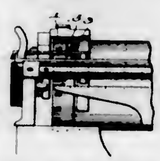
1,091,121. BRAKE-OPERATING MEANS. MORGAN S. CLARK, Roanoke, Va. Filed Dec. 4, 1912. Serial No. 734,978. (Cl. 21—10.)

The combination with a notched segment, and a fulcrumed operating lever arranged in connection therewith; of a handle lever fulcrumed intermediate of its ends on the upper portion of said operating lever to extend longitudinally of the latter, the lower working end of said handle lever being concaved on one side and beveled inwardly on the opposite side to form a tongue thereon, and a pawl pivoted intermediate of its ends on the operating lever for operative engagement with the teeth of the segment, said pawl having a cavity in the upper end thereof receiving the tongue of the handle lever therein, the one wall of said cavity being designed coincident to the concaved side of said tongue and adapted to have contact with the tip of the latter when said handle lever is swung in one direction, the opposite wall of said cavity having a flat portion at the upper termination thereof for engagment with the inner end of the flat heel-like side of the tongue on said handle lever when the latter is swung in the opposite direction, whereby said pawl may be disposed into and out of engagement with said segment.



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1,091,122. TYPE-WRITING MACHINE. DUDLEY CROWTHER and NED C. HARDY, Great Falls, Mont. Filed Mar. 31, 1913. Serial No. 758,027. (Cl. 197—189.)



1. A line indicating attachment for typewriters comprising strips of material having thereon numerals and indicating characters and adapted to be secured to the platen roller of a typewriting machine, and paper gripping tongues carried by said strips and adapted to grip the sheets of paper when inserted in the machine, whereby the slipping of the paper or the turning of the roller without the paper is obviated.

2. A line indicating attachment for typewriters comprising strips of material having thereon a plurality of numerals and indicating characters and adapted to be secured in position on the ends of the platen roller of the machine, and automatically operated paper gripping tongues carried by said strips adapted to grip the ends of the sheets of paper when inserted in the machine thereby preventing the slipping of the paper or the movement of the roller without the paper.

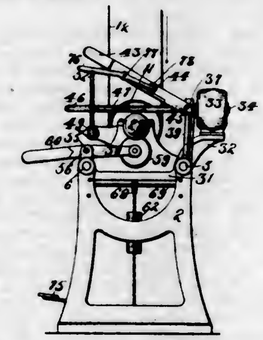
3. A line indicating attachment for typewriter machines comprising strips of suitable material having thereon series of numerals and indicating characters arranged in line or one above the other and adapted to indicate the position for inserting a legal or letter size sheet of paper, the place for beginning the writing on the sheet and the place for concluding the writing and removing the paper, said strips being adapted to be secured to the ends of the platen roller of the machine, and paper gripping tongues carried by said strips and adapted to grip the ends of the sheets of paper when inserted in the machine thereby preventing the paper from slipping or the movement of the roller without the paper.

4. A line indicating attachment for typewriters comprising strips of suitable material adapted to be engaged with the ends of the platen roller of the machine, said strips having thereon indicating numerals and characters arranged to designate the position for inserting legal or letter size sheets of paper, the place for beginning the writing on said sheets and the place where the writing is to be concluded and the sheets removed and having therein longitudinally disposed slots, paper gripping tongues hingedly connected at their inner ends in said slots midway between the ends thereof, whereby said tongues are permitted to swing in opposite directions and to grip the ends of the sheets of paper when inserted in the machine, whereby said sheets are held against slipping and whereby the roller is prevented from turning without carrying the sheets around therewith.

5. A line indicating attachment for typewriter machines comprising strips of suitable material having thereon series of numerals and indicating characters arranged in line or one above the other and adapted to indicate the position for inserting a legal or letter size sheet of paper, the place for beginning the writing on the sheet, the place for concluding the writing and removing the paper, and which after the first half of the page has been written will indicate how many more lines remain or may be written on the remaining space or lower portion of the sheet, said strips being adapted to be secured to the ends of the platen roller of the machine, and means to prevent the slipping of the paper or movement of the roller without the paper.

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1,091,123. BEAD-ROLLING MACHINE FOR PLASTIC ARTICLES. JOHN W. DENMEAD, Akron, Ohio. Filed Dec. 9, 1912. Serial No. 735,813. Cl. 18—5.)



1. The combination in a bead-forming machine embodying a rotatable article supporting member, of a trimming tool adapted to be brought into engagement with the open end of said article for trimming the latter, a vibratory carrying tool adapted to engage the article in the cut made by said trimming-tool for loosening the edges of said article from said form, and a bead-rolling mechanism for rolling up a bead on said article.

2. A bead-forming machine comprising a suitably-rotated article-carrying member, a longitudinally-shiftable carriage adjacent to said member, a shaft arranged transversely of the axis of rotation of said member, a combined parting and bead-forming tool, means for transmitting vibratory motion from said transverse shaft to said tool for rolling up a bead on said article.

3. A bead-forming machine comprising a suitably-rotated article-carrying member, a carriage mounted adjacent to said article-carrying member, said carriage being shiftable longitudinally with respect to said article, a trimming-tool carried by said carriage, and a combined vibratory parting and bead-rolling tool mounted on said carriage.

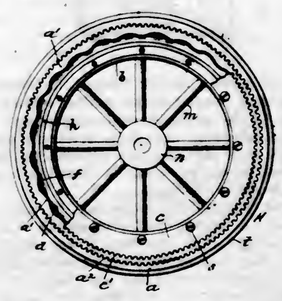
4. A bead-forming machine comprising a suitably-rotated article-carrying member, a carriage mounted adjacent to said article-carrying member, said carriage being shiftable longitudinally with respect to said article, a trimming-tool carried by said carriage, a combined vibratory parting and bead-rolling tool mounted on said carriage, and guiding means for said tool during its engagement with said article.

5. A bead-forming machine comprising a rotatable shaft, an article-carrying member on said shaft, a carriage shiftably mounted with respect to said shaft, a combined parting and bead-forming member mounted on said carriage, and means for imparting a vibratory movement to said forming-member during its application to the article.

[Claims 6 to 9 not printed in the Gazette.]

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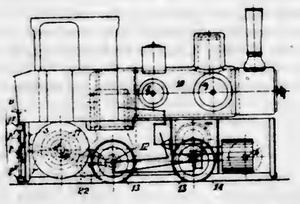
1,091,124. VEHICLE-WHEEL. THOMAS DYER, Cranston, R. I. Filed Sept. 8, 1913. Serial No. 788,528. (Cl. 152—35.)



In a vehicle-wheel, the combination of a pneumatic rubber tube, a housing for said tube comprising a circular rim whose inner periphery is formed into equi-spaced transverse corrugations; a tire upon the outer periphery of the rim; a felly having a longitudinal concave seat in which seat said pneumatic tube is held by the air-pressure within said tube; plates secured to the felly and slidable upon the sides of the rim, respectively; two metallic rings loosely surrounding the said felly and adapted to protect the said tube from frictional wear, each ring having a series of concavities wherein said tube is expansible, and means whereby said plates are adapted to impart rotation to the rim whenever the tube is deflated.

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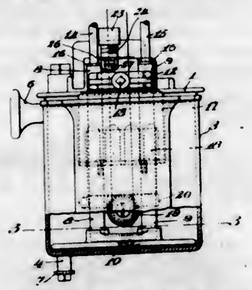
1,091,125. UNIVERSAL CARRIAGE-LOCOMOTIVE. KARL EICKEMEYER, Munich, Germany. Filed Aug. 28, 1913. Serial No. 787,100. (Cl. 105—17.)



1. An engine, having a pair of shafts in fixed relation thereto, a pair of driver wheels on each of said shafts, an auxiliary shaft near each end of and below the base of the engine, said auxiliary shafts being adapted to receive means for supporting the engine, and means for moving said auxiliary shafts relatively to said first named shafts.

2. An engine, having a pair of shafts in fixed relation thereto, a pair of driver wheels on each of said shafts, an auxiliary shaft near each end of and below the base of the engine, said auxiliary shafts being adapted to receive means for supporting the engine, means for raising and lowering said auxiliary shafts, and means whereby one set of said shafts may be driven from another set thereof.

1,091,126. THREAD-WAXING DEVICE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 19, 1912. Serial No. 715,799. (Cl. 112—20.)



1. A thread waxing device, having, in combination, a wax receptacle, a heating device having a body extending into the wax in the receptacle and comprising a heat conducting plate extending outwardly from the body of the heating device over and arranged adjacent the base of the receptacle, and means to guide the thread into and out of the receptacle above the plate.

2. A thread waxing device, having, in combination, a wax receptacle, a heating device extending centrally into the receptacle and into the wax in the receptacle and comprising a heat conducting plate arranged adjacent and extending outwardly toward the side walls of the receptacle over the base of the receptacle, and means to guide the thread into and out of the receptacle.

3. A thread waxing device, having, in combination, a wax receptacle, a heating device extending downwardly into wax in the receptacle and comprising a heat conducting plate extending over and arranged near the base of the receptacle, and means for guiding the thread into and out of the receptacle in proximity to the heating device and above the plate.

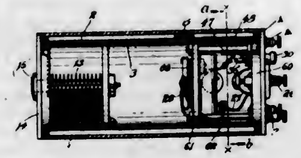
4. A thread waxing device, having, in combination, a wax receptacle, a substantially U-shaped heating device for containing the heating fluid extending within the receptacle and comprising entrance and return pipes for the heating fluid, a member extending over and arranged adjacent the base of the receptacle and provided with a passage connecting said pipes, and means to conduct the thread into and out of the receptacle in proximity to the heating device.

5. A thread waxing device, having, in combination, a wax receptacle, a substantially U-shaped heating device extending centrally into the receptacle and partially immersed in the wax contained in the receptacle and comprising a heat conducting plate extending outwardly from the body of the heating device over and arranged adjacent the base of the receptacle, and means to conduct the thread into and out of the receptacle in proximity to the heating device.

[Claim 6 not printed in the Gazette.]

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1,091,127. WIRELESS RECEIVING APPARATUS. ROBERT R. GOLDTHORP, Hartford, Conn. Filed Aug. 31, 1912. Serial No. 717,993. (Cl. 250—14.)



1. In a wireless receiving apparatus a casing, a hollow tuning coil fixedly secured within the casing and open at both ends, closures for the ends of said casing and coil, a condenser mounted on one closure and located within the coil, a detector, circuit connections and a detector switch mounted on the other closure and located within the coil, slides arranged in operative relation to the coil and movable longitudinally thereof, supports for said slides in electrical connection therewith, said supports electrically connecting said condenser with the detector and ground terminals.

2. In a wireless receiving apparatus a casing and a tuning coil located therein, a closure for one end of said casing, a condenser supported by said closure and located within the coil, an operating handle for the condenser; a closure for the opposite end of said casing, a detector mounted on the inner face of said closure, a ground terminal and a switch terminal carried by said closure, electrical connections between said terminals and the terminals of the condenser, a circuit from the ground terminals to the other switch terminal and including the detector, a switch controlling said detector circuit, an operating handle for the switch located on the front of said closure, said circuit connections and switch being supported upon said closure and located within said coil.

3. In a wireless receiving apparatus a casing, a tuning coil located therein, a closure for one end of the casing, a coudenser supported by said closure and located within the coil, an operating handle for said condenser; a closure for the opposite end of said casing, a detector mounted thereon, a ground terminal mounted thereon, a switch mounted thereon, a circuit including said detector and switch, a telephone-receiver-circuit, a condenser located therein, said detector circuit and telephone-receiver-circuit being arranged within the coil.

4. In a wireless receiving apparatus a casing, a hollow tuning coil mounted within the casing, said casing having a plurality of longitudinal openings, strips of conducting material fitting in and closing said opening and extending from one end of the case to the other, said conducting strips being longitudinally slotted, slides arranged in coöperative relation with the coil with stems extending through said slots, operating buttons secured to said stems, an end plate to close one end of the casing and coil, a condenser carried by said end plate and adapted to fit within the coil, condenser terminals arranged opposite to the ends of said conducting strips and adapted to make electrical contact therewith when said end plate is fitted in place; an end plate adapted to close the opposite end of the casing and coil, a detector mounted on the inner surface of said end plate, circuit connections therefor, and circuit terminals arranged opposite to the other ends of the conducting strips and adapted to make electrical contact therewith when the end plate is in position, the condenser, detector and the circuit connections being inclosed within said coil and casing and concealed thereby.

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1,091,128. MACHINE FOR MEASURING DIRECTLY THE HARDNESS OF METALS. RENÉ GUILLERY, Paris, France. Filed July 18, 1912. Serial No. 710,105. (Cl. 73—51.)

1. In a machine for measuring directly the hardness of metals, comprising a ball, a support for the metal test piece, means for moving the metal test piece against said ball, a screw adapted to bring the ball into contact with the metal test piece, and an elastic cushion between said ball and screw.

2. A machine for measuring directly the hardness of metals, comprising a ball, an elastic cushion of known elasticity against which the ball rests, an externally screw threaded guide carrying the said cushion and ball and adapted to be lowered by rotating it, a graduated plate carried by the said guide and adapted to measure the degrees of rotation of said guide for indicating the longitudinal movement of said ball and means for applying pressure to the metal to be tested so as to force it against the said ball.

3. A machine for measuring directly the hardness of metals, comprising a ball, a screw-threaded support therefor movable toward and away from a sheet of metal to be tested, an elastic cushion between said ball and support, means for rotating said support to raise and lower the same comprising a finger piece or button, and a clutch between said button and threaded support, and means for pressing material to be tested against said ball.



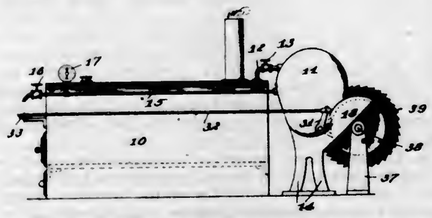
4. A machine for measuring directly the hardness of metals, comprising a ball, a screw-threaded support therefor movable toward and away from a sheet of metal to be tested, an elastic cushion between said ball and support, means for rotating said support to raise and lower the same comprising a finger piece or button, and a clutch between said button and threaded support, adapted to permit relative motion between said button and said support when said ball on being moved toward the surface of the metal to be tested comes in contact therewith, and adapted to prevent relative movement of said parts when said button is turned in a direction to withdraw said ball from the surface of the metal to be tested.

5. A machine for measuring directly the hardness of metals, comprising a ball, a screw-threaded support therefor movable toward and away from a sheet of metal to be tested, an elastic cushion between said ball and support, means for rotating said support to raise and lower the same comprising a finger piece or button, said button having a groove with a wedging face therein, a roller adapted to clutch said button and support together when the button is turned in a direction to withdraw said ball from the surface of the metal to be tested, and a friction clutch between said support and button adapted to permit relative motion between said button and support when said ball on being moved toward the surface of a sheet of metal comes in contact therewith, and means for pressing material to be tested against said ball.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,129. REVERSING STEAM-TURBINE. JOHN GYULAY, Bridgeport, Conn. Filed Jan. 2, 1914. Serial No. 809,952. (Cl. 121—56.)



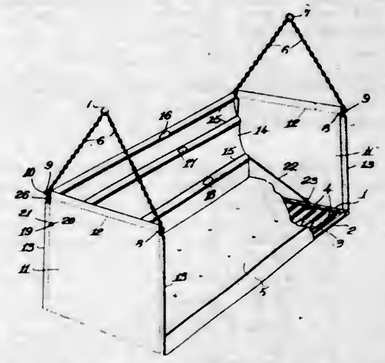
1. In a reversing steam turbine engine, a substantially spherical steam dome, an enlargement carried by said dome, a double-acting valve arranged between the steam dome and the enlargement, and a double turbine wheel provided with pockets opening in opposite directions supported independently of said engine and partially extending into said enlargement.

2. In a reversing steam turbine engine, a steam dome arranged independently of said engine and having a conduit connection therewith, an enlargement carried by said dome, a double-acting valve positioned between the dome and the enlargement, a driven shaft independent of said engine, a double turbine wheel provided with pockets opening in opposite directions carried by said driven shaft and adapted to partially extend into said enlargement.

3. A steam turbine engine comprising a steam dome, a semi-spherical enlargement carried by said dome opening to the atmosphere, a turbine wheel provided with two sets of pockets, each of said pockets opening in opposite directions, said turbine wheel being positioned to extend into the enlargement, and a double-acting valve for directing the jet of steam onto either set of pockets for driving said wheel in either direction.

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1,091,130. COUCH-HAMMOCK. WILLIAM P. HAMMOND, Charlestown, and RUSSELL W. SOULE, Everett, Mass., assignors to Clarence H. Young, Boston, Mass. Filed Oct. 1, 1912. Serial No. 723,330. (Cl. 5—61.)



1. In a couch hammock having a seat frame, a pair of suspension chains and an upturned wind shield attached to each end of the frame, in combination, a flexible fabric back having an attached longitudinally extended stiffening bar spaced from the upper and lower edges of the back, terminal connections between the bar and the wind shields near the rear upright edges thereof at a single point only on each, means to connect in a readily detachable manner the portion of the back above said bar with the rearmost suspension chains, and means to adjust transversely of the hammock the portion of the back below said bar.

2. In a couch hammock having a seat frame, and attached end portions each comprising a pair of suspension chains and an upturned wind shield, in combination, a flexible fabric back having an attached longitudinally extended stiffening bar, means terminally connecting the latter and the said end portions adjacent the rear upright edges thereof, means to vary the effective height of the back independently of said connecting means, and other means to adjust the angle of the back independently of the said end portions.

3. In a couch hammock having a seat frame, a pair of suspension chains attached to each end thereof, a transverse spreader connected with and spacing each pair of chains, and a fabric wind shield attached to each spreader and to the adjacent end of the frame, said wind shield having a tubular pocket at each upright edge, to inclose the chains nearly up to the spreader, in combination, a flexible fabric back having a plurality of longitudinal, parallel and spaced stiffening bars attached thereto, readily detachable means to connect terminally the uppermost bar and the exposed portions of the chains above the tubular pockets, and other means to connect the adjacent stiffening bar with the wind shields near their rear edges.

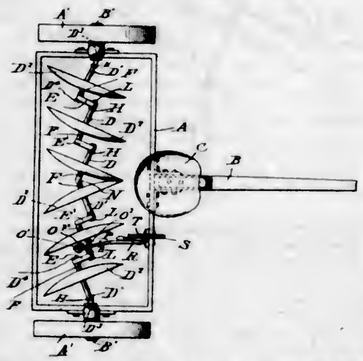
4. In a couch hammock having a seat frame, a pair of suspension chains attached to each end thereof, a trans-

verse spreader connected with and spacing each pair of chains, and a fabric wind shield attached to each spreader and to the adjacent end of the frame, in combination, a flexible fabric back having a plurality of attached, parallel and spaced stiffening bars extended longitudinally thereof, readily separable connections between the terminals of the uppermost bar and the rear suspending chains only adjacent the spreaders, and different, non-interchangeable connections between the next adjacent bar and the wind shields to connect said parts in a substantially permanent manner, attachment and detachment of the upper bar respectively increasing and decreasing the effective height of the back.

5. In a couch hammock having a seat frame, and attached end portions each comprising a pair of suspension chains and an upturned wind shield, in combination, a flexible fabric back having attached longitudinally extended stiffening bars, means terminally connecting one of said bars and the said end portions adjacent the rear upright edges thereof, means to vary the effective height of the back independently of said connecting means, and means to adjust the angle of the back independently of the said end portions comprising flexible members attached to the lowermost stiffening bar.

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1,091,131. ZIGZAG HARROW. FREEMAN HANSON, Hollis Center, Me. Filed Mar. 27, 1913. Serial No. 757,237. (Cl. 55—73.)

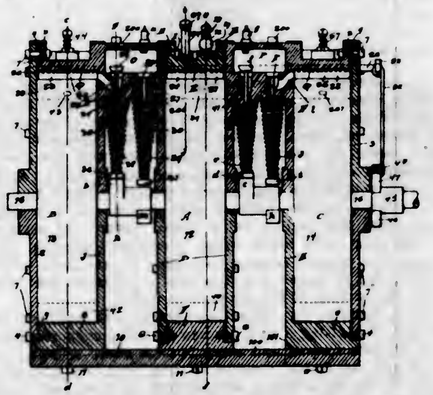


A disk harrow comprising a frame, a centrally disposed angular shaft section, plates secured to and at right angles with the arms of said central section, an integral shaft section projecting from each plate at right angles thereto, and parallel to the adjacent arm of said central section, end shaft sections each having its outer end journaled in said frame, other plates fastened one to each of said integral shaft sections and end sections, each of said end sections being bent at an angle and having a bearing in the frame, shouldered sleeves journaled upon said sections, disks having hollow shank portions journaled upon said sleeves, nuts fitted upon the sleeves and bearing against the ends of said hollow shank portions of the disks, a collar fixed to one of the sections and provided with an integral arm, and a swinging lever mounted upon the frame and having pivotal link connections with said arm, as set forth.

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1,091,132. ROTARY ENGINE. HAVELOCK HARFORD, Elbow River, Alberta, Canada. Filed July 24, 1912. Serial No. 711,330. (Cl. 123—15.)

1. A rotary engine comprising a compression-cylinder; a rotary piston mounted therein provided with two wings spaced apart, and projecting beyond the perimeter of said piston; a power-developing cylinder provided with an exhaust port; a rotary piston mounted in said power-developing cylinder provided with two wings spaced the required distance apart, and projecting beyond the perimeter of said piston; a shaft common to said pistons; an abutment mounted in a recess formed in each of the said cylinders; a stem common to said abutments; a compression-chest intermediate said cylinders and connected to each of the said cylinders by a port, the port leading into said compression-cylinder opening thereinto behind the abutment therein, and the port leading to said power-developing cylinder opening thereinto in front of said abutment; a valve mounted to control the passage of fuel through each of the said ports; valve-gear carried by said shaft and operating said valves alternately; an intake valve for said power-developing cylinder opening thereinto in front of the abutment therein; a carbureter communicating with said compression-cylinder in front of said abutment therein, and means actuated by said shaft for operating said abutments, as set forth and for the purpose specified.



2. A rotary engine comprising a compression-cylinder; a piston mounted therein provided with two wings spaced apart, and projecting beyond the perimeter of said piston; a power-developing cylinder provided with an exhaust port; a rotary piston mounted in said power-developing cylinder, provided with two wings spaced the required distance apart, and projecting beyond the perimeter of said piston; a shaft common to said pistons; and abutment mounted in a recess formed in each of the said cylinders; a stem common to said abutments; a compression-chest intermediate said cylinders and connected to each of the said cylinders by a port, the port leading into said compression-cylinder opening thereinto behind the abutment therein, and the port leading to said power-developing cylinder opening thereinto in front of said abutment; a valve mounted to control the passage of fuel through each of the said ports; valve-gear carried by said shaft and operating said valves alternately; an intake valve for said power-developing cylinder opening thereinto in front of the abutment therein; a carbureter communicating with said compression-cylinder in front of said abutment therein; means actuated by said shaft for operating abutments, and a governor controlling the movement of the abutment mounted in said compression-cylinder.

3. A rotary engine comprising a compression cylinder; a rotary piston mounted therein provided with two wings spaced apart, and projecting beyond the perimeter of said piston; a power-developing cylinder provided with an exhaust port; a rotary piston mounted in said power-developing cylinder, provided with two wings spaced the required distance apart, and projecting beyond the perimeter of said piston; a shaft common to said pistons; an abutment mounted in a recess formed in each of the said cylinders; a stem common to said abutments; a compression-chest intermediate said cylinders and connected to each of the said cylinders by a port, the port leading into said compression-cylinder opening thereinto behind the abutment therein, and the port leading to said power-developing cylinder opening thereinto in front of said abutment; a valve mounted to control the passage of fuel through each of the said ports; valve-gear carried by said shaft and operating said valves alternately; an in-take valve for said power-developing cylinder opening thereinto in front of the abutment therein; means actuated by said shaft for operating said abutments, and a spring-held plate carried by said compression cylinder and normally closing holes opening therefrom.

4. A rotary engine comprising a pair of power-developing cylinders each provided with an exhaust port; a rotary piston mounted in each of the said cylinders, and each provided with two wings spaced apart, and projecting beyond the perimeter of said pistons; a compression cylinder; a rotary piston mounted in said compression cylinder and provided with two wings spaced the required distance apart and projecting beyond the perimeter of said piston; the wings carried by said pistons being in alinement; a shaft common to said pistons; an abutment mounted in a recess formed in each of the said cylinders; a stem common to said abutments; a compression-chest intermediate each of the said power-developing cylinders and said compression cylinder, each compression-chest being provided with a pair of ports, one port from each compression-chest opening into said compression cylinder behind the abutment therein, and the other ports of said compression-chests opening each into its associated power-developing cylinder in front of the abutments therein; a valve mounted to control the passage of fuel through each of the said ports leading from said compression-chests; valve-gear carried by said shaft and operating simultaneously a valve in each compression-chest, as set forth; an in-take valve for each of the said power-developing cylinders opening thereinto in front of the abutments therein; a carbureter communicating with said compression cylinder in front of said abutment therein, and means actuated by said shaft for operating said abutments, as set forth and for the purpose specified.

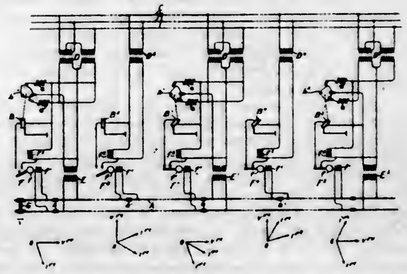
5. A rotary engine comprising a pair of power-developing cylinders each provided with an exhaust port; a rotary piston mounted in each of the said cylinders, and each provided with two wings spaced apart, and projecting beyond the perimeter of said pistons; a compression cylinder; a rotary piston mounted in said compression cylinder and provided with two wings spaced the required distance apart and projecting beyond the perimeter of said piston; the wings carried by said pistons being in alinement; a shaft common to said pistons; an abutment mounted in a recess formed in each of the said cylinders; a stem common to said abutments; a compression-chest intermediate each of the said power-developing cylinders and said compression cylinders, each compression-chest being provided with a pair of ports, one port from each compression-chest opening into said compression cylinder behind the abutment therein, and the other ports of said compression-chests opening each into its associated power-developing cylinder in front of the abutments therein; a valve mounted to control passage of fuel through each of the said ports leading from said compression-chests; valve-gear carried by said shaft and operating simultaneously a valve in each compression-chest, as set forth; an in-take valve for each of the side power-developing cylinders opening thereinto in front of the abutments therein; a carbureter communicating with said compression cylinder in front of said abutment therein; means actuated by said shaft for operating said abutments, and a governor controlling the movement of the abutment mounted in said compression cylinder.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,133. BLOCK-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed July 5, 1910. Serial No. 570,260. (Cl. 246—30.)

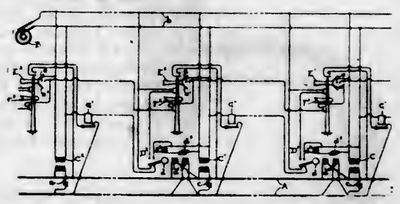
1. In a block signaling system, home signals at the entrances to the blocks, distant signals at intermediate points in the blocks, track circuits for the blocks, means controlled by the presence and absence of a train in a block for supplying one phase or another of current to the track circuit in the rear of said block, track relays directly controlling the distant signals and track relays controlling the home signals, each track relay having two windings cooperating to close the relay contacts, one of which windings is connected with the track rails, means for supplying the second winding of each distant signal relay with current of a phase which will coöperate with one only of the phases in the track rails to close the relay, and means for supplying the second winding of each home signal relay with current of a phase which will coöperate with either phase in the track rails to close the relay.



2. In a block signaling system, home signals at the entrances to the blocks, distant signals at intermediate points in the blocks, track circuits for the blocks, means controlled by the presence and absence of a train in a block for supplying one phase or another of current to the track circuit in the rear of said block, track relays directly controlling the distanct signals and track relays controlling the home signals, each track relay having two windings coöperating to close the relay contacts, an insulated joint inserted in a track rail of each block, one winding of each distant signal relay being connected across the adjacent insulated joint and one winding of each home signal relay being connected across the track rails, means for supplying the second winding of each distant signal relay with current of a phase which will coöperate with one only of the phases in the track rails to close the relay, and means for supplying the second winding of each home signal relay with current of a phase which will coöperate with either phase in the track rails to close the relay.

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1,091,134. NORMAL-DANGER-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed July 23, 1908, Serial No. 444,898. Renewed Nov. 12, 1910. Serial No. 592,133. (Cl. 246—36.)



1. In a block signal system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating current of the same frequency and phase connected across the rails at intervals, normally deënergized track-relays each having a winding connected in shunt to a portion of rail of sufficient length to provide the drop necessary to energize the said winding, and signals normally at danger controlled by said relays.

2. In a block signal system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating current of the same frequency and phase connected across the rails at intervals, said sources normally forming the only cross-connections between said rails, track-relays each having a winding connected in shunt to a portion of rail of sufficient length to provide the drop necessary to energize the said winding, and signals normally at danger controlled by said relays.

3. In a block signal system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating current of the same frequency and phase connected across the rails at intervals, normally deënergized relays each having a winding in shunt to a portion of rail adjacent to a source, said portion of rail being of sufficient length to provide the drop necessary to energize the said winding, and signals controlled by said relays, each guarding a length of track between adjacent sources.

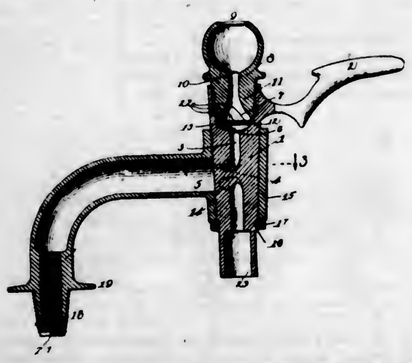
4. In a block signal system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating voltage of poor regulation of the same frequency and phase connected across the rails at intervals, said sources normally forming the only cross-connections between said rails, track-relays each having a winding connected in shunt to a portion of rail of sufficient length to provide the drop necessary to energize the said winding, signals normally at danger controlled by said relays, and means actuated by the movement of a signal to clear for cross-connecting the rails.

5. In a block signal system, in combination with an electric railway having both rails conductively continuous for all currents, sources of alternating voltage of poor regulation of the same frequency and phase connected across the rails at intervals, said sources normally forming the only cross-connections between said rails, track relays each having a winding connected in shunt to a portion of rail of sufficient length to provide the drop necessary to energize the said winding, signals normally at danger controlled by said relays, means actuated by the movement of a signal to clear for cross-connecting the rails, and means for preventing the establishing of the cross-connection when the signal in the rear is at clear.

[Claims 6 to 17 not printed in the Gazette.]

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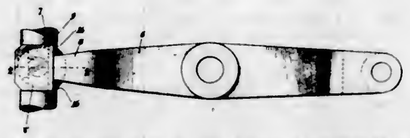
1,091,135. FAUCET. JOHN HETHERINGTON, Benton Harbor, Mich., assignor of one-half to David R. Jones, Benton Harbor, Mich. Filed Sept. 27, 1911. Serial No. 651,496. (Cl. 137—109.)



A combination fixture of the character described, comprising a pipe having a longitudinal bore and having a transverse vertical tapering passage intersecting said bore at the discharge end of the latter, a downwardly tapered valve member fitting in said vertical passage and having exterior screw threads below said passage, a nut turned on said threads for preventing upward displacement of the valve member, said valve member having a port leading up through its lower end and opening on the face of the valve member in the plane of said longitudinal bore, said valve member further having a port extending downwardly from its upper end and terminating on the face of the valve member in the plane of said bore, a drinking cup mounted on the upper end of said valve member and communicating with the last mentioned port, said two ports opening on the side of the valve member at different points, whereby the valve member may be turned to bring either point into registry with said bore or in position with neither of said ports in such registry, and a handle fixed to said valve member for rotating it.

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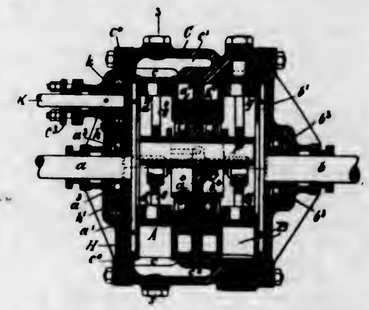
1,091,136. OSCILLATING LEVER FOR OPERATING PUMP-PISTONS, &c. REUBEN HILT, West Somerville, Mass. Filed Oct. 8, 1913. Serial No. 794,136. (Cl. 74—5.)



An oscillatory lever or arm having a transverse circular socket, a segmental bearing edge substantially concentric with the socket and a cheek piece formed to bear on one side of the lever and having a trunnion fitted to turn in said socket, a flange having a segmental inner face in sliding contact with the segmental edge face of the lever and external faces formed to engage shoulders on a movable rod, and a cap piece attached as described to the outer edge of said flange and forming, with the cheek piece and flange, a box inclosing the portion of the lever having the segmental edge.

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1,091,137. HYDRAULIC TRANSMISSION. LEWIS EARNEST HOPKINS, Cardiff, Wales. Filed May 27, 1913. Serial No. 770,155. (Cl. 138—3.)



1. A rotary machine comprising a rotor formed with a plurality of radially-directed cylinders fitted with pistons, means for connecting said pistons to the stator such that they pursue an orbital path eccentric to the axis of the rotor, an inclosing stator which provides an annular space around said rotor, a passage leading to said annular space and one leading therefrom, partitions dividing said annular space into a plurality of compartments, and means for displacing said partitions angularly relatively to the stator.

2. A rotary machine comprising a rotor formed with a plurality of radially-directed cylinders fitted with pistons, means for connecting said pistons to the stator such that they pursue an orbital path eccentric to the axis of the rotor, an inclosing stator which provides an annular space around said rotor, a passage leading to said annular space and one leading therefrom the ports of which are situated approximately at the extremities of a diameter of the stator which contains the center of the orbit of the pistons, partitions situated approximately diametrically opposite each other and carried by a disk and means for angularly displacing said disk and the partitions carried thereby.



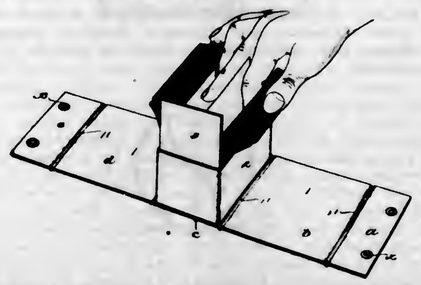
3. A rotary machine comprising a rotor formed with a plurality of radially-directed cylinders fitted with pistons, a pin secured to the stator with its axis parallel to that of the rotor at a distance therefrom equal to half the stroke of the pistons, a strap embracing said pin, rods connecting said strap to all but one of said pistons by a pin-connection, the rod of the latter being formed integrally with the strap, an inclosing stator which provides an annular space around said rotor, a passage leading to said annular space and one leading therefrom the ports of which are situated approximately at the extremities of a diameter of the stator which contains the center of the orbit of the pistons, partitions situated approximately diametrically opposite each other and carried by a disk and means for angularly displacing said disk and the partitions carried thereby.

4. A power-transmitter of variable speed-ratio, comprising a combination of a rotary pump and a rotary motor in which the pump and also the motor comprise a rotor formed with a plurality of radially-directed cylinders fitted with pistons, means for connecting said pistons to the stator such that they pursue an orbital path eccentric to the axis of the rotor, an inclosing stator which provides an annular space around said rotor, a passage leading to said annular space and one leading therefrom the ports of which are situated approximately at the extremities of a diameter of the stator which contains the center of the orbit of the pistons, partitions situated approximately diametrically opposite each other and carried by a disk and means for angularly displacing said disk and the partitions carried thereby.

5. A power-transmitter of variable speed-ratio, comprising a combination of a rotary pump and a rotary motor in which the pump and also the motor comprise a rotor formed with a plurality of radially-directed cylinders fitted with pistons, a pin secured to the stator with its axis parallel to that of the rotor at a distance therefrom equal to half the stroke of the pistons, said pin of pump being formed integrally with said pin of motor, a strap embracing said pin, rods connecting said strap to all but one of said pistons by a pin connection the rod of the latter being formed integrally with the strap, an inclosing stator which provides an annular space around said rotor, a passage leading to said annular space and one leading therefrom the ports of which are situated approximately at the extremities of a diameter of the stator which contains the center of the orbit of the pistons, partitions situated approximately diametrically opposite each other and carried by a disk and in one element of the pump-motor combination means for angularly displacing said disk and the partitions carried thereby.

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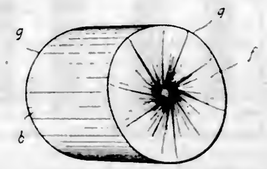
1,091,138. WALLET. FRANK E. HOUSH, Winthrop, Mass. Filed Dec. 19, 1912. Serial No. 737,766. (Cl. 129—15.)



The combination of an outer cover made up of a box having upstanding ends and an outer strip secured to the box and hinged to fold about it and its ends and an index pack formed of a pack of leaves bound together at one edge and designed to fit within the box, the upstanding ends closing the side edges of the leaves and the outer strip detachably covering the upper ends of the leaves and the front and back of the box.

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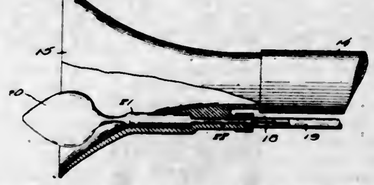
1,091,139. PROTECTIVE COVER FOR ROLLS OF PAPER AND THE LIKE. EMIL JAGENBERG, Dusseldorf, Germany. Filed July 30, 1913. Serial No. 781,909. (Cl. 206—59.)



A paper roll, provided with a cover that extends over the face of the roll and is provided with a pair of inwardly turned flanges that extend over the ends of the roll, each of said flanges being formed of a plurality of folds, and with a hardening adhesive carried by the cover, and adapted to stiffen the flanges and fix the folds thereof.

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1,091,140. COTTON-PICKER. EDWARD S. JONES, Mobile, Ala. Filed July 11, 1912. Serial No. 708,751. (Cl. 56—117.)



1. A cotton picking device including a suction nozzle having a flared opening and provided on the outside adjacent its base with an extension projecting from the side of the nozzle, a bore being formed in the extension enlarged at its inner end and opening through the inner side of the nozzle, a beater within the nozzle having a shouldered stem engaged through the bore, operative connections therefor without the nozzle, the head of the beater being enlarged, and the stem having an attenuated portion within the nozzle, to permit flexure at times.

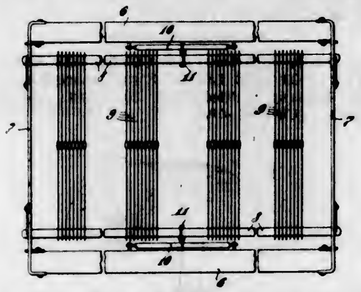
2. A cotton picking device comprising a suction collecting means, a flexible tube extended therefrom, a flared nozzle at the outer end of the tube, a flexible shaft having a terminal member revoluble within the nozzle, operative means for the shaft, a heart-shaped beater head and an attenuated connecting portion between the head and the terminal member, whereby the beater is adapted for rotation of the head in a circle extending beyond the axis of the nozzle at times, and to deliver blows of increased force under flexure of the connecting portions.

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1,091,141. HEDDLE-FRAME. JACOB KAUFMANN, Philadelphia, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 29, 1912. Serial No. 733,939. (Cl. 139—73.)

1. In a heddle frame, the combination of the auxiliary supporting bar of non-circular cross-section, a member slidably mounted on said bar having an aperture of complemental shape to prevent rotation with respect thereto, said member having a recess open on its side, a heddle bar mounted in said recess of a width corresponding to the

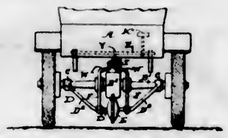
width of said recess, and means for closing the open side of said recess, said means comprising a plate pivoted to said member between the recess and the aperture, and means for maintaining said plate in closed position.



2. In a heddle frame, the combination of the auxiliary supporting bar of non-circular cross-section, a member slidably mounted on said bar having an aperture of complemental shape to prevent rotation with respect thereto, said member having a recess open on its side, a heddle bar mounted in said recess of a width corresponding to the width of said recess, and means for closing the open side of said recess, said means comprising a plate pivoted to said member between the recess and the aperture, and means for maintaining said plate in closed position comprising complemental creases in the member and plate.

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1,091,142. ANTISKIDDING DEVICE FOR AUTOMOBILES. LYMAN M. KEECH, Harpursville, N. Y. Filed Oct. 25, 1912. Serial No. 727,661. (Cl. 21—8.)



A device of the character described comprising in combination with the vehicle body and the rear axle casing, a bracket member including a pair of spaced apart lever arms pivotally connected at one end to the intermediate part of said axle casing, a shaft connecting the lever arms at the ends opposite their connection with the axle casing and carrying a disk wheel, arm extensions connected to the lever arms at their lower ends and being pivotally connected to the axle casing at their opposite ends, an operating rod having a pivotal connection with said bracket and yieldingly connected to the vehicle body to hold the bracket normally inoperative, and means for rendering the device operative.

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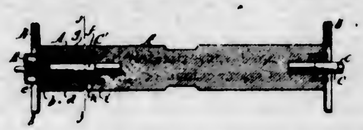
1,091,143. CHEESE-STAND. CHARLES W. KIBBEY, Boyne City, Mich. Filed May 22, 1913. Serial No. 769,293. (Cl. 45—103.)



A cheese stand comprising a base plate having recesses extending partly therethrough from the top thereof and apertures leading from the edge of the plate to said top recesses, and a turntable mounted on said base plate and spaced from the top thereof, the diameter of the turntable being less than the diameter of the base plate, and the aforesaid top recesses of the base plate being located beneath the turntable.

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1,091,144. ADJUSTABLE SPOOL FOR MUSIC-SHEETS. AUGUST DE KLEIST, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Mar. 18, 1911. Serial No. 615,233. (Cl. 242—69.)



1. A spool for a music sheet, comprising a pair of sections one of which is slidable toward and from the other, each of said sections carrying a flange, means for holding said slidable spool-section against rotation relatively to the other section, yielding means tending to separate said sections, and adjusting means for shifting said slidable section toward the opposing section.

2. A spool for a music sheet comprising a pair of sections each carrying a flange, yielding means tending to separate such sections to increase the distance between the spool-flanges, and means arranged on the outer side of one of said flanges for adjusting the spool sections toward each other.

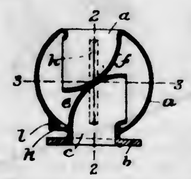
3. A spool for a music sheet comprising a pair of sections each carrying a flange, a spring interposed between the sections and tending to separate them, one of said sections having at its inner end a screw threaded spindle upon which the other section is slidably mounted, and an adjusting nut applied to said spindle on the outer side of the flange carried by said slidable spool-section.

4. A spool for a music sheet comprising a pair of sections movable toward and from each other and each carrying a flange, the inner faces of said flanges being parallel one of said sections being provided at opposite ends with studs one of which passes axially through the other spool-section, an adjusting device applied to the last-named stud and bearing against the outer side of the adjacent spool-flange, and a spring interposed between the spool-sections and tending to separate the same.

5. A spool for a music sheet comprising sections movable toward and from each other, flanges rigidly secured to the outer ends of said sections, a coupling pin carried by one of the sections and slidable lengthwise in the other, one of said sections having a screw threaded spindle passing axially through the other section, an adjusting nut applied to said spindle on the outer side of the adjacent flange, and a spring seated in the inner end of one of said sections and bearing against the other section.

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1,091,145. EXHAUST-HEAD. CHARLES B. KLINGEMANN, South Weymouth, and WALTER G. RUGGLES, Reading, Mass. Filed July 19, 1911. Serial No. 639,415. (Cl. 83—90.)



1. An exhaust head comprising an outer shell having an inlet and an outlet, curved tubes extending from said inlet and outlet respectively into the interior of the shell and having their end openings within the shell turned away from one another, whereby the steam issuing from the inlet tube is required to change its direction before it can enter the outlet tube, and baffles interposed in the path of the fluid from the inlet tube to the outlet tube and arranged transversely to the direction in which the fluid flows.

2. An exhaust head comprising a spherical shell having inlet and outlet openings at diametrically opposite points, an inlet tube extending into the shell from the inlet opening and being deflected so that its outlet is at one side of the line of openings and is in a plane parallel to such line, an outlet tube entering the shell from the outlet opening and oppositely deflected so that its admission orifice is at the opposite side of the line of openings from the inlet tube outlet, and baffles projecting from the inner wall of the shell between the discharge orifice of the inlet tube and the intake orifice of the outlet tube.

3. An exhaust head comprising a spherical shell having an inlet opening at its bottom, an inlet tube extending upwardly from and to one side of, said opening and having its discharge orifice directed toward one side of the shell, an outlet opening in the top of the shell diametrically opposite to the inlet opening, an outlet tube extending from the outlet opening downwardly and toward the opposite side of the shell from the inlet tube, said tubes being joined hermetically with the shell and surrounding their respective openings, a baffle projecting inwardly from the side of the shell intermediate those sides toward which the inlet and outlet tubes are respectively directed, whereby to arrest steam passing from the inlet tube to the outlet tube and a drip outlet from the bottom of the shell at the base of the inlet tube for draining off water separated from the steam.

4. An exhaust head comprising an outer shell, an inlet tube or conduit extending upwardly and to one side from an opening at the bottom of the shell, an outlet tube or conduit extending downwardly and toward the opposite side from the top of the shell, and a drip outlet from the bottom of the shell at the base of the inlet tube.

5. An exhaust head comprising an outer shell, an inlet tube or conduit extending upwardly and to one side from an opening at the bottom of the shell, an outlet tube or conduit extending downwardly and toward the opposite side from the top of the shell, said tubes being tangent to each other at the center of the shell, and integrally united together at the tangent point and to the shell at their outer ends in one solid casting.

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1,091,146. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. REINHOLD KRUMMING, Milwaukee, Wis. Filed Jan. 6, 1913. Serial No. 740,450. (Cl. 129—13.)



1. In a binder, the combination of an outer post member having a longitudinal groove therein, an inner post member having a longitudinal slot therein, arranged to telescope within said outer post member, an engaging member pivoted within said inner post member to engage the outer post member through said slot, the end of the engaging member pivot being extended to engage said groove in said outer post member, an actuating member disposed within said inner post member and longitudinally slotted to receive said engaging member, the ends of the slot engaging said engaging member to rock it on its pivot, an adjusting screw whereby said actuating member is moved longitudinally, a spring arranged within said inner post member for returning said actuating member to its releasing position, said spring being arranged upon said screw, and a collar supporting the outer end of said spring.





2. In a binder, the combination of an outer post member, an inner post member having a longitudinal slot therein, arranged to telescope within said outer post member, an engaging member pivoted within said inner post member to engage the onter post member through said slot, an actuating member disposed within said inner post member and longitudinally slotted to receive said engaging member, the ends of the slot engaging said engaging member to rock it on its pivot, an adjusting screw whereby said actuating member is moved longitudinally, a spring within said inner post member for returning said actuating member to its releasing position, said spring being arranged upon said screw, and a collar supporting the outer end of said spring.

3. In a binder, the combination of an outer post member having a longitudinal groove therein, an inner post member having a longitudinal slot therein, arranged to telescope within said outer post member, an engaging member pivoted within said inner post member to engage the outer post member through said slot, the end of the engaging member pivot being extended to engage said groove in said outer post member, an actuating member disposed within said inner post member and longitudinally slotted to receive said engaging member, the ends of the slot engaging said engaging member to rock it on its pivot, an adjusting screw whereby said actuating member is moved longitudinally, a spring arranged within said inner post member for returning said actuating member to its releasing position.

4. In a binder, the combination of an outer post member, an inner post member having a longitudinal slot therein, arranged to telescope within said outer post member, an engaging member pivoted within said inner post member to engage the outer post member through said slot, an actuating member disposed within said inner post member and longitudinally slotted to receive said engaging member, the ends of the slot engaging said engaging member to rock it on its pivot, an adjusting screw whereby said actuating member is moved longitudinally, and a spring arranged within said inner post member for returning said actuating member to its releasing position.

5. In a binder, the combination of an outer post member having a longitudinal groove therein, an inner post member having a longitudinal slot therein, arranged to telescope within said outer post member, an engaging member pivoted within said inner post member to engage the outer post member through said slot, the end of the engaging member pivot being extended to engage said groove and said outer post member, an actuating member disposed within said inner post member and longitudinally slotted to receive said engaging member, the ends of the slot engaging said engaging member to rock it on its pivot, an adjusting screw whereby said actuating member is moved longitudinally.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,147. CONCRETE BUILDING CONSTRUCTION. JOHN ARVID KUIVALA, San Francisco, Cal. Filed Nov. 7, 1911. Serial No. 659,000. (Cl. 72—66.)



In a floor and ceiling construction for buildings, the combination with a ceiling and floor each composed of interlocking slabs, of a box girder filled with a plastic material, said girder being located between and abutting the floor and ceiling, a tie rod extending longitudinally of the girder and embedded in the plastic material filling thereof, and anchor-shaped members having flukes which enter the meeting edge portion of adjacent slabs below the girder and having single shanks which extend upwardly between the meeting faces of the slabs and have parts engaged with the tie rod.

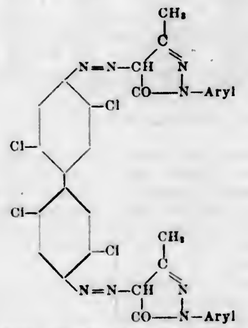
1,091,148. DISAZO DYESTUFF. AUGUST LEOPOLD LASKA and ARTHUR ZITSCHER, Offenbach-on-the-Main, Germany, assignors to The Corporation of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed Aug. 26, 1913. Serial No. 786,654. (Cl. 8—1.)

1. The process of making disazo dyestuffs especially suitable for the preparation of pigment colors consisting in combining the tetrazo compound of tetrachlorobensidin

$$(NH_2:Cl:Cl—1:2:5)$$

with two molecular proportions of a 1-aryl-3-methyl5-pyrazolone.

2. As new articles the dyestuffs, having probably the formula:



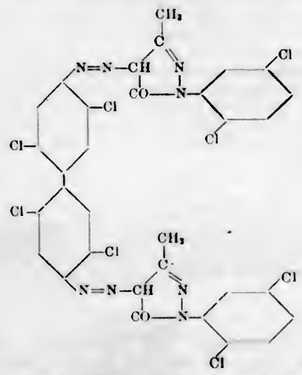
which form, when dry, yellow powders, soluble in concentrated sulfuric acid to an orange solution and giving yellow pigment colors, which are insoluble in oil and water and particularly fast to light.

3. The process of making a disazo dyestuff especially suitable for the preparation of pigment colors consisting in combining the tetrazo compound of tetrachlorobensidin

$$(NH_2:Cl:Cl—1:2:5)$$

with two molecular proportions of the 1-(2:5)-dichlorophenyl-3-methyl-5-pyrazolone.

4. As a new article the dyestuff, having probably the formula:

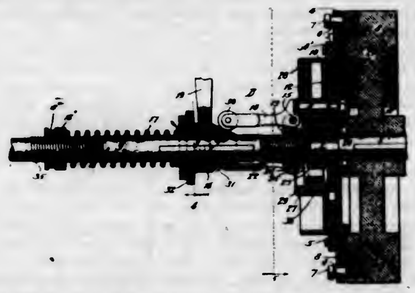


which forms, when dry, an intensively yellow powder, soluble in concentrated sulfuric acid to an orange solution, and gives greenish yellow pigment colors which are insoluble in oil and water and particularly fast to light.

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1,091,149. CLUTCH MECHANISM. JACOB LAUTH, Chicago, Ill. Filed Feb. 8, 1912. Serial No. 676,212. (Cl. 192—7.)

1. In clutch-mechanism, the combination of a shaft, a clamping-member secured on one end thereof, a clamping-member shiftably mounted on said shaft, a wheel equipped with a friction-member which projects between said clamping members, means tending to move said friction-member away from said first-named clamping member, a lever-carrying member adjustably fixed on said shaft adjacent said second-named clamping-member, levers mounted thereon and adapted to force said second-named clamping member to the clamping position, and a lever-actuating member shiftably mounted on said shaft.



2. In clutch-mechanism, the combination of a shaft, a clamping-member secured on one end thereof, a clamping-member shiftably mounted on said shaft and connected to rotate therewith, a wheel equipped with a friction-member which projects between said clamping-members, means tending to move said friction-member away from said first-named clamping member, a lever-carrying member adjustably fixed on said shaft adjacent said second-named clamping-member, levers mounted thereon and adapted to force said second-named clamping-member to the clamping position, and a lever-actuating member shiftably mounted on said shaft.

3. In clutch-mechanism, the combination of a shaft equipped at one end with a wheel, a friction-member mounted at one side of the rim portion of said wheel to rotate with the wheel, but capable of movement away from the wheel, springs adapted to force said friction-member away from the wheel, a second shaft in alinement with said first-named shaft, a clamping-member secured on the end portion of said second-named shaft between said friction-member and said wheel, a second clamping-member on the opposite side of said friction-member and mounted to rotate with said first-named clamping-member, but movable toward and away therefrom, springs for separating said clamping-members, a lever-carrying member disposed adjacent said second-named clamping-member and adjustably mounted on said second-named shaft, a lever-actuating member slidably mounted on said shaft, and a spring carried by said shaft and engaging said lever-actuating member.

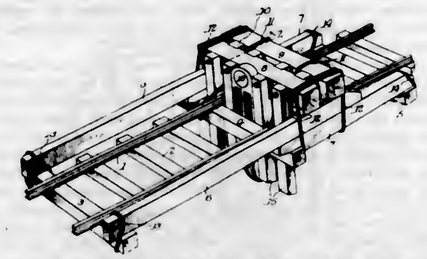
4. In clutch-mechanism, the combination of a shaft equipped at one end with a wheel, a friction-member mounted at one side of the rim portion of said wheel to rotate with the wheel, but capable of movement away from the wheel, springs adapted to force said friction-member away from the wheel, a second shaft in alinement with said first-named shaft, a clamping-member secured on the end portion of said second-named shaft between said friction-member and said wheel, a second clamping-member on the opposite side of said friction-member and mounted to rotate with said first-named clamping-member, but movable toward and away therefrom, springs for separating said clamping-members, a lever-carrying member disposed adjacent said second-named clamping-member and adjustably mounted on said second-named shaft, levers mounted on said lever-carrying member, a lever-actuating member slidably mounted on said shaft, a spring carried by said shaft and engaging said lever-actuating member, and means for retracting the lever-actuating member against the force of its spring.

5. In clutch-mechanism, the combination of a shaft having one end portion equipped with threads, a lever-carrying sleeve having a threaded bore engaging said threads, levers mounted on said lever-carrying sleeve, a clamping-member having a threaded bore engaging the threaded extremity of said shaft, a clamping-member between said levers and said first-named clamping-member, guide-connections between said clamping members permitting movement of the second-named clamping-member away from the first-named clamping-member, spring-held lever-engaging means mounted on said shaft, and a wheel equipped with an annular friction-member projecting into the space between said clamping members.



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1,091,150. BUMPING-POST. LEWIS M. LAWRENCE, Birmingham, Ala. Filed July 5, 1911. Serial No. 637,040. (Cl. 104—49.)



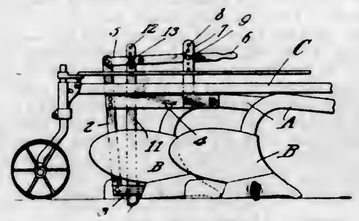
1. In a bumping post the combination with a pair of longitudinal side frames, inclined from the rear to the front, of transverse members mounted thereon and spaced apart by blocks, and vertical posts having their upper ends supported by said transverse members, a transverse member 4 mounted beneath the said longitudinal members and lying against the front of the vertical posts, and means to tie the transverse members together and to tie all said elements to the side frames as described.

2. In a bumping post the combination with side frames mounted on transverse anchor beams and secured thereto, of a plurality of transverse timbers mounted upon the side frames, and a vertically disposed post extending above and below the plane of said side frames the lower end of said post being adapted to secure said bumping post against displacement substantially as described.

3. In a bumping post the combination of vertical members extending below and above the plane of side members and supported at the top and rear by top cross members, and below the side members and at the front by a cross anchor member and with the means of tying all of the elements together as described.

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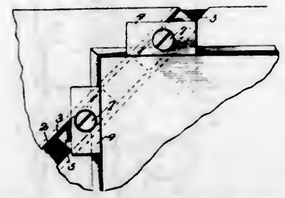
1,091,151. PLOW ATTACHMENT. HERMAN A. MAURER, Rocklyn, Wash. Filed Feb. 26, 1912. Serial No. 680,025. (Cl. 97—1.)



An attachment for plows including an upper forked guide member adapted to be secured at its front end to a plow beam, a standard fixedly connected to one end thereof and extending upwardly and downwardly therefrom, a second standard fixedly connected to the other end thereof, a lower forked guide arm connected to the lower end of the first named standard and adapted to be secured at its front end to the plow, a lever pivotally connected to the upper end of said standard, means carried by the lever for adjustably engaging the second standard, a strip slidably mounted in the upper forked guide and pivotally and adjustably connected to the lever, and a flat blade at the lower end of and alining with the strip and slidably mounted in the lower forked guide, said blade having a sharp front and lower edge.

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1,091,152. CLAMP FOR PRINTING-PLATES. WILLIAM F. MINNICK, Niles, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Oct. 16, 1911. Serial No. 654,979. (Cl. 101—169.)



1. A plate clamp for printing presses comprising a base designed to fit within a grooved foundation, a spring-pressed member carried by said base, a retaining plate designed to be located above the grooved foundation, and a screw connecting the retaining plate to the base, said base and its spring-pressed member being firmly held in the groove as the screw is tightened to cause the retaining plate to engage a printing plate.

2. In combination with a printing bed having a groove therein with overhanging flanges, a clamp comprising a base having oppositely-movable members for engaging the walls of said groove beyond said flanges, yielding means normally holding said members extended, and a retaining plate adjustably connected to said base, which latter is drawn against said flanges by the adjustment of the retaining plate.

3. A plate clamp for printing presses comprising a retaining plate, a base to which said retaining plate is pivotally secured, said base being composed of two parts, one of said parts having openings, and the other of said parts having studs projecting into said openings, and springs interposed between said parts.

4. A plate clamp for printing presses comprising a retaining plate, a base to which said retaining plate is pivotally secured, said base being composed of two parts, one of said parts having openings, and the other of said parts having studs projecting into said openings, and springs surrounding said studs and located in said openings.

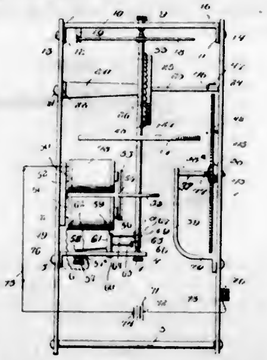
5. A plate clamp for printing presses comprising a retaining plate, a base to which said retaining plate is pivotally secured, said base being composed of two parts, one of said parts having openings with shoulders therein, and the other of said parts having studs extending into said openings and provided with flanges for engaging said shoulders, and springs surrounding said studs and engaging the flanged ends thereof for normally holding the parts extended.

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1,091,153. ELECTRIC CLOCK. JOHN J. MOORE, Chambersburg, Pa. Filed Jan. 10, 1913. Serial No. 741,257. (Cl. 58—28.)

1. In a clock of the class described, the combination with a pair of spaced frame plates, of a supporting bracket carried by one of said plates and insulated therefrom, an insulated cross bar connecting said frame plates in spaced relation to said brackets, a balance staff journaled between said cross bar and bracket and being in electrical connection therewith, an armature carried by said balance staff, an electro-magnet attached to the frame in suitable proximity to the path of movement of said armature, a contact point attached to said bracket and insulated therefrom, electrical connection between the said contact

point and electro-magnet, a source of electrical supply connected with the electro-magnets and one of the frame plates, a circuit closer pivoted to said bracket and having a contact arm engageable with the insulated contact point, means for electrically connecting said balance staff with the frame plate to which the source of electrical supply is connected during the impulse beat of the balance staff, and means provided on the balance staff for actuating the circuit closer during the impulse beat of the balance staff to throw the contact arm carried by the circuit closer onto said contact point.



2. In a clock of the class described, the combination with a pair of spaced frame plates, of a supporting bracket carried by one of said plates and insulated therefrom, an insulated cross bar connecting said frame plates in spaced relation to said brackets, a balance staff journaled between said cross bar and bracket and being in electrical connection therewith, an armature carried by said balance staff, an electro-magnet attached to the frame in suitable proximity to the path of movement of said armature, a contact point attached to said bracket and insulated therefrom, electrical connection between the said contact point and electro-magnet, a source of electrical supply connected with the electro-magnets and one of the frame plates, a circuit closer pivoted to said bracket and having a contact arm engageable with the insulated contact point, means for electrically connecting said balance staff with the frame plate to which the source of electrical supply is connected during the impulse beat of the balance staff, means provided on the balance staff for actuating the circuit closer during the impulse beat of the balance staff to throw the contact arm carried by the circuit closer onto said contact point, and means provided upon the balance staff for actuating the circuit closer so as to throw the contact arm out of engagement with the contact point during each reverse beat of the balance staff when the beat is normal in length, the latter-named actuating means being inoperative when the beat of the balance staff is below normal length.

3. In a clock of the class described, the combination with a pair of spaced frame plates, of a supporting bracket carried by one of said plates and insulated therefrom, an insulated cross bar connecting said frame plates in spaced relation to said brackets, a balance staff journaled between said cross bar and bracket and being in electrical connection therewith, an armature carried by said balance staff, an electro-magnet attached to the frame in suitable proximity to the path of movement of said armature, a contact point attached to said bracket and insulated therefrom, electrical connection between the said contact point and electro-magnet, a source of electrical supply connected with the electro-magnets and one of the frame plates, a circuit closer pivoted to said bracket and having a contact arm engageable with the insulated contact point, means provided on the balance staff, for actuating the circuit closer during the impulse beat of the balance staff to throw the contact arm carried by the circuit closer onto said contact point, a bearing bracket attached to the frame plate opposite to the one to which the source of electrical supply is connected, the said bracket being insulated from the plate to which it is attached, an arbor journaled between said bracket and the plate to which the source of supply is connected, said arbor being in electrical connection with the last-named plate, a crown wheel fixedly attached to said arbor, an actuating member carried by the balance staff in electrical connection therewith and engageable with the said crown wheel during the impulse beat of the balance staff to cause operation of the same, a second actuating member insulated from the said balance staff and engageable with the crown wheel at a point diametrically opposite the first-named actuating member to cause operation thereof during the reverse beat of the balance staff, and means for operatively connecting said arbor with the time mechanism of the clock.

4. In a clock of the class described, the combination with a pair of spaced frame plates, of a supporting bracket carried by one of said plates and insulated therefrom, an insulated cross bar connecting said frame plates in spaced relation to said brackets, a balance staff journaled between said cross bar and the bracket and being in electrical connection therewith, an armature carried by said balance staff, an electro-magnet attached to the frame in suitable proximity to the path of movement of said armature, a contact point attached to said bracket and insulated therefrom, electrical connection between the said contact point and electro-magnet, a source of electrical supply connected with the electro-magnets and one of the frame plates, a circuit closer pivoted to said bracket and having a contact arm engageable with the insulated contact point, and means provided on the balance staff for actuating the circuit closer during the impulse beat of the balance staff to throw the contact arm carried by the circuit closer onto said contact point, and means provided upon the balance staff for actuating the circuit closer so as to throw the contact arm out of engagement with the contact point during each reverse beat of the balance staff when the beat is normal in length, the last-named actuating means being inoperative when the beat of the balance staff is below normal length.

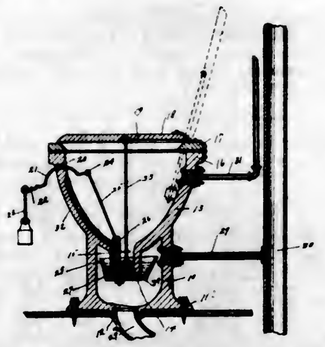
5. In a clock of the class described, the combination with a frame, of a balance staff journaled therein, an armature carried by said staff, an electro-magnet attached to the frame and disposed in suitable proximity to the path of movement of said armature, a contact point mounted upon the frame and insulated therefrom, electrical connection between the said contact point and one terminal of the electro-magnet, a source of electrical supply having one terminal connected with the electro-magnet, means for connecting the other terminal of the source electrically with the balance staff during each impulse beat of the latter, a circuit-closing member pivoted to the frame for swinging movement in a plane disposed at right angles to the axis of the balance staff and having a contact arm engageable with the said contact point, a pair of angularly and longitudinally spaced arms extending laterally from the said contact member, an actuating member provided upon the balance staff for engagement with one of the said arms of the circuit-closing member during the impulse beat of the balance staff to operate the circuit-closing member so as to move its contact arm into engagement with the said contact point, and a second actuating member carried by the balance staff and adapted for engagement with the other arm of the circuit-closing member during the reverse beat of the staff when of normal length to operate the circuit-closer and move its contact arm out of engagement with the contact point.

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1,091,154. SANITARY TOILET-BOWL. ALVA F. MORSE, Humboldt, Iowa. Filed July 21, 1913. Serial No. 780,383. (Cl. 4—17.)

1. In a device of the class described, a bowl having a base provided with a chamber and a downwardly projecting member extending into said chamber, said projecting member having a discharge opening communicating with said bowl, a sealing device for said discharge opening, yielding means for supporting said sealing device, said sealing device being capable of a downward movement to empty a portion of the contents of said bowl into said chamber when the contents thereof have reached a certain predetermined level, a cover hinged to said bowl, and mechanical means operated by said cover to prevent said discharge opening from becoming clogged.





2. In a device of the class described, a bowl having a base provided with a chamber and a downwardly projecting member extending into said chamber, said projecting member having a discharge opening communicating with said bowl, an inverted bell shaped member designed to receive the lower edge of said projecting member, a supporting rod attached to one side of the center of said bell shaped member and extending through said discharge opening, a lever extending through and pivoted to said bowl, a link for connecting the inner end of said lever and said supporting rod, and a weight adjustably mounted on the outer end of said lever.

3. In a device of the class described, a bowl having a base provided with a chamber and a downwardly projecting member extending into said chamber, said projecting member having a discharge opening communicating with said bowl, an inverted bell shaped member designed to receive the lower edge of said projecting member, a supporting rod attached to one side of the center of said bell shaped member and extending through said discharge opening, a lever extending through and pivoted to said bowl, a link for connecting the inner end of said lever and said supporting rod, a weight adjustably mounted on the outer end of said lever, an annular frame hinged to the top of said bowl, a cover hinged to said frame, a downwardly extending rod pivoted to the center of said cover, and a plunger on the lower end of said rod designed to reciprocate within said discharge opening when said cover is raised and lowered.

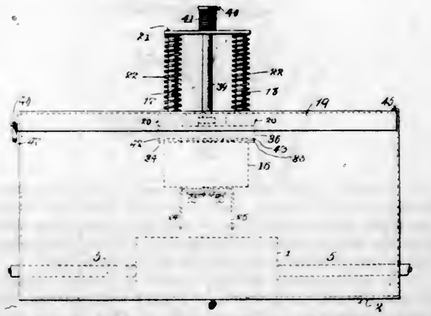
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1,091,155. ELECTRIC SWITCH. THOMAS E. MURRAY, New York, N. Y. Filed Nov. 27, 1912. Serial No. 733,781. (Cl. 172—179.)

1. An electric switch, comprising a support, circuit terminals thereon, a hollow movable carrier, a fuse in said carrier having terminals on the exterior thereof cooperating with said circuit terminals, a second carrier movable independently of said first carrier, and a fuse on said second carrier having its terminals coöperating with the fuse terminals on said first carrier.

2. An electric switch, comprising a support, circuit terminals thereon, a hollow movable carrier, two pairs of contacts thereon, the members of each pair being connected, a fuse in said carrier connected to said pairs, a second carrier movable independently of said first carrier, and a fuse on said second carrier having its terminals cooperating with a member of each of said pairs of contacts; the remaining members of said pairs coöperating with said circuit terminals.

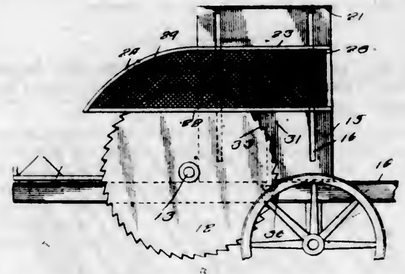
3. An electric switch, comprising an inclosing casing, fixed circuit terminals therein, a movable carrier, contacts on opposite sides of said carrier, rods extending from said carrier through a wall of said casing, a connecting device for said rods outside of said wall, springs interposed between said device and said wall, a second movable carrier interposed between said first carrier and said wall, contacts on said carrier, a rod extending from said second carrier through said wall and connecting device, a head on said rod, and a spring interposed between said head and said connecting device.



4. An electric switch, comprising a casing, a slidable cover thereon, means for preventing lifting of said cover from said casing, a movable switch member supported on said cover, and a fixed switch member engaging with said movable member and disposed within said casing: whereby upon the engagement of said switch members removal of said cover from said casing by sliding as aforesaid is prevented.

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1,091,156. SAW-GUARD. LAURENCE N. NELSON, Sturgeon Bay, Wis. Filed Aug. 16, 1912. Serial No. 715,500. (Cl. 143—159.)



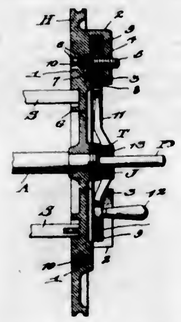
The combination with a circular saw and its support, of a saw guard including a sheet metal plate secured to said support upon one side thereof parallel to said saw, and having the top edge bent toward said saw to produce a stop flange, a hood over said saw slidably mounted on said plate and adapted to engage with said flange whereby the movement of said hood away from said saw is limited, means on said plate engageable by said hood and serving to limit movement of said hood toward said saw, and means for moving said hood toward and away from said saw.

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1,091,157. DYEING-BEAM. FRANK M. MORTON, Phoenix, Ala., assignor to Columbus Truck and Supply Manufacturing Company, Columbus, Ga., a Corporation of Georgia. Filed May 27, 1913. Serial No. 770,184. (Cl. 8—19.)

1. A dyeing beam having a packing at one end to engage the body of yarn wound on the beam and thereby prevent

the circulation of the dye liquor around the end of such body.



2. A dyeing beam having a head and a movable packing member carried thereby and projecting inwardly beyond the plane of the inner face of said head for engagement with the body of yarn on the beam to prevent the circulation of the dye liquor around the end of such body.

3. A dyeing beam having a head, a packing member carried thereby, and means to project said member into forcible engagement with the body of yarn on the beam to prevent circulation of the dye liquor around the end of such body.

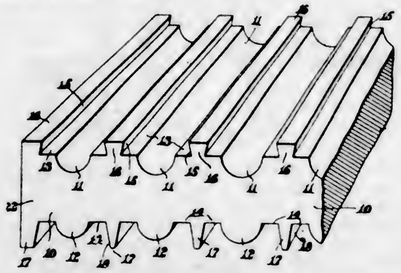
4. A dye beam having annular channels in the inner faces of its head, rings disposed within said channels, and means for pushing said rings inward within their channels or retracting them at will.

5. A dye beam whereof each head has an annular channel in its inner face and holes extending from said channel through the head at intervals, a ring disposed within said channel, pins attached to the ring and projecting through said holes, and means for moving the pins to project the ring beyond the inner face of said head, or retract it at will.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,158. SHAPER FOR CUTTLEFISH MOLDS. HARRY ORKIN, Chelsea, Mass. Filed Jan. 6, 1913. Serial No. 740,897. (Cl. 51—1.)



1. As a new article of manufacture, a member having abrading surfaces composed of a plurality of semi-cylindrical ribs of different diameters and flat surfaces radiating from said ribs in alinement with the centers of said ribs.

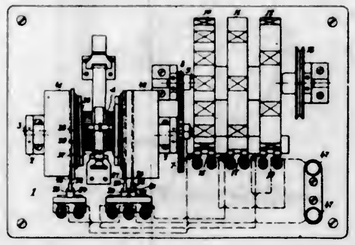
2. As a new article of manufacture, a member having an abrading surface composed of a semicylindrical rib and a semicylindrical depression of substantially the same diameter, said rib and depression each having radiating alined flat surfaces extending therefrom.

3. As a new article of manufacture, a member having a flat abrading surface provided with a pair of projecting flanges having oppositely inclined walls and a semi-cylindrical rib projecting from said flat surface intermediate said flanges.

4. As a new article of manufacture, a member having a flat abrading surface provided with a plurality of projecting flanges with inclined walls and a plurality of semicylindrical ribs of different diameters projecting from said flat surface and a plurality of semicylindrical depressions of different diameter positioned intermediate of different pairs of flanges.

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1,091,159. TRANSMITTING APPARATUS FOR ELECTRIC SIGNALING. PEDER OLUF PEDERSEN, Copenhagen, Denmark. Filed Sept. 28, 1909. Serial No. 520,023. (Cl. 178—69.)



1. In combination in a transmitting apparatus for automatic electric signaling, a signal emitting controlling device comprising a plurality of revoluble drums, contact making parts, and radially movable members carried by said drums, a spark-arresting device including contact making elements for preventing sparking between said contact making parts, electrical connections co-acting with said devices to form a partial circuit, and mechanism for operating said contact making parts and elements, contact between the elements aforesaid being effected before contact is made between the contact making parts aforesaid, and the partial circuit being interrupted at the spark arresting devices before said parts are separated.

2. In combination in a transmitting apparatus for automatic electric signaling, a signal-emitting controlling device comprising contact making parts, a spark-arresting device for preventing sparking between said contact making parts, said coöperating device including auxiliary contact making elements, and mechanism for operating both of said devices, the auxiliary contact making elements being operable by said mechanism in advance of the contact making parts when making circuit, and after the said parts when breaking said circuit, said auxiliary contact making elements being normally energized when actuated to make or break circuit.

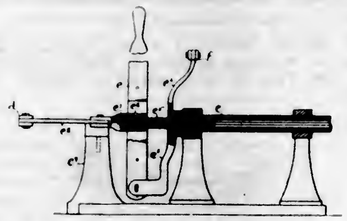
3. In combination in a transmitting apparatus for automatic electric signaling, a signal emitting controlling device comprising contact making parts, a spark-arresting device for preventing sparking between said contact making parts, including rotatable and stationary contact making elements, electrical connections co-acting with said devices to form a partial circuit, and mechanism for rotating said parts and elements at predetermined proportional speeds, contact between the contact making elements being effected by said mechanism before contact is made between the contact making parts aforesaid, and the partial circuit being interrupted at the spark-arresting device before said parts are separated, said auxiliary contact making elements being normally electrically energized when actuated to make or break circuit.

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1,091,160. LEVER-CONTROLLED DEVICE FOR HOISTING MECHANISM. JAMES B. PHILLIPS, Portland, Me. Filed Dec. 26, 1912. Serial No. 738,562. (Cl. 74—39.)

In a lever controlled device for hoisting mechanism, the combination of a hollow shaft, a spindle in said shaft and longitudinally movable therein, a ring on said spindle, a split lever embracing said ring and pivoted thereto, a bell crank lever, a bracket connecting the same with said ring, an arm secured on said shaft and pivoted to the

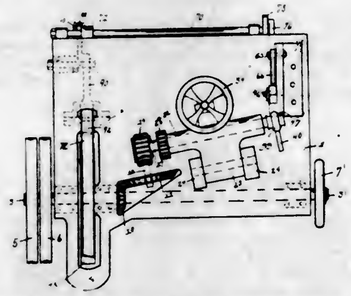




end of said lever, a reach rod connected with said bell crank lever and a reach rod connected with and operated by the rotation of said shaft.

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1,091,161. ARMORING-MACHINE. CHARLES T. PRATT, Frankfort, N. Y., assignor to Pratt Chuck Company, Frankfort, N. Y., a Corporation. Filed July 16, 1910. Serial No. 572,251. (Cl. 113—35.)



1. In an armoring machine, the combination of forming wheels adjustably held in relation to each other, means for coiling a metallic strip after the same has passed through said forming wheels, and means for giving intermittent blows to one edge of said strip, whereby to reduce in diameter one edge thereof for the overlapping thereon of the edge of the succeeding coil.

2. In a device of the character described, the combination of forming wheels adjustably held with reference to each other, a die adapted to receive and coil a metallic strip after same has passed between said forming wheels, and reciprocating hammers, working in said die from different directions and adapted to impart blows to the edge of said strip, whereby to reduce in diameter said edge for the overlapping of the edge of the succeeding coil, substantially as described.

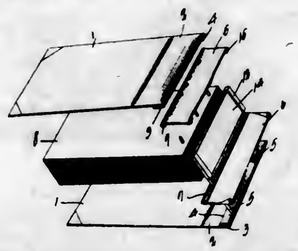
3. In an armoring machine, a die adapted to receive and coil a strip of metal and hammers reciprocated within said die whereby blows may be imparted to one edge of said coiled strip to reduce the diameter of the coil to receive the overlapping edge of the succeeding coil.

4. In an armoring machine, the combination with a die adapted to receive and coil a metallic strip and hammers reciprocating in said die and giving intermittent blows from different directions to one edge of an armoring strip whereby to reduce the diameter of the coil at one edge of the strip.

5. In an armoring machine of the character described, the combination of forming wheels journaled on shafts carried in housings, a die adapted to receive and coil a metallic strip passed thereto from said forming wheels, apertures in said die for the reception of hammers, means for actuating said hammers whereby to give blows to one edge of said metallic strip for reducing in diameter one edge of said coil for the overlapping of the succeeding edge, said means for actuating said hammers comprising a bell crank lever connected with a pitman rod pivotally secured to a pitman-wheel carried by a shaft rotated by a belt connection with the main shaft of the machine, substantially as described.

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1,091,162. BOOK. WILBUR H. RADFORD, Athens, Ohio. Filed Mar. 7, 1913. Serial No. 752,697. (Cl. 129—25.)



1. A book comprising a back; a flexible backing structure secured in its intermediate portion to the back and having its edges extended beyond the back; leaves located between the edges of the backing structure; a securing element passing through the leaves and engaging the edges of the backing structure; and a cover connected with the securing element.

2. A book comprising backing strips; leaves located between the edges of the backing strips; a back, the backing strips being overlapped upon, and secured to, the back; and securing elements passing through the edge of the backing strips and through the leaves.

3. A book comprising hinge strips; backing strips located between the hinge strips; leaves located between the edges of the backing strips; securing elements passing through the hinge strips, the edges of the backing strips and the leaves, the hinge strips being bent to overhang the ends of the securing elements; covers assembled with the hinge strips; and a back, the backing strips being overlapped and secured to the back.

4. A book comprising backing strips; a leaf located between the edges of the backing strips; a back, the backing strips being overlapped upon, and secured to, the back; and a securing element passing through the edges of the backing strips and through the leaf.

5. A book comprising hinge strips; backing strips located between the hinge strips; a leaf located between the edges of the backing strips; a securing element passing through the hinge strips, the edges of the backing strips and the leaf, the hinge strips being bent to overhang the ends of the securing element; covers assembled with the hinge strips; and a back, the backing strips being overlapped upon and secured to the back.

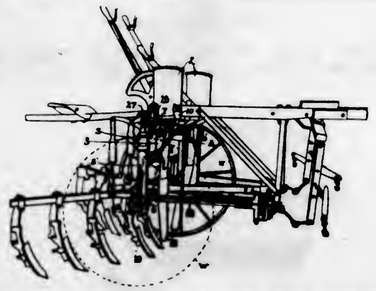
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1,091,163. FERTILIZER-DISTRIBUTING ATTACHMENT. PETER READING, Akron, Ohio, assignor to The Akron Cultivator Company, Akron, Ohio, a Corporation. Filed Dec. 9, 1912. Serial No. 735,841. (Cl. 111—6.)

1. A pivot wheel cultivator having horizontally rotatable vertical parts at its sides provided with spindles upon which the wheels are mounted and having bridge arms rigid therewith substantially parallel to said wheels and connected at their ends, fertilizer distributers removably fixed upon said arms and driving connections therewith initially engaged with the hubs of said wheels.

2. A wheel cultivator having a frame consisting of side standards and a cross bar rigidly connecting the upper portions of said standards, rotatable parts constituting the lower portions of said standards provided with wheel spindles and bridge arms projecting forwardly therefrom at an upward inclination and foot levers extending inward relatively opposite said spindles, separate fertilizer receptacles supported upon said arms on a plane relatively

above the wheels of the cultivator and provided with shafts extending outward over the said wheels, sprocket mechanism engaged over the hub portions of the said wheels and the ends of said shaft.

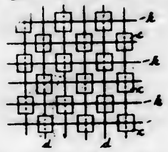


3. A wheel cultivator having horizontally rotatable side standards provided with wheel spindles at their lower ends and bridge arms at their upper ends and foot levers between their ends projecting inward, in combination with a fertilizer attachment supported by each of said arms and means to actuate the said attachment having operating connection with the wheels mounted on said spindles.

4. A cultivator having wheels and means to turn the same together in respect to a direct line of travel and rotatable standards having spindles on which said wheels are mounted, forwardly and upwardly projecting arms at the top of said supports and brackets fixed on said arms, in combination with fertilizer distributers fixed upon said brackets and drive mechanism therefor connected with the hubs of said wheels.

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1,091,164. SUPPORTING STRUCTURE FOR PLASTER IN WALLS. OTTO RECHNITZ, Cottbus, Germany. Filed Feb. 3, 1912. Serial No. 675,332. (Cl. 72—119.)



1. A plaster supporter capable of being rolled up, consisting of a row of parallel wires at uniform distances from one another, a similar row of wires at right angles to the first series and interwoven therewith and a plurality of non-metallic bodies inserted between the two rows at their crossing points.

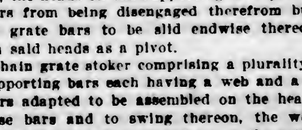
2. A plaster supporter capable of being rolled up, consisting of a row of parallel wires at uniform distances from one another, a similar row of wires at right angles to the first row and interwoven therewith, a plurality of non-metallic bodies inserted between the wires of the two rows at their crossing points, and means on said bodies, arranged in the direction of the crossing wires and adapted and intended to receive them.

3. Plaster supporter capable of being rolled up, consisting of a row of parallel wires at uniform distances from one another, a similar row of wires at right angles to said first row and interwoven therewith, a plurality of non-metallic flat bodies, inserted between the wires of the two rows at their crossing points and provided on the opposite flat sides of the bodies with grooves running in the direction of the crossing wires to receive the same.

4. A plaster supporter, consisting of a row of parallel wires at uniform distances from one another, a similar row of wires at right angles to the first row and interwoven therewith and a plurality of non-metallic bodies inserted between the wires of the two rows at their crossing points, the non-metallic bodies having flat, essentially quadrangular form and oppositely disposed recesses which serve to receive the wires running at right angles to each other and embracing the bodies between them.

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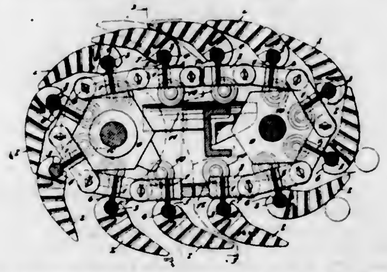
1,091,165. SHOE. GEORGE H. RICKE, Cincinnati, Ohio, assignor of two-thirds to John M. Walsh, Cincinnati, Ohio. Filed June 24, 1912. Serial No. 705,410. (Cl. 36—33.)



In a shoe of the class described, a sole made up of sections, said sections having concave and convex interlocking ends, and having a slot therein adapted to receive a shank, a shank located in said slot, said slot being gradually flared or widened from a point in rear of an interlocking end of each of certain of said sections to said end, whereby bending of the sole is facilitated, and means for securing said shank to said sections.

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1,091,166. CHAIN-GRATE STOKER. JAMES H. ROSENTHAL and CHRISTOPHER S. DAVY, London, England, assignors to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed June 24, 1912. Serial No. 705,424. (Cl. 110—40.)



1. A chain grate stoker comprising a plurality of transverse supporting bars having heads to receive and to prevent the grate bars being disengaged, and grate bars each having an open recess the wall of which corresponds to said head, and the opening thereinto of less width than the diameter of the head but of sufficient width to permit swinging of the grate bars on the supporting bars.

2. A chain grate stoker comprising a plurality of transverse supporting bars having heads to receive and to prevent the grate bars being disengaged, and grate bars each having open jaws and a recess between said jaws open at the sides and corresponding to said head, the opening into said jaws being of less width than the diameter of the head but of sufficient width to permit swinging of the grate bars on the supporting bars.

3. A chain grate stoker comprising a plurality of transverse supporting bars each having a bulbous head, and grate bars having an open-sided recess corresponding to the head, the heads on the supporting bars preventing the grate bars from being disengaged therefrom but permitting the grate bars to be slid endwise thereon and to swing on said heads as a pivot.

4. A chain grate stoker comprising a plurality of transverse supporting bars each having a web and a head, and grate bars adapted to be assembled on the heads of said transverse bars and to swing thereon, the webs acting as stops for the swinging grate bars on the return run of the grate.

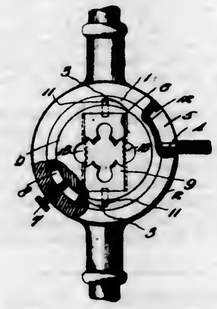
5. A chain grate stoker comprising a plurality of transverse supporting bars each having a head and a web, and grate bars each having open jaws and an open sided recess between the jaws corresponding to said head, the opening into the jaws being of less width than the diameter of the head, whereby the grate bars may be slid endwise over a transverse bar and may swing on said head, the web acting as a stop for the swinging grate bars on the return run of the grate.

[Claim 6 not printed in the Gazette.]



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1,091,167. SCREW-PLATE. CHARLES C. RUSSELL, Greenfield, Mass., assignor to Russell Manufacturing Company, Greenfield, Mass., a Corporation of Massachusetts. Filed Dec. 19, 1912. Serial No. 737,727. Renewed Aug. 18, 1913. Serial No. 785,363. (Cl. 10—122.)



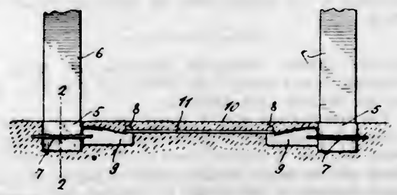
1. In a screw-cutting device, a stock, a collet rigidly secured therein, die-members adjustably mounted in said collet, and means rotatably mounted in said stock for opening and closing said die-members and locking the latter in their closed position.

2. In a screw-cutting device, a stock, a collet rigidly secured therein, a ring rotatably mounted in said stock and provided with cam faces, die-members adjustably mounted in said collet and provided with projections engaging said cam faces, means for rotating said ring to open and close said die-members, a guide on said collet, and connections between said rotatable ring and guide for automatically shifting the latter into clamping engagement with said die-members in the closed position of the latter.

3. In a screw-cutting device, a stock, a collet rigidly secured therein, a ring rotatably mounted in said stock and provided with cam faces, die-members adjustably mounted in said collet and provided with projections engaging said cam faces, a guide threaded in said collet, and means for simultaneously rotating said ring and guide for opening and closing said die-members and clamping the latter in their closed position.

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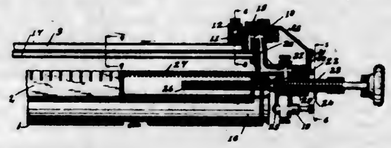
1,091,168. SOCKET FOR CONCRETE BUILDING CONSTRUCTIONS. JOHN A. SANQUIST, New Windsor, Ill. Filed Oct. 22, 1913. Serial No. 796,634. (Cl. 72—108.)



A socket member of the character described comprising a body portion having tie-rod anchoring means projecting from one side thereof, said means comprising a horizontal member which is channeled in cross-section, the channel being at the bottom, and said member having its extremity provided with means for attachment of a tie-rod.

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1,091,169. BURNER FOR LIQUID FUEL. JESSE C. SIMMONS, Shelby, Mich. Filed Feb. 24, 1913. Serial No. 750,276. (Cl. 158—29.)



1. In a burner structure, the combination of a burner head for delivering jets of flame, a mixer tube means delivering into the said burner head, a horizontal generator tube disposed above the said burner head that is flat in cross section presenting a board horizontal surface for reception of the liquid fuel, a fuel delivery pipe connected to said generator, having a portion disposed in the heat zone of the said burner for warming the liquid fuel and an upwardly looped portion before its connection to the generator, a head with a passage extending upwardly and thence leading downwardly from said generator, a burner nozzle at the end thereof for the delivery of the generated gas to the mixer tube means leading into the said burner head, a pilot burner having a mixing tube, a smaller flat horizontal generator tube for the pilot burner disposed beneath the main generator and intimately connected thereto, an upwardly and thence downwardly extending passage from said pilot generator in said head, and suitable connections from said pilot generator extending above the main burner head and thence downwardly to a point below the level of the pilot generator, all coacting substantially as described for the purpose specified.

2. In a burner structure, the combination of a burner head for delivering jets of flame, a mixer tube means delivering into the said burner head, a horizontal generator tube disposed above the said burner head that is flat in cross section presenting a broad horizontal surface for reception of the liquid fuel, a fuel delivery pipe connected to said generator having a portion disposed in the heat zone of the said burner for warming the liquid fuel and an upwardly looped portion before its connection to the generator, a head with a passage extending upwardly and thence leading downwardly from said generator, and a burner nozzle at the end thereof for the delivery of the generated gas to the mixer tube means leading into the said burner head, all coacting substantially as described for the purpose specified.

3. In a burner structure, the combination of a burner head, a horizontal generator tube disposed above the said burner head that is flat in cross section presenting a broad horizontal surface for reception of the liquid fuel, a fuel delivery pipe connected to said generator having an upwardly looped portion before its connection to the generator, a head with a passage extending upwardly and thence leading downwardly from said generator, a burner nozzle at the end thereof for the delivery of the generated gas to the burner head, a pilot burner, a smaller flat horizontal generator tube for the pilot burner disposed beneath the main generator and intimately connected thereto, an upwardly and thence downwardly extending passage from said pilot generetor in said head, and suitable connections from said pilot generator extending above the main burner head and thence downwardly to a point below the level of the pilot generator, all coacting substantially as described for the purpose specified.

4. In a burner structure, a horizontal generator tube disposed above the said burner head that is flat in cross section presenting a broad horizontal surface for reception of the liquid fuel,

a fuel delivery pipe connected to said generator having an upwardly looped portion before its connection to the generator, a head with a passage extending upwardly and thence leading downwardly from said generator, and a burner nozzle at the end thereof for the delivery of the generated gas to the burner head, all coacting substantially as described for the purpose specified.

5. In a burner structure, the combination of a burner head, a horizontal generator tube disposed above the said burner head that is flat in cross section presenting a broad horizontal surface for reception of the liquid fuel, a pilot burner, a smaller flat horizontal generator tube for the pilot burner disposed beneath the main generator and intimately connected thereto, an upwardly and thence downwardly extending passage from said pilot generator in said burner head, and suitable connections from said pilot generator extending above the main burner head and thence downwardly to a point below the level of the pilot generator, all coacting substantially as described for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

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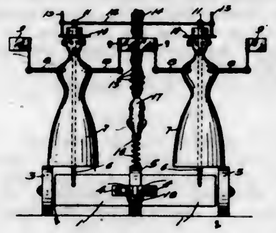
1,091,170. ORCHARD-HEATER. REGINALD G. SMITH and EARL N. PERCY, Oakland, Cal. Filed July 30, 1913. Serial No. 781,974. (Cl. 158—91.)



1. In an orchard heater, the combination of a liquid fuel containing receptacle having a close fitting slotted cover, said cover having a gas outlet and a combusting stack in conjunction with the outlet, and draft directing means comprising a vertically disposed plate having a horizontal flange along its top edge by which said plate is suspended through the slot in the cover to one side of the stack and projecting into the receptacle, and to a point adjacent to the bottom thereof, said plate forming with the adjacent wall of the receptacle a down draft flue, said cover having a regulated air inlet into said flue whereby air is admitted to the receptacle in a down draft and delivered approximate to the surface of the oil as the oil recedes.

2. In an orchard heater, the combination of a liquid fuel containing receptacle having a close fitting cover, said cover having a gas outlet remote from one side of the receptacle, a combustion stack in conjunction with said outlet and a vertically disposed plate adjacent to the side of the receptacle remote from the gas outlet, said plate forming a partition across the receptacle and dividing the space above the fuel into two chambers, means for admitting air from the outside to each chamber, said plate being perforated at different levels and said plate terminating short of the bottom of the receptacle, so that as the oil recedes and becomes heavier and it becomes necessary to intensify the heat of the combustion at the bottom of the receptacle and on each side of said plate, the air may be admitted freely below the lower edge of the plate, and means for controlling the amount of air admitted to the receptacle at either side of said plate.

1,091,171. TOY. JOHN SUNDQVIST, Georgetown, Conn. Filed Nov. 11, 1912. Serial No. 730,774. (Cl. 46—45.)

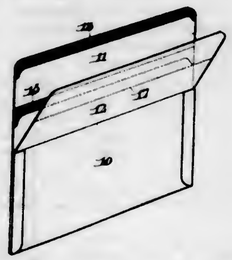


1. In a toy, a wheeled platform, rotary figures in frictional contact with said wheels, a transverse wheeled shaft associated with and actuated by the rotary figures, a flexible member secured to and actuated by said wheeled shaft and a figure seated upon a flexible support carried by said platform in the path of motion of the said flexible members.

2. In a toy, a wheeled platform, rotary figures in frictional contact with said wheels, a transverse wheeled shaft associated with and actuated by said rotary figures, a flexible member secured to and actuated by said wheeled shaft, arms provided with symbols secured to said rotary figures for intermittent engagement with said flexible member and a figure seated upon a flexible support carried by said platform in the path of motion of the said flexible member.

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1,091,172. RETURN-ENVELOP. WALTER THAYER, Merion, Pa. Filed May 12, 1911. Serial No. 626,715. (Cl. 229—73.)



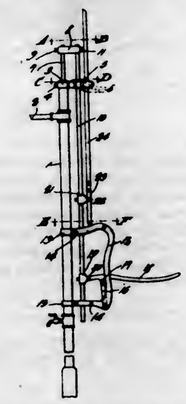
An envelop provided along both sides of its pocket with flaps, both of which may be folded co-incidently to either side of the pocket with alternate exposure of addressing surfaces upon each flap, said flaps being initially of different lengths, and provided on their adjacent inner faces with spaced gummed strips, said gummed strips being so spaced that the flap may be successively shortened in alternation with continual maintenance of their unequal lengths, and with the gummed portion of the longer flap beyond the edge of the shorter, thereby permitting the flap which is for the time being, the longer, to be gummed to the side of the envelop with the other flap intact beneath it.

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1,091,173. PUMP. PETER W. THIESEN and JACOB J. THIESEN, Tulare county, Cal. Filed Apr. 29, 1913. Serial No. 764,458. (Cl. 103—62.)

1. The combination with a pump casing and a pump rod extending therefrom, of a connecting rod, a connection between the rods, a bracket made up of opposed similar members having casing engaging portions, means connecting said members of the bracket for binding said portions upon the casing to hold the bracket fixed relative to the casing, a hand operated lever movably mounted in the bracket, a sleeve pivotally engaged by the lever and slidable longitudinally along the connecting rod, means carried by the sleeve for engaging the connecting rod to hold the sleeve against movement relative to said rod, an actuating rod parallel with the first named rods and extending downwardly close to the bracket, a sleeve adapted to slide longitudinally along the connecting rod, means carried by the sleeve for engaging the connecting rod, to hold the sleeve against movement relative to the rod, and a pivotal connection between said sleeve and the actuating rod, said sleeve being normally positioned close to the bracket.

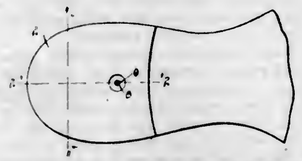




2. The combination with a pump casing and a pump rod extending therefrom, of a connecting rod, a connection between the rods, a bracket made up of opposed similar members having casing engaging portions, means connecting said members of the bracket for binding said portions upon the casing to hold the bracket fixed relative to the casing, a hand operated lever movably mounted in the bracket, a sleeve pivotally engaged by the lever and slidable longitudinally along the connecting rod, means carried by the sleeve for engaging the connecting rod to hold the sleeve against movement relative to said rod, an actuating rod parallel with the first named rods and extending downwardly close to the bracket, a sleeve adapted to slide longitudinally along the connecting rod, means carried by the sleeve for engaging the connecting rod to hold the sleeve against movement relative to the rod, a pivotal connection between said sleeve and the actuating rod, said sleeve being normally positioned close to the bracket, arms adjustably connected to the pump casing and extending radially therefrom, said actuating and connecting rods being extended between the arms, and antifriction guide devices supported by the arms and extending between and across the outer portions of the rods.

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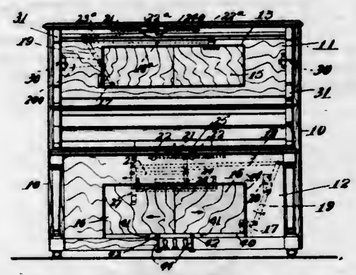
1,091,174. CUSHION-HEEL FOR BOOTS OR SHOES. OLIVER W. TULE, Hartford, Conn. Filed June 30, 1913. Serial No. 776,611. (Cl. 36—36.)



In combination with a heel of a boot or shoe having a screw connected thereto, said screw having an elongated head arranged transversely of said heel, a rubber heel having a plate embedded therein, said plate having a slot formed therein and adapted to permit passage of said head therethrough, whereby said rubber heel is swung so that said head is arranged at right angles to the slot, the forward end of the rubber heel having a bore formed therein, and a securing device engageable in said bore and passed through said plate for engaging the first named heel.

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1,091,175. PANEL-OPERATING MECHANISM FOR MUSICAL-INSTRUMENT CASES. PETER WELIN, Worcester, Mass., assignor, by mesne assignments, to Krell Auto-Grand Piano Co. of America, Connersville, Ind., a Corporation of Indiana. Filed Sept. 12, 1907. Serial No. 392,540. (Cl. 84—159.)



1. The combination with a sliding panel and a musical instrument case, of a pivotally supported lever connected with said panel, a sliding rod, means on the case for guiding said rod to move longitudinally, means for connecting said lever with the rod, and an operating handle on the rod.

2. The combination with a musical instrument case, of a sliding panel therefor, a lever pivotally supported on the inside of said case and connected with said panel, a sliding rod, bearings on the inside of said case above the panel for said rod, means for connecting said lever with the rod, and an operating handle on the rod projecting through to the front of said case.

3. The combination with a musical instrument case, of a horizontally sliding panel, a front plate or board supporting said panel, means supported on the inside of said front plate or board for operating said panel, and a handle projecting through said case connected with said operating means.

4. The combination with a musical instrument case, of a sliding panel, a front plate or board supporting said sliding panel, means supported on the inside of the case for operating said panel, and a handle projecting through said case and movable therealong, said handle being located above the panel and extending downwardly from the outside of said front plate or board.

5. The combination with a musical instrument case, of a bodily movable front plate or board, a sliding panel supported by said front plate or board, means on the inside of the case for operating said panel, and a handle projecting through the case connected with said operating means.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,176. TIRE. EUGENE W. WILSON, Detroit, Mich., assignor to Detroit Pneumatic Tire Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 10, 1913. Serial No. 760,239. (Cl. 152—10.)

1. In a tire, the combination of a housing having a base forming a seat for a pneumatic tire, said housing including spaced metallic cheek plates provided with parallel sides straight to adjacent their outer edges, the outer edges extending inwardly at an obtuse angle to the straight portions of the plates forming abutments, a tread section composed of a portion positioned within the housing having sides parallel to and in free sliding contact

with the straight sides of the plates, and a tread proper projecting without the housing having a portion of reduced cross-section providing shoulders, the latter being arranged within and engaging the abutments, the inner face of the tread portion being curved and having sides tapering to comparatively thin edges, forming with the base a chamber for the pneumatic tube having the wall thereof continuous in all positions of radial adjustment of the tread section, a pneumatic tube arranged within the chamber and completely filling the same in all positions of radial adjustment of the tread section, a plurality of circumferentially spaced members extending laterally of the housing sides adjacent their outer ends for clamping the plates in rigid spaced relation, said tread section having elongated slots extending transversely therethrough, said circumferentially spaced members each being of a size to fit, and being normally positioned at the inner ends of the slots, and said shoulders and abutments serving to limit the outward movement of the tread section, preventing any material outward pressure being transmitted to the clamping members.

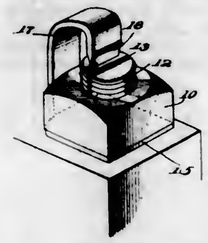


2. In a tire, the combination of a housing having a base forming a seat for a pneumatic tire, said housing including spaced metallic cheek plates providing a base, said cheek plates beyond the base having parallel sides straight to adjacent their outer edges, the outer edges extending inwardly at an obtuse angle to the straight portions of the cheek plates forming abutments, a tread section composed of a portion having the sides parallel to the straight sides of the plates, and a tread proper projecting without the housing having a portion of reduced cross-section providing shoulders, the latter being arranged within and engaging the abutments, the inner face of the tread portion being curved and provided with sides tapering to comparatively thin edges, forming with the base a chamber for the pneumatic tube having the wall thereof continuous in all positions of radial adjustment of the tread sections, a pneumatic tube arranged within the chamber and completely filling the same in all positions of radial adjustment of the tread section, a lubricating fabric attached to the tread section extending along each side thereof intermediate the latter and the cheek plates from adjacent the outer edges of said cheek plates inwardly around the tapering side edges of said tread section and across the curved inner face of the tread portion, forming with the tapering side edges comparatively thin feather edges, said fabric being in free sliding contact with the sides of the plates, a plurality of circumferentially spaced members extending laterally of the housing sides adjacent their outer ends for clamping the plates in rigid spaced relation, said tread section having elongated slots extending transversely therethrough, said circumferentially spaced members each being of a size to fit, and being normally positioned at the inner ends of the slots, and said shoulders and abutments serving to limit the outward movement of the tread section, preventing any material outward pressure being transmitted to the clamping members.

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1,091,177. NUT-LOCK. ANDERS W. WINBERG, San Jose, Cal., assignor of one-third to F. B. Brown and one-third to W. F. Curry, San Jose, Cal. Filed Feb. 28, 1913. Serial No. 751,338. (Cl. 151—3.)

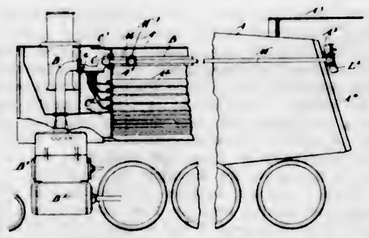
1. In a nut lock, a bolt having a cleft in its threaded end, a nut engaging the bolt, and a washer engaging around the bolt and beneath the nut and having a bar transversely of its aperture for engaging in the cleft of the bolt and with a lateral tongue adapted to be bent against the nut and over the same with its terminal forced into the cleft of the bolt.



2. In a nut lock, a bolt having a cleft in its threaded end, a nut engaging the bolt and having radial recesses in its outer face, and a washer engaging around the bolt and beneath the nut and having a lateral tongue adapted to be bent against the nut and over the same, the free end of said tongue adapted to be seated in the clefts of the nut and provided with an intermediate projection adapted to engage in the cleft of the bolt.

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1,091,178. STEAM-LOCOMOTIVE. GEORGE W. WYMAN, Wilmington, Del. Filed Nov. 21, 1913. Serial No. 802,205. (Cl. 121—14.)



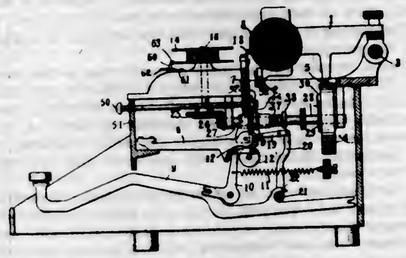
1. In a steam locomotive, a boiler, steam chests and cylinders, a superheater, a dry pipe delivering steam to said superheater, steam pipes from said superheater to said steam chests, an auxiliary pipe from said boiler to said superheater, a reducing-valve in said pipe, the latter and said reducing-valve arranged to receive steam at high pressure from said boiler and deliver to said superheater at a reduced pressure.

2. In a steam locomotive, a boiler, steam chests and cylinders, a superheater, a dry pipe delivering steam to said superheater, steam pipes from said superheater to said steam chests, an auxiliary pipe from said boiler to said superheater, a reducing-valve in said pipe, and a check-valve in said pipe between said reducing-valve and said superheater, said pipe and valves arranged to receive steam at high pressure from said boiler and deliver it to said superheater at a reduced pressure.

3. In a steam locomotive having a boiler, steam chests, cylinders, and steam connections from said boiler to said steam chests, an auxiliary pipe delivering steam from said boiler to said steam chests, a reducing-valve in said pipe, a check-valve in said pipe between said reducing-valve and said steam chests, and a valve in said pipe between said boiler and reducing-valve, for controlling the admission of steam to said pipe, the latter and its valves arranged to receive steam at high pressure from said boiler and deliver it to said steam chests at a reduced pressure.



1,091,179. TYPE-WRITING-MACHINE RIBBON-OPERATING MECHANISM. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Charles B. Nichols, New York, N. Y. Continuation of application Serial No. 664,760, filed Dec. 9, 1911. This application filed Apr. 14, 1913. Serial No. 760,978. (Cl. 197—151.)



1. In a typewriter ribbon operating mechanism, two spool shafts, a two-part driving shaft geared to each spool shaft, a clutch for connecting the parts of each driving shaft, an operating connection between said driving shafts, a shifting bar for operating said clutches and a rearwardly projecting push rod having one end accessible at the front of the machine and having its rear end beveled to engage the shifting bar for the purpose specified.

2. In a typewriter ribbon operating mechanism, a vertical spool shaft, a driving shaft formed in two parts, one part being geared to said spool shaft, power means for rotating the other part of said shaft, a sliding clutch for connecting the two parts of said shaft, a transversely movable bar having a shoulder for moving said clutch and a rearwardly projecting push rod having a finger-piece at the front end and an inclined shoulder at the rear engaging said bar for moving it.

3. In a typewriter ribbon operating mechanism, a spool shaft, a two-part driving shaft having one part geared to said spool shaft, a sleeve-like clutch for connecting the parts of said driving shaft, an annular cam shoulder carried by said clutch and a transversely movable forked member for engaging said cam shoulder for moving said clutch member.

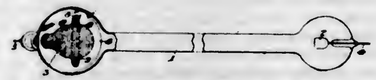
4. In a typewriter ribbon operating mechanism, a spool shaft, a two-part driving shaft having one part geared to said spool shaft, a sleeve-like clutch for connecting the parts of said driving shaft, an annular cam shoulder carried by said clutch, a transversely movable forked member for engaging said cam shoulder for moving said clutch and a spring for opposing the movement of said clutch member.

5. In a typewriter ribbon operating mechanism, a spool shaft, a two-part driving shaft having one part geared to said spool shaft, a sleeve-like clutch for connecting the parts of said driving shaft, an annular cam shoulder carried by said clutch, a transversely movable forked member for engaging said cam shoulder for moving said clutch member and a rearwardly projecting push rod for moving said forked member.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,180. MERCURY-VAPOR APPARATUS. JAMES R. BAKER, Arlington, N. J., assignor to Cooper Hewitt Electric Co., Hoboken, N. J., a Corporation of New Jersey. Filed Apr. 10, 1912. Serial No. 689,802. (Cl. 176—45.)



1. An electrode for vapor electric apparatus consisting of a quantity of mercury and a body of non-metallic granular material wetted thereby penetrating the meniscus of the mercury.

2. An electrode for vapor electric apparatus consisting of a quantity of mercury and a body of non-metallic granular material dividing the meniscus of the mercury at its edge.

3. An electrode for vapor electric appartus consisting of a quantity of mercury and a body of non-metallic granular material interrupting the normal continuity of the mercury meniscus.

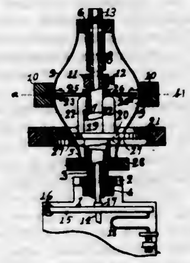
4. An electrode for vapor electric apparatus consisting of a quantity of mercury and a body of non-metallic granular material interrupting at its edge the normal continuity of the mercury meniscus.

5. An electrode for vapor electric apparatus consisting of a quantity of mercury and a body of non-metallic granular material wetted thereby dividing the meniscus of the mercury.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,181. GOVERNOR MECHANISM. NATHANIEL BALDWIN, Mill Creek, Utah. Filed Feb. 5, 1912. Serial No. 675,688. (Cl. 121—112.)



1. In a governor of the class described a fixed hollow spindle, a sleeve rotating in fixed position upon said spindle, a second sleeve rotating upon said spindle and longitudinally movable thereon, a controlling rod within said hollow spindle and connected with the second mentioned sleeve, heads carried by said sleeve, flexible leaves connecting said heads, centrifugal controlling weights carried by said leaves, an inertia wheel rotatably mounted upon the first mentioned sleeve, and links operatively connecting said inertia wheel with said centrifugal weights.

2. A governor embodying a controlling rod, a fixed spindle, a sleeve rotatably mounted upon said spindle, centrifugal weights connected with said sleeve and operative upon said controlling rod, an inertia wheel rotatably mounted upon said sleeve, and links operatively connecting said inertia wheel with said centrifugal weights.

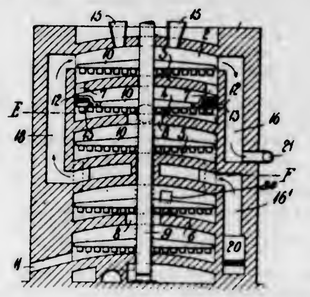
3. A governor embodying leaf springs, centrifugal weights carried by said springs and operative thereon, controlling means operated upon by said springs, an inertia wheel rotating with said centrifugal weights and capable of limited rotation with respect to said centrifugal weights and operative upon said weights through links.

4. A governor embodying a fixed spindle, two sleeves rotatably mounted upon said spindle, a controlling rod connected with one of said sleeves, heads fixed upon said sleeves, leaf springs attached to said heads, centrifugal weights carried by said leaf springs, an inertia wheel rotatably mounted upon said spindle and operative upon said centrifugal weights in response to acceleration or retardation.

5. A governor embodying a spindle, two heads rotatably mounted upon said spindle, centrifugal weights rotating with said heads and operative thereon, an inertia wheel rotatably mounted upon said spindle, links operatively connecting said inertia wheel with said centrifugal weights, and controlling means connected with one of said heads.

[Claims 6 and 7 not printed in the Gazette.]

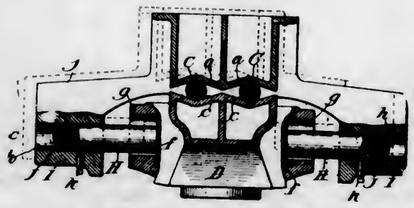
1,091,182. FURNACE FOR TREATING ORE AND THE LIKE. KNUT JAKOB BESKOW and ARTHUR RAMÉN, Helsingborg, Sweden. Filed Apr. 10, 1912. Serial No. 689,933. (Cl. 75—143.)



1. Roasting furnace divided in several superposed divisions and provided with a central vertical shaft carrying stirring devices, the brickwork of the furnace having internally a cylindrical but externally a rectangular cross-section, vertical channels being arranged in the corners of the brickwork, said channels communicating with the interior and adapted for leading off gases generated in the furnace.

2. Roasting furnace divided in several superposed divisions and provided with a central, vertical shaft carrying stirring devices the brickwork of the furnace having internally a cylindrical but externally a rectangular cross-section, vertical channels being arranged in the corners of the brickwork, said channels communicating with the interior and adapted for leading off gases generated in the furnace, a muffle formed in an intermediate bottom of the furnace, said muffle communicating with a channel arranged in one corner of the furnace, this latter channel communicating with the upper compartment of the furnace, said upper compartment communicating with an exhaust for gases through the intermediation of a vertical channel arranged in one corner of the furnace.

1,091,183. MEANS FOR CUSHIONING THE BODIES OF RAILWAY-CARS. WILLIAM P. BETTENDORF, Bettendorf, Iowa; J. W. Bettendorf administrator of William P. Bettendorf, deceased. Filed May 16, 1910. Serial No. 561,558. (Cl. 105—264.)



1. In a railway car, an underframe comprising suitable end-sills, body-bolsters, and a center-sill the ends of which are connected to said body-bolsters, car trucks, a longitudinally arranged cushioning device carried directly by said bolsters, a car-body adapted to have a slight longitudinal movement independent of the underframe, and means connected to and projecting from said car-body adjacent said bolsters that are adapted to engage and compress said cushioning device.

2. In a railway-car, an underframe including body-bolsters and a center-sill supported thereby, centrally disposed seats on said bolsters, suitable cushioning devices retained in said seats, a car-body adapted to have a slight longitudinal movement independent of said underframe, and means connected to and projecting from said car-body adjacent said seats that are adapted to engage and compress said cushioning devices.

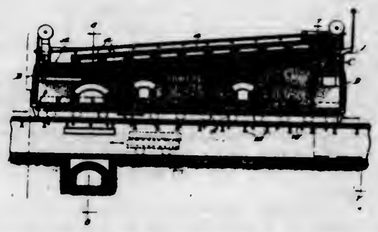
3. In a railway car, an underframe having a depressed seat, a car-body adapted to have a slight longitudinal movement independent of said underframe, a suitable longitudinally disposed coil spring retained in said seat, follower-plates at each end thereof, and means connected to and projecting from said car-body and adapted to engage said follower-plates.

4. In a railway car an underframe having a depressed seat, a car-body adapted to have a slight longitudinal movement independent of said underframe, a suitable longitudinally disposed coil-spring retained in said seat, follower-plates at each end thereof, and arms connected to and projecting down from said car-body, and opposing said follower-plates.

5. In a railway car, an underframe having a depressed seat, a car-body adapted to have a slight longitudinal movement independent of said underframe, a suitable longitudinally disposed coil-spring retained in said seat, follower-plates at each end thereof, and arms connected to and projecting down from said car-body, plungers secured in said arms in alinement with said spring and extending toward and adapted to engage said followers.

[Claims 6 to 35 not printed in the Gazette.]

1,091,184. ANNEALING-FURNACE. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator, Bettendorf, Iowa. Filed Mar. 27, 1911. Serial No. 617,254. (Cl. 148—17.)



1. An annealing furnace comprising an annealing chamber, the floor of which is provided with a longitudinal channel, a series of separate physically distinct cars having end to end contact within said channel, an endless run therefor extending throughout its length in the same vertical plane which run passes through and out of said chamber traversing said channel, suitable closures for the ends of said chamber above the plane of the floors of said cars, means for automatically unloading said cars beyond the discharge end of said chamber, and means for automatically loading the same before their entrance to said chamber.

2. An annealing furnace comprising an annealing chamber the floor of which is provided with a longitudinal channel, in combination with a series of end to end contacting cars, an endless run therefor extending throughout its length in the same vertical plane which run passes through and out of said chamber in said channel, said cars having the longitudinal sides thereof contacting with the structure of the side walls of the channel, and suitable closures for the ends of said chamber.

3. An annealing furnace comprising an annealing chamber the floor of which is provided with a longitudinal channel, and longitudinal sand-troughs secured to the side walls of said channel, a series of end to end cars, an endless run therefor extending throughout its length in the same vertical plane which run passes through and out of said chamber, said cars having depending side-plates the lower edges of which traverse and are immersed in the sand of said troughs substantially throughout their length, and suitable closures for the ends of said chamber.



4. An annealing furnace comprising an annealing chamber the floor of which is provided with a longitudinal channel, and which has a charging opening at one end and a discharging opening at the other, a series of end to end contacting cars, an endless run therefor extending throughout its length in the same vertical plane which run passes through and out of said chamber in said channel, said cars having their side edges engaging the structure of the sidewalls of said channel, said cars having their floors provided with raised structures for supporting the work, and doors for closing the end openings of said annealing chamber, the lower edges of which are recessed to permit the passage of said raised structures.

5. An annealing furnace comprising an annealing chamber having openings at both ends, a series of cars, an endless run therefor extending throughout its length in the same vertical plane which run passes through and out of said chamber, said cars having their floors provided with longitudinally disposed raised structures for supporting the work, and raising doors for closing the end openings of said chamber, the lower edges of which are recessed to permit the passage of said raised structures.

[Claims 6 to 12 not printed in the Gazette.]

1,091,185. ANODE AND ANODE-HOOK. HERMANN R. BOISSIER, Great Neck, N. Y. Filed May 9, 1913. Serial No. 766,607. (Cl. 204—4.)



1. An anode hook comprising a hook portion and a stem portion—said stem being formed into a jaw at its bottom end; a swinging jaw having a projecting shank—said shank being secured in a slot in said stem and a screw mounted on said stem and adapted to bear against the shank portion of said swinging jaw to force said jaws together to clamp an anode.

2. An anode comprising a body portion and a narrow neck portion—said neck portion being provided with a pair of horizontally front-and-rear grooves, in combination with an anode hook for supporting said anode—said anode hook being formed with a hook portion and a stem portion, said stem portion being given a quarter turn and having a pair of jaws at its lower end which are adapted to engage the said anode in said horizontal grooves and means for clamping said jaws together to grip and support said anode.

3. An anode formed with a narrow neck or supporting lug, in combination with an anode hook or support—said support being formed with a pair of jaws, said jaws having tongue-and-groove connections with said neck portion of said anode and means for clamping said jaws together to hold and support said anode.

1,091,186. GOLF-STROKE TEACHER. WILLIAM HIRAM BROWN, Cleveland, Ohio. Filed June 27, 1913. Serial No. 776,067. (Cl. 46—4.)

1. A golf stroke teacher, comprising a sighting device, and means for holding the same in a position above the ball in the line of vision passing from the player's eye to the ball.

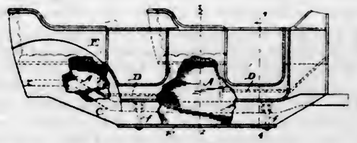


2. A golf stroke teacher comprising a standard adapted to be anchored at one end to the ground, and extending from the point of anchorage in a generally inclined direction upward, and a sighting device carried by the standard.

3. A golf stroke teacher comprising a standard which consists of two parts which are adjustably connected, one part being provided with means for anchoring it to the ground, and the other part being provided adjacent to its free end with a sighting device.

4. A golf stroke teacher comprising a ring having crossed wires, and a supporting device therefor which is provided with means for anchoring it to the ground, and which extends from the point of anchorage at a generally upward inclination whereby the said ring may overhang a ball placed near the point of anchorage.

1,091,187. AUTOMOBILE-BODY. ALANSON P. BROWN, Detroit, Mich. Filed Mar. 21, 1912. Serial No. 685,238. (Cl. 21—7.)



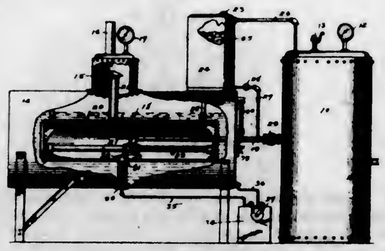
1. In an automobile, the combination of an automobile frame, and an automobile body which is wider than said frame, said body comprising side members which lie outside of and extend below the top of said frame and have door openings which extend from their top edges downward to a plane which is above the top of said frame, and transverse members which are connected with said side members and which extend across and rest upon said frame.

2. In an automobile, the combination of an automobile frame, and an automobile body which is wider than said frame, said body comprising side members which lie outside of and extend below the top of said frame and have door openings which extend from their top edges downward to a plane which is above the top of said frame, and means extending inward from said side members for connecting them to said frame.

3. In an automobile, the combination of an automobile frame, and an automobile body which is wider than said frame, said body comprising side members which lie outside of and extend below said frame and have door openings which extend from their top edges downward, transverse members which are connected with said side members and which extend across and rest upon said frame, and vertical members which serve to connect the side members and transverse members.

4. In an automobile, the combination of an automobile frame, brackets secured thereto, and running boards on both sides of the frame secured to said brackets, with a body which is wider than said frame said body comprising side members which lie outside of the frame, and extend below it down to said running board, and transverse members which are connected with said side members and which extend over and rest upon said frame.

1,091,188. POWER PLANT. EDWARD C. CAPPER, Dumont, Iowa. Filed May 6, 1912, Serial No. 695,565. Renewed Feb. 6, 1914. Serial No. 817,081. (Cl. 60—31.)

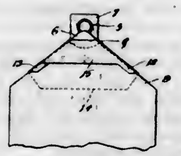


1. In a device of the class described, the combination of a boiler, a receptacle therein designed to be submerged in the water in said boiler, a burner in said receptacle, a tank designed to contain air under pressure, a pipe leading from said tank through the walls of the boiler and the receptacle to said burner, a fuel supply tank, a tube connecting the upper end thereof with said air tank, a tube connecting the lower end of said fuel tank with said pipe, a valve in said last named tube, a valve in said pipe between the last named tube and the air tank, means for carrying off the products of combustion from said receptacle with the steam from said boiler, a generator cup on the outside of said boiler arranged below the pipe leading to said burner for the purpose of generating the fuel within said pipe, and means whereby the generated fuel in said burner may be ignited from outside the boiler.

2. In a device of the class described, the combination of a horizontal boiler, a receptacle therein designed to be submerged in the water in said boiler, a burner pipe longitudinally arranged within said receptacle, a tank designed to contain air under pressure, a pipe leading from said tank through the walls of the boiler and the receptacle to said burner, a fuel supply tank, a tube connecting the upper end thereof with said air tank, a tube connecting the lower end of said fuel tank with said pipe, a valve in said last named tube, a valve in said pipe between said last named tube and the air tank, a generator cup on the outside of said boiler arranged below the pipe leading to the burner for the purpose of generating the fuel within said pipe, a tube communicating with said receptacle adjacent to the burner and extending outside of said boiler, a spark plug arranged in said tube, a battery electrically connected with said spark plug to thereby provide a spark near said burner for igniting the generated gas therein, and means for carrying off the products of combustion from said receptacle with the steam from said boiler as and for the purposes stated.

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1,091,189. MUSIC-ROLL. WILBUR E. CASTELOW, Meriden, Conn. Filed Nov. 26, 1912. Serial No. 733,598. (Cl. 84—162.)



1. A blank for a music roll protector consisting of a back having tapered fold lines near opposite edges and with narrow fold members beyond said fold lines, and a supporting projection from one of said fold members positioned, when said members are folded, to overlap the opposite member.

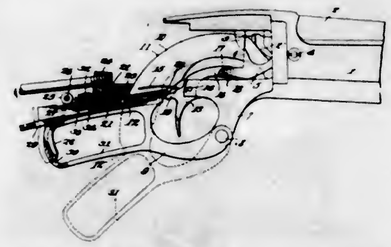
2. A music sheet having tapered edges, and a protector for said sheet, said protector consisting of a back having tapered fold lines and narrow flaps or folds to overlap the tapered edges of said sheet, said folds being of a length to extend beyond the point of substantial strain at the end of the sheet, a draft ring located at the apex of the tapered part of the protector, and means for securing the protector to the music sheet.

3. A protector for a music roll sheet, said protector including a back having tapered fold lines at opposite edges with the narrow flaps or folds adapted to overlap said back, and a supporting piece extending from one of said narrow folds and having means for permanently securing it to the other narrow fold.

4. A music roll sheet having a protector secured by an adhesive to one side thereof, said protector consisting of a back with flaps folded over the tapered edges, and firmly secured by an adhesive to the opposite side of the sheet, the end of said flaps being located beyond a point on the tapered edge of the sheet that will receive substantial strain, and a supporting piece extending from one of said folded edges and firmly secured to the opposite fold.

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1,091,190. FIREARM. MARCUS L. CASTLE, Malone, N. Y. Filed Dec. 17, 1913. Serial No. 807,257. (Cl. 42—70.)



1. A firearm, including a receiver, a breech block, a hammer carried by the breech block, a trigger, said trigger being provided with a rearward projection, coöperable means connected with the trigger and mounted in the receiver for engaging the hammer to hold the same in "cocked" position, a lever pivoted to the receiver, a curved member carried by the lever for movement into and out of the receiver for retracting and projecting the breech block, a spring returned pull bar mounted for reciprocation within the receiver and having its forward end disposed to engage the projection of the trigger to lock the same, and coöperable means carried by the curved member and the bar for retracting the bar during the movement of the lever and for permitting the pull bar to engage the projection of the trigger when the lever has closed the breech block and caused the setting of the hammer.

2. A firearm, including a receiver, a breech block, a hammer carried by the breech block, a trigger, said trigger being provided with a rearward projection, coöperable means connected with the trigger and mounted in the receiver for engaging the hammer to hold the same in "cocked" position, a lever pivoted to the receiver, a curved member carried by the lever for movement into and out of the receiver for retracting and projecting the breech block, a spring returned pull bar mounted for reciprocation within the receiver and having its forward end disposed to engage the projection of the trigger to lock the same, coöperable means carried by the curved member and the bar for retracting the bar during the movement of the lever and for permitting the pull bar to engage with the projection of the trigger when the lever has closed the breech block and caused the cocking of the hammer, and an auxiliary trigger carried by the pull bar and disposed in rear of the main trigger for manually releasing the pull bar when the gun is gripped for firing.



1,091,191. NECKTIE-HOLDER. GILBERT E. CHANDLER, Cambridge, Mass. Filed Nov. 3, 1913. Serial No. 799,032. (Cl. 24—87.)



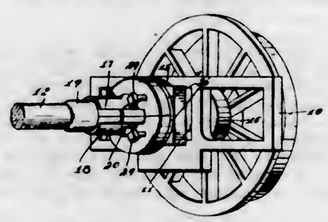
1. A new article of manufacture consisting of an unyielding body portion, a pin extending from one face thereof, and a plurality of tie engaging prongs extending from the opposite face thereof, and in the same vertical plane with said pin.

2. A new article of manufacture consisting of a flat sided unyielding body portion, a long rigid pin extending from the center of one edge thereof, and a plurality of short alined prongs extending from the opposite edge thereof and in the same vertical plane with said pin.

3. A new article of manufacture consisting of a flat sided unyielding body portion having its upper and lower edges parallel and provided with a long pin and a short prong in alinement and extending in opposite directions from said edges.

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1,091,192. HUB-PLATE. MATTHIAS CHRISTMAN, Springfield, Mo., assignor of one-third to Harry L. Bissett and one-third to George A. McLaughlin, Springfield, Mo. Filed July 31, 1913. Serial No. 782,306. (Cl. 105—17.)



1. A bearing box, an axle passing through said bearing box, a collar carried by said axle, and a plate carried by said axle adjustably attached to said collar for engaging said bearing box.

2. A bearing, an axle passing through said bearing, a collar removably connected with said axle, and rotating with the same, and a plate carried by said axle, said plate positioned upon the side of said collar and being adjustably connected with said collar, whereby said plate may be held in close contact with said bearing.

3. A bearing, an axle passing through said bearing, an abutment carried by said axle, a collar carried by said axle between said abutment and bearing, a plate carried by said collar and rotating with the same, and set screws carried by said collar and engaging said plate whereby said plate may be adjusted and kept in close contact with said bearing.

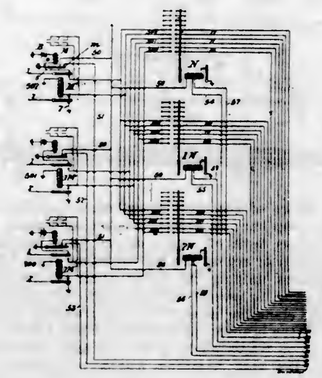
4. A bearing, an axle passing through said bearing, a collar carried by said axle and comprising a plurality of sections placed about the same, means for holding the sections of the collar together, a plate positioned between the collar and bearing and fitting into a counterbored chamber formed in the outer face of said collar, and means carried by said collar for forcing the plate outwardly whereby the plate may be kept in close contact with the bearing.

5. A bearing, an axle passing through said bearing, an abutment formed upon said axle, a collar fitting about said axle between said bearing and said abutment, a pin carried by said collar and fitting into a socket formed in said axle whereby said collar will rotate with said axle, a plate carried by said collar and positioned between said collar and bearing, pins carried by said plate and extending into sockets formed in said collar whereby said plate and collar will rotate together, and means for moving said plate into close engagement with said bearing.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,193. TELEPHONE-EXCHANGE SYSTEM. EDWARD E. CLEMENT, Washington, D. C., assignor, by mesne assignments, to Frederick C. Stevens, Attica, N. Y. Filed Jan. 19, 1906, Serial No. 296,853. Renewed Dec. 31, 1910. Serial No. 600,276. (Cl. 179—18.)



1. In a telephone exchange system, a plurality of subscribers' lines each having a fixed and determinate resistance, a plurality of connective circuits less in number than the number of lines, a group of relays associated with and individual to each connective circuit, adapted to selectively connect a calling line with their connective circuit, means also associated with each connective circuit for selecting and connecting with a wanted line, together with means for energizing the relays responsive to the closure of a calling line circuit, substantially as described.

2. In a telephone exchange system, a plurality of subscribers' lines, a connective circuit for interconnecting the lines, and a bank of coacting relays associated with and individual to the connective circuit and containing terminals of the lines, together with means responsive to the closure of a calling line circuit to connect the same automatically through selective relays in the bank with the connective circuit, substantially as described.

3. In a telephone exchange system, a plurality of subscribers' lines, a plurality of switching or connective circuits, and selecting relays associated with and individual to the respective switching or connective circuits but adapted to be directly controlled by closure of the subscribers' lines when calling to connect the same with the connective circuits, substantially as described.

4. In a telephone exchange system, a plurality of subscribers' lines, a plurality of switching or connective circuits, and selecting relays associated with and individual to the respective switching or connective circuits but adapted to be directly controlled through the closure of the subscribers' lines when calling to connect the same with the connective circuits successively as they become idle, substantially as described.

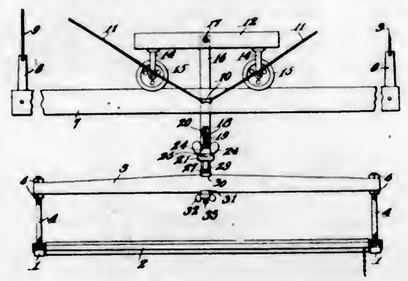
5. In a telephone exchange system, a plurality of subscribers' lines, a plurality of switching or connective circuits, and selecting relays associated with and individual to the respective switching or connective circuits but adapted to be directly controlled through the closure of the subscribers' lines when calling to connect the same with the connective circuits, successively, together with

means associated with each connective circuit for rendering active the selecting relays of the next connective circuit, substantially as described.

[Claims 6 to 50 not printed in the Gazette.]

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1,091,194. QUILTING-FRAME FOR SEWING-MACHINES. WASHINGTON B. CLICK, Elida, N. Mex., assignor of one-half to William H. Reese, Byers, Tex. Filed Mar. 22, 1913. Serial No. 756,261. (Cl. 112—14.)



1. In a device of the class described, a quilting frame comprising a top bar; an arched bracket comprising upper and lower arms both of which extend in a common direction and project across the top bar at an angle thereto; clamping means uniting the lower arms of the bracket with the top bar, to permit the bracket to be rotated upon the top bar; clamping means slidably mounted upon the upper arm of the bracket for adjustment in a substantially horizontal plane transversely of the top bar; and a hanger with which the last clamping means in pivotally connected.

2. In a device of the class described, a frame including a top bar; a one piece U-shaped bracket extended transversely of the top bar and comprising upper and lower loops, the loops merging into each other at the bend of the bracket; clamping means connecting the lower loop with the top bar; a bolt having a head slidable along the upper loop; a nut on the bolt, coöperating with the head to engage the upper loop; a hanger with which the bolt is connected; a carriage assembled with the hanger; and a track along which the carriage is adapted to move.

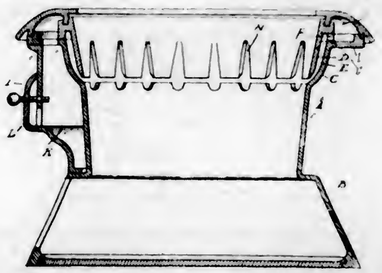
3. In a device of the class described, a track; a carriage adapted to move along the track; a hanger attached to the carriage and provided with an angular foot; a bolt extending through the foot; a nut on the bolt, engaging the foot, the bolt being provided with a transverse head; a second nut on the bolt, coöperating with the head; a one piece, U-shaped bracket comprising upper and lower loops, the upper loop being clamped between the head and the last specified nut; a frame including a top bar across which the lower loop extends; and means for adjustably connecting the lower loop with the top bar.

4. In a device of the class described, a track; a carriage adapted to move along the track; a hanger depending from the carriage; a suspension element journaled in the hanger; means upon the suspension element and engaging the hanger for adjusting the suspension element vertically; a curved bracket having one of its arms adjustably clamped to the suspension element; and a frame including a top bar adjustably connected with the other arm of the bracket.

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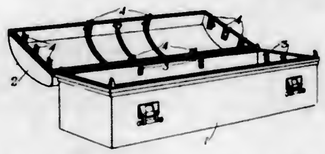
1,091,195. FIRE-POT. CHRISTOPHER F. CODA, Detroit, Mich., assignor to The Art Stove Company, Detroit, Mich., a Corporation of Michigan. Filed July 10, 1911. Serial No. 637,748. (Cl. 126—146.)

A fire-pot, comprising a downwardly tapering main section having an annular enlargement at its upper end, an air inlet chamber formed externally of said main section, an annular section supported upon said main section and depending within said annular enlargement, forming a continuation of the inner face of said downwardly tapering main section and providing an intermediate annular air channel for admission of air to the pot, an upper annular air channel forming a communication between said air inlet chamber and said intermediate annular channel, and a shield for preventing direct passage of air from said inlet chamber to said intermediate annular channel.



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1,091,196. GRAVE-VAULT. WILLIAM U. COLTHAR, Springfield, Ohio, assignor to The Champion Chemical Company, Springfield, Ohio, a Corporation of Ohio. Filed Mar. 7, 1912. Serial No. 682,252. (Cl. 27—12.)



1. In a grave vault, the combinaton, with a body portion and a closure, of a locking device comprising two coöperating members, one of said members being connected to the closure and the other of said members being mounted within said body portion on one of the side walls thereof, and means for detachably connecting the last-mentioned member to said side wall, said connecting means being so constructed and arranged that the transverse movement of said member will detach the same from said wall.

2. In a grave vault, the combination, with a body portion and a closure, of a locking device comprising two coöperating members, one of said members being connected to the closure and the other of said members being mounted within said body portion on one of the side walls thereof, said last mentioned member and said side wall having wedge-shaped interlocking parts coöperating to connect said last-mentioned member to said side wall.

3. In a grave vault, the combination, with a body portion and a closure, of a locking device comprising two coöperating parts, one of said parts being connected to the closure and the other of said parts being carried by a supporting plate, said supporting plate having a groove in one surface thereof and a fastening plate rigidly secured to the wall of said vault and adapted to enter the groove in said supporting plate.

4. In a grave vault, the combination, with a body portion and a closure, of a locking device comprising two coöperating parts, one of said parts being connected to the closure and the other of said parts being carried by a supporting plate, said supporting plate having a tapered, dovetailed groove extending transversely to its length and a substantially horizontal tapered, dovetailed plate rigidly secured to the wall of said vault and adapted to enter the groove in said supporting plate.

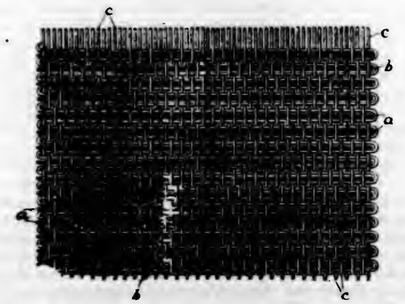
5. In a grave vault, the combination, with a body portion and a closure therefor, of a locking lug, a supporting plate for said lug having a tapered, dovetailed groove in one face thereof, a tapered, dovetailed plate rigidly secured to the body portion of said vault and adapted to enter the groove in said supporting plate, and a pair of spring-pressed locking jaws mounted on said closure and adapted to engage said lug.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,197. WOVEN INTERLINING FABRIC AND PROCESS OF MAKING SAME. GEORGE S. COX, Philadelphia, Pa. Filed Sept. 17, 1913. Serial No. 790,157. (Cl. 139—9.)



1. The process of weaving interlining fabric, which consists in forming a shed of warp, drawing through the shed in one direction a loop forming part of a continuous length of yarn to form two picks of yarn in the shed, drawing through the same shed in the other direction, a separate pick of horsehair, changing the shed, and inserting two picks of yarn forming another part of said continuous length of yarn and another separate pick of horsehair as before, and so on, thereby forming an interlining fabric composed of a warp having in each shed a separate pick of horsehair and two picks of yarn weft integrally united at one edge of the fabric with each other and integrally united at the other edge of the fabric with the picks of yarn weft in the two adjacent warp sheds.

2. The process of weaving interlining fabric which consists in forming a shed of warp, drawing through the shed in one direction a loop forming part of a continuous length of yarn to form two picks of yarn in the shed, drawing through the same shed in the other direction a separate pick of horse hair and laying it between the two picks of yarn, changing the shed and inserting two picks of yarn forming another part of said continuous length of yarn and another separate pick of horsehair as before, and so on, thereby forming an interlining fabric in which, in each shed of warp, two picks of yarn, extending along opposite sides of a pick of horsehair, are each, at one edge of the fabric, integrally united to the other and, at the other edge of the fabric, to a pick of yarn in the nearest adjacent shed.

3. The process of weaving fabric, which consists in forming a shed of warp and drawing through the shed in one direction a loop forming part of a continuous length of yarn to form two picks of yarn in the shed, changing the shed, and inserting in the same direction another loop forming another part of the same continuous length of yarn, and so on, thereby forming a fabric composed of a warp having in each shed two picks of weft integrally united at one edge of the fabric with each other and integrally united at the other edge of the fabric with the picks of yarn weft in the two adjacent warp sheds.

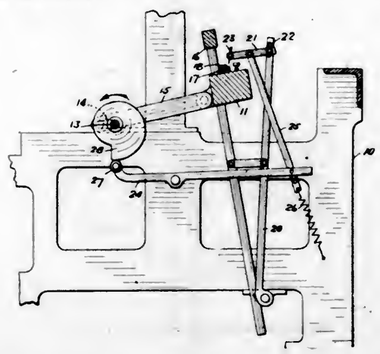
4. An interlining fabric consisting of a warp of flexible material and a weft, in each shed of warp, composed of a separate and independent pick of horsehair and a plurality of picks of material of less stiffness than the horsehair integrally united to each other and to one pick of said material in each of the two adjacent sheds of warp.

5. An interlining fabric composed of a warp of flexible material and a weft, in each shed of warp, composed of a separate and independent pick of horsehair and a plurality of picks of material of less stiffness than the horsehair and integrally united to other picks of said material in other sheds of warp.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,198. HAIRCLOTH-LOOM. GEORGE S. COX, Philadelphia, Pa. Filed Sept. 17, 1913. Serial No. 790,158. (Cl. 139—11.)



1. In a loom, the combination with the pivoted lay and the shuttle race, of a nipper stick adapted to travel along the shuttle race and having jaws adapted to engage strands of hair and pull them along the shuttle race, and means carried by the nipper stick, and independent of the hair engaging jaws, adapted, in the traverse of the nipper stick, to convey a continuous length of yarn back and forth along the shuttle race and insert it in successive warp sheds.

2. In a loom, the combination with the pivoted lay and the shuttle race, of jaws adapted to travel along the shuttle race and engage strands of hair and pull them along the shuttle race, and yarn carrying means, independent of the jaws, adapted to travel with the jaws and adapted, in the traverse of the jaws, to convey part of a continuous length of yarn across its warp-shed and cause the insertion in the sheds of warp.

3. In a loom, the combination with the pivoted lay and the shuttle race, of a nipper stick adapted to travel along the shuttle race and having jaws adapted to engage strands of hair and pull them along the shuttle race, and yarn carrying and feeding means secured to the nipper stick.

4. In a loom, the combination with the pivoted lay and the shuttle race, of jaws adapted to travel across the shuttle race and engage strands of hair and pull them along the shuttle race, and means, independent of said jaws, adapted to travel with the jaws and convey along the shuttle race loops forming parts of a continuous length of yarn.

5. In a loom, the combination with the pivoted lay and the shuttle race, of a nipper stick adapted to travel back and forth along the shuttle race, said nipper stick having at one end a pair of jaws idle in the advance movement of the nipper stick, but adapted in the return movement thereof to insert a strand of hair, and yarn-carrying means, traveling with the nipper stick, adapted, in the advance movement of the nipper stick, to insert a loop forming part of a continuous length of yarn.

[Claims 6 to 13 not printed in the Gazette.]

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1,091,199. AUTOMATIC DUMP-BUCKET. EVA M. DAY and LOVE A. SMITH, Gaines, Pa. Filed July 14, 1913. Serial No. 779,021. (Cl. 57—13.)

1. A bucket for the purposes described comprising the combination of a cylindrical body portion open at the upper end thereof and adapted to be loaded through said upper end, a bottom section pivoted intermediate its ends

and supported adjacent and normally closing the lower end of the body, a member connected to the bottom section and arranged to automatically open the lower end of the bucket at the limit of its downward travel and permit the discharge of the material on opposite sides of said pivot as the bucket is withdrawn from the well, said member being adapted to limit the swing of the bottom.



2. A bucket for the purposes set forth comprising the combination of a relatively long cylindrical body portion open at its upper end and adapted to be loaded through said upper end, a bar extending across the opposite end, a bottom section having means connecting the same to the bar, means including a member depending from the lower side of the bottom for normally maintaining the bottom in closed position and for automatically opening the lower end of the bucket at the limit of its downward travel and releasable locking means for maintaining said bottom in open position while the contents is discharging from the bucket.

3. A bucket for use in oil and similar wells comprising a combination of a body portion open at its upper end, a bottom therefor pivoted intermediate its ends, an operating rod depending from the bottom at one side of its pivotal connection to the body portion arranged to normally close the lower end of the bucket, and automatically open the lower end at the limit of the downward travel of the bucket, and means for maintaining the bottom in an open position so that the material may be discharged on opposite sides thereof as the bucket is withdrawn from the well.

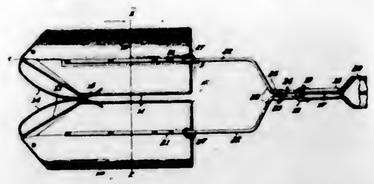
4. A bucket for use in oil and similar wells comprising a combination of a relatively long cylindrical body portion having an opening at its upper end, a shaft extending across the opposite end, a bottom member having pivotal connection with the shaft, means including a member for normally maintaining the bottom in closed position and for rocking the bottom member on its pivot to open the lower end of the bucket at the limit of its downward travel, and a latching means on one of said members and coöperating with the other member to maintain the bottom in open position to permit the escape of the material from the bucket as it is withdrawn from the well.

5. A bucket for use in oil and similar wells comprising the combination of a relatively long cylindrical body portion having an opening at its upper end, a shaft extending across the opposite end, a bottom section having means on its lower side for pivotally connecting the same to the shaft, said bottom section overlapping part of the lower edge of the body portion, a member depending from the lower side of the bottom opposite the overlapping portion for normally maintaining the bottom in closed position and arranged to rock the bottom section on its pivot and automatically open the lower end of the bucket at the limit of its downward travel, a notch in said member and a part on the bottom coöperating with the notch when the bottom section is swung to open position to hold the bottom open and permit the discharge of the material as the bucket is withdrawn from the well.

[Claim 6 not printed in the Gazette.]

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1,091,200. POTATO-BUG CATCHER. LEO J. DEUSTER and CHARLES HONOUR, Suttons Bay, Mich. Filed July 1, 1913. Serial No. 776,874. (Cl. 43—1.)

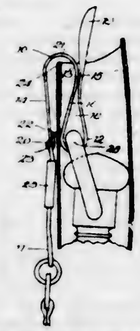


1. In a device of the class described, a pair of gathering pans having divergently beveled front ends and resilient guide prongs overhanging said front ends, an elongated resilient supporting member for each pan, said supporting members having straight upward extensions, and a handle member comprising tubes wherein said extensions are independently and adjustably secured.

2. A device of the class described comprising two gathering pans having substantially vertical rear walls, said pans being of substantially V-shaped cross section, supporting members including elongated portions secured lengthwise in the bottom of the pans, upwardly and rearwardly inclined intermediate portions inwardly offset at their upper ends and straight contiguous upper portions, a handle member comprising a pair of tubes wherein the straight upper portions of the supporting members are slidably received, a collar connecting the lower ends of the tubes, and set screws threaded into the tubes through the collar and engaging the upper portions of the supporting members; and a clamp whereby the straight portions of the supporting members are adjustably connected adjacent to the offset portions.

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1,091,201. WATCH-GUARD. WILLIAM EGBERT DOOLITTLE, New Britain, Conn. Filed Feb. 28, 1912. Serial No. 680,545. (Cl. 63—24.)



1. A watch guard comprising a body portion of spring material and a lever pivotally connected thereto, the said body portion being formed of spring sheet material, bent into S shape to form a rear and a front loop, the rear loop being suitable to receive the ring of a watch and the front loop being suitable for engaging with the edge of a pocket or belt, and a lever pivotally connected to the free end of the front arm of the said front loop, the body portion of the said lever suitable for overlapping the said front arm and engaging therewith as a fulcrum and having a handle portion overhanging the said arm when in such overlapping position.

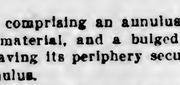
2. A watch guard comprising a front and rear loop connected by their inner arms and having the outer arms free, a lever pivotally connected by one end with the free arm of the said front loop and adjacent the end thereof, and the extreme tip end of the said free arm of the front loop being formed as a prong and directed inwardly and opposed to the inner arm of the said front loop.

3. A watch guard comprising a body portion and a lever pivotally connected thereto, the said body portion comprising a rear and a front loop connected by their inner arms and having the outer arms free, the said lever being pivotally connected by one end to the end of the free arm of the said front loop, the end of the free arm of the rear loop being extended so that the extreme end thereof overhangs the apex of the said front loop, and the said lever being of such length as to overlie the said free arm of the front loop and to have the extreme end overhang the said apex of the front loop and suitably to serve as a handle to coöperate with the said extreme end of the rear arm of the rear loop.

4. A watch guard comprising a body portion and a lever pivotally connected thereto, and the said body portion comprising a piece of sheet metal shaped to comprise a rear loop at the rear end, a front loop connected thereto and having a free arm at the front end, the tip end of the said free arm being directed inwardly into the front loop space and shaped to serve as a prong, and a hinge sleeve positioned adjacent the said tip end and suitable to receive a pintle provided on the said lever.

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1,091,202. SOUND-BOX DIAPHRAGM. JOHN C. ENGLISH, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Feb. 2, 1912. Serial No. 675,019. (Cl. 181—11.)



1. A diaphragm comprising an annulus of thin, highly flexible subereous material, and a bulged central portion formed of paper having its periphery secured to the inner margin of said annulus.

2. A diaphragm comprising an annulus of thin highly flexible subereous material, and a bulged central portion formed of paper having its periphery secured to the inner margin of said annulus by an adhesive.

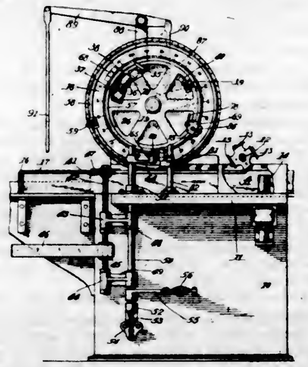
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1,091,203. STILE AND RAIL RABBETER. CHARLES E. EVANS, Weed, Cal. Filed Sept. 25, 1912. Serial No. 722,306. (Cl. 144—2.)

1. In a machine of the class described, the combination of means for moving the material through the machine, a cutting tool, a wheel adapted to be rotated by the material, a cam on said wheel, means whereby said cam is adapted to move said cutting tool into cutting relation with the material, means independent of said cam for holding the cutting tool in cutting relation with the material, and a second cam on said wheel adapted to release said means.

2. In a machine of the class described, the combination of means for moving the material through the machine, a cutting tool, an adjustable wheel adapted to be rotated by the material, a cam carried by said wheel, means whereby said cam is adapted to move the cutting tool into cutting relation with the material, a spring pressed detent for holding the cutting tool in cutting relation with the material, a second cam carried by said wheel adapted to release said detent, and means for withdrawing the cutting tool from the material.

3. In a machine of the class described, the combination of means for moving the material through the machine, a cutting tool, an adjustable wheel adapted to be rotated by the material, a cam carried by said wheel, means whereby said cam is adapted to move said cutting tool into cutting relation with the material, a spring pressed detent adapted to hold the cutting tool in cutting relation with the material, a second cam carried by said wheel and adjustable circumferentially thereon for releasing said detent, and means for withdrawing the cutting tool from the material.

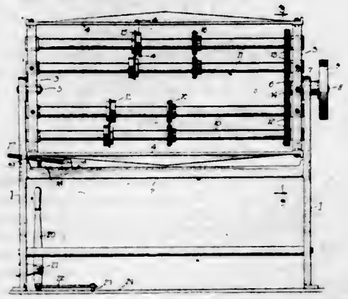


4. In a machine of the class described, the combination of means for moving the material through the machine, a wheel of adjustable diameter adapted to be engaged on its circumference by the material and rotated thereby, a swinging shaft arranged at an angle to the axis of said wheel and provided with a cutting tool, a cam carried by said wheel and adapted to swing said shaft to move said cutting tool into cutting relation with the material, means for holding the cutting tool in cutting relation with the material, a second cam adapted to release said means, and means for swinging said shaft to withdraw said cutting tool from the material.

5. In a machine of the class described, the combination of a frame, means for moving the material through the machine, a wheel movable into and out of engagement on its circumference with the material and adapted to be rotated thereby, a shaft carried by said frame, an arm on said shaft, a cutting tool carried by said arm, a fixed cam on said wheel, an adjustable cam on said wheel, means actuated by one of said cams for moving said cutting tool into cutting relation with the material, and means for holding said cutting tool in cutting relation with the material and adapted to be released by the other of said cams.

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1,091,204. SLITTING AND SCORING MACHINE. JEFFREY T. FERRES, Los Angeles, Cal. Filed Nov. 7, 1912. Serial No. 729,942. (Cl. 164—60.)



1. In a machine of the class described, the combination of a rotatable frame, a plurality of devices mounted thereon for operating on the paper board one at a time, sepa

rate driving mechanisms, for such devices, and a common driving means in operative relationship with one of said mechanisms at a time, said frame being eccentrically mounted with respect to said means whereby one of said mechanisms will be disengaged from said means and another mechanism brought into engagement therewith.

2. In a machine of the class described, the combination of a frame, a plurality of pairs of shafts arranged therein, slitting or scoring devices mounted on said shafts, said frame being rotatable to bring one pair of shafts and their devices into operative position at a time and being mounted on but eccentrically with respect to the driving means, and driving means for rotating the shafts when in such position.

3. In a machine of the class described, the combination of a frame, a plurality of pairs of shafts arranged therein, slitting or scoring devices mounted on said shafts, said frame being rotatable to bring one pair of shafts and their devices into operative position at a time, driving mechanisms for the shafts, and means common to said mechanisms for operating them one at a time, said mechanisms being mounted on but eccentrically of said means to cause one mechanism at a time to be brought to operating position with respect to said means.

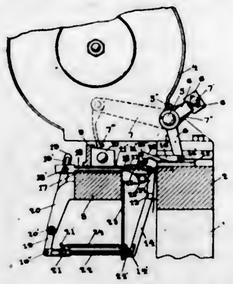
4. In a machine of the class described, the combination of a stationary frame, a rotatable frame supported thereby on a horizontal axis, a pair of shafts on each side of such axis, slitting or scoring devices on such shafts, a horizontal driving shaft, and driven connections for a member of each pair of shafts, said rotatable frame being mounted eccentrically on said driving shaft whereby one driven connection is brought into operative relationship with the driving shaft and the other out of operative relationship.

5. In a machine of the class described, the combination of a stationary frame, a rotatable frame supported thereby on a horizontal axis, a pair of shafts on each side of such axis, slitting or scoring devices on such shafts, a horizontal driving shaft, having a driving pinion, and a driven pinion on a member of each pair of shafts, said rotatable frame being mounted eccentrically on said driving shaft whereby one driven pinion is brought into mesh with the driving pinion and the other is carried out of mesh therewith.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,205. FILLING-THREAD-CUTTING MECHANISM FOR WEFT-REPLENISHING LOOMS. JOHN R. FITTON, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed July 17, 1913. Serial No. 779,533. (Cl. 139—85.)



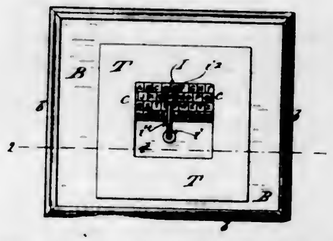
1. In a filling thread cutting mechanism, clamping jaws, and cutting blades, on a stationary part of the loom adjacent the magazine, and means to operate, on the operation of the transferring mechanism, said clamping jaws and said cutting blades, said means including a cam, mounted on and movable relative to the lay, and connections intermediate said cam and the transferring mechanism.

2. In a filling thread cutting mechanism, clamping jaws, and cutting blades, on a stationary part of the loom, adjacent the magazine, and means to operate, on the operation of the transferring mechanism, said clamping jaws and said cutting blades, said means including a cam, having a device thereon to engage and carry the filling thread between said jaws and said blades, said cam mounted on and movable relative to the lay, and connections intermediate said cam and the transferring mechanism.

3. In a filling thread cutting mechanism, clamping jaws, comprising a stationary and a movable jaw, and cutting blades, comprising a stationary and a movable blade, on a stationary part of the loom adjacent the magazine, and means to operate, on the operation of the transferring mechanism, said clamping jaw and cutting blades, said means including a cam, mounted on and movable relative to the lay, and a lever for the movable clamping jaw, and a lever for the movable cutting blade, said levers moved in one direction by said cam, to open said clamping jaw and said cutting blade, and connections intermediate said cam and the transferring mechanism.

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1,091,206. PLANCHETTE DEVICE. HENRY F. FONTANELLA, New York, N. Y. Filed May 19, 1913. Serial No. 768,411. (Cl. 46—41.)

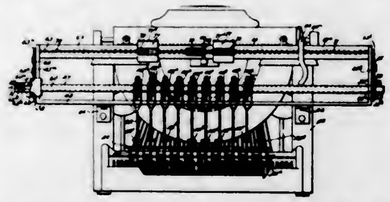


1. A planchette device of the class designated, comprising a base board, an indicator rigidly mounted thereon, a finger table movably resting on said base board and having said characters imposed upon its upper surface, and means for restricting the area of motion of said finger table on the base board to correspond to the area occupied by the ideographic characters as related to the stationary indicator, for the purpose described.

2. A planchette device of the class designated comprising a base board, an indicator rigidly mounted thereon, a movable finger table the under side of which is formed with anti-friction means contacting with the upper surface of the base board and the upper surface of which has imposed upon it said characters, and means for restricting the area of motion of said finger table on the base board to correspond to the area occupied by the ideographic characters as related to the stationary indicator for the purpose described.

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1,091,207. COUNTING-MACHINE. WILLIAM FUHR, Chicago, Ill. Filed Dec. 11, 1911. Serial No. 665,014. (Cl. 235—59.)



1. The combination with a typewriter having numeral keys and a laterally shifting member, of a casing connected to said laterally shifting member and having an opening therein, a series of numeral rings rotatably mounted in said casing provided with internal lugs, a tubular support upon which said numeral rings and casing



are slidably mounted, a drive-shaft in said support, a drive-wheel on said shaft adapted to engage one of the lugs on any one of said numeral rings for rotating one of said rings, a series of arm wheels mounted within said tubular support and the peripheries of which extend beyond the periphery of said support and between adjacent lugs on said numeral rings, means for locking the numeral rings not driven by said drive-wheel and means for actuating said drive-wheel.

2. The combination with a typewriter having numeral keys and a laterally shifting member, of a casing having an opening therein and connected to said laterally shifting member, a series of numeral rings rotatably mounted in said casing and having internal lugs, a support upon which said casing and numeral rings are slidably mounted, a drive-shaft, a drive-wheel adapted to engage a lug on any one of said numeral rings, a series of arm wheels rotatably mounted within said tubular support and the ends of which arms extend beyond the periphery of said support and between adjacent lugs on said numeral rings, a single lug on each of said numeral rings adapted to engage one of the arms of said wheels at pre-determined times, means for locking the arm wheels not driven, means for locking a driven arm wheel against rotation more than a quarter of its circumference at one time, means for locking said numeral rings not driven by said drive-wheel and means for actuating said drive-wheel.

3. The combination with a typewriter having numeral keys and a laterally shifting member, of a casing having an opening therein and connected to said laterally shifting member, a series of numeral rings rotatably mounted in said casing and having internal lugs, a support upon which said casing and numeral rings are slidably mounted, a drive-shaft, a drive-wheel adapted to engage a lug on any one of said numeral rings, means for actuating said drive-shaft, a drive-bar, means for actuating said drive-bar and for imparting rotating movements of different extents thereto comprising a series of ratchet wheels rigidly mounted thereon, a series of levers pivotally mounted on said drive bar, means on each lever for engaging its complementary ratchet wheel, means for disengaging said engaging means at pre-determined extents of movement of said levers, driving means between said drive-shaft and drive-bar and means connecting said levers with the numeral keys of the typewriter.

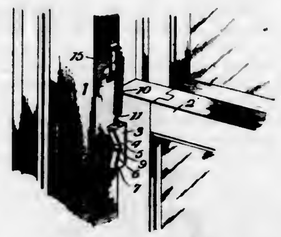
4. The combination with a typewriter having numeral keys and a laterally shifting member, of a casing having an opening therein and connected to said laterally shifting member, a series of numeral rings rotatably mounted in said casing and having internal lugs, a tubular support upon which said numeral rings and casing are slidably mounted, means for preventing the rotation of said casing relative to said tubular support, a drive-shaft in said support, a drive-wheel on said shaft adapted to engage one of the lugs on any one of said numeral rings for rotating one of said rings, a series of arm wheels mounted within said tubular support and the arms of which extend beyond the periphery of said support and between adjacent lugs on said numeral rings, means for locking said numeral rings not driven by said drive-wheel, means for actuating said drive-shaft in either direction.

5. The combination with a typewriter having numeral keys and a laterally shifting member, of a casing having an opening therein and connected to said laterally shifting member, a series of numeral rings rotatably mounted in said casing and having internal lugs, a tubular support on which said numeral rings and casing are slidably mounted, a drive-shaft in said support, a drive-wheel on said shaft adapted to engage one of the lugs on any one of said numeral rings for rotating one of said rings, a series of arm wheels mounted within said tubular support and the arms of which extend beyond the periphery of said support, means for locking said numeral rings not driven by said drive-wheel, means for actuating said drive-wheel, means for preventing the rotation of said casing relative to said tubular support, a gear at each end of said drive-shaft, a gear at each end of said drive-bar, a single intermediate gear between the two end gears at one end, two intermediate gears between the end gears at the other end, and means for engaging either end gear on said drive-bar to impart opposite rotating movements to said drive-shaft.

[Claim 6 not printed in the Gazette.]

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1,091,208. WINDOW HOLDER AND FASTENER. MARVIN LUCIAN GALL, Philippi, W. Va. Filed May 23, 1912. Serial No. 699,356. (Cl. 16—124.)



1. In a device of the class described, an abutment member, a shoe having anticlinal faces for coöperation with the abutment member, a supporting member, and a spring adjustably connected with the supporting member and supporting the said shoe in coöperative relation to the said abutment.

2. In a device of the class described, an abutment, a shoe having relatively inclined faces for coöperation with the abutment, a support, and a spring connected at one end with the support and adjustable thereon and connected with the said shoe whereby the shoe may be supported with one or the other of its faces in coöperative relation to the abutment.

3. In a device of the class described, an abutment, a shoe having relatively inclined faces for coöperation with the abutment, a support, and a spring connected at one end with the support and adjustable thereon and connected with the said shoe whereby the shoe may be supported with one or the other of its faces in coöperative relation to the abutment, or both out of coöperative relation thereto.

4. In a device of the class described, an abutment, a supporting member arranged above the abutment and provided with vertically spaced seats, an attaching element adapted for disposal in said seats interchangeably, a spring connected to the said element, and a shoe to which the spring is connected, the shoe being supported by the spring in coöperative relation to the abutment.

5. In a device of the class described, an abutment, a supporting member comprising a plate having a substantially vertically extending slot having offset portions forming seats vertically spaced, an attaching element having a shank slidably fitting within the slot and movable to rest in said seats interchangeably, a spring connected to the said element and adapted to be supported thereby at various elevations with respect to the abutment, and a shoe supported by the spring in coöperative relation to the abutment.

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1,091,209. TOOTH-BRUSH. MARSHALL EDISON GATES, Helena, Mont. Filed Apr. 8, 1913. Serial No. 759,813. (Cl. 15—39.)

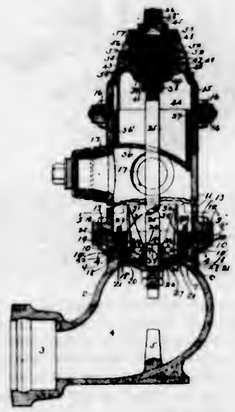


A tooth brush comprising a handle, a brush back extending therefrom and relatively thinner than the same, a bristle holder rotatably secured to said brush back and lying flush with the brush handle, said bristle holder adapted to rotate about a central axis extending there-

through, said bristle holder provided with bristles extending therefrom, the tufts at one end being elongated, a latch secured to the under portion of said handle adapted to engage slots formed in the ends of said bristle holder to thereby hold said bristle holder in adjusted position, and an actuating knob extending through a suitable aperture formed in said handle, engaging said latch and adapted to force the same out of contact with said bristle holder slots.

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1,091,210. HYDRANT. JAMES G. GAUNTT, Syracuse, N. Y. Filed Apr. 28, 1913. Serial No. 764,289. (Cl. 137—13.)



1. In a hydrant, the combination with a shoe having a discharge port in its top, of a seat-ring disposed in said port, means for holding said seat-ring in place, a valve in said shoe concentric to said port, said valve comprising a plurality of elastic disks of different diameters adapted to engage the seat-ring at different intervals of time during the closing of the valve, the peripheral edges of said disks adapted to be forced and held apart when the valve is closed, whereby each disk effects an independent closure for said port, a rod for operating said valve, and means for raising and lowering said rod.

2. In a hydrant, the combination with a shoe, having a port in its upper side for discharging water into a barrel mounted above and concentric to said port, of a valve seat-ring bushing in the said port, means for holding said seat-ring in place, a valve in said shoe concentric to said seat-ring, said valve comprising flexible disk laminæ of different diameters adapted to engage the seat in said ring successively and to flex or bend downwardly for providing a space between said disks when the valve is closed, said disks adapted to be disengaged from said seat in the reverse order during the opening of the valve, as for the purpose set forth.

3. In a hydrant, a shoe having a water inlet opening in one end and a water discharge opening in its top, a seat-ring bushing in the said discharge opening, a drain for carrying off the waste water from the hydrant, a valve in said shoe disposed concentric to said seat-ring, said valve comprising a series of flexible disks of different diameters adapted to engage the seat-ring at different intervals of time during the closing of the valve, said disks adapted when being disengaged from the seat-ring to prolong the opening movement of the valve for preventing the water from the shoe from entering the said drain, and means for opening and closing said valve.

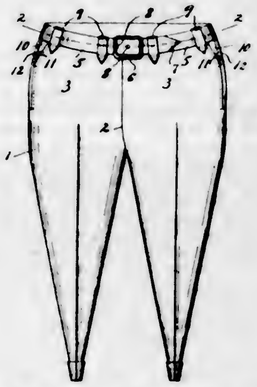
4. In a hydrant, the combination with a shoe, a barrel mounted upon said shoe, and a hood mounted upon said barrel, of a valve-rod disposed concentrically in the said hood and said barrel and extending part-way into said shoe, a stem-nut for operating said valve-rod, said stem-nut journaled in a transverse wall in said hood and engaging the upper end of said rod, a valve-seat in the top of said shoe, and a valve in said shoe, said valve mounted on the lower end of said rod and adapted for controlling the passage of water from the shoe into said barrel, said valve comprising flexible disk laminæ adapted when engaging said seat to flex and clean said seat.

5. A hydrant, comprising a shoe having a water discharge opening in its top, a removable seat-ring disposed in said opening, a laminated disk valve in said shoe below the seat-ring, the disks of the said valve increasing in diameter from the uppermost to the lowermost disk, each of said disks from the lowermost to the uppermost adapted to engage the said seat-ring at different points and at different intervals of time, guides mounted above the valve for steadying and guiding the valve, said guides being perforated, drain openings in said seat-ring arranged to coincide with the perforations in the guides adapted for drawing off the waste water from the hydrant after each closing of the valve, and a packing surrounding each drain opening and engaging the said guides for preventing the water from entering said drains while the valve is open.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,211. GARMENT. GABRIEL GELORMINI, Newark, N. J. Filed May 19, 1910. Serial No. 562,191. (Cl. 2—143.)



In trousers, or the like, the combination with the rear waist-portions thereof, of forwardly extending strips or bands attached to the outer face of said waist-portions, belt-loops upon the outer faces of the front waist-portions of the trousers for the reception of said strips or bands, the free end of one of said strips or bands being provided with a buckle, the free end of the other strip or band being provided with buckle-holes, and said free ends of the strips or bands being adapted to be joined together at the front of the waist-line of the trousers, said trousers being formed between the front and rear portions and extending downwardly from the waist-line with gores, lining-portions foldably arranged over said gores upon the inner portions of the trousers, said lining portions forming expansible plaits, and elastic bands secured respectively to said lining-portions and the inner front and rear portions of the trousers, all arranged to provide for an automatic expansion and contraction of the trousers at the waist-line, substantially as and for the purposes set forth.

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1,091,212. LOCOMOTIVE GRATE-LEVER AND HANDLE. CHARLEY W. GREGORY, Goodland, Kans. Filed Feb. 11, 1913. Serial No. 747,747. (Cl. 126—169.)

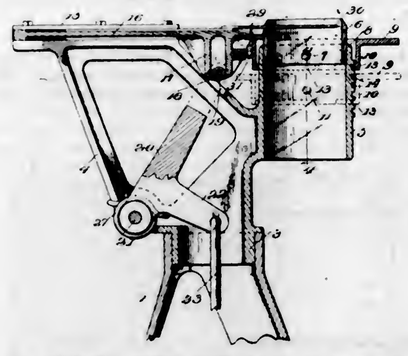
In combination, a pivoted grate-shaking lever having a pair of diametrically opposite bayonet grooves in its outer end, and an actuating handle having a socket at its inner end to fit over the end of the said lever, and having a pair of diametrically opposite lugs projecting into the socket intermediate the ends of the socket, the socket being tapered from the lugs to its inner end, and being of uni-



form diameter from the lugs to its outer end, the outer end of the lever being uniform in diameter throughout the length of the grooves and the outer arm of the lever being tapered outwardly to the tails of the grooves.

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1,091,213. CABBAGE-TRIMMER. JOHN M. GREGORY, Skaneateles, N. Y. Filed Apr. 3, 1913. Serial No. 758,688. (Cl. 146—7.)



1. A cabbage trimmer comprising a cylindrical cutting member, and a reciprocating blade working transversely through said cylindrical cutting member.

2. A cabbage trimmer comprising a cylindrical cutting member, and an adjustable table surrounding said cutting member.

3. A cabbage trimmer comprising a cylindrical cutting member, a blade adapted to traverse said cylindrical cutting member, and means for operating said blade.

4. A cabbage trimmer comprising a cylindrical cutting member, and means for regulating the depth of cut of said member.

5. A cabbage trimmer comprising a frame, a cylindrical cutting member carried by said frame, a movable table surrounding said cutting member, and means for locking said table in adjusted position.

[Claims 6 to 20 not printed in the Gazette.]

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1,091,214. RUNNING-BOARD. EDWARD GRUBER, Cleveland, Ohio, assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 7, 1910. Serial No. 536,891. (Cl. 21—55.)



1. As a new article of manufacture, a running board formed of metal having on each side of its longitudinal axis a series of projections, said projections being elongated and extending at an angle to the axis of the running board, the projections of one series extending at an angle with respect to the projections of the other series.

2. As a new article of manufacture, a running board formed of metal having on each side of its longitudinal axis a series of projections, said projections being elongated and extending at an angle to the axis of the running board, the projections of one series extending at substantially right angles to the projections of the other series and said projections having substantially vertical sides and flat tops, whereby sharp anti-slipping edges are formed between the sides and tops of said projections.

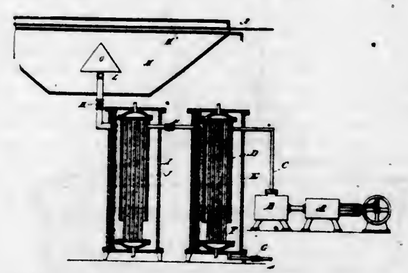
3. As a new article of manufacture, a foot step having a plurality of flat topped projections on its upper surface, each of said projections being formed with a recess in its upper surface, the side walls of said recesses being substantially perpendicular to the top of said projection whereby sharp anti-slipping edges are formed.

4. As a new article of manufacture, a metallic running board having on each side of its longitudinal axis a series of elongated flat topped projections pressed upwardly from the body thereof, the major axis of the projections on opposite sides of the axis extending at an angle with respect to such axis and to the projections upon the opposite side of the board, each of said projections having an elongated recess in its upper surface, the side walls of which are substantially perpendicular to such top surfaces, whereby anti-slipping edges are formed.

5. As a new article of manufacture, a metallic running board having the upper surface thereof provided with flat topped projections, the tops of said projections being formed with recesses, the side walls of said recesses and the side walls of said projections being substantially perpendicular to the top surface of said projections, and the lower surface of said running board being formed with depressions coinciding with said projections, whereby the thickness of said running board is substantially uniform at all points.

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1,091,215. APPARATUS FOR DRYING BY COMPRESSED AIR. WILLIS E. HALL, New York, N. Y., assignor of one-half to Charles A. Tatum, New York, N. Y. Filed Mar. 22, 1905. Serial No. 251,388. (Cl. 34—3.)



1. An apparatus for drying by compressed gaseous fluids, comprising a fluid compressor, a moisture separator for eliminating moisture from said fluid, a chamber for collecting such fluid after said elimination has taken place, a means for bringing the fluid to a predetermined temperature and a controlling device arranged to permit the ejection of said compressed dried fluid at a predetermined pressure, said compressor, moisture separator, chamber, means and controlling device being in communication with each other.

2. An apparatus for drying by compressed gaseous fluids, comprising a fluid compressor, a moisture separator for eliminating moisture from said fluid, a chamber for collecting such fluid after said elimination has taken place; a controlling device arranged to permit the ejection of said compressed dried fluid at a predetermined pressure, said compressor, moisture separator, chamber and controlling device being in communication with each other and a discharge device connected with and located beyond said controlling device for directing the discharge of said dried fluid under the predetermined pressure.

3. An apparatus for drying by compressed gaseous fluids, comprising a fluid compressor, a moisture separator for eliminating moisture from said fluid, a chamber for collecting such fluid after said elimination has taken place, a

means for bringing the fluid to a predetermined temperature, a controlling device arranged to permit the ejection of said compressed dried fluid at a predetermined pressure, said compressor, moisture separator, chamber, means and controlling device being in communication with each other, and a discharge device connected with and located beyond said controlling device for directing the discharge of said dried fluid under the predetermined pressure.

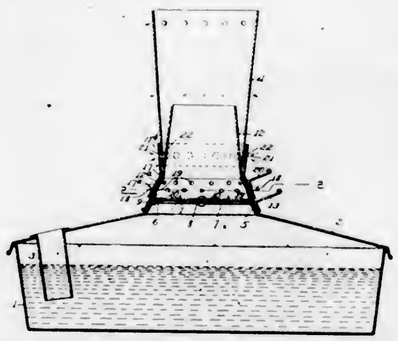
4. An apparatus for drying by compressed gaseous fluids, comprising a fluid compressor, a discharge device through which the dry gas is arranged to issue, a reducing valve, a moisture separator, and a temperature variator connected in series and all three interposed in the connection between the compressor and the discharge device, said reducing valve opposing a constant resistance to the passage beyond said valve, of the gas coming from the compressor.

5. An apparatus for drying by compressed gaseous fluids, comprising a fluid compressor, a moisture separator connected to receive the fluid from the compressor, a box having perforations to discharge the fluid against the material to be treated, a conducting means arranged to receive the fluid from the separator and having its discharge end within said box, a reducing valve located in said conducting means, and a deflector between the discharge end of said conducting means and the perforations of the box.

[Claim 6 not printed in the Gazette.]

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1,091,216. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Oct. 31, 1913. Serial No. 798,428. (Cl. 158—91.)



1. In an orchard heater, the combination with a fuel reservoir, of a cover for said reservoir, said cover having a portion provided with a plurality of draft passages, a disk pivotally mounted on said portion, said disk having draft passages therein corresponding to those in said portion and being adapted for rotation for adjusting the extent of registration of said passages, and a stack mounted upon and rotatable with said disk.

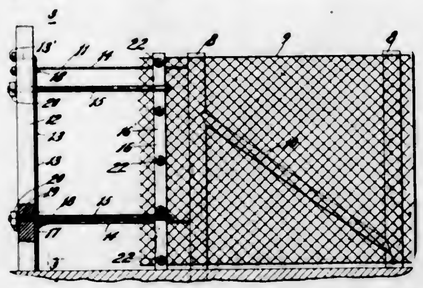
2. In an orchard heater, the combination with a fuel reservoir, of a cover for said reservoir, said cover having a portion provided with a plurality of draft passages, a disk pivotally mounted on said portion, said disk having draft passages therein corresponding to those in said portion and being adapted for rotation for adjusting the extent of registration of said passages, an annular disk-embracing element, and a stack of inverted frusto-conical shape associated with said element.

3. In an orchard heater, the combination with a fuel reservoir, of a cover for said reservoir, said cover having a portion provided with a plurality of draft passages, a disk pivotally mounted on said portion, said disk having draft passages therein corresponding to those in said portion and being adapted for rotation for adjusting the extent of registration of said passages, an inner stack mounted upon and rotatable with said disk, a collar having a portion mounted on said stack, said collar being normally rotatable with said stack and being also rotatable with respect to said stack, said collar and said stack having perforations therein adapted for registration, and an outer stack fitted on and normally rotatable with said collar.

4. In an orchard heater, the combination with a fuel reservoir, of a cover for said reservoir, said cover having a portion provided with a plurality of draft passages, a disk pivotally mounted on said portion, said disk having draft passages therein corresponding to those in said portion and being adapted for rotation for adjusting the extent of registration of said passages, an inner stack mounted upon and rotatable with said disk, a collar having a portion mounted on said stack, said collar being normally rotatable with said stack and being also rotatable with respect to said stack, said collar and said stack having perforations therein adapted for registration, an outer stack being also rotatable with respect to said collar, and means adjusted by rotation of said outer stack with respect to said collar whereby an air supply is admitted to the outer stack.

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1,091,217. WIRE-FENCE STRETCHER. HANS F. HANSEN, Hartland, Wis., and JOHN C. SCOTT, Stillman Valley, Ill. Filed July 15, 1911. Serial No. 638,619. (Cl. 39—51.)



1. A wire fence stretcher, comprising a standard, spacing bars connected thereto and extending horizontally therefrom, said spacing bars having a hook and loop connection with the standard, a fence wire engaging bar, and stretching members engaging the wire engaging bar and the standard.

2. A wire fence stretcher comprising a standard, spacing bars connected thereto and extending horizontally therefrom, said spacing bars having a hook and loop connection with the standard, a wire engaging clamping bar, and stretching members adjustably connected to the standard and to the clamping bar.

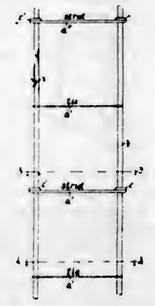
3. A wire fence stretcher, comprising a standard, brace rods connected to the standard and adjustable at an angle therefrom, spacing bars connected thereto and extending horizontally therefrom, said spacing bars having a hook and loop connection with the standard, a wire engaging clamping bar, and stretching members adjustably connected to the standard and to the clamping bar.

4. A wire fence stretcher, comprising a standard, provided with looped portions, brace rods pivotally connected thereto, spacing bars having approximately right angled ends which are removably connected to the looped portions of the standard and supported in horizontal position, a wire engaging clamping bar, and stretching members extending through the standard and engaging the clamping bar.

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1,091,218. REINFORCEMENT SYSTEM FOR CONCRETE COLUMNS. RUDOLPH B. HARTMAN, Milwaukee, Wis. Filed Apr. 23, 1907. Serial No. 369,764. (Cl. 72—76.)

1. A skeleton framework for reinforced concrete structures, embodying a plurality of longitudinal members and a plurality of rigid transverse members, the latter being in the form of closed polygons having eyes at their angles through which said longitudinal members pass, successive transverse members of the frame work being skewed in opposite alternate directions, whereby they bind each and all of them in their properly spaced relation upon said longitudinal members.



2. A skeleton framework for reinforced concrete structures, comprising a plurality of longitudinal members and a plurality of transverse members each consisting of a rod bent in a closed figure encompassing said longitudinal members, said longitudinal members being deviated from their normal condition of straightness and frictionally, by their reaction, holding the transverse members in place.

3. A skeleton framework for reinforced concrete structures, embodying a plurality of longitudinal members possessing resiliency, and a plurality of transverse members each consisting of a rigid rod bent in the form of a closed figure encompassing said longitudinal members, alternate transverse members having eyes turned thereon through which said longitudinal members pass, said members having portions distorted to frictionally bind each other.

4. A skeleton framework for reinforced concrete structures, embodying a plurality of longitudinal members possessing some resiliency, and a plurality of transverse members each consisting of a rigid rod bent in the form of a closed figure encompassing said longitudinal members, alternate transverse members being provided with eyes through which said longitudinal members pass and said transverse members reactively distortionally holding the longitudinal members and being retained by them frictionally in place.

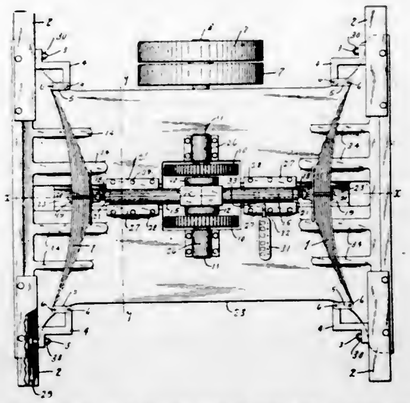
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1,091,219. MACHINE FOR TESTING VEHICLE-SPRINGS. EDWARD J. HARVEY, Racine, Wis., assignor to Harvey Spring and Forging Company, Racine, Wis., a Corporation. Filed Nov. 1, 1913. Serial No. 798,640. (Cl. 73—51.)

1. In a device of the described class, the combination of a motor driven shaft, a reciprocating member, means for communicating motion from said shaft to such reciprocating member, means for connecting a vehicle spring with the respective ends of such reciprocating member, means for regulating the tension between said springs and the respective ends of said reciprocating member, whereby the expansive force of one spring will coöperate with the driving mechanism of the machine to compress the other spring.

2. In a device of the described class, the combination of a motor driven shaft, a reciprocating member, means for communicating motion from said shaft to such reciprocating members, means for pivotally connecting a pair of vehicle springs at their respective ends with a supporting member, means for connecting each of said springs at its center with the opposite ends of said reciprocating member and means for regulating the tension between said springs and the respective ends of said reciprocating member.

3. In a device for testing vehicle springs, the combination of a motor driven shaft, a pair of pinions carried by said shaft, a crank supporting shaft, a pair of gears mounted on said crank supporting shaft, said gears being adapted to mesh with and be driven by said pinions, a reciprocating member connected with said crank supporting shaft, means for adjustably connecting the respective ends of said reciprocating member with the centers of said vehicle springs respectively and means for pivotally connecting the respective ends of said springs with a stationary support.



4. In a device of the described class, the combination of a motor driven shaft, a reciprocating member, means for connecting one or more vehicle springs with the respective ends of said reciprocating member, whereby as said shaft is revolved the spring, or springs, connected with one end of said reciprocating member will be compressed, while the spring, or springs, connected with the opposite end of said reciprocating member will be expanded, whereby the expansive pressure of the spring, or springs, at one end of the machine will coöperate with the driving mechanism of such machine in compressing the spring, or springs, at the opposite end of such machine and means for automatically counting and registering the vibrations of the machine in testing such springs.

5. In a device of the described class, the combination of a motor driven shaft, a reciprocating member, means for connecting one or more vehicle springs with the respective ends of said reciprocating member, whereby as said shaft is revolved the spring, or springs, connected with one end of said reciprocating member will be compressed, while the spring, or springs, connected with the opposite end of said reciprocating member will be expanded, whereby the expansive pressure of the spring, or springs, at one end of the machine will coöperate with the driving mechanism of such machine in compressing the spring, or springs, at the opposite end of such machine, means for automatically counting and registering the vibrations of the machine in testing such springs and means for supporting such springs while being tested.

[Claim 6 not printed in the Gazette.]

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1,091,220. BLANK FOR FORMING THE SHANKS OF PIPE-WRENCHES. GEORGE HECKLING, Cleveland, Ohio. Filed June 30, 1913. Serial No. 776,487. (Cl. 76—114.)

1. A blank for forming a shank of a pipe-wrench, said blank consisting of an oblong plate of rolled steel, which plate has the side edges of its forward portion serrated and forming racks.

2. A blank for forming the shank of a pipe-wrench, said blank consisting of an oblong plate of rolled steel, which plate has its forward portion narrower than but arranged centrally between the side edges of the rear portion of the plate, said forward portion of the plate having its side edges serrated and forming racks.

3. A blank for forming the shank of a pipe-wrench, said blank consisting of an oblong plate of rolled steel, which plate has the side edges of its forward portion serrated and forming racks, and the rear portion of the plate having two lugs consisting of portions struck from the

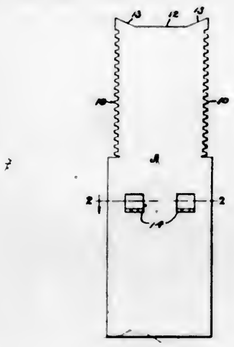
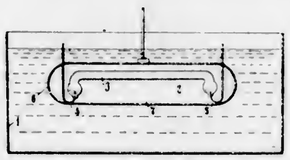


plate and projecting laterally of one and the same side of the plate, which lugs are arranged in line edgewise and spaced widthwise of the plate a distance substantially equal to one-third of the width of the aforesaid rear portion of the plate and spaced equidistantly from opposite side edges respectively of said rear portion of the plate.

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1,091,221. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OF ULTRA-VIOLET RAYS. VICTOR HENRI, ANDRÉ HELBRONNER, and MAX VON RECKLINGHAUSEN, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc., a Corporation of New York. Filed June 7, 1910. Serial No. 565,612. (Cl. 210—20.)



1. Apparatus for sterilizing liquids, comprising the combination of a tank for containing the liquid to be sterilized, a lamp adapted to emit ultra-violet rays immersed in said liquid, and an envelop surrounding said lamp, the intermediate space being exhausted of air.

2. Apparatus for sterilizing liquids, comprising the combination of a tank for containing the liquid to be sterilized, a vapor electric lamp having a container permeable to ultra-violet rays immersed in said liquid, and an envelop permeable to ultra violet rays surrounding said lamp, the space between the lamp and the envelop being exhausted of air.

3. Apparatus for sterilizing liquids comprising the combination of a tank for containing the liquid to be sterilized, a vapor electric lamp immersed in said liquid, and an envelop permeable to ultra-violet rays surrounding the part of the lamp adapted to emit ultra-violet rays, the intermediate space being exhausted of air.

4. Apparatus for sterilizing liquids comprising the combination of a tank for containing the liquid to be sterilized, a mercury vapor lamp having a quartz container immersed in said liquid, and a quartz envelop surrounding said lamp, the space between the lamp and the envelop being exhausted of air.

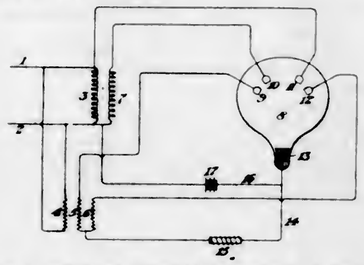
1,091,222. METHOD FOR THE ELECTRICAL PRODUCTION OF LIGHT. PETER COOPER HEWITT, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Apr. 11, 1898, Serial No. 677,199. Divided and this application filed Mar. 27, 1900. Serial No. 10,359. (Cl. 176—42.)



In a mercury vapor apparatus, the combination with a translating device comprising an exhausted container and mercury electrodes therein separated by a vapor path, said device having a relatively high cathode starting resistance and relatively low operating resistance and means for operating the electrodes alternately as cathodes, of a solid conducting projection above the surface of each electrode whereby its cathode resistance is lowered.

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1,091,223. APPARATUS FOR OPERATING VAPOR CONVERTERS. PETER COOPER HEWITT, New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Filed Apr. 8, 1904. Serial No. 202,191. (Cl. 171—253.)



1. In a system of electrical distribution, a source of single phase alternating current, means for deriving four phase currents therefrom, a direct-current work circuit, an intermediate device for applying energy from the source to the work circuit in the same direction at 0° and 180°, and means for deriving currents approximately 90° or 270° for causing a continuous impressed electro-motive-force in one direction.

2. In a system of electrical distribution, a vapor converter having four positive electrodes and a common negative electrode, in combination with a transformer having the terminal of its primary connected with one of the positive electrodes and the negative electrode, and the respective terminals of the secondary connected with a second positive electrode and the negative electrode, a second transformer having two secondaries connected with one terminal of each, respectively, to the remaining positive electrodes, and the intermediate point connected with the negative electrode.

3. In a system of electrical distribution, a vapor converter having four positive electrodes and a negative electrode, in combination with a transformer having the terminals of its primary connected with one of the positive electrodes and the negative electrode, and the respective terminals of the secondary connected with a second positive electrode and the negative electrode, another transformer, having two secondaries each with one of their terminals connected, respectively, to the remaining positive electrodes, and the intermediate point connected with the negative electrode, and a work circuit interposed between the common negative electrode and an intermediate point

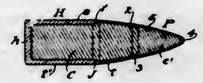


between the primary and secondary of the first named transformer.

4. The combination with a source of single-phase alternating current, of a work circuit, a converter for causing impulses of both polarities to traverse the work circuit in a uniform direction, and means for transmitting current derived from the said source for maintaining the vapor converter alive, such last named means consisting of a transformer having a primary connected between the main conductors from the source and having two secondaries whose impulses are applied to the said converter.

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1,091,224. PROJECTILE. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 24, 1913. Serial No. 802,614. (Cl. 102—28.)



1. In an expandible projectile having a soft-metal core with an elongated core-point, the combination with the core, of a tubular core-case comprising a base-tube and a point-tube having the forward end thereof extending over the rearward portion only of the core-point and having its forward portion arranged and adapted for re-formation by being turned outwardly and backwardly during the deformation of the projectile by target resistance, and said base-tube and point-tube being integrally united adjacent to the rearward end of the core-point and there provided with a deformation-limiter whereby to restrict the said re-formation of the core-case to the point-tube portion hereof.

2. An expandible projectile having an elongated soft-metal core, and having a main core-casing comprising a normally non-expanding base-tube and an expandible point-tube joined with the base-tube with a junction-structure provided with a face extending outwardly to the point-tube wall, and supportive of the outer portion of the core metal which is within the point-tube.

3. An expandible projectile having an elongated soft-metal core, and having a main core-casing comprising a normally non-expanding base-tube and an expandible point-tube joined with the base-tube with a junction-structure provided with a face extending outwardly to the point-tube wall, and supportive of the outer portion of the core-metal which is within the point-tube, and a core-point extending forward of the point-tube.

4. An expandible projectile having an elongated soft-metal core, and having a main core-casing comprising a normally non-expanding base-tube and an expandible point-tube joined with the base-tube with a junction-structure provided with a face extending outwardly to the point-tube wall and supportive of the outer portion of the core-metal which is within the point-tube, and a point-cap on the core-point forward of the point-tube.

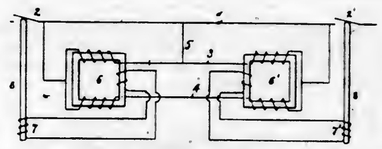
5. An expandible projectile having an elongated soft-metal core, and having a main core-casing comprising a normally non-expanding base-tube and an expandible point-tube joined with the base-tube with a junction-structure provided with a face extending outwardly to the point-tube wall, and supportive of the outer portion of the core-metal which is within the point-tube, and a point-cap on the core-point forward of the point-tube and extending rearwardly outside of the forward end of the point-tube.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,225. PROTECTION OF FEEDERS OF ELECTRICAL DISTRIBUTION SYSTEMS. PHILIP VASSAR HUNTER, Heaton, England. Filed Oct. 7, 1912. Serial No. 724,343. (Cl. 175—294.)

1. In an electrical distribution system, a main core, a circuit breaker therein, two balancing strands connected to the core at their ends and one of which is electrically connected with the main core at an intermediate point, and a differential electromagnetic device for actuating the circuit breaker controlled by the balancing strands, substantially as described.



2. In an electrical distribution system, a main core, a circuit breaker therein, two balancing strands connected to the core at their ends and one of which is electrically connected with the main core at an intermediate point, a current obstructor near the end of the main core, and a differential electromagnetic device for actuating the circuit breaker controlled by the balancing strands substantially as described.

3. In an alternating current distribution system, a main core, a circuit breaker therein, two balancing strands connected to the core at their ends and one of which is electrically connected with the main core at an intermediate point, and a balancing transformer for actuating the circuit breaker controlled by the balancing strands substantially as described.

4. In an alternating current distribution system, a main core, two circuit breakers near its ends, two balancing strands connected to the core at their ends and one of which is electrically connected with the main core between its ends, and two balancing transformers for actuating the circuit breakers controlled by the balancing strands, substantially as described.

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1,091,226. ELECTRICAL SOCKET AND RECEPTACLE. LOUIS KELLNER, New York, N. Y. Filed May 13, 1913. Serial No. 767,258. (Cl. 173—356.)



1. In a device of the character described, the combination of an insulating base, a plate fixed to said base and provided with at least one opening therein, a threaded shell rotatable and provided with at least one tongue adapted to project into said opening and a bolt located in line with said opening and adapted to project through the same and engage with said shell.

2. In a device of the character described, the combination of a threaded shell having a bottom provided with a central opening, two stationary rings between which the bottom of the shell is confined and adapted to turn, means for automatically locking the shell against rotation in one direction and means for manually locking the shell against rotation in the opposite direction.

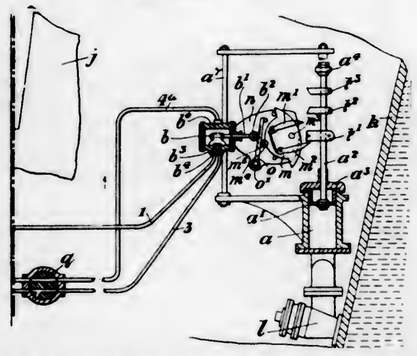
3. In a device of the character described, the combination of a rotary threaded shell, a fixed bearing surface against which said shell rotates, a pawl and ratchet engagement between the shell and surface to prevent rotation of the shell in one direction and a key operated bolt for locking the shell against rotation in the other direction.

4. In a device of the character described, the combination of a rotary threaded shell, a fixed plate, the shell

and plate having corresponding openings, a bolt arranged and movable parallel to the axis of the shell and fitting said corresponding openings, and a key coöperating with said bolt.

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1,091,227. MEANS FOR CONTROLLING THE SUPPLY OF MOTIVE FLUID TO MARINE ENGINES. ANDREW KERR, Belfast, Ireland. Filed June 21, 1913. Serial No. 774,959. (Cl. 121—113.)



1. In a device of the character stated, the combination, with a supply of fluid under pressure, of a stop valve controlling lever, a cylinder, a piston therein connected with said controlling lever, a valve controlling the supply of pressure fluid to said cylinder, a second cylinder, a piston therein connected to said valve, a second valve controlling the supply of pressure fluid to said second cylinder, means whereby said second valve is normally maintained at such a position that fluid under pressure is cut off from said second cylinder, a pipe leading from a supply port of said second valve to the supply port into said second cylinder, a pipe leading from a second supply port of said second valve direct to the casing of the first valve, a cock interposed in said pipe lines and normally leaving them connecting the valves and cylinder as above stated but having ports therein capable of being turned so as to place the two pipe lines in communication with each other and cutting off the connection with the second valve and placing the pressure fluid in direct communication with said second cylinder and without passing through said second valve.

2. In a device of the character stated, the combination, with a supply of fluid under pressure, of a stop valve controlling lever, a cylinder, a piston therein connected with said controlling lever, a valve controlling the supply of pressure fluid to said cylinder, a second cylinder, a piston therein connected to said valve, and a cock for controlling the supply of fluid under pressure to said second cylinder.

3. In a device of the character stated, the combination, with a supply of fluid under pressure, of a stop valve controlling lever, a cylinder, a piston therein connected with said controlling lever, a valve controlling the supply of pressure fluid to said cylinder, a second cylinder, a piston therein connected to said valve and means whereby fluid under pressure is admitted to said second cylinder when the speed of the engines exceeds a predetermined limit.

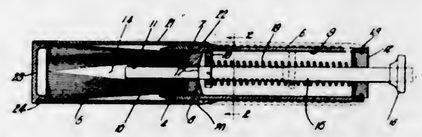
4. In a device of the character stated, the combination, with a supply of fluid under pressure, of a stop valve controlling lever, a cylinder, a piston therein connected with said controlling lever, a valve controlling the supply of pressure fluid to said cylinder, a second cylinder, a piston therein connected to said valve, a cock for controlling the supply of fluid under pressure to said second cylinder and means whereby said cock is opened to connect the fluid supply to said second cylinder when the speed of the engine exceeds a predetermined limit.

5. In a device of the character stated, the combination, with a supply of fluid under pressure, of a stop valve controlling lever, a cylinder, a piston therein connected with said controlling lever, a valve controlling the supply of pressure fluid to said cylinder, a second cylinder, a piston therein connected to said valve, a cock for controlling the supply of fluid under pressure to said second cylinder, a slide pivotally mounted and adapted to be oscillated by the engine, a weight suspended in said slide and means whereby when the engine exceeds a predetermined speed the outward movement of the weight due to centrifugal action opens said cock to admit fluid under pressure to said second cylinder.

[Claims 6 to 9 not printed in the Gazette.]

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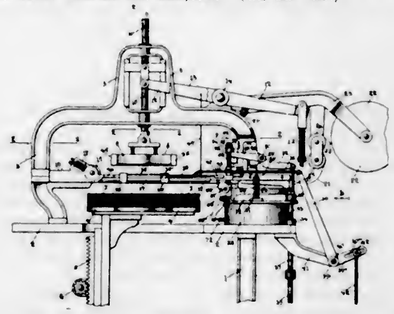
1,091,228. BRUSH. WILLIAM MACKELVEY, Waltham, Mass. Filed July 5, 1913. Serial No. 777,518. (Cl. 15—50.)



A brush having, in combination, a bristle holder, a bunch of bristles secured in said holder, a reservoir detachably secured to said holder and constituting a handle for said brush, a feed tube arranged at the end of said reservoir and extending into said bunch of bristles, a cap adapted to close the end of said reservoir, a plunger arranged in said reservoir in reciprocatory engagement with said cap, the inner end of said plunger adapted to telescopically fit said tube, an agitator fast to said plunger within said reservoir and constituting a guide for said plunger, and means to normally retain said plunger in telescopic relation with said tube.

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1,091,229. ENVELOP-MACHINE. FRANK L. MCNEILL, Worcester, Mass., assignor to New England Envelope Company, a Corporation of Massachusetts. Filed Dec 8, 1909. Serial No. 532,026. (Cl. 93—68.)



1. An organized automatic machine for manufacturing envelops having an opening therethrough and a transparent covering for said opening inside of the envelop, comprising means for applying adhesive material to a transparent patch, adjoining the edge thereof, means for carrying said patch, having adhesive material thereon, to an envelop blank having an opening therethrough, and means for pressing said patch on to said envelop blank to cover said opening, said last mentioned means operating substantially simultaneously with the gumming of the flaps of the envelop, and the raising of the envelop blank to be carried to the creasing and folding box, to be creased and folded.

2. An organized automatic machine for manufacturing envelops having an opening therethrough and a transparent covering for said opening inside of the envelop, comprising means for applying adhesive material to a strip of transparent paper, the conformation of said adhesive material corersponding substantially to the shape or conformation of the opening in the envelop, means for severing said strip, after the adhesive material has been applied thereto, means for carrying said severed piece, having the adhesive material thereon, to an envelop blank having an opening therethrough, and means for pressing said piece on the envelop blank to cover said opening, said last mentioned means operating substantially simultaneously with the gumming of the flaps of the envelop blank, and the raising of the envelop blank to be carried to the creasing and folding box, to be creased and folded.



3. In mechanism for attaching patches to envelop blanks having openings therein, gumming mechanism for applying gum in a narrow line or margin to the strip from which the patches are cut, comprising a gum receptacle, a gumming die adapted to be moved into said receptacle to receive the gum on its engaging edge, and to be raised out of said receptacle to apply the gum in a narrow line or margin to said strip, said gumming die being pivotally mounted to have a rocking or pivotal movement, in addition to, and independent of its raising and lowering movement.

4. In mechanism for attaching patches to envelop blanks having openings therein, gumming mechanism for applying gum in a narrow line or margin to the strip from which the patches are cut, comprising a gum receptacle, a gumming die adapted to be moved into said receptacle to receive the gum on its engaging edge, and to be raised out of said receptacle to apply the gum in a narrow line or margin onto said strip, said gumming die being pivotally mounted to have a rocking or pivotal movement, and stops for limiting the pivotal movement of said die.

5. In mechanism for attaching patches to envelop blanks having openings therein, mechanism for applying adhesive material in a narrow line or margin to a patch, mechanism for gripping and moving said patch from the gumming mechanism, and for simultaneously carrying a second patch with the adhesive material thereon to an envelop blank, having an opening therein, and mechanism for applying to an envelop blank said patch, to cover said opening.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,230. METHOD FOR EXTRACTING POTASSIUM AND SODIUM COMPOUNDS FROM SILICATES WHICH CONTAIN ALKALIS. ANTON MESSERSCHMITT, Stollberg, Germany. Filed Mar. 1, 1912. Serial No. 680,987. (Cl. 23—22.)

1. The process of producing soluble sodium and potassium compounds from silicates containing alkalis, which comprises thoroughly incorporating the finely powdered silicates with undried precipitated calcium carbonate, and heating the mixture to the decomposing temperature.

2. The process of producing soluble sodium and potassium compounds from silicates containing alkalis, which comprises thoroughly incorporating finely powdered silicates with the slime containing undried precipitated calcium carbonate resulting from a soda manufacturing process, heating the mixture to the decomposing temperature, and lixiviating.

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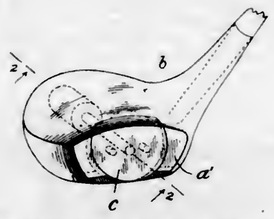
1,091,231. GOLF-CLUB. JAMES MILLAR, Chicopee, Mass., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed Mar. 28, 1913. Serial No. 757,304. (Cl. 46—4.)

1. In combination with a head, a face plate, a weight disposed in the rear face of said head, and traction means operably connecting said face plate and said weight.

2. In combination with a head, a face plate, a weight disposed in the rear face of said head, and traction means comprising a shank rigidly fastened to the one, and held in threaded engagement with the other.

3. In combination with a head, a face plate, a weight disposed in the rear face of said head, and means connecting said weight with said face plate, so that a rotary movement imparted to said weight will draw said face plate toward said head.

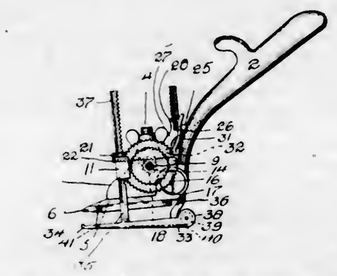
4. In combination with a head, a face plate, a weight disposed in the rear face of said head, traction means operably connected to said face plate and said weight, and means on said face plate, to hold the same against rotary movement.



5. In combination with a head, a face plate, a weight disposed in the rear face of said head, traction means operably connected to said face plate and said weight, and a lug on the inner surface of said face plate to hold the same against rotary movement.

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1,091,232. CLIPPER. GEORGE MILLER, Pittsburgh, Pa. Filed June 18, 1913. Serial No. 774,335. (Cl. 30—1.)



1. A hair clipper comprising a stationary shoe, a clipping mechanism mounted thereon, an oscillatory handle for actuating said mechanism, a vertically adjustable shoe, a spring controlled roller carried by the adjustable shoe, an apron winding upon the roller and extending at the bottom of the adjustable shoe and further extending through said adjustable shoe and fixedly secured to the stationary shoe and winding on and off the roller during the adjustment of the stationary shoe, vertically movable means for adjusting said adjustable shoe, and a shifting mechanism operated in one direction by said handle for shifting said vertically movable means in one direction, said shifting mechanism including a self-contained element for shifting said vertical movable means in the opposite direction.

2. A hair clipper comprising a stationary shoe, a clipping mechanism mounted thereon, an oscillatory handle for actuating said mechanism, a vertically adjustable shoe, a spring controlled roller carried by the adjustable shoe, an apron winding upon the roller and extending at the bottom of the adjustable shoe and further extending through said adjustable shoe and fixedly secured to the stationary shoe and winding on and off the roller during the adjustment of the stationary shoe, a pair of vertically movable racks, one connected to one side of the adjustable shoe and the other connected to the other side of the adjustable shoe forwardly thereof, and a shifting mechanism operated in one direction by said handle for shifting said racks in one direction, and said shifting mechanism including a self-contained element for operating the mechanism in the opposite direction for moving said racks in the opposite direction.

3. A hair clipper comprising a stationary shoe, a clipping mechanism mounted thereon, an oscillatory handle for actuating said mechanism, a vertically adjustable

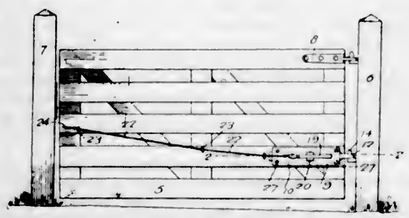
shoe, a spring controlled roller carried by the adjustable shoe, an apron winding upon the roller and extending at the bottom of the adjustable shoe and further extending through said adjustable shoe and fixedly secured to the stationary shoe and winding on and off the roller during the adjustment of the stationary shoe, a pair of vertically movable racks, one connected to one side of the adjustable shoe and the other connected to the other side of the adjustable shoe forwardly thereof, a shifting mechanism operated in one direction by said handle for shifting said racks in one direction, and said shifting mechanism including a self-contained element for operating the mechanism in the opposite direction for moving said racks in the opposite direction, and means carried by said handle and engaging with said shifting mechanism to prevent operation of said mechanism in a direction other than that operated by the handle.

4. A hair clipper comprising a stationary shoe, a clipping mechanism mounted thereon, an oscillatory handle for actuating said mechanism, a vertically adjustable shoe, a spring controlled roller carried by the adjustable shoe, an apron winding upon the roller and extending at the bottom of the adjustable shoe and further extending through said adjustable shoe and fixedly secured to the stationary shoe and winding on and off the roller during the adjustment of the stationary shoe, a pair of vertically movable racks, one connected to one side of the adjustable shoe and the other connected to the other side of the adjustable shoe forwardly thereof, a shifting mechanism operated in one direction by said handle for shifting said racks in one direction, and said shifting mechanism including a self-contained element for operating the mechanism in the opposite direction for moving said racks in the opposite direction, and means capable of engaging with said shifting mechanism for increasing the speed of the racks.

5. A hair clipper comprising a stationary shoe, a clipping mechanism carried thereby, an oscillatory handle for operating said clipping mechanism, an adjustable shoe movable to and from said stationary shoe, a winding apron carried by the adjustable shoe and having one end fixedly secured to the stationary shoe, means actuated by said handle for imparting movement to the adjustable shoe in one direction, and a normally locked means adapted when released for shifting said shoe in the opposite direction.

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1,091,233. HINGE. THOMAS MITCHELL, Oquawka, Ill. Filed Dec. 30, 1913. Serial No. 809,498. (Cl. 16—112.)



1. A hinge comprising a tongue adapted to be attached to a support, a plate provided with a groove into which said tongue extends, said tongue provided with a plurality of openings, said plate provided with an opening adapted to register with the openings in the tongue, a lever pivoted on said plate, said lever having a pin adapted to engage in the registering openings in the plate and tongue, for holding the same in adjusted relation, an arm formed on said lever, a flexible element connected to said arm and adapted when pulled to operate said lever for disengaging the pin from the tongue, and a spring adapted to normally hold said pin in engagement with said tongue.

2. In combination, a support, a hinge element connected therewith, a second hinge element slidably receiving the first element, a dog pivoted on one of the elements, and adapted to engage the other element for holding the hinge elements in adjusted position, means for normally holding said dog in engagement with the hinge elements, and means operable from the opposite end of the gate for operating said dog.

3. In combination, a support, a hinge element connected therewith, a second hinge element movable relatively to first said element, means carried by one of the elements and adapted to engage the other element for holding the hinge elements in adjusted position, means for normally holding said engaging means in position to prevent movement of the elements relatively to each other, and means operable at a distance for disengaging said holding means from said other hinge element.

4. In combination, a post, a gate hingedly connected thereto, an adjustable hinge at one end of the gate, means for holding said adjustable hinge in adjusted position, and a flexible element operable from the opposite end of the gate for operating said hinge holding means.

5. In combination, a support, a gate pivoted thereon, a hinge element pivotally connected to said support, a second hinge element adjustable with relation to the first said element, a lever carried by one of said elements, and having a pin adapted to engage the other element for holding the elements in adjusted position, an arm on said lever in spaced relation to said gate, a flexible element connected at one end to said arm, and means secured to said gate for supporting said flexible element.

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1,091,234. PRODUCING AMMONIUM SULFATE. ALWIN MITTASCH and HUGO MORAWITZ, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Oct. 20, 1913. Serial No. 796,120. (Cl. 23—21.)

1. The process of producing ammonium sulfate by treating ammonium sulfite in solution with oxygen in the presence of an oxygen carrier while maintaining the solution alkaline with ammonia.

2. The process of producing ammonium sulfate by treating ammonium sulfite in solution with oxygen in the presence of an oxygen carrier while maintaining the solution alkaline with ammonia and while carrying out the reaction under increased pressure.

3. The process of producing ammonium sulfate by reacting on ammonium sulfite with oxygen in the presence of porous clay covered with manganese hydroxid and of an excess of ammonia.

4. The process of producing ammonium sulfate by reacting on ammonium sulfite with oxygen in the presence of porous clay covered with manganese hydroxid and of an excess of ammonia, while carrying out the reaction at a pressure of about twenty atmospheres.

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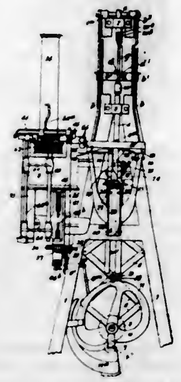
1,091,235. APPARATUS FOR MAKING BAGS OR POCKETS. WALTER EVERETT MOLINS, London, England. Filed Jan. 9, 1912. Serial No. 670,137. (Cl. 93—8.)

1. A packet making machine comprising a reciprocating former, two pairs of movable folders actuated successively by said former to form the first longitudinal folds and the end folds in a blank, and stationary folders for forming the final longitudinal folds therein.

2. A packet making machine comprising a reciprocating former, movable folders actuated by said former to form the first longitudinal folds in a blank, other folders hinged to the movable folders and actuated by the former at a later period for forming the end folds therein, and stationary folders for forming the final longitudinal folds.

3. A packet making machine comprising a reciprocating former, swinging folders comprising a pair of parallel plates, movable in unison and actuated by said former to form the first longitudinal folds in a blank, a second folder hinged to each of said plates and actuated by the former for forming the end folds, and stationary folders for forming the final longitudinal folds.

4. A packet making machine comprising a reciprocating former, fixed means for folding a packet blank over the end of said former as it advances and against opposite sides thereof with its edges projecting beyond said former, movable folders actuated by the former for turning the edges of one portion of said folded blank against the former, other movable folders actuated at a later period by said former to form the end folds, and stationary folders for turning the remaining edges of the blank upon the previously made folds to complete the packet.



5. A packet making machine comprising a former, means for operating the former, folders operated by said former forming longitudinal folds, yieldable members associated with said longitudinal folders for forming the end folds, fixed folders coöperating with the side and end folders, a paper magazine, means for transferring said papers from the magazine to a position ready for the operation of the former, a gumming device for the paper, and means for receiving the packets when formed.

[Claims 6 to 22 not printed in the Gazette.]

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1,091,236. METHOD OF TREATING HIDES BEFORE TANNING. CHARLES CLIFTON MOORE and WILLIAM TRANTOM, Lymm, England. Filed Nov. 25, 1913. Serial No. 803,025. (Cl. 149—1.)

1. The process of preserving hides before tanning which comprises treating said hides after removal from the carcass with chemically pure sodium chlorid.

2. The process of preserving hides before tanning which comprises treating said hides after removal from the carcass with very finely divided chemically pure sodium chlorid.

3. The process of preserving hides before tanning which comprises treating said hides after removal from the carcass with dry chemically pure sodium chlorid.

4. The process of preserving hides before tanning which comprises treating said hides after removal from the carcass with sodium chlorid substantially free from calcium and magnesium salts and salts containing water of crystallization.

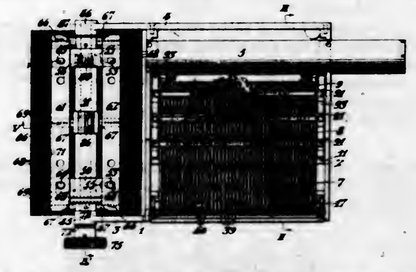
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1,091,237. TYPE-CASE. SAMUEL A. NEIDICH, Burlington, N. J., assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 26, 1908. Serial No. 440,430. (Cl. 101—202.)

1. In a type case, the combination of a series of banks one behind the other, each bank consisting of parallel channel bars, and means for holding them, said bars being beveled on their rear sides at their upper ends to enable convenient distribution of type thereinto.

2. In a type case, the combination of a series of banks one behind the other, each bank being located in inclined position, one bank above and in front of the other in such way that the lower ends of the banks are in a substantially vertical plane while the upper ends of the banks are in a substantially horizontal plane, the said upper ends being beveled to enable distribution into them and each bank being longer than the one in front thereof.

3. In a type case, the combination, with parallel rails, of an abutment plate comprising a series of parallel ridges with grooves between them which the rails occupy, spaces in alinement with said ridges of greater width than the latter, and tapered abutments in alinement with said ridges and spaces, constituting means preventing the passage of type from said spaces in the direction of the length of said rails.



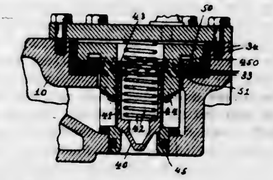
4. In a type case, an abutment plate comprising a series of parallel ridges with grooves between them, rails seated in said grooves, spaces in alinement with said ridges, and abutments in alinement with said ridges and spaces, constituting means preventing the passage of type from said spaces in the direction of the length of said rails.

5. In a type case, the combination, with a plurality of panels comprising parallel type channels, of index plates respectively local to said panels, and means supporting said plates, whereby they may be raised and lowered with respect to said panels.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,238. SHOCK-ABSORBER FOR VALVES. EDWIN A. PERKINS, New York, N. Y. Filed June 16, 1913. Serial No. 773,891. (Cl. 103—66.)



1. In an air compressor, or similar mechanism provided with valves and coöperating valve seats adapted to be brought together with force, a shock absorbing device, comprising a series of contacting plates confined within a limited lateral area and adapted to receive the impact of the moving valve when it is brought to its seat, in combination with a fluid medium in which the plates are immersed.

2. In an air compressor, or similar mechanism provided with valves and coöperating valve seats adapted to be brought together with force, a shock absorbing device, comprising a series of contacting plates confined within a limited lateral area and adapted to receive the impact of the moving valve when it is brought to its seat, in combination with a fluid medium in which the plates are immersed, and means for preventing the escape of such medium.

3. In an air compressor, or similar mechanism provided with valves and coöperating valve seats adapted to be brought together with force, a shock absorbing device, comprising a series of contacting plates confined within a limited lateral area and adapted to receive the impact of the moving valve when it is brought to its seat, in combination with a fluid medium in which the plates are immersed, and means for preventing the escape of such medium including an adjacent mass of absorbent material.

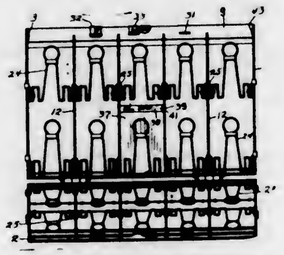
4. In an air compressor, or similar mechanism provided with valves and cooperating valve seats adapted to be brought together with force, a shock absorbing device, comprising a series of contacting plates confined within a limited lateral area and adapted to receive the impact of the moving valve when it is brought to its seat, in combination with a fluid medium in which the plates are immersed, and means for preventing the escape of such medium including an adjacent mass of absorbent material such as wicking.

5. In combination, a valve seat, a valve, a rigid member moving with the valve and a series of contacting plates against which the moving member is adapted to impact as the valve reaches its seat, and a fluid medium between and surrounding the plates.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,239. CREDIT-REGISTER-LEAF CONSTRUCTION. FREDOLF J. PETERSON, Salem, Ohio. Filed July 8, 1913. Serial No. 777,843. (Cl. 129—34.)



1. In a credit register leaf construction, the combination of a leaf consisting of end and bottom portions formed integral, a top bar secured to the free ends of the end portions of the leaves and a series of partition ribs secured at their top and bottom ends to the bottom portion and top bar and a series of panels located intermediate the partitions and end members, substantially as specified.

2. In a credit register leaf construction, the combination of a leaf consisting of end and bottom portions formed integral, a top bar secured to the free ends of the end portions of the leaves and a series of partition ribs secured at their top and bottom ends to the bottom portion and top bar, and a series of panels located intermediate the partitions and end members, and means for securing said panels in fixed relative position, substantially as specified.

3. In a credit register leaf construction, the combination of a series of leaves hinged together, said leaves made up of end and bottom bars and top bars secured thereto, said top bars provided with elongated slots, index clips adapted to be connected to said top bars by means of said slots, partition bars secured in fixed position with reference to the leaves and panels located intermediate the ends and partition bars, substantially as and for the purpose specified.

4. In a credit register leaf construction, the combination of a series of leaves hinged together, said leaves made up of end and bottom bars, and top bars secured thereto, said top bars provided with elongated slots, index clips adapted to be connected to said top bars by means of said slots, partition bars secured in fixed position with reference to the leaves, panels located intermediate the ends and partition bars, and account slip holding clips adapted to lie upon the exposed faces of the panels, substantially as specified.

5. The combination of a series of account register leaves hinged together, each leaf of the series consisting of end and bottom members, bars secured to the end members of the leaves, said bars provided with lateral extended flanges, said extended flanges adapted to abut against the adjacent faces of the end members of the next adjoining leaf.

[Claims 6 to 15 not printed in the Gazette.]

1,091,240. NUMBERING-MACHINE. MILTON W. PHILLIPS, New York, N. Y. Filed Feb. 12, 1913. Serial No. 747,836. (Cl. 101—185.)



1. The herein described numbering machine consisting of a gage plate and frame, a reciprocating handle therein, a numbering head carried by the handle, numbering wheels carried by the head, and inking means, a gear wheel secured to and turning with each numbering wheel, a gear segment engaging a gear wheel and adapted to be swung over and across the vertical center of said numbering wheels, a shaft for the segment, an extending lever for the segment, an index plate with slots and index characters adjacent said slots, a finger grip for the said lever on the outside of the index plate, said index plate, segment and lever traveling with the numbering head.

2. The herein described numbering machine consisting of a gage plate and frame, a reciprocating handle therein, a numbering head carried by the handle, numbering wheels carried by the head, and inking means, a gear wheel secured to and turning with each numbering wheel, a gear segment engaging a gear wheel and adapted to be swung over and across the vertical center of said numbering wheels, a shaft for the segment, an extending lever for the segment, an index plate with slots and index characters adjacent said slots, a finger grip for the said lever on the outside of the index plate, said index plate, segment and lever traveling with the numbering head, said finger pieces of the lever having straight sides and a curved finger grip surface.

3. The herein described numbering machine consisting of a gage plate and frame, a reciprocating handle therein, a numbering head carried by the handle, numbering wheels carried by the head, and inking means, a gear wheel secured to and turning with each numbering wheel, a gear segment engaging a gear wheel and adapted to be swung over and across the vertical center of said numbering wheel, a shaft for the segment, an extending lever for the segment, an index plate with slots and index characters adjacent said slots, a finger grip for the said lever on the outside of the index plate, said index plate, segment and lever traveling with the numbering head, an index block secured to the levers inclosing the index characters one at a time, as the lever is moved.

4. The herein described numbering machine consisting of a gage plate and frame, a reciprocating handle therein, a numbering head carried by the handle, numbering wheels carried by the head, and inking means, a gear wheel secured to and turning with each numbering wheel, a gear segment engaging a gear wheel and adapted to be swung over and across the vertical center of said numbering wheels, a shaft for the segment, an extending lever for the segment, an index plate with slots and index characters adjacent said slots, a finger grip for the said lever on the outside of the index plate, said index plate, segment and lever traveling with the numbering head, an alining detent resiliently held against each gear wheel.

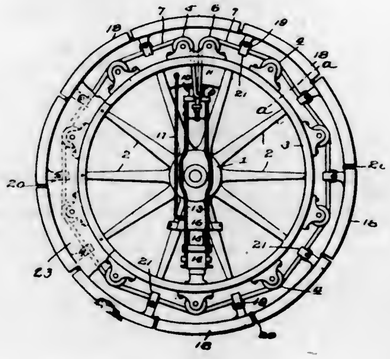
5. The herein described numbering machine consisting of a gage plate and frame, a reciprocating handle therein, a numbering head carried by the handle, numbering wheels carried by the head, and inking means, a gear wheel secured to and turning with each numbering wheel, a gear segment engaging a gear wheel, a shaft for the segment, an extending lever for the segment, an index plate with slots and index characters adjacent said slots, a finger grip for the said lever on the outside of the index plate, said index plate, segment and lever traveling with the numbering head, the index plate beginning at a point above the frame adjacent to the operating handle, and curving outwardly therefrom, so that the levers will always be within reaching position of the fingers of a hand which is impressed upon the handle, in combination with operating means for the ink pad, adapted to move the same upon the depression of the numbering head, whereby the weight of the hand upon the handle when shifting the levers will serve to lift the ink pad from the wheels.

[Claims 6 to 9 not printed in the Gazette.]



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1,091,241. WHEEL. JAMES PIERCE, Ogden, Utah. Filed Oct. 25, 1912. Serial No. 727,741. (Cl. 152—30.)



1. A wheel having a series of longitudinal pulleys mounted upon its rim, cables resting upon said pulleys, the free ends of the cables being connected to the piston of an air compressing device, a tire composed of sections, a pulley upon the end of each section, the pulleys upon the tire sections engaging the cables, substantially as specified.

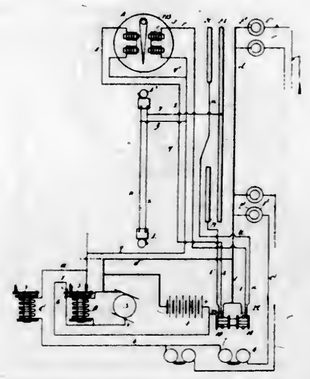
2. A wheel having a series of longitudinal pulleys upon its rim, cables resting upon said pulleys, an air compressor, the piston of the air compressor being connected to the free ends of the cables, an auxiliary air compressor adjustably connected to the piston of the main air compressor, a sectional tread mounted upon the cables, substantially as specified.

3. A wheel having a series of longitudinal pulleys mounted upon its rim corresponding cables resting upon said pulleys, an air compressor interposed between the spokes of the wheel, an auxiliary air compressor interposed between the spokes in an opposite position, the chambers of the two air compressors being connected, adjustable means for connecting the pistons of the air compressors, the free ends of the cables being connected to the piston of the main air compressor, a sectional tread, pulleys upon one end of each of the sections composing the tread, the pulleys upon the sections resting upon the cables, means for securing the sections upon the cable, and a housing for inclosing the pulleys and cables, substantially as specified.

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1,091,242. DIRECTION-INDICATOR FOR ELECTRO-MECHANICAL-TELEGRAPH SYSTEMS. WALTER K. QUEEN and THORNTON F. PICKETT, Needham Heights, Mass., assignors to The Q-P Signal Company, a Corporation of Massachusetts. Original application filed June 17, 1910, Serial No. 567,470. Divided and this application filed July 10, 1912. Serial No. 708,651. (Cl. 177—339.)

1. In a telegraph system, a wrong-direction-alarm apparatus, a source of current, a circuit connecting said source and said apparatus, a transmitting apparatus, means mechanically connected to said transmitting apparatus for directly closing said circuit at one point, and an engine-shaft-controlled circuit-closer for closing the same at another point, said circuit-closer being arranged to keep said circuit closed while the engine is running and to open the same when the engine stops.



2. In a telegraph system, a source of current, an electro-responsive direction-indicator, a wrong-direction-alarm apparatus, circuits connecting said source with said direction-indicator and said apparatus, an engine-shaft-controlled circuit-closer controlling both circuits, a transmitting apparatus, and means mechanically connected to said transmitting-apparatus for directly controlling the circuit of said wrong-direction-alarm apparatus, said circuit-closer being arranged to keep said circuits closed while the engine is running and to open the same when the engine stops.

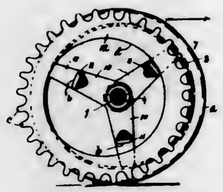
3. In a telegraph system, a signal apparatus, a signal-selecting magnet, signal-controlling means, a source of current associated with said signal-selecting magnet and signal-controlling means, an electro-responsive direction-indicator, a wrong-direction-alarm apparatus, circuits connecting said source with said direction-indicator and said apparatus, an engine-shaft-controlled circuit-closer controlling both circuits, and a transmitting apparatus controlling the circuit of said wrong-direction-alarm apparatus, said circuit-closer being arranged to keep said circuits closed while the engine is running and to open the same when the engine stops.

4. In a telegraph system, a signal apparatus at a receiving station, a transmitting apparatus at a transmitting station, a source of current, means associating said signal apparatus and transmitting apparatus with said source, a wrong-direction-alarm apparatus at one of said stations, a circuit connecting said source and said wrong-direction-alarm apparatus, an engine-shaft-controlled circuit-closer at said receiving station for closing said circuit at one point, and means mechanically connected to said transmitting apparatus for directly closing the same at another point, said circuit-closer being arranged to keep said circuit closed while the engine is running and to open the same when the engine stops.

5. In a telegraph system, a signal apparatus at a receiving station, a transmitting apparatus at a transmitting station, a source of current, means associating said signal apparatus and transmitting apparatus with said source, a wrong-direction-alarm apparatus at both of said stations, a circuit connecting said source and said wrong-direction-alarm apparatus, an engine-shaft-controlled circuit-closer at said receiving station for closing said circuit at one point, and means mechanically connected to said transmitting apparatus for directly closing the same at another point, said circuit-closer being arranged to keep said circuit closed while the engine is running and to open the same when the engine stops.

[Claims 6 to 11 not printed in the Gazette.]

1,091,243. PACKING AND MULCHING IMPLEMENT. LAURITS T. RASMUSSEN, Council Bluffs, Iowa, assignor to Walker Manufacturing Company, Council Bluffs, Iowa, a Corporation of South Dakota. Filed Feb. 28, 1913. Serial No. 751,277. (Cl. 55—77.)



1. An implement for the purposes described, comprising in combination with a frame and an axle journaled therein, disk-members formed with tapered peripheries and mounted upon the axle, each of said disk-members being formed with a web disposed flush with one edge of its periphery and connected with its hub and provided with bearing-lugs intermediate its hub and said periphery; a plurality of annular plates provided with peripheral projections and disposed to circumscribe the axle intermediate said disk-members in the plane of said lugs, the diameter of the apertures of said plates being of sufficient extent to prevent coincident contact with all of said lugs.

2. An implement for the purposes described, comprising, in combination with a supported axle, disk-members mounted thereon, each of said disk-members being provided with spokes disposed in alinement with one edge of its tire and provided with bearing-lugs intermediate its hub and said tire; a plurality of annular plates provided with peripheral projections and interposed between the disk-members to circumscribe said lugs, the apertures of said plates being of sufficient extent to prevent coincident contact of the plates with all of said lugs.

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1,091,244. ELECTRODE FOR GAS OR VAPOR ELECTRIC APPARATUS. MAX VON RECKLINGHAUSEN, Paris, France, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Feb. 14, 1903, Serial No. 143,317. Divided and this application filed Feb. 5, 1907. Serial No. 355,845. (Cl. 176—42.)



1. In a vapor electric device, the combination of a container, multiple positive electrodes of mercury, an intermediate mercury negative electrode, and means whereby fluid transferred from one to another of said electrodes passes in separate and disconnected portions.

2. In a vapor electric device, a container, a plurality of main positive electrodes located therein in a continuous series, and a negative electrode interposed between at least two of said positive electrodes.

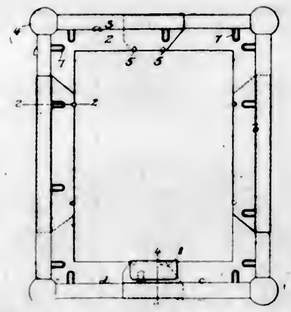
3. In a vapor electric device, a container, a plurality of main positive electrodes therein and a negative electrode interposed between at least two of said positive electrodes.

4. A vapor rectifier comprising an exhausted container and a plurality of positive electrodes located in a continuous series, and a negative electrode interposed between at least two of said positive electrodes.

5. A vapor rectifier comprising an exhausted container, a plurality of positive electrodes and a main negative electrode interposed between at least two of said positive electrodes.

[Claim 6 not printed in the Gazette.]

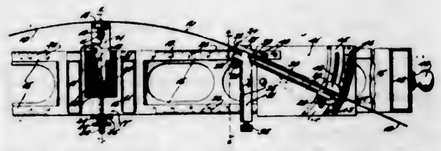
1,091,245. ADJUSTABLE FRAME. ANDREW S. REID and ROBERT REID, Beverly, Mass., assignors, by mesne assignments, to Adjustable Frame Company, Marblehead, Mass., a Copartnership composed of William A. Walker, Marblehead, Mass., and Mary Reid and Elizabeth H. Reid, Beverly, Mass. Filed Feb. 25, 1913. Serial No. 750,535. (Cl. 40—155.)



An adjustable frame composed of four angular members of thin sheet material each having a flat inner portion and an embossed outer portion, the members being slidably connected and collectively forming a rectangular adjustable seat for the back of a picture and a continuous rectangular adjustable head projecting outwardly from and surrounding said seat and the margin of a picture thereon, said members being provided with means for engaging the front of a picture and holding its back against the seat, and with means for confining the members in slidable contact with each other.

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1,091,246. INSTRUMENT FOR LAYING OUT ARCS OF CIRCLES. CHARLES WILLIAM ROEHRIG, St. Louis, Mo. Filed July 18, 1913. Serial No. 779,670. (Cl. 33—177.)



1. An instrument for laying out arcs of circles comprising a flexible rod and means for clamping it at two points on each of two lines tangent to a circle of the desired size.

2. An instrument for laying out curved lines comprising a beam, a flexible rod, and means for clamping said rod to said beam toward its ends, said clamping means being mounted for angular adjustment with respect to the longitudinal axis of said beam.

3. An instrument for laying out curved lines comprising a beam, a flexible rod, and means for clamping said rod to said beam toward its ends, said clamping means being adjustable lengthwise along said beam and mounted for angular adjustment with respect to the longitudinal axis of said beam.

4. In an instrument for laying out curved lines, a flexible rod and means for holding the same comprising an extensible guide for securing the rod therein, an anchor post at one end of said extensible guide, and a sector at the other end thereof, said guide having adjustable means for clamping it to said sector.

5. In an instrument for laying out curved lines, a flexible rod and means for holding the same comprising an extensible guide, clamps at each end of said extensible guide for securing the rod therein, an anchor post at one end of said extensible guide, a movable king pin secured to said extensible guide intermediate its ends, and a sector at the other end thereof, said sector and king pin being connected for simultaneous movement and said guide having adjustable means for clamping it to said sector.

[Claims 6 to 9 not printed in the Gazette.]



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1,091,247. HOSIERY-FORM. JOHN ROGGINGER, Kankakee, Ill., assignor to Paramount Knitting Company, Chicago, Ill., a Corporation of Illinois. Filed July 23, 1906. Serial No. 327,363. (Cl. 223—19.)



1. A collapsible hosiery form comprising a one-piece combined toe sole and heel piece extending from the toe to the point of the heel of the form, a one-piece combined leg instep and toe piece hinged to swing upon a fixed center at the toe end of the first-mentioned piece, and a one-piece combined leg and heel piece hinged to swing upon a fixed center at the point of the heel upon the end of said first-mentioned piece, said toe sole and heel piece and said leg and heel piece being arranged to collapse toward said leg instep and toe piece by the swinging movement of the first two parts upon the axes of the hinges at the opposite ends of the toe sole and heel piece.

2. A collapsible hosiery form comprising a single combined toe, sole and heel piece, a single combined leg, instep and toe piece hinged thereto at the toe end of the same, a single combined leg and heel piece hinged to the heel end of the first named piece and a top piece hinged to the leg ends of the other two pieces.

3. A collapsible hosiery form comprising a sole-piece, leg pieces hinged respectively to the toe and heel ends of the sole-piece, and a top piece hinged to the leg pieces and having a stop to limit expansion of the form.

4. A collapsible hosiery form comprising a combined toe, sole and heel piece, a combined leg, instep and toe piece hinged thereto at the toe end of the same, a combined leg and heel piece hinged to the heel end of the first named piece and a top piece hinged to the leg ends of the other two pieces and having a stop to abut one of the latter, substantially as and for the purpose described.

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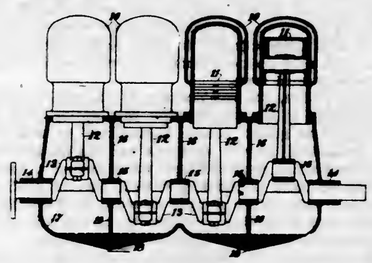
1,091,248. LANTERN. CHARLES SARKADI, Avella, Pa. Filed May 28, 1913. Serial No. 770,466. (Cl. 240—36.)



A lantern comprising a cup, an annular rib within said cup, a chimney held by said rib and adapted to inclose a lighting medium, diametrically opposed arms secured to said cup and having offset portions, a bail carried by said arms, a hood movable between said arms and adapted to be supported in a closed position by the offset portions of said arms and frictionally engaged by said arms whereby said hood can be supported in an elevated position, said hood having vents adjacent to the top thereof, and straps carried by said hood and adapted to guide said hood relatively to said arms and said bail.

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1,091,249. MOTOR-LUBRICATOR. WILLIAM F. SCHÖNLAND, Jr., Manchester, N. H. Filed July 31, 1913. Serial No. 782,171. (Cl. 121—115.)



1. An engine having a plurality of cylinders and pistons and having a crank case provided with an oil well or pocket, and a baffle plate extending into said well or pocket whereby the reciprocations of the pistons will cause the oil in the well or pocket to be alternately sprayed in different directions by air forced under the baffle plate.

2. An engine having two pairs of cylinders and pistons and a crank shaft for the pitmen of all of said cylinders, a crank case having two oil wells or pockets, and baffle plates extending into said wells or pockets.

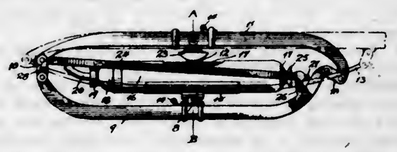
3. An engine having a plurality of cylinders and pistons and having a crank case provided with an oil well or pocket, a web extending transversely of the crank shaft between the pistons, and an extension from said web to form a baffle plate, the lower edge of said extension or plate terminating a little above the bottom of the well or pocket whereby oil in said well or pocket will be displaced or forced from side to side by fluctuations of air pressure under the influence of the reciprocating pistons.

4. An engine having a single cylinder and piston, and having a crank-case and an air-chamber connected with said crank-case, said crank-case and air-chamber being provided with an oil well or pocket, and a partition forming a baffle plate between said case and chamber, whereby the movements of the piston will cause the oil in the well or pocket to be alternately forced into said chamber, and sprayed into said crank-case by the air forced under the baffle-plate.

5. An engine having a single cylinder and piston, a crank-shaft, a crank-case and connecting air-chamber provided with an oil well or pocket, and a baffle-plate extending into said well or pocket, and forming a partition between said case and said chamber.

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1,091,250. PNEUMATIC SUSPENSION FOR VEHICLES. WILLIAM SELLENGER, Richmond, Victoria, Australia. Filed June 24, 1912. Serial No. 705,514. (Cl. 21—50.)



1. In a vehicle, the combination of an axle, a spring, and a cushion interposed between said spring and axle

and adapted to absorb shocks transmitted by said axle, an arm attached to said spring and an arm attached to said axle, and link connections between said arms, one of said links being slotted, adapted to permit vertical play between said axle and spring.

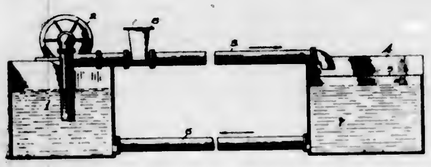
2. In a vehicle, the combination of an axle, a vehicle body and a cushion interposed between said axle and vehicle body and adapted to absorb shocks transmitted by said axle, and a connection between said axle and vehicle body, said connection comprising semi-elliptical arms having a connection between them permitting vertical play of said axle and vehicle body, an abutment pivoted upon one of said arms, and a connecting-piece attached to the other of said arms, adapted to move said abutment into contact with said cushion, when relative movement takes place between said arms.

3. In a vehicle, the combination of an axle, a spring, and a cushion interposed between said spring and axle and adapted to absorb shocks transmitted by said axle, and a connection between said axle and spring, said connection comprising semi-elliptical arms having a connection between them permitting vertical play of said axle and vehicle body, and a hanger attached to the upper of said arms and projecting downwardly on one side of the parts, and adapted to be connected to said spring.

4. In a vehicle, the combination of an axle, a vehicle body and a cushion interposed between said axle and vehicle body and adapted to absorb shocks transmitted by said axle, and a connection between said axle and vehicle body, said connection comprising semi-elliptical arms having a connection between them permitting vertical play of said axle and vehicle body, an abutment pivoted upon one of said arms and a yoke pivoted upon the other of said arms and connected to said abutment and adapted to move said abutment into contact with said cushion when relative movement takes place between said arms.

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1,091,251. METHOD OF TRANSPORTING SALT. JOHN STAUFFER, Oakland, Cal., assignor to San Francisco Salt Refinery, San Francisco, Cal., a Corporation of California. Filed Aug. 21, 1911. Serial No. 645,079. (Cl. 193—1.)



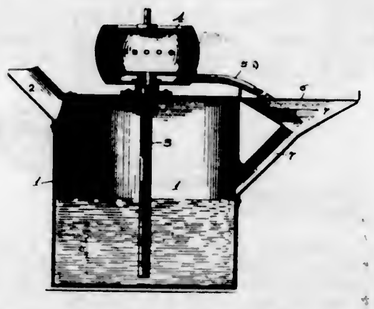
1. The method of transporting salt to a place of deposit which consists in forming a brine solution impregnated with salt to its full capacity, forcing the same toward the place of deposit, and feeding into the solution the salt to be transported.

2. The method of transporting salt to a place of deposit the step of which consists in feeding into a flowing solution of brine impregnated with salt to its full capacity of absorption, the salt to be transported.

3. The method of transporting salt to a place of deposit, which consists in feeding into a continuous flowing brine solution impregnated with salt to its full capacity of absorption the salt to be transferred, and separating from the solution at the place of deposit the salt crystals carried thereby in suspension.

4. The method of transporting salt from a feed station to a distant place of deposit, which consists in establishing between the feed station and the place of deposit a flowing stream of brine solution impregnated with salt to its full capacity of absorption, feeding into said stream the salt to be transported, separating from flowing stread adjacent its point of discharge the salt crystals held in suspension, and returning the brine solution with the salt crystals removed therefrom to the feed station.

1,091,252. METHOD OF CLEANING SALT. JOHN STAUFFER, San Francisco, Cal., assignor to San Francisco Salt Refinery, San Francisco, Cal., a Corporation of California. Filed Mar. 16, 1912. Serial No. 684,201. (Cl. 127—14.)

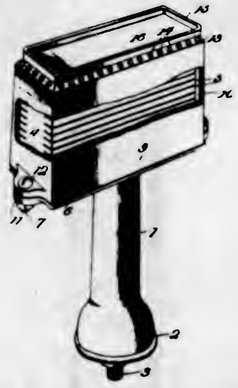


1. The method of washing, cleaning and breaking lumps of evaporated salt, which consists in forming within a sump a saturated brine solution, subjecting the same to agitation, delivering therein the evaporated crystal salt to be treated, withdrawing the solution and salt held therein in suspension, separating the salt crystals from the solution, and returning the waste solution to the sump.

2. The continuous method of washing and cleaning evaporated salt which consists in forming within a sump a saturated brine solution, placing the solution in agitation by withdrawing the same from within the sump and thence returning the withdrawn solution to the said sump, feeding crusted salt to be treated into the solution within the sump, and separating the salt crystals from the solution as withdrawn from the sump.

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1,091,253. GAS-BURNER. LOUIS STOCKSTROM and HERMAN H. PARPERT, St. Louis, Mo., assignors to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 27, 1913. Serial No. 786,927. (Cl. 158—112.)



1. A burner comprising a mixing chamber, a combined air and gas supply for said chamber, a removable housing surrounding the mixing chamber and spaced therefrom, and a gas discharge opening at the upper end of the housing above the mixing chamber.

2. A burner comprising a mixing chamber having horizontally arranged slots, a combined air and gas supply for said mixing chamber, a housing surrounding the mixing chamber and spaced therefrom, and discharge openings in the upper end of the housing above the mixing chamber.

3. A burner comprising a mixing chamber, having horizontally arranged slots, a combined air and gas supply for said mixing chamber, a housing surrounding the mixing chamber and spaced therefrom, said housing having discharge openings above the mixing chamber, and a drip-pan formed in the upper end of the housing, substantially as shown and described.

4. A burner comprising a mixing chamber, having horizontally arranged slots in its sides and extending partially across the ends, a combined air and gas supply for said mixing chamber, a flange carried by the lower end of the mixing chamber, a housing supported by said flange and spaced from the mixing chamber and entirely inclosing the same, and said housing having discharge openings at its upper end.

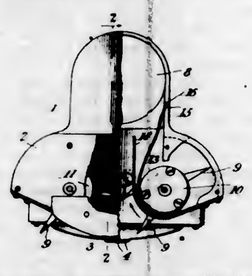
5. A gas burner comprising a mixing chamber, having horizontally arranged slots in its sides and extending partially across the end thereof, a combined air and gas supply for the mixing chamber, a flange carried by the lower end of the mixing chamber, a housing inclosing the mixing chamber and supported by the flange, said housing having an inwardly drawn upper end provided with openings, and an upwardly extending flange on the inside of said openings forming a drip pan across the entire upper end of the housing.

[Claims 6 to 9 not printed in the Gazette.]



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1,091,254. COTTON-PICKER. THEODORE E. STRAUS and BRUCE WORTHINGTON, Baltimore, Md., assignors to Worthington Cotton Harvester Company, Baltimore, Md., a Corporation of Delaware. Filed Dec. 4, 1911. Serial No. 663,745. (Cl. 56—117.)



1. A cotton picker including in combination, a nozzle having an intake passage, rotating picker fingers located at one side of said intake passage, and a flexible stripping plate extending beyond the path of travel of the points of said fingers and cooperating with said fingers for stripping the cotton therefrom said plate being secured to the nozzle at its outer end and having its other end free and forming one wall of the intake passage.

2. A cotton picker including in combination a nozzle having an intake passage rotating picker fingers located at one side of said nozzle flexible stripping plates coöperating with each set of fingers for stripping the cotton therefrom said stripping plates for each set being two in number with one overlying the other the inner plate being bent inwardly at the inner end toward the wall of the nozzle and the inner end of the outer plate being free and forming a spring wall for the intake passage.

3. A cotton picker including in combination a nozzle having a central intake passage rotary pickers located on opposite sides of said intake passage a flexible stripping plate for each of the sets of picker fingers said stripping plate extending beyond the path of travel of the picking fingers said plates being secured to the nozzle at their outer ends and having their inner ends free and substantially parallel and forming side walls of the intake passage.

4. A cotton picker including in combination a nozzle having an intake passage rotary picker fingers located upon opposite sides of the intake passage flexible stripping plates for each set of fingers said stripping plates for each set being two in number, the one overlying the other, the inner stripper plates being bent at their inner ends toward the walls of the nozzle, and secured thereto, and the inner ends of the outer stripper plates being free and substantially parallel with each other, thereby forming spring walls for the intake passage.

5. A cotton picker including in combination a nozzle, having an intake passage, rotatable picker fingers located at one side of said intake passage, stripper members extending beyond the path of travel of said picking fingers, and coöperating with the fingers for stripping the cotton from said fingers, said stripper members being secured to the nozzle at a point outside said intake passage, and extending into, and forming one wall of said intake passage.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,255. CHAIN-LINKS. HENRY TAYLOR, Chicago, Ill. Filed Nov. 20, 1913. Serial No. 802,110. (Cl. 59—78.)



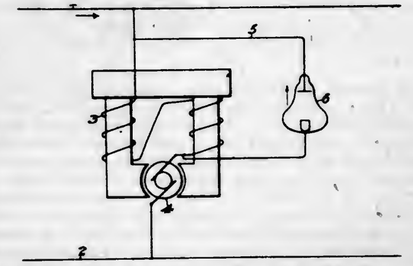
1. A link having a peripheral channel and openings through the body of said link communicating with said channel.

2. A split link having a peripheral channel and alined openings through the body of said link communicating with said channel.

3. The combination with two wires, of a chain composed of a plurality of peripherally grooved links, said links being provided with registering openings in communication with the grooves in said links, and said wires being arranged within the grooves of the links and passed through the registering openings in the adjoining links.

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1,091,256. ELECTRICAL DISTRIBUTION SYSTEM. PERCY H. THOMAS, Montclair, N. J., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J., a Corporation of New Jersey. Original application filed Mar. 5, 1903, Serial No. 146,282. Divided and this application filed Apr. 9, 1910. Serial No. 554,401. (Cl. 171—97.)

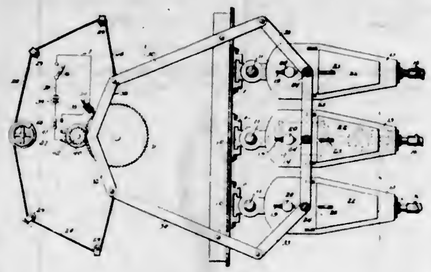


In a system of electrical distribution, the combination with supply mains, a motor including a series winding and

an armature and connections between said motor and said mains, of a mercury vapor rectifier comprising an exhausted container and suitable electrodes therein, permitting the passage of current in one direction only, said rectifier connected in shunt to said motor field whereby the discharge of the field traverses the rectifier and the coil itself only.

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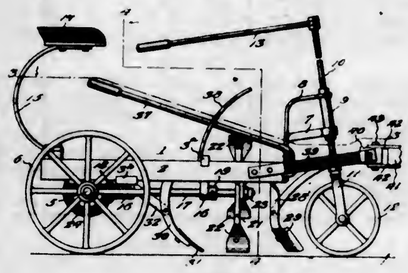
1,091,257. BOAT-PROPELLING MECHANISM. JOHN B. TRESCOTT and RAYMOND C. BUSCH, St. Louis, Mo. Filed Apr. 30, 1913. Serial No. 764,581. (Cl. 115—18.)



A boat propelling mechanism, comprising a plurality of power units, each embodying a propeller, a prime mover therefor; a casing for said prime mover, forming a bearing for said propeller, and a pivotal mounting for said casing; means flexibly connecting said units to maintain the same in parallel relation; an electric motor; a transmission mechanism connecting said units and said electric motor, said transmission mechanism embodying suitable gear wheels and levers operatively connected; means for at will operating said motor; a solenoid latch for holding said gear wheels, said latch being disposed in circuit with said motor; and means for, at will, energizing said motor and latch.

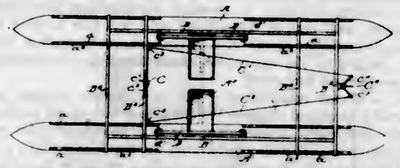
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1,091,258. COTTON-CHOPPER. JAMES S. VAUGHAN, Leota, Mo., assignor of one-half to J. M. Vaughan, Leota, Mo. Filed Nov. 18, 1911. Serial No. 660,957. (Cl. 97—46.)



In a device of the character described, the combination with a frame, of a shaft secured near one end of said frame, supporting wheels fixed to said shaft, a rock shaft secured to the forward end of said frame, a crank arm extending from said rock shaft ending in a loop, a sleeve vertically secured to the forward end of said frame, a steering rod revolubly held within said sleeve and passing through said loop, a forked head at the lower end of said rod, said loop resting upon said forked head, a wheel within said fork, a lever secured to said rock shaft, and a segmental rack bar secured to said frame and engaged by said lever.

1,091,259. WATER-SKEE. VALDEMAR VOLLER, Bemidji, Minn. Filed July 8, 1913. Serial No. 777,853. (Cl. 9—21.)



1. In a water skee, the combination of a pair of floats spaced apart and provided with guide bars having grooved runner strips, a frame extending between and connecting the said floats and having roller carrying brackets, the rollers of which are engaged with the runner strips of the float guide bars, inwardly projecting foot pieces carried by the floats, inwardly projecting shutter frames also carried by the floats, movable shutters mounted within the shutter frames and overlapping one another in closed position when the floats are moved in one direction, said shutter frames and shutters being located below the foot pieces, a rudder carried by the rear portion of the connecting frame, a lever having connections for locking the rudder in adjusted position, and handle bars extending above the foot pieces and having swiveled connections at their lower ends with the floats all for the purpose described.

2. In a water skee of the character described, the combination of a pair of spaced apart independently movable floats, a frame connecting the floats and having roller connections with each of the said floats whereby the latter may be moved in the frame, a series of movable overlapping shutters carried by each of the said floats which open when the floats are moved in one direction, a rudder and rudder control carried by the connecting frame, and handle bars connected to and upstanding from the floats, all for the purpose described.

3. In a water skee, the combination of a pair of independently movable floats connected in spaced parallel relation and provided with upwardly projecting handle bars, foot-pieces carried by the said floats below the handle bars, and laterally projecting shutters movably mounted in a vertical series in connection with each of the floats and overlapping one another in closed position when their respective float is moved in one direction.

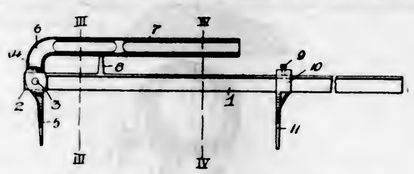
4. In a water skee, the combination of a pair of spaced, independently movable floats connected in parallel relation and provided with foot pieces, laterally projecting shutters arranged in a vertical series in connection with each of the floats, and overlapping one another in closed position when the respective float is moved in one direction, and U-shaped handle bars projecting above the said foot pieces and having swiveled connections at their lower ends with the floats, for the purpose described.

5. In a water skee, the combination of a pair of floats spaced apart and provided with rigid guide bars, a frame extending between and connecting the said floats and having roller mounted brackets, the rollers of which are engaged with the guide bars of the floats, inwardly projecting foot pieces carried by the floats, inwardly projecting shutter frames also carried by the floats and connected to the same and to the said foot pieces, movable shutters mounted within the shutter frames and overlapping one another in closed position when the floats are moved in one direction, handle bars extending above the floats, and a rudder and controlling connections for guiding the floats in their movement, all for the purpose described.

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1,091,260. CARRIER. JAMES FRANCIS WALKER, McKeesport, Pa., assignor of three-fourths to Thomas Hardy Frazier, McKeesport, Pa. Filed July 24, 1913. Serial No. 780,884. (Cl. 57—9.)

A carrier comprising a bar T-shaped in cross section, a head carried by the outer end thereof, a gripping head having a slotted enlargement pivotally connected to said head, a handle having a curved end formed integral with said enlargement, a post carried by said bar and supporting said handle normally in parallelism with said bar, and

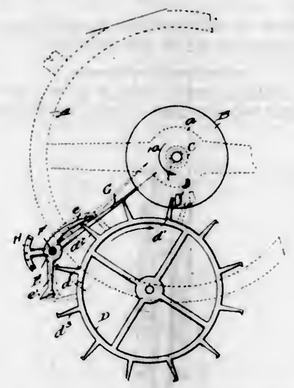


a gripping head adjustably mounted upon said bar and confronting and coöperating with the first mentioned gripping head.

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1,091,261. CHRONOMETER-ESCAPEMENT. WILLIAM E. WALKER, Woodstock, Ohio. Filed July 22, 1913. Serial No. 780,468. (Cl. 58—118.)



1. The combination of an escape wheel, a balance having a controlling cam and an impulse member with which the escape wheel engages when released, and an intermediately pivoted detent having oppositely extending arms one of which is curved inwardly toward the escape wheel and the other of which has a V-shaped notch in its end in which the teeth of the escape wheel are received, and a finger extending from the detent for engagement by the controlling cam.

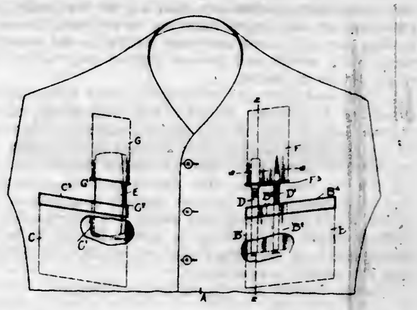
2. The combination with an escape wheel, of a controlling detent therefor arranged adjacent to, and in the same plane therewith, and comprising an intermediately pivoted member having one end provided with a V-shaped notch which receives a tooth of the detent wheel, and having its opposite end curved inwardly toward the escape wheel to contact with a tooth thereof, whereby to move the notched end in one direction.

3. The combination with an escape wheel, of a controlling detent therefor comprising a member pivoted between its ends, one end having a tooth receiving notch and the other end having a smooth surface on which the teeth of the escape wheel may ride to move the notched end toward the escape wheel.

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1,091,262. RETAINING DEVICE. ARTHUR Q. WALSH, New York, N. Y. Filed Jan. 11, 1913. Serial No. 741,406. (Cl. 2—15.)

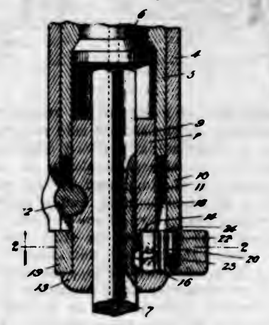
1. In combination, a garment provided with a regular pocket having a compartment of less depth than the pocket and adapted to receive an article, and a retaining pocket arranged upside down on the rear face of the garment material, the opening of the retaining pocket being in the garment material a short distance above the mouth of the said compartment, the said retaining pocket being adapted to receive and retain the upper end of an article carried in said compartment and being of greater length than the depth of the before mentioned compartment whereby said article may be slid into the retaining pocket so as to clear the mouth of the compartment.



2. A garment provided with a pocket, and a retaining pocket arranged upside down on the garment above and spaced from the first pocket and adapted to receive the upper end of an article in the first pocket, the retaining pocket being of a depth approximately equal to the depth of the first pocket and the distance between the mouths of said pockets, whereby the article will be securely retained in said pockets and can be quickly and easily removed therefrom.

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1,091,263. DRILL-BIT-LOCKING MEANS. DANIEL S. WAUGH, Denver, Colo., assignor to The Denver Rock Drill & Machinery Company, Denver, Colo., a Corporation of Delaware. Filed Feb. 20, 1913. Serial No. 749,759. (Cl. 255—36.)



1. In a rock drill, the combination with a bit-receiving chuck, of a bit that engages therein, and means mounted on the chuck and slidably interlocking with the bit for holding said bit in the chuck against detachment while permitting a limited longitudinal movement of the same in the chuck, said means also being capable of fixed engagement with the bit for securing such bit fixedly against longitudinal movement in the chuck.

2. In a rock drill, the combination with a bit-receiving chuck, of a bit that detachably and slidably engages therein, and common means mounted on the chuck and detachably interlocking with the bit for securing said bit in the chuck while permitting a limited longitudinal play thereof and for securing said bit fixedly against movement in said chuck.

3. In a rock drill, the combination with a bit-receiving chuck, of a bit that slidably and detachably engages therein, common means mounted on the chuck and detachably interlocking with the bit for securing said bit in the chuck while permitting a limited longitudinal play thereof an

for securing said bit fixedly against movement in said chuck, and means for maintaining the holding means in the former of its said positions.

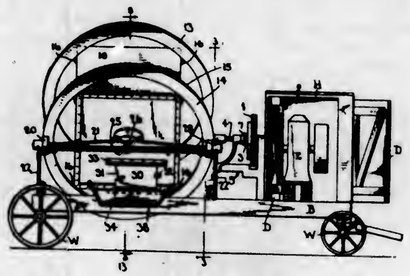
4. In a rock drill, the combination with a bit-receiving chuck, of a bit that slidably and detachably engages therein, said bit having an elongated socket, a gib carried by the chuck and movable into and out of the socket, said gib being of less length than the socket, and means for holding the gib loosely and also tightly in the socket, to respectively permit and prevent limited longitudinal play of the bit in the chuck.

5. In a rock drill, the combination with a bit-receiving chuck, of a bit that slidably and detachably engages therein, said bit having an elongated socket, a gib carried by the chuck and movable into and out of the socket, said gib being of less length than the socket, means for holding the gib loosely and also tightly in the socket to respectively permit and prevent limited longitudinal play of the bit in the chuck, and means for maintaining the holding means in a position to permit the gib to become disengaged from the socket and in a position to maintain such gib loosely in said socket.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,264. CONCRETE-MIXER. ERNEST F. WEGE, La Crosse, Wis., assignor to Sterling Machinery Company. Filed Oct. 10, 1912. Serial No. 725,008. (Cl. 83—73.)



The combination of a supporting structure, a bracket disposed obliquely on one side of said structure and having a series of longitudinally alined adjacently mounted rollers, angularly positioned standards on the other side of said structure, a bar supported by said standards and having rollers at opposite ends, and a bearing mid-way thereof, a mixing drum open at one end and having a centrally disposed stub shaft at its other end designed to engage the bearing in said bar, flat annular members encircling said drum adjacent its opposite ends and secured thereto, the upper member being positioned to peripherally engage the bracket carried rollers on one side of said supporting structure and the lower member having its flat outer face engaged with the rollers at the other side of the structure, one of said annular members having teeth, and a power driven pinion meshing with said teeth.

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1,091,265. SANITARY ATTACHMENT FOR TOILET-BOWLS AND THE LIKE. CHARLES J. WOHLANDER, San Francisco, Cal., assignor of one-half to Benjamin Armer, San Francisco, Cal. Filed Apr. 23, 1913. Serial No. 763,145. (Cl. 4—30.)

In combination with an open-topped bowl or vessel, the edge of said top being formed with a perforated conduit for discharging water into said receptacle, a receptacle having a long, narrow mouth, means for securing said receptacle adjacent to the top of said vessel in a position so that the mouth receives the water discharged from several of the perforations in said conduit, a perforated trough in said receptacle to which the water received by said mouth can flow, said receptacle being formed with escape holes for the water, and the upper portion of said receptacle being formed with two chambers, one communicating with said trough, and the other partitioned there-



from, the walls of said chambers having apertures, and means for closing the top of said chambers.

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1,091,266. GRIP-SOCKET. HENRY B. YOUNG, Wooster, Ohio. Filed May 22, 1913. Serial No. 769,324. (Cl. 57—9.)



In a grip-socket, hollowed out longitudinally, a body portion, cut-away spaces in said body, removable abutments secured in said spaces, sloping cavities leading from said abutments to the hollow of said body, balls in said cavities, and spiral springs between said balls and said abutments removable with the latter, substantially as set forth.

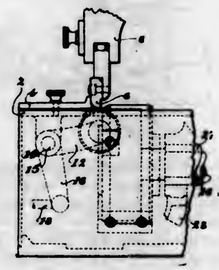
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1,091,267. LEATHER-SKIVING MACHINE. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 16, 1909. Serial No. 522,906. (Cl. 69—9.)

1. A skiving machine, having, in combination, a rotary cylindrical skiving knife, a feed roll and presser foot for feeding the material to the knife, and a guard plate extending along and covering the edge of the knife in advance of the feed devices substantially as described.

2. A skiving machine, having, in combination, a rotary cylindrical skiving knife, a feed roll and presser foot for feeding the material to the knife, a guard plate in front of the knife having an edge substantially concentric with, and extending across the edge of the knife, substantially as described.

3. A skiving machine, having, in combination, a rotary cylindrical skiving knife, a feed roll and presser foot for feeding the material to the knife, a guard plate extending along and covering the edge of the knife in advance of the feeding devices, and a lateral extension extending from the plate axially along the periphery of the knife, substantially as described.



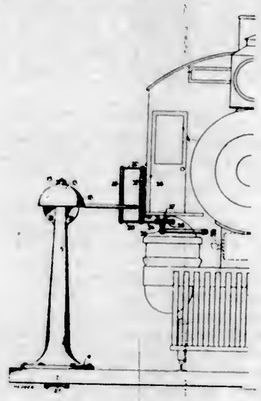
4. A skiving machine, having, in combination, a rotary cylindrical skiving knife, and a stationary ejector plate having an inner edge which extends along and projects across a portion of the knife edge.

5. A skiving machine, having, in combination, a rotary cylindrical skiving knife, and a stationary plate in front of the knife having a curved inner edge which extends along and projects across a portion of the knife edge.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,268. AUTOMATIC TRAIN-STOP. JUDGE SHERLOCK ALLEN, New York, N. Y. Filed Jan. 11, 1913. Serial No. 741,433. (Cl. 246—59.)



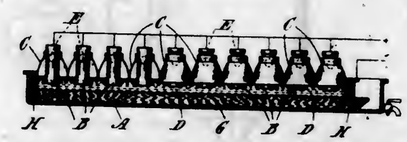
1. In an automatic train stop, a bearing, a shaft journaled in the bearing, two arms spaced apart and secured for moving the shaft, a contact member secured to the arms, a valve having a lever, one of the arms having a terminal extending beyond the shaft, and a link connecting the terminal with the lever.

2. In an automatic train stop, a train pipe, a valve for controlling pressure in the train pipe, a vertical bearing, a shaft journaled in the bearing, two horizontally extending arms spaced apart and secured to the shaft, one of the arms having an inwardly extending terminal curved in the direction of the valve, a contact member carried by the arms and a link connecting the curved terminal with the valve.

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1,091,269. SEPARATION OF METALS FROM ZINC-BEARING ORES OR COMPOUNDS. EDGAR ARTHUR ASHCROFT, Balestrand, Sogn, Norway. Filed Apr. 25, 1912. Serial No. 693,150. (Cl. 23—13.)

1. The herein described process for obtaining metals from solutions of various metallic salts produced from zinc bearing sulfid ores which consists in precipitating the metals other than zinc and manganese from such solutions by the addition of an excess of ammonia, separating the precipitated hydrates from the solution, precipitating the manganese and separating it from the remaining solution, precipitating the zinc hydrate from the purified solution and re-acting it with ammonium chlorid at a temperature sufficient to convert the zinc into the fused chlorid and to drive off the ammonia.



2. The herein described process for obtaining metals from solutions of various metallic salts produced from zinc-bearing sulfid ores which consists in precipitating the metals as hydrates with ammonia, adding excess of ammonia to dissolve the zinc, lead, manganese and other hydrates present soluble in excess, separating the precipitated hydrates from the solution, precipitating the manganese by a slow stream of chlorin and separating it from the remaining solution, precipitating the zinc hydrate by adding to the solution a further quantity of purified zinc chlorid and reacting the zinc hydrate with ammonium chlorid at a temperature sufficient to convert the said zinc hydrate into fused chlorid and to drive off the ammonia.

3. The herein described process for obtaining metals from solutions containing them which consists in precipitating the metals as hydrates with ammonia, adding excess of ammonia to dissolve the zinc, lead, manganese, and other hydrates present soluble in excess, separating the precipitated hydrates from the solution, precipitating the manganese by a slow stream of chlorin and separating it from the remaining solution, precipitating the zinc hydrate by adding to the solution a further quantity of purified zinc chlorid, mixing with the precipitated zinc hydrate the ammonium chlorid separated from the solution by crystallization, thereafter distilling the mixture firstly at a low temperature to drive off the water, secondly at about 300° C. to convert the zinc to fused zinc chlorid, and to drive off the ammonia, recovering the ammonia, and thirdly raising the temperature to about 500° C. to drive off the excess of ammonium chlorid.

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1,091,270. TIRE. JAMES P. ATTAWAY, Oswego, S. C. Filed Mar. 22, 1913. Serial No. 756,217. (Cl. 152—8.)



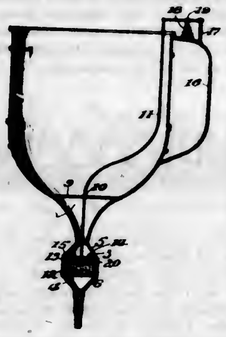
In a vehicle wheel the combination of a rim, a casing fitted upon the rim, transversely spaced rings arranged loosely within the casing, and a plurality of spring elements each conforming to the cross sectional outline of the inner wall of the casing and having its end portions crossing beneath the said rings and secured at its extremities thereto.

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1,091,271. FUNNEL. CORNELL BADIG and SAMUEL BERGER, New York, N. Y. Filed July 12, 1913. Serial No. 778,724. (Cl. 210—16.)

A funnel comprising a body portion and a spout, a filter chamber formed in the spout, a cup for receiving fibrous filtering material mounted in the chamber, an apertured disk mounted in the chamber above the cup, a

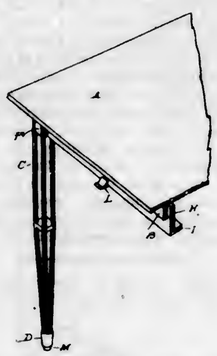
spring restrained rod reciprocable in the spout and aperture of the disk, a valve mounted upon the lower end of the rod for normally closing the aperture to prevent passage of liquid therethrough, a weight of skeleton form



mounted in the cup for slightly compressing the filtering material therein to prevent the valve from contacting with the material when the same is moved to uncover the aperture.

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1,091,272. FOLDING TABLE. STEPHEN W. BALDWIN, Brookline, Mass., assignor to Abram T. Baldwin, Detroit, Mich. Filed Jan. 24, 1910. Serial No. 539,632. (Cl. 45—11.)



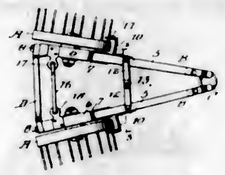
1. A table comprising a top, a depending rail secured to said top, pairs of foldable leg frames secured to said top within the space inclosed by said depending rail, each leg frame comprising legs formed of a plurality of strips united at their lower ends, filler blocks at the upper end of said legs for holding said strips, spaced cross bars mortised into said filler blocks and formed of an L-shaped section, and hinges attached to said filler blocks and to the table top.

2. In a table, the combination with a top, of a leg comprising a plurality of longitudinally extending strips united at their lower ends and a block hinged to said top, said block having its corners recessed to receive said longitudinally extending strips flush with its outer surfaces.

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1,091,273. REVOLVING HARROW. JOHN M. BASSLER, Marion, Ohio. Filed Dec. 12, 1913. Serial No. 806,263. (Cl. 55—13.)

1. The improved revolving harrow formed of two circular harrows proper, draft bars to which they are separately pivoted, means for connecting the draft bars at their front ends, and a spring coupling connecting the rear ends of the same and tending to hold the peripheries of the harrows in contact, substantially as described.



2. The improved revolving harrow, comprising two circular harrows proper, draft bars having a rear swiveled section to which the harrows are pivoted, a loose draft coupling at the front ends of the draft bars, and a spring connecting the rear ends of the latter and tending to hold the peripheries of the harrows in contact, substantially as described.

3. In a revolving harrow, the combination with two circular harrows proper and a draft attachment to which they are pivoted, of a spring connecting the rear ends of the bars and tending to hold the harrows in frictional contact, substantially as described.

4. In a revolving harrow, the combination with draft bars and circular harrows pivoted thereto, of a bowed plate spring arranged vertically and its ends connected with the rear portions of the draft bars, substantially as described.

5. A revolving harrow comprising two circular harrows proper, draft-bars to which they are pivoted, a loose connection between the front portions of said draft-bars which permits their rotation on their axes, and connecting bars pivoted to said draft-bars in advance of the harrows and serving when duly connected with each other to prevent rotation of the draft-bars and thus serving to hold the harrows vertical as required for transportation, as described.

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1,091,274. ENVELOP. WILLIAM H. BEECHER, Philadelphia, Pa. Filed Nov. 26, 1910. Serial No. 594,327. (Cl. 229—65.)



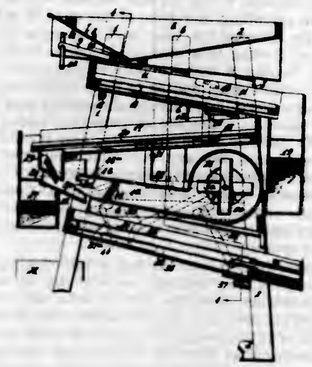
The combination with an envelop, of a substantially triangular-shaped tongue having only one corner secured to one side of the envelop near the open end whereby the major portion of said tongue will be freed therefrom and extended beyond the said open end, a casement formed at the outermost free edge of the tongue and extended from opposite sides thereof a considerable distance beyond the longitudinal edges of the envelop, and a bendable strip held within the said casement whereby on the folding of the open end of the envelop the extended end of the casement can be folded outwardly and inwardly to embrace the closed end of the envelop and engage between the free portion of the tongue and the side adjacent thereto of the said envelop.

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1,091,275. SEED-CLEANER AND CORN-GRADER. JAMES C. BENSON, Indianapolis, Ind. Filed Aug. 6, 1913. Serial No. 783,375. (Cl. 130—15.)

1. In a machine of the character stated, the combination with the supporting frame, the hopper, the upper chaff shoe and a bottom screening shoe; an intermediate screening shoe, a receiver into which the larger grains and chaff from the intermediate shoe pass and which discharges laterally of the machine, a blast fan located between the intermediate and the lower shoe, a casing for the fan having a forwardly extended air chamber, a spout pendent from the end of the intermediate shoe, a chute that leads the droppings from the spout on to the lower shoe and means for raising and lowering the discharging end of the blast chamber relatively to the discharge spout from the intermediate shoe.





2. In a machine of the character stated, the combination with the supporting frame, the hopper, the upper chaff shoe and a bottom screening shoe; an intermediate screening shoe, a receiver into which the larger grains and chaff from the intermediate shoe pass and which discharge laterally of the machine, a blast fan located between the intermediate and the lower shoe, a casing for the fan having a forwardly extended air chamber the spout pendent from the end of the intermediate shoe, a chute that leads the droppings from the spout on to the lower shoe and means for raising and lowering the discharging end of the blast chamber, relative to the discharge spout from the intermediate shoe, a valve located in the said spout and a wind valve located in the charging end of the air chamber of the fan casing.

3. In a machine of the character described, the combination with the main framing, the upper screening shoes, and a lower screening shoe, the blast fan, a casing therefor, bearings for the blast fan longitudinally adjustable on the main frame, the ends of the blast fan having driven gears each provided with a wrist pin rockable lever arms connecting the said wrist pins with the upper screening shoes the said lever arms being slotted for receiving the wrist pins the lower screening shoe being pivotally supported on hangers pivotally hung from the main frame and lever connections joining the wrist pins on the fan shaft and pivotally connected with the sides of the lower screen, all being arranged substantially as shown and described.

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1,091,276. PRODUCING UNSATURATED TERPENE HYDROCARBONS. ENGELBERT BERGS, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 9, 1911. Serial No. 664,867. (Cl. 23—24.)

1. The process of producing unsaturated hydrocarbons of the terpene series by heating terpin with a substance which is free from acid reaction which is capable of splitting off water.

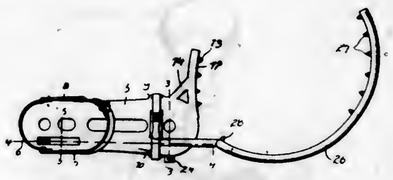
2. The process of producing unsaturated hydrocarbons of the terpene series by passing terpin vapor over heated alumina.

3. The process of producing unsaturated hydrocarbons of the terpene series by passing terpin, under reduced pressure, over heated alumina.

4. The process of producing unsaturated hydrocarbons of the terpene series by passing terpin, under reduced pressure, over heated alumina at a temperature of about 250° C.

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1,091,277. POLE-CLIMBER. AXEL BLOOM, Escanaba, Mich. Filed June 4, 1913. Serial No. 771,724. (Cl. 227—8.)

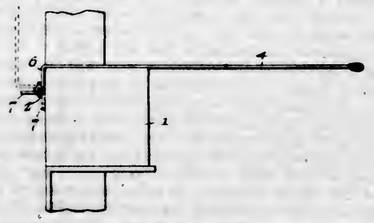


1. A pole climber including a foot piece, a jaw rigidly secured to the forward end of said foot piece, a longitudinally movable bar secured to said foot piece, a jaw formed upon the forward end of said bar for coöperation with the first mentioned jaw, the bar being formed with an axial bore opening upon its rear end, and a screw rotatably secured to the foot piece and threadingly engaged with said bore, whereby the bar may be moved longitudinally to adjust the distance between said jaws.

2. A pole climber including a foot piece, a jaw rigidly secured to the forward end of said foot piece, a bar extending longitudinally along the under side of the foot piece, housings to receive the said bar and hold it into engagement with the underside of the foot piece, the bar being formed with an axial bore opening upon the rear end thereof, a screw extending longitudinally into one of said housings and threaded into engagement with said bore, said screw being held against longitudinal movement relative to the housing, and a second jaw formed upon the forward end of said bar for coöperation with the first mentioned jaw.

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1,091,278. CLOTHES-DRYING RACK. RAYMOND G. BOEHME, Newport, Ky. Filed Mar. 28, 1913. Serial No. 757,412. (Cl. 126—342.)



In combination with a support, a rack pivoted thereto below the top and at one side thereof with the main part normally resting across the support and with a rear extension parallel with the rack and adapted to engage the side of the support to hold the rack when in upright position.

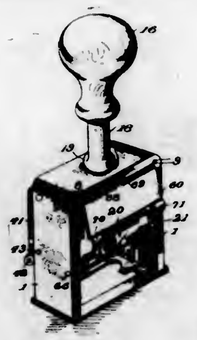
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1,091,279. NUMBERING-MACHINE. THOMAS H. BOSS, Muskegon, Mich., assignor of one-half to Hill-Independent Mfg. Co., Muskegon, Mich., a Corporation of Illinois. Filed Dec. 15, 1910. Serial No. 597,457. (Cl. 101—185.)

1. In a machine of the character described, in combination with the frame thereof and a numbering head movable up and down in said frame, of a shield or guard projecting over the side of the numbering head, substantially parallel to the frame thereof to protect it from dust, and having a member projecting substantially at right angles thereto over the numbering head and coacting with said head to lock the same in position.

2. In a machine of the character described, in combination with the frame thereof and a numbering head movable up and down in said frame, of a shield or guard projecting over the side of the numbering head, substantially parallel to the frame thereof to protect it from dust, and having a member projecting substantially at

right angles thereto over the numbering head and pivoted to said frame and movable to lock said head with respect to said frame.



3. In a machine of the character described, the combination of a frame, a numbering head movable up and down with respect to the frame, a stem projecting from said head and having a recess therein, and a shield or guard projecting over the side of the numbering head, substantially parallel to the frame thereof to protect it from dust, and having a member projecting substantially at right angles thereto over the numbering head and coacting with the recess in said stem to lock the stem and head in position.

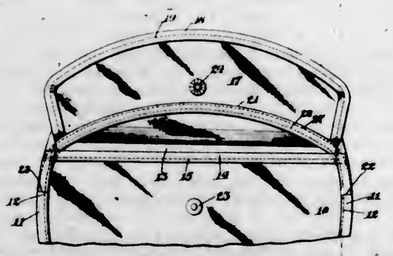
4. In a machine of the character described, the combination of a frame, a numbering head movable up and down with respect to the frame, a stem projecting from said head and having a recess therein, a spring to hold said head in its normal position, and a shield or guard projecting over the side of the numbering head, substantially parallel to the frame thereof to protect it from dust, and having a member projecting substantially at right angles thereto over the numbering head and co-acting with the recess in said stem to lock the stem and head in position, against the tension of the said spring.

5. In a machine of the character described, the combination of a frame, a head movable up and down with respect to the frame and comprising numbering wheels, a stem projecting from said head and having a recess therein, a spring to hold said head in its normal position, and a shield or guard protecting the head and its wheels from dust and movable with respect to said stem, the movement of said shield causing it to enter said recess to lock the stem and head in position, against the tension of said spring.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,280. TENNIS-RACKET CASE OR COVER. ARTHUR J. BRAUER, St. Louis, Mo. Filed Mar. 3, 1913. Serial No. 751,803. (Cl. 150—52.)



1. A tennis racket cover having a side opening, a flap for said opening, and a binding running across and secured to the inside face of said flap and extending therefrom at the ends of said opening along the edges of the cover body in a direction opposite to the direction which the flap is moved to open it, and secured to the body along the edges thereof to form reinforcing means.

2. A tennis racket cover having an outside edge binding and a side opening, a flap for said opening, and a binding on said flap extending therefrom at the ends of said opening along the edges of the cover body and underneath said outside edge binding in a direction opposite to the direction which the flap is moved to open it, and secured underneath said outside edge binding to form reinforcing means.

3. A tennis racket cover having an outside edge binding and a side opening, a flap for said opening, and a binding on said flap running in an arc across and secured to the inside face of said flap and extending therefrom at the ends of said opening along the edges of the cover body and underneath said outside edge binding in a direction opposite to the direction which the flap is moved to open it, and secured underneath said outside edge binding to form reinforcing means.

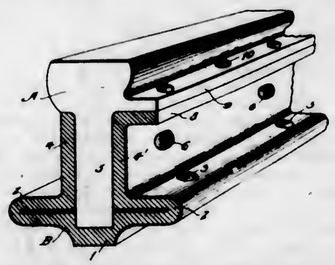
4. A tennis racket cover having a side opening, a flap for said opening, and bindings on said flap extending in opposite directions from the ends of said flap and along the edges of the body and stitched to the body of the cover at the ends of said opening to form reinforcing means.

5. A tennis racket cover having an edge binding and a side opening, a flap for said opening, and bindings on said flap extending in opposite directions from the ends of said flap and along the edges of said body and underneath said edge binding to form reinforcing means.

[Claim 6 not printed in the Gazette.]

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1,091,281. RAIL CONSTRUCTION. MARSHALL R. BROWN, Bellefontaine, Ohio, assignor of one-half to Dow Aikin, Bellefontaine, Ohio. Filed Dec. 18, 1913. Serial No. 807,508. (Cl. 239—16.)



1. A rail of the class described comprising a tread member, and a base member comprising a sheet of metallic material bent to form a resilient receptacle for said tread member.

2. A rail of the class described comprising a tread member, and a base member comprising a sheet of metallic material bent to form a receptacle for said tread member and having a tie engaging flange formed thereon whereby to prevent lateral movement of the rail.

3. A rail of the class described comprising a tread member, and a base member comprising a sheet of metallic material bent so as to form a web portion for interlocking engagement with the tread member.

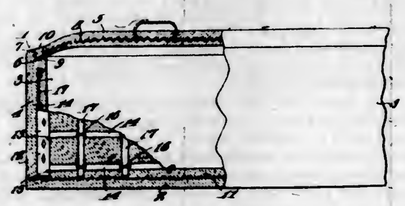
4. A rail of the class described comprising a tread member, and a base member comprising a sheet of metallic material bent back upon itself so as to form a base flange and a web portion adapted for interlocking engagement with the tread member.

5. A rail of the class described comprising a tread member, and a base member comprising a sheet of metallic material, the longitudinal edges of which are bent back upon themselves so as to form resilient base flanges upon which the tread member is seated.

[Claims 6 to 9 not printed in the Gazette.]



1,091,282. CONCRETE BURIAL-VAULT. NESTER L. BROWN, Owensboro, Ky. Filed June 24, 1913. Serial No. 775,486. (Cl. 72—7.)



1. A burial vault embodying a body having upper grooves in its edges, and lips overhanging the grooves, a lid, and a reinforcement for the lid, having angular members extending along the side and end edges of the lid to seat in the said grooves, the outer flanges of the said members being flexible to snap under the said lips.

2. In a burial vault, a body including a bottom, sides and ends, and a reinforcing frame comprising angle iron corner members, each flange of each angle iron member having a series of hooks, horizontal strips having their terminals resting against the respective flanges of the angle iron members, and having notches in their lower edges adjoining their respective ends engaging with the hooks, each of the said strips having a series of loops struck therefrom, and upright strips inserted through the respective loops of the respective horizontal strips, the upper ends of the upright strips being hooked to engage over the uppermost horizontal strips, the lower ends of the angle iron members and upright strips being engaged to the bottom of the body.

3. In a burial vault, a body including a bottom, sides and ends, and a reinforcing frame comprising corner members, each having a series of hooks, horizontal strips having their terminals engaging the respective hooks and each having a series of loops struck therefrom, and upright strips inserted through the respective loops, and the lower ends of the corner members and upright strips being engaged to the bottom of the body.

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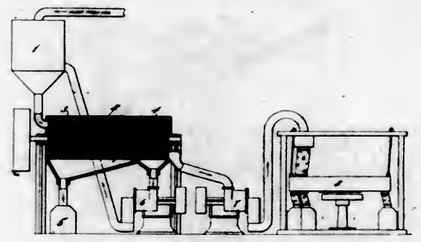
1,091,283. SPARK-ARRESTER. WILLIAM L. BUCK, Cuba, Ill. Filed Dec. 16, 1913. Serial No. 807,128. (Cl. 110—130.)



1. A spark arrester including a holder adapted to be removably secured to the stack, and deflecting elements secured to the holder and rising therefrom in an outwardly curved direction, the ends of the deflectors extending downwardly, said deflectors being formed of screen cloth, and arresting sections secured to the rear edges of the curved portions.

2. A spark arrester including a holder adapted to be removably secured to the stack, deflecting elements secured to the holder and rising therefrom in an outwardly curved direction, the ends of the deflectors extending downwardly, said deflectors being formed of screen cloth, arresting sections secured to the rear edges of the curved portions, and braces secured to the downwardly extending portions of the deflectors and to the stack.

1,091,284. PROCESS FOR REFINING FLOUR. HARRY BUCKLEY, Louisville, Ky. Filed Apr. 15, 1913. Serial No. 761,228. (Cl. 83—42.)



1. The process of refining flour which consists in rebolting all said flour on a finer cloth than the average mesh of the cloths on which said flour was originally made, rebolting the portion of the flour which will not go through said fine cloth on a coarser cloth than the average mesh of the cloths on which the flour was originally made, reducing the portion of the flour that comes through said coarser cloth and rebolting it on a cloth of the same fineness as said finer cloth, whereby substantially all said flour is bolted through cloths of the same degree of fineness.

2. The process of refining flour which consists in rebolting all said flour on a finer cloth than the average mesh of the cloths on which said flour was originally made, rebolting the portion of the flour which will not go through said fine cloth on a coarser cloth than the average mesh of the cloths on which the flour was originally made, reducing the portion of the flour that comes through said coarser cloth and rebolting it on a cloth of the same fineness as said finer cloth, reducing the portion of the flour that goes over the coarse cloth and returning it to the mill to be re-run, whereby all the refined flour is bolted through cloths of the same degree of fineness.

3. The process of refining flour which consists in bolting it upon a finer cloth than that upon which it was made and then upon a coarser cloth, treating the portion passed through the coarser cloth to reduce the size of its particles and rebolting said portion upon said finer cloth.

4. The process of refining flour made in a mill which consists in bolting it successively upon a fine cloth and a coarse cloth, treating the portion passed over the coarse cloth to reduce the size of its particles without shredding the fibrous content thereof, separating out said fibrous content and rebolting the remaining portion on some reel or section of sifter in the mill proper.

5. The process of refining flour which consists in bolting successively upon a fine cloth and a coarse cloth, treating the portion passed over the coarse cloth to reduce the size of its particles without shredding the fibrous content thereof, separating out said fibrous content and rebolting the remaining portion upon said fine cloth.

[Claim 6 not printed in the Gazette.]

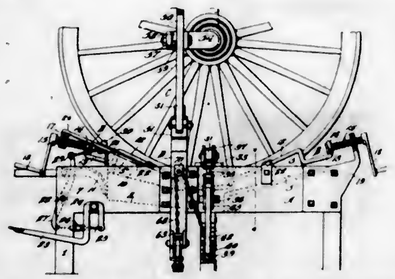
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1,091,285. WHEEL-HOLDING ATTACHMENT FOR TIRE-SHRINKING MACHINES. LOUIS H. BUSCHETT, Cashion, Okla. Filed Sept. 24, 1910. Serial No. 583,634. (Cl. 78—59.)

1. In a tire shrinking machine, a wheel-holding device, said device comprising a vertically-extensible standard, a swinging member on the standard, means on the standard for supporting the member in a horizontal or vertical position, an arm extending from the member and adjustable along the latter, and a spindle hingedly mounted on the outer end of the arm.

2. In a tire shrinking machine, a wheel-holding device, said device comprising a vertically-extensible standard, a swinging member on the standard, means on the standard for supporting the member in a horizontal or vertical position, an arm extending from the member and adjustable

along the latter, a spindle hingedly mounted on the outer end of the arm, means for clamping the arm on the member, and means for limiting the swinging movement of the spindle.



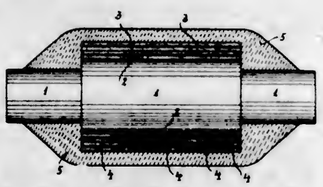
3. An attachment for tire-shrinking machines comprising a vertically-adjustable wheel supporting device for holding wheels of different sizes in upright position, a clamping device for engaging the felly of the wheel, and a connection between the said devices for opening the clamping device while the first-mentioned device is operated to raise the wheel out of the machine.

4. An attachment for tire shrinking machines comprising a wheel holder including a treadle for adjusting the holder for wheels of different diameters, a clamping bar extending across the felly of the wheel for holding the latter in the machine in coöperative relation with the said devices, a lever for operating the bar, a pawl for holding the lever in clamping position and releasable therefrom, and an operating connection between the treadle and lever for raising the latter upon depression of the treadle after the pawl is released.

5. An attachment for tire shrinking machines comprising a wheel holder including a treadle for adjusting the holder for wheels of different diameters, a clamping bar extending across the felly of the wheel for holding the latter in the machine in coöperative relation with the said devices, a lever for operating the bar, a pawl for holding the lever in clamping position and releasable therefrom, an operating connection between the treadle and lever for raising the latter upon depression of the treadle after the pawl is released, said operating connection including a flexible element connected with the treadle and lever, and a guide over which the element passes.

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1,091,286. PROCESS FOR CASE-HARDENING IRON AND STEEL ARTICLES. CARL BURIAN, Berlin, Germany, assignor to The Firm of Gebrüder Schubert, Berlin, Germany. Filed July 14, 1913. Serial No. 779,013. (Cl. 148—40.)



1. A process for case-hardening iron and steel articles consisting in coating the articles on the places to be hardened with a hardening agent, in surrounding the coated articles by a band containing a hardening agent, in treating the articles so prepared with a heat resisting paste and in heating them to the hardening temperature.

2. A process for case-hardening iron and steel articles consisting in coating the articles on the places to be hardened with a pasty hardening composition, in surrounding the coated articles by a band containing a hardening agent, in treating the articles so prepared with a heat resisting paste and in heating them to the hardening temperature.

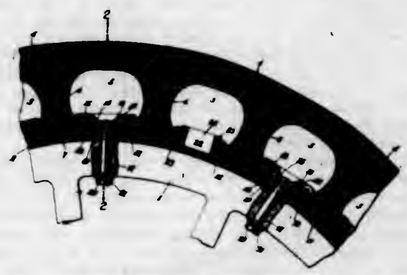
3. A process for case hardening iron and steel articles consisting in coating the articles on the places to be hardened with a hardening agent, in surrounding the coated articles by a band of a highly refractory material containing a hardening agent, in treating the articles so prepared with a heat resisting paste and in heating them to the hardening temperature.

4. A process for case hardening iron and steel articles consisting in coating the articles on the places to be hardened with a hardening agent, in surrounding the coated articles by a band containing a hardening agent, in treating the articles so prepared with a heat resisting paste containing powdered fire resisting substances and in heating them to the hardening temperature.

5. A process for case-hardening iron and steel articles consisting in coating the articles on the places to be hardened with a hardening agent, in surrounding the coated articles by a band containing a hardening agent, in treating the articles so prepared with loam and in heating them to the hardening temperature.

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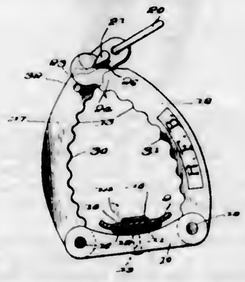
1,091,287. TIRE. JOHN CAIANS, Walsall, England. Filed Mar. 13, 1913. Serial No. 753,967. (Cl. 152—9.)



In a resilient tire, the combination of a tire section having a chamber therein and having an opening through the base thereof, a fastening member having a head resting upon said base and a shank extending within said opening, a clamping plate engaging the outer surface of said base and closing said opening, a bolt threaded through said parts, and a helical washer located between the said fastening member and said clamping plate and locking said parts from independent rotation, substantially as described.

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1,091,288. BAG-TIE. FAITUFF CARLSON, Cadillac, Mich. Filed July 8, 1912. Serial No. 708,289. (Cl. 24—30.5.)



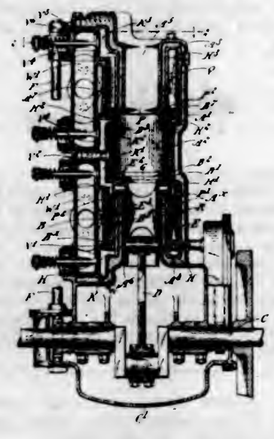
1. A bag tie comprising coacting grip bars arranged to swing relative to each other, one of said grip bars having a seat formed with a shoulder at one end and laterally projecting studs at the other end and the other grip bar forked to engage the first mentioned grip bar and with stop shoulders to engage the studs and inwardly directed lugs to engage the shoulder of the seat.

2. A bag tie comprising an intermediate member adapted to be connected to a bag, co-acting grip bars each pivotally connected at one end to said bag engaging member, one of said grip bars having lateral studs and a transverse recess and with a seat at the bottom of the recess, and the other grip bar forked to receive the first-mentioned grip bar and with stop shoulders to receive the studs and with inwardly directed lugs to engage the seat.



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1,091,289. INTERNAL-COMBUSTION ENGINE. SAMUEL WATKIN CARLTON, London, England. Filed Nov. 11, 1912. Serial No. 730,678. (Cl. 123—57.)



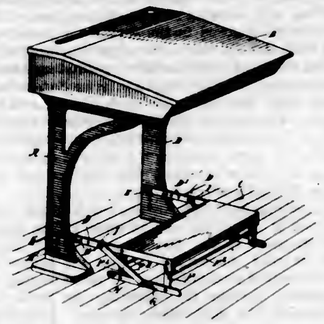
In an internal combustion engine, the combination of an open-ended cylinder constructed with an annular partition intermediate its ends, and with inwardly-disposed annular portions at the ends thereof providing piston working cylinders with the cylinder body and said partition; an open-ended trunk piston having two working pistons located, respectively, in said working cylinders and providing with each working cylinder two independent firing chambers; said trunk piston having its outer surface bearing against the surface of the partition, and its inner and outer end surfaces bearing, respectively, against the surfaces of said annular end portions and the cylinder body; said cylinder body, the partition, and said inwardly-disposed end portions constructed with communicating chambers for cooling water, and said open-ended cylinder and piston permitting of cooling by air; and fuel inlet and exhaust means for each of said firing chambers.

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1,091,290. ADJUSTABLE FOOT-REST. FRANK A. CARR, McKeesport, Pa. Filed Feb. 2, 1911. Serial No. 606,112. (Cl. 155—9.)

1. A foot rest for school desks and the like, comprising a foot board having parallel side bars projecting therefrom for attachment to the standards of a desk, base bars adapted to rest upon the floor, two links pivoted to each end of the foot board and to each base bar, the links at opposite ends of the foot board being connected together, a brace having one end pivoted to each base bar, and means for adjustably pivoting the other ends of the braces to the side bars of the foot board.

2. A foot rest for school desks and the like, comprising a foot board provided with parallel side bars projecting therefrom for attachment to standards, said bars being provided with a plurality of apertures, base bars adapted to rest upon the floor, two links pivoted to each end of the foot board and to each base bar, a brace having one end pivoted to each base bar, and a bolt passing through the



other end of each brace and an aperture of a side bar of the foot board.

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1,091,291. TOOTH-BRUSH. CHARLES EDWARD CARROLL, Newport, Ark. Filed June 23, 1913. Serial No. 775,332. (Cl. 15—39.)

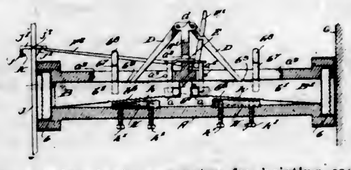


1. The improved brush head having its sides arranged substantially at a right angle to each other and tapered to a point at their extremities and provided interiorly with bristles which extend to the extremities of the sides and project inwardly and downwardly, as described.

2. The improved tooth-brush head having substantially the form of a right angle and tapered toward its extremities and provided interiorly with two groups or sets of bristles indicated by c and by adjacent outer bristles c', the free or working ends of the latter being cut off at an angle to the surfaces of the inner group c, as shown and described.

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1,091,292. SAFETY BRAKE MECHANISM FOR ELEVATORS AND HOISTING-CAGES. JOHN CESERANI, Butte, Mont. Filed July 2, 1913. Serial No. 776,994. (Cl. 187—80.)



1. In a safety brake apparatus for hoisting cages, the combination of a tubular casing open at its opposite ends, brake members disposed in the casing and movable from the opposite open ends thereof, springs for actuating the brake members, a bracket secured to the casing and provided with an intermediate opening, a latch member movable in the bracket opening to engage portions of the brake members and hold the latter in inner retracted positions, an actuating lever for releasing the latch member, and members carried by the said bracket and by the casing and engaging relatively opposite sides of the brake

members whereby to lock the latter in extended operative position, all for the purpose described.

2. In a safety brake apparatus for hoisting cages, the combination of a tubular slotted casing open at its ends, brake members disposed in the casing for movement from opposite ends thereof and having pins upstanding through the casing slots, an intermediate upstanding bracket carried by the casing and having an intermediate aperture, an apertured latch plate movable in the bracket aperture to engage the said pins of the brake members and lock the members in inner retracted position, a cam member mounted beneath the latch member, a lever for raising the cam to release the latch member, and springs for actuating the brake members when released.

3. In a safety brake apparatus for hoisting cages, the combination of a tubular casing open at its ends, brake members disposed in the casing and movable from opposite ends thereof, means for locking the brake members in inner retracted positions, a lever for releasing the said locking means, springs for actuating the brake members when released, the said brake members including outer heads provided with engaging teeth and inwardly projecting shanks having ratcheted lower surfaces, and locking blocks secured in the lower portion of the casing and provided with ratcheted faces with which the said ratcheted faces of the brake members engage when the latter are moved outwardly to operative positions.

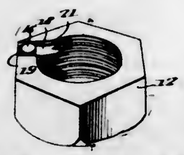
4. In a safety brake apparatus for hoisting cages, the combination of a tubular casing open at its ends, brake members disposed in the casing and movable from opposite ends thereof, means for locking the brake members in inner retracted positions, a lever for releasing the said locking means, springs for actuating the brake members when released, the said brake members including outer heads provided with engaging teeth and inwardly projecting shanks having ratcheted lower surfaces, locking blocks secured in the lower portion of the casing and provided with ratcheted faces with which the said ratcheted faces of the brake members engage when the latter are moved outwardly to operative positions, a set screw threaded through the lower portions of the casing whereby to disengage the brake members from the said locking blocks, and means for drawing the brake members inwardly to retracted positions when disengaged substantially as described.

5. In a safety brake apparatus for hoisting cages, the combination of a tubular casing open at its ends, brake members disposed in the casing and movable from opposite ends thereof, means for locking the said brake members in inner retracted positions, a lever for releasing the brake members, springs for actuating the brake members when so released, the said brake members having outer headed ends provided with tooth and inwardly projecting shanks having ratcheted upper portions, a bracket upstanding from the casing, and locking arms pivoted to the upper portions of the bracket and inclined outwardly in opposite directions whereby to engage the ratcheted upper portions of the brake members with their lower ends.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,293. NUT-LOCK. LOMEN E. CHESNEY, Steubenville, Ohio. Filed Dec. 11, 1912. Serial No. 736,172. (Cl. 151—25.)



In a nut lock, a nut provided with a recess in its inner face and with a longitudinal opening extending through the nut and terminating in the said recess, the said recess having a depth a little greater than the distance between two convolutions of the thread, a headed pin arranged in the longitudinal opening, said pin having its headed end located in the said recess and its small end projecting slightly beyond the outer face of the nut, a spring dog provided with a cylindrical body portion encircling and frictionally engaging the pin, a connecting portion joining the body portion to a curved arm, said connecting portion being formed into a spring loop, the said curved arm having its free end extending into a bolt opening adjacent the said recess, and an indentation formed in the free end of the curved arm and arranged centrally between the upper and lower edges thereof, said indentation resting in the innermost thread groove of the nut and adapted to provide against the accidental displacement of the spring dog and pin and to receive the thread of the bolt.

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1,091,294. DRAW-STRING. BERTHA CLARK, New York, N. Y. Filed Aug. 1, 1913. Serial No. 782,433. (Cl. 241—8.)

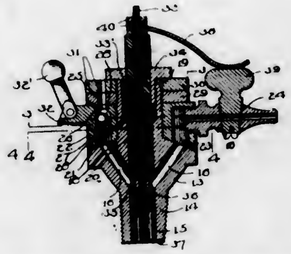


1. A drawstring adapted to be inserted in the hem of a garment, buttons on the ends of said string adapted to engage buttonholes in said garment, one of said buttons having a loop adapted to engage the other button.

2. A draw string adapted to be inserted in the hem of a garment, a combined buckle and button adjustably held on one end of the draw string, and a combined button and loop held on the other end of the draw string, the said loop being adapted to engage the said buckle button and the said buttons being adapted to engage buttonholes in said garment.

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1,091,295. SPARK-PLUG AND AIR-COMPRESSOR. DENA B. COMBS, Waverly, Ohio. Filed June 20, 1912. Serial No. 704,808. (Cl. 123—169.)



1. A spark plug comprising a base provided with a plurality of openings formed therethrough, a pole extending through said base, a collar mounted upon said base and provided with an annular pocket in its lower portion registering with the openings of said base and with an outlet leading from the side of said pocket, valve pockets formed in the upper portion of said collar and leading from said first mentioned pocket, controlling valves mounted in said valve pockets, and means carried by said base for rotatably connecting said collar with said base.

2. In a spark plug a base having openings formed therethrough, a collar rotatably mounted upon said base and provided with a pocket communicating with the openings formed in said base and with valve pockets extending above said first mentioned pocket, valves mounted in said valve pockets, and securing nuts mounted upon the upper portion of said base to hold said collar upon said base and provided with alined openings registering with the openings of said valve pockets when said collar is rotated to bring the openings of the valve pockets into registry with the openings in the securing nuts.

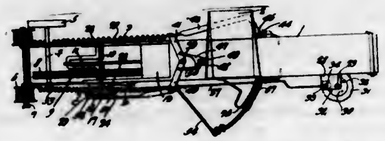


3. A spark plug of the character described comprising a body portion provided with a vertically extending opening and with openings leading from its upper face and communicating with the vertically extending opening, a pole insulated in the vertically extending opening, a chambered controlling collar adjustably mounted upon said body portion and provided with inlet openings leading from its chamber, valves carried in the openings of said collar, an outlet cock leading from the chamber of said collar, perforated clamping nuts mounted upon said body portion to hold said collar upon said body portion, the turning of said collar bringing its openings into and out of registry with the openings of said nuts, and an arm leading from said pole to said outlet cock.

4. A spark plug comprising a perforated base having a contact pole, an insulated pole passing through said base and terminating adjacent the pole of said base, a rotatable collar carried by said base and provided with a chamber inclosing the openings of said base and provided with inlet openings, valves in the inlet openings of said collar, an outlet cock leading from the chamber of said collar, a securing nut holding said collar upon said base and provided with openings registering with the inlet openings of said collar, and an arm leading from said insulated pole to said cock.

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1,091,296. BALE-TYING MECHANISM FOR BALING-PRESSES. ELMER CURNUTT, Garnett, Kans. Filed May 19, 1913. Serial No. 768,634. (Cl. 100—20.)



1. The combination with a baling press, of a pair of wire carrying needles movable inward from opposite sides of the press, a twisting element carried by one of the needles, twister operating mechanism carried by said needle, means for shifting the twister operating mechanism into and out of the press, means for coupling the last named needle to said mechanism to move therewith into the press, and means for automatically uncoupling said mechanism and needle at a predetermined point during the inward movements thereof to permit continued inward movement of the mechanism independently of the needle.

2. The combination with a baling press, of oppositely disposed needles for feeding a continuous length of wire from each side of the machine inward to points between successive bales, a twisting element carried by one of the needles into engagement with both of the wires when interposed between the bales, means upon the same needle with the twisting element for rotating said element when brought into engagement with both interposed wires, means connected directly to said last named means for shifting the same into the press, means for normally coupling said actuating means of the twisting element to the needle carrying the twisting element and means for automatically uncoupling said needle when the twisting element is brought into engagement with the two wires.

3. The combination with opposed wire carrying needles for constantly engaging a wire, of means for forcing the needles toward each other, a slotted revoluble member carried by one of the needles and adapted to receive both wires, and means supported by the same needle with the revoluble member, for successively shifting said needle to active position and then revolving the said member to thereby twist the wires together.

4. The combination with a pair of wire carrying needles, one of said needles being forked for engagement with a wire, and the other needle being slotted, of a twisting member carried by the slotted needle and adapted to receive the wires of both needles, and means carried by the needle in which the twister is mounted, for successively shifting the needle to active position and then actuating said twister.

5. The combination with opposed wire carrying needles, one of said needles being forked to engage one of the wires, and the other needle being slotted, of a revoluble twisting element carried by the slotted needle and having a slot for the reception of both wires, and means carried by the needle carrying the twisted element, for successively shifting the needle to active position and then revolving said twisting element when in engagement with both wires.

[Claims 6 to 21 not printed in the Gazette.]

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1,091,297. SHOE-LACE HOLDER. NELLIE M. DE LANY, Clyde, N. Y. Filed Apr. 1, 1913. Serial No. 758,202. (Cl. 24—118.)



1. A shoe button of the class described comprising a base provided with a plurality of prongs adapted to engage a support for holding said base in engagement with said support, said base provided with a plurality of upwardly struck portions, a head provided with a downwardly extending shank, said shank provided with a reduced portion at its lower end, a washer positioned upon said reduced portion, a shoulder formed intermediate the ends of said shank and engaging said washer, said washer engaging the sides of said struck-up portions and limiting the downward movement of said head upon said base, said head comprising a concavo-convex body, and said struck-up portions adapted to force a shoe lace up under said head for holding the lace in frictional engagement therewith.

2. A shoe button of the class described comprising a base provided with a plurality of prongs adapted to engage a support for holding said base in engagement with said support, said base provided with a plurality of upwardly struck portions, a head provided with a downwardly extending shank, said shank provided with a reduced portion at its lower end, a washer positioned upon said reduced portion, a shoulder formed intermediate the ends of said shank and engaging said washer, said washer engaging the sides of said struck-up portions and limiting the downward movement of said head upon said base, said head comprising a concavo-convex body, said head provided with a flange around its edge, said head being substantially elliptical in shape, said flange portion provided with an upturned edge for producing a smooth shoe lace engaging portion along its lower edge, and said flange provided intermediate its ends upon each side of said head with a notched portion for facilitating the entrance of a shoe lace under said head and also for facilitating the removal of a shoe lace from under said head.

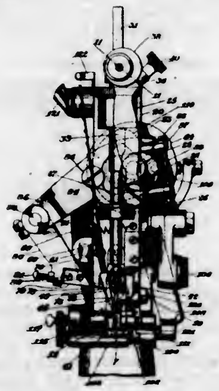
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1,091,298. FASTENER-INSERTING MACHINE. GEORGE A. DOBYNE and STEPHEN A. DOBYNE, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Continuation of application Serial No. 593,357, filed Nov. 21, 1910. This application filed Oct. 8, 1912. Serial No. 724,680. (Cl. 1—28.)

1. In a fastener inserting machine, the combination of a throat having a passage to receive a string of nails, a member having a groove through which said nails pass, a rocking member, an arm carried by said rocking member, a blade carried by said arm and adapted to feed the nails from said groove into said passage, and a member secured to said throat and having a notch adjacent one end of said passage, said blade having a beveled edge adapted to move across said notch and to separate the nails

2. In a fastener inserting machine, the combination of a throat having a passage to receive a string of nails, a member having a groove through which said nails pass, a

rocking member, an arm carried by said rocking member, a blade carried by said arm and adapted to feed the nails from said groove into said passage, a member secured to said throat and having a notch adjacent one end of said passage, and a detent adapted to prevent the backward movement of the nails in said groove, said blade having a beveled edge adapted to move across said notch and to separate the nails.



3. In a fastener inserting machine, in combination with a guide for receiving a string of nails, and a throat for receiving the severed nails, a member for moving the string through the guide to feed the outermost of the nails into the throat, and means for moving said throat and said feeding member simultaneously toward each other to cause the latter to sever said outermost nail from the adjacent nail.

4. In a fastener inserting machine, in combination with means for holding a string of nails, a throat adapted to receive the outermost nail of the string, a member for severing said outermost nail from the adjacent nail, and means for causing said throat and severing member to synchronously approach each other to effect such severance.

5. In a fastener inserting machine, the combination of a nail guiding throat, a guide for fastener stock, a cutting member, and means for moving both said throat and cutting member toward and from each other to cut off a fastener from the stock fed in said throat.

[Claims 6 to 74 not printed in the Gazette.]

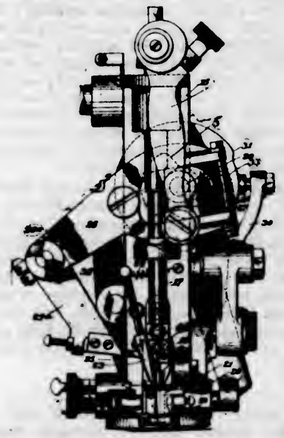
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1,091,299. STRING NAILING-MACHINE. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 18, 1912. Serial No. 684,653. (Cl. 1—28.)

1. In a fastener inserting machine, the combination with a driver, a movable die member, and a coöperating cutter, of means for moving said die member and cutter into and out of coöperative relation constructed and arranged to relieve the pressure of said cutter on the cut nail before said die member and cutter begin to move out of coöperative relation.

2. In a fastener inserting machine, the combination with a driver, a fastener stock guide, a die member, and a cooperating cutter, of means for moving said guide and die member into and out of coöperative relation, means for operating said cutter to cut a fastener from the fastener stock constructed to relieve the pressure of said cutter on the cut nail before said first means operates to move said guide and die member out of coöperative relation.

3. In a fastener inserting machine, the combination with a driver, a fastener stock guide, a throat, and a cutter cooperating with said throat, of operating means for moving said throat into and out of alinement with said driver, and means for operating said cutter to cut a fastener from the fastener stock, the operating means for said throat and cutter being constructed and arranged to relieve the pressure of said cutter on the cut fastener before said throat begins to move into alinement with said driver.



4. In a fastener inserting machine, the combination with a driver, a fastener stock guide, a throat forming a die, and a coöperating cutter, of operating means for moving said throat into and out of alinement with said driver, and means for operating said cutter to cut a fastener from the fastener stock, the operating means for said throat and cutter being constructed and arranged to relieve the pressure of said cutter on the head of the cut fastener in said throat before said throat begins to move into alinement with said driver.

5. In a fastener inserting machine, the combination with a driver, a fastener stock guide, a throat, and a cutter coöperating with said throat, of operating means for moving said throat into and out of alinement with said driver, and means for operating said cutter to cut a fastener from the fastener stock, the operating means for said throat and said cutter being constructed and arranged to begin the retracting movement of said cutter before beginning to return said throat into alinement with said driver.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,300. THROAT FOR FASTENER-INSERTING MACHINES. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Mar. 18, 1912, Serial No. 684,653. Divided and this application filed June 18, 1913. Serial No. 774,379. (Cl. 1—5.)



1. In a fastener inserting machine, a throat having a driver passage, and means in said driver passage constructed and arranged to yieldingly engage and support a fastener against transverse movement at a plurality of separated points along its length during substantially its entire passage through said driver passage as it is being driven therethrough.

2. In a fastener inserting machine, a throat having a driver passage provided with a straight wall constructed to guide the straight side of a headed fastener, and means in said driver passage constructed and arranged to yieldingly engage the head side of the fastener at a plurality of separated points along its length and yieldingly hold it against said wall and against transverse movement during substantially its entire passage through said driver passage as it is being driven therethrough.

3. In a fastener inserting machine, a throat having a driver passage provided with a straight wall constructed to guide the straight side of a headed fastener, and means in said driver passage constructed and arranged to yieldingly engage both the head and shank of the fastener during substantially the entire passage through said driver passage at it is being driven therethrough.

4. In a fastener inserting machine, a throat having a driver passage, a member in said driver passage constructed and arranged to yieldingly engage and guide a fastener, and means for supporting said member constructed to permit both of its ends to move independently toward and from the opposite wall of the driver passage, said member being constructed and arranged to yieldingly engage and support a fastener against transverse movement at a plurality of separated points along its length during substantially its entire passage through said driver passage as it is being driven therethrough.

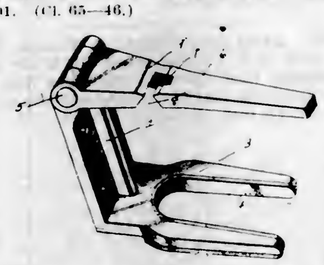
5. In a fastener inserting machine, a throat having a driver passage for a headed fastener, a member in said driver passage constructed and arranged to yieldingly engage the head and shank of the fastener, and means for supporting said member constructed to permit said member to automatically adjust itself to the fastener as it passes through said driver passage to constantly maintain its engagement with both the head and shank of the fastener during substantially its entire passage through said driver passage.

[Claims 6 to 9 not printed in the Gazette.]



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1,091,301. STOPPER-EXTRACTOR. EDWARD J. DOHENY, Woonsocket, R. I. Filed May 8, 1913. Serial No. 766,301. (Cl. 65—46.)



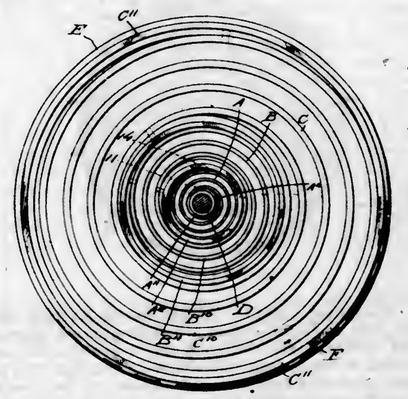
A stopper extractor comprising a body, an apertured bottle holder fixed to and extending from the body, and a hand lever pivoted at one end to the body and disposed above the holder and having a vertical opening that extends between its lower and upper sides and also having an opening that extends from said vertical opening to one of its vertical sides throughout the height thereof, whereby after a bottle is placed in the holder a hand stopper-extractor that is secured in the stopper of the bottle can be arranged with its shank in the vertical opening of the hand lever and its handle disposed above said hand lever.

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1,091,302. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C. Filed Dec. 27, 1912. Serial No. 738,858. (Cl. 152—28.)

1. A resilient wheel or the like, comprising a plurality of separate spirally-coiled springs, one of which is mounted in the axis of the other, said springs having their strengths so arranged that they will operate successively, one being elastic under loads which will not affect the other and the latter being in play when the limit of elasticity of the first is exceeded.

2. A resilient wheel or the like, comprising a plurality of separate spirally-coiled springs and a rigid sleeve interposed between said springs, one of the springs being mounted in the sleeve and the sleeve being mounted in the axis of the other spring, said springs having their strengths so arranged that they will operate successively, one being elastic under loads which will not affect the other and the latter being in play when the limit of elasticity of the first is exceeded.



3. A resilient wheel or the like, comprising a plurality of separate spirally-coiled springs and a rigid sleeve interposed between the said springs, one of said springs being mounted in the sleeve and the sleeve being mounted in the axis of the other spring, the springs respectively having coils which are secured together to retain them in partially wound condition and being readily removable from the sleeve.

4. A resilient wheel or the like, whose hub includes a spirally-coiled spring and a rigid sleeve encircling said spring, the body or spoke portion of the wheel being formed of a spirally-coiled spring which encircles said sleeve, the spring of the hub being of less strength than the spring of the body or spoke portion, whereby the hub spring is in play when the other spring is inert and the latter spring is in play when the limit of elasticity of the hub spring has been exceeded.

5. A resilient wheel or the like having its hub provided with a plurality of coiled springs of different strengths and a rigid sleeve between said springs, one of the springs being arranged in the sleeve and the sleeve being arranged in the axis of the other spring, the last named spring also having a rigid sleeve encircling its outermost convolution, the body or spoke portion of said wheel being also composed of a coiled spring, which encircles the last named sleeve and whose strength is different from those of the hub springs.

[Claim 6 not printed in the Gazette.]

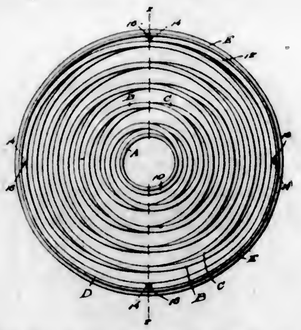
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1,091,303. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C. Filed Dec. 27, 1912. Serial No. 738,859. (Cl. 152—28.)

1. A resilient wheel or the like, having its body composed of a plurality of separate reversely-coiled spiral springs the convolutions of which extend to the circumference of the body and thence around in circular form, a separate rim encircling the circumferential convolutions of said springs and having means at intervals engaged with the sides of the circumferential convolutions of the springs and secured thereto.

2. A resilient wheel or the like having its body provided with separately-formed oppositely-disposed spirally-coiled springs which converge from their axial portions to their circumferential convolutions, a rim encircling the circum-

ferential convolutions of the springs and having means projecting inwardly beyond its inner surface, the circumferential convolutions of the springs being arranged adjacent to the opposite sides of said inwardly-projecting means, and means for laterally securing thereto the circumferential convolutions of both springs.



3. A resilient wheel or the like having its body provided with separately-formed oppositely-disposed spirally-coiled springs, a rim encircling the circumferential convolutions of the springs, said rim being provided with inwardly projecting lugs arranged adjacent to the circumferential convolutions of the springs and means for securing said convolutions to said lugs.

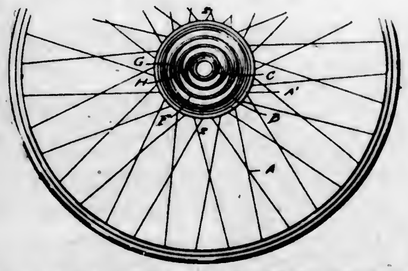
4. A resilient wheel or the like having its body provided with separately-formed oppositely-disposed spirally-coiled springs, a rim encircling the circumferential convolutions of the springs, said rim being provided at intervals with inwardly-projecting lugs which are arranged adjacent to the circumferential convolutions of the springs and are struck out of the body of the rim, and means for securing said convolutions of the springs to said lugs.

5. A resilient wheel or the like comprising a pair of separately-formed oppositely-disposed, spirally-coiled springs, an inner member arranged in the axis of said springs and provided with outward projections which are spaced from each other, removable holding elements which are mounted on the inner member and coöperate with the projections of the latter to maintain the inner convolutions of the springs in a spaced relation on the inner member, a rim encircling the circumferential convolutions of the springs and having inwardly-extending lugs arranged at intervals around the same and means for securing said lugs to the outer convolutions of the springs.

[Claim 6 not printed in the Gazette.]

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1,091,304. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C. Filed Dec. 27, 1912. Serial No. 738,860. (Cl. 152—39.)



1. A spring hub having separately-formed, reversely-coiled spiral springs whose circumferential convolutions are approximately of circular form, an inner ring arranged in the axial convolutions of said springs and having means for maintaining them in spaced relation, and an outer ring encircling the circumferential convolutions of the springs and having inwardly extending means fixedly secured to said circumferential convolutions at intervals.

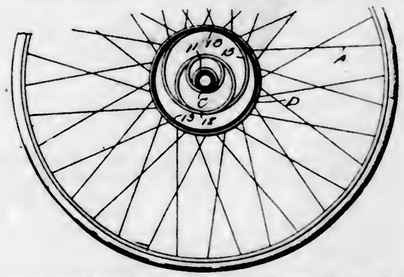
2. A spring hub having separately-formed springs arranged side by side, and whose circumferential convolutions are approximately of circular form, an inner ring arranged in the axial convolutions of said springs and having means for maintaining them in spaced relation, an outer ring encircling the circumferential convolutions of the springs and having inwardly-extending lugs at intervals, and fastening elements for securing the circumferential convolutions of the springs to said lugs.

3. A spring hub having separately-formed springs arranged side by side and whose circumferential convolutions are approximately of circular form, an inner ring arranged in the axial convolutions of said springs and having means for maintaining them in spaced relation, an outer ring encircling the circumferential convolutions of the springs and having inwardly-extending lugs struck from the body of the ring and arranged at intervals, and fastening elements for securing the circumferential convolutions of the springs to said lugs.

4. A spring hub having separately-formed, reversely-coiled spiral springs which converge from their axial convolutions to their circumferential convolutions, the latter convolutions of the springs being approximately of circular form, an inner ring arranged in the axial convolutions of the springs and having means for maintaining the same in spaced relation, an outer ring encircling the circumferential convolutions of the springs and provided with inwardly extending means arranged between the latter, and means for securing the circumferential convolutions to the said inwardly extending means, comprising fastening elements extending laterally through the same and arranged at intervals around the hub.

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1,091,305. RESILIENT WHEEL. WILLIAM F. DOLL, New York, N. Y., assignor of one-half to Lee McClung, Washington, D. C. Original application filed Dec. 27, 1912, Serial No. 738,860. Divided and this application filed Dec. 12, 1913. Serial No. 806,213. (Cl. 152—39.)



1. In a resilient wheel or the like, a body or spoke portion, and a resilient hub mounted therein, said hub comprising an inner axial member, a continuously coiled spring having inner convolutions which are spaced apart and embrace said axial member, outer convolutions which lie side by side, and side convolutions between its outer and inner convolutions, said side convolutions being arranged reversely, the hub also having an outer rim disposed within the body portion of the wheel and around the outer convolutions of the spring member, said rim having means for maintaining the outer convolutions of the spring member against outward lateral displacement, and said axial member having means for maintaining the inner coils of the spring member in their predetermined spaced relation.

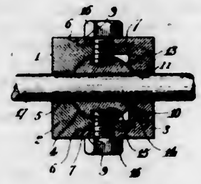
2. A resilient wheel or the like, having a body or spoke portion, and a resilient hub, said hub comprising a continuously coiled spring formed to provide oppositely disposed spirals which extend from the axis of the hub to the rim thereof, there being a plurality of convolutions at all points in the circumference, said convolutions of the circular portions lying closely together, side by side and said oppositely disposed spirals being inclined toward the circular convolutions, the ends of the spirals adjacent to the axis of the wheel being spaced from each other, means for maintaining their said spaced relation, a ring encircling the outer circular convolutions of the spirals and means for maintaining said circular convolutions against outward lateral displacement.



3. A resilient wheel or the like, consisting of an axial member having outward projections spaced from each other, a ring spaced from said axial member and having inward projections spaced from each other, spokes having their inner ends secured to said ring, a rim secured to the outer ends of the spokes, a continuously coiled spring member arranged between the axial member and ring, said spring member having oppositely disposed spirals whose convolutions extend from the axial member to the ring and thence around in circular form, there being a plurality of convolutions at all points in the circumference of the spring member, said convolutions of the circular portion lying closely together, side by side, and being held against lateral displacement between the inward projections of the ring, and said oppositely disposed spirals being inclined toward said ring, the ends of the spirals adjacent to the axial member being spaced from each other and held against inward lateral displacement by the outward projections of the axial member, and means removably applied to said axial member for holding the inner convolutions of the spirals against outward lateral displacement.

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1,091,306. BEARING. ANTONE E. DOTTA, Loyalton, Cal. Filed July 1, 1913. Serial No. 776,818. (Cl. 64—54.)



The combination with a shaft, of a bearing therefor including a casing, comprising telescopically arranged sections formed with alined shaft openings exceeding the diameter of the shaft, the interior of the casings being formed to provide an approximately spherical chamber, the walls of the casings beyond the chamber being formed with openings adapted to aline when the casings are in connected relation, a spherical bearing member having an axial opening for the reception of the shaft, and means passing through the alined openings of the casing and engaging said bearing member, said means serving to secure the bearing member against independent rotative movement and also to secure the sections against separation.

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1,091,307. APPARATUS FOR STORING EGGS. OSWALD DREHER, Tambach, Germany. Filed Jan. 21, 1913. Serial No. 743,371. (Cl. 99—2.)

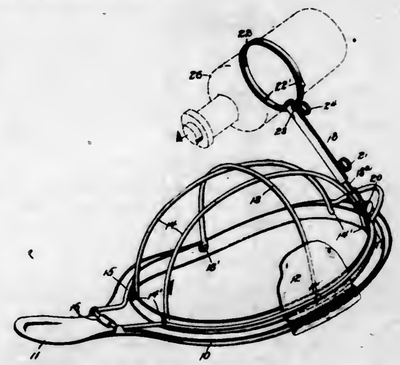


1. Apparatus for storing eggs comprising a plurality of superposed trays, each consisting of a skeleton frame having a perforated supporting bottom and provided upon its opposite faces, adjacent the corners, with ledges, the ledges on the under face of each frame resting directly upon those on the upper face of the next lower frame to space the trays apart, one face of each frame being provided at its corners with vertical projections and the other face with recesses for coöperation, respectively, with the recesses and projections of the adjacent faces of the frames next above and below to prevent relative lateral movement of the trays.

2. Apparatus for storing eggs comprising a plurality of superposed, reversible trays, each consisting of a skeleton frame having a perforated supporting bottom and provided upon its opposite faces, adjacent the corners, with ledges, the ledges on the under face of each frame resting directly upon those on the upper face of the next lower frame to space the trays apart, one face of each frame being provided at its corners with vertical projections and the other face with recesses for coöperation, respectively, with the recesses and projections of the adjacent faces of the frames next above and below to prevent relative lateral movement of the trays, and wires connecting the ledges of each tray to form a yielding lateral support for the stored articles during reversal of the trays.

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1,091,308. BOTTLE-HOLDER FOR CHLOROFORM-INHALERS. LOUIS DROSIN, New York, N. Y. Filed Apr. 28, 1913. Serial No. 764,077. (Cl. 248—20.)



In combination with a frame, a bottle holding support comprising a stud fixed to the frame, a telescopic post pivoted to the outer end of said stud, means to secure the post at any desired angle with respect to said stud, a bottle holding clip, and means to adjustably secure said clip at its intermediate portion to the outer end of the post whereby the plane of the clip may be varied and determined with respect to the plane of the post, the free ends of the clip being adapted to embrace and hold a bottle of any suitable form or size, said clip securing means comprising a cylindrical member along the axis of which the middle portion of the clip is secured, said cylindrical member being journaled for rotation around said axis in a cylindrical bearing at the upper end of the post.

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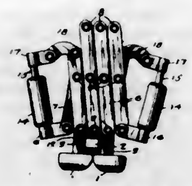
1,091,309. PAINT COMPOUND. JOHN W. DUNFORD, Atlanta, Ga., assignor to Reese-Herrin Company, Atlanta, Ga., a Corporation. Filed Oct. 4, 1913. Serial No. 793,445. (Cl. 134—52.)

1. The herein described paint compound, consisting of a body composed of coal tar and oil of tar, said body being mixed with graphite, linseed oil, yellow ocher, oxid of iron and spirits of turpentine.

2. The herein described paint compound, consisting of the following ingredients in substantially the specified proportions, namely, a body composed of coal tar twenty-

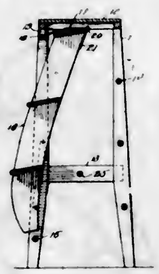
five gallons and oil of tar twenty-five gallons, mixed with graphite twenty-five pounds, linseed oil five gallons, yellow ocher fifteen pounds, oxid of iron twenty pounds and spirits of turpentine five gallons.

1,091,310. MASSAGE APPARATUS. FREDERICK C. DUNN, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,277. (Cl. 128—16.)



A massage apparatus, comprising laterally moving gathering pads, a relatively up and down moving presser pad, and devices comprising a series of levers forming a lazy-tongs adapted to operate said pads.

1,091,311. FOLDING STEP-LADDER. JOSEPH DYBECK, Sault Ste. Marie, Mich. Filed Apr. 3, 1913. Serial No. 758,567. (Cl. 228—15.)



1. A step ladder, comprising a frame and a step section movable to an inner and outer position relatively to the frame, a plate-spring hanger suspending the step section from the frame and pivotally connected with the frame and step section respectively, said hanger engaging the top step of the step section when said section is in its innermost position and a link also pivotally connected with the frame and step section.

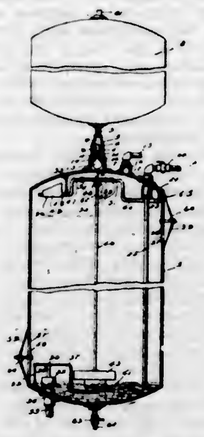
2. A step ladder comprising a stand, a step section, hangers in the form of plate springs pivoted to the underside of the top portion of the stand and to the rear face of the side members of the step section, side links connecting the sides of the step section with the frame, and a stop within the frame to limit the inward movement of the step section, the step section in swinging from the outer to the inner position engaging with its top step the spring hangers, putting the said hangers under tension and remaining in engagement therewith after the section has reached its innermost position to force the said section downwardly and hold it securely within the stand.

1,091,312. WELDING-POWDER FOR WELDING IRON AND STEEL. ERNST EISENGRÄBER, Frankfort-on-the-Main, Germany. Filed Aug. 7, 1913. Serial No. 783,603. (Cl. 75—187.)

1. Powder for welding iron and steel consisting of pulverized red hematite ore, pulverized coal, and pulverized flux, the proportion of pulverized flux being less than the proportion of pulverized coal.

2. Powder for welding iron and steel consisting of seventy parts of red hematite ore, twenty-two parts of pulverized coal, and eight parts of pulverized flux.

1,091,313. AIR-COMPRESSOR. CARL H. ERICKSON, Denver, Colo. Filed June 18, 1912. Serial No. 704,342. (Cl. 230—18.)



An air compressing apparatus of the class described comprising a compressing tank having an air inlet and also having a water inlet and an outlet, respectively, located at its upper and lower ends, a storage tank connected with the compressing tank, a controlling valve for the water inlet, a controlling valve for the water outlet, an operating lever for the last-named valve, an operating lever for the water inlet controlling valve, a balancing lever, a link connecting the balancing lever and a controlling lever of the water inlet valve, an adjustable weight on the balancing lever and a vertically arranged rod having stops and having its lower end connected to the controlling valve lever of the water outlet and its upper end connected to the said link, a float arranged to operate on said rod, and a tensioning spring arranged in line with and connecting the opposing portions of the operating lever of the water inlet valve and the said balancing lever.

1,091,314. TOOTH-BRUSH. CARL H. ERICKSON, Denver, Colo. Filed May 28, 1913. Serial No. 770,456. (Cl. 15—87.)

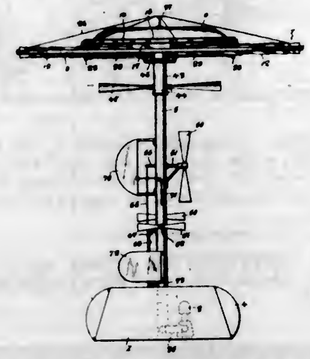


1. In a tooth brush, the combination with a stationary handle, of a shank integral with the handle, a head on the shank, spaced ears formed with the handle, a movable handle mounted to swing between the spaced ears and including an offset portion, a block swiveled on the offset portion of the movable handle and lying between the spaced ears, a rod on the head of the shank and having a twisted portion in threaded engagement with the block for imparting rotation to the rod when the movable handle is actuated, and a member journaled on the head of the shank and having connection with the rod whereby, when the movable handle is actuated, rotation will be imparted to the said member.

2. In a tooth brush, the combination with a stationary handle, of a shank integral with the handle, a head on the shank, spaced ears formed with the handle, a movable handle mounted to swing between the spaced ears and including an offset portion, a block swiveled on the offset portion of the movable handle and lying between the spaced ears, a rod on the head of the shank and having a twisted portion in threaded engagement with the block for imparting rotation to the rod when the movable handle is actuated, a member journaled on the head of the shank and having connection with the rod whereby, when the movable handle is actuated, rotation will be imparted to the said member, and means carried by the movable handle and adapted for engagement with the stationary handle for holding the movable handle in inoperative position relatively to the said stationary handle.



1,091,315. AIRSHIP. DAVID F. FELTEN, Rosedale, Kans. Filed Nov. 22, 1912. Serial No. 732,916. (Cl. 244—19.)



1. In an airship, a car, a mast rising therefrom, a supporting surface carried by the mast and comprising a parachute plane and a propeller rotating therearound, said plane having a series of openings and said propeller having blades adjustable to vary their angle of incidence, a gravity controlled automatically movable controlling member provided with shutters governing the openings in the plane, and means for adjusting the propeller blades.

2. In an airship, a car, a mast rising therefrom, a motor, a supporting surface comprising a plane and a propeller rotating therearound, a lifting propeller, and gearing for driving the first named propeller from the motor, said gearing being operative to drive the lifting propeller upon a retrograde rotation of the supporting propeller when the motor stops.

3. In an airship, a car, a mast rising therefrom, a motor, a supporting surface comprising a plane and a propeller revoluble about the same, said propeller adapted to be positively driven in one direction and to revolve by air pressure when the machine fails in the reverse direction, a lifting propeller, and gearing between the motor and supporting propeller and between the latter and the lifting propeller, for independently operating the supporting propeller from the motor and operating the lifting propeller from the supporting propeller when said lifting propeller revolves in an opposite direction to its normal direction of revolution.

4. In an airship, a rotary lifting and sustaining propeller, a second lifting propeller, said lifting and sustaining propeller being adapted to be positively driven in one direction and to be rotated by air pressure in the opposite direction, a motor, gearing between the motor and the lifting and sustaining propeller and between the latter and the second lifting propeller, said gearing including a shaft revoluble in opposite directions respectively, under the action of the motor and the lifting and sustaining propeller, a driving propeller, and means for driving the same from said shaft in either direction of revolution of the latter.

5. In an airship, a car, a mast rising therefrom, a parachute plane supported by the mast, a lifting and sustaining propeller revoluble about said plane, said propeller being revoluble in a retrograde direction by air pressure in the descent of the ship, gearing for positively driving said propeller, a motor for driving said gearing, a second lifting and sustaining propeller, gearing for driving the same through the first named gearing from the first named lifting and sustaining propeller when the latter revolves in a retrograde direction, a driving propeller, and means for operating the same through the first named gearing in either direction of motion of the first named lifting and sustaining propeller.

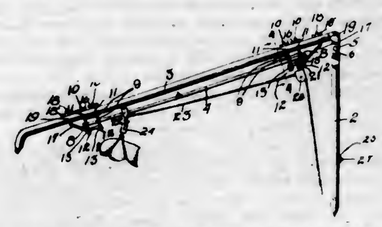
[Claim 6 not printed in the Gazette.]

1,091,316. TIRE. LYMAN H. FERGUSON, Buffalo, N. Y., assignor of one-third to Wheeler Smith, Enfield, N. Y. Filed Jan. 11, 1913. Serial No. 741,563. (Cl. 152—1.)



A tire comprising an annular hollow body circumferentially split and split partitions extending across the interior to the body and formed integral with the tire throughout their circumferences, said partitions having an enlarged central opening communicating with the split, the walls of said split contacting for a predetermined distance above the base of the partitions and being separated from the contacting portions to the central opening, said partition having openings arranged radially above the central opening, the inner walls of the latter openings being formed to produce outwardly extending lugs adapted to contact with the outer walls when pressure is applied to the tire.

1,091,317. COTTON-LOADER. HORACE M. FINCH, Lookeba, Okla. Filed Mar. 17, 1913. Serial No. 754,947. (Cl. 214—17.)

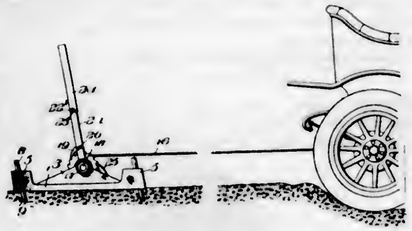


A hoisting apparatus comprising a beam, means for supporting the beam, a pair of track holding bars disposed in spaced parallel relation to each end of the beam and having their faces adjacent the beam cutaway to seat a portion of the same, shanks extending from said cutaway faces through the beam, clamping means at the free ends of the shanks, pintles at the other ends of the bars, a brace bar secured to the pintles and extending diagonally and terminating in a cutaway portion seating the beam, a shank extending from said cutaway portion through the beam, a track rod passed through and secured to the supporting bars and a carrier mounted on the track rod.

1,091,318. AUTOMOBILE-PULLER. JAMES J. FISHER, Townsend, Mont. Filed Sept. 27, 1912. Serial No. 722,726. (Cl. 57—85.)

A portable knock down puller for motor driven vehicles comprising two main longitudinal bed pieces each embodying a base wall and parallel upstanding flanges along the edges of said base wall, a hollow upstanding head at each end of said bed piece having spike receiving holes in the top and bottom wall thereof which holes are out of

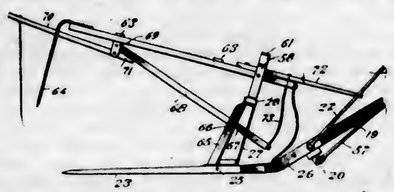
vertical alinement with each other, central longitudinal upstanding bearing webs on said bed pieces parallel to and interposed between said flanges, cross braces having a



detachable connection at their extremities with the bed pieces, a winding drum journaled in said bearing webs and detachable therefrom, and detachable ratchet lever mechanism for operating said drum.

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1,091,319. FORK. CLIFFORD A. FLEMING, Huntsville, Mo. Filed June 1, 1911. Serial No. 630,549. (Cl. 57—53.)



1. A fork, locking means thereon, an overhanging frame movably mounted on said fork and provided with retaining devices for body movement through the load and operable to hold the load in position on the fork, and a holding member carried by said frame and inclined downwardly and rearwardly therefrom and detachably connected with the locking means on said fork and coöperating therewith to hold the frame and fork in opened positions prior to the deposit of the load on the fork and subsequently actuated by the load to permit operative closing movement of said fork and frame.

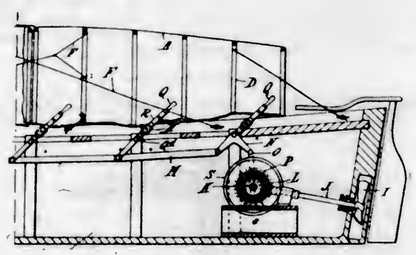
2. A fork, locking means thereon, an overhanging frame movably mounted on said fork and provided with retaining devices for body movement through the load and operable to hold the load in position on the fork, a holding member carried by said frame and inclined downwardly and rearwardly therefrom and detachably connected with the locking means on said fork and coöperating therewith to hold the frame and fork in opened positions prior to the deposit of the load on the fork and subsequently actuated by the load to permit operative closing movement of said fork and frame, and a tilting lever operatively connected with said member for manually releasing the same from said locking means.

3. A fork comprising a head, tines extending therefrom, guards rising from the tines at the rear ends thereof, a bar connected with said guards, members pivoted to said bar and overlying the tines, means carried by said members for engaging the load when said members are moved in the direction of the tines, devices connecting said members together, a keeper on the fork, and a load-actuated latch carried by one of said members and normally engaging the keeper to hold the load-engaging means on said members in inactive positions.

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1,091,320. MEANS FOR PROPELLING BOATS AND THE LIKE. IVAN RUPERT FLEMING, Great Crosby, near Liverpool, England. Filed Nov. 1, 1913. Serial No. 798,751. (Cl. 115—24.)

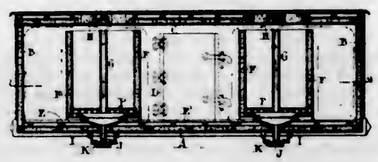
In a boat, the combination, with a shaft, and a propeller mounted thereon; of a longitudinal rod disposed within the boat along each side thereof and at a substantial distance above the floor; hand-levers fulcrumed on said sides adjacent the gunwales and connected to said rods, for reciprocating the same; a cross-shaft provided with a pair



of crank-disks; a bell-crank connected to the rear end of each rod; a rod connecting each bell-crank with the adjacent crank-disk; and connections between the cross-shaft and the propeller shaft, for rotating the latter from the former.

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1,091,321. REFRIGERATOR. PIERRE FLEURY, Paris, France. Filed Mar. 19, 1910. Serial No. 550,408. (Cl. 62—12.)



1. In apparatus for preserving perishable substances, the combination with a closable chamber for said substances of a heat insulated casing in said chamber open at the top and bottom and comprising a plurality of bars of angular section grouped to form unimpeded air circulating conduits in said casing and spaced from the walls of the casing for reception of refrigerating matter between them and the walls.

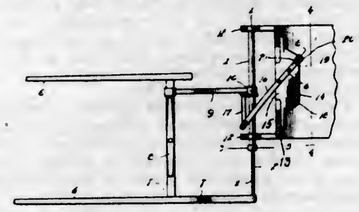
2. In apparatus for preserving perishable substances, the combination with a closable chamber for said substances of a heat insulated casing open at the top and bottom, a series of bars of angular section located within said casing and grouped to form a plurality of unimpeded air circulation conduits and surrounding spaces for reception of refrigerating matter, said bars being bent horizontally at their lower ends for supporting the refrigerating matter exteriorly of the conduits.

3. In apparatus for preserving perishable substances, the combination with a closable chamber for said substances of a heat insulated casing open at the top and bottom, and a plurality of bars of angular section grouped to form two vertical hollow cross walls within said casing spaced from the walls of the casing and having their lower ends bent horizontally toward the walls of the casing.

4. In apparatus for preserving perishable substances, the combination with a closable chamber for said substances of a heat insulated casing open at the top and bottom, a series of bars of angular section located within said casing and grouped to form a plurality of unimpeded air circulation conduits and surrounding spaces for reception of refrigerating matter, said bars being bent horizontally at their lower ends for supporting the refrigerating matter exteriorly of the conduits, together with means for draining the condensed and drip water from the casing to the exterior of said chamber, and a hydraulic seal for said draining means.



1,091,322. VEHICLE-SHAFTS. HARRY ARTHUR FOSTER and FRANK C. KITTREDGE, Weld, Me. Filed Sept. 25, 1913. Serial No. 791,869. (Cl. 21—95.)

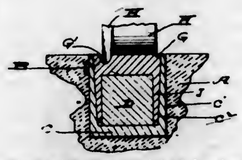


1. The combination with the forward ends of sleigh runners, of a tube fixed thereto, a rod slidably mounted in the tube, shafts connected to the tube and rod, a bar pivotally supported by the sleigh, a link connecting the shafts and bar, a lever hingedly connected to the inner end of the bar for shifting the bar and thus the shafts, and means carried by the lever for locking the shafts in shifted positions.

2. In combination with the forward ends of sleigh runners, of a tube fixed thereto, a rod telescopically connected to the tube, shafts connected to the tube, shafts connected at their inner ends by a cross bar, one of said shafts having its end fixed to said rod, an arm fixed to the cross bar, said arm having a sleeve formed integral therewith for slidably engaging the tube, a plate fixed to the sleigh and having sockets formed in its ends, a curved bar carried by the plate, a bar pivotally connected to the first named bar, a link having one end pivotally connected to the second named bar, and its other end to said sleeve, a lever hingedly connected to the inner end of the first named bar, a finger carried by the lever, said finger being adapted to engage the sockets to hold the shafts in their shifted positions.

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1,091,323. RAILWAY-RAIL. JAMES S. FOX, Jackson, Mich. Filed Sept. 8, 1913. Serial No. 788,669. (Cl. 239—16.)



In combination with the road bed having the depressed rectangular channels, the open supports fitting said channels and having their inner walls inclined, the rectangular cushion blocks resting in said supports, and the rail having the tread surface and the depending walls fitting upon the cushion blocks and having their outer faces inclined to fit against the similarly inclined inner faces of the walls of the open supports.

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1,091,324. RAILWAY-CAR UNDERFRAME. CHARLES F. FREDS, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 31, 1913. Serial No. 758,083. (Cl. 105—104.)



1. In a car underframe the combination with center sills provided in their ends with slots, of a body bolster attached to said center sills, a portion of which body bolster occupies said slots so that parts of said center sills project entirely through and a substantial distance beyond said bolster.

2. In a car underframe, the combination with center sills provided in their ends with slots, of a body bolster connected to said center sills, so that the latter project entirely through and extend a substantial distance beyond the bolster, said body bolster having a top flange which occupies the slots in the center sills.

3. In a car underframe, the combination with center sills provided in their ends with slots, of a body bolster having openings, a portion of which body bolster occupies the slots in the center sills, and parts of which center sills project entirely through and beyond the openings in the body bolster.

4. In a car underframe, the combination with center sills provided in their ends with slots, of a body bolster having openings to accommodate the parts of the center sills below the slots therein and which center sills project entirely through and extend a substantial distance beyond said bolster.

5. In a car underframe, the combination with center sills, of a body bolster having openings through and beyond which project parts of the center sills, and draft sills rigidly fixed to the projecting portions of the center sills.

[Claims 6 to 26 not printed in the Gazette.]

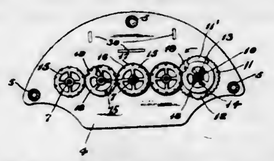
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1,091,325. PROCESS OF MANUFACTURE OF SOLID SULFITES OR BISULFITES OF HOMOGENEOUS CHEMICAL CONSTITUTION. RICHARD FRIEDRICH, Glösa, near Chemnitz, Germany, and FRIEDRICH HIRSCH, Vienna, Austria-Hungary. Original application filed Oct. 31, 1910, Serial No. 589,999. Divided and this application filed Nov. 14, 1913. Serial No. 801,089. (Cl. 23—13.)

A process for the manufacture of solid sulfites or bisulfites of homogeneous chemical constitution from raw materials which are capable of forming sulfites by the action of sulfurous acid gas, which consists in continuously imparting an advance movement in one direction to the raw material containing a predetermined quantity of incorporated water therewith in a solid crushed state, and causing a current of sulfurous acid gas flowing in the opposite direction to meet the raw material, the quantity of water used being so calculated that the heat of the reaction will evaporate all the water so that the finished product will exhibit the required degree of dryness, the velocity with which the raw material and the sulfurous acid gas are brought into mutual contact also being regulated so that the finished product will also exhibit the desired content of sulfurous acid.

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1,091,326. METER-REGISTER. ADRIAN GABUS, Springfield, Ill. Filed Feb. 14, 1913. Serial No. 748,409. (Cl. 235—113.)



A meter indicator comprising a plurality of indicating disks, an arbor for each disk, transmission wheels upon said arbor for imparting movement thereof, snap acting means including a sleeve loosely surrounding one of said arbors and fixed to the transmission wheel thereon, a weight fastened to said sleeve, a gear loosely surrounding the respective arbor in proximity to said weight and in a plane parallel therewith, an arm fastened to the inner face of said gear and extending across the same, and pins extending outwardly from said arm and disposed at the opposite sides of the axis of the gear and upon one side of the axis of the respective arbor and designed to be engaged by said weight substantially as, and for the purpose, described.

1,091,327. PROCESS OF PRODUCING FERMENTABLE SUGARS. FRANCIS E. GALLAGHER, Newton, Mass., assignor to Standard Alcohol Company, New York, N. Y., a Corporation of Maine. Filed July 15, 1912. Serial No. 709,565. (Cl. 127—10.)

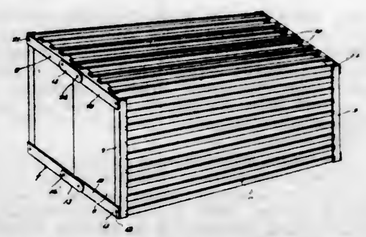
1. In a process of producing fermentable sugars from ligno-cellulose or other cellulosic raw material, the step which consists in subjecting the spent wort to a further hydrolytic treatment.

2. In a process of producing fermentable sugars from ligno-cellulose or other cellulosic raw material, the step which consists in subjecting the spent wort, in admixture with cellulosic raw material, to a further hydrolytic treatment.

3. In a process of producing fermentable sugars from ligno-cellulose or other cellulosic raw material, the step which consists in subjecting the spent wort, in admixture with the soluble products resulting from the hydrolysis of the cellulosic raw material, to a further hydrolytic treatment.

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1,091,328. KNOCKDOWN RECEPTACLE. DWIGHT E. GARRETT, Delta, Iowa. Filed Feb. 7, 1913. Serial No. 746,883. (Cl. 217—46.)



A knock-down crate comprising side sections having L-shaped end pieces, two-part top and bottom sections each having L-shaped end pieces, extensions formed on the outer ends of the end pieces of the top and bottom sections, pivots passed through the extensions and also passed through the portions of the end pieces of the side sections parallel therewith for swingingly connecting the parts of the top and bottom sections thereto, links pivoted to the inner ends of the end pieces of the top and bottom sections to permit the folding of the parts of the top and bottom sections in parallel relation to the side sections, and end sections swingingly connected to the channeled portions of the end pieces of the side sections and adapted to be swung inwardly in parallel relation to the side sections on the folding of the top and bottom sections, the said end sections being adapted to swing outwardly into the channeled portions of the end pieces on the top and bottom sections when at right angles to the side sections.

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1,091,329. SAW-JOINTER. WILLIAM E. GIBBS, Oak Point, Wash. Filed Mar. 16, 1911. Serial No. 614,836. (Cl. 76—46.)



1. In a device of the character specified, a frame bar provided at each end with a transverse slot, a runner having a straight edge for engaging the teeth and provided with a central opening, a bolt passing through the opening and slot to adjustably hold the runner to the bar.

2. In a device of the character specified, a frame bar, a runner at each end of the bar, each runner having a straight hardened edge, means for securing the runners parallel with the bar and means in connection with the said means for adjusting the runners laterally of the bar.

3. In a device of the character specified, a bracket comprising a pair of spaced parallel plates, one of the plates having a cut away portion at its center, a gage plate having a longitudinal slot and having an arm at each end inclined with respect to the plate supported on the cut away portion, the outer end of each of the said arms being bent laterally, a wedge movable under each of the said outer ends, and means for clamping each of the said ends and the adjacent wedge to the plate.

4. In a device of the character specified, a bracket, a gaging pin carried by the bracket, said bracket comprising spaced substantially parallel plates provided with openings for receiving the pin, a nut threaded on the pin on each side of one of the plates, and means for preventing rotation of the pin with respect to the plates.

5. In a device of the character specified, a bracket, comprising a plurality of spaced plates, a gaging pin carried by the bracket, the plates of the brackets being provided with openings for receiving the pin, and a nut on the pin on each side of one of the plates.

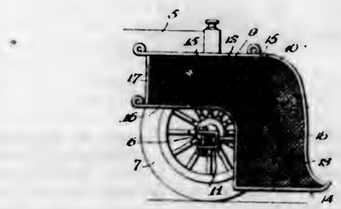
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1,091,330. METHOD FOR TREATING STEEL AND IRON IN THEIR MANUFACTURE. CHARLES R. GOSTLING, Eustis, Fla. Filed June 12, 1913. Serial No. 773,310. (Cl. 22—216.)

The herein described method of treating steel and iron in its manufacture consisting of placing a quantity of diatomite or infusorial earth upon the bottom of a receptacle, filling said receptacle with molten steel or iron and entirely covering the exposed face of the molten steel or iron with a quantity of diatomite or infusorial earth, and thereby maintaining the steel or iron in a molten state beyond the normal time required for solidification to allow the escape of all gases from the molten mass under the influence of the tendency of such gases to rise and expand, and under the influence of the absorbent qualities of the diatomite or infusorial earth.

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1,091,331. AUTOMOBILE-FENDER. CARL HAMMARSTROM, Monessen, Pa., assignor of one-half to Gustaf Newman, Monessen, Pa. Filed Aug. 15, 1913. Serial No. 784,919. (Cl. 105—33.)



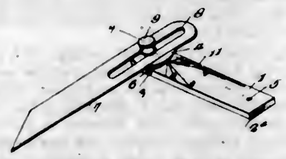
The combination with a fender body having a substantially U-shaped top rail, of a support comprising an L-shaped arm, an axle clip on one end of the arm, a substantially U-shaped rail on the other end of the arm, and hooks at intervals on the top rail of the fender body and detachably engageable with the other rail.

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1,091,332. SQUARE. HUBERT C. HART, Unionville, Conn. Filed Sept. 8, 1909. Serial No. 516,750. (Cl. 33—102.)

1. A tool of the character described, comprising a base formed of sheet metal and having its edges bent to provide an outwardly extending flange, one surface of the base being flat throughout its entire length and formed with a transverse slot and a threaded opening, the metal forming the surface of the base being extended inwardly to form extended walls of the threaded opening, a blade mounted on the flat surface of the base and extending outwardly therefrom, a screw engaging the threaded opening in the base and the blade to lock the latter in position on said base, and a spring catch secured to the base and having one end bent and extended through the transverse slot in the base, the edge of the blade engaging the bent end of the catch to hold said blade against movement.

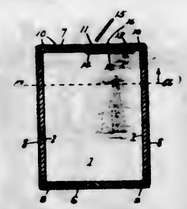




2. A tool of the character described comprising a base of sheet metal formed with a slot and having its ends bent to provide an outwardly extending flange, a spring catch secured to the under side of the base and having a bent end extending up through the slot in the base, the bent end having a flat transverse face, a blade pivoted to the upper side of the base and when turned at right angles thereto engages the transverse face of the catch, and means for pivotally mounting the blade to the base.

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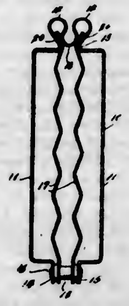
1,091,333. TOY SAVINGS-BANK. CHARLES J. HEIDEL, Cincinnati, Ohio. Filed Nov. 25, 1912. Serial No. 733,516. (Cl. 232—4.)



A toy bank having one wall thereof formed with a coin slot disposed at an angle to both the relative inner and outer surfaces of said wall, and a closure for the slot comprising a double-leaf member having a width exceeding the length of the slot, one leaf of said member extending beyond the free terminal of the other leaf, means for securing the shorter leaf of the member to the slotted wall and means for securing both leaves to the slotted wall remote from their free ends, the free end of the long leaf underlying and bridging the full width of the slot, the inclined disposition of the slot facilitating the displacement of the underlying leaf on the introduction of the coin.

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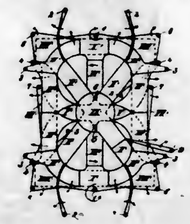
1,091,334. HAIR-CRIMPER. PETER HEIM, Cullman, Ala. Filed Aug. 8, 1913. Serial No. 783,786. (Cl. 132—18.)



As a new article of manufacture, a hair curler consisting of a frame formed of a single piece of material having parallel sides and an end portion curved to provide adjacent loops, with adjacent sides of the said loops forming a substantially U-shaped clamping member, and prongs mounted to swing on the other end of the frame and extending lengthwise thereto, with the free ends of the prongs adapted for clamping engagement with the said loops and having portions thereof engaging the portions of the U-shaped clamping member formed by the adjacent sides of the loops.

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1,091,335. MULTIPLE LETTER FOR ADVERTISING-BOARDS, SKYLIGHTS, AND THE LIKE. CARL BORRO HERRMANN, Halensee, near Berlin, Germany. Filed Aug. 22, 1912. Serial No. 716,551. (Cl. 40—28.)



1. In a multiple letter for advertising boards, sky-lights, and the like, the combination, with a base and a ground-letter, of means for illuminating said ground-letter at night-time; movable letter parts arranged in front of said ground-letter and illuminating means and adapted to be moved parallelly to the said ground-letter; the color of the said letter parts corresponding to that of the base, for the purpose as described.

2. In a multiple letter for advertising boards, sky-lights, and the like, the combination, with a base and a ground-letter, of electric incandescence lamps adapted to illuminate said ground letter; movable letter parts arranged in front of said ground letter and lamps and adapted to be moved parallelly to the said ground-letter; substantially as described.

3. In a multiple letter for advertising boards, sky-lights, and the like, the combination, with a base and a ground-letter, of electric incandescence lamps arranged upon said ground-letter; movable letter parts arranged in front of said ground letter and lamps and adapted to be moved parallelly to the said ground-letter; substantially as described.

4. In a multiple letter for advertising boards, sky-lights, and the like, the combination, with a base and a ground-letter, of electric incandescence lamps arranged upon said ground-letter and distributed over all parts of the same; movable parts having the contours of letter-parts and being arranged in front of said lamps and adapted to be moved parallelly to the said ground-letter; and means for moving the said letter-parts in proper succession, for the purpose as described.

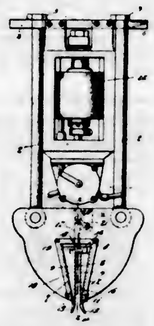
5. In a multiple letter for advertising boards, sky-lights, and the like, the combination, with a base and a ground-letter, of electric incandescence lamps arranged upon said ground-letter and distributed over all parts of the same; movable parts representing various parts of letters and situated in front of said lamps and adapted to be moved parallelly to the said ground-letter and to cover or uncover corresponding parts of the same, and means for thus operating said parts; substantially and for the purpose as described.

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1,091,336. PULLING ATTACHMENT FOR STEAM-HAMMERS. TRUMAN HILL, Perry, Ill., assignor of one-half to John Ray Sims, Sr., Perry, Ill. Filed May 17, 1913. Serial No. 768,278. (Cl. 61—13.)

1. A pulling attachment for power hammers including a frame comprising a lower section, an impact bar to receive the hammer blows, and connections between the said

section and impact bar, and automatically operative gripping members carried by the lower section, and means for locking said gripping members against automatic gripping coöperation.



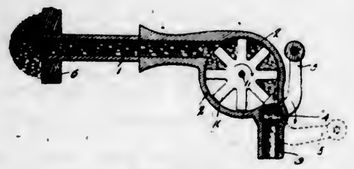
2. A pulling attachment for power hammers including an impact bar to receive the hammer blows, a frame section supported thereby, said section being formed with an opening having downwardly convergent channeled side walls, gripping members coöperating with the channeled side walls, and means for locking said gripping members at their upper limited movement.

3. A pulling attachment for power hammers including an impact bar to receive the hammer blows, a frame section supported thereby, said section being formed with an opening having downwardly convergent channeled side walls, gripping members coöperating with the channeled side walls, said gripping members having relatively offset lateral projections formed with channels, a pin slidably mounted in the section and having a head to engage the channels of said gripping members, and means for locking the pin in elevated position.

4. A pulling attachment for power hammers including an impact bar to receive the hammer blows, a frame section removably supported thereby, said section being formed with an opening having downwardly convergent channeled side walls, gripping members coöperating with the channeled side walls, and means for locking said gripping members at their upper limited movement.

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1,091,337. MEASURING-FAUCET. WESLEY H. HOLMES, Milwaukee, Wis. Filed Oct. 14, 1912. Serial No. 725,576. (Cl. 73—37.)



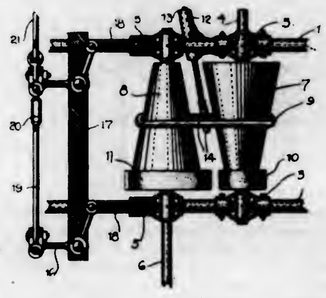
1. In a faucet of the class described, the combination with a gear housing, of a power wheel arranged therein to be actuated by the liquid passing through said housing, an internally toothed ring mounted to rotate within the housing, and gearing connecting the power wheel with said ring for actuating the same proportionately with the quantity of liquid passing the power wheel, the periphery of said ring being formed with legends for indicating relative movement thereof, the gear casing being formed with an inspection opening disclosing a portion of the periphery of said ring sufficiently for displaying one of its legends.

2. In a faucet of the class described, the combination with an annular gear casing, of a power wheel disposed to be rotated proportionately to the quantity of passing liquid, a shaft fixed to the power wheel and extending into the gear casing, an internally toothed ring surrounding and disposed concentric with said shaft, and gears connected to transmit motion from the shaft to said ring in a ratio proportionate to the quantity of liquid passing the power wheel, said ring being disposed for displaying such relative quantity of liquid.

3. The combination with a gear casing, of a partition wall dividing said casing into a liquid chamber and a gear chamber, a power wheel disposed within the liquid chamber, means for directing liquid past the power wheel in position for actuating the same relative to the quantity of passing liquid, a shaft carrying the power wheel and extending into the gear chamber, a plurality of number wheels disposed within the gear chamber, and gearing within said number wheels for transmitting motion from said shaft to the number wheels in a ratio proportionate to the quantity of passing liquid, each number wheel being provided with legends indicating the relative values proportionate to the respective movements of such wheels, and the gear casing being formed with an inspection opening for displaying such legends.

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1,091,338. TRANSMISSION AND REVERSING GEARING FOR ENGINES. LESTER J. HOUPT, Blencoe, Iowa. Filed Feb. 26, 1913. Serial No. 750,928. (Cl. 74—26.)



1. In a device of the class described, the combination with a support, and a pair of parallel spaced apart supporting shafts; of a pair of bearings rigidly secured to said shafts in alinement with one another, a drive shaft rotatably mounted in said bearings, an additional pair of bearings slidably mounted on said shafts, a driven shaft rotatably mounted in said last mentioned bearings, oppositely disposed cone pulleys carried on said drive and driven shafts between the pairs of bearings, means in connection with said sliding bearings for moving the same on said supporting shafts to correspondingly remove the one pulley laterally with respect to the other, friction means on each of said pulleys adapted for engagement with one another to cause one pulley to be rotated upon the rotation of the other, an endless flexible connection disposed over said pulleys to cause one of the latter to be rotated upon the rotation of the other when the same are spaced from one another, and means for moving said endless connection longitudinally on the pulleys.

2. In a device of the class described, the combination with a pair of spaced apart parallel shafts; of a driving shaft rotatably supported on the aforesaid shafts, a driven shaft also rotatably supported on said parallel shafts and capable of movement thereon with respect to the driving shaft, a pair of oppositely disposed cone pulleys carried on said drive and driven shafts between said supporting shafts, an endless flexible connection disposed over said pulleys to cause one to be rotated from the other, means for slidably moving said driven shaft and cone thereon on said supporting shafts, a bearing formed on one of said supporting shafts, a shifting rod slidably disposed therethrough, and means on the end of said shifting rod engaged with said endless flexible connection to dispose the same in various positions on the pulleys, as the shifting rod is operated.



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1,091,339. SHOOTING-GALLERY. EDWARD HOWARTH, Brooklyn, N. Y. Filed Mar. 22, 1913. Serial No. 756,234. (Cl. 124—16.)



1. An amusement device, including an outer group of traveling objects, and a group of flexible traveling objects located within the outer group, and means for moving the objects of the inner group vertically with relation to the traveling plane of the outer objects.

2. An amusement device, including an outer group of traveling objects, and a group of flexible traveling objects located within the outer group, and means for moving the objects of the inner group vertically with relation to the traveling plane of the outer objects and for causing the same to gradually appear and disappear from the plane of vision.

3. An amusement device, including an outer group of traveling objects, and a group of flexible traveling objects located within the outer group, and means for moving the objects of the inner group vertically with relation to the traveling plane of the outer objects and for causing the same to gradually appear and disappear from the plane of vision, and means for permitting the objects of the outer group to be shifted from their traveling courses.

4. An amusement device, including an outer group of traveling objects, a group of flexible traveling objects located within the outer group, means for moving the objects of the inner group vertically with relation to the traveling plane of the outer objects and for causing the same to gradually appear and disappear from the plane of vision, means for permitting the objects of the outer group to be shifted from their traveling courses, and then automatically returned to their traveling courses.

5. An amusement device, including an outer group of traveling objects, a group of flexible traveling objects located within the outer group, means for moving the objects of the inner group vertically with relation to the traveling plane of the outer objects and for causing the same to gradually appear and disappear from the plane of vision, and means for permitting the objects of the outer group to be shifted from their traveling courses and subsequently returned to their traveling courses.

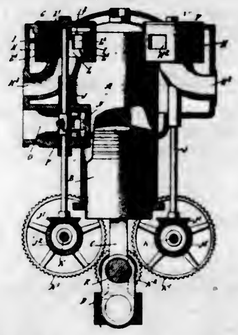
[Claim 6 not printed in the Gazette.]

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1,091,340. ROTARY VALVE. GABRIEL P. B. HOYT, New York, N. Y. Filed Jan. 9, 1912. Serial No. 670,215. (Cl. 123—190.)

1. A rotary valve, comprising a valve chamber, a rotary split valve fitting into the said chamber, and an annular split partition fixed in the valve chamber and surrounded by the said rotary split valve.

2. A rotary valve, comprising a cylindrical valve chamber having ports in its side and an opening in one end, a rotary valve fitting into the said chamber and having a port adapted to register with the said valve chamber ports, the said rotary valve being split at its port, and an annular partition fixed in the said valve chamber and having ports opposite the said valve chamber ports, the said partition being split intermediate its ports.



3. A rotary valve, comprising a cylindrical valve chamber having ports in its side and an opening in one end, a rotary valve fitting into the said chamber and having a port adapted to register with the said valve chamber ports, the said rotary valve being split at its port, and an annular partition fixed in the said valve chamber and having ports opposite the said valve chamber ports, the said partition being split intermediate its ports, and the said partition having its inner and outer surfaces eccentric one relative to the other.

4. A rotary valve, comprising a cylindrical valve chamber having ports in its side and an opening in one end, a rotary valve fitting into the said chamber and having a port adapted to register with the said valve chamber ports, the said rotary valve being split at its port, and an annular partition fixed in the said valve chamber and having ports opposite the said valve chamber ports, the said partition being split intermediate its ports, and the said partition having its inner and outer surfaces eccentric one relative to the other and eccentric relative to the said valve chamber and the said rotary valve having its inner surface eccentric relative to the outer surface.

5. A rotary valve comprising a cylindrical valve chamber having ports in its side and an opening in one end, a rotary valve fitting into the said chamber and having a port adapted to register with the said valve chamber ports, the said rotary valve being split at its port, and an annular partition fixed in the said valve chamber and having ports opposite the said valve chamber ports, the said partition being split intermediate its ports, and the said partition having its inner and outer surfaces eccentric one relative to the other and eccentric relative to the said valve chamber, and the said rotary valve having its inner surface eccentric relative to the outer surface, the said rotary valve being thinnest at its port.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,341. HOOK AND EYE. EDWIN J. HUGHES, Jr., Rome, N. Y. Filed Dec. 18, 1912. Serial No. 737,462. (Cl. 24—228.)

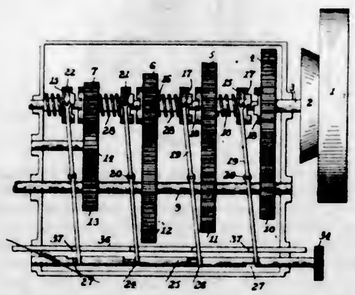


A garment fastener comprising an eye, a hook, said hook being formed of a single length of wire bent upon itself to form an intermediate tongue having side por-

tions disposed in diverging relation toward the outer end of the tongue and connected with each other by a bight portion, the said side portions being curved vertically throughout their length, and attaching arms curved longitudinally and in a vertical reverse direction to the curvature of the side portions of the tongue, the said side portions of the tongue and attaching arms respectively being of different length so that the bight of the tongue extends beyond the free ends of the arms, the said arms having their opposite ends curved directly into the adjacent ends of the said portions of the tongue and defining therewith alined receiving spaces for the reception of the eye of the fastener.

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1,091,342. TRANSMISSION-GEARING FOR AUTOMOBILES. DON M. HUNT, Oregon, Mo. Filed Aug. 5, 1913. Serial No. 783,148. (Cl. 74—59.)



1. In changeable speed transmission gearing, the combination of a transmission shaft, an engine shaft, a clutch for connecting and disconnecting said shafts, a jack shaft parallel to the transmission shaft, driven gear wheels of different sizes fast on said jack shaft, mating driving gear wheels loose on the transmission shaft, a locking collar for each driving gear wheel rotating with and slidable longitudinally of the transmission shaft, means for moving said locking collars into engagement with their respective gear wheels, a series of collar shifting levers, one for each collar, a clutch operating member embodying means operating to move all of said levers to unlock the driving gear wheels, and a manually controlled selecting device operating to release one of said levers when the clutch is let in.

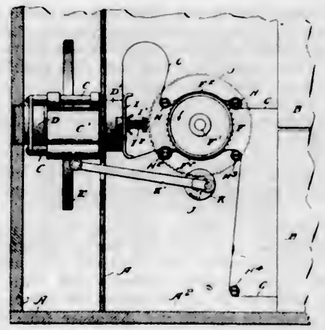
2. In changeable speed transmission gearing, the combination of a transmission shaft, an engine shaft, a clutch for connecting and disconnecting said shafts, a jack shaft parallel to the transmission shaft, driven gear wheels of different sizes fast on said jack shaft, mating driving gear wheels loose on the transmission shaft, a locking collar for each driving gear wheel rotating with and slidable longitudinally of the transmission shaft, a thrust spring behind each collar, a series of collar shifting levers, one for each collar, a clutch operating member embodying means operating to move all of said levers to unlock the driving gear wheels, and a manually controlled selecting device operating to release one of said levers when the clutch is let in.

3. In changeable speed transmission gearing, the combination of a transmission shaft, an engine shaft, a clutch for connecting and disconnecting said shafts, a jack shaft parallel to the transmission shaft, driven gear wheels of different sizes fast on said jack shaft, mating driving gear wheels loose on the transmission shaft, a locking collar for each driving gear wheel rotating with and slidable longitudinally of the transmission shaft, means for moving said locking collars into engagement with their respective gear wheels, a series of collar shifting levers, one for each collar, a clutch operating member embodying means operating to move all of said levers to unlock the driving gear wheels, and a manually controlled selecting device operating to release one of said levers when the clutch is let in, said selecting device consisting of a shaft having grooves in which said levers rest, each groove consisting of a portion extending circumferentially of its shaft and another portion extending longitudinally of the shaft.

4. In changeable speed transmission gearing, the combination of a transmission shaft, an engine shaft, a clutch for connecting and disconnecting said shafts, a jack shaft parallel to the transmission shaft, driven gear wheels of different sizes fast on said jack shaft, mating driving gear wheels loose on the transmission shaft, a locking collar for each driving gear wheel rotating with and slidable longitudinally of the transmission shaft, means for moving said locking collars into engagement with their respective gear wheels, a series of collar shifting levers, one for each collar, a clutch operating member embodying means operating to move all of said levers to unlock the driving gear wheels, a manually controlled selecting device operating to release one of said levers when the clutch is let in, said selecting device consisting of a shaft having grooves in which said levers rest, each groove consisting of a portion extending circumferentially of its shaft and another portion extending longitudinally of the shaft, and a thumb lever on the steering control for operating said selecting shaft.

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1,091,343. MOTION-PICTURE APPARATUS. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Jan. 8, 1912. Serial No. 669,998. (Cl. 88—16.8.)



1. The combination with a closed casing having a rigid transverse diaphragm, of a lens tube arranged for sliding longitudinally in an aperture in said casing, an alining film guide tube arranged for sliding similarly in an aperture in said diaphragm, means for reciprocating the two tubes together, means for yieldingly holding a transverse film strip at the rear end of the guide tube, and means for holding that portion of the strip which has passed the guide tube against the pull of the latter in its forward movements; whereby the film is advanced with respect to the guide tube during each forward movement of the latter.

2. The combination with a closed casing internally divided by a fixed transverse diaphragm, of a lens tube and a connecting alining film guide tube arranged to fit and slide in apertures in the casing and diaphragm, respectively, a shutter arranged for rotation between said tubes, means for axially reciprocating the two tubes, means for yieldingly holding a film strip against the inner end of the guide tube, means for directing film to said holding means, and means for feeding film from said holding means to take up slack due to rearward movement of the guide tube and for holding this portion of the film against the pull thereon when the guide tube moves forward.

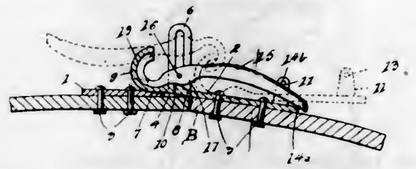
3. The combination with a lens reciprocating in its own axial line, of a film guide reciprocating with the lens and arranged for yielding slightly when, in moving forward, it meets strong resistance, and means for positively and uniformly arresting the forward movement of the guide slightly before it reaches the limit to which it would otherwise advance, whereby the guide and film therein always move forward to the same point, precisely, irrespective of ordinary wear of parts causing reciprocation.

4. The combination with a casing of a lens tube fitting in an aperture in the casing, a film guide tube alining with the lens tube, at some distance in the rear thereof and rigidly connected thereto, means for reciprocating said tubes, means whereby such reciprocation causes film to pass intermittently across the inner end of the guide tube, and an upwardly detachable plate spring-pressed on each side against the inner end of the guide tube.

5. The combination of a lens and film guide reciprocating together in the axial line of the lens, means for frictionally holding in said guide a film strip transverse to said line, and means for taking up at one side of said guide the slack in the film due to rearward movement of the latter and holding the same portion of the film against contrary movement while the guide moves forward; whereby each forward movement of the guide causes the film to slip therein, presenting a fresh portion in said axial line.

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1,091,344. FASTENER. REUBEN JENKS, Youngstown, Ohio. Filed July 30, 1913. Serial No. 782,077. (Cl. 24—68.)



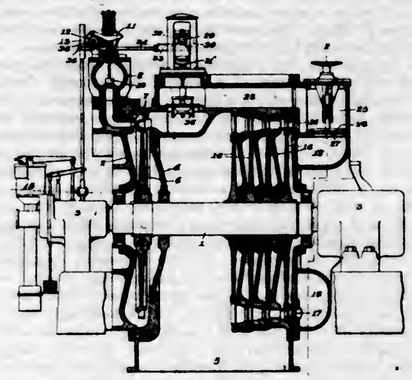
1. A fastener comprising detachable sections, longitudinally slotted members integral with one of said sections and disposed at right angles thereto, a hook-shaped tongue formed on one end of the other detachable section between the longitudinal edges thereof, a lever adjustably mounted within said longitudinally slotted members, a hook-shaped portion formed on one terminal of said lever and adapted to coöperate with said first named hook-shaped tongue during the operation of locking said sections and to lie within the hook shaped tongue when in locked position, the other terminal of said lever having a transverse groove therein, adapted to receive the edge of the last mentioned section, a pair of upstanding apertured members on last named section and removable fastening means adapted to be inserted through the upstanding members and above the lever to lock the lever in locked position.

2. A fastener consisting of detachable sections oppositely disposed bearing members formed integral with one of said sections, said bearing members provided with longitudinal slots, a lever adjustably and pivotally mounted within said longitudinal slots, a hook-shaped tongue formed on the other of said sections, a hook-shaped member formed on the inner free terminal of said lever adapted to coact with said hook-shaped tongue during the operation of securing said sections and to lie within the hook-shaped tongue when the lever is in locked position, and means for locking said lever to hold said sections in locking engagement with each other, said lever having a transverse notch in one end adapted to receive the edge of said last named section, when the lever is in locked position.

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1,091,345. MIXED-PRESSURE TURBINE. OSCAR JUNGGREN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 9, 1913. Serial No. 783,977. (Cl. 121—118.)

1. A mixed pressure turbine having a high pressure end and a low pressure end, and provided with a restricted constantly-open passage between the condenser and the high pressure stage for establishing a vacuum in the high pressure end when the machine is running on low pressure steam.



2. A mixed pressure turbine having a high pressure end and a low pressure end, a passage for conveying the exhaust steam from the former to the latter, a check valve in said passage, and a restricted constantly-open passage connecting the high pressure end with the condenser.

3. A mixed pressure turbine having a high pressure wheel and nozzles, valve gear controlling the admission of high pressure steam to said nozzles, low pressure wheels and nozzles therefor, means for supplying low pressure steam to a portion of said nozzles, and means for conveying to the remainder of said nozzles the exhaust steam from the high pressure wheel.

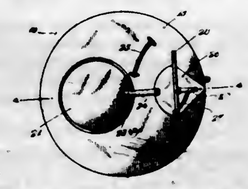
4. A mixed pressure turbine having a high pressure wheel and nozzles, valve gear controlling the admission of high pressure steam to said nozzles, low pressure wheels and nozzles therefor, means for supplying low pressure steam to a portion of said nozzles, a passage conveying to the remainder of said nozzles the exhaust steam from the high pressure wheel, and one or more check valves in said passage opening toward said low pressure nozzles.

5. A mixed pressure turbine having a high pressure wheel and nozzles, valve gear controlling the admission of high pressure steam to said nozzles, low pressure wheels and nozzles therefor, means for supplying low pressure steam to a portion of said nozzles, a passage for conveying to the remainder of said nozzles the exhaust steam from the high pressure wheel, one or more check valves in said passage opening toward said low pressure nozzles, and means for positively operating said valves when said high pressure valve gear goes into operation.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,346. CLOSET. HENRY M. KEITH, Eldorado, Ill. Filed Mar. 15, 1913. Serial No. 754,406. (Cl. 4—20.)



1. In a closet, the combination with a receptacle provided with an opening, of a sealing lid for normally closing the opening, a plate mounted to swing horizontally on the receptacle and provided with a curved slot, an actuating member mounted to swing on the receptacle and extending through the curved slot of the plate to actuate the plate and move the sealing lid into and out of sealing

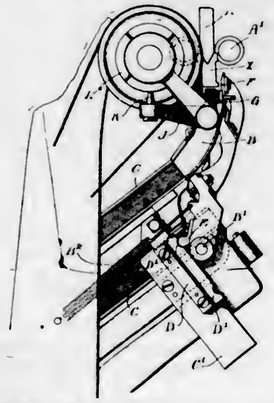
position when the actuating member is operated, a seat ring carried by the actuating member and movable therewith, and means carried by the receptacle and movable by the actuating member to raise the sealing lid from closed position to permit the same to be swung horizontally into open position when the actuating member is operated.

2. In a closet, the combination with a receptacle provided with an opening, of a sealing lid normally closing the opening, a slotted plate carried by the receptacle and movable horizontally, a pivotal connection between the sealing lid and the plate for moving the sealing lid horizontally when the plate is actuated, a bracket on the receptacle for guiding the sealing lid into or out of closing position, a spring-engaged actuating member mounted to swing on the receptacle and extending through the slot of the said plate for operating the plate when the said actuating member is operated, and a seat ring carried by the actuating member and movable therewith to occupy the place of the sealing lid when the sealing lid has been swung into open position by the operation of the said plate.

3. In a closet, the combination with a receptacle having a plurality of water seals, of a main supply tank, an auxiliary supply tank having connection with the main supply tank, a pipe connecting the auxiliary supply tank with the said water seals, an actuating member mounted to swing on the receptacle, a valve for controlling the supply of fluid from the main supply tank to the auxiliary tank and from the auxiliary tank to the said water seals, and an actuating member mounted to swing on the receptacle and having connection with the valve for operating the same to fill the auxiliary tank with fluid and to permit the supply of fluid to flow from the auxiliary tank to the said water seals.

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1,091,347. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 27, 1913. Serial No. 757,104. (Cl. 199—7.)



1. In a typographical machine, the combination of a movable magazine, distributing mechanism therefor, and means whereby the movement of the magazine automatically arrests the operation of the distributing mechanism and thus prevents the distribution of matrices to an improper magazine.

2. In a typographical machine, the combination of a plurality of magazines capable of independent use, distributing mechanism to deliver type or matrices to the magazine in use, and means whereby the mechanical selection of a different magazine automatically arrests the operation of the distributing mechanism and thus prevents the distribution of matrices to an improper magazine.

3. In a typographical machine, the combination of a plurality of magazines movable as a whole to bring one or another into operative position, distributing mechanism to deliver type or matrices to the selected magazine, and means whereby the movement of the magazines automatically arrests the operation of the distributing mechanism and thus prevents the distribution of matrices to an improper magazine.

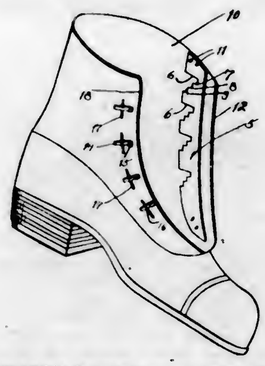
4. In a typographical machine, the combination of a movable magazine, and distributer stop mechanism operated automatically by the movement of the magazine; whereby the distribution of matrices to an improper magazine will be prevented.

5. In a typographical machine, the combination of a plurality of magazines movable as a whole to bring one or another into operative position, distributing mechanism to deliver type or matrices to the selected magazine, and means whereby the movement of the magazines automatically prevents the delivery of any undistributed type or matrices to another magazine when it is brought into operative position.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,348. SEPARABLE FASTENER. SIGVART A. KIRKNESS, Lake Park, Minn. Filed Dec. 13, 1913. Serial No. 806,502. (Cl. 24—206.)



1. A separable fastener comprising a plate formed with a hook receiving recess having one wall thereof stepped, a hook for removable engagement with said steps and means for mounting the hook to permit a lateral movement thereof whereby it may be engaged with different steps.

2. A separable fastener comprising a plate formed with a hook receiving recess opening upon one edge thereof, the inner wall of the recess being stepped, a hook extending transversely across the plate and having a bill for engagement with step, and a pivot rod, said hook being slidably and rotatably mounted on said rod.

3. A separable fastener comprising a flexible plate of an elongated shape having a hook receiving recess opening upon one edge thereof, the inner wall of the recess being stepped forming shoulders paralleling the recessed edge, a hook extending transversely of the plate having its bill for removable engagement with said step, a pivot rod for the hook extending parallel to the plate, said hook being formed with an opening to receive the rod and permit a lateral movement of the hook therealong.

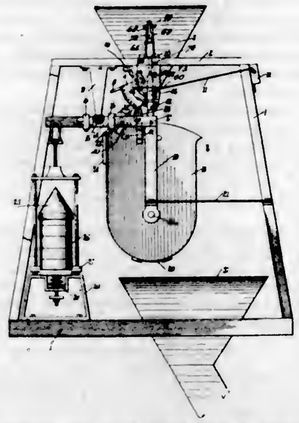
4. In combination with a flexible member, a separable fastener comprising an elongated plate secured to said flexible member adjacent one end thereof, having a plurality of hook receiving recesses opening upon one of its edges, the inner walls of said recesses being stepped; a plurality of pivot rods secured to the flexible member adjacent the other end thereof and paralleling said plate, a hook connected to each of said rods having a bill and an enlarged central portion bored to receive the rod.

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1,091,349. SCALE. VICTOR O. KLINGLER, Slayton, Minn. Filed June 3, 1912. Serial No. 701,218. (Cl. 73—174.)

1. The combination of a bucket adapted to receive grain or other material, a plurality of concentric valves adapted to control the supply of grain or other material to the bucket, means whereby the valves may be held in one position to permit the bucket to be filled, movement of the bucket when nearly filled bringing about a disengagement of the said means, whereby one of the valves closes, and means for engaging the bucket structure to steady the bucket when the said valve closes, the said means being adapted to be actuated by the movement of the said valve in closing to move the same out of engagement with the bucket structure.





2. The combination of a bucket and a movable scale beam, the bucket being movably mounted on the scale beam, concentric valves for controlling the supply of material to the bucket, means carried by the bucket for holding the valves in one position, whereby material may enter the bucket, said means moving away from one of the valves whereby it closes when the bucket is nearly full, a movable member coöperating with the said bucket in order to prevent undue movement thereof when the first valve closes, and other means actuated by the said valve in closing for bringing the said means out of such coöperative relation after the valve has closed.

3. The combination of a bucket adapted to receive material to be weighed, a plurality of concentric valves controlling the supply of material to the bucket, whereby the material entering the bucket is controlled, means carried by the bucket and engaging the valves, whereby they are held in open position, one of the valves being adapted to permit a dribble stream to enter the bucket when the said valve is closed, means to prevent movement of the bucket beyond that necessary to permit the first valve to close, and other means actuated by the closing of the said valve to bring the first means to inoperative position, whereby movement of the bucket is again permitted with the dribble stream entering therein.

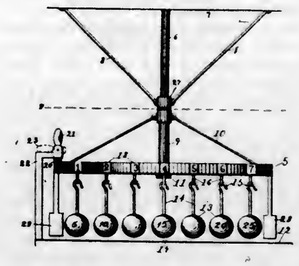
4. The combination of a bucket and a scale beam, the bucket being movably suspended on the beam, a plurality of valves for controlling the supply of material to the bucket, means on the bucket for holding the said valves open, movement of the bucket carrying the said means out of engagement with one of the valves, whereby it may close, the said valve having an opening therein to permit a dribble stream to enter the bucket, means for preventing further movement of the bucket during closing of the said valve, and other means actuated by movement of the said valve in closing and bringing the first means to inoperative position after the said valve has closed, whereby the dribble stream into the bucket will move the bucket when the desired amount has been received, the second valve closing subsequently.

5. The combination of a bucket and a movable scale beam, the beam carrying the bucket concentric valves for controlling the supply of material to the bucket, means carried by the bucket in engagement with the valves for maintaining them in open position, the bucket moving after a certain amount of material has been received therein, whereby one of the valves closes, the said valve permitting a dribble stream to enter the bucket after such closing, a latch for engagement with the bucket structure for preventing further movement thereof after such initial movement permitting the said valve to close, means actuated by the said valve as it closes for bringing the latch to inoperative position, whereby as the dribble stream enters the bucket, movement of the bucket is permitted, the second valve closing after the bucket has received the requisite amount of material.

[Claims 6 to 20 not printed in the Gazette.]

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1,091,350. BOWLING-ALLEY. PAUL S. KNAPP, Akron, Ohio. Filed May 5, 1913. Serial No. 765,519. (Cl. 46—66.)



1. In a bowling game, a table suspended to revolve horizontally, and targets depending from the table to swing freely.

2. In a bowling game, a floor; a shaft located in a vertical position above the floor; a table mounted to revolve horizontally on the shaft; and targets hung upon the table near enough to the floor to be hit by balls rolled on the latter.

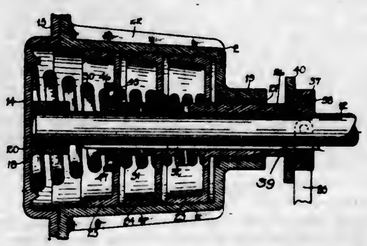
3. In a bowling game, a table mounted to revolve in a horizontal plane; targets depending from the table to revolve therewith, and a goal located on a fixture near the outer path of the revolving targets.

4. In a bowling game, a table mounted upon a vertical shaft to revolve horizontally, a latch located to engage the table near its periphery, and targets depending from the table.

5. In a bowling game, a floor; a table mounted to revolve parallel with the floor; targets suspended from the table near its edge to swing above the floor; a numeral marked on the table over each of such targets, and corresponding numerals marked on the floor around the table, but in reverse order to the said numerals on the table.

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1,091,351. MULTIPLE-CONE CLUTCH. JAMES B. KNICKERBOCKER, Indianapolis, Ind. Filed Jan. 13, 1913. Serial No. 741,736. (Cl. 192—8.)



1. A clutch including a tapering non-slidable clutch member, a shaft, a series of cone friction members slidable on said shaft and spaced apart when clutching said non-

slidable clutch member, springs between said friction members, means for moving a friction member at one end of the series into clutching position so that the springs will move the other friction members into clutching position, and means for disengaging the friction member at the other end of the series from clutching position and overcoming the action of said springs successively for disengaging the other friction members.

2. A clutch including a tapering non-slidable clutch member, a shaft, a series of cone friction members slidable on said shaft and spaced from each other when clutching said non-slidable clutching member, springs between said friction members, a spring for moving a friction member at one end of the series into clutching position and through said springs successively moving the other friction members into clutching position, and means for disengaging the friction member at the other end of the series and overcoming the action of said springs and moving the friction members against each other for disengaging said friction members successively.

3. A clutch including a tapering non-slidable clutch member, a shaft, a series of cone friction members slidable on said shaft and spaced from each other when clutching said non-slidable clutching member, springs between said friction members, a spring for moving a friction member at one end of the series into clutching position and through said springs successively moving the other friction members into clutching position, said springs diminishing in power from said first acting spring to the other end of the series of springs, and means for disengaging the friction member which is actuated by the weakest spring at the other end of the series, and overcoming the action of said springs and moving the friction members against each other for disengaging said friction members successively.

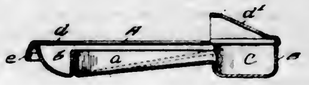
4. A clutch mechanism consisting of a non-slidable casing having a tapering portion with external reinforcing longitudinal ribs, a shaft operating within said casing, a series of cone friction members slidably mounted on said shaft within said casing in position to be spaced apart when clutching the inner wall of said casing, springs between said friction members, a spring for moving a friction member at one end of the series into clutching position and through said springs successively moving the other friction members into clutching position, said springs diminishing in power from said first acting spring to the other end of the series of springs, and means for disengaging the friction member which is actuated by the weakest spring at the other end of the series and overcoming the action of said springs and moving the friction members against each other for disengaging said friction members successively.

5. A clutch mechanism including a casing formed of a radial end portion and a tapering portion extending therefrom, a shaft with its end projecting into said casing, a bearing for the end of said shaft secured to the radial portion of the casing, a series of cone friction members slidably mounted on said shaft within said casing and each of said friction members having a hub and the smallest of them having a hub projecting through and having bearing in the smaller end of the casing and the friction members arranged so that when clutching their hubs they will be spaced apart, springs lying between said friction members and around their hubs, a spring lying between the largest friction member and the end of the casing, said spring being stronger than the other springs and the series of springs being weaker substantially in proportion to the number of the successive friction members, and a shifting lever operably connected with the outwardly extending end of the hub of the smallest friction member, whereby said friction members may be shifted and disengaged.

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1,091,352. BED-PAN. AUGUSTUS B. KNOWLTON, Columbia, S. C. Filed July 3, 1913. Serial No. 777,255. (Cl. 4—19.)

1. A bed-pan comprising a primary central receptacle arranged longitudinally and an end or final receptacle into which the first-named one discharges, the bottom of the latter being inclined up to its mouth or discharge end which is higher than the bottom of the final receptacle, as described.



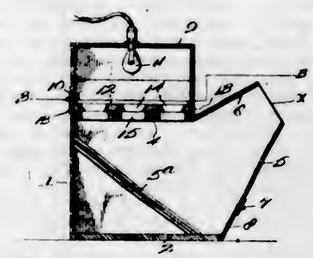
2. The improved bed-pan comprising a central primary receptacle, an overflow receptacle partly surrounding the first-named one and into which such primary one is adapted to discharge, and a final receptacle arranged at one end of the first-named receptacles and communicating therewith, as described.

3. The improved bed-pan comprising a body portion having a central longitudinal primary receptacle, a U-shaped overflow receptacle partly surrounding the first-named one, an end or final receptacle communicating with both the others, and a cover extending over the whole except the central receptacle, and provided with a pouring lip, as described.

4. The improved bed-pan comprising a body portion having a central receptacle and an adjacent overflow receptacle and an end portion having a final receptacle which communicates with the others, the pan being contracted at the junction of the two portions, as and for the purpose specified.

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1,091,353. EGG-TESTER. OSCAR J. KOGEL and WILLIAM T. SIMMONS, Louisville, Ky. Filed Sept. 12, 1913. Serial No. 789,525. (Cl. 99—6.)



1. In an egg testing apparatus, the combination of a casing constructed to admit light; a horizontally-disposed grate mounted on the casing; guideways mounted on said grate; a tray fitting within said guideways and slidably mounted on said grate, said tray adapted to hold the eggs for inspection above the grate openings; and a diagonally-disposed reflector mounted in the casing beneath the grate, and said casing provided with an inspection aperture disposed in front of said reflector, substantially as described.

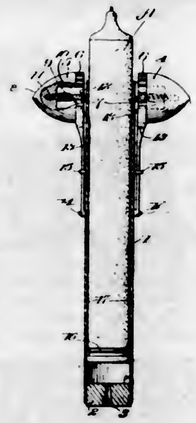
2. In an egg testing apparatus, the combination of a casing; a grate mounted on the casing; an egg supporting tray slidably mounted on said grate; a hood hingedly mounted on said casing and adapted to form an inclosure for a lamp, said hood adapted to be opened to admit natural light; and a diagonally-disposed mirror mounted in the casing beneath said grate, and said casing provided with an inspection aperture disposed in front of said mirror, substantially as described.

3. In an egg testing apparatus, the combination of a casing; a grate mounted on said casing; guideways mounted on the grate; an apertured egg supporting tray mounted to slide within said grate guideways and projecting beyond said grate, whereby to be manipulated; members mounted on the tray for limiting the sliding movement thereof; a hood mounted on the casing above the tray providing a chamber for a lamp; and a diagonally-disposed mirror mounted in the casing beneath the grate, and said casing provided with an inspection aperture disposed in front of said mirrors, substantially as described.

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1,091,354. CANDLE-HOLDER. GEORGE KOWALSKY, McDowell, W. Va. Filed Dec. 23, 1913. Serial No. 808,434. (Cl. 67—23.)



1. A candle holder comprising a tubular member adapted to receive a candle and having both ends open, a plug fitted within one of the open ends of the tubular member, and adjusting means upon the tubular member and operatively connected with the candle, said means comprising a rotatable element having a recess therein extending from one face thereof, a ratchet secured to the rotatable element and adapted to rotate therewith, a pawl secured to the tubular member and adapted for engagement with the ratchet, and a flexible element secured adjacent the lower end of the candle and operatively connected within the recess of the rotatable element and adapted to be wound therein.

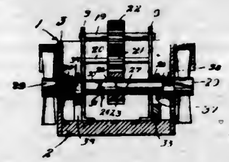
2. A candle holder comprising a tubular member adapted to receive a candle, and means for adjusting the candle relative to the tubular member mounted upon the tubular member and comprising a conical cap provided with an inwardly extending recess rotatably connected exteriorly of the tubular member and adjacent the upper end thereof, a winding member mounted centrally within the recess and adapted to rotate with the cap, a flexible element adapted to be secured to the lower end of the candle and connected with the winding member and adapted to be wound thereon, a ratchet fixed upon the inner face of said cap, a pawl adapted to engage the ratchet and hold the candle in adjusted position.

3. A candle holder comprising a cylindrical tubular member having one end closed and the other open adapted to receive a candle, adjusting members arranged upon opposite sides of the tubular member adjacent the top thereof, and each of said adjusting members comprising a conical cap having an inwardly extending recess therein, a pin secured to the tubular member and extending outwardly therefrom, a flanged tube fixed centrally within the recess and secured centrally to the cap, said pin adapted to extend within the second tubular member, a ratchet secured upon the inner face of each of the caps and adapted to rotate therewith, a flexible element connecting each of the flanged tubular members within the recess with the lower end of a candle and adapted to be wound upon the flanged tubular member upon the rotation of the cap, and a pawl adapted to engage the ratchet to hold the candle in adjusted position.

4. A candle holder comprising a cylindrical tubular member having one end closed and the other open adapted to receive a candle, and adjusting members arranged upon the tubular member adjacent the top thereof, said adjustable members each comprising a ratchet, a pawl adapted to engage the ratchet, winding means suitably connected with the ratchet, and a flexible element secured at its ends to the winding means and the lower end of the candle.

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1,091,355. MOTOR-BOAT. RYOKUWAN KUSAMURA, Kings county, Cal. Filed May 27, 1913. Serial No. 770,212. (Cl. 115—49.)



1. A motor boat comprising a hull, a propeller shaft journaled transversely thereof, said shaft being provided with clutch faces, propellers mounted on said shaft and provided with clutch faces engaging said first named clutch faces, means for rotating said shaft, springs for normally holding said clutch faces in engagement, and wedging means for breaking the connection of said clutch faces.

2. A motor boat comprising a hull, a propeller shaft journaled transversely therethrough, said shaft comprising a central portion provided with clutch teeth and extended portions, propellers loosely mounted on said extended portions and provided with clutch teeth in engagement with said first named clutch teeth, and means for breaking the engagement of either of said clutches, said means comprising a slidable wedge and a lever for operating the wedge.

3. A motor boat comprising a hull, a propeller shaft journaled transversely thereof, said shaft comprising a central portion provided with clutch members and extending portions, propellers secured on sleeves loosely mounted on said extended portions, said sleeves being provided with clutch members in engagement with said first-named clutch members, collars mounted on said sleeves, springs engaging said collars and said hull for maintaining said clutch members in engagement, and means for disconnecting either of said clutch members, said means comprising slidable wedge members engaging said collars and levers for operating said wedges.

4. A motor boat comprising a hull, a propeller shaft journaled transversely thereof, said shaft comprising a central portion provided with clutch members and extending portions, sleeves loosely mounted on said extending portions and provided with clutch members engaging said first named clutch members, propellers secured on said sleeves, collars secured on said sleeves, springs engaging said collars and said hull for holding said clutch members in engagement, and means for breaking said engagement, said means comprising members movable longitudinally of the hull, inclined faces on said members adapted to engage said collars, and upright levers pivoted upon said hull and pivotally connected with said members.

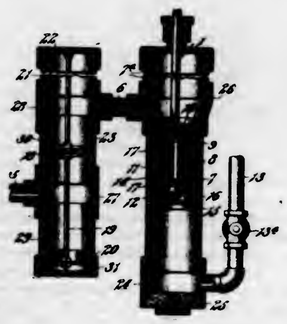
5. A motor boat comprising a hull, a standard mounted thereon, a seat secured upon said standard, a crank journaled through said standard and provided with pedals, a sprocket secured upon said crank, a shaft, a sprocket on said shaft, a chain trained about said sprockets, a gear on said shaft, a propeller shaft, a train of gears connecting said first named shaft with said propeller shaft, propellers loosely mounted on said propeller shaft, clutch members formed on said propeller shaft and on said propellers, springs for normally holding said clutch members in engagement, and wedge operated means for disconnecting said clutch members.

1,091,356. TRAPPER'S TONGS. JAMES H. LARRAMORE, Shelltown, Md. Filed Sept. 19, 1911. Serial No. 650,277. (Cl. 57—9.)



Tongs of the type described, including a handle, a fixed jaw secured to one end of said handle and having a concaved gripping or engaging surface or face, said concavity having outstanding lateral walls intermediate the ends of the jaw, said jaw having near its midlength an upstanding stud, a movable jaw having an inner convex surface conforming in outline to the concavity of the fixed jaw, said movable jaw having an aperture therethrough about at its midlength receiving said stud, a pivoting pin or pintle effecting pivotal connection between said movable jaw and said stud, a lever fulcrumed in said handle, a flexible connection between said movable jaw and said lever, said flexible connection having one end secured to said movable or pivoted jaw inwardly of the pivotal point of the jaw, and a spring centrally connected to the pivot of the movable jaw, said spring delivering its pressure upon the movable jaw to initially retain the jaws closed.

1,091,357. OIL-PUMPING APPARATUS FOR GAS-MACHINES. MATHIAS LAUX, St. Louis, Mo., assignor to Aero-Gas Machine Company, St. Louis, Mo., a Corporation of Maine. Filed Feb. 28, 1913. Serial No. 751,211. (Cl. 103—80.)



1. A hydro-carbon oil pump, comprising a cylinder and a piston in said cylinder provided on its outer surface with an annular groove which tapers upwardly toward the top of the piston.

2. A hydro-carbon oil pump, comprising a cylinder and a piston in said cylinder provided in its outer surface with an undercut annular groove whose top wall inclines outwardly and downwardly.

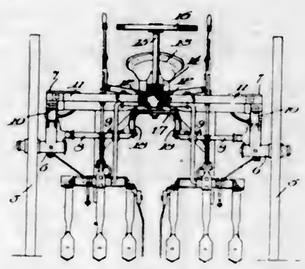
3. An apparatus for pumping hydro-carbon oil to a carbureter, comprising a pump, a supply tank for containing the oil, a gravity feed-pipe leading from said supply tank, and a strainer or filtering device arranged between said supply pipe and the inlet of the pump.

4. An apparatus for pumping hydro-carbon oil to a carbureter, comprising a pump, a supply tank for containing the oil, a gravity feed-pipe leading from said supply tank, a strainer or filtering device arranged between said supply pipe and the inlet of the pump, said filtering device comprising a cup or receptacle for receiving the dirt and foreign matter that is strained from the oil.

5. An apparatus for pumping hydro-carbon oil to a carbureter, comprising a gravity-fed pump which positively forces the oil to the carbureter from the piston when the pump moves in one direction, and a straining device arranged between the inlet of the pump and the source of oil supply, said straining device comprising a removable filter and a removable cup for collecting the sediment that is strained from the oil.

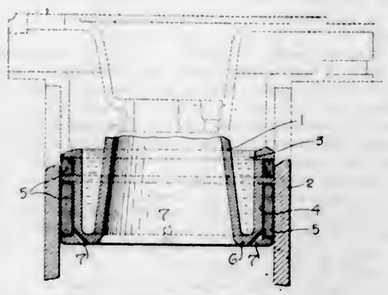
[Claims 6 to 8 not printed in the Gazette.]

1,091,358. CULTIVATOR. EDWARD LAVOIE, Kankakee, Ill. Filed Apr. 22, 1912. Serial No. 692,344. (Cl. 21—191.)



An attachment for pivoted axle cultivators comprising a bearing provided with openings adapted to receive attaching bolts, a steering post journaled in said bearing and provided with a thrust collar to prevent movement of the post through the bearing in one direction, a steering arm fixed upon the lower end of said post and constituting a stop to prevent upward movement of the post, and links pivoted to the ends of the steering arm and adapted for connection to the projecting steering levers of a cultivator.

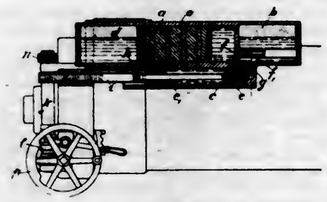
1,091,359. CYLINDER-HEAD FOR SLEEVE-VALVE MOTORS. THOMAS D. LEMIEUX, Cleveland, Ohio. Filed Oct. 8, 1913. Serial No. 794,125. (Cl. 121—108.)



In a motor of the class described, the combination with a cylinder head having a depending portion thereon, said depending portion being provided with a pair of spaced circumferential grooves disposed adjacent the lower end of said depending portion, the lowermost groove being of greater height than the upper groove, said depending portion of the head also having its lower peripheral edge provided with upwardly and outwardly inclined channels terminating at their outer ends in the lowermost circumferential groove, and packing rings mounted in the grooves of said head; of a sleeve valve slidably engaged with the depending portion of said cylinder head, said channels in the head permitting compression in the cylinder to be directed to the one groove to permit the packing therein to expand and fit tightly against the inner periphery of the sleeve valve.



1,091,360. SEMI-AUTOMATIC GUN WITH FLUID-ACCUMULATOR. FRANZ LENDER, St. Petersburg, Russia. Filed Nov. 18, 1911. Serial No. 661,167. (Cl. 89—4.)



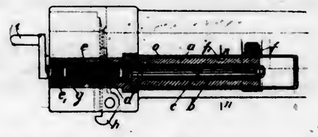
1. In a recoil gun of the character described, the combination with the gun barrel and the screw breech mechanism, of an accumulator comprising a cylindrical casing divided into a plurality of chambers, a driving piston adapted to freely move in one of said chambers, a liquid within each of the chambers, an elastic fluid in one of the chambers in addition to the liquid therein, a valve interposed between the chamber containing the piston and the chamber containing the elastic fluid and controlling the communication between the said two chambers, and means for using the force stored up in the compressed fluid by the movement of the piston for opening the said breech mechanism.

2. In a recoil gun of the character described, the combination with the gun barrel and the screw breech mechanism, of a cylindrical casing connected with said barrel and divided into three chambers, a driving piston adapted to freely move in the central chamber of said casing, a valve interposed between the central chamber and one of the end chambers and controlling the communication between the two, a liquid in each of the chambers, an elastic fluid in each of the end chambers in addition to the liquid therein, means for transmitting the force stored up in the elastic fluid compressed in one of the end chambers to the said breech mechanism for opening it, means for compressing the fluid in the other end chamber when the breech mechanism is opened, and means for transmitting the energy stored up in the fluid in the last mentioned end chamber to the breech mechanism to close the latter.

3. In a recoil gun of the character described, the combination with the gun barrel and the breech mechanism, of a cylindrical casing divided into three chambers, a driving piston adapted to freely move in the central chamber, a valve interposed between the central chamber and one of the end chambers and controlling the communication between the two, a liquid in each chamber, an elastic fluid in the end chambers in addition to the liquid therein, a cylinder carried by the casing, a second piston working in said cylinder, the interior of said cylinder at one side of its piston and one of the end chambers being in communication by a port, a valve controlling the communication between the other end chamber and central chamber with the interior of the cylinder at the other side of its piston, as set forth, and means intermediate the said second piston and the breech mechanism for opening and closing the latter under the force exerted by the compressed fluid in the end chambers.

1,091,361. SEMI-AUTOMATIC GUN. FRANZ LENDER, St. Petersburg, Russia. Filed Nov. 18, 1911. Serial No. 661,168. (Cl. 89—4.)

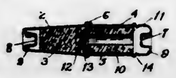
1. In a semi-automatic gun, the combination with the gun barrel and the breech block, of an accumulator for operating said breech block comprising a casing carried by the gun barrel, a heavy body adapted to move freely in said casing, a rod arranged longitudinally within the casing and movable endwise therein, a spring surrounding the said rod and adapted to be tensioned by said heavy body, locking means for engaging and holding the heavy body at a point in the movement of the casing relatively to the heavy body, and means intermediate the aforesaid rod and the breech block to cause the latter to open when the rod is moved endwise by the tension of the spring after the firing of the gun comprising a screw threaded within one end of the said movable rod and gearing intermediate said screw and the breech block whereby the endwise movement of the rod causes the screw to turn and effect the opening of the breech block.



2. In a semi-automatic gun, the combination with the gun barrel and the breech block, of an accumulator for operating said breech block comprising a casing carried by the gun barrel, a heavy body adapted to move freely in said casing, a rod arranged longitudinally within the casing and movable endwise therein, a spring surrounding the said rod and adapted to be tensioned by the said heavy body, locking means for engaging and holding the heavy body at a point in the movement of the casing relatively to the heavy body, means intermediate the aforesaid rod and the breech block to cause the latter to open when the rod is moved endwise by the tension of the spring after the firing of the gun comprising a screw threaded within one end of the said movable rod and gearing intermediate said screw and the breech block whereby the endwise movement of the rod causes the screw to turn and effect the opening of the breech block, a second spring surrounding that end of the rod within which the screw is arranged and adapted to be tensioned by said rod when the latter is being moved forwardly under the action of the first-mentioned spring to effect the opening of the breech block, an ejector with which the breech block engages when in open position and actuated by a cartridge when the latter is being inserted to thereby release the breech block, and means for automatically releasing the heavy body from its locking means during the forward movement of the rod and permitting said second spring to move the rod in reverse direction to effect the closing of the breech block.

3. In a semi-automatic gun, the combination with the gun barrel and the breech block, of an accumulator comprising a casing carried by the gun barrel, a body *a*, adapted to freely move in said casing, said accumulator comprising also a horizontally-arranged spiral spring adapted to be tensioned by said body *a*, the latter being provided with a notch *f'*, a lock bolt *f*, adapted to engage the said notch and to thus keep the said spring in a tensioned condition, a second horizontally-arranged spiral spring comprised in the accumulator and adapted to be tensioned by the first spring when the breech block is opened, a rod, means for causing the latter as well as the body *a*, to slightly rotate when moving toward the front end of the gun barrel and to thus cause the said lock bolt *f*, to leave its notch and to set the said body free.

1,091,362. INHALER. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Filed June 28, 1911. Serial No. 635,757. (Cl. 128—13.)



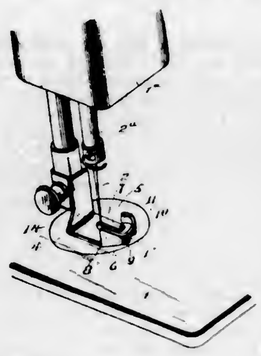
1. In an inhaler, the combination of an open ended container provided with a neck, an absorbent holder within the container, a cap fitting the neck of the container, and a centrally perforated stopper fitted in the neck of

the container, the container and the cap being perforated at their ends, substantially as set forth.

2. In an inhaler, the combination of a tapering container adapted to fit the nostril, its smaller end being perforated and inturned about the perforation and its larger end formed with a neck, a cap fitting the said neck and having its outer end inturned and perforated and shaped to constitute a mouth piece, a porous holder for the medicine in the container, and a perforated stopper between the porous holder and the mouth piece, substantially as set forth.

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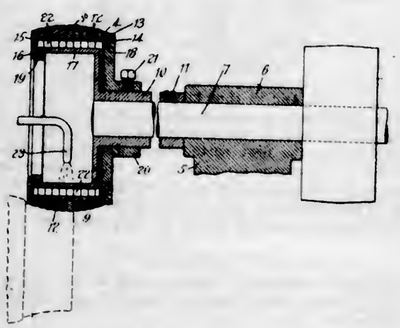
1,091,363. FINGER-GUARD FOR SEWING-MACHINES. FERDINAND DE CRAIG MARTIN, Biloxi, Miss. Filed June 26, 1913. Serial No. 775,881. (Cl. 112—29.)



A finger guard for the presser foot of sewing machines, comprising a flange formed on one side of the foot, and a wing bowed from the upper portion of the flange across the front of the foot and terminating in a free end above the foot.

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1,091,364. HEEL BURNISHING OR FINISHING WHEEL. CARL A. MATSON, Lynn, Mass., assignor of one-half to Albert M. Hoyt, Swampscott, Mass. Filed Feb. 19, 1913. Serial No. 749,295. (Cl. 12—105.)



1. A wheel for burnishing and finishing parts of boots and shoes having a continuous yielding metallic periphery, with a helical groove therein extending circumferentially therearound.

2. A heel burnishing and finishing wheel having, in combination, a flexible helical member forming the periphery of said wheel, the median axial line of said helical member extending in the same general direction as the axis of said wheel, and a holder for said member, adapted to hold the adjacent faces of the convolutions of said helical member in contact with each other throughout their entire length, whereby the passage of free wax between said convolutions is prevented.

3. A heel burnishing and finishing wheel having, in combination, a strip of material forming a helical member and constituting the periphery of said wheel, the median axial line of said helical member extending in the same general direction as the axis of said wheel, the outer diameter of each convolution of said helical member being greater than the inner diameters of the convolutions adjacent thereto and a holder for said member adapted to hold the adjacent faces of the convolutions of said helical member in contact with each other throughout their entire length, whereby the passage of free wax between said convolutions is prevented.

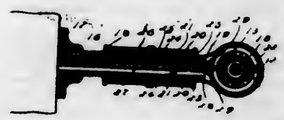
4. A heel burnishing and finishing wheel having, in combination, a strip of material forming a helical member and constituting the periphery of said wheel, the median axial line of said helical member extending in the same general direction as the axis of said wheel, and a holder for said helical member adapted to support said helical member with the adjacent convolutions thereof substantially in contact with each other throughout their entire length, the outer edges of said strip being beveled whereby a helical groove is formed in said periphery extending circumferentially therearound and the passage of free wax between said convolutions is prevented.

5. A heel finishing wheel having, in combination, a strip of material forming a helical member and constituting the periphery of said wheel, the side faces of said strip being flat, and a holder for said helical member embodying two flanges to which the opposite ends of said helical member are fastened whereby said flat faces may be held in contact with each other throughout their entire length and the passage of free wax therebetween prevented.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,365. SUPPORTING-BRACKET FOR DISPENSING-BOTTLES. JOHN C. MCCAIN, Tacoma, Wash. Filed Apr. 4, 1913. Serial No. 758,859. (Cl. 248—20.)

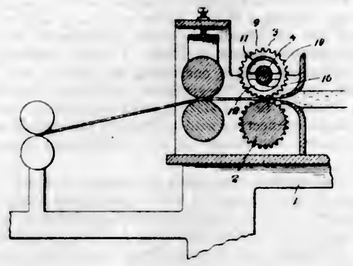


1. A support for a bottle or other like vessel comprising a base having a threaded tubular arm provided with recesses in opposite sides at its outer end and with slots at the inner ends of said recesses, an open clamping ring arranged to be placed around the neck of a bottle and having arms to engage the recesses of the supporting arm and provided with flanges to enter the slots of said supporting arm, and a securing sleeve screwed on the said supporting arm and arranged to engage the arms of the clamping collar and lock the latter in place.

2. A support for a bottle or other like vessel comprising a base having a tubular threaded arm, said tubular arm being provided with a transverse slot in its outer end, having recesses on opposite sides at its outer end and slots at the inner ends of such recesses, a brace arm arranged in the said tubular arm, having a head engaging the transverse slot thereof and provided with oppositely bent arms projecting from the outer end of said tubular arm, a clamping collar arranged to be placed around the neck of the bottle and having arms to engage the recesses of the tubular arm, and provided with flanges to enter the slots thereof, and a sleeve threaded on the tubular arm of the support and arranged to be engaged with the outer sides of the arms of said clamping collar to lock the latter, the brace arm and the bottle in place.



1,091,366. DRAWING-ROLL FOR DRAWING AND EVENING MACHINES. PHILIP MCHALE, New Bedford, Mass. Filed Jan. 3, 1913. Serial No. 740,045. (Cl. 118—23.)



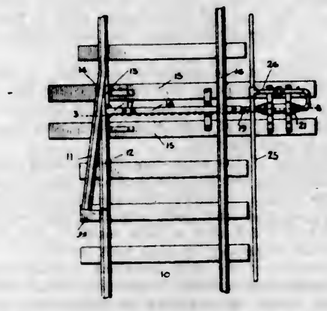
1. A drawing roll, including a shaft, a roll proper consisting of a series of cylinders loosely surrounding said shaft, sectional bushings surrounding the shaft within the cylinders, each of said cylinders having a ribbed surface turning in contact with its bushings, and resilient means associated with said bushings to independently and yieldingly back said cylinders.

2. A drawing roll, including a shaft having a series of transverse apertures, each aperture enlarged at one end to form a socket, a roll proper consisting of a series of cylinders loosely surrounding the shaft, a bushing comprising guided sections arranged within each cylinder, one section of each bushing having a guide pin projecting into the smaller portion of the adjacent transverse opening in the shaft and the other section of the bushing having a pin projecting into the socketed end of the said transverse opening, and a coiled spring associated with each bushing, each spring being arranged within the adjacent sockets and surrounding the latter named pin and bearing against the second-named bushing section, said springs co-acting with the bushings to back the cylinders.

3. A drawing roll including a shaft, a roll proper consisting of a series of cylinders loosely surrounding the shaft, sectional bushings surrounding the shaft, one for each cylinder, and springs coacting with said bushings to yieldingly back the cylinders, each of said cylinders having a ribbed surface turning in contact with its bushing.

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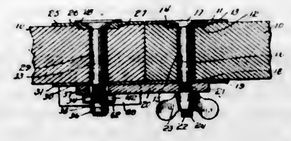
1,091,367. PNEUMATIC DERAILER. JOHN J. MCINTYRE, Uniontown, Pa. Filed Oct. 29, 1912. Serial No. 728,344. (Cl. 104—127.)



In a derailer, a track having deflected rail ends at splices of the track on one side, and a continuous rail at the opposite side of the track opposite the said splices, derailing point sections in gage at the deflected portions of the main rail, a piston and cylinder, connections between the piston and the derailing point sections, and a compressed air line in communication with the cylinders at one side of the pistons, and springs acting on pistons at the opposite side, the springs normally tending to maintain the derailing sections open, said pipe line having a valve under the control of an operator for establishing communication between the pipe line and a source of compressed air supply, or for relieving the pressure on the said pipe line to permit the springs to act on the pistons.

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1,091,368. LOCK. WILLIAM MEIER, New York, N. Y. Filed Mar. 29, 1913. Serial No. 757,540. (Cl. 70—5.)



1. In combination, a hasp, a bolt adapted to extend through a door and engage said hasp to secure the same in place, a second bolt adapted to extend through a door and to engage the said hasp, and key-controllable mechanism for securing said second bolt against displacement, said hasp and said key-controllable mechanism being adapted to be arranged at the same side of the door.

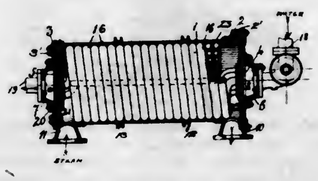
2. In combination, a removable keeper bolt, a removable lock bolt, a hasp engaging said bolts, means for securing said keeper bolt relative to said hasp, a U-shaped slide mounted adjacent to said hasp and engaging said lock bolt to secure the same relative to said hasp, and key-controllable mechanism for operating said slide engaging the slide in the U of the same.

3. In a lock of the class described, a slide U-shaped at both ends, means for guiding said slide, and a rotatable member having cam fingers positioned in one of the U ends of the slide, said slide having studs in said U end each adapted to be engaged by one of said fingers.

4. In a lock of the class described, a slide U-shaped at both ends, means for guiding said slide, a rotatable member in one of the U-shaped ends of the slide and having cam fingers, said slide having studs in said U end each adapted to be engaged by one of said fingers, and a spring engaging said slide and tending to hold the same against movement, said slide having a plurality of notches in said U end of the slide adapted to be engaged by said spring.

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1,091,369. FEED-WATER HEATER. PAOLO MEJANI, Chiavari, Italy. Filed Mar. 8, 1911. Serial No. 613,060. (Cl. 62—30.)

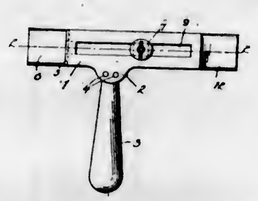


A feed water heater for boilers comprising a housing, steam inlet and outlet, ports for the housing, located respectively at the ends thereof, a plurality of cylindrical helical tubes for conveying water, said tubes substantially filling the interior of the housing and arranged with the cylindrical tubes and helices approximately in contact and in substantial contact when expanded by heat, form-

ing spiral passage-ways for the steam, the diameters of which tubes are proportional to the diameters of the helices.

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1,091,370. GLAZIER'S TOOL. GEORGE LAYTON MENKE, Asbury Park, N. J. Filed Feb. 21, 1913. Serial No. 749,946. (Cl. 18—3.5.)



1. In a glazier's tool, a blade having an L-shaped member formed at one end thereof, a slot formed intermediate the L-shaped member and the opposite end of said blade and intermediate its sides, a second blade having a slot formed in one end thereof, and an L-shaped member formed at the end opposite the slot, a bolt adapted to adjustably connect the said blades, the first mentioned L-shaped member having slots formed in the sides thereof adjacent the blade, arms formed on the second mentioned blade adapted to co-act with the said slots in the adjustment of the tool, and means at the side of the first mentioned blade to attach a handle.

2. A device of the character described comprising a blade having a depending L-shaped member formed at one end thereof and a slot intermediate its width extending from adjacent the L-shaped member to the opposite end, a second blade having a depending L-shaped member at one end thereof, a slot formed intermediate the L-shaped member and the opposite end, a reduced portion formed in the depending L-shaped member adjacent the blade and adapted to coöperate with the arms of the first mentioned blade, and a bolt adapted to be inserted in the slots of the said blades to provide for adjusting the whole to the width desired.

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1,091,371. ATTACHMENT FOR WIND-DRIVEN PUMPS. JAMES F. METZGER, Flat Rock, Ohio. Filed Apr. 2, 1913. Serial No. 758,444. (Cl. 103—62.)



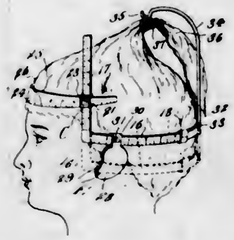
1. The combination with a sucker rod of a pump formed with an elongated slot, a power rod freely slidable in the sucker rod and having a block operable in the slot, a hand operated means including a block operable in the slot, clamping collars encircling the sucker rod and arranged beyond the respective blocks, and an intermediate manually operable block to coöperate with either of the first mentioned blocks and clamping same against adjacent collars.

2. The combination with a sucker rod of a pump formed with an elongated slot, a power rod freely slidable in the sucker rod and having a block operable in the slot, a hand operated means including a block operable in the slot, clamping collars encircling the sucker rod and arranged beyond the respective blocks, an intermediate block operable in the slot, a lever for shifting said block and means connecting said lever with the collars to induce simultaneous movement of the collars and intermediate block.

3. The combination with a sucker rod of a pump formed with an elongated slot, a power rod freely slidable in the sucker rod and having a block operable in the slot, a hand operated means including a block operable in the slot, clamping collars encircling the sucker rod and arranged beyond the respective blocks, an intermediate block operable in the slot, a lever for shifting said block and means connecting said lever with the collars to induce simultaneous movement of the collars and intermediate block, and means for locking the lever in desired position.

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1,091,372. HAIR-CUTTING GAGE. SAMUEL MICKELSON, Washington, D. C. Filed Sept. 4, 1913. Serial No. 788,136. (Cl. 132—31.)



1. A device of the character described comprising a head engaging resilient gage member including two arcuate bands each having one end slidably connected with the other member and each having an upwardly extending arm at its other end, in combination with supports slidably engaging the upwardly extending arms, and a flexible front bar supported by said supports.

2. A device of the character described comprising a head engaging resilient gage member including two arcuate bands each having one end slidably connected with the other member and each having an upwardly extending arm at its other end, in combination with a front bar supported for vertical movement on said upwardly extending arms.

3. In a device of the character described, a head engaging member comprising two slidably connected curved resilient bands, each having an upwardly extending arm, sleeves slidable on said arms, and a front bar supported adjustably by said sleeves.

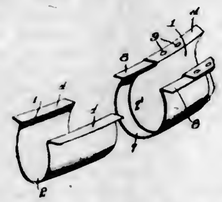
4. In a device of the class described, a head engaging member comprising two slidably connected curved resilient bands, each having an upwardly extending arm, sleeves adjustable upon and frictionally engaging said arms, each sleeve being provided with a hook member, and a front bar supported adjustably on said hook members.

5. In a device of the class described, a head engaging member comprising slidably connected curved resilient bands, each having an upwardly extending arm, in combination with a front bar supported adjustably on said arms, said front bar having a straight and an arcuate edge.

[Claims 6 to 11 not printed in the Gazette.]



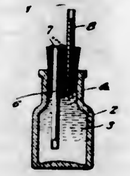
1,091,373. AUTOMOBILE TIRE-PROTECTOR. NORMAN H. MILLER, Meadville, Pa. Filed Sept. 6, 1912. Serial No. 718,999. (Cl. 152—18.)



A tire protector comprising a plurality of identically constructed metallic sections, each having its side walls terminating in outwardly extending flanges, each of said sections having one of its ends extended beyond one edge of the flanges, reinforcing members overlapping each of the said extended ends and having a portion thereof extending beyond said end and having its walls thereof spaced from the wall of the said end so as to define therewith sockets, so as to receive one end of the adjacent section, said walls of the reinforcing members having their longitudinal edges bent to provide flanges adapted to overlap the flanges of the sections, and to be secured thereto, the said flanges of the sections and of the members being adapted to extend between the rim of the wheel and the adjacent portion of the tire, and cushioning surfaces of the inner walls of the said sections.

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1,091,374. DISINFECTANT-DISTRIBUTER. WILLIAM LIN MILLER, Marshall, Mich. Filed Nov. 26, 1913. Serial No. 803,352. (Cl. 4—30.)



1. A disinfectant distributer for flush tanks comprising a receptacle adapted to contain a liquid disinfectant, a check-valved discharge tube communicating with said receptacle, and a displacement tube carried by the receptacle and adapted to be partially filled with water from the tank to displace a quantity of the disinfectant through the discharge tube.

2. A disinfectant distributer for flush tanks comprising a receptacle, a discharge tube connected therewith, a gravity closing check-valve controlling the outlet of said tube, and a displacement tube communicating with the interior of the receptacle and projecting outwardly above the same and adapted to be partially filled with water from the tank to displace an equivalent amount of disinfectant through the discharge tube.

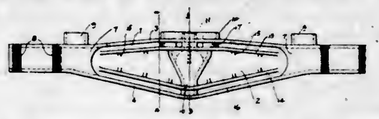
3. A disinfectant distributer for flush tanks comprising a receptacle, a stopper closing the top of the receptacle, a valved discharge tube for dispensing disinfectant from the receptacle, and a displacement tube extending through the stopper and projecting into and above the receptacle and adapted to receive portions of water from the tank to displace equivalent amounts of disinfectant through the discharge tube.

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1,091,375. TRUCK-BOLSTER. YUSKE MIYASAKI, McKees Rocks, Pa. Filed Oct. 15, 1913. Serial No. 795,317. (Cl. 105—104.)

1. A cast truck bolster consisting of a web, lateral flanges formed on the upper and lower edges thereof, additional upper and lower lateral flanges formed on said web and spaced slightly from the aforesaid flanges to form pairs of parallel flanges, and connecting means between the first mentioned upper and lower flanges at the ends thereof.

2. A cast truck bolster comprising a web, lateral flanges formed on the upper and lower edges thereof and extending the full length of the same, and additional upper and lower lateral flanges formed on said web in spaced relation to the aforesaid flanges, said additional flanges being of less length and of less width than the first mentioned flanges and tapering smaller toward their outer ends.



3. A cast truck bolster comprising a web, flanges formed on the upper and lower edges thereof, extending the full length of the same, side walls connecting said flanges at the outer ends thereof, and additional upper and lower flanges formed on the web in spaced relation to the aforesaid flanges, and terminating slightly in advance of the inner opposed ends of said side walls.

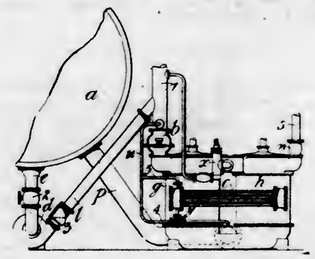
4. A cast truck bolster comprising a central web, flanges formed on the upper and lower edges thereof and extending the full length of the same, additional flanges formed on said web in spaced relation to the aforesaid flanges, bracing webs formed between the central web and the last mentioned flanges, and additional bracing means formed between the central portions of the upper flanges of the device.

5. A cast truck bolster comprising a central web having a tubular portion formed centrally thereof, flanges formed on the upper and lower edges of said web having the terminal openings of said tubular portion therein, an annular flange immediately surrounding the tubular opening in the upper flange of the web, an additional annular flange formed on said upper flange to surround the first mentioned annular flange and form a substantial bowl-like member on the upper flange of the device, and bracing means for the central portion of the upper flange on the web.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,376. STEAM-CONDENSING PLANT WORKING UNDER VACUUM. DONALD BARNS MORISON, Hartlepool, England. Filed Aug. 18, 1913. Serial No. 785,381. (Cl. 62—24.)



1. In combination a condenser, a rotary water pump connected to the condenser to withdraw water of condensation therefrom, a reciprocating air pump having its suction side connected to the condenser at a point above the point of connection of the water pump so as to normally withdraw only air therefrom, but to also withdraw water on the rise of water in the condenser due to stoppage of the water pump and a delivery pipe connected with the delivery side of said air pump and a non-return valve in said delivery pipe, substantially as described.

2. In combination a condenser, a rotary water pump connected to the condenser to withdraw water of conden-

sation therefrom, a reciprocating air pump having its suction side connected to the condenser above the point of connection of the water pump, so as to normally withdraw only air therefrom but to withdraw air and water on stoppage of the water pump, a delivery pipe connected to the delivery side of the air pump and having a non-return valve, and a delivery pipe leading from the delivery side of the water pump to the first named delivery pipe beyond the non-return valve, substantially as described.

3. In combination, a condenser, a rotary water pump connected to the condenser to withdraw water of condensation therefrom, a reciprocating air pump having its suction side connected to the condenser at a point above the point of connection of the water pump so as to normally withdraw only air therefrom, but to also withdraw water on the rise of water in the condenser water outlet due to stoppage of the water pump, a delivery pipe connected with the delivery side of said air pump, a non-return valve in said delivery pipe, and an auxiliary pump connected with said air pump for maintaining a normal head of water in the discharge chamber of said air pump.

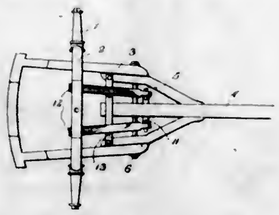
4. In combination a condenser, a rotary water pump connected to the condenser to withdraw water of condensation therefrom, a reciprocating air pump having its suction side connected to the condenser above the point of connection of the water pump, so as to normally withdraw only air therefrom but to withdraw air and water on stoppage of the water pump, a delivery pipe connected to the delivery side of the air pump and having a non-return valve, a delivery pipe leading from the delivery side of the water pump to said first named delivery pipe beyond the non-return valve, an auxiliary pipe for supplying water to the air pump, and an auxiliary pump connected to withdraw water from the delivery chamber of the air pump and deliver it to said first named delivery pipe.

5. In combination a condenser, a rotary water pump connected to the condenser to withdraw water of condensation therefrom, a reciprocating air pump having its suction side connected to the condenser at a point above the point of connection of the water pump so as to normally withdraw only air therefrom but to also withdraw water on the rise of water in the condenser water outlet due to stoppage of the water pump, a delivery pipe connected with the delivery side of said air pump, a non-return valve in said delivery pipe, and a valved air delivery pipe also connected with the delivery chamber of said air pump, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,377. TONGUE-SUPPORT. JAMES MORRISON, Medicine Hat, Alberta, Canada. Filed Sept. 3, 1913. Serial No. 787,987. (Cl. 21—63.)

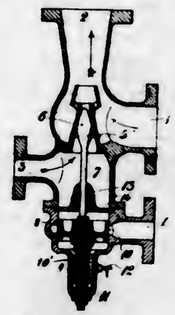


1. The combination with the front axle and bolster thereof, and the front hounds, of a tongue, hounds on said tongue placed in edge to edge contact with said first hounds, a pivotal connection between the first hounds and the hounds on said tongue, a cross bar carried by the inner ends of the tongue and the respective hounds, leaf springs disposed above said cross bar and each having one end disposed between said bolster and axle and a connection between the other ends of said springs and the tongue whereby when the tongue descends the said cross bar will engage the springs to yieldingly support the tongue, said connection comprising a block, an adjustable connection between said block and tongue, trunnions carried by said block and projecting outwardly therefrom at opposite sides of the tongue and means connecting said trunnions with the respective ends of the springs.

2. The combination with the front axle and bolster thereof, and the front hounds, of a tongue, hounds on said tongue placed in edge to edge contact with said first hounds, a pivotal connection between the first hounds and the hounds on said tongue, a cross bar carried by the inner end of the tongue and the respective hounds, leaf springs disposed above said cross bar and each having one end disposed between said bolster and axle and a connection between the other ends of said springs and the tongue whereby when the tongue descends the said cross bar will engage the springs to yieldingly support the tongue, said connection comprising a block, an adjustable connection between said block and tongue, trunnions carried by said block and projecting outwardly therefrom at opposite sides of the tongue, and straps connecting said trunnions with the respective ends of the springs.

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1,091,378. WATER-HEATING DEVICE. JOSEF MUCHKA, Vienna, Austria-Hungary. Filed Sept. 7, 1910. Serial No. 580,896. (Cl. 62—31.)



1. In an apparatus of the character described, the combination with a casing having a plurality of ports, one of which is adapted to communicate with a collecting chamber for exhaust steam, another port adapted to communicate with a water supply, and still another port being in communication with the atmosphere, of a spring-pressed valve interposed between the first two mentioned ports and normally closing the communication between them, and a piston connected with said valve and movable therewith within the casing and arranged to control the before-mentioned port leading to the atmosphere, said piston being adapted to be actuated by the incoming exhaust steam.

2. In an apparatus of the character described, the combination with a casing having a plurality of ports, one of which is adapted to communicate with a collecting chamber for exhaust steam, another port adapted to communicate with a water supply, and still another port being in communication with the atmosphere, of a spring-pressed valve interposed between the first two mentioned ports and normally closing the communication between them, a piston connected with the valve and movable therewith within the casing and arranged to control the before-mentioned port leading to the atmosphere, said piston being adapted to be actuated by the incoming exhaust steam, the said casing also having a valved port communicating with the atmosphere.

3. In an apparatus of the character described, the combination with a casing having a plurality of ports, one of which is adapted to communicate with a collecting chamber for exhaust steam, another port adapted to communicate with a water supply, and still another port being in communication with the atmosphere, of a spring-pressed valve interposed between the first two mentioned ports and normally closing the communication between them, and a piston connected with and adjustable relatively to said valve and movable therewith within the casing and arranged to control the before-mentioned port leading to the atmosphere, said piston being adapted to be actuated by the incoming exhaust steam.

4. In an apparatus of the character described, the combination with a casing having a plurality of ports, one of which is adapted to communicate with a collecting chamber for exhaust steam, another port adapted to communicate with a water supply, and still another port being in communication with the atmosphere, of a spring-pressed valve interposed between the first two mentioned ports and normally closing the communication between them, a threaded stem on the valve, and a piston adjustable on the said threaded stem and arranged to control the before-mentioned port leading to the atmosphere, and being adapted to be actuated by the incoming exhaust steam.

5. In an apparatus of the character described, the combination with a casing having a plurality of ports, one of which is adapted to communicate with a collecting chamber for exhaust steam, another port adapted to communicate with a water supply, and still another port being in communication with the atmosphere, of a spring-pressed valve interposed between the first two mentioned ports and normally closing the communication between them, a piston connected with said valve and movable therewith within the casing and arranged to control the before-mentioned port leading to the atmosphere, said piston being adapted to be actuated by the incoming exhaust steam, and regulatable air cushioning means for the piston arranged below the latter.



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1,091,379. VEHICLE-TIRE. OSCAR MUSSINAN, New York, N. Y. Filed Sept. 3, 1913. Serial No. 787,909. (Cl. 152—13.)



1. A pneumatic tire for vehicles provided with a projecting tread extending circumferentially around the same at each side of the outer or bearing surface thereof, the exterior lateral surfaces of said treads merging smoothly into the lateral surfaces of the tire, the bearing surface of the tire being concave or arched away from the road bed upon which the treads run, and transverse ridges of arched form extending across between said treads.

2. A pneumatic tire for vehicles provided with a projecting tread extending circumferentially around the same at each side of the outer or bearing surface thereof, the exterior lateral surfaces of said treads merging smoothly into the lateral surfaces of the tire, said bearing surface being concave or arched away from the road bed upon which the treads run, transverse ridges of concave or arched form extending across between said treads, and longitudinally extending ridges of concave or arched form lying between said treads and said transverse arched ridges.

3. A pneumatic tire for vehicles provided with a projecting tread extending circumferentially around the same at each side of the outer or bearing surface thereof, the exterior lateral surfaces of said treads merging smoothly into the lateral surfaces of the tire, said bearing surface being concave or arched away from the road bed upon which the treads run, transverse ridges of concave or arched form extending across between said treads and longitudinally extending ridges of concave or arched form lying between said treads and said transverse concave or arched ridges, said lateral circumferentially extending ridges being interrupted at intervals by transverse notches or grooves.

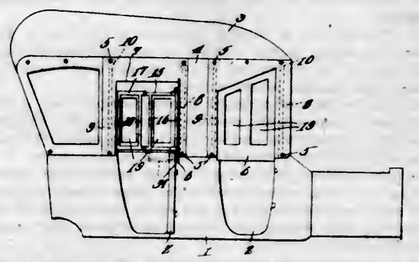
4. The combination with a vehicle wheel provided with a rim, of a pneumatic tire provided with circumferentially extending shoulders located outside of said rim and adapted to normally be out of contact therewith but to come into contact therewith when the tire is under load, a projecting tread extending circumferentially around the same at each side of the outer or bearing surface thereof, said treads being in substantial alinement with said shoulders respectively, and the exterior lateral surfaces of said treads merging smoothly into the lateral surfaces of the tire, and said bearing surface being concave or arched away from the road bed upon which the treads run, and transverse ridges of concave or arched form extending across between said treads.

5. The combination with a vehicle wheel provided with a rim, of a pneumatic tire provided with circumferentially extending shoulders located outside of said rim and adapted to normally be out of contact therewith but to come into contact therewith when the tire is under load, a projecting tread extending circumferentially around the same at each side of the outer or bearing surface thereof, said treads being in substantial alinement with said shoulders respectively, and the exterior lateral surfaces of said treads merging smoothly into the lateral surfaces of the tire, and said bearing surface being concave or arched away from the road bed upon which the treads run, transverse ridges of concave or arched form extending across between said treads, and longitudinally extending ridges of concave or arched form lying between said treads and said transverse concave or arched ridges.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,380. FOLDING STORM-DOOR CURTAIN FOR AUTOMOBILES. ELGIN F. NEAL, Elgin, Ill., assignor of one-half to Clarence South, Watseka, Ill. Filed Sept. 15, 1913. Serial No. 789,928. (Cl. 21—62.)



1. A folding storm curtain for an automobile body having a door flap to complement the door of the automobile body, a door frame embodying hinged door sections attached to the said flap, the door frame having means to engage the body door, and coöperating means carried by the sections of the door frame for holding them in unfolded or folded positions.

2. A folding storm curtain for an automobile body having a door flap to complement the door of the automobile body, a door frame embodying sections having pivoted ears, a leaf spring secured to one frame section and having an angular spur at its free end, one ear of the said section having a cut away portion to accommodate the said spur, and an ear of the other frame section having notches for the entry of said spur, the door frame having means for engaging the body door.

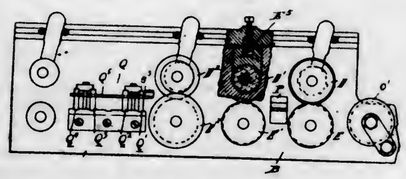
3. A storm curtain for an automobile body having a door flap to complement the door of the automobile body, a stay attached to the curtain at the basal portion of the said flap, a door frame hinged to the said stay and attached to the said flap, and yieldable means between the stay and door frame for swinging the latter closed, the door frame having means for engaging the body door.

4. A storm curtain for an automobile body having a door flap to complement the door of the automobile body, a stay attached to the curtain at the basal portion of the said flap, and a door frame hinged to the said stay and attached to the said flap, the said stay having crotches at its ends for engaging over the turn buttons of the automobile body top.

5. A storm curtain for an automobile body having a door flap to complement the door of the automobile body, a stay attached to the curtain at the basal portion of the flap, a door frame hinged to the said stay and attached to the flap, and yieldable means between the stay and door frame for swinging the said door frame closed, the door frame having an extension to overlap the outer side of the body door, and the door frame and stay having coöperating portions to limit the movement of the door frame when it is closed.

[Claims 6 and 7 not printed in the Gazette.]

1,091,381. METHOD OF SHAPING METAL. HUGO NEUMAN, Detroit, Mich., assignor to Diamond Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 27, 1912. Serial No. 673,923. (Cl. 80—60.)



1. The method of forming channel strips from a flat ribbon of metal, which consists in progressively shaping a portion of the cross-section of the ribbon without tempering the same, and in tempering another portion of the cross-section of the ribbon during said progressive shaping.

2. The method of forming channel strips from a flat ribbon of metal, which consists in progressively shaping the sides of the ribbon and tempering the central portion during the shaping of the sides.

3. The method of forming channel strips from a flat ribbon of metal, which consists in progressively shaping the sides of the ribbon and shaping and tempering the portion of the ribbon forming the base, simultaneously.

4. The method of forming channel strips from a flat ribbon of metal, which consists in progressively shaping the sides without tempering the same, and progressively tempering and shaping the central portion of the ribbon simultaneously.

5. The method of forming channel strips from a flat ribbon of metal, which consists in progressively shaping the sides of the ribbon, and progressively tempering the central portion.

[Claims 6 to 12 not printed in the Gazette.]

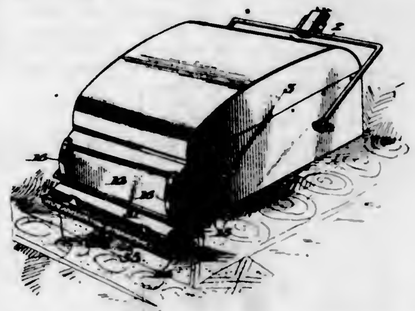
1,091,382. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OF THE ULTRA-VIOLET RAYS. THOMAS NOGIER, Lyon, France. Filed May 11, 1911. Serial No. 626,599. (Cl. 210—20.)



1. In an apparatus for sterilizing liquids, the combination of a casing, formed with oppositely disposed hollow trunnions which communicate with bores formed in the walls of the casing and which communicate with the interior of the casing at opposite ends thereof, an inlet pipe communicating with one of the hollow trunnions, an outlet pipe communicating with the other hollow trunnion, stuffing boxes between the hollow trunnions and the inlet and outlet pipes, a lamp supported lengthwise of the casing and immersed in the water passing therethrough.

2. In an apparatus for sterilizing liquid, the combination of an elongated casing formed in sections, each section having a hollow trunnion which communicates with an inclined bore formed in the section, one of said bores terminating near the top and communicating with the top of the casing, the other bore terminating near the bottom of and communicating with the casing, inlet and outlet pipes communicating with the hollow trunnions, stuffing boxes between the said pipes and the said trunnions, a lamp supported in the casing and immersed in the liquid passing therethrough.

1,091,383. VACUUM-CLEANER. ULYSSES C. OBLOSSER, Bloomsburg, Pa., assignor of two-thirds to Will-Roy Monroe, Bloomsburg, Pa. Filed Nov. 13, 1912. Serial No. 731,109. (Cl. 15—66.)



1. In a vacuum cleaner, the combination with a suction nozzle, of a brush arranged in the mouth of the nozzle and having the ends of its shaft extending into the end walls of the nozzle, a shoe fitted to the nozzle and extending across the bottom thereof, bearings on the shoe to receive the ends of the brush shaft, and retainers rising from the shoe adjacent said bearings to engage the ends of said shaft.

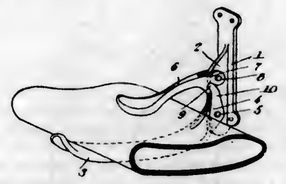
2. In a vacuum cleaner, the combination with a suction nozzle, of a brush disposed in and substantially filling the mouth of the nozzle and having the ends of its shaft fitted in the end walls of the nozzle, a shoe fitted to the nozzle and extending across the lower end thereof, bearings on said shoe supporting the ends of the brush shaft, and retainers on the shoe adjacent said bearings projecting across the ends of the shaft.

3. In a vacuum cleaner, the combination of a suction nozzle, a brush mounted in and substantially filling the mouth of the nozzle, a shoe extending across the entire lower end of the nozzle and having a longitudinal slot to receive the brush, bearing blocks on the shoe adjacent the ends of the slot to receive the shaft of the brush, and retainers rising from the ends of the shoe adjacent said bearing blocks to engage the ends of the shaft of the brush.

4. In a vacuum cleaner, the combination of a suction nozzle provided on its front wall above its lower end with an upstanding rib, a brush mounted in and substantially filling the mouth of the nozzle, a hinge member fixed on the rear wall of the nozzle, a shoe positively connected at its rear edge with said hinge member and extending across the entire lower end of the nozzle and having its forward portion projected upwardly in front of the nozzle and provided at its free edge with hooks adapted to engage over the said rib, and means on the shoe for supporting and retaining the brush.

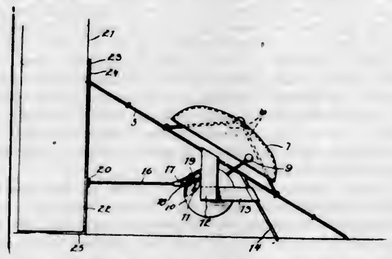


1,091,384. HOSE-RACK. WOODBURY T. OLIVER, Newport News, Va. Filed May 24, 1913. Serial No. 769,647. (Cl. 137—31.)



A hose rack comprising a body adapted to be attached to a suitable support, a supporting arm pivotally connected to the said body for vertical swinging movement, a vertically movable trigger pivoted to the said body, a depending locking lug formed on the said trigger adjacent to its pivot, and an upwardly extending projection formed on the pivoted end of the supporting arm for engagement with the said locking lug when the said arm is in substantially horizontal operative position supporting the collapsed hose, the free end of the trigger being adapted to rest upon the hose when in its operative locking position.

1,091,385. BURGLAR-ALARM. ROBERT A. PHILP, Portland, Oreg. Filed May 12, 1913. Serial No. 767,168. (Cl. 116—44.)



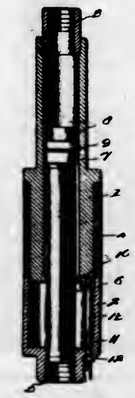
1. A burglar alarm comprising a frame formed of a pair of side rods sharpened at their extremities for engagement with a door and a floor, and a plurality of cross rods connecting said side rods in spaced parallel relation, a bell mounted on the upper side of the frame, a sounding mechanism located under the frame for ringing the bell, and a longitudinally movable trip member for setting the sounding mechanism in operation when an attempt is made to open the door, said trip member extending at right angles to the door and having an enlarged end for engagement therewith.

2. A burglar alarm including a main frame comprising a pair of side rods sharpened at their extremities for engagement with a door and a floor, and a plurality of transverse rods connecting said side rods in spaced parallel relation, a bell mounted above the main frame, a supplemental frame suspended from the main frame, a casing carried by the supplemental frame, alarm mechanism partly housed within said casing and adapted to sound the bell, a guide formed upon the casing on the side opposed to the door, a longitudinally movable rod slidable through said guide, extending at right angles to the door, and formed with an enlargement upon one end for engagement with said door, and means operated by the trip rod for setting the alarm mechanism in operation when an attempt is made to open the door.

3. A burglar alarm having a frame including side bars sharpened at their extremities for engagement with a door and a supporting surface, respectively, alarm mechanism supported by the frame and including a ratchet wheel, a pawl engaging said ratchet wheel and a longitudinally movable trip rod for releasing the pawl from the ratchet wheel, whereby the alarm mechanism is set in operation, said trip rod extending at right angles to the door and adapted to be forced toward the pawl when the door is opened.

4. The combination with a supporting surface and a door, of a burglar alarm including a frame having sharpened extremities for engagement with the supporting surface and door, said frame forming an acute angle with both members, an alarm mechanism carried by the frame, a trip rod extending at right angles to the door and engaging the same, the inward movement of said trip rod releasing the alarm mechanism, and an apertured door plate through which the upper extremities of the frame project, said plate preventing an upward movement of the frame relative to the door when the latter is opened.

1,091,386. WELL-PACKER. WILLIAM S. PIERCE, Franklin, Pa., assignor of one-half to Charles A. Pierce, Franklin, Pa. Filed Apr. 11, 1913. Serial No. 760,526. (Cl. 166—10.)



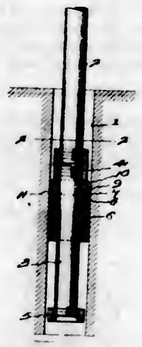
1. In a well packing, the combination of a casing comprising two relatively movable sections; an expansible packing carried by said casing; a member secured on one of said sections; a member detachably mounted on the other section and adapted to engage with said secured member for holding the sections in spaced relation when lowering into position, and to allow said sections to separate for removal from the well; a pipe section carried by one of said casing sections and constructed with a head; and a flange formed on the other casing surrounding said pipe and adapted to engage with said head whereby to remove the casing sections from the well.

2. In a well packing, the combination of a casing comprising two relatively movable sections, a tube secured to one of said sections and slidably telescoping in the other of said sections, a packing for said telescoping portion of the tube, an expansible packing sleeve carried by said casing, and means for moving one of said members relative to the other for expanding said packing sleeve.

1,091,387. PACKING FOR WELLS. WILLIAM S. PIERCE, Franklin, Pa., assignor of one-half to Charles A. Pierce, Franklin, Pa. Filed Oct. 11, 1913. Serial No. 794,682. (Cl. 166—10.)

1. The combination with a pipe, of a well packing therefor comprising an expansible sleeve slidably mounted on the pipe and having a flared end; a collar mounted on the pipe for limiting the sliding movement of the sleeve; and a gravity actuated ring slidably mounted on the pipe and having a reduced end engaging with the flared end of the sleeve, and adapted to expand said sleeve, substantially as described.

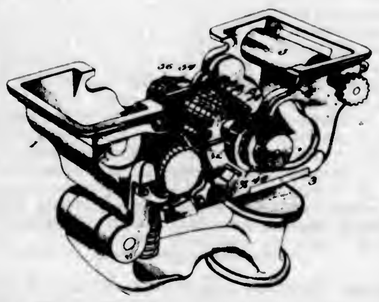
2. The combination with a pipe, of a well packing therefor comprising a rubber sleeve slidably mounted on the pipe and having inward and upwardly disposed flaring end portions; a collar secured on the lower end of the pipe for limiting the sliding movement of the sleeve; and a gravity actuated ring slidably mounted on the pipe and having a reduced portion engaging between the flaring portions of the sleeve, and adapted to engage with and expand the sleeve through the weight of the piping, substantially as described.



3. The combination with a pipe having a coupling, of a well packing therefor comprising an expansible sleeve slidably mounted on the pipe and having inner and outwardly disposed flaring portions at one end; a collar mounted on the pipe at the lower end thereof for limiting the sliding movement of the sleeve; and a ring slidably mounted on the pipe between said sleeve and coupling and engaging with the sleeve between said end flaring portions, and adapted to be engaged by the pipe coupling to effect the expansion of the sleeve through the weight of the piping, substantially as described.

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1,091,388. DATING-STAMP. HENRY M. G. PINKERTON, Philadelphia, Pa., assignor to Hill-Independent Manufacturing Company, Muskegon, Mich., a Corporation of Illinois. Filed Aug. 31, 1912. Serial No. 718,116. (Cl. 101—161.)



1. In a stamp, the combination with a frame having vertical side walls, a series of printing wheels, a series of toothed or setting wheels journaled between the side walls of said frame, a spindle or shaft having a thumb wheel on one end of the shaft passing through both side walls and supporting said toothed wheels, two additional thumb wheels on said spindle exterior to said side walls, having sleeves projecting through the side wall nearest the first mentioned thumb wheel, two additional thumb wheels on said spindle on the side opposite the aforesaid thumb wheels and having sleeves passing through its side wall, said spindle, sleeves and toothed wheels having co-acting keys and grooves, whereby the parts may be readily assembled, substantially as described.

2. In a stamp, the combination of a frame, a series of printing wheels journaled within said frame and having printing characters on their peripheries with grooves between said printing characters, a series of toothed or setting wheels also journaled within said frame in parallel relation to said printing wheels and having teeth entering the grooves between the printing characters on the printing wheels, a series of thumb wheels for turning said toothed wheels, a spindle or shaft connected to one of said thumb wheels and passing through and supporting all the other thumb wheels, said other wheels having sleeves fitting around each other and the spindle, said spindle and the inner ends of said sleeves having notches and said toothed wheels having keys fitting into said notches, whereby the parts may be easily assembled, substantially as described.

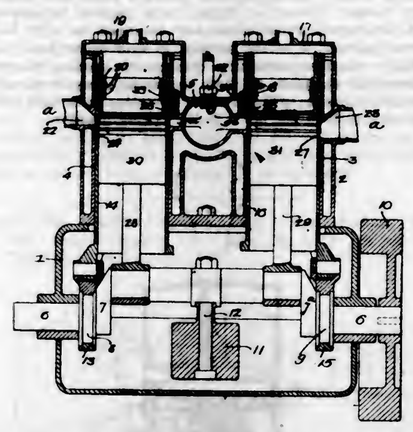
3. In a stamp, the combination with a frame having vertical side walls, a series of printing wheels journaled between said side walls and having printing characters on their peripheries with grooves between said printing characters, a series of toothed or setting wheels also journaled between the side walls of said frame in parallel relation to said printing wheels and having teeth entering the grooves between the printing characters on the printing wheels, a spindle or shaft having a thumb wheel on one end of the shaft passing through both side walls and supporting said toothed wheels, two additional thumb wheels on said spindle exterior to said side walls having sleeves projecting through the side wall nearest the first mentioned thumb wheel, two additional thumb wheels on said spindle on the side opposite the aforesaid thumb wheels and having sleeves passing through its side wall, said spindle, sleeves and toothed wheels having co-acting keys and grooves, whereby the parts may be readily assembled, substantially as described.

4. In a stamp, the combination with a frame having vertical side walls, a series of printing wheels journaled between said side walls and having printing characters on their peripheries with grooves between said printing characters, a series of toothed or setting wheels also journaled between the side walls of said frame in parallel relation to said printing wheels and having teeth entering the grooves between the printing characters on the printing wheels, a spindle or shaft having a thumb wheel on one end of the shaft passing through both side walls and supporting said toothed wheels, two additional thumb wheels on said spindle exterior to said side walls, having sleeves projecting through the side wall nearest the first mentioned thumb wheel, two additional thumb wheels on said spindle on the side opposite the aforesaid thumb wheels and having sleeves passing through its side wall, said spindle, sleeves and toothed wheels having co-acting keys and grooves, and a securing device on the end of said spindle, whereby the single securing device secures the spindle, the thumb wheels, the sleeves and toothed wheels in coöperative position, substantially as described.

5. In a stamp, the combination with a frame having vertical side walls, a series of printing wheels, a series of toothed or setting wheels journaled between the side walls of said frame, a spindle or shaft having a thumb wheel on one end of the shaft passing through both side walls and supporting said toothed wheels, two additional thumb wheels on said spindle exterior to said side walls, having sleeves projecting through the side wall nearest the first mentioned thumb wheel, two additional thumb wheels on said spindle on the side opposite the aforesaid thumb wheels and having sleeves passing through its side wall, said spindle, sleeves and toothed wheels having co-acting keys and grooves, and a securing device on the end of said spindle, whereby the single securing device secures the spindle, the thumb wheels, the sleeves and toothed wheels in coöperative position, substantially as described.



1,091,389. INTERNAL-COMBUSTION ENGINE. HARVEY L. REESE, Philadelphia, and HAVILAND H. PLATT, Wallingford, Pa. Filed Dec. 20, 1912. Serial No. 737,842. (Cl. 123—46.)



1. The combination in an internal combustion engine, of a compression cylinder; a working cylinder; pistons for said cylinders; a combustion chamber; mechanism including a single sleeve valve for controlling the flow of fuel into the compression cylinder and from the same into the combustion chamber; other mechanism including a second sleeve valve for controlling the flow of products of combustion from the combustion chamber to the working cylinder and from the latter; with means for firing fuel charges in the combustion chamber.

2. The combination in an internal combustion engine of a compression cylinder; a sleeve valve therein; a working cylinder; a second sleeve valve therein; pistons for said cylinders; a combustion chamber capable of communicating through said valves with said cylinders; and means for igniting a fuel charge in the combustion chamber.

3. The combination in an internal combustion engine of a combustion chamber; a cylinder and piston for compressing the fuel charges in said chamber; means for exploding the charges in the combustion chamber; and a working cylinder and piston for utilizing the energy of the products of combustion from the exploded charges; with a valve adjusted to permit communication between the combustion chamber and the compression cylinder during the latter part of the compression stroke and a second valve adjusted to permit communication between the combustion chamber and the working cylinder during the expansion stroke and for a portion of the exhaust.

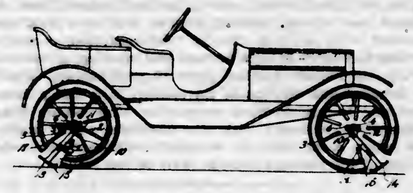
4. The combination in an internal combustion engine, of a compression cylinder having an inlet port; a working cylinder having an exhaust port; pistons for said cylinders; a substantially spherical combustion chamber mounted directly between the sides of said cylinders and opening into the same through ports in the curved surfaces thereof; a valve for the compression cylinder formed to control the flow of fuel through both of its ports; a second valve controlling the flow of products of combustion through both of the ports of the working cylinder; and means for actuating said valves.

5. The combination in an internal combustion engine of a compression cylinder; a working cylinder; pistons for said cylinders; a combustion chamber; a sleeve valve for each cylinder; means for actuating said valves to connect and cut off said chamber and the cylinders at predetermined points of the strokes of the pistons; said means including the engine crank shaft and eccentrics thereon directly and independently connected to the valves.

[Claims 6 to 10 not printed in the Gazette.]



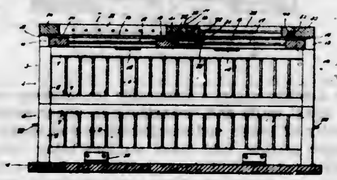
1,091,390. AUTO-LIFT. EDWARD H. RIOPEL, East Hampton, N. Y. Filed Oct. 11, 1912. Serial No. 725,844. (Cl. 57—15.)



An automobile lift comprising an axle elevating and supporting standard, an axle clip adapted to be fastened in fixed relation to the machine axle and embodying a downwardly extending socket in which the upper extremity of said standard is received and pivoted, said standard being adapted to swing only in a plane parallel to the longitudinal axis of the machine, coöperating stop shoulders on said standard and clip serving to limit the pivotal movement of the standard in one direction, an extended foot at the bottom of said standard, and a flexible strap attached to said standard and adapted to be passed around a wheel spoke and fastened.

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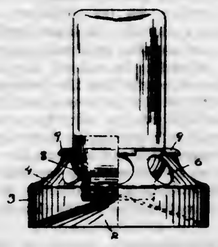
1,091,391. KNOCKDOWN COOP. FURMAN W. ROMANS, Baltimore, Md. Filed Apr. 4, 1911. Serial No. 618,858. (Cl. 217—47.)



The combination with a folding crate, end walls hinged at their upper edge to the under side of the top and adapted to be folded against the under side thereof, of means projecting below the lower bar of one of the said end walls and adapted to engage the bottom of said crate to retain the same in set up position and said means engaging the lower bar of the other of said ends when folded to lock said ends in folded position under said top to facilitate the folding of the crate

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1,091,392. SELF-FEEDER AND DRINKING-FOUNTAIN FOR POULTRY. JOSEPH SCHLICHTINGER, Atlanta, Ga. Filed Nov. 4, 1913. Serial No. 799,245. (Cl. 119—77.)



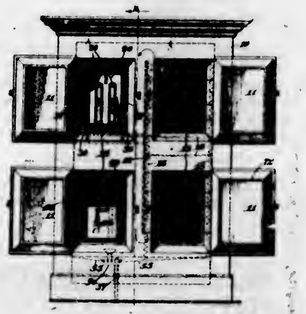
1. In a feeder for poultry, a trough having an upward and inward inclined conical base connected to a vertical circular wall, an upward and inward inclined circular extension of said wall having a series of inclined circular feed apertures, and in separable engagement with said extension a downward and inward inclined supporting

ring extending below the top of the conical base and provided with means for engaging a fountain jar.

2. A feeder for poultry, comprising a cylindrical trough having an upward and inward inclined conical base, an upward and inward inclined circular wall over said base provided with inclined circular feed apertures, a central opening and catch devices around said opening, a reservoir having its mouth portion projecting downward within the trough below the top of the conical base, and a downward and inward inclined supporting ring having lower means of engagement with the reservoir mouth portion and upper catch devices separably engaging the catch devices of the inclined circular wall of the trough.

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1,091,393. REFRIGERATOR. JOHN SCHULDS and NICKOLAUS J. WINDBERG, St. Louis, Mo. Filed Aug. 29, 1912. Serial No. 717,759. (Cl. 62—10.)



1. In a refrigerator, a removable ice mixture container having metal walls and comprising an upper section, and a plurality of lower sections joined to and opening from said upper section, said lower sections being constructed and positioned on said upper section to form a plurality of air spaces extending along and completely across the container and walled laterally by said lower sections, the bottoms of said lower sections being perforated to drain the water from the container.

2. In a refrigerator, an ice container comprising an upper section, and a plurality of lower sections joined to and opening from said upper section, said lower sections extending in spaced relation along said upper section to form the side walls of a plurality of open ended air spaces extending across the container.

3. In a refrigerator, a metallic ice mixture container comprising a receptacle body having its lower end cut up into a plurality of spaced sections open at the top to and flaring into the receptacle body and forming a plurality of air spaces extending transversely along and through said body, the bottoms of said sections being perforated to drain the water from said container.

4. In a refrigerator, an ice container comprising an upper section and a plurality of lower sections joined to, depending from and opening from said upper section, said lower sections extending in spaced relation along said upper section, braces connecting the bottom of said lower sections, and rollers on the bottoms of said lower sections.

5. In a refrigerator, an ice container comprising a rectangular receptacle body having its lower end cut up into a plurality of spaced sections open at the top to the receptacle body, said spaced sections forming a plurality of walled air spaces extending transversely along said body.

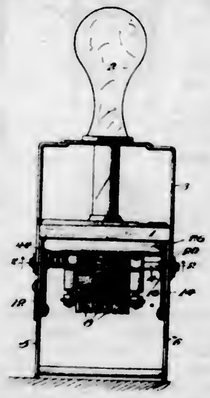
[Claims 6 to 17 not printed in the Gazette.]

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1,091,394. HAND-STAMP. LOUIS K. SCOTFORD, Chicago, Ill., assignor to Hill-Independent Manufacturing Company, Philadelphia, Pa., a Corporation of Illinois. Filed Jan. 31, 1913. Serial No. 745,516. (Cl. 101—70.)

1. In a hand stamp, a main plate, a supplemental die plate hinged thereto, a sliding latch constructed and arranged to hold said die plate to said main plate, a spring secured to said main plate and projecting through an opening therein against the die plate to force the same away from said base plate, and a spring co-acting with said sliding latch to hold the latch in its locking position.

2. In a hand stamp, a main plate, a supplemental die plate hinged thereto, a sliding latch secured to one of said plates and constructed and arranged to hold said plates together, a spring secured to said main plate and having a member projecting through an opening therein against the die plate to force the same away from said base plate, and a spring member co-acting with said sliding latch to hold the latch in its locking position.



3. In a hand stamp, a main frame having side members, a die plate supported in said frame between said side members and having parts projecting therefrom by which the die plate is turned, and bushings carried by said projecting parts having flanges located between said projecting parts and the side members of the frame and preventing said parts from contacting.

4. In a hand stamp, a main frame having side members, a die plate supported in said frame between said members and having parts projecting therefrom by which the die plate is moved from the inking to the printing position, a spindle projecting through said frame, and bushings carried by the projecting parts of said die plate, said bushings being located around said spindle and having flanges interposed between the said projecting parts of said die plate and the side members of the frame and preventing said parts from contacting.

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1,091,395. CROCHET-HOOK. SAMUEL S. SENCENBAUGH, Aurora, Ill., assignor to T. Buettner & Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1912. Serial No. 689,649. (Cl. 66—17.)



1. An integral crochet hook having an elongated shank or handle portion at one end corresponding in form with the wire from which the hook is made; a hook at the other end, and a bifurcated portion intermediate said ends.

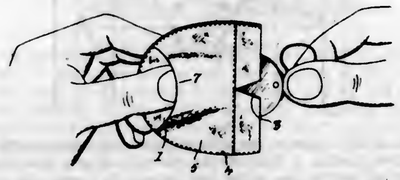


2. An integral crochet hook having an elongated shank or handle portion at one end corresponding in form with the wire from which the hook is made, a hook portion at the other end, and a widened portion intermediate said ends and which widened portion is provided with an opening.

3. In a crochet hook, a handle portion widened and bifurcated for a major portion of its length, the arms lying on either side of said bifurcation being spread apart to provide an elongated and widened opening therebetween into which engaging portions of the fingers may protrude from opposite sides from any point intermediate the ends thereof, said arms being united at one end of the device to provide a widened head and at the other to provide a shank for the hook, substantially as described.

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1,091,396. EYEGLASS-CLEANER. KATHERYN M. SEERS, Boston, Mass. Filed Apr. 25, 1913. Serial No. 763,663. (Cl. 15—68.)



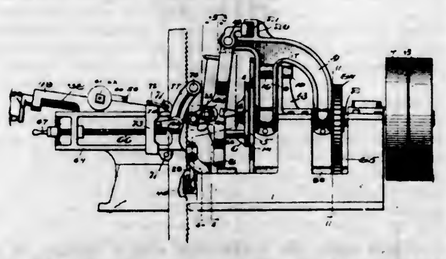
1. An eye-glass cleaner comprising leaves, pieces placed against the outer sides of the leaves and having portions cut from the edges thereof to form notches, and stitching connecting the leaves and pieces, the leaves being disconnected at one of their ends to admit of the lens being introduced between them.

2. An eye-glass cleaner comprising leaves, pieces placed against the outer sides of the leaves, one of the pieces having a notch at one end and the other piece having a notch to one side of a middle point, said pieces being stitched to the outer leaves to form finger stalls to which entrance is had by means of the said notches, and stitching connecting the several leaves and the said pieces, said leaves being loose at one end.

3. An eye-glass cleaner comprising covers, bellows gussets connecting the edges of the covers, and finger stalls fitted to the outer sides of the covers.

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1,091,397. SAW-FILING MACHINE. JAMES A. SEVEY, San Marcos, Tex. Filed Apr. 8, 1911. Serial No. 619,879. (Cl. 76—35.)



1. In a device of the class described, a base, means arranged on the base for supporting a saw, means for intermittently feeding said saw, mechanism for alternately moving opposite ends of a file in engagement with the saw upon each movement of the latter, and in a direction for filing the cutting edge of the teeth at a given angle with the side of the saw blade, and means for causing the file to file the cutting edge at a different angle.

2. In a machine of the class described, a base, means for supporting and guiding a saw, means for feeding the saw, a double ended file for filing the teeth of the saw, and means operating said file including a carrier movable in two directions at an angle to each other for causing the file to engage the teeth of said saw for half the travel of the file in each direction, whereby the saw edge is always turned outward.

3. In a device of the class described, a base, means arranged on the base for supporting a saw, means for intermittently feeding said saw, means movable toward and away from the saw for alternately moving opposite ends of a file in engagement with the saw, and in a direction for filing the cutting edge of the teeth at a given angle with the side of the blade, and means for filing the cutting edge at a different angle.

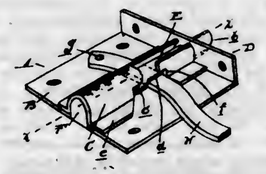
4. In a device of the character described, a base, a vise structure for supporting a saw, means for intermittently moving said saw through said vise, a file arranged to engage the teeth of said saw for filing the same, a reciprocating carrier for moving said file, means for moving said reciprocating carrier and means for causing said reciprocating carrier to cause said file to engage and file a tooth on said saw upon each movement of the reciprocating carrier.

5. In a device of the character described, a base, a saw supporting and guiding structure, intermittently operated means for engaging the teeth of the saw and intermittently moving the saw along, a double ended file arranged to engage and file the teeth of the saw, a reciprocating carrier for said file, and means for guiding the said reciprocating carrier so as to utilize one end of said file when the file is moving in one direction and utilize the opposite end of the file when the file is moving in the opposite direction.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,398. LATCH. JAMES SHAND, Detroit, Mich., assignor to Joseph N. Smith & Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 10, 1912. Serial No. 735,884. (Cl. 70—42.)

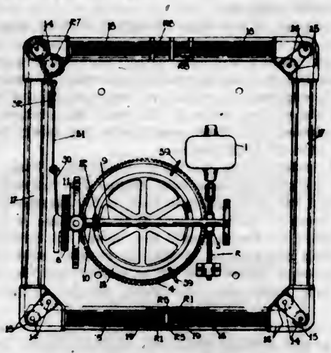


1. In a latch mechanism, the combination with a cylindrical latch bolt, of a casing provided with a housing within which said latch bolt is arranged, said bolt being provided with a recess in one side thereof, and an operating lever fulcrumed on the casing extending through said housing and engaging the recess in the bolt, the engagement between the bolt and the lever holding the latch from rotation.

2. In a latch mechanism, the combination with a casing, comprising a plate member carrying a face plate, and a cap member, of a latch bolt within the cap projecting through an opening in the face plate, a spring for the latch bolt housed within the cap plate, a projection upon the plate member forming a centering means for the cap plate in the assembly of the parts, said projection closing one end of the cap member and forming an abutment for the latch spring, and an operating lever for the latch.

3. In a latch mechanism, the combination with a casing formed of complementary stamped metal plates, one carrying at one edge a face plate and at its opposite edge a centrally positioned lug or ear, and the other constituting a cap member of substantially semi-cylindrical form, said cap member having one end engaging and closed by the ear upon the complementary member, of a latch bolt housed within the cap plate and projecting through the face plate, a spring within the cap member, abutting against the latch and ear, and an actuating lever for the latch bolt.

1,091,390. ADVERTISING DEVICE. JOHN SIMPSON, Vancouver, British Columbia, Canada, assignor to Street Car Indicator Company, Limited, Vancouver, British Columbia, Canada. Filed Dec. 10, 1913. Serial No. 805,826. (Cl. 40—86.)



1. In card shifting mechanism the combination of a plurality of compartments arranged in the form of a closed straight sided geometrical figure; two sets of cards arranged on edge in each of said compartments, the two sets lying end to end; endless chains suitably guided and supported one at the inner side and the other at the outer side of the sets of cards of all the compartments; means for reciprocating said chains simultaneously in opposite directions; and card shifting means carried by said chains.

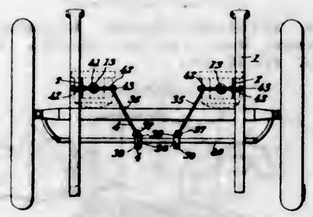
2. In card shifting mechanism the combination of a plurality of compartments arranged in the form of a closed straight sided geometrical figure; two sets of cards arranged on edge in each of said compartments, the two sets lying end to end; endless chains suitably guided and supported one at the inner side and the other at the outer side of the sets of cards of all the compartments; means for reciprocating said chains simultaneously in opposite directions comprising a continuously driving shaft; a driven shaft, means for intermittently actuating the driven shaft from the driving shaft, means whereby the rotary movement of the driving shaft effects a reciprocating movement of one of the chains, and means whereby the movement of the said chain in one direction effects the movement of the other chain in the opposite direction; and card shifting means carried by said chains.

3. In card shifting mechanism the combination of a compartment; two sets of cards arranged on edge in said compartment, the two sets lying end to end; reciprocating dogs one at one side arranged to shift the cards of one set of cards and the other at the other side arranged to shift the cards of the other set, each of the cards adjacent one of its horisontal edges being adapted for engagement by one of said dogs; a part on each dog adapted to engage and press back the outside card of the other set than that which the dog is adapted to shift; and reciprocating members moving synchronously with said dogs engaging and pressing back the said outside cards adjacent the horizontal edges thereof distant from the edges engaged by the aforesaid dogs.

4. In card shifting mechanism the combination of a plurality of compartments arranged in the form of a closed straight sided geometrical figure; two sets of cards arranged on edge in each of said compartments, the two sets lying end to end; two pairs of endless chains suitably guided and supported one at the inner side and the other at the outer side of the sets of cards of all the compartments; means for reciprocating said pairs of chains simultaneously in opposite directions; card shifting means carried by one chain of each pair; and means carried by the other chain of each pair for pressing back the outside card of the set in front of which another card is being shifted.

5. In card shifting mechanism the combination of a plurality of compartments arranged in the form of a closed straight sided geometrical figure; two sets of cards arranged on edge in each of said compartments; the two sets lying end to end; two pairs of endless chains suitably guided and supported one at the inner side and the other at the outer side of the sets of cards of all the compartments; means for reciprocating said pairs of chains simultaneously in opposite directions; card shifting means carried by one chain of each pair; and means carried by each chain of each pair for pressing back the outside card of the set in front of which another card is being shifted.

1,091,400. HEADLIGHT. JAMES SMITH and SHERMAN F. WARNER, Elmhurst, N. Y. Filed Jan. 18, 1913. Serial No. 742,834. (Cl. 240—62.)



In a light support for vehicles, the combination with a bracket having a fixed sleeve thereon, a post revolubly mounted within the sleeve and having its lower end provided with upper and lower spaced threaded portions of different diameters and an intervening squared portion, a member having a squared opening therein adapted to fit over the squared portion of the post, a nut adjustably mounted on the upper threaded portion of the post, and a second nut mounted on the lower threaded portion of the post, and means on the last mentioned threaded portion of the post to prevent displacement of the last mentioned nut.

1,091,401. SPRAYING-PUMP. SIDNEY SMITH, Mansfield, Ohio, assignor to The Barnes Manufacturing Company, Mansfield, Ohio, a Corporation of Ohio. Filed Sept. 29, 1911. Serial No. 651,980. (Cl. 103—75.)



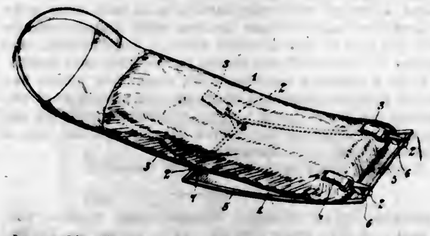
1. In a pump, the combination with a cylinder, of a shelf adapted to be secured upon a receptacle and through which the cylinder passes, and clamping jaws detachably secured on the upper side of said shelf and embracing the cylinder.

2. In a pump, the combination with a cylinder, of a shelf through which the cylinder passes provided on its under side with depending flanges having arcuate lower edges and with other flanges having straight lower edges, and clamping jaws secured on said shelf and embracing the cylinder.



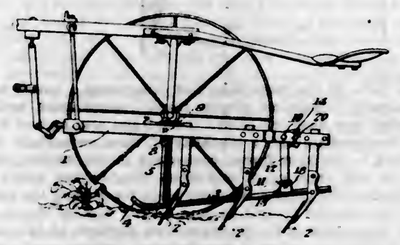
3. In a pump, the combination of a cylinder, a shelf through which the cylinder passes, overhanging lips on the shelf near one end thereof, clamping jaws embracing the cylinder adapted at one end to engage under said overhanging lips and having notches in their edges at the opposite end, and set screws inserted through said notches into the shelf.

1,091,402. COTTON-SACK. WILL T. STOUT, Kinta, Okla. Filed Dec. 10, 1912. Serial No. 736,037. (Cl. 21—48.)



In combination, a cotton picker's sack, snap hooks secured to the upper side of the rear corners of the sack, other snap hooks secured to the under side of the sack about midway of its ends and a skid consisting of an oblong sheet metal plate curved in its length and having its four edges reinforced and provided near its four corners with openings to receive the before mentioned snap hooks, whereby the skid is positively connected to the sack.

1,091,403. ATTACHMENT FOR CULTIVATORS. ROY THOMPSON and CARL EIRICH, Otranto Station, Iowa. Filed Oct. 2, 1913. Serial No. 793,032. (Cl. 97—33.)



1. A beet hilling attachment for cultivators comprising duplicate lifting members, a hanger connected to the forward end of each lifting member, means for adjustably connecting said hanger to the cultivator beam, a hanger adjustably connected to the rear end of each shield, means for pivotally connecting said last mentioned hanger to the cultivator beam, and means for fixing said hanger in its pivotal adjustment on the beam.

2. A beet hilling attachment for cultivators comprising duplicate lifting members, a hanger connected at the lower end to the forward end of each lifting member, the upper end of said hanger being formed with a vertical series of openings for adjustable connection to the cultivator beam, a bracket secured to and extending laterally from the rear end of each lifting member, a rear hanger adapted for adjustable connection with the bracket, means for pivotally connecting the upper end of said rear hanger to the cultivator beam, and means for securing said rear hanger in desired pivotal adjustment.

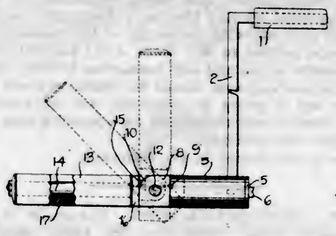
1,091,404. BUTCHER'S SAW. ARTHUR TILDEN, St. Louis, Mo. Filed Feb. 15, 1913. Serial No. 748,642. (Cl. 145—33.)

A saw frame having the terminal of one depending leg thereof formed with a longitudinally extending slot disposed in a plane occupied by the saw when in position in the frame, one wall of said slot being cut away on a line extending from the end of the frame leg to expose



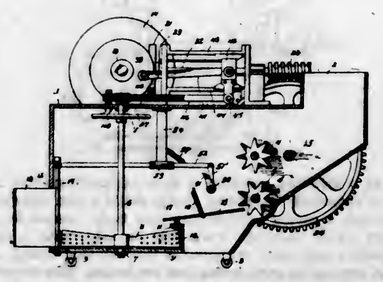
the opposing wall of the slot, and a pin projecting outwardly from said exposed wall.

1,091,405. PEDAL. PETER L. TRAMBLEY, Albuquerque, N. Mex. Filed June 18, 1913. Serial No. 774,444. (Cl. 208—70.)



In combination with a crank arm having an angularly disposed sleeve formed on its free end, a pedal shaft rotatably mounted in said sleeve, one end of said shaft being formed with an enlarged head provided with transversely disposed slots, a pedal member provided with arms extending within the slots of the head, a pivot member directed through such head and arms, and coacting means carried by the pedal member and the head of the shaft for limiting the movement of such shaft relatively to such head.

1,091,406. MECHANICAL STOKER. FREDRICK MARK UNDERWOOD, Hastings, Nebr. Filed May 3, 1913. Serial No. 765,354. (Cl. 110—115.)



1. A mechanical stoker comprising a crusher, a feeder and means for conveying fuel from the crusher to the feeder and adapted to be engaged by a movable element of the crusher whereby the conveying means will be vibrated and the fuel delivered to the feeder.

2. A mechanical stoker comprising a casing, crushing rolls journaled in said casing adjacent to one end thereof, a feeder within the casing at the opposite end thereof, and

a conveyer interposed between the feeder and said crusher rolls and designed to be engaged by one of the latter whereby the same will be vibrated to carry the fuel from the crushing rolls to the feeder.

3. A mechanical stoker comprising a casing, crushing rolls journaled in said casing adjacent to one end thereof, a feeder within the casing at the opposite end thereof, a conveyer interposed between the feeder and said crusher rolls and designed to be engaged by one of the latter whereby the same will be vibrated to carry the fuel from the crushing rolls to the feeder, and tensioning means for suspending said conveying means within the casing and coöperating with the particular crushing roll to vibrate the same.

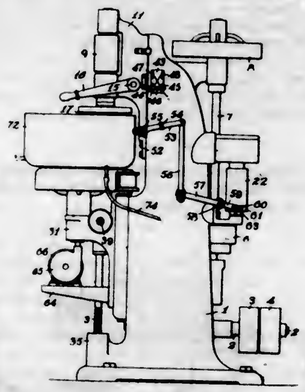
4. A mechanical stoker comprising a casing provided with a discharge opening, a feeder within the casing, means for conveying the fuel to said feeder, a vertical distributer disposed within the outward opening of said casing and adapted to be oscillated horizontally, a horizontal rod adapted for sliding movement, a connection between one end of said rod and distributer, means for sliding said rod in one direction and tension means for restoring said rod and for operating the first means to oscillate the distributer.

5. A mechanical stoker comprising a casing provided with a discharge opening, a feeder within said casing, means for conveying the fuel to said feeder, a vertical shaft journaled within said casing approximately central of the discharge opening therein, a distributer carried by said shaft and extending outwardly of the discharge opening, an arm secured to said shaft, a rod adapted for sliding movement, a pin and slot connection between one end of said rod and said arm, means for sliding said rod in one direction and a spring for restoring said rod subsequent to the action of said means and for operating said means to oscillate said distributer.

[Claim 6 not printed in the Gazette.]

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1,091,407. GRINDING-MACHINE. OAKLEY S. WALKER, Worcester, Mass. Filed Nov. 29, 1909. Serial No. 530,290. (Cl. 51—12.)



1. In a grinding machine, a work supporting table having an outwardly extending flange with a rim depending therefrom, a casing surrounding said table, means for admitting water upon the work held on said table, a shaft supporting said table and passing through said casing, and means carried by said casing and projecting into the space between said table and said depending rim, for preventing access of water to said shaft.

2. In a grinding machine, a rotatable work supporting table, a grinding wheel in operative relation to said table, means for raising and lowering said grinding wheel, and an automatic attachment between said grinding wheel and said rotatable table arranged to stop the rotation of said table when said wheel is raised, and to start the rotation of said table when said wheel is lowered into operative position.

3. In a grinding machine, a bracket vertically slidable in ways in the framework of the machine, a shaft journaled in said bracket, a work supporting table secured to the upper end of said shaft, means for rotating said shaft, and means for adjusting said bracket vertically.

4. In a grinding machine, a fixed framework having vertical ways, a head slidable on said ways, a shaft journaled in said head, a grinding wheel carried by said shaft, vertical ways in said framework below said grinding wheel, a bracket vertically adjustable in said lower ways, a shaft journaled in said bracket with its axis parallel with the axis of said grinding wheel, a work holding table carried by said shaft and means for rotating said shaft.

5. In a grinding machine, work supporting means having an interior chamber, a shaft secured to said work supporting means, having a bore in communication with said chamber, and means for forcing air through the bore of said shaft into said chamber.

[Claims 6 to 34 not printed in the Gazette.]

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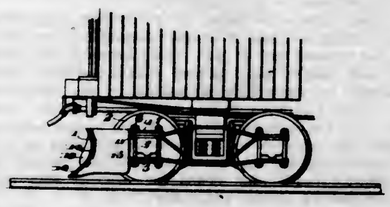
1,091,408. HAY-FORK. BONIFACE W. WEBBER, Yocemento, Kans. Filed Dec. 27, 1912. Serial No. 738,892. (Cl. 57—42.)



A rake of the class described comprising a closed substantially triangular shaped frame formed with spaced alining eyes near one corner thereof and also formed with an intermediate eye, a plurality of tines swingingly connected to the said frame, connecting pieces uniting pairs of the said tines, one of said pieces being formed with eyes encircling the other connecting piece for joining the tines, a hook member pivoted in said alining eyes of the frame and engageable with the connecting portions of the tines for holding the latter in non-dumping position, and a suspension cable connected with the intermediate eye of the frame.

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1,091,409. CAR-WHEEL GUARD. WILLIAM F. WEST, Minneapolis, Minn. Filed Dec. 3, 1912. Serial No. 734,725. (Cl. 105—131.)



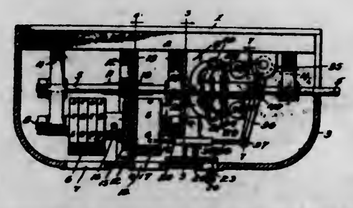
1. A car wheel guard comprising a guard member adapted to be positioned in front of the car wheel and including a forwardly and inwardly inclined check wing, a rearwardly and outwardly inclined deflecting wing, and a forwardly projecting point formed at the lower edge thereof, and means for pivotally attaching the said member to the car truck for horizontal swinging movement.



2. A car wheel guard comprising a guard member adapted to be positioned in front of the car wheel and including a forwardly and inwardly inclined check wing, a rearwardly and outwardly inclined deflecting wing, and a forwardly projecting point formed at the lower edge thereof, means for pivotally attaching the said member to the car truck for horizontal swinging movement, and means for normally maintaining the said member in its operative position.

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1,091,410. SPEEDOMETER. JAMES WHITCOMB, Hillsdale, Mich., assignor of one-half to C. F. Kapp, Manchester, Mich. Filed May 15, 1913. Serial No. 767,939. (Cl. 73—123.)



1. A speedometer comprising a main shaft adapted to be driven from a vehicle wheel, a speed indicating device comprising a disk, a collar fixed to said shaft, arms radiating from said collar at diametrically opposite points, bell crank levers each pivoted at its bight to one of said arms, a sleeve on said shaft and adapted for sliding movement thereon and having one end thereof formed with a groove designed to receive the free extremities of the inner limbs of said bell crank levers, weights carried by the free ends of the outer limbs of said levers and responsive to the action of centrifugal force to slide the sleeve along the shaft, a lever fulcrumed at one end, a rack bar pivoted to the free end of said lever, a pinion fixed to said disk and meshing with said rack bar, and a connection between said sleeve and lever whereby the disk will be rotated in the movement of the sleeve along the shaft and through an angle corresponding to the speed of the shaft.

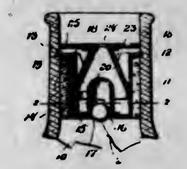
2. A speedometer comprising a main shaft adapted to be driven from a vehicle wheel, a speed indicating device comprising a disk, a collar fixed to said shaft, arms radiating from said collar at diametrically opposite points, bell crank levers each pivoted at its bight to one of said arms, a sleeve on said shaft and adapted for sliding movement thereon and having one end thereof formed with a groove designed to receive the free extremities of the inner limbs of said bell crank levers, weights carried by the free ends of the outer limbs of said levers and responsive to the action of centrifugal force to slide the sleeve along the shaft, and connections between said sleeve and disk whereby the latter will be rotated in the movement of the sleeve along the shaft and through an angle corresponding to the speed of the shaft.

3. A speedometer comprising a main shaft adapted to be driven from a vehicle wheel, a speed indicating device comprising a disk, a collar fixed to said shaft, a governor carried by said collar and responsive to the action of centrifugal force, a sleeve mounted on said shaft and capable of sliding movement thereon, a connection between said governor and sleeve, a lever fulcrumed at one end, a rack bar pivoted to the free end of said lever, a pinion fixed to said disk and meshing with said rack bar, and a connection between said sleeve and lever whereby the disk will be rotated in the movement of the sleeve along the shaft and through an angle corresponding to the speed of the shaft.

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1,091,411. NON-REFILLABLE BOTTLE. WINFRED R. WHITWELL and JOHN CHARLES KELLY, Redondo Beach, Cal. Filed May 17, 1913. Serial No. 768,327. (Cl. 215—66.)

In a non-refillable bottle, the combination with a bottle body including a neck, of a casing in the neck and having the bottom thereof provided with an opening constituting a seat and an outlet for the bottle body, said casing having means integral therewith for locking the same in a bottle neck, a ball valve normally reposing on the seat to close the said outlet, a member supported on the bottom of the said casing and confining the said ball valve, the said member having a series of openings therein and



adapted to limit the forward movement of the ball valve when the bottle body is tilted, a frusto-conical baffle depending within the casing and encircling the said member, and a disk supporting the baffle and fitting snugly in the neck of the bottle body, the said disk being spaced from the said casing and having an outlet opening registering with an opening in the said baffle.

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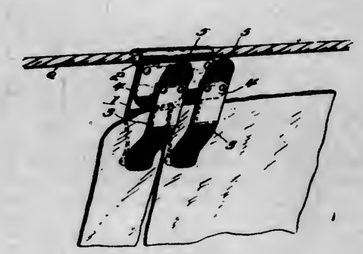
1,091,412. THREAD-CUTTING DEVICE. RUDOLF WILD, Los Angeles, Cal. Filed Apr. 22, 1911, Serial No. 620,624. Renewed Sept. 5, 1913. Serial No. 788,321. (Cl. 30—14.)



A ring provided with a thread cutting device comprising a flat head formed on said ring, said head having an opening rectangular in cross section and whose side walls lie in planes perpendicular to the base of said flat head, the head also having an opening therein at right angles to the first mentioned opening, a cutting tool inserted in the first mentioned opening, the last mentioned opening having a set screw mounted therein adapted to engage said cutting tool and hold it in position, and the head provided with a circumferential groove intersecting the first mentioned opening.

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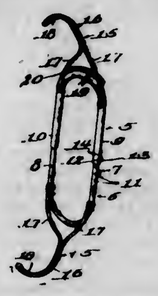
1,091,413. CLOTHES-PIN. SARAH WILKINS, Calumet, Mich. Filed Mar. 7, 1913. Serial No. 752,713. (Cl. 24—137.)



The herein described clothes pin comprising a sheet metal body having its upper end outturned to form a line engaging hook and having its lower portion bifurcated to form a pair of fixed jaws, a pair of movable jaws arranged opposite the fixed jaws, and a U-shaped spring arranged between the fixed jaws and the movable jaws, one side of said spring being continuous and extending across and secured to the upper portion of said sheet metal body, the other side of said spring being bifurcated and

forming independently movable spring arms each of said spring arms being secured to the inner side of one of the movable jaws at a point near the upper end thereof.

1,091,414. ANIMAL-POKE. IRA H. WILLIAMS, Maple Creek, Saskatchewan, Canada, assignor of one-half to Clarence B. Williams, Pence, Canada. Filed July 15, 1913. Serial No. 779,214. (Cl. 119—138.)

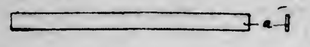


1. An animal poke comprising two sections formed of pipe, the ends of one section being telescopically fitted in the ends of the other section, and a single fastening means removably inserted through the one set of telescoped section ends, one of the sections being also provided with spur means.

2. An animal poke comprising two sections formed of pipe, the ends of one section being telescopically fitted in the ends of the other section, the one end of one section having a plurality of openings therethrough and the adjacent end of the other section having a single opening to register with any one of said plurality of openings, and a single fastening means removably inserted through the engaged ends of the sections having the openings therein.

3. An animal poke comprising two bowed sections formed of pipe and having their ends telescopically engaged, a single fastening means removably engaging the one set of telescoped section ends, and guards consisting of doubled metal rods with arms secured to the sections adjacent to the bows and having their doubled portions projected forwardly and bent to form hook terminals.

1,091,415. MANUFACTURE OF FLAT-WARE BLANKS. ARTHUR WILZIN, St.-Ouen, France. Filed Jan. 26, 1912. Serial No. 673,589. (Cl. 76—105.)

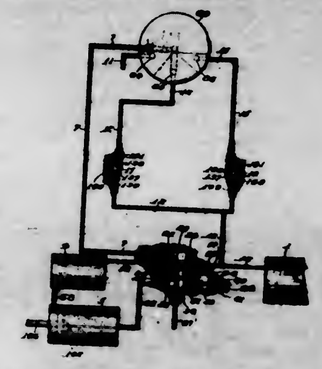


The herein described improvement in the manufacture of flatware blanks, which consists in assembling a plurality of flat blanks side by side, each blank being of suitable width, thickness, and of a weight to produce the desired fork or spoon blank, confining the assembled blanks in a die side by side in such manner as to prevent lateral expansion of the assembled blanks, and then subjecting the assembled blanks thus confined to edgewise pressure from a die of a form to simultaneously displace the metal of each of the assembled flat blanks longitudinally and transversely, thus imparting thereto the desired edge contour.

1,091,416. AIR-BRAKE. ANDREW J. WISNER, Philadelphia, Pa. Filed Sept. 12, 1908. Serial No. 452,786. (Cl. 188—1.)

1. In an air brake system, the combination with an air brake valve and a piston therein, of an auxiliary reservoir and a main reservoir in communication with said air brake valve over said piston, when said piston is depressed.

2. In an air brake system, the combination with an air brake valve having a piston located therein and operating by train pipe pressure, of a main reservoir, an auxiliary reservoir, a brake cylinder, and means to charge said auxiliary reservoir from said main reservoir over said piston, when said piston is depressed.



3. In an air brake system, the combination with an air brake valve having a piston therein operating by train pipe pressure, of a main reservoir, an auxiliary reservoir, a brake cylinder, and means to charge said auxiliary reservoir from said main reservoir over said piston when said piston is depressed and to put both reservoirs in communication with both ends of said brake cylinder.

4. In an air brake system, the combination with an air brake valve having a piston therein operating by train pipe pressure, a main reservoir, an auxiliary reservoir, a brake cylinder, and means to charge said auxiliary reservoir from said main reservoir over said piston, and to put both said reservoirs into communication with the rear end of said brake cylinder through said piston.

5. In an air brake system, the combination with an air brake valve having a piston therein, a main reservoir, an auxiliary reservoir communicating with the upper end of said air brake valve above said piston, a train pipe also communicating with the said air brake valve on the same side of said piston, a brake communicating with said air brake valve on the other side of said piston, a minimum releasing pressure valve controlling the passage between said piston and said air brake cylinder, a controlling valve and means to put said train pipe into communication with the said main reservoir or the open air to move said piston, and means operated by said piston for putting the rear end of said brake cylinder into communication with the open air.

[Claims 6 to 37 not printed in the Gazette.]

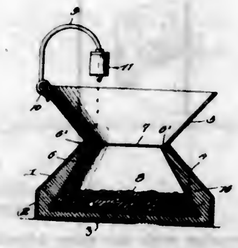
1,091,417. SAFETY LAMP-BURNER. CHRISTOPHER B. J. WEYMOND, San Antonio, Tex., assignor of one-half to Frederick G. Blume, San Diego, Cal. Filed Dec. 27, 1912. Serial No. 738,862. (Cl. 67—78.)



In combination, a base plate, a wick tube projecting above said base plate, a substantially dome-shaped hood fixed upon said base plate and surrounding said wick tube, said hood being formed at diametrically opposite sides with rectangular openings, a dome-shaped extinguisher, oppositely arranged lugs formed upon the extinguisher and arranged to seat upon the edges of said openings, said opening being relatively larger than the thickness of said lugs, and right angular feet formed on said lugs, said extinguisher being spaced concentrically from said hood, said feet arranged to frictionally engage the body of said hood at opposite points.

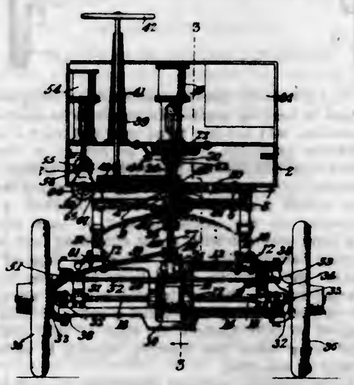


1,091,418. CUSPIDOR. GEORGE WOODWORTH, Sheffield, Ill. Filed Mar. 6, 1913. Serial No. 752,443. (Cl. 4—38.)



The herein described combustible sanitary cuspidor comprising a paper receptacle and an outer paper shell, the latter consisting of a circular flat bottom, a vertical wall rising therefrom and converging inwardly to form a frusto cone shaped body, and the receptacle consisting of a flat circular bottom larger than the smaller end of said body and a frusto-conical wall rising from said bottom and spaced from said body, the upper edge of this wall being turned outward into an annular horizontal flange fitting snugly within the smaller end of said body and spaced below the upper edge of the same, a woven wire disk seated on said flange, an inverted frusto-cone-shaped mouth-piece at the top of the shell and having its small lower end resting on said disk and secured within the upper end of said body, and a filling of paraffin molded in the space between the bottoms and walls of the receptacle and shell, the filling being thicker at the intermediate portion of the side wall, and a coating of fire-proof paint in the interior of said receptacle and mouth-piece.

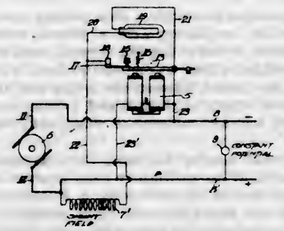
1,091,419. TOWER-WAGON. WILLIAM V. YANDELL, Los Angeles, Cal. Filed Nov. 21, 1910. Serial No. 593,485. (Cl. 21—90.)



1. A wagon body, a truck pivotally connected thereto a vertical shaft concentric with the pivot connection between the body and the truck, a sleeve on said shaft, a second sleeve on the first-named sleeve having a spur gear and a beveled gear, a steering shaft mounted on the body and having a pinion engaging said spur gear, driving spindles mounted on the truck, steering spindles pivotally mounted on the truck, connected together for simultaneous movement and one provided with an arm, axle spindles having their bearings in the steering spindles and flexibly connected to and driven by said driving spindles, a gear connecting said driving spindles to the driving shaft, a motor connected to said gear shaft, a vertically arranged beveled gear carried by the truck and engaged by the beveled gear of the second sleeve, a shifter rod pivotally connected to the vertically arranged beveled gear and to the arm of one of the steering spindles, and means to turn the said truck pivotally so that the steering spindle may be turned either with or independent of the truck.

2. A wagon body, a spring truck pivotally connected thereto, a longitudinally extensible vertical shaft concentric with the pivot connection between the body and truck, a sleeve on said shaft, a second sleeve on the first-named sleeve and having a spur gear and a beveled gear, a steering shaft mounted on the body and having a pinion engaging said spur gear, driving spindles mounted on the truck, steering spindles pivotally mounted on the truck and connected together for simultaneous movement and one provided with an arm, axle spindles having their bearings in the steering spindle and flexibly connected to and driven by said driving spindles, gears connecting said driving spindles to the driving shaft, a motor geared to said shaft, a vertically arranged beveled gear carried by the truck and engaged with the beveled gear of the second sleeve, a shifter rod pivotally connected to the vertically arranged bevel gear and to the arm of one of the steering spindles and means to turn said truck pivotally so that the steering spindle may be turned either with or independently of the truck.

1,091,420. SYSTEM OF REGULATION FOR DYNAMO-ELECTRIC MACHINES. VINCENT G. APPLE, Dayton, Ohio, assignor to The Apple Electric Company, Dayton, Ohio, a Corporation of Ohio. Filed Apr. 12, 1912. Serial No. 690,246. (Cl. 171—229.)



1. A system of regulation comprising a dynamo electric machine, a circuit supplied thereby, a field-winding for the dynamo, a rheostatic conductor, connections for associating said conductor with the field winding for said dynamo electric machine whereby the resistance of said conductor reduces the magnetic flux of said field winding, said rheostatic conductor being of a character such that its resistance is materially increased by the effect of current therethrough, means responsive to electrical variations in the circuit for said dynamo electric machine and a short circuiting switch controlled by said means, to cut said conductor in or out of circuit.

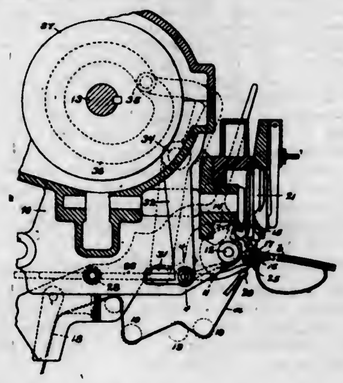
2. A system of regulation comprising, in combination with a dynamo electric-machine having a field winding, a rheostatic conductor the resistance of which materially increases by the effect of the current therethrough, circuit connections for inclusion of said conductor to oppose the effect of said field winding in gradually increasing degree, and means responsive to electrical variations in the circuit for said dynamo electric-machine, for cutting out said conductor.

3. A system of regulation comprising, in combination with a dynamo electric-machine and a field winding therefor, a rheostatic conductor, connections for associating said conductor with the circuit for said dynamo electric-machine and with the field winding for said dynamo electric-machine whereby the resistance of said conductor reduces the magnetic flux of said field winding, said rheostatic conductor being of a character such that its

resistance materially increases by the effect of the current therethrough, means responsive to electrical variations in the circuit for said dynamo electric-machine, and a short-circuiting switch controlled by said means to cut said rheostatic conductor in or out of circuit to affect said field winding and through it the electrical conditions of said circuit for the dynamo electric-machine.

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1,091,421. THREAD-FINGER MECHANISM. HARRIE A. BALLARD, Boston, Mass., assignor to The Boylston Manufacturing Company, South Boston, Mass., a Corporation of New Jersey. Filed Sept. 29, 1908, Serial No. 455,332. Renewed Jan. 16, 1914. Serial No. 812,570. (Cl. 112—20.)



1. The combination with a shoe sewing machine having a looper, of an oscillatory arm, a pivoted member formed with a bearing, a rod extending through said pivoted member, said rod being bent at one end to form a hook adapted to engage the thread between the looper and the work and to measure a supply of thread, and a clamping device carried by said arm and adapted to clamp said rod at various points.

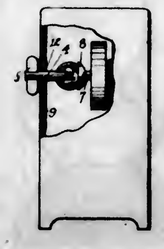
2. In a shoe sewing machine, the combination with a barbed needle, of an oscillatory arm, a pivot member supported and carried by said arm, a relatively stationary member, a rod engaging said pivot member and having sliding engagement with said stationary member, one end of said rod being bent to form a hook and adapted to engage the needle thread between the barb of the needle and the work, said rod being adapted to move longitudinally to draw the thread laterally, and means for clamping said rod to said pivot member.

3. In a shoe sewing machine, the combination with a barbed needle, of a bearing member, a rod bent at one end to form a hook, said hooked end being adapted to hook the needle thread between the barb of the needle and the work, and the other end of said rod being arranged to slide longitudinally in said bearing member, an oscillatory arm adapted to reciprocate said rod longitudinally, coactive clamping members pivotally mounted in said arm and adapted to clamp said rod, one of said clamping members being screw threaded, and a nut arranged on said threaded member, said clamping members being arranged to be tightened and secured in said arm by said nut.

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1,091,422. CLOCK-BANK. EZRA C. BROCKWAY, Trenton, N. J., assignor to Merchants Co-operative Co., Trenton, N. J., a Corporation of New Jersey. Filed Apr. 15, 1913. Serial No. 761,383. (Cl. 194—84.)

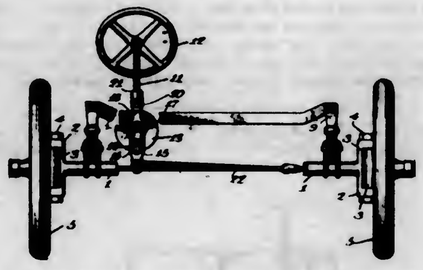
A clock bank including a clock casing, a clock mechanism arranged therein, a coin cup carried by the main spring stem, said cup being provided interiorly with diametrically extending coin grooves, an elongated horizontally extending coin slot formed in the rear wall of said clock casing and in alinement with the main spring stem, a hinged plate mounted interiorly of said casing and on the rear wall thereof, yoke arms formed on said plate and normally disposed to extend across the said coin slot, said rear wall of said casing being provided approximately midway the length of the said coin slot with a central opening adapted to receive a winding key, said opening being



formed in registration with the space between the said yoke arms, a winding key, a pair of spring tines formed terminally of the said winding key and adapted to hold a coin, said hinged plate being adapted to permit the insertion of the coin and key and to permit the withdrawal of said key but being further adapted to prevent the withdrawal of said coin.

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1,091,423. STEERING MECHANISM. CHARLES E. BROOKS, St. Louis, Mo., assignor to Brooks-Latta Automobile Manufacturing Company, a Corporation of Missouri. Filed May 29, 1911. Serial No. 630,213. (Cl. 74—79.)



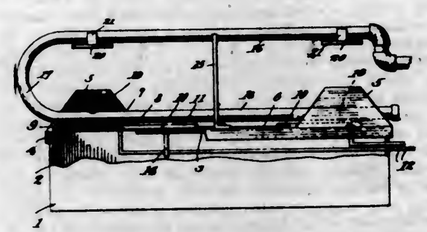
1. In an automobile, steering mechanism comprising in combination, a bearing bracket arranged to be secured to the automobile, said bracket being provided with a cylindrical bearing extension adapted to receive a steering column and a second bearing above said first-named bearing, a steering column mounted in said first named bearing extending beyond the front face of said bracket, a disk plate mounted on the extending end of said steering column, a lever provided with a slot extending from above said steering column to a point below the edge of said disk, a shaft for supporting said lever journaled in said second-named bearing formed in said bracket, a support near the edge of said disk plate, and a roller on said support adapted to bear against the edge of said slot and move said lever when the steering column is operated, substantially as specified.

2. In an automobile, steering mechanism comprising in combination, a bearing bracket arranged to be secured to the automobile, said bracket being provided with a cylindrical bearing extension adapted to receive a steering column and a second bearing above said first-named bearing, a steering column mounted in said first named bearing extending beyond the front face of said bracket, a disk plate mounted on the extending end of said steering column, a lever provided with a slot extending from above said steering column to a point below the edge of said disk, a shaft for supporting said lever journaled in said second-named bearing formed in said bracket, a support near the edge of said disk plate, a roller on said support adapted to bear against the edge of said slot and move said lever when the steering column is operated, and flanges on said roller engaging the front surface of said lever and holding said lever in proper adjustment relative to said plate, substantially as specified.



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1,091,424. COMBUSTION DEVICE. CARL ERNEST BROWN, Columbus, Ohio, assignor to Delton I. Hoch, Bellevue, Ohio. Filed Nov. 11, 1913. Serial No. 800,355. (Cl. 158—64.)



1. In a device of the class described, a supporting structure including a hood; a burner located in the hood; and a single fuel holding tray slidable on the supporting structure into and out of the hood and constituting a cut off valve for the hood, the tray having an upstanding flange acting as a fuel retainer.

2. In a device of the class described, a supporting structure including spaced hoods provided adjacent their lower ends and upon their adjacent sides with transverse openings; fuel holding trays mounted to slide upon the supporting structure, into and out of the openings, each tray constituting a cut off valve for one hood; means for moving the trays individually, and a burner in each hood.

3. In a device of the class described, a supporting structure including spaced hoods; guide ribs extended between the hoods; trays mounted to slide upon the supporting structure between the guide ribs and movable into and out of the hoods; and means for controlling the trays individually, each tray constituting a fuel holding element and constituting also a cut off valve for one hood.

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1,091,425. PROCESS OF FIXING NITROGEN. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, a Corporation of Rhode Island. Filed Oct. 21, 1912. Serial No. 726,924. (Cl. 23—13.)



1. The process of fixing atmospheric nitrogen which comprises effecting a vigorous reaction in which initially combined alkali metal, initially free nitrogen and dissolved carbon participate to form a cyanogen compound, by bringing the molecules of the nitrogen into contact with the dissolved carbon present in an extended catalytic solution surface, while at the same time effecting a liberation of molecules of said alkali metal from the material with which they are combined, in the vicinity of said extended solution surface and maintaining a supply of nitrogen sufficient to immediately combine said carbon in said surface therewith and with substantially all of the alkali metal in effect directly as liberated, whereby to substantially eliminate the tendency for the latter, by means of its vapor pressure, to establish a chemical equilibrium and retard the further liberation of said metal.

2. The process of fixing atmospheric nitrogen which comprises effecting a vigorous reaction in which initially combined alkali metal, initially free nitrogen and carbon dissolved in iron participate to form a cyanogen compound, by bringing the molecules of the nitrogen into contact with the dissolved carbon present in an extended solution surface and maintaining a supply of nitrogen sufficient to immediately combine said carbon in said surface and with substantially all of the alkali metal in effect directly as liberated, whereby to substantially eliminate the tendency for the latter, by means of its vapor pressure, to establish a chemical equilibrium and retard the further liberation of said metal.

3. The process of fixing atmospheric nitrogen which comprises effecting a vigorous reaction in which initially combined alkali metal, initially free nitrogen and carbon dissolved in solid iron participate to form a cyanogen compound, by bringing the molecules of the nitrogen into contact with the dissolved carbon present in an extended surface of said iron while at the same time effecting a liberation of molecules of said alkali metal from the material with which they are combined, in the vicinity of said extended solution surface and maintaining a supply of nitrogen sufficient to immediately combine with said carbon in said surface and with substantially all of the alkali metal in effect directly as liberated, whereby to substantially eliminate the tendency for the latter, by means of its vapor pressure, to establish a chemical equilibrium and retard the further liberation of said metal.

4. The process of fixing atmospheric nitrogen which comprises effecting a vigorous reaction in which initially combined alkali metal, initially free nitrogen and dissolved carbon participate to form a cyanogen compound, by bringing the molecules of the nitrogen into contact with the dissolved carbon present in an extended catalytic solution surface, while at the same time effecting a liberation of molecules of said alkali metal from the material with which they are combined, in the vicinity of said extended solution surface, maintaining a supply of nitrogen sufficient to combine said carbon in said surface therewith and with substantially all of the alkali metal in effect directly as liberated whereby to substantially eliminate the tendency for the latter, by means of its vapor pressure, to establish a chemical equilibrium and retard the further liberation of said metal, and maintaining said extended solution surface by conducting the operation at a temperature below the eutectic point of the carbon solution.

5. The process of fixing atmospheric nitrogen which comprises effecting a vigorous reaction in which initially combined alkali metal, initially free nitrogen and carbon dissolved in solid iron participate to form a cyanogen compound, by bringing the molecules of the nitrogen into contact with the dissolved carbon present in an extended surface of said iron while at the same time effecting a liberation of molecules of said alkali metal from the material with which they are initially combined, maintaining a supply of nitrogen sufficient to immediately combine with said carbon in said surface and with substantially all of the alkali metal in effect directly as liberated, whereby to substantially eliminate the tendency for the latter, by means of its vapor pressure, to establish a chemical equilibrium and retard the further liberation of said metal and maintaining said extended solution surface by establishing the upper limit of the temperature of the operation below the eutectic point of the carbon-containing iron.

[Claims 6 to 53 not printed in the Gazette.]

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1,091,426. CARBURETER. JOHN AMBROSE DAVIS, Naco, Ariz., assignor of one-fourth to M. R. Miller, Naco, Ariz., one-fourth to J. M. Miller, Vacaville, Cal., and one-fourth to Trayharne Davis, Oakland, Cal. Filed Oct. 21, 1912. Serial No. 726,852. (Cl. 48—155.1.)

1. A carbureter comprising a mixture chamber, a valve-controlled air inlet chamber, a float chamber surrounding the air inlet chamber, a throttle valve in the mixture chamber having a plurality of ports, a carbureting tube connecting the throttle valve with the air inlet chamber, means for adjusting said tube with relation to the ports

in the throttle valve to increase or decrease the port area, a vertically disposed, automatically controlled fuel inlet valve in the float chamber, a vertical spray nozzle connecting the float chamber with the air inlet chamber centrally positioned with relation to the float in the float chamber and with relation to the carbureting tube, a valve mounted in the spray nozzle to control the discharge of fuel from the nozzle, and means for controlling the lift of the valve.



2. A carbureter comprising a mixture chamber, an air inlet chamber, a plurality of ports through which the air is admitted, a spring-actuated valve closing said ports, means for adjusting the tension of said spring-actuated valve, a float chamber surrounding the air inlet chamber, a throttle valve in the mixture chamber having a plurality of ports, a carbureting tube connecting the throttle valve with the air inlet chamber, means for adjusting said tube with relation to the ports in the throttle valve to increase or decrease the port area, a vertically disposed, automatically controlled fuel inlet valve in the float chamber, a vertical spray nozzle connecting the float chamber with the air inlet chamber centrally positioned with relation to the float in the float chamber and with relation to the carbureting tube, a valve mounted in the spray nozzle to control the discharge of fuel from the nozzle, and means for controlling the lift of the valve.

3. A carbureter comprising a mixture chamber, an air inlet chamber, a plurality of ports through which the air is admitted, a spring-actuated valve closing said ports, means for adjusting the tension of said spring-actuated valve, a float chamber surrounding the air inlet chamber, a throttle valve in the mixture chamber having a plurality of ports, a carbureting tube connecting the throttle valve with the air inlet chamber, means for adjusting said tube with relation to the ports in the throttle valve to increase or decrease the port area, a vertically disposed, automatically controlled fuel inlet valve in the float chamber, a vertical spray nozzle connecting the float chamber with the air inlet chamber centrally positioned with relation to the float in the float chamber, and with relation to the carbureting tube, a puppet valve mounted in the spray nozzle, a deflector head on said valve, and means for regulating the lift of the valve to control the amount of fuel discharge.

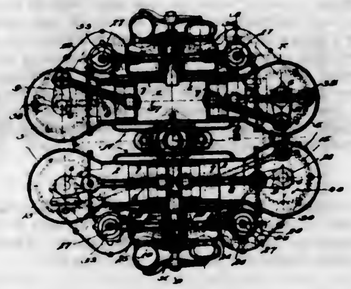
4. A carbureter comprising a mixture chamber, an air inlet chamber, a plurality of ports through which the air is admitted, a spring-actuated valve closing said ports, means for adjusting the tension of said spring-actuated valve, a float chamber surrounding the air inlet chamber, a throttle valve in the mixture chamber having a plurality of ports, a carbureting tube connecting the throttle valve with the air inlet chamber, means for adjusting said tube with relation to the ports in the throttle valve to increase or decrease the port area, a vertically disposed, automatically controlled fuel inlet valve in the float chamber, a vertical spray nozzle connecting the float chamber with the air inlet chamber centrally positioned with relation to the float in the float chamber, and with relation to the carbureting tube, a puppet valve mounted in the spray nozzle, a deflector head on said valve, means for regulating the lift of the valve to control the fuel discharge, said means comprising an adjustable stop, and means for controlling the position of said stop.

5. A carbureter comprising a mixture chamber, an air inlet chamber, a plurality of ports connecting the air inlet chamber with the outside atmosphere, a spring-actuated valve to close said ports, means for adjusting the tension of the valve spring, said means comprising a washer upon which said valve spring is carried, a strap having an annular collar upon which the washer is mounted, a hollow threaded rod having a collar by which the strap is hung, a wheel for turning said rod, a float chamber surrounding the air inlet chamber, a throttle valve in the mixture chamber having a plurality of ports, a carbureting tube connecting the throttle valve with the air inlet chamber, means for adjusting the position of said tube with relation to the ports in the throttle valve to increase or decrease the port area, a vertically disposed, automatically controlled fuel inlet valve in the float chamber, a vertical spray nozzle connecting the float chamber with the air inlet chamber centrally positioned with relation to the float in the float chamber, and with relation to the carbureting tube, a puppet valve mounted in the spray nozzle, a deflector head on said valve, means for regulating the lift of the valve to control the fuel discharge, said means comprising an adjustable stop, and means for controlling the position of said stop.

[Claim 6 not printed in the Gazette.]

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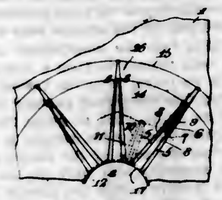
1,091,427. INTERNAL-COMBUSTION ENGINE. CHARLES DE LUKACSEVICS, West Nutley, N. J., assignor to George W. Morgan, New York, N. Y. Filed Dec. 13, 1911. Serial No. 665,509. (Cl. 123—51.)



In an internal combustion engine, parallel groups of opposed cylinders, pistons working therein, each group comprising upper and lower pairs of opposing cylinders, transverse crank shafts common to adjoining cylinders of the groups at the ends of the engine and operated by the pistons of said cylinders, opposed inlet and exhaust valves for each pair of opposed cylinders, chests for said valves located in the plane of the group of which the cylinders which the valves control form a part, valve operating shafts, the valve operating shafts being parallel to the crank shafts and corresponding in arrangement thereto, a centrally arranged main shaft common to all the cylinders of the groups and extending transversely of the engine, a casing taking up the space between the groups, the main shaft projecting into the casing and the crank shafts and valve operating shafts projecting transversely through the casing, gearing for driving the main shaft from the crank shaft, gearing for driving the valve operating shafts from the respective crank shafts, both gearings being wholly inclosed in the casing, valve operating cams provided on the ends of the valve operating shafts, and casings inclosing said cams and secured to said first-named casing.



1,091,428. CIRCULAR SEAM FOR SEWED ARTICLES. MAX DRUCKERMAN, Brooklyn, N. Y. Filed Mar. 7, 1913. Serial No. 752,575. (Cl. 112—34.)



1. A circular embroidery seam as an article of manufacture consisting of a piece of material having an opening and a plurality of independent radial and horizontal needle threads all extending out radially and lying on the face or obverse of the material, at least one set of independent needle threads extending into and binding the edge of the opening needle thread loops on the back or reverse of the material and a single shuttle or locking thread locking the loops of the different independent radial needle threads.

2. A circular embroidery seam as an article of manufacture consisting of a piece of material having an opening and a plurality of independent radial and horizontal needle threads all extending out radially from the opening and all lying on the face or obverse of the material, said needle threads overlapping each other on the face of the fabric, at least one of the independent needle threads being threaded into the opening in the material and serving to bind its raw edge needle thread loops on the back or reverse of the material, and a single shuttle thread locking the loops of the different overlapping independent radial needle threads.

3. A circular embroidery seam as an article of manufacture consisting of a piece of material having an opening, a cord surrounding the opening, and a plurality of independent radial and horizontal needle threads which overlap each other on the face of the fabric, at least one of the independent needle threads being threaded into the opening in the material and serving to bind its raw edge and the cord needle thread loops on the back or reverse of the material, and a single shuttle thread locking the loops of the different overlapping independent radial needle threads.

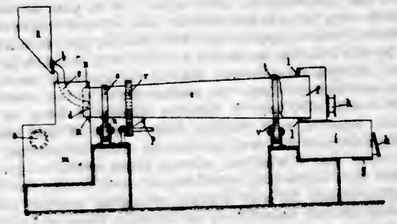
4. An embroidered medallion as an article of manufacture comprising a piece of embroidery having an opening and three radial needle threads of different colors, at least one of the needle threads binding the raw edge of the opening, and at least one of the other needle threads being laid down on top of said needle thread to give a raised effect to the medallion, the different colors of the needle thread permitting various coloring and shading of the embroidered medallion needle thread loops on the back or reverse of the material, and a single shuttle thread to lock the loops of the different colored needle threads.

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1,091,429. PROCESS OF MANUFACTURE OF SULFITES OR BISULFITES. RICHARD FRIEDRICH, Glösa, near Chemnitz, Germany, and FRIEDRICH HIRSCH, Vienna, Austria-Hungary. Filed Oct. 31, 1910. Serial No. 589,999. (Cl. 23—13.)

1. A process of manufacture of solid sulfites or bisulfites of homogeneous chemical constitution from raw materials which are capable of forming sulfites by the action of sulfurous acid gas, which consists in continuously moving in one direction the raw material in a solid crushed state and containing predetermined quantity of water according to the sulfite to be produced, causing a current of sulfurous acid gas to flow in an opposite direction to meet the raw material, and constantly mixing the raw material during its advance.

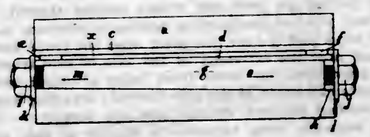
2. A process of manufacture of solid sulfites or bisulfites of homogeneous chemical constitution from raw materials which are able to form sulfites by the action of sulfurous acid gas which consists in continuously moving in one direction the raw materials in a solid crushed state and having a quantity of water incorporated therewith which is predetermined according to the sulfite to be produced, causing a current of sulfurous acid gas flow in the opposite direction to meet the raw material, and constantly mixing the solid raw material during its advance.



the quantity of water used being so calculated that the heat of the reaction will evaporate only a part of the water so that the finished product will contain the required amount of moisture, the velocity with which the raw material and the sulfurous acid gas are brought into mutual contact being regulated that the finished product will also contain the desired quantity of sulfurous acid.

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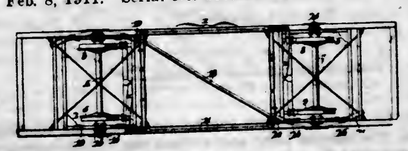
1,091,430. PRESS-MOLD FOR USE IN THE MANUFACTURE OF METALLIC BARS FROM FINELY-DIVIDED METALLIC POWDERS. KARL GLADITZ, London, England. Filed May 28, 1913. Serial No. 770,414. (Cl. 78—18.)



A press mold comprising a rigid bed member having therein a long and narrow tapered mold recess wider at one end than the other, a rigid lining plate at the bottom of said recess, two lateral lining plates in said recess, spacing elements for spacing said lateral lining plates, a tapered wedge member coöperating with said tapered recess to clamp said lateral plates, a plunger operating between said lateral lining plates, and means for releasing said tapered wedge member to release the lateral pressure in the mold chamber.

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1,091,431. CAR-TRUCK. JAMES T. HALSEY, Philadelphia, Pa., assignor to Philadelphia Holding Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 8, 1911. Serial No. 607,290. (Cl. 105—137.)



1. The combination, with a car, an axle and a pair of wheels carried by said axle; of supporting means for the car, intervening between it and the axle, said means being adapted to permit rotative movement of the car, with relation to the axle, about a substantially definite vertical axis located at a lateral distance from the median plane of the wheels carried by said axle; and means for controlling the extent of said rotative movement.

2. The combination, with a car; of a pair of trucks each having an axle and wheels carried thereby; each of

said trucks being provided with supporting means for the car, adapted to permit rotative movement thereof, with relation to the truck, about a substantially definite vertical axis located at a lateral distance from the median plane of the wheels of said truck, the said axes of rotative movement being arranged on opposite sides of said median plane; and means for correlating the respective rotative movements.

3. The combination, with a car; of a pair of trucks each having an axle and wheels; each of said trucks being provided with a supporting connection for the car, adapted to permit rotative movement thereof, with relation to the truck, about a substantially definite vertical axis located at a lateral distance from the median plane of the wheels of such truck, said axes of rotative movement being on opposite sides of said median plane; each of said trucks being also provided with means for freely supporting the car upon that side of the median plane which is opposite to the said supporting connection of such truck; and connecting means for said trucks, extending between points thereof located respectively on opposite sides of said median plane.

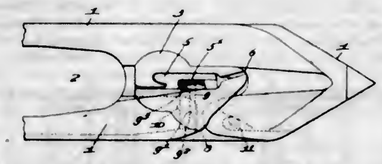
4. The combination, with a car, and a pair of trucks, each having an axle and wheels carried thereby; of a pivotal bearing upon each truck, intervening between said truck and the car, and adapted to permit relative rotative movement between each truck and the car about a fixed vertical axis located at a lateral distance from the median plane of the wheels of such truck, the said axis being located on opposite sides of said median plane; a traveling support intervening between each truck and the car, located upon that side of the truck which is opposite to said pivotal bearing thereof; and a rigid link pivotally attached to the respective trucks and extending between points on opposite sides of said median plane.

5. The combination, with a car and a pair of trucks, each having an axle and wheels carried thereby; of a vertical pivot and supporting bearing intervening between each truck and the car, the pivot upon one truck being arranged near the extremity of the axle of said truck, and the pivot upon the other truck being arranged near the opposite extremity of the axle thereof; traveling supports intervening between the car and the respective trucks, said supports being respectively located at that side of each truck which is opposite to the said pivotal bearing thereon; and a link pivotally attached to the respective trucks at the sides thereof which are provided with said traveling connections.

[Claim 6 not printed in the Gazette.]

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1,091,432. SELF-THREADING SHUTTLE FOR LOOMS FOR WEAVING. DENIS MACHELL HOLLINS, Blackburn, England, assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 20, 1911. Serial No. 628,484. (Cl. 139—46.)



1. In a self-threading shuttle for looms, the combination of a shuttle body and a threading device having a longitudinal thread passage, of a non-metallic guide block extending transversely of the shuttle body and having its inner end extending into the longitudinal thread passage and beyond the wall thereof to form a non-metallic guide for the thread in its travel from the bobbin, and a shield or cover extending into the thread passage beyond the end of the non-metallic guide block to guide the thread over the end of the guide block as the shuttle is threaded and to a position below the edge of the shield or cover that the thread may normally bear only on the non-metallic guide block as it is drawn from the shuttle during weaving.

2. In a self-threading shuttle for looms, the combination of a shuttle body and a threading device having a lon- and beyond the wall thereof to form a non-metallic guide extending transversely of the shuttle body and having its inner end extending into the longitudinal thread passage and beyond the wall thereof to form a non-metallic guide for the thread in its travel from the bobbin, and a shield or cover extending into the thread passage beyond the end of the non-metallic guide block to guide the thread over the end of the guide block as the shuttle is threaded and to a position below the edge of the shield or cover that the thread may normally bear only on the non-metallic guide block as it is drawn from the shuttle during weaving, the outer end portion of said non-metallic block having a rounded surface forming one wall of the delivery eye, and a non-metallic block forming the opposite wall of the delivery eye.

3. In a self-threading shuttle for looms, the combination of a threading block having a longitudinally extending thread passage, and a vitreous thread guide disposed transversely of the threading block and having its inner end extending into the longitudinal thread passage and beyond the adjacent wall thereof, and a shield projecting downward from a point above the inner portion of the vitreous guide and having a lower edge portion extending into the longitudinal thread passage above the lower portion of the thread guide and normally above and out of contact with the thread leading from the bobbin, said vitreous guide forming one side wall of the delivery eye and a separate vitreous block forming the opposite side wall of said eye.

4. A shuttle having a delivery eye and a self-threading device providing a longitudinal thread-passage, a vitreous thread guide having its inner end projecting into the longitudinal thread passage to engage the thread as it is drawn from the bobbin and furnishing the guiding means for the thread as it moves from the longitudinal passage to the delivery eye, and a shield extending transversely from one side of the longitudinal thread passage and having its lower edge portion in the thread passage opposite to and crossing the inner end of the vitreous thread guide above the normal position of the thread.

5. A self-threading shuttle for looms, having a threading device provided with a longitudinal thread passage, and an undercut laterally extending recess, a vitreous block having a rounded end projecting beyond the wall of the laterally extending recess into the longitudinal passage to afford a non-metallic guide for the thread in its travel from the bobbin, and having also an open face portion directed toward the end of the shuttle, and an outer rounded portion at the delivery eye, and a shield extending into the longitudinal thread passage to guide the thread to said vitreous block as the shuttle is threaded, the edge of said guide being normally above and out of contact with the thread as it is drawn from the bobbin during weaving.

[Claim 6 not printed in the Gazette.]

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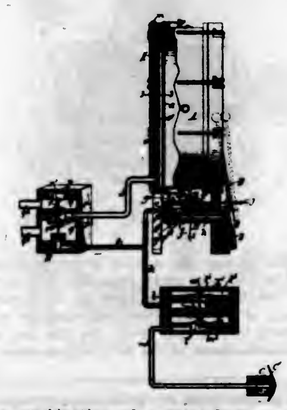
1,091,433. SNARE-DRUM DAMPER. ROBERT HOPE-JONES, North Tonawanda, N. Y., assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y., a Corporation of New York. Filed Apr. 21, 1911. Serial No. 622,502. (Cl. 84—205.)

1. The combination of a snare-drum, a damper-pneumatic mounted on the drum and having its movable front side arranged to bear against the snares when inflated and to clear the same when deflated, and means for alternately inflating and deflating said pneumatic.

2. The combination of a snare-drum, a support extending across the drum over its snares and spaced therefrom, said support being chambered in its front side, a damper-diaphragm for the drum-snares applied to said support and forming the front wall of its chamber, and means for alternately inflating and deflating said diaphragm.

3. The combination of a snare-drum, a supporting bar secured diametrically across the rear side of the drum in line with its snares and spaced therefrom, a damper for the drum-snares comprising a pneumatic applied to the front side of said bar and arranged to press the snares against the drum head when inflated, said pneumatic being substantially coextensive with the length and width of the group of snares, and means for inflating and deflating said pneumatic.

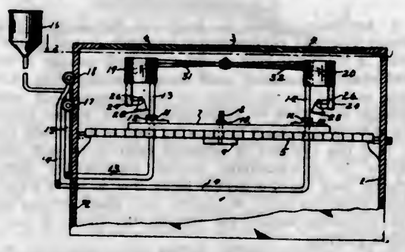




4. The combination of a snare-drum, a damper-pneumatic arranged opposite the drum-snares and having a side movable toward and from the same, a facing of soft material applied to the movable side of said pneumatic and adapted to bear against the snares when the pneumatic is inflated, and means for alternately inflating and deflating said pneumatic.

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1,091,434. GAS GENERATOR AND BURNER FOR HYDROCARBON-OILS. HARVEY A. JOHNSON, Greeley, Colo., assignor of one-third to Herbert F. Bonnell and one-third to Robert E. Winbourn, Greeley, Colo. Filed May 12, 1913. Serial No. 767,151. (Cl. 158—64.)



1. The combination of a plurality of generators, each having a central opening therethrough; a burner mounted below each of said openings and discharging its flames therethrough; means including superheating conduits for conducting vaporized fuel from one generator to the burner of another generator; and a fluid fuel supply for said superheating conduits.

2. The combination of a plurality of generators, each having a central opening therethrough; a burner mounted below each of said openings, and discharging its flames upwardly therethrough; means including superheating conduits for conducting vaporized fuel from one generator to the burner of another generator; and means for supplying said superheating conduits with vaporized fuel, each of said superheating conduits inclining downwardly from its source of fluid fuel supply from one generator toward said other generator.

3. The combination of a pair of generators, each having a central opening therethrough; a burner disposed in alinement with each of said openings and adapted to discharge its flames therethrough; a vaporizing conduit forming a part of each of said generators, and adapted to be heated by said flames; an oil supply for each said vaporizing conduits; and means including superheating conduits leading from the vaporizing conduit of one of said generators toward the burner of said other generator.

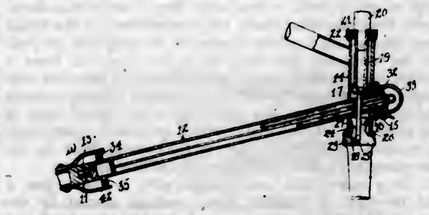
4. The combination of a pair of generators, each having a central opening therethrough; a burner for each of said generators disposed in alinement with its central opening; a vaporizing conduit formed in the wall of each said generators adjacent its complementary opening; an oil supply pipe for each of said vaporizing conduits; a pair of superheating conduits connected at one of their ends, respectively, to one of said vaporizing conduits, and slightly inclined downwardly toward the opposite generator; and secondary conduits connecting said superheating conduits with said burners.

5. The combination of a pair of generators, each having a central opening therethrough; a burner for each of said openings and discharging its flame therethrough; a vaporizing conduit formed in the wall of each of said generators adjacent its complementary opening and adapted to be heated by the flame passing therethrough; a secondary conduit formed in the wall of each of said generators and communicating at one end with its complementary burner; a pair of superheating conduits each connected at one of their ends with the vaporizing conduit of one of said generators, and at their other end connected with the secondary conduit of said other generator; and oil inlet pipes leading to said vaporizing conduits.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,435. BICYCLE-PUMP. JAMES T. JOHNSON, Williamson, W. Va. Filed June 2, 1913. Serial No. 771,272. (Cl. 208—155.)



1. In combination with a bicycle having a tubular frame head, a pump cylinder extending through said frame head and forming a portion of one of the frame bars, the cylinder being formed with openings within the frame head, a steering rod extending through said openings, front forks to which the steering rod is connected, and a piston operable within the pump cylinder.

2. In a bicycle, a frame having a tubular head piece, one of the frame bars being formed in sections removably connected, one of said sections forming a pump cylinder and extending through the tubular head piece, the pump cylinder being formed with alined openings within said head piece, a steering rod extending through the openings, front forks to which the steering rod is connected at its lower end, a piston operable within the pump cylinder, and a pair of piston rods extending on opposite sides of the steering rod.

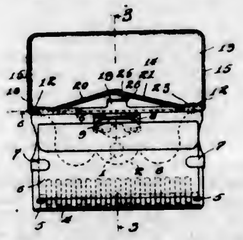
3. In a bicycle, a frame having a tubular head piece and an inclined frame bar formed in sections, the upper of said sections forming a pump cylinder and extending through the tubular head piece, the pump cylinder being formed with alined openings within the tubular head piece, a steering rod extending through said alined openings, a front fork having a neck extending into the lower end of the head piece and connected to the steering rod, and a piston operable within the pump cylinder.

4. In a bicycle, a frame having a tubular head piece, and a frame bar extending through said head piece, said bar forming a pump cylinder, a steering fork fitted in the lower end of the head piece, means extending through the head piece and cylinder to rotatably secure the steering fork in position, and a piston operable within the pump cylinder.

5. In a bicycle, a frame having a tubular head piece and a front bar extending through said head piece and forming a pump cylinder, the cylinder being formed with alined openings within the head piece, a steering rod extending through said openings, a front fork having a neck extending into the lower end of the head piece and rigidly connected to said steering rod, and means for rotatably supporting the steering rod within the head piece.

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1,091,436. RAZOR. JOSEPH KAUFMAN, New York, N. Y. Filed Feb. 12, 1913. Serial No. 747,968. (Cl. 30—12.)



1. In a razor, the combination, with a frame and a hood therefor, of springs fixed to the hood at spaced points and having free portions lapping, and means connecting the free lapping portions for preventing lateral separation thereof, and allowing coöperative spring action of the free portions of the springs.

2. In a razor, the combination with a frame having eyes outstanding rearwardly therefrom, of a hood comprising a top or cover plate, a rear edge flange extending downwardly from the cover plate, the end portions of the flange being formed with pintles journaled in said eyes in position for adapting the hood to swing pivotally from a position substantially above the frame to a position outstanding rearwardly therefrom, and end flanges pendent from the cover plate and tapering to the front edge of said plate, the plate being inclined forwardly sufficiently for causing its forward edge to lie substantially in the same plane with the lower edges of the end flanges.

3. In a razor, the combination with a frame and a hood therefor, of lapping, plate springs carried by the hood, each spring having one end fixed to the hood and the other end free for spring movement, the free end of one spring lapping the free end of the other, and the springs being disposed for having their free end portions exert pressure on a blade sustained by the frame.

4. In a razor, the combination with a frame and a hood therefor, of springs extending longitudinally of the hood at the rear portion thereof, one end of one spring being fixed to the hood adjacent one end thereof, and one end of the other spring being fixed to the hood adjacent the other end thereof, the said springs being extended forwardly from the points of engagement with the hood and adapted for exerting forward pressure against a blade sustained by the frame.

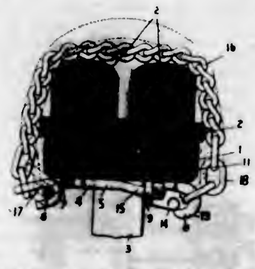
5. In a razor, the combination with a frame and a hood therefor, of springs extending longitudinally of the hood, one of the springs having one of its ends fixed to the hood adjacent one end thereof, and the other spring having one of its ends fixed to the hood adjacent the other end thereof, said springs being extended forwardly from the points of engagement with the hood and having their free ends lapping and disposed for exerting pressure against a blade sustained by the frame.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,437. SKID-CHAIN. JOHN A. MCDONALD, Winthrop, Mass., assignor to Julius R. Peck, Brookline, Mass. Filed Dec. 1, 1913. Serial No. 803,884. (Cl. 152—14.)

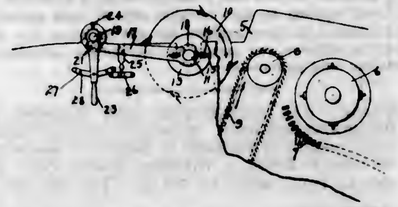
In a device of the class described, the combination with a wheel rim having a tire thereon, of a fastening device having bearing directly against the inner face of the rim and held in position by a spoke, the ends of the fastening device terminating within the planes of the sides of the rim, said fastening device having at one end an offset arm provided with an eye in the offset portion and at the other end a hook, the point of which is directed away from the rim and which is provided with a keeper, a flexible skid-preventing member loosely encircling the rim and



tire and having at one end a hook which is hooked into said eye and which faces away from the felly and at the other end a link to engage the hook on the fastening device, said hook of the skid-preventing member being disconnectible from its eye only after the link has been disconnected from the hook of the fastening device.

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1,091,438. FEEDER FOR PICKING-MACHINES. JAMES J. MCGOWAN, Pawtucket, R. I. Filed Jan. 18, 1911. Serial No. 603,252. (Cl. 19—7.)



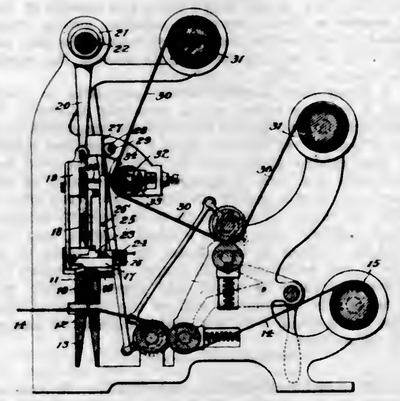
1. An improvement in machines for operating upon fibrous material comprising a toothed carrier, a pin cylinder, a shaft for said cylinder, bearing flanges in which said shaft is mounted, said flanges having slots therein, bolts secured to the frame of the machine and passing through said slots to guide said flanges, means engaging the ends of said shaft for moving both of said ends whereby said pin cylinder is adjusted relative to said toothed carrier to accommodate fibrous material of different lengths, said bearing flanges being free to move with said shaft when the latter is shifted, said shaft moving means also including means for locking the shaft in any adjusted position.

2. An improvement in machines for operating upon fibrous material comprising a toothed carrier, a pin cylinder, a shaft for said cylinder, bearing flanges in which said shaft is mounted, said frame and flanges being provided with complemental guiding means, a crank shaft, arms connected with said crank shaft and engaging the ends of the cylinder shaft, means for rocking said crank shaft, whereby both ends of said cylinder shaft are moved simultaneously to adjust the pin cylinder relative to the toothed carrier to accommodate fibrous material of different lengths, said bearing flanges being free to move with said shaft when the latter is shifted, and means for locking said crank shaft.

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1,091,439. DUPLICATING-MACHINE FOR MAKING PERFORATED MUSIC-SHEETS, &c. EDGAR W. MYERS, San Jose, Cal., assignor to Enterpean Duplicator Company, San Jose, Cal. Filed Dec. 6, 1910. Serial No. 595,966. (Cl. 164—114.)

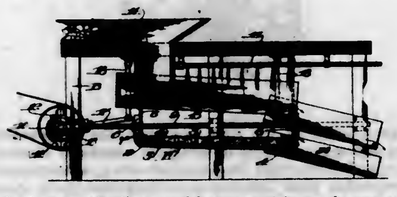
In a mechanism for producing duplicate perforated sheets, the combination of a series of punches, punch operating means, selector mechanism comprising a series of pivoted levers and a series of slidable blocks, the latter being movable by the levers into and out of operative relation with the punch operating means, a support for a master sheet having recesses over which the master sheet



passes adapted to receive projections on said levers, a continuously operated shaft provided with a series of eccentrics adapted to constantly vibrate said levers, and spring means tending at all times to press the levers and the blocks into operative position.

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1,091,440. CONCENTRATOR. EDWARD PIERCE and WILLIAM PINKERTON, Pleyto, Cal. Filed Nov. 16, 1912. Serial No. 731,736. (Cl. 83—88.)



1. A concentrating machine comprising a frame, a grizzly pivotally mounted in the frame, means for shaking the grizzly, means for delivering material to the grizzly, a concentrating pan pivotally mounted in the frame below the grizzly, a screen surface covering the pan, means for shaking the pan, and a series of perforated pipes so positioned with relation to the grizzly and concentrating pan as to project water, together with the fine sands and values contained in the grizzly directly through the grizzly, the screen surface of the pan, and into the body of pulp on the pan.

2. The combination with a concentrating machine having a rocking grizzly mounted therein, of an inclined concentrating pan pivotally mounted below the grizzly, a screen covering pan, means for rocking the pan transverse of the line of discharge, and a series of perforated pipes so positioned with relation to the grizzly and concentrating pan as to project water, together with fine sands and values contained in the grizzly directly through the grizzly, the screen surface of the pan, and into the body of pulp on the pan.

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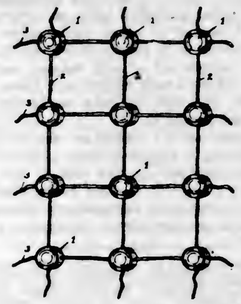
1,091,441. POISON-PROTECTIVE DEVICE. WILLIAM P. ROBERTSON, New York, N. Y., assignor to Sharp and Dohme, a Corporation of New Jersey. Filed Oct. 31, 1913. Serial No. 798,384. (Cl. 167—3.)

1. The combination of a pill or tablet, and a physically separate label attached thereto.





2. The combination of a pill or tablet and a flexible label attached thereto.



3. The combination of a pill or tablet and a thread or cord attached thereto.

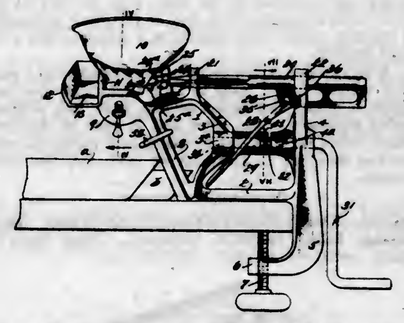
4. The combination of a pill or tablet, and a thread or cord embedded therein and extending beyond the outlines of the tablet.

5. The combination of a series of pills or tablets and a thread or cord passing through each thereof.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,442. CHERRY-STONER. MICHAEL A. ROLLMAN, Mount Joy, Pa., assignor to New Standard Hardware Works, Mount Joy, Pa., a Corporation of Pennsylvania. Filed Apr. 26, 1911. Serial No. 623,349. (Cl. 146—5.)



1. In a machine of the character described, the combination of a frame, orificed means thereon for centering fruit to be stoned, a horizontal plunger guided on said frame and having a stone-ejecting head, a pulp-stripper in the path of movement of said ejecting head, said orificed means and stripper being disposed in vertical planes, a rotary shaft journaled in said frame parallel with said plunger, an inclined cam-plate mounted on said shaft to reciprocate said plunger, and means located at one side of the plane of said cam-plate to rotate said shaft, said orificed means and pulp-stripper being located at the other side of said cam-plate.

2. In a machine of the character described, the combination of fruit centering means, stripping means, a reciprocatory stone-ejecting device movable into both of said means, rotary operating means for reciprocating said ejecting device, the axes of both of which extend in the same direction, and separate means for discharging the stones and the stoned fruit respectively in opposite directions relatively to the axis of said rotary means.

3. In a machine of the character described, the combination of a frame provided with an orifice, a hopper provided with a pocket to which said hopper feeds, said orifice being located in a substantially vertical plane to one side of the pocket end of said hopper, and means for

adjusting said hopper on said frame relatively to said orifice.

4. In a machine of the character described, the combination of a frame provided with an orifice, a hopper provided with a pocket to which said hopper feeds, said orifice being located in a substantially vertical plane to one side of the pocket end of said hopper, and a pin-and-slot connection between said hopper and frame for adjusting said hopper, the slot of said connection extending lengthwise of said hopper.

5. In a machine of the character described, the combination of a frame, a hopper having a pocket at its discharge end and provided at one side of its pocket and laterally of and above its feeding surface with a fruit-holding orifice located in a substantially vertical plane.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,443. POLYCHROME SCREEN AND PROCESS OF MAKING THE SAME. RUDOLF RUTH and ALADAR SCHULLER, Oude-God, near Antwerp, Belgium. Filed Oct. 8, 1912. Serial No. 724,578. (Cl. 95—81.5.)

1. In the process of making a polychrome screen the step which comprises treating a suitable screen material with two coloring materials of the same tint, the tint of one of said materials being fixed and of the other removable, and applying said colored screen material to a suitable light penetrative support.

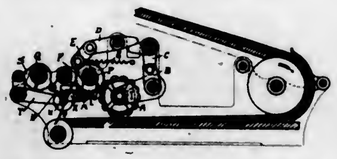
2. In the process of making a polychrome screen the step which comprises treating a colloid screen material with two coloring materials of the same tint, the tint of one of said materials being fixed and of the other removable, and applying said colored screen material to a suitable light penetrative support.

3. In the process of making a polychrome screen the step which comprises treating gelatin screen material with two coloring materials of the same tint, the tint of one of said materials being fixed and of the other removable, and applying said colored gelatin to a suitable light penetrative support.

4. A polychrome screen comprising a suitable light penetrative support and a layer of screen material upon said support said material being colored with two different coloring materials of the same tint in each of the three primary colors the tint due to one of said materials being fixed and that due to the other of said materials being removable.

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1,091,444. PAPER-SHEET-FEEDING MACHINE. GEORG SPIESS, Leipzig-Reudnitz, Germany. Filed Dec. 20, 1913. Serial No. 808,020. (Cl. 101—39.)



1. A paper sheet feeding device comprising in combination a combing roller, means associated therewith for raising same, a lever arm, a flexible feeler suspended therefrom, a toggle lever having one end in operative contact with said raising means and the other adapted to bear against said lever arm, a spring exerting tension on said toggle lever, and locking means carried on said lever arm for holding the toggles of said toggle lever normally extended and the combing roller in its lowered position.

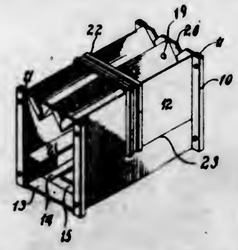
2. A paper sheet feeding device comprising in combination a combing roller, a carrier member having a flexible feeler mounted thereon, levers adapted to raise said combing roller, a toggle lever having its lever ends in contact with said carrier and said first mentioned levers respectively, a traction spring tending to hold said toggles contracted, and locking means on said carrier for maintaining said toggles in their extended position and the combing wheel in its lower position.

3. The combination with a paper sheet feeding device having a combing roller and a flexible feeler, of means initiated by said feeler for raising and lowering said combing roller comprising a carrier for said flexible feeler, lever arms associated with said combing wheel, a toggle lever coacting with said lever arms and said carrier, a spring connected to said toggle lever and tending to hold said toggles in their contracted position, locking means mounted on said carrier and adapted to normally hold said toggle lever in its extended position against the tension of the traction spring.

4. A paper sheet feeding device comprising in combination, a combing roller, means associated therewith for raising same, a lever arm, a flexible feeler suspended therefrom, a toggle lever having one end in operative contact with said raising means and the other adapted to bear against said lever arm, a spring exerting tension on said toggle lever, locking means carried on said lever arm for holding the toggles of said toggle lever normally extended and the combing roller in its lowered position, said locking means adapted to be released by the action of the flexible feeler, whereupon said toggles are contracted and said combing roller is raised, and means coacting with said lever arm adapted to restore the toggles to their normal position and reset the locking means and combing roller, respectively.

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1,091,445. SELF-BASTING ROASTER. WALTER A. STOSK, St. Louis, Mo. Filed May 1, 1913. Serial No. 764,830. (Cl. 53—6.)



1. In a device of the class described, the combination with a casing; of a skeleton structure removably inserted therein and comprising two upright sides, a corrugated top connecting them and having perforations in its channels, out-turned flanges at the ends of said sides and in-turned flanges along their lower edges, cross strips connecting the last-named flanges and leaving the bottom of the structure open, means within said sides for supporting a pan, and upright U-shaped members secured around the upright flanges on said sides and spaced a sufficient distance to permit their passage into said casing.

2. In a self-basting roaster, the combination with a rectangular casing having a door at its front end; of a skeleton structure having upright sides with outturned upright flanges at their ends adapted to pass into said casing, each side having an inwardly projecting double fold near its lower edge producing a pan-slide, a longitudinally corrugated top connecting the upper edges of said sides and perforated along its channels and having holes in its inner folds, upturned flanges at the ends of all folds of said top forming ends to said channels, and a handle extending across the top and down the sides and with its extremities turned into the crack produced by said inward projections, the whole substantially as described.

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1,091,446. REMOVABLE SADDLE FOR FIXED DENTAL BRIDGES. ALEXANDER L. VAN ARSDALL, Kansas City, Mo. Filed Apr. 28, 1913. Serial No. 764,103. (Cl. 32—12.)

1. In fixed dental bridge construction, the combination with the bridge structure of a removable saddle adapted to be adjusted to the alveolar ridge, and means for attaching the saddle to the bridge structure.



2. In dental bridge construction, the means herein described for closing the aperture between the bridge and the alveolar ridge, comprising a saddle adapted to be adjusted to the alveolar ridge, a socket piece on the bridge, and a lug fitting said socket secured to the saddle.

3. In attachments for removable saddles for fixed dental bridges, a socket piece having top and bottom and end members, and a forward side member arranged at an angle to the said top and bottom members, and a nut secured to the socket piece, said bottom member having an opening extending in the direction of the forward side member.

4. In attachments for removable saddles for fixed dental bridges, a socket piece having top and bottom and end members, and a forward side member arranged at an angle to the said top and bottom members, and a nut secured externally to the top member, said member having an opening leading to the said nut, and said bottom member having an opening, and sides to said opening extending in the direction of the said forward side member, and a lug fitted to said socket piece.

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1,091,447. PNEUMATIC TOOL. LAWRENCE LEE WAGNER, Lakemont, Pa. Filed Feb. 19, 1913. Serial No. 749,416. (Cl. 78—44.5.)



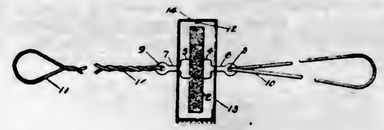
1. In a pneumatic tool, the combination with a body portion, of a hollow head secured thereto and projecting therefrom, a plunger mounted in said body and operating within said head, a die arranged within said head and having a neck provided with a collar, said head formed with a transverse opening having one of the walls thereof notched, a retainer mounted in said opening and extending across said neck forwardly of said collar, and a shouldered resilient clip fixed at one end to said retainer and adapted to engage in said notch for maintaining the retainer in position, said clip provided with a handle projecting from said head to facilitate the releasing of the retainer.

2. In a pneumatic tool, the combination with a body portion, of a hollow head secured thereto and projecting therefrom, a plunger mounted in said body and operating within said head, a die arranged within said head and having a neck provided with a collar, said head formed with a transverse opening having one of the walls thereof notched, a retainer mounted in said opening and extending across said neck forwardly of said collar, and a shouldered resilient clip fixed at one end to said retainer and adapted to engage in said notch for maintaining the retainer in position, said clip provided with a handle projecting from said head to facilitate the releasing of the retainer, said retainer cut away to provide a clearance when the clip is moved to released position.

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1,091,448. MECHANICAL TOY. JAMES A. WATT, New York, N. Y., assignor to William Arthur De Hart, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,427. (Cl. 46—14.)

1. A wheel having an abrasive upon its periphery thereof, a shaft extending through said wheel and secured thereto, a member loosely mounted upon said shaft and supporting an abrasive adjacent to the periphery of said wheel and means for imparting a rotary motion to said shaft and to said abrasive supporting means as herein specified.



2. A device of the character described having a wheel and means for rotating it in alternate directions, abrasive substance carried upon the periphery of said wheel a box member loosely surrounding said wheel and adapted to contact therewith, an abrasive substance supported by said box member and adapted to be interposed at the point of contact between said box member and said wheel for the purpose set forth.

3. A wheel, a flat shaft extending through said wheel and provided with means for securing the wheel thereon, means for rotating said shaft a flexible member loosely mounted upon said shaft and coöperating abrasive spark producing materials carried by the periphery of said wheel and said flexible member for the purpose set forth.

4. In a flat device of the character described, a shaft, a wheel secured thereto and having an abrasive material upon its periphery, a member loosely mounted upon said shaft, and extending over the periphery of said wheel for supporting an abrasive adjacent the periphery of said wheel, means secured to said shaft for imparting a rotary motion to said shaft and said wheel, and the edges of means upon said shaft being adapted to induce a rotary motion to the said abrasive supporting means loosely mounted upon said shaft as herein specified.

5. A toy having a wheel and shaft for supporting it and means for imparting to said wheel a rotary motion, first in one direction and then another and a box member having two of its sides open loosely supported upon said shaft and a plurality of abrasive and spark producing surfaces secured upon the periphery of said wheel and said box member as herein specified.

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1,091,449. OVERLOAD UNCOUPLING COUPLING. LOUIS ARTHUR WESTIN, Cumberland, Wis. Filed Oct. 1, 1912. Serial No. 723,277. (Cl. 21—75.)



1. A traction coupling device consisting of a bolt, a housing adapted to interlock with the bolt, and means operable under an overload to unlock the housing from the bolt.

2. A traction coupling consisting of a bolt, a housing interlocking with the bolt, and a spring controlled mechanism in the housing for holding the bolt locked under normal loads and normally inactive spring rods for releasing the bolt under an overload.

3. A traction coupling device consisting of a housing, a pair of bolts, means for holding the bolts locked to the housing under normal loads and means operable under an abnormal load to unlock the bolts.

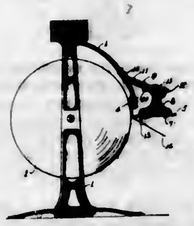
4. A traction coupling device consisting of a bolt, a housing having a throat to receive the bolt, a jaw in the housing, a sliding block adapted to hold the bolt interlocked with the jaw and means operable by an overload to withdraw the block from the holding position.

5. A traction coupling device consisting of a pair of bolts, a housing, a sliding block adapted to hold the bolts in locked relation with the housing, a spring bolt slidable

in the housing, and means coöperating with the spring bolt to withdraw the block from the bolts when an overload is placed on said spring belt.

[Claims 6 to 27 not printed in the Gazette.]

1,091,450. PAPER-CUTTER. CLARENCE E. ANABLE, Sacramento, Cal. Filed Apr. 15, 1913, Serial No. 761,181. Renewed Feb. 21, 1914. Serial No. 820,350. (Cl. 211—32.)



1. A device of the charactor described comprising the combination with a paper cutter having projecting arms, of auxiliary arms adapted to be clamped to said first named arms, brackets adjustably mounted on said auxiliary arms, a cutting blade adjustably mounted on said brackets and a member projecting along the underside of said blade and spaced therefrom, as described.

2. A device of the character described comprising arms, clamps on such arms, said arms being provided with elongated slots at the ends opposite said clamps, brackets having bolts projecting through said slots, wing nuts on said bolts, a blade having longitudinal slots, set screws projecting through said slots and into said brackets, and a member projecting along the underside of said blade and spaced therefrom, as described.

1,091,451. IGNITION-PLUG. ARTHUR R. BULLOCK, Cleveland, Ohio, assignor to Arthur J. Hudson, Cleveland, Ohio. Filed Sept. 16, 1907. Serial No. 393,137. (Cl. 123—169.)



1. In an igniting plug, a terminal member comprising a stem, said stem being provided with a spiral convolution, for the purpose of imparting to the gases passing from the interior of the plug a centrifugal or whirling motion.

2. In an igniting plug, an inner member and an outer member surrounding said inner member, leaving a cavity or air space between said members, the inner member being provided with a spiral convolution, for the purpose of imparting to the gases passing from the interior of the plug a centrifugal or whirling motion.

3. In an igniting plug, the combination of a pair of terminal members, one member comprising a hollow casing that is closed at its inner end except at its center and the other member comprising a stem within said casing, said stem being provided with a sparking point coöperating with the opening at the center of the closed end of the hollow casing, and with a spiral convolution adjacent said sparking point, for the purpose of deflecting gases about to pass from the casing toward the walls of said casing.

4. In an igniting plug, a terminal member having a point at its inner end, an external terminal member surrounding the other member and being closed at its inner end except for a small opening through which the said point projects, means for closing the outer end of the external terminal member, and a spiral convolution formed on the internal member, for the purpose of deflecting gases about to pass from the external member toward the walls thereof.

5. In an igniting plug, an internal terminal member having a point at its inner end, an external terminal member surrounding the other member and being closed at its inner end except for a small opening through which the said point projects, means for closing the outer end of the external terminal member, an insulating sleeve separating said means from the internal terminal member, and a spiral convolution formed on the internal member, for the purpose of deflecting gases about to pass from the external member toward the walls thereof.

[Claims 6 to 14 not printed in the Gazette.]

1,091,452. TEMPORARY BINDER. CHESLEY DOM, Cincinnati, Ohio, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 30, 1912. Serial No. 739,314. (Cl. 129—12.)



1. A loose sheet binder of the nature disclosed, combining a base member, an impaling post secured thereto, a follower movable on said post, a post circumferent lock member mounted on the follower movable to different transverse planes relative to the circumferential longitudinal surface of the post to lock the follower against movement on the post, and permit movement thereof toward the base member, said member comprising a plane plate apertured to receive a post therethrough having ears projecting from opposing edges terminating in tangs which loosely socket into apertures in the follower whereby said plate is hingedly mounted.

2. A loose sheet binder of the nature disclosed, combining the base member, an impaling post projected therefrom, a follower apertured to movably receive therethrough said post, a lock member swingingly mounted on the follower encircling said post and normally occupying, under tension, a plane so as to bind with the post and resist movement thereon in one direction, and a member slidably mounted upon said follower having a longitudinal slot to receive said post therethrough and provided with inclined elements arranged to engage beneath and move said lock member to a post releasing position.

3. A loose sheet binder of the nature disclosed combining a base member, an impaling post projected therefrom, a tubular follower apertured to movably receive said post therethrough, a thin rectangular plate apertured to receive said post having projections formed on opposing edges loosely engaged within said follower for swingingly mounting said plate, a slide member movable within said follower longitudinally slotted to receive said post, and provided with angled elements arranged to engage said plate to positively swing the same in one direction and a spring for urging said plate in a direction reverse to the positive movement of said slide.

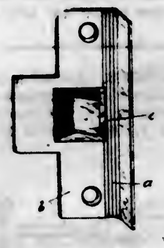
1,091,453. STRIKE-PLATE. JAMES R. FLETCHER, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Oct. 1, 1913. Serial No. 792,763. (Cl. 70—15.)

1. A strike plate having a bolt-receiving socket, and obstructing surfaces in the face of the plate at the rear of said socket.

2. A strike plate having a bolt-receiving socket, and ribs formed longitudinally in the face of the plate at the rear of said socket.



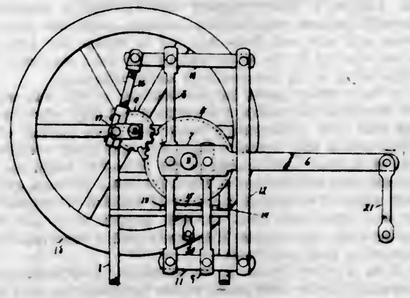
3. A strike plate having a bolt-receiving socket, and rearwardly projecting longitudinal ribs formed in the surface of the plate at the rear of said socket.



4. A strike plate having a bolt-receiving socket, the face of said plate being provided with a roughened area at the rear of said socket.

5. A strike plate having a bolt-receiving socket, and a guard arranged in the face of said plate at the rear of the socket.

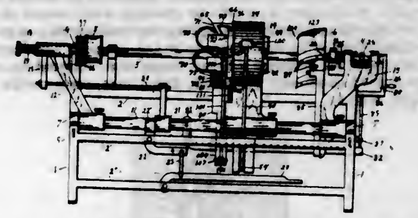
1,091,454. TRANSMISSION DEVICE. JAMES R. FRENCH, Lomax, Ill. Filed Dec. 23, 1912. Serial No. 738,120. (Cl. 74—5.)



1. A driving and a driven shaft, a crank and a pinion mounted on the driving shaft, a gear on the driven shaft adapted to be engaged by said pinion, an operative lever fulcrumed on the driven shaft, upper and lower bars disposed in parallel relationship to said lever, vertical members in pivotal connection with said lever and bars forward of the driven shaft, vertical members in pivotal connection with said lever and the lower bars in the rear of the driven shaft, guides adapted to maintain said members in vertical alinement, members in pivotal connection with the rear ends of said bars and a pitman connecting the forward end of the upper bar with the crank on the driving shaft.

2. A frame, driving and driven shafts mounted therein, an operating lever, said lever being bifurcated at its forward end and fulcrumed, midway of the branches of said bifurcation on the driven shaft, upper and lower bars disposed in parallel relationship to said lever, vertical members in pivotal connection with said bars and branches forward of the driven shaft, vertical members in pivotal connection with the lower bar and said branches in the rear of the driven shaft, guide members positioned on the frame and adapted to maintain said members in vertical alinement, members in pivotal connection with the rear ends of said upper and lower bars, a crank centrally positioned on the driving shaft, a pitman connecting the forward end of the upper bar with said crank, a pair of pinions on said driving shaft, and a pair of gears on the driven shaft adapted to be engaged by said pinions.

1,091,455. AX-HANDLE LATHE. LORENZO JOHNSON, Louisville, Ky., assignor of one-half to Oscar Hauenstein, Louisville, Ky. Filed May 22, 1913. Serial No. 769,165. (Cl. 142—54.)



1. In an ax handle lathe, a cutter head in combination with work-holding means comprising head and tail spindles and a chuck positioned intermediate the same, said chuck consisting of a chuck-casing and a rotative head therein, a longitudinal slot in said casing and head for the passage and reception of work, transverse jaws within said head, actuating means associated with the head for closing said jaws on the work, and manipulative means exterior of the head from which said actuating means disengages when the head is rotated.

2. In an ax handle lathe, a cutter head, head and tail spindles and a chuck comprising a casing, a rotative head therein, said casing and head having slots for the passage and reception of work, upper and lower transverse jaws within said head and extending across said slots, and manipulative means exterior of the chuck with which the upper jaw engages and by which it may be withdrawn from across the slot when the chuck is in position to receive work.

3. In an ax handle lathe, a chuck comprising a chuck casing and a rotative chuck-body therein, longitudinal slots in said casing and chuck-body for the passage and reception of work, a work retaining member arranged in said body across said slot, manipulative means exterior of said chuck for withdrawing said member from across said slot to permit the entrance of work, said member engaging with said manipulative means only when the chuck is in position to receive work.

4. In an ax handle lathe, a chuck comprising a casing and a rotative body therein, said body provided with a slot for the reception of work, a work-retaining member arranged within said body across said slot, means associated with said body for actuating said retaining member to clamp the work in place, manipulative means exterior of the chuck adapted to engage with said actuating means when the chuck is in a normally inoperative position.

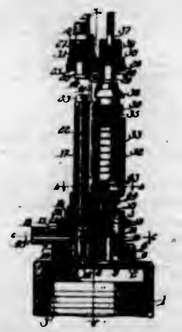
5. In an ax handle lathe, a chuck, a rotative head mounted therein said head having a slot for the reception of work, a retaining member arranged within said body across said slot, means associated with said head for actuating said member to clamp work in place, said member adapted to be withdrawn from across said slot to permit of the introduction or removal of work, and manipulative means exterior of the chuck adapted to automatically engage with said actuating means, and said work-retaining member when the chuck is in a normal inoperative position.

[Claims 6 to 27 not printed in the Gazette.]

1,091,456. AIR-PUMP. CARL E. L. LIPMAN, Beloit, Wis., assignor to The Lipman Manufacturing Company, Beloit, Wis., a Corporation of Wisconsin. Filed July 5, 1912. Serial No. 707,900. (Cl. 230—24.)

1. An air pump comprising a pump cylinder, a piston for the cylinder, an air inlet valve and an air outlet valve communicating with the pump cylinder, a cylinder, a piston for the cylinder having an engagement with the inlet valve, a spring operating on this piston, an air inlet to this cylinder beneath the piston, a catch for holding this piston raised, and means operated by air pressure for releasing the catch.

2. An air pump comprising a pump cylinder, a piston for the cylinder, an air inlet and an air outlet valve communicating with the pump cylinder, means movable in one direction to move the inlet valve to an inoperative position and air actuated in the opposite direction to permit said valve to operate, a catch for holding said means in its last-mentioned position, a spring for holding the catch in engagement with said means, and a plunger actuated by air from the exhaust of the pump and adapted to contact said catch and release it from engagement with the said means.



3. An air pump comprising a pump cylinder, a piston for the cylinder, an air inlet and an air outlet valve communicating with the pump cylinder, a second cylinder, a piston for this cylinder movable in one direction to move the inlet valve to an inoperative position, and a port in the last mentioned cylinder to allow air to enter and move the piston in the opposite direction to permit the inlet valve to operate.

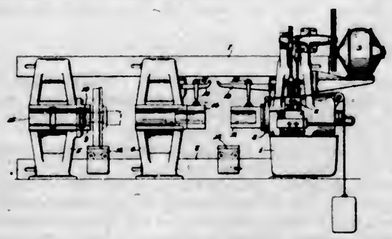
4. An air pump comprising a pump cylinder, a piston for the cylinder, an air inlet valve communicating with the pump cylinder, a second cylinder, and a piston therefor movable in one direction to move said inlet valve to an inoperative position and air actuated in the opposite direction to permit said valve to operate.

5. An air pump comprising a pump cylinder, a piston for the cylinder, an air inlet and an air outlet valve communicating with the pump cylinder, a plunger movable in one direction to move the inlet valve to an inoperative position and air actuated in the opposite direction to permit the said valve to operate, means for maintaining said plunger in said latter position, and means operated by air pressure to actuate said first mentioned means and allow the plunger to be moved to its said former position.

[Claim 6 not printed in the Gazette.]

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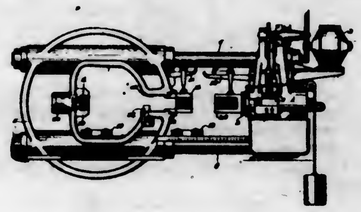
1,091,457. WHEEL MOUNTING OR DEMOUNTING PRESS. ALBERT A. LONGAKER, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed July 1, 1913. Serial No. 776,850. (Cl. 29—86.)



A wheel press comprising, in combination, two fixed end beams one of which is furnished with a perforation to receive the end of an axle and the other of which carries a ram, said ram and means for operating the same, a fixed beam intermediate of said end beams, and a removable distance piece adapted to abut said center beam on the side adjacent said ram to engage and hold a wheel from moving while said ram pushes the axle from its seat in said wheel.

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1,091,458. WHEEL-PRESS. ALBERT A. LONGAKER, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed July 1, 1913. Serial No. 776,851. (Cl. 29—86.)



1. In a wheel press, in combination, a stationary beam, a ram carried by said beam, means for operating said ram, a stationary end resistance beam furnished with a stop adapted to receive the end of an axle and to engage the hub of a wheel carried thereby, and a stationary through gapped stop located between said ram carrying beam and said end beam adapted to engage the hub of a wheel carried by the other end of the axle, said ram and stops being all in substantially axial alinement.

2. In a wheel press, in combination, a ram and means for operating the same, a stationary cylinder beam carrying said ram, a stationary resistance beam having at its outer end a stop holder adapted to interiorly receive an end of an axle and to engage the hub of a wheel carried by said axle and having at its inner end a through gapped stop adapted to engage the hub of another wheel carried by said axle, said ram, through gapped stop, and stop holder being all in axial alinement, and a removable stop carried by said stop holder.

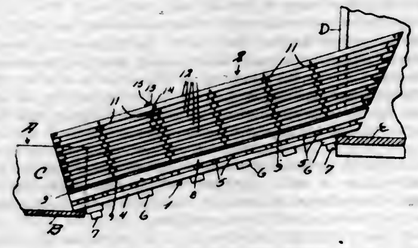
3. In a wheel press, in combination, a cylinder beam, a ram carried by said beam, means for operating said ram, and a combined end and center resistance beam, the latter being furnished with a through gap for the axle and the former with an adjustable stop, said stop, gap and ram being all in axial alinement, and said beams being immovably secured one to the other.

4. In a wheel press, in combination, a cylinder beam, a ram carried by said beam, means for operating said ram, a stationary resistance beam carrying a stationary through gapped stop intermediate of said beams, said stops and ram being in substantially axial alinement, and a revoluble axle support, pivotally carried by said through gapped stop, for permitting said axle to be turned end for end without removal from the press.

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1,091,459. STOCK-CHUTE. WILLIAM REID, Kaw, Okla., assignor of one-half to William E. Vasbinder, Simmons, Tex. Filed July 1, 1912. Serial No. 707,041. (Cl. 119—82.)

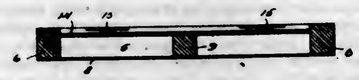
In a device of the character described comprising a platform and hinged sides, means to hold said sides in their vertical spaced relation, said means comprising a bracket mounted on one of said sides, a bar pivotally mounted on said bracket and adapted to swing in a horizontal plane, a downwardly extending end formed on said bar, said downwardly extending end being provided with an aperture, a bracket mounted upon the other side portion adapted to be engaged by said end, and a pin adapted to be inserted within said aperture in said end portion and within an alined aperture in said last named side portion, said bar being adapted to lie along the top edge of said first named side portion and said end portion being



adapted to lie against the adjacent end of said first named side portion when the device is in its folded position.

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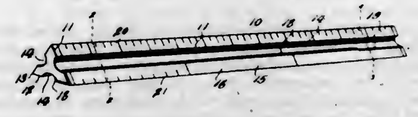
1,091,460. FRUIT-DRIER. WILLIAM REID, Kaw, Okla., assignor of one-half to William E. Vasbinder, Simmons, Tex. Filed July 1, 1912. Serial No. 707,042. (Cl. 217—45.)



A fruit drier comprising four trays connected together by hinges; said hinges being located on the lower portions of the adjacent sides of the inner trays near the outer ends thereof and on the upper edges of the adjacent sides of the inner and outer trays, respectively, near their outer ends, whereby the outer trays may be swung into inverted positions upon the inner trays and the inner trays swung rearwardly in contact with each other, the open tops of said trays being of the same dimensions as the inside of the bottoms thereof, and means within said outer trays for preventing the displacement of fruit when they are inverted, said means comprising plates of the same size as the interior of said trays and adapted to be supported by the contents of the trays and removable bodily therefrom, and removable strips disposed upon said plates and extending transversely of said trays and in openings in the upper edges of their sides.

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1,091,461. RULER ATTACHMENT. VIRGIL A. RUSSO, Allentown, Pa. Filed Aug. 8, 1913. Serial No. 783,805. (Cl. 33—107.)



As a new article of manufacture, a ruler attachment for use on a ruler body, said body having longitudinal faces inclined to each other and having a longitudinal recess in each face, said attachment comprising a member bent along its medial longitudinal portion to provide inclined sides terminating in inwardly bent gripping members, the said attachment being adapted for sliding engagement with the body of the ruler to cover the flat faces thereof and having the gripping members extending into the recesses of the body of the ruler.



1,091,462. PIPE-JOINT. GREEN W. SANDIFORD, Mobile, Ala., assignor of two hundred and fifty one-thousandths to himself, one hundred and eighty-five one-thousandths to W. C. Baumhauer, one hundred and eighty-five one-thousandths to Jacob Rubel, one hundred and eighty-five one-thousandths to Jacob Markstein, and ten one-thousandths to Robert F. Blow, Mobile, Ala., and one hundred and eighty-five one-thousandths to Paul P. Lockling, Fruitdale, Ala. Filed July 25, 1913. Serial No. 781,224. (Cl. 126—308.)

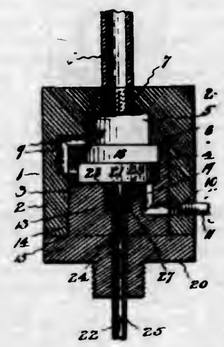


1. The combination of a pipe section provided with a plurality of locking tongues located around the pipe at predetermined positions, said tongues being of progressively shorter lengths, and a pipe section provided with slots adapted to be entered by said tongues at distances apart corresponding to the distances between said tongues, substantially as described.

2. The combination of a pipe section provided with a plurality of locking tongues located around the pipe at predetermined, equally spaced positions, said tongues being of progressively shorter lengths as the circuit of the pipe is made, and a pipe section provided with slots adapted to be entered by said tongues located at distances apart corresponding to the distances between said tongues, substantially as described.

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1,091,463. DRAIN-VALVE. LOUIS N. VINCENT, Prescott, Ariz. Filed Nov. 17, 1913. Serial No. 801,510. (Cl. 121—117.)



1. In a drain valve, an outer member having a chamber provided with an inlet and an outlet, a by-pass high pressure port in said outer member, a low pressure port and means controlling communication between the high and low pressure ports and the outlet, substantially as described.

2. In a drain valve, an outer member having a chamber provided with an inlet, a by-pass high pressure port and a low pressure port in said outer member, an inner member having an outlet and means controlling communication between the high and low pressure ports and the outlet, substantially as described.

3. In a drain valve, an outer member having a chamber provided with an inlet, a by-pass high pressure port and

a low pressure port in said outer member, an inner member provided with an outlet, a low pressure port communicating with the low pressure port of the outer member and means controlling communication between the high and low pressure ports and the outlet, substantially as described.

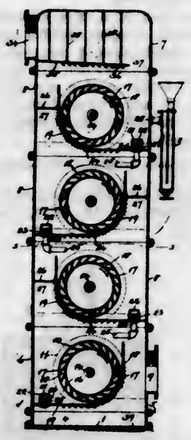
4. In a drain valve, an outer member having a chamber provided with an inlet, a by-pass high pressure port in said outer member communicating with said chamber, an inner member provided with an outlet, a low pressure port and means controlling communication between the high and low pressure ports and the outlet, substantially as described.

5. In a drain valve, an outer member having a chamber provided with an inlet, a by-pass high pressure port and a low pressure port in said outer member, an inner member having a chamber provided with a high pressure port communicating with the by-pass high pressure port of the outer member, an outlet and means controlling communication between the high and low pressure ports and the outlet, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,464. APPARATUS FOR SUBJECTING GASES TO THE ACTION OF LIQUIDS. FREDERICK H. WAGNER, Baltimore, Md., assignor to The Bartlett Hayward Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 11, 1911. Serial No. 601,966. (Cl. 48—134.)



1. The combination with a vertical casing, of a plurality of rotatable devices in the casing one above another; a partition for each rotatable device and each partition extending under and upwardly at one side of the rotatable device with which it coacts with its up-turned portion located between the rotatable device and the wall of the casing to form a gas passage between it and the casing-wall and an overflow means extending through the partition below the upturned portion thereof and at the opposite side of the rotatable device whereby the gas may pass up at one side of the rotatable device and the overflow take place from the opposite side thereof.

2. The combination with a casing, of a plurality of rotatable devices in said casing one above another; a partition extending under and partly around each rotatable device and one partition extending from one side wall and turning upwardly in front of the opposite side wall of the casing while the partition next below extends from said opposite side wall and turns upwardly in front of said one side wall whereby to form a zig-zag gas passage between the opposite walls of and through the casing and a series of liquid overflow means between the upper end and lower ends of the casing said overflow means being separate and independent of the zig-zag gas passage and each overflow means extending through a partition at the side opposite to the up-turned portion of said partition whereby the gas will pass up at one side of each rotatable device and the overflow pass down at the opposite side.

3. The combination with a vertical casing having a series of rotary devices each with liquid-projecting means around its periphery said devices being arranged one above another; of a liquid retaining partition for each rotary device and one end of each partition extending up at one side of the rotary device with which it coacts said up-turned end being spaced from the vertical wall of the casing to form a gas passage; means for supplying liquid to the upper side of each partition and means below the up-turned end of each partition and at the other side of each rotary device to prevent the liquid level from rising to the up-turned end of the partition.

4. The combination with a series of shells one above another, of a partition in each shell and each partition extending crosswise from a side wall of the shell and above the lower edge of the shell said partitions each having one end turned upwardly and spaced from the opposite side wall to form a gas passage; means for supplying liquid to an upper shell; a rotary liquid projecting device in each shell and a pipe from each partition below the up-turned end thereof and the discharge-end of the pipe from an upper shell terminating between the up-turned end of the partition and the rotary projector in the shell next below to direct the overflow liquid behind said up-turned end.

5. In an apparatus of the character described the combination with a plurality of shells each shell being open at the top and bottom and between said open top and bottom each shell having a rotary liquid projecting device; a partition in the shell between the open top and bottom which partition extends from one side wall of the shell crosswise, and turns upwardly around the rotary device and in front of and spaced from the opposite side wall of said shell to form a gas passage in the shell between said up-turned end of the partition and said opposite side wall said up-turned end of the partition extending above the axis of the rotary device and an overflow in the partition below the liquid-projecting device.

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1,091,465. SIGNALING SYSTEM. FREDERICK B. ADAM and LLOYD H. ARMS, St. Louis, Mo., assignors to Frank Adam Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 22, 1912. Serial No. 727,186. (Cl. 177—10.)



1. A combined switch and circuit-closing device comprising a normally stationary means that closes one of a group of circuits and which is adapted to be actuated at the will of the operator so as to open said circuit and close an independent circuit, said means being so designed that it can be adjusted to coöperate with any desired circuit of said group of circuits without rendering it inoperative with relation to said independent circuit.

2. A combined switch and circuit-closing device provided with a set of contacts, a common line contact, a companion contact, and a normally stationary means that establishes electrical connection between the common line contact and one contact of said set of contacts but which is adapted to be moved so as to open the circuit in which the said contact of said set is arranged and establish electrical connection between the common line contact and the companion contact, said means being so constructed that it can be adjusted so as to normally establish electrical connection between the common line contact and any one contact of said set of contacts.

3. A combined switch and circuit-closing device provided with a common line contact, a set of coöperating contacts, a manually-operated movable conducting member which is normally at rest and establishes electrical connection between the common line contact and one contact of said set but which can be arranged so as to coöperate with any desired contact of said set, and a separate contact that is adapted to be engaged by said conducting member so as to coöperate with the common line contact when said member is moved.

4. A combined switch and circuit-closing device provided with a common line contact, a set of coöperating contacts, a manually-operated movable conducting member that normally establishes electrical connection between the common line contact and one contact of said set, said conducting member being normally at rest, and a separate contact that is adapted to be engaged by said conducting member so as to coöperate with the common line contact when said member is moved, said conducting member being adjustable so that it can be arranged in position to coöperate with any one contact of said set of contacts.

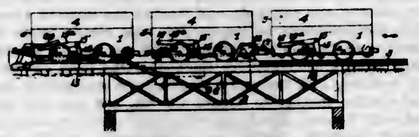
5. A combined switch and circuit-closing device comprising a body portion provided with a set of contacts, a common line contact, a manually-operated movable conducting member that is normally stationary and which always remains in engagement with said common line contact, said conducting member being provided with a portion that engages one contact of said set when said member is in its normal position but which can be adjusted to coöperate with any one contact of said set of contacts, and a separate contact on said body portion arranged in position to be engaged by said conducting member when said member is moved.

[Claims 6 to 9 not printed in the Gazette.]



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1,091,466. DUMP-CAR. RUFUS C. CRAWFORD, McKeesport, Pa., assignor of one-fourth to Harry B. Crawford, McKeesport, Pa. Filed Nov. 7, 1912. Serial No. 729,974. (Cl. 214—1.)



1. In devices for dumping cars, the combination with a dump car adapted to travel on a track and having a hinged bottom thereon provided with means for locking the same, of means along the track for unlocking said bottom to allow the same to extend downward, and a curved and twisted bar within said track so arranged that said bottom will bear against a flat surface of the same to raise and close such bottom in the transit of the car.

2. In devices for dumping cars, the combination with a dump car adapted to travel on a track and having a hinged bottom thereon provided with means for locking the same, of a lever along the track for unlocking said bottom to allow the same to extend downward, and a curved and twisted bar within said track so arranged that said bottom will bear against a flat surface of the same to raise and close such bottom in the transit of the car.

3. In devices for dumping cars, the combination with a dump car adapted to travel on a track and having a hinged bottom thereon provided with means for locking the same, of means along the track for unlocking said bottom to allow the same to extend downward, a curved bar within said track for closing said bottom, and means beyond said last named means for locking said bottom in its closed position.

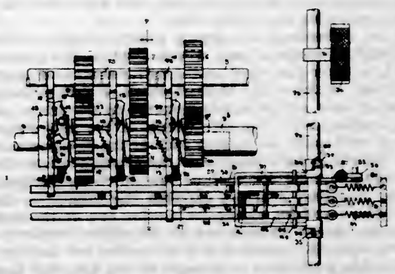
4. In devices for dumping cars, the combination with a dump car adapted to travel on a track and having a hinged bottom thereon provided with means for locking the same, of a lever along the track for unlocking said bottom to allow the same to extend downward, a curved bar within said track for closing said bottom, and means beyond said last named means for locking said bottom in its closed position.

5. In devices for dumping cars, the combination with a dump car adapted to travel on a track and having a hinged bottom thereon provided with means for locking the same, of means along the track for unlocking said bottom to allow the same to extend downward, a curved and twisted bar within said track so arranged that said bottom will bear against a flat surface of the same to raise and close such bottom in the transit of the car, and means beyond said last named means for locking said bottom in its closed position.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,467. CHANGE-SPEED GEARING. CRAUS C. EARNIST, Riceville, Iowa. Filed Nov. 29, 1912. Serial No. 734,113. (Cl. 74—59.)



1. In a change-speed gearing, a driver shaft, a driver gear fixed thereon, a driven shaft, a plurality of gear wheels loosely mounted on the driven shaft and having ratchets formed thereon, a secondary shaft, a plurality of gear wheels fixed on the secondary shaft and meshing with the gear wheels on the driven shaft and driver shaft, a plurality of pawls mounted in fixed relation to the driven shaft and adapted for alternate engagement and disengagement with the respective ratchets, a plurality of rings surrounding the driven shaft in contact with the respective pawls and adapted to be moved axially for actuating the pawls, a plurality of shifter rods carrying the respective rings, certain of said rods having means thereon for engaging with other of said rods and shifting the latter, and means coacting with the first said means for successively shifting the several rods and their adjunctive rings, and thereby allowing the pawls to successively engage the respective contiguous ratchets.

2. In a change-speed gearing, a driver shaft, a secondary shaft, a series of gear wheels fixed on the secondary shaft, a driver gear fixed on said driver shaft and meshing with one of said series of gear wheels, a driven shaft, a series of gear wheels loosely mounted on the driven shaft and each carrying a ratchet wheel and meshing with the respective gear wheels on the secondary shaft, a series of pawl-carrying members fixed on the driven shaft and having spring-pressed pawls pivotally mounted thereon, a ring surrounding each pawl-carrying member and having radially and oppositely extending arms, one of said arms being bifurcated and embracing the driver shaft, a plurality of shifter rods on which the other arms of the ring are mounted respectively, certain of said shifter rods having means thereon for moving other of the shifter rods, and means coacting with the first said means for successively shifting the rods, each of said pawls being normally in contact with one of said rings and being adapted to travel on the surface thereof, and thereby being held normally out of engagement with said ratchet members.

3. In a change-speed gearing, a driver shaft, a secondary shaft, a plurality of gear wheels fixed on the secondary shaft, a driver gear fixed on the driver shaft and

meshing with one of said plurality of gear wheels, a driven shaft, a plurality of gear wheels loosely mounted on the driven shaft and each having a ratchet member thereon and meshing with the respective gear wheels on the secondary shaft, pawls carried by the driven shaft, a pawl-actuating element for each pawl, shifter rods carrying the respective pawl-actuating elements, means carried by certain of the shifter rods for moving other of the shifter rods, and means coacting with the first said means for successively shifting the shifter rods.

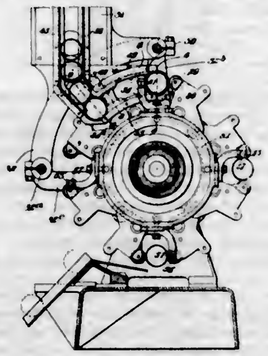
4. In a change-speed gearing, a driver shaft, a secondary shaft, a series of gear wheels fixedly mounted on the secondary shaft, a driver gear fixed on the driver shaft and meshing with one of said series of gear wheels, a driven shaft, a series of gear wheels loosely mounted on the driven shaft and meshing with the gear wheels on the secondary shaft, a clutch mechanism for securing each of the last said gear wheels in fixed relation to the driven shaft, a clutch operating member for each clutch mechanism, a series of shifter rods carrying the respective clutch operating members, certain of the shifter rods having means thereon for moving the adjacent shifter rods, and means coacting with the first said means for successively actuating the shifter rods.

5. In a change-speed gearing, a driver shaft, a secondary shaft, a series of gear wheels fixed on the secondary shaft, a driver gear fixed on the driver shaft and meshing with one of the series of gear wheels, a driven shaft, a series of gear wheels loosely mounted on the driven shaft and meshing with the gear wheels of the first series, a clutch mechanism for holding each of the loosely mounted gear wheels in fixed relation to the driven shaft, a clutch operating member for each of the clutch mechanisms, a series of shifter members carrying the respective clutch operating members, means for moving one of the shifter members, means on said one of the shifter members for engagement with a second shifter member and moving the latter into position to be engaged by the first said means, and means on said second shifter member for engagement with a third shifter member and moving the latter into position for engagement with the first said means, so that the shifter members may be successively moved from one to another of their several alternative positions.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,468. MECHANISM FOR FEEDING CAN-BODIES AND CAN ENDS TO A CAN-MAKING MACHINE. LOUIS CHARLES KRUMMEL, Clinton, Conn. Filed Feb. 24, 1911. Serial No. 610,464. (Cl. 113—14.)



1. A can-making machine including in combination, a carrier rotating continuously, operating members mounted on the carrier, means for feeding can bodies to said operating members including a feeding chute, a stationary support for the can bodies extending from said feeding chute in a direction concentric to the axis of the carrier on which the can bodies may rest and move, and means for moving the can bodies on the support in unison with the movement of the carrier.

2. A can making machine including in combination a carrier rotating continuously about a horisontal axis, operating members mounted on said carrier, means for feeding can bodies to said operating members including a feeding chute, a stationary support for the can bodies extending from said feeding chute in a direction concentric to the axis of the carrier on which the can bodies may rest and move, and means for moving the can bodies on the support in unison with the movement of the carrier.

3. A can making machine including in combination a continuously rotating carrier, means for clamping and supporting a can body and can end, said means being mounted on said carrier, means for feeding can bodies and can ends to said clamping means, including a stationary support located between the paths of travel of the clamping means, means for moving the can body and can end on the support in unison with the movement of the carrier, and devices for causing the clamping means to engage the can end and can body while on said support.

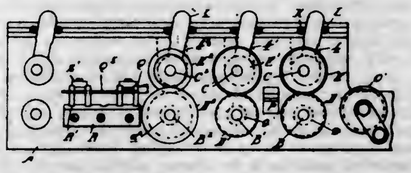
4. A can making machine including in combination a carrier rotating about a horisontal axis, a seating member and clamping head mounted on said carrier, a chuck concentric with said seating head, means for feeding can bodies and can ends to the carrier including a stationary support for supporting the can end and can body between the paths of travel of the seating member and clamping head, means for engaging the can end and can body and moving the same in unison with the movement of the carrier, said means being disposed so as to hold the can body and can end in substantially axial alinement with the supporting head and seating member, and means for causing the supporting head and seating member to engage the can end and can body and seat the can end in the can body while on said stationary support, and means for subsequently causing said chuck to be engaged by the can end.

5. A can making machine including in combination a carrier rotating about a horizontal axis, a seating member and clamping head mounted on said carrier, a chuck concentric with said seating head, means for feeding can bodies and can ends to the carrier including a stationary support concentric with the carrier for supporting the can end and can body between the paths of travel of the seating member and clamping head, means for engaging the can end and can body and moving the same in unison with the movement of the carrier, said means being disposed so as to hold the can body and can end in substantially axial alinement with the supporting head and seating member, and means for causing the supporting head and seating member to engage the can end and can body and seat the can end in the can body while on said stationary support, means for subsequently causing said chuck to be engaged by the can end, seaming rolls, means for causing the seaming rolls to engage the can end during the travel of the carrier, and means for giving said seaming rolls and chuck a relative rotary movement.

[Claims 6 to 17 not printed in the Gazette.]

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1,091,469. METAL-SHAPING MACHINE. HUGO NEUMAN, Detroit, Mich., assignor to Diamond Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 27, 1912. Serial No. 673,922. (Cl. 8—4.)



1. In a metal shaping machine, the combination with a bed, of a pair of shafts carried thereby, coöperating forming rolls fixed on said shafts, means for driving said shafts to produce a difference in speed between the coöperating faces of the rolls, and means for yieldably pressing one of the shafts toward the other.

2. In a metal shaping machine, the combination with a bed, of a pair of shafts carried thereby, coöperating forming rolls fixed on said shafts, means for driving said shafts to produce a difference in speed between the coöperating faces of the rolls, and means for yieldably pressing one of the shafts toward the other, the coöperating faces of the forming rolls having a portion of their work engaging faces spaced a greater distance than the remaining portions thereof.

3. In a machine for shaping flat metallic strips the combination with a bed, of a pair of shafts carried thereby, coöperating forming rolls fixed on said shafts and means for driving said shafts to produce a difference in speed between the coöperating faces of the rolls, said rolls having a portion only of their work engaging faces adapted to exert a metal spreading pressure upon the strip.

4. In a machine for shaping flat metallic strips, the combination with a bed, of a plurality of pairs of forming rolls mounted thereupon, means for driving the members of each pair of rolls to produce a difference in speed between the coöperating faces thereof, the rolls of each pair having a portion only of their work engaging faces adapted to exert a metal spreading pressure upon a portion of the strip.

5. In a machine for shaping flat metallic strips, the combination with a bed, a plurality of pairs of forming rolls mounted thereupon for progressively shaping a portion of the cross-section of the strip and for progressively tempering another portion of the cross-section of the strip during the shaping.

[Claims 6 to 19 not printed in the Gazette.]



# REISSUES.

13,702. HYDRODYNAMIC BALANCE. ERNEST F. FISHER, Pittsburgh, Pa. Filed Mar. 29, 1913. Serial No. 757,690. Original No. 1,049,836, dated Jan. 7, 1913, Serial No. 612,957. (Cl. 78—31.)



1. The combination of a closed chamber filled with liquid, a frame mounted to oscillate on a horisontal axis within the chamber, a hollow body within the chamber and movable with said frame, said body being open for the admission of liquid from the chamber and partially filled by said liquid with the remainder of the body filled with air, a pressure communicating conduit in communication with the air space of said body, and movable recording mechanism actuated by said frame.

2. The combination of a closed chamber filled with liquid, a magnet mounted on a horisontal axis within the chamber, a hollow body within the chamber and movable with the magnet, said body being open for the admission of liquid and normally partially filled with liquid with the remaining space therein filled with air, a supplemental air chamber, an air conducting connection between the latter and the air confining portion of the hollow body, a pressure communicating conduit extending to the supplemental chamber, and recording means actuated by the magnet.

3. The combination of a closed chamber filled with liquid, a magnet mounted on a horisontal axis within the chamber, a hollow body within the chamber and movable with the magnet, said body being open for the admission of liquid and normally partially filled with liquid with the remaining space therein filled with air, a supplemental air chamber, an air conducting connection between the latter and the air confining portion of the hollow body, a pressure communicating conduit extending from the supplemental chamber and rising to the height of the main chamber, said conduit and a portion of the supplemental chamber containing a liquid, and recording means actuated by the magnet.

4. The combination of a closed chamber filled with liquid, a magnet, a magnet-carrying frame within the chamber and balanced on a horisontal axis, a hollow body supported by and movable with the frame and open for the admission of liquid from the chamber, the body being partially filled with such liquid with the remainder of its interior filled with air, and a conduit for communicating the pressure to be recorded to the air-filled portion of the hollow body, and recording mechanism actuated by the magnet.

5. The combination of a closed chamber filled with liquid, a frame within the chamber and mounted on a horisontal axis, a magnet carried by the frame, hollow bodies supported by the frame at opposite sides of its pivot and movable therewith, the bodies being open for the admission of liquid from the chamber and partially filled with such liquid with the remainder of the space therein filled with air, pressure communicating conduits in communication respectively with the hollow bodies, and recording means actuated by the magnet.

6. The combination of a closed chamber filled with liquid, a frame within the chamber and mounted to oscillate on a horisontal axis, a weight depending from the frame and a magnet projecting upwardly therefrom, hollow bodies at opposite sides of the frame axis and movable with the frame, the bodies having openings at their under sides for admission of liquid from the chamber with the bodies partially filled with such liquid and the remainder of the space therein filled with air, two supplemental air chambers with means establishing communication between said chambers respectively and the air confining portions of the hollow bodies, pressure communicating conduits extending to the supplemental chambers with fluid filling said conduits and partially filling the chambers, and recording mechanism actuated by the magnet.

7. The combination of a closed chamber filled with liquid, a frame within the chamber and balanced on a horizontal axis, a magnet carried by the frame, hollow bodies supported by the frame at opposite sides of its axis and movable with the frame, each of the bodies having an opening at its under side for admission of liquid from the chamber and with the body partially filled with such liquid and the remaining portion of its space filled with air, supplemental air chambers beneath said frame, pipes extending from the supplemental chambers and curved complementary with the arc of movement of the hollow bodies and extending through the bottom openings of the latter and into the air confining portions of their interior, pressure communicating conduits extending to the supplemental chambers with liquid filling said conduits and partially filling the supplemental chambers, and recording mechanism actuated by the magnet.

8. The combination of a closed chamber, two hollow bodies mounted to swing on a horizontal axis within said chamber and each having a port or opening in its bottom, liquid partially filling said bodies and all of said chamber, pressure conduits, one leading to the interior of each of said bodies through its port, fluid of less specific gravity than said liquid filling the space in each of said bodies not filled by said liquid, and movable recording mechanism actuated by said bodies.

9. The combination of a closed chamber, a frame mounted to swing on a horizontal axis within said chamber, two hollow bodies carried by said frame and each having a port or opening in its under side, liquid within said chamber and partially filling said bodies, pressure conduits, one leading through the port of each of said bodies, fluid of less specific gravity than said liquid filling

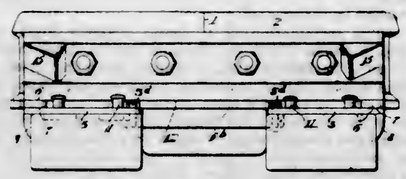
the space in each of said bodies not filled by said liquid, and movable recording mechanism actuated by said frame.

10. The combination of a closed chamber, a frame mounted to swing on a horizontal axis within said chamber, two hollow bodies carried by said frame and each having a port or opening on its under side, liquid within said chamber and partially filling said bodies, pressure conduits, one leading through the port to the interior of each of said bodies, fluid of less specific gravity than said liquid filling the space in each of said bodies not filled by said liquid, a magnet carried by said frame, and movable recording mechanism actuated by said magnet.

11. The combination of a closed chamber, a frame mounted to swing on a horizontal axis within said chamber, two hollow bodies carried by said frame and each having a port or opening in its under side, fluid within said chamber and partially filling said bodies, pressure conduits, one leading to the interior of each of said bodies through its port, fluid of less specific gravity than said other fluid filling the space in each of said bodies not filled by said other fluid, and movable recording mechanism actuated by said frame.

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13,703. RAIL-JOINT. JOSEPH M. JOHNSON, Millersburg, Pa., assignor to The Rail Joint Company, a Corporation of New York. Filed Jan. 27, 1913. Serial No. 744,597. Original No. 993,830, dated May 30, 1911, Serial No. 599,566. (Cl. 239—6.)



1. The combination with a pair of rail ends, of a plate, means carried by the plate for engaging said rail ends, means carried by the plate for engaging the ties of a railroad track, fish plates secured to the said rail ends, bolts projecting through the fish plates and the rail ends respectively, for holding said fish plates against displacement, and deflecting members formed upon the fish plates, substantially as and for the purposes hereinbefore described.

2. The combination with a pair of rail ends, of a plate, bosses formed upon the upper side of the said plate for engagement with recesses formed in the base flanges of the rail ends, depending extensions formed upon the lower face of the plate for engagement with the sides of the ties upon which the rails are to be located, depending pins formed upon the lower face of the plate for engagement with the said ties, fish plates upon opposite sides of the rail ends, bolts extending through the said fish plates and rail ends respectively, for holding the said fish plates against displacement, and deflecting extensions formed adjacent the end nut and bolts, for the purpose of preventing injury to the said bolts by deflecting the wheels of a car therefrom upon the derailment of the said car.

3. A rail joint including a joint bar having horizontally arranged wheel deflecting guards laterally offset from the outer side of its upright member at the terminals of the latter.

4. A rail joint including a joint bar provided at the end portions of its upright member with horizontally arranged and laterally offset guards having beveled faces arranged obliquely.

5. A rail joint including a joint bar provided at the end portions of its upright member with laterally-offset approximately triangular lugs arranged horizontally and presenting beveled surfaces to deflect derailed wheels from the joint bolts.

6. The combination with a pair of rail ends, of a plate, means carried by the plate for engaging said rail ends, means carried by the plate for engaging the ties of a railroad track, splicing angle bars secured to the rail ends, and spikes passing through the plate into the ties and having their heads engaging the flanges of the angle bars.

7. The combination with the ties and a pair of rail ends, of a rail-supporting base plate arranged upon the ties and having an interlocking engagement with the rail base flanges, said plate being provided with centrally arranged depending stiffening flanges, splice members, joint bolts connecting the splice members with the rail ends, and supplemental reinforcing bars disposed between the ties and fastened to the said base plate.

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13,704. HEAT-DISSIPATING MEANS FOR ELECTRICAL APPARATUS. HARRY A. RHODES, Denver, Colo., assignor to The Universal Motor Company, Denver, Colo., a Corporation of Arizona. Filed July 8, 1911. Serial No. 637,566. Original No. 981,690, dated Jan. 17, 1911, Serial No. 517,467. (Cl. 175—21.)



1. Means for dissipating heat from the coils or conductors of an electrical apparatus, comprising a spool upon which layers of the coils or conductors are wound, a non-impregnating, heat-conducting substance applied to the spool and in engagement with the spool heads, the said substance separating the layers of coils or conductors thereof, and leading out of the conductors or coils to the air, forming a path for the escape of the heat developed in the apparatus, substantially as described.

2. The combination with a spool having metal heads and the conductors or coils thereof, of means applied to the said spool, and separating the layers or coils thereof for heat dissipating purposes, said means including relatively thin layers of heat conducting, non-impregnating material bent outwardly at their extremities and brought into engagement with the metal heads of the spool, the latter being of such character that, while possessing a high coefficient of heat conductivity, it shall also be sufficiently refractory to prevent softening or fusion at ordinary temperatures.

3. The combination with a spool having conductors or coils, of layers of sheet metal foil interposed between the conductors, coils or layers of coils of the apparatus, the extremities of the said sheets being slit and bent into engagement with the spool for heat dissipating purposes.

4. The combination with a spool having metal heads and an electrical conductor arranged in layers of coils upon the spool, of relatively thin layers of sheet metal foil interposed between the coils or windings of the apparatus, and extending outwardly, the extremities of the said sheets being brought into contact with the metal heads of the spool for heat dissipating purposes, substantially as described.

5. The combination with a spool having metal heads and electrical conductors arranged in coils on the spool, layers of relatively thin sheet metal foil interposed between the coils or windings of the conductors on the spool, the extremities of the said sheets being slitted, bent outwardly and brought into engagement with the metal heads of the spool for heat dissipating purposes, substantially as described.

6. In combination with a conductor of electricity wound in superposed layers, a conductor of heat flared at its ends interposed between the layers of the conductor of electricity, and a heat dissipating member contacted by the conductor of heat.

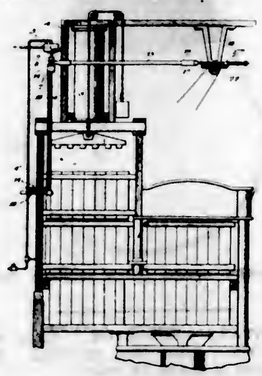
7. In combination with conductors of electricity extending approximately parallel, a conductor of heat between the conductors of electricity, and a heat dissipating member in contact with the ends of the conductor of heat.



8. In combination with a conductor of electricity in superposed layers, a conductor of heat interposed between the layers of the conductor of electricity, and a heat dissipating member contacted by the conductor of heat.

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13,705. TRAMPER FOR COTTON-PRESSES. NIMROD W. L. BROWN, Marietta, Ga. Filed Feb. 16, 1914. Serial No. 819,132. Original No. 1,016,396, dated Feb. 6, 1912, Serial No. 611,710. (Cl. 121—97.)



1. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, and means operated by said shaft and connected to said valve for traversing the latter from one extreme position to the other, said means including a resilient device for holding the valve a predetermined time in one of its extreme positions.

2. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, and means operated by said shaft and connected to said valve for traversing the same from one extreme position to the other, said means including a divided resilient device to hold said valve in said extreme positions for predetermined periods of time.

3. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, and means operated by said shaft and connected to said valve for traversing the same from one extreme position to the other, said means including a divided resilient device to hold said valve in one of the aforesaid positions a predetermined period and in the other position for a shorter period.

4. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a compressed fluid inlet and exhaust valve, of a rotatable shaft and means operated by said shaft and connected with said valve for automatically traversing the same from one extreme position to the other, said means including a resilient device for holding the valve a predetermined time in one of its extreme positions.

5. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem and means connected with said stem for manually actuating said valve, a rotatable shaft, and means operated by said shaft and detachably connected to the valve stem for automatically traversing said valve from one extreme position to the other, said means including a resilient device for holding the valve a predetermined time in one of its extreme positions.

6. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem and means connected to said stem for manually actuating said valve, a rotatable shaft, automatic means operated by said shaft and detachably connected to the valve stem for traversing said valve from one extreme position to the other, and a latch device connected with the manually actuating means for locking the automatically operating means to the valve stem and unlocking the same.

7. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, and means operated by said shaft and connected to said valve for traversing the same from one extreme position to the other, said means including a device for holding the valve in one of said positions longer than in the other during each rotation of the shaft.

8. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem, means connected with said stem for actuating the valve, a rotatable crank, and a thrust rod slidably connected to said crank and connected to said valve stem.

9. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem, means connected with said stem for actuating said valve, a rotatable crank and a thrust rod slidably connected to said crank and connected to said valve stem and resilient means connected with said rod for holding the valve a predetermined time in one of its extreme positions.

10. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem, means connected with said stem for actuating said valve, a rotatable crank, a sleeve pivotally mounted on said crank, a thrust rod slidable in said sleeve and connected with said valve stem and a cushioning spring surrounding the thrust rod at one end of said sleeve.

11. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem, means on said stem for actuating said valve, a rotatable crank, means operated by said crank connected to said valve actuating means for traversing said valve from one extreme position to another, and a latch mechanism between the valve stem and its actuating means.

12. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a compressed fluid inlet and exhaust valve, of a rotatable shaft and means operated by said shaft and connected to said valve for controlling the passage of fluid through said valve, said means including a resilient device for holding said valve in the position where the exhaust is open and the inlet closed.

13. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a compressed fluid inlet and exhaust valve, of a rotatable shaft, and means operated by said shaft and connected to said valve for controlling the passage of fluid through said valve, said means including a resilient device for holding said valve in the position where the exhaust is open and the inlet closed, and a second resilient device for holding said valve in the position where the inlet is open and the exhaust closed.

14. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, a crank wheel on said shaft, and means operated by said crank wheel and connected to said valve for traversing the same from one extreme position to another whereby said valve when in one of said extreme positions will admit compressed fluid therethrough and in the other

extreme position discharge the same after use therefrom, said means including a device for holding said valve in one of said extreme positions longer than in the other during each rotation of said crank wheel.

15. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a valve stem, latching mechanism mounted on said stem and adapted to be angularly adjustable about its axis, a vibrating arm loosely mounted on said valve stem and adapted to be secured thereto by said latching means for operating the valve, a rotatable crank, a sleeve pivotally mounted on said crank, a thrust rod pivoted to said vibrating arm and slidable in said sleeve, and a cushioning spring surrounding the thrust rod at one end of said sleeve.

16. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, automatic means operated by said shaft and detachably connected to the valve for traversing the valve from one extreme position to the other, and a manually operative device for locking the automatically operating means into operative connection with the valve and unlocking the same.

17. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, automatic means operated by said shaft and detachably connected to the valve for traversing the valve from one extreme position to the other, and a manually operative device extending below the automatically operating means for locking said means into operative connection with the valve and unlocking the same.

18. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising means connected to said valve for manually actuating the same, a rotatable shaft, automatic means operated by said shaft and detachably connected to said valve for traversing the same from one extreme position to the other, and manually operative means for locking the automatically operating means into operative connection with the valve and unlocking the same.

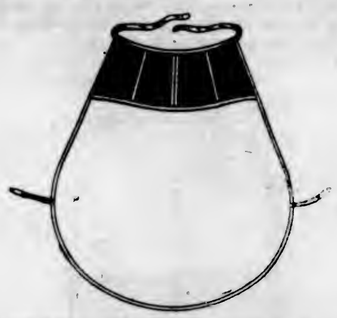
19. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising means connected to said valve for manually actuating the same, a rotatable shaft, automatic means operated by said shaft and detachably connected to said valve for traversing the same from one extreme position to the other and holding it longer in one extreme position than in the other, and manually operative means for locking the automatically operating means into operative connection with the valve and unlocking tha same.

20. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising a rotatable shaft, automatic means operated by said shaft and detachably connected to said valve for traversing the same from one extreme position to the other, and means connected to said valve and extending below the automatically operating means for manually actuating said valve while disconnected from said automatically operating means.

21. In a tramper for cotton presses operated by a fluid pressure cylinder, the combination with a valve for regulating the fluid pressure in the cylinder, of mechanism for actuating said valve, the same comprising means connected to said valve for manually actuating the same, a rotatable shaft, automatic means operated by said shaft and detachably connected to said valve for traversing the same from one extreme position to the other, and means for connecting the automatically operating means to the valve and disconnecting the same.

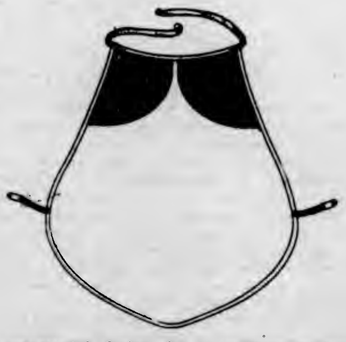
# DESIGNS.

45,443. SANITARY PROTECTOR. ALICE M. AIKEN, Cleveland, Ohio. Filed Nov. 11, 1912. Serial No. 730,816. Term of patent 14 years.



The ornamental design for a sanitary protector as shown.

45,444. SANITARY PROTECTOR. ALICE M. AIKEN, Cleveland, Ohio. Filed Nov. 11, 1912. Serial No. 730,817. Term of patent 14 years.



The ornamental design for a sanitary protector as shown.

45,445. WARDROBE. JULIUS BRAUER, Hartford, Conn. Filed Jan. 20, 1914. Serial No. 813,340. Term of patent 7 years.



The ornamental design for a wardrobe, as shown.



45,446. SPOON, FORK, OR SIMILAR ARTICLE. LESLIE A. BROWN, Wallingford, Conn., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn., a Corporation. Filed Jan. 22, 1914. Serial No. 813,809. Term of patent 7 years.



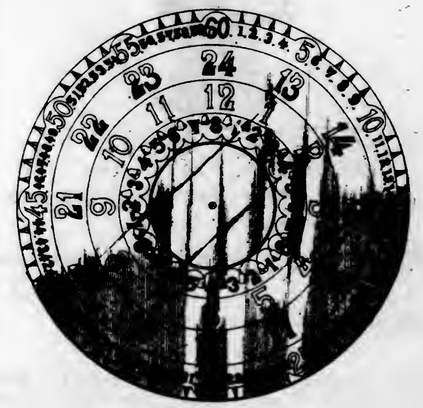
The ornamental design for a spoon, fork or similar article, as shown.

45,447. TAPERED OVAL TALCUM-POWDER CAN. ALFRED E. BRUNS, New York, N. Y., assignor to Metal Package Company, Brooklyn, N. Y., a Corporation of New York. Filed May 15, 1913. Serial No. 767,925. Term of patent 7 years.



The ornamental design for a tapered oval talcum powder can, as shown.

45,448. CLOCK-DIAL. EDWARD A. BUCK, Washington, D. C. Filed Jan. 6, 1914. Serial No. 810,684. Term of patent 3½ years.



The ornamental design for a clock dial, as shown.

45,449. SET OF PLAYING-CARDS. THOMAS MACREADY DOWN, Hammersmith, London, England. Filed Dec. 31, 1912. Serial No. 739,576. Term of patent 14 years.



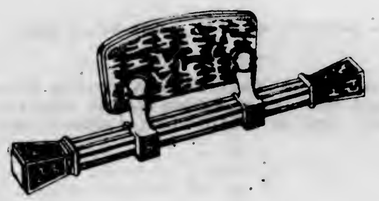
The design for a set of playing cards, as shown.

45,450. RATTLE. ROBERT EDDY, Milwaukee, Wis. Filed Jan. 15, 1914. Serial No. 812,349. Term of patent 14 years.



The ornamental design for a rattle, as shown.

45,451. BURIAL-CASKET HANDLE. ARTHUR V. EGINTON, Meriden, Conn., assignor to International Casket Hardware Co., Meriden, Conn., a Corporation of Connecticut. Filed Feb. 12, 1914. Serial No. 818,416. Term of patent 7 years.



The ornamental design for a burial casket handle, as shown.

45,452. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,373. Term of patent 7 years.



The ornamental design for a carpet, substantially as shown.

45,453. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,374. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,454. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,375. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,455. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,376. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

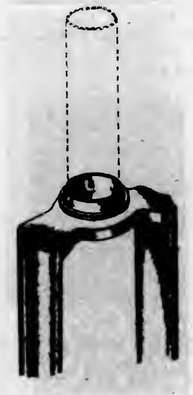


45,456. RING OR SIMILAR ARTICLE. WILLIAM FISCHER, New York, N. Y. Filed Dec. 27, 1912. Serial No. 738,959. Term of patent 3½ years.



The ornamental design for a ring or similar article as shown.

45,457. BICYCLE FRONT-FORK CROWN. WILLIAM M. C. FOSTER, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,485. Term of patent 7 years.



The ornamental design for a bicycle front-fork crown, as shown.

45,458. TOY BANK. JOHN H. HARTMAN, Lancaster, Pa. Filed Jan. 15, 1914. Serial No. 812,352. Term of patent 7 years.



The ornamental design for a toy bank, as shown.



45,459. WHEEL-PULLER. FREDERICK C. HEBBER, Roslindale, Mass., assignor to Motor Specialties Company, a Corporation of Massachusetts. Filed Dec. 29, 1913. Serial No. 809,421. Term of patent 3½ years.



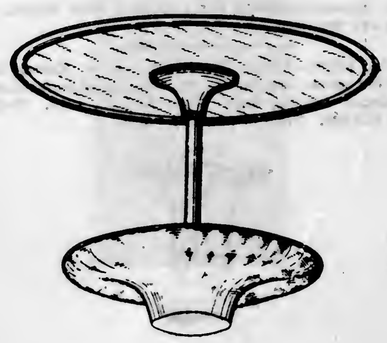
The ornamental design for a wheel puller, as shown.

45,460. CABINET. JOHN HERZOG, Saginaw, Mich. Filed Jan. 23, 1914. Serial No. 813,999. Term of patent 14 years.



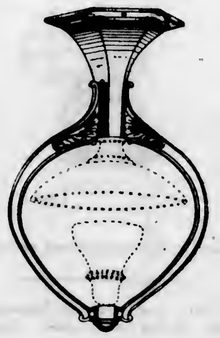
The ornamental design for a cabinet as shown.

45,461. GAS-LAMP. ALFRED H. HUMPHREY, New York, N. Y. Filed Sept. 29, 1913. Serial No. 792,525. Term of patent 14 years.



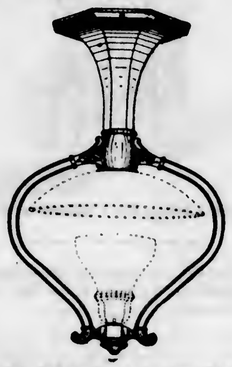
The ornamental design for a gas lamp, as shown.

45,462. PENDENT LAMP-FIXTURE. JOHN KIRBY, Jr., Dayton, Ohio, assignor to The Dayton Manufacturing Company, Dayton, Ohio. Filed Jan. 23, 1914. Serial No. 813,994. Term of patent 7 years.



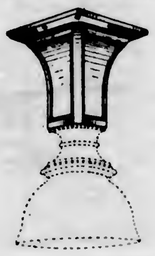
The ornamental design for a pendent lamp fixture, as shown and described.

45,463. HANGING LAMP-FIXTURE. JOHN KIRBY, Jr., Dayton, Ohio, assignor to The Dayton Manufacturing Company, Dayton, Ohio. Filed Jan. 23, 1914. Serial No. 813,995. Term of patent 7 years.



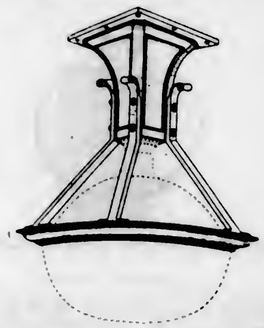
The ornamental design for a pendent lamp fixture, as shown and described.

45,464. DECK-LAMP FIXTURE. JOHN KIRBY, Jr., Dayton, Ohio, assignor to The Dayton Manufacturing Company, Dayton, Ohio. Filed Jan. 23, 1914. Serial No. 813,996. Term of patent 7 years.



The ornamental design for a pendent lamp fixture, as shown and described.

45,465. ELECTRIC-LAMP FIXTURE. JOHN KIRBY, Jr., Dayton, Ohio, assignor to The Dayton Manufacturing Company, Dayton, Ohio. Filed Jan. 23, 1914. Serial No. 813,997. Term of patent 7 years.



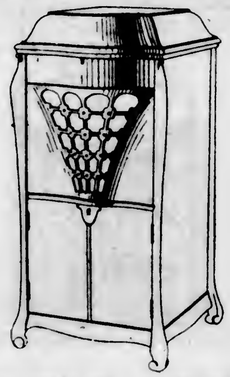
The ornamental design for a pendent lamp fixture, as shown and described.

45,466. CARPET. HENRY C. LACOUTURE, Arlington, N. J., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,366. Term of patent 7 years.



The ornamental design for a carpet, substantially as shown.

45,467. CABINET FOR TALKING-MACHINES. HARRY B. MCNULTY, Cleveland, Ohio. Filed Feb. 7, 1914. Serial No. 817,356. Term of patent 14 years.



The ornamental design for a cabinet for talking machines, as shown.



45,468. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,337. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,469. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,338. Term of patent 3½ years.



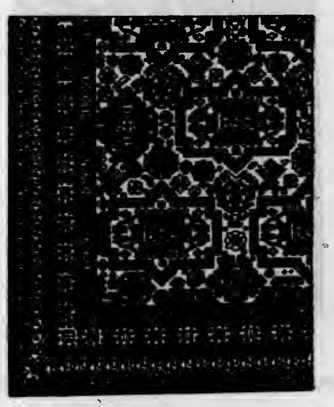
The ornamental design for a carpet, substantially as shown.

45,470. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,339. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,471. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,340. Term of patent 7 years.



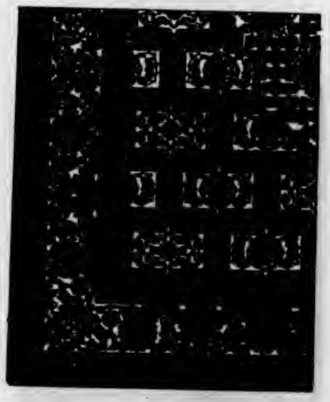
The ornamental design for a rug, substantially as shown.

45,472. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,341. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,473. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,342. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,474. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,343. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,475. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,344. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,476. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,345. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,477. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,346. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

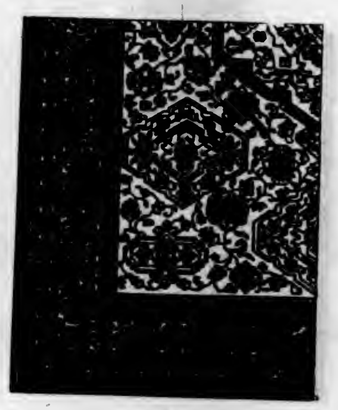
45,478. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,347. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

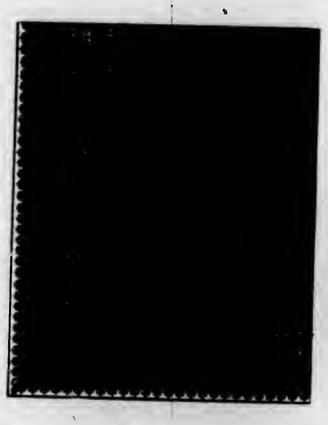


45,479. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,348. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,480. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,939. Term of patent 7 years.



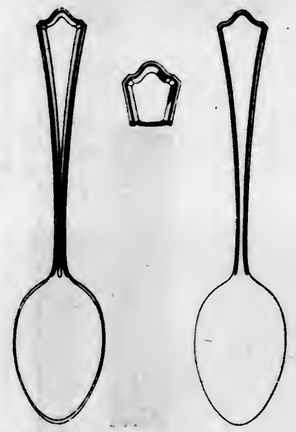
The ornamental design for a rug, substantially as shown.

45,481. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,940. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,482. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. CHARLES OSBORNE, New York, N. Y., assignor to Whiting Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Feb. 9, 1914. Serial No. 817,704. Term of patent 14 years.



The ornamental design for a handle for a spoon, fork or similar article, as shown.

45,483. CORNET. HOWARD EARLE PEPPER, Bala, Pa. Filed Feb. 17, 1913. Serial No. 749,047. Term of patent 14 years.



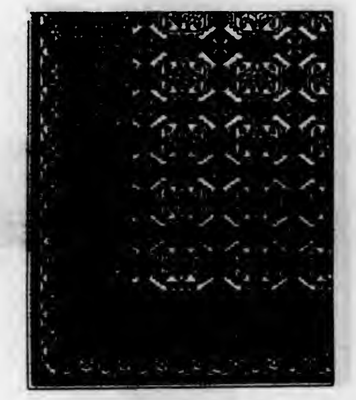
The ornamental design for a cornet, as shown.

45,484. CARPET. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,363. Term of patent 3½ years.



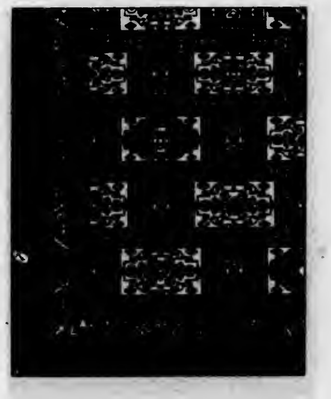
The ornamental design for a carpet, substantially as shown.

45,485. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,364. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,486. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,365. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.



45,487. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,927. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,488. PITCHER-TOP. ANDREW J. SANFORD, Newark, Ohio. Filed Jan. 16, 1911. Serial No. 603,021. Term of patent 14 years.



The ornamental design for a pitcher top, as shown.

45,489. PITCHER. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio. Filed Dec. 13, 1913. Serial No. 806,648. Term of patent 14 years.



The ornamental design for a pitcher as shown.

45,490. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,379. Term of patent 3½ years.



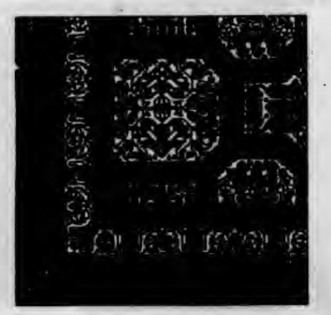
The ornamental design for a carpet, substantially as shown.

45,491. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,380. Term of patent 3½ years.



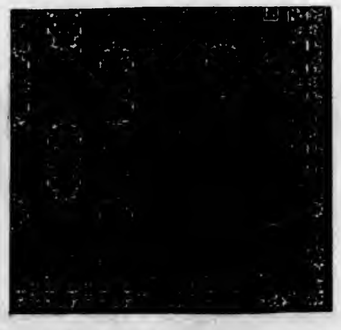
The ornamental design for a rug, substantially as shown.

45,492. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,381. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,493. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,382. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,494. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,377. Term of patent 7 years.



The ornamental design for a carpet, substantially as shown.

45,495. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,378. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,496. BUCKLE. WILLIAM A. SCHLEICHER, Cleveland, Ohio. Filed Mar. 11, 1912. Serial No. 683,105. Term of patent 14 years.



The ornamental design for a buckle, as shown.

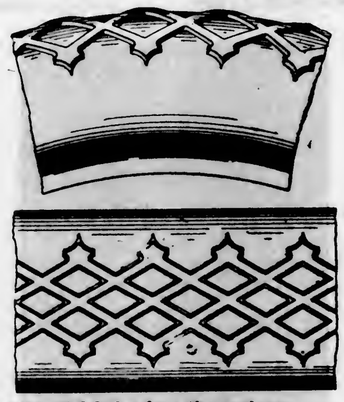
45,497. SOCK OR STOCKING. RICHARD E. SCHLETTER, Philadelphia, Pa. Filed Dec. 4, 1913. Serial No. 804,776. Term of patent 14 years.



The ornamental design for a sock or stocking as shown.



45,498. TIRE. HARRY R. SMITH, Lakewood, Ohio. Filed Aug. 27, 1913. Serial No. 787,038. Term of patent 7 years.



The ornamental design for a tire as shown.

45,499. HANDLE FOR ICE-PICKS. JOHN L. SOMMER, Newark, N. J. Filed Aug. 28, 1913. Serial No. 787,212. Term of patent 14 years.



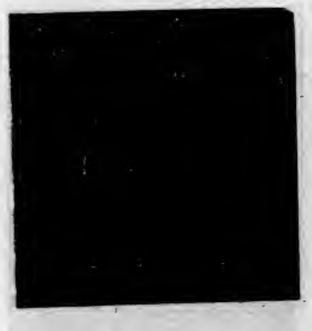
The ornamental design for a handle for ice-picks, as shown.

45,500. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,383. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,501. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,384. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,502. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,385. Term of patent 3½ years.



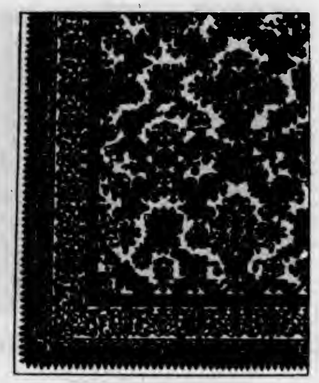
The ornamental design for a rug, substantially as shown.

45,503. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,358. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown

45,504. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,359. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,505. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,360. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,506. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,931. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

45,507. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,932. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,508. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,933. Term of patent 3½ years.



The ornamental design for a carpet, substantially as shown.

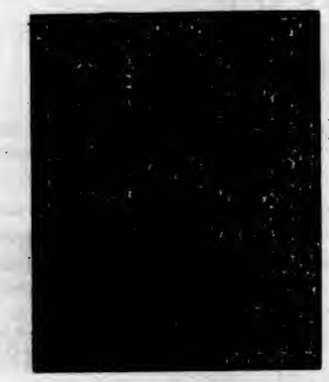
45,509. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,934. Term of patent 7 years.



The ornamental design for a rug, substantially as shown

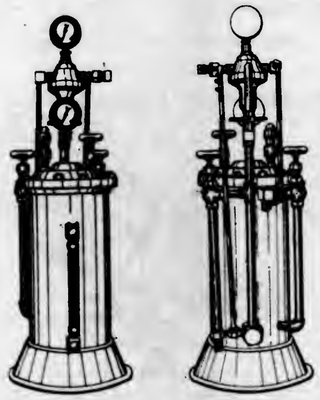


45,510. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,935. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,511. CARBONATOR. IMOGEN N. THOMAS, Troy, N. Y. Filed Oct. 5, 1912. Serial No. 724,224. Term of patent 14 years.



The ornamental design for a carbonator, as shown.

45,512. HANDLE FOR PIERCED SPOONS, FORKS, OR SIMILAR ARTICLES. RALPH C. THOMPSON, Attleboro, Mass. Filed Feb. 16, 1914. Serial No. 819,117. Term of patent 3½ years.



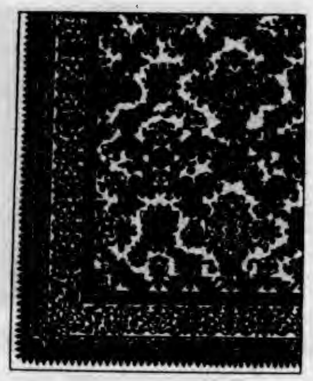
The ornamental design for a handle for a pierced spoon, fork or similar article, as shown.

45,513. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,938. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,504. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 3, 1914. Serial No. 816,359. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

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The ornamental design for a rug, substantially as shown.

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The ornamental design for a carpet, substantially as shown.

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The ornamental design for a carpet, substantially as shown.

45,509. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,934. Term of patent 7 years.



The ornamental design for a rug, substantially as shown

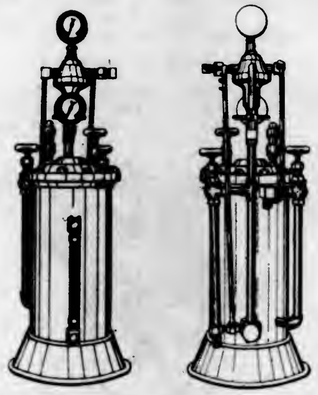


45,510. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,935. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

45,511. CARBONATOR. IMOGEN N. THOMAS, Troy, N. Y. Filed Oct. 5, 1912. Serial No. 724,224. Term of patent 14 years.



The ornamental design for a carbonator, as shown.

45,512. HANDLE FOR PIERCED SPOONS, FORKS, OR SIMILAR ARTICLES. RALPH C. THOMPSON, Attleboro, Mass. Filed Feb. 16, 1914. Serial No. 819,117. Term of patent 3½ years.



The ornamental design for a handle for a pierced spoon, fork or similar article, as shown.

45,513. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Feb. 10, 1914. Serial No. 817,938. Term of patent 3½ years.



The ornamental design for a rug, substantially as shown.

# TRADE-MARKS

## PUBLISHED MARCH 24, 1914.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 3,554. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EDSON, MOORE & Co., Detroit, Mich. Filed Apr. 29, 1905.

BLACK EAGLE

The trade-mark consists of the words "Black Eagle."

*Particular description of goods.*—Bleached and Unbleached Cotton Sheetings.

*Claims use* since the 1st day of October, 1900.

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Ser. No. 15,140. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE G. B. FARRINGTON COMPANY, New York, N. Y. Filed Dec. 2, 1905.



*Particular description of goods.*—Teas.

*Claims use* since about 1870.

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Ser. No. 38,307. (CLASS 6. ADHESIVES.) PETERS MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y. Filed Oct. 28, 1908.

TAIRMENDA

*Particular description of goods.*—Backing and Binding Cloth Containing Gutta-Percha and other Gums Suitable for the Mending, Repairing, and Reinforcing of Wearing-Apparel, Shoe-Leather, Hides, Skins, and Furs, Silks, Linens, Cottons, Woolens, Canvas, and other Fabrics.

*Claims use* since July 1, 1908.

Ser. No. 56,285. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed May 10, 1911.

FIVE O'CLOCK

*Particular description of goods.*—Biscuit.

*Claims use* since Jan. 9, 1886.

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Ser. No. 58,038. (CLASS 12. CONSTRUCTION MATERIALS.) THE UNION CLAY PRODUCTS COMPANY, New York, N. Y. Filed Aug. 4, 1911.

G-K

*Particular description of goods.*—A Compound in the Nature of Cementitious Material Used for Joining Together the Ends of Sewer-Pipes and other Pipes and for Closing Cracks and Joints in Such Pipes.

*Claims use* since September, 1910.

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Ser. No. 61,383. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. TROMMSDORFF, Aachen, Germany. Filed Feb. 9, 1912.

Mareodean

*Particular description of goods.*—Ointments to be Applied Externally for Human Medical Use, for Antiseptic and Astringent Use, Against Diseases of the Eyes, the Nose, and the Ears; and for Veterinary Use to be Applied Externally as an Antiseptic and Astringent in Diseases of the Eyes, Nose, and Ears; Plasters to be Applied Externally, Those for Human Medical Use Being Intended for the Treatment of Wounds, Burns, Corrosions, and Against Ulcers of the Leg, Indolent Ulcers, Ulcus Durum, Ulcus Tuberculosum, Ulcers of other Kinds, and Rheumatic Affections, and for Veterinary Use to be Applied in the Treatment of Burns, Wounds, and Corrosions; Tablets to be Applied Internally, Those Intended for Human Medical Use Against Diseases of the Nerves, the Heart, and the System of Blood Circulation, Including Veins and Arteries, Diseases of the Eyes, Against Syphilis in All Phases and Its Consequences, (Parasyphilis,) Neurasthenia, Anemia, and for Veterinary Use Against Diseases of the Heart and the System of the Blood Circulation, Including Veins and

Arteries; Suppositories to be Applied Externally, for Human Medical Use Against Hemorrhoidic Bleeding, Fissures, Prurigo, and for Veterinary Use Against Anal and Vaginal Diseases; Pills to be Applied Internally, for Human Medical Use Against Diseases of the Stomach and the Bowels, Diseases of the Liver and of the Bile, Affections of the Kidneys and the Bladder, Against Disturbed Metabolism, and for Veterinary Use to be Applied in the Treatment of All of the Diseases Heretofore Mentioned in the Preceding Part of This Sentence; Emulsions to be Applied Externally, for Human Medical Use Against Diseases of the Skin—Eczema, Mycotic Diseases of the Skin, Parasitic Processes, and Infections—and Against Pruritus and Prurigo, and for Veterinary Use to be Applied in the Treatment of the Diseases of the Skin, Such as Eczema, Mycotic Diseases of the Skin, Parasitic Processes, and Infections; Solutions to be Applied Externally, for Human Medical Use as Antiseptic Lotions, Poultices, and Dressings Against Acute and Chronical Inflammations, Wounds, and Ulcers of Every Kind and Against Women's Vaginal Diseases, Gonorrhea, and Soft Sores, and for Veterinary Use as an Antiseptic Lotion, Poultice, and Dressing Against Acute and Chronical Inflammations, Wounds, and Ulcers of Every Kind; Powders, for Human Medical Use Against Diseases of the Respiratory Organs, Diseases of the Ears, in Many Cases of Diseases of the Skin, as Well as for Dusting-Powder and Mixtures of the Same, and for Veterinary Use to be Applied in Cases Corresponding to Those Mentioned in the Preceding Part of This Sentence.

*Claims use* since Jan. 1, 1908.

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Ser. No. 63,492. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ALEX D. SHAW & Co., New York, N. Y. Filed May 11, 1912.



The trade-mark consists of a bottle-neck yoke to be placed upon a neck of a bottle.

*Particular description of goods.*—Brandy.

*Claims use* since Jan. 1, 1897.

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Ser. No. 64,775. (CLASS 7. CORDAGE.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mulheim-on-the-Rhine, Germany. Filed July 17, 1912.




*Particular description of goods.*—Cordage Comprising Cords and Ropes Composed of Hemp, Jute, Flax, and Similar Fibrous Vegetable Substances; Cables (Bare) and Wire Ropes.

*Claims use* since 1870.

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Ser. No. 64,786. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRAYSON OIL & COTTON CO., Sherman, Tex. Filed July 17, 1912.




*Particular description of goods.*—Cooking-Oil Made from Cotton-Seed Oil.

*Claims use* since Feb. 28, 1912.

Ser. No. 67,108. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEW YORK AND LONDON DRUG CO., New York, N. Y. Filed Nov. 25, 1912.

**HUSKEYS**

*Particular description of goods.*—Antiseptic Throat-Pastils.

*Claims use* since Oct. 1, 1912.

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Ser. No. 67,682. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) G. H. SCHOELLKOPF SADDLERY CO., Dallas, Tex. Filed Jan 2, 1913.

**JUMBO**

*Particular description of goods.*—Bridles, Lines, Collars, Breeching, Saddles, Traces, Back-Bands, Hame-Tugs, Halters, and Saddle-Blankets.

*Claims use* since about Jan. 1, 1902.

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Ser. No. 67,743. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARIUS BIONDY, Philadelphia, Pa. Filed Jan. 6, 1913.




*Particular description of goods.*—Toilet Powders, Toilet Lotions, Toilet Creams, Hair Restorers and Dressings.

*Claims use* since Dec. 16, 1912.

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Ser. No. 68,001. (CLASS 39. CLOTHING.) THE SEAMLESS RUBBER COMPANY, New Haven, Conn. Filed Jan. 18, 1913.




No claim being made to the words "New Haven, Conn.," or "The Seamless Rubber Company."

*Particular description of goods.*—Rubber Gloves and Rubber Mittens.

*Claims use* since January, 1911.

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Ser. No. 68,536. (CLASS 12. CONSTRUCTION MATERIALS.) JOHN D. PIERCE, Chicago, Ill. Filed Feb. 18, 1913.




No claim being made to the words "Strips That Wear at Cost That's Fair."

*Particular description of goods.*—Metal Weather-Strips for Doors and Windows.

*Claims use* since the 17th day of January, 1913.





Ser. No. 69,428. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) G. L. & W. L. HAGER, Weston, Mass. Filed Mar. 29, 1913.

**GRAYNFED**

*Particular description of goods.*—Eggs.

*Claims use* since Feb. 16, 1911.

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Ser. No. 69,475. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUIRK BROS., Seattle, Wash. Filed Mar. 31, 1913.

**FLA-VO-RA**

*Particular description of goods.*—Coffee.

*Claims use* since Mar. 14, 1913.

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Ser. No. 70,140. (CLASS 5. ADHESIVES.) THE ORIGINAL PUNCTUREFIX COMPANY, Marion, Ohio. Filed Apr. 30, 1913.



*Particular description of goods.*—A Filling Composition for Pneumatic Tires.

*Claims use* since Feb. 1, 1913.

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Ser. No. 70,148. (CLASS 39. CLOTHING.) COOPER & JOHNSON, Kenosha, Wis. Filed May 1, 1913.

**K. K.**

*Particular description of goods.*—Knitted and Textile Underwear — Namely, Men's Union Suits, Men's Knit Union Suits, Men's Woven Union Suits, Men's Pajamas, Men's Sleeping-Garments; Women's Union Suits, Women's Knit Union Suits, Women's Woven Union Suits, Women's Knit Tights, Women's Sleeping-Garments; Children's Union Suits, Children's Sleeping-Garments, Children's Knit Union Suits, Children's Woven Union Suits, Children's Drawers; Men's, Women's, and Children's Union Suits of Any Kind Made from a Textile Fabric; Ladies' Drawers, Women's Equestrienne-Tights, and Infants' Leggings.

*Claims use* since Nov. 2, 1912.

Ser. No. 70,255. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT G. THOMAS, New York, N. Y. Filed May 5, 1913.

**HI-MOUNT**

*Particular description of goods.*—Coffee.

*Claims use* since Apr. 1, 1913.

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Ser. No. 70,496. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FLORENCE NETTER NEWFELD, New York, N. Y. Filed May 19, 1913.




The picture is fanciful, no claim being made to the exclusive use of the words "Brand," "Boneless Sardines in Olive Oil," and "Portugal."

*Particular description of goods.*—Canned Sardines.

*Claims use* since about May, 1906.

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Ser. No. 70,789. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ILLINOIS IRON & BOLT CO., Carpentersville, Ill. Filed May 31, 1913.




No claim being made to the word "Brand."

*Particular description of goods.*—Springs for Vehicles other Than Automobiles.

*Claims use* since Jan. 11, 1913.

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Ser. No. 70,874. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) GEORGE H. DONAH & Co., Lake Placid, N. Y. Filed June 5, 1913.



*Particular description of goods.*—Washing-Paste.

*Claims use* since May 15, 1913.

Ser. No. 71,103. (CLASS 12. CONSTRUCTION MATERIALS.) GENERAL ROOFING MANUFACTURING CO., East St. Louis, Ill. Filed June 14, 1913.

COMPO

*Particular description of goods.*—Deadening-Felt, Building-Paper, Roofing-Felt, Ready-Roofing, and Roofing-Paper.
*Claims use* since September, 1908.

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Ser. No. 71,402. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CELESTINO FERNANDEZ & SONS, New York, N. Y., and Habana, Cuba. Filed June 27, 1913.




A representation of the building known as "El Nacional" (situated on San Jose, Prado, Consulado, and San Rafael streets, Habana, Cuba) and the words "El Nacional."
*Particular description of goods.*—Toilet-Pins.
*Claims use* since June 1, 1913.

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Ser. No. 71,592. (CLASS 5. ADHESIVES.) RUDOLF ARNDT, DEXTRINFABRIK IN NEUDAMM, Neudamm, Germany. Filed July 8, 1913. Under ten-year proviso.




*Particular description of goods.*—Dextrin and Soluble Starches.
*Claims use* since Jan. 10, 1895.

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Ser. No. 71,613. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. W. CHURCHILL, Proctor, Vt. Filed July 9, 1913.

CAMPHO

*Particular description of goods.*—A Preparation for the Treatment of Toothache.
*Claims use* since Feb. 4, 1913.

Ser. No. 71,640. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) OLIVER'S SPORTING GOODS HOUSE, Philadelphia, Pa. Filed July 10, 1913.

USAFA

*Particular description of goods.*—Base-Balls, Basket-Balls, Push-Balls, Hand-Balls, Foot-Balls, Medicine-Balls, Squash-Balls, and Tennis-Balls.
*Claims use* since about June 23, 1913.

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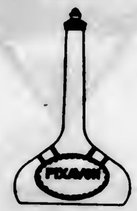
Ser. No. 71,828. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER KERN COMPANY, INC., Knoxville, Tenn. Filed July 18, 1913.




*Particular description of goods.*—Fruit Cakes.
*Claims use* since Nov. 12, 1912.

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Ser. No. 71,860. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LINGNER-WERKE AKTIENGESELLSCHAFT, Dresden, Germany. Filed July 19, 1913.




*Particular description of goods.*—Solid Soap, Liquid Soap, and Powdered Soap.
*Claims use* since Oct. 22, 1907.

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Ser. No. 72,188. (CLASS 2. RECEPTACLES.) ANNA JARVIS, Philadelphia, Pa. Filed Aug. 6, 1913.

Mother's Day

*Particular description of goods.*—Cartons, Boxes, and Receptacle-Bags.
*Claims use* since about May, 1913.

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Ser. No. 72,192. (CLASS 15. OILS AND GREASES.) MARKHAM, SONS & CO., LIMITED, Derby, England. Filed Aug. 6, 1913.

MULTINOL

*Particular description of goods.*—Lubricating-Oil.
*Claims use* since June 9, 1909.





Ser. No. 72,203. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE GREAT WESTERN POTTERY CO., Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 7, 1913.

DEVORO

*Particular description of goods.*—Water-Closet Bowls and Tanks.
*Claims use* since September, 1910.

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Ser. No. 72,348. (CLASS 15. OILS AND GREASES.) THE DE LAVAL SEPARATOR COMPANY, Jersey City, N. J., and New York, N. Y. Filed Aug. 15, 1913.

CENTRIFUGALLY
DE LAVAL
OIL
CLARIFIED & FILTERED

No claim is made to the exclusive use of the phrases "Centrifugally Clarified & Filtered" and "De Laval Oil."
*Particular description of goods.*—Fluid Lubricating-Oil.
*Claims use* since July 28, 1913.

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Ser. No. 72,370. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE W. WALSH, Roslindale, Mass. Filed Aug. 15, 1913.




No claim being made to the words "The," "Baby," and "Food."
*Particular description of goods.*—Soluble Food for Infants, Invalids, and Delicate Persons.
*Claims use* since about June 14, 1913.

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Ser. No. 72,434. (CLASS 38. PRINTS AND PUBLICATIONS.) GREELEY SQUARE HOTEL COMPANY, New York, N. Y. Filed Aug. 20, 1913.

Pibroch

*Particular description of goods.*—A Monthly Periodical.
*Claims use* since April, 1913.

Ser. No. 72,649. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. J. VAN HOUTEN & ZOON, Weesp, Netherlands, and New York, N. Y. Filed Sept. 2, 1913.




*Particular description of goods.*—Cocoa.
*Claims use* since December, 1912.

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Ser. No. 72,786. (CLASS 12. CONSTRUCTION MATERIALS.) MARBLEHEAD LIME COMPANY, Chicago, Ill. Filed Sept. 11, 1913.



*Particular description of goods.*—Lime.
*Claims use* since Aug. 25, 1911.

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Ser. No. 72,998. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED CIGAR STORES COMPANY, Jersey City, N. J. Filed Sept. 22, 1913.

Beaux-Arts

*Particular description of goods.*—Candies.
*Claims use* since Sept. 19, 1913.

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Ser. No. 73,174. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE C. F. NARWOLD CO., Cleveland, Ohio. Filed Oct. 2, 1913.

PEANOCKLES

*Particular description of goods.*—Candy.
*Claims use* since April, 1913.

Ser. No. 73,214. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GALBAN & Co., INC., New York, N. Y. Filed Oct. 4, 1913.

S.AGUSTIN

The word "S. Agustin."
*Particular description of goods.*—Sugar.
*Claims use* since the year of 1900.

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Ser. No. 73,313. (CLASS 39. CLOTHING.) LEOPOLD MORSE COMPANY, Boston, Mass. Filed Oct. 11, 1913.




The words "Clothes," "Boston," "Leopold Morse Company" being disclaimed.
*Particular description of goods.*—Men's, Youths', and Boys' Suits and Overcoats.
*Claims use* since July 1, 1913.

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Ser. No. 73,359. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) K. & E. NEUMOND, New Orleans, La. Filed Oct. 14, 1913.



*Particular description of goods.*—Brewers' Grain.
*Claims use* since 1906.

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Ser. No. 73,372. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BUFFALO CEREAL COMPANY, Buffalo, N. Y. Filed Oct. 15, 1913.

IROQUOIS

*Particular description of goods.*—Stock and Poultry Foods.
*Claims use* since Feb. 1, 1913.

Ser. No. 73,701. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) THE SCHAEFER TENT & AWNING CO., Denver, Colo. Filed Oct. 30, 1913.

"RED SEAL"



No claim being made to the symbol of an awning.
*Particular description of goods.*—Tents and Awnings.
*Claims use* since the 15th day of September, 1913.

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Ser. No. 73,821. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTH ONTARIO PACKING COMPANY, Los Angeles, Cal. Filed Nov. 5, 1913.

COMMANDER

*Particular description of goods.*—Dried Fruits and Raisins.
*Claims use* since 1897.

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Ser. No. 73,849. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STONE-ORDEAN-WELLS COMPANY, Duluth, Minn. Filed Nov. 7, 1913.

UZAR

*Particular description of goods.*—Coffee and Tea.
*Claims use* since Oct. 16, 1913.

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Ser. No. 74,083. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ORA O. MILLAR, Fort Bragg, Cal. Filed Nov. 19, 1913.



*Particular description of goods.*—Ground Herbs and Seeds for Flavoring Cooked Dishes.
*Claims use* since Oct. 21, 1913.

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Ser. No. 74,173. (CLASS 39. CLOTHING.) SHAW & HOWARD, Oakland, Cal. Filed Nov. 24, 1913.




*Particular description of goods.*—Children's Rompers and Overalls.
*Claims use* since Nov. 18, 1913.





Ser. No. 74,371. (CLASS 2. RECEPTACLES.) CHARLES H. STEPHENSON, Lynn, Mass. Filed Dec. 4, 1913.



*Particular description of goods.*—Garbage and Refuse Receptacles.
*Claims use* since on or about July 15, 1912.

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Ser. No. 74,492. (CLASS 10. FERTILIZERS.) RICHARD WHITAKER GAMBLE, Norfolk, Va. Filed Dec. 10, 1913.

VITHUMUS

*Particular description of goods.*—A Material for Treatment of the Soil to Promote Fertility.
*Claims use* since Nov. 25, 1913.

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Ser. No. 74,504. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CECIL BILLUPS, Norfolk, Va. Filed Dec. 11, 1913.

A

The "A" constituting said trade-mark is not used to designate grade or quality.
*Particular description of goods.*—Plows, Moldboards, Landsides, Points, and Plow-Beams.
*Claims use* since and during the year 1875.

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Ser. No. 74,517. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HEKTOGRAPH MFG. & DUPLICATING CO., New York, N. Y. Filed Dec. 11, 1913. Under ten-year proviso.

HEKTOGRAPH

*Particular description of goods.*—Duplicating Apparatus.
*Claims use* since the year 1880.

Ser. No. 74,524. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) Q. R. S. COMPANY, Chicago, Ill. Filed Dec. 11, 1913.

Q·R·S

*Particular description of goods.*—Perforated Note-Sheets for Automatic Musical Instruments.
*Claims use* since Apr. 28, 1909.

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Ser. No. 74,549. (CLASS 38. PRINTS AND PUBLICATIONS.) NATIONAL ART PUBLISHING CO., Elmira, N. Y. Filed Dec. 12, 1913.




No claim being made to the words "Distinctive Quality Cards."
*Particular description of goods.*—Booklets, Folders, Printed and Embossed Cards, Post-Cards, Art-Calendars, Printed and Embossed Tags, Seal-Labels for Christmas and other Occasions, Printed and Embossed Fancy-Style Sentiment-Letters.
*Claims use* since June 1, 1913.

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Ser. No. 74,559. (CLASS 10. FERTILIZERS.) BOWKER FERTILIZER CO., New York, N. Y. Filed Dec. 13, 1913. Under ten-year proviso.

SURE CROP

*Particular description of goods.*—Fertilizers.
*Claims use* since Jan. 1, 1887.

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Ser. No. 74,569. (CLASS 39. CLOTHING.) FOWNES BROTHERS & Co., London, England, and New York and Gloversville, N. Y. Filed Dec. 13, 1913.

DOETTE

*Particular description of goods.*—Gloves.
*Claims use* since Oct. 15, 1913.

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Ser. No. 74,572. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FORSTER MANUFACTURING COMPANY, Oakland, Me. Filed Dec. 13, 1913.



*Particular description of goods.*—Toothpicks.
*Claims use* since Jan. 1, 1906.

Ser. No. 74,591. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES PYLE & SONS, Edgewater, N. J. Filed Dec. 13, 1913. Under ten-year proviso.




*Particular description of goods.*—Washing-Powder.
*Claims use* since 1891.

Ser. No. 74,601. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) ERICH WAHLISS, Vienna, Austria-Hungary. Filed Dec. 13, 1913.




The name "Wahliss" being in the handwriting of Erich Wahliss.
*Particular description of goods.*—Ceramics, Crockery, Porcelain, and Earthenware.
*Claims use* since June 4, 1901.

Ser. No. 74,614. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) T. B. KEY CO., San Francisco, Cal. Filed Dec. 15, 1913.



*Particular description of goods.*—A Remedy for Rheumatism, Syphilis, Bright's Disease, Paralysis, and Urinary and Bladder Trouble.
*Claims use* since Apr. 1, 1913.

Ser. No. 74,634. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOHN H. HAMLIN, Salt Lake City, Utah. Filed Dec. 16, 1913.




The word "Imp" colored green and the devils in red.
*Particular description of goods.*—Dry and Ready-Mixed Paints; Japans; Varnishes; Calcimine, and Water-Paints.
*Claims use* since Aug. 1, 1909.

Ser. No. 74,646. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IRVING A. SILBERMAN, New York, N. Y. Filed Dec. 16, 1913.




*Particular description of goods.*—Candies.
*Claims use* since Dec. 17, 1912.

Ser. No. 74,671. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE GLOBE MANUFACTURING CO., Peoria, Ill. Filed Dec. 18, 1913.



Said trade-mark includes the representation of a bucket with a brush thereover having paint dripping therefrom, a portion of the brush, the dripping paint, and the contents of the bucket being red in color.
*Particular description of goods.*—Paints—Dry, Paste, and Ready-Mixed—and Varnishes.
*Claims use* since on or before the 1st day of September, 1911.

Ser. No. 74,851. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GENERAL OPTICAL COMPANY, INC., New York, N. Y. Filed Dec. 26, 1913.



*Particular description of goods.*—Instruments and Appliances Constructed of Metal and Glass Used by Oculists for Examination and Treatment of the Eyes, Which Instruments and Appliances Consist of Ophthalmometers, Ophthalmoscopes, Photometers, Perimeters.
*Claims use* since Apr. 24, 1913.





Ser. No. 75,036. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MASTER CARBURETER COMPANY, Los Angeles, Cal. Filed Jan. 8, 1914.

MASTER

*Particular description of goods.*—Carbureters.
*Claims use* since Apr. 26, 1913.

Ser. No. 75,059. (CLASS 39. CLOTHING.) MOORHEAD & JARDINE CO., New York, N. Y. Filed Jan. 9, 1914.




No claim is made herein to the exclusive use of word "Jardine."
*Particular description of goods.*—Hats, Caps, Bonnets, and Hoods.
*Claims use* since Dec. 1, 1912.

Ser. No. 75,082. (CLASS 39. CLOTHING.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Jan. 10, 1914.

STALWART

*Particular description of goods.*—Men's and Boys' Overalls, Trousers, and Working-Coats.
*Claims use* since about Oct. 20, 1913.

Ser. No. 75,163. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CONVERSE & COMPANY, New York, N. Y. Filed Jan. 14, 1914. Under ten-year proviso.

MONARCH

*Particular description of goods.*—Bleached Cotton Shirtings.
*Claims use* since prior to the year 1895.

Ser. No. 75,185. (CLASS 37. PAPER AND STATIONERY.) MARCUS WARD COMPANY, Brooklyn, N. Y. Filed Jan. 14, 1914.

Votes for Women

*Particular description of goods.*—Paper for Writing and Printing Purposes, Envelops, Writing-Tablets, and Drawing-Tablets.
*Claims use* since Dec. 26, 1913.

Ser. No. 75,188. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Jan. 15, 1914.

Bull in a China Shop

*Particular description of goods.*—Games.
*Claims use* since Jan. 26, 1906.

Ser. No. 75,191. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Jan. 15, 1914.

LITTLE FOLKS

*Particular description of goods.*—Games.
*Claims use* since Feb. 25, 1902.

Ser. No. 75,207. (CLASS 48. MALT EXTRACTS AND LIQUORS.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Malt Extract and Malt Liquor.
*Claims use* since Nov. 10, 1913.

Ser. No. 75,209. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Brandy, Whisky, and Cognac.
*Claims use* since Nov. 10, 1913.

Ser. No. 75,211. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Soda-Water, Grape-Juice, and Root-Beer.
*Claims use* since Nov. 10, 1913.

Ser. No. 75,212. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ASHBEL J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Steel Table-Knives, Pocket-Knives, and Scissors for General Use.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,229. (CLASS 15. OILS AND GREASES.) EDWARD J. KNAPP CANDLE CO., Syracuse, N. Y. Filed Jan. 16, 1914.

IMMACULATA BRAND

Applicant makes no claim to the word "Brand."
*Particular description of goods.*—Candles.
*Claims use* since Dec. 1, 1913.

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Ser. No. 75,244. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BELL & CO. INC., Orangeburg, N. Y. Filed Jan. 17, 1914.

BELANS

*Particular description of goods.*—A Medicinal Remedy for the Treatment of Indigestion.
*Claims use* since Jan. 12, 1914.

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Ser. No. 75,264. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA A. PARKER, Shelbyville, Tenn. Filed Jan. 17, 1914.

20TH CENTURY REMEDY

No claim being made to the word "Remedy" as a technical trade-mark.
*Particular description of goods.*—A Remedy for Eye Diseases.
*Claims use* since the 25th day of November, 1913.

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Ser. No. 75,298. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAURICE F. SCHLESINGER, New York, N. Y. Filed Jan. 19, 1914.

AQUANOL

*Particular description of goods.*—An Oil for Use in the Treatment of Intestinal Stasis, Auto-Intoxication, Chronic Constipation, for Internal Administration, and as a Spray for the Nose and Throat.
*Claims use* since Jan. 1, 1913.

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Ser. No. 75,304. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) VALENTINE & COMPANY, New York, N. Y. Filed Jan. 19, 1914.

VALSPAR

*Particular description of goods.*—Enamels, Ready-Mixed Paints, Varnishes, and Varnish-Removers.
*Claims use* since May 7, 1907.

Ser. No. 75,327. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. FLINT MEDICINE COMPANY, New York, N. Y. Filed Jan. 21, 1914.

PULMONOL

*Particular description of goods.*—A Remedy for Diseases of the Throat and Lungs and for a Blood-Tonic.
*Claims use* since July 1, 1903.

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Ser. No. 75,342. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) ADOLPH A. RACKOFF, New York, N. Y. Filed Jan. 21, 1914.

"WIZARD"

*Particular description of goods.*—Brushes and Mops.
*Claims use* since Jan. 12, 1914.

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Ser. No. 75,346. (CLASS 15. OILS AND GREASES.) G. F. WHITNEY COMPANY, Boston, Mass. Filed Jan. 21, 1914.

MARATHON

*Particular description of goods.*—Lubricating-Oils and Lubricating-Greases.
*Claims use* since Oct. 1, 1910.

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Ser. No. 75,424. (CLASS 23. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN ROTOGRAPH CO., Syracuse, N. Y. Filed Jan. 26, 1914.

ARCO

*Particular description of goods.*—Motion-Picture Photo-Plays.
*Claims use* since Oct. 1, 1913.





Ser. No. 75,434. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

16

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,436. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

21

*Particular description of goods.*—Writing-Paper.
*Claims use* since Jan. 1, 1884.

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Ser. No. 75,437. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

25

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,438. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

29

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

Ser. No. 75,468. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Jan. 26, 1914.

ZYLEX

*Particular description of goods.*—Prepared Roofings Consisting of a Fabric Treated with a Bituminous Mixture and Also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,553. (CLASS 39. CLOTHING.) THOMAS G. PLANT COMPANY, Boston, Mass. Filed Jan. 30, 1914.

Queen Quality

*Particular description of goods.*—Boots, Shoes, and Slippers of Leather, Rubber, Felt, Silk, and Cloth.
*Claims use* since about the 1st of February, 1898.

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Ser. No. 75,576. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE JEFFREY MANUFACTURING COMPANY, Columbus, Ohio. Filed Jan. 31, 1914.

ARMOR PLATE

*Particular description of goods.*—Electrical Mining-Locomotives.
*Claims use* since February, 1913.

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Ser. No. 75,586. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELSON, BAKER & Co., Detroit, Mich. Filed Jan. 31, 1914.

CREOSOTIDE

*Particular description of goods.*—Vulneraries.
*Claims use* since Mar. 1, 1900.

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Ser. No. 75,614. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Feb. 2, 1914.

BOOSTER

*Particular description of goods.*—Internal-Combustion Engines and Parts Thereof.
*Claims use* since Jan. 27, 1914.

Ser. No. 75,616. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSALIE S. KOWALSKI, Vallejo, Cal. Filed Feb. 2, 1914.



KOWALSKI

The portrait being that of applicant.
*Particular description of goods.*—Liniment.
*Claims use* since Nov. 1, 1913.

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Ser. No. 75,700. (CLASS 39. CLOTHING.) THEOPHILUS R. EMERSON, New York, N. Y. Filed Feb. 5, 1914.

Fremson

*Particular description of goods.*—Leather Shoes for Men, Women, and Children.
*Claims use* since about Jan. 1, 1914.

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Ser. No. 75,702. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) WM. R. GRATZ IMPORT CO., New York, N. Y. Filed Feb. 5, 1914.

La Primadora

*Particular description of goods.*—Strings for Musical Instruments.
*Claims use* since Jan. 1, 1912.

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Ser. No. 75,715. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) A. J. REACH COMPANY, Philadelphia, Pa. Filed Feb. 5, 1914.

GRABALL

*Particular description of goods.*—Base-Ball Gloves and Mitts.
*Claims use* since Apr. 9, 1912.

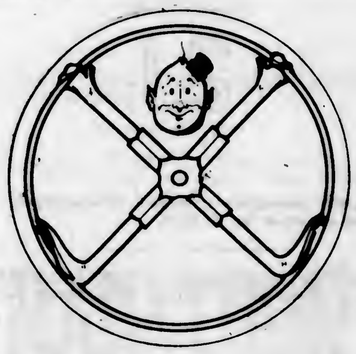
Ser. No. 75,726. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GENERAL DEHYDRATOR COMPANY, New York, N. Y. Filed Feb. 6, 1914.

"Dryventor"

*Particular description of goods.*—Dehydrating Machinery.
*Claims use* since July 10, 1913.

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Ser. No. 75,753. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BILL DEBEY COMPANY, Boston, Mass. Filed Feb. 7, 1914.



*Particular description of goods.*—Construction Members.
*Claims use* since Jan. 10, 1914.

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Ser. No. 75,767. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE MONARCH REFILLABLE FUSE CO., Buffalo, N. Y. Filed Feb. 7, 1914.

MONARCH

*Particular description of goods.*—Electrical Fuses.
*Claims use* since Jan. 5, 1911.

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Ser. No. 75,770. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ST. LOUIS RUBBER MANUFACTURING COMPANY, St. Louis, Mo. Filed Feb. 6, 1914.

Hydromatic

*Particular description of goods.*—Flushing Devices for Waste-Pipes.
*Claims use* since about Nov. 18, 1913.





Ser. No. 75,823. (CLASS 39. CLOTHING.) KAHN & FRANK, New York, N. Y. Filed Feb. 10, 1914.

Hanna Ford

*Particular description of goods.*—Underwear.
*Claims use* since Oct. 1, 1913.

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Ser. No. 75,828. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SOUTHERN WELL WORKS CO., Chattanooga, Tenn. Filed Feb. 10, 1914.

MOGUL

*Particular description of goods.*—Well-Drilling Machines, Well-Pumps, Rotary Well-Pipe Swivels, Hoisting-Blocks, and Hoisting-Drums, All in Well Machines or Apparatus.
*Claims use* since May, 1911, on well-drilling machines and since October, 1912, on the other articles specified.

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Ser. No. 75,835. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. WIMPFHEIMER & BRO., New York, N. Y. Filed Feb. 10, 1914.

Golfette

*Particular description of goods.*—Pile Fabrics, Plushes, and Velvets.
*Claims use* since the 5th day of January, 1914.

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Ser. No. 75,888. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Feb. 13, 1914.

GIANT

*Particular description of goods.*—Mowers and Parts Thereof.
*Claims use* since 1885.

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Ser. No. 75,929. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CHICAGO STEEL TAPE COMPANY, Chicago, Ill., and La Crosse, Wis. Filed Feb. 16, 1914.



*Particular description of goods.*—Field-Engineers', Surveyors', Road and Highway Engineers' Supplies—viz., Steel Tapes, Leveling-Rods, Slope-Stakers, Rod-Ribbons, Lining-Poles, Targets, Metal and Wooden Reels, Marking-Pins, Quivers, and Tape-Repairers.
*Claims use* since the early part of 1900.

Ser. No. 75,951. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH SCHAEFFERS, Cleveland, Ohio. Filed Feb. 16, 1914.

F. H. W.

*Particular description of goods.*—Ball-Bearings.
*Claims use* since May 1, 1913.

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Ser. No. 76,032. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) DAVID HEILBRON & SONS, Glasgow, Scotland. Filed Feb. 19, 1914.



*Particular description of goods.*—Whisky.
*Claims use* since Sept. 1, 1913.

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Ser. No. 76,056. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JETTER BREWING COMPANY, South Omaha, Nebr. Filed Feb. 20, 1914.

EXPERT

*Particular description of goods.*—Beer.
*Claims use* since Dec. 23, 1913.

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Ser. No. 76,111. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Feb. 24, 1914.

TITAN

*Particular description of goods.*—Internal-Combustion Engines and Parts Thereof.
*Claims use* since Jan. 1, 1910.

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Ser. No. 76,173. (CLASS 43. THREAD AND YARN.) DEXTER YARN COMPANY, Pawtucket, R. I. Filed Feb. 26, 1914.

WAFLOWEAVE

*Particular description of goods.*—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
*Claims use* since Feb. 17, 1914.

Ser. No. 76,183. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill. Filed Feb. 26, 1914.

MOGUL

*Particular description of goods.*—Internal-Combustion Engines and Parts Thereof.
*Claims use* since Jan. 1, 1910.

Ser. No. 76,283. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) LIEBENTHAL BROS. & CO., Cleveland, Ohio. Filed Mar. 2, 1914.

Celrin

*Particular description of goods.*—A Beverage Consisting Principally of Celery and Gin.
*Claims use* since Feb. 27, 1914.

[Vol. 200. No. 4.]



# TRADE-MARKS

## REGISTERED MARCH 24, 1914.

95,859. LIQUOR. DITTA GIUSEPPE ALBERTI, Benevento, Italy.
Filed September 9, 1913. Serial No. 72,740. PUBLISHED JANUARY 20, 1914.

95,860. PASTE, GLUE, AND CEMENT. AMERICAN CEMENT COMPANY, Rockville, Conn.
Filed September 25, 1913. Serial No. 73,033. PUBLISHED JANUARY 20, 1914.

95,861. CERTAIN NAMED OPTICAL GOODS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed December 7, 1912. Serial No. 67,293. PUBLISHED JANUARY 20, 1914.

95,862. TOILET-BRUSHES. THE ARCHERY CO. INC., Glens Falls, N. Y.
Filed December 11, 1913. Serial No. 74,500. PUBLISHED JANUARY 20, 1914.

95,863. RYE, WHEAT, AND BUCKWHEAT FLOUR. BARBER & BENNETT, Albany, N. Y.
Filed October 25, 1913. Serial No. 73,596. PUBLISHED JANUARY 20, 1914.

95,864. TOOTH-BRUSHES. HENRY BARNES, Cleveland, Ohio.
Filed November 28, 1913. Serial No. 74,228. PUBLISHED JANUARY 20, 1914.

95,865. PREPARED ROOFINGS IN WHICH THE WATERPROOF AGENT IS TAR OR ASPHALT. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed March 22, 1912. Serial No. 62,344. PUBLISHED JANUARY 20, 1914.

95,866. CHAINS. H. F. BARROWS & COMPANY, North Attleboro, Mass.
Filed April 30, 1912. Serial No. 63,215. PUBLISHED AUGUST 12, 1913.

95,867. COFFEE, RICE, TEA, AND PEANUTS. BAYLESS COFFEE AND SPICE MILLS, Lexington, Ky.
Filed July 14, 1913. Serial No. 71,677. PUBLISHED JANUARY 20, 1914.

95,868. CANDY. PAUL F. BEICH COMPANY, Bloomington, Ill.
Filed November 3, 1913. Serial No. 73,771. PUBLISHED JANUARY 20, 1914.

95,869. MILK. THE BELLE VERNON MAPES DAIRY COMPANY, Cleveland, Ohio.
Filed May 5, 1913. Serial No. 70,230. PUBLISHED JANUARY 20, 1914.

95,870. PLAYING-CARD. LOUIS RODNEY BERG, New York, N. Y.
Filed October 4, 1913. Serial No. 73,203. PUBLISHED JANUARY 20, 1914.

95,871. KNIT GOODS—NAMELY, JACKETS, SWEATERS, ARMLETS, LEGGINGS, MITTENS, GLOVES, BATHING-SUITS, AND UNDERSHIRTS. ADOLPH BERGMAN, Philadelphia, Pa.
Filed November 29, 1913. Serial No. 74,245. PUBLISHED JANUARY 20, 1914.

95,872. MINCE-PIE FILLING, FRUIT PRESERVES, APPLE-BUTTER, AND FRUIT JELLY. BEST-CLYMER MFG. CO., St. Louis, Mo.
Filed November 3, 1913. Serial No. 73,762. PUBLISHED JANUARY 20, 1914.

95,873. LEATHER SHOES. BEST & COMPANY, New York, N. Y.
Filed June 25, 1913. Serial No. 71,350. PUBLISHED JANUARY 20, 1914.

95,874. COFFEE. L. H. BISHOFF, Braddock, Pa.
Filed July 24, 1913. Serial No. 71,934. PUBLISHED JANUARY 13, 1914.

95,875. SPICES. C. F. BLANKE TEA & COFFEE COMPANY, St. Louis, Mo.
Filed April 28, 1913. Serial No. 70,086. PUBLISHED JUNE 17, 1913.

95,876. BUCKWHEAT-FLOUR AND BUCKWHEAT PRODUCTS. THE BLODGETT MILLING CO., Janesville, Wis.
Filed July 24, 1913. Serial No. 71,933. PUBLISHED JANUARY 20, 1914.

95,877. LEMONADE, LIMEADE, ORANGEADE, CHERRY-ADE, AND THE LIKE. BOA-LIE GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Charlottenburg, Germany.
Filed September 17, 1912. Serial No. 65,835. PUBLISHED JANUARY 20, 1914.

95,878. WHEAT-FLOUR. BOGERT & GREENBANK, New York, N. Y.
Filed November 29, 1913. Serial No. 74,246. PUBLISHED JANUARY 20, 1914.

95,879. CERTAIN NAMED TOYS COMPOSED WHOLLY OR IN PART OF PYROXYLIN. GEO. BORGFELDT & CO., New York, N. Y.
Filed November 8, 1913. Serial No. 73,863. PUBLISHED JANUARY 20, 1914.

95,880. CERTAIN NAMED GAMES AND TOYS. GEO. BORGFELDT & CO., New York, N. Y.
Filed November 8, 1913. Serial No. 73,864. PUBLISHED JANUARY 20, 1914.

95,881. ENAMELED WARE. GEO. BORGFELDT & CO., New York, N. Y.
Filed December 9, 1913. Serial No. 74,459. PUBLISHED JANUARY 20, 1914.

95,882. HOSIERY. MAY BORMANN, New York, N. Y.
Filed October 25, 1913. Serial No. 73,597. PUBLISHED JANUARY 20, 1914.

95,883. ARTICLES OF CLOTHING. BOY SCOUTS OF AMERICA, New York, N. Y.
Filed November 23, 1912. Serial No. 67,079. PUBLISHED JANUARY 20, 1914.

95,884. LEATHER SHOES. BROWN SHOE COMPANY, INC., St. Louis, Mo.
Filed November 20, 1913. Serial No. 74,089. PUBLISHED JANUARY 20, 1914.

95,885. COMPOSITION COMPOSED OF COTTON-SEED OIL, OLEO-STEARIN, AND PURE LARD. CHARLES H. BRUNIER, Baltimore, Md.
Filed November 19, 1913. Serial No. 74,071. PUBLISHED JANUARY 20, 1914.

95,886. EGG SUBSTITUTE. THE CABELL COMPANY, Baltimore, Md.
Filed November 25, 1913. Serial No. 74,182. PUBLISHED JANUARY 20, 1914.

95,887. WATER-CLOSETS, BATH-TUBS, SINKS, LAVATORIES, SHOWERS, AND WASHSTANDS. CAHILL, SWIFT MFG. CO., St. Louis, Mo.
Filed November 15, 1913. Serial No. 74,012. PUBLISHED JANUARY 20, 1914.

95,888. FOOD COMPOSED OF RICE. THE CAUSEWAY RICE CO., Houston, Tex.
Filed December 12, 1912. Serial No. 67,365. PUBLISHED JANUARY 20, 1914.

95,889. POTTERY, EARTHENWARE AND VASES OF EARTHENWARE AND POTTERY. CERAMIC ART ASSOCIATION, Los Angeles, Cal.
Filed November 5, 1912. Serial No. 66,716. PUBLISHED JANUARY 20, 1914.

95,890. CANNED FRUITS AND CANNED VEGETABLES. COBB PRESERVING COMPANY, Fairport and Canandaigua, N. Y.
Filed May 24, 1913. Serial No. 70,609. PUBLISHED AUGUST 26, 1913.

95,891. HARNESS, SADDLES, COLLARS, BRIDLES, AND HORSE-CLOTHING. BENJ. T. CRUMP CO. INC., Richmond, Va.
Filed November 3, 1913. Serial No. 73,758. PUBLISHED JANUARY 20, 1914.

95,892. SCOTCH WHISKIES. THE DISTILLERS COY, LD., Edinburgh, Scotland.
Filed August 29, 1912. Serial No. 65,488. PUBLISHED JANUARY 20, 1914.

95,893. CERTAIN NAMED FOODS. THE DOLAN MERCANTILE COMPANY, Atchison, Kans.
Filed July 16, 1913. Serial No. 71,737. PUBLISHED JANUARY 20, 1914.

95,894. WHEAT-FLOUR. EL RENO MILL & ELEVATOR Co., El Reno, Okla.
Filed November 3, 1913. Serial No. 73,742. PUBLISHED JANUARY 20, 1914.

95,895. BUCKETS, WATER-PAILS, AND DINNER-PAILS. THE ENTERPRISE ENAMEL CO., Bellaire, Ohio.
Filed November 21, 1913. Serial No. 74,125. PUBLISHED JANUARY 20, 1914.

95,896. MOPS. HARRY L. FEASEL, Philadelphia, Pa.
Filed October 22, 1913. Serial No. 73,545. PUBLISHED JANUARY 20, 1914.

95,897. DRIERS, GLOSS-FINISHES, AND CUT WASHERS FOR INK INGREDIENTS FOR PRINTERS AND LITHOGRAPHERS. FELDENFELD CHEMICAL Co., New York, N. Y.
Filed September 10, 1913. Serial No. 72,763. PUBLISHED JANUARY 20, 1914.

95,898. CERTAIN NAMED WIRE GOODS, PLUMBING-SUPPLIES, CHAIN CABLES, AND LIKE HARDWARE. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.
Filed August 30, 1911. Serial No. 58,442. PUBLISHED MARCH 25, 1913.

95,899. HOSIERY. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed June 13, 1910. Serial No. 50,269. PUBLISHED JANUARY 20, 1914.

95,900. SLEDS. ARTHUR G. FITZ GERALD, Haverhill, Mass.
Filed October 27, 1913. Serial No. 73,623. PUBLISHED JANUARY 20, 1914.

95,901. COFFEE. J. A. FOLGER & COMPANY, San Francisco, Cal.
Filed August 2, 1913. Serial No. 72,133. PUBLISHED JANUARY 13, 1914.

95,902. PLANCHETTE DEVICES. HENRY F. FONTANELLA, New York, N. Y.
Filed June 25, 1913. Serial No. 71,357. PUBLISHED JANUARY 20, 1914.

95,903. FRESH GRAPES. G. C. FRANCIS, Florin, Cal.
Filed August 13, 1913. Serial No. 72,317. PUBLISHED JANUARY 20, 1914.

95,904. CERTAIN ARTICLES MADE OF GOLD AND SILVER, OR PLATED WITH PRECIOUS METAL. GOLDSMITH, STERN & Co., New York, N. Y.
Filed January 4, 1913. Serial No. 67,712. PUBLISHED JANUARY 20, 1914.

95,905. GAMES. EINAR L. GRONDAHL, Seattle, Wash.
Filed October 24, 1913. Serial No. 73,589. PUBLISHED JANUARY 20, 1914.

95,906. CORNMEAL. CHARLES W. GRUENSFELDER, East Peoria, Ill.
Filed June 5, 1912. Serial No. 63,993. PUBLISHED JANUARY 20, 1914.

95,907. TOYS. KATE P. HAMPTON, Washington, D. C.
Filed February 12, 1913. Serial No. 68,516. PUBLISHED APRIL 15, 1913.

95,908. BLENDED COFFEE. HANLEY & KINSELLA COFFEE & SPICE COMPANY, St. Louis, Mo.
Filed September 16, 1913. Serial No. 72,889. PUBLISHED JANUARY 20, 1914.

95,909. AUTOMOBILES. HAYNES AUTOMOBILE Co., Kokomo, Ind.
Filed September 5, 1913. Serial No. 72,688. PUBLISHED JANUARY 20, 1914.

95,910. CANNED CORN AND CANNED PEAS. P. HOHENADEL JR. CANNING Co., Rochelle, Ill.
Filed August 5, 1913. Serial No. 72,168. PUBLISHED JANUARY 20, 1914.

95,911. LEATHER BOOTS AND SHOES AND BOOT AND SHOE SOLES. HOLLAND SHOE Co., Holland, Mich.
Filed November 21, 1913. Serial No. 74,126. PUBLISHED JANUARY 20, 1914.

95,912. CANNED VEGETABLES OF ALL KINDS. HUSTISFORD CANNING Co., Hustisford, Wis.
Filed November 25, 1913. Serial No. 74,185. PUBLISHED JANUARY 20, 1914.

95,913. TOILET-PAPER. THE IMPERIAL MERCHANDISE Co., Perry, Ohio.
Filed July 23, 1913. Serial No. 71,907. PUBLISHED JANUARY 20, 1914.

95,914. CERTAIN NAMED CLOTHING. INNOVATION SHIRT COMPANY, New York, N. Y.
Filed November 9, 1912. Serial No. 66,789. PUBLISHED JANUARY 20, 1914.

95,915. VEGETABLE PICKLES, CONDIMENTS, AND RELISHES. FANNIE L. IVES, Meriden, Conn.
Filed June 12, 1913. Serial No. 71,071. PUBLISHED JANUARY 20, 1914.

95,916. NOODLES. JANNO BROTHERS, New York, N. Y.
Filed June 23, 1913. Serial No. 71,302. PUBLISHED JANUARY 20, 1914.

95,917. TEA. JAMES THOMAS LEE JONES, Baltimore, Md.
Filed January 18, 1913. Serial No. 67,992. PUBLISHED MARCH 4, 1913.

95,918. CERTAIN NAMED ELECTRIC GENERATORS, TRANSFORMERS, BATTERIES, LAMPS, AND THE LIKE AND PARTS THEREOF. KABUSHIKI-KAISHA SHIBAURA SEISAKUJO, Tokyo, Japan.
Filed June 24, 1913. Serial No. 71,339. PUBLISHED JANUARY 20, 1914.

95,919. OVERCOATS, COATS, VESTS, AND TROUSERS. B. KUPPENHEIMER & COMPANY, Chicago, Ill.
Filed November 17, 1913. Serial No. 74,035. PUBLISHED JANUARY 20, 1914.

95,920. FLAVORING EXTRACT FOR NON-ALCOHOLIC BEVERAGES AND A NON-ALCOHOLIC TONIC BEVERAGE. THE LEHMAN-ROSENFELD Co., Cincinnati, Ohio.
Filed November 13, 1913. Serial No. 73,949. PUBLISHED JANUARY 20, 1914.

95,921. DOLLS AND DOLLS' CLOTHES. ETTA LYON, Montclair, N. J.
Filed November 19, 1913. Serial No. 74,081. PUBLISHED JANUARY 20, 1914.

95,922. FACE-CREAM, MASSAGE-CREAM, FACE-LOTION, ROUGE, AND HAIR-TONIC. MAUDINE COMPANY, Portland, Oreg.
Filed May 28, 1913. Serial No. 70,728. PUBLISHED JANUARY 20, 1914.

95,928. TAFFY CANDY. MARY A. MITTELL, New York, N. Y.
Filed April 9, 1909. Serial No. 41,693. PUBLISHED SEPTEMBER 5, 1911.



95,924. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed September 6, 1912. Serial No. 65,602. PUBLISHED JANUARY 20, 1914.

95,925. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,683. PUBLISHED JANUARY 20, 1914.

95,926. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,685. PUBLISHED JANUARY 20, 1914.

95,927. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,686. PUBLISHED JANUARY 20, 1914.

95,928. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,687. PUBLISHED JANUARY 20, 1914.

95,929. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,690. PUBLISHED JANUARY 20, 1914.

95,930. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,692. PUBLISHED JANUARY 20, 1914.

95,931. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 21, 1913. Serial No. 74,117. PUBLISHED JANUARY 20, 1914.

95,932. WORK-SHIRTS, OVERALLS, TEXTILE JACKETS, AND TEXTILE JUMPERS. NEELY, HARWELL & Co., Nashville, Tenn.
Filed December 12, 1913. Serial No. 74,548. PUBLISHED JANUARY 20, 1914.

95,933. BABY-CARRIAGES. NEWARK GO-CART MANUFACTURING Co., Newark, N. J.
Filed September 13, 1913. Serial No. 72,843. PUBLISHED JANUARY 20, 1914.

95,934. DRIED FRUITS AND RAISINS. NORTH ONTARIO PACKING COMPANY, Los Angeles, Cal.
Filed November 5, 1913. Serial No. 73,819. PUBLISHED JANUARY 20, 1914.

95,935. DRIED FRUITS AND RAISINS. NORTH ONTARIO PACKING COMPANY, Los Angeles, Cal.
Filed November 5, 1913. Serial No. 73,820. PUBLISHED JANUARY 20, 1914.

95,936. ICE-CREAM. THE OHIO DAIRY COMPANY, Toledo, Ohio.
Filed September 20, 1913. Serial No. 72,980. PUBLISHED JANUARY 20, 1914.

95,937. CANNED VEGETABLES. ONALASKA PICKLE & CANNING Co., Onalaska, Wis.
Filed November 3, 1913. Serial No. 73,769. PUBLISHED JANUARY 20, 1914.

95,938. PREPARATION FOR MAKING NON-ALCOHOLIC BEVERAGES AND ROOT-BEER. LARS M. PETTERSON, Worcester, Mass.
Filed June 25, 1909. Serial No. 43,250. PUBLISHED JANUARY 20, 1914.

95,939. CARD GAMES. JOHN A. PHILLIPS, New York, N. Y.
Filed October 21, 1913. Serial No. 73,533. PUBLISHED JANUARY 20, 1914.

95,940. GLUTEN-FLOUR, GLUTEN-NOODLES, GLUTEN-MEAL, AND GLUTEN-BREAD. THE PIERCE-LIVINGSTON Co., Chicago, Ill.
Filed October 15, 1913. Serial No. 73,393. PUBLISHED JANUARY 20, 1914.

95,941. LEATHER BOOT-TOPS. PIONEER SHOE & RUBBER COMPANY, Minneapolis, Minn.
Filed November 10, 1913. Serial No. 73,893. PUBLISHED JANUARY 20, 1914.

95,942. ICE-SKATES. F. W. PLANERT & SONS, Chicago, Ill.
Filed December 8, 1913. Serial No. 74,454. PUBLISHED JANUARY 20, 1914.

95,943. CITRUS FRUITS. JAMES NATHANIEL REYNOLDS, Lindsay, Cal.
Filed September 16, 1913. Serial No. 72,896. PUBLISHED JANUARY 20, 1914.

95,944. CHEMICALLY-PURE LECITHIN, A FOOD INGREDIENT. J. D. RIEDEL AKTIENGESELLSHAFT, Berlin, Germany.
Filed August 9, 1913. Serial No. 72,253. PUBLISHED JANUARY 20, 1914.

95,945. PREPARED FOOD FOR INFANTS. JAMES S. ROBINSON, Memphis, Tenn.
Filed April 22, 1910. Serial No. 49,250. PUBLISHED JANUARY 13, 1914.

95,946. OLIVE-OIL. G. SASSO & SONS, Brooklyn, N. Y.
Filed May 14, 1913. Serial No. 70,425. PUBLISHED JANUARY 20, 1914.

95,947. CERTAIN NAMED FOODS. SENTNEY WHOLESALE GROCERY Co., Hutchinson, Kans.
Filed June 10, 1909. Serial No. 42,931. PUBLISHED SEPTEMBER 17, 1912.

95,948. CERTAIN NAMED FURNITURE. THE SIKES COMPANY, Buffalo, N. Y., and Philadelphia, Pa.
Filed August 5, 1913. Serial No. 72,176. PUBLISHED JANUARY 20, 1914.

95,949. DUSTERS AND MOPS. SILVER-CHAMBERLIN Co., Clayton, N. J.
Filed October 30, 1913. Serial No. 73,699. PUBLISHED JANUARY 20, 1914.

95,950. CITRUS FRUITS. SOUTHERN CITRUS CORPORATION, Lynchburg, Va.
Filed November 3, 1913. Serial No. 73,775. PUBLISHED JANUARY 20, 1914.

95,951. CITRUS FRUITS. SOUTHERN CITRUS CORPORATION, Lynchburg, Va.
Filed November 3, 1913. Serial No. 73,777. PUBLISHED JANUARY 20, 1914.

95,952. WHEAT-FLOUR. THE SOUTHWESTERN MILLING COMPANY, Jersey City, N. J., and Kansas City, Mo.
Filed February 11, 1913. Serial No. 68,507. PUBLISHED JANUARY 20, 1914.

95,953. SURGICAL BANDAGES AND BELTS, SANITARY AND ABDOMINAL BELTS, ELASTIC OR SURGICAL STOCKINGS AND BANDAGES, AND THIGH-REDUCERS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 8, 1913. Serial No. 72,730. PUBLISHED JANUARY 20, 1914.

95,954. SURGICAL BANDAGES AND BELTS, SANITARY AND ABDOMINAL BELTS, ELASTIC OR SURGICAL STOCKINGS AND BANDAGES, AND THIGH-REDUCERS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 8, 1913. Serial No. 72,734. PUBLISHE JANUARY 20, 1914.

95,955. SURGICAL BANDAGES AND BELTS, SANITARY AND ABDOMINAL BELTS, ELASTIC OR SURGICAL STOCKINGS AND BANDAGES, AND THIGH-REDUCERS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 16, 1913. Serial No. 72,901. PUBLISHED JANUARY 20, 1914.

95,956. FOOD PREPARATION FOR POULTRY AND OTHER ANIMALS. SPRATT'S PATENT (AMERICA) LIMITED, London, England, and Newark, N. J.
Filed October 11, 1913. Serial No. 73,318. PUBLISHED JANUARY 20, 1914.

95,957. FOOD PREPARATION FOR DOGS, CATS, POULTRY, AND OTHER ANIMALS. SPRATT'S PATENT (AMERICA) LIMITED, London, England, and Newark, N. J.
Filed October 17, 1913. Serial No. 73,455. PUBLISHED JANUARY 20, 1914.

95,958. CERTAIN NAMED FRESH FRUITS. STEWART FRUIT COMPANY, Los Angeles and San Francisco, Cal.
Filed May 4, 1912. Serial No. 63,329. PUBLISHED JANUARY 6, 1914.

95,959. BLENDED WHISKY. JOHN HENDERSON STEWART, Dundee, Scotland.
Filed January 29, 1912. Serial No. 61,109. PUBLISHED JANUARY 20, 1914.

95,960. STOCK FOOD. ELBRIDGE C. THORNHILL, Hutchinson, Kans.
Filed April 20, 1910. Serial No. 49,206. PUBLISHED JANUARY 20, 1914.

95,961. WHEAT-FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed August 23, 1913. Serial No. 72,505. PUBLISHED JANUARY 20, 1914.

95,962. BUFFER-SPRINGS AND SPRINGS FOR RAILWAY VEHICLES AND LOCOMOTIVES. TUBTON BROTHERS & MATTHEWS, LTD., Sheffield, England.
Filed November 15, 1911. Serial No. 59,726. PUBLISHED JANUARY 20, 1914.

95,963. WHISKY, A COMPOUND OF GRAIN DISTILLATES. UNITED WINE & TRADING CO., New York, N. Y.
Filed March 30, 1908. Serial No. 33,749. PUBLISHED JANUARY 20, 1914.

95,964. SOUND RECORDING OR REPRODUCING MACHINES AND TALKING-MACHINES AND PARTS THEREOF. VICTOR TALKING MACHINE COMPANY, Camden, N. J.
Filed November 4, 1912. Serial No. 66,696. PUBLISHED JANUARY 20, 1914.

95,965. CORSETS. JOHN WANAMAKER, NEW YORK, New York, N. Y.
Filed November 2, 1910. Serial No. 52,564. PUBLISHED JANUARY 20, 1914.

95,966. CORSETS AND GLOVES. ABRAHAM WEISBERG, New York, N. Y.
Filed November 13, 1913. Serial No. 73,972. PUBLISHED JANUARY 20, 1914.

95,967. NITROGEN-FIXING BACTERIA. WESTERN LEGUMOGERM CO., Topeka, Kans.
Filed August 22, 1913. Serial No. 72,493. PUBLISHED JANUARY 20, 1914.

95,968. CANDY CONFECTIONS. STEPHEN F. WHITMAN & SON, INC., Philadelphia, Pa.
Filed August 10, 1912. Serial No. 65,184. PUBLISHED JANUARY 13, 1914.

95,969. CANDY CONFECTIONS. STEPHEN F. WHITMAN & SON, INC., Philadelphia, Pa.
Filed August 10, 1912. Serial No. 65,185. PUBLISHED JANUARY 13, 1914.

95,970. HAMMOCKS. THE GEORGE WORTHINGTON COMPANY, Cleveland, Ohio.
Filed November 17, 1913. Serial No. 74,046. PUBLISHED JANUARY 20, 1914.

95,971. DUPLICATING-MACHINES AND PARTS THEREOF. THE WRITERPRESS COMPANY, Buffalo, N. Y.
Filed February 23, 1909. Serial No. 40,751. PUBLISHED JANUARY 20, 1914.

## TRADE-MARKS CANCELED.

75,745. CATTLE FEED CONSISTING OF MIXTURES OF MOLASSES, GRAINS, AND THEIR BY-PRODUCTS. THE GREAT WESTERN CEREAL COMPANY, Chicago, Ill.
Registered November 9, 1909. Canceled March 10, 1914.



# LABELS

## REGISTERED MARCH 24, 1914.

17,601.—*Title:* "STROUSE'S GINGER BRANDY." (For Cordialized Ginger Brandy.) AMERICAN WINE AND SPIRIT COMPANY, Philadelphia, Pa. Filed March 5, 1914.

17,602.—*Title:* "JUST RITE." (For Bread.) CRESCENT BREAD COMPANY, Utica, N. Y. Filed February 24, 1914.

17,603.—*Title:* "ROMAN P. W. CLEANSER." (For a Cleanser for White Shoes.) CHARLES FILIPPONE, Philadelphia, Pa. Filed February 12, 1914.

17,604.—*Title:* "CHIQUES ROCK." (For Carbonated Beverages.) MARY A. FLANAGAN, Columbia, Pa. Filed August 25, 1913.

17,605.—*Title:* "NAPOLEON BRAND SALAD OIL." (For Salad-Oil.) FREDERICK EMIL GRIMM, Utica, N. Y. Filed December 26, 1913.

17,606.—*Title:* "McCANN'S URN BRAND COFFEE WITH CHICORY." (For Ground Coffee with Chicory.) J. W. LITTLE, Brooklyn, N. Y. Filed January 12, 1914.

17,607.—*Title:* "LYTLE'S EVER READY BEEF STEAK FLOUR." (For Flour.) WILLIAM F. LYTLE, Indianapolis, Ind. Filed February 26, 1914.

17,608.—*Title:* "MORRIS' PENNANT." (For Cigars.) FRED A. MORRIS, Mexico, Mo. Filed February 24, 1914.

17,609.—*Title:* "MOTHER'S CLEANSER." (For a Cleansing Preparation.) THE NATIONAL CLEANSER COMPANY, New York, N. Y. Filed February 25, 1914.

17,610.—*Title:* "COTTON BOLL." (For Sanitary Paper Towels.) RICHARDS-GLOVER COMPANY, Dallas, Tex. Filed February 27, 1914.

17,611.—*Title:* "WILLIAM MORTON." (For Cigars.) CHESTER H. ROBINSON, Chicago, Ill. Filed February 11, 1914.

17,612.—*Title:* "ADOLPHUS BUSCH." (For Cigars.) WIEDMANN-ST. LOUIS CIGAR BOX CO., St. Louis, Mo. Filed February 3, 1914.

# PRINTS

## REGISTERED MARCH 24, 1914.

3,525.—*Title:* "BELL'S FORKDIPT CHOCOLATES." (For Chocolates.) J. S. BELL CONFECTIONERY CO., Cambridge, Mass. Filed February 27, 1914.

3,526.—*Title:* "JUST RITE." (For Bread.) CRESCENT BREAD COMPANY, Utica, N. Y. Filed February 24, 1914.

3,527.—*Title:* "SANOMA." (For Cigars.) WILLIAM A. DEPUE, Lansing, Mich. Filed March 4, 1914.

3,528.—*Title:* "GOLDEN WEDDING BOTTLED IN BOND." (For Whisky.) JOS. S. FINCH & CO., Pittsburgh, Pa. Filed February 18, 1914.

3,529.—*Title:* "HEART'S DELIGHT FARM SAUSAGE." (For Sausage.) W. H. MINER, Chazy, N. Y. Filed March 4, 1914.

3,530.—*Title:* "GET THE LINOLEUM HABIT." (For Linoleum and Oil-Cloth.) THOMAS POTTER, SONS & CO., INC., Philadelphia, Pa., and New York, N. Y. Filed January 22, 1914.

3,531.—*Title:* "PRINCE ALBERT THE NATIONAL JOY SMOKE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 25, 1914.

95,958. CERTAIN NAMED FRESH FRUITS. STEWART FRUIT COMPANY, Los Angeles and San Francisco, Cal.
Filed May 4, 1912. Serial No. 63,329. PUBLISHED JANUARY 6, 1914.

95,959. BLENDED WHISKY. JOHN HENDERSON STEWART, Dundee, Scotland.
Filed January 29, 1912. Serial No. 61,109. PUBLISHED JANUARY 20, 1914.

95,960. STOCK FOOD. ELBRIDGE C. THORNHILL, Hutchinson, Kans.
Filed April 20, 1910. Serial No. 49,206. PUBLISHED JANUARY 20, 1914.

95,961. WHEAT-FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
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95,962. BUFFER-SPRINGS AND SPRINGS FOR RAILWAY VEHICLES AND LOCOMOTIVES. TURTON BROTHERS & MATTHEWS, LTD., Sheffield, England.
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95,964. SOUND RECORDING OR REPRODUCING MACHINES AND TALKING-MACHINES AND PARTS THEREOF. VICTOR TALKING MACHINE COMPANY, Camden, N. J.
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95,965. CORSETS. JOHN WANAMAKER, New York, New York, N. Y.
Filed November 2, 1910. Serial No. 52,564. PUBLISHED JANUARY 20, 1914.

95,966. CORSETS AND GLOVES. ABRAHAM WEISBERG, New York, N. Y.
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95,967. NITROGEN-FIXING BACTERIA. WESTERN LEGUMOGERM CO., Topeka, Kans.
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95,968. CANDY CONFECTIONS. STEPHEN F. WHITMAN & SON, INC., Philadelphia, Pa.
Filed August 10, 1912. Serial No. 65,184. PUBLISHED JANUARY 13, 1914.

95,969. CANDY CONFECTIONS. STEPHEN F. WHITMAN & SON, INC., Philadelphia, Pa.
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95,971. DUPLICATING-MACHINES AND PARTS THEREOF. THE WRITERPRESS COMPANY, Buffalo, N. Y.
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## TRADE-MARKS CANCELED.

75,745. CATTLE FEED CONSISTING OF MIXTURES OF MOLASSES, GRAINS, AND THEIR BY-PRODUCTS. THE GREAT WESTERN CEREAL COMPANY, Chicago, Ill.
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# LABELS

## REGISTERED MARCH 24, 1914.

17,601.—*Title:* "STROUSE'S GINGER BRANDY." (For Cordialized Ginger Brandy.) AMERICAN WINE AND SPIRIT COMPANY, Philadelphia, Pa. Filed March 5, 1914.

17,602.—*Title:* "JUST RITE." (For Bread.) CRESCENT BREAD COMPANY, Utica, N. Y. Filed February 24, 1914.

17,603.—*Title:* "ROMAN P. W. CLEANSER." (For a Cleanser for White Shoes.) CHARLES FILIPPONE, Philadelphia, Pa. Filed February 12, 1914.

17,604.—*Title:* "CHIQUES ROCK." (For Carbonated Beverages.) MARY A. FLANAGAN, Columbia, Pa. Filed August 25, 1913.

17,605.—*Title:* "NAPOLEON BRAND SALAD OIL." (For Salad-Oil.) FREDERICK EMIL GRIMM, Utica, N. Y. Filed December 26, 1913.

17,606.—*Title:* "McCANN'S URN BRAND COFFEE WITH CHICORY." (For Ground Coffee with Chicory.) J. W. LITTLE, Brooklyn, N. Y. Filed January 12, 1914.

17,607.—*Title:* "LYTLE'S EVER READY BEEF STEAK FLOUR." (For Flour.) WILLIAM F. LYTLE, Indianapolis, Ind. Filed February 26, 1914.

17,608.—*Title:* "MORRIS' PENNANT." (For Cigars.) FRED A. MORRIS, Mexico, Mo. Filed February 24, 1914.

17,609.—*Title:* "MOTHER'S CLEANSER." (For a Cleansing Preparation.) THE NATIONAL CLEANSER COMPANY, New York, N. Y. Filed February 25, 1914.

17,610.—*Title:* "COTTON BOLL." (For Sanitary Paper Towels.) RICHARDS-GLOVER COMPANY, Dallas, Tex. Filed February 27, 1914.

17,611.—*Title:* "WILLIAM MORTON." (For Cigars.) CHESTER H. ROBINSON, Chicago, Ill. Filed February 11, 1914.

17,612.—*Title:* "ADOLPHUS BUSCH." (For Cigars.) WIEDMANN-ST. LOUIS CIGAR BOX CO., St. Louis, Mo. Filed February 3, 1914.

# PRINTS

## REGISTERED MARCH 24, 1914.

3,525.—*Title:* "BELL'S FORKDIPT CHOCOLATES." (For Chocolates.) J. S. BELL CONFECTIONERY CO., Cambridge, Mass. Filed February 27, 1914.

3,526.—*Title:* "JUST RITE." (For Bread.) CRESCENT BREAD COMPANY, Utica, N. Y. Filed February 24, 1914.

3,527.—*Title:* "SANOMA." (For Cigars.) WILLIAM A. DEPUE, Lansing, Mich. Filed March 4, 1914.

3,528.—*Title:* "GOLDEN WEDDING BOTTLED IN BOND." (For Whisky.) JOS. S. FINCH & CO., Pittsburgh, Pa. Filed February 18, 1914.

3,529.—*Title:* "HEART'S DELIGHT FARM SAUSAGE." (For Sausage.) W. H. MINER, Chazy, N. Y. Filed March 4, 1914.

3,530.—*Title:* "GET THE LINOLEUM HABIT." (For Linoleum and Oil-Cloth.) THOMAS POTTER, SONS & CO., INC., Philadelphia, Pa., and New York, N. Y. Filed January 22, 1914.

3,531.—*Title:* "PRINCE ALBERT THE NATIONAL JOY SMOKE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 25, 1914.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

S. GALLE & COMPANY *v.* WESTERN GROCER COMPANY.

*Decided February 13, 1914.*

APPEALS—LIE FROM A DECISION AND NOT FROM THE REASONS OF THE DECISION.

It is well settled that an appeal is from the decision and not from the grounds or reasons upon which the decision is based, and where the Examiner of Trade-Marks granted a motion to dissolve, an appeal by the moving party alleging error in the reasons given by the Examiner for dissolving the interference will be dismissed.

ON APPEAL.

TRADE-MARK FOR CHEESE, ETC.

*Messrs. Kiernan & Moore* and *Mr. Titian W. Johnson* for S. Galle & Company.

*Mr. F. T. F. Johnson* for Western Grocer Company.

FRAZIER, *First Assistant Commissioner:*

This is an appeal by S. Galle & Company from a decision of the Examiner of Trade-Marks refusing to dissolve this interference on certain specified grounds.

The record shows that the Western Grocer Company, the registrant, filed a motion to dissolve on the ground that the mark of S. Galle & Company is descriptive of Roquefort cheese, the goods for which registration is sought; that on December 1, 1913, S. Galle & Company, the junior party, filed a motion to dissolve on the ground of no interference in fact, lack of similarity between the marks, and goods of different descriptive properties.

On December 26 the Examiner denied the motion of S. Galle & Company and granted that of the Western Grocer Company, dissolving the interference, fixing the limit of appeal at January 15, 1914.

Inasmuch as the interference was dissolved and the limit of appeal—January 15, 1914—expired and no appeal from the decision of the Examiner dissolving the interference was filed, the question here presented is, as contended for by the Western Grocer Company, a purely academic one, since it involves a consideration of the reasons of appeal rather than of the decision from which the appeal should be taken. It is well settled that an appeal is from the decision and not from the grounds or reasons on which that decision is based.

The appeal is therefore dismissed.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

E. A. BROMUND COMPANY *v.* COLUMBIA WAX PRODUCTS CO.

*Decided February 2, 1914.*

TRADE-MARKS—"GRAND-MA'S" AND "MOTHER'S"—NOT DECEPTIVELY SIMILAR.

The word "Grand-ma's" *Held* not so similar to the word "Mother's" that the use of these words upon the same goods would be likely to cause confusion or deceive purchasers.

*Mr. A. H. Serrell* for the appellant.

*Mr. Chas. H. Wilson* for the appellee.

ROBB, *J.:*

This is an appeal from a decision of the Commissioner of Patents sustaining the demurrer of the appellee to the trade-mark opposition filed by appellant and holding that appellee is entitled to the registration of the word "Grand-ma's" as a trade-mark for a perfumed waxing-pad, notwithstanding the prior adoption and use of the word "Mother's" by the appellant as a trade-mark for such pads.

In his decision the Commissioner says:

> While the words "Mother's" and "Grand-ma's", both refer to a woman, these words neither look alike nor sound alike, and in view of the common use of these words by persons of all classes as referring to well known relationships, it is not believed that they are so alike that there is any liability of purchasers being deceived by the mere use thereof. This is so obvious that in my opinion it is unnecessary to set this case down for taking testimony.

In cases of this kind "the evidence of the eyes is more persuasive and satisfactory than any other." (*Layton Pure Food Co.* v. *Church & D. Co.*, 182 Fed., 24; *A. Leschen & Sons R. Co.* v. *Broderick & Br. Co.*, 36 App. D. C., 451.)

We agree with the view of the Commissioner and therefore affirm his decision.

Affirmed.

### Court of Appeals of the District of Columbia.

IN RE FLEUSS AND DAVIS.

*Decided February 2, 1914.*

PATENTABILITY—APPLIANCE FOR SUPPLYING OXYGEN AND AIR TO DIVERS.

Claim for an appliance for supplying oxygen and air to divers *Held* unpatentable in view of the prior art.

*Mr. G. A. Prevost* for the appellant.

*Mr. Webster S. Ruckman* for the Commissioner of Patents.

SHEPARD, *C. J.:*

This is an appeal from a decision of the Commissioner of Patents rejecting an application for patent having the following claim:

An appliance for supplying oxygen and air to divers and others, comprising a plurality of gas cylinders, a hollow connection between the said cylinders, a curved neck integral with said connection adapted to lie adjacent to one side of the body of the user of the apparatus, and means at the outer end of said curved neck adapted to control the supply of gas to the said user of the apparatus.

The claim is for an improvement in appliances for supplying oxygen and air to divers, miners and others for use in irrespirable atmospheres, which comprises a pair of gas-cylinders in connection with a breathing apparatus. The specifications and accompanying drawings show two cylinders, carried on the back of the wearer, containing oxygen, or a mixture of oxygen and air in a state of heavy compression. The cylinders open into a common pipe, fitted with a controlling-valve and a reducing-valve, from which the oxygen passes to the breathing appliance at the desired pressure. The pipe has a connection fitted with valve and pressure-gage on a flexible tube to indicate the pressure in the cylinders. Upon opening the controller-valve the compressed oxygen will flow through the reducing-valve to the breathing apparatus. Should the reducing-valve become clogged the wearer may open another valve and procure a supply of oxygen by a by-pass provided for the purpose. The patentable novelty relied on consists in the curved neck integral with the cylinder connection, adapted to lie adjacent to one side of the body of the user of the apparatus, which enables him to see and readily control the valves with one or both hands. It was contended by the applicants that—

in various types of breathing appliances in use, the valves are out of sight and almost out of reach of the wearer, and in consequence are exceedingly awkward to control and there is always the greatest risk that the man may turn on, or off, the wrong valve. By curving the neck, however, this difficulty is obviated; the valves are brought forward within easy reach of the wearer and he can actually see his valves and control them without the slightest risk.

The claim is for an improvement in appliances for supplying oxygen and air to divers, miners and others for use in irrespirable atmospheres, which comprises a pair of gas-cylinders in connection with a breathing apparatus. The specifications and accompanying drawings show two cylinders, carried on the back of the wearer, containing oxygen, or a mixture of oxygen and air in a state of heavy compression. The cylinders open into a common pipe, fitted with a controlling-valve and a reducing-valve, from which the oxygen passes to the breathing appliance at the desired pressure. The pipe has a connection fitted with valve and pressure-gage on a flexible tube to indicate the pressure in the cylinders. Upon opening the controller-valve the compressed oxygen will flow through the reducing-valve to the breathing apparatus. Should the reducing-valve become clogged the wearer may open another valve and procure a supply of oxygen by a by-pass provided for the purpose. The patentable novelty relied on consists in the curved neck integral with the cylinder connection, adapted to lie adjacent to one side of the body of the user of the apparatus, which enables him to see and readily control the valves with one or both hands. It was contended by the applicants that—

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This contention was considered by the tribunals of the Office; and there was filed an affidavit showing that the applicants' appliance had been sold to a considerable number of mining companies in this country. The references upon which the claim was rejected are: Garforth patent, December 29, 1908; Jaubert patent, March 9, 1909; Davis, British patent, December 14, 1906, and Suess, French patent, September 7, 1904.

These references are fairly described in the statement of the Primary Examiner as follows:

The patent to Jaubert shows an appliance supplying respirable gas mixtures, such as oxygen and air, comprising a plurality of gas cylinders having hollow connections between said cylinders and having a pipe or neck communication with said connections and with means at the outer end of said pipe or neck adapted to control the supply of gas to the user of the apparatus.

Applicants have made the pipe or neck on their apparatus curved and of greater length than is shown by Jaubert. The extra length is nothing more than a difference of degree and the curving of the neck amounts to nothing more than a difference in design, the purpose of which is for a more convenient use. Neither one of the above variations is deemed patentable over Jaubert.

Applicants further set forth the point that the pipe C, as illustrated, is made integral with the connections between the cylinders. This, also, is considered unpatentable. Making the parts shown in Jaubert integral would not in the least change the operation and the ultimate result of the device. Jaubert's apparatus functions exactly as applicants' device functions.

The French patent to Suess, however, shows an integral neck with the connection between the cylinders, (see Figure 4) and Fig. 1 of said patent the neck is of great length and is also curved, therefore covering all the features of applicants' device as far as the structure claimed is concerned.

Furthermore, in order to show the idea of curving a part of an apparatus, similar in nature to applicants' device, so as to fit the contour side of a person's body, the patent to Garforth was cited in which is shown a pipe 11 curved in the same way for the same purpose as applicants have done with the neck C in their apparatus.

This patent also shows the operating valve at the front of the person, thereby meeting applicants' contention set forth in their letter of May 18, 1911, quoted in part as follows:

"In various types of breathing appliances in use, the valves are entirely out of sight and almost out of reach of the wearer, and in consequence are exceedingly awkward to control, and there is always the greatest risk that the man may turn on, or off, the wrong valve. By curving the neck, however, this difficulty is obviated; the valves are brought forward within easy reach of the wearer and he can actually see his valves and control them without the slightest risk."

The British patent to Davis stands in the same position as Jaubert's patent with the added element of a flexible gage tube and a gage to be used in the same manner as applicants' gage tube is utilized.

The Examiners-in-Chief adopted this view in a brief statement.

On final appeal the Commissioner said:

The appealed claim covers the arrangement of the elements of a breathing apparatus, including oxygen tanks, etc., in such a form as to be convenient to the wearer. The claim distinguishes from the apparatus illustrated in the patent to Jaubert only in specifying that the "neck," shown at C on applicants' drawing and at X in Jaubert, is integral with the connection between the cylinders and is curved.

The purpose of the curve is to make the pipe fit more closely to the body of the wearer in a convenient way, and to bring the control valve in a convenient position.

There is clearly nothing patentable in making the so called "neck" integral rather than separable, and such a connection is shown in the French patent to Suess.

I agree with the holding of the tribunals below that the mere shaping of the connections to a convenient form or to such form as to enable the tank to be worn upon a particular portion of the body does not amount to invention. There is no new or unexpected function flowing from the particular arrangement specified in the claim. It is regarded merely as a matter of design or choice and, assuming its superiority, is considered to be the result of good judgment rather than invention.

The conclusions of the Patent Office tribunals, we think, are sound. Among the authorities cited in their support in the brief for the Commissioner; see *Smith* v. *Nichols*, (21 Wall., 112, 119;) *Howard* v. *Detroit Stove Works*, (150 U. S., 164, 170;) *in re Iwan*, (17 App. D. C., 566, 571; 95 O. G., 441;) *in re Welch*, (28 App. D. C., 362, 364; 125 O. G., 2767.)

Being fully satisfied with the decisions quoted, it is unnecessary to further discuss the question.

The decision is affirmed. The clerk will certify this decision to the Commissioner of Patents as the law requires.

Affirmed.

## Court of Appeals of the District of Columbia.

IN RE OCHS.

*Decided February 2, 1914.*

1. TRADE-MARKS—"$15.00 CLOTHES"—DESCRIPTIVE AS APPLIED TO MEN'S CLOTHING.

The word, symbol, and figures "$15.00 Clothes," as applied to men's clothing, *Held* descriptive of the character and the quality of the goods.

2. SAME—MARK INCLUDING PRIOR REGISTERED MARK—NOT REGISTRABLE.

A mark which includes as an essential feature thereof the words "Gold Bond" *Held* properly refused registration in view of the prior registration of these words.

*Mr. L. T. Michener* for the appellant.

*Mr. R. F. Whitehead* for the appellee.





ROBB, *J.:*

This appeal is from a decision of the Commissioner of Patents refusing to register, as a trade-mark for—

men's and young men's clothing, consisting of overcoats, raincoats, coats, vests and trousers.

the words "Gold Bond Clothes" printed across the symbol and figures "$15.00," the grounds of the refusal being that "Clothes" and "$15.00" are descriptive, as used by applicant, and that the words "Gold Bond" are anticipated by the registered mark of one Rosenthal.

We agree with the Commissioner that the word "Clothes," in connection with the symbol and figures "$15.00," not only renders the mark descriptive of the goods with which it is used but also of the character or quality of such goods. See *Winchester Repeating Arms Co.* v. *Peters C. Co.*, (30 App. D. C., 505;) *in re Myer Bros. Coffee & Spice Co.*, (32 App. D. C., 277;) *Johnson* v. *Brandau*, (22 App. D. C., 348;) *Planten* v. *Canton Pharmacy Co.*, (33 App. D. C., 268;) *in re Anti-Cori-Zine Chemical Co.*, (34 App. D. C., 191;) *in re Myer Bros. Coffee & Spice Co.*, (38 App. D. C., 520.)

In *Carmel Wine Co.* v. *California Winery* (38 App. D. C., 1) we ruled that one has no right to incorporate the mark of another as an essential feature of his mark. It follows, therefore, that appellant has no right to register the words "Gold Bond" unless and until it is made to appear that the Rosenthal registration has been abandoned, and that question may be determined either by an interference or by the filing of Rosenthal's waiver of the mark.

The decision is affirmed.

Affirmed.

## Court of Appeals of the District of Columbia.

THE PETER SCHOENHOFEN BREWING COMPANY *v.* JOHN SEXTON & COMPANY.

*Decided February 2, 1914.*

TRADE-MARKS—GOODS—GRAPE-JUICE AND BEER—NOT OF THE SAME DESCRIPTIVE PROPERTIES.

Grape-juice *Held* not to constitute goods of the same descriptive properties as beer.

*Mr. C. C. Linthicum*, *Mr. W. O. Belt*, and *Mr. W. M. Fuller* for the appellant.

*Mr. W. F. Murray* for the appellee.

SHEPARD, *C. J.:*

The appellee's application for the registration of "Edelweiss" as a trade-mark for grape-juice, a non-alcoholic beverage, was allowed for publication. The appellant filed an opposition thereto alleging its long prior use, and registration of the same word as a trade-mark for lager-beer of its manufacture.

Appellee's demurrer was sustained and the opposition dismissed on the ground that the goods of the respective parties are not of the same descriptive properties. We concur in this conclusion. (*Muralo Co.* v. *National Lead Co.*, 36 App. D. C., 541, 543; *Johnson Educator Co.* v. *Sylvanus Smith Co.*, 37 App. D. C., 107; *Hump Hairpin Co.* v. *De Long Hook & Eye Co.*, 39 App. D. C., 484, 488.)

The decision is affirmed; and the clerk will certify this decision to the Commissioner of Patents.

Affirmed.

## ADJUDICATED PATENTS.

(U. S. D. C.) The verdict of a jury finding the validity and infringement of the Krantz patent, No. 738,688, for a floor-box for electric conductors, *Held* sustained by the evidence. *Fountain Electrical Floor Box Corporation* v. *Trustees Masonic Hall and Asylum Fund*, 210 Fed. Rep., 169.

(U. S. C. C. A.) The Baker patent, No. 870,760, for a reinforced shoe-last, *Held* valid and infringed. *John Pell & Son* v. *Protector Last Reinforcing Co.*, 210 Fed. Rep., 167.

(U. S. C. C. A.) The Green patent, No. 894,733, for a shoe and process of making the same, *Held* invalid as to claims 1, 6, and 11, but valid and infringed as to claims 2, 3, 4, 5, 8, 9, and 10. *Daniel Green Felt Shoe Co.* v. *Dolgeville Felt Shoe Co.*, 210 Fed. Rep., 164.

## Changes in Classification.

(ORDER No. 2,104.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 5, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 175, Electricity, General Applications, (Division XXXVII,) establish subclass—

354. **Vapor electric devices,**

the patents therein being taken from class 171, Electricity, Generation, subclass 253, Systems of distribution, Alternating-direct.

THOMAS EWING,
*Commissioner.*

## Changes in Classification.

(ORDER No. 2,105.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 10, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 218, Button, Eyelet, and Rivet Setting, (Division XI,) establish the following subclass and definition:

**Machines—**
Riveting—
Magazine—
2.1. Feeding.

2.1. MACHINES, RIVETING, MAGAZINE, FEEDING. Those elements of a magazine riveting machine that relate to the delivery of the rivets to the setting mechanism.

**Search Classes—**

218—BUTTON, EYELET, AND RIVET SETTING, subclasses 6, Machines, Button, Riveting, Magazine; 12, Machines, Button, Button-feeders; 15.1, Machines, Eyeleting, Magazine, Feeding, and 17.1, Machines, Lacing-hook, Magazine, Feeding.

1—NAILING AND STAPLING, subclasses 3, Machines, Staple setting, Magazine, and 49, Implements, Staple setting, Magazine.

This subclass is composed of patents taken from class 218, Button Eyelet, and Rivet Setting, subclasses 2, Machines, Riveting, Magazine, and 3, Machines, Riveting, Staple.

THOMAS EWING,
*Commissioner*

## Changes in Classification.

(ORDER No. 2,106.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 11, 1914.*

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 57, Hoisting, (Division IV,) abolish subclasses—

37. Chutes—
114. Counterweighted,
115. Equalizers.

The patents formerly contained in these subclasses have been placed, for the most part, in class 193, Conveyers, subclass 29, Chutes, and the subclasses thereunder, hereinafter established.

In class 193, Conveyers, (Division IV,) establish subclasses—

| | |
|---|---|
| 29. Chutes— | Chutes— |
| 34. Car side type, | 38. Laterally movable, |
| 35. Counterweighted— | 31. Mail, |
| 36. Equalizers, | 30. Screening, |
| 40. Extensible, | 42. Spiral, |
| 41. Flexible, | 44. Switches, |
| 32. Garbage, | 37. Variable elevation discharge, |
| 45. Gates— | |
| 46. Pivoted, | 33. Wall type, |
| 39. Horizontally swinging, | 43. Zigzag. |

These subclasses are composed of patents taken, for the most part, from class 57, Hoisting, subclass 37, Chutes, and the subclasses thereunder, hereinbefore abolished, and class 193, Conveyers, subclass 22, Spouts.

THOMAS EWING,
*Commissioner.*

## Changes in Classification.

(ORDER No. 2,108.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 12, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In Class 101, Printing, (Division XVII,) establish subclass—

Mail-marking machines.

206. Mail-box.

This subclass is composed of patents taken from class 101, Printing, subclass 80, Mail-marking machines, and class 232, Deposit and Collection Receptacles, subclass 18, Letter-boxes, Ticket registers and recorders.

THOMAS EWING,
*Commissioner.*

## Notice of Cancelation.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 4, 1914.*

*Sea Breeze Chemical Co., its assigns or legal representatives, take notice:*

A cancelation proceeding having been instituted by this Office upon the application of J. W. Brooks & Co., Inc., of No. 20 Bradley street, Portland, Me., to effect the cancelation of the trade-mark registration of the Sea Breeze Chemical Co. of Birmingham, Ala., No. 43,390, dated May 15, 1904, and the notice of such proceeding sent by registered mail to the said Sea Breeze Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Sea Breeze Chemical Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the cancelation will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 16, 1914.*

*Central Lighting Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Hydro Carbon Company, 220–224 St. Francis avenue, Wichita, Kans., for registration of a trade-mark and trade-mark registered December 15, 1903, No. 41,678, to the Central Lighting Company, New York, N. Y., and a notice of such declaration sent by registered mail to the said Central Lighting Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Central Lighting Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 9, 1914.*

*William H. Lewis, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of John A. Chambers, of 90 West Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered June 21, 1892, No. 21,328, to William H. Lewis, of 1024 Arch street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said William H. Lewis at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Lewis, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 6, 1914.*

*Hancock & Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Wayne County Driers & Packers Fruit Company, 145 Railroad street, Rochester, N. Y., for registration of a trade-mark and trade-mark registered October 7, 1902, No. 38,996, to Hancock & Co., of Bourse, 20 South Fifth street, Philadelphia, Pa., and the registry return receipt for the notice of such declaration sent to Hancock & Co. having been returned signed by the Hancock Grain Co., and the Hancock Grain Co. having failed to file evidence of its right to intervene on behalf of Hancock & Co. within the time allowed for that purpose notice is hereby given that unless said Hancock & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 28, 1914.*

*R. M. Connable & Co., their assigns or legal representatives, take notice:*

Interferences Nos. 37,171 and 37,172 having been declared by this Office between the applications of Monnig Dry Goods Co., 1302–1310 Main street, Fort Worth, Tex., for registration of trade-marks and trade-mark registered June 10, 1890, No. 16,019, to R. M. Connable & Co., Dayton, Ohio, and notices of such declarations sent by registered mail to the said R. M. Connable & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said R. M. Connable & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interferences will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D.C., February 27, 1914.*

*Marline Manufacturing Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of William Brueser, 3426 Woodland avenue, Kansas City, Mo., for registration of a trade-mark and trade-mark registered February 14, 1893, No. 22,467, to the Marline Manufacturing Company, Minneapolis, Minn., and a notice of such declaration sent by registered mail to said Marline Manufacturing Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Marline Manufacturing Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*





THE
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CONTENTS.

| | Page. |
|---|---|
| ISSUE OF MARCH 31, 1914 | 1119 |
| DELAYED APPLICATIONS | 1119 |
| CORRECTION OF DRAWINGS | 1119 |
| APPLICATIONS UNDER EXAMINATION | 1120 |
| PATENTS GRANTED | 1121 |
| REISSUES | 1348 |
| DESIGNS | 1355 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 1363 |
| TRADE-MARKS—REGISTERED | 1365 |
| LABELS AND PRINTS | 1389 |
| DECISIONS OF THE U. S. COURTS— | |
| Comptograph Company v. Adder Machine Company | 1391 |
| Stamatopoulos v. Stephano Bros | 1394 |
| ADJUDICATED PATENTS | 1395 |
| CHANGES IN CLASSIFICATION | 1395 |
| INTERFERENCE NOTICES | 1396 |

## ISSUE OF MARCH 31, 1914.

| | | | |
|---|---|---|---|
| Patents | 661—No. | 1,091,470 to No. | 1,092,130, inclusive. |
| Designs | 35—No. | 45,514 to No. | 45,548, inclusive. |
| Trade-Marks | 106—No. | 95,972 to No. | 96,077, inclusive. |
| Labels | 24—No. | 17,613 to No. | 17,636, inclusive. |
| Prints | 10—No. | 3,532 to No. | 3,541, inclusive. |
| Reissues | 5—No. | 13,706 to No. | 13,710, inclusive. |
| Total | 841 | | |

TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 5 | ..... | North Carolina | 6 | 1 |
| Arizona | ..... | ..... | North Dakota | 1 | ..... |
| Arkansas | 2 | 1 | Ohio | 44 | 8 |
| California | 37 | 4 | Oklahoma | 7 | ..... |
| Colorado | 8 | ..... | Oregon | 9 | ..... |
| Connecticut | 15 | 3 | Pennsylvania | 51 | 17 |
| Delaware | 1 | ..... | Rhode Island | 8 | ..... |
| Florida | 3 | 1 | South Carolina | ..... | ..... |
| Georgia | 4 | 1 | South Dakota | 5 | ..... |
| Idaho | 1 | ..... | Tennessee | 3 | 6 |
| Illinois | 55 | 22 | Texas | 10 | ..... |
| Indiana | 10 | 3 | Utah | ..... | ..... |
| Iowa | 18 | 1 | Vermont | ..... | ..... |
| Kansas | 3 | ..... | Virginia | 4 | ..... |
| Kentucky | 1 | ..... | Washington | 8 | 2 |
| Louisiana | 4 | 1 | West Virginia | 4 | ..... |
| Maine | 3 | ..... | Wisconsin | 17 | 3 |
| Maryland | 9 | 2 | Wyoming | 2 | ..... |
| Massachusetts | 50 | 3 | | | |
| Michigan | 30 | 4 | Alaska, District of | ..... | ..... |
| Minnesota | 9 | ..... | Canal Zone | ..... | ..... |
| Mississippi | 4 | 1 | District of Columbia | 2 | ..... |
| Missouri | 21 | ..... | Hawaii Territory | ..... | ..... |
| Montana | 3 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 10 | ..... | Porto Rico | 1 | ..... |
| Nevada | 2 | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 2 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 20 | 9 | | | |
| New Mexico | 1 | ..... | Total to residents of the United States | 628 | 132 |
| New York | 115 | 39 | | | |

TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | 1 | ..... |
| Austria-Hungary | 3 | ..... | Newfoundland | ..... | ..... |
| Belgium | ..... | ..... | New South Wales | ..... | ..... |
| British India | ..... | ..... | New Zealand | ..... | ..... |
| Brazil | ..... | ..... | Norway | ..... | ..... |
| British West Indies | ..... | ..... | Portugal | ..... | ..... |
| Canada | 12 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Roumania | ..... | ..... |
| Chile | ..... | ..... | Russia | 1 | ..... |
| Costa Rica | ..... | ..... | Scotland | 1 | ..... |
| Cuba | 2 | ..... | South Australia | ..... | ..... |
| Denmark | ..... | ..... | Spain | ..... | ..... |
| Dominican Republic | ..... | ..... | Sweden | 3 | ..... |
| England | 15 | 5 | Switzerland | ..... | ..... |
| France | 5 | ..... | Transvaal, South Africa | ..... | ..... |
| Germany | 24 | 3 | Venezuela | ..... | ..... |
| India | ..... | ..... | Western Australia | ..... | ..... |
| Ireland | ..... | ..... | | | |
| Italy | 1 | ..... | Total to residents of foreign countries | 67 | 8 |
| Japan | ..... | ..... | | | |
| Mexico | ..... | ..... | | | |

## Delayed Applications.

(ORDER No. 2,107.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 12, 1914.*

It is hereby ordered that after June 1, 1914, the Examiners make special every application which has been pending for five years or longer and every application purporting to be a division or a continuation of an application which has been on file more than five years. After September 15, 1914, no amendment or other paper presented by or on behalf of the applicant in any such application shall be entered without having been first called to the attention of the Commissioner. On September 16, 1914, each Examiner shall report to the Commissioner what applications falling under this order are pending in his division.

THOMAS EWING,
*Commissioner.*

## Correction of Drawings.

RULE 72. * * * * *

The drawing may be withdrawn only for such corrections as cannot be made by the Office; but a drawing cannot be withdrawn unless a photographic copy has been filed and accepted by the Examiner as a part of the application. Permissible changes in the construction shown in any drawing may be made only within the Office and after an approved photographic copy has been filed. Substitute drawings will not be admitted in any case unless required by the Office.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business March 28, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Feb. 3 | Feb. 5 | 651 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Dec. 5 | Mar. 3 | 487 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Mar. 2 | Mar. 16 | 204 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 22 | Mar. 2 | 883 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Dec. 19 | Feb. 2 | 494 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Dec. 4 | Jan. 31 | 738 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 8 | Feb. 10 | 687 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Oct. 11 | Feb. 13 | 1021 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Nov. 1 | Feb. 21 | 506 |
| 235 | 10. Carriages and Wagons | Dec. 1 | Jan. 28 | 1067 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Feb. 2 | Feb. 16 | 413 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Nov. 13 | Dec. 29 | 1390 |
| 320 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Feb. 18 | Feb. 28 | 444 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 11 | Mar. 2 | 484 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Oct. 13 | Jan. 21 | 1409 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 6 | Jan. 26 | 825 |
| 308 | 17. Matrix-Making; Paper Manufacturing; Printing; Type-Bar Making. | Feb. 17 | Mar. 5 | 215 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Feb. 7 | Feb. 21 | 238 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Feb. 6 | 461 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Jan. 12 | Mar. 2 | 300 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Nov. 26 | Feb. 9 | 476 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Jan. 6 | Feb. 26 | 357 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Nov. 12 | Jan. 24 | 508 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Jan. 19 | Feb. 6 | 558 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Feb. 16 | Feb. 19 | 271 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Dec. 1 | 804 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Jan. 17 | Feb. 12 | 486 |
| 65 | 28. Internal-Combustion Engines | Oct. 18 | Feb. 14 | 829 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools. | Feb. 2 | Jan. 27 | 603 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 20 | Mar. 12 | 348 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Dec. 22 | Feb. 7 | 378 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 9 | Feb. 16 | 603 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Feb. 9 | Feb. 16 | 272 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Feb. 18 | Mar. 2 | 288 |
| 87 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Jan. 24 | Mar. 2 | 540 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Feb. 9 | Feb. 5 | 715 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Oct. 8 | Feb. 5 | 834 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationary; Stone-Working; Walls. | Aug. 1 | Jan. 20 | 811 |
| 321 | 39. Water Distribution | Dec. 1 | Jan. 28 | 557 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Dec. 9 | Feb. 2 | 1135 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Feb. 24 | Feb. 24 | 455 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Oct. 28 | Feb. 26 | 513 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Feb. 17 | Feb. 13 | 290 |

Oldest new case, Aug. 1; oldest amended, Dec. 1.
Total number of applications awaiting action..... 25,547

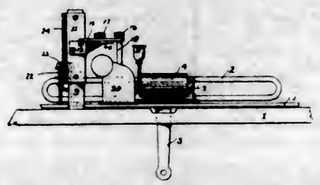
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Jan. 9 | Mar. 10 | 1179 |
| | Designs | Feb. 11 | Mar. 2 | 214 |
| | Labels and Prints | Mar. 14 | Mar. 16 | 60 |



# PATENTS

## GRANTED MARCH 31, 1914.

1,091,470. SYNCHRONIZING DEVICE FOR ADDRESSING AND STAMP-AFFIXING MACHINES. SIDNEY A. ANDERSON, Jersey City, N. J. Filed Apr. 5, 1913. Serial No. 759,052. (Cl. 216—1.)



1. In a mechanism for synchronizing an addressing machine with a stamp-affixing device, the combination of the following elements: a standard secured to the bed of said addressing machine; a slide adapted to reciprocate on said standard; means for securing said stamp-affixing device to said slide and means for simultaneously operating said addressing machine and reciprocating said slide.

2. An addressing machine having an inking device, in combination with a stamp-affixing device; means for securing said stamp-affixing device to said addressing machine, which means holds said device to and permits of a reciprocating movement to and from said addressing machine; and means for simultaneously operating said inking and stamp-affixing devices.

3. In a synchronizing mechanism for an addressing machine and a stamp-affixing device, the combination of the following elements: a standard secured to said addressing machine; a slide adapted to reciprocate on said standard; an arm secured to said slide and adapted to support said stamp-affixing device; a movable arm adapted to reciprocate said slide—said arm being yieldingly attached to said slide.

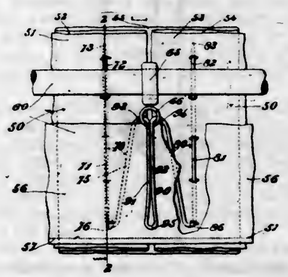
4. In a synchronizing mechanism for an addressing machine and a stamp-affixing device, the combination of the following elements: a standard secured to said addressing machine; a slide adapted to reciprocate on said standard; an arm secured to said slide and adapted to hold said stamp-affixing device—said arm being adjustably secured to said slide, whereby said stamp-affixing device may be universally adjusted in a horizontal plane; and means for reciprocating said slide to operate said stamp-affixing device simultaneously with the operation of said addressing machine.

5. An addressing machine having an inking device and a member adapted to rock on a horizontal axis to operate said inking device; in combination with a standard secured to said addressing machine; a slide mounted on and adapted to reciprocate on said standard; a stamp-affixing device; connections between said slide and said stamp-affixing device; an arm clamped to said rocking member and a spring connecting the outer or free end of said arm to said slide.

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1,091,471. CURTAIN-POLE-CONCEALING SUSPENSION MEANS FOR CURTAINS AND SIMILAR DRAPERIES. EDITH BANCROFT ASHMORE, Philadelphia, Pa. Filed Nov. 24, 1913. Serial No. 802,787. (Cl. 156—21.)

1. A drapery suspension pin composed of wire in one piece and comprising two upturned loops spread apart laterally from each other and having upwardly projecting pointed prongs disposed a substantial distance one from the other and adapted to engage the bodies of separate adjacent folds of a plait of the drapery to be suspended a substantial distance from and parallel with the edges of said folds, and a downturned hook united with said upturned loops and adapted for engagement with a curtain pole or ring, said upturned prongs having elongated extensions adapted to hold the head of the curtain in front of the curtain pole for concealing the latter.



2. A drapery suspension pin for curtains, comprising a hookpin composed of wire in one piece and including a downturned hook adapted for engagement with a curtain pole or ring and upturned pins having sharpened prongs adapted to penetrate the fabric of the curtain, said pins having elongated upward extensions adapted to hold the head of the curtain in front of the curtain pole for concealing the latter.

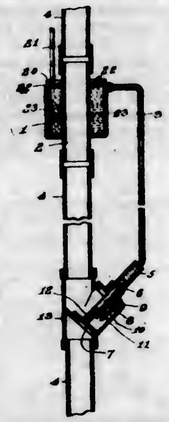
3. A drapery suspension pin composed of wire in one piece and comprising two upturned loops spread apart laterally from each other and having upwardly projecting pointed prongs disposed a substantial distance one from the other and adapted to engage the bodies of separate adjacent folds of a plait of the drapery to be suspended a substantial distance from and parallel with the edges of said folds, a downturned hook united with said upturned loops and adapted for engagement with a curtain pole or ring, and elongated spreading bars adapted to hold said folds flat, said bars being connected at their inner ends with strands forming the shank of said downturned hook and at their outer ends with the shanks of said upturned loops at points remote from said downturned hook and having horizontal loops at their outer ends adapted to receive the prongs of said upturned loops, said upturned prongs having elongated extensions adapted to hold the head of the curtain in front of the curtain pole for concealing the latter.

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1,091,472. ANTIFREEZING DEVICE. ALBERT BABENDREER and CLIFFORD R. WASSELL, Ocean Springs, Miss. Filed June 5, 1912. Serial No. 701,761. (Cl. 137—85.)

1. As a means for operating a valve controlling the flow of water through a pipe to prevent its freezing therein, a rigid chamber filled partly with water and partly with a liquid freezable at a temperature lower than water, said liquid having further a different specific gravity than water and not soluble therein, the water in said chamber being exposed simultaneously to the temperature of water in a pipe and to that of the surrounding atmosphere.

2. The combination with a water pipe, and a valve for controlling the flow of water therethrough, of a valve-operating means consisting of a single rigid chamber filled partly with water and partly with a liquid in bodily contact with the water and freezable at a temperature lower than water, said liquid having a different specific gravity than water and not soluble therein, the water in said chamber being exposed simultaneously to the temperature of the water in said pipe and to that of the surrounding atmosphere and operative connection between said chamber and said valve, whereby the liquid in said chamber becomes effective to operate said valve on and by the freezing of the water in said chamber.



3. The combination of a water pipe, and a pressure-operated valve controlling the flow of water therethrough, of a valve operating means consisting of a rigid chamber surrounding said pipe, said chamber being filled partly with water and partly with a fluid freezable at a temperature lower than water, said liquid further having a different specific gravity than water and insoluble therein, a pipe also filled with said liquid and extending from that portion of said chamber in which said liquid is disposed to said valve, the pressure imparted to said liquid by the freezing of the water in said chamber being effective to operate said valve.

4. The combination of a water pipe, a pressure-controlled valve in said pipe opening in the direction and by the pressure of the flow of water therethrough, a rigid chamber surrounding said pipe and filled partly with water and partly with a liquid freezable at a temperature lower than water, a pipe also filled with said liquid and extending from that portion of said chamber in which said liquid is disposed to said valve.

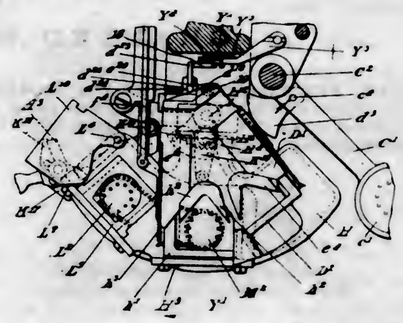
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1,091,473. MACHINE FOR ATTACHING HEELS. WILLIAM RODERICK BARCLAY and JOSEPH GOULDBOURN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Sept. 8, 1904, Serial No. 223,795. Divided and this application filed Nov. 4, 1911. Serial No. 658,612. (Cl. 1—37.)

1. In a heel attaching machine, a plunger, a manually movable oscillatory frame carrying a plurality of sets of nail drivers arranged for alternative engagement with said plunger, and a stationary heel-holder arranged to hold a heel in position to receive nails from one end of said sets of drivers.

2. In a heel attaching machine, a plunger, a manually movable oscillatory frame carrying a plurality of sets of nail drivers arranged for alternative engagement with said plunger, a heel tip or top lift-holder movable with said frame, and a stationary heel-holder arranged to hold a heel in position to receive nails from one of said sets of drivers.

3. A heeling machine, having, in combination, a heel-holder, a top-lift-holder, a plunger, a shoe supporting jack, mechanical means to move the top-lift-holder into operative position between the plunger and the shoe-supporting jack between the attachment of the heel and the top lift, and a device under the control of the operator to prevent the normal action of said means.



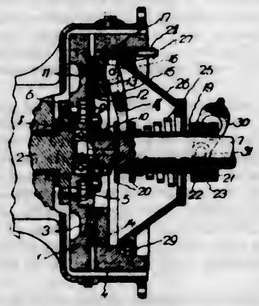
4. In a heel attaching machine, a heel holder, a top-lift-holder, means for placing said heel holder in attaching position, automatic means for moving said heel holder out of and said top-lift-holder into attaching position between the attachment of the heel and the top lift, and means for preventing said operation of the automatic means.

5. In a heel-attaching machine, the combination with a heel-holder and means for securing a top-lift to a heel previously forced out of said holder, of automatic mechanism for opening the heel-holder and keeping it open after removal of the heel from it.

[Claims 6 to 13 not printed in the Gazette.]

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1,091,474. CLUTCH. ELLSWORTH H. BELKNAP, Detroit, Mich., assignor to Golden, Belknap and Swartz Company, Detroit, Mich., a Corporation of Michigan. Filed May 31, 1913. Serial No. 770,898. (Cl. 192—7.)



1. A clutch comprising a driving member, a spider secured in spaced relation thereto, a shaft extending loosely through the spider concentric therewith, a driving plate non-rotatable and longitudinally reciprocable on the shaft between the spider and member, a friction ring between the proximate faces of the drive plate and driving member, a presser ring between the spider and the driving plate, levers pivotally secured on the presser ring and arranged to bear at their outer ends against the spider, a sleeve rotatable and reciprocable on the shaft engaging the free ends of the lever, a spring in compression between the sleeve and the spider for yieldingly holding the plate, the ring and the driving member in frictional engagement, and means for positively shifting the sleeve to disengage the driving plate.



2. A clutch comprising a driving member having recessed annular face, a spider adjustably secured in spaced relation on the driving member, a shaft extending through the spider loosely and in axial alinement with the driving member, a drive plate non-rotatable and longitudinally reciprocable on the shaft between the driving member and the spider, a presser ring between the drive plate and spider, friction rings interposed between the drive plate and the adjacent faces of the member and presser plate, levers mounted on the presser ring and fulcrumed against the spider, a spring normally in compression between the spider and the levers for maintaining the rings and driving plate in frictional engagement, and means forming the connection between the spring and levers and operating to positively move the levers in opposition to the spring.

3. A clutch comprising a driving member, a spider adjustably secured concentrically on the driving member, a shaft extending loosely through the spider in substantially axial alinement with the driving member, a drive plate non-rotatable and longitudinally reciprocable on the shaft, means for frictionally connecting the driving plate and driving member, and spring operated means mounted on and within the spider and adapted to normally hold the driving plate, driving member and frictional engaging means in contact.

4. A clutch comprising a driving member having a circular recess in its outer face, a spider secured to the recessed face of the driving member in axial alinement therewith, a shaft extending loosely through the spider in axial alinement with the driving member, a drive plate non-rotatable and longitudinally reciprocable on the shaft, a presser ring in the circular recess of the driving member substantially concentric with the shaft, friction rings interposed between the driving plate, the driving member and the presser ring, a sleeve rotatable and longitudinally reciprocable on the shaft, oscillatory means mounted on the presser ring and engaged at one extremity by the spider and at the other by the sleeve and spring, and spring means bearing against the spider and moving the sleeve and oscillatory means for holding the presser ring, drive plate and driving member in frictional engagement through the friction rings.

5. A clutch comprising a driving member having an annular face encircled by a marginal flange, a spider in screwthreaded engagement with the flange and in spaced relation to the annular face, a shaft that extends loosely through the spider and is stepped at its inner end in the driving member concentrically therewith, a drive plate non-rotatable and longitudinally reciprocable adjustably on the shaft adjacent the annular face of the driving member, a presser ring loosely mounted in the flange between the drive plate and the spider, friction rings interposed between the drive plate, the presser ring and the driving member, levers pivoted on the presser ring and fulcrumed near their outer ends on the spider, a sleeve rotatable and reciprocable on the shaft engaging the other end portions of the levers, a spring encircling the sleeve and bearing against the spider for projecting the sleeve inwardly, and manually operable means for shifting the sleeve in opposition to the spring for releasing the drive plate.

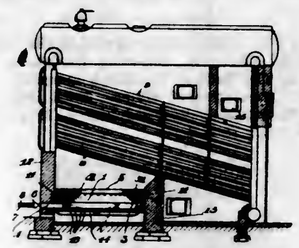
[Claim 6 not printed in the Gazette.]

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1,091,475. TANGENTIAL-FLAME FURNACE. WILLIAM NEWTON BEST, New York, N. Y., assignor, by direct and mesne assignments, of one-third to John H. Best and one-third to Ezra Best, Quincy, Ill., and one-third to William N. Best, Brooklyn, N. Y. Filed Feb. 19, 1904. Serial No. 194,310. (Cl. 110—28.)

1. In a furnace, a substantially round chamber having a tangential inlet and a central outlet in the top, the walls of said chamber overhanging inwardly and being provided with air inlets, and an injector burner arranged to direct fuel tangentially into the chamber.

2. In a furnace, a grate, a perforated floor thereon, and a combustion chamber on said floor having an outlet in the top, the walls of said chamber overhanging inwardly and being provided with a tangential inlet and with air inlets near the top, and an injector burner arranged to direct fuel tangentially into the chamber.



3. In a furnace, a grate, a perforated floor thereon, and a combustion-chamber on said floor having an opening in the top, the wall of said chamber overhanging inwardly and being provided with a tangential inlet and with air inlets which extend from the grate upward and inward and open into the chamber entirely around the same near the upper edge of the overhanging portion of said wall, and an injector burner to direct fuel tangentially into the chamber.

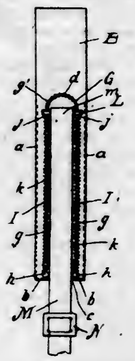
4. A furnace comprising a secondary combustion chamber and a round combustion chamber below the secondary combustion chamber, said combustion chamber having at the top an orifice opening upwardly into the secondary combustion chamber, and air inlets through the chamber wall below said opening; and means for directing a blast of fuel tangentially into said combustion chamber below said air inlets.

5. A furnace comprising a round combustion chamber, means for directing a blast of fuel tangentially into said chamber in one direction at one level, and means for directing a blast of fuel into said chamber in a reverse direction at another level.

[Claim 6 not printed in the Gazette.]

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1,091,476. ELASTIC CONNECTING DEVICE. SIDNEY O. BIGNEY, Attleboro, Mass., assignor to Sidney Suspender Company, Attleboro, Mass., a Corporation of Rhode Island. Filed Jan. 11, 1913. Serial No. 741,455. (Cl. 74—73.)

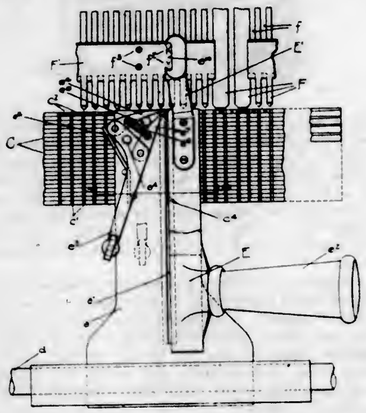


In an article of the type set forth, a casing, a frame of substantially inverted U-shaped form in the casing comprising an arched portion secured to the casing, springs upon the legs of the frame, a cross plate having perforations through which the legs of the frame are freely received, said cross plate having a longitudinal opening, a depending strap having a loop coöperating with said open-

ing and with said cross plate, and balls upon the legs of the frame, said balls being located at intervals and slidable upon said legs, frictionally engaging the coils of said spring, and balls coöperating with said cross plate.

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1,091,477. COMPOSING MECHANISM FOR TYPOGRAPHS. CLAIR H. BRASTED, Cleveland, Ohio, assignor to The Ludlow Typograph Company, Cleveland, Ohio, a Corporation of Maine. Filed Sept. 17, 1910, Serial No. 582,454. Renewed June 3, 1912. Serial No. 701,434. (Cl. 199—5.)



1. In mechanism of the class described, the combination of a suitable support, a plurality of matrix bars movable thereon, a member movable longitudinally of said bars and adapted to engage therewith to bring successive bars in desired position with relation to a fixed transverse line, and means directly coöperative with said bars to shift said member and bars relatively to each other in a direction transverse of the latter.

2. In mechanism of the class described, the combination of a suitable support, a plurality of matrix bars movable thereon, a member movable both longitudinally and transversely of said bars and adapted to engage therewith, whereby successive bars may be brought and left in desired position with reference to a fixed transverse line, and means borne by said member and adapted to coöperate directly with said bars to shift the former in a direction transverse of the latter.

3. In mechanism of the class described, the combination of a suitable support, a plurality of matrix bars movable thereon, a member movable longitudinally of said bars and adapted to engage therewith to bring successive bars in desired position with relation to a fixed transverse line; means directly coöperative with said bars to shift said member and bars relatively to each other in a direction transverse of the latter so as to release successive bars, and means adapted to secure a bar in its selected position upon said bar being thus released.

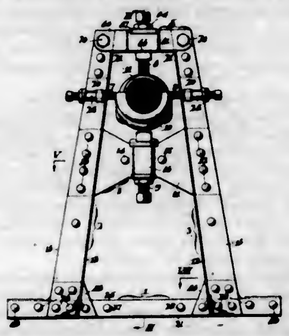
4. In mechanism of the class described, the combination of a suitable support, a plurality of matrix bars movable thereon, a member movable both longitudinally and transversely of said bars and adapted to engage therewith, whereby successive bars may be brought and left in desired position with reference to a fixed transverse line, means borne by said member and adapted to coöperate directly with successive bars to shift the former in a direction transverse of the latter so as to release successive bars, and means adapted to secure a bar in its selected position upon said bar being thus released.

5. In mechanism of the class described, the combination of a plurality of matrix bars supported so as to be longitudinally movable; a member movable longitudinally of said bars and adapted to engage a number thereof to move the same; and means carried by said member and directly coöperative with said bars to shift said member and bars relatively to each other in a direction transverse of the latter.

[Claims 6 to 31 not printed in the Gazette.]

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1,091,478. SHAFT-HANGER. CHARLES A. BRINLEY, Philadelphia, Pa., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 19, 1912. Serial No. 684,766. (Cl. 64—14.)



1. In a shaft hanger, the combination of a foot-piece comprising a pair of angle irons arranged with their vertical flanges inward; spacing-pieces between said vertical flanges; gusset plates embracing said vertical flanges; two arms, each formed of a pair of angle irons, the adjacent flanges of each pair being situated at the outer side of the arm and arranged in relatively close proximity to one another at the regions near the box-supporting screws, said flanges, at one extremity, engaging the gusset plates and vertical flanges of the foot-piece, and, at the other extremity, being prolonged beyond their correlative flanges; a spacing-piece arranged between said prolonged extremities; rivets extending through the adjacent flanges of said arms; means for securing together the members of the foot-piece and the extremities of the arms with the intervening gusset plates; a yoke, comprising a pair of side pieces which embrace the prolonged extremities of the arm flanges; and means for securing together the side-pieces of the yoke and the said prolonged extremities with the intervening spacing piece, substantially as set forth.

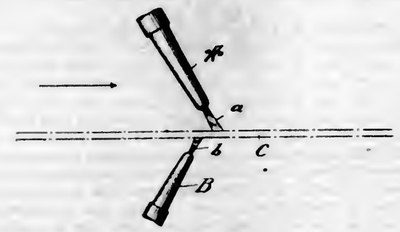
2. In a shaft hanger, the combination of arms, each formed of a pair of angle irons; a foot-piece comprising a pair of flanged members arranged with their vertical flanges inward; spacing-pieces between said vertical flanges; gusset plates secured to said arms and said foot-piece, said gusset plates having horizontal flanged portions which abut together; means for securing the parts of the foot-piece, the gusset plates and the adjacent extremities of the arms together; and a yoke piece connecting the other extremities of the arms, substantially as set forth.

3. In a shaft-hanger, the combination of arms, each formed of a pair of angle-irons, a foot-piece comprising a pair of flanged members arranged with their vertical flanges inward, spacing pieces between said vertical flanges, gusset plates secured to said foot-piece, said gusset plates having meeting horizontal flanged portions with an inclosed aperture, and means for securing the members of the foot-piece, the gusset plates and the arms together.

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1,091,479. WELDING PROCESS. WORTHY C. BUCKNAM, Jersey City, N. J., assignor to Davis-Bournonville Company, New York, N. Y., a Corporation of New York. Original application filed July 12, 1912, Serial No. 709,079. Divided and this application filed Dec. 10, 1912. Serial No. 735,909. (Cl. 113—112.)

1. The method of welding autogenously by means of gases which comprises placing the portions to be united edge to edge, directing autogenous welding flames in coöperative relation upon opposite sides of the work on the line of the weld and producing continuous relative movement between the welding flames and the work lengthwise of the seam, the work being between the welding flames, and the coöperative relation of the flames being preserved during said movement, so that the seam is welded simultaneously at both sides by virtue of the coöperative action of the flames.



2. The method of welding autogenously by means of gases, which comprises placing the portions to be united edge to edge, causing an autogenous welding flame to play upon one side of the work on the line of the seam, directing an assisting flame upon the opposite side of the work, and producing continuous relative movement between the flames and the work in the direction of the line of weld, the work being between the welding flames, and the coöperative relation of the welding flames being preserved during said movement.

3. The method of autogenously welding seams which comprises placing the portions to be united edge to edge, directing coöperating autogenous welding flames upon opposite sides of the work and in slightly spaced relation lengthwise of the seam, and producing substantially continuous relative movement between the welding flames and the work so that the flames travel along the seam in this relation, the work being between the flames.

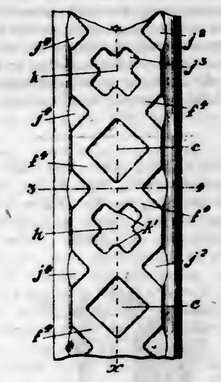
4. The method of autogenously welding seams which comprises placing the portions to be united edge to edge, directing unequal coöperating autogenous welding flames upon opposite sides of the work and in slightly spaced relation lengthwise of the seam, and producing substantially continuous relative movement between the welding flames and the work so that the flames travel along the seam in this relation, the work being between the flames.

5. The method of producing autogenously welded seams in sheet metal, which comprises placing the edges of the sheet or sheets contiguous each other, directing autogenous welding flames of unequal size upon said edges at opposite sides of the work, the larger flame being somewhat in advance, and producing continuous relative movement between the flames and the work, so that the flames travel along the seam in this relation, the work being between the flames.

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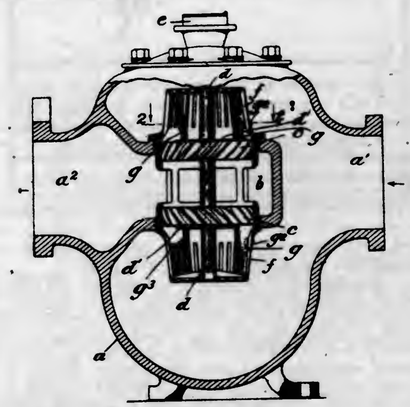
1,091,480. PNEUMATIC OR ELASTIC TIRE. CUTHBERT BUANETT, Durham, England. Filed Mar. 7, 1911. Serial No. 612,920. (Cl. 152—14.)

A tire having a tread portion provided with raised sets of broad tread ribs extending in cross relation with respect to each other from one lateral margin of the tire tread to the other, each rib having its ends offset with respect to each other, the ribs of one set crossing the ribs of the other set at the central line of drive of the tread and the ends of the ribs of one set merging with the ends of the ribs of the other set at the margins of the tire tread, the ribs of each set being substantially parallel and uniformly spaced apart from each other a distance exceeding the width of one rib, said ribs thereby forming a series of relatively spacious suction cups along the line of tread, the inner margins of the ribs and alternate cups having pointed projections extending toward the center of such cups, certain of said points coinciding with the line of drive and the remaining points projecting at an angle to the line of drive, substantially as described.



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1,091,481. WATER-METER. JAMES M. BURTON, New York, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed May 10, 1913. Serial No. 766,722. (Cl. 138—7.)



1. In combination with a meter casing having an inlet and an outlet and an apertured inner wall, a turbine wheel mounted in said wall and actuated by the flow of liquid therethrough, a stop plate mounted with the wheel, a slotted cage secured to said inner wall and inclosing the wheel, and a scraper removably secured to the inner wall of the cage with its lower edge in juxtaposition to the edges of the blades of the turbine wheel, the body of the scraper being disposed substantially tangential to the stop plate.

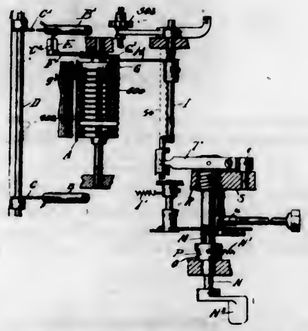
2. In combination with a meter casing having an inlet and an outlet and an apertured inner wall, a turbine mounted in said wall and actuated by the flow of liquid therethrough, a slotted cage secured to said inner wall and inclosing the wheel, and a scraper secured to the inner wall of the cage with its lower edge in juxtaposition to the edges of the blades of the turbine wheel, the body of the scraper being disposed angularly to the upper edges of the blades and its deflecting face being inclined upwardly and outwardly therefrom.

3. In combination with a meter casing having an inlet and an outlet and an apertured inner wall, a turbine

mounted in said wall and actuated by the flow of liquid therethrough, a stop plate mounted with the wheel, a slotted cage secured to said inner wall and inclosing the wheel, and a substantially diamond-shaped scraper secured to the inner wall of the cage with its lower edge in juxtaposition to the edges of the blades of the turbine wheel and its upper and forward edges meeting in a cutting point in the path of the material to be disintegrated, the body of the scraper being disposed substantially tangential to the stop plate.

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1,091,482. COMPUTING AND PRINTING MACHINE. FRED MERCHANT CARROLL, New Haven, Conn., assignor, by mesne assignments, to The White Adding Machine Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 26, 1906. Serial No. 340,636. (Cl. 235—60.)



1. In a machine of the character described, the combination of a type member, a bichrome ribbon, a platen cooperating therewith, said ribbon normally having one color in the printing line, said type member having two sign printing faces normally out of the printing line, means for causing said ribbon and said type member to shift so as to move one of said sign printing faces and the other color of said ribbon into the printing line, a manually operated member controlling said means and other manually operated means for shifting the other sign printing face into the printing line without shifting said ribbon.

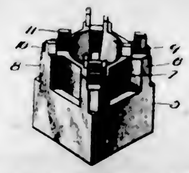
2. In a machine of the character described, the combination of a type member, a bichrome ribbon, a platen cooperating therewith, said ribbon normally having one color in the printing line, said type member having two sign printing faces normally out of the printing line, means for causing said ribbon and said type member to shift so as to move one of said sign printing faces and the other color of said ribbon into the printing line, a manually operated member for controlling said means and other manually operated means for shifting the other sign printing face into the printing line without shifting said ribbon, accumulating mechanism, and totalizing mechanism controlled by said member and means respectively.

3. In a machine of the character described, the combination of means for adjusting the machine for computing and printing addition and subtraction items, means for adjusting the machine for printing totals, means for making the record of the latter class of items in one color and means for making the record of the subtraction class of items in another color and means for printing a distinguishing mark against one of said two classes of items, said last three means being controlled by said adjusting means.

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1,091,483. NUT-LOCK. HENRY CARTER, Kansas City, Mo. Filed June 23, 1913. Serial No. 775,357. (Cl. 151—8.)

1. The combination with a bolt having a groove extending longitudinally through its threaded part, of a nut on said bolt having an inwardly tapered longitudinal groove opening through its outer edge, and having a transverse groove in its outer edge communicating with the tapered groove, a wedge shaped key adapted for seating in the bolt and nut groove and having a wing for projection into the transverse nut groove and laterally beyond the grooved part, and lips integral with the nut and arranged at opposite sides of the longitudinal groove, for the purpose set forth.

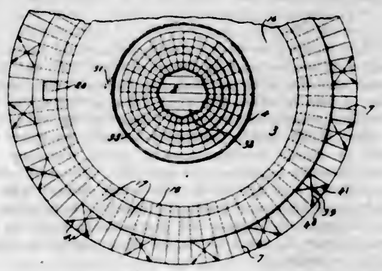


2. The combination with a bolt having a longitudinal groove therein, of a nut having a collar on its outer end of greater diameter than the threaded portion of the nut, and having a longitudinal groove therein and a transverse groove at its outer edge opening into the longitudinal groove, and a key having a body portion seated in the longitudinal nut groove and projected into the bolt groove, and having a wing seated in the lateral nut groove and projected beyond the outer face of said extension, substantially as set forth.

3. The combination with a bolt, having a groove extending longitudinally through its threaded part of a nut on said bolt provided with an extension having an interior diameter greater than that of the threaded part of the nut, a plurality of sockets opening into the interior of the extension and having outwardly opening end grooves, a key located within one of said sockets with its inner end projected into the bolt groove, and having an ear seated in the extension groove, and ears on the extension folded over the key, substantially as set forth.

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1,091,484. AUTODROME. HENRY JACK COHN, Chicago, Ill. Filed Aug. 26, 1912. Serial No. 717,216. (Cl. 104—111.)



1. A bowl-shaped auto-drome having an endless track surface, an auditorium located therein, and a door mounted in and forming a part of said track surface and providing ingress and egress for spectators to and from said auditorium.

2. A portable auto-drome comprising an auditorium, an endless bowl-shaped track surface arranged circumferentially about said auditorium, and a supporting framework for said track surface, said track surface having a door countersunk therein and adapted to have its inner surface substantially flush with the plane of said track surface when mounted in closed position, said door being adapted to provide ingress and egress for spectators to and from said auditorium.

3. A portable auto-drome comprising an auditorium, an endless bowl-shaped track surface arranged circumferentially about said auditorium, and a supporting framework for said track surface, said track surface comprising a plurality of sections interchangeably mounted on said framework and each comprising a plurality of removably mounted panels.

4. A portable auto-drome comprising an auditorium, an endless bowl shaped track surface arranged circumferentially about said auditorium, a supporting framework for said track surface, said track surface comprising a plurality of sections removably mounted on said framework, and bolts for securing said sections to said framework, said bolts being countersunk in said sections to provide a track surface substantially flush throughout its entire area.

5. A portable auto-drome comprising an auditorium, an endless sectional track surface arranged circumferentially about said auditorium, a door mounted in said track surface and providing ingress and egress to and from said auditorium, and a supporting framework for said track surface said supporting frame work comprising a plurality of interchangeable buttresses spaced apart circumferentially around said track surface, readily detachable means rigidly connecting said buttresses in series about said track surface, and means for rigidly securing each of said buttresses to the ground.

[Claim 6 not printed in the Gazette.]

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1,091,485. COMBINED PRIMING-CUP AND COMPRESSION-RELIEF COCK. FRANK J. COLEMAN, Washington, D. C. Filed Jan. 20, 1913. Serial No. 743,129. (Cl. 123—187.5.)



1. A combined priming cup and compression relief cock comprising a cup to receive a priming charge, a central longitudinal bore passing through the device, a threaded end for threaded connection with the combustion chamber of an internal combustion engine, a tapered valve seated transversely of the device, said tapered valve being provided with a transverse bore in alinement with the first mentioned bore and provided also with an enlarged chamber, a ball valve within said enlarged chamber adapted to seat at one end thereof so as to prevent ingress into the combustion chamber from the atmosphere, the said tapered valve being provided with a handle to rotate the same to unseat the said ball valve to effect ingress from the atmosphere to the combustion chamber and to prevent egress from the combustion chamber to the atmosphere, the said tapered valve being also tapered to be turned so as to bring its said bore transversely of the said bore in said cup to close communication between the combustion chamber of the motor and the atmosphere, substantially as described.

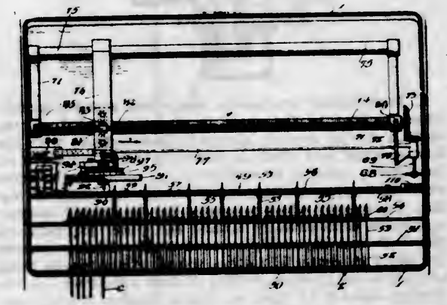
2. A combined priming cup and compression relief cock comprising means to receive a priming charge and a passage to lead the same into the combustion chamber of an internal combustion engine, a valve arranged transversely of the said passage, said valve being rotatable and provided with a bore transversely thereof and adapted to be brought into alinement with the said passage, a valve arranged in said transverse valve adapted to be brought into alinement with the said passage and adapted to be positioned so as to prevent egress from the combustion chamber of the motor to the atmosphere and to provide ingress from the atmosphere to the combustion chamber of a motor, the said valve being also adapted to be positioned in alinement with the said passage to prevent ingress from the atmosphere to the combustion chamber of a motor and to effect egress from the combustion chamber of the motor to the atmosphere, substantially as described.

3. A combined priming cup and compression relief cock for internal combustion engines comprising means for receiving a priming charge and for leading the same into the combustion chamber of an internal combustion engine, a valve in said device adapted to be moved into open position and into closed position to open and close communication between the atmosphere and the combustion chamber of an internal combustion engine, and a valve arranged in the first mentioned valve adapted to prevent egress from the combustion chamber when the first mentioned valve is in an open position, said valve within the first mentioned valve being also arranged to allow ingress to the combustion chamber when the first mentioned valve is in an open position.

4. A combined priming cup and compression relief cock for internal combustion engines comprising means for receiving a priming charge and for leading the same into the combustion chamber of an internal combustion engine, means for opening and closing communication between the atmosphere and the combustion chamber of an internal combustion engine, and further means arranged in said first mentioned means for preventing egress from the combustion chamber of the motor to the atmosphere when the said first mentioned means is in open position and for allowing ingress from the atmosphere to the combustion chamber of an internal combustion engine when the said first mentioned means is in open position.

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1,091,486. APPOINTMENT-CLOCK. WILLIAM C. CUTLER, Sawtelle, Cal. Filed Sept. 22, 1913. Serial No. 791,026. (Cl. 161—1.)



1. In combination, a case provided with a plurality of openings which respectively correspond to different times, cards adapted to be placed in said openings, clock mechanism, and means controlled by said clock mechanism for causing a card to protrude from its opening while being retained at a time corresponding to the opening in which the card lies.

2. The combination with a clock mechanism, of a casing provided with slots, cards adapted to contain written memoranda and to be manually placed in the slots, and means operated by said clock mechanism for projecting each card from its slot at a time corresponding to the position of the slot, said cards adapted to protrude from the slots when projected.

3. The combination with a clock mechanism, of a plurality of exhibits, means controlled by said clock mechanism for exposing said exhibits at predetermined times, and a phonograph, controlled by said clock mechanism, for enunciating the exposure of each exhibit.

4. The combination with a clock mechanism, of a casing provided with a plurality of slots, a plurality of card holders in registration with said slots, a plurality of cards adapted to be inserted through said slots into said card holders, and means operated by said clock mechanism for actuating said card holders to project the cards through said slots at predetermined times, said cards adapted to protrude from the slots when projected.

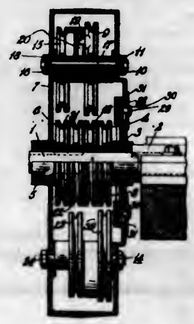
5. The combination with a clock mechanism of a plurality of card holders arranged in rows, projecting means for each card holder adapted to be set to project the respective card holders and the cards within said holders, an engaging element adapted to travel successively along

each row of projecting means, and adapted to engage each of said projecting means which is set to enable said means to project the card holder with which it is associated forwardly and the card holder within said holder into view at a predetermined time, and means for bringing said engaging element back to the beginning of the first row of projecting means after said engaging element has traveled along all of said rows of projecting means.

[Claim 6 not printed in the Gazette.]

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1,091,487. TRANSMISSION MECHANISM. HENRY DAVLIN, Bay City, Mich., assignor to The M. Garland Company, Bay City, Mich., a Corporation of Michigan. Filed Feb. 2, 1912. Serial No. 674,878. (Cl. 74—34.)



1. Transmission mechanism comprising a shaft, a drive wheel secured to the shaft, a wheel journaled on the shaft, a driving member rotatable concentrically with the driving wheel and shaft, a planetary wheel journaled on the driving member to revolve in the plane of the drive wheel and adjustably secured to change its center of motion, a planetary wheel journaled on the driving member to revolve concentrically around the wheel journaled on the shaft and adjustably secured to the driving member to change its center of motion, the planetary wheels being adapted to interlock regardless of their adjustment on the driving member to turn in unison, flexible driving connections between the planetary wheels and the companion drive and shaft wheels, and means for locking the wheel that is journaled on the shaft from turning.

2. Transmission mechanism comprising a shaft, a drive wheel secured to the shaft, a wheel journaled on the shaft, a driving member rotatable concentrically with the driving wheel and shaft, a planetary wheel adjustably journaled on the driving member to revolve in the plane of the drive wheel, a planetary wheel adjustably journaled on the driving member to revolve in the plane of the wheel journaled on the shaft, flexible driving connections between each planetary wheel and the companion drive wheel and shaft wheel, means for locking the wheel journaled on the shaft from turning, and a counterbalance for the planetary wheels and the driving connections thereof adjustably secured on the driving member, the planetary wheels being interlocked to turn together regardless of the relative independent adjustments of the latter on the driving member.

3. Transmission mechanism comprising a shaft, a drive wheel secured thereto and provided with members, a wheel journaled on the shaft, means for locking the latter wheel from turning, a driving member rotatable concentrically with the drive and shaft wheel, symmetrically disposed planetary wheels independently adjustable on the driving member, each revoluble in a plane of a member of the drive wheel, symmetrically disposed planetary wheels independently and adjustably mounted on the driving member each revoluble in the plane of a member of the wheel that is rotatable on the shaft, the adjacent pairs of planetary wheels being loosely interlocked to rotate in unison regardless of their different adjustments, and a counterweight to the planetary wheels adjustably secured on the driving member.

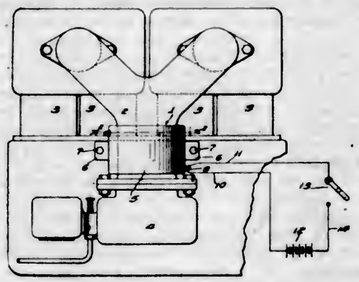
4. Transmission mechanism comprising a shaft, a drive wheel secured thereto, a wheel journaled on the shaft, means for locking the latter wheel from turning, a driving member rotatable concentrically with the drive and shaft wheels, symmetrically disposed planetary wheels independently adjustable on the driving member, each revoluble in the plane of a member of the drive wheel, symmetrically disposed planetary wheels independently and adjustably secured on the driving member each revoluble in the plane of a member of the wheel journaled on the shaft, the adjacent planetary wheels being interlocked to rotate together regardless of their independent adjustment, flexible driving connections between the several members of the drive and shaft wheels and the companion planetary wheels, the adjustment of the planetary wheels providing for taking up the slack of such connections, and a counterweight on the driving member for the planetary wheels.

5. Transmission mechanism comprising a shaft, a wheel rotatable thereon, a drive wheel secured to the shaft, bearing hubs on these wheels, a driving member rotatable on the bearing hubs concentrically with the wheels which it houses, means for locking the wheel journaled on the shaft from rotating, both drive and journaled wheels being formed of spaced members, a planetary wheel for each member of these wheels adjustably secured in the driving member to revolve in the plane of a companion member, the adjacent planetary wheels being adapted to interlock to rotate together regardless of their independent adjustment, endless flexible driving connections between the member and the companion planetary wheels, the adjustment of the planetary wheels providing for taking up slack in the several flexible connections, and a counterbalance on the drive member for the planetary wheels and the drive connections thereof.

[Claim 6 not printed in the Gazette.]

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1,091,488. ATTACHMENT FOR INTERNAL-COMBUSTION ENGINES. WILLIAM W. DODGE, Chicago, Ill. Filed Apr. 3, 1911. Serial No. 618,704. (Cl. 219—38.)



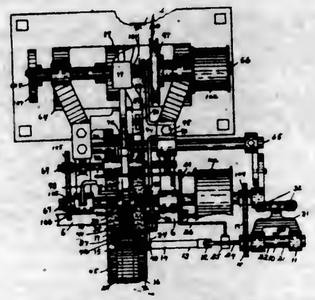
A device of the character described comprising a pipe; an inner shell formed of segmental copper sheets in contact with the periphery of the pipe; segmental heat-conducting electrical insulation in contact with the copper sheets; segmental electrical resistance units in contact with said heat-conducting electrical insulation; segmental non-heat-conducting electrical insulation adjacent said resistance units; and an outer segmental shell around the non-heat-conducting insulation; said insulation segments, resistance segments and inner and outer shell segments being radially alined in sets substantially as and for the purpose set forth.

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1,091,489. GRINDING AND POLISHING MACHINE. NICHOLAS J. DOWNEY, Wallingford, and SIMON KUMKUMIAN, Meriden, Conn. Filed Oct. 18, 1913. Serial No. 795,878. (Cl. 51—4.)

1. A grinding machine comprising a grinding wheel, supporting means for supporting one end of the work, means for turning the said supporting means, and means independent of the said supporting means for pressing the other end of the work against the said wheel.





2. A grinding machine for knife handles comprising a grinding wheel, supporting means for supporting the blade end of a knife, means for turning the said supporting means, and means independent of the said supporting means for pressing the handle end of the said knife against the said wheel, and the said supporting means comprising as one part a resiliently yielding member.

3. A grinding machine comprising a grinding wheel, means for holding the work adjacent thereto, and means for pressing the work against the periphery thereof, and the said first means comprising a flexible shaft having a work holder at one end and one end of the said shaft being fixed relatively to the said grinding wheel.

4. A grinding machine comprising a grinding wheel, a flexible shaft operative to support one end of the work and to impart rotary motion to the work, means for pressing the other end of the work against the said wheel comprising a main arm having a tilting movement, means coöperative with the said arm and operative in certain positions thereof to engage with the said flexible shaft adjacent the end thereof.

5. A grinding machine comprising a grinding wheel, a flexible shaft connected to one end of the work and operative to impart rotary movement thereto and operative to support the said one end of the work generally, means for providing an auxiliary support for the said end of the work in certain positions of the said rotary movement thereof.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,490. LETTER-FILE. PETER EBNER, Columbus, Ohio. Filed Aug. 22, 1912. Serial No. 716,365. (Cl. 129—15.)



1. A letter file comprising a casing, a stop carried by said casing, a removable tray within the casing and formations carried by said tray for removably carrying index leaves and for coacting with said stop to prevent removal of said tray when drawn out in its normal plane and constructed to permit removal of the tray when tilted out of its normal plane.

2. A letter file comprising a casing, a stop carried by said casing, a removable tray within the casing, and formations carried by said tray for removably carrying index leaves, said formations coacting with said stop to prevent removal of said tray when drawn outward in its normal plane.

3. A letter file comprising a casing, a removable tray within said casing, an inwardly extending reinforcing rib on one edge of the end of said casing, and formations carried by said tray for removably carrying index leaves, said formations coacting with said rib to prevent removal of said tray when drawn out in its normal plane, but permitting removal of the tray when tilted out of said normal plane.

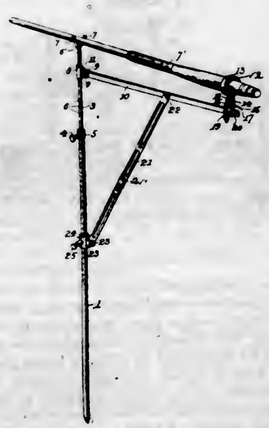
4. A letter file comprising a casing, a gate hinged to said casing, an inwardly extending rib on one edge of the open end of said casing, a tray, open ended hook formations carried by said tray for coaction with said rib for preventing removal of the tray when drawn out in its normal plane, said open end permitting removal of the tray when tilted out of its normal plane.

5. A letter file comprising a casing having a body of two sides and one end formed of a single piece of material, the top and bottom edges of said side pieces being doubled back to form hook channels, top and bottom pieces formed with channel formations along their longitudinal edges for engagement with the channels on said side pieces, and flange formations on said top and bottom pieces for engagement with the end of said body.

[Claim 6 not printed in the Gazette.]

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1,091,491. FISHING-ROD SUPPORT. THOMAS R. L. EBUR, Lebanon, Pa. Filed May 6, 1913. Serial No. 765,868. (Cl. 248—37.)



1. A device of the class described comprising a staff terminating in a rod support at the upper end thereof, a laterally extending arm, a rod support on the arm, and a brace between and pivotally connected to the staff and said arm.

2. A device of the class described comprising a vertical staff, a vertically extensible member having a rod support at its upper end, a laterally extending arm pivotally joined to said member, a rod support on said arm, and an extensible brace between and pivotally connected to said staff and said arm.

3. A device of the class described comprising a vertical staff, a vertically extensible member terminating in a rod support at its upper end, a laterally extending arm pivotally joined to said member, an annular flexible support on said arm, an extensible brace between and pivotally connected to said staff and said arm.

4. A device of the class described comprising a tubular staff, a member vertically adjustable in said staff and having a rod support at its upper end, a laterally extending arm pivotally joined to said member, a rod support on the free end of the arm, and an extensible brace between and pivotally connected to said staff and said arm.

5. A device of the class described comprising a staff, a vertically extensible member having a rod support at its upper end, a laterally extending arm pivotally joined to said member, a rod support angularly adjustable on said arm, a brace pivotally secured to the arm, and means for adjusting said brace vertically on said staff.

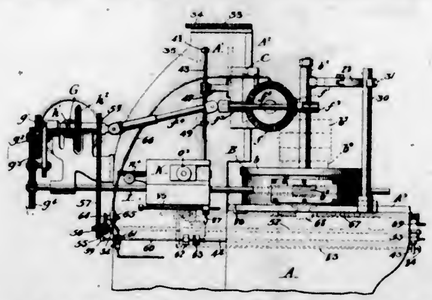
[Claims 6 and 7 not printed in the Gazette.]

1,091,492. ENAMEL. HRAND G. ESSAYAN, Boston, Mass. Filed Nov. 20, 1912. Serial No. 732,486. (Cl. 134—1.)

1. As a new article of manufacture, an enamel comprising one part by weight of silver, four parts by weight of copper, four parts by weight of lead, and forty parts by weight of sulfur.

2. The process of making enamel, which consists in melting silver, copper and lead, adding sulfur to the molten mass, and then heating said molten mass for a short period, cooling the same, crushing the resulting product after cooling, removing the pulverized portion thereof, reheating and melting the remaining non-pulverizable portion, again crushing the mass after cooling and separating the pulverized part therefrom, and repeating such heating, crushing and separation until substantially the entire mass is reduced to powder.

1,091,493. GEAR-HOBBING MACHINE. FAY O. FARWELL, Dubuque, Iowa. Filed June 10, 1911. Serial No. 632,395. (Cl. 90—4.)



1. In a gear hobbing machine, a vertically slidable hob saddle, a hob spindle carried thereby, a main driving shaft, means to transmit motion from said shaft to said saddle, a rod provided with shoulders adapted to be engaged by said saddle in its movement to raise or lower the rod, said rod provided with a recess, a trigger adapted to be actuated by said recess, and a clutch adapted to be operated by said trigger to control the movement of said saddle.

2. In a gear hobbing machine, a hob saddle mounted for vertical movement, a hob spindle carried by said saddle, a horizontal work table, a main driving shaft, means to impart motion from said shaft to the saddle, and means comprising a universal stub shaft to impart motion to the spindle, means to impart a rotary motion to said table, means to trip the vertical movement of said hob saddle comprising a rod actuated by said saddle, said rod provided with a recess, a trigger adapted to be actuated by said recess, and a clutch mechanism adapted to be operated by said trigger.

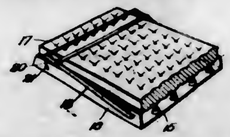
3. In a gear hobbing machine, a vertically movable hob saddle, a hob spindle carried thereon, a rotatable work table, a main driving shaft, means to impart motion from said shaft to the hob saddle comprising a change speed mechanism, a vertical shaft, a worm driven by the change speed mechanism to operate said vertical shaft, a clutch mechanism disposed on said vertical shaft, a rod actuated by the hob saddle in its movement, said rod provided with a recess, a trip lever adapted to be actuated by said recess, said lever adapted to operate said clutch mechanism to control the movement of said hob saddle, means to rotate the work table, and means comprising a universal stub shaft driven by the main shaft to rotate said hob spindle.

4. In a gear hobbing mechanism, a vertically movable hob saddle, a spindle on said saddle, a rotatable and sliding work table, means to operate said saddle and said spindle, means to rotate said table, and means to feed said table toward said hob saddle, said means comprising a screw shaft, a clutch keyed to said shaft, a ratchet loosely mounted on said shaft, an eccentric bushing adapted to continually rotate said ratchet, and means to operate said clutch to cause the ratchet wheel to operate the screw shaft thereby feeding the work table as aforesaid.

5. In a gear hobbing machine, the combination of a supporting member, a plate swiveled thereon and carrying a hob spindle, said plate having a flattened edge, and a gage piece having a tapering side to abut said flattened edge and adapted to register with a suitable mark on the supporting member.

[Claims 6 to 10 not printed in the Gazette.]

1,091,494. FOLDING BED. WALDO R. FILLMORE and ELMER BOILLOT, Kansas City, Mo. Filed June 14, 1913. Serial No. 773,744. (Cl. 5—18.)



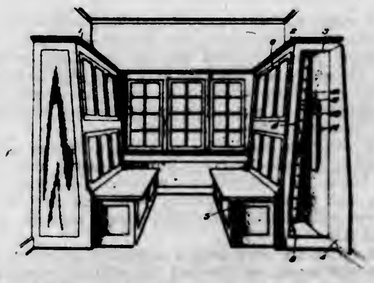
1. A folding bed comprising housings spaced apart and provided with facing seats, and frame sections pivotally connected with the housings at the seat positions and adapted for support on said seats.

2. A folding bed comprising housings spaced apart and provided with facing seats, frame sections pivotally connected with the housings at the seat positions and adapted for support on said seats, and latches for attaching the frame sections to each other and to an adjacent seat.

3. A folding bed comprising spaced housings, having fixed seats, a frame mounted in one of said housings and adapted for support on both of said facing seats, and a frame member mounted in the second housing and adapted for support on the seat of the housing in which it is mounted, and for coöperation with the first named frame to form a bed structure.

4. A folding bed comprising spaced housings provided with facing seats, a major frame mounted on one of said housings and adapted for extension therefrom and for support on both of said seats, means for anchoring said frame to the outer seat, a minor frame mounted in the second housing and adapted for support on the seat of the housing within which it is mounted and for coöperation with the first named frame to form a bed structure, and a latch for connecting the separate frame members.

1,091,495. COMPARTMENT-BED. WALDO R. FILLMORE and ELMER BOILLOT, Kansas City, Mo. Original application filed June 14, 1913, Serial No. 773,744. Divided and this application filed Dec. 6, 1913. Serial No. 805,008. (Cl. 5—18.)



1. Spaced housings, each provided with a seat, and a bed frame pivotally mounted in one housing and adapted for lowering onto both of said seats.



2. The combination with fixed housings, arranged in spaced relation and comprising facing seats, of a bed frame pivotally mounted in one of the housings and adapted for lowering onto and simultaneous support by both of said seats.

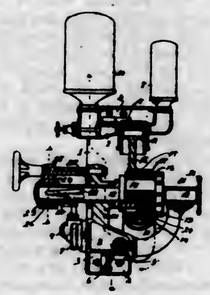
3. The combination with fixed housings arranged in spaced relation and comprising facing parallel seats, of a bed frame hinged at the rear of one of said seats and adapted for inclosure within its housing and for lowering onto and support by both of said seats.

4. The combination with fixed housings arranged in spaced relation and comprising facing parallel seats, of a bed frame hinged at the rear of one of said seats and adapted for inclosure within its housing and for lowering onto and support by both of said seats; said frame comprising a portion projected into said housing and adapted for abutment against the back of the housing seat when the frame is in closed position.

5. The combination with fixed housings arranged in spaced relation and comprising facing parallel seats, of a bed frame hinged at the rear of one of said seats and adapted for inclosure within its housing and for lowering onto and support by both of said seats; said frame comprising a portion projected into said housing and adapted for abutment against the back of the housing seat when the frame is in closed position, and a counterweight on the inner end of said frame, within the housing.

[Claim 6 not printed in the Gazette.]

1,091,496. PUMP. CHARLES H. FOX, Cincinnati, Ohio. Filed June 30, 1910. Serial No. 569,671. (Cl. 74—1.)



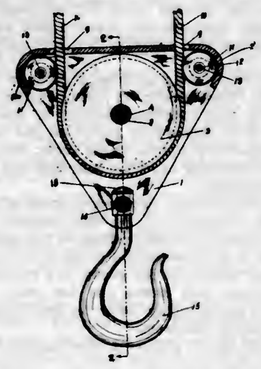
1. The combination of a shaft formed with an eccentric intermediate portion, a sleeve, a compensating eccentric consisting of separable members assembled within the sleeve and mounted on said eccentric portion of the shaft, a dog mounted to turn with the shaft and movably engaging with the compensating eccentric, and means for rotatively adjusting the dog on the shaft together with said eccentric during the rotation of the shaft.

2. The combination of a crank shaft, a sleeve thereon provided with a dog, an eccentric mounted on the crank pin and engaging with the dog, said shaft and sleeve being formed with oblique grooves at an angle to each other, a pin slidably engaging with said grooves, and means for moving the pin along the grooves for rotatively adjusting the sleeve with the eccentric in relation to the shaft.

1,091,497. FALL-BLOCK. JOHN C. FOX, McKeesport, Pa. Filed Oct. 20, 1913. Serial No. 796,119. (Cl. 57—34.)

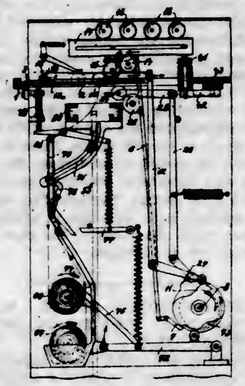
1. A fall block comprising a pair of side plates, a main sheave journaled between said side plates, a cover portion spanning the distance between said side plates at the top portion thereof, said cover being apertured for the sheave ropes, a swiveled hook carried between said plates at the bottom thereof, and a plurality of idler sheaves mounted between said plates directly beneath said cover portion.

2. A fall block comprising a pair of side plates, the upper portions of said plates being substantially horizontal when the block is held operatively suspended, a cover portion of substantially plane formation spanning the distance between the upper portions of said plates, a sheave journaled between said plates, said cover being apertured for the sheave ropes, and a hook mounted between said plates at the bottom thereof.



3. A fall block comprising a pair of substantially triangular side plates having one of their legs disposed in a horizontal position when the block is held operatively suspended, a cover portion of substantially plane formation spanning the distance between the horizontally disposed portions of said plates and extending an appreciable distance around the corners thereof, a main sheave journaled between said side plates, said cover portion being apertured for the sheave ropes, a pair of idler sheaves mounted between said plates, one in each of said protected corners, and a hook mounted between said plates at the bottom thereof.

1,091,498. APPARATUS FOR PRINTING AND REGISTERING TICKETS. HEINRICH FRIEDLEIN, Cologne-Deutz, Germany, assignor to The Firm of Kontrolldruck-Automaten-Gesellschaft M. B. H., Cologne, Germany. Filed Feb. 1, 1912. Serial No. 674,737. (Cl. 101—187.)



1. In a printing machine, a group of type-wheels, a printing block movable into printing position in the machine, means controlled by said block for selecting and setting the type-wheels into printing position, and a lock for said means controlled by the printing block.

2. In a printing machine, a group of type-wheels, a printing block provided with characters giving fixed ticket characteristics, said block being movable into print-

ing position in the machine, means controlled by said block for selecting and setting the type-wheels into printing position, and a recording means for some of the type-wheels.

3. In a printing machine, a group of type-wheels, a printing block movable into printing position in the machine, a recording means for some of the wheels, and means controlled by said block for selecting and setting the type-wheels into printing position said means having common intermediary elements for controlling the registers.

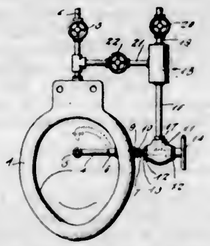
4. In a ticket printing machine, a group of type-wheels, racks geared, respectively, to said wheels, a printing block movable into printing position in the machine, a register for each type-wheel geared to the rack thereof, means for imparting motion to the racks, and means controlled by the printing block for selecting and limiting the motion of the racks.

5. In a ticket printing machine, a group of type-wheels, racks geared, respectively, to said wheels, a printing block movable into printing position in the machine, a register for each type-wheel geared to the rack thereof, means for imparting motion to the racks, the register being interposed between said means and the racks, and means controlled by the printing block for selecting and limiting the motion of the racks.

[Claims 6 to 32 not printed in the Gazette.]

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1,091,499. BIDET. GOSTE FRIEDMAN, Jamestown, N. Y. Filed Sept. 12, 1912. Serial No. 720,088. (Cl. 4—25.)

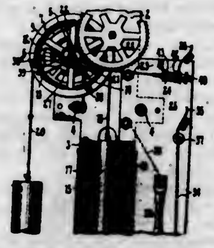


The combination with a bowl of conventional design and a mixing chamber therefor, of a regulating valve supported by the bowl and in communication with the mixing chamber, a pipe section rotatably mounted in the side of the bowl and forming the water supply member of the valve, said pipe section being exteriorly screw threaded about its intermediate portion, a handle secured to the outer end of the pipe section for regulating the water therethrough, a coupling secured to the inner end of said pipe section and adapted for contact with the inner surface of the bowl, a curved nozzle fixed to the coupling and adapted to be turned to and from the bowl by said handle and a nut adjustably mounted upon the threaded portion of the pipe section between the valve and bowl for binding contact with said bowl, whereby the valve and nozzle forming a rigid part of the pipe section thereof may be regulated as required.

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1,091,500. SELF-WINDING CLOCK. NATHAN FRIEDMAN, New York, N. Y. Filed Apr. 20, 1912. Serial No. 692,034. (Cl. 58—41.)

1. An electrically controlled clock winding mechanism including in combination a frame, a main spring winding lever, mechanical and electrical means for oscillating the lever, a switch mounted on the hub of the lever, comprising insulated and conducting members having separated tracks, the insulated member having a retaining wall and a partition wall both projecting radially beyond both tracks, and a spring contact arm arranged to travel back along one of said tracks in engagement with said retaining wall and forward along the other of said tracks in engagement with said partition wall as the lever is oscillated and to snap radially from the track on the insulated member to the track on the conducting member at the limit of the movement of the lever in one direction and to snap off the partition wall laterally from the track on the conducting member to the track on the insulated member at the limit of the movement of the lever in the opposite direction.



2. An electrically controlled clock winding mechanism including in combination a frame, a main spring winding lever, mechanical and electrical means for oscillating the lever, a switch mounted on the hub of the lever, comprising insulated and conducting members having separated tracks, the insulated member having a retaining wall and a partition wall both projecting radially beyond both tracks, and a spring contact arm arranged to travel back along one of said tracks in engagement with said retaining wall and forward along the other of said tracks in engagement with said partition wall as the lever is oscillated and to snap radially from the track on the insulated member to the track on the conducting member at the limit of the movement of the lever in one direction and to snap off the partition wall laterally from the track on the conducting member to the track on the insulated member at the limit of the movement of the lever in the opposite direction, and means for adjusting the spring contact arm longitudinally.

3. An electrically controlled clock winding mechanism including in combination a frame, a main spring winding lever, mechanical and electrical means for oscillating the lever, a switch mounted on the hub of the lever, comprising insulated and conducting members having separated tracks, the insulated member having a retaining wall and a partition wall, a spring contact arm arranged to travel back and forth along said tracks in engagement with said retaining and partition walls, as the lever is oscillated, and to snap radially from the track on the insulated member to the track on the conducting member at the limit of the movement of the lever in one direction and to snap laterally from the track on the conducting member to the track on the insulated member at the limit of the movement of the lever in the opposite direction, means for adjusting the spring contact arm longitudinally, and means for locking it in such adjustment.

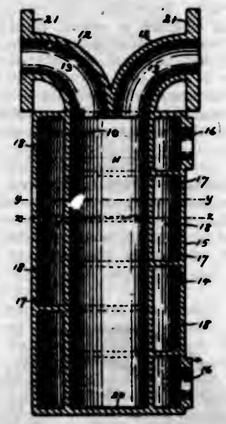
4. An electrically controlled clock winding mechanism including in combination a frame comprising front and back plates and a bottom plate, a main spring winding lever, a suspended weight and a suspended armature and its electromagnet of the solenoid type for oscillating the lever, the said electromagnet having its lining tube screwed into the bottom plate and its top engaging the front and back plates for holding the magnet rigidly in position to permit the armature to slide freely therein and a switch for automatically making and breaking the circuit as the lever is oscillated.

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1,091,501. GASEOUS-FUEL HEATER. RUSSELL A. FRISBIE, Middletown, Conn. Filed July 16, 1913. Serial No. 779,889. (Cl. 62—80.)

1. A gaseous fuel heater comprising a double walled generally cylindrical structure having an axial elongated exhaust chamber and a fuel chamber exterior thereto and having an inlet and an outlet port, the said exhaust chamber being an open chamber and having an inlet and an outlet at one end, and the said inlet and outlet connections at the junction thereof with the said chamber being directed in parallelism with the axis of the said chamber so as to direct the fuel flow along the body portion of the said chamber in parallelism with the axis, and along one side of the said chamber and in one direction from the inlet port and along the other side and in the reverse direction toward the outlet port.





2. A gaseous fuel heater comprising an elongated and generally cylindrical double walled structure having an inner axial exhaust chamber provided with inlet and outlet connections, and an outer fuel chamber inclosing the said inner axial chamber and having an inlet port at one end and an outlet port at the other end, and a plurality of interrupted annular bridges in the said fuel chamber and positioned in a radial plane so as to bridge the space between the walls of the said inner chamber and outer chamber for the greater part of the circumference thereof and the said bridges being alternately positioned on opposite sides of the axis so as to provide a circuitous and partially duplex passage in the said fuel chamber between the said inlet and outlet ports.

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1,091,502. UNDERREAMER. HARRY GEARING, Los Angeles, Cal. Filed Apr. 15, 1913. Serial No. 761,252. (Cl. 255—76.)



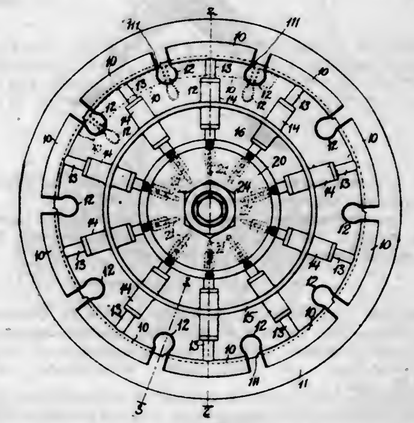
1. An underreamer comprising a body provided with a chamber in its lower end, cutters mounted to rock at the lower end of the body and provided with shanks extending upwardly within the chamber above the points of oscillation of the cutters, a member mounted to play within the chamber and coöperating with the shanks of the cutters to hold the same in contracted positions and the working ends of the cutters in expanded positions, compression means acting upon said member, and another member projecting outwardly of the body for engagement with the casing to hold said first named member against the action of the spring; said members being operatively connected for joint movement.

2. An underreamer, comprising a body provided at its lower end with a chamber, cutters mounted to rock at the lower end of the body and provided with shanks entering the chamber and with cutting portions extending below the body, the cutters and lower end of the body having coöperating shoulders to take the up-thrust of the cutters, a member mounted to play within the chamber, means urging said member toward the shanks of the cutters, said member having a pocket receiving and holding the shanks of the cutters in contracted positions, and a further member projecting outwardly of the body and coöperating with the casing to hold the first named member against said means urging the same toward the cutters; said members being operatively connected for joint movement.

3. An underreamer, comprising a body provided at its lower end with a chamber and with a transverse shaft spanning the lower portion of the chamber, cutters mounted upon said shaft to rock thereon, said cutters having shanks projecting upwardly within the chamber, a block mounted to play within the chamber and having a pocket fitting over the shanks of the cutters to hold the working ends of the cutters in expanded positions, a spring acting to hold the block to the shanks of the cutters, and means coöperating with the block and projecting outwardly of the body for engagement with the casing to hold the block against the pressure of the spring so that the cutters can contract at their working ends.

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1,091,503. VEHICLE-WHEEL. GEORGE F. GEB, Franklin, Mass. Filed Feb. 10, 1913. Serial No. 747,228. (Cl. 152—31.)



1. A vehicle wheel comprising a rim consisting of a series of non-resilient segments and metallic resilient members interposed between said segments, radially movable spokes connected to said non-resilient sections, an axially movable cone engaged with said spokes, and means exerting yielding pressure on said cone to move it axially and thereby force said spokes radially outward.

2. A vehicle wheel comprising a rim consisting of a series of non-resilient segments and curved spring members interposed between said segments and having their ends secured thereto, in combination with radially movable spokes connected to said segments, an axially movable

cone engaged with said spokes, and yielding means bearing against said cone and tending to move it axially.

3. A vehicle wheel comprising a series of non-resilient segments and U-shaped spring members interposed between said segments and having their ends secured to said segments, radially movable spokes connected to said segments, a hub with which said spokes are in sliding engagement, and a spring-tensioned cone exerting upward pressure against the inner ends of all of said spokes.

4. A vehicle wheel comprising a continuous rim consisting of alternating non-resilient segments and U-shaped spring members, the ends of the spring members being secured to the adjacent segments, a hub having radial guideways, radially movable spokes connected to the segments and arranged to move in the guideways in the hub radially of said hub, and means common to all of said spokes and tending to yieldingly force said spokes radially outward, substantially as set forth.

5. A vehicle wheel comprising an expansible rim, radially movable spokes connected thereto, an axially movable cone engaged with said spokes, and means exerting yielding pressure on said cone to move it axially and thereby to force said spokes radially outward.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,504. UNDERWEAR. JULIAN F. GOODENOW, Kansas City, Mo., assignor to Goodenow-Brookfield Knitting Company, Kansas City, Mo., a Corporation of Missouri. Filed Mar. 25, 1913. Serial No. 756,642. (Cl. 2—144.)



1. An undergarment having a knit knee portion, wherein the wales run transversely of the garment.

2. An undergarment comprising woven body and upper leg portions and knit lower leg portions, wherein the wales run transversely of the garment.

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1,091,505. SWITCHING DEVICE. DAVID D. GORDON, Chicago, Ill., assignor to The Yost Electric Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Sept. 10, 1912. Serial No. 719,564. (Cl. 173—354.)

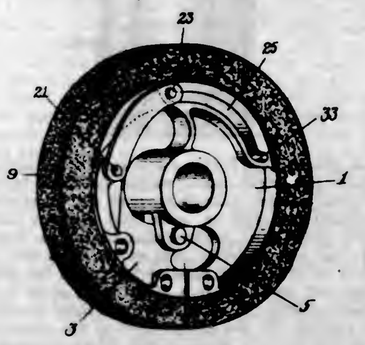


1. In a device of the character described the combination with a circuit controlling element, a movable element having resilient means interposed between it and said controlling element to control the position of said circuit controlling element, a second movable element attached to the first aforesaid movable element and having a runway, a sliding carriage for said runway, a flexible tension member to move said carriage, and a spring acting against said carriage tending to hold it in either one of its limiting positions.

2. In a device of the character described the combination with a circuit controlling element, a movable element having resilient means interposed between it and said controlling element to control the position of said circuit controlling element, a second movable element attached to the first aforesaid movable element and having a runway, a sliding carriage for said runway, a flexible tension member to move said carriage, and a spring acting against said carriage tending to hold it in either one of its limiting positions, said movable elements both being mounted on the same pivotally mounted shaft.

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1,091,506. ABRADING-TOOL. JOSEPH GOULDBOURN, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 8, 1911, Serial No. 619,720. Renewed Oct. 7, 1913. Serial No. 793,964. (Cl. 51—1.)



1. A rotary device for sustaining a cover of abrasive material comprising a plurality of relatively movable cover-supporting sections, one of said sections being adapted to be fastened to the driving shaft and the other section being movable with respect to the first in a path which lies substantially within the periphery of the rotary device.

2. A rotary device for sustaining a cover of abrasive material comprising a plurality of relatively movable cover-supporting sections arranged about a central axis, one of said sections being angularly movable about an axis eccentric to said central axis in a path which lies substantially within the periphery of the device.

3. A rotary device for sustaining a cover of abrasive material comprising a plurality of relatively movable cover-supporting sections, and connecting means between said sections constructed and arranged to permit portions of the end of one section to move approximately circumferentially past portions of the adjacent end of the other section.

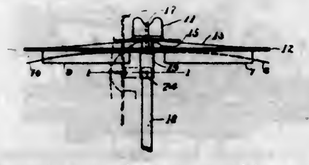
4. A rotary device for sustaining a cover of abrasive material comprising a plurality of relatively movable cover-supporting sections constructed to grip between them the ends of the cover, and connecting means between said sections constructed and arranged to cause the centrifugal force generated by the rotation of the device to impart approaching movement to the sections.

5. A rotary device for sustaining a cover of abrasive material having a fixed section and a movable section between which two joints are formed, one of said joints being an abutting-joint to receive the ends of the cover and the other being a lap-joint, said sections being pivotally connected.

[Claims 6 to 10 not printed in the Gazette.]



1,091,507. TOY PINWHEEL. TILGHMAN GRAHAM, New York, N. Y. Filed July 27, 1912. Serial No. 711,774. (Cl. 46—14.)



1. A trussed paper pinwheel comprising a ring, compression members and tension members respectively united adjacent to the axis and to said ring, an axial strut distending said compression and tension members, substantially helically arranged vanes, and an axial pin.

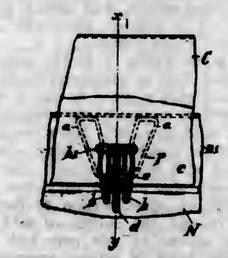
2. A trussed paper pin wheel comprising a ring, a unital face member slotted to form substantially helical vanes and truss-members of one face of said pin wheel, opposite-face truss members united with one another, said ring, unital face members and opposite face members being united, an axial strut distending said opposite face members, and an axial pin.

3. A trussed paper pinwheel comprising a ring, compression members and tension members respectively united adjacent to the axis and to said ring, an axial strut distending said compression and tension members, substantially helically arranged vanes, an axial pin, a clevis to which said pin is axially fastened and secures the wheel, and a handle hinged in the clevis.

4. A trussed paper pinwheel comprising a ring, compression members and tension members respectively united adjacent to the axis and to said ring, an axial strut distending said compression and tension members, substantially helically arranged vanes, an axial pin, a clevis to which said pin is axially fastened and secures the wheel, cylindro-segmental arms on said clevis, adapted to clasp the end of a handle, and a handle hinged in said clevis.

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1,091,508. COLLAR-FASTENING CLIP. EDWIN B. HAFERSTEPEN, Rochester, N. Y. Filed July 20, 1911, Serial No. 639,514. Renewed Dec. 24, 1913. Serial No. 808,609. (Cl. 24—101.)



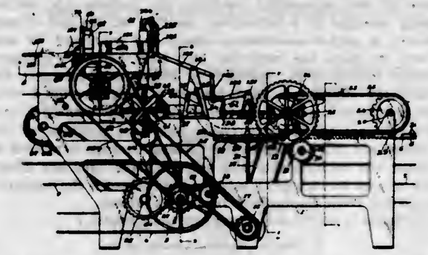
1. A clip for the purpose described formed of suitable material and comprising a body portion having at the ends thereof, and spaced apart, upwardly extending members adapted to engage into and against the fold at the upper edge of the neck band of the shirt to hold the clip from moving upwardly, an elongated portion intermediate said extensions and slotted, longitudinally, to form three substantially parallel tongues, all of said tongues bent at substantially their bases to lie in substantially the same plane with each other and parallel with but spaced apart from the plane of said body portion and to extend in a direction opposite said upward extensions, said three tongues adapted to engage through a horizontally disposed button hole in the neck band, thereby coöperating with said upward extensions to hold the clip in place, and through a horizontally disposed button hole in a collar, and the center one of said tongues adapted to engage through a vertically disposed button hole in a collar.

2. A clip for the purpose described formed of suitable material and comprising a body portion having at the ends thereof, and spaced apart, upwardly extending members adapted to engage into and against the fold at the upper edge of the neck band of the shirt to hold the clip from moving upwardly, an elongated portion intermediate said extensions and slotted, longitudinally, to form three substantially parallel tongues, all of said tongues bent at substantially their bases to lie in substantially the same plane with each other and parallel with but spaced apart from the plane of said body portion and to extend in a direction opposite said upward extensions, said three tongues adapted to engage through a horizontally disposed button hole in the neck band, thereby coöperating with said upward extensions to hold the clip in place, and through a horizontally disposed button hole in a collar, the center one of said tongues bent slightly outward near its junction with the other tongues and extended slightly beyond the other tongues to facilitate its insertion in a vertically disposed button hole in a collar.

3. A clip for the purpose described formed of suitable material and comprising a body portion having at the ends thereof, and spaced apart, upwardly extending members adapted to engage into and against the fold at the upper edge of the neck band of the shirt to hold the clip from moving upwardly, an elongated portion intermediate said extensions and slotted, longitudinally, to form three substantially parallel tongues, all of said tongues bent at substantially their bases to lie in substantially the same plane with each other and parallel with but spaced apart from the plane of said body portion and to extend in a direction opposite said upward extensions, said three tongues adapted to engage through a horizontally disposed button hole in the neck band, thereby coöperating with said upward extensions to hold the clip in place, and through a horizontally disposed button hole in a collar, the center one of said tongues extended slightly beyond the other tongues to facilitate its insertion in a vertically disposed button hole in a collar.

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1,091,509. PACKAGING-MACHINE. ORIN A. HANFORD, Rochester, N. Y., assignor to John L. Kellogg, Battle Creek, Mich. Filed Jan. 13, 1913. Serial No. 741,792. (Cl. 107—4.)



1. In a structure of the class described, the combination with a delivery chute; a shaft; holders open at their outer ends and disposed radially on said shaft; means for rotating said shaft with a step by step movement whereby the holders are successively brought to a horizontal position at the rear end of said chute; a packer oscillating above the rear end of said chute to push the articles into said holders; plungers within said holders; springs by which said plungers are yieldingly supported, said plungers being provided with ratchet bars; pawls coacting therewith whereby said plungers are retained in their depressed position as the holders are filled; means for feeding cartons arranged to deliver the cartons over the holders when the holders are in their upright position; and means for tripping said pawls when the holders are in

their inverted position whereby the articles are ejected from the holders into the cartons as the cartons slip from the holders to the delivery conveyer.

2. In a structure of the class described, the combination with a delivery chute; a shaft; holders open at their outer ends and disposed radially on said shaft; means for rotating said shaft with a step by step movement whereby the holders are successively brought to a horizontal position at the rear end of said chute; a packer oscillating above the rear end of said chute to push the articles into said holders; and means for feeding cartons arranged to deliver the cartons over the holders when the holders are in their upright position, the articles dropping from the holders into the cartons as the cartons slip from the holders while in an inverted position, all coacting for the purpose specified.

3. In a structure of the class described, the combination of a feed mechanism; a shaft; holders open at their outer ends and radially disposed on said shaft; means for rotating said shaft with a step by step movement whereby the holders are successively brought to filling position; plungers within said holders; springs by which said plungers are yieldingly supported, said plungers being provided with ratchet bars; pawls coacting therewith whereby said plungers are retained in their depressed position as the holders are filled; means for feeding cartons arranged to deliver the cartons over the holders when the holders are in their upright position; a delivery conveyer disposed below said shaft; and means for tripping said plunger pawls when the holders are in their inverted position above said delivery conveyer whereby the material is ejected from the holders into the cartons as the cartons slip from the holders.

4. In a structure of the class described, the combination of a shaft; holders open at their outer ends and radially disposed on said shaft; means for rotating said shaft with a step by step movement whereby the holders are successively brought to filling position; a feed mechanism adapted to deliver to the holders while the holders are in their filling position; spring actuated plungers within said holders; detents for said plungers; means for feeding cartons arranged to deliver the cartons over the holders when the holders are in their upright position and means for releasing said plunger detents, all coacting for the purpose specified.

5. In a structure of the class described, the combination with the feeding means comprising a delivery chute; a shaft; holders open at their outer ends and radially disposed on said shaft; means for rotating said shaft with a step by step movement whereby the holders are successively brought to a horizontal position at the end of said chute; a packer oscillating above the rear end of said chute to push the material into said holders; plungers within said holders; springs by which said plungers are yieldingly supported, said plungers being provided with ratchet bars; pawls coacting therewith whereby said plungers are retained in their depressed position as the holders are filled; means for feeding cartons arranged to deliver the cartons over the holders after they are filled; and means for tripping said pawls whereby the material is ejected from the holders into the cartons.

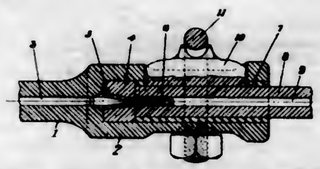
[Claims 6 to 24 not printed in the Gazette.]

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1,091,510. CHUCK FOR ROCK-DRILLS. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed July 19, 1912. Serial No. 710,374. (Cl. 255—49.)

1. In combination, a drill piston rod, a chuck secured thereto and having a drill receiving bore, a water passage through said piston rod having a beveled opening into said chuck bore, an extension tube having a beveled portion engaging the bevel of said passage opening, said tube extending into said chuck bore, and means to secure said tube in position.

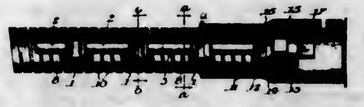
2. In combination, a drill piston rod, a chuck secured thereto having a drill steel receiving bore, a chuck button therein, an extension tube secured in said piston rod by said chuck button and bridging the joint between said chuck and said chuck button, said tube extending through and beyond said chuck button into said steel receiving bore, and being adapted to enter into the bore of a drill steel.



3. In combination, a chuck having a drill steel receiving bore having a beveled aperture in the rear wall thereof, a chuck button having an aperture therethrough provided with an opposite bevel, an extension tube having a body provided with bevels fitting said bevels of the chuck and chuck button, said body bridging the joint between said chuck and chuck button, and a tube of smaller diameter projecting from said body through and beyond said chuck button into said drill receiving bore.

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1,091,511. FLEXIBLE SHAFTING. GEORGE H. HAYES, Chicago, Ill., assignor to Chicago Pneumatic Tool Co., Chicago, Ill. Filed Oct. 5, 1911. Serial No. 652,944. (Cl. 64—30.)



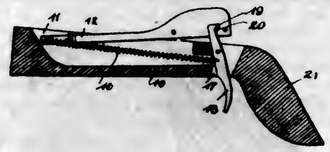
1. A flexible shaft having a socket member provided with a longitudinal bore throughout its length, of plug members having heads adapted to enter the opposite ends of said bore, said heads being entirely inclosed by said socket member and being capable of longitudinal movement with respect to each other within said socket member, each plug member consisting of a rod provided with an upset portion to form a head at each extremity thereof, the outline of said heads corresponding to the outline of said bore and tapering circularly from their point of largest cross-section in one direction, the said bore being non-circular in cross-section, and means provided upon said socket member to prevent withdrawal of said plug members from said socket member.

2. A flexible shaft having a socket member provided with a longitudinal bore of substantially the same cross-section throughout, said member having a spherical contour, of plug members having heads adapted to enter the opposite ends of said bore, said heads being entirely inclosed by said socket member and being capable of longitudinal movement with respect to each other within said socket member, each plug member consisting of a circular rod provided with an upset portion to form a head at each extremity thereof, the outline of said heads corresponding to the outline of said bore and tapering circularly from their point of largest cross-section in one direction, the said bore being non-circular in cross-section, and means provided upon said socket member to prevent withdrawal of said plug members from said socket member, said means including circular spring rings and a plurality of alined apertures within the socket member engaged by said rings.

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1,091,512. TOY GUN. FREDERICK P. HOFFMAN, Uniontown, Pa. Filed May 2, 1913. Serial No. 765,137. (Cl. 124—12.)

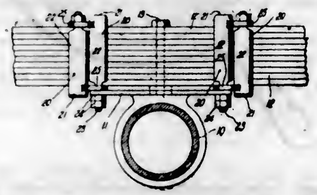
A toy gun comprising a body provided with a hand grip, said body having an elongated slot in one side, and an opening therethrough, a projector arm pivotally mounted in the slot, a pivoted trigger member mounted in the opening and provided with a hook, a spring secured at its opposite ends respectively to the inner end of the arm and to the trigger, and a pin carried by the outer end of the projector arm for engagement with the hook of the trigger,



said projector arm having a card receiving slot in its outer end.

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1,091,513. SPRING-CLIP AND YOKE. JAMIE F. HOLCOMBE, Los Angeles, Cal. Filed June 21, 1913. Serial No. 775,010. (Cl. 21—13.)



1. In combination with a base plate and a leaf spring mounted thereon, an inverted U-shaped clip extending over the spring and secured below to the base plate at its ends, and an upright U-shaped clip extending under the spring and secured at its upper ends to the upper part of the first mentioned clip.

2. In combination with a leaf spring, a duplicate pair of U-shaped members one inverted and placed over the spring and the other upright and placed under the spring, the ends of each U-shaped member being secured to the other member.

3. In combination with a leaf spring, duplicate U-shaped members each composed of a U-shaped body having apertured bosses projecting from its sides near the bottom and having its ends screw-threaded, one of said members being inverted over the spring, the other upright under the spring, the screw-threaded ends of each member passing through the apertured bosses of the other, and nuts on the screw-threaded ends to draw the members toward each other and tightly around the spring.

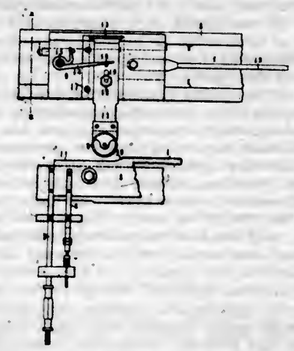
4. In combination with a base plate and leaf spring mounted thereon, a duplicate pair of U-shaped members each composed of a U-shaped body having apertured bosses projecting from its sides near the bottom of the U and having its ends screw-threaded, one of said members being inverted over the spring and its ends passing through the base plate, the other of said members being upright over the spring, the screw threaded ends of each member passing through the apertured bosses of the other, and nuts on the screw-threaded ends to draw the members toward each other and tightly around the spring.

5. In combination with a leaf spring and a plate therefor, a duplicate pair of U-shaped members one inverted and placed over the spring and the other upright and placed under the spring, the end of one of said U-shaped members secured to said plate and the ends of one of said U-shaped members secured to the other U-shaped member.

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1,091,514. CUTTING MECHANISM. CARLOS HOLLY, Lockport, N. Y., assignor to F. N. Burt Company, Limited, Buffalo, N. Y., a Corporation of Ontario, Canada. Original application filed Jan. 16, 1911, Serial No. 602,862. Divided and this application filed Oct. 9, 1912. Serial No. 724,792. (Cl. 164—77.)

1. In an apparatus of the character described, in combination, a cutter platen adapted to support material to be cut, a yieldingly mounted knife, means adapted to move the knife relatively to the platen and on and off the platen to cut the material, and a guide adapted to ease the knife onto the surface of the platen.



2. In an apparatus of the character described, in combination, a cutter platen adapted to support material to be cut, a yieldingly mounted knife, and means adapted to move the knife relatively to the platen and on and off the platen to cut the material, the platen having an inclined portion to ease the knife onto its surface.

3. In an apparatus of the character described, in combination, a fixed guide, a rotary cutter guided thereby, a cutter platen adapted to move into and out of the plane of cutting coöperation with the cutter, means permitting the cutter to move to and from the platen, and means to limit the extent of its movement in the direction toward the platen.

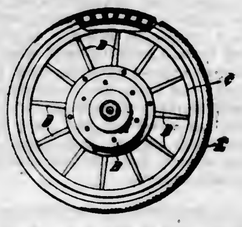
4. In an apparatus of the character described, in combination, a rotatably mounted cutter, a cutter platen, and means adapted to move said cutter transversely of said platen in cutting, said platen being adapted to move into and out of the plane of cutting coöperation with said cutter.

5. In an apparatus of the character described, in combination, a rotatably mounted cutter, a cutter platen, means adapted to move said cutter transversely of said platen in cutting, and means adapted to cause yielding pressure between said cutter and platen while cutting, said platen being adapted to move into and out of the plane of cutting coöperation with said cutter.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,515. SPRING-WHEEL. FAY PETER HOLMES, Larned, Kans. Filed July 6, 1911. Serial No. 637,139. (Cl. 152—44.)



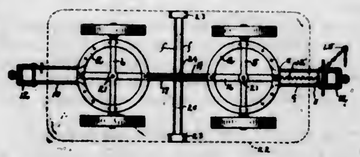
1. A spring wheel comprising a hub, a spaced outer rim, pairs of telescoping members secured to said hub and said rim, each of said telescoping members comprising an outer sleeve having a reduced portion adjacent one end thereof and longitudinal slots diametrically oppositely disposed and formed adjacent the opposite end within the unreduced portion, a second sleeve mounted within said first sleeve and having a reduced terminal slidably engaging the reduced portion of said first mentioned sleeve, said reduced portion of said second sleeve provided with

longitudinal slots oppositely disposed adjacent the end thereof, a spring mounted upon said reduced portion of said second sleeve within said unreduced portion of said first mentioned sleeve, washers arranged adjacent the terminals of the spring and mounted upon the reduced portion of said second sleeve, and means for securing the terminals of said telescoping members to said hub and said means for spacing the rim.

2. A spring wheel comprising a hub, a spaced outer rim, a plurality of telescoping members in pairs secured at their terminals to said rim and said hub respectively, each of said telescoping members comprising an outer sleeve having a reduced portion at one end thereof and provided with longitudinal slots adjacent the other unreduced terminal, a second sleeve having a reduced portion at one end thereof of greater length than the unreduced portion, said second sleeve slidably mounted within said first mentioned sleeve, washers mounted upon said unreduced portion and engaging the first mentioned sleeve, a spring mounted upon said reduced portion of said second sleeve and engaging said washers, the reduced portion of said second sleeve provided with longitudinal slots adjacent its free terminal, supporting plates secured to said rim spacing means, a pin extending through said reduced portion of the first mentioned sleeve and the longitudinal slots formed in the reduced portion of the second sleeve and one of the supporting plates, a second pin mounted upon said hub and extending through the longitudinal slots of the unreduced portion of the first mentioned sleeve and the unreduced portion of the second sleeve.

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1,091,516. TRUCK. HENRY E. JOHNSON, Omaha, Nebr. Filed Nov. 1, 1912. Serial No. 729,079. (Cl. 21—145.)



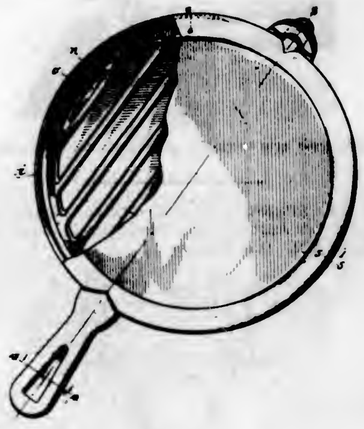
1. A truck comprising, in combination with a body, front and rear axles arranged to have horizontal swinging movement, a transverse trackway of channel form secured to said body between said axles, a lever rigid with and projecting rearwardly from the front axle, a lever rigid with and projecting forwardly from the rear axle, said levers having overlapping ends having elongated slots formed directly therein, a pivot member traversing the slots of both of said levers and engaging in and being guided by said trackway, and a tongue for shifting said front axle.

2. A truck, comprising in combination with a body, front, and rear axles, arranged to have horizontal swinging movement, a transverse trackway of U-shape in cross section secured to said body between said axles, a lever rigid with and projecting rearwardly from the front axle, a lever rigid with and projecting forwardly from the rear axle, said levers having overlapping ends which overlie and rest upon said trackway and have elongated slots formed longitudinally therein, and a pivot member traversing the slots of both levers and depending into and being guided by said trackway.

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1,091,517. COOKING UTENSIL. JOSEPH S. KNOWLES, Atlanta, Ill. Filed Jan. 22, 1913. Serial No. 743,545. (Cl. 53—5.)

A cooking utensil consisting of a lower pan, an upper pan inverted thereon and having its rim contacting closely with the rim of the lower pan, hinged means connecting the pans, companion handle members attached to the pans and adapted to lie one upon the other so that by grasping the handle the pans will be held together, means for holding the rims of the pans in alinement, and means whereby when the utensil is inverted the liquid will be conducted across the joint between the pans, said means consisting of a lip i formed on the inner



edge of one of the pans and extending upwardly upon the face of the other pan and a similar reversely-arranged lip at the other side of the pan.

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1,091,518. LOCKING-CLAMP FOR GATES AND THE LIKE. ISRAEL L. LANDIS, Chicago, Ill. Filed May 19, 1913. Serial No. 768,485. (Cl. 39—18.)



1. In a locking-clamp, the combination with a pair of bolt-arms extended through a suitable support and having a connection at one of their ends, of a plate having a cam on its inner surface and mounted on said arms near their other ends, a lever located inwardly of said plate and having a cam positioned to co-act with the cam on said plate, and means to lock said lever in its lowered or clamping position.

2. In a locking-clamp, the combination with a pair of bolt-arms extended through a suitable support and having a connection at one of their ends, of a plate having a cam on its inner surface and mounted on said arms near their other ends, a lever located inwardly of said plate and pivotally connected to the same at about the middle thereof and having a cam positioned to co-act with the cam on said plate, and means to lock said lever in its lowered or clamping position.

3. In a locking-clamp, the combination with a pair of bolt-arms extended through a suitable support and having a connection at one of their ends, of a plate having a cam on its inner surface and mounted on said arms near their other ends, said plate also having at one of its edges an inwardly extended projection, a lever located inwardly of said plate and pivotally connected to the same at about the middle thereof and having a cam positioned to co-act with the cam on said plate, and a member pivotally mounted at one of its ends and adapted to engage the said lever and to lock it in its lowered or clamping position.



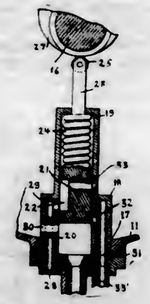
4. In a locking-clamp, the combination with a pair of bolt-arms extended through a suitable support and having a connection at one of their ends, of a plate movably mounted on said arms near their other ends, the parts to be clamped interposed between said connection and said plate, a second plate having a cam on its inner surface and mounted on said arms near their ends adjacent to the first named plate, a lever located inwardly of said cam plate and having a cam positioned to co-act with the cam on said plate, and means to lock said lever in its lowered or clamping position.

5. In a locking-clamp, the combination with a pair of bolt-arms extended through a suitable support and having a connection at one of their ends, of a plate loosely mounted on said arms near their other ends, the parts to be clamped interposed between said plate and said connection, a plate having a cam on its inner surface mounted on said arms near their ends adjacent to the first named plate, a lever located inwardly of the cam plate and pivotally mounted thereon and having a cam positioned to co-act with the cam on said plate and also having a laterally disposed projection or handle, a link pivotally mounted at one of its ends and having a slot terminating at its free end in a recess for the reception and operation of the handle on said lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,519. ENGINE-STARTER. CHARLES M. LEECH, Lima, Ohio. Filed Aug. 27, 1912. Serial No. 717,323. (Cl. 123—181.)



1. The combination with an internal combustion engine comprising a cylinder, a piston operating therein, a closed crank case, a crank shaft, and a pitman connecting the piston and crank shaft, of means to supply compressed air into the crank case to move said piston in one direction, and means automatically operated by the movement of the piston to cut off the supply of compressed air from the crank case and establish communication between the interior of the same and the atmosphere, so that the piston may move in a reverse direction.

2. The combination with the closed crank case of an internal combustion engine, of means for supplying compressed air into the same, and means operated by such compressed air to establish communication between the interior of the crank case and the atmosphere.

3. The combination with the closed crank case of an internal combustion engine, of means for supplying compressed air into the same for starting the engine, and automatically operated means to cut off the supply of compressed air from the crank case and place the interior of the crank case in communication with the atmosphere.

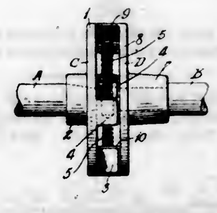
4. The combination with an internal combustion engine comprising a cylinder, a piston, a closed crank case, a crank shaft, and a pitman, of a device to start said engine, comprising a shell provided with an inlet port leading into the crank case, and an exhaust port leading to the atmosphere, a sliding valve mounted within the shell and provided with an opening adapted when the valve is in a certain position to establish communication between the inlet and exhaust ports, a spring to move the sliding valve in one direction, means operated by the crank shaft of the engine to move the sliding valve, and means to supply compressed air into the shell to move the sliding valve in opposition to the spring.

5. The combination with an internal combustion engine comprising a cylinder, a piston, a closed crank case, a crank shaft, and a pitman, of a device to start the engine comprising, a shell having a breathing port, an inlet port leading into the crank case, and an exhaust port leading to the atmosphere, a sliding valve mounted within said shell and provided with transverse and longitudinal openings, a spring to move the valve in one direction, means for supplying compressed air into the shell to move the valve in a reverse direction, and means operated by the crank shaft of the engine to move said valve.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,520. SHAFT-COUPLING. WILLIAM H. LITTLE, Detroit, Mich. Filed Dec. 16, 1912. Serial No. 736,918. (Cl. 64—13.)



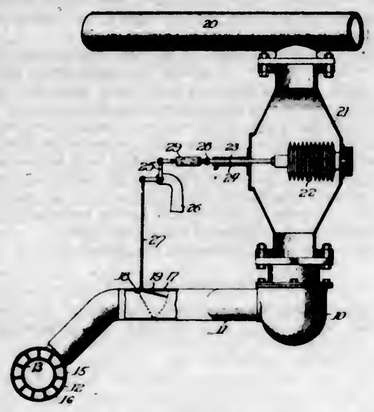
A shaft coupling comprising opposed coupling members adapted to be secured to the opposed ends of shafts and to be independently supported solely thereby, one of said members being formed with a disk having two pairs of integral diametrically opposed arranged lugs extending laterally from one face of the disk at its periphery toward the other coupling member, the lugs of one pair being each formed with a contact face at one side with the contact face of one lug in the same plane as the contact face of the other lug, and the lugs of the other pair having sides in a common plane provided with bores to form seats for coiled springs; and the other coupling member being formed with integral laterally extending arms provided with fixed lugs at their outer ends projecting laterally therefrom toward the other coupling member and provided with contact faces at one side in a common plane to engage the contact faces of the adjacent lugs on the disk and formed with bores in their opposite sides to provide seats for coiled springs; and coiled springs seated at one end in said bores in the lugs on one member and at their opposite ends in the bores of the lugs on the other member to hold said members turned relatively with the contact faces of the lugs of one member in engagement with the contact faces of the lugs on the other member, said lugs corresponding in depth and forming the sole means for transmitting motion from one shaft to the other.

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1,091,521. TEMPERATURE-CONTROLLER FOR CARBURETERS. JAMES B. LUND, Chicago, Ill. Filed July 5, 1911. Serial No. 636,833. (Cl. 48—149.)

The combination of a carbureter, a pipe for supplying air thereto, a pipe connected with said carbureter for conveying carbureted air from the carbureter to an engine cylinder, means including a shutter arranged in the air supply pipe to the carbureter for regulating the relative proportions of hot and cold air supplied to the carbureter through said pipe, temperature actuated means located in the carbureted air pipe, and connections including a bell

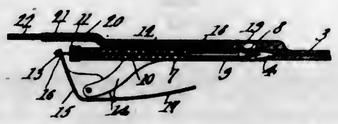
crank lever and suitable links between the temperature actuated means and said shutter whereby the shutter is



controlled from said temperature actuated means to regulate the temperature of the air delivered to the carbureter.

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1,091,522. MOISTENING DEVICE FOR DENTAL-ENGINE HANDPIECES. DAVID W. MCLEAN, Mount Vernon, N. Y. Filed Dec. 6, 1913. Serial No. 805,152. (Cl. 32—10.)



1. In a device of the character described, a tube having a valve seat at one end, a sleeve having one end engaged over the said end of the tube and having a lateral port adjoining the end of the tube, a valve slidable in the said sleeve coöperating with the valve seat, and a tube communicating with the said port.

2. In a device of the character described, a tube having a valve seat at one end, a sleeve in alinement with the tube having one end engaged over the said end of the tube, the sleeve having a lateral port adjoining the end of the tube, a valve slidable in the sleeve and coöperable with the valve seat, a cap engaged over the free end of the sleeve, the valve having a stem slidable through the cap, a compression spring disposed between the cap and the valve, means connected to the other end of the valve stem for opening the valve, and a supplemental tube attached to the sleeve and communicating with the said port.

3. In a device of the character described, a tube having a valve seat at one end, a sleeve having one end engaged over the said end of the tube and having a lateral port adjoining the end of the tube, a supplemental tube attached to the sleeve and communicating with the said port, a valve slidable in the tube and coöperable with the seat, the valve having a stem projecting beyond the free end of the sleeve, the sleeve having a projection at its free end, and an angular lever having its elbow fulcrumed to the said projection, one arm of the lever being operatively connected with the valve stem, and the other arm projecting along one side of the sleeve.

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1,091,523. LIFTING-BOARD FOR DROP-HAMMERS. GEORGE H. MERRILL, New York, N. Y. Filed July 18, 1911. Serial No. 639,168. (Cl. 78—29.)

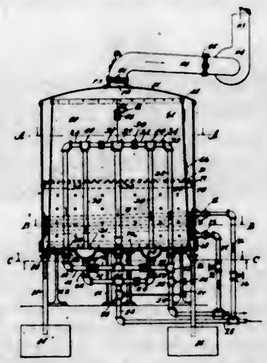
A lifting board for drop hammers comprising a plurality of smooth-sided longitudinal sections laid side by side so as to form a flat board, said sections being held in assembly by a longitudinal series of transversely extending exteriorly screw-threaded headless bolts, each of said bolts



having a screw-threaded engagement with each of the sections, and said bolts being spaced a substantially equal distance apart throughout the board.

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1,091,524. APPARATUS FOR TREATING ANIMAL MATTER CONTAINING MOISTURE, OIL, OR GREASE. GOTTLIEB F. METZGER, Lakewood, Ohio. Filed Sept. 20, 1911. Serial No. 650,470. (Cl. 87—18.)



1. In an apparatus of the class described, the combination of a base for a receptacle, a steam radiator comprising pipes leading from such base, an inner perforated shell around such pipes and consisting of sections hinged together with removable hinge pins, an outer shell, and means for conveying liquid from the space between the shells.

2. In an apparatus of the class described, the combination of a base, a steam radiator consisting of pipes rising therefrom, an inner shell adapted to surround such pipes and being perforated, and a removable outer shell.

3. In an apparatus of the class described, the combination of a base, a steam radiator carried thereby and fed from beneath the base, an inner perforated shell resting on the base and composed of sections removably connected together, an outer shell supported by the base, and an exhaust fan connected with the upper part of the outer shell.

4. In an apparatus of the class described, the combination of a base and an annular trough making a steam distributing pipe, pipes rising above the base and in communication with such trough, communicating descending



pipes passing through the base, a perforated shell surrounding such pipes, and an outer shell surrounding the perforated shell and making a connection with the base.

5. In an apparatus of the class described, the combination of a base, a steam radiator carried thereby and extending above the base, an inner perforated shell surrounding the radiator and resting on the base, an outer shell connected with the base, and means for draining liquid from the lower part of the space between the shells.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,525. AUTOGENOUS-WELDING TORCH. EDWARD A. MILLER, New York, N. Y. Filed Sept. 9, 1911. Serial No. 648,510. (Cl. 158—109.)



A mouthpiece for metal heating and welding employing gases under different pressures, comprising a nose having a transverse cavity therein, a long annular passage communicating with said cavity, and a central longitudinal outlet passage located concentric with the annular passage and parallel thereto and communicating also with said cavity, and a rear section having an inner cavity provided with a short restricted injector orifice delivering into the aforesaid transverse cavity in the nose at a point directly opposite to the central longitudinal outlet passage and alined therewith, in combination with piping means for conveying the two gases to the nose and rear section of the mouthpiece.

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1,091,526. GREASE-PROOF PAPER VESSEL. HERBERT L. G. MOORE, Richmond Hill, N. Y., assignor of one-half to himself, and one-half to Henry A. Vreeland, North Paterson, N. J. Original application filed May 23, 1912, Serial No. 699,097. Divided and this application filed Oct. 11, 1912. Serial No. 725,103. (Cl. 229—5.)

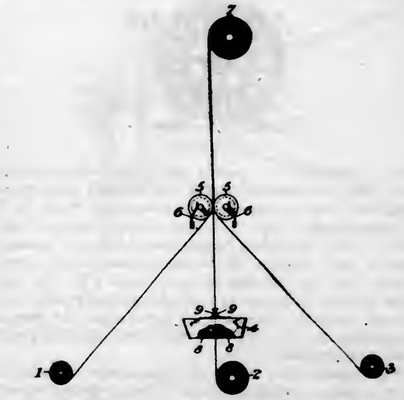


1. A vessel for holding oily substances, provided with a suitable cover and bottom and formed from a blank composed of a fibrous member covered on both sides with a grease-proof material, said blank having a notch on each side midway between the ends, the opposite edges of one half of said blank being folded over toward each other upon one side of the blank, and the edges on the other half of said blank being folded over toward each other upon the opposite side of the blank whereby when the blank is rolled into shape there will be no fold on the inner or outer surface either at the top or bottom of the vessel, the grease-proof material being extended beyond the edge of the fibrous member on the inner lap of the blank and folded over such edge.

2. A vessel for holding oily substances, provided with a cover and bottom and formed from a blank composed of a fibrous member covered on both sides with a grease-proof material extended beyond the longitudinal edges of the fibrous member, said extended portions of the grease-proof material having a notch on each side of the fibrous member midway between its ends, the opposite extended portions of the grease-proof material on one half of said fibrous member being folded over toward each other upon one side of the fibrous member, and the other opposite portions of said extended grease-proof material being folded over toward each other upon the opposite side of the fibrous member whereby when the blank is rolled into shape there will be no folded over edge of the fibrous material either at the top or bottom of the vessel, nor any fold on the inner or outer surface either at the top or bottom of the vessel, the grease-proof material being extended beyond the edge of the fibrous member on the inner lap of the blank and folded over such edge.

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1,091,527. WATERPROOF AND GREASE-PROOF MATERIAL FOR THE MANUFACTURE OF CONTAINERS. HERBERT L. G. MOORE, Richmond Hill, N. Y., assignor of one-half to himself, and one-half to Henry A. Vreeland, North Paterson, N. J. Filed Nov. 14, 1912. Serial No. 731,435. (Cl. 154—34.)



1. As a new article of manufacture, a grease-proof and water-proof material composed of unglazed vegetable paper treated with a bath of cold dilute sulfuric acid, and glazed paper of wood fiber pulp united by an adhesive substance and pressed into a solid body.

2. As a new article of manufacture, a grease-proof and water-proof material composed of an inner layer of water-proof and partially grease-proof paper, and a layer on each side thereof of grease-proof paper, said layers being united by an adhesive substance and pressed into a solid body.

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1,091,528. CIRCUIT-DETECTOR. WILLIAM J. MURDOCK, Chelsea, Mass. Filed Feb. 23, 1909. Serial No. 479,529. (Cl. 175—183.)



1. In an apparatus of the character described, a tubular holder, a plug therein, an electrical conductor in electrical connection with said plug, a contact point projecting from said holder, a spring tongue of conducting material connected with said plug and extending toward said contact point, but normally out of contact therewith, a button exposed at the side of said holder movable to press said tongue into contact with the point, and a sleeve mounted exteriorly on the holder and adapted to be placed so as to engage said button and cause the same to maintain the spring in contact with the point.

2. In an apparatus of the character described a tubular holder, a contact point connected to and extending from said holder, a switch member contained within the holder normally out of contact with the contact point, and an electrical conductor in connection with said switch member, a button projecting through the side of the holder arranged to bear on said switch member and to move the latter into electrical engagement with the contact point when pressed upon, and a sleeve surrounding that portion of the holder in which the button is contained, said sleeve having an orifice to give access to the button and being rotatable about the holder in such manner as to pass over the button and hold the same in position to maintain the electrical engagement between the switch member and contact piece.

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1,091,529. PUMP AND AIR-COMPRESSOR. LEWIS HALLOCK NASH, New York, N. Y., assignor to Nash Engineering Company, New York, N. Y., a Corporation of New York. Filed Feb. 24, 1910. Serial No. 545,604. (Cl. 230—30.)



1. In a compressor or vacuum pump, the combination of a wheel having extended blades for forming pockets at its periphery, and a case chamber comprising heads D, E and an intermediate part having an interior surface non-concentric with the wheel blades and forming a passage connecting said pockets, the wheel making a joint upon the heads D, E of the case so as to form with the case chamber a series of enlarging and contracting spaces, combined with ports in said heads for introducing the charge, and a passage in the center of said wheel operating substantially as described.

2. The combination in an air compressor or vacuum pump of a wheel having a central hub and blades extending therefrom forming pockets on the exterior of the same, of a case chamber adapted to contain a liquid and having a passage exterior to the wheel circumference connecting the pockets of the wheel with each other, combined with heads completing the case and containing ports controlled by the side edges of said wheel blades to admit and discharge the fluids into and out of said pockets.

3. The combination of a revolving wheel having peripheral blades forming pockets, a case chamber inclosing said wheel and adapted to contain a liquid, said case chamber having inlet and discharge ports to control the inflow and outflow of gases to said pockets, and having a passage connecting the pockets of said wheel, said passage enlarging through a short arc of the wheel circumference at the inlet port and gradually reducing through a longer arc of the wheel circumference toward the discharge port.

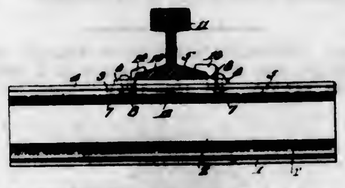
4. In an air compressor or vacuum pump the combination of a revolving wheel having peripheral extensions forming pockets, a case chamber adapted to contain a liquid and having inclosing heads fitting the edges of the wheel to form a joint with the extensions thereof and complete said pockets, said chamber having inlet and discharge ports in the heads for controlling the flow of a gas into and out of said pockets, and said case chamber also having a passage connecting the pockets of said wheel, said passage enlarging through a short arc of the wheel circumference at the inlet port and gradually reducing through a longer arc of the wheel circumference toward the discharge port.

5. In a device as above described, the combination with the case and ports therefor of a wheel having an interior rim, making joint-forming connection with the walls of the ends of said chamber, and an interior portion forming a passage from end to end of said wheel combined with head ports for controlling the inflow and outflow of the gases from said device.

[Claims 6 to 15 not printed in the Gazette.]

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1,091,530. METALLIC TIE AND RAIL-FASTENER. RICHARD W. OSWALD, Pittsburgh, Pa. Filed Mar. 8, 1913. Serial No. 753,030. (Cl. 238—4.)



1. The combination with a tie having a longitudinal space in the rail bearing face thereof, of a rail fastener including a plate secured to the rail bearing face of the tie and spanning the space, and a malleable hooked head spike disposed in the space below the plate with its terminal beyond the rail base receiving portion of the plate, the insert terminal being bent inwardly to engage the rail base and clamp the hooked head upon the opposite side of the rail base while the body of the spike is below and parallel to the under surface of the base of the rail.

2. The combination with a tie having a longitudinal space in the rail bearing face thereof, of a rail fastener including a plate secured to the rail bearing face of the tie and spanning the space, and a malleable hooked head spike disposed in the space below the plate with its terminal beyond the rail base receiving portion of the plate, the insert terminal being bent inwardly to engage the rail base and clamp the hooked head upon the opposite side of the rail base, said plate being provided with parallel rail base limiting lugs on the upper face thereof.

3. The combination with a tie having a longitudinal space in the rail bearing face thereof, of a rail fastener including a plate secured to the rail bearing face of the tie and spanning the space, and a malleable member of greater length than the width of the base of the rail fitted in the space below the plate and having its terminals hooked to engage opposite sides of the rail base, said plate being provided with parallel rail base limiting lugs on the upper face thereof.

4. The combination with a metal tie having a longitudinal space in the rail bearing face thereof, of a rail fastener including a plate having two oppositely disposed spaced lugs at each end, means for securing said lugs to the rail bearing face of the tie, the body of the plate spanning the space in the tie, and a malleable member of greater length than the width of the base of a rail inserted in the space below the plate and having its terminals hooked to engage opposite sides of the rail base, said plate being provided with parallel rail base limiting lugs on the upper face thereof.

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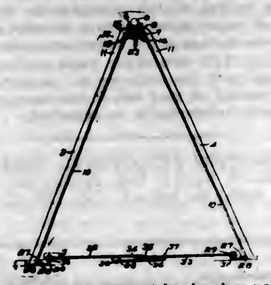
1,091,531. HAMMOCK OR LIKE SUPPORT. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Aug. 8, 1913. Serial No. 783,688. (Cl. 5—32.)

1. A couch hammock support having two pairs of legs hinged together at their upper ends, and a backbone or ridge pole, the latter having webs receivable between the upper end portion of said legs below the hinges, and co-acting means to hold said legs in position against said backbone.

2. A couch hammock support having two pairs of legs hinged together at their upper ends and a backbone or ridge pole, the latter having webs extending in substantially inverted T form and receivable between the upper end portions of said legs below said hinges, and co-acting means to hold said legs in position against said backbone.



3. A couch hammock support having two pairs of legs hinged together at their upper ends and a backbone or ridge pole, the latter having webs extending in substantially inverted T form and receivable between the upper end portions of said legs below said hinges, and co-acting means to bind said legs against the edges of said webs.



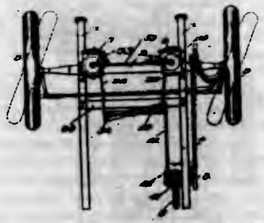
4. A couch hammock support having two pairs of hinged legs and a backbone or ridge pole, the latter having webs extending in substantially inverted T form and receivable between the upper ends of said legs, and bolts co-acting with said legs to hold the legs and ridge pole rigidly together.

5. A couch hammock support having two pairs of hinged legs, and a backbone or ridge pole, the latter having webs extending in substantially inverted T form and receivable between the upper ends of said legs, and bolts loosely extending through said legs below and engaging said ridge pole.

[Claims 6 to 15 not printed in the Gazette.]

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1,091,532. HEADLIGHT MECHANISM. CHARLES S. PARCELLS, Ovid, N. Y. Filed Apr. 17, 1913. Serial No. 761,664. (Cl. 240—62.)



1. In a headlight mechanism, the combination with a pair of lamps, of operating mechanism for the lamps embodying a pivoted member mounted to turn about an upright axis in rear of the lamps, said axis being arranged substantially an equal distance from both lamps, and flexible connections between the lamps and the pivoted member on opposite sides of the pivot of the latter whereby when said member is moved in one direction it moves one lamp without affecting the other, and vice versa.

2. In a headlight mechanism, the combination with a pair of lamps having arms connected thereto and extending forwardly and inwardly therefrom, of operating mechanism for the lamps embodying a pivoted member, and flexible connections between the forward and inwardly-extending arms and the pivoted member on opposite sides of the pivot of the latter, whereby each lamp can turn independently of the other to project its beam across the beam of the other lamp in front of the latter and each lamp, on turning, moves at a greater speed during the first part of its movement than during the latter part.

3. In a headlight mechanism, the combination with a pair of lamps, of operating mechanism for the lamps embodying a pivoted member, flexible connection between the lamps and the pivoted member on opposite sides of the pivot of the latter, and means for shifting either of the lamps independently of the other without shifting the pivoted member.

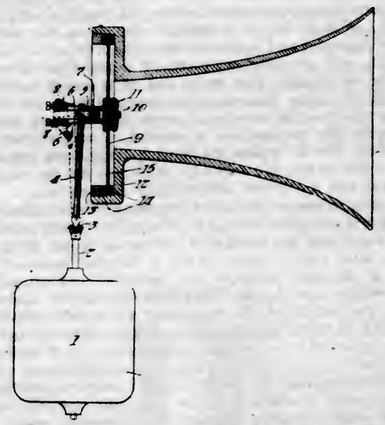
4. In a headlight mechanism, the combination with a pair of pivotally mounted lamps, of operating mechanism for the lamps having connection with the latter permitting the lamps to be moved independently of the operating mechanism, and means for moving the lamps independently of each other and independently of the operating mechanism so that the lamps may be swung to illuminate objects on either side of the roadway or be turned to illuminate objects in the rear of the vehicle.

5. In a headlight mechanism, a lamp having a pivotal support comprising a sleeve formed with a surrounding flange, a rock shaft turning in said sleeve and having a portion carried thereby for bearing against the flange and also a portion at its lower end bearing against the lower end of the sleeve, and a spring housed between the flange and the portion on the rock shaft which coöperates with said flange.

[Claims 6 to 17 not printed in the Gazette.]

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1,091,533. ALARM. ALEXANDER N. PIERMAN, Newark, N. J. Filed Aug. 17, 1911. Serial No. 644,604. (Cl. 116—1.)



1. In an alarm, an unbalanced rotary member, a vibratory member, a stationary guiding means for causing the rotary member to oscillate in a plane and deliver hammer blows with respect to the vibratory member, substantially as described.

2. In an alarm, a vibratory member, means including an oscillatory rotary hammer and a guide to constrain said hammer from movement in certain directions and to permit the same to oscillate in a plane substantially perpendicular to the plane of the vibratory member and deliver blows with respect thereto at rapidly recurring intervals and alternately in opposite directions, and means for rotating said hammer, substantially as described.

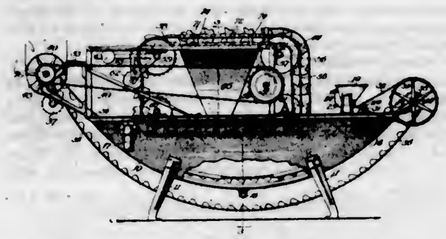
3. In an alarm, an oscillatory diaphragm, a rotary member, means for rotating the same, means for causing the same to oscillate in a plane during rotation, and an anvil for receiving blows from said rotary member and transmitting same to said diaphragm, substantially as described.

4. In an alarm, an unbalanced rotary member, means for driving the same, vibratory means, and a connection between said vibratory means and said rotary member which causes the latter to deliver hammer blows with respect to the former, substantially as described.

5. In an alarm, a rotary member carrying a weight eccentric thereto, means for driving the same, vibratory means, and a connection between said vibratory means and said weighted member which receives hammer blows from the latter and transmits the same to said vibratory means, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,091,534. PEA-CLEANER. EDWARD REYNOLDS, Sturgeon Bay, Wis., assignor to Sprague Canning Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1911. Serial No. 648,685. (Cl. 146—14.)



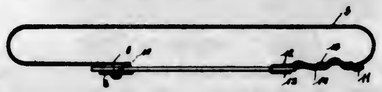
1. In a device of the class described, the combination of a liquid container, a water inlet at one end and an outlet at the other, deflectors mounted on the side walls of the container and extending downwardly and obliquely therefrom throughout substantially the length of the container, an inlet carrier mounted to travel on the bottom of the container and to return above the level of the liquid therein, said conveyer composed of a plurality of units having overlapping side walls and of a length approximating the cross dimensions of the container, the ends of the trough units traveling beneath the deflectors, means to supply the material to be washed at one end of the container, means to skim the floating debris from the surface of the water, and separate discharges for the washed material and the debris, substantially as described.

2. In a device of the class described, the combination of a liquid container having substantially vertical parallel side walls and an arc-shaped bottom and end walls, a water inlet and a water outlet, a deflector mounted on each of the side walls of the container and extending downwardly and obliquely therefrom throughout substantially the length of the container, an endless conveyer mounted to travel on the bottom of the container and to return above the level of the liquid therein, said conveyer composed of a plurality of perforated trough-shaped units having overlapping side walls and of a length approximating the cross dimensions of the container, the end walls of the units traveling beneath the deflectors, means to supply the material to be washed at one end of the container means to skim the floating debris from the surface of the water, and separate discharges for the washed material and the debris, substantially as described.

3. In a device of the class described, the combination of a liquid container having substantially vertical parallel side walls and an arc-shaped bottom and end walls, a water inlet and a water outlet, a deflector mounted on each of the side walls of the container and extending downwardly and obliquely therefrom throughout substantially the length of the container, an endless conveyer mounted to travel on the bottom of the container and to return above the level of the liquid therein, said conveyer composed of a plurality of perforated trough-shaped units having overlapping side walls and of a length approximating the cross dimensions of the container, the end walls of the units traveling beneath the deflectors, means driven in isochronism with the conveyer for supplying the material to be washed at one end of the container, means to skim the floating debris from the surface of the water, and separate discharges for the washed material and the debris, substantially as described.

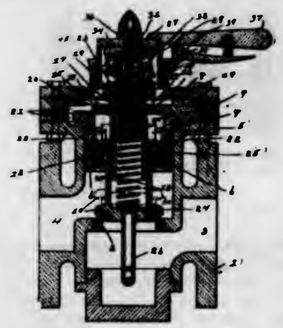
4. In a device of the class described, the combination of a liquid container having substantially parallel side walls, and an arc-shaped bottom and end walls, a water inlet at one end and an outlet at the other, an endless conveyer having a natural droop corresponding substantially to the curvature of the bottom of the container and mounted to travel on said bottom and to return above the level of the liquid within the container, said conveyer composed of a plurality of perforated trough-shaped units having overlapping side walls and of a length approximating the cross dimensions of the container, a pair of deflectors mounted one on each side wall of the container and extending downwardly and obliquely therefrom throughout substantially the length of the container and below the water level, means to cause the conveyer to traverse the bottom of the container in the direction of the flow of water therein, means to skim the floating debris from the surface of the water, said means traveling in the direction of the flow of the water, and means driven in isochronism with the conveyer for supplying the material to be washed at that end of the conveyer adjacent the water inlet, substantially as described.

1,091,535. BLOTTER ATTACHMENT. EUGENE S. RICE and GABRIEL E. BAILLY, Lake Arthur, La. Filed Apr. 24, 1913. Serial No. 763,457. (Cl. 120—25.)



The combination with a blotter sheet, of a band having a hook at one end engaged through one edge portion of the blotter sheet, a plate secured to the other end of th band and having a stud formed thereon with an e larged head, and engaged through the opposite edge po tion of the blotter sheet, and a socket member receiving the stud and having a flat face engaged against the opposite side of the blotter sheet whereby said blotter sheet will be clamped between the flat faces of the plate and socket member.

1,091,536. PRESSURE-REGULATING VALVE. WILLIAM ROSS, Troy, N. Y. Filed Oct. 21, 1912. Serial No. 726,988. (Cl. 50—12.)



1. In a pressure-regulating valve, and in combination, a valve-case provided with a passageway therethrough, and having a pressure-chamber in communication with the inlet-portion of said passageway and provided with an outlet; a valve-seat surrounding said passageway; a valve coöperative with said seat having exposed to the pressure in said pressure-chamber a surface of greater area than that exposed to the inlet-pressure at the valve-seat; a flexible diaphragm exposed to the pressure in the outlet-portion of said passageway; a valve in connection with said diaphragm controlling the outlet from the pressure-chamber; positive means for holding said outlet-controlling valve either open or closed; and adjustable yielding means for tending to open said outlet valve.

2. In a pressure-regulating valve, and in combination, a valve-case provided with a passageway therethrough and having a main-valve-seat, a controlling-valve seat, and a pressure-chamber provided with on outlet-opening through the controlling-valve seat; a main valve coöperative with said main-valve seat adapted to be closed by pressure in said pressure-chamber; a controlling valve coöperative with said controlling-valve seat, said controlling valve and its seat having surfaces adapted to make contact immediately surrounding said outlet-opening, one of said surfaces being mutilated beyond said contact portion.

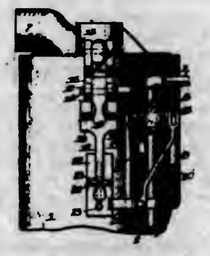
3. In a pressure-regulating valve, and in combination, a valve-case provided with a passageway therethrough and having a main-valve seat, a controlling-valve seat, and a pressure-chamber provided with a plurality of outlet-openings through different portions of the controlling-valve seat; a main-valve coöperative with said main-valve seat adapted to be closed by pressure in said pressure-chamber; a controlling valve coöperative with said controlling-valve seat, said controlling valve and its seat having surfaces adapted to make contact immediately surrounding the respective outlet-openings, one of said surfaces being mutilated in intervals between the portions so adapted to make contact.

4. In a pressure-regulating valve, and in combination, a valve-case provided with a passageway therethrough and having a main-valve seat surrounding said passageway, a controlling-valve seat and a pressure-chamber provided with outlet-openings through said controlling-valve seat; a main valve coöperative with the main valve seat having a piston-extension fitting, and reciprocatory in, said pressure-chamber, said pressure-chamber being in communication with the inlet-portion of said passageway; a flexible diaphragm exposed to the pressure of the outlet-portion of said passageway; a controlling valve coöperative with the controlling-valve seat having a stem connected with said diaphragm, said controlling valve and its seat having surfaces adapted to contact immediately surrounding the respective outlet-openings, one of said surfaces being mutilated in the intervals between the portions so adapted to make contact; and yielding means tending to open said controlling valve.

5. In a pressure-regulating and controlling valve, and in combination a valve-case provided with a passageway therethrough and having a main-valve seat, a controlling-valve seat and a pressure-chamber provided with an outlet-opening through the controlling-valve seat; a main valve coöperative with said main seat adapted to be closed by pressure in said pressure-chamber; a controlling valve coöperative with said controlling-valve seat; a flexible diaphragm exposed to the pressure of the outlet-portion of said passageway; a valve controlling the outlet from the pressure-chamber having a stem connected with said diaphragm; inner and outer abutments on said stem; a sleeve inclosing said stem adapted to connect with said inner abutment thereon; a screw member mounted on said case adapted when screwed fully inward to engage said sleeve and thereby hold said controlling valve open, and adapted when screwed fully outward to engage said outer abutment on said stem to hold said controlling valve closed; and a spring interposed between said screw-member and said inner abutment.



1,091,537. SAUSAGE-STUFFER. GEORGE J. SAYER, Chicago, Ill. Filed Jan. 10, 1913. Serial No. 741,178. (Cl. 17—6.)



1. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, means to permit opening and closing said cover plate, means to control the supply of pressure to the said cylinder, and means controlled by said pressure controlling means to control the cover controlling means.

2. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, toggle mechanism to permit opening and closing said cover plate, means to control the supply of pressure to the said cylinder, and means controlled by said pressure controlling means to control the cover controlling toggle mechanism.

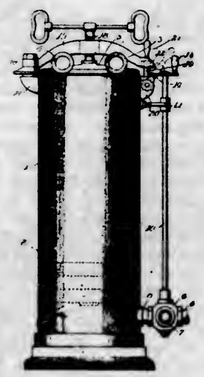
3. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, toggle mechanism to permit opening and closing said cover plate, a valve controlling handle to control the supply of pressure to the said cylinder, and means controlled by said pressure controlling handle to control the cover controlling toggle mechanism.

4. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, toggle mechanism to permit opening and closing said cover plate, a valve controlling handle to control the supply of pressure to the said cylinder, a locking handle for said toggle mechanism, and means controlled by said pressure controlling handle to control the cover controlling means.

5. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, toggle mechanism to permit opening and closing said cover plate, a valve controlling handle to control the supply of pressure to the said cylinder, a locking handle for said toggle mechanism, and means controlled by said pressure controlling handle to control the cover controlling means, said means including a sliding plate.

[Claim 6 not printed in the Gazette.]

1,091,538. CONTROLLING DEVICE FOR SAUSAGE-STUFFERS. GEORGE J. SAYER, Chicago, Ill. Filed Oct. 13, 1913. Serial No. 795,005. (Cl. 17—6.)



1. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, cover controlling means, means to control the supply of pressure to said cylinder, and interlocking means interposed between said cover controlling means and said pressure controlling means, said interlocking means including a cam.

2. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, cover controlling means, means to control the supply of pressure to said cylinder, and interlocking means interposed between said cover controlling means and said pressure controlling means, said interlocking means including a cam, said cover controlling means including a swinging lock bolt.

3. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, cover controlling means, a valve to control the supply of pressure to said cylinder, and interlocking

means interposed between said cover controlling means and said pressure controlling means, said interlocking means including a cam, said cover controlling means including a swinging lock bolt.

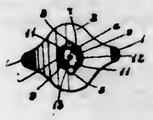
4. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, cover controlling means, a valve to control the supply of pressure to said cylinder, a valve spindle for said valve, and interlocking means interposed between said cover controlling means and said pressure controlling means, said interlocking means including a cam, said cover controlling means including a swinging lock bolt, said cam being carried by said valve spindle.

5. A device of the character described having a cylinder, a piston movable therein, a cover plate for said cylinder, cover controlling means, a valve to control the supply of pressure to said cylinder, a valve spindle for said valve, and interlocking means interposed between said cover controlling means and said pressure controlling means, said interlocking means including a cam, said cover controlling means including a swinging lock bolt, said cam being carried by said valve spindle, said bolt when not in its cover locking position preventing the operative movement of said cam.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,539. EMBLEM-RING. JOHN A. SCHRINK, Newark, N. J., assignor to John F. Schrink & Son, a Corporation of New Jersey. Filed Apr. 15, 1910. Serial No. 555,669. (Cl. 63—29.)



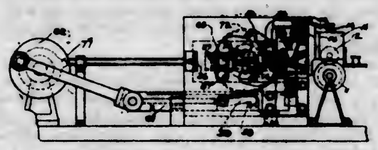
1. An emblem ring or the like comprising in combination a body having an exterior seat for an emblem and an interior circular recess opposite said seat and a hole extending from said seat through said body partly inside and partly outside said recess, an emblem for said seat having a stud adapted to extend into said hole, said stud having at its side exposed by said recess a lateral notch cut back as far as the wall of the recess, and a locking plate pivotally held in said recess and having a circumferential portion of itself fitting close to the side wall of said recess and being cut away at another circumferential portion to clear said stud when said stud is in place during attaching and detaching operation.

2. An emblem ring or the like comprising in combination a body having an exterior seat and an interior recess opposite each other and a hole through said seat into the recess, an emblem fitting said seat and having a stud adapted to extend through said hole with a hook portion projecting into said recess, and a locking plate pivoted in said recess and having a resilient marginal portion, the outer edge of which extends over part of said hole and is curved on the arc of a circle whose center is the point of pivoting and adapted to engage said hook portion of the stud when said hook portion is in place, said marginal portion engaging at one end of itself the end wall of the recess and being inclined toward its other end away from said end wall, whereby rotation of the plate will wedge its said marginal portion under the hook portion of the stud.

3. An emblem ring or the like comprising in combination a body having an exterior seat and an interior recess opposite each other and a hole through said seat into the recess, an emblem fitting said seat and having a stud adapted to extend through said hole with a hook portion projecting into said recess, and a locking plate pivoted in said recess and having a resilient marginal portion the outer edge of which extends over part of said hole and is curved on the arc of a circle whose center is the point of pivoting and adapted to engage said hook portion of the stud when said hook portion is in place said marginal portion having one end of itself beveled and engaging the end wall of the recess and being inclined toward its other end away from said end wall and having a pocket intermediate said ends and a socket between said pocket and the end of the marginal portion away from the said beveled end, whereby the point of a tool can be inserted in said socket and the plate rotated to wedge its said marginal portion under the hook portion of the stud and seat said hook portion in said pocket.

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1,091,540. S-IRON-BENDING MACHINE. FRANK J. SCHROEDER, Altoona, Pa. Filed July 16, 1912. Serial No. 709,788. (Cl. 153—39.)



1. A machine for bending metal comprising a frame having oppositely disposed angular slots, forming heads arranged on one side of the frame at the angle of the slots and forming a guide for the metal, bending means operatively arranged on the other side of the frame and including bending elements adapted to project through the slots of the frame and having both a vertical and substantially a horizontal movement about said forming heads, means for automatically feeding the metal to be bent to the bending means at predetermined intervals, a device for cutting the metal into bending lengths, and means for ejecting the finished S iron.

2. A machine for bending metal comprising a slotted frame, a gear arranged at one side of the frame, bending elements slidably mounted on the gear and adapted to work in the slotted frame, a forming die arranged on the other side of the frame and coöperating with the bending elements, means for operating the said gear to actuate the bending elements, means for automatically feeding the metal to be bent to the forming die and bending elements, a device for cutting the metal into bending lengths actuated by the means for operating the said gear, and a mechanism for ejecting the finished S iron.

3. A machine for making S irons including reciprocating bending means, comprising a gear wheel, a link secured thereto, blocks slidable in the link, pins projecting from the blocks, rollers mounted upon the said pins, means for operating the bending means, former heads about which the reciprocating bending means is adapted to move, means for feeding metal to the bending element and means for ejecting the finished S iron.

4. A machine for making S irons including reciprocating bending elements, means for operating the said elements, a forming die adapted to coöperate with the said bending elements to form the S iron, means for feeding the metal to the bending elements, said means comprising feed rollers, one of which is resiliently mounted, a shaft on which the upper feed roller is mounted, a spring connected to said shaft and to the said upper feed roller, and adapted to operate the latter when the tension thereof is released, means for cutting the metal, and means for ejecting the finished S iron.

5. A machine for bending metal, including a reciprocating bending element, means for operating the latter, a shaft associated therewith, means for feeding the metal to be bent, said means comprising a roller shaft, a spring actuated roller mounted on one end, a ratchet device for winding the spring, and a gear wheel also on the shaft, a shaft associated with the bending element, a rack meshing with the gear wheel on the feed roller shaft, means on the shaft for actuating the rack, and thereby operating the metal feeding means, means for cutting the metal in bending lengths, and means for ejecting the bent metal.

[Claims 6 and 7 not printed in the Gazette.]



1,091,541. ROTARY VALVE FOR ENGINES. ELMER E. SHAFER, Benton county, Iowa. Filed Apr. 12, 1913. Serial No. 760,686. (Cl. 136—7.)



1. The combination, with a plurality of cylinders, of a separate valve-chamber for each cylinder, a conical plug-valve working in and fitted to each valve-chamber, means for holding each plug-valve in contact with its seat, each valve-chamber having inlet and exhaust passages for its communicating cylinder, and each valve having a passage extending through one side portion of it and operating to place the passage thereof alternately in communication with its respective cylinder.

2. The combination, with a plurality of cylinders, of a separate valve-chamber for each cylinder, a conical plug-valve working fittingly in each valve-chamber and provided with a hole at its axis in line with the like holes in the other valves, separate means for holding each valve in contact with its seat, and a rotatable driving-spindle extending through all the said holes in said valves and operating to rotate the valves and permitting each valve to slide longitudinally independently of the other valves.

3. The combination, with a plurality of cylinders, of a separate valve-chamber for each cylinder, a conical plug-valve working fittingly in each valve-chamber and provided with a hole at its axis and a tubular stem at its smaller end, a spring connected to each said valve and operating to hold it to its seat fittingly, independently of the other valves, and a rotatable driving-spindle extending through all the axial holes of said valves and operating to rotate the valves and permitting each valve to slide lengthwise thereslong independently.

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1,091,542. METAL-FOUNDING. CHARLES L. SPINNEY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 1, 1913. Serial No. 745,612. (Cl. 75—62.)

1. The process of preparing copper for casting which consists in bringing the same in a molten state in contact with a mixture of a flux comprising boric anhydrid and an inert material which will retain the anhydrid underneath the melted copper and feeding the anhydrid gradually into the melt and maintaining the same long enough in contact with the copper to effect a purification.

2. The process of obtaining cast metal of the copper group of high conductivity which consists in progressively stirring boric anhydrid into contact with said melted metal beneath the surface of the metal, stirring the melted metal to work the anhydrid gradually to the surface, and casting the metal while in a purified state.

3. The process of producing cast copper of high conductivity which consists in melting the copper while protected from direct contact with air above a mixture of charcoal and boric anhydrid, progressively working the anhydrid to the surface by stirring, and then immediately casting the purified copper.

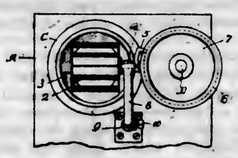
4. The process which consists in melting copper above a mixture of inert material and boric anhydrid, heating the copper to a temperature of about 1300° C. while the boric anhydrid is retained beneath the same by the inert material, then progressively stirring the boric anhydrid into the copper and casting the copper.

5. The process of purifying copper preparatory to casting which consists in superposing the melted metal upon about 2% of boric anhydrid mixed with charcoal and gradually working the anhydrid through the metal while the metal is heated to about 1300° C.

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1,091,543. SHUTTER FOR MOTION-PICTURE MACHINES. ARCHIE D. STANDIFORD, Kansas City, Mo. Filed Dec. 21, 1911. Serial No. 667,074. (Cl. 88—18.2.)

1. In an apparatus of the character described, a shutter consisting of a plurality of blades arranged edgewise in the rays of light projected from the apparatus, a suitably-mounted rock-shaft fixed to said shutter, and means to actuate said rock-shaft.

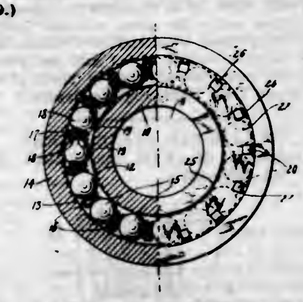


2. In an apparatus of the character described, a shutter consisting of a plurality of blades arranged edgewise in the rays of light projected from the apparatus, a suitably-mounted rock-shaft fixed to said shutter, a crank-arm fixed to said rock-shaft, and a rotary wheel having an irregular groove, the sides of which actuate said crank-arm.

3. In combination with a picture projecting machine, a shutter consisting of a plurality of blades arranged edgewise in the rays of light projecting from said picture machine, and means controlled by said picture machine, to oscillate said blades to periodically interrupt the rays of light.

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1,091,544. BALL-BEARING. FRANK STARIN, Springfield, Mass. Filed June 14, 1913. Serial No. 773,713. (Cl. 64—59.)



In a bearing, the combination with two bearing rings having raceways, of a plurality of balls running therein, supporting rings disposed outside of said raceways covering completely the annular space between said bearing rings, each ring being provided with plurality of slots, the slots in one ring being in alinement with those in the other one, and separators intermediate adjacent balls, each separator comprising a plate bent at its middle portion back upon itself to form side wings, the outer faces of said wings being curved and in contact substantially throughout their widths with sections of two adjacent balls, each separator being provided at the upper and lower ends of its middle portion with lugs in engagement with two registering slots in said rings and bent onto the outer faces of the latter in radial directions.

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1,091,545. RECOVERY OF NICKEL FROM ITS ORES. HENRY LIVINGSTONE SULMAN and HUGH FITZALIS KIRKPATRICK PICARD, London, England, assignors to The Madagascar Minerals Syndicate Limited, London, England. Filed Apr. 3, 1913. Serial No. 758,677. (Cl. 75—18.)

1. The herein described process for the extraction of nickel from silicate ores containing other metals, which consists in treating the ore with a mineral acid in such quantity as to act as a selective solvent of the nickel over the magnesium compounds forming the gangue materials and precipitating the nickel from the solution of the salts of nickel and other metals.

2. The herein described process for the extraction of nickel from silicate ores containing other metals which consists in treating the ore with sulfuric acid in such

quantity as to act as a selective solvent of the nickel over the magnesium compounds forming the gangue materials, extracting with water so as to obtain an aqueous solution of nickel sulfate and other metal sulfates, purifying the solution by eliminating metals other than magnesium and nickel and precipitating the nickel from the remaining solution.

3. The herein described process for the extraction of nickel from silicate ores containing other metals, which consists in treating the ore with a mineral acid in such quantity as to act as a selective solvent of the nickel over the magnesium compounds forming the gangue materials and precipitating the nickel from the solution of the salts of nickel and other metals by means of magnesia.

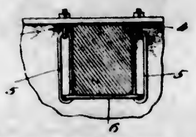
4. The herein described process for the extraction of nickel from silicate ores containing other metals which consists in treating the ore with sulfuric acid in such quantity as to act as a selective solvent of the nickel over the magnesium compounds forming the gangue materials, extracting with water so as to obtain an aqueous solution of nickel sulfate and other metal sulfates, purifying the solution by eliminating metals other than magnesium and nickel, stirring into the purified solution powdered magnesia to precipitate the nickel as a hydrate and separating the precipitate hydrate.

5. The herein described process for the extraction of nickel from silicate ores containing other metals which consists in treating the ore with sulfuric acid in such quantity as to act as a selective solvent of the nickel over the magnesium compounds forming the gangue materials, extracting with water so as to obtain an aqueous solution of nickel sulfate and other metal sulfates, purifying the solution by precipitating with calcium carbonate the metals other than magnesium and nickel and precipitating the nickel from the remaining solution by means of magnesia.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,546. COLLAPSIBLE STAKE-POCKET. JOHN J. TATUM, Baltimore, Md. Filed July 11, 1913. Serial No. 778,625. (Cl. 105—183.)



1. A stake pocket comprising attaching means and stake embracing means, and collapsible in all directions when attached to a car and when not in use.

2. A stake pocket comprising attaching means and stake embracing means; the stake embracing means being universally jointed to the attaching means and comprising a plurality of members collapsible relatively to each other when attached to a car and when not in use.

3. A stake pocket comprising attaching means and stake embracing means connected thereto by universal joints; said attaching means being adapted for mounting upon a car member; said stake embracing means comprising a plurality of jointed members adapting it to conform to the surfaces of a stake; and said members being connected together by universal joints.

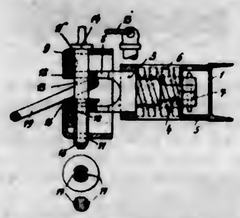
4. A stake pocket comprising attaching means and stake embracing means connected thereto by universal joints; said stake embracing means being constructed of a plurality of members forming sides and a connecting end of a stake pocket; the members forming the sides of the stake pocket comprising a plurality of jointed parts, whereby the stake pocket is collapsible inward.

5. A stake pocket comprising attaching means and stake embracing means connected thereto by universal joints; said stake embracing means forming the sides and the end of a stake pocket, and said sides and said end each comprising a plurality of jointed parts whereby the walls of the pocket are each collapsible in themselves and relatively to the other parts of the pocket.

[Claim 6 not printed in the Gazette.]

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1,091,547. BUFFER-COUPLING FOR RAILROAD-VEHICLES. EMIL ULLMANN, Berlin, Germany, assignor to The Firm of Orenstein & Koppel-Arthur Koppel Aktiengesellschaft, Berlin, Germany. Filed Oct. 30, 1912. Serial No. 728,664. (Cl. 213—39.)

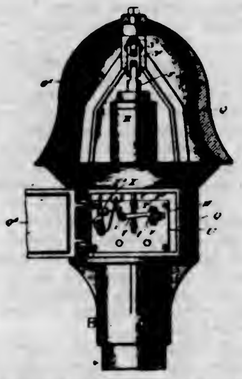


1. Combined buffer and coupling device for railroad-vehicles fitted at the frame of the vehicle, the front end of the buffer having the form of a fork with horizontally extending branches, said branches carrying a cap having a horizontal mouth on its front side, the rims of said cap and the two branches of the said fork having bores in the same vertical axis, a coupling pin in said bores, and means securing said pin against removal from said buffer when in unlocking position.

2. Combined buffer and coupling device for railroad-vehicles fitted at the frame of the vehicle, the front end of the buffer having the form of a fork with horizontally extending branches, said branches carrying a cap having a horizontal mouth on its front side, the rims of said cap extending rearward, the upper and the lower rim of said cap and the two branches of the said fork having bores in the same vertical axis, a coupling pin in said bores, and means securing said pin against removal from said buffer when in unlocking position.

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1,091,548. ELECTROMAGNETIC BELL. EUGENE W. VOGEL, Chicago, Ill., assignor to The Railroad Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 10, 1909. Serial No. 527,183. (Cl. 177—7.)



1. In an electromagnetic bell, an electromagnet, a movable gravity-returned armature for said magnet, a bell-striking member connected to said armature and gravity-actuated in one direction, a controlling circuit for said magnet, a switch in said circuit, said switch having a movable switch arm, a device for completing the movement of said switch arm in either direction after it has been moved a predetermined distance in such direction, and then holding the arm in the position into which it has been moved, and shoulders on said armature and lying on opposite sides of said arm and in position to engage therewith for causing said arm to be actuated in both directions by the armature.

2. In an electromagnetic bell, electromagnetic ringing mechanism including a movable armature, a controlling



switch having a movable arm, a spring-pressed member for carrying said arm in either direction after it has been moved a predetermined distance in that direction, and co-operating shoulders on said armature and on said arm for causing the arm to be actuated by the armature.

3. In an electromagnetic bell, an electromagnet, a movable armature for said electromagnet, a switch arm, a yielding holding member for said arm, coöperating cam faces on said member and on said arm for enabling said member to continue the movement of said arm in either direction after it has been brought to a predetermined point, and coöperating shoulders on said armature to actuate the arm.

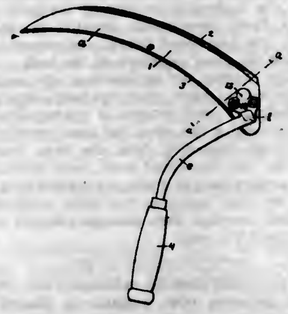
4. In an electromagnetic bell, an electromagnet having a vertically movable core, a bell striker mounted so as to be capable of swinging about a horizontal axis, a connection between the striker and the said core, a controlling switch for said electromagnet lying beneath the same, a rod extending downwardly from said core, said switch having an arm extending past said rod, shoulders on said rod above and below said arm in positions to engage with the arm when the core moves up and down, and means associated with said arm to complete its movement in either direction after it has been moved a predetermined distance in that direction by one of the shoulders.

5. In an electromagnetic bell, a bell striker, an electromagnet having a vertically movable core, a connection between said striker and said core, a rod depending from said core, a controlling switch having an arm extending past and in proximity to said rod, shoulders on said rod above and below said arm, and means associated with said arm for throwing it out of engagement with either of said shoulders after it has been moved a predetermined distance by that shoulder.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,549. GRASS-HOOK. HUGO VOLCKMANN, Watertown, Wis., assignor to Washington Cutlery Company, Watertown, Wis., a Corporation of Wisconsin. Filed Nov. 19, 1909. Serial No. 528,905. (Cl. 30—9.)

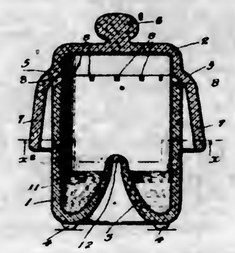


In a grass hook, the combination of a substantially flat blade, provided with a cutting edge extending substantially the entire length thereof, with a handle shank offset from the plane of the blade and substantially parallel with the plane of the blade, the handle shank being offset from the blade by a pillar part terminating in a flat head which is attached to the blade near one end thereof and between the cutting edge and the back of the blade and between the extremities of the cutting edge of the blade so that the cutting edge of the blade is spaced from the pillar part and its flat head and passes underneath the offset handle shank and is spaced from the same, substantially as described.

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1,091,550. FLY-TRAP. GUY O. WALTMAN, Longbeach, Cal. Filed May 21, 1913. Serial No. 769,071. (Cl. 43—22.)

1. A fly trap comprising a cup shaped receptacle having in its bottom a hollow cone, open at the bottom and communicating at its upper end with the interior of the receptacle, the walls of said receptacle being provided with channels, an annular deflector extending around the receptacle and provided with inwardly projecting ribs, forming vertically extending channels for directing insects to said channels in the walls of the receptacle, and a removable cover member for said receptacle.



2. A fly trap comprising a cup shaped receptacle having in its bottom a hollow cone, open at the bottom and communicating at its upper end with the interior of the receptacle, the walls of said receptacle being provided with channels, an annular deflector extending around the receptacle for directing insects to said channels in the walls of the receptacle, and a removable cover member for said receptacle, said annular deflector being formed on said removable cover.

3. A fly trap comprising a cup shaped receptacle having in its bottom a hollow cone, open at the bottom and communicating at its upper end with the interior of the receptacle, the walls of said receptacle being provided with channels, an annular deflector extending around the receptacle for directing insects to said channels in the walls of the receptacle, and a removable cover member for said receptacle, said annular deflector being formed on said removable cover member, and said removable cover member resting on the top of the side wall of said cup shaped receptacle.

4. A fly trap comprising a cup shaped receptacle having in its bottom a hollow cone, open at the bottom and communicating at its upper end with the interior of the receptacle, the walls of said receptacle being provided with channels, an annular deflector extending around the receptacle for directing insects to said channels in the walls of the receptacle, and a removable cover member for said receptacle, said annular deflector being formed on said removable cover member, said channels being formed in the upper end of the side wall of said cup shaped receptacle, and said removable cover member resting on top of said side wall and extending over said channels.

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1,091,551. MACHINE FOR MAKING BLANKS FOR SCREWS. GEORGE T. WARWICK, Springfield, Mass. Filed Apr. 21, 1910. Serial No. 556,842. (Cl. 29—33.)

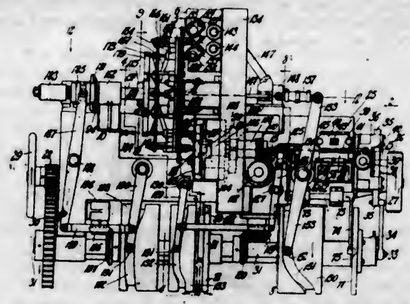
1. The combination with feeding-in mechanism and a cutting-off mechanism comprising a movable cutting-member, of rollers for burring and rounding one end of the blank, and an injecting mechanism for transferring the blank from the cutting-member into position between the burring rollers.

2. The combination with feeding-in mechanism and a cutting-off mechanism comprising a movable cutting-member, of burring-devices, and a reciprocatory plunger for injecting the blank from the cutting-member into the burring-devices.

3. The combination with feeding-in mechanism and a cutting-off mechanism comprising a movable cutting-member, of burring-devices, a reciprocatory plunger, a pusher-pin carried by said plunger, means for positioning said pin in the plunger, and means for actuating said plunger to inject a blank into position between the burring-rollers.

4. The combination with feeding-in mechanism, and a cutting-off mechanism comprising a movable cutting-mem-

ber, of burring-devices, and means for first injecting a blank into the burring-devices and subsequently injecting the burred blank from said burring-devices.

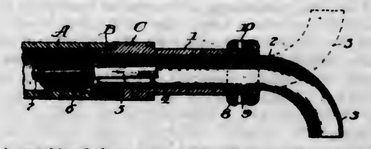


5. The combination with feeding-in mechanism, and a cutting-off mechanism comprising a movable cutting-member, of burring-devices, and means to inject a blank into position between the burring-devices.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,552. FAUCET AND DRINKING-FOUNT. GEORGE M. WESTERBERG, Chicago, Ill. Filed Nov. 6, 1912. Serial No. 729,725. (Cl. 137—4.)



1. A combined faucet and drinking fount comprising a casing, a rotatable tubular nozzle reciprocable therein, a transverse pin in the bore of said nozzle, a longitudinally disposed spindle connected to said pin, a fuller-ball mounted on said spindle and adapted to seat on the inner end of said casing, and means for reciprocating said nozzle in said casing.

2. A combined faucet and drinking fount comprising a casing, a rotatable tubular nozzle reciprocable therein, a transverse pin in the bore of said nozzle, a longitudinally disposed spindle connected to said pin, a fuller-ball mounted on said spindle and adapted to seat on the inner end of said casing, a collar mounted on said nozzle adjacent said casing, and means engaging said collar for reciprocating said nozzle in said casing.

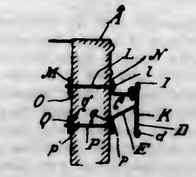
3. A combined faucet and drinking fount comprising a casing, a rotatable tubular nozzle reciprocable therein, a transverse pin in the bore of said nozzle, a longitudinally disposed spindle connected to said pin, a fuller-ball mounted on said spindle and adapted to seat on the inner end of said casing, a collar mounted on said nozzle adjacent said casing having a circumferential groove, and a lever pivoted on said casing one end of which engages the groove in said collar for reciprocating said nozzle in said casing.

4. A combined faucet and drinking fount comprising a casing, a rotatable tubular nozzle therein consisting of a reciprocable tube on which said casing is telescopically mounted and the outer end of which is bent laterally, a transverse pin in the bore of said nozzle, a longitudinally disposed spindle connected to said pin, a fuller-ball mounted on said spindle and adapted to seat on the inner end of said casing, a collar mounted on said nozzle having a circumferential groove, and a reciprocable lever pivoted on said casing one end of which is provided with straddling legs that operate in the groove in said collar and the reciprocation of which seats and unseats said fuller-ball.

5. A combined faucet and drinking fount comprising a casing, a rotatable tubular nozzle reciprocable therein, a transverse pin in the bore of said nozzle, a longitudinally disposed spindle connected to said pin, a fuller-ball removably mounted on said spindle and adapted to seat on the inner end of said casing, a grooved collar on said casing, a substantially Z-shaped lever having one end bifurcated and engaging said groove, and a lug projecting from said casing on which said lever is fulcrumed.

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1,091,553. SIGN-BRACKET FOR AUTOMOBILES. LYMAN P. WHITCHER, Providence, R. I. Filed Mar. 31, 1913. Serial No. 757,739. (Cl. 40—129.)



1. In a sign bracket for automobiles, the combination of a body provided with an opening, rearwardly-directed arms integral with the ends of the body, lugs upon the arms, downwardly-directed arms upon the body, upwardly-directed hooks upon the last-mentioned arms, a plate provided with an opening in alinement with the said opening of the body, a vertically-disposed downwardly-directed hook upon the plate in the vertical plane of the first-mentioned hooks, a screw passed through the openings in the body and plate, and a nut upon said screw.

2. In a sign bracket for automobiles, the combination of a body composed of a single piece of material angular in cross section and comprising a horizontal portion and a depending portion, arms integral with the horizontal portion, attaching lugs upon the ends of the arms, an inclined arm integral with the horizontal portion, an attaching lug upon the last mentioned arm, depending arms integral with the depending portion of the body, upwardly directed hooks upon the last mentioned arms, a plate supported upon the horizontal portion of the body and provided with a hook, downwardly directed in the vertical plane of the last mentioned hooks, and means for vertically adjusting the plate relatively to the body.

3. In a sign bracket for automobiles, the combination of a body, horizontal arms upon the body, lugs upon the arms provided with perforations, a rearwardly inclined arm upon the body, a lug upon the arm provided with a perforation, arms depending from the body, hooks upon the ends of the last mentioned arms, rods passing loosely through the perforations in the lugs provided with threads, heads upon the rods engaging the outer surfaces of the lugs, and disks provided with threads adapted to engage the threads upon the rods.

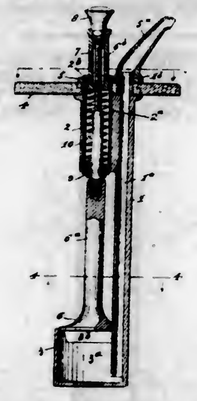
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1,091,554. DISPENSING APPARATUS. FRANK T. WINCHERT, Bellevue, Ohio, assignor to The Wise Soda Apparatus Company, Bellevue, Ohio, a Corporation of Ohio. Filed May 24, 1912. Serial No. 699,369. Renewed Aug. 28, 1913. Serial No. 787,206. (Cl. 225—35.)

1. In a dispensing apparatus, a pump body provided with a discharge conduit terminating in a threaded stem portion and having an offset head provided with a plunger guide opening, and a cap having a discharge spout, the base of the latter being threaded on said threaded stem portion and said cap being provided with an opening in alinement with said plunger guide opening.

2. A dispensing apparatus, comprising a stationary pump body including a discharge conduit stem provided with a plunger guide housing and a measuring cup, a plunger and plunger stem mounted in said cup and housing, a regulating sleeve on said stem and within said housing, and a regulating handle on said stem in cooperative locking relation to said sleeve.

3. A dispensing apparatus, comprising a pump body provided with a plunger housing at one end and a measuring cup at the other, a plunger and plunger stem, a regulating member on said stem, a regulating handle on said stem adapted to lock said regulating member in adjusted position, a guide stop removably carried by said housing, and a plunger spring interposed between said guide stop and said regulating member.



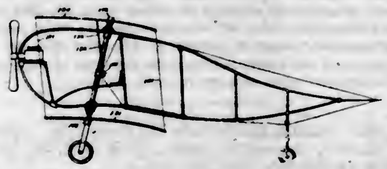
4. A dispensing apparatus, comprising a pump body having a conduit stem provided with an offset guide housing and a communicating measuring cup, a plunger mounted in said measuring cup and provided with a threaded stem extending through said offset guide housing, a regulating member adjustably mounted on said stem, a plunger handle adjustably mounted on said stem and adapted to lock said regulating member in adjusted position, a guide member removably mounted in said guide housing, and a spring interposed between said guide member and said regulating member.

5. In a dispensing apparatus, a stationary pump body having a discharge conduit terminating in a threaded stem portion and a plunger stem opening, a cap threaded on said threaded stem portion and provided with an opening in alinement with said plunger stem opening, a guide sleeve mounted in said plunger stem and cap openings, a plunger stem extending through said guide sleeve, a regulating sleeve on said plunger stem, a guide stop at the lower end of said guide sleeve, and a plunger spring interposed between said guide stop and said regulating member.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,555. FLYING-MACHINE. JOHN W. WILSON, Boston, Mass. Original application filed Apr. 23, 1910, Serial No. 557,185. Divided and this application filed Sept. 6, 1910. Serial No. 580,696. (Cl. 244—29.)



1. In a flying machine, a plane movable about the axis oblique to the perpendicular longitudinal of the machine, the plane being permanently disposed at an angle to its axis other than right angle.

2. In a flying machine, a plane mounted for rotative movement and having a fixed angular relation other than right angle to the axis having an upward and rearward inclination with respect to the normal plane of the machine.

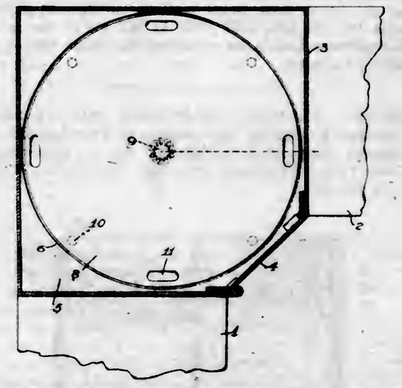
3. In a flying machine, a shaft inclining upwardly and rearwardly with respect to the plane of the machine, and a plane rotatably mounted on said shaft and disposed at an angle other than right angle.

4. In a flying machine, a shaft inclining upwardly and rearwardly with respect to the machine, a collar rotatably mounted on the shaft and a plane fixed on said collar and disposed at an angle thereto other than right angle.

5. In a flying machine, a shaft inclining upwardly and rearwardly with respect to the machine, a collar rotatably mounted on the shaft and a plane fixed on said collar and disposed at an angle thereto other than right angle, and means for rotating the collar to constantly vary the angular relation of the plane with respect to the shaft.

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1,091,556. SAFETY-DEPOSIT BOX. CARL BARTELS, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Filed Jan. 9, 1914. Serial No. 811,268. (Cl. 109—12.)

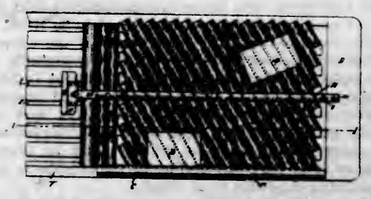


1. A safety-deposit corner-box comprising, vertical walls to form a box rectangular in horizontal cross-section with an exposed corner cut away at a horizontal angle, an angularly disposed door to close the cutaway corner of the box, a floor having a circular opening as large as the horizontal dimensions of the box will permit, a turntable filling said opening and completing the floor of the box, and means for supporting the turntable within said opening, combined substantially as set forth.

2. A safety-deposit corner-box comprising, vertical walls to form a box rectangular in horizontal cross-section with an exposed corner cut away at a horizontal angle, an angularly disposed door to close the cutaway corner of the box, a floor having a circular opening as large as the horizontal dimensions of the box will permit, a turntable filling said opening and completing the floor of the box, bearings below the turntable, and a bearing-support below the turntable, combined substantially as set forth.

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1,091,557. FOLDING-MACHINE. CHARLES N. BATT, Waterford, N. Y., assignor of one-half to John T. Chapman, Albany, N. Y. Filed May 7, 1913. Serial No. 766,082. (Cl. 101—36.)



1. In a device for guiding sheets of paper, a table provided with a series of diagonally placed rollers; a

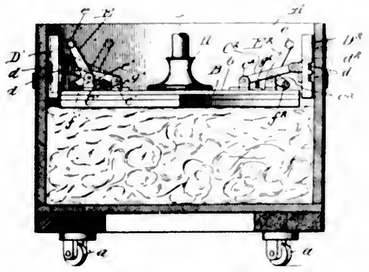
guide at one side of said table; an auxiliary removable guide placed over said rollers provided wth diagonal grooves along its sides adjacent to said rollers and into which a portion of said rollers may project; and means for attaching said auxiliary guide in any desired position between the sides of the table.

2. An auxiliary guide for a table for carrying and arranging in proper position for folding sheets of paper, comprising two plates, one of which overlaps and projects beyond the other; a curved bar secured at one end of the guide; clamping means comprising two bell crank levers adapted to engage portions of the folding mechanism; a screw adapted to press the legs of the bell crank levers apart and grip said portions; with an adjustable means at the opposite end of said guide for attaching to the stationary table.

3. In a feeding mechanism for folding machines, an auxiliary guide provided along one side with a series of grooves; a table provided with a series of rollers; said auxiliary guide placed over said rollers in such position that the rollers shall rotate partially within said grooves; means for attaching said guide at one end to the folding machine; and means for attaching the other end of said guide to the table.

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1,091,558. LAUNDRY-DAMPENING BOX. JAMES F. BRODERICK, Chicago, Ill., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill., a Corporation of New York. Filed Sept. 10, 1912. Serial No. 719,582. (Cl. 68—9.)



1. The combination with a receptacle of the character described, of a cover fitting within said receptacle, a plurality of frictional brake shoes adapted to engage opposing portions of the inner surface of said receptacle, and upwardly inclined links pivotally connecting said shoes with said cover.

2. The combination with a receptacle of the character described, of a cover fitting within said receptacle, frictional brake shoes conforming to and adapted to engage opposite portions of the inner surface of said receptacle, and links pivotally connecting said shoes with the upper surface of said cover, the said links being inclined upwardly from the cover to the shoes.

3. The combination with a receptacle of the character described, of a cover fitting within said receptacle, frictional brake shoes conforming to and adapted to engage opposite portions of the inner surface of said receptacle, links pivotally connecting said shoes with the upper surface of said cover, and means for disengaging said shoes from the receptacle to permit said cover to be lifted.

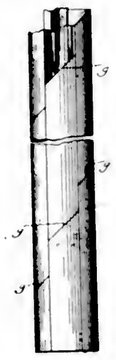
4. The combination with a receptacle of the character described, of a cover fitting within said receptacle, frictional brake shoes conforming to and adapted to engage opposite portions of the inner surface of said receptacle, upwardly inclined links pivotally connecting said shoes with the upper surface of said cover, and unlatching devices engaging said links to actuate them to disengage said shoes from the inner surface of the receptacle, thereby permitting the cover to be lifted.

5. The combination with a receptacle of the character described, of a cover fitting within said receptacle, frictional brake shoes conforming to and adapted to engage the inner surface of said receptacle, links pivotally connecting said shoes with the upper surface of said cover, unlatching devices engaging said links to actuate them to disengage said shoes from the inner surface of the receptacle, and handles on said devices for operating them and for lifting said cover out of the receptacle.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,559. ELECTRODE. JOHN W. BROWN, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed July 28, 1911. Serial No. 641,123. (Cl. 204—64.)



1. An electrode comprising a plurality of segments, each segment being formed with an undercut rib and a complementary groove, the rib upon each segment fitting in a groove of an adjacent segment.

2. An electrode adapted to be continuously built up comprising a plurality of segments which are secured to each other, an end of each segment being beveled, other segments having beveled ends in alinement with the first mentioned segments, the last mentioned segments being joined to each other and to the first mentioned segments, the beveled ends of the segments coöperating to bring the segments into close engagement with each other.

3. An electrode adapted to be continuously built up comprising a plurality of segments keyed to each other, and other segments in alinement with the first mentioned segments, the last mentioned segments being keyed to each other and keyed to the first mentioned segments, the joints between the alined segments being staggered with respect to each other.

4. An electrode adapted to be continuously built up comprising a plurality of segments, each segment being formed with an undercut rib and a complementary groove, the ribs upon each segment fitting in the groove upon the segment adjacent thereto, other segments formed with ribs and grooves and adapted to engage with the ribs and grooves upon the first set of segments, the said second set of segments being in alinement with the first set of segments, and the joints between the two sets of segments being staggered with respect to each other.

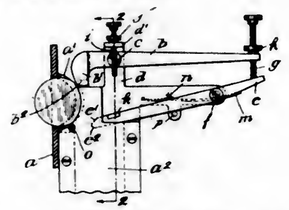
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1,091,560. CHECK-RECEIVING APPARATUS. RALPH H. BURTON, Somerville, Mass. Filed Mar. 20, 1913. Serial No. 755,654. (Cl. 194—102.)

1. In a coin-receiving apparatus having a coin-passage, an intercepting device and an actuating device arranged normally to extend into said passage, an engaging-device interposed between said actuating and said intercepting devices and arranged to move said intercepting device out of intercepting position upon predetermined movement of said actuating device, and means permitting adjustment of said engaging device to vary the extent of movement of said intercepting device by said actuating device.



2. In a coin-receiving apparatus having a coin-passage, an intercepting device comprising a pivotally mounted arm having its end portion normally extended into said passage to prevent the passage of a coin therethrough, a pivotally mounted operating arm having its end portion normally extending into said passage in advance of said intercepting arm and arranged to be swung aside upon the insertion of a coin, engaging means interposed between said arms and disposed to be actuated by said operating arm, when moved aside, to swing said intercepting arm out of intercepting position, and means permitting adjustment of said engaging means to vary the range of movement of said intercepting device according to the size of a predetermined coin.



3. In a coin-receiving apparatus having a coin-passage, an intercepting device comprising a pivotally mounted arm having its end portion normally extended into said passage to prevent the passage of a coin therethrough, a pivotally mounted operating arm having its end portion normally extending into said passage in advance of said intercepting arm and arranged to be swung aside upon the insertion of a coin, engaging means interposed between said arms and disposed to be actuated by said operating arm, when moved aside, to swing said intercepting arm out of intercepting position, means permitting adjustment of said engaging means to vary the range of movement of said intercepting device according to the size of a predetermined coin and a stop arranged to engage one of said arms to limit the extent to which it may be moved aside and to restrict the width of the coin-passage.

4. In a coin-receiving apparatus having a coin-passage, an intercepting device comprising a pivotally mounted arm having its end portion normally extended into said passage, to prevent the passage of a coin therethrough, a pivotally mounted operating arm having its end portion normally extending into said passage in advance of said intercepting arm and arranged to be swung aside upon the insertion of a coin, and adjustable engaging means interposed between said arms and disposed to be actuated by said operating arm, when moved aside, to swing said intercepting arm out of intercepting position, and a stop arranged to engage one of said arms to limit the extent to which it may be moved aside and to restrict the width of the coin-passage, and means permitting adjustment of said stop according to the diameter of the coin to prevent the passage of a coin of greater diameter.

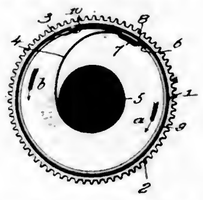
5. In a coin-receiving apparatus having a coin-passage, a pair of levers, one comprising an intercepting arm normally disposed in said passage in position to prevent the passage of a coin therethrough and an operating arm, and the other comprising an engaging arm, normally held in position to be pushed aside by a coin when inserted in said passage, an actuating arm, means carried by said actuating arm disposed to engage said operating arm to move said intercepting arm to a predetermined extent when said engaging arm is moved by the coin to an extent corresponding to the size thereof, and means to vary the extent of actuation of said intercepting arm by said actuating arm.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,561. SAFETY ATTACHMENT FOR WATCH-SPRINGS. KNUT S. CARLSTROM, Waltham, Mass. Filed Nov. 22, 1912. Serial No. 732,937. (Cl. 58—87.)

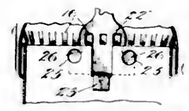
In a spring, the combination with a spring barrel having a projection extending inwardly from its inner wall, of a spring arbor, a spring secured at one end to said arbor, and a ring fitting within the barrel and capable of turning therein, said ring being secured to the outer end of the spring and having an elongated peripheral slot situated to



receive the projection on the barrel and against the end wall of which said projection normally bears whereby if the spring breaks the expanding movement of the coiled portion thereof will cause the ring to turn within the barrel.

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1,091,562. PLUG-SOCKET. LEGER J. CASTONGUAY, Harrisburg, Pa. Filed Feb. 1, 1911. Serial No. 605,950. (Cl. 173—362.)



1. In an electric plug socket, the combination with relatively rotatable and detachably associated shell elements, of a securing device rotatably mounted within one of the elements and detachably engaging the other to secure the two elements together.

2. In an electric plug socket, the combination with relatively rotatable and detachably associated shell elements, of a securing device rotatably mounted within one of the elements and detachably engaging the other to secure the two elements together, and means for holding the securing device against its rotary movement and in different positions.

3. In an electric plug socket, the combination with relatively rotatable and detachably associated shell elements, of a securing device rotatably mounted within one of the elements and detachably engaging the other to secure the two elements together, said device detachably interlocking with the element which carries it at a plurality of points to hold said device against its rotary movement and being rotatable when the shell elements are being disconnected.

4. In an electric plug socket, the combination with a cap element having a plurality of teeth, of a securing yoke rotatably mounted on the cap element and having a socket that receives different teeth to hold the yoke and cap element against relative movement and in different positions, and a body element that is detachably engaged by the yoke and is thereby held to the cap element in different positions with respect thereto.

5. In an electric plug socket, the combination with a cap element, of a spring arm rotatably mounted therein, and detachably interlocking with the cap element at different points to prevent its rotation, and a body element that detachably engages with said arm.

[Claims 6 to 13 not printed in the Gazette.]

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1,091,563. VAPOR ELECTRIC APPARATUS. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 4, 1904. Serial No. 201,486. (Cl. 176—49.)

1. In a vapor electric apparatus, the combination of cooperating main electrodes, and bodies of conducting material spaced apart at intervals between said electrodes.

2. In a vapor electric apparatus, the combination of cooperating electrodes, and a series of conducting buttons

or projections electrically connected to one of the electrodes and located at intervals between said electrodes.



3. In a vapor electric apparatus, the combination of cooperating electrodes, a plurality of conducting projections placed apart from each other and arranged between said electrodes, and resistances electrically connecting said projections to each other and to one of the main electrodes.

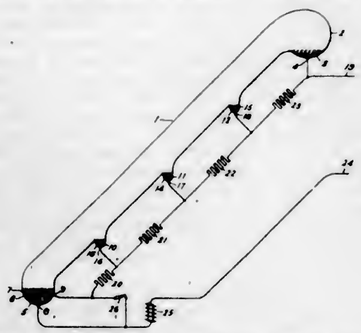
4. The combination in an electric vapor apparatus, of main positive and negative electrodes, a supplemental or starting positive electrode, an intervening multi-point electrode, and connections whereby the current passes successively along the points of said electrode.

5. The combination in an electric vapor apparatus, of a positive electrode, a negative electrode, and a multi-point electrode located between the same and connected with the positive electrode.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,564. VAPOR ELECTRIC APPARATUS. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 4, 1904. Serial No. 201,487. (Cl. 176—45.)

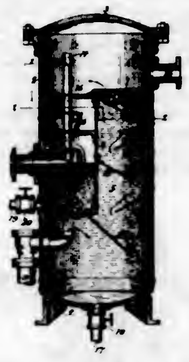


1. The combination of an exhausted envelop, fluid electrodes located respectively in opposite ends of the envelop, and a plurality of coöperating fluid starting electrodes of the same polarity.

2. The combination of an envelop, main electrodes therefor, intermediate electrodes all of the same polarity electrically connected with each other, and means for causing a flow of mercury from one main electrode to one or more intermediate electrodes.

3. The combination of an exhausted envelop, normally inclined, main electrodes for said envelop, and intermediate electrodes of one polarity consisting of bodies of fluid located respectively in a series of pockets arranged between said main electrodes.

1,091,565. WATER HEATER AND PURIFIER. DANIEL DONOHUE, Buffalo, N. Y. Filed June 7, 1913. Serial No. 772,327. (Cl. 62—31.)



1. A water heater and purifier comprising an outer shell, a partition arranged within said shell and dividing the space within the same into ascending and descending water passages which are connected at their upper ends while their lower ends are disconnected, a water inlet at the lower end of said ascending passage, a water outlet at the lower end of said descending passage, a steam inlet at the upper ends of said ascending and descending passages, and baffles arranged in said passages.

2. A water heater and purifier comprising an outer shell, a partition arranged within said shell and dividing the space within the same into ascending and descending water passages which are connected at their upper ends while their lower ends are disconnected, a water inlet at the lower end of said ascending passage, a water outlet at the lower end of said descending passage, a steam inlet at the upper ends of said ascending and descending passages, a plurality of baffles arranged in the form of two tiers in said ascending passage, the baffles in one tier alternating with those of the other tier and inclining downwardly from one side of said ascending passage and the baffles of the other tier inclining downwardly from the opposite side of the ascending passage and overhanging the baffles of the first mentioned tier, and a plurality of horizontal baffles arranged in the form of two tiers in the descending passage, the horizontal baffles in one tier alternating with those of the other tier of horizontal baffles and projecting laterally from one side of the descending passage, and the other tier of horizontal baffles projecting laterally from the opposite side of said descending passage.

3. A water heater and purifier comprising an outer shell, a partition arranged in said shell and having a lower horizontal section extending inwardly from one side of the shell at a distance from the bottom thereof to the central part of the space within the shell and a vertical upper section extending upwardly from the inner end of said horizontal section and terminating short of the top of the shell, thereby dividing the space within the shell into an L-shaped ascending passage, and a straight descending passage, a water inlet at the lower end of said ascending passage, a water outlet at the lower end of said descending passage, and a steam inlet at the upper ends of said ascending and descending passages.

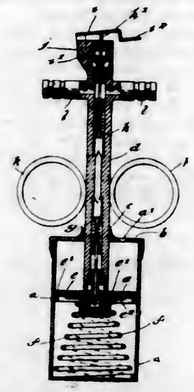
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1,091,566. PRESSURE AND RELIEF PUMP. AUGUST EIMER, New York, N. Y. Filed Aug. 13, 1912. Serial No. 714,940. (Cl. 230—27.)

A pressure pump of compact form, to be held and manipulated by a single hand, said pump comprising a cylinder, a flexible plunger therein, a hollow stem to depress said plunger, and a return spring therefor, a spring valve in said stem to admit pressure thereto,



hollow branches on said stem to communicate pressure to connecting devices, actuating finger rings on said stem, a spring relief valve in said hollow stem, the stem



of said relief valve extending outside said hollow stem, and a pivotal finger trip device to actuate said relief valve stem.

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1,091,567. PROCESS OF LINING FURNACES. BYRON E. ELDRED, New York, N. Y. Filed June 20, 1913. Serial No. 774,842. (Cl. 75—46.)

1. The process of lining furnaces and repairing furnace linings which comprises making a mixture of fine refractory binding material with a carbonaceous material and conveying such mixture against the wall of a furnace by a jet of gases of such nature as to protect such binder against combustion.

2. The process of lining furnaces and repairing furnace linings which comprises making a mixture of fine refractory material with tar and conveying such mixture against a wall of a furnace by a jet of gases of such nature as to protect such binder against combustion.

3. The process of lining furnaces and repairing furnace linings which comprises making a mixture of dolomitic lime and tar and conveying such mixture against a wall of a furnace by a jet of gases of such nature as to protect such binder against combustion.

4. The process of lining furnaces and repairing furnace linings which comprises making a mixture of fine refractory material with a carbonaceous material and conveying such mixture against the wall of a furnace by a jet comprising products of combustion.

5. The process of lining furnaces and repairing furnace linings which comprises making a mixture of fine refractory material with tar and conveying such mixture against a wall of a furnace by a jet comprising products of combustion.

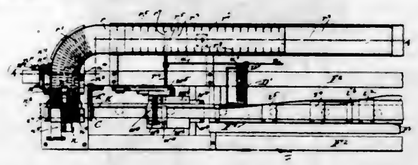
[Claims 6 and 7 not printed in the Gazette.]

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1,091,568. MACHINE FOR PACKAGING POWDERS. ISIDOR Z. GARFIELD and NATHAN GOLDFARB, New York, N. Y., assignors, by direct and mesne assignments, to Samuel Loewy, New York, N. Y. Filed Mar. 13, 1912. Serial No. 683,479. (Cl. 93—4.)

1. An organized machine for packaging powders, which comprises a combined measuring and compressing device for temporarily compressing the powder into cakes, means for delivering the cakes formed by said device, means for intermittently moving a paper-band below said delivering means, side-folding mechanisms for side-folding and closing said paper-band over said cakes, an intermittently-actuated cutting knife for cutting off the paper-band successively into individual wrappers, an end-folding mechanism for the wrappers, and an intermittently-reciprocating delivery-mechanism for the closed packages.

2. An organized machine for packaging medicinal and other powders, which comprises means for measuring the powder into definite quantities, means for temporarily compressing the same into cakes, means for delivering the cakes onto a paper-band, means for intermittently moving said paper-band past the compressing and delivering means, means for side-creasing and double-folding the paper-band over the cakes, an intermittently-actuated cutting-off device for the paper-band, an end-folding mechanism for the wrappers cut off from the paper-band, and an intermittently-actuated and horizontally-reciprocating delivery-mechanism for the closed packages.



3. In a machine for packaging powders, the combination, with a combined measuring and compressing device for the powder, of means for delivering the cakes formed by the said measuring and compressing device to a paper-band, means for intermittently feeding said paper-band past the delivery means, means for side-creasing and double-folding the paper-band over the cakes delivered to the paper-band, and an intermittently-actuated cutting knife for cutting the side-folded paper-band into individual wrappers.

4. In a machine for packaging powders, the combination of an end-folding mechanism for the wrappers, comprising a tilting-platform, stationary side-walls for bending over the ends of the wrappers, and laterally-oscillating folders for closing the ends of the wrappers onto the body of the package, a delivery-channel, means for guiding the packages onto said delivery-channel, and means for lifting one of the packages into inclined position after a certain predetermined quantity has been supplied to the ingoing end of the delivery mechanism.

5. In a machine for packaging powders, the combination of an end-folding mechanism for the wrappers, comprising a tilting-platform, stationary side-walls for bending over the ends of the wrappers, and laterally-oscillating folders for closing the ends of the wrappers onto the body of the package, a delivery-channel, a horizontally-reciprocating delivery-plate provided with flat inclined side-teeth, and a removable delivery-tray communicating with the outgoing end of the delivery-plate.

[Claims 6 and 7 not printed in the Gazette.]

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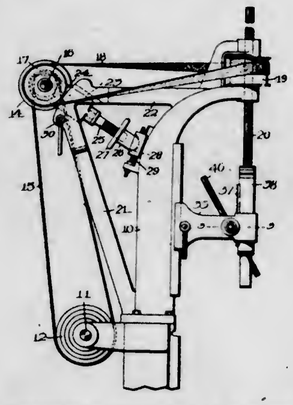
1,091,569. DRIVING MECHANISM FOR MACHINE-TOOLS. ALBERT J. GIFFORD, Worcester, Mass., assignor to W. H. Leland & Company, Worcester, Mass., a Firm. Filed Jan. 18, 1909. Serial No. 472,821. (Cl. 74—21.)

1. The combination with a frame, a bar extending substantially horizontally back from the upper part of the same, and a strut extending upwardly at an angle from below the same and connected at its upper end with said bar, of a counter shaft, a bearing for the counter shaft movably mounted near the connection between the bar and strut and two belts extending from said counter-shaft, one substantially parallel with the bar and the other with the strut, whereby the pull of the belts will be lengthwise of the bar and strut respectively.

2. The combination with a frame, a bar extending substantially horizontally back from the upper part of the same, and a strut extending upwardly at an angle from below the same and connected at its upper end with said bar, of a counter shaft, a bearing for the counter shaft movably mounted near the connection between the bar and strut, means for adjusting said bearing toward and from the frame and means on the bar and strut for fastening the bearing in adjusted positions.

3. The combination of a frame, a bar extending hori-

zontally from the upper part thereof, and a strut connected with the end of said bar and with the lower part of the frame, said bar and strut having a passage therethrough at their point of connection with each other, of a bearing block movably mounted in said passage, a counter shaft carried by the bearing block, and means for tightening said bearing block in adjusted positions in said passage.



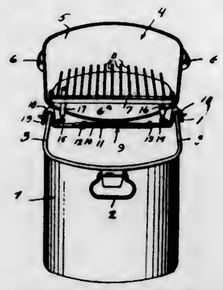
4. The combination of a frame, a bar extending horizontally from the upper part thereof, a strut connected with the end of said bar and with the lower part of the frame, said bar and strut having a passage therethrough at their point of connection with each other, of a bearing block movably mounted in said passage, a counter shaft carried by the bearing block, means for tightening said bearing block in adjusted positions in said passage, and means supported by the bearing block and frame for adjusting the bearing block toward and from the frame, said means being capable of angular adjustment.

5. The combination of a frame having a socket thereon, provided with a concave bottom, a nut having a convex end projecting into said socket, a screw for the nut, a bearing block connected with said screw, means extending from the frame for adjustably supporting said bearing block, whereby it may be moved toward and from the frame by the screw and nut, and may be moved angularly with the end of said nut as a center, a counter shaft supported by said bearing block, and means for clamping the bearing block in adjusted positions.

[Claims 6 to 15 not printed in the Gazette.]

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1,091,570. DRAIN ATTACHMENT FOR WASHBOILERS. FRANK A. E. GOODROAD, Canton, S. D. Filed May 27, 1913. Serial No. 770,227. (Cl. 68—30.)

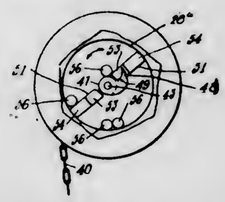


1. In combination with a wash-boiler, a drain, and means for releasably securing said drain upon said boiler, said means comprising a longitudinally extensible bracket provided at its ends with bent portions through which extend means engaging the rim of the boiler, an arm rigidly secured upon said drain and releasably connected with said bracket, and an arm pivoted upon said drain and releasably connected with said bracket.

2. In combination with a wash-boiler, a drain, and means for releasably securing said drain upon said boiler, said means comprising a bracket consisting of strips longitudinally slidable in relation to each other and provided upon their ends with angular portions extending over the top edge of the boiler, screws extending through said angular portions and engaging the rim of the boiler, angular pins secured upon said strips, an arm rigidly secured upon said drain and engaging one of said pins, and an arm pivotally mounted on said drain and engaging the other of said pins.

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1,091,571. ROTARY CHECK. CHARLES GOODWIN, East Providence, R. I. Filed Dec. 24, 1912. Serial No. 738,417. (Cl. 242—98.)



1. In a check device, the combination of a reel, a post upon which the reel is rotatably mounted, a casing inclosing the reel, a finger provided with a curved seat fixed relatively to the reel and adjacent the surface of the reel, radially disposed elevations upon the face of the reel, and balls loosely mounted upon the face of the reel operable in pairs and having freedom of movement, and of greater dimensions than the space between the finger and the casing of the reel and adapted to contact with the elevations.

2. In a check device, the combination of a reel, of a casing inclosing the reel, a post upon which the reel is rotatably mounted extending beyond the face of the reel, a finger provided with a seat fixed to the projecting portion of the post and interspaced from the face, elevations upon the head of the reel adapted to extend into the space beneath the finger, and balls intermediate the face of the reel and the casing operable in pairs and having freedom of movement and of greater diameter than the portions of the elevations movable below the finger.

3. In a check device, the combination with a casing, of a post fixed in the casing, a reel rotatably mounted on the post, radially disposed elevations upon the reel provided with recessed portions at their inner ends, a finger fixed to the post adapted to register in the recessed portions of the elevations and provided with a seat, and balls freely movable intermediate the face of the reel and the casing and operable in pairs.

4. In a check device, the combination of a casing inclosing the reel, of a post fixed in the casing, a reel rotatably mounted upon the post, elevations upon the face of the reel, a curved pointed finger fixed to the post intermediate the reel and the casing and beyond the elevations, and balls operable in pairs freely mounted intermediate the reel and casing of a diameter greater than the distance between the casing and the elevations.

5. In a check device, the combination of a casing provided with an opening, a post fixed in the casing, a reel rotatably mounted on the post, a flexible member wound upon the reel and extending through the opening in the casing, said reel being provided with a depression upon its face, radially disposed elevations upon the face of the reel within the depression provided with recesses at their inner ends, a curved pointed finger fixed to the post at such a distance as to permit the recessed portions of the elevations to move thereunder, balls operable in pairs

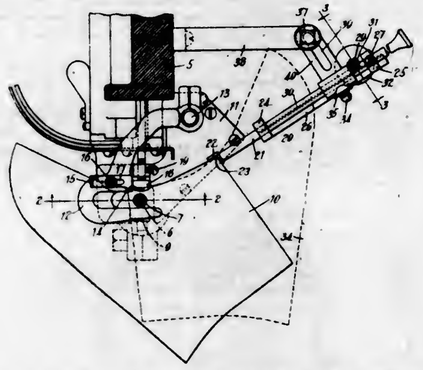


loosely mounted in the depression and adapted to engage the finger and the elevations when the reel is rotated, and spring means for actuating the reel.

[Claim 6 not printed in the Gazette.]

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1,091,572. TOP GAGE FOR LACING-HOOK-SETTING MACHINES. ARTHUR R. HAVENER, Waltham, Mass., assignor to American Lacing Hook Co., a Corporation of New Jersey. Filed May 22, 1913. Serial No. 769,136. (Cl. 218—17.2.)



1. A lacing hook setting machine having, in combination, a work support, a rod constituting a top gage adapted to engage the upper corner of a shoe upper located on said work support, a carrier upon which said rod is slidably mounted, a holder upon which said carrier is slidably mounted, said top gage rod having sliding engagement with said holder, and means to move said carrier and its top gage on said holder, and a vertical pivot upon which said holder is adjustably and rotatably mounted.

2. A lacing hook setting machine having, in combination, a work support, a holder having a groove in one face thereof, a carrier slidably mounted in said groove, a top gage on said carrier adapted to engage the upper edge of a shoe upper located on said work support and means to hold said carrier in said groove consisting of a screw in threaded engagement with said holder, and a washer on said screw projecting partly across said groove and engaging said carrier.

3. A lacing hook setting machine having, in combination, a work support, a holder having a groove in one face thereof, a carrier slidably mounted in said groove, a top gage on said carrier adapted to engage the upper edge of a shoe upper located on said work support, means to hold said carrier in said groove consisting of a screw in threaded engagement with said holder, a washer on said screw projecting partly across said groove and engaging said carrier and a spring on said screw between the head thereof and said washer.

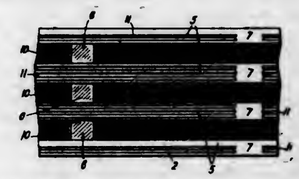
4. A lacing hook setting machine having, in combination, a work-support, a rod constituting a top gage provided at one end thereof with a notch adapted to engage the upper corner of a shoe upper located on said work-support, a carrier upon which said rod is slidably mounted, a holder upon which said carrier is slidably mounted, said top gage rod having sliding engagement with said holder, and means to move said carrier and its top gage on said holder.

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1,091,573. METAL TIRE-BAND. THOMAS HIGGINS, Pittsburgh, Pa. Filed May 16, 1912. Serial No. 697,641. (Cl. 152—6.)

1. A tire band comprising a flat metal band having longitudinal and transverse ribs forming a series of separated independent depressions in one surface thereof, and a plurality of longitudinally extending V-shaped grooves in the bottom surface of said depressions.

2. A tire band comprising a flat metal band having longitudinal and transverse ribs forming a plurality of rows of separated independent depressions in one surface thereof, and a plurality of parallel longitudinally extending V-shaped grooves in the longitudinal ribs and bottom surface of said depressions.



3. A tire band comprising a flat metal band having longitudinal and transverse ribs forming a plurality of rows of separated independent depressions in one surface thereof, and a plurality of longitudinally extending V-shaped grooves in the bottom surface of said depressions, the transverse ribs forming the depressions being staggered relatively to the transverse ribs on the outer surfaces of the longitudinal ribs.

4. A tire band comprising a flat metal band having longitudinal and transverse ribs forming a plurality of rows of separated independent depressions in one surface thereof, a plurality of longitudinally extending V-shaped grooves in the bottom surface of said depressions, and a plurality of parallel V-shaped longitudinal grooves at separated intervals in the length of the longitudinal ribs of said tire band.

5. A tire band comprising a flat metal band having longitudinal and transverse ribs forming a plurality of rows of separated independent depressions in one surface thereof, the depressions in one row being staggered relatively to those in the adjacent rows, and at least one V-shaped longitudinally extending groove in each of said longitudinal ribs.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,574. NAME-PLATE. WILLIAM J. HINES, Leominster, Mass. Filed June 17, 1912. Serial No. 704,026. (Cl. 40—136.)



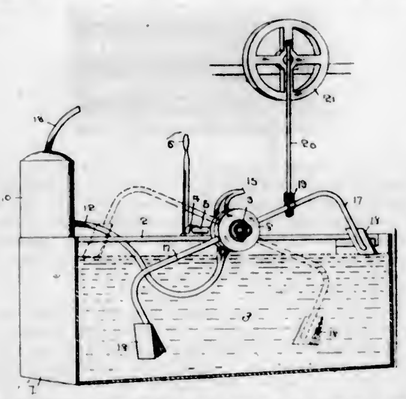

As an article of manufacture, a name plate comprising a face plate consisting of a piece of sheet celluloid having flat edges provided with fastening means at its ends and a continuous integral rib spaced from its edges and inclosing a flat panel, in the plane of said edges, a reinforcing sheet cemented to and covering said panel and abutting against said rib at its edges for stiffening the name plate between said fastening means, and a series of letters or characters, each made of sheet celluloid secured to the front of said reinforcing sheet, and extending from one inner edge of the rib to the opposite one to help strengthen the sign.

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1,091,575. MOTOR. GEORGE HOGG and KELLY HOGG, Monahans, Tex. Filed July 18, 1912, Serial No. 710,180. Renewed July 31, 1913. Serial No. 782,354. (Cl. 138—1.)

1. A motor comprising a tank adapted to contain fluid, a frame supported above the tank, an air reservoir thereon, a shaft also mounted on said frame, a valve carried by said shaft, hollow arms connected to a part of said valve, bellows carried by the lower ends of said arms, and a fly wheel connected with one of said arms.

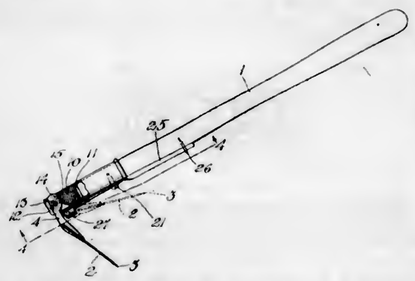
2. A motor comprising a fluid tank, a frame mounted over said tank, an air reservoir mounted over said frame, a shaft also mounted on said frame, a valve part fixed to said shaft, a second valve part loosely mounted on said shaft and engaging said valve part, hollow arms connected to the second valve part, bellows carried by the outer ends of said arms, and a fly wheel connected to one of said arms.



3. A motor comprising a tank adapted to contain a fluid, an air reservoir, a shaft rotatably mounted above said tank, a hand lever carried by one end of said shaft, a valve part secured to the opposite end of said shaft, a second valve part loosely mounted on said shaft, a fly-wheel, and connections between said second valve part and said wheel for rotating the latter.

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1,091,576. CORN-KNIFE. JOHN P. HYLAN, Stoneham, Mass. Filed Feb. 12, 1913. Serial No. 747,833. (Cl. 30—9.)

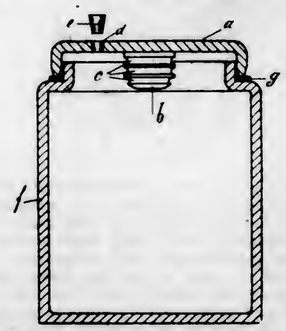


1. A corn knife having, in combination, a handle, a blade having a substantially straight sharp cutting edge directed away from the handle, a supporting arm for the blade, an elbow joint formed between the handle and the arm having stops for limiting the movement of the arm when extended from the handle, a latch pivoted to the handle and arranged to engage behind the arm when it is extended and hold the arm rigidly against the stops of the elbow joint, a nose on the latch for engaging the arm when the blade is folded against the handle to hold it in its folded position, and a spring connected with the latch for holding the latch in engagement behind the arm when the blade is extended and for holding the nose in engagement with the arm when the blade is folded.

2. A corn knife having, in combination, a handle having a slotted end, a pivot pin extending across the slot, a blade having a substantially straight sharp cutting edge, a blade-carrying arm extending back substantially at right angles to the cutting edge and mounted upon the pivot pin at its end to form an elbow joint with the handle, said slot being provided with a stop shoulder at its bottom on the opposite side of the pivot from the blade, a heel upon the arm for engaging the stop shoulder on the handle to limit the movement of the arm when it is extended from the handle, and a spring latch pivoted to the handle to move in a plane at right angles to the plane of movement of the blade, having its end adapted to engage the blade-carrying arm on the opposite side of the pivot from the heel so that the blade when in extended position is held rigidly in such position by the engagement of the heel of the blade-carrying arm with the shoulder on the one side of the pivot and by the engagement of the latch with the arm on the other side of the pivot, substantially as described.

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1,091,577. COVER OR LID FOR USE IN CONNECTION WITH AIR-PROOF PRESERVE-BOXES AND THE LIKE. RICHARD JAHN, Frankfort-on-the-Oder, Germany. Filed Nov. 30, 1912. Serial No. 734,808. (Cl. 215—80.)

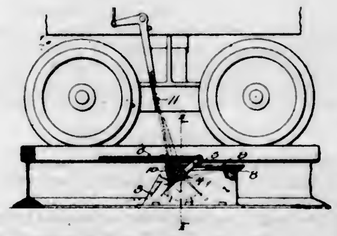


1. A cover for use in connection with preserve vessels, comprising a plate, a downwardly extending rim forming part of said plate and being adapted to fit over the neck of a preserve vessel; and a grooved projection extending downwardly from the middle of the said plate slightly beyond said rim, for the purpose as described.

2. A cover for use in connection with preserve vessels, comprising a horizontal plate, a rim extending at right angles to said plate from the periphery of same and being adapted to fit over the neck of a preserve vessel; a grooved projection extending downwardly from the middle of the said plate slightly beyond said rim, the lower part of said projection forming a circular recess adapted to receive and hold liquid fuel, substantially and for the purpose as described.

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1,091,578. SIGNAL APPARATUS. CHRISTIAN G. KAMISKE, Milwaukee, Wis. Filed Feb. 8, 1913. Serial No. 747,095. (Cl. 246—59.)



1. A signal-mechanism comprising a stand for location along a railway track, an arbor journaled in the stand, a normally horizontal arm rigid on the arbor, means for actuating said arbor from a distant point to lift the arm, an obstacle, and a spring-hinge connecting the obstacle with the arbor-end of said stand over said arm by which it is lifted against resistance of the hinge.

2. A signal-mechanism comprising a stand for location along a railway track, an arbor journaled in the stand, a normally horizontal obstacle, a spring-hinge connecting the obstacle and stand, means for actuating the arbor from a distant point, means in connection with said arbor by which to elevate said obstacle against spring-resistance in the path of a tripper carried by a locomotive running on said track, and means for scaling a displacement of the aforesaid obstacle from normal position.



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1,091,579. ELECTRIC TRANSMISSION OF INTELLIGENCE. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Aug. 3, 1906, Serial No. 329,080. Renewed Jan. 13, 1914. Serial No. 811,901. (Cl. 178—300.)

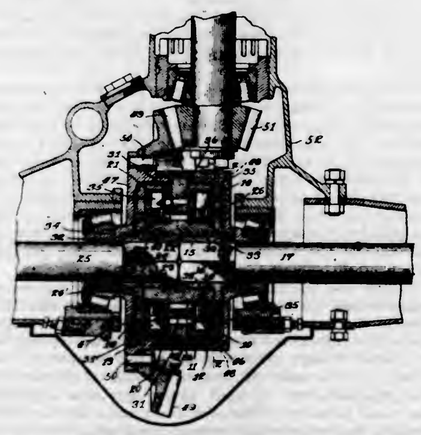


1. Means to nullify the inducting effect of a power wire on lines of transmission, said means comprising condensers connecting the lines of transmission to each other, impedance for each of said lines of transmission and a metallic return connecting electrically all the lines of transmission, said return line removed from the zones of the first named lines.

2. A series of telegraphic lines electrically but not conductively connected with each other at different points, in combination with a metallic line removed from the zone of the first lines and connected electrically to all of the first lines.

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1,091,580. DIFFERENTIAL MECHANISM. FRANK M. LEWIS, Tracy, Ill. Filed Apr. 5, 1913. Serial No. 758,994. (Cl. 74—7.)



1. In differential mechanism, in combination, a shaft, a driven member having a corrugated annular surface fixed to the shaft, a plurality of clutch-segments having circumferential ribs and grooves transverse to the plane of rotation and cam faces and means operable against the cam faces of the clutch-segments to move them radially into positive engagement with the driven member.

2. In differential mechanism, in combination, independent shafts, a driven member with a corrugated annular surface fixed to each shaft, a plurality of sets of clutch-segments having circumferential ribs and grooves transverse to the plane of rotation, and means carried by the respective sets of clutch-segments to limit relative rotative movement thereof.

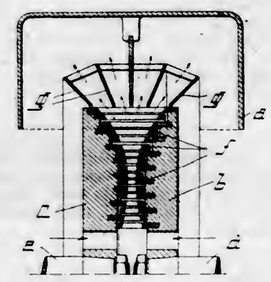
3. In differential mechanism, in combination, independent shafts, a driven member with a corrugated annular surface fixed thereto, a driving member carrying on both sides a plurality of double cams, a plurality of sets of clutch-segments, and means carried by the segments to limit relative rotative movement thereof.

4. In differential mechanism, in combination, independent shafts, a driven member having a corrugated annular surface fixed to the opposing ends of each of the two shafts, a driving member carrying on both sides a plurality of double cams, a plurality of sets of clutch segments each having circumferential ribs and grooves transverse to the plane of rotation and cam faces, means to limit relative rotative movement of the sets of segments, and means carried by each segment to oppose relative rotative movement of each segment with the driven member.

5. In differential mechanism, in combination, independent shafts, a driven member having a corrugated annular surface fixed to the opposing ends of each of the two shafts, a plurality of sets of clutch segments each having circumferential ribs and grooves transverse to the plane of rotation and cam faces, a driving member carrying on both sides a plurality of double cams to move the clutch-segments radially into positive engagement with the respective driven members, means to limit relative rotative movement of the sets of clutch-segments, a rotatable housing and means to rotate the rotatable housing.

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1,091,581. DIFFUSER FOR STEAM TURBINES, COMPRESSORS, PUMPS, BLASTS, AND THE LIKE. BIRGER LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Filed Feb. 24, 1911. Serial No. 610,590. (Cl. 230—11.)



1. A diffuser for turbines and similar devices comprising a series of annular partitions, most of which incline to one side or the other of the middle plane, giving said diffuser a flaring form in cross-section, in combination with means for supplying the entire diffuser with a single current of fluid.

2. A diffuser for turbines and similar devices comprising a series of annular partitions, one of which occupies the middle plane, the others inclining away therefrom on both sides thereof, giving said diffuser a flaring form in cross-section, in combination with means for supplying the entire diffuser with a single current of fluid.

3. A diffuser having a series of annular partitions, most of which are inclined to the right or left from the middle plane, giving such diffuser a flaring form, in com-

bination with rotating vanes arranged in series as the means of entire supply of said diffuser.

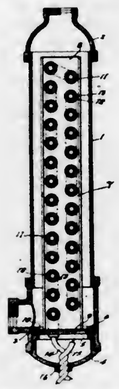
4. A diffuser having a series of annular partitions, most of which are inclined more and more on each side of a middle plane of said diffuser and having its inner part contracted, in combination with means for supplying the entire diffuser with a single current of fluid.

5. In combination with a turbine or similar fluid discharging device, a diffuser arranged to receive said fluid immediately from the same and consisting of a series of partitions, one of which is in the middle line of discharge, the other partitions being inclined to each side of it substantially as set forth.

[Claims 6 and 7 not printed in the Gazettte.]

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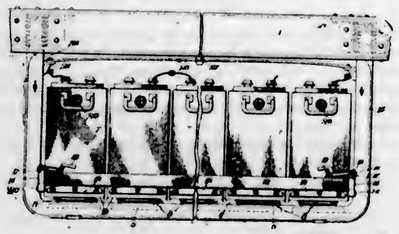
1,091,582. ELECTRICAL WATER-HEATER. ROBERT ROY LOCKHART, Winnipeg, Manitoba, Canada. Filed May 28, 1913. Serial No. 770,359. (Cl. 219—38.)



The combination comprising a cylindrical casing, a contracted coupling piece secured to one end of the casing and provided with an outlet opening, a second coupling piece secured to the opposite end of the casing and provided with an inlet opening, an electrical heating element located within the casing and supported by the latter coupling piece and provided with a plurality of spaced staggered radiating tubes and feed wires connected electrically with the element, said feed wires extending through said tubes and alternately entering and leaving opposite ends thereof, as and for the purpose specified.

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1,091,583. BATTERY SUPPORT AND CLAMP. WILLIAM MACGLASHAN, South Bend, Ind., assignor to The Studebaker Corporation, South Bend, Ind., a Corporation of New Jersey. Filed Feb. 5, 1913. Serial No. 746,328. (Cl. 105—267.)



1. Means for holding the cell trays for the battery in an electric vehicle consisting of a supporting frame, projecting members on the ends of the trays, a horizontal bar to take over the projecting members and an eccentric clamp at each end of the bar.

2. Means for holding the cell trays for the battery in an electric vehicle consisting of a supporting frame, projecting members on the ends of the trays, a horizontal bar to take over the projecting members, a clamp at each end of the bar, and a resilient member beneath the bar.

3. Means for holding the cell trays for the battery in an electric vehicle consisting of a supporting frame, projecting members on the ends of the trays, a horizontal bar to take over the projecting members, a clamp for the bar, and means tending to raise the bar.

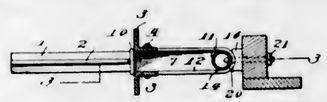
4. Means for supporting the battery of an electric vehicle, consisting of a depending frame having a wooden floor, laterally extending ways thereon for each tray, and follower surfaces on the trays to coöperate with the ways, the latter being spaced apart forming a groove beneath each tray and each tray being provided with a depending bottom member extending into the groove and free of the bottom thereof.

5. A battery tray having follower surfaces and a depending supporting member below the follower surfaces.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,584. HINGE. FRANK F. MILLER, Yankton, S. D. Filed Jan. 25, 1913. Serial No. 744,193. (Cl. 16—106.)



1. As a new article of manufacture, a hinge-member consisting of a web having one end concave and provided at its opposite end with a transverse head, said web having a flange extending from its lateral edges and having a portion of its length substantially semi-circular and having its said portion extending in spaced relation to the first mentioned end of the web.

2. The combination with a door, including superposed elements, of a hinge-member carried by the door and having a web fitted between the said elements, the meeting sides of the elements being notched, and said web being provided with a head engaging in the notches and with a pintle engaging portion.

3. The combination with a door, including superposed elements, a hinge-member carried by the door, and having a web fitting between the said elements, the meeting sides of the elements being notched, and the web being provided with a head projecting above and below the plane thereof and engaging in the said notches, the lateral edges of the web being provided with a flange extending beyond one end of the web and constituting a pintle engaging element.

4. The combination with a door, including superposed elements, of a hinge-member carried by the door and having a web fitting between the said elements, an abutment secured upon the face of the door and extending across the faces of the said elements of the door, the meeting sides of the elements being provided with notches registering with one side of the abutment, the web being provided with a head projecting above and below and laterally beyond the web and engaging in the said notches in the elements and against the abutment, the said web being provided with a pintle engaging portion.

5. The combination with a door, including superposed elements and brace-bars secured upon the opposite faces thereof, the meeting sides of the elements being recessed and at the ends of the recesses being formed with notches, of a hinge-member carried by the door and having a web fitting in the recesses in the meeting sides of the elements and provided with a head having portions projecting above and below the plane of the web and engaging in the notches, the head having portions projecting laterally beyond the edges of the web and engaging the edges of the brace bars, the web being formed with a flange extending

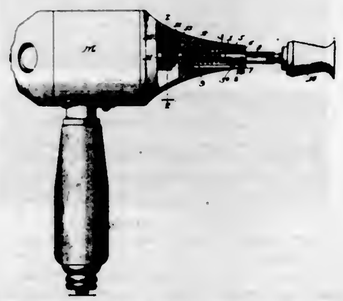


at its lateral edges and embracing the opposite faces of the said door elements and the flange at one end of the web constituting a pintle engaging element.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,585. MASSAGE-VIBRATOR. WILLIAM NELSON MOTTER, Riverside, Ill., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed July 5, 1906. Serial No. 324,720. (Cl. 128—16.)



1. In a massage vibrator, the combination with a lever, of an adjustable fulcrum therefor, means for vibrating said lever about said fulcrum, and an implement carried by said lever and vibrating therewith, said fulcrum being adjustable by pressure exerted upon said implement.

2. A lever comprising two sections one of which is longitudinally adjustable to the other, a fulcrum carried by said adjustable section, an implement carried upon the free end of said adjustable section, the adjustment of said adjustable section upon said other section being regulated by pressure exerted upon said implement, and means for vibrating said lever about said fulcrum.

3. The combination with a rod, of a sleeve slidably adjustable on said rod, a fulcrum carried by said sleeve and adjusted by the sliding of said sleeve on said rod, means for producing a vibratory motion of said rod and sleeve about said fulcrum, and an implement carried upon the end of said sleeve and adapted to receive motion therefrom.

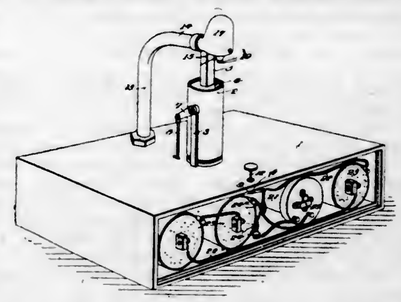
4. The combination with a frame provided with a socket, of a lever supported in said socket, said lever comprising a rod and a sleeve adjustable on the rod to vary the length of the lever, a fulcrum carried by said sleeve, a spring tending to hold said sleeve in its extended position, means for adjusting said sleeve on the rod, an implement carried on the end of said sleeve, and means for vibrating said lever about said fulcrum.

5. The combination with a frame provided with a socket, of a lever supported in said socket, said lever comprising a rod and a sleeve adjustable on the rod to vary the length of the lever, a hub on said sleeve within said socket constituting a fulcrum for said lever, a spring tending to hold said sleeve in extended position on said rod, an adjustable collar for limiting the outward movement of said sleeve, an implement carried on the end of said sleeve, and means connected with the end of the rod for imparting a vibratory motion to said lever.

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1,091,586. CIGAR-LIGHTER. JOHN F. O'CONNELL and CLARENCE E. WHITEMAN, La Grande, Oreg. Filed July 22, 1910. Serial No. 573,314. (Cl. 175—296.)

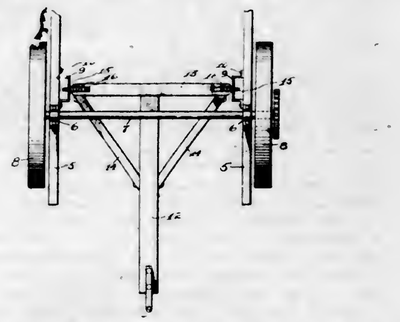
A cigar lighter including a base, an electrical igniting device supported thereon, a pivotally mounted fuel vessel carrying a wick, the circuit through the igniting device being normally broken and the fuel vessel being normally in inoperative position, and means for simultaneously swinging the fuel vessel into operative position and completing the circuit through the igniting device, said means including a centrally pivoted lever carried by the base, a crank arm connected to the fuel vessel, a pivoted link connecting the crank arm and one terminal of the lever, a spring connected to the lever, whereby the fuel vessel is normally held in inoperative position, a contact member carried by one terminal of the lever and normally



held in open circuit position by the said spring, and a push rod secured to the contact carrying terminal of the lever, whereby the last mentioned terminal of the lever may be depressed against the tension of the said spring to move the said contact into closed circuit position and to swing the fuel vessel into operative position.

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1,091,587. DRAFT APPLIANCE FOR FARMING IMPLEMENTS. AUGUST OTTO, Jr., Sandwich, Ill. Filed Apr. 12, 1913. Serial No. 760,802. (Cl. 21—137.)



1. The combination with the frame of a vehicle, of spaced separate longitudinally extending slotted members carried thereby, and a forwardly extending relatively rigid draft appliance provided near its inner end with a transverse element having its opposite ends pivotally and slidably mounted within the slots of the slotted members.

2. The combination with spaced side members of a vehicle, of relatively rigid means pivotally and slidably connected with the side members, and a relatively rigid draft appliance connected with said means.

3. The combination with side members of a vehicle, of spaced elements carried thereby, elements slidably mounted upon the first named elements to move longitudinally thereof, a transverse bar attached near its ends to the second named elements, and a forwardly extending relatively rigid draft appliance connected with the transverse bar.

4. The combination with side members of a vehicle, of spaced elements connected with the side members and extending longitudinally of the implement or vehicle, elements pivotally and slidably mounted upon the first named elements to move longitudinally thereof, a forwardly extending pole, and a laterally extending device connected with the pole and with the slidable elements.

5. The combination with longitudinal beams of a vehicle, of spaced elements attached to the longitudinal beams and extending longitudinally of the implement or vehicle, a transverse bar, slidable and pivotal connecting means between the ends of the transverse bar and the spaced elements, and a forwardly extending relatively rigid draft appliance attached to the transverse bar.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,588. PROCESS OF REFINING METALS. ALBERT PATTON, McKeesport, Pa. Filed Sept. 24, 1907. Serial No. 394,338. (Cl. 75—46.)

1. The method of manufacturing steel which consists in subjecting the product of a Bessemer converter or an acid open hearth furnace to a refining operation which includes the following steps: pouring the molten metal into an acid lined intermediate receptacle, then pouring from said receptacle into a basic-lined receptacle and retaining the acid slag in the acid-lined receptacle, and adding basic materials in the basic-lined receptacle.

2. The method of manufacturing steel which consists in subjecting the product of a Bessemer converter or an acid open hearth furnace to a refining operation which includes the following steps: pouring the molten metal into an acid-lined intermediate receptacle, then pouring from said receptacle into a basic-lined receptacle and retaining the acid slag in the acid-lined receptacle, and adding materials for making a basic slag, said materials absorbing the oxids and impurities in the bath to make the slag.

3. The method of manufacturing steel which consists in subjecting the product of a Bessemer converter or an acid open hearth furnace to a refining operation which includes the following steps: pouring the molten metal into an acid-lined intermediate receptacle, then pouring from said receptacle into a basic-lined receptacle and retaining the acid slag in the acid-lined receptacle, adding basic-materials in the basic-lined receptacle, and adding manganese to the molten metal.

4. The method of manufacturing steel which consists in subjecting the product of a Bessemer converter or an acid open hearth furnace to a refining operation which includes the following steps: pouring the molten metal into an acid lined intermediate receptacle, then pouring from said receptacle into a basic-lined receptacle and retaining the acid slag in the acid-lined receptacle, adding basic materials in the basic-lined receptacle, and adding manganese to the bath in the basic-lined receptacle.

5. The method of manufacturing steel which consists in subjecting the product of a Bessemer converter or an acid open hearth furnace to a refining operation which includes the following steps: pouring the molten metal into an acid lined intermediate receptacle, then pouring from said receptacle into a basic-lined receptacle and retaining the acid slag in the acid-lined receptacle, adding basic materials in the basic lined receptacle, and adding the recarburizer in the basic-lined receptacle.

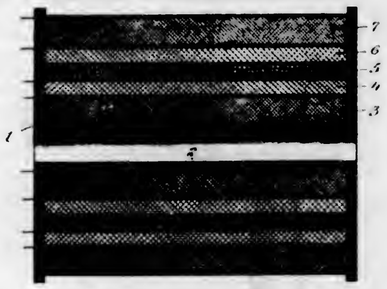
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1,091,589. INDUCTION-COIL. ANDREW PLECHER, Las Animas, Colo. Filed Mar. 16, 1912. Serial No. 684,299. (Cl. 171—122.)

1. An induction coil comprising a core or support of non-magnetic material, a secondary winding produced thereupon, a primary winding on the secondary winding, a layer of magnetic material upon the primary winding, another primary winding upon the magnetic material, and a secondary winding upon the second-named primary winding, the said secondary windings constituting the inner and outer windings of the coil.

2. An induction coil comprising a tubular member of magnetic material, a primary winding produced both outside and inside said tubular member in concentric relation and adjacent thereto, and a secondary winding produced both inside and outside the primary winding with respect to and concentric with the tubular member, said second windings constituting the inner and outer windings of the coil.

3. An induction coil composed of a plurality of both primary and secondary windings arranged with two primary windings adjacent to each other and two secondary windings separated from each other by the primary windings and constituting the first and last windings of the coil, and a core of magnetic material interposed between the primary windings and constituting the sole magnetic material of the core.



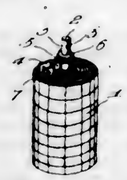

4. An induction coil composed of two primary windings adjacent to each other and two secondary windings separated from each other by the primary windings, and a core of magnetic material interposed between the primary windings and constituting the sole magnetic material of the core, said magnetic material being in the form of a coil of iron wire constituting a secondary winding in inductive relation to the primary winding and the secondary windings constituting the first and last windings of the coil.

5. An induction coil comprising a cylindrical core of magnetic material, a primary winding on opposite sides of the core, and a secondary winding on opposite sides of the primary winding and remote from the core, these parts of the secondary winding on opposite sides of the primary winding being balanced as to resistance.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,590. PACKAGE OF FENCING MATERIAL. THOMAS G. RYAN, Lincoln, Nebr. Filed Oct. 31, 1911. Serial No. 657,876. (Cl. 242—159.)



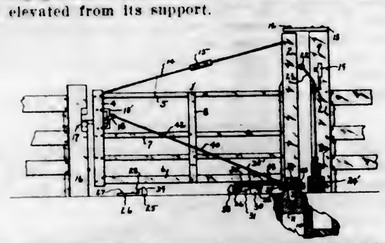

A package of fencing material comprising a core, a ratchet wheel fixed on said core, wire fabric connected at one end to and wound about the core, a bearing having spaced side portions and also having a portion that describes more than half a circle and loosely receives the core at a point between the ratchet wheel and the wire fabric, and a spring pressed pawl pivoted between the spaced side portions of the bearing and arranged to engage the ratchet wheel.

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1,091,591. AUTOMATIC GATE. DAVID SAMSON, Jackson, Nebr. Continuation of application Serial No. 558,122, filed Apr. 28, 1910. This application filed May 7, 1913. Serial No. 766,062. (Cl. 39—20.)

1. A gate of the class described, comprising, in combination with a longitudinally and horizontally movable ground-rail; a stationary upright provided with a keeper; a gate having a latch for engagement with said keeper and provided adjacent to said ground-rail with a vertically-disposed, pivotally-mounted post; a sleeve mounted upon the post and having a radially formed recess; a contact-pin mounted upon the post and seated within said recess; a weight connected with said post, said weight being normally disposed upon a support and tending to close the said gate and thereby causing an engagement of the latch and keeper; a flexible strand arranged between and mounted upon said ground-rail and sleeve; a flexible strand arranged between and mounted upon said latch and sleeve, the movement of said ground-rail causing a rotatable movement of the sleeve, the movement of the sleeve causing a release of the latch while one of the walls of its recess is moving into engagement with said contact-pin, and causing a swinging movement of the gate after the contact-pin engages one of the walls of said recess, said weight being elevated from its support.

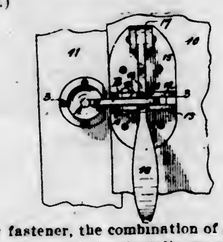




2. In combination, a stationary upright having a keeper, a gate having a latch for engaging said keeper and provided adjacent to said stationary upright with a vertically-disposed, pivotally-mounted post; a pair of adjacent horizontal ground-rails disposed between the stationary upright and said pivotally mounted post, one of said rails being pivotally mounted; a sleeve mounted upon said post and having a radially formed recess, a contact pin rigidly mounted upon said post and seated within said recess; a weight connected with said post, said weight being normally disposed upon a support and tending to close the said gate and thereby causing engagement of said latch with said keeper; a flexible strand mounted upon and extending between said latch and said sleeve; a flexible strand mounted upon and extending between said sleeve and said pivotally mounted ground-rail; a movement of said pivotally mounted ground-rail causing a movement of said sleeve, said latch being raised while one of the walls of the recess of said sleeve is moving into engagement with said contact-pin, the gate having its movement after the contact-pin upon said post engages one of the walls of the radially formed recess of said sleeve, said weight being elevated from its support.

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1,091,592. DOOR-FASTENER. FREDERICK SCHMIDGALL, Cincinnati, Ohio. Filed Dec. 1, 1913. Serial No. 803,908. (Cl. 70—49.)



1. In a door fastener, the combination of a catch, a door, means whereby the catch is pivotally mounted upon said door so as to move in the plane of direction in which the door swings, a stop adapted to co-act with this catch positioned in a stationary position adjacent the free edge of the door and a manipulating lever pivoted to swing in a plane at right angles to the plane in which the catch moves and adapted to actuate the same for the purpose of engaging or disengaging the stop.

2. In a door fastener, the combination of a stop positioned stationary, a catch pivotally mounted upon the door and provided with two spaced fingers at one of its ends and with a projection spaced from its other end or heel, a manipulating lever mounted so as to swing in a plane at right angles to the plane in which the catch moves and positioned to occupy the space between said heel and projection and operating in a manner that when moved in one direction it engages the heel of the catch to cause one of the fingers of this latter to co-act with the stop to seat the door and when moved in the other direction it engages the projection mentioned to cause the other finger of the catch to co-act with the stop for the purpose of unseating the door.

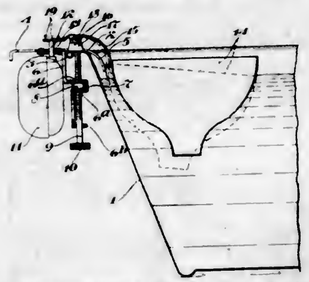
3. In a door fastener, the combination of a base plate adapted to be mounted upon a door close to the free edge thereof and provided with two, vertically spaced, outwardly projecting flanges which have a notch between their ends, a catch pivotally mounted between these flanges and so as to project beyond the free edge of the door and also into the notch mentioned, a stop positioned stationary and adapted to be engaged by the catch and an operating lever pivoted on the base plate above the flanges mentioned and adapted to move within the notch therein and to engage the catch to manipulate the same with reference to the stop.

4. In a door fastener, the combination of a stop positioned stationary, a base plate, a catch adjustably mounted thereon and provided with two spaced fingers, an operating lever mounted so that when moved in one direction it is adapted to actuate the catch to cause one of the fingers thereof to co-act with the stop mentioned to unseat the door and means to hold the catch in this position while the door is open, said means comprising a shoulder on the catch, a stop on the base plate and a spring adapted to move the catch so that the shoulder thereon enters into yielding engagement with the shoulder on the base plate.

5. In door fastening means, the combination of two levers pivotally supported so as to move in a vertical plane, one being pivoted to one side of the door and the other to the other side thereof, a link extending through a perforation in the door and free to move in an axial direction whereby these levers are connected to each other between their ends so that manipulation of one lever actuates the other lever, a catch supported on one side of the door and in operative engagement with one of the levers and a stop positioned stationary, and adapted to co-act with the catch.

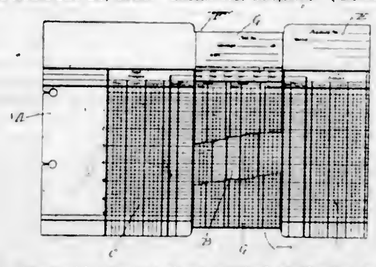
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1,091,593. ALARM DEVICE FOR ICE-BOX DRIP-PANS. HERMAN SILVER, Minneapolis, Minn. Filed Mar. 3, 1913. Serial No. 751,948. (Cl. 116—15.)



The combination with a drip pan, of a horizontally extended supporting plate resting on the rim of said drip pan and having a depending bracket, a mechanically operated bell secured under said plate and having an upwardly projecting operating plunger working through said plate, said plate being of a width sufficient to completely cover said bell, a float hinged to said plate and having an operating finger for engagement with said plunger for actuating said bell when the water in the drip pan has reached a predetermined height, and a set screw having screw threaded engagement with said bracket and arranged to detachably clamp said supporting plate onto the rim of said pan.

1,091,594. LEDGER. CHARLES B. SIPPEL, Chicago, Ill. Filed June 21, 1911. Serial No. 634,544. (Cl. 11—19.)

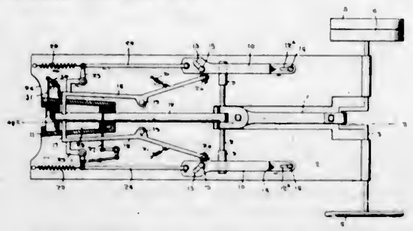


1. In combination, a sheet notched at the top and bottom to form a portion of reduced size, the notches being opposite each other in vertical alinement and having their longitudinal edges parallel with the edges of the sheet, said sheet having vertical and horizontal ledger rulings located thereon to the right and to the left of the reduced portion of the sheet, and a statement sheet in the form of a sleeve fitting over the reduced portion of said first-named sheet, the statement sheet thus being held in definite position, said statement sheet having vertical and horizontal rulings, the horizontal rulings of the statement sheet and of the first-named sheet being spaced equal distances apart and registering with each other when said statement sheet is held in position.

2. In combination, a sheet notched at the top and bottom to form a portion of reduced size, the notches being opposite each other in vertical alinement and having their longitudinal edges parallel with the edges of the sheet, said sheet having vertical ledger rulings located thereon to the right and to the left of the reduced portion of the sheet, and a statement sheet in the form of a sleeve having vertical rulings thereon and fitting over the reduced portion of said first named sheet, the statement sheet being thus held in definite position.

3. In combination, a sheet notched at the top and bottom to form a portion of reduced size, the notches being opposite each other in vertical alinement and having their longitudinal edges parallel with the edges of the sheet, said sheet having vertical and horizontal ledger rulings located thereon to the right and to the left of the reduced portion of the sheet, and a statement sheet in the form of a sleeve having vertical and horizontal rulings thereon and fitting over the reduced portion of said first-named sheet, the statement sheet being thus held in definite position and having its horizontal rulings registering with the horizontal rulings of said first-named sheet.

1,091,595. QUILL-CLEANER. JAMES HERBERT SMITH, New Holland, Ga. Filed Mar. 19, 1913. Serial No. 755,383. (Cl. 118—26.)



1. A quill cleaner comprising a base, a housing mounted thereover, a pair of jaws pivoted over said base and movable through the walls of said housing, a plunger adapted to be reciprocated between said jaws, and means for automatically separating said jaws.

2. A quill cleaner comprising a base, a housing mounted thereover, a pair of jaws pivoted to said base and movable through the walls of said housing, means for normally pressing said jaws together, a reciprocating plunger adapted for movement between said jaws, and means for automatically separating said jaws.

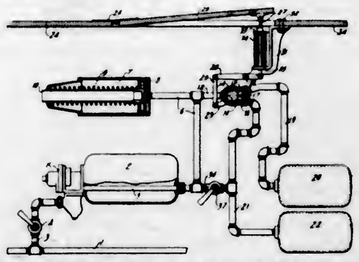
3. A quill cleaner comprising a base, a housing mounted thereover, jaws movable through the walls of said housing, a plunger adapted to be reciprocated between said jaws, and means for automatically separating said jaws.

4. A quill cleaner comprising a base, a housing mounted thereover, jaws movable through the walls of said housing, means for automatically separating said jaws, and means for dropping a quill between the jaws at each separation of the latter.

5. A quill cleaner comprising a base, a housing mounted thereover, quill dropping means within the housing, jaws movable through the walls of said housing, a plunger adapted to be reciprocated between said jaws, means for automatically separating said jaws, and connections between said means and said dropping means to actuate the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,091,596. LOAD-CONTROLLED AIR-BRAKE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Allegheny county, Pa. Filed Jan. 15, 1912. Serial No. 671,237. (Cl. 188—11.)



1. In an air brake, the combination with a constant capacity brake cylinder and means for supplying air under pressure thereto, of an expansion chamber connected to the brake cylinder and arranged to receive a portion of the air supplied for the brake cylinder, and a control valve in the connection between the brake cylinder and expansion chamber and arranged to place the expansion chamber in communication with the brake cylinder or to entirely cut the same off therefrom and in all positions maintaining the brake cylinder capacity constant.

2. In an air brake, the combination with a constant capacity brake cylinder and means for supplying air under pressure thereto, of an expansion chamber connected to the brake cylinder and arranged to receive a portion of the air supplied for the brake cylinder, and a control valve controlled by the load and controlling the connection between the expansion chamber and brake cylinder and arranged to place said expansion chamber in communication with said brake cylinder or entirely cut the same off therefrom and in all positions maintaining the brake cylinder capacity constant.

3. In an air brake, the combination of a train pipe, a triple valve, an auxiliary reservoir, a constant capacity brake cylinder, and connections between these parts, an expansion chamber connected to the brake cylinder, and a control valve in said connection arranged to place said expansion chamber in communication with the brake cylinder or entirely cut the same off therefrom and in all positions maintaining the brake cylinder capacity constant.

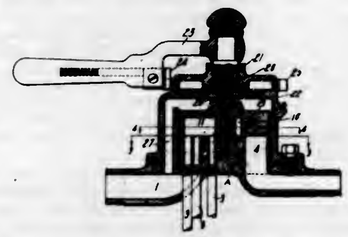
4. In an air brake, the combination of a train pipe, a triple valve, an auxiliary reservoir, a constant capacity brake cylinder, and connections between these parts, an expansion chamber connected to the brake cylinder, and a valve controlled by the load and controlling said connection and arranged to place said expansion chamber in communication with the brake cylinder or entirely cut the same off therefrom and in al positions maintaining the brake cylinder capacity constant.



5. In an air brake, the combination with brake applying means, means for supplying air under pressure thereto, an expansion chamber arranged to receive a portion of the air supplied for said brake applying means, and means for connecting said expansion chamber to and disconnecting the same from said brake applying means and so arranged that in no position does it affect the capacity of the brake applying means.

[Claims 6 to 9 not printed in the Gazette.]

1,091,597. ENGINEER'S BRAKE-VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company, a Corporation of Pennsylvania. Filed Mar. 30, 1912. Serial No. 687,537. (Cl. 188—7.)



1. An engineer's brake valve having the usual connections to the main reservoir, the train pipe and the atmosphere, and also having a small warning port to the atmosphere, and a movable member provided with cavities and passages coöperating with said ports and arranged to connect the several ports to set and release the brakes, and also so arranged that in a plurality of positions it connects the main reservoir port directly to the train pipe port and opens the small warning port to the atmosphere.

2. An engineer's brake valve having ports connected to the atmosphere and the train pipe, and having one port connected directly with the main reservoir and a second port connected to the main reservoir by way of a pressure reducing or feed valve, and also having a small warning port to the atmosphere, and a movable member provided with cavities and passages coöperating with said ports and arranged to connect said ports to apply and release the brakes and arranged in running position of the valve to connect the train pipe port to the main reservoir port by way of the feed valve, and in a plurality of positions to connect the main reservoir to the train pipe and open the small warning port to the atmosphere.

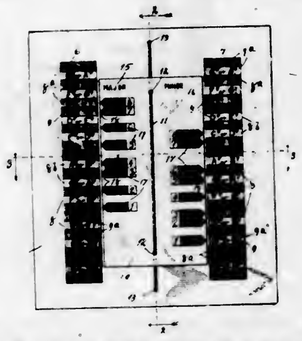
3. An engineer's brake valve provided with ports connected to the atmosphere, and the train pipe, and having a port connected to a brake cylinder, a port connecting directly with the main reservoir, and another port connecting to the main reservoir by way of a feed or pressure reducing valve, and a movable member provided with cavities and passages coöperating with said ports and arranged to apply and release the brakes, and in one position arranged to connect the main reservoir port to the brake cylinder port and simultaneously connect the train pipe port to the main reservoir by way of the reducing valve, and in another position to connect the main reservoir port with the brake cylinder port and connect the train pipe directly to the main reservoir.

4. An engineer's brake valve provided with ports connected to the atmosphere, and the train pipe, and having a port connected to a brake cylinder, a port connecting directly with the main reservoir, and another port connecting to the main reservoir by way of a feed or pressure reducing valve, and a movable member provided with cavities and passages arranged to coöperate with the ports to apply and release the brakes, and in one position arranged to connect the main reservoir port to the brake cylinder port and simultaneously connect the train pipe port to the main reservoir by way of the reducing valve, and in another position to connect the main reservoir port with the brake cylinder port and connect the train pipe directly to the main reservoir, and in two positions adjacent to the two positions last named lapping the brake cylinder port while maintaining all of the other connections.

5. An engineer's brake valve having ports connected to the atmosphere, the main reservoir, the train pipe, and an emergency cut-off valve, and a movable member having cavities and passages coöperating with said ports and arranged in different positions to apply the brakes for service and emergency applications and to release the same, and also arranged so that in all positions of the valve, except the emergency position, the main reservoir is connected to the emergency cut-off valve.

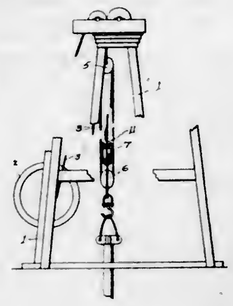
[Claims 6 to 14 not printed in the Gazette.]

1,091,598. MUSIC-CHART. ROY SOMERS, Muskegon, Mich. Filed Jan. 20, 1910. Serial No. 538,989. (Cl. 84—86.)



A music chart comprising diagrams of piano key boards, said diagrams disposed parallel with each other and having the notes of the major and minor scales indicated respectively thereon, a piece movable longitudinally between and parallel to said diagrams and containing on one side of the longitudinal center of said piece diagrams indicating the major scale and on the opposite side diagrams indicating the minor scale, said major and minor scale diagrams drawn proportionately to the fixed diagram so that when the major scale is adjusted to a certain key, the scale diagram on the other side will indicate the notes of the relative minor scale.

1,091,599. STRAIN-INDICATOR SUPPORT FOR DRILLING-RIGS. ROSCOE WILLIAM STEPHENS, Maricopa, Cal. Filed Nov. 1, 1911. Serial No. 658,056. (Cl. 255—1.)

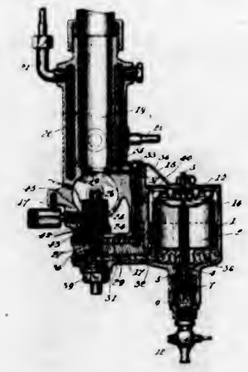


A strain indicator support for drilling rigs comprising a suspension means having lower and upper pulley blocks

and tackle ropes extending around the pulley blocks forming a pocket between the pulley blocks, a lower stirrup connected with the lower pulley block within the pocket and an inverted stirrup connected with the tackle rope from the upper pulley block within the pocket and crossing the arms of the lower stirrup; the tackle ropes providing a protection to the indicator support.

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1,091,600. CARBURETING APPARATUS FOR INTERNAL-COMBUSTION ENGINES. JAY S. STROUSE, Baltimore, Md., assignor of one-half to Charles E. Trace, Baltimore, Md. Filed Jan. 9, 1913. Serial No. 740,914. (Cl. 48—103.)



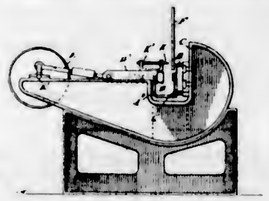
1. In a carbureting apparatus, the tubular plug which conveys hydrocarbon to the mixing chamber of the apparatus, combined with a tubular shell open at the top, which surrounds the plug, the said shell having an internal diameter greater than the exterior diameter of the plug, whereby an annular fluid-receiving and holding space around the plug is produced, and an electrically heated coil which surrounds the said tubular shell, to conduct heat to the said shell and thence to the fluid within the said annular space.

2. In a carbureting apparatus, the tubular plug which conveys hydrocarbon fluid to the mixing chamber of the apparatus, combined with a tubular shell open at the top, which surrounds the plug, the said shell having an internal diameter greater than the exterior diameter of the plug, whereby an annular fluid-receiving and holding space around the plug is produced, an electrically heated coil which surrounds and is in contact with the said tubular shell, to conduct heat to the said shell and thence to the fluid within the said annular space, and an electric-insulating jacket which surrounds the heating coil.

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1,091,601. MACHINE FOR CUTTING AND FORMING RECTANGULAR CAN-HEADS. WILLIAM E. TAYLOR, Eastport, Me., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Original application filed Mar. 21, 1910, Serial No. 550,713. Divided and this application filed May 26, 1911. Serial No. 629,628. (Cl. 113—42.)

1. In a can head cutting and forming press, the combination with a feed chute for a can head strip, of male and female can head cutting and forming dies, an end gage coincident with one cut edge of the blank, and side gages coincident with the side cut edges of the blank, said cutting dies severing at each stroke a portion from said can head strip exactly equaling one dimension on the can head blank, whereby the can heads are cut and formed without narrow strips of scrap between adjacent blanks, said chute being upright and the strip feeding down it by gravity, and spring fingers for preventing said can head strip left after all the can heads but one have been cut therefrom from tilting forward, substantially as specified.



2. In a can head cutting and forming press, the combination with a feed chute for a can head strip, of male and female can head cutting and forming dies, an end gage coincident with one cut edge of the blank, and side gages coincident with the side cut edges of the blank, said cutting dies severing at each stroke a portion from said can head strip exactly equaling one dimension of the can head blank, whereby the can heads are cut and formed without narrow strips of scrap between adjacent blanks, said end gage being movable away from the female cutting die, substantially as specified.

3. In a can head cutting and forming press, the combination with a feed chute for a can head strip, of male and female can head cutting and forming dies, an end gage coincident with one cut edge of the blank, and side gages coincident with the side cut edges of the blank, said cutting dies severing at each stroke a portion from said can head strip exactly equaling one dimension of the can head blank, whereby the can heads are cut and formed without narrow strips of scrap between adjacent blanks, one of said side gages being movable toward and from the other, and means for moving it in coöperation with the movable cutting and forming die, substantially as specified.

4. In a can head cutting and forming press, the combination with a feed chute for a can head strip, of male and female can head cutting and forming dies, an end gage coincident with one cut edge of the blank, and side gages coincident with the side cut edges of the blank, said cutting dies severing at each stroke a portion from said can head strip exactly equaling one dimension of the can head blank, whereby the can heads are cut and formed without narrow strips of scrap between adjacent blanks, said side gages adjustable and the other being movable, and means for operating the movable side gage, substantially as specified.

5. The combination with a pair of can head cutting dies, of an upright feed chute for a can head strip, a lower gage for the end of the strip and side gages for the side edges of the strip, one of said side gages being movable toward and from the other, the cutting edges of said dies operating to sever the blank from the strip by a single transverse cut extending across the strip, and also to clip and round the corners of the blank, substantially as specified.

[Claim 6 not printed in the Gazette.]

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1,091,602. DOUBLE-LEVER CAR-BRAKE. STONEWALL TOMPKINS, Brooklyn, N. Y. Filed Mar. 26, 1913. Serial No. 757,032. (Cl. 188—24.)



1. In a wheel brake for cars comprising a pair of L-shaped levers, a link connecting the elbows of said levers, a chain connecting the shorter end of each of said levers with the brake shoes and a cylindrical flange on each of the levers concentric with the fulcrum of said connecting link, constructed to permit said chain to roll up around said flange after the lever has been turned through a certain angle and power applied at the longer leg of one or the other of said levers.

2. In a wheel brake for cars having two trucks, a pair of L-shaped levers, a link connecting the elbows of said levers, a chain for each lever connecting its shorter end with the brake shoes and a cylindrical flange on each of the levers concentric with the fulcrum of said connecting link, constructed to permit said chain to roll up around said flange after the lever has been turned through a certain angle and power applied at the longer leg of said levers.

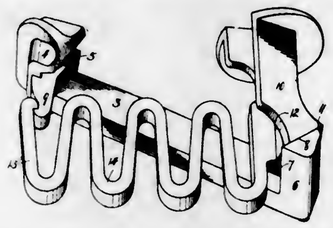
3. In a wheel brake for cars having two trucks, a pair of L-shaped levers, a link connecting the elbows of said levers, a chain for each of said levers connecting the shorter ends of the lever with its respective brake shoes, and a cylindrical flange on each of the levers, said flange being concentric with the fulcrum of said connecting link and constructed to permit said chain to roll up around said flange after the lever has been turned a certain angle and power applied at the longer leg of said levers; a second chain for each lever, one end of which being rigidly attached to the body of the car and the other end thereof secured to the longer leg of the lever at a point between the elbow and the point of power application; whereby on applying power on one of said levers, said second chain on the same lever will become slack while the second chain on the other lever will become taut.

4. In a wheel brake for cars comprising a pair of L-shaped levers, a link connecting the elbows of said levers, a chain connecting the shorter end of each of said levers with the brake shoe mechanism and a flange on each of said levers constructed to permit said chain to roll up around said flange, and power applied at the longer leg of one or the other of said levers.

5. In a wheel brake for cars, comprising a pair of L-shaped levers, a link connecting the elbows of said levers, a pair of rods for each lever terminating with hinged joints, one of each pair of said rods to connect the shorter end of each of said levers with the brake shoe mechanism, its hinged joint having a plurality of links, projections on said levers against which the links of the hinged joints will abut, said hinged joints in turn becoming wrist pins for the L-shaped lever providing shorter leverage for actuating the brake shoe mechanism.

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1,091,603. RAIL-STAY. JOSEPH M. VAIL, Bryan, Ohio. Filed Sept. 20, 1913. Serial No. 790,872. (Cl. 238—4.)



1. A device of the class described comprising a clamping member for extending under and having parts for clamping contact with opposite side edges of a rail-base, and a thrust member for engagement with one side edge of a rail-base and with a tie and having a part for thrust contact with one of the clamping parts of said clamping member and a part for extending cross-wise of a rail and releasably engaging a portion of the clamping member to retain the two members in engagement with a rail-base.

2. A device of the class described comprising two members for extending under a rail-base, said members having opposed rail-base engaging parts and yieldingly separable connection for retaining the members in assembled relation, said members also having parts in thrust contact for causing the members to have rail-base clamping action when one of said parts is moved toward the other.

3. A device of the class described comprising a member for extending under and having clamping action with opposite side edges of a rail-base, and a tie thrust member for engagement with a side edge of a rail-base and for thrust contact with a part of the clamping member to impart a twisting clamping action thereto relative to the rail when pressure is applied in one direction to said thrust member, and means for extending under a rail and separably connecting said members.

4. A device of the class described comprising a cross-bar adapted to be diagonally disposed with relation to the rail-base and having rail-base gripping parts at opposite ends thereof, a member for thrust contact with one of said clamping parts to impart a twisting movement to said cross-bar upon the application of pressure in one direction to said member, and yielding means for extending under a rail-base for separably connecting said member and the end portion of the cross-bar which is disposed at the opposite side of a rail-base thereto.

5. A device of the class described comprising a cross-bar for extending under a rail-base and having a rail-base edge gripping recess at one end and a knife edge rail-base gripping part at its other end, a member for interposition between said part and a tie for thrust contact with said part upon relative gripping movements of the tie and rail in one direction, and means for releasably connecting the recessed end of said cross-bar to said member.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,604. CARBON-SCRAPER. RALPH E. VAIL, Los Angeles, Cal. Filed Mar. 15, 1913. Serial No. 754,640. (Cl. 83—64.)



1. A carbon scraper comprising a single piece shank, a pair of scraping blades arranged transversely on the end of said shank, and means for causing the blades to assume a position overlapping each other with all the edges of each blade substantially in register with all the respective edges of the other blade to enable them to be inserted in the cylinder and for expanding the blades to spread their edges apart after they have been inserted.

2. A carbon scraper comprising a shank, the end of which is formed with a fork and a tongue extending between the members of the fork, a scraper on the fork, a scraper on the tongue, and means for moving the tongue and fork laterally of the shank.

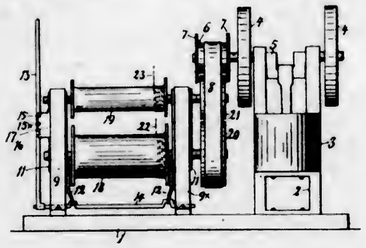
3. A carbon scraper comprising a supporting shank formed with a spring fork and a spring tongue extending between the members of the fork, a scraper on the fork, a scraper on the tongue, and means for adjusting the position of the fork and tongue.

4. A carbon scraper comprising a supporting shank formed with a spring tongue and a spring fork, an expansion bar extending along the shank and formed with a slot through which said tongue extends for spreading the tongue and fork upon sliding the expansion bar.

5. A carbon scraper comprising a flexible shank, a flexible expansion bar slidable along said shank, a pair of scrapers carried by the shank, and means operated by the expansion bar for adjusting said scrapers laterally of the shank.

[Claim 6 not printed in the Gazette.]

1,091,605. HOISTING-MACHINE. ALBERT J. VETVICK, Foley, Minn. Filed Sept. 27, 1913. Serial No. 792,181. (Cl. 57—22.)

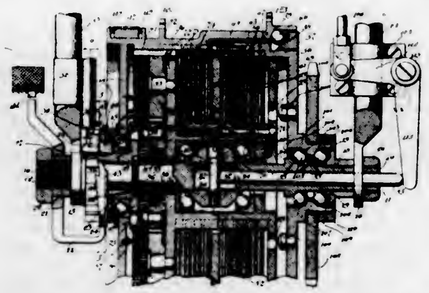


1. The combination with a suitable framework and journal bearings therein, of a driving shaft and two driven shafts arranged substantially in the same plane, a pulley fixed on each shaft, a belt passed over the driving pulley and over the driven pulley farthest away from the driving shaft; the third and intermediate pulley being small enough not to contact with the belt, a cable drum fixed on each of the driven shafts; the journals of the driven shafts being movable toward and away from the driving shaft, and means by which the operator may readily move said journal bearings and thereby cause the driving pulley to operate alternately the intermediate pulley by friction or the other driven pulley by the belt.

2. The combination with the shaft of a motor, of a pulley fixed on the shaft, two other shafts arranged parallel to and at different distances from the motor shaft, a belt pulley fixed on the shaft farthest away from the motor shaft, a friction pulley fixed on the intermediate shaft, a belt straddling the intermediate pulley and engaging the two other pulleys, and means for moving the two shafts toward and away from the motor shaft.

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1,091,606. POWER-TRANSMISSION GEARING. FREDERICK W. VODOZ, Chicago, Ill. Filed June 28, 1912. Serial No. 706,316. (Cl. 74—34.)



1. In a power transmission gearing for motorcycles, the combination with the axle, supporting frame members for the motorcycle, and a member loosely mounted on the axle, of clutches associated with said loosely mounted member, means at one end of the axle for suitably shifting said clutches, and means at the other end of the axle cooperating with said clutches for rotation of said loosely mounted member.

2. In a device of the character described, a stationary axle affording bearing for a plurality of clutch members, a supporting means to which said axle is attached at its ends, a clutch member for a device to be driven, a clutch member for connection with a driving device, laterally shiftable, intermediate clutch members for effecting transmitting engagement with the other members, means for shifting said intermediate members, and means for rotating said engaged intermediate members and driving clutch member.

3. In a device of the character described, a stationary axle affording bearing for a plurality of clutch members, a supporting means to which said axle is attached at its ends, a clutch member for connection with a device to be driven, means for holding said member in fixed position, a clutch member for connection with an internal combustion engine, a longitudinally shiftable clutch member between said two first mentioned members, a treadle, means for engagement of said treadle with the last mentioned member for rotating said member when the first-mentioned member is held in fixed position, and means of engagement between the shiftable member and the member connected to the gas engine, whereby said engine may be started by application of pressure to said treadle.

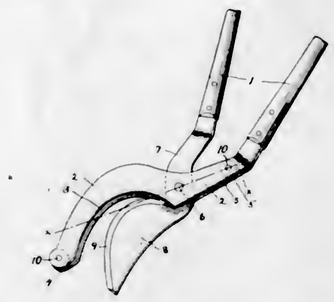
4. In a device of the character described, a stationary axle affording bearing for a plurality of clutch members, a supporting means to which said axle is attached at its ends, a member for connection with a device to be driven, a member for connection with an internal combustion engine for driving the first said member, an intermediate member laterally slidable on said axle for engagement with said other members, a train of gears between the said intermediate member and the member to be driven, a rotatable part, means for attachment of said part to the said train of gears upon shifting of the intermediate member, means for rotating the rotatable part, means for fixing the first mentioned member against rotation for rotation of the intermediate member by said rotatable part through said gears, and engagement means between said member for attachment to the engine and the said intermediate member, whereby the former may be rotated by rotation of the rotatable part.

5. In a device of the character described, a stationary axle affording bearing for a plurality of clutch members, a supporting means to which said axle is attached, a clutch member for connection with a device to be driven, a clutch member for connection with a driving device to be started, a laterally shiftable intermediate clutch-carrying part, clutch members thereon for effecting engagement with the other members, a train of gearing between said intermediate part and the member for connection with the device to be driven, and frictional means for connecting the driving member to the driven member through the intermediate member and said train of gears.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,607. TOBACCO-SHEARS. JOHN A. WEAVER, Gap, Pa. Filed Nov. 13, 1911. Serial No. 659,982. (Cl. 30—11.)

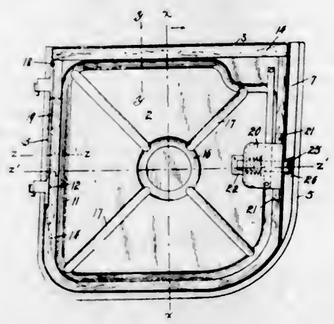


A pair of shears providing a grasping member and a cutting member said grasping member comprising two independent parts equal in length, spaced apart and riveted intermediate their length and at their outer ends, their inner ends converging and meeting, said cutting member pivoted between the parts at a point between the rivets, said parts between said pivot point and the outer rivet being bent so that their horizontal planes are at an angle to each other throughout their width.



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1,091,608. DOOR FOR AUTOMOBILE-BODIES. JOHN R. WELCH, Toledo, Ohio, assignor to The Kinsey Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed June 23, 1913. Serial No. 775,365. (Cl. 21—125.)



1. In a door of the class described, an outer sheet metal section substantially plane in cross-sectional contour and having an inwardly projecting edge flange, an inner sheet metal section having its body portion resting against and secured to the inner side of the body portion of the outer section with its marginal edge portion inwardly offset from the marginal edge portion of the outer section and formed at its outer edge with a flange projecting outwardly therefrom in the direction of projection of the flange of the outer section, said flanges laterally abutting one within the other and having their edges terminating in adjacent position.

2. In a door of the class described, an outer sheet metal section having a substantially plane body portion and an inwardly projecting flange at the edge thereof, an inner sheet metal section having its central body portion abutting against and rigidly secured to the inner side of the body portion of the outer section and having its marginal portion offset from the marginal portion of the outer section to provide a space therebetween, said offset marginal portion having a flange at its outer edge projecting away from the outer section in close abutting relation to the inner side of the outer section flange and rigidly secured thereto, and a nailing strip mounted on said offset marginal portion at the outer side thereof.

3. In a door of the class described, an outer sheet metal section having an inwardly projecting edge flange, an inner sheet metal section secured within the flange of the outer section and having its central body portion inwardly offset from its marginal edge portion and in rigid contact with the inner side of the outer section body, the marginal portion of said inner section being disposed intermediate the inner and outer edges of said flange and having an outwardly extending flange secured to the inner side of said outer section flange and terminating adjacent to the free edge of said latter flange, a nailing strip disposed between the outer section and the marginal portion of the inner section at one edge of the door, said outer flange having apertures in register therewith, and nailing strip means carried by the marginal portion of the inner section at the outer side thereof.

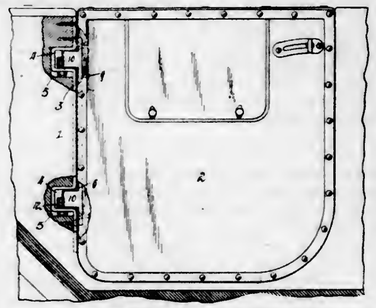
4. In a door of the class described, inner and outer sheet metal sections having their edges flanged in the same direction and set one within the other with their flanges rigidly secured together, said inner section having its central body portion inwardly offset relative to its marginal portion and in contact with the body portion of the outer section.

5. In a door of the class described, inner and outer sheet metal sections having their edges flanged in the same direction and set one within the other with their flanges secured together, the central body portion of the inner section being inwardly offset to have abutting contact with the body portion of the outer section and provided with reinforcing ribs, said sections being rigidly secured together.

[Claims 6 to 12 not printed in the Gazette.]

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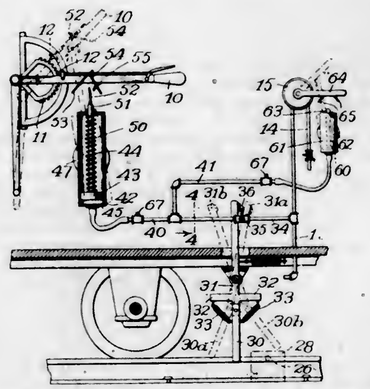
1,091,609. HINGE. JOHN R. WELCH, Toledo, Ohio, assignor to The Kinsey Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed June 23, 1913. Serial No. 775,366. (Cl. 16—5.)



A hinge of the class described comprising a socketed member and an angled projecting member for fitting into and pivotally engaging a wall of said socket, and adjustable means carried by one of said members for coacting with the other to limit the relative pivotal movements thereof in one direction.

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1,091,610. AUTOMATIC TRAIN-STOP DEVICE. WALTER E. WELLS and JOHN H. MAGUIRE, Gardner, Mass. Filed Feb. 1, 1913. Serial No. 745,526. (Cl. 246—59.)



1. In a train stopping device, the combination with the throttle lever and a detent therefor, said lever and detent having oppositely slanting converging guides, of an air cylinder, and a piston in the cylinder having a rod projecting from the end thereof adjacent to said throttle lever for engaging one of the guides and the throttle lever.

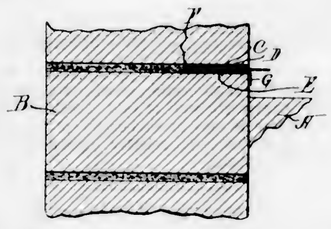
2. In a train stopping device, the combination with a throttle lever and detent therefor, of an air cylinder having a piston therein, the rod of said piston being provided with a shoulder and a projection beyond the shoulder, and oppositely slanting guides on the throttle lever and detent respectively arranged to receive the opposite sides of said projection.

3. In a train stopping device, the combination with a locomotive, of a lever mounted thereon, a valve having a stem in position to be engaged and operated by the lever, a spring for holding the lever in one extreme position, an arm pivoted on said lever and extending downwardly therefrom, springs on both sides of the arm for yieldingly holding it in central position, and means adapted to be projected into the path of the end of said arm for operating the arm and lever to open the valve as the locomotive moves along.

4. In a train stopping device, the combination with a locomotive of cylinders having means for stopping the locomotive, a valve for admitting air into said cylinders, a lever movable adjacent to the valve for operating the stem thereof, and means whereby when a signal is set against the train, motion of the train forwardly past said signal will cause said lever to be moved to open the valve directly, and whereby motion of the train backwardly past said signal will cause the lever first to be moved away from said valve stem and thereafter to be forced toward and against it yieldingly.

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1,091,611. ROOF-FLASHING INSERT. WILLIAM A. WITTBECKER and FRANK G. WITTBECKER, St. Paul, Minn. Filed Feb. 19, 1912. Serial No. 678,648. (Cl. 108—26.)



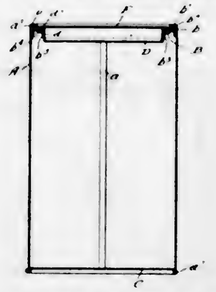

1. A flashing insert adapted to be sealed in a wall during construction consisting of a strip of material folded along a longitudinal line to form contiguous upper and lower sides and adapted to extend the full length of the edge of the flashing, a pair of sides of said strip being bent up adjacent the line of said fold to form a shoulder at its median portion, said lower side being bent down to form a stop for defining the distance the insert is placed in the wall and said upper side extending in flat condition beyond the side of said wall before the edge of the flashing is inserted in said wall between said sides and adapted to be bent down in position to form a drip flange over said flashing and prevent moisture and wet entering between the edge of said flashing and the sides of said insert.

2. A flashing insert adapted to be sealed in a wall during construction consisting of a strip of material folded along a longitudinal line to form contiguous upper and lower sides and adapted to extend the full length of the edge of the flashing, one of said sides being formed with means for positively engaging the material in the wall, said lower side being bent down to form a stop for defining the distance the insert is placed in the wall and said upper side extending outwardly from the side of said wall before the edge of the flashing is placed between said sides and adapted to be bent down in position to form a drip flange over said flashing and prevent moisture and wet entering between the sides of said insert and passing over the edge of said flashing.

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1,091,612. FRICTION-TOP CAN. JOHN M. YOUNG, San Francisco, Cal., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 16, 1909. Serial No. 502,427. (Cl. 220—77.)

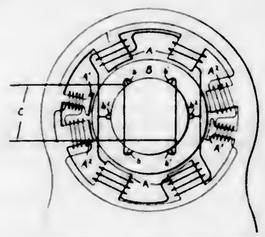
1. In a friction top can, the combination with a can body, of an annular top having a friction seat wall, a friction cover closing the opening in said annular top and having a friction seat wall and a pry-off rim, and an external safety seal of yielding material extending across said cover, said can body and annular top having an inwardly projecting folded seam uniting the same and cooperating as a fulcrum rim with said pry-off rim of the cover and also clamping and securing the safety seal in place, said safety seal being so secured that it is necessarily mutilated when removed, substantially as specified.



2. In a friction top can, the combination with a can body having an inturned flange at its upper end, of an annular top having a friction seat wall and a rim fitting within said can body and provided with reversely folded and inwardly projecting flanges embracing said inturned flange of the can body, a friction cover having a friction seat wall and a pry-off rim, and a safety seal extending across said cover and clamped at its edges between said top head and said inturned flanges of the rim thereof, substantially as specified.

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1,091,613. DYNAMO-ELECTRIC MACHINE. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 27, 1910. Serial No. 574,106. (Cl. 171—223.)



1. In combination, armature coils, a field magnet, commutator brushes for collecting the currents induced in said coils, certain of said brushes being adapted to be connected to an external circuit and others of said brushes serving as exciting brushes, means for producing in said field magnet in inductive relation to the armature coils connected to the exciting brushes an effective flux which is the difference of two fluxes, one being substantially constant and the other substantially proportional to the voltage between the brushes adapted to be connected to the external circuit, and means for producing in said field magnet in inductive relation to the armature coils connected to the latter brushes a magnetic field substantially proportional to the voltage between the exciting brushes.

2. In combination, armature coils, a field magnet, commutator brushes for collecting the currents induced in said coils, certain of said brushes being adapted to be connected to an external circuit and others of said brushes serving as exciting brushes, means for producing in said field magnet two fluxes inducing opposing electromotive forces in the armature coils connected to the exciting brushes, one of said fluxes being substantially constant and the other substantially proportional to the voltage between the brushes adapted to be connected to the external circuit, and means for producing in said field magnet in inductive relation to the armature coils connected to the latter brushes a magnetic field substantially proportional to the voltage between the exciting brushes.

3. In combination, armature coils, commutator brushes for collecting the currents induced in said coils, certain of said brushes being adapted to be connected to an external circuit, and others of said brushes serving as exciting brushes, means for producing a magnetic field in inductive relation to the armature coils connected to the exciting brushes by the resultant action of two opposing magneto-motive forces, the character of the magnetic circuit being such that one magneto-motive force tends to produce a substantially constant flux and the other tends to produce a flux substantially proportional to the voltage between the brushes adapted to be connected to the external circuit, and means for producing in inductive relation to the armature coils connected to the latter brushes a magnetic field substantially proportional to the voltage between the exciting brushes.

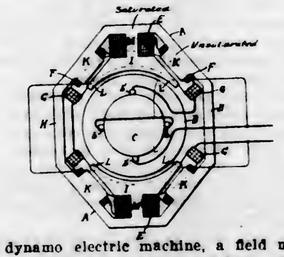
4. In combination, armature coils, a field magnet for inducing currents in said coils, commutator brushes for collecting the currents induced in said coils, certain of said brushes being adapted to be connected to an external circuit and serving as load brushes and others of said brushes serving as exciting brushes, opposing and unequal field windings on different portions of the field magnet in inductive relation to the armature coils connected to the exciting brushes, the portion of the field magnet on which the stronger winding is wound being of restricted cross section so as to be highly saturated and the portion of the field magnet on which the other winding is wound being unsaturated, said other winding being connected to the load brushes, and a winding on the field magnet in inductive relation to the armature coils which are connected to the load brushes, said last mentioned winding being connected to the exciting brushes.

5. In a constant voltage dynamo-electric machine, a field magnet, an armature having a commutator and a plurality of sets of brushes, certain of said brushes being adapted to be connected to an external circuit, and others of said brushes serving as exciting brushes, means for producing in the field magnet a substantially constant flux in inductive relation to the armature coils connected to the exciting brushes, means for producing a second flux in opposition to the first in its inductive effect on the armature and proportional to the voltage between the first mentioned brushes, and means for producing in the field magnet in inductive relation to the armature coils connected to the first mentioned brushes a flux substantially proportional to the voltage between the exciting brushes.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,614. DYNAMO-ELECTRIC MACHINE. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 7, 1911. Serial No. 637,251. (Cl. 171—223.)




1. In a dynamo electric machine, a field magnet, an armature provided with a commutator, commutator brushes and connections forming for said brushes a local circuit for producing a secondary magnetic field and an external circuit, and means for producing in said field magnet in inductive relation to the armature coils connected to the brushes included in the local circuit an effective flux which is the difference of two fluxes, one being a substantially constant flux and the other a flux proportional to the voltage between the brushes connected to the external circuit.

2. In a dynamo electric machine, a field magnet, an armature provided with a commutator, commutator brushes and connections forming for said brushes a local circuit for producing a secondary magnetic field and an external circuit, means for compensating for the armature reaction, and means for producing in said field magnet in inductive relation to the armature coils connected to the brushes included in the local circuit an effective flux which is the difference of two fluxes, one being a substantially constant flux and the other a variable flux.

3. In a dynamo electric machine, a field magnet, an armature provided with a commutator, commutator brushes and connections forming for said brushes a local circuit for producing a secondary magnetic field and an external circuit, means for compensating for the armature reaction, and means for producing in said field magnet in inductive relation to the armature coils connected to the brushes included in the local circuit an effective flux which is the difference of two fluxes, one being a substantially constant flux and the other a flux proportional to the voltage between the brushes connected to the external circuit.

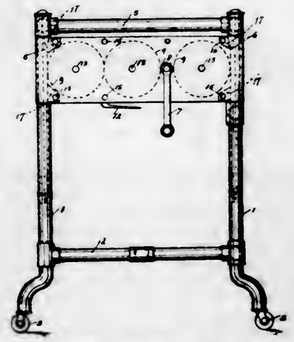
4. In a dynamo electric machine, a field magnet, an armature provided with a commutator, commutator brushes and connections forming for said brushes a local circuit for producing a secondary magnetic field and an external circuit, and two field windings connected to produce in said field magnet in inductive relation to the armature coils connected to the brushes included in the local circuit opposing and unequal magneto-motive forces, one arranged to produce a substantially constant flux, and the other to produce a variable flux.

5. In a dynamo electric machine, a field magnet, an armature provided with a commutator, commutator brushes and connections forming for said brushes a local circuit for producing a secondary magnetic field and an external circuit, a winding for compensating for the armature reaction, and two field windings connected to produce opposing and unequal magneto-motive forces, one arranged to produce a substantially constant flux, and the other to produce a variable flux, whereby the voltage of said dynamo electric machine is maintained substantially constant.

[Claims 6 to 22 not printed in the Gazette.]

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1,091,615. ADJUSTABLE TABLE. GEORGE W. ANGELL, Grand Rapids, Mich. Filed Feb. 23, 1912. Serial No. 679,521. (Cl. 45—111.)



An adjustable table comprising a frame having four tubular legs spaced apart in pairs with each leg pro-

vided with an opening below its upper end, a post movable vertically in each leg, a rack on each post, connecting members between the posts, a housing bracing each pair of legs and covering the openings in the legs, a train of gears journaled in each housing with the end gears of each train projecting through the corresponding openings in the legs and meshing with the racks and corresponding posts, a rotatable shaft journaled in the opposite housings and provided with spaced pinions for mesh with the corresponding trains of gears each operated simultaneously and said posts raised or lowered according to the direction of rotation of said shaft, and a dog pivotally mounted in each housing for engagement with a gear of each corresponding train to prevent accidental operation of the gear trains.

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1,091,616. GRAPHITE CONDUCTOR. WILLIAM C. ARSEM, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1911. Serial No. 614,054. (Cl. 176—127.)

1. The process which consists in mixing graphite with a carbonaceous binder, shaping the mixture so produced to form threads or filaments, heating to carbonize the binder, and subsequently heating at a higher temperature to graphitize the carbon left by the binder and thus convert them into serviceable, refractory filaments consisting wholly of carbonaceous material.

2. The process which consists in mixing graphitic material derived from a hydrocarbon with a carbonaceous binder to form a plastic mixture, squirting threads from said mixture, heating the threads to carbonize the binder and render them free from easily vaporizable components, and subsequently heating to a very high temperature to completely graphitize the carbonized residue of the binder.

3. The process which consists in mixing graphite of high density with a binder convertible into graphite of substantially the same density, heating to carbonize the binder, and subsequently heating to a higher temperature to graphitize the carbon left by said binder and produce a refractory filament consisting of homogeneous graphite of high density.

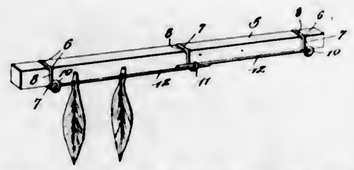
4. The process which consists in mixing graphitized petroleum coke with a fractionated portion of coal tar pitch, shaping the mixture so produced to form filaments, and subsequently treating said threads to convert them into homogeneous conductors of pure graphite.

5. As an article of manufacture, a conductive homogeneous thread consisting of graphite powder, the particles of which are held in position by carbon convertible by heating to graphite of high specific gravity.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,617. TOBACCO-HANGER. JOHN A. ATKINS, Carroll county, Va. Filed Jan. 30, 1912. Serial No. 674,242. (Cl. 131—21.)

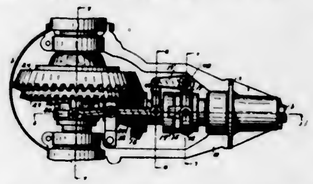


1. A hanger of the class described, comprising a body bar rectangular in cross section, supporting members mounted adjacent the ends of the bar and each comprising a continuous length of wire having its central portion looped about the bar, the ends of each supporting member being twisted together and extended transversely of the bar in opposite directions beyond the side faces thereof, the extreme ends of the wire being bent to form eyes, stringer wires loosely and permanently connected to the eyes of said supporting members and supported thereby in the plane of the lower face of said bar, and a third supporting member looped about the bar intermediate its ends and having oppositely extending end portions provided with hooks adapted to removably support the free ends of the stringer wires, the corners of the bar being notched to receive the looped portions of said supporting members and prevent longitudinal movement of the same.

2. A hanger of the class described comprising a rectangular body bar, a plurality of spaced supporting members each consisting of a length of wire bent to provide a central loop embracing said bar, the ends of the wire being twisted upon each other and transversely extended in opposite directions, the ends of said wire being upwardly inclined, the extremities of one of said supporting members being formed into hooks and those of the other member being formed into eyes which are disposed contiguous to the opposite side faces of the bar, and stringer wires loosely and permanently connected at one of their ends to said eyes and removably supported at their other ends in the terminal hooks of the other supporting member, said stringer wires being disposed in spaced parallel relation to the opposite sides of the bar and in the plane of the lower face thereof.

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1,091,618. CHANGE-SPEED GEARING. WALTER S. AUSTIN, Grand Rapids, Mich. Filed Aug. 12, 1913. Serial No. 784,347. (Cl. 74—59.)



1. In a change speed gearing for automobiles, the combination of the axle, differential gearing with its housing and sleeve, a driven beveled gear secured to the differential gear housing, a second driven beveled gear nesting with the first beveled gear and journaled on the sleeve of the housing, a clutch for connecting said differential housing to said second driven gear, a propeller shaft with a pinion secured to the end thereof, meshing with the inner driven gear, a sleeve journaled on the propeller shaft with a pinion meshing with the outer driven gear, a clutch for engaging the said sleeve and coupling said pinion to the said propeller shaft, a suitable casing for all of the said gearing, a rock shaft with arm for operating the clutch for the said pinion, an arm on the said rock shaft with connections to operate the clutch on the sleeve of the differential housing, connected and timed so that when the one clutch is engaged the other will be disengaged, and yielding stop means to retain the clutch in engaged or neutral position, coöperating substantially as described for the purpose specified.

2. In a change speed gearing for automobiles, the combination of the axle, differential gearing with its housing and sleeve, a driven beveled gear secured to the differential gear housing, a second driven beveled gear nesting with the first beveled gear and journaled on the sleeve of the housing, a clutch for connecting said differential housing to said second driven gear, a propeller shaft with a pinion secured to the end thereof, meshing with the inner driven gear, a sleeve journaled on the propeller shaft with a pinion meshing with the outer driven gear, a clutch for engaging the said sleeve and coupling said pinion to the said propeller shaft, a suitable casing for all of the said gearing, a rock shaft with arm for operating the clutch for the said pinion, and an arm on the said rock shaft with connections to operate the clutch on the sleeve of the differential housing, connected and timed so that when the one clutch is engaged the other will be disengaged, coöperating substantially as described for the purpose specified.

3. In a change speed gearing for automobiles, the combination of the axle, differential gearing with its housing and sleeve, a driven beveled gear secured to the differential gear housing, a second driven beveled gear nesting with the first beveled gear, a clutch for connecting said differential housing to said second driven gear, a propeller shaft with a pinion secured to the end thereof, meshing with the inner driven gear, a sleeve journaled on the propeller shaft with a pinion meshing with the outer driven gear, a clutch for coupling said pinion to the said propeller shaft, a suitable casing for all of the said gearing, a rock shaft with arm for operating the clutch for the said pinion, and an arm on the said rock shaft with connections to operate the clutch on the sleeve of the differential housing, connected and timed so that when the one clutch is engaged the other will be disengaged, coöperating substantially as described for the purpose specified.

4. In a change speed gearing for a motor vehicle, a driving shaft disposed longitudinally of the vehicle, a driven shaft disposed transversely thereto constituting the driven axle for said vehicle, a clutch-operated driving bevel gear concentric with the driving shaft, and a driving bevel gear fixed on the driving sraft, a bevel gear having a bearing surface on its face and fixed on the driven shaft and meshing with the clutch-operated driving gear, a clutch-operated bevel gear having a bearing surface on its back corresponding to the bearing surface on the fixed gear and concentric with the driven shaft, and clutches for said clutch-driven gears.

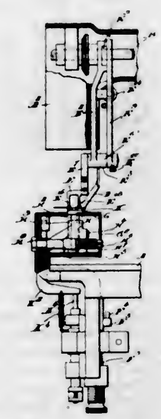
5. In a change-speed gearing for a motor vehicle, a driving shaft disposed longitudinally of the vehicle, a driven shaft disposed transversely thereto constituting the driven axle for said vehicle, a clutch-operated driving bevel gear concentric with the driving shaft, and a driving bevel gear fixed on the driving shaft, a bevel gear having a bearing surface on its face and fixed on the driven shaft and meshing with the clutch-operated driving gear, a clutch operated bevel gear having a bearing surface on its back corresponding to the bearing surface on the fixed gear and concentric with the driven shaft meshing with the gear fixed on the driving shaft, an end thrust bearing for said clutch-operated driving gear, and clutches for said clutch driven gears.

[Claims 6 to 21 not printed in the Gazette.]

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1,091,619. BLINDSTITCH SEWING-MACHINE. WILLIAM E. BAILEY, Beverly, Mass., assignor to Arbetter Felling Machine Company, Boston, Mass, a Corporation of Maine. Filed Dec. 22, 1908. Serial No. 468,849. (Cl. 112—24.)



1. A blindstitch sewing machine comprising a work-supporting base, an overhanging head, a presser-foot mounted in said head, an auxiliary horizontal, cylindrical work-support yieldingly and vertically movable with respect to said base, and a yielding work-plate section mounted in said cylindrical work-support beneath said presser-foot, feeding mechanism supported from the overhanging head above and coöperating with said yielding section.

2. A blindstitch sewing machine comprising a work-supporting base, an overhanging head, a presser-foot mounted in said head, a standard vertically movable with respect to said base, an auxiliary horizontal, cylindrical work-support projecting from said standard beneath said presser-foot, and a yielding work-plate section mounted in said cylindrical work-support beneath said presser-foot, feeding mechanism supported from the overhanging head above and coöperating with said yielding section.

3. A blindstitch sewing machine comprising a work-supporting base, an overhanging head, a presser-foot mounted in said head, an auxiliary, horizontal, cylindrical work-support yieldingly and vertically movable with respect to said base, a yielding work-plate section mounted in said cylindrical work-support beneath said presser-foot, feeding mechanism supported from the overhanging head above and coöperating with said yielding section, and means for varying the yielding action of said work-plate section against the presser-foot and feeding mechanism.

4. A blindstitch sewing machine comprising a work-supporting base, an overhanging head, a presser-foot mounted in said head, an auxiliary horizontal, cylindrical work-support yieldingly and vertically movable with respect to said base, a work-plate section mounted in said cylindrical work-support beneath said presser-foot, feeding mechanism supported from the overhanging head above and coöperating with said work-plate section, a stud mounted in said cylindrical work-support, an arm engaging said work-plate section, a spring coiled about said stud and engaging said arm and acting therethrough to hold the work-plate section normally and yieldingly elevated.

5. A blindstitch sewing machine comprising a work supporting base upon which the body of the work may rest and be supported, an overhanging head, a presser foot mounted in said head, an auxiliary cylindrical work-support vertically movable with respect to said base and projecting horizontally between said base and presser foot to allow tubular work to be slipped thereover and fed therearound, and a yielding work plate section mounted in said auxiliary work-support beneath said presser-foot to support the work yieldingly immediately at the stitching point.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,620. INSULATOR. LAWRENCE E. BABRINGER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 14, 1908. Serial No. 432,908. (Cl. 106—45.)

1. The method which consists in mixing silica with an excess of calcium hydrate, pressing into the desired shape, treating with dry steam under pressure, and subsequently exposing the material so produced to a saponifying material to form a relatively stable waterproof compound by combination with the free calcium hydrate.

2. The method which consists in mixing asbestos fiber with silica and calcium hydrate, the calcium hydrate being in greater proportion than that necessary to combine with all the silica in producing hydrous calcium silicate, moistening the mixture and molding it into shape, treating with dry steam under pressure to produce chemical union between the silica and the calcium hydrate, machining the body so formed, and subsequently converting its excess of calcium hydrate into a lime soap.

3. The method which consists in mixing silica with a substantial excess of calcium hydrate, molding said mixture, treating with live steam under pressure to effect a reaction between the silica and hydrate, and subsequently impregnating the material so produced with stearic acid to form stearate of calcium in the mass by interaction with the free calcium hydrate.

4. A material suitable for electrical insulators and the like consisting essentially of asbestos, hydrous calcium silicate and lime soap.

1,091,621. INSULATING MATERIAL. LAWRENCE E. BARRINGER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 21, 1910. Serial No. 593,387. (Cl. 134—13.)

1. An insulating material containing a phenolic condensation product and a pitch remaining from the distillation of a fatty substance while in contact with alkali.

2. An insulating material containing a phenolic condensation product and stearin pitch.

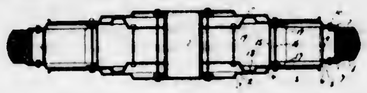
3. An insulating material containing a phenolic condensation product and stearin pitch dissolved in amyl acetate.

4. An insulating material containing a phenolic condensation product and the pitchy residue remaining from the purification of crude cotton seed oil by caustic soda.

5. An insulating material comprising a sheet of fibrous material impregnated with a mixture of a phenolic condensation product and a pitch remaining from the distillation of fatty substances while in contact with an alkali.

[Claims 6 and 7 not printed in the Gazette.]

1,091,622. SHOCK-ABSORBING WHEEL. HUGO A. BECKER, Milwaukee, Wis. Filed June 29, 1912. Serial No. 706,545. (Cl. 152—38.)



1. The combination with a wheel hub, of a set of disks rigidly connected therewith, another set of disks lapping in side contact with the first mentioned disks, an outer rim connected with one of the sets of disks, an inner rim, a set of bolts connecting the same with the other set of disks, cushioning devices between said rims, and a tire supported from the outer rim; said second set of disks lapping upon the first mentioned set beyond the connecting bolts of the inner rim, and one of said sets of disks being slotted to permit the outer rim and outer set of disks to move along radial lines in opposition to the pressure of the cushioning devices.

2. The combination with a wheel hub of a set of radially slotted disks rigidly connected therewith and provided at intervals with inwardly extending annular offsets progressively narrowing the space between said disks from the hub outwardly, a set of rim disks mounted to slide in side contact with the first set of disks and provided with off-sets corresponding with and concentric to the offsets of the hub disks, past which the rim disks extend and arranged with sufficient space between the offsets on the respective disks to permit radial movement of the rim disks, inner and outer rims, one secured to the hub disks and the other secured to the rim disks, a tire mounted on the outer rim, cushioning devices supporting the outer rim from the inner rim, and cross rods connecting the disks of one set with each other, the disks of the other set being provided with radial slots through which said cross rods pass.

3. The combination with a wheel hub, of a set of disks rigidly connected therewith, another set of disks lapping in side contact with the first mentioned disks, an outer rim connected with one of the sets of disks, an inner rim, a set of bolts connecting the same with the other set of disks, cushioning devices between said disks, and a tire supported from the outer rim; said second set of disks lapping upon the first mentioned set beyond the connecting bolts of the inner rim, and one of said sets of disks being slotted to permit the outer rim and outer set of disks to move along radial lines in opposition to the pressure of the cushioning devices, said cushioning devices comprising a series of flat springs reversely bent and provided with a segmental central portion, said springs each having one extremity connected with the inner rim and the other extremity connected with the outer rim, substantially as described.

4. The combination with a wheel hub, of a set of hub disks rigidly connected therewith, a set of rim disks mounted to slide in side contact with the hub disks, cross rods connecting the outer disks with each other, the inner disks being provided with radial slots through which said cross rods pass, an inner rim connected with the disks of one set, an outer rim connected with the disks of the other set and adapted to receive a tire, and cushioning devices interposed between the rims, said cushioning devices being housed in by the disks and rims.

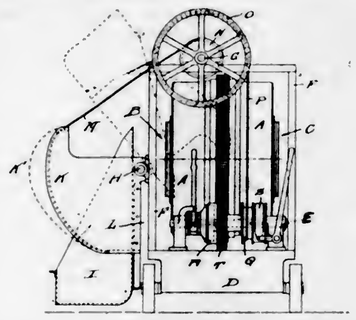
1,091,623. ADJUSTABLE METALLIC FRAME. LOUIS BLAND, Schenectady, N. Y. Filed Feb. 10, 1912. Serial No. 676,742. (Cl. 40—152.)



1. A metallic frame, including corner pieces having legs extending at right angles to each other and formed with miter joints, the adjacent ends of the legs having inwardly turned lugs contacting with each other, and loop-shaped clips embracing said lugs and holding the legs in proper angular relation.

2. A metallic frame, including corner pieces having legs extending at right angles to each other and formed with miter joints, the adjacent ends of the legs having each an inwardly turned lug, each lug being formed with a relatively narrow neck at its junction with the main portion of the leg, the lug on the end of one leg contacting with the lug on the end of the other leg and a clip embracing both of said contacting lugs and disposed in engagement with the narrow necks thereof and holding the legs in proper angular relation.

1,091,624. CHARGING DEVICE FOR CONCRETE-MIXERS. EDWARD W. BRACKENBURY, Milwaukee, Wis., assignor to T. L. Smith Company, Milwaukee, Wis. Filed July 24, 1912. Serial No. 711,280. Renewed Dec. 15, 1913. Serial No. 806,911. (Cl. 214—3.)



1. In a charging device for concrete mixers, a charging bucket pivoted to the machine frame, a hoisting device, a wrapping connector attached to said bucket and to said hoisting device, and means causing said connector to pull on said bucket in a substantially constant direction.

2. In a charging device for concrete mixers, a charging bucket pivoted to the machine frame, a sector attached to said bucket, hoisting means for swinging said bucket into charging position, and a wrapping connector attached to and extending over the curved periphery of said sector and attached to said hoisting means.

3. In a charging device for concrete mixers, a charging bucket pivoted to the machine frame, a sector attached to said bucket, hoisting means for swinging said bucket into charging position, and a wrapping connector attached to and extending over the curved periphery of said sector and attached to said hoisting means, said sector having radii proportioned to the different lifting efforts required at different positions of the load.



1,091,625. ATTACHMENT FOR HOT-WATER RADIATORS. CHARLES E. BRINEY, Coraopolis, Pa. Filed June 11, 1912. Serial No. 702,943. (Cl. 237—19.)



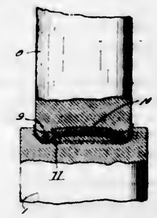
1. The combination, with a hot water radiator, of a fitting formed with a passageway extending therethrough, and having end nozzles and intermediate nozzles communicating with said passageway; pipes providing connection between one of the end nozzles and the upper portion of the radiator, and between the lower portion of the radiator and one of the intermediate nozzles, respectively; supply and return pipes communicating with the other intermediate nozzle and with the other end nozzle, respectively; and a deflector in the fitting, separating the intermediate nozzles and formed to direct the heated water toward the radiator supply nozzle.

2. The combination, with a hot water radiator, of a fitting formed with a passageway extending therethrough, and having end nozzles and intermediate nozzles communicating with said passageway, the level of the lower end nozzle being such as to provide for radiator drainage; a pipe connecting one of the end nozzles and the upper portion of the radiator; a regulating valve controlling the supply of water through said pipe; a pipe connecting one of the intermediate nozzles and the lower portion of the radiator; supply and return pipes communicating with the other intermediate nozzle and with the other end nozzle, respectively; and a deflector in the fitting, separating the intermediate nozzles and formed to direct the heated water toward the radiator supply nozzle.

3. A flow and return and by-pass fitting for hot water radiators, having a passageway extending therethrough; lower and upper end nozzles communicating with said passageway, for the connection of a return water pipe and a radiator supply pipe, respectively; an intermediate lateral nozzle for the connection of a supply flow pipe; another intermediate lateral nozzle located at an angle thereto, for the connection of a radiator discharge pipe, each of said intermediate nozzles communicating with said passageway; and a deflector separating the intermediate nozzles and formed to direct the heated water from the supply flow pipe nozzle toward the radiator supply pipe nozzle and to separate the flow of the cooler water from the radiator discharge pipe nozzle from that of the hotter water from the supply flow pipe nozzle.

1,091,626. PROCESS OF MANUFACTURING BOTTLE-CAPS. JOSEPH BUTKUS, Chicago, Ill., and JOHN A. BUTKUS, Baltimore, Md. Filed Aug. 21, 1911. Serial No. 645,271. (Cl. 113—80.)

1. The process of forming bottle caps, comprising placing a disk of compressible material in a shell and subjecting the central portion of said disk to a degree of pressure greater than that to which the other portions of the disk are subjected, so as to force a quantity of the central portion of said disk toward the margins and make the marginal portions of the disk thicker than the central portion thereof, while simultaneously maintaining the marginal portions of the disk under pressure.



2. The process of forming bottle caps, comprising placing a disk of compressible material in a shell having a depressed central portion surrounded by a channel, and subjecting the central portion of said disk to a degree of pressure greater than that to which the other portions of the disk are subjected, so as to force a quantity of the central portion of the said disk toward its margins and make the marginal portions of said disk thicker than the central portion thereof and substantially fill said channel, while simultaneously maintaining the marginal portions of the disk under a substantially uniform pressure.

3. The process of forming bottle caps, which consists in subjecting a cork disk to pressure with the central portion of the disk being subjected to a degree of pressure greater than that to which the other portions of said disk are subjected, so as to force a quantity of the central material of said disk toward its margins and make the marginal portions of said disks substantially the same thickness, but thicker than the central portion of said disk.

1,091,627. RESINOUS COMPOSITION. MICHAEL J. CALLAHAN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 12, 1912. Serial No. 719,989. (Cl. 106—22.)

1. The process of making a gummy material which consists in reacting upon a polyhydric alcohol with malic acid.

2. The process of making a resinous or gummy material which consists in reacting upon glycerol with malic acid.

3. The process of making a resinous or gummy material which consists in reacting upon glycerol with malic acid in molecular proportions.

4. The process which consists in heating a mixture of glycerol and malic acid until reaction occurs with the production of a resinous material and then heating the product until it becomes infusible.

5. A composition of matter comprising a resinous condensation product of malic acid and a polyhydric alcohol, said product being insoluble and infusible and a non-conductor of electricity.

[Claim 6 not printed in the Gazette.]

1,091,628. RESINOUS CONDENSATION PRODUCT. MICHAEL J. CALLAHAN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 12, 1912. Serial No. 719,990. (Cl. 106—22.)

1. A composition of matter comprising a resinous product of camphoric acid and a polyhydric alcohol, said product being saponifiable with an alkali to regenerate the polyhydric alcohol and form a compound of camphoric acid and an alkali.

2. A composition of matter comprising a hard brittle resinous material produced by heating camphoric acid and glycerol, in molecular proportions at an elevated temperature said product being saponifiable with an alkali to regenerate glycerol and form a compound of camphoric acid and an alkali.

3. A composition of matter comprising a clear infusible resinous material produced by the interaction of camphoric acid and glycerol up to a temperature which completes the reaction said product being saponifiable with an alkali to regenerate glycerol and form a compound of camphoric acid and an alkali.

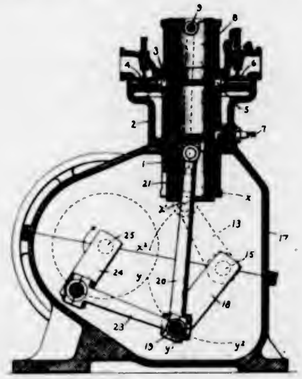
4. A composition of matter comprising a clear insoluble resinous material produced by the interaction of camphoric acid and glycerol and subsequent heating of the product for a long period of time at a temperature lying in the range from about 90 to 110° C. said product being saponifiable with an alkali to form glycerol and a compound of camphoric acid and an alkali.

5. The process of making a resinous material which consists in heating a polyhydric alcohol with camphoric acid to the reaction temperature.

[Claim 6 not printed in the Gazette.]

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1,091,629. INTERNAL-COMBUSTION ENGINE. WILFRED CAMPBELL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 18, 1911. Serial No. 649,912. (Cl. 123—1.)



1. An internal combustion engine having a cylinder and two pistons therein, an engine crank shaft, and a connection between the pistons and the engine shaft, comprising a second crank-shaft, cranks on said second crank shaft at such an angle to each other that when one is moving about an arc, the chord of which is substantially horizontal, the other is moving about an arc, the chord of which is substantially vertical, means connecting the two pistons to the cranks, and a connection between the two crank-shafts.

2. An internal combustion engine having a cylinder and two pistons therein, an engine crank-shaft, and a connection between the pistons and the engine shaft comprising a second crank-shaft parallel to the engine shaft provided with a plurality of cranks, means connecting the two pistons to the cranks of the second shaft, the cranks to which the pistons are respectively connected being arranged at an angle to each other, and means connecting the two crank-shafts.

3. An internal combustion engine having a cylinder and two pistons therein, a rotating engine crank-shaft arranged at one side of the axis of the cylinder, and connections between the pistons and the engine shaft comprising a rocking crank-shaft arranged on the opposite side of the axis of the cylinder and parallel to the engine shaft, the axis of one shaft being nearer the cylinder than the other, means connecting the two pistons to the cranks of the rocking shaft, the cranks to which the pistons are respectively connected being arranged at an angle to each other, and means connecting the two crank-shafts.

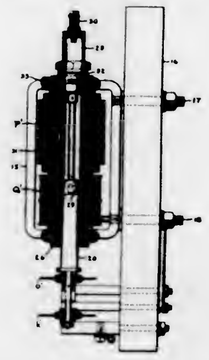
4. An internal combustion engine, having a cylinder containing inlet and exhaust ports, two pistons in said cylinder, a rock-arm one end of which moves about a given axis in an arc which at first lies transverse to the axis of the cylinder and is subsequently more nearly parallel therewith, a second rock-arm one end of which moves about the same axis in an arc which at first is substantially parallel with the axis of the cylinder and is subsequently more nearly transverse thereto, members connecting said rock-arms respectively with said pistons, and a crank shaft operatively connected with one of said arms.

5. An internal combustion engine having a cylinder and two pistons therein, a rotating engine crank-shaft, and a connection between the pistons and the engine shaft comprising a rocking crank-shaft parallel to the engine shaft, outside connecting rods connecting one piston to the rocking shaft, an inside connecting rod connecting the other piston to the rocking shaft, the cranks to which the two pistons are connected being arranged at an angle to each other, and a connection from one of said cranks to the engine shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,630. ELECTROMAGNETIC DEVICE. EUGENE R. CARICHOFF, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 25, 1909. Serial No. 504,321. (Cl. 175—281.)



1. In an electromagnetically operated switch, a fixed contact member, a movable contact member coöperating therewith, a magnetizing coil, a core of magnetic material movable in the field thereof and operatively connected to said movable contact member, a shell of magnetic material located within said coil adjacent the end thereof at which the movable core in its movement enters said coil, and means for regulating the permeability of the magnetic circuit of which said magnetic shell forms a part.

2. In an electromagnetically operated switch, a fixed contact member, a movable contact member coöperating therewith, a magnetizing coil, a core of magnetic material having a tapered end arranged to move in the field of said coil and operatively connected to said movable contact member, a shell of magnetic material located within said coil adjacent the end thereof into which the tapered end of said core moves, and means for regulating the permeability of the magnetic circuit of which said magnetic shell forms a part.

3. In an electromagnetically operated switch, a fixed contact member, a movable contact member coöperating therewith, a magnetizing coil, a core of magnetic material movable in the field thereof and operatively connected to said movable contact member, a shell of magnetic material located within said coil adjacent the end thereof at which the movable core in its movement enters said coil, and another shell of magnetic material movable to and from said first mentioned shell to vary the permeability of the magnetic circuit through said coil.

4. In an electromagnetically operated switch, a fixed contact member, a movable contact member coöperating therewith, a magnetizing coil, a core of magnetic material having a tapered end arranged to move in the magnetic field produced by said coil and operatively connected to said movable contact member, a shell of magnetic material located within said coil adjacent the end thereof into which the tapered end of said core moves, and another shell of magnetic material movable toward and away from said fixed shell.

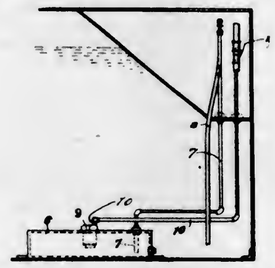
5. In an electromagnetically operated switch, a fixed contact member, a movable contact member coöperating therewith, a magnetizing coil, a core of magnetic material having a tapered end arranged for movement within the magnetic field produced by said coil and operatively connected to said movable contact member, a fixed shell of magnetic material located within said coil at the point to which the tapered end of said core moves, and a second shell of magnetic material movable toward and away from said fixed shell whereby the permeability of the magnetic circuit through said coil can be regulated.

[Claims 6 to 10 not printed in the Gazette.]



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1,091,631. SPRINKLER DEVICE FOR LOCOMOTIVES. JOSEPH CHIDLEY, Cleveland, Ohio. Filed Sept. 23, 1912. Serial No. 721,929. (Cl. 103—8.)



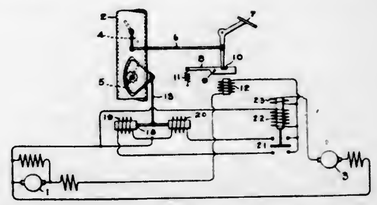
1. A sprinkler device for locomotives comprising in combination a closed water reservoir; a valve casing mounted in the reservoir and connected to a source of water supply; the said casing having a liquid flow port establishing communication between the source of water supply and the interior of the reservoir, an air inlet port, and an air outlet port opening into the interior of the reservoir; a valve in the casing, coincidentally controlling the liquid flow port and the air outlet port and normally in open position uncovering the liquid flow port and covering the air outlet port; means for supplying air pressure to the inlet port; and a liquid discharge outlet leading from the reservoir; the said valve being moved to closed position covering the liquid flow port and uncovering the air outlet port on admission of air pressure into the casing.

2. A sprinkler device for locomotives comprising in combination a closed water reservoir; a valve casing mounted in the reservoir and connected to a source of water supply; the said casing having a liquid flow port establishing communication between the source of water supply and the interior of the reservoir; a valve in the casing coincidentally controlling the liquid flow port and the air outlet port and normally in open position uncovering the liquid flow port and covering the air outlet port; means for supplying air pressure to the inlet port; and a discharge pipe leading from the reservoir; the said valve being moved to closed position covering the liquid flow port and uncovering the air outlet port on admission of air pressure into the casing.

3. A sprinkler device for locomotives comprising in combination a closed water reservoir; a valve casing mounted in the reservoir and connected to a source of water supply; the said casing having a liquid flow port establishing communication between the source of water supply and the interior of the reservoir, an air inlet port, and an air outlet port opening into the interior of the reservoir; a valve in the casing coincidentally controlling the liquid flow port and the air outlet port and normally in open position uncovering the liquid flow port and covering the air outlet port; means for supplying air pressure to the inlet port; and a liquid discharge pipe leading from the reservoir, said pipe being entirely unobstructed whereby the water will freely and quickly discharge therefrom when air pressure is cut off; the said valve being moved to closed position covering the liquid flow port and uncovering the air outlet port on admission of air pressure into the casing.

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1,091,632. SYSTEM OF VEHICLE PROPULSION. ALEXANDER CHUACHWARD, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 10, 1910. Serial No. 548,354. (Cl. 171—315.)



1. A gasolene-electric system of vehicle propulsion comprising a generator, a motor supplied with current from said generator, an accelerator throttle valve, a pedal for actuating the same, a locking device for said pedal, and an electromagnet for withdrawing said locking device when the generator current exceeds a predetermined value.

2. A gasolene-electric system of vehicle propulsion comprising a generator, a motor supplied with current from said generator, two fuel controlling throttle valves, a pedal for operating one of said throttle valves, a solenoid for actuating the other of said throttle valves automatically in response to variations in the generator current, and an electromagnetic lock for said pedal responsive to a predetermined value of the generator current, whereby said pedal is unlocked and both of said throttle valves made operable to control the supply of fuel when said generator current exceeds the predetermined value.

3. A gasolene-electric system of vehicle propulsion comprising a generator, a motor supplied with current from said generator, two fuel controlling throttle valves, a pedal for operating one of said throttle valves, a core for operating the other of said throttle valves, two windings for said core in parallel branch circuits, a relay responsive to changes in the generator current and controlling the flow of current through said windings, and an electromagnetic lock for said pedal responsive to a predetermined value of the generator current, whereby said pedal is unlocked and both of said throttle valves made operable to control the supply of fuel when said generator current exceeds the predetermined value.

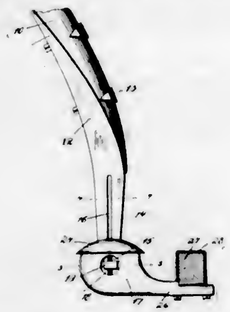
4. A gasolene-electric system of vehicle propulsion comprising a generator, a motor supplied with current from said generator, two fuel controlling throttle valves, a pedal for operating one of said throttle valves and a core for actuating the other, two windings for said core in parallel branch circuits, one for opening said valve and the other for closing it, a relay adapted to close the circuit of either winding, the coil of said relay being in shunt to the generator, and an electromagnetic lock for said pedal responsive to a predetermined value of the generator current, whereby said pedal is unlocked and both of said throttle valves made operable to control the supply of fuel when said generator current exceeds the predetermined value.

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1,091,633. THILL-COUPLING. ALFRED C. CLEMENS, Upper Sandusky, Ohio. Filed Jan. 18, 1912. Serial No. 671,978. (Cl. 21—57.)

1. In a thill coupling, a bifurcated shank terminating in a disk which latter is provided with opposite recesses, a circular socket into which the disk is adapted to be

sprung and in which the latter is normally fitted, said socket being provided with opposite recesses registering with the first said recesses when the disk is fitted in the socket, and means extending through the last said recesses for holding the disk expanded within the socket.

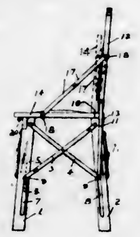


2. In a thill coupling, a bifurcated member comprising a shank and a disk, a circular socket provided with opposite recesses and adapted to receive the bifurcated disk, and means extending through the opposite recesses and between the furcations of the bifurcated disk for expanding it within the said circular socket.

3. In combination, a circular socket having opposite recesses of different sizes therein, a bifurcated disk fitted within the circular socket and provided with means for securing it to a thill, a wedge-bolt extending through the opposite apertures of the socket and between the furcations of said bifurcated disk, and a nut engaged with the wedge-bolt over the smaller of the two opposite apertures.

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1,091,634. FOLDABLE CHAIR. LUTHER M. CLOUSE, Columbus, Ohio. Filed May 8, 1912. Serial No. 695,821. (Cl. 155—8.)



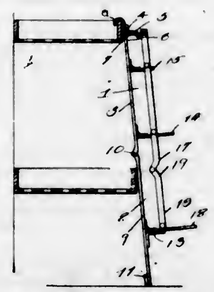
A foldable chair comprising substantially parallel vertical leg units having slots therein, crossed levers pivotally secured to said leg units at one end and operating in said slots at their other ends, a back hingedly secured to one of said leg units, a seat hingedly secured to said back, and link levers between one of said leg units and said back whereby the leg units are caused to move toward each other when said back is swung rearwardly.

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1,091,635. LADDER. FRED A. CREED, San Francisco, Cal. Filed Apr. 24, 1913. Serial No. 763,444. (Cl. 228—12.)

1. A ladder of the class described, comprising upper and lower sections, said sections being hingedly connected, steps hinged to the sections, upper and lower bars connected to the steps and having their meeting ends pivotally connected, whereby when one step is folded the others will be simultaneously folded.

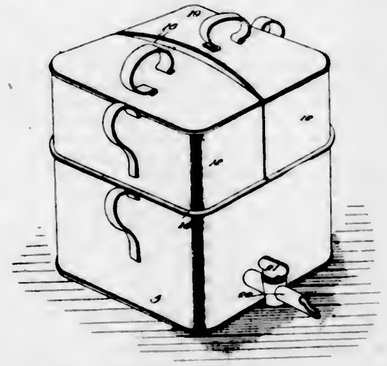
2. A ladder of the class described comprising hingedly connected sections, steps hingedly connected to the sections, bars pivotally connected to the ends of the steps having their meeting ends pivotally connected, means carried by one of the sections for engaging the upper ends of the bars when the sections are folded.



3. A ladder of the class described comprising upper and lower sections, said sections being hingedly connected, steps hingedly connected to the upper section, a step similarly connected to the lower section, bars pivotally connected to the ends of the steps carried by the upper section, bars having their lower ends pivotally connected to the step carried by the lower section, said bars having their upper ends pivotally connected to the first named bars, whereby when the uppermost step of the upper section is folded the remaining steps will be simultaneously folded and the pivotal connection of the bars are alined with the hinged connection of the sections, means carried by the upper section to engage certain ends of the first named bars when the sections are folded back to back.

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1,091,636. COMBINATION-COOKER. CAROLINE DAVENPORT, University Place, Nebr. Filed Feb. 21, 1911, Serial No. 610,025. Renewed Sept. 6, 1913. Serial No. 788,452. (Cl. 53—1.)



1. A cooker including a main vessel having a transverse partition defining independent food receiving compartments, the upper end of the partition being projected in a vertical plane above the top of the vessel to form an upstanding lip extending entirely across said main vessel, auxiliary vessels disposed above the main vessel and having flanges fitting within and bearing against the interior walls of the compartments of said main vessel and provided with flat vertical rear walls adapted to bear against the upstanding lip of the partition, a discharge pipe communicating with one of the compartments of the main vessel, a valve for controlling the flow of liquid through said discharge pipe, and a perforated food containing basket seated in one of the compartments of the main vessel and having a portion thereof extended transversely across the inner end of the discharge pipe to form a screen for the latter.

2. A cooker including a main vessel having a transverse partition defining independent food receiving compartments, the upper end of the partition being projected vertically above the top of the vessel to form an upstanding lip extending entirely across the main vessel, auxiliary vessels supported on the main vessel above said compartments and having flat rear walls bearing against the upstanding lip of the partition, the flat rear walls of the auxiliary vessels being extended above the tops thereof to form similar lips, and interchangeable covers forming closures for the auxiliary vessels and bearing against the upstanding lips of said auxiliary vessels, said covers serving as closures for the compartments of the main vessel when the auxiliary vessels are removed.

3. A cooker including a main vessel having a transverse partition defining independent food receiving compartments, auxiliary vessels having depending flanges fitting within the compartments of the main vessel and provided with laterally extending reinforcing beads bearing against the upper edge of the main vessel, the bottom of one of the auxiliary vessels being solid and the bottom of the other perforated, interchangeable covers forming closures for the auxiliary vessels and capable of being used as closures for the compartments of the main vessel, a discharge pipe communicating with one of the compartments of the main vessel, a valve arranged within said discharge pipe for controlling the flow of liquid therethrough, and a perforated food containing basket arranged within one of the compartments and forming a screen for the inner end of the discharge pipe.

4. A cooker including a main vessel having a vertical transverse partition defining independent food receiving compartments, the upper end of the partition being projected vertically above the top of the vessel to form an upstanding lip, auxiliary vessels fitting within the compartments of the main vessel and having flat rear walls bearing against the upstanding lip, interchangeable covers forming closures for the auxiliary vessels and capable of being used as closures for the compartments of the main vessel, a discharge pipe communicating with one of the compartments of the main vessel, a valve arranged within said discharge pipe for controlling the flow of liquid therethrough, and a perforated food containing basket arranged within one of the compartments and forming a screen for the inner end of the discharge pipe.

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1,091,637. ELECTRIC VAPORIZER. CHARLES L. DAVIS, Detroit, Mich., assignor of one-half to Harry W. Frost, Detroit, Mich. Filed May 9, 1913. Serial No. 766,580. (Cl. 219—38.)



1. A vaporizer, comprising a vapor discharge nozzle, means for establishing a hydrostatic level of the liquid to be vaporized below the discharge end of said nozzle, and a heater for the liquid within said nozzle, having a rate of vapor discharge from said nozzle under the hydrostatic pressure of the liquid, whereby said liquid is driven back from the nozzle by vapor pressure.

2. A vaporizer, comprising a vapor discharge nozzle, a supply connection for the liquid to be vaporized having a normal hydrostatic level below the discharge orifice of said nozzle, and a heater immersed in said liquid when at normal level having a rate of vapor generation in excess of the rate of vapor discharge under normal hydrostatic pressure, sufficient to drive back the liquid and to expose a portion of the heating surface to vapor only.

3. A vaporizer, comprising a vapor discharge nozzle, a supply connection for the liquid to be vaporized, having a normal hydrostatic level below the discharge orifice of said nozzle, and a heater having its surface exposed to liquid contact when at normal level and of a vapor generating capacity in excess of the rate of vapor discharge under normal hydrostatic pressure sufficient to drive back the liquid from a portion of the heating surface and exposing the same to vapor only.

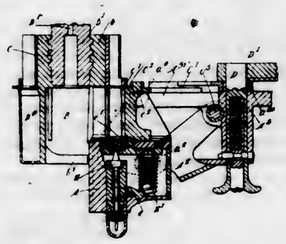
4. A vaporizer, comprising a vapor discharge nozzle, a supply connection for the liquid to be vaporized having a normal hydrostatic level below the discharge orifice of said nozzle, and an electric heater having its surface exposed to the liquid within said nozzle, the parts being so organized that the heat generated by said heater is regulated by a variable exposure of the heating surface of the same to the liquid and vapor.

5. A vaporizer, comprising a vapor discharging nozzle, means for supplying the liquid to be vaporized under a predetermined pressure thereto, and a heater for the liquid within said nozzle having a rate of vapor generation in excess of the rate of vapor discharge from said nozzle under the pressure upon the liquid, whereby said liquid is driven back in the nozzle by vapor pressure.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,638. FIRING MECHANISM OF BREECH-LOADING GUNS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Dec. 18, 1911. Serial No. 666,577. (Cl. 89—27.)



1. In firing mechanism for ordnance, the combination with a primer carrier and a primer manipulating member, of means for causing the said member to simultaneously extract the used primer from the vent axial and a new primer from the carrier, to eject the used primer and to then positively and completely insert the new primer in its chamber of the vent axial.

2. In firing mechanism for ordnance, the combination with the lock casing, a primer carrier, and a primer manipulating member forming part of the lock casing, of means for causing the said member to simultaneously extract the used primer from the vent axial and a new primer from the carrier, to eject the used primer and to then positively and completely insert the new primer in its chamber of the vent axial.

3. In firing mechanism for ordnance, the combination with a primer carrier and a primer manipulating member, of means for imparting to said carrier a step by step movement, and means for causing the said member to simultaneously extract the used primer from the vent axial and a new primer from the carrier, to eject the used

primer and to then positively and completely insert the new primer in its chamber of the vent axial.

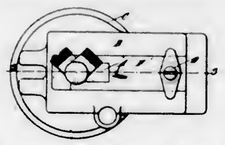
4. In firing mechanism for ordnance, the combination with a primer carrier and a primer manipulating member, of means for causing the said member to move rearwardly and extract the used primer from the vent axial and a new primer from the carrier, to move laterally and eject the used primer, to move laterally in the reverse direction, and to then move forwardly to insert the new primer in its chamber of the vent axial.

5. In firing mechanism for ordnance the combination with the lock casing, a rotary primer carrier and a primer manipulating member forming an integral part of the lock casing, of means for causing said member to move rearwardly, to move to and fro laterally and to then move forwardly.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,639. FIRING MECHANISM OF BREECH-LOADING GUNS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Aug. 17, 1912. Serial No. 715,582. (Cl. 89—27.)



1. In breech actuating and firing mechanism for ordnance, the combination with the lock casing, the member operated by the breech actuating mechanism for moving said casing, and the firing pin carried by said casing, of an actuating device for said casing, means whereby, during the initial opening of the breech, the said device is moved laterally, means whereby this movement unlocks and moves the casing rearward and retracts the firing pin, and means for rocking the said device to complete the rearward movement of the casing.

2. In breech actuating and firing mechanism for ordnance, the combination with the lock casing, the member, operated by the breech actuating mechanism for moving said casing and the firing pin carried by said casing, of an actuating link for said casing, means whereby, during the initial opening of the breech, the said link is moved laterally, means whereby this movement unlocks and moves the casing rearward and retracts the firing pin, and means for rocking the said link to complete the rearward movement of the casing.

3. In breech actuating and firing mechanism for ordnance, the combination with the lock casing, the member operated by the breech actuating mechanism for moving said casing, and the firing pin carried by said casing, of an actuating link for said casing, a sliding member connected to said link and to the said member operated by the breech actuating mechanism, means whereby the sliding movement of the link unlocks and moves the casing rearward, and retracts the firing pin, and means for rocking the said link to complete the rearward movement of the casing.

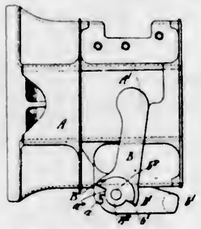
4. In breech actuating and firing mechanism for ordnance, the combination with the lock casing, the member operated by the breech actuating mechanism for moving said casing, and the firing pin carried by said casing, of an actuating link for said casing, a sliding member connected to said link and to the said member operated by the breech actuating mechanism, an inclined surface on said link, a corresponding inclined surface on the lock casing, whereby the casing is moved rearward, means whereby the sliding movement of the link retracts the firing pin, and means for rocking the said link to complete the rearward movement of the casing.

5. In breech actuating and firing mechanism for ordnance, the combination with the lock casing, the member operated by the breech actuating mechanism for moving said casing, and the firing pin carried by said casing, of an actuating link for said casing, a sliding member connected to said link and to the said member operated by the breech actuating mechanism, an inclined surface on said link, a corresponding inclined surface on the lock casing, whereby the casing is moved rearward, a second inclined surface on said link, a corresponding inclined surface on the firing pin and means for rocking said link to complete the rearward movement of the casing.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,640. CARTRIDGE-FEED MECHANISM OF AUTOMATIC GUNS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Sept. 4, 1912. Serial No. 718,469. (Cl. 89—33.)



1. In cartridge feed mechanism for automatic guns, the combination of a feed box having a semi-circular recess, a pivot pin disposed in said recess, top and bottom levers rigidly connected to said pivot pin, and a semi-circular bearing cap for said pivot pin, slidably mounted in said feed box in the direction of the axis of said pivot pin, said pin being completely surrounded by the recess and bearing cap.

2. In cartridge feed mechanism for automatic guns, the combination of a feed box having a semi-circular recess, a pivot pin disposed in said recess, top and bottom levers made integral with said pivot pin, and a semi-circular bearing cap for said pivot pin, slidably mounted in said feed box in the direction of the axis of said pivot pin, said pin being completely surrounded by the recess and bearing cap.

3. In cartridge feed mechanism for automatic guns, the combination of a feed box having a semi-circular recess, a vertically arranged pivot pin disposed in said recess, top and bottom levers made integral with said pivot pin, and a vertically sliding semi-circular bearing cap for said pivot pin, said pin being completely surrounded by the recess and bearing cap.

4. In cartridge feed mechanism for automatic guns, the combination of a feed box having a semi-circular recess, a pivot pin disposed in said recess, top and bottom levers rigidly connected to said pivot pin, a flange on said top lever, a semi-circular bearing cap for said pivot pin, slidably mounted in said feed box in the direction of the axis of said pivot pin, said pin being completely surrounded by the recess and bearing cap, and a flange on said bearing.

5. In cartridge feed mechanism for automatic guns, the combination of a feed box having a semi-circular recess, a vertically arranged pivot pin disposed in said recess, top and bottom levers made integral with said pivot pin, a flange on said top lever, a vertically sliding semi-circular bearing cap for said pivot pin, said pin being completely surrounded by the recess and bearing cap, and a flange on the upper end of said bearing cap.

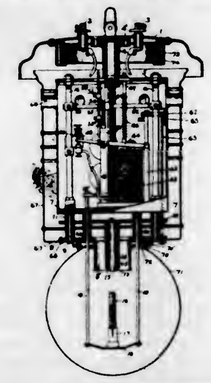
[Claims 6 to 9 not printed in the Gazette.]

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1,091,641. ARC-LAMP. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 16, 1903. Serial No. 181,299. (Cl. 176—64.)

1. In an arc lamp, a movable electrode, a feeding mechanism therefor comprising a member moving with said electrode, a stationary rod or post, a clutch including a yoke surrounding said rod or post, and a pawl normally engaging said rod and extending between stops carried by said member whereby a predetermined movement of the member in one direction causes a corresponding movement of the clutch relative to the post and the clutch serves to limit the movement of the member in the opposite direction, and manually actuated means for moving said clutch relative to said rod in the direction opposite to that in which the clutch is moved by said member.





2. In an arc lamp, an electrode feeding mechanism comprising a rod or bar, an arc length limiting clutch mounted thereon and normally free to move in one direction only, and means for engaging said clutch to move it in the opposite direction.

3. In an arc lamp, a rod or bar, a clutch comprising a yoke surrounding said rod or bar, and a pawl pivoted to the yoke, means for engaging one end of the pawl to release the clutch from the rod to move it in one direction, and means for engaging the yoke to move the clutch in the opposite direction.

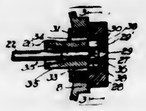
4. In an arc lamp, an arc length limiting clutch, a member upon which it is mounted, a connection between the clutch and the feed mechanism of the lamp whereby the movement of the feed mechanism in one direction will move the clutch with it, while a predetermined movement of the feed mechanism in the other direction will cause the clutch to engage the supporting member and limit the movement of the feed mechanism in said opposite direction, and means for rendering the engagement between the clutch and the supporting member inoperative.

5. In an arc lamp, a pair of electrodes, a feeding mechanism therefor comprising a movable rack bar, an electrode moving with said rack bar, a second electrode, a gear wheel engaging said rack bar to move it and thereby move the electrodes together against the action of gravity, an intermittently actuated electromagnet for rotating said gear wheel, means connecting said electromagnet the winding of which is in series with said electrode and said gear wheel, means actuated by the passage of current between the electrodes for rendering said connecting means inoperative, and means limiting the movement of the rack bar after said connecting means are rendered inoperative.

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1,091,642. LIQUID-DISPENSING DEVICE. JOHN DESMOND, Wilmette, Ill., assignor to William S. Potwin, Chicago, Ill.. Filed Aug. 19, 1912. Serial No. 715,743. (Cl. 137—86.)

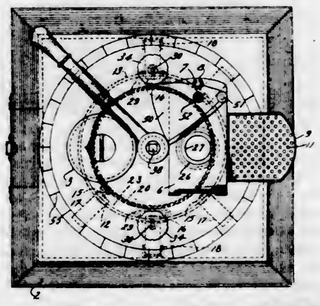
1. A device of the character described comprising a valve having portions of different diameter, and a nozzle having an axially bored member having tangential openings leading to said axial bore at one end, said axial bore being flared at the other end, whereby the movement of the narrowed portion of the valve into said flared portion of the nozzle effects direct axial discharge of fluid and whereby movement of the larger portion of said valve into the portion of said axial bore which is of normal diameter effects the discharge of fluid through said tangential openings.



2. A device of the character described comprising a valve having a tapered end, and a nozzle comprising an exterior member having an interiorly threaded counter bore and a tapering axial discharge opening from said counter bore, and an interior member having an axial opening to receive said valve, a threaded portion for engagement of the threads of said counter bore, a narrowed portion at its outer end to provide an annular space distinct from said axial bore, said interior member providing longitudinal passageways into said annular space and tangential passageways from said annular space to said axial bore, adjacent said tapering discharge opening of the exterior member.

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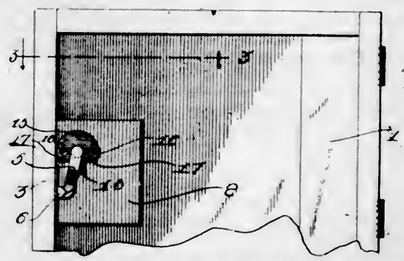
1,091,643. ICE-CREAM DISPENSER. CHARLES DOERING, Jr., Chicago, Ill. Filed Nov. 16, 1911. Serial No. 660,611. (Cl. 107—14.)



An ice cream dispenser, comprising a receptacle having an aperture in its top, an ice cream can supported in the receptacle having a discharge pipe opening through said aperture, a mold in top of said pipe, a plate hinged on the receptacle having an aperture registering with said mold, a blade plied on the plate, and means adapted to move the blade across the mold.

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1,091,644. DOOR-LATCH. FRANK H. ERICKSON, Holdrege, Nebr. Filed Oct. 4, 1913. Serial No. 793,447. (Cl. 70—49.)

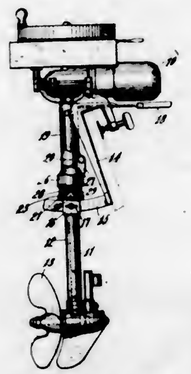


In a door latch of the class described the combination with a door and a casing, said casing provided with a pocket having an inclined side, of a latching finger carried by said door, said latching finger provided with a shaft

extending through said door and with an operating lever upon the outer end of said shaft, said finger curved outwardly at its lower end and terminating in an angularly bent lip, said lip provided at its outer end with a beveled portion, said lip adapted to rest within the pocket formed in said casing when the door is closed, and said beveled portion of said lip adapted to ride upon the incline side of said pocket for drawing the door into firm engagement with said casing.

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1,091,645. STEERING-COMPENSATOR FOR ROWBOAT-MOTORS. OAKLEY F. FISHER, Milwaukee, Wis. Filed Nov. 10, 1913. Serial No. 800,111. (Cl. 115—18.)



1. A deflection compensator for rowboat motors of the type wherein the propeller is shifted for steering, comprising a spring having a stationary connection at one end and having its other end connected with the tiller.

2. In a rowboat motor of the type wherein the propeller is shifted by means of a tiller for steering and wherein the propeller is driven through beveled gear driving connections, a compensator for counteracting the deflection of the propeller due to the beveled gear driving connection, comprising an adjustable spring having one end provided with a stationary connection and the other end connected with the tiller.

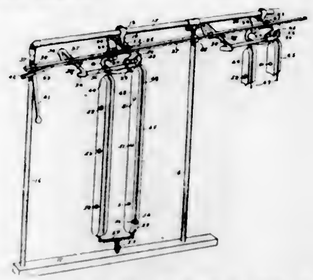
3. In a rowboat motor having a vertical driving shaft and a tubular casing surrounding the driving shaft with a propeller carried by the tubular casing and geared through beveled gearing with the driving shaft, a tiller for turning the tubular casing for steering, a stationary adjustable clamping bracket, a compensator for the deflection of the propeller caused by the beveled gearing, comprising a toothed ratchet ring surrounding the tubular casing and engaging the clamping bracket so as to be held from turning thereby, a spring tightening ring also surrounding the tubular casing and having openings for engaging the ratchet teeth of the ratchet ring, a coiled spring surrounding the tubular casing and engaging the spring tightening ring, and a spring sleeve surrounding the tubular casing and secured thereto and having connection with the other end of the coil spring.

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1,091,646. STANCHION. JEREMIAH C. FITZGERALD, Kilbourn, Wis., assignor to West Bend Barn Equipment Company, West Bend, Wis. Filed Apr. 13, 1912. Serial No. 690,501. (Cl. 119—148.)

1. In a stanchion, the combination with an elevated support, of a hanger suspended therefrom, a curved member horizontally mounted on said hanger, another member having a portion curved in the opposite direction from the first named curved member and movable horizontally on said hanger, and a pair of vertical clamping members loosely connected at their upper portions to said curved members and loosely connected together and to a support at their lower portions.

2. In a stanchion, the combination with an elevated support, of a hanger suspended therefrom, a curved member horizontally mounted on said hanger, another member having a portion curved in the opposite direction from the first named curved member and movable horizontally on said hanger, a pair of vertical clamping members loosely connected at their upper portions to said curved members and loosely connected together and to a support at their lower portions, and means to reciprocate the movable curved member.



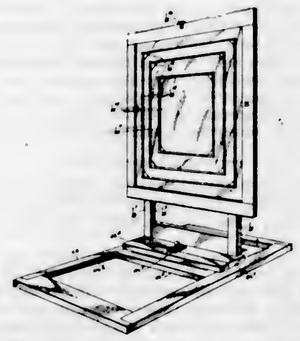
3. In a stanchion, the combination with an elevated support, of a hanger horizontally and adjustably mounted thereon and depending therefrom, a curved member horizontally mounted on said hanger, another member having a portion curved in the opposite direction from the first named curved member and movable horizontally on said hanger, a pair of vertical clamping members loosely connected at their upper portions to said curved members and loosely connected together and to a support at their lower portions, and means to reciprocate the movable curved member and to lock the same.

4. In a stanchion, a stanchion or clamping member consisting of a bar made of two pieces each having at the edges of their meeting surfaces recesses, means to detachably secure said pieces together, and metal rods located in the recesses of said pieces and a connection uniting said rods at the ends of said pieces.

5. In a stanchion, the combination with a pair of spaced apart clamping members, of reinforcing metal pieces applied to opposite sides of each of said members and connected together near their lower ends to form a flexible connection for the lower portions of said members, and supporting means for the upper portion of said members whereby they may be separated and approximated.

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1,091,647. ADJUSTABLE PHOTOBROMID PLATE OR FILM PRINTING EASEL. HARRY N. FULTON, Philadelphia, Pa. Filed June 6, 1913. Serial No. 772,154. (Cl. 88—24.)



1. In a foldable machine of the character described, a body incased in a frame, said body having a series of different size subdivisions bounded by spring controlled strip inserts, said frame provided with a glass cover-plate and means for both vertical and horizontal adjustment of said body and frame.



2. In a foldable machine of the character described, a glass incased body adjustable in different directions, said body divided into subdivisions, bounded by spring controlled strip inserts, means to permit of manually elevating or lowering said body and locking the same and means to shift sidewise said body.

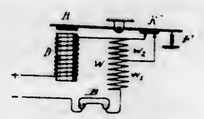
3. In a foldable machine of the character described, a body having a series of different size subdivisions with grooves bounding said sub-divisions, inserts operatively held in said grooves above the surface of said body, protecting corner means in said divisions and a back for said body arranged to permit of adjustments of said body in respect thereto.

4. In a foldable machine of the character described, an incased body having a series of different size subdivisions with grooves bounding said sub-divisions, recessed strip-inserts held in said grooves and springs connected with said body and bearing against an edge of said strip-inserts, a shiftable back to which said body is pivotally supported and means for locking said body in any shifted position, in connection with said back.

5. In a foldable machine of the character described, a grooved base-plate, a tongued frame slidable in said plate, a back provided with standards, a glass incased body having a series of different size grooved sub-divisions, spring controlled strip inserts held in the grooves of said subdivisions and extending above the face of said body, means connected with said back to permit of the vertical and horizontal shifting of said body and means to lock said body, in connection with said back.

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1,091,648. METHOD OF CONNECTIONS FOR STARTING METALLIC-VAPOR LAMPS. FRITZ GIRARD, Hanau, Germany, assignor to The Firm of W. C. Heraeus Gesellschaft mit beschrankter Haftung, Hanau, Germany. Filed Oct. 9, 1911. Serial No. 653,644. (Cl. 176—45.)



1. The combination of a high pressure vapor electric device, taking a high starting current, a resistance therefor, automatic means for including said resistance in series therewith before starting, and coöperating means responsive to a predetermined value of operating current to remove said resistance.

2. The combination of a high pressure mercury vapor lamp, starting at a voltage lower and a current higher than the normal operating voltage and current, a resistance therefor, means responsive to the application of potential across the lamp for including said resistance in series therewith, and means responsive to an operating current in said lamp for short-circuiting said resistance when the operating current falls below a predetermined limit due to a rise of potential in the lamp.

3. The combination of a vapor electric device starting at a lower voltage than the normal operating voltage, a source of current, a resistance, means for including said resistance in series with said device before an arc has been started therein, and means responsive to a drop of operating current in said device below a predetermined value to short-circuit said resistance.

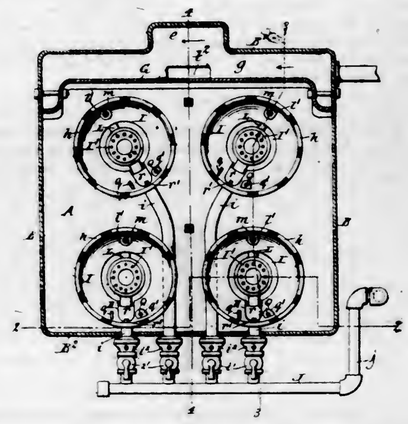
4. The combination of a vapor electric device, a resistance therefor, magnetic means in shunt with said device for including said resistance in series with said device, and coöperating magnetic means in series with said device for shunting at least part of said resistance when the operating current has decreased to a predetermined value.

5. The combination of a vapor electric device, a resistance in series therewith, a circuit shunting at least part of said resistance, means for opening and closing said circuit, a magnetic device in shunt with said vapor device for opening said circuit, and magnetic means in series with said vapor device for deënergizing the shunt device and maintaining the shunt circuit open until the load current has reached a predetermined value.

[Claim 6 not printed in the Gazette.]

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1,091,649. GAS-STOVE. CHARLES F. GRADY and FRANK L. GRADY, Buffalo, N. Y., assignors, by mesne assignments, to Jewett & Company, Buffalo, N. Y., a Corporation of New York. Filed Dec. 8, 1909. Serial No. 532,012. (Cl. 126—36.)



1. A stove comprising a body having a top provided with a cooking opening and a bottom provided with an air inlet opening, a shield arranged between the top and bottom in line with the openings thereof, and a burner arranged in the shield, said shield and burner having means for adjusting the burner vertically in the shield comprising an arm moving with the burner and adapted to be secured either to the exterior or the interior of said shield.

2. A stove comprising a body having a top provided with a cooking opening and a bottom provided with an air inlet opening, a shield arranged between the top and bottom in line with the openings thereof, and a burner arranged in the shield, said shield and burner having means for adjusting the burner vertically in the shield comprising lugs arranged on the exterior and interior of the shield and an arm moving with the burner and adapted to be secured either to the underside of the lug on the exterior of the shield or to the upper side of the lug on the interior of the shield.

3. A stove comprising a body having a top provided with a cooking opening and a bottom provided with an air inlet opening, a shield arranged between the top and bottom in line with the openings thereof, a burner arranged in the shield and a fuel tube connected with the burner, said shield and burner having means for adjusting the burner vertically in the shield comprising two pairs of lugs the members of each pair being arranged on the exterior and interior of the shield, an arm arranged on the burner and adapted to be secured to the external or internal member of one of said pairs of lugs, and an arm arranged on the fuel tube and adapted to be secured to the internal or external member of the other pair of said lugs.

4. A stove comprising a body having a top provided with a cooking opening and a bottom provided with an air inlet opening, a shield arranged between the top and bottom in line with the openings thereof and having a vertical slot, a burner arranged in said shield and having a fuel supply

tube arranged in the slot, said burner and shield having means for adjusting the said burner and its pipe vertically, and a cover for closing said slot in the lowered position of the burner and pipe.

5. A stove comprising a hollow body having a top and bottom provided with coinciding burner openings, and also having a stove pipe collar, and a partition between said burner openings and said collar, and said bottom being provided between the partition and collar with a ventilating opening which communicates with said collar, burners arranged in line with said burner openings, two air flues or supply channels arranged side by side under said bottom and leading to the burner openings therein, an oven arranged below said body, and an oven ventilating flue leading from the top of the oven to the ventilating opening in said bottom and having an opening whereby the ventilating flue communicates with the oven and consisting of a plate extending from the front to the rear wall of the oven and bridging the space between said air flues, and side walls extending from the rear of said air flues to the rear wall of the oven and arranged on opposite sides of said plate.

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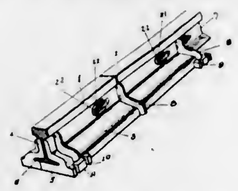
1,091,650. ELECTROMAGNET. EMILE J. GUAY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 11, 1907. Serial No. 367,672. (Cl. 175—21.)



An armature for electromagnets consisting of a central tube having a cluster of arms which project outwardly and then about and parallel with the tube.

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1,091,651. RAIL-JOINT. PETER HADNAGY, Detroit, Mich. Filed Dec. 20, 1913. Serial No. 808,010. (Cl. 239—11.)



1. In a rail joint, the combination with rails, of splice bars, base plates carried by said splice bars and adapted to support the base flanges of said rails, depending lugs carried by the base plates of said splice bars, pins carried by some of said lugs and extending into the other of said lugs and adapted to prevent lateral displacement of said base plates, and transverse pins carried by one of said splice bars and adapted to extend through the webs of said rails and inter-lock with the other of said splice bars.

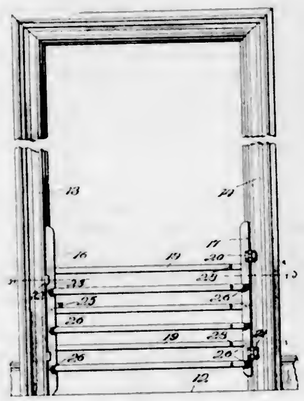
2. In a rail joint, the combination with rails, of splice bars engaging the sides of said rails, pins carried by one of said splice bars and adapted to extend through the webs of said rails, said pins having angularly disposed slit ends, the other splice bar having the inner side thereof provided with grooves terminating in openings adapted to receive the ends of said pins, and said pins having slit portions thereof bent into engagement with the edges of the openings in said splice bar.

3. In a rail joint, the combination with rails having the webs thereof provided with openings, of splice bars engaging the sides of said rails, pins carried by one of said splice bars and extending into the other of said splice bars, said pins having off-set portions within the openings of the webs of said rails, and said pins having split ends whereby a split portion of each pin can be bent into engagement with a splice bar to retain said bar in engagement with said rail.

4. In a rail joint, the combination with rails having the webs thereof provided with openings, of splice bars engaging the sides of said rails, one of said splice bars having the inner side thereof provided with longitudinal grooves terminating in openings, ribs reinforcing edges of said openings, pins carried by the other of said splice bars and having off-set portions in the slots of said rails, and said pins having slit portions extending into the openings of said splice bar with a slit portion of each pin bent into engagement with the rib of said splice bar.

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1,091,652. FOLDING GATE. IRVIN E. HALL, Corvallis, Oreg. Filed May 13, 1913. Serial No. 767,404. Cl. 39—18.)



1. A device of the class described comprising side members, rails spaced apart and pivoted at the ends to said side members, elastic elements surrounding the pivots between the rails and the side members, and means for compressing the side members and rails against the elastic elements.

2. A device of the class described comprising side members, rails spaced apart and pivoted at the ends to said side members, a stop carried by one of said rails and engaging against another of the rails when the same are disposed in elevated position to limit the movement and prevent the rails from engaging against each other.

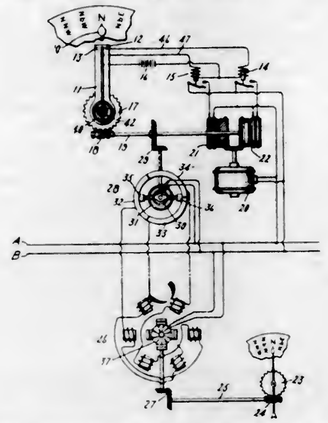
3. The combination with a supporting frame including side members having their confronting faces each formed into a plurality of rabbets arranged in step-like order, a closure including side members and connecting rails pivotally united, the side members of the closure engaging in one set of the rabbets and the ends of the rails engaging another set of the rabbets.

4. In a device of the class described, sides and rails spaced apart and pivotally united, one of said sides being shorter than the other side and adapted to be connected to a support and spaced at its lower end from the floor to provide for sweeping beneath the shorter side member.

5. The combination with a door frame including the side members and the sill, of a closure comprising side members and rails spaced apart and pivotally united, one of said closure side members being shorter than the other and adapted to be connected to one of the sides of the door frame and spaced at the lower end from the sill.



1,091,653. TELLTALE FOR COMPASSES OR THE LIKE. JOHN L. HALL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 7, 1911. Serial No. 601,269. (Cl. 177—351.)



1. The combination with a magnetic needle of a compass, of a contact member coöperating therewith, electromagnetic means for causing said member to follow the movements of said needle, an auxiliary indicator, a motor for driving said indicator, and a controller for said motor operated by said electromagnetic means.

2. The combination with the magnetic needle of a compass, of a contact member coöperating therewith, means for causing said member to follow the movements of said needle, an auxiliary indicator, a synchronous motor, and means whereby said indicator is automatically moved by said motor to correspond to the movements of said contact member.

3. The combination with the magnetic needle of a compass, of a contact member coöperating therewith, means for causing said member to follow the movements of said needle, an auxiliary indicator, a synchronous motor for operating said indicator, controlling means for said motor, and means for causing said contact member and controlling means to be moved simultaneously.

4. The combination with a magnetic needle of a compass, of a contact member having contacts coöperating with the needle, electromagnetic means for operating said contact member controlled by said contacts, an auxiliary indicator, an electric motor for driving the same, and a controller for said motor operated by said electromagnetic means.

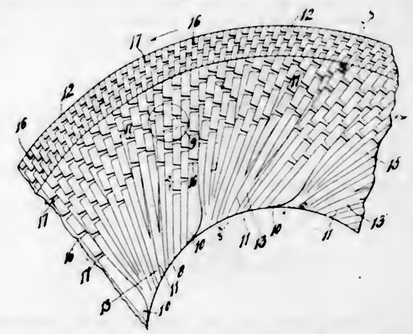
5. The combination with a magnetic needle of a compass, of a contact member having contacts coöperating with the needle, a continuously operating electric motor for driving said contact member, an electromagnetic clutch controlled by said contacts for controlling the connections between the motor and the contact members, an auxiliary indicator, an electric motor for driving said indicator, and a controller for said latter motor operated by said first mentioned motor.

[Claim 6 not printed in the Gazette.]

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1,091,654. ATTRITION-MILL. FRANK HAMACHEK, Kewaunee, Wis. Filed Jan. 9, 1911. Serial No. 601,638. (Cl. 83—3.)

1. An attrition mill plate, comprising a plate having teeth formed on the working face thereof which extend in lines receding longitudinally away from the direction of rotation of the plate, the front faces of said teeth extending at an angle from the advancing edges to the depressed portions thereof, said teeth being recessed transversely approximately at right angles at a plurality of points to form a greater number of shearing edges, the transverse recesses being of less width than the grain kernels to be ground to hold said kernels while being ground.



2. An attrition mill plate, comprising a plate having teeth formed on the working face thereof which extend in lines receding longitudinally away from the direction of rotation of the plate, portions of some of said teeth being depressed lower than other portions to form entrance spaces for material to be ground, said teeth being recessed transversely approximately at right angles at a plurality of points to form a greater number of shearing edges, the transverse recesses being of less width than the grain kernels to be ground to hold said kernels while being ground.

3. An attrition mill plate, comprising a plate having teeth formed on the working face thereof which extend in longitudinal lines receding away from the direction of rotation of the plate, portions of some of said teeth being depressed lower than other portions to form a plurality of entrance spaces extending around the plate for the entrance of material to be ground, said teeth being recessed transversely approximately at right angles at a plurality of points to form a greater number of shearing edges, the transverse recesses being of less width than the grain kernels to be ground to hold said kernels while being ground, and a circumferential line of teeth formed on the face of the plate near the outer periphery thereof, said last mentioned teeth being recessed transversely and of less size than the first mentioned teeth.

4. An attrition mill plate, comprising a plate having teeth formed on the working face thereof which extend tangentially in approximately straight lines receding away from the direction of rotation of the plate, portion of some of said teeth being depressed lower than other portions to form a plurality of material entrance spaces extending around the plate, said teeth being recessed transversely at a plurality of points to form a greater number of shearing edges, the transverse recesses being of less width than the grain kernels to be ground to hold said kernels while being ground, said transverse recesses also decreasing in width toward their rear ends, and a circumferential line of teeth formed on the face of the plate near the outer periphery thereof, said last mentioned teeth being recessed transversely and of less size than the first mentioned teeth.

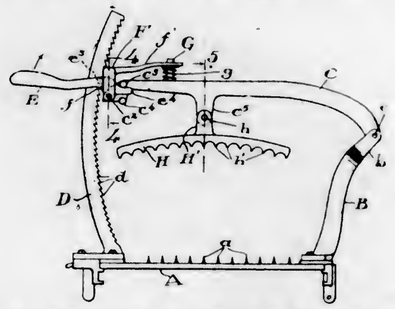
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1,091,655. MATERIAL-CLAMPING MECHANISM FOR SLICING-MACHINES. JULIUS H. HAMPP, New York, N. Y. Original application filed Apr. 12, 1910, Serial No. 554,932. Divided and this application filed July 5, 1912. Serial No. 707,691. (Cl. 17—14.)

1. In a device of the class described, the combination with a carrying member and a rack bar, of pivoted locking means for said carrying member, and a pivoted operating device coöperating with the locking means and the carrying member for imparting movement thereto.

2. In a device of the class described, the combination with a table, of a carrying member and a rack bar, of spring actuated locking dog pivoted to said carrying member, and an operating lever pivoted to the carrying member

and coöperating with the locking dog and said carrying member for imparting movement thereto.



3. In a device of the class described, the combination with a carrying member and a rack bar, of a spring impelled dog mounted on said carrying bar and normally held in engagement with said rack bar, an operating lever mounted on the carrying bar, means on said operating lever for releasing said dog, and a toe piece on said operating lever positioned for engagement with the carrying bar and operating to secure a firm bearing for the operating lever upon said carrying bar.

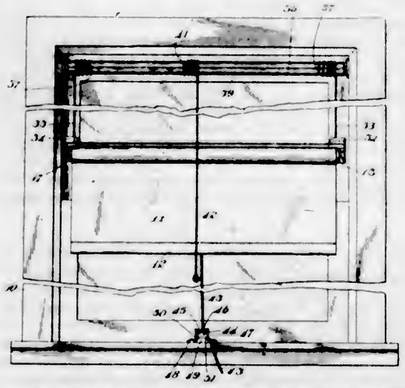
4. In a device of the class described, the combination with a carrying member and a rack bar, of a locking dog pivoted to said carrying member for movement therewith, and an operating lever having means for releasing the locking dog and to impart movement to the carrying member, said operating lever being effective in retaining the locking means in a disengaged position while moving the carrying member.

5. In a device of the class described, the combination with a carrying member and a rack bar, of a locking dog mounted on the carrying member for engagement with the rack bar, and an operating member separate from the locking dog, said operating member being movable successively to positions for releasing said locking dog and for imparting movement to the carrying member.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,656. ADJUSTABLE WINDOW-SHADE. DAVID H. HARNLY, Austin, Ill. Filed Jan. 27, 1913. Serial No. 744,442. (Cl. 156—27.)



1. The combination with a window shade and its roller, of a holder carrying the same, having cord receiving apertures adjacent its opposite ends, a second roller journaled in a fixed position, and a cord having its opposite ends wound upon the said last named roller and being slidably extended through both of the said apertures of the holder.

2. The combination with a window shade and its roller, of a holder carrying the same, a spring roller journaled in a fixed position, a suspending cable connected to the holder and wound upon the spring roller in a direction to wind up its spring as the cable is drawn from the roller, a pawl normally acting to prevent the turning of the spring roller in said direction and an operating cord wound upon the spring roller for turning it in the opposite direction.

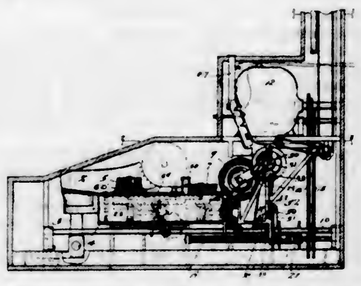
3. The combination with a window shade and its roller of a holder carrying the same, a supporting roller journaled in a fixed position, a suspending cable connected to the holder and wound upon the supporting roller, a pawl normally acting to prevent the turning of the supporting roller in the direction to unwind the suspending cable therefrom, means for turning the supporting roller in the opposite direction and a spring acting on the supporting roller to retard the descent of the holder when the said pawl is released.

4. In combination with a window shade and its roller, of a holder carrying the same having cord-receiving apertures adjacent its opposite ends, a supporting roller journaled in a fixed position, a suspending cable having its opposite ends wound upon the said supporting roller and being slidably extended through both of the said apertures of the holder, a pawl normally acting to prevent the turning of the supporting roller in the direction to unwind the suspending cable therefrom, and an operating cord wound upon the supporting roller for turning it in the opposite direction.

5. The combination with a window shade and its roller, of a holder carrying the same having cord-receiving apertures adjacent its opposite ends, a spring roller journaled in a fixed position, a suspending cable having its opposite ends wound upon the said spring roller in the direction to wind up its spring as the cable is drawn from the roller and being slidably extended through both of the said apertures of the holder, a pawl normally acting to prevent the turning of the spring roller in the said direction, and an operating cord wound upon the said spring roller for turning it in the opposite direction.

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1,091,657. SHOE-POLISHING MACHINE. AUGUST H. R. HELLER, Pittsburgh, Pa. Original application filed Nov. 11, 1912, Serial No. 730,626. Divided and this application filed Jan. 25, 1913. Serial No. 744,099. (Cl. 15—61.)



1. The combination of a foot rest, a reciprocating carriage carrying a blacking tank having nozzles and a pump to force the blacking through the nozzles, with means operative on certain reciprocations of the carriage to operate the pump.

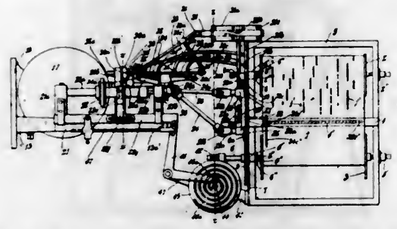
2. The combination of a foot rest, a reciprocating carriage carrying a blacking tank having nozzles and a pump; actuating means for the pump including a clutch and lever, a ratchet having means to engage the lever, and a pawl pivoted on a stationary member to engage the ratchet, for the purpose described.

3. In a shoe shining machine, the combination with a reciprocating carriage and a liquid blacking tank formed with a plurality of nozzles and an air compressor, of a toothed cam wheel on the carriage, a pawl pivoted on a fixed member of the machine to engage the wheel at certain reciprocations of the carriage, and a lever actuated by the cam wheel for operating the compressor.



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1,091,658. WINDING AND REWINDING DEVICE FOR AUTOMATIC MUSICAL INSTRUMENTS. FREDERICK W. HEMPELMANN, Cincinnati, Ohio. Original application filed May 22, 1912, Serial No. 698,875. Divided and this application filed Feb. 12, 1913. Serial No. 747,893. (Cl. 84—166.)



1. In winding mechanism, in combination with a perforated sheet, a tracker board over which the sheet passes, driving means for said sheet comprising alternately engageable driving members, to drive the sheet in one direction or the other, shifting means to alternately cause engagement of said members, means whereby said shifting means is actuated by said driving means and pneumatically operated apparatus controlled by said sheet and said tracker board and controlling the means whereby said shifting means is actuated.

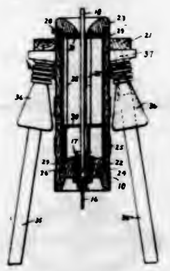
2. In winding mechanism, in combination with a perforated sheet, a tracker board over which the sheet passes, driving means for said sheet comprising alternately engageable driving members, to drive the sheet in one direction or the other, shifting means to alternately cause engagement of said members, means reciprocated by said driving means to shift said shifting means, and pneumatically operated apparatus controlled by said sheet and said tracker board and controlling the operation of said reciprocating means and said shifting means.

3. In winding mechanism, in combination with a perforated sheet, a tracker board over which the sheet passes, driving means for said sheet comprising alternately engageable driving members, to drive said sheet in one direction or the other, a slidable cam and means whereby said cam alternately causes engagement of said driving members when it slides, an extension to said cam, bellows on said extension with adjacent expansible ends, pawls pivoted on said extension and attached to said bellows, to be moved when said bellows expand and collapse, each bellows and its pawl acting independently, a bar slidably mounted, connection from said bar to said driving means whereby the bar is reciprocated, engaging means on the bar engageable with either one of said pawls when the bellows of the pawl is expanded, vacuum-producing means, connection therefrom to the interior of each bellows, said tracker-board having orifices and said sheet having perforations adapted to pass over said orifices, and connection from the interior of each bellows to a respective orifice of said tracker board, said vacuum-producing means acting on the respective bellows to collapse them when said perforations are not over the respective orifices, and said pawls being out of position for engagement of said means on the reciprocating bar, when said bellows, respectively, are collapsed.

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1,091,659. OIL-SWITCH. EDWARD M. HEWLETT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 7, 1904, Serial No. 231,665. Renewed Mar. 12, 1912. Serial No. 683,348. (Cl. 175—282.)

1. In an electric switch, a wooden oil pot comprising a tubular shell provided with end heads, a fixed switch contact located in one head, a coöperating contact movable through an opening in the other head into and out of engagement with said fixed contact, and transverse baffle-plates of non-conducting material located therein and provided with openings through which said movable contact is adapted to pass.



2. An electric switch comprising an oil pot having ends of insulating material, a fixed contact mounted on one of said insulating ends, a movable contact mounted to reciprocate through the other insulating end and make and break contact with said fixed contact under oil, and supports in engagement with said oil pot near the end opposite said fixed contact.

3. In an electric switch an oil pot comprising a reservoir compartment and a pressure retaining compartment connected by an opening for directing the oil put under pressure in said pressure retaining compartment against the arc to extinguish it, contacts insulated from the walls of said reservoir chamber and arranged to break in said pressure retaining chamber, and a support for said oil pot in engagement with the walls of said reservoir compartment.

4. In an electric switch, an oil pot containing oil, a partition in said pot having an opening to direct oil put under pressure by the arc against the arc to extinguish it, separable contacts insulated from the walls of said pot and arranged to break under oil on one side of said partition, and supports in engagement with the walls of said pot on the other side of said partition.

5. An electric switch comprising two oil vessels, each forming a pressure-retaining chamber with a vent in one wall, a fixed contact mounted in each vessel on an insulator which forms part of the walls of said vessel, and a bridging contact mounted to move into said chambers through said vents to engage with said fixed contacts under oil in said vessels, and to move out of said chambers through said vents as the switch is opened, whereby arcs are drawn through said vents and oil put under pressure by the arcs is directed against the arcs to extinguish them.

[Claims 6 to 18 not printed in the Gazette.]

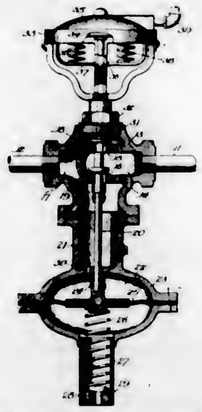
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1,091,660. PRESSURE AND TEMPERATURE CONTROL VALVE. JOHN C. HORNUNG, Chicago, Ill. Filed July 27, 1912. Serial No. 711,904. (Cl. 236—8.)

1. The combination of a valve for controlling the supply of heating fluid, said valve normally responsive to variations in the pressure of said fluid on the egress side of the valve, a plunger arranged in line with the valve and independent thereof, a spring normally holding the plunger out of operation, and a thermostatically controlled diaphragm bearing on said plunger whereby at a predetermined temperature to force the plunger upon the valve to hold the latter in closed position, substantially as described.

2. In a valve, a casing having a through-way, a valve controlling said through-way, a diaphragm chamber, a valve stem bearing upon one side of the diaphragm, and an adjustable spring bearing upon the opposite side thereof, in combination with and normally out of operative engagement with a plunger arranged in line with the valve, a spring normally holding the plunger out of op-

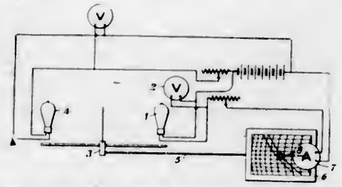
eration, and a thermostatically controlled diaphragm bearing on said plunger whereby at a predetermined tempera-



ture to force the plunger against the valve to hold the latter inoperative, substantially as described.

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1,091,661. METHOD OF AND MEANS FOR DETERMINING THE RATINGS OF INCANDESCENT LAMPS. WILLIAM G. HOUSKEEPER, Philadelphia, Pa., and HERBERT S. DUNNING, New Dorp, N. Y., assignors to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed May 16, 1910. Serial No. 561,736. (Cl. 175—183.)



1. The combination with an electric lamp photometer having a movable member, of a measuring instrument comprising an indicator and a chart, one of which parts is connected with the movable member of the photometer, the chart being provided with marks representing values at which lamps of a certain kind will consume a given number of watts per candle power.

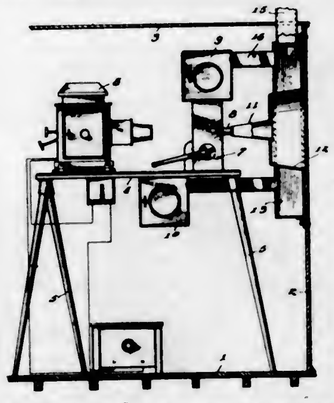
2. The combination with an electric lamp photometer having a movable member, of a measuring instrument comprising an indicator and a chart, one of which parts is connected to the movable member of the photometer, the chart being provided with marks representing amperes at which lamps of a certain kind will consume a given number of watts per candle power.

3. The combination with an electric lamp photometer having a movable member, of a measuring instrument comprising an indicator and a chart, one of which parts is connected to the movable member of the photometer, the chart being provided with marks representing the number of watts consumed by, and the candle power of, lamps of a certain kind when they consume a given number of watts per candle power.

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1,091,662. PROTECTIVE APPARATUS FOR MOVING-PICTURE BOOTHS. WILLIAM J. KEAR, Smethport, Pa., assignor of one-fourth to Thomas E. Hungiville, Smethport, Pa. Filed Apr. 12, 1913. Serial No. 760,811. (Cl. 88—17.)

1. The combination with a projecting apparatus and its lens, of an inclosing booth, and a non-inflammable tube extending from an aperture in the booth to the lens of the apparatus.



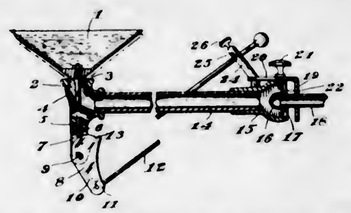
2. The combination with a projecting apparatus and its lens, of an inclosing booth, and an opaque tube connecting an aperture in the booth with the lens of the apparatus.

3. The combination with a projecting apparatus and its lens, of an inclosing booth, and a non-inflammable opaque tube connecting an aperture in the front of the booth with the said lens.

4. The combination with a moving picture apparatus and its reel inclosing casings, of an apparatus inclosing booth, and flues connected with the said reel casings and extending to points outside of the booth, the said flues adapted to be connected with an exhaust apparatus.

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1,091,663. GAS-BURNER. GASTON B. KILLAM, Calgary, Alberta, Canada. Filed July 9, 1913. Serial No. 778,171. (Cl. 158—117.)

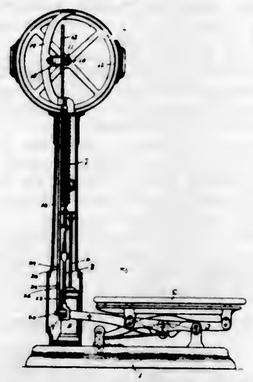


In a gas burner, a conical flame spreader, a spindle secured to the flame spreader, a lug provided with an orifice adapted to slidably secure the spindle, and having a slit at one end of said lug, a cam pivotally secured in said slit, and adapted to operate said spindle, a rod operating said cam, and means for securing said rod at various positions.

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1,091,664. SCALE. BERT W. KING, Detroit, Mich., assignor to Standard Computing Scale Company, Limited, Detroit, Mich., a Limited Partnership. Filed Nov. 9, 1912. Serial No. 730,370. (Cl. 73—46.)

1. In a scale, the combination of an indicating mechanism, a load-supporting lever and counterbalancing springs for the same and the load carried thereby, a connecting rod between the lever and the indicating mechanism, a thermostatic regulator in the form of a bar having one end connected to the lever and normally extending parallel to the connecting rod and operatively united thereto at a plurality of points to neutralize the variations in the effective action of the springs on the lever and indicator due to changes in temperature of the surrounding atmosphere, but so as to be uninfluenced in such action by the force exerted upon the springs.



2. In a scale, the combination of the indicating mechanism and a load-supporting lever, counterbalancing means for the lever and the load carried thereby, connections between the lever and the indicating mechanism including a bar whose lower end is U shaped in cross-section, and a regulator for shifting the lower end of said bar comprising a thermostatic bar pivotally connected at its lower end to the lever and extending up between the sides of said connecting bar and engaging therewith at a plurality of points.

3. In a scale, the combination of the indicating mechanism, counterbalancing springs, a weight supporting lever connected to said springs and having an inclined upper surface, a rod connecting to said indicating mechanism and extending down to said lever, an antifriction device on the lower end of said rod and resting on said inclined surface, and a thermostat pivotally connected at its lower end to said lever and extending upwardly parallel to said connecting bar and connected thereto both at the upper end and intermediate the ends of the thermostat.

4. In a scale, the combination of an indicating drum and an upright rod to turn the same, a weighing lever and weight resisting springs connected thereto, the lower end of the upright rod resting on the end of the lever and said end formed with an inclined surface, and a thermostat pivotally connected at one end to said lever, at its opposite end and intermediate its ends to said rod so that any variation in alinement of the thermostat will move the lower end of said rod along the inclined surface of the lever and change the position of said indicating drum.

5. In a scale, the combination of a base, pedestal and indicating drum at the upper end of the pedestal, weighing levers mounted on the base, one of the levers having a bifurcated rear arm extending into the pedestal, counterbalancing springs within the pedestal and a yoke connecting said springs to said bifurcated end of the rear arm of the lever, an upright rod connecting at its upper end to said drum and having its lower end resting on the lever, and a thermostat bar connected at its lower end to said lever and at its upper end to said rod so that any change in the alinement of the thermostat will move the lower end of the connecting rod on the lever to neutralize the variations in the effective action of said springs due to changes in temperature of the surrounding atmosphere.

[Claim 6 not printed in the Gazette.]

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1,091,665. OVERALLS. SOLOMON KIRSHEN, Butte, Mont. Filed Jan. 25, 1913. Serial No. 744,196. (Cl. 2—122.)

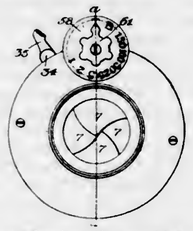
A nether garment of the character described, having secured thereto below and in spaced relation to the waist line thereof, a plurality of belt receiving loops each of said loops comprising a strap which is attached nearer one end of the strap than the other, the shorter end of the strap being provided with a buckle designed for engagement with the longer end of the strap for increasing and decreasing the size of the loops, one of said loops being



located at the rear of the garment and the others at two sides for the reception of a waist belt as and for the purpose set forth.

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1,091,666. CAMERA-SHUTTER. RUDOLPH KLEIN and THEODOR BRUECK, Rochester, N. Y. Filed Oct. 20, 1911. Serial No. 655,729. (Cl. 95—63.)



1. In a camera shutter, the combination with a casing having a slotted partition provided with an apertore and a lens tube integral with and projecting from one side of the partition about the aperture, of a plurality of blades arranged on the opposite side of the partition, and an operating ring for the blades turning on the tube and having projections thereon extending through the slots of the partition and connected to the blades.

2. In a photographic shutter, the combination with a plurality of blades, of a ring for moving said blades, a bearing on which said ring turns, means normally acting on the ring to hold the blades closed, portions overhanging the ring while the blades are closed to hold the ring to its bearing, the ring having a turning movement beyond its movement to open the blades so that portions of said ring may be carried away from the overhanging portions in order to remove or place the ring.

3. In a camera shutter, the combination with a shutter mechanism and a master member for operating the same, of an actuating wheel for the master member formed from sheet material and having laterally projecting lugs on one side to coöperate with the master member, said lugs being struck up from the material of the wheel to provide openings, and a spring dog to enter said openings to prevent the turning of the wheel in one direction.

4. In a camera shutter, the combination with a shutter mechanism, of a master member, an intermediate swinging member having a latch connection with the shutter mechanism, and a plurality of teeth on the master member and also on the intermediate member coöperating to cause the master member to move the intermediate member.

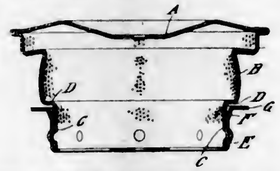
5. In a camera shutter, the combination with a shutter mechanism, of a latch coöperating with the shutter mechanism, a master member connected with the latch to operate the latter and a single spring acting on the shutter

mechanism to hold the shutter closed and acting on the latch to hold the latter in coöperative relation with the shutter mechanism.

[Claims 6 to 17 not printed in the Gazette.]

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1,091,667. FLAME-SPREADER FOR OIL-BURNERS. GEORGE W. KNAPP, Baltimore, Md., assignor to National Enameling & Stamping Co., Baltimore, Md. Filed May 15, 1911. Serial No. 627,262. (Cl. 67—63.)



1. A flame spreader having a reduced end carrying a wick flange and having an upper enlarged cylindrical element arranged above the wick flange with its lower end spaced therefrom and connected to the reduced end and coacting with the wick flange to form a flame-excluding gas passage in communication with the interior of the spreader.

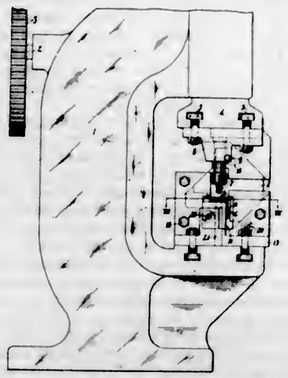
2. A flame spreader carrying a wick flange and having an upper cylindrical element arranged above the wick flange and spaced at its lower end therefrom, and a lower reduced element connected with the lower end of the upper element by an imperforate offset or shoulder, whereby a flame-excluding gas passage in communication with the interior of the spreader is formed.

3. A flame spreader having a lower reduced cylindrical element and an upper enlarged cylindrical element connected by an annular offset or shoulder, in combination with a wick flange arranged under and adjacent to said offset or shoulder to form an annular gas passage in communication with the interior of the spreader.

4. A flame spreader having a lower reduced element and an upper enlarged element connected by an annular offset or shoulder, said upper element having an intermediate bulge, in combination with a wick flange carried by said lower element and disposed beneath and adjacent to said offset or shoulder and spaced therefrom to form an annular gas passage, which is overhung by said bulging element of the spreader.

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1,091,668. PUNCHING AND SHEARING MECHANISM. LOUIS C. KOEHL, Pittsburgh, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 9, 1912. Serial No. 724,707. (Cl. 164—15.)



1. In a punching and shearing mechanism, a reciprocating tool holder, a punch carried thereby, and a laterally movable knife pivotally secured to the tool holder.

2. A punching and shearing mechanism comprising a reciprocating tool holder, a vertically reciprocating punch carried thereby, a laterally movable knife having a slot disposed at an angle with the axis of the punch, and a pin entered in the slot and secured to the tool holder.

3. A punching and shearing mechanism comprising a vertically reciprocating tool holder, a punch carried thereby, a knife movable with the tool holder, and means for imparting a lateral movement to the knife during the vertical movement of the tool holder.

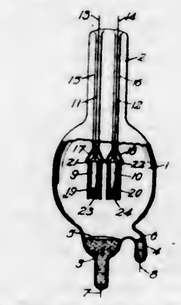
4. A punching and shearing mechanism comprising a vertically operable punch, a laterally movable knife, a reciprocatory holder for said members, a die holder, a die-block located therein, said die holder having an inclined guideway for the laterally movable knife.

5. A punching and shearing mechanism comprising a reciprocatory tool holder, a punch rigidly connected to the tool holder, a shearing knife, and means on the tool holder for imparting a lateral movement to the knife upon the reciprocation of the tool holder.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,669. VAPOR ELECTRIC APPARATUS. OSIAS O. KAUH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 7, 1905, Serial No. 273,021. Renewed Jan. 31, 1908. Serial No. 413,611. (Cl. 176—50.)



1. The combination of an evacuated envelop or receptacle, a vaporizable electrode therein serving as a cathode, a plurality of anodes therein, and metallic shields each with numerous perforations between said vaporizable electrode and said anodes.

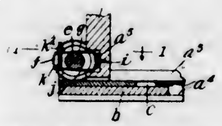
2. The combination of an evacuated envelop or receptacle, a vaporizable electrode therein, a coöperating solid electrode, and a sieve like shield interposed between the electrodes.

3. The combination of a receptacle, a solid electrode, and a wire shield for protecting said electrode.

4. In a vapor electric apparatus, the combination of an electrode, and a shield therefor having a plurality of openings therein.

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1,091,670. SHOW-CASE DOOR. MATHIAS KUMP, Brooklyn, N. Y. Filed May 20, 1913. Serial No. 768,732. (Cl. 211—25.)



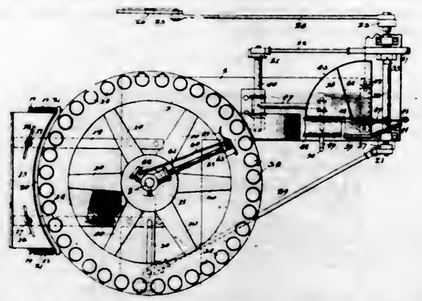
A case or receptacle of the class described provided with a vertically movable door mounted in front of the bottom of the case and the sides of which are provided with parallel rack gears, a shaft mounted in connection with the bottom of the case and below the same and adjacent to the front edge thereof, and provided with gears meshing with said rack gears, said shaft being provided



with stationary cylindrical friction blocks, U-shaped springs secured to the bottom of the case and the sides of which inclose said blocks, and means for compressing the sides of said springs on said blocks.

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1,091,671. BOTTLE-HANDLING DEVICE. THOMAS F. LAMB, Newark, Ohio, assignor to The American Bottle Company, Newark, Ohio, a Corporation of Ohio. Filed Oct. 10, 1913. Serial No. 794,381. (Cl. 193—1.)



1. In a bottle-handling device, the combination with a table rotatably mounted on a vertical axis, and means for imparting thereto a step-by-step rotary movement, of a paddle-rest located opposite and substantially flush with one side of said table, and means for successively delivering bottles in upright position to the marginal portion of said table.

2. In a bottle-handling device, the combination with a table rotatably mounted on a vertical axis, and means for imparting thereto a step-by-step rotary movement, of a paddle-rest located opposite and substantially flush with one side of said table, a brake engaging the periphery of said table, and means for successively delivering bottles in upright position to the marginal portion of said table.

3. In a bottle-handling device, the combination with a table rotatably mounted on a vertical axis, and means for imparting thereto a step-by-step rotary movement, of a paddle-rest located opposite and substantially flush with one side of said table, a spring actuated brake mounted on said paddle-rest and engaging the periphery of said table, and means for successively delivering bottles in upright position to the marginal portion of said table.

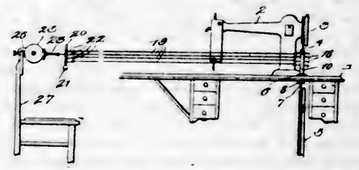
4. In a bottle-handling device, the combination with a table rotatably mounted on a vertical axis and having a circular row of bottle-seats formed in the upper surface thereof, of means for imparting a step-by-step rotary movement to said table, means for successively delivering bottles in upright position onto said bottle-seats, and a movable bottle-centering device coöperating with said bottle-delivering means to position said bottles upon said seats.

5. In a bottle-handling device, the combination with a table rotatably mounted on a vertical axis and having a circular row of bottle-seats formed in the upper surface thereof, of means for imparting a step-by-step rotary movement to said table, a pivoted centering-plate having a spring-retracted bottle-engaging portion on one side of its pivot and a contact portion on the opposite side of its pivot, and a pivoted arm carrying a bottle-cradle movable toward and from the periphery of said table and formed with a projection to engage said contact portion and thereby swing said bottle-engaging portion toward an advancing bottle in said cradle.

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1,091,672. CORD AND ROPE MAKING DEVICE. MARY MAGDALENE LAMY, Dayton, Ohio. Filed Sept. 28, 1912. Serial No. 722,920. (Cl. 28—21.)

1. A rope making attachment for sewing machines including a bracket adapted to be detachably secured to the sewing machine table in inclined position to conform to the incline of the sewing machine belt, a plurality of superposed operating pulleys carried by said body and provided with cord engaging integral hooks, and a plurality of superposed idler pulleys disposed alternate with said operating pulleys and serving to confine the sewing machine belt against said operating pulleys.



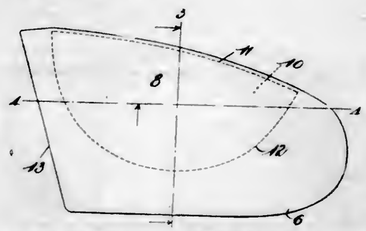
2. A rope making attachment for sewing machines including a bracket composed of a pair of longitudinal interfitting members, a clamp carried by one of said members adapted to secure said bracket in inclined position on the sewing machine table whereby to adapt the bracket to receive the inclined front side of the sewing machine belt and conform to the slope thereof, a plurality of superposed operating pulleys carried by one of said members and provided with integral cord engaging hooks, and a plurality of superposed idler pulleys carried by the outer member adapted to confine said belt against said operating pulleys.

3. A rope making attachment for sewing machines including a bracket composed of a pair of channel members adapted to be interlocked one with the other to produce a housing for the sewing machine belt, a clamp carried by one of said members for detachably securing said bracket to the sewing machine table in inclined position to receive and conform to the slope of the front side of the sewing machine belt, a plurality of operating pulleys carried between the side walls of one of said members, hooks carried by said pulleys, and a plurality of idler pulleys carried between the side walls of the other of said members and disposed alternate with said operating pulleys and adapted to confine said belt against said operating pulleys.

4. A rope making attachment for sewing machines including a bracket formed of a pair of channel members, the side walls of one member being provided with a plurality of slots formed at the inner ends with enlargements, a plurality of pulleys carried by the other of said members and having their pintles passed into said slots and seated in said enlargements whereby to removably lock said channel members together to produce a housing for the front side of the sewing machine belt, a clamp adapted to secure said bracket to the sewing machine table in inclined position whereby to adapt the bracket to receive and conform to the incline of the front side of the sewing machine belt, a plurality of operating pulleys carried by said slotted member and disposed alternate with respect to said idler pulleys, said idler pulleys serving to confine said belt against said operating pulleys, and cord engaging hooks carried by said operating pulleys.

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1,091,673. ARCH-SUPPORTING PAD. JOHN S. LEARY, North Cambridge, Mass. Filed Oct. 29, 1913. Serial No. 797,990. (Cl. 36—71.)



1. An arch supporting pad adapted to be inserted in a shoe and comprising a single piece of felt slit intermediate its upper and lower faces, and a cushion of hair inserted within said slit portion.

2. An arch supporting pad adapted to be inserted in a shoe and comprising a piece of felt slit intermediate its upper and lower faces, and a cushion of hair inserted within said slit portion, said slit portion being closed by stitches extending along one edge of said pad and arranged to hold said hair in position therein.

3. An arch supporting pad comprising a piece of fabric formed to fit the interior of a shoe and arranged to extend from the rear of the heel portion to the front part of the shank portion of said shoe, said pad being slit intermediate its upper and lower faces from one side thereof partly thereacross and longitudinally thereof for a portion of its length, and a cushion of hair interposed within said slit portion, said slit portion being closed by stitches extending along one edge of said pad and arranged to hold said hair in position therein.

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1,091,674. SCREW. JAMES N. LEE, Brooklyn, N. Y., assignor of one-half to Gramberry Sutton, Brooklyn, N. Y. Filed Sept. 2, 1913. Serial No. 787,773. (Cl. 151—32.)

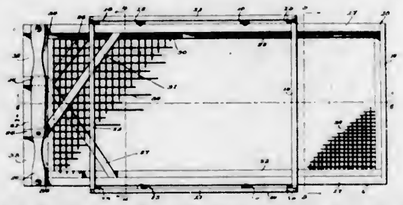


1. A screw or bolt of the class described comprising an elongated body having a central longitudinal bore, the lower end of said body being tapered and bifurcated, the slot forming the bifurcation communicating with the lower end of said bore, a head formed on the body having a slot therein communicating with the upper end of said bore, a blade pivoted in the bifurcated lower end of said body, the one edge of said blade being offset to provide a shoulder and an inclined continuing edge, and means adapted for introduction through the bore of the body to engage the inclined edge and shoulder on the blade and swing the latter on its pivot.

2. In a device of the class described, an elongated threaded body having a central longitudinal bore, the lower end of said body being tapered and bifurcated, the slot forming the bifurcation being designed for communication with the lower end of said bore, a head member formed on the body having a slot therein communicating with the upper end of said bore, a substantially diamond-shaped blade pivoted on a transverse axis in the bifurcated lower end of said body, one edge of said blade being offset to provide a shoulder and an inclined continuing edge, said shoulder and edge being normally directed upwardly toward the bore of the body, and means adapted for introduction through the bore of said body to engage the inclined edge and shoulder on the blade and swing the same on its pivot.

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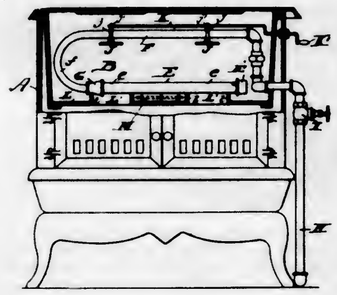
1,091,675. SORTER. CHARLES E. LEEPER, Eaton, Colo. Filed May 11, 1912. Serial No. 696,778. (Cl. 130—32.)



A sorter such as described, comprising a frame having a series of rails secured to the inner sides thereof, removable screens mounted upon the said rails, a bar connecting the sides of the frame, an operating handle connecting the sides of the frame, an upright connecting the bar with the handle, an upright connecting the bar with a deflector rail, angular rails connecting the inner rails with the uprights, angular deflector rails connecting the uprights with the sides of the frame, and inclined chutes leading from the deflector rails.

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1,091,676. HYDROCARBON-BURNER. FRANK B. LEONARD, Detroit, Mich. Filed Oct. 7, 1912. Serial No. 724,249. (Cl. 158—63.)



1. In a device of the character described, a burner tube having discharge ports, a vaporizer located directly above but spaced from the burner tube and having communication with the latter, a source of fuel supply communicating with the vaporizer, deflectors located above the discharge ports of the burner tube, and an operating shaft having connection with the deflectors for simultaneously swinging the same whereby the flame from the burner tube may be projected in different directions as required.

2. In a device of the character described, a burner tube having discharge ports, a vaporizer located directly above the burner tube and having communication with the latter, a source of fuel supply having communication with the vaporizer and through the communication between the burner tube and vaporizer with the burner tube, deflectors located above the discharge ports of the burner tube, means for simultaneously swinging said deflectors whereby the flame from the burner tube may be projected in different directions as required, and an operating handle for the deflector swinging means.

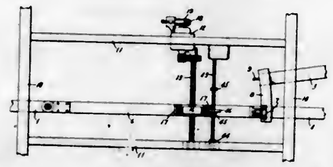
3. In a device of the character described, a burner tube consisting of a section of pipe closed at one end and perforated for the passage of gas, a vaporizer located directly above and spaced from the burner tube and communicating therewith, a source of fuel supply for the vaporizer, a valve for controlling the delivery of fuel to the vaporizer, swinging disk deflectors suspended from the vaporizer above the gas discharge ports, and a manually operated rocker arm connected with the deflectors for adjusting the latter in either direction as required.

4. In a device of the character described, a burner tube, a vaporizer overlying the burner tube, a source of fuel supply for the vaporizer and burner tube, deflectors swingingly mounted on the vaporizer, and means for imparting a swinging movement to the deflectors, said swinging means including a rock shaft operatively connected with each deflector.

5. In a hydrocarbon burner having discharge ports for the passage of gas, an inclosure for said burner, swingingly mounted deflectors disposed above the discharge ports, an oscillating shaft connected to the deflectors for swinging the same, said shaft being journaled in one of the walls of the inclosure with one end of the shaft projecting without the inclosure for manual operation.



1,091,677. ELECTRICALLY-OPERATED I-BEAM SWITCH. SAM H. LIBBY, East Orange, N. J., assignor to General Electric Company, a Corporation of New York. Filed Oct. 12, 1912. Serial No. 725,508. (Cl. 104—180.)



1. The combination with a monorail runway, of a pivoted switch tongue, a screw for operating it, an electric motor geared to said screw, a rod actuated by said switch tongue, a switch controlling said motor, and a spring having one end engaged by said rod and the other connected to said switch.

2. The combination with a monorail runway, of a pivoted switch tongue, a screw arranged transverse thereto, a nut meshing with said screw and connected with said tongue by a gimbal joint, and a limit switch actuated by said tongue and controlling said motor.

3. The combination with a monorail runway, of a pivoted switch tongue, a screw for operating it, an electric motor geared to said screw, a sliding rod actuated by said switch tongue, a rotary switch controlling said motor, and a spring having one end engaged by said rod and the other connected to said switch.

4. The combination with a monorail runway, of a pivoted switch tongue, a screw for operating it, an electric motor geared to said screw, a sliding rod actuated by said switch tongue and carrying a dog and cams, a rotary switch controlling said motor and having a lever, a spring having its ends engaged by said dog and said lever, and catches adapted to engage said lever and be tripped by said cams.

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1,091,678. INSULATING COMPOSITION. FRED M. LOCKE, Victor, N. Y. Filed May 19, 1909. Serial No. 497,095. (Cl. 106—12.)

1. An insulating compound consisting of an aluminum silicate and a boron compound fused together in a homogeneous body.

2. An insulating compound consisting of an aluminum silicate having a boron compound incorporated therein.

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1,091,679. INSULATOR. FRED M. LOCKE, Victor, N. Y. Original application filed Mar. 9, 1909, Serial No. 482,382. Divided and this application filed Nov. 21, 1913. Serial No. 802,295. (Cl. 106—12.)

1. An insulating compound comprising silica and boron fused together in a homogeneous body.

2. An insulator composed of a vitrifiable base and boron fused together to form a homogeneous body.

3. An insulator composed of a fusible base and boron fused together to form a homogeneous body.

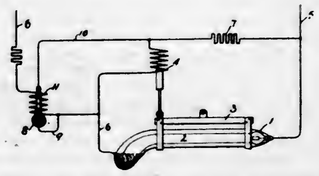
4. An insulator formed of silica and boron fused together.

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1,091,680. VAPOR ELECTRIC DEVICE. FRED W. LYLE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 11, 1911. Serial No. 654,007. (Cl. 176—48.)

1. The combination of a vapor electric device having a liquid vaporizable cathode, means for tilting said device to start the same and a thermal device for rendering the tilting means inoperative while the temperature of said thermal device exceeds a predetermined limit.

2. The combination of a vapor electric device having a vaporizable metal cathode, an inclosing envelop subject to injury by sudden change of temperatures, means for tilting said device to start the same, and means for rendering said starting device inoperative for a predetermined interval after cessation of operation to permit cooling of said envelop.



3. The combination of a vapor electric device, means for supplying energy thereto, means for tilting said device to start the same, and means for delaying the restarting of said device when the arc is interrupted after a period of operation.

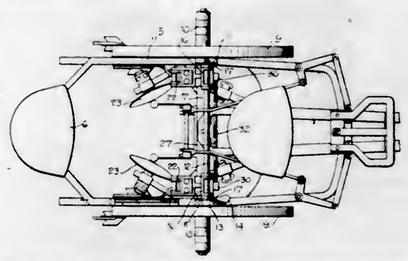
4. The combination of a vapor electric apparatus, means for supplying current thereto, an electromagnetic device for tilting said device to start the same, and a thermostat connected in shunt to said electromagnetic device and adapted to short circuit said device while the temperature of the thermostat exceeds a predetermined value, to secure a time lag in the restarting of the apparatus.

5. The combination of a mercury arc lamp, a magnetic device having opposed windings, one being in shunt and the other in series therewith, the shunt winding acting to tilt said lamp, and a thermal device in series with the lamp for short circuiting the shunt winding, said device having a predetermined time lag.

[Claim 6 not printed in the Gazette.]

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1,091,681. IMPLEMENT-ADJUSTING DEVICE FOR CULTIVATORS AND THE LIKE. ROBERT J. MANDERFIELD, Houghton, Mich. Filed May 3, 1913. Serial No. 765,371. (Cl. 97—35.)



1. In a machine of the character described including an arch axle bar, brackets arranged at the ends of said axle bar, a shaft journaled at its ends in said brackets, implement carrying members slidable upon said shaft and also adapted to oscillate upon the shaft independently thereof, said shaft being provided with keys for engagement with said members when the shaft is rotated, whereby said members are elevated and the implements carried thereby raised from their operative positions, slide members longitudinally movable upon the axle bar and engaging said implement carrying members and means mounted upon the axle bar for moving said slide members toward or from each other to adjustably space the implement carrying members upon said shaft.

2. In a machine of the character described, including an arch axle bar, a shaft mounted above said axle bar, implement carrying members arranged in spaced relation upon said shaft for sliding movement thereon, slide members longitudinally movable upon the axle bar and loosely engaged upon said shaft and coöperating with the implement carrying members to hold the same against longitudinal movement on the shaft, and an adjusting rod mounted upon the axle bar and connecting said slide members to move the same toward or from each other and rel-

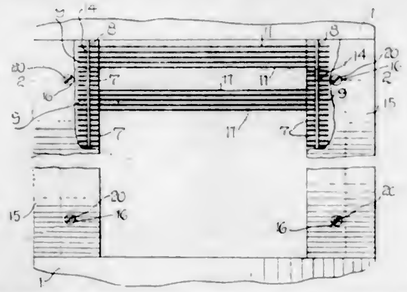
atively adjust said implement carrying members upon the shaft.

3. In a machine of the character described including an arch axle bar, a shaft mounted above said bar, implement carrying members loosely engaged upon said shaft, a pair of slide members longitudinally movable upon the axle bar and each provided with spaced arms loosely engaged upon the shaft and disposed upon opposite sides of the respective implement carrying members thereon, spaced brackets secured to the axle bar, an adjusting rod rotatably mounted in said brackets, and nuts threaded upon the opposite ends of said rod and engaged with the respective slide members to move the same and adjust the implement carrying members on the shaft toward or from each other to relatively space the implements carried thereby.

4. In a machine of the character described including an arch axle bar, a shaft mounted above said axle bar, slide members mounted upon the axle bar each having a pair of arms extending above and below said bar, the upper arms of said slide members being loosely engaged upon said shaft, a pair of implement carrying members, one of which is pivotally mounted between the lower arms of the slide, the other member being loosely engaged upon said shaft between the upper arms of the slide, spaced brackets fixed to the axle bar, an adjusting rod rotatably mounted in said brackets, the ends of said rod being oppositely threaded, a nut having threaded engagement upon each end of said rod, and an extension formed upon each of the slides engaged with the respective nuts whereby the slides are moved toward or from each other when said rod is turned to relatively position the implement carrying members and space the implements carried thereby.

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1,091,682. MEANS FOR PRINTING MUSIC. PASQUALE S. A. MARINO, Harrison, N. J. Filed Nov. 10, 1913. Serial No. 800,199. (Cl. 101—179.)



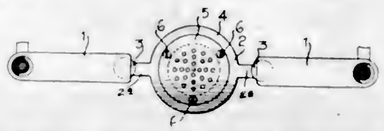
1. Means for printing including side members provided with spaced recesses, strips having their extremities adapted to be accommodated in the recesses of the members, an edge of each of such strips serving as an impression surface, locking members coacting with the strips and the side members for holding the strips against displacement, and a printing member having a recess in its printing surface whereby such member may be interlocked with the strips.

2. Means for printing including side members provided with spaced recesses and having grooves intersecting such recesses, strips having their extremities adapted to be accommodated in the recesses of the members and having in such extremities recesses adapted to register with the grooves of the members, an edge of each of such strips serving as an impression surface, locking members insertible within the grooves of the members and extending through the recesses of the strips for holding the strips against displacement, and a printing member having a recess in its printing surface whereby such member may be interlocked with the strips.

3. In combination with a chase, side members provided with spaced recesses positioned within the chase, strips having their extremities adapted to be accommodated in the recesses of the side members, an edge of each of such strips serving as an impression surface, and means coacting with the chase for holding the side members against displacement, certain of such means serving to hold the strips against displacement.

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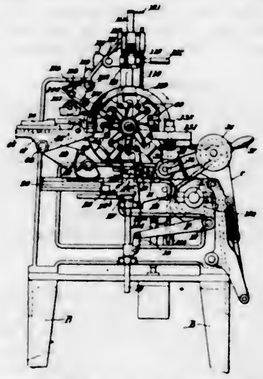
1,091,683. BRIDLE-BIT. WILBUR N. MATKER, Hearne, Tex. Filed Aug. 23, 1913. Serial No. 786,305. (Cl. 54—8.)



A device of the character described comprising a flat ring like member provided with diametrically opposed extensions, bit sections connected with the extensions through the medium of universal joints, and removable perforated closure plates for the open faces of the member, the opposite faces of the member adjacent the bore thereof being provided with annular recesses adapted to accommodate the marginal portions of the plates whereby the outer faces of such plates are substantially flush with the outer faces of the member.

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1,091,684. MACHINE FOR WRAPPING YEAST-CAKES AND SIMILAR ARTICLES. THEODORE G. MCGIRR, Springfield, Mass., assignor to Usonia Machine Company, Springfield, Mass., a Corporation of New York. Filed Aug. 16, 1912. Serial No. 715,385. (Cl. 93—7.)



1. In a wrapping machine the combination with a rotatable carrier arranged to receive the articles to be wrapped, wrapper feeding mechanism, a rock shaft, means connected with said rock shaft for operating said feeding mechanism, a feed belt for the articles to be wrapped, a plunger below said carrier for successively bringing said articles into engagement with the wrapper and carrier, means operated by said rock shaft for transferring said articles from said belt to said plunger, means coöperating with said carrier for folding the wrappers aronnd said articles, and means for operating said rock shaft and carrier in time with each other.

2. In a wrapping machine the combination with a rotatable carrier arranged to receive the articles to be wrapped, wrapper feeding mechanism, a rock shaft, means connected with said rock shaft for operating said feeding mechanism, a feed belt for the articles to be wrapped, a plunger below said carrier for successively bringing said articles into engagement with the wrapper and carrier, a transversely movable pusher for transferring said articles from said belt to said plunger, means coöperating with said carrier for folding the wrappers around said articles, and means for operating said rock shaft in time with said carrier and plunger.



said rock shaft for actuating said pusher, means for operating said rock shaft in time with said carrier and plunger, and means coöperating with said carrier for folding the wrappers around said articles.

3. In a wrapping machine the combination with a rotatable carrier arranged to receive the articles to be wrapped, wrapper feeding mechanism, a rock shaft, means connected with said rock shaft for operating said feeding mechanism, a feed belt for the articles to be wrapped, a plunger below said carrier for successively bringing said articles into engagement with the wrapper and carrier, a transversely movable pusher for transferring said articles from said belt to said plunger, said pusher being provided with a toothed rack portion, a toothed segment connected with said rock shaft and meshing with said rack portion, means for operating said rock shaft in time with said carrier and plunger, and means coöperating with said carrier for folding the wrappers around said articles.

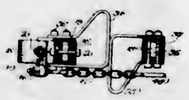
4. In a wrapping machine the combination with a rotatable carrier arranged to receive the articles to be wrapped, wrapper feeding mechanism, a rock shaft, means connected with said rock shaft for operating said feeding mechanism, a feed belt for the articles to be wrapped, a plunger below said carrier for successively bringing said articles into engagement with the wrapper and carrier, a transversely movable pusher for transferring said articles from said belt to said plunger, means connected with said rock shaft for actuating said pusher, means for operating said rock shaft in time with said carrier and plunger, means coöperating with said carrier for folding the wrappers around said articles, said folding means including tuckers, and means connected with said rock shaft for actuating said tuckers.

5. In a wrapping machine the combination with a rotatable carrier arranged to receive the articles to be wrapped, wrapper feeding mechanism, a rock shaft, means for intermittently actuating said wrapper feeding mechanism, an arm secured to said rock shaft for operating said actuating means, a plunger below said carrier for successively bringing the articles to be wrapped into engagement with the wrapper and carrier, means operated by said rock shaft for placing said articles successively upon said plunger, and means coöperating with said carrier for folding wrappers around said articles.

[Claims 6 to 46 not printed in the Gazette.]

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1,091,685. GANG-PLOW. CLEMENT W. MICHAEL, Racine, Wis., assignor to J. I. Case Plow Works, Racine, Wis., a Corporation. Filed Feb. 17, 1912. Serial No. 678,393. (Cl. 97—69.)



1. In a gang plow, the combination with the draft frame, of an inclined series of separate plow units connected to said frame, spacing bumpers fixed to and interposed between said plow units, and an inclined connection between the rear working plow unit and said draft frame, substantially as described.

2. In a gang plow, the combination with the draft frame, of an inclined series of separate plow units connected to said frame, spacing bumpers fixed to and interposed between said plow units, an inclined furrow wheel connected to the rear working plow unit and an inclined, bracing connection flexibly connected to one of said plow units and to said draft frame, substantially as described.

3. In a gang plow, the combination of a wheel supported draft frame having an inclined rear portion, a series of separate plow units pivotally connected at their forward ends to the rear inclined portion of said draft frame to rise and fall independently, spacing devices interposed between the separate plow units, but permitting the independent vertical movement thereof and an inclined bracing connection flexibly connected to said draft frame and to the rear working plow unit, substantially as described.

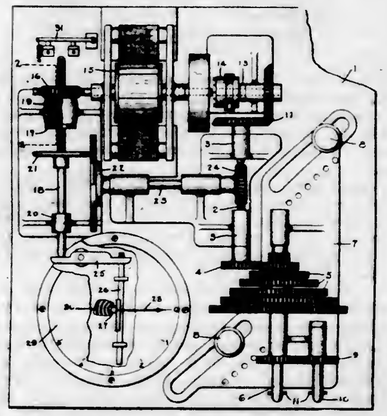
4. In a gang plow, the combination with the draft frame, of an inclined series of individual trailing plows having beams independently pivoted at their forward ends to said frame, spacing bumpers fixed to and interposed between said plow beams, and an inclined brace flexibly connected to the beam of the outer rear plow and to said draft frame, substantially as described.

5. In a gang plow, the combination with the draft frame, of an inclined series of individual trailing plows having beams independently pivoted at their forward ends to said frame, spacing bumpers fixed to and interposed between said plow beams, an inclined, trailing furrow wheel connected to the rear portion of the outer rear plow of the series, and an inclined brace flexibly connected to said outer rear plow and to said draft frame, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,686. SPEED-COMPARING DEVICE. ROBERT MILLER, Jr., Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 2, 1909. Serial No. 480,897. (Cl. 73—123.)



1. A speed comparing device comprising a rotatable and longitudinally movable shaft, driving mechanism for imparting rotation to said shaft, a journaled controlling member threaded on said shaft and held against movement along its axis of rotation, driving mechanism for said controlling member, and variable speed gearing between said shaft and its driving mechanism controlled by longitudinal movement of said shaft.

2. A speed comparing device comprising a journaled controlling member held against displacement along its axis of rotation, a driving mechanism for said member, a rotatably mounted shaft threaded into said controlling member, a friction wheel mounted on said shaft, and driving mechanism for said wheel comprising a friction disk mounted to rotate about an axis perpendicular to said shaft with its surface in engagement with said friction wheel.

3. In a speed comparing device, the combination with two members mounted to rotate about a common axis and connected to move relatively to each other along said axis in response to relative angular movement of said members, of a separate driving mechanism for each of said members, one of said driving mechanisms being constructed to allow the disconnection of one of said members from its driving mechanism in response to relative movement of said members beyond a predetermined limit in each direction.

4. A speed comparing device comprising two rotatably mounted members, connections between them whereby relative angular movement causes relative movement along their axes, a friction wheel mounted on one of said members and a coöperating friction disk mounted with its

surface in engagement with said friction wheel and recessed near its center to stop rotating said friction wheel as it approaches the center of said friction disk.

5. In a speed comparing device, in combination a driving member, a driven member and a controlling member mounted to rotate about a common axis, said driven member being threaded to said controlling member and connected to said driving member to be driven thereby at a rate depending on the end-wise displacement of said driven member, and an indicator connected to said driven member to show the endwise displacement thereof.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,687. FILM-DEVELOPING TANK. WAYNE T. MILLER, Angola, Ind., assignor of one-half to Don S. Hamlin, Angola, Ind. Filed June 20, 1913. Serial No. 774,923. (Cl. 95—90.5.)



1. A device of the character described including a receptacle, bars disposed transversely of the receptacle adjacent its upper edges and supported thereby, clamping rods within the receptacle and disposed vertically thereof, and means carried by the bars for detachably engaging the rods.

2. A receptacle, bars connected to the side walls of the receptacle adjacent their upper edges and being provided with alined notches, supporting bars mounted at their opposite ends in said notches, clasps carried by said supporting bars, and clamping rods engaged by said clasps, as and for the purpose described.

3. A receptacle, bars connected to the side walls of said tank adjacent their upper edges, one end of said bars having alined recesses therein, the opposite ends of said bars having alined notches formed therein, transversely extending supporting bars mounted at their opposite ends in said alined notches and recesses, clasps carried by said supporting bars, clamping rods having their upper ends in engagement with said clasps, and sockets mounted on the bottom of said receptacle for the reception of the lower ends of said clamping rods, as and for the purpose described.

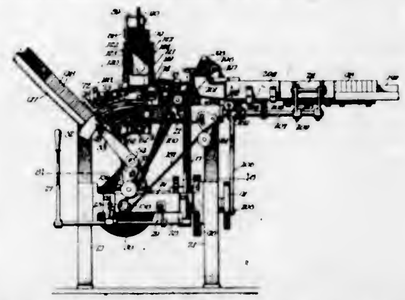
4. A device of the character described comprising a receptacle, bars secured to the side walls of said receptacle adjacent their upper edges, each of said bars having a recess formed therein at one end, the recesses in said bars being in transverse alinement, each of said bars having spaced notches formed in its opposite end, said notches being in transverse alinement with each other, supporting bars mounted at their opposite ends in said recesses and in the alined notches, clasps carried by said supporting bars, sectional clamping rods connected to said clasps, means for holding the sections of said clamping rods together, and sockets mounted on the bottom of said receptacle, the lower end of said clamping rods being adapted for engagement in said sockets, as and for the purpose described.

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1,091,688. BOX-LABELING MACHINE. MICHAEL J. MILMOE, Chicago, Ill., assignor to W. C. Ritchie & Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1912. Serial No. 714,329. (Cl. 216—44.)

1. In a labeling machine, the combination of a label magazine, a box-carrier traveling adjacent said magazine, means to apply adhesive to the box, and means to move the box from the carrier and against one of the labels in the magazine, substantially as described.

2. In a labeling machine, the combination of a label magazine having an open bottom, a box-carrier traveling beneath said magazine, means to apply adhesive to the box, and means to elevate the box from the carrier to bring the coated side thereof against one of the labels in the magazine, substantially as described.



3. In a labeling machine, the combination of a label magazine having an open bottom, a box-carrier traveling beneath said magazine, means to apply adhesive to the box while on said carrier, and means to move the box from said carrier and press it against one of the labels in the magazine, substantially as described.

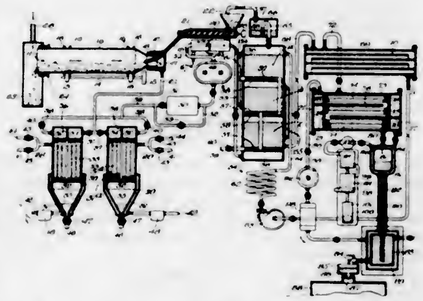
4. In a labeling machine, the combination of a label magazine, a paste roller, a box-carrier traveling adjacent the magazine and paste roller to bring the box in contact with the paste roller and means to remove the box from the carrier into contact with one of the labels in the magazine, substantially as described.

5. In a labeling machine, the combination of a label magazine open below, a paste roller, a box-carrier traveling in succession beneath the paste roller and magazine whereby to bring a box into contact with the paste roller and to a position beneath the magazine, and means to lift the box from said carrier and press it against one of the labels in the magazine, substantially as described.

[Claims 6 to 47 not printed in the Gazette.]

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1,091,689. METHOD OF PRODUCING SULFUR DIOXID. HUGH K. MOORE and ROBERT B. WOLF, Berlin, N. H. Filed Feb. 1, 1910. Serial No. 541,245. (Cl. 23—1.)



1. The herein described method of obtaining liquid sulfur dioxid, which consists in the following steps, to wit:—passing the products of combustion containing sulfur dioxid and other gases through a solvent refrigerated to a temperature substantially 32° F. and capable of absorbing sulfur dioxid gas, extracting *in vacuo* the sulfur dioxid from the solvent, and refrigerating the extracted sulfur dioxid gas *in vacuo*, to liquefy it.

2. The herein described method of obtaining sulfur dioxid, which consists in the following steps, to wit:—burning a sulfur bearing material, passing the products of combustion therefrom through a circulating body of refrigerated solvent for the sulfur dioxid gas, distributing the solvent and the gas absorbed thereby in thin layers in a vacuum chamber, liberating the sulfur dioxid gas *in vacuo* from said thin layers, and refrigerating the liberated gas *in vacuo* to liquefy it.

3. The herein described method of obtaining sulfur dioxid gas, which consists in the following steps, to wit:—separating from the products of combustion of a sulfur bearing substance, sulfur dioxid gas by absorbing it in an aqueous calcium chlorid solution while said solution is refrigerated to approximately 32° F., and then extracting *in vacuo* said gas from said refrigerated solution.

4. The herein described method of obtaining sulfur dioxid, which consists in the following steps, to wit:—circulating a body of refrigerated solvent, absorbing in said solvent in one portion of its path sulfur dioxid from the products of combustion of a sulfur-bearing material, and liberating *in vacuo* the absorbed gas from said solvent in another portion of its path.

5. The herein described method, which consists in causing a solvent continuously to circulate from an absorbing chamber to a vacuum chamber and vice versa, refrigerating said solvent, passing products of combustion of a sulfur bearing substance through the solvent in the absorbing chamber to cause the absorption of the sulfur dioxid gas, maintaining a vacuum in the vacuum chamber and abstracting from the solvent in the last mentioned chamber the previously absorbed sulfur dioxid gas.

[Claims 6 to 10 not printed in the Gazette.]



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1,091,690. CORE COMPOUND. HUGH K. MOORE, Berlin, N. H. Filed Dec. 8, 1910. Serial No. 596,234. Renewed Dec. 19, 1912. Serial No. 737,762. (Cl. 22—188.)

1. The herein described process of making core compounds, which consists in neutralizing the acids in the waste liquors from the manufacture of sulfite fiber, evaporating the resultant at a low temperature, and mixing a soluble silicate therewith to form a homogeneous mixture.

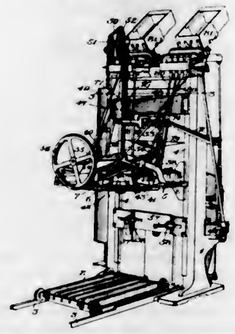
2. The herein described process of making core compounds, which consists in neutralizing the acids in the waste liquors from the manufacture of sulfite fiber by the addition of an alkaline base, evaporating the resultant *in vacuo* at a temperature of approximately 90° F., and mixing sodium silicate therewith to form a homogeneous mixture.

3. The herein described core compound which consists of a mixture of neutralized waste liquor resulting from the manufacture of sulfite fiber and a soluble silicate.

4. The herein described core compound which consists of a homogeneous mixture of neutralized evaporated waste liquor resulting from the manufacture of sulfite fiber and sodium silicate.

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1,091,691. NAILING-MACHINE. HENRY W. MORGAN, Rochester, N. Y. Filed Aug. 15, 1911. Serial No. 644,207. (Cl. 1—10.)



1. In a keg nailing machine, the combination with a work support, of an annular carrying frame, a centrally arranged supporting member therefor, a plurality of radially arranged and circumferentially spaced nailing units on the said frame, means for operating the fframe in the direction of its axis toward and from an article on the work support, whereby the nailing units may be caused to surround the keg, and means for operating all of the nailing units simultaneously.

2. In a nailing machine, the combination with a work support, of a carrying frame, a plurality of radially arranged nailing units thereon, means for operating the frame toward and from the work support and an adjustable stop on the frame adapted to engage a work piece on the support and to position the nailing units with reference thereto.

3. In a keg nailing machine, the combination with a work support, of an annular carrying frame, a centrally arranged supporting member from which said frame is suspended, a plurality of radially arranged and circumferentially spaced nailing units on the frame, means for operating the latter and its supporting member toward and from an article on the work support to cause the nailing units to surround the article, and means for operating all of the nailing units simultaneously.

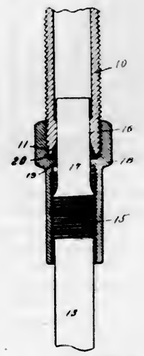
4. In a nailing machine, the combination with a work support, a supporting frame at one side thereof, a carrying frame mounted for sliding adjustment on the supporting frame, a plurality of radially arranged nailing units on the carrying frame movable with the latter to surround an article on the work support and an adjustable stop on the supporting frame arranged to center the article on the work support with respect to the carrying frame.

5. In a nailing machine, the combination with a reciprocable carrying frame, and a supporting member therefor movable relatively thereto, of a plurality of radially arranged nailing units on the frame adapted to surround a work piece toward which the frame is moved and operating devices for the nailing units actuated by the relative movement of the frame and its supporting member.

Claims 6 to 20 not printed in the Gazette.

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1,091,692. ADJUSTABLE SCREW-JOINT COUPLING FOR SUPPLY-PIPES. PHILIP MUELLER and ANTON C. SCHUERMANN, Decatur, Ill., assignors to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Mar. 24, 1911. Serial No. 616,696. (Cl. 137—28.)




1. In combination, an externally threaded shank having its inner wall flared at its end, a supply pipe having an enlarged threaded portion adjacent its end and being reduced outwardly of the threaded portion, the reduced outer end of the supply pipe fitting loosely in the shank, a coupling member having internal threads engaging over the enlarged portion of the supply pipe and about the shank, and further having an inwardly extending flange embracing the reduced end of the supply pipe in spaced relation from the end of the shank, and a gasket fitting in the flared end of the shank and resting against the flange.

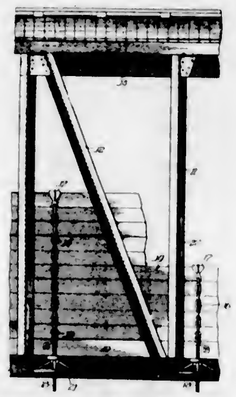
whereby the gasket is compressed against the supply pipe by the tightening of the coupling member over the gasket.

2. In a coupling, an externally threaded shank having its inner wall flaring at the end of the shank, a supply pipe extending loosely into the shank and having an enlarged threaded portion extending outwardly from the shank, a gasket engaging in the flared end of the shank about the supply pipe, and a coupling member threaded on the end of the shank and having an inwardly extending flange engaging with the gasket and binding the same in the shank and on the supply pipe, the coupling member having an internally threaded portion extending beyond the flange and engaging adjustably over the threaded and enlarged portion of the supply pipe.

3. In a coupling, an externally threaded shank having its inner wall flaring at the end of the shank, a supply-pipe extending loosely into the shank and having an enlarged threaded portion extending outwardly from the shank, a gasket engaging in the flared end of the shank about the supply pipe, and a coupling member threaded on the end of the shank and having an internal shoulder engaging with the gasket and binding the same in the shank and on the supply pipe, the coupling member having an integral threaded portion extending beyond the said shoulder, and engaging adjustably over the threaded and enlarged portion of the supply pipe.

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1,091,693. METHOD OF BUILDING RAILWAY-CARS. CHARLES F. MURRAY, Evanston, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 24, 1913. Serial No. 802,639. (Cl. 105—192.)



1. The method of building railway cars which consists in applying a relatively small number of planking members to the interior of a metallic skeleton, tightening said planks to secure an intimate edge to edge engagement thereof, maintaining said planks in such tightened condition while providing apertures in register with previously formed apertures in the metallic frame, bolting said planking to the metallic frame, then releasing the tightening pressure on said planks and repeating the operations for other series of said planks until said wall is completed, substantially as described.

2. The method of building railway cars which consists in applying a relatively small number of planks to the interior of a metallic frame, maintaining said planking against horizontal displacement while being secured to said frame, then applying vertical tightening force whereby said planking is forced into intimate edge to edge engagement, boring said planking to provide apertures registering with apertures in said metallic frame, permanently securing said planking to the frame by bolts passing through said registering apertures, then discontinuing said vertical tightening force, then applying additional series of planks to said metallic frame, tightening and securing the same to the frame members until the wall is completed, substantially as described.

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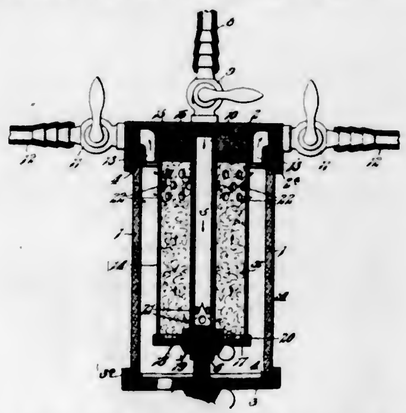
1,091,694. AUTOMATIC TRAIN-STOPPING SYSTEM. JOHN L. NEBLE, Omaha, Nebr. Filed Apr. 14, 1913. Serial No. 760,886. (Cl. 246—26.)



The herein described system for controlling the movements of trains on a single track, said system comprising a track arranged in blocks, two pairs of conductors arranged as a first series for each block, two pairs of conductors arranged as a second series for each block, one pair of conductors of the first series being connected to a corresponding pair in a rearward block, the other pair thereof being connected to a pair of conductors of the second series in a forward block, one pair of conductors of the second series being connected to a corresponding pair in a forward block, the other pair thereof being connected to a pair of conductors of the first series of a rearward block; a train having a source of energy contacts connecting said source across each of the pairs of conductors of one of said series, and having a train-controlling magnet and contacts connecting said magnet across each of the pairs of conductors of the other series.

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1,091,695. AIR-FILTER. PAUL E. NOLDEN, St. Louis, Mo., assignor to Anheuser-Busch Brewing Association, St. Louis, Mo., a Corporation of Missouri. Filed June 14, 1913. Serial No. 773,697. (Cl. 98—48.)



1. An air filtering and distributing device comprising a receptacle composed of a top and bottom member and a shell interposed between said members, an air-tube depending from said top member and provided with a shank that projects through said bottom member, a nut on said shank arranged below said bottom member for clamping the shell securely in position between said members, a casing surrounding said air-tube for holding a mass of filtering material, and means for pressing the upper edge of said casing tightly against the top member of said receptacle.

2. An air filtering and distributing device comprising a receptacle composed of a top and bottom member and a shell interposed between said members, an air-tube depending from said top member and provided with a shank that projects through said bottom member, a nut on said shank arranged below said bottom member for clamping the shell securely in position between said members, a casing surrounding said air-tube for holding a mass of filtering material, a bottom cap-piece that forms a closure for the lower end of said casing, and an adjustable device on the shank of the air-tube which clamps said bottom cap-piece against the lower end of the casing and also forces the upper end of the casing tightly against the under side of the top member of said receptacle.

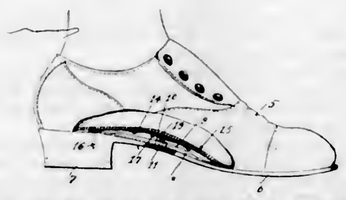
3. An air filtering and distributing device comprising a receptacle composed of a top and bottom member and a shell interposed between said members, an air-tube depending from said top member and provided with a shank that projects through said bottom member, a nut on said shank arranged below said bottom member for clamping the shell securely in position between said members, a casing surrounding said air-tube for holding a mass of filtering material, a bottom cap-piece that forms a closure for the lower end of said casing, an adjustable device on the shank of the air-tube which clamps said bottom cap-piece against the lower end of the casing and also forces the upper end of the casing tightly against the under side of the top member of said receptacle, means whereby the air that enters through said air-tube is caused to travel longitudinally of said casing through the filtering material in same, and air-distributing valves for controlling the passage of the filtered air from the device.

4. An air-filtering and distributing device comprising a receptacle provided with an air-tube through which air is admitted to the receptacle, a casing surrounding said air-tube for holding a quantity of filtering material, said air-tube being provided adjacent its lower end with ports and said casing being provided adjacent its upper end with ports whereby the air that is supplied through said air-tube will travel upwardly through the filtering material in the casing, and distributing valves carried by the top piece of the receptacle for controlling the passage of the filtered air from the receptacle.

5. An air-filtering and distributing device comprising a top member provided with an integral air-tube that depends therefrom, a shank at the lower end of said air-tube, an open-ended shell whose upper edge bears against the under side of said top member, a casing for filtering material surrounding said air-tube and having its upper edge bearing against the under side of said top member, closures for the lower end of said casing and said shell, and means on the shank of said air-tube for retaining said closures in position and for pressing said shell and casing tightly against the under side of the top member of the device.

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1,091,696. ADJUSTABLE AUXILIARY SHANK FOR SHOES. MICHEL E. NORMANDIN, Los Angeles, Cal. Filed Mar. 31, 1913. Serial No. 757,728. (Cl. 36—71.)



1. In combination with a shoe having an inner and outer sole, a metallic shank rigidly secured to the upper face of the outer sole adjacent the instep portion, said shank being disposed between the two soles, a resilient member mounted longitudinally on said shank, one end of said member being rigidly secured thereto, and adjusting means operable from the exterior of said shoe adapted to raise or lower said resilient member to alter the configuration of the inner sole.

2. In combination with a shoe having an inner and outer sole, a metallic shank rigidly secured to the upper face of the outer sole adjacent the instep portion, said shank being disposed between the two soles, a spring member





shell securely in position between said members, a casing surrounding said air-tube for holding a mass of filtering material, a bottom cap-piece that forms a closure for the lower end of said casing, and an adjustable device on the shank of the air-tube which clamps said bottom cap-piece against the lower end of the casing and also forces the upper end of the casing tightly against the under side of the top member of said receptacle.

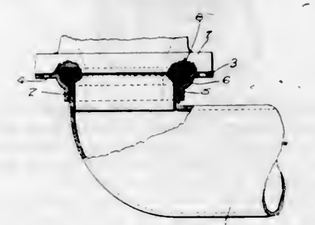
3. An air filtering and distributing device comprising a receptacle composed of a top and bottom member and a shell interposed between said members, an air-tube depending from said top member and provided with a shank that projects through said bottom member, a nut on said shank arranged below said bottom member for clamping the shell securely in position between said members, a casing surrounding said air-tube for holding a mass of filtering material, a bottom cap-piece that forms a closure for the lower end of said casing, an adjustable device on the shank of the air-tube which clamps said bottom cap-piece against the lower end of the casing and also forces the upper end of the casing tightly against the under side of the top member of said receptacle, means whereby the air that enters through said air-tube is caused to travel longitudinally of said casing through the filtering material in same, and air-distributing valves for controlling the passage of the filtered air from the device.

4. An air-filtering and distributing device comprising a receptacle provided with an air-tube through which air is admitted to the receptacle, a casing surrounding said air-tube for holding a quantity of filtering material, said air-tube being provided adjacent its lower end with ports and said casing being provided adjacent its upper end with ports whereby the air that is supplied through said air-tube will travel upwardly through the filtering material in the casing, and distributing valves carried by the top piece of the receptacle for controlling the passage of the filtered air from the receptacle.

5. An air-filtering and distributing device comprising a top member provided with an integral air-tube that depends therefrom, a shank at the lower end of said air-tube, an open-ended shell whose upper edge bears against the under side of said top member, a casing for filtering material surrounding said air-tube and having its upper edge bearing against the under side of said top member, closures for the lower end of said casing and said shell, and means on the shank of said air-tube for retaining said closures in position and for pressing said shell and casing tightly against the under side of the top member of the device.

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1,091,697. ADJUSTABLE PIPE-FITTING. MARTIN J. O'DONNELL, Chicago, Ill., assignor of one-half to Robert J. Farrel, Chicago, Ill. Filed Feb. 21, 1912. Serial No. 679,116. (Cl. 137—96.)



1. In a device of the kind described, a pipe, a flange mounted at the end of said pipe with the face of said flange positioned slightly beyond the end of said pipe, said flange having an annular groove formed in its face at said pipe, the end of said pipe projecting beyond the bottom of said groove whereby packing positioned in said groove will coöperate jointly with the adjacent faces of the base and nipple of a fitting attached to said flange and projecting into said pipe.

2. In a device of the kind described, a pipe, a flange adjustably mounted at the end of said pipe with the face of said flange positioned slightly beyond the end of said pipe, said flange having an annular groove formed in its face at said pipe, the end of said pipe projecting beyond the bottom of said groove whereby packing positioned in said groove will coöperate jointly with the adjacent faces of the base and nipple of a fitting attached to said flange and projecting into said pipe.

3. In a device of the kind described, a pipe, a flange mounted at the end of said pipe with the face of said flange positioned slightly beyond the end of said pipe, said flange having an annular groove formed in its face at said pipe with the wall of said groove inclined to the face of said flange and to the axis of said pipe, the end of said pipe projecting beyond the bottom of said groove whereby packing positioned in said groove will coöperate jointly with the adjacent faces of the base and nipple of a fitting attached to said flange and projecting into said pipe.

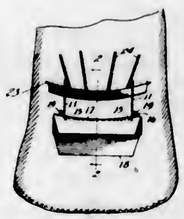
4. In a device of the kind described, an externally threaded pipe, an internally threaded flange mounted at the end of said pipe and adjustable thereon with the face of said flange positioned slightly beyond the end of said pipe said flange having an annular groove formed in its face at said pipe, the end of said pipe projecting beyond the bottom of said groove whereby packing positioned in said groove will coöperate jointly with the adjacent faces of the base and nipple of a fitting attached to said flange and projecting into said pipe.

5. In a device of the kind described, an externally threaded pipe, an internally threaded flange mounted at

the end of said pipe and adjustable thereon with the face of said flange positioned slightly beyond the end of said pipe said flange having an annular groove formed in its face at said pipe with the wall of said groove inclined to the face of said flange and to the axis of said pipe, the end of said pipe projecting beyond the bottom of said groove whereby packing positioned in said groove will cooperate jointly with the adjacent faces of the base and nipple of a fitting attached to said flange and projecting into said pipe.

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1,091,698. APRON AND CUP SUPPORTING DEVICE. ERNEST R. PHILIP, Atlanta, Ga., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 8, 1912. Serial No. 702,470. (Cl. 47—40.)



1. A support of the class described adapted to be secured to a tree and having two portions spaced from each other and each provided with a face adapted to engage an edge of an apron and to coöperate with the tree to retain the apron in position, substantially as specified.

2. A support of the class described comprising a member having two separated, cup supporting hooks, said member being also provided with means formed integrally therewith and located adjacent each of said hooks by which the support may be secured to a tree, substantially as specified.

3. A support of the class described adapted to be secured to a tree, and having two portions spaced from each other, each provided with a face adapted to engage an edge of an apron, and having also another portion adapted to engage and support a cup, all of said portions being integrally formed, substantially as specified.

4. A support of the class described, adapted to be secured to a tree and having two portions spaced from each other, each provided with a face adapted to engage an edge of an apron, and having also two other portions spaced from each other, adapted to engage and support a cup, all of said portions being integrally formed, substantially as specified.

5. A support of the class described, having two portions spaced from each other, each provided with a face adapted to engage an edge of an apron and an eye or loop formed integrally with said portions, said eye or loop being adapted to receive a nail, whereby the support may be attached to the tree, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,699. COMBINED APRON AND CUP SUPPORTING DEVICE. ERNEST R. PHILIP, Atlanta, Ga., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 8, 1912. Serial No. 702,471. (Cl. 47—40.)

1. A support of the class described, adapted to be secured to a tree and having a portion provided with a face adapted to engage one edge of an apron and to coöperate with the tree to retain the apron in position.

2. A support of the class described adapted to be secured to a tree and having a vertically extending portion spaced from the tree when secured thereto, said portion being serrated on the face adjacent the tree to thereby hold one edge of an apron, substantially as specified.

3. A support of the class described, adapted to be secured to a tree and having one portion provided with a face adapted to engage one edge of an apron and to cooperate with the tree to retain the apron in position, and another portion adapted to engage and support a cup, said portions being integrally formed.



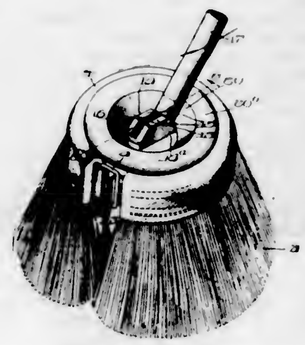
4. A support of the class described, having a portion thereof provided with a face adapted to engage one edge of an apron and having an integrally formed prong adapted to be driven into the tree, whereby to secure the support to the tree.

5. A support of the class described, having a portion thereof adapted to engage a cup and support the same in position, and having a prong formed integrally therewith, said prong being adapted to be driven into the tree whereby to secure the support to the tree.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,700. DUST-MOP. FELIX PIRRUNG and GEORGE F. PIRRUNG, Chicago, Ill. Filed July 31, 1913. Serial No. 782,187. (Cl. 15—51.)



1. In a mop, the combination with a cloth having an annular body, of a base provided with radial extensions for supporting the body of the cloth.

2. In a mop, the combination with a cloth having an annular body, of a base having outwardly extending spouts supporting the body of the cloth and adapted to convey oil thereinto.

3. In a mop, the combination with a cloth having an annular body, of a base having upstanding fingers arranged in a circle against which the sides of the body of the cloth may rest, and radial projections formed at the bottom of the base for supporting the body of the cloth.

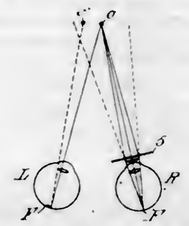
4. In combination, a mop cloth, a base having upstanding members arranged in a circle, fastening means for holding the body of the cloth in contact with said upstanding members, and radial projections near the bottom of the base for supporting the body of the cloth.

5. In a mop, the combination of a base having upstanding and also radially projecting members, a mop cloth having an elongated body and strands suspended therefrom, means for holding the body of the mop in contact with said upstanding and radially projecting members, and ducts in said base for conveying oil into the strands of the mop.

[Claims 6 to 12 not printed in the Gazette.]



1,091,701. INSTRUMENT FOR DETECTING HETEROPHORIA. CHARLES H. PIXLEY, Austin, Ill., assignor to F. A. Hardy & Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 26, 1913. Serial No. 803,092. (Cl. 88—20.)



1. An instrument for testing the extraneous muscles of the eye, comprising a truncated conical prism adapted to be positioned in front of the eye and constructed to permit the undeviated passage of rays through the center thereof and to refract the rays intercepted by the inclined sides of the cone.

2. An instrument for testing the extraneous muscles of the eye, comprising a cylindrical prism having one end of frusto conical shape to permit the undeviated passage of light rays through the flat top of the prism and to refract the rays intercepted by the inclined sides of said frusto conical end.

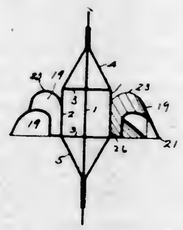
3. An instrument for testing the extraneous muscles of the eye, comprising a cylindrical prism having one end disposed in a plane normal to the longitudinal axis of the prism and the other end of frusto conical shape, whereby upon observation of a source of light through said prism an impression of a luminous spot surrounding the true source of light is produced.

4. The combination with a source of light of a prism adapted to be positioned before the eye and constructed to permit the passage of a central beam of light therefrom undeviated to the eye and to refract surrounding beams so as to produce the image of a luminous round spot surrounding the true source of light.

5. The combination with a source of light, of means adapted to be positioned before the eye permitting the undeviated passage of light through the center thereof but refracting the surrounding rays so as to produce the impression on the eye of a luminous round spot surrounding the true source of light observed through the center of said means.

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1,091,702. FAN-WHEEL. CUTLER THOMAS PORTER, Spokane, Wash. Filed June 10, 1912. Serial No. 702,843. (Cl. 230—11.)



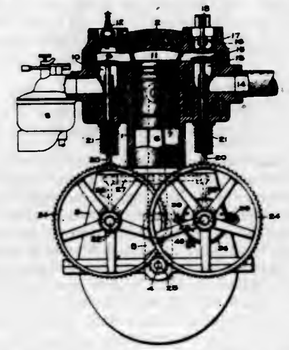
1. A fan wheel comprising in combination, a rotatable standard, a plurality of concave cone-like vanes carried by said standard, a band for the outer generatrix margins of said vanes, braces connecting the outer generatrix margins of said vanes and said band, and braces connecting the last mentioned generatrix margins with said standard, substantially as and for the purpose set forth.

2. A fan wheel comprising in combination, a rotatable hub, an outer band or ring surrounding said hub and spaced therefrom, a plurality of cone-like vanes mounted intermediate said hub and said ring and having their outlet ends substantially in the plane of said ring, and braces connecting the inner edges of said vanes with said hub, said braces lying substantially in the plane of said ring.

3. A fan wheel comprising in combination, a central rotatable hub, a plurality of cone-like vanes carried by said hub, a ring surrounding said vanes and lying in a plane substantially at right angles to the axis of rotation and to which said vanes are connected, and braces lying substantially in the same plane as said ring and connecting the outlet edge of said vanes with said ring.

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1,091,703. INTERNAL-COMBUSTION ENGINE. WILLIAM H. PRATT, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 28, 1910. Serial No. 584,212. (Cl. 123—21.)



1. An internal combustion engine having a piston and cylinder, valve gear and electric ignition mechanism for operating it on the four-stroke-cycle, additional valve gear and electric ignition mechanism which are put into coöperative action with the first named valve gear for operating it on the six-stroke-cycle, and means for changing the valve gear and ignition mechanism from one operating condition to the other.

2. An internal combustion engine having a piston and cylinder, valve gear and electric ignition mechanism for operating it on the four-stroke-cycle, additional valve gear and electric ignition mechanism which are put into coöperative action with the first named valve gear for operating it on the six-stroke-cycle, and a device which is common to both of said valve gears and to the electric ignition mechanisms for changing over their operation from one cycle to the other at will.

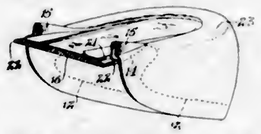
3. An internal combustion engine having a piston and cylinder, valves for the cylinder, rotatable cams for actuatng a part of the valves when the engine is operating on the four-stroke-cycle, another set of cams for actuating all of the valves when the engine is operating on the six-stroke-cycle, shifting means for moving either set of cams into operative relation with the valves, an electrical ignition mechanism, and a device moved by the shifting means for varyng the periods of activity of said ignition mechanism.

4. An internal combustion engine provided with an admission valve and an exhaust valve, a set of cams for operating said valves on the four-stroke-cycle, an air inlet valve, a set of cams for operating all three valves on the six-stroke-cycle, a timing device, and means for shifting the cams and device to change from one cycle to the other.

5. An internal combustion engine provided with an admission valve and an exhaust valve, a set of cams for operating said valves on the four-stroke-cycle, an air inlet valve, a set of cams for operating all three valves on the six-stroke-cycle, and means for shifting from one set of cams to the other at will.

[Claims 6 to 8 not printed in the Gazette.]

1,091,704. COUNTER-STIFFENER. GEORGE L. PAEBLE, Lynn, Mass. Filed May 29, 1911. Serial No. 630,255. (Cl. 36—68.)



1. A counter stiffener comprising a doubled sheet of soft flexible material, a layer of celluloid between the layers of said flexible material, and a layer of relatively stiff material between said celluloid and one of the layers of said flexible material, said layer of stiff material being smaller than said layer of celluloid, said layer of celluloid being interlocked with said layers of flexible material outside the margin of said stiff material, and said flexible material extending beyond said celluloid to provide flexible tabs adapted to be sewed in with the between substance of a shoe by stitches which do not pass through the celluloid.

2. A counter stiffener comprising a member of stiff sheet material having a heel-seat flange, and a covering therefor consisting of a member of soft flexible sheet material, said covering having a crease and two confronting layers connected by the creased part, said stiff material lying between said layers and said creased part inclosing the inner edge of said flange, said inner edge being substantially coextensive with said crease around the rear portion of the flange, a substantial portion of the length of said inner edge at each end of said flange being a sufficient distance from said crease to enable a needle of an inseam sewing machine to sew the inseam stitches through both layers of said soft flexible material between said crease and the inner edge of said end portions.

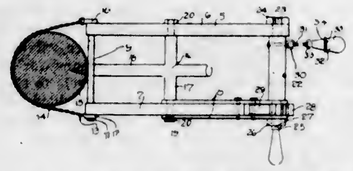
3. A counter stiffener comprising a layer of relatively stiff material having a heel-seat flange, and a doubled sheet of soft flexible material, said stiff material being between the layers of said soft flexible material, and the crease of said soft flexible material inclosing the inner edge of said flange and diverging from the edge of the flange to provide soft flexible tabs between the ends of said heel-seat flange.

4. A counter stiffener comprising a doubled sheet of soft flexible material having an upper body portion and a heel-seat flange, the crease of said soft flexible material being at the inner edge of said flange, and a layer of relatively stiff material having an upper body portion and a heel-seat flange at the rear and sides, said layer of relatively stiff material being between the layers of said soft flexible material, said flange of relatively stiff material being shorter than the body portion thereof and shorter than said flange of said soft flexible material.

5. The combination with a boot or shoe having inseam stitches for joining the upper and insole, of a counter stiffener comprising a stiffening member provided with soft flexible tabs at the forward portions thereof and secured to said upper and insole by said stitches.

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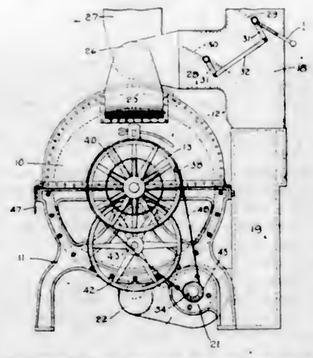
1,091,705. WIRE-STRETCHER. AIME T. QUESNOY, Cambria, Wyo. Filed Apr. 12, 1913. Serial No. 760,789. (Cl. 39—62.)



A device of the character described comprising a frame including a pair of parallel bars, means for connecting said bars to a suitable support, one of said bars being longer than the other, a pair of longitudinally extending plates secured to one end of the shorter bar, a shaft extending through said longer bar and said plates, a ratchet wheel keyed to said shaft between said plates, a pawl pivotally mounted between said plates and adapted for engagement with said ratchet wheel, a crank connected to one end of said shaft, and a clamp connected to said shaft, as and for the purpose described.

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1,091,706. CLOTHES-DRYING MACHINE. FRANKLIN M. RAYMOND, Saugatuck, Conn. Filed May 29, 1912. Serial No. 700,483. (Cl. 34—5.)



1. A clothes drying machine comprising a casing, a rotating cylinder mounted therein, a conduit having its discharge end extending into said casing, a second conduit leading from said casing, a connection between the second conduit and the first conduit, a valve controlling the inlet end of the first conduit, a second valve in said connection, and means for opening either valve and simultaneously closing the other valve.

2. A clothes drying machine comprising a casing, a shaft mounted to rotate in said casing, a cylinder secured to said shaft, a centrally located wall in said cylinder dividing the cylinder into two compartments, said wall comprising two plates having their outer edges secured to the peripheral wall of the cylinder, and the inner edges provided with complemental half-sleeves adapted to be assembled in overlapping relation to embrace said shaft, and means for uniting said half sleeves.

3. A clothes drying machine comprising a casing, a drying cylinder therein, an air supply conduit discharging into said casing, a valve controlling the inlet thereof, a blower coöperating with the conduit to force air into the casing, an air exhaust conduit for the casing, an air conducting connection between the two conduits, a valve controlling the admission of air to the connection, a link connection between the valves and manually controlled means for causing the link to open one valve and simultaneously close the other valve.

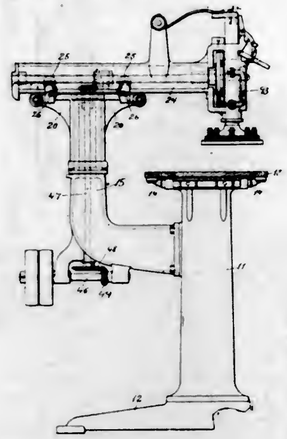
4. A clothes drying machine comprising a casing, a drying cylinder therein, an air supply conduit discharging into the casing, an air exhaust conduit for the casing, an air conducting connection between the two conduits, valves controlling the two conduits for causing air to pass through the exhaust conduit, or circulate through the supply conduit, casing, exhaust and conducting connection, and manually operated means connecting the valves to cause the same to operate simultaneously.

5. A clothes drying machine comprising a casing, a drying cylinder therein formed of openwork material, an air inlet conduit, an air heater in communication with the conduit, a longitudinally tapering discharge conduit disposed beneath the casing and provided with a plurality of nozzles projecting into the casing beneath the cylinder, said discharge conduit having its larger end in communication with the heater, a blower for forcing heated air through the discharge conduit, an air exhaust for the casing having a by-pass connection with the air inlet conduit, and means whereby air may be circulated through the conduits, heater, casing and by-pass, or permitted to escape through the exhaust.



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1,091,707. DIEING-MACHINE. JAMES H. REED, Swampscott, Mass., assignor to Essex Machine Company, Lynn, Mass., a Corporation of Maine. Filed May 27, 1908. Serial No. 435,260. (Cl. 164—23.)



1. In a machine of the character described, a die having a dull cutting edge, a work support having a hard unyielding surface, a hammer having an unyielding face and mechanism for causing said hammer to impart a hammer blow to the upper edge of the die.

2. In a machine of the character described, a work support having a hard unyielding surface, a hammer adapted to impart a hammer blow to the die, and having a hard unyielding face, mechanism for operating said hammer, and a die having at its ends dull cutting edges substantially as set forth.

3. In a machine of the character described, a work support, a hammer, and a head therefor constructed and arranged to permit said hammer to be moved in every direction in a plane parallel to the work support longitudinally and laterally of the surface of the work support.

4. In a machine of the character described, a work support, a hammer and a head therefor constructed and arranged to permit said hammer to be moved laterally in every direction over the surface of the work support, said head comprising a rotatable member and a hammer-carrying slide supported thereby.

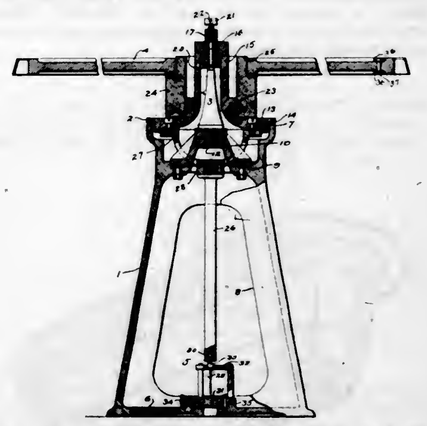
5. In a machine of the character described, the combination with a flat work support, of a hammer adapted to reciprocate perpendicularly to the face of said support, means for raising the hammer, spring-actuating mechanism for depressing said hammer to impart a hammer blow to a die, and a head for supporting said hammer and adapted to permit said hammer to be moved laterally over said work support.

[Claims 6 to 23 not printed in the Gazette.]

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1,091,708. BALANCING-MACHINE. JOHN RIDDELL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 1, 1905. Serial No. 247,909. (Cl. 73—51.)

1. In a balancing machine, the combination of a supporting frame, a balancing table, means on said table for carrying the body to be balanced, said table being mounted on the frame so as to be universally movable about a vertical axis, an indicating mechanism mounted on the frame and means for transmitting movements of said table to said indicating mechanism.



2. In a balancing machine, the combination of a supporting frame, a balancing table for the work to be balanced, a vertical pivot mounted on the frame on which the table is universally movable, an abutment for limiting the movement of the table, and an indicating mechanism moved by the table.

3. In a balancing machine, the combination of a supporting column, a balancing table centrally pivoted thereon to have universal movement, means for limiting the movement of the table, and an indicating mechanism mounted on the column at one side of the normal plane of the table and means for transmitting movements of said table to said indicating mechanism whereby said indicating mechanism is responsive to the movements of said table.

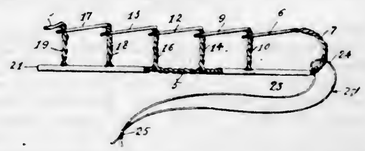
4. In a balancing machine, the combination of a supporting column, a balancing table for holding the body to be balanced, a universal bearing between them, an abutment formed on the column for limiting the movement of the table, and an indicating mechanism arranged in the column and moved by the table.

5. In a balancing machine, the combination of a supporting column, a central pivot mounted on the same, a universally movable table supported on the pivot, an abutment for the table which is disposed adjacent to the periphery of the same, and an indicating mechanism connected with the table for indicating its movements.

[Claims 6 to 29 not printed in the Gazette.]

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1,091,709. PUZZLE. WILLIAM T. RUTLEDGE, Redlands, Cal., assignor of one-half to C. A. Tripp, Redlands, Cal. Filed Apr. 7, 1913. Serial No. 759,303. (Cl. 46—41.)



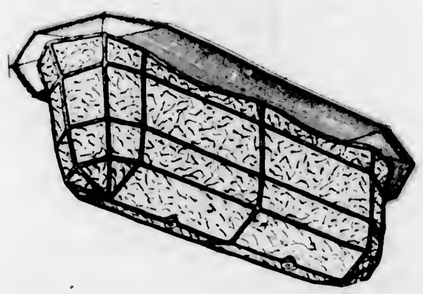
1. A puzzle comprising a body portion, a plurality of interlocked fixed loops supported thereon, stems joining said loops and body and a looped cord engaging said stem intermediate of the first of said loops and said body.

2. A puzzle comprising a body portion formed of twisted wires having a plurality of loops formed on stems extending at right angles, each of said loops being bent over to encircle the next succeeding stem, and a cord encircling the body portion acting as a stem for the first loop.

3. A puzzle, comprising a series of connected stems, a ring on each of said stems encompassing the adjacent stem, a stem encircled by the end ring, and a continuous cord adapted to encircle the end stem and adapted to be removed and replaced thereon by a series of successive movements through the rings.

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1,091,710. ILLUMINATOR. WALTER D'A. RYAN, Watertown, S. D., assignor to General Electric Company, a Corporation of New York. Filed Feb. 18, 1909. Serial No. 478,711. (Cl. 240—93.)



1. In an illuminating device the combination with a lamp, of a shade shaped to partially inclose said lamp having light transmitting walls with an inner smooth surface toward the lamp and an outer irregularly wavy surface any two unit areas of which are dissimilar in configuration whereby an irregular dispersion of the transmitted light is produced, and means arranged for mingling the light from the interior of said shade with the light transmitted through said walls.

2. In an illuminating device the combination with a lamp, of a shade shaped to partially inclose said lamp having translucent walls made of pieces of glass each having a flat smooth surface on one side and an irregularly wavy surface on the other side any two unit areas of which are dissimilar, said pieces being arranged with their smooth surface toward said lamp whereby the irregularly wavy surface produces an irregular dispersion of the transmitted light, and means mounted to mingle the light from the interior of said shade with the irregularly dispersed light.

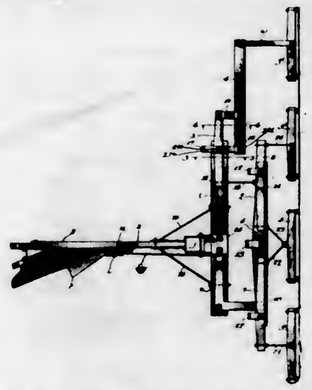
3. An illuminating device comprising with a lamp, a lamp shade in the form of an open ended vessel having light transmitting walls with a flat smooth inner surface and an irregular wavy outer surface any two unit areas of which are dissimilar, means for holding said shade with the open end up and in position to partially inclose said lamp whereby the irregularly wavy surface produces an irregular dispersion of the transmitted light, and means adjacent said open end to intercept the light from the interior of said shade and mingle it with the transmitted light.

4. An illuminating device comprising with a lamp, a lamp shade shaped to partially inclose said lamp having translucent walls with a flat smooth inner surface and an irregular wavy outer surface any two unit areas of which are dissimilar whereby the light transmitted through said irregularly wavy surface is irregularly dispersed, and a reflector mounted to mingle the reflected light from the interior of said shade with the irregularly dispersed transmitted light.

5. In an illuminating device, the combination with a lamp, of a shade shaped to partially inclose said lamp and having translucent walls made of pieces of glass each having a flat smooth inner surface and an irregularly wavy outer surface, and a reflector mounted to mingle the light from the interior of said shade with the light transmitted through said translucent walls.

[Claim 6 not printed in the Gazette.]

1,091,711. FOUR-HORSE EVENER. RICHARD I. SMITH, Crofton, Nebr. Filed Feb. 12, 1913. Serial No. 748,045. (Cl. 21—76.)



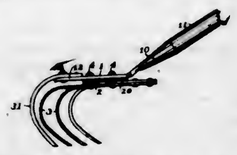
1. In a draft equalizer, a main beam; a primary lever pivotally connected at its outer end to one end of the main beam; a draft tree pivoted to the intermediate portion of the primary lever; a supplemental tree pivoted between its ends to the other end of the main beam; a connection between the inner end of the supplemental tree and the inner end of the primary lever; a secondary lever pivotally connected at its inner end to said other end of the main beam; a connection between the intermediate portion of the secondary lever and the outer end of the supplemental tree; and a draft tree pivoted to the outer end of the secondary lever.

2. In a draft equalizer, a main beam; a primary lever pivotally connected at its outer end to one end of the main beam; a draft tree pivoted to the intermediate portion of the primary lever; a supplemental tree pivoted between its ends to the other end of the main beam; a connection between the inner end of the supplemental tree and the inner end of the primary lever; a secondary lever pivotally connected at its inner end to said other end of the main beam; a connection between the intermediate portion of the secondary lever and the outer end of the supplemental tree; a draft tree pivoted to the outer end of the secondary lever; and a lever fulcrumed on the main beam and pivoted to the primary lever adjacent the connection between the primary lever and the main beam.

3. In a draft equalizer a main beam; a supplemental tree pivoted intermediate its ends to one end of the main beam; a secondary lever pivoted to the main beam; a connection between the outer end of the supplemental tree and the intermediate portion of the secondary lever; a primary lever pivoted at its outer end to the other end of the main beam; a connection between the inner end of the primary lever and the inner end of the supplemental tree; and means carried by the main beam and operably connected to the primary lever for producing relative movement between the primary lever and the main lever in a direction approximately parallel to the main beam.

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1,091,712. HAND-CULTIVATOR. JOHN B. SOWARD, Seattle, Wash. Filed Apr. 17, 1913. Serial No. 761,858. (Cl. 97—41.)



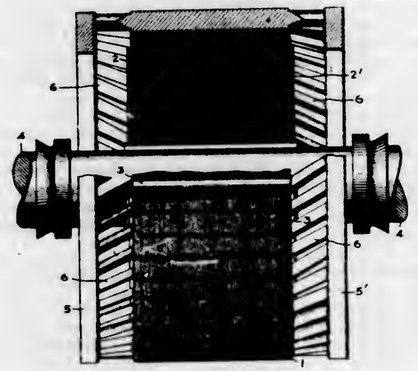
A cultivating tool comprising a central bar having means for securing an operating handle thereto, and for securing



two pivot bolts at points separated lengthwise the same, two pairs of teeth-carrying bars pivoted in pairs upon said bolts, adjusting and securing means for said bars comprising holes in the bars disposed about their pivot bolts and a pin secured to the central bar and entering said holes in the teeth-carrying bars, teeth, each pivoted to both bars of one pair, the central bar having an extension beyond the pivot bolts, and a central tooth removably secured to said extension.

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1,091,713. INDUCTION-MOTOR. CHARLES L. SPINNEY, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 30, 1912. Serial No. 723,047. (Cl. 172—120.)



1. An induction motor rotor comprising a magnetic core, conductors passing therethrough and projecting outside said core at an angle of less than 90 degrees with respect to the face of said core, the projecting ends of said conductors being located substantially within an extension of the cylindrical surface of the core and a short-circuiting ring connecting and forming an integral part of said conductors.

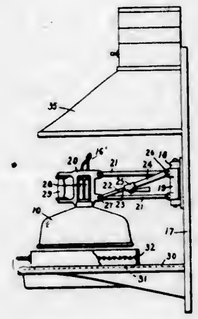
2. In an induction motor, the combination of an iron core, cast metal bars passing therethrough and projecting beyond said core, said projecting ends extending at an angle of about 45 degrees to a line passing longitudinally through said core and located substantially within an extension of the cylindrical surface of the core, and a cast conductor short-circuiting said bars.

3. An induction motor rotor, comprising a cylindrical core of magnetic material, copper conductors passing longitudinally through said core near its peripheral surface and extending beyond the ends of said core, said projections being canted at an angle of less than 60 degrees, and copper rings binding the respective ends of said conductors together, said conductors and rings forming a single mass of copper without mechanical joints.

4. An induction motor rotor comprising a cylindrical iron core, substantially rectangular bars passing through said core so that the major axes are radially disposed, the ends of said bars projecting beyond the sides of the core at an angle less than 90 degrees said projecting ends being rotated or twisted so as to incline the major axes and a metal ring integrally connecting said bars.

5. An induction motor rotor, comprising a cylindrical iron core, substantially rectangular cast copper bars passing through said core near its peripheral surface and having their major axes radially disposed, the ends of said bars projecting beyond the faces of said core at an angle less than 90 degrees, said projecting ends being located substantially in a plane parallel to the axis of said core and a cast copper ring integrally connecting said bars.

1,091,714. ELECTRIC COOKING DEVICE. WILLIAM STANLEY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 21, 1912. Serial No. 737,991. (Cl. 219—19.)



1. An electric cooking device comprising a substantially horizontally disposed resistance heating unit, a heat insulating deflector covering the top of said unit, and supporting means permitting horizontal adjustment of said parts with reference to an article to be cooked.

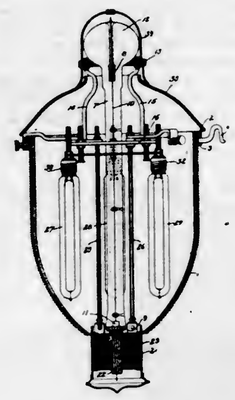
2. An electric cooking device comprising a substantially horizontally disposed resistance heating unit, a heat insulating deflector covering the top of said unit, and supporting means permitting horizontal and vertical adjustment of said parts with reference to an article to be cooked.

3. An electric cooking device comprising a stationary grid, a substantially horizontally disposed resistance heating unit located above said grid, and supporting means for said resistance unit which permits horizontal adjustment thereof above said grid.

4. In an electric cooking device, a support, a grid carried thereby, an opening beneath said grid for the reception of a suitable receptacle, and a substantially horizontally disposed resistance unit located above said grid, and supporting means for said unit which permits horizontal adjustment thereof above said grid.

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1,091,715. ELECTRIC LAMP. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 9, 1904. Serial No. 207,023. (Cl. 240—1.)



1. The combination of a prismatic glass globe, a ring for supporting said globe, a mercury vapor lamp, and one

or more incandescent lamps in the globe and supported from said ring.

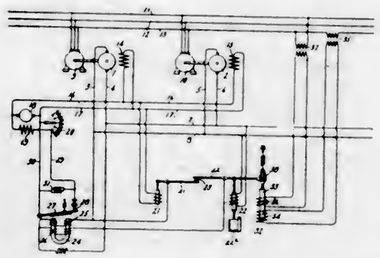
2. The combination of a globe having a flanged top, a supporting ring engaging said flange, and electric lamps of different types carried from said ring.

3. The combination of a light-dispersing globe, a centrally located mercury vapor lamp in said globe, incandescent lamps grouped about said mercury vapor lamp, and having filaments extending parallel for the greater part of their length with said mercury vapor lamp.

4. The combination of a globe of prismatic glass, a mercury vapor lamp supported centrally in said globe, a plurality of incandescent lamps supported in said globe around said mercury lamp, a ring support for said globe, and a frame-work carried from said ring and supporting said incandescent lamps.

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1,091,716. VOLTAGE-REGULATOR. CHARLES W. STONE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 7, 1909. Serial No. 531,793. (Cl. 171—312.)



1. In combination, an electrical distributing system, a translating device taking electrical energy from said system and transferring the same to another system, an automatic regulator for the second mentioned system and a separate means responsive to the load on the first mentioned system for operating the regulator of the second system and limiting the draft of energy from the first system when the load on said first system tends to exceed a predetermined value.

2. In combination, an electric distribution system, motors taking energy therefrom, electrical generators driven thereby, an automatic regulator for controlling the field excitation of said generators, and means responsive to the load on the distribution system for limiting the increase of excitation when the load on said distribution system tends to exceed a predetermined limit.

3. In a system of distribution, a generator, means to drive the generator, automatic means to regulate the generator, and an additional means responsive to both the current supplied and the voltage at which said current is supplied to said driving means, controlling the regulating means.

4. In a system of distribution, a generator, means to drive the generator, an automatic regulator for said generator, said regulator including a movable arm, means for moving said arm, and an electromagnet controlling said arm, said electromagnet being connected so that it is energized in proportion to both the current supplied and the voltage at which said current is supplied to the driving means.

5. In combination a system of distribution, a regulator therefor including a movable arm, an electromagnet normally controlling the arm energized in proportion to the voltage of a part of the system, another electromagnet provided with an armature having a slot and pin connection with the arm energized in proportion to the current in a part of the system.

[Claims 6 to 8 not printed in the Gazette.]

1,091,717. FLY-TRAP. CORNELIUS F. TERHUNE, Clinton, Iowa. Filed Oct. 23, 1913. Serial No. 796,909. (Cl. 43—22.)



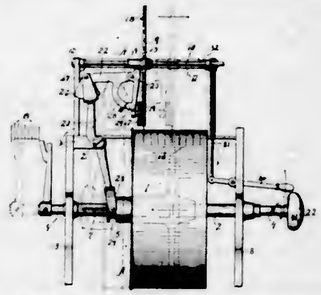
1. A collapsible fly trap comprising spring rod end frames bent to form outer V-shaped wall members and interior guard members connected together, reticulated material connecting the end frames to form the side walls and guard flaps, the end walls of textile fabric attached to the end frames, whereby the side walls and guard flaps may be collapsed.

2. A collapsible fly trap comprising spring rod end frames bent centrally at the apex of outer V-shaped wall members, and near their outer ends bent inward to form interior guard members, the extremities being formed, one with an eye and the other with an engaging hook for connecting them together, reticulated material connecting the end frames to form the side walls and guard flaps, said flaps being separated at their upper edges to form an entrance slot, and end walls of textile fabric attached to the end frames whereby the walls and guard flaps may be collapsed.

3. A collapsible fly trap comprising spring rod end frames and connecting reticulated material with the transverse mesh wires looped around said rods at the opposite ends, said rods and material being bent to form diverging side walls and interior guard flaps loosely connected at their upper ends to provide an entrance slot between the edges of the flaps, and end walls of flexible material.

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1,091,718. RECORDING-MACHINE. CHARLES E. TOMLINSON, Syracuse, N. Y., assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y., a Corporation of New York. Filed Nov. 27, 1908. Serial No. 464,692. (Cl. 234—46.)



1. A recording machine comprising an operating handle, a record-sheet supporting-element, and a rotary clock controlled printing element, one of said elements being shiftable in one direction and the other in the opposite direction to determine the position of a record upon the record-sheet and means associated with the handle for effecting said shifting movements of said elements, substantially as and for the purpose specified.

2. In a recording machine, a record-sheet supporting element, a rotary clock controlled printing element, and movable means interposed between said elements for shifting one element in one direction and the other element in the opposite direction to determine the position of a record upon the record-sheet, substantially as and for the purpose described.

3. In a recording machine, a record-sheet supporting-element, a rotary clock controlled printing element, and



means actuated by a single handle for simultaneously shifting one element in one direction and the other element in the opposite direction to determine the position of a record upon the record-sheet, substantially as and for the purpose set forth.

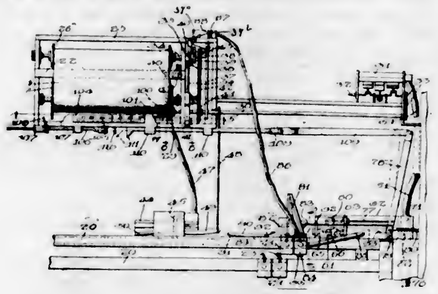
4. In a recording machine, a record-sheet supporting-element movable about an axis, a printing element movable about a parallel axis, and means for simultaneously shifting one element axially in one direction and the other element axially in the opposite direction to determine the position of a record upon the record-sheet, substantially as and for the purpose specified.

5. A recording machine comprising a record-sheet supporting-element, a printing element, one of said elements being shiftable in one direction and the other in the opposite direction to determine the position of a record upon the record-sheet, and both elements being movable to their initial position after determining the position of each record upon the record-sheet and means for returning said elements to their initial position after each printing operation, substantially as and for the purpose described.

[Claims 6 to 52 not printed in the Gazette.]

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1,091,719. AUTOMATIC SPEED-CONTROLLER AND STOP MECHANISM FOR PIANO-PLAYING ATTACHMENTS. EUGENE T. TURNEY, Rock Island, Ill., assignor to Artista Piano Player Company, Rock Island, Ill., a Corporation of Illinois. Filed Feb. 28, 1908. Serial No. 418,368. (Cl. 84—166.)



1. In combination in a device of the class described, a record, a roller upon which the record is adapted to be wound, a pneumatic motor for operating the roller, an equalizer for controlling the motor, actuating means for the equalizer, and a compensating device separate from said actuating means and engaging the record sheet as the latter is wound upon the roller for controlling the operation of the said actuating means to vary the speed of the motor to compensate the varying movement of the record during such winding.

2. In combination in a device of the class described, a record, a roller upon which the record is adapted to be wound, a pneumatic motor for operating the roller, an equalizer for controlling the motor, actuating means for the equalizer, and a compensating device separate from said actuating means and engaged by the record as the latter is wound upon the roller for automatically controlling the operation of said actuating, means to vary the speed of the motor to compensate the varying movement of the record during such winding.

3. In combination in a device of the class described, a record, a record roller, a receiving roller upon which the record is adapted to be wound, compensating means for controlling the receiving roller, rewinding mechanism for the record, and means for adjusting said mechanism to rewind the record, means for locking the rewinding mechanism in its adjusted position, said compensating means including means for releasing the re-winding mechanism when the record is unwound from the receiving roller.

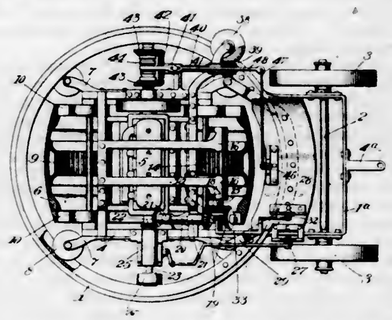
4. In combination in a device of the class described, a record, a roller upon which the record is adapted to be wound, a motor for operating the roller, and compensating means for controlling the roller, said compensating means including a regulator for the motor, a rock shaft and connections for controlling the regulator, and means operatively connected to the shaft and adapted to be adjusted by the record as the latter is being wound upon the receiving roller to rock the shaft.

5. In combination in a device of the class described, a record, a roller upon which the record is adapted to be wound, a motor for operating the roller, and compensating means for controlling the roller, said compensating means including a regulator for the motor, a rock shaft and connections for controlling the regulator, means operatively connected to the shaft and adapted to be adjusted by the record as the latter is being wound upon the receiving roller to rock the shaft, an adjustable stop operatively related to the shaft, and means operatively connected to the regulator and adapted to engage the said stop.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,720. FRONT-DRIVE TRACTOR. FRANCIS MARION VANDERVOORT, Fredonia, Kans. Filed Dec. 27, 1912. Serial No. 738,817. (Cl. 21—114.)



1. A tractor including a main frame, a horizontal frame adapted to turn about a vertical axis, the said main frame being formed with a curved track which is concentric with the vertical axis of the horizontal frame engaging the track of the main frame, a hollow traction wheel through which the horizontal frame extends, said traction wheel being provided upon opposite sides thereof with annular guideways and being also provided with an interior annular rack, rollers carried by the horizontal frame and engaging the said guideways of the traction wheel to admit of the traction wheel turning freely about a horizontal axis, a pinion carried by the horizontal frame and meshing with the interior rack of the traction wheel, and means for driving the pinion.

2. A tractor including a main frame, a horizontal frame adapted to turn about a vertical axis, the said main frame being formed with a curved track which is concentric with the vertical axis of the horizontal frame, guide means upon the horizontal frame engaging the track of the main frame, a hollow traction wheel through which the horizontal frame extends, said traction wheel being provided upon the interior thereof with a pair of annular guideways, rollers carried by the horizontal frame and engaging the said guideways of the traction wheel to admit of the traction wheel turning freely about a horizontal axis, an engine mounted upon the horizontal frame and arranged within the hollow traction wheel, and gearing between the engine and traction wheel.

3. A tractor including a main frame, a horizontal frame adapted to turn about a vertical axis, said main frame being formed with a curved track which is concentric with the vertical axis of the horizontal frame, guide means upon the horizontal frame for engaging the track of the main frame, a hollow traction wheel through which the horizontal frame extends, said traction wheel being provided upon the interior thereof with a pair of annular

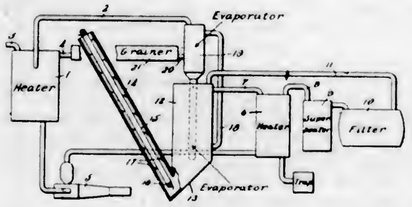
guideways, guide rollers carried by the horizontal frame and engaging the said guideways to admit of the traction wheel turning freely about a horizontal axis, an annular rack upon the traction wheel, a bearing carried by the horizontal frame, a shaft mounted in the bearing, a pinion carried by the shaft and engaging the rack of the hollow traction wheel, an engine mounted upon the horizontal frame and arranged within the hollow traction wheel, and gearing between the engine and the said shaft.

4. A tractor including a main frame formed with a circular track, a horizontal frame arranged within the circular track and adapted to turn about a vertical axis, guide members carried by the horizontal frame and engaging the said circular track, a hollow traction wheel through which the horizontal frame extends, said traction wheel being provided at opposite edges thereof with interior annular guideways, brackets projecting from the horizontal frame, guide rollers upon the brackets for engaging the annular guideways to admit of the traction wheel turning freely about a horizontal axis, an annular rack upon the traction wheel, a pinion engaging the rack, bearings carried by the horizontal frame, a shaft journaled within the bearings and carrying the pinion, a second set of bearings upon the horizontal frame, a second shaft journaled in the said bearings, reversible gearing between the said second shaft and the first shaft, an engine upon the main frame, and changeable speed gearing between the engine and the second shaft.

5. A tractor including a main frame formed with a horizontally disposed circular track, a horizontal frame arranged within the circular track and adapted to turn about a vertical axis, guide members carried by the horizontal frame and engaging the circular track, a hollow traction wheel through which the horizontal frame extends, said hollow traction wheel being provided at opposite edges thereof with interior annular guideways, brackets projecting from the horizontal frame, rollers carried by the brackets and engaging the annular guideways of the traction wheel so that the said traction wheel is adapted to turn freely about a horizontal axis, an engine mounted upon the horizontal frame and arranged within the hollow traction wheel, a bearing carried by the horizontal frame, an interior annular rack at the middle of the hollow traction wheel, a shaft journaled in the said bearing, a pinion carried by the shaft and engaging the rack, a second set of bearings carried by the horizontal frame, a second shaft journaled in the said second set of bearings, reversible gearing between the second shaft and the first shaft, and gearing between the second shaft and the engine.

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1,091,721. APPARATUS FOR MAKING SALT. CHARLES L. WEIL, St. Clair, Mich., assignor to Diamond Crystal Salt Company, St. Clair, Mich., a Corporation of Michigan. Original application filed May 31, 1911, Serial No. 630,287. Divided and this application filed Sept. 8, 1911. Serial No. 648,288. (Cl. 127—16.)




1. In a salt-making system, the combination of a brine preheater, another heating means, means for delivering heated brine under pressure to the other heating means, means for producing self-evaporation of the heated brine in a plurality of stages, means for removing salt deposited in such a stage, and means for returning the vapors of self-evaporation from one such stage to the brine preheater.

2. In a salt-making system, the combination of a brine preheater, subsequent means for further heating in a plurality of stages, means for delivering heated brine under pressure to said subsequent means, means for producing self-evaporation of the heated brine in a plurality of stages, means for removing salt deposited in such a stage, means for returning the vapors of self-evaporation from one such stage to the brine preheater and means for returning the vapors from another such stage to serve in a stage of the subsequent heating.

3. In a salt-making system, the combination of a brine preheater, a pump delivering brine therefrom to a series of successive subsequent heaters and a plurality of successive subsequent self-evaporating devices, one of such devices being provided with a salt delivering leg extending upward a sufficient distance above its bottom to provide a brine column counterbalancing pressure therein.

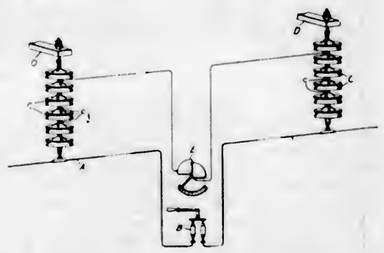
4. In a salt-making system, the combination of a brine preheater, a pump delivering brine therefrom to a series of successive subsequent heaters and a plurality of successive subsequent self-evaporating devices, one of such devices being provided with a salt delivering leg extending upward a sufficient distance above its bottom to provide a brine column counterbalancing pressure therein and another such device having a salt-delivery leg extending into the first-stated device.

5. In a salt-making system, a brine preheater, a pump removing brine therefrom, a second preheater, a third preheater adapted to heat to a high temperature, a pair of successive pressure-releasing and evaporating devices, means for removing salt deposited in such a device, connections taking the vapors from one such device to the preheater and connections taking vapors from the other such device to the second preheater.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,722. SYNCHRONISM-INDICATOR. VARANUS A. WOLCOTT, Butte, Mont., assignor to General Electric Company, a Corporation of New York. Filed Sept. 9, 1911. Serial No. 648,577. (Cl. 172—245.)



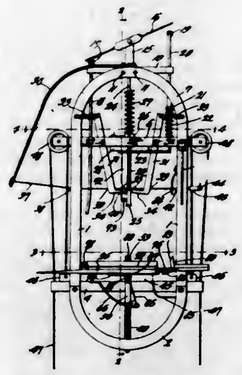
1. In combination with a plurality of high tension alternating current conductors, insulating supports therefor, a switch for connecting said conductors together, and a synchronism indicator comprising an electrostatically actuated indicator electrically connected between said insulating supports, the points of connection of said indicator to said insulating supports being between the ends of said insulating supports.

2. In combination with a plurality of high tension alternating current conductors, supports therefor each comprising a plurality of insulators in series, a switch for connecting said conductors together, and a synchronism indicator comprising an electrostatically actuated indicator connected between corresponding points on said supports.

3. In combination with a plurality of high tension alternating current conductors, supports therefor each comprising a plurality of insulators in series, a switch for connecting said conductors together, and a synchronism indicator comprising an electrostatically actuated indicator connected to points between the first and second insulators from ground of each of said series.



1,091,723. PEACH-STONING MACHINE. GEORGE WILLIAM ALLEN, Selma, Cal. Filed July 8, 1913. Serial No. 777,927. (Cl. 146—6.)



1. In a fruit pitting machine, a frame; pitting mechanism movably mounted in the frame; a fruit supporting platform mounted in the frame to move parallel to the direction of movement of the pitting mechanism; and yieldable means for advancing the pitting mechanism; the platform coacting with the said pitting mechanism to retract the pitting mechanism and to render the said yieldable means efficient to advance the pitting mechanism.

2. In a fruit pitting machine, a frame; pitting mechanism carried by the frame; a platform carried by the frame; a fruit supporting element releasably held in fruit engaging position on the platform for dropping movement independently of the platform; and means for producing relative movement between the platform and the pitting mechanism.

3. In a fruit pitting machine, a frame; pitting mechanism carried by the frame; a platform movable on the frame; means for moving the platform toward and away from the pitting mechanism; a releasable fruit support carried by the platform; latch mechanism carried by the platform and adapted to engage the fruit support, and a relatively fixed member on the frame adapted to engage the latch mechanism.

4. In a fruit pitting machine, a frame; pitting mechanism carried by the frame; a platform mounted on the frame for movement toward and away from the pitting mechanism, the platform being provided with an opening; a fruit supporting gate mounted on the platform and movable toward and away from the opening; and means for operating the gate automatically when the platform is moved.

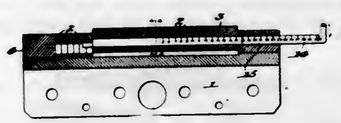
5. In a fruit pitting machine, a frame; pitting mechanism carried thereby; a platform mounted to move upon the frame toward and away from the pitting mechanism; a fruit support movably mounted upon the platform; latch mechanism for holding the support in fruit receiving position; relatively fixed means coöperating with the latch mechanism when the platform is moved; a pair of gates mounted upon the platform and movable toward and away from the fruit supporting element; means for moving the gates toward the fruit supporting element; means for moving the gates away from the fruit supporting element; a relatively fixed member coöperating with the last specified means, when the platform is moved.

[Claims 6 to 23 not printed in the Gazette.]

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1,091,724. LINOTYPE-MOLD. ALMONT A. BAILEY, Jr., Portland, Oreg. Filed July 17, 1912. Serial No. 709,854. (Cl. 199—13.)

1. In combination with a mold body for linotype machine, a series of segments, with openings therethrough mounted together side by side therein to form a portion of said mold, said segments being adapted to be moved in groups relative to the mold body to provide a molding space, and a locking device extending through said segments for locking said segments in adjusted positions.



2. In a linotype mold, a body, a series of segments movably mounted therein and forming a part of said mold, a spacing member adapted to be inserted into said mold whereby to move some or all of said segments away from the body of the mold to different distances to provide molding spaces of different thicknesses, and means for locking said segments in adjusted positions.

3. In a linotype mold, the combination with the body of said mold, of a series of pica segments forming a part thereof, said segments being adapted to be moved relative to said body whereby to provide molding space, a graduated spacing member adapted to be inserted into said mold for moving said segments in groups, and means for locking said segments in adjusted positions.

4. In combination with a linotype mold, a series of pica segments movably mounted therein, a graduated spacing member adapted to be inserted into said mold longitudinally thereof whereby to have operative engagement with said segments, said spacing member being adapted to be turned to move said segments relative to said mold body, and means for locking said segments in various positions of adjustment.

5. In a linotype machine, a mold having a series of segments forming a part thereof and adapted to be moved into different positions whereby to open molding spaces of different dimensions, and a spacing member provided with graduation marks longitudinally thereof and adapted to be inserted into said mold and into operative connection with some or all of said segments, whereby to engage and move said segments to different positions.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,725. INSULATING COMPOSITION. LAWRENCE E. BARRINGER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,971. (Cl. 106—15.)

1. A composition of matter comprising copal, castor oil, and rubber resin.

2. An insulating composition comprising by weight about 70 to 85 parts of copal, 5 to 15 parts of castor oil, and 5 to 20 parts of rubber resin.

3. A filler for oil immersed electrical coils comprising substantially by weight 82 parts gum copal, 10 parts, castor oil and 8 parts of resin extracted from crude rubber, characterized by high insulating properties, continued liquidity when heated and insolubility in mineral oil.

4. An insulating composition consisting of gum copal, castor oil, rubber resin and colophony.

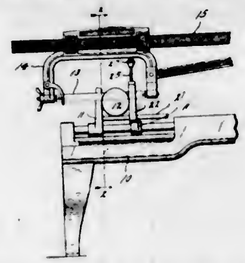
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1,091,726. HACKSAW-GUIDE. ROBERT C. BERRY, Indianapolis, Ind. Filed July 13, 1912. Serial No. 709,247. (Cl. 29—73.)

1. The combination with the main frame, vise jaws, and reciprocating saw frame of a machine hack saw, of a guide which is adapted to fit over the back of the saw, a guide-way in which said guide is slidably and rotatably mounted, a plate carryng said guide-way and adapted to be clamped between the work and one of the vise jaws, and a projection from said guide provided at its upper end with a roller coöperating with the under side of the saw frame to feed the guide positively as the saw cut deepens.

2. The combination with the main frame, vise jaws, and reciprocating saw frame of a machine hack saw, of a guide which is adapted to fit over the back of the

saw, a guide-way in which said guide is slidably mounted, a plate carrying said guide-way and adapted to be clamped between the work and one of the vise jaws, and a projection from said guide provided at its upper end with a roller coöperating with the under side of the saw frame to feed the guide positively as the saw cut deepens.



3. The combination with the main frame, vise jaws, and reciprocating saw frame of a machine hack saw, of a guide which is adapted to fit over the back of the saw, a guide-way in which said guide is slidably and rotatably mounted, and a plate carrying said guide-way and adapted to be clamped between the work and one of the vise jaws.

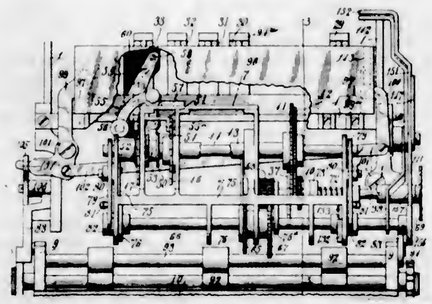
4. The combination with the main frame, vise jaws, and reciprocating saw frame of a machine hack saw, of a guide which is adapted to fit over the back of the saw, a guide-way in which said guide is slidably mounted, and a plate carrying said guide-way and adapted to be clamped between the work and one of the vise jaws.

5. The combination with the main frame, vise jaws, and reciprocating saw frame of a machine hack saw, of a guide which is adapted to fit over the back of the saw, a guide-way in which said guide is slidably and rotatably mounted, a plate carrying said guide-way and adapted to be clamped between the work and one of the vise jaws, and a projection from said guide coöperating with the under side of the saw frame to feed the guide positively as the saw cut deepens.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,727. FARE-REGISTER. ELMER H. BRIDENBAUGH, Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio. Filed May 12, 1913. Serial No. 767,054. (Cl. 234—4.)



1. In a fare register, in combination, a plurality of differentially movable detail counters adapted to register different amounts at each operation, a total counter, a gear connected to each of said counters, differential gears mounted on the individual gear of the total counter and in mesh with the individual gears of the detail counters, whereby said total counter is actuated from said detail counters.

2. In a fare register, in combination, a plurality of differentially movable detail counters adapted to register different amounts at each operation, a total counter, a gear connected to each of said counters, a pinion in mesh with each of the individual gears of the detail counters, said pinions being mounted on total counter actuating gear, and a smaller pinion attached to one of the first named pinions and in mesh with the other, whereby said total counter is actuated by said detail counters.

3. In a fare register, in combination, a plurality of detail counters, telescopic shafts connected to said counters, a gear mounted on each of said shafts, a total counter, a gear connected to said total counter, a pinion in mesh with each gear of the detail counters, said pinions being mounted on the gear of the total counter, and a pinion mounted on one of the larger pinions and in mesh with the other, whereby the total counter is actuated by the detail counter.

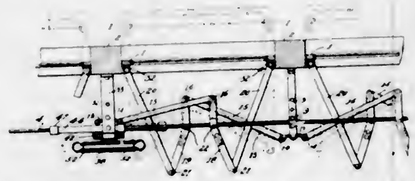
4. In a fare register, in combination, a counter, an actuator for said counter, a reciprocating member, and a member connected to said actuator and movable independently thereof, said last named member adapted to be rotated in one direction by said reciprocating member.

5. In a fare register, in combination, a counter, an actuator for said counter, a reciprocating member, and an intermittently movable member connected to said actuator and movable independently thereof, said intermittently movable member adapted to be rotated in one direction by said reciprocating member.

[Claims 6 to 23 not printed in the Gazette.]

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1,091,728. SASH-OPERATING MECHANISM. GEORGE GASS BRITTON, Anniston, Ala., assignor to Interstate Roofing & Foundry Company, Anniston, Ala., a Corporation of Alabama. Filed Aug. 30, 1913. Serial No. 787,446. (Cl. 16—28.)



1. The combination with a pivoted member to be operated and its support, of an operating shaft which is longitudinally movable, a lever pivoted medially to said shaft and disposed crosswise of the shaft, and two reversely disposed arms pivoted to the ends of the lever, one arm being pivoted to said support and the other arm to the member to be operated.

2. The combination with a pivoted member to be operated and its support, of an operating shaft which is longitudinally movable, a lever pivoted medially to said shaft and disposed crosswise of the shaft, and two reversely disposed arms pivoted to the ends of the lever, one arm being pivoted to said support on one side of said member and the other arm to the other side of the member to be operated.

3. The combination with a series of pivoted sashes and their supports, of a longitudinally movable operating shaft, supports therefor, floating levers pivotally connected medially to said shaft, horizontally swinging links having a fixed support at one end and having their free ends pivotally connected each to an outer end of a floating lever, and operating rods pivotally connected each to the inner end of a floating lever and to a sash to be operated thereby, substantially as described.

4. In a sash operating mechanism, two reversely movable operating shafts, fixed supports to confine said shafts to longitudinal movement, floating levers pivoted medially to said shafts, swinging links having fixed supports at one end and which have their free ends pivotally connected to the outer ends of said levers, and operating rods which are pivotally connected to the inner ends of said levers and to the sash to be operated, substantially as described.

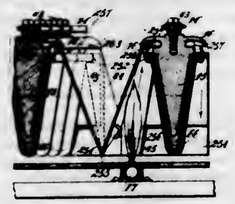


5. The combination with a plurality of sashes to be opened and their supports, of a pair of longitudinally movable line shafts standing in front of said sashes, supports in which said shafts are independently movable, means to move said shafts simultaneously in opposite directions, floating levers which are pivotally connected medially to said shafts and disposed substantially at right angles thereto, links pivotally connected at one end to the sash supporting structure and having their free ends pivotally connected to the outer ends of said floating levers, and operating rods which are pivotally connected to the inner ends of the floating levers and to the sashes to be operated, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

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1,091,729. OVEN FOR ICE-CREAM-CONE-MOLDING DEVICES. FREDERICK A. BRUCKMAN, Portland, Oreg. Filed June 11, 1912. Serial No. 702,964. (Cl. 107—58.)



1. In a machine of the class described, a set of separable mold members including female mold sections and cores therefor, oven members hinged to said female mold members to have telescopic movement with relation thereto, and means connecting adjacent ones of said oven members, together with oven covers carried by said male mold members to coöperate with said oven members.

2. In a machine of the class described, a pair of female mold members including supporting arms hinged together at one end of each, dies or molds proper carried by said arms and each including a plurality of molding sections, upwardly projecting partitions carried by said sections to prevent the molded product in the several sections from sticking together at the top, and oven members for applying heat to said molds.

3. In a machine of the class described, a plurality of sets of molding devices, each including a pair of female mold sections and cores for the same, said female mold sections being movable toward and from each other, front and back oven plates carried by said sections, and side oven members pivoted to said sections to telescope with relation to said front and back plates, means for applying heat beneath said oven members, and means for securing adjacent side oven members of said molding devices together to prevent dissipation of heat between adjacent molding devices.

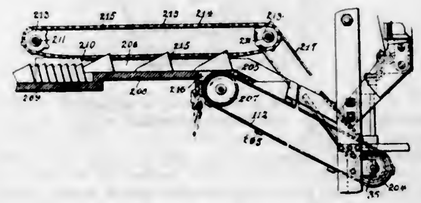
4. In a machine of the class described, a plurality of sets of molding devices, each including a pair of female mold sections and cores for the same, said female mold sections being movable toward and from each other, front and back oven plates carried by said sections, and side oven members pivoted to said sections to telescope with relation to said front and back plates, means for applying heat beneath said oven members, and means for securing adjacent side oven members of said molding devices together to prevent dissipation of heat between adjacent molding devices, said cores including oven covers coöperating with said side oven members.

5. In a machine of the class described, a plurality of sets of molding devices, each including a pair of female mold sections and cores for the same, said female mold sections being movable toward and from each other, front and back oven plates carried by said sections, and side oven members pivoted to said sections to telescope with relation to said front and back plates, means for applying heat beneath said oven members, and means for securing adjacent side oven members of said molding devices together to prevent dissipation of heat between adjacent molding devices, upwardly projecting partitions carried by said female mold members between each molding or die portion of the same to prevent adherence between the respective molded products.

[Claim 6 not printed in the Gazette.]

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1,091,730. CONE NESTING AND STACKING MECHANISM. FREDERICK A. BRUCKMAN, Portland, Oreg. Original application filed July 18, 1912, Serial No. 710,116. Divided and this application filed Jan. 24, 1913. Serial No. 743,987. (Cl. 107—45.)



1. In a machine of the class described, a conveyer onto which the trimmings and trimmed cones are delivered, a nesting table onto which the cones are conveyed by said conveyer, a nesting conveyer mounted over said nesting table to engage said cones and move them into one another to nest the same, and said nesting table including means for disengaging said nesting conveyer from the cones when they have been nested.

2. In a machine of the character stated, a nesting table including a top having a stepped portion, a conveyer for carrying the cones to the table, and a conveyer for engaging and nesting the cones when they have been deposited on the table.

3. In a machine of the character stated, a nesting table including a top having a stepped portion, a nesting conveyer for moving the cones from the entrant toward the exit ends of the table to nest the same after the cones have been placed upon the table.

4. In a machine of the character stated, a table, and a conveyer for moving the cones along said table, means for directing the travel of said cones in procession, said table including means for holding nested cones in a position to receive the points of succeeding cones in the opening of the last nested cone.

5. In a machine of the character stated, a nesting table including a top having a stepped portion, a conveyer for carrying the cones and trimmings to the table, and means for engaging and nesting the cones when they have been deposited on the table.

[Claims 6 to 9 not printed in the Gazette.]

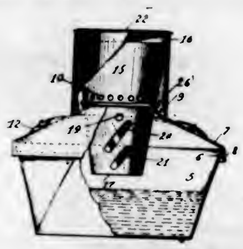
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1,091,731. ORCHARD-HEATER. ERNEST G. BUTTON and FRED M. HUNTOON, Riverside, Cal. Filed July 28, 1913. Serial No. 781,556. (Cl. 158—91.)

1. An orchard heater, comprising a receptacle, a truncated cover having a central aperture and adapted to closely fit the upper rim of said receptacle and having draft openings oppositely disposed to each other, draft dampers provided with a plurality of apertures adapted to control and register with said draft apertures in said cover, and a tubular tapered burner stack adapted to engage said central aperture intermediate of the ends of said burner stack and having a plurality of apertures immediately adjacent and above its support on said cover, and circular apertures disposed immediately below its support and a plurality of elongated apertures oppositely inclined on the opposite portions of said burner stack.

2. An orchard heater, comprising a metal receptacle, a cover therefor provided with domed portions having ar-

cuate slots therein, a damper pivoted on the center from which each said arcuate slot is struck having apertures therein, and means to move said damper to register said apertures with said arcuate slot or close the same against the admission of water.



3. An orchard heater, comprising a receptacle, a cover therefor provided with domed portions each having an arcuate slot cut in its elevated portion, a rotatable draft damper having openings to one side of a line intersecting the center, means to pivot said damper at its center at the point from which said arcuate slot is struck, and a handle on said damper to move the same.

4. An orchard heater, comprising a fuel receptacle and a pyramidal cover therefor having a centrally disposed opening therein and a plurality of draft openings, a burner stack mounted in said centrally disposed opening, said burner stack being provided with a plurality of inclined slots below said cover, and pivoted dampers controlling the draft openings in said cover.

5. An orchard heater, comprising a fuel receptacle and a cover therefor, said cover having a centrally disposed opening therein and a plurality of draft openings, and a burner stack mounted in the centrally disposed opening, said burner stack being provided with a plurality of inclined slots below said cover.

[Claim 6 not printed in the Gazette.]

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1,091,732. RESINOUS COMPOSITION AND PROCESS OF MAKING THE SAME. MICHAEL CALLAHAN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 1, 1912. Serial No. 694,350. (Cl. 106—22.)

1. The process of making a resinous condensation product which consists in heating a polyhydric alcohol and succinic acid to a temperature approaching 220° C. until reaction takes place with the evolution of water, continuing the reaction until a viscous product convertible to an insoluble resin has been obtained and then lowering the temperature to discontinue the reaction, the product thus produced being soluble in acetone.

2. The process of making a strong, flexible condensation product which consists in heating one part, by weight, of glycerin with about two parts, by weight, of succinic acid at a temperature of nearly 220° C. until the mass becomes viscous and then continuing the heat treatment at a lower temperature.

3. The process which consists in heating one part of glycerin with at least two parts of succinic acid until reaction takes place with the formation of a solid, fusible product soluble in acetone and convertible by heat to an infusible insoluble state.

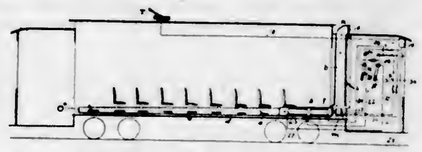
4. The process of making a fusible resin, soluble in acetone, and possessing flexibility which consists in heating succinic acid and a polyhydric alcohol, the acid being in excess by weight of the alcohol, to a temperature of about 220° C. until a sample when cooled is tenacious but not sticky, and then lowering the temperature.

5. A tough, elastic resin, comprising the condensation product of succinic acid and polyhydric alcohol, said resin being homogeneous, fusible, soluble in acetone, and convertible by heat to an infusible, insoluble state.

[Claim 6 not printed in the Gazette.]

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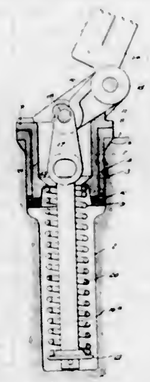
1,091,733. ELECTRIC HEATING AND VENTILATING DEVICE. FRANK J. COOK, Cleveland, Ohio, assignor to The Konsry Electric Company, Cleveland, Ohio. Filed June 27, 1913. Serial No. 776,066. (Cl. 219—39.)



In electric heaters for cars and the like, a conduit extending substantially the full length of the car and tapered from its intake end to its opposite end and oblong in cross section at its intake end and round at its opposite end and provided with escape openings at intervals gradually increased in size from its intake to the opposite end, a blower at said intake end and an air supply duct to the mouth of said intake next in advance of said blower, in combination with electric heaters located within the intake end thereof.

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1,091,734. SUPPORT FOR ELECTRIC TROLLEY MECHANISM. FREDERICK C. COSEO, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 13, 1904. Serial No. 193,452. Renewed Dec. 8, 1909. Serial No. 532,034. (Cl. 191—68.)



1. A self-contained trolley arm and support, the said support being adapted to be set into or removed from a socket on a car, comprising a bearing, a support for the trolley arm fitting and free to turn in the bearing and consisting of a tube to which the arm is pivotally connected, a spring below the said tube by which the trolley arm is forced into working position, and a connection between the spring and the trolley arm through which the force exerted by the spring is transmitted to the arm.

2. A self-contained trolley arm and support, the said support being adapted to be inserted into a socket formed in a car body and to be freely removable therefrom, comprising a pair of concentrically disposed tubes to the inner one of which is pivoted the trolley arm, the outer one being adapted to be supported in the said socket, means for holding the tubes together against relative endwise movement while leaving them free to turn relatively about a longitudinal axis, a link connected with the trolley arm and extending downwardly through the said concentric tubes and beyond the lower ends thereof, and a spring surrounding the said link below the lower ends of the tubes, the said spring bearing at its upper end against one of the tubes and being connected at its lower end with the said link.



3. In combination with a railway car in which is formed a cavity, a bearing tube which is open at its lower end and which fits in the upper portion of the said cavity and is held against rotation therein, a trolley base fitting in the bearing tube and free to turn therein about a vertical axis, a trolley arm connected by a horizontal pivot with the trolley base, a link extending downward from the trolley arm below the lower ends of the said bearing tube and trolley base, a spring surrounding the said link and connected therewith at its lower end, and an abutment for the upper end of the spring which is non-movable vertically.

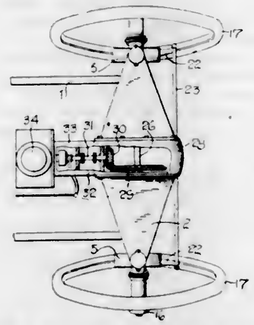
4. The combination of a railway car having formed in its frame a socket that extends below the top of the car, a trolley arm and a self-contained removable support upon which the arm is movably mounted, the support being arranged to be inserted into the said socket to freely turn therein about an axis longitudinal thereof, and comprising a link extending from the trolley arm into the said socket, and a spring also situated in the socket arranged to operate through the link to hold the trolley arm in operative position.

5. In combination with a railway car in which is formed a cavity extending below the top thereof, a socket-like trolley support fitting into the said cavity so as to be freely removable therefrom, a trolley arm connected with the said socket-like support by a pivotal joint, the trolley arm and its support being free to turn about a vertical axis, a link extending vertically downward from the trolley arm, and a coil spring with its upper end bearing against the said socket-like support and its lower end connected with the said link, these parts constituting a self-contained trolley support adapted to be removed from and inserted into the said cavity in the car.

[Claims 6 to 13 not printed in the Gazette.]

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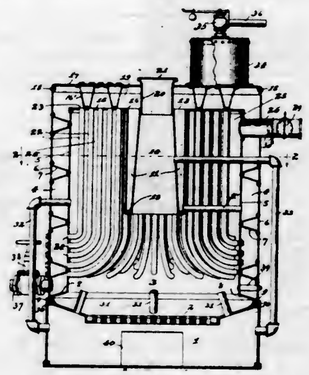
1,091,735. AUTOMOBILE. GEORGE W. DE WITT, Houston, Tex. Filed July 26, 1913. Serial No. 781,424. (Cl. 21—90.)



In a vehicle, the combination with a casing having a knuckle formed at the end thereof; of a drum-like housing arranged between the arms of said knuckle and provided with openings in the periphery at diametrically opposite points thereon, the one opening being threaded, a stub shaft removably engaged with one arm of said knuckle and loosely disposed through the unthreaded opening of said drum-like housing, an additional stub shaft threaded into engagement with the threaded opening of said housing and loosely disposed through the opposite arm of said casing, a head piece mounted on the outer end of the last mentioned stub shaft, a guide frame mounted on the arm of said knuckle, through which said last mentioned stub shaft is disposed, spring means arranged in the guide frame in contact with said head piece to yieldingly support the drum-like housing in said knuckle, and means for rotatably supporting a wheel on said drum-like housing.

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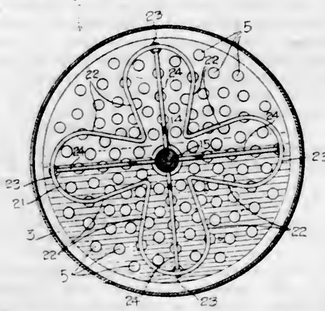
1,091,736. VERTICAL-WATER-TUBE BOILER. FRANCIS J. DOYLE, Chicago, Ill. Filed May 10, 1910. Serial No. 560,407. (Cl. 110—75.)



In a boiler, the combination of a main fire chamber, a fuel magazine extending vertically into said fire chamber and open only at its lower end and terminating short of the grate level, air conduits leading from below grate level into the fuel on the grate, separate air conduits leading from below grate level to the combustion chamber adjacent the lower end of said fuel magazine, and separate air conduits leading from below grate level to the fuel magazine above the fuel therein, the distilled gases from the fuel in the magazine mixing with the air delivered to the magazine, the fuel magazine being devoid of any outlets except at its lower end whereby the mixture of air and distilled gases must pass downwardly through the magazine and into and through the hot fire adjacent the lower end of the magazine.

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1,091,737. COMBINED STRAINER AND SIFTER. LUCRETIA A. DRYNAN, Danforth, Ill. Filed May 19, 1913. Serial No. 768,570. (Cl. 146—9.)

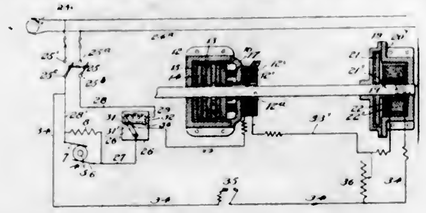


1. In a device of the character described, a stirring member including a shaft provided with operating means, a single length of wire bent to form radially projecting loops disposed around the shaft, such loops being spaced from the shaft at all points, and rods having one end secured to the outer ends of the loops and their opposite ends secured to the shaft, the major portion of the rods being in substantially the same plane as the loops.

2. In a device of the character described, a stirring member including a shaft provided with operating means, a single length of wire bent to form radially projecting loops disposed around the shaft, such loops being spaced from the shaft at all points, and rods having one end secured to the outer ends of the loops and their opposite ends secured to the shaft, the major portion of the rods

being in substantially the same plane as the loops, the inner ends of the rods being arranged upon an upwardly directed incline and secured to the shaft at a point above the plane occupied by the loops.

1,091,738. ELECTRIC BRAKE. ROBERT R. DUNLOP, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Jan. 17, 1905. Serial No. 241,527. (Cl. 172—152.)



1. The combination with a dynamo electric machine adapted to run either as a motor or a generator, a source of electric current supply and means for connecting said machine with and disconnecting it from said source of supply, of a friction brake arranged to normally oppose the rotation of the armature shaft of the said machine, an electro-magnet having its core connected with the movable element of said brake and adapted to release the brake from the dynamo electric machine when operated as either a motor or a generator, a second friction brake connected to said armature shaft of the said machine, and a second electro-magnet having its core connected with the movable element of the last described brake and adapted when the machine armature exceeds a predetermined speed to actuate the said brake and retard the rotation of said armature both when the machine is connected to and disconnected from the said source of electric current supply.

2. The combination with a dynamo electric machine adapted to run either as a motor or a generator, a source of electric current supply, means for connecting said machine with and disconnecting it from said source of current supply, of a friction brake arranged to normally oppose the rotation of the armature shaft of said machine, an electro-magnet having its core connected with a movable element of said brake and adapted to release the brake when the dynamo electric machine is operated either as a motor or as a generator, a second friction brake connected to the said armature shaft of said machine and a second electro-magnet having its core connected with the movable element of said last described brake and adapted when the machine armature exceeds a predetermined speed to actuate said brake and retard the rotation of said armature both when the said machine is connected to and when it is disconnected from the said source of electric current supply, the energizing coils of said magnets being connected in the circuit to the said dynamo electric machine.

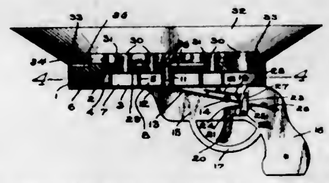
3. The combination with a dynamo electric machine adapted to run either as a motor or as a generator, a source of electric current supply and means for connecting said machine with and disconnecting it from the said source of electric current supply, of a friction brake arranged to normally oppose the rotation of the armature shaft of said machine, an electro-magnet having its core connected with the movable element of said brake and adapted to release the brake when the dynamo electric machine is operated either as a motor or as a generator, a second friction brake connected to the said armature shaft of said machine, and a second electro-magnet having its core connected with the movable element of the said last described brake and adapted when the machine armature exceeds a predetermined speed to actuate the said brake and retard the rotation of the said armature both when the said machine is connected to or disconnected from the source of electric current supply, the energizing coils of the said electro-magnets being connected in series with each other and in the electrical circuit to said dynamo electric machine.

4. The combination of a motor, a friction brake connected with the armature shaft of said motor and arranged to normally prevent its rotation, manually controlled power actuated means for releasing said brake, a second brake connected with the armature shaft of said motor and adapted to oppose the rotation of said shaft beyond a predetermined speed, automatically operated means for actuating said second brake, and means for automatically applying the first named brake when the rotation of the motor exceeds the said predetermined speed.

5. The combination of a motor, a brake connected with the armature shaft of said motor and arranged to normally prevent its rotation, a manually controlled electro-magnetic means for releasing said brake, a second brake connected with the armature shaft of said motor and adapted to oppose the rotation of said shaft beyond a predetermined speed, automatically actuated means for operating said second brake, and means for automatically applying the first named brake when the motor shaft exceeds the said predetermined speed.

[Claims 6 to 25 not printed in the Gazette.]

1,091,739. GAME APPARATUS. HENRY WILLIAM FALKER, Ashland, Pa. Filed June 24, 1913. Serial No. 775,457. (Cl. 46—57.)



1. A game apparatus comprising a casing divided into a plurality of chambers, each chamber having an outlet chute projecting beyond the wall of the chamber, and each chamber having ball receiving openings in its top through which a ball is movable into the chambers and thence into the chute, substantially as described.

2. A game apparatus comprising a casing divided into a plurality of chambers, each chamber having an outlet chute projecting beyond the wall of the chamber, and each chamber having ball receiving openings in its top through which a ball is movable into the chambers and thence into the chute, and a ball ejector located centrally in the casing and adapted to eject a ball in an upward direction, substantially as described.

3. A device of the character described, comprising a casing, a disk secured in the casing, said casing having partitions therein dividing the same into a plurality of chambers below the disk, each chamber having an outlet chute projecting beyond the side of the casing, said disk having openings therein above each of the chambers and adapted to permit a ball to pass therethrough into the chambers, upwardly projecting tubes secured in said openings and having flared upper ends, a handle on said casing, a barrel centrally in the casing, and means for ejecting a ball upwardly through said barrel, substantially as described.

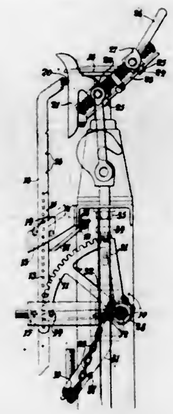
4. A device of the character described, comprising a casing, a disk secured in the casing, said casing having partitions therein dividing the same into a plurality of chambers below the disk, each chamber having an outlet chute projecting beyond the side of the casing, said disk having openings therein, above each of the chambers and adapted to permit a ball to pass therethrough into the chambers, upwardly projecting tubes secured in said openings and having flared upper ends, a handle on said casing, a barrel centrally in the casing, a spring-pressed lever normally bearing against the lower end of the barrel, and operating as an ejector to force a ball upwardly through the barrel, and a trigger controlling the operation of the lever, substantially as described.

5. A device of the character described, comprising a casing, a disk secured in the casing, said casing having partitions therein dividing the same into a plurality of chambers below the disk, each chamber having an outlet chute projecting beyond the side of the casing, said disk having openings therein above each of the chambers and adapted to permit a ball to pass therethrough into the chambers, upwardly projecting tubes secured in said openings and having flared upper ends, a handle on said casing, a barrel centrally in the casing, a spring-pressed lever normally bearing against the lower end of the barrel, and operating as an ejector to force a ball upwardly through the barrel, a pivoted spring-pressed catch engaging the lever, and a trigger adapted to move the catch and operate the lever, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]



1,091,740. RAILWAY-CAR COUPLING. JOSEF ZYGMUNT FLORYANOWICZ, Wierzbnik, and TOMASZ MARYAN JULJUSZ KICINSKI, Zmudz, Russia. Filed Apr. 20, 1911. Serial No. 622,362. (Cl. 213—36.)



1. In a car coupling, the combination with a hook, a screw coupling pivotally connected with the hook, means for raising the coupling to coupling position including a sliding rack, and means for moving said rack including a revoluble shaft, and a segmental pinion carried by the shaft and engaging said rack.

2. In a car coupling, the combination with a hook, a screw coupling pivotally connected with the hook, means for raising the coupling to coupling position including a sliding rack, and means for moving said rack including a revoluble shaft, a segmental pinion carried by the shaft and engaging said rack, ratchet teeth formed on said rack and a pawl adapted to engage the ratchet teeth, as the rack is moved inward.

3. In a car coupling, the combination with a hook, of a screw coupling pivotally connected to the hook, a guide member having a curved under face secured to the screw coupling, a rack slidably mounted adjacent said hook, an upturned end on said rack, a bar carried by the rack and engaging beneath the guide member to raise the coupling as the rack is moved forward, a shaft extending transversely above the rack, a segmental pinion fixed on the shaft and meshing with the rack, a bar slidably mounted rearwardly of the hook and movable by the hook, a drum on said shaft and a chain wound aronnd said drum and connected to the bar last mentioned, whereby rearward movement of the bar rotates said shaft.



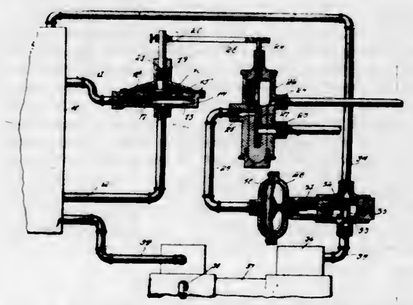
1,091,741. POST. EDMUND FRANTZ, Enid, Okla. Filed June 1, 1912. Serial No. 701,091. (Cl. 256—48.)



1. A fence post comprising a body portion provided with wire receiving pockets and having lips overhanging the entrance to said pockets, and a locking sleeve for each pocket rotatably mounted upon the overhanging lips.

2. A fence post comprising a body portion provided with a wire receiving pocket and having lips overhanging the entrance to said pocket, and locking means for said pocket rotatably mounted upon said lips.

1,091,742. BOILER-FEED CONTROL. BERNARD F. FEIZZELL, Baltimore, Md. Filed Jan. 23, 1912. Serial No. 672,821. (Cl. 103—97.)



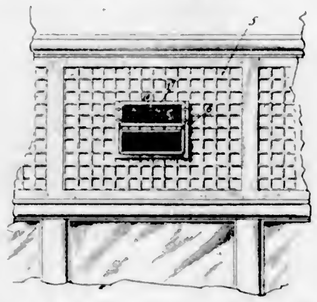
1. In a feed water regulator, the combination with a chamber, of a resilient removable container located within the chamber and having a fluid permanently sealed therein which is adapted to vaporize under a rise in temperature to expand the container, the decrease in temperature and consequent condensation of the fluid causing the container to resume its normal position, and a regulating device controlled by the movement of the wall of the container independently of the walls of the chamber.

2. In a thermostatic regulator, the combination with a fluid containing chamber, of a container consisting of a closed receptacle without pipe connections and having a resilient wall, and having permanently sealed therein a material which is expansible by heat, a regulating device whose movements are controlled by the movements of a wall of the container and means for supporting said container in a position exposed to the heat of the fluid in said chamber, but separated therefrom by a substantially rigid wall.

1,091,743. SCREENED FRAME FOR VENTILATING-WINDOWS. ALBERT G. FRUHLING, Los Angeles, Cal. Filed Apr. 22, 1913. Serial No. 762,786. (Cl. 156—14.)

1. A window screen construction comprising a window casing having side and end walls, the side walls thereof being provided with inclined slots and oppositely disposed flanges adapted to engage a window sash pivotally mounted in the slots in the side of said casing, a plurality

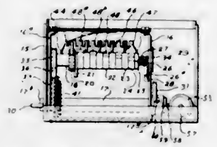
of vertically disposed clips secured to said casing adjacent the upper flanges of said window casing, said flanges having an upset end adapted to form a support for a screen, a plurality of vertically and horizontally disposed clips secured to the edges of the lower section of said casing on its inner face, and screened frames oppositely disposed on said casing, the upper of said screens being supported upon said upturned flanges and secured by said vertically disposed clips, and the lower of said screens being secured by the vertically and horizontally disposed clips on the flanges on the inner face of the casing, whereby said window sash may be pivotally swung and the exposed area efficiently screened.



2. A screen frame construction for ventilating windows, comprising a stationary frame adapted to be secured in a window opening, a window pivotally mounted in said frame to form a closure for the opening, a screen mounted on the outer face of the upper half of said frame and disposed in parallel relation therewith, a second screen mounted on the inner face of the lower half of said frame and disposed in parallel relation therewith, the upper edge of the lower screen and the lower edge of the upper screen each terminating at one side of the pivotal points of said window, the space between the two said screen edges approximately corresponding to the thickness of the pivoted window, whereby when the window is swung from a vertical to a horizontal position the space between the adjacent edges of said screens will be substantially closed.

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1,091,744. COMBINATION-LOCK. ERNEST E. GREEN, Spokane, Wash. Filed Apr. 28, 1913. Serial No 763,944. (Cl. 70—54.)



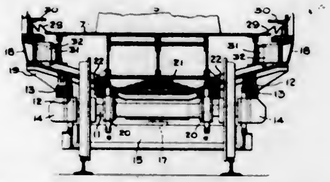
1. A combination lock comprising an outer casing, an inner frame, a bolt extending across the frame and adapted to be rotated, a knob on the outside of the outer casing connected with said bolt, a shaft extending across the inner frame carrying tumblers and idler rings loosely adjusted thereto, means for connecting said tumblers and idler rings in rigid relation to each other and with the shaft, projections on the tumblers, keys extending through the casing adapted for engaging the said projections to rotate the shaft, connecting means between the shaft and the bolt whereby by the predetermined rotation of the shaft, the bolt is unlocked to rotation by the manual operation of the knob and means for locking the bolt against rotation by the operation of said knob.

2. A combination lock comprising an outer casing, an inner frame, a bolt extending across the frame and adapted to be rotated, a knob on the outside of the outer casing connected with said bolt, a shaft extending across the inner frame carrying tumblers and idler rings loosely adjusted thereto, means for connecting said tumblers and idler rings in rigid relation to each other and to the shaft, projections on the tumblers, keys extending through the casing adapted for engagement with the said projections to rotate the shaft, a cam connected to the shaft, a yoke in which the cam operates, means reaching from the yoke to the bolt for locking the bolt against rotation, together with a spring attached to said yoke, by means of which the bolt is locked against rotation.

3. A combination lock comprising an outer casing having a removable cover, an inner frame, a bolt extending across the frame and adapted to be rotated, a knob on the outside of the casing connected with said bolt, means within the casing for locking the bolt against rotation and means within the casing for releasing said bolt to rotation, keys extending through said casing adapted to rotate said bolt and to be manually operated from without said casing, together with a catch suspended from the cover, a plate on the inner frame engaged by said catch and locked in such engagement by means of a pin extending from the bolt and engaging the catch.

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1,091,745. MOTOR-CAR. ERICH GRINDEL, Bremen, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 24, 1912. Serial No. 699,584. (Cl. 105—17.)



1. In a motor car, an engine developing power for driving said car, a car platform comprising a main portion and a portion on which said engine is mounted, a car truck on which said main portion of the car platform is pivotally mounted, and means for supporting said portion of the car platform on which said engine is mounted separately from said main portion of the car platform so that the vibrations of the engine are not transmitted to said main portion of the car platform.

2. In a motor car, an engine developing power for driving said car, a car platform comprising a main portion and a portion on which said engine is mounted, means for pivotally mounting said main portion of the car platform, and means for supporting said portion of the car platform on which said engine is mounted separately from said main portion of the car platform so that the vibrations of the engine are not transmitted to said main portion of the car platform.

3. In a motor car, an engine developing power for driving said car, a car platform comprising a main portion and a portion on which said engine is mounted, a car truck, means for pivotally mounting said main portion of the car platform on said truck, and means for elastically supporting said portion of the car platform on which said engine is mounted separately from said main portion of the car platform, so that the vibrations of the engine are not transmitted to the main portion of the car platform.

4. In a motor car, an engine developing power for driving said car, a car platform comprising a main portion and a portion on which said engine is mounted, car axles, a car truck elastically supported on said car axles, means for pivotally mounting said main portion of the car platform on said car truck, and means for supporting said portion of the car platform on which said engine is mounted on said car axles independently of said car truck.

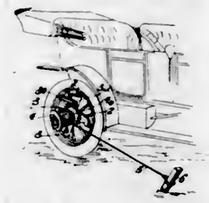
5. In a motor car, an engine developing power for driving said car, a car platform comprising a main portion and a portion on which said engine is mounted, car axles, a car truck elastically supported on said car axles, means for pivotally mounting said main portion of the car platform on said car truck, a spring support on said axles for said portion of the car platform on which said engine is mounted independent of said car truck.

[Claim 6 not printed in the Gazette.]



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1,091,746. ATTACHMENT FOR MOTOR-VEHICLES. CHARLES GROTHE, Yelton, Okla. Filed Jan. 21, 1913. Serial No. 743,389. (Cl. 242—95.)



1. An attachment for the driving wheels of motor vehicles, comprising a tubular hub adapted to fit upon the wheel hub, a drum loosely mounted on said tubular hub, at least one member projecting radially from the tubular hub and provided with an open hook portion to interlock with a spoke of the wheel when the wheel is being turned forwardly, means for clutching the drum to cause it to move with said tubular hub, and a flexible element for one end secured to said drum to wind thereon, said open hook portion being so arranged that upon reverse relative rotation between the wheel and the tubular hub, the said hook portion will become disengaged from the spoke.

2. In an attachment for the driving wheels of motor vehicles, a tubular hub adapted for fitting onto the wheel hub and having a radial member provided with a hook portion open at one side to engage the vehicle spoke when turned in one direction relatively to the wheel and adapted to disengage the spoke when turned relatively in an opposite direction, a drum loosely mounted on the said tubular hub, a ratchet and pawl connection for joining the drum and the hub, and a flexible draft member connected to the drum.

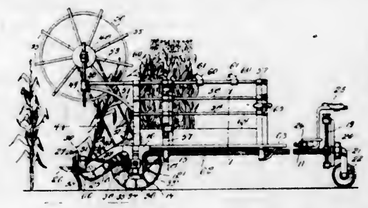
3. In an attachment for drawing wheels of motor vehicles, a tubular hub adapted for loosely fitting on the vehicle hub, said tubular hub including radial arms having inturned hooks for clamping over one edge of the wheel spokes, and to become disengaged from the said spokes when turned out of alinement therewith, a cable winding drum loosely mounted on the said tubular hub, and a pawl and ratchet connection for joining the said drum and the tubular hub member.

4. An attachment for motor vehicle driving wheels, comprising a tubular hub having integral radial arms at one end and an annular flange at the other end, the said arms having the upper ends bent to form hooks for slipping over the edges of the spokes, one of the said arms having an integral toothed flange on its outer face, a drum loosely mounted on the tubular hub between its arms and its annular flange, said drum having a ratchet disk, a pawl mounted on one of the arms to engage the disk and including an extension for engaging and interlocking with the toothed flange on the arm, and draft cable connected to the drum.

5. An attachment for the purposes described, comprising a tubular hub adapted for loosely fitting onto the vehicle wheel hub, and including one or more radial arms having portions for extending between the spokes, cable winding drum loosely mounted on the tubular hub, means for interlockably engaging the arms and the drum on a driving movement of the arms, the said arm portions that extend between the spokes being arranged to interlock with the spokes to move the drum with the spokes on the forward or driving movement only of the wheel.

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1,091,747. CORN-HARVESTER. ANDREW KEPLER, Berwyn, Nebr. Filed Apr. 12, 1913. Serial No. 760,744. (Cl. 56—103.)

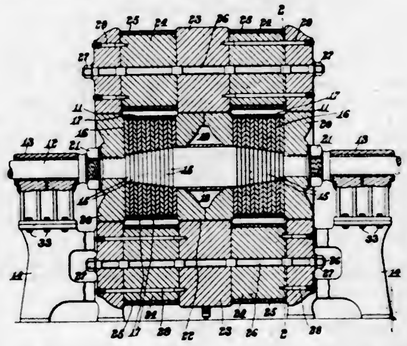


1. In a corn harvester of the class described, a platform having guides associated therewith, slides vertically movable in the guides, a wheel carrying axle supported on the slides, ground wheels on said axle, jack screws connected with the slides for the adjustment thereof, cutting apparatus supported in advance of the platform and including a reciprocatory cutter bar, means for transmitting motion from one of the supporting wheels to said bar including a shaft supported for rotation on one of the slides, intermeshing bevel gears on said shaft and on the proximate supporting wheel, a shaft supported in a bearing on the platform, a crank disk on said shaft, a telescopic extension shaft, and universal joints connecting the latter with the crank disk carrying shaft and with the shaft supported on the slide.

2. In a corn harvester of the class described, a platform, supporting wheels for the same, means for mounting the platform for vertical adjustment with respect to the supporting wheels, a cutting apparatus supported in advance of the platform and connected with the latter, an endless conveyer supported between the cutting apparatus and the platform, a reel supported adjustably above the endless conveyer, and means for transmitting motion from the supporting wheels to the cutting apparatus, the endless conveyer and the reel, said means including telescopic extension shafts and universal joints whereby said extension shafts are connected with the driving means and with the driven parts.

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1,091,748. DYNAMO-ELECTRICAL MACHINE. ERNEST C. KETCHUM, Boston, and DAVID H. ANDREWS, Newton, Mass. Filed Apr. 25, 1912. Serial No. 693,218. (Cl. 171—212.)



1. In the rotatable member of a dynamo electrical machine, the combination of a shaft; two sets of metal disks thereon; insulation between said disks; tubular members connecting the disks of said two sets in pairs; other means for electrically connecting said disks of the two sets in series; and members secured to and revoluble with said shaft and between which said disks are permanently clamped.

2. In the rotatable member of a dynamo electrical machine, the combination of a shaft; two sets of metal disks thereon; insulators between said disks; tubular members connecting the disks of said two sets in pairs; other means for electrically connecting said disks of the two sets in series; and members extending beyond the peripheries of said disks secured to and between which said disks are permanently clamped.

3. In the rotatable member of a dynamo electrical machine, the combination of a shaft; two sets of metal disks thereon; insulation between said disks; tubular members connecting the disks of said two sets in pairs; other means for electrically connecting said disks of the two sets in series; and cylindrical members secured to and revoluble with said shaft and between which said disks are permanently clamped.

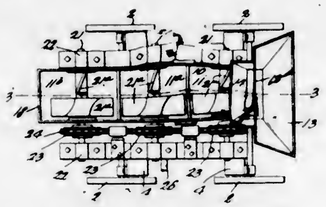
4. In the rotatable member of a dynamo electrical machine, the combination of a shaft; two sets of metal disks thereon; insulation between said disks; tubular members connecting the disks of said two sets in pairs; other means for electrically connecting said disks of the two sets in series; and cylindrical members extending beyond the peripheries of said disks secured to and revoluble with said shaft and between which said disks are permanently clamped.

5. In the rotatable member of a dynamo electrical machine, the combination of a shaft; two sets of metal disks thereon; insulation between said disks; tubular members connecting the disks of said two sets in pairs; other means for electrically connecting said disks of the two sets in series; a separating cylinder between and insulated from said sets of disks and surrounding said shaft; and members contacting with and insulated from the outer end faces of said two sets of disks and revoluble with said shaft.

[Claims 6 to 22 not printed in the Gazette.]

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1,091,749. CONCRETE-MIXER. JOHN MICHELS, Aurora, Ill. Filed July 8, 1913. Serial No. 777,917. (Cl. 83—73.)



1. A mixing machine, including a supporting frame having a plurality of upstanding angle plates, a mixing trough disposed between the plates for vertical movement, and two resiliently supported plates attached to the bottom of the trough and having their ends in sliding engagement with the angle plates of the frame.

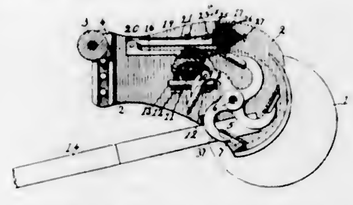
2. A mixing machine, including a supporting frame having a plurality of upstanding angle plates, a mixing trough disposed between the plates for vertical movement, two resiliently supported plates attached to the bottom of the trough and having their ends in sliding engagement with the angle plates of the frame, two angle beams connected fixedly to the upper ends of the angle plates and upon opposite sides of the trough, and a plurality of mixing paddle carrying shafts journaled upon the beams and extending transversely of the trough.

3. A mixing machine, including a supporting frame having a plurality of vertically disposed angle plates, a mixing trough provided with a plurality of transversely disposed compartments mounted between the plates, two transversely disposed plates connected to the bottom of the trough and having their ends seated for sliding engagement between the angle plates, a plurality of springs disposed between the frame and the under side of the transversely disposed plates for resiliently supporting the trough, and a plurality of paddles one to each compartment of the trough disposed in the trough.

4. A mixing machine, including a supporting frame having a plurality of vertically disposed angle plates, a mixing trough provided with a plurality of transversely disposed compartments mounted between the plates, two transversely disposed plates connected to the bottom of the trough and having their ends seated for sliding engagement between the angle plates, a plurality of springs disposed between the frame and the under side of the transversely disposed plates for resiliently supporting the trough, the walls of the trough being provided with alined pairs of elongated slots, one pair to each compartment, a shaft journaled exteriorly of the trough one to each alined pair of slots of the trough, a paddle keyed upon each shaft one to each compartment of the trough, the shaft and the paddle remaining in fixed relation to each other while the trough is permitted vertical movement due to the resilient support thereof.

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1,091,750. SHARPENER FOR LAWN-MOWERS. GEORGE W. MILLER, Santa Monica, Cal. Filed Apr. 11, 1913. Serial No. 760,520. (Cl. 51—8.)



1. In a sharpener for lawn mowers of the class described, a grinder as long as the rotary knives; a base plate and means for securing it directly upon the face of the stationary blade, and means adjustably connecting the grinder and the base plate whereby the grinder may be held near to the edge of the blade while both the blade and grinder are tangent to the circle of the rotary knives.

2. In a sharpener for lawn mowers of the class described, a base plate and means for securing it directly upon the face of the stationary blade; a grinder as long as the rotary knives; means connected with the plate for holding the grinder in front of the said blade; springs connected with the plate and acting to press the grinder down in front of the blade, and adjusting screws for limiting the action of the springs.

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1,091,751. METHOD OF FORMING AXLE-HOUSINGS. CHRISTOPHER J. MEGAN, and RICHARD E. BROCK, Charleroi, Pa., assignors to Pittsburgh Steel Products Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 12, 1913. Serial No. 753,827. (Cl. 29—153.)



1. The method of making axle-housings, consisting in forming slots in opposite sides of a flattened portion of a tubular blank, and stretching the metal outwardly at the slotted portion thereby forming an enlargement.

2. The method of making axle-housings, consisting in slotting the opposite sides of a flattened portion of a tubular blank, and stretching the metal from within outwardly from both sides of the slotted portion, thereby enlarging the slot and projecting the metal to points beyond the original outlines of the flattened portion.

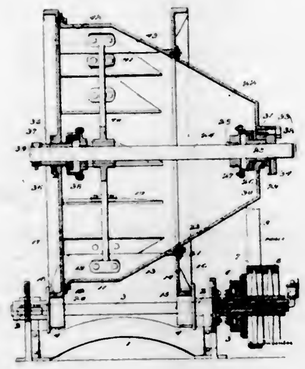


3. The method of making axle-housings, consisting in slotting opposite sides of a flattened portion of a tubular blank, enlarging said slot to form an oblong opening, and finally applying a force from within to further stretch the metal thereby forming a rhomb-like opening with rounded apices.

4. The method of making axle-housings, consisting in slotting a tubular blank, and stretching the metal outwardly from both sides of the slotted portion, thereby forming an enlargement.

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1,091,752. ROTARY MIXER. OLIVER J. MOUSSETTE, Brooklyn, N. Y. Filed Aug. 14, 1912. Serial No. 715,097. (Cl. 83—73.)



1. A mixing machine comprising a rotary drum having a cylindrical portion and a conical portion extending from one end thereof, and a plurality of blades within the drum having their outer edges provided with an axially extending portion conforming to the cylindrical portion of the drum and an obliquely disposed portion conforming to the conical portion of the drum immediately adjacent the cylindrical portion thereof, each blade lying entirely within a single axial plane of the drum.

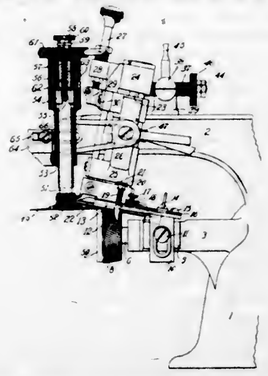
2. A mixing machine comprising a drum having a cylindrical portion and a conical portion extending from one end thereof, means for rotating the drum, a shaft disposed concentrically within the drum, scrapers carried by said shaft and shaped to bear against the inner surface of the cylindrical portion of the drum and the conical portion thereof immediately adjacent the cylindrical portion, and means for locking said shaft to the drum.

3. In a mixing machine, a drum having a cylindrical portion at one end and a conical portion extending from the cylindrical portion to the opposite end, a conical head having a permanently closed outer end secured to the drum and forming a continuation of the conical portion thereof, a plane radial head secured to and closing the larger end of the drum, a shaft mounted in said heads concentric with the drum, radial arms extending from said shaft, and scrapers carried by said arms and bearing against the inner surface of the drum and against said plane radial head, the interior of the conical head being unobstructed.

4. In a mixing machine, a frusto-conical drum having annular radial flanges at its ends, the flange at the smaller end of the frame being extended and provided with a gear ring at its edge, a head having a centering bead closely surrounding the flange at the opposite end of the drum, said head being provided with a gear ring at its edge, fastening devices inserted through said flange and said head, a centering bead on the outer face of the extended flange at the smaller end of the drum, and a head fitted against and secured to said flange closely within the bead thereon.

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1,091,753. SKIVING-MACHINE. LORENZ MUTHER, Boston, Mass., and WILLIAM F. LAUTENSCHLAGER, Cincinnati, Ohio; said Lautenschlager assignor to said Muther. Filed May 11, 1908. Serial No. 432,079. (Cl. 69—16.)



1. In a skiving machine, a rotary cutting knife; a shaft upon which said rotary cutting knife is mounted; a pulley on said shaft; a frame having bearings for said shaft; trunnions formed on said frame, having their axes in line with the center of said shaft and of said pulley; and means for adjusting said shaft laterally toward and from the feed-roll and longitudinally, and for adjusting the frame rotatively.

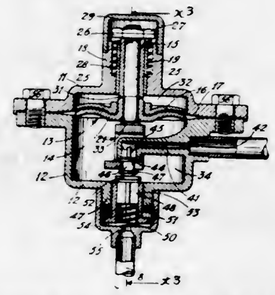
2. In a skiving machine, the combination with an adjustable rotary cutter of a feed disk; a rotating shaft upon which said feed disk is mounted; means for adjusting said shaft axially; a bearing for said shaft; and means for permitting the adjustment of said bearing and feed disk laterally toward and from the feed-roll.

3. In a skiving machine, the combination of a feed roll; an adjustable guide; an adjustable rotary cutter; and a laterally and axially adjustable feed disk.

4. In a skiving machine, the combination of an adjustable rotary cutter and a feed roll; a feed disk; a rotatable shaft upon which said feed disk is mounted; a bearing for said shaft; and means whereby said bearing can be adjusted laterally toward and from the feed roll.

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1,091,754. AUXILIARY-PRESSURE-CONTROL VALVE. SPENCER G. NEAL, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed July 29, 1913. Serial No. 781,834. (Cl. 188—1.)



1. In combination with the train pipe, brake cylinder, auxiliary reservoir and triple valve; a pressure control device comprising a casing, a movable abutment dividing said casing into two chambers, one of said chambers being in communication with the auxiliary reservoir, the other of said chambers being an operating chamber, there being a

passage extending through said abutment to afford communication between said auxiliary reservoir chamber and said operating chamber, a valve to control said passage, said valve being operated by the movements of said abutment, a valve to control communication between said operating chamber and the brake cylinder, and another valve to control communication between said operating chamber and the train pipe, the movement of said abutment toward said operating chamber first closing said valve for controlling the auxiliary reservoir air and then upon further movement closing the valve which admits air from train pipe to the operating chamber.

2. In combination with the train pipe, brake cylinder, auxiliary reservoir, and triple valve; a pressure control device comprising a casing; a movable abutment dividing said casing into two chambers, one of said chambers being in communication with the auxiliary reservoir and the other of said chambers being adapted to communicate with the train pipe and brake cylinder, an auxiliary reservoir valve to control communication between said operating chamber and said auxiliary reservoir chamber, another valve to control communication between said operating chamber and the brake cylinder, valve operating means operatively connected with said abutment to control said valves, said valve operating means maintaining the auxiliary reservoir valve closed whenever the other valve is open, and a valve to control admission of air from the train pipe to said operating chamber.

3. In the braking apparatus, a brake cylinder, a train pipe, an auxiliary reservoir, a triple valve, an auxiliary pressure control valve, means to place said control valve into communication with the auxiliary reservoir, brake cylinder and train pipe, said auxiliary pressure control valve comprising a valve construction to cut off all communication between said train pipe and auxiliary reservoir as long as said auxiliary reservoir pressure is undisturbed, during all service braking.

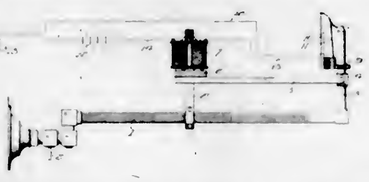
4. In braking apparatus a brake cylinder, a train pipe, an auxiliary reservoir, a triple valve, a valve to charge the auxiliary reservoir from the train pipe, and means to automatically close said charging valve after a service application of the brakes, said means maintaining said charging valve closed during all brake releasing operations until the auxiliary reservoir pressure and train pipe pressure are equalized, after which equalization said valve is permitted to open.

5. In braking apparatus; a brake cylinder; a train pipe; an auxiliary reservoir; a triple valve; and an auxiliary pressure control valve comprising a casing, a movable abutment dividing said casing into an operating chamber and an auxiliary reservoir chamber, means within said control valve to open communication between said operating chamber and the train pipe, and means to automatically admit air from the operating chamber to the auxiliary reservoir while such communication exists.

[Claims 6 and 7 not printed in the Gazette.]

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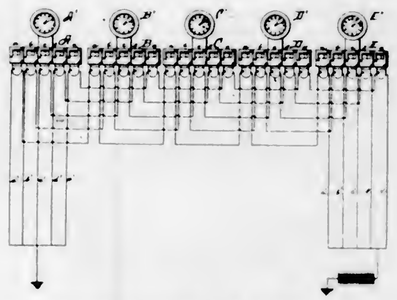
1,091,755. GAS-BURNER. WALTER W. OGDEN, Maquoketa, Iowa. Filed Jan. 23, 1912. Serial No. 672,858. (Cl. 177—128.)



A thermostat comprising a bracket, a vertically extending arm carried by said bracket, said arm provided with a laterally extending flange, said flange formed at right angles to said arm and extending for approximately three-fourths the length of said arm, whereby said arm is held in its vertical position, a contact arm carried by said bracket and provided with a bent end, said contact arm extending parallel to said vertical arm and positioned at a predetermined distance therefrom, whereby the contact member will expand and close the circuit by engaging said vertically extending arm when said contact arm is heated.

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1,091,756. TRAIN-LOCATING AND TIME-RECORDING APPARATUS. BENJAMIN F. OSBORN and EMIL F. ZIRBEL, Rippey, Iowa. Filed Feb. 8, 1911. Serial No. 607,886. (Cl. 234—27.5.)



1. An improvement in the art of recording and annunciating the location of railway trains, which improvement consists of a series of electrically connected annunciators, key-operated means associated with each annunciator for operating the entire series of annunciators simultaneously, and recording devices associated with each of said annunciators.

2. An improvement in the art of recording and annunciating the location of railway trains, which consists of a series of electrically operated annunciators in closed circuit, key-operated means associated with each annunciator for breaking said circuit, and dormant recording devices associated with each annunciator and operated only during the time the circuit is broken.

3. An improvement in the art of recording and annunciating the location of railway trains, which consists of a series of electrically operated annunciators in closed circuit, means associated with each annunciator for breaking said circuit, and recording devices associated with each annunciator and operated during the time the circuit is broken.

4. An improvement in the art of recording and annunciating the location of railway trains, consisting of a series of stations, each station having a number of annunciators corresponding with the number of trains operated to or through said station, said annunciators arranged in independent series in closed circuits throughout the several stations, one annunciator of each series being located at each station, key-operated means associated with each annunciator for breaking the circuit thereof, recording means in each annunciator, and means for operating the recording means during the time the circuit is broken.

5. An improvement in the art of recording and annunciating the location of railway trains, which improvement consists of a series of electrically connected annunciators, means for operating the series of annunciators simultaneously, and separate recording and exhibiting devices associated with each of said annunciators, and all adapted to be operated by operation of one set thereof.

[Claims 6 to 19 not printed in the Gazette.]

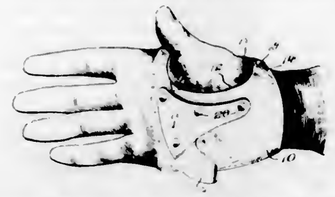
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1,091,757. CORN-HEADING KNIFE. MELVILLE D. OWEN and LEO OWEN, Vernon, Tex. Filed Dec. 17, 1912. Serial No. 737,342. (Cl. 30—9.)

A header including a strip of flexible material adapted to fit over the palm of the operator's hand and be secured across the back of the same and a cutting member carried by said strip, said cutting member including



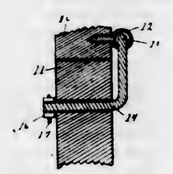
a substantially triangular body portion secured upon the strip with its base substantially parallel with the base of the fingers of the wearer and with its opposite vertex extending toward the wrist of the wearer, one edge of the plate between said vertex and the base being curved



to conform to the base of the wearer's thumb, and a blade projecting from the plate adjacent the outer vertex remote from the thumb and extending downwardly and toward the wrist of the wearer with its upper edge sharpened.

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1,091,758. HANGER FOR SCREENS AND SASH. MARTIN C. PALMER, Des Moines, Iowa. Filed Feb. 15, 1913. Serial No. 748,723. (Cl. 16—48.)



1. A hanger, comprising an eye, a rock shaft journaled for oscillation and formed with a hook adapted to engage said eye, and a handle pivotally connected to said shaft.

2. A hanger, comprising an eye, a rock shaft journaled for oscillation and formed with a hook adapted to engage said eye, and a handle pivotally connected to said shaft, the pivot being arranged obliquely relative to said hook.

3. A hanger, comprising an eye, a rock shaft journaled for oscillation and formed with a hook adapted to engage said eye, and a handle pivotally connected to said shaft, said handle being bent adjacent its pivot.

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1,091,759. HOSE-COUPLING. FREDERIK E. PARADIS, Buffalo, N. Y. Filed Mar. 17, 1913. Serial No. 754,673. (Cl. 137—34.)

1. A conduit section having a smooth uniform bore throughout its length, comprising a flexible armor tube, a flexible hose surrounded thereby and projecting beyond the end of said tube, a tubular nipple tapered at one end and having the other formed to coact with a coupling member of an adjacent section, the bore of said nipple being substantially equal to the bore of said hose and the tapered end extending into said hose to a point substantially opposite the end of said tube, a tubular ferrule having a portion of its interior surface formed to coact with the exterior surface of said armor tube and prevent relative longitudinal movement and its remaining interior surface oppositely and correspondingly tapered to coact with the tapered portion of the nipple and grip the end of the hose therebetween, and an intervening member coacting with said nipple and said ferrule to cause a relative longitudinal movement of said parts as it is rotated to increase or decrease the gripping action on the end of said hose between the correspondingly tapered surfaces.

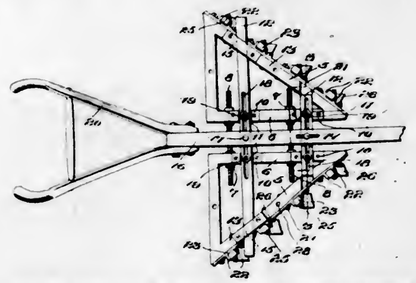
2. A conduit section having a smooth uniform bore throughout its length, comprising an exterior flexible armor tube, a smooth flexible hose loosely surrounded thereby and projecting beyond the end of said tube, a tubular nipple tapered at one end and having the other formed to coact with a coupling member of an adjacent section, the bore of said nipple being substantially equal to the bore of said hose and the tapered end extending into said hose to a point substantially opposite the end of said tube; a tubular ferrule having a portion of its interior surface formed to coact with the exterior surface of said armor tube and prevent relative longitudinal movement and its remaining interior surface oppositely and



correspondingly tapered to coact with the tapered portion of the nipple and grip the entire projecting end of the hose therebetween, a flange on one of said parts and an exterior threaded surface on the other, and an intervening member coacting with the flange and threaded surface of said nipple and ferrule to cause a relative longitudinal movement of said parts as it is rotated to increase or decrease the gripping action on the end of said hose between the correspondingly tapered surfaces.

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1,091,760. CULTIVATOR. JEFF P. PATE, Rocky Mount, N. C. Filed Oct. 19, 1912. Serial No. 726,783. (Cl. 97—10.)



1. In a cultivator, a beam, a pair of shovel frames arranged in spaced relation, interiorly threaded sleeves mounted in the opposed bars of said frames, adjusting rods having oppositely threaded portions engaged in the corresponding sleeves of the respective frames to adjust said frames toward or from each other, longitudinally slotted guide bars connecting said frames, and bolts carried by the beam movable in the slots of said bars.

2. In a cultivator, a beam, a pair of shovel frames arranged in spaced relation, parallel longitudinally slotted bars connecting said frames, bolts carried by the frames disposed in the slots of said bars to secure the frames in their adjusted positions, said beam being mounted upon said bars and provided with bolts adjustable in the slots thereof, whereby the beam may be disposed at a longitudinal inclination with relation to the frame.

3. In a cultivator, a beam, a plurality of bars having slots formed therein, bolts passing through the beam and slots and supporting said bars for sliding movement relative to the beam and pivotal movement upon the beam, shovel frames carried by the bars, bolts passing through the shovel frames and slots in the bars for adjustably supporting said frames, and means connecting the frames for adjusting the same.

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1,091,761. CLOSURE FOR MILK-BOTTLES. JAMES EARLE PERCY, Hoosick Falls, N. Y., assignor of three-fifths to Carl H. Getty and Aaron W. Sherwood, Hoosick Falls, N. Y. Filed June 13, 1913. Serial No. 773,386. (Cl. 215—14.)



1. A closure for milk-bottles and the like, comprising a disk-shaped body of flexible material having a plait formed with transverse weakened lines of fracture defining the mouth of a spout-shaped portion thereof.

2. A closure for milk-bottles and the like, comprising a disk-shaped body of flexible material having a tapered plait formed with weakened lines of fracture extending transversely across a wider portion of the plait defining the mouth of a spout-shaped portion thereof.

3. A closure for milk-bottles and the like, comprising a disk-shaped body of flexible material having a box-plait formed with a central, longitudinal crease and with transverse weakened lines of fracture defining the mouth of a spout-shaped portion thereof.

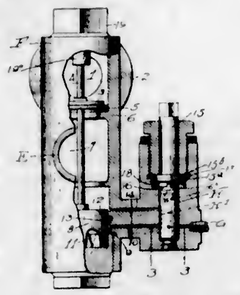
4. A closure for milk-bottles and the like, comprising a disk-shaped body of flexible material having a tapered box-plait formed with a central, longitudinal crease and with transverse weakened lines of fracture across a wider portion of the plait defining the mouth of a spout-shaped portion thereof.

5. A closure for milk-bottles and the like, comprising a disk-shaped body of flexible material having a plait formed with transverse weakened lines of fracture defining the mouth of a spout-shaped portion thereof, said line of fracture of the inner member of the plait extending away from the center of the disk to a greater degree than the line of fracture of the outer member of the plait.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,762. HIGH-PRESSURE RELEASE-VALVE. FRANK PHELPS, Little Rock, Ark. Filed Dec. 11, 1911. Serial No. 665,145. (Cl. 138—16.)



1. A release valve for fluid-pressure pipes, comprising a valve casing having pressure and exhaust chambers and a single intermediate valve seat facing the pressure chamber; a valve normally seated upon said valve seat by the fluid pressure to prevent the flow through the pressure chamber; a piston of larger diameter than the valve and connected thereto, a cylinder for said piston, a V-shaped recess in the cylindrical wall of said cylinder having its apex positioned just below the pision when the valve is seated; a duct leading from the said recess, and means for admitting the fluid pressure to said duct for actuating the piston in a direction to unseat the valve.

2. A release valve for fluid pressure pipes, comprising a valve casing having pressure and exhaust chambers, and a single intermediate valve seat facing the pressure chamber, a valve normally seated upon said valve seat by the fluid pressure to prevent the flow through the pressure chamber, a piston of larger diameter than the valve and connected thereto, a cylinder for said piston, an inlet opening of graduated cross section formed in the cylinder wall and partially covered by the piston when the valve is seated, the portion of the opening having the smallest cross section being beyond the range of travel of the piston, and means for admitting the fluid pressure through said inlet opening for actuating the piston in a direction to unseat the valve.

3. A valve adapted for controlling high fluid pressure, comprising a cylindrically bored housing, a cylindrical valve member rotatably mounted therein, an operating stem journaled for rotation in the housing co-axially with the valve member; packing devices carried in the housing in contact with said operating stem, the adjacent ends of the stem and the valve member being provided with diametrical slots, respectively, and a coupling member formed with diametrically arranged projections on its opposite faces for engaging the slots, said projections extending transversely of each other.

4. A high pressure fluid controlling valve comprising a cylindrically bored housing provided with an inlet port and an outlet port disposed in diametrically opposite parts of its cylindrical bore, a cylindrical valve member, a valve stem and a coupling member, all mounted in approximate axial alinement, with the valve member positioned for controlling the ports of the housing and the coupling member interposed between the adjacent ends of the valve member and the stem, said stem being rotatably mounted within the housing, the opposite ends of the coupling and the aforesaid adjacent ends of the stem and the valve member being formed with mutually engaging grooves and projections diametrically arranged with respect to the axes of the respective parts, said features of the coupling extending along transverse diameters of said member.

5. A high pressure fluid controlling valve comprising a cylindrically bored housing, a cylindrical valve member rotatably mounted therein, the housing being provided with an inlet port and an outlet port disposed in diametrically opposite parts of the cylindrical bore thereof, operating means, and loose connecting means adapted to transmit rotation from said operating means to the valve member without restraint of the latter with respect to the action of the fluid pressure which has access to it through the inlet.

[Claim 6 not printed in the Gazette.]

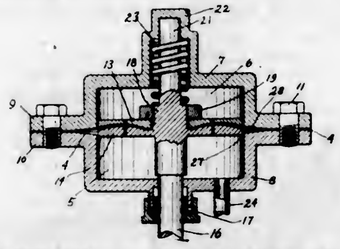
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1,091,763. METHOD AND MEANS FOR FORMING DIAPHRAGMS. GUY CARLETON PIERCE, Los Angeles, Cal., assignor to California Valve and Air Brake Company, Los Angeles, Cal., a Corporation of California. Filed Feb. 3, 1913. Serial No. 745,950. (Cl. 113—44.)

1. In a diaphragm forming device, a base plate having an annular recess in the face thereof, a forming plate adapted to clamp a sheet metal blank between itself and said base plate, said forming plate having an annular concave recess registering with said recess of the base plate and making an air tight fit within said recess and also around the periphery thereof, and means to supply fluid pressure to the recess of the base plate to force a metal blank into said annular concave recess of the forming plate.

2. In a diaphragm forming device, a base plate having a fluid receiving space surrounding the central portion thereof, a forming plate adapted to coöperate with said base plate, said forming plate having a concave annular recess upon the face thereof which is directed toward said base plate, a suitable frame, and a follower screw operating in said frame, said follower screw carrying said forming plate to move said forming plate to and from the operative position, and means to supply fluid pressure to the space in said base plate to force the diaphragm blank into the required shape.





3. In a diaphragm forming device, a base plate having a fluid receiving space surrounding the central portion thereof, a forming plate adapted to coöperate with said base plate, said forming plate having a concave annular recess upon the face thereof which is directed toward said base plate, a suitable frame, combined centering and clamping means carried by said frame to move said forming plate to and from the operative position, and means to supply fluid pressure to the space in said base plate to force the diaphragm blank into the required shape.

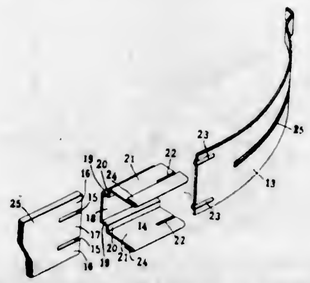
4. The herein described art of making diaphragms, consisting in air-tightly and unyieldingly clamping the blank both at its center and all around its edge, leaving an unclamped free annular portion, providing an annular concave shaping face at one side of said unclamped part of the diaphragm, and applying fluid pressure directly to the other side of the unclamped part of the diaphragm to thereby bodily stretch that portion of the diaphragm and permanently set and shape it against said concave face by said fluid pressure.

5. In a diaphragm forming apparatus, a base, a forming means adapted to clamp a sheet metal blank between itself and said base, said forming means having an annular concave recess in the face which faces the base, said base and said forming means serving to air-tightly clamp the blank at its center and also around its edge, and means for applying fluid pressure to the face of the blank opposite the forming means to thus permanently set and shape the blank to the annular recess in said forming means.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,764. THERMOSTAT. HENRY E. REEVE, New York, N. Y. Filed Sept. 11, 1913. Serial No. 789,263. (Cl. 177—128.)



1. In a thermostat, a thermostatic arm and a support therefor including a thermal insulating element of nickel steel.

2. In a thermostat, a slotted support, a sheet metal member having a central wall, two walls laterally spaced apart therefrom but parallel thereto and connected by flanges substantially at right angles fitting in the slots in said support and a thermostatic element secured to said sheet metal member.

3. In a thermostat, a sheet metal member having parallel flanges with slots in said flanges and a thermostatic element secured in said slots.

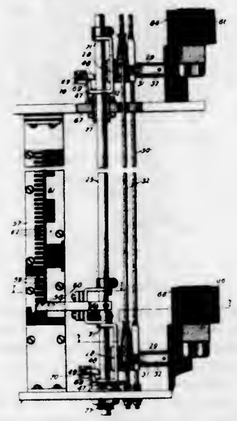
4. In a thermostat, a sheet metal member having parallel flanges with slots in said flanges and a thermostatic element having its end portion grooved to fit into the slots in the parallel flanges.

5. In a thermostat, a support having a slotted end, a supporting member engaged in the slotted end of the support, said supporting member having flanges outstanding from the support and slotted to receive a thermostatic arm and a thermostatic arm engaged in the slotted outstanding flanges of the supporting member.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,765. AUTOMATIC SELECTOR-SWITCH. JOHN NEWBERRY REYNOLDS, Greenwich, Conn., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 8, 1911, Serial No. 637,434. Renewed May 16, 1913. Serial No. 768,157. (Cl. 179—27.5.)



1. In a selector, the combination with a row of terminals divided into sections, a brush for each section having a finger by which it may be moved, an actuating rod for said brushes having a pin for each brush, the distance from the normal position of each pin to its corresponding finger varying in arithmetical progression with the successive brushes, means for actuating said rod, and means for twisting said rod to cause one of its pins to pick up the corresponding brush during its travel.

2. In a selector, the combination with a row of terminals divided into sections, a brush for each section having a finger by which it may be moved, a brush rod having a pin for each brush, the distance from the normal position of each pin to its corresponding finger varying in arithmetical progression with the successive brushes, means for elevating said rod at low speed, means for twisting the rod during said movement to seize one of said brushes, and means for thereafter raising the said brush at another rate of speed to the desired terminal.

3. In a selector, the combination with a vertical row of terminals divided into sections, a brush for each section having a finger, a brush rod having a loose connection with each brush, pins carried by said rod each adapted to engage and lift a particular brush, the distance from the normal position of each pin to the corresponding finger increasing in arithmetical progression with the different brushes, means for elevating said brush rod, a magnet

adapted when a pin upon said rod is adjacent the finger of the desired brush to angularly displace the rod to cause said pin to seize said brush, means for arresting the said brush at the desired terminal, and means for thereafter releasing the same.

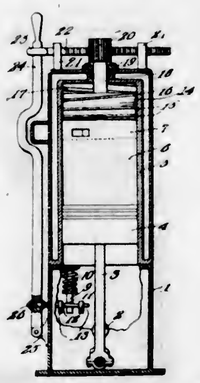
4. In a selector, the combination with rows of terminals, brushes therefor, a constantly rotating pulley, an elevating member for the brushes, an idler pulley, and means for causing said idler pulley to force said elevating member into engagement with said constantly rotating pulley.

5. In a selector, the combination with a row of terminals divided into sections, a brush for each section, a continuously rotating pulley, a rod adapted to elevate said brushes singly, an idler pulley engaging said rod, and an electromagnet adapted to cause said idler pulley to force said rod into engagement with said pulley.

[Claims 6 to 14 not printed in the Gazette.]

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1,091,766. EXPLOSIVE-ENGINE. CLARENCE C. ROGERS, Wheeling, W. Va. Filed July 16, 1913. Serial No. 779,366. (Cl. 123—48.)



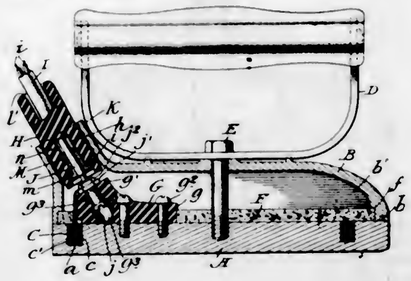
An explosive engine, having a cylinder, an intake valve, a slidable and rotatable compression chamber regulating member mounted in the head of the cylinder, a stem disposed concentrically of and through the cylinder head and carrying the member, a pinion carried by the stem, a toothed rack mounted exteriorly of the cylinder and engaging the pinion to rotate the member, the stem of the intake valve being provided with a wedge shaped slot, a sliding wedge mounted upon the cylinder and disposed to coact with the slot of the stem to regulate the throw of the valve, and a lever connected to the wedge and rack, whereby the compression chamber regulating member and wedge are operated simultaneously.

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1,091,767. ELECTRICAL CONNECTION FOR SAD-IRONS AND THE LIKE. EDWIN A. RUTENBER, Logansport, Ind., assignor to The Rutenber Electric Company, Logansport, Ind., a Corporation of Indiana. Filed Dec. 10, 1912. Serial No. 735,881. (Cl. 219—25.)

1. An electrical connection of the kind specified embodying a member composed of insulating material and provided with longitudinal sockets separated by an intervening wall and with wire passages separate from said sockets, a plurality of metal sleeves positioned within the sockets and incased by the material of said member, said sleeves being in electrical engagement with leading in wires adapted to extend through said wire passages, a second member composed of insulating material, and metal posts fixed to and partly incased by the second member, said metal posts projecting outwardly from the second member so as to be exposed for convenient engagement by the metal sleeves of the first member.

2. An electrical connection of the kind specified embodying a member composed of insulating material and provided with sockets, a plurality of posts partly incased by the sockets and clamped to said member, said posts projecting outwardly from the member, a second member composed of insulating material and provided with sockets and with passages separate from said sockets, wires passing through said passages in the second member, and sleeves incased within the sockets of the second member, said sleeves being electrically attached to the wires and having frictional engagement with the exposed parts of said posts.

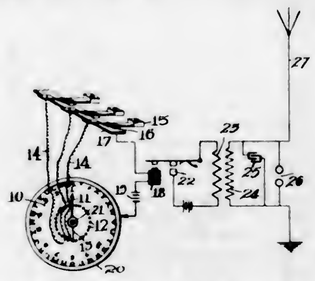


3. An electrical connection of the kind specified embodying a member composed of insulating material and provided with sockets, a plurality of posts partly incased by the sockets and clamped to said member, a second member composed of insulating material and provided with sockets, and threaded metal sleeves screwed into the sockets and incased within the material of the second member, said sleeves being split for a part of their length and adapted for frictional engagement with said posts.

4. The combination with a two-part translating device, one part of which is chambered, and a resistance coil, of a thimble extending upwardly from said chambered member, a coupling member composed of insulating material and secured fixedly to one part and within the chambered part, a plurality of posts secured to said coupling member and extending upwardly within the thimble, a second coupling member composed of insulating material and insertible into the thimble, a conductor attached to the second member, and a plurality of sleeves secured to the second member and positioned for frictional engagement with said posts.

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1,091,768. METHOD OF AND APPARATUS FOR SELECTIVE WIRELESS TELEGRAPHY. FREDERICK G. SARGENT, Westford, Mass. Filed Nov. 14, 1912. Serial No. 731,279. (Cl. 250—8.)



1. The improvement in the art of sending messages, which consists in synchronously and continuously, but independently, revolving indicators relatively to similar dials having characters thereon arranged in the same way at the sending and receiving stations respectively, sending a signal from the sending to the receiving station at the instant that the indicator shows a desired character on the dial at the sending station, whereby the operator at the receiving station will determine the character intended to be sent by noting what character on his dial is indicated by his indicator when he receives the signal.



2. The improvement in the art of wireless telegraphy which consists in synchronously and continuously revolving pointers relatively to similar dials having characters thereon arranged in the same way at the sending and receiving stations respectively, sending a signal by wireless means from the sending to the receiving station at the instant that the indicator shows a desired character on the dial at the sending station, whereby the operator at the receiving station will determine the character intended to be sent by noting what character on his dial is indicated by his indicator when he receives the signal.

3. In a wireless telegraph apparatus, the combination of a set of dials and indicators therefor, one at each station, means for rotating said dials and indicators at each station relatively to each other, synchronously and continuously, each dial being provided with a series of characters arranged thereon in the same order, a series of contacts corresponding one with each character, circuits connected with said contacts, means for closing each circuit when the indicator of that dial indicates the character corresponding to the contact connected with that circuit, and wireless-telegraph apparatus connected with said circuits.

4. In a wireless telegraph or signaling apparatus the combination of a set of dials and indicators, one at each station, means for relatively rotating the dial and indicator of each station synchronously with the rotation of those of the other station or stations, each dial being provided with a series of characters arranged thereon in the same order at the several stations and with a series of contacts corresponding with said characters, means for engaging said contacts in the same order at the several stations as the rotation is carried on, circuits connected with said contacts, a key-board at the sending station having keys, one connected with each of said circuits, each key corresponding with one of the characters on the dial, a wireless sending apparatus, and means whereby when any key is lowered a circuit to the sending apparatus will be completed with the exception of the making of the contact at the dial.

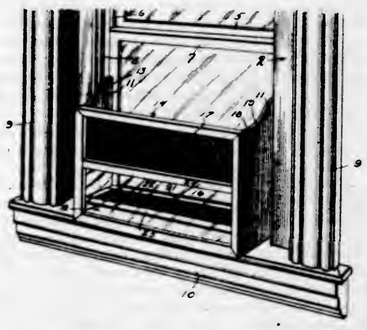
5. In a wireless telegraph or signaling apparatus, the combination of a set of dials and indicators, one at each station, means for relatively rotating the dial and indicator of each station synchronously with the rotation of those at the other station or stations, each dial being provided with a series of characters arranged thereon in the same order at the several stations and with a series of contacts corresponding with said characters, means for engaging said contacts in the same order at the several stations as the rotation is carried on, circuits connected with said contacts, a key-board at the sending station having keys, one connected with each of said circuits, each key corresponding with one of the characters on the dial, a wireless sending apparatus, means whereby when any key is lowered a circuit to the sending apparatus will be completed with the exception of the making of the contact at the dial, a corresponding number of partial circuits at the receiving station each adapted to be closed by the relative rotation of the dial and indicator in the same order as at the sending station, and means in series with all of said partial circuits at the receiving station for detecting the sending of a signal.

[Claim 6 not printed in the Gazette.]

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1,091,769. WINDOW-VENTILATOR. DITRICH SCHAFER, Sacramento, Cal. Filed Sept. 24, 1912. Serial No. 722,017. (Cl. 98—31.)

1. A ventilating device for windows, comprising a housing detachably secured to a window frame, said housing comprising a base, side walls, a frame hingedly connected with said housing, a sheet of transparent material disposed in the lower portion of said frame, a screen disposed in the upper portion of said frame, and catches for holding said frame in its closed position, and a screen rigidly secured upon the bottom rail of the lower sash and provided upon its extreme edge with a resilient strip adapted to bear against said transparent material or said first named screen.



2. A ventilating device for windows, comprising a housing detachably secured to a window frame and out of the path of travel of the sash, said housing comprising a base, side walls, a vertical frame hingedly connected with said base and comprising a glass pane in its lower portion and a screen in its upper portion, hooks for holding said frame in its closed position, and a screen secured upon the lower sash rail, extending into said housing and resiliently engaging said vertical frame.

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1,091,770. CAR CONSTRUCTION. VICTOR VON SCHLEGELL, New York, N. Y., assignor, by direct and mesne assignments, to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 9, 1912. Serial No. 682,739. (Cl. 189—64.)



1. In a railway car, the combination of a car wall including vertical posts, a unit adapted to be inserted and secured in the space between two adjacent posts, said unit comprising a sheet-metal window-sill, two sheet-metal post-casings secured at their lower ends to the sill and a metallic cross-member extending between and secured at its ends to the post-casings and said unit being of such width that said post-casings are spaced from the adjacent posts, and detachable securing devices independent of said posts for securing said window-unit rigidly to the wall of the car in the plane of the wall and between two of the posts, said devices being operable to detach the unit from the wall and permit removal thereof, substantially as set forth.

2. A railway car having a side wall including a plurality of parallel vertical posts and window-openings between them, a plurality of window-frames each mounted in one of said openings and bearing at its lower edge upon but not secured to the wall between two of said posts and each of said frames having its side members spaced from and not secured to the adjacent posts, and detachable securing devices securing the upper portion of each of said frames to the wall of the car, the parts of each of said frames being secured one to another independently of the wall of the car and each frame being removable as a whole from the wall, substantially as set forth.

3. In a railway car, the combination of two vertical posts, an upper outer sash mounted thereon, and a removable window-unit comprising a sheet-metal sill, sheet-metal post-casings secured thereto, vertically movable lower sashes and an upper sash, said unit being detachably mounted in position between said posts with said upper sash on the window-unit parallel and adjacent to said sash mounted on said posts, substantially as set forth.

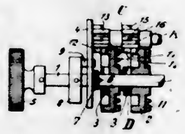
4. A railway car having a side wall including a plurality of parallel vertical posts with window-openings between them, a plurality of sashes each secured in position between two adjacent posts and extending across said window-openings, a plurality of window-frames one in each of said openings and each extending upwardly on the inner side of one of said sashes, and means for securing said frames rigidly to the wall, the parts of each of said frames being secured one to another independently of the wall of the car and each frame being secured as a whole to the wall so as to be removable as a whole therefrom, substantially as set forth.

5. A railway car having a side wall including a plurality of vertical posts with window-openings between them and a plurality of sashes each mounted in position across a window-opening between two adjacent posts, a plurality of window-frames each mounted in one of said openings with its lower edge bearing upon the wall between two of said posts and extending upwardly therefrom on the inner side of one of said sashes, and means for securing the upper portion of each of said frames to the wall of the car, the parts of each of said frames being secured one to another independently of the wall of the car and each frame being removable as a whole from the wall, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,771. COUNTER. WALTER SCHÜRMANN, Düsseldorf, Germany. Filed Apr. 30, 1912. Serial No. 694,288. (Cl. 235—132.)

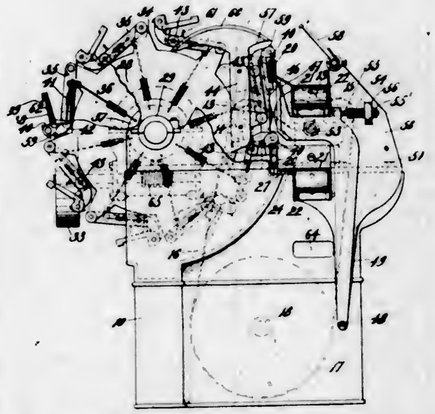


1. In a machine of the character described, a shaft, a numeral wheel of lower order and a numeral wheel of higher order mounted on said shaft and adapted to participate in its movement by frictional contact, a pair of pins and an intermediate notch formed at one face of the numeral wheel of lower order, a plurality of pins formed at the opposed face of the numeral wheel of higher order, a tens-carrying pinion rotatably and non-slidably mounted in proximity to both of said numeral wheels, said pinion being provided with alternating short and long teeth, the short teeth being adapted to simultaneously engage the pins of both of said numeral wheels, while the long teeth normally engage the rim of the numeral wheel of lower order and are adapted to engage the notch of said last named wheel, and means for firstly axially moving the shaft whereby the pins of the numeral wheel of higher order are withdrawn from the path of the pinion-teeth, while the pinion is prevented from rotation by the engagement between its long teeth and the rim of the wheel of lower order, and for secondly rotating the shaft thereby taking both of the numeral wheels along.

2. In a machine of the character described, a shaft, a plurality of numeral wheels carried thereby and adapted to participate in its movement by frictional contact, a pair of pins formed at one face of each of said numeral wheels, a plurality of ten-carrying pinions, each pinion being adapted to operatively connect two adjacent numeral wheels, and means for firstly axially moving and secondly rotating the shaft, the rotary movement of each numeral wheel being checked by the engagement of one of its pair of pins with one of the teeth of the coöperating pinion.

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1,091,772. END-MATCHER. WILLIS S. SHERMAN, Milwaukee, Wis. Filed May 9, 1910. Serial No. 560,237. (Cl. 144—91.)



1. An end matcher, comprising a cutter, guides for leading work to the cutter, and a rotary feed mechanism comprising pivotally suspended work carriers adapted to receive and hold the work while forcing it along the guides to receive the action of the cutter.

2. An end matcher, comprising a cutter, guides positioned to lead work thereto, a rotary feed drum, swinging carrier frames carried thereby, and work carriers pivotally suspended from the carrier frames adapted to receive the work and carry it through the guides to receive the operation of the cutter.

3. An end matcher, comprising a cutter, guides in position to lead work thereto, a rotary feed drum, carrier frames movably mounted on the feed drum, work carriers pivotally suspended from the carrier frames, and a cam engaged by the carrier frames for causing them to move with relation to the drum to cause the work carriers to travel in an approximately straight line at one portion of their circuit of movement, said work carriers being adapted to receive work and carry it during their straight line movement between the guides and into engagement with the cutter.

4. An end matcher, comprising a cutter, a rotary feed drum, spring retracted swinging carrier frames thereon, spring retracted swinging carriers on the carrier frames, rollers on the carrier frames, a cam in the path of the rollers for causing the carrier frames to swing on the feed drum and move the carriers in an approximately straight line at one portion of the circuit of movement thereof, said work carriers being adapted to receive work, and guides between which the work is carried by the work carriers into engagement with the cutter during the straight line movement of the work carriers.

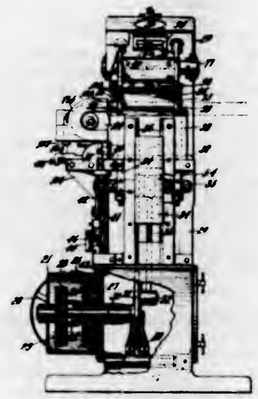
5. An end matcher, comprising a cutter, a rotary feed drum, spring retracted swinging carrier frames thereon, spring retracted swinging carriers on the carrier frames, rollers on the carrier frames, a cam in the path of the rollers for causing the carrier frames to swing on the feed drum and move the carriers in an approximately straight line at one portion of the circuit of movement thereof, said work carriers being adapted to receive work, guides between which the work is carried by the work carriers into engagement with the cutter during the straight line movement of the work carriers, and a cam in the path of the rollers to violently swing the carrier frames for ejecting the work from the work carriers.

[Claims 6 to 18 not printed in the Gazette.]

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1,091,773. END-MATCHER. WILLIS S. SHERMAN, Milwaukee, Wis. Filed June 24, 1912. Serial No. 705,536. (Cl. 144—91.)



1. An end matcher, comprising a cutter, a guide head and a presser head forming between them a guideway for the passage of work, a movable stop engaged by the work when positioned in the guideway, a movable guide controlled in its position by the movements of the stop, a reciprocating work feeding slide, fingers thereon for engaging the work to move it through the passageway, and means on the work feeding slide for engaging the guide for moving the fingers into position to engage the work.

2. An end matcher, comprising a cutter, a pair of guides between which the work travels into engagement with the cutter, a reciprocating work feeding means movable into and out of position for forcing the work between said guides, a movable stop determining the position of the work between the guides and movable thereby for effecting the movement of the work feeding means into position for forcing the work between the guides.

3. An end matcher, comprising a pair of guides forming a guideway between them, work feeding means movable into and out of the guideway for forcing work through the guideway, an arm engaged by the work when it is placed in position in the guideway, a shaft on which the arm is mounted adapted to be moved by the engagement of the work with the arm, a swinging frame moved by the shaft and provided with a guide rail, and a roller on the work feeding means to engage the guide rail for moving the work feeding means into the guideway when the work is in position therein.

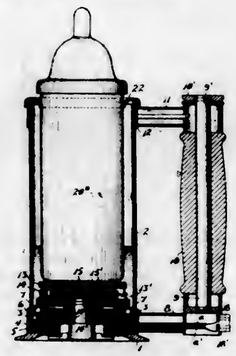
4. An end matcher, comprising a cutter, guides forming a guideway between them for the travel of work past the cutter, a trigger in position to be engaged by the work when it is placed in the guideway, a shaft on which the trigger is mounted, a second shaft geared to the first mentioned shaft, a frame on the second shaft having a limited movement thereon, a spring bearing against the frame, a guide rail carried by the frame, a reciprocating work feeding slide, work feeding fingers pivotally mounted thereon and capable of being swung into or out of the passageway, an arm carried by the work feeding fingers, and a roller on the arm for engaging the guide rail for projecting the work feeding fingers into the guideway when the trigger is engaged and moved by the work.

5. An end matcher, comprising a cutter, a pair of guides forming a guideway between them, reciprocating work feeding means movable into and out of the guideway, a trigger in position to be engaged by the work when it is placed in the guideway and controlling the movement of the work feeding means into the guideway, and latching means for holding said trigger in the position to which it is moved by its engagement with the work, said latching means projecting into the path of the work to be released thereby during the travel of the work through the guideway.

[Claims 6 to 19 not printed in the Gazette.]

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1,091,774. ELECTRIC HEATING DEVICE. MILTON H. SHOENBERG, San Francisco, Cal., assignor to Frederick C. Morgan, San Francisco, Cal. Filed Nov. 6, 1912. Serial No. 729,902. (Cl. 219—44.)



1. In an electric liquid heating device, the combination with a holder, of an open mouth container or shell detachably held thereto, a heating unit provided with a resistance coil situated within said container or shell adjacent the bottom portion thereof, a packing interposed between the heating unit and the shell for the making of a tight joint connection between the same, electrical connections extended through the holder and connected with the resistance coil of the electrical unit for passing an electrical current through said coil, and a switch member in the electric circuit for controlling the flow of the electrical current to the resistance coil.

2. In an electric liquid heating device, the combination with a holder, of an open mouth container or shell detachably held thereto, a packing joint union between the lower end of the container and the holder, a heating unit provided with a resistance coil situated within the said container and detachably held therein against movement, and electrical connections extended through the holder and connected to the said resistance coil within the container.

3. In an electric liquid heating device, the combination with a holder, of an open mouth container or shell held thereby, a heating unit provided with a resistance coil within the said container or shell, means for detachably securing the heating unit within the container, a packing ring interposed between the heating unit and the bottom of the holder for making a tight joint with the container on the expansion thereof, electrical connections extended through the holder and connected to the resistance coil of the heating unit, and a switch member interposed in the electric circuit for controlling the opening and closing of the circuit to the resistance coil.

4. In an electric heating device, the combination with a holder, of an open mouth container or shell detachably held thereto, a packing joint connection between the lower end of the container and the said holder, a heating unit provided with a resistance coil situated within the con-

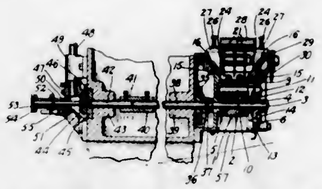
tainer and detachably held therein against movement, electrical connections extended through the holder and connected to the said resistance coil within the container, and pressure controlled means interposed within an electrical circuit for making and breaking connection with the resistance coil of the heating unit.

5. In an electric liquid heating device, the combination with a holder, of an open mouth container detachably united to and held thereby, a heating unit provided with a resistance coil situated within the container and interposed between the said container and the holder and held in position by the container, and means for controlling the flow of an electrical current through said resistance coil.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,775. CIGARETTE-OPENING DEVICE. ELBERON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 19, 1912. Serial No. 732,222. (Cl. 131—37.)



1. In a cigarette opening device, the combination with a forwarding belt, of means for guiding a plurality of cigarettes into parallel and separated longitudinal positions on said belt, and a plurality of rotating knives adapted to engage the cigarettes forwarded by the belt and cut them open.

2. In a cigarette opening device, the combination with a forwarding belt, of means for guiding a plurality of cigarettes into parallel and separated longitudinal positions on said belt, and a plurality of rotating knives having interrupted cutting edges adapted to engage the cigarettes forwarded by the belt and chop them open.

3. In a cigarette opening device, the combination with a forwarding belt, of a series of bars adapted to guide a plurality of cigarettes into parallel and separated longitudinal positions on said belt, and a plurality of rotating knives having interrupted cutting edges adapted to engage the cigarettes forwarded by the belt and chop them open.

4. In a cigarette opening device, the combination with a forwarding belt, of a series of half round bars overlying the belt and adapted to guide a plurality of cigarettes into parallel and separated longitudinal positions on said belt, and a plurality of rotating knives having interrupted cutting edges adapted to engage the cigarettes forwarded by the belt and chop them open.

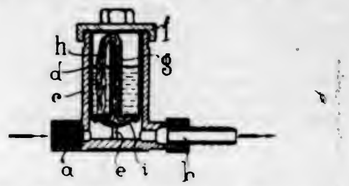
5. In a cigarette opening device, the combination with a forwarding belt, of means for guiding a plurality of cigarettes into parallel and separated longitudinal positions on said belt, and a plurality of rotating knives adapted to engage the cigarettes forwarded by the belt each of said knives being substantially circular and having an interrupted cutting edge formed by grinding semi-circular recesses in its peripheries.

[Claims 6 to 12 not printed in the Gazette.]

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1,091,776. MEANS FOR LUBRICATING FLUID-DRIVEN TOOLS. FERDINAND SPITZNAS, Essen-on-the-Ruhr-West, Germany. Filed Nov. 7, 1912. Serial No. 730,029. (Cl. 184—55.)

1. A lubricator comprising a covered lubricating-box having a pressure-fluid inlet and a pressure-fluid outlet, a lubricator-cup mounted sufficiently high in said box to allow a space between the said inlet and outlet and having a tube rising from its bottom to form a passage through the same, and a wick passing through said tube and connecting the interior of said vessel with said space.



2. A lubricator comprising a lubricating-box having at the bottom a pressure-fluid inlet and a pressure-fluid outlet, a lubricator-cup mounted sufficiently high in said box to allow a space between the said inlet and outlet and having a tube rising from its bottom to form a passage through the same, said cup being adapted to be lifted upwardly out of said box, a screw-top removably fastened to said box, and a wick passing through said tube and connecting the interior of said vessel with said space.

3. A lubricator comprising a covered lubricating-box having a pressure-fluid inlet and a pressure-fluid outlet, a lubricator-cup mounted sufficiently high in said box to allow a space between the said inlet and outlet and having a tube rising from its bottom to form a passage through the same, a wick passing through said tube and connecting the interior of said vessel with said space and a sieve fastened below the bottom of the vessel and containing the end of the wick issuing from said tube.

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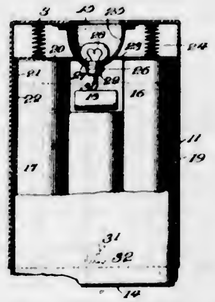
1,091,777. ROAD-MAKING MATERIAL. GEORGE SPRUNG, Vancouver, British Columbia, Canada. Filed Oct. 4, 1913. Serial No. 793,332. (Cl. 106—31.)

1. A road making material, comprising broken rock and a filling for the interstices of the closely packed rock, said filling comprising sawdust permeated with a bituminous material.

2. A road making material, comprising broken rock with sufficient sawdust soaked with a bituminous material, to fill compactly the interstices between the rock when the same has been heavily rolled.

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1,091,778. EGG-TESTER. WALTER K. STEBBINS, Fairmount, N. D. Filed Jan. 28, 1913. Serial No. 744,751. (Cl. 99—6.)



1. An egg tester including relatively movable telescopic casings, one of which is provided with an opening, a reflector carrying an electric lamp mounted in the casing having the opening therein and arranged in alinement with said opening, and means operable by the movement of one casing toward the other for closing the circuit through said lamp.

2. An egg tester including relatively movable telescopic casings, one of which is provided with an opening, a reflector carrying an electric lamp mounted in the casing having the opening therein and arranged in alinement with said opening, means operable by the movement of one casing toward the other for closing the circuit through said lamp, and means for normally holding the casings away from each other.

3. An egg tester including an inner casing member and an outer casing member telescopically mounted with their outer ends closed, one of said ends being provided with an opening, an electric lamp carried by the casing having the opening therein and arranged in alinement with said opening, means for normally holding said casings in slightly extended position, and means operable by the movement of one casing into the other to close a circuit through the light.

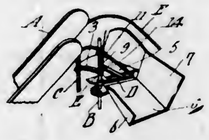
4. An egg tester including an inner casing member, a battery of dry cells in the inner casing, a resilient spring forming one terminal of said battery, a covering for the battery including a cover having a tongue forming another terminal of the battery, springs carried by the cover and extending upwardly therefrom, an upper casing member mounted for telescopic movement over the inner casing member and normally held in spaced relation above the same by engagement against said springs, and an electric lamp carried by said outer casing and electrically connected to the cover tongue, and a spring electrically connected with the lamp adapted for engagement against the spring terminal of the battery.

5. An egg tester including a battery inclosing casing, an outer casing telescopically mounted over the first and normally in spaced relation from the same by springs, said outer casing being provided with an opening, a cup-shaped reflector positioned in the outer casing to reflect light outwardly through the opening, an electric lamp mounted in the inner end of said reflector, and means operable by the movement of the outer casing toward the battery inclosing casing for closing a circuit through the battery and electric lamp.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,779. HEADING ATTACHMENT FOR KAFIR-CORN HARVESTERS. JASPER STEWART, Arkansas City, Kans. Filed Feb. 15, 1913. Serial No. 748,669. (Cl. 56—131.)



1. The combination with the intermittently rotating vertical bundle delivering shaft of a harvester, of a fixed knife mounted at one end on said shaft and extending across the path of movement of the bundles propelled by the shaft, a table back of the knife, a knife connected to and revoluble with the intermittently operating delivery shaft and coöperating with the fixed knife to remove heads from bundles immediately prior to the ejection of said bundles by the shaft.

2. The combination with the intermittently rotating bundle delivering shaft of a harvester, and bundle ejecting fingers extending therefrom, of a fixed blade extending across the path of the bundles, a movable blade revoluble with the delivery shaft in advance of the delivery fingers and coöperating with the fixed blade for severing the tops of the bundles immediately prior to the ejection of the bundles by the fingers.

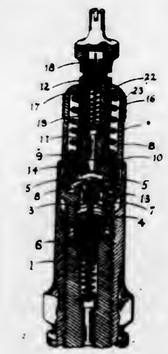
3. The combination with the intermittently rotating bundle delivery shaft of a harvester, and bundle ejecting fingers extending therefrom, of a fixed blade extending across the path of the bundles, a movable blade revoluble with the delivery shaft in advance of the delivery fingers and coöperating with the fixed blade for severing the tops of the bundles immediately prior to the ejection of the bundles by the fingers, a table for receiving the severed tops, an elevator, and means for directing the severed tops from the table to the elevator.

4. The combination with the intermittently rotating bundle delivery shaft of a harvester, and bundle ejecting fingers extending therefrom, of a bowed fixed blade mounted at one end on the shaft and connected at its other end to the harvester structure, a movable blade revoluble with the delivery shaft in advance of the fingers, said blade coöperating with the fixed blade for removing the tops of the bundles immediately prior to the engagement of the fingers with the bundles, a table for receiving the severed tops, an apron for receiving the tops from the table, and an elevator for receiving the tops from the apron.

5. The combination with the intermittently rotating, vertical, bundle delivery shaft of a harvester, and bundle ejecting fingers extending therefrom, of a bowed fixed blade mounted at one end on the shaft and connected at its other end to the harvester structure, a movable blade revoluble with the delivery shaft in advance of the fingers, said blade coöperating with the fixed blade for removing the tops of the bundles immediately prior to the engagement of the fingers with the bundles, means for connecting the movable blade to the shaft for vertical adjustment, a table back of the fixed blade for receiving the severed tops, an apron, said movable blade constituting means for directing the severed tops along the table and onto the apron, and an elevator for receiving the tops from the apron.

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1,091,780. PNEUMATIC-TIRE PRESSURE-GAGE AND DUST-CAP. GEORGE E. TRAUB, San Diego, Cal. Filed Sept. 19, 1912. Serial No. 721,249. (Cl. 152—12.)



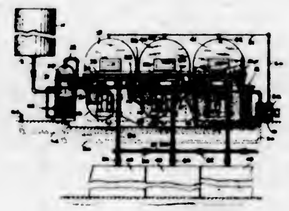
1. In a pneumatic tire pressure gage, the combination with a threaded sleeve adapted to be secured to the tire valve nipple, of a cylinder having screw connection with said threaded sleeve, a valve releasing screw in the bottom of said cylinder for releasing the tire valve when said cylinder is screwed inwardly, a piston in said cylinder, a piston stem extending from said cylinder having a groove therein longitudinally and circumferentially arranged and having a pitch relative to the piston stem, a pin in the upper end of said cylinder adapted to engage with said groove whereby said piston may be locked within said cylinder; a spring interposed between said piston and the upper end of said cylinder casing and acting against the pressure of the inflating medium, graduations upon said piston stem to indicate the pressure of the inflating medium, a valve in said piston stem adapted to admit the inflating medium to the cylinder chamber, and means for locking the cylinder out of engagement with the tire valve, comprising a pin engaging with the edges of an annular groove on the cylinder, substantially as set forth.

2. In a pneumatic tire pressure gage, the combination with a threaded sleeve adapted to be secured to the nipple of a tire valve, of a cylinder casing of approximately the same diameter as said nipple and having screw connection with said sleeve, means for limiting the longitudinal movement of the cylinder and locking it in the outward posi-

tion, a spring actuated piston within said cylinder, a piston stem extending from the cylinder having graduations thereon, means carried by the cylinder for releasing the tire valve, means for locking the piston in a closed position to form a continuous passage from the tire valve to the upper end of the piston stem, and a valve in said piston stem, substantially as set forth.

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1,091,781. STILL. CECIL L. TURNER, New York, N. Y., assignor of one-half to Sidney H. Hart, Houston, Tex. Filed Apr. 10, 1912. Serial No. 689,700. (Cl. 196—13.)



1. A still, having a crude-oil supply embodying a plurality of evaporating chambers, each chamber having a spreading floor disposed between troughs for receiving and delivering the oil in each chamber, said chambers being connected in series, means for returning the oil from the delivery trough of the last of the series of chambers to the source of supply; a steam-heating system for said chambers, embodying a series of radiators disposed adjacent the floor of each of said chambers, said radiators being arranged in series; and means for regulating the temperature of said radiators.

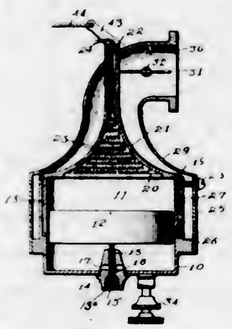
2. A still, having a crude-oil supply embodying a plurality of evaporating chambers, each chamber having a spreading floor disposed between troughs for receiving and delivering the oil in each chamber, said chambers being connected in series, means for returning the oil from the delivery trough of the last of the series of chambers to the source of supply; a steam-heating system for said chambers, embodying a series of radiators adjacent the floor of each of said chambers, said radiators being arranged in series; means for regulating the temperature of said radiators; means for conveying away from said chambers the vapors generated therein; and means for condensing said vapors by passing the same through the crude-oil prior to the introduction thereof to the first of said chambers.

3. In a still such as described, the combination of a crude-oil supply embodying a tank, a basin in open communication with said tank, a heater, a series of evaporating chambers, means in each of said chambers for spreading the oil in a thin layer while passing therethrough, and an apparatus for maintaining the circulation of said oil in the order named; a steam-heating system embodying a plurality of radiators, disposed each under and adjacent the floor of said compartments, a heater for the oil preliminary to the introduction thereof to the initial evaporating chamber, means for regulating independently the heating medium supplied to said radiators, and means for supplying steam to said radiators and said heater, to cause the steam to travel in a direction the opposite of that followed by the oil; and a plurality of condensing coils, each being situated in said basin, each of said coils being in open communication with one of said evaporating chambers, said coils being adapted to transfer the heat of the vapors drawn from said chambers to the oil supply in said basin.

4. In a still such as described, the combination of a crude-oil supply embodying a tank, a basin in open communication with said tank, a heater, a series of evaporating chambers, means in each of said chambers for spreading the oil in a thin layer while passing therethrough, and an apparatus for maintaining the circulation of said oil in the order named; a steam-heating system embodying a plurality of radiators, disposed each under and adjacent the floor of said compartments, a heater for the oil preliminary to the introduction thereof to the initial evaporating chamber, means for regulating independently the heating medium supplied to said radiators, and means for supplying steam to said radiators and said heater, to cause the steam to travel in a direction the opposite of that followed by the oil; a plurality of condensing coils, each being situated in said basin, each of said coils being in open communication with one of said evaporating chambers, said coils being adapted to transfer the heat of the vapors drawn from said chambers to the oil supply in said basin; and means in open communication with said coils for accelerating the passage of the vapors from said chambers to said coils.

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1,091,782. VAPORIZER. OLIVER P. UNDERWOOD, Des Moines, Iowa. Filed June 23, 1913. Serial No. 775,433. (Cl. 219—38.)



1. In a vaporizer, a mixing chamber, having an inclined wall forming a heating surface, means for heating said surface, a fuel passage leading to the lower portion of said surface, an air intake passage leading to the lower portion of said surface and means for regulating the supply of air passing through said intake passage.

2. In a device of the class described, a mixing chamber, an adjustable heating surface therein, means for supplying fuel to said surface, a discharge tube communicating with said chamber above said surface, a throttle in said tube, means for heating said surface; means for regulating said throttle and said heating means, and means for regulating the flow of fuel to said surface.

3. In a vaporizer, a heating surface, means for feeding fuel thereto, a discharge tube above said surface, a throttle in said tube, means for heating said surface, and means for regulating said heating means and said throttle in unison.

4. In a vaporizer, the combination of a mixing chamber having an outlet opening at its upper end and having its sides curved downwardly and outwardly, a heating element within the mixing chamber having its sides curved downwardly and outwardly toward the base and approaching the sides of the mixing chamber at its base, and means for supplying liquid fuel to the interior of the mixing chamber at the point where the mixing chamber and the sides of the heating element approach each other at the base of the heating element, for the purposes stated.

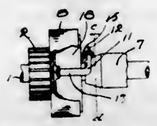
5. In a vaporizer, the combination of a cylindrical receptacle to contain liquid fuel, means for regulating the supply of liquid fuel to said chamber, a heating element on the top of said chamber having its sides curved inwardly and upwardly from the top of said chamber, a mixing chamber surrounding the liquid fuel chamber and capable of vertical movement relative thereto, the top of the mixing chamber having its sides curved inwardly and upwardly and provided with an outlet at the top, said parts being so shaped as to form a narrow opening between the base of the heating element and the sides of the mixing chamber, the sides of the liquid fuel chamber being provided with passageways for liquid fuel leading to the edge of the base of the heating element, a throttle at the outlet of the mixing chamber, and means operated in unison with the throttle for moving the mixing chamber relative to the liquid fuel chamber to enlarge or diminish the size of the opening between the base of the heating element and the sides of the mixing chamber.

[Claim 6 not printed in the Gazette.]



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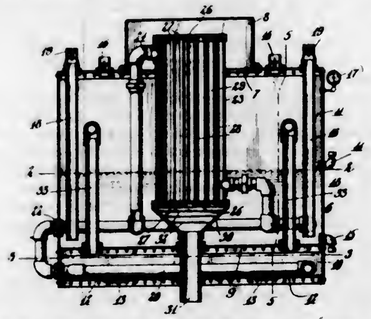
1,091,783. FRICTION-CLUTCH. JOHN R. VOORHEES, Cedar Falls, Iowa. Filed Nov. 19, 1912. Serial No. 732,276. (Cl. 192—13.)



In a friction-clutch, a driven-shaft, a friction-rim loosely mounted thereon, a hub fixed on said shaft and having an arm provided with an integral split friction ring whose parts are elastic and widened at their extremities with the meeting edges of each extremity cut away to provide like opposed rectangular bearing-seats, a rectangular block seated in said rectangular seat and secured therein, said block fitting said seat, said block having an integral outwardly directed finger spaced from said ring and arched over said shaft with its further extremity recurved to movably bear against the arm which carries said ring, and a cone slidable on said shaft under said finger, said finger having an adjustable set-screw mounted thereon and having its extremity or tip adapted to contact slidingly with said cone when the latter is moved thereunder to push out the finger, rock the latter and said block to spread said ring-parts to a frictional engagement with said friction-rim.

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1,091,784. CARBURETER. THEODORE T. WEBER, Buffalo, N. Y. Filed Feb. 13, 1913. Serial No. 748,100. (Cl. 48—148.)



1. In a carbureter, the combination of a gasolene tank, a drum or heater therein, a heat chamber, heating pipes in the said heat chamber leading into the tank and to said heater, means for supplying air to said heat chamber, and means for leading the air from said heat chamber into said tank, said heater having passages for carbureted air in communication with said tank.

2. In a carbureter, the combination of a tank containing a hydrocarbon liquid and having a dome, a heat chamber, a heater arranged in the tank and projecting into said dome, heating pipes in said heat chamber and tank and in communication with the heater, and air supply means in the heat chamber, tank and heater arranged to direct the air through the hydrocarbon liquid in said tank.

3. In a carbureter, the combination of a casing having a partition to form a liquid tank and a heat chamber, a heater mounted in said liquid tank and having gas supply pipes and a surrounding heat space, and means for supplying heat and air to said heat chamber, liquid tank and heater for producing gas.

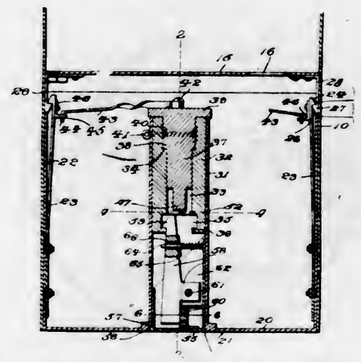
4. In a carbureter, the combination of a casing divided to form a liquid tank and a heating chamber, air openings in said heating chamber having controlling means, heating pipes arranged in the chamber and leading to said liquid tank, a heater arranged in said liquid tank in communication with said heating pipes, air supply pipes in said liquid tank in communication with said heating chamber, and auxiliary air pipes having valves and leading to said liquid tank.

5. In a carbureter, the combination of a casing divided to form a heating chamber and a liquid tank, air supply openings in said heating chamber having controlling valves, intake air pipes having valves and entering said liquid tank, safety valves provided in said tank, a heater arranged in said tank, heating means disposed in said heating chamber and communicating with said heater, and air supply pipes leading from said heating chamber to said tank.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,785. COIN-RECEPTACLE FOR SAVINGS-BANKS. FENTON WRIGHT, Fountain Grove, Mo. Original application filed May 8, 1912, Serial No. 695,957. Divided and this application filed Sept. 18, 1912. Serial No. 721,632. (Cl. 232—4.)



1. A coin bank including a casing section having a coin slot, a second casing section insertible into one end of the first casing section and forming a closure therefor, interengaging hooks carried by said sections and arranged to automatically lock the two together, a cylindrical casing extending into the removable casing section, means carried by the cylindrical casing and operable by a key for releasing said hooks, and a plug lock normally closing the outer end of said cylindrical casing.

2. A coin receptacle including telescoping sections, catches mounted on one of said sections and detachably engaging the other section, a key actuated member rotatably mounted in one of said sections and operatively engaging said catches, and a key actuated plug removable through the same section and disposed in alinement with the rotatable member and having locking engagement with said section.

3. A coin receptacle including telescopic sections, each of said sections being closed at one end and open at the other, one of said sections having a plug opening in its end, catches carried by the last named section and detachably engaging the other section, a key actuated rotatable

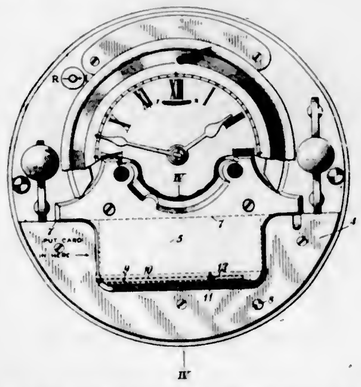
member mounted in the said section in alinement with said plug opening and operatively connected to said catches, a plug normally closing said plug opening but removable therefrom and key actuated locking means normally holding the said plug in place.

4. A coin receptacle including telescopic sections, each open at one end and closed at the other, catches mounted on one section and detachably engaging the other section, a tubular member mounted in said catch carrying section and opening through the end thereof, a tubular sleeve mounted in the tubular member, a post rotatably mounted in the sleeve and having a key shank, means operatively connecting the rotatable post with said catches whereby the latter may be withdrawn upon the rotation of the former, a plug fitting the open end of the tubular member and closing the end of the section, and a key actuated latch disposed within said plug and engageable with the sleeve to normally lock the plug in position.

5. A coin receptacle including telescopic sections, each having an open end and a closed end, catches carried by one section and operatively engaging the other section to lock the sections together, a tubular member extending inward from the opening in the end of said first named section, a post rotatably mounted in the tubular member and operatively connected to said catches to withdraw the same when the post is rotated, said post having a key engaging shank, and a key engaging pin carried by the tubular member and projecting radially in front of said shank.

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1,091,786. CARD-GATE. HENRY ABBOTT, East Orange, N. J., assignor to Calculagraph Company, New York, N. Y., a Corporation of New Jersey. Filed July 6, 1912. Serial No. 707,991. (Cl. 101—63.)



1. In a printing machine, the combination of a die and an opposing abutment, stops adapted to engage and position adjacent edges of a card, and automatic means to prevent the insertion of the card in a direction perpendicular to one of said stops while permitting its removal in such direction.

2. In a printing machine, the combination of a face plate, a die and an abutment relatively movable perpendicularly thereto, a ribbon lying across said die, and means to prevent the insertion but permitting the removal of a card transversely to said ribbon, while permitting its insertion longitudinally thereof.

3. In a printing machine, the combination of a face plate, a die and an abutment relatively movable perpendicularly thereto, a ribbon lying across said die, and means to prevent the insertion of a card transversely to said ribbon, said means comprising a bar adapted to rise and fall on said face plate.

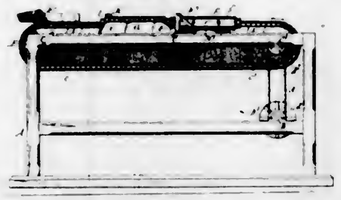
4. In a printing machine, the combination of a face plate, a die and an abutment relatively movable perpendicularly thereto, a ribbon lying across said die, and means to prevent the insertion of a card transversely to said ribbon, said means comprising a bar adapted to rise and fall on said face plate, said bar being beveled at one end.

5. In a printing machine, the combination of a face plate, a die and an abutment relatively movable perpendicularly thereto, a ribbon lying across said die, a card stop parallel to such ribbon, a card stop to position said card along said first stop, and a pawl on the opposite side of the ribbon from said first-mentioned card stop, said pawl being movable to admit a card when presented in a direction parallel to the ribbon but serving as a stop to prevent the insertion of a card presented crosswise of the ribbon.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,787. MACHINE FOR TRIMMING STRING-BEANS, &c. ROGER C. ADAMS, Buffalo, N. Y., assignor to The Phinney Engineering Company, Chillicothe, Ohio, a Corporation of Ohio. Filed Jan. 23, 1909. Serial No. 473,839. (Cl. 146—7.)



1. In a machine of the character described, the combination of a carrier adapted to receive an article to be trimmed and having an opening, a cutter which is arranged adjacent to said opening and past which said article is moved by said carrier and the end of the article is severed by the movement of the carrier past said cutter, and means which confine the body of the article in the carrier and which are movable out of the path of movement of the article to permit the escape of the severed tip of said article.

2. In a machine of the character described, the combination of a carrier adapted to receive an article to be trimmed and having an outlet at one of its ends, means for tilting said carrier so that its outlet is depressed, a cutter arranged at the depressed end of the carrier for severing the tip of said article in the carrier, and means which confine the body of the article in the carrier and which are movable out of the path of movement of the article to permit the escape of the severed tip of said article.

3. In a machine of the character described, the combination of a carrier adapted to receive an article to be trimmed and having an outlet at opposite ends, means for tilting the carrier alternately in opposite directions, cutters for severing the tips at opposite ends of said article in the carrier, and means which confine the body of the article in the carrier and which are movable out of the path of movement of the article to permit the escape of the severed tip of said article.

4. In a machine of the character described, the combination of a carrier adapted to receive an article to be trimmed and having an outlet at opposite ends, means for tilting the carrier alternately in opposite directions, cutters arranged at the depressed ends of the carrier for severing the tips at opposite ends of said article in the carrier, and means which confine the body of the article in the carrier and which are movable out of the path of movement of the article to permit the escape of the severed tip of said article.

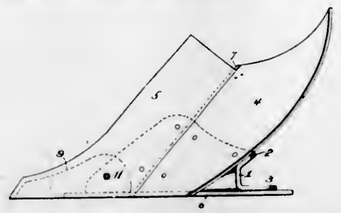
5. In a machine of the character described, the combination of a carrier adapted to receive the article to be trimmed, means for tilting said carrier so as to cause the article therein to slide toward its depressed end by gravity, means which confine the body of the article in the carrier and which are movable out of the path of movement of the article to permit the escape of the severed tip of said article, and means for trimming off that tip of the article which has been depressed.

[Claims 6 to 26 not printed in the Gazette.]



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1,091,788. PLOW. RUDOLPH JOSEPH ALTGELT and CHARLES FREDRIK CARLSON, South Bend, Ind., assignors to Oliver Chilled Plow Works, South Bend, Ind. Filed June 25, 1913. Serial No. 775,750. (Cl. 97—22.)



1. The combination with a plow standard and a mold board secured thereto, of a share provided with a patch at its forward portion and overlying the standard, a bolt passing through the share, patch and standard, and a landside having a tapering forward end underlying the major portion of the patch and terminating near the point of the share.

2. The combination with a plow standard and a mold board secured thereto, of a share provided with a patch at its forward portion and overlying the standard, a bolt passing through the share, patch and standard, a separate landside secured to the standard and having its forward portion underlying the portion of the share having the patch, and an abutment near the forward portion of said patch for the forward end of the landside.

3. In a plow, the combination with a standard, a mold board secured thereto, a share secured to the standard and abutting against the forward edge of the mold-board, a landside secured to the standard and engaging the under faces of the mold-board and share, said share having a depression in its under face at one corner thereof, whereby a flush surface is formed to receive the edge of the land-side.

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1,091,789. DENTAL INSTRUMENT. BIRGER T. ANDRÉN, Milwaukee, Wis. Filed Mar. 29, 1913. Serial No. 757,544. (Cl. 132—12.)

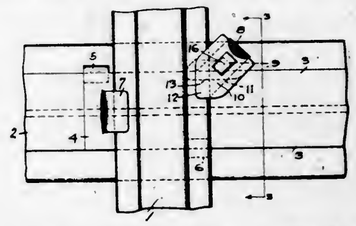


A dental instrument comprising a handle having a pair of normally spread spring tangs extending therefrom each of which tangs is merged into a U-shaped terminal, a gripping member in connection with the free end of each terminal, a gripping member formed at the junction of each U-shaped terminal and its tang, and a looped thread fitted about the pairs of gripping members to form three stretches, all of which stretches are under common spring tension whereby they are each held taut.

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1,091,790. RAIL-FASTENER. JOHN B. ATWOOD, Pittsburgh, Pa. Filed Dec. 17, 1912. Serial No. 737,355. (Cl. 238—4.)

1. In a rail fastener the combination with a tie, of a fastening clip adapted to be inserted in the angle between the tie and rail, said clip having a rail flange engaging ing and a tie engaging lug said lugs having apertures therein, an abutment upon the opposite side of said rail and means engaging said apertures to hold the lugs of the clip firmly in engagement with the rail and the tie respectively and to force the rail against said abutment.



2. In a rail fastener the combination with a tie of a fastening clip having a rail engaging lug at its upper side, and a tie engaging lug at its lower side at right angles to each other and adapted to be placed in the angle between the tie and rail said lugs having apertures therein, an abutment at the opposite side of the rail and a pin adapted to engage the apertures of said clip to hold the same firmly against said rail and tie and to force the rail against said abutment.

3. In a rail fastener the combination with a tie, of a fastening clip adapted to be placed at an angle of substantially 45° with respect to the rail and tie and within the angle between the rail and tie, said clip having a rail engaging lug and a tie engaging lug extending at right angles to each other, an abutment at the opposite side of the rail, apertures in said clip lugs adapted to receive a fastening pin whereby the clip may be clamped upon said rail and tie respectively, and the rail clamped between said clip and said abutment.

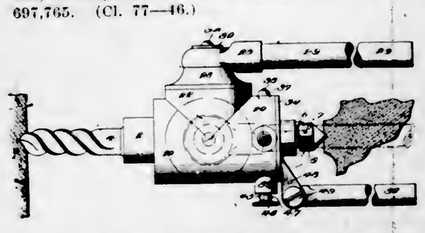
4. In a rail fastener, the combination with a tie, of a clamping plate having lugs adapted to engage the opposite sides of said tie in staggered relation and having a rail clamping lug, of a clip member having a rail engaging lug and a tie engaging lug and an aperture to receive a fastening pin, and a fastening pin adapted to pass through said aperture to engage the tie whereby the clamping plate will be given a slight rotary movement to cause its tie engaging lugs to firmly clamp the tie, said pin acting also to cause said rail lugs to firmly engage the rail.

5. In a rail fastener, the combination with a tie, of a clamping plate having tie engaging lugs and a rail engaging lug, an apertured clip member having a rail engaging lug and a tie engaging lug adapted to be placed in the angle between the tie and rail at an angle to both tie and rail and a fastening pin adapted to be driven through the aperture in said clip member and having a sharp ridge to notch and engage the edge of the tie whereby said clamping plate may be firmly clamped to the tie and the rail firmly clamped between the clamping plate lug and the clip lug.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,791. RATCHET-TOOL HOLDER. JAMES T. BARBER, Brooklyn, N. Y. Filed May 16, 1912. Serial No. 697,765. (Cl. 77—46.)



1. A tool holder including a stock, members loosely mounted on the stock and provided with ratchet faces, a member fixed to the stock intermediate said ratchet faces, said member being provided with spring-pressed pawls

movable parallel with the stock to engage the ratchet faces, gear wheels carried by the first-mentioned members, a casing embracing said members and said gear wheels, a driving gear supported by the casing and meshing with the first-mentioned gear wheels, and means for rotating said driving gear to rotate said stock.

2. A tool holder including a rotatable stock, sleeves rotatably supported on the stock, ratchet members carried by the sleeves, a barrel fixed to the stock intermediate the ratchet members, spring-pressed pawls carried by said barrel and movable longitudinally of the stock to engage said ratchet members, gear wheels mounted on said sleeves, a driving gear meshing with said gear wheels, a casing embracing said gear wheels and the members mounted on the stock, a shaft supporting said driving gear, a bearing for said shaft threaded into the casing, and means for rotating said shaft.

3. A tool holder of the character described including a stock, a casing housed in the stock, means for rotating the stock, a member closing the rear end of the casing and rotatably adjustable therein, means for holding said member in any desired rotated position, and a handle carried by said member.

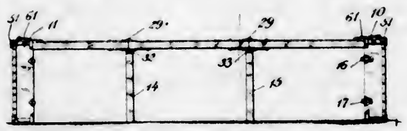
4. A tool holder of the character described including a stock, a casing surrounding the stock, a toothed wheel entering the rear end of the casing and surrounding the stock, means projecting from the casing whereby the stock may be rotated, a detent carried on the rear end of the casing and engaging said member, and a handle pivotally mounted upon said member for angular adjustment.

5. A tool holder of the character described including a stock, a casing surrounding the stock, mechanism for operating the stock including a gear wheel having a shaft projecting from the casing, a power lever mounted upon said shaft and extending in a plane parallel to the plane of the stock, a ratchet wheel closing the rear end of the casing and rotatably mounted upon the stock, a detent carried by the casing and engaging said ratchet wheel, and a handle pivotally mounted upon the ratchet wheel for angular adjustment relative to the stock.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,792. FOLDING COT. AUGUSTUS R. BARNES, Los Angeles, Cal. Filed Nov. 15, 1912. Serial No. 731,476. (Cl. 190—2.)



1. A combined cot and suit case comprising two hollow detachable members together forming the case and adapted to be used as end members of the frame of the cot, two longitudinal side braces for the cot hinge-connected to and arranged to be folded into the respective members, and a sheet of fabric arranged to be stretched on to the frame formed by the members and side braces.

2. A folding cot comprising two hollow detachable members, two side braces each composed of hinge-connected sections, one connected at one of its ends with one of said end members and the other connected at one of its ends with the other of said end members and both adapted to be folded into its respective end member, means for fastening the disconnected end of each side brace to the other member to form the frame of the cot, and means for fastening the end members together to form a suit case.

3. A folding cot comprising two hollow detachable members, two side braces each composed of hinge-connected sections, one connected at one of its ends with one of said end members and the other connected at one of its ends with the other of said end members and both adapted to be folded into its respective end member, means for fastening the disconnected end of each side brace to the other member to form the frame of the cot, vertical supporting legs hinge-connected with the side braces, and a sheet of fabric arranged to be stretched onto the frame formed by the end members and side braces.

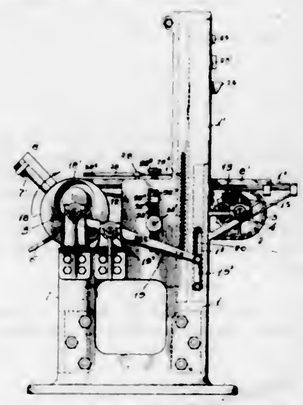
4. A folding cot comprising a pair of hollow end members, handles secured thereto and clasps for fastening the end members together to constitute a suit case, folding braces hinge-connected to the respective end members and adapted for connecting and spacing said members apart, and a sheet of fabric adapted to be stretched on the frame formed by the end members and the braces.

5. A combined cot and suit case comprising two hollow detachable members together forming the case and adapted to be used as the end members of the cot, a hinged flap on one of said members for giving access to the inside of the case, two side braces, each composed of hinge-connected sections, one connected at one of its ends with one of said end members and the other connected at one of its ends with the other of said end members and both adapted to be folded into its respective end member, means for fastening the disconnected end of each side brace to the other member to form the frame of the cot, vertical supporting legs hinge-connected with the side braces, and a sheet of fabric arranged to be stretched on to the frame formed by the end members and side braces.

[Claim 6 not printed in the Gazette.]

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1,091,793. LABELING-MACHINE. GEORGE L. BENDER and JOHN G. RAPP, San Francisco, Cal. Filed Nov. 20, 1911. Serial No. 661,259. (Cl. 216—13.)



1. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, a conveyer for the container to be labeled, mechanism for imparting movement thereto, means including vertically movable gates hinged to swing horizontally for applying an adhesive to the foremost label exposed in said receptacle, and for removing the label from the receptacle and placing the same in the path of the propelled container, and fixed wipers within the path of the container and through which the container and label are carried.

2. In an apparatus for labeling cylindrical or other shaped containers, the combination with a conveyer for the container to be labeled, mechanism for imparting movement thereto, label holding receptacles, means for applying an adhesive to the foremost label exposed in said receptacles, said means being operatable by the propelled container to be labeled, means for placing the coated label in the path of the said propelled container, and devices for applying the label to the container.

3. In an apparatus for labeling cylindrical or other shaped containers, the combination with a conveyer for the containers to be labeled, mechanism for imparting movement thereto, label holding receptacles, vertically reciprocating means for applying an adhesive to the foremost label exposed in said receptacles and for placing the coated label in the path of the propelled container, including parallel gates hinged to swing horizontally, means for supplying said reciprocating means with an adhesive on its upward movement, and devices for applying the label to the container.

4. In an apparatus for labeling cylindrical or other shaped containers, the combination with a conveyer for the containers to be labeled, a reciprocating label picker, a label receptacle in the path of movement of said label picker, means for applying an adhesive to the label picker in its movement toward the label receptacle, means operated by the propelled container to be labeled for forcing the adhesively coated label picker into contact with the exposed face of the label in the label receptacle and removing the label therefrom, and means for positioning the label in the path of the propelled container and devices for wiping the label onto the container.

5. In an apparatus for labeling cylindrical or other shaped containers, the combination with a conveyer for the containers to be labeled, a reciprocating label picker, a label receptacle in the path of movement of said label picker, means for applying an adhesive to the label picker during its movement toward the label receptacle, means operatable by the container for forcing the adhesively coated label picker into contact with the exposed face of the label in the receptacle and removing the label therefrom, and means for positioning the label in the path of the propelled container.

[Claims 6 to 14 not printed in the Gazette.]



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1,091,794. HOLLOW-TILE ARCH. PHILIP H. BEVIER, New York, N. Y. Filed June 21, 1911. Serial No. 634,469. (Cl. 72—66.)



1. A tile arch comprising a row of hollow tiles provided with webs, single imperforate slabs each positioned between two adjacent tiles and contacting with the end faces and webs thereof, each single slab closing the cells or chambers in the two tiles with which it is in contact and the height and width of each single slab being less than that of the tiles with which said slab contacts, thereby producing between the tiles a groove across the top and at the sides of the tiles, two key slabs positioned in downwardly converging relation to each other and between the middle tiles of the arch, said key slabs being spaced relative to each other and each contacting with an end face of one tile, and bonding material filling the tapering space between the key slabs and the grooves between the tiles produced by the single slabs.

2. In a tile arch, the combination with hollow tiles provided with interior webs, of imperforate slabs, the height and width of which is less than the end dimensions of each hollow tile, a single slab being positioned between the adjacent end faces of two adjoining tiles and said slab contacting with the end faces and the webs of said two tiles for closing the spaces in said tiles against the admission of mortar, the side and top edges of the slab being within the side and top surfaces of the tiles and producing a recess or space which extends continuously across the top and down both sides of the tiles, and the bottom edge of each single slab being flush with the bottom surfaces of the tiles with which said slab contacts, and a bonding material filling the aforesaid recess or space.

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1,091,795. PROCESS OF PURIFYING FLUORSPAR. ERNST BIDTEL, Golconda, Ill., assignor to Moritz Eyssell, St. Louis, Mo. Filed June 6, 1913. Serial No. 772,216. (Cl. 252.)

1. A process for treating fluorspar which consists in subjecting fluorspar to the action of a caustic alkali solution under pressure so as to decompose the silica and silicates that are closely associated with the particles of fluorspar, and thereafter removing the soluble products and the slime that result from this action.

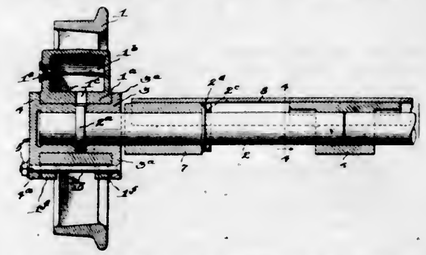
2. A process for treating fluorspar which comprises subjecting a mass of fluorspar to the action of a caustic alkali solution under pressure so as to decompose the silica and silicates that are closely associated with the particles of fluorspar.

3. A process for treating fluorspar which consists in mixing a caustic alkali solution with small particles of fluorspar and agitating the mass so as to thoroughly distribute the solution through the mass and cause it to decompose certain gangue matter that is closely associated with the fluorspar, and thereafter washing the mass so as to separate the fluorspar from the soluble products and the slime that result from the decomposition of the gangue matter.

4. A process for treating fluorspar which comprises mixing a caustic alkali solution with fluorspar and agitating the mass and subjecting it to pressure, thereby causing the solution to actively attack and decompose the silica and silicates that are associated with the fluorspar.

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1,091,796. SELF-OILING MINE-CAR WHEEL AND AXLE. WILLIAM H. BINES, Barnesville, Ohio, assignor of one-half to Andrew J. Baggs, Barnesville, Ohio. Filed Oct. 2, 1913. Serial No. 792,980. (Cl. 105—67.)

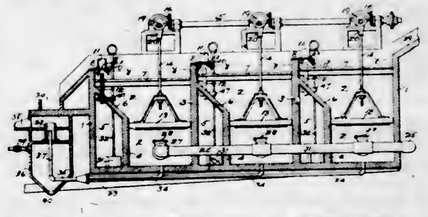


1. A wheel having a hub, an axle having a thrust collar on its end within the bore of the hub, removable bushings surrounding the axle and fitted within the hub bore at opposite sides of the thrust collar, and having flanges on their outer ends at the opposite ends of the hub, and means for fastening the said bushing flanges to the ends of the hub.

2. A wheel having an axial bore extending through its hub, and an axle having a thrust collar on its portion within the bore of the hub, removable bushings fitted within the hub bore at opposite sides of the thrust collar, and journaling the axle thereon, said bushings having flanges on their outer ends at the opposite ends of the hub, and bolts fastening said flanges to the adjacent ends of the hub.

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1,091,797. COAL-WASHING JIG. FRANK L. BOONE, Greensboro, Pa., assignor of one-fourth to David F. Cox and one-fourth to Jesse M. Cox, Greensboro, Pa. Filed Dec. 31, 1912. Serial No. 739,483. (Cl. 83—79.)



1. A coal washing jig involving a fluid holding compartment divided to form a walled in chamber; a screen

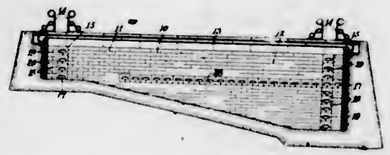
covering said main compartment; an overflow portion involving a ledge overhanging said screen; a vertically disposed and adjustable bar member supported by said ledge; a plunger adapted for reciprocation within the main compartment; a pipe connecting the space underneath said ledge with the walled-in chamber, its upper end projecting above the horizontal plane of said screen; and a second pipe connecting the said chamber with the main compartment.

2. A coal washing jig involving a fluid holding compartment divided to form a walled-in chamber; means for supplying fluid to said compartment; a screen covering said main compartment; an overflow portion involving an apertured ledge overhanging the said screen; an adjustable bar member depending from said ledge; a stand-pipe supported by said ledge over its apertured portion; a pipe connecting the space underneath said ledge with the walled-in chamber, its upper end projecting above the horizontal plane of said screen; a plunger adapted for reciprocal movement within the main compartment; a second pipe connecting the said walled-in chamber with the main compartment; and means for drawing off the waste materials collected in said walled-in chamber.

3. The combination with a coal washing jig involving a screened over compartment and reciprocally operated plunger within the compartment, of a hydraulic classifier involving a sorting column, and a tubular conduit connecting the bottom of the compartment with the said classifier and delivering upwardly into the sorting column, said conduit adapted to convey material under the pulsating force of the jig plunger.

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1,091,798. PLUNGE-BATH. JOHN FRANCIS BOORAEM, Greenwich, Conn., and GABRIEL E. ROHMER, Ridgefield Park, N. J. Filed Dec. 18, 1912. Serial No. 737,434. (Cl. 4—2.)



1. In a plunge-bath, a plurality of members superposed on each other and each having a pocket, said members having each a tread for the forward portion of the foot, and a rest for the middle of the same, and a drain-channel between said tread and rest.

2. A plunge bath block having a complete foot pocket provided with a central drain opening and drain chambers sloping laterally in opposite directions toward said drain opening.

3. A plunge bath having a hand hold or life rail extending along its top and a series of foot pockets arranged along one side substantially parallel with the life rail at a distance therefrom which permits the bather to place his feet in the pockets while grasping the life rail.

4. A plunge bath member having a complete pocket and provided with a lip extending upward from the top of the pocket flush with the outer face of the member and adapted to serve as a hand hold.

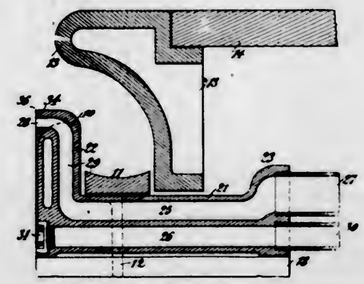
5. A plunge bath member having a pocket provided with a tread for the forward portion of the foot, a rest for the middle thereof and a drain channel between said rest and tread.

[Claim 6 not printed in the Gazette.]

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1,091,799. SWIMMING-TANK INLET. JOHN FRANCIS BOORAEM, Greenwich, Conn., and GABRIEL E. ROHMER, Pelham, N. Y. Filed Dec. 15, 1913. Serial No. 806,779. (Cl. 4—2.)

1. An inlet member for swimming-tanks, comprising an elongated body, a front-portion extending vertically therefrom, a main conduit in said body, and a riser-conduit connected therewith in said vertical portion and terminating at the water-line of the tank in a horizontal elongated mouth.



2. An inlet member for swimming tanks, comprising an elongated body, a front-portion extending vertically therefrom, a main conduit in said body, a riser-conduit connected therewith in said vertical portion and terminating at the water-line of the tank in a horizontal elongated mouth, and a flushing-conduit in said body below said main conduit and provided at its forward-end at the front of the member with a removable plug.

3. An inlet member for swimming-tanks, comprising an elongated body, a front-portion extending vertically therefrom, a horizontally flattened main conduit in said body, and a flattened riser-conduit connected therewith in said vertical portion and terminating at the water-line of the tank in a horizontal elongated mouth.

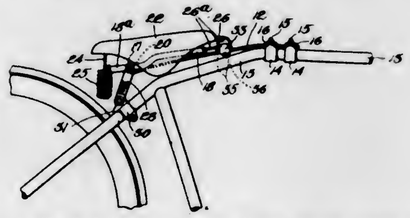
4. An inlet member for swimming-tanks, comprising an elongated body, a front-portion extending vertically therefrom, a main conduit in said body, and a riser-conduit connected therewith in said vertical portion and terminating at the water-line of the tank in a horizontal elongated mouth, the top of said inlet member above said elongated mouth being raised above the plane of the laterally adjacent upper edges of said member.

5. An inlet member for swimming-tanks, comprising an elongated body, a front-portion extending vertically therefrom, a main conduit in said body, and a riser-conduit connected therewith in said vertical portion and terminating at the water-line of the tank in a horizontal elongated mouth, the top of said inlet member above said elongated mouth being raised above the plane of the laterally adjacent upper edges of said member, said top forming with the front of the member an angular upper front-corner.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,800. SADDLE FOR MOTOR-CYCLES. APLEY LEONEL BRETT and HERBERT LEWIS PARKER, Braintree, Mass. Filed Apr. 28, 1913. Serial No. 763,989. (Cl. 208—100.)



1. A saddle comprising a base spring having means for attachment to a cycle frame, a rider bar supported by and movable on the base spring, a saddle top connected with the rider bar, and means engaged with the rider bar and engageable with the cycle frame for causing the saddle top and rider bar to move lengthwise in a forward direction when they are depressed.

2. A saddle comprising a base spring having means for attachment to a cycle frame, a rider bar supported by and movable on the base spring, a saddle top connected with the rider bar, and a link engaged at one end with the rider bar and adapted at its opposite end for engagement with the cycle frame, said link causing the rider bar and top to move lengthwise in a forward direction when they are depressed.

3. A saddle comprising a base spring having means for attachment to a cycle frame, a rider bar supported by and movable on the base spring, a saddle top connected with the rider bar, and means engaged with the rider bar and engageable with the cycle frame for causing the saddle top and rider bar to move lengthwise in a forward direction when they are depressed, the spring and rider bar being provided with stop members for limiting the endwise movements of the rider bar and saddle top in a rearward direction.

4. A saddle comprising a base spring having means for attachment to a cycle frame, a rider bar supported by and movable on the base spring, a saddle top connected with the rider bar, and means engaged with the rider bar and engageable with the cycle frame for causing the saddle top and rider bar to move lengthwise in a forward direction when they are depressed, means being provided for preventing lateral displacement of the said bar and top.

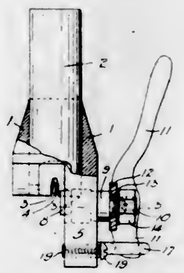
5. A saddle comprising a base spring having means for attachment to a cycle frame, a rider bar supported by and movable on the base spring, a saddle top connected with the rider bar, and means engaged with the rider bar and engageable with the cycle frame for causing the saddle top and rider bar to move lengthwise in a forward direction when they are depressed, said means preventing lateral displacement of the rear portions of the bar and top and additional means being provided for preventing lateral displacement of the forward portions of the bar and top.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,801. RAKER-TOOTH SWAGER. ROBERT J. BROUGH, Tacoma, Wash. Filed Nov. 11, 1907. Serial No. 401,563. Renewed Feb. 21, 1911. Serial No. 609,994. (Cl. 76—56.)



1. In a mechanism for swaging double pointed raker teeth, a swaging die having a slot formed with an end wall convexly rounded longitudinally, the side walls of the slot converging toward the end wall.

2. In a mechanism for swaging double pointed raker teeth, a swaging die having a slot formed with an end wall convexly rounded longitudinally, the sides of the slot converging inward toward each other, the convergence at the middle portion of the slot being greater than at the ends of the slot whereby to engage, compress and lengthen the inner side edge of a raker tooth.

3. In a raker tooth swager, a swaging die formed with a swaging surface having upwardly and outwardly inclined sides, and bracing pins disposed one on each side of the die and opposed to the same and adapted to engage and support the side edges of the raker tooth below the part thereof being swaged by said die.

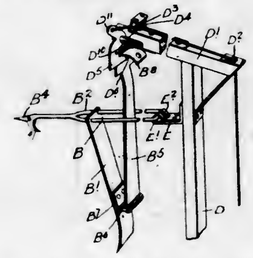
4. In a raker tooth swager, the combination with a body, of a swaging surface formed thereon, two complementary bracing pins movably mounted in said body at right angles to the swaging surface and adapted to engage each side of the raker tooth below the part thereof being swaged, and a handle engaging both of said bracing pins to move them into or out of their operative positions.

5. In a raker tooth swager, the combination with a body, of a swaging surface formed thereon, two complementary bracing pins movably mounted in said body at right angles to the swaging surface, each of said pins being eccentrically mounted and rotatably adjustable relatively to each other and adapted to engage each side of the raker tooth below the part thereof being swaged, a handle engaging both of said bracing pins to move them into or out of their operative positions, and means for holding them in their rotatably adjusted position.

[Claims 6 to 20 not printed in the Gazette.]

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1,091,802. FIRE-ESCAPE. JOHN COLLISON BROWN, Niagara Falls, Ontario, Canada. Filed Jan. 2, 1913. Serial No. 739,706. (Cl. 228—20.)



1. A device of the kind described comprising a vertical plate, a looped bar, having one end terminating in a hook, a loop attached to said plate intermediate the ends thereof, a plate pivoted at its lower end in said loop and having its upper end extending through said looped bar, the upper end of said vertical plate being arranged to slide on said looped bar.

2. A device of the kind described comprising a vertical plate a looped bar attached to said plate terminating at one end in a hook portion, a second plate pivoted at its lower end to said first named plate said pivoted plate having its upper end extending through said looped bar.

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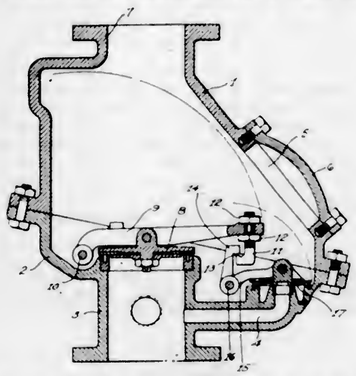
1,091,803. AUTOMATIC-VALVE FOR DRY-PIPE FIRE-SPRINKLER SYSTEMS. WILLIAM C. BRYCE, Montreal, Quebec, Canada. Filed June 21, 1913. Serial No. 775,125. (Cl. 169—23.)

1. In a single-chamber, straight-way valve of the character described, a valve casing section provided with an inlet passage and a by-pass, a lever pivotally mounted in said section, a valve carried thereby, and adapted to close said passage, a trigger bolt carried by said lever, a bell crank lever mounted in said section and adapted to engage said trigger bolt, and a differential valve carried by said bell crank lever and adapted to close said by-pass.

2. In a single-chamber, straight-way valve of the character described, a valve casing section provided with an inlet passage and by-pass, a lever pivotally mounted in said section, a valve carried thereby and adapted to close said passage, a trigger bolt mounted in the free end of said lever and provided with an offset tip, a bell crank lever fulcrumed in said section and provided with a toe adapted to engage said tip, and a differential valve carried by said bell crank and adapted to close said by-pass.

3. In a single-chamber, straight-way valve; a single valve chamber provided with alined inlet and outlet passages; a by pass leading from the inlet passage and communicating with the valve chamber, at a point a little below the delivery end of the inlet passage; a lever piv-

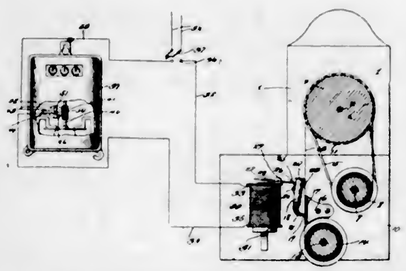
otally mounted in said valve chamber; a valve carried thereby, and adapted to close the delivery opening of said inlet; a second lever mounted in said casing; a differential valve carried thereby and adapted to close said by pass; connections between said levers; a trigger bolt car-



ried by the first lever and engaged by the second lever; and means for adjusting said trigger bolt; the said valves, their connecting and coöperating parts, and adjusting means, being contained wholly within the valve casing, to prevent their being tampered with.

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1,091,804. PRINTING-METER. JOSEPH E. BURCH and FRANCIS L. BURCH, St. Louis, Mo. Filed May 10, 1913. Serial No. 766,798. (Cl. 234—5.5.)



1. In combination with a watt-meter, an electric circuit including a pair of opposing revoluble contacts, one of which has connections with the shaft of the watt-meter, a magnet in said circuit, a hollow member revoluble with said contact and including means adapted to fall from end to end as the member revolves, to intermittently close the circuit between the opposing contacts to excite the magnet, which is adapted to operate a dotting device against a record sheet.

2. In combination with a watt-meter, an electric circuit including a pair of opposing revoluble contacts, one of which has operative connections with the shaft of the watt-meter, a magnet in said circuit, a hollow member having a vacuum space therein and revoluble with said contacts and including means in said vacuum space adapted to shift automatically from end to end of said space as the member revolves, said shifting means constituting a device to intermittently close the circuit between the opposing contacts to intermittently excite the magnet, which is adapted to operate a dotting device against a record sheet.

3. In improvements in printing meters, the combination with a watt-meter, of an electric circuit including a pair of conducting arms, an insulating base for said arms, a pair of opposing revoluble terminals mounted in bearings of said arms, which terminals and the arms are arranged in said circuit, one of said terminals having a gear thereon and insulated therefrom and having gear connections with the shaft of the watt-meter, a hollow member having a vacuum space therein revoluble with said terminals, a magnet in said circuit, and a movable element in said space adapted to shift automatically from end to end thereof to automatically and intermittently close the circuit between said opposing terminals to excite the magnet which is adapted to operate a recording mechanism.

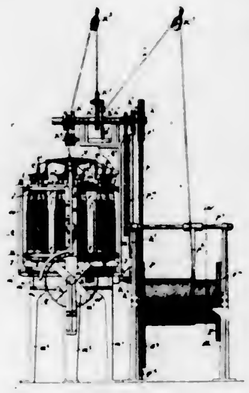
4. In combination with a watt-meter, an electric circuit including a magnet in said circuit, a make and break device in said circuit comprising revoluble means having connections with the watt-meter shaft and provided with spaced apart contacts, and means carried by the revoluble means to be automatically shifted intermittently to electrically connect the contact intermittently to close the circuit on said magnet, which is adapted to operate a recording instrument.

5. In combination with a watt-meter, an electric circuit including an electro-magnet therein, a revoluble member having connections with the watt-meter shaft and arranged in said circuit, said member having two opposing contacts, shiftable means carried by said member actuated automatically as the member revolves to intermittently connect the contacts electrically to close the circuit for energizing the magnet, which operates a recording instrument.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,805. BRAIDING-MACHINE. PAUL BUTLER, Lowell, Mass. Filed Nov. 26, 1897. Serial No. 659,888. (Cl. 28—4.)



1. In a braiding machine, the combination with top and bottom connected plates, of a central shaft on which said plates are mounted, means to rotate said shaft, a plurality of bobbin carriers, means associated with each of said top and bottom plates to carry said bobbin carriers about in the machine, and upper and lower sets of horizontally-swinging bobbin-carrier-operated switches sustained by said upper and lower plates, respectively, and arranged to act positively and simultaneously on the opposite ends of said carriers thereby to direct the latter into the required position.

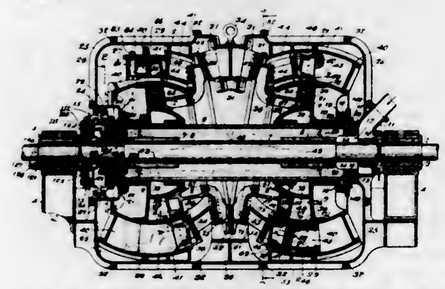
2. In a braiding machine, the combination with fixed top and bottom rings having notches, of an annular gear, a central vertical shaft, concentric top and bottom plates fixed to said shaft and situated within said rings, means to rotate said shaft and thereby the plates in unison, notched carrier plates between said plates and rings, said carrier plates having pinions in engagement with said annular gear, means to support said carrier plates, a plurality of bobbin carriers, each extending from the top plate to the bottom plate and adapted to be held in said notches, and bobbin-carrier-operated switches sustained by said top and bottom plates and arranged to swing horizontally into the path of said bobbin carriers and coöperating with said top and bottom plates to cause said bobbin carriers to slide along the switches from the notches of said rings to the notches of the carrier plates in desired order.

3. In a machine of the class described, a bobbin carrier, a shipping lever, holding means normally retaining said shipping lever in inoperative position, a friction plate carried by said bobbin carrier, a tension device movable toward said plate, and a stop motion pin arranged to slide vertically in said friction plate, the twine being led between said tension device and friction plate and wrapped around said pin for normally holding the pin in raised position, slackening of the twine permitting the pin to drop into engagement with said holding means for operating said shipping lever to stop the machine, substantially as described.

4. In a braiding machine, the combination with a central vertical shaft, of top and bottom plates sustained thereby, means to rotate the shaft, a plurality of carrier plates rotatably sustained by each of the top and bottom plates, a plurality of bobbin-carriers engaged and moved about by said top and bottom carrier plates, and an upper set of horizontally-swinging switches sustained by the top plate, and a lower set of horizontally-swinging switches sustained by the bottom plate, all of said switches being constructed to be actuated by the bobbin carriers and operating to direct the bobbin carriers into required position.

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1,091,806. ROTARY ENGINE. FRANS IVAR L. BYLGER, New York, N. Y. Filed Apr. 10, 1911. Serial No. 620,079. (Cl. 121—92.)



1. In a rotary engine, in combination, a plurality of rotors rolling in contact, and an inclosing shell carried by and rotating with one of said rotors and inclosing a working space between said rotors.

2. In a rotary engine, in combination, a plurality of rotors having surfaces rolling in contact, one of said rotors carrying an inclosing shell, a working chamber being formed between said rotors, the walls of which comprise portions of the rolling surfaces of said rotors and of the inner surface of said inclosing shell.

3. In a rotary engine, in combination, a pair of rotors having conical faces rolling in contact, and an inclosing shell carried by and rotating with one of said rotors and inclosing the space between said conical faces.

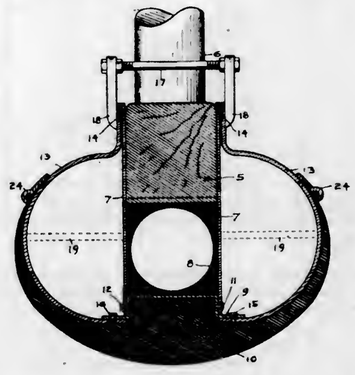
4. In a rotary engine, the combination of a pair of rotors having a working chamber between them, the side walls of which comprise surfaces of the rotors rolling in contact, a blade or vane carried by said rotors and dividing said working chamber transversely, said rotors having a second pair of bearing surfaces rolling in contact, said second surfaces being continuous and unbroken adjacent to that part of the circumference of the rotors where said blade or vane is located.

5. In a rotary engine the combination of a main rotor, a secondary rotor rolling in contact with the main rotor, a plurality of concentric ring shaped chambers or compartments between the main and secondary rotors and a plurality of blades or vanes for each chamber or compartment, the vanes or blades for one compartment being arranged at different points circumferentially of the rotors from the vanes or blades for another compartment all of the vanes or blades being carried by and rotating with the rotors.

[Claims 6 to 56 not printed in the Gazette.]

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1,091,807. WHEEL RIM AND TIRE. MICHAEL H. CAIN, Indianapolis, Ind. Filed June 23, 1913. Serial No. 775,247. (Cl. 152—34.)



1. The combination with the felly of a wheel, of a pair of parallel annular plates contacting with the sides of the felly and by and between which the felly is held, a sleeve fastened to the outer edges of the plates, resilient means between the sleeve and felly, outwardly bowed case-rings secured to each edge of the sleeve to increase the tread of the wheel, said sleeve having an annular channel, adjustable means to regulate the distance apart of the edges of the case rings not secured to the sleeve, and a covering for the tread of the wheel retained by entering said channel.

2. The combination with the felly of a wheel, of a pair of parallel annular plates contacting with the sides of the felly between which the felly is held, a sleeve connecting the outer edges of the plates and secured to them, resilient means between the sleeve and the felly, outwardly bowed case rings secured at their outer edges to the edges of the sleeve to increase the tread of the wheel, the inner edges of the case-rings being in contact with said annular plates and the adjacent portions of the rings being flat and parallel with the annular plates, and clamps to regulate the distance apart of the inner edges of said rings.

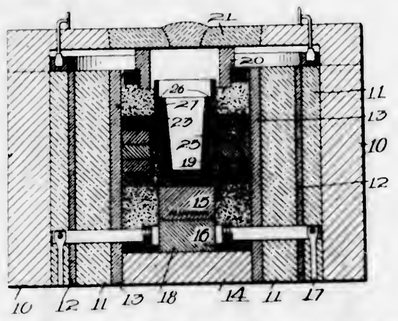
3. The combination with the felly of a wheel, of a pair of parallel annular plates contacting with the sides of the felly and holding the felly between them, a sleeve with an inward annular channel connecting the outer edges of the plates with the channel between the edges of the plates, an air-filled elastic tube between the sleeve and felly, case-rings having their outer edges secured to the edges of the sleeve and bowed outwardly to increase the tread of the wheel and having flattened inner edge portions contacting with said annular plates, means to regulate the distance apart of the inner edges of the case rings and a tread cover surrounding the tire thus formed and entering the annular channel in said sleeve.

4. The combination with the felly of a wheel, of a pair of parallel annular plates contacting with the sides of the felly and holding the felly between them, a sleeve with an inward annular channel said sleeve connecting the outer edges of the plates, an air-filled elastic tube between the sleeve and felly, case-rings having their outer edges secured to the sleeve said rings being thence bowed outwardly to increase the tread of the wheel and having flattened portions adjacent their inner edges, packing rings between the case-rings and annular plates, clamps to connect and regulate the distance apart of the inner edges

of the case-rings, and a tread cover surrounding the sleeve and adjacent case-rings and entering the annular channel in the sleeve.

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1,091,808. ELECTRIC CRUCIBLE-FURNACE. DANIEL F. CALHANE, Worcester, Mass. Filed Nov. 3, 1911. Serial No. 658,300. (Cl. 219—36.)




1. As an article of manufacture, a crucible furnace having an exterior cement wall, a wall inside the same of asbestos filling having a partition of asbestos board intermediate between its outer and inner surfaces, an inner wall of solid insulating material, a cement bottom inside the inner wall, an electrode on the cement bottom, and an electrode at the top of the furnace.

2. As an article of manufacture, a crucible furnace having insulating containing walls, an electrode at the bottom of the furnace and one at the top, a plurality of removable and replaceable solid insulating blocks superimposed one upon the other at the bottom of the furnace for supporting a crucible, a continuous granular packing around the blocks and crucible, and a plurality of independently removable insulating rings located one above the other surrounding the crucible, whereby the height of the crucible can be adjusted by removing and replacing the blocks and the zone of the crucible effected by the insulating rings can be regulated by removing and replacing the rings.

3. As an article of manufacture, a crucible furnace having insulating containing walls, means for supporting a crucible therein at different heights relative to said walls, a resistor for receiving the crucible and conducting the current and a plurality of independently removable insulating rings located in said resistor and extending substantially to the walls of the crucible for concentrating the current and heat along any desired portion thereof vertically.

4. As an article of manufacture, a crucible furnace having insulating containing walls, means for supporting a crucible, a resistor for receiving the crucible and conducting the current, and a plurality of independently removable insulating rings located in said resistor and extending substantially to the walls of the crucible for concentrating the current and heat along any desired zone thereof.

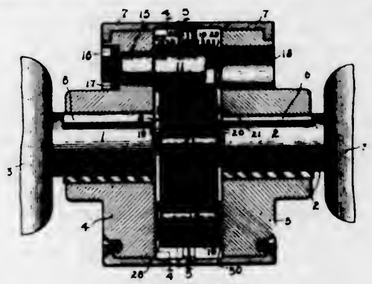
5. In a crucible furnace, the combination of insulating containing walls, an electrode at the bottom, removable and replaceable blocks of alundum superimposed at the bottom, a crucible on said blocks, a continuous carbon packing around the blocks and crucible, a plurality of separately removable alundum rings located within said packing for directing the current and concentrating the heat along the walls, and a second electrode in contact with the carbon packing.

[Claim 6 not printed in the Gazette.]

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1,091,809. FLEXIBLE COUPLING. JOHN G. CALLAN, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 21, 1905. Serial No. 283,736. (Cl. 64—13.)

1. A coupling for shafts comprising a driving and a driven member, a laminated resilient floating connector between the members which is flexible in a direction to permit of a limited endwise movement of the shafts, and flexible laminated links pivotally connecting the members with the connector, the laminæ of the links and connector interlapping and extending transversely of the shafts.




2. A coupling for shafts comprising a driving and a driven disk, a floating connector between the disks which is formed of spaced laminæ provided with flexible radial arms, spacing members between the laminæ, and links pivotally connecting the outer ends of the arms with the disks which extend into the spaces between said laminæ.

3. A coupling for shafts comprising a pair of flanged members, a resilient laminated floating connector between them, resilient laminated links pivotally connecting the members and the connectors which are flexible in a direction to permit endwise movement of the shafts, and pivots connecting the links to said members and the connector, said pivots including a knife-edge bearing.

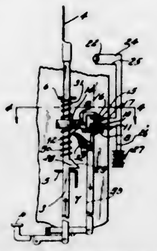
4. A coupling for shafts comprising a driving and a driven element, a floating member located between the elements, and comprising a plurality of thin disks, spacers between the disks and means for uniting the disks and spacers, a plurality of links for uniting the floating member and the elements, each link comprising a plurality of thin plates extending freely between said disks, pivots that unite the links with the elements, and other pivots that unite the links and said member.

5. A coupling for shafts comprising a driving and a driven element, a floating member located between the elements, and comprising a plurality of thin disks, spacers between the disks and means for uniting the disks and spacers, a plurality of links for uniting the floating member and the elements, each link comprising a plurality of thin plates extending freely between said disks, spacers between the individual members of each link and pivots which unite the links with the floating member and with said elements.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,810. ELECTRIC SIGN FOR CASH-REGISTERS. CHARLES J. CASSIDY, Chicago, Ill. Filed July 24, 1913. Serial No. 780,856. (Cl. 235—23.)



1. An attachment for cash registers comprising a plurality of keys, a slidable arm adapted to be controlled by one of the keys, a helical spring encircling said arm, means upon the arm which one end of said spring is adapted to engage, a pivoted member adapted to be rocked upon movement of said arm, being engaged by the opposite end of said helical spring, a contact surface borne upon and insulated from said pivoted member, a second contact surface into engagement with which said first-mentioned contact surface is adapted to be carried, a circuit which is closed upon engagement of said surfaces, a lamp adapted to be lighted upon closing of said circuit, and an indicator having spaces, said lamp being adapted to illuminate one of said spaces.

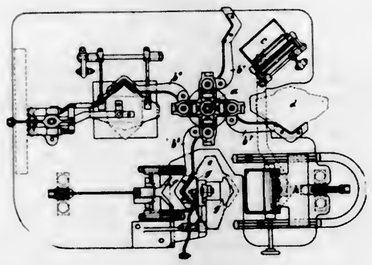
2. An attachment for cash registers comprising a plurality of keys, a slidable arm adapted to be controlled by one of the keys, a pivoted member coöperating with said arm, a contact surface borne upon said pivoted member, a second contact surface into engagement with which said first-mentioned contact surface is adapted to be carried, a circuit adapted to be closed upon engagement of said surfaces, a helical spring encircling said slidable arm, a stud upon said arm engaging one end of said spring, the opposite end of said spring being adapted to engage said pivoted member, means coöperating with said arm and adapted to lock the same in elevated position, thereby to keep said circuit closed, a lamp adapted to be lighted upon closing of said circuit, and an indicator having spaces, said lamp being adapted to illuminate one of said spaces.

3. An attachment for sash registers comprising a plurality of keys, a slidable arm adapted to be controlled by each of said keys, a spring coöperating with said arm, a pivoted member adapted to be rocked upon movement of said arm, said spring being intermediate said arm and said pivoted member, and being adapted to convert the movement of said arm into movement of said pivoted member, a contact surface borne upon and insulated from said pivoted member, a second contact surface into engagement with which said first-mentioned contact surface is adapted to be carried, a circuit which is closed upon engagement of said surfaces, a lamp adapted to be lighted upon the closing of said circuit, and an indicator provided with spaces, said lamp being adapted to illuminate one of said spaces, said indicator being disposed obliquely to the register.

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1,091,811. ENVELOP-MAKING MACHINE. ACHILLE COLOMBO, Turin, Italy, and THEODOR HUGO, Wilmersdorf, near Berlin, Germany, assignors to Firm Gebrüder Tellschow, Berlin, Germany. Filed Jan. 17, 1913. Serial No. 742,575. (Cl. 93—68.)

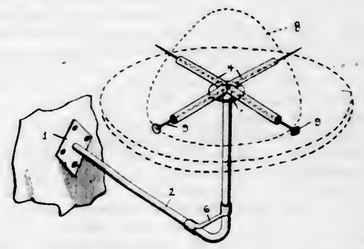


1. A machine for making lined envelops, comprising a gum carrier, adapted to engage an envelop lining while projecting with its gummed section partly therebeyond, and means for advancing said carrier together with the lining over an envelop blank to cause an engagement of its projecting gummed section with the blank-flap.

2. A machine for making lined envelops comprising a vertically reciprocable gum carrier adapted to engage an envelop lining while projecting with its gummed section partly therebeyond, means for applying an adhesive to the body of an envelop blank, means for intermittently advancing the gum carrier together with the lining so as to carry the lining into engagement with the gummed body of the blank, while the projecting part of the carrier is simultaneously brought into engagement with the blank-flap.

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1,091,812. HAT-HOLDER. JENNIE R. CORTHELL, Philadelphia, Pa. Filed Apr. 24, 1913. Serial No. 763,324. (Cl. 211—24.)



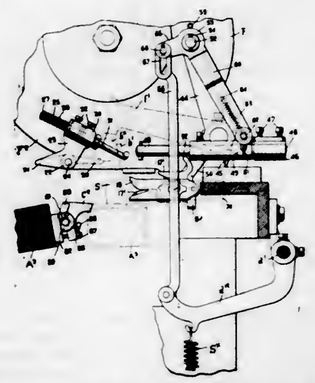

1. A support for hat bodies and the like comprising a base adapted to be attached to a supporting wall, a carrying rod supported by said base, a plurality of intersecting tubes mounted upon the end of said carrying rod, said tubes intersecting at substantially their mid portion and attached together at the point of intersection in a manner to provide a continuous hollow passage through each tube, and means for bracing said tubes at their intersection.

2. A support for hat bodies and the like comprising a supporting plate, a carrying rod carried by said supporting plate, a plurality of arms rigidly mounted upon said carrying rod and intersecting at substantially their mid portions, the outer ends of said arms being provided with openings to receive a hat pin, for the purpose described.

3. A device of the class described comprising in combination a supporting member, a carrying rod attached to said supporting member, and a rest mounted upon said carrying rod, said rest including a pair of tubes intersecting each other at right angles, and the axis of said tubes intersecting the axis of said carrying rod at right angles.

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1,091,813. SHUTTLE-FEELER MECHANISM FOR LOOMS. HARRY A. DAVIS, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 10, 1913. Serial No. 753,283. (Cl. 139—85.)



1. An automatic filling replenishing loom comprising a bracket presenting horizontal and vertical arms, a rectilinear guide bar mounted in and projecting from the horizontal arm, a shuttle feeler, a support for the shuttle feeler mounted to reciprocate on said guide bar to carry the feeler into and out of feeling position, and means actuated upon the call for filling replenishments mounted upon

said vertical arm and connected to said support for moving the same.

2. An automatic filling replenishing loom comprising a bracket presenting horizontal and vertical arms, a rectilinear guide bar mounted in and projecting from the horizontal arm, a shuttle feeler, a support for the shuttle feeler mounted to reciprocate on said guide bar to carry the feeler into and out of feeling position, a bell crank lever fulcrumed on said vertical arm having one arm connected to the said support, and means connected to the other arm of said bell crank lever and controlling the movement thereof upon the call for filling replenishment.

3. An automatic filling replenishing loom comprising a bracket presenting horizontal and vertical arms, a rectilinear guide bar mounted in and projecting from the horizontal arm, a shuttle feeler, a support for the shuttle feeler mounted to reciprocate on said guide bar to carry the feeler into and out of feeling position, a bell crank lever fulcrumed on said vertical arm, one arm of said bell crank lever being connected to said support, a spring connected to and moving the bell crank lever to move the support and carry the shuttle feeler into feeling position, and means connected to the other arm of said bell crank lever to control the movement thereof upon the call for filling replenishment.

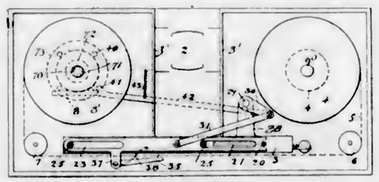
4. An automatic filling replenishing loom comprising a bracket presenting horizontal and vertical arms, a rectilinear guide bar mounted in and projecting from the horizontal arm, a support mounted to slide and rotate on said guide bar, a thread clamping and parting means mounted on said support, an arm projecting laterally from said support, a lever fulcrumed on the vertical bracket arm and connected to said laterally projecting arm, and means for swinging said lever controlled by the call for filling replenishment, whereby upon the movement of said lever a simultaneous rectilinear and rotary movement is given to the said support, thus preventing the thread clamping means from breaking the filling as it comes forward carrying the filling end.

5. An automatic filling replenishing loom comprising a rectilinear guide bar supported above the plane of the cloth, a sleeve support mounted to slide and rotate on said guide bar, a shuttle feeler and thread clamping and parting means mounted on and carried by said support, and means controlled by the call for filling replenishment to cause the simultaneous rectilinear and rotary movement of said sleeve on said guide bar.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,814. CAMERA. PAUL DIETZ, Brooklyn, N. Y., assignor to New Ideas Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1912. Serial No. 726,643. (Cl. 95—31.)



1. In a film camera, the combination with a sliding shutter and means for holding and releasing it, of means for engaging and locking said shutter against release thereby to prevent reëxposure of a previously exposed film, and means for shifting the film simultaneously with the release of said shutter locking means.

2. In a film camera, the combination with a sliding shutter and means for holding and releasing it, of means for locking said shutter against release thereby to prevent reëxposure of a previously exposed film, and comprising a pin carried by the shutter and sliding means for engaging said pin, and means for shifting the film simultaneously with the release of said shutter locking means.

3. In a film camera, the combination with a shiftable shutter and means for holding and releasing it, of means for locking said shutter against release thereby to prevent reëxposure of a previously exposed film, and comprising a pin carried by the shutter and sliding means for engaging said pin, and means for shifting the film simultaneously with the release of said shutter locking means.

4. In a film camera, the combination with a shiftable shutter and means for holding and releasing it, of shiftable means for setting said shutter and effective to engage a part of and hold such shutter against release thereby to prevent reëxposure of a previously exposed film, and means for shifting the film simultaneously with the release of said shutter engaging means.

5. In a film camera, the combination with a shiftable shutter and means for holding and releasing it, of shiftable means for engaging said shutter and effective to engage a part of and hold said shutter against release thereby to prevent reëxposure of a previously exposed film, and comprising a sliding member adapted to engage a part of said shutter and a handle for reciprocating said sliding member, and means for shifting the film simultaneously with the release of said sliding member.

[Claims 6 to 21 not printed in the Gazette.]

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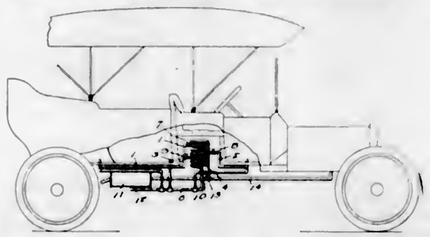
1,091,815. HOSE-SUPPORTER. RAYMOND E. DODGE, New Haven, Conn. Filed Aug. 9, 1913. Serial No. 783,881. (Cl. 24—245.)



A hose supporter in combination with two buttons arranged side by side, of a double loop having a central bar, a portion of the said central bar narrower than the space between the heads of said buttons, and the lower portion of the bar wider than the space between the heads of the buttons whereby the upper narrow portion of the bar may be readily passed between the buttons and the wider lower portion engaged with the shanks thereof, substantially as described.

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1,091,816. HEATING APPARATUS FOR MOTOR-VEHICLES. DANIEL W. DUDDERAR, Mount Airy, Md. Filed Jan. 21, 1913. Serial No. 743,349. (Cl. 237—4.)



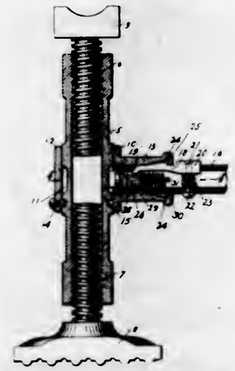
1. In a motor vehicle, the combination with a radiator coil of a heater pipe for conducting exhaust gases thereinto, heat-controlling valve mechanism in the heater pipe, a radiator-coil exhaust pipe connected with the radiator coil, exhaust controlling valve mechanism in the radiator-coil exhaust pipe, and a plurality of independent-valve-controlled auxiliary heating pipes connected with the radiator coil at one end and with the radiator-coil exhaust pipe at the other end and extending from different points in the radiator coil to portions of the motor vehicle which it is desired to heat, the aforesaid auxiliary heating pipes being longer or shorter one than another, relatively to their point of juncture with the radiator coil, so as to provide a conduit of substantially equal length through any auxiliary pipe from the source of supply of the heated gases to the point of termination of the auxiliary heating pipes in the radiator-coil exhaust pipe, whereby heated gases may be diverted to any auxiliary heating pipe without causing additional back pressure and retarding the engine.

2. The combination with a radiator coil of means for supplying heated gases thereto, fluid-controlling valve mechanism connected therewith, a radiator-coil exhaust pipe connected with the radiator coil, a valve in the radiator-coil exhaust pipe, a plurality of auxiliary heating pipes extending from various portions of the radiator coil to the radiator-coil exhaust pipe, the aforesaid auxiliary heating pipes being of variant length so that the conduits provided by the respective pipes in connection with that provided by the radiator coil in advance of their respective point of juncture with the radiator coil are of substantially equal length, exhaust controlling valve mechanism independently operative for controlling said auxiliary pipes, and muffling mechanism in communication with the radiator coil exhaust pipe.



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1,091,817. DOUBLE-ACTING RATCHET-HANDLE FOR LIFTING-JACKS. ADDELBERT DUDGEON, Latrobe, Pa. Filed July 12, 1913. Serial No. 778,704. (Cl. 74—16.)



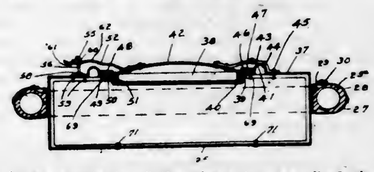
In a device of the character described, a member to be rotated provided with an annular series of teeth, a collar loosely mounted on said member and inclosing and covering said teeth, said collar having a radial projection provided with a socket, a ratchet handle with an inclined spring-pressed pawl mounted in its end adapted to engage said teeth when inserted in said socket, and a transverse latch member also carried by said handle adapted to engage recesses in the opposite sides of said radial projection, whereby said handle may be locked in position to rotate said member in either direction.

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1,091,818. TIRE-SUPPORTING RECEPTACLE. RICHARD EISENMANN, Chicago, Ill. Filed May 8, 1913. Serial No. 766,348. (Cl. 190—20.)

1. A receptacle of the character described, comprising a cylindrical body provided with a circular opening, an inwardly extending conical-shaped flange extending around said opening, a dished sheet metal door for said opening hinged to the body, a circular, endless rubber gasket engaging the edge of said cover plate and provided with a conical-shaped flange, and resilient means for holding the flange on said gasket in wedging engagement with the flange around said opening.

2. In a receptacle of the character described, the combination with a body provided with an opening, an inwardly extending flange around the opening, a door for said opening comprising a metal plate, a gasket provided with a groove adapted to fit tightly over the edge of said plate, a tapered flange on said gasket adapted to be wedged into said opening, a spring hasp secured to said door, and a knob on said body which is engaged by said hasp so as to hold the gasket on said closure in said wedging engagement, said body being formed with a rib concentric with said opening for the purpose described.



3. In a receptacle of the character described the combination with a box having an opening in one side, of a door hinged to the box at one side of said opening, a slotted spring hasp on said door and a revoluble knob on the box adapted to extend through the slot in the hasp, the hasp being formed with a transverse groove in which the knob seats when in locking position.

4. In a receptacle of the character described the combination with a box provided with an opening in one side and formed with an upwardly extending rib and with an inturned flange around said opening, of a door hinged to said box, a gasket engaging the edge of the door and adapted to seat against said rib and flange, and means for locking the door in closed position.

5. In a receptacle of the character described the combination with a box provided with an opening in one side and formed with an outwardly extending rib and an inturned flange around said opening, of a dished sheet metal door, a resilient gasket engaging the edge of the door and adapted to seat against said rib and flange, a hasp on said door and means on the box for engaging the free end of the hasp to force the door to its closed position.

[Claim 6 not printed in the Gazette.]

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1,091,819. HOSE-ATTACHING DEVICE. CHARLES ELKIN, New York, N. Y. Filed Feb. 8, 1913. Serial No. 747,103. (Cl. 137—28.)



1. The combination with a pipe or delivery nozzle provided with a fixed pin, of a series of pivoted clamping arms disposed exteriorly to said pipe or nozzle, and a ring adapted to encircle said arms and having a spiral track entered by said pin, so that by turning said ring the latter will be caused to travel endwise into clamping or unclamping position.

2. The combination with a pipe or delivery nozzle provided with a fixed pin, of a series of pivoted clamping arms disposed exteriorly to said pipe or nozzle, a ring adapted to encircle said arms and having a spiral track entered by said pin, so that by turning said ring the latter

will be caused to travel endwise into clamping or unclamping position, and means for limiting the traveling movement of said ring.

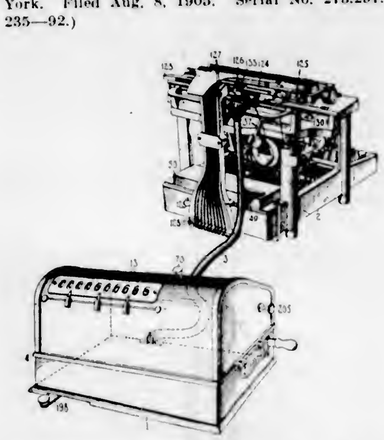
3. The combination with a pipe or delivery nozzle provided with a fixed pin and with radial lugs or projections, of a series of clamping arms pivoted to said lugs or projections and disposed exteriorly to said pipe or nozzle, and a ring of a length approximately equal to the length of said clamping arms and being thus adapted to encircle and inclose or cover the same, said ring having a spiral track entered by said pin.

4. The combination with a pipe or delivery nozzle provided with a fixed pin and with radial lugs or projections between two of which said pin is located, of a series of clamping arms pivoted to said lugs or projections and disposed exteriorly to said pipe or nozzle, and a cylindrical ring or sleeve adapted to inclose said arms and said lugs or projections and having a spiral track entered by said pin.

5. The combination with a pipe or delivery nozzle provided with a fixed pin and with radial lugs or projections between two of which said pin is located, of a series of clamping arms pivoted to said lugs or projections and disposed exteriorly to said pipe or nozzle, and a cylindrical ring or sleeve adapted to inclose said arms and said lugs or projections and having a spiral track entered by said pin, a portion of said pipe or nozzle having exterior encircling ribs or beads, and the interior faces of said clamping arms having grooves registering with said ribs or beads.

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1,091,820. COMBINED TYPE-WRITING AND ADDING MACHINE. ALBERT H. ELLIS, Kingston, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Aug. 8, 1905. Serial No. 273,297. (Cl. 235—92.)



1. In an adding device, the combination of a typewriter having means including numeral keys for writing any words and numbers; a series of registering elements; means controlled by said numeral keys for setting up digits in one denomination after another; a power device; and means controlled automatically by a moving part of said typewriter for bringing said power device into operation after a number has been set up, to actuate said registering elements.

2. In an adding device the combination of registering elements for adding numbers of a plurality of denominations; a group of numeral keys; a step-by-step device for bringing one denomination of said registering elements after another under the control of said keys; a power device; and means controlled by a movement of said step-by-step device for bringing said power device into operation to actuate said registering elements.

3. In an adding device, the combination of a series of registering elements; setting-up devices for controlling said registering elements; a group of numeral keys; a carriage adapted to connect said keys with one denomination after another of said setting up devices; a power device; and means controlled by said carriage for bringing said power device into operation after a number has been set up to actuate said registering elements.

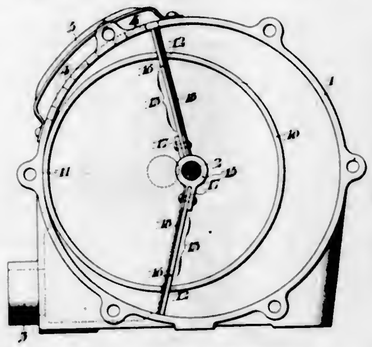
4. In an adding device, the combination of a series of registering elements; a group of numeral keys; a carriage; means controlled by said keys and carriage for setting up the digits of a number one after another; and means brought into operation by the return motion of said carriage for actuating said registering elements to add the number set up.

5. In an adding device, the combination of a series of registering elements; a group of numeral keys; a carriage; means controlled by said keys and carriage for setting up the digits of a number one after another; and means operated by a power independent of that applied to the carriage and brought into operation by the return motion of said carriage for actuating said registering elements to add the number set up.

[Claims 6 to 59 not printed in the Gazette.]

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1,091,821. ROTARY PNEUMATIC PUMP. FREDERICK C. FESENBEK, Philadelphia, Pa., assignor, by mesne assignments, to Howard Small and Alexander H. Boyd, receivers of Keller Manufacturing Company. Filed Sept. 11, 1911. Serial No. 648,666. (Cl. 230—30.)



A rotary pneumatic pump, including in combination a cylinder, a slotted drum mounted eccentrically and rotating in said cylinder, blades mounted concentrically of said cylinder and extending through the slots in said drum, each of said blades comprising a plate and a parallel lamina with an interspace, whereby said lamina is free of said plate, the lamina being sufficiently resilient whereby said plate and lamina are held continually in contact with the respective adjacent side edges of the slot in the drum, through which the blade passes.

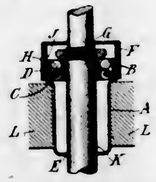
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1,091,822. BALL-BEARING. BENGT WIKTOR FJELLMAN, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden, a Corporation of Sweden. Filed May 9, 1913. Serial No. 766,493. (Cl. 64—49.)

1. A casing for a ball bearing, composed of two stamped sheet metal structures one having a portion A adapted to encircle the spindle of the bearing and an enlarged portion B adapted to form a sleeve encircling the bearing rings and forming a shoulder C to support the bearing, and the other structure constituting a cover F for said sleeve, said shoulder being adapted to rest upon a standard through which the smaller portion of said first structure can pass.



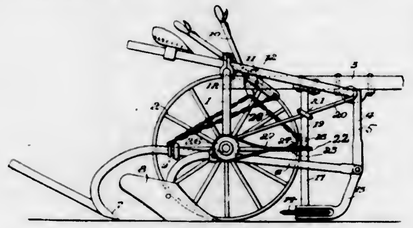
2. The combination with a spindle and a ball bearing therefor of a casing composed of two structures, one having a portion adapted to encircle the spindle and an enlarged portion adapted to form a sleeve encircling the bearing rings and forming a shoulder to support the bearing and the other structure constituting a cover for said sleeve, said shoulder being adapted to rest upon a standard through which the smaller portion of said first structure can pass.



3. The combination with a vertical spindle K and a ball bearing D therefor of a casing composed of two stamped sheet metal structures, one having a portion A adapted to encircle said spindle K and an enlarged portion B adapted to form a sleeve encircling the bearing D and forming a shoulder C to support said bearing and the other structure constituting a cover F for said sleeve, and a standard L having an opening through which said portion A passes, said shoulder C resting upon said standard.

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1,091,823. MACHINE FOR TOPPING AND DIGGING BEETS. ROY E. FOWLER and EDGAR L. VERMILYA, Fremont, Ohio. Filed June 26, 1913. Serial No. 775,930. (Cl. 55—9.)



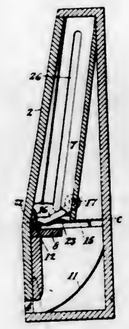
1. A machine for topping and digging beets, having in combination a frame, shovel-bars terminating in diggers, means for raising and lowering the shovel-bars, rearwardly extending bars pivoted to the frame and provided with forked ends, a yoke having its arms passing through said forked ends, cutters journaled on said arms and operative between the forks, and means for raising and lowering the cutters.

2. A machine for topping and digging beets, having in combination therewith shovel-bars terminating in diggers, rearwardly extending bars pivoted to the frame and having their rear ends forked, beet topping mechanisms carried by said bars, means connecting said topping mechanisms with the wheels of the machine, whereby said topping mechanism is operated from said wheels, and means for raising and lowering said topping mechanism and said digger-bars, and holding the same in raised position.

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1,091,824. VENDING-MACHINE. JOSEPH A. FOX, New York, N. Y. Filed May 29, 1913. Serial No. 770,626. (Cl. 194—39.)

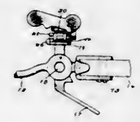
In a coin controlled vending machine the combination of, a swingable lever, a latch normally locking the lever and adapted to be tripped by the weight of the coin to unlock it, resilient means for returning the lever after it has been swung back, and a guide secured to the latch and coöperating with a member on the lever to retrograde



the latch during the return stroke of the lever so as to relock the latter.

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1,091,825. MOUNTING FOR EYEGLASSES. JOSEPH FRIEDLANDER, New York, N. Y. Filed Mar. 31, 1911. Serial No. 618,108. (Cl. 88—50.)



1. A mounting for eyeglasses including a clip having a body portion and an arm extending diagonally and upwardly adjacent to the back surface of the body from the lower portion of said body, thence extending upwardly along said back surface, thence outwardly substantially at right angles to said body, and having a terminal portion in a plane, substantially at right angles to the plane of the last-mentioned portion, and means secured to said terminal portion for supporting said clip.

2. A mounting for eyeglasses including a clip having a body portion and an arm adjacent to the back surface of the body and extending upwardly and rearwardly from the lower front edge of said body, and thence extending upwardly along said back surface and offset at its upper end, and means secured to said offset upper end for supporting said clip.

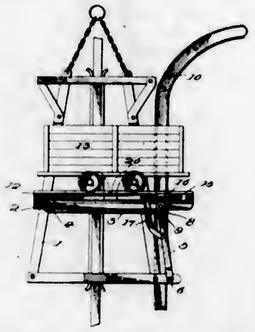
3. A mounting for eyeglasses including a clip having a body portion and an arm integral therewith at the lower front edge thereof and folded back to lie adjacent to the back surface of said body and extending upwardly along said surface and terminating in an offset upper end, and means secured to said upper end for supporting said clip.

4. A mounting for eyeglasses including a clip having a body portion and an arm extending upwardly along the back surface of said body from the lower portion thereof, the upper portion of said arm being bent outwardly in a plane substantially at right angles to the general plane of said body portion, and provided with a terminal portion at an angle to said outwardly extending portion, and means secured to said terminal portion for supporting said clip.

5. A mounting for eyeglasses including a clip having a body portion and an arm extending diagonally upward and rearward from the lower front edge of said body, adjacent to the back surface of said body, and having a portion extending outwardly, substantially at right angles to the general plane of said body, and a terminal portion at an angle to said last-mentioned portion, and means secured to said terminal portion for supporting the clip.

[Claims 6 to 14 not printed in the Gazette.]

1,091,826. MEANS FOR DUMPING MINE-CARS. HENRY V. FRYE, Bicknell, Ind., assignor of one-half to Thomas Gillespie, Bicknell, Ind. Filed Apr. 11, 1913. Serial No. 760,521. (Cl. 214—12.)



1. The combination with a mine car cage, and a tiltable platform thereon, or a rolling support for one end of the platform, a swinging support for the other end of the platform, and stops actuated by the swinging support to project above the platform when the platform is tilted.

2. The combination with a hoisting cage, and a tiltable platform, of a rolling support for one end of the platform, a swinging support for the other end of the platform, stops attached to the said swinging support and extending through the platform, and means on the platform for lowering the said stops to the platform in the normal position of the same and raising the stops above the platform as the platform is tilted.

3. The combination with a mine car cage, of guides on the sides of the cage having closed ends, a platform arranged between the sides of the cage, rollers at one end of the platform engaging said guides, and a swinging support for the other end of the platform mounted on the cage.

4. The combination with a hoisting cage, of a platform disposed between the sides of the cage, means at one end of the platform to prevent release of the platform from the cage, a support for the other end of the platform pivoted to the sides of the cage, stops pivoted to said support and rising through the platform, and links pivoted upon the platform and to the upper ends of said stops.

5. The combination with a hoisting cage, of a tiltable platform arranged within the cage and provided with a longitudinal slot, a swinging standard pivoted below the platform within the cage, a stop pivoted to said standard and rising through the slot in the platform, and a link pivoted at its outer end upon the platform and having its inner end pivoted to the upper end of said stop.

[Claim 6 not printed in the Gazette.]

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1,091,827. DIVIDED SKIRT. FRANCESCO RAFFAELE GALLUZZO, New York, N. Y., assignor of one-half to Samuel Neiman, New York, N. Y. Filed Sept. 16, 1913. Serial No. 789,971. (Cl. 2—42.)

1. A skirt consisting of a pair of trunks to envelop the lower limbs, and an apron connecting with the said trunks along the side thereof arranged so as to pass across the front of said trunks, a second apron connected with said trunks substantially opposite said first apron adapted to pass across the back of said trunks, and means for fastening the free edges of said aprons to said trunks to cover the adjacent intermediate portions of said trunks.

2. A skirt consisting of a trunk to envelop one of the lower limbs and having an apron formed in one integral piece therewith adapted to pass across at the front of the skirt, a second trunk to envelop the other limb, and also having an apron in one integral piece therewith adapted to pass across at the back of said skirt, said trunks forming a pair of trunks connected at the crotch thereof, and means for fastening the free edges of said aprons at the upper part.



3. A skirt consisting of a trunk to envelop one of the lower limbs and having an apron formed in one integral piece therewith adapted to pass across at the front of the skirt, a second trunk to envelop the other limb, and also having an apron in one integral piece therewith adapted to pass across at the back of said skirt, said trunks forming a pair of trunks connected at the crotch thereof, means for fastening the free edges of said aprons, and means for removably securing said trunks together along the crotch line at the rear side.

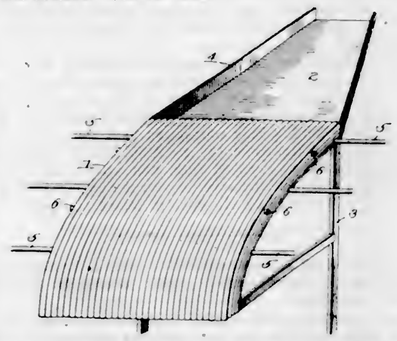
4. A skirt consisting of a trunk to envelop one of the lower limbs and having an apron connected integrally with the said trunk at the side seam thereof adapted to pass across at the front of the skirt, a second trunk to envelop the other limb, and also having an apron connected integrally with the said trunk at the side seam thereof adapted to pass across at the back of said skirt, said trunks forming a pair of trunks connected at the crotch thereof, means for fastening the free edges of said aprons and means for removably securing said trunks together along the crotch line at the rear side.

5. A skirt consisting of a pair of trunks to envelop the lower limbs, and an apron connecting with the said trunks along the side thereof arranged so as to pass across the front of said trunks, a second apron connected with said trunks substantially opposite said first apron adapted to pass across the back of said trunks, and means for fastening the free edges of said aprons to said trunks to cover the adjacent intermediate portions of said trunks, the free edges of said apron being unattached at the lower portions thereof.

[Claim 6 not printed in the Gazette.]

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1,091,828. SLAG-HANDLING APPARATUS. ROCKY C. GANGEWERE, Selma, Ala. Filed Nov. 14, 1910. Serial No. 592,351. (Cl. 75—146.)

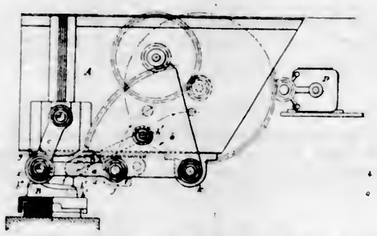


The combination with a chute, of a hollow longitudinally curved incline formed of corrugated metal, said incline being open at both ends and having the bottom of its upper end in alinement with the chute, means for admitting water through the sides of said incline at points adjacent the bottom member of the incline, and means for discharging water through the sides of the incline at points adjacent the top member of the incline.

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1,091,829. LIFTING DEVICE. RANDALL D. GARDNER, Boston, Mass. Filed Apr. 28, 1913. Serial No. 764,011. (Cl. 14—35.)



1. A lifting device comprising a fixed bearing; a rotary member to be lifted; a sliding block; means to move the member to be lifted away from said bearing, said means including a member coöperating with the fixed bearing to adjust centrally the member to be lifted; means to insert the sliding block between said bearing and said member when the latter is lifted, said moving means being movable while the block is stationary; and an actuator to actuate both of said means.

2. A lifting device comprising a fixed bearing; a rotary member to be lifted; a sliding block; means to move the member to be lifted away from said bearing, said means including a member coöperating with the fixed bearing to lock said member against rotation; means to insert the sliding block between said bearing and said member when the latter is lifted, said moving means being movable while the block is stationary; and an actuator to actuate both of said means.

3. A lifting device comprising a member to be lifted, a fixed bearing having beveled faces and a track; rolls pivotally connected to the member to be lifted, the pivot being at a greater distance from one portion of the track than from another portion and the bearings for the rolls being connected together rigidly, said rolls engaging said beveled faces to center said member and riding upon said track to move said member away from, and allow it to move toward, said bearing; a beveled sliding block; a reciprocating rotary member; means to move the latter; a link connection between the rolls and the rotary member; and a link connected to the rotary member and having a pin and slot connection with the sliding block, all combined to move the member to be lifted away from the fixed bearing for insertion of the sliding block and for lowering said member after said insertion and for lifting said member before withdrawal of said bearing block and for withdrawal thereof.

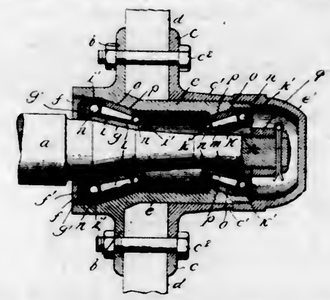
4. A lifting device comprising a fixed bearing; a member to be lifted, a sliding block, means to move the member to be lifted away from said bearing; means to insert the sliding block between said bearing and said member when the latter is lifted, said moving means being movable while the block is stationary and an actuator to actuate both of said means.

5. A lifting device comprising a fixed bearing; a member to be lifted, a sliding block, means to move the member to be lifted away from said bearing; means to insert the sliding block between said bearing and said member when the latter is lifted, said moving means lowering said member on to said block after said insertion and said moving means being movable while the block is stationary and an actuator to actuate both of said means.

[Claims 6 to 14 not printed in the Gazette.]



1,091,830. BEARING. ISAAC A. GEORGE, Goshen, Ind. Filed Feb. 14, 1910. Serial No. 543,665. (Cl. 64—61.)



1. In a bearing, the combination of a raceway structure comprising inner and outer members with rollers therebetween, and an element presenting a conical seat for one of said members of the raceway structure and with respect to which said member is freely rotatable to prevent locking of the bearing.

2. In a bearing, the combination of a raceway structure comprising inner and outer members with rollers therebetween, and inner and outer elements having plain conical seats for said raceway members and with reference to which the respective members are freely rotatable.

3. In a bearing, the combination of a raceway structure comprising inner and outer members with tapering rollers therebetween, and inner and outer elements having tapering seats for the respective members of the raceway structure and with respect to which said members are freely rotatable to prevent locking of the bearing.

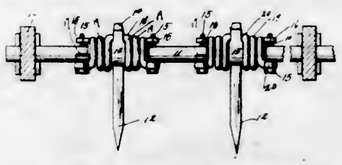
4. In a bearing, the combination of a raceway structure comprising inner and outer members with tapering rollers therebetween, and inner and outer elements having tapering seats for the adjacent faces of the raceway structure members and with respect to which said members are freely rotatable respectively.

5. In a bearing, the combination of a raceway structure comprising inner and outer members with rollers therebetween, elements having tapering conical seats for said members respectively and with reference to which said members are free to turn, and means to adjust the raceway structure axially with respect to said elements.

[Claims 6 to 17 not printed in the Gazette.]

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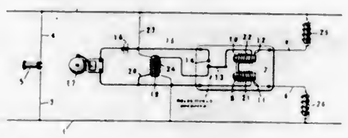
1,091,831. HARROW-TOOTH. THOMAS J. GIBBONS, Platte, S. D. Filed Aug. 11, 1913. Serial No. 784,428. (Cl. 55—7.)



In a device of the class described, the combination of a harrow frame having a transverse member cylindrical in cross section, with a harrow tooth having at its upper end a hollow cylindrical hub rotatably mounted on said transverse member, an upwardly extending lug formed on said hub, detachable means mounted in said transverse members for limiting the sliding movement of said hub on said transverse member, a lug formed on said hub and designed to engage said limiting means in different positions of the rotation of the said hub on said transverse member, a coil spring comprising a horizontal portion designed to engage the forward side of said lug, coils formed on each

end of said horizontal portion, mounted on said hub, free ends of said coils being fixed with relation to said transverse member.

1,091,832. SELECTIVE SIGNALING SYSTEM. EDWIN R. GILL, Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company, a Corporation of Maine. Filed Sept. 18, 1909. Serial No. 518,390. (Cl. 177—334.)



1. A signaling system comprising a main line, selective mechanism connected to said main line, a local circuit including an electro-magnetic signal, a circuit closer for said local circuit adapted to be operated by said selective mechanism, an electro-magnet, said local circuit having a coil on said electro-magnet, and a second coil on said magnet connected with the main line.

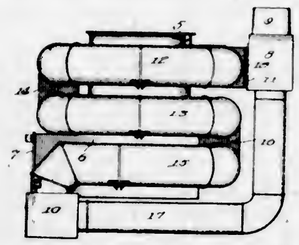
2. A signaling system comprising a main line, selective apparatus connected to said main line, a local circuit including an electro-magnetic signaling device, an electro-magnet, a coil in said local circuit located upon said electro-magnet, a coil upon said electro-magnet connected in bridge of the main line, and a circuit closer operated by said selective mechanism for closing said local circuit.

3. A signaling system comprising a main line, selective mechanism connected in bridge of the line, a local circuit comprising an electro-magnet and an electro-magnetic signal, said local circuit having a coil upon said electro-magnet, and a second coil upon said electro-magnet connected in bridge of the main line.

4. A signaling system comprising a main line, a selective signal operator having coils connected in bridge of the main line, an electro-magnet, an electro-magnetic signaling device, a local circuit for said signaling device including one or more coils on said electro-magnet, a second coil upon said electro-magnet connected with the main line, and means for closing said local circuit arranged to be operated by said selective signal operator.

5. A signaling system comprising a main line, a selective signaling operator having coils connected in bridge of the main line, an electro-magnet, an electro-magnetic signaling device, a local circuit for said signaling device including a coil on said electro-magnet and one or more coils located in inductive relation with the coils of the selective signal operator, a second coil upon said electro-magnet connected in bridge of the main line, and means for closing said local circuit arranged to be operated by said selective signal operator.

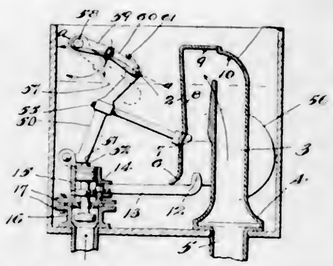
1,091,833. STOVE. JOHN BAPTISTE GOHMANN, New Albany, Ind. Filed July 18, 1913. Serial No. 779,760. (Cl. 126—75.)



1. A stove having direct and indirect draft-flues, the indirect draft-flues surrounding the stove in a horizontal series, top and bottom smoke-boxes, and flues connecting the smoke-boxes, said connecting flues extending horizontally beneath the stove and upward behind the same, the indirect draft-flues discharging into the bottom smoke-box, and the direct draft-flue discharging into the top smoke-box.

2. A stove having a fire-pot, a smoke outlet-flue leading from the top of the fire-pot, a top smoke-box having an outlet, into which smoke-box the aforesaid flue discharges, a bottom smoke-box, a series of flues extending horizontally around the fire-pot, the top flue of the series being connected to the aforesaid outlet-flue, and the bottom flue of the series being connected to the bottom smoke-box, a series of flues connecting the smoke-boxes, said connecting flues extending horizontally beneath the stove and upward behind the same, and a damper for shutting off the first-mentioned series of flues from the outlet-flue.

1,091,834. FLUSHING MECHANISM. NELSON G. GOREAU and EMILE M. BABST, New Orleans, La.; said Goreau assignor to said Babst. Filed Dec. 28, 1912. Serial No. 739,081. (Cl. 4—5.)



1. In a tank valve mechanism, a body having a main valve seat at one end, a tank port in one side and a jet port in one side at a point farther removed from the main seat, and a movable member in said body having a main valve to coöperate with said main valve seat, and an apertured port valve member to coöperate with said ports, and means for operating said movable member.

2. In a tank valve structure, the combination of a cylindrical body having a main valve seat at one end, a tank port in one side and a jet port in one side farther from the main seat than said tank port and a movable member within the body having a main valve to coöperate with said main valve seat, an apertured port valve member, the periphery of which fits the bore of said body and serves in the opening movement to successively close the jet port to close the tank port and then to reopen the jet port while the tank port is closed, and means for operating said movable member.

3. In a tank valve, the combination of a valve body, a main valve seat therein, a tank port in the side of said body, a jet port in the side of said body but farther away from the main seat, a valve stem, a main valve at one end thereof to close the main valve seat, an apertured disk substantially centrally located on the stem to control said ports, and a piston at the upper end of said stem to close the upper end of said valve body.

4. In a tank valve, the combination of a valve body, a main valve seat therein, a tank port in the side of said body, a jet port in the side of said body but farther away from the main seat, a valve stem, a main valve at one end thereof to close the main valve seat, an apertured disk substantially centrally located on the stem to control said ports, a piston at the upper end of said stem to close the upper end of said valve body, means to depress the valve stem and means to hold the stem in depressed position.

5. In a tank valve, the combination of a valve body, a main valve seat therein, a tank port in the side of said body, a jet port in the side of said body but farther away from the main seat, a valve stem, a main valve at one end thereof to close the main valve seat, an apertured disk substantially centrally located on the stem to control said ports, a piston at the upper end of said stem to close the upper end of said valve body, a pivoted gang-plank adapted to occupy an elevated position and a lowered position, a relatively stationary member, a latch operatively connected to the gang-plank outwardly beyond its point of pivot, and means on the relatively stationary member adapted to be engaged by the latch when the plank is in its elevated position.



2. A ferry landing mechanism comprising a pivoted gang-plank adapted to occupy an elevated position and a lowered position, a relatively stationary member to which the plank is connected, a latch operatively connected to the gang-plank outwardly beyond its point of pivot, and means on the relatively stationary member adapted to be engaged by the latch when the plank is in its elevated position.

3. A ferry landing mechanism comprising a gangway adapted to occupy an elevated position and a lowered position, a gang-plank pivotally secured near the outer end of the gangway, said gangway having projections extending materially beyond the point of pivot of the plank, a latch pivotally mounted on the plank and adapted to engage the outer end of the gangway extension when the plank is elevated, and means extending to the outer end of the plank and operable from the deck of a boat for releasing the latch.

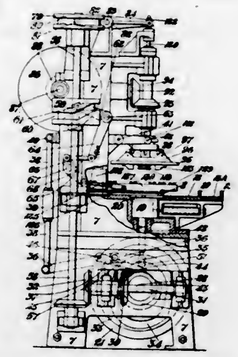
4. A ferry landing mechanism comprising a gangway having an extension, a gang-plank pivotally mounted on the gangway near its outer end extending beyond the extension and adapted to occupy an elevated and a lowered position, a latch pivotally mounted on the gang-plank and means on the gangway extension adapted to be engaged by the latch when the plank is in its raised position, a bell crank lever pivotally mounted on the plank near its outer end, operatively connected to the latch and adapted to be actuated from the deck of a boat to release the latch.

5. A ferry landing mechanism comprising a gangway, a gang-plank pivotally mounted thereon near its outer end adapted to occupy an elevated position and a lowered position, a latch adapted to secure the plank in its elevated position, and means for releasing the latch, said latch and said means being located outwardly beyond the pivotal axis of the plank.

1,091,836. DOUBLE-SEAMING MACHINE. JAMES JOSEPH GRIFFIN, San Francisco, Cal., and GORDON MOFFITT PEACOCK, South Yarra, Melbourne, Victoria, Australia. Filed Mar. 15, 1911. Serial No. 614,698. (Cl. 113—24.)

1. In a can seaming machine, a rotatable disk, seaming means attached thereto, and flange re-formers attached to said disk, each re-former being provided with a foot.

2. In a double seaming machine, the combination of a rotary support, seaming rollers thereon, means for presenting a can to said rollers; means for controlling such presenting means, means for centering the can, means for holding the can stationary, means on said support for reforming or correctly shaping previously formed flanges prior to seaming them, means for engaging the seaming rollers with the cans to be seamed, means for controlling the said engaging means, means for accommodating circumferential irregularities of any can, and means for discharging the seamed can.



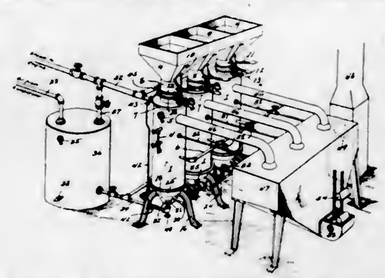
3. In a double seaming machine, a lifting rod, a hollow cylindrical head carried thereby and divided by intersecting vertical slots into a plurality of radial segments, each segment having an inwardly inclined face at its upper end, a pivoted can holder adjacent each segment and means for causing said can holders to engage the can when the head is raised, substantially as described.

4. In a double seaming machine, a frame-work, a passage in said framework, a cross above such passage, a lifting rod, a head on the rod accommodated by said passage, said head having a plurality of segments with vertical slots therebetween corresponding to the form of the cross to permit the segments on the head to project above the cross when the head is raised.

5. In a double seaming machine, the combination of a framework, a lifting rod and a head carried by the rod and divided by intersecting vertical slots into radial segments, a slotway in each segment, a can holder pivoted in each slotway, and a spring controlling each holder.

[Claims 6 to 12 not printed in the Gazette.]

1,091,837. REFUSE DISPOSAL AND REDUCTION PLANT. GEORGE W. HASKIN, Detroit, Mich. Filed May 23, 1911. Serial No. 629,084. (Cl. 110—10.)



1. A plant of the character described comprising in combination, a plurality of individually controlled incinerators provided with water jacketed combustion chambers, said jackets being connected, an ash receptacle connected with the upper end of each combustion chamber by a passage way, an air blast for accelerating combustion in each

chamber and removing ashes therefrom into the ash receptacle, and a spraying device in the receptacle at each point of introduction of ashes thereinto, said spraying device being connected with said water jackets.

2. A plant of the character described comprising in combination, a plurality of individually controlled incinerators each provided with a water jacketed combustion chamber, each of said jackets being connected to a single pipe line forming a steam supply, a refuse receiving hopper for each incinerator connected thereto by a passageway, a valve in each of said passageways, an ash receptacle, a passageway between the upper end of each combustion chamber and the receptacle, an air blast for accelerating combustion in each chamber and removing ashes therefrom through said passageways, a spraying device in the receptacle at each point of introduction of ashes thereinto, each spraying device being connected to a single water jacket, a valve in the passageway between each hopper and incinerator and means connected with said valve for controlling the air blast in the combustion chamber.

3. In combination, a steam producing incinerator, a refuse receiving hopper connected with the combustion chamber of the incinerator by a passageway, means in the passageway for sorting material as it passes therethrough, a valve in the passageway, a fire box at the bottom of the combustion chamber, an air blast for accelerating combustion in the fire box, a valve for regulating the intensity of the blast, a shut-off valve controlling said blast operatable by the valve in the passageway leading from the hopper, a storage compartment for ashes, a pipe connecting the storage compartment to the upper end of the combustion chamber, said blast providing means for removing ashes from the chamber, means for precipitating ashes in the compartment, and means for removing gases from the compartment.

4. In combination, a steam producing incinerator, a refuse receiving hopper connected with the incinerator by a passageway, manually operatable means in the passageway for sorting the material as it passes into the incinerator, a valve for opening and closing said passageway, an air blast leading into the lower part of the combustion chamber, said blast being controlled by the valve in the passageway, a valve for regulating the intensity of the blast, a compartment into which the ashes are removed by said blast, and a spraying device connected with the incinerator for precipitating ashes in the compartment.

5. An incinerator comprising a vertical water-jacketed combustion chamber, a receiving hopper supported above the chamber, a passage between the hopper and chamber, manually operatable means for sorting the material prior to entering the chamber, and a fire box forming a closure for the chamber at the bottom, said box being formed of two parts hinged together, each part having a grate connected therewith, the two grates being arranged in off-set relation, whereby unconsumed material may be removed from the combustion chamber a portion at a time.

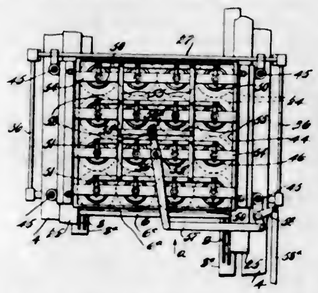
[Claim 6 not printed in the Gazette.]

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1,091,838. CAN-MANIPULATING MACHINE. BERNARD HAUSBERG, Norwich, N. Y., assignor to Borden's Condensed Milk Company, New York, N. Y., a Corporation of New Jersey. Original application filed June 28, 1910, Serial No. 569,270. Divided and this application filed May 14, 1912. Serial No. 697,138. (Cl. 113—96.)

1. In a can-manipulating machine having a runway for the cans the combination of the following elements, viz: supported above said runway a plurality of like flux-containers having downwardly delivering vents adjacent a point in the bottom of each said container, the said points of said containers being equally spaced-apart; means to feed through said runway simultaneously as a group as many cans as there are containers; means to stop and hold said cans simultaneously beneath said containers; means to adjust said cans in positions in which the center of each registers with one of said points in said containers and means to feed flux from said containers simultaneously upon said cans.

2. In a can manipulating machine having a runway for the cans the combination of the following elements, viz: supported above said runway a plurality of like flux-containers having downwardly delivering vents adjacent a point in the bottom of each said container, the said points of said containers being equally spaced-apart; means to feed through said runway a group of as many cans as there are containers; means to stop and hold said cans simultaneously beneath said containers; means to adjust said cans in positions in which the center of each can registers with one of said points in said containers; and means to intermittently agitate said flux in said containers simultaneously.



3. In a can manipulating machine having a runway for the cans the combination of the following elements, viz: supported above said runway an even-numbered plurality of like flux-containers having downwardly delivering vents adjacent the center of the bottom of each said flux container, the said centers being equally spaced-apart; a carrier comprising a bottom adapted to loosely carry a group of like cans each of diameter equal to the interspace between said centers; under said runway an endless conveyer on which said carrier loosely rides; means to impart to said conveyer continuous motion in parallelism with said runway; on each side of said runway parallel lateral alining members spaced and disposed to contact with some of said cans and coacting with said conveyer to guide said group toward positions in which their centers register with said centers of said bottoms of said flux containers; transverse said runway in the path of said cans a movable normally closed stop disposed to contact with some of said cans and coacting with said conveyer and said lateral members to crowd said group toward said positions; on said carrier a rear member disposed to contact with some of said cans and, coacting with said conveyer said lateral members and said stop, to ultimately force and hold said group stationary in said positions; and means to raise said stop out of the path of said cans in said runway.

4. In a can manipulating machine having a runway for the cans the combination of the following elements, viz: supported above said runway an even-numbered plurality of like flux-containers having adjacent their equally spaced apart centers downwardly delivering vents; a carrier comprising a bottom adapted to loosely carry a group of as many like cans as there are flux containers, the diameter of each said can being equal to the interspace between said centers of said flux containers; below said runway an endless conveyer on which said carrier loosely rides; means to impart to said conveyer continuous motion in parallelism with said runway; on each side said runway parallel lateral alining members spaced apart a distance equal to the sum of the said diameters of an aliquot part of the number of said cans and disposed to contact with some of said cans and coacting with said conveyer to guide said group toward positions in which their centers register with said centers of said flux-containers; transverse said runway in the path of said cans a movable normally closed stop disposed to contact with some of said cans and coacting with said conveyer and said lateral members to crowd said group toward said positions; on said carrier a rear member disposed to contact with some of said cans and coacting with said conveyer said lateral members and said stop to ultimately force and hold said group stationary in said positions; means to intermittently agitate said flux in said containers simultaneously; and means to raise said stop out of the path of said cans in said runway.

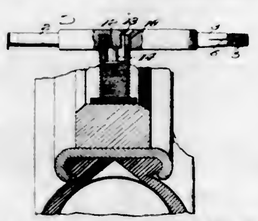
5. In a can-manipulating machine having a horizontal runway adapted for simultaneous passage therethrough of a group of equally spaced-apart, like, cylindrical cans carrying like upwardly presented circular caps the combination of the following elements, viz: stationarily supported above said runway a group of like equally spaced-apart flux-containers each having in its bottom a plurality of downwardly-delivering like vents, movably supported within each said container a flux-agitating member comprising a vertically disposed rotatively oscillatable spindle having therefrom radially projecting arms disposed to simultaneously over-pass said vents, carried by each said spindle above said radially disposed arms a crank therefrom radially projecting in the same direction as the said cranks of the other spindles; a member pivotally connected with each said crank; and means to impart horizontal oscillation to said last mentioned member whereby the said flux-agitating members are caused to simultaneously rotatively oscillate within said flux-containers.

[Claim 6 not printed in the Gazette.]

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1,091,839. TIRE-VALVE TOOL. EMMETT N. HAVERFIELD, Cadiz, Ohio. Filed Feb. 18, 1913. Serial No. 749,246. (Cl. 152—12.)

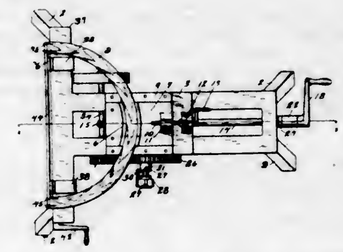


In a device of the class described, a flat-sided body provided in one face with a threaded socket designed to receive the threaded neck of a tire valve casing, a stud located axially within the socket and projecting from the inner end wall thereof, the stud being spaced from the threaded wall of the socket a distance greater than the thickness of the wall of the neck of the valve casing which the socket is to receive, the body in its other face being formed with a vent which opens through the inner end wall of the socket, the vent at its end which communicates with the socket being of a width substantially equal to the width of the end wall of the socket between its threaded wall and the surface of the stud.

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1,091,840. MACHINE FOR REMOVING CLEATS FROM FELLIES. CLARENCE B. HAYES, Jackson, Mich. Filed Sept. 18, 1911. Serial No. 649,969. (Cl. 144—2.)

1. In a machine for removing cleats from fellies, the combination of a suitable supporting frame; a reciprocating head in suitable ways on said frame; clamping jaws on said reciprocating head conformed to the fellies; a screw for closing the said jaws onto the fellies; a shaft with an adjusting screw engaging a suitable threaded bore in the said reciprocating head and slidably supported in a suitable bearing in the said frame; a suitable transverse shaft with eccentric disposed beneath said frame; a pitman connected to said eccentric and a loose collar embracing the said shaft to which said pitman is connected; a stop collar on said shaft for limiting the movement of said loose collar; suitable means for driving the said shaft; a clutch for throwing the said eccentric into gear; means for tripping the said clutch to release at each revolution; and suitable adjustable abutments supported on the said frame and disposed to coöperate with the said reciprocating head and its clamping jaws, all coacting substantially as described and for the purpose specified.



2. In a machine for removing cleats from fellies, the combination of a suitable supporting frame; a reciprocating head in suitable ways on said frame; clamping jaws on said reciprocating head conformed to the fellies; a screw for closing the said jaws onto the fellies; a shaft with an adjusting screw engaging a suitable threaded bore in the said reciprocating head and slidably supported in a suitable bearing in the said frame; a suitable transverse shaft with eccentric disposed beneath said frame; a pitman connected to said eccentric and a loose collar embracing the said shaft to which said pitman is connected; a stop collar on said shaft for limiting the movement of said loose collar; suitable means for driving the said shaft; a clutch for throwing the said eccentric into gear; means for tripping the said clutch to release at each revolution; and suitable adjustable abutments supported on the said frame and disposed to coöperate with the said reciprocating head and its clamping jaws, all coacting substantially as described and for the purpose specified.

3. In a machine for removing cleats from fellies, the combination of a suitable supporting frame; a reciprocating head in suitable ways on said frame; clamping jaws on said reciprocating head conformed to the fellies; a shaft with an adjusting screw engaging a suitable threaded bore in the said reciprocating head and slidably supported in a suitable bearing in the said frame; a suitable transverse shaft with eccentric disposed beneath said frame; a pitman connected to said eccentric and a loose collar embracing the said shaft to which said pitman is connected; a stop collar on said shaft for limiting the movement of said loose collar; suitable means for driving the said shaft; a clutch for throwing the said eccentric into gear; means for tripping the said clutch to release at each revolution; and suitable adjustable abutments supported on the said frame and disposed to coöperate with the said reciprocating head and its clamping jaws, all coacting substantially as described and for the purpose specified.

4. In a machine for removing cleats from fellies, the combination of a suitable supporting frame; a reciprocating head in suitable ways on said frame; clamping jaws on said reciprocating head conformed to the fellies; a suitable transverse shaft with eccentric disposed beneath said frame; a pitman connected to said eccentric to reciprocate said head; suitable means for driving the said shaft; a clutch for throwing the said eccentric into gear; means for tripping the said clutch to release at each revolution; and suitable adjustable abutments supported on the said frame and disposed to coöperate with the said reciprocating head and its clamping jaws, all coacting substantially as described and for the purpose specified.

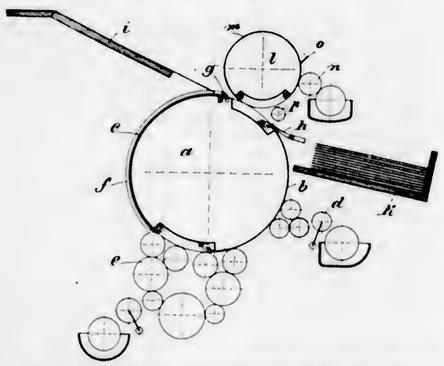
5. In a machine for removing cleats from fellies, the combination of a suitable supporting frame; a reciprocating head in suitable ways on said frame; clamping jaws on said reciprocating head conformed to the fellies; a screw for closing the said jaws onto the fellies; a shaft with an adjusting screw engaging a suitable threaded bore in the said reciprocating head and slidably supported in a

suitable bearing in the said frame; a suitable transverse shaft with eccentric disposed beneath the said frame; a pitman connected to said eccentric and a loose collar embracing the said shaft to which said pitman is connected; a stop collar on said shaft for limiting the movement of said loose collar; suitable means for driving the said shaft; a clutch for throwing the said eccentric into gear; suitable adjustable abutments supported on the said frame and disposed to coöperate with the said reciprocating head and its clamping jaws; and right and left hand screw for adjusting the said abutments, all coacting substantially as described and for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,841. ROTARY PRINTING-MACHINE. CASPAR HERMANN, Leipzig-Gross-Zschocher, Germany, assignor of one-half to Georg Richter, Leipzig, Germany. Filed Mar. 8, 1913. Serial No. 752,941. (Cl. 101—100.)



1. A rotary printing machine comprising the combination with a large cylinder having grippers and an elastic impression surface and adapted to receive a form plate; of a small cylinder adapted to receive interchangeably an elastic transfer surface for indirect lithographic printing from the form plate of said large cylinder or an intaglio printing surface for intaglio printing when said form plate is omitted from said large cylinder.

2. A rotary printing machine comprising the combination with a large cylinder having grippers and an elastic impression surface and adapted to be provided with a form plate; of a small cylinder adapted to interchangeably receive an elastic transfer surface for lithographic printing from said form plate or an intaglio printing surface for intaglio printing when said form plate is omitted, and means for stripping off the printed sheets on the delivery side of the printing couple thus constituted.

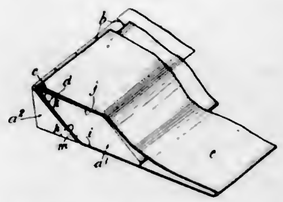
3. A rotary printing machine comprising the combination with a large cylinder having grippers and an elastic impression surface and adapted to receive a form plate; of a small cylinder adapted to interchangeably receive an elastic transfer surface for lithographic printing from said form plate or an intaglio printing surface for intaglio printing when said form plate is omitted and disengageable inking and moistening devices for said form plate.

4. A rotary printing machine comprising the combination with a large cylinder provided with grippers and an elastic impression surface and adapted to receive a form plate; of a small cylinder adapted to receive interchangeably an elastic transfer surface for lithographic printing from said form plate or an intaglio printing surface for intaglio printing when said form plate is omitted, disengageable moistening and inking devices for said large cylinder and an independent disengageable inking device having a color doctor for said smaller cylinder.

5. A rotary printing machine comprising the combination with a large cylinder having grippers and an elastic printing surface and adapted to receive a form plate; of a smaller cylinder adapted to interchangeably receive an elastic transfer surface for lithographic printing from said form plate or an intaglio printing surface for intaglio printing when said form plate is omitted, and a guide roller movable into operative position on the delivery side of the printing couple thus constituted.

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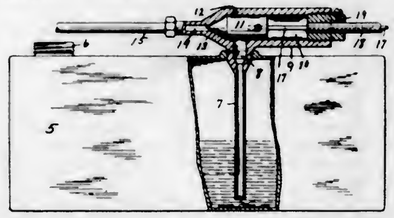
1,091,842. DEVICE FOR ATTACHING STIFFENERS TO TROUSERS. CHARLES HEYMANN, Paris, France. Filed Apr. 1, 1913. Serial No. 758,093. (Cl. 223—17.)



A device for applying a stiffening strip to the inside of the crease in the leg of trousers, comprising a bar having a sharp edge and provided with projecting points on said edge and a supporting bar having an inclined face such that one of the faces of the first named bar, on either side of the sharp edge, lies in a substantially horizontal position when the first named bar is placed upon the inclined face of the supporting bar.

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1,091,843. AUXILIARY AIR-VALVE AND DECARBONIZER FOR EXPLOSION-ENGINES. JOHN N. HOGG, Los Angeles, Cal. Filed Mar. 11, 1913. Serial No. 753,544. (Cl. 123—25.)



1. In a decarbonizing device for explosion engines comprising a fluid tank; a valve casing having ports therein with the front edge of both in a plane which passes transversely of the casing, one of said ports being smaller than the other and constituting an air port; a pipe extending from the larger of said ports and terminating in an open end near the bottom of the tank; a pipe leading from the front end of said valve casing and terminating in the manifold of the engine; a valve in said casing to control the ports therein; and means to operate said valve.

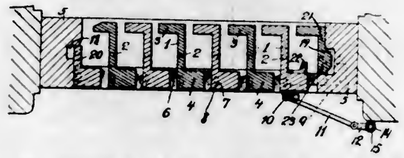
2. A decarbonizer comprising a water tank having a port in the top thereof; a valve chamber having a port in the bottom of the casing thereof connected to said tank at the port in the top thereof; a spray pipe opening into the port in the valve chamber casing and projecting downwardly in said tank to near the bottom thereof; a valve in said valve chamber; and a connection from said valve chamber casing to and opening into the manifold of the engine; and means to operate said valve.

3. A decarbonizer comprising a water tank having a port in the top thereof; a valve chamber having a port in the bottom of the casing thereof connected to said tank at the port in the top thereof; a pipe opening into the port in the valve chamber casing and projecting downwardly in said tank to near the bottom thereof; another port in said valve chamber casing for the admission of air, said last port being smaller than the other port and having the front edge thereof in a plane which passes transversely of the casing and through the front edge of the other port; a valve in said valve chamber adapted to control both of said ports; and means to operate said valve.

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1,091,844. CLOSURE FOR TRANSOMS, DOORS, WINDOWS, PANELS, &c. JULIAN HOLLAND, New York, N. Y., assignor of one-half to Charles Macdonald Wills, New York, N. Y. Filed June 14, 1913. Serial No. 773,589. (Cl. 20—62.)



1. In a closure of the class mentioned, the combination of a plurality of pivoted louvers provided with extensions on opposite sides and ends, set at an angle to the body of the louver, the united length of adjacent extensions on adjacent louvers, being greater than the distance between their pivots less the thickness of the main body of the louver.

2. In a closure of the class mentioned, the combination of a plurality of pivoted louvers provided with extensions on opposite sides and ends, at an angle to the body of the louver, the united length of adjacent extensions on adjacent louvers being greater than the distance between their pivots less the thickness of the main body of the louver, and the width of one of the extensions being proportioned to their distance from the pivot.

3. In a closure of the class mentioned, the combination of a plurality of pivoted ogee louvers with a frame provided with a recess registering with the end louver.

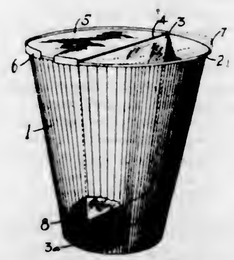
4. In a closure of the class mentioned, the combination of a plurality of louvers provided with extensions on opposite sides and a frame whose innermost lines toward the louvers, extend to a line beyond the line intended to be occupied by the extreme edges of the louvers when fully opened.

5. In a closure of the clas mentioned, the combination of a plurality of louvers, provided with extensions on opposite sides, and a frame with projections located adjacent to opposite ends of the series of louvers, which projections extend toward the louvers and to lines beyond the lines intended to be occupied by the extreme edges of the end louvers when fully opened.

[Claim 6 not printed in the Gazette.]

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1,091,845. FILTERING DRINKING-CUP. AMY L. HOWIE, San Jose, Cal. Filed Sept. 17, 1913. Serial No. 790,230. (Cl. 210—12.)

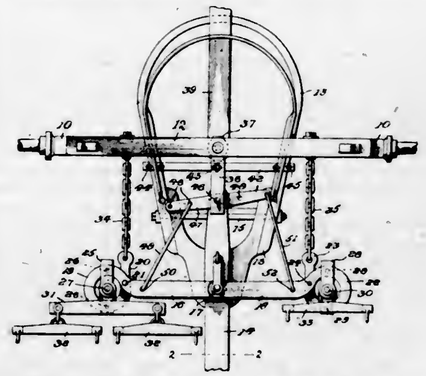


1. In a filtering drinking-cup, the combination of a cup having a rolled upper edge, a partition vertically disposed in approximately the center thereof having its lower end foraminous up a distance, a cover hinged to the upper edge of said partition, and a filtering material placed in one of the compartments of said cup, as shown and described.

2. In a filtering drinking-cup, the combination of a cup having a rolled upper edge, a partition vertically disposed in approximately the center of said cup having its lower end foraminous up a distance, a cover hinged to the upper edge of said partition and adapted to close down over either compartment formed by said partition in said cup, said cover having a double flange worked on its outer edge adapted to hold said cover in position when closed over either compartment, and a filtering material placed in one of said compartments, substantially as shown and described.

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1,091,846. DRAFT-EQUALIZER. JOHN F. JENNINGS, Smithfield, Ill. Filed June 14, 1913. Serial No. 773,634. (Cl. 21—76.)



1. The combination with a running gear of a vehicle including the draft tongue, of a plate apertured to receive the king bolt and extending forwardly, a holding bar connected at its end to the hounds and connected intermediate its ends to said plate, an evener bar pivoted to said plate, and draft appliances connected to said evener bar.

2. The combination with the running gear of a vehicle including the forward axle, king bolt, forward hounds, and the draft tongue, of a member apertured to receive the king bolt and extending forwardly, a brace member connecting said forwardly directed member to said hounds in advance of the axle, an evener bar pivoted to said forwardly directed member, and draft appliances connected to said evener bar.

3. The combination with a running gear of a vehicle including the axle, hounds, and draft tongue, of a plate apertured to receive the king bolt of a running gear and extending forwardly, a holding bar connected to said plate, means for connecting said bar to the hounds, an evener bar pivoted to said plate, evener beams pivoted to said tongue and extending in opposite directions therefrom, said evener beams being bent substantially into circular form at their outer ends and the terminals thence extended rearwardly, clevis devices connected to said circular portions and adapted to support draft appliances, and stay devices connected between the rearwardly directed terminals of the evener beams and the axle.

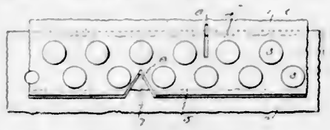
4. A device of the class described comprising evener members adapted to be pivotally connected to a draft tongue and extending in opposite directions therefrom, each evener member being bent into circular form at the outer end and the terminal extended rearwardly, a clevis device attached to each circular portion, an equalizing member adapted to be attached to a draft tongue, coupling means between said equalizing member and said evener members, and stay devices connected to said rearwardly extending terminals and adapted to be coupled to the running gear of a vehicle.

5. A supporting member comprising a body adapted to be coupled at one end to the running gear of a vehicle and with forwardly and rearwardly projecting portions at the other end, clevis devices including a lower bearing portion

connected to said projecting portions and an upper portion spaced from the lower portion, and draft appliances disposed between the portions of said clevis and pivoted thereto and movably engaging the lower bearing portion of said clevis.

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1,091,847. METHOD OF FACILITATING THE DETECTION OF STEAM-BOILER SEAM-CRACKS. SHERWOOD FRANK JETER, Hartford, Conn. Filed Dec. 20, 1912. Serial No. 737,882. (Cl. 220—125.)



1. The method of providing for the detection of seam cracks in the plate of a boiler shell which consists in reducing the thickness of the plate by forming a recess adjacent to the seam, in the surface of the plate opposite to the surface in which the crack is liable to first occur, and in the probable path of development of the crack, whereby the crack will open into the recess and become apparent before it extends completely through the plate.

2. The method of providing for the detection of seam cracks in the plate of a boiler shell which consists in reducing the thickness of the plate by cutting an oblong recess adjacent to the seam in the surface of the plate opposite to the surface in which the crack is liable to first occur and transversely of the probable path of development of the crack, whereby the crack will open into the recess and become apparent before it extends completely through the plate.

3. The method of providing for the detection of seam cracks in the plate of a boiler shell which consists in reducing the thickness of the plate by cutting a slot adjacent to the seam in the outside surface of the outer plate of the lap and transversely of the probable path of development of the crack, whereby the crack will open into the slot and become apparent before it extends completely through the plate.

4. The method of providing for the detection of seam cracks in the plate of a boiler shell which consists in reducing the thickness of the plate by forming a slot adjacent to the seam in the inner surface of the inner plate of a lap and transversely of the probable path of development of the crack.

5. The method of providing for the detection of seam cracks in the plates of a boiler shell which consists in reducing the thickness of the plates by forming slots partly through the plates adjacent to the seam and transversely of the probable line of the cracks in the outer surface of the outside plate of the lap and in the inner surface of the inside plate of the lap.

[Claims 6 and 7 not printed in the Gazette.]

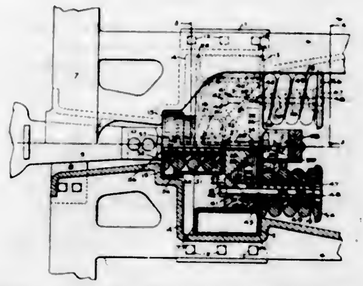
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1,091,848. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed May 26, 1913. Serial No. 769,795. (Cl. 213—64.)

1. In a draft gear, a shell, a wedge, transversely movable friction blocks engaging the wedge, and longitudinally movable friction blocks engaging the transversely movable friction blocks within the shell, springs seated without the shell and connected to the longitudinally movable friction blocks.

2. In a draft gear, a shell, a wedge, transversely movable friction blocks and longitudinally movable friction blocks within the shell, springs seated against the shell, spring bolts engaging said springs, the spring bolts passing through the transversely movable friction blocks and connecting with the longitudinally movable friction blocks.

3. In a draft gear, a shell, a wedge within the shell, main friction blocks arranged either side of the wedge and adapted to be spread thereby, supplemental friction blocks engaging the main friction blocks and adapted to move longitudinally of the shell, main springs seated against the shell, and bolts connecting the main springs to the supplemental friction blocks.



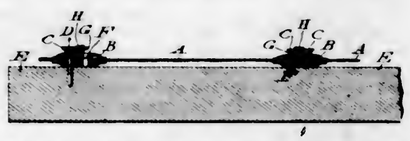
4. In a draft gear, a shell, a wedge within the shell, main friction blocks arranged either side of the wedge and adapted to be spread thereby, supplemental friction blocks engaging the main friction blocks and adapted to move longitudinally of the shell, main springs seated against the shell, and bolts connecting the main springs to the supplemental friction blocks, the main friction blocks being slotted for the passage of said bolts.

5. In a draft gear, a shell, a supplemental spring, a case for the same, a wedge connected with said case, main friction blocks engaging the wedge and shell, supplemental friction blocks engaging the main friction blocks and adapted to be given longitudinal movement thereby, main springs without the shell, and bolts connecting the same to the supplemental friction blocks.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,849. FASTENER FOR WINDOW AND DOOR SCREENS. FRANCIS M. KING, Philadelphia, Pa. Filed Dec. 15, 1910. Serial No. 597,443. (Cl. 24—221.)



1. In a screen fastener of the character described, a rotatable button formed of a cylindrical body of pliable material and a head of greater diameter than said body, said head and body having an eccentrically arranged opening therethrough, and a pivot and fastening pin which latter freely occupies said opening.

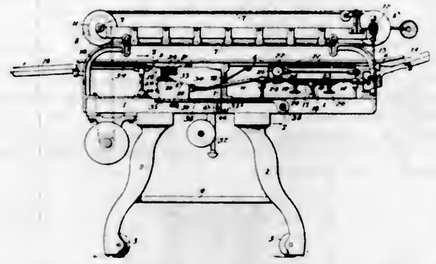
2. In a screen fastener of the character described, a rotatable button formed of a cylindrical body of resilient material, a head thereon of greater diameter than said body, said head and body having an eccentrically arranged opening therethrough, a pivot and fastening pin freely occupying said opening and an indicating character on the outer face of said head, the same pointing from said opening to the periphery of said head in the direction of the widest diameter of said body within the periphery of said head.

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1,091,850. LABELING-MACHINE. FREDERICK H. KNAPP, Westminster, Md., assignor to The Fred. H. Knapp Company, Westminster, Md., a Corporation of Maryland. Filed Aug. 25, 1910. Serial No. 578,876. (Cl. 216—48.)

1. In a labeling machine, the combination of a label receptacle, a runway for cans or the like, means for feeding cans along the runway, a paste pot located to one side of the runway, a support mounted on the paste pot and projecting transversely across the label receptacle, and an endless paste carrying member having bearings on said support and paste pot respectively and movable transversely across the labels in the receptacle.





2. In a labeling machine, the combination of pasting and labeling instrumentalities, a can runway or support, a paste carrying member movable transversely of the machine and adapted to apply paste to the lap end of the labels, and a support for the paste applying member connected at a point below the runway and to one side of the machine, the paste carrying member being removable with the support from the side of the machine.

3. In a labeling machine, the combination of a label receptacle, means for feeding cans along the runway, a paste pot located to one side of the runway, a support mounted on the paste pot and projecting transversely across the label receptacle, an endless paste carrying member having bearings on said support and paste pot respectively and movable transversely across the labels in the receptacle, the said paste pot being removable from the side of the machine, and said carrying member being removable with the paste pot.

4. In a labeling machine, the combination of pasting and labeling instrumentalities, a can runway, means for feeding a can along the runway, an endless belt forming a paste carrying member movable transversely across the machine adapted to apply paste to the lap end of the labels, and a detachable support for the belt positioned to one side of the machine and having an overhanging arm arranged above the labels, the said belt being so supported that opposite stretches thereof will assume a position adjacent one another whereby to offer no obstruction above the runway.

5. In a labeling machine, the combination of a can runway, a label receptacle, a pasting receptacle detachably mounted upon one side of the machine, a paste carrying belt adapted to move within said receptacle and transversely across the lap end of the supported labels, both stretches of the belt being adapted to move above the supported labels, and assume a position flat against the labels whereby to permit cans to pass thereover.

[Claims 6 to 81 not printed in the Gazette.]

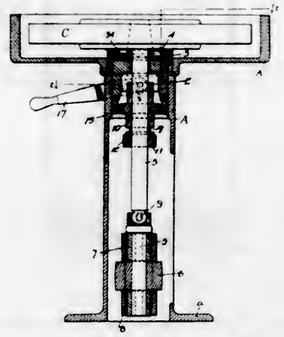
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1,091,851. AUTOMATIC BALANCING MECHANISM. ABRAHAM B. LANDIS, Waynesboro, Pa. Filed Feb. 7, 1910. Serial No. 542,465. (Cl. 51—1.)

1. A balancing machine comprising a rotary arbor formed in two parts connected by a flexible joint, means whereby said jointed part may be held rigid or allowed to wabble, the part to be balanced mounted on said arbor, a balancing ring in said part, means for adjusting said balancing ring, and a connection between said means and a bearing around said arbor, substantially as set forth.

2. A balancing mechanism comprising the device to be balanced, an adjustable weight carried by the device to be balanced, means for adjusting said weight, a rotary part carrying said device to be balanced, a bearing surrounding the axis thereof, and a connection between the means for adjusting said weight and said bearing, whereby said means is operated, substantially as set forth.

3. A balancing mechanism comprising the part to be balanced, a weight carried by said part and mounted to be adjustable in relation to its axis, means for securing and adjusting said weight, a rotary part on which said part to be balanced is mounted, a frictional bearing surrounding the axis thereof, and friction wheels connected with the means for adjusting said weight mounted in said frictional bearing, said wheels being adapted to bear upon one side or the other of said bearing according to the unbalance of the part to be balanced, substantially as set forth.



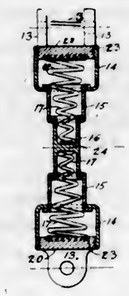
4. A balancing mechanism comprising the part to be balanced, a shiftable solid weight carried thereby, means for revolving said part to be balanced, and means for automatically and mechanically adjusting said weight to the point of the equilibrium by the rotary motion of said part, substantially as set forth.

5. A balancing mechanism comprising the part to be balanced, a shiftable weight carried thereby, means for revolving said part to be balanced, and means operated by the rotary motion for mechanically adjusting said shiftable weight bodily, substantially as set forth.

[Claims 6 to 20 not printed in the Gazette.]

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1,091,852. RETAINING MEANS FOR SETS OF TEETH. JOSEPH LAUTENBURG, New York, N. Y. Filed June 3, 1913. Serial No. 771,438. (Cl. 32—4.)



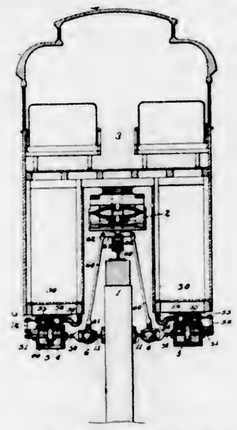
In a retaining means for a set or sets of teeth a series of multiple telescoping shells inclosing an elastic medium tending to separate said sets of teeth and comprising one or more intermediate shells and terminal shells connected at their ends to said sets of teeth.

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1,091,853. MONORAIL-CAR. GEORGE T. LEWIS, Seattle, Wash. Filed Mar. 6, 1913. Serial No. 752,498. (Cl. 105—234.)

1. In a mono-rail car, in combination, car supporting trucks, a car body having legs extending downward, at each side of the track, side-bearing wheels upon said legs, and a power cylinder and piston for each side-bearing wheel, said wheels being carried by the piston rods and

means for counteracting the side strain upon said depending legs by the action of a fluid in said cylinders.



2. A mono-rail car having side-bearing wheels and fluid controlled pistons connected with said wheels to oppose the side-tipping tendencies of the car, and means for controlling the application of said fluid to the piston controlled by the position of the piston in the cylinder.

3. A mono-rail car having legs depending at opposite sides of the track structure, fluid-operated cylinders pivotally supported upon said legs, pistons in said cylinders having their rods extending toward the track structure, a wheel connected with said piston and adapted to engage the counterbalancing rail, and means for controlling the application of the fluid to said piston by the position thereof in the cylinder.

4. A mono-rail car having legs depending at opposite sides of the track structure, fluid-operated cylinders pivotally supported upon said legs, pistons in said cylinders having their rods extending toward the track structure, a wheel connected with said piston and adapted to engage the counterbalancing rail, an independent support for said wheel, and means for controlling the application of the fluid to said piston by the position thereof in the cylinder.

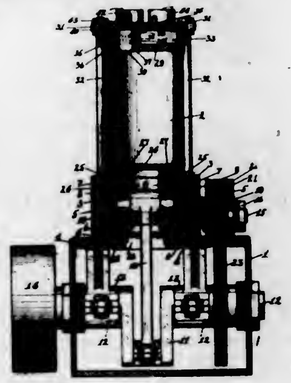
5. A mono-rail car having legs depending at opposite sides of the track structure, fluid-operated cylinders pivotally supported upon said legs, pistons in said cylinders having their rods extending toward the track structure, a wheel connected with said piston and adapted to engage the counterbalancing rail, and a valve controlling the application of fluid to said piston, a pivoted lever and connections from opposite ends of said lever respectively with the piston and with the valve.

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1,091,854. GAS-ENGINE. CHARLES A. LUNDY, Reno, Nev. Filed Dec. 9, 1912. Serial No. 735,589. (Cl. 123—80.)

1. In a gas engine, the combination of a fixed bed having an annular seat with a ball-race bearing ring in its lower portion; a cylinder having its base fitted in said seat and provided with an encircling bearing collar having a ball-race in its lower face, said collar being provided also with a ball-race in its upper face; an annular nut screwed into the upper portion of the bed-seat and having a ball-race in its lower face; balls in said races; means called into timely action by the rotation of the cylinder for charging said cylinder with an explosive mixture, exploding said mixture and exhausting the products of explosive combustion; and means driven by the engine for effecting the timely rotation of the cylinder.

2. In a gas engine, the combination of a fixed bed having an annular seat with a ball-race bearing ring in its lower portion; a cylinder having its base fitted in said seat and provided with an encircling bearing collar having a ball-race in its lower face, said collar being provided also with a ball-race in its upper face; an annular nut screwed into the upper portion of the bed-seat and having a ball-race in its lower face; balls in said races; means called into timely action by the rotation of the cylinder for charging said cylinder with an explosive mixture, exploding said mixture and exhausting the products of explosive combustion; an intake connection with one of said cap-openings for the explosive mixture; a spark-plug fitted in another of said cap-openings for exploding said mixture; and an exhaust connection with still another of said cap-openings for discharging the products of explosive combustion; and means driven by the engine for effecting the timely rotation of the cylinder.



3. In a gas engine, the combination of a fixed bed having an annular seat; a cylinder having a single port in its head, said cylinder having its base fitted in the bed seat; means for revolubly locking said cylinder in its seat to resist end thrust and to adapt it for rotation about its axis; a non-rotatable cap fitted to the cylinder head and bolts passing down outside said cylinder and securing said cap fixedly to the bed, said cap having separate openings with which the port in the cylinder head is adapted to successively register as the cylinder rotates; an intake connection with one of said cap-openings for the explosive mixture; a spark-plug fitted in another of said cap-openings for exploding said mixture; and an exhaust connection with still another of said cap-openings for discharging the products of explosive combustion; and means driven by the engine for effecting the timely rotation of the cylinder.

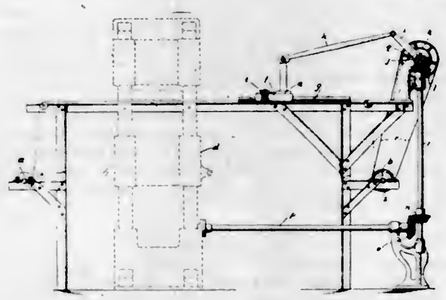
4. In a gas engine, the combination of a cylinder arranged for rotation about its axis; means called into timely action by the rotation of the cylinder for charging said cylinder with an explosive mixture, exploding said mixture and exhausting the products of explosive combustion; a piston in said cylinder, having a closed-top outer shell packed in the cylinder adapted for reciprocative motion with the piston; a journal-bearing between the piston and its shell adapting the latter for rotation with the cylinders; and means driven by the piston for effecting the timely rotation of the cylinder.

5. In a gas engine, the combination of a cylinder arranged for rotation about its axis; means called into timely action by the rotation of the cylinder for charging said cylinder with an explosive mixture, exploding said mixture and exhausting the products of explosive combustion; a piston in said cylinder having a closed-top outer shell packed in the cylinder adapted for reciprocative motion with the piston; ball-bearings between the upper and lower ends of the piston and its shell adapting the latter for rotation with the cylinder; a connecting rod from the piston; a crank-shaft driven by said rod; and means driven by the crank-shaft for effecting the timely rotation of the cylinder.

[Claim 6 not printed in the Gazette.]



1,091,855. AUTOMATIC PRESS-FEEDER. JAMES LYNAH, Newburgh, N. Y., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Dec. 21, 1911. Serial No. 667,238. (Cl. 101—42.)



1. In an apparatus of the character described, a pair of longitudinally reciprocable and laterally adjustable gripping frames each comprising a base and a bracket whose lower end is supported at a distance from the inner edge of the base, said bracket having an upper overhanging portion, and a gripping dog pivoted on and depending from the overhanging portion of each bracket and offset inwardly relatively to the supported lower end of the bracket and overhanging the part of the base inside the supported lower end of the bracket.

2. In an apparatus of the character described, in combination, a transversely adjustable gripping frame having a base over the inner part of which the part of the fabric or paper adjacent to its longitudinal edge is adapted to slide, means to reciprocate said frame longitudinally, said frame having an upwardly and longitudinally extending bracket located toward the outer part of the base, and a gripping dog pivoted on the bracket and overhanging a part of the gripping frame base inside the bracket.

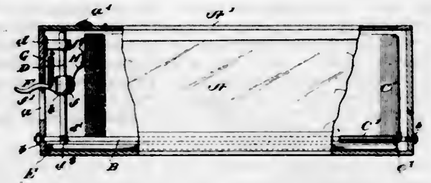
3. In an apparatus of the character described, in combination, a gripper frame having an overhanging portion, means to reciprocate the frame, a gripping dog pivoted on and freely depending from said overhanging portion, said dog adapted to swing toward the fabric in a direction opposite to that of the feed in position to grip the fabric during the feeding movement of the frame but being of such length as not to swing beyond the gripping position, said dog tending, when the frame is moved in the opposite direction, to swing away from the fabric in the direction of feed, and means adapted to limit the swing of the dog in the last named direction and tending to return the dog to its gripping position.

4. In an apparatus of the character described, a pair of longitudinally reciprocable and laterally adjustable gripping frames, each frame comprising a base and an overhanging bracket projecting upward from the base at a distance from the latter's inner edge whereby the frame may be adjusted to bring the inner portion of its base under the fabric or paper to be fed, a gripping dog normally depending vertically from the overhanging bracket, part of which dog overhangs the inner portion of the base and part of which overhangs a portion of the base outside said inner portion, said dog having a lower end beveled downward in a forward direction, thereby enabling it to feed only in its forward direction of movement.

5. In an apparatus of the character described, in combination, a gripping frame, an overhanging pivoted gripping dog, the lower surface of the dog having a bevel face and means to reciprocate said frame, and a regulating device connected to said dog acting in one direction of pivotal movement of the dog as a stop and in the other direction as a counterweight.

[Claim 6 not printed in the Gazette.]

1,091,856. DELIVERY-CABINET. THOMAS A. MATTHEWS, Nashville, Tenn. Filed Apr. 10, 1913. Serial No. 760,243. (Cl. 211—8.)



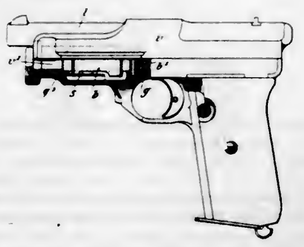
1. The combination with a cabinet having a central vertical slot in its front wall and a transverse delivery slot in its top, of a standard mounted within the front end of the cabinet, a bracket supporting the upper end of the standard, a sleeve sliding on the standard and having a finger piece projecting through the vertical slot, rearwardly and upwardly inclined spring fingers secured at their lower or inner ends to the said sleeve and adapted at their upper free ends to yieldingly engage an article and force it up through the transverse top slot, a contractile spring secured at its upper end to the said bracket and secured at its lower end to said sleeve, a follower for the opposite end of the pile of articles, and a spring constantly pulling the follower toward the said spring fingers to hold the pile thereagainst.

2. The combination with the cabinet having a vertical slot in its front wall and a transverse discharge slot in its top, of a standard in the front end of the cabinet, a central longitudinal rod mounted at its ends in the bottom of the cabinet, a feeder sliding on the standard to force the articles through the delivery slot and having a finger piece projecting through the vertical slot, a follower provided with a base sliding freely on the longitudinal rod, and a spring coiled around the lower end of the vertical standard and connected at its outer end to the follower to draw it constantly toward the feeder.

3. The combination with the cabinet having a vertical slot in its front wall and a transverse discharge slot in its top, of a standard in the front end of the cabinet having a transverse aperture through its lower portion, a longitudinal rod secured at its front end in said aperture, securing devices for the ends of the rod, a feeder sliding on the standard to force the articles through the delivery slot and having a finger piece projecting through the vertical slot, a follower provided with a base sliding freely on the longitudinal rod, and a spring coiled on the lower end of the standard and connected at its outer end to the follower, said spring exerting a constant pull on the follower to hold the front end of the pile firmly against the sliding feeder.

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1,091,857. AUTOMATIC FIREARM. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Dec. 26, 1912. Serial No. 738,664. (Cl. 42—3.)



1. In a recoil operating pistol, the combination of a frame comprising a grip, a breech-block, locking-levers for

said breech-block, and a recoil operated slide for actuating said locking-levers, said locking levers and said slide being located in the forward part of said frame in front of said grip.

2. In a recoil operated pistol, the combination of a frame comprising a grip, a breech-block, locking-levers for said breech-block located in the forward part of said frame in front of said grip, a projection on the front end of said breech-block extending between said locking levers and adapted to be engaged by said locking levers to lock said breech-block, and a recoil operated slide for actuating said locking-levers.

3. In a recoil operated firearm, the combination of a breech-block, locking-levers for said breech-block, a recoil operated slide for actuating said locking-levers, a spring acting upon said slide to cause the same to move said locking-levers to locking position, and means adapted to be manually operated for moving said slide against the pressure of said spring to move said locking-levers to unlocking position.

4. In a recoil operated firearm, the combination of a breech-block, locking levers for said breech-block, a recoil operated slide for actuating said locking-levers, a spring acting upon said slide to cause the same to move said locking-levers to locking position, and a pivoted lever adapted to be manually operated for moving said slide against the pressure of said spring to move said locking levers to unlocking position.

5. In a recoil-operated pistol, the combination of a frame comprising a grip, a breech-block, locking-levers for said breech-block, a recoil-operated slide for actuating said locking-levers, a spring acting upon said slide to cause the same to move said locking-levers to locking position, means adjacent said grip and adapted to be operated by a finger of a user when the firearm is held by the grip, said means operating to move said slide against the pressure of said spring to move said locking levers to unlocking position.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,858. PIANO-ACTION. ENOCH A. MAYOR, San Antonio, Tex. Filed Sept. 7, 1911. Serial No. 648,231. (Cl. 84—26.)



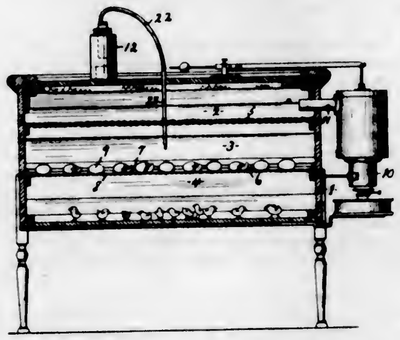
1. An upright piano action including a hammer, a back stop, a back check opposed to the back stop and a hammer-retracting member having a straight shank entering the upper end of the back check, and a bowed portion extending upward and over the upper end of the back stop and then extending downward below the upper end of the back stop.

2. An upright piano action including a wippen, a hammer-butt, a back stop carried by the hammer-butt, a back check carried by the wippen, and a hammer-retracting member comprising a wire bent to form a shank extending downward into the back check, the wire at the upper end of the shank being curved upward, inward toward the hammer-butt and downward to a point below the upper end of the back stop, the shank of said retracting member being rotatably supported in the back check.

3. An upright piano action including a wippen, a hammer-butt, a shank projecting from the hammer-butt, a back stop carried on the end of the shank and having a rounded upper end projecting above the shank, and a back check carried by the wippen and opposed to the stop in combination with a hammer-retracting member comprising an upwardly bowed rigid wire having a shank extending into the upper end of the back check and rotatable therein, the body of the wire extending inward toward the hammer-butt and over the upper rounded end of the back stop and normally spaced therefrom, the inner end of the curved portion of the wire being extended downward below the upper end of the back stop.

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1,091,859. PROCESS OF INCUBATION. STANLEY A. MERKLEY, Buffalo, N. Y., assignor to Merkley Manufacturing Company, Buffalo, N. Y., a Corporation of New York. Original application filed Aug. 3, 1911, Serial No. 642,126. Divided and this application filed Feb. 11, 1913. Serial No. 747,667. (Cl. 119—35.)



1. The process of incubation comprising the heating of the egg and increasing the oxygen contents of the air within the incubating chamber during the interval between the fourteenth day of the incubating period and the time at which the egg yolk is wholly absorbed by supplying to said chamber substantially pure oxygen.

2. The process of incubation comprising the heating of the egg and increasing the oxygen contents of the air within the incubating chamber during the interval between the time when the eggs begin to pip and the time when the embryo is hatched by supplying to said chamber substantially pure oxygen.

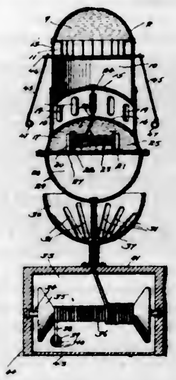
3. The process of incubation comprising the heating of the air within the incubating chamber, allowing fresh air to enter said chamber for substantially the first seventeen days of the incubating period, shutting off the entry of air to said chamber shortly before the eggs pip—that is, approximately at the eighteenth day, and diffusing in said chamber during the period in which it is closed, substantially pure oxygen.

4. The process of incubation comprising the heating of the air within the incubating chamber and increasing the oxygen content of said air from substantially the time the eggs begin to pip until the embryo is hatched, by supplying to said chamber substantially pure oxygen.

5. The process of incubation comprising the heating of the air within the incubating chamber and increasing the oxygen content of said air from substantially the eighteenth day of the incubating period until the embryo is hatched, by supplying to said chamber substantially pure oxygen.



1,091,860. BUOY. FREDERICK OTTO MINER, Crafton, Pa. Filed Aug. 25, 1913. Serial No. 786,536. (Cl. 9—9.)



1. In combination with a vessel, an oil containing tank therein, a buoy mounted over said tank and a drum having a cable wound thereon in said tank and connected to said buoy.

2. In combination with a vessel, an oil containing tank therein, a buoy mounted over said tank, a drum having a cable wound thereon in said tank and connected to said buoy, said tank having an opening through which said cable may pass and means for nearly closing said opening.

3. The described device consisting of a buoy having means whereby it may be secured to the vessel, said means consisting of a cable connecting said buoy and said vessel, a drum upon which said cable may be wound, and an oil container in which said drum is mounted.

4. The described device consisting of a buoy having means whereby it may be secured to the vessel, said means consisting of a cable connecting said buoy and said vessel, a drum upon which said cable may be wound, and an oil container in which said drum is mounted, and a cradle mounted upon said container in which said buoy is adapted to seat.

5. The described device consisting of a buoy having means whereby it may be secured to the vessel, said means consisting of a cable connecting said buoy and said vessel, a drum upon which said cable may be wound, an oil container in which said drum is mounted, a cradle mounted upon said container in which said buoy is adapted to seat, and said buoy having an air compartment and an oil containing compartment.

[Claims 6 to 19 not printed in the Gazette.]

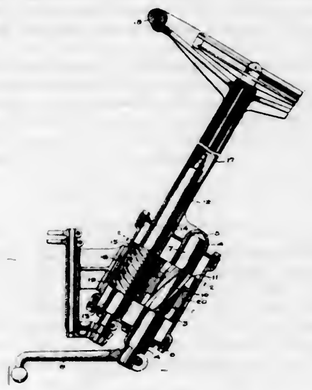
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1,091,861. STEERING MECHANISM. OTTO F. PERSSON, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 5, 1907. Serial No. 396,010. (Cl. 74—79.)

1. In combination, a shaft, a steering device for rotating the shaft, a second shaft parallel to the first shaft and axially displaced therefrom, a casing in which said shafts are mounted, threaded means carried by both shafts transmitting motion from the first shaft to the second shaft when said first shaft is rotated by the steering device and preventing the transmission of motion from the second shaft to the first, guides on said means, and guideways on the casing coöperating with the guides to prevent said means from rotating and to cause it to move longitudinally.

2. In combination, a shaft, a steering wheel for rotating the shaft, a second shaft, screw-threads on the shafts, and interlocking nuts mounted on the shafts which transmit motion from the first shaft to the second when said first shaft is rotated by the wheel and prevent the transmission of motion from the second shaft to the first.

3. In combination, a shaft, a steering wheel for rotating the shaft, a second shaft, a casing in which said shafts are mounted, screw-threads on the shafts, interlocking nuts mounted on the shafts which transmit motion from the first shaft to the second when said first shaft is rotated by the wheel and prevent the transmission of motion from the second shaft to the first, guides on said nuts, and guideways on the casing coöperating with the guides to prevent said nuts from rotating and to cause them to move longitudinally.



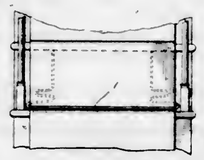
4. In combination, a shaft, a steering wheel for rotating the shaft, a second shaft, and nuts interlocked against independent longitudinal and angular movement and having dissimilar screw-threads which are mounted on the shafts and transmit motion from the first shaft to the second when said first shaft is rotated by the wheel and prevent the transmission of motion from the second shaft to the first.

5. In a steering mechanism, the combination of a steering wheel, a shaft actuated by the wheel, a casing in which the shaft is mounted, means mounted for longitudinal movement within the casing and having two substantially parallel openings provided with screw-threads of different pitch, a screw-thread on the wheel-shaft which engages the threaded interior of the opening having the thread of finer pitch to move said means when the wheel is rotated, a second shaft substantially parallel to the wheel shaft, a screw-thread on the second shaft which is engaged by the threaded interior of the opening having the thread of coarser pitch to rotate said shaft as said means is moved longitudinally, guides on said means, and guide-ways on the casing coöperating with the guides to prevent said means from rotating and to cause it to move longitudinally.

[Claims 6 to 13 not priuted in the Gazette.]

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1,091,862. CARPET-RETAINER. WALTER W. PHILLIPS, Jersey City, N. J. Filed Mar. 4, 1912. Serial No. 681,592. (Cl. 16—26.)



1. A device of the kind described, comprising a bar positioned upon the tread of one step of the stairs, and provided with integrally formed extensions at the ends arranged to engage the next higher step substantially as shown and described.

2. A device of the kind described, comprising a resilient bar, extending across the width of the carpet at one tread,

and thence extended at each end to engage the next higher tread.

3. A device of the kind described, comprising a bar arranged at the juncture of the tread and riser on the front side of the carpet, said bar provided with a resilient arm at each end, extending upwardly and back of the carpet to the under side of the next higher tread.

4. A carpet retainer consisting of a single piece of spring wire having a downwardly curved base, said base being resilient and having vertical arms, said base being offset from the plane of said arms and adapted to seat on said carpet.

5. A carpet retainer comprising a single piece of spring wire, said wire having its free ends bent to form straight portions disposed in a similar direction and a convex cross piece disposed at an incline to and in continuation of said two straight portions, said cross-piece have portions substantially S-shaped and merging with said straight portions.

[Claims 6 to 10 not printed in the Gazette.]

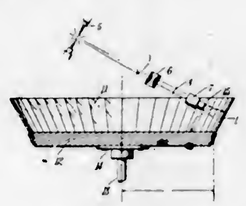
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1,091,863. COMPOSITION OF MATTER. HENRY F. POHRER, St. Louis, Mo. Filed Apr. 1, 1913. Serial No. 758,285. (Cl. 134—10.)

The herein described composition of matter to be used for cleaning and dressing the surface of white fabric and white leather, consisting wholly of water, zinc oxid, Irish moss, and washing soda, substantially as herein described.

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1,091,864. PROJECTING APPARATUS FOR MOVING-PICTURE MACHINES. GILES EMMET RIPLEY and WILLIAM N. GLADSON, Fayetteville, and ROSS EMILE THOMPSON, Heber, Ark. Filed Nov. 21, 1911. Serial No. 661,579. (Cl. 88—16.8.)



1. In a projecting apparatus for moving-picture mechanisms, a wheel, and a series of plain mirrors rigidly mounted upon the periphery of said wheel, said mirrors being disposed at an angle to the plane and axis of the wheel.

2. In a projecting apparatus for moving-picture mechanisms, a revolving wheel disposed in a plane at an acute angle to the incident ray from the mechanism, and plain mirrors carried by said wheel, said mirrors disposed at an angle to said plane and adapted to be successively brought into the path of the incident rays.

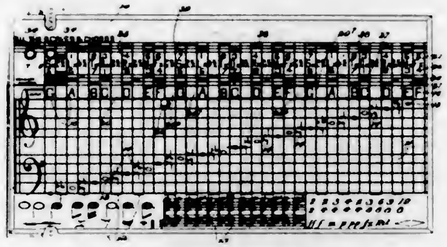
3. In a projecting apparatus for moving-picture mechanisms, a series of reflecting members facing a common center and arranged to form a reflecting surface in the form of the frustum of a pyramid between the projecting lens and the screen.

4. In a projecting apparatus for moving-picture mechanisms, a series of reflecting members disposed to form the inner face of a wheel and arranged at an angle to the axis of the wheel.

5. The combination of a moving-picture machine having a picture-film moving in one direction, a series of mirrors forming the inner surface of a wheel, moving in the opposite direction, the mirrors being disposed at an angle to the axis of the wheel and arranged to successively pass in the lighted field of the machine, to cause one picture to fade into the next succeeding picture.

[Claims 6 to 13 not printed in the Gazette.]

1,091,865. MUSICAL CHART. JOSEPH W. SCROGGS, Kingfisher, Okla. Filed Dec. 28, 1912. Serial No. 739,063. (Cl. 84—86.)



1. A music chart, comprising a body displaying thereon letter names designating the whole and intermediate tones of the chromatic scale, a slide movably mounted on the body and provided with fingers arranged in predetermined order to cover and conceal certain of said letter names and to expose others, and means operatable by and upon the movement of said slide upon the body for automatically bringing to view other letter names to fill in all of the intermediate tones necessary to complete the tones of any desired scale.

2. A music chart, including a body displaying thereon letter names arranged in predetermined order to designate the whole and intermediate tones of the chromatic scale, some of said letter names being fixed on the face of the body in spaced relation to each other and the face of the body being formed with openings in the intervening spaces between said fixed letter names, the letter names designating the intermediate tones of the scale, flats or sharps, being movable into and out of registry with said openings, a slide mounted on the body and provided with fingers extending over and arranged to conceal sundry of said letter names and to expose others, and means operable by and upon the movement of the slide for automatically bringing into view the letter names of the intermediate tones of the different scales, according to the position in which the slide is moved.

3. A music chart, including a body displaying on its face letter names designating the whole and intermediate tones of the chromatic scale and displaying vertical columns at the lower ends of sundry of which are displayed the signatures of the different keys or scales, a slide movable on the body portion and provided intermediate of its ends with a designating character or key note, said slide being provided with a plurality of fingers extending over and arranged to conceal sundry of said letter names and to expose others, a bar slidingly mounted on the body in alinement with the row of letter names designating the whole tones of the chromatic scale, the intermediate tones of said scale being designated by letter names which are carried by said bar, the face of the body being formed with openings through which said letter names of the intermediate tones are designed to be seen, and means whereby said bar will be automatically shifted back and forth upon the movement of the slide to bring into view at said openings the intermediate tones, sharps or flats, of any scale with which the key note of the slide is brought into collinear relation.

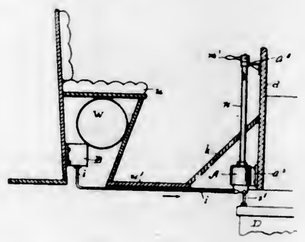
4. A music chart, including a body displaying on its face in fixed relation thereto and in a horizontal row letter names designating the whole tones of the chromatic scale, spaces being left between certain of said letter names and the face of the body being formed with openings in said spaces, a bar slidingly mounted on the body back of said row of letter names, letter names designating the intermediate tones of the chromatic scale, flats and sharps arranged in pairs in juxtaposition to each other and displayed on the face of said bar in registry with said openings, a slide mounted on the body and provided with fingers extending over and arranged to conceal sundry of said letter names, and an operative connection between said slide and bar whereby when a certain portion of said slide is brought to a predetermined point, the bar will be shifted to a position where it will show in regular order all of the whole and intermediate tones of a scale.

5. A music chart, including a body displaying on its face in fixed relation thereto and in a horizontal row letter names designating the whole tones of the chromatic scale, spaces being left between certain of said letter names and the face of the body being formed with openings in said spaces, a bar slidingly mounted on the body back of said row of letter names, letter names designating the intermediate tones of the chromatic scale, flats and sharps arranged in pairs in juxtaposition to each other and displayed on the face of said bar in registry with said openings, a slide mounted on the body and provided with fingers extending over and arranged to conceal sundry of said letter names, and an operative connection between said slide and bar whereby when a certain portion of said slide is brought to a predetermined point, the bar will be shifted to a position where it will show in regular order all of the whole and intermediate tones of a scale, the face of the board displaying vertical columns at the top of which the letter names are displayed and at the bottom of the same of which are the key signatures with which said certain portion of the slide is designed to be brought into collinear relation to display the tones of the desired scale.

[Claim 6 not printed in the Gazette.]

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1,091,866. LUBRICATING DEVICE. ISAAC H. SISSON, Providence, R. I. Filed Mar. 29, 1913. Serial No. 757,495. (Cl. 184—105.)



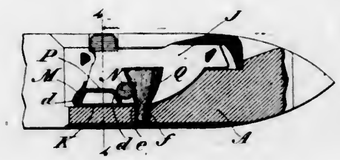
1. In a lubricating appliance for a motor-vehicle, a major tank or container for holding lubricating-oil, a suitably located minor container having a chamber of predetermined capacity, inlet and outlet connections for conducting oil from the major tank to the minor container and for leading it therefrom to an element to be lubricated, a manually controlled valve movably mounted in said chamber constructed to register with said inlet and outlet openings, a buoyant float-member having limited vertical movement inclosed in the chamber and disposed above said valve, and means for visually indicating, in connection with the float, the oil-filled and empty conditions of the chamber of the minor container.

2. The combination with a container member having a fluid-holding chamber of predetermined capacity arranged to be attached to a motor-vehicle provided with a tank for containing lubricating-oil, and having said container member provided with a valve-seat having independent inlet and outlet passages connected respectively to said tank and the element to be lubricated, of a manually operable valve supported on said seat having an opening or port therethrough adapted to register with said inlet and outlet passages, stops for limiting the movements of the seated valve, a float freely movable vertically in said container's chamber, an indicator member fixed to and movable with the float, means for limiting the vertical movements of the float and indicator members, and means connected with the latter for denoting whether the chamber is charged or empty.

3. In a device of the general character described, the combination with a fluid container having an inclosed chamber of predetermined capacity provided with inlet and outlet passages communicating therewith through spaced openings extending through a seat formed in the bottom of the chamber, said passages arranged to connect respectively with a main fluid supply and the element to be lubricated, of a self-seating manually actuated ported valve normally closing said openings, a stem fixed to the valve and extending upwardly through the top of the container, said valve adapted to be oscillated to cause its port to register with the seat openings, as desired, stops for limiting the angular movements of the valve, a float disposed in the container for displacing a predetermined volume of the fluid contents of the chamber, a vertically extending tube secured to the float and inclosing said valve-stem, a stop for limiting the upward movement of said tube, a supported stationary outer tube inclosing the movable tube having a suitably protected visual opening formed in its wall, and distinguishing means connected with said movable tube and disposed with relation to said opening of the stationary tube, for the purpose specified.

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1,091,867. LOOM-SHUTTLE. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Dec. 3, 1909. Serial No. 531,172. (Cl. 139—46.)

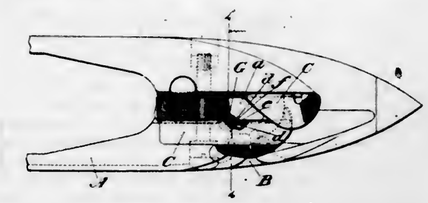


1. A loom shuttle having, in combination, a one piece sheet metal threading device having parallel side walls and a uniting bottom, a thread passage open at the top and at both ends being provided above said bottom and between said side walls; an upwardly and forwardly bent ear in one with and at the rear of said bottom; a retaining bolt passing through the body of the shuttle and through said side walls; and a spacer fitting in the space between said side walls, and having diverging legs, the forward leg being adjacent said retaining bolt and the rear leg being adjacent said upwardly and forwardly turned ear.

2. A loom shuttle having, in combination, a metal threading device having a thread passage between its side walls and above its bottom; and a friction pad consisting of a bunch or tuft of threads passing through and held in a hole in the bottom of the threading device and the lower end of said bunch or tuft extending into a larger hole in the bottom of the shuttle below said hole in the bottom of the threading device, this constituting the sole means for retaining the said bunch or tuft in place.

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1,091,868. LOOM-SHUTTLE. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 12, 1912. Serial No. 719,957. (Cl. 139—46.)



1. An automatically threading loom shuttle having a detachable sheet-metal threading device with a longitudi-

nal thread passage communicating at its forward end with the side-eye of the shuttle and having a depending flange; a hollow cylindrical metallic holder open at its lower end and slotted at its upper end to straddle said flange and being further secured to the sheet metal threading device by solder along the meeting surfaces; and a porcelain snubbing post fitting snugly in said holder and seating at its upper end against said flange, the holder being open at its middle to expose the porcelain snubbing post to the path of the thread.

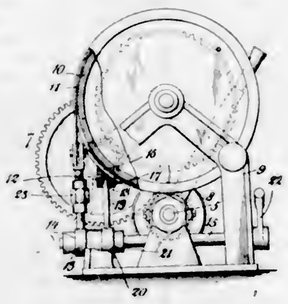
2. An automatically threading loom shuttle having a detachable sheet-metal threading device with a longitudinal thread passage communicating at its forward end with the side-eye of the shuttle; a hollow cylindrical metallic holder open at its lower end and secured to the sheet-metal threading device; and a porcelain snubbing post fitting snugly in said holder, the holder being open at its middle to expose the porcelain snubbing post to the path of the thread.

3. An automatically threading loom shuttle having a detachable metal threading device with a longitudinal thread passage communicating at its forward end with the side-eye of the shuttle; a hollow cylindrical metallic holder open at its lower end and secured to the metal threading device; and a porcelain snubbing post fitting snugly in said holder, the holder being open at its middle to expose the porcelain snubbing post to the path of the thread.

4. An automatically threading loom shuttle having a detachable metal threading device with a longitudinal thread passage communicating at its forward end with the side-eye of the shuttle; a metallic holder open at its lower end and carried by the metal threading device; and a porcelain snubbing post fitting in said holder through its lower open end, the holder being provided with an opening to expose the porcelain snubbing post to the path of the thread.

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1,091,869. BRAKE MECHANISM. COLEMAN ARTHUR TERRY, deceased, New York, N. Y., by Emma J. Terry, administratrix, assignor to Terry Core Drill Company, a Corporation of New York. Filed Oct. 23, 1909. Serial No. 524,206. (Cl. 74—13.)



1. Brake mechanism comprising a rotary brake wheel, a band thereon, a pair of oppositely disposed eccentrics having a common axis of rotation substantially parallel to the plane of the wheel, a tension rod connecting one end of said band with one of the eccentrics, a brake shoe reinforcing the other end of said band, the lower portion of said shoe being constructed to form a pocket, a compression rod, extending from the other eccentric into said pocket, and means for rotating said eccentrics together.

2. Brake mechanism comprising a rotary brake wheel, a band thereon, an actuating shaft substantially parallel to the plane of the wheel, a pair of oppositely disposed eccentrics thereon, a tension rod connecting one end of said band with one of the eccentrics, a brake shoe at the other end of said band, the lower portion of said shoe being constructed to form a conical pocket, a compression rod having a pointed end, said rod extending from the other eccentric into said pocket, and a lever for rotating the shaft.

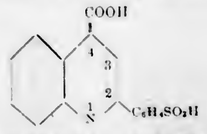
3. Brake mechanism comprising a rotary brake wheel, a band thereon, an actuating shaft substantially parallel to the plane of the wheel, a pair of oppositely disposed eccentrics thereon, a tension rod connecting one end of said band with one of the eccentrics, means for adjusting the length of said tension rod, a brake shoe at the other end of said band, the lower portion of said shoe being constructed to form a conical pocket, a compression rod having a pointed end, said rod extending from the other eccentric into said pocket, the pointed end of said compression rod forming a loose connection between said rod and the shoe end of the brake band, and a lever for rotating the shaft.

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1,091,870. SULFO COMPOUNDS OF QUINOLIN-4-CARBOXYLIC ACIDS ARYLATED IN THE 2 POSITION. ALBRECHT THIELE, Berlin, Germany, assignor to Chemische Fabrik auf Actien, (vorm. E. Schering,) Berlin, Germany. Filed Oct. 7, 1913. Serial No. 793,829. (Cl. 23—24.)

1. As new products the sulfo compounds of quinolin-4-carboxylic acids arylated in the 2-position, such compounds having an acidulous taste, being insoluble in water and organic solvents at ordinary temperature, more or less soluble in hot water, forming salts, and having analgetic properties, substantially as described.

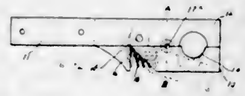
2. As a new product the sulfo compound of 2-phenyl-quinolin-4-carboxylic acid, having the formula




being insoluble in water and organic solvents at ordinary temperature, soluble in hot dilute mineral acids as well as in alkalis and earth alkalis, and having analgetic properties substantially as described.

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1,091,871. ROTATING GEARING. ANTONE GEORGE TOMSICK, Pueblo, Colo., assignor to Joseph Tomsick, Jr., Pueblo, Colo. Filed June 5, 1912. Serial No. 701,756. (Cl. 74—40.)

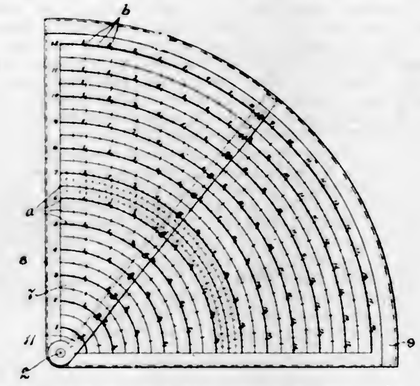


In a rotating cutter gearing of the character described, a split nut comprising a hinged portion attached to a fixed portion, a spiral spring disposed in said hinged portion and adapted to force and retain the same against said fixed portion, a bar provided with expanded ends disposed in appropriate space between the said hinged and fixed portions and extending beyond said split nut and adapted to engage means to force said bar between said hinged and fixed portion so as to spread said nut, all substantially as set forth.

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1,091,872. PROPORTIONAL INDICATING DEVICE. WILKINS M. TUCK, Pittsburgh, Pa. Filed Mar. 20, 1913. Serial No. 755,711. (Cl. 235—89.)

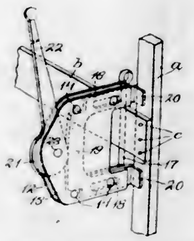
A proportional scale comprising in combination a series of equidistant concentric arcs graduated into equal arcs commencing with the same radial line having its center at the center of the said concentric arcs, the said equal arcs being equal in length to the distances between the concentric arcs, and a right line indicator pivoted at the



center of the said arcs and crossing the said concentric arcs.

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1,091,873. BOARD-PULLER. STEPHEN VERCELLINI, Boston, Mass. Filed Aug. 29, 1913. Serial No. 787,301. (Cl. 145—1.)



1. An implement for detaching boards, comprising a foot piece formed to straddle a board and to bear against a fixed support, a puller carrier also formed to straddle the board at one side of the foot piece, a pulling pin detachably connected with said carrier and formed to extend across the rear surface of the board, and means for moving the puller across the bearing plane of the foot piece.

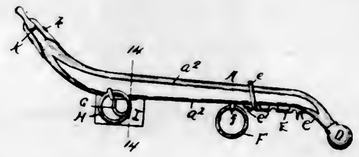
2. An implement for detaching boards, comprising a fork to straddle a board, a bar to engage the inner face of the board, said bar being separably connected with said fork, a rest to bear against a fixed surface adjacent the board, and means to shift the relationship of the bar and rest to vary the distance between their bearing planes, the plane of the movement of the bar being at one side of fork and rest.

3. An implement for detaching boards, comprising a foot piece formed to straddle a board and to bear against a fixed support, a puller carrier also formed to straddle the board at one side of the foot piece, a pulling pin detachably connected with said carrier and formed to extend across the rear surface of the board, means for moving the puller across the bearing plane of the foot piece, and a laterally extending strut connected to and movable with the puller carrier and having a free outer end adapted to bear against the outer face of the board to prevent the implement from swinging laterally.

4. An implement for detaching boards, comprising a casing consisting of two spaced plates, the edges of which are recessed to straddle a board, one of said plates having loops, a pin removably mounted in said loops, a bar slidably mounted between said plates, said bar having spaced feet adapted to straddle a board and to bear against a fixed support, and a cam having a lever, said cam being pivotally mounted between said plates and engaging said bar, and adapted to be operated to force the bar and its feet against a fixed support to cause the pin to remove a board from said support, the pin being mounted to be moved across the bearing plane of the said feet.

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1,091,874. HAME. CHARLES L. WIEDRICH, Buffalo, N. Y., assignor to U. S. Hame Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 11, 1913. Serial No. 747,610. (Cl. 54—25.)



1. A hame comprising a hollow sheet-metal shell, the longitudinal edges of which abut in a joint, a permanent core inclosed by said shell which substantially fills the same, and an attachment secured to said hame by means extending through the core and through the shell at opposite sides of the joint.

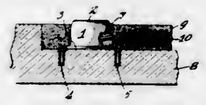
2. A hame comprising a hollow sheet metal shell, the longitudinal edges of which abut in a joint extending lengthwise along one side of the hame, and a permanent core inclosed by said shell which substantially fills the same and conforms in shape thereto from end to end of the hame, one of the longitudinal edges of said shell provided with a lateral extension arranged to lap over the other longitudinal edge of the shell adjacent the lower end of the hame.

3. A hame comprising a single-piece hollow sheet metal shell the longitudinal edges of which abut in a joint extending lengthwise along one side of the hame, a permanent core inclosed by said shell which substantially fills the same and conforms in shape thereto from end to end of the hame, and an attachment secured to said hame by means extending through said core and connecting the parts of said shell at opposite sides of said joint.

4. A hame comprising a hollow sheet metal shell and a permanent core within said shell which substantially fills the same and conforms in shape thereto, from end to end of the hame, said shell having at one end a lateral edge extension which overlaps and extends around the opposite edge portion of said shell, and a hame strap attaching member fitting on said end of the hame and having an attaching means extending through said member, the lateral edge extension and the body of the hame.

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1,091,875. ELECTRICAL CONTACT. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 3, 1911. Serial No. 642,184. (Cl. 219—48.)



1. A sheet metal contact comprising in cross section a substantially inverted U-shaped member provided at its base on opposite sides thereof with laterally projecting portions.

2. A sheet metal contact of a substantially inverted U-shape in cross section and provided with one or more laterally extending portions for engagement with a suitable base and one or more upwardly extending lugs for electrical connection.

3. A sheet metal contact having a flat base, a contact portion raised from said base and lugs extending downwardly and upwardly from said base, the former for engagement with a suitable support and the latter for electrical connection.

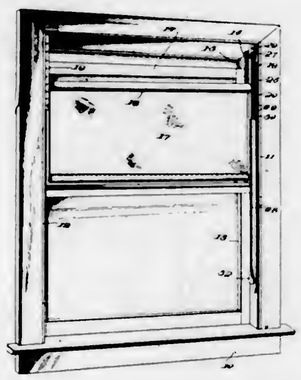
4. A contact comprising a hollow elongated body portion, provided at its base with an angularly disposed annular flange, and with upwardly and downwardly extending sets of lugs on the periphery of said flange, the lugs of the two sets being formed in close proximity to permit a plurality of contacts to be placed in close proximity.

5. In combination, a base, a sheet metal contact having portions projecting into said base, a plastic composition surrounding said contact and adhering to said base, said contact also having laterally extending portions projecting therefrom into said plastic composition.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,876. CURTAIN-FIXTURE. JOSEPH BECKER, Montclair, N. J. Filed Apr. 8, 1913. Serial No. 759,749. (Cl. 156—27.)



1. Shade roller supporting means including slotted plates adapted to be secured to opposite portions of a window casing, bearing heads adapted for permanent attachment to the ends of a shade roller and slidably mounted in the slots of the plates, and means for raising said bearing heads.

2. In shade roller supporting means, the combination with a shade roller provided at one end with a cylindrical trunnion and at its opposite end with a flattened trunnion, of bearing heads, one provided with a cylindrical socket for engagement with the cylindrical trunnion and the other with a squared socket for engagement with the flattened trunnion, means carried by the roller and operatively engaging the heads to prevent their disengagement from the trunnions while leaving the roller free for rotation, and plates adapted for attachment to opposite portions of a window casing and provided with slots in which the heads are slidable.

3. In shade roller supporting means, the combination with a shade roller provided at one end with a cylindrical trunnion and at its opposite end with a flattened trunnion, of bearing heads, one provided with a cylindrical socket for engagement with the cylindrical trunnion and the other with a squared socket for engagement with the flattened trunnion, means carried by the roller and operatively engaging the heads to prevent their disengagement from the trunnions while leaving the roller free for rotation, and plates adapted for attachment to opposite portions of a window casing and provided with slots in which the heads are slidable, the portions of the heads extending through the slots being squared to prevent rotation of the heads in the slots.

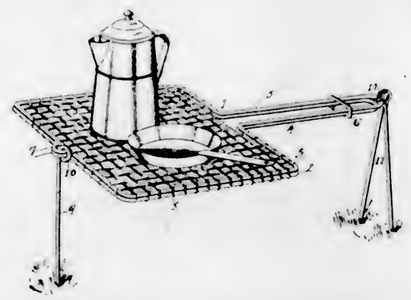
4. In shade roller supporting means, the combination with a shade roller, of heads mounted upon the ends of the roller, casings adapted to be secured to opposite sides of a window casing and having their opposed faces provided with vertically extending slots in which the heads are slidably mounted, pulleys mounted upon the upper ends of the casings, and cords secured to the heads and passed upwardly about the pulleys and downwardly through and beyond the lower ends of the casings.

5. In shade roller supporting means, the combination with a shade roller, of heads mounted upon the ends of the roller, casings adapted to be secured to opposite sides of a window casing and having their opposed faces provided with vertically extending slots in which the heads are slidably mounted, pulleys mounted upon the upper ends of the casings, cords secured to the heads and passed upwardly about the pulleys and downwardly through and beyond the lower ends of the casings, the opposed walls of each casing being provided with alined openings, and pins adapted for selective engagement in the openings to limit the downward movement of the heads.

[Claims 6 to 10 not printed in the Gazette.]

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1,091,877. CAMP-BROILER. OLIVER D. COLLIS, Clinton, Iowa, assignor to The Collis Company, Clinton, Iowa, a Corporation of Iowa. Filed June 14, 1913. Serial No. 773,728. (Cl. 126—30.)



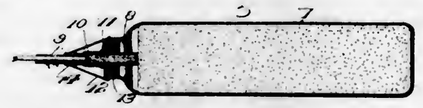
1. A camp broiler, including in combination, a pair of frames formed with handles of relatively different length and provided with support-attaching loops; and a tripod support therefor including a single member attached to said loops and forming a hinge for the said frames and a support for one end of the broiler, and a two-armed supporting-instrumentality pivotally attached to one of the handle-portions.

2. A camp broiler, including in combination, a pair of frames provided with handles of relatively different length and with loops; a supporting-instrumentality extending through said loops and forming with said loops a hinge for the frame; and a two-armed supporting-instrumentality pivotally secured to the handle-portion of one of the frames and foldable upon the handle-portion of the other frame.

3. A camp broiler, including in combination, a pair of frames each provided with a handle and with a loop, one of the handles being shorter than the other, and the loops being arranged in juxtaposition; a hinge element extending through said loops and elongated to form a broiler-support; a second broiler-support including two diverging arms, means for connecting the same to one of the handle-portions and comprising a lug provided with an eye and attached to said supporting-instrumentality at the apex of said arms, and a pivot element attached to one of the handles and extending above the plane thereof whereby the point of connection between it and the supporting-instrumentality is a substantial distance above the plane of said handle to permit said supporting-instrumentality to be folded over upon the broiler frames.



1,091,878. WATERPROOF BLAST-CAP-CHARGE PROTECTOR. JAMES M. CORDRAY, Los Angeles, Cal. Filed Sept. 13, 1912. Serial No. 720,290. (Cl. 102—6.)

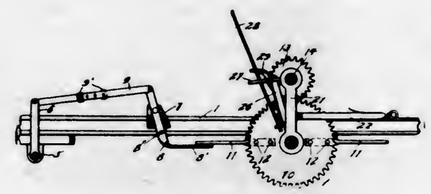


1. In a device of the class described, a pocket, the pocket being of water-proof material, a disk fitted within the mouth of the pocket and closing the said mouth and formed with an opening, a blast-cap fitted in the opening in the disk and formed with a circumscribing rib, a fuse disposed end-wise against the blast-cap, and an elastic sleeve fitted upon the blast-cap and over the rib thereon and over the adjacent end of the fuse.

2. In a device of the class described, a pocket, the pocket being of water-proof material, a disk fitted within the mouth of the pocket and closing the said mouth and formed with an opening, a blast-cap fitted in the opening in the disk and formed with a circumscribing rib, a fuse disposed end-wise against the blast-cap, an elastic sleeve fitted upon the blast-cap and over the rib thereon and over the adjacent end of the fuse, and a flexible tying element secured to the pocket at the mouth thereof and to the said fuse.

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1,091,879. ATTACHMENT FOR CORN-PLANTERS. ROY R. DEWEY, Triumph, Ill. Filed Oct. 16, 1913. Serial No. 795,548. (Cl. 111—6.)



1. An attachment for corn planters comprising a tripping member, means for operating the tripping member, an operating lever adapted to be engaged by the tripping member, a hopper valve rod, and an adjustable link member adapted for connection above or below the pivot of the operating lever whereby to actuate the valve rod in opposite directions.

2. An attachment for corn planters comprising a tripping member, an operating lever carried by said planter adjacent the tripping member, the operating lever aforesaid having pivotal connection with the planter intermediate its length and formed with an extension with which the tripping member engages, a hopper valve rod, a link member comprising adjustable sections adapted to connect the valve rod with the operating lever at either side of the pivot of the latter, and means for operating the tripping member aforesaid.

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1,091,880. BATH-MITTEN. THOMAS J. DIAMOND, Newburgh, N. Y. Filed July 23, 1912. Serial No. 711,106. (Cl. 2—100.)

1. A flesh cleansing and massaging article shaped to embrace the hand and composed of inner and outer superimposed layers of open mesh fabric, the edges only of the fabric layers being marginally secured together, substantially as described.

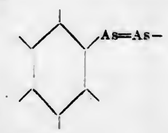
2. A reversible bath mitten having two sides each formed of duplicate superimposed layers of open mesh fabric, and the edges only of the fabric layers being marginally secured together, substantially as and for the purposes set forth.



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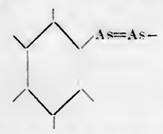
1,091,881. ARSENO-METAL PREPARATIONS AND PROCESS OF MAKING SAME. PAUL EHRLICH, Frankfort-on-the-Main, BAPTIST REUTER, Höchst-on-the-Main, and PAUL KARRER, Frankfort-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Jan. 25, 1913. Serial No. 744,225. (Cl. 23—24.)

1. The process of manufacturing arseno-metal preparations, which consists in combining arseno compounds containing the radical



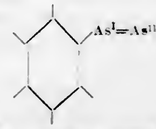

with salts of heavy metals.

2. The process of manufacturing arseno-metal preparations, which consists in combining arseno compounds containing the radical




with salts of heavy metals in solution.

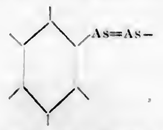
3. The process of manufacturing arseno-metal preparations, which consists in combining with salts of heavy metals in solution, arseno compounds containing the radical




in conjunction with an aromatic complex of atoms coupled with the arsenic atom $As^{II}$.

4. The process of manufacturing an arseno preparation, which consists in combining the hydro-chlorid of 3.3¹-diamino-4.4¹-dioxyarsenobenzene with cuprous chlorid.

5. As new products, arseno-metal preparations containing the radical

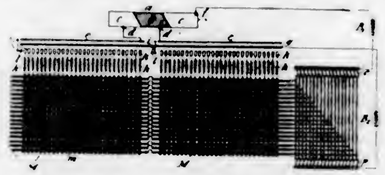



and a heavy metal, said metal being bound in the form of a complex salt and not being detectable by the usual analytical reagents; the preparations being readily soluble in water, methyl alcohol, diluted alkalis and hydrochloric acid, but substantially insoluble in ether and benzene.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,882. ELECTRIC JACQUARD-MACHINE. KARL FANTA, AUGUST REGAL, HANS VIETZE, and NORBERT WESSELY, Vienna, Austria-Hungary, assignors to Oesterreichische Siemens-Schuckertwerke, Vienna, Austria-Hungary, a Corporation of Austria, and Regal-Patente-Gesellschaft M. B. H., Vienna, Austria-Hungary, a Corporation of Austria. Filed May 13, 1913. Serial No. 767,486. (Cl. 139—16.)



1. In electric jacquard apparatus, the combination of a plurality of solenoids adapted to control the warp threads and divided into groups, each group of solenoids being connected to a group of contact-blocks and to a line selector, and means for uniting the groups of solenoids, contact-blocks and line selectors to form one exchangeable unit.

2. In electric jacquard apparatus, the combination of a plurality of solenoids adapted to control the warp threads and divided into groups, each group of solenoids being connected to a group of contact-blocks and to a line selector, and a frame uniting each group of solenoids, the contact-blocks associated therewith and a line selector to form one exchangeable unit.

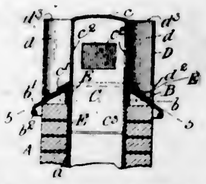
3. In electric jacquard apparatus, the combination of a plurality of solenoids adapted to control the warp threads and divided into groups, each group of solenoids being connected to a group of contact-blocks and to a line selector, a contact-apparatus for transmitting current to the groups of contact-blocks, and means for uniting the groups of solenoids, contact-blocks, contact-apparatus and line selectors to form one exchangeable unit.

4. In electric jacquard apparatus, the combination with a pattern cylinder and feelers movable thereon, of a plurality of solenoids adapted to control the warp threads and divided into groups, each group of solenoids being connected to a group of contact-blocks and to a line selector, and a frame uniting each group of solenoids, the contact-blocks associated therewith and a line selector to form one exchangeable unit, each group of solenoids and the contact-blocks associated therewith being connected to one of said feelers.

5. In electric jacquard apparatus, the combination of a plurality of solenoids adapted to control the warp threads and divided into groups, each group of solenoids being connected to a group of contact-blocks and to a line selector, and means for uniting the groups of solenoids, contact-blocks and line selectors to form one exchangeable unit, each unit being associated with a group of the normal number of lifting hooks.

[Claims 6 to 21 not printed in the Gazette.]

1,091,883. CHIMNEY-TOP. FRANCIS W. FERGUSON, Louisville, Ky. Original application filed Mar. 19, 1912, Serial No. 684,876. Divided and this application filed Aug. 22, 1912. Serial No. 716,486. (Cl. 72—88.)



1. A chimney top comprising a cap, a guard plate the outer edge of which terminates beyond and is free from the outer surface of the chimney proper, and the inner edge of which terminates in a downwardly extending tubular section fitting around the cap for holding the plate rigidly in position, the lower edge of said tubular section resting upon the top of the chimney proper.

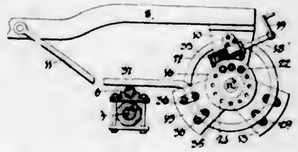
2. A chimney top comprising a cap, a guard plate inclined outwardly and downwardly and having a downwardly extending tubular section at its inner edge fitting around said cap, the lower edge of said tubular section and the outer portion of the inclined guard plate itself resting upon the top of the chimney proper.

3. A chimney top comprising a cap fitting the flue, a guard-plate extending outwardly from said cap and covering the top of the chimney proper, said plate being inclined outwardly and downwardly and having a tubular section at its inner edge fitting around said cap, the lower edge of said tubular section and the outer portion of the inclined guard-plate itself resting upon the top of the chimney proper.

4. A chimney top comprising a cap fitting the flue, and a guard-plate extending from said cap in a continuous outward and downward incline to a point well beyond the outer surface of the chimney proper, the outer edge of said plate terminating beyond and being free from the outer surface of the chimney proper, and the inner edge of said plate terminating in a tubular section fitting around the cap for holding the plate rigidly in position, the lower edge of said tubular section resting upon the top of the chimney proper.

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1,091,884. ROAD-VEHICLE SHOCK-ABSORBER. JAMES JOSEPH GRIFFIN, San Francisco, Cal., and GORDON MOFFITT PEACOCK, South Yarra, Melbourne, Victoria, Australia. Filed Nov. 20, 1912. Serial No. 732,470. (Cl. 21—53.)



1. The combination with a vehicle frame and an axle below said frame, of a shaft having a fixed member and a loose member, a helical spring encircling said shaft and having a fixed end secured to the fixed member and a moving end secured to the loose member, an arm projecting from the moving end of the spring and bearing upon the axle, a worm wheel having holes therethrough mounted upon said shaft, a worm shaft for turning said wheel, and pins accommodated by the holes in the wheel to retain it in the position to which it is turned.

2. The combination with a vehicle frame and a front and a back axle below said frame, of front hangers and back hangers depending from said frame, a cross shaft mounted in the front hangers, a cross shaft mounted in the back hangers, a fixed member secured to each shaft, a loose member embracing each shaft at each side of the fixed member thereof, a helical spring encircling each shaft between the fixed member and each loose member thereof, one end of each spring being attached to a fixed member and the other end to a loose member, an arm projecting from each spring adjacent each loose member and bearing upon the adjoining vehicle axle, a worm wheel having holes therethrough mounted upon said shaft, a worm shaft for turning said wheel, and pins accommodated by the holes in the wheel to retain it in the position to which it is turned.

3. The combination with a vehicle frame and axles supporting road wheels below said frame, of a shaft adjoining each vehicle wheel, a fixed member secured to each shaft, a loose member embracing each shaft, a helical spring encircling each shaft and having a fixed end secured to the fixed member and a moving end secured to the loose member thereof, means connecting the loose members with the vehicle axle and a worm wheel for turning said shaft, and a worm controlling said wheel.

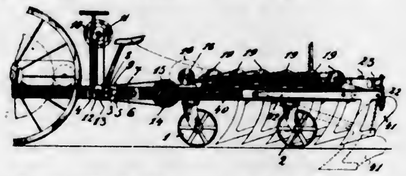
4. The combination with a vehicle frame and an axle below said frame, of a horizontally disposed helical spring winding and un-winding by variation in the distance between the axle and the frame, a supplementary helical spring adjoining the said horizontal spring, and means to wind and unwind the supplementary spring by the winding and un-winding of the horizontal spring.

5. The combination with a vehicle frame and an axle below said frame, of a horizontally disposed helical spring having a fixed end and having a moving end controlled by the axle, and a plurality of supplementary and auxiliary helical springs each having a fixed end and each having a moving end controlled by the horizontal helical spring.

[Claims 6 to 16 not printed in the Gazette.]

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1,091,885. MOTOR-PLOW. GUSTAV HINTZE, Berlin, and AUGUST ROSEWICK, Merseburg, Germany, assignors to Alfred C. Blancke, Brussels, Belgium. Filed May 20, 1912. Serial No. 698,511. (Cl. 97—30.)



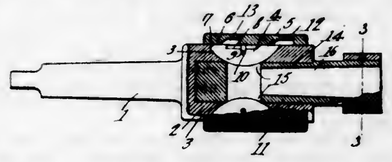
1. Motor-plow consisting of a tractor and a plow-truck coupled thereto, a coupling connecting the said two members adapted to allow them to swivel on horizontal axes but not on a vertical axis relatively to each other, while riding over uneven ground, buffer-like abutments provided at the sides of the ends of the said members.

2. Motor-plow consisting of a tractor and a plow-truck coupled thereto, a coupling connecting the said two members adapted to allow them to swivel on horizontal axes but not on a vertical axis relatively to each other, while riding over uneven ground, buffer-like abutments provided at the sides of the ends of the members, the said coupling consisting of a fork attached to the one member and a T-shaped part swiveling in the fork and adapted to serve as pivot for the second member, the said abutments having the shape of circular curves lying in the axis of oscillation of the T-shaped part.

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1,091,886. DRILL-CHUCK. VICTOR R. KOONTZ, Waynesboro, Pa. Filed Feb. 24, 1913. Serial No. 750,396. (Cl. 29—145.)

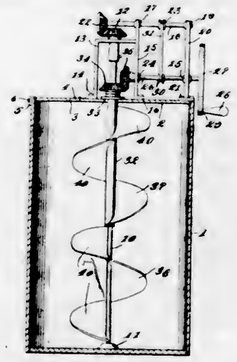
1. A drill chuck, including a shank, a socketed drill carrying receiving member, a plurality of spring projected drill member engaging members, each of said drill member engaging members being provided with a pair of projections, and a longitudinally slidable sleeve mounted upon the chuck member and provided with a plurality of recesses to be disposed into and out of registration with the projections of the locking members to maintain the members in projected position and to permit of the retraction thereof to release the drill carrying member.



2. A drill chuck, including a shank, an enlarged socketed head carried thereby, said head being provided with diametrically disposed slots through the walls thereof, a locking member disposed in each wall, each of said locking members being provided with two spaced projections disposed to normally register with the circumferential surface of the enlarged head, a spring for maintaining all of the locking members projected, and a sleeve mounted for longitudinal sliding movement upon the enlarged head, said sleeve being provided with two recessed portions, whereby the sleeve normally holds the locking members in projected position and when moved to place the recesses in registration with the projecting ends of the locking members permits the retraction of the locking members.

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1,091,887. CHURN. DEE P. LONG, Sampsel, Okla. Filed Apr. 5, 1913. Serial No. 759,158. (Cl. 31—43.)



In a churn including telescoping shafts, a spiral agitator extending along one of said shafts and thereabout at least one turn and a spiral agitator extending along the other of said shafts and substantially meeting to form a practically continuous spiral, said second spiral agitator extending around said shaft at least one turn, said first mentioned spiral agitator being arranged above said second mentioned spiral agitator, for the purpose set forth.

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1,091,888. TUFT-FASTENER. JULIUS J. LORZING, Elmsford, N. Y. Filed July 28, 1913. Serial No. 781,583. (Cl. 15—33.)



1. A combined brush-tuft socket and outlet tube comprising a single piece of yieldable metal provided with

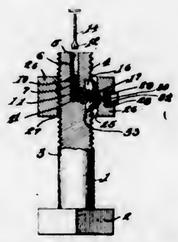
means for securing it in engagement with a liquid container and adapted to receive a tuft of brush bristles and adapted to be swaged inward for securely holding the bristles around the outlet tube, substantially as shown and described.

2. A combined brush-tuft socket and outlet tube comprising a single piece of yieldable metal provided with means for securing it in engagement with a liquid container and adapted to receive a tuft of brush bristles and adapted to be swaged inward for securely holding the bristles around the outlet tube, said outlet tube being convergent in the direction of the free ends of the bristles and extending beyond the socket.

3. A combined device of the class described, comprising a socket, a central tube formed thereon projecting above and below said socket, the projecting portion of the tube above the socket being threaded and adapted for engagement with a liquid container, the projecting portion of the tube below the socket tapering smaller toward its lower end, and means formed on the side of the socket for securely holding bristles therewithin and around said tube.

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1,091,889. NUT-LOCK. JOSEPH H. MITCHELL, Toledo, Ohio. Filed Jan. 2, 1913. Serial No. 739,803. (Cl. 151—9.)



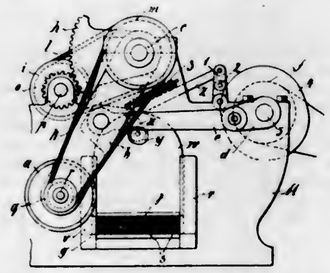
1. In a nut and bolt lock, a bolt having a longitudinal recess and a lateral recess communicating with the inner end of the same, a locking member slidably disposed within said lateral recess, means adjustably mounted within said longitudinal recess for engagement with said locking member and holding it in or out of locking position and a spring-pressed pin carried by the nut and engaging said locking member, whereby the latter may be moved out of a locking position to permit the rotation of the nut upon the bolt.

2. In a nut and bolt lock, a bolt having a longitudinal recess and a lateral recess communicating with the lower end of the longitudinal recess, a locking member slidably disposed within said lateral recess and having a shank formed thereon, a nut being provided with a recess therein, a pin having an enlarged head slidably seated in said recess, the inner end of said pin adapted for engagement with said locking member for moving the same out of a locking position, and means adjustably mounted within said longitudinal recess for engaging said shank and holding said locking member in or out of a locking position.

3. In a nut and bolt lock, a longitudinal recess in the bolt provided with internal threads, a plug provided with external threads, the threads upon said plug engaging the threads in said recess, a shank or pin projecting downwardly from said plug, said bolt provided with a lateral recess communicating with the lower end of said longitudinal recess, a locking member disposed within said lateral recess, said pin adapted to engage said locking means and hold it in or out of a locked position, a nut provided with a plurality of recesses threaded upon said bolt, said locking member having an enlarged body portion which is adapted to engage a recess in the nut, a shank projecting at right angles to said body portion, said shank provided with a cut-out portion, said cut-out portion adapted to receive the end of said pin for holding the locking member out of a locked position, said nut provided with a lateral recess, a spring mounted in said recess, a member mounted in said recess, an enlarged head portion upon the outer end of said member, said head portion partially seated in said recess, said spring bearing against the inner end of said head and an enlargement on the inner end of said member which is adapted to press against said locking member and force the same inwardly and out of the recess in said nut.

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1,091,890. CUTTING-MACHINE. GEORG NAST, Munich, Germany, assignor to Maschinenfabrik München, Kommanditgesellschaft, Munich, Germany. Filed Feb. 11, 1913. Serial No. 747,728. (Cl. 131—33.)



1. In a cutting machine of the type set forth, in combination, a pendulum arm, means for oscillating said pendulum arm, a pulley and an edge tool rotatably journaled at the lower end of said pendulum arm, and means for rotating said edge tool in the direction of the respective swing-motion of said pendulum arm, comprising a main shaft, a sleeve loosely mounted thereon, said pendulum arm and a toothed segment fast on said sleeve, two pulleys on said shaft, one at each end thereof, a second shaft, a pulley and a toothed wheel fast on said second shaft and said toothed wheel meshing with said toothed segment, and endless connecting means between said pulleys on the main shaft and the pulley on said second shaft and said pulley at the lower pendulum arm end respectively.

2. In a cutting machine of the type set forth, in combination, an oscillating pendulum arm, an edge tool at the lower end thereof, means for reversing the rotary cutting movement of said tool for each reversal of movement of said pendulum arm, comprising a main shaft, a sleeve loosely mounted thereon, said pendulum arm and a toothed segment fast on said sleeve, two pulleys on said shaft, one at each end thereof, a second shaft, a pulley and a toothed wheel fast on said second shaft and said toothed wheel meshing with said toothed segment, and endless connecting means between said pulleys on the main shaft and the pulley on the second shaft and the pulley at the lower pendulum arm respectively; means for periodically clamping the work material, comprising a feed table, guide cheeks rising from said table, a presser block vertically displaceable in said guide cheeks, a lever eccentrically journaled with its lower end in the upper part of said presser block, a rocking lever, pivoted at its lower end to the machine frame, a roller on said rocking lever, and rotary cam means, coöperating with said roller and adapted to rock said rocking lever in timid relation to the swing operation of said pendulum arm, a rod connecting the upper ends respectively of said two levers, and means for continuously keeping said cam and roller means in operative contact; and means for feeding the work material underneath said presser block.

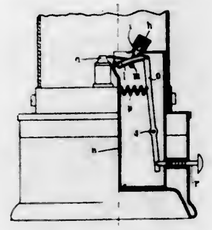
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1,091,891. IGNITING DEVICE FOR MINERS' LAMPS. ANTON PASIEBSKI, Mikultschütz, Germany. Filed Sept. 28, 1911. Serial No. 651,861. (Cl. 67—9.)

In a pyrophoric ignition device for miners' lamps, comprising a downwardly extending spring pressed pyrophoric body and a spring-returned roughened metallic surface



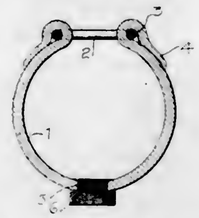
to contact with the same, the combination of a casing, a lever mounted therein, a pivot to support said lever, a roughened arm of arc shape struck from the center, means



for retaining the said arm against the pyrophoric body and a spring pressed pin to operate said lever from the outside of the lamp.

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1,091,892. FINGER ATTACHMENT. JAMES KENNETH POTEAT, Durham, N. C. Filed Mar. 10, 1913. Serial No. 753,444. (Cl. 101—36.)



A finger attachment for separating papers comprising a transversely split metallic finger encircling ring, a flexible ring engaged through the ends of the transversely split ring to connect the same, said split ring having a central opening, and a paper engaging member secured in the opening and having its head engaged against the outer face of the split ring.

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1,091,893. ILLUMINATED SIGN FOR AUTOMOBILES. GEORGE H. RICKE, Cincinnati, Ohio, assignor, by direct and mesne assignments, to Louis A. Degginger and Louis W. Arnett, Covington, Ky., and Thomas M. Greene, Cincinnati, Ohio. Filed Oct. 31, 1912. Serial No. 728,851. (Cl. 40—133.)

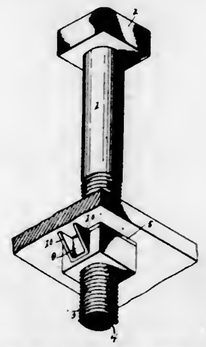



1. An illuminated sign for automobiles, comprising a casing, a front plate for the casing having translucent numbers upon it, a series of interlocked opaque plates having numbers cut therein and arranged in rear of the front plate with their numbers registering with the translucent numbers of said front plate, a series of colored translucent plates in rear of the opaque plates, means for illuminating the interior of the casing in rear of said plates, and means for holding the plates in place.

2. An illuminated sign for automobiles, comprising a casing, a transparent front for the casing having translucent numbers upon it, a series of opaque plates having numbers cut therein and arranged in rear of the transparent front plate with their numbers registering with the translucent numbers of said transparent front, each of said opaque plates having a slot and a tongue on its opposite side edges interlocking with corresponding parts in adjacent plates, a series of colored translucent plates in rear of the interlocked opaque plates, means for illuminating the interior of the casing in rear of said plates, and means for holding the plates in place.

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1,091,894. NUT-LOCK. CONRAD C. RUTTER, New Duluth, Minn. Filed July 3, 1911. Serial No. 636,563. (Cl. 151—3.)



1. In a nut lock, a bolt and a washer nonrotatably connected with each other, a nut on the bolt for clamping the material to be held, and said washer having an integral strut portion in abutting relation against the nut and the material to be held and disposed in a manner to take strains compressively, substantially as described.

2. In a device of the character described, a bolt having a longitudinal groove formed therein, a section of sheet material disposed over the end of said bolt having an integral tongue projected into said groove, a nut turned on said bolt said nut adapted to engage said section of material, a portion of said sheet material being bent upwardly to engage one side of said nut, and means formed integral with said upwardly bent portion and bent backwardly, whereby said upwardly bent portion may be braced and held into engagement with said nut for the purpose described.

3. In a nut lock of the character described, the combination of a longitudinally grooved bolt, a nut therefor and a one-piece washer having a tongue engaging said groove and a portion engaging said nut to prevent rotation thereof on said bolt, said portion having a member for bracing the same to maintain the engagement of said portion with the nut, substantially as described.

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1,091,895. SELF OPENING AND CLOSING UMBRELLA. WALTER SCHAAF, Leichlingen, Germany. Filed Aug. 19, 1913. Serial No. 785,467. (Cl. 135—23.)

1. A self opening and closing umbrella comprising a hollow stick, a spring catch thereon, a slide movable on the stick and engageable by said catch, and having an annular inwardly extending rib, a sleeve embraced thereby and having its lower end outwardly deflected, means on the stick to engage said slide, the umbrella stretchers and springs connected therewith and to the slide having said rib.

2. A self opening and closing umbrella comprising a hollow stick, a spring catch thereon, a slide movable on the stick and engageable by said catch, and having an annular inwardly extending rib, a sleeve embraced thereby and having its lower end outwardly deflected, means on the stick to engage said slide, the umbrella stretchers and springs connected therewith and to the slide having said rib, and a member pivoted wtihin the stick and engageable by said slide.

3. A self opening and closing umbrella comprising a hollow stick, a spring catch thereon, a slide movable on the stick and engageable by said catch, and having an annular inwardly extending rib, a sleeve embraced thereby and having its lower end outwardly deflected, means on the

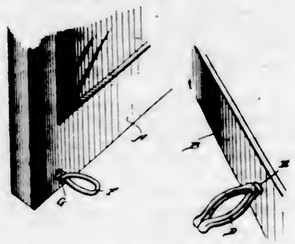
stick to engage said slide, the umbrella stretchers and springs connected therewith and to the slide having said rib, a member pivoted within the stick and engageable by said slide, and a handle and an articulated member therein connected with said pivoted member.



4. A self opening and closing umbrella comprising a hollow stick, a spring catch thereon, a slide movable on the stick and engageable by said catch, and having an annular inwardly extending rib, a sleeve embraced thereby and having its lower end outwardly deflected, means on the stick to engage said slide, the umbrella stretchers and springs connected therewith and to the slide having said rib, and a cap for coöperation with the ends of said stretchers when in their closed position.

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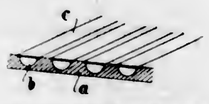
1,091,896. DOOR-HOLDER. WILLIAM F. SCHMUNK, Philadelphia, Pa. Filed May 2, 1913. Serial No. 765,104. (Cl. 16—78.)



The door holder herein shown and described, consisting of the member carried by the door, and the member secured to the base strip, each made from a single piece of wire, the member carried by the door consisting of a loop having one end formed with a screw to enter the door and the other end coiled around the screw portion and forming a stop bearing upon the door, the other member having a screw end to enter the base strip, and a pair of double strand spring arms, the end of one strand of one arm being coiled around the screw and bearing against the base strip.

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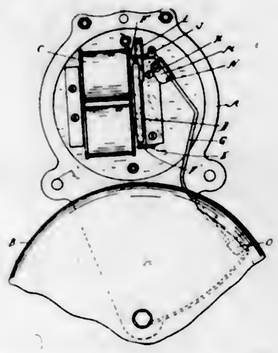
1,091,897. EVAPORATOR. FRITZ SCHULZ, Weetzen, Germany. Filed Aug. 15, 1912. Serial No. 715,178. (Cl. 62—32.)



An evaporator comprising a base plate provided with a system of communicating heating channels, having grooved edges and with a plurality of covering plates welded within the grooved edges to cover the channels, the outer faces of the several covering plates being flush with the corresponding face of the base plate.

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1,091,898. ELECTRIC BELL. CARL J. SCHWARZE, Adrian, Mich. Filed Sept. 11, 1912. Serial No. 719,766. (Cl. 177—7.)



1. In a bell, the combination with an electro-magnet, of a pivoted armature, a pendulum hammer supported upon said armature, a stationary fulcrum, and universally pivoted connections between said pendulum and armature and pendulum and fulcrum.

2. In a bell, the combination with an electro-magnet, of a pivoted armature, a pendulum hammer supported upon said armature and movable therewith, a fixed fulcrum, and connections between said pendulum and armature and pendulum and fulcrum, permitting a universal movement between the pendulum and armature.

3. In a bell, the combination with an electro-magnet, of an armature therefor supported upon vertical pivots, a pendulum hammer supported upon said armature, a stationary fulcrum and universally pivoted connections between said pendulum and armature and pendulum and fulcrum.

4. In a bell, the combination with an electro-magnet, of an armature therefor supported upon vertical pivots, a pendulum hammer having a laterally extending portion supported upon said armature and movable therewith, a fulcrum pivot, and a slidable connection between said fulcrum and pendulum.

5. In a bell, the combination with an electro-magnet, of an armature therefor supported upon vertical pivots, a pendulum hammer having at its upper end a laterally bent portion, a member slidably engaging said laterally bent portion of the pendulum, and vertically pivoted upon and supported by said armature, a stationary fulcrum pivot, and a slidable connection between said fulcrum and pendulum.

[Claims 6 to 9 not printed in the Gazette.]

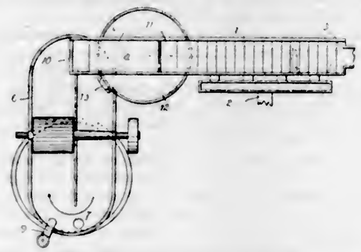
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1,091,899. PULP-REDUCING APPARATUS. CHARLES WELLS SHARTLE, Middletown, Ohio. Filed Sept. 28, 1912. Serial No. 722,804. (Cl. 92—20.)

1. Pulp-reducing apparatus comprising, a horizontal screen adapted to receive rough pulp at its head end, an outlet for the passage away from the screen of such water and fine pulp as may have passed through the plates of the screen, a series of drag-blades arranged to drag the material along over the screen and toward its tail, a beating engine arranged to receive the material passing over the tail of the screen and to beat the received material to proper fineness, a gated outlet to permit of the beating engine being emptied after its contents are properly beaten, and means to receive the tailings from the screen after the beating engine has been properly filled from the tail of the screen, combined substantially as set forth.

2. Pulp-reducing apparatus comprising, a horizontal screen adapted to receive rough pulp at its head end, an outlet for the passage away from the screen of such water and fine pulp as may have passed through the plates of the screen, a series of drag-blades arranged to drag the material along over the screen and toward its tail, a beating engine arranged to receive the material passing over the tail of the screen and to beat the received material to proper fineness, a gated outlet to permit of the beating engine being emptied after its contents are properly beaten, a tank, a doored passageway leading from the tail of the screen to the tank, and a valve in the base of the tank to permit the passage of pulp from the tank to the beating engine, combined substantially as set forth.





3. Pulp-reducing apparatus comprising, a horizontal screen adapted to receive rough pulp at its head end, an outlet for the passage away from the screen of such water and fine pulp as may have passed through the plates of the screen, a series of drag-blades arranged to drag material along over the screen and toward its tail, a beating engine arranged to receive the material passing over the tail of the screen and to beat the received material to proper fineness, a chute leading from the tail of the screen to the beating engine, a tank disposed below a tail portion of the screen, a doored passage at the tail of the screen between the screen-plates and said chute and adapted to deliver tailings from the screen into the tank, and a valve passage leading from the base of the tank to the beating engine, combined substantially as set forth.

4. In pulp-reducing apparatus, the combination of a screen for separating fine pulp from coarse pulp, means for passing pulp across the screen, beating engine for treating the waste pulp incidental to the screening process, direct means for conveying such waste pulp from the screen to said beating engine, and indirect means for conveying waste pulp from the screen to said beating engine comprising a tank having a gated inlet by which the waste pulp may have ingress from said screen to the tank and a gated outlet by which said waste pulp may have egress from the tank into said beating engine.

5. In pulp-reducing apparatus, the combination of a beating engine, a screen, a discharge outlet for screened pulp, means for dragging pulp across the screen, a passage for tailings leading from the screen to the beating engine, a storage tank intermediate the screen and the beating engine, a movable gate for delivering tailings from the screen to the tank, and a movable gate for delivering tailings from the tank to the beating engine.

[Claim 6 not printed in the Gazette.]

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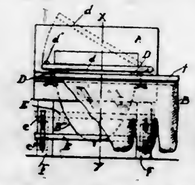
1,091,900. CHICKEN-BROODER. RAYMOND C. SUTTON, North Attleboro, Mass. Filed Oct. 8, 1912. Serial No. 724,525. (Cl. 119—33.)

1. In a brooder, a reticulated vermicide diatributer constituting a hover.

2. In a brooder, a pendulous reticulated vermicide distributer constituting a hover.

3. In a brooder, a reticulated vermicide diatributer constituting a hover, and side wings providing pendulous closures for the brooder.

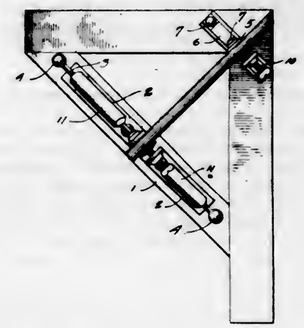
4. In a brooder, a hover comprising a pair of supports, and a sheet of fabric secured to the supports and forming



an intermediate pocket for a vermicide and lateral closure wings.

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1,091,901. MOLD. JOSEPH THIBADEAU, San Francisco, Cal. Filed July 23, 1913. Serial No. 780,784. (Cl. 72—131.)



1. In a cornice mold, a supporting frame, standards fixedly secured to said frame, said standards being arranged in pairs, the standards of each pair being disposed in widely spaced relation to provide for the arrangement of mold boards varying in thickness therebetween, and means adjustable upon said standards to clamp said mold boards in rigid relation to said standards, as and for the purpose set forth.

2. In a cornice mold, an angular supporting frame, standards fixedly secured to said frame, said standards being arranged in pairs, the standards of each pair being disposed in widely spaced relation to provide for the arrangement of mold boards varying in thickness therebetween, and means including a plurality of thumb screws adjustable upon one of the standards of each pair, said screws being adapted for engagement with the mold board acted upon to clamp the same against the other of the standards and in rigid relation thereto, as and for the purpose set forth.

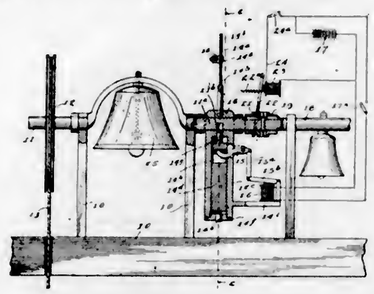
3. In a cornice mold, an angular supporting frame, a plurality of substantially L-shaped brackets fixedly secured to said frame, the said brackets being arranged in pairs, the brackets of each pair being disposed in widely spaced relation to provide for the arrangement of the mold boards varying in thickness therebetween, handle-carrying brace rods for the said standards, and means including a plurality of thumb screws adjustable upon one standard of each pair, the said thumb screws being adapted for engagement with the mold board acted upon to clamp the said mold board against the other of the said standards, as and for the purpose set forth.

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1,091,902. BELL-RINGING APPARATUS. WILLIAM F. WACKER, Sioux City, Iowa. Filed Aug. 25, 1913. Serial No. 786,524. (Cl. 177—288.)

1. In bell ringing apparatus, the combination with a bell shaft adapted to be oscillated, of an element mounted

to oscillate on the shaft, said element being weighted and having a member adapted to engage said shaft at will, and means for oscillating said element.



2. In bell ringing apparatus, the combination with a bell shaft adapted to be oscillated, of an element mounted to oscillate on the shaft, said element being weighted and having a member adapted to engage said shaft at will, and means for oscillating said element, said means including a motor operable at will and positively connected to said element.

3. In bell ringing apparatus, the combination with a bell shaft adapted to be oscillated, of an element mounted to oscillate on the shaft, said element being weighted and having a member adapted to engage said shaft at will, and means for oscillating said element, said means including a motor positively connected to said element and operable at will, the engagement and disengagement of said element, member and shaft being controlled independently of the motor control.

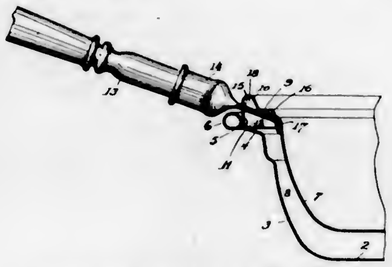
4. In bell ringing apparatus, the combination with a bell shaft adapted to be oscillated, of an element mounted to oscillate on the shaft, and means for oscillating said element, said element comprising a casing having a shiftable weight member, said weight member having a pin adapted to enter a recess in said shaft.

5. In bell ringing apparatus, the combination with a bell shaft adapted to be oscillated, of an element mounted to oscillate on the shaft, means for oscillating said element, said element comprising a casing having a shiftable weight member, said weight member having a pin adapted to enter a recess in said shaft, and means traveling with said casing for shifting said weight member in one direction to provide the engagement of element and shaft at will.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,903. COOKING UTENSIL. LOUIS WOJIDKOW, Brooklyn, N. Y. Filed Mar. 3, 1911. Serial No. 612,098. (Cl. 53—1.)



1. A chafing dish comprising a water pan, a food-pan made of sheet metal and provided with an upper surface adapted to support the cover thereof, and a lower surface by which said pan seats on the water pan, the engaging portions of the two pans meeting closely and continuously so as to exclude the issue of steam therebetween, in combination with a long, laterally-extending handle for the food pan formed of a separate piece and permanently engaged with said food pan at two separated points and disposed thereon below the said upper surface which forms the seat for the cover and above the surface by which the food pan rests on the water pan.

2. A cooking utensil consisting of a sheet metal pan having an out-turned flange forming the upper marginal rim of the pan and a skirt depending downwardly from such rim at a distance from the body of the pan, in combination with a handle member projected through an aperture in the said depending skirt and having a bearing against the same, the inner end of the handle member being permanently fastened to the pan interior of said skirt, whereby the said member is provided with two points of bearing upon the pan.

3. A cooking utensil consisting of a sheet-metal pan having an out-turned peripheral flange near the top, a skirt depending from the flange, a handle fitted within an aperture within the skirt, the inner end of the handle being secured against the under surface of the flange and having an offset end portion bearing against the upright wall of the body of the pan.

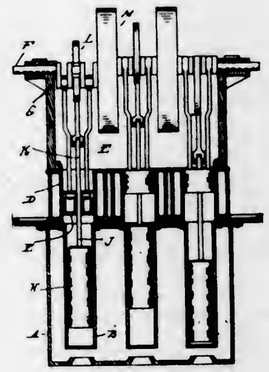
4. A cooking utensil, consisting of a sheet-metal pan, the side of which is turned outward near the top thereof and then upward to form a bead or rim to the pan, a skirt depending from the upturned portion and a handle piece supported within an aperture in said depending skirt and secured at a separate point against the outer surface of the pan.

5. A chafing dish, comprising a sheet-metal food pan, having an out-turned annular flange near its peripheral edge, a skirt depending from the flange and provided at its edge with an inturned seating lip, and a handle projecting through an aperture in the depending skirt between the flange and the lip and connected at its end portion with the pan body.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,904. HOT-AIR MOTOR. ERNEST A. WULLENWEBER, Detroit, Mich. Filed Oct. 9, 1913. Serial No. 794,205. (Cl. 60—17.)



1. A hot air engine comprising a piston, a cylinder having hot and cold chambers and a displacer for alternately displacing a volume of air from one chamber to the other, an auxiliary chamber external to said cylinder and in communication therewith containing a volume of air, and means for dilating the air in said auxiliary chamber by the waste heat from said hot chamber.

2. The combination with a hot air engine operating by the alternate dilation and contraction of a volume of air, of heating means adjustable to start and stop said engine, and means operating upon the starting of said engine for dilating an auxiliary volume of air to increase the starting force.

3. The combination with a hot air engine operating by the alternate dilation and contraction of a volume of air, of a heater adjustable to increase or diminish the dilation, and a chamber external to said engine but in communication therewith containing an additional volume of air, said chamber being located to be heated by the waste heat from said engine to increase the initial starting force.

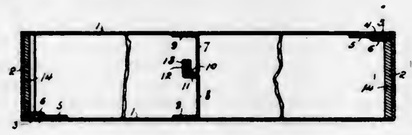
4. A hot air engine comprising a cylinder having hot and cold chambers at opposite ends thereof, a piston operating in the cold portion of said cylinder, a displacer operating in the heated portion of said cylinder, a jacket surrounding the heated portion of said cylinder, a gas burner having its flame impinging against the heated portion of said cylinder through an aperture in said jacket, and a chamber external to said cylinder and jacket but in communication with the former arranged in the path of the heated products of combustion escaping from said jacket for the purpose described.

5. A hot air engine comprising a water-jacketed cylinder, a piston in said cylinder, an extension of said cylinder, a displacer therein, a gas burner adjacent to the end of said extension of the cylinder, a jacket surrounding said extension for confining the heated products of combustion and provided with a vent or escape flue at its upper end, and a chamber containing a volume of air in communication with the air within said cylinder arranged in the path of the heated products of combustion from said escape flue for the purpose described.



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1,091,905. SHEET-METAL DOOR. EDWARD J. ZAHNER, Kansas City, Mo. Filed May 24, 1912. Serial No. 699,554. (Cl. 189—46.)



1. A door comprising a hollow body, and partition spacing means including two members secured respectively to opposite inner sides of the body intermediate of the side edges of the body and abutting against each other to prevent movement toward each other, each member having a channel facing toward the side of the body to which said member is secured, one flange of each channel being disposed in the channel of the other member.

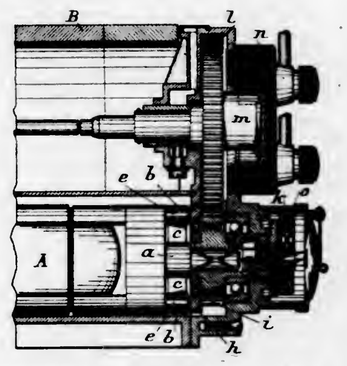
2. A door comprising a hollow body, and two partition spacing members secured respectively to opposite inner sides of the body intermediate of the side edges of the body, each member having a laterally extending portion which abuts against the laterally extending portion of the other member, one of said laterally extending portions terminating in a channel which faces toward the side of the body to which the member having said portion is attached, the other laterally extending portion terminating in a flange located in said channel.

3. A door comprising a hollow body, and two channel partition spacing members having their outer flanges secured respectively to opposite inner sides of the body intermediate of the side edges of the body, and having their inner flanges provided with interlocking means for holding the members from lateral movement relative to each other.

4. A door comprising a hollow body, and two channel partition spacing members having their outer flanges secured respectively to opposite inner sides of the body intermediate of the side edges of the body and their inner flanges disposed side by side, one inner flange having a U shaped return bend, and the other inner flange having a laterally turned portion disposed between the arms of said U shaped return bend of the other inner flange.

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1,091,906. ELECTRICAL IGNITION APPARATUS FOR INTERNAL-COMBUSTION ENGINES. ARNOLD ZÄHRINGER, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Aug. 27, 1912. Serial No. 717,252. (Cl. 123—117.)



1. In combination with an internal combustion engine, an ignition current generator positively coupled thereto, a mechanical interrupter comprising a rotatable element and a normally stationary element wherein the rotatable element is driven from the engine to periodically alter the circuit of the winding of the generator to produce ignition currents therein, and centrifugally operated mechanism interposed between the rotatable element of the interrupter and its driving means to automatically change their angular relation to vary the period of ignition relatively to the stroke of the engine in accordance with the speed; substantially as described.

2. In combination with an internal combustion engine, an ignition current generator positively coupled thereto, a mechanical interrupter comprising a normally-fixed deflecting-cam and a rotatable element driven from the engine and adapted to coöperate with the cam to periodically alter the circuit of the winding of the generator to produce ignition currents therein, and centrifugally operated mechanism interposed between the rotatable interrupter element and its driving means to automatically change their angular relation to vary the period of ignition relatively to the stroke of the engine in accordance with the speed; substantially as described.

3. In combination with a multiple cylinder internal combustion engine, an ignition current generator positively coupled thereto, a mechanical interrupter driven from the engine to periodically alter the circuit of the winding of the generator to produce ignition currents therein, a distributer driven from the engine for distributing the ignition currents to the cylinders in proper order, and centrifugally operated mechanism interposed between the distributer and its driving means to automatically change their angular relation in accordance with the speed of the engine; substantially as described.

4. In combination with a multiple cylinder internal combustion engine, an ignition current generator positively coupled thereto, a mechanical interrupter driven from the engine to periodically alter the circuit of the winding of the generator to produce ignition currents therein, a distributer positively coupled to the interrupter for distributing the ignition currents to the cylinders of the engine in proper order, and centrifugally operated mechanism interposed between the interrupter and its driving means to automatically change their angular relation to vary the period of ignition relatively to the stroke of the engine in accordance with the speed, and also to simultaneously change the angular position of the distributer in accordance with the position of the interrupter; substantially as described.

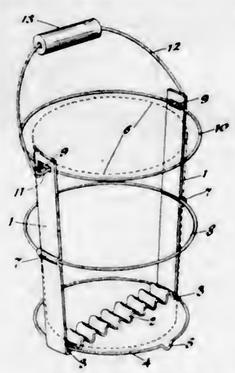
5. In combination with an internal combustion engine, an ignition current generator positively coupled thereto, a mechanical interrupter comprising a rotatable part and

a stationary part adapted to cooperate therewith to periodically alter the circuit of the winding of the generator to produce ignition currents therein, a coupling member fastened to the generator to rotate therewith, a coupling member fastened to the interrupter to rotate therewith, and centrifugally operated mechanism interposed between said coupling members to automatically change their angular relation to vary the period of ignition relatively to the stroke of the engine in accordance with the speed; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,907. KNOCKDOWN CARRIER FOR FRAGILE RECEPTACLES. ALLEN C. BENNERS, Birmingham, Ala. Filed Oct. 19, 1912. Serial No. 726,730. (Cl. 224—48.)



1. In a skeleton knock-down carrier, in combination, a base having narrow integral oppositely disposed arms which when upright form spaced side members, a ring forming the top encircling member of the carrier, and means to detachably connect said ring at opposite points to said side members, which means comprise a bail for the carrier, substantially as described.

2. In a skeleton knock-down carrier, in combination, a base having narrow integral oppositely disposed arms adapted to be bent upwardly to form spaced side members, a ring forming the top encircling member of the carrier, said side members being adapted to engage said top ring at opposite points and hold it horizontal, and a bail which engages said top ring and holds it against detachment from said side members, substantially as described.

3. In a knock-down carrier, a U-shaped integral bent metal frame comprising a horizontal central base portion and spaced upright side members slotted at their upper ends, a ring which forms the top encircling member of the carrier, and a bail, said ring and bail being interconnected through said slots in the side members and serving thereby to detachably connect the several members of the carrier.

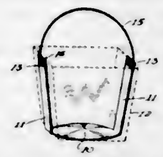
4. In a knock-down carrier, a bent metal frame comprising a central base portion and upright arms which are spaced and oppositely disposed and each provided with an oblong transversely disposed slot at its upper end, a ring which by itself forms the top encircling member of the carrier and is disposed inside said arms, said top ring having loops bent outwardly at opposite points and adapted to be inserted through said slots and to engage the top wall thereof at spaced points to support the ring horizontally, and a bail having its lower ends disposed outside said arms and detachably connected to the outer ends of said loops, substantially as described.

5. In a knock-down carrier, an upright bent frame having side members which diverge outwardly for nesting purposes and which are provided with ring receiving seats at different elevations, rings adapted to be detachably engaged in said seats, and a bail from which the carrier is suspended.

[Claims 6 to 11 not printed in the Gazette.]

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1,091,908. CARRIER FOR PAPER AND LIKE RECEPTACLES. ALLEN C. BENNERS, Birmingham, Ala. Filed Apr. 22, 1913. Serial No. 762,934. (Cl. 224—48.)



1. In a receptacle carrier, a frame comprising a convex base forming the bottom centering support for the receptacle, relatively narrow upright arms disposed on each side of the base and slotted at their upper ends, a bail, and means connected therewith which project through the slots in said arms and are adapted to engage the top of the receptacle and hold it in place in the carrier.

2. A receptacle carrier comprising a frame formed by an integral U-shaped member having a wide central or base portion and relatively narrow upright arms which have openings in their upper ends, and means adapted to hold a receptacle in the carrier, which pass through said openings in the arms and serve as a handle means for transporting the carrier.

3. A receptacle carrier having a central convex receptacle supporting portion which is arched upwardly, narrow upright arms integral with the convex central portion and having bail receiving slots at their upper ends, and a bail adapted to pass through said slots and positively engage a receptacle removably held in the carrier, substantially as described.

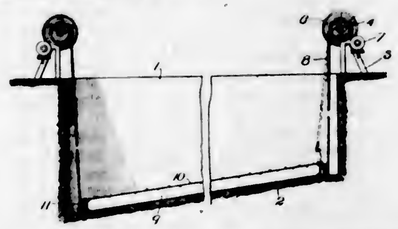
4. In combination, a receptacle formed of light nonmetallic material, and a skeleton carrier therefor comprising an integral bent metal frame which has a concavo-convex widened central portion forming a base upon the convex portion of which the receptacle is adapted to be seated and which base has approximately the size of the bottom of the receptacle, said frame comprising a pair of narrow oppositely disposed upturned arms which are slotted at their upper ends, and a bail having introverted pointed ends which project through the slots in the arms and pierce the top of the receptacle, substantially as described.

5. A receptacle carrier having a base and upright arms which are slotted at their upper ends, and a bail having sharpened hooked ends adapted to be passed through the slots in said arms and to positively engage a receptacle within the carrier, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,909. LIFE-SAVING APPARATUS. GEORGE F. BIRMINGHAM, Kansas City, Mo. Filed June 3, 1913. Serial No. 771,402. (Cl. 4—2.)



1. A safety device for swimming pools, comprising a false bottom adapted for support above the main bottom of the pool, hangers hingedly connected with opposite ends of said false bottom, and independent lifting devices connected with the respective hangers.

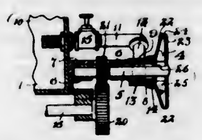
2. A safety device for swimming pools, comprising a false bottom adapted for support above the main bottom of the pool, hangers hingedly connected with opposite ends



of said false bottom, and independent lifting devices connected with the respective hangers, and adapted for protection above the false bottom, when the latter is lifted, for the purpose set forth.

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1,091,910. MINE-WASHING APPARATUS. CHARLES H. BOARDMAN, Columbus, Ohio, assignor of one-half to Theophilus King, Quincy, Mass. Filed May 17, 1910. Serial No. 561,882. (Cl. 137—63.)



1. A mine washing apparatus comprising a liquid container, a rotary liquid discharging device having an inlet at its center and an outlet at its periphery, a shaft on which said discharge device is mounted, a tubular nipple surrounding the shaft and passing into the discharge device, being separated from the shaft by an annular space, and having a hole in its side, a short piece of piping surrounding said nipple, and a conduit leading from the liquid container to said piece of piping and secured thereto in line with the hole in the nipple, the opening from the nipple to the interior of the discharge device being greater than the total area of the outlet from the periphery of the latter.

2. A mine washing apparatus comprising a liquid container, supporting wheels on which the container is mounted, a shaft extending in the general direction of the travel of the container outside of the container geared to and rotated by said wheels, a discharging device mounted on said shaft and consisting of an outer disk secured to the shaft, and an inner disk fastened to the outer disk at a distance therefrom and having a central orifice, said disks being coaxial with the shaft and thereby turning in a plane transverse to the direction of travel of the container, a box in which said shaft has its bearing, said box having an enlarged tubular nipple surrounding the shaft and projecting to the inner disk of the discharge device, and a conduit leading from the container to said nipple, whereby liquid is conducted to the latter and thence to the discharge device, and the discharging device having so nearly a continuous narrow opening between the disks at the periphery thereof, that the liquid is discharged in a substantially unbroken sheet.

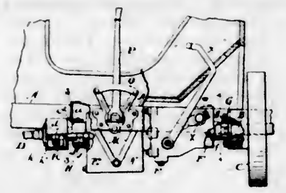
3. A mine washing apparatus comprising a car adapted to travel in the passages of a mine, a liquid discharge device mounted upon said car rotatably and arranged to rotate in a plane transverse to the direction of movement of the car, the said discharge device consisting of disks, separated at their peripheries, and substantially radial vanes between said disks, one of the disks having an inlet opening approximately at its center, means for conducting washing liquid to said opening, and means for rotating said device, whereby the liquid admitted thereto is acted upon by said vanes and thrown outwardly by centrifugal force, the peripheral opening between the disks being substantially a continuous slit of which the total area is less than the area of the inlet opening, and being interrupted only by the said vanes which are of such slight thickness that the liquid issuing from the discharge device, issues in a substantially unbroken sheet.

4. A mine washing apparatus comprising a tank having supporting means, a discharge device mounted upon said tank to rotate on a horizontal axis, mechanism for so rotating said device, and means for conducting water to the interior of said device, said device being composed of two disks which are mounted in substantially vertical planes and are axially separated from one another in such a way that a circumferential slit is provided at their peripheries, and the distance between their central portions is greater than the width of such slit, one of said disks having a central opening of which the area is greater than the total area of the peripheral slit, and the means for conducting water thereto being arranged to discharge into such central opening and having a conducting capacity greater than the discharge capacity of the outlet slit, and the discharge device having substantially radial vanes between the disks adapted to put the contained water in rotation when the discharge device is rotated, whereby such water is put under pressure by centrifugal force and caused to issue in a sheet from the outlet slit, said vanes being of such slight thickness as to permit the discharged water to form a substantially continuous sheet upon leaving the device.

5. A liquid discharge device for an apparatus of the character described comprising disks rotatably mounted side by side on the same axis with their peripheries close together and their central portions more widely separated, and substantially radial vanes crossing the space between said disks, one of said disks having an inlet at its central portion, the area of which is greater than the area of the slit-like outlet opening between the peripheral portions of the disks, whereby said discharge device, when fed with water and rotating, is adapted to put such water in rapid rotation and to cause it to be expelled by centrifugal force, and said vanes being sufficiently thin to permit the water passing them to issue from the outlet of the discharge device in a substantially unbroken sheet.

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1,091,911. AUTOMOBILE STRUCTURE. ALANSON P. BRUSH, Flint, Mich. Filed Jan. 12, 1910. Serial No. 537,626. (Cl. 21—90.)



1. In an automobile structure, the combination with the chassis frame, the power shaft, and the propeller shaft, of a transmission control unit comprising a case and clutch and change speed mechanisms therein, of supports for the front and rear ends of said unit, which supports are axially alined and permit said control unit to turn slightly about the axis of said supports and to move slightly endwise therein and to have a slight universal movement therein, and a third support consisting of a shaft projecting laterally from the control unit, and passing loosely through a hole in one of the side members of the chassis frame, and operative connections between the control unit and the power and propeller shafts.

2. In an automobile structure, the combination with the chassis frame, the power shaft, and propeller shaft, of a transmission control unit which includes a case and clutch and speed changing mechanisms mounted therein, the initial shaft of said clutch mechanism having a telescoping torque transmitting engagement with said power shaft, and the case having at its rear end a coaxial tubular trunnion, a bracket fixed to the automobile frame in which said trunnion is mounted, a universal joint connection between the terminal shaft of the change speed mechanism and the propeller shaft, and means engaging said case and automobile frame to prevent the turning of the transmission control unit on its main longitudinal axis.

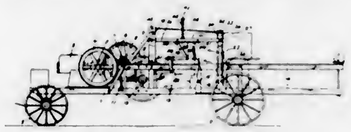
3. In an automobile structure, the combination with the chassis frame, the power shaft, and propeller shaft, of a transmission control unit which includes a case and clutch and speed changing mechanisms mounted therein, the initial shaft of said clutch mechanism having a telescoping torque transmitting engagement with said power

shaft, and the case having at its rear end a coaxial tubular trunnion, a bracket fixed to the automobile frame in which said trunnion is mounted, a universal joint connection between the terminal shaft of the change speed mechanism and the propeller shaft, a shaft mounted in said case and extending laterally therefrom and passing through one of the side members of the frame.

4. In an automobile structure, the combination with the chassis frame, the power shaft and propeller shaft, of a transmission control unit which includes a case and clutch and speed changing mechanisms therein, the projecting front end of the initial shaft of the clutch mechanism being angular in cross section, a plate which is removably connected to the rear end of the power shaft and contains a longitudinal angular recess which receives the angular front end of the initial shaft, means coaxial with the initial shaft for supporting the rear end of the transmission unit case, and a connection between the side of said transmission unit and the chassis frame.

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1,091,912. HAY-PRESS. JOHN W. BURKETT, Columbus, Ohio, assignor to The Burkett Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Feb. 8, 1913. Serial No. 747,018. (Cl. 100—25.)



1. In a hay press, a plunger, an oscillating reciprocating pitman connected to said plunger, a feeder head, and means for imparting motion to said feeder head, said means being such that the feeder head will be in the same position after a perceptible return of the plunger from the end of its stroke as it is at the extreme end of the stroke.

2. In a hay press, a plunger, an oscillating reciprocating pitman connected to said plunger, a feeder head pivoted to the framework of the press, a bell crank also pivotally mounted on the framework at a point above the path of travel of the plunger, a link connection between one arm of said bell crank and said plunger, and a link connection between the other arm of said bell crank and the feeder head.

3. In a hay press, a plunger, an oscillatory reciprocatory pitman connected to said plunger, a feeder head pivoted to the framework of the press, a bell crank also pivotally mounted on the framework at a point above the path of travel of said plunger, a link connection between one arm of said bell crank and said plunger and a link yieldingly mounted between the other arm of said bell crank and the feeder head.

4. In a hay press, a plunger, an oscillating reciprocating pitman connected to said plunger, a pivotally mounted feeder head comprising an arm portion and a lever portion pivotally connected together, a bell crank carried by the main press framework, a link of connection between one arm of said bell crank and the plunger and a resilient connection between the other arm of said bell crank and the lever portion of said feeder head.

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1,091,913. COLLAR-PIN. FRANK L. CONNABLE, Wilmington, Del. Filed Feb. 10, 1913. Serial No. 747,245. (Cl. 24—160.)



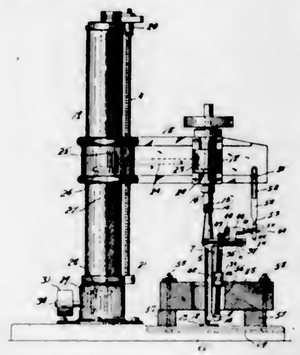
1. In a safety pin or the like, a body member and a pin member pivotally jointed together, the joint-forming portion of one member snugly fitting the joint forming portion of the other and being a bearing opening having arcuate bearing surfaces of different radii concentric with the axis of pivotal movement of the pin member and the joint-forming portion of the other member being a trunnion journaled in said opening and having arcuate bearing surfaces also concentric with said axis and respectively contacting with the bearing surfaces of the first-named member, substantially as described.

2. In a safety pin or the like, a body member and a pin member pivotally jointed together, the joint-forming portion of one member snugly fitting the joint-forming portion of the other and being a bearing opening having arcuate bearing surfaces of different radii concentric with the axis of pivotal movement of the pin member and stops joining said surfaces and the joint-forming portion of the other member being a trunnion journaled in said opening and having arcuate bearing surfaces also concentric with said axis and respectively contacting with the bearing surfaces of the first-named member and also having stops respectively engageable with the first-named stops, substantially as described.

3. In a safety pin or the like, a body member and a pin member pivotally jointed together, the joint forming portion of said members snugly fitting each other and including an ear on the body member and a head on the pin member held face to face against each other and one having an opening and the other a trunnion having opposite bearing surfaces of different radii concentric with the axis of pivotal movement of the pin-member and each approximating a semi-circle and said opening having arcuate bearing surfaces also concentric with said axis and having in contact therewith the bearing surfaces, respectively, of said trunnion, substantially as described.

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1,091,914. TAPER-BORING BAR. FRANK W. CURTIS, Denver, Colo. Filed June 7, 1913. Serial No. 772,307. (Cl. 77—57.)



1. The combination of a frame member rotatably mounted, a bar pivoted thereon and arranged to occupy a position inclined to the axis of the frame member, a feed screw having one extremity journaled in said bar and its opposite extremity in the frame member and whose axis is parallel with the bar, a nut slidable longitudinally on the bar and having a threaded connection with the feed screw, a cutting tool carried by the nut, means for rotating the frame member and its connections on the axis of the frame member, and independent means for rotating the feed screw on its own axis.

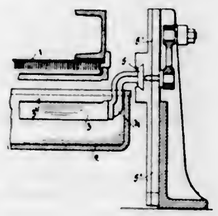
2. The combination of a frame member rotatably mounted and having laterally projecting clamping jaws, a bar pivoted on the frame member at one extremity, its opposite extremity passing through the jaws and adjustable therein to cause it to occupy positions of varying inclination to the axis of the frame member, a feed screw pivoted on the frame member at one extremity, its opposite extremity being journaled in the adjacent part of the bar which is bent approximately at right angles to its body portion, a nut slidable on the bar and threaded on the screw, means for imparting rotary movement to the frame member and means for simultaneously imparting intermittent rotary movement to the screw on its own axis.

3. The combination of a frame member rotatably mounted, a bar pivoted at one extremity on the said member and adjustable to occupy positions of varying inclination to the axis of the frame member, the latter having laterally projecting jaws between which the bar is locked in the desired position of adjustment, a screw pivoted on the frame member at one extremity and journaled in the bar at its opposite extremity to maintain its axis parallel with the body of the bar, a nut slidable on the bar and threaded on the screw, a shaft journaled in the bar and having a star-wheel, an operative connection between the shaft and screw for rotating the latter, means for rotating the frame member, and a stationary part arranged in the path of the star-wheel to impart rotary movement to the latter and to the screw on its own axis during the rotation of the frame member on its axis.

4. The combination of a frame member rotatably mounted, a bar pivoted at one extremity of said member and adjustable to occupy positions of varying inclination, to the axis of the frame member, the latter having laterally projecting jaws between which the bar is locked in the desired position of adjustment, a screw pivoted on the frame member at one extremity and journaled in the bar at its opposite extremity to maintain its axis parallel with the body of the bar, a nut slidable upon the bar and threaded by the screw, means for imparting rotary movement to the frame member, and means for simultaneously imparting intermittent rotary movement to the screw on its own axis.

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1,091,915. DIPPING APPARATUS FOR MATCH-MAKING MACHINES. VIKTOR CZERWENY, Deutschlandsberg, near Gratz, Austria-Hungary. Filed Oct. 15, 1912. Serial No. 725,778. (Cl. 144—60.)



1. Dipping apparatus for match making machines comprising a composition vat, a horizontally and vertically movable dipping bar, and a fixed scraping rail, in combination with mechanism for moving the dipping bar vertically into and out of the composition vat to load it with composition, and for subsequently moving the dipping bar horizontally beneath the scraping rail to level the surface of the composition.

2. In a match making machine, the combination of a movable dipping bar 3 and a stationary scraping rail 23 and the means necessary for producing a vertical and horizontal movement of the dipping bar within certain limits, so that the dipping bar will dip in the composition vat below the level of the composition, uniformly level the layer of igniting composition to a certain thickness by passing the stationary scraping rail 23, and, after the splints have been dipped in the composition, completely scrape off the used composition on the stationary scraping rail and dip again in the composition vat below the level of the composition.

3. Dipping apparatus for match making machines comprising a composition vat, a horizontally and vertically movable dipping bar, and a fixed scraping rail, in combination with mechanism for moving the dipping bar vertically into and out of the composition vat to load it with composition, and for subsequently moving the dipping bar horizontally beneath the scraping rail to level the surface of the composition and then vertically to apply the composition to the splints.

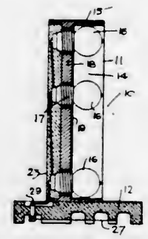
4. In a match making machine, the combination of a movable dipping bar, a stationary scraping rail and the means necessary for the horizontal and vertical movement of the dipping bar; the dipping bar for removing the already used composition contained thereon being moved beneath the stationary scraping rail and after the one edge $3^1$ of the dipping bar 3 is moved beneath the lower edge 24 of the scraping rail 23, the dipping bar being raised to the height of the edges 3 and subsequently, when the other edge 3 comes in contact with the lower edge 24 of the scraping rail, the dipping bar being lowered to the same extent, so that the stationary scraping rail touches, during this movement, the bottom of the pan-like depression of the dipping bar 3, whereby the composition contained in this pan-like depression is removed.

5. Dipping apparatus for match making machines including a movable dipping bar and a stationary scraping rail, in combination with mechanism for moving the dipping bar filled with composition beneath the scraping rail to level the surface of the composition thereon, and, after the match splints have been dipped in the composition, for moving the dipping bar beneath and in closer proximity to the scraping rail to scrape the composition from the bar.

[Claim 6 not printed in the Gazette.]

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1,091,916. ELECTRIC SIGN. HARVEY DESCHERE, New York, N. Y. Filed July 3, 1913. Serial No. 777,146. (Cl. 40—130.)



An electric sign element comprising a body mounted on a base, said body in the form of a character and having marginal flanges and a septum wall constituting channels both at the front and back, lamp sockets mounted in the septum wall and projecting rearward into the back channel, connections passing from the base through openings in the bottom flanges into the back channel, and insulating material filling the back channel and in which said sockets and connections are embedded.

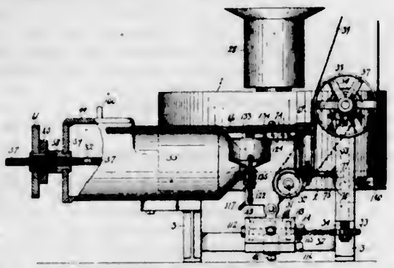
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1,091,917. SEPARATOR. HERBERT P. EWELL, Detroit, Mich. Filed Nov. 29, 1909. Serial No. 530,316. (Cl. 83—67.)

1. A gold separator, comprising a trough adapted to contain amalgamating material, a flat plate crossing said trough, a plurality of zigzag ribs on the bottom of said plate spaced from one another, said ribs depending into the amalgamating material in the trough and affording amalgamating surfaces, the arrangement of said ribs forming tortuous passages for the ore pulp across the trough between their opposed faces and below said plate, and means for feeding ore pulp horizontally through said passages between said ribs in contact with the under face of said plate and with the surface of the amalgamating material in said trough.

2. A gold separator comprising a continuous trough adapted to contain amalgamating material, a series of

spaced vertically disposed ribs extending into the amalgamating material in said trough and crossing the trough transversely, the bottom of said trough having ingress and egress openings for amalgamating material, means for feeding amalgamating material into said trough through said ingress opening, means for moving said ribs through the trough, means for feeding ore pulp across said trough between said ribs during the movement thereof, and means between said openings in the bottom of the trough to prevent the amalgamating material taking a short circuit between said openings and compelling the circulation thereof around the trough.



3. A gold separator, comprising a circular case having an annular trough in the bottom thereof to receive amalgamating material, a rotary drum within said case having a depending annular portion suspended within said trough, a series of flanges on the bottom of the suspended annular portion of said drum adapted to extend into the amalgamating material in said trough and spaced to form transverse passages across the trough therebetween, the bottom of said trough having openings for the circulation of amalgamating material, means for rotating said drum, means for feeding ore pulp between the drum and case continuously in one direction to cause it to cross said trough in a continuous course from side to side thereof between said flanges, a launder to receive the ore pulp from said trough, and a discharge opening in the wall of the launder leading therefrom.

4. A gold separator, comprising a circular frame having an annular trough in the bottom thereof adapted to receive amalgamating material, a rotatable ring suspended in said trough having spaced radial flanges on the bottom thereof depending into the amalgamating material and crossing the trough transversely, means for rotating said ring, a launder within the frame below the plane of the trough, means for feeding ore pulp across said trough below the bottom of said ring and between said flanges in a manner to cause it to overflow into said launder, and means for supplying amalgamating material to said trough.

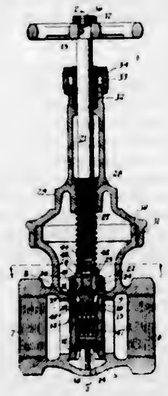
5. A gold separator, comprising a circular frame having an annular trough in the bottom thereof adapted to receive amalgamating material, a ring rotatable in the frame suspended over said trough and having spaced radial ribs on the bottom thereof depending into the amalgamating material and crossing the trough transversely, means for rotating said ring, a circular launder within the frame surrounded by said trough and below the plane thereof, means for feeding ore pulp across said trough between said ribs in a manner to cause it to overflow into said launder, and means for supplying amalgamating material to said trough.

[Claims 6 and 7 not printed in the Gazette.]

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1,091,918. GATE-VALVE. THOMAS M. EYNON, Philadelphia, Pa. Filed June 1, 1912. Serial No. 700,943. (Cl. 137—5.)

1. The process of grinding a disk closure gate valve which consists in disconnecting the operative stem for drawing the regular valve disks across the face of the seats so as to maintain the disks in fixed position and subsequently rotating the stem to rotate the disks positively in opposite directions with required grinding material while they are maintained in axially correct position with respect to the valve openings.



2. The process of grinding a valve having movement transverse to the valve opening, which consists in separating the stem from its connections for causing the travel across the opening, supporting a valve closure from a relatively fixed member in axial coincidence with the position of the valve when fully closed, supplying any necessary abrasive and in positively rotating the closure by means of the stem while maintaining its axial position.

3. The process of grinding a double closure valve having the closure movable across the valve openings, which consists in disconnecting the means for moving the valve across the opening from its coöperating member, supporting both closures in position axially coincident with their positions when fully closed, supplying any required abrasive and rotating the valve closures by the rotation of said means while maintaining their axial positions.

4. In a gate valve, in combination, a valve body having an opening and a seat transverse to the opening, a valve closure movable across the opening and also angularly about it and engaging the valve seat, a carrier for the closure, guides for the edges of the carrier in the valve body and means having a common element with its axis parallel to the direction of movement of the carrier for giving the valve closure movement across the opening and about it selectively.

5. In a gate valve, a valve body having openings in line and opposite annular faces surrounding the openings, guides in the valve body, a carrier engaging said guides, a bearing upon said carrier, a valve closure adapted to engage and turn in said bearing and having an annular face with the annulus eccentric to the axis of the bearing, annularly arranged gear teeth upon the closure, a stem and a gear capable of rotation by the stem and engaging the gear teeth.

[Claims 6 to 25 not printed in the Gazette.]

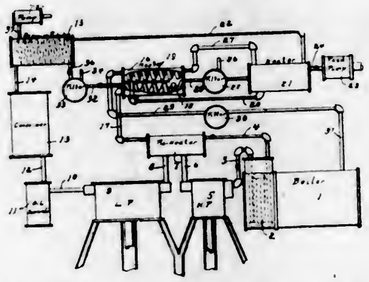
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1,091,919. ICE-MAKING APPARATUS. ARTHUR FAGET, San Francisco, Cal. Filed Sept. 7, 1910. Serial No. 581,469. (Cl. 210—1.)

1. In a water treatment apparatus for ice plants, a boiler, a condensing engine, a condenser connected therewith, a reheater for the steam in its passage through the engine, two feed water heaters, a pipe connecting the feed water heaters, a vented filter through which the water from one heater passes on its way to the other heater; means whereby the steam passing through the reheater passes through each of said feed water heaters, a pipe line leading from one of said feed water heaters to the boiler, a vacuum reboiler, and a pipe line leading from one of said heaters to said vacuum reboiler, and a vented filter in said pipe line, substantially as set forth.

2. In a water treatment apparatus for ice plants, a boiler, a condensing engine, connected therewith, a reheater for the steam in its passage through the engine, a vacuum reboiler, a pipe line connecting the vacuum reboiler and condenser, feed water heaters, a pipe connecting the feed water heaters, a vented filter through which the water from one heater passes on its way to the other heater; means whereby the steam used in the reheater

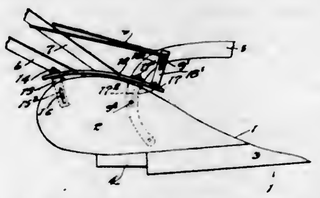




passes through said feed water heaters and into the vacuum reboiler, a pipe line leading from one of said feed water heaters to the boiler, a pipe line leading from one of said feed water heaters to the vacuum reboiler, and a filter interposed in each of the last mentioned pipe lines, substantially as set forth.

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1,091,920. PLOW. WILLIAM LESLIE FAULKNER, Evesham, Saskatchewan, Canada. Filed Sept. 23, 1912. Serial No. 722,001. (Cl. 97—18.)



1. In a plow, the combination with the moldboard and plow beam, of a plate adjoining the upper edge of the moldboard and extending outwardly at right angles from the same, a bracket secured adjustably to the rear end of the plate and to the moldboard, and means securing the forward end of the plate adjustably to the plow beam, as and for the purpose specified.

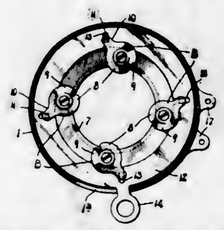
2. In a plow, the combination with a moldboard and plow beam, of a plate adjoining the upper edge of the moldboard and extending outwardly at right angles from the same, a bracket adjustably secured to the rear end of the plate and to the rear end of the moldboard, a brace secured permanently to the forward end of the plate and turned downwardly and secured adjustably to the plow beam, and a brace secured to the plate permanently in advance of the latter brace and having an end turned upwardly and adjustably secured to the plow beam, as and for the purpose specified.

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1,091,921. CUP-DISPENSER. LOUIS S. FLATAU, St. Louis, Mo. Filed June 30, 1913. Serial No. 776,693. (Cl. 211—8.)

1. In a dispenser, a magazine for holding articles to be dispensed, oscillating separating devices adjacent to the path of movement of the articles in said magazine, each of said separating devices being provided with a segmental wing by which the articles are normally supported and with a V-shaped segmental flange adapted to enter between two adjacent articles to separate them from each other, and an oscillatory operating ring for oscillating said separating devices.

2. In a dispenser, a magazine for holding cups having lips, a series of cup separating devices adjacent to the cups, each of said cup separating devices being provided with a segmental supporting wing by which the cups are normally supported and with a segmental spreader flange adapted to enter between the lips of two adjacent cups to separate them from each other, and an operating member for oscillating all of said cup separating members to remove their segmental supporting wings from the lip of the lowermost cup and to insert their segmental spreader flanges between the lip of the lowermost cup and the lip of the next adjacent cup.

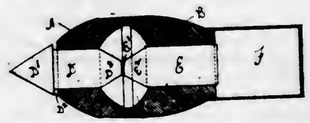


3. In a dispenser, a magazine for holding cups having lips, a series of cup separating devices adjacent to the cups, each of said cup separating devices being provided with a segmental supporting wing by which the cups are normally supported and with a segmental spreader flange adapted to enter between the lips of two adjacent cups to separate them from each other, and an oscillatory operating ring movably fitted to all of said cup separating members to serve as means for rocking the latter, thereby rocking their segmental supporting wings from the lip of the lowermost cup and inserting their segmental spreader flanges between the lip of the lowermost cup and the lip of the next adjacent cup.

4. In a dispenser, a magazine for holding cups having lips, a series of cup separating devices, each of said cup separating devices being provided with a segmental supporting member by which the cups are normally supported and with a segmental wedge shaped portion having its point located in a plane above the top of the segmental supporting member, the bottom face of said wedge shaped portion being located in a plane below the top of said segmental supporting member, and means for oscillating said cup separating devices to remove said segmental supporting members from the lip of the lowermost cup and to insert said wedge shaped portion between the lip of the lowermost cup and the lip of the next adjacent cup.

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1,091,922. PROJECTILE. CHARLES B. FOX, Providence, R. I. Filed July 30, 1913. Serial No. 782,008. (Cl. 102—29.)



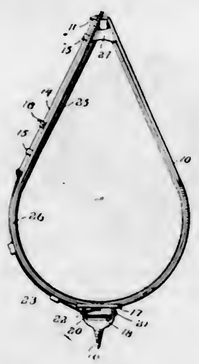
1. A shell composed of sections each provided with a recess and a channel leading thereto, which sections, when assembled, form a central chamber; and pins extending through said channels and projecting into said chamber.

2. A shell provided with a central chamber and pins extending from each end of said shell and projecting into said chamber adapted to contact with each other.

3. A shell composed of two sections A and B, each provided with a semi-circular recess C and channels $C^1$ leading to the same, and which sections, when assembled, form a central chamber $C^4$, a pin D adapted to enter the channel in section A provided at its outer end with a head $D^1$ and having a tapered point $D^2$ projecting into said chamber; a pin E adapted to enter the channel in section B

provided with a tapered end $E^2$ projecting into said chambers, the said pins being so arranged that when the head $D^1$ strikes an object, the pin D will be forced against the pin E and cause the explosion; and a cap F, all substantially as shown and described.

1,091,923. SNARE-TRAP. JOHN LA FRENIER, Walker, Minn. Filed Sept. 13, 1912. Serial No. 720,280. (Cl. 43—27.)



1. A trap of the class described comprising a bar spring tending normally to assume a rectilinear form and adapted to be set with its ends in proximity, devices for holding the spring in set position releasably, means operable by an animal for release of the spring, a flexible loop member having opposite ends engaged with respective ends of the spring and adapted to form a loop therewithin when the spring is bent, and a snare block carried slidably by and engaged upon the end portions of the loop and adapted to be forced toward the victim by opening of the spring for the purpose described.

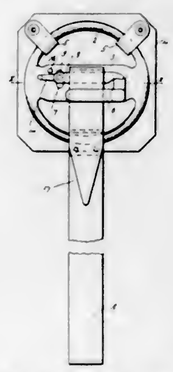
2. A device of the class described comprising a bar spring adapted to be bent with its end portions in proximity, releasable devices for holding the spring in bent position, a knuckle equivalent upon the lower side adjacent its middle, a support member pivotally engaged therewith, animal actuated means to oscillate the spring, guide means on the support member spaced from the spring, flexible members connected to said spring engaged slidably through the guide members and connected to said releasable devices for release of the spring as described, and a noose device connected with the opposite ends of the spring for contraction of the noose upon opening of the spring for the purpose described.

3. A device of the class described comprising a resilient bar member adapted to be bent into a loop form, devices for holding the spring in bent form, a knuckle equivalent carried upon the under side of the spring adjacent its middle, a support member engaged pivotally therewith, means for oscillating the spring upon its pivot and connections between the spring and said holding devices for release of the spring upon oscillation thereof; and a noose member connected with the ends of the spring for contraction of the noose upon opening of the spring.

4. In a device of the class described, a bar spring having a laterally projecting apertured tenon at one end, and having an aperture in its opposite end to receive the tenon, a slidable bolt on the apertured side of the spring to engage in the aperture of the tenon, a snare loop member connected with the ends of the spring being adapted to be contracted upon opening of the spring and means operable by an animal for withdrawing the slidable bolt from the tenon for the purpose described.

5. In a device of the class described, a resilient bar spring, means for holding the spring in bent position releasable by an animal, a flexible member connected by opposite ends to respective ends of the spring, a resilient metallic band carried by the flexible member and adapted to hold said flexible member in conformity with the shape of the spring when bent and a snare block slidably engaged over the opposite end portions of the loop for the purpose described.

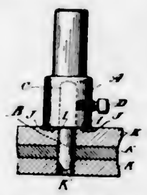
1,091,924. BUCKLE. JOHN W. FURREY, Vancouver, Wash. Filed Dec. 11, 1913. Serial No. 805,930. (Cl. 24—164.)



1. In a buckle, the combination, with a frame provided with a crossplate and having a hook arranged substantially parallel to the crossplate, said crossplate having a slot arranged crosswise of the hook and adjacent to its free end, of a locking bar provided with a laterally projecting pivot which engages with the said slot, and a strap adapted to be looped around the locking bar and to be passed twice between the hook and the plate.

2. In a buckle, the combination, with a frame provided with a crossplate and having a hook arranged substantially parallel to the crossplate, said crossplate having a slot arranged crosswise of the hook and adjacent to its free end, of a locking bar provided with a laterally projecting pivot which engages with the said slot and having also a stop portion which projects on the other side of the pivot from its main portion, a stop projecting from the said plate and adapted to engage with the stop portion and limit the movements of the locking bar, and a strap adapted to be looped around the locking bar and to be passed twice between the hook and the plate.

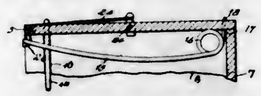
1,091,925. TOOL FOR PREPARING WORK TO RECEIVE A LOCK-WASHER. THOMAS GANDERTON, Cleveland, Ohio, assignor of one-half to Conrad Mueller, Cleveland, Ohio. Filed June 7, 1912. Serial No. 702,229. (Cl. 81—10.)



The combination in a tool for the purpose described, of a cylinder having a flat lower face, oppositely placed integral short projecting points in said face, said cylinder having a central opening, and an elongated cylindrical blunt pointed pin detachably secured in said central opening, said blunt pointed pin adapted to enter a bolt hole and said integral points adapted to make depressions in the metal on opposite sides of said bolt hole.



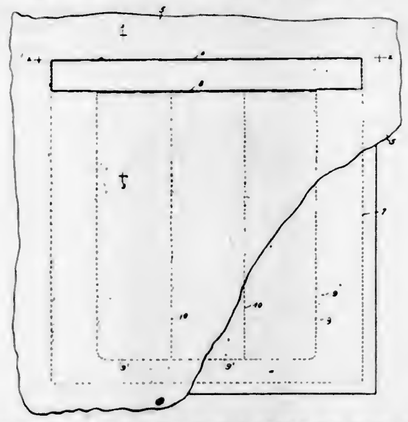
1,091,926. ANIMAL-TRAP. JOHN W. GATES, Los Angeles, Cal.; Amalia C. Gates administratrix of said John W. Gates, deceased. Filed Oct. 4, 1911. Serial No. 652,677. (Cl. 43—21.)



1. An animal trap comprising a box open at one end and having a light opening in the other end, and a central slit in the front end and two slits in the rear end and a central aperture, all in the top wall; a U-shaped spring wire working jaw having the sides formed into coils near the ends thereof and the ends being bent at an obtuse angle to the front portion and then outwardly, the rear ends passing through the slits in the rear end of the top wall when the parts are assembled and lying upon the top wall; a trigger pivotally mounted in the central aperture in the top wall, said trigger having keeper engaging means; and a keeper pivotally mounted in the front end of the top wall and having a rearwardly extending body engaging the trigger when set, said keeper having a catch at its front end to engage and hold the working jaw elevated when the trap is set.

2. In a trap of the character described herein the combination of a U-shaped working jaw having its arms coiled into springs near the ends thereof and having its ends bent upwardly and then outwardly; in combination with a box having an open front and slits in the rear end of the top, said slits being at right angles when the parts are positioned for use to the terminal ends of the working jaw; a U-shaped abutment yoke near the open front and extending upwardly through the top of the box and then inwardly; and a trigger and keeper mounted in the top of the box, said keeper being adapted to hold the working jaw positioned for use and the trigger being adapted to hold the keeper positioned for use.

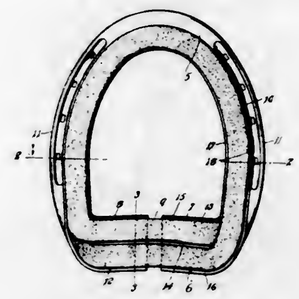
1,091,927. POCKET. BARNEY GREENWOOD, Chicago, Ill. Filed July 5, 1912. Serial No. 707,705. (Cl. 2—15.)



In wearing apparel, the cloth 5 having the upper and lower slits and the main and supplemental pockets 7 and 9 respectively for which said slits form mouths, the supplemental pocket being between the cloth 5 and the main pocket and subdivided into compartments by stitchings 10.

1,091,928. HORSESHOE. MICHAEL J. GRIFFIN, Hartford, Conn. Filed Feb. 19, 1913. Serial No. 749,356. (Cl. 168—14.)

1. A shoe including a main part having a groove extending therearound, laterally extending tread portions terminating adjacent to each other but with an opening between them, said tread portions having a double groove, the parts of which extend in alinement and each member of which extends into the groove in the main part of the shoe.



2. A shoe including a main part having a groove extending therearound, one end of said groove terminating in a groove extending across the heel portion of the shoe, and the other end of the groove in the main part terminating in a second groove extending across the heel part and parallel to the first named groove in said heel part.

3. A shoe including a main part having a groove extending therearound, tread portions extending laterally of the main part at the heel of the shoe and terminating in proximity to each other but with an opening therebetween, said tread portions having a double groove located therein, the parts of which extend in alinement, and a thin web dividing said grooves and serving as a means for holding a cushion in place.

4. A shoe including a body part with a groove extending therearound, tread parts extending laterally from the main part at the heel of the shoe and terminating in proximity to each other but with an opening therebetween, said tread portions having a double groove located therein, the parts of which extend in alinement, and the members of said groove being divided by a thin web, and a cushion formed of a single piece of material located in said main groove and substantially filling the double groove at the heel portion of the shoe.

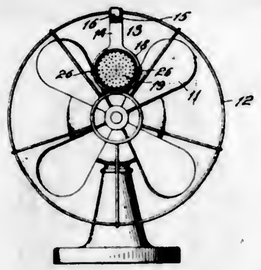
5. A shoe including a body having a groove extending therearound, laterally extending tread portions terminating near each other and having an opening therebetween at the heel of the shoe, said tread portions having a double groove located therein, the parts of which extend in alinement, and the members of said groove being divided by a thin web, and a cushion formed of a single piece of material one end of which is located in the end of one of said lateral grooves, extending therethrough, around the groove in the main part of the shoe and terminating in the other of said lateral grooves, completely filling the latter.

1,091,929. DEODORIZING AND DISINFECTING DEVICE. CHARLES HAMMESFAHR, New York, N. Y. Filed Aug. 28, 1912. Serial No. 717,508. (Cl. 167—3.)

1. In a deodorizing device, the combination with means for creating a current of air, of a bracket adapted to be attached to said means and having an open frame, a perforated receptacle for absorbent material, and spring clips secured to the receptacle and having grooves to engage the frame of the bracket for detachably holding said receptacle to said bracket.

2. In a deodorizing device, the combination with means for creating a current of air, of a bracket adapted to be attached to said means and having an open frame, a perforated receptacle for absorbent material, and spring

clips, each secured at one end to the receptacle and having finger portions at the other end and a groove in its



intermediate portion to engage the frame of the bracket for detachably holding said receptacle to said bracket.

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1,091,930. DIE FOR SAW-SWAGES. ARTHUR K. HANCHETT, Big Rapids, Mich. Filed May 26, 1913. Serial No. 769,910. (Cl. 76—54.)

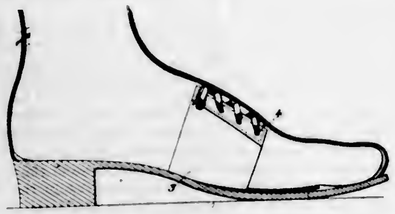


1. In a swage of the class described, an eccentric cylindrical die having one end formed with a longitudinal groove adapted to receive the end of the anvil of said swage, for the purpose set forth.

2. In combination with a swage, a die, said die formed with a longitudinal groove adapted to receive the anvil of said swage to permit the removal of the die, and a locking plate secured to the body of the swage and removably engaging said die.

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1,091,931. METATARSAL ADJUSTER. JACOB HARRIS, Montclair, N. J. Filed Feb. 14, 1913. Serial No. 748,407. (Cl. 36—71.)



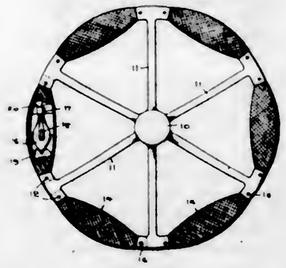
In a device of the class described, a soft narrow pad of a width not greater than half the width of the foot, a band for holding said pad beneath the metatarsophalangeal joints of the middle toes, said band being attached to the rear end of said pad to lie to the rear of said joints so as not to interfere with the free movement of the foot.

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1,091,932. STEERING-WHEEL. JOSEPH S. HILL, Bethesda, Md. Filed Feb. 12, 1914. Serial No. 818,213. (Cl. 219—19.)

1. A steering wheel having a hub and a plurality of spokes; a plurality of hollow hand grips operatively mounted between and connected to the ends of the spokes to form the rim of the wheel, and a heating element disposed within the grips.

2. A steering wheel having a hub and a plurality of spokes; the rim of said wheel consisting of a plurality of hollow hand grips removably connected to the ends of the spokes, and a heating element disposed within said grips.



3. A steering wheel comprising a hub a plurality of spokes and a rim, the said rim consisting of a plurality of hand grips operatively connected to the outer ends of the spokes, said grips being formed of two concavo-convex members whereby when they are joined together a cavity will be provided between them, and a heating element operatively mounted within said cavity.

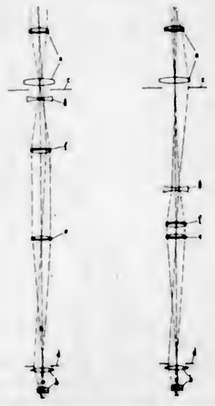
4. A steering wheel having a hub and a plurality of spokes; a rim for said wheel made up of a plurality of hollow hand grips operatively connected to the spokes, and means to removably dispose within the hollow hand grips a suitable heating element.

5. In a steering wheel, a hub carrying a plurality of spokes, and two part grips removably held between adjacent spokes.

[Claims 6 to 8 not printed in the Gazette.]

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1,091,933. TELESCOPE WITH VARIABLE MAGNIFICATION. JULES HUMBRECHT, Gross-Lichterfelde, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed Aug. 20, 1912. Serial No. 715,964. (Cl. 88—32.)



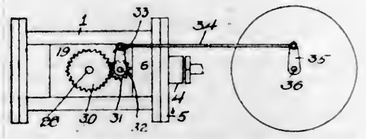
1. In a telescope with variable magnification an objective, an eye-piece, and a reversing system between same, such reversing system comprising three separate elements, one of same which is nearest to the eye-piece arranged immovably and the two others slidably in dependence from each other, the setting of the immovable lens of the reversing system forming the limiting aperture of the instrument irrespective the variable positions of the movable elements.



2. In a telescope with variable magnification an objective, an eye-piece, and a reversing system between same, said reversing system comprising an immovable lens nearest to the eye-piece and two slidably arranged elements of such construction that the immovable lens of the reversing system is permanently fed with pencils of parallel rays.

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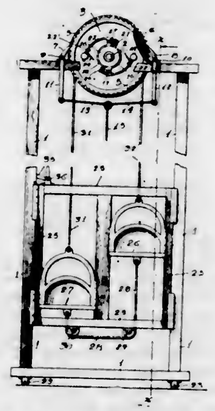
1,091,934. VALVE FOR STEAM-CHESTS. RICHARD C. KILHAM, Duquesne, Pa. Filed June 2, 1913. Serial No. 771,161. (Cl. 136—7.)



In a valve for steam chests, a cylinder having an enlargement provided with ports extending from the center of the enlargement to the end of the cylinder, an intermediate plate positioned against said enlargement and provided with ports registering with the ports of the enlargement, said intermediate plate further provided with a circular recess and a slot opening at one side of the plate and into the recess, a circular regulating valve mounted in said recess and provided with segment-shaped ports registering with the ports of said plate for controlling the passage of steam therethrough, an outer plate positioned against said intermediate plate and provided with recesses, said intermediate plate further provided with an additional circular recess, a rotary valve mounted in the last mentioned recess and provided with wings for controlling communication between the recesses and the outer plate and the ports of the intermediate plate, a stem mounted in the outer plate and connected to said rotary valve, a handle connected to the regulating valve and projecting through said slot, and means for securing the plates in engagement.

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1,091,935. FOOT-OPERATED ELEVATOR. RICHARD LABORDA, San Francisco, Cal. Filed June 14, 1913. Serial No. 774,472. (Cl. 187—11.)



1. A foot operated elevator comprising a suitable car; stirrups slidably mounted within the car; a suitable connection between the stirrups and adapted to engage the bottom of the car; a separate cable secured to each separate stirrup; and spring controlled drums adapted to wind up the cables secured to the stirrups within the car and to elevate the said car when the stirrups therein are raised alternately.

2. A foot operated elevator comprising a suitable car; stirrups slidably mounted within the car; a suitable connection between the stirrups and adapted to engage the bottom of the car; a separate cable secured to each stirrup; spring controlled drums adapted to engage and wind up the cables secured to the stirrups within the car; and means for preventing the rotation of the drums in a direction that will unwind the cables.

3. A foot operated elevator comprising a suitable frame; a car slidably mounted within the frame; stirrups slidably mounted within the car; a suitable connection between the stirrups and adapted to engage the car; a separate cable secured to the top of each stirrup; and spring controlled drums rotatably mounted on the top of the frame and adapted to elevate the car by means of the cables secured to the stirrups within the said car.

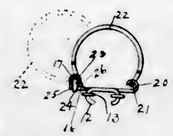
4. A foot operated elevator comprising a suitable frame; a car slidably mounted within the frame; stirrups slidably mounted within the car; a suitable connection between the stirrups and adapted to engage the bottom of the car; a separate cable secured to each stirrup; spring controlled drums rotatably mounted on the top of the frame and adapted to elevate the car within the frame by means of the cables secured to each stirrup within the car; and means for preventing the car from being lowered.

5. A foot operated elevator comprising a suitable frame; a car slidably mounted within the frame; stirrups slidably mounted within the car; a suitable connection between the bottom of the stirrups and adapted to engage the bottom of the car; spring controlled drums rotatably mounted on the top of the frame; a separate cable secured to the top of each stirrup and wound separately upon each drum; means adapted to prevent the cables from being unwound from the drums; and means for preventing the car from being elevated when not in use.

[Claims 6 to 9 not printed in the Gazette.]

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1,091,936. BOW-HOLDER. ALBERT LANGE, Providence, R. I., assignor to George S. Kelley Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Sept. 26, 1913. Serial No. 792,049. (Cl. 24—85.)



A bow holder comprising a base plate having a narrow portion on one side with a notched end rolled over and inward forming a joint loop, the plate beneath the loop being provided with an aperture, said plate being also provided with a detent on its opposite side, and a clamp member formed of a single piece of wire bent at its middle portion to form a transverse detent engaging portion and parallel resilient arches, the ends of the wire being bent inward at substantially right angles and each passed partway through said joint loop and their extremities extended downward through said aperture, said extremities being adapted to engage the edge of said notched end to limit the backward swing and to engage one edge of said aperture to limit the forward swing of said clasp member.

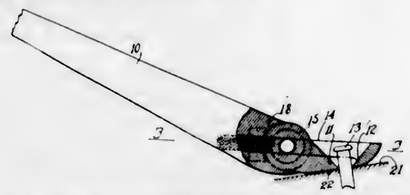
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1,091,937. TOOL FOR GRIPPING AND LIFTING. GEORGE LEWIS, South Boston, Mass. Filed Dec. 11, 1912. Serial No. 736,123. (Cl. 145—39.)

1. A tool for gripping, comprising a lever having a head with a jaw at its end and trunnions at each side back of said jaw, a yoke having another jaw adapted to coöperate with the first; the shanks thereof passing adjustably through said trunnions and engaging back of them.

2. A tool for gripping, comprising a lever having a head with a jaw at its end, another jaw adapted to coöperate therewith and having a shank, a pivotal connection between the shank and the head, and means whereby the

shank is adjustable in the direction of its own length through the pivot of said connection, to vary the distance of the jaws apart; and means for holding it against extension from said adjustable position.



3. A tool for gripping, comprising a lever having a head with a jaw at its end and trunnions at each side back of the jaw, another jaw adapted to coöperate with the first, shanks leading therefrom through said trunnions and adjustable in the direction of their own length, and screw nuts on said shanks engaging back of said trunnions.

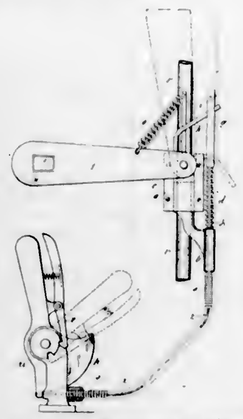
4. A tool for gripping, comprising a lever having a head with a jaw at its end and trunnions at each side back of the jaw, another jaw adapted to coöperate with the first, shanks leading therefrom through said trunnions and adjustable in the direction of their own length, shoulders formed on the head back of the trunnions with faces that are conical around the axis of the trunnions and nuts on said shanks having conical faces adapted to engage said shoulders.

5. A tool for gripping, comprising a lever having a head with a jaw at its end and trunnions at each side back of the jaw, another jaw adapted to coöperate with the first, shanks leading therefrom through said trunnions and adjustable in the direction of their own length, and means preventing the shanks from slipping out; there being a pin located at the axes of the said trunnions and holding them in place.

[Claim 6 not printed in the Gazette.]

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1,091,938. SIGNALING APPARATUS. EDUARD LISSAUER, Charlottenburg, Germany. Filed Sept. 10, 1912. Serial No. 719,506. (Cl. 116—31.)



1. Signaling apparatus embodying therein a pivotally mounted signaling arm having a lever arm attached thereto, means adapted for engagement with said lever arm to move said signaling arm into inoperative position, means whereby said signaling arm may be moved into signaling position, and means whereby said signaling arm is caused to oscillate about its pivot prior to its assuming final signaling position.

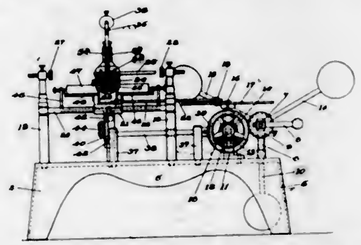
2. Signaling apparatus embodying therein a vertically extending rod, a bracket secured to said rod, a signaling arm pivotally carried by said bracket, means whereby said arm may be swung about its pivot, and a spring having one end connected to said arm and its other end connected to said rod, whereby said arm is caused to oscillate when moved into signaling position.

3. Signaling apparatus embodying therein a support, a visual signaling arm pivoted to said support, a projection carried by said arm, means engaging said projection for moving said signaling arm into inoperative position, said signaling arm being adapted to move into operative position by gravity, and a flexible elastic connection between said support and said signaling arm whereby the latter oscillates about its pivot before assuming final signaling position.

4. Signaling apparatus embodying therein a support, a visual signaling arm pivoted to said support, a curved lever arm carried by said signaling arm, an operating rod for said signaling arm carrying a roller contacting with said lever arm, and a spring connecting said signaling arm and said support.

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1,091,939. DEVICE FOR HONING RAZORS. ANTONINO LO CASTO, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,267. (Cl. 51—16.)



1. A honing device consisting of guides, a block slidable on the guides, a hone support carried by the block, a second set of guides, a block slidable on the second guides, a razor holder on the second block and provided with segmental gear teeth, a reversing rack in engagement with said segmental teeth, fixed abutments for the rack, and means for simultaneously moving the blocks to cause the rack to alternately engage the abutments and reverse the razor holder.

2. A honing device consisting of guides, a block slidable on the guides, a razor holder having pivot connection with the block, a hone holder, an upstanding member on said razor holder having a horizontal arm extending toward the hone holder, a weight slidable on the arm, a spring post for the arm, and means for moving the razor holder.

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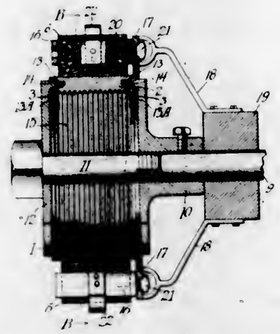
1,091,940. MOTOR-CONTROLLER. WILLIAM B. LUCAS, Chicago, Ill. Filed Jan. 7, 1910. Serial No. 536,865. (Cl. 172—288.)

1. In a motor controlling device, a rotatable shell comprising an annular wall of conducting segments insulated from each other, end members supporting said wall, sliding contacts engaging the external surface of said wall, resistances connected between said sliding contacts, and a mass of conducting material supported in said shell and adapted to spread circumferentially, thereby short-circuiting said segments when said shell is rotated.

2. In a motor controlling device, a rotatable shell comprising an annular wall of conducting segments insulated from each other, end members supporting said wall, sliding contacts in circuit with the motor and engaging the external surface of said wall, resistances connected between said sliding contacts, and a mass of conducting material supported in said shell and adapted to spread circumferentially, thereby short-circuiting said resistances when said shell is rotated.



3. In a motor controlling device, the combination with the motor rotor of a member revolved thereby and comprising a plurality of segments insulated from each other each having therein a groove, said grooves being located to form a continuous channel when said segments are secured together, conductors having sliding contact with said segments, resistances connecting said conductors, and a flowing conductor having moving contact with said segments and adapted to automatically short-circuit said segments through the rotation of said motor rotor.



4. In a motor controlling device, a plurality of segments insulated from each other and secured together to form a hollow shell, the inner and outer faces of said segments being substantially true with the axis of said shell, outer conductors having sliding contact with the outer faces of said segments, resistances connecting said outer contacts, and a flowing conductor having moving contact with the inner faces of said segments and adapted to automatically short-circuit said segments when the speed of the motor is increased.

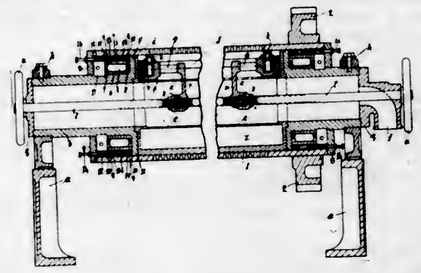
5. In a motor controlling device, the combination with the motor, of a rotatable shell comprising a series of segments of conducting material insulated from each other and disposed substantially parallel with the axis of rotation, end members supporting said insulated segments and forming with said segments a substantially liquid-tight hollow shell, brushes bearing on the outer surface of said segments, resistances connecting said brushes, a liquid conductor supported by the inner surface of said segments and adapted to automatically short-circuit said brushes when the speed of the motor is accelerated and to open said short-circuit when the speed of the motor is diminished.

[Claims 6 to 21 not printed in the Gazette.]

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1,091,941. ROTARY SUCTION-ROLL OR VACUUM COUCH-ROLL FOR USE IN PAPER-MAKING MACHINES. ROBERT MARX, London, England. Filed Oct. 19, 1911. Serial No. 655,521. (Cl. 92—53.)

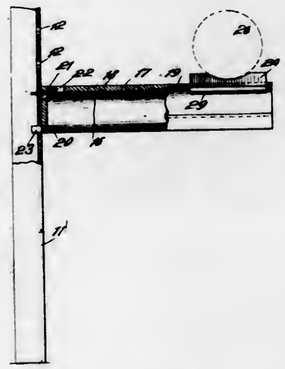
1. A vacuum couch roll, having a suction chamber, a perforated drum surrounding said chamber, spaced longitudinal packing strips forming the sides of said chamber, means for holding said strips in contact with the drum, transverse members forming the ends of said chamber, said transverse members contacting snugly with the longitudinal packing strips from the bottom of the chamber to the upper edges of said transverse members, there being tight joints formed between the bottom of the chamber and the end members and between the end members and the longitudinal packing strips, there being a transverse groove in the top of each end member, a transverse packing member seated in the groove in each end member extending from one longitudinal packing strip to the other longitudinal packing strip, there being a tight joint formed between said transverse packing and the drum, means for holding said transverse packing members in contact with the drum, said packing members and the longitudinal packing strips being arranged to move independently of each other, and means for moving said end members toward and from each other, substantially as described.



2. A vacuum couch roll having a fixed inner suction box capable of angular adjustment, a perforated drum rotatably mounted on the box, spaced longitudinal packing strips for maintaining the joints between the box and drum, pressure means for holding said strips in contact with the drum, transverse packing members located between the longitudinal strips and completely bridging the space between them, said packing members being relatively adjustable toward and from each other and each comprising a holder, packing mounted on the holder and engaging the drum, yielding means for maintaining the packing in contact with the drum and packing forming a tight joint between the holder and box and permitting the adjustment of said holder.

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1,091,942. HANGER. CHARLES MATHER, Passaic, N. J. Filed Apr. 8, 1913. Serial No. 759,734. (Cl. 247—3.)



1. The combination of a support, a bracket having an arched body and a tongue and groove along each edge lengthwise thereof, and a cradle of insulating material having a recessed portion forming a seat for a cable and having a tongue and groove along each edge adapted to engage the tongue and groove of said bracket and to be freely movable lengthwise of the bracket and laterally about the arched body thereof.

2. In a hanger, a bracket having an arched body and a tongue and groove along each edge lengthwise thereof, and a cradle having a recessed portion forming a seat for a cable and having a tongue and groove along each edge adapted to engage the tongue and groove of said

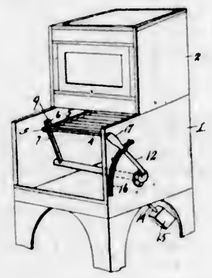
bracket and to be freely movable lengthwise and about the arched body.

3. The combination of a support, a hanger bracket, and an independent supporting member adjustable to different inclinations around said bracket.

4. In a hanger, the combination of a bracket having an arch-shaped body adapted for attachment to a support, and a cradle freely movable to different inclinations around said arch-shaped body.

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1,091,943. GAS-BROILER. HENRY C. MAUL, Detroit, Mich., assignor to The Michigan Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 15, 1912. Serial No. 671,155. (Cl. 126—41.)



1. A gas broiler comprising a burner, a rack frame below the burner mounted to swing, a broiling rack carried at the top of the swinging frame to slide therein, said rack being at all times supported in a horizontal plane, and a lever exterior to the broiler connected with the rack frame for manipulating it.

2. In a broiler, a rack frame comprising pivoted arms, slide bars pivoted to the upper ends of said arms, a broiling rack slidably carried on said slide bars and maintained thereon in a horizontal plane when said frame swings, a lever for manipulating the rack frame, and a counterpoise for said rack frame connected therewith.

3. In a broiler, a swinging rack frame comprising pivotal supports, a broiling rack mounted in said frame to swing therewith and slide therein, a lever exterior to the broiler connected to the pivotal member of said supports for manipulating said swinging frame, and means for locking said lever at any point of adjustment.

4. In a broiler, a rack frame mounted to swing, a broiler rack support pivoted to said frame, and a broiling rack mounted to slide forth and back in said pivoted support.

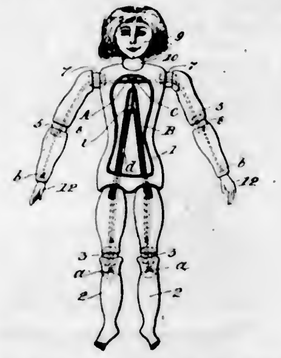
5. In a broiler, a rack frame pivoted to swing, a broiling rack carried by said frame in a horizontal plane, a lever for actuating said frame, a toothed circle bar, a handle slidable upon the end of said lever, said handle carrying a detent adapted to engage said circle bar to lock the lever against movement, and means for preventing the jamming of the detent between the teeth of said circle bar.

[Claim 6 not printed in the Gazette.]

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1,091,944. ARTICULATION OF DOLLS. HARRY W. MEIER, Baltimore, Md., assignor to H. W. Meier and Company, Baltimore, Md., a Firm composed of said Harry W. Meier and Rozel Berryman. Filed Feb. 15, 1913. Serial No. 748,511. (Cl. 46—40.)

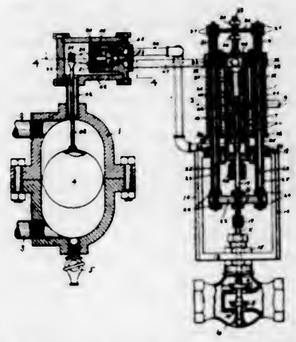
In a doll of the character described, the body or trunk, the arms, and an endless elastic cord which extends through the body and its ends united to the arms, combined with the legs, the head having at its under side a staple, and a folded endless elastic cord the loops of which are attached to the legs, and a wire which is firmly secured to each of the folded portions of the cord and provided with a hook and passes between the lays of the arm



cord and is attached to the head staple, substantially as specified.

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1,091,945. VALVE-CONTROLLER. WILLIAM MENNIE, Detroit, Mich. Filed Jan. 18, 1912, Serial No. 671,932. Renewed July 2, 1913. Serial No. 777,097. (Cl. 137—101.)



1. In a controlling device, the combination of a main valve and a stem therefor, a cylinder mounted adjacent the valve, a piston connected to said valve and mounted in said cylinder, resilient means to hold the valve partially open, a casing having two valve seats, pipes extending from said seats to the ends of said cylinder, a guide plate mounted in the case and having bores extending partially through it, valves mounted in said casing, each having one end in a bore in the plate and the other end adjacent a valve seat, a lever pivoted to both of said valves, and a float connected to said lever, the pivotal connection between each valve and the lever serving as a fulcrum for said lever when the rear end of the valve is seated in the bottom of its bore in the plate so that the other valve may be forced to its seat.

2. In a controlling device, the combination of a cylinder, a piston therein, a piston rod, a cross-bar adjustably mounted on said piston rod, rods connected to said cross-bar, flanged sleeves loosely mounted on said rods in pairs, a spring on each rod between said sleeves, means to cause the sleeves to move with said rods, and means to limit the movement of said sleeves.

3. In a controlling device, the combination of a valve, a stem therefor, a frame connected to said valve, a cylinder mounted on said frame, a head for the cylinder, a piston within the cylinder, a piston-rod connecting to said valve-stem, a cross-bar connected to said piston-rod, longitudinal rods extending from said cross-bar parallel to the piston and through said frame and cylinder head, sleeves mounted on the ends of said rods and having flanges to limit their outward movement, springs mounted on said rods between said sleeves, pipes leading to opposite ends of the cylinder, and means for controlling the flow of fluids through said pipes.

4. In a controlling device, the combination of a cylinder, a piston therein, a piston rod, a cross-bar connected to said piston rod, guides at the ends of the cylinder, sleeves in said guides extending outwardly and having flanges at their inner ends, rods slidable in said sleeves and connecting to said cross-bar, flanged thimbles on said rods adjacent the sleeves, and springs on said rods and engaging said flanges of the thimbles.

5. In a controlling device, the combination of a valve body having a seat, a valve and a valve stem, a cylinder mounted adjacent said valve body, a piston slidable in said cylinder and connected to said valve stem to move said valve from its seat, said piston having a circumferential groove intermediate its ends, a casing having two valve seats, pipes extending from said valve seats to the ends of said cylinder, valves mounted in said casing, a lever pivoted to said valves, a float connected to said lever, and an exhaust pipe connected to said cylinder intermediate its ends whereby the steam which passes from the ends of the cylinder to the groove in said piston may escape.

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1,091,946. SILO AND TILE THEREFOR. JOHN MERLEY, Canton, Ohio, assignor to National Fire Proofing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 15, 1912. Serial No. 731,641. (Cl. 72—6.)



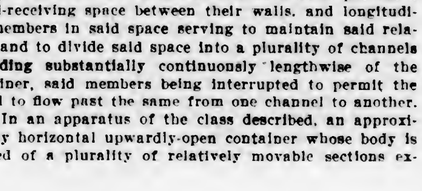
1. A silo having a plurality of superimposed rows of tiles, alternate rows having vertical openings extending therethrough, the tiles in the other rows having upwardly extending projections at the outer edges thereof extending the full length of the tile, and a projection on the lower face of each of said last-mentioned tiles, said projections extending into the vertical opening of the other tiles, and reinforcing material between the upwardly extending projections on the last-mentioned tiles; substantially as described.

2. A building tile having a flat body portion, upwardly extending longitudinal ribs along each of its longitudinal edges, the outer face of one of said ribs sloping downwardly and outwardly, and longitudinally extending ribs on the lower face of said tile, the outer faces of the last mentioned ribs being within the planes of the inner faces of the first mentioned ribs; substantially as described.

3. A silo having a plurality of superimposed rows of tiles, alternate rows having two vertical openings extending therethrough, the tiles in the other rows having downwardly extending projections extending into the openings into the other tiles, the tiles in one row having sloping faces, the upper edges of which are below the outer surface of the tiles in the row above them, while the lower edges thereof extend beyond the outer faces of the tiles in the row below them; substantially as described.

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1,091,947. SEPARATOR. WILLIAM I. MORGAN, Seaford, N. Y. Filed May 22, 1911. Serial No. 628,865. (Cl. 87—6.)



1. In an apparatus of the class described, a container having a wall adapted to retain solid matter and to permit fluid to pass therethrough, said container having its body divided longitudinally and the sections on opposite sides of its line of division hingedly mounted to open outwardly away from each other, combined with a casing which extends around and above the container, the confronting walls of the container and casing being separate from each other and the portion of the casing above the container forming a chamber for material to be treated and having an inlet for said material and an inlet for a treating fluid, the container being open to said chamber and the casing and container being relatively movable to expose the latter.

2. An apparatus for extracting liquid constituents and compacting the solid residue of a material containing the same, comprising an outer vessel having in its side a combined inlet for the material and for the fluid for treating said material, and a container arranged in said vessel with a space between the confronting walls of the vessel and container and also a space between the container and the fluid inlet substantially equal in size to the container, the wall of the latter space being fluid tight, said container being open to said latter space and having its wall formed to retain solid constituents of the mass undergoing treatment and to permit liquid to pass through it to the first-mentioned space, said first mentioned space having means for the outlet of fluid therefrom, the vessel and container being relatively movable longitudinally to expose the container and said container being formed of oppositely movable hingedly-mounted longitudinal sections for the discharge of the treated material therefrom.

3. In an apparatus of the class described, a container comprising a plurality of hingedly-mounted oppositely-movable longitudinal sections having longitudinal and transverse walls, fixed inner walls extending longitudinally of the container between said sections and spaced from each other, said walls being adapted to permit liquid to pass therethrough and to retain solid matter, and a casing for said container, the casing and container being relatively-movable to expose the latter and having their confronting walls disposed in a spaced relation when they are relatively arranged in operative position.

4. In an apparatus of the class described, a container comprising a plurality of relatively movable sections whose walls are adapted to permit liquid to pass therethrough and to retain solid matter, a casing for said container, the casing and container being relatively movable to expose the latter and of diameter such as to provide a liquid-receiving space between their walls, and longitudinal members in said space serving to maintain said relation, and to divide said space into a plurality of channels extending substantially continuously lengthwise of the container, said members being interrupted to permit the liquid to flow past the same from one channel to another.

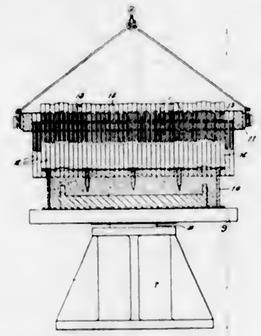
5. In an apparatus of the class described, an approximately horizontal upwardly-open container whose body is formed of a plurality of relatively movable sections ex-

tending longitudinally thereof and having walls formed to permit liquid to pass therethrough and to retain solid matter, a casing for said container, the casing and container being relatively movable in the direction of their lengths to expose the container and of such relative diameter as to provide a liquid-receiving space between their confronting walls and a material-receiving space above the open side of the container, the latter space having means for the inlet of material and a treating fluid to the interior of the apparatus, and means in said liquid-receiving space for maintaining the confronting walls of the casing and container in spaced relation and dividing the liquid-receiving space into a series of approximately horizontally-disposed substantially continuous channels extending lengthwise of the container and having communication with each other for the flow of liquid from one to another, said means comprising a plurality of longitudinal members having interruptions.

[Claims 6 to 22 not printed in the Gazette.]

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1,091,948. SAND MOLDING APPARATUS. EDGAR H. MUMFORD, Plainfield, N. J., assignor to Samuel C. Mumford, Detroit, Mich. Filed Jan. 2, 1912. Serial No. 668,925. (Cl. 22—45.)



1. In sand molding apparatus, the combination of a jolt ramming table, a flask actuated by the jolt of the table, and a butt rammer above the flask comprising a frame and a plurality of blocks slidably mounted in the frame for free relative movement with respect thereto and adapted to rest upon the sand in the flask.

2. In sand molding apparatus, the combination of a jolt ramming table, a flask, a butt rammer actuated by the jolt of the table comprising a frame and a plurality of blocks slidably mounted in the frame for free relative movement with respect thereto adapted to rest upon the sand in the flask, and means for supporting the frame above the flask.

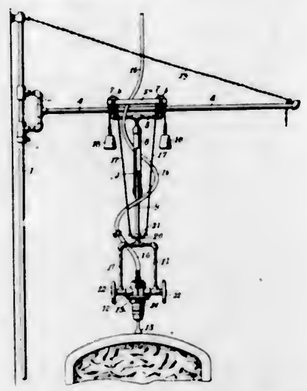
3. In sand molding apparatus, the combination of a jolt ramming table, a flask, a butt rammer actuated by the jolt of the table comprising a frame, a plurality of blocks arranged to form a continuous surface, said blocks being mounted in the frame for free relative movement with respect thereto, and means for supporting the frame above the flask.

4. A butt rammer for jolt ramming molding apparatus comprising a frame and a plurality of blocks slidably mounted in the frame for free relative movement with respect thereto, the rammer being actuated by the jolt of the molding apparatus.

5. A butt rammer for jolt ramming molding apparatus comprising a frame and a plurality of blocks mounted in the frame arranged to form a continuous surface, the said blocks being mounted in the frame for free relative movement with respect thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,091,949. STONEWORKING-MACHINE. LEONARD MUSTE, Grand Rapids, Mich. Filed June 7, 1912. Serial No. 702,289. (Cl. 125—6.)



1. In a stone working machine, the following parts made of pipe and pipe fittings, to wit:—a fixed post, a yoke slidable and rotative on the post, an arm carried by the yoke and adapted to swing in a horizontal plane, a carriage traversing the arm and comprising two yokes with a connecting member made of pipe and fittings, a member suspended from the connecting member of said two yokes and consisting of a larger pipe carried by said connecting member and a smaller pipe telescoping with the same and provided with a collar at its upper end and vertically slidable in the larger pipe, a yoke carried by the last named pipe and adapted to carry a pneumatic engine and pivotally support the same, and means for counterbalancing the suspended member and the parts carried thereby.

2. In a stone working machine, a supporting means, a carriage movable horizontally on the supporting means, a member suspended from the carriage and consisting of a larger pipe connected to the carriage and a smaller pipe telescoping within the larger pipe and near its lower end provided with a collar, the smaller pipe being rotative and slidable in the larger pipe, a yoke connected to the smaller pipe, an engine carried by said yoke, a cutting tool operated by the engine, and means for counterbalancing the smaller pipe and the parts carried thereby.

3. In a stone working machine, a supporting means, a carriage horizontally movable on said supporting means and provided with pulleys, a member suspended from the carriage and comprising a rigid tubular member and a member telescoping within the rigid tubular member, an engine carried by the member which telescopes within the fixed tubular member, a cutting tool operated by the engine, and connections between the member which telescopes within the tubular member and operable over the pulleys of the carriage to counterbalance the member which telescopes within the tubular member and the parts carried thereby.

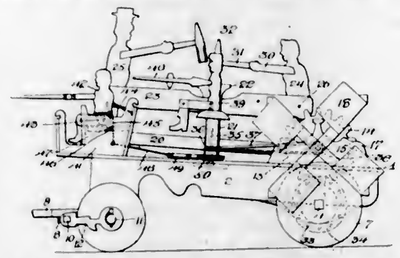
4. In a stone working machine, a supporting means, a carriage horizontally movable on the supporting means and provided with pulleys, a rigid tubular member suspended from the carriage, a member slidable within the tubular member, a collar on the member which slides within the tubular member, a plate on the member which slides within the tubular member and arranged beneath said collar, an engine carried by the member which slides within the tubular member, a cutting tool operated by the engine, cables connected to said plate and extending over the pulleys of the carriage, and weights connected to the free ends of the cables.

5. In a stone working machine, a supporting means, a carriage, movable horizontally on the supporting means, a member suspended from the carriage and consisting of telescoping members one of which is fixed and the other of which is movable within the fixed one, the carriage carrying pulleys, an engine supported by the movable telescoping member, a cutting tool operated by the engine, cables having connection with the telescoping member and which pass over the pulleys on the carriage, and weights having connection with the free ends of said cables.



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1,091,950. WHEEL TOY. STEVE NAGY, Delray, Mich. Filed July 3, 1913. Serial No. 777,158. (Cl. 46—45.)



1. A figure wheel toy comprising a portable body, a stationary support thereon provided with a representation of an anvil, a rotatable member adapted to position an object upon said anvil, a pair of oscillatory elements provided with the representation of sledges to alternately strike said object, and means driven from the moving portable body for operating said member and said element.

2. A figure wheel toy comprising a portable body, a stationary support thereon provided with a representation of an anvil, a rotatable member adapted to position an object upon said anvil, a pair of oscillatory elements provided with the representation of sledges to alternately strike said object, means driven from the moving portable body for operating said member and said element, an oscillatory member arranged at the forward end of said body, and means driven from said rotatable member for imparting an oscillatory movement of the member arranged at the forward end of the body.

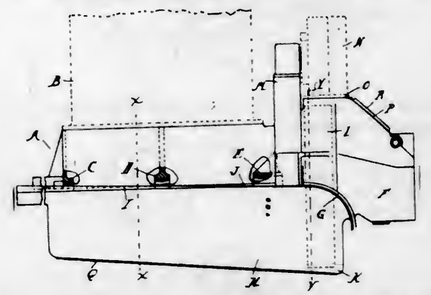
3. A figure wheel toy comprising a portable body, a stationary support provided with the representation of an anvil, a pair of oscillatory elements suspended from said support and each provided with the representation of a sledge, a reciprocatory means connected to said elements for alternately operating them in opposite directions, driving means for said reciprocatory means, said driving means operated from a moving part of said body, a rotatable member provided with an object adapted to be positioned upon said anvil after each complete revolution of said member, and an operative connection between said member and said driving means for rotating said member.

4. A figure wheel toy comprising a portable body, a stationary support provided with the representation of an anvil, a pair of oscillatory elements suspended from said support and each provided with the representation of a sledge, a reciprocatory means connected to said elements for alternately operating them in opposite directions, driving means for said reciprocatory means, said driving means operated from a moving part of said body, a rotatable member provided with an object adapted to be positioned upon said anvil after each complete revolution of said member, an operative connection between said member and said driving means for rotating said member, and an oscillatory element arranged at the forward end of said body, driven from said rotatable member and constitutes a representation of a driver.

5. A figure wheel toy comprising a portable body, a support carried thereby, and provided with a representation of an anvil, oscillatory members provided with a representation of sledges adapted to alternately engage said anvil or an object thereon, rotatable means for positioning an object upon said anvil, an oscillatory element arranged at the forward portion of said body and constituting the representation of a driver, and means driven from the moving part of said body for operating said oscillatory elements and member in unison.

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1,091,951. ENGINE AND TRANSMISSION UNIT. EMIL A. NELSON, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 19, 1912. Serial No. 678,672. (Cl. 123—195.)



1. The combination of a complete housing for the transmission gearing, a crank case member formed integral therewith, said crank case member having its lower edge in the plane of the crank shaft, and a complementary lower member for the crank case formed of sheet metal having its upper edge conforming to the shape of the lower edge of said crank case member, and one of its ends complementary to the adjacent portion of the housing for the transmission gearing.

2. The combination with an engine crank case member having the lower edge of the main portion in the plane of the crank shaft, of an integral extension of said member forming a transmission gearing housing and extending below the plane of the crank shaft.

3. An engine crank case member having the lower edge of the body portion thereof in the plane of the crank shaft and an extension beyond said body portion and below said plane forming a transmission gearing housing, said extension and body portion merging in a curved connection portion.

4. An engine crank case member comprising a body portion having its lower edge in the plane of the crank shaft, and an integral extension beyond said body portion curving downward below the plane of the crank shaft to form the complete housing for a transmission gearing, and a complementary member for said crank case having a portion correspondingly curved.

5. An engine crank case member having a body portion with its lower edge in the plane of the crank shaft, and an integral extension beyond said body portion curving downward below the plane of the crank shaft to form the complete housing for a transmission gearing in combination with a complementary member for the crank case housing formed of sheet metal and having its upper edge conforming to the shape of the lower edge of said first mentioned member.

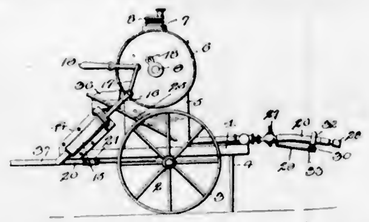
[Claims 6 to 9 not printed in the Gazette.]

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1,091,952. SPRAYING-MACHINE. RAYMOND F. NORTH, Glendive, Mont. Filed May 6, 1913. Serial No. 765,913. (Cl. 137—63.)

A spraying machine including a reservoir, a spraying device in communication therewith, a pump in communication with the reservoir and including a piston and piston rod, a shaft extending longitudinally of the reservoir and operating during the movement of the machine, a crank secured on one end of the shaft beyond the reservoir, a lever mounted on the reservoir and adapted for

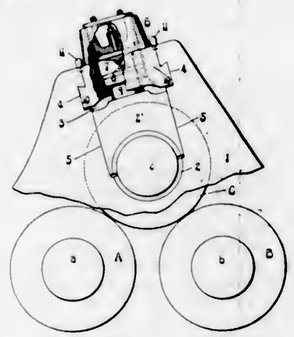
hand operation, and a link projecting from the piston rod and designed for direct connection to the crank or to the



hand lever, whereby the pump may be automatically or manually operated.

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1,091,953. CRUSHING-MILL. JOHN F. O'NEIL, St. Louis, Mo. Filed June 13, 1913. Serial No. 773,472. (Cl. 100—47.)



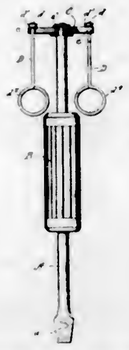
1. A crushing mill comprising a housing including jaws forming a pocket, a roll having a journal mounted in said pocket, the side walls of said pocket being provided with grooves, and the walls of said grooves opposed to the axis of the roll journal being inclined upwardly from the walls of the pocket to the back walls of the grooves, and a hydraulic cap having lugs provided with inclined faces corresponding to the inclined walls of said grooves, the inclined top faces of said lugs being seated against the inclined walls of the grooves.

2. A crushing mill, comprising a housing including jaws, a roll having a journal mounted between said jaws, the inner faces of said jaws being provided with straight grooves forming straight guideways, and a hydraulic cap having straight lugs seated in said grooves and firmly interlocked with said jaws so as to prevent the cap from turning between said jaws; the faces of said lugs opposed to the axis of the roll journal being inclined upwardly from the sides of said hydraulic cap, and the walls of said grooves opposing the inclined faces of said lugs being inclined to correspond to the inclined faces of the lugs.

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1,091,954. VALVE-GRINDING TOOL. HENRY R. PARSONS, Sharpsville, Pa. Filed Sept. 13, 1913. Serial No. 789,651. (Cl. 51—4.)

1. A valve grinding tool of the character described, comprising a stem having a valve engaging head at its lower end, and provided with a rigid handle intermediate its end, a yoke or cross-head having a revoluble connection intermediate its end upon the upper end above the stem, and thumb rods depending from the opposite ends of the yoke or cross-head, and having swiveled connections at their upper ends to the yoke or cross-head, the lower ends of said thumb rods being bent to form thumb rings located slightly above the upper end of the handle, all for the purpose described.

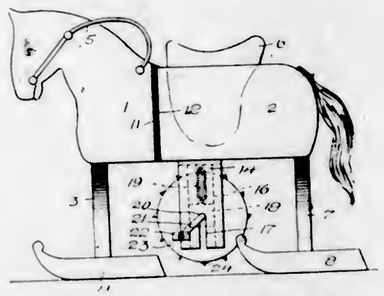


2. A valve grinding tool, comprising a stem provided with an engaging head at its lower end, and with an intermediate rigid handle, a revoluble cross-head or yoke at the upper end of the stem, and thumb rings depending from the cross-head or yoke at opposite sides of and above the handle, all for the purpose described.

3. A valve grinding tool, comprising a stem having a lower valve engaging head and a rigid intermediate handle, and thumb rings located above and upon opposite sides of the handle, and having revoluble connections with the upper portion of the stem, all for the purpose described.

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1,091,955. SLED. THOMAS J. PHILLIPS, McKeesport, Pa., assignor of one-half to William F. Orr, Kittanning, Pa. Filed Mar. 8, 1913. Serial No. 753,058. (Cl. 21—47.)



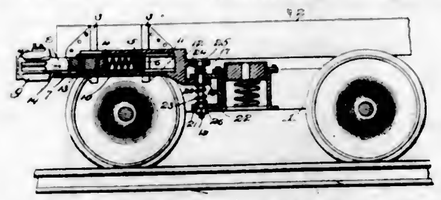
A sled comprising a body formed of a front and rear section pivotally connected together, runners supporting each of said sections, a housing secured to and depending from said rear section and formed with slots in the lower portion thereof, vertically movable slide heads within said housing, extensible and contractible springs having one end anchored to the housing and their other ends secured to said slide heads, a crank shaft extending through said housing and journaled in said heads, said slots providing clearance for said shaft, and a toothed wheel arranged centrally of said housing and fixed to said shaft.

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1,091,956. CAR-COUPLING ADJUSTER. MAX POETH, Denver, Colo., assignor of one-half to Frederick Butz, Denver, Colo. Filed Jan. 24, 1910. Serial No. 539,826. (Cl. 213—42.)

1. In a device of the character described, the combination with a car provided with a car body and trucks, of stop lugs secured to said car body, a coupler formed with a shank, a support for said coupler pivotally connected with said truck, and followers connected with the shank of said coupler and slidingly engaging said stop lugs.





2. In a device of the character described, the combination with a car, of a draw bar, a casing connected with the truck of said car for supporting said draw bar, a plurality of springs for yieldingly supporting said casing, a stop for preventing said casing from rising above a predetermined height in relation to said truck, a pair of followers, means connecting said draw bar and said followers, and means secured to the body of said car and slidably engaging said followers for transmitting strain from said draw bar through said followers to said car body.

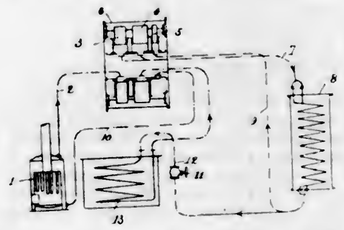
3. In a device of the character described, the combination with a car provided with a draw bar, of a support connected with the truck of said car for supporting said draw bar, a plurality of springs for yieldingly supporting said support, and a stop for preventing said support from rising above a predetermined height in relation to said truck.

4. In a device of the character described, the combination with a car body and truck therefor, of stop lugs rigidly connected with said car body, a coupler, a support for said coupler connected with and supported by said truck, whereby said coupler is supported by said truck, a substantially U-shaped member connected with the end of the shank of said coupler and projecting substantially in line therewith, a pair of followers extending through said U-shaped member and slidingly engaging said stop lugs, and a spring interposed between said followers.

5. In a device of the character described, the combination with a car provided with a draw bar, of a supporting casing for supporting said draw bar, a bracket secured to the truck of said car, a bolt passing through part of said casing and said bracket for connecting said casing to said truck, and a spring for resiliently maintaining said casing at a predetermined height in respect to said truck.

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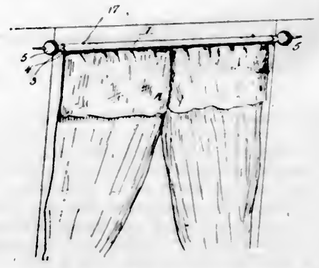
1,091,957. APPARATUS FOR REFRIGERATING BY MEANS OF LIQUEFIED GAS. FRÉDÉRIC AUGUSTIN POLLARD, Parc St. Maur, France. Filed Mar. 23, 1911. Serial No. 616,398. (Cl. 62—6.)



In an apparatus for refrigerating by means of liquefied gas, the combination with an engine driven by the same gas, a compressor and a pump directly coupled to the engine, and a casing provided with interior eccentric grooves and entirely inclosing the engine, the compressor and pump, the said engine, compressor and pump comprising radiating cylinders, of a sleeve provided with distributing ports, to which said cylinders are fixed, a hollow shaft provided with distributing ports registering with the first-named ports, on which said sleeve is mounted, and pistons arranged in the cylinders and provided with cross-pieces engaging the eccentric grooves in the casing, a generator for raising the pressure of the gas before delivery to the engine, a condenser supplied with gas derived from the engine and compressor and a pump adapted to deliver gas from said condenser to the generator.

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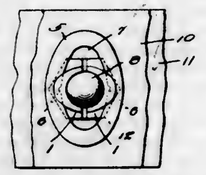
1,091,958. CURTAIN AND POLE FIXTURE. EUGENE H. POWELL, Union Level, Va. Filed July 5, 1912. Serial No. 707,798. (Cl. 156—20.)



In combination, a curtain pole comprising a tubular member having its top surface provided with a longitudinal series of spaced openings at each of its ends, and opening into the interior of the pole, the said pole having its lower surface provided with a longitudinal slot therein opening into the pole and extending throughout the length of the pole, the said openings and slot being alined, curtain hangers slidably mounted within the pole and bracket members located at the ends of the pole and adapted to support the latter, each of the bracket members having a vertical portion extending through the slot and adapted for interchangeable reception in the openings in the top surface of the pole, whereby to permit the pole to be applied to different widths of frames and also to allow the said vertical portions of the brackets to engage certain of the curtain hangers, and to hold the engaged hangers against movement in one direction.

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1,091,959. NUT-LOCK. GEORGE WILLIAM PYBUS, Toronto, Ontario, Canada. Filed June 16, 1913. Serial No. 773,893. (Cl. 151—30.)



1. In a nut lock, the combination with a bolt and nut mounted on the threaded end of said bolt, of a split sleeve formed of a plurality of parts and an elongated washer having a substantially oval hole and engaging the outer walls of said parts and drawing them closely to the projecting portion of the bolt beyond the nut.

2. In a nut lock, the combination with a bolt having a threaded portion and a nut mounted on said threaded portion, of a split sleeve formed of two parts, each of said parts having a groove in the outer wall thereof and an interior wall having suitable means therein for gripping the threaded portion of said bolt, and an elongated washer having a central oval hole and engaging said sleeve parts in said groove, and adapted to force said sleeve parts tightly against the threaded portion of the bolt immediately adjoining the outer face of said nut.

3. In a device of the class described, in combination, a bolt having a threaded end portion, a nut mounted on said threaded end portion having slots in the outer face thereof, a split sleeve formed of two parts each having a teat

projecting into one of said slots, and a washer having a substantially oval hole therein and engaging the outer wall of said sleeve parts and forcing them closely to said bolt immediately adjoining said nut.

1,091,960. BRUSH. ANTÒNIA RÁSKY, New York, N. Y. Filed Sept. 19, 1913. Serial No. 790,751. (Cl. 65—12.)



A brush made of a single piece of metal shaped and bent to provide a polygonal-shaped body having perforations, some of which serve as drain openings, and others accommodate bristles supported by said body, a handle carried by the inner end of the body of said brush, a curved scraper carried by the outer end thereof and having apertures accommodating bristles, and flanges carried by said scraper and provided with bristles and coöperating with the flanges of said body in providing side walls.

1,091,961. ELECTRIC-LIGHT FIXTURE. RICHARD CHARLES RATTO, Waterbury, Conn., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Aug. 21, 1913. Serial No. 785,950. (Cl. 240—78.)



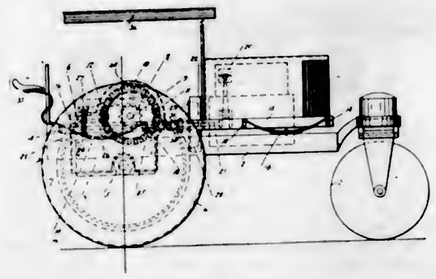
1. A device of the kind described, comprising a hollow end body to which a socket is adapted to be attached, said hollow end body having oppositely disposed openings, a central frame, an arm extending from said central frame and connected with the hollow end body, and a rod extending from the center of the central frame through the arm and through the hollow end body, and a nut adapted to screw upon the outer end of said rod and close one of the openings in the hollow end body.

2. A device of the kind described comprising a hollow end body having a nipple connected thereto and provided with oppositely disposed openings, a central frame, a hollow arm extending from the central frame to the hollow end body, a seating ring adapted to receive the end of said arm, a rod extending from the center of the central frame through the hollow arm and also the hollow end body, and a nut adapted to screw upon the threaded end of said rod and bind the parts together and close the outer opening of the hollow end body.

3. A device of the kind described comprising a hollow end body having a nipple connected thereto provided with oppositely disposed openings, a nut adapted to fit in one of said openings, a seating ring adapted to fit in the opposite opening, a hollow arm adapted to bear against said seating ring, a central frame to which the opposite end of said hollow arm is connected and a rod extending from the center of the central frame through the hollow arm, seating ring and hollow end body, the end of said rod being threaded and engaging the nut for the purpose specified.

4. A device of the kind described comprising a frame having a central union, a rod extending from said union radially through the said frame, a hollow arm arranged upon the exterior of the frame and surrounding said arm, a hollow end body having oppositely disposed openings, a nut adapted to engage the threaded end of the rod and close the outer opening of said hollow end body, and means connected with the hollow end body and central frame for positioning the hollow arm, as set forth.

1,091,962. MOTOR-CAR. JACOB RATZLAFF and DAVID E. REED, Portland, Oreg. Filed Feb. 15, 1913. Serial No. 748,686. (Cl. 21—114.)



1. The combination, with a main frame provided with road wheels, of an auxiliary frame, springs and links supporting the auxiliary frame from the main frame and permitting the auxiliary frame to vibrate vertically and also longitudinally of the main frame, a motor provided with a crankshaft arranged longitudinally of the main frame, said motor being secured to the auxiliary frame, traction mechanism carried by the main frame, and means for operatively connecting the traction mechanism with the crankshaft.

2. The combination, with a main frame provided with road wheels, of an auxiliary frame, leaf springs secured to the main frame and arranged longitudinally thereof, links pivotally supporting the auxiliary frame from the leaf springs and permitting it to oscillate longitudinally of the main frame, a motor provided with a crakshaft arranged longitudinally of the main frame, said motor being secured to the auxiliary frame, traction mechanism carried by the main frame, and means for operatively connecting the traction mechanism with the crankshaft.

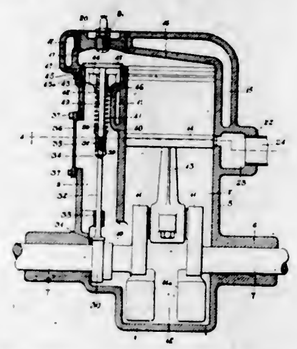
3. The combination, with a main frame provided with road wheels, of an auxiliary frame, springs and links supporting the auxiliary frame from the main frame and permitting the auxiliary frame to vibrate vertically and also longitudinally of the main frame, a motor provided with a crankshaft arranged longitudinally of the main frame, said motor being secured to the auxiliary frame, traction mechanism carried by the main frame and provided with a driving shaft arranged longitudinally of the main frame, and a universal coupling and a split joint operatively connecting the said longitudinal shaft with the motor crankshaft.

4. The combination, with a main frame, an axle arranged crosswise of the main frame, rear road wheels on the said axle, and steering devices at the front portion of the main frame; of internal toothed wheels secured to the rear road wheels, a countershaft formed in sections and carried by the main frame and arranged above and in front of the axis of the rear road wheels, toothed pinions secured on the sections of the countershaft and gearing into the said internal toothed wheels, driving mechanism operatively connected with the sections of the countershaft and provided with a shaft arranged longitudinally of the frame below the countershaft, and a motor provided with a crankshaft arranged substantially in line with the longitudinal shaft and operatively connected with it.

1,091,963. TWO-CYCLE ENGINE. ALBERT FRED RIEDL, Buffalo, N. Y. Filed Jan. 20, 1913. Serial No. 743,153. (Cl. 123—73.)

1. In an internal combustion engine, the cylinder shell having upright piston and valve chambers communicating near their lower ends, the wall of the piston chamber being provided with an exhaust and an intake; combined with the piston, crank shaft, connecting rod, a cam on said shaft, a guide at the lower end of said valve chamber and a valve seat at its upper end, a push rod slidably mounted through said guide and resting on said cam, a valve whose head rests on said seat and whose stem depends therefrom, a long nut screwed on the upper end of the push rod, a spider within the upper end of said valve chamber having a central boss, the valve stem passing through said boss and into said nut, a pin through the stem and nut, and an expansive spring coiled around the stem between said nut and spider.





2. In an internal combustion engine, the cylinder shell having upright piston and valve chambers communicating near their lower ends, the wall of the piston chamber being provided with an exhaust and an intake; combined with the piston, crank shaft, connecting rod, a cam on said shaft, a guide at the lower end of said valve chamber and a valve seat at its upper end, the wall of the shell between these elements having a side opening, a plate removably closing said opening, a push rod slidably mounted through said guide and resting on said cam, a valve whose head rests on said seat and whose stem depends therefrom, a long nut screwed on the upper end of the push rod and having a shoulder, a spider within the upper end of said valve chamber having a central boss with a downwardly facing shoulder, the valve stem passing through said boss and into said nut, means for detachably connecting it with said nut, and an expansive spring coiled around the stem between said shoulders.

1,091,964. FENCE-STRETCHER. MAX ROSSMANN, St. Paul, Minn. Filed May 16, 1913. Serial No. 768,147. (Cl. 39—51.)



A stretcher comprising a frame having a fixed arm and a detachable arm, said arms being parallel and spaced, a shaft passing through the arms, a bracket attached to the frame and receiving the outer portion of the shaft, a pulley mounted upon the shaft between the bracket and one of the arms, a drum mounted upon the shaft between the arms and having heads one of which is provided at its periphery with teeth, a spring pressed holding pawl pivoted upon the frame and engageable with the teeth of said head, a yoke pivoted upon the shaft between the arms and beyond the outer sides of the heads and having a spring pressed pawl engageable with the teeth of one of the said heads, and a lever detachably connected with said yoke.

1,091,965. TELEPHONE-MOUTHPIECE PROTECTOR. CHINA RUSSELL, Columbus, Ohio. Filed July 21, 1913. Serial No. 780,301. (Cl. 179—185.)



1. A device of the class described comprising a tubular head in the shape of a truncated cone, a ring within its larger end, a collapsible cone whose smaller end is secured through said ring, and means for holding the head within a telephone mouth piece.

2. A device of the class described comprising a tubular head in the shape of a truncated cone, a ring within its larger end, a collapsible cone whose smaller end is secured through said ring, and a brush detachably secured to the top of the head and overlying its smaller end.

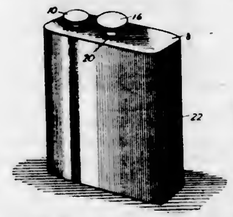
3. A device of the class described comprising a tubular head in the shape of a truncated cone, a ring within its larger end, a collapsible cone whose smaller end is secured through said ring, and a pair of pliable metal tongues secured to the top of the head and adapted to be bent over the telephone mouth piece.

4. A device of the class described comprising a tubular head in the shape of a truncated cone, a ring within its larger end, a cone secured through said ring, a brush detachably secured to the top of the head and overlying its smaller end, and a pair of pliable metal tongues secured to the top of the head and adapted to be bent over the telephone mouth piece.

5. A device of the class described comprising a tubular head in the shape of a truncated cone, a ring within its larger end, a collapsible cone whose smaller end is secured through said ring, a rubber gasket surrounding the smaller open end of said head, and means for holding the latter within a telephone mouth piece.

[Claims 6 and 7 not printed in the Gazette.]

1,091,966. PORTABLE LIGHTER. GEORGE SCHLEICHER, New York, N. Y. Filed Sept. 25, 1913. Serial No. 791,777. (Cl. 67—8.)



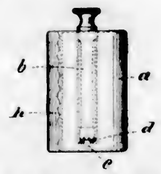
1. A portable lighter, comprising a flask having two top openings; a tube surrounding one of said openings and extending to near the bottom of said flask; a removable torch in said tube, said torch having a spark-producing steel end and an absorbent portion, said torch closing the opening to said tube; and a closure member for the other opening, sealing said opening and having a passage formed therein to lead air into said flask when exposed.

2. A portable lighter, comprising a flask having two openings in the top thereof; a tube surrounding one of said openings and forming an air-tight joint with the top of the flask, said tube extending to near the bottom

of said flask; a removable torch in said tube, said torch having a spark-producing steel end and a liquid-absorbent portion, said torch closing the opening into said tube; a closure member for the other opening, said member having a passage formed in the side thereof to lead air into said flask when exposed; and means mounted on said flask to spark when struck by the steel end of said torch.

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1,091,967. PYROPHOROUS LIGHTER. OTTO SCHLICK, Berlin, Germany. Filed Mar. 3, 1913. Serial No. 751,831. (Cl. 67—8.)



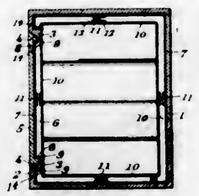

1. In an ignition apparatus in which sparks are produced by rubbing a rod against a rubbing surface, the combination of a casing, an ignition rod removably inserted in the casing, said ignition rod comprising a cerium-iron part, and a steel rubbing surface arranged on the casing, said rubbing surface being depressed in part to form a guiding groove for said ignition rod.

2. In an ignition apparatus in which sparks are produced by rubbing a rod against a rubbing surface, the combination of a casing, an ignition rod removably inserted in the casing, said ignition rod comprising a cerium-iron part, and a transversely concave steel rubbing surface arranged on the casing.

3. In an ignition apparatus in which sparks are produced by rubbing a rod against a rubbing surface, the combination of a casing, an ignition rod removably inserted into the casing, a grooved rubbing surface removably mounted on the casing with a spring support adapted to hold the grooved rubbing surface yieldingly in its seating, substantially as set forth.

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1,091,968. VACUUM-WALLED REFRIGERATOR. LESTER W. SEEMAN and JAMES C. MORSE, Fort Steilacoom, Wash. Filed May 14, 1913. Serial No. 767,637. (Cl. 62—10.)



A refrigerator having an outer casing provided with a door opening and an interior wall corresponding in size and shape to the dimensions of the outer casing, said interior wall comprising a metal lining for the outer casing and a porcelain receptacle held in spaced relation to the metal lining, said lining being formed adjacent the door opening with laterally projected flanges, the terminal edges of the porcelain receptacle being sealed beneath said flanges whereby the air may be exhausted from the space between the metal lining and the porcelain receptacle.

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1,091,969. ADJUSTABLE LAMP-STAND. EMIL SEIDEL, Providence, R. I. Filed Nov. 19, 1913. Serial No. 801,943. (Cl. 240—82.)

1. A lamp stand, including a standard, a shaft journaled through said standard, telescopic arms connected to said shaft, a rotatable shaft supported between the outer ends of said arms and means for connecting a lamp to said rotatable shaft.



2. A lamp support, including a standard, a shaft journaled through said standard, a pair of parallel arms rigidly connected to the ends of said shaft, a rotatable shaft supported between said arms, lamp supporting means rigid with said rotatable shaft, and means for holding the arms at different angles with respect to the standard, the stand being formed with a continuous duct whereby gas may be conducted from the standard to the lamp.

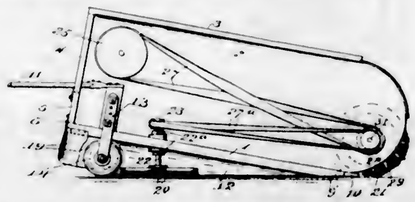
3. A stand of the character described, including a standard, a shaft extending at right angles to said standard and secured thereto, parallel arms rigidly secured to said shaft, a rod connecting said arms and being adjustable with respect thereto, a flexible member connected at one end to said rod, and means for securing said flexible member to the standard, whereby the arms may be held in fixed relation to said standard.

4. A lamp supporting stand, including a standard, a head secured to said standard, a shaft journaled through said head, a pair of arms rigidly connected to said shaft and extending in parallel relation to each other, a cross bar adjustably connected to said arms, a flexible member secured at one end to said cross bar, the head being formed with an opening through which said flexible member extends, and means for locking the flexible connection to said head.

5. A lamp supporting stand, comprising a standard, a shaft rotatably secured to said standard, a pair of parallel arms rigidly secured to said shaft, a second shaft rotatably secured between said arms, a coupling member rotatable with said second mentioned shaft, a lamp connection formed on said coupling member, and means for holding said lamp connection always in a vertical plane.

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1,091,970. MACHINE FOR CATCHING BOLL-WEEVIL COTTON-SQUARES. ROBERT E. SHAW, Whatley, Ala. Filed Sept. 27, 1913. Serial No. 792,127. (Cl. 43—1.)



1. In a machine for catching boll weevil "squares" the combination with a body into which the "squares" are deposited, of a pair of side brushes rotatable horizontally under the bed of the body, a rear brush rotatable at right angles to the rotary movement of the side brushes, a ground runner separating the side brushes, and means for operating all of said brushes.



2. In a machine for catching boll weevil "squares" the combination with a body into which the "squares" are deposited, of a pair of side brushes rotatable horizontally under the bed of the body, a rear brush rotatable at right angles to the rotary movement of the side brushes, a brush frame comprising a shaft, a pair of heads slidable on the ends of the shaft, a plurality of flexible brush-strips secured to the heads and adapted to be bowed outwardly to various positions by adjusting the heads, and means for operating all of said brushes.

3. In a machine for catching boll weevil "squares" the combination with a body into which the "squares" are deposited, and having a screen-bed portion, of a rotary brush for depositing the "squares" upon the screen, a flexible apron secured to the rear end of the bed and under the brush, a ground roller under the front end of the bed, a brush depending from the bed at each side thereof and rotatable horizontally, and means for operating all the brushes.

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1,091,971. CONVERTIBLE SPRINKLER AND WATER-PAIL. JOSEPH J. SLITSKI, Jr., Baldwinsville, Mass. Filed Dec. 6, 1913. Serial No. 805,106. (Cl. 137—62.)



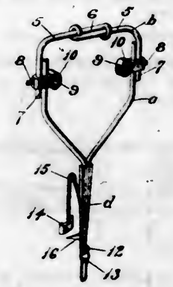
1. In a device of the class described, a vessel provided at its upper edge with loops at diametrically opposite sides, one side wall of the vessel being provided with an opening surrounded by a threaded flange and with a loop below said opening, said loop and opening being in approximate vertical alinement with one of the loops at the top edge, and the other side wall of the vessel having a loop positioned below and in approximate vertical alinement with the other loop at the top edge, a spout having at one end a threaded collar engaging the threaded flange, said spout being provided with eyes on its upper and under sides, detachable braces connecting the respective eyes with the loops at the top and bottom edges of one side of the vessel, and a detachable handle having terminal hooks engaging the loops at the opposite side of the vessel.

2. A convertible sprinkler and water pail embodying a cylindrical vessel, a detachable spout connected therewith, detachable braces connecting the spout with the vessel adjacent to the upper and the lower edges of the latter, a detachable handle having terminal hooks, and loops at the top edge and intermediate the top and bottom edges for connecting said handle with the vessel, a loop being provided at the opposite top edge of the vessel for the attachment of the top brace and with which the hook at one end of the handle member is capable of being connected.

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1,091,972. ANIMAL-POKE. WILLIAM B. SLOAN, Cleveland, Tenn. Filed June 26, 1912. Serial No. 706,032. (Cl. 119—142.)

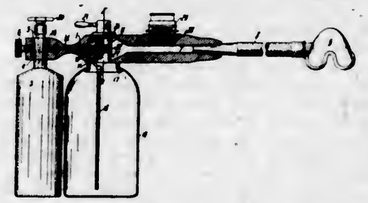
1. An animal poke comprising a frame including an upper section and a lower section, the upper section comprising lateral expansible members, connectors adjustably receiving the meeting ends of the sections, rings formed at the inner ends of the said connectors, horn receiving rings rotatably mounted within the first mentioned rings, a nose piece carried by the lower section of the frame, and a nose guard flexibly connected with the nose piece.



2. An animal poke comprising a frame including an upper section and a lower section, the upper section comprising lateral expansible members, connectors adjustably receiving the meeting ends of the sections, rings formed at the inner ends of the said connectors, horn receiving rings rotatably mounted within the first mentioned rings, a nose piece carried by the lower section of the frame, a nose guard flexibly connected with the nose piece, and a pricking point carried by the nose piece, said guard serving to normally maintain the pricking point out of contact with the animal's nose.

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1,091,973. APPARATUS FOR ADMINISTERING ANESTHETICS. WESLEY LINFORD SMITH, Pittsburgh, Pa. Filed Jan. 20, 1913. Serial No. 743,106. (Cl. 128—13.)



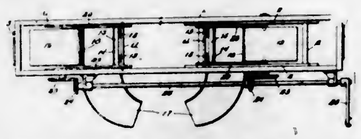
1. Apparatus for administering gaseous anesthetics, comprising a single integral body member provided with a transverse bore and arranged at one end of said bore to receive a gas receptacle, said member having a longitudinal passage communicating at one end with said bore and a transverse passage leading from said bore to the atmosphere, said body member being arranged at the other end of said longitudinal passage for the attachment of a tube leading to a mantle or hood, said body member at its other end being arranged for attachment to an anesthetic reservoir and having a passage leading therefrom to said gas receptacle, and a valve in said bore arranged to control both the supply of anesthetic from said receptacle and the supply of air through said transverse passage to the longitudinal passage in said body member for transmission thereof to the mantle or hood.

2. Apparatus for administering gaseous anesthetics, comprising a single integral body member provided with a transverse bore and arranged at one end of said bore for connection to a gas receptacle, said member having a longitudinal passage communicating at one end with said bore and a transverse passage having its axis normal to the axis of said bore and open at both ends to the atmosphere and between its ends intersecting said bore, said body member at the other end of said longitudinal passage being arranged for the attachment of a tube leading to a mantle or hood, said body member at its opposite end being arranged for connection to an anesthetic reservoir and having a passage leading therefrom to said gas receptacle, and a valve in said bore arranged to control both the sup-

ply of anesthetic to said receptacle and the supply of air through said transverse passage to the longitudinal passage in said body member for transmission therethrough to the mantle or hood.

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1,091,974. MILKING-MACHINE. VINCENT SOBUSH, Green Bay, Wis. Filed Dec. 17, 1912. Serial No. 737,262. (Cl. 31—96.)



1. In a milking machine, a casing, a teat-compressing milking device supported in said casing adjacent to one end thereof, a frame supported slidably in the casing, a teat-engaging milking device supported in said frame, and means whereby the two milking devices may be simultaneously actuated.

2. In a milking machine, a casing, a pivotally supported frame, shafts supported for rotation with respect to said frame, sprocket wheels on said shafts, link belts guided over the sprockets, compression rollers carried by the link belts, a partition supported stationary with respect to the frame, a resiliently supported pressure board carried by the partition, loosely supported teat-engaging shields, and means for adjustably supporting the free end of the pivoted frame with respect to the stationary partition.

3. In a milking machine, a resiliently supported pressure board, a pivotally supported frame, shafts mounted for rotation with respect to said frame, endless belts guided over said shafts, compression rollers carried by said belts, and teat-engaging shields supported loosely between the pressure board and the pivoted frame and having oppositely curved flanges at their upper ends.

4. In a milking machine, a casing, a resiliently supported pressure board, suitably supported endless belts, pressure rollers carried by said belts, teat-engaging shields supported loosely between the pressure board and the roller carrying belts, said shields being provided with curved flanges at their upper edges, and milk receiving troughs supported adjacent to the lower ends of the shields.

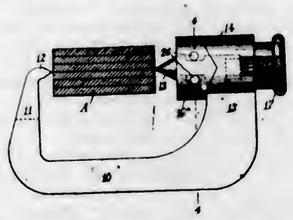
5. In a milking machine, an auxiliary frame supported in said main frame for longitudinal sliding movement therein, a milking device supported in the main frame and including a resiliently supported pressure board, a tiltable frame, a shaft supporting said frame, a second shaft supported for rotation in said frame, endless elements guided around said shafts, and shields supported loosely between the endless elements and the pressure board, a similar milking device supported in the auxiliary frame, and means for simultaneously actuating the two milking devices irrespective of the position of the auxiliary frame.

[Claim 6 not printed in the Gazette.]

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1,091,975. DEVICE FOR OPENING ELLIPTICAL SPRINGS. CHARLES N. SOWDEN, Guantanamo, Cuba. Filed July 16, 1913. Serial No. 779,290. (Cl. 81—3.)

1. A device of the character described, comprising a frame having arms, one of which constitutes a fixed jaw, said jaw having a wedge member disposed in the direction of the opposite arm, and a movable jaw having a stem axially movable and adapted to turn in said opposite arm, the movable jaw having a wedge member disposed in the direction of the opposite arm, the said stem extending through its supporting arm and provided at the end opposite the wedge member with a handle lever to rock the same, the opposed faces of the jaw and its supporting arm having cam faces formed by opposite inclines presenting on said jaw and arm alternate V-shaped recesses and tapering projections, the sides of which recesses and projections constitute intersecting elements of double right and left threads, the terminals of the projecting members on the cam faces of the arm and jaw presenting co-acting locking formations, so that the jaw will be locked against retrograde movement when its cam members are directly opposite corresponding members on the arm.



2. A device of the character described, comprising a frame having arms, one of which constitutes a fixed jaw, said jaw having a wedge member disposed in the direction of the opposite arm, and a movable jaw mounted for axial and turning movement in the said opposite arm, the opposed faces of the movable jaw and its supporting arm having cam faces formed by opposite inclines presenting on said jaw and arm V-shaped recesses and tapering projections, the sides of which recesses and projections constitute intersecting elements of double right and left threads.

3. A device of the character described, comprising a frame having arms, one of which constitutes a fixed jaw, said jaw having a wedge member disposed in the direction of the opposite arm, and a movable jaw mounted for axial and turning movement in the said opposite arm, the opposed faces of the movable jaw and its supporting arm having cam faces formed by opposite inclines presenting on said jaw and arm V-shaped recesses and tapering projections, the sides of which recesses and projections constitute intersecting elements of double right and left threads, the terminals of the projecing members on the cam faces of the arm and jaw presenting co-acting locking formations so that the jaw will be locked against retrograde movement when its cam members are directly opposite corresponding members on the arm, but is capable of receding when turned in either direction from the engaged position of the projecting members.

4. A device of the character described, comprising a frame having arms one of which is formed with a wedge member projecting in the direction of the opposite arm, a jaw mounted to rock in said opposite arm and to move axially therein, means for moving the said jaw axially upon a turning movement of the same, means for rocking the movable jaw to move it axially, a wedge element projecting from the face of the movable jaw and having a stem extending axially in said jaw, a set screw in the movable jaw for adjusting the wedge member to give more or less projection beyond the face of the movable jaw, and pins extending transversely of the movable jaw, the stem of the wedge member being recessed, permitting a movement of the wedge element relatively to the pins in response to movements of the set screw.

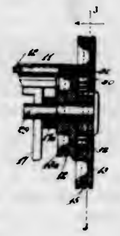
5. In a device of the class described, in combination with spreading wedges, actuating devices presenting opposed serrations complementary to each other and adapted to operate the spreading wedges by a turning movement of said serrations in either direction relatively to each other.

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1,091,976. ACTUATING MEANS FOR SWIVEL LAMP-HOLDERS. CHARLES N. SOWDEN, Guantanamo, Cuba. Filed July 16, 1913. Serial No. 779,291. (Cl. 240—62.)

1. The combination with a spring pressed swivel lamp holder and a flexible actuating element therefor, of a slack take-up, comprising relatively movable sheaves, and an interposed spring connected respectively with said sheaves, the sheaves being provided with co-acting engaging members, the spring when under tension tending to give a relative movement to the sheaves, and separate the mentioned members thereon, the one sheave having connection with the mentioned flexible element, and there being a flexible element connecting the other sheave with the lamp holder; the spring pressure exerted on the lamp holder being greater than the tension exerted on the sheaves by the spring thereof so that the latter spring may give a relative movement to the sheaves without affecting the lamp holder.



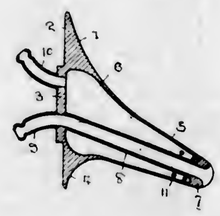


2. The combination with spring pressed swivel lamp holders, of sheaves, flexible elements connecting the said sheaves with the respective lamp holders, a second sheave associated with each of the first mentioned sheaves, coil springs interposed between the sheaves and tending when under tension to give a relative movement thereto, lugs on the sheaves in the path of movement of each other, a flexible element connected with each of the second mentioned sheaves, and winding in the reverse direction from the first mentioned flexible elements, and means for exerting a pull on either of the mentioned flexible elements of the second sheaves.

3. In a device of the character described, relatively movable sheaves each adapted to receive a flexible element, a coil spring between the sheaves and tending, when under tension, to give a relative movement to the sheaves, and members on the sheaves in the path of movement of each other, the spring normally tending to so turn the sheaves as to separate the said members.

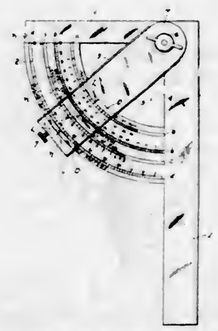
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1,091,977. SYRINGE. JAMES A. SPECK, Pawhuska, Okla. Filed Sept. 9, 1911. Serial No. 648,445. (Cl. 128—25.)



A recurrent syringe consisting of a dam, a hollow tapering stem extending inwardly at an oblique downward angle, continuously from the dam to the end of the stem, forming the body of the syringe and a fluid chamber, a central outflow tube passing through the dam, the fluid chamber and the small end of the stem, said tube being fully open from end to end, and an inlet tube for the fluid chamber passing through the dam above the outflow tube, said stem being provided with lateral openings adjacent to its inner, small end in position to direct liquid discharged therefrom, laterally, the arrangement being such that clean fluid is discharged laterally into the vagina to contact with, clean and distend the walls thereof while the contaminated fluid contents are freely discharged and prevented from entering the body of the syringe.

1,091,978. BEVEL-SQUARE. LOUIS SPIES, St. Louis, Mo. Filed June 30, 1913. Serial No. 776,580. (Cl. 33—93.)



1. In combination with a square having ruling edges intersecting at right angles, a scale plate between said edges provided with an arc graduated in terms of inches rise per foot of common run in a pitch roof, a second protractor arc suitably graduated, a third arc arbitrarily graduated but referable to the protractor arc, an arm pivoted to the square and traversing the scale plate and provided with indices coöperating with the several arcs, the index arm when set to any given graduation on the first arc indicating on the third arc the graduation to which the arm shall be set on the protractor arc for determining the angle of bevel cut of the jack rafter.

2. In combination with a square having ruling edges intersecting at right angles, a scale plate between said edges provided with an arc graduated in terms of inch rise to the foot of common run in a pitch roof, a second arc graduated arbitrarily and serving as a base for subsequent calculations, a third graduated arc, an arm pivoted to the square and traversing said scale-plate and provided with indices coöperating with said arcs, the index arm when set to any given graduation on the first arc indicating on the second arc the graduation to which the arm shall be set on the third arc for determining the angle of plumb cut of the hip and valley rafters, a fourth arc graduated in terms of length of hip or valley rafter per foot of common run, the index arm indicating such length on said fourth arc when set to its proper position on the third arc aforesaid.

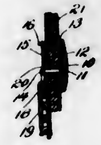
3. In combination with a square having ruling edges intersecting at right angles, a scale plate between said edges provided with an arc graduated in terms of inch rise per foot of common run in a pitch roof, a second arc graduated arbitrarily and serving as a base or variable constant for subsequent calculations, a third graduated arc, an arm pivoted to the square and traversing said scale-plate and provided with indices coöperating with said arcs, the index arm when set to any given graduation on the first arc indicating on the second arc the graduation to which the arm shall be set on the third arc for determining the angle of bevel cut for the hip and valley rafters.

4. In combination with a square having straight ruling edges intersecting at right angles, a scale plate spanning the space between said edges and provided on one face with an arc graduated in terms of inches rise per foot of run in a pitch roof, a second protractor arc suitably graduated and identified with the designation of bevel cut of jack rafters, a third arc graduated in terms of length of common rafters per foot of run, a fourth arc graduated arbitrarily and forming a variable constant involved as an element in calculations with the second arc, and on the opposite face with an arc having graduations directly referable to the arbitrarily graduated arc on the first face and identified with the notation of plumb cut of common and jack rafters, with a second arc indicating the length of hip or valley rafter per foot of common run for any given division on the first graduated arc aforesaid, and with a third arc graduated to indicate the bevel cut of a

hip or valley rafter, an index member having arms coöperating with the opposite faces of the scale-plate and with the arcs thereof, and having index lines positioned to operate with the respective arcs for the purpose set forth.

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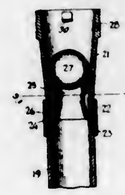
1,091,979. BUTTON-CLASP. OSCAR E. SPOTT, Richmond, Va. Filed Apr. 20, 1912. Serial No. 692,027. (Cl. 24—97.)



In a device of the class described comprising a button, means for preventing the loss of said button, said means including a plate of rectangular configuration, a bearing member projecting laterally from the rear face of the plate and transversely of said button, a triangularly shaped clamping member having an equal number of sides and having one of said sides mounted in the bearing member for swinging movement, a pin carried by the plate and adapted to be engaged by the triangular member at the point of juncture of the other of said sides, and an eye formed integrally with the bearing member at its medial portion and depending therefrom to be engaged and support a chain.

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1,091,980. SAFETY-VALVE. HARRY STEINBERG, Huntingdon, Pa. Filed Mar. 3, 1913. Serial No. 751,816. (Cl. 137—53.)



1. A safety attachment for hot water boilers commonly used in connection with stoves and ranges, said boiler having an exit pipe leading centrally from the top portion thereof, comprising a substantially inverted frusto-conical valve casing carried by said pipe and forming a substantially neck-like portion enlarged toward its upper end, a hyperbola-like sleeve having an outwardly extending lower end held between the pipe and casing and forming a valve seat at its upper end, said end snugly fitting the casing, and a relatively light weight ball valve coöperating with the seat to automatically relieve the boiler of excess steam pressure and serving to resist back pressure and forming a water seal, the interior diameter of the casing being greater than the diameter of the valve and that of the sleeve being less than the diameter of the valve.

2. An attachment for hot water boilers of the class described, comprising an exit pipe leading from the top portion of the boiler, and means carried by the pipe to automatically relieve the boiler of excess pressure, said means comprising a frusto-conical valve casing carried by said pipe, a concave sleeve fixed therein and having oppositely flared ends producing a valve seat at one end and an attaching flange at the other, a ball valve mounted in the casing and normally positioned on the seat to close the passage through the sleeve, and means arranged transversely of the casing to prevent upward displacement of the valve beyond the casing.

1,091,981. TIRE-PROTECTIVE RIVET. EDWIN BALL STIMPSON, Brooklyn, N. Y., assignor to Edwin B. Stimpson Company, a Corporation of New York. Filed Jan. 28, 1908. Serial No. 412,968. (Cl. 152—14.)

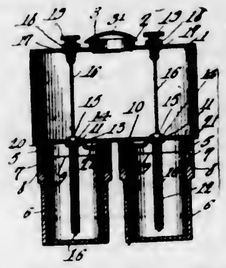


1. A protective rivet comprising in combination a base, a bent strip resting on one of its bent edges on said base and secured in that position by portions of the base in contact with its ends, and a shank projecting below the base.

2. A protective rivet comprising in combination a cup, a pair of independent centrally bent strips assembled with their bent central portions located adjacently at the middle of the cup and with their sides radiating outwardly toward the periphery of the cup, one of the bent edges of each of said strips projecting from the cup in road-contacting position, said strips being secured in the above relation by the sides of the cup infolded against the ends of the strips, and a shank projecting below the base.

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1,091,982. ACETYLENE-LAMP. BRUCE B. STONE, Mount Clare, W. Va. Filed Feb. 27, 1913. Serial No. 751,123. (Cl. 48—23.)



1. In an acetylene lamp the combination of a water reservoir provided with an inlet opening therein, a plurality of carbid containers removably mounted therebeneath and supported thereby, tubes communicating with the said reservoir and with the said containers, means for regulating the water supply through the said tubes, gas burner tubes communicating with the said carbid containers and provided with flared ends.

2. In an acetylene lamp the combination of a water reservoir, cylindrical supports arranged therebeneath, cylindrical carbid containing cups threadedly engaging said supports, said carbid containers spaced a distance below said reservoir to form non-communicating gas chambers thereby, means for supplying water from said reservoir to said containers, means for regulating the said supply, independent gas burner tubes communicating with the said gas chambers and terminating therein in shielded flared upturned side portions.

3. In an acetylene lamp the combination of a water reservoir, provided with an inlet opening in the top thereof, a cover therefor and provided with an air inlet opening therein, two cylindrical supports mounted beneath said reservoir and secured thereto, cylindrical carbid container cups threadedly engaging said supports, means for supplying water from said reservoir to said carbid containing cups, means for regulating the supply, said cylindrical supports defining non-communicating compartments, independent gas burner tubes with gas burners at the outer extremities thereof, the inner ends of said gas burner tubes extending within the said gas chambers and provided with shielded flared end portions.

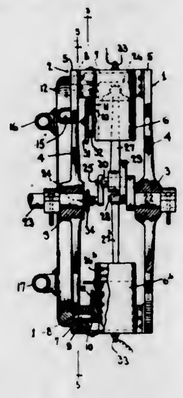


4. In an acetylene lamp the combination of a water reservoir, carbid containing cups removably mounted therebeneath and supported thereby, said carbid containers defining non-communicating compartments, gas burners mounted there in front, and gas burner tubes communicating with said gas burners and extending within said gas chambers and provided with shielded end portions.

5. In an acetylene lamp the combination of a water reservoir with an inlet opening in the top thereof, two cylindrical supports mounted beneath the said reservoir and secured thereto, cylindrical carbid containing cups threadedly engaging said supports, means for supplying water from said reservoir to said carbid containing cups, means for controlling the said supply, a reflector supported by said reservoir, gas burners mounted there in front, gas supplying tubes communicating with the said burners and extending within the said cylindrical supports, the end portions of said gas supplying tubes flared to provide shielded end portions.

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1,091,983. INTERNAL-COMBUSTION ENGINE. SIMON S. SUTTON, Eldorado, Ill. Filed Mar. 13, 1913. Serial No. 754,074. (Cl. 123—44.)



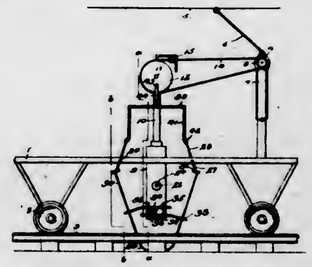
1. In a rotary engine of the character described, a stationary crank shaft, a pair of wheels revolubly mounted about the axis of said shaft, a series of cylinders carried by said wheels and having therein combined inlet and exhaust ports opening through one of said wheels, a stationary channeled ring having its open side in fluid-tight engagement with the wheel through which the ports open, said ring being divided into supply and exhaust compartments with which the ports are successively brought into engagement, fuel supply and exhaust tubes connected with said supply and exhaust compartments, pipes connected with said tubes, valves in said tubes and pipes whereby the latter may be connected with either the supply or exhaust compartments, pistons slidably mounted in said cylinders and having an operative connection with the crank of said shaft, and valves to open and close the ports in said cylinders.

2. In a rotary engine of the character described, a stationary crank shaft having a crank arm at its inner end and a crank pin projecting from the arm, a second crank arm secured to the inner end of said crank pin and standing in alinement with said shaft, a wheel rotatably mounted on the latter, a driving shaft alined with the first-named shaft, a second wheel fast on this shaft, cylinders secured between and rigidly connecting said wheels and having intake and exhaust ports opening through one of said wheels, and controlling valves for said ports; combined with a fixed ring having channels with which said ports register, a disk mounted on said crank pin, and piston rods connected at their inner ends to said disk and connected at their outer ends to the pistons in the cylinders.

3. In a rotary engine of the character described, a stationary crank shaft having a crank arm at its inner end and a crank pin projecting from the arm, a second crank arm detachably secured to the inner end of said crank pin and having a bearing pin standing in alinement with said shaft, a wheel rotatably mounted on the latter, a driving shaft alined with the first-named shaft, a second wheel fast on this shaft, the latter having a socket adapted to receive said bearing pin, cylinders secured between and rigidly connecting said wheels and having intake and exhaust ports opening through one of said wheels, and controlling valves for said ports; combined with a fixed ring having channels with which said ports register, a disk rotatably mounted on said crank pin, and piston rods connected at their inner ends to said disk and connected at their outer ends to the pistons in the cylinders.

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1,091,984. RAILWAY-TRACK-TAMPING MACHINE. NICOLA TALARICO, Turner, Me. Filed July 22, 1913. Serial No. 780,552. (Cl. 104—173.)



1. In a machine of the class described, the combination of a supporting frame, a pair of rock shafts mounted therein and each having cranks and also provided with a crank lever, tamps or shovels connected to the cranks of the rock shafts for operation thereby, guides for said tamps or shovels, a revoluble driving element, a vertically movable operating element actuated by the revoluble driving element and connected to the wrists of the lever crank of the rock shafts to impart rocking motion to said rock shaft, and having slots in which the wrists of the lever crank operate.

2. In a machine of the class described, the combination of a supporting frame, a rock shaft mounted therein and having cranks and also provided with a crank lever, tamps or shovels connected to the cranks of the rock shaft for operation thereby, a guide for said tamps or shovels, a revoluble driving element, and an operating element actuated thereby and connected to the wrist of the lever crank of the rock shaft to impart rocking motion to said rock element, and means to raise and lower said driving element for the purpose set forth.

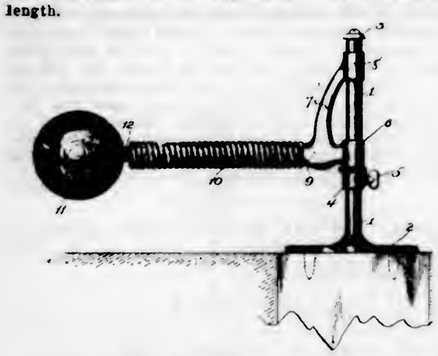
3. In a machine of the class described, the combination of a supporting frame, a standard mounted for vertical movement therein and having an elevating screw, a swivelly mounted adjusting nut engaging said elevating screw, means to operate said nut and cause the latter through the instrumentality of the screw to raise or lower said standard, a rotary driving element carried by said standard, a rock shaft having cranks and also provided with a crank lever, tamps or shovels connected to the cranks of the rock shaft for operation thereby, a guide for said tamps or shovels, and an operating element actuated by the revoluble driving element and connected to the wrist of said crank lever, for the purpose set forth.

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1,091,985. DEVICE FOR PRACTISING GOLF-STROKES. EDWIN C. THOMPSON and LOY S. DROMGOLD, Chicago, Ill. Filed Aug. 16, 1913. Serial No. 785,101. (Cl. 46—4.)

1. A device for practising golf, consisting of a base, a cylindrical standard thereon, an elongated bracket mount-

ed to rotate on the standard, a coiled spring arm secured at one end the bracket adjacent the lower end of the latter and supported in approximately horizontal position and a golf ball on the outer end of the coiled spring arm, the said arm extending approximately from the bracket to the ball so as to be equally flexible throughout its length.



2. A device for practising golf consisting of a base, a cylindrical standard thereon, an adjustable sleeve on the standard, a bracket mounted to rotate on the standard above the sleeve and resting on the latter, a coiled spring arm secured at one end to the bracket and supported by the latter in approximately horizontal position, and a golf ball secured to the outer end of said spring arm which latter extends approximately from the bracket to the ball so as to be equally flexible throughout its length.

3. A device for practising golf, consisting of an upright member, a coiled spring arm attached to said upright member so that it can rotate about it, the said arm being approximately horizontal and movable vertically on said upright member and a golf ball on the outer end of said arm.

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1,091,986. FILING DEVICE FOR LOOSE LEAVES OR SIMILAR BODIES. JOHN TRÄGÅRDH, Gottenborg, Sweden. Filed Apr. 24, 1913. Serial No. 763,311. (Cl. 129—17.)



1. An improved loose leaf filing book or binder comprising two back- or base-sections hinged together, inwardly bent expanding retaining members projecting from the inner sides of the back sections and consisting each of two pieces slidable along each other, one piece of each retaining member fastened at its rear end to one back section and the top end of the other piece resting against the opposite back section, a spring inserted between the two pieces in each retaining member, inclined to separate the two pieces so as to elongate the total length of the retaining members, and a locking device adapted to retain the back sections closed to any desired extent.

2. An improved loose leaf filing book or binder comprising two back or base-sections hinged together, inwardly bent expanding retaining members projecting from the inner side of the back sections and consisting each of two pieces slidable along each other, one piece shaped as a tube and fastened at its rear end to the one back section, and the other piece inserted in the tubular piece and resting at its top end against the opposite back section, a spiral spring placed inside the tubular piece and acting upon the other piece so as to throw this piece out of the tubular piece in order to increase the total length of the retaining members, and a locking device adapted to retain the back sections closed to any desired extent.

3. An improved loose leaf filing book or binder comprising two back or base sections hinged together, inwardly bent expanding retaining members in two pieces slidable along each other, one piece being tubular and the other piece inserted into the first mentioned piece, a spiral spring inside the tubular piece and bearing on the other piece, a member in the tubular piece sliding in a slot in the other piece and bearing against an abutment in this piece when the pieces are thrown apart so far as desired in order to prevent entire separation of the two pieces, and a locking device adapted to retain the back sections closed to any desired extent.

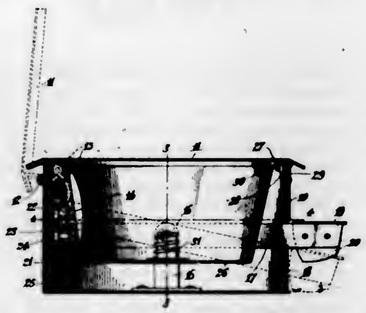
4. An improved loose leaf filing book or binder comprising two back or base sections hinged together, inwardly bent retaining members adapted to automatically expand when the back sections are opened out, said retaining members being of an elliptical cross section with the minor axis directed toward the back sections and the major axis parallel with the back sections, and a locking device adapted to retain the back sections closed to any desired extent.

5. An improved loose leaf filing book or binder comprising two back or base sections hinged together, inwardly bent, automatically expanding retaining members in two pieces, stopping members to prevent the entire separation of the two pieces of the retaining members, and a locking device adapted to retain the back sections closed and consisting in a toothed segment fastened at one end to one back section and curved inwardly toward the opposite back section, and a ratchet pawl or pin, slidably attached to the last mentioned back section so as to be able to engage with a desired tooth on the said segment and reachable from one end of the back sections, and means for holding the pawl in and out of engagement with the toothed segment.

[Claim 6 not printed in the Gazette.]

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1,091,987. CUSPIDOR. PERCY TURNBULL, Atlantic City, N. J. Filed Apr. 3, 1913. Serial No. 758,673. (Cl. 4—39.)



1. In a cuspidor, the combination with a casing, of a lid therefor, a hinge on the casing and having connection with the lid for swingingly supporting the lid on the casing, a depending plate forming a part of the said hinge and lying within the casing, a ring-like actuating member mounted to swing within the casing and having its ends connected and projecting through a slot in the casing, a foot lever carried on the free ends of the actuating member, and the said depending plate having connection with the actuating member at its medial portion for swinging the lid into an open position when the foot lever is depressed, a cushion spring carried within the casing, and a collar on the actuating member and adapted to engage the said spring for cushioning the said lid relatively to the casing when the lid is returned to closed position therein.

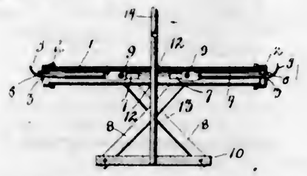
2. In a cuspidor, the combination with a casing, of a receptacle removably supported therein, sockets on the casing, and stop members on the receptacle and extending through the sockets to prevent rotation of the receptacle relatively to the said casing.

3. In a cuspidor, the combination with a casing, of a receptacle reposing therein, a peripheral flange on the receptacle and lying on the upper end of the casing to dependingly support the receptacle in the casing, and a series of stop members carried by the receptacle and adapted for engagement with the casing to prevent rotation of the receptacle within the casing.



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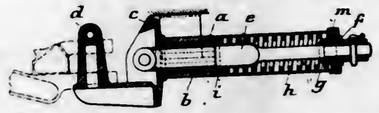
1,091,988. GAMBREL. WILLIAM EDWARD VAN DER VEEN, Harvard, Ill. Filed Apr. 24, 1913. Serial No. 763,435. (Cl. 17—30.)



A gambrel comprising a tube, a bar parallel with said tube, a hook having the shank passed through said tube and slidably and rigidly connected to the center of said bar, a pair of crossed links on each side of said shank, each pair of crossed links having their crossing disposed in close proximity to said shank and substantially midway between said tube and said bar, pivotal connection between said links and said bar, a pair of hooks slidably fitted in the ends of said tube, pins passing through said hook and through slots in said tube, and pivotal connections between said links and said pins.

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1,091,989. SPRING-COUPLING. KARL VÖLLER and EUGEN STEINHART, Dusseldorf, Germany, assignors to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Nov. 9, 1912. Serial No. 730,436. (Cl. 21—189.)

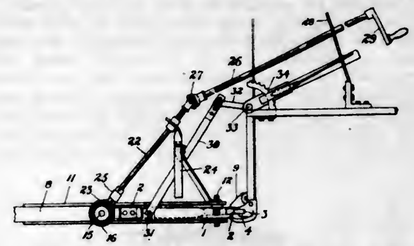


1. A coupling for vehicles comprising a member capable of rotating about a horizontal axis, a spring acting longitudinally on said member, a casing mounted on said member and inclosing said spring, said casing having at its opposite ends members forming abutments for the spring, one of said members being slidable in said casing, means for limiting the movement of the last mentioned abutment under the recoil of the spring, and means for holding the casing on the coupling member.

2. A coupling for vehicles comprising a member capable of rotating about a horizontal axis, a spring acting longitudinally on said member, a casing mounted on said member and inclosing said spring, said casing having at its opposite ends members forming abutments for the spring, one of said members being slidable in said casing, an end piece removably mounted on said casing, and forming a stop for the last mentioned abutment under the recoil of the spring, and means mounted on the coupling member for holding the casing thereon.

3. A coupling for vehicles comprising a member capable of rotating about a horizontal axis, a spring acting longitudinally on said member, a casing mounted on said member and inclosing said spring, said casing having at its opposite ends members forming abutments for the spring, one of said members being slidable in said casing, an end piece adjustably mounted on said casing and forming a stop for the last mentioned abutment under the recoil of the spring, and means mounted on the coupling member for holding the casing thereon.

1,091,990. ADJUSTABLE TONGUE. WALTER ALBERT WATTS, Toronto, Ontario, Canada, assignor to Massey-Harris Company, Limited, Toronto, Canada. Filed Feb. 28, 1913. Serial No. 751,324. (Cl. 21—114.)



1. In mechanism of the class described the combination with a supporting base comprising two members, each adapted at its rear end for connection with the apparatus to be drawn and secured together at their forward ends to form a triangle, and a transverse member forming a tongue support connected at one end with the two former members at the apex of the triangle, of a tongue pivoted on one of said first-mentioned members adjacent to its rear end; and adjusting mechanism connected with the said tongue and with the said base adjacent the apex of the triangle.

2. In mechanism of the class described the combination with a supporting base comprising two members, each adapted at its rear end for connection with the apparatus to be drawn and secured together at their forward ends to form a triangle, and a transverse member forming a tongue support connected at one end with the two former members at the apex of the triangle, and a rearwardly extending brace member connecting the other end of the tongue support with the member on which the tongue is pivoted adjacent said pivot, of a tongue pivoted on one of said first mentioned members adjacent to its rear end, and adjusting mechanism connected with the said tongue and with the said base adjacent the apex of the triangle.

3. In mechanism of the class described a supporting base formed of three external members arranged in rhomboidal form in plan and a diagonal member connecting opposite angles of the rhomboid, a pivotal connection for a tongue being formed adjacent one obtuse angle, and a connection for tongue-adjusting mechanism adjacent the other obtuse angle.

4. In mechanism of the class described a supporting base formed of three external members arranged in rhomboidal form in plan and a diagonal member connecting opposite angles of the rhomboid, a vertical pivotal connection for a tongue being formed near the rear of the base and also two horizontal pivotal connections whereby the base may be connected with the apparatus to be drawn.

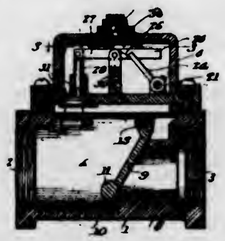
5. In mechanism of the class described a supporting base formed of three external members arranged in rhomboidal form in plan and a diagonal member connecting opposite angles of the rhomboid, a vertical pivotal connection for a tongue being formed near the rear of the base and also two horizontal pivotal connections whereby the base may be connected with the apparatus to be drawn, in combination with links pivotally connected with an external member and the diagonal member in front of and at opposite sides of the vertical pivotal connection; and suitably supported lifting means connected with the upper ends of the links.

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1,091,991. SAFETY GAS CUT-OFF. RALPH A. WAXLER, Lawrenceville, Ill. Filed Dec. 6, 1913. Serial No. 805,148. (Cl. 67—115.)

1. In a safety gas cut off, the combination of a casing having a pressure chamber provided with an inlet and an outlet, the outlet having a valve seat, a rock shaft extending at one end exteriorly of said pressure cham-

ber, a weighted valve carried by said shaft and adapted to close against said valve seat, a second rock shaft parallel with the first named shaft, a latch device upon the first named shaft, a latch member upon the second named shaft adapted for engagement with the latch device to hold the valve open, a spring acting upon the latch device to assist in closing the valve when released by the latch element, a controlling arm on the second named rock shaft, a rock link, a lever pivoted to the link and having an inclined surface adapted for engagement with the controlling arm, and a pressure controlled diaphragm connected with said lever for adjusting the same to move the arm to shift the second named rock shaft to a position to retract the latch element.



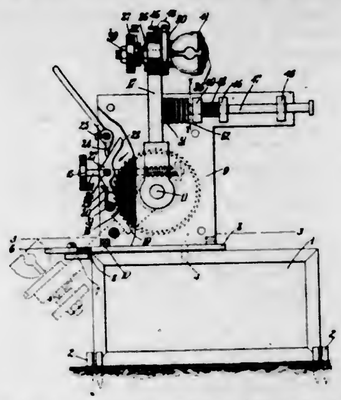
2. In a safety gas cut off, the combination of a casing having an inlet and outlet, the latter being provided with a valve seat, a rock shaft extending at one end exteriorly of the casing, a weighted gravity controlled valve carried by said shaft, an offset at one side of the casing through which the exteriorly projecting end of the rock shaft extends, a bonnet in communication with the casing and having a complemental offset, said offset forming a compartment, a second rock shaft journaled in the bonnet and compartment, a latch device upon the portion of the first named rock shaft inclosed within the compartment, a latch arm upon the portion of the second named rock shaft inclosed in the compartment, said latch arm being adapted for engagement with said latch device to hold the valve open, a spring acting on the latch device to assist in closing the valve when said latch device is disengaged from the latch arm, a controlling arm upon the second named rock shaft within the bonnet, a controlling arm within the bonnet, a lever pivotally mounted upon the rocker arm and having an inclined surface engaging the controlling arm for tilting said arm under prescribed conditions to release the latch arm, and a pressure controlled device influenced by variations of pressure in the casing for adjusting the lever to effect tilting of the controlling arm when the pressure in the casing falls to a predetermined degree.

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1,091,992. PROJECTING DEVICE. WESLEY WEBBER, Kearney, N. J. Filed Nov. 21, 1911. Serial No. 661,595. (Cl. 124—5.)

1. In a mechanical baseball pitcher, a support, a swinging arm, means for swinging said arm from one position to the other, quickly, a stop for arresting the movement of said arm, a cup for receiving a ball arranged on said arm, means for loosely holding said ball in said cup, means for rotatably holding said cup on said arm, a strap adapted to be wound around said ball when the same is arranged in said cup, one end of said strap extending beyond said cup, and means for clamping said strap to said arm at any point along the strap, whereby the strap may be wound to any desired extent around said ball.

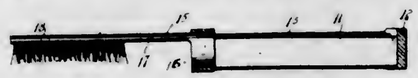
2. In a mechanical baseball pitcher, a base, a swinging arm arranged in said base, means for swinging said arm quickly from one position to the other, a stop for suddenly arresting the movement of said arm, a cup for receiving a ball, means for connecting said cup with said arm, a strap adapted to be wrapped around said ball when the same is in said cup, and to extend from said cup, and a pivotally mounted cam for pinching said strap against said arm, said cam pinching said strap at a point inter-



mediate the ends thereof, whereby any desired length of strap may be wrapped around said ball.

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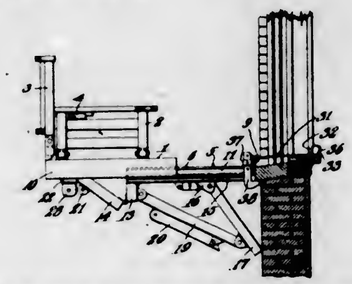
1,091,993. TOOTH-BRUSH. PETER F. WHITE and WALTER GRANT, McNeil Island, Wash. Filed Aug. 9, 1912. Serial No. 714,264. (Cl. 15—39.)



A tooth brush comprising a tubular handle having a slot extending longitudinally thereof, a brush carrying element having grooved sides engaged by the edges of said slot and slidable with reference to the handle, and a head on said brush carrying element adapted to close the end of said handle when positioned therein.

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1,091,994. COMBINATION-CHAIR. WILLIAM B. WINEGAR, Hannibal, Mo. Filed Oct. 31, 1913. Serial No. 798,495. (Cl. 20—87.)



1. In a device of the character described, a seat frame, front legs adjustably and pivotally connected thereto, rear leg sections pivotally connected to the said frame, braces terminally pivoted to the front legs and seat frame, and struts pivotally connected to the braces and attachable to the rear leg sections.

2. In a device of the character described, a seat frame, adjustable members carried by the side portions thereof, front legs pivotally connected to the adjustable members, rear legs embodying stubs secured to the said frame, and free sections hinged to the stubs, braces terminally pivoted to the said stubs and front legs, and struts pivotally connected to the braces and attachable to the free sections of the rear legs.



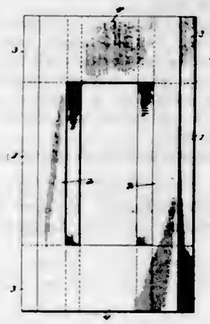
3. In a device of the character described, a frame, a seat slidable thereon, window casing engaging means attachable to the frame, front legs carried by the frame engageable with the wall of a building, rear legs embodying stubs secured to the said frame and free sections hinged to the said stubs, and means carried by the seat for engaging the free ends of the said free rear leg sections.

4. In a device of the character described, a frame, a seat slidable thereon, means attachable to the said frame for engaging over the lower end of a window casing, front legs adjustably and pivotally connected to the said frame, rear legs embodying stubs secured to the said frame and free sections hinged to the stubs, braces terminally pivoted to the front legs and the stubs, struts pivotally connected to the braces and attachable to the said free rear leg sections, and means for engaging the free ends of the said free rear leg sections to the seat.

5. In a device of the character described, a seat frame, front legs carried thereby and arranged to engage a building wall, and a window casing engaging attachment for the said frame embodying a cleat attachable to the frame, means carried by the terminals of the cleat for engaging a window sill, an apron pivotally connected to the cleat adapted to pass over the window sill, and means carried by the free portion of the apron for engaging over the inner side of the window casing.

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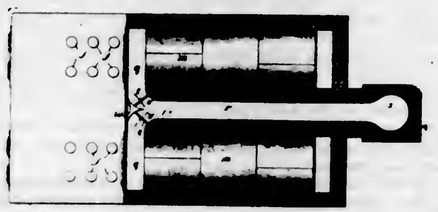
1,091,995. TRANSFORMER. NEWTON A. WOLCOTT and WILLIAM C. WOODLAND, Warren, Ohio, assignors to The Packard Electric Company, Warren, Ohio, a Corporation of Ohio. Filed May 12, 1910. Serial No. 561,010. (Cl. 171—124.)



In a transformer, a laminated closed magnetic core comprising parallel legs composed of sections of different widths and yokes connecting said legs, the yoke sections connecting the reduced widths of the legs being composed of a different number of laminations from the yoke sections connecting the widest portions of the legs.

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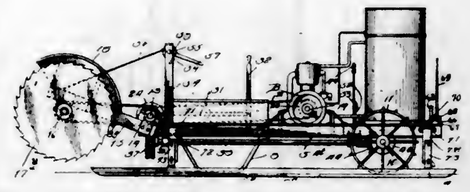
1,091,996. BOILER-FURNACE. JACOB MILTEN WOODLING, Morganton, N. C. Filed May 4, 1912. Serial No. 695,087. (Cl. 110—1.)



A twin boiler furnace embodying a smoke box at the forward end of each boiler, a stack flue connected to said smoke boxes and extending rearwardly between the boilers, a stack connected to the rear end of said flue, a deflector at the juncture of the smoke boxes and the flue, said deflector being approximately V-shaped in horizontal section and having its forward edge extending toward the center of the front end of the flue, and a damper in each of the throats or passages formed by said deflector.

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1,091,997. ICE-SAWING MACHINE. CHARLES Y. AKES, Custer, S. D., assignor to Mary J. Tubbs and Merritt J. Bailey, Custer, S. D. Filed June 27, 1912. Serial No. 706,228. (Cl. 62—8.)



1. In an ice sawing machine, the combination with a main frame including side sills and a front end sill, of a shaft supported upon said side sills for rotation, spaced pinions fixed on said shaft, a transverse U-shaped runner having legs operable between the front end sill and the shaft, each leg being formed with rack teeth engageable with a respective pinion, and means connected to said shaft for rotating the latter to raise and lower said runner.

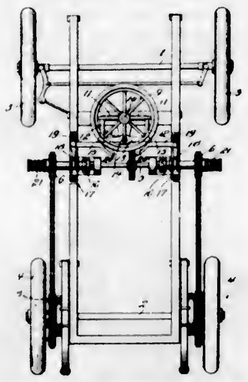
2. In an ice sawing machine, the combination with a main frame including an end sill, of spaced pairs of vertically disposed guides secured to the sill, a U-shaped runner having its legs slidably mounted between the respective pairs of guides, and means carried by the frame for raising and lowering the runner.

3. In an ice sawing machine, the combination with a main frame including an end sill, of spaced pairs of vertically disposed guides secured to the sill, a U-shaped runner having its legs slidably mounted between the respective pairs of guides, each leg being formed with rack teeth, a transverse shaft supported upon the frame, pinions fixed on the shaft and adapted to respectively engage the teeth of the runner, and means for rotating the shaft to raise and lower said runner.

4. In an ice sawing machine, the combination of a main frame, a worm shaft including a worm transversely supported for rotation upon the rear end of the frame, a saw supporting frame swingingly mounted upon the worm shaft, a saw arbor journaled in the frame, a driving connection between the shaft and the arbor, a motor including its crank shaft carried by the frame, a connection between the crank shaft and the worm shaft, an axle rotatably supported in the front end of the frame, a longitudinally disposed shaft supported by the frame, a worm gear fixed on the shaft for engagement with the worm, and a driving connection between the other end of the shaft and the axle.

5. In an ice sawing machine, the combination of a main frame, a worm shaft including a worm transversely supported for rotation upon the rear end of the frame, a saw supporting frame swingingly mounted upon the worm shaft, a saw arbor journaled in the frame, a driving connection between the shaft and the arbor, a motor including its crank shaft carried by the frame, a connection between the crank shaft and the worm shaft, an axle rotatably supported at the front end of the frame, spaced bevel gears fixed on the axle, a longitudinal shaft rotatably supported by the frame, a worm gear fixed on one end of the shaft and engaging the worm, a bevel pinion fixed on the other end of the shaft, and means connected to the last mentioned end of the shaft for swinging the same laterally to engage the last mentioned pinion with either of the pinions of the axle.

1,091,998. AUTOMOBILE DRIVING-GEAR. SERENO D. ALLEN, San Diego, Cal. Filed Dec. 27, 1912. Serial No. 738,873. (Cl. 21—90.)



1. In a driving gear for motor propelled vehicles, the combination with the machine frame, and the driving axle and wheels, of a divided motor-actuated drive shaft parallel to said axle, driving connections between the sections of said drive shaft and the driving wheels, lever arms on the steering post, clutches on said drive shaft between the side bars of the machine frame for throwing the drive shaft sections into and out of gear, a single lever operated by said lever arms, and a pair of clutch shifters both located in the path of said lever so as to be actuated thereby one at a time.

2. In driving gear for motor propelled vehicles, the combination with the machine frame, and the driving axle and wheels, of a divided motor-actuated drive shaft parallel to said axle, driving connections between the sections of said drive shaft and the driving wheels, a single lever operated by the steering post, clutches for throwing the drive shaft sections into and out of gear, and a pair of shifters arranged within the plane of the machine frame and provided with curved extensions which coact with said lever, whereby said single lever acts on both clutch shifters one at a time and operates to first throw out a clutch and then hold the same out without further movement of said shifters while the steering shaft is being turned.

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1,091,999. DRAWING-SUPPORT. WALTER ALLEN, Washington, D. C. Filed May 22, 1897. Serial No. 637,744. (Cl. 40—149.)

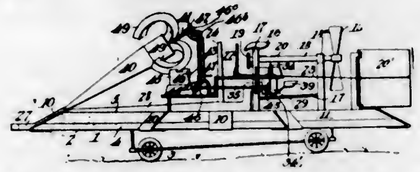


A drawing support adapted to provide a holder, carrier or sun-print frame for a drawing-sheet comprising a plate formed in one piece, with a ledge or batten having a retaining groove for receiving an edge of the drawing-sheet and a bearing or footing and retaining pin points struck out from the ledge or batten and projecting slightly from beneath the bearing or footing.

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1,092,000. FLYING-MACHINE. WILLIAM P. ANDERSON, Oakland, Cal., assignor of one-fourth to Peter J. Kolich, Oakland, Cal. Filed July 3, 1913. Serial No. 777,276. (Cl. 244—6.)

1. A flying machine including a disk-like flexible aeroplane body, having gas compartments therein, means for flexing said body, said body having a reaction surface, means for discharging air against the reaction surface and a rotary pump for supplying air to the discharging means.



2. A flying machine including a disk-like body forming an aeroplane inclosing a series of gas compartments, and means for warping said body, said means comprising a universally movable lever, and a plurality of radial arms connected with the lever and body and being pivoted intermediate their ends.

3. A flying machine including a disk-like body forming a combined aeroplane and aerostat, said body comprising a frame-structure having a re-action surface and a series of gas compartments, gas receptacles in said compartments, a nozzle arranged to discharge air against the reaction surface and means for supplying air to the nozzle.

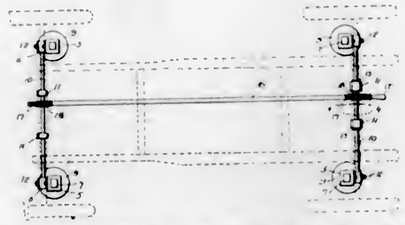
4. A flying machine including a combined aeroplane and aerostat, comprising a disk-shaped body formed of a flexible frame having a gas compartment having a reaction surface and a series of gas compartments and means for warping said frame, said means comprising a universally movable lever and a plurality of radial arms connecting the lever with the body.

5. A flying machine including a combined aeroplane and aerostat comprising a disk-shaped body formed of a flexible frame, means for flexing said body, comprising a universally movable lever arranged centrally of the disk shaped body, and a plurality of radial arms pivoted intermediate their ends and connected with the universal lever and disk shaped body.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,001. VEHICLE-JACK. JOSEPH P. ARMON, Chicago, Ill. Filed Aug. 14, 1913. Serial No. 784,816. (Cl. 57—15.)



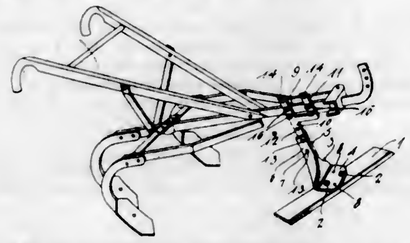
1. The combination with a vehicle, of a pair of hollow guides rigidly secured to each of the axles thereof, a standard slidable through each of said guides, a pair of transverse shafts, bearings depending from the axles for supporting said shafts, means operable by a rotation of the shafts for moving the standard simultaneously in the same direction, a main shaft extending longitudinally of the vehicle, a crank handle secured to one end of the main shaft, a worm wheel rigidly secured to each of the transverse shafts, and a pair of worms formed on the main shaft for engagement with the worm wheels, whereby, when the main shaft is rotated, the transverse shafts will be operated.

2. The combination with a vehicle, of a pair of hollow guides rigidly secured to each of the axles thereof, a rack standard slidable through each of said guides and formed with an enlarged base, a transverse shaft journaled under each of the axles, a pair of spur gears rigidly secured to each of the transverse shafts and meshing with the rack standards, the guides being slotted to permit of the spur gears engaging said standards, a longitudinal shaft, a pair of worms formed upon said shaft, a worm wheel rigidly secured to each of the transverse shafts and meshing with one of said worms, and means for rotating the longitudinal shaft, whereby the rack standard may be simultaneously raised or lowered.

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1,092,002. WEED-CUTTING ATTACHMENT FOR CULTIVATORS. CHARLES ARMSTRONG, Lewis, Iowa, assignor of one-half to William B. Davis, Lewis, Iowa. Filed Nov. 4, 1912. Serial No. 729,359. (Cl. 97—10.)



The combination with a cultivator beam, of a weed cutting attachment comprising a frame adapted to be attached to said beam, said frame consisting of a main bar and a substantially right angular shaped extension located along the length of the bar and projecting outwardly from one edge thereof, a shank embracing the lower extension of said bar and adjustable thereon, an outwardly projecting foot forming the lower end of the shank and provided with a plurality of openings in parallel relation to one another, a blade having a pair of openings therethrough on a line with the length of the blade, the lower embracing end of the shank being rearwardly curved oppositely toward the lower portion of the foot with which the blade is angularly engaged, and a pair of bolts adapted to be passed through the openings in the blade and the foot whereby the blade is adapted to be secured in reversed angles.

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1,092,003. RAIL-JOINT. WILLIS ARMSWORTH, Cerro Gordo, Ill. Filed Dec. 19, 1913. Serial No. 807,704. (Cl. 239—6.)

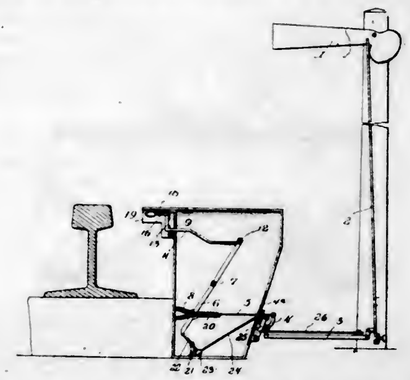


In a rail joint, the combination with the meeting ends of a pair of rails, said rails having their webs provided with a plurality of openings, of fish plates, one of which has its upper edge provided with a plurality of hooks for engaging the openings, the other fish plate having its upper edge provided with a plurality of projections for engaging said openings, said projections being disposed in overlapping relation with the hooks, and clamps for engaging the lower edges of the fish plates.

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1,092,004. RAILROAD-SIGNAL. CLYDE AURAND, Lewistown, Pa. Filed Sept. 10, 1912. Serial No. 719,612. (Cl. 246—16.)

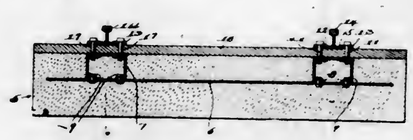
1. The combination with a semaphore and operating mechanism, of a horizontally slidable torpedo projecting arm having an apertured end, and a malleable torpedo holder having parallel legs to straddle the apertured end, one of said legs having a bulge or projection adapted to engage the aperture in the holder so as to secure the holder in position upon the projecting arm.



2. The combination with a semaphore and means for operating the same, of a slidably mounted torpedo projecting arm, an operating connection between the arm and the semaphore including a resilient member, a torpedo supporting member carried by the arm and means to prevent the operation of the said projecting arm during the operation of the semaphore.

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1,092,005. RAILROAD-TIE. AUGUST BACA, Fayetteville, Tex. Filed Dec. 20, 1913. Serial No. 808,018. (Cl. 238—3.)



A railroad tie of cementitious material having embedded within it a reinforcement consisting of a longitudinally-arranged bar provided upon each end with an upstanding, hollow, metal frame which is riveted directly thereto and has the outer face of its top member exposed and flush with the top face of the tie, said member being formed with a pair of threaded bolt holes; in combination with a cover plate mounted upon said tie face and formed adjacent each end with a pair of bolt holes registering with those of the adjacent frame, pairs of bolts passed through the second-named pairs of openings and engaged at their lower ends in the threaded, first-named pairs of openings, and a pair of rail-engaging clips mounted upon said cover plate and engaged by said bolts.

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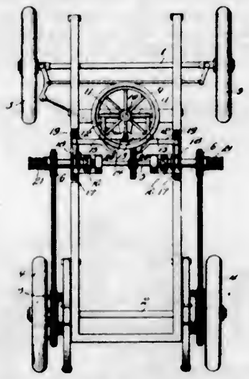
1,092,006. GAME-BOARD. WILLIAM A. BAILEY, Lincoln, Nebr. Filed May 31, 1913. Serial No. 770,897. (Cl. 46—61.)

1. A game board having a rim or wall, and a plurality of stationary elastic balls or spheres disposed at different points of the board adjacent and inside of said rim or wall.

2. A game board having a rim or wall provided with a continuous elastic cushion, and a plurality of elastic stationary spheres or balls located adjacent and inside of said cushion.

3. A game board having a rim or wall provided with parts disposed at angles to each other and elastic balls or spheres stationarily arranged inside of the rim or wall at the angles thereof.

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1. In a driving gear for motor propelled vehicles, the combination with the machine frame, and the driving axle and wheels, of a divided motor-actuated drive shaft parallel to said axle, driving connections between the sections of said drive shaft and the driving wheels, lever arms on the steering post, clutches on said drive shaft between the side bars of the machine frame for throwing the drive shaft sections into and out of gear, a single lever operated by said lever arms, and a pair of clutch shifters both located in the path of said lever so as to be actuated thereby one at a time.

2. In driving gear for motor propelled vehicles, the combination with the machine frame, and the driving axle and wheels, of a divided motor-actuated drive shaft parallel to said axle, driving connections between the sections of said drive shaft and the driving wheels, a single lever operated by the steering post, clutches for throwing the drive shaft sections into and out of gear, and a pair of shifters arranged within the plane of the machine frame and provided with curved extensions which coact with said lever, whereby said single lever acts on both clutch shifters one at a time and operates to first throw out a clutch and then hold the same out without further movement of said shifters while the steering shaft is being turned.

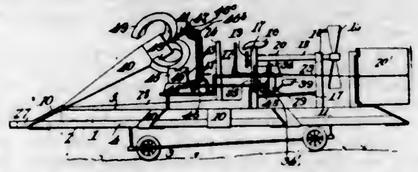
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1. A flying machine including a disk-like flexible aeroplane body, having gas compartments therein, means for flexing said body, said body having a reaction surface, means for discharging air against the reaction surface and a rotary pump for supplying air to the discharging means.



2. A flying machine including a disk-like body forming an aeroplane inclosing a series of gas compartments, and means for warping said body, said means comprising a universally movable lever, and a plurality of radial arms connected with the lever and body and being pivoted intermediate their ends.

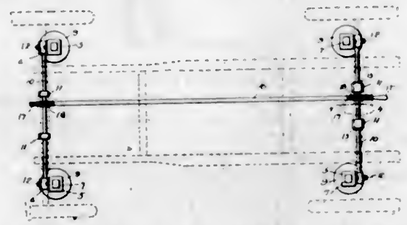
3. A flying machine including a disk-like body forming a combined aeroplane and aerostat, said body comprising a frame-structure having a re-action surface and a series of gas compartments, gas receptacles in said compartments, a nozzle arranged to discharge air against the reaction surface and means for supplying air to the nozzle.

4. A flying machine including a combined aeroplane and aerostat, comprising a disk-shaped body formed of a flexible frame having a gas compartment having a reaction surface and a series of gas compartments and means for warping said frame, said means comprising a universally movable lever and a plurality of radial arms connecting the lever with the body.

5. A flying machine including a combined aeroplane and aerostat comprising a disk-shaped body formed of a flexible frame, means for flexing said body, comprising a universally movable lever arranged centrally of the disk shaped body, and a plurality of radial arms pivoted intermediate their ends and connected with the universal lever and disk shaped body.

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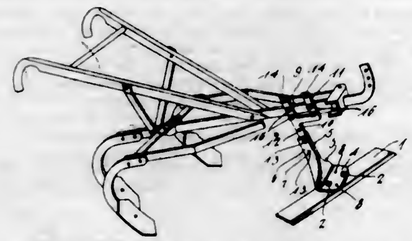


1. The combination with a vehicle, of a pair of hollow guides rigidly secured to each of the axles thereof, a standard slidable through each of said guides, a pair of transverse shafts, bearings depending from the axles for supporting said shafts, means operable by a rotation of the shafts for moving the standard simultaneously in the same direction, a main shaft extending longitudinally of the vehicle, a crank handle secured to one end of the main shaft, a worm wheel rigidly secured to each of the transverse shafts, and a pair of worms formed on the main shaft for engagement with the worm wheels, whereby, when the main shaft is rotated, the transverse shafts will be operated.

2. The combination with a vehicle, of a pair of hollow guides rigidly secured to each of the axles thereof, a rack standard slidable through each of said guides and formed with an enlarged base, a transverse shaft journaled under each of the axles, a pair of spur gears rigidly secured to each of the transverse shafts and meshing with the rack standards, the guides being slotted to permit of the spur gears engaging said standards, a longitudinal shaft, a pair of worms formed upon said shaft, a worm wheel rigidly secured to each of the transverse shafts and meshing with one of said worms, and means for rotating the longitudinal shaft, whereby the rack standard may be simultaneously raised or lowered.



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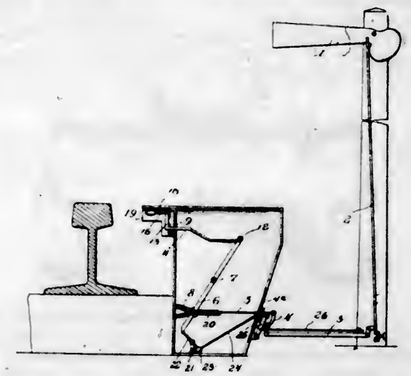
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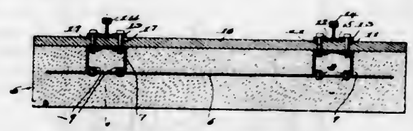
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2. The combination with a semaphore and means for operating the same, of a slidably mounted torpedo projecting arm, an operating connection between the arm and the semaphore including a resilient member, a torpedo supporting member carried by the arm and means to prevent the operation of the said projecting arm during the operation of the semaphore.

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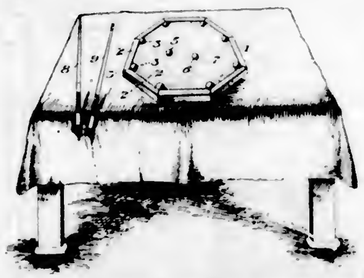
1,092,006. GAME-BOARD. WILLIAM A. BAILEY, Lincoln, Nebr. Filed May 31, 1913. Serial No. 770,897. (Cl. 46—61.)

1. A game board having a rim or wall, and a plurality of stationary elastic balls or spheres disposed at different points of the board adjacent and inside of said rim or wall.

2. A game board having a rim or wall provided with a continuous elastic cushion, and a plurality of elastic stationary spheres or balls located adjacent and inside of said cushion.

3. A game board having a rim or wall provided with parts disposed at angles to each other and elastic balls or spheres stationarily arranged inside of the rim or wall at the angles thereof.

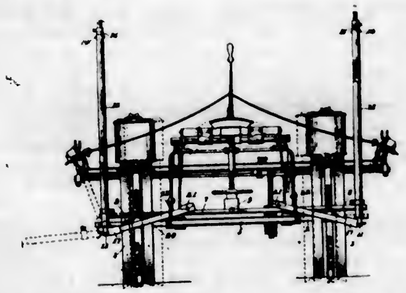
4. A game board having a rim or wall provided with an internal elastic continuous cushion formed of parts disposed angularly to each other, and elastic balls or spheres stationarily arranged inside the cushion at the angles thereof.



5. A game board having a rim or wall, a plurality of elastic spheres stationarily secured at intervals inside of said rim or wall, and loose playing balls adapted to be shot on said game board.

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1,092,007. MARKER MECHANISM FOR PLANTERS. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Mar. 6, 1908, Serial No. 419,434. Divided and this application filed June 21, 1911, Serial No. 634,508. Renewed Aug. 6, 1913. Serial No. 783,411. (Cl. 111—24.)



1. In a planter, the combination with the frame, supporting wheels and seeding mechanism, of a marking device comprising the marker and the supporting shaft therefor mounted longitudinally of the machine in bearings, one of said bearings being carried by the axle and the other by the frame parts to the rear of the supporting wheels.

2. In a planter, the combination with the frame, supporting wheels and seeding mechanism, of a marking device comprising the frame rotatable on an axis disposed longitudinally of the machine, the marker carried by the frame and the lever having approximately a right-angled connection with the frame and adapted to be engaged by a catch mounted upon the planter frame to hold the marker in an uplifted position.

3. In a planter, the combination of a main frame, an axle, supporting wheels for the axle, a longitudinally extending marker shaft, a bearing for the forward end of the marker shaft connected with one forward end of the axle, a bearing for the rear end of the marker shaft connected with the frame, a marker arm rigidly connected with the marker shaft and extending at a substantially right angle thereto, a marker on the end of the arm, and a marker controlling lever at substantially right angles to both the marker shaft and the marker arm.

4. In a planter, the combination of a frame, an axle, supporting wheels for the axle, a longitudinally extending marker shaft outside of the wheel at one side of the machine, a bearing for the forward end of the marker shaft supported on the end of the axle, a bearing for the rear end of the marker shaft supported on the planter frame, a marker arm rigidly connected with the marker shaft and extending at a substantially right angle thereto, a marker on the end of the arm, a marker controlling lever positioned at substantially right angles to both the shaft and the arm, and a latch on the planter frame adapted to engage the lever to hold the marker arm in upright position.

5. In a planter, the combination of a frame, an axle, supporting wheels for the axle, a longitudinal marker shaft at one side of the planter outside of the wheel, a bearing for the forward end of the marker shaft supported on the axle, a bearing for the rear end of the marker shaft supported on the frame, a marker arm connected with the rear end of the marker shaft and extending at a substantially right angle thereto, a marker on the end of the arm, and a diagonal brace extending from the forward end of the marker shaft to the outer part of the marker arm.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,008. BOX. LOYAL V. BENNETT, Jefferson, Ohio. Filed Apr. 12, 1913. Serial No. 760,696. (Cl. 229—45.)



1. In combination, a box body having vertical walls, a cover therefor having flanges to cover the walls and an intermediate strip surrounding the box and connected to the walls adjacent the upper edge and to the flanges adjacent their lower edge, said strip being substantially Z-shaped and adapted to straighten out when the cover is raised.

2. The combination with a box body and a cover for the same, of a connecting strip arranged between the walls of the body and the flanges of the cover, said strip having oppositely bent flanges at opposite side edges, the outer faces of said flanges being gummed and secured respectively to the walls adjacent their upper edges and to the flanges adjacent their lower edges, said strip being substantially Z-shaped in cross section and adapted to straighten out when the cover is raised.

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1,092,009. GROUNDING DEVICE. GEORGE A. BISHTON, Cedar Rapids, Iowa. Filed Feb. 10, 1912. Serial No. 676,772. (Cl. 173—31.)



The combination of a driving point having a cylindrical body, a reduced shank at the upper end of the body, and an annular impact shoulder around the shank, and a grounding strip partially embracing and fastened to the body of the driving point outside of the plane of the impact shoulder and extending upwardly therefrom, said grounding strip being semi-cylindrical in cross section.

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1,092,010. ADJUSTABLE SHOE-BUCKLE FASTENER. CHARLES M. BONHAM, New York, N. Y. Filed Mar. 31, 1913. Serial No. 757,848. (Cl. 2—187.)

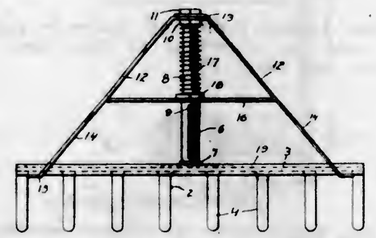


1. The combination of a body of a buckle or ornament, with an attaching device therefor comprising a base, and a stem connected therewith and having its upper end formed into a lug for connection with the said body and having its lower portion doubled laterally to form a lug for connection with said body.

2. A buckle attaching device comprising a single piece of metal formed into a base, a stem rising from the forward edge of the base, a lug on the upper end of the stem projecting forwardly therefrom, and a second forwardly-projecting lug on the lower portion of the stem, the lower lug being formed by doubling forwardly a portion of the stem and the stem being bendable adjacent the said base.

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1,092,011. RAKE-CLEANER. FRANK B. BOOSVELD, Lynchburg, Ohio. Filed June 2, 1913. Serial No. 771,280. (Cl. 55—146.)



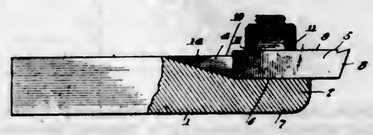
1. In combination with a rake, a cleaner comprising stripping plates, operating bars, U-shaped members formed integrally with the operating bars and secured to the stripping plates, a tubular member extending upwardly from the rake head, a cylindrical member slidably mounted within the tubular member, means connecting the upper extremities of the operating bars with the cylindrical member, and a spring interposed between the upper extremity of the cylindrical member and the upper extremity of the tubular member, said spring being adapted to exert pressure thereagainst and force the cylindrical member upwardly.

2. In combination with a rake, a cleaner comprising stripping plates, operating bars, U-shaped members formed integrally with said operating bars and connected with the stripping plates, a tubular member secured to the rake head intermediate its ends, a cylindrical member slidable with relation to the tubular member, angular extensions formed at the upper extremities of the operating bars, nuts carried by the upper end of the cylindrical member, said angular extensions being adapted to be clamped between the nuts, a transversely extending bar secured intermediate the operating bars, and a spring surrounding the cylindrical member and adapted to exert upward pressure thereagainst, thereby holding said cylindrical member in its upward position.

3. In combination with a rake, a cleaner comprising stripping plates, operating bars, U-shaped members formed at the ends of the operating bars and secured to the stripping plates, angular extensions formed at the upper extremities of the operating bars, a tubular member having longitudinal slots therein, a cylindrical member slidable in said tubular member, a pin extending through an aperture in the cylindrical member, the ends of said pin being adapted to enter the slots, screw threads formed at the upper extremity of the cylindrical member, internally screw threaded nuts adapted to coöperate with the screw threads on the cylindrical member and firmly clamp the angularly extending portions formed on the operating bars and means for holding the stripping plates in their upward position.

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1,092,012. LATHE-TOOL HOLDER. IRA BOTTS, Los Angeles, Cal. Filed Nov. 29, 1913. Serial No. 803,738. (Cl. 29—96.)



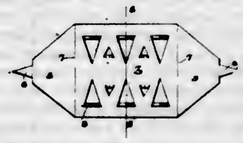
1. A tool holder of the class described comprising an elongated body constructed of resilient material, an externally threaded tapered boss formed upon the said body so as to project outwardly therefrom, the said body being provided with a longitudinal tool-receiving slot extending longitudinally through the said boss to divide the same into relatively yieldable sections, and a clamping nut having a tapered threaded bore adapted for engagement with the said boss.

2. A tool holder of the class described comprising an elongated body constructed of resilient material, an externally threaded tapered boss formed upon the said body so as to project outwardly therefrom, the said body being provided with a longitudinal tool-receiving slot extending longitudinally through the said boss to divide the same into relatively yieldable sections, an annular washer adapted to be positioned upon the said boss so as to surround the same and to engage the outer edge of a tool positioned within the said slot, the said washer being provided in its inner face with diametrically opposite notches for the reception of the adjacent edge of the tool, and a clamping nut having a tapered threaded bore adapted for engagement with the said boss.

3. In a device of the class described, an elongated holder body having a longitudinal tool-receiving slot therein opening through one of its end faces and adjacent longitudinal face, the base wall of the said slot being constructed to form an outer portion parallel to the longitudinal axis of the body and an inner portion which is inclined outwardly toward the longitudinal face of the body through which the slot opens, and means for clamping a tool in the said slot for engagement with the outer portion of the said base wall.

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1,092,013. TIE-PLATE. WILLIAM BRENNING, Shreveport, La. Filed May 21, 1913. Serial No. 769,052. (Cl. 238—2.)

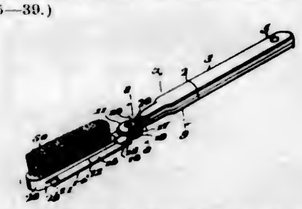


A tie plate formed from a sheet of bendable material including a body having integrally formed upwardly extending fingers, the said body between the fingers being provided with downwardly extending prongs, bendable sides for the body, said sides having their edges provided with teeth which are adapted to be bent at a right angle to the sides, the prongs of the teeth adapted to be inserted within the top of the tie, the sides bent over the

tie to retain the teeth at an angle to the sides of the tie to permit of the said teeth when forced within the sides of the tie exerting a downward pressure upon the top of the plate, and the fingers of the plate adapted to be bent over the base flanges of a rail which is adapted to be arranged upon the plate.

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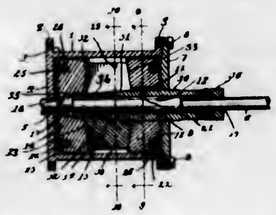
1,092,014. TOOTH-BRUSH. THOMAS L. BRIGGS, Brooklyn, N. Y. Filed June 28, 1913. Serial No. 776,322. (Cl. 15—39.)



A brush comprising a handle embodying substantially identical sections terminating in reduced portions, said reduced portions having substantially circular extensions, said extensions being disposed in spaced relation, the reduced portions of the handle sections being upstruck to provide axially located, relatively restricted recesses, a member pivotally connected between the circular heads of the handle sections, a brush head carried by said member, the said head having peripheral recesses, and a locking device carried by the handle sections and having a free locking portion freely slidable in said recesses in the reduced portions of the handle sections and projecting into the space between the circular heads and adapted for engagement in the peripheral recesses so as to hold the head against pivotal movement.

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1,092,015. AUTOMOBILE-CLUTCH. CLARENCE R. BRYANT, Fort Worth, Tex., assignor of one-fourth to Frank Chesnut and one-fourth to Calvin M. Templeton, Fort Worth, Tex. Filed May 20, 1913. Serial No. 768,793. (Cl. 192—7.)



1. A clutch of the class specified comprising a cylindrical drum constituting the driving member, parallel heads at opposite ends of said drum, a transmission shaft extending axially within said drum, abutment members in spaced relation to each other within said drum movable toward and away from said heads, one of said abutment members being carried rotatably with said shaft, a sectional spreader cone interposed between said abutment members, and a plunger arranged centrally of said abutment members and spreader cone and acting to expand the latter causing it to force said abutment members into driving engagement with the heads of the drum.

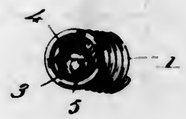
2. A clutch of the class specified comprising a cylindrical drum constituting the driving member, parallel heads at opposite ends of said drum, a transmission shaft extending axially within said drum, abutment members in spaced relation to each other within said drum movable toward and away from said heads, one of said abutment members being carried rotatably with said shaft, a sectional spreader cone interposed between said abutment members, a plunger arranged centrally of said abutment members and spreader cone and acting to expand the latter causing it to force said abutment members into driving engagement with the heads of the drum, said plunger having a keyed and sliding engagement with said transmission shaft and a keyed and sliding engagement with one of the abutment members.

3. A clutch of the class specified comprising a cylindrical drum constituting the driving member, parallel heads at opposite ends of said drum, a transmission shaft extending axially within said drum, abutment members in spaced relation to each other within said drum movable toward and away from said heads, one of said abutment members being carried rotatably with said shaft, a sectional spreader cone interposed between said abutment members, a plunger arranged centrally of said abutment members and spreader cone and acting to expand the latter causing it to force said abutment members into driving engagement with the heads of the drum, and antifriction bearings interposed between the outer faces of the abutment members and the heads of the drum.

4. A clutch of the class specified comprising a cylindrical drum constituting the driving member, parallel heads at opposite ends of said drum, a transmission shaft extending axially within said drum, abutment members in spaced relation to each other within said drum movable toward and away from said heads, one of said abutment members being carried rotatably with said shaft, a sectional spreader cone interposed between said abutment members, a plunger arranged centrally of said abutment members and spreader cone and acting to expand the latter causing it to force said abutment members into driving engagement with the heads of the drum, spring thrust rings carried by said abutment members, and antifriction bearing elements carried by said rings and bearing against the heads of the cylinder.

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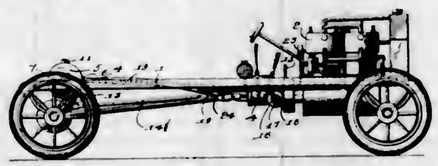
1,092,016. POISON-INDICATOR. RALPH W. BUGBEE, St. Louis, Mo. Filed Sept. 16, 1913. Serial No. 790,110. (Cl. 116—58.)



A poison indicator of the class described comprising an elastic band, tubular in form and made of spirally arranged spring wire and globular bells mounted in the bore of the tubular band to roll therein.

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1,092,017. MUFFLER FOR AUTOMOBILES. JACOB CARON, Nampa, Idaho. Filed Mar. 10, 1913. Serial No. 753,381. (Cl. 123—40.)



1. In an exhaust muffler the combination with an explosive engine, of an exhaust cylinder, means connecting said exhaust cylinder with said explosive engine for conveying the exploded gases therefrom to said cylinder, a vacuum pump, means for connecting said vacuum pump with said exhaust cylinder, vacuum indicating means connected to said last mentioned means, and automatic valve means carried by said exhaust cylinder for allowing the discharge of the exhaust from said casing in case of injury to said vacuum pump.

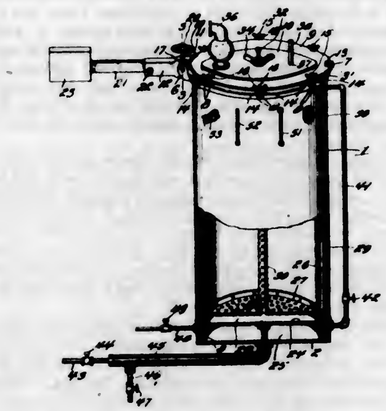
2. In an exhaust muffler the combination with an explosive engine, of an exhaust cylinder, a pipe connecting said explosive engine with said exhaust cylinder, a vacuum pump connected to said exhaust cylinder and constituting a normal outlet therefor, automatic valve means carried by said cylinder for allowing the discharge of exhaust from said exhaust cylinder in case of accident to said vacuum pump, an automatic inlet valve carried by said exhaust cylinder for admitting air into said exhaust cylinder in case sufficient amount of exhaust does not pass into said exhaust cylinder from said explosive engine.

3. In an exhaust muffler the combination with an explosive engine, of an exhaust tank, a vacuum pump, a drive gear coöperating with said engine, a gear coöperating with said drive gear for driving said vacuum pump, means connecting said explosive engine with said exhaust cylinder, means connecting said exhaust cylinder with said vacuum pump for creating a vacuum in said exhaust cylinder, and automatic valve means carried by said exhaust cylinder for admitting air into said cylinder and discharging exhaust therefrom.

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1,092,018. RETORT OR STILL. JOHN H. CASTONA, Laine, Miss., assignor to Castona Improved Process Co., Gulfport, Miss., a Corporation of South Dakota. Filed Dec. 13, 1911. Serial No. 665,422. (Cl. 203—6.)



1. In a retort or still, the combination of a retort cylinder, means for closing the upper end thereof, an elevated stationary head in the bottom of said cylinder, a removable head disposed below said stationary head and forming an intervening water jacket, a cage removably mounted within the cylinder and having a perforated bottom, forming with said stationary head an intervening collection chamber, means for withdrawing the products from said chamber, means for supplying water to the water jacket, and a valved overflow pipe for discharging the water therefrom.

2. In a retort or still, the combination of a retort cylinder, a removable head at the lower end of said cylinder, a stationary head closing the cylinder above said removable head and forming an intervening jacket, a cage removably mounted within the cylinder and having an elevated perforated bottom forming a chamber between the same and the stationary head, means for closing the top of the cylinder, a drain pipe communicating with said chamber and extending outwardly through the water jacket, an overflow pipe connected with the water jacket, a supply pipe leading to the water jacket and forming a water jacket about the drain pipe, and means for supplying water to said supply pipe.

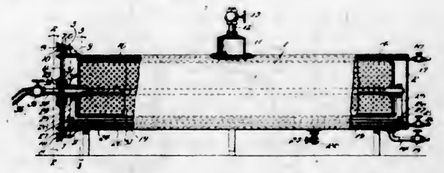
3. In a retort or still, the combination of a retort cylinder, means for closing the upper end thereof, a removable head at the end of said cylinder, a stationary head above the removable head and forming an intervening water jacket, a cage removably mounted within the cylinder and provided with a perforated bottom forming a chamber between the same and stationary head, a steam supply pipe connected with the perforated bottom of the cage and extending upwardly therein within the cage and exteriorly through the top of the cylinder, a water supply pipe communicating with the jacket, a drain pipe communicating with the chamber and extending outwardly through the supply pipe, a second water supply pipe communicating at its upper end with the cylinder and at its lower end with the water jacket, an overflow pipe communicating with the water jacket.

4. In a retort or still, the combination of a retort cylinder, an abutment ring secured to the top of the cylinder and having an annular groove, a cage removably mounted within the cylinder and having a perforated bottom, a perforated steam supply pipe secured at its lower end to the perforated bottom of the cage and extending outwardly at its upper end through said lid or cover, means for clamping said steam supply pipe to the lid or cover, means for clamping the lid or cover in closed position, and means for counterbalancing the weight of said lid or cover.

5. In a retort or still, the combination of a retort cylinder, an abutment ring carried by said cylinder, a lid or cover pivoted to said abutment ring, a removable cage within the cage, a steam supply pipe connected with the cage and extending through the lid or cover, means for detachably connecting said pipe with the lid or cover, a vapor outlet carried by the lid or cover, means for clamping the cover in closed position, and means for counterbalancing the weight of the cover.

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1,092,019. EXTRACTING APPARATUS. JOHN H. CASTONA, Gulfport, Miss. Filed Oct. 8, 1912. Serial No. 724,632. (Cl. 203—6.)



1. An extractor comprising a casing open at an end thereof, track rails upon the interior of the casing, a car insertible and removable through the open end of the casing and adapted to rest and travel upon said rails, said car being provided with uprights, a perforated pipe extending longitudinally of the car and supported by said uprights, a perforated cage supported by the pipe and adapted to tilt laterally thereon, as an axis for the discharge of the refuse material therefrom, means for heating the interior of the casing, a door for closing the open end of the casing, and means for connecting the perforated pipe with a supply conductor through said door.

2. An extractor including a casing open at an end thereof, track rails upon the interior of the casing, a car insertible and removable through the open end of the casing and adapted to rest and travel upon said rails, said car having uprights at the ends thereof, a perforated pipe extending longitudinally of the car and supported by said uprights, a cage mounted to tilt laterally upon the pipe as an axis having an open top and perforated bottom, side and end walls, means for heating the interior of the casing, a door for closing the open end of the casing, and means for connecting the perforated pipe with a supply conductor through said door.

3. An extractor including a horizontal casing open at an end thereof, track rails upon the interior of the casing, a car insertible and removable through the open end of the casing and adapted to rest and travel upon said rails, said car having uprights at the ends thereof, a perforated pipe extending longitudinally of the car and supported by said uprights, a cage extending longitudinally of the car and pivoted to swing laterally upon the perforated pipe

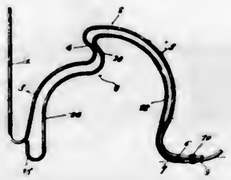
as an axis, said cage being open at the top and having perforated bottom, side and end walls, means for heating the interior of the casing, means within the bottom of the casing for heating the interior thereof, a solvent supply coil in the top of the casing above the cage, a door for closing the open end of the casing, and means for connecting the perforated pipe with a supply conductor through said door.

4. An extractor including a casing, a door for closing the same, track rails upon the interior of the casing, a car adapted to rest and travel upon said rails, said car being provided with upright bearing members, a perforated hollow axle extending longitudinally between said bearing members, an open-topped perforated cage pivotally supported to swing laterally upon said axle, a heating device arranged in the bottom of the casing, a perforated solvent discharge coil disposed in the casing above the open top of the cage, and means for supplying a heating or extracting fluid to said perforated axle.

5. An extractor including a horizontal casing, track rails disposed at opposite sides of the base of the casing, a door for closing the casing, a heating coil disposed in the base of the casing between said track rails, a car having wheels to travel and rest upon the rails and including upright members, a hollow perforated shaft extending longitudinally between said upright members, a cage through which the axle extends, said cage being open at the top, provided with perforated bottom, side and end walls and mounted to tilt laterally upon said perforated axle, a solvent supply coil extending longitudinally in the top of the casing above the open top of the cage, and means for supplying a heating or extracting fluid to the perforated axle, from the exterior of the extractor.

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1,092,020. BRACKET. JOHN EWING CAVEY, Otis, Colo. Filed Sept. 24, 1913. Serial No. 791,587. (Cl. 248—18.)

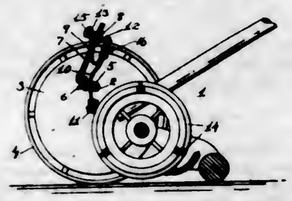


1. A clock bracket including an arm, an arched member integrally formed with the arm, said arched member being bent to provide a lip and continued from the lip in an arcuate direction and rounded outwardly and provided with a foot, a second member also provided with a foot which is pivotally connected with the foot of the first mentioned member, the foot of the second member having an angularly bent portion which is adapted to frictionally contact with the rounded juncture of the foot of the first mentioned member and its arch, the second mentioned member being arched upwardly and outwardly from its foot and extended inwardly to provide a rounded lip and from thence arched outwardly and having its extremity formed with a hook.

2. A clock bracket comprising two spring members, one adapted to be folded within the other, one of said members including a supporting arm, an arch member extending from the supporting arm and bent inwardly to provide a lip and from thence arched outwardly and curved to provide a horizontal foot, the second member being also provided with a horizontal foot which is of a greater length than the first mentioned foot and which is pivoted to the first mentioned foot, the second mentioned foot having its end arranged to contact with the rounded juncture of the first mentioned foot with its arched end, the second mentioned foot being arched in an opposite direction from the said second mentioned arch of the first mentioned member and being bent inwardly to provide a lip and extended outwardly at an arch and in a downward direction and terminating in an upset foot, the arched members of the first mentioned member adapted to exert a tension toward each other, the arched portions of the first mentioned member adapted to exert a tension away from each other, the second mentioned member adapted to be swung upon the first mentioned member and to have its tongue contact with the first mentioned arch of the first mentioned member to spring its first mentioned arch into frictional contact with the second mentioned arch of the first mentioned member.

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1,092,021. LAWN-MOWER SHARPENER. JOHN J. CHEMBRO, Oneonta, N. Y. Filed July 23, 1913. Serial No. 780,832. (Cl. 56—19.)



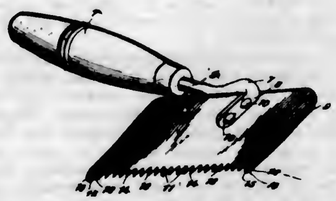
1. A sharpener attachment for lawn mowers, comprising a clamp for engagement with a transverse brace rod of the mower, a bar rigidly secured to said clamp, a clamp having engagement with said bar, a spring carried by said last named clamp, an arm connected to said spring and extending beyond the same, and a sharpener bar carried by the free end of said arm, whereby the sharpener bar is adapted for delicate yielding contact with the mower knives.

2. A sharpener attachment for lawn mowers, comprising a clamp for engagement with a transverse brace rod of the mower, a bar rigidly secured to said clamp and extending substantially at right angles thereto, a clamp having engagement with said bar and extending at substantially right angles thereto and to the first named clamp, a bow spring carried by the last named clamp, an arm connected to and extending beyond said spring, and a sharpener bar carried by the free end of said arm.

3. A sharpener attachment for lawn mowers, comprising clamps for engagement with a transverse brace rod of the mower, bars rigidly secured to said clamps and extending substantially at right angles thereto, clamps having engagement with said bar and extending at substantially right angles thereto and to the first named clamps, bow springs carried by the last named clamps, arms connected to and extending beyond said springs, and a sharpener bar carried by the free ends of said arms.

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1,092,022. CURRYCOMB. MATTHEW E. CHILSON, Beerston, N. Y. Filed Sept. 24, 1912. Serial No. 722,082. (Cl. 119—86.)



A curry comb constructed of a single blank of metal and having one of its longitudinal edges serrated to provide a series of cutting teeth, said blank having its two vertical sides extended downwardly and curved inwardly and disposed below the plane of the cutting teeth to provide end guard teeth and then extended upwardly into the walls of the adjacent teeth, whereby the said teeth are prevented from penetrating the skin of the animal.

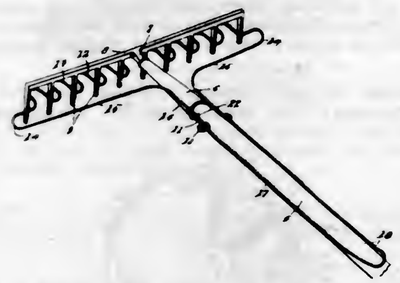


1,092,023. BATH FOR RAZOR-HONES. JOHN E. CLARK, Flint, Mich. Original application filed Mar. 13, 1912, Serial No. 683,595. Divided and this application filed Oct. 30, 1912. Serial No. 728,681. (Cl. 87—5.)

A bath for razor hones comprising 6 ounces of soap dissolved in 1 pint of spirits of turpentine.

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1,092,024. RAKE-CLEANER. CHARLES CORDES, Brooklyn, N. Y. Filed June 30, 1913. Serial No. 776,677. (Cl. 55—146.)



1. A device of the character described comprising a single piece of wire bent to form outstanding members, extensions projecting rearwardly from the outstanding members, said extensions being bent inwardly, angular extensions at the innermost extremities of the aforesaid extensions, said angular extensions terminating in loops, the ends of the loops opposite the angular extensions lying parallel with the handle of a rake, a bolt extending through the loops and providing a pivot, and a spring adapted to exert pressure against the angular extensions and normally holding the bar in its raised position.

2. In combination with a rake, a cleaner comprising a stripping bar, said stripping bar comprising a wire being bent to form outwardly extending projections, said outwardly extending projections adapted to lie between the teeth of the rake, the ends of the stripping bar being bent rearwardly and extending inwardly to a point substantially in the center of the stripping bar, angular extensions formed integral with the aforesaid extensions, said angular extensions terminating in loops, a bolt adapted to extend through the loops and through an aperture in the rake handle, a spring surrounding said bolt, one end of said spring being secured to the rake handle and the opposite end of said spring being adapted to exert upward pressure against one of the angular extensions and thereby normally hold the cleaner in its raised position.

3. In combination with a rake, a cleaner comprising a lever, loops formed intermediate the ends of said lever, a bolt extending through said loops and through an aperture in the rake handle, angular projections extending outwardly from the ends of the lever, said angular projections terminating at a point slightly beyond the lateral extremities of the rake head and being bent inwardly, outwardly extending projections formed integral with the aforesaid projections, said outwardly extending projections being adapted to lie between the rake teeth, a spring adapted to extend through said aperture in the rake handle and have one end secured thereto, said spring forming a bearing for the bolt, and a hook formed at the end of the spring opposite the attached end and adapted to exert upward pressure against the outer end of the lever and normally hold the cleaner in its raised position.

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1,092,025. CONNECTING-ROD FOR LOCOMOTIVES. HENRY T. CROOK, Asheville, N. C. Filed Jan. 10, 1913. Serial No. 741,270. (Cl. 74—17.)

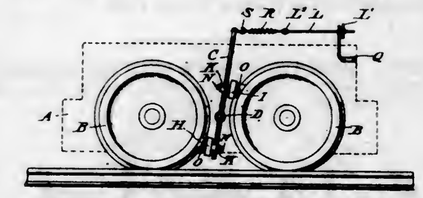
The combination with a strap head for locomotive connecting rods having a guideway transversely disposed therein, of a pair of brasses adapted to embrace the crank pin and engageable in the strap head, a follower working against one of the brasses and having a gib extension slidable in the guideway, the walls of the guideway being formed with guide grooves, guide ribs on the gib extension and engaging in the guide grooves, the said extension



being further provided with a beveled face, a wedge-shaped key engaged in the guideway and contacting with the beveled face on the extension, a cup-shaped washer on the key and receiving the narrower portion thereof, and a lock nut threaded on the key and working against the washer.

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1,092,026. TIRE-GRINDER. JOHN DAILEY and DOMINICK BERTOLINO, Hepzibah, W. Va. Filed July 2, 1913. Serial No. 777,085. (Cl. 188—24.)



1. An apparatus for grinding tires of wheels comprising, in combination with a vehicle with wheels thereon, a bar pivotally mounted upon the body of the vehicle, socket members adjustably mounted upon said bar, grinding blocks carried by said members, a spring fastened to one end of said bar and its other end to the body of the vehicle and adapted to hold the grinding blocks frictionally and yieldingly against the circumferences of the tires of the wheel, as set forth.

2. An apparatus for grinding tires of wheels comprising, in combination with a vehicle with wheels thereon, a bar pivotally mounted upon the body of the vehicle, socket members adjustably mounted upon said bar, grinding blocks carried by said members, a spring fastened at one end to said bar, a bracket member fastened to the body of the vehicle, a rod passing through an aperture in said bracket member and connected to said spring, and an adjusting wheel fitted upon the threaded portion of the rod and adapted to coöperate therewith and with said bracket member to regulate the tension of said spring, as set forth.

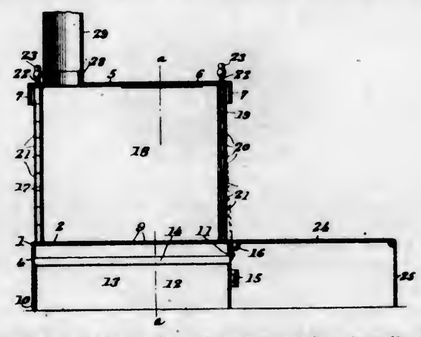
3. A device for grinding tires of wheels consisting, in combination with a vehicle body and wheels upon which the same is mounted, a stud bolt fastened to the body of the vehicle and having a shoulder thereon, a bar pivoted upon said bolt, a spring upon the latter, nuts upon the threaded end of the bolt and between which and said bar the spring is adapted to bear, adjustable socket members upon the bar, grinding blocks carried by said members, a bracket member fastened to the body of the vehicle, and tension means for varying the pressure of said grinding blocks against the circumference of the tires of the wheels, as set forth.

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1,092,027. COLLAPSIBLE STOVE. EMMA DAVIS, Fort Worth, Tex. Filed Dec. 3, 1913. Serial No. 804,445. (Cl. 126—9.)

A portable stove comprising a box body, forming the base of the stove, side and end walls for arrangement on the bottom of the box body when the latter is inverted, a cover to fit on the upper sides of said side and end walls,

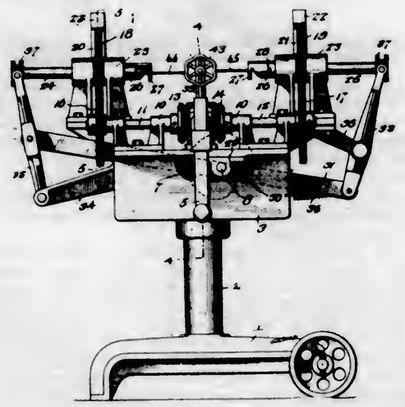
and also to fit on the box body, and means to detachably secure the side and end walls together and to secure them to and between the box body and cover, the bottom of the box, forming a grate, one of the walls of the stove also



forming a grate, and a plate detachably, pivotally connected to the box body, and adapted to be arranged on the outer side of the grate wall, to close the latter or to be arranged in lower position to form a hob.

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1,092,028. WIRE TWISTING OR SPLICING MACHINE. THOMAS DAVITT, Atlanta, Ga. Filed Apr. 8, 1913. Serial No. 759,701. (Cl. 140—115.)



1. In a wire splicing machine, the combination of a wire clamping device, longitudinally slotted twisters on opposite sides thereof, cam controlled mechanism for sliding said twisters toward and from said clamping device, and gearing for actuating said cam mechanism and for rotating said twisters on their inward movement.

2. In a wire splicing machine, the combination of a wire clamping means, longitudinally slotted, slidable and rotary twisters on opposite sides thereof, rocker arms for sliding said twisters, a connection between said rocker arms, cam mechanism acting on said connection for sliding the twisters, inwardly, and gearing for actuating said cam mechanism and simultaneously rotating said twisters.

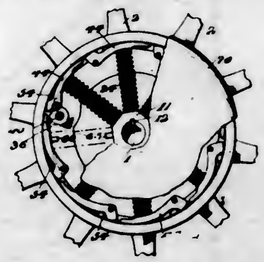
3. In a wire splicing machine, the combination of a wire clamping device, longitudinally slotted slidable and rotatable twisters on opposite sides thereof, rocker arms for sliding said twisters, a connection between the rocker arms, spring means for holding and returning the rocker arms and twisters in normal position, cam mechanism acting on said connection for actuating the rocker arms to move the twisters inwardly, and gearing for operating said cam mechanism and imparting rotary motion to the twisters.

4. In a wire splicing machine, the combination of a wire clamping device, longitudinally slotted rotary and sliding twisters on opposite sides thereof, gearing for simultaneously rotating said twisters in opposite directions, and cam-controlled mechanism controlled by said gearing for sliding the twisters inwardly and outwardly.

5. In a wire splicing machine, the combination of a wire clamping device, longitudinally slotted rotary and sliding twisters on opposite sides thereof, a drive shaft, gearing for rotating said twisters in opposite directions from said shaft, automaticaly retractable means coupling the twisters for simultaneous inward and outward motion, and cam mechanism driven from said shaft and adapted to control said coupling means to slide the twisters inwardly and permit of their retraction at timed intervals.

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1,092,029. WHEEL. WILLARD A. DODGE, Hornell, N. Y. Filed June 4, 1912. Serial No. 701,487. (Cl. 152—45.)



1. In a wheel, the combination of an axle section and a wheel section, springs interposed between said sections and means for adjusting the tension of said springs comprising a pivoted spring seat for each spring and a device for moving said spring seat against the tension of the spring to hold the same under compression.

2. In a wheel, the combination of an axle section and a wheel section, springs interposed between said sections and means for adjusting the tension of said springs comprising a series of pivoted spring seats, and a movable ring co-acting with said spring seats to move the same.

3. In a wheel, the combination of an axle section and a wheel section, springs interposed between said sections and means for adjusting the tension of said springs comprising a series of pivoted spring seats, a movable ring co-acting with said seats having rack teeth thereon and a shaft having a gear thereon co-acting with the teeth on said ring.

4. In a wheel, the combination of an axle section and a wheel section, springs interposed between said sections, movable seats for said springs, a ring having projections co-acting with said seats to move the same when the ring is moved, said ring having teeth thereon and a shaft having a gear meshing with the teeth on said ring whereby the ring may be moved upon the rotation of said shaft.

5. In a wheel, the combination of an axle section and a wheel section, two sets of springs, one set on each side of the central line of the wheel, movable seats for each of the springs, said springs co-acting with the said seats, a ring co-acting with said seats to move the same when the ring is moved, and means for giving said rings and seats simultaneous movement comprising a shaft with two gears thereon one gear meshing with one ring and the other gear meshing with the other ring.

[Claims 6 to 11 not printed in the Gazette.]

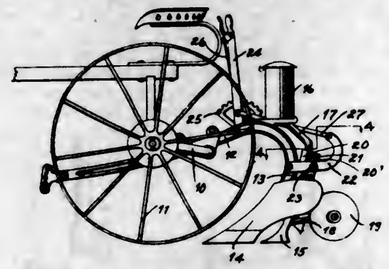
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1,092,030. CORN-PLANTER. IRA W. DOUGLAS, Litchfield, Nebr. Filed Apr. 22, 1913. Serial No. 762,920. (Cl. 111—6.)

In a planter, the combination of a wheeled frame, a plow beam supported thereby, a plow carried by the beam, a subsoiler disposed at the rear of said plow and pivotally connected with the beam, for up and down movement, a



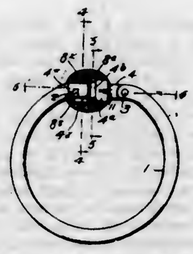
lever pivoted on the beam, and having an adjustable connection with the subsoiler whereby the oscillation of the latter will raise and lower the subsoiler, a second lever



pivoted on the beam, a link connecting the second lever with the first lever, and means for locking the second lever against pivotal movement.

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1,092,031. KEY-RING LOCK. DARIUS COMSTOCK EN EARL, Denver, Colo. Filed Nov. 7, 1913. Serial No. 799,761. (Cl. 70—19.)



1. In a locking device, a stationary member, a hinged member arranged to engage said stationary member, said hinged member being provided with an annular groove and having an inwardly extending pocket communicating with said groove and a longitudinal groove intersecting said annular groove, a sleeve arranged to slide on said hinged member and having a groove arranged to register with said first named groove and being provided with a tongue arranged to enter said longitudinal groove, said sleeve being rotatable on said hinged portion to bring said tongue into registration with said longitudinal grooves, and balls disposed within said annular grooves.

2. In a locking device for key rings and the like, the combination with a body portion having an L-shaped extension, of a hinged member having an L-shaped extension arranged to engage said first named L-shaped extension, said hinged member being provided with an annular groove and having a longitudinal groove intersecting said annular groove, a spring-pressed stop member carried in said longitudinal groove, a sleeve rotatably mounted on said hinged member and having a longitudinal sliding movement relative thereto, said sleeve being provided with an internal groove arranged to register with said first mentioned groove, said hinged member being provided with a pocket contiguous to said first mentioned groove on each side of said spring-pressed member, a tongue carried by said sleeve and adapted to register with said longitudinal grooves, and balls disposed within said annular grooves.

3. In a locking device, a fixed member, a hinged member arranged to engage said fixed member, said hinged member being provided with an annular groove and having inwardly extending pockets communicating with said groove, said hinged member having a longitudinal groove, a sleeve arranged to slide longitudinally on said hinged member and to rotate thereon, said sleeve being provided with a tongue arranged to enter said longitudinal groove, and balls disposed in said first named grooves and arranged to enter said pocket thereby permitting the longitudinal movement of the sleeve relative to the hinged member.

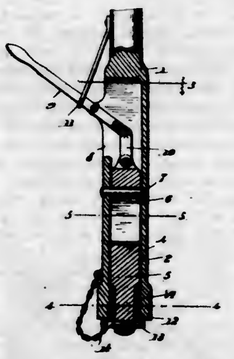
4. In a locking device, a fixed member, a hinged member arranged to engage said fixed member, a sleeve slidably and rotatably mounted on said hinged member and adapted to slide over a portion of said fixed member, said hinged member and said sleeve being provided with registering grooves, and balls carried in said grooves, said hinged member being provided with pockets communicating with its groove.

5. In a locking device, a fixed member, a hinged member arranged to engage said fixed member, a sleeve slidably and rotatably mounted on said hinged member and adapted to slide over a portion of said fixed member, said hinged member and said sleeve being provided with registering grooves, balls carried in said grooves, said hinged member being provided with pockets communicating with its groove, said hinged member having a longitudinal groove intersecting the first named groove, and a spring-pressed stop member disposed in said longitudinal groove and arranged to project into said first named groove, one edge of said spring-pressed stop member being provided with a beveled portion for engagement by the balls.

[Claim 6 not printed in the Gazette.]

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1,092,032. CAR-STAKE. HARRIS A. FAYSSOUX, Vaughan, N. C. Filed Sept. 12, 1913. Serial No. 789,484. (Cl. 105—173.)



1. A stake comprising a body member provided with a groove and having at its end a socket said groove having undercut shoulders, a bar having shoulders slidably engaging the first mentioned shoulders said bar being slidably mounted in the groove.

2. A stake comprising a body member provided with a groove and having at its end a socket, a bar slidably mounted in the groove, a lever fulcrumed upon the body member and a link pivotally connecting one end of the lever with one end of the bar.

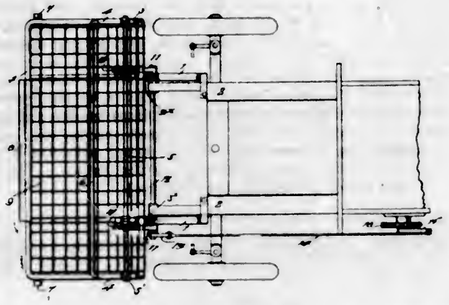
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1,092,033. AUTOMOBILE-FENDER. JOHN B. FORET, Ford City, Mich. Filed Sept. 25, 1913. Serial No. 791,765. (Cl. 105—127.)

1. In a fender for automobiles, a pair of brackets, an upright fender frame portion carried by said brackets, a movable frame portion hinged to said upright frame portion, a grab rail carried by said movable frame portion, the upper part of said grab rail being above the hinge, a flexible support secured to the upper end of said upright frame portion and to the outer end of said movable frame portion, said flexible support passing underneath said grab rail, and means disposed near the driver's seat for swinging said movable frame portion into and out of a folded position.

2. In a fender for automobiles, a pair of brackets, an upright fender frame portion carried by said brackets, a movable frame portion hinged to said upright frame portion, a grab rail carried by said movable frame portion, the upper part of said grab rail being above the hinge,

a flexible support secured to the upper end of said upright frame portion and to the outer end of said movable frame portion, means disposed near the driver's seat for swinging said movable frame portion into and out of a folded position, said means comprising meshing segmental gears, one of said gears being secured to said movable portion and the other being rotatably mounted on said upright frame portion, an arm connected with said last named segmental gear, an operating lever, and a link connecting said arm and said operating lever.



3. In a fender for automobiles, a pair of brackets, an upright fender frame portion carried by said brackets, a movable frame portion hinged to said upright frame portion, a grab rail carried by said movable frame portion, the upper part of said grab rail being above the hinge, a flexible support secured to the upper end of said upright frame portion and to the outer end of said movable frame portion, means disposed near the driver's seat for swinging said movable frame portion into and out of a folded position, said means comprising meshing segmental gears, one of said gears being secured to said movable portion and the other being rotatably mounted on said upright frame portion, an arm connected with said last named segmental gear, an operating lever, a link connecting said arm and said operating lever, and means for locking the fender in its folded position.

4. In a fender for automobiles, a pair of brackets, an upright fender frame portion carried by said brackets, a movable frame portion hinged to said upright frame portion, a U-shaped grab rail carried by said movable frame portion, the lower part of said grab rail being disposed adjacent to said hinge of said movable portion, and the upper portion of said grab rail being disposed above the hinged portion, whereby a thrust on the upper part of the grab rail will turn the frame on its hinge and raise the outer end of the latter above the ground, means for automatically locking the frame in its raised position, and a flexible support secured to the upper end of said upright frame portion and to the outer end of said movable frame portion, said flexible support passing underneath said grab rail.

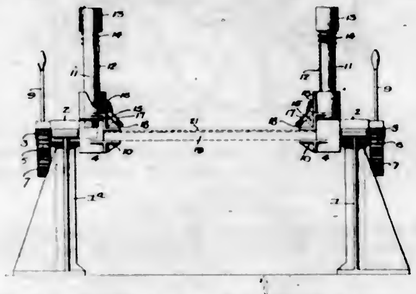
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1,092,034. DEVICE FOR TRANSFERRING DOUGH. CHARLES FREIHOFER, Philadelphia, Pa. Filed Oct. 17, 1912. Serial No. 726,315. (Cl. 214—11.)

1. The combination in a box inverting machine of a standard; a shaft rotatably mounted thereon; a jaw mounted on the shaft and having an extension at right angles thereto; a second jaw slidably mounted on said extension; means for holding said second jaw in any adjusted position; and a cushion spring for the latter jaw on the outer end of said extension.

2. The combination in a box inverting machine of a standard; a jaw structure rotatably mounted thereon and including a fixed jaw; an extension projecting at right angles to the axis of rotation of said structure; a ratchet on said extension; a second jaw slidably mounted on the extension; a pawl on said movable jaw; and a cushion spring for the movable jaw adjacent the end of the extension.

3. The combination in a box inverting machine of a standard having a bearing; a substantially horizontal shaft mounted in the bearing; a fixed jaw with an extension at right angles to the shaft; a head on the extension; a coiled spring on the extension in engagement with the head; a ratchet on the extension; a second jaw slidable on the extension toward and from the first jaw; a pawl carried by the second jaw in position to coöperate with the ratchet, with means for rotating the shaft and its associate parts through a pre-determined angle at will.

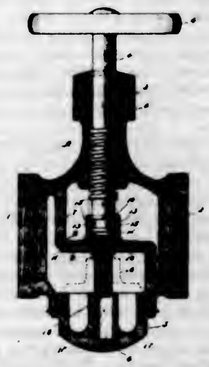


4. The combination in a box inverting machine of a standard having a bearing; a shaft rotatably mounted in said bearing; a jaw mounted on said shaft; a guide projecting from the jaw at right angles to the shaft; a rack on said guide; a second jaw movably mounted on the guide; a pawl carried by said jaw in position to cooperate with the rack; and an operating lever fulcrumed on the movable jaw and connected to said pawl.

5. The combination in a box inverting machine of a standard having a bearing; a shaft rotatably mounted in said bearing; a jaw connected to said shaft; a guide bar forming an extension from said jaw and projecting at right angles to the shaft; a series of teeth on said guide bar; a movable jaw slidable on the guide bar and coöperating with the first jaw; a pawl carried by a second jaw in position to coöperate with the teeth of the guide bar; with means on the second jaw operatively connected to the pawl for operating the same, said means consisting of a member projecting toward the line of the shaft from said pawl.

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1,092,035. VALVE. HENRY FROEHLICH, Central Aguirre, Porto Rico. Filed Apr. 17, 1912. Serial No. 691,454. (Cl. 137—4.)



A valve of the class described, comprising a valve casing having an inlet and outlet, and a valve seat arranged therebetween, a valve movable toward and away from said seat and provided with a central depending valve stem, a removable plug closing the bottom of said casing and provided with an inwardly directed guide sleeve for said stem and terminating in a plane with the upper end of said plug and below the inner walls of said inlet and outlet passages forming a seat for the valve when in open position, said valve being movable downwardly to an open position and adapted to rest upon said sleeve and plug below the inner walls of the said inlet and outlet so as to permit a free and unobstructed passage for the steam or other fluid, and means for operating said valve.



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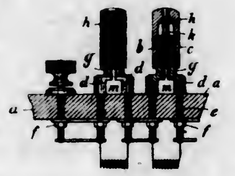
1,092,036. ANCHOR-PIN. ISAAC M. FRY, Maymont, Saskatchewan, Canada. Filed Jan. 4, 1910. Serial No. 536,298. (Cl. 119—121.)



A picket pin consisting of a body having an intermediate conical portion with a smooth exterior surface and which is circular in transverse section throughout its length, said body having at the smaller end of said intermediate portion a conical spear portion which is of greater transverse diameter than the smaller end of the said intermediate portion and of less transverse diameter than the larger end thereof, said spear portion having a smooth exterior surface and being globular at one end and provided with a point at its other end, a disk formed at the larger end of the said intermediate portion of the body and a ring surrounding the body above the disk and normally supported by the disk.

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1,092,037. PLUG-SWITCH. THOMAS EDWARD GAMBRELL, London, England. Filed Nov. 13, 1913. Serial No. 800,855. (Cl. 219—61.)

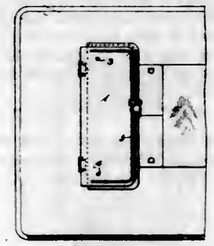


1. A plug switch comprising fixed conductors arranged at a suitable distance apart and insulated from each other and having their outer surfaces shaped to form parts of a conical surface, and a cap having an interior conducting surface shaped to fit on to said conductors.

2. A plug-switch comprising fixed conductors arranged at a suitable distance apart and insulated from each other, said conductors having their outer surfaces shaped to form parts of a conical surface and their inner surfaces shaped to form parts of a cylindrical surface, a cap having an interior conducting surface and a plug mounted concentrically in said cap and adapted to fit the inner surfaces of said fixed conductors.

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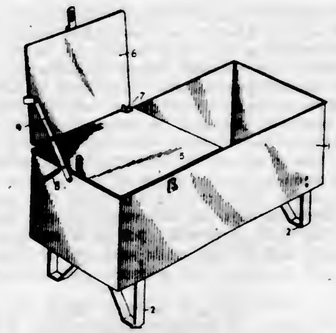
1,092,038. WORK-HOLDER. EMIL CURTIS GEARES, St. Joseph, Mo. Filed May 29, 1913. Serial No. 770,701. (Cl. 112—24.)



A work holder for sewing machines provided with the usual presser foot having a needle slot, said holder comprising two leaves hinged together at one edge and one provided on its outer face with a guide strip secured thereto adjacent the free edge thereof and spaced from said edge a distance equal to the width of the portion of the pressure foot outside the needle slot, the other leaf having means on its outer face at its free edge adapted to coact with the feed rack of a sewing machine for feeding said holder during the stitching operation and coöperating means on said leaves for holding the fabric in position between said leaves.

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1,092,039. COMBINED CHAIR AND BASKET. BARNETT HERMAN GOLDSTEIN, New York, N. Y., assignor of one-half to Herman Cohen, Brooklyn, N. Y. Filed Feb. 5, 1913. Serial No. 746,812. (Cl. 220—9.)



1. In a device of the character described, a receptacle, and legs for supporting the receptacle, said legs comprising a bar bent upwardly centrally and with a pair of upwardly extending portions projecting through the bottom of the receptacle, means for rigidly connecting the upwardly extending portions with said receptacle and means for rigidly connecting the center portion of said bar to the bottom of said receptacle.

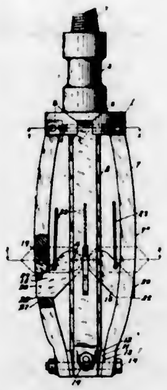
2. In a device of the character described, a rectangular receptacle, a lid hinged centrally of the top of the receptacle adapted to be swung so as to cover the top of either end of the receptacle, a lid for one end of the receptacle hinged to the side of the receptacle, means for normally tending to close said last mentioned lid, and a stop secured to the last mentioned lid positioned so as to engage the second mentioned lid and prevent the closing thereof when the first mentioned lid is moved pivotally to the end of the receptacle carrying the second mentioned lid.

3. In a device of the character described, a substantially rectangular receptacle, a cross bar extending across the top of the receptacle, a lid hinged to the side of the receptacle and adapted to cover one part of the receptacle, a second lid pivotally connected with said cross bar and adapted to cover the part of said receptacle not covered by said first

mentioned lid, said second mentioned lid being adapted to be swung so as to cover that portion of the top of the receptacle normally covered by said first mentioned lid whereby a seat and a back are provided, and a stop connected with said second mentioned lid and arranged in the path of movement of said first mentioned lid for preventing the closing of said first mentioned lid when the second mentioned lid is in front of the first mentioned lid and acting as a seat.

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1,092,040. PERFORATING-TOOL FOR WELL-TUBINGS. CHARLES HENERY GREGORY, Portersville, Cal. Filed Mar. 3, 1913. Serial No. 751,868. (Cl. 81—188.)



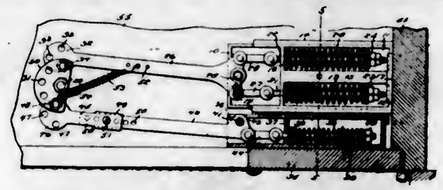
1. In a perforating tool for well tubings, the combination of a support adapted to be suspended in said tubing at a predetermined position and to receive a series of downward blows or a constant downward pressure, and said support consisting of a head block and a downwardly disposed center post; a plurality of vertical arms, having bulging portions, hinged at their upper ends to said head blocks; means for adjusting said arms laterally to adapt same to tubing of varying diameters; a plurality of perforating members pivoted at one of their ends to said center post, and at their other ends provided with perforating points operating adjacent said vertical arms; and means for causing said perforating points to swing upwardly and engage said tubing, while said tool is being driven downwardly by impact or pressure, substantially as described.

2. In a perforating tool for well tubing, the combination of a support adapted to be suspended in said tubing at a predetermined position and to receive a series of downward blows or a constant downward pressure, and said support embracing a head block and a downwardly disposed center port; a plurality of vertically disposed guiding arms enveloping said center post, and provided with elongated slots; means for adjusting said arms laterally to adapt same to tubing of various diameters; a plurality of perforating members pivotally supported at their inner ends on said center post, said perforating members being provided at their outer ends with cutting edges merging into a perforating point; means for causing said perforating point to move upwardly into engagement with the interior wall of said tubing, while said tool is being driven downwardly by impact or pressure, the upward swing of said perforating members being limited by the upper edge surfaces of said slots in said arms, substantially as described.

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1,092,041. AUTOMATIC DOOR-CLOSER. EDWARD W. GROGAN, Byers, Tex. Filed Mar. 8, 1912. Serial No. 682,348. (Cl. 16—46.)

1. In a door closer, stationary abutments carried respectively by a door and a door frame, a lever pivotally supported adjacent to each of said abutments, a member movably coupling said levers, a closing spring and a checking spring bearing against one of said abutments, means for coupling said closing spring and checking spring respectively to one of said levers at opposite sides of its pivot, another closing spring bearing against the other abutment, and means for coupling said last mentioned closing spring to the other lever at one side of its pivot.



2. In a door closer, stationary abutments carried respectively by a door and a door frame, a lever pivotally supported adjacent to each of said abutments, a member movably coupling said levers, a governor spring connecting one of said levers with said coupling member, a closing spring and a checking spring bearing against one of said abutments, means for coupling said closing spring and checking spring respectively to one of said levers at opposite sides of its pivot, another closing spring bearing against the other abutment, and means for coupling said last mentioned closing spring to the other lever at one side of its pivot.

3. In a door closer, stationary abutments carried respectively by a door and a door frame, a lever pivotally supported adjacent to each of said abutments, a member movably coupling said levers, a closing spring bearing against one of said abutments, means for coupling said closing spring to one of said levers at one side of its pivot, another closing spring bearing against the other abutment, and means for coupling said last mentioned closing spring to the other lever at one side of its pivot.

4. In a door closer, stationary abutments carried respectively by a door and a door frame, a lever pivotally supported adjacent to each of said abutments, a member movably coupling said levers, a closing spring bearing against one of said abutments, means for coupling said closing spring to one of said levers at one side of its pivot, another closing spring bearing against the other abutment, means for coupling said last mentioned closing spring to the other lever at one side of its pivot, and a governor spring connecting said coupling member and one of said levers.

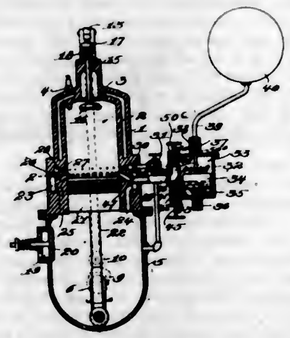
5. In a door closer, casings adapted to be connected respectively to a door and a door frame and each including an abutment, a closing spring and a checking spring bearing against the abutment of one of said casings, a lever pivotally supported and provided with bearings spaced apart, connecting means between said bearings and said closing spring and checking spring, another closing spring bearing against the abutment of the other casing, another lever connected to said last-mentioned closing spring, a segmental member pivotally supported and provided with a plurality of concentrically arranged apertures, pins detachably connecting said levers to the apertures of the segment and a governor spring connecting said segmental members and one of said levers.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,042. THERMODYNAMIC MOTOR. FRANKLIN W. HAGAR, Nashville, Tenn. Filed July 21, 1908. Serial No. 444,595. (Cl. 123—73.)

1. In an explosive motor of the class specified, a crank case having an automatically closing air inlet in its side, a cylinder in normally open communication at one extremity with the crank case and having a sole exhaust means at the opposite extremity, a piston movable in the cylinder and separating the latter from the crank case and by its operation drawing air into the crank case through the automatically closing air inlet, the cylinder having two independent sets of ports completely encircling the same and in proximity to respectively feed air alone and explosive mixture to the cylinder, the air ports being materially smaller than the explosive mixture ports and directly connected to the crank case to feed a thin film of air under pressure from the latter into the cylinder ahead of the explosive mixture, the said ports being alternately closed and opened by the piston and the air feeding ports being first opened immediately subsequent to the explosion in the cylinder, and a carbureter having continuous communication with the crank case and also with the explosive mixture ports of the cylinder, the explosive mixture being fed from the carbureter to the cylinder solely by air pressure established in the crank case.

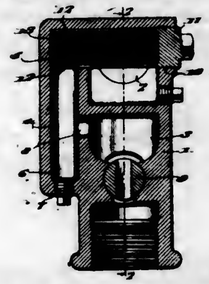


2. In an explosive motor of the class specified, a cylinder provided with a sole exhaust means at its upper end and having independent sets of air and explosive mixture feeding ports in adjacency near the extremity of the cylinder opposite that provided with the exhaust, a piston movable in the cylinder and operating as the sole means to open and close the said ports, the piston by its movement first opening the air ports to the cylinder subsequent to each explosion in the latter, a closed crank case in continual communication with the air ports in the cylinder and having an air inlet and fully open to the compressing influence of the piston, and a carbureter having means for properly preparing an explosive mixture and feeding the latter to the explosive mixture ports in the cylinder, the carbureter being in continual communication with the crank case and having the air pressure therein from the crank case continually governed by the stroke of the piston which alternately creates a suction and a compression in the crank case.

3. In an explosive motor of the class specified, a cylinder having independent sets of inlet ports at one extremity for air and an explosive mixture, the feed of the air being independent of the feed of the explosive mixture to the cylinder, a crank case connected to the cylinder and in normal open communication with respect to the latter, a piston in the cylinder operating to successively open and close the said sets of ports and also controlling the admission and compression of air in the crank case, the ports admitting air alone to the cylinders being first opened by the piston, the piston forming partition means between the crank case and the cylinder and having one face thereof fully exposed to the crank case, a carbureter provided with means for properly preparing an explosive mixture and having continual open communication with one set of ports and with the crank case so that the crank case and carbureter will have an even pressure established therein and a corresponding pressure maintained in the carbureter as in the crank case after the air ports of the cylinder have been uncovered and at times a higher pressure produced in the carbureter than in the crank case to force out the explosive mixture from the carbureter into the cylinder, and independent communicating means between the crank case and air inlet ports whereby a stratum of air may be admitted to the cylinder prior to the admission of the explosive mixture to the cylinder.



1,092,043. CROSSOVER CONNECTION FOR FLUID-BRAKE SYSTEMS. WALTER F. HAMMOND, Rocky Mount, N. C., assignor of one-half to Leon Grimes, Rocky Mount, N. C. Filed Nov. 11, 1913. Serial No. 800,348. (Cl. 188—73.)

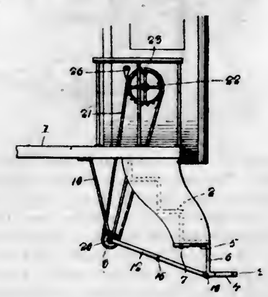


1. A cross over connection for fluid pressure brake systems comprising a casing having a horizontal train line air passage therethrough, a vertical conduit in said casing terminating in a dust pocket, a valve chamber in communication at one end with said conduit and having the opposite end thereof adapted for connection with the triple valve, a valve in said valve chamber, a plug closing said dust pocket and removable therefrom and a screen interposed between said conduit and train line air passage.

2. A cross over connection for fluid-pressure brake systems comprising a casing having a horizontal train line passage therethrough, a vertical conduit in said casing terminating in a dust pocket, a valve chamber communicating at one end with said conduit and having the opposite end thereof adapted for connection with the triple valve, a cut-off valve in said valve chamber, a plug closing said dust pocket and removable therefrom, a screen interposed between said train line air passage and conduit, a plug threaded into the side wall of said casing in alinement with the point of communication between said conduit and train line air passage, an annular series of fingers carried by said plug and extending through the port between the conduit and the train line air passage and carrying said screen.

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1,092,044. EXTENSION-STEP FOR RAILWAY-CARS. THOMAS F. HAADIMAN, Oxford, N. J. Filed Dec. 16, 1913. Serial No. 807,112. (Cl. 105—86.)

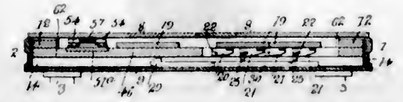


1. In combination with fixed steps, an extension step pivotally connected to the lower end of the fixed steps and adapted to swing outwardly and downwardly therefrom and to be also swung inwardly and upwardly thereunder, a rock shaft, bearings for the rock shaft, rock arms attached to the rock shaft for movement therewith, links pivotally connected to the rock arms and also to the extension step, and means to operate the rock shaft, the said rock arms and links having rule joint connections between them adapting said rock arms and links to fold upwardly and preventing them from folding downwardly.

2. In combination with fixed steps, an extension step pivotally connected to the lower end of the fixed steps and adapted to swing outwardly and downwardly therefrom and to be also swung inwardly and upwardly thereunder, a rock shaft, bearings for the rock shaft, rock arms attached to the rock shaft for movement therewith, links pivotally connected to the rock arms and also the extension step, a sprocket wheel on the rock shaft, an operating sprocket wheel, an endless chain connecting the sprocket wheels and a crank for turning the operating sprocket wheel.

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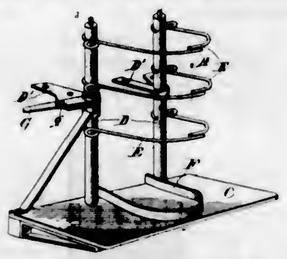
1,092,045. EXTENSIBLE TABLE. CLARENCE H. HARRIS, Cheyenne, Wyo. Filed Apr. 18, 1912, Serial No. 691,588. Renewed Mar. 3, 1914. Serial No. 822,138. (Cl. 45—9.)



In an extensible table the combination of a main body comprising relatively movable end sections; an intermediate section located between said end sections; said intermediate section comprising a single pair of spaced strips disposed on either side thereof; spacing strips secured between each pair of said strips providing off-set channels; dogs pivotally mounted within said channels; supplemental table leaves hingedly connected to said dogs; toggles loosely mounted on a pair of the dogs of each supplemental table leaf; and devices carried by each of said end sections for engaging with said toggles to turn the dogs for lifting said supplemental table leaves when the table is extended, substantially as described.

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1,092,046. ATTACHMENT FOR HARVESTERS. VENICE L. HAYNES, Wilmington, Ohio, assignor of one-half to Charles W. Swain, Wilmington, Ohio. Filed Nov. 14, 1912. Serial No. 731,387. (Cl. 56—103.)



1. An attachment for a corn harvester having a channel along which the cut corn is carried for delivery at the rear of the machine, consisting of a device for gathering the corn into bunches, said device comprising a platform in rear of said channel having a guard plate thereon of approximately semi-circular form with its ends in alinement with the sides of said channel, a pair of upright shafts journaled in suitable bearings at opposite sides of said guard plate, each shaft carrying a set of fingers which extend rearwardly therefrom over said platform, the fingers of one set being curved toward those of the other set so that they meet at their free ends, a bracket on each side of said shafts extending at an angle to each other, a link connecting said brackets, a lever secured to one of said shafts so as to revolve therewith, a lug on said lever, and means for engaging said lug and holding said lever stationary with the fingers in a closed position.

2. An attachment for a corn harvester having a channel along which the cut corn is carried for delivery at the rear of the machine consisting of a device for gathering the corn into bunches, comprising a platform in rear of said channel, bearing plates above and below said platform at opposite sides of said channel, an upright shaft journaled in said bearing plates at each side of said channel, each shaft carrying a set of curved fingers which extend rearwardly therefrom over said platform, operative connections between the shafts whereby they are caused to turn in opposite directions, a lever secured to one of said shafts, and means for holding said lever stationary.

3. An attachment for a corn harvester having a channel along which the cut corn is carried for delivery at the rear of the machine, consisting of a device for gathering the corn into bunches, said device comprising a platform in rear of said channel having a guard plate thereon of approximately semicircular form with its ends in alinement with the sides of said channel, an upright shaft journaled in suitable bearings at each side of said guard plate, each shaft carrying a set of curved fingers which extend rearwardly therefrom over said platform, a bracket on each of said shafts extending at relatively different angles, a link connecting said brackets, an operating lever secured to one of said shafts, and means for holding said lever stationary.

4. In combination, a platform adapted for attachment to a corn harvester having a channel along which the cut corn is carried to said platform, a guard-plate on said platform having its ends arranged in alinement with the sides of said channel, upright shafts extending through said platform and revolubly fitted in bearings provided with means for attachment to the harvester frame, each of said shafts carrying a set of fingers which extend rearwardly therefrom over said platform and together form a substantially semi-circular closure to receive and retain the corn in an upright position, said fingers being adjustable vertically to adapt the machine to harvest corn of different heights, connections between said shafts whereby they are adapted to be turned simultaneously in opposite directions, said connections being adjustable to vary the size of the closure formed by said fingers, and means for opening and closing said fingers and for locking them in closed position.

5. An attachment for grain harvesters having means thereon for rigidly securing it to any ordinary harvester and detached at will comprising a platform, upright shafts revolubly mounted on said platform in bearings provided with means for attachment to the harvester frame, each of said shafts carrying a set of fingers which extend rearwardly therefrom over said platform and together form a substantially semi-circular closure to receive and retain the stalks in an upright position, means for connecting said shafts so that they may be turned simultaneously in opposite directions, and means for turning the shafts to open or close said fingers and for locking them in closed position.

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1,092,047. STORM-SLEEVE. HERMAN HERTZ, New York, N. Y. Filed Sept. 16, 1913. Serial No. 789,961. (Cl. 2—94.)

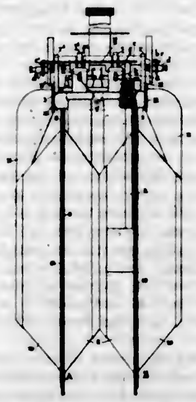


In a storm sleeve, the combination with a sleeve proper, of a convertible cuff comprising two principal parts constituting the face and back members of a mitt secured together at their edges and at their upper edge to the lower edge of the sleeve proper, said mitt being foldable upon itself and within the cuff portion thereof, said cuff portion being open at its under side, and two sets of fastening buttons arranged adjacent one edge of said opening and upon the sleeve proper, respectively, and said cuff having a set of button-holes arranged along the opposite edge of said opening and coöperating with both sets of buttons in alternation to secure the parts in either the folded or the extended position, substantially as set forth.



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1,092,048. GAS-METER. CHARLES EDWIN HIBBERD, London, England, assignor of three-tenths to Frederick Lockhart Gond, Edinburgh, Scotland. Filed Feb. 24, 1913. Serial No. 750,318. (Cl. 73—1.)



1. In combination in a gas meter, a plurality of measuring chambers having movable diaphragms therein; a plurality of reciprocating valves having driving members in rigid relation thereto, said valves, one to each chamber, controlling flow of gas to and from said chambers; a rotatable spindle or shaft common to said plurality of valves and having different eccentric portions engaging respectively with the driving members of said valves to actuate the same, together with operative interconnections between said diaphragms and said spindle or shaft.

2. In combination in a gas meter, a plurality of measuring chambers having movable diaphragms therein; reciprocating valves controlling flow of gas to and from said chambers, said valves being provided with integral projections; a rotatable spindle or shaft having eccentric portions directly engaging with said valve projections, together with operative interconnections between said diaphragms and said spindle or shaft.

3. In combination in a gas meter, a plurality of measuring chambers having movable diaphragms therein; valves controlling flow of gas to and from said chambers, said valves being reciprocable side by side in parallel lines; a rotatable spindle or shaft disposed transversely to the line of motion of said valves and directly operating said valves together with operative inter-connections between said diaphragms and said spindle or shaft.

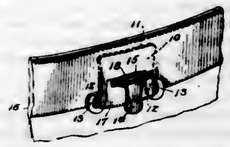
4. In combination in a gas meter, a plurality of measuring chambers; a diaphragm in each of said chambers supported to oscillate about a central position between extreme positions defined by the walls of the corresponding chamber; valves controlling flow of gas to and from said chambers; a rotatable crank-shaft driving said valves; crank pin means on said shaft and operative interconnections between said crank pin means and diaphragms, said crank pin means being positioned circumferentially in relation to said shaft to cause the valves to close in advance of the dead points.

5. In combination in a gas meter, a plurality of measuring chambers; a diaphragm in each of said chambers supported to oscillate about a central position between extreme positions defined by the walls of the corresponding chamber; valves controlling flow of gas to and from said chambers; a rotatable crank-shaft driving said valves; crank pin means on said shaft; operative interconnections between said crank pin means and diaphragms together with means for adjusting the position of said crank pin means circumferentially in relation to said shaft.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,049. COLLAR-FASTENER. FERDINAND L. HOLLY, Brooklyn, N. Y. Filed Nov. 7, 1912. Serial No. 730,053. (Cl. 24—101.)

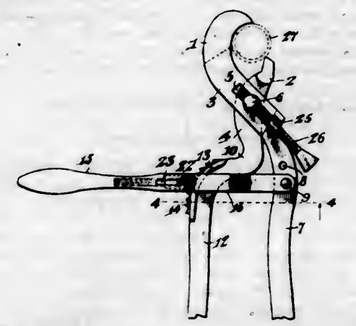


1. A collar fastening means comprising a plate having a straight upper edge, stems depending from the ends of the lower edge, said stems being curved in a plane common to said plate, an offset tongue depending from the central lower portion of said plate, said stem serving to hold the collar to a collar band and said curved stems locking the device in place.

2. A collar fastening means comprising a plate adapted to fit in the pocket formed in a collar band, depending stems from said plate, said stems being spaced apart, the outside stems depending from said plate being curved in a plane common to the plate to present a hook to engage the lower edge of a portion of the collar band and the middle stem being bent from and downwardly from said base through the button hole in the collar band.

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1,092,050. EXTENSION PIPE-TONGS. WESLEY HOSIER, Mercer, Wis., assignor of one-half to Parnell G. McKenna, Mercer, Wis. Filed Mar. 10, 1913. Serial No. 753,412. (Cl. 81—83.)



1. A pipe tongs comprising two handle members pivoted together and each terminating in a jaw in fixed relation thereto, and a clamping lever on one of said handle members connected thereto adjacent to the pivot connection between the two handle members and mounted for movement independently of the movement of either handle member, and the other handle member having a cam surface also adjacent to the pivot connection between the two handles and in coöperative relation to the clamping lever to cause an approach of the jaws on the movement of the clamping lever along the cam surface.

2. A pipe tongs comprising two handle members pivoted together and each terminating in a jaw in fixed relation thereto, and a lever mounted on one handle member adjacent to and on the side of the pivot connection of the two handle members remote from the jaws and movable independently of either handle member in coöperative relation to the other handle member, the said other handle member being shaped to provide an engaging surface for

the lever in cam relation thereto and said lever engaging surface being constructed and related to cause the approach of the jaws of the tongs on a movement of the lever in a direction away from said jaws.

3. A pipe tongs comprising two members pivoted together, and terminating in gripping jaws laterally expanded, said members being of a combined thickness equal to the thickness of either jaw, one of said members being adjustable lengthwise of the other to regulate the opening of the jaws, and a clamping lever mounted on one of said members adjacent to the pivot connection between the members and movable with relation to the other member independently of either member, said other member having a cam surface engaged by the clamping lever to cause the approach of the jaws on the movement of the lever in one direction of its travel.

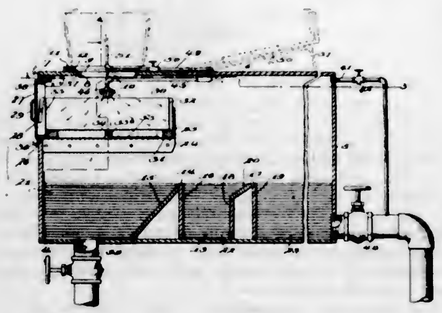
4. A pipe tongs comprising two members pivoted together and terminating in gripping jaws laterally expanded, said members being of a combined thickness equal to the thickness of either jaw, one of said members being adjustable lengthwise of the other to regulate the opening of the jaws, and a clamping lever mounted on one of said members adjacent to the pivot connection between the members and movable with relation to the other member independently of either member, and such other member having a cam surface provided with a series of teeth, the clamping lever being provided with a yieldable latch member in position to engage the teeth of the cam portion of the said handle member.

5. A pipe tongs comprising two members terminating in gripping jaws laterally expanded, the members being pivoted together and of a combined thickness equal to the thickness of the jaws, one of said members being adjustable lengthwise of the other to regulate the opening of the jaws, and a clamping handle or lever pivoted to one of said members and movable with relation to the other member and such other member having a cam surface engaged by the clamping handle or lever to cause the approach of the jaws on the movement of the lever in one direction of its travel, the clamping handle or lever being provided with a latch member and the cam portion of the handle member of the tongs having the cam portion provided with a series of teeth adapted to be engaged by the latch member, the said latch member being provided with a spring urging it toward the teeth and with a manipulating member accessible for moving the latch member away from the teeth.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,051. SEPARATING APPARATUS FOR TURPENTINE. HENRY L. HOUGH, Redlevel, Fla. Filed Nov. 23, 1912. Serial No. 733,172. (Cl. 203—3.)



1. In a separating apparatus of the class specified, the combination of a tank having a series of settling compartments in the bottom thereof and an upper ingress opening adjacent to one end for the entrance of the material to be treated, a closure for said opening, a separating receptacle under the ingress opening and above the first of the series of compartments, and steam spray devices above the said receptacle and below the plane of the closure.

2. In a separating apparatus of the class specified, a tank having a series of settling compartments in the bottom thereof and an ingress opening in the top adjacent to one end of the tank for the introduction of the material to be treated, a separating receptacle below the ingress opening and provided with bottom and side walls having openings therein, the said separating receptacle being disposed above the first of the series of compartments, and spray devices disposed over the receptacle for injecting steam into the upper portion of the said separating receptacle.

3. In a separating apparatus of the class specified, a tank having a hinged cover in the top provided with a normally closed ingress opening for delivering material to be treated to the interior of the tank, a reticulated separating receptacle below the ingress opening to receive the material to be treated, the bottom of the tank being of trough-like shape, the tank having a series of settling compartments formed in the trough-like bottom thereof and means for spraying steam into the separating receptacle and to the contents thereof to facilitate the deposit of the latter in part in the trough-like bottom of the tank.

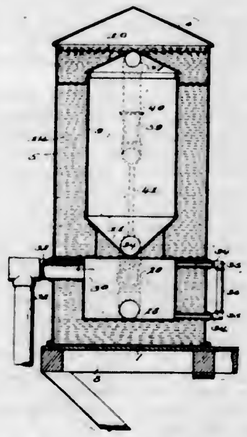
4. In a separating apparatus of the class specified, the combination of a tank having a bottom of trough-like shape and an upper ingress opening for the receptacle to be treated, the tank having partitions vertically disposed in the trough-like bottom, and a separating receptacle slidingly disposed under the ingress opening and provided with a reticulated bottom and adapted to deposit a portion of its contents into the trough-like bottom of the tank.

5. In a separating apparatus of the class specified, the combination of a tank having a trough-like bottom with a plurality of vertical partitions, an upper ingress opening for the material to be treated being formed in the upper portion of one extremity of the tank and provided with a closure and a steam spraying device, a separating receptacle under the ingress opening provided with a reticulated bottom and side walls, and means for spraying steam into the upper part of the receptacle below said ingress opening.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,052. TURPENTINE-CONDENSER. HENRY L. HOUGH, Redlevel, Fla. Filed Nov. 27, 1912. Serial No. 733,909. (Cl. 203—3.)



1. In a turpentine condenser of the class specified, the combination of a tank for containing a condensing medium, a chamber within the tank having a hopper shaped bottom and an inlet and an outlet in opposed positions at the lowermost portions of said bottom for the turpentine and turpentine vapors to be treated, and a second chamber with which the first named chamber has communication for receiving the condensed turpentine and separating the latter from water.

2. In a turpentine condenser of the class specified, the combination of a tank for containing a condensing medium and provided with feed and drainage devices, a chamber within the tank having a hopper shaped bottom and an inlet and an outlet in opposed positions at the lower most portions of said bottom for the material to be treated, a second chamber with which the outlet of the first chamber has communication, the second chamber receiving the condensed turpentine and operable to separate the latter from the water of condensation, and a worm or coil connected to the inlet pipe of the first named chamber.

3. In a turpentine condenser of the class specified, the combination of a tank for a condensing medium, a chamber within the tank provided with an inlet and outlet for the material to be treated, and a second chamber within the tank with which the outlet of the first chamber communicates and also provided with an outflow pipe for separating the turpentine in the second chamber from the water.

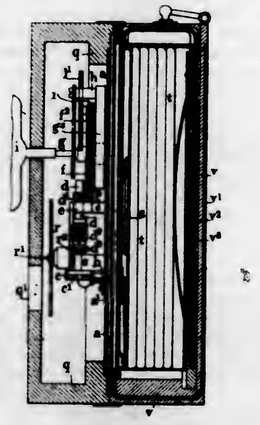
4. In a turpentine condenser of the class specified, a tank for containing a condensing medium and provided with supply and drainage devices, a horizontal partition in the tank, a chamber supported on the said partition and having inlet and outlet pipes, and a second chamber below the first named chamber and also held by the partition and having the outlet pipe of the first chamber connected thereto and also provided with an outflow pipe for separating the turpentine from the water in the said second chamber.

5. In a turpentine condenser of the class specified, a tank for containing a condensing medium, a chamber mounted in the tank and having a trough-like bottom and also provided with a inlet pipe above said bottom and an outlet pipe at the lower portion of said bottom, and a second chamber mounted in the tank and having the outlet pipe of the first chamber connected thereto and also provided with means for separating the turpentine from the water of condensation by decantation.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,053. APPARATUS FOR TAKING OR REPRODUCING ANIMATED PICTURES. LOUIS HENRI HUET, Paris, France, assignor to Société Huet & Cie., Paris, France. Filed July 3, 1909. Serial No. 505,886. (Cl. 88—18.8.)



1. In an apparatus for taking and reproducing animated pictures arranged according to a curve on a rotary disk, the combination of means including a pivot member adapted to support an image disk located in said supporting means, capable of rotating freely on said pivot and provided with perforations situated on the curve according to which the images are to be arranged, the interval comprised between these perforations corresponding to the width of said images, and means to cause movement of the disk to properly position the images in succession, said means including an operating pin intended to engage successively in the different perforations of the disk, and a mechanism communicating a to and fro motion to said operating pin.

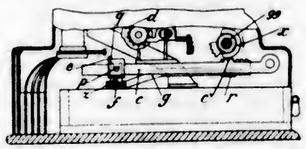
2. In an apparatus for taking and reproducing animated pictures arranged according to a curve on a rotary disk, the combination of a removable sheath provided with a pivot adapted to support a sensitized disk located in said sheath, capable of rotating freely on the pivot of this sheath and provided with perforations situated on the curve according to which the images are to be arranged, the interval comprised between these perforations corresponding to the width of said images, and means to cause movement of the disk to properly position the images in succession, said means including an operating pin intended to engage successively in the different perforations of the disk, and a mechanism communicating a to and fro motion to said operating pin and applied to the chamber of the kinematographic apparatus.

3. An apparatus for taking and reproducing animated pictures arranged according to a curve on a rotary disk, characterized by the combination of a removable sheath provided with a pivot adapted to support a sensitized disk located in said sheath and provided with perforations situated on the curve according to which the images are to be arranged, the interval between these perforations corresponding to the width of said images, an operating pin intended to engage successively in the different perforations of the disk, a mechanism communicating a to and fro motion to said operating pin and applied to the chamber of the kinematographic apparatus, a window provided opposite the objective in the wall of said apparatus which is adjacent to the disk, and a spring clip carried by the sheath and intended to apply against said window the part of the disk which is presented opposite the latter for the purpose of maintaining the focusing and fixedness of the image.

4. An apparatus for taking and reproducing animated pictures arranged according to a curve on a rotary disk, characterized by the combination of a removable sheath provided with a pivot adapted to support a sensitized disk located in said sheath and provided with perforations distributed according to the curve on which the images are to be arranged, the interval between these perforations corresponding to the width of said images, an operating pin intended to engage successively in the different perforations of the disk, a mechanism communicating a to and fro motion to said operating pin and applied to the chamber of the kinematographic apparatus, a window provided opposite the objective in the wall of said apparatus which is adjacent to the disk, a spring clip carried by the sheath and intended to apply against said window the part of the disk which is presented opposite the latter, for the purpose of maintaining the focusing and the fixedness of the image, and projections for the register of the disk, mounted on leaf springs secured to the sheath, said projections engaging in holes suitably arranged in the sensitized disk.

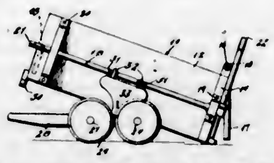
5. In an apparatus for taking and reproducing animated pictures arranged according to a curve on a rotary disk, the combination of a changing magazine, removable sheaths provided with pivots adapted to support sensitized disks located in said sheaths and capable of rotating freely on the pivots of the latter, each of said disks being provided with perforations distributed according to the curve on which the images are to be arranged, the interval between these perforations being equal to the width of said images, and means to cause movement of the disk to properly position the images in succession, said means including an operating pin intended to engage successively in the different perforations of the disk which is presented to it, and a mechanism communicating a to and fro motion to said operating pin and applied to the chamber of the kinematographic apparatus.

1,092,054. CASH CONTROLLING AND REGISTERING AND CHANGE-RETURNING APPARATUS. EDOUARD JANIK, Paris, France, assignor to La Société Générale Française des Caisses Payeuses et de Contrôle Système Janik, Paris, France. Filed Mar. 7, 1913. Serial No. 752,642. (Cl. 133—2.)



In a crank-operated cash controlling and registering and change returning apparatus, the combination with a slide for ejecting the change, slide blocks for actuating said ejecting slide, guide levers for said slide blocks, stepped disks for vertically adjusting the position of said guide levers, an operating shaft, springs having a tendency to raise said guide levers, and cam disks on said operating shaft for freeing said guide levers from the action of said springs during the positioning of said stepped disks.

1,092,055. BANK-CAR. WILLIAM G. JENKINS, Anita, Pa. Filed Sept. 23, 1912. Serial No. 721,870. (Cl. 105—191.)



1. A bank car embodying a box, a pair of wheeled axles, a pivotal connection between said box and one of said axles permitting of said box rocking to dumping position, a swinging door for one end of said box, a brake shoe operating between the wheels of said axles, and means operatively connected with the shoe and engaging the door and holding the door closed.

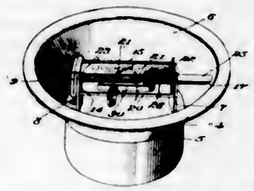
2. A bank car embodying a box, a pair of wheeled axles, a pivotal connection between said box and one of said axles, a swinging door for one end of said box, a brake shoe operating upon the wheels of both axles on the same side of said box, and means operatively connected with the shoe and engaging in front of the door to hold the door closed and apply the shoe, said means serving to simultaneously release the door and the shoe to permit dumping of the contents of the box.

3. In a bank car, a pair of wheeled axles, a box pivoted on one of said axles and having a door, a brake shoe operating upon the wheels of both axles on the same side of said box, a bolt coacting with the box to hold the door closed, and a turnable and pivoted operating bar arranged on one side of the box to simultaneously release the bolt and the shoe.

4. In a bank car, a pair of wheeled axles, a box pivoted upon one of said axles and having a swinging door, a shoe operating upon the wheels of both axles on the same side of said box, a bolt coacting with the box to hold said door closed, a turnable and pivoted operating bar arranged on a side of said box and operating to simultaneously release the bolt and the shoe, and means to positively hold the car against dumping.

1,092,056. COVER FOR RECEPTACLES. GRANVILLE PARKS JENNINGS, Appomattox, Va. Filed June 17, 1913. Serial No. 774,167. (Cl. 31—78.)

1. The combination with a shipping vessel having a passage, of a closure removably fitted to the vessel and provided with an adjustable handle, and a locking bolt carried by the closure and having means for holding the handle against adjustment when the bolt is projected and having a locking end for engagement in the passage so as to hold the closure in an applied position on the vessel.



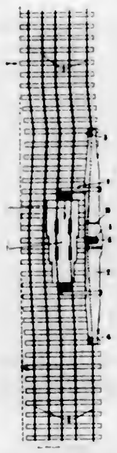
2. The combination with a shipping vessel having a passage, of a closure provided with an adjustable handle having a plurality of address surfaces for display singly from the vessel, a locking bolt carried by the closure and operable for engagement in the passage, and means on the bolt for holding the handle against adjustment.

3. The combination with a shipping vessel having a passage, of a closure removably fitted to the vessel and provided with a revolubly mounted handle having a plurality of address surfaces, and a bolt carried by the closure and operable for projection into the passage, and means on the bolt for holding the handle against rotation.

4. The combination with a shipping vessel having a passage, of a closure removably fitted to the vessel and provided with a revolubly mounted handle having a plurality of address surfaces, and a bolt carried by the closure and operable for projection into the passage, and means on the bolt for holding the handle against rotation when the bolt is projected into the passage and for permitting the handle to be rotated when the bolt is retracted from the keeper.

5. The combination with a shipping vessel including a closure having locking means for engagement with the vessel to hold the closure in an applied position, an adjustable member having a plurality of address surfaces, and means forming a part of the locking means for holding the member in position for the single presentation of one of the address surfaces when the locking means are in an operative position.

1,092,057. APPARATUS FOR SHIFTING RAILS. RICHARD KLEBER, Teplitz-Schönau, Austria-Hungary. Filed Sept. 22, 1913. Serial No. 791,104. (Cl. 104—16.)



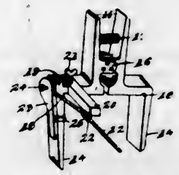
1. In apparatus for laterally shifting railway lines, a rigid longitudinal member adapted to be carried by a rail and having two abutment members adapted to bear against one side of the rail and a third abutment member adapted to bear against the other side of the rail, one of said abutment members being transversely adjustable relatively to the others.

2. In apparatus for laterally shifting railway lines, the combination of a girder adapted to be laid along one rail, two end anti-friction rollers fixedly mounted at the ends of the girder and adapted to bear against one side of said rail, a middle anti-friction roller transversely adjustably mounted between said end rollers and adapted to bear against the other side of the rail, and means for shifting said girder longitudinally along the rail.

3. In apparatus for laterally shifting railway lines, a rigid longitudinal member adapted to be carried by a rail and having two abutment members adapted to bear against one side of the rail and a third abutment member adapted to bear against the other side of the rail, one of said abutment members being transversely adjustable relatively to the others, said longitudinal member comprising more than one part pivotally connected together and rotatable about a horizontal axis.



1,092,058. BRICKLAYER'S GUIDE-LINE HOLDER. MILLER KNOTT and ADAM CALVER BIBLE, Cleburne, Tex. Filed Nov. 9, 1912. Serial No. 730,311. (Cl. 33—85.)



1. The combination with a pair of brick clamping arms, each including a vertical portion for engaging the side of the brick and a horizontal portion for engaging the top of the brick, of a guide arm connected with the horizontal portion of the brick clamping arm and having the line eye adjacent the free end thereof and a clamping plate pivoted to the vertical portion of the brick clamping arm and adapted to clamp the line against such vertical portion of the brick clamping arm.

2. The combination with a pair of brick clamping arms, each having a vertical brick engaging portion adapted to bear against the side of the brick, of a horizontal brick engaging portion adapted to rest on top of the brick, of a guide arm for the line connected with the horizontal portion of the brick clamping arm, a line clamp pivoted to the vertical portion of the brick clamping arm, and a bifurcated line engaging member projecting upward from the brick clamping arm between the guide arm of the clamping plate.

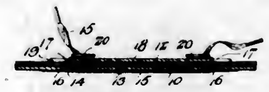
1,092,059. MOTHPROOF CHEST. JOHN A. LAFORE, Cynwyd, Pa. Filed Apr. 25, 1912. Serial No. 693,276. (Cl. 229—14.)



A moth proof chest having walls consisting of paper boards separated by and secured to corrugated paper, said corrugated paper mechanically strengthened throughout its corrugations by material rendering said chest vermin proof, said paper boards on the inside of said chest serving to prevent contact between the contents of said chest and said material.

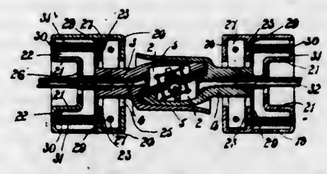
1,092,060. LOOSE-LEAF BINDER. ALBERT L. LANGFORD, Vancouver, British Columbia, Canada. Filed Apr. 8, 1913. Serial No. 759,710. (Cl. 129—16.)

1. In a loose leaf binder, the combination with a folder adapted to contain letters having perforations therein, of a tape-carrying member secured to the back of the folder and provided with pairs of slots registering with apertures in the back of the folder, a tape passing through the pairs of slots and adapted to pass through the apertures in the back of the folder, with the portion of the tape between the slots of the tape-carrying member secured to the tape-carrying member, the free ends of the tape being adapted to pass through the perforations in the said letters, a securing plate having longitudinal slots formed in the ends thereof and adapted to repose on the uppermost letter, with the slots of the plate registering with the perforations in the letters and the said tape passing through the slots, and buttons carried on the upper face of the securing plate, adjacent the inner ends of the slots and adapted to have the free ends of the tape attached thereto to securely bind the letters in the folder.



2. A loose leaf binder for folders adapted to contain letters, consisting of a tape-carrying member glued to the back of the folder, a tape on the member and passing through apertures in the back of the folder and adapted to pass through perforations in the said letters with a portion of the said tape lying between the back of the folder and the tape carrying member and glued thereto, a securing plate provided with slots adapted to register with the perforations in the letters, and buttons on the securing plate and adapted to have the free ends of the tape wound around the same to bind the said letters in the said folder.

1,092,061. SELF-COUPLING FOR FLUID TRAIN-LINES. CHARLES EDOUARD OSCAR LANGLAIS, Montreal, Quebec, Canada, assignor of sixteen and two-thirds one-hundredths to Joseph Antoine Hilaire Hebert, sixteen and two-thirds one-hundredths to Charles Leluau, and sixteen and two-thirds one-hundredths to Louis Marcel Lymburner, Montreal, Canada. Filed Dec. 5, 1911. Serial No. 664,084. (Cl. 188—13.)



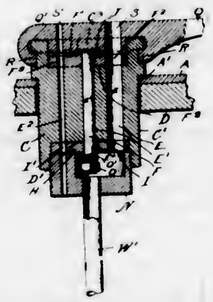
1. In a self coupler for fluid train lines, a pair of coupler members, a valve casing on the fore end of each coupler member, each of said members being formed with a shank integral with the valve casing and a guide piece flaring outwardly from said valve casing and forming therewith a pocket, a cover to said valve casing having holes therethrough, a valve having its stem extending into said valve casing and its head projecting outwardly from said cover, a bracket secured to the inside of said cover and through which said stem extends, a spring between said bracket and said cover and holding the head of said valve in its outward position and adapted to close a communicating port in said valve, a pair of bodies secured to the car bodies and flexibly supporting said shanks, flexible means of communication between shanks and the train lines adapted to connect said train lines with the valve chambers in said coupler members.

2. In a self coupler for fluid train lines, a pair of coupler members each of said members being formed of a pierced shank terminating at the front end thereof in a valve casing and a guide piece, said guide piece and said valve casing forming a pocket, a valve spring-held to its outer position and extending into said valve casing, a pair of bodies secured to the car bodies and having openings therethrough, each of said bodies having inwardly ex-

tending flanges forming rear and front recesses, a pair of bars engaging a shank on the upper and lower sides respectively and spring-held at their ends to the upper and lower sides of the body, flanged pieces extending laterally from said shanks to the rear of inwardly extending flanges in the body and springs extending into the rear recesses and flexibly holding said flanges from the shank in their forward position, and flexible means of communication from said shanks to the train lines.

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1,092,062. SANITARY BUNG AND TAP. DAVID LONEY and MICHAEL F. EGAN, Davenport, Iowa. Filed Mar. 21, 1913. Serial No. 755,849. (Cl. 225—2.)



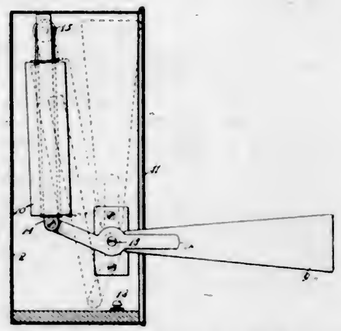
1. A liquid dispensing device for barrels, etc., comprising a bung fitted within the bung hole of a barrel, said bung having countersunk ends and ducts leading through the bung, an apertured disk with a stem which passes through an aperture in said bung, a second apertured disk keyed to said stem, a projection upon one of said disks, a handle having a recess adapted to receive said projection, and means for limiting the rotary movement of the disk, as set forth.

2. A liquid dispensing device for barrels, etc., comprising a bung within the bung hole of a barrel, said bung having countersunk ends and ducts leading through the bung, an apertured disk with a stem passing through an aperture in said bung, a second apertured disk keyed to said stem, a projection upon one of said disks, a handle having a recess adapted to receive said projection, said bung having an annular groove in its circumference with slots leading thereinto, a handle with hooks thereon adapted to engage said groove, a projection upon the face of the head of the handle which is recessed to receive the projection upon said disk, and means for limiting the rotary movement of the disk, as set forth.

3. A liquid dispensing device for barrels, etc., comprising a bung fitted within the bung hole of a barrel, said bung having countersunk ends and ducts leading through the bung, an apertured disk with a stem passing through an aperture in said bung, a second apertured disk keyed to said stem, a projection upon one of said disks, a handle having a raised portion with a recess therein adapted to receive said projection, said shell having an annular groove in its circumference with slots leading thereinto, a handle with hooks thereon adapted to engage said groove, one of said disks having a recess formed in its circumference, and a lug projecting from the bung and adapted to contact with the ends of said recess to limit the rotary movement of the disk, as set forth.

4. A liquid dispensing device for barrels, etc., comprising a bung fitted within the bung hole of a barrel, said bung having countersunk ends and ducts leading through the bung, an apertured disk with a stem passing through an aperture in said bung, a second apertured disk keyed to said stem, a nut fitted to the threaded end of said stem, a coiled spring interposed between the nut and said disk which is keyed to the stem, and means for rotating the disk, as set forth.

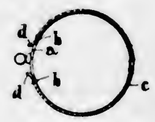
1,092,063. SIGNALING APPARATUS. ERNEST DANIEL LOPEZ, New Orleans, La. Filed Oct. 9, 1912. Serial No. 724,685. (Cl. 177—311.)



In an improvement of the kind described, the combination of a casing having a slot, a semaphore pivotally mounted in the casing to be moved outward through the same, a plunger pivotally connected to the inner end of said semaphore, and a pivotally-mounted solenoid receiving said plunger, the weight of said plunger serving to retain the semaphore in the casing, and also serving, when attracted by the solenoid, to move the semaphore out of the casing.

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1,092,064. MONOCLE AND THE LIKE. HARRY THOMAS LOUCH, London, England. Filed May 13, 1913. Serial No. 767,286. (Cl. 88—41.)



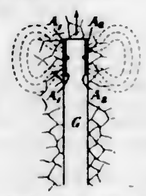
1. A monocle or the like comprising in combination a frame and a spring approximating in shape to, but of slightly larger diameter than said frame, for the purpose set forth.

2. A monocle or the like comprising a frame, slotted lugs upon said frame, and a substantially circular spring secured to said lugs, for the purpose set forth.

3. A monocle or the like comprising a frame, slotted lugs upon said frame, a substantially circular spring secured to said lugs and knob-like projections upon the ends of said spring, for the purpose set forth.

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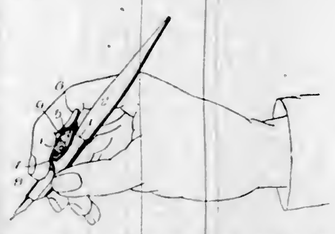
1,092,065. METHOD FOR ASCERTAINING THE NATURE OF SUBTERRANEAN STRATA. HEINRICH LÖWY, Gottingen, Germany. Filed Apr. 1, 1913. Serial No. 758,262. (Cl. 175—182.)



A method for ascertaining the nature of subterranean strata which comprises placing a preliminary calibrated circuit capable of electric oscillations in a mine or bore hole and determining the variation of its capacity or its frequency and damping co-efficient as compared with the prior calibration.



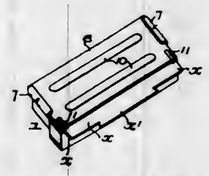
1,092,066. PENHOLDER. HENRY G. MARBURGER, Litchfield, Ill. Filed July 5, 1912. Serial No. 707,803. (Cl. 120—101.)



The combination with a pen stock and a ferrule connected with the pen stock, said ferrule having its meeting edges upturned to provide ears having apertures, a flat spring member having a slot disposed adjacent its forward end, the ears of the ferrule adapted to pass through the slot of the spring, a pen retaining element constructed of a single piece of material embodying a handle member having formed integral and on the longitudinal edges thereof relatively spaced down-turned apertured ears, alining the apertures thereof with the apertures of the first mentioned ears, means passing through the alined apertures for pivotally connecting the second mentioned ears to the first mentioned ears and disposing the free ends of the bottom edges of the second named ears upon the upper surface of the spring at opposite sides of the slot, and the spring being also adapted to contact with the handle, the said holding element being provided with a down-turned portion adjacent its ears, and being further extended to provide a rounded jaw which, through the medium of the spring is adapted to frictionally engage with the upper and forward end of the ferrule.

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1,092,067. BLADE-HOLDER. RICHARD MARX, Philadelphia, Pa., assignor, by mesne assignments, to The Temperite Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 18, 1912. Serial No. 737,487. (Cl. 206—40.)



1. The combination in a blade holder, of a container; a cover movably guided thereon and spaced away from the top edge thereof by a distance substantially equal to the thickness of a blade; means for pressing blades in the container toward said cover; and means on the cover for engaging portions of the ends of the topmost blade in the holder to remove the same when said cover is reciprocated.

2. The combination in a blade holder of a container having two of its opposite top edges extended and bent to form guide ways having a U-shaped section, each guide way being pressed in to provide a stop; a cover slidable in the guide ways and having portions cut away to receive said stops while permitting movement of said cover; and means for forcing blades in the container toward the cover.

3. The combination of a box having a body portion and an extension thereto; with a cover movably guided on the box and having a projection placed to engage a portion of a razor blade extending into said box extension, when the cover is moved on the box.

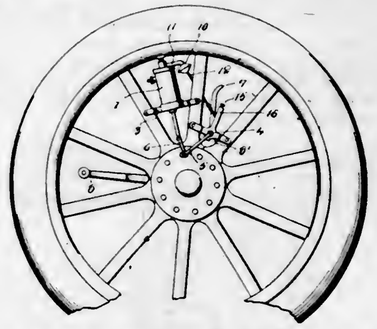
4. The combination of a blade holder consisting of a box having a body portion and an extension thereto; with a series of blades each having a body and an extension, the extension of each blade entering the extension from the box body and being held thereby in a position in which the cutting edge of the blade is retained out of engagement with the wall of the box.

5. The combination of a blade holder consisting of a box having a body portion and a plurality of oppositely placed extensions thereto; with a series of blades each having a body and a plurality of extensions, the extensions of each blade entering the extensions from the body of the box, and the blade being held thereby in a position in which the cutting edge thereof is retained out of engagement with the wall of the box.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,068. MEANS FOR AUTOMATICALLY INFLATING PNEUMATIC TIRES. ADDIE L. MCDONALD and DAVID L. MIDDLETON, Sanderson, Fla. Filed May 28, 1913. Serial No. 770,407. (Cl. 152—11.)

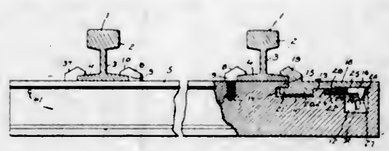


1. In means for automatically inflating a pneumatic tire the combination of a compressor, a shaft mounted to receive both a rocking and a longitudinal movement, connecting means between such shaft and compressor, an operating arm having connection with the shaft, a trip arranged in the path of the operating arm, and an automatic control actuated by the pressure of air within the tire for moving the shaft longitudinally to throw the operating arm out of the path of the trip.

2. In means for automatically inflating a pneumatic tire the combination of a compressor, a shaft mounted to receive both a rocking and a longitudinal movement, connecting means between such shaft and compressor, an operating arm having connection with the shaft, a trip arranged in the path of the operating arm, a spring normally tending to move the shaft in one direction to hold the operating arm in the path of the said trip, means for varying the tension of said spring, and an automatic control adapted to be operated by the pressure of air within the tire for moving the shaft against the tension of the before mentioned spring to throw the operating arm out of the path of the trip when the air pressure within the tire reaches a given point.

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1,092,069. RAILROAD-TIE AND FASTENER. DANIEL MCLELLAN, Hibbing, Minn. Filed June 13, 1913. Serial No. 773,571. (Cl. 238—4.)



1. In combination with a metallic railroad tie having recesses adjacent its ends, springs in the bottoms of said recesses, rail fasteners adapted to enter said recesses, said springs adapted to exert upward pressure against the rail fasteners, latches carried by said rail fasteners, tongues

carried by said latches, and a key adapted to be inserted in apertures in the tie and engage the tongues whereby the latches may be released.

2. In combination with a tie having recesses adjacent each end and springs seated in said recesses, rail securing members comprising body portions having recesses in the ends thereof, flange engaging portions formed integrally with said rail securing members at the ends opposite the recessed ends, spring pressed latches slidably mounted in the recesses in the ends of the rail securing members, said latches being adapted to enter enlarged recesses communicating with the aforesaid recesses and engage shoulders formed integrally with the tie and thereby securely lock the rail securing members from movement.

3. In combination with a railroad tie having shallow recesses communicating with deeper recesses through grooves, and springs seated in the shallow recesses, rail securing members comprising body portions having recesses in their ends, flange engaging portions formed integrally with said body portions at the ends opposite the recessed ends, spring pressed latches slidably mounted in said recesses in the ends of the body portions, and a key operating the spring pressed latches when it is desired to remove the fasteners from the tie.

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1,092,070. DRILL-PRESS. MORDUCK MERLISS, Flint, Mich. Filed Nov. 5, 1912. Serial No. 729,672. (Cl. 77—5.)



1. The combination with a spindle of a drill press, said spindle having an enlarged head provided with a tapered socket for receiving the tapered shank and a tool; of a pair of sleeves mounted on the spindle, one of said sleeves being movable and the other being stationary relative to the spindle and supported by the enlarged head of the latter, a key longitudinally movable in the spindle and stationary sleeve and means for shifting the movable sleeve to cause the key to press the tool shank out of the socket.

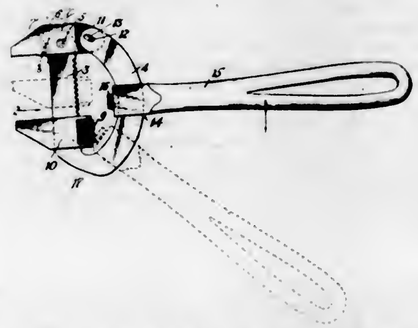
2. The combination with a spindle of a drill press, said spindle having an enlarged head provided with a tapered socket for receiving the tapered shank of a tool; of a pair of sleeves mounted on the spindle, one of said sleeves being movable and the other being supported by the enlarged head of the spindle, a key longitudinally movable in the spindle and relatively stationary sleeve and means for shifting the movable sleeve to cause the key to press the tool shank out of the socket, said stationary sleeve having openings therethrough communicating with the socket for the insertion of wedge means to displace the tool.

3. The combination with a spindle of a drill press, provided with a socket for receiving the shank of a tool; of a pair of sleeves mounted on the spindle, one of said sleeves being movable and the other being stationary with relation to the spindle, a key movable longitudinally of the spindle and stationary sleeve, means for shifting the movable sleeve to cause the key to press against the tool shank for displacing the tool, and spring means normally urging the key and movable sleeve away from the tool.

4. In a drill press, a spindle having a threaded portion and an enlarged portion providing a shoulder, said enlarged portion having a tool socket and a transverse slot communicating therewith; of a feed sleeve engaged around the spindle and having an inwardly extended end contacting therewith, said sleeve having opposed recesses communicating with the slot, a tang movable in the slot and recesses, springs carried by the sleeve, a washer interposed between the springs and tang to hold the latter removed from the socket, an inner sleeve fitted on the spindle and within the first mentioned sleeve to engage the tang, means for shifting the inner sleeve against the springs and means engaged on the threaded portion of the spindle to secure the sleeves thereon.

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1,092,071. WRENCH. PERCY SHEPHERD MERRILL, Waterville, Me. Filed Sept. 5, 1913. Serial No. 788,242. (Cl. 81—111.)



1. In a wrench,—a shank having a resilient extension forming a sector and adapted to be deflected from said shank; a jaw pivotally mounted on said shank and movably associated with said sector; a jaw slidably and adjustably mounted on said shank and coöperating with said pivotally mounted jaw; and a handle mounted on said sector and having means whereby it can be secured in any position on said sector, and whereby said sector can be deflected from said shank, substantially as and for the purpose set forth.

2. In a wrench,—a shank having a resilient extension forming a sector and adapted to be deflected from said shank; a jaw pivotally mounted on said shank and loosely connected to said sector; a jaw slidably and adjustably mounted on said shank and coöperating with said pivotally mounted jaw; and a handle slidably and adjustably mounted on said sector whereby said sector can be deflected angularly from the shank, substantially as and for the purpose set forth.

3. In a wrench,—a shank having a resilient extension forming a sector and adapted to be deflected from said shank; a jaw pivotally mounted on the end of the shank and loosely connected to the end of the sector; a jaw slidably and adjustably mounted on said shank and coöperating with said pivotally mounted jaw; and a handle slidably and adjustably mounted on said sector whereby said sector can be deflected angularly from the shank, substantially as and for the purpose set forth.

4. In a wrench,—a shank having a resilient extension forming a sector the end of which is adjacent the end of the shank adapted to be deflected therefrom; a jaw pivotally mounted on the end of said shank and loosely connected with one end to the end of the sector, whereby the said second end of said jaw can move toward said shank; a second jaw slidably and adjustably mounted on said shank and coöperating with the pivotally mounted jaw; and a handle adjustably mounted on said sector whereby the end of the sector can be deflected from the end of the shank, substantially as and for the purpose set forth.

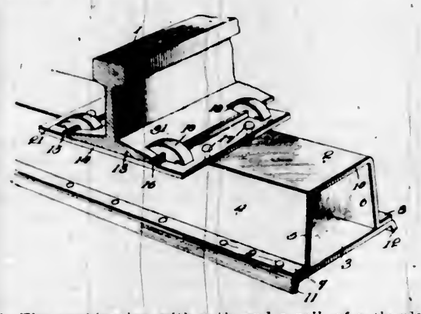
5. In a wrench,—a shank having an extension forming a sector lying in the same plane with the shank and the end of which is adjacent to the end of the shank; a jaw having a recess engaging the end of said shank; a pivot connecting said jaw with said end of shank, said jaw having a bifurcated end engaging the end of said sector; a pin in said bifurcated end, the end of said sector engaging the bifurcated end having a slot engaged by said pin, said slot being so formed with reference to said pivot that when the end of said sector is caused to move away from the end of the shank said jaw is caused to move on the pivot with its non-bifurcated end moving toward the shank; a jaw slidably and adjustably mounted on said shank coöperating with said pivotally mounted jaw; a handle slidably mounted on said sector; and means in said handle whereby it can be secured at any desired point on said sector.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,072. RAIL-FASTENING DEVICE. JOHN H. MESSNER, Pittsburgh, Pa. Filed Sept. 16, 1913. Serial No. 790,143. (Cl. 238—4.)



1. The combination with a tie and a rail, of a tie plate mountable on the tie and adapted to receive the rail base, transverse centering ribs formed integrally with the plate and adapted to hold the rail base against lateral movement, and a pair of detachable retaining bolts adapted to hold the rail base against lateral and vertical movement, each of said retaining bolts including a shank insertible through the tie plate, means for holding the shanks against withdrawal therefrom, a head formed on each shank, a pair of laterally directed arcuate extensions formed integrally with each head, one of said extensions being engageable against the rail base, and the other of said extensions being engageable against the tie plate.

2. The combination with a tie and a rail, of a tie plate mountable on the tie and adapted to receive the rail base, transverse centering ribs formed on the tie plate for holding the rail base against lateral movement, and retaining bolts for holding the rail base against lateral movement, each of said retaining bolts consisting of a screw-threaded shank insertible through the tie plate, an integral head, and a pair of arcuate extensions formed integrally with and directed from the head, each of said arcuate extensions having their lower faces beveled, the first of said extensions being engageable against the inclined upper face of the rail base, and the other of said extensions being engageable against the tie plate.

3. The combination with a tie and a rail, of a tie plate mountable on the tie and having transverse centering ribs engageable against the edges of the rail base, and detachable retaining bolts for holding the rail base on the tie plate, each of said retaining bolts including a shank insertible through the tie plate and a head embracing the adjacent rib and having a pair of extensions bearing against the rail base and the tie plate.

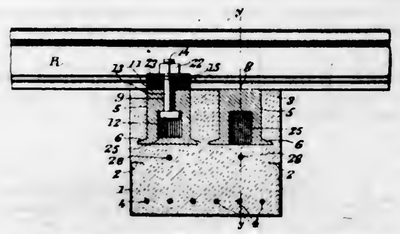
4. The combination with a tie and rail, of a removable tie plate having transverse centering ribs engageable against the longitudinal edges of the rail base, and a plurality of retaining bolts for holding the rail base on the tie plate, each of said retaining bolts including a shank insertible through the tie plate, a head, and a pair of extensions, one of which bears against the upper face of a rail base and the other of which bears against the upper face of the tie plate, the extension which bears against the rail base being provided in its lower face with a recess adapted to receive the upper edge of the adjacent centering rib.

5. The combination with a tie and a rail, of a removable tie plate having transverse centering ribs, and a plurality of retaining bolts for holding the rail base on the tie plate, each of said retaining bolts including a shank portion insertible through the tie plate, and a pair of arcuate extensions, one of which bears against the rail base and is provided in its lower face with a recess adapted to receive the upper edge of the adjacent centering rib, and the other of which bears against the upper face of the tie plate.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,073. RAIL-TIE. IVES A. MILLER, Grapeville, Pa. Filed May 7, 1913. Serial No. 766,132. (Cl. 238—3.)



1. The herein described construction of ties including a plastic body having its bottom, its sides and ends incased in a metallic mesh basket, the edges of the basket entering the said sides and ends, metallic rail seats having their lower corners formed with flanges arranged within the tie, the upper portions of the seats projecting above the upper face of the tie, and rail securing members for the seats.

2. A tie comprising a plastic body, a basket comprising a foraminous metallic member arranged to receive the bottom of the tie and lying flush with said bottom and a portion of the sides and end of the tie, the basket having its upper edges inturned and embedded within the tie, longitudinal reinforcing members within the tie and disposed above the bottom of the basket and out of contact with the basket, substantially rectangular tie reinforcing members providing rail seats arranged within the tie above the basket, and rail securing members associated with the seats.

3. A plastic tie having metallic reinforcing members which are spaced from contact with each other and including rail seats having rail securing members associated therewith and having a foraminous member which is arranged flush with the bottom and with a portion of the sides and ends of the tie.

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1,092,074. PROCESS OF MAKING MANURE FROM TANNED-LEATHER SHAVINGS OR CUTTINGS. ALFRED MOISE, Barr, Germany. Filed Oct. 30, 1912. Serial No. 728,744. (Cl. 71—6.)

1. A process of producing manure from leather refuse of the character described, comprising first finely subdividing the said refuse, then lixiviating the product with water at 50° to 60° centigrade until the tannin has been practically removed therefrom, then disaggregating the mass remaining by the application of high temperature steam and of an alkali, and finally drying and triturating this disaggregated material.

2. A process of producing manure from leather refuse of the character described, comprising first finely sub-

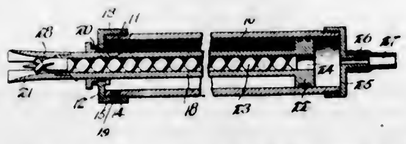
dividing the said refuse, then removing the grease therefrom by treating with suitable fat solvents, then lixiviating the remaining mass with water at 50° to 60° centigrade until the tannin has been practically removed therefrom, then disaggregating the mass remaining by the application of high temperature steam and of an alkali, and finally drying and triturating this disaggregated material.

3. A process of producing manure from leather refuse of the character described, comprising first finely subdividing the said refuse, then lixiviating the product with water at 50° to 60° centigrade until the tannin has been practically removed therefrom, then removing the remaining liquid from the mass, disaggregating the mass remaining by the application of high temperature steam and of an alkali, and finally drying and triturating this disaggregated material.

4. A process of producing manure from leather refuse of the character described, comprising first finely subdividing the said refuse, then lixiviating the product with water at 50° to 60° centrigrade until the tannin has been practically removed therefrom, then applying excess air pressure in such manner as to remove the remaining liquid from the mass, disaggregating the mass remaining by the application of high temperature steam and of an alkali, and finally drying and triturating this disaggregated material.

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1,092,075. HYDRAULIC DRILLING-MACHINE. SOREN C. MONBERG, Leadville, Colo. Filed Oct. 11, 1912. Serial No. 725,342. (Cl. 121—57.)



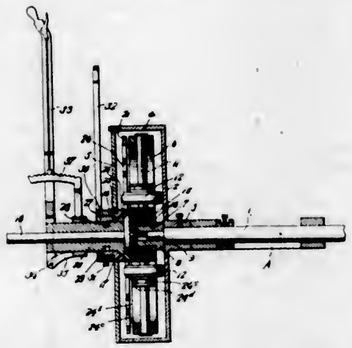
1. A drilling machine comprising a cylinder, a piston reciprocatingly movable within the cylinder and having a hollow drill shank projected exteriorly through one end of the cylinder, the bore of the shank being extended through the piston, a spirally arranged partition formed integrally with the shank and extending throughout a greater portion of the length thereof within the bore of the same, a cutter head mounted on the outer end of the shank, a nipple mounted within the outer end of the bore of the shank and having reversely curved discharge nozzles, and means for admitting fluid to the cylinder at one side of the piston.

2. A drilling machine comprising a cylinder, a piston reciprocatingly movable within the cylinder and having a hollow drill shank projected exteriorly through one end of the cylinder, the bore of the shank being extended through the piston, a spirally arranged partition formed integrally with the shank and extending throughout a greater portion of the length thereof within the bore of the same, a cutter head mounted on the outer end of the shank, a nipple mounted within the outer end of the bore of the shank and having reversely curved discharge nozzles, and means for admitting fluid to the cylinder at one side of the piston, the said cylinder being provided with a port to permit the inflow and out-flow of fluid to and from the cylinder at the other side of the piston.

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1,092,076. POWER-TRANSMITTING MECHANISM. DAVID E. MORRIS, Gulfport, Miss. Filed Oct. 17, 1911. Serial No. 655,126. (Cl. 74—26.)

1. The combination with a drive shaft and a driven shaft, of a fly wheel mounted upon the driving shaft to rotate therewith, a member mounted within the fly wheel, frictional elements on said member, means for shifting said member laterally in the fly wheel to cause said frictional elements to engage with opposite sides of the wheel to reverse the direction of movement of the driven shaft, and means for shifting said frictional elements to vary the speed of said driven shaft.



2. The combination with a drive shaft and a driven shaft, of a fly wheel mounted upon the drive shaft and rotating therewith, a hub member stationary in the fly wheel and into which the end of the drive shaft extends, a member mounted to be shifted laterally upon said hub, a plurality of rotatably mounted radially movable friction disks carried by said member, drive gearing connecting the disks with the driven shaft, means for shifting the member and friction disks to opposite sides of the fly wheel.

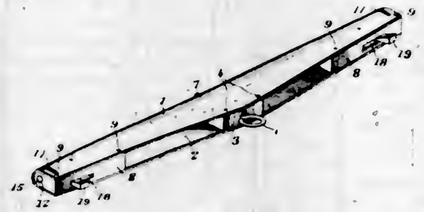
3. The combination with a drive shaft and a driven shaft, of a fly wheel mounted upon the drive shaft and rotated therewith, a member mounted within the fly wheel, power transmitting means interposed between said member and the driven shaft, friction disks adapted to place the power transmitting means in driving operation, means for shifting the friction disks from one side of the fly wheel to the other, and means for shifting said friction disks to vary the speed of rotation of the driven shaft, said means including a disk plate member, movable connections between said plate member and the friction disks, and means for shifting the plate disk around its axis to move the friction disks radially relative to the sides of the fly wheel.

4. The combination with a drive shaft and a driven shaft, of a fly wheel rotating with the driving shaft, a circular member provided with a hub portion adapted to incase the end of the driving shaft, said hub being rotatable with the driving shaft, a series of radial arms rotatably mounted in said member, gearing carried at the inner end of each arm, a gear wheel on the driven shaft meshing with the gearing at the end of the arm, a friction disk slidable upon each of said arms, means for shifting the member from one side of the fly wheel to the other to place the disks in driving engagement with the sides of the fly wheel, and means for shifting said friction disks to vary the speed of the driven shaft, said means comprising a disk plate having segmental slots therein, levers pivoted to the circular member and provided with studs projecting into the slots in the disk plate the opposite ends of said levers engaging with the hubs of the friction disks, a rotatable hub member for said disk plate, and means for rotating the hub member to shift said plate and thereby move the disks radially relative to the axes of the shaft.

5. The combination with a drive shaft and a driven shaft, a fly wheel mounted upon the drive shaft and rotating therewith, power transmitting mechanism within the fly wheel for placing the same in driving engagement with the driven shaft, means for shifting said mechanism to reverse the direction of rotation of the driven shaft, and means for varying the speed of rotation of said driven shaft, said means including a member capable of partial rotation, means loosely connecting said member with the power transmitting mechanism, and mechanism for moving said partial rotatable member.



1,092,077. DRAFT DEVICE. CHARLES A. MYERS, South Greenfield, Mo. Filed May 20, 1913. Serial No. 768,782. (Cl. 21—78.)



A draft device of the class described having a longitudinal channel in its rear side extending from end to end thereof and provided near its ends in its front side with recesses, filler blocks secured in the ends of the channel and having bolts wholly carried by and mounted for movement in the filler blocks and across the said recesses to engage and disengage the rear ends of traces placed in said recesses, springs to normally hold the attaching bolts in engaging position, the said springs being also mounted in and wholly carried by the filler blocks and operating pins for the attaching bolts movable therewith and also mounted for movement in the filler blocks, said pins being secured to and extending rearwardly from the attaching bolts and the said filler blocks having longitudinal slots in which said pins operate, said slots and pins also limiting the extent of longitudinal movement of the bolts.

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1,092,078. VEHICLE-TIRE. MAX CYRUS OVERMAN, New York, N. Y. Filed Dec. 16, 1910. Serial No. 597,646. (Cl. 152—1.)




1. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire.

2. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire, said tire having its sides below its flange-engaged portion and adjacent the longitudinal opening steeply converging toward the tread on substantially straight lines.

3. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire, said tire having its sides below its flange-engaged portion and adjacent the longitudinal opening steeply converging toward the tread on substantially straight lines, said side walls being thicker toward the tread than toward the base of the tire.

4. A new article of manufacture, a cushion tire whose transverse section consists of two parts, an upper and a lower, the former being engaged by the wheel flanges and the latter being free of said flanges, the shape of the lower part being substantially trapezoidal with its inclined sides converging steeply toward the tread, said tire being hollow by means of a longitudinal opening having a small V-shaped transverse section whose base is at the flange-engaged part of the tire and whose apex extends well into the lower part of the tire, said tire having side walls comprised between the sides of said opening and the sides of the tire, and having a nose portion between the apex of the opening and the tread of the tire, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire.

5. A new article of manufacture, a cushion tire whose transverse section consists of two parts, an upper and a lower, the former being engaged by the wheel flanges and the latter being free of said flanges, the shape of the lower part being substantially trapezoidal with its inclined sides converging steeply toward the tread at an angle to the horizontal of from 70 to 80 degrees, said tire being hollow by means of a longitudinal opening having a small V-shaped transverse section whose base is at the flange-engaged part of the tire and whose apex extends well into the lower part of the tire, said tire having side walls comprised between the sides of said opening and the sides of the tire, and having a nose portion between the apex of the opening and the tread of the tire, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire, said side walls being thicker toward the tread than toward the base of the tire.

[Claims 6 to 12 not printed in the Gazette.]

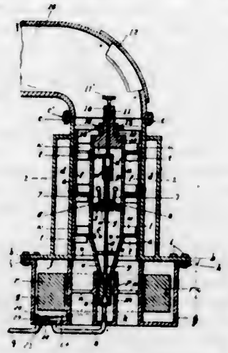
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1,092,079. CARBURETER. JAMES S. REEDER, Portland, Oreg. Filed June 3, 1913. Serial No. 771,559. (Cl. 48—154.1.)

1. In a carbureter of the type specified, a mixing chamber, a fuel-oil feed having an outlet located in such chamber, a valve element consisting of a valve case rotatably supported in said mixing chamber, such valve being mounted on said outlet, said case being provided with an inlet orifice and an outlet orifice, a valve controlling such inlet, a centrifugal governor for such valve within the valve-case, and means whereby the air sucked through the mixing chamber is caused to impart rotary motion to said valve case.

2. In a carbureter of the type specified, a mixing chamber, a fuel-oil feed having an outlet located in such chamber, a valve element consisting of a valve case rotatably supported in said mixing chamber, such case being mounted on said outlet of the oil feed and being provided with an inlet orifice and an outlet orifice, said valve having a

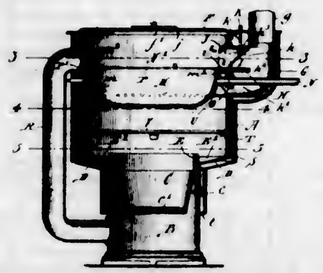
stem longitudinally movable in the valve case, means for yieldingly holding the valve on its seat, a centrifugal governor in the valve case, such governor being connected with said valve stem, and means on the exterior of the valve case and the interior of the mixing chamber whereby the suction of air through the latter is caused to impart rotary motion to the valve case.



3. In a carbureter of the type specified, a mixing chamber, a fuel-oil feed having an outlet located in such chamber, a valve element consisting of a valve case rotatably supported in said mixing chamber, such case being mounted on said outlet of the oil feed and being provided with an inlet orifice and an outlet orifice, said valve having a stem longitudinally movable in the valve case, adjustable means for yieldingly holding the valve on its seat, a centrifugal governor in the valve case, such governor being connected with said valve stem, and means on the exterior of the valve case and the interior of the mixing chamber whereby the suction of air through the latter is caused to impart rotary motion to the valve case.

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1,092,080. INCINERATOR FOR GARBAGE, EXCREMENT, &c. ALFRED L. SCHELLHAMMER, Warren, Pa., assignor to United States Incinerator Company, Buffalo, N. Y., a Corporation of New York. Original application filed Sept. 3, 1909, Serial No. 516,062. Divided and this application filed July 25, 1910. Serial No. 573,627. (Cl. 110—9.)



1. An incinerator comprising a casing having a seat opening in its top wall, a kettle in said casing beneath said seat opening having pivots at opposite points, one of said pivots being hollow and opening into said kettle, a fixed liquid conduit connected to said hollow pivot and extending therefrom to a point outside of said casing, said conduit being connected to said hollow pivot to permit dumping of said kettle, and a fire chamber located beneath said kettle.

2. An incinerator comprising a casing having a fire chamber and a combined draft and smoke box, said draft and smoke box having a divisional wall spaced from its outer wall and forming two connected parts arranged one above the other and an air inlet opening in its top wall, a damper in the upper part of said box adapted to control said inlet opening, a kettle supported in said casing above said fire chamber, an air chamber surrounding said casing and its combined draft and smoke box and having communication with the same through said air-inlet, and a draft flue mainly outside of said air chamber connecting the space above said kettle with the space beneath said fire chamber, one end of said draft flue extending through said air chamber.

3. An incinerator comprising a casing having a fire chamber, a kettle above said fire chamber in which excrementitious matter may be subjected to heat, and a receptacle to receive the overflow from said kettle formed by the walls of said fire chamber and casing.

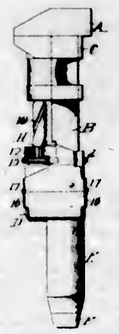
4. An incinerator comprising a casing having an enlarged upper portion overhanging its lower portion, a liquid receptacle at the lower end of said upper portion, a kettle supported within said casing in a plane above said liquid receptacle and arranged to overflow thereinto, and a fire chamber in the lower portion of said casing having its wall extending into said upper portion and serving as the inner wall of said liquid receptacle, the lower end of the enlarged upper portion of said casing serving as the lower and outer wall of said liquid receptacle.

5. An incinerator comprising a casing having a fire-chamber, a kettle within said casing above said fire-chamber, and an overflow receptacle surrounding the upper end of said fire-chamber and adapted to receive the overflow from said kettle.

[Claim 6 not printed in the Gazette.]

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1,092,081. WRENCH. FRANCIS C. SOCIS, Brooklyn, N. Y., assignor to himself, and William B. Scofield, Worcester, Mass. Filed May 12, 1913. Serial No. 766,985. (Cl. 81—171.)



1. In a wrench, the combination of a fixed jaw, a movable jaw, a screw constantly in operative threaded engagement with the movable jaw, a spring connected to rotate the screw to force the movable jaw toward the fixed jaw, a ratchet wheel on the screw, and a pawl for the ratchet wheel.

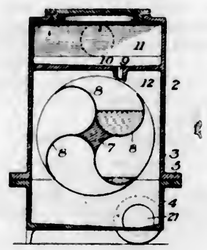
2. In a wrench, the combination of a fixed jaw, a shank, a movable jaw movable thereon, a block mounted on the shank, a screw constantly in operative threaded engagement with the movable jaw, a torsion spring housed in the block and connected to rotate the screw to force the movable jaw toward the fixed jaw, a ratchet wheel on the screw, and a pawl for the ratchet wheel.

3. In a wrench, the combination of a fixed jaw, a shank, a movable jaw fitted thereon, a block secured on the shank, a screw constantly in operative threaded engagement with the movable jaw, a nut threaded into a cavity in the block, a ratchet wheel formed on said screw, a hub projecting from the ratchet wheel and fitted into said nut, a spring housed in the cavity in the block engaging said hub and tending normally to turn the screw to force the movable jaw toward the fixed jaw, and a pawl having arms pivoted on the block in position to be manipulated by the thumb of the operator.



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1,092,082. LIQUID-METER. WERNER I. STAAF and EDWARD B. TYLER, Pittsburgh, Pa. Filed Feb. 3, 1912. Serial No. 675,200. (Cl. 73—182.)



1. A liquid meter, comprising a casing having a transverse horizontal partition across its interior and forming a storage chamber in the upper portion of the casing, said partition having therein a relatively narrow longitudinal discharge opening, a measuring wheel journaled transversely within the casing below the partition, and having a series of longitudinal buckets adapted each to receive and retain a definite predetermined weight of water discharged through said opening, and a weighted escapement device which acts upon said wheel to hold it against rotation until such time as the weight of water in a bucket reaches the predetermined limit, the casing having a water outlet below the wheel and adjacent the bottom wall of the casing, substantially as described.

2. A liquid meter, comprising a casing having a transverse horizontal partition across its interior and forming a storage chamber in the upper portion of the casing, said partition having therein a relatively narrow longitudinal discharge opening, a measuring wheel journaled transversely within the casing below the partition, and having a series of longitudinal buckets adapted each to receive and retain a definite predetermined weight of water discharged through said opening, and a weighted escapement device which acts upon said wheel to hold it against rotation until such time as the weight of water in a bucket reaches the predetermined limit, the casing having means for attaching a water outlet connection to either the right or the left hand end thereof below the said wheel; substantially as described.

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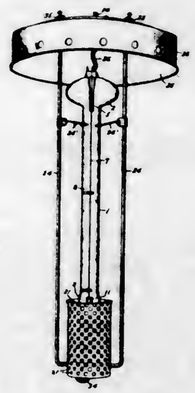
1,092,083. ELECTRIC LAMP. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 19, 1903. Serial No. 185,790. (Cl. 176—45.)

1. In combination, an exhausted envelop, a non-vaporizable electrode, a fluid vaporizable electrode, a member in said fluid electrode, said member being provided with a recess or receptacle, a second body of vaporizable fluid in said recess or receptacle, means for causing an arc to be started between the non-vaporizable electrode and the fluid contained in said recess or receptacle, and means for causing said member to be submerged in said fluid vaporizable electrode.

2. The combination of an exhausted envelop, two bodies of vaporizable material therein, said bodies being initially separate but electrically connected within the envelop, and means for starting an arc from one of said bodies by relatively moving said bodies.

3. In a vapor electric device, the combination of an envelop, a mass of vaporizable material located at one end thereof but out of contact therewith, means for changing the level of said vaporizable material and means cooperating with said vaporizable material to start an arc.

4. The combination of an exhaust envelop having an enlargement at one end, a fluid electrode located at that end of the envelop, a plunger having an enlarged end located within the enlarged end of said envelop, a stop for limiting the movement of said plunger and means for moving said plunger.

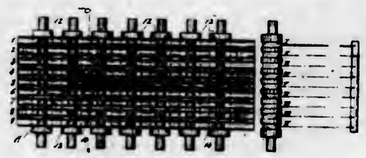


5. In combination, an exhausted envelop, a fluid electrode, a conducting filament adjacent thereto, an arc-starting plunger floating in said fluid electrode and carrying means initially engaging said filament, and means for moving said engaging means out of engagement with said filament.

[Claims 6 to 23 not printed in the Gazette.]

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1,092,084. FEED MECHANISM FOR TUBE-ROLLING MILLS. HEINRICH STÜTING, Witten-on-the-Ruhr, Germany. Filed Apr. 29, 1912. Serial No. 693,790. (Cl. 80—48.)



1. Feed-mechanism for tube-rolling mills comprising a channel for receiving the metal to be rolled, a tube turning mandrel rotatably arranged in said channel and independent of the tube-drawing mandrel of the mill, and means for turning said tube-turning mandrel.

2. Feed-mechanism for tube-rolling mills comprising a channel for receiving the metal to be rolled, a mandrel arranged in said channel, and means for turning said mandrel, such means being operated by the moving metal and mandrel in said channel.

3. Feed-mechanism for tube-rolling mills comprising a channel for receiving the metal to be rolled, a mandrel arranged in said channel, a lever arm on said mandrel and an abutment for engaging said lever-arm in the movement of said mandrel along said channel.

4. Feed-mechanism for tube-rolling mills comprising a channel for receiving the metal to be rolled, a mandrel arranged in said channel, a lever arm on said mandrel, and abutments for engaging said lever arm and turning the same at each end of the travel of the mandrel along the channel.

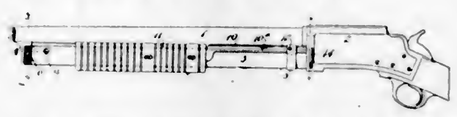
5. Feed-mechanism for tube-rolling mills comprising a channel for receiving the metal to be rolled, a mandrel arranged in said channel, a lever-arm on said mandrel and an abutment for engaging said lever-arm in the movement of said mandrel along said channel the position of the

abutment relatively to said channel being arranged to correspond with the distance the metal is to be moved in said channel.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,085. TAKE-DOWN FIREARM. JOHN H. WHEELER and FREDERICK MANGLIER, New Haven, Conn., assignors to The Marlin Firearms Company, New Haven, Conn., a Corporation of Connecticut. Filed Dec. 26, 1913. Serial No. 808,722. (Cl. 42—75.)



1. In a magazine firearm, a barrel, a receiver, said parts being detachable by a relative rotation, a magazine arranged underneath the barrel and longitudinally movable relatively thereto, an opening in the forward end of the receiver to receive the rear end of the magazine, a reciprocating action rod arranged adjacent to the barrel and magazine, said receiver having an opening to receive said action rod, and a latch carried by said receiver and arranged to engage the action rod and prevent the same from being withdrawn from the receiver when said latch stands in one position and freeing said action rod when it stands in another position and movable means to engage and disengage said latch to hold it in said rod-engaging position and to permit it to be free from said position.

2. In a magazine firearm, a barrel, a receiver, said parts being detachable by a relative rotation, a magazine arranged underneath the barrel and longitudinally movable relatively thereto, an opening in the forward end of the receiver to receive the rear end of the magazine, a reciprocating action rod arranged adjacent to the barrel and magazine, said receiver having an opening to receive said action rod, and a latch carried by said receiver and arranged to engage the action rod and prevent the same from being withdrawn from the receiver when said latch stands in one position and freeing said action rod when it stands in another position, with independent movable means carried by the barrel portion for engaging and disengaging said latch to hold the latter in the rod-engaging position and for freeing said latch to permit it to be disengaged from the rod.

3. In a magazine firearm, a barrel, a receiver, said parts being detachable by a relative rotation, a magazine arranged underneath the barrel and longitudinally movable relatively thereto, an opening in the forward end of the receiver to receive the rear end of the magazine, a reciprocating action rod arranged adjacent to the barrel and magazine, said receiver having an opening to receive said action rod, and a latch carried by said receiver and arranged to engage the action rod and prevent the same from being withdrawn from the receiver when said latch stands in one position and freeing said action rod when it stands in another position, said magazine when in its rearward position blocking said latch against movement to hold the latter in the first mentioned position.

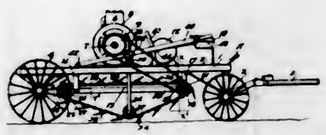
4. In a tubular magazine gun, a receiver, a barrel, said parts being detachable by relative rotation, a bolt for preventing the relative rotation of the parts, said bolt comprising a tubular magazine carried by the barrel and having a limited longitudinal movement relatively thereto, the forward end of the receiver having an opening arranged to receive the rear end of said magazine, a bracket on the barrel, said magazine having a slot through which said bracket passes, and an abutment shoulder formed by said slot, said magazine being partially rotatable to present said abutment in such a position relatively to said bracket as to hold said magazine against forward movement, said magazine being released from said bracket by a partial turn whereby said magazine may be moved to withdraw its rear end from the receiver.

5. In a tubular magazine gun, a receiver, a barrel, said parts being detachable by relative rotation, a bolt for preventing the relative rotation of the parts, said bolt comprising a tubular magazine carried by the barrel and having a limited longitudinal movement relatively thereto, the forward end of the receiver having an opening arranged to receive the rear end of the magazine, a bracket on the barrel, said magazine having a slot through which said bracket passes, and an abutment shoulder formed by said slot, said magazine being partially rotatable to present said abutment in such a position relatively to said bracket as to hold said magazine against forward movement, said magazine being released from said bracket by a partial turn whereby said magazine may be moved to withdraw its rear end from the receiver, with a spring-pressed detent coöperating with said magazine to hold the same.

[Claim 6 not printed in the Gazette.]

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1,092,086. TRACTOR-PLOW. ROBERT J. WILSON, Beaver Hills, Saskatchewan, Canada. Filed Nov. 18, 1912. Serial No. 732,137. (Cl. 97—66.)



1. The combination comprising a portable main frame, a conveyer frame suspended beneath the main frame, a cross shaft rotatably mounted forwardly in the conveyer frame, a rotatable cross shaft adjustably mounted rearwardly in the main frame, chain wheels on the shafts, endless chains mounted on the chain wheels, cross bars carried by the chains, means for rotating the forward cross shaft, angularly disposed cutting blades secured to the cross bars, the blades on the adjoining cross bars being staggered, arms slidably mounted in the frame, means for depressing the arms and a flanged pulley located at the lower ends of the arms and riding on the back face of the under sides of the chains, as and for the purpose specified.

2. The combination comprising a main frame mounted forwardly and rearwardly on wheels, an engine mounted on the main frame, a conveyer frame suspended beneath the main frame, a forward cross shaft rotatably mounted in the forward end of the conveyer frame, opposing spring pressed shanks slidably mounted in the rear end of the conveyer frame, said shanks being fitted with bearings, a rear cross shaft rotatably mounted in the bearings, chain wheels mounted on the front and rear shafts, endless chains connecting the chain wheels, means operated by the engine for rotating the front shaft, cross bars secured to the chains, angularly disposed cutting blades secured to the cross bars, the blades on adjoining bars being staggered, vertically directed arms slidably mounted in the main frame, said arms having their upper ends provided with horizontally disposed elongated slots, spiral springs normally suspending the arms, flanged pulleys rotatably mounted in the lower ends of the arms and riding on the upper faces of the under sides of the chains, levers pivotally mounted on the frame, pins carried by the levers and entering the slots aforesaid, quadrants adjoining the levers and suitable hand latches and detents carried by the levers the detents operating over the quadrants, as and for the purpose specified.

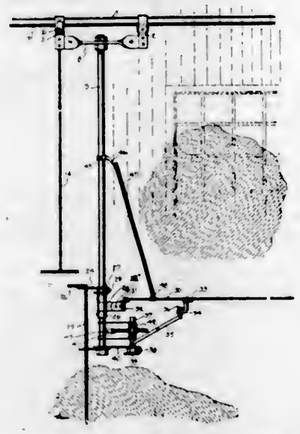
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1,092,087. HAY-FORK. FRED H. BANZ, Ventura, Iowa. Filed June 1, 1912. Serial No. 701,099. (Cl. 214—2.)

1. A hay distributing device comprising a support, a standard carried thereby, a fork mounted for horizontal swinging movements thereon, and means connecting the fork to the standard to cause the fork to automatically swing and dump when a load is delivered thereon.



2. A device of the class described comprising a support, a main supporting standard carried thereby, a hay distributing fork rotatably mounted upon said main supporting standard, trigger means for preventing the swinging of said hay distributing fork upon said standard in one direction and allowing the swinging of said fork in the opposite direction, and means carried by said standard and engaging said fork for causing the same to dump as said fork is swung upon the standard.



3. A hay distributing device of the class described comprising a support, a standard suspended from said support, a hay distributing fork pivotally mounted upon said standard and capable of being swung thereon, and means associated with said standard and engaging said fork for causing said fork to dump, as the same is swung upon said standard, and means for returning said fork to its normal position after a load has been distributed therefrom.

4. A hay distributing device of the class described comprising a support, a standard suspended therefrom, a hay distributing fork supporting bracket carried by said standard and capable of being rotated thereon, a hay distributing fork carried by said hay distributing fork supporting bracket, a link member connected to said fork, a bracket carried by the lower end of said standard, said link member connected to said bracket near its outer end, said hay distributing fork adapted to be swung upon said standard, and said link adapted to pull said fork downwardly as said fork is swung, and means carried by said standard and engaging said fork for causing said fork to assume its normal position.

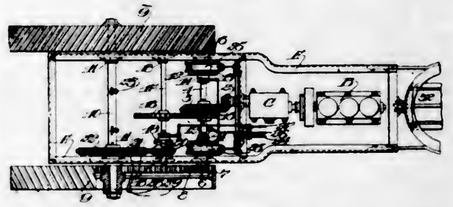
5. A hay distributing device of the class described comprising a support, a standard suspended from said support, a hay distributing fork rotatably mounted upon said standard, a bracket carried by the lower end of said standard, said bracket extending outwardly from said standard, and link means connected to said fork intermediate its ends and connected to said bracket near its outer end for causing said fork to be dumped as the same is rotated upon said standard.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,088. LOG LIFTING AND HAULING MACHINE. HARRY LEE BENTON, Redding, Cal. Filed May 7, 1912. Serial No. 695,654. Renewed Sept. 16, 1913. Serial No. 790,107. (Cl. 21—114.)

1. In a log-lifting and hauling tractor the combination with a motor and transmission of a jack shaft, mounted in a revoluble sleeve journaled in the main frame, driving means connecting the jack shaft with the transmission case, an intermediate shaft journaled in the main frame, driving means connecting the intermediate shaft with the jack shaft, a main supporting shaft journaled and revoluble in bearings in the main frame, driving means connecting the main shaft with the intermediate shaft, traction wheels revoluble on spindles on the main shaft, internal gears secured to the traction wheels, driving pinions mounted on the jack shaft and engaging with the internal gears, means for locking and unlocking said pinions to the jack shaft, said last-named means comprising engageable clutch members on the jack-shaft and sleeve, said sleeve being shiftable longitudinally along the jack-shaft, means independent of the jack shaft for locking the pinions from revolution to lock the traction wheels, said last-named means comprising a brake drum fixed to said sleeve, and a brake to engage said drum, and means on the intermediate shaft for connecting or disconnecting the driving connections between the main shaft and the intermediate shaft to revolve the main shaft, and a lifting and retaining means on said shaft.



2. In a log-lifting and hauling tractor the combination with a motor and transmission of a jack shaft, mounted in a revoluble sleeve journaled in the main frame, driving means connecting the jack shaft with the transmission case, an intermediate shaft journaled in the main frame, driving means connecting the intermediate shaft with the jack shaft, a main supporting shaft journaled and revoluble in bearings in the main frame, driving means connecting the main shaft with the intermediate shaft, traction wheels revoluble on spindles on the main shaft, internal gears secured to the traction wheels, driving pinions mounted on the jack shaft and engaging with the internal gears, means for locking and unlocking said pinions to the jack shaft, said last-named means comprising engageable clutch members on the jack-shaft and sleeve, said sleeve being shiftable longitudinally along the jack-shaft, means independent of the jack shaft for locking the pinions from revolution to lock the traction wheels, said last-named means comprising a brake drum fixed to said sleeve, and a brake to engage said drum, and means on the intermediate shaft for connecting or disconnecting the driving connections between the main shaft and the intermediate shaft to revolve the main shaft.

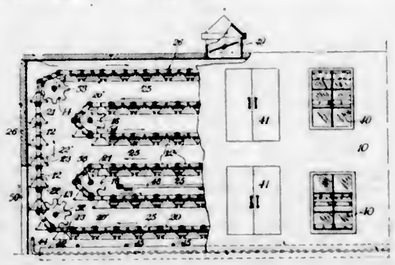
3. In a log-lifting and hauling tractor the combination with a motor and transmission of a jack shaft, mounted in a revoluble sleeve journaled in the main frame, driving means connecting the jack shaft with the transmission case, an intermediate shaft journaled in the main frame, driving means connecting the intermediate shaft with the jack shaft, a main supporting shaft journaled and revoluble in bearings in the main frame, driving means connecting the main shaft with the intermediate shaft, traction wheels revoluble on spindles on the main shaft, internal gears secured to the traction wheels, driving pinions mounted on the jack shaft and engaging with the internal gears, means for locking and unlocking said pinions to the jack shaft said last-named means comprising engageable clutch members on the jack-shaft and sleeve, said sleeve being shiftable longitudinally along the jack-shaft, means independent of the jack shaft for locking the pinions from revolution to lock the traction wheels, said last-named means comprising a brake drum fixed to said sleeve, and a brake to engage said drum, means on the intermediate shaft for connecting or disconnecting the driving connections between the main shaft and the intermediate shaft to revolve the main shaft, and a lifting and retaining means on said shaft.

4. In a log-lifting and hauling tractor the combination with a motor and transmission of a jack shaft, mounted in a revoluble sleeve journaled in the main frame, driving means connecting the jack shaft with the transmission case, an intermediate shaft journaled in the main frame.

driving means connecting the intermediate shaft with the jack shaft, a main supporting shaft journaled and revoluble in bearings in the main frame, driving means connecting the main shaft with the intermediate shaft, traction wheels revoluble on spindles on the main shaft, internal gears secured to the traction wheels, driving pinions mounted on the jack shaft and engaging with the internal gears, means for locking and unlocking said pinions to the jack shaft, said last-named means comprising engageable clutch members on the jack-shaft and sleeve, said sleeve being shiftable longitudinally along the jack-shaft, means independent of the jack shaft for locking the pinions from revolution to lock the traction wheels, said last-named means comprising a brake drum fixed to said sleeve, and a brake to engage said drum, means on the intermediate shaft for connecting or disconnecting the driving connections between the main shaft and the intermediate shaft to revolve the main shaft, a lifting and carrying means on said shaft, and means on the intermediate shaft to lock the main shaft from revolving.

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1,092,089. DOUGH-RAISING MACHINE. FRANK G. BIRD, Springfield, Mass. Filed July 14, 1913. Serial No. 778,913. (Cl. 126—281.)



1. In a machine of the class described, the combination with an inclosing casing of a plurality of track-ways secured to the inner sides thereof, an endless conveyer provided with anti-friction rollers engaging the track-ways, of shelves freely suspended from said conveyer, means for operating the conveyer, a longitudinally extending tank arranged within the casing, a pipe connected thereto for supplying water to the interior of the tank, a pipe located within the tank to maintain the water at a definite temperature, outlet pipes connected to the tank for furnishing the interior of the casing with moisture, means to heat the interior of the casing, a ventilator arranged in the upper end of the casing for regulating the quantity of moisture and the temperature, the opposite ends of the casing being formed with receiving and delivery openings whereby when a pasty or spongy mass is carried on the endless conveyer in reverse directions therein, it will be subjected to a definite temperature and moisture during the ripening process.

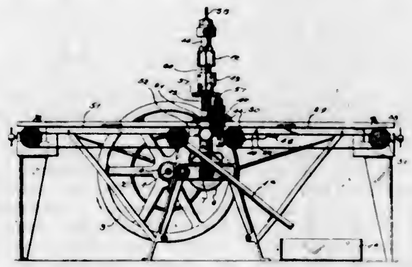
2. In a machine of the class described for subjecting a pasty or a spongy mass to a ripening process and comprising in combination, an inclosing casing an endless-conveyer located therein, to receive the mass, means to support said conveyer and arranged in different horizontal planes, means to cause the conveyer to travel in reverse directions and through portions of the casing at different temperatures, the opposite ends of the casing having receiving and delivery openings, the conveyer at the receiving end extending first upward to the upper part of the casing at which point the temperature of the heated air within the interior of the casing is the highest, and carrying the mass to be ripened gradually downward to the lower part of the casing adjacent the delivery opening where the temperature of the air within the casing is the lowest, means to supply moisture and heat to the interior of the casing whereby the pasty or spongy mass is subjected to definite temperatures and a predetermined degree of moisture, as described.

3. A dough-raising or tempering machine comprising an inclosing casing, an endless-conveyer located therein, devices to support the conveyer in different horizontal planes, the initial horizontal travel of the conveyer being located in the uppermost part of the casing where the temperature of the heated air therein is the highest and the succeeding horizontal portions of its travel being located in successively lower and different horizontal planes to cause the spongy mass to be subjected to successive and decreasing degrees of heat during its travel, means to supply heat, and means to supply moisture to the interior of the casing, and means to operate the conveyer.

4. An air and moisture tempering or curing machine for pasty or spongy masses, comprising a metal lined casing, track-ways secured to the interior sides thereof and in different horizontal planes, an endless-conveyer provided with rollers engaging the track-ways, rods connecting the conveyers, shelves, supported by and depending from the rods, to receive the mass to be cured or tempered, tanks to contain a liquid and located within the bottom portion of the casing to supply the requisite quantity of moisture to the interior of the casing to maintain the mass in a pliable condition, means for heating the liquid, means for supplying heat to the interior of the casing, and means to operate the conveyer, the casing being formed with receiving and delivery openings at the opposite ends thereof and arranged in the same horizontal plane, as described.

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1,092,090. BLOCK-FORMING MACHINE. THOMAS L. BUGLER, Chicago, Ill. Filed May 16, 1910. Serial No. 561,565. (Cl. 107—26.)



1. In a block-forming machine, a cutter comprising a portion adapted to cut one-half of a row of blocks and another portion adapted to cut the adjacent half of another row of blocks, said portions being notched to provide cutting edges of differing heights.

2. A block-forming machine comprising a reciprocatory cutter, a rotatory hollow cylinder having a peripheral die-opening therein, into which opening said cutter is arranged to pass, and means for ejecting scrap from the cutter and into said cylinder, the latter having another peripheral opening therein through which the scrap escapes in the rotation of the cylinder.

3. In a confectionery machine, in combination, a reciprocatory cutter adapted to cut the outlines of blocks in a sheet, said cutter comprising a portion adapted to cut one-half of a row of blocks and another portion adapted to cut the adjacent half of another row of blocks, said portions being notched to provide cutting edges of differing heights; a rotatory cylinder having die openings and scrap-outlet openings therein; reciprocatory ejectors mounted in the cutter for punching from the sheet and into the die cylinder the pieces of material between the block outlines; means for feeding a sheet to the cutter; and means for removing the sheet of blocks from the cutter.

4. In a block-forming machine, means for feeding material, means for removing material, and means interposed between the two first-mentioned means for cutting the material into blocks, said cutting means comprising reciprocatory cutters, a rotary die arranged to coöperate with said cutters, a stripper coöperating with said die, ejectors mounted within said cutters, and means for moistening said cutters.

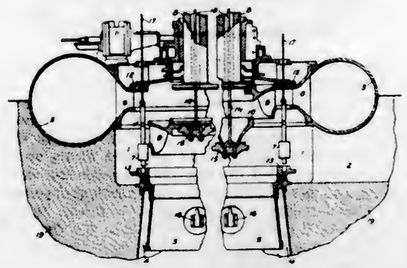
5. In a block-forming machine, a cutter comprising a portion adapted to form one-half of the block and the adjacent half of the next block, a movable die coöperating with said cutter, ejectors fitting within the cutter and arranged to punch out the material between said blocks, and means for stripping material from the outside of the cutter.

[Claim 6 not printed in the Gazette.]

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1,092,091. HYDRAULIC TURBINE. JEAN F. CACHIN, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a Corporation of Delaware. Filed Mar. 24, 1913. Serial No. 757,259. (Cl. 138—5.)



1. The combination of turbine elements some of which forming an inclosing casing, other of said elements being within said casing, said casing having a lower one of said elements removable, and another of said elements having an opening therethrough for manipulation of lower of said turbine elements.

2. The combination of turbine elements some of which forming an inclosing casing, other of said turbine elements being within said casing, said casing having a lower one of said elements removable, and one of said turbine elements being a turbine shaft extending through the upper portion of said casing and having an opening therethrough for manipulation of lower of said turbine elements.

3. In combination, an inclosing casing, a runner within said casing, said casing having a removable lower portion, and a vertical runner shaft extending through the upper portion of said casing and having an opening therethrough for manipulation of said runner.

4. In combination, an inclosing casing, a runner within said casing, said casing having a lower portion telescopic within adjacent structure, and a vertical runner shaft extending through the upper portion of said casing and having an opening therethrough for manipulation of said runner.

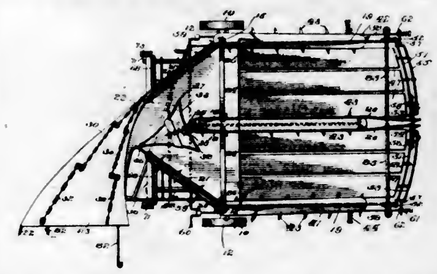
5. The combination of turbine elements some of which forming an inclosing casing, other of said elements being within said casing, said casing having a lower one of said elements telescopic within adjacent structure, and another of said elements having an opening therethrough for manipulation of lower of said turbine elements.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,092. GRAIN-SHOCKER. GUY E. CAMPBELL, Gravity, Iowa. Filed Aug. 1, 1912. Serial No. 712,688. (Cl. 56—121.)

1. In a shocker, a wheel-supported main frame, a housing comprising front and side walls carried by the frame; a movable auxiliary frame mounted on a rocker shaft carried by the housing, and arranged to be raised to, and lowered from the housing; slats pivotally mounted in the auxiliary frame and forming a bottom for the housing; crank arms carried by each of the slats; strips connecting the outer ends of said crank arms; links connecting the ends of the strips, and having their inner ends attached to a block connected to the main frame, whereby when said auxiliary frame is lowered the links will be drawn to substantially vertical position, and the inner ends of said strips made to approach each other, thus moving the slats to vertical position.

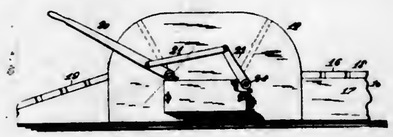


2. In a shocker, a wheel-supporting main frame, side walls carried by the main frame, said side walls converging in front of the forward supporting wheels and being deflected in a substantially continuous curve from a vertical to a horizontal position and inclined upwardly and outwardly to form the top and bottom of a chute, conveying means mounted along the side walls, conveying means substantially in line with the means first mentioned, and deflected to extend along the upwardly inclined walls, mechanism including a shaft for driving all of the conveying means and means for driving the shaft from the axle of the supporting wheels.

3. In a shocker, a wheel-supported main frame, side walls carried by the main frame, said walls converging at the front and being deflected from a vertical to a horizontal position and inclined upwardly and outwardly to form a top and bottom of a chute, conveying devices mounted along the side walls and the converging portions, means for dividing the space between the side walls, a pivoted guiding device between the converging portions of the side walls and adjacent to the end of the dividing means, the rear portion of the pivoted device projecting laterally on each side for engagement by a sheaf, causing said pivoted device to swing and guide alternate sheaves to opposite sides of the dividing means and into engagement with certain of the conveying devices, conveying devices positioned in the chute to move a sheaf from a horizontal position to a vertical position, permitting it to pass between the converging side walls, and mechanism for driving all of the conveying devices.

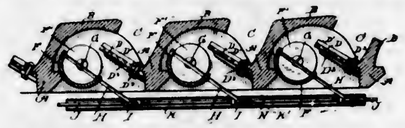
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1,092,093. HOPPER FOR GRAIN-ELEVATORS. JOHN V. CIZEK, Clutier, Iowa. Filed July 28, 1913. Serial No. 781,523. (Cl. 193—14.)



In a grain receiving conveyer, or dump, the combination of a traveling apron, a housing therefor, a hopper, comprising end-boards attached to the housing, interposed, pivoted side-boards adapted to fold downwardly both in the same direction, and forming part of a continuous platform when so folded, a lever connecting with one of said side-boards, a rock-shaft adjacent to the other and provided with a lift-lever adapted to engage said other side-board at the under side, a lever by which the rock-shaft is turned, and a link connecting the same with the lever which tilts the first-named side-board.

1,092,094. GRATING. ANGUS DARROCH, New York, N. Y. Filed May 22, 1913. Serial No. 769,347. (Cl. 94—7.)



1. A grating, comprising grate bars, arched roofs between adjacent grate bars and open at one side, a building light extending under each roof below the opening thereof, and a ventilator under each roof adjacent the inner end of the said building light.

2. A grating, comprising spaced grate bars, arched roofs each having one side rising from one of the grate bars and having its other side spaced from the adjacent grate bar to form an opening, and a building light under each roof below the said opening.

3. A grating, comprising spaced grate bars, arched roofs each having one side rising from one of the grate bars and having its other side spaced from the adjacent grate bar to form an opening, a building light under each roof below the said opening, and a ventilator under each roof and arranged adjacent the inner end of the said building light.

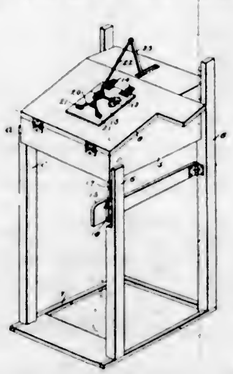
4. A grating, comprising spaced grate bars, arched roofs each having one side rising from one of the grate bars and having its other side spaced from the adjacent grate bar to form an opening, and a building light under each roof below the said opening, the said building light being inclined upwardly and inwardly.

5. A grating, comprising spaced grate bars, arched roofs each having one side rising from one of the grate bars and having its other side spaced from the adjacent grate bar to form an opening, a building light under each roof below the said opening, a ventilator under each roof and arranged adjacent the inner end of the said building light, the ventilator being mounted to turn and being semi-circular in cross section, and means for turning the said ventilator to open and close the same.

[Claims 6 to 8 not printed in the Gazette.]

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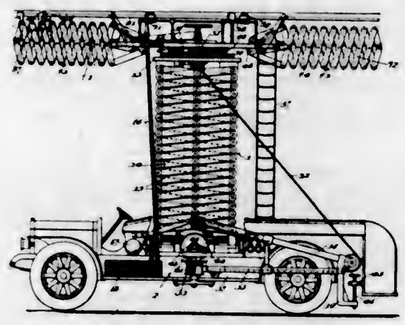
1,092,095. PRINTING-STAND. NELSON DE CLARK, Jersey City, N. J. Filed May 27, 1913. Serial No. 770,210. (Cl. 95—73.)



1. In a printing stand, the combination with a presser board; of mechanism including a horizontally and laterally movable operating element for operating the presser board.

2. In a printing stand, the combination of a presser board pivotally connected to the stand, an operating element hinged to the stand and arranged to be moved horizontally and laterally with respect to the stand, and means connecting the operating element with the presser board.

1,092,096. EXTENSIBLE TOWER. HORN G. DONIGAN, St. Louis, Mo. Filed Oct. 6, 1911. Serial No. 653,167. (Cl. 227—20.)



1. In combination with a rotatable platform, an arc-like horizontal rail rigidly supported thereon, a pair of spaced sleeves slidably mounted on the rail for movement longitudinally of the rail, superposed sleeves swiveled to the first named sleeves, a rod movable endwise through said second named sleeves and provided at its outer end with a clamp adapted for engagement with the wall of a building, and means to hold the rod in adjusted position.

2. In combination with an extensible tower, and means for actuating the tower, a movable base for the tower, a pair of V-shaped braces arranged on opposite sides of the base, means for pivoting the free end of the upper leg to said base, means at substantially right angles to the lower leg for pivoting the latter to the base whereby to allow movement of the braces into position at right angles to said base, the lower leg of each brace being hollow, a pulley connected to the apex of each brace to substantially aline with the interior of the lower leg, guy-ropes connected at one end to the top of the tower and being led around said pulleys and passed through the hollow lower legs of said braces, means for winding the other end of each rope, means to operate the winding means in unison, the ground engaging means connected to the apices of said braces.

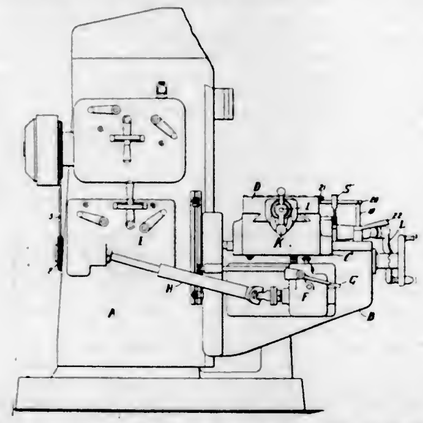
3. In combination with an extensible tower having a main rotatable platform at the top thereof, and a supplemental platform connected to the main platform and extensible endwise therefrom, an endwise adjustable rod overlying the supplemental platform and extending parallel therewith and having a clamp at its outer end for engagement with a window or the like, a support on the main platform to which said rod is adjustably connected, means for holding said rod in adjusted position on said support, and means for rotating the main platform to direct the supplemental platform and said rod toward the window or the like, the rod providing a hand rail for the supplemental platform.

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1,092,097. QUICK-TRAVERSE CONTROL. SOL EINSTEIN, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 27, 1913. Serial No. 770,276. (Cl. 90—21.)

1. A machine tool of the nature disclosed combining a table, a screw translating therewith for reciprocating the same, power means for slowly actuating said screw to feed said table, a power driven mechanism interchangeably available to rapidly actuate said screw in either direction to produce a quick traverse of said table, and means for reversing the direction of drive of said mechanism and operable independently of said first-mentioned slowly-actuating means and without changing the direction of drive thereof.

2. A machine tool of the nature disclosed combining a table, a screw translating therewith for propelling the same, a slow-driving mechanism for said screw operable in either direction, an interchangeably available fast driving power mechanism for said screw also operable in either direction, means for disconnecting the former mechanism from said screw when the latter is operatively connected with said screw, and means for individually reversing the direction of drive of either the fast or the slow-driving mechanism independently of the other.



3. A machine tool of the nature disclosed combining a main frame, a table supported therefrom, a feed-screw translating therewith to propel said table, a constantly running main-driving pulley on said main frame, a slow driving transmission from said main driving pulley to said feed screw to propel the same at a rate corresponding with the table feeds, an auxiliary constantly running power-driven pulley mounted on said main frame remote from said main pulley, an auxiliary transmission extending from said auxiliary pulley to said feed screw to propel it at a rate corresponding with a quick traverse of said table, and hand-operated means independent of either of said pulleys for rendering either of said transmissions interchangeably available for driving said feed screw.

4. A machine tool of the nature disclosed combining a main frame, a main pulley and a secondary pulley independently mounted on said frame, and both adapted to be simultaneously power-driven, a table, a slow motion transmission extending from said main pulley to said table, a fast motion transmission extending from said auxiliary pulley to said table, a lever in each transmission for reversing the driving direction of its transmission, and means for interchangeably establishing an operative propelling connection between either of said transmission and said table.

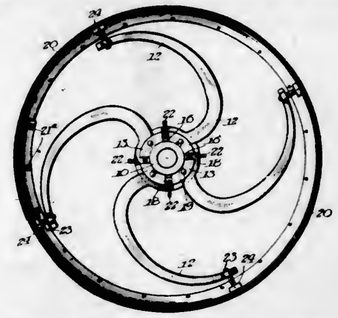
5. A machine tool of the nature disclosed combining a table, a feed screw for reciprocating said table, a sleeve loosely circumscribing said feed screw, a slow motion power transmission for continuously rotating said sleeve, a member splined to said feed screw and having clutch teeth adapted to engage with said sleeve to transmit motion from it to said screw, an auxiliary fast driving power transmission, and a hand-operated lever for establishing connection between the same and said splined member, whereby said feed screw may be rapidly rotated independently of said sleeve.

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1,092,098. PULLEY. JEREMIAH C. FITZGERALD, Kilbourn, Wis. Filed Aug. 13, 1912. Serial No. 714,814. (Cl. 192—5.)

1. A pulley including a hub, a series of spokes loosely connected to the hub at their inner portions and extended at their outer portions to a circle concentric with the hub, a rim movably supported by said spokes and means on the hub to increase the diameter of the circle described by said outer portions.

2. A pulley including a hub, a series of spokes loosely connected to the hub at their inner portions and extended at their outer portions to a circle concentric with the hub, a rim having a concave inner surface surrounding the outer portion of the spokes and movably supported thereby, and means to increase or decrease the diameter of the circle described by the outer portions of the spokes.



3. A pulley including a hub, a series of spokes loosely connected to the hub at their inner portions and extended at their outer portions to a circle concentric with the hub, an adjustable rim operatively mounted around the outer portions of said spokes, and means to increase or decrease the diameter of the circle described by the outer portions of the spokes.

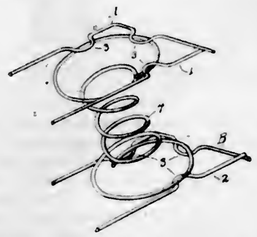
4. A pulley including a hub, a series of spokes loosely connected to the hub at their inner portions and extended at their outer portions to a circle concentric with the hub, a rim encircling the outer portions of the spokes consisting of a band having its ends overlapping each other, means to adjustably connect the ends of said band, and means to increase or decrease the diameter of the circle described by the outer portions of the spokes.

5. A pulley consisting of a hub, and a series of spokes extended outwardly therefrom and a rim movably mounted on said spokes and means on the hub to regulate the friction between the spokes and rim.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,099. CUSHION-SPRING. GEORGE J. GENEBACH, Battle Creek, Mich. Filed Aug. 14, 1911. Serial No. 643,858. (Cl. 5—29.)



In a cushion spring, the combination of endless top and bottom frame sections having internally-extending loops, cross stays attached at their ends to the opposite sides of said sections in parallel arrangement, said cross stays having loops arranged to correspond with the loops of said frame sections and with one another, and convolute coil springs seated between said sections and attached to said loops.

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1,092,100. BILLIARD-CUE. JAMES HANNA, Baltimore, Md., assignor of one-half to Clarence D. Pruden, Baltimore, Md. Filed July 10, 1913. Serial No. 778,234. (Cl. 46—9.)

A billiard cue having in combination a wood cue provided at its end with a longitudinal bore; a pad or tip having an elongated slot extending diametrically across

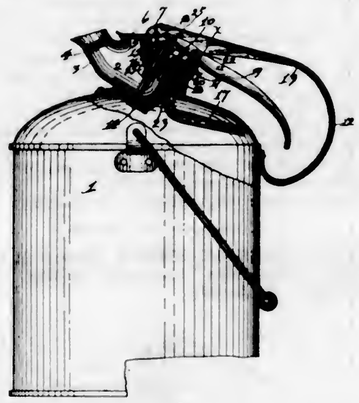
its base and seated directly on the end of the cue; and two levers entirely separate from the tip each lever having a flat end whose breadth equals the length of said slot in the tip and the flat end provided with a row of lateral teeth, each lever also having a longer straight end which



is stiffened by a longitudinal concave depression, and a shank narrower than either of said ends and connecting the broad flat end and the said longer stiffened end—the broad flat ends of said levers being expanded and pressing against the long sides of the tip-slot.

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1,092,101. SAFETY OIL-CAN. AUGIE L. HANSEN, Evanston, Ill., assignor to The Justrite Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed June 16, 1913. Serial No. 773,833. (Cl. 221—15.)



1. The combination with a can having a fixed handle provided with downwardly extending sides, of a nozzle secured to said can, a spout on said nozzle, there being an upwardly extending opening in said nozzle, a cap closing said opening, said cap having a rearwardly extending portion, a valve which closes an opening into the can, a stem for said valve, a coil spring to hold said valve in a closed position, a lever pivotally mounted between the sides of the handle, its forward end being adapted to engage the upper end of the said valve stem and the rearwardly extending portion of the cap, a relief valve secured to the lever, whereby the movement of the lever serves to open the relief valve.

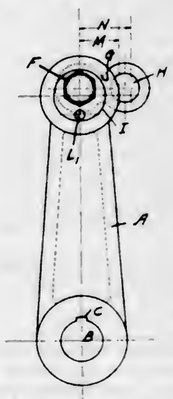
2. The combination with a can having a fixed handle provided with downwardly extending sides, of a nozzle secured to said can, a spout on said nozzle, there being an upwardly extending opening in said nozzle, a cap closing said opening, said cap having a rearwardly extending portion, a valve which closes an opening into the can, a stem for said valve, a coil spring to hold said valve in a closed position, a lever pivotally mounted between the sides of the handle, its forward end being adapted to engage the upper end of the said valve stem and the rearwardly extending portion of the cap, a relief valve held normally in a closed position, but free to open to relieve an excess of pressure within the can, the stem of said relief valve being secured to the lever, whereby the movement of the lever serves to open the relief valve.

3. The combination with a can, of a spout secured thereto, there being an upwardly extending opening in said nozzle, a cap for said opening, spring actuated means to hold said cap normally in a closed position, there being an opening into said can, a valve closing said opening, an inwardly projecting lug cast or formed on said nozzle, having a central opening in which the stem of said valve slides, there being an annular recess within said lug, a coil spring located in said recess, means to cause said spring to hold said valve normally in a closed position, a pivoted lever to actuate said valve, a relief valve free to open to relieve an excess of pressure within the can, the stem of said relief valve being secured to the said lever, means to protect the operative mechanism from accidental operation.

4. The combination with a can having a fixed handle provided with downwardly extending sides, of a nozzle secured to said can, a spout on said nozzle, there being an upwardly extending opening in said nozzle, a cap closing said opening, said cap having a rearwardly extending portion, a valve which closes an opening into the can, a stem for said valve, a coil spring to hold said valve in a closed position, a lever pivotally mounted between the sides of the handle, its forward end being adapted to engage the upper end of the said valve stem and the rearwardly extending portion of the cap, a relief valve which closes an opening into the can, a stem for said valve, a coil spring which engages said stem to hold the valve normally in a closed position, there being an opening in the said lever adjacent said relief valve stem through which the said stem passes, and a nut secured to the end of said valve stem, for the purpose set forth substantially as described.

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1,092,102. ADJUSTABLE LEVER AND LINK. GEORGE J. HENRY, Jr., San Francisco, Cal. Filed Oct. 5, 1912. Serial No. 724,143. (Cl. 138—5.)



1. The combination of two members and a link, one of said members being provided with a cylindrical opening, an adjustable block therein, said block being provided with an eccentric opening, and a pin in said opening having devices for clamping the block and the link.

2. In gate operating mechanism, the combination of a member to be moved, an adjustable pivot block rotatably mounted therein, said block having an eccentric opening, and a pin in said opening provided with clamping devices.

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1,092,103. TOY. DAVID HEYMAN, Jersey City, N. J. Filed Nov. 20, 1912. Serial No. 732,439. (Cl. 46—40.)

1. A toy embodying therein an upright supporting member provided with slots inclined at an angle to each other and connected by enlarged orifices to form a continuous series of slots, a see-saw board having a pivot rigidly attached thereto which is adapted to slide without rotation in said slots and to rock about its axis in said enlarged orifices, and lay figures mounted at the ends of said board and adapted to oscillate the same from side to side whereby said pivot is adapted to pass successively from one slot to another.





2. A toy embodying therein a pair of substantially parallel hollow supporting standards each thereof having a series of inclined slots formed on its inner face, the slots of each series being connected together by enlarged orifices, a see-saw board having a pivot rigidly attached thereto which is adapted to slide without rotation in said slots and to rock about its axis in said enlarged orifices, and lay figures pivotally mounted at the opposite ends of said board whereby the pivot attached to the latter is caused to successively pass through said slots from the uppermost to the lowermost thereof.

3. A toy embodying therein a pair of hollow supporting standards having a series of inclined communicating slots formed on the inner face of each standard, the slots of each series being connected together by enlarged orifices, a base at each end of said standards, a see-saw board having a pivot rigidly attached thereto which is adapted to slide without rotation in said slots and to rock about its axis in said enlarged orifices, and a lay figure pivotally mounted at each end of said board, the pivot of each said lay figure being above the center of gravity of the latter whereby said lay figures tend to depress alternate ends of said board and cause said pivot to successively engage said slots.

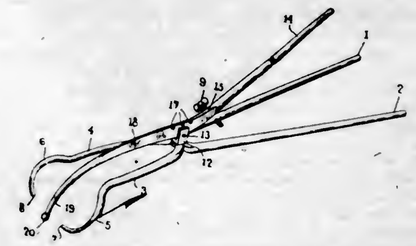
4. A toy embodying therein a pair of supporting standards having a series of inclined slots therein, the points of connection of said slots being formed to present an enlarged substantially circular orifice, a see-saw board having a flat pivot rigidly attached thereto substantially intermediate its ends, and a lay figure pivotally attached to each end of said see-saw board whereby said lay figures tend to depress alternate ends of said board and cause the pivot to successively pass from one slot to another from the uppermost to the lowermost slot in said support.

5. A toy embodying therein a pair of hollow supporting standards each thereof having formed at substantially its central portion a series of slots inclined to each other and connected by substantially circular orifices, a see-saw board having a flat pivot rigidly attached at its median portion and adapted to travel in said slots from one end thereof to the other, a lay figure pivotally mounted at each end of said see-saw board, the center of gravity of each of said lay figures being below the pivot passing therethrough, and like bases at each end of the supporting standards whereby said toy is made reversible in operation.

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1,092,104. OBSTETRICAL INSTRUMENT. WILLIAM A. HILL, Coyle, Okla., assignor of one-half to Reuel J. Gephart, Coyle, Okla. Filed Aug. 26, 1913. Serial No. 786,727. (Cl. 128—27.)

1. An instrument of the class described comprising a pair of crossed handles whose forward ends have gripping jaws, a pivot through the handles where they cross, the upper end of the pivot being forked, a transverse pin connecting the fork-arms, and a third member having a handle at its rear end and an arm at its forward end bent downward and then upward and terminating in a ball, the body of said member being flattened to enter said fork and provided in its edge with a series of notches in any of which it is adapted to rock over said pin, for the purpose set forth.



2. A combined speculum and obstetrical instrument, comprising a pair of crossed handles having downturned and outwardly bowed gripping jaws at their front ends, a pivot through the handles where they cross, and a third member removably engaging the upper end of said pivot and rocking thereover, said member having a handle at its rear end and a curved arm at its front end, and a set screw through one of the first-named handles toward the other, for the purpose set forth.

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1,092,105. REMOVABLE WATERPROOF LINING. HENRY C. HOLMES, Portland, Oreg. Filed Feb. 3, 1913. Serial No. 745,990. (Cl. 2—88.)



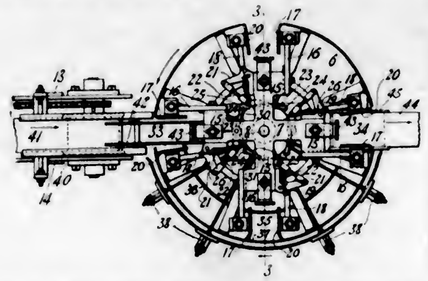
The combination with a shirt, of a waterproof strip permanently secured to the shirt across the shoulders thereof by permanently fastening one edge thereof in the shoulder and neck seams of the shirt, snap sockets secured along the lower free edge of said strip, an apron suspended from said strip down the back of the shirt, the free edge of the strip overlying the upper edge of the apron, and button shanks secured to the upper edge of the apron constructed to detachably engage the sockets on the strip, whereby said apron is detachably secured to and suspended from said strip.

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1,092,106. MACHINE FOR TRANSFERRING PACKAGING-RECEPTACLES. AMOS D. HOLT, Hopkinton, Mass., assignor to Percy E. Ginn, Winchester, Mass. Filed Sept. 6, 1912. Serial No. 718,899. (Cl. 193—1.)

1. In a box transfer machine, the combination of a rotatable turret, a series of box grippers mounted on the turret, each comprising a pair of horizontally opposed jaws, one jaw in each pair being pivoted to move to and from the other jaw, a stationary cam, a set of levers pivoted on the turret to engage said cam as the turret is swung, a link connecting each lever with one said jaw, a spring connecting each lever with the turret to hold the lever engaging the cam, said cam being shaped to cause the jaws to open at one part of the orbit of the turret, and to cause the jaws to close at another part of the swing

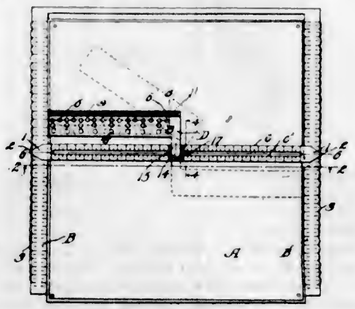
of the turret, and to remain closed until the jaws reach the said place on opening.



2. In a box transfer machine, the combination of a rotatable turret, a series of box grippers mounted on the turret, each comprising a pair of horizontally opposed jaws, one jaw in each pair being pivoted to move to and from the other jaw, a stationary cam, a set of levers pivoted on the turret to engage said cam as the turret is swung, a link connecting each lever with one said jaw, a spring connecting each lever with the turret to hold the lever engaging the cam, said cam being shaped to cause the jaws to open at one part of the orbit of the turret, and to cause the jaws to close at another part of the swing of the turret, and to remain closed until the jaws reach the said place of opening, a support for articles at the place of opening of the jaws, a conveyer arranged to feed articles in a radial direction to the said support and into the jaws, and a second conveyer at the place of opening of the jaws arranged to receive the articles as released from the jaws to remove the articles in a radial direction from the machine.

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1,092,107. DRAFTING APPLIANCE. WALDEMAR JACOBSEN, Hartford, Conn. Filed Feb. 14, 1913. Serial No. 748,498. (Cl. 33—8.)



1. In a drafting appliance, the combination of a base, a supporting member movable over the surface of the base, a carrier mounted upon said supporting member, markers supported by the carrier, a connection between the carrier and supporting member whereby the former is adapted to move in respect to the carrier, and means for operating each of the markers independently of the carrier.

2. In a drafting appliance, the combination of a base, guides at opposite portions of the base, a slide supported by said guides, a carrier adjustably mounted upon the slide, and markers movably mounted upon the carrier and operable independently of the latter.

3. In a drafting appliance, the combination of a base, guides at opposite portions of the base, a slide supported by said guides, a carrier adjustably mounted upon the slide, markers movably mounted upon the carrier, interlocking means between the base and the slide to hold the latter in adjusted position on the base, and means for holding the carrier in adjusted position on the slide.

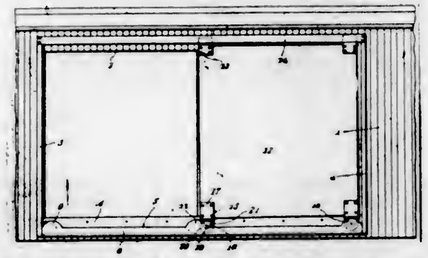
4. In a drafting appliance, the combination of a base, a slotted slide supported on said base, a socket member operating in the slotted portion of the slide, a carrier pivotally mounted on said socket member, and markers depressibly supported on the carrier.

5. In a drafting appliance, the combination of a base, a slotted slide supported on said base, a socket member operating in the slotted portion of the slide, a carrier pivotally mounted on said socket member, markers depressibly supported on the carrier, and means normally holding the markers in an inoperative position.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,108. CAR-DOOR. WILLIAM F. KEISER and CHARLES RYAN, Terre Haute, Ind. Filed Dec. 31, 1913. Serial No. 809,691. (Cl. 20—22.)



1. In a structure of the class described a track rail having upwardly extending cams, a guide rail, and a door mounted for sliding movement on the track rail and having engagement with the guide rail, the door being also provided with tappets to engage the said cams and cause the door to be moved upwardly and held against casual movement by the engagement of its tappets with the cams when the door is in open position or in closed position.

2. In a structure of the class described the combination of a track rail having a tread, an outer flange and cams on and extending upwardly from said outer flange, in combination with a guide-rail, and a door slidably connected to the guide rail and provided with supporting rollers to operate on the tread of the track rail, the said door also having tappets to engage the cams of the track rail and coact therewith to raise and wedge the door when in open or closed position.

3. In a structure of the class described the combination of a track rail having a tread and also having a flange and spaced cams extending upwardly from the flange, in combination with a guide rail, a door slidably connected to the guide rail, and carriers on the lower side of the door, the carriers being provided with rollers to operate on the tread of the track rail and with tappet flanges to engage the cams when the door is in open or closed position, for the purpose set forth.

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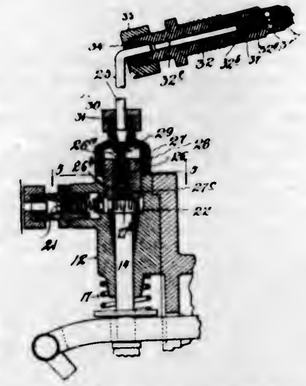
1,092,109. FUEL-FEEDING MEANS FOR INTERNAL-COMBUSTION ENGINES. HERBERT E. KEMPTON, Cambridge, Mass., assignor to Marine Producer Gas Power Company, New York, N. Y., a Corporation of New York. Filed Nov. 8, 1910. Serial No. 591,268. (Cl. 123—139.)

1. The combination of a nozzle, fluid forcing means, a passageway between the nozzle and fluid forcing means, said passageway having an orifice maintaining constant communication between the nozzle and the fluid forcing means, and a check valve between the nozzle and the fluid forcing means.

2. The combination of a nozzle, a pump, a passage connecting the pump with the nozzle and having an orifice maintaining constant communication therebetween, and a check valve in said passage to be seated upon the intake stroke of the pump.

3. The combination of a nozzle, a pump, a passage connecting the nozzle with the pump chamber, and a check valve in said chamber provided with an opening maintaining constant communication between said passage and said chamber.



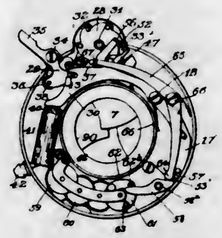


4. The combination of a nozzle, a plug connected with the nozzle and provided with a bore, a check valve in said bore, a pump, a passage connecting the pump chamber with the bore in said plug, the pump having a check valve provided with means to maintain the pump in constant communication with said passage.

5. The combination of a nozzle, a plug connected with the nozzle and provided with a bore, a check valve in said bore, a pump, a passage connecting the pump chamber with the bore in said plug, the pump having an apertured valve maintaining constant communication between the passage and the pump.

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1,092,110. CAMERA-SHUTTER. RUDOLPH KLEIN and THEODOR BRUECK, Rochester, N. Y., assignors to Morris Rosenbloom, Rochester, N. Y. Filed June 25, 1910. Serial No. 568,926. (Cl. 95—63.)



1. A camera shutter comprising a ring, an apertured partition rigidly secured within the ring so that the latter projects from one side thereof, a lens barrel rigid with the apertured partition and projecting therefrom about the aperture to form with the ring an annular chamber, a shutter operating mechanism arranged within the annular chamber on one side of the partition, a removable closure for the annular chamber entirely separate from the shutter operating mechanism, shutter mechanism mounted on the other side of the partition, and a closure for the shutter mechanism.

2. A camera shutter comprising a ring, an apertured partition rigidly secured within the ring so that the latter projects beyond both sides of the partition, a lens barrel rigid with and projecting from one side of the partition about the aperture to provide an annular chamber, a shutter operating mechanism arranged in the annular chamber, a removable closure for the operating mechanism separate from said shutter operating mechanism, shutter mechanism supported on the other side of the partition, and a removable closure for the shutter mechanism separate from the shutter mechanism.

3. In a camera shutter, the combination of a shutter mechanism comprising a plurality of shutter blades, levers pivoted between their ends to a fixed part of the shutter and connected on opposite sides of their pivots to different blades, and a link connecting the levers, with shutter operating mechanism connected to one of the levers.

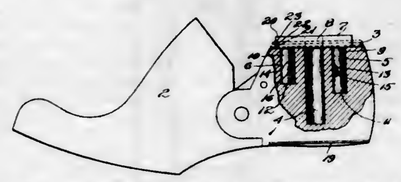
4. In a camera shutter, the combination of a shutter mechanism comprising a plurality of pivoted blades, levers pivoted between their ends to a fixed part of the shutter, pin and slot connections between each lever and a pair of blades on opposite sides of the pivot of the lever, and a link connecting the levers, with a shutter operating mechanism operatively connected to one of the levers.

5. In a camera shutter, the combination with a casing having an apertured partition, of shutter blades pivoted on one side of the partition, an operating lever for said blades having a projection extending through the casing partition, a latch arranged on the opposite side of the partition and coöperating with the projection on the lever, and a master lever for actuating the latch.

[Claims 6 to 60 not printed in the Gazette.]

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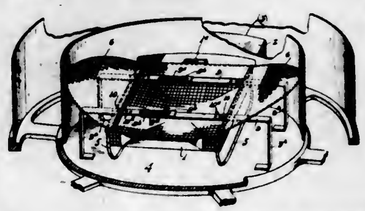
1,092,111. METHOD OF LAST PROTECTION. WALTER A. KRENTLER, Detroit, Mich., assignor to Krentler Brothers Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 31, 1913. Serial No. 757,875. (Cl. 12—139.)



That improvement in the art of protecting wooden lasts during the heeling machine operation, which consists in building up the heel portions of the wooden lasts of variable thicknesses by the addition of plates of inversely corresponding variable thicknesses, whereby the height at the heel of all lasts will be substantially uniform and will permit the heeling operation thereon under substantially the same compression.

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1,092,112. ASH-SIFTER FOR FURNACES. EDGAR O. LOEBER, East Cleveland, Ohio, assignor to The Household Products Mfg. Co., Cleveland, Ohio, a Corporation of Ohio. Filed June 7, 1913. Serial No. 772,310. (Cl. 126—245.)



1. In an ash sifter for furnaces, an ash receptacle and sifter, means for movably supporting the same, and sifter wings movably supported at the sides of said receptacle and sifter.

2. In an ash sifter for furnaces, an ash receptacle and sifter, resilient supporting runners connected thereto, sifter wings movably mounted at the sides of said receptacle and sifter, and means for supporting said wings in their open positions.

3. In an ash sifter for furnaces, an ash receptacle and sifter, means for resiliently and movably supporting the same within the ash pit and beneath the grate bars of a

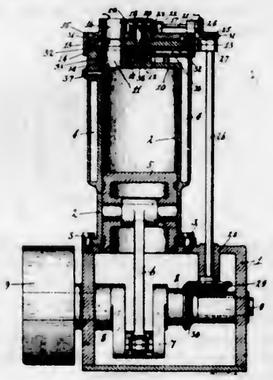
furnace, sifter wings at the sides of said ash receptacle and sifter, and means for supporting said wings in their open or operative position.

4. In an ash sifter for furnaces, a combined ash receptacle and sifter adapted to be inserted through the ash door opening of a furnace, and resilient supporting runners connected to said ash receptacle and sifter and adapted to movably and resiliently support the latter within the ash pit portion and beneath the grates of the furnace.

5. An ash sifter for furnaces, comprising an ash receptacle and sifter adapted to be inserted within the ash pit of a furnace through the ash door thereof, resilient runners adapted to support said receptacle and sifter beneath the grate bars and to move downwardly therefrom during the accumulations of material within said receptacle and sifter, sifter wings at the sides of said receptacle and sifter, and means for supporting said wings in their open or operative positions, all of said parts being adapted to be collapsed whereby they may be inserted through or removed from the ash door opening of the furnace.

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1,092,113. GAS-ENGINE. CHARLES A. LUNDY, Reno, Nev. Filed Dec. 9, 1912. Serial No. 735,590. (Cl. 123—190.)



1. In a gas engine, the combination of a cylinder having separate ports in its head for the admission of the explosive mixture and the exhaust of the products of explosive combustion, said ports having their walls extended above the upper surface of the cylinder head; a cap secured upon the cylinder and having an intake-connection opening alined with the admission port of the cylinder and a separate exhaust-connection opening alined with the exhaust port of the cylinder; a rotatable valve-plate lying between the cylinder and its cap and having a single port adapted by the rotation of the plate to register successively with the alined connection openings of the cap and the ports of the cylinder head; a bearing plate having downwardly projecting sleeves packed in the ports of the cylinder head, said plate lying in contact with the valve-plate and separated from the upper surface of the cylinder head to leave an intervening oil space; means for exploding the mixture in the cylinder; and means driven by the engine for effecting the timely rotation of the valve-plate.

2. In a gas engine, the combination of a cylinder having separate ports in its head for the admission of the explosive mixture and the exhaust of the products of explosive combustion, said ports having their walls extended above the upper surface of the cylinder head; a cap secured upon the cylinder and having an intake-connection opening alined with the admission port of the cylinder and a separate exhaust-connection opening alined with the exhaust port of the cylinder; a rotatable valve plate lying between the cylinder and its cap and having a single port adapted by the rotation of the plate to register successively with the alined connection openings of the cap and the ports of the cylinder head; a bearing plate having downwardly projecting sleeves packed in the ports of the cylinder head, said plate being separated from the upper surface of the cylinder head to leave an intervening oil space; means for holding said bearing plate up into contact with the valve plate; a shaft carrying said valve plate, said shaft extending upwardly through the cap and downwardly into the oil space; and power transmitting connections from the engine to said shaft for driving it to effect the timely rotation of said valve plate.

3. In a gas engine, the combination of a cylinder having separate ports in its head for the admission of the explosive mixture and the exhaust of the products of explosive combustion; a cap secured upon the cylinder and having an intake-connection opening alined with the admission port of the cylinder and a separate exhaust-connection opening alined with the exhaust port of the cylinder; a rotatable valve-plate lying between the cylinder and its cap and having a single port adapted by the rotation of the plate to register successively with the alined connection openings of the cap and the ports of the cylinder head; a bearing plate fitted with packed sleeves in the ports of the cylinder head; a pivot shaft mounted in the cap and carrying the valve-plate, said shaft passing down through the bearing plate; a spring around the lower end of the pivot shaft arranged to press and hold the bearing plate in contact with the valve plate; means for exploding the mixture in the cylinder; and means for effecting the timely rotation of the valve-plate comprising the engine piston, the crank-shaft driven thereby, and power transmitting connections between said crank-shaft and the pivot-shaft which carries the valve-plate.

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1,092,114. PRISMATIC GLASS REFLECTOR. OTIS ANGELO MYGATT, Paris, France. Filed Feb. 27, 1911. Serial No. 611,195. (Cl. 240—106.)



1. A reflector for artificial lights having upon the surface thereof a number of integral double reflecting prisms, the base and altitude of each of which changes a plurality of times throughout the length of the prism without substantially affecting its double reflecting property.

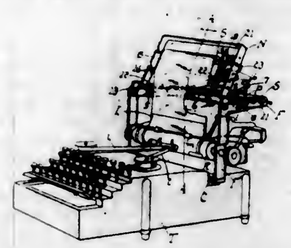
2. A reflector for artificial lights having its surface substantially covered with integral radially extending prisms, the base and altitude of each of said prisms varying repeatedly throughout the length of the prism but preserving such a ratio to each other as to remain double reflecting throughout the length of the said prism.

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1,092,115. TYPE-WRITER MANIFOLD ATTACHMENT. THEODOR NORPOTH, St. Louis, Mo., assignor of one-third to Rector B. Minnis, Carrollton, Mo. Filed July 5, 1913. Serial No. 777,557. (Cl. 197—126.)

1. In combination with a type-writer carriage and its platen, means on the carriage for the support of sheets of manifold and copy material respectively, said sheets being adapted to be jointly passed over the platen, and advanced thereby, the copy sheet separating from the manifold sheet upon leaving the platen, means for guiding and supporting the copy sheet after its separation from the manifold sheet, a cutter movably mounted adjacent said guiding and supporting means to coöperate therewith, a support pivoted to the carriage, means on said support for winding up the manifold sheet, and means on said support for forcing the cutter toward said guiding and supporting means and into close contact with the copy sheet with a movement of said support in a given direction.





2. In combination with a type-writer carriage and its platen, means on the carrage for the support of sheets of manifold and copy material respectively, said sheets being passed over the platen and jointly advanced thereby, the copy sheet separating under the action of gravity from the manifold sheet upon leaving the platen, a supporting member for the copy sheet after its separation from the manifold sheet, an oscillating cutter positioned opposite the supporting member and normally spaced therefrom to allow the copy sheet to pass between it and the supporting member, a frame hinged to the support for the sheet material, means on said frame for winding up the manifold sheet, and means on said frame for oscillating the cutter against the copy sheet and its support with an oscillation of the frames in one direction, whereby the copy sheet may be readily severed along the edge of the cutter.

3. In combination with a type-writer carriage and its platen, means on the carriage for the support of sheets of manifold and copy material respectively, said sheets being passed over the platen and jointly advanced thereby, the sheets separating under the action of gravity upon leaving the platen, a supporting member for the copy sheet after its separation from the manifold sheet, an oscillating cutter positioned opposite said supporting member, and normally spaced therefrom to allow for a free passage of the copy sheet, an oscillating frame hinged to the carriage about an axis eccentric to the axis of the platen, and means on said frame for oscillating the cutter against the copy sheet and its support with an oscillation of the frame in one direction, whereby the copy sheet may be readily severed along the edge of the cutter.

4. In combination with a type-writer carriage and its platen, means on the carriage for supporting rolls of manifold and copy material in sheet form in position to pass the sheets conjointly over the platen whereby they may be conjointly advanced by said platen, the sheets separating upon leaving the platen, a support for the copy sheet after its separation from the manifold sheet, a movable cutter normally spaced from said support and forming a passage-way therewith for the free traverse of the copy sheet an oscillating frame mounted on the carriage, means on said frame for winding up the manifold sheet as the same is unwound from the roll supported on the carriage, means on said oscillating frame responsive to the platen advances for automatically actuating said winding means and devices on said oscillating frame for driving the edge of the cutter against the copy sheet support whereby the sheet may be readily severed.

5. In combination with a type-writer carriage and its platen, means on the carriage for supporting rolls of manifold and copy material in sheet form in position to pass the sheets conjointly over the platen whereby they may be conjointly advanced thereby, the sheets separating upon leaving the platen, a frame mounted on the carriage, a roller on said frame for winding up the manifold sheet unwound from its roll supported on the carriage, a clock mechanism for driving said roller, a second parallel roller in mesh with the clock-mechanism and rotating in a direction reverse to that of the first roller, means for normally locking said second roller against rotation, said locked roller serving as a guiding roller or idler for the manifold sheet being wound on the first roller, said idler when released serving as a winding roller for the copy sheet where the latter is to be maintained in its integrity as it is unwound from its initial roll.

[Claims 6 and 7 not printed in the GAZETTE.]

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1,092,116. TRAIN-BRAKE. CORNELIS ROBERT NIJSEN, Rotterdam, Netherlands. Filed Dec. 24, 1913. Serial No. 808,558. (Cl. 188—16.)



1. A train brake comprising a brake rod, a spring for displacing the same into braking position, a pull rod movable parallel to the brake rod, an operative connection between the pull rod and brake rod for moving the latter against the action of its spring on the longitudinal displacement of said pull rod in either direction, means for holding said spring in compressed condition, movable buffers and means controlled thereby for freeing said holding means to permit the brake spring to expand.

2. A train brake comprising a brake rod, a spring for displacing the same into braking position, a pull rod movable parallel to the brake rod, an operative connection between the pull rod and brake rod for moving the latter against the action of its spring on the longitudinal displacement of said pull rod in either direction, means for holding said spring in compressed condition, movable buffers and means controlled thereby for freeing said holding means to permit the brake spring to expand, together with an operative connection between said buffers and pull rod for operating the latter on the strong compression of said buffers.

3. A train brake comprising a brake rod, a spring for displacing the same into braking position, a pull rod movable parallel to the brake rod, an operative connection between the pull rod and brake rod for moving the latter against the action of its spring on the longitudinal displacement of said pull rod in either direction, a locking pawl to engage and hold said brake spring in compressed condition, lever means controlling said locking pawl, a control rod having a one-way engagement with said lever means, movable buffers and an operative engagement between said control rod and buffers to effect the displacement of said locking pawl on the compression of the buffers to permit the brake spring to expand, substantially as described.

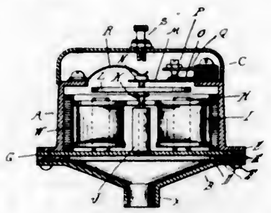
4. A train brake comprising a brake rod, a spring for displacing the same into braking position, a pull rod movable parallel to the brake rod, an operative connection between the pull rod and brake rod for moving the latter against the action of its spring on the longitudinal displacement of said pull rod in either direction, a locking pawl to engage and hold said brake spring in compressed condition, lever means controlling said locking pawl, a control rod having a one-way engagement with said lever means, movable buffers and operative engagement between said control rod and buffers to effect the displacement of said locking pawl on the partial compression of the buffers, to permit the brake spring to expand, and upon further compression of said buffers to free said locking pawl, whereby the latter is free to fall into locking engagement with the brake spring on the compression of the latter, substantially as described.

5. A train brake comprising a brake rod, a spring for displacing the same into braking position, a pull rod movable parallel to the brake rod, an operative connection between said pull rod and brake rod for forcing the latter against the action of its spring on the longitudinal displacement of the pull rod in either direction, a locking pawl for holding said spring in compressed condition, a control rod having a one-way operative engagement with-

said locking pawl, movable buffers engaging said control rod on partial compression to displace the same and thereby free the locking pawl and breaking the engagement between said control and locking pawl on further compression of said buffers to permit said locking pawl to move into locking position, together with an operative engagement between said pull rod and buffers on said further compression of the latter serving to displace said pull rod and thus recompress the braking spring, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,092,117. ELECTROMAGNETICALLY-OPERATED SOUNDER. CARL J. SCHWARZE, Adrian, Mich., assignor to Schwarze Electric Company, Adrian, Mich., a Corporation of Michigan. Filed Oct. 13, 1910. Serial No. 586,848. (Cl. 177—7.)



1. The combination with a casing, of a diaphragm extending thereacross, a reciprocatory rod adapted to impinge against said diaphragm and extending perpendicular thereto and centrally thereof, a bearing in which said rod is slidably secured, a disk armature on said rod, and an electromagnet having a plurality of poles concentric with the axis of said rod and exerting a balanced pull on said armature in a direction toward said diaphragm, a spring for retracting said rod, a make and break circuit closer actuated by said rod and controlling said magnet, and a buffer spring at the opposite end of said rod.

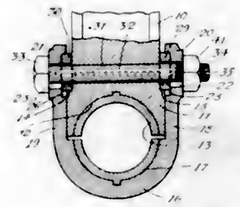
2. The combination with a casing, of a diaphragm extending thereacross, an electro-magnet arranged within said casing and having a plurality of poles concentric with the axis thereof, a bearing in the center of said casing, a reciprocatory rod slidably secured in said bearing and adapted to impinge against said diaphragm, a disk armature mounted on said rod, a spring for retracting said rod, a make and break circuit closer coöperating with said spring and controlling said magnet and a buffer for the opposite end of said rod.

3. The combination with a reciprocatory member and electro-magnetic means for initially moving said reciprocatory member, of resilient members for respectively rebounding said reciprocatory member upon movement in either direction, one of said resilient members being a disk sound producer and the initial movement of said reciprocatory member being independent of both of said resilient members.

4. The combination with a resilient disk sound producer of a resilient buffer, a reciprocatory member movable therebetween and having its movement in one direction yieldably limited by said sound producer and its movement in the opposite direction yieldably limited by said resilient buffer, and electro-magnetic means for initially impinging said reciprocatory member against said resilient sound producer, the initial movement of said reciprocatory member being independent of said resilient buffer.

5. The combination with a resilient diaphragm, of a resilient buffer opposed thereto, a striker substantially freely movable therebetween having its movement in one direction yieldably limited by said resilient diaphragm and its movement in the opposite direction yieldably limited by said resilient buffer, an armature in operative relation to said striker, an electro-magnet for controlling said armature to initially impinge said striker against said resilient sound producer, and a relatively light spring for holding said armature in normal position, the initial movement of said striker being independent of said buffer.

1,092,118. CONNECTING-ROD. GEORGE T. STRITE, Minneapolis, Minn. Filed Mar. 1, 1912. Serial No. 680,865. (Cl. 74—17.)

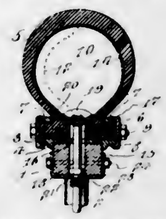


1. A connecting rod comprising a bearing head at the end thereof having plane faced outside walls, a movable bearing cap provided with straps overlying and engaging said faces, wedge keys having a bearing between the head and a portion of said straps for connecting the bearing cap to the bearing head, a bolt extending through the straps and rod for holding the straps and wedge keys in fixed relation on the rod, and means on the bolt for engaging the keys to move them transversely thereby to effect movement of the bearing cap.

2. A connecting rod comprising a bearing head at the end thereof, a movable bearing cap provided with straps engaging the outside faces of the bearing head, wedge keys having a bearing between the head and a portion of said straps for connecting the bearing cap to the bearing head, a bolt extending through the straps and rod for holding the straps and wedge keys in fixed relation to the rod, and teeth on the bolt meshing in corresponding notches on the keys, whereby turning of the bolt will move the keys transversely thereby to effect movement of the bearing cap.

3. A connecting rod comprising a bearing head at the end thereof, a movable bearing cap provided with straps engaging the outside faces of the bearing head, wedge keys having a bearing between the head and a portion of said straps for connecting the bearing cap to the bearing head, said wedge keys being formed with oblong apertures having a notch extending from one side thereof, a bolt extending through the straps, rod and said oblong apertures for holding the straps and wedge keys in fixed relation to the rod, and teeth on the bolt meshing in said notches, whereby turning of the bolt will move the keys transversely thereby to effect movement of the bearing cap.

1,092,119. TIRE. LYMAN H. FERGUSON, Ithaca, N. Y., assignor of one-third to Wheeler Smith, Enfield, N. Y. Filed Aug. 23, 1912. Serial No. 716,745. (Cl. 152—22.)



1. In a device of the character described, a combination with an apertured felly, of a tire casing secured to said felly and having apertures therein registering with the apertures in said felly, a series of partitions arranged within said casing and forming compartments therein, pneumatic tubes disposed within said compartments, a valve nipple projecting from said pneumatic tubes and extending through said apertures, perforated clips removably mounted upon said felly, shoulders formed on the free ends of said nipples and within said apertures of the felly and being adapted to engage said clips to prevent the tubes from blowing out of said casing.

2. In combination with an apertured felly, a casing mounted upon said felly and provided with a series of



chambers having an aperture therein registering with the apertures of said felly, removable clips disposed on the underside of said felly and having a perforation therein registering with one of said apertures of the felly, said perforations being smaller than the apertures of the felly, pneumatic tubes within said chambers, a valve nipple projecting from each of said tubes and extended through said aperture and said perforation, a collar on the lower end of said valve nipple and of the same diameter as said apertures, and said collar being adapted to engage said clips for holding said nipple within said aperture.

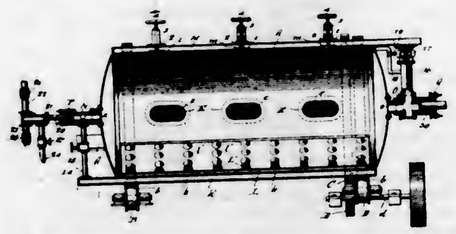
3. In combination with an apertured felly, a casing mounted upon the felly and having apertures therein registering with the apertures of said felly, removable clips disposed upon the underside of said felly each having a perforation therein registering with an aperture of the felly, said perforation being smaller than the apertures of the felly, a pneumatic tube within said casing, valve nipples projecting from said tube and extended through said apertures and said perforations, an enlargement formed near the lower ends of said valve nipples and substantially of the same size of said apertures, and said enlargement being adapted to engage said clips for holding said nipples within said apertures.

1,092,120. HORSE-COLLAR. JOHN PAUL HOFFMANN, Dubuque, Iowa. Filed Mar. 22, 1913. Serial No. 756,262. (Cl. 54—19.)



In a horse-collar, a roll portion comprising a strip of flexible material bent into roll form, a strengthening strip of rawhide bent into approximately tubular shape upon the inner side of the first-mentioned strip and being narrower than the latter to leave projecting edges on said first-mentioned strip, and a filling of soft, flexible material within the bent rawhide strip.

1,092,121. PERCOLATOR. ALBERT J. MORLOCK, Brooklyn, N. Y., assignor to United Press and Manufacturing Company, a Corporation of New Jersey. Filed June 7, 1910. Serial No. 565,586. (Cl. 87—6.)



1. A percolator comprising a rotatory tank, having a treating chamber, and provided with an inlet conduit for a treating fluid, a second conduit, for the outlet of said fluid and the extracted material from said chamber, a third conduit, for the inlet of a fluid adapted to expel the treating fluid trapped by the material undergoing treatment, and a fourth conduit, for the treating and expelling fluids, each of said conduits having communication with the treating chamber, said tank being also provided with hollow trunnions at its opposite ends, and with separate pipes respectively connecting one of said trunnions to the first, second and third conduits, and another pipe leading from the fourth conduit to the other trunnion, all of said parts being mounted for free rotation together, combined with pipes having communication with the first-mentioned trunnion and pipes having communication with the second-mentioned trunnion and fixed against rotation therewith, two of said pipes being for the supply of fluids to the first-mentioned trunnions, a fourth pipe being for the outflow of fluid from the other trunnion, and the third pipe being for the outflow of fluid from said first-mentioned trunnion.

2. A percolator, comprising a rotatory tank having hollow hubs or axles and provided with a conduit for the supply of naphtha; a conduit for the discharge of naphtha and grease; a conduit for the supply of steam; a conduit for the discharge of steam, naphtha and grease; a plurality of valved pipes respectively connecting one of said hubs or axles with the conduits for the supply of naphtha and discharge of naphtha and grease, a valved pipe, connecting said hub or axle with the steam-supply conduit, valves connecting the interior of the tank with the conduit for the discharge of steam, naphtha and grease; a valved pipe connecting the latter conduit with the other hub or axle; all of said parts being mounted for rotation together, and relatively stationary pipes having communication with the hubs or axles for conducting fluid to and from the same, respectively, and provided with suitably arranged valves.

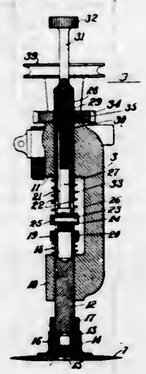
3. A percolator comprising a treating chamber, means for a supply of fluid thereto comprising a chamber extending part way around the same and having a wall formed with a series of apertures for the inlet of fluid to said treating chamber, an outlet chamber having an apertured wall communicating with said chamber, and an apertured plate covering said wall.

4. A percolator, comprising a treating chamber, and means for the supply of fluid thereto, comprising a chamber, a series of nozzles communicating with the latter chamber and having lateral outlets to the treating chamber, and baffles secured to the nozzles and overhanging the sides of the same.

5. A percolator comprising a tank having a treating chamber, inlet and outlet conduits extending longitudinally of the tank and a chamber interposed between the outlet conduit and the treating chamber, said interposed chamber having communication with the outlet conduit and treating chamber and provided with a series of inlet apertures opening from the latter, and an apertured plate covering the apertured chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,092,122. DEVICE FOR MOUNTING THE FEED-DISKS IN SKIVING-MACHINES. LORENZ MUTHER, West Newton, and WILLIAM M. SPRYE, Lynn, Mass.; said Sprye assignor to said Muther. Filed Sept. 1, 1910. Serial No. 580,018. (Cl. 69—16.)



1. In a skiving machine, a feed disk; means for carrying and adjusting the tension on the feed disk, comprising a shaft upon which the feed disk is mounted, having

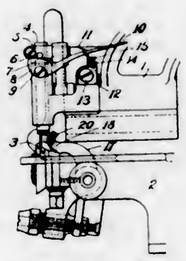
an axial hole in its upper end, and an elongated transverse slot in its mid-portion; bearings in which said shaft is axially and rotatively movable; a plurality of springs mounted on said shaft; means mounted in said shaft, and means mounted upon the same, both movable axially thereof for increasing the tension on either of said springs, as desired.

2. In a skiving machine, a feed disk; a device for mounting and adjusting the feed disk, comprising a frame having bearings; a shaft mounted in said bearings to be rotatively and axially movable therein; a plurality of springs mounted on said shaft; a plurality of adjustable collars mounted on said shaft; and means mounted in said shaft for moving one of said collars axially thereof to increase or decrease the tension on one of said springs, and at the same time to compress or relieve the compression on the other of said springs.

3. In a skiving machine, a feed disk; a device for mounting and adjusting the feed disk, comprising a laterally adjustable frame with means for securing it in its adjusted position; bearings in said adjustable frame; a shaft mounted in said bearings to be rotatively and axially movable therein; a plurality of springs mounted on said shaft; a plurality of adjustable collars mounted on said shaft; means mounted in said shaft for moving one of said collars axially thereof to increase or decrease the tension on one of said springs, and at the same time to compress or relieve the compression on the other of said springs.

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1,092,123. FOLDING-MACHINE. LORENZ MUTHER, Newton, and FREDERICK S. GLINES, Lynn, Mass.; said Glines assignor to said Muther. Filed Aug. 8, 1913. Serial No. 783,769. (Cl. 12—55.)



1. In a folding machine, a feed point and a movable fold presser combined with means mounted on the movable fold-presser for creasing and crimping the edge of the material being folded in advance of the fold pressing operation.

2. In a folding machine, a feed point and a fold presser combined with yielding means mounted on the fold-presser to crease and crimp the convex curving edges of the material and means for varying the pressure of the feed point on the material being folded.

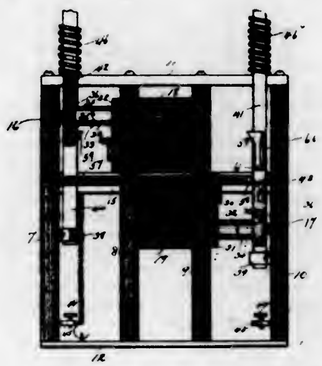
3. In a folding machine, feeding means and a movable fold-presser combined with yielding means mounted on the fold-presser and projecting beyond the fold presser surfaces thereof to crease and crimp the edge of material operated upon the advance of the fold pressing operation.

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1,092,124. COIN AND TICKET APPARATUS. SAM P. PLEDGER, Oklahoma, Okla. Filed Feb. 11, 1913. Serial No. 747,680. (Cl. 211—33.)

1. A ticket dispensing mechanism comprising independent sets of rollers; a shaft for each roller in each set; a clutch adapted to engage with one shaft of each set; plungers for operating said clutches; means for governing the movement of the plungers; means carried by the mechanism for severing tickets from the line passing through and projected by the rollers, means carried by the plungers for operating the cutting means, and a chute for receiving the ejected ticket.

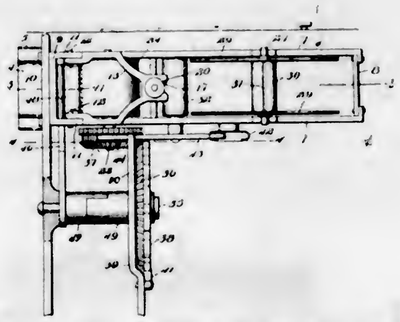
2. A ticket dispensing mechanism comprising independent sets of rollers; a shaft for each roller in each set; a clutch adapted to engage with one shaft of each set; plungers for operating said clutches; means for adjusting the stroke of the plungers, a ticket cutter, means for operating the same; and a chute for receiving the cut ticket.



3. A ticket dispensing mechanism comprising independent sets of rollers through which to pass a line of tickets and project them one by one; a shaft for each roller in each shaft, a clutch for a shaft in each set, means to operate the clutch, means for adjusting the throw of said means, said adjustment also controlling the ticket line so as to properly project the line, and a ticket cutter adapted to cut at the proper point in the line.

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1,092,125. VENDING-MACHINE. JAMES B. ADAMS, Laurel Iron Works, W. Va. Filed June 10, 1913. Serial No. 772,885. (Cl. 211—33.)

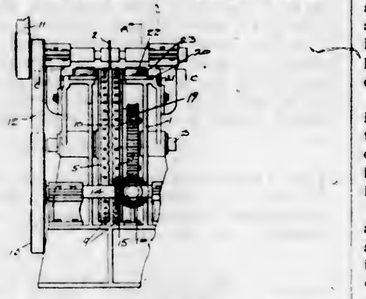


In a stamp vending machine, a stamp carrying reel, feed rollers disposed in advance of said reel and adapted to take the stamps therefrom, a gear fixed to the axle of each roller and meshing with the gear on the other roller whereby both rollers will operate in unison, a bevel pinion fixed to the axle of one of said rollers, a bevel gear meshing with said pinion and rotatable about an axis at right angles to the axle of the feed roller, a ratchet wheel fixed to said bevel gear, and a lever pivoted adjacent to said bevel gear and carrying a dog adapted to operate said ratchet wheel whereby said feed rollers will be operated to take the stamps from said reel.

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1,092,126. MACHINE FOR MAKING CASTELLATED NUTS. FRANK E. BRIGHTMAN, Sandusky, Ohio, assignor to The Brightman Nut & Manufacturing Company, Sandusky, Ohio, a Corporation of Ohio. Filed June 15, 1912. Serial No. 703,798. (Cl. 10—72.)

1. In a machine of the class described, the combination of a rotatable conveyer, comprising two resilient disks fixed on a common axis, the disks being spaced apart at their peripheries and provided at their peripheries with a plurality of complementary recesses; a cutter disposed opposite the periphery of the conveyer; and means disposed adjacent the cutter for flexing the disks and thereby moving them toward each other at their peripheries.



2. In a machine of the class described, the combination of a rotatable conveyer, comprising two resilient disks fixed on a common axis, said disks being spaced apart at their peripheries and provided at their peripheries with a plurality of complementary recesses; a rotary saw disposed opposite the periphery of the conveyer; and two rolls disposed adjacent the saw and adapted to flex the disks and thereby move them toward each other at their peripheries.

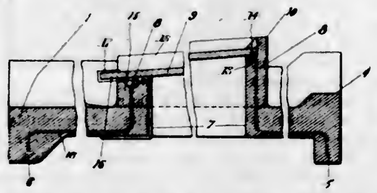
3. In a machine of the class described, the combination of a rotary conveyer, comprising two resilient disks fixed on a common axis, said disks being spaced apart at their peripheries and provided at their peripheries with a plurality of complementary recesses; means for adjusting the disks axially relative to each other; a rotary saw disposed opposite the periphery of the conveyer; two slides disposed on opposite sides of the conveyer adjacent the cutter and movable parallel with the axis of the conveyer; means for securing the slides in selected position; and two rollers rotatably secured to the respective slides on axes transverse of the axis of the conveyer, the distance between the rollers being less than the normal width of the conveyer, whereby said rollers will flex the disks and move them toward each other at their peripheries.

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1,092,127. [WITHDRAWN.]

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1,092,128. GLASS-INSERT TILE. CHARLES G. BLAKE, Pittsburgh, Pa. Filed Mar. 24, 1913. Serial No. 756,339. (Cl. 108—10.)



1. An interchangeable glass-insert tile of plastic material including Portland cement and the like, the tile having an opening for the glass and integral upright walls surrounding the opening, the glass resting on the walls on four sides and inclined in the direction of the pitch of the roof, and on that side extending beyond the wall, the tile being otherwise shaped to coöperate with and overlap other tiles similarly formed as to their edge portions.

2. An interchangeable glass-insert tile of plastic material including Portland cement and the like, the tile having an opening for the glass and integral upright walls surrounding the opening, the glass resting on the walls on four sides and a suitable cement in which the glass is embedded, the tile being otherwise shaped to coöperate with and overlap other tiles similarly formed as to their edge portions.

3. A tile of plastic material including Portland cement and the like, the tile having an opening for the glass and a raised portion surrounding the opening, the glass resting on the raised portion and extending beyond and overlapping the opening on the fourth side which is in the direction of the lower or bottom edge of the tile.

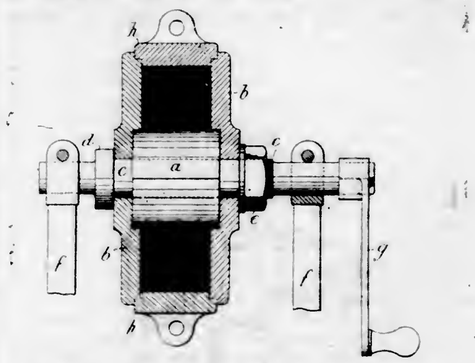
4. A glass-insert tile of plastic material including Portland cement and the like, the tile having an opening for the glass and integral upright walls surrounding the opening, the glass resting on the walls and extending beyond and overlapping the walls in the direction of the lower end of the tile.

5. A tile of plastic material including Portland cement and the like, the tile having an opening for the glass and a raised portion surrounding the opening, the glass resting on the raised portion and extending beyond the walls on the side toward the lower end of the tile, and elastic cement in which the glass is embedded.

[Claim 6 not printed in the Gazette.]

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1,092,129. METHOD OF MANUFACTURING RUBBER BLOCKS FOR SPRINGS, &c. ALFRED GEORGE SPENCER, London, England. Filed Aug. 21, 1913. Serial No. 785,849. (Cl. 18—55.)



The herein described method of manufacturing a circular block or mass of vulcanized rubber adapted for the uses set forth, consisting in winding under tension a partially cured strip or band of rubber, and completing the curing of the mass while the convolutions are under tension and in contact with each other, thereby producing a homogeneous mass or block.

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1,092,130. TUBE FOR PNEUMATIC TIRES. WILLIAM A. VAIL and OSCAR E. SMITH, Chicago, Ill., assignors of one-fourth to said Vail, one-fourth to said Smith, one-fourth to Francis Lackner, and one-fourth to Jesse Holden, Chicago, Ill. Filed Aug. 6, 1913. Serial No. 783,244. (Cl. 152—13.)



1. An inflatable endless tube for a pneumatic tire, whose side toward the tread comprises an inner portion of relatively soft and compressible rubber, and outside of said compressible portion a layer of semi-hard rubber, said outer harder layer being normally less in transverse dimension than the inner softer layer and being normally slightly stretched transversely while the inner softer layer

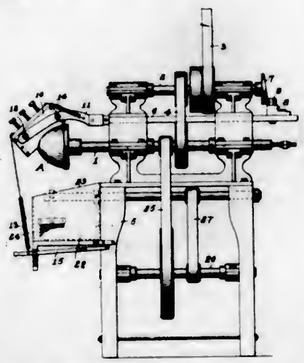
is compressed, and an outer skin or layer of highly elastic and tough rubber.

2. An inflatable endless tube for a pneumatic tire, whose side toward the tread comprises an inner layer of relatively soft and compressible rubber of which the innermost portion is short-fibered, and outside of said inner compressible layer a tension layer of semi-hard rubber having slight stretchability and strong elastic reaction, and being normally less in transverse dimension than the inner compressible portion, the inner compressible portion being normally compressed while the tension layer is normally slightly stretched.

3. An inflatable endless tube for a pneumatic tire, whose side toward the tread comprises an inner portion of relatively soft and compressible rubber, of which the innermost portion is short-fibered; a layer outside said compressible layer composed of semi-hard rubber slightly stretchable and having strong elastic reaction, and an outer layer or skin of substantially pure long-fibered highly elastic rubber, the inner compressible portion at the tread side being normally compressed and the layers outside it being normally slightly stretched.

# REISSUES.

13,706. POLISHING-MACHINE. CHARLES W. BEAM, Rochester, Pa., assignor to H. C. Fry Glass Company, Rochester, Pa., a Corporation of Pennsylvania. Filed Aug. 20, 1913. Serial No. 785,822. Original No. 1,037,852, dated Sept. 10, 1912, Serial No. 653,666. (Cl. 51—3.)



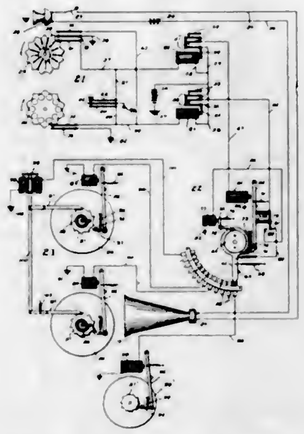
1. In a polishing-machine, the combination of a rotatable member holding a blank of material in operative polishing position, a polishing block mounted adjacent to said rotatable member and held yieldingly by means of a spring against a blank when in position on said rotatable member, means for rotating said rotatable member, and means for oscillating said polishing block, substantially as described.

2. In a polishing-machine, the combination of a rotatable shaft provided with a seat for a blank to be polished, an oscillatory carrier provided with a bifurcated head, a polishing block pivoted in the head of said carrier and spring-controlled in its pivotal movement, suitable means for rotating said shaft, and means for causing said carrier to oscillate non-synchronously with the rotation of said shaft, substantially as described.

3. In a polishing-machine, the combination of a rotatable blank holder adapted to hold a blank of material in polishing position, a polishing block mounted adjacent to said holder, a resilient spring for holding said block against a blank when in polishing position, means for rotating said holder, and means coördinated with the rotation of the blank holder for effecting a reciprocatory movement between said block and holder in a direction substantially parallel with the axis of rotation of said holder.

4. In a machine for polishing convex paraboloid surfaces, the combination of a rotatable blank holder adapted to hold in polishing position a blank with a paraboloid outer surface, the axis of the paraboloid being substantially coincident with the axis of rotation of the blank-holder, a polishing block mounted adjacent to said holder and in a position to bear upon such blank, means for rotating said holder, means coördinated with the rotation of the blank holder for effecting a reciprocatory movement between said block and holder in a direction substantially parallel with the paraboloid axis, and yielding means for holding said block in polishing contact with such paraboloid surface in its variable position thereon.

13,707. REGISTERING SYSTEM. RICHARD H. LONG, Oakland, Cal. Filed July 28, 1913. Serial No. 781,684. Original No. 1,055,929, dated Mar. 11, 1913, Serial No. 684,936. (Cl. 235—1.)



1. A registering system of the character described comprising in combination, a plurality of devices movable for successively displaying characters, a plurality of mechanisms, one for each of said devices, electrically vibratable for actuating the same independently one from another, a switch having a plurality of points each independently and electrically connected to a separate one of said last mentioned mechanisms, mechanism for actuating said switch to form an electric conducting contact with any one of the switch points thereof, an electric generator, and switching instrumentality for making or breaking an electric circuit, including said generator and passing through the said electrically vibratable mechanism any number of times for actuating the said device associated therewith and controlled by said switch, substantially as and for the purpose set forth.

2. A registering system of the character described comprising in combination, a plurality of revoluble disks adapted to successively display characters, ratchet wheels carried by said disks, an electromagnet for each disk, a pawl for each disk adapted to be actuated upon energizing said electromagnet to act upon the respective ratchet wheel of the disk for advancing the same, a switch having a plurality of points each independently and electrically connected to one of said electromagnets of said disks, mechanism for actuating said switch to form an electric conducting contact with any one of the switch points thereof, an electric generator, and switching instrumentality for completing an electric circuit including said generator and passing through the said electromagnet any number of times controlled by said switch, for actuating the disk associated therewith, substantially as and for the purpose set forth.

3. A registering system of the character described comprising in combination, a plurality of revoluble disks adapted to successively display characters, ratchet wheels carried by said disks, an electromagnet for each disk, a pawl for each disk adapted to be actuated upon energizing the electromagnet to act upon the respective ratchet wheel of the disk for advancing the same, means normally preventing movement of said ratchet wheels reverse to that imparted thereto by said pawls, electrically operable means for releasing said last mentioned means, a switch having a plurality of points independently and electrically connected to the said electromagnets of said disks, mechanism for actuating said switch to form an electric conducting contact with any one of the switch points thereof, an electric generator, an instrumentality for completing an electric circuit including said generator and passing through the said electromagnet controlled by said switch, for actuating the disks associated therewith, substantially as and for the purpose set forth.



4. A registering system of the character described comprising in combination, a plurality of devices movable for successively displaying characters, means electrically vibratable for actuating said devices independently one from another, a switch having a plurality of points independently and electrically connected to said last mentioned means and an oscillatable arm, a ratchet wheel carried by said arm of said switch, an electromagnet, a pawl adapted to act upon said ratchet wheel of said switch and actuated by the energy of said electromagnet to advance the said arm point by point at each vibration of said pawl, an electric generator, and instrumentality for completing an electric circuit including said generator and passing through the said electrically vibratable means for actuating the said device associated therewith and controlled by said switch, substantially as and for the purpose set forth.

5. A registering system of the character described comprising in combination, a plurality of devices movable for successively displaying characters, means electrically vibratable for actuating said devices independently one from another, a switch having a series of points independently and electrically connected to said last mentioned means and an oscillatable arm, a ratchet wheel carried by said arm of said switch, an electromagnet, a pawl adapted to act upon said ratchet wheel of said switch arm and actuated by energy of said electromagnet, to advance the said arm point by point at each vibration of said pawl, means for returning said switch arm to a position contacting with the first switch point of the series, an electric generator, and instrumentality for completing an electric circuit in said generator and passing through the said electrically vibratable means for actuating said device associated therewith and controlled by said switch, substantially as and for the purpose set forth.

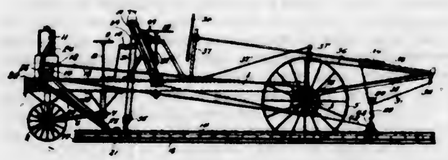
6. A registering system of the character described comprising in combination, a plurality of revoluble disks adapted to successively display characters, ratchet wheel carried by each of said disks, a spring for normally returning said disks to a predetermined position, an electromagnet for each of said disks, an armature for each of said electromagnets, pawl mechanism carried by said armatures adapted to act upon said ratchet wheels and their respective disks, upon energizing the electromagnets associated therewith, second pawl mechanism acting upon the said ratchet wheels to normally prevent movement of said disks responsive to said spring, an auxiliary electromagnet, an armature therefor operatively connected to said second mentioned pawl mechanism to actuate the same releasing said disks when the said electromagnet is energized, and switching means for conducting an electric circuit through any one of said electromagnets, substantially as and for the purpose set forth.

7. A registering system of the character described comprising in combination, an oscillatable switch arm, switch points disposed to be successively contacted with said oscillatable arm, yieldable means for normally retaining said arm at a predetermined position with respect to said points, a ratchet wheel carried by said arm, an electromagnet, a vibratable armature therefor, pawl mechanism carried by said armature to act upon said ratchet wheel to advance said arm, a second electromagnet, an armature therefor, a pawl carried by said armature acting upon said ratchet wheel to normally prevent movement of said arm responsive to said yieldable means, a switch point electrically connected with said switch arm to conduct an electric circuit through any one of said switch points, a second switch point spaced apart from said first mentioned switch point and electrically connected with said second mentioned electromagnet, a third switch point movable intermediate said first and second mentioned switch points, carried in an insulated manner by said armature of said first mentioned electromagnet and contacting with said first mentioned switch point when the said armature is not influenced by its electromagnet, a plurality of electrically operable devices adapted to successively display characters and having an electrical connection with one of the switch points, an electric generator, a controlling device electrically connected with said generator and said first mentioned electromagnet to energize the same when desired, and a second controlling device electrically connecting said generator and second mentioned electromagnet to energize the same when desired, substantially as and for the purpose set forth.

8. A registering system of the character described comprising in combination, a star wheel having one tooth relatively longer than the other, a switch point adapted to be moved by any one of the teeth of said wheel, a second switch point adapted to contact with said first mentioned switch point when the latter is moved by a tooth of said star wheel, said second mentioned switch point being grounded and adapted to be actuated through action of said relatively longer tooth of said star wheel, a third switch point adapted to be contacted by said second mentioned switch point when the latter is actuated through influence of said relatively larger tooth of said star wheel, two independent electromagnets, a vibratable armature for each magnet, a switch member actuated by each of said armatures, a second switch member for coaction with the teeth of said first mentioned switch members to contact when their respective armature is actuated responsive to energy of its electromagnet, a conductor connecting said first mentioned switch point and one of said electromagnets, a second star wheel, a pair of switches adapted to be contacted by the teeth of said second mentioned star wheel, one of said points being rounded, a conductor connecting the other switch points of said second mentioned star wheel with the other electromagnet, an electric generator grounded at one pole, a conductor connected to said electromagnet and to the switch members carried by the armatures thereof, a conductor connecting said third mentioned switch point and the conductor between the switch member of said second mentioned star wheel and electromagnet, an electrically operated switch device having a plurality of points, operatively connected to the second mentioned switch member of said electromagnet operatively connected with said first mentioned switch point to be operated upon completing an electric circuit therethrough, a plurality of electrically operated devices each adapted to successively display characters, and having an electrical connection with one of the switch points of said electrically operated switch, and means operatively connecting the second mentioned switch member of the said electromagnet connected with the switch point of said second mentioned star wheel to conduct a current through the electrically operated switch point and display device in electrical connection therewith, substantially as and for the purpose set forth.

9. An annunciator system including a group of annunciators having distinct collocated display fields individual thereto and located at a receiving station and each provided with means for selectively displaying signals of differing import; a selector for selecting each annunciator that is to be operated, there being electro-magnetic operating mechanism included in the annunciators and selectors; and switching apparatus located at a transmitting station in controlling relation to the electro-magnetic operating mechanism of the annunciators and selector, there being means controlled at the transmitting station for restoring the annunciators to normal or initial positions.

13,708. ROAD-LEVELING DEVICE. NATHANIEL S. MONROE, Arthur, Ill. Filed Dec. 23, 1913. Serial No. 808,509. Original No. 1,015,820, dated Jan. 30, 1912, Serial No. 616,715. (Cl. 37—7.)



1. A device of the class described, comprising a wheeled body; angularly disposed forwardly diverged scraper bars arranged at opposite sides of said body; means pivotally connecting the forward ends of said bars with said body, said means being manually adjustable for effecting angular adjustment of said bars relative to the surface acted upon; means pivotally connecting the rearward ends of said bars, said means maintaining said bar ends in spaced relation; means manually operable from said body for effecting elevation of the respective ends of said bars; and means manually operable from said body for forwardly drawing the rearward ends of said scraper bars to increase the divergency of the forward ends thereof, substantially as described.

2. In a device of the class described, the combination of a wheeled body; angularly disposed bars arranged at opposite sides of said body; a pivotal connection between the rearward ends of said bars; a pair of links pivotally connecting the forward end of each of said bars with said body, the inner end of one of the links of each of said pair of links being adjustably secured for effecting angular adjustment of the scraper bars relative to the surface acted upon, substantially as described.

3. A device of the class described, comprising a wheeled body; angularly disposed forwardly diverged scraper bars arranged at opposite sides of said body; means pivotally connecting the forward ends of said bars with said body, said means being manually adjustable for effecting angular adjustment of said bars relative to the surface acted upon; means pivotally connecting the rearward ends of said bars, said means maintaining said bar ends in spaced relation; cranes at the forward ends of said body for effecting elevation of the forward ends of the said scraper bars; and manually operable means for effecting elevation of the rearward ends of said bars, substantially as described.

4. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging forward ends, means for supporting the diverging forward ends of the bars from the frame for vertical adjustment and spreading action, means for effecting longitudinal adjustment of the bars and varying the angular divergence thereof through the spreading action of said supporting means, a cross connection between the converging rear ends of the bars, a guide member attached to said cross connection, a looped chain fastened at one end to the frame and in running engagement at its bight with said guide member, and a winding element on the frame to which the other end of said chain is connected.

5. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, pivotal connections between the frame and the diverging front ends of the scraper bars, adapting said bars for vertical adjustment and longitudinal movements, in which said pivotal connections vary the degree of angular divergence of the bars, suitable means for moving the bars longitudinally and acting in conjunction with said pivotal connections to vary the divergence of the bars, a flexible suspension device supporting the converging rear ends of the bars from the frame, winding means associated with said flexible suspension device whereby the latter may be wound and unwound and the rear ends of the bars vertically adjusted in unison and locked in any position of adjustment, flexible suspension devices at the forward ends of the frame and connected with the diverging front ends of the bars, winding devices associated therewith whereby such ends of the bars may be vertically adjusted independently of each other and locked in any position of adjustment, said flexible suspension devices being adapted to permit the bars to move longitudinally of the frame and to be adjusted relatively to each other to vary the spread thereof, means for swinging the bars longitudinally, and pivotal connections between the bars and frame acting in a longitudinal swinging motion of the bars to vary the spread thereof.

6. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, pivotal connections between the frame and the diverging front ends of the scraper bars, adapting said bars for vertical adjustment and longitudinal movements, in which said pivotal connections vary the degree of angular divergence of the bars, suitable means for moving the bars longitudinally and acting in conjunction with said pivotal connections to vary the divergence of the bars, flexible suspension and hoisting means supporting the converging rear ends of the bars from the frame and whereby such ends of the bars may be vertically adjusted in unison, and flexible suspension and hoisting devices at the forward end of the frame and connected with the diverging front ends of the bars, whereby such ends of the bars may be vertically adjusted independently of each other, said flexible suspension and hoisting devices being adapted for securing the bars in any position of adjustment to permit the bars to move longitudinally of the frame and to be adjusted relatively to each other to vary the spread thereof.

7. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, arms or links pivotally connecting the forward diverging ends of the bars with the frame and adapted to permit said bars to move longitudinally of the frame and also in a vertical plane, and to adjust the bars in their longitudinal movement to vary their angle of divergence, means for moving the bars and coacting with said pivotal connections to vary the spread of the bars, a chain flexibly suspending the converging rear ends of the bars from the frame, means for adjusting said chain for raising and lowering the rear ends of the bars in unison, chains flexibly suspending the forward diverging ends of the bars from the frame, and adjusting devices associated with said chains whereby the forward ends of the bars may be vertically adjusted independently of each other.

8. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, pivotal connections between the frame and diverging front ends of the bars adapted to permit longitudinal and vertical adjustment of said bars and to adjust the bars in and out to vary their angle of divergence on the longitudinal movement thereof, means for longitudinally adjusting the bars, a flexible element supporting the converging rear ends of the bars from the frame, a winding device associated with said flexible element whereby the rear ends of the bars may be simultaneously raised or lowered, and cranes at the forward ends of the frame including elements flexibly supporting the diverging front ends of the bars and winding devices for adjusting said elements to raise or lower the said forward ends of the bars independently of each other.

9. In a road leveling device, the combination of a frame, scraper bars having converging rear ends and diverging forward ends, spreader links pivotally connecting the diverging forward ends of the bars with the frame and adapted to permit vertical adjustment thereof, means for effecting longitudinal adjustment of the bars and varying the angular divergence thereof through the action of said links, a cross piece pivotally connecting the converging rear ends of the scraper bars, cranes at the forward end of the frame flexibly suspending the diverging forward ends of the scraper bars and whereby the same may be independently raised and lowered, a chain carrying a pulley block and having end portions connected with the opposite ends of the cross piece, a looped chain having one end fastened to the frame and its bight engaging said pulley block, and a winding device associated with the opposite end of said looped chain, whereby the converging rear ends of the scraper bars are flexibly supported and adapted to be raised and lowered in unison.

10. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means supporting the diverging front ends of the bars for vertical adjustment and spreading action, means for effecting longitudinal adjustment of the bars and varying the angular divergence thereof through the spreading action of said supporting means, a winding element on the frame, a looped chain respectively fastened at its terminals to the frame and to the winding element, and a pulley connected with the converging rear ends of the bars and engaging the bight of said looped chain.

11. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means supporting the diverging front ends of the bars for vertical relative transverse and lateral tilting adjustments, a cross bar composed of sections having pivotally connected inner ends connected respectively at their outer ends to the converging rear ends of the bars, means connected with said sections of the cross bar for supporting and vertically adjusting the rear ends of the scraper bars and tilting said sections on their pivotal connection to tilt the scraper bars laterally, and means for locking the cross bar sections against pivotal movement.

12. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means supporting the diverging front ends of the bars for vertical relative transverse and lateral tilting adjustments, a cross bar composed of sections having pivotally connected inner ends connected respectively at their outer ends to the converging rear ends of the bars, means connected with said sections of the cross bar for supporting and vertically adjusting the rear ends of the scraper bars and tilting said sections on their pivotal connection to tilt the scraper bars laterally, and means for locking the cross bar sections in various positions against pivotal movement.

13. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means for supporting the converging rear ends of the bars for longitudinal and relative transverse and lateral tilting adjustments, means for effecting such adjustments, winding elements at the forward ends of the frame, a looped flexible element fastened at one end to each winding element, said flexible elements being fastened at their opposite ends to the frame, and pulleys connected with the forward ends of the scraper bars and engaging the bights of the looped flexible elements.

14. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means pivotally connecting the converging rear ends of the bars to permit lateral swinging movement thereof, means coupled to said connecting means for vertically adjusting the rear ends of the bars and securing the same in any position of adjustment and for flexibly suspending said bars to permit free longitudinal swinging movement thereof, links pivotally supporting the forward ends of the bars for vertical adjustment and adapted upon reverse longitudinal swinging movements thereof to increase and decrease their angle of divergence, and means for imparting longitudinal swinging movement to the bars.

15. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, means pivotally connecting the converging rear ends of the bars to permit lateral swinging movement thereof, means coupled to said connecting means for vertically adjusting the rear ends of the bars and securing the same in any position of adjustment and for flexibly suspending said bars to permit free longitudinal swinging movement thereof, links pivotally supporting the forward ends of the bars for vertical adjustment and adapted upon reverse longitudinal swinging movements thereof to increase and decrease their angle of divergence, and means coupled to the said connecting means to impart longitudinal swinging movement to the bars.

16. In a road leveling device, a supporting frame, scraper bars having converging rear ends and diverging front ends, supporting means at the rear end of the frame for pivotal connecting, vertically adjusting and flexibly suspending the rear ends of the bars for swinging motion, links pivotally supporting the front ends of the bars for vertical and longitudinal adjustments and adapted in the longitudinal adjustments of said bars to increase or decrease the angle of divergence thereof, flexible elements connected with the forward ends of the bars for effecting independent vertical adjustment thereof and whereby such ends of the bars are mounted for swinging motion, and means coacting with said links for adjusting the bars longitudinally.

17. In a road leveling machine, a supporting frame, angularly disposed scraper bars having converging rear ends and diverging front ends, means pivotally connecting the rear ends of the bars, means for flexibly supporting and elevating the rear ends of the bars, cranes including flexible elements for independently raising and lowering the forward ends of the bars, a pair of links pivotally coupling the forward end of each bar to the frame, one link of each pair being universally pivoted at one end to the frame and the other link of each pair being pivoted at one end to the bar for lateral motion and to the adjacent end of the first named link for vertical motion and adjustably coupled at its opposite end to the first named link to effect lateral tilting motion of the bars, and means for moving the bars to longitudinally vary the angular divergence therebetween through the action of said links.

18. A device of the class described comprising a wheeled body, angularly disposed forwardly diverged scraper bars arranged at opposite sides of said body, means pivotally connecting the forward ends of said bars with said body, said means being adapted to permit longitudinal and vertical movements of the bars and to effect a variation in the angle of divergence of the bars in their longitudinal movement, means pivotally connecting and flexibly suspending the rear ends of the bars, said means being operable to vertically adjust the rear ends of the bars in unison while freely permitting longitudinal swinging and lateral pivotal movements thereof, means coacting with the first named means for longitudinally swinging and effecting variations in the angular divergence of the bars, and flexible adjusting elements connected with the forward ends of the bars whereby said forward ends of the bars may be vertically adjusted independent of each other.

19. In a machine of the class described, a frame, forwardly divergent scraper bars, flexible means for supporting the rearward ends of the scraper bars from the frame and for effecting vertical adjustment of said rear ends, flexible means for supporting the forward ends of the two scraper bars from the frame and for effecting vertical adjustment of said front ends, links pivotally connecting the scraper bars with the frame, and means for effecting longitudinal adjustment of the scraper bars with respect to the frame to vary the angular divergence of the scraper bars through the medium of the links.

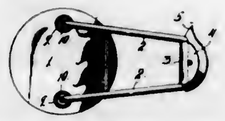
20. In a machine of the class described, a frame, forwardly divergent scraper bars, flexible means for supporting the rearward ends of the scraper bars from the frame and for effecting vertical adjustment of said rear ends in unison, flexible means for supporting the forward ends of the two scraper bars from the frame and for effecting vertical adjustment of said front ends independently, links pivotally connecting the scraper bars with the frame, and means for effecting longitudinal adjustment of the scraper bars with respect to the frame to vary the angular divergence of the scraper bars through the medium of the links.

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13,709. CAN SEALING AND OPENING DEVICE. EMERY D. WATERBURY, Sawtelle, Cal., assignor of one-half to Martin Lintner, Napa, Cal. Filed June 11, 1913. Serial No. 773,136. Original No. 999,612, dated Aug. 1, 1911, Serial No. 590,048. (Cl. 220—67.)

1. A device of the class described, comprising spring arms connected at their outer extremities and arranged, when in use, above the top of the can, the said arms being spaced apart at their opposite extremities and equipped with pointed members adapted to pierce a can top, the separated extremities of the arms being adapted to be

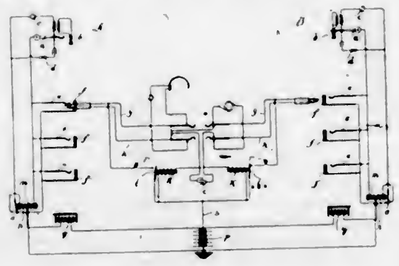
moved laterally to bring the piercing members in the proper position with reference to the outer edge of the can and free to recoil when released, which action serves to perform the retaining function when it is desired to seal the can, substantially as described.



2. A tool for the purpose set forth, comprising a pair of divergent, resilient arms adapted to extend over the top of a can and project laterally beyond the same and having down-turned tapered ends adapted to pierce and pass through said top, and sealing devices carried by said down-turned ends.

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13,710. TELEPHONE-EXCHANGE SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed June 3, 1903. Serial No. 159,915. Original No. 688,452, dated Dec. 10, 1901, Serial No. 41,642. (Cl. 179—58.)



1. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a line relay at the exchange provided with differentially-wound coils, a line indicator, means controlled by the said relay for governing the operation of the said indicator, means controlled by the subscriber for directing current through the said relay and line indicator to effect the operation of the latter, and switching apparatus controlled by the operator for increasing the magnetizing effect of one of the coils of the relay above that produced by the other, to effect the operation of the said relay-controlled means and thereby cut out or render ineffective the line indicator, substantially as described.

2. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a relay provided with differentially-wound coils, a source of current, means controlled by the subscriber for including the said coils in circuit with the said source of current, a line indicator adapted to be operated by the said current when thus included in circuit, means controlled by the said relay for cutting out the said indicator, and means controlled by the operator whereby the magnetizing effect due to one of the coils of the relay may be increased above that due to the other, to effect the operation of the relay-controlled means and thereby render ineffective the line indicator, substantially as described.

3. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a relay at the exchange provided with differentially-wound coils, a line indicator, a switch adapted for operation by the said relay, a source of current adapted for inclusion in circuit with the same switch, the line indicator and the coils of the relay, means at the subscriber's station for closing circuit through the said switch, line indicator, battery and relay coils, means controlled by the operator for producing a greater magnetizing effect in one of said coils above the other, whereby the said switch, when operated, will cut out or render ineffective the line indicator and one of the relay coils, and maintain the remaining relay coil in a closed circuit, substantially as described.

4. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a differentially-wound relay, operator's means for connecting the said telephone line with a second telephone line, circuit connections whereby the operator's connecting means may effect a greater magnetizing effect in one of the relay coils with reference to the other, and a switch controlled by the relay and operated thereby when the magnetizing effects of its coils are thus unbalanced, and serving, when operated, to cut out or render ineffective the remaining coil of the relay and the line indicator, substantially as described.

5. In a telephone-exchange system, the combination with a telephone-line extending from a subscriber's station to an exchange, of a line-relay at the exchange provided with differentially wound coils, a source of current, means controlled by the subscriber for including the said relay in circuit of said source of current, whereby the relay remains inoperative, a line-indicator also adapted for inclusion in circuit of the source of current by the said subscriber's means, a local circuit at the exchange, an operator's switching apparatus for connecting subscribers for conversation, means coacting with said switching apparatus serving to close the said local circuit through one of the windings of the relay when the said switching apparatus is manipulated to connect the subscribers for conversation, the said local circuit being of lower resistance than the circuit closed by the subscriber through the line relay and indicator, whereby the magnetization due to the said coil included in the local circuit, is increased above that due to its companion coil, and a switch that is adapted thereupon to be actuated by the relay to cut out or render ineffective the line-indicator, substantially as described.

6. In a telephone-exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a line-relay at the exchange provided with differentially-wound coils, a source of current, means controlled by the subscriber for including the said relay in circuit of said source of current, whereby the relay remains inoperative, a line-indicator also adapted for inclusion in circuit of the source of current by the said subscriber's means, a local circuit at the exchange, an operator's switching apparatus for connecting subscribers for conversation, means coacting with said switching apparatus serving to close the said local circuit through one of the windings of the relay when the said switching apparatus is manipulated to connect the subscribers for conversation, the said local circuit being of lower resistance than the circuit closed by the subscriber through the line relay and indicator, whereby the magnetization due to the said coil included in the local circuit, is increased above that due to its companion coil, a switch that is adapted thereupon to be actuated by the relay to cut out or render ineffective the line-indicator, a switch included in the local circuit, an electromagnet for actuating the said switch to open the local circuit, and means whereby the switch controlled by the relay may, when actuated, close circuit through the said electromagnet, substantially as described.

7. In a telephone-exchange system, the combination with a telephone-line extending from a subscriber's station to an exchange, of a line-relay at the exchange provided with differentially-wound coils, a source of current, means controlled by the subscriber for including the said relay in circuit of said source of current, whereby the relay remains inoperative, a line-indicator also adapted for inclusion in circuit of the source of current by the said subscriber's means, a local circuit at the exchange, an operator's switching apparatus for connecting subscribers for conversation, means coacting with said switching apparatus serving to close the said local circuit through one of the windings of the relay when the said switching apparatus is manipulated to connect the subscribers for conversation, the said local circuit being of lower resistance than the circuit closed by the subscriber through the line relay and indicator, whereby the magnetization due to the said coil included in the local circuit, is increased above that due to its companion coil, a switch that is adapted thereupon to be actuated by the relay to cut ont or render ineffective the line-indicator, a switch included in the local circuit, an electromagnet for actuating the said switch to open the local circuit, means whereby the switch controlled by the relay may, when actuated, close circuit through the said electromagnet, a clearing-out indicator included in the local circuit, and means whereby, when a subscriber is through conversation, circuit through the said electromagnet will be opened and the local circuit restored to effect a clearing-out signal, substantially as described.

8. In a telephone-exchange system, the combination with a telephone-line extending from a subscriber's station to an exchange, of a relay at the exchange provided with differentially-wound coils, an indicator, means controlled by the said relay for governing the operation of the said indicator, means controlled by the subscriber for directing current through the said relay and indicator to control the operation of the latter, and switching apparatus for increasing the magnetizing effect of one of the coils of the relay above that produced by the other, to effect the operation of the said relay-controlled means and thereby a change in the operative condition of the said indicator, substantially as described.

9. In a telephone-exchange system, the combination with a telephone-line extending from a subscriber's station to an exchange, of a bridge-conductor at the exchange across the telephone-line, a differentially-wound relay, a battery and a line indicator included in the said bridge, a switch adapted for operation by the said relay to cut out or render ineffective one of the coils of the relay and the line indicator, and means controlled by the operator for producing a preponderating magnetizing effect in the remaining coil of the relay to effect the actuation of the said switch, substantially as described.

10. In a multiple switchboard telephone exchange system, the combination with subscribers' telephone lines extending from subscribers' stations to the exchange and each there permanently connected with a contact of the several line jacks upon the different sections of the multiple board, a battery at the exchange for supplying talking current to the substation, one limb of each line extending to test contact portions of the jacks, a switch at the exchange being included in this limb of the line for opening and closing the same, an electromagnet for operating the switch, cord connecting apparatus serving to energize the magnet to operate the switch, the switch being adapted for automatic restoration when relieved of the influence of the electromagnet to restore the test condition, and testing means, substantially as described.

11. In a multiple switchboard telephone exchange system, the combination with subscribers' telephone lines extending from subscribers' stations to the exchange and each there normally connected with a contact of the several line jacks upon the different sections of the multiple board, a battery at the exchange for supplying talking current to the substation one limb of each line extending to test contact portions of the jacks, a switch at the exchange being included in this limb of the line for opening and closing the same, an electromagnet for operating the switch, cord-connecting apparatus serving to energize the magnet to operate the switch, the switch being adapted for automatic restoration when relieved of the influence of the electromagnet to restore the test condition, and a local test circuit including a talking cord strand and the portion of the limb of the telephone line extending to the test contact portions of jacks, substantially as described.

12. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange of a relay at the exchange provided with differentially-wound coils, an indicator, means controlled by the said relay for governing the operation of the said indicator, means controlled by the subscriber for directing current through the said relay to control the operation of the indicator, and switching apparatus for increasing the magnetizing effect of one of the coils of the relay above that produced by the other to effect the operation of the said relay controlled means and thereby a change in the operative condition of the said indicator, substantially as described.

13. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a relay at the exchange provided with differentially-wound coils, an indicator, means controlled by the said relay for governing the operation of the said indicator, means controlled by the subscriber for directing current through the said relay to control the operation of the indicator, and operator's switching apparatus at the exchange for increasing the magnetizing effect of one of the coils of the relay above that produced by the other to effect the operation of the said relay-controlled means and thereby a change in the operative condition of the said indicator, substantially as described.

14. In a telephone exchange system, the combination with a telephone line extending from a subscriber's station to an exchange, of a relay at the exchange provided with differentially-wound coils, an indicator means controlled by the said relay for governing the operation of the said indicator, means controlled by the subscriber for directing current through the differentially-wound coils of the relay, and switching apparatus for directing current through the relay at the exchange to change the operative condition of the indicator, substantially as described.

15. In a telephone exchange system, the combination with a metallic telephone line and a testing and talking line terminal normally disconnected therefrom, of a relay for connecting said terminal with the line, a second line terminal normally connected with said line, a cord circuit terminating in a connecting plug, a source of talking current adapted to send current over the metallic circuit, and means for closing the circuit of said source through said relay when connection is made with the line, said relay circuit including a talking strand of the cord circuit, a main terminal of the connecting plug, a line contact and a portion of a talking limb of the telephone line, substantially as described.

16. In combination, a telephone line, a source of current adapted to supply talking and signaling current to said line, a cut-off relay having its windings so connected in the line circuit as to be insensitive to current controlled by a switch in the line circuit, and a line indicator normally serially included in such line circuit.

17. In a telephone exchange system, the combination with a telephone line extending by its limbs from a substation to an exchange, of a source of current at the exchange adapted to supply talking and signaling current to said line, a cut-off relay having a winding permanently included in one of said line limbs, and a line indicator included in one of said line limbs, substantially as described.

18. In a telephone exchange system, the combination with a telephone line extending by its limbs from a substation to an exchange, of a source of current at the exchange adapted to supply talking current to said line, a cut-off relay having a winding permanently included in the line circuit, and a line indicator in the line circuit, substantially as described.

19. In a telephone exchange system, the combination with a telephone line extending by its limbs from a substation to an exchange, of a source of current at the exchange adapted to supply talking and signaling current to said line, a cut-off relay having a winding permanently serially included in the telephone line, a line indicator normally serially included in the telephone line, and a switch serving to disconnect the line indicator from the line circuit upon the actuation of the cut-off relay.

20. In combination, a common battery telephone line extending to a central office, a cord circuit at the central office for connecting said line with another for conversa-

tion, a cut-off relay so connected in the line circuit as to be insensitive to current controlled by the substation switch, a line signal normally included in the line circuit, and means whereby the connection of the cord circuit with the line causes an actuation of said cut-off relay to destroy the substation control of said line signal.

21. In a telephone exchange system, the combination with a telephone line extending by its limbs from a substation to an exchange, of a source of current at the exchange adapted to supply talking and signaling current to said line, cord-connecting apparatus for connecting said line with another for conversation, a cut-off relay having a winding permanently included in the line circuit, a line indicator in the line circuit, said line indicator being responsive to a control exercised from the substation, and means whereby the connection of said cord-connecting apparatus with said line causes the closure of a circuit of decreased resistance through said cut-off relay, whereby the same is actuated to destroy the substation control of said line indicator, substantially as described.

22. In combination, a source of current and a line indicator in circuit with a telephone line, and a cut-off relay having its windings so connected in said circuit as to be insensitive to current controlled by a switch in the telephone line.

23. In combination, a telephone line extending from a substation to an exchange, a source of current included in the line at the exchange, a line indicator also included in the line circuit, and a cut-off relay having its windings so connected in the line circuit as to be insensitive to current controlled by the substation switch but sensitive to current controlled by an operators' cord-connecting apparatus.

24. In a telephone exchange system, the combination with a telephone line extending by its limbs from a substation to an exchange, of a source of current located at the exchange for supplying talking and a signaling current to said line, cord-connecting apparatus for connecting said line with another for conversation, line jacks having test terminals normally disconnected from the line circuit and other terminals normally connected with the line circuit, and means whereby the connection of said cord-connecting apparatus with said line causes the connection of said test terminals with the line circuit, substantially as described.

25. In a multiple switchboard telephone exchange system, the combination with subscribers' telephone lines extending from subscribers' stations to the exchange and each there permanently connected with a contact of the several line jacks upon the different sections of the multiple board, a battery at the exchange for supplying talking current to the substation, one limb of each line extending to test contact portions of the jacks, a switch at the exchange being included in this limb of the line for opening and closing the same, an electromagnet for operating the switch, cord connecting apparatus serving to energize the magnet to operate the switch, and testing means, substantially as described.

26. In a multiple switchboard telephone exchange system, the combination with subscribers' telephone lines extending from subscribers' stations to the exchange and each there normally connected with a contact of the several line jacks upon the different sections of the multiple board, a battery at the exchange for supplying talking current to the substation, one limb of each line extending to test contact portions of the jacks, a switch at the exchange being included in this limb of the line for opening and closing the same, an electromagnet for operating the switch, cord-connecting apparatus serving to energize the magnet to operate the switch, and a local test circuit including a talking cord strand and the portion of the limb of the telephone line extending to the test contact portions of jacks, substantially as described.

27. In a telephone exchange system, the combination with a line indicator and a cut-off relay included in series in a telephone line circuit, and means whereby the cut-off relay may be actuated to render the line indicator insensitive to control by a switch in the line circuit.

28. In a multiple switchboard telephone exchange system, the combination with subscribers' telephone lines extending from subscribers' stations to the exchange and each there connected with the several jacks upon the different sections of the multiple board, one limb of each line extending to test contact portions of the jacks, a switch at the exchange being included in this limb of the line for opening and closing the same, a differential electromagnetic device for operating the switch, cord connecting apparatus serving to energize the magnet in such a way as to operate the switch, and an operator's testing circuit, substantially as described.

29. In a telephone exchange system, telephone lines each extending by its limbs from a substation to an exchange, line signals in such line circuits, a source of electric energy at such exchange adapted to supply talking and signaling current to such lines, line jacks for terminating such lines at such exchange, test contacts associated with such jacks normally disconnected from such line limbs and relays serially included in such line circuits for disconnecting such line signals and connecting such contacts to the corresponding line limbs.

30. In a telephone exchange system, a telephone line extending by its limbs from a substation to an exchange and there adapted to terminate in a pair of jack contacts, one of such contacts being normally disconnected from the line limbs, a line signal associated with such line circuit, a source of electric energy at such exchange adapted to supply talking and signaling current to such line and means in such line circuit for connecting the normally disconnected talking contact to the corresponding line limb.

31. In a telephone exchange system, telephone lines each extending by its limbs from a substation to an exchange, line signals in such line circuits, a source of electric energy at such exchange adapted to supply talking and signaling current to such lines, line jacks for terminating such lines at such exchange, talking contacts associated with such jacks normally disconnected from such line limbs and relays normally connected with such line limbs and adapted when actuated to disconnect such line signals and connect such contacts to the corresponding line limbs.

32. In a telephone exchange system, the combination of a telephone line extending by its limbs from a substation to an exchange, a spring jack at the exchange having main talking contacts adapted for connection with such line limbs, one of such contacts being normally disconnected therefrom, cord connecting apparatus for connecting said line with another for conversation and a differentially wound electromagnet normally included in circuit with such line limbs and adapted to be actuated to connect the normally disconnected jack contact with one of such line limbs upon the connection of the cord circuit with such spring jack.

33. In a telephone exchange system, the combination of a telephone line extending by its limbs from a substation to an exchange, a spring jack at the exchange having main talking contacts adapted for connection with such line limbs, one of such contacts being normally disconnected therefrom, cord connecting apparatus for connecting said line with another for conversation and an electromagnetic device having two windings, one of such windings being normally connected in circuit with the line limbs, and the other winding adapted to be energized by current flowing over the cord connecting apparatus upon the connection of such apparatus with the spring jack of the line to cause the electromagnetic device to be actuated to connect the normally disconnected jack contact with one of such line limbs.

34. In a telephone exchange system, the combination of a telephone line extending by its limbs from a substation to an exchange, a spring jack at the exchange having main talking contacts adapted for connection with such line limbs, one of such contacts being normally disconnected therefrom, a line signal at such exchange normally under the control of the substation, cord connecting apparatus for connecting such line with another for conversation and an electromagnetic device having two windings one of such windings being normally connected in circuit with the line limbs and the other winding adapted to be energized by current flowing over the cord connecting apparatus upon the connection of such apparatus with the spring jack of the line to destroy the substation control of such line signal.

35. In a telephone exchange system, the combination of a telephone line extending by its limbs from a substation to an exchange, a spring jack at the exchange having main talking contacts adapted for connection with such line limbs, cord connecting apparatus for connecting said line with another for conversation and an electromagnetic device having two windings, one of said windings being normally connected with a line limb and the other winding adapted to be energized by current flowing over the cord connecting apparatus upon the connection of such apparatus with the spring jack of the line to alter the line connections.

36. In combination, a source of current and a line indicator in circuit with a telephone line, and a cut-off relay so connected to such circuit as to be insensitive to current caused to flow from said source through the winding of said relay by a switch in the telephone line.

37. In combination, a source of current and a line indicator in circuit with a telephone line, a cut-off relay adapted to remove said indicator from said circuit, and a switch in the telephone line for closing a circuit from said source through the winding of said relay without operating said relay.



# DESIGNS.

45,514. LAMP-BODY FOR MINERS' LAMPS. FREDERIC E. BALDWIN, New York, N. Y. Filed Sept. 18, 1913. Serial No. 790,562. Term of patent 14 years.



The ornamental design for a lamp-body for a miner's lamp, as shown.

45,515. TOWEL-RACK. REUBEN E. BARBER, Pittsburgh, Pa. Filed Jan. 28, 1914. Serial No. 815,091. Term of patent 7 years.



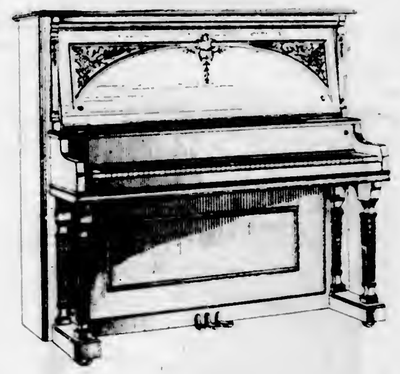
The ornamental design for a towel rack, as shown.

45,516. SIDEBOARD OR SIMILAR ARTICLE OF FURNITURE. MICHAEL J. BERNHARD, Buffalo, N. Y. Filed Jan. 30, 1914. Serial No. 815,557. Term of patent 14 years.



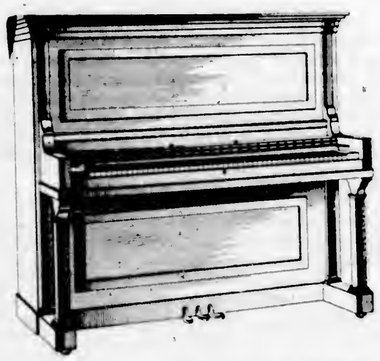
The ornamental design for a sideboard or similar article of furniture, as shown.

45,517. PIANO-CASE. WILLIAM L. BJUR, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,761. Term of patent 7 years.



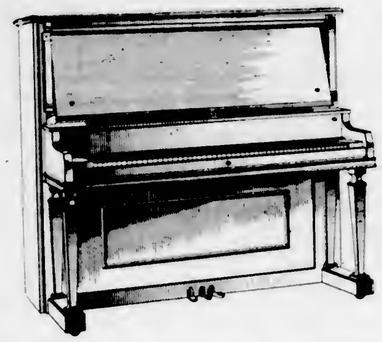
The ornamental design for a piano-case, as shown.

45,518. PIANO-CASE. WILLIAM L. BJUR, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,762. Term of patent 7 years.



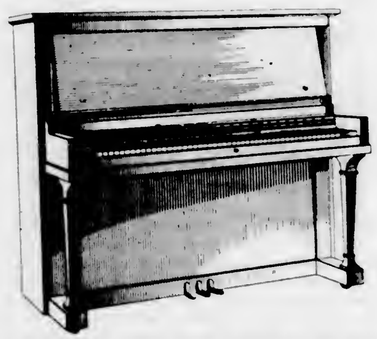
The ornamental design for a piano-case, as shown.

45,519. PIANO-CASE. WILLIAM L. BJUR, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,763. Term of patent 7 years.



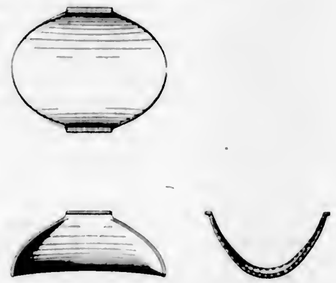
The ornamental design for a piano-case, as shown.

45,520. PIANO-CASE. WILLIAM L. BJUR, New York, N. Y. Filed Jan. 12, 1914. Serial No. 811,764. Term of patent 7 years.



The ornamental design for a piano-case, as shown.

45,521. LAMP-SHADE. FRANCIS M. BRINCKERHOFF, Englewood, N. J. Filed Jan. 27, 1914. Serial No. 814,826. Term of patent 7 years.



The ornamental design for a lamp-shade, as shown.

45,522. HAT. EDWARD COLLINS, Chicago, Ill. Filed Jan. 26, 1914. Serial No. 814,594. Term of patent 3½ years.




The ornamental design for a hat, as shown.

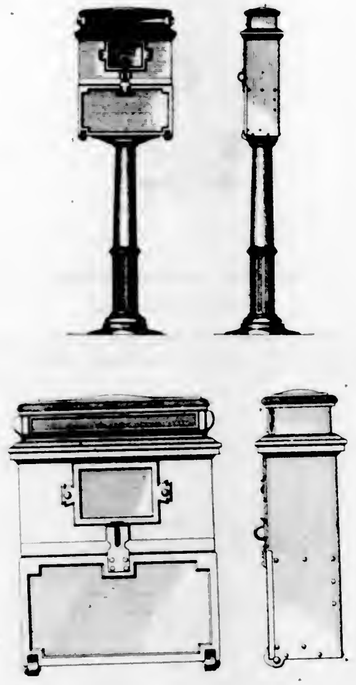
45,523. BISCUIT OR LIKE ARTICLE. ALFRED COOKE, Harlesden, England, assignor to Peek Frean and Company, Limited, London, England, a Corporation of Great Britain and Ireland. Filed Dec. 8, 1913. Serial No. 805,470. Term of patent 14 years.




The ornamental design for biscuit or like article as shown and described.

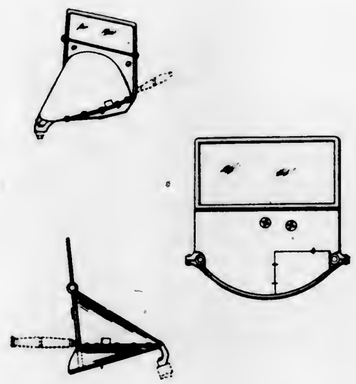


45,524. STREET LETTER-BOX. JOSEPH WARREN CUTLER, Rochester, N. Y., assignor to Cutler Mail Chute Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 29, 1913. Serial No. 745,014. Term of patent 14 years.



The ornamental design for a street letter box as herein shown.

45,525. WIND-SHIELD FOR MOTOR-CYCLES. RALPH N. ELLIS, Des Moines, Iowa. Filed Nov. 20, 1913. Serial No. 802,161. Term of patent 7 years.



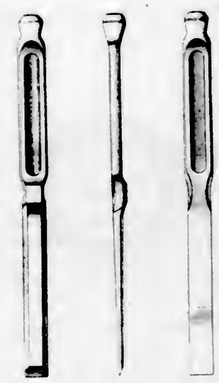
The ornamental design for a wind shield for motor cycles, as shown.

45,526. HUMIDOR. WILLIAM A. FRENCH, Minneapolis, Minn., assignor to William A. French & Company, Minneapolis, Minn., a Corporation. Filed Feb. 21, 1913. Serial No. 750,009. Term of patent 7 years.



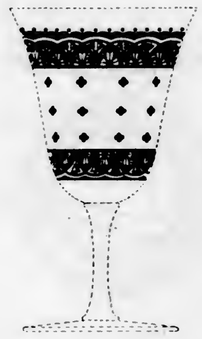
The ornamental design for a humidor, as shown.

45,527. WOOD-CHISEL. EDWARD M. GRAHAM, Chicago, Ill., assignor to Vaughan & Bushnell Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 2, 1914. Serial No. 816,113. Term of patent 14 years.



The ornamental design for a wood chisel, substantially as shown.

45,528. DESIGN APPLICABLE TO GLASSES OR SIMILAR ARTICLES. ADRIEN GREDELUE, New York, N. Y., assignor to Adrian Michaut, Baccarat, France. Filed Dec. 17, 1913. Serial No. 807,352. Term of patent 14 years.



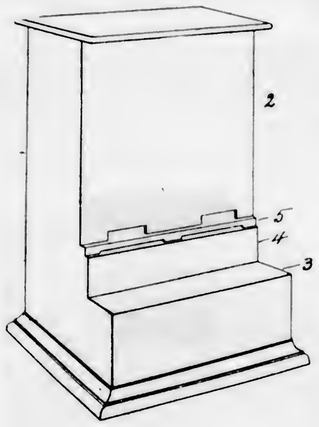
The ornamental design applicable to a glass or similar article, substantially as shown.

45,529. STOVE. LOUIS P. HILDEBRAND, San Marcial, N. Mex. Filed Jan. 3, 1914. Serial No. 810,268. Term of patent 14 years.



The ornamental design for a stove, substantially as shown.

45,530. CASING FOR VENDING-MACHINES. HENRY D. HINCKLEY, Hartford, Conn., assignor to The R. & H. Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 18, 1913. Serial No. 801,750. Term of patent 3½ years.



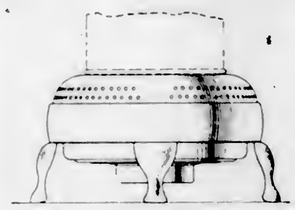

The ornamental design for a casing for vending machines substantially as shown and described.

45,531. TOY. ALFRED JAMES HOLLADAY, London, England. Filed Jan. 29, 1914. Serial No. 815,315. Term of patent 3½ years.



The ornamental design for a toy as shown.

45,532. STOVE-BASE. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Nov. 6, 1913. Serial No. 799,622. Term of patent 14 years.



The ornamental design for a stove base, as shown.

45,533. BUTTER-TONGS. ELIJAH L. JOHNSON, Los Angeles, Cal. Filed Feb. 17, 1913. Serial No. 749,049. Term of patent 14 years.



The ornamental design for a butter tong as shown.



45,534. IMAGE. KATE JORDAN, New York, N. Y. Filed Feb. 3, 1914. Serial No. 816,368. Term of patent 3½ years.



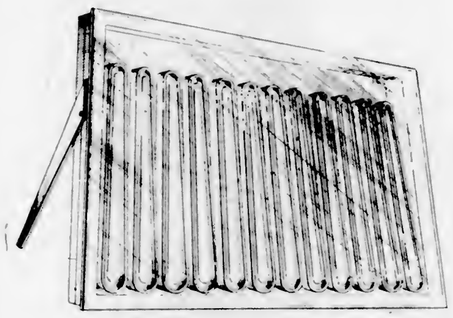
The ornamental design for an image, as shown.

45,535. IMAGE. KATE JORDAN, New York, N. Y. Filed Feb. 3, 1914. Serial No. 816,369. Term of patent 3½ years.



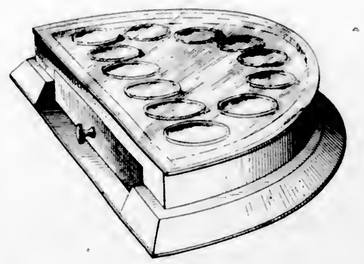
The ornamental design for an image, as shown.

45,536. DISPLAY-CABINET. MAURICE J. KARPELES, Providence, R. I. Filed Jan. 31, 1914. Serial No. 815,834. Term of patent 7 years.



The ornamental design for a display cabinet, as shown.

45,537. DISPLAY-CABINET. MAURICE J. KARPELES, Providence, R. I. Filed Jan. 31, 1914. Serial No. 815,836. Term of patent 7 years.



The ornamental design for a display cabinet, as shown.

45,538. BADGE. LILLIAN MCNARY, Salem, Oreg. Filed Jan. 19, 1914. Serial No. 813,117. Term of patent 14 years.




The ornamental design for a badge as shown.

45,539. INDIRECT-LIGHTING FIXTURE. GEORGE W. MEYERS, Chicago, Ill., assignor of one-half to Erwin W. Rinder, Chicago, Ill. Filed Feb. 5, 1913. Serial No. 746,384. Term of patent 7 years.



The ornamental design for an indirect lighting fixture, as shown.

45,540. BUCKLE. WILLIAM RUMBLE, Jr., Cranford, N. J. Filed Jan. 7, 1914. Serial No. 810,878. Term of patent 3½ years.



The ornamental design for a buckle, as shown.

45,541. MOLASSES-JUG. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Helsey & Co., Newark, Ohio, a Copartnership. Filed Jan. 2, 1913. Serial No. 739,889. Term of patent 14 years.



The ornamental design for a molasses jug, as shown.

45,542. LAVENDER-JAR. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Helsey & Co., Newark, Ohio. Filed Dec. 13, 1913. Serial No. 806,647. Term of patent 14 years.



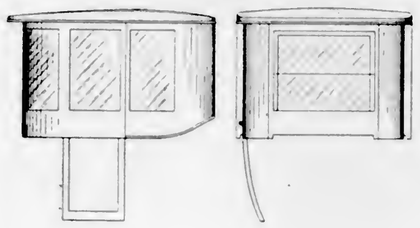
The ornamental design for a lavender jar as shown.

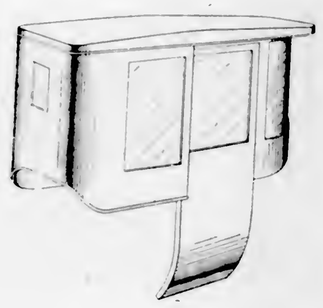
45,543. HAND-BAG. SAMUEL H. SCHREIBER, New York, N. Y. Filed Feb. 2, 1914. Serial No. 816,105. Term of patent 3½ years.



The ornamental design for a hand bag as shown.

45,544. AUTOMOBILE-TOP. MICHAEL H. SMITH, Springfield, Mass., assignor to Auto Metal Company, a Partnership consisting of George Smith and Jeremiah J. Moynihan, Springfield, Mass. Filed Dec. 18, 1913. Serial No. 807,561. Term of patent 3½ years.

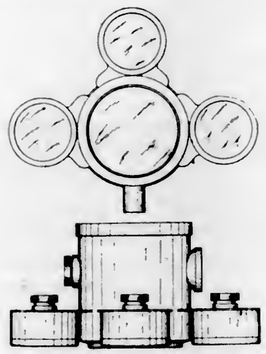




The ornamental design for an automobile top, as shown.



45,545. VEHICLE-LAMP. KNIGHT H. THOMPSON, Shelby, Ohio, assignor to David W. Cummins, Shelby, Ohio. Filed Jan. 30, 1914. Serial No. 815,555. Term of patent 14 years.



The ornamental design for a vehicle lamp, as shown.

45,546. HANDLE OF KNIVES. CARL W. TILLMANNS, Utica, N. Y. Filed Nov. 28, 1913. Serial No. 803,427. Term of patent 7 years.



The ornamental design for the handle of a pocket knife, as shown.

45,547. SET OF PLAYING-CARDS. THOMAS MACREADY DOWN, London, England. Original application filed Dec. 31, 1912, Serial No. 739,576. Divided and this application filed Feb. 11, 1914. Serial No. 818,165. Term of patent 14 years.



The design for a set of playing cards, as shown.

45,548. RUBBER BRUSH. OTTO EICK, St. Louis, Mo. Filed Jan. 29, 1914. Serial No. 815,316. Term of patent 14 years.



The ornamental design for a rubber brush, as shown.

# TRADE-MARKS

## PUBLISHED MARCH 31, 1914

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 13,036. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SANITAS COMPANY LIMITED, London, England, assignor to "Sanitas" Co. (U. S. A.), Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 26, 1905.

**SANITAS**

*Particular description of goods.*—A Disinfecting Fluid for Drip-Machines and Disinfectors, Disinfecting-Sawdust, Disinfecting Soluble Oil, Disinfecting Eucalyptus Oil, Disinfecting Emulsion, and Disinfecting-Oil, Disinfecting Fluid, Disinfecting-Powder, Disinfecting-Tablets, Disinfecting-Jelly, Disinfecting Toilet-Fluid, Pocket and Handkerchief Disinfectant, Veterinary Ointments, Embrocations or Liniments, Hoof-Dressing, Moth-Paper, and Fumigating-Candles.

*Claims use* since 1878.

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Ser. No. 40,953. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHANNON & MOTT COMPANY, Des Moines, Iowa. Filed Mar. 6, 1909.

**NEOLA**

*Particular description of goods.*—Wheat-Flour.

*Claims use* since Jan. 1, 1913.

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Ser. No. 43,138. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) M. A. UDELL SPECIALTY CO., New York, N. Y. Filed June 21, 1909.

**DETH-TO-DUST**

*Particular description of goods.*—A Sweeping or Dust-Laying Compound.

*Claims use* since Dec. 4, 1908.

Ser. No. 46,855. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SHANNON & MOTT COMPANY, Des Moines, Iowa. Filed Jan. 3, 1910.




*Particular description of goods.*—Wheat-Flour.

*Claims use* since Aug. 1, 1894.

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Ser. No. 51,539. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED ROOFING & MANUFACTURING COMPANY, Philadelphia, Pa. Filed Aug. 25, 1910.

**CONGO**

*Particular description of goods.*—Inside Linings.

*Claims use* since July 22, 1910.

Ser. No. 53,213. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MOHAWK CONDENSED MILK CO., Rochester, N. Y. Filed Dec. 10, 1910. Under ten-year proviso.

CLOVER



*Particular description of goods.*—Condensed Milk.
*Claims use* since Sept. 1, 1885.

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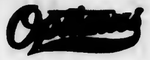
Ser. No. 54,032. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GENERAL FIRE EXTINGUISHER COMPANY, New York, N. Y., and Providence, R. I. Filed Jan. 23, 1911.

G

*Particular description of goods.*—Pipe-Fittings and Metal Valves.
*Claims use* since December, 1905.

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Ser. No. 55,568. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) DAME STODDARD CO., Boston, Mass. Filed Apr. 6, 1911.



*Particular description of goods.*—Fishing-Tackle.
*Claims use* since Mar. 1, 1911.

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Ser. No. 60,028. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LINOIDE COMPANY, Saco, Me., and Everett and Boston, Mass. Filed Dec. 1, 1911. Under ten-year proviso.

LINOIDE

*Particular description of goods.*—A Preservative for Paint, Wood, Metal, and other Surfaces.
*Claims use* since April, 1888.

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Ser. No. 60,161. (CLASS 31. FILTERS AND REFRIGERATORS.) E. M. BLUMENTHAL, Chicago, Ill. Filed Dec. 11, 1911.




The words "Filtermass" and "In a Class by Itself" being hereby disclaimed.
*Particular description of goods.*—Filter-Pulp.
*Claims use* since Sept. 1, 1909.

Ser. No. 61,338. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass. Filed Feb. 7, 1912.

OSWEGO SERGE

No claim being made to the word "Serge" or the word "Oswego."
*Particular description of goods.*—Woolen Piece Goods Known as Serge.
*Claims use* since on or about Feb. 1, 1910.

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Ser. No. 64,301. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BENJAMIN FAXSTEIN, Philadelphia, Pa. Filed June 21, 1912.

UNEEDA

*Particular description of goods.*—Tea and Coffee.
*Claims use* since April, 1911.

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Ser. No. 64,661. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THEODORE F. RUSSELL, Boston, Mass. Filed July 10, 1912.




*Particular description of goods.*—A Fire-Extinguisher.
*Claims use* since June 24, 1912.

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Ser. No. 66,535. (CLASS 39. CLOTHING.) WM. HENNE & CO., New York, N. Y. Filed Oct. 26, 1912. Under ten-year proviso.

PHYSICAL CULTURE

*Particular description of goods.*—Ladies' Leather Boots and Shoes.
*Claims use* since Oct. 1, 1894.

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Ser. No. 67,820. (CLASS 17. TOBACCO PRODUCTS.) ROBERT F. R. HUNTSMAN, New York, N. Y. Filed Jan. 10, 1913.

RINGS

*Particular description of goods.*—Cigars and Cigarettes.
*Claims use* since Nov. 8, 1912.





Ser. No. 68,087. (CLASS 38. PRINTS AND PUBLICATIONS.) FREDERICK J. BROWN, New York, N. Y. Filed Jan. 24, 1913.

BOXING

*Particular description of goods.*—A Weekly Periodical Devoted to Boxing.
*Claims use* since Nov. 4, 1912.

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Ser. No. 68,186. (CLASS 47. WINES.) G. H. MUMM & Co., Rheims, France. Filed Jan. 29, 1913.




*Particular description of goods.*—Champagne Wines and other Sparkling Wines, Whether Sparkling or Rendered Sparkling Artificially.
*Claims use* since the year 1907.

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Ser. No. 68,320. (CLASS 17. TOBACCO PRODUCTS.) JOHN A. SHUHART, York, Pa. Filed Feb. 4, 1913.

NIP & TUCK



*Particular description of goods.*—Cigars.
*Claims use* since the early part of January, 1911.

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Ser. No. 68,418. (CLASS 39. CLOTHING.) ASHBY-CRAWFORD COMPANY, Marlboro, Mass. Filed Feb. 10, 1913.



No claim being made to the representation of a shoe.
*Particular description of goods.*—Leather and Canvas Boots and Shoes.
*Claims use* since about Sept. 22, 1911.

Ser. No. 68,419. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ALLMÄNNA SVENSKA ELEKTRISKA AKTIEBOLAGET, Westerås, Sweden. Filed Feb. 10, 1913.

ASEA

*Particular description of goods.*—Electric Dynamos, Electric Generators, Electric Motors, Electric Converters, Electric Transformers, Electric Switching Apparatus, Electric Controlling Apparatus, Electric Safety-Fuses, Lightning-Arresters, No-Voltage Relays, Electric-Motor Plows, Electric Locomotives, Electric Cranes, Electric Hoists, Electric Lifts, Electric Elevators, Electric Ore-Separators, Electric Generators Combined with Steam-Engines or Internal-Combustion Engines, Electric Motors Combined with Machine-Tools.
*Claims use* since the 14th day of May, 1912.

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Ser. No. 68,504. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW YORK AND LONDON DRUG CO., New York, N. Y. Filed Feb. 11, 1913.

DELICIA

*Particular description of goods.*—Candies.
*Claims use* since Jan. 10, 1913.

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Ser. No. 68,557. (CLASS 39. CLOTHING.) HARRY COHEN, Philadelphia, Pa. Filed Feb. 15, 1913.




No claim being made for the words "Standard Knit Coat."
*Particular description of goods.*—Outer Coats.
*Claims use* since about Jan. 1, 1913.

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Ser. No. 68,591. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) STORM SHIELD MFG. CO., Chicago, Ill. Filed Feb. 17, 1913.




No claim being made to the words "The Storm Shield."
*Particular description of goods.*—Storm-Shields for Automobiles, Locomotives, and other Vehicles.
*Claims use* since the 3d day of December, 1912.

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Ser. No. 68,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID E. WRIGHT, deceased, Bloomfield, N. J.; Isabella Wright, Harrisburg, Pa., executrix. Filed Feb. 21, 1913.

BAY-ROMA

*Particular description of goods.*—Hair-Tonic.
*Claims use* since Apr. 1, 1905.

Ser. No. 68,797. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COCOANUT SPECIALTY CO., Philadelphia, Pa. Filed Mar. 1, 1913.

**MELROSE**

*Particular description of goods.*—Candy.
*Claims use* since on or about Nov. 1, 1912.

Ser. No. 69,094. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FULTON BAG & COTTON MILLS, Atlanta, Ga. Filed Mar. 17, 1913.

**"KILZIT"**

*Particular description of goods.*—A Disinfectant.
*Claims use* since May, 1912.

Ser. No. 69,095. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FULTON BAG & COTTON MILLS, Atlanta, Ga. Filed Mar. 17, 1913.

**"KILZUM"**

*Particular description of goods.*—An Insecticide.
*Claims use* since May, 1912.

Ser. No. 69,199. (CLASS 47. WINES.) CARMEL WINE COMPANY, New York, N. Y. Filed Mar. 20, 1913.



The signature on the label is a facsimile of the signature of a member of the firm, whose signature appears at the bottom of this statement and in the other accompanying papers.
*Particular description of goods.*—Wines.
*Claims use* since Dec. 20, 1912.

Ser. No. 69,804. (CLASS 17. TOBACCO PRODUCTS.) ROTH TOBACCO CO., Cape Girardeau, Mo. Filed Apr. 15, 1913.




*Particular description of goods.*—Smoking and Chewing Tobacco.
*Claims use* since Feb. 1, 1913.

Ser. No. 69,830. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NATIONAL SHEET METAL CO., Peru, Ill. Filed Apr. 16, 1913.

NICOLENE

*Particular description of goods.*—Sheet Metals Which are Double-Coated or Double-Plated and in Which Each Coating Is of a Different Metal or an Alloy, the Undercoating Being of a Metal or Alloy of a Definite Color Which Modifies or Produces a "Tone" in the Outer Covering Metal or Alloy, and Sheet Metals in General Where an Inexpensive Metal or Alloy is Used to Coat or Plate the Sheet Metal, and a Second Coating of a More Expensive Metal Is Coated or Plated Over This Less Expensive Metal.
*Claims use* since May 1, 1904.

Ser. No. 69,853. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JULIETTE S. GRAVES, Somerville, Mass. Filed Apr. 17, 1913.




The word "Graves" being disclaimed.
*Particular description of goods.*—Puerperal Swathes, Catamenial Belts, and Obesity-Bandages.
*Claims use* since Feb. 1, 1913.

Ser. No. 70,556. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA CACTUS CANDY CO., Los Angeles, Cal. Filed May 22, 1913.



*Particular description of goods.*—Candy and Flavoring Syrup for Use in Foods for Confectionery and Used in Making Confectionery.
*Claims use* since Jan. 1, 1913.





Ser. No. 70,566. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT G. THOMAS, New York, N. Y. Filed May 22, 1913. Under ten-year proviso.

**CAFÉ ROYAL**

*Particular description of goods.*—Coffee.
*Claims use* since Feb. 19, 1895.

Ser. No. 70,762. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MT. DORA CITRUS GROWERS ASSOCIATION, Mount Dora, Fla. Filed May 29, 1913.



*Particular description of goods.*—Citrus Fruit—Namely, Oranges, Lemons, Tangerines, Grape-Fruit, and Limes.
*Claims use* since October, 1909.

Ser. No. 71,198. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EMPIRE STATE FLOUR MILLS, Syracuse, N. Y. Filed June 19, 1913. Under ten-year proviso.

Amos' Optima

Consisting of the words "Amos' Optima."
*Particular description of goods.*—Wheat-Flour.
*Claims use* since prior to 1883.

Ser. No. 71,309. (CLASS 48. MALT EXTRACTS AND LIQUORS.) LEISEN & HENES BREWING CO., Menominee, Mich. Filed June 23, 1913.




No claim is made for the word "Brew."
*Particular description of goods.*—Beer.
*Claims use* since about September, 1912.

Ser. No. 71,467. (CLASS 5. ADHESIVES.) AGO-LEDERKITT-INDUSTRIE-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Trieste, Austria-Hungary. Filed June 30, 1913.

AGO

*Particular description of goods.*—Adhesives and Glues for Cementing Shoes, Belts, and other Articles of Leather, Cloth, Canvas, or Combinations Thereof; Adhesives Consisting of Celluloid Combined with a Solvent, Such as Acetone, Alcohol, Ether, or the Like; or a Solid Organic Acid, Such as Citric Acid, Oxalic Acid, Tartaric Acid, or the Like; or Both a Solvent and an Acid.
*Claims use* since the 20th day of January, 1911.

Ser. No. 71,505. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BISHOP & COMPANY, Los Angeles, Cal. Filed July 3, 1913.

**FIGORA**

*Particular description of goods.*—Preserves Made from Figs.
*Claims use* since Nov. 1, 1912.

Ser. No. 71,771. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POTTER, SLOAN, O'DONOHUE CO., New York, N. Y. Filed July 16, 1913.

**"HY-GES-TA"**

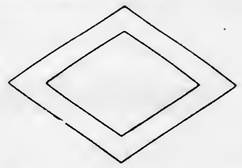
*Particular description of goods.*—A Beverage Compounded of Coffee, Chicory, and Cereal.
*Claims use* since December, 1911.

Ser. No. 72,223. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GOODALL WORSTED CO., Sanford, Me. Filed Aug. 8, 1913.

Palm Beach

*Particular description of goods.*—Woolen Piece Goods.
*Claims use* since Jan. 1, 1909.

Ser. No. 72,467. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) HENRY HENRICH, New York, N. Y. Filed Aug. 21, 1913.



*Particular description of goods.*—An Alloy in Comminuted Form of Zinc and Copper, Forming with Silver a Base Metal for Gold.
*Claims use* since May 1, 1913.

Ser. No. 72,496. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE BOVININE COMPANY, New York, N. Y. Filed Aug. 23, 1913. Under ten-year proviso.




*Particular description of goods.*—Beef-Juices and Meat Extracts.
*Claims use* since about 1888.

Ser. No. 72,617. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE EXPURGO MANUFACTURING CO., Chicago, Ill. Filed Sept. 2, 1913.

EXPURGO

*Particular description of goods.*—Preparations for the Treatment of Diabetes, Gall-Stones, All Ailments of Uric-Acid Origin, Skin Eruptions, Pimples, Tetter, Itching, Burning Rashes, Ulcers, Bright's Disease, and Albuminuria.
*Claims use* since Sept. 14, 1912.

Ser. No. 72,639. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPARKS MILLING COMPANY, Alton, Ill., and Terre Haute, Ind. Filed Sept. 2, 1913.

REPUTATION

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Mar. 16, 1907.

Ser. No. 72,690. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIBBY, MCNEILL & LIBBY, Chicago, Ill. Filed Sept. 5, 1913.

Golden-Glory

*Particular description of goods.*—Canned Fruits and Canned Vegetables.
*Claims use* since Aug. 9, 1909.

Ser. No. 72,691. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDOUARD D. KRUSE COMPANY, Philadelphia, Pa. Filed Sept. 5, 1913.

KAKETOP

*Particular description of goods.*—Icing for Cakes, Pastries, Sundaes, Confectionery, and the Like.
*Claims use* since on or about Sept. 2, 1913.

Ser. No. 72,793. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE RUSSELL & COMPANY, Massillon, Ohio. Filed Sept. 11, 1913.



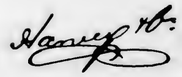

*Particular description of goods.*—Threshing-Machines, Farm-Engines, Farm-Sawmills, and Farm Horse-Powers.
*Claims use* since some time in June, 1881.

Ser. No. 72,971. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) CHARLES W. HUTCHINGS, New York, N. Y., assignor to Indexo Company Inc., a Corporation of New York. Filed Sept. 20, 1913.




No claim is made for the words "Finger Tooth Brush" and the representation of the hand and the representation of the tooth-brush.
*Particular description of goods.*—Tooth-Brushes.
*Claims use* since Jan. 25, 1913.

Ser. No. 73,008. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARVEY & CO. (DUBLIN), LIMITED, Dublin, Ireland. Filed Sept. 23, 1913.



Consisting of a facsimile of the applicant's signature.
*Particular description of goods.*—Worm and Condition Powders; Hair-Restoring Ointment; Physic-Balls; Thrush Specific; Aconite Powders; Purge; Fever-Powder; Hoof-Ointment; Parasiticide; a Lotion for Cuts, Wounds, Sores,





Abrasions, Broken Bones and Joints, Cracked Heels; Mud-Fever; Itchy Mane and Tail, Mallenders and Sallenders; Collar and Saddle Galls and Brushing-Marks; and Embrocation Which is an External Application for the Treatment of Curb, Splint, Spavin, Side-Bone, Ring-Bone, Chapped Hocks, Capped Elbow, Bog-Spavin, Thorough-Pin, Wind-Gall, Sore Shins, Navicular Diseases, Deep-Seated Lameness, Sprains of Ligaments and Tendons, Swellings and Bony Enlargements from Various Causes, Defective Horn, Ophthalmia, Glandular Swellings, Abscesses, Sore Throat, Cough, Wind-Galls, Shoe-Boil, Bronchitis, Influenza, Pneumonia, and Pleurisy, and other Kindred Affections or Diseases.
*Claims use* since November, 1909, in the United States.

Ser. No. 73,038. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Sept. 25, 1913.

GOLDEN CROSS

*Particular description of goods.*—Cotton, Linen, Cotton and Linen, Wool and Cotton Dress Piece Goods.
*Claims use* since about 1875.

Ser. No. 73,113. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINNESOTA VALLEY CANNING CO., Le Sueur, Minn. Filed Sept. 29, 1913.

BLUE AND GOLD

The words "Blue and Gold."
*Particular description of goods.*—Canned Vegetables—viz.: Canned Peas and Corn.
*Claims use* since 1903.

Ser. No. 73,713. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MENZEL & CO., New York, N. Y. Filed Oct. 31, 1913.



*Particular description of goods.*—Sardines.
*Claims use* since December, 1906.

Ser. No. 73,734. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Nov. 1, 1913.

CARLSWERK

*Particular description of goods.*—Barb-Wire, Wire Fences, Wire Trellis, Wire Mats, Wire-Netting, Unions, Cocks, Metal Valves, Metal Tubes, Flexible Metallic Tubes, Metal Pipes, and Curtain-Rings.
*Claims use* since the year 1901.

Ser. No. 73,755. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed Nov. 3, 1913.

QUICK MEAL

*Particular description of goods.*—Wheat-Flour.
*Claims use* since July 31, 1913.

Ser. No. 73,942. (CLASS 32. FURNITURE AND UPHOLSTERY.) JESSIE H. BANCROFT, New York, N. Y. Filed Nov. 13, 1913.

POSTURE

*Particular description of goods.*—Chairs, Desks, Tables, Benches, Stools, Seats, and Washbenches for School, Household, Office, Store, Factory, Car, and Theater Furniture.
*Claims use* since the 30th day of May, 1913.

Ser. No. 74,100. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ISIDOR KITSEE, Philadelphia, Pa. Filed Nov. 20, 1913.

SUN KISSED SCREEN

No claim is made for the word "Screen."
*Particular description of goods.*—Screens Adapted to Have Pictures Projected Thereon.
*Claims use* since Oct. 1, 1913.

Ser. No. 74,169. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINER-HILLARD MILLING CO., Wilkes-Barre, Pa. Filed Nov. 24, 1913.

1795

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Feb. 15, 1913.

Ser. No. 74,180. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WILHELM G. BRUHN, Berlin, Germany. Filed Nov. 25, 1913.

WhatWasWhen

*Particular description of goods.*—Vibration-Recorders, Speed-Measurers, Apparatus for Indicating the Speed of Vehicles, Taximeters, Fare-Registers and Fare-Indicators, Distance-Meters, Distance-Recorders, and Time-Recording Apparatus.
*Claims use* since July 29, 1913.

Ser. No. 74,210. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FERDINAND A. FROHE, Buffalo, N. Y. Filed Nov. 26, 1913.




*Particular description of goods.*—Compound in Powdered Form for Use in Washing or Laundrying Clothes.
*Claims use* since May 1, 1913.

Ser. No. 74,286. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GUTHRIE MILL & ELEV. CO., Guthrie, Okla. Filed Dec. 1, 1913.




*Particular description of goods.*—Wheat-Flour, Cornmeal, Graham Flour, Whole-Wheat Flour, Wheat-Bran, and Wheat-Shorts.
*Claims use* since Aug. 20, 1913.

Ser. No. 74,294. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE SENTINEL AUTOMATIC GAS APPLIANCE CO., New Haven, Conn. Filed Dec. 1, 1913.

SENTINEL

*Particular description of goods.*—Automatic Cook-Stoves.
*Claims use* since Sept. 13, 1913.

Ser. No. 74,303. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BITTER ROOT VALLEY ORCHARDS, INCORPORATED, Ravalli county, Mont. Filed Dec. 2, 1913.




*Particular description of goods.*—Fresh Apples, Pears, Cherries.
*Claims use* since Sept. 1, 1913.

Ser. No. 74,316. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE SILEX CO., INC., New York, N. Y. Filed Dec. 2, 1913.

SILEX

*Particular description of goods.*—Coffee-Percolators.
*Claims use* since about July 12, 1913.

Ser. No. 74,417. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) LEON MEREDITH, London, England. Filed Dec. 6, 1913.




No claim is made to the use of the word "Tyre."
*Particular description of goods.*—Pneumatic Tires.
*Claims use* since Jan. 1, 1900.

Ser. No. 74,445. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HOWARD H. HANKS COMPANY, Chicago, Ill. Filed Dec. 8, 1913.




The words "Scratch Feed" being hereby disclaimed.
*Particular description of goods.*—A Poultry Food.
*Claims use* since July 1, 1913.

Ser. No. 74,497. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Boundbrook, N. J., and New York, N. Y. Filed Dec. 10, 1913.

DUREX

*Particular description of goods.*—Prepared Roofings Consisting of a Fabric Treated with a Bituminous Mixture and Also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Nov. 22, 1913.





Ser. No. 74,522. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEF RESSEL, Rückersdorf, near Friedland, Austria-Hungary. Filed Dec. 11, 1913.




Which consists of the name of "Josef Ressel" as written by the said Josef Florian Ressel.
*Particular description of goods.*—Cotton and Woolen Piece Goods.
*Claims use* since Oct. 27, 1913.

Ser. No. 74,526. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK GEORGE EARL, New York, N. Y. Filed Dec. 12, 1913.

PINK PIPPINS
OR
EARL'S ACTIVES

The words "Earl's Actives" being disclaimed.
*Particular description of goods.*—Aperient Tablets.
*Claims use* since July, 1908.

Ser. No. 74,607. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) GARNET CARTER, Chattanooga, Tenn. Filed Dec. 15, 1913.

.G.C.

*Particular description of goods.*—Gold-Plated and Precious-Metal Collar-Buttons.
*Claims use* since Nov. 9, 1913.

Ser. No. 74,613. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KLEENO MANUFACTURING CO., St. Louis, Mo. Filed Dec. 15, 1913.




No claim being made to the words "Kleeno Mfg. Co.," "Kleeno Metal Polish Products," and "St. Louis Mo."
*Particular description of goods.*—Metal-Polish.
*Claims use* since Sept. 18, 1913.

Ser. No. 74,677. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) LEVER BROTHERS COMPANY, Portland, Me., and Cambridge, Mass. Filed Dec. 18, 1913.




*Particular description of goods.*—Soap.
*Claims use* since Nov. 14, 1913.

Ser. No. 74,735. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WILLIAM R. NOE & SONS, New York, N. Y. Filed Dec. 20, 1913.

HOUSEHOLD

*Particular description of goods.*—Incandescent Gas-Mantles.
*Claims use* since September, 1910.

Ser. No. 74,736. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WILLIAM R. NOE & SONS, New York, N. Y. Filed Dec. 20, 1913.




*Particular description of goods.*—Incandescent Gas-Mantles.
*Claims use* since May, 1908.

Ser. No. 74,772. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) B. ALLEGRETTI, Chicago, Ill. Filed Dec. 22, 1913.



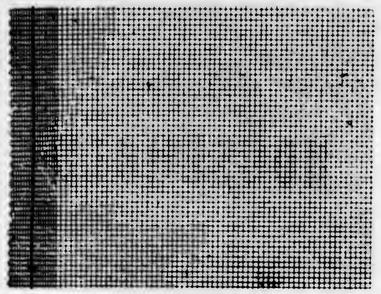

*Particular description of goods.*—Candies.
*Claims use* since Aug. 1, 1913.

Ser. No. 74,796. (CLASS 47. WINES.) G. H. MUMM & Co., Rheims, France. Filed Dec. 22, 1913.



*Particular description of goods.*—Champagne-Wines and other Sparkling Wines, Whether Sparkling or Rendered Sparkling Artificially.
*Claims use* since May, 1853.

Ser. No. 74,810. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SCHWEIZERISCHE SEIDENGAZE-FABRIK A. G., Zurich, Switzerland. Filed Dec. 23, 1913.



Consisting of a red line or thread along one selvage of the bolting-cloth, the representation of the cloth being disclaimed.
*Particular description of goods.*—Bolting-Cloth.
*Claims use* since Dec. 1, 1883.

Ser. No. 74,825. (CLASS 39. CLOTHING.) NOVELTY KNITTING MILLS, Philadelphia, Pa. Filed Dec. 24, 1913.




*Particular description of goods.*—Knitted Sweaters.
*Claims use* since the 19th day of July, 1913.

Ser. No. 74,836. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARCLAY & BARCLAY, New York, N. Y. Filed Dec. 26, 1913. Under ten-year proviso.




The words and lines are applied in yellow upon a black ground.
*Particular description of goods.*—Soaps.
*Claims use* since the year 1880.

Ser. No. 74,871. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CEREAL FOOD COMPANY, Peoria, Ill. Filed Dec. 29, 1913.




Ownership in the words "Brand" and "Hominy" as they appear upon the drawings filed is hereby specifically disclaimed.
*Particular description of goods.*—Canned Vegetables.
*Claims use* since Nov. 1, 1911.

Ser. No. 74,875. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADOLPHE F. DE PATIE, Chicago, Ill. Filed Dec. 29, 1913.




*Particular description of goods.*—A Hair-Grower Salve.
*Claims use* since Dec. 8, 1913.

Ser. No. 74,876. (CLASS 15. OILS AND GREASES.) GALENA-SIGNAL OIL COMPANY, Franklin, Pa. Filed Dec. 29, 1913. Under ten-year proviso.




*Particular description of goods.*—Lubricating-Oil and Illuminating-Oil.
*Claims use* for lubricating-oil since 1870 and for illuminating-oil since 1875.

SER. No. 74,932. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ELLIS & COMPANY (BIRMINGHAM) LIMITED, Birmingham, England. Filed Jan. 2, 1914.



*Particular description of goods.*—Trays, Waiters, Candlesticks, Candelabra, Dinner Sets, Flower-Stands, Dinner-Plates, Bottle-Stands, Vases, Tea and Coffee Services, Wine-Coolers, Tea-Urns, Inkstands, Decanter-Stands, Meat-Dishes, Cake-Stands, Siphon-Holders, Fruit Stands and Baskets, Bowls, Jugs, Tea-Caddies, Boxes, and Entrée-Dishes, All Made of Precious Metals or Plated with Precious Metals.
*Claims use* since August, 1912.





Ser. No. 74,969. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HAROLD S. EGGERS, Troy, N. Y. Filed Jan. 5, 1914.




The words "Stop the Whoop" being hereby disclaimed, the picture being that of Marion E. Bowen.
*Particular description of goods.*—An Ointment for Relief of Whooping-Cough, Coughs, Colds, Croup.
*Claims use* since Nov. 1, 1913.

Ser. No. 74,989. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOLLANDSCHE MELKSUIKERFABRIEK, Amsterdam, Netherlands. Filed Jan. 6, 1914.




*Particular description of goods.*—Milk-Sugar.
*Claims use* since Nov. 22, 1913.

Ser. No. 75,019. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEBSTER CHEMICAL COMPANY, St. Paul, Minn. Filed Jan. 7, 1914.




*Particular description of goods.*—An Ointment for Pain, Injuries, and Eruptions.
*Claims use* since Dec. 29, 1913.

Ser. No. 75,026. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CURTIS ALFRED CLARK, College Corner, Ohio. Filed Jan. 8, 1914.



*Particular description of goods.*—A Preparation for the Treatment of Fistula, Poll-Evil, Farcy, Nasal Gleet, Quittor, Leucorrhea, or Any Pus-Discharging Abscess, for Horses, Mules, and Cattle.
*Claims use* since Jan. 1, 1914.

Ser. No. 75,090. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOPKINSVILLE MILLING CO., Hopkinsville, Ky. Filed Jan. 10, 1914.




*Particular description of goods.*—Wheat-Flour.
*Claims use* since Jan. 1, 1913.

Ser. No. 75,093. (CLASS 38. PRINTS AND PUBLICATIONS.) KALAMAZOO LOOSE LEAF BINDER CO., Kalamazoo, Mich. Filed Jan. 10, 1914.

The Efficiency
• Bulletin •

*Particular description of goods.*—Periodical Business Publications Published Monthly.
*Claims use* since Sept. 16, 1911.

Ser. No. 75,102. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GUSTAF BERNHARD SUNDELL, Stockholm, Sweden. Filed Jan. 10, 1914.




*Particular description of goods.*—Oil-Cups.
*Claims use* since about May, 1913.

Ser. No. 75,105. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEWART & HOLMES DRUG COMPANY, Seattle, Wash. Filed Jan. 10, 1914.




*Particular description of goods.*—Medicines Comprising Preparations of Sarsaparilla and Similar Vegetable Compounds That are Commonly Taken Internally as a Curative Agent in Blood and Skin Diseases.
*Claims use* since Dec. 1, 1913.

Ser. No. 75,118. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) GRINNELL BROS., Detroit, Mich. Filed Jan. 12, 1914.

PLAYTONA

*Particular description of goods.*—Pianos.
*Claims use* since June, 1913.

Ser. No. 75,131. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NEW FICTION PUBLISHING COMPANY, New York, N. Y. Filed Jan. 12, 1914.




*Particular description of goods.*—A Periodical Magazine.
*Claims use* since about Dec. 24, 1913.

Ser. No. 75,189. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Jan. 15, 1914.

LITTLE BOWLER

*Particular description of goods.*—Games.
*Claims use* since Nov. 21, 1911.

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Ser. No. 75,214. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Dental, Medical, and Surgical Appliances, Particularly Corn-Extractors, Physicians' Thermometers and Sterilizing-Pans, Manicuring-Files, and Manicuring-Scissors.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,215. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Tooth-Soaps, Tooth and Face Powders, Lotions, Oils, Pastes, Creams for Toilet and External Medicinal Use.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,227. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INDIA REFINING COMPANY, Philadelphia, Pa. Filed Jan. 16, 1914.

KO KO RE KA

Which consists of the word "Ko Ko Re Ka."
*Particular description of goods.*—A Composite Vegetable Product for Use as a Cocoa-Butter Substitute.
*Claims use* since about January, 1912.

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Ser. No. 75,237. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD PAINT COMPANY, Roundbrook, N. J., and New York, N. Y. Filed Jan. 16, 1914.

IMP

*Particular description of goods.*—Prepared Roofings Consisting of a Fabric Treated with a Bituminous Mixture and Also Consisting of a Composition of a Bituminous Mixture.
*Claims use* since Jan. 9, 1914.

Ser. No. 75,240. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNGEMACH, A.-G. ELS. CONSERVEN-FABRIK & IMPORT-GESELLSCHAFT, Strassburg, Germany. Filed Jan. 16, 1914.

Colcolor

*Particular description of goods.*—Coloring-Matters for Use as Ingredients in Food.
*Claims use* since June 20, 1913.

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Ser. No. 75,241. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNGEMACH, A.-G. ELS. CONSERVEN-FABRIK & IMPORT-GESELLSCHAFT, Strassburg, Germany. Filed Jan. 16, 1914.

Colco-Diffuser

No claim being made to the word "Diffuser."
*Particular description of goods.*—Coloring-Matters for Use as Ingredients in Food.
*Claims use* since July 19, 1913.

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Ser. No. 75,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAKE OF THE WOODS MILLING CO. LTD., Montreal, Canada. Filed Jan. 17, 1914.

SASKATOBA

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Jan. 5, 1914.

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Ser. No. 75,281. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) CHAPIN & HOLLISTER COMPANY, Providence, R. I. Filed Jan. 19, 1914.

C. & H. CO.

*Particular description of goods.*—Chains, Fobs, Pendants, Bracelets, Chatelaines, Necklaces, Festoons, La Vallières, Lockets, Crosses, Rosaries, Brooches, Scarf-Pins, Bar-Pins, Barrettes, Hair-Pins, Hat-Pins, Shoe-Buckles, Sautoirs, Lapel-Buttons, Charms, Beads, Buttons, Finger-Rings, Cuff-Buttons, Studs, Collarettes, Neckbands, Ear-Rings, Stomachers, Girdles, Snaps, Catches, Bars, Toggles, Spring-Rings, Safety-Catches, Swivels, Fob-Loops, Ear-Loops, Chatelaine-Pins, Toilet-Pins, Jump-Rings, and Split Rings, and the Component Parts of the Above Articles, All Made of Plated, Semiprecious, or Precious Metal.
*Claims use* since Jan. 1, 1898.

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Ser. No. 75,295. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed Jan. 19, 1914.

BY GUM

*Particular description of goods.*—Candy.
*Claims use* since March, 1909.





Ser. No. 75,340. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ARTHUR W. MADDEN, Pittsburgh, Pa. Filed Jan. 21, 1914.

ZOINTMENT

*Particular description of goods.*—An Ointment for the Relief of Irritations and Eruptions of the Skin.
*Claims use* since Jan. 1, 1912.

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Ser. No. 75,386. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT A. JOHNSTON CO., Milwaukee, Wis. Filed Jan. 23, 1914.

TRIANGLE

*Particular description of goods.*—Crackers, Biscuits, and Cakes.
*Claims use* since Jan. 6, 1914.

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Ser. No. 75,393. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ZABEL & SON, Lanesville, Ind. Filed Jan. 23, 1914.

RAZ-E-Z

*Particular description of goods.*—Flour.
*Claims use* since Jan. 1, 1914.

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Ser. No. 75,400. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) B. FISCHER & CO., New York, N. Y. Filed Jan. 24, 1914.

KAMOKA

*Particular description of goods.*—Coffee.
*Claims use* since Nov. 12, 1909.

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Ser. No. 75,405. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Jan. 24, 1914.

SEXTET

*Particular description of goods.*—Biscuit.
*Claims use* since Jan. 10, 1914.

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Ser. No. 75,406. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Jan. 24, 1914.

Tweenmeal

*Particular description of goods.*—Biscuit.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,408. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Jan. 24, 1914.

CAPE

*Particular description of goods.*—Biscuit.
*Claims use* since Jan. 16, 1914.

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Ser. No. 75,409. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORTHWEST RICE MILLING CO., Portland, Oreg. Filed Jan. 24, 1914.

Empyrean

*Particular description of goods.*—Rice.
*Claims use* since Dec. 15, 1913.

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Ser. No. 75,411. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed Jan. 24, 1914.

FIVANTEN

*Particular description of goods.*—Candy.
*Claims use* since Jan. 9, 1914.

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Ser. No. 75,425. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRED H. ANGLE, Oberlin, Ohio. Filed Jan. 26, 1914.

SETTL-ZIT

*Particular description of goods.*—Settling and Clarifying Coffee.
*Claims use* since Oct. 1, 1913.

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Ser. No. 75,435. (CLASS 37. PAPER AND STATIONERY.) CRANE & CO., Dalton, Mass. Filed Jan. 26, 1914.

18

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,439. (CLASS 37. PAPER AND STATIONERY.) CRANE & CO., Dalton, Mass. Filed Jan. 26, 1914.

31

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

Ser. No. 75,440. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

36

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,441. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

37

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,442. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

43

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser No. 75,443. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

44

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,444. (CLASS 37. PAPER AND STATIONERY.) CRANE & Co., Dalton, Mass. Filed Jan. 26, 1914.

55

*Particular description of goods.*—Writing-Paper.
*Claims use* since about Jan. 1, 1884.

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Ser. No. 75,478. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CALSALVO CHEMICAL COMPANY, New York, N. Y. Filed Jan. 27, 1914.

CALSALVO

*Particular description of goods.*—A Medicine for the Physical Condition Characterized as Lime Starvation.
*Claims use* since Dec. 15, 1913.

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Ser. No. 75,501. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Jan. 28, 1914.

MULTI

*Particular description of goods.*—Biscuit.
*Claims use* since Jan. 20, 1914.

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Ser. No. 75,523. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CLICQUOT CLUB COMPANY, Providence, R. I., and Millis, Mass. Filed Jan. 29, 1914.



*Particular description of goods.*—Ginger-Ale, Sarsaparilla, Birch-Beer, Orange-Phosphate, Root-Beer, and Lemon-Sour.
*Claims use* since Jan. 7, 1914.

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Ser. No. 75,548. (CLASS 39. CLOTHING.) FRANK & MEYER NECKWEAR COMPANY, St. Louis, Mo. Filed Jan. 30, 1914.

REGAL

*Particular description of goods.*—Sweaters and Mufflers.
*Claims use* since on or about Nov. 25, 1913.





Ser. No. 75,589. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE ROYAL EQUIPMENT COMPANY, Bridgeport, Conn. Filed Jan. 31, 1914.



Consisting of a gold-colored coating upon the edge of the lining and the word "Royal" upon the face of the lining, no claim being made to the representation of a brake-lining.
*Particular description of goods.*—Brake-Lining.
*Claims use* since Dec. 2, 1913.

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Ser. No. 75,590. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE STROBEL & WILKEN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed Jan. 31, 1914.

Brighto

*Particular description of goods.*—Dolls.
*Claims use* since about Jan. 2, 1914.

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Ser. No. 75,626. (CLASS 38. PRINTS AND PUBLICATIONS.) MULTIPLEX DISPLAY FIXTURE COMPANY, St. Louis, Mo. Filed Feb. 2, 1914.

The Guinea Pig

*Particular description of goods.*—A Periodical Publication.
*Claims use* since February, 1907.

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Ser. No. 75,641. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ZEHRUNG BROTHERS, Beatrice, Nebr. Filed Feb. 2, 1914.

O.D.Z.

*Particular description of goods.*—Stove-Polish.
*Claims use* since Nov. 17, 1913.

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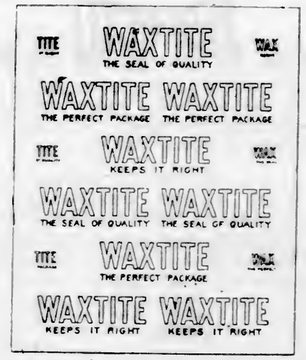
Ser. No. 75,662. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES SAVAGE and MARGARET SAVAGE, Pittsburgh, Pa. Filed Feb. 3, 1914.

NANSAVA SALVE

No claim being made to the word "Salve."
*Particular description of goods.*—Salves.
*Claims use* since Jan. 20, 1914.

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Ser. No. 75,679. (CLASS 2. RECEPTACLES.) KELLOGG TOASTED CORN FLAKE COMPANY, Battle Creek, Mich. Filed Feb. 4, 1914.




The exclusive use of the words "It Right," "The Seal of Quality," "Keeps," "The Perfect Package," "Of Quality," "Keeps it Right," "The Seal," "Package," "The Perfect Package," and "The Perfect" is hereby disclaimed.
*Particular description of goods.*—Packages, Containers, and Wrappers for Cereal Foods and other Goods to be Protected from Air, Moisture, &c.
*Claims use* since Jan. 8, 1914.

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Ser. No. 75,736. (CLASS 39. CLOTHING.) THE STRIPLING-JENKINS CO., Fort Worth, Tex. Filed Feb. 6, 1914.

Goodtex Guaranteed Garments

No claim is made to the words "Guaranteed Garments for Women" as forming a part of the trade-mark.
*Particular description of goods.*—Women's Clothing Consisting of Dresses, Skirts, Suits, Coats, House-Dresses, and Line-Underwear—Namely, Nightgowns, Slips, and Petticoats.
*Claims use* since May, 1910.

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Ser. No. 75,748. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BIESOLT & LOCKE, MEISSNER NÄHMASCHINENFABRIK, Meissen, Germany. Filed Feb. 7, 1914.

AFRANA

*Particular description of goods.*—Sewing-Machines and Parts Thereof.
*Claims use* since Oct. 29, 1895.

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Ser. No. 75,765. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed Feb. 7, 1914.

HEALTH-GLOW

*Particular description of goods.*—Talcum Powder, Toilet Water, and Cold-Cream.
*Claims use* since Apr. 8, 1912.

Ser. No. 75,789. (CLASS 39. CLOTHING.) RICE-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Feb. 9, 1914.

PERFECTO

*Particular description of goods.*—Men's and Boys' Outer Shirts, Pajamas, Underwear, Hosiery, Collars, Sweaters, Gloves, Overalls, and Reefers.
*Claims use* since Mar. 1, 1911.

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Ser. No. 75,798. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BUSINESS OF ORATOR F. WOODWARD, DECEASED, Le Roy, N. Y. Filed Feb. 9, 1914.




*Particular description of goods.*—Corn-Plasters.
*Claims use* since October, 1913.

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Ser. No. 75,799. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES CLAUSEN, St. Louis, Mo. Filed Feb. 9, 1914.

PURITAN



*Particular description of goods.*—Hair-Tonic and Dandruff Remedy.
*Claims use* since Jan. 27, 1914.

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Ser. No. 75,808. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHIGAN SALT WORKS, Marine City, Mich. Filed Feb. 9, 1914.

BLUE STAR



The words "Blue Star" and the star being printed in blue.
*Particular description of goods.*—Salt.
*Claims use* since January, 1908.

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Ser. No. 75,819. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HENRI DAUMAS, New York, N. Y. Filed Feb. 10, 1914.

Capitol

*Particular description of goods.*—Hair-Nets.
*Claims use* since Aug. 1, 1913.

Ser. No. 75,827. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SOCIÉTÉ RODIER, Paris, France. Filed Feb. 10, 1914.

CHUTEDO

*Particular description of goods.*—Textile Fabrics in the Form of Piece Goods Made of Silk and Cotton Woven Together.
*Claims use* since Dec. 9, 1913.

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Ser. No. 75,836. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Feb. 10, 1914.

MATINEE VIOLET

No claim being made to the exclusive use of the word "Violet."
*Particular description of goods.*—Toilet Powder.
*Claims use* since the 21st day of January, 1914.

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Ser. No. 75,845. (CLASS 2. RECEPTACLES.) GENERAL SANITATION CORPORATION, New York, N. Y. Filed Feb. 11, 1914.



*Particular description of goods.*—Disinfecting and Deodorizing Containers.
*Claims use* since April, 1913.

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Ser. No. 75,850. (CLASS 38. PRINTS AND PUBLICATIONS.) MORRIS & BENDIEN, New York, N. Y. Filed Feb. 11, 1914.

DENOMAT

*Particular description of goods.*—Motto-Cards.
*Claims use* since Dec. 26, 1913.

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Ser. No. 75,851. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARTOLO RUGGIERO, Brooklyn, N. Y. Filed Feb. 11, 1914.

VESTINA

*Particular description of goods.*—A Remedy for Cuts and Sores.
*Claims use* since Feb. 3, 1914.





Ser. No. 75,869. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE GRASSELLI CHEMICAL COMPANY, Cleveland, Ohio. Filed Feb. 12, 1914.

JM

*Particular description of goods.*—Silicate of Soda or Water-Glass.
*Claims use* since Jan. 1, 1905.

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Ser. No. 75,878. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) CHARLES E. SNELLING, Fort Worth, Tex. Filed Feb. 12, 1914.

Moreish

*Particular description of goods.*—Syrup for Soda-Fountain Beverages.
*Claims use* since Feb. 2, 1914.

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Ser. No. 75,881. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) E. G. WEBSTER & SON, Brooklyn, N. Y. Filed Feb. 12, 1914.



Which consists of a representation of three plumes, a crown, and a lion rampant.
*Particular description of goods.*—Hollow Ware in Silver Plate.
*Claims use* since 1892.

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Ser. No. 75,944. (CLASS 38. PRINTS AND PUBLICATIONS.) PHOTOPLAY PRINTING COMPANY, Chicago, Ill. Filed Feb. 16, 1914.

PHOTOPLAY

*Particular description of goods.*—Monthly Magazines.
*Claims use* since the month of October, 1911.

Ser. No. 75,950. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RHUBARAL COMPANY, Wheeling, W. Va. Filed Feb. 16, 1914.

RHUBARAL

*Particular description of goods.*—A Remedy for Diseased Conditions or Catarrhal Affections of the Stomach, Kidneys, Liver, and Bowels.
*Claims use* since Mar. 13, 1913.

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Ser. No. 75,959. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK N. BOOTH, Honolulu, Territory of Hawaii. Filed Feb. 17, 1914.

NUTONIA

*Particular description of goods.*—An Ointment for Salt-Rheum, Boils, Eczema, Burns, Cuts, Piles, and All Skin Diseases Accompanied by Itching.
*Claims use* since Dec. 22, 1913.

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Ser. No. 75,973. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRIEDRICH M. SAMES, New York, N. Y. Filed Feb. 17, 1914.

RUSCOL

*Particular description of goods.*—An Ointment.
*Claims use* since June, 1909.

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Ser. No. 75,974. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VAN HORN AND SAWTELL, New York, N. Y. Filed Feb. 17, 1914.

INTEROL

*Particular description of goods.*—Remedies for Intestinal Disorders.
*Claims use* since Dec. 8, 1913.

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Ser. No. 76,012. (CLASS 39. CLOTHING.) CHRISTINE PETERSEN, Evanston, Ill. Filed Feb. 18, 1914.

Nonptosis

*Particular description of goods.*—Corsets.
*Claims use* since Nov. 10, 1913.

Ser. No. 76,017. (CLASS 39. CLOTHING.) SCHULTZ & GUTHRIE, Worcester, Mass., and New York, N. Y. Filed Feb. 18, 1914.

SOCIETY

*Particular description of goods.*—Ladies' and Misses' Dresses.
*Claims use* since the spring of 1901.

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Ser. No. 76,034. (CLASS 38. PRINTS AND PUBLICATIONS.) KUNSTANSTALTEN AKTIENGESELLSCHAFT VORMALS ADOLF MAY UND MÜLLER & LOHSE, Dresden, Germany. Filed Feb. 19, 1914.

AML

*Particular description of goods.*—Art Publications, Lithographs, Pictures, Prints, and Reproductions.
*Claims use* since June, 1911.

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Ser. No. 76,044. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ALABASTINE COMPANY, Grand Rapids, Mich. Filed Feb. 20, 1914. Under ten-year proviso.

**Alabastine**

Is the word "Alabastine." The shaded part of the mark is printed in red or in black.
*Particular description of goods.*—A Base in the Form of a Dry Powder Made Up of Calcium Carbonate and other Ingredients for Making a Paint and a Wall-Coating.
*Claims use* since before 1880.

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Ser. No. 76,058. (CLASS 43. THREAD AND YARN.) THE LEES MFG. CO., Westport, Conn., and New York, N. Y. Filed Feb. 20, 1914.

OCTAGON

*Particular description of goods.*—Threads and Yarns Made from Cotton, Mercerized Cotton, Linen, and Silk.
*Claims use* since Sept. 1, 1913.

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Ser. No. 76,062. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCIS B. SHIELDS, Danville, Ill. Filed Feb. 20, 1914.

**Conchello**

*Particular description of goods.*—A Liquid Face-Powder and Tan-Remover.
*Claims use* since Sept. 15, 1913.

Ser. No. 76,066. (CLASS 39. CLOTHING.) L. WOHL & CO., New York, N. Y. Filed Feb. 20, 1914.



*Particular description of goods.*—Infants' and Children's Dresses.
*Claims use* since Feb. 2, 1914.

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Ser. No. 76,078. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HYDRONITE, LIMITED, London, England. Filed Feb. 21, 1914.

**Hydronite**

*Particular description of goods.*—A Fuel-Economizing Compound.
*Claims use* since about Oct. 20, 1912.

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Ser. No. 76,085. (CLASS 38. PRINTS AND PUBLICATIONS.) POST PUBLISHING COMPANY, Boston, Mass. Filed Feb. 21, 1914. Under ten-year proviso.

THE OBSERVANT CITIZEN

*Particular description of goods.*—A Newspaper-Section Published Periodically.
*Claims use* since prior to Jan. 10, 1893.

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Ser. No. 76,090. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ADA H. ROSS, Los Angeles, Cal. Filed Feb. 21, 1914.

"CAMO"



The portrait being that of the proprietor.
*Particular description of goods.*—A Hair-Grower.
*Claims use* since Nov. 1, 1913.





Ser. No. 76,094. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARK L. UNDERWOOD, Chaffee, Mo. Filed Feb. 21, 1914.

Flush

*Particular description of goods.*—Saline Laxatives.
*Claims use* since the year 1898.

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Ser. No. 76,117. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NAVE-MCCORD MERCANTILE CO., St. Joseph, Mo. Filed Feb. 24, 1914.

FRONTIER

*Particular description of goods.*—Baking Powder and Soda.
*Claims use* since Feb. 1, 1907.

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Ser. No. 76,135. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE ESTATE OF J. G. HEITZEL, Newark, N. J. Filed Feb. 25, 1914.



*Particular description of goods.*—Rub-On Paint for Tin Roofs and All Kinds of Metal Work.
*Claims use* since the latter part of March, 1912.

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Ser. No. 76,150. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RADICAL REMEDY CO., New York, N. Y. Filed Feb. 25, 1914.

-USIT-

*Particular description of goods.*—A Remedy Against Loss of Appetite, Indigestion, Constipation, Dyspepsia, Nervousness, Stomach Pains, Liver, Kidney, or Bowel Disorders, General Debility, Paleness, Rheumatism, Chills, Malarial Fever, and Headache.
*Claims use* since Oct. 1, 1913.

Ser. No. 76,152. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) L. SAMTES & SONS, San Francisco, Cal. Filed Feb. 25, 1914.

"WEARO TIE"
Re-in-stitched

The right of registration to the word "Tie" and to the word "Re-in-stitched" shown in the drawing being hereby disclaimed.
*Particular description of goods.*—Neckties.
*Claims use* since about the 12th day of February, 1914.

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Ser. No. 76,157. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS M. WARNER, Denver, Colo. Filed Feb. 25, 1914.

JACK FROST

*Particular description of goods.*—Remedy for Hay-Fever and other Catarrhal Affections of the Head.
*Claims use* since Jan. 2, 1914.

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Ser. No. 76,164. (CLASS 39. CLOTHING.) BLUE BELL OVERALL COMPANY, Greensboro, N. C. Filed Feb. 26, 1914.

Gilt Edge

*Particular description of goods.*—Overalls, Work-Trousers, and Work-Shirts.
*Claims use* since Jan. 27, 1914.

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Ser. No. 76,165. (CLASS 39. CLOTHING.) BROWN SHOE COMPANY, INC., St. Louis, Mo. Filed Feb. 26, 1914.

Diplomat

*Particular description of goods.*—Leather Shoes.
*Claims use* since Nov. 13, 1913.

Ser. No. 76,167. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Feb. 26, 1914.

SAXON

*Particular description of goods.*—Blankets.
*Claims use* since about Jan. 17, 1914.

Ser. No. 76,187. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) OTTO E. MUELLER, St. Louis, Mo. Filed Feb. 26, 1914.




*Particular description of goods.*—Carbonated Water.
*Claims use* since on or about the 15th day of February, 1910.

Ser. No. 76,193. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) PEBT BROTHERS, Philadelphia, Pa. Filed Feb. 26, 1914.

PEBROS

*Particular description of goods.*—Hooks and Eyes.
*Claims use* since about Feb. 16, 1914.

Ser. No. 76,216. (CLASS 39. CLOTHING.) THE LINEN UNDERWEAR COMPANY, Greenwich, N. Y. Filed Feb. 27, 1914.

FLAXAL

*Particular description of goods.*—Absorbent Linen-Mesh Undergarments.
*Claims use* since Feb. 25, 1914.

Ser. No. 76,285. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) MYER MARGULIS, Philadelphia, Pa. Filed Mar. 2, 1914.




I disclaim the exclusive right to the use of the words "Raisin Brandy" in either the English or Hebrew characters.
*Particular description of goods.*—Raisin Brandy.
*Claims use* since Dec. 1, 1913.

Ser. No. 76,286. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) MYER MARGULIS, Philadelphia, Pa. Filed Mar. 2, 1914.




I disclaim the exclusive right to the use of the words "Cognac Style" and to the word "Cognac" in Hebrew characters.
*Particular description of goods.*—Cognac Brandy.
*Claims use* since Dec. 1, 1913.

Ser. No. 76,292. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JOSEPH E. ROSENFELD, Council Bluffs, Iowa. Filed Mar. 2, 1914.

Golden Robin

*Particular description of goods.*—Beer.
*Claims use* since the 15th day of November, 1912.

Ser. No. 76,296. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STEPHEN SANFORD & SONS, INC., Amsterdam, N. Y. Filed Mar. 2, 1914.

FERVAK

*Particular description of goods.*—Textile Rugs, Mats, and Carpets.
*Claims use* since about Feb. 15, 1914.

Ser. No. 76,310. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BOWRING & COMPANY, New York, N. Y. Filed Mar. 4, 1914.

BOX
&
CUP

Consisting of the words "Box & Cup."
*Particular description of goods.*—Turpentine.
*Claims use* since Feb. 16, 1914.

Ser. No. 76,346. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Mar. 5, 1914.

CHAMOIS

*Particular description of goods.*—Unbleached Muslin.
*Claims use* since about August, 1913.





Ser. No. 76,376. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PEPER BROTHERS, New York, N. Y. Filed Mar. 5, 1914.

MAMMOTH

*Particular description of goods.*—White Lead.
*Claims use* since Nov. 1, 1911.

Ser. No. 76,379. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STRAUSS BROS. & CO., New York, N. Y. Filed Mar. 5, 1914.

MARTHA WASHINGTON

*Particular description of goods.*—Hair-Nets.
*Claims use* since March, 1914.

Ser. No. 76,440. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. C. MIGEL & CO., New York, N. Y. Filed Mar. 7, 1914.

KORTEZ

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since July, 1913.

Ser. No. 76,441. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. C. MIGEL & CO., New York, N. Y. Filed Mar. 7, 1914.

AZTECH

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since July, 1913.

Ser. No. 76,442. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. C. MIGEL & CO., New York, N. Y. Filed Mar. 7, 1914.

MONTEZOMA

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since July, 1913.

Ser. No. 76,443. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. C. MIGEL & CO., New York, N. Y. Filed Mar. 7, 1914.

NAVAHO

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since July, 1913.

# TRADE-MARKS

## REGISTERED MARCH 31, 1914.

95,972. ACETYLENE-GENERATORS. Acetylene Apparatus Manufacturing Company, Chicago, Ill., assignor to Oxweld Acetylene Company, Chicago, Ill., a Corporation of West Virginia.
Filed June 17, 1911. Serial No. 57,109. PUBLISHED DECEMBER 2, 1913.

95,973. WEEKLY TRADE JOURNAL. The American Lumberman, Chicago, Ill.
Filed October 24, 1913. Serial No. 73,584. PUBLISHED JANUARY 13, 1914.

95,974. CANNED FRUITS AND VEGETABLES AND DRIED FRUITS. The J. K. Armsby Co., Chicago, Ill., and San Francisco, Cal.
Filed September 2, 1911. Serial No. 58,524. PUBLISHED JANUARY 20, 1914.

95,975. CERTAIN NAMED LATHE AND MACHINE TOOLS AND ATTACHMENTS. Armstrong Bros. Tool Co., Chicago, Ill.
Filed October 19, 1910. Serial No. 52,337. PUBLISHED JANUARY 27, 1914.

95,976. WHEAT-FLOUR. Barrett, Denton & Lynn Co., Dalton, Ga.
Filed June 18, 1913. Serial No. 71,157. PUBLISHED JANUARY 20, 1914.

95,977. SOAP. P. Beiersdorf & Co., Hamburg, Germany.
Filed July 29, 1913. Serial No. 72,023. PUBLISHED DECEMBER 16, 1913.

95,978. WHISKY. C. Berry & Co., Boston, Mass.
Filed December 27, 1913. Serial No. 74,854. PUBLISHED JANUARY 27, 1914.

95,979. CHINA AND EARTHEN WARE SETS FOR CHILDREN. Geo. Borgfeldt & Co., New York, N. Y.
Filed October 13, 1913. Serial No. 73,330. PUBLISHED JANUARY 27, 1914.

95,980. CERTAIN NAMED ARTICLES COMPOSED OF CHINA OR PORCELAIN. Geo. Borgfeldt & Co., New York, N. Y.
Filed December 9, 1913. Serial No. 74,460. PUBLISHED JANUARY 27, 1914.

95,981. SHAMPOO PREPARATION, TOILET POWDERS AND CREAMS. Cruger Hasell Borwick, New York, N. Y.
Filed November 14, 1913. Serial No. 73,977. PUBLISHED JANUARY 20, 1914.

95,982. PERFUME, TOILET WATERS, SACHET-POWDERS, FACE-POWDERS, TALCUM POWDERS, AND COLD-CREAM. William H. Brown & Bro. Company, Baltimore, Md.
Filed November 6, 1913. Serial No. 73,827. PUBLISHED JANUARY 20, 1914.

95,983. PERFUME, TOILET WATERS, SACHET-POWDERS, FACE-POWDERS, TALCUM POWDERS, AND COLD-CREAM. William H. Brown & Bro. Company, Baltimore, Md.
Filed November 6, 1913. Serial No. 73,828. PUBLISHED JANUARY 20, 1914.

95,984. THERMOMETERS. William Bruns, Columbia, Pa.
Filed December 4, 1913. Serial No. 74,353. PUBLISHED JANUARY 27, 1914.

95,985. MACHINERY FOR DRYING CURVED STEREOTYPE PRINTING-PLATES. The Campbell Printing Press & Manufacturing Company, New York, N. Y., assignor to The Autoplate Company of America, Jersey City, N. J., a Corporation of New Jersey.
Filed May 3, 1907. Serial No. 27,092. PUBLISHED JANUARY 27, 1914.

95,986. DRESS-SHIELDS. The Canfield Rubber Company, Bridgeport, Conn.
Filed November 24, 1913. Serial No. 74,152. PUBLISHED JANUARY 27, 1914.

95,987. CIGARS. Gennaro Cangiano, New York, N. Y.
Filed September 27, 1913. Serial No. 73,085. PUBLISHED JANUARY 27, 1914.

95,988. LUBRICANTS, LUBRICATING-OILS, LUBRICATING-GREASES, AND YARN-GREASES. Cataract Refining and Manufacturing Company, Buffalo, N. Y.
Filed November 14, 1913. Serial No. 73,976. PUBLISHED JANUARY 27, 1914.

95,989. PAINTS FOR RETOUCHING AND COLORING PHOTOGRAPHIC PICTURES. Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany.
Filed July 16, 1913. Serial No. 71,734. PUBLISHED JANUARY 27, 1914.

95,990. AUTOMOBILES, MOTOR-VEHICLES, AND PARTS THEREOF. Chevrolet Motor Company, Flint, Mich.
Filed October 4, 1913. Serial No. 73,205. PUBLISHED JANUARY 27, 1914.

95,991. PERIODICAL. The Curtis Publishing Company, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,126. PUBLISHED JANUARY 27, 1914.

95,992. PERIODICAL. The Curtis Publishing Company, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,127. PUBLISHED JANUARY 27, 1914.

95,993. PERIODICAL. The Curtis Publishing Company, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,128. PUBLISHED JANUARY 27, 1914.

95,994. PERIODICAL. The Curtis Publishing Company, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,129. PUBLISHED JANUARY 27, 1914.

95,995. PERIODICAL. The Curtis Publishing Company, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,130. PUBLISHED JANUARY 20, 1914.

95,996. MATTRESSES. Frank H. Davis, Columbus, Ohio.
Filed October 2, 1913. Serial No. 73,166. PUBLISHED JANUARY 27, 1914.

95,997. FACE-POWDER AND LIQUID MEDICINAL PREPARATION. Dermatine Manufacturing Company, a Partnership, Zanesville, Ohio.
Filed October 18, 1912. Serial No. 66,350. Renewal of No. 9,749, October 24, 1882. PUBLISHED JANUARY 20, 1914.

95,998. RUPTURE-SALVE. D'HONDT MANUFACTURING Co., Detroit, Mich.
Filed July 30, 1913. Serial No. 72,039. PUBLISHED JANUARY 20, 1914.

95,999. CERTAIN NAMED SHIELDS, SCREWS, BOLTS, ANCHORS, AND EYES. DIAMOND EXPANSION BOLT Co., New York, N. Y.
Filed November 12, 1913. Serial No. 73,916. PUBLISHED JANUARY 27, 1914.

96,000. OVENS. DOMESTIC UTILITIES MANUFACTURING Co., Los Angeles, Cal.
Filed September 20, 1913. Serial No. 72,966. PUBLISHED JANUARY 27, 1914.

96,001. SHEARS, SCISSORS, RAZORS, AND POCKET-KNIVES. SEVERIN R. DROESCHER, Cranford, N. J., and New York, N. Y.
Filed August 30, 1913. Serial No. 72,594. PUBLISHED JANUARY 27, 1914.

96,002. RAZORS AND SHEARS. PHIL. EISEMANN, Lancaster, Pa.
Filed November 4, 1913. Serial No. 73,790. PUBLISHED JANUARY 27, 1914.

96,003. WASHING-MACHINES. FEDERAL SIGN SYSTEM (ELECTRIC), Chicago, Ill.
Filed August 30, 1913. Serial No. 72,596. PUBLISHED JANUARY 27, 1914.

96,004. HOSIERY. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed December 1, 1909. Serial No. 46,223. PUBLISHED JANUARY 27, 1914.

96,005. CALCIMINE OR WATER-PAINTS. M. EWING FOX & Co., New York, N. Y.
Filed September 16, 1913. Serial No. 72,880. PUBLISHED JANUARY 27, 1914.

96,006. CLOTHES-MARKING CLIPS. FULSTON CLIP Co., Yonkers, N. Y., and Chicago, Ill.
Filed January 4, 1913. Serial No. 67,711. PUBLISHED JANUARY 20, 1914.

96,007. WATER-CLOSET BOWLS AND TANKS. THE GREAT WESTERN POTTERY Co., Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey.
Filed August 7, 1913. Serial No. 72,201. PUBLISHED JANUARY 27, 1914.

96,008. WATER-CLOSET BOWLS AND TANKS. THE GREAT WESTERN POTTERY Co., Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey.
Filed August 7, 1913. Serial No. 72,202. PUBLISHED JANUARY 27, 1914.

96,009. BABBITT AND ANTIFRICTION METALS. GREAT WESTERN SMELTING & REFINING Co., Chicago, Ill.
Filed May 6, 1912. Serial No. 63,365. PUBLISHED JANUARY 27, 1914.

96,010. DRY, PASTE, AND LIQUID PAINTS, IRON OXIDS, VARNISHES, DRIERS, AND PAINT-OILS. HAMMOND, BOYNTON PAINT & CHEMICAL CO., Norwich, Conn., assignor to Hammond Process Company, Norwich, Conn., a Corporation of Maine.
Filed January 18, 1913. Serial No. 67,987. PUBLISHED JANUARY 27, 1914.

96,011. LEATHER AND CLOTH BOOTS, SHOES, AND SLIPPERS. HANAN & SON, New York, N. Y.
Filed November 7, 1913. Serial No. 73,855. PUBLISHED JANUARY 27, 1914.

96,012. LEATHER OF CERTAIN SKINS TANNED AND FINISHED FOR CERTAIN USES. HELBURN LEATHER COMPANY, Salem, Mass.
Filed November 10, 1913. Serial No. 73,887. PUBLISHED JANUARY 20, 1914.

96,013. NAILS, SCREWS, METAL PIPES, TRAPS, AND METAL VALVES. HIBBARD, SPENCER, BARTLETT & Co., Chicago, Ill.
Filed September 19, 1912. Serial No. 65,871. PUBLISHED JANUARY 27, 1914.

96,014. MOVING-PICTURE MACHINES AND PICTURE-FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New York.
Filed November 26, 1912. Serial No. 67,140. PUBLISHED JANUARY 27, 1914.

96,015. MOVING-PICTURE MACHINES AND PICTURE-FILMS. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New York.
Filed November 26, 1912. Serial No. 67,141. PUBLISHED JANUARY 27, 1914.

96,016. BLOOD REMEDY. MOLLIE B. HODGES, Coal Hill, Ark.
Filed September 25, 1913. Serial No. 73,046. PUBLISHED JANUARY 20, 1914.

96,017. MEDICINAL PREPARATION FOR CERTAIN NAMED DISEASES. HOLLISTER DRUG COMPANY, Madison, Wis.
Filed September 29, 1908. Serial No. 37,680. PUBLISHED JANUARY 20, 1914.

96,018. INTERNAL-COMBUSTION ENGINES AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,705. PUBLISHED JANUARY 27, 1914.

96,019. INTERNAL-COMBUSTION ENGINES AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,706. PUBLISHED JANUARY 27, 1914.

96,020. CREAM-SEPARATORS AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,707. PUBLISHED JANUARY 27, 1914.

96,021. SEED-PLANTERS AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,709. PUBLISHED JANUARY 27, 1914.

96,022. HARROWS AND PARTS THEREOF. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,712. PUBLISHED JANUARY 27, 1914.

96,023. GRAIN-DRILLS AND PARTS THEREOF. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,720. PUBLISHED JANUARY 27, 1914.

96,024. HARROWS AND PARTS THEREOF. INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,721. PUBLISHED JANUARY 27, 1914.

96,025. COLOGNE. JAMES S. KIRK & COMPANY, Chicago, Ill.
Filed November 24, 1913. Serial No. 74,168. PUBLISHED JANUARY 6, 1914.

96,026. FILMS FOR KINEMATOGRAPHS, BEING TRANSPARENCIES FOR EXHIBITION. THE LONDON FILM COMPANY, LIMITED, Piccadilly, London, England.
Filed November 28, 1913. Serial No. 74,237. PUBLISHED JANUARY 27, 1914.

96,027. ALKALIS USED IN MANUFACTURES. THE MAGADI SODA COMPANY, LIMITED, London, England.
Filed November 18, 1913. Serial No. 74,062. PUBLISHED JANUARY 20, 1914.

96,028. WIRE-GRIPS, WIRE-STRETCHERS, AND WOVEN-WIRE STRETCHERS. THE MASON FENCE COMPANY, Leesburg, Ohio.
Filed March 12, 1913. Serial No. 68,976. PUBLISHED JANUARY 27, 1914.



96,029. PREPARATIONS FOR THE TREATMENT OF CERTAIN NAMED AILMENTS AND DISEASES. WILLIAM F. MCBURNEY, Los Angeles, Cal.
Filed November 3, 1913. Serial No. 73,779. PUBLISHED JANUARY 20, 1914.

96,030. CONDENSED MILK. MOHAWK CONDENSED MILK Co., Rochester, N. Y.
Filed February 16, 1909. Serial No. 40,579. PUBLISHED APRIL 4, 1911.

96,031. CERTAIN TUBES, PIPES, TUBING, AND CASINGS MADE OF WROUGHT-IRON. MONONGAHELA TUBE COMPANY, Pittsburgh, Pa.
Filed March 21, 1913. Serial No. 69,235. PUBLISHED JANUARY 27, 1914.

96,032. MEDICINAL TABLETS FOR THE TREATMENT OF CERTAIN NAMED DISEASES. WM. C. MOULTON, Millbury, Mass.
Filed October 28, 1913. Serial No. 73,647. PUBLISHED JANUARY 20, 1914.

96,033. FLEXIBLE-ARMOR HOSE, ASBESTOS PACKING, AND CERTAIN NAMED RUBBER GOODS. MULCONROY COMPANY, Philadelphia, Pa.
Filed September 20, 1913. Serial No. 72,978. PUBLISHED JANUARY 27, 1914.

96,034. MONTHLY PERIODICAL PUBLICATIONS. OTIS & COMPANY, Cleveland, Ohio.
Filed February 24, 1913. Serial No. 68,699. PUBLISHED JANUARY 27, 1914.

96,035. COFFEE. CHARLES T. PARIS, Chattanooga, Tenn.
Filed September 26, 1913. Serial No. 73,076. PUBLISHED JANUARY 20, 1914.

96,036. CERTAIN MEDICINES AND MEDICAL PREPARATIONS. DONALD PARKER, New Woodstock, N. Y.
Filed June 18, 1913. Serial No. 71,171. PUBLISHED JANUARY 20, 1914.

96,037. PRINTED BOOKS, PRINTED BOOKLETS, PRINTED PAMPHLETS, AND PRINTS. PHILADELPHIA SCHOOL FOR NURSES, Philadelphia, Pa.
Filed November 10, 1913. Serial No. 73,895. PUBLISHED JANUARY 13, 1914.

96,038. LIQUID OIL PREPARATION FOR THE RELIEF OF CERTAIN AILMENTS. THE PINEOLEUM COMPANY, New York, N. Y.
Filed November 13, 1913. Serial No. 73,955. PUBLISHED JANUARY 20, 1914.

96,039. MOPS. PIRRUNG MANUFACTURING COMPANY, Chicago, Ill.
Filed November 8, 1913. Serial No. 73,873. PUBLISHED JANUARY 27, 1914.

96,040. LIQUID DISINFECTANT. MARY ESTELLA PLATT, New York, N. Y.
Filed November 13, 1913. Serial No. 73,954. PUBLISHED JANUARY 20, 1914.

96,041. SOAP FOR LAUNDRY PURPOSES. THE PROCTER & GAMBLE COMPANY, Cincinnati and Ivorydale, Ohio, and Macon, Ga.
Filed August 23, 1909. Serial No. 44,317. PUBLISHED JANUARY 20, 1914.

96,042. SOAP FOR LAUNDRY PURPOSES. THE PROCTER & GAMBLE COMPANY, Cincinnati and Ivorydale, Ohio, and Macon, Ga.
Filed August 23, 1909. Serial No. 44,318. PUBLISHED JANUARY 20, 1914.

96,043. MEDICINAL AND TOILET SOAP. PROVIDOL GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.
Filed June 25, 1913. Serial No. 71,366. PUBLISHED JANUARY 13, 1914.

96,044. PORT-WINE, ROSE-VIN, AND SHERRY-WINE. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,752. PUBLISHED JANUARY 27, 1914.

96,045. SHERRY-WINE, PORT-WINE, AND DESSERT-WINE. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,754. PUBLISHED JANUARY 27, 1914.

96,046. GIN. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,742. PUBLISHED JANUARY 27, 1914.

96,047. WHISKY. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,746. PUBLISHED JANUARY 27, 1914.

96,048. WOVEN-HAIR DRIVING-BELTS. ROSSENDALE-REDDAWAY BELTING & HOSE Co., Newark, N. J.
Filed February 26, 1913. Serial No. 68,752. PUBLISHED JANUARY 20, 1914.

96,049. WOVEN-HAIR DRIVING-BELTS. ROSSENDALE-REDDAWAY BELTING & HOSE Co., Newark, N. J.
Filed February 27, 1913. Serial No. 68,764. PUBLISHED JANUARY 20, 1914.

96,050. CIGARETTES, CIGARS, LITTLE CIGARS, CERTAIN TOBACCOS, CHEROOTS, AND STOGIES. RESHID SADI, New York, N. Y.
Filed April 25, 1913. Serial No. 70,067. PUBLISHED JANUARY 20, 1914.

96,051. HARD, SOFT, TOILET, LAUNDRY, DOG, OR ANIMAL SOAP AND SOAP POWDER. THE "SANITAS" COMPANY, LIMITED, London, England, assignor to "Sanitas" Co. (U. S. A.), Jersey City, N. J., a Corporation of New Jersey.
Filed March 30, 1908. Serial No. 33,742. PUBLISHED JANUARY 27, 1914.

96,052. NOODLES. EMIL SCHOEN, Philadelphia, Pa.
Filed July 11, 1913. Serial No. 71,666. PUBLISHED JANUARY 20, 1914.

96,053. FISHING-SPOONS. SCHWABACHER HARDWARE Co., Seattle, Wash.
Filed November 25, 1913. Serial No. 74,195. PUBLISHED JANUARY 27, 1914.

96,054. PRINTING-FORMS. DAVID J. SEAMAN, Milwaukee, Wis.
Filed December 21, 1911. Serial No. 60,402. PUBLISHED JANUARY 27, 1914.

96,055. CURB, SPLINT, BOG, THOROUGH-PIN, SPAVIN, JACK, HIGH RING-BONE, AND SORENESS IN TENDONS. REUBEN H. SHAFFER, Baldwyn, Miss.
Filed June 20, 1913. Serial No. 71,220. PUBLISHED JANUARY 20, 1914.

96,056. CERTAIN NAMED KNITTED UNDERWEAR FOR WOMEN, BOYS, AND GIRLS. SHAUGHNESSY KNITTING COMPANY, Watertown, N. Y.
Filed November 13, 1913. Serial No. 73,960. PUBLISHED JANUARY 27, 1914.

96,057. APPARATUS, MACHINES, AND PARTS THEREOF FOR RECORDING AND INDICATING OPERATIONS OF OTHER MACHINES. SLOCUM, AVRAM & SLOCUM, INC., New York, N. Y.
Filed December 3, 1913. Serial No. 74,338. PUBLISHED JANUARY 27, 1914.

96,058. SEWING SILKS, THREADS, COTTONS, AND YARNS. CLARENCE W. SMITH, New York, N. Y.
Filed October 31, 1913. Serial No. 73,721. PUBLISHED JANUARY 27, 1914.

96,059. WHEAT-FLOUR. THE SOUTHWESTERN MILLING COMPANY, Jersey City, N. J., and Kansas City, Mo.
Filed September 23, 1913. Serial No. 73,018. PUBLISHED JANUARY 20, 1914.

96,060. RUBBER TIRES AND INNER TUBES FOR AUTOMOBILES. THERMOID RUBBER COMPANY, Hamilton township, Mercer county, N. J.
Filed March 5, 1913. Serial No. 68,857. PUBLISHED JANUARY 27, 1914.

96,061. FLESH-FINISHED LEATHER IN THE PIECE, EITHER VEGETABLE, MINERAL, OR OIL TANNED. ALBERT TROSTEL & SONS COMPANY, Milwaukee, Wis.
Filed March 11, 1912. Serial No. 62,112. PUBLISHED JANUARY 27, 1914.

96,062. ADDING-MACHINES, COMBINED TYPEWRITING AND ADDING MACHINES, AND PARTS THEREOF. JOHN UNDERWOOD & COMPANY, New York, N. Y.
Filed October 18, 1913. Serial No. 73,494. PUBLISHED JANUARY 27, 1914.

96,063. MOVING-PICTURE FILMS. UNIVERSAL FILM MANUFACTURING COMPANY, Chicago, Ill., and New York, N. Y.
Filed December 6, 1913. Serial No. 74,424. PUBLISHED JANUARY 27, 1914.

96,064. PREPARATION FOR INTERNAL AND EXTERNAL USE. VAN VLEET-MANSFIELD DRUG Co., Memphis, Tenn.
Filed August 2, 1905. Serial 11,200. PUBLISHED JANUARY 20, 1914.

96,065. BOARDS, SHEETS, OR STRIPS OF CERTAIN NAMED COMBINATIONS OF MATERIALS. VENESTA LIMITED, London, England.
Filed December 15, 1911. Serial No. 60,275. PUBLISHED JULY 15, 1913.

96,066. CANNED TOMATOES AND TOMATO PASTE. VIOLANTE, BALBI & Co., New York, N. Y.
Filed July 31, 1913. Serial No. 72,090. PUBLISHED JANUARY 20, 1914.

96,067. CORN-PLASTERS FOR CORNS, CALLOSITIES, BUNIONS, AND WARTS. NELSON G. WALTERHOUSE, Indianapolis, Ind.
Filed October 27, 1913. Serial No. 73,637. PUBLISHED JANUARY 20, 1914.

96,068. CASTOR-OIL COMPOUND. WATERBURY CHEMICAL COMPANY, Des Moines, Iowa.
Filed September 15, 1910. Serial No. 51,829. PUBLISHED JANUARY 20, 1914.

96,069. REMEDY FOR SYPHILIS. WEIGEL, HOSHAW & HEARE, North Yakima, Wash.
Filed March 7, 1913. Serial No. 68,908. PUBLISHED AUGUST 26, 1913.

96,070. TOILET CREAMS, MEDICATED SUPPOSITORIES, AND EXTRACT OF WITCH-HAZEL. HENRY S. WELLCOME, London, England.
Filed October 2, 1912. Serial No. 66,090. PUBLISHED MARCH 25, 1913.

96,071. COSMETICS FOR THE SKIN. HENRY WENKER, San Francisco, Cal.
Filed October 27, 1913. Serial No. 73,636. PUBLISHED JANUARY 20, 1914.

96,072. LAXATIVE COMPOSITION. DAVID WESTHEIMER, New York, N. Y.
Filed June 27, 1911. Serial No. 57,341. PUBLISHED JANUARY 20, 1914.

96,073. CERTAIN WARE STAMPED OR FORMED FROM METAL AND COATED WITH ENAMEL. C. E. WHEELOCK & Co., Peoria, Ill.
Filed October 22, 1913. Serial No. 73,563. PUBLISHED JANUARY 27, 1914.

96,074. CERTAIN NAMED MACHINE-TOOLS, MACHINE-TOOL ATTACHMENTS, AND TOOLS. J. H. WILLIAMS & Co., New York, N. Y.
Filed December 6, 1913. Serial No. 74,428. PUBLISHED JANUARY 27, 1914.

96,075. SHAVING AND TOILET SOAPS. THE J. B. WILLIAMS COMPANY, Glastonbury, Conn.
Filed June 7, 1912. Serial No. 64,042. PUBLISHED JANUARY 20, 1914.

96,076. LUBRICANT PARTICULARLY ADAPTED FOR CHAINS AND MESHING SURFACES. CAREY G. WIRICK, Pittsburgh, Pa.
Filed June 27, 1913. Serial No. 71,416. PUBLISHED JANUARY 27, 1914.

96,077. IRON AND STEEL PLATES, BILLETS, BLOOMS, AND SLABS. ALAN WOOD IRON & STEEL COMPANY, Philadelphia, Pa.
Filed November 20, 1913. Serial No. 74,086. PUBLISHED JANUARY 27, 1914.



# LABELS

## REGISTERED MARCH 31, 1914.

17,613.—*Title:* "OTOYO." (For Safety-Pins.) ARBUTHNOT, STEPHENSON & COMPANY, Pittsburgh, Pa. Filed January 15, 1914.

17,614.—*Title:* "BROWN BETTY." (For Confectionery.) THE BACHMAN CHOCOLATE COMPANY, INC., Philadelphia, Pa. Filed December 31, 1913.

17,615.—*Title:* "CARMEN." (For a Shampoo Tonic.) LOTTIE C. BLUM, New York, N. Y. Filed January 9, 1914.

17,616.—*Title:* "HOPSIE." (For a Beverage.) J. S. BRIGGS Co., Watertown, N. Y. Filed January 17, 1914.

17,617.—*Title:* "SUNBONNET BRAND." (For Oleomargarin.) GEO. R. ELDRIDGE COMPANY, Detroit, Mich. Filed December 15, 1913.

17,618.—*Title:* "THE EMPIRE." (For Mattresses.) THE EMPIRE MATTRESS COMPANY, Chicago, Ill. Filed March 7, 1914.

17,619.—*Title:* "OUR CHIEF BRAND." (For Oranges.) FAIRVIEW LAND COMPANY, Cocoa, Fla. Filed November 7, 1913.

17,620.—*Title:* "ORANGE TREE BRAND FRESH VEGETABLES PRODUCT OF LORANGER UPLAND FARMS LORANGER P. O., LA." (For Fresh Vegetables.) GENESEE LUMBER COMPANY, Genesee and Loranger, La. Filed March 6, 1914.

17,621.—*Title:* "GREENSPRING MINERAL WATER." (For Mineral Water.) THE GREENSPRING WATER COMPANY, Cleveland, Ohio. Filed February 16, 1914.

17,622.—*Title:* "BABY PANTS." (For Baby-Pants.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed February 16, 1914.

17,623.—*Title:* "COUCHE-CULOTTE." (For Baby-Pants.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed February 16, 1914.

17,624.—*Title:* "IDEAL." (For Corn-Salve.) URBEN H. KNAUB, York, Pa. Filed July 31, 1913.

17,625.—*Title:* "MENNEN'S TAR SHAMPOOING CREAM." (For Tar Shampooing-Cream.) G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed March 12, 1914.

17,626.—*Title:* "MENNEN'S SHAVING CREAM." (For Shaving-Cream.) G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed March 12, 1914.

17,627.—*Title:* "MENNEN'S CREAM DENTIFRICE." (For Cream Dentifrice.) G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed March 12, 1914.

17,628.—*Title:* "MENNEN'S PERFUMED BATH POWDER." (For Bath-Powder.) G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed March 12, 1914.

17,629.—*Title:* "DEVIL'S STOMACH LIQUOR." (For an Alcoholic Liquor.) JOSEPH POLLAK, Chicago, Ill. Filed February 20, 1914.

17,630.—*Title:* "REX PUNCTURE CURE." (For a Compound for Sealing Punctures.) REX PUNCTURE CURE COMPANY, New York, N. Y. Filed March 6, 1914.

17,631.—*Title:* "AM-O-KAY." (For Shirts.) SALANT & SALANT, New York, N. Y. Filed March 6, 1914.

17,632.—*Title:* "VIRGINETTE." (For Wine.) THE A. SCHMIDT JR. & BROS. WINE Co., Sandusky, Ohio. Filed February 25, 1914.

17,633.—*Title:* "FEDORA DRESS LOX." (For Garment-Fasteners.) SILVERBERG IMPORT Co., New York, N. Y. Filed February 19, 1914.

17,634.—*Title:* "SUN-SHINE." (For Furniture and Brass Polish.) EUGENE W. THUMB, Chicago, Ill. Filed February 17, 1914.

17,635.—*Title:* "THE TEST!" (For Varnish or Painting Material.) VALENTINE & COMPANY, New York, N. Y. Filed February 24, 1914.

17,636.—*Title:* "CHOCOLATE ALMOND WAFER." (For Chocolate Almond Wafers.) YECKER CHOCOLATE COMPANY, INC., New York, N. Y. Filed February 10, 1914.

# PRINTS

## REGISTERED MARCH 31, 1914.

3,532.—*Title:* "FAMOUS BEVERWYCK BEER." (For Beer.) BEVERWYCK BREWING Co., Albany, N. Y. Filed March 7, 1914.

3,533.—*Title:* "THE GRAFONOLA SCHOOL-GIRL." (For Grafonolas.) COLUMBIA GRAPHOPHONE COMPANY, New York, N. Y. Filed November 8, 1913.

3,534.—*Title:* "CEROMA." (For Cigars.) WILLIAM A. DEPUE, Lansing, Mich. Filed March 9, 1914.

3,535.—*Title:* "FRIENDSHIP PEACE LOVE." (For Middy-Blouses.) HUGO DU BROCK, Chicago, Ill. Filed March 9, 1914.

3,536.—*Title:* "FIFTY YEARS AGO WHEN GOLDEN WEDDING WHISKEY WAS YOUNG." (For Whisky.) JOS. S. FINCH & Co., Pittsburgh, Pa. Filed February 18, 1914.

3,537.—*Title:* "KELLY-SPRINGFIELD TIRES 'MADE TO MAKE GOOD.'" (For Rubber Tires.) KELLY-SPRINGFIELD TIRE Co., New York, N. Y. Filed March 9, 1914.

3,538.—*Title:* "REGAL BLUE MARBLE ENDURING AS THE PYRAMIDS." (For Blue Marble.) REGAL MARBLE COMPANY, Regal, N. C. Filed November 19, 1913.

3,539.—*Title:* "SCHRADER UNIVERSAL TIRE PRESSURE GAUGE." (For Tire Pressure-Gages.) A. SCHRADER'S SON, INC., New York, N. Y. Filed March 12, 1914.

3,540.—*Title:* "IN COLD WEATHER." (For Shredded Wheat.) THE SHREDDED WHEAT COMPANY, Niagara Falls, N. Y. Filed March 13, 1914.

3,541.—*Title:* "THE TEST!" (For Varnish and Painting Material.) VALENTINE & COMPANY, New York, N. Y. Filed February 24, 1914.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

COMPTOGRAPH COMPANY *v.* ADDER MACHINE COMPANY.

*Decided February 2, 1914.*

1. ABANDONMENT OF INVENTION.

Where the evidence showed that the invention disclosed in the Felt Patent No. 628,176, was completed in 1890, but was deliberately cast aside by its owner and no further action taken for eight years, during which time other inventors had entered the field and exploited the idea exemplified in this device, *Held* that the invention was abandoned and the patent void.

2. PATENTABILITY—PRINTING AND CALCULATING MACHINE.

The Felt Patent No. 568,021, for a printing and calculating machine, claims 47, 48, 49, and 52 *Held* invalid in view of the prior art.

3. INFRINGEMENT—CALCULATING-MACHINE.

The Felt Patent No. 661,121, for a calculating-machine, claims 37, 38, 39, and 40 construed and *Held* not infringed.

*Mr. H. N. Low*, *Mr. J. W. Munday*, *Mr. H. L. Clarke*, and *Mr. E. H. Garnett* for the appellant.

*Mr. J. B. Hayward*, *Mr. D. W. Cooper*, and *Mr. Melville Church* for the appellee.

Mr. Justice ROBB delivered the opinion of the court.

This is an appeal from a decree in the supreme court of the District dismissing appellant's bill for the infringement of certain Letters Patent relating to adding-machines. Three patents are here involved: Felt Patent, No. 568,021, issued September 22, 1896; Felt Patent, No. 628,176, issued July 4, 1899; Felt Patent, No. 661,121, issued November 6, 1900.

Both here and in the court below the controversy centered around the tabulator patent, No. 628,176, the issue as to the other two being submitted upon the briefs. We will, therefore, first consider this patent. Three claims are involved, claims 1, 2, and 4, which read as follows:

1. The combination with the printing mechanism adapted to print two or more characters side by side, of a laterally-movable paper carriage, devices for feeding the paper longitudinally mounted in said carriage, and automatic mechanism acting in any position of the carriage to actuate said feeding devices in the line-spacing movements, substantially as specified.

2. The combination with a series of type arranged to print side by side devices for impressing the paper upon the type, a laterally-movable paper carriage adapted to position the paper for the different columns, feed-rolls for moving the paper longitudinally past the type and means for actuating said rolls, substantially as specified.

4. The tabulating machine having in combination a laterally-movable paper carriage, means for feeding the paper vertically in any position of the carriage, and mechanism for shifting the carriage laterally the width of a column-space, substantially as specified.

The controversy here, as stated in appellant's brief, relates—

to the feature of providing an adding machine with a laterally-movable paper carriage adapted to handle wide sheets of paper and to print and add thereon a plurality of parallel columns of numbers, instead of just printing a single column of numbers on a long, narrow, continuous roll of paper.

Mr. Felt was the inventor of the computing-machine called the comptometer, the patent upon which was issued in 1887. In 1888 he developed from his comptometer printing-adding machines, known as the roll-paper comptographs, which added and printed the numbers in a list on a continuous roll of narrow paper. One of these machines was sold and delivered to a bank in Pittsburgh in 1889. Prior to 1889 Mr. Felt had been in partnership with a Mr. Robert Tarrant and a Mr. De Berard, Mr. Felt being the inventor and Tarrant the financial backer of the partnership. In 1889 the Felt & Tarrant Mfg. Co., a corporation, was organized with Mr. Felt as president. The stock was divided as follows: Felt, nine-sixteenths; Tarrant, six-sixteenths; and De Berard, one-sixteenth. The indebtedness of twelve or fourteen thousand dollars of the old partnership was assumed by the partners according to their respective interests. The stock of the company was issued in payment for special tools, adding-machines, parts of adding-machines, and the patents owned by the old Felt & Tarrant partnership. In 1902 the appellant Comptograph Company was incorporated and the comptograph business of the Felt & Tarrant Mfg. Co. was turned over to it.

Early in 1890 Mr. Felt completed the full-sized operative tabulator-adding machine introduced in evidence as "Felt's 1890 Model." This, appellant insists, was a reduction to practice of the claims of the tabulator patent now under review, and we shall assume that this contention is correct. This machine was operated in the presence of a reporter of the Chicago *Tribune* and an article describing the machine in general terms thereafter appeared in that paper. It appears that when Mr. Felt constructed this machine he hoped to have it accepted by the United States Census officials, and early in February he personally exhibited it to them. This attempt of Mr. Felt, however, to have his machine adopted by the Census officials was unsuccessful and

it was taken back to Chicago, the headquarters of the Felt & Tarrant Co. According to Mr. Felt's own testimony, Mr. Tarrant, while a minority stockholder, absolutely dominated the policy of the corporation. The reason for this was that he paid all bills of the company and furnished it quarters in his factory. These conditions remained unchanged until some time after the application for this patent was filed, May 31, 1898. In the brief of appellant it is stated:

It is thus apparent that Tarrant, though only a minority stockholder in the Felt & Tarrant Co., entirely controlled Felt and the development of his inventions, and that Felt, being without money, as we will hereinafter show, and unable to secure any, was bound to submit to Tarrant's views as to what should be done with the 1890 invention.

Mr. Felt was asked by counsel for appellant to state the attitude of Mr. Tarrant toward the 1890 machine when it was brought back from the Census Office at Washington, and answered:

He said I mustn't do anything more with it and that what time and money we had must be devoted entirely to the machines we then had on the market; namely, the comptometer and the comptograph. He seemed to regard me as merely an inventor who had no business judgment, and whenever I wanted to talk about the wide paper machine to him he treated the subject with contempt and wouldn't talk about it.

Whatever may have been the personal attitude of Mr. Felt toward this alleged invention, there is no doubt whatever that the attitude of the corporation toward it remained unchanged until some time subsequent to the issuance of the patent to Hiett on April 20, 1897, and the patent to Pike on December 21, 1897. Each of these patents described but did not claim the wide-frame feature of the claims in issue.

Mr. Felt procured a copy of the Hiett patent soon after its issuance and while he and a workman by the name of Ziehm testify that *just before* the issuance of this patent they added a sheet-end-warning device or alarm on Felt's 1890 model, we are not satisfied that this was done prior to the date of the Hiett patent. Mr. Felt, testifying several years after the event, says that this device was put on while the application therefor—

was being prepared *or was pending* in the Patent Office.

and, inasmuch as the patent was issued March 16, 1897, he therefore concludes that the work was done prior to the issuance of the Hiett patent. Just why he remembers that the work was done before rather than after the issuance of the patent he does not explain, and the testimony of the witness Ziehm is even more vague and unsatisfactory. Mr. Felt testifies that between the construction of this model in 1890 and the time the patent was applied for, he made several efforts to interest other capital in the machine and that had he succeeded he would have insisted upon an application being made for this alleged invention. He says that he did not have sufficient funds of his own to apply for a patent. But, even if we accept this statement it does not appear that the idea of filing an application for his own benefit ever occurred to him, nor does it appear that he attempted to obtain outside aid to that end.

While, as we have seen, the Hiett patent which fully disclosed the issue herein came out in April, 1897, Felt's application was not filed until May 31, 1898, and the application was then filed in behalf of the Felt & Tarrant corporation, to which belonged all of Felt's inventions. In other words, the corporation that for a period of eight years had treated with contempt the alleged invention, filed an application covering it after two other inventors had taken the corporation at its word and incorporated, without claiming the wide-carriage idea in their own improvements. The expenses of building the 1890 model were met by Mr. Tarrant and charged to the Felt & Tarrant Co., and the expenses of applying for and obtaining the patent in suit, amounting to $539, were met by the same company. The attitude of the company is further apparent from the fact that six other applications were filed between 1890 and the filing of the present application.

The patent in issue was declared void in *Universal Adding Machine Co.* v. *Comptograph Co.*, (present appellant,) (146 Fed., 981.) Speaking of the Hiett patent the court said:

Indeed, Felt's only escape from the Hiett patent, as an anticipating device, lies in the claim that although the Felt patent was not applied for until 1898, the idea was conceived and put into process of mechanical development in 1889 and 1890. * * * Assuming that this concept of the patentee was complete when the patent was exhibited to the Census Office in 1890, so as to be practicable and operative, the machine was sufficiently completed to obtain a patent (if the feature were patentable at all) upon the broad feature claimed.

The court found that either the mechanism of 1890 was a mere inoperative and impracticable experiment and hence supplanted by the Hiett patent, or else—

for the purposes of the broad claims allowed, the mechanism of 1890 was operative and practical, and therefore abandoned or lost through the eight years of inaction that followed.

It is insisted by appellant that as the issues were made in the above case the testimony upon the question of abandonment was not as full as it would otherwise have been and that in the present case it has been amplified. It does not clearly appear what additional testimony upon this point has been adduced in the present record. (*Comptograph Co.* v. *Burroughs Co.*, 183 Fed., 321.) It is clear, however, that there were sufficient facts before the court upon which to base its finding, and its decision, therefore, is at least persuasive upon the issue here. (*Brill* v. *Washington R. & Electric Co.*, 30 App. D. C., 255; *Mast, Foos & Co.* v. *Stover Mfg. Co.*, 177 U. S., 485.)

Upon an examination of the present record, we see no escape from the conclusion that this alleged invention was abandoned. It concededly belonged to the Felt & Tarrant corporation. That corporation was dominated by Mr. Tarrant. His attitude concededly was the attitude of the corporation. After the failure of Mr. Felt to interest the Census Office officials in the device, Mr. Tarrant peremptorily directed that nothing more be done with it; that thereafter all time and money the company had must be devoted entirely to the machines then on the market. And whenever, thereafter, Mr. Felt—

wanted to talk about the wide paper machine to him he treated the subject with contempt.

If this was not "a wilful or negligent postponement" of this alleged invention, within the doctrine





of *Kendall* v. *Windsor*, (21 How., 322;) *Consolidated Fruit-Jar Co.* v. *Wright*, (94 U. S., 92,) and other authorities upon this question, it would be difficult to suppose a set of facts constituting such postponement. While the object of the patent laws is through protection to stimulate inventions, of course the fundamental idea is the benefit to be conferred upon the public. This object is too frequently overlooked by inventors. We have said that they may not withhold their improvements from the public until they may manufacture free from the claims of rival inventors, (*Hawkins* v. *Ward*, 38 App. D. C., 90,) for such a practice would unduly prolong the monopoly. The law permits but does not compel an inventor to apply for a patent.

It is the unquestionable right of every inventor to confer gratuitously the benefits of his ingenuity upon the public, and this he may do either by express declaration or by conduct equally significant with language, such, for instance, as an acquiescence with full knowledge in the use of his invention by others; or he may forfeit his rights as an inventor by a wilful or negligent postponement of his claims. (*Kendall* v. *Windsor*, 21 How., 329.)

Here the invention was complete in 1890. It was deliberately cast aside by its owner, the Felt & Tarrant corporation. This policy remained unchanged for a period of eight years and, meanwhile, other parties had entered the field and exploited the idea exemplified in this device. More than a year elapsed after the issuance of the Hiett patent before the present application was filed. In other words, it is perfectly apparent that the policy of the Felt & Tarrant Co. respecting this alleged invention did not change until the idea had been exploited by others sufficiently to convince the company that it had made a mistake. It was then, and not until then, that the company determined to appropriate to itself the entire field for the manufacture of wide-carriage comptographs. This it could not do. Once having abandoned the alleged invention, it could no more resurrect it than any other dead thing. Thereafter, the Felt & Tarrant corporation could assert no right in this invention. (*Pennock* v. *Dialogue*, 2 Pet., 1.)

Mr. Felt, individually, may have believed in this alleged invention and, individually, may have entertained no idea of abandoning it, but his personal views on the subject were subordinated to the views of the dominating member of the corporation, Mr. Tarrant, who determined the policy of that corporation. Had Mr. Felt, when he found that his corporation would do nothing with his invention, applied for a patent for his individual benefit, a different case would have been presented, for courts are always desirous of lending a helping hand to a worthy inventor who has been the victim of adverse circumstances. (*McBerty* v. *Cook*, 16 App. D. C., 133.) But here the corporation that had in terms abandoned the invention was the party that attempted to resurrect it. We must therefore hold that this patent is void.

We will now examine Patent No. 568,021. This patent having been issued September 22, 1896, on an application filed June 14, 1895, expired September 22, 1913. Claims 47, 48, 49, and 52 are here involved. These claims relate to so-called delayed transfer or carrying mechanism. An adding-counter contains several adding-wheels for units, dimes, dollars, etc., bearing on their peripheries numbers from 0 to 9. When the unit-wheel has moved through nine spaces the addition of one unit brings the numeral 0 to the reading-line and it then becomes necessary to transfer or carry one unit to the dimes-wheel that the counter may show 10 instead of 0. The same is true of the dime and dollar wheels. It is this actuation of the wheel of the next higher order, upon the movement of the wheel of the lower order, that is known as the transfer or carrying operation. Claim 47 reads as follows:

47. The combination with the carrying levers and their latches of devices for moving the levers into position for carrying, such devices being also retracted partially immediately after thus moving the levers released from the latches to escape reëngagement therewith, substantially as specified.

It is contended by appellee that this claim is met in the prior patents to Wythe, No. 445,582, February 3, 1891, and Hopkins, No. 517,383, March 27, 1894, the filing date of the latter patent being October 4, 1892. An examination of claim 47 discloses three essential elements: first, a lever adapted to move the numeral-wheel in a carrying operation; second, a detent to prevent the operation of such lever and which in turn is controlled by the position of the numeral-wheel of the next lower order, and, third, means to restrain the carrying-lever from performing its function after it has been tripped by the withdrawal of the detent until the primary actuators have ceased their movements.

Turning to the Hopkins patent, the carrying-levers are clearly shown in Figure 51 at 354. Their latches are shown at 360. In Fig. 53 the carrying-lever is shown in its raised position and locked by the latch 360, which engages pin 361 attached to the lever. The lever was moved to a locked position by the arm 391. There is a partial retraction of this arm after moving the lever as called for by the claims. While the claim ends here, the arm 391, as shown in Fig. 2, has moved to the third position, leaving the carrying-lever 354 to engage the numeral-arm, thus effecting the carrying operation.

Claim 48 differs from claim 47 only in requiring—

a cam device for controlling the movement of said devices for moving the levers.

This cam device is found in Fig. 24 of the Hopkins patent at 378. When this plate is moved it exerts a cam action upon the pin 392[a], thereby moving the arm 392 and the shaft 390. Claim 49 refers to the "rock-shaft N and its pins." While this rock-shaft and pin are not found in the appellee's structure, they are present in that of Hopkins, the lock-shaft being there found in Fig. 24 at 390, the pin or arm 391 being mounted upon the shaft. Claim 52 includes an additional element of a "hand device or lever whereby said shaft is rocked." This, too, we fail to find in appellee's structure, but we do find it in both the Hopkins and Wythe structures.

We are clearly of the opinion that these claims were anticipated by the Hopkins patent. It is un-

necessary, therefore, to consider the other references.

We now consider Patent No. 661,121, which is the narrowest of all and relates to the type-hammers of the printing mechanism of the machine. The supposed novelty of the claims resides in making the hammers which coöperate with the type-segments of the printing mechanism in two parts, hinged together by a pivot, then applying the actuating power to the wheel member and putting a stop in the path of movement of such member, so as to arrest it before the striking part reaches the paper. The claims are four in number, 37, 38, 39, and 40; 37 and 40 read as follows:

37. The calculating machine, having type and hammers for pressing the paper against the type, said hammers having hinged heads, made separate from the bodies, actuating springs attached to the heads, and means for arresting the heads before the hammers can make the impressions, substantially as specified.

40. In a machine for printing numbers, a printing hammer made in two parts and hinged together, one part receiving the actuating power and imparting it to the other, and being itself arrested before the making of the impression, substantially as specified.

Counts 38 and 39 do not differ materially from count 37.

In Mr. Felt's specification he directs attention to his prior patents and to the fact that his hammers differ from those previously shown in that each is made with a head separate from the rest or main body of the hammer.

My object—

says his specification—

in this feature is to soften the blow against the type and allow the hammer to drop back a little from the paper immediately after striking, the head being actuated by the spring H14*b* and being hinged to the same shaft A14 which supports the body portion of the hammers and, being also adapted to bear upon the body at H14*c*, and thus to give the body the impulse or motion necessary to carry it against the type, but being itself arrested by a stop-rod H14*d*, extending transversely of the series of hammers, before the hammer reaches the paper.

In one of Mr. Felt's prior patents, No. 441,233, dated November 25, 1890, he shows a device intended to perform the same function as that performed by the device now in issue. In the specification of the prior patent he says:

Each spring 44 is connected with its appropriate hammer by a piece of straight wire 46 that is passed between the depending teeth of a toothed guide-bar 47, and in each straight piece of wire is provided a knot 48 or other suitable stop to engage the toothed guide-bar 47 and relieve the hammer from the tension of the spring 44 just before the hammer reaches the end of its stroke thereby allowing the hammer to yield slightly after delivering its blow, and thus prevent it from obstructing the subsequent movements of the type-head and ribbon.

In their brief counsel for appellee admit that this device—

relieved the printing pressure on the hammer as soon as the hammer blow was struck,

but contend that—

it did not insure the hammer dropping back positively enough, as soon as its blow was delivered, to fully relieve all pressure upon the paper that had been printed upon.

Counsel therefore suggest that the structure now in issue was conceived "to accomplish this more definite action." In other words, counsel take the position that, notwithstanding the enjoyment by Mr. Felt of a monopoly of this feature for the statutory period, he is nevertheless now entitled broadly to monopolize the same feature during the life of his present patent. This clearly he may not do. Unless, therefore, these claims are to be limited to the structural characteristics of the device of the issue—in other words, to the specific form of the means employed—they must fall. Since appellee's device differs from appellant's as much as appellant's differs from his prior device, we conclude that there has been no infringement of these claims.

The decree will therefore be affirmed, with costs.

Affirmed.

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## Court of Appeals of the District of Columbia.

STAMATOPOULOS *v.* STEPHANO BROS.

*Decided March 2, 1914.*

TRADE-MARKS—CANCELATION—SECTION 13 OF THE ACT OF 1905—APPLIES TO REGISTRATIONS UNDER THE ACT OF 1881.

Section 13 of the act of 1905 providing for the cancelation of trade-mark registrations applies also to registrations made under the act of 1881.

*Mr. E. S. Duvall* for the appellant.

*Mr. H. M. Wise* for the appellee.

VAN ORSDEL, *J.:*

This action was brought in the Patent Office by appellant for the cancelation of the registration of the trade-mark "Rameses" for cigarettes, granted to appellee August 8, 1899, and September 5, 1905, respectively. The first registration was granted under the act of 1881. It was held by the Commissioner of Patents that, as to that registration, the Office lacked jurisdiction to cancel it. From this ruling the case was brought here on appeal.

The right of any person deeming himself injured by the registration of a trade-mark to challenge it by a proceeding for its cancelation, is provided for in section 13 of the act of Congress of February 20, 1905, (33 Stats. L., 724,) and it was under this act that this proceeding was brought. The decision of the Commissioner of Patents is to the effect that the provision of the statute relating to cancelation is prospective, and not retrospective, and, therefore, cannot be applied to trade-marks registered prior to the date of its enactment. This is the sole question involved in this case.

The registration of trade-marks is regulated entirely by statute. There is no such property right acquired by registration as either forbids regulation or abolition by a subsequent act of Congress. Section 13 relates entirely to procedure in the Patent Office. The act of 1881 did not provide for challenging a registration by a proceeding for cancelation. The act of 1905 for the first time furnished this speedy and sensible remedy. Being merely remedial, and a matter of procedure, it was within the power of Congress to make it apply to all marks registered in the Patent Office. Intention to make it apply only to future marks is not indicated in the later act. Neither do we find anything to that effect in the saving clause in section 30 of the act. Provision as to cancelation did not exist in the prior acts, hence the saving clause in the later act could have no reference to that subject. There being nothing irreconcilable or unreasonable in applying the remedy provided in section 13 to registrations allowed under prior acts, it is our duty to construe





the acts in harmony. (*United States* v. *Healey*, 160 U. S., 136; *State* v. *Stoll*, 17 Wall., 425.)

The decision of the Commissioner of Patents is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

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## ADJUDICATED PATENTS.

(U. S. C. C.) The Gellenbeck patent, No. 482,899, for a combination of menu-card and meal-checks, *Held* valid and infringed. *Benjamin Menu Card Co.* v. *Rand, McNally & Co.*, 210 Fed. Rep., 285.

(U. S. C. C. A.) The Ball patent, No. 807,990, for a process of hulling cotton-seed, *Held* void for lack of invention, or, if valid, not infringed. *Ball* v. *Coker*, 210 Fed. Rep., 278.

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## Changes in Classification.

(ORDER No. 2,109.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 13, 1914.*

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 179, Telephony, (Division XVI,) establish the following subclasses and definitions:

**Systems—**
- 6.3. Check-controlled—
- 6.4. Check in circuit,
- 6.5. Check-operated switch.

6.3. SYSTEMS, CHECK-CONTROLLED. Combinations of telephone systems with check-controlled devices in which the check-controlled device is modified to adapt it especially for use with the telephone circuits or in which the telephone circuits are modified by reason of the presence of the check-controlled device not provided for in the two following subclasses.

**Search Class—**
194—CHECK-CONTROLLED APPARATUS, appropriate subclasses.

6.4. SYSTEMS, CHECK-CONTROLLED, CHECK IN CIRCUIT. Check-controlled telephone systems in which a current passes through the inserted check.

**Search Class—**
194—CHECK-CONTROLLED APPARATUS, subclass 6, Check in circuit, and the subclasses thereunder.

6.5. SYSTEMS, CHECK-CONTROLLED, CHECK-OPERATED SWITCH. Check-controlled telephone systems in which a switch is operated by the weight of the inserted check or by its lateral pressure as it falls through the coin way.

**Search Class—**
194—CHECK-CONTROLLED APPARATUS, subclass 9, Check-operated switch, and the subclasses thereunder.

These subclasses are composed of patents taken from class 194, Check-Controlled Apparatus, subclasses 8, Check in circuit, Telephones, and 16, Check-operated switch, Telephones, the titles of which are hereinafter changed.

In class 194, Check-Controlled Apparatus, (Division XL,) cancel the existing class definition and substitute therefor the following:

This class includes all patents which contain any claim for the check-controlled device, for the combination of such device with the apparatus or machine to which it is applied, or for any structure which is modified to adapt it especially for use in combination with a check-controlled device, *excepting* those combinations of telephones with check-controlled devices in which the check-controlled device is modified to adapt it especially for use with the telephone circuits or in which the telephone circuits are modified by reason of the presence of the check-controlled device.

In the same class change the titles of subclasses 8, Check in circuit, Telephones, and 16, Check-operated switch, Telephones, to read:

**Check in circuit—**
- 8. Signal.

**Check-operated switch—**
- 16. Signal.

Abolish the present definitions of these subclasses, and establish in lieu thereof the following definitions:

8. CHECK IN CIRCUIT, SIGNAL. The circuit closed by a check is that of a signal or alarm.

16. CHECK-OPERATED SWITCH, SIGNAL. The check-operated switch controls the circuit of a signal or alarm.

The patents formerly contained in these subclasses which are not covered by the modified definitions have been placed in class 179, Telephony, subclass 6.3, Systems, Check-controlled, and the subclasses thereunder, hereinbefore established, and in appropriate subclasses in class 194, Check-Controlled Apparatus.

In the same class add to the definition of subclass 6, Check in circuit, the following note:

**Search Class—**
179—TELEPHONY, subclass 6.4, Systems, Check-controlled, Check in circuit,

and to the definition of subclass 9, Check-operated switch, the following note:

**Search Class—**
179—Telephony, subclass 6.5, Systems, Check-controlled, Check-operated switch.

In class 232, Deposit and Collection Receptacles, (Division XL,) establish the following subclass and definition:

**Closures and chutes—**
- Coin-trap—
  - Pivoted—
    - 57.5. Refunding.

57.5. CLOSURES AND CHUTES, COIN-TRAP, PIVOTED, REFUNDING. A pivoted member is so arranged that the coin may be directed either to the cash-box or to a refunding opening. These devices are used frequently in telephone toll-boxes.

This subclass is composed of patents taken from various subclasses in class 194, Check-Controlled Apparatus, and class 232, Deposit and Collection Receptacles.

THOMAS EWING,
*Commissioner.*

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## Changes in Classification.

(ORDER No. 2,110.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 16, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 74, Machine Elements, (Division XII,) establish subclass—

**Cranks and levers—**
- 83. Interlocking.

This subclass is composed of patents taken from various subclasses in class 74, Machine Elements, and from classes 172, Electricity, Motive Power, subclass 179, Motors, Hand-operating devices, and 175, Electricity, General Applications, subclasses 282, Switches, Mechanical, and 283, Switches, Mechanical, Longitudinally reciprocating.

THOMAS EWING,
*Commissioner.*

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## Changes in Classification.

(ORDER No. 2,111.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 16, 1914.*

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 67, Illuminating Burners, (Division XXX,) abolish the following subclass, with its definition:

**Igniting devices—**
- Pocket—
  - 8. Attached lamp.

The patents formerly contained in this subclass have been placed in class 67, Illuminating Burners, subclasses 7, Igniting devices, Pocket, and 7.1, Igniting devices, Pocket, Pyrophoric, (the latter hereinafter established.)

In same class establish the following subclasses and definitions:

| | |
|---|---|
| **Igniting devices—** | **Igniting devices—** |
| Cigar— | Lamp— |
| 4.1. Pyrophoric, | 10.1. Pyrophoric, |
| Gaseous— | Pocket— |
| 20.1. Pyrophoric, | 7.1. Pyrophoric. |
| Implements— | |
| 6.1. Pyrophoric. | |

4.1. IGNITING DEVICES, CIGAR, PYROPHORIC. Cigar igniting devices including means for producing sparks by the abrasion of a pyrophoric body, such as cerium iron alloy.

6.1. IGNITING DEVICES, IMPLEMENTS, PYROPHORIC. Igniting implements including means for producing sparks by the abrasion of a pyrophoric body.

7.1. IGNITING DEVICES, POCKET, PYROPHORIC. Pocket igniting devices including means for producing sparks by the abrasion of a pyrophoric body.

10.1. IGNITING DEVICES, LAMP, PYROPHORIC. Igniting attachments for liquid fuel lamps wherein sparks are produced by the abrasion of a pyrophoric body.

20.1. IGNITING DEVICES, GASEOUS, PYROPHORIC. Attachments for gas burners whereby igniting sparks are produced by the abrasion of a pyrophoric body.

These subclasses are composed of patents taken from class 67, Illuminating Burners, subclasses 4, Igniting devices, Cigar; 6, Igniting devices, Implements; 7, Igniting devices, Pocket; 8, Igniting devices, Pocket, Attached lamp, (hereinbefore abolished;) 9, Igniting devices, Lamp; 14, Igniting devices, Gaseous, and 20, Igniting devices, Gaseous, Fulminating.

In same class, in the titles of subclasses 19, Igniting devices, Gaseous, Self-igniting, Catalytic, and 20, Igniting devices, Gaseous, Self-igniting, Fulminating, eliminate the clause "self-igniting," so that they will read:

**Igniting devices—**
Gaseous—
19. Catalytic,
20. Fulminating.

In same class, in the definition of subclass 7, Igniting devices, Pocket, cancel the last sentence, "The igniting means is generally fulminating or catalytic," and add the following note immediately after the definition:

Note.—The ignition elements are generally incased or protected.

THOMAS EWING,
*Commissioner.*

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 24, 1914.*

*William Brokhahne, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Harrington Cutlery Co., of Southbridge, Mass., for registration of a trade-mark and trade-mark registered December 6, 1881, No. 8,906, to William Brokhahne, of New York, N. Y., and Sheffield, England, and a notice of such declaration sent by registered mail to said William Brokhahne at Sheffield, England, having been returned by the post-office undeliverable, notice is hereby given that unless said William Brokhahne, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 28, 1914.*

*Aurilla B. Fenton, her assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Beziers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1888, No. 15,915, to Aurilla B. Fenton, Buffalo, N. Y., and a notice of such declaration sent by registered mail to said Aurilla B. Fenton at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Aurilla B. Fenton, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 23, 1914.*

*Percy Donaldson, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Beziers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1900, No. 35,187, to Percy Donaldson, 404 South Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Percy Donaldson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Percy Donaldson, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 16, 1914.*

*Central Lighting Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Hydro Carbon Company, 220–224 St. Francis avenue, Wichita, Kans., for registration of a trade-mark and trade-mark registered December 15, 1903, No. 41,678, to the Central Lighting Company, New York, N. Y., and a notice of such declaration sent by registered mail to the said Central Lighting Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Central Lighting Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 9, 1914.*

*William H. Lewis, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of John A. Chambers, of 90 West Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered June 21, 1892, No. 21,328, to William H. Lewis, of 1024 Arch street, Philadelphia, Pa., and a notice of such declaration sent by registered mail to said William H. Lewis at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Lewis, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 6, 1914.*

*Hancock & Co., their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Wayne County Driers & Packers Fruit Company, 145 Railroad street, Rochester, N. Y., for registration of a trade-mark and trade-mark registered October 7, 1902, No. 38,996, to Hancock & Co., of Bourse, 20 South Fifth street, Philadelphia, Pa., and the registry return receipt for the notice of such declaration sent to Hancock & Co. having been returned signed by the Hancock Grain Co., and the Hancock Grain Co. having failed to file evidence of its right to intervene on behalf of Hancock & Co. within the time allowed for that purpose notice is hereby given that unless said Hancock & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*





# INDEX

TO THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

MARCH, 1914.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

## TABLE OF CASES.


| | Page. |
|---|---|
| *Asbestone Company, The, *v.* The Philip Carey Manufacturing Company | 857 |
| Both *v.* Barr | 582 |
| *Bromund Company, E. A., *v.* Columbia Wax Products Co. | 1115 |
| *Capron. *In re* | 855 |
| *Comptograph Company *v.* Adder Machine Company | 1391 |
| Cooper. *Ex parte* | 581 |
| *Cooper. *In re* | 583 |
| *Emerson and Yoerg *v.* Riley | 280 |
| *Fleuss and Davis. *In re* | 1115 |
| Galle & Company, S., *v.* Western Grocer Company | 1115 |
| *Groves. *In re* | 856 |
| *McNeil. *In re* | 583 |
| Ochs. *In re* | 1116 |
| *Riley *v.* Emerson and Yoerg | 279 |
| *Schoenhofen Brewing Company, The Peter, *v.* John Sexton & Company | 1117 |
| Shellabarger. *Ex parte* | 855 |
| *Stamatopoulos *v.* Stephano Bros | 1394 |
| *Waterbury Chemical Company *v.* Reed & Carnrick | 279 |


## SUBJECT-MATTER INDEX.


| | Page. |
|---|---|
| Appeals lie from decisions, not from reasons for, S. Galle & Company *v.* Western Grocer Company | 1115 |
| *Article of manufacture, what is required for patentability, *in re* McNeil | 583 |
| Construction of claims, unpatentable in view of the state of the art, *ex parte* Cooper | 581 |
| **In re* Cooper | 583 |
| **In re* Fleuss and Davis | 1115 |
| **In re* Groves | 856 |
| *In re* McNeil | 583 |
| *Construction of specifications and patents, certain claims invalid in view of state of the art, Comptograph Company *v.* Adder Machine Company | 1391 |
| *Certain claims not infringed, Comptograph Company *v.* Adder Machine Company | 1391 |
| Interference, application and patent, claim not to be rejected unless anticipation is clear, Both *v.* Barr | 582 |
| *Invention thrown aside for eight years, others entered the field, patent is void and invention abandoned, Comptograph Company *v.* Adder Machine Company | 1391 |
| *Patentability, no invention in substituting one known material for another to accomplish a known result, *in re* Capron | 855 |
| *Priority of invention, award of in accordance with evidence, Emerson and Yoerg *v.* Riley | 280 |
| *Riley *v.* Emerson and Yoerg | 279 |
| References, claims amended in view of, no further explanation necessary, *ex parte* Shellabarger | 855 |
| *Testimony, bearing of surrounding circumstances, Emerson and Yoerg *v.* Riley | 280 |
| *Witness testifying falsely on one point, presumption that his testimony may all be false, Emerson and Yoerg *v.* Riley | 280 |
| *Trade-marks, application to register name of individual, firm, etc., opposition statutory right, no proof of damage requisite, The Asbestone Company *v.* The Philip Carey Manufacturing Company | 857 |
| *Cancelation of registration, section 13, Trade-Mark Act, 1905, applicable to registration under act of 1881, Stamatopoulos *v.* Stephano Bros | 1394 |
| *Grape-juice and beer not goods of the same descriptive properties, The Peter Schoenhofen Brewing Company *v.* John Sexton & Company | 1117 |
| *The word, symbol, and figures "$15.00 Clothes," for men's clothing, refused registration as descriptive term, *in re* Ochs | 1116 |
| *The words "Gold Bond," for clothes, refused registration on prior use, *in re* Ochs | 1116 |
| *"Grand-Ma's" and "Mother's" not sufficiently similar to cause confusion, E. A. Bromund Company *v.* Columbia Wax Products Co. | 1115 |
| "Peptenzyme" and "Pinozyme" not sufficiently similar to cause confusion, Waterbury Chemical Company *v.* Reed and Carnrick | 279 |

# DIGEST

OF THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

MARCH, 1914.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]


ABANDONMENT OF INVENTION.

See Particular Patents, 1.

ACTION BY THE EXAMINER.

See Prosecution of Applications.

ALLEGATIONS.

See Appeals; Opposition to Registration of Trade-Marks.

AMENDMENTS.

See Prosecution of Applications.

ANTICIPATION.

See Interference, 2; Prosecution of Applications.

APPEALS.

LIE FROM A DECISION AND NOT FROM THE REASONS OF THE DECISION.

It is well settled that an appeal is from the decision and not from the grounds or reasons upon which the decision is based, and where the Examiner of Trade-Marks granted a motion to dissolve, an appeal by the moving party alleging error in the reasons given by the Examiner for dissolving the interference will be dismissed.

[S. Galle & Company *v.* Western Grocer Company, 1115.

APPLICANT AND PATENTEE.

See Interference, 2.

CANCELATION OF TRADE-MARK REGISTRATION.

See Construction of Trade-Mark Statutes.

CONSTRUCTION OF CLAIMS.

1. PATENTABILITY—TRACKER-BOX.

Claims for a pivotally-mounted tracker-box adapted to be swung into position in front of the keyboard when the piano is to be operated mechanically or to be swung below the keyboard, where it is out of the way, if it is desired to play the piano manually, *Held* unpatentable in view of the prior art. [*Ex parte* Cooper, 581.

2. SAME—SAME.

Claims for a pivotally-mounted tracker-box for a piano-player *Held* unpatentable in view of the prior art. [**In re* Cooper, 583.

3. SAME—BELT-LOOP.

A claim for a belt-loop *Held* unpatentable where the article differed from that shown in a prior patent only in the manner in which it was sewed and the stitches used were shown in other patents. [**In re* McNeil, 583.

4. SAME—TRACK OF T-SECTION RAILROAD-RAIL BENT INTO CIRCULAR FORM.

Where the prior art shows endless tracks of T-shape made of cast-steel, *Held* that claims for a track consisting of a T-section railroad-rail bent into circular shape are not patentable, whatever invention applicant has made being confined to his apparatus and process. [**In re* Capron, 855.

5. SAME—ROAD-PAVEMENTS.

Claims for a road-pavement consisting of a monolithic body of concrete and a semi-elastic wearing-surface of substantially pure bitumen *Held* unpatentable in view of the prior act.

[**In re* Groves, 856.

6. SAME—APPLIANCE FOR SUPPLYING OXYGEN AND AIR TO DIVERS.

Claim for an appliance for supplying oxygen and air to divers *Held* unpatentable in view of the prior art.

[**In re* Fleuss and Davis, 1115.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS

See Particular Patents, 3.

CONSTRUCTION OF TRADE-MARK STATUTES.

See Opposition to Registration of Trade-Marks.

CANCELATION—SECTION 13 OF THE ACT OF 1905—APPLIES TO REGISTRATIONS UNDER THE ACT OF 1881.

Section 13 of the act of 1905 providing for the cancelation of trade-mark registrations applies also to registrations made under the act of 1881. [*Stamatopoulos *v.* Stephano Bros., 1394.

CORPORATIONS.

See Opposition to Registration of Trade-Marks.

DAMAGE.

See Opposition to Registration of Trade-Marks.

DESCRIPTIVE TERMS.

"$15.00 CLOTHES"—DESCRIPTIVE AS APPLIED TO MEN'S CLOTHING.

The word, symbol, and figures "$15.00 Clothes," as applied to men's clothing, *Held* descriptive of the character and the quality of the goods. [**In re* Ochs, 1116.

DISSOLUTION OF INTERFERENCE.

See Appeals.

EVIDENCE.

See Particular Patents, 1; Priority of Invention

EXAMINER OF TRADE-MARKS.

See Appeals.

FIRST AND ORIGINAL INVENTOR.

See Priority of Invention.

GOODS OF THE SAME DESCRIPTIVE PROPERTIES.

GRAPE-JUICE AND BEER.

Grape-juice *Held* not to constitute goods of the same descriptive properties as beer.

[*The Peter Schoenhofen Brewing Company *v.* John Sexton & Company, 1117.

INFRINGEMENT.

See Particular Patents, 3.

INTERFERENCE.

1. TESTIMONY—SURROUNDING CIRCUMSTANCES.

Where there is a sharp issue of fact, the surrounding circumstances and the inherent probability or improbability of the testimony must have a material bearing upon the outcome.

[*Emerson and Yoerg *v.* Riley, 280.

2. APPLICANT AND PATENTEE—PATENTABILITY.

Where an applicant seeks an interference with a patent, *Held* that the claims in the application should not be rejected unless such rejection is based upon a clear anticipation.

[Both *v.* Barr, 582.

INVENTION.

See Construction of Claims, 4.

SUBSTITUTION OF ONE KNOWN MATERIAL FOR ANOTHER—PROVISION FOR EXPANSION.

"There can be no invention in substituting one known material for another to accomplish a known result. Neither can invention be predicated on the known expedient of making a track of circular formation with a break therein, so that its size may be slightly enlarged or diminished as occasion may require."

[*In re* Capron, 855.

MOTION TO DISSOLVE INTERFERENCE.

See Appeals.

NEW PRODUCT.

See Patentability.

OLD MATERIAL.

See Invention.

OLD RESULT.

See Invention.

OPPOSITION TO REGISTRATION OF TRADE-MARKS.

NAME OF OPPOSER—SHOWING OF DAMAGE NOT NECESSARY.

"Where the name of an 'individual, firm, corporation, or association' is sought to be registered, as in this instance, the right of opposition is statutory, and proof of actual damage is not required. Neither is it important that appellant had not engaged actively in the business for which it was alleged it was incorporated. It is not the business which the statute in this particular aims to protect. It is the corporate name, and it is sufficient that possible damage may be inferred from invading the property right which the corporation possesses in its name."

[*The Asbestone Company *v.* The Philip Carey Manufacturing Company, 857.

PARTICULAR PATENTS.

1. FELT—NO. 628,176—TABULATOR-MACHINE—ABANDONMENT OF INVENTION.

Where the evidence showed that the invention disclosed in the Felt Patent No. 628,176 was completed in 1890, but was deliberately cast aside by its owner and no further action taken for eight years, during which time other inventors had entered the field and exploited the idea exemplified in this device, *Held* that the invention was abandoned and the patent void.

[*Comptograph Company *v.* Adder Machine Company, 1391.

2. SAME—NO. 568,021—PRINTING AND CALCULATING MACHINE—PATENTABILITY.

The Felt Patent No. 568,021, for a printing and calculating machine, claims 47, 48, 49, and 52 *Held* invalid in view of the prior art.

[*Id.

3. SAME—NO. 661,121—CALCULATING-MACHINE—INFRINGEMENT.

The Felt Patent No. 661,121, for a calculating-machine, claims 37, 38, 39, and 40 construed and *Held* not infringed. [*Id.

PATENTABILITY.

See Construction of Claims; Interference, 2.

ARTICLE OF MANUFACTURE.

To entitle an applicant to a patent for an article of manufacture, it must appear that he has added a new product to the art, differing from those that preceded it not merely in degree of usefulness or excellence, but in kind. [*In re* McNeil, 583.

PERJURY.

See Testimony.

PRESUMPTION.

See Testimony.

PRIOR PATENTS.

See Construction of Claims, 3.

PRIOR REGISTRATION.

See Registration of Trade-Marks.

PRIORITY OF INVENTION.

AWARD.

Evidence reviewed and *Held* to establish that the invention in issue originated with E. and Y. and that they are entitled to the award of priority.

[*Emerson and Yoerg *v.* Riley, 280. *Riley *v.* Emerson and Yoerg, 279.

PROCESS AND APPARATUS.

See Construction of Claims, 4.

PROPERTY RIGHTS.

See Opposition to Registration of Trade-Marks.

PROSECUTION OF APPLICATIONS.

EXAMINATION—APPLICATION OF REFERENCES.

Where in the first Office action the Examiner cited four references and specifically applied the same to the claim and in the further prosecution of the case only one new reference was cited, which was not relied upon as an anticipation, and the applicant repeatedly amended his claims in view of these references, *Held* that no further application of the references is necessary.

[*Ex parte* Shellabarger, 855.

REFERENCES.

See Prosecution of Applications.

REGISTRATION OF TRADE-MARKS.

MARK INCLUDING PRIOR REGISTERED MARK—NOT REGISTRABLE.

A mark which includes as an essential feature thereof the words "Gold Bond" *Held* properly refused registration in view of the prior registration of these words. [*In re* Ochs, 1116.

REJECTION OF CLAIMS.

See Interference, 2.

SIMILARITY OF MARKS.

1. "PINOZYME," "PEPTENZYME."

The words "Peptenzyme" and "Pinozyme" *Held* not so similar within the meaning of the trade-mark law as to tend to create confusion in trade.

[*Waterbury Chemical Company *v.* Reed & Carnrick, 279.



2. "GRAND-MA'S" AND "MOTHER'S."

The word "Grand-ma's" *Held* not so similar to the word "Mother's" that the use of these words upon the same goods would be likely to cause confusion or deceive purchasers.

[*E. A. Bromund Company *v.* Columbia Wax Products Co., 1115.

STATE OF THE ART.

See Construction of Claims; Particular Patents, 2.

TESTIMONY.

See Interference, 1.

1. WITNESS TESTIFYING FALSELY AS TO ONE FACT—PRESUMPTION.

"Where it clearly appears that a witness has wilfully testified falsely as to a given point, his entire testimony is entitled to little consideration, for 'courts are bound by principles of law, morality and justice, to apply the maxim *Falsus in uno, falsus in omnibus*.'"

[*Emerson and Yoerg *v.* Riley, 280.

2. SAME—SAME.

"The theory upon which this rule is founded is not that a witness who has wilfully perjured himself is incapable of speaking the truth as to other facts, but rather that the motive that prompted him to commit perjury in one part of his testimony *may* lead him to support it by falsifying other parts."

[*Id.

TRADE-MARKS.

See Appeals; Construction of Trade-Mark Statutes; Descriptive Terms; Goods of the Same Descriptive Properties; Opposition to Registration of Trade-Marks; Registration of Trade-Marks; Similarity of Marks.

VOID PATENTS.

See Particular Patents, 1, 2.

WITNESSES.

See Testimony.

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# ALPHABETICAL LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED DURING THE MONTH OF MARCH, 1914.

[Abbreviations: "Gaz."=Official Gazette.]

A. E. Rittenhouse Co. (See Rittenhouse, Arthur E., assignor.)
A. G. Spalding & Bros. (See Millar, James, assignor.)
A. I. Root Company, The. (See Marbach, Frank G., assignor.)
A. L. Palmer Co. (See Brown, Abraham A., assignor.)
Abbott, Henry, East Orange, N. J., assignor to Calculagraph Company, New York, N. Y. Card-gate. No. 1,091,786; Mar. 31; Gaz. vol. 200; p. 1232.
Abrams, John A., Wadsworth, Ohio. Appliance for gaslights. No. 1,090,671; Mar. 17; Gaz. vol. 200; p. 777.
Achenbach, Julius A. E., Hamburg, Germany. Dry battery. No. 1,090,372; Mar. 17; Gaz. vol. 200; p. 673.
Acker, Charles C., Winnsboro, Tex. Rail-joint. No. 1,091,029; Mar. 24; Gaz. vol. 200; p. 931.
Adam, Fredrick B., and L. H. Arens, assignors to Frank Adam Electric Company, St. Louis, Mo. Signaling system. No. 1,091,465; Mar. 24; Gaz. vol. 200; p. 1074.
Adam, William J., assignor to The Plimpton Press, Norwood, Mass. Printing-form. No. 1,089,100; Mar. 3; Gaz. vol. 200; p. 146.
Adams, Albert L., Cedar Rapids, Iowa. Handle and fastener therefor. No. 1,090,122; Mar. 10; Gaz. vol. 200; p. 545.
Adams, Alexander C., Hartford, Conn. Transportation-ticket. No. 1,090,589; Mar. 17; Gaz. vol. 200; p. 750.
Adams, Alonzo H., Wilkinsburg, Pa. Vehicle seat construction. No. 1,090,112; Mar. 10; Gaz. vol. 200; p. 541.
Adams, Arthur H. (See McBerty and Adams.)
Adams, Arthur J., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Baby-carriage. No. 1,090,511; Mar. 17; Gaz. vol. 200; p. 724.
Adams, George W., assignor to Eastman Kodak Company, Rochester, N. Y. Spool. No. 1,091,106; Mar. 24; Gaz. vol. 200; p. 957.
Adams, James B., Laurel Iron Works, W. Va. Vending-machine. No. 1,092,125; Mar. 31; Gaz. vol. 200; p. 1346.
Adams, James F., assignor to The Canister Company, Phillipsburg, N. J. Package-can. No. 1,090,264; Mar. 17; Gaz. vol. 200; p. 635.
Adams, John B., Christchurch, New Zealand. Life-saving buoy. No. 1,089,617; Mar. 10; Gaz. vol. 200; p. 371.
Adams, Roger C., Buffalo, N. Y., assignor to The Phinney Engineering Company, Chillicothe, Ohio. Machine for trimming string-beans, &c. No. 1,091,787; Mar. 31; Gaz. vol. 200; p. 1232.
Adams, Walter S., assignor to The J. G. Brill Company, Philadelphia, Pa. Means for operating sliding steps. No. 1,090,008; Mar. 10; Gaz. vol. 200; p. 506.
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Car-truck. No. 1,091,107; Mar. 24; Gaz. vol. 200; p. 957.
Adams, William E., Philadelphia, Pa. Furnace. No. 1,090,957; Mar. 24; Gaz. vol. 200; p. 905.
Adjustable Frame Company. (See Reid, Andrew S. and R., assignors.)
Advance M'f'g. Co. (See Barnes, Edward M., assignor.)
Advance Terra Cotta Company. (See Prosser, Henry B., assignor.)
Aero-Gas Machine Company. (See Laux, Mathias, assignor.)
Ahlen, William, Duquesne, Pa. Gage-locking device. No. 1,090,809; Mar. 17; Gaz. vol. 200; p. 821.
Aikin, Dow. (See Brown, Marshall R., assignor.)
Ajax Rail Anchor Co. (See Elfborg, Henry G., assignor.)
Aked, Thomas O., St. Thomas, Ontario, Canada. Doffing mechanism for spinning-machines. No. 1,090,958; Mar. 24; Gaz. vol. 200; p. 906.
Akes, Charles Y., assignor to M. J. Tubbs and M. J. Bailey, Custer, S. D. Ice-sawing machine. No. 1,091,997; Mar. 31; Gaz. vol. 200; p. 1303.
Akron Cultivator Company, The. (See Reading, Peter, assignor.)
Aktiebolaget Ljungströms Angturbin. (See Ljungström, Birger, assignor.)
Aktiebolaget Svenska Kullagerfabriken. (See Fjellman, Bengt W., assignor.)
Albright, Oscar E., Gallatin, Tenn. Horse-detacher. No. 1,090,959; Mar. 24; Gaz. vol. 200; p. 906.
Alexander, Alexander M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-skiving machine. No. 1,091,267; Mar. 24; Gaz. vol. 200; p. 1012.
Alexander, Anst, and A. M. Steinberg, Paris, Tenn. Bottle-closure. No. 1,090,091; Mar. 10; Gaz. vol. 200; p. 533.
Alexander, Jesse, assignor of one-half to C. B. Nichols, New York, N. Y. Type-writing-machine ribbon-operating mechanism. No. 1,091,179; Mar. 24; Gaz. vol. 200; p. 983.
Alexander, John. (See Roe, Jackson M., assignor.)
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Electric braking with alternating-current motors. No. 1,089,384; Mar. 3; Gaz. vol. 200; p. 240.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,091,613; Mar. 31; Gaz. vol. 200; p. 1170.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,091,614; Mar. 31; Gaz. vol. 200; p. 1171.
Alfieres, Emanuel J., New York, N. Y., assignor of one-half to C. De Wyrall, Ridgefield Park, N. J. Vault-light. No. 1,090,113; Mar. 10; Gaz. vol. 200; p. 542.
Alger, Harley C., Chicago Heights, Ill. Fluid-meter. No. 1,089,101; Mar. 3; Gaz. vol. 200; p. 146.
Allbee, John B., Plover, Iowa. Corn-planter attachment. No. 1,089,893; Mar. 10; Gaz. vol. 200; p. 466.
Allen, Eugene S., New York, N. Y. Valve for gas-burners. No. 1,091,108; Mar. 24; Gaz. vol. 200; p. 957.
Allen, George W., Selma, Cal. Peach-stoning machine. No. 1,091,723; Mar. 31; Gaz. vol. 200; p. 1209.
Allen, Judge S., New York, N. Y. Automatic train-stop. No. 1,091,268; Mar. 24; Gaz. vol. 200; p. 1013.
Allen, Sereno D., San Diego, Cal. Automobile driving-gear. No. 1,091,998; Mar. 31; Gaz. vol. 200; p. 1304.
Allen, Walter, Washington, D. C. Drawing-support. No. 1,091,999; Mar. 31; Gaz. vol. 200; p. 1304.
Allis-Chalmers Manufacturing Company. (See Cachin, Jean F., assignor.)
Allis-Chalmers Manufacturing Company. (See Cheney, Herbert W., assignor.)
Allis-Chalmers Manufacturing Company. (See Englesson, John E., assignor.)
Allis-Chalmers Manufacturing Company. (See Knight, Earle R., assignor.)
Allsop, Thomas. (See Sibson and Allsop.)
Allsop, Thomas, and W. W. Sibson, assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Machine for dyeing fibrous materials. No. 1,089,102; Mar. 3; Gaz. vol. 200; p. 147.
Allsteadt, John E., Hastings, Nebr. Fruit-picker. No. 1,089,521; Mar. 10; Gaz. vol. 200; p. 339.
Alma Manufacturing Company of Baltimore City. (See Greenebaum, Abraham H., assignor.)
Altgelt, Rudolph J., and C. F. Carlson, assignors to Oliver Chilled Plow Works, South Bend, Ind. Plow. No. 1,091,788; Mar. 31; Gaz. vol. 200; p. 1233.
Amborn, George, Chapinville, Conn., assignor to J. H. Williams & Co., Brooklyn, N. Y. Tool-holder. No. 1,090,810; Mar. 17; Gaz. vol. 200; p. 822.
Ambursen, Nils F., Brookline, Mass. Clothes-pounder. No. 1,089,808; Mar. 10; Gaz. vol. 200; p. 436.
Ambursen, Nils F., Brookline, Mass. Clothes-pounder. No. 1,089,809; Mar. 10; Gaz. vol. 200; p. 436.
American Agricultural Chemical Company, The. (See Wayte, Walter J., assignor.)
American Bottle Company, The. (See Lamb, Thomas F., assignor.)
American Can Company. (See Philip, Ernest R., assignor.)
American Can Company. (See Taylor, William E., assignor.)
American Can Company. (See Young, John M., assignor.)
American Car Sprinkler Co. (See McDonald, Thomas J., assignor.)
American Circular Loom Company. (See Hubert and Lockwood, assignors.)
American Circular Loom Company. (See Lutz, George A., assignor.)

American Graphophone Company. (See Macdonald, Thomas H., assignor.)
American Hardware Corporation, The. (See Fletcher, James R., assignor.)
American Lacing Hook Co. (See Havener, Arthur R., assignor.)
American Machine & Foundry Company. (See Smith, Elberon D., assignor.)
American Multigraph Company, The. (See Neidich, Samuel A., assignor.)
American Ozone Company. (See Butler, George F., assignor.)
American Pulley Company, The. (See Brinley, Charles A., assignor.)
American Radiator Company. (See Sutton, William S., assignor.)
American Rotary Machine Company, The. (See Elsermann and Lehne, assignors.)
American Sarcophagus Company. (See Van Nostrand, Charles L., assignor.)
American Seeding Machine Company, The. (See Packham, Frank R., assignor.)
American Steel Foundries. (See Stearns, Walter A., assignor.)
American Steel Package Company, The. (See Kruse, August M., assignor.)
American Stove Company. (See Ruppel, Henry, assignor.)
American Stove Company. (See Stockstrom and Parpert, assignors.)
American Telephone and Telegraph Company. (See Kitsee, Isidor, assignor.)
American Telephone and Telegraph Company. (See Molina, Edward C., assignor.)
American Tobacco Company, The. (See Harris, Fred R., assignor.)
American Warp Drawing Machine Company. (See Lea, Charles, assignor.)
Amodio, Raffaele. (See Ferry, Moscariello, and Amodio.)
Amundson, Henry O., Alexandria, Minn. Drawer for filing-cases and similar structures. No. 1,088,864; Mar. 3; Gaz. vol. 200; p. 65.
Anable, Clarence E., Sacramento, Cal. Paper-cutter. No. 1,091,450; Mar. 24; Gaz. vol. 200; p. 1070.
Andersen, Lauritz W., assignor to The Plume and Atwood Manufacturing Company, Waterbury, Conn. Socket-shell and holder combined. No. 1,089,180; Mar. 3; Gaz. vol. 200; p. 177.
Anderson, Anton D. (See Ponsiglione and Anderson.)
Anderson, Carl E. J., Youngstown, Ohio. Apparatus for treating placer. No. 1,088,760; Mar. 3; Gaz. vol. 200; p. 29.
Anderson, Carl E. J., assignor to National Placer Machine Company, Youngstown, Ohio. Placer-machine. No. 1,088,759; Mar. 3; Gaz. vol. 200; p. 29.
Anderson, Emil, New York, N. Y., assignor to Anderson Gas Turbine Company, Newark, N. J. Turbine. No. 1,088,761; Mar. 3; Gaz. vol. 200; p. 30.
Anderson, Ernest D., assignor to Union Paper Company, New York, N. Y. Machine for applying linings to hollow articles. No. 1,089,618; Mar. 10; Gaz. vol. 200; p. 371.
Anderson, Ernest D., assignor to Union Paper Company, New York, N. Y. Machine for making paper boxes. No. 1,089,619; Mar. 10; Gaz. vol. 200; p. 371.
Anderson Gas Turbine Company. (See Anderson, Emil, assignor.)
Anderson, George M., administrator. (See Anderson, Robert.)
Anderson, James P., Lisbon, N. D. Envelop. No. 1,091,020; Mar. 24; Gaz. vol. 200; p. 931.
Anderson, Raymond M. (See Bessom and Anderson.)
Anderson, Robert, deceased, Cincinnati, Ohio; G. M. Anderson, administrator. Reinforced-concrete floor construction. No. 1,088,956; Mar. 3; Gaz. vol. 200; p. 98.
Anderson, Robert H., assignor to R. B. Anderson, San Diego, Cal. Portable folding bed. No. 1,089,370; Mar. 3; Gaz. vol. 200; p. 236.
Anderson, Ruth B. (See Anderson, Robert H., assignor.)
Anderson, Sidney A., Jersey City, N. J. Synchronizing device for addressing and stamp-affixing machines. No. 1,091,470; Mar. 31; Gaz. vol. 200; p. 1121.
Anderson, William P., assignor to The Ferro Concrete Construction Company, Cincinnati, Ohio. Beam and girder. No. 1,088,676; Mar. 3; Gaz. vol. 200; p. 3.
Anderson, William P., assignor of one-fourth to P. J. Kolich, Oakland, Cal. Flying-machine. No. 1,092,000; Mar. 31; Gaz. vol. 200; p. 1304.
Andrén, Birger T., Milwaukee, Wis. Dental instrument. No. 1,091,789; Mar. 31; Gaz. vol. 200; p. 1233.
Andrews, David H. (See Ketchum and Andrews.)
Angell, Edmund R., Derry, N. H. Acetylene-generator. No. 1,089,355; Mar. 3; Gaz. vol. 200; p. 232.
Angell, Edwin E., Somerville, Mass. Water-level gage for pails. No. 1,089,522; Mar. 10; Gaz. vol. 200; p. 340.
Angell, George W., Grand Rapids, Mich. Adjustable table. No. 1,091,615; Mar. 31; Gaz. vol. 200; p. 1171.
Angell, John E., St. Louis, Mo. Electrical chemical-testing system. No. 1,089,030; Mar. 3; Gaz. vol. 200; p. 122.
Anheuser-Busch Brewing Association. (See Nolden, Paul E., assignor.)
Anklam, William F., assignor to C. M. Hall Lamp Company, Detroit, Mich. Lamp. No. 1,089,387; Mar. 10; Gaz. vol. 200; p. 289.
Anthony, Edgar W. (See Barber, William M., assignor.)
Antisdale, Edwin S., Chicago, Ill. Cuff protector or hook. No. 1,089,738; Mar. 10; Gaz. vol. 200; p. 413.
Antonuccio, Frank, Stockton, Cal. Water-heater. No. 1,090,512; Mar. 17; Gaz. vol. 200; p. 724.
Appelman, Samuel H., Bloomsburg, Pa. Calk attachment for crutches. No. 1,090,960; Mar. 24; Gaz. vol. 200; p. 906.
Apple Electric Company, The. (See Apple, Vincent G., assignor.)
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. Speed-reduction gearing. No. 1,089,181; Mar. 3; Gaz. vol. 200; p. 177.
Apple, Vincent G., assignor to The Apple Electric Company, Dayton, Ohio. System of regulation for dynamo-electric machines. No. 1,091,420; Mar. 24; Gaz. vol. 200; p. 1059.
Apsley Rubber Company. (See Hill, William G., assignor.)
Arbetter Felling Machine Company. (See Bailey, William E., assignor.)
Archambault, Arthur J., Chicago, Ill. Plumber's furnace. No. 1,090,009; Mar. 10; Gaz. vol. 200; p. 506.
Archer Iron Works. (See Clark, Lawrence A., assignor.)
Arens, Lloyd H. (See Adam and Arens.)
Arey, Fred C., Oak Park, assignor to Northwestern Expanded Metal Company, Chicago, Ill. Machine for expanding sheet metal. No. 1,090,961; Mar. 24; Gaz. vol. 200; p. 906.
Armer, Benjamin. (See Wohlander, Charles J., assignor.)
Armon, Joseph P., Chicago, Ill. Vehicle-jack. No. 1,092,001; Mar. 31; Gaz. vol. 200; p. 1304.
Armstrong, Charles, assignor of one-half to W. B. Davis, Lewis, Iowa. Weed-cutting attachment for cultivators. No. 1,092,002; Mar. 31; Gaz. vol. 200; p. 1305.
Armstrong, Ernest, Camden, N. J., assignor to General Lubricating Company, New York, N. Y. Lubricating device. No. 1,089,031; Mar. 3; Gaz. vol. 200; p. 122.
Armstrong, Ernest, Camden, N. J., assignor to General Lubricating Company, New York, N. Y. Lubricating device. No. 1,089,032; Mar. 3; Gaz. vol. 200; p. 123.
Armstrong, William B., and B. Johnson, Sigourney, Iowa. Pig-forceps. No. 1,090,010; Mar. 10; Gaz. vol. 200; p. 506.
Armstrong, William E., assignor to Harland & Wolff, Limited, Belfast, Ireland. Apparatus for raising, lowering, and storing ships' boats. No. 1,090,962; Mar. 24; Gaz. vol. 200; p. 907.
Armsworth, Willis, Cerro Gordo, Ill. Rail-joint. No. 1,092,003; Mar. 31; Gaz. vol. 200; p. 1305.
Arnett, Louis W., *et al.* (See Ricke, George H., assignor.)
Arnfield, Thomas O., and W. Booth, New Mills, England. Beetling-machine. No. 1,090,590; Mar. 17; Gaz. vol. 200; p. 750.
Arnold, Lewis E., assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii. Apparatus for sterilizing canned goods. No. 1,088,957; Mar. 3; Gaz. vol. 200; p. 98.
Arnold-Wagner Electric Co. (See Wagner, Joseph F., assignor.)
Arsem, William C., Schenectady, N. Y., assignor to General Electric Company. Graphite conductor. No. 1,091,616; Mar. 31; Gaz. vol. 200; p. 1172.
Art Stove Company, The. (See Coda, Christopher F., assignor.)
Arthur D. Little, Incorporated. (See Billings, Edward J., assignor.)
Arthur, John R., Roanoke, Va. Oil-burner. No. 1,089,033; Mar. 3; Gaz. vol. 200; p. 123.
Artista Piano Player Company. (See Bennett, Robert J., assignor.)
Artista Piano Player Company. (See Turney, Eugene T., assignor.)
Ashcroft, Edgar A., Balestrand, Sogn, Norway. Separation of metals from zinc-bearing ores or compounds. No. 1,091,269; Mar. 24; Gaz. vol. 200; p. 1013.
Ashmore, Edith B., Philadelphia, Pa. Curtain-pole-concealing suspension means for curtains and similar draperies. No. 1,091,471; Mar. 31; Gaz. vol. 200; p. 1121.
Atkins, John A., Carroll county, Va. Tobacco-hanger. No. 1,091,617; Mar. 31; Gaz. vol. 200; p. 1172.
Atkinson, Edward W., *et al.* (See O'Meara, James J., assignor.)
Attaway, James P., Oswego, S. C. Tire. No. 1,091,270; Mar. 24; Gaz. vol. 200; p. 1013.
Atwood, James T., Rockford, Ill. Vacuum cleaning apparatus. No. 1,090,127; Mar. 17; Gaz. vol. 200; p. 587.
Atwood, John B., Pittsburgh, Pa. Rail-fastener. No. 1,091,790; Mar. 31; Gaz. vol. 200; p. 1233.
Aurand, Clyde, Lewistown, Pa. Railway-signal. No. 1,092,004; Mar. 31; Gaz. vol. 200; p. 1305.
Aurora Corset Company. (See Mead, Larkin J., assignor.)
Austin, A. T. (See Austin, Wilson A., assignor.)
Austin, Arthur C. (See Walsh and Austin.)
Austin, Charles H., Palmyra, N. Y. Electric curling-iron heater. No. 1,090,672; Mar. 17; Gaz. vol. 200; p. 777.
Austin, Frederick C. (See Bathrick, Charles E., assignor.)
Austin, John T., assignor to Austin Organ Company, Hartford, Conn. Shutter-operating mechanism for pipe-organs. No. 1,090,963; Mar. 24; Gaz. vol. 200; p. 907.
Austin Organ Company. (See Austin, John T., assignor.)
Austin, Walter S., Grand Rapids, Mich. Change-speed gearing. No. 1,091,618; Mar. 31; Gaz. vol. 200; p. 1172.





Austin, Wilson A., assignor of one-half to A. T. Austin, Omaha, Nebr. Railway-switch or the like. No. 1,090,188; Mar. 17; Gaz. vol. 200; p. 609.
Auto Air Appliance Company, The. (See Crouse, David E., assignor.)
Auto Specialties Manufacturing Company. (See Bair, Clarence L., assignor.)
Autographic Register Company. (See Boller, William N., assignor.)
Automatic Enunciator Company. (See Comer, John J., assignor.)
Automatic Justifier Company. (See Langseth, Randolph, assignor.)
Autoplate Company of America, The. (See Wood, Henry A. W., assignor.)
Avers, Franklin H., Portage, Wis. Indicating device for moving-picture films. No. 1,090,128; Mar. 17; Gaz. vol. 200; p. 587.
Avery Company. (See Bartholomew, John B., assignor.)
Axe, Roy T., assignor to O. M. Edwards, Syracuse, N. Y. Trap-door for railway-cars and similar structures. No. 1,090,092; Mar. 10; Gaz. vol. 200; p. 534.
Aydlott, James M., Ravenna, assignor of one-half to W. A. Hanks, Ivanhoe, Tex. Subsoiler. No. 1,091,031; Mar. 24; Gaz. vol. 200; p. 932.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J. Plastic masses and producing the same. No. 1,090,439; Mar. 17; Gaz. vol. 200; p. 699.
Aylsworth, Jonas W., East Orange, assignor to Halogen Products Company, Glen Ridge, N. J. Polishing composition. No. 1,090,440; Mar. 17; Gaz. vol. 200; p. 699.
B. Jahn Manufacturing Company, The. (See Jahn, Berthold, assignor.)
B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)
B. V. D. Company, The. (See Erlanger, Sidney C., assignor.)
Babcock & Wilcox Company, The. (See Jones, William A., assignor.)
Babcock & Wilcox Company, The. (See Rosenthal and Davy, assignors.)
Babcock & Wilcox Company, The. (See Sewall, Minott W., assignor.)
Babcock & Wilcox Limited. (See Wylie, Hamilton N., assignor.)
Babendreer, Albert, and C. R. Wassell, Ocean Springs, Miss. Antifreezing device. No. 1,091,472; Mar. 31; Gaz. vol. 200; p. 1121.
Babst, Emile M. (See Goreau and Babst.)
Bacs, August, Fayetteville, Tex. Railway-tie. No. 1,092,005; Mar. 31; Gaz. vol. 200; p. 1305.
Bacon, Frank P., Los Angeles, Cal. Spring-wheel. No. 1,090,373; Mar. 17; Gaz. vol. 200; p. 673.
Badig, Cornell, and S. Berger, New York, N. Y. Funnel. No. 1,091,271; Mar. 24; Gaz. vol. 200; p. 1013.
Badische Anilin & Soda Fabrik. (See Bergs, Engelbert, assignor.)
Badische Anilin & Soda Fabrik. (See Bohn and Immerheiser, assignors.)
Badische Anilin & Soda Fabrik. (See Bosch and Mittasch, assignors.)
Badische Anilin & Soda Fabrik. (See Isler, Max H., assignor.)
Badische Anilin & Soda Fabrik. (See Lindner, Feilz, assignor.)
Badische Anilin & Soda Fabrik. (See Lüttringhaus, Lohse, and Sapper, assignors.)
Badische Anilin & Soda Fabrik. (See Mittasch and Mornwitz, assignors.)
Badische Anilin & Soda Fabrik. (See Müller, Friedrich, assignor.)
Badische Anilin & Soda Fabrik. (See Schmidt and Müller, assignors.)
Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Infusible condensation product of metacresol and formaldehyde. No. 1,088,677; Mar. 3; Gaz. vol. 200; p. 3.
Baekeland, Leo H., Yonkers, assignor to General Bakelite Company, New York, N. Y. Infusible condensation product. No. 1,088,678; Mar. 3; Gaz. vol. 200; p. 3.
Baggs, Andrew J. (See Bines, William H., assignor.)
Bailey, Almont A., Jr., Portland, Oreg. Linotype-mold. No. 1,091,724; Mar. 31; Gaz. vol. 200; p. 1209.
Bailey, Ervin G., Newton Highlands, Mass. Pressure-tight bearing. No. 1,089,739; Mar. 10; Gaz. vol. 200; p. 413.
Bailey, Harry E., and C. Parsons, Green Castle, Mo. Valve for internal-combustion engines. No. 1,089,620; Mar. 10; Gaz. vol. 200; p. 372.
Bailey, Merritt J., *et al.* (See Akes, Charles Y., assignor.)
Bailey, Seth G., assignor to The Bailey Theater Fly-Rail Machine Company, Denver, Colo. Scenery-handling apparatus. No. 1,091,109; Mar. 24; Gaz. vol. 200; p. 958.
Bailey Theater Fly-Rail Machine Company, The. (See Bailey, Seth G., assignor.)
Bailey, William A., Lincoln, Nebr. Game-board. No. 1,092,006; Mar. 31; Gaz. vol. 200; p. 1305.
Bailey, William E., Beverly, assignor to Arbetter Felling Machine Company, Boston, Mass. Blindstitch sewing-machine. No. 1,091,619; Mar. 31; Gaz. vol. 200; p. 1173.
Bailly, Gabriel E. (See Rice and Bailly.)
Bain, Benjamin L. (See Bain, Joseph S. and B. L.)
Bain, Joseph S. and B. L., Cedar Rapids, Iowa. Seed-corn-drying rack. No. 1,089,810; Mar. 10; Gaz. vol. 200; p. 437.
Bair, Clarence L., Chicago, Ill., assignor to Auto Specialties Manufacturing Company, San Francisco, Cal. Vehicle top-bow hinge. No. 1,089,454; Mar. 10; Gaz. vol. 200; p. 314.
Baker, Carey H., Watsonville, Cal. Fruit-grading machine. No. 1,089,034; Mar. 3; Gaz. vol. 200; p. 123.
Baker, Frank. (See Nathan, Rintoul, and Baker.)
Baker, James E. (See De Grody, Martin M., assignor.)
Baker, James R., Arlington, assignor to Cooper Hewitt Electric Co., Hoboken, N. J. Mercury-vapor apparatus. No. 1,091,180; Mar. 24; Gaz. vol. 200; p. 983.
Baker, Robert D., Detroit, Mich. Paving apparatus. No. 1,089,182; Mar. 3; Gaz. vol. 200; p. 177.
Baker, Robert E., Cleveland, Ohio. Storage-bin. No. 1,088,762; Mar. 3; Gaz. vol. 200; p. 30.
Baldwin, Abram T. (See Baldwin, Stephen W., assignor.)
Baldwin, Francis H., New Rochelle, N. Y. Eraser. No. 1,090,829; Mar. 24; Gaz. vol. 200; p. 861.
Baldwin, Nathaniel, Mill Creek, Utah. Governor mechanism. No. 1,091,181; Mar. 24; Gaz. vol. 200; p. 983.
Baldwin, Stephen W., Brookline, Mass., assignor to A. T. Baldwin, Detroit, Mich. Folding table. No. 1,091,272; Mar. 24; Gaz. vol. 200; p. 1014.
Ballard, Harrie A., Boston, assignor to The Boylston Manufacturing Company, South Boston, Mass. Thread-finger mechanism. No. 1,091,421; Mar. 24; Gaz. vol. 200; p. 1060.
Ballenger, Arthur T., Wayne county, Ind. Ground-anchor. No. 1,090,899; Mar. 24; Gaz. vol. 200; p. 884.
Ballinger, Ulyses G., Depass, Wyo. Automatic safety device. No. 1,090,011; Mar. 10; Gaz. vol. 200; p. 506.
Ballot, Ernest M., Paris, France. Distributing apparatus for engines or the like. No. 1,089,811; Mar. 10; Gaz. vol. 200; p. 437.
Balzano, Peter, New Haven, Conn. Cue-tip. No. 1,089,812; Mar. 10; Gaz. vol. 200; p. 437.
Balze, Paul, Leonia, N. J. Tank-siphon. No. 1,090,189; Mar. 17; Gaz. vol. 200; p. 610.
Bamford, John W., North Providence, R. I. Toe-calk for horseshoes. No. 1,089,035; Mar. 3; Gaz. vol. 200; p. 124.
Bancroft, Oscar, Washington, D. C. Type-writer attachment. No. 1,088,865; Mar. 3; Gaz. vol. 200; p. 65.
Banes, Walter D., Philadelphia, Pa., assignor to General Pressed Metal Company. Grease-cup. No. 1,091,032; Mar. 24; Gaz. vol. 200; p. 932.
Banes, Walter D., Philadelphia, Pa., assignor to General Pressed Metal Company. Grease-cup closure. No. 1,091,110; Mar. 24; Gaz. vol. 200; p. 958.
Banner, Otto, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Turbine. No. 1,090,441; Mar. 17; Gaz. vol. 200; p. 699.
Banner, Otto, Easton Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Turbine. No. 1,090,442; Mar. 17; Gaz. vol. 200; p. 700.
Banner, Otto, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Turbine. No. 1,090,443; Mar. 17; Gaz. vol. 200; p. 700.
Banning, Ephraim. (See Cooke and Banning.)
Bannister Orchard Heater Company, The. (See Scheu, William C., assignor.)
Barber Asphalt Paving Company, The. (See Richardson, Clifford, assignor.)
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Cylinder printing-machine. No. 1,089,740; Mar. 10; Gaz. vol. 200; p. 413.
Barber, James T., Brooklyn, N. Y. Ratchet-tool holder. No. 1,091,791; Mar. 31; Gaz. vol. 200; p. 1233.
Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Roller center-bearing for cars. No. 1,090,265; Mar. 17; Gaz. vol. 200; p. 636.
Barber, Lee W., and E. W. Webb, assignors to Standard Car Truck Company, Chicago, Ill. Lateral-motion roller-bearing for cars. No. 1,090,266; Mar. 17; Gaz. vol. 200; p. 636.
Barber, William M., Somerville, assignor of one-half to E. W. Anthony, Brookline, Mass. Paper-drying machine. No. 1,090,964; Mar. 24; Gaz. vol. 200; p. 907.
Barclay, William R., and J. Gouldbourn, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Machine for attaching heels. No. 1,091,473; Mar. 31; Gaz. vol. 200; p. 1122.
Barker, John F., Springfield, assignor to Gilbert & Barker Manufacturing Company, West Springfield, Mass. Hot-water heating system. No. 1,089,813; Mar. 10; Gaz. vol. 200; p. 437.
Barnard, Arthur W., assignor of one-half to W. C. Craig, Ridgewood, N. J. Tent. No. 1,089,103; Mar. 3; Gaz. vol. 200; p. 147.
Barnard, Walter E., Hartford, Conn., assignor to J. T. Underwood, Brooklyn, N. Y. Clutch. No. 1,090,444; Mar. 17; Gaz. vol. 200; p. 700.
Barnes, Augustus R., Los Angeles, Cal. Folding cot. No. 1,091,792; Mar. 31; Gaz. vol. 200; p. 1234.
Barnes, Charles H., Ilion, N. Y. Automatic firearm. No. 1,089,621; Mar. 10; Gaz. vol. 200; p. 372.
Barnes, Edward M., assignor to Advance M'f'g. Co., Hastings, Mich. Suction-cleaner. No. 1,090,129; Mar. 17; Gaz. vol. 200; p. 587.

Barnes, John E. L. (See Sloan and Barnes.)
Barnes Manufacturing Company, The. (See Smith, Sidney, assignor.)
Barnett, Horatio, Malvern, Ark. Hennery. No. 1,089,303; Mar. 3; Gaz. vol. 200; p. 214.
Barnett, Howard H., Pontiac, Mich. Door-holding device. No. 1,089,523; Mar. 10; Gaz. vol. 200; p. 340.
Barnett, Otto R. (See Scott, John M., assignor.)
Barnhart, George H., Ouray, Colo. Portable electrolier. No. 1,090,374; Mar. 17; Gaz. vol. 200; p. 673.
Barnum, Dana D., Worcester, Mass., and H. A. Carpenter, Sewickley, assignors to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Apparatus for generating gas. No. 1,091,111; Mar. 24; Gaz. vol. 200; p. 959.
Barr, Robert J., assignor of one-half to J. N. Germain, Erie, Pa. Steel-grit blast-machine. No. 1,089,388; Mar. 10; Gaz. vol. 200; p. 289.
Barrett, Arthur C., Chicago, Ill. Expansion-bolt. No. 1,090,900; Mar. 24; Gaz. vol. 200; p. 884.
Barrett, Herbert R., Southport, and K. M. Wilson, Manchester, assignors to The Phoenix Motor Company, Altrincham, England. Carbureter. No. 1,089,524; Mar. 10; Gaz. vol. 200; p. 340.
Barringer, Lawrence E., Schenectady, N. Y., assignor to General Electric Company. Insulator. No. 1,091,620; Mar. 31; Gaz. vol. 200; p. 1173.
Barringer, Lawrence E., Schenectady, N. Y., assignor to General Electric Company. Insulating material. No. 1,091,621; Mar. 31; Gaz. vol. 200; p. 1174.
Barringer, Lawrence E., Schenectady, N. Y., assignor to General Electric Company. Insulating composition. No. 1,091,725; Mar. 31; Gaz. vol. 200; p. 1209.
Bartels, Carl, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Safety-deposit box. No. 1,091,556; Mar. 31; Gaz. vol. 200; p. 1151.
Bartels, Reinhard E., Newton, Mass. Boot or shoe. No. 1,089,036; Mar. 3; Gaz. vol. 200; p. 124.
Bartholdy, Max, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Loading device for turret or stationary guns. No. 1,090,093; Mar. 10; Gaz. vol. 200; p. 534.
Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Marker mechanism for planters. No. 1,092,007; Mar. 31; Gaz. vol. 200; p. 1306.
Bartholow, William P. (See Dobbins and Bartholow.)
Bartlett Hayward Company, The. (See Wagner, Frederick H., assignor.
Bartlett, Percy H. (See Goldensky and Bartlett.)
Barton, Forest T., and O. Henson, assignors of one-third to L. N. Kemper, Seattle, Wash. Garment-exhibiting apparatus. No. 1,088,958; Mar. 3; Gaz. vol. 200; p. 99.
Barton, Joseph T., assignor to F. G. Forbes, Chicago, Ill. Underscoring-rule. No. 1,090,965; Mar. 24; Gaz. vol. 200; p. 908.
Barz, Fred H., Ventura, Iowa. Hay-fork. No. 1,092,087; Mar. 31; Gaz. vol. 200; p. 1332.
Basch, Sigmund. (See Meiser, Max, assignor.)
Baskin, W. W., *et al.* (See Walker, James M., assignor.)
Basset, Gorham F. (See Clay and Basset.)
Bassett, Harry P., assignor to The Spar Chemical Company, Baltimore, Md. Separating sodium and potassium salts. No. 1,091,033; Mar. 24; Gaz. vol. 200; p. 932.
Bassett, Harry P., Catonsville, assignor to The Spar Chemical Company, Baltimore, Md. Obtaining potash from feldspar. No. 1,091,034; Mar. 24; Gaz. vol. 200; p. 932.
Bassler, John M., Marion, Ohio. Revolving harrow. No. 1,091,273; Mar. 24; Gaz. vol. 200; p. 1014.
Bastian Blessing Company, The. (See Koesche, Andrew, assignor.)
Bates, Harry, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,089,037; Mar. 3; Gaz. vol. 200; p. 124.
Bathrick, Charles E., assignor to F. C. Austin, Chicago, Ill. Asphalt-chopping machine. No. 1,089,356; Mar. 3; Gaz. vol. 200; p. 232.
Batt, Charles N., Waterford, assignor of one-half to J. T. Chapman, Albany, N. Y. Folding-machine. No. 1,091,557; Mar. 31; Gaz. vol. 200; p. 1151.
Battaille, Octave, Basècles, Belgium, and P. Pipereaut, Paris, France. Apparatus for spreading pyrites in roasting-furnaces. No. 1,089,304; Mar. 3; Gaz. vol. 200; p. 214.
Batterson, Elmer S., Chicago, Ill. Map. No. 1,089,741; Mar. 10; Gaz. vol. 200; p. 413.
Bauerle, Otto, Sacramento, Cal. Coaling device. No. 1,090,012; Mar. 10; Gaz. vol. 200; p. 507.
Baughman, John F., Auburn, Ind. Adjustable splint. No 1,089,305; Mar. 3; Gaz. vol. 200; p. 215.
Baughman, John S. (See Bronson, Bert L., assignor.)
Baumgartl, Leroy, assignor to Federal Cement Tile Company, Chicago, Ill. Building-slab. No. 1,089,371; Mar. 3; Gaz. vol. 200; p. 237.
Baumhauer, W. C., *et al.* (See Sandiford, Green W., assignor.)
Bauroth, Leonhard. (See Brown and Bauroth.)
Baverey, François, Oullins, assignor to Société du Carburateur Zenith, Lyon, France. Carbureter for internal-combustion engines. No. 1,089,372; Mar. 3; Gaz. vol. 200; p. 237.
Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive tool. No. 1,089,038; Mar. 3; Gaz. vol. 200; p. 124.
Bayles, Lewis C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Fluid-pressure-operated hand-tool. No. 1,091,112; Mar. 24; Gaz. vol. 200; p. 959.
Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Uncoupling mechanism for cars. No. 1,090,591; Mar. 17; Gaz. vol. 200; p. 751.
Beach, Clarence E., and H. W. Doughty, Binghamton, assignors to G. O. Knapp, New York, N. Y. Testing system and mechanism for electrical circuits. No. 1,089,814; Mar. 10; Gaz. vol. 200; p. 438.
Beam, Charles W., assignor to H. C. Fry Glass Company, Rochester, Pa. Truing device for grinding-machines. No. 1,089,455; Mar. 10; Gaz. vol. 200; p. 314.
Beam, Charles W., assignor to H. C. Fry Glass Company, Rochester, Pa. Polishing-machine. No. 1,089,456; Mar. 10; Gaz. vol. 200; p. 315.
Beam, Charles W., assignor to H. C. Fry Glass Company, Rochester, Pa. Polishing-machine. (Reissue.) No. 13,706; Mar. 31; Gaz. vol. 200; p. 1348.
Bear Automatic Gas Stove Co. (See Bear, Lewis H., assignor.)
Bear, Lewis H., assignor to Bear Automatic Gas Stove Co., Los Angeles, Cal. Automatic gas-saving attachment for gas-stoves. No. 1,090,094; Mar. 10; Gaz. vol. 200; p. 535.
Beaucoudray, Anatole. (See Biery and Beaucoudray.)
Becher, Friedrich, Landsberg-on-the-Warthe, Germany. Piston-valve. No. 1,089,357; Mar. 3; Gaz. vol. 200; p. 233.
Bechman, Henry F., assignor to Duplex Printing Press Company, Battle Creek, Mich. Rotary printing-press. No. 1,090,013; Mar. 10; Gaz. vol. 200; p. 507.
Bechtel, John A., Tarentum, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Grinding apparatus. No. 1,089,894; Mar. 10; Gaz. vol. 200; p. 466.
Bechtel, John A., Tarentum, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Applying abrading material to grinding mechanism. No. 1,089,895; Mar. 10; Gaz. vol. 200; p. 467.
Beck, Henry J., St. Johnsbury, Vt. Stone-dressing machine. No. 1,089,104; Mar. 3; Gaz. vol. 200; p. 147.
Beck, Joseph, Two Harbors, Minn. Furnace-grate. No. 1,090,014; Mar. 10; Gaz. vol. 200; p. 508.
Becker, Gustav, Chicago, Ill. Shipping-crate. No. 1,089,896; Mar. 10; Gaz. vol. 200; p. 467.
Becker, Hugo. (See Will and Becker.)
Becker, Hugo A., Milwaukee, Wis. Shock-absorbing wheel. No. 1,091,622; Mar. 31; Gaz. vol. 200; p. 1174.
Becker, Joseph, Montclair, N. J. Curtain-fixture. No. 1,091,876; Mar. 31; Gaz. vol. 200; p. 1264.
Beckwith, Daniel P., assignor to The Pope Manufacturing Company, Hartford, Conn. Plug-gage. No. 1,090,901; Mar. 24; Gaz. vol. 200; p. 885.
Beckwith, John W., assignor of one-half to H. A. & L. D. Holland Company, Spokane, Wash. Electrical valve. No. 1,090,902; Mar. 24; Gaz. vol. 200; p. 885.
Bedell, Isaac E. (See Bedell, James H. and I. E.)
Bedell, James H. and I. E., Stamford, Conn. Sectional cushion-tire. No. 1,089,897; Mar. 10; Gaz. vol. 200; p. 468.
Beebe, Alice M. (See Cullen, Ernest E., assignor.)
Beebe, Nathan S., Kansas City, Mo. Piston-cooling device. No. 1,090,774; Mar. 17; Gaz. vol. 200; p. 809.
Beecher, Edward, Thompson, N. Y. Pulp-feed regulator. No. 1,088,679; Mar. 3; Gaz. vol. 200; p. 3.
Beecher, Titus A., Taft, Cal. Locating the place and character of a liquid coming from strata in a well. No. 1,090,673; Mar. 17; Gaz. vol. 200; p. 778.
Beecher, Titus A., Taft, Cal. Locating the place of a liquid stratum in a well. No. 1,090,674; Mar. 17; Gaz. vol. 200; p. 778.
Beecher, William H., Philadelphia, Pa. Envelop. No. 1,091,274; Mar. 24; Gaz. vol. 200; p. 1014.
Beegle, James H., *et al.* (See Petty, Harry E., assignor.)
Beer, Max, Rensselaer, N. Y. Shears-handle. No. 1,089,183; Mar. 3; Gaz. vol. 200; p. 177.
Beery, Samuel M., Indianapolis, Ind. Sectional wheel-rim. No. 1,090,513; Mar. 17; Gaz. vol. 200; p. 724.
Beeson, George W., Eagle Pass, Tex. Marine propulsion. No. 1,090,830; Mar. 24; Gaz. vol. 200; p. 861.
Belding Bros. & Co. (See Belding and Pearce, assignors.)
Belding, Hiram H., and L. L. Pearce, assignors to Belding Bros. & Co., Chicago, Ill. Display-rack for spools, &c. No. 1,090,831; Mar. 24; Gaz. vol. 200; p. 861.
Belknap, Ellsworth H., assignor to Golden, Belknap and Swartz Company, Detroit, Mich. Clutch. No. 1,091,474; Mar. 31; Gaz. vol. 200; p. 1122.
Bell, Alonzo C. and T. R., Westfield, N. J. Alternating-current motor. No. 1,089,815; Mar. 10; Gaz. vol. 200; p. 439.
Bell, Andrew W., *et al.* (See O'Meara, James J., assignor.)
Bell, Charles J., Miami, Fla. Device for mounting casters. No. 1,090,675; Mar. 17; Gaz. vol. 200; p. 778.
Bell, Edwin H., Chicago, Ill. Manufacturing tie-plates. No. 1,089,389; Mar. 10; Gaz. vol. 200; p. 289.
Bell, Edwin J., Oshkosh, Wis. Machine for building up boards. No. 1,090,908; Mar. 24; Gaz. vol. 200; p. 885.





Bell, Ernst J., and O. Treiber, Foche, near Solingen, assignors to Vereinigte Walz- und Röhrenwerke Act.-Ges. vormals Friedr. Boecker Ph's Sohn & Co. und Friedr. Koenig, Hohenlimburg, Germany. Bushing. No. 1,091,113; Mar. 24; Gaz. vol. 200; p. 959.
Bell, Joseph D., *et al.* (See O'Meara, James J., assignor.)
Bell, Robert J., Harvey, Ill. Electrically-connecting device. No. 1,090,190; Mar. 17; Gaz. vol. 200; p. 610.
Bell, Thaddeus R. (See Bell, Alonzo C. and T. R.)
Bell, William A., *et al.* (See O'Meara, James J., assignor.)
Bell, William R., Logtown, Miss. Railway construction-car. No. 1,089,306; Mar. 3; Gaz. vol. 200; p. 215.
Bellis, Lewis A., Douglas, Ariz. Valve. No. 1,090,676; Mar. 17; Gaz. vol. 200; p. 779.
Bellows, Charles F., Boston, Mass. Pocket door-lock. No. 1,089,688; Mar. 10; Gaz. vol. 200; p. 396.
Bellve, Joseph, and T. W. Potts, Dunedin, New Zealand. Tramway-track point. No. 1,090,832; Mar. 24; Gaz. vol. 200; p. 862.
Bemis, Thomas, Indianapolis, Ind. Pneumatic-despatch apparatus. No. 1,090,375; Mar. 17; Gaz. vol. 200; p. 674.
Bender, George L., and J. G. Rapp, San Francisco, Cal. Labeling-machine. No. 1,091,793; Mar. 31; Gaz. vol. 200; p. 1234.
Benét, Laurence V., and H. A. Mercié, Paris, France. Gun-mount. No. 1,089,307; Mar. 3; Gaz. vol. 200; p. 215.
Benjamin K. Lyman & Co. (See Lyman, Benjamin K., assignor.)
Benjamin, Reuben B., Chicago, Ill., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y. Lamp-supporting device. No. 1,088,866; Mar. 3; Gaz. vol. 200; p. 66.
Benjamin, Reuben B., Chicago, Ill., assignor, by mesne assignments, to General Electric Company, Schenectady, N. Y. Electric-lamp socket. No. 1,088,867; Mar. 3; Gaz. vol. 200; p. 66.
Benjamin, Reuben B., Chicago, Ill., assignor, by mesne assignments, to General Electric Company. Lamp-supporting device. No. 1,088,868; Mar. 3; Gaz. vol. 200; p. 67.
Benners, Allen C., Birmingham, Ala. Knockdown carrier for fragile receptacles. No. 1,091,907; Mar. 31; Gaz. vol. 200; p. 1274.
Benners, Allen C., Birmingham, Ala. Carrier for paper and like receptacles. No. 1,091,908; Mar. 31; Gaz. vol. 200; p. 1274.
Bennett, Loyal V., Jefferson, Ohio. Box. No. 1,092,008; Mar. 31; Gaz. vol. 200; p. 1306.
Beunett, Robert J., Moline, assignor to Artista Piano Player Company, Milan, Ill. Pneumatic playing attachment for musical instruments. No. 1,089,358; Mar. 3; Gaz. vol. 200; p. 233.
Benson, James C., Indianapolis, Ind. Seed-cleaner and corn-grader. No. 1,091,275; Mar. 24; Gaz. vol. 200; p. 1014.
Benton, Harry L., Redding, Cal. Log lifting and hauling machine. No. 1,092,088; Mar. 31; Gaz. vol. 200; p. 1333.
Benton, Thomas H., Portsmouth, Va. Mattress. No. 1,089,959; Mar. 3; Gaz. vol. 200; p. 99.
Berchtold, John A., Sigel, assignor of one-half to A. Schlicher, Mattoon, Ill. Shade-bracket. No. 1,089,898; Mar. 10; Gaz. vol. 200; p. 468.
Bergen Point Iron Works, The. (See Smith, Augustus, assignor.)
Berger, Arthur. (See Remy and Berger.)
Berger, Samuel. (See Badig and Berger.)
Berghoefer, Charles, deceased, Milwaukee, Wis.; E. C. Berghoefer, executor. Box-car-loading apparatus. No. 1,090,966; Mar. 24; Gaz. vol. 200; p. 908.
Berghoefer, Edward C., executor. (See Berghoefer, Charles.)
Bergman, Frederick H., Newton, Iowa. Releasable wringer. No. 1,089,622; Mar. 10; Gaz. vol. 200; p. 373.
Bergmann, Johannes A., Toronto, Ontario, Canada. Illuminated sign. No. 1,088,869; Mar. 3; Gaz. vol. 200; p. 67.
Bergs, Engelbert, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing unsaturated terpene hydrocarbons. No. 1,091,276; Mar. 24; Gaz. vol. 200; p. 1015.
Bernard, William A., assignor to The William Schollhorn Company, New Haven, Conn. Shoe-button tool. No. 1,090,191; Mar. 17; Gaz. vol. 200; p. 610.
Berners, Edward C., Two Rivers, Wis. Bottle-closure. No. 1,090,677; Mar. 17; Gaz. vol. 200; p. 779.
Berriman, Edward C., Chicago, Ill. Tobacco-package. No. 1,089,457; Mar. 10; Gaz. vol. 200; p. 315.
Berry, John H., Newton, assignor of one-fourth to J. A. Bowles, Villa Grove, Ill. Device for cutting grass. No. 1,090,267; Mar. 17; Gaz. vol. 200; p. 637.
Berry, Robert C., Indianapolis, Ind. Hacksaw-guide. No. 1,091,726; Mar. 31; Gaz. vol. 200; p. 1209.
Berthrong, Ithamar P., Washington, D. C. Dose-indicator. No. 1,091,114; Mar. 24; Gaz. vol. 200; p. 960.
Bertolino, Dominick. (See Dailey and Bertolino.)
Beskow, Knut J., and A. Ramén, Helsinborg, Sweden. Furnace for treating ore and the like. No. 1,091,182; Mar. 24; Gaz. vol. 200; p. 984.
Bessler, Frank E., assignor to The Bessler Movable Stairway Co., Akron, Ohio. Movable stairway. No. 1,088,960; Mar. 3; Gaz. vol. 200; p. 99.
Bessler Movable Stairway Co., The. (See Bessler, Frank E., assignor.)
Bessom, Earl A., and R. M. Anderson, assignors to Stromberg Motor Devices Company, Chicago, Ill. Carbureter. No. 1,089,105; Mar. 3; Gaz. vol. 200; p. 148.
Besson, Laurence, widow of the late C. Tixidre, Paris, France. Automatically-lightable cigar and cigarette. No. 1,089,308; Mar. 3; Gaz. vol. 200; p. 216.
Best, Ezra, *et al.* (See Best, William N., assignor.)
Best, John H., *et al.* (See Best, William N., assignor.)
Best, William N., New York, N. Y., assignor of one-third to J. H. Best, one-third to E. Best, Quincy, Ill., and one-third to W. N. Best, Brooklyn, N. Y. Tangential-flame furnace. No. 1,091,475; Mar. 31; Gaz. vol. 200; p. 1123.
Betham, William R., Chicago, Ill. Box. No. 1,090,592; Mar. 17; Gaz. vol. 200; p. 751.
Bettendorf, J. W., administrator. (See Bettendorf, William P.)
Bettendorf, William P., deceased, Bettendorf, Iowa; J. W. Bettendorf, administrator. Means for cushioning the bodies of railway-cars. No. 1,091,183; Mar. 24; Gaz. vol. 200; p. 984.
Bettendorf, William P., deceased; J. W. Bettendorf, administrator, Bettendorf, Iowa. Annealing-furnace. No. 1,091,184; Mar. 24; Gaz. vol. 200; p. 984.
Betz, Frederick M., Hamilton, assignor to The Ohio Machinery Manufacturing Company, Cincinnati, Ohio. Pressing-machine. No. 1,089,385; Mar. 3; Gaz. vol. 200; p. 241.
Bevier, Philip H., New York, N. Y. Hollow-tile arch. No. 1,091,794; Mar. 31; Gaz. vol. 200; p. 1235.
Bible, Adam C. (See Knott and Bible.)
Bicheroux, Max, assignor to Herzogenrather Spiegelglas- und Spiegel-Fabrik Bicheroux, Lambotte & Cie., Gesellschaft mit beschrankter Haftung, Herzogenrath, Germany. Manufacturing raw plate-glass. No. 1,090,904; Mar. 24; Gaz. vol. 200; p. 886.
Bickford, James A. (See Wall, Charles M., assignor.)
Bidtel, Ernst, Golconda, Ill., assignor to M. Eyssell, St. Louis, Mo. Purifying fluorspar. No. 1,091,795; Mar. 31; Gaz. vol. 200; p. 1235.
Bieger, Charles, Chicago, Ill. Beer-cooler. No. 1,088,763; Mar. 3; Gaz. vol. 200; p. 30.
Biery, William, and A. Beaucoudray, Covington, La. Rail tie and fastener. No. 1,088,680; Mar. 3; Gaz. vol. 200; p. 3.
Bignell, Edward, Lincoln, assignor of two-fifths to H. T. Jones, Seward, Nebr. Nozzle for piles and caissons. No. 1,089,525; Mar. 10; Gaz. vol. 200; p. 341.
Bigney, Sidney O., assignor to Sidney Suspender Company, Attleboro, Mass. Elastic connecting device. No. 1,091,476; Mar. 31; Gaz. vol. 200; p. 1123.
Billig, James K., Reading, Pa. Can. No. 1,090,678; Mar. 17; Gaz. vol. 200; p. 779.
Billings, Edward J., assignor to Arthur D. Little, Incorporated, Boston, Mass. Gas-analysis apparatus. No. 1,089,390; Mar. 10; Gaz. vol. 200; p. 290.
Billups, Joseph E., Kellyton, Ala. Dust-cap. No. 1,090,376; Mar. 17; Gaz. vol. 200; p. 674.
Bines, William H., assignor of one-half to A. J. Baggs, Barnesville, Ohio. Self-oiling mine-car wheel and axle. No. 1,091,796; Mar. 31; Gaz. vol. 200; p. 1235.
Birch, William T., Chicago, Ill. Pump-valve. No. 1,090,775; Mar. 17; Gaz. vol. 200; p. 809.
Birchbauer, Ferdinand, Baltimore, Md. Plumb-bob. No. 1,090,015; Mar. 10; Gaz. vol. 200; p. 508.
Bird, Frank G., Springfield, Mass. Dough-raising machine. No. 1,092,089; Mar. 31; Gaz. vol. 200; p. 1334.
Birdsey Somers Company. (See Roth, Isidor, assignor.)
Birmingham, George F., Kansas City, Mo. Life-saving apparatus. No. 1,091,909; Mar. 31; Gaz. vol. 200; p. 1274.
Birsfield, Jules A., Chicago, Ill., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Relay. No. 1,088,870; Mar. 3; Gaz. vol. 200; p. 67.
Bishopric, George F., Ottawa, Ontario, Canada. Roof or wall covering. No. 1,088,803; Mar. 3; Gaz. vol. 200; p. 44.
Bishton, George A., Cedar Rapids, Iowa. Grounding device. No. 1,092,009; Mar. 31; Gaz. vol. 200; p. 1306.
Bissett, Harry L., *et al.* (See Christman, Matthias, assignor.)
Bjerling, Hans C., Gjövik, assignor to K. Halmrast, Söndre Land, Norway. Mower. No. 1,089,039; Mar. 3; Gaz. vol. 200; p. 125.
Blackburn, Jasper, Kirkwood, Mo. Rope-clamp. No. 1,090,377; Mar. 17; Gaz. vol. 200; p. 675.
Blackburn, Jasper, Kirkwood, Mo. Railway-signal-operating mechanism. No. 1,090,378; Mar. 17; Gaz. vol. 200; p. 675.
Blackman, Leon D., Battle Creek, Mich. Cartridge-fuse. No. 1,090,445; Mar. 17; Gaz. vol. 200; p. 700.
Blacknall, Thomas H., assignor of one-half to H. Jansen, Chicago, Ill. Display-hanger. No. 1,090,968; Mar. 24; Gaz. vol. 200; p. 908.
Blake Car Step Company. (See Blake, Fred D., assignor.)
Blake, Charles G., Pittsburgh, Pa. Glass-insert tile. No. 1,092,128; Mar. 31; Gaz. vol. 200; p. 1347.
Blake, Fred D., assignor to Blake Car Step Company, Charlotte, N. C. Car-step-operating system. No. 1,089,106; Mar. 3; Gaz. vol. 200; p. 148.
Blake, Frederick J. (See Gibbons and Blake.)
Blanchard, Helen A., Philadelphia, Pa. Selvage-sewing. No. 1,089,816; Mar. 10; Gaz. vol. 200; p. 439.

Blancke, Alfred C. (See Hintze and Rosewick, assignors.)

Bland, Louis, Schenectady, N. Y. Adjustable metallic frame. No. 1,091,623; Mar. 31; Gaz. vol. 200; p. 1174.

Blanford, Henry, Aurora, Ill. Means for fluxing cans. No. 1,090,095; Mar. 10; Gaz. vol. 200; p. 535.

Blank, August, C. Heidenreich, and J. Jansen, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Cotton-dyes. No. 1,090,379; Mar. 17; Gaz. vol. 200; p. 675.

Blatzer, Joseph S., and P. J. Pawloski, Pontiac, Mich. Boat-propeller. No. 1,089,391; Mar. 10; Gaz. vol. 200; p. 290.

Blaw Collapsible Steel Centering Company. (See Venable, William M., assignor.)

Blessing, John T., Fort Worth, Tex. Piano-action. No. 1,090,192; Mar. 17; Gaz. vol. 200; p. 611.

Blessing, Margaret E., Philadelphia, Pa. Hat-pin protector. No. 1,088,871; Mar. 3; Gaz. vol. 200; p. 68.

Block, Henry L., St. Louis, Mo. Folding toilet-seat. No. 1,089,040; Mar. 3; Gaz. vol. 200; p. 125.

Block Light Co., The. (See Risinger, Frank V., assignor.)

Blon, Charles V., Bellaire, Ohio. Artificial limb. No. 1,091,115; Mar. 24; Gaz. vol. 200; p. 960.

Blonay, Jean de, assignor to Sapal, Societe Anonyme des Pileuses Automatiques, Lausanne, Switzerland. Automatic sheet-feeding device. No. 1,088,961; Mar. 3; Gaz. vol. 200; p. 100.

Blood, Alvin H., Aberdeen, Wash. Pencil attachment. No. 1,089,107; Mar. 3; Gaz. vol. 200; p. 149.

Bloom, Axel, Escanaba, Mich. Pole-climber. No. 1,091,277; Mar. 24; Gaz. vol. 200; p. 1015.

Blose, Daniel C., and M. Shultz, Kaylor, Pa. Rail-tie. No. 1,089,309; Mar. 3; Gaz. vol. 200; p. 216.

Blow, Robert F., *et al.* (See Sandiford, Green W., assignor.)

Blum, George J., Chicago, Ill. Chuck. No. 1,090,096; Mar. 10; Gaz. vol. 200; p. 536.

Blume, Frederick G. (See Witmond, Christopher B. J., assignor.)

Boardman, Charles H., Columbus, Ohio, assignor of one-half to T. King, Quincy, Mass. Mine-washing apparatus. No. 1,091,910; Mar. 31; Gaz. vol. 200; p. 1275.

Boden, Clarence S., San Francisco, Cal., assignor to Boden's Automatic Hammer Co. Tacking and lasting pincers. No. 1,090,514; Mar. 17; Gaz. vol. 200; p. 725.

Boden's Automatic Hammer Co. (See Boden, Clarence S., assignor.)

Boedtcher, Franz A., Bergenfeld, N. J. Elevator-indicator. No. 1,089,310; Mar. 3; Gaz. vol. 200; p. 216.

Boehme, John H., Hornick, and G. E. Holden, Castana, Iowa. Corn-planter. No. 1,089,458; Mar. 10; Gaz. vol. 200; p. 315.

Boehme, Raymond G., Newport, Ky. Clothes-drying rack. No. 1,091,278; Mar. 24; Gaz. vol. 200; p. 1015.

Bogey, Pierre, San Francisco, Cal. Grinding-machine. No. 1,088,872; Mar. 3; Gaz. vol. 200; p. 68.

Bohm, Oscar H., and W. M. McCoy, Birmingham, Ala. Jigging-machine. No. 1,091,035; Mar. 24; Gaz. vol. 200; p. 933.

Bohn, René, Mannheim, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Chromium compound of oxyanthraquinone-sulfonic acids and making same. No. 1,090,123; Mar. 10; Gaz. vol. 200; p. 545.

Boillot, Elmer. (See Fillmore and Boillot.)

Boissier, Hermann R., Great Neck, N. Y. Anode and anode-hook. No. 1,091,185; Mar. 24; Gaz. vol. 200; p. 985.

Boldt, Herman E., assignor to Wood Tire Silo Company, Sheboygan Falls, Wis. Silo-hoop. No. 1,089,742; Mar. 10; Gaz. vol. 200; p. 414.

Bolen, Robert H., New Orleans, La. Mold for forming sunken concrete structures. No. 1,089,184; Mar. 3; Gaz. vol. 200; p. 178.

Bolens, Harry W., Port Washington, Wis. Valve-gearing for internal-combustion engines. No. 1,089,526; Mar. 10; Gaz. vol. 200; p. 341.

Bolger, Robert S., New York, N. Y., assignor of one-half to Charles Leffler & Company. Forming boxes and tubes. No. 1,090,593; Mar. 17; Gaz. vol. 200; p. 751.

Boller, William N., Syracuse, assignor to Autographic Register Company, New York, N. Y. Autographic register. No. 1,090,905; Mar. 24; Gaz. vol. 200; p. 886.

Bolton, Samuel S., Cleveland, Ohio. Milling-machine head. No. 1,089,527; Mar. 10; Gaz. vol. 200; p. 342.

Bongiovanni, Antonio, Barnsboro, assignor of one-half to I. Lantzy, Spangler, Pa. Razor-cleaning attachment for barbers' chairs. No. 1,089,311; Mar. 3; Gaz. vol. 200; p. 217.

Bonham, Charles M., New York, N. Y. Adjustable shoe-buckle fastener. No. 1,092,010; Mar. 31; Gaz. vol. 200; p. 1307.

Bonnell, Herbert F., *et al.* (See Johnson, Harvey A., assignor.)

Boone, Frank L., assignor of one-fourth to D. F. Cox and one-fourth to J. M. Cox, Greensboro, Pa. Coal-washing jig. No. 1,091,797; Mar. 31; Gaz. vol. 200; p. 1235.

Boornaem, John F., Greenwich, Conn., and G. E. Rohmer, Ridgefield Park, N. J. Plunge-bath. No. 1,091,798; Mar. 31; Gaz. vol. 200; p. 1236.

Boornaem, John F., Greenwich, Conn., and G. E. Rohmer, Pelham, N. Y. Swimming-tank inlet. No. 1,091,799; Mar. 31; Gaz. vol. 200; p. 1236.

Boornaem, John V. V. (See Jacquart and Boornaem.)

Boosveld, Frank B., Lynchburg, Ohio. Rake-cleaner. No. 1,092,011; Mar. 31; Gaz. vol. 200; p. 1307.

Booth, Jack M., American Falls, Idaho. Post or pole. No. 1,089,459; Mar. 10; Gaz. vol. 200; p. 316.

Booth, James. (See Thornley and Booth.)

Booth, John, Peru, Ind. Swinging mirrors for wardrobes and dressers. No. 1,088,764; Mar. 3; Gaz. vol. 200; p. 31.

Booth, John, Peru, Ind. Swinging-mirror support for dressers. No. 1,088,765; Mar. 3; Gaz. vol. 200; p. 31.

Booth, William. (See Arnfield and Booth.)

Borchardt, Hugo, Charlottenburg, Germany. Toggle-breech mechanism for automatic firearms. No. 1,090,515; Mar. 17; Gaz. vol. 200; p. 725.

Borden's Condensed Milk Company. (See Hausheer, Bernard, assignor.)

Borgardt, Gotthard A., Camden, N. J. Landing-net. No. 1,088,766; Mar. 3; Gaz. vol. 200; p. 31.

Borgetti, Domenick, Chicago, Ill. Scissors. No. 1,090,130; Mar. 17; Gaz. vol. 200; p. 588.

Borzykowski, Benno, Berlin, Germany. Apparatus for the production of films. No. 1,090,679; Mar. 17; Gaz. vol. 200; p. 779.

Bosch, Carl, and A. Mittasch, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing ammonia. No. 1,089,185; Mar. 3; Gaz. vol. 200; p. 178.

Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)

Bosch, Firm of Robert. (See Zahringer, Arnold, assignor.)

Boss, Thomas H., assignor of one-half to Hill-Independent Mfg. Co., Muskegon, Mich. Numbering-machine. No. 1,091,279; Mar. 24; Gaz. vol. 200; p. 1015.

Bostwick, Frank B., Plainfield, N. J. Aseptic dental-waste receiver. No. 1,088,962; Mar. 3; Gaz. vol. 200; p. 100.

Bosworth, Percy B., Akron, Ohio. Vehicle wheel-rim. No. 1,089,899; Mar. 10; Gaz. vol. 200; p. 468.

Botts, Ira, Los Angeles, Cal. Lathe-tool holder. No. 1,092,012; Mar. 31; Gaz. vol. 200; p. 1307.

Bouillet, Jean, Levallois-Perret, assignor to Company "Le Sablage Industriel," Paris, France. Machine for cleaning and graining lithographic stones, zinc, &c. No. 1,091,036; Mar. 24; Gaz. vol. 200; p. 933.

Bourdelles, Emile, assignor to Schneider & Cie., Paris, France. Wheeled gun-carriage. No. 1,090,680; Mar. 17; Gaz. vol. 200; p. 780.

Bowditch, John P., Framingham, Mass. Cow-barn. No. 1,090,131; Mar. 17; Gaz. vol. 200; p. 588.

Bowen, Otis E. (See Willet and Bowen.)

Bowery, J. Nat. (See King, George W., assignor.)

Bowles, James A. (See Berry, John H., assignor.)

Boyce, Harrison H., Oyster Bay, N. Y. Indicating system and apparatus for internal-combustion engines. No. 1,090,776; Mar. 17; Gaz. vol. 200; p. 810.

Boyd, Alexander H., *et al.*, receivers. (See Fesenbek, Frederick C., assignor.)

Boyd, Frederic R. C., Lynn, Mass., assignor to General Electric Company. Speed-limiting device for turbo-generators. No. 1,090,016; Mar. 10; Gaz. vol. 200; p. 508.

Boyd, James F., Bigelow, Ark. Tire upsetter and shrinker. No. 1,090,681; Mar. 17; Gaz. vol. 200; p. 780.

Boyer, Fitz Henry. (See Streb, Charles, assignor.)

Boyler, Emanuel J., New Haven, Conn., assignor to The Greist Manufacturing Company. Safety-razor. No. 1,088,873; Mar. 3; Gaz. vol. 200; p. 69.

Boylston Manufacturing Company, The. (See Ballard, Harrie A., assignor.)

Boynton, Willie A., Newcastle, Tex. Cotton-picker's knee-pad. No. 1,090,446; Mar. 17; Gaz. vol. 200; p. 701.

Brackenbury, Edward W., assignor to T. L. Smith Company, Milwaukee, Wis. Charging device for concrete-mixers. No. 1,091,624; Mar. 31; Gaz. vol. 200; p. 1174.

Bradford, Beniah, Norristown, assignor to Lee Tire & Rubber Co., Conshohocken, Pa. Rim for pneumatic tires. No. 1,090,114; Mar. 10; Gaz. vol. 200; p. 542.

Bradford, Casper G., Joplin, Mo. Rake. No. 1,088,767; Mar. 3; Gaz. vol. 200; p. 32.

Bradford Dyers' Association. (See Metcalf and Nunn, assignors.)

Bradley, Franklin F., assignor to Bradley & Vrooman Company, Chicago, Ill. Coating objects with subdivided material. No. 1,088,874; Mar. 3; Gaz. vol. 200; p. 69.

Bradley & Vrooman Company. (See Bradley, Franklin F., assignor.)

Bradley, William H., Portland, Oreg. Seat-support for motor-cycles. No. 1,090,268; Mar. 17; Gaz. vol. 200; p. 637.

Brainin, David, Charlottenburg, Germany. Article of food and producing the same. No. 1,088,875; Mar. 3; Gaz. vol. 200; p. 69.

Brampton, Arthur, and G. Wadhams, Birmingham, England. Driving-chain. No. 1,090,380; Mar. 17; Gaz. vol. 200; p. 676.

Brandly, Albert R. (See Heller, Ernest B., assignor.)

Branigan, William J., Philadelphia, Pa. Portable motion-picture-projecting machine. No. 1,090,097; Mar. 10; Gaz. vol. 200; p. 536.

Brasted, Clair H., assignor to The Ludlow Typograph Company, Cleveland, Ohio. Composing mechanism for typographs. No. 1,091,477; Mar. 31; Gaz. vol. 200; p. 1124.

Braner, Arthur J., St. Louis, Mo. Tennis-racket case or cover. No. 1,091,280; Mar. 24; Gaz. vol. 200; p. 1016.





Braun, Joseph, New Decatur, Ala. Cotton-blocking machine. No. 1,090,193; Mar. 17; Gaz. vol. 200; p. 611.

Braun, William F., Brooklyn, N. Y. Weighing apparatus. No. 1,090,017; Mar. 10; Gaz. vol. 200; p. 509.

Braunberger, Marcel, Paris, France. Apparatus for gaseous injections. No. 1,090,833; Mar. 24; Gaz. vol. 200; p. 862.

Braund, Charles M., *et al.* (See Keenan, Hugh J., assignor.)

Braund, Louis R., *et al.* (See Keenan, Hugh J., assignor.)

Breed, James A., Lynn, Mass. Bow making and attaching machine. No. 1,090,194; Mar. 17; Gaz. vol. 200; p. 611.

Breeze, Frank A., Newburgh, Ontario, Canada. Saw-sharpener. No. 1,089,312; Mar. 3; Gaz. vol. 200; p. 217.

Breeze, Frank A., Newburgh, Ontario, Canada. Sawswage. No. 1,089,313; Mar. 3; Gaz. vol. 200; p. 217.

Breitenbach, Louis H., assignor to W. F. Keogh, New York, N. Y. Piano-bridge. No. 1,089,528; Mar. 10; Gaz. vol. 200; p. 342.

Bremer, Joseph H., Tampa, Fla. Pocket ash-tray. No. 1,090,018; Mar. 10; Gaz. vol. 200; p. 509.

Brenner, Paul C., Chicago, Ill. Door-operating device. No. 1,089,314; Mar. 3; Gaz. vol. 200; p. 218.

Brenning, William, Shreveport, La. Tie-plate. No. 1,092,013; Mar. 31; Gaz. vol. 200; p. 1307.

Brett, Afley I., and H. L. Parker, Braintree, Mass. Saddle for motor-cycles. No. 1,091,800; Mar. 31; Gaz. vol. 200; p. 1236.

Brewington, Henry S., Baltimore, Md. Writing-pen. No. 1,089,041; Mar. 3; Gaz. vol. 200; p. 125.

Brewster, Harry C., Shreveport, La. Well-packer. No. 1,090,019; Mar. 10; Gaz. vol. 200; p. 509.

Bridenbaugh, Elmer H., assignor to Ohmer Fare Register Company, Dayton, Ohio. Fare-register. No. 1,091,727; Mar. 31; Gaz. vol. 200; p. 1210.

Briggs, Thomas L., Brooklyn, N. Y. Tooth-brush. No. 1,092,014; Mar. 31; Gaz. vol. 200; p. 1308.

Bright, Colonel E., Columbus, Ohio. Tire. No. 1,090,195; Mar. 17; Gaz. vol. 200; p. 612.

Brightman, Frank E., assignor to The Brightman Nut & Manufacturing Company, Sandusky, Ohio. Machine for making castellated nuts. No. 1,092,126; Mar. 31; Gaz. vol. 200; p. 1346.

Brightman Nut & Manufacturing Company, The. (See Brightman, Frank E., assignor.)

Brinckerhoff, Francis M., Englewood, N. J., assignor to Forsyth Brothers Company, Chicago, Ill. Unit-section side frame for cars. No. 1,090,594; Mar. 17; Gaz. vol. 200; p. 751.

Brinckerhoff, Francis M., Englewood, N. J., assignor to Forsyth Brothers Company, Chicago, Ill. Unit-section sheathing for cars. No. 1,090,595; Mar. 17; Gaz. vol. 200; p. 752.

Briney, Charles E., Coraopolis, Pa. Attachment for hot-water radiators. No. 1,091,625; Mar. 31; Gaz. vol. 200; p. 1175.

Brinley, Charles A., assignor to The American Pulley Company, Philadelphia, Pa. Shaft-hanger. No. 1,091,478; Mar. 31; Gaz. vol. 200; p. 1124.

Briscoe, John S. (See Turner and Briscoe.)

Brissenden, Walter W., Inglewood, Cal., assignor to National Steam Specialty Company, Chicago, Ill. Radiator-valve. No. 1,089,529; Mar. 10; Gaz. vol. 200; p. 342.

Britt, Alfred A., Detroit, Mich. Packless valve for pressure or vacuum systems. No. 1,090,269; Mar. 17; Gaz. vol. 200; p. 637.

Britton, George G., assignor to Interstate Roofing & Foundry Company, Anniston, Ala. Sash-operating mechanism. No. 1,091,728; Mar. 31; Gaz. vol. 200; p. 1210.

Britz, James S., *et al.* (See Molitor and Britz, assignors.)

Britz, Mathias. (See Molitor and Britz.)

Britz, Peter M., *et al.* (See Molitor and Britz, assignors.)

Brizendin, John H., Lees Summit, Mo. Resilient wheel. No. 1,090,834; Mar. 24; Gaz. vol. 200; p. 862.

Broadbooks, Peter, Batavia, N. Y. Farrier's nail-pulling nippers. No. 1,090,020; Mar. 10; Gaz. vol. 200; p. 510.

Brock, Richard E. (See Mogan and Brock.)

Brockhaus, Herman A., Woodward, Okla. Grease-cup. No. 1,088,804; Mar. 3; Gaz. vol. 200; p. 44.

Brockman, Aloysius B. and W., Lawrence, Nebr. Transmission mechanism. No. 1,089,186; Mar. 3; Gaz. vol. 200; p. 178.

Brockman, William. (See Brockman, Aloysius B. and W.)

Brockway, Ezra C., assignor to Merchants Co-Operative Co., Trenton, N. J. Clock-bank. No. 1,091,422; Mar. 24; Gaz. vol. 200; p. 1060.

Broderick, James F., assignor to Troy Laundry Machinery Company, Ltd., Chicago, Ill. Laundry-dampening box. No. 1,091,558; Mar. 31; Gaz. vol. 200; p. 1152.

Brogan, Michael F., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Liquid-applying device. No. 1,090,196; Mar. 17; Gaz. vol. 200; p. 612.

Brokaw, William G. (See Fischmann, Karl, assignor.)

Bronson, Bert L., assignor of one-half to J. S. Baughman, Blairsville, Pa. Folding square. No. 1,090,811; Mar. 17; Gaz. vol. 200; p. 822.

Brooks, Charles E., St. Louis, Mo., assignor to Brooks-Latta Automobile Manufacturing Company. Steering mechanism. No. 1,091,423; Mar. 24; Gaz. vol. 200; p. 1060.

Brooks, Fred H. (See Keith and Brooks.)

Brooks, George S., assignor to Mineral Point Zinc Company, Depue, Ill. Apparatus for magnetizing desulfurized ores. No. 1,090,516; Mar. 17; Gaz. vol. 200; p. 725.

Brooks-Latta Automobile Manufacturing Company. (See Brooks, Charles E., assignor.)

Brough, Robert J., Tacoma, Wash. Raker-tooth swager. No. 1,091,801; Mar. 31; Gaz. vol. 200; p. 1237.

Brown, Abraham A., assignor to A. L. Palmer Co., New York, N. Y. Waistband-lining for trousers. No. 1,089,315; Mar. 3; Gaz. vol. 200; p. 218.

Brown, Carl E., Columbus, assignor to D. I. Hoch, Bellevue, Ohio. Combustion device. No. 1,091,424; Mar. 24; Gaz. vol. 200; p. 1061.

Brown, Charles H., New Haven, Conn. Heel extension and protecting device. No. 1,090,098; Mar. 10; Gaz. vol. 200; p. 536.

Brown, Charles S., Nashville, Tenn. Method and means for separating fluids having different characteristics. No. 1,089,187; Mar. 3; Gaz. vol. 200; p. 179.

Brown, F. B., *et al.* (See Winberg, Anders W., assignor.)

Brown, George L., Elyria, Ohio. Friction clutch mechanism. No. 1,088,805; Mar. 3; Gaz. vol. 200; p. 44.

Brown, John C., Niagara Falls, Ontario, Canada. Fire-escape. No. 1,091,802; Mar. 31; Gaz. vol. 200; p. 1237.

Brown, John W., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Electrode. No. 1,091,559; Mar. 31; Gaz. vol. 200; p. 1152.

Brown, Katherine H., Chicago, Ill. Electric shoe. No. 1,090,682; Mar. 17; Gaz. vol. 200; p. 780.

Brown, Louis O., Toledo, Ohio. Casket. No. 1,090,270; Mar. 17; Gaz. vol. 200; p. 638.

Brown, Louis O., and L. Bauroth, Toledo, Ohio, assignors to The Metallic Barrel Company, Chicago, Ill. Closure for the openings of containers. No. 1,090,824; Mar. 17; Gaz. vol. 200; p. 826.

Brown, Marshall R., assignor of one-half to D. Aikin, Bellefontaine, Ohio. Rail construction. No. 1,091,281; Mar. 24; Gaz. vol. 200; p. 1016.

Brown, Nester L., Owensboro, Ky. Concrete burial-vault. No. 1,091,282; Mar. 24; Gaz. vol. 200; p. 1017.

Brown, Nimrod W. L., Marietta, Ga. Tramper for cotton-presses. (Reissue.) No. 13,705; Mar. 24; Gaz. vol. 200; p. 1079.

Brown, Richard P., Philadelphia, Pa. Radiation-pyrometer. No. 1,089,743; Mar. 10; Gaz. vol. 200; p. 414.

Brown, Richard P., Philadelphia, Pa. Recording instrument. No. 1,089,744; Mar. 10; Gaz. vol. 200; p. 414.

Brown, Rush C., Oshkosh, Wis., assignor to Wilkin-Challoner Company. Automatic double gluer and driver. No. 1,089,530; Mar. 10; Gaz. vol. 200; p. 343.

Brown, William H., Cleveland, Ohio. Golf-stroke teacher. No. 1,091,186; Mar. 24; Gaz. vol. 200; p. 985.

Browning, Thomas J., Waynesboro, Miss. Gate-latch. No. 1,090,969; Mar. 24; Gaz. vol. 200; p. 900.

Bruce, Harry E. (See Emory, Eugene L., assignor.)

Bruckman, Frederick A., Portland, Oreg. Oven for ice-cream-cone-molding devices. No. 1,091,729; Mar. 31; Gaz. vol. 200; p. 1211.

Bruckman, Frederick A., Portland, Oreg. Cone nesting and stacking mechanism. No. 1,091,730; Mar. 31; Gaz. vol. 200; p. 1211.

Brueck, Theodor. (See Klein and Brueck.)

Bruggeman, Henry J., Sioux City, Iowa. Folding paste-board tray. No. 1,089,316; Mar. 3; Gaz. vol. 200; p. 218.

Brunnier, Henry J., San Francisco, Cal. Dock structure. No. 1,089,745; Mar. 10; Gaz. vol. 200; p. 415.

Brush, Alanson P., Detroit, Mich. Automobile-body. No. 1,091,187; Mar. 24; Gaz. vol. 200; p. 985.

Brush, Alanson P., Flint, Mich. Automobile structure. No. 1,091,911; Mar. 31; Gaz. vol. 200; p. 1275.

Bryan, Cecil E., Chicago, Ill. Mausoleum. No. 1,090,812; Mar. 17; Gaz. vol. 200; p. 822.

Bryan, Chester A., Hall City, Fla. Propeller. No. 1,090,271; Mar. 17; Gaz. vol. 200; p. 638.

Bryan, Gordon. (See Martin and Bryan.)

Bryant, Clarence R., assignor of one-fourth to F. Chesnut and one-fourth to C. M. Templeton, Fort Worth, Tex. Automobile-clutch. No. 1,092,015; Mar. 31; Gaz. vol. 200; p. 1308.

Bryant Electric Company, The. (See Peet, Wilbur G., assignor.)

Bryce, James W. (See Goss and Bryce.)

Bryce, William C., Montreal, Quebec, Canada. Automatic valve for dry-pipe fire-sprinkler systems. No. 1,091,803; Mar. 31; Gaz. vol. 200; p. 1237.

Bryers, William N., Helmer, Mich. Floating jacket. No. 1,090,596; Mar. 17; Gaz. vol. 200; p. 752.

Buch, Max A., Sparkbrook, Birmingham, England. Vehicle-body. No. 1,089,817; Mar. 10; Gaz. vol. 200; p. 439.

Buch, Newton W., New Castle, assignor to Safety Armorite Conduit Company, Pittsburgh, Pa. Electric conduit. No. 1,088,963; Mar. 3; Gaz. vol. 200; p. 100.

Buchanan, Laughlin M., Kewanee, Ill. Motor-vehicle. No. 1,090,132; Mar. 17; Gaz. vol. 200; p. 588.

Bucher, John E., Coventry, R. I., assignor to Nitrogen Products Company. Fixing nitrogen. No. 1,091,425; Mar. 24; Gaz. vol. 200; p. 1061.

Buchman, Lawrence E., assignor of one-half to V. B. Carmean, Philadelphia, Pa. Box for carrying and dispensing liquids. No. 1,088,964; Mar. 3; Gaz. vol. 200; p. 101.

Buck, William L., Cuba, Ill. Spark-arrester. No. 1,091,283; Mar. 24; Gaz. vol. 200; p. 1017.
Buckham, George T. (See Dawson and Buckham.)
Buckley, Harry, Louisville, Ky. Refining flour. No. 1,091,284; Mar. 24; Gaz. vol. 200; p. 1017.
Buckman, Worthy C., Jersey City, N. J., assignor to Davis-Bournonville Company, New York, N. Y. Welding. No. 1,091,479; Mar. 31; Gaz. vol. 200; p. 1124.
Buckwalter, Tracy V., Altoona, Pa. Tractor. No. 1,090,447; Mar. 17; Gaz. vol. 200; p. 701.
Budd, William E., Elizabeth, N. J. Wheel-tire. No. 1,088,768; Mar. 3; Gaz. vol. 200; p. 32.
Buddington, Frank E., Chicago, Ill. Liquid-evaporator for heaters. No. 1,090,835; Mar. 24; Gaz. vol. 200; p. 862.
Buel, Albert W. (See Ferguson and Buel.)
Buell, William H., assignor to Winchester Repeating Arms Co., New Haven, Conn. Impact-illuminated target for pleasure-shooting. No. 1,091,116; Mar. 24; Gaz. vol. 200; p. 960.
Buffalo Cement Stone Company. (See Davidson, Samuel, assignor.)
Bugbee, Ralph W., St. Louis, Mo. Poison-indicator. No. 1,092,016; Mar. 31; Gaz. vol. 200; p. 1308.
Bugler, Thomas L., Chicago, Ill. Block-forming machine. No. 1,092,090; Mar. 31; Gaz. vol. 200; p. 1334.
Bullard, Edward P., Jr., assignor to The Bullard Machine Tool Co., Bridgeport, Conn. Adjustable observation-stop. No. 1,088,965; Mar. 3; Gaz. vol. 200; p. 101.
Bullard Machine Tool Co., The. (See Bullard, Edward P., Jr., assignor.)
Bullock, Arthur R., assignor to A. J. Hudson, Cleveland, Ohio. Ignition-plug. No. 1,091,451; Mar. 24; Gaz. vol. 200; p. 1070.
Bullock, Edwin R., Pawtucket, R. I., assignor to United Cotton Gin Company, Boston, Mass. Cotton-gin. No. 1,090,272; Mar. 17; Gaz. vol. 200; p. 638.
Bumann, Theodore, Litchfield, Ill. Safety device for power-presses. No. 1,091,117; Mar. 24; Gaz. vol. 200; p. 960.
Burboa, Juan G. H., Hermosillo, Mexico. Type-writing machine. No. 1,089,689; Mar. 10; Gaz. vol. 200; p. 396.
Burch, Francis L. (See Burch, Joseph E. and F. L.)
Burch, Joseph E. and F. L., St. Louis, Mo. Printing-meter. No. 1,091,804; Mar. 31; Gaz. vol. 200; p. 1238.
Burchett, Louis H., Cashion, Okla. Wheel-holding attachment for tire-shrinking machines. No. 1,091,285; Mar. 24; Gaz. vol. 200; p. 1017.
Burchett, Walter J., East Orange, N. J., assignor to Ellis Adding Typewriter Company. Ribbon winding and reversing mechanism. No. 1,089,042; Mar. 3; Gaz. vol. 200; p. 125.
Burcky, William E., Chicago, Ill. Lamp. No. 1,091,118; Mar. 24; Gaz. vol. 200; p. 961.
Burgess, Frank A., assignor to Burgess-Norton Manufacturing Company, Geneva, Ill. Hatchet. No. 1,089,043; Mar. 3; Gaz. vol. 200; p. 126.
Burgess-Norton Manufacturing Company. (See Burgess, Frank A., assignor.)
Burian, Carl, assignor to Firm of Gebrüder Schubert, Berlin, Germany. Case-hardening iron and steel articles. No. 1,091,286; Mar. 24; Gaz. vol. 200; p. 1018.
Burke, William, Newark, Ohio. Golf-club head. No. 1,089,900; Mar. 10; Gaz. vol. 200; p. 469.
Burkett, John W., assignor to The Burkett Manufacturing Company, Columbus, Ohio. Hay-press. No. 1,091,912; Mar. 31; Gaz. vol. 200; p. 1276.
Burkett Manufacturing Company, The. (See Burkett, John W., assignor.)
Burnett, Cuthbert, Durham, England. Pneumatic or elastic tire. No. 1,091,480; Mar. 31; Gaz. vol. 200; p. 1125.
Burnett, Richard W., Montreal, Quebec, Canada. Dump-car door. No. 1,089,392; Mar. 10; Gaz. vol. 200; p. 290.
Burns & Bassick Company, The. (See Cummins, Norman W., assignor.)
Burns, Robert, assignor to Jabez Burns & Sons, New York, N. Y. Coffee-granulating mill. No. 1,089,818; Mar. 10; Gaz. vol. 200; p. 440.
Burroughs Adding Machine Company. (See Newman, Enos S., assignor.)
Bursch, Gustavus A., Brooklyn, N. Y. Razor-sharpening machine. No. 1,090,197; Mar. 17; Gaz. vol. 200; p. 612.
Burson Manufacturing Company. (See Rolston, Walter F., assignor.)
Burton, Charles M., and R. Gardner, New York, N. Y. Rotary engine. No. 1,090,021; Mar. 10; Gaz. vol. 200; p. 510.
Burton, Charles S., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Centrifugal speedometer. No. 1,089,746; Mar. 10; Gaz. vol. 200; p. 415.
Burton, James M., assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 1,091,481; Mar. 31; Gaz. vol. 200; p. 1125.
Burton, Ralph H., Somerville, Mass. Check-receiving apparatus. No. 1,091,560; Mar. 31; Gaz. vol. 200; p. 1152.
Busch, Raymond C. (See Trescott and Busch.)
Bush, Marston W., Willits, Cal. Spring-board. No. 1,090,836; Mar. 24; Gaz. vol. 200; p. 863.
Busse, Charles F. (See Pelter, Spry, and Busse.)
Buster, William H., and S. Varnell, Kingsland, Ark. Bicycle-fork. No. 1,090,381; Mar. 17; Gaz. vol. 200; p. 677.
Busz, Stanislas D., Moscow, Russia, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,090,597; Mar. 17; Gaz. vol. 200; p. 753.
Butkus, John A. (See Butkus, Joseph and J. A.)
Butkus, Joseph, Chicago, Ill., and J. A. Butkus, Baltimore, Md. Manufacturing bottle-caps. No. 1,091,626; Mar. 31; Gaz. vol. 200; p. 1175.
Butler, Alice H., Evanston, Ill. Wig or head-piece for dolls and the like and making the same. No. 1,090,198; Mar. 17; Gaz. vol. 200; p. 613.
Butler, George F., Niagara Falls, N. Y., assignor to American Ozone Company. System for ozonizing liquids. No. 1,089,108; Mar. 3; Gaz. vol. 200; p. 149.
Butler, John P., Haverhill, Mass. Pipe-coupling. No. 1,090,970; Mar. 24; Gaz. vol. 200; p. 909.
Butler, Paul, Lowell, Mass. Braiding-machine. No. 1,091,805; Mar. 31; Gaz. vol. 200; p. 1238.
Butler, William M., Syracuse, N. Y. Sectional boiler. No. 1,089,747; Mar. 10; Gaz. vol. 200; p. 416.
Button, Ernest G., and F. M. Huntoon, Riverside, Cal. Orchard-heater. No. 1,091,731; Mar. 31; Gaz. vol. 200; p. 1211.
Butz, Frederick. (See Poeth, Max, assignor.)
Bylger, Frans I. L., New York, N. Y. Rotary engine. No. 1,091,806; Mar. 31; Gaz. vol. 200; p. 1230.
Byrnes, Clarence P., Edgeworth, Pa. Reversing-valve. No. 1,089,690; Mar. 10; Gaz. vol. 200; p. 397.
Byrnes, John F., assignor of forty-five one-hundredths to R. Coleman and ten one-hundredths to F. M. McAuliffe, San Francisco, Cal. Vehicle service-indicator. No. 1,090,382; Mar. 17; Gaz. vol. 200; p. 677.
C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
C. G. Sargent's Sons Corporation. (See Cilley, Osborn H., assignor.)
C. M. Hall Lamp Company. (See Anklam, William F., assignor.)
Cachin, Jean F., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Hydraulic turbine. No. 1,092,091; Mar. 31; Gaz. vol. 200; p. 1335.
Cadman, Addi B. (See Warner and Cadman.)
Callle, Adolph A., Detroit, Mich. Scale. No. 1,090,598; Mar. 17; Gaz. vol. 200; p. 753.
Cain, Michael H., Indianapolis, Ind. Wheel rim and tire. No. 1,091,807; Mar. 31; Gaz. vol. 200; p. 1239.
Cairns, John, Walsall, England. Tire. No. 1,091,287; Mar. 24; Gaz. vol. 200; p. 1018.
Calculagraph Company. (See Abbott, Henry, assignor.)
Calcutt, Reginald B. (See Urie, George M., assignor.)
Caldognetto, Alejandro, Buenos Aires, Argentina. Crushing and grinding mill. No. 1,088,876; Mar. 3; Gaz. vol. 200; p. 70.
Caldwell, George W., Philadelphia, Pa. Vapor-cabinet appliance for bath-tubs. No. 1,089,819; Mar. 10; Gaz. vol. 200; p. 440.
Caldwell Manufacturing Company. (See Falvey and Caldwell, assignors.)
Caldwell, Thomas F., Richmond, Victoria, Australia. Quick-firing machine-gun. No. 1,090,124; Mar. 10; Gaz. vol. 200; p. 546.
Caldwell, Robson D. (See Falvey and Caldwell.)
Calhane, Daniel F., Worcester, Mass. Electric crucible-furnace. No. 1,091,808; Mar. 31; Gaz. vol. 200; p. 1240.
California Valve and Air Brake Company. (See Neal, Spencer G., assignor.)
California Valve and Air Brake Company. (See Pierce, Guy C., assignor.)
Callahan, Michael, Pittsfield, Mass., assignor to General Electric Company. Resinous composition and making the same. No. 1,091,732; Mar. 31; Gaz. vol. 200; p. 1212.
Callahan, Michael J., Pittsfield, Mass., assignor to General Electric Company. Resinous composition. No. 1,091,627; Mar. 31; Gaz. vol. 200; p. 1175.
Callahan, Michael J., Pittsfield, Mass., assignor to General Electric Company. Resinous condensation product. No. 1,091,628; Mar. 31; Gaz. vol. 200; p. 1175.
Callan, John G., Lynn, Mass., assignor to General Electric Company. Flexible coupling. No. 1,091,809; Mar. 31; Gaz. vol. 200; p. 1240.
Calleson, Frederic P., San Mateo, Cal. Screen-fastening. No. 1,090,099; Mar. 10; Gaz. vol. 200; p. 537.
Callsen, Jürgen, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Alkylalkozymethyl esters of cresotinic acids. No. 1,088,966; Mar. 3; Gaz. vol. 200; p. 101.
Cameron, Everett S., Beverly, Mass. Valve structure for explosive-engines. No. 1,090,599; Mar. 17; Gaz. vol. 200; p. 754.
Cameron, James A., New York, N. Y. Moving-picture machine. No. 1,088,806; Mar. 3; Gaz. vol. 200; p. 45.
Camp, George E., Utica, assignor to International Heater Company, New York, N. Y. Grate-bar. No. 1,089,317; Mar. 3; Gaz. vol. 200; p. 219.
Camp, Warner H., Atlanta, Ga. Attachment for linting and delinting machines. No. 1,089,318; Mar. 3; Gaz. vol. 200; p. 219.
Campbell, Frank L., Chelan, Wash. Shoe-shiner's clamp. No. 1,090,022; Mar. 10; Gaz. vol. 200; p. 511.
Campbell, Guy E., Gravity, Iowa. Grain-shocker. No. 1,092,092; Mar. 31; Gaz. vol. 200; p. 1335.





Campbell, John A., Carbondale, Ill. Lock for automobiles. No. 1,089,319; Mar. 3; Gaz. vol. 200; p. 219.
Campbell, Richard, Liverpool, England. Marine-boiler and other furnace. No. 1,090,273; Mar. 17; Gaz. vol. 200; p. 639.
Campbell, Wilfred, Schenectady, N. Y., assignor to General Electric Company. Internal-combustion engine. No. 1,091,629; Mar. 31; Gaz. vol. 200; p. 1176.
Canister Company, The. (See Adams, James F., assignor.)
Cannon, Elmer E., Waukomis, Okla. Corn-topper. No. 1,091,119; Mar. 24; Gaz. vol. 200; p. 961.
Cantrell, Edwin B., Oakland, and G. E. Miller, San Francisco, Cal. Power-transmitting mechanism. No. 1,090,383; Mar. 17; Gaz. vol. 200; p. 677.
Capdevielle, Henry, Washington, D. C. Resilient tire. No. 1,089,044; Mar. 3; Gaz. vol. 200; p. 127.
Capper, Edward C., Dumont, Iowa. Power plant. No. 1,091,188; Mar. 24; Gaz. vol. 200; p. 986.
Carew, Clement M., Titusville, Pa. Portable invoice-rod. No. 1,089,188; Mar. 3; Gaz. vol. 200; p. 179.
Carey, J. D. (See Ferguson, William S., assignor.)
Carichoff, Eugene R., Schenectady, N. Y., assignor to General Electric Company. Control of electrically-operated switches. No. 1,089,820; Mar. 10; Gaz. vol. 200; p. 441.
Carichoff, Eugene R., Schenectady, N. Y., assignor to General Electric Company. Electromagnetic device. No. 1,091,630; Mar. 31; Gaz. vol. 200; p. 1176.
Carleton, William E., Goshen Junction, Cal. Oil-burner. No. 1,090,683; Mar. 17; Gaz. vol. 200; p. 781.
Carlisle, Thomas S., Ocean City, N. J. Iron plane. No. 1,089,189; Mar. 3; Gaz. vol. 200; p. 179.
Carlson, Charles F. (See Altgelt and Carlson.)
Carlson, Frederick W., Helena, Mont. Sanitary washbasin. No. 1,089,320; Mar. 3; Gaz. vol. 200; p. 220.
Carlson, Frituff, Cadillac, Mich. Bag-tie. No. 1,091,288; Mar. 24; Gaz. vol. 200; p. 1018.
Carlstrom, Knut S., Waltham, Mass. Safety attachment for watch-springs. No. 1,091,561; Mar. 31; Gaz. vol. 200; p. 1153.
Carlton, Samuel W., London, England. Internal-combustion engine. No. 1,091,289; Mar. 24; Gaz. vol. 200; p. 1019.
Carman, William, assignor of one-half to A. J. L. Wolf, Ellenville, N. Y. Wrench. No. 1,089,321; Mar. 3; Gaz. vol. 200; p. 220.
Carmean, Velanda B. (See Buchman, Lawrence E., assignor.)
Carnahan, Robert B., Jr., assignor to The International Metal Products Co., Middletown, Ohio. Working pure iron. No. 1,090,115; Mar. 10; Gaz. vol. 200; p. 542.
Caron, Jacob, Nampa, Idaho. Muffler for automobiles. No. 1,092,017; Mar. 31; Gaz. vol. 200; p. 1308.
Carpenter, Alfred A., Sherman, Tex. Safety air-brake appliance. No. 1,090,274; Mar. 17; Gaz. vol. 200; p. 639.
Carpenter, Benjamin F. (See McMane and Carpenter.)
Carpenter, Charles E., New York, and A. J. Horton, White Plains, N. Y., assignors to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Circuit-breaker. No. 1,089,045; Mar. 3; Gaz. vol. 200; p. 127.
Carpenter, Henry A. (See Barnum and Carpenter.)
Carr, Frank A., McKeesport, Pa. Adjustable foot-rest. No. 1,091,290; Mar. 24; Gaz. vol. 200; p. 1019.
Carr, Oma, Asheville, N. C. Manufacture of sulfite pulp from resinous woods. No. 1,089,691; Mar. 10; Gaz. vol. 200; p. 397.
Carreiro, Angelo, Fall River, Mass. Clearer attachment for vehicles. No. 1,089,322; Mar. 3; Gaz. vol. 200; p. 220.
Carriere, Adelard J., Putnam, Conn. Automobile-radiator. No. 1,090,023; Mar. 10; Gaz. vol. 200; p. 511.
Carroll, Charles E., Newport, Ark. Tooth-brush. No. 1,091,291; Mar. 24; Gaz. vol. 200; p. 1019.
Carroll, Clarence W. (See Hodgkinson, Percy W., assignor.)
Carroll, Frank. (See Leigh and Carroll.)
Carroll, Fred M., assignor, by mesne assignments, to The White Adding Machine Company, New Haven, Conn. Computing and printing machine. No. 1,091,482; Mar. 31; Gaz. vol. 200; p. 1126.
Carroll, Morris, New York, N. Y. Tailor's rule. No. 1,090,024; Mar. 10; Gaz. vol. 200; p. 511.
Carroll, Walker B. (See Whitmore, Claude C., assignor.)
Carroll, William R., Many, La. Derailment brake appliance. No. 1,089,623; Mar. 10; Gaz. vol. 200; p. 373.
Carson, Fredrick E., assignor of one-third to J. McEvoy and one-third to W. McEvoy, Richmond, Va. Work-holder. No. 1,089,901; Mar. 10; Gaz. vol. 200; p. 469.
Carter, George, Calgary, Alberta, Canada. Device for raising and lowering windows. No. 1,089,531; Mar. 10; Gaz. vol. 200; p. 343.
Carter, Henry, Kansas City, Mo. Nut-lock. No. 1,091,483; Mar. 31; Gaz. vol. 200; p. 1126.
Case, Charles A., New York, N. Y. Fanning and concentrating machine. No. 1,090,448; Mar. 17; Gaz. vol. 200; p. 702.
Case, John J., Fort Edward, N. Y. Pulp-grinding stone. No. 1,091,037; Mar. 24; Gaz. vol. 200; p. 933.
Casey-Hedges Company, The. (See Stimmel, Frederick C., assignor.)
Casgrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Burnishing-machine. No. 1,089,821; Mar. 10; Gaz. vol. 200; p. 441.
Cash, Arthur W., assignor to H. Mueller Mfg. Co., Decatur, Ill. Reducing regulating-valve. No. 1,090,384; Mar. 17; Gaz. vol. 200; p. 678.
Cash, Zackariah T., Eddyville, Ky. Plow-fender. No. 1,090,025; Mar. 10; Gaz. vol. 200; p. 511.
Cassidy, Charles J., Chicago, Ill. Electric sign for cash-registers. No. 1,091,810; Mar. 31; Gaz. vol. 200; p. 1240.
Castelow, Wilbur E., Meriden, Conn. Music-roll. No. 1,091,189; Mar. 24; Gaz. vol. 200; p. 986.
Castilho, Severiano A. de, Rio Janeiro, Brazil. Ordnance breech mechanism. No. 1,090,449; Mar. 17; Gaz. vol. 200; p. 702.
Castle, Marcus L., Malone, N. Y. Firearm. No. 1,091,190; Mar. 24; Gaz. vol. 200; p. 986.
Castona Improved Process Co. (See Castona, John H., assignor.)
Castona, John H., Gulfport, Miss. Extracting apparatus. No. 1,092,019; Mar. 31; Gaz. vol. 200; p. 1309.
Castona, John H., Laine, assignor to Castona Improved Process Co., Gulfport, Miss. Retort or still. No. 1,092,018; Mar. 31; Gaz. vol. 200; p. 1309.
Castonguay, Leger J., Harrisburg, Pa. Plug-socket. No. 1,091,562; Mar. 31; Gaz. vol. 200; p. 1153.
Cater, John M. (See Green and Cater.)
Caughey, Robert C., Dixon, Ill., assignor to M. Rumely Company, Laporte, Ind. Engine-plow. No. 1,090,133; Mar. 17; Gaz. vol. 200; p. 589.
Caughey, Robert C., Dixon, Ill., assignor to M. Rumely Company, Laporte, Ind. Plow. No. 1,090,134; Mar. 17; Gaz. vol. 200; p. 589.
Caught, James N. (See Park, Caught, and House.)
Cauvry, Gaston, and L. Saiel, Marseille, France. Resilient wheel. No. 1,090,199; Mar. 17; Gaz. vol. 200; p. 613.
Cavey, John E., Otis, Colo. Bracket. No. 1,092,020; Mar. 31; Gaz. vol. 200; p. 1310.
Central Railway Signal Company. (See Dutcher, Frank, assignor.)
Ceseranl, John, Butte, Mont. Safety brake mechanism for elevators and hoisting-cages. No. 1,091,292; Mar. 24; Gaz. vol. 200; p. 1019.
Chadwick, Everett D., trustee. (See Nickerson, William E., assignor.)
Chambersburg Engineering Company. (See Longaker, Albert A., assignor.)
Chambley, Alexander, Philadelphia, Pa. Vault-light construction. No. 1,089,323; Mar. 3; Gaz. vol. 200; p. 220.
Champion Chemical Company, The. (See Colthar, William U., assignor.)
Champion Potato Machinery Company. (See Knoerzer, Otto, assignor.)
Champion Shoe Machinery Company. (See Dobyne, George A. and S. A., assignors.)
Champion Shoe Machinery Company. (See Dobyne, Stephen A., assignor.)
Chandler, Gilbert E., Cambridge, Mass. Necktie-holder. No. 1,091,191; Mar. 24; Gaz. vol. 200; p. 987.
Chantiers et Atellers Augustin Normand. (See Fenaux, Fernand, assignor.)
Chapman, John T. (See Batt, Charles N., assignor.)
Chappell, Howard F., New York, N. Y. Calcining alunite. No. 1,089,109; Mar. 3; Gaz. vol. 200; p. 149.
Chappell, Howard F., New York, N. Y. Apparatus for treating alunite. No. 1,089,110; Mar. 3; Gaz. vol. 200; p. 150.
Chapplus, Walter. (See Moss and Chapplus.)
Charles Leffler & Company. (See Bolger, Robert S., assignor.)
Charlton, Harry W., Ottawa, Ontario, Canada. Match-ignition composition. No. 1,089,902; Mar. 10; Gaz. vol. 200; p. 469.
Chas. Cory & Son. (See Henschel, Charles, assignor.)
Chase, Aurin M., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Tempering. No. 1,091,120; Mar. 24; Gaz. vol. 200; p. 962.
Chase, Samuel, Los Angeles, Cal. Signaling device. No. 1,091,038; Mar. 24; Gaz. vol. 200; p. 934.
Chelsea Clock Company. (See Menns, Walter K., assignor.)
Chemische Fabrik auf Actien (vorm. E. Schering). (See Thiele, Albrecht, assignor.)
Chemische Fabrik Griesheim-Elektron. (See Laska and Zitscher, assignors.)
Cheney, Herbert W., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Switch. No. 1,088,769; Mar. 3; Gaz. vol. 200; p. 32.
Chesbro, John J., Oneonta, N. Y. Lawn-mower sharpener. No. 1,092,021; Mar. 31; Gaz. vol. 200; p. 1310.
Chesley, Arthur C., New York, N. Y. Mortise latch and lock. No. 1,089,324; Mar. 3; Gaz. vol. 200; p. 221.
Chesney, Lomen E., Steubenville, Ohio. Nut-lock. No. 1,091,293; Mar. 24; Gaz. vol. 200; p. 1020.
Chesnut, Frank, *et al.* (See Bryant, Clarence R., assignor.)
Chesser, Lewis, Wilson, Wash. Soil-pulverizer. No. 1,089,325; Mar. 3; Gaz. vol. 200; p. 221.
Chicago Mfg. & Distributing Company. (See Wright, Gordon K., assignor.)
Chicago Pneumatic Tool Co. (See Hayes, George H., assignor.)
Chicago Title and Trust Company. (See McKenzie, Dougal J., assignor.)

Chidley, Joseph, Cleveland, Ohio. Sprinkler device for locomotives. No. 1,091,631; Mar. 31; Gaz. vol. 200; p. 1177.

Chilen, George W., Longbeach, Cal. Washing-machine. No. 1,090,275; Mar. 17; Gaz. vol. 200; p. 639.

Chillis, William G., assignor of one-third to N. Noto, Klotzville, La. Spark-arrester. No. 1,090,026; Mar. 10; Gaz. vol. 200; p. 512.

Chilson, Marvin L., Webster, S. D. Pressure-gage. No. 1,089,326; Mar. 3; Gaz. vol. 200; p. 221.

Chilson, Matthew E., Beerston, N. Y. Currycomb. No. 1,092,022; Mar. 31; Gaz. vol. 200; p. 1310.

Chrisman, Horace, Edgewood Park, Pa., assignor to Pittsburg Meter Company. Gas-meter. No. 1,089,393; Mar. 10; Gaz. vol. 200; p. 290.

Christian, Sidney A., Fulbright, Tex. Combined generator and burner. No. 1,089,532; Mar. 10; Gaz. vol. 200; p. 343.

Christman, Matthias, assignor of one-third to H. L. Bissett and one-third to G. A. McLaughlin, Springfield, Mo. Hub-plate. No. 1,091,192; Mar. 24; Gaz. vol. 200; p. 987.

Christman, Peter, Green Bay, Wis. Quadruple-impulse pump. No. 1,090,276; Mar. 17; Gaz. vol. 200; p. 639.

Chritton, James M., Rocky Ford, Colo. Hat-pin fastener and protector. No. 1,088,967; Mar. 3; Gaz. vol. 200; p. 101.

Church, Melvin B., Grand Rapids, Mich. Motor traction-wheel. No. 1,090,684; Mar. 17; Gaz. vol. 200; p. 781.

Churchill, Frederick C. (See Keene, George F., assignor.)

Churchward, Alexander, New York, N. Y., assignor to General Electric Company. System of vehicle propulsion. No. 1,091,632; Mar. 31; Gaz. vol. 200; p. 1177.

Cilley, Osborn H., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Method of and apparatus for moistening yarns. No. 1,090,971; Mar. 24; Gaz. vol. 200; p. 909.

Cincinnati Galvanizing Company. (See Schott, Louis, assignor.)

Cincinnati Milling Machine Company, The. (See Einstein, Sol, assignor.)

Cisne, William A., Independence, Mo. Fruit-picker. No. 1,090,685; Mar. 17; Gaz. vol. 200; p. 781.

Cizek, John V., Ciutler, Iowa. Hopper for grain-elevators. No. 1,092,093; Mar. 31; Gaz. vol. 200; p. 1335.

Clapperton, Alexander, Yonkers, N. Y. Protecting device for the tubes of pile-fabric looms. No. 1,089,822; Mar. 10; Gaz. vol. 200; p. 442.

Clark, Bertha, New York, N. Y. Draw-string. No. 1,091,294; Mar. 24; Gaz. vol. 200; p. 1020.

Clark, Harrison T., San Francisco, Cal. Conveyer. No. 1,090,777; Mar. 17; Gaz. vol. 200; p. 810.

Clark, Harrison T., San Francisco, Cal. Confetti-bomb. No. 1,090,778; Mar. 17; Gaz. vol. 200; p. 811.

Clark, John E., Flint, Mich. Bath for razor-hones. No. 1,092,023; Mar. 31; Gaz. vol. 200; p. 1311.

Clark, Lawrence A., assignor to Archer Iron Works, Chicago, Ill. Bucket for hoist-towers. No. 1,089,046; Mar. 3; Gaz. vol. 200; p. 127.

Clark, Melville, Chicago, Ill. Vehicle wheel-tire. No. 1,090,450; Mar. 17; Gaz. vol. 200; p. 702.

Clark, Melville, assignor to Melville Clark Piano Company, Chicago, Ill. Motor for automatic pianos. No. 1,089,748; Mar. 10; Gaz. vol. 200; p. 416.

Clark, Morgan S., Roanoke, Va. Brake-operating means. No. 1,091,121; Mar. 24; Gaz. vol. 200; p. 962.

Clark, Wiley E., Savannah, Ga. Pencil-sharpener. No. 1,091,039; Mar. 24; Gaz. vol. 200; p. 934.

Clarke, John L., Albuquerque, N. Mex. Clothes-drier. No. 1,090,837; Mar. 24; Gaz. vol. 200; p. 863.

Clarke, Joseph T., Harrow, England, assignor to Eastman Kodak Company, Rochester, N. Y. Focusing device. No. 1,089,111; Mar. 3; Gaz. vol. 200; p. 150.

Clausen, Henry P., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Electromagnetic device. No. 1,088,878; Mar. 3; Gaz. vol. 200; p. 70.

Clausen, Henry P., assignor to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Telephone system. No. 1,088,879; Mar. 3; Gaz. vol. 200; p. 70.

Clay, Ernest, Holdrege, Nebr. Mail-box money-holder. No. 1,089,327; Mar. 3; Gaz. vol. 200; p. 222.

Clay, Marshall F., and G. F. Basset, Cleveland, Ohio. Holder for mops. No. 1,089,460; Mar. 10; Gaz. vol 200; p. 316.

Clemens, Alfred C., Upper Sandusky, Ohio. Thill-coupling. No. 1,091,633; Mar. 31; Gaz. vol. 200; p. 1177.

Clement, Edward E., Washington, D. C., assignor to The Telephone Improvement Company, Attica, N. Y. Call-recording system for telephone-exchanges. No. 1,089,394; Mar. 10; Gaz. vol. 200; p. 291.

Clement, Edward E., Washington, D. C., assignor, by mesne assignments, to F. C. Stevens, Attica, N. Y. Telephone-exchange system. No. 1,091,193; Mar. 24; Gaz. vol. 200; p. 987.

Clements, George, assignor to Clements Mfg. Co., Chicago, Ill. Nozzle and squeegee for vacuum-cleaners. No. 1,088,880; Mar. 3; Gaz. vol. 200; p. 71.

Clements Mfg. Co. (See Clements, George, assignor.)

Clemons, Arthur S., Bartlett, N. H. Self-propelled power-machine. No. 1,090,027; Mar. 10; Gaz. vol. 200; p. 512.

Cleveland Axle Manufacturing Company. (See Kuepfer, Otto, assignor.)

Cleveland, Grover E., Detroit, assignor to Sturgis Steel Go Cart Company, Sturgis, Mich. Collapsible carriage. No. 1,090,135; Mar. 17; Gaz. vol. 200; p. 589.

Click, Washington B., Elida, N. Mex., assignor of one-half to W. H. Reese, Byers, Tex. Quilting-frame for sewing-machines. No. 1,091,194; Mar. 24; Gaz. vol. 200; p. 988.

Close, Albert S., Toledo, assignor to The United States Wave Power Company, Cleveland, Ohio. Wave-motor. No. 1,090,277; Mar. 17; Gaz. vol. 200; p. 640.

Clonse, Luther M., Columbus, Ohio. Foldable chair. No. 1,091,634; Mar. 31; Gaz. vol. 200; p. 1178.

Clum, Ira E., assignor of one-half to G. H. Metheany, Lima, Ohio. Anchor for posts, poles, &c. No. 1,090,972; Mar. 24; Gaz. vol. 200; p. 909.

Contes, Charles P., St. Louis, Mo. Design-composer. No. 1,090,278; Mar. 17; Gaz. vol. 200; p. 641.

Cobb, Joseph B., Jr., Shawnee, Okla. Safety switch-point. No. 1,089,903; Mar. 10; Gaz. vol. 200; p. 469.

Cochran, James A., Pittsburg, Kans. Valve. No. 1,090,279; Mar. 17; Gaz. vol. 200; p. 641.

Coda, Christopher F., assignor to The Art Stove Company, Detroit, Mich. Fire-pot. No. 1,091,195; Mar. 24; Gaz. vol. 200; p. 988.

Coey, Edward, St. Louis, Mo., assignor to United Shoe Machinery Company, Paterson, N. J. Inseam-trimming machine. No. 1,089,533; Mar. 10; Gaz. vol. 200; p. 343.

Coffin, Charles W., assignor to The E. T. Burrowes Company, Portland, Me. Folding table. No. 1,090,451; Mar. 17; Gaz. vol. 200; p. 703.

Cogswell, Asa F., Kirwin, Kans. Shipping-crate. No. 1,088,881; Mar. 3; Gaz. vol. 200; p. 71.

Cohen, Herman. (See Goldstein, Barnett H., assignor.)

Cohn, Henry J., Chicago, Ill. Autodrome. No. 1,091,484; Mar. 31; Gaz. vol. 200; p. 1126.

Cohn, Max, New York, N. Y. Shirt-waist. No. 1,090,452; Mar. 17; Gaz. vol. 200; p. 703.

Cohn, Max M., Piedmont, assignor of one-half to C. R. Hadley, Los Angeles, Cal. Perpetual index. No. 1,090,385; Mar. 17; Gaz. vol. 200; p. 678.

Colby, Stella B., assignor to W. H. Colby, Detroit, Mich. Device for facilitating the handling of coin. No. 1,089,328; Mar. 3; Gaz. vol. 200; p. 222.

Colby, Willis H. (See Colby, Stella B., assignor.)

Coldiron, James L., assignor of one-fourth to J. P. Martin, one-fourth to D. S. Holland, and one-fourth to L. C. Downtain, Eastland, Tex. Insect-destroyer. No. 1,090,280; Mar. 17; Gaz. vol. 200; p. 641.

Cole, Charles F., Huntington, W. Va. Water-closet. No. 1,090,200; Mar. 17; Gaz. vol. 200; p. 613.

Cole, Francis J., Schenectady, N. Y. Drifting-valve for locomotives. No. 1,089,904; Mar. 10; Gaz. vol. 200; p. 470.

Cole, Proctor O., Gould, Okla. Train-pipe coupling. No. 1,090,453; Mar. 17; Gaz. vol. 200; p. 704.

Coleman, Clarence W., deceased; K. Coleman, administratrix, Westfield, N. J., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y. Charging-switch for storage batteries. No. 1,090,201; Mar. 17; Gaz. vol. 200; p. 613.

Coleman, Clyde J., assignor, by mesne assignments, to Hall Switch & Signal Company, New York, N. Y. Traffic-controlling apparatus. No. 1,088,807; Mar. 3; Gaz. vol. 200; p. 45.

Coleman, Clyde J., assignor to Hall Switch & Signal Company, New York, N. Y. Railway signaling apparatus. No. 1,089,395; Mar. 10; Gaz. vol. 200; p. 291.

Coleman, Frank J., Washington, D. C. Combined priming-cup and compression-relief cock. No. 1,091,485; Mar. 31; Gaz. vol. 200; p. 1127.

Coleman, James M., Westmount, Quebec, Canada. Flexible lock-joint for car bodies and trucks. No. 1,089,396; Mar. 10; Gaz. vol. 200; p. 292.

Coleman, Katharine, administratrix. (See Coleman, Clarence W.)

Coleman, Robert, *et al.* (See Byrnes, John F., assignor.)

Coles, Ernest H. (See Woodington and Coles.)

Coley, Robert L., Kannapolis, N. C. Thread-cutting attachment for sewing-machines. No. 1,089,905; Mar. 10; Gaz. vol. 200; p. 470

Collins, Michael H., West Hoboken, N. J. Railway signaling system. No. 1,090,825; Mar. 17; Gaz. vol. 200; p. 827.

Collis Company, The. (See Collis, Oliver D., assignor.)

Collis, Henry J., Taunton, Mass. Ankle support and protector. No. 1,090,906; Mar. 24; Gaz. vol. 200; p. 886.

Collis, Oliver D., assignor to The Collis Company, Clinton, Iowa. Camp-broiler. No. 1,091,877; Mar. 31; Gaz. vol. 200; p. 1264.

Colombo, Achille, Turin, Italy, and T. Hugo, Wilmersdorf, near Berlin, assignors to Firm Gebrüder Tellschow, Berlin, Germany. Envelop-making machine. No. 1,091,811; Mar. 31; Gaz. vol. 200; p. 1241.

Colonial Trust Company, The, trustee. (See Crist, Mark B., assignor.)

Colonial Trust Company, The, trustee. (See Kasley, Alexander T., assignor.)

Colthar, William U., assignor to The Champion Chemical Company, Springfield, Ohio. Grave-vault. No. 1,091,196; Mar. 24; Gaz. vol. 200; p. 988.

Columbia Nut and Bolt Company. (See MacFarland, Merle, assignor.)

Columbus Truck and Supply Manufacturing Company. (See Morton, Frank M., assignor.)





Comb, Henry, and A. L. Girard, Sterling Junction, Mass. Screw-holder. No. 1,090,028; Mar. 10; Gaz. vol. 200; p. 512.

Combs, Dena B., Waverly, Ohio. Spark-plug and air-compressor. No. 1,091,295; Mar. 24; Gaz. vol. 200; p. 1020.

Comer, John J., assignor to Automatic Enunciator Company, Chicago, Ill. Differential-microphone repeater. No. 1,089,534; Mar. 10; Gaz. vol. 200; p. 344.

Commonwealth Steel Company. (See Frede, Charles F., assignor.)

Commonwealth Steel Company. (See Westlake, Charles T., assignor.)

Compagnie Generale de Phonographes Cinematographes et Appareils de Precision. (See Danzer, Henry, assignor.)

Company "Le Sablage Industriel." (See Bouillet, Jean, assignor.)

Condensite Company of America. (See Aylsworth, Jonas W., assignor.)

Coney, Jesse D., Williamsport, Pa. Apparatus for casting metals. No. 1,089,329; Mar. 3; Gaz. vol. 200; p. 222.

Congdon, Richard C., Atlanta, Ga. Apparatus for the manufacture of coal-gas. No. 1,090,813; Mar. 17; Gaz. vol. 200; p. 823.

Conger, John G., and B. R. Quint, Farmington, Wash. Attachment for binders. No. 1,090,029; Mar. 10; Gaz. vol. 200; p. 512.

Connable, Frank L., Wilmington, Del. Collar-pin. No. 1,091,913; Mar. 31; Gaz. vol. 200; p. 1276.

Connell, Roger, Christchurch, New Zealand. Automatic inflator for pneumatic tires. No. 1,091,040; Mar. 24; Gaz. vol. 200; p. 934.

Conner, George F., Port Huron, Mich. Vending-machine. No. 1,089,906; Mar. 10; Gaz. vol. 200; p. 471.

Connor, Charles M., Boyd, Minn. Neck-yoke securer. No. 1,089,330; Mar. 3; Gaz. vol. 200; p. 223.

Connor, Patrick, Philadelphia, Pa. Ash-sifter. No. 1,090,454; Mar. 17; Gaz. vol. 200; p. 704.

Conrader, Rudolph, Erie, Pa. Relief device for compressors. No. 1,089,397; Mar. 10; Gaz. vol. 200; p. 292.

Continental & Commercial Trust & Savings Bank, trustee. (See Mlehle, Robert, assignor.)

Continental Gin Company. (See Ligon, Harry W., assignor.)

Conwell, Walter L., Montclair, and A. E. Ostrander, Ridgewood, N. J., assignors to Transportation Utilities Company, New York, N. Y. Railway-car door. No. 1,089,398; Mar. 10; Gaz. vol. 200; p. 293.

Cook, Frank J., assignor to The Konsry Electric Company, Cleveland, Ohio. Electric heating and ventilating device. No. 1,091,733; Mar. 31; Gaz. vol. 200; p. 1212.

Cook Railway Signal Company, The. (See Cook, William J., assignor.)

Cook, William, Binger, Okla. Cotton-baler. No. 1,090,281; Mar. 17; Gaz. vol. 200; p. 641.

Cook, William A., Shinnston, W. Va. Insulator-clamp. No. 1,090,686; Mar. 17; Gaz. vol. 200; p. 781.

Cook, William J., assignor to The Cook Railway Signal Company, Denver, Colo. Railway signaling apparatus. No. 1,090,455; Mar. 17; Gaz. vol. 200; p. 704.

Cooke, Dwight L., and E. Banning, assignors to H. F. Keegan Company, Chicago, Ill. Handhold for passengers. No. 1,090,814; Mar. 17; Gaz. vol. 200; p. 823.

Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Electrical contact. No. 1,089,907; Mar. 10; Gaz. vol. 200; p. 471.

Coombs, Charles L. (See Goble, John S., assignor.)

Coon, Ray E., Yates, N. Y. Wall-bracket. No. 1,090,687; Mar. 17; Gaz. vol. 200; p. 782.

Cooper, Edwin H., Los Angeles, Cal. Card-holder. No. 1,088,968; Mar. 3; Gaz. vol. 200; p. 102.

Cooper Hewitt Electric Co. (See Baker, James R., assignor.)

Cooper Hewitt Electric Company. (See Hewitt, Peter C., assignor.)

Cooper Hewitt Electric Company. (See Recklinghausen, Max von, assignor.)

Cooper Hewitt Electric Company. (See Thomas, Percy H., assignor.)

Cordes, Charles, Brooklyn, N. Y. Rake-cleaner. No. 1,092,024; Mar. 31; Gaz. vol. 200; p. 1311.

Cordray, James M., Los Angeles, Cal. Waterproof blast-cap-charge protector. No. 1,091,878; Mar. 31; Gaz. vol. 200; p. 1265.

Cornely, Robert, Paris, France. Hemstitch sewing and embroidering machine. No. 1,090,136; Mar. 17; Gaz. vol. 200; p. 590.

Corthell, Jennie R., Philadelphia, Pa. Hat-holder. No. 1,091,812; Mar. 31; Gaz. vol. 200; p. 1241.

Coseo, Frederick C., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Cable-reeling mechanism. No. 1,090,973; Mar. 24; Gaz. vol. 200; p. 910.

Coseo, Frederick C., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Support for electric trolley mechanism. No. 1,091,734; Mar. 31; Gaz. vol. 200; p. 1212.

Costello, Thomas H., Chicago, Ill. Blackboard-eraser. No. 1,089,047; Mar. 3; Gaz. vol. 200; p. 127.

Coster, Lambert, College Point, N. Y. Steam-trap. No. 1,088,882; Mar. 3; Gaz. vol. 200; p. 71.

Costikyan, Nazar. (See Dalkranian, James K., assignor.)

Courson, John F., Pitcairn, Pa. Draft-gear. No. 1,089,908; Mar. 10; Gaz. vol. 200; p. 471.

Coutant, Oscar Z., Springfield, Ill. Tool. No. 1,089,112; Mar. 3; Gaz. vol. 200; p. 151.

Covington Machine Company. (See Sangster, William, assignor.)

Cox, David F., *et al.* (See Roone, Frank L., assignor.)

Cox, Ernest H., Marlow, Okla. Agricultural implement. No. 1,088,969; Mar. 3; Gaz. vol. 200; p. 102.

Cox, George S., Philadelphia, Pa. Woven interlining fabric and making same. No. 1,091,197; Mar. 24; Gaz. vol. 200; p. 989.

Cox, George S., Philadelphia, Pa. Haircloth-loom. No. 1,091,198; Mar. 24; Gaz. vol. 200; p. 989.

Cox, Henry C. (See Cox, Henry E. and H. C.)

Cox, Henry E. and H. C., East St. Louis, Ill. Valve. No. 1,089,331; Mar. 3; Gaz. vol. 200; p. 223.

Cox, Jesse M., *et al.* (See Boone, Frank L., assignor.)

Cox, Millard F., Louisville, Ky. Steam-superheater for boilers. No. 1,090,688; Mar. 17; Gaz. vol. 200; p. 782.

Coyle, Charles H., Clyde, Ill. Tank-car. No. 1,089,535; Mar. 10; Gaz. vol. 200; p. 344.

Craig, Thomas E. (See French and Craig.)

Craig, W. C. (See Barnard, Arthur W., assignor.)

Cramer, Eli N., Brooklyn, Ind. Silo. No. 1,090,282; Mar. 17; Gaz. vol. 200; p. 641.

Crandall, Merton L., Pontiac, Mich. Water filterer or strainer. No. 1,090,283; Mar. 17; Gaz. vol. 200; p. 642.

Cranney, Willard D., Logan, Utah. Lock-nut. No. 1,089,536; Mar. 10; Gaz. vol. 200; p. 344.

Cranston, Patterson E., Viola, Wis. Milk-cooler. No. 1,089,692; Mar. 10; Gaz. vol. 200; p. 397.

Crawford, Harry B. (See Crawford, Rufus C., assignor.)

Crawford, Rufus C., assignor of one-fourth to H. B. Crawford, McKeesport, Pa. Dump-car. No. 1,091,466; Mar. 24; Gaz. vol. 200; p. 1075.

Creamery Package Manufacturing Company. (See Valerius, Theodore L., assignor.)

Creed, Fred A., San Francisco, Cal. Ladder. No. 1,091,635; Mar. 31; Gaz. vol. 200; p. 1178.

Cretors, Charles, Chicago, Ill. Corn-popper. No. 1,091,041; Mar. 24; Gaz. vol. 200; p. 934.

Crichton, Fred T., Philadelphia, assignor of one-fourth to H. E. Johnson, Yeadon, Pa. Negotiable instrument. No. 1,089,113; Mar. 3; Gaz. vol. 200; p. 151.

Crist, Mark B., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Jump-spark ignition apparatus for internal-combustion engines. No. 1,089,461; Mar. 10; Gaz. vol. 200; p. 316.

Crist, Mark B., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Explosion-motor. No. 1,089,462; Mar. 10; Gaz. vol. 200; p. 317.

Crofut, Frank V., Shelton, Conn. Transmission for player-pianos. No. 1,090,386; Mar. 17; Gaz. vol. 200; p. 678.

Crompton & Knowles Loom Works. (See Fitton, John R., assignor.)

Crompton & Knowles Loom Works. (See Wyman, Horace, assignor.)

Cromwell, John C., Cleveland, Ohio. Driving mechanism. No. 1,089,693; Mar. 10; Gaz. vol. 200; p. 397.

Crook, Henry T., Asheville, N. C. Connecting-rod for locomotives. No. 1,092,025; Mar. 31; Gaz. vol. 200; p. 1311.

Crosby, Thomas E., Boston, Mass. Floor connection. No. 1,090,517; Mar. 17; Gaz. vol. 200; p. 726.

Cross, Noah C., Buford, Ga. Combined planter and fertilizer-distributer. No. 1,090,284; Mar. 17; Gaz. vol. 200; p. 642.

Crouch, Frank J., Portland, Oreg. Bed. No. 1,088,970; Mar. 3; Gaz. vol. 200; p. 102.

Crouse, David E., Annapolis, assignor to The Auto Air Appliance Company, Baltimore, Md. Starting device for internal-combustion engines. No. 1,090,600; Mar. 17; Gaz. vol. 200; p. 755.

Crowe, Paul L., Jersey City, N. J. Furnace-setting. No. 1,090,285; Mar. 17; Gaz. vol. 200; p. 643.

Crowe, Thomas B., assignor to Portland Gold Mining Company, Colorado Springs, Colo. Crushing-roll. No. 1,090,601; Mar. 17; Gaz. vol. 200; p. 755.

Crowell, Clifford, Monterey, Mexico. Pulverizing-mill. No. 1,091,042; Mar. 24; Gaz. vol. 200; p. 935.

Crowell, John H., Vineyard Haven, Mass. Poultry automatic mash-feeder. No. 1,090,286; Mar. 17; Gaz. vol. 200; p. 643.

Crowther, Dudley, and N. C. Hardy, Great Falls, Mont. Type-writing machine. No. 1,091,122; Mar. 24; Gaz. vol. 200; p. 962.

Cruikshank, James W., Pittsburgh, Pa. Apparatus for delivering abrasive material. No. 1,089,909; Mar. 10; Gaz. vol. 200; p. 472.

Crum, Hollis B., Chicago, Ill., assignor to R. C. Penfield, New York, N. Y. Gravity-conveyer. No. 1,089,537; Mar. 10; Gaz. vol. 200; p. 345.

Crumbaugh, George P., assignor of one-half to E. W. Grove, St. Louis, Mo. Lath. No. 1,090,689; Mar. 17; Gaz. vol. 200; p. 783.

Crumbaugh, George P., assignor of one-half to E. W. Grove, St. Louis, Mo. Metal lath. No. 1,090,690; Mar. 17; Gaz. vol. 200; p. 783.

Crumbaugh, George P., assignor of one-half to E. W. Grove, St. Louis, Mo. Building tile or block. No. 1,090,691; Mar. 17; Gaz. vol. 200; p. 783.

Crump, Charles R., and L. J. Davis, Chicago Junction, Ohio. Metallic rod-packing. No. 1,089,114; Mar. 3; Gaz. vol. 200; p. 151.
Cruver, Curtis L., Chicago, Ill. Toy. No. 1,089,694; Mar. 10; Gaz. vol. 200; p. 398.
Cullen, Ernest K., assignor, by mesne assignments, to A. M. Beebe, Detroit, Mich. Fly-trap. No. 1,089,399; Mar. 10; Gaz. vol. 200; p. 293.
Cummins, Norman W., assignor to The Burns & Bassick Company, Bridgeport, Conn. Grease-cup. No. 1,088,770; Mar. 3; Gaz. vol. 200; p. 33.
Cunningham, Harvy B., St. Paul, Minn. Fire-protector for moving-picture-machine magazines. No. 1,090,287; Mar. 17; Gaz. vol. 200; p. 644.
Cunningham, John F., Springfield, Mo. Safety attachment for water-heating apparatus. No. 1,089,624; Mar. 10; Gaz. vol. 200; p. 374.
Curnutt, Elmer, Garnett, Kans. Bale-tying mechanism for baling-presses. No. 1,091,296; Mar. 24; Gaz. vol. 200; p. 1021.
Curry, Edward C., *et al.* (See Geraghty and Naylor, assignors.)
Curry, W. F., *et al.* (See Winberg, Anders W., assignor.)
Curtis, Charles G., New York, N. Y., assignor, by mesne assignments, to General Electric Company. Elastic-fluid turbine. No. 1,089,115; Mar. 3; Gaz. vol. 200; p. 152.
Curtis, Frank W., Denver, Colo. Taper-boring bar. No. 1,091,914; Mar. 31; Gaz. vol. 200; p. 1276.
Curtis, Logan, Browns, Ill. Halter. No. 1,088,877; Mar. 3; Gaz. vol. 200; p. 70.
Cutler-Hammer Mfg. Co., The. (See Carpenter and Horton, assignors.)
Cutler-Hammer Mfg. Co., The. (See Wiegand, Henry J., assignor.)
Cutler, William C., Sawtelle, Cal. Appointment-clock. No. 1,091,486; Mar. 31; Gaz. vol. 200; p. 1127.
Cutter, Solomon M., and J. F. McLaughlin, Hartford, Conn. Mileage-indicating apparatus. No. 1,089,695; Mar. 10; Gaz. vol. 200; p. 398.
Czerweny, Viktor, Deutschlandsberg, near Gratz, Austria-Hungary. Dipping apparatus for match-making machines. No. 1,091,915; Mar. 31; Gaz. vol. 200; p. 1277.
D'Aix, Lucke. (See Lucke, Carl, assignor.)
D'Humy, Fernand E., Englewood, N. J., assignor to The Western Union Telegraph Company. Pneumatic-despatch-tube system. No. 1,090,907; Mar. 24; Gaz. vol. 200; p. 887.
Daab, Ernst W., Belleville, Ill. Bell attachment for pianos. No. 1,091,043; Mar. 24; Gaz. vol. 200; p. 935.
Dailey, John, and D. Bertolino, Hepzibah, W. Va. Tire-grinder. No. 1,092,026; Mar. 31; Gaz. vol. 200; p. 1311.
Dailey, Russell L., Kansas City, Kans. Steam-generator. No. 1,090,779; Mar. 17; Gaz. vol. 200; p. 811.
Daimler-Motorengesellschaft. (See Daimler and Heess, assignors.)
Daimler, Paul, and A. Heess, Cannstatt, assignors to Daimler-Motorengesellschaft, Unterturkheim, Germany. Oil-circulatory lubricating system. No. 1,090,518; Mar. 17; Gaz. vol. 200; p. 726.
Dain, Joseph, and H. B. Sperry, assignors to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Hay-press. No. 1,090,137; Mar. 17; Gaz. vol. 200; p. 590.
Dain Manufacturing Company of Iowa. (See Dain and Sperry, assignors.)
Dalkranian, James K., West Hoboken, N. J., assignor to N. Costikyan, New York, N. Y. Loom for weaving oriental knot-pile fabrics. No. 1,090,692; Mar. 17; Gaz. vol. 200; p. 784.
Danforth, Charles E., West Somerville, Mass. Humidor. No. 1,090,693; Mar. 17; Gaz. vol. 200; p. 784.
Daniel, Turner J., Butler, Ala. Harness-clasp. No. 1,089,625; Mar. 10; Gaz. vol. 200; p. 374.
Danzer, Henry, assignor to Compagnie Generale de Phonographes Cinematographes et Apparells de Precision, Paris, France. Plastic material used in the manufacture of kinematographic films. No. 1,089,910; Mar. 10; Gaz. vol. 200; p. 472.
Darrah, William A., Brooklyn, N. Y. Forming joints. No. 1,090,456; Mar. 17; Gaz. vol. 200; p. 705.
Darroch, Angus, New York, N. Y. Grating. No. 1,092,094; Mar. 31; Gaz. vol. 200; p. 1336.
Davenport, Caroline, University Place, Nebr. Combination-cooker. No. 1,091,636; Mar. 31; Gaz. vol. 200; p. 1178.
Davidson, Frank B., and H. P. Shotts, Marseilles, Ill., assignors to Howe and Davidson Company. Carton. No. 1,090,457; Mar. 17; Gaz. vol. 200; p. 705.
Davidson, John, Pendleton, England. Terminal-exhaust steam-engine. No. 1,090,030; Mar. 10; Gaz. vol. 200; p. 513.
Davidson, John E., Boston, assignor of one-third to A. N. Hood, Newton, and one-third to J. T. Nightingale, Boston, Mass. Box. No. 1,089,538; Mar. 10; Gaz. vol. 200; p. 345.
Davidson, Samuel, assignor to Buffalo Cement Stone Company, Buffalo, N. Y. Drying artificial stone or wet molds. No. 1,090,387; Mar. 17; Gaz. vol. 200; p. 679.
Davies, Albert J., Woodland, Me. Fourdrinier machine. No. 1,090,974; Mar. 24; Gaz. vol. 200; p. 910.
Davies, Charles W. T., New York, N. Y. Collar. No. 1,088,808; Mar. 3; Gaz. vol. 200; p. 45.
Davies, Charles W. T., New York, N. Y. Cuff-link and the like. No. 1,088,809; Mar. 3; Gaz. vol. 200; p. 46.
Davis, Al. E. (See Thornton and Hammond, assignors.)
Davis-Bournonville Company. (See Bucknam, Worthy C., assignor.)
Davis, Charles L., assignor of one-half to H. W. Frost, Detroit, Mich. Electric vaporizer. No. 1,091,637; Mar. 31; Gaz. vol. 200; p. 1179.
Davis, Emma, Fort Worth, Tex. Collapsible stove. No. 1,092,027; Mar. 31; Gaz. vol. 200; p. 1311.
Davis, Eugene H. (See Lacroix, Joseph D., assignor.)
Davis, George W. (See Stokes and Davis.)
Davis, Harry A., assignor to Draper Company, Hopedale, Mass. Shuttle-feeler mechanism for looms. No. 1,091,813; Mar. 31; Gaz. vol. 200; p. 1241.
Davis, John A., assignor of one-fourth to M. R. Miller, Naco, Ariz., one-fourth to J. M. Miller, Vacaville, and one-fourth to T. Davis, Oakland, Cal. Carbureter. No. 1,091,426; Mar. 24; Gaz. vol. 200; p. 1061.
Davis, John C., Harbor Beach, Mich. Seal. No. 1,088,810; Mar. 3; Gaz. vol. 200; p. 46.
Davis, John J., and T. F. Terry, Cleveland, Ohio. Protective water-gage glass for boilers. No. 1,090,519; Mar. 17; Gaz. vol. 200; p. 726.
Davis, Luther J. (See Crump and Davis.)
Davis, Oscar C., assignor of one-half to S. Freshman, Dallas, Tex. Counting-machine. No. 1,088,971; Mar. 3; Gaz. vol. 200; p. 102.
Davis, Pearl D., and E. M. Paxson, Belle Center, Ohio. Cooling device for explosive-engines. No. 1,090,288; Mar. 17; Gaz. vol. 200; p. 644.
Davis, Trayharne, *et al.* (See Davis, John A., assignor.)
Davis, Verner F., Orange, N. J. Hygrostat. No. 1,088,972; Mar. 3; Gaz. vol. 200; p. 103.
Davis, William, *et al.* (See Richard, Zacharie B., assignor.)
Davis, William B. (See Armstrong, Charles, assignor.)
Davitt, Thomas, Atlanta, Ga. Wire twisting or splicing machine. No. 1,092,028; Mar. 31; Gaz. vol. 200; p. 1312.
Davy, Christopher S. (See Rosenthal and Davy.)
Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, England. Firing mechanism of breech-loading guns. No. 1,091,638; Mar. 31; Gaz. vol. 200; p. 1179.
Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, England. Firing mechanism of breech-loading guns. No. 1,091,639; Mar. 31; Gaz. vol. 200; p. 1180.
Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, England. Cartridge-feed mechanism of automatic guns. No. 1,091,640; Mar. 31; Gaz. vol. 200; p. 1180.
Dawson, Edwin T., Lamoni, Iowa. Trap. No. 1,090,031; Mar. 10; Gaz. vol. 200; p. 513.
Dawson, Percy B., Berkeley, Cal. Vehicle-tire. No. 1,089,116; Mar. 3; Gaz. vol. 200; p. 152.
Day, Charles, and G. E. Windeler, Stockport, England, assignors to General Electric Company. Piston for internal-combustion engines. No. 1,089,823; Mar. 10; Gaz. vol. 200; p. 442.
Day, E. R. (See Franz, Frank, assignor.)
Day, Eva M., and L. A. Smith, Gaines, Pa. Automatic dump-bucket. No. 1,091,199; Mar. 24; Gaz. vol. 200; p. 989.
Dayton Engineering Laboratories Co., The. (See Kettering, Charles F., assignor.)
De Clark, Nelson, Jersey City, N. J. Printing-stand. No. 1,092,095; Mar. 31; Gaz. vol. 200; p. 1336.
De Grody, Martin M., assignor to J. E. Baker, St. Louis, Mo. Ash-receptacle. No. 1,090,138; Mar. 17; Gaz. vol. 200; p. 591.
De Hamel, Herbert G., Aldbury, Tring, England, and G. Makgill, Kemback, Scotland. Advertising sign or device. No. 1,090,707; Mar. 17; Gaz. vol. 200; p. 788.
De Hart, William A. (See Watt, James A., assignor.)
De Kleist, August, assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Adjustable spool for music-sheets. No. 1,091,144; Mar. 24; Gaz. vol. 200; p. 970.
De Kuyper, Richard, Jr., Hooper, Utah. Hose connection. No. 1,089,332; Mar. 3; Gaz. vol. 200; p. 223.
De La Matyr, Elias B., Los Angeles, Cal. Rotary gas-meter. No. 1,090,780; Mar. 17; Gaz. vol. 200; p. 811.
De Lany, Nellie M., Clyde, N. Y. Shoe-lace holder. No. 1,091,297; Mar. 24; Gaz. vol. 200; p. 1021.
De Laval Separator Company, The. (See Hulbert, John L., assignor.)
De Laval Steam Turbine Company. (See Lindmark, Tore G. E., assignor.)
De Lukacsevics, Charles, West Nutley, N. J., assignor to G. W. Morgan, New York, N. Y. Internal-combustion engine. No. 1,091,427; Mar. 24; Gaz. vol. 200; p. 1062.
De Voll, Charles H., New York, N. Y. Vehicle-tire. No. 1,090,838; Mar. 24; Gaz. vol. 200; p. 863.
De Walt, Fay A., Newton, Kans. Wheel-clamp. No. 1,090,032; Mar. 10; Gaz. vol. 200; p. 513.
De Witt, George W., Houston, Tex. Automobile. No. 1,091,735; Mar. 31; Gaz. vol. 200; p. 1213.
De Wolf, Ernest A., Mansfield, assignor to J. R. Leeson, Boston, Mass. Coil for electrical purposes and producing same. No. 1,091,046; Mar. 24; Gaz. vol. 200; p. 936.
De Wyrall, Cyril. (See Alderes, Emanuel J., assignor.)
Deady, Martin. (See Well and Deady.)
Dean, Harry. (See Turner and Dean.)



Dean, James H., Chicago, Ill., assignor, by mesne assignments, to Empire Voting Machine Company. Voting-machine. No. 1,088,811; Mar. 3; Gaz. vol. 200; p. 46.
Dean, William W., assignor to Kellogg Switchboard & Supply Company, Chicago, Ill. Electromagnetic device. No. 1,088,771; Mar. 3; Gaz. vol. 200; p. 33.
Deere & Company. (See Sklovsky and Mixter, assignors.)
Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Matrix-setting and line-casting machine. No. 1,089,626; Mar. 10; Gaz. vol. 200; p. 374.
Degginger, Louis A., *et al.* (See Ricke, George H., assignor.)
Deimling, John P., assignor of one-third to W. Graham, Clarion, Pa. Extensible car-step. No. 1,088,681; Mar. 3; Gaz. vol. 200; p. 4.
Deister Machine Company. (See Deister, William F., assignor.)
Deister, William F., assignor to Deister Machine Company, Fort Wayne, Ind. Head-motion for concentrating-tables. No. 1,088,682; Mar. 3; Gaz. vol. 200; p. 4.
Deister, William F., assignor to Deister Machine Company, Fort Wayne, Ind. Mechanism for operating concentrating units. No. 1,088,683; Mar. 3; Gaz. vol. 200; p. 5.
Deister, William F., assignor to Deister Machine Company, Fort Wayne, Ind. Mechanism for operating concentrating units. No. 1,088,684; Mar. 3; Gaz. vol. 200; p. 5.
Deister, William F., assignor to Deister Machine Company, Fort Wayne, Ind. Apparatus for concentrating ores. No. 1,088,685; Mar. 3; Gaz. vol. 200; p. 5.
Delany, Edward L., New York, N. Y. Fire-hydrant. No. 1,089,400; Mar. 10; Gaz. vol. 200; p. 293.
Delzell, Joseph W., Chattanooga, Tenn. Churn. No. 1,091,044; Mar. 24; Gaz. vol. 200; p. 936.
Dement, Isaac S., Chicago, Ill. Computing-machine. No. 1,088,812; Mar. 3; Gaz. vol. 200; p. 46.
Deming, Lucius F., Philadelphia, Pa. Tee-box. No. 1,089,824; Mar. 10; Gaz. vol. 200; p. 442.
Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,091,563; Mar. 31; Gaz. vol. 200; p. 1153.
Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,091,564; Mar. 31; Gaz. vol. 200; p. 1154.
Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Arc-lamp. No. 1,091,641; Mar. 31; Gaz. vol. 200; p. 1180.
Denio General Electric Company. (See Erickson, John, assignor.)
Denis, Luc L. B., Paris, France. Metal spring. (Reissue.) No. 13,699; Mar. 17; Gaz. vol. 200; p. 828.
Denmead, John W., Akron, Ohio. Bead-rolling machine for plastic articles. No. 1,091,123; Mar. 24; Gaz. vol. 200; p. 963.
Dennis, Clara R., Washington, D. C. Trunk. No. 1,089,333; Mar. 3; Gaz. vol. 200; p. 223.
Dennison Manufacturing Company. (See Portmore, Thomas G., assignor.)
Denny, George H., Newark, N. J. Bunsen burner for heating or illuminating. No. 1,090,202; Mar. 17; Gaz. vol. 200; p. 614.
Denver Rock Drill & Machinery Company, The. (See Waugh, Daniel S., assignor.)
Depollier, Charles L., New York, N. Y. Detachable strap terminal and hook. No. 1,090,694; Mar. 17; Gaz. vol. 200; p. 784.
Derge, Albert R., Oakland, Cal. Burglar-proof screen. No. 1,091,045; Mar. 24; Gaz. vol. 200; p. 936.
Deschere, Harvey, New York, N. Y. Electric sign. No. 1,091,916; Mar. 31; Gaz. vol. 200; p. 1277.
Desmond, John, Wilmette, assignor to W. S. Potwin, Chicago, Ill. Liquid-dispensing device. No. 1,091,642; Mar. 31; Gaz. vol. 200; p. 1181.
Detroit Pneumatic Tire Company. (See Wilson, Eugene W., assignor.)
Detwiler, Forest V., Chicago, Ill. Cooking apparatus. No. 1,089,911; Mar. 10; Gaz. vol. 200; p. 472.
Detwiler, Forest V., Chicago, Ill. Heater and cooker. No. 1,090,289; Mar. 17; Gaz. vol. 200; p. 645.
Deuster, Leo J., and C. Honour, Suttons Bay, Mich. Potato-bug catcher. No. 1,091,200; Mar. 24; Gaz. vol. 200; p. 990.
Deutsche Post- und Eisenbahn-Verkehrswesen Aktiengesellschaft (Dapageefubag). (See Lerche, Julius, assignor.)
Devlin, Henry, assignor to The M. Garland Company, Bay City, Mich. Transmission mechanism. No. 1,091,487; Mar. 31; Gaz. vol. 200; p. 1128.
Dewey, Roy R., Triumph, Ill. Attachment for corn-planters. No. 1,091,879; Mar. 31; Gaz. vol. 200; p. 1265.
Dewson, Edward H., New York, N. Y., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Load-brake. No. 1,089,401; Mar. 10; Gaz. vol. 200; p. 294.
Diamond Crystal Salt Company. (See Weil, Charles L., assignor.)
Diamond Machine Company. (See Pond, Dana W., assignor.)
Diamond Manufacturing Company. (See Neuman, Hugo, assignor.)
Diamond Match Company, The. (See Schafer, Frank, assignor.)
Diamond, Thomas J., Newburgh, N. Y. Bath-mitten. No. 1,091,880; Mar. 31; Gaz. vol. 200; p. 1265.
Dickerson, Joseph R., San Augustine, Tex. Steam washing-machine. No. 1,089,334; Mar. 3; Gaz. vol. 200; p. 224.
Dickins, Robert S., Waycross, Ga. Twine-holder. No. 1,090,033; Mar. 10; Gaz. vol. 200; p. 514.
Diel, Daniel J., Jersey City, N. J. Hole-closure. No. 1,089,335; Mar. 3; Gaz. vol. 200; p. 224.
Dietz, Frederick, assignor to R. E. Dietz Company, New York, N. Y. Lantern. No. 1,089,912; Mar. 10; Gaz. vol. 200; p. 473.
Dietz, Paul, Brooklyn, assignor to New Ideas Manufacturing Company, New York, N. Y. Camera. No. 1,091,814; Mar. 31; Gaz. vol. 200; p. 1242.
Dimock, Ira, West Hartford, Conn. Screw and bolt lock. No. 1,090,908; Mar. 24; Gaz. vol. 200; p. 887.
Diss, Albert B., Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y. Caster structure for tubular legs. No. 1,089,627; Mar. 10; Gaz. vol. 200; p. 375.
Diss, Albert B., Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y. Caster. No. 1,089,628; Mar. 10; Gaz. vol. 200; p. 375.
Ditcham, William T., Twickenham, England. Transmitter for wireless telephony. No. 1,088,686; Mar. 3; Gaz. vol. 200; p. 6.
Dittenhoefer, Jerome J., Chicago, Ill. Pneumatic vehicle-tire. No. 1,089,913; Mar. 10; Gaz. vol. 200; p. 473.
Dittgen, John J., Madisonville, assignor to The Dittgen Paper Goods Co., Cincinnati, Ohio. Cigar-pockets. No. 1,089,629; Mar. 10; Gaz. vol. 200; p. 375.
Dittgen Paper Goods Co., The. (See Dittgen, John J., assignor.)
Dix, Fred, Hardtner, Kans. Flue-cutter. No. 1,089,463; Mar. 10; Gaz. vol. 200; p. 317.
Dobbins, Elmer E., and W. P. Bartholow, assignors to Dobbins Manufacturing Company, Minneapolis, Minn. Mop-wringer. No. 1,089,914; Mar. 10; Gaz. vol. 200; p. 474.
Dobbins Manufacturing Company. (See Dobbins and Bartholow, assignors.)
Dobson, William, Roxbury, Mass., assignor to United Injector Company, New York, N. Y. Jet apparatus. No. 1,090,975; Mar. 24; Gaz. vol. 200; p. 911.
Dobyne, George A. and S. A., assignors to Champion Shoe Machinery Company, St. Louis, Mo. Fastener-inserting machine. No. 1,091,298; Mar. 24; Gaz. vol. 200; p. 1021.
Dobyne, Stephen A. (See Dobyne, George A. and S. A.)
Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. String nailing-machine. No. 1,091,299; Mar. 24; Gaz. vol. 200; p. 1022.
Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Throat for fastener-inserting machines. No. 1,091,300; Mar. 24; Gaz. vol. 200; p. 1022.
Dodds, Ethan I., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Electric fan for railway-cars. No. 1,088,687; Mar. 3; Gaz. vol. 200; p. 6.
Dodds, Ethan I., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Power-operated hand planer or smoother. No. 1,090,602; Mar. 17; Gaz. vol. 200; p. 755.
Dodds, Ethan I., Central Valley, N. Y., assignor to Kerner Manufacturing Company, Pittsburgh, Pa. Portable pneumatic tool. No. 1,090,603; Mar. 17; Gaz. vol. 200; p. 756.
Dodds, Harry G., Mobile, Ala. Car-coupling. No. 1,090,839; Mar. 24; Gaz. vol. 200; p. 864.
Dodds, Joseph, Rutherglen, Glasgow, Scotland. Apparatus for washing minerals. No. 1,091,047; Mar. 24; Gaz. vol. 200; p. 936.
Dodge, Eben G., Maplewood, assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Primary battery. No. 1,090,909; Mar. 24; Gaz. vol. 200; p. 888.
Dodge, Raymond E., New Haven, Conn. Hose-supporter. No. 1,091,815; Mar. 31; Gaz. vol. 200; p. 1242.
Dodge, Willard A., Hornell, N. Y. Wheel. No. 1,092,029; Mar. 31; Gaz. vol. 200; p. 1312.
Dodge, William H., Manhattan, Kans. Street-cleaning machine. No. 1,090,034; Mar. 10; Gaz. vol. 200; p. 514.
Dodge, William W., Chicago, Ill. Attachment for internal-combustion engines. No. 1,091,488; Mar. 31; Gaz. vol. 200; p. 1128.
Doering, Charles, Jr., Chicago, Ill. Ice-cream dispenser. No. 1,091,643; Mar. 31; Gaz. vol. 200; p. 1181.
Doheny, Edward J., Woonsocket, R. I. Stopper-extractor. No. 1,091,301; Mar. 24; Gaz. vol. 200; p. 1023.
Doll, William F., New York, N. Y., assignor of one-half to L. McClung, Washington, D. C. Resilient wheel. No. 1,091,302; Mar. 24; Gaz. vol. 200; p. 1023.
Doll, William F., New York, N. Y., assignor of one-half to L. McClung, Washington, D. C. Resilient wheel. No. 1,091,303; Mar. 24; Gaz. vol. 200; p. 1023.
Doll, William F., New York, N. Y., assignor of one-half to L. McClung, Washington, D. C. Resilient wheel. No. 1,091,304; Mar. 24; Gaz. vol. 200; p. 1024.
Doll, William F., New York, N. Y., assignor of one-half to L. McClung, Washington, D. C. Resilient wheel. No. 1,091,305; Mar. 24; Gaz. vol. 200; p. 1024.
Dom, Chesley, assignor to The Samuel C. Tatum Company, Cincinnati, Ohio. Temporary binder. No. 1,091,452; Mar. 24; Gaz. vol. 200; p. 1070.

Donath, Max, assignor to E. Imle, Dresden, Germany. Screw-blade for impellers. No. 1,088,883; Mar. 3; Gaz. vol. 200; p. 72.
Donigan, Horn G., St. Louis, Mo. Extensible tower. No. 1,092,090; Mar. 31; Gaz. vol. 200; p. 1336.
Donner, Percy E. (See Snyder, Jacob R., assignor.)
Donohue, Daniel, Buffalo, N. Y. Water heater and purifier. No. 1,091,565; Mar. 31; Gaz. vol. 200; p. 1154.
Donovan, Patrick J., Collins, Wis. Shock-loader. (Reissue.) No. 13,700; Mar. 17; Gaz. vol. 200; p. 829.
Doolittle, William E., New Britain, Conn. Watch-guard. No. 1,091,201; Mar. 24; Gaz. vol. 200; p. 990.
Dorment, Frank C. (See Sopha, Hattie, assignor.)
Dorricott, Charles W., assignor to Electrelle Company, Philadelphia, Pa. Pneumato electric tracker-bar for musical instruments. No. 1,088,884; Mar. 3; Gaz. vol. 200; p. 72.
Dorris, William F., Rochester, N. Y. Camera-carrying case. No. 1,088,885; Mar. 3; Gaz. vol. 200; p. 72.
Dotta, Antone E., Loyalton, Cal. Bearing. No. 1,091,306; Mar. 24; Gaz. vol. 200; p. 1025.
Dougherty, Everett M., Escanaba, Mich. Fastener. No. 1,090,840; Mar. 24; Gaz. vol. 200; p. 864.
Doughty, Herman W. (See Beach and Doughty.)
Douglas, Harry A., Chicago, Ill. Electric lamp. No. 1,089,749; Mar. 10; Gaz. vol. 200; p. 417.
Douglas, Harry A., Chicago, Ill. Reflecting electric lamp. No. 1,089,750; Mar. 10; Gaz. vol. 200; p. 417.
Douglas, Ira W., Litchfield, Nebr. Corn-planter. No. 1,092,030; Mar. 31; Gaz. vol. 200; p. 1312.
Douglass, Samuel F., Prairie du Rocher, Ill. Tractor for vehicles. No. 1,089,696; Mar. 10; Gaz. vol. 200; p. 398.
Dovel, James P. (See Shannon, John J., assignor.)
Downey, Nicholas J., Wallingford, and S. Kumkumian, Meriden, Conn. Grinding and polishing machine. No. 1,091,489; Mar. 31; Gaz. vol. 200; p. 1128.
Downing, Albert C., Milwaukee, Wis. Paper-creasing machine. No. 1,089,402; Mar. 10; Gaz. vol. 200; p. 294.
Downtain, Lee C., *et al.* (See Coldiron, James L., assignor.)
Doyle, Francis J., Chicago, Ill. Vertical-water-tube boiler. No. 1,091,736; Mar. 31; Gaz. vol. 200; p. 1213.
Doyle, James S., New York, N. Y., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electro-pneumatic brake system. No. 1,090,841; Mar. 24; Gaz. vol. 200; p. 864.
Draft Regulator Company. (See Mulchahey, Earl R., assignor.)
Drake, George W., Chicago, Ill. Grain-door. No. 1,090,695; Mar. 17; Gaz. vol. 200; p. 785.
Draper Company. (See Davis, Harry A., assignor.)
Draper Company. (See Hollins, Denis M., assignor.)
Draper Company. (See Koechlin, Albert G., assignor.)
Draper Company. (See Poisson, Joseph, assignor.)
Draper Company, (See Rhoades, Alonzo E., assignor.)
Draper Company. (See Stimpson, Edward S., assignor.)
Drda, Antoinette V., Astoria, N. Y. Machine for drilling and shaping buttons. No. 1,090,604; Mar. 17; Gaz. vol. 200; p. 756.
Dreher, Oswald, Tambach, Germany. Apparatus for storing eggs. No. 1,091,307; Mar. 24; Gaz. vol. 200; p. 1025.
Dresser, Frank A., Lyndon Center, assignor of one-half to W. A. Lyon, Lyndonville, Vt. Hoof-rectifying attachment for horseshoes. No. 1,090,116; Mar. 10; Gaz. vol. 200; p. 542.
Drew Carrier Company. (See Wagner, Victor, assignor.)
Drew, Warren F., assignor, by mesne assignments, to Rotico Fitting and Supply Company, New York, N. Y. Valve. No. 1,091,048; Mar. 24; Gaz. vol. 200; p. 937.
Drinkhouse, Samuel B., Denver, Colo. Siphon. No. 1,088,973; Mar. 3; Gaz. vol. 200; p. 103.
Driver, Theodore P., Melrose, Mass. Light-shield. No, 1,089,539; Mar. 10; Gaz. vol. 200; p. 345.
Dromgold, Loy S. (See Thompson and Dromgold.)
Drosin, Louis, New York, N. Y. Bottle-holder for chloroform-inhalers. No. 1,091,308; Mar. 24; Gaz. vol. 200; p. 1025.
Druckerman, Max, Brooklyn, N. Y. Automatic stitch-controller. No. 1,089,751; Mar. 10; Gaz. vol. 200; p. 418.
Druckerman, Max, Brooklyn, N. Y. Circular seam for sewed articles. No. 1,091,428; Mar. 24; Gaz. vol. 200; p. 1063.
Drynan, Lucretia A., Danforth, Ill. Combined strainer and sifter. No. 1,091,737; Mar. 31; Gaz. vol. 200; p. 1213.
Drysdale, Bruce, assignor of one-fourth to J. W. Mason, one-fourth to J. W. Hulton, and one-fourth to W. Hulton, Philadelphia, Pa. Carbureter. No. 1,088,974; Mar. 3; Gaz. vol. 200; p. 104.
Duchene, Zephire L., Kankakee, Ill. Package-tie. No. 1,090,696; Mar. 17; Gaz. vol. 200; p. 785.
Duclos, Cyprien. (See Erquhart and Duclos.)
Dudderar, Daniel W., Mount Airy, Md. Heating apparatus for motor-vehicles. No. 1,091,816; Mar. 31; Gaz. vol. 200; p. 1242.
Dudfield, Alvin, Liberty, Mo. Crayon-trough. No. 1,088,886; Mar. 3; Gaz. vol. 200; p. 73.
Dudgeon, Addelbert, Latrobe, Pa. Saw set and jointer. No. 1,090,035; Mar. 10; Gaz. vol. 200; p. 514.
Dudgeon, Addelbert, Latrobe, Pa. Double-acting ratchet-handle for lifting-jacks. No. 1,091,817; Mar. 31; Gaz. vol. 200; p. 1243.
Duff Manufacturing Company, The. (See Hindman, Isaiah E., assignor.)
Dull, Lester M., Los Angeles, Cal. Lamp-ignition device. No. 1,089,540; Mar. 10; Gaz. vol. 200; p. 346.
Duncan, William M., Alton, Ill. Mechanical stoker. No. 1,088,772; Mar. 3; Gaz. vol. 200; p. 33.
Duncan, William M., Alton, Ill. Furnace-grate. No. 1,088,773; Mar. 3; Gaz. vol. 200; p. 34.
Dunford, John W., assignor to Reese-Herrin Company, Atlanta, Ga. Paint compound. No. 1,091,309; Mar. 24; Gaz. vol. 200; p. 1025.
Dunlop, Robert R., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Electric brake. No. 1,091,738; Mar. 31; Gaz. vol. 200; p. 1214.
Dunn, Frederick C., New York, N. Y. Massage apparatus. No. 1,091,310; Mar. 24; Gaz. vol. 200; p. 1026.
Dunning, Herbert S. (See Housekeeper and Dunning.)
Duplex Printing Press Company. (See Bechman, Henry F., assignor.)
Durant, Thomas W. (See Parker and Durant.)
Durham Duplex Razor Company. (See Sheehan, Thomas C., assignor.)
Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Railway signal-torpedo. No. 1,090,458; Mar. 17; Gaz. vol. 200; p. 705.
Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Paper or fiber railway signal-torpedo. No. 1,090,459; Mar. 17; Gaz. vol. 200; p. 705.
Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Fiber-case railway signal-torpedo. No. 1,090,460; Mar. 17; Gaz. vol. 200; p. 706.
Dutcher, Frank, Versailles, assignor to Central Railway Signal Company, Pittsburgh, Pa. Time-burning railway signal-fusee. No. 1,090,461; Mar. 17; Gaz. vol. 200; p. 706.
Dwiggins Wire Fence Company. (See Swank, Lafe, assignor.)
Dybeck, Joseph, Sault Ste. Marie, Mich. Folding step-ladder. No. 1,091,311; Mar. 24; Gaz. vol. 200; p. 1026.
Dyer, Harry W., East Orange, N. J. Tire construction. No. 1,090,605; Mar. 17; Gaz. vol. 200; p. 756.
Dyer, Henry H., Somerville, Mass. Pipe, cigar-holder, or the like. No. 1,090,036; Mar. 10; Gaz. vol. 200; p. 515.
Dyer, Robert A., Jr., Auburn, N. Y. Railway-crossing. No. 1,088,688; Mar. 3; Gaz. vol. 200; p. 6.
Dyer, Thomas, Cranston, R. I. Vehicle-wheel. No. 1,091,124; Mar. 24; Gaz. vol. 200; p. 963.
E. H. Freeman Electric Company. (See Freeman, Edgar H., assignor.)
E. I. du Pont de Nemours Powder Company. (See Lynah, James, assignor.)
E. I. du Pont de Nemours Powder Company. (See Nathan, Rintoul, and Baker, assignors.)
E. T. Burrowes Company, The. (See Coffin, Charles W., assignor.)
E. W. Bliss Company. (See Leavitt, Frank M., assignor.)
Earl, Ransom D., *et al.* (See Hook, William, assignor.)
Earnist, Cyrus C., Riceville, Iowa. Change-speed gearing. No. 1,091,467; Mar. 24; Gaz. vol. 200; p. 1075.
Eastman Kodak Company. (See Adams, George W., assignor.)
Eastman Kodak Company. (See Clarke, Joseph T., assignor.)
Eastman Kodak Company. (See Fisher, Austin C., assignor.)
Eastman Kodak Company. (See Folmer, William F., assignor.)
Ebenreiter, Alfred R., Spokane, Wash. Friction-pulley. No. 1,090,462; Mar. 17; Gaz. vol. 200; p. 706.
Ebersole, Cyrus P., assignor to Electric Service Supplies Company, Philadelphia, Pa. Sand-trap. No. 1,089,541; Mar. 10; Gaz. vol. 200; p. 346.
Ebner, Peter, Columbus, Ohio. Letter-file. No. 1,091,490; Mar. 31; Gaz. vol. 200; p. 1129.
Ebur, Thomas R. L., Lebanon, Pa. Fishing-rod support. No. 1,091,491; Mar. 31; Gaz. vol. 200; p. 1129.
Eck, Arvid, St. Louis, Mo. Repeating air-rifle. No. 1,088,689; Mar. 3; Gaz. vol. 200; p. 7.
Eddelman, Edgar, Westport, Ind. Attachment for trap-doors. No. 1,090,697; Mar. 17; Gaz. vol. 200; p. 785.
Eddy, Lorenzo G., Huntington, N. Y. Pump-cylinder. No. 1,090,037; Mar. 10; Gaz. vol. 200; p. 515.
Edel, Hermann J., assignor to Gesellschaft für Maschinen- und Metall-Industrie mit beschränkter Haftung, Neheim-on-the-Ruhr, Germany. Appliance for providing metallic pins with head-plates. No. 1,090,038; Mar. 10; Gaz. vol. 200; p. 515.
Edgar Allen American Manganese Steel Company. (See McKee, Walter S., assignor.)
Edgington, William F., and A. Murray, Springfield, Ohio. Tire-tool No. 1,090,290; Mar. 17; Gaz. vol. 200; p. 645.
Edmison, George A. and L., Los Angeles, Cal. Electrical heater. No. 1,088,887; Mar. 3; Gaz. vol. 200; p. 73.
Edmison, Laurence. (See Edmison, George A. and L.)
Edmonds, Samuel P., Catonsville, Md. Amusement puzzle-box. No. 1,090,130; Mar. 17; Gaz. vol. 200; p. 591.
Edmonds, Thomas H., Washington, D. C. Car-ticket, stamp, and card holder. No. 1,089,117; Mar. 3; Gaz. vol. 200; p. 152.
Edmunds & Jones Mfg. Company. (See Godley, Charles E., assignor.)



Edward, John B. (See Rutty and Edward.)
Edward Miller & Company. (See Schoenhardt, Ferdinand P., assignor.)
Edwards, Edward W., Cincinnati, Ohio. Sheet-metal roofing. No. 1,091,049; Mar. 24; Gaz. vol. 200; p. 937.
Edwards, Harry C., assignor of one-half to J. T. Megredy, Kansas City, Mo. Vehicle-jack. No. 1,090,781; Mar. 17; Gaz. vol. 200; p. 812.
Edwards, Isaac L., Aurora, Ill. Combined tie-plate and brace. No. 1,091,050; Mar. 24; Gaz. vol. 200; p. 937.
Edwards, Oliver M. (See Axe and Edwards.)
Edwin B. Stimpson Company. (See Stimpson, Edwin B., assignor.)
Edwin Harrington, Sons & Co. (See Harrington and Scott, assignors.)
Egan, Michael F. (See Loney and Egan.)
Egerton, Henry C., Passaic, N. J., assignor to Western Electric Company, New York, N. Y. Telephone transmission-circuits. No. 1,089,825; Mar. 10; Gaz. vol. 200; p. 443.
Egli, Arnold, assignor to Vogtländische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Aktiengesellschaft, Plauen, Germany. Locking device for stereotype-matrices. No. 1,090,842; Mar. 24; Gaz. vol. 200; p. 864.
Ehrhardt, Jacob, Ramona, Kans. Weed-screen. No. 1,089,190; Mar. 3; Gaz. vol. 200; p. 180.
Ehrler, Charles, Rolla, Mo. Shotgun-barrel attachment. No. 1,089,403; Mar. 10; Gaz. vol. 200; p. 295.
Ehrlich, Paul, Frankfort-on-the-Main, B. Reuter, Höchst-on-the-Main, and P. Karrer, Frankfort-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Arseno-metal preparations and making same. No. 1,091,881; Mar. 31; Gaz. vol. 200; p. 1265.
Eickemeyer, Karl, Munich, Germany. Universal carriage-locomotive. No. 1,091,125; Mar. 24; Gaz. vol. 200; p. 963.
Eidsæther, Olaf, Mjöndalen, Norway. Log-peeling machine. No. 1,090,463; Mar. 17; Gaz. vol. 200; p. 706.
Elker, Charles F., *et al.* (See Gross, Edward L., assignor.)
Elmer, August, New York, N. Y. Pressure and relief pump. No. 1,091,566; Mar. 31; Gaz. vol. 200; p. 1154.
Elnstein, Sol, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Quick-traverse control. No. 1,092,097; Mar. 31; Gaz. vol. 200; p. 1336.
Elrich, Carl. (See Thompson and Elrich.)
Elrich, Joseph L., Brooklyn, N. Y. Train-stopping device. No. 1,089,191; Mar. 3; Gaz. vol. 200; p. 180.
Elsengräber, Ernst, Frankfort-on-the-Main, Germany. Welding-powder for welding iron and steel. No. 1,091,312; Mar. 24; Gaz. vol. 200; p. 1026.
Elsenmann, Richard, Chicago, Ill. Tire-supporting receptacle. No. 1,091,818; Mar. 31; Gaz. vol. 200; p. 1243.
Elsermann, Rudolf, Berlin, and J. Lehne, Charlottenburg, Germany, assignors to The American Rotary Machine Company, New York, N. Y. Rotary expansion-engine. No. 1,089,752; Mar. 10; Gaz. vol. 200; p. 418.
Elbe, Otto, Chicago, Ill. Cleaning-tool. No. 1,090,698; Mar. 17; Gaz. vol. 200; p. 785.
Eldred, Byron E., New York, N. Y. Lining furnaces. No. 1,091,567; Mar. 31; Gaz. vol. 200; p. 1155.
Eldridge, William T., assignor to Imperial Sugar Company, Sugar Land, Tex. Stock food. No. 1,089,630; Mar. 10; Gaz. vol. 200; p. 376.
Electrelle Company. (See Dorricott, Charles W., assignor.)
Electric Carrier Company. (See McLeer, Charles B. and J. F., assignors.)
Electric Heat Storage Company. (See Lawrence, James, assignor.)
Electric Service Supplies Company. (See Ebersole, Cyrus P., assignor.)
Elevator Supply & Repair Company. (See Schenck, Charles, assignor.)
Elevator Supply & Repair Company. (See Schenck and Graham, assignors.)
Elevator Supply & Repair Company. (See Wylde and Schenck, assignors.)
Elfborg, Henry G., Chicago, Ill. Guard-rail. No. 1,088,975; Mar. 3; Gaz. vol. 200; p. 104.
Elfborg, Henry G., assignor to Ajax Rail Anchor Co., Chicago, Ill. Anti-rail-creeper. No. 1,088,976; Mar. 3; Gaz. vol. 200; p. 105.
Elkin, Charles, New York, N. Y. Hose-attaching device. No. 1,091,819; Mar. 31; Gaz. vol. 200; p. 1243.
Elliott-Fisher Company. (See Foothorap, Harry A., assignor.)
Elliott, Percy M., Chicago, Ill. Freight-car door. No. 1,088,774; Mar. 3; Gaz. vol. 200; p. 34.
Elliott, Percy M., Chicago, Ill. Freight-car. No. 1,088,775; Mar. 3; Gaz. vol. 200; p. 35.
Elliott, Thomas H., Vancouver, British Columbia, Canada. Railway-rail. No. 1,089,631; Mar. 10; Gaz. vol. 200; p. 376.
Ellis Adding Typewriter Company. (See Burchett, Walter J., assignor.)
Ellis, Albert H., Kingston, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Combined type-writing and adding machine. No. 1,091,820; Mar. 31; Gaz. vol. 200; p. 1244.
Ellis, Carleton, Montclair, N. J., assignor to Ellis-Foster Company. Treating petroleum oils with ultra-violet light. No. 1,089,359; Mar. 3; Gaz. vol. 200; p. 233.
Ellis-Foster Company. (See Ellis, Carleton, assignor.)
Elrod, Henry E. (See Lacy, Benjamin B., assignor.)
Ely, Herbert W., Springfield township, Bradford county, Pa. Single-jointed ice-tongs. No. 1,090,039; Mar. 10; Gaz. vol. 200; p. 516.
Emerson, Charles J., Providence, R. I. Textile-conditioning instrument. No. 1,089,826; Mar. 10; Gaz. vol. 200; p. 443.
Emory, Eugene L., assignor of one-half to H. E. Bruce, Suffolk, Va. Combined pancake-turner and fork. No. 1,089,118; Mar. 3; Gaz. vol. 200; p. 153.
Empire Voting Machine Company. (See Dean, James H., assignor.)
Empire Voting Machine Company. (See Gillespie, Alfred J., assignor.)
En Earl, Darius C., Denver, Colo. Key-ring lock. No. 1,092,031; Mar. 31; Gaz. vol. 200; p. 1313.
Encinas, Arthur R., San Francisco, Cal. Lock-nut. No. 1,090,976; Mar. 24; Gaz. vol. 200; p. 911.
Enders, Emil, Breslau, Germany. Treating potatoes. No. 1,090,782; Mar. 17; Gaz. vol. 200; p. 812.
Engelhart, Julius A., Minneapolis, Minn. Adjustable grain-spout holder for grain-loaders. No. 1,090,291; Mar. 17; Gaz. vol. 200; p. 645.
Engelskirchen, Frederick, assignor to George P. Bent Company, Chicago, Ill. Pedal trap-work. No. 1,089,119; Mar. 3; Gaz. vol. 200; p. 153.
Englander Spring Bed Company. (See Quincy, Frederick J., assignor.)
Englesson, John E., Karlskrona, Sweden, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Energy-absorber. No. 1,090,100; Mar. 10; Gaz. vol. 200; p. 537.
Englesson, John E., Karlskrona, Sweden, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Prime-mover-power-limiting device. No. 1,090,520; Mar. 17; Gaz. vol. 200; p. 727.
English, John C., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box diaphragm. No. 1,091,202; Mar. 24; Gaz. vol. 200; p. 991.
Eppens, August, Berlin, Germany. Saccharometer. No. 1,089,464; Mar. 10; Gaz. vol. 200; p. 317.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Thread-waxing device. No. 1,091,126; Mar. 24; Gaz. vol. 200; p. 964.
Epps, Clinton C., Eufaula, Okla. Cotton-cleaner. No. 1,090,606; Mar. 17; Gaz. vol. 200; p. 757.
Erickson, Ben. (See McConnell and Erickson.)
Erickson, Carl H., Denver, Colo. Air-compressor. No. 1,091,313; Mar. 24; Gaz. vol. 200; p. 1026.
Erickson, Carl H., Denver, Colo. Tooth-brush. No. 1,091,314; Mar. 24; Gaz. vol. 200; p. 1026.
Erickson, Frank H., Holdrege, Nebr. Door-latch. No. 1,091,644; Mar. 31; Gaz. vol. 200; p. 1181.
Erickson, John, Chicago, Ill., assignor to Denio General Electric Company, Rochester, N. Y. Fire-alarm signal-box for automatic telephone systems. No. 1,089,404; Mar. 10; Gaz. vol. 200; p. 295.
Erickson, William T., New York, N. Y. Tide-power mechanism. No. 1,089,120; Mar. 3; Gaz. vol. 200; p. 153.
Erlanger, Sidney C., assignor to The B. V. D. Company, New York, N. Y. Garment. No. 1,090,464; Mar. 17; Gaz. vol. 200; p. 707.
Erquhart, Allen S., and C. Duclos, Coalinga, Cal. Meat-saw. No. 1,089,192; Mar. 3; Gaz. vol. 200; p. 180.
Ervien, Horace, Ogontz, Pa. Antirattler for vehicle-doors. No. 1,089,193; Mar. 3; Gaz. vol. 200; p. 180.
Erwin, Roswell C., Oak Park, Ill. Rake. No. 1,089,542; Mar. 10; Gaz. vol. 200; p. 346.
Erwin, William, Philadelphia, Pa. Adjustable arm or support. No. 1,088,690; Mar. 3; Gaz. vol. 200; p. 7.
Essayan, Hrand G., Boston, Mass. Enamel. No. 1,091,492; Mar. 31; Gaz. vol. 200; p. 1130.
Essex Machine Company. (See Reed, James H., assignor.)
Estep, William G., Duquesne, Pa. Valve. No. 1,090,521; Mar. 17; Gaz. vol. 200; p. 727.
Euterpean Duplicator Company. (See Myers, Edgar W., assignor.)
Evans, Charles E., Weed, Cal. Stile and rail rabbeter. No. 1,091,203; Mar. 24; Gaz. vol. 200; p. 991.
Evans, Edward L., Fort Myers, Fla. Artificial bait. No. 1,089,915; Mar. 10; Gaz. vol. 200; p. 474.
Evans, Fred, Summit, N. J., assignor to Patented Devices Company, New York, N. Y. Adjustable lamp-shade. No. 1,090,465; Mar. 17; Gaz. vol. 200; p. 707.
Evans, Harry N., Sr. Philadelphia, Pa. Gage-cock. No. 1,090,203; Mar. 17; Gaz. vol. 200; p. 614.
Evans, Hector G., assignor of one-half to J. F. Ewing, Pittsburgh, Pa. Rail-joint. No. 1,090,699; Mar. 17; Gaz. vol. 200; p. 786.
Evrard, Ernest M. (See Ridley, Charles, assignor.)
Ewell, Herbert P., Detroit, Mich. Separator. No. 1,091,917; Mar. 31; Gaz. vol. 200; p. 1277.
Ewing, Hugh, Columbus, Ohio. Self-propelled vehicle. No. 1,089,121; Mar. 3; Gaz. vol. 200; p. 154.
Ewing, James F. (See Evans, Hector G., assignor.)
Eynon, Thomas M., Philadelphia, Pa. Gate-valve. No. 1,091,018; Mar. 31; Gaz. vol. 200; p. 1278.
Eyssell, Moritz. (See Bildtel, Ernst, assignor.)
F. A. Hardy & Co. (See Pixley, Charles H., assignor.)
F. N. Burt Company. (See Holly, Carlos, assignor.)
F. W. Wakefield Brass Company, The. (See Wakefield, Frederick W., assignor.)
Facklam, Otto, Gantenbeck, near Klütz, Germany. Band-cutter and feeder. No. 1,090,522; Mar. 17; Gaz. vol. 200; p. 728.

Fagerholm, Albin E. S., assignor to N. A. Nelson, Brooklyn, N. Y. Explosive-engine. No. 1,089,194; Mar. 3; Gaz. vol. 200; p. 181.

Faget, Arthur, San Francisco, Cal. Ice-making apparatus. No. 1,091,019; Mar. 31; Gaz. vol. 200; p. 1278.

Fairbanks, Morse & Company. (See Vail and Powers, assignors.)

Fairley, David, Hattiesburg, Miss. Running-gear for motor-vehicles. No. 1,088,888; Mar. 3; Gaz. vol. 200; p. 74.

Falco, Vittorio, Turin, assignor to Metallurgica Bresciana Già Tempini, Brescia, Italy. Automatic pistol. No. 1,089,195; Mar. 3; Gaz. vol. 200; p. 181.

Falker, Henry W., Ashland, Pa. Game apparatus. No. 1,091,739; Mar. 31; Gaz. vol. 200; p. 1214.

Falvey, Thomas J., Needham, and R. D. Caldwell, Salem, assignors to Caldwell Manufacturing Company, Boston, Mass. Time and wage computer. No. 1,088,889; Mar. 3; Gaz. vol. 200; p. 74.

Fanta, Karl, A. Regal, H. Vietze, and N. Wessely, assignors to Oesterreichische Siemens-Schuckertwerke and Regal Patente-Gesellschaft m. b. H., Vienna, Austria-Hungary. Electric jacquard-machine. No. 1,091,882; Mar. 31; Gaz. vol. 200; p. 1266.

Farbenfabriken vorm. Friedr. Bayer & Co. (See Blank, Heidenreich, and Jansen, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Callsen, Jürgen, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Schweitzer and Zart, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Ehrlich, Reuter, and Karrer, assignors.)

Fargo, Arthur H., West Newton, Mass. Scraping-machine. No. 1,090,910; Mar. 24; Gaz. vol. 200; p. 888.

Farmer, Luke W., Somerville, Mass. Paper receptacle. No. 1,088,813; Mar. 3; Gaz. vol. 200; p. 47.

Farnham, Blon B., Kenmore, N. Y. Drying-machine. No. 1,091,051; Mar. 24; Gaz. vol. 200; p. 937.

Faron, Clifton A., Los Angeles, Cal. Railway. No. 1,090,140; Mar. 17; Gaz. vol. 200; p. 591.

Farquhar, Louis W., St. Louis, Mo. Safety-guard for razors. No. 1,089,753; Mar. 10; Gaz. vol. 200; p. 419.

Farr, Hiram G., Melrose, Mass. Combined steam and compressed-air engine. No. 1,090,523; Mar. 17; Gaz. vol. 200; p. 728.

Farrel, Robert J. (See O'Donnell, Martin J., assignor.)

Farrington, Frederick J., Omaha, Nebr. Knockdown wagon-box. No. 1,089,196; Mar. 3; Gaz. vol. 200; p. 181.

Farwell, Fay O., Dubuque, Iowa. Gear-hobbing machine. No. 1,091,493; Mar. 31; Gaz. vol. 200; p. 1130.

Faught, Francis A., and C. J. Pilling, assignors to George P. Pilling and Son Company, Philadelphia, Pa. Apparatus for measuring and indicating blood-pressure. No. 1,089,122; Mar. 3; Gaz. vol. 200; p. 154.

Faulkner, John H., London, England. Convertible cabinet, case, or the like. No. 1,090,524; Mar. 17; Gaz. vol. 200; p. 728.

Faulkner, William L., Evesham, Saskatchewan, Canada. Plow. No. 1,091,920; Mar. 31; Gaz. vol. 200; p. 1279.

Faysoux, Harris A., Vaughan, N. C. Car-stake. No. 1,092,032; Mar. 31; Gaz. vol. 200; p. 1313.

Federal Cement Tile Company. (See Baumgartl, Leroy, assignor.)

Federal Cement Tile Company. (See Freund, Ignatz H., assignor.)

Feeny, Edmund J., assignor to The Feeny Manufacturing Company, Muncie, Ind. Air-tight closure and clamp therefor. No. 1,089,754; Mar. 10; Gaz. vol. 200; p. 419.

Feeny Manufacturing Company, The. (See Feeny, Edmund J., assignor.)

Fekette, John, Elizabeth, N. J. Lock. No. 1,090,700; Mar. 17; Gaz. vol. 200; p. 786.

Felch, Theodore K., Newark, assignor of one-half to N. F. McKeon, Paterson, N. J. Fountain-pen. No. 1,088,691; Mar. 3; Gaz. vol. 200; p. 7.

Felten, David F., Rosedale, Kans. Airship. No. 1,091,315; Mar. 24; Gaz. vol. 200; p. 1027.

Fenaux, Fernand, assignor to Chantiers et Ateliers Augustin Normand, Le Havre, France. Submarine boat. No. 1,089,543; Mar. 10; Gaz. vol. 200; p. 346.

Fenske, Gustav H., Clark, Mo. Concrete-fence-post mold. No. 1,090,701; Mar. 17; Gaz. vol. 200; p. 786.

Ferguson, Francis W., Louisville, Ky. Chimney-top. No. 1,091,883; Mar. 31; Gaz. vol. 200; p. 1266.

Ferguson, Lyman H., Buffalo, assignor of one-third to W. Smith, Enfield, N. Y. Tire. No. 1,091,316; Mar. 24; Gaz. vol. 200; p. 1027.

Ferguson, Lyman H., Ithaca, assignor of one-third to W. Smith, Enfield, N. Y. Tire. No. 1,092,119; Mar. 31; Gaz. vol. 200; p. 1344.

Ferguson, Walton, Jr., Stamford, Conn., and A. W. Buel, New York, N. Y. Composite rail. No. 1,090,466; Mar. 17; Gaz. vol. 200; p. 707.

Ferguson, William S., assignor to J. D. Carey, Cleveland, Ohio. Reinforced-concrete dock or pier. No. 1,089,405; Mar. 10; Gaz. vol. 200; p. 296.

Fernald, Charles F., Boston, Mass. Shock-absorber. No. 1,090,292; Mar. 17; Gaz. vol. 200; p. 646.

Fernandez, Alphonse, Mobile, Ala. Street and station indicator for cars. No. 1,089,197; Mar. 3; Gaz. vol. 200; p. 182.

Ferrall, John J., and E. Mackay, New York, N. Y., assignors to National Biscuit Company. Storage and display receptacle. No. 1,090,117; Mar. 10; Gaz. vol. 200; p. 543.

Ferres, Jeffrey T., Los Angeles, Cal. Slitting and scoring machine. No. 1,091,204; Mar. 24; Gaz. vol. 200; p. 991.

Ferris, William S., *et al.*, trustees. (See Adams, Arthur J., assignor.)

Ferro Concrete Construction Company, The. (See Anderson, William P., assignor.)

Ferry, Louis, U. Moscariello, and R. Amodio, Derby, Conn. Life-saving steamer-chair. No. 1,090,525; Mar. 17; Gaz. vol. 200; p. 729.

Fesenbek, Frederick C., Philadelphia, Pa., assignor, by mesne assignments, to H. Small and A. H. Boyd, receivers of Keller Manufacturing Company. Rotary pneumatic pump. No. 1,091,821; Mar. 31; Gaz. vol. 200; p. 1244.

Fiego, Alexander J. R. (See Pratt and Fiego.)

Field, Elijah H., and W. F. Walker, Suwanee, Ga. Railway angle-bar. No. 1,089,632; Mar. 10; Gaz. vol. 200; p. 376.

Figg, George E., Montreal, Quebec, Canada. Buckle and band. No. 1,088,890; Mar. 3; Gaz. vol. 200; p. 75.

Fillmore, Waldo R., and E. Boillot, Kansas City, Mo. Folding bed. No. 1,091,494; Mar. 31; Gaz. vol. 200; p. 1130.

Fillmore, Waldo R., and E. Boillot, Kansas City, Mo. Compartment-bed. No. 1,091,495; Mar. 31; Gaz. vol. 200; p. 1130.

Filson, Clinton C., Seattle, Wash. Shirt. No. 1,088,891; Mar. 3; Gaz. vol. 200; p. 75.

Finch, Horace M., Lookeba, Okla. Cotton-loader. No. 1,091,317; Mar. 24; Gaz. vol. 200; p. 1027.

Fink, Clyde W., Kansas City, Mo. Portable water-tower. No. 1,090,783; Mar. 17; Gaz. vol. 200; p. 812.

Finklea, Samuel M., *et al.* (See Neal, Charles W., assignor.)

Finnegan, John L.; J. Trebing, guardian, Nashville, Tenn. Self-heating soldering-iron. No. 1,090,141; Mar. 17; Gaz. vol. 200; p. 592.

Firsching, Joseph A., Utica, N. Y. Base or stand. No. 1,090,702; Mar. 17; Gaz. vol. 200; p. 786.

Fischer, Adalbert, Philadelphia, Pa. Induction draft apparatus. No. 1,089,827; Mar. 10; Gaz. vol. 200; p. 443.

Fischer, Albert T., Cleveland, Ohio. Advertising device. No. 1,090,142; Mar. 17; Gaz. vol. 200; p. 592.

Fischer, Max H. (See Fischer, Robert, assignor.)

Fischer, Robert, New York, N. Y., assignor to M. H. Fischer, East Orange, N. J. Clutch for scarf-pins, hat-pins, and the like. No. 1,089,755; Mar. 10; Gaz. vol. 200; p. 419.

Fischmann, Karl, assignor to W. G. Brokaw, Archdale, N. C. Producing shaving-cream. No. 1,091,052; Mar. 24; Gaz. vol. 200; p. 938.

Fisher, Austin C., assignor to Eastman Kodak Company, Rochester, N. Y. Film developing and drying support. No. 1,089,916; Mar. 10; Gaz. vol. 200; p. 474.

Fisher, Edward G., Washington, D. C. Valve. No. 1,089,756; Mar. 10; Gaz. vol. 200; p. 419.

Fisher, Elmer, Detroit, Mich. Hand-stamp. No. 1,089,198; Mar. 3; Gaz. vol. 200; p. 182.

Fisher, Ernest F., Pittsburgh, Pa. Hydrodynamic balance. (Reissue.) No. 13,702; Mar. 24; Gaz. vol. 200; p. 1077.

Fisher, George W., and F. Hoyland, Jackson, Mich. Switch-actuating mechanism. No. 1,090,467; Mar. 17; Gaz. vol. 200; p. 708.

Fisher, James J., Townsend, Mont. Automobile-puller. No. 1,091,318; Mar. 24; Gaz. vol. 200; p. 1027.

Fisher, Oakley F., Milwaukee, Wis. Steering-compensator for rowboat-motors. No. 1,091,645; Mar. 31; Gaz. vol. 200; p. 1182.

Fisher, William E., Miller, Nebr. Mail-delivery apparatus. No. 1,090,977; Mar. 24; Gaz. vol. 200; p. 911.

Fitchburg Bobbin Cleaning Machine Co. (See Lonzo, William, assignor.)

Fitton, John R., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Filling-thread-cutting mechanism for weft-replenishing looms. No. 1,091,205; Mar. 24; Gaz. vol. 200; p. 992.

Fitts, James L., Pennsauken township, Camden county, N. J., assignor to Warren Webster & Company. Spray-nozzle. No. 1,089,406; Mar. 10; Gaz. vol. 200; p. 296.

Fitzgerald, Jeremiah C., Kilbourn, Wis. Pulley. No. 1,092,098; Mar. 31; Gaz. vol. 200; p. 1337.

Fitzgerald, Jeremiah C., Kilbourn, assignor to West Bend Barn Equipment Company, West Bend, Wis. Stanchion. No. 1,091,646; Mar. 31; Gaz. vol. 200; p. 1182.

Fitzgerald, Thomas W., Boston, Mass. Indicator for measuring or weighing machines and devices. No. 1,089,336; Mar. 3; Gaz. vol. 200; p. 224.

Fitzpatrick, Edward D., Omaha, Nebr. Mechanical match-lighter. No. 1,089,199; Mar. 3; Gaz. vol. 200; p. 182.

Fjellman, Bengt W., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-bearing. No. 1,091,822; Mar. 31; Gaz. vol. 200; p. 1244.

Flatau, Louis S., St. Louis, Mo. Cup-dispenser. No. 1,091,921; Mar. 31; Gaz. vol. 200; p. 1279.

Fleck, John, Tarentum, Pa. Headlight for street-cars. No. 1,089,200; Mar. 3; Gaz. vol. 200; p. 182.

Fleming, Allison H., Fairmont, W. Va. Garment-supporter. No. 1,090,040; Mar. 10; Gaz. vol. 200; p. 516.

Fleming, Clifford A., Huntsville, Mo. Fork. No. 1,091,319; Mar. 24; Gaz. vol. 200; p. 1028.





Fleming, Ernest L., Chester, England. Manufacture of borax and boric acid. No. 1,090,526; Mar. 17; Gaz. vol. 200; p. 729.

Fleming, Ivan R., Great Crosby, near Liverpool, England. Means for propelling boats and the like. No. 1,091,320; Mar. 24; Gaz. vol. 200; p. 1028.

Fletcher, James R., assignor to The American Hardware Corporation, New Britain, Conn. Strike-plate. No. 1,091,453; Mar. 24; Gaz. vol. 200; p. 1070.

Fleury, Pierre, Paris, France. Refrigerator. No. 1,091,321; Mar. 24; Gaz. vol. 200; p. 1028.

Flexitallic Gasket Company. (See Hettinger, Charles F., assignor.)

Floryanowicz, Josef Z., Wierzbnik, and T. M. J. Kicinski, Zmudz, Russia. Railway-car coupling. No. 1,091,740; Mar. 31; Gaz. vol. 200; p. 1215.

Follows, Albert E., Wavertree, Liverpool, England. Artificial tooth. No. 1,089,201; Mar. 3; Gaz. vol. 200; p. 183.

Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Apparatus for reading reversed images. No. 1,089,917; Mar. 10; Gaz. vol. 200; p. 475.

Folsom, Thomas C., Tampa, Fla. Rail-bond. No. 1,089,202; Mar. 3; Gaz. vol. 200; p. 183.

Fontanella, Henry F., New York, N. Y. Planchette device. No. 1,091,206; Mar. 24; Gaz. vol. 200; p. 992.

Foote, Theodore M., Allston, Mass., assignor to National Binding Machine Company, New York, N. Y. Automatic labeling-machine. No. 1,090,388; Mar. 17; Gaz. vol. 200; p. 679.

Foothorap, Harry A., assignor to Elliott-Fisher Company, Harrisburg, Pa. Line-spacing mechanism. No. 1,089,465; Mar. 10; Gaz. vol. 200; p. 318.

Forbes, Frank G. (See Barton, Joseph T., assignor.)

Fordon, Alexander A. (See Morrison and Fordon.)

Foreman, Ernest J., Trinidad, Colo. Screw. No. 1,088,892; Mar. 3; Gaz. vol. 200; p. 75.

Foret, John B., Ford City, Mich. Automobile-fender. No. 1,092,033; Mar. 31; Gaz. vol. 200; p. 1313.

Forman, Joseph, assignor to Henry Sonneborn and Company, Baltimore, Md. Safety-pocket. No. 1,089,203; Mar. 3; Gaz. vol. 200; p. 183.

Forsyth Brothers Company. (See Brinckerhoff, Francis M., assignor.)

Forsyth Brothers Company. (See Sisson, Albert H., assignor.)

Forsyth, George H., Chicago, Ill., assignor to Waugh Draft Gear Company. Draft and buffing appliance for railway-cars. No. 1,090,143; Mar. 17; Gaz. vol. 200; p. 593.

Forward, Chauncey B., Urbana, Ohio. Manufacture of asphalt from crude mineral oil or residuum thereof. No. 1,088,692; Mar. 3; Gaz. vol. 200; p. 8.

Forward, Chauncey B., Urbana, Ohio. Apparatus for continuously distilling crude oil and other substances. No. 1,088,693; Mar. 3; Gaz. vol. 200; p. 8.

Foadick, Frank C., Chicago, Ill. Mechanical stoker. No. 1,089,697; Mar. 10; Gaz. vol. 200; p. 399.

Foster, Claud H., Cleveland, Ohio. Shock-absorbing device. No. 1,089,828; Mar. 10; Gaz. vol. 200; p. 444.

Foster, Frank B. (See Wheeler and Foster.)

Foster, Harry A., and F. C. Kittredge, Weld, Me. Vehicle-shafts. No. 1,091,322; Mar. 24; Gaz. vol. 200; p. 1029.

Foster, Lucian M., Norwich, N. Y. Internal-combustion engine. No. 1,091,053; Mar. 24; Gaz. vol. 200; p. 938.

Fowler Car Company, The. (See Murray, Charles F., assignor.)

Fowler, Charles R. (See Wolfe, Fowler, Schroeder, and Mappett.)

Fowler, Roy E., and E. L. Vermilya, Fremont, Ohio. Machine for topping and digging beets. No. 1,091,823; Mar. 31; Gaz. vol. 200; p. 1245.

Fowler, Rufus B., Worcester, Mass. Piano-action. No. 1,089,123; Mar. 3; Gaz. vol. 200; p. 155.

Fowler & Wolfe Manufacturing Company. (See Wolfe, Fowler, Schroeder, and Mappett, assignors.)

Fox, Austen H., New York, N. Y. Railway-vehicle magnet and roadway therefor. No. 1,088,814; Mar. 3; Gaz. vol. 200; p. 47.

Fox, Charles B., Providence, R. I. Projectile. No. 1,091,922; Mar. 31; Gaz. vol. 200; p. 1279.

Fox, Charles H., Cincinnati, Ohio. Pump. No. 1,091,496; Mar. 31; Gaz. vol. 200; p. 1131.

Fox, James S., Jackson, Mich. Railway-rail. No. 1,091,323; Mar. 24; Gaz. vol. 200; p. 1029.

Fox, John C., McKeesport, Pa. Fall-block. No. 1,091,497; Mar. 31; Gaz. vol. 200; p. 1131.

Fox, Joseph A., New York, N. Y. Vending-machine. No. 1,091,824; Mar. 31; Gaz. vol. 200; p. 1245.

Francis, William C., Bristol Center, N. Y. Fertilizer-distributer. No. 1,090,293; Mar. 17; Gaz. vol. 200; p. 646.

Francisco, Charles. (See Simmons and Francisco.)

Frank Adam Electric Company. (See Adam and Arens, assignors.)

Frank Holton & Company. (See Stacy, Charles E., assignor.)

Frantz, Edmund, Enid, Okla. Post. No. 1,091,741; Mar. 31; Gaz. vol. 200; p. 1215.

Franz, Frank, assignor of one-half to E. R. Day, Wallace, Idaho. Head-motion. No. 1,089,633; Mar. 10; Gaz. vol. 200; p. 377.

Fratarcangeli, Giuseppe and P., Frosinone, Italy. Hardening or mummification of human and animal bodies and their organs. No. 1,088,977; Mar. 3; Gaz. vol. 200; p. 105.

Fratarcangeli, Pietro. (See Fratarcangeli, Giuseppe and P.)

Frazier, Thomas H. (See Walker, James F., assignor.)

Frech, Theodore W., Jr., Cleveland, Ohio, assignor to General Electric Company. Tungsten manufacture. No. 1,089,757; Mar. 10; Gaz. vol. 200; p. 420.

Fred. H. Knapp Company, The. (See Knapp, Frederick H., assignor.)

Frede, Charles F., assignor to Commonwealth Steel Company, St. Louis, Mo. Railway-car underframe. No. 1,091,324; Mar. 24; Gaz. vol. 200; p. 1029.

Frederick, Andrew, Harmony, Pa. Tractor. No. 1,089,698; Mar. 10; Gaz. vol. 200; p. 399.

Frederiksen, Johan D., Little Falls, N. Y. Composition for producing lactic food products. No. 1,091,054; Mar. 24; Gaz. vol. 200; p. 939.

Freeman, Edgar H., Trenton, N. J. Cap and shell fastening for lamp-socket casings. No. 1,090,527; Mar. 17; Gaz. vol. 200; p. 729.

Freeman, Edgar H., assignor to E. H. Freeman Electric Company, Trenton, N. J. Electrical border-light receptacle. No. 1,090,528; Mar. 17; Gaz. vol. 200; p. 730.

Freeman, Frank A., Overbrook, Pa., assignor to Pioneer Suspender Company. Garter-package. (Reissue.) No. 13,701; Mar. 17; Gaz. vol. 200; p. 830.

Freeman, Lewis D., Pittsburg, Kans. Boiler. No. 1,089,758; Mar. 10; Gaz. vol. 200; p. 420.

Freeman, William B. (See McElroy and Freeman.)

Fiehofer, Charles, Philadelphia, Pa. Device for transferring dough. No. 1,092,034; Mar. 31; Gaz. vol. 200; p. 1314.

French, Alfred W., Piqua, Ohio. Gate-operating mechanism for meal-cookers and the like. No. 1,091,055; Mar. 24; Gaz. vol. 200; p. 939.

French, Elmer C., Dallas, and T. E. Craig, McKinney, Tex. Smoke-stack protector. No. 1,090,389; Mar. 17; Gaz. vol. 200; p. 679.

French, Frank L., Meriden, N. H. Watch winding mechanism. No. 1,090,390; Mar. 17; Gaz. vol. 200; p. 680.

French, James R., Lomax, Ill. Transmission device. No. 1,091,454; Mar. 24; Gaz. vol. 200; p. 1071.

French, Thomas, Rumford, Me. Apparatus for compensating for expansion of flow in indicating devices. No. 1,090,468; Mar. 17; Gaz. vol. 200; p. 708.

Frenz, Frederick J., Allison Park, Pa. Boiler. No. 1,089,918; Mar. 10; Gaz. vol. 200; p. 475.

Freshman, Samuel. (See Davis, Oscar C., assignor.)

Freund, Ignatz H., assignor to Federal Cement Tile Company, Chicago, Ill. Cement-mortar or concrete roofing-tile. No. 1,089,373; Mar. 3; Gaz. vol. 200; p. 237.

Frey, Herbert H., Chicago, Ill. Automobile-horn. No. 1,088,893; Mar. 3; Gaz. vol. 200; p. 75.

Fridolph, Anna S., Zybach, Tex. Spring-clasp hair-fastener. No. 1,089,829; Mar. 10; Gaz. vol. 200; p. 444.

Fried. Krupp Aktiengesellschaft. (See Bartholdy, Max, assignor.)

Fried. Krupp Aktiengesellschaft. (See Greuner, Kurt, assignor.)

Fried. Krupp Aktiengesellschaft. (See Korrodi, Heinrich, assignor.)

Fried. Krupp Aktiengesellschaft. (See Lauber, Otto, assignor.)

Fried. Krupp Aktiengesellschaft. (See Rabba, Heinrich, assignor.)

Fried. Krupp Aktiengesellschaft. (See Rabba and Stock, assignors.)

Fried. Krupp Aktiengesellschaft. (See Schurmann, Richard, assignor.)

Fried. Krupp Aktiengesellschaft. (See Ullrich, Georg, assignor.)

Fried. Krupp Aktiengesellschaft. (See Ziegenfuss, Friedrich, assignor.)

Friedlander, Joseph, New York, N. Y. Mounting for eyeglasses. No. 1,091,825; Mar. 31; Gaz. vol. 200; p. 1245.

Friedlein, Heinrich, Cologne-Deutz, assignor to Firm of Kontrolldruck-Automaten-Gesellschaft m. b. H., Cologne, Germany. Apparatus for printing and registering tickets. No. 1,091,498; Mar. 31; Gaz. vol. 200; p. 1131.

Friedman, Goste, Jamestown, N. Y. Bidet. No. 1,091,499; Mar. 31; Gaz. vol. 200; p. 1132.

Friedman, Nathan, Chicago, Ill. Window-ventilator. No. 1,089,544; Mar. 10; Gaz. vol. 200; p. 347.

Friedman, Nathan, New York, N. Y. Self-winding clock. No. 1,091,500; Mar. 31; Gaz. vol. 200; p. 1132.

Friedman, Sigmund, Gorgona, Canal Zone. Rail-tie. No. 1,090,041; Mar. 10; Gaz. vol. 200; p. 516.

Friedman, Sigmund, Paterson, N. J. Rail-tie. No. 1,090,042; Mar. 10; Gaz. vol. 200; p. 517.

Friedrich, Paul, Wendenschloss, near Cöpenick, assignor to Julius Pintsch Aktiengesellschaft, Berlin, Germany. Sharpening the ends of fine wires. No. 1,090,469; Mar. 17; Gaz. vol. 200; p. 708.

Friedrich, Richard, Glösa, near Chemnitz, Germany, and F. Hirsch, Vienna, Austria-Hungary. Manufacture of solid sulfites or bisulfites of homogeneous chemical constitution. No. 1,091,325; Mar. 24; Gaz. vol. 200; p. 1029.

Friedrich, Richard, Glösa, near Chemnitz, Germany, and F. Hirsch, Vienna, Austria-Hungary. Manufacture of sulfites or bisulfites. No. 1,091,429; Mar. 24; Gaz. vol. 200; p. 1063.

Frisbie, Russell A., Middletown, Conn. Gaseous-fuel heater. No. 1,091,501; Mar. 31; Gaz. vol. 200; p. 1132.

Frisk, John A., Urbana, Ill. Gas-burner and water-heater. No. 1,089,204; Mar. 3; Gaz. vol. 200; p. 183.

Fritz, Charles, Baltimore, Md. Liquid-measure. No. 1,090,607; Mar. 17; Gaz. vol. 200; p. 757.
Fritz, William, Philadelphia, Pa. Candy-coating machine. No. 1,090,608; Mar. 17; Gaz. vol. 200; p. 757.
Frizzell, Bernard F., Baltimore, Md. Boiler-feed control. No. 1,091,742; Mar. 31; Gaz. vol. 200; p. 1215.
Froehlich, Henry, Central Aguirre, Porto Rico. Valve. No. 1,092,035; Mar. 31; Gaz. vol. 200; p. 1314.
Frommater, Willy R., Long Island City, N. Y. Shock-absorber. No. 1,089,830; Mar. 10; Gaz. vol. 200; p. 444.
Frost, Harry W. (See Davis, Charles L., assignor.)
Frude, Frank H., assignor of one-third to S. I. Levin, Chicago, Ill. Moving-picture machine. No. 1,089,466; Mar. 10; Gaz. vol. 200; p. 318.
Fruhling, Albert G., Los Angeles, Cal. Screened frame for ventilating-windows. No. 1,091,743; Mar. 31; Gaz. vol. 200; p. 1215.
Fry, Isaac M., Maymont, Saskatchewan, Canada. Anchor-pin. No. 1,092,036; Mar. 31; Gaz. vol. 200; p. 1315.
Frye, Henry V., assignor of one-half to T. Gillespie, Bicknell, Ind. Means for dumping mine-cars. No. 1,091,826; Mar. 31; Gaz. vol. 200; p. 1246.
Fuchs, Ernest C., Rochelle Park, N. J. Non-refillable bottle. No. 1,089,205; Mar. 3; Gaz. vol. 200; p. 184.
Fuhr, William, Chicago, Ill. Counting-machine. No. 1,091,207; Mar. 24; Gaz. vol. 200; p. 992.
Fuhs, George A., Madisonville, Ky. Window-shade bracket. No. 1,090,043; Mar. 10; Gaz. vol. 200; p. 517.
Fujiyama, Tsuneichi, Tokyo, Japan. Apparatus for manufacturing nitrogen compounds. No. 1,090,391; Mar. 17; Gaz. vol. 200; p. 681.
Fullerton, James M. (See Thomas, Mary E., assignor.)
Fulton, Harry N., Philadelphia, Pa. Adjustable photo-bromid plate or film printing easel. No. 1,091,647; Mar. 31; Gaz. vol. 200; p. 1182.
Fulton, William T. (See Wilson, George W., assignor.)
Furney, Elliott E., St. Louis, Mo. Flying-machine. No. 1,090,609; Mar. 17; Gaz. vol. 200; p. 758.
Furniss, John T. (See Stovall and Furniss.)
Furrey, John W., Vancouver, Wash. Buckle. No. 1,091,924; Mar. 31; Gaz. vol. 200; p. 1280.
Furuseth, Loyd A., Belmond, Iowa. Spring-wheel. No. 1,090,703; Mar. 17; Gaz. vol. 200; p. 787.
Fuss, Max, Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to General Electric Company. System for treating liquids with ozone. No. 1,090,044; Mar. 10; Gaz. vol. 200; p. 517.
Gabriel, Bernard L. (See Weston, Francis J., assignor.)
Gabriel, Gustav, Offenbach-on-the-Main, Germany. Centering device. No. 1,089,407; Mar. 10; Gaz. vol. 200; p. 296.
Gabrielson, John, Buffalo, N. Y. Dies for making radiator-tubes. No. 1,089,124; Mar. 3; Gaz. vol. 200; p. 155.
Gabus, Adrian, Springfield, Ill. Meter-register. No. 1,091,326; Mar. 24; Gaz. vol. 200; p. 1029.
Gaddie, Hayes, Wellington, Kans. Cultivator. No. 1,091,056; Mar. 24; Gaz. vol. 200; p. 939.
Gage, Edward E., assignor to Yankee Wizard Clock Company, New York, N. Y. Alarm-clock. No. 1,088,978; Mar. 3; Gaz. vol. 200; p. 105.
Galbis, David, New Castle, Pa. Automatic registering and change device. No. 1,089,206; Mar. 3; Gaz. vol. 200; p. 184.
Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Alternating-current-controlling apparatus. No. 1,089,919; Mar. 10; Gaz. vol. 200; p. 476.
Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Current-controlling apparatus. No. 1,089,920; Mar. 10; Gaz. vol. 200; p. 476.
Gale, Ernest L., Sr., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electrical controlling apparatus. No. 1,089,921; Mar. 10; Gaz. vol. 200; p. 477.
Gall, Marvin L., Philippi, W. Va. Window holder and fastener. No. 1,091,208; Mar. 24; Gaz. vol. 200; p. 993.
Gallagher, Francis E., Newton, Mass., assignor to Standard Alcohol Company, New York, N. Y. Producing fermentable sugars. No. 1,091,327; Mar. 24; Gaz. vol. 200; p. 1030.
Galluzzo, Francesco R., assignor of one-half to S. Neiman, New York, N. Y. Divided skirt. No. 1,091,827; Mar. 31; Gaz. vol. 200; p. 1246.
Gambrell, Thomas E., London, England. Plug-switch. No. 1,092,037; Mar. 31; Gaz. vol. 200; p. 1315.
Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Slab-forming attachment for calendars. No. 1,089,467; Mar. 10; Gaz. vol. 200; p. 319.
Ganderton, Thomas, assignor of one-half to C. Mueller, Cleveland, Ohio. Steam-engine. No. 1,089,408; Mar. 10; Gaz. vol. 200; p. 297.
Ganderton, Thomas, assignor of one-half to C. Mueller, Cleveland, Ohio. Tool for preparing work to receive a lock-washer. No. 1,091,925; Mar. 31; Gaz. vol. 200; p. 1280.
Gangewere, Rocky C., Selma, Ala. Slag-handling apparatus. No. 1,091,828; Mar. 31; Gaz. vol. 200; p. 1246.
Gardiner, Warren B., Saylesville, R. I. Guard for circular saws. No. 1,088,894; Mar. 3; Gaz. vol. 200; p. 76.
Gardner, Edgar S., Acquackanonck, N. J., assignor to General Electric Company. Filament-mounting. No. 1,089,759; Mar. 10; Gaz. vol. 200; p. 420.
Gardner, Jesse, Austin, Tex. Sink. No. 1,090,704; Mar. 17; Gaz. vol. 200; p. 787.
Gardner, Randall D., Boston, Mass. Lifting device. No. 1,091,829; Mar. 31; Gaz. vol. 200; p. 1247.
Gardner, Rlo. (See Burton and Gardner.)
Garfield, Isidor Z., and N. Goldfarb, assignors to S. Loewy, New York, N. Y. Machine for packaging powders. No. 1,091,568; Mar. 31; Gaz. vol. 200; p. 1155.
Garland, Thomas H. (See Pachaly, Robert W., assignor.)
Garlock Auto Specialty Company. (See Whiting, Herman E., assignor.)
Garman, Raymond H., Chicago, Ill. Illustrated book. No. 1,089,922; Mar. 10; Gaz. vol. 200; p. 477.
Garrett, Dwight E., Delta, Iowa. Knockdown receptacle. No. 1,091,328; Mar. 24; Gaz. vol. 200; p. 1030.
Gartling, George. (See Schelling and Phillips, assignors.)
Gartner, Walter, Hamburg, Germany. Furnace. No. 1,089,409; Mar. 10; Gaz. vol. 200; p. 297.
Gasser, Heinrich A., Wiesbaden, Germany. Column apparatus for distilling, cooling, heating, and similar purposes. No. 1,089,831; Mar. 10; Gaz. vol. 200; p. 445.
Gates, Amalia C., administratrix. (See Gates, John W.)
Gates, John W., deceased, Los Angeles, Cal.; A. C. Gates, administratrix. Animal-trap. No. 1,091,926; Mar. 31; Gaz. vol. 200; p. 1281.
Gates, Marshall E., Helena, Mont. Tooth-brush. No. 1,091,209; Mar. 24; Gaz. vol. 200; p. 993.
Gauntt, James G., Syracuse, N. Y. Hydrant. No. 1,091,210; Mar. 24; Gaz. vol. 200; p. 994.
Gay, William A., Newark, N. J. Musical toy. No. 1,089,699; Mar. 10; Gaz. vol. 200; p. 399.
Gayner, John W., Salem, N. J. Regulating device for molten glass and means for preventing the streaking of glassware. No. 1,090,101; Mar. 10; Gaz. vol. 200; p. 537.
Gearing, Harry, Los Angeles, Cal. Underreamer. No. 1,091,502; Mar. 31; Gaz. vol. 200; p. 1133.
Geb, George F., Franklin, Mass. Vehicle-wheel. No. 1,091,503; Mar. 31; Gaz. vol. 200; p. 1133.
Gedge, Burton H., Anderson, Ind. Roofing member. No. 1,088,815; Mar. 3; Gaz. vol. 200; p. 47.
Gee, Samuel, Providence, R. I. Number-display plate for vehicles. No. 1,090,294; Mar. 17; Gaz. vol. 200; p. 647.
Geerekey, Louis W., Douglas, Ariz. Child's crib or berth attachment for railway-cars. No. 1,090,705; Mar. 17; Gaz. vol. 200; p. 787.
Gefon, Louis. (See Holtzman and Gefon.)
Gelde, Richard F., Rochester, N. Y. Vehicle wheel-rim. No. 1,089,634; Mar. 10; Gaz. vol. 200; p. 377.
Geiger, Frank, Imperial Junction, Cal. Supporting and delivering device. No. 1,088,979; Mar. 3; Gaz. vol. 200; p. 106.
Gelormini, Gabriel, Newark, N. J. Garment. No. 1,091,211; Mar. 24; Gaz. vol. 200; p. 994.
Genebach, George J., Battle Creek, Mich. Cushion-spring. No. 1,092,099; Mar. 31; Gaz. vol. 200; p. 1337.
General Bakelite Company. (See Baekeland, Leo H., assignor.)
General Electric Company. (See Alexanderson, Ernst F. W., assignor.)
General Electric Company. (See Arsem, William C., assignor.)
General Electric Company. (See Barringer, Lawrence E., assignor.)
General Electric Company. (See Benjamin, Reuben B., assignor.)
General Electric Company. (See Boyd, Frederic R. C., assignor.)
General Electric Company. (See Callahan, Michael, assignor.)
General Electric Company. (See Callahan, Michael J., assignor.)
General Electric Company. (See Callan, John G., assignor.)
General Electric Company. (See Campbell, Wilfred, assignor.)
General Electric Company. (See Carichoff, Eugene R., assignor.)
General Electric Company. (See Churchward, Alexander, assignor.)
General Electric Company. (See Coolidge, William D., assignor.)
General Electric Company. (See Curtis, Charles G., assignor.)
General Electric Company. (See Day and Windeler, assignors.)
General Electric Company. (See Dempster, John T. H., assignor.)
General Electric Company. (See Frech, Theodore W., Jr., assignor.)
General Electric Company. (See Fuss, Max, assignor.)
General Electric Company. (See Gardner, Edgar S., assignor.)
General Electric Company. (See Gilson, Emery G., assignor.)
General Electric Company. (See Grindel, Erich, assignor.)
General Electric Company. (See Guay, Emile J., assignor.)
General Electric Company. (See Hall, John L., assignor.)
General Electric Company. (See Hewlett, Edward M., assignor.)





General Electric Company. (See Johannesen, Svend E., assignor.)
General Electric Company. (See Junggren, Oscar, assignor.)
General Electric Company. (See Kaemmerling, Gustav H., assignor.)
General Electric Company. (See Kieser, Walter, assignor.)
General Electric Company. (See Kraus, Ernest, assignor.)
General Electric Company. (See Kruh, Osias O., assignor.)
General Electric Company. (See Kuch, Richard, assignor.)
General Electric Company. (See Kuzel and Wedekind, assignors.)
General Electric Company. (See Libby, Sam H., assignor.)
General Electric Company. (See Loewenstein, Louis C., assignor.)
General Electric Company. (See Lyle, Fred W., assignor.)
General Electric Company. (See Maxwell, Howard, assignor.)
General Electric Company. (See Miller, Robert, Jr., assignor.)
General Electric Company. (See Motter, William N., assignor.)
General Electric Company. (See Norton, Fred E., assignor.)
General Electric Company. (See Pagel, Gustav, assignor.)
General Electric Company. (See Pauly, Karl A., assignor.)
General Electric Company. (See Persson, Otto F., assignor.)
General Electric Company. (See Pirani, Marcello von, assignor.)
General Electric Company. (See Potter, William B., assignor.)
General Electric Company. (See Pratt, William H., assignor.)
General Electric Company. (See Pratt and Flego, assignors.)
General Electric Company. (See Rice and Johnson, assignors.)
General Electric Company. (See Rice, Richard H., assignor.)
General Electric Company. (See Riddell, John, assignor.)
General Electric Company. (See Ryan, Walter D., assignor.)
General Electric Company. (See Spinney, Charles L., assignor.)
General Electric Company. (See Stanley, William, assignor.)
General Electric Company. (See Steinmetz, Charles P., assignor.)
General Electric Company. (See Stone, Charles W., assignor.)
General Electric Company. (See Thomsen, Theodor, assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. (See Wolcott, Varanus A., assignor.)
General Electric Company. (See Wood, James J., assignor.)
General Fire Extinguisher Company. (See Sackett, Frank V., assignor.)
General Fireproofing Company, The. (See Schaffert, Adolph H., assignor.)
General Fireproofing Company, The. (See White, Herbert E., assignor.)
General Lubricating Company. (See Armstrong, Ernest, assignor.)
General Pressed Metal Company. (See Banes, Walter D., assignor.)
General Railway Supply Co. (See Schroyer, Harry H., assignor.)
Genevay, Emile F. (See Savoie and Genevay.)
George, Isaac A., Goshen, Ind. Bearing. No. 1,091,830; Mar. 31; Gaz. vol. 200; p. 1247.
George P. Bent Company. (See Engelskirchen, Frederick, assignor.)
George P. Pilling and Son Company. (See Faught and Pilling, assignors.)
George S. Kelley Company. (See Lange, Albert, assignor.)
Gephart, Reuel J. (See Hill, William A., assignor.)
Geraghty, John P., and G. W. Naylor, Jersey City, N. J., assignors of forty-five one-hundredths to E. C. Curry and C. A. Stoneham, New York, N. Y. Car-fender. No. 1,090,295; Mar. 17; Gaz. vol. 200; p. 647.
Gerber, Emil C., St. Joseph, Mo. Work-holder. No. 1,092,038; Mar. 31; Gaz. vol. 200; p. 1315.
Gerdin, Edwin, Park River, N. D. Attachment for grain-racks. No. 1,090,610; Mar. 17; Gaz. vol. 200; p. 758.
Gerdom, Gregory, Watervliet, N. Y., assignor to Ordnance Improvement Company, Obturator for breech-loading ordnance. No. 1,090,204; Mar. 17; Gaz. vol. 200; p. 615.
Germain, Joseph N. (See Barr, Robert J., assignor.)
Gervais, Wainwright B., and M. Gilmore, assignors to Variety Manufacturing Company, Chicago, Ill. Latch mechanism for fire-doors. No. 1,090,470; Mar. 17; Gaz. vol. 200; p. 709.
Gesellschaft für Maschinen- und Metall-Industrie mit beschrankter Haftung. (See Edel, Hermann J., assignor.)
Gesellschaft für Teerverwertung m. b. H. (See Schroers, Carl H., assignor.)
Gessner, David, Worcester, Mass. Cloth-pressing machine. No. 1,090,611; Mar. 17; Gaz. vol. 200; p. 758.
Getty, Carl H., *et al.* (See Percy, James E., assignor.)
Gibbons, Thomas J., Platte, S. D. Harrow-tooth. No. 1,091,831; Mar. 31; Gaz. vol. 200; p. 1247.
Gibbons, William G., Edinburgh, Scotland, and F. J. Blake, Bassett, assignors to J. Stone & Company Limited, Deptford, England. Hydraulic bulkhead-door apparatus. No. 1,090,784; Mar. 17; Gaz. vol. 200; p. 813.
Gibbs, Edward F. G., Washington, D. C. Holder for metal-boring tools. No. 1,089,635; Mar. 10; Gaz. vol. 200; p. 377.
Gibbs, George W., New York, N. Y. Time-recorder. No. 1,089,760; Mar. 10; Gaz. vol. 200; p. 421.
Gibbs, William E., Oak Point, Wash. Saw-jointer. No. 1,091,329; Mar. 24; Gaz. vol. 200; p. 1030.
Gibford, Edward B., Adrian, Mich. Machine for stropping razors. No. 1,089,832; Mar. 10; Gaz. vol. 200; p. 445.
Gibson, William P., and W. H. Ross, London, England, assignors to The Kinnear Manufacturing Company, Columbus, Ohio. Mechanism for actuating trip-release devices for fire-resisting curtains. No. 1,088,694; Mar. 3; Gaz. vol. 200; p. 8.
Gifford, Albert J., assignor to W. H. Leland & Company, Worcester, Mass. Driving mechanism for machine-tools. No. 1,091,560; Mar. 31; Gaz. vol. 200; p. 1155.
Gilbert & Barker Manufacturing Company. (See Barker, John F., assignor.)
Giles, Charles W., Attleboro, Mass. Railway cross-tie. No. 1,089,048; Mar. 3; Gaz. vol. 200; p. 128.
Gill, Edwin R., Yonkers, N. Y., assignor, by mesne assignments, to Hall Switch & Signal Company. Selective signaling system. No. 1,091,832; Mar. 31; Gaz. vol. 200; p. 1248.
Gillespie, Alfred J., Atlantic, Iowa, assignor, by mesne assignments, to Empire Voting Machine Company. Voting-machine. No. 1,088,816; Mar. 3; Gaz. vol. 200; p. 48.
Gillespie, Thomas. (See Frye, Henry V., assignor.)
Gilligan, Martin F., *et al.* (See McDowell, Robert G., assignor.)
Gilman, Albert E. (See Gilman, John H. and A. E.)
Gilman, John H. and A. E., assignors to King & Hamilton Company, Ottawa, Ill. Elevating apparatus. No. 1,089,125; Mar. 3; Gaz. vol. 200; p. 156.
Gilmore, Millard. (See Gervais and Gilmore.)
Gilson, Emery G., Schenectady, N. Y., assignor to General Electric Company. Current-collector and making the same. No. 1,089,700; Mar. 10; Gaz. vol. 200; p. 400.
Gilson, Emery G., Schenectady, N. Y., assignor to General Electric Company. Treating metals. No. 1,091,057; Mar. 24; Gaz. vol. 200; p. 940.
Gilson, Henry R., Baden, assignor to National Metal Molding Company, Pittsburgh, Pa. Tool-operating mechanism. No. 1,090,471; Mar. 17; Gaz. vol. 200; p. 709.
Gingras, Edward F., Buffalo, N. Y. Bottle-hanger. No. 1,090,392; Mar. 17; Gaz. vol. 200; p. 681.
Ginn, Percy E. (See Holt, Amos D., assignor.)
Ginn, Percy E. (See Scott, Charles D., assignor.)
Girard, Antoine L. (See Comb and Girard.)
Girard, Fritz, assignor to Firm of W. C. Heraeus, Gesellschaft mit beschrankter Haftung, Hanau, Germany. Connection for starting metallic-vapor lamps. No. 1,091,648; Mar. 31; Gaz. vol. 200; p. 1183.
Gladden, Alton A., Annapolis, Md. Stove attachment. No. 1,090,045; Mar. 10; Gaz. vol. 200; p. 518.
Gladitz, Karl, London, England. Press-mold for use in the manufacture of metallic bars from finely-divided metallic powders. No. 1,091,430; Mar. 24; Gaz. vol. 200; p. 1063.
Gladson, William N. (See Ripley, Gladson, and Thompson.)
Gladwin, Charles C., New York, N. Y. Miter-box. No. 1,089,761; Mar. 10; Gaz. vol. 200; p. 421.
Glasgow, Arthur G. (See Stelfox, James C., assignor.)
Glines, Frederick S. (See Muther and Glines.)
Glotfelty, William M., Ohiopyle, Pa. Tie-plate. No. 1,089,207; Mar. 3; Gaz. vol. 200; p. 184.
Goad, Frederick L. (See Hibberd, Charles E., assignor.)
Goble, John S., assignor of one-third to C. L. Coombs, Denver, Colo. Self loading and unloading barrel-truck. No. 1,088,980; Mar. 3; Gaz. vol. 200; p. 106.
Goddard, Joseph, assignor to Seneca Camera Manufacturing Company, Rochester, N. Y. Photographic shutter. No. 1,090,046; Mar. 10; Gaz. vol. 200; p. 518.
Godin, Eusebe, assignor to T. J. Wilber, Harrisville, N. Y. Spring-block set for saws. No. 1,088,895; Mar. 3; Gaz. vol. 200; p. 76.
Godley, Charles E., assignor to Edmunds & Jones Mfg. Company, Detroit, Mich. Lamp-socket. No. 1,088,776; Mar. 3; Gaz. vol. 200; p. 35.
Godward, Ernest R., Dunedin, New Zealand. Combination-hoe. No. 1,091,058; Mar. 24; Gaz. vol. 200; p. 940.
Gohmann, John B., New Albany, Ind. Stove. No. 1,091,833; Mar. 31; Gaz. vol. 200; p. 1248.
Goines, E. J. (See Stapleton, Birt B., assignor.)

Goldberg, Samuel A., New York, N. Y. Cover for packing-boxes. No. 1,089,833; Mar. 10; Gaz. vol. 200; p. 445.

Goldberg, Samuel A., New York, N. Y. Cutting-off attachment for machines for making corrugated cardboard. No. 1,089,834; Mar. 10; Gaz. vol. 200; p. 445.

Golden, Belknap and Swartz Company. (See Belknap, Ellsworth H., assignor.)

Goldensky, Elias, and P. H. Bartlett, Philadelphia, Pa. Photographic apparatus. No. 1,088,695; Mar. 3; Gaz. vol. 200; p. 9.

Goldfarb, Nathan. (See Garfield and Goldfarb.)

Golding, John F., Washington, D. C. Making metal fabric. No. 1,090,843; Mar. 24; Gaz. vol. 200; p. 865.

Goldsborough, John B., Croton, N. Y. Interlocking metal sheeting. No. 1,090,911; Mar. 24; Gaz. vol. 200; p. 888.

Goldschmidt, Hans, Essen-on-the-Ruhr, Germany. Uniting rails and the like. No. 1,090,296; Mar. 17; Gaz. vol. 200; p. 647.

Goldsmith, Edwin M., Philadelphia, Pa. Braid-holder. No. 1,090,612; Mar. 17; Gaz. vol. 200; p. 758.

Goldstein, Barnett H., New York, assignor of one-half to H. Cohen, Brooklyn, N. Y. Combined chair and basket. No. 1,092,039; Mar. 31; Gaz. vol. 200; p. 1315.

Goldstein, Benjamin, New York, N. Y. Bank-messenger's hand-bag. No. 1,090,393; Mar. 17; Gaz. vol. 200; p. 681.

Goldthorp, Robert R., Hartford, Conn. Wireless receiving apparatus. No. 1,091,127; Mar. 24; Gaz. vol. 200; p. 964.

Goodenow-Brookfield Knitting Company. (See Goodenow, Julian F., assignor.)

Goodenow, Julian F., assignor to Goodenow-Brookfield Knitting Company, Kansas City, Mo. Underwear. No. 1,091,504; Mar. 31; Gaz. vol. 200; p. 1134.

Goodman, Edward F., Augusta, Ga. Hanger construction for auto running-gear springs. No. 1,088,777; Mar. 3; Gaz. vol. 200; p. 36.

Goodroad, Frank A. E., Canton, S. D. Drain attachment for washboilers. No. 1,091,570; Mar. 31; Gaz. vol. 200; p. 1156.

Goodrow, William, Chicago, Ill. Miter-joint fastener. No. 1,089,360; Mar. 3; Gaz. vol. 200; p. 233.

Goodside, Moses, New York, N. Y. Combined corset and abdominal supporter. No. 1,090,844; Mar. 24; Gaz. vol. 200; p. 865.

Goodwin, Charles, East Providence, R. I. Rotary check. No. 1,091,571; Mar. 31; Gaz. vol. 200; p. 1156.

Goolman, Fred R., assignor to Harris Player Piano Company, Binghamton, N. Y. Selective piano-player mechanism. No. 1,090,706; Mar. 17; Gaz. vol. 200; p. 788.

Gorder, Carl A., Belgrade, Minn. Clevis. No. 1,090,529; Mar. 17; Gaz. vol. 200; p. 730.

Gordon, David D., Chicago, Ill., assignor to The Yost Electric Manufacturing Company, Toledo, Ohio. Switching device. No. 1,091,505; Mar. 31; Gaz. vol. 200; p. 1134.

Gore, Charles, San Francisco, Cal. Speed-indicator for automobiles. No. 1,091,059; Mar. 24; Gaz. vol. 200; p. 940.

Goreau, Nelson G., and E. M. Babst, New Orleans, La.; said Goreau assignor to said Babst. Flushing mechanism. No. 1,091,834; Mar. 31; Gaz. vol. 200; p. 1248.

Gorelovitz, Julius, New York, N. Y. Hat-fastener. No. 1,090,613; Mar. 17; Gaz. vol. 200; p. 759.

Gorton, George, Racine, Wis. Inserted-cutter securing and adjusting device. No. 1,090,205; Mar. 17; Gaz. vol. 200; p. 615.

Gors, George E. (See Heichel and Gors.)

Gosnell, John A., and J. Olson, Bradley, Ill. Invalid-bed. No. 1,089,208; Mar. 3; Gaz. vol. 200; p. 185.

Goss, Harry T., Rutherford, N. J. Ferry-landing mechanism. No. 1,091,835; Mar. 31; Gaz. vol. 200; p. 1249.

Goss, Harry T., Rutherford, and J. W. Bryce, Bloomfield, N. J. Dish-washing machine. No. 1,090,845; Mar. 24; Gaz. vol. 200; p. 865.

Gosso, Alton E., Chicago, Ill. Cot. No. 1,089,545; Mar. 10; Gaz. vol. 200; p. 347.

Gostling, Charles R., Eustis, Fla. Treating steel and iron in their manufacture. No. 1,091,330; Mar. 24; Gaz. vol. 200; p. 1030.

Gottke, Otto, Halensee, near Berlin, Germany. Petroleum incandescent lamp. No. 1,089,546; Mar. 10; Gaz. vol. 200; p. 347.

Goudard, Maurice, and M. Mennesson, Levallois-Perret, France. Carbureter. No. 1,090,047; Mar. 10; Gaz. vol. 200; p. 518.

Gouldbourn, Joseph. (See Barclay and Gouldbourn.)

Gouldbourn, Joseph, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Abrading-tool. No. 1,091,506; Mar. 31; Gaz. vol. 200; p. 1134.

Goulding, Thomas H., St. Paul, Minn. Petcock-valve. No. 1,089,209; Mar. 3; Gaz. vol. 200; p. 185.

Goverts, Johann P., Berlin, Germany, assignor to J. F. Wabl, St. Petersburg, Russia. Sanitary closet-rinsing device. No. 1,088,606; Mar. 3; Gaz. vol. 200; p. 9.

Grady, Charles F. and F. L., assignors, by mesne assignments, to Jewett & Company, Buffalo, N. Y. Gas-stove. No. 1,091,649; Mar. 31; Gaz. vol. 200; p. 1183.

Grady, Frank L. (See Grady, Charles F. and F. L.)

Graeff, Daniel S., Hershey, Pa. Railway-tie. No. 1,090,078; Mar. 24; Gaz. vol. 200; p. 912.

Graham, Benjamin J., Beverly, assignor to C. H. Sherburne, Boston, Mass. Signal-cock. No. 1,088,817; Mar. 3; Gaz. vol. 200; p. 48.

Graham, James M. (See Schenck and Graham.)

Graham, Tilghman, New York, N. Y. Toy pinwheel. No. 1,091,507; Mar. 31; Gaz. vol. 200; p. 1135.

Graham, Wallace S., assignor to The Lancaster Glass Company, Lancaster, Ohio. Adjustable bracket. No. 1,089,337; Mar. 3; Gaz. vol. 200; p. 225.

Graham, Walter. (See Deimling, John P., assignor.)

Gramser, Jan J. H., Schrans, near Leeuwarden, Netherlands. Marking cheese. No. 1,090,102; Mar. 10; Gaz. vol. 200; p. 538.

Grant, Daniel, assignor of thirty-two and one-third one-hundredths to P. Remington, Hamilton, and thirty-three and one-third one-hundredths to E. Hoffenbrodel, Butte, Mont. Cattle-guard. No. 1,090,979; Mar. 24; Gaz. vol. 200; p. 912.

Grant, Walter. (See White and Grant.)

Grasley, J. F. (See Worster, Edward T., assignor.)

Graves, James C., and A. E. Schaefer, Saginaw West Side, Mich. Production of magnesium chlorid. No. 1,090,125; Mar. 10; Gaz. vol. 200; p. 546.

Gray, Walter J., Jr., Hamilton, Ohio. Manifolding device. No. 1,090,912; Mar. 24; Gaz. vol. 200; p. 889.

Greden, Andrew. (See Murray, John, assignor.)

Green, Clarence L. and Z. R., Prescott, Ark. Vehicle top-raiser. No. 1,090,913; Mar. 24; Gaz. vol. 200; p. 889.

Green, Ernest E., Spokane, Wash. Combination-lock. No. 1,091,744; Mar. 31; Gaz. vol. 200; p. 1216.

Green, George W., Feltham, and J. M. Cater, London, England. Track-cleaner. No. 1,089,636; Mar. 10; Gaz. vol. 200; p. 378.

Green, Zack R. (See Green, Clarence L. and Z. R.)

Greenawalt, John E., Denver, Colo. Apparatus for roasting and sintering ores. No. 1,088,818; Mar. 3; Gaz. vol. 200; p. 49.

Greene, Ernest R., Hanover, N. H. Life-raft. No. 1,089,338; Mar. 3; Gaz. vol. 200; p. 225.

Greene, Harry S., Woonsocket, R. I. Planetary-napping-machine drum. (Reissue.) No. 13,695; Mar. 10; Gaz. vol. 200; p. 547.

Greene, Thomas M., *et al.* (See Ricke, George H., assignor.)

Greenebaum, Abraham H., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Spring-socket for snap-fasteners. No. 1,088,981; Mar. 3; Gaz. vol. 200; p. 107.

Greenhouse, John, Cambridge Springs, Pa. Curtain-holder. No. 1,089,049; Mar. 3; Gaz. vol. 200; p. 128.

Greensalt, Elijah L. (See Walz, Anton, assignor.)

Greenwell, Alfonso, Owensboro, Ky. Rubber-tire-cutting machine. No. 1,090,297; Mar. 17; Gaz. vol. 200; p. 648.

Greenwood, B. F. (See Mott, Theodore, assignor.)

Greenwood, Barney, Chicago, Ill. Pocket. No. 1,091,927; Mar. 31; Gaz. vol. 200; p. 1281.

Greenwood, Chester, Farmington, Me. Wood-boring machine. No. 1,089,547; Mar. 10; Gaz. vol. 200; p. 348.

Greenwood, Harry, Sr., Barnesboro, Pa. Chair attachment. No. 1,088,982; Mar. 3; Gaz. vol. 200; p. 107.

Gregory, Charles H., Portersville, Cal. Perforating-tool for well-tubings. No. 1,092,040; Mar. 31; Gaz. vol. 200; p. 1316.

Gregory, Charley W., Goodland, Kans. Locomotive grate-lever and handle. No. 1,091,212; Mar. 24; Gaz. vol. 200; p. 994.

Gregory, Friend H., Philadelphia, Pa. Phonograph-record. No. 1,089,835; Mar. 10; Gaz. vol. 200; p. 446.

Gregory, George H., Mount Carmel, Ill. Furnace-door-operating device. No. 1,091,060; Mar. 24; Gaz. vol. 200; p. 940.

Gregory, John M., Skaneateles, N. Y. Cabbage-trimmer. No. 1,091,213; Mar. 24; Gaz. vol. 200; p. 995.

Greider, Westley L., Strasburg, Pa. Baling-press. No. 1,090,614; Mar. 17; Gaz. vol. 200; p. 759.

Greindl, Paul, Brussels, Belgium. Automatic cashier. No. 1,090,846; Mar. 24; Gaz. vol. 200; p. 866.

Greist Manufacturing Company, The. (See Boyler, Emanuel J., assignor.)

Greist Manufacturing Company, The. (See Humeston, Frederick L., assignor.)

Greuner, Kurt, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Continuous-current generator. No. 1,090,048; Mar. 10; Gaz. vol. 200; p. 519.

Grey, Charles M., East Orange, N. J., assignor to New York Steel Beam & Girder Company, New York, N. Y. Rolling-mill mechanism. No. 1,089,126; Mar. 3; Gaz. vol. 200; p. 156.

Gribler, Arthur G. (See Gribler, Henry W. and A. G.)

Gribler, Henry W. and A. G., Van Wert, Ohio. Beet-blocker. No. 1,089,210; Mar. 3; Gaz. vol. 200; p. 185.

Grieser, Richard, New York, N. Y. Door-knob. No. 1,090,615; Mar. 17; Gaz. vol. 200; p. 759.

Grieser, Richard, New York, N. Y. Door-knob. No. 1,090,616; Mar. 17; Gaz. vol. 200; p. 760.

Griffin, James J., San Francisco, Cal., and G. M. Peacock, South Yarra, Melbourne, Victoria, Australia. Double-seaming machine. No. 1,090,049; Mar. 10; Gaz. vol. 200; p. 519.

Griffin, James J., San Francisco, Cal., and G. M. Peacock, South Yarra, Melbourne, Victoria, Australia. Double-seaming machine. No. 1,091,836; Mar. 31; Gaz. vol. 200; p. 1249.



Griffin, James J., San Francisco, Cal., and G. M. Peacock, South Yarra, Melbourne, Victoria, Australia. Road-vehicle shock-absorber. No. 1,091,884; Mar. 31; Gaz. vol. 200; p. 1266.

Griffin, James J., Hartford, Conn. Horseshoe. No. 1,091,928; Mar. 31; Gaz. vol. 200; p. 1281.

Griffin, Samuel P., Laporte, Ind. Truck. No. 1,088,983; Mar. 3; Gaz. vol. 200; p. 107.

Griffin, Thomas J., Los Angeles, Cal. Casing-wrench. No. 1,088,819; Mar. 3; Gaz. vol. 200; p. 49.

Grimes, Galuford, Lakeview, assignor of one-half to B. S. Radcliff, Medford, Oreg. Plow attachment. No. 1,089,637; Mar. 10; Gaz. vol. 200; p. 378.

Grimes, Leon. (See Hammond, Walter F., assignor.)

Grimsdale, William H., Twickenham, assignor to Grimsdale's Patents Limited, London, England. Mechanical piano-player and like instrument. No. 1,090,050; Mar. 10; Gaz. vol. 200; p. 520.

Grimsdale's Patents Limited. (See Grimsdale, William H., assignor.)

Grindel, Erich, Bremen, Germany, assignor to General Electric Company. Motor-car. No. 1,091,745; Mar. 31; Gaz. vol. 200; p. 1216.

Griswold, Harry J., Bayside, Cal. Tire. No. 1,088,820; Mar. 3; Gaz. vol. 200; p. 50.

Groene, William F. (See Le Blond and Groene.)

Grogan, Edward W., Byers, Tex. Automatic door-closer. No. 1,092,041; Mar. 31; Gaz. vol. 200; p. 1316.

Gross, Court K. F. L., Christiania, Norway. Manufacturing synthetic caoutchouc. No. 1,090,847; Mar. 24; Gaz. vol. 200; p. 866.

Gross, Edward L., assignor of one-half to J. I. Kopperl and one-half to C. P. Elker, Chicago, Ill. Air-purifier. No. 1,089,548; Mar. 10; Gaz. vol. 200; p. 348.

Grothe, Charles, Yelton, Okla. Attachment for motor-vehicles. No. 1,091,746; Mar. 31; Gaz. vol. 200; p. 1217.

Grove, Edwin W. (See Crumbaugh, George P., assignor.)

Grube, William J., Delaware, Ohio. Lubricating vehicle-hubs. No. 1,090,530; Mar. 17; Gaz. vol. 200; p. 730.

Gruber, Edward, assignor to The Hydraulic Pressed Steel Company, Cleveland, Ohio. Running-board. No. 1,091,214; Mar. 24; Gaz. vol. 200; p. 995.

Guasco, André, Paris, France. Inflammable-gas indicator. No. 1,089,050; Mar. 3; Gaz. vol. 200; p. 128.

Guay, Emile J., Lynn, Mass., assignor to General Electric Company. Electromagnet. No. 1,091,650; Mar. 31; Gaz. vol. 200; p. 1184.

Guderjahn, Henry, Westfield, Wis. Railway-tie. No. 1,089,211; Mar. 3; Gaz. vol. 200; p. 185.

Guedry, Joseph E., St. Amant, La. Clock. No. 1,088,896; Mar. 3; Gaz. vol. 200; p. 76.

Guelich, Charles E., Kingston, Pa. Drier for portable asphalt-machines. No. 1,090,206; Mar. 17; Gaz. vol. 200; p. 615.

Guenifiet, Julien, and J. Nicault, assignors to Societe Anonyme des Usines A. E. Decoufle, Paris, France. Cigarette tube and mouthpiece machine. No. 1,090,472; Mar. 17; Gaz. vol. 200; p. 710.

Guest, Alfred W. F., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,697; Mar. 3; Gaz. vol. 200; p. 9.

Guest, Alfred W. F., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,698; Mar. 3; Gaz. vol. 200; p. 10.

Guettler, Fritz, Frankfort-on-the-Main, Germany. Paper-comminuting machine. No. 1,090,914; Mar. 24; Gaz. vol. 200; p. 889.

Guiberson, Samuel A., Jr. (See Vroman, Smith, assignor.)

Guilbert, Gaston V. J., Paris, France. Mechanical movement. No. 1,089,762; Mar. 10; Gaz. vol. 200; p. 421.

Guillery, René, Paris, France. Machine for measuring directly the hardness of metals. No. 1,091,128; Mar. 24; Gaz. vol. 200; p. 964.

Gullman, Paul, East St. Louis, Ill. Miner's lamp. No. 1,090,051; Mar. 10; Gaz. vol. 200; p. 520.

Guimont, Joseph W., assignor to Harris Construction Company Limited, Montreal, Quebec, Canada. Water-heater. No. 1,090,144; Mar. 17; Gaz. vol. 200; p. 593.

Gullberg, Alex, Arlington, N. J., and C. L. Smith, New York, N. Y. Jogging attachment for signature-gathering machines. No. 1,090,473; Mar. 17; Gaz. vol. 200; p. 710.

Gund, Adolf, New York, N. Y. Animated toy. No. 1,089,212; Mar. 3; Gaz. vol. 200; p. 186.

Gurney, Albert J., Herrin, Ill. Signal apparatus for mines. No. 1,089,763; Mar. 10; Gaz. vol. 200; p. 421.

Gurney Electric Elevator Company. (See Thurber, Frederick H., assignor.)

Gussman, August H., East Orange, N. J., assignor to Gussman Key Cutting Machine Co., North Pelham, N. Y. Duplicating-machine. No. 1,089,127; Mar. 3; Gaz. vol. 200; p. 157.

Gussman Key Cutting Machine Co. (See Gussman, August H., assignor.)

Gyr, Karl Zug, Switzerland. Electrical measuring instrument. No. 1,088,897; Mar. 3; Gaz. vol. 200; p. 77.

Gyulay, John, Bridgeport, Conn. Reversing steam-turbine. No. 1,091,129; Mar. 24; Gaz. vol. 200; p. 965.

H. Mueller Manufacturing Company. (See Mueller and Schuermann, assignors.)

H. Mueller Mfg. Co. (See Cash, Arthur W., assignor.)

H. A. & L. D. Holland Company. (See Beckwith, John W., assignor.)

H. C. Fry Glass Company. (See Beam, Charles W., assignor.)

H. C. Fry Glass Company. (See Beam, Charles W., assignor.) (Reissue.)

H. F. Keegan Company. (See Cooke and Banning, assignors.)

H. W. Johns-Manville Company. (See Meek, John E., assignor.)

H. W. Meier and Company. (See Meier, Harry W., assignor.)

Haas, Ludwig F. C., Lancaster, Pa. Detachable tread for pneumatic tires. No. 1,090,145; Mar. 17; Gaz. vol. 200; p. 593.

Hackstedde, Herbert, Cincinnati, Ohio. Loaf-forming machine. No. 1,091,061; Mar. 24; Gaz. vol. 200; p. 941.

Hadfield, Robert A., Sheffield, England. Armor-plate. No. 1,089,638; Mar. 10; Gaz. vol. 200; p. 378.

Hadfield, Robert A., Westminster, England. Cap for armor-piercing projectiles. No. 1,089,639; Mar. 10; Gaz. vol. 200; p. 379.

Hadley, Charles R. (See Cohn, Max M., assignor.)

Hadnagy, Peter, Detroit, Mich. Rail-joint. No. 1,091,651; Mar. 31; Gaz. vol. 200; p. 1184.

Haefely, Emil, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company. Coil-insulating machine. No. 1,090,394; Mar. 17; Gaz. vol. 200; p. 682.

Hafertepen, Edwin R., Rochester, N. Y. Collar-fastening clip. No. 1,091,508; Mar. 31; Gaz. vol. 200; p. 1135.

Hagar, Franklin W., Nashville, Tenn. Thermodynamic motor. No. 1,092,042; Mar. 31; Gaz. vol. 200; p. 1316.

Halbleib, Edward A., assignor to North East Electric Company, Rochester, N. Y. Storage-battery system. No. 1,089,549; Mar. 10; Gaz. vol. 200; p. 348.

Hale and Kilburn Company. (See Schlegell, Victor von, assignor.)

Hall, Bertie R., Outlook, Saskatchewan, Canada. Shaft-bearing. No. 1,089,701; Mar. 10; Gaz. vol. 200; p. 400.

Hall, Hiram T., Oakland, Cal. Valve for controlling air-brakes and the like. No. 1,089,640; Mar. 10; Gaz. vol. 200; p. 379.

Hall, Irvin E., Corvallis, Oreg. Folding gate. No. 1,091,652; Mar. 31; Gaz. vol. 200; p. 1184.

Hall, John L., Schenectady, N. Y., assignor to General Electric Company. Telltale for compasses or the like. No. 1,091,653; Mar. 31; Gaz. vol. 200; p. 1185.

Hall, Richard B., Fairton, N. J. Shingle for repairing old or leaky roofs. No. 1,090,531; Mar. 17; Gaz. vol. 200; p. 730.

Hall Switch & Signal Company. (See Coleman, Clarence W., assignor.)

Hall Switch & Signal Company. (See Coleman, Clyde J., assignor.)

Hall Switch & Signal Company. (See Gill, Edwin R., assignor.)

Hall, Willis E., assignor of one-half to C. A. Tatum, New York, N. Y. Apparatus for drying by compressed air. No. 1,091,215; Mar. 24; Gaz. vol. 200; p. 995.

Hall, Zebulun R., Okfuskee, Okla. Back-band attachment. No. 1,090,146; Mar. 17; Gaz. vol. 200; p. 594.

Hallbauer, Albert L., Tampa, Fla., assignor to Palmetto Machine Company, Incorporated, Baltimore, Md. Root-grubbing machine. No. 1,089,213; Mar. 3; Gaz. vol. 200; p. 186.

Hallbauer, Albert L., Beverly, Mass., assignor to Palmetto Machine Company, Incorporated, Baltimore, Md. Root-grubbing machine. No. 1,089,361; Mar. 3; Gaz. vol. 200; p. 234.

Halling, Charles O., Milan, Minn. Device for drawing sharp edges on metallic bodies. No. 1,090,848; Mar. 24; Gaz. vol. 200; p. 866.

Hallock, Daniel Y., York, Pa. Sled. No. 1,090,052; Mar. 10; Gaz. vol. 200; p. 520.

Halmrast, Kristian. (See Bjering, Hans C., assignor.)

Halogen Products Company. (See Aylsworth, Jonas W., assignor.)

Halsey, James T., assignor to Philadelphia Holding Company, Philadelphia, Pa. Car-truck. No. 1,091,431; Mar. 24; Gaz. vol. 200; p. 1063.

Haltenberger, Jules, Indianapolis, Ind. Internal-combustion engine. No. 1,090,147; Mar. 17; Gaz. vol. 200; p. 594.

Hamachek, Frank, Kewaunee, Wis. Attrition-mill. No. 1,091,654; Mar. 31; Gaz. vol. 200; p. 1185.

Hamel Shoe Machinery Company. (See Valois, Felix E., assignor.)

Hamilton, James L., Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling, W. Va. Orchard-heater. No. 1,091,216; Mar. 24; Gaz. vol. 200; p. 996.

Hamilton Orchard Heater Company. (See Hamilton, James L., assignor.)

Hamlin, Denver W., Los Angeles, Cal. Ironing-board. No. 1,090,708; Mar. 17; Gaz. vol. 200; p. 788.

Hamlin, Don S. (See Miller, Wayne T., assignor.)

Hammack, William J. Hodges, and L. Martin, Lancaster, Ohio. Wheel. No. 1,090,711; Mar. 17; Gaz. vol. 200; p. 789.

Hammarstrom, Carl, assignor of one-half to G. Newman, Monessen, Pa. Automobile-fender. No. 1,091,331; Mar. 24; Gaz. vol. 200; p. 1030.

Hammel, John, Cleveland, Ohio. Vehicle-body. No. 1,090,849; Mar. 24; Gaz. vol. 200; p. 867.

Hammer, Fritz, Philadelphia, assignor to E. F. Mason, trustee, Germantown, Pa. Woven pile fabric in imitation of natural fur. No. 1,088,898; Mar. 3; Gaz. vol. 200; p. 77.

Hammesfahr, Charles, New York, N. Y. Deodorizing and disinfecting device. No. 1,091,929; Mar. 31; Gaz. vol. 200; p. 1281.

Hammond, John W. (See Thornton and Hammond.)

Hammond, Walter F., assignor of one-half to L. Grimes, Rocky Mount, N. C. Crossover connection for fluid-brake systems. No. 1,092,043; Mar. 31; Gaz. vol. 200; p. 1317.

Hammond, William P., Charlestown, and R. W. Soule, Everett, assignors to C. H. Young, Boston, Mass. Couch-hammock. No. 1,091,130; Mar. 24; Gaz. vol. 200; p. 965.

Hampp, Julius H., New York, N. Y. Material-clamping mechanism for slicing-machines. No. 1,091,655; Mar. 31; Gaz. vol. 200; p. 1185.

Hanchett, Arthur K., Big Rapids, Mich. Die for saw-swages. No. 1,091,930; Mar. 31; Gaz. vol. 200; p. 1282.

Hanford, Orin A., Rochester, N. Y., assignor to J. L. Kellogg, Battle Creek, Mich. Packaging-machine. No. 1,091,509; Mar. 31; Gaz. vol. 200; p. 1135.

Hanigan, Edward. Schenectady, N. Y. Canopy. No. 1,089,214; Mar. 3; Gaz. vol. 200; p. 187.

Hanitz, Hans T. R. (See Swebilius and Hanitz.)

Hanks, W. A. (See Aydlott, James M., assignor.)

Hanna, James, assignor of one-half to C. D. Pruden, Baltimore, Md. Billiard-cue. No. 1,092,100; Mar. 31; Gaz. vol. 200; p. 1337.

Hannifin, Arthur V., assignor to Hannifin Manufacturing Company, Chicago, Ill. Chuck. No. 1,089,362; Mar. 3; Gaz. vol. 200; p. 234.

Hannifin Manufacturing Company. (See Hannifin, Arthur V., assignor.)

Hannon, Joseph B., and C. H. Von Drak, Chicago, Ill. Curtain-support. No. 1,089,550; Mar. 10; Gaz. vol. 200; p. 348.

Hansen, Augie L., Evanston, assignor to The Justrite Mfg. Co., Chicago, Ill. Safety oil-can. No. 1,092,101; Mar. 31; Gaz. vol. 200; p. 1338.

Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Rock-drilling machine. No. 1,088,984; Mar. 3; Gaz. vol. 200; p. 107.

Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Chuck for rock-drills. No. 1,091,510; Mar. 31; Gaz. vol. 200; p. 1136.

Hansen, Charles F., Port Ludlow, Wash., assignor of one-third to E. N. Hansen, one-third to S. R. Hansen, and one-third to F. C. Hansen, St. Paul, Minn. Envelop-sealing device. No. 1,089,375; Mar. 3; Gaz. vol. 200; p. 238.

Hansen, Christian. (See Huisveld and Hansen.)

Hansen, Eyvind N., *et al.* (See Hansen, Charles F., assignor.)

Hansen, Fritjof C., *et al.* (See Hansen, Charles F., assignor.)

Hansen, Hans F., Hartland, Wis., and J. C. Scott, Stillman Valley, Ill. Wire-fence stretcher. No. 1,091,217; Mar. 24; Gaz. vol. 200; p. 996.

Hansen, Sigurd R., *et al.* (See Hansen, Charles F., assignor.)

Hanson, Annie. (See Labady, Charles E., assignor.)

Hanson, Benet M. W., assignor to Pratt & Whitney Company, Hartford, Conn. Metal-cutting tool. No. 1,089,376; Mar. 3; Gaz. vol. 200; p. 238.

Hanson, Christian L., Minneapolis, Minn. Photographic-printing machine. No. 1,090,915; Mar. 24; Gaz. vol. 200; p. 890.

Hanson, Freeman, Hollis Center, Me. Zigzag harrow. No. 1,091,131; Mar. 24; Gaz. vol. 200; p. 966.

Hanson, Paul, Wild Horse, Colo. Butter-making machine. No. 1,089,836; Mar. 10; Gaz. vol. 200; p. 446.

Hanson, William S., Chicago, Ill. Gas-engine starter. No. 1,088,699; Mar. 3; Gaz. vol. 200; p. 10.

Hard, August H., Kewanee, Ill. Water-heater. No. 1,089,551; Mar. 10; Gaz. vol. 200; p. 349.

Hardiman, Thomas F., Oxford, N. J. Extension-step for railway-cars. No. 1,092,044; Mar. 31; Gaz. vol. 200; p. 1317.

Hardin, Luther E., Chicago, Ill. Advertising and amusement device. No. 1,090,207; Mar. 17; Gaz. vol. 200; p. 616.

Hardy, Ned C. (See Crowther and Hardy.)

Harford, Havelock, Elbow River, Alberta, Canada. Rotary engine. No. 1,091,132; Mar. 24; Gaz. vol. 200; p. 966.

Harland & Wolff. (See Armstrong, William E., assignor.)

Harley, William S., Milwaukee, Wis. Internal-combustion engine of the compression type. No. 1,089,128; Mar. 3; Gaz. vol. 200; p. 157.

Harley, William S., Milwaukee, Wis. Motor-cycle oil-tank. No. 1,090,532; Mar. 17; Gaz. vol. 200; p. 730.

Harner, Clarence T., Sayer, Oreg. Wrench. No. 1,088,985; Mar. 3; Gaz. vol. 200; p. 108.

Harnly, David H., Austin, Ill. Adjustable window-shade. No. 1,091,656; Mar. 31; Gaz. vol. 200; p. 1186.

Harr, John L., Nora Springs, Iowa. Beating and mixing machine. No. 1,090,148; Mar. 17; Gaz. vol. 200; p. 594.

Harrington, Arthur M., and R. F. Scott, assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa. Bolt-facing machine. No. 1,090,298; Mar. 17; Gaz. vol. 200; p. 648.

Harrington, Arthur M., and R. F. Scott, assignors to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa. Bolt-cutting machine. No. 1,090,299; Mar. 17; Gaz. vol. 200; p. 649.

Harris Automatic Press Company, The. (See Minnick, William F., assignor.)

Harris, Clarence H., Cheyenne, Wyo. Extensible table. No. 1,092,045; Mar. 31; Gaz. vol. 200; p. 1318.

Harris Construction Company Limited. (See Guimont, Joseph W., assignor.)

Harris, Fred R., New York, N. Y., assignor to The American Tobacco Company, Jersey City, N. J. Box-making machine. No. 1,088,899; Mar. 3; Gaz. vol. 200; p. 77.

Harris, Hugh C., Coeur d'Alene, Idaho. Self-skimming milk-pan. No. 1,089,552; Mar. 10; Gaz. vol. 200; p. 349.

Harris, Jacob, Montclair, N. J. Metatarsal adjuster. No. 1,091,931; Mar. 31; Gaz. vol. 200; p. 1282.

Harris Player Piano Company. (See Goolman, Fred R., assignor.)

Harris, William T. (See Ivey, Robert W., assignor.)

Harrison, Leonard, Wellsboro, Pa. Window-sash lock. No. 1,090,149; Mar. 17; Gaz. vol. 200; p. 595.

Hart, Hubert C., Unionville, Conn. Square. No. 1,091,332; Mar. 24; Gaz. vol. 200; p. 1030.

Hart, Sidney H. (See Turner, Cecil L., assignor.)

Harter, Frank E., Olympia, Wash. Spark-plug. No. 1,090,815; Mar. 17; Gaz. vol. 200; p. 823.

Hartman, Rudolph B., Milwaukee, Wis. Reinforcement system for concrete columns. No. 1,091,218; Mar. 24; Gaz. vol. 200; p. 996.

Hartness, James, Springfield, Vt. Variable-speed mechanism for metal-working machines. No. 1,090,300; Mar. 17; Gaz. vol. 200; p. 649.

Harvey, Edward J., assignor to Harvey Spring and Forging Company, Racine, Wis. Machine for testing vehicle-springs. No. 1,091,219; Mar. 24; Gaz. vol. 200; p. 997.

Harvey, John W., Sunset, Tex. Telephone-locking device. No. 1,090,053; Mar. 10; Gaz. vol. 200; p. 521.

Harvey Spring and Forging Company. (See Harvey, Edward J., assignor.)

Hasburg, John W., Chicago, Ill. Machine for spreading or forming paint. No. 1,089,923; Mar. 10; Gaz. vol. 200; p. 477.

Haskin, George W., Detroit, Mich. Refuse disposal and reduction plant. No. 1,091,837; Mar. 31; Gaz. vol. 200; p. 1249.

Hastings, Don T., assignor to Packard Motor Car Company, Detroit, Mich. Wheel-hub. No. 1,088,700; Mar. 3; Gaz. vol. 200; p. 10.

Hauck, Arthur E., Brooklyn, N. Y. Oil-burning apparatus. No. 1,090,395; Mar. 17; Gaz. vol. 200; p. 682.

Hauenstein, Oscar. (See Johnson, Lorenzo, assignor.)

Hausheer, Bernard, Norwich, assignor to Borden's Condensed Milk Company, New York, N. Y. Wire-shaping machine. No. 1,090,850; Mar. 24; Gaz. vol. 200; p. 867.

Hausheer, Bernard, Norwich, assignor to Borden's Condensed Milk Company, New York, N. Y. Can-manipulating machine. No. 1,091,838; Mar. 31; Gaz. vol. 200; p. 1250.

Havener, Arthur R., Waltham, Mass., assignor to American Lacing Hook Co. Machine for setting lacing-hooks in the upper of a boot or shoe. No. 1,090,103; Mar. 10; Gaz. vol. 200; p. 538.

Havener, Arthur R., Waltham, Mass., assignor to American Lacing Hook Co. Top gage for lacing-hook-setting machines. No. 1,091,572; Mar. 31; Gaz. vol. 200; p. 1157.

Haverfield, Emmett N., Cadiz, Ohio. Tire-valve tool. No. 1,091,839; Mar. 31; Gaz. vol. 200; p. 1251.

Havill Egbert U. (See Havill, Harold T., assignor.)

Havill, Harold T., assignor of one-fourth to E. U. Havill, New York, N. Y. Pitometer. No. 1,089,129; Mar. 3; Gaz. vol. 200; p. 158.

Hawaiian Pineapple Company. (See Arnold, Lewis E., assignor.)

Hawes, Joseph W., *et al.* (See Roberts, Henry P., assignor.)

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Control of signal-lamps. No. 1,090,301; Mar. 17; Gaz. vol. 200; p. 649.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Block-signal system. No. 1,091,133; Mar. 24; Gaz. vol. 200; p. 967.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Normal-danger-signal system. No. 1,091,134; Mar. 24; Gaz. vol. 200; p. 967.

Hawks, Joseph B., and H. R. Kennedy, Los Angeles, Cal. Vehicle-signal. No. 1,090,302; Mar. 17; Gaz. vol. 200; p. 650.

Hawks, Moses L., New York, N. Y. Sharpening device. No. 1,088,986; Mar. 3; Gaz. vol. 200; p. 108.

Hawksworth, David W. (See Thompson and Hawksworth.)

Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,089,553; Mar. 10; Gaz. vol. 200; p. 349.

Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,089,554; Mar. 10; Gaz. vol. 200; p. 349.

Hawksworth, David W., assignor to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,089,555; Mar. 10; Gaz. vol. 200; p. 350.





Hawley, Edwin H., Washington, D. C. Automatic gas-extinguisher. No. 1,088,987; Mar. 3; Gaz. vol. 200; p. 108.

Hawley, George M. B., Geneva, N. Y. Sofa-bed. No. 1,090,474; Mar. 17; Gaz. vol. 200; p. 710.

Hawley, George M. B., Geneva, N. Y. Sofa-bed. No. 1,090,475; Mar. 17; Gaz. vol. 200; p. 711.

Hawthorne, Ellsworth A., Bridgeport, Conn. Lighting apparatus. No. 1,090,980; Mar. 24; Gaz. vol. 200; p. 912.

Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp-mounting. No. 1,090,981; Mar. 24; Gaz. vol. 200; p. 912.

Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp-mounting. No. 1,090,982; Mar. 24; Gaz. vol. 200; p. 913.

Hawthorne, Ellsworth A., Bridgeport, Conn. Electric lamp. No. 1,090,983; Mar. 24; Gaz. vol. 200; p. 913.

Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp-mounting. No. 1,090,984; Mar. 24; Gaz. vol. 200; p. 913.

Hawthorne, Primm R., assignor to Nichols & Shepard Company, Battle Creek, Mich. Radiator. No. 1,090,476; Mar. 17; Gaz. vol. 200; p. 711.

Hayes, Clarence B., Jackson, Mich. Machine for removing cleats from fellies. No. 1,091,840; Mar. 31; Gaz. vol. 200; p. 1251.

Hayes, George H., assignor to Chicago Pneumatic Tool Co., Chicago, Ill. Flexible shafting. No. 1,091,511; Mar. 31; Gaz. vol. 200; p. 1136.

Hayes, Orval, Braman, Okla. Machine for heading Kafir corn. No. 1,090,709; Mar. 17; Gaz. vol. 200; p. 788.

Haynes Automobile Company, The. (See Nutt, Frank N., assignor.)

Haynes, Venice L., assignor of one-half to C. W. Swain, Wilmington, Ohio. Attachment for harvesters. No. 1,092,046; Mar. 31; Gaz. vol. 200; p. 1318.

Hazlett, Roy R., Warsaw, N. C. Combined pencil holder and sharpener. No. 1,090,710; Mar. 17; Gaz. vol. 200; p. 789.

Headley, Wellington F., Akron, Ohio. Printing device. No. 1,088,778; Mar. 3; Gaz. vol. 200; p. 36.

Healy, William P. (See Miller, Julius J., assignor.)

Heath, Albert R., Norfolk, Va. Automatic train-stop. No. 1,090,396; Mar. 17; Gaz. vol. 200; p. 682.

Heaton Peninsular Button Fastener Company. (See Perkins, George W., assignor.)

Hebert, Joseph A. H., *et al.* (See Langlais, Charles E. O., assignor.)

Heckling, George, Cleveland, Ohio. Blank for forming the shanks of pipe-wrenches. No. 1,091,220; Mar. 24; Gaz. vol. 200; p. 997.

Hedges, Jabez. (See Hammack, Hedges, and Martin.)

Hedstrom, Carl O., Portland, Conn. Motor-cycle. No. 1,090,477; Mar. 17; Gaz. vol. 200; p. 711.

Heess, Albert. (See Daimler and Heess.)

Heflin, Le Roy, Fairfax, Okla. Device for supporting watch-chains on belts. No. 1,090,054; Mar. 10; Gaz. vol. 200; p. 521.

Hegewald, Frank, Irvington, assignor to Krementz & Company, Newark, N. J. Closing tubular bodies. No. 1,089,339; Mar. 3; Gaz. vol. 200; p. 225.

Heichel, James R., and G. E. Gorz, Ashland, Ohio. Detachable seat for ladders. No. 1,090,712; Mar. 17; Gaz. vol. 200; p. 789.

Heichert, Herman S., Ford City, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Grinding-machine for manufacturing plate-glass. No. 1,089,924; Mar. 10; Gaz. vol. 200; p. 473.

Heidel, Charles J., Cincinnati, Ohio. Toy savings-bank. No. 1,091,333; Mar. 24; Gaz. vol. 200; p. 1031.

Heidenreich, Carl. (See Blank, Heidenreich, and Jansen.)

Helm, Peter, Cullman, Ala. Hair-crimper. No. 1,091,334; Mar. 24; Gaz. vol. 200; p. 1031.

Helne, Wilhelm H., Honolulu, Hawaii. Food product and preparing the same. No. 1,089,215; Mar. 3; Gaz. vol. 200; p. 187.

Helnkel, Christian F., Cleveland, Ohio. Joining materials. No. 1,090,533; Mar. 17; Gaz. vol. 200; p. 731.

Helselmann, Frank F., Cincinnati, Ohio. Horseshoe-calk. No. 1,090,055; Mar. 10; Gaz. vol. 200; p. 522.

Heltzer, Frank H., Indianapolis, Ind. Carbureter. No. 1,090,208; Mar. 17; Gaz. vol. 200; p. 616.

Heltzer, Frank H., Indianapolis, Ind. Carbureter. No. 1,090,209; Mar. 17; Gaz. vol. 200; p. 616.

Helbronner, André. (See Henri, Helbronner, and Recklinghausen.)

Helfrich, Gustav P., New York, N. Y. Lawn-mower. No. 1,089,556; Mar. 10; Gaz. vol. 200; p. 350.

Heller, August H. R., Pittsburgh, Pa. Shoe-polishing machine. No. 1,091,657; Mar. 31; Gaz. vol. 200; p. 1186.

Heller, Ernest B., Philadelphia, Pa., assignor to A. R. Brandly, Little Falls township, N. J. Treating foods. No. 1,090,210; Mar. 17; Gaz. vol. 200; p. 617.

Helmcamp, Louis C., and E. Hoxworth, Waco, Tex. Non-refillable bottle. No. 1,089,216; Mar. 3; Gaz. vol. 200; p. 187.

Helsel, Sanford. (See Marks and Helsel.)

Hempelmann, Frederick W., Cincinnati, Ohio. Winding and rewinding device for automatic musical instruments. No. 1,091,658; Mar. 31; Gaz. vol. 200; p. 1187.

Hemphill, Dana E., Salt Lake City, Utah. Chain-clasp or safety-catch. No. 1,089,340; Mar. 3; Gaz. vol. 200; p. 226.

Henderson, Edwin L., assignor to The Kemper-Thomas Company, Norwood, Ohio. Check-book holder. No. 1,089,557; Mar. 10; Gaz. vol. 200; p. 350.

Henderson, Thomas A., Mart, Tex. Evaporative cooler No. 1,089,837; Mar. 10; Gaz. vol. 200; p. 446.

Henri, Victor, A. Helbronner, and M. von Recklinghausen, Paris, France, assignors, by mesne assignments, to The R. U. V. Company, Inc. Apparatus for sterilizing liquids by means of ultra-violet rays. No. 1,091,221; Mar. 24; Gaz. vol. 200; p. 998.

Henry, George J., Jr., San Francisco, Cal. Adjustable lever and link. No. 1,092,102; Mar. 31; Gaz. vol. 200; p. 1338.

Henry, James A. (See Spofford and Henry.)

Henry Sonneborn and Company. (See Forman, Joseph, assignor.)

Henschel, Charles, New York, N. Y., assignor to Chas. Cory & Son, Inc. Signaling device. No. 1,090,816; Mar. 17; Gaz. vol. 200; p. 824.

Henson, Oscar. (See Barton and Henson.)

Henze, Paul, Kamsack, Saskatchewan, Canada. Broom-holder. No. 1,089,702; Mar. 10; Gaz. vol. 200; p. 400.

Heraeus, Gesellschaft mit beschrankter Haftung, W. C. (See Girard, Fritz, assignor.)

Herman, Clifton E., assignor of one-half to S. C. Munson, Columbus, Ohio. Metal tread for block-tires. No. 1,090,851; Mar. 24; Gaz. vol. 200; p. 868.

Hermann, Caspar, Leipzig-Gross-Zschocher, assignor of one-half to G. Richter, Leipzig, Germany. Rotary printing-machine. No. 1,091,841; Mar. 31; Gaz. vol. 200; p. 1252.

Herrin, W. T., *et al.* (See Walker, James M., assignor.)

Herring, Henry H., Atascosa, Tex. Animal-trap. No. 1,088,988; Mar. 3; Gaz. vol. 200; p. 108.

Herrmann, Carl B., Halensee, near Berlin, Germany. Multiple letter for advertising-boards, skylights, and the like. No. 1,091,335; Mar. 24; Gaz. vol. 200; p. 1031.

Hersey, George W., Loggieville, New Brunswick, Canada. Car-step. No. 1,090,534; Mar. 17; Gaz. vol. 200; p. 731.

Herskovitz, William, Chicago, Ill. Switch mechanism. No. 1,089,051; Mar. 3; Gaz. vol. 200; p. 129.

Hertel, Hermann, Gera R. j. L.-Debschwitz, Germany. Device for threading needles. No. 1,090,916; Mar. 24; Gaz. vol. 200; p. 890.

Hertz, Herman, New York, N. Y. Storm-sleeve. No. 1,092,047; Mar. 31; Gaz. vol. 200; p. 1318.

Herzogenrather Spiegelglas- und Spiegel-Fabrik Bicheroux, Lambotte & Cie., Gesellschaft mit beschrankter Haftung. (See Bicheroux, Max, assignor.)

Hess, Samuel S., Jewett, Ohio. Grain-scouring device. No. 1,089,052; Mar. 3; Gaz. vol. 200; p. 129.

Hester, George C., Portland, Oreg. Sash-bar. No. 1,090,303; Mar. 17; Gaz. vol. 200; p. 650.

Hetherington, John, assignor of one-half to D. R. Jones, Benton Harbor, Mich. Faucet. No. 1,091,135; Mar. 24; Gaz. vol. 200; p. 968.

Hethey, Axel, London, England. Refining steel. No. 1,089,410; Mar. 10; Gaz. vol. 200; p. 298.

Hettinger, Charles F., assignor to Flexitallic Gasket Company, Camden, N. J. Gasket. No. 1,089,134; Mar. 3; Gaz. vol. 200; p. 160.

Hewitt, Peter C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electrical production of light. No. 1,091,222; Mar. 24; Gaz. vol. 200; p. 998.

Hewitt, Peter C., New York, N. Y., assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Apparatus for operating vapor-converters. No. 1,091,223; Mar. 24; Gaz. vol. 200; p. 998.

Hewlett, Edward M., Schenectady, N. Y., assignor to General Electric Company. Oil-switch. No. 1,091,659; Mar. 31; Gaz. vol. 200; p. 1187.

Hewson, Earl. (See Lawrence, Albert H., assignor.)

Heyman, David, Jersey City, N. J. Toy. No. 1,092,103; Mar. 31; Gaz. vol. 200; p. 1338.

Heymann, Charles, Paris, France. Device for attaching stiffeners to trousers. No. 1,091,842; Mar. 31; Gaz. vol. 200; p. 1252.

Hiatt, Ernest B., Truro, Iowa. Mold for making sewer-inlets. No. 1,090,211; Mar. 17; Gaz. vol. 200; p. 617.

Hibbard, Henry D., Plainfield, N. J. Metallurgical furnace. No. 1,089,377; Mar. 3; Gaz. vol. 200; p. 238.

Hibbard, Robert L., Sewickley, assignor to Ritter-Conley Manufacturing Company, Pittsburgh, Pa. Attachment for punching-machines. No. 1,089,217; Mar. 3; Gaz. vol. 200; p. 187.

Hibberd, Charles E., London, England, assignor of three-tenths to F. L. Goad, Edinburgh, Scotland. Gas-meter. No. 1,092,048; Mar. 31; Gaz. vol. 200; p. 1319.

Hibbs, William, Piano, Ill. Corn-harvester. No. 1,090,150; Mar. 17; Gaz. vol. 200; p. 595.

Hieronymus, Jasper N., Fairbury, Ill. Wagon-box step. No. 1,090,852; Mar. 24; Gaz. vol. 200; p. 868.

Higgins, Thomas, Pittsburgh, Pa. Metal tire-band. No. 1,091,573; Mar. 31; Gaz. vol. 200; p. 1157.

Higgins, Walter, and J. Rhodes, Bradford, England. Dyeing and washing machine. No. 1,090,397; Mar. 17; Gaz. vol. 200; p. 683.

High, Elmer B., Macungie, Pa. Ready-balance sheet. No. 1,089,764; Mar. 10; Gaz. vol. 200; p. 422.

Hildebrandt, Frank P., Sangerties, N. Y. Paper-folding machine. No. 1,090,304; Mar. 17; Gaz. vol. 200; p. 650.

Hildenbrand, Herman, Chapeze, Ky. Conveyer-transfer. No. 1,090,713; Mar. 17; Gaz. vol. 200; p. 790.

Hildum, James A. and L., Oolitic, Ind. Self-heating dinner-pail. No. 1,090,056; Mar. 10; Gaz. vol. 200; p. 522.

Hildum, Leonard. (See Hildum, James A. and L.)

Hill, Alexander S., Medina, N. Y. Lock. No. 1,090,057; Mar. 10; Gaz. vol. 200; p. 522.

Hill, Alexander S., Washington, D. C. Multiple-bolt lock. No. 1,090,058; Mar. 10; Gaz. vol. 200; p. 523.
Hill Clutch Company, The. (See Smith, Harry J., assignor.)
Hill, Hervie M., Achilles, Kans. Safety-envelop. No. 1,090,617; Mar. 17; Gaz. vol. 200; p. 760.
Hill-Independent Manufacturing Company. (See Pinkerton, Henry M. G., assignor.)
Hill-Independent Manufacturing Company. (See Scotford, Louis K., assignor.)
Hill-Independent Mfg. Co. (See Boss, Thomas H., assignor.)
Hill, Joseph S., Bethesda, Md. Steering-wheel. No. 1,091,932; Mar. 31; Gaz. vol. 200; p. 1282.
Hill, Richard P., Auckland, New Zealand. Means for cleaning water-pipes. No. 1,090,059; Mar. 10; Gaz. vol. 200; p. 523.
Hill, Truman, assignor of one-half to J. R. Sims, Sr., Perry, Ill. Pulling attachment for steam-hammers. No. 1,091,336; Mar. 24; Gaz. vol. 200; p. 1031.
Hill, William A., assignor of one-half to R. J. Gephart, Coyle, Okla. Obstetrical instrument. No. 1,092,104; Mar. 31; Gaz. vol. 200; p. 1339.
Hill, William G., assignor to Apsley Rubber Company, Hudson, Mass. Vulcanization. No. 1,090,535; Mar. 17; Gaz. vol. 200; p. 731.
Hilt, Reuben, West Somerville, Mass. Oscillating lever for operating pump-pistons, &c. No. 1,091,136; Mar. 24; Gaz. vol. 200; p. 968.
Himes, Walter H., Lansing, Mich. Governor for internal-combustion engines. No. 1,090,212; Mar. 17; Gaz. vol. 200; p. 617.
Hinde, Henry J., F. Orton, and B. J. Lindgren, assignors to The Toledo Machine & Tool Company, Toledo, Ohio. Drawing-press. No. 1,089,558; Mar. 10; Gaz. vol. 200; p. 350.
Hinderer, Gustave L., Philadelphia, Pa. Fender. No. 1,089,468; Mar. 10; Gaz. vol. 200; p. 319.
Hindman, Isaiah E., Crafton, assignor to The Duff Manufacturing Company, Pittsburgh, Pa. Friction-clutch device. No. 1,089,703; Mar. 10; Gaz. vol. 200; p. 401.
Hindman, Isaiah E., Beechview, assignor to The Duff Manufacturing Company, Pittsburgh, Pa. Rail-fastener. No. 1,089,704; Mar. 10; Gaz. vol. 200; p. 401.
Hines, William J., Leominster, Mass. Name-plate. No. 1,091,574; Mar. 31; Gaz. vol. 200; p. 1157.
Hintze, Gustav, Berlin, and A. Rosewick, Merseburg, Germany, assignors to A. C. Blancke, Brussels, Belgium. Motor-plow. No. 1,091,885; Mar. 31; Gaz. vol. 200; p. 1267.
Hirsch, Friedrich. (See Friedrich and Hirsch.)
Hirsch, Nathan, Lancaster, S. C. Cuspidor. No. 1,090,060; Mar. 10; Gaz. vol. 200; p. 523.
Hiscock, Emory C., assignor to W. W. Kimball Company, Chicago, Ill. Pneumatic player-action. No. 1,089,765; Mar. 10; Gaz. vol. 200; p. 422.
Hitchcock, Halbert K., Tarentum, Pa. Applying abrasives to grinding-machines. No. 1,089,705; Mar. 10; Gaz. vol. 200; p. 401.
Hoagland, Frank O., assignor to Union Metallic Cartridge Company, Bridgeport, Conn. Projectile. No. 1,091,224; Mar. 24; Gaz. vol. 200; p. 999.
Hobart Electric Manufacturing Company, The. (See Johnston, Herbert L., assignor.)
Hoch, Delton I. (See Brown, Carl E., assignor.)
Hodge, Charles C. (See Saxton and Hodge.)
Hodge, Howard D., Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Machine for drying freshly-painted cylindrical articles, such as cartridge-shells. No. 1,089,706; Mar. 10; Gaz. vol. 200; p. 402.
Hodgkinson, Percy W., assignor of one-half to C. W. Carroll, Rochester, N. Y. Power mechanism. No. 1,089,053; Mar. 3; Gaz. vol. 200; p. 129.
Hodgman, Burt R., East Orange, N. J., and C. Inglee, Amityville, N. Y., assignors to National Water Main Cleaning Company. Apparatus for inserting pipe-cleaning devices into pipe-lines. No. 1,089,641; Mar. 10; Gaz. vol. 200; p. 380.
Hoelscher, Gottlieb H., assignor of one-fourth to A. D. Horton and one-fourth to J. Smith, Hawarden, Iowa. Vertical-locking rail-joint. No. 1,088,989; Mar. 3; Gaz. vol. 200; p. 109.
Hoffa, John D., Crawfordsville, Ind. Dumping-sink. No. 1,089,130; Mar. 3; Gaz. vol. 200; p. 158.
Hoffenbrodel, Edward, *et al.* (See Grant, Daniel, assignor.)
Hoffman, Frederick P., Uniontown, Pa. Toy gun. No. 1,091,512; Mar. 31; Gaz. vol. 200; p. 1136.
Hoffman, James L., Pleasant Lake, Ind. Tool. No. 1,088,990; Mar. 3; Gaz. vol. 200; p. 109.
Hoffman, Peter L., assignor to The Richards-Wilcox Manufacturing Company, Aurora, Ill. Sliding-door lock. No. 1,090,305; Mar. 17; Gaz. vol. 200; p. 650.
Hoffman, Peter L., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill. Door-hanger. No. 1,090,306; Mar. 17; Gaz. vol. 200; p. 651.
Hoffman, Peter L., assignor to Richards-Wilcox Manufacturing Company, Aurora, Ill. Door-bumper. No. 1,090,307; Mar. 17; Gaz. vol. 200; p. 651.
Hoffmann, John P., Dubuque, Iowa. Horse-collar. No. 1,092,120; Mar. 31; Gaz. vol. 200; p. 1345.
Hoffmann, Louis, Buffalo, N. Y. Holder for memorial tablets. No. 1,090,062; Mar. 10; Gaz. vol. 200; p. 524.
Hofmann, Jacob, New York, N. Y. Burglar-alarm. No. 1,090,061; Mar. 10; Gaz. vol. 200; p. 524.
Hogg, George and K. Monahans, Tex. Motor. No. 1,091,575; Mar. 31; Gaz. vol. 200; p. 1157.
Hogg, John N., Los Angeles, Cal. Auxiliary air-valve and decarbonizer for explosion-engines. No. 1,091,843; Mar. 31; Gaz. vol. 200; p. 1252.
Hogg, Kelly. (See Hogg, George and K.)
Hohmann, Richard K., assignor to National Sewing Machine Company, Belvidere, Ill. Rotary sewing-machine with chain-stitch attachment. No. 1,090,151; Mar. 17; Gaz. vol. 200; p. 596.
Hohmann, Richard K., assignor to National Sewing Machine Company, Belvidere, Ill. Revolving-hook sewing-machine. No. 1,091,002; Mar. 24; Gaz. vol. 200; p. 941.
Holcombe, Jamie F., Los Angeles, Cal. Spring-clip and yoke. No. 1,091,513; Mar. 31; Gaz. vol. 200; p. 1137.
Holden, George E. (See Boehme and Holden.)
Holden, Jesse, *et al.* (See Vail and Smith, assignors.)
Hollnka, George, Detroit, Mich. Automobile signal-lamp. No. 1,090,853; Mar. 24; Gaz. vol. 200; p. 868.
Holland, Drussie S., *et al.* (See Coldiron, James L., assignor.)
Holland, Julian, assignor of one-half to C. M. Wills, New York, N. Y. Closure for transoms, doors, windows, panels, &c. No. 1,091,844; Mar. 31; Gaz. vol. 200; p. 1253.
Hollingsworth, Kieve W., Columbia, S. C. Acetylene-gas generator. No. 1,089,218; Mar. 3; Gaz. vol. 200; p. 188.
Hollingsworth, William B. (See Noll and Hollingsworth.)
Hollingworth, Robert, Hamilton, Ontario, Canada. Portable wheeled toy. No. 1,090,308; Mar. 17; Gaz. vol. 200; p. 651.
Hollins, Denis M., Blackburn, England, assignor to Draper Company, Hopedale, Mass. Self-threading shuttle for looms for weaving. No. 1,091,432; Mar. 24; Gaz. vol. 200; p. 1064.
Holly, Carlos, Lockport, assignor to F. N. Burt Company, Limited, Buffalo, N. Y. Cutting mechanism. No. 1,091,514; Mar. 31; Gaz. vol. 200; p. 1137.
Holly, Ferdinand L., Brooklyn, N. Y. Collar-fastener. No. 1,092,049; Mar. 31; Gaz. vol. 200; p. 1319.
Holmes, Fay P., Larned, Kans. Spring-wheel. No. 1,091,515; Mar. 31; Gaz. vol. 200; p. 1137.
Holmes, Henry C., Portland, Oreg. Removable waterproof lining. No. 1,092,105; Mar. 31; Gaz. vol. 200; p. 1339.
Holmes, Samuel, Elizabeth, N. J. Hull of steel ships. No. 1,089,135; Mar. 3; Gaz. vol. 200; p. 160.
Holmes, Wesley H., Milwaukee, Wis. Measuring-faucet. No. 1,091,337; Mar. 24; Gaz. vol. 200; p. 1032.
Holmquist, John A., Johnstown, Pa. Wire-netting machine. No. 1,089,054; Mar. 3; Gaz. vol. 200; p. 129.
Holt, Amos D., Hopkinton, assignor to P. E. Ginn, Winchester, Mass. Machine for transferring packaging-receptacles. No. 1,092,106; Mar. 31; Gaz. vol. 200; p. 1339.
Holt, Lafayette, Burlington, N. C. Rotary engine. No. 1,089,469; Mar. 10; Gaz. vol. 200; p. 319.
Holtzman, John, and L. Gefon, New York, N. Y. Gas-lighter. No. 1,090,714; Mar. 17; Gaz. vol. 200; p. 790.
Holzwarth, Hans, Baden, assignor of one-half to E. Junghans, Wurttemberg, Germany. Gas-turbine plant. No. 1,089,055; Mar. 3; Gaz. vol. 200; p. 130.
Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Support for electric conductors. No. 1,089,642; Mar. 10; Gaz. vol. 200; p. 380.
Honour, Charles. (See Deuster and Honour.)
Hood, Arthur N., *et al.* (See Davidson, John E., assignor.)
Hook, Charles H., Pittsburgh, Pa. Gas-boiler. No. 1,089,131; Mar. 3; Gaz. vol. 200; p. 158.
Hook, William, New York, N. Y. Window. No. 1,090,715; Mar. 17; Gaz. vol. 200; p. 790.
Hook, William, assignor of one-third to R. D. Earl and one-third to E. S. McClure, Sidney, Ohio. Rip-saw shield. No. 1,090,063; Mar. 10; Gaz. vol. 200; p. 524.
Hope-Jones, Robert, assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Piano-pedal. No. 1,089,056; Mar. 3; Gaz. vol. 200; p. 130.
Hope-Jones, Robert, assignor to The Rudolph Wurlitzer Manufacturing Company, North Tonawanda, N. Y. Snare-drum damper. No. 1,091,433; Mar. 24; Gaz. vol. 200; p. 1064.
Hopkins, Hubert, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Calculating-machine. No. 1,089,559; Mar. 10; Gaz. vol. 200; p. 351.
Hopkins, Lewis E., Cardiff, Wales. Hydraulic transmission. No. 1,091,137; Mar. 24; Gaz. vol. 200; p. 968.
Hopkins, Ranold M., Portland, Oreg. Roof-edging. No. 1,090,985; Mar. 24; Gaz. vol. 200; p. 914.
Hoppe, William O., Los Angeles, Cal. Preboiler for steam-boilers. No. 1,089,643; Mar. 10; Gaz. vol. 200; p. 380.
Hornquist, Frank, Mount Jewett, Pa. Sled. No. 1,090,152; Mar. 17; Gaz. vol. 200; p. 596.
Hornung, John C., Chicago, Ill. Pressure and temperature control valve. No. 1,091,660; Mar. 31; Gaz. vol. 200; p. 1187.
Horton, A. D., *et al.* (See Hoelscher, Gottlieb H., assignor.)
Horton, Albert J. (See Carpenter and Horton.)
Hosford, William F., Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Process and machine for making switch parts. No. 1,090,618; Mar. 17; Gaz. vol. 200; p. 760.





Hosford, William F., Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Process and machine for forming and affixing switch-contacts. No. 1,090,619; Mar. 17; Gaz. vol. 200; p. 761.
Hosier, Wesley, assignor of one-half to P. G. McKenna, Mercer, Wis. Extension pipe-tongs. No. 1,092,050; Mar. 31; Gaz. vol. 200; p. 1319.
Houget, Fernand, Verviers, and L. Rahier, Ensival-Verviers, assignors to Société Anonyme Vervietoise pour la Construction de Machines, Verviers, Belgium. Actuating means for the heddle-frames of weaving-looms. No. 1,090,536; Mar. 17; Gaz. vol. 200; p. 732.
Hough, Henry L., Redlevel, Fla. Separating apparatus for turpentine. No. 1,092,051; Mar. 31; Gaz. vol. 200; p. 1320.
Hough, Henry L., Redlevel, Fla. Turpentine-condenser. No. 1,092,052; Mar. 31; Gaz. vol. 200; p. 1320.
Houghton, Milford G., Webster Groves, Mo. Safety-balance. No. 1,088,991; Mar. 3; Gaz. vol. 200; p. 109.
Houpt, Lester J., Blencoe, Iowa. Transmission and reversing gearing for engines. No. 1,091,338; Mar. 24; Gaz. vol. 200; p. 1032.
House, Herman. (See Park, Caught, and House.)
Household Products Mfg. Co., The. (See Loeber, Edgar O., assignor.)
Houseman, Joseph U., assignor of one-half to J. S. Moe, Chicago, Ill. Apparatus for exhibiting moving pictures. No. 1,089,219; Mar. 3; Gaz. vol. 200; p. 188.
Housh, Frank E., Winthrop, Mass. Wallet. No. 1,091,138; Mar. 24; Gaz. vol. 200; p. 969.
Housekeeper, William G., Philadelphia, Pa., and H. S. Dunning, New Dorp, N. Y., assignors to Westinghouse Lamp Company. Method of and means for determining the ratings of incandescent lamps. No. 1,091,661; Mar. 31; Gaz. vol. 200; p. 1188.
Houston, Jerome A., Springfield, Mo. Piston-holding tool. No. 1,090,537; Mar. 17; Gaz. vol. 200; p. 732.
Hovorka, Anton, Chicago, Ill. Hinge. No. 1,089,707; Mar. 10; Gaz. vol. 200; p. 402.
Hovorka, Anton, Chicago, Ill. Box-fastener. No. 1,089,708; Mar. 10; Gaz. vol. 200; p. 402.
Howard, Benjamin F., assignor of one-half to J. W. Staub, Indianapolis, Ind. Lubricant-nebulizer. No. 1,089,411; Mar. 10; Gaz. vol. 200; p. 298.
Howard, Henry, Brookeville, Md. Drafting and plotting instrument. No. 1,090,064; Mar. 10; Gaz. vol. 200; p. 525.
Howard, Leslie E., Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Making ingots. No. 1,089,560; Mar. 10; Gaz. vol. 200; p. 351.
Howard, Leslie E., Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Making ingots. No. 1,089,561; Mar. 10; Gaz. vol. 200; p. 352.
Howard, Leslie E., Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Apparatus for making ingots. No. 1,089,562; Mar. 10; Gaz. vol. 200; p. 352.
Howard, Leslie E., Lockport, N. Y., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Apparatus for making ingots. No. 1,089,563; Mar. 10; Gaz. vol. 200; p. 352.
Howarth, Edward, Brooklyn, N. Y. Shooting-gallery. No. 1,091,339; Mar. 24; Gaz. vol. 200; p. 1033.
Howe and Davidson Company. (See Davidson and Shotts, assignors.)
Howe, Earl W., Washington, D. C. Cigar-support attachment. No. 1,090,716; Mar. 17; Gaz. vol. 200; p. 790.
Howell, John B., Leavenworth, Kans. Electric railway-signal. No. 1,090,309; Mar. 17; Gaz. vol. 200; p. 651.
Howie, Amy L., San Jose, Cal. Filtering drinking-cup. No. 1,091,845; Mar. 31; Gaz. vol. 200; p. 1253.
Howland, William C. (See Marks and Helsel, assignors.)
Hoxworth, Edwin. (See Helmcamp and Hoxworth.)
Hoyland, Frederick. (See Fisher and Hoyland.)
Hoyt, Albert M. (See Matson, Carl A., assignor.)
Hoyt, Gabriel P. B., New York, N. Y. Rotary valve. No. 1,091,340; Mar. 24; Gaz. vol. 200; p. 1033.
Hubbard, Arthur O., Minneapolis, Minn. Silo-door. No. 1,090,620; Mar. 17; Gaz. vol. 200; p. 761.
Hubert, Theodore, Cranford, and C. E. Lockwood, Plainfield, N. J.; said Hubert assignor, by mesne assignments, to American Circular Loom Company, Portland, Me. Electric ignition system. No. 1,090,917; Mar. 24; Gaz. vol. 200; p. 890.
Hudson, Arthur J. (See Bullock, Arthur R., assignor.)
Hudson, Charles H., Oconto, Nebr. Hame and tug coupling. No. 1,088,992; Mar. 3; Gaz. vol. 200; p. 109.
Huet, Louis H., assignor to Société Huet & Cie., Paris, France. Apparatus for taking or reproducing animated pictures. No. 1,092,053; Mar. 31; Gaz. vol. 200; p. 1321.
Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Folding-top-support bracket. No. 1,090,538; Mar. 17; Gaz. vol. 200; p. 732.
Hughes, Edwin J., Jr., Rome, N. Y. Hook and eye. No. 1,091,341; Mar. 24; Gaz. vol. 200; p. 1033.
Hugo, Theodor. (See Colombo and Hugo.)
Hulsveld, Wigbold, and C. Hansen, San Diego, Cal. Combination hose-plug. No. 1,089,057; Mar. 3; Gaz. vol. 200; p. 130.
Hulbert, John L., Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Tent-cup for milking-machines. No. 1,089,838; Mar. 10; Gaz. vol. 200; p. 447.
Hulbert, John L., Poughkeepsie, N. Y., assignor to The De Laval Separator Company. Mechanically milking. No. 1,089,839; Mar. 10; Gaz. vol. 200; p. 447.
Hulder, Joseph P., New York, N. Y., assignor to Ludwig and Company. Tracking device. No. 1,090,310; Mar. 17; Gaz. vol. 200; p. 652.
Hull, Samuel P., Yonkers, N. Y. Circuit-controller. No. 1,089,564; Mar. 10; Gaz. vol. 200; p. 353.
Hulton, John W., *et al.* (See Drysdale, Bruce, assignor.)
Hulton, Walker, *et al.* (See Drysdale, Bruce, assignor.)
Humbrecht, Jules, Gross-Lichterfelde, near Berlin, assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Berlin, Germany. Distance-measuring instrument. No. 1,088,701; Mar. 3; Gaz. vol. 200; p. 11.
Humbrecht, Jules, Gross-Lichterfelde, near Berlin, assignor to Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Telescope with variable magnification. No. 1,091,933; Mar. 31; Gaz. vol. 200; p. 1282.
Humeston, Frederick L., New Haven, Conn., assignor to The Greist Manufacturing Company. Razor-blade holder. No. 1,090,398; Mar. 17; Gaz. vol. 200; p. 683.
Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Cutting device. No. 1,088,900; Mar. 3; Gaz. vol. 200; p. 77.
Humphrey Gas Pump Company (See Smyth, William H., assignor.)
Hungiville, Thomas E. (See Kerr, William J., assignor.)
Hunkemöller, Laurenz. (See Keller and Hunkemöller.)
Hunt, Don M., Oregon, Mo. Transmission-gearing for automobiles. No. 1,091,342; Mar. 24; Gaz. vol. 200; p. 1034.
Hunt, Edward B., Lampasas, Tex. Dam construction. No. 1,088,702; Mar. 3; Gaz. vol. 200; p. 11.
Hunt, Frank Z., Breckenridge, Colo. Dredge-bucket. No. 1,090,478; Mar. 17; Gaz. vol. 200; p. 712.
Hunt Gas Machine Company. (See Hunt and Peloubet, assignors.)
Hunt, Howard H., and W. S. Peloubet, Los Angeles, Cal., assignors to Hunt Gas Machine Company, Minneapolis, Minn. Carbureter. No. 1,089,471; Mar. 10; Gaz. vol. 200; p. 320.
Hunt, John C., and J. L. McKenna, Henry, Colo. Train-pipe coupling. No. 1,090,539; Mar. 17; Gaz. vol. 200; p. 732.
Hunter, Ervin C., Galesburg, Ill. Glove, mitten, or the like. No. 1,090,826; Mar. 17; Gaz. vol. 200; p. 827.
Hunter, Philip V., Newcastle-upon-Tyne, England. Arrangement for protecting electric circuits and apparatus. No. 1,088,901; Mar. 3; Gaz. vol. 200; p. 78.
Hunter, Philip V., Newcastle-upon-Tyne, England. Cable for electric-current-distributing systems. No. 1,088,902; Mar. 3; Gaz. vol. 200; p. 78.
Hunter, Philip V., Heaton, England. Protection of feeders of electrical distribution systems. No. 1,091,225; Mar. 24; Gaz. vol. 200; p. 999.
Huntoon, Fred M. (See Button and Huntoon.)
Hupp Motor Car Company. (See Nelson, Emil A., assignor.)
Hurd, Edward L., Milton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Forming knives. No. 1,090,153; Mar. 17; Gaz. vol. 200; p. 597.
Hutchins Car Roofing Company. (See Hawksworth, David W., assignor.)
Hutchins Car Roofing Company. (See Thompson and Hawksworth, assignors.)
Hutchinson, Thomas C., Decorah, Iowa. Tube-holder. No. 1,091,063; Mar. 24; Gaz. vol. 200; p. 941.
Hyde, Catherine, administratrix. (See Hyde, John.)
Hyde, John, deceased, Pittsburgh, Pa.; C. Hyde, administratrix. Fuel apparatus. No. 1,090,104; Mar. 10; Gaz. vol. 200; p. 539.
Hyde, Warren, and J. Schwarzler, New York, N. Y. Ball-cock. No. 1,090,717; Mar. 17; Gaz. vol. 200; p. 790.
Hydraulic Pressed Steel Company, The. (See Gruber, Edward, assignor.)
Hyer, Charles J., Tampa, Fla. Reinforced concrete construction. No. 1,090,718; Mar. 17; Gaz. vol. 200; p. 791.
Hylan, John P., Stoneham, Mass. Corn-knife. No. 1,091,576; Mar. 31; Gaz. vol. 200; p. 1158.
Hyman, Max, Relee, Va. Well-digging or earth-boring apparatus. No. 1,088,903; Mar. 3; Gaz. vol. 200; p. 79.
Hynds, David H., Todd, Tex. Railway-tie. No. 1,088,904; Mar. 3; Gaz. vol. 200; p. 79.
I. E. Palmer Co., The. (See Palmer, Isaac E., assignor.)
Iacovino, Pietro, New York, N. Y. Arch-support for shoes. No. 1,089,378; Mar. 3; Gaz. vol. 200; p. 239.
Ideal Coated Paper Co. (See Thom, George L., assignor.)
Illetschko, Heinrich, *et al.* (See Snodgrass, Charley, assignor.)
Ilmer Gas Engine Company. (See Ilmer, Louis, Jr., assignor.)
Ilmer, Louis, Jr., Reading, Pa., assignor to Ilmer Gas Engine Company. Gas-engine. No. 1,089,132; Mar. 3; Gaz. vol. 200; p. 159.
Ilmer, Louis, Jr., Reading, Pa., assignor to Ilmer Gas Engine Company. Internal-combustion engine. No. 1,089,133; Mar. 3; Gaz. vol. 200; p. 159.
Imle, Emil. (See Donath, Max, assignor.)
Immerheiser, Carl. (See Bohn and Immerheiser.)
Imperial Sugar Company. (See Eldridge, William T., assignor.)
Ingersoll-Rand Company. (See Banner, Otto, assignor.)

Ingersoll-Rand Company. (See Bayles, Lewis C., assignor.)
Ingersoll-Rand Company. (See Hansen, Charles C., assignor.)
Ingersoll Rand Company. (See Peck, Cald H., assignor.)
Inglee, Clinton. (See Hodgman and Inglee.)
Ingram, Thomas C., Toronto, Ontario, Canada, assignor to E. L. Schwabenland, Riverton, N. J. Fountain-brush. No. 1,089,220; Mar. 3; Gaz. vol. 200; p. 188.
International Agricultural Corporation. (See Peacock, Samuel, assignor.)
International Corset Company. (See Schopbach, Charles H., assignor.) (Reissue.)
International Harvester Company. (See Ryther, Frank A., assignor.)
International Heater Company. (See Camp, George E., assignor.)
International Metal Products Co., The. (See Carnahan, Robert B., Jr., assignor.)
International Steam Pump Company. (See Riesner, Michael, assignor.)
International Time Recording Company of New York. (See Tomlinson, Charles E., assignor.)
Interstate Roofing & Foundry Company. (See Britton, George G., assignor.)
Irving, Ira W., assignor to The Traut & Hine Mfg. Co., Inc., New York, N. Y. Stropping-machine. No. 1,090,854; Mar. 24; Gaz. vol. 200; p. 868.
Isaac G. Johnson & Co. (See Morat, Jacques, assignor.)
Isherwood, Percy C. C., Bushey Heath, England. Treatment of refractory zinc-lead ores. No. 1,089,412; Mar. 10; Gaz. vol. 200; p. 298.
Isler, Max H., Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone coloring-matters and making them. No. 1,089,221; Mar. 3; Gaz. vol. 200; p. 189.
Isler, Max H., Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone vat dyes. No. 1,090,621; Mar. 17; Gaz. vol. 200; p. 761.
Iverson, Ole N., Hills, Minn. Trolley-head. No. 1,088,821; Mar. 3; Gaz. vol. 200; p. 50.
Ives, Herbert E., Mount Airy, assignor to The United Gas Improvement Company, Philadelphia, Pa. Artificial lighting means. No. 1,090,785; Mar. 17; Gaz. vol. 200; p. 813.
Ivey, Robert W., New London, N. C., assignor of one-half to W. T. Harris, Virgilina, Va. Cotton-picker. No. 1,088,703; Mar. 3; Gaz. vol. 200; p. 11.
J. Stone & Company Limited. (See Gibbons and Blake, assignors.)
J. E. Porter Company. (See Jacobs, William F., assignor.)
J. G. Brill Company, The. (See Adams, Walter S., assignor.)
J. H. Williams & Co. (See Amborn, George, assignor.)
J. I. Case Plow Works. (See Michael, Clement W., assignor.)
Jabez Burns & Sons. (See Burns, Robert, assignor.)
Jack, John, Jr., Jack, Mo. Tree-sawing machine. No. 1,089,341; Mar. 3; Gaz. vol. 200; p. 226.
Jackson, Frank, Randolph, Nebr. Spring-seat. No. 1,089,644; Mar. 10; Gaz. vol. 200; p. 381.
Jacobs, Charles, New York, N. Y. Movable carousel and Ferris wheel. No. 1,090,065; Mar. 10; Gaz. vol. 200; p. 525.
Jacobs, Emanuel, Detroit, Mich. Razor-blade stropping and honing machine. No. 1,090,986; Mar. 24; Gaz. vol. 200; p. 914.
Jacobs, Frederic B., Indianapolis, Ind. Grinding-wheel. No. 1,089,766; Mar. 10; Gaz. vol. 200; p. 422.
Jacobs, S. M. Jackson. (See Mahan, James J., assignor.) (Reissue.)
Jacobs, William F., assignor to J. E. Porter Company, Ottawa, Ill. Barn-door track. No. 1,090,540; Mar. 17; Gaz. vol. 200; p. 732.
Jacobs, William F., assignor to J. E. Porter Company, Ottawa, Ill. Barn-door track. No. 1,090,541; Mar. 17; Gaz. vol. 200; p. 733.
Jacobsen, Waldemar, Hartford, Conn. Drafting appliance. No. 1,092,107; Mar. 31; Gaz. vol. 200; p. 1340.
Jacobson, Jack F., Mobile, Ala. Necktie. No. 1,090,719; Mar. 17; Gaz. vol. 200; p. 791.
Jacobson, Wilhelm, Lents, Oreg. Tire-protector. No. 1,089,222; Mar. 3; Gaz. vol. 200; p. 189.
Jacquart, Bernard, South River, N. J., and J. V. V. Booraem, New York, N. Y. Clay-cleaner. No. 1,089,840; Mar. 10; Gaz. vol. 200; p. 448.
Jacquart, Bernard, South River, N. J., and J. V. V. Booraem, New York, N. Y. Clay-cleaner. No. 1,090,542; Mar. 17; Gaz. vol. 200; p. 733.
Jagenberg, Emil, Dusseldorf, Germany. Machine for placing bottles in transport-cases. No. 1,090,855; Mar. 24; Gaz. vol. 200; p. 868.
Jagenberg, Emil, Dusseldorf, Germany. Protective cover for rolls of paper and the like. No. 1,091,139; Mar. 24; Gaz. vol. 200; p. 969.
Jahn, Berthold, assignor to The B. Jahn Manufacturing Company, New Britain, Conn. Receptacle. No. 1,088,779; Mar. 3; Gaz. vol. 200; p. 36.
Jahn, Richard, Frankfort-on-the-Oder, Germany. Cover or lid for use in connection with air-proof preserve-boxes and the like. No. 1,091,577; Mar. 31; Gaz. vol. 200; p. 1158.
Jamme, Marie E., Summit, N. J. Prescription-corset. No. 1,088,993; Mar. 3; Gaz. vol. 200; p. 110.
Janik, Edouard, assignor to La Société Générale Française des Caisses Payeuses et de Contrôle Système Janik, Paris, France. Cash controlling and registering and change-returning apparatus. No. 1,092,054; Mar. 31; Gaz. vol. 200; p. 1322.
Jansen, Henry. (See Blacknall, Thomas H., assignor.)
Jansen, Johannes. (See Blank, Heidenreich, and Jansen.)
Jas. Clark, Jr., Electric Co. (See Stefater, Frank W., assignor.)
Jeavons, William R., Cleveland, Ohio. Oil-heater. No. 1,089,841; Mar. 10; Gaz. vol. 200; p. 448.
Jeffrey Manufacturing Company, The. (See Coseo, Frederick C., assignor.)
Jeffrey Manufacturing Company, The. (See Dunlop, Robert R., assignor.)
Jenkins, Charles F., Washington, D. C. Aeroplane-engine. No. 1,089,645; Mar. 10; Gaz. vol. 200; p. 381.
Jenkins, Charles F., Washington, D. C. Motion-picture camera. No. 1,089,646; Mar. 10; Gaz. vol. 200; p. 381.
Jenkins, Charles F., Washington, D. C. Picture-projecting device. No. 1,090,622; Mar. 17; Gaz. vol. 200; p. 762.
Jenkins, Charles F., Washington, D. C. Motion-picture apparatus. No. 1,091,343; Mar. 24; Gaz. vol. 200; p. 1034.
Jenkins, Charles H., Belleville, N. J., assignor to Newman Clock Company, New York, N. Y. Record-dial-supporting device for watchmen's time-recorders. No. 1,088,994; Mar. 3; Gaz. vol. 200; p. 110.
Jenkins, Marion R., Chillicothe, Mo. Hay rake and stacker. No. 1,091,064; Mar. 24; Gaz. vol. 200; p. 942.
Jenkins, William, Meaford, Ontario, Canada. Circular-saw guard. No. 1,089,223; Mar. 3; Gaz. vol. 200; p. 189.
Jenkins, William G., Anita, Pa. Bank-car. No. 1,092,055; Mar. 31; Gaz. vol. 200; p. 1322.
Jenkins, William L., New Castle, Pa. Tin-sheet-doubling machine. No. 1,090,786; Mar. 17; Gaz. vol. 200; p. 813.
Jenks, Reuben, Youngstown, Ohio. Fastener. No. 1,091,344; Mar. 24; Gaz. vol. 200; p. 1035.
Jennings, Granville P., Appomattox, Va. Cover for receptacles. No. 1,092,056; Mar. 31; Gaz. vol. 200; p. 1322.
Jennings, John F., Smithfield, Ill. Draft-equalizer. No. 1,091,846; Mar. 31; Gaz. vol. 200; p. 1253.
Jensen, Jens T. (See Underwood, Frank G., assignor.)
Jeter, Sherwood F., Hartford, Conn. Facilitating the detection of steam-boiler seam-cracks. No. 1,091,847; Mar. 31; Gaz. vol. 200; p. 1254.
Jewell, John W., Jewell, Iowa. Feeding-trough. No. 1,090,987; Mar. 24; Gaz. vol. 200; p. 915.
Jewett & Company. (See Grady, Charles F. and F. L., assignors.)
Johannesen, Svend E., Pittsfield, Mass., assignor to General Electric Company. Alternating-current regulator. No. 1,088,704; Mar. 3; Gaz. vol. 200; p. 12.
John F. Schrink & Son. (See Schrink, John A., assignor.)
John L. Sommer Mfg. Co. (See Passmore, Charles L., assignor.)
Johns, John H., Leavenworth, Kans. Electroller. No. 1,090,154; Mar. 17; Gaz. vol. 200; p. 597.
Johns, Karl J., Kansas City, Mo. Combined child's go-cart and nursery-chair. No. 1,090,623; Mar. 17; Gaz. vol. 200; p. 762.
Johnson, Albert E., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for making insoles. No. 1,089,472; Mar. 10; Gaz. vol. 200; p. 320.
Johnson, Albert E., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Insole-lip-sewing machine. No. 1,089,473; Mar. 10; Gaz. vol. 200; p. 321.
Johnson, Albert E., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Insole-lip-sewing machine. No. 1,089,474; Mar. 10; Gaz. vol. 200; p. 321.
Johnson, Benjamin. (See Armstrong and Johnson.)
Johnson, Christian A., and H. Thisscnius, Laramie, Wyo. Sander. No. 1,089,224; Mar. 3; Gaz. vol. 200; p. 190.
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,091,848; Mar. 31; Gaz. vol. 200; p. 1254.
Johnson, Gustave, Cleveland, Ohio. Hanging scaffold. No. 1,090,856; Mar. 24; Gaz. vol. 200; p. 869.
Johnson, Hans O., and J. H. Nicholson, Sacramento, Cal. Combined mop holder and wringer. No. 1,089,475; Mar. 10; Gaz. vol. 200; p. 322.
Johnson, Harvey A., assignor of one-third to H. F. Bonnell and one-third to R. E. Winbourn, Greeley, Colo. Gas-generator and burner for hydrocarbon-oils. No. 1,091,434; Mar. 24; Gaz. vol. 200; p. 1065.
Johnson, Henry E. (See Crichton, Fred T., assignor.)
Johnson, Henry E., Omaha, Nebr. Truck. No. 1,091,516; Mar. 31; Gaz. vol. 200; p. 1138.
Johnson, James T., Williamson, W. Va. Bicycle-pump. No. 1,091,435; Mar. 24; Gaz. vol. 200; p. 1065.
Johnson, Joseph M., Millersburg, Pa., assignor to The Rail Joint Company. Rail-joint. (Reissue.) No. 13,703; Mar. 24; Gaz. vol. 200; p. 1078.
Johnson, Lorenzo, assignor of one-half to O. Hauenstein, Louisville, Ky. Ax-handle lathe. No. 1,091,455; Mar. 24; Gaz. vol. 200; p. 1071.
Johnson, Margaret J., administratrix. (See Johnson, Tom L.)
Johnson, Robert C. (See Smith, Harvey E., assignor.)





Johnson, Tom L., deceased, Cleveland, Ohio; M. J. Johnson, administratrix. High-speed railway. No. 1,090,213; Mar. 17; Gaz. vol. 200; p. 618.
Johnson, Werner. (See Rice and Johnson.)
Johnson, William, Fremont, Ohio. Post-anchor. No. 1,089,842; Mar. 10; Gaz. vol. 200; p. 448.
Johnston, David J., Toronto, Ontario, Canada, assignor to The Militaire Auto Company, Inc., Cleveland, Ohio. Steering mechanism for motor-cycles. No. 1,089,647; Mar. 10; Gaz. vol. 200; p. 382.
Johnston, David J., Toronto, Ontario, Canada, assignor to The Militaire Auto Company, Inc., Cleveland, Ohio. Auxiliary-wheel mechanism for motor-cycles. No. 1,091,065; Mar. 24; Gaz. vol. 200; p. 942.
Johnston, Herbert L., assignor to The Hobart Electric Manufacturing Company, Troy, Ohio. Grinding-disk for coffee-mills and the like. No. 1,089,413; Mar. 10; Gaz. vol. 200; p. 299.
Johnston, Horace G., Corsicana, Tex. Impeller-pump. No. 1,090,066; Mar. 10; Gaz. vol. 200; p. 525.
Johnston, John A., Montreal, Quebec, Canada. Nut-tapping machine. No. 1,089,925; Mar. 10; Gaz. vol. 200; p. 473.
Johnston, Thomas, Dickson, Tenn. Load-retaining device for logging-wagons. No. 1,089,767; Mar. 10; Gaz. vol. 200; p. 423.
Jolliffe, Mark B., assignor of one-third to J. V. Ryder and one-third to J. H. Meeks, New Haven, Conn. Automatic trolley-pole controller. No. 1,089,414; Mar. 10; Gaz. vol. 200; p. 299.
Jonas, Frederick W. (See Spofford and Jonas.)
Jones, Cable B., Whitewood, S. D. Derrick. No. 1,090,067; Mar. 10; Gaz. vol. 200; p. 526.
Jones, Charlie T., Blytheville, Ark. Flying-machine. No. 1,090,068; Mar. 10; Gaz. vol. 200; p. 526.
Jones, David R. (See Hetherington, John, assignor.)
Jones, Edward C. and L. B., San Francisco, Cal. Apparatus for manufacturing gas. No. 1,089,926; Mar. 10; Gaz. vol. 200; p. 479.
Jones, Edward S., Mobile, Ala. Cotton-picker. No. 1,091,140; Mar. 24; Gaz. vol. 200; p. 969.
Jones, Harry T. (See Bignell, Edward, assignor.)
Jones, John M. C., Onarga, Ill. Corn-forwarding device for green-corn-cutting machines. No. 1,090,988; Mar. 24; Gaz. vol. 200; p. 915.
Jones, Leon B. (See Jones, Edward C. and L. B.)
Jones, Louis F. (See Orr and Jones.)
Jones, Mary I. (See Jones, Raleigh, assignor.)
Jones, Peter, Wigan, England. Steam-boiler and other furnace. No. 1,089,476; Mar. 10; Gaz. vol. 200; p. 322.
Jones, Raleigh, Salt Lake City, Utah, assignor to M. I. Jones, Pocatello, Idaho. Ironing-board. No. 1,090,060; Mar. 10; Gaz. vol. 200; p. 526.
Jones, William A., West New Brighton, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Hopper for gas-producers. No. 1,090,857; Mar. 24; Gaz. vol. 200; p. 869.
Jordan, James H., Madison, Wis. Music-leaf turner. No. 1,090,720; Mar. 17; Gaz. vol. 200; p. 791.
Jordan, Samuel E., assignor to Sam'l E. Jordan Brush Company, Malden, Mass. Brush-tuft-couting machine. No. 1,089,477; Mar. 10; Gaz. vol. 200; p. 322.
Joseph N. Smith & Company. (See Shand, James, assignor.)
Judelson, Louis, New York, N. Y. Washing-machine. No. 1,090,214; Mar. 17; Gaz. vol. 200; p. 618.
Judge, Franklin. (See Wells and Judge.)
Juhn, Sidney, assignor to Varsity Underwear Company, Baltimore, Md. Union suit. No. 1,090,155; Mar. 17, Gaz. vol. 200; p. 597.
Julius Pintsch Aktiengesellschaft. (See Friedrich, Paul, assignor.)
Jung, Alfred J., Kensington West, London, England. Ticket printing and issuing machine. No. 1,090,543; Mar. 17; Gaz. vol. 200; p. 733.
Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Twin-governor mechanism for mixed-pressure turbines. No. 1,089,709; Mar. 10; Gaz. vol. 200; p. 402.
Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Low-pressure steam-turbine. No. No. 1,089,710; Mar. 10; Gaz. vol. 200; p. 403.
Junggren, Oscar, Schenectady, N. Y., assignor to General Electric Company. Mixed-pressure turbine. No. 1,091,345; Mar. 24; Gaz. vol. 200; p. 1035.
Junghans, Erhard. (See Holzwarth, Hans, assignor.)
Jungk, Emil H. (See Sawyer and Jungk.)
Justrite Mfg. Co., The. (See Hansen, Augie L., assignor.)
Kaemmerling, Gustav H., Erie, Pa., assignor to General Electric Company. Engine. No. 1,089,711; Mar. 10; Gaz. vol. 200; p. 403.
Kaempfer, Isabella, New York, N. Y. Casing for electric cells. No. 1,090,624; Mar. 17; Gaz. vol. 200; p. 762.
Kalner, Frederick C., Chicago, Ill. Steering-gear. No. 1,089,136; Mar. 3; Gaz. vol. 200; p. 161.
Kalamazoo Loose Leaf Binder Company. (See Wigginton, George P., assignor.)
Kalmus, Herbert T., and W. L. Savell, Kingston, Ontario, Canada, assignors to said Kalmus. Making alumina. No. 1,090,479; Mar. 17; Gaz. vol. 200; p. 712.
Kamigashira, Samuel I., Rock Springs, Wyo. Supply-holder. No. 1,089,225; Mar. 3; Gaz. vol. 200; p. 190.
Kamiske, Christian G., Milwaukee, Wis. Signal apparatus. No. 1,091,578; Mar. 31; Gaz. vol. 200; p. 1158.
Kandó, Coloman de, Budapest, Austria-Hungary, assignor to G. Westinghouse, Pittsburgh, Pa. Device for supporting trolley-wires. No. 1,089,415; Mar. 10; Gaz. vol. 200; p. 366.
Kanning, Fredrick H., Hopewell, Mo. Wrench. No. 1,089,386; Mar. 3; Gaz. vol. 200; p. 241.
Kapp, C. F. (See Whitcomb, James, assignor.)
Karrer, Paul. (See Ehrlich, Reuter, and Karrer.)
Kasley, Alexander T., Swissvale, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Explosion-motor. No. 1,089,478; Mar. 10; Gaz. vol. 200; p. 323.
Kaspar, Franz, Prague, Austria-Hungary. Apparatus for sticking stamps. No. 1,090,721; Mar. 17; Gaz. vol. 200; p. 792.
Katz, George J., Chicago, Ill. Electromedical exercising apparatus. No. 1,088,780; Mar. 3; Gaz. vol. 200; p. 37.
Kaufman, Adolph G., New York, N. Y. Safety-pin. No. 1,089,416; Mar. 10; Gaz. vol. 200; p. 300.
Kaufman, Joseph, New York, N. Y. Razor. No. 1,091,436; Mar. 24; Gaz. vol. 200; p. 1066.
Kaufmann, Jacob, assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa. Loom-harness. No. 1,090,858; Mar. 24; Gaz. vol. 200; p. 869.
Kaufmann, Jacob, assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa. Heddle-frame. No. 1,090,859; Mar. 24; Gaz. vol. 200; p. 870.
Kaufmann, Jacob, assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa. Heddle-frame. No. 1,091,141; Mar. 24; Gaz. vol. 200; p. 969.
Keach, William E., *et al.* (See O'Meara, James J., assignor.)
Keane, Francis M., Botsford Station, Conn. Hoof-cutting and hoof-opening machine. No. 1,088,995; Mar. 3; Gaz. vol. 200; p. 110.
Keech, Lyman M., Harpersville, N. Y. Antiskidding device for automobiles. No. 1,091,142; Mar. 24; Gaz. vol. 200; p. 970.
Keenan, Hugh J., assignor of two-thirds to C. M. and L. B. Braund, Jackson, Mich. Vending-machine. No. 1,091,066; Mar. 24; Gaz. vol. 200; p. 943.
Keene, George F., assignor of one-half to A. O. Pardey, Whitman, Mass. Cranberry-harvester. No. 1,090,860; Mar. 24; Gaz. vol. 200; p. 870.
Keene, George F., Whitman, assignor of one-half to F. O. Churchill, Brockton, Mass. Razor-stropper. No. 1,090,861; Mar. 24; Gaz. vol. 200; p. 871.
Keene, Robert C., Frankfort, Ind. Flagging device. No. 1,090,070; Mar. 10; Gaz. vol. 200; p. 527.
Keffer, Thomas S., Atlantic City, N. J. Automobile-lock. No. 1,090,625; Mar. 17; Gaz. vol. 200; p. 762.
Kehl, Howard A., Northport, Mich. Pen-ejecting holder. No. 1,090,862; Mar. 24; Gaz. vol. 200; p. 871.
Keiser, William F., and C. Ryan, Terre Haute, Ind. Car-door. No. 1,092,108; Mar. 31; Gaz. vol. 200; p. 1340.
Keith, Henry M., Eldorado, Ill. Closet. No. 1,091,346; Mar. 24; Gaz. vol. 200; p. 1035.
Keith, Marshall W., Kent, Ohio. Swinging bracket. No. 1,089,768; Mar. 10; Gaz. vol. 200; p. 423.
Keith, Robert H., and F. H. Brooks, Rowan, Iowa. Evener. No. 1,089,927; Mar. 10; Gaz. vol. 200; p. 479.
Kellar, Charles A. (See Ricks, Charles E., assignor.)
Kellems, Charles F., Holder, Ill. Smoke-conveyer. No. 1,090,071; Mar. 10; Gaz. vol. 200; p. 527.
Keller, John R., Pittsburgh, Pa., assignor to The Rail Joint Company, New York, N. Y. Rail-joint. No. 1,089,058; Mar. 3; Gaz. vol. 200; p. 131.
Keller, Karl, and L. Hunkemöller, assignors to Firm of A. Saurer, Arbon, Switzerland. Embroidering-machine. No. 1,089,059; Mar. 3; Gaz. vol. 200; p. 131.
Kelley, George J., Attleboro, Mass. Atomizer. No. 1,090,863; Mar. 24; Gaz. vol. 200; p. 871.
Kelley, Lawrence E., Leonard, Tex. Cultivator. No. 1,088,705; Mar. 3; Gaz. vol. 200; p. 12.
Kelley, Robert S., New York, N. Y. Score indicating and recording device. No. 1,090,626; Mar. 17; Gaz. vol. 200; p. 763.
Kellner, Louis, New York, N. Y. Electrical socket and receptacle. No. 1,091,226; Mar. 24; Gaz. vol. 200; p. 999.
Kellogg, John L. (See Hanford, Orin A., assignor.)
Kellogg Switchboard & Supply Company. (See Dean, William W., assignor.)
Kelly, George T., Chicago, Ill. Electric sign. No. 1,090,989; Mar. 24; Gaz. vol. 200; p. 915.
Kelly, John B., assignor of one-half to J. Saks, Anniston, Ala. Holding and operating means. No. 1,089,226; Mar. 3; Gaz. vol. 200; p. 190.
Kelly, John C. (See Whitwell and Kelly.)
Kelly, John F., Pittsfield, Mass. Electric generator. No. 1,088,781; Mar. 3; Gaz. vol. 200; p. 37.
Kelly, Richard J., Syracuse, N. Y. Bed-spring. No. 1,088,996; Mar. 3; Gaz. vol. 200; p. 111.
Kemper, Leo N. (See Barton and Henson, assignors.)
Kemper-Thomas Company, The. (See Henderson, Edwin L., assignor.)
Kempton, Herbert E., Cambridge, Mass., assignor to Marine Producer Gas Power Company, New York, N. Y. Fuel-feeding means for internal-combustion engines. No. 1,092,109; Mar. 31; Gaz. vol. 200; p. 1340.
Kendall, Myron A., Aurora, Ill., assignor to Stephens-Adamson Mfg. Co. Bucket conveyer. No. 1,090,156; Mar. 17; Gaz. vol. 200; p. 598.

Kennedy, Charles A., Coaticook, Quebec, Canada. Furnace-casing. No. 1,089,843; Mar. 10; Gaz. vol. 200; p. 448.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,091,347; Mar. 24; Gaz. vol. 200; p. 1036.
Kennedy, Edward J., New York, N. Y. Mechanism for electrically controlling and operating fare-registers and other devices. No. 1,090,215; Mar. 17; Gaz. vol. 200; p. 618.
Kennedy, Homer R. (See Hawks and Kennedy.)
Kennedy, Joseph E., New York, N. Y. Crushing and pulverizing machine. No. 1,090,216; Mar. 17; Gaz. vol. 200; p. 619.
Kennedy, Luther L., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,706; Mar. 3; Gaz. vol. 200; p. 13.
Kennedy, William J., St. Louis, Mo. Device for retaining books in covers. No. 1,089,769; Mar. 10; Gaz. vol. 200; p. 423.
Kenney, Andrew E., North Plainfield, N. J. Valve. No. 1,088,822; Mar. 3; Gaz. vol. 200; p. 51.
Kensit, Henry E. M., Ottawa, Ontario, Canada. Automatic reminder. No. 1,089,712; Mar. 10; Gaz. vol. 200; p. 404.
Kenyon, Jabez, Hugo, Colo. Safety-stirrup. No. 1,089,227; Mar. 3; Gaz. vol. 200; p. 190.
Keogh, William F. (See Breitenbach, Louis H., assignor.)
Kepler, Andrew, Berwyn, Nebr. Corn-harvester. No. 1,091,747; Mar. 31; Gaz. vol. 200; p. 1217.
Kern, George, Peru, assignor to Western Clock Company, La Salle, Ill. Alarm-clock. No. 1,089,648; Mar. 10; Gaz. vol. 200; p. 382.
Kernan, Thomas, East St. Cloud, Minn. Signaling device for party-line telephones. No. 1,090,627; Mar. 17; Gaz. vol. 200; p. 763.
Kerner Manufacturing Company. (See Dodds, Ethan I., assignor.)
Kerr, Andrew, Belfast, Ireland. Means for controlling the supply of motive fluid to marine engines. No. 1,091,227; Mar. 24; Gaz. vol. 200; p. 1000.
Kerr, Charles V., assignor to McEwen Bros., Wellsville, N. Y. Centrifugal pump. No. 1,089,770; Mar. 10; Gaz. vol. 200; p. 423.
Kerr, William J., assignor of one-fourth to T. E. Hungiville, Smethport, Pa. Protective apparatus for moving-picture booths. No. 1,091,662; Mar. 31; Gaz. vol. 200; p. 1188.
Kestner Evaporator Company. (See Kestner, Paul, assignor.)
Kestner, Paul, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa. Apparatus for concentrating liquids to high densities. No. 1,090,628; Mar. 17; Gaz. vol. 200; p. 764.
Ketchum, Ernest C., Boston, and D. H. Andrews, Newton, Mass. Dynamo-electrical machine. No. 1,091,748; Mar. 31; Gaz. vol. 200; p. 1217.
Kettering, Charles F., Dayton, Ohio, assignor to The Dayton Engineering Laboratories Co. Binding-post. No. 1,089,771; Mar. 10; Gaz. vol. 200; p. 424.
Keystone Wire Matting Co. (See McPherson, Frank G. and T. C., assignors.)
Kibbey, Charles W., Boyne City, Mich. Cheese-stand. No. 1,091,143; Mar. 24; Gaz. vol. 200; p. 970.
Kicinski, Tomasz M. J. (See Floryanowicz and Kicinski.)
Kidd, Lewis, Bloomfield, Ind. Smoke-consumer. No. 1,090,072; Mar. 10; Gaz. vol. 200; p. 527.
Kieffer, John H., Allentown, Pa. Horseshoe. No. 1,089,844; Mar. 10; Gaz. vol. 200; p. 449.
Kiehn, Fritz, *et al.* (See Snodgrass, Charley, assignor.)
Kieser, Walter, Berlin, Germany, assignor to General Electric Company. Centrifugal pump. No. 1,090,073; Mar. 10; Gaz. vol. 200; p. 527.
Kiewicz, John, Hyde Park, assignor to The Reece Button Hole Machine Company, Boston, Mass. Button-attaching machine. No. 1,089,649; Mar. 10; Gaz. vol. 200; p. 382.
Kile, Joseph R., Neodesha, Kans. Hose-coupling. No. 1,089,650; Mar. 10; Gaz. vol. 200; p. 383.
Kilgour, Dwight F., Lexington, Mass. Lubricator. No. 1,089,060; Mar. 3; Gaz. vol. 200; p. 131.
Kilham, Richard C., Duquesne, Pa. Valve for steam-chests. No. 1,091,934; Mar. 31; Gaz. vol. 200; p. 1283.
Kilham, Benjamin F. (See Van Beuning and Kilham.)
Kilham, Gaston B., Calgary, Alberta, Canada. Gas-burner. No. 1,091,663; Mar. 31; Gaz. vol. 200; p. 1188.
Kilpatrick, Oscar, *et al.* (See Richard, Zacharie B., assignor.)
King, Bert W., assignor to Standard Computing Scale Company, Limited, Detroit, Mich. Scale. No. 1,091,664; Mar. 31; Gaz. vol. 200; p. 1188.
King, Francis M., Philadelphia, Pa. Fastener for window and door screens. No. 1,091,849; Mar. 31; Gaz. vol. 200; p. 1254.
King, George W., assignor of one-third to J. N. Bowery, Indian Springs, Tenn. Churn. No. 1,089,772; Mar. 10; Gaz. vol. 200; p. 424.
King & Hamilton Company. (See Gilman, John H. and A. E., assignors.)
King, Jesse C., assignor of one-half to A. Wilkins, La Junta, Colo. Centrifugal filtering or dewatering machine for ore-pulp. No. 1,088,823; Mar. 3; Gaz. vol. 200; p. 51.
King, John F., and J. P. Neary, Kalamazoo, Mich. Automatic stop or safety device for elevators. No. 1,090,918; Mar. 24; Gaz. vol. 200; p. 891.
King, Theophilus. (See Boardman, Charles H., assignor.)
Kinnear Manufacturing Company, The. (See Gibson and Ross, assignors.)
Kinnear Manufacturing Company, The. (See Rush, Albert, assignor.)
Kinnear, William R., New Castle, Pa. Sheet-separating machine. No. 1,090,722; Mar. 17; Gaz. vol. 200; p. 792.
Kinsey Manufacturing Company, The. (See Welch, John R., assignor.)
Kinsey, Noah M., Farmersville, Ohio. Railway-tie. No. 1,090,723; Mar. 17; Gaz. vol. 200; p. 793.
Kirby, John, Douglas, Ariz. Trolley-wire connector. No. 1,088,707; Mar. 3; Gaz. vol. 200; p. 13.
Kirkness, Sigvart A., Lake Park, Minn. Separable fastener. No. 1,091,348; Mar. 24; Gaz. vol. 200; p. 1036.
Kirshen, Solomon, Butte, Mont. Overalls. No. 1,091,665; Mar. 31; Gaz. vol. 200; p. 1189.
Kirtley, Simeon B., Columbia, Mo. Indexed ledger or other book. No. 1,090,544; Mar. 17; Gaz. vol. 200; p. 734.
Kistler, Samuel L., Los Angeles, Cal. Nozzle for vaginal syringes. No. 1,089,061; Mar. 3; Gaz. vol. 200; p. 132.
Kitcher, Henry, Toronto, Ontario, Canada. Wheel and tire therefor. No. 1,088,905; Mar. 3; Gaz. vol. 200; p. 79.
Kitsee, Isidor, Philadelphia, Pa. Well-boring apparatus. No. 1,090,919; Mar. 24; Gaz. vol. 200; p. 891.
Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telegraph system. No. 1,088,708; Mar. 3; Gaz. vol. 200; p. 13.
Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Cable-telegraph system. No. 1,089,479; Mar. 10; Gaz. vol. 200; p. 323.
Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telegraphy. No. 1,090,217; Mar. 17; Gaz. vol. 200; p. 619.
Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Electric transmission of energy. No. 1,090,990; Mar. 24; Gaz. vol. 200; p. 916.
Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Electric transmission of intelligence. No. 1,091,579; Mar. 31; Gaz. vol. 200; p. 1159.
Kittredge, Frank C. (See Foster and Kittredge.)
Kitzes, Sam, New York, N. Y. Safety-razor. No. 1,089,228; Mar. 3; Gaz. vol. 200; p. 191.
Klar, Max, Marquette, Mich. Distilling crude pyroligneous acid. No. 1,089,417; Mar. 10; Gaz. vol. 200; p. 300.
Kleber, Richard, Teplitz-Schönau, Austria-Hungary. Apparatus for shifting rails. No. 1,092,057; Mar. 31; Gaz. vol. 200; p. 1322.
Klein, John V., Battle Creek, Nebr. Toy. No. 1,089,229; Mar. 3; Gaz. vol. 200; p. 191.
Klein, Rudolph, and T. Brueck, Rochester, N. Y. Camera-shutter. No. 1,091,666; Mar. 31; Gaz. vol. 200; p. 1189.
Klein, Rudolph, and T. Brueck, assignors to M. Rosenbloom, Rochester, N. Y. Camera-shutter. No. 1,092,110; Mar. 31; Gaz. vol. 200; p. 1341.
Klemm, Edwin O., Saginaw, Mich. Automatic brake for sound-reproducing machines. No. 1,089,230; Mar. 3; Gaz. vol. 200; p. 192.
Klingemann, Charles R., South Weymouth, and W. G. Ruggles, Reading, Mass. Exhaust-head. No. 1,091,145; Mar. 24; Gaz. vol. 200; p. 970.
Klingler, Victor O., Slayton, Minn. Scale. No. 1,091,349; Mar. 24; Gaz. vol. 200; p. 1036.
Knapp, Frederick H., assignor to The Fred. H. Knapp Company, Westminster, Md. Labeling-machine. No. 1,091,850; Mar. 31; Gaz. vol. 200; p. 1254.
Knapp, George O. (See Beach and Doughty, assignors.)
Knapp, George W., assignor to National Enameling & Stamping Co., Baltimore, Md. Flame-spreader for oil-burners. No. 1,091,667; Mar. 31; Gaz. vol. 200; p. 1190.
Knapp, Paul S., Akron, Ohio. Bowling-alley. No. 1,091,350; Mar. 24; Gaz. vol. 200; p. 1037.
Knauff, George C., Chicago, Ill. Connector-plug. No. 1,088,907; Mar. 3; Gaz. vol. 200; p. 111.
Knauff, George C., Chicago, Ill. Electric socket. No. 1,090,629; Mar. 17; Gaz. vol. 200; p. 764.
Knauff, George C., Chicago, Ill. Socket for electric lamps. No. 1,090,630; Mar. 17; Gaz. vol. 200; p. 764.
Kneas, Frank N., Norristown, Pa. Hanger-socket. No. 1,090,545; Mar. 17; Gaz. vol. 200; p. 734.
Knickerbocker, James B., Indianapolis, Ind. Multiple-cone clutch. No. 1,091,351; Mar. 24; Gaz. vol. 200; p. 1037.
Knight, Charles Y., Oak Park, assignor to Knight and Kilbourne Patents Company, Chicago, Ill. Internal-combustion engine. No. 1,090,991; Mar. 24; Gaz. vol. 200; p. 916.
Knight, Earle R., Norwood, Ohio, assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Means for assembling cores of dynamo-electric machines. No. 1,090,920; Mar. 24; Gaz. vol. 200; p. 892.
Knight and Kilbourne Patents Company. (See Knight, Charles Y., assignor.)



Knight, William H., Cleveland, Ohio. Gas-meter. No. 1,090,864; Mar. 24; Gaz. vol. 200; p. 871.
Knoblauch, Conrad H., Newark, N. J. Photographic-film developing and drying device. No. 1,088,906; Mar. 3; Gaz. vol. 200; p. 80.
Knoerzer, Otto, assignor to Champion Potato Machinery Company, Hammond, Ind. Potato-sorter. No. 1,090,817; Mar. 17; Gaz. vol. 200; p. 824.
Knoevenagel, Emil, Heidelberg, Germany. Compound or derivative of cellulose and obtaining the same. No. 1,090,074; Mar. 10; Gaz. vol. 200; p. 528.
Knoll, Ernst, assignor to Metall- und Isolier-Werke G. m. b. H. Meiningen, Meiningen, Germany. Manufacturing a substitute for vulcanite. No. 1,088,907; Mar. 3; Gaz. vol. 200; p. 80.
Knott, Miller, and A. C. Bible, Cleburne, Tex. Bricklayer's guide-line holder. No. 1,092,058; Mar. 31; Gaz. vol. 200; p. 1323.
Knowles, Joseph S., Atlanta, Ill. Cooking utensil. No. 1,091,517; Mar. 31; Gaz. vol. 200; p. 1138.
Knowlton, Augustus B., Columbia, S. C. Bed-pan. No. 1,091,352; Mar. 24; Gaz. vol. 200; p. 1038.
Knowlton, George L., Philadelphia, Pa. Lawn-mower sharpener. No. 1,090,075; Mar. 10; Gaz. vol. 200; p. 528.
Knox, Edward, Montreal, Quebec, Canada. Polish for furniture. No. 1,088,998; Mar. 3; Gaz. vol. 200; p. 111.
Koechlin, Albert G., Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass. Spool-changing apparatus for looms. No. 1,088,824; Mar. 3; Gaz. vol. 200; p. 52.
Koehl, Louis C., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Punching and shearing mechanism. No. 1,091,668; Mar. 31; Gaz. vol. 200; p. 1190.
Koehler, Frederick W., Chicago, Ill. Combined shelf and towel-rack. No. 1,090,724; Mar. 17; Gaz. vol. 200; p. 793.
Koesche, Andrew, assignor to The Bastian Blessing Company, Chicago, Ill. Carbonator. No. 1,090,157; Mar. 17; Gaz. vol. 200; p. 598.
Kogel, Oscar J., and W. T. Simmons, Louisville, Ky. Egg-tester. No. 1,091,353; Mar. 24; Gaz. vol. 200; p. 1038.
Kolich, Peter J. (See Anderson, William P., assignor.)
Konsrv Electric Company, The. (See Cook, Frank J., assignor.)
Kontrolldruck-Automaten-Gesellschaft m. b. H. (See Friedlein, Heinrich, assignor.)
Koontz, Victor R., Waynesboro, Pa. Drill-chuck. No. 1,091,886; Mar. 31; Gaz. vol. 200; p. 1267.
Köppen, Lothar von, Potsdam, Germany. Blade for skates, sleighs, skees, and the like. No. 1,088,709; Mar. 3; Gaz. vol. 200; p. 14.
Kopperl, Joseph I., *et al.* (See Gross, Edward L., assignor.)
Kormendy, Bela, Cleveland, assignor to T. Kundtz, Lakewood, Ohio. Rim for steering-wheels of automobiles. No. 1,088,999; Mar. 3; Gaz. vol. 200; p. 112.
Korn, Max H., Hackensack, N. J. Sanding device for self-propelled road-vehicles. No. 1,090,921; Mar. 24; Gaz. vol. 200; p. 892.
Korrodi, Heinrich, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Panoramic sighting-telescope for guns. No. 1,089,480; Mar. 10; Gaz. vol. 200; p. 324.
Kovalavich, Gregory, New York, N. Y. Motion-converter. No. 1,089,651; Mar. 10; Gaz. vol. 200; p. 383.
Kowalsky, George, McDowell, W. Va. Candle-holder. No. 1,091,354; Mar. 24; Gaz. vol. 200; p. 1039.
Krakau, Harry T., Cleveland, Ohio, assignor to The National Malleable Castings Company. Pivotal connection for locomotives of the Mallet articulated type. No. 1,090,631; Mar. 17; Gaz. vol. 200; p. 765.
Kramer, Joseph, Mobile, Ala. Cartridge-discharging attachment for guns. No. 1,089,000; Mar. 3; Gaz. vol. 200; p. 112.
Kraus, Ernest, Lynn, Mass., assignor to General Electric Company. Making titanium and other alloys. No. 1,089,773; Mar. 10; Gaz. vol. 200; p. 425.
Kraus Light Company, The. (See Kraus, Samuel F., assignor.)
Kraus, Samuel F., assignor to The Kraus Light Company, Denver, Colo. Gas-jet regulator. No. 1,088,825; Mar. 3; Gaz. vol. 200; p. 52.
Krauskopf, George H., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Brush-lifting device for dynamo-electric machines. No. 1,089,137; Mar. 3; Gaz. vol. 200; p. 161.
Krell, Albert. (See Nordeen and Krell.)
Krell Auto-Grand Piano Co. of America. (See Nordeen and Krell, assignors.)
Krell Auto-Grand Piano Co. of America. (See Welin, Peter, assignor.)
Krements & Company. (See Hegewald, Frank, assignor.)
Krentler Brothers Company. (See Krentler, Walter A., assignor.)
Krentler, Walter A., assignor to Krentler Brothers Company, Detroit, Mich. Last protection. No. 1,092,111; Mar. 31; Gaz. vol. 200; p. 1341.
Kronke, Richard F., Meriden, Conn. Tug-loop. No. 1,088,908; Mar. 3; Gaz. vol. 200; p. 80.
Kruh, Osias O., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,091,669; Mar. 31; Gaz. vol. 200; p. 1190.
Krummel, Louis C., Clinton, Conn. Mechanism for feeding can-bodies and can ends to a can-making machine. No. 1,091,468; Mar. 24; Gaz. vol. 200; p. 1076.
Krumming, Reinhold, Milwaukee, Wis. Leaf and cover holder for books. No. 1,090,632; Mar. 17; Gaz. vol. 200; p. 765.
Krumming, Reinhold, Milwaukee, Wis. Temporary binder or loose-sheet holder. No. 1,091,146; Mar. 24; Gaz. vol. 200; p. 971.
Kruse, August M., assignor to The American Steel Package Company, Defiance, Ohio. Metallic receptacle. No. 1,090,218; Mar. 17; Gaz. vol. 200; p. 619.
Krusi, John, assignor of one-half to I. Schoffer, New York, N. Y. Embroidery-machine. No. 1,089,418; Mar. 10; Gaz. vol. 200; p. 301.
Küch, Richard, Hanau, Germany, assignor, by mesne assignments, to General Electric Company. Gas or vapor electric lamp. No. 1,090,992; Mar. 24; Gaz. vol. 200; p. 917.
Kudla, Anton C., Meriden, Conn. Window-shade fixture. No. 1,090,546; Mar. 17; Gaz. vol. 200; p. 735.
Kuechenmeister, Henry, and A. A. Seidel, St. Louis, Mo. Packing-receptacle. No. 1,089,774; Mar. 10; Gaz. vol. 200; p. 425.
Kuepfer, Otto, assignor to Cleveland Axle Manufacturing Company, Canton, Ohio. Axle construction. No. 1,090,311; Mar. 17; Gaz. vol. 200; p. 652.
Kuivala, John A., San Francisco, Cal. Concrete building construction. No. 1,091,147; Mar. 24; Gaz. vol. 200; p. 971.
Kumkumian, Simon. (See Downey and Kumkumian.)
Kump, Mathias, Brooklyn, N. Y. Show-case door. No. 1,091,670; Mar. 31; Gaz. vol. 200; p. 1190.
Kunditz, Theodor. (See Kormendy, Bela, assignor.)
Kunkel, Edward R. (See Kunkel, Joseph S. and E. R.)
Kunkel, Joseph S. and E. R., Cincinnati, Ohio. Receptacle. No. 1,090,725; Mar. 17; Gaz. vol. 200; p. 793.
Kunzelman, John R., Duluth, Minn. Auxiliary step for car-platforms. No. 1,089,481; Mar. 10; Gaz. vol. 200; p. 324.
Kupperts, Joseph. (See Waye, August A., assignor.)
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,090,219; Mar. 17; Gaz. vol. 200; p. 620.
Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,090,480; Mar. 17; Gaz. vol. 200; p. 713.
Kusamura, Ryokuwan, Kings county, Cal. Motor-boat. No. 1,091,355; Mar. 24; Gaz. vol. 200; p. 1039.
Küttner, Hugo, Pirna, Germany. Bobbin for use in connection with the manufacture of artificial silk. No. 1,090,399; Mar. 17; Gaz. vol. 200; p. 683.
Kuzel, Hans, Baden, near Vienna, Austria-Hungary, and E. Wedekind, Strassburg, Germany, assignors to General Electric Company. Metallurgical method. No. 1,088,909; Mar. 3; Gaz. vol. 200; p. 80.
Kyne, Thomas J., Louisville, Ky. Safety-valve. No. 1,089,565; Mar. 10; Gaz. vol. 200; p. 353.
La Chapelle, Euclid I., Beverly, Mass. Lasting-machine. No. 1,090,547; Mar. 17; Gaz. vol. 200; p. 735.
La Chapelle, Euclid I., Beverly, Mass. Lasting-machine. No. 1,090,548; Mar. 17; Gaz. vol. 200; p. 736.
La Fary, Walter, Herndon, assignor of one-half to L. M. Swindler, Yale, Iowa. Coupling. No. 1,090,922; Mar. 24; Gaz. vol. 200; p. 892.
La Fayette, Thomas. (See Post and La Fayette.)
La Frenier, John, Walker, Minn. Snare-trap. No. 1,091,923; Mar. 31; Gaz. vol. 200; p. 1280.
La Société Générale Française des Caisses Payeuses et de Contrôle Système Janik. (See Janik, Edouard, assignor.)
Laarmann, Fritz, Dresden, Germany. Manufacturing an elastic foam from volatile solutions. No. 1,089,482; Mar. 10; Gaz. vol. 200; p. 324.
Labadie, Harry H. (See Schweitzer and Labadie.)
Labady, Charles E., assignor of one-third to A. Hanson, Michigan City, Ind. Body-catcher. No. 1,088,826; Mar. 3; Gaz. vol. 200; p. 52.
Laborda, Richard, San Francisco, Cal. Foot-operated elevator. No. 1,091,935; Mar. 31; Gaz. vol. 200; p. 1283.
Lacene Manufacturing Company. (See Nichols, Elmer P., assignor.)
Lachman, Maurice, assignor to Universal Electric Welding Company, New York, N. Y. Metallic structure. No. 1,090,312; Mar. 17; Gaz. vol. 200; p. 653.
Lackner, Francis, *et al.* (See Vail and Smith, assignors.)
Lacroix, Joseph D., New Orleans, La., assignor to E. H. Davis, New York, N. Y. Cigar-making machine. No. 1,088,827; Mar. 3; Gaz. vol. 200; p. 53.
Lacy, Benjamin B., Houston, Tex., assignor to H. E. Elrod. Carbon-holder for electric-arc lamps. No. 1,090,726; Mar. 17; Gaz. vol. 200; p. 793.
Laffond, Antoine, Marignac-Lasclares, near Le Fousseret, France. Bicycle propelling mechanism. No. 1,089,483; Mar. 10; Gaz. vol. 200; p. 325.
Lafore, John A., Cynwyd, Pa. Mothproof chest. No. 1,092,059; Mar. 31; Gaz. vol. 200; p. 1323.
Lalat, Frederick, Anaconda, Mont. Ore-cooler. No. 1,090,549; Mar. 17; Gaz. vol. 200; p. 736.
Lake, Sidney S., San Jose, Cal. Hanging for flexible structures. No. 1,090,993; Mar. 24; Gaz. vol. 200; p. 917.
Lamb, John M., Kirkby, England. Means for the attachment of wheels. No. 1,090,865; Mar. 24; Gaz. vol. 200; p. 872.

Lamb, Thomas F., assignor to The American Bottle Company, Newark, Ohio. Bottle-handling device. No. 1,091,671; Mar. 31; Gaz. vol. 200; p. 1191.

Lambert, Frank, Brooklyn, N. Y. Fan. No. 1,090,481; Mar. 17; Gaz. vol. 200; p. 713.

Lamkin, Bert E., assignor of one-half to R. G. Osten, Springfield, Ill. Hobby-horse velocipede. No. 1,090,550; Mar. 17; Gaz. vol. 200; p. 736.

Lamson Company, The. (See Woodruff, William W., assignor.)

Lamy, Mary M., Dayton, Ohio. Cord and rope making device. No. 1,091,672; Mar. 31; Gaz. vol. 200; p. 1191.

Lancaster, Eanester W., Oennville, Tex. Stalk-cutter attachment for plows. No. 1,090,400; Mar. 17; Gaz. vol. 200; p. 684.

Lancaster Glass Company, The. (See Graham, Wallace S., assignor.)

Landis, Abraham B., Waynesboro, Pa. Automatic balancing mechanism. No. 1,091,851; Mar. 31; Gaz. vol. 200; p. 1255.

Landis, Frank F., Waynesboro, Pa. Blast-distributer for winnowing-machines. No. 1,089,062; Mar. 3; Gaz. vol. 200; p. 132.

Landis, Israel L., Chicago, Ill. Locking-clamp for gates and the like. No. 1,091,518; Mar. 31; Gaz. vol. 200; p. 1138.

Lange, Albert, assignor to George S. Kelley Company, Inc., Providence, R. I. Bow-holder. No. 1,091,036; Mar. 31; Gaz. vol. 200; p. 1283.

Lange, William, Tomkins Cove, assignor of one-half to C. Tomkins, New York, N. Y. Padlock for steam-shovels and the like. No. 1,089,063; Mar. 3; Gaz. vol. 200; p. 133.

Langenhop, Herman F., Chappaqua, N. Y. Grate. No. 1,089,231; Mar. 3; Gaz. vol. 200; p. 192.

Langford, Albert L., Vancouver, British Columbia, Canada. Loose-leaf binder. No. 1,092,060; Mar. 31; Gaz. vol. 200; p. 1323.

Langlais, Charles E. O., assignor of sixteen and two-thirds one-hundredths to J. A. H. Hebert, sixteen and two-thirds one-hundredths to C. Leluau, and sixteen and two-thirds one-hundredths to L. M. Lymburner, Montreal, Quebec, Canada. Self-coupling for fluid trainlines. No. 1,092,061; Mar. 31; Gaz. vol. 200; p. 1323.

Langseth, Randolph, assignor, by mesne assignments, to Automatic Justifier Company, Hammond, Ind. Justifying with hot metal. No. 1,090,818; Mar. 17; Gaz. vol. 200; p. 824.

Lansingh, Van Rensselaer, New York, N. Y. Illuminating appliance. No. 1,090,076; Mar. 10; Gaz. vol. 200; p. 528.

Lantzy, Irenaeusa. (See Bonglovanni, Antonio, assignor.)

Lapin, Benjamin, Baltimore, Md. Apparatus for sponging cloth. No. 1,090,313; Mar. 17; Gaz. vol. 200; p. 653.

Lapointe, Francis J., New London, Conn. Cutter-bar and bushing therefor. No. 1,088,828; Mar. 3; Gaz. vol. 200; p. 53.

Larramore, James H., Shelltown, Md. Trapper's tongs. No. 1,091,356; Mar. 24; Gaz. vol. 200; p. 1040.

Larsen, Laurits O., Perth Amboy, N. J. Life-boat. No. 1,090,923; Mar. 24; Gaz. vol. 200; p. 893.

Larsen, Thomas M., Brooklyn, N. Y. Drawing-machine. No. 1,088,910; Mar. 3; Gaz. vol. 200; p. 80.

Larson, Gustave, Buenos Aires, Argentina. Automatic sluice-gate. No. 1,089,232; Mar. 3; Gaz. vol. 200; p. 192.

Laska, August L., and A. Zitscher, Offenbach-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Disazo dyestuff. No. 1,091,148; Mar. 24; Gaz. vol. 200; p. 972.

Lassiter, Columbus K., Richmond, Va. Manufacture of superheater units. No. 1,090,551; Mar. 17; Gaz. vol. 200; p. 737.

Lauber, Otto, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Detachable spade for wheeled gun-carriages. No. 1,090,077; Mar. 10; Gaz. vol. 200; p. 529.

Lauderdale, John A. (See Maddux, Jesse D., assignor.)

Laudermilch, George M., Derry Church, Pa. Railway-tie. No. 1,090,482; Mar. 17; Gaz. vol. 200; p. 713.

Lautenburg, Joseph, New York, N. Y. Retaining means for sets of teeth. No. 1,091,852; Mar. 31; Gaz. vol. 200; p. 1255.

Lautenschlager, William F. (See Muther and Lautenschlager.)

Lauth, Jacob, Chicago, Ill. Clutch mechanism. No. 1,091,149; Mar. 24; Gaz. vol. 200; p. 972.

Laux, Mathias, assignor to Aero-Gas Machine Company, St. Louis, Mo. Oil-pumping apparatus for gas-machines. No. 1,091,357; Mar. 24; Gaz. vol. 200; p. 1040.

Lavole, Edward, Kankakee, Ill. Cultivator. No. 1,091,358; Mar. 24; Gaz. vol. 200; p. 1040.

Lawrence, Albert H., St. Louis, Mo., assignor to E. Hewson. Churn. No. 1,090,483; Mar. 17; Gaz. vol. 200; p. 714.

Lawrence & Co., Lloyd. (See Zeyssolff, Paul, assignor.)

Lawrence, James, London, England, assignor to Electric Heat Storage Company. Electric cooking apparatus. No. 1,090,924; Mar. 24; Gaz. vol. 200; p. 893.

Lawrence, Lewis M., Birmingham, Ala. Bumping-post. No. 1,091,150; Mar. 24; Gaz. vol. 200; p. 973.

Lawrence, Percy A. (See Lehman and Lawrence.)

Layman, Florence P. and H. D., Hoboken, N. J. Refrigerator attachment. No. 1,090,925; Mar. 24; Gaz. vol. 200; p. 893.

Layman, Hiram D. (See Layman, Florence P. and H. D.)

Le Baron, John F., Chardon, Ohio. Expansion-joint for concrete structures. No. 1,090,158; Mar. 17; Gaz. vol. 200; p. 599.

Le Blond, Richard K., and W. F. Groene, assignors to The R. K. Le Blond Machine Tool Company, Cincinnati, Ohio. Variable-speed mechanism. No. 1,090,484; Mar. 17; Gaz. vol. 200; p. 714.

Lea, Charles, Boston, Mass., assignor to American Warp Drawing Machine Company. Variable-speed-transmission mechanism. No. 1,090,401; Mar. 17; Gaz. vol. 200; p. 684.

Leach, Albert L., Burden, Kans. Acetylene-gas generator. No. 1,090,994; Mar. 24; Gaz. vol. 200; p. 918.

Leach, John A., Jr., Effingham, S. C. Pneumatic tire and fastener therefor. No. 1,090,727; Mar. 17; Gaz. vol. 200; p. 794.

Leahy, Thomas F., Evanston, Ill. Card register and cabinet. No. 1,089,484; Mar. 10; Gaz. vol. 200; p. 325.

Leary, John S., North Cambridge, Mass. Arch-supporting pad. No. 1,091,673; Mar. 31; Gaz. vol. 200; p. 1191.

Leary, William J., Erie, Pa. Match-box holder. No. 1,090,995; Mar. 24; Gaz. vol. 200; p. 918.

Leavitt, Frank M., Smithtown, assignor to E. W. Bliss Company, Brooklyn, N. Y. Ignition device. No. 1,088,911; Mar. 3; Gaz. vol. 200; p. 81.

Leavitt Machine Company, The. (See Smith and Williams, assignors.)

Lee, Arthur, Union Hill, Ill. Portable power transmission. No. 1,089,485; Mar. 10; Gaz. vol. 200; p. 325.

Lee, Frank H., Bridgeport, Conn. Ventilated hat. No. 1,088,782; Mar. 3; Gaz. vol. 200; p. 37.

Lee, James N., assignor of one-half to G. Sutton, Brooklyn, N. Y. Screw. No. 1,091,674; Mar. 31; Gaz. vol. 200; p. 1192.

Lee Tire & Rubber Co. (See Bradford, Benaiah, assignor.)

Leech, Charles M., Lima, Ohio. Engine-starter. No. 1,091,519; Mar. 31; Gaz. vol. 200; p. 1139.

Leen, Patrick W., Minneapolis, Minn. Pile-driver. No. 1,088,710; Mar. 3; Gaz. vol. 200; p. 14.

Leeper, Charles E., Eaton, Colo. Sorter. No. 1,091,675; Mar. 31; Gaz. vol. 200; p. 1192.

Leeson, George, Delta, Colo. Fluid-pump. No. 1,091,067; Mar. 24; Gaz. vol. 200; p. 944.

Leeson, Joseph R. (See De Wolf, Ernest A., assignor.)

Leggett, Joseph P., Carthage, Mo. Spring bed-bottom. No. 1,089,233; Mar. 3; Gaz. vol. 200; p. 193.

Lehman, Claude A., and P. A. Lawrence, assignors to McGill Manufacturing Company, Valparaiso, Ind. Guard for incandescent electric lamps. No. 1,089,138; Mar. 3; Gaz. vol. 200; p. 161.

Lehmann, Feodor, and J. Stocker, Berlin, Germany. Manufacturing vegetable glue. No. 1,089,064; Mar. 3; Gaz. vol. 200; p. 133.

Lehne, Josef. (See Eisermann and Lehne.)

Leigh, Charles E., and F. Carroll, Cedar Rapids, Iowa. Burner. No. 1,090,402; Mar. 17; Gaz. vol. 200; p. 684.

Leith, Alexander B., *et al.*, trustees. (See Adams, Arthur J., assignor.)

Leland & Company, W. H. (See Gifford, Albert J., assignor.)

Leluau, Charles, *et al.* (See Langlais, Charles E. O., assignor.)

Lemieux, Thomas D., Cleveland, Ohio. Cylinder-head for sleeve-valve motors. No. 1,091,359; Mar. 24; Gaz. vol. 200; p. 1040.

Lender, Franz, St. Petersburg, Russia. Semi-automatic gun with fluid-accumulator. No. 1,091,360; Mar. 24; Gaz. vol. 200; p. 1041.

Lender, Franz, St. Petersburg, Russia. Semi-automatic gun. No. 1,091,361; Mar. 24; Gaz. vol. 200; p. 1041.

Leon, Benjamin. (See Worth and Leon.)

Leonard, Frank B., Detroit, Mich. Hydrocarbon-burner. No. 1,091,676; Mar. 31; Gaz. vol. 200; p. 1192.

Leonard, John W., Newburgh, N. Y. Spring-tire for vehicle-wheels. No. 1,090,996; Mar. 24; Gaz. vol. 200; p. 918.

Lerche, Julius, Steglitz, near Berlin, assignor to Deutsche Post- und Eisenbahn-Verkehrswesen Aktiengesellschaft (Dapageefubag), Staaken, near Spandau, Germany. Device for printing prepaid postage on postal packages. No. 1,089,028; Mar. 10; Gaz. vol. 200; p. 480.

Leslie, John A., Antelope, Oreg. Hammer. No. 1,089,234; Mar. 3; Gaz. vol. 200; p. 193.

Leuthesser, Fred W., Chicago, Ill. Thermostatic member for air-valves for radiators. No. 1,089,929; Mar. 10; Gaz. vol. 200; p. 480.

Levalley, Christopher W., Milwaukee, Wis. Inhaler. No. 1,091,362; Mar. 24; Gaz. vol. 200; p. 1041.

Levey, Joseph K., Detroit, Mich. Horseshoe. No. 1,089,235; Mar. 3; Gaz. vol. 200; p. 193.

Levin, Samuel I. (See Frude, Frank H., assignor.)

Levine, Maximilian P., Chicago, Ill. Combined folder and return-envelop. No. 1,089,486; Mar. 10; Gaz. vol. 200; p. 326

Levy, Julius. (See Levy, William and J.)

Levy, William and J., Baltimore, Md. Hat-cushion. No. 1,090,314; Mar. 17; Gaz. vol. 200; p. 653.

Lewis, Frank M., Tracy, Ill. Differential mechanism. No. 1,091,580; Mar. 31; Gaz. vol. 200; p. 1159.





Lewis, George, South Boston, Mass. Tool for gripping and lifting. No. 1,091,937; Mar. 31; Gaz. vol. 200; p. 1283.

Lewis, George T., Seattle, Wash. Monorail-car. No. 1,091,853; Mar. 31; Gaz. vol. 200; p. 1255.

Lewis, James N., San Francisco, Cal. Vehicle spring shock-absorber. No. 1,089,363; Mar. 3; Gaz. vol. 200; p. 234.

Lewis, Maurice W., Clover, Va. Sand-guard. No. 1,090,078; Mar. 10; Gaz. vol. 200; p. 529.

Lewis, Robert, Topeka, Kans. Lantern. No. 1,090,728; Mar. 17; Gaz. vol. 200; p. 794.

Lewis, Stephen M., Argenta, Ark. Rail tie and fastener. No. 1,090,315; Mar. 17; Gaz. vol. 200; p. 653.

Libby, Sam H., East Orange, N. J., assignor to General Electric Company. Electrically-operated I-beam switch. No. 1,091,677; Mar. 31; Gaz. vol. 200; p. 1193.

Libonati, Philip, New York, N. Y. Box-opener. No. 1,090,316; Mar. 17; Gaz. vol. 200; p. 653.

Lightner, Gusa A., assignor of one-half to R. B. Sifers, Olustee, Okla. Popcorn-vending machine. No. 1,090,729; Mar. 17; Gaz. vol. 200; p. 795.

Ligon, Harry W., Atlanta, Ga., assignor to Continental Gin Company, Birmingham, Ala. Gin-saw-space-blocksizing machine. No. 1,089,566; Mar. 10; Gaz. vol. 200; p. 353.

Lilienfeld, Leon, Vienna, Austria-Hungary. Manufacturing compositions of matter. No. 1,090,730; Mar. 17; Gaz. vol. 200; p. 795.

Liljencrantz, Gustave A. M., Chicago, Ill. Toy gun. No. 1,089,713; Mar. 10; Gaz. vol. 200; p. 404.

Linck, Albert J., assignor to Northwestern Mail Box Co., St. Louis, Mo. House letter-box. No. 1,090,997; Mar. 24; Gaz. vol. 200; p. 919.

Lincoln, Clarence S., Chicago, Ill. Base-ball. No. 1,089,714; Mar. 10; Gaz. vol. 200; p. 405.

Lincoln, John C., Cleveland, Ohio. Brush-holder. No. 1,090,159; Mar. 17; Gaz. vol. 200; p. 599.

Lindberg, Mads, Boston, Mass. Sandal. No. 1,090,731; Mar. 17; Gaz. vol. 200; p. 795.

Lindberg, Oscar F., Bradford, Pa. Chaplet. No. 1,089,001; Mar. 3; Gaz. vol. 200; p. 112.

Lindekuge, Charles H., Wellington, Colo. Grain-shocker. No. 1,088,829; Mar. 3; Gaz. vol. 200; p. 53.

Lindgren, Bror J. (See Hinde, Orton, and Lindgren.)

Lindman, Erik H., Seattle, Wash. Artificial zenith. No. 1,090,633; Mar. 17; Gaz. vol. 200; p. 765.

Lindmark, Tore G. E., Stockholm, Sweden, assignor to De Laval Steam Turbine Company, New York, N. Y. Combined power and heating system and process. No. 1,090,485; Mar. 17; Gaz. vol. 200; p. 714.

Lindmueller, Edward, assignor of three-fourths to J. C. McClure, Cleveland, Ohio. Oil-atomizer. No. 1,088,711; Mar. 3; Gaz. vol. 200; p. 14.

Lindner, Felix, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Decolorizing glycerin. No. 1,089,775; Mar. 10; Gaz. vol. 200; p. 425.

Lindstrom, Carl H., Milltown, N. J. Decapitating instrument. No. 1,090,317; Mar. 17; Gaz. vol. 200; p. 654.

Lintner, Martin. (See Waterbury, Emery D., assignor.) (Reissue.)

Linton, Charles E. and E. K., assignors to Mika Cooker Company, Saginaw, Mich. Cover-fastening device. No. 1,090,634; Mar. 17; Gaz. vol. 200; p. 765.

Linton, Edgerton K. (See Linton, Charles E. and E. K.)

Lipman, Carl E. L., assignor to The Lipman Manufacturing Company, Beloit, Wis. Distributing-valve. No. 1,090,827; Mar. 17; Gaz. vol. 200; p. 828.

Lipman, Carl E. L., assignor to The Lipman Manufacturing Company, Beloit, Wis. Air-pump. No. 1,091,456; Mar. 24; Gaz. vol. 200; p. 1071.

Lipman Manufacturing Company, The. (See Lipman, Carl E. L., assignor.)

Lipson, Samuel, Saugus, assignor of one-third to H. Rosenberg and one-third to J. Rosenberg, Boston, Mass. Attachment for garment-cementing machines. No. 1,089,236; Mar. 3; Gaz. vol. 200; p. 193.

Lisbae, John J., assignor to The Sanitary Rubber Company, Canton, Ohio. Soap-holder. No. 1,088,783; Mar. 3; Gaz. vol. 200; p. 37.

Lisbae, John J., assignor of one-half to W. J. Piero, Canton, Ohio. Pneumatic bed-spring. No. 1,089,652; Mar. 10; Gaz. vol. 200; p. 383.

Lissauer, Eduard, Charlottenburg, Germany. Signaling apparatus. No. 1,091,938; Mar. 31; Gaz. vol. 200; p. 1284.

Litle, Thomas J., Jr., Woodbury, assignor to Welsbach Light Company, Gloucester City, N. J. Spring-ring shade-holder. No. 1,090,635; Mar. 17; Gaz. vol. 200; p. 766.

Littauer, Alfred, Brooklyn, N. Y. Veterinary mouth-speculum. No. 1,089,653; Mar. 10; Gaz. vol. 200; p. 384.

Little, Archibald S. R., Nashville, Tenn. Grid for purifier-boxes. No. 1,090,318; Mar. 17; Gaz. vol. 200; p. 654.

Little, William H., Detroit, Mich. Shaft-coupling. No. 1,091,520; Mar. 31; Gaz. vol. 200; p. 1139.

Livingston, Alastair W. J., London, England. Purse. No. 1,088,784; Mar. 3; Gaz. vol. 200; p. 38.

Livingston, Robert R., Clermont, N. Y. Combined camera-casing and film-carrier. No. 1,090,079; Mar. 10; Gaz. vol. 200; p. 529.

Ljungström, Birger, assignor to Aktiebolaget Ljungströms Angturbin, Stockholm, Sweden. Diffuser for steam turbines, compressors, pumps, blasts, and the like. No. 1,091,581; Mar. 31; Gaz. vol. 200; p. 1159.

Lloyd, Ernest F., Detroit, Mich. Pressure-increaser. No. 1,090,866; Mar. 24; Gaz. vol. 200; p. 873.

Lo Casto, Antonino, Chicago, Ill. Device for honing razors. No. 1,091,939; Mar. 31; Gaz. vol. 200; p. 1284.

Lochen, Henry. (See Muldoon, Frank J., assignor.)

Locher, Charles H., Glasgow, Va. Rock-drill. No. 1,089,930; Mar. 10; Gaz. vol. 200; p. 481.

Lockart, Havard L., Philadelphia, Pa. Apparatus for preventing railway accidents. No. 1,090,998; Mar. 24; Gaz. vol. 200; p. 919.

Locke, Fred M., Victor, N. Y. Insulating composition. No. 1,091,678; Mar. 31; Gaz. vol. 200; p. 1193.

Locke, Fred M., Victor, N. Y. Insulator. No. 1,091,679; Mar. 31; Gaz. vol. 200; p. 1193.

Lockhart, Robert R., Winnipeg, Manitoba, Canada. Electrical water-heater. No. 1,091,582; Mar. 31; Gaz. vol. 200; p. 1160.

Lockling, Paul P., *et al.* (See Sandiford, Green W., assignor.)

Lockwood, Charles E. (See Hubert and Lockwood.)

Locomotive Arch Brick Company. (See Steveus, Enoch P., assignor.)

Lodge, Herbert. (See Sumner, William, assignor.)

Loeber, Edgar O., East Cleveland, assignor to The Household Products Mfg. Co., Cleveland, Ohio. Ash-sifter for furnaces. No. 1,092,112; Mar. 31; Gaz. vol. 200; p. 1341.

Loewenstein, Louis C., Lynn, Mass., assignor to General Electric Company. Centrifugal pressure-governor. No. 1,089,655; Mar. 10; Gaz. vol. 200; p. 384.

Loewy, Samuel. (See Garfield and Goldfarb, assignors.)

Lofland, Thomas L., Kansas City, Kans. Window-shade bracket. No. 1,090,319; Mar. 17; Gaz. vol. 200; p. 654.

Lohmann, Alfred P., Akron, Ohio. Anchoring device for use in connection with concrete structures. No. 1,090,486; Mar. 17; Gaz. vol. 200; p. 715.

Lohse, Otto. (See Lüttringhaus, Lohse, and Sapper.)

Loney, David, and M. F. Egan, Davenport, Iowa. Sanitary bung and tap. No. 1,092,062; Mar. 31; Gaz. vol. 200; p. 1324.

Long, David L., Columbus, Ohio. Pencil-holder. No. 1,089,845; Mar. 10; Gaz. vol. 200; p. 449.

Long, Dee P., Sampsel, Okla. Churn. No. 1,091,887; Mar. 31; Gaz. vol. 200; p. 1267.

Long Distance Telephone Equipment Co., The. (See Pearson, Miles E., assignor.)

Long, George F., assignor to G. Piel, New York, N. Y. Automatic horn. No. 1,090,080; Mar. 10; Gaz. vol. 200; p. 530.

Long, John, Panora, Iowa. Gate. No. 1,090,732; Mar. 17; Gaz. vol. 200; p. 795.

Long, Richard H., Oakland, Cal. Registering system. (Reissue.) No. 13,707; Mar. 31; Gaz. vol. 200; p. 1348.

Long, Robert G., Lawrence, Kans. Forced-draft grate. No. 1,089,237; Mar. 3; Gaz. vol. 200; p. 194.

Long, Theodore B., Coatesville, assignor of one-half to R. P. Wilton, Wrightsville, Pa. Straw-dispensing apparatus. No. 1,088,912; Mar. 3; Gaz. vol. 200; p. 81.

Longaker, Albert A., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Wheel mounting or demounting press. No. 1,091,457; Mar. 24; Gaz. vol. 200; p. 1072.

Longaker, Albert A., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Wheel-press. No. 1,091,458; Mar. 24; Gaz. vol. 200; p. 1072.

Longshore, Leroy L., Fort Wayne, Ind. Detachable latch apparatus. No. 1,090,867; Mar. 24; Gaz. vol. 200; p. 873.

Lonzo, William, Fitchburg, Mass., assignor, by mesne assignments, to Fitchburg Bobbin Cleaning Machine Co. Bobbin-cleaner. No. 1,090,999; Mar. 24; Gaz. vol. 200; p. 919.

Loog, Richard, Pforzheim, Germany. Expansible bracelet. No. 1,089,931; Mar. 10; Gaz. vol. 200; p. 481.

Loomis, Allen, assignor to Packard Motor Car Company, Detroit, Mich. Pump for motor-vehicles. No. 1,089,419; Mar. 10; Gaz. vol. 200; p. 301.

Lopez, Ernest D., New Orleans, La. Signaling apparatus. No. 1,092,063; Mar. 31; Gaz. vol. 200; p. 1324.

Lorzing, Julius J., Elmsford, N. Y. Tuft-fastener. No. 1,091,888; Mar. 31; Gaz. vol. 200; p. 1267.

Lotspeich, Wiley W., Atlanta, Ga. Mail-sorting case. No. 1,088,785; Mar. 3; Gaz. vol. 200; p. 38.

Louch, Harry T., London, England. Monocle and the like. No. 1,092,064; Mar. 31; Gaz. vol. 200; p. 1324.

Lovejoy, George E. (See O'Hare and Lovejoy.)

Loveland, Byron S., assignor to W. M. Whitney, Winchendon, Mass. Indexing device. No. 1,089,654; Mar. 10; Gaz. vol. 200; p. 384.

Löwy, Heinrich, Gottingen, Germany. Ascertaining the nature of subterranean strata. No. 1,092,065; Mar. 31; Gaz. vol. 200; p. 1324.

Lubben, Henry S., Le Mars, Iowa. Attachment for corn-planters. No. 1,091,068; Mar. 24; Gaz. vol. 200; p. 944.

Lübke, Wilhelm, Breslau, Germany. Milking device. No. 1,089,932; Mar. 10; Gaz. vol. 200; p. 481.

Lucas, William B., Chicago, Ill. Motor-controller. No. 1,091,940; Mar. 31; Gaz. vol. 200; p. 1284.

Lucchese, Michele, San Antonio, Tex. Boot-tree former. No. 1,089,567; Mar. 10; Gaz. vol. 200; p. 354.

Luce, William A. (See Van Doren, John B., assignor.)

Lucke, Carl, New York, assignor to L. D'Alx, Brooklyn, N. Y. Matrix. No. 1,090,787; Mar. 17; Gaz. vol. 200; p. 814.

Ludlow Typograph Company, The. (See Brasted, Clair H., assignor.)

Ludwig and Company. (See Hulder, Joseph P., assignor.)

Lufkin, William W. (See Westaway, Walter C., assignor.)

Lukac, Chovanec, Yukon, Pa. Antirefillable bottle. No. 1,089,933; Mar. 10; Gaz. vol. 200; p. 482.

Lukowski, John, Chicago, Ill. Automobile emergency-wrench. No. 1,088,786; Mar. 3; Gaz. vol. 200; p. 39.

Lummis, Charles W., Waterbury, Conn. Apparatus for pouring molten materials. No. 1,089,139; Mar. 3; Gaz. vol. 200; p. 162.

Lund, James B., Chicago, Ill. Temperature-controller for carhureters. No. 1,091,521; Mar. 31; Gaz. vol. 200; p. 1139.

Lunde, Theodore H., and R. Moe, Chicago, Ill. Pedal-action for pianos. No. 1,090,487; Mar. 17; Gaz. vol. 200; p. 715.

Lundy, Charles A., Reno, Nev. Gas-engine. No. 1,091,854; Mar. 31; Gaz. vol. 200; p. 1256.

Lundy, Charles A., Reno, Nev. Gas-engine. No. 1,092,113; Mar. 31; Gaz. vol. 200; p. 1342.

Luten, Daniel B., Indianapolis, Ind. Beam. No. 1,089,487; Mar. 10; Gaz. vol. 200; p. 326.

Luten, Daniel B., Indianapolis, Ind. Building reinforced-concrete arches. No. 1,089,488; Mar. 10; Gaz. vol. 200; p. 327.

Luten, Daniel B., Indianapolis, Ind. Bridge construction. No. 1,090,081; Mar. 10; Gaz. vol. 200; p. 530.

Lüttringhaus, Arthur, Mannheim, O. Lobse, and A. Sapper, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Brown vat dye. No. 1,090,636; Mar. 17; Gaz. vol. 200; p. 766.

Lutz, George A., Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me. Electroplating apparatus. No. 1,090,926; Mar. 24; Gaz. vol. 200; p. 894.

Lyle, Fred W., Lynn, Mass., assignor to General Electric Company. Vapor electric device. No. 1,091,680; Mar. 31; Gaz. vol. 200; p. 1193.

Lyles, Augustus, Wabbaseka, Ark. Buggy-wheel. No. 1,089,934; Mar. 10; Gaz. vol. 200; p. 482.

Lyman, Benjamin K., assignor to Benjamin K. Lyman & Co., Chicago, Ill. Christmas-tree support. No. 1,091,000; Mar. 24; Gaz. vol. 200; p. 920.

Lymburner, Louis M., *et al.* (See Langlais, Charles E. O., assignor.)

Lynah, James, Newburgh, N. Y., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Automatic press-feeder. No. 1,091,855; Mar. 31; Gaz. vol. 200; p. 1257.

Lynnock, Carl, Denver, Colo., assignor, by mesne assignments, to Modern Sales Bureau, Chicago, Ill. Engine-starter for automobiles. No. 1,090,637; Mar. 17; Gaz. vol. 200; p. 766.

Lyon, Roy M., assignor of three-tenths to G. C. Walter, Denver, Colo. Shock-absorber. No. 1,089,002; Mar. 3; Gaz. vol. 200; p. 112.

Lyon, Wilmer A. (See Dresser, Frank A., assignor.)

Lytton, Jarard W., assignor to Lytton Manufacturing Corporation, Franklin, Va. Trap. No. 1,090,027; Mar. 24; Gaz. vol. 200; p. 894.

Lytton Manufacturing Corporation. (See Lytton, Jarard W., assignor.)

M. Garland Company, The. (See Devlin, Henry, assignor.)

M. Rumely Company. (See Caughey, Robert C., assignor.)

MacConchie, George, Newark, N. J. Street-sweeper. No. 1,089,935; Mar. 10; Gaz. vol. 200; p. 482.

MacCune, John G., assignor of one-half to F. H. Peterson, Minneapolis, Minn. Embroidery-hoop. No. 1,088,913; Mar. 3; Gaz. vol. 200; p. 82.

MacFarland, Merle, Maplewood, N. J., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn. Starting device for explosive-engines. No. 1,089,568; Mar. 10; Gaz. vol. 200; p. 354.

MacGlashan, William, assignor to The Studebaker Corporation, South Bend, Ind. Battery support and clamp. No. 1,091,583; Mar. 31; Gaz. vol. 200; p. 1160.

MacKelvey, William, Waltham, Mass. Brush. No. 1,091,228; Mar. 24; Gaz. vol. 200; p. 1000.

MacKinnon, Albert E., New York, N. Y. Portable newspaper-rack. No. 1,089,569; Mar. 10; Gaz. vol. 200; p. 355.

Macdonald, Sophie B., executrix. (See Macdonald, Thomas H.)

Macdonald, Thomas H., assignor to American Graphophone Company, Bridgeport, Conn. Sound-box. No. 1,091,001; Mar. 24; Gaz. vol. 200; p. 920.

Macdonald, Thomas H., deceased; S. B. Macdonald, executrix, assignor to American Graphophone Company, Bridgeport, Conn. Automatic display device. No. 1,090,552; Mar. 17; Gaz. vol. 200; p. 737.

Mack, William A., assignor to The Standard Sewing Machine Company, Cleveland, Ohio. Feeding mechanism for sewing-machines. No. 1,089,420; Mar. 10; Gaz. vol. 200; p. 301.

Mackay, Edmund. (See Ferrall and Mackay.)

Madagascar Minerals Syndicate Limited, The. (See Sulman and Picard, assignors.)

Madden, Patrick J., Chicago, Ill. Pipe-coupling. No. 1,089,656; Mar. 10; Gaz. vol. 200; p. 385.

Madden, Patrick J., Chicago, Ill. Potter's tool. No. 1,089,846; Mar. 10; Gaz. vol. 200; p. 449.

Maddux, Jesse D., Atwell, assignor of one-half to J. A. Lauderdale, Harpersville, Tex. Planter. No. 1,089,657; Mar. 10; Gaz. vol. 200; p. 386.

Madigan, Patrick J., Chicago, Ill. Liquid-distributing device. No. 1,090,320; Mar. 17; Gaz. vol. 200; p. 655.

Madigan, Thomas J., New York, N. Y. Pool or other game frame. No. 1,089,140; Mar. 3; Gaz. vol. 200; p. 162.

Maertin, Julius H., Chicago, Ill. Inverted gas-light. No. 1,091,002; Mar. 24; Gaz. vol. 200; p. 920.

Magdlen, Peter C., New York, N. Y. Shaving-cream. No. 1,090,733; Mar. 17; Gaz. vol. 200; p. 796.

Maguire, John H. (See Wells and Maguire.)

Mahan, James J., Jersey City, N. J., assignor to S. M. J. Jacobs, New York, N. Y. Toy. (Reissue.) No. 13,696; Mar. 10; Gaz. vol. 200; p. 548.

Mahony, William F. (See Robertson, Edward H., assignor.)

Makgill, George. (See De Hamel and Makgill.)

Manchester, Henry C., and S. S. Riegel, Scranton, Pa. By-pass valve for locomotive-engines. No. 1,089,570; Mar. 10; Gaz. vol. 200; p. 355.

Mandel, Louis. (See Mandel, Mandel and L.)

Mandel, Mandel and L., Chicago, Ill. Photographic camera. No. 1,088,787; Mar. 3; Gaz. vol. 200; p. 39.

Manderfield, Robert J., Houghton, Mich. Implement-adjusting device for cultivators and the like. No. 1,091,681; Mar. 31; Gaz. vol. 200; p. 1193.

Manent, Jean M. N., Toulouse, France. Fastener for pocket-lighters. No. 1,089,936; Mar. 10; Gaz. vol. 200; p. 483.

Mangiler, Frederick. (See Wheeler and Mangiler.)

Mann, George F., Chicago, Ill. Draft mechanism for vehicles. No. 1,089,847; Mar. 10; Gaz. vol. 200; p. 450.

Mann, George H., Leeds, England. Valve and valve-gear for internal-combustion engines. (Reissue.) No. 13,697; Mar. 10; Gaz. vol. 200; p. 549.

Mann, Ira A., Pittsburgh, Pa. Plumbing-fixture. No. 1,089,776; Mar. 10; Gaz. vol. 200; p. 425.

Manville, Charles B., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Electric elevator. No. 1,089,937; Mar. 10; Gaz. vol. 200; p. 483.

Mappett, Alfred S. (See Wolfe, Fowler, Schroeder, and Mappett.)

Marbuch, Frank G., assignor to The A. I. Root Company, Medina, Ohio. Gearing. No. 1,089,065; Mar. 3; Gaz. vol. 200; p. 133.

Marburger, Henry G., Litchfield, Ill. Penholder. No. 1,092,066; Mar. 31; Gaz. vol. 200; p. 1325.

Marcil, Joseph E., Montreal, and L. Marcil, parish of St. Michel-Archange, Quebec, Canada. Brush. No. 1,089,848; Mar. 10; Gaz. vol. 200; p. 450.

Marcil, Louis. (See Marcil, Joseph E. and L.)

Marie, Nicholas, Peoria, Ill. Sack-holding device. No. 1,090,160; Mar. 17; Gaz. vol. 200; p. 599.

Marien, Charles A., St. Louis, Mo. Sectional resilient tire. No. 1,089,489; Mar. 10; Gaz. vol. 200; p. 327.

Marine Producer Gas Power Company. (See Kempton, Herbert E., assignor.)

Marino, Pasquale S. A., Harrison, N. J. Means for printing music. No. 1,091,682; Mar. 31; Gaz. vol. 200; p. 1194.

Mark, James A., Madison, Kans. Cabinet. No. 1,090,734; Mar. 17; Gaz. vol. 200; p. 796.

Marks, Harry, and S. Helsel, assignors of one-third to W. C. Howland, Johnstown, Pa. Incandescent-lamp socket. No. 1,088,914; Mar. 3; Gaz. vol. 200; p. 82.

Markstein, Jacob, *et al.* (See Sandiford, Green W., assignor.)

Marlin Firearms Company, The. (See Swebilius and Hanitz, assignors.)

Marlin Firearms Company, The. (See Wheeler, John H., assignor.)

Marlin Firearms Company, The. (See Wheeler and Mangiler, assignors.)

Marshall, George, Fremont, Nebr. Bundle carrier or conveyer. No. 1,089,715; Mar. 10; Gaz. vol. 200; p. 405.

Martin, Ferdinand D., Biloxi, Miss. Finger-guard for sewing-machines. No. 1,091,363; Mar. 24; Gaz. vol. 200; p. 1042.

Martin, Freddie K., Chelsea, Okla. Oil-burner. No. 1,089,938; Mar. 10; Gaz. vol. 200; p. 483.

Martin, George H., Hornell, N. Y. Apparatus for mixing and screening molders' sand. No. 1,089,238; Mar. 3; Gaz. vol. 200; p. 194.

Martin, John P., *et al.* (See Coldiron, James L., assignor.)

Martin, Lauren. (See Hammack, Hedges, and Martin.)

Martin, Perley H., Vershire, Vt. Cushion-wheel. No. 1,090,735; Mar. 17; Gaz. vol. 200; p. 796.

Martin, Sarpaln, Marquette, Mich. Trunk-lock. No. 1,090,736; Mar. 17; Gaz. vol. 200; p. 797.

Martin, Whitley E., Winston-Salem, N. C., and G. Bryan, Dallas, Tex., assignors to Standard Cross-Tie Machine Company, New Orleans, La. Gearing. No. 1,089,141; Mar. 3; Gaz. vol. 200; p. 163.

Marvel, James, New Bedford, Mass. Friction-clutch. No. 1,091,069; Mar. 24; Gaz. vol. 200; p. 944.

Marx and Rawolle. (See Wood, Frank J., assignor.)

Marx, Richard, assignor, by mesne assignments, to The Temperite Company, Philadelphia, Pa. Blade-holder. No. 1,092,067; Mar. 31; Gaz. vol. 200; p. 1325.





Marx, Robert, London, England. Rotary suction-roll or vacuum couch-roll for use in paper-making machines. No. 1,091,941; Mar. 31; Gaz. vol. 200; p. 1285.

Maschinenfabrik Munchen Kommanditgesellschaft. (See Nast, Georg, assignor.)

Maserang, John, St. Louis, Mo. Straw-stacker. No. 1,090,638; Mar. 17; Gaz. vol. 200; p. 767.

Mashek, Frank, assignor to L. B. Taylor, Chicago, Ill. Hand-bag. No. 1,090,553; Mar. 17; Gaz. vol. 200; p. 737.

Mason, Arthur C. (See Willey and Mason.)

Mason, Charles O., Texhoma, Tex. Windmill-wheel. No. 1,089,239; Mar. 3; Gaz. vol. 200; p. 194.

Mason, Edward F., trustee. (See Hammer, Fritz, assignor.)

Mason, George E., Toronto, Canada. Electrically-driven planing-machine. No. 1,089,658; Mar. 10; Gaz. vol. 200; p. 386.

Mason, James, Elkhorn, Wis. Folding harrow. No. 1,088,788; Mar. 3; Gaz. vol. 200; p. 40.

Mason, James W., *et al.* (See Drysdale, Bruce, assignor.)

Mason, Thomas G., Toronto, Ontario, Canada. Electrically-controlled elevator. No. 1,091,003; Mar. 24; Gaz. vol. 200; p. 921.

Massey-Harris Company. (See Watts, Walter A., assignor.)

Mast, Joseph, Miami, Ariz. Pocket match-safe. No. 1,091,070; Mar. 24; Gaz. vol. 200; p. 944.

Matchette, Frank J. (See Van Ness, Frank W., assignor.)

Mateer, Wilbur N., Hearne, Tex. Bridle-bit. No. 1,091,683; Mar. 31; Gaz. vol. 200; p. 1194.

Mather, Charles, Passaic, N. J. Hanger. No. 1,091,942; Mar. 31; Gaz. vol. 200; p. 1285.

Mathews, Fred, assignor to C. C. Murphy, Chicago, Ill. Car-door. No. 1,089,421; Mar. 10; Gaz. vol. 200; p. 302.

Matignon, Arthème, Bourg-la-Reine, assignor to The Société Generale des Nitrures, Paris, France. Synthetic preparation of ammonia from its constituents. No. 1,089,240; Mar. 3; Gaz. vol. 200; p. 195.

Matignon, Arthème, Bourg-la-Reine, assignor to The Société Generale des Nitrures, Paris, France. Synthetic preparation of ammonia from its constituents. No. 1,089,241; Mar. 3; Gaz. vol. 200; p. 195.

Matlock, John W., Steelville, Mo. Oil-burner. No. 1,088,915; Mar. 3; Gaz. vol. 200; p. 82.

Matson, Carl A., Lynn, assignor of one-half to A. M. Hoyt, Swampscott, Mass. Heel burnishing or finishing wheel. No. 1,091,364; Mar. 24; Gaz. vol. 200; p. 1042.

Matthews, Dudley A., Garden Valley, Tex. Automatic brake. No. 1,089,242; Mar. 3; Gaz. vol. 200; p. 195.

Matthews, Thomas A., Nashville, Tenn. Delivery-cabinet. No. 1,091,856; Mar. 31; Gaz. vol. 200; p. 1257.

Matthews, William J., Detroit, Mich. Traction gripping attachment for wheels. No. 1,091,004; Mar. 24; Gaz. vol. 200; p. 921.

Mattingly, Owen F., Washington, D. C. Sifter. No. 1,089,777; Mar. 10; Gaz. vol. 200; p. 426.

Mattman, Emil, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Brush-lifting device for dynamo-electric machines. No. 1,089,142; Mar. 3; Gaz. vol. 200; p. 163.

Maul, Henry C., assignor to The Michigan Stove Company, Detroit, Mich. Piping for gas-ranges. No. 1,088,789; Mar. 3; Gaz. vol. 200; p. 40.

Maul, Henry C., assignor to The Michigan Stove Company, Detroit, Mich. Gas-stove. No. 1,089,422; Mar. 10; Gaz. vol. 200; p. 302.

Maul, Henry C., assignor to The Michigan Stove Company, Detroit, Mich. Gas-broiler. No. 1,091,943; Mar. 31; Gaz. vol. 200; p. 1286.

Maurer, Herman A., Rocklyn, Wash. Plow attachment. No. 1,091,151; Mar. 24; Gaz. vol. 200; p. 973.

Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Automatic firearm. No. 1,091,857; Mar. 31; Gaz. vol. 200; p. 1257.

Maximilian, Max, St. Louis, Mo. Fluid-actuated tool. No. 1,089,243; Mar. 3; Gaz. vol. 200; p. 196.

Maxwell, Howard, Schenectady, N. Y., assignor to General Electric Company. System of control. No. 1,089,659; Mar. 10; Gaz. vol. 200; p. 386.

Maxwell, John H., Crewe, Va. Change-holder. No. 1,089,939; Mar. 10; Gaz. vol. 200; p. 484.

Maxwell, Walter H., Cincinnati, Ohio. Account-book. No. 1,089,364; Mar. 3; Gaz. vol. 200; p. 235.

Mayer, Godfried J., Buffalo, N. Y. Carbureter. No. 1,089,423; Mar. 10; Gaz. vol. 200; p. 302.

Mayer and Lavenson Company. (See Mayer, Moritz, assignor.)

Mayer, Moritz, New York, N. Y. Swinging sign. No. 1,089,143; Mar. 3; Gaz. vol. 200; p. 163.

Mayer, Moritz, assignor to Mayer and Lavenson Company, New York, N. Y. Display-rack. No. 1,089,849; Mar. 10; Gaz. vol. 200; p. 450.

Mayerle, George, San Francisco, Cal. Letter for signs. No. 1,089,003; Mar. 3; Gaz. vol. 200; p. 113.

Mayo, Benjamin F., Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stop mechanism. No. 1,091,071; Mar. 24; Gaz. vol. 200; p. 945.

Mayor, Enoch A., San Antonio, Tex. Piano-action. No. 1,091,858; Mar. 31; Gaz. vol. 200; p. 1258.

Mazzeo, Salvatore, assignor to The Prsco Manufacturing Company, Cleveland, Ohio. Lamp. No. 1,088,830; Mar. 3; Gaz. vol. 200; p. 54.

McAuliffe, F. M., *et al.* (See Byrnes, John F., assignor.)

McBerty, Frank R., New Rochelle, and A. H. Adams, Sparkhill, assignors to Western Electric Company, New York, N. Y. Printing-telegraph system. No. 1,090,868; Mar. 24; Gaz. vol. 200; p. 874.

McCain, John C., Tacoma, Wash. Supporting-bracket for dispensing-bottles. No. 1,091,365; Mar. 24; Gaz. vol. 200; p. 1042.

McCarthy, Daniel J., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Automatic block-signaling system. (Reissue.) No. 13,693; Mar. 3; Gaz. vol. 200; p. 241.

McCarthy, William M., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,088,831; Mar. 3; Gaz. vol. 200; p. 54.

McClung, Lee. (See Doll, William F., assignor.)

McClure, Edward S., *et al.* (See Hook, William, assignor.)

McClure, Joseph C. (See Lindmueller, Edward, assignor.)

McConnell, Samuel A., and B. Erickson, Portland, Oreg. Switch control. No. 1,089,850; Mar. 10; Gaz. vol. 200; p. 450.

McCord and Company. (See Randel, Ivar A., assignor.)

McCormack, Herbert, West Chester, Pa. Device for cleaning separator-disks. No. 1,090,554; Mar. 17; Gaz. vol. 200; p. 738.

McCoy, Charles D., *et al.* (See Petty, Harry E., assignor.)

McCoy, Walter M. (See Bohm and McCoy.)

McCracken, James D., assignor to The United States Playing Card Co., Cincinnati, Ohio. Game-counter. No. 1,089,379; Mar. 3; Gaz. vol. 200; p. 239.

McDill, Ellihu G., Sparta, Ill. Automobile-tire. No. 1,091,005; Mar. 24; Gaz. vol. 200; p. 921.

McDonald, Addie L., and D. L. Middleton, Sanderson, Fla. Means for automatically inflating pneumatic tires. No. 1,092,068; Mar. 31; Gaz. vol. 200; p. 1325.

McDonald, Clement C., Chenoa, Ill. Sidewalk. No. 1,089,380; Mar. 3; Gaz. vol. 200; p. 239.

McDonald, Donald, Louisville, Ky. Indicating the flow and leakage of gas. No. 1,090,737; Mar. 17; Gaz. vol. 200; p. 797.

McDonald, John A., Winthrop, assignor to J. R. Peck, Brookline, Mass. Skid-chain. No. 1,091,437; Mar. 24; Gaz. vol. 200; p. 1066.

McDonald, Roy A., Detroit, Mich. Tent-support. No. 1,090,738; Mar. 17; Gaz. vol. 200; p. 797.

McDonald, Thomas J., Baltimore, Md., assignor to American Car Sprinkler Co., Worcester, Mass. Road-surfacing machine. No. 1,089,145; Mar. 3; Gaz. vol. 200; p. 164.

McDonnell, Fred V., Logansport, Ind. Hob-facing attachment for car-wheel-boring mills. No. 1,090,739; Mar. 17; Gaz. vol. 200; p. 797.

McDowell, John R., Auburn, Ind. Spark-plug. No. 1,089,244; Mar. 3; Gaz. vol. 200; p. 196.

McDowell, Robert G., assignor of one-fourth to R. B. McIntyre, Walkerville, and one-fourth to M. F. Gilligan, Butte, Mont. Drill-socket. No. 1,089,660; Mar. 10; Gaz. vol. 200; p. 387.

McElroy, Jackson A., and W. B. Freeman, Hattiesburg, Miss. Switch-rod. No. 1,089,940; Mar. 10; Gaz. vol. 200; p. 484.

McEvoy, James, *et al.* (See Carson, Fredrick E., assignor.)

McEvoy, William, *et al.* (See Carson, Fredrick E., assignor.)

McEwen Bros. (See Kerr, Charles V., assignor.)

McEwing, Duncan S., Chicago, Ill. Card for railway-cars. No. 1,090,928; Mar. 24; Gaz. vol. 200; p. 894.

McFaddin, Harrison D., East Orange, N. J. Lamp-fixture. No. 1,090,929; Mar. 24; Gaz. vol. 200; p. 895.

McFarlane Manufacturing Company. (See McFarlane, Robert, assignor.)

McFarlane, Robert, St. Paul, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill. Scale. No. 1,090,819; Mar. 17; Gaz. vol. 200; p. 824.

McFarling, Charles H. (See Thomas and McFarling.)

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over machine. No. 1,090,220; Mar. 17; Gaz. vol. 200; p. 620.

McGill Manufacturing Company. (See Lehman and Lawrence, assignors.)

McGirr, Theodore G., assignor to Usonia Machine Company, Springfield, Mass. Machine for wrapping yeast-cakes and similar articles. No. 1,091,684; Mar. 31; Gaz. vol. 200; p. 1194.

McGowan, James J., Pawtucket, R. I. Feeder for picking-machines. No. 1,091,438; Mar. 24; Gaz. vol. 200; p. 1066.

McGregor, Allan L., Chicago, Ill. Automobile-bumper. No. 1,088,832; Mar. 3; Gaz. vol. 200; p. 55.

McGuire, Curtis C., Akron, Ohio. Coupling. No. 1,088,712; Mar. 3; Gaz. vol. 200; p. 15.

McHale, Philip, New Bedford, Mass. Drawing-roll for drawing and evening machines. No. 1,091,366; Mar. 24; Gaz. vol. 200; p. 1043.

McIlvaine, Ralph R., Wilkinsburg, Pa. Electric-lamp socket. No. 1,090,930; Mar. 24; Gaz. vol. 200; p. 895.

McIntyre, John J., Uniontown, Pa. Pneumatic derailer. No. 1,091,367; Mar. 24; Gaz. vol. 200; p. 1043.

McIntyre, Milford J., Gowanda, N. Y. Emergency cut-off. No. 1,090,221; Mar. 17; Gaz. vol. 200; p. 620.

McIntyre, Robert B., *et al.* (See McDowell, Robert G., assignor.)

McKay, Donald, Montgomery, Ala. Dust-cap for vehicle-wheels. No. 1,091,072; Mar. 24; Gaz. vol. 200; p. 945.
McKee, Walter S., Glencoe, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me. Reversible dipper-tooth. No. 1,088,916; Mar. 3; Gaz. vol. 200; p. 83.
McKeg, Joseph T., Montour Falls, N. Y. Whip-holder. No. 1,089,424; Mar. 10; Gaz. vol. 200; p. 302.
McKenna, Joseph L. (See Hunt and McKenna.)
McKenna, Parnell G. (See Hosler, Wesley, assignor.)
McKenzie, Dougal J., assignor, by mesne assignments, to Chicago Title and Trust Company, Chicago, Ill. Furnace-grate. No. 1,088,833; Mar. 3; Gaz. vol. 200; p. 55.
McKeon, Newton F. (See Felch, Theodore K., assignor.)
McLaughlin, George A., *et al.* (See Christman, Matthias, assignor.)
McLaughlin, John C., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,090,321; Mar. 17; Gaz. vol. 200; p. 655.
McLaughlin, John F. (See Cutter and McLaughlin.)
McLaughlin, Robert J., New York, N. Y. Centrifugal aerocycle. No. 1,090,322; Mar. 17; Gaz. vol. 200; p. 655.
McLaughlin, Wharton B., New York, N. Y. Desiccating fluid substances. No. 1,090,740; Mar. 17; Gaz. vol. 200; p. 798.
McLean, Andrew, Passaic, N. J. Shade-roller. No. 1,090,931; Mar. 24; Gaz. vol. 200; p. 896.
McLean, David W., Mount Vernon, N. Y. Moistening device for dental-engine handpieces. No. 1,091,522; Mar. 31; Gaz. vol. 200; p. 1140.
McLeer, Charles B. and J. F., Brooklyn, N. Y., assignors to Electric Carrier Company. Electric transportation system. No. 1,089,778; Mar. 10; Gaz. vol. 200; p. 426.
McLeer, Joseph F. (See McLeer, Charles B. and J. F.)
McLellan, Daniel, Hibbing, Minn. Railway-tie and fastener. No. 1,092,069; Mar. 31; Gaz. vol. 200; p. 1325.
McLoughlin, Martina G., Philadelphia, Pa. Underskirt. No. 1,089,245; Mar. 3; Gaz. vol. 200; p. 196.
McMahon, James F. (See Renn, William H., assignor.)
McMane, William, and B. F. Carpenter, Summit, N. J. Truck-ladder. No. 1,090,222; Mar. 17; Gaz. vol. 200; p. 621.
McMurtry, William W., New Castle, Pa. Mortising-machine. No. 1,090,323; Mar. 17; Gaz. vol. 200; p. 656.
McNeer, Emerald B., Glen Wilton, Va. Combined overshoe and legging. No. 1,090,223; Mar. 17; Gaz. vol. 200; p. 621.
McNeill, Frank L., Worcester, Mass., assignor to New England Envelope Company. Envelop-machine. No. 1,091,229; Mar. 24; Gaz. vol. 200; p. 1000.
McNeill, Thomas W., assignor to Reid, Murdock & Co., Chicago, Ill. System for transporting materials in bulk. No. 1,089,851; Mar. 10; Gaz. vol. 200; p. 451.
McNutt, Anna E., administratrix. (See McNutt, Thomas H.)
McNutt, Thomas H., deceased, Pine Bluff, Ark.; A. E. McNutt, administratrix, Oklahoma, Okla., assignor to The Stanley Rule & Level Company, New Britain, Conn. Level. No. 1,089,571; Mar. 10; Gaz. vol. 200; p. 356.
McPherson, Frank G. and T. C., assignors to Keystone Wire Matting Co., Beaver Falls, Pa. Mat. No. 1,090,161; Mar. 17; Gaz. vol. 200; p. 599.
McPherson, Thomas C. (See McPherson, Frank G. and T. C.)
McQuillen, Catherine, administratrix. (See McQuillen, Walter P.)
McQuillen, Walter P., deceased; C. McQuillen, administratrix, Philadelphia, Pa. Garment. No. 1,088,834; Mar. 3; Gaz. vol. 200; p. 55.
McRae, John R., Albany, N. Y., assignor to Mergenthaler Linotype Company, Linotype-machine. No. 1,088,713; Mar. 3; Gaz. vol. 200; p. 15.
McWhorter, James L., La Fayette, Ga. Ink-bottle. No. 1,090,555; Mar. 17; Gaz. vol. 200; p. 738.
Mead, Larkin J., assignor to Aurora Corset Company, Aurora, Ill. Corset. No. 1,090,932; Mar. 24; Gaz. vol. 200; p. 896.
Mead, Marvin H., Passaic, N. J. Mount for specimens. No. 1,090,403; Mar. 17; Gaz. vol. 200; p. 685.
Meaker, John W., Detroit, Mich. Valve for explosive-engines. No. 1,088,714; Mar. 3; Gaz. vol. 200; p. 15.
Meek, John E., New York, N. Y., assignor to H. W. Johns-Manville Company. Water-tight, sanitary floor for cars and similar structures. No. 1,091,073; Mar. 24; Gaz. vol. 200; p. 945.
Meeks, John H., *et al.* (See Jolliffe, Mark B., assignor.)
Mégevet, Charles J., and L. Picker, Geneva, Switzerland. Carbureter for internal-combustion engines. No. 1,090,556; Mar. 17; Gaz. vol. 200; p. 738.
Megraw, Herbert A., New York, N. Y. Mining-screen. No. 1,090,933; Mar. 24; Gaz. vol. 200; p. 896.
Megredy, John T. (See Edwards, Harry C., assignor.)
Mehlin, Charles, Fort Lee, N. J. Piano-plate for upright pianos. No. 1,090,324; Mar. 17; Gaz. vol. 200; p. 656.
Meier, Harry W., assignor to H. W. Meier and Company, Baltimore, Md. Articulation of dolls. No. 1,091,944; Mar. 31; Gaz. vol. 200; p. 1286.
Meier, John, assignor of one-half to T. S. Miller, Jr., Dallas, Tex. Centrifugal suction-fan. No. 1,089,572; Mar. 10; Gaz. vol. 200; p. 356.
Meier, William, New York, N. Y. Lock. No. 1,091,368; Mar. 24; Gaz. vol. 200; p. 1043.
Mejani, Paolo, Chiavari, Italy. Feed-water heater. No. 1,091,369; Mar. 24; Gaz. vol. 200; p. 1043.
Meledonian, Sarkis, Seattle, Wash. Trunk-fastener. No. 1,088,917; Mar. 3; Gaz. vol. 200; p. 83.
Melville Clark Piano Company. (See Clark, Melville, assignor.)
Melzer, Max, Buchholz, Germany, assignor to S. Basch, New York, N. Y. Button. No. 1,088,835; Mar. 3; Gaz. vol. 200; p. 56.
Menden, William S., Brooklyn, N. Y. Center-entrance car. No. 1,089,852; Mar. 10; Gaz. vol. 200; p. 451.
Mengel Box Company. (See Schleicher, John W., assignor.)
Menke, George L., Asbury Park, N. J. Glazier's tool. No. 1,091,370; Mar. 24; Gaz. vol. 200; p. 1044.
Mennesson, Marcel. (See Goudard and Mennesson.)
Mennle, William, Detroit, Mich. Valve-controller. No. 1,091,945; Mar. 31; Gaz. vol. 200; p. 1286.
Menns, Walter K., Chelsea, assignor to Chelsea Clock Company, Boston, Mass. Speed indicating and recording device. No. 1,089,246; Mar. 3; Gaz. vol. 200; p. 196.
Menyhért, Stephen, and V. Smith, New Brunswick, N. J. Grinding implement. No. 1,089,247; Mar. 3; Gaz. vol. 200; p. 197.
Merchants Co-Operative Co. (See Brockway, Ezra C., assignor.)
Mercié, Henri A. (See Benêt and Mercié.)
Mercier, Joseph T., Chicago, Ill. Ventilator. No. 1,090,325; Mar. 17; Gaz. vol. 200; p. 656.
Mergenthaler Linotype Company. (See Degener, Heinrich, assignor.)
Mergenthaler Linotype Company. (See Guest, Alfred W. F., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Kennedy, Luther L., assignor.)
Mergenthaler Linotype Company. (See McRae, John R., assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Merkley Manufacturing Company. (See Merkley, Stanley A., assignor.)
Merkley, Stanley A., assignor to Merkley Manufacturing Company, Buffalo, N. Y. Incubation. No. 1,091,859; Mar. 31; Gaz. vol. 200; p. 1258.
Merley, John, Canton, Ohio, assignor to National Fire Proofing Company, Pittsburgh, Pa. Silo and tile therefor. No. 1,091,946; Mar. 31; Gaz. vol. 200; p. 1287.
Merliss, Mordnck, Flint, Mich. Drill-press. No. 1,092,070; Mar. 31; Gaz. vol. 200; p. 1326.
Merrill, George H., New York, N. Y. Lifting-board for drop-hammers. No. 1,091,523; Mar. 31; Gaz. vol. 200; p. 1140.
Merrill, Percy S., Waterville, Me. Wrench. No. 1,092,071; Mar. 31; Gaz. vol. 200; p. 1326.
Meserole, Milton D., assignor to T. F. Molloy, West Haven, and L. M. Sheehan, New Haven, Conn., administrators of J. F. Molloy, deceased. Buckle. No. 1,089,853; Mar. 10; Gaz. vol. 200; p. 452.
Messerschmitt, Anton, Stollberg, Germany. Extracting alkalis from natural rocks. No. 1,089,716; Mar. 10; Gaz. vol. 200; p. 405.
Messerschmitt, Anton, Stollberg, Germany. Extracting potassium and sodium compounds from silicates which contain alkalis. No. 1,091,230; Mar. 24; Gaz. vol. 200; p. 1001.
Mesick, Charles, Hackensack, N. J. Electrolier-fitting. No. 1,089,490; Mar. 10; Gaz. vol. 200; p. 327.
Messner, John H., Pittsburgh, Pa. Rail-fastening device. No. 1,092,072; Mar. 31; Gaz. vol. 200; p. 1327.
Metall- und Isolier-Werke G. m. b. H. (See Knoll, Ernst, assignor.)
Metallic Barrel Company, The. (See Brown and Bauroth, assignors.)
Metallurgica Bresciana Già Tempini. (See Falco, Vittorio, assignor.)
Metals Research Company. (See Weidlein, Edward R., assignor.)
Metcalf, Alfred T., and H. V. Nunn, assignors to Bradford Dyers' Association, Bradford, England. Apparatus for drying fabrics. No. 1,090,934; Mar. 24; Gaz. vol. 200; p. 897.
Metheany, George H. (See Clum, Ira E., assignor.)
Metropolitan Sewing Machine Company. (See Weis, John P., assignor.)
Metz, Herman A., New York, N. Y. Bottle-stopper and applicator. No. 1,089,717; Mar. 10; Gaz. vol. 200; p. 405.
Metzelaar, Adrian N., New York, N. Y. Fluid-controlling mechanism for cylinders. No. 1,089,718; Mar. 10; Gaz. vol. 200; p. 405.
Metzger, Gottlieb F., Lakewood, Ohio. Apparatus for treating animal matter containing moisture, oil, or grease. No. 1,091,524; Mar. 31; Gaz. vol. 200; p. 1140.
Metzger, James F., Flat Rock, Ohio. Attachment for windmill pumps. No. 1,091,371; Mar. 24; Gaz. vol. 200; p. 1044.
Meyer, Albert W., New York, N. Y. Steam-cooker. No. 1,089,066; Mar. 3; Gaz. vol. 200; p. 134.
Meyer, Anton, Hamburg, Germany. Tin or can for hams or like articles of food. No. 1,089,067; Mar. 3; Gaz. vol. 200; p. 134.
Meyer, Ernest A. and R. F., Freeport, Pa. System of lubrication. No. 1,090,162; Mar. 17; Gaz. vol. 200; p. 600.



Meyer, Frederic P., Lancaster, Wis. Drinking-cup. No. 1,089,425; Mar. 10; Gaz. vol. 200; p. 303.
Meyer, Joseph P., Rochester, N. Y. Hedge-trimmer. No. 1,089,719; Mar. 10; Gaz. vol. 200; p. 406.
Meyer, Ralph F. (See Meyer, Ernest A. and R. F.)
Michael, Clement W., assignor to J. I. Case Plow Works, Racine, Wis. Gang-plow. No. 1,091,685; Mar. 31; Gaz. vol. 200; p. 1195.
Michael, Henry W., Denver, Colo. Exhauster for heating systems. No. 1,090,788; Mar. 17; Gaz. vol. 200; p. 814.
Michaelsen, Charles O., Omaha, Nebr. Ore-classifier. No. 1,090,326; Mar. 17; Gaz. vol. 200; p. 657.
Michell, Anthony G. M., Melbourne, Victoria, Australia. Centrifugal pump. No. 1,089,248; Mar. 3; Gaz. vol. 200; p. 197.
Michels, John, Aurora, Ill. Concrete-mixer. No. 1,091,749; Mar. 31; Gaz. vol. 200; p. 1218.
Michet, Victor, Knife River, Minn. Hat-pin guard. No. 1,088,918; Mar. 3; Gaz. vol. 200; p. 84.
Michet, Victor, Knife River, Minn. Hat-pin guard. No. 1,090,828; Mar. 17; Gaz. vol. 200; p. 828.
Michigan Stove Company, The. (See Maul, Henry C., assignor.)
Mickelson, Samuel, Washington, D. C. Hair-cutting gage. No. 1,091,372; Mar. 24; Gaz. vol. 200; p. 1044.
Middleton, David L. (See McDonald and Middleton.)
Miehle Printing Press & Manufacturing Company. (See Miehle, Robert, assignor.)
Miehle, Robert, assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Cushioning device for printing-presses. No. 1,089,068; Mar. 3; Gaz. vol. 200; p. 134.
Miehle, Robert, assignor of one-half to Miehle Printing Press & Manufacturing Company, Chicago, Ill. Piling-table for printing-presses. No. 1,089,342; Mar. 3; Gaz. vol. 200; p. 226.
Mika Cooker Company. (See Linton, Charles E. and E. K., assignors.)
Miley, Irvin F., Green Castle, Mo. Door-fastener. No. 1,089,941; Mar. 10; Gaz. vol. 200; p. 484.
Militaire Auto Company, The. (See Johnston, David J., assignor.)
Millar, James, Chicopee, Mass., assignor to A. G. Spalding & Bros., New York, N. Y. Golf-club. No. 1,091,231; Mar. 24; Gaz. vol. 200; p. 1001.
Miller, Carl H., Cleveland, Ohio. Combined solid-fuel and gas range. No. 1,090,163; Mar. 17; Gaz. vol. 200; p. 600.
Miller Concrete Form Company. (See Miller, George, assignor.)
Miller, Edward A., New York, N. Y. Autogenous-welding torch. No. 1,091,525; Mar. 31; Gaz. vol. 200; p. 1141.
Miller, Frank F., Yankton, S. D. Hinge. No. 1,091,584; Mar. 31; Gaz. vol. 200; p. 1160.
Miller, George, Pittsburgh, Pa. Clipper. No. 1,091,232; Mar. 24; Gaz. vol. 200; p. 1001.
Miller, George, Fairfield, Wash., assignor to Miller Concrete Form Company. Concrete-wall mold. No. 1,090,488; Mar. 17; Gaz. vol. 200; p. 716.
Miller, George E. (See Cantrell and Miller.)
Miller, George W., Santa Monica, Cal. Sharpener for lawn-mowers. No. 1,091,750; Mar. 31; Gaz. vol. 200; p. 1218.
Miller, Ives A., Grapeville, Pa. Rail-tie. No. 1,092,073; Mar. 31; Gaz. vol. 200; p. 1327.
Miller, J. M., *et al.* (See Davis, John A., assignor.)
Miller, James H., Geneseo, Kans. Steering-wheel for plows. No. 1,090,935; Mar. 24; Gaz. vol. 200; p. 897.
Miller, Joseph, Ramona, Kans. Draft-equalizer. No. 1,088,715; Mar. 3; Gaz. vol. 200; p. 15.
Miller, Julius J., St. Joseph, Mich., assignor to W. P. Healy, Chicago, Ill. Box-blank machine. No. 1,089,069; Mar. 3; Gaz. vol. 200; p. 135.
Miller, Lewis F., Fairfield, Ohio. Post connection for aeroplanes. No. 1,089,144; Mar. 3; Gaz. vol. 200; p. 164.
Miller, M. R., *et al.* (See Davis, John A., assignor.)
Miller, Norman H., Meadville, Pa. Automobile tire-protector. No. 1,091,373; Mar. 24; Gaz. vol. 200; p. 1045.
Miller, Robert, Jr., Schenectady, N. Y., assignor to General Electric Company. Speed-comparing device. No. 1,091,686; Mar. 31; Gaz. vol. 200; p. 1195.
Miller, T. S., Jr. (See Meier, John, assignor.)
Miller, Wayne T., assignor of one-half to D. S. Hamlin, Angola, Ind. Film-developing tank. No. 1,091,687; Mar. 31; Gaz. vol. 200; p. 1196.
Miller, William L., Marshall, Mich. Disinfectant-distributer. No. 1,091,374; Mar. 24; Gaz. vol. 200; p. 1045.
Milligan, George R. E., Los Angeles, Cal. Artificial limb. No. 1,090,327; Mar. 17; Gaz. vol. 200; p. 657.
Mills, Chester B., East McKeesport, Pa., assignor to Westinghouse Electric and Manufacturing Company. Single-phase motor. No. 1,090,328; Mar. 17; Gaz. vol. 200; p. 657.
Mills, William R., Jackson, Mich. Controller for combustion-chambers. No. 1,090,869; Mar. 24; Gaz. vol. 200; p. 874.
Milmoe, Michael J., assignor to W. C. Ritchie & Company, Chicago, Ill. Box-labeling machine. No. 1,091,688; Mar. 31; Gaz. vol. 200; p. 1196.
Minck, Paul H., Bremen, Germany, and E. C. de Segundo, London, England. Apparatus for separating fibers from other materials. No. 1,089,661; Mar. 10; Gaz. vol. 200; p. 387.
Miner, Frederick O., Crafton, Pa. Buoy. No. 1,091,860; Mar. 31; Gaz. vol. 200; p. 1259.
Miner, William H. (See Johnson, George A., assignor.)
Mineral Point Zinc Company. (See Brooks, George S., assignor.)
Minke, August, Evansville, Ind. Bag-holder. No. 1,090,404; Mar. 17; Gaz. vol. 200; p. 685.
Minnick, William F., assignor to The Harris Automatic Press Company, Niles, Ohio. Clamp for printing-plates. No. 1,091,152; Mar. 24; Gaz. vol. 200; p. 973.
Minnis, Rector B. (See Norpoth, Theodor, assignor.)
Miseta, Nicolas, Bettendorf, Iowa. Dirigible headlight for motor-vehicles. No. 1,090,870; Mar. 24; Gaz. vol. 200; p. 875.
Mitchell, John R., Montclair, N. J. Spindle-step. No. 1,088,919; Mar. 3; Gaz. vol. 200; p. 84.
Mitchell, Joseph H., Toledo, Ohio. Nut-lock. No. 1,091,889; Mar. 31; Gaz. vol. 200; p. 1268.
Mitchell, Richard S. M., assignor to The Talking Moving Picture Co., Inc., Syracuse, N. Y. Transmitter. No. 1,090,557; Mar. 17; Gaz. vol. 200; p. 739.
Mitchell, Thomas, Oquawka, Ill. Hinge. No. 1,091,233; Mar. 24; Gaz. vol. 200; p. 1002.
Mitchell, William, *et al.* (See Neal, Charles W., assignor.)
Mittasch, Alwin. (See Bosch and Mittasch.)
Mittasch, Alwin, and H. Morawitz, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing ammonium sulfate. No. 1,091,234; Mar. 24; Gaz. vol. 200; p. 1002.
Mixter, George W. (See Sklovsky and Mixter.)
Miyanaga, Kintaro, Seattle, Wash. Envelop. No. 1,090,639; Mar. 17; Gaz. vol. 200; p. 767.
Miyasaki, Yuske, McKees Rocks, Pa. Truck-bolster. No. 1,091,375; Mar. 24; Gaz. vol. 200; p. 1045.
Model Underwear Company. (See Wentworth, Edward F., assignor.)
Modern Sales Bureau. (See Lynnock, Carl, assignor.)
Moe, John S. (See Houseman, Joseph U., assignor.)
Moe, Rudolph. (See Lunde and Moe.)
Mogan, Christopher J., and R. E. Brock, Charleroi, assignors to Pittsburgh Steel Products Co., Pittsburgh, Pa. Forming axle-housings. No. 1,091,751; Mar. 31; Gaz. vol. 200; p. 1218.
Moise, Alfred, Barr, Germany. Making manure from tanned-leather shavings or cuttings. No. 1,092,074; Mar. 31; Gaz. vol. 200; p. 1327.
Molina, Edward C., East Orange, N. J., assignor to American Telephone and Telegraph Company. Translating and registering apparatus. No. 1,089,426; Mar. 10; Gaz. vol. 200; p. 303.
Molins, Walter E., London, England. Apparatus for making bags or pockets. No. 1,091,235; Mar. 24; Gaz. vol. 200; p. 1002.
Molitor, Martin J., and M. Britz, Zions; said Molitor assignor to P. M. and J. S. Britz, Roscoe, Minn. Bow-rest for automobiles. No. 1,090,329; Mar. 17; Gaz. vol. 200; p. 658.
Molloy, Thomas F., *et al.*, administrators. (See Meserole, Milton D., assignor.)
Molloy, Thomas F., West Haven, Conn. Buckle. No. 1,089,854; Mar. 10; Gaz. vol. 200; p. 452.
Molyneux Mailing Machine Company. (See Poler, John W., assignor.)
Monaghan, John E., Fort Morgan, Colo. Wrench. No. 1,088,716; Mar. 3; Gaz. vol. 200; p. 16.
Monarch Manufacturing Company, The. (See Walter, Charles L., assignor.)
Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)
Monberg, Soren C., Leadville, Colo. Hydraulic drilling-machine. No. 1,092,075; Mar. 31; Gaz. vol. 200; p. 1328.
Monk, Raymond W., Pittston, Pa. Supporting-bracket. No. 1,090,105; Mar. 10; Gaz. vol. 200; p. 539.
Monroe, Nathaniel S., Arthur, Ill. Road-leveling device. (Reissue.) No. 13,708; Mar. 31; Gaz. vol. 200; p. 1350.
Monroe, Will-Roy. (See Oblosser, Ulysses C., assignor.)
Montine, Joseph F., Nevinville, Iowa. Counter-support. No. 1,090,106; Mar. 10; Gaz. vol. 200; p. 539.
Moody, Oakman A., Canaan, Me. Road-machine. No. 1,089,427; Mar. 10; Gaz. vol. 200; p. 304.
Moomaw, Henry E., Chattanooga, Tenn. Sheet-metal roofing-plate. No. 1,090,330; Mar. 17; Gaz. vol. 200; p. 658.
Moon, Edward W., Sr., St. Louis, Mo. Vehicle-wheel. No. 1,089,428; Mar. 10; Gaz. vol. 200; p. 304.
Moon-Hopkins Billing Machine Company. (See Hopkins, Hubert, assignor.)
Moore, Charles C., and W. Trantom, Lymm, England. Treating hides before tanning. No. 1,091,236; Mar. 24; Gaz. vol. 200; p. 1003.
Moore, Charles N., Douglas, Ariz. Oil-burner. No. 1,089,855; Mar. 10; Gaz. vol. 200; p. 452.
Moore, George R., *et al.* (See Roberts, Henry P., assignor.)
Moore, Herbert L. G., Richmond Hill, N. Y., assignor of one-half to himself, and one-half to H. A. Vreeland, North Paterson, N. J. Grease-proof paper vessel. No. 1,091,526; Mar. 31; Gaz. vol. 200; p. 1141.
Moore, Herbert L. G., Richmond Hill, N. Y., assignor of one-half to himself, and one-half to H. A. Vreeland, North Paterson, N. J. Waterproof and grease-proof material for the manufacture of containers. No. 1,091,527; Mar. 31; Gaz. vol. 200; p. 1141.

Moore, Hugh K., Berlin, N. H. Core compound. No. 1,091,690; Mar. 31; Gaz. vol. 200; p. 1197.
Moore, Hugh K., and R. B. Wolf, Berlin, N. H. Producing sulfur dioxid. No. 1,091,689; Mar. 31; Gaz. vol. 200; p. 1196.
Moore, John J., Chambersburg, Pa. Electric clock. No. 1,091,153; Mar. 24; Gaz. vol. 200; p. 973.
Moore, Thomas R., Walden, N. Y. Knife-blade-swaging machine. No. 1,091,074; Mar. 24; Gaz. vol. 200; p. 946.
Moorhouse, Henry J., Superior, Wis. Illusory theatrical device for vaudeville acts. No. 1,090,741; Mar. 17; Gaz. vol. 200; p. 798.
Moose, Edgar T., Fellows, Cal. Wrench. No. 1,089,249; Mar. 3; Gaz. vol. 200; p. 197.
Moran, William J., Yonkers, N. Y. Protective uniform. No. 1,090,742; Mar. 17; Gaz. vol. 200; p. 799.
Morat, Jacques, Yonkers, assignor to Isaac G. Johnson & Co., Spuyten Duyvil, New York, N. Y. Vehicle-wheel. No. 1,090,743; Mar. 17; Gaz. vol. 200; p. 799.
Morawitz, Hugo. (See Mittasch and Morawitz.)
Morden, Charles W., Portland, Oreg. Heating means for vertical digesters. No. 1,090,331; Mar. 17; Gaz. vol. 200; p. 658.
Morden, Lucena M., Waterbury, Conn. File. No. 1,090,332; Mar. 17; Gaz. vol. 200; p. 659.
Morey, William A., Longbeach, Cal. Amusement device. No. 1,089,004; Mar. 3; Gaz. vol. 200; p. 113.
Morgan, Frederick C. (See Shoenberg, Milton H., assignor.)
Morgan, Garrett A., Cleveland, assignor to The National Safety Device Company, Oberlin, Ohio. Breathing device. No. 1,090,936; Mar. 24; Gaz. vol. 200; p. 898.
Morgan, George W. (See De Lukacsevics, Charles, assignor.)
Morgan, Henry W., Rochester, N. Y. Nailing-machine. No. 1,091,691; Mar. 31; Gaz. vol. 200; p. 1197.
Morgan, James M., Royal, Iowa. Explosive-engine. No. 1,089,779; Mar. 10; Gaz. vol. 200; p. 426.
Morgan, Robert H., Pittsburgh, Pa. Vending-machine. No. 1,089,250; Mar. 3; Gaz. vol. 200; p. 198.
Morgan, William I., Senford, N. Y. Separator. No. 1,091,947; Mar. 31; Gaz. vol. 200; p. 1287.
Morina, Anthony, Newark, N. J. Illuminated clock. No. 1,090,744; Mar. 17; Gaz. vol. 200; p. 799.
Morison, Alexander, Saginaw, Mich. Beet-harvester. No. 1,090,871; Mar. 24; Gaz. vol. 200; p. 875.
Morison, Donald B., Hartlepool, England. Apparatus for condensing steam. No. 1,089,942; Mar. 10; Gaz. vol. 200; p. 484.
Morison, Donald B., Hartlepool, England. Steam-condensing plant working under vacuum. No. 1,091,376; Mar. 24; Gaz. vol. 200; p. 1045.
Morison, Henry A., Seattle, Wash. Insurance reference-sheet. No. 1,090,789; Mar. 17; Gaz. vol. 200; p. 814.
Morine, Edward, San Gabriel, Cal. Lining shafts with concrete. No. 1,089,573; Mar. 10; Gaz. vol. 200; p. 356.
Morlock, Albert J., Brooklyn, N. Y., assignor to United Press and Manufacturing Company. Percolator. No. 1,092,121; Mar. 31; Gaz. vol. 200; p. 1345.
Morrell, William W., *et al.* (See Rees, John H., assignor.)
Morris, David E., Gulfport, Miss. Power-transmitting mechanism. No. 1,092,076; Mar. 31; Gaz. vol. 200; p. 1328.
Morris S. Wright Company. (See Wright, Morris S., assignor.)
Morrison Box Company, The. (See Morrison, George L., assignor.)
Morrison, George L., Hudson, Mich., assignor to The Morrison Box Company, Toledo, Ohio. Paper-board box. No. 1,090,559; Mar. 17; Gaz. vol. 200; p. 740.
Morrison, George L., Hudson, and A. A. Fordon, Detroit, Mich. Collapsible box. No. 1,090,558; Mar. 17; Gaz. vol. 200; p. 739.
Morrison, James, Medicine Hat, Alberta, Canada. Tongue-support. No. 1,091,377; Mar. 24; Gaz. vol. 200; p. 1046.
Morrison, W. A., Hagerman, Tex. Screen-door brace. No. 1,090,405; Mar. 17; Gaz. vol. 200; p. 685.
Morrissey, Thomas F., West Orange, N. J., assignor to United Button Company. Drilling and nicking machine. No. 1,089,856; Mar. 10; Gaz. vol. 200; p. 452.
Morse, Alva F., Humboldt, Iowa. Sanitary toilet-bowl. No. 1,091,154; Mar. 24; Gaz. vol. 200; p. 974.
Morse, James C. (See Seeman and Morse.)
Morse, Samuel T., and W. D. P. Warren, Carlinville, Ill. Expansion-joint. No. 1,089,943; Mar. 10; Gaz. vol. 200; p. 484.
Mortenson, Carl S., Moline, Ill. Saw-clamp. No. 1,089,429; Mar. 10; Gaz. vol. 200; p. 304.
Morton, Frank M., Phoenix, Ala., assignor to The Columbus Truck and Supply Manufacturing Company, Columbus, Ga. Dyeing-beam. No. 1,091,157; Mar. 24; Gaz. vol. 200; p. 975.
Mosaner, Hermann. (See Schopf and Mosaner.)
Moscariello, Umberto. (See Ferry, Moscariello, and Amodio.)
Moses, Jacob B., Dallas, Tex. Suit-box. No. 1,091,075; Mar. 24; Gaz. vol. 200; p. 946.
Mosler Safe Company, The. (See Bartels, Carl, assignor.)
Moss, Herbert G., and W. Chapplus, Maricopa, Cal. Pump. No. 1,089,720; Mar. 10; Gaz. vol. 200; p. 406.
Mott, Theodore, assignor to B. F. Greenwood, Houston, Tex. Paint. No. 1,089,662; Mar. 10; Gaz. vol. 200; p. 387.
Motter, William N., Riverside, Ill., assignor, by mesne assignments, to General Electric Company. Massage-vibrator. No. 1,091,585; Mar. 31; Gaz. vol. 200; p. 1161.
Moulton, James N., Haverhill, Mass. Forming-in machine. No. 1,089,491; Mar. 10; Gaz. vol. 200; p. 328.
Mousette, Oliver J., Brooklyn, N. Y. Rotary mixer. No. 1,091,752; Mar. 31; Gaz. vol. 200; p. 1219.
Mowe, George H., Watertown, N. Y. Composition of matter to be used for a food. No. 1,089,251; Mar. 3; Gaz. vol. 200; p. 198.
Mowrey, Harvey A., Blackfoot, Idaho. Window-shade holder. No. 1,089,252; Mar. 3; Gaz. vol. 200; p. 198.
Muchka, Josef, Vienna, Austria-Hungary. Water-heating device. No. 1,091,378; Mar. 24; Gaz. vol. 200; p. 1046.
Muehl, William F., Chicago, Ill., assignor of one-third to L. H. Scurlock, Kansas City, Mo., and one-third to C. C. Wolf, Parkersburg, Iowa. Differential gearing for automobiles. No. 1,090,082; Mar. 10; Gaz. vol. 200; p. 530.
Mueller, Conrad. (See Ganderton, Thomas, assignor.)
Mueller, Philip, and A. C. Schuermann, assignors to H. Mueller Manufacturing Company, Decatur, Ill. Adjustable screw-joint coupling for supply-pipes. No. 1,091,092; Mar. 31; Gaz. vol. 200; p. 1197.
Mueller, Wilhelm, Essen-on-the-Ruhr, Germany. Regenerative oven. No. 1,089,663; Mar. 10; Gaz. vol. 200; p. 387.
Mulchahey, Earl R., assignor to Draft Regulator Company, Providence, R. I. Firing-door-controlled forced-draft blower for steam-boiler furnaces. No. 1,090,820; Mar. 17; Gaz. vol. 200; p. 825.
Muldoon, Frank J., assignor of one-half to H. Lochen, West Bend, Wis. Ironing-table. No. 1,091,006; Mar. 24; Gaz. vol. 200; p. 921.
Müller-Deutschmann, Adolf, and D. Ströh, Eltville-on-the-Rhine, Germany. Breech-action for firearms. No. 1,089,780; Mar. 10; Gaz. vol. 200; p. 427.
Muller, Edward, East New Durham, N. J. Vehicle-washer. No. 1,090,640; Mar. 17; Gaz. vol. 200; p. 767.
Müller, Friedrich, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Bleaching fats and oils. No. 1,089,253; Mar. 3; Gaz. vol. 200; p. 198.
Müller, Julius. (See Schmidt and Müller.)
Muller, Max, Chicago, Ill. Label for hair-switches. No. 1,091,070; Mar. 24; Gaz. vol. 200; p. 946.
Müller, Oscar, Plüderhausen, Germany. Apparatus for drying paste goods. No. 1,089,944; Mar. 10; Gaz. vol. 200; p. 485.
Müller, Richard, Norwalk, Conn. Umbrella-covering. No. 1,089,857; Mar. 10; Gaz. vol. 200; p. 453.
Mumford, Edgar H., Plainfield, N. J. Jolt-ramming mechanism. No. 1,091,077; Mar. 24; Gaz. vol. 200; p. 947.
Mumford, Edgar H., Plainfield, N. J., assignor to S. C. Mumford, Detroit, Mich. Sand-molding apparatus. No. 1,091,948; Mar. 31; Gaz. vol. 200; p. 1288.
Mumford, Samuel C. (See Mumford, Edgar H., assignor.)
Munson, Sterling C. (See Herman, Clifton E., assignor.)
Murata, Frank T., Canon City, Colo. Tobacco-pipe. No. 1,089,254; Mar. 3; Gaz. vol. 200; p. 198.
Murdock, William J., Chelsea, Mass. Circuit-detector. No. 1,091,528; Mar. 31; Gaz. vol. 200; p. 1141.
Murphy, Clinton C. (See Mathews, Fred, assignor.)
Murphy, James W. (See Radlein and Murphy.)
Murphy, William, Keyser, W. Va. Clothes-washer. No. 1,089,781; Mar. 10; Gaz. vol. 200; p. 427.
Murray, Alexander. (See Edgington and Murray.)
Murray, Charles F., Evanston, assignor to The Fowler Car Company, Chicago, Ill. Building railway-cars. No. 1,091,093; Mar. 31; Gaz. vol. 200; p. 1108.
Murray, John, assignor of ninety one-hundredths to A. Greden, Mount Vernon, Minn. Guide-pulley. No. 1,091,007; Mar. 24; Gaz. vol. 200; p. 922.
Murray, Stephen D., Dallas, Tex. Cotton-gin. No. 1,089,255; Mar. 3; Gaz. vol. 200; p. 199.
Murray, Thomas E. (See Rhodes, Samuel G., assignor.)
Murray, Thomas E., New York, N. Y. Meter-testing cut-out. No. 1,090,480; Mar. 17; Gaz. vol. 200; p. 716.
Murray, Thomas E., New York, N. Y. Apparatus for trapping solid particles in suspension in gas-currents. No. 1,090,490; Mar. 17; Gaz. vol. 200; p. 716.
Murray, Thomas E., New York, N. Y. Electric switch. No. 1,091,155; Mar. 24; Gaz. vol. 200; p. 975.
Mussinan, Oscar, New York, N. Y. Vehicle-tire. No. 1,091,379; Mar. 24; Gaz. vol. 200; p. 1047.
Muste, Leonard, Grand Rapids, Mich. Stoneworking-machine. No. 1,091,949; Mar. 31; Gaz. vol. 200; p. 1288.
Muther, Lorenz, Boston, Mass., and W. F. Lautenschlager, Cincinnati, Ohio; said Lautenschlager assignor to said Muther. Skiving-machine. No. 1,091,753; Mar. 31; Gaz. vol. 200; p. 1219.
Muther, Lorenz, West Newton, and W. M. Sprye, Lynn, Mass.; said Sprye assignor to said Muther. Device for mounting the feed-disk in skiving-machines. No. 1,092,122; Mar. 31; Gaz. vol. 200; p. 1345.
Muther, Lorenz, Newton, and F. S. Glines, Lynn, Mass.; said Glines assignor to said Muther. Folding-machine. No. 1,092,123; Mar. 31; Gaz. vol. 200; p. 1346.
Myers, Charles A., South Greenfield, Mo. Draft device. No. 1,092,077; Mar. 31; Gaz. vol. 200; p. 1329.
Myers, Edgar W., assignor to Euterpean Duplicator Company, San Jose, Cal. Duplicating-machine for making perforated music-sheets, &c. No. 1,091,439; Mar. 24; Gaz. vol. 200; p. 1066.



Myers, Lewis C., Brooklyn, assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Ribbon mechanism for type-writing machines. No. 1,088,790; Mar. 3; Gaz. vol. 200; p. 40.
Mygatt, Otis A., Paris, France. Prismatic glass reflector. No. 1,092,114; Mar. 31; Gaz. vol. 200; p. 1342.
Myrholm, Peder, assignor of one-half to A. H. Norvold, Volga, S. D. Trunk structure. No. 1,090,745; Mar. 17; Gaz. vol. 200; p. 799.
Nadeau, Joseph O., Cochrane, Ontario, Canada. Shoe-lacing device. No. 1,090,333; Mar. 17; Gaz. vol. 200; p. 659.
Nagle, Margaret, Roxbury, Mass. Ash-barrel holder. No. 1,091,008; Mar. 24; Gaz. vol. 200; p. 922.
Nagy, Steve, Delray, Mich. Wheel toy. No. 1,091,950; Mar. 31; Gaz. vol. 200; p. 1289.
Nash Engineering Company. (See Nash, Lewis H., assignor.)
Nash, Frederick J., Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,090,164; Mar. 17; Gaz. vol. 200; p. 600.
Nash, Lewis H., assignor to Nash Engineering Company, New York, N. Y. Pump and air-compressor. No. 1,091,529; Mar. 31; Gaz. vol. 200; p. 1142.
Nassauer, Julius, New York, N. Y., assignor to Ohio Comb & Novelty Company, Doylestown, Ohio. Comb-cleaner. No. 1,089,070; Mar. 3; Gaz. vol. 200; p. 135.
Nast, Georg, assignor to Maschinenfabrik München, Kommanditgesellschaft, Munich, Germany. Cutting-machine. No. 1,091,890; Mar. 31; Gaz. vol. 200; p. 1208.
Nathan, Frederic L., W. Rintoul, and F. Baker, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Explosive. No. 1,090,641; Mar. 17; Gaz. vol. 200; p. 768.
Nathan, Frederic L., W. Rintoul, and F. Baker, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Explosive. No. 1,090,642; Mar. 17; Gaz. vol. 200; p. 768.
Nathan, Frederic L., W. Rintoul, and F. Baker, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Explosive. No. 1,090,643; Mar. 17; Gaz. vol. 200; p. 768.
Nathan, Frederic L., W. Rintoul, and F. Baker, Stevenston, Scotland, assignors to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Explosive. No. 1,090,644; Mar. 17; Gaz. vol. 200; p. 768.
National Binding Machine Company. (See Foote, Theodore M., assignor.)
National Biscuit Company. (See Ferrall and Mackay, assignors.)
National Carbon Company. (See Brown, John W., assignor.)
National Cash Register Company, The. (See McCarthy, William M., assignor.)
National Enameling & Stamping Co. (See Knapp, George W., assignor.)
National Fire Proofing Company. (See Merley, John, assignor.)
National Malleable Castings Company, The. (See Bazeley, Arthur J., assignor.)
National Malleable Castings Company, The. (See Krakau, Harry T., assignor.)
National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)
National Metal Molding Company. (See Gilson, Henry R., assignor.)
National Patent Holding Company. (See Otis, Spencer, assignor.)
National Placer Machine Company. (See Anderson, Carl E. J., assignor.)
National Pneumatic Company. (See Rowntree, Harold, assignor.)
National Safety Device Company, The. (See Morgan, Garrett A., assignor.)
National Sewing Machine Company. (See Hohmann, Richard K., assignor.)
National Steam Specialty Company. (See Brissenden, Walter W., assignor.)
National Water Main Cleaning Company. (See Hodgman and Inglee, assignors.)
Naylor, George W. (See Geraghty and Naylor.)
Naylor, James P., London, England. Socket structure for electric incandescent lamps. No. 1,089,343; Mar. 3; Gaz. vol. 200; p. 227.
Neal, Charles W., assignor of two-thirds to W. Mitchell and one-third to S. M. Finklea, Cheraw, S. C. Lock-nut. No. 1,089,945; Mar. 10; Gaz. vol. 200; p. 485.
Neal, Elgin F., Elgin, assignor of one-half to C. South, Watseka, Ill. Folding storm-door curtain for automobiles. No. 1,091,380; Mar. 24; Gaz. vol. 200; p. 1047.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Compensating valve. No. 1,089,574; Mar. 10; Gaz. vol. 200; p. 356.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Auxiliary-pressure-control valve. No. 1,089,575; Mar. 10; Gaz. vol. 200; p. 357.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Compensating valve. No. 1,089,576; Mar. 10; Gaz. vol. 200; p. 357.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Compensating valve. No. 1,089,577; Mar. 10; Gaz. vol. 200; p. 358.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Compensating valve. No. 1,089,578; Mar. 10; Gaz. vol. 200; p. 358.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Compensating valve. No. 1,089,579; Mar. 10; Gaz. vol. 200; p. 359.
Neal, Spencer G., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Auxiliary pressure-control valve. No. 1,091,754; Mar. 31; Gaz. vol. 200; p. 1219.
Neary, James P. (See King and Neary.)
Neble, John L., Omaha, Nebr. Automatic train-stopping system. No. 1,091,694; Mar. 31; Gaz. vol. 200; p. 1198.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Inking apparatus. No. 1,088,717; Mar. 3; Gaz. vol. 200; p. 16.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Duplicating-machine. No 1,089,146; Mar. 3; Gaz. vol. 200; p. 164.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Duplicating-machine. No. 1,089,147; Mar. 3; Gaz. vol. 200; p. 165.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Printing-couple appliance. No. 1,089,148; Mar. 3; Gaz. vol. 200; p. 165.
Neidich, Samuel A., Edgewater Park, N. J., assignor, by mesne assignments, to The American Multigraph Company, Cleveland, Ohio. Holder for printing-surfaces. No. 1,089,149; Mar. 3; Gaz. vol. 200; p. 166.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Printing feeding mechanism. No. 1,089,150; Mar. 3; Gaz. vol. 200; p. 166.
Neidich, Samuel A., Edgewater Park, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Type-case. No. 1,089,151; Mar. 3; Gaz. vol. 200; p. 167.
Neidich, Samuel A., Burlington, N. J., assignor to The American Multigraph Company, Cleveland, Ohio. Type-case. No. 1,091,237; Mar. 24; Gaz. vol. 200; p. 1003.
Neiman, Samuel. (See Galluzzo, Francesco R., assignor.)
Nelson, Edwin J., Utica, N. Y. Washing-machine. No. 1,090,406; Mar. 17; Gaz. vol. 200; p. 686.
Nelson, Emil, Portland, Oreg. Watch-dial fastener. No. 1,091,009; Mar. 24; Gaz. vol. 200; p. 922.
Nelson, Emil A., assignor to Hupp Motor Car Company, Detroit, Mich. Engine and transmission unit. No. 1,091,951; Mar. 31; Gaz. vol. 200; p. 1289.
Nelson, Laurence N., Sturgeon Bay, Wis. Saw-guard. No. 1,091,156; Mar. 24; Gaz. vol. 200; p. 975.
Nelson, Nelon J., Somerville, assignor to Vega Company, Boston, Mass. Banjo. No. 1,090,937; Mar. 24; Gaz. vol. 200; p. 898.
Nelson, Nels A. (See Fagerholm, Albin E. S., assignor.)
Nelson, William O., Baltimore, Md. Speedometer. No. 1,090,938; Mar. 24; Gaz. vol. 200; p. 898.
Nemeth, Joseph, St. Louis, Mo. Foldable box. No. 1,089,580; Mar. 10; Gaz. vol. 200; p. 359.
Neptune Meter Company. (See Burton, James M., assignor.)
Neuman, Charles. (See Sarvalla and Neuman.)
Neuman, Hugo, assignor to Diamond Manufacturing Company, Detroit, Mich. Shaping metal. No. 1,091,381; Mar. 24; Gaz. vol. 200; p. 1048.
Neuman, Hugo, assignor to Diamond Manufacturing Company, Detroit, Mich. Metal-shaping machine. No. 1,091,469; Mar. 24; Gaz. vol. 200; p. 1076.
Neumann, Herman J., Los Angeles, Cal. Automobile-lock. No. 1,089,581; Mar. 10; Gaz. vol. 200; p. 359.
New England Envelope Company. (See McNeill, Frank L., assignor.)
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New Ideas Manufacturing Company. (See Dietz, Paul, assignor.)
New Jersey Patent Company. (See Dodge, Eben G., assignor.)
New Standard Hardware Works. (See Rollman, Michael A., assignor.)
New York Couch Bed Company. (See Pittoni, Louis E., assignor.)
New York Stamping Company. (See Simmons and Francisco, assignors.)
New York Stamping Company. (See Wojidkow, Louis, assignor.)
New York Steel Beam & Girder Company. (See Grey, Charles M., assignor.)
Newby, Jake T. (See Rogers, Nathaniel J., assignor.)
Newhouse, Marshall E., *et al.* (See Younger, Charles, assignor.)
Newman Clock Company. (See Jenkins, Charles H., assignor.)
Newman, Enos S., Washington, D. C., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Carriage-stop mechanism for type-writers. No. 1,091,010; Mar. 24; Gaz. vol. 200; p. 922.
Newman, Gustaf. (See Hammarstrom, Carl, assignor.)
Newman, Robert H., *et al.* (See Snee, James M., assignor.)
Newton, Richard H., Montpelier, Vt. Composition of matter to be used for the manufacture of plates for artificial teeth. No. 1,090,939; Mar. 24; Gaz. vol. 200; p. 898.

Nicault, Jules. (See Gueniffet and Nicault.)
Nichols, Anthony. (See Simer and Nichols.)
Nichols, Arthur M., Marshall, Minn. Hover and brooder. No. 1,090,407; Mar. 17; Gaz. vol. 200; p. 686.
Nichols, Charles B. (See Alexander, Jesse, assignor.)
Nichols, Elmer P., assignor to Lacene Manufacturing Company, Manchester, N. H. Machine for evening and grading soles. No. 1,089,492; Mar. 10; Gaz. vol. 200; p. 328.
Nichols & Shepard Company. (See Hawthorne, Primm R., assignor.)
Nicholson, James H. (See Johnson and Nicholson.)
Nickerson, William E., Cambridge, assignor to E. D. Chadwick, trustee, Winchester, Mass. Mounting for automobile-headlights. No. 1,089,430; Mar. 10; Gaz. vol. 200; p. 305.
Niedomanski, Otto W., Washington, D. C. Pencil-sharpener. No. 1,089,946; Mar. 10; Gaz. vol. 200; p. 485.
Nielsen, Jens, Cedar Falls, Iowa. Horizontal rotary engine or pump. No. 1,088,836; Mar. 3; Gaz. vol. 200; p. 56.
Niemann, William L., Mount Olive, Ill. Poultry-coop. No. 1,090,224; Mar. 17; Gaz. vol. 200; p. 621.
Nightingale, John T., *et al.* (See Davidson, John E., assignor.)
Nijsen, Cornelis R., Rotterdam, Netherlands. Trainbrake. No. 1,092,116; Mar 31; Gaz. vol. 200; p. 1343.
Nims, Alvin F., Philadelphia, N. Y. Measuring-machine. No. 1,089,947; Mar. 10; Gaz. vol. 200; p. 486.
Nissen, Niels F., assignor to Nyeboe & Nissen, Copenhagen, Denmark. Pasteurizing machine. No. 1,088,921; Mar. 3; Gaz. vol. 200; p. 84.
Nitrogen Products Company. (See Bucher, John E., assignor.)
Nobel's Explosives Company. (See Hodge, Howard D., assignor.)
Noble, William A. E., Los Angeles, Cal. Turn-table. No. 1,089,582; Mar. 10; Gaz. vol. 200; p. 360.
Nogler, Thomas, Lyon, France. Apparatus for sterilizing liquids by means of the ultra-violet rays. No. 1,091,382; Mar. 24; Gaz. vol. 200; p. 1048.
Noguer-Usall, Joseph, New Haven, Conn. Machine for sorting hair. No. 1,090,560; Mar. 17; Gaz. vol. 200; p. 740.
Nohr, Julius J., Crofton, Nebr. Combined stalk-cutter and roller. No. 1,089,948; Mar. 10; Gaz. vol. 200; p. 486.
Nolden, Paul E., assignor to Anheuser-Busch Brewing Association, St. Louis, Mo. Air-filter. No. 1,091,695; Mar. 31; Gaz. vol. 200; p. 1198.
Nolet, Paul, Brussels, Belgium. Combined explosion or internal combustion and compressed-air engine. No. 1,090,561; Mar. 17; Gaz. vol. 200; p. 740.
Noll, Harry R., and W. B. Hollingsworth, Williamsport, assignors of one-third to J. C. Smart, Cloudersport, Pa. Engine-starter. No. 1,090,165; Mar. 17; Gaz. vol. 200; p. 601.
Nordeen, August, and A. Krell, assignors to Krell Auto-Grand Piano Co. of America, Connersville, Ind. Spool-operating device for musical instruments. No. 1,089,721; Mar 10; Gaz. vol. 200; p. 407.
Norman, William F., Nevada, Mo. Ridge-cap. No. 1,090,334; Mar. 17; Gaz. vol. 200; p. 659.
Normandin, Michel E., Los Angeles, Cal. Adjustable auxiliary shank for shoes. No. 1,091,696; Mar. 31; Gaz. vol. 200; p. 1199.
Norpoth, Theodor, St. Louis, assignor of one-third to R. B. Minnis, Carrollton, Mo. Type-writer manifold attachment. No. 1,092,115; Mar. 31; Gaz. vol. 200; p. 1342.
North East Electric Company. (See Halbleib, Edward A., assignor.)
North, Raymond F., Glendive, Mont. Spraying-machine. No. 1,091,952; Mar. 31; Gaz. vol. 200; p. 1280.
Northwestern Expanded Metal Company. (See Arey, Fred C., assignor.)
Northwestern Mail Box Co. (See Linck, Albert J., assignor.)
Norton, Fred E., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,091,011; Mar. 24; Gaz. vol. 200; p. 923.
Norton, Fred E., Lynn, Mass., assignor to General Electric Company. Extracting steam from steam-turbines. No. 1,091,078; Mar. 24; Gaz. vol. 200; p. 947.
Norton, Samuel H., Mendville, Pa. Crutch. No. 1,090,940; Mar. 24; Gaz. vol. 200; p. 899.
Norvold, Albert H. (See Myrholm, Peder, assignor.)
Noto, Nick. (See Chillis, William G., assignor.)
Nourse, Frank P., Lewiston, Idaho. Speculum. No. 1,090,746; Mar. 17; Gaz. vol. 200; p. 800.
Nungesser Carbon & Battery Company. (See Nungesser, Philip P., assignor.)
Nungesser, Philip P., assignor to The Nungesser Carbon & Battery Company, Cleveland, Ohio. Electrical conductor. No. 1,090,872; Mar. 24; Gaz. vol. 200; p. 875.
Nunn, Harry V. (See Metcalf and Nunn.)
Nunnelley, Herbert L. and S. C., Greendale, Ky. Tobacco-harvester. No. 1,090,747; Mar. 17; Gaz. vol. 200; p. 800.
Nunnelley, Spencer C. (See Nunnelley, Herbert L. and S. C.)
Nutry and Cook Manufacturing Company. (See Nutry, John, assignor.)
Nutry, John, Ridgewood, N. J., assignor to Nutry and Cook Manufacturing Company, Brooklyn, N. Y. Exhibit device. No. 1,089,858; Mar. 10; Gaz. vol. 200; p. 453.
Nutt, Frank N., assignor to The Haynes Automobile Company, Kokomo, Ind. Flexible coupling. No. 1,089,859; Mar. 10; Gaz. vol. 200; p. 453.
Nutter, William H., Shelton, Nebr. Hat-pin guard. No. 1,089,949; Mar. 10; Gaz. vol. 200; p. 486.
Nyberg, Carl S., Södertelje, Sweden. Packeting-machine. No. 1,088,791; Mar. 3; Gaz. vol. 200; p. 41.
Nyeboe & Nissen. (See Nissen, Niels F., assignor.)
Nystrom, Martin, Chicago, Ill. Glue-dissolver. No. 1,089,860; Mar. 10; Gaz. vol. 200; p. 454.
O'Brien, James W., Wolfe Island, Ontario, Canada. Cheese-hoop. No. 1,090,166; Mar. 17; Gaz. vol. 200; p. 601.
O'Connell, James J., Rochester, N. Y. Direction-indicating signal. No. 1,089,950; Mar. 10; Gaz. vol. 200; p. 486.
O'Connell, John F., and C. E. Whiteman, La Grande, Oreg. Cigar-lighter. No. 1,091,586; Mar. 31; Gaz. vol. 200; p. 1161.
O'Connor, William H., East Orange, N. J. Means for feeding material. No. 1,089,431; Mar. 10; Gaz. vol. 200; p. 305.
O'Donnell, Martin J., assignor of one-half to R. J. Farrel, Chicago, Ill. Adjustable pipe-fitting. No. 1,091,697; Mar. 31; Gaz. vol. 200; p. 1199.
O'Hare, Frank J., and G. E. Lovejoy, Columbus, Ohio. Telescoping device for hats. No. 1,090,083; Mar. 10; Gaz. vol. 200; p. 531.
O'Meara, James J., assignor of one-seventh to W. E. Keach, one-seventh to R. A. Sprowson, Fitchburg, one-seventh to E. W. Atkinson, Boston, one-seventh to A. W. Bell, one-seventh to J. D. Bell, and one-seventh to W. A. Bell, Holyoke, Mass. Safety device for lap-machines and the like. No. 1,090,335; Mar. 17; Gaz. vol. 200; p. 660.
O'Neil, Arthur S., Warren, Pa. Coating-machine. No. 1,090,336; Mar. 17; Gaz. vol. 200; p. 660.
O'Neil, John F., St. Louis, Mo. Crushing-mill. No. 1,091,953; Mar. 31; Gaz. vol. 200; p. 1290.
O'Neill, Charles E., Butte, Mont. Letter-binder. No. 1,090,748; Mar. 17; Gaz. vol. 200; p. 800.
Oblosser, Ulysses C., assignor of two-thirds to W. Monroe, Bloomsburg, Pa. Vacuum-cleaner. No. 1,091,383; Mar. 24; Gaz. vol. 200; p. 1048.
Ochschim, Rudolf, Berlin, Germany. Grinding and polishing machine. No. 1,088,922; Mar. 3; Gaz. vol. 200; p. 85.
Oden, Roy F. (See Oden, Sopha C. and R. F.)
Oden, Sopha C. and R. F., Hawarden, Iowa. Corn-planter. No. 1,089,071; Mar. 3; Gaz. vol. 200; p. 136.
Oesterreichische Siemens-Schuckertwerke *et al.* (See Fanta, Regal, Vietze, and Wessely, assignors.)
Office Appliance Manufacturing Company. (See White, Samuel B., assignor.)
Ogden, Fredric D., deceased, Bayonne, N. J.; J. E. Ogden, administrator, Brooklyn, assignor to The Patent Appliance Company, New York, N. Y. Door and means for operating the same. No. 1,090,491; Mar. 17; Gaz. vol. 200; p. 716.
Ogden, John E., administrator. (See Ogden, Fredric D.)
Ogden, Walter W., Maquoketa, Iowa. Gas-burner. No. 1,091,755; Mar. 31; Gaz. vol. 200; p. 1220.
Ohio Comb & Novelty Company. (See Nassauer, Julius, assignor.)
Ohio Machinery Manufacturing Company, The. (See Betz, Frederick M., assignor.)
Ohlsson, Olof, Sodertelje, Sweden. Internal-combustion engine. No. 1,089,432; Mar. 10; Gaz. vol. 200; p. 305.
Ohmer Fare Register Company. (See Bridenbaugh, Elmer H., assignor.)
Oja Aktiengesellschaft. (See Stapler, Alexander, assignor.)
Olesen, Laurits C., Emmetsburg, Iowa. Gasolene traction-engine. No. 1,090,645; Mar. 17; Gaz. vol. 200; p. 768.
Olinger, James A., and J. H. Walker, West Chicago, Ill. Casing-shoe. No. 1,089,583; Mar. 10; Gaz. vol. 200; p. 360.
Oliver Chilled Plow Works. (See Altgelt and Carlson, assignors.)
Oliver, Elam A., Belleville, Wis. Seed-grading machine. No. 1,089,433; Mar. 10; Gaz. vol. 200; p. 306.
Oliver, George A., assignor to The Standard Rock Drill Company, Denver, Colo. Valve mechanism for pneumatic tools. No. 1,090,790; Mar. 17; Gaz. vol. 200; p. 815.
Oliver, Woodbury T., Newport News, Va. Hose-rack. No. 1,091,384; Mar. 24; Gaz. vol. 200; p. 1049.
Olson, John. (See Gosnell and Olson.)
Oneida Community. (See Ricker, Frank S., assignor.)
Onsrud, Oscar, Chicago, Ill. Core-drum. No. 1,090,402; Mar. 17; Gaz. vol. 200; p. 717.
Oosterhous, Jacob J., Plymouth, Wis. Attachment for plows. No. 1,089,005; Mar. 3; Gaz. vol. 200; p. 114.
Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Humbrecht, Jules, assignor.)
Ordnance Improvement Company. (See Gerdom, Gregory, assignor.)
Orel, Eduard von, Vienna, Austria-Hungary, assignor to Firm of C. Zeiss, Jena, Germany. Stereo apparatus for plastic reproduction. No. 1,090,493; Mar. 17; Gaz. vol. 200; p. 717.
Orel, Eduard von, Vienna, Austria-Hungary, assignor to Firm of C. Zeiss, Jena, Germany. Stereo-isohypsograph. No. 1,090,494; Mar. 17; Gaz. vol. 200; p. 717.





Orenstein & Koppel - Arthur Koppel Aktiengesellschaft. (See Ullmann, Emil, assignor.)
Orkin, Barry, Chelsea, Mass. Shaper for cuttle-fish molds. No. 1,091,158; Mar. 24; Gaz. vol. 200; p. 976.
Orling, Axel, assignor to Orling's Telegraph Instruments Syndicate Limited, London, England. Relay apparatus. No. 1,089,434; Mar. 10; Gaz. vol. 200; p. 306.
Orling's Telegraph Instruments Syndicate Limited. (See Orling, Axel, assignor.)
Orr, John K., and L. F. Jones, Zeigler, Ill. Mine-door. No. 1,090,562; Mar. 17; Gaz. vol. 200; p. 741.
Orr, William F. (See Phillips, Thomas J., assignor.)
Orton, Frederic. (See Hinde, Orton, and Lindgren.)
Osada, Clara, Denver, Colo. Cooking utensil. No. 1,089,664; Mar. 10; Gaz. vol. 200; p. 388.
Osborn, Benjamin F., and E. F. Zirbel, Rippey, Iowa. Train-locating and time-recording apparatus. No. 1,091,756; Mar. 31; Gaz. vol. 200; p. 1220.
Osborn, Warren M., New Britain, Conn. Rail-fastening means. No. 1,089,861; Mar. 10; Gaz. vol. 200; p. 454.
Osten, Robert G. (See Lamkin, Bert E., assignor.)
Ostrander, Allen E. (See Conwell and Ostrander.)
Oswald, Richard W., Pittsburgh, Pa. Metallic tie and rail-fastener. No. 1,091,530; Mar. 31; Gaz. vol. 200; p. 1142.
Otis Elevator Company. (See Gale, Ernest L., Sr., assignor.)
Otis Elevator Company. (See Manville, Charles B., assignor.)
Otis, Spencer, Chicago, Ill. Dump-car. No. 1,089,493; Mar. 10; Gaz. vol. 200; p. 329.
Otis, Spencer, assignor to National Patent Holding Company, Chicago, Ill. Turbine. No. 1,090,495; Mar. 17; Gaz. vol. 200; p. 718.
Otto, August, Jr., Sandwich, Ill. Draft appliance for farming implements. No. 1,091,587; Mar. 31; Gaz. vol. 200; p. 1161.
Otto, Carl, Dresden, Germany. Process and high-pressure furnace for the direct production of iron and steel. No. 1,089,951; Mar. 10; Gaz. vol. 200; p. 487.
Overbeck, Otto G. C. L. J., Great Grimsby, England. Dealcoholizing liquids. No. 1,089,862; Mar. 10; Gaz. vol. 200; p. 455.
Overman, Max C., New York, N. Y. Vehicle-tire. No. 1,092,078; Mar. 31; Gaz. vol. 200; p. 1329.
Owen, Leo. (See Owen, Melville D. and L.)
Owen, Melville D. and L., Vernon, Tex. Corn-heading knife. No. 1,091,757; Mar. 31; Gaz. vol. 200; p. 1220.
Owen, Richard, Liverpool, England. Adjustable bracket for supporting shelves or the like. No. 1,089,863; Mar. 10; Gaz. vol. 200; p. 455.
Owens, Edward W., Wagner, S. D. Check-rower and automatic corn-planter. No. 1,090,167; Mar. 17; Gaz. vol. 200; p. 601.
Pachaly, Robert W., assignor of one-half to T. H. Garland, Chicago, Ill. Electrical switch mechanism. No. 1,091,012; Mar. 24; Gaz. vol. 200; p. 923.
Packard Electric Company, The. (See Wolcott and Woodland, assignors.)
Packard, James A., Milwaukee, Wis. Smoke-consumer. No. 1,091,013; Mar. 24; Gaz. vol. 200; p. 924.
Packard Motor Car Company. (See Hastings, Don T., assignor.)
Packard Motor Car Company. (See Huff, Russell, assignor.)
Packard Motor Car Company. (See Loomis, Allen, assignor.)
Packham, Frank R., assignor to The American Seeding Machine Company, Springfield, Ohio. Disk furrow-opener. No. 1,089,072; Mar. 3; Gaz. vol. 200; p. 136.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Auxiliary spring for latches. No. 1,089,435; Mar. 10; Gaz. vol. 200; p. 307.
Page, Albert A., assignor to Sargent & Company, New Haven, Conn. Plane. No. 1,090,225; Mar. 17; Gaz. vol. 200; p. 622.
Page Woven Wire Fence Company. (See Snedeker, James W., assignor.)
Pagel, Gustav, Charlottenburg, Germany, assignor to General Electric Company. Centrifugal air-pump. No. 1,089,665; Mar. 10; Gaz. vol. 200; p. 388.
Paldani, George F., Waukegan, Ill. Cigar-lighter. No. 1,091,014; Mar. 24; Gaz. vol. 200; p. 925.
Palindy, George H., Allerton, Iowa. Shock-conveyer. No. 1,090,337; Mar. 17; Gaz. vol. 200; p. 661.
Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Hammock or like support. No. 1,091,531; Mar. 31; Gaz. vol. 200; p. 1142.
Palmer, Martin C., Des Moines, Iowa. Hanger for screens and sash. No. 1,091,758; Mar. 31; Gaz. vol. 200; p. 1221.
Palmer, Stephen M., Tonica, Ill. Overshoe-retainer. No. 1,089,073; Mar. 3; Gaz. vol. 200; p. 136.
Palmetto Machine Company. (See Hallbauer, Albert L., assignor.)
Paradis, Albert, Philadelphia, Pa., assignor to Samuel Sternberger Company. Shirt-cuff. No. 1,089,782; Mar. 10; Gaz. vol. 200; p. 427.
Paradis, Frederik E., Buffalo, N. Y. Hose-coupling. No. 1,091,759; Mar. 31; Gaz. vol. 200; p. 1221.
Paramount Knitting Company. (See Roggінger, John, assignor.)
Parcells, Charles S., Ovid, N. Y. Headlight mechanism. No. 1,091,532; Mar. 31; Gaz. vol. 200; p. 1143.
Pardee, Edwin L., Marne, Iowa. Spark advancing and retarding mechanism. No. 1,089,256; Mar. 3; Gaz. vol. 200; p. 199.
Pardee, John S. E., Philadelphia, Pa. Paving material. No. 1,090,084; Mar. 10; Gaz. vol. 200; p. 531.
Pardey, Alfred O. (See Keene, George F., assignor.)
Parditt, Richard H., East Greenwich, England. Pattern-cylinders or the like for use in connection with the manufacture of inlaid linoleum or other similar material. No. 1,090,496; Mar. 17; Gaz. vol. 200; p. 718.
Parish, Le Grand, New York, N. Y. Locomotive-fire-box construction. No. 1,089,666; Mar. 10; Gaz. vol. 200; p. 389.
Park, Albert V., South Melbourne, J. N. Caught, and H. House, St. Kilda, Melbourne, Victoria, Australia; said Park and Caught assignors to said House. Shock-nullifying vehicle suspension. No. 1,089,257; Mar. 3; Gaz. vol. 200; p. 199.
Parker, Edwy S., and T. W. Durant, Chicago, Ill.; said Durant assignor to said Parker. Starching-machine. No. 1,089,494; Mar. 10; Gaz. vol. 200; p. 329.
Parker, Frederick R., Chicago, Ill. Telephone system. No. 1,090,821; Mar. 17; Gaz. vol. 200; p. 825.
Parker, Herbert L. (See Brett and Parker.)
Parker, John H., Haverhill, Mass. Receptacle. No. 1,090,563; Mar. 17; Gaz. vol. 200; p. 741.
Parpert, Herman H. (See Stockstrom and Parpert.)
Parsons, Clyde. (See Bailey and Parsons.)
Parsons, Henry R., Sharpsville, Pa. Valve-grinding tool. No. 1,091,954; Mar. 31; Gaz. vol. 200; p. 1290.
Pasierbski, Anton, Mikultschütz, Germany. Igniting device for miners' lamps. No. 1,091,891; Mar. 31; Gaz. vol. 200; p. 1268.
Passmore, Charles L., Clinton, Iowa, assignor to John L. Sommer Mfg. Co. Bill-file. No. 1,088,837; Mar. 3; Gaz. vol. 200; p. 57.
Pate, Jeff P., Rocky Mount, N. C. Cultivator. No. 1,091,760; Mar. 31; Gaz. vol. 200; p. 1221.
Patent Appliance Company, The. (See Ogden, Fredric D., assignor.)
Patented Devices Company. (See Evans, Fred, assignor.)
Paterson, James A., Widnes, England. Facing or milling machine. No. 1,089,258; Mar. 3; Gaz. vol. 200; p. 200.
Patrick, Charles A., Bellaire, Tex. Package-tie. No. 1,089,952; Mar. 10; Gaz. vol. 200; p. 487.
Patten, Arnold J., Ellsworth, Me. Muffler. No. 1,089,259; Mar. 3; Gaz. vol. 200; p. 200.
Patterson, Charles F., New York, N. Y. Sprinkler supervisory system. No. 1,090,497; Mar. 17; Gaz. vol. 200; p. 718.
Patton, Albert, McKeesport, Pa. Refining metals. No. 1,091,588; Mar. 31; Gaz. vol. 200; p. 1162.
Paulson, Robert L., Brooklyn, N. Y. Galley-stove. No. 1,090,226; Mar. 17; Gaz. vol. 200; p. 622.
Paulson, Robert L., Brooklyn, N. Y. Galley-stove. No. 1,090,227; Mar. 17; Gaz. vol. 200; p. 622.
Paulus, Franz, Aachen, Germany. Screw-clamp. No. 1,089,953; Mar. 10; Gaz. vol. 200; p. 487.
Pauly, Karl A., Schenectady, N. Y., assignor to General Electric Company. Electric-motor drive. No. 1,089,783; Mar. 10; Gaz. vol. 200; p. 428.
Pawloski, Philip J. (See Blatzer and Pawloski.)
Paxson, Elwood M. (See Davis and Paxson.)
Payer, Jacob J., Adams, N. D. Bundle-carrying attachment for grain-harvesters. No. 1,090,338; Mar. 17; Gaz. vol. 200; p. 661.
Payne, Hugh W., Rochester, N. Y. Recording mechanism. No. 1,090,749; Mar. 17; Gaz. vol. 200; p. 800.
Peach, Charles E., Brooklyn, N. Y. Animal-trap. No. 1,090,750; Mar. 17; Gaz. vol. 200; p. 801.
Peacock, Gordon M. (See Griffin and Peacock.)
Peacock, Samuel, Chicago, Ill. Electric furnace. No. 1,090,107; Mar. 10; Gaz. vol. 200; p. 540.
Peacock, Samuel, Chicago, Ill., assignor to International Agricultural Corporation, New York, N. Y. Hydrating phosphorus pentoxid. No. 1,089,784; Mar. 10; Gaz. vol. 200; p. 428.
Pearce, Leon L. (See Belding and Pearce.)
Pearson Miles E., Seattle, Wash., assignor to The Long Distance Telephone Equipment Co. Electrical sound-transmitter. No. 1,088,923; Mar. 3; Gaz. vol. 200; p. 85.
Peck, Cald H., Athens, Pa., assignor to Ingersoll Rand Company, Jersey City, N. J. Valve for percussive tools. No. 1,089,436; Mar. 10; Gaz. vol. 200; p. 307.
Peck, Cald H., Athens, Pa., assignor to Ingersoll Rand Company, Jersey City, N. J. Drill-spindle-rotating mechanism for close-corner drills. No. 1,089,437; Mar. 10; Gaz. vol. 200; p. 308.
Peck, Julius R. (See McDonald, John A., assignor.)
Pedersen, Peder O., Copenhagen, Denmark. Transmitting apparatus for electric signaling. No. 1,091,159; Mar. 24; Gaz. vol. 200; p. 976.
Peelle Company, The. (See Wexler, Benjamin, assignor.)
Peerless Motor Car Company, The. (See Wadsworth, George R., assignor.)
Peet, Wilbur G., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric switch. No. 1,089,785; Mar. 10; Gaz. vol. 200; p. 428.
Peloubet, William S. (See Hunt and Peloubet.)
Pelter, Charles, T. H. Spry, and C. F. Busse, Walla Walla, Wash. Automobile-fender. No. 1,089,006; Mar. 3; Gaz. vol. 200; p. 114.

Pemberton, Edward L., New Haven, Conn. Adjustable crusher-head. No. 1,089,954; Mar. 10; Gaz. vol. 200; p. 487.

Penfield, Raymond C. (See Crum, Hollis B., assignor.)

Pennsylvania Globe Gas Light Company. (See Slinack, Victor H., assignor.)

Peoples, William F., Abilene, Tex. Knee-rest. No. 1,090,408; Mar. 17; Gaz. vol. 200; p. 687.

Percy, Earl N. (See Smith and Percy.)

Percy, James E., assignor of three-fifths to C. H. Getty and A. W. Sherwood, Hoosick Falls, N. Y. Closure for milk-bottles. No. 1,091,761; Mar. 31; Gaz. vol. 200; p. 1222.

Perkins, Edwin A., New York, N. Y. Shock-absorber for valves. No. 1,091,238; Mar. 24; Gaz. vol. 200; p. 1003.

Perkins, George W., assignor to Heaton Peninsular Button Fastener Company, Boston, Mass. Button-fastening machine. No. 1,089,344; Mar. 3; Gaz. vol. 200; p. 227.

Perkins, Gregory, Los Angeles, Cal. Machine for cutting paving. No. 1,090,646; Mar. 17; Gaz. vol. 200; p. 769.

Perkins, Louis J., Lewiston, Idaho. Explosive-engine-priming mechanism. No. 1,088,792; Mar. 3; Gaz. vol. 200; p. 41.

Perkins, Thomas S., Pittsburgh, and E. E. Rose, Swissvale, Pa., assignors to Westinghouse Electric and Manufacturing Company. Electrically-heated stove. No. 1,090,339; Mar. 17; Gaz. vol. 200; p. 662.

Persson, Otto F., Lynn, Mass., assignor to General Electric Company. Steering mechanism. No. 1,091,861; Mar. 31; Gaz. vol. 200; p. 1259.

Peter Smith Heater Company. (See Smith, Elmer J., assignor.)

Petermann, Otto, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company. Carriage for type-writing machines. No. 1,088,924; Mar. 3; Gaz. vol. 200; p. 86.

Petermann, Otto, New York, N. Y., assignor, by mesne assignments, to Standard Typewriter Company. Type-writing machine. No. 1,089,345; Mar. 3; Gaz. vol. 200; p. 227.

Peters, Louis H., Quebec, Quebec, Canada. Lock-joint for window-stiles. No. 1,090,498; Mar. 17; Gaz. vol. 200; p. 719.

Petersen, Robert J., Birmingham, England. Device for loading magazine-rifles. No. 1,088,925; Mar. 3; Gaz. vol. 200; p. 86.

Petersen, Walter, Chicago, Ill. Tool for spreading tire-cuts. No. 1,090,564; Mar. 17; Gaz. vol. 200; p. 741.

Petersen, William, Lyons, Iowa. Stovepipe or chimney thimble. No. 1,088,718; Mar. 3; Gaz. vol. 200; p. 17.

Peterson, Christen J., assignor to Wearproof Mat Company, Chicago, Ill. Mat. No. 1,090,791; Mar. 17; Gaz. vol. 200; p. 815.

Peterson, Frank H. (See MacCune, John G., assignor.)

Peterson, Fredolf J., Salem, Ohio. Credit-register-leaf construction. No. 1,091,239; Mar. 24; Gaz. vol. 200; p. 1004.

Peterson, Fritz, Rockford, Ill. Saw. No. 1,088,719; Mar. 3; Gaz. vol. 200; p. 17.

Peterson, John A., Modesto, Cal. Tandem seat for motor-cycles. No. 1,088,793; Mar. 3; Gaz. vol. 200; p. 41.

Peterson, Samuel J., Valdosta, Ga. Pumping apparatus. No. 1,089,955; Mar. 10; Gaz. vol. 200; p. 488.

Petty, Harry E., assignor of one-sixth to C. D. McCoy, one-sixth to J. H. Beegle, and one-sixth to N. S. Sibert, Neodesha, Kans. Pivot-bearing for railway-cars. No. 1,089,260; Mar. 3; Gaz. vol. 200; p. 200.

Pfau, Otto R., Milwaukee, Wis. Pneumatic pump. No. 1,090,873; Mar. 24; Gaz. vol. 200; p. 876.

Pfeiffer, Byron G., Detroit, Mich. Fish-bait holder. No. 1,089,074; Mar. 3; Gaz. vol. 200; p. 136.

Pfenninger Pretzel & Baking Company. (See Schaetzel, George H., assignor.)

Pfunder, Emil L., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,089,075; Mar. 3; Gaz. vol. 200; p. 137.

Phelps, Frank, Little Rock, Ark. High-pressure release-valve. No. 1,091,762; Mar. 31; Gaz. vol. 200; p. 1222.

Phelps, Lester N. (See Wood, Frank O., assignor.)

Philadelphia Drying Machinery Company, The. (See Allsop and Sibson, assignors.)

Philadelphia Drying Machinery Company, The. (See Sibson and Allsop, assignors.)

Philadelphia Holding Company. (See Halsey, James T., assignor.)

Philip, Ernest R., Atlanta, Ga., assignor to American Can Company, New York, N. Y. Apron and cup supporting device. No. 1,091,698; Mar. 31; Gaz. vol. 200; p. 1200.

Philip, Ernest R., Atlanta, Ga., assignor to American Can Company, New York, N. Y. Combined apron and cup supporting device. No. 1,091,699; Mar. 31; Gaz. vol. 200; p. 1200.

Phillips, Arthur A. (See Schelling and Phillips.)

Phillips, James B., Portland, Me. Lever-controlled device for hoisting mechanism. No. 1,091,160; Mar. 24; Gaz. vol. 200; p. 976.

Phillips, Milton W., New York, N. Y. Numbering-machine. No. 1,091,240; Mar. 24; Gaz. vol. 200; p. 1004.

Phillips, Thomas J., McKeesport, assignor of one-half to W. F. Orr, Kittanning, Pa. Sled. No. 1,091,055; Mar. 31; Gaz. vol. 200; p. 1290.

Phillips, Walter W., Jersey City, N. J. Carpet-retainer. No. 1,091,862; Mar. 31; Gaz. vol. 200; p. 1259.

Philp, Robert A., Portland, Oreg. Burglar-alarm. No. 1,091,385; Mar. 24; Gaz. vol. 200; p. 1049.

Phinney Engineering Company, The. (See Adams, Roger C., assignor.)

Phoenix Glass Co. (See Pickhardt, Harry, assignor.)

Phoenix Hermetic Company. (See Tallaferro, Thomas L., assignor.)

Phoenix Motor Company, The. (See Barrett and Wilson, assignors.)

Picard, Hugh F. K. (See Sulman and Picard.)

Picker, Lucien. (See Mégevet and Picker.)

Pickett, Thornton F. (See Queen and Pickett.)

Pickhardt, Harry, New York, N. Y., assignor to Phoenix Glass Co., Pittsburgh, Pa. Combined reflector and refractor for lamps. No. 1,088,838; Mar. 3; Gaz. vol. 200; p. 57.

Piel, Gottfried. (See Long, George F., assignor.)

Pier, Mathias, Zehlendorf, near Berlin, Germany. Process of bringing hydrogen or hydrogen-containing gas mixtures to reaction and apparatus therefor. No. 1,090,874; Mar. 24; Gaz. vol. 200; p. 876.

Pierce, Charles A. (See Pierce, William S., assignor.)

Pierce, Edward, and W. Pinkerton, Pleyto, Cal. Concentrator. No. 1,091,440; Mar. 24; Gaz. vol. 200; p. 1067.

Pierce, George F., Kansas City, Mo. Flue-cleaner. No. 1,088,794; Mar. 3; Gaz. vol. 200; p. 42.

Pierce, Guy C., assignor to California Valve and Air Brake Company, Los Angeles, Cal. Method and means for forming diaphragms. No. 1,091,763; Mar. 31; Gaz. vol. 200; p. 1222.

Pierce, James, Ogden, Utah. Wheel. No. 1,091,241; Mar. 24; Gaz. vol. 200; p. 1005.

Pierce, William S., assignor of one-half to C. A. Pierce, Franklin, Pa. Well-packer. No. 1,091,386; Mar. 24; Gaz. vol. 200; p. 1049.

Pierce, William S., assignor of one-half to C. A. Pierce, Franklin, Pa. Packing for wells. No. 1,091,387; Mar. 24; Gaz. vol. 200; p. 1049.

Pierman, Alexander N., Newark, N. J. Alarm. No. 1,091,533; Mar. 31; Gaz. vol. 200; p. 1143.

Piero, William J. (See Lisbae, John J., assignor.)

Pilcher, John A., Roanoke, Va. Center-plates for railway-cars. No. 1,090,168; Mar. 17; Gaz. vol. 200; p. 602.

Pilling, Charles J. (See Faught and Pilling.)

Pincin, William, Altoona, Pa. Adjustable reamer. No. 1,089,722; Mar. 10; Gaz. vol. 200; p. 407.

Pinkerton, Henry M. G., Philadelphia, Pa., assignor to Hill-Independent Manufacturing Company, Muskegon, Mich. Dating-stamp. No. 1,091,388; Mar. 24; Gaz. vol. 200; p. 1050.

Pinkerton, William. (See Pierce and Pinkerton.)

Pioneer Suspender Company. (See Freeman, Frank A., assignor.) (Reissue.)

Pipereaut, Pierre. (See Battaille and Pipereaut.)

Pirani, Marcello von, Wilmersdorf, near Berlin, Germany, assignor to General Electric Company. Working refractory metals. No. 1,089,786; Mar. 10; Gaz. vol. 200; p. 429.

Pirrung, Felix and G. F., Chicago, Ill. Dust-mop. No. 1,091,700; Mar. 31; Gaz. vol. 200; p. 1200.

Pirrung, George F. (See Pirrung, Felix and G. F.)

Pisarz, Henry and S. M., Los Angeles, Cal. Extension-ladder. No. 1,089,864; Mar. 10; Gaz. vol. 200; p. 455.

Pisarz, Stash M. (See Pisarz, Henry and S. M.)

Pittoni, Louis E., assignor to New York Couch Bed Company, New York, N. Y. Folding bed. No. 1,090,340; Mar. 17; Gaz. vol. 200; p. 662.

Pitts, John W., assignor to Pitts Royalty Company, Bisbee, Ariz. Internal-combustion engine. No. 1,090,647; Mar. 17; Gaz. vol. 200; p. 769.

Pitts Royalty Company. (See Pitts, John W., assignor.)

Pittsburg Meter Company. (See Chrisman, Horace, assignor.)

Pittsburgh Air Brake Company. (See Snyder, Jacob R., assignor.)

Pittsburgh Metallurgical Company. (See Plock, Albert F., assignor.)

Pittsburgh Plate Glass Company. (See Bechtel, John A., assignor.)

Pittsburgh Plate Glass Company. (See Heichert, Herman S., assignor.)

Pittsburgh Steel Products Co. (See Mogan and Brock, assignors.)

Pixley, Charles H., Austin, assignor to F. A. Hardy & Co., Chicago, Ill. Instrument for detecting heterophoria. No. 1,091,701; Mar. 31; Gaz. vol. 200; p. 1201.

Plank, Julius J., Kansas City, Mo. Auxiliary steam-generator. No. 1,089,076; Mar. 3; Gaz. vol. 200; p. 137.

Platt, Haviland H. (See Reese and Platt.)

Pleasants, Ellin C., Baltimore, Md. Hat-pin guard. No. 1,089,584; Mar. 10; Gaz. vol. 200; p. 360.

Plecher, Andrew, Las Animas, Colo. Induction-coil. No. 1,091,580; Mar. 31; Gaz. vol. 200; p. 1162.

Pledger, Sam P., Oklahoma, Okla. Coin and ticket apparatus. No. 1,092,124; Mar. 31; Gaz. vol. 200; p. 1346.

Pletz, Arthur C., Cincinnati, Ohio. Belt-shifter. No. 1,089,152; Mar. 3; Gaz. vol. 200; p. 167.

Plimpton Press, The. (See Adam, William J., assignor.)

Plock, Albert F., Pittsburgh, Pa., assignor to Pittsburgh Metallurgical Company, Incorporated, Wilmington, Del. Apparatus for sintering ores. No. 1,089,153; Mar. 3; Gaz. vol. 200; p. 168.

Plume and Atwood Manufacturing Company, The. (See Andersen, Lauritz W., assignor.)

Plume & Atwood Manufacturing Company, The. (See Ratto, Richard C., assignor.)





Poalk, James L., Jenkintown, Pa. Sad-iron. No. 1,089,667; Mar. 10; Gaz. vol. 200; p. 389.

Poeth, Max, assignor of one-half to F. Butz, Denver, Colo. Car-coupling adjuster. No. 1,091,956; Mar. 31; Gaz. vol. 200; p. 1290.

Pohrer, Henry F., St. Louis, Mo. Composition of matter. No. 1,091,863; Mar. 31; Gaz. vol. 200; p. 1260.

Poisson, Joseph, Fall River, assignor to Draper Company, Hopedale, Mass. Building-motion for ring-spinning machines. No. 1,091,015; Mar. 24; Gaz. vol. 200; p. 925.

Poland, Ephraim W., Galesburg, Ill. Mattress-retainer. No. 1,090,875; Mar. 24; Gaz. vol. 200; p. 877.

Poler, John W., Takoma Park, Md., assignor to Molyneux Mailing Machines Company, Buffalo, N. Y. Machine for preparing mail-matter for posting. No. 1,090,499; Mar. 17; Gaz. vol. 200; p. 719.

Pollard, Effingham L., Dobbs Ferry, N. Y. Drinking-fountain. No. 1,090,876; Mar. 24; Gaz. vol. 200; p. 877.

Pollard, Frédéric A., Parc St. Maur, France. Apparatus for refrigerating by means of liquefied gas. No. 1,091,957; Mar. 31; Gaz. vol. 200; p. 1291.

Pollard, Marion M., Dobbs Ferry, N. Y. Hair-curler. No. 1,090,341; Mar. 17; Gaz. vol. 200; p. 662.

Polo, Joseph B., Clear Lake, S. D. Alarm for pneumatic tires. No. 1,091,016; Mar. 24; Gaz. vol. 200; p. 926.

Polyanich, Anton B., Truckee, Cal. Tag or check. No. 1,089,956; Mar. 10; Gaz. vol. 200; p. 488.

Pond, Dana W., assignor to Diamond Machine Company, Providence, R. I. Metal-working machine. No. 1,090,342; Mar. 17; Gaz. vol. 200; p. 662.

Ponsiglione, Attilio A., New York, and A. D. Anderson, Harrison, N. Y. Piano music-desk. No. 1,090,343; Mar. 17; Gaz. vol. 200; p. 663.

Ponton, Arthur, Murdock, Ill. Bed-spring tightener. No. 1,089,007; Mar. 3; Gaz. vol. 200; p. 114.

Pool, Charles R. P., Dallas, Tex. Press-head-operating apparatus. No. 1,089,008; Mar. 3; Gaz. vol. 200; p. 114.

Pooley, Edward F., Philadelphia, Pa. Drawer-guide. No. 1,091,079; Mar. 24; Gaz. vol. 200; p. 947.

Pope, Joseph H., Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for stacking heel-blanks. No. 1,088,720; Mar. 3; Gaz. vol. 200; p. 17.

Pope, Joseph H., South Hamilton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for stacking heel-blanks. No. 1,088,721; Mar. 3; Gaz. vol. 200; p. 17.

Pope, Joseph H., Brockton, assignor to United Shoe Machinery Company, Boston, Mass. Jack for heel-nailing machines. No. 1,090,228; Mar. 17; Gaz. vol. 200; p. 623.

Pope Manufacturing Company, The. (See Beckwith, Daniel P., assignor.)

Porges, Philipp, Vienna, assignor of one-half to L. Steinschneider, Brunn, Austria-Hungary. Filter-plate. No. 1,091,080; Mar. 24; Gaz. vol. 200; p. 948.

Port, Samuel R., Martinsville, Ind. Receptacle-cover. No. 1,090,565; Mar. 17; Gaz. vol. 200; p. 742.

Porter, Cutler T., Spokane, Wash. Fan-wheel. No. 1,091,702; Mar. 31; Gaz. vol. 200; p. 1201.

Porter, Frederick W. H., Quebec, Quebec, Canada, assignor to C. H. A. F. L. Ross, county of Ross, Scotland. Sight for firearms. No. 1,089,009; Mar. 3; Gaz. vol. 200; p. 115.

Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Chronograph or stop watch. No. 1,089,865; Mar. 10; Gaz. vol. 200; p. 456.

Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Clock. No. 1,089,866; Mar. 10; Gaz. vol. 200; p. 456.

Portland Gold Mining Company. (See Crowe, Thomas B., assignor.)

Portmore, Thomas G., assignor to Dennison Manufacturing Company, South Framingham, Mass. Baggage-check. No. 1,089,154; Mar. 3; Gaz. vol. 200; p. 168.

Pos, Gerrit M. E., Amsterdam, Netherlands. Device for the production of fibers from plants. No. 1,089,261; Mar. 3; Gaz. vol. 200; p. 201.

Post, Edward C. (See Raabe, Walter, assignor.)

Post-Haste Card Systems Company, The. (See Struble, Robert D., assignor.)

Post, Marion S., and T. La Fayette, Middletown, Ohio. Attachment for pool-tables. No. 1,089,262; Mar. 3; Gaz. vol. 200; p. 201.

Post, Welles M., Elizabeth, N. J. Intermediate support for bond-wires and nut-locks. No. 1,089,787; Mar. 10; Gaz. vol. 200; p. 429.

Poteat, James K., Durham, N. C. Finger attachment. No. 1,091,892; Mar. 31; Gaz. vol. 200; p. 1269.

Pott, Fritz, Friedenau, near Berlin, Germany. Manufacturing filtering material. No. 1,089,346; Mar. 3; Gaz. vol. 200; p. 228.

Potter, William B., Schenectady, N. Y., assignor to General Electric Company. Trolley for trackless vehicles. No. 1,089,957; Mar. 10; Gaz. vol. 200; p. 488.

Potts, Thomas W. (See Bellve and Potts.)

Potts, Warren, Elkhart, Ind. Chandelier. No. 1,088,722; Mar. 3; Gaz. vol. 200; p. 18.

Potwin, William S. (See Desmond, John, assignor.)

Powel, Warren A., Taylorville, Ill. Support. No. 1,089,958; Mar. 10; Gaz. vol. 200; p. 489.

Powell, Eugene H., Union Level, Va. Curtain and pole fixture. No. 1,091,958; Mar. 31; Gaz. vol. 200; p. 1291.

Power Manufacturing Company. (See Primm, John M., assignor.)

Powers, Edward O. (See Vail and Powers.)

Powers, James E. and W. H., Bedford City, Va. Grain-binder. No. 1,088,795; Mar. 3; Gaz. vol. 200; p. 42.

Powers, William H. (See Powers, James E. and W. H.)

Prater, John A., Edinburg, Ill. Horse-collar. No. 1,089,263; Mar. 3; Gaz. vol. 200; p. 201.

Pratt, Charles T., assignor to Pratt Chuck Company, Frankfort, N. Y. Armoring-machine. No. 1,091,161; Mar. 24; Gaz. vol. 200; p. 977.

Pratt Chuck Company. (See Pratt, Charles T., assignor.)

Pratt, Edwin H., Lompoc, Cal. Attachment for alarm-clocks. No. 1,090,648; Mar. 17; Gaz. vol. 200; p. 770.

Pratt & Whitney Company. (See Hanson, Bengt M. W., assignor.)

Pratt & Whitney Company. (See Sears, Willard T., assignor.)

Pratt, William C., Augusta, Ark. Stovepipe-fastener. No. 1,090,649; Mar. 17; Gaz. vol. 200; p. 770.

Pratt, William H., Lynn, Mass., assignor to General Electric Company. Internal-combustion engine. No. 1,091,703; Mar. 31; Gaz. vol. 200; p. 1201.

Pratt, William H., and A. J. R. Fiego, Lynn, Mass., assignors to General Electric Company. Bearing for the shafts of measuring instruments. No. 1,088,839; Mar. 3; Gaz. vol. 200; p. 57.

Preble, George L., Lynn, Mass. Counter-stiffener. No. 1,091,704; Mar. 31; Gaz. vol. 200; p. 1202.

Prendergast, George F., Buffalo, N. Y. Spinning-top. No. 1,089,668; Mar. 10; Gaz. vol. 200; p. 389.

Preston, Robert, Winnipeg, Manitoba, Canada. Side-liner for truck-boxes. No. 1,089,669; Mar. 10; Gaz. vol. 200; p. 390.

Price, Thomas M., Washington, D. C. Ink. No. 1,088,840; Mar. 3; Gaz. vol. 200; p. 57.

Price, William A., Teddington, England. Electrical machine. No. 1,089,077; Mar. 3; Gaz. vol. 200; p. 137.

Primm, John M., assignor to Power Manufacturing Company, Lima, Ohio. Governor. No. 1,090,500; Mar. 17; Gaz. vol. 200; p. 720.

Propson, Harry E., Plainville, assignor of one-half to L. M. Schmidt, New Britain, Conn. Perforated sheet-music. No. 1,090,344; Mar. 17; Gaz. vol. 200; p. 663.

Prosser, Henry B., assignor to Advance Terra Cotta Company, Chicago, Ill. Mold. No. 1,090,566; Mar. 17; Gaz. vol. 200; p. 742.

Prouty, Frank D., Banning, Cal. Wave-motor. No. 1,090,751; Mar. 17; Gaz. vol. 200; p. 801.

Prsco Manufacturing Company, The. (See Mazzeo, Salvatore, assignor.)

Pruden, Clarence D. (See Hanna, James, assignor.)

Przybylka, Jozef, Sayreville, N. J. Hat-pin-point-protecting device. No. 1,089,867; Mar. 10; Gaz. vol. 200; p. 456.

Pugh, William D., Fletcher, Okla. Combination wood and concrete silo. No. 1,089,010; Mar. 3; Gaz. vol. 200; p. 115.

Pugliatti, Thomas P. (See Restucci, Giuseppe, assignor.)

Purdy, John S., Houston Heights, Tex. Picket-fence machine. No. 1,089,438; Mar. 10; Gaz. vol. 200; p. 308.

Putnam, Frank L., Lihue, Hawaii. Elevated carrier. No. 1,089,264; Mar. 3; Gaz. vol. 200; p. 202.

Pybus, George W., Toronto, Ontario, Canada. Nut-lock. No. 1,091,959; Mar. 31; Gaz. vol. 200; p. 1291.

Q-P Signal Company, The. (See Queen and Pickett, assignors.)

Quackenbush, Charles G., Toledo, Ohio. Table. No. 1,090,752; Mar. 17; Gaz. vol. 200; p. 801.

Queen, Walter K., and T. F. Pickett, Needham Heights, Mass., assignors to The Q-P Signal Company. Direction-indicator for electromechanical telegraph systems. No. 1,091,242; Mar. 24; Gaz. vol. 200; p. 1005.

Quesnoy, Aime T., Cambria, Wyo. Wire-stretcher. No. 1,091,705; Mar. 31; Gaz. vol. 200; p. 1202.

Quigley, Edward J., Newark, N. J. Collar. No. 1,091,017; Mar. 24; Gaz. vol. 200; p. 926.

Quigley, Joseph, Dunoon, assignor to W. J. Semple, Glasgow, Scotland. Automatic projecting-lantern. No. 1,089,788; Mar. 10; Gaz. vol. 200; p. 429.

Quincy, Frederick J., assignor to Englander Spring Bed Company, Brooklyn, N. Y. Couch and couch-bed. No. 1,089,723; Mar. 10; Gaz. vol. 200; p. 407.

Quint, Bonner R. (See Conger and Quint.)

R. E. Dietz Company. (See Dietz, Frederick, assignor.)

R. K. Le Blond Machine Tool Company, The. (See Le Blond and Groene, assignors.)

R. U. V. Company, The. (See Henri, Helbronner, and Recklinghausen, assignors.)

Raabe, Walter, Cöthen, Germany, assignor of one-half to E. C. Post, Ann Arbor, Mich. Apparatus for extraction of sugar-juices. No. 1,089,495; Mar. 10; Gaz. vol. 200; p. 329.

Rabas, Rudolph, Chicago, Ill. Safety-razor. No. 1,091,018; Mar. 24; Gaz. vol. 200; p. 927.

Rabba, Heinrich, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Barrel recoil gun. No. 1,089,078; Mar. 3; Gaz. vol. 200; p. 138.

Rabba, Heinrich, Essen-Rüttenscheid, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Gun-barrel. No. 1,089,079; Mar. 3; Gaz. vol. 200; p. 138.

Rabba, Heinrich, and F. Stock, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Wheel. No. 1,089,959; Mar. 10; Gaz. vol. 200; p. 489.

Radcliff, Brad. S. (See Grimes, Gainford, assignor.)

Radford, Wilbur H., Athens, Ohio. Book. No. 1,091,162; Mar. 24; Gaz. vol. 200; p. 977.

Radlein, Albert L., and J. W. Murphy, Chicago, Ill. Chemical heater. No. 1,088,926; Mar. 3; Gaz. vol. 200; p. 87.

Rahier, Louis. (See Houget and Rahier.)

Rail Joint Company, The. (See Johnson, Joseph M., assignor.) (Reissue.)

Rail Joint Company, The. (See Keller, John R., assignor.)

Railroad Supply Company, The. (See Vogel, Eugene W., assignor.)

Rainey, Paul M., West Hoboken, N. J., assignor to Western Electric Company, New York, N. Y. Vibrating circuit-breaker. No. 1,090,877; Mar. 24; Gaz. vol. 200; p. 877.

Ramberg, Haken W., Brooklyn, N. Y. Piston-rod packing. No. 1,089,789; Mar. 10; Gaz. vol. 200; p. 429.

Ramén, Arthur. (See Benkow and Ramén.)

Ramén, Arthur, Helsingborg, Sweden. Channel-furnace for burning ore-bricks. No. 1,089,868; Mar. 10; Gaz. vol. 200; p. 457.

Rampichini, Francesco, Trieste, Austria-Hungary. Adhesive material for gluing purposes. No. 1,089,960; Mar. 10; Gaz. vol. 200; p. 480.

Rand, Festus S., Providence, R. I., assignor to Universal Winding Company, Portland, Me. Tension device for winding-machines. No. 1,089,790; Mar. 10; Gaz. vol. 200; p. 430.

Randall, Harry H., Bethany, Nebr. Whip-socket. No. 1,089,961; Mar. 10; Gaz. vol. 200; p. 489.

Randel, Ivar A., assignor to McCord and Company, Chicago, Ill. Making journal-boxes. No. 1,089,585; Mar. 10; Gaz. vol. 200; p. 360.

Randel, Ivar A., assignor to McCord and Company, Chicago, Ill. Journal-box. No. 1,090,085; Mar. 10; Gaz. vol. 200; p. 531.

Randell, Harvey E., *et al.* (See Williamson, John, assignor.)

Ransome, Ernest L., Plainfield, N. J. Apparatus for laying and molding concrete roadways, pavements, and the like. No. 1,090,229; Mar. 17; Gaz. vol. 200; p. 623.

Rapp, John G. (See Bender and Rapp.)

Rásky, Antónia, New York, N. Y. Brush. No. 1,091,960; Mar. 31; Gaz. vol. 200; p. 1292.

Rasmussen, Laurits T., assignor to Walker Manufacturing Company, Council Bluffs, Iowa. Packing and mulching implement. No. 1,091,243; Mar. 24; Gaz. vol. 200; p. 1006.

Rathsam, Frank G., Indianapolis, Ind. Clutch. No. 1,088,723; Mar. 3; Gaz. vol. 200; p. 18.

Ratliff, Sidney A. (See Watkins, William A., assignor.)

Ratto, Richard C., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn. Electric-light fixture. No. 1,091,961; Mar. 31; Gaz. vol. 200; p. 1292.

Ratzlaff, Jacob, and D. E. Reed, Portland, Oreg. Motor-car. No. 1,091,962; Mar. 31; Gaz. vol. 200; p. 1292.

Rau Fastener Company. (See Reiter, Lues, assignor.)

Rauch, Henry S., Jackson, Mich. Starting device for explosive-engines. No. 1,089,962; Mar. 10; Gaz. vol. 200; p. 490.

Rauchfuss, Herman, Englewood, Colo. Combined honeycomb-section press and foundation-fastener. No. 1,090,345; Mar. 17; Gaz. vol. 200; p. 663.

Rauschert, Emil P., Lake Mills, Wis. Spot-light attachment for projection apparatus. No. 1,089,080; Mar. 3; Gaz. vol. 200; p. 139.

Ray, Paul J., Lakewood, Ohio. Electric-current controller. No. 1,089,081; Mar. 3; Gaz. vol. 200; p. 139.

Raymond Concrete Pile Company. (See Upson, Maxwell M., assignor.)

Raymond, Franklin M., Saugatuck, Conn. Clothes-drying machine. No. 1,091,706; Mar. 31; Gaz. vol. 200; p. 1202.

Read Holliday & Sons. (See Turner and Dean, assignors.)

Read, William G., Whiston, Prescot, England. Apparatus for transferring cargo in bulk. No. 1,089,496; Mar. 10; Gaz. vol. 200; p. 330.

Reading, Peter, assignor to The Akron Cultivator Company, Akron, Ohio. Fertilizer-distributing attachment. No. 1,091,163; Mar. 24; Gaz. vol. 200; p. 977.

Rechnitz, Otto, Cotthus, Germany. Supporting structure for plaster in walls. No. 1,091,164; Mar. 24; Gaz. vol. 200; p. 978.

Recklinghausen, Max von. (See Henri, Helbronner, and Recklinghausen.)

Recklinghausen, Max von, Paris, France, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electrode for gas or vapor electric apparatus. No. 1,091,244; Mar. 24; Gaz. vol. 200; p. 1006.

Redding, Thomas L., Seattle, Wash. Pile-driving machine. No. 1,088,927; Mar. 3; Gaz. vol. 200; p. 87.

Reece Button Hole Machine Company, The. (See Kiewicz, John, assignor.)

Reed, David E. (See Ratzlaff and Reed.)

Reed, Jacob D., Schuylkill Haven, Pa., and L. Schmidt, New York, N. Y. Undergarment. No. 1,088,724; Mar. 3; Gaz. vol. 200; p. 19.

Reed, James H., Swampscott, assignor to Essex Machine Company, Lynn, Mass. Dieing-machine. No. 1,091,707; Mar. 31; Gaz. vol. 200; p. 1203.

Reed, Lyman C., New Orleans, La. Electroller-hanger. No. 1,089,497; Mar. 10; Gaz. vol. 200; p. 330.

Reeder, James S., Portland, Oreg. Carbureter. No. 1,092,079; Mar. 31; Gaz. vol. 200; p. 1329.

Rees, Fred, *et al.* (See Rees, John H., assignor.)

Rees, John H., assignor to F. Rees and W. W. Morrell, Meriden, Conn. Reel for moving-picture films. No. 1,089,082; Mar. 3; Gaz. vol. 200; p. 140.

Reese, Franklin T., Pittsburgh, Pa. Hand-brake ratchet. No. 1,090,230; Mar. 17; Gaz. vol. 200; p. 624.

Reese, Harvey L., Philadelphia, and H. H. Platt, Wallingford, Pa. Internal-combustion engine. No. 1,091,389; Mar. 24; Gaz. vol. 200; p. 1051.

Reese-Herrin Company. (See Dunford, John W., assignor.)

Reese, William H. (See Click, Washington B., assignor.)

Reeve, Henry E., New York, N. Y. Thermostat. No. 1,091,764; Mar. 31; Gaz. vol. 200; p. 1223.

Regal, August. (See Fanta, Regal, Vietze, and Wessely.)

Regal Patente-Gesellschaft, m. b. H., *et al.* (See Fanta, Regal, Vietze, and Wessely, assignors.)

Regina Company, The. (See Sampere, Jose, assignor.)

Reichert, Carl, North Yakima, Wash. Spraying apparatus. No. 1,089,083; Mar. 3; Gaz. vol. 200; p. 140.

Reichmann, Fritz, Albany, N. Y. Tooth-brush. No. 1,090,126; Mar. 10; Gaz. vol. 200; p. 546.

Reid, Andrew S. and R., Beverly, assignors, by mesne assignments, to Adjustable Frame Company, Marblehead, Mass. Adjustable frame. No. 1,091,245; Mar. 24; Gaz. vol. 200; p. 1006.

Reid, David, Globe, Ariz. Flange-lubricator. No. 1,088,928; Mar. 3; Gaz. vol. 200; p. 88.

Reid, Murdock & Co. (See McNeill, Thomas W., assignor.)

Reid, Robert. (See Reid, Andrew S. and R.)

Reid, William, Kaw, Okla., assignor of one-half to W. E. Vasbinder, Simmons, Tex. Stock-chute. No. 1,091,459; Mar. 24; Gaz. vol. 200; p. 1072.

Reid, William, Kaw, Okla., assignor of one-half to W. E. Vasbinder, Simmons, Tex. Fruit-drier. No. 1,091,460; Mar. 24; Gaz. vol. 200; p. 1073.

Reilly, Michael J., Chicago, Ill. Ironing-machine. No. 1,089,365; Mar. 3; Gaz. vol. 200; p. 235.

Reinert, Jacob and L., Pittsburgh, Pa. Door-opener. No. 1,089,963; Mar. 10; Gaz. vol. 200; p. 490.

Reinert, Louis. (Reinert, Jacob and L.)

Reinmiller, William C., Atlanta, Ill. Burial-vault. No. 1,088,725; Mar. 3; Gaz. vol. 200; p. 19.

Reisert, Hans, Cologne, Germany. Filter. No. 1,088,929; Mar. 3; Gaz. vol. 200; p. 88.

Reisman, Adolph B., New York, N. Y. Coat. No. 1,090,409; Mar. 17; Gaz. vol. 200; p. 687.

Reiter, Lues, New York, N. Y., assignor to Rau Fastener Company, Providence, R. I. Fastener. No. 1,089,366; Mar. 3; Gaz. vol. 200; p. 235.

Remer, Charles, Racine, Wis. Footwear. No. 1,089,791; Mar. 10; Gaz. vol. 200; p. 430.

Remington, Pearl, *et al.* (See Grant, Daniel, assignor.)

Remington Typewriter Company. (See Ellis, Albert H., assignor.)

Remsnider, George, Belleville, Ill. Making punches. No. 1,089,724; Mar. 10; Gaz. vol. 200; p. 408.

Remy, Benjamin P. (See Remy and Berger.)

Remy Brothers Company. (See Remy and Berger, assignors.)

Remy, Frank I. and B. P., and A. Berger, assignors to Remy Brothers Company, Anderson, Ind. Traction-wheel cleat. No. 1,090,410; Mar. 17; Gaz. vol. 200; p. 687.

Remy, Frank I. and B. P., and A. Berger, assignors to Remy Brothers Company, Anderson, Ind. Differentially-geared speed-changing mechanism. No. 1,090,411; Mar. 17; Gaz. vol. 200; p. 688.

Renard, Edward, Lewistown, Pa. Steam or air blower. No. 1,091,081; Mar. 24; Gaz. vol. 200; p. 948.

Renn, William H., assignor of one-third to J. F. McMahon, Rocky Mount, N. C. Expansion-pipe joint. No. 1,090,086; Mar. 10; Gaz. vol. 200; p. 531.

Rennert, Otto, Munich, Germany. Circuit for automatic fire-indicators. No. 1,090,412; Mar. 17; Gaz. vol. 200; p. 688.

Rennie, John A., Lyndhurst, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,090,878; Mar. 24; Gaz. vol. 200; p. 877.

Renshaw, William. (See Sullivan and Renshaw.)

Renzo, Francesco, Paterson, N. J. Shuttle. No. 1,089,670; Mar. 10; Gaz. vol. 200; p. 390.

Restucci, Giuseppe, assignor of one-half to T. P. Pugliatti, Naples, Italy. Tire. No. 1,088,930; Mar. 3; Gaz. vol. 200; p. 88.

Reuter, Baptist. (See Ehrlich, Reuter, and Karrer.)

Reynolds, Edward, Sturgeon Bay, Wis., assignor to Sprague Canning Machinery Company, Chicago, Ill. Pea-cleaner. No. 1,091,534; Mar. 31; Gaz. vol. 200; p. 1144.

Reynolds, John N., Greenwich, Conn., assignor to Western Electric Company, New York, N. Y. Automatic selector-switch. No. 1,091,765; Mar. 31; Gaz. vol. 200; p. 1223.

Rheinbach, Ernst, Stolpen, Germany. Automatically-closing valve for water-gages. No. 1,089,439; Mar. 10; Gaz. vol. 200; p. 309.

Rheinische Metallwaaren- und Maschinenfabrik. (See Völler and Steinhart, assignors.)

Rhenstrom, Anthony, assignor to The Vincent-Alward Company, Kenosha, Wis. Bed-bottom fabric. No. 1,089,155; Mar. 3; Gaz. vol. 200; p. 168.

Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Pulley-bearing. No. 1,089,381; Mar. 3; Gaz. vol. 200; p. 239.





Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Loom. No. 1,089,792; Mar. 10; Gaz. vol. 200; p. 430.

Rhodes, Harry A., assignor to The Universal Motor Company, Denver, Colo. Heat-dissipating means for electrical apparatus. (Reissue.) No. 13,704; Mar. 24; Gaz. vol. 200; p. 1078.

Rhodes, John. (See Higgins and Rhodes.)

Rhodes, Samuel G., assignor to T. E. Murray, New York, N. Y. Apparatus for producing photographic time-records of meter-readings. No. 1,090,413; Mar. 17; Gaz. vol. 200; p. 689.

Rice, Clifford F., Springfield, Mass. Dumping-car. No. 1,089,964; Mar. 10; Gaz. vol. 200; p. 490.

Rice, Eugene S., and G. E. Bailly, Lake Arthur, La. Blotter attachment. No. 1,091,536; Mar. 31; Gaz. vol. 200; p. 1144.

Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Valve-casing for elastic-fluid turbines. No. 1,089,672; Mar. 10; Gaz. vol. 200; p. 391.

Rice, Richard H., and W. Johnson, Lynn, Mass., assignors to General Electric Company. Thrust-bearing. No. 1,089,671; Mar. 10; Gaz. vol. 200; p. 390.

Rice, Walter L., Denver, Colo. Canopy for open-window sleeping-beds. No. 1,088,726; Mar. 3; Gaz. vol. 200; p. 19.

Richard, Charley J., Louisburg, Wis. Horseshoe-calk. No. 1,089,965; Mar. 10; Gaz. vol. 200; p. 491.

Richard, Joseph O., Ste. Julie Station, Quebec, Canada. Stone-gathering machine. No. 1,090,231; Mar. 17; Gaz. vol. 200; p. 624.

Richard, Zacharie B., assignor of one-eighth to O. Kilpatrick and one-eighth to W. Davis, La Fayette, La. Pliers. No. 1,090,941; Mar. 24; Gaz. vol. 200; p. 899.

Richards-Wilcox Manufacturing Company, The. (See Hoffman, Peter L., assignor.)

Richardson, Clifford, New York, N. Y., assignor to The Barber Asphalt Paving Company, Philadelphia, Pa. Manufacturing and laying bituminous sheet-pavements and materials therefor. No. 1,090,792; Mar. 17; Gaz. vol. 200; p. 815.

Richardson, John E., Wilcoe, W. Va. Sash-balance. No. 1,091,082; Mar. 24; Gaz. vol. 200; p. 949.

Richardson, John H., Shubert, Nebr. Engine. No. 1,090,650; Mar. 17; Gaz. vol. 200; p. 770.

Richardson, Leslie L., Balfour, Iowa. Vent-valve. No. 1,089,156; Mar. 3; Gaz. vol. 200; p. 169.

Richter, Georg. (See Hermann, Caspar, assignor.)

Ricke, George H., assignor of two-thirds to J. M. Walsh, Cincinnati, Ohio. Shoe. No. 1,091,165; Mar. 24; Gaz. vol. 200; p. 978.

Ricke, George H., Cincinnati, Ohio, assignor to L. A. Degginger, L. W. Arnett, Covington, Ky., and T. M. Greene, Cincinnati, Ohio. Illuminated sign for automobiles. No. 1,091,893; Mar. 31; Gaz. vol. 200; p. 1269.

Ricker, Frank S., Oneida Castle, assignor to Oneida Community, Limited, Oneida, N. Y. Hand-truck. No. 1,090,501; Mar. 17; Gaz. vol. 200; p. 720.

Ricks, Charles E., assignor of two-fifths to C. A. Kellar, Dillon, Colo. Garment-clasp. No. 1,090,753; Mar. 17; Gaz. vol. 200; p. 801.

Riddell, John, Schenectady, N. Y., assignor to General Electric Company. Balancing-machine. No. 1,091,708; Mar. 31; Gaz. vol. 200; p. 1203.

Ridley, Charles, assignor to E. M. Evrard, Bath, Me. Fire-hose reel. No. 1,089,265; Mar. 3; Gaz. vol. 200; p. 202.

Riedl, Albert F., Buffalo, N. Y. Two-cycle engine. No. 1,091,963; Mar. 31; Gaz. vol. 200; p. 1292.

Riegel, Samuel S. (See Manchester and Riegel.)

Riesner, Michael, Cincinnati, Ohio, assignor to International Steam Pump Company. Engine-stop. No. 1,088,931; Mar. 3; Gaz. vol. 200; p. 89.

Riggs, Elwood, Omaha, Nebr. Lens substitute for use with trial eyeglass-mountings or the like. No. 1,090,232; Mar. 17; Gaz. vol. 200; p. 624.

Riley, Frank T., Kansas City, Mo. Tally. No. 1,090,346; Mar. 17; Gaz. vol. 200; p. 664.

Riley, Robert S., Providence, R. I. Positive-cleaning and self-dumping stoker. No. 1,090,651; Mar. 17; Gaz. vol. 200; p. 770.

Rintoul, William. (See Nathan, Rintoul, and Baker.)

Riopel, Edward H., East Hampton, N. Y. Auto-lift. No. 1,091,390; Mar. 24; Gaz. vol. 200; p. 1051.

Ripley and Company. (See Ripley, Daniel A., assignor.)

Ripley, Daniel A., assignor to Ripley and Company, Connellaville, Pa. Globe or shade and holder therefor. No. 1,089,869; Mar. 10; Gaz. vol. 200; p. 457.

Ripley, Giles E., W. N. Gladson, Fayetteville, and R. E. Thompson, Heber, Ark. Projecting apparatus for moving-picture machines. No. 1,091,864; Mar. 31; Gaz. vol. 200; p. 1260.

Rischmuller, George, San Francisco, Cal. Clutch and speed-regulator. No. 1,089,498; Mar. 10; Gaz. vol. 200; p. 331.

Risinger, Frank V., assignor to The Block Light Co., Youngstown, Ohio. Gas-lamp. No. 1,089,440; Mar. 10; Gaz. vol. 200; p. 309.

Ritchie, Marriott C., London, England. Pamphlet-coverer. No. 1,088,932; Mar. 3; Gaz. vol. 200; p. 89.

Riter-Conley Manufacturing Company. (See Barnum and Carpenter, assignors.)

Riter-Conley Manufacturing Company. (See Hibbard, Robert L., assignor.)

Riter-Conley Manufacturing Company. (See Koehl, Louis C., assignor.)

Rittenhouse, Arthur E., Scranton, Pa., assignor to A. E. Rittenhouse Co., Honeoye Falls, N. Y. Supporting means for swinging objects. No. 1,090,118; Mar. 10; Gaz. vol. 200; p. 543.

Rittersbacher, Philip, Newark, N. J. Bracelet. No. 1,090,652; Mar. 17; Gaz. vol. 200; p. 771.

Ritz-Woller, Oliver C., Jacksonville, Fla. Liquid-gage lock. No. 1,088,727; Mar. 3; Gaz. vol. 200; p. 20.

Robbins, Meyer L., New York, N. Y. Cigarette-case. No. 1,091,083; Mar. 24; Gaz. vol. 200; p. 949.

Robert N. Bassett Company, The. (See Russ and Stuart, assignors.)

Roberts, Annie C., administratrix. (See Roberts, Edward M.)

Roberts, Edward M., deceased; A. C. Roberts, administratrix, Ashland, Ky. Locomotive diaphragm and spark-arrester. No. 1,090,754; Mar. 17; Gaz. vol. 200; p. 802.

Roberts, Henry P., assignor to G. R. Moore and J. W. Hawes, Boston, Mass. Beating and mixing device. No. 1,090,567; Mar. 17; Gaz. vol. 200; p. 742.

Robertson, Edward H., Irvington, N. J., assignor of one-half to W. F. Mahony, Washington, D. C. Lacing hook or stud. No. 1,090,942; Mar. 24; Gaz. vol. 200; p. 899.

Robertson, William P., New York, N. Y., assignor to Sharp and Dohme. Poison-protective device. No. 1,091,441; Mar. 24; Gaz. vol. 200; p. 1067.

Robinson, Arthur W., Montreal, Quebec, Canada. Tunnel-shovel. No. 1,090,233; Mar. 17; Gaz. vol. 200; p. 625.

Robinson, George H., Bayswater, London, England. Resilient wheel for vehicles. No. 1,090,087; Mar. 10; Gaz. vol. 200; p. 532.

Robinson, Harry, New York, N. Y. Shaving-brush. No. 1,089,266; Mar. 3; Gaz. vol. 200; p. 202.

Robinson, J. M. (See Thomas, Luther B., assignor.)

Robinson, William H., Paris, Ky. Mechanical book. No. 1,090,502; Mar. 17; Gaz. vol. 200; p. 720.

Robison, Rolland J., Romulus, Okla. Telephone cut-off. No. 1,089,673; Mar. 10; Gaz. vol. 200; p. 391.

Rochester Stamping Company. (See Swan, Alfred H. S., assignor.)

Rockwell, Byrd C., Malvern, Ark. Corner-fastening for screen-frames. No. 1,089,499; Mar. 10; Gaz. vol. 200; p. 331.

Rockwell, Byrd C., Camden, Ark. Container. No. 1,089,586; Mar. 10; Gaz. vol. 200; p. 361.

Roe, Jackson M., assignor of one-half to J. Alexander, Sunnyside, Wash. Automatic train-stopping apparatus. No. 1,089,267; Mar. 3; Gaz. vol. 200; p. 203.

Roebuck, John H., Chicago, Ill. Attachment for horse-shoes. No. 1,089,870; Mar. 10; Gaz. vol. 200; p. 457.

Roehrig, Charles W., St. Louis, Mo. Instrument for laying out arcs of circles. No. 1,091,246; Mar. 24; Gaz. vol. 200; p. 1006.

Rogers, Clarence C., Wheeling, W. Va. Explosive-engine. No. 1,091,766; Mar. 31; Gaz. vol. 200; p. 1224.

Rogers, Clarence T., New York, N. Y. Door-check. No. 1,090,879; Mar. 24; Gaz. vol. 200; p. 878.

Rogers, Herbert D., Lewistown, Ill. Bee-escape. No. 1,089,157; Mar. 3; Gaz. vol. 200; p. 169.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,088,728; Mar. 3; Gaz. vol. 200; p. 20.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,729; Mar. 3; Gaz. vol. 200; p. 20.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,730; Mar. 3; Gaz. vol. 200; p. 21.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,933; Mar. 3; Gaz. vol. 200; p. 90.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,088,934; Mar. 3; Gaz. vol. 200; p. 90.

Rogers, Joseph W., Woodbury, N. J., assignor of one-half to N. Shute, Philadelphia, Pa. Insulating and supporting mechanism. No. 1,090,234; Mar. 17; Gaz. vol. 200; p. 625.

Rogers, Lebbeus H., New York, N. Y. Rotary pump. No. 1,090,235; Mar. 17; Gaz. vol. 200; p. 625.

Rogers, Nathaniel J., Tuscaloosa, Ala., assignor of one-half to J. T. Newby, Jackson, Tenn. Packing-guard for journal-boxes. No. 1,090,414; Mar. 17; Gaz. vol. 200; p. 689.

Rogers, Walter B., Knoxville, Tenn. Track-sander. No. 1,088,935; Mar. 3; Gaz. vol. 200; p. 91.

Roggінger, John, Kankakee, assignor to Paramount Knitting Company, Chicago, Ill. Hosiery-form. No. 1,091,247; Mar. 24; Gaz. vol. 200; p. 1006.

Rohmer, Gabriel E. (See Booraem and Rohmer.)

Roller, Alice, New York, N. Y. Spool thread-guide and binder. No. 1,088,731; Mar. 3; Gaz. vol. 200; p. 21.

Rollman, Michael A., assignor to New Standard Hardware Works, Mount Joy, Pa. Cherry-stoner. No. 1,091,442; Mar. 24; Gaz. vol. 200; p. 1067.

Rolston, Walter F., assignor to Burson Manufacturing Company, Rockford, Ill. Knitting-machine. No. 1,090,119; Mar. 10; Gaz. vol. 200; p. 544.

Romans, Furman W., Baltimore, Md. Knockdown coop. No. 1,091,391; Mar. 24; Gaz. vol. 200; p. 1051.

Romlinder, Hermann, Mishawaka, Ind. Shield for radiators. No. 1,091,084; Mar. 24; Gaz. vol. 200; p. 949.

Ronceray, Eugéne, assignor to Societe Anonyme des Etablissements Ph. Bonvillain & E. Ronceray, Paris, France. Molding apparatus. No. 1,091,019; Mar. 24; Gaz. vol. 200; p. 927.

Ronceray, Eugéne, assignor to Societe Anonyme des Etablissements Ph. Bonvillain & E. Ronceray, Paris, France. Molding-machine. No. 1,091,020; Mar. 24; Gaz. vol. 200; p. 928.

Rose, Edward E. (See Perkins and Rose.)

Rosenberg, Harry, *et al.* (See Lipson, Samuel, assignor.)

Rosenberg, Jacob, *et al.* (See Lipson, Samuel, assignor.)

Rosenbloom, Benjamin L., Wheeling, W. Va. Sanitary drinking-cup. No. 1,089,084; Mar. 3; Gaz. vol. 200; p. 140.

Rosenbloom, Morris. (See Klein and Brueck, assignors.)

Rosendale, Annabelle, Grand Rapids, Mich. Hand-bag. No. 1,089,268; Mar. 3; Gaz. vol. 200; p. 203.

Rosenthal, Ambrose H., Brooklyn, N. Y. Buckle. No. 1,090,415; Mar. 17; Gaz. vol. 200; p. 689.

Rosenthal, James H., and C. S. Davy, London, England, assignors to The Babcock & Wilcox Company, Bayonne, N. J. Chain-grate stoker. No. 1,091,166; Mar. 24; Gaz. vol. 200; p. 978.

Rosewick, August. (See Hintze and Rosewick.)

Ross, Charles H. A. F. L. (See Porter, Frederick W. H., assignor.)

Ross, Harry B., Seattle, Wash. Planing-machine. No. 1,090,236; Mar. 17; Gaz. vol. 200; p. 626.

Ross, Richard L., Pasco, Wash. Pocket-oiler. No. 1,089,500; Mar. 10; Gaz. vol. 200; p. 332.

Ross, William, Troy, N. Y. Pressure-regulating valve. No. 1,091,536; Mar. 31; Gaz. vol. 200; p. 1144.

Ross, William H. (See Gibson and Ross.)

Rossmann, Max, St. Paul, Minn. Fence-stretcher. No. 1,091,964; Mar. 31; Gaz. vol. 200; p. 1293.

Roth, Isidor, assignor to Birdsey, Somers Company, Bridgeport, Conn. Corset-closure. No. 1,089,158; Mar. 3; Gaz. vol. 200; p. 169.

Roth, Karl H., Utica, N. Y. Knife. No. 1,090,416; Mar. 17; Gaz. vol. 200; p. 689.

Rothenburg, Benjamin, Boston, Mass. Binder. No. 1,089,269; Mar. 3; Gaz. vol. 200; p. 203.

Rothstein, Isidore, Pittsburgh, Pa. Game apparatus. No. 1,090,653; Mar. 17; Gaz. vol. 200; p. 771.

Rotico Fitting and Supply Company. (See Drew, Warren F., assignor.)

Roucher, Helena, White Castle, La. Basting-pin. No. 1,091,085; Mar. 24; Gaz. vol. 200; p. 950.

Routin, Joseph L., Paris, France. Means for collectively actuating and controlling alternating-current motors. No. 1,090,568; Mar. 17; Gaz. vol. 200; p. 742.

Rowe, Fred, Joplin, Mo. Nut-lock. No. 1,090,943; Mar. 24; Gaz. vol. 200; p. 900.

Rowe, James J., Ilford, England. Combination punch and cutter for motor-cycle belts. No. 1,089,587; Mar. 10; Gaz. vol. 200; p. 361.

Rowley, James F., Chicago, Ill. Ankle-joint for artificial limbs. No. 1,090,881; Mar. 24; Gaz. vol. 200; p. 878.

Rowntree, Harold, Chicago, Ill., assignor, by mesne assignments, to National Pneumatic Company. Hinged doors and operating mechanism therefor. No. 1,088,936; Mar. 3; Gaz. vol. 200; p. 91.

Royal Typewriter Company. (See Myers, Lewis C., assignor.)

Rubel, Jacob, *et al.* (See Sandiford, Green W., assignor.)

Rubert, George L., assignor of one-half to L. W. Warren, La Crosse, Wis. Liner-plate for cream-separators. No. 1,090,755; Mar. 17; Gaz. vol. 200; p. 802.

Rubin, Samuel C., Philadelphia, Pa. Coat-hanger. No. 1,088,841; Mar. 3; Gaz. vol. 200; p. 57.

Rudolph Wurlitzer Manufacturing Company, The. (See De Kleist, August, assignor.)

Rudolph Wurlitzer Manufacturing Company, The. (See Hope-Jones, Robert, assignor.)

Ruggles, Frederick W., Hudson, assignor, by mesne assignments, to United States Hopper Company, Boston, Mass. Feed-hopper. No. 1,089,011; Mar. 3; Gaz. vol. 200; p. 115.

Ruggles, Walter G. (See Klingemann and Ruggles.)

Ruppel, Henry, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Wick. No. 1,089,966; Mar. 10; Gaz. vol. 200; p. 491.

Ruppert, William A., New York, N. Y. Vessel for freight or passengers. No. 1,089,674; Mar. 10; Gaz. vol. 200; p. 391.

Rush, Albert, assignor to The Klonear Manufacturing Company, Columbus, Ohio. Automatic fire-shutter. No. 1,089,347; Mar. 3; Gaz. vol. 200; p. 228.

Russ, John B., Shelton, and H. J. Stuart, Ansonia, assignors to The Robert N. Bassett Company, Derby, Conn. Button-tab end for hose-supporters. No. 1,090,793; Mar. 17; Gaz. vol. 200; p. 815.

Russell, Charles C., assignor to Russell Manufacturing Company, Greenfield, Mass. Screw-plate. No. 1,091,167; Mar. 24; Gaz. vol. 200; p. 979.

Russell, China, Columbus, Ohio. Telephone-mouthpiece protector. No. 1,091,965; Mar. 31; Gaz. vol. 200; p. 1293.

Russell, James C., Pittsburgh, Pa. Uniting metals. No. 1,090,088; Mar. 10; Gaz. vol. 200; p. 532.

Russell Manufacturing Company. (See Russell, Charles C., assignor.)

Russo, Virgil A., Allentown, Pa. Ruler attachment. No. 1,091,461; Mar. 24; Gaz. vol. 200; p. 1073.

Rutenber, Edwin A., assignor to The Rutenber Electric Company, Logansport, Ind. Electrical connection for sad-irons and the like. No. 1,091,767; Mar. 31; Gaz. vol. 200; p. 1224.

Rutenber Electric Company, The. (See Rutenber, Edwin A., assignor.)

Ruth, Rudolf, and A. Schuller, Oude-God, near Antwerp, Belgium. Polychrome screen and making the same. No. 1,091,443; Mar. 24; Gaz. vol. 200; p. 1068.

Ruthven, John, Indianapolis, Ind. Carbureter. No. 1,089,501; Mar. 10; Gaz. vol. 200; p. 332.

Rutledge, William T., assignor of one-half to C. A. Tripp, Redlands, Cal. Puzzle. No. 1,091,709; Mar. 31; Gaz. vol. 200; p. 1203.

Rutter, Conrad C., New Duluth, Minn. Nut-lock. No. 1,091,894; Mar. 31; Gaz. vol. 200; p. 1269.

Rutty, Elizabeth L. (See Rutty and Edward, assignors.)

Rutty, Winifred A., and J. B. Edward, Ilford, England; said Edward assignor to E. L. Rutty. Book marker or indicator. No. 1,089,348; Mar. 3; Gaz. vol. 200; p. 229.

Ruud, Edwin, Pittsburgh, Pa. Thermostatic valve mechanism. No. 1,090,654; Mar. 17; Gaz. vol. 200; p. 772.

Ryan, Charles. (See Kelser and Ryan.)

Ryan, Thomas B., New Bedford, Mass. Safety-pocket. No. 1,089,270; Mar. 3; Gaz. vol. 200; p. 204.

Ryan, Thomas G., Lincoln, Nebr. Package of fencing material. No. 1,091,590; Mar. 31; Gaz. vol. 200; p. 1162.

Ryan, Walter D., Watertown, S. D., assignor to General Electric Company. Illuminator. No. 1,091,710; Mar. 31; Gaz. vol. 200; p. 1204.

Ryden, Claes, Providence, R. I., assignor to Universal Winding Company, Portland, Me. Speed-controlling device. No. 1,089,793; Mar. 10; Gaz. vol. 200; p. 431.

Ryder, Justus V., *et al.* (See Jolliffe, Mark B., assignor.)

Ryther, Frank A., Chicago, Ill., assignor to International Harvester Company. Reaper. No. 1,090,944; Mar. 24; Gaz. vol. 200; p. 900.

S. R. Smythe Company, The. (See Smythe, Horace E., assignor.)

Sabo, John, assignor, by mesne assignments, to L. Sands, Cleveland, Ohio. Valve-operating mechanism. No. 1,089,382; Mar. 3; Gaz. vol. 200; p. 240.

Sachse, George, Baltimore, Md. Shoe-bow. No. 1,090,882; Mar. 24; Gaz. vol. 200; p. 879.

Sackett, Frank V., La Grange, Ill., assignor to General Fire Extinguisher Company, Providence, R. I. Automatic valve-alarm system. No. 1,090,237; Mar. 17; Gaz. vol. 200; p. 626.

Sacks, Joseph. (See Kelly, John B., assignor.)

Sadovsky, Nathan, San Antonio, Tex. Printing-press. No. 1,088,732; Mar. 3; Gaz. vol. 200; p. 21.

Safety Armorite Conduit Company. (See Buch, Newton W., assignor.)

Safety Window Platform Company. (See Scholey, Joseph M., assignor.)

Salel, Lucien. (See Cauvry and Salel.)

Samala, Dino, Brussels, Belgium. Switch-point-operating mechanism. No. 1,089,588; Mar. 10; Gaz. vol. 200; p. 361.

Sam'l E. Jordan Brush Company. (See Jordan, Samuel E., assignor.)

Sampere, Jose, New York, N. Y., assignor to The Regina Company, Rahway, N. J. Expression-regulator. No. 1,091,086; Mar. 24; Gaz. vol. 200; p. 950.

Sampson, Albert R., Jersey City, N. J. Manifolding device. No. 1,088,733; Mar. 3; Gaz. vol. 200; p. 22.

Samson, David, Jackson, Nebr. Automatic gate. No. 1,091,591; Mar. 31; Gaz. vol. 200; p. 1162.

Samuel C. Tatum Company, The. (See Dom, Chesley, assignor.)

Samuel Sternberger Company. (See Paradis, Albert, assignor.)

San Francisco Salt Refinery. (See Stauffer, John, assignor.)

Sandahl, Carl H., McPherson, Kans. Tree-protector. No. 1,089,012; Mar. 3; Gaz. vol. 200; p. 116.

Sandiford, Green W., assignor of two hundred and fifty one-thousandths to himself, one hundred and eighty-five one-thousandths to W. C. Baumhauer, one hundred and eighty-five one-thousandths to J. Rubel, one hundred and eighty-five one-thousandths to J. Markstein, ten one-thousandths to R. F. Blow, Mobile, and one hundred and eighty-five one-thousandths to P. P. Lockling, Fruitdale, Ala. Pipe-joint. No. 1,091,462; Mar. 24; Gaz. vol. 200; p. 1073.

Sands, Lewis. (See Sabo, John, assignor.)

Sanger, Albert C., Brunswick, Md. Safety-plug. No. 1,089,704; Mar. 10; Gaz. vol. 200; p. 431.

Sangster, William, Covington, Va., assignor to Covington Machine Company. Coal-leveling machine for beehive-ovens. No. 1,089,675; Mar. 10; Gaz. vol. 200; p. 392.

Sanitary Rubber Company, The. (See Liabae, John J., assignor.)

Sanquist, John A., New Windsor, Ill. Socket for concrete building constructions. No. 1,091,168; Mar. 24; Gaz. vol. 200; p. 979.

Santarcangelo, Joseph, Pittsburgh, Pa. Nut-lock. No. 1,089,159; Mar. 3; Gaz. vol. 200; p. 170.

Sapal, Societe Anonyme des Pileuses Automatiques. (See Bionay, Jean de, assignor.)

Sapper, August. (See Lüttringhaus, Lohse, and Sapper.)

Sargent & Company. (See Page, Albert A., assignor.)

Sargent & Company. (See Shaw, John H., assignor.)

Sargent & Company. (See Sparks, William E., assignor.)





Sargent, Frederick G., Westford, Mass. Method of and apparatus for selective wireless telegraphy. No. 1,091,768; Mar. 31; Gaz. vol. 200; p. 1224.

Sarkadi, Charles, Avella, Pa. Lantern. No. 1,091,248; Mar. 24; Gaz. vol. 200; p. 1007.

Sarvalla, Mattie, and C. Neuman, De Kalb, Ill. Gate-latch lift. No. 1,091,087; Mar. 24; Gaz. vol. 200; p. 950.

Sauchereau, John L., Spokane, Wash. Water-pump. No. 1,089,441; Mar. 10; Gaz. vol. 200; p. 309.

Sauer, Charles W., Jr., Elizabeth, N. J. Automatic circuit-closing device for elevators. No. 1,090,794; Mar. 17; Gaz. vol. 200; p. 816.

Saunders, Herbert B., New York, N. Y. Method and apparatus for floating and repairing stranded vessels. No. 1,089,967; Mar. 10; Gaz. vol. 200; p. 491.

Saurer, Adolph. (See Keller and Hunkemöller, assignors.)

Sauter, August A., Covington, Ky. Automatic fan. No. 1,089,271; Mar. 3; Gaz. vol. 200; p. 204.

Savage, Arthur W., Duarte, Cal. Vehicle-tire. No. 1,090,169; Mar. 17; Gaz. vol. 200; p. 602.

Savell, Walter L. (See Kalmus and Savell.)

Savoie, Leo L., and E. F. Genevay, New Orleans, La. Vehicle-tire. No. 1,089,676; Mar. 10; Gaz. vol. 200; p. 392.

Sawyer, Willard W., and E. H. Jungk, Brooklyn, N. Y. Numbering-machine. No. 1,089,677; Mar. 10; Gaz. vol. 200; p. 392.

Saxton, William M., Spokane, Wash., and C. C. Hodge, Winnipeg, Manitoba, Canada. Boiler-washing system. No. 1,089,272; Mar. 3; Gaz. vol. 200; p. 204.

Sayer, George J., Chicago, Ill. Sausage-stuffer. No. 1,091,537; Mar. 31; Gaz. vol. 200; p. 1145.

Sayer, George J., Chicago, Ill. Controlling device for sausage-stuffers. No. 1,091,538; Mar. 31; Gaz. vol. 200; p. 1145.

Saylor, John R., Pottstown, Pa. Machine-vise. No. 1,089,273; Mar. 3; Gaz. vol. 200; p. 205.

Sazenhofen, Ludwig von, Nuremberg, Germany. Sheet-feeding apparatus. No. 1,089,274; Mar. 3; Gaz. vol. 200; p. 205.

Schaaf, Walter, Leichlingen, Germany. Self opening and closing umbrella. No. 1,091,895; Mar. 31; Gaz. vol. 200; p. 1269.

Schaefer, Arthur E. (See Graves and Schaefer.)

Schaetzel, George H., assignor to Pfenninger Pretzel & Baking Company, St. Louis, Mo. Pretzel-making machine. No. 1,089,725; Mar. 10; Gaz. vol. 200; p. 408.

Schafer, Cecil K. (See Von Dorn, Calvin W., assignor.)

Schafer, Ditrich, Sacramento, Cal. Window-ventilator. No. 1,091,769; Mar. 31; Gaz. vol. 200; p. 1225.

Schafer, Frank, Philadelphia, Pa., assignor to The Diamond Match Company, Chicago, Ill. Carrier for match-splints. No. 1,089,795; Mar. 10; Gaz. vol. 200; p. 431.

Schafer, Frank, Rondo, N. C., assignor to The Diamond Match Company, Chicago, Ill. Match-making machine. No. 1,090,569; Mar. 17; Gaz. vol. 200; p. 743.

Schaffert, Adolph H., assignor to The General Fireproofing Company, Youngstown, Ohio. Sides unit for metal filing-cabinets. No. 1,089,796; Mar. 10; Gaz. vol. 200; p. 432.

Schaffer, Konrad, *recte* Glössl, Vienna, Austria-Hungary. Electric ignition-fuse. No. 1,091,021; Mar. 24; Gaz. vol. 200; p. 928.

Schellhammer, Alfred L., Warren, Pa., assignor to United States Incinerator Company, Buffalo, N. Y. Incinerator for garbage, excrement, &c. No. 1,092,080; Mar. 31; Gaz. vol. 200; p. 1330.

Schelling, Oscar, and A. A. Phillips, assignors of one-third to G. Gartling, Los Angeles, Cal. Rope-socket. No. 1,090,570; Mar. 17; Gaz. vol. 200; p. 743.

Schenck, Charles. (See Wylde and Schenck.)

Schenck, Charles, assignor to Elevator Supply & Repair Company, Chicago, Ill. Safety appliance for elevator-cars. No. 1,090,170; Mar. 17; Gaz. vol. 200; p. 602.

Schenck, Charles, and J. M. Graham, assignors to Elevator Supply & Repair Company, Chicago, Ill. Electric indicator. No. 1,089,589; Mar. 10; Gaz. vol. 200; p. 362.

Scherr, Jean, Ehrenfeld, Cologne, Germany. Tap and valve. No. 1,089,160; Mar. 3; Gaz. vol. 200; p. 170.

Scheu, William C., assignor to The Bannister Orchard Heater Company, Grand Junction, Colo. Orchard-heater. No. 1,089,013; Mar. 3; Gaz. vol. 200; p. 116.

Schieb, Ray K., and H. E. Shaffer, Akron, Ohio. Automobile light and indicator. No. 1,089,014; Mar. 3; Gaz. vol. 200; p. 116.

Schimmel, Abraham A., Boston, Mass. Hammock. No. 1,090,108; Mar. 10; Gaz. vol. 200; p. 540.

Schindler, John L., Friend, Oreg. Throttling device for hydrocarbon-engines. No. 1,089,275; Mar. 3; Gaz. vol. 200; p. 206.

Schisler, Frank J., Winthrop, Minn. Reinforced tubular building unit. No. 1,090,171; Mar. 17; Gaz. vol. 200; p. 603.

Schlag, Joseph, Cleveland, Ohio. Bowling-pin. No. 1,088,937; Mar. 3; Gaz. vol. 200; p. 91.

Schlegell, Victor von, New York, N. Y., assignor to Hale and Kilburn Company, Philadelphia, Pa. Car construction. No. 1,091,770; Mar. 31; Gaz. vol. 200; p. 1225.

Schleicher, George, New York, N. Y. Portable lighter. No. 1,091,966; Mar. 31; Gaz. vol. 200; p. 1293.

Schleicher, John W., St. Louis, Mo., assignor to Mengel Box Company, Louisville, Ky. Crate or rack making machine. No. 1,090,655; Mar. 17; Gaz. vol. 200; p. 772.

Schlicher, August. (See Bechtold, John A., assignor.)

Schlicht, Hans, Walnut, Iowa. Corn-planter. No. 1,089,590; Mar. 10; Gaz. vol. 200; p. 362.

Schlichtinger, Joseph, Atlanta, Ga. Self-feeder and drinking-fountain for poultry. No. 1,091,392; Mar. 24; Gaz. vol. 200; p. 1051.

Schlick, Otto, Berlin, Germany. Pyrophorous lighter. No. 1,091,967; Mar. 31; Gaz. vol. 200; p. 1294.

Schlueter, Peter H., Chicago, Ill. Candy-making machine. No. 1,091,022; Mar. 24; Gaz. vol. 200; p. 928.

Schmedinghoff, Francis A., Kansas City, Mo. Trolley attachment. No. 1,089,968; Mar. 10; Gaz. vol. 200; p. 492.

Schmelzle, Gustav, Brooklyn, N. Y. Baker's radiator. No. 1,089,678; Mar. 10; Gaz. vol. 200; p. 393.

Schmid, Francis C., Washington, D. C. Measuring instrument. No. 1,089,969; Mar. 10; Gaz. vol. 200; p. 492.

Schmidgall, Frederick, Cincinnati, Ohio. Door-fastener. No. 1,091,592; Mar. 31; Gaz. vol. 200; p. 1163.

Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Radial-draft gear. No. 1,090,656; Mar. 17; Gaz. vol. 200; p. 773.

Schmidt, Leo. (See Reed and Schmidt.)

Schmidt, Louis M. (See Propson, Harry E., assignor.)

Schmidt, Otto, and J. Müller, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Tanning material. No. 1,089,797; Mar. 10; Gaz. vol. 200; p. 432.

Schmidt, Wilhelm, Cassel-Wilhelmshöhe, assignor to Schmidt'sche Heissdampf-Gesellschaft m. b. H., Cassel, Germany. Engine-governor. No. 1,090,417; Mar. 17; Gaz. vol. 200; p. 690.

Schmidt'sche Heissdampf-Gesellschaft m. b. H. (See Schmidt, Wilhelm, assignor.)

Schmitt, Frederick, Oakland, Cal. Boiler-flue-fastening means. No. 1,089,970; Mar. 10; Gaz. vol. 200; p. 492.

Schmunk, William F., Philadelphia, Pa. Door-holder. No. 1,091,896; Mar. 31; Gaz. vol. 200; p. 1270.

Schnaier, Milton, New York, N. Y. Curtain-hook. No. 1,090,571; Mar. 17; Gaz. vol. 200; p. 744.

Schneider & Cie. (See Bourdellea, Emile, assignor.)

Schneider, John L., Charles City, Iowa. Loading-machine. No. 1,090,418; Mar. 17; Gaz. vol. 200; p. 690.

Schnelle, Ernest E., Rochester, N. Y. Deposit and collection receptacle. No. 1,089,591; Mar. 10; Gaz. vol. 200; p. 363.

Schoenhardt, Ferdinand P., assignor to Edward Miller & Company, Meriden, Conn. Lighting-fixture. No. 1,090,795; Mar. 17; Gaz. vol. 200; p. 816.

Schoepke, William, Hartland, Ill. Safety device for pulleys. No. 1,089,971; Mar. 10; Gaz. vol. 200; p. 493.

Schofield, Eugene H., deceased, Atlanta, Ga.; R. H. Schofield, administrator. Cotton-picking nozzle or tube. No. 1,090,347; Mar. 17; Gaz. vol. 200; p. 664.

Schofield, Ray H., administrator. (See Schofield, Eugene H.)

Schofler, Isaiah. (See Krusi, John, assignor.)

Scholey, Joseph M., assignor to Safety Window Platform Company, Kenosha, Wis. Window-platform. No. 1,089,871; Mar. 10; Gaz. vol. 200; p. 458.

Schönland, William F., Jr., Manchester, N. H. Motor-lubricator. No. 1,091,249; Mar. 24; Gaz. vol. 200; p. 1007.

Schopbach, Charles H., assignor to International Corset Company, Aurora, Ill. Corset. (Reissue.) No. 13,698; Mar. 10; Gaz. vol. 200; p. 549.

Schöpf, Anton, St. Johann-on-the-Saar, and H. Mosaner, Neunkirchen, near Trier, Germany. Constructing a transferring device for rod or wire rolling mills. No. 1,089,502; Mar. 10; Gaz. vol. 200; p. 332.

Schott, Louis, assignor to Cincinnati Galvanizing Company, Cincinnati, Ohio. Can with self-closing lid. No. 1,090,883; Mar. 24; Gaz. vol. 200; p. 879.

Schott, William S., Durban, Natal, South Africa. Coin-operated time-controlled mechanism. No. 1,089,015; Mar. 3; Gaz. vol. 200; p. 117.

Schrink, John A., Newark, N. J., assignor to John F. Schrink & Son. Emblem-ring. No. 1,091,539; Mar. 31; Gaz. vol. 200; p. 1146.

Schroeder, Frank J., Altoona, Pa. S-iron-bending machine. No. 1,091,540; Mar. 31; Gaz. vol. 200; p. 1146.

Schroeder, Nelson C. (See Wolfe, Fowler, Schroeder, and Mappett.)

Schroers, Carl H., assignor to Gesellschaft für Teerverwertung m. b. H., Duisburg-Meiderich, Germany. Carbon electrode having protective covering and producing same. No. 1,088,734; Mar. 3; Gaz. vol. 200; p. 22.

Schroyer, Charles T., Chester, S. D. Steering-wheel. No. 1,088,796; Mar. 3; Gaz. vol. 200; p. 42.

Schroyer, Harry H., assignor to General Railway Supply Co., Chicago, Ill. Trap-door. No. 1,089,367; Mar. 3; Gaz. vol. 200; p. 235.

Schubert Gebrüder. (See Burian, Carl, assignor.)

Schuermann, Anton C. (See Mueller and Schuermann.)

Schulde, John, and N. J. Windberg, St. Louis, Mo. Refrigerator. No. 1,091,393; Mar. 24; Gaz. vol. 200; p. 1052.

Schuller, Aladar. (See Ruth and Schuller.)

Schultze, Gustav F. W., Oakland, Cal. Coin-controlled mechanism. No. 1,090,945; Mar. 24; Gaz. vol. 200; p. 900.

Schultze, Kurt, Pankow, Berlin, Germany. Propeller for aircraft. No. 1,089,872; Mar. 10; Gaz. vol. 200; p. 458.

Schulz, Fritz, Wectzen, Germany. Evaporator. No. 1,091,897; Mar. 31; Gaz. vol. 200; p. 1270.

Schumann, Jakob, Vienna, Austria-Hungary. Door-mat. No. 1,089,972; Mar. 10; Gaz. vol. 200; p. 493.

Schürmann, Richard, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Sighting device. No. 1,089,973; Mar. 10; Gaz. vol. 200; p. 493.

Schürmann, Walter, Dusseldorf, Germany. Counter. No. 1,091,771; Mar. 31; Gaz. vol. 200; p. 1226.

Schwabenland, Edward L. (See Ingram, Thomas C., assignor.)

Schwantes, Julius A., Green Bay, Wis. Pump. No. 1,090,884; Mar. 24; Gaz. vol. 200; p. 879.

Schwartz, Carl, St. Louis, Mo. Fabric measuring and cutting machine. No. 1,090,796; Mar. 17; Gaz. vol. 200; p. 816.

Schwartz, Edward, assignor to Wm. E. Slaughter Co., Chicago, Ill. Electric curler and the like. No. 1,090,238; Mar. 17; Gaz. vol. 200; p. 627.

Schwarze, Carl J., Adrian, Mich. Electric bell. No. 1,091,898; Mar. 31; Gaz. vol. 200; p. 1270.

Schwarze, Carl J., assignor to Schwarze Electric Company, Adrian Mich. Electromagnetically-operated sounder. No. 1,092,117; Mar. 31; Gaz. vol. 200; p. 1344.

Schwarze Electric Company. (See Schwarze, Carl J., assignor.)

Schwarzler, Jacob. (See Hyde and Schwarzler.)

Schweitzer, Hugo, and A. Zart, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Blue dyestuff. No. 1,088,735; Mar. 3; Gaz. vol. 200; p. 22.

Schweitzer, William, and H. H. Labadie, Chicago, Ill. Portable display-stand. No. 1,089,349; Mar. 3; Gaz. vol. 200; p. 229.

Scofield, William B. (See Socin, Francis C., assignor.)

Scotford, Louis K., Chicago, Ill., assignor to Hill-Independent Manufacturing Company, Philadelphia, Pa. Hand-stamp. No. 1,091,394; Mar. 24; Gaz. vol. 200; p. 1052.

Scott, Charles D., Topeka, Kans., assignor to P. E. Ginn, Winchester, Mass. Feed-regulator. No. 1,090,120; Mar. 10; Gaz. vol. 200; p. 544.

Scott, John C. (See Hansen and Scott.)

Scott, John M., Racine, Wis., assignor to O. R. Barnett, Chicago, Ill. Rail-anchor. No. 1,090,946; Mar. 24; Gaz. vol. 200; p. 901.

Scott, Robert F. (See Harrington and Scott.)

Scott, S. Walter, Troy, N. Y. Pneumatic support and shock-absorber for vehicles. No. 1,089,974; Mar. 10; Gaz. vol. 200; p. 494.

Scott, William D., Martins Ferry, Ohio. Ventilating apparatus. No. 1,090,239; Mar. 17; Gaz. vol. 200; p. 627.

Scott & Williams. (See Swinglehurst, Harry, assignor.)

Scritsmier, George W., Chicago, Ill. Mechanically-produced negative. No. 1,090,240; Mar. 17; Gaz. vol. 200; p. 628.

Scroggs, Joseph W., Kingfisher, Okla. Musical chart. No. 1,091,865; Mar. 31; Gaz. vol. 200; p. 1260.

Scurlock, Lewis H., *et al.* (See Muehl, William F., assignor.)

Sears, Willard T., assignor to Pratt & Whitney Company, Hartford, Conn. Radial drill. No. 1,089,442; Mar. 10; Gaz. vol. 200; p. 310.

Seeger, August C., East St. Louis, Ill. Combined chair, swing, and jumper. No. 1,089,276; Mar. 3; Gaz. vol. 200; p. 206.

Seelye, William E., Sault Ste. Marie, Ontario, Canada. Prospector's ax and pick. No. 1,088,938; Mar. 3; Gaz. vol. 200; p. 91.

Seeman, Lester W., and J. C. Morse, Fort Steilacoom, Wash. Vacuum-walled refrigerator. No. 1,091,968; Mar. 31; Gaz. vol. 200; p. 1294.

Segundo, Edward C. de. (See Minck and Segundo.)

Segundo, Edward C. de, London, England. Treating cotton-seed hulls. No. 1,089,679; Mar. 10; Gaz. vol. 200; p. 393.

Seidel, Arthur A. (See Kuechenmeister and Seidel.)

Seidel, Emil, Providence, R. I. Adjustable lamp-stand. No. 1,091,969; Mar. 31; Gaz. vol. 200; p. 1294.

Sellenger, William, Richmond, Victoria, Australia. Pneumatic suspension for vehicles. No. 1,091,250; Mar. 24; Gaz. vol. 200; p. 1007.

Semple, William J. (See Quigley, Joseph, assignor.)

Sencenbaugh, Samuel S., Aurora, assignor to T. Buettner & Co., Chicago, Ill. Crochet-hook. No. 1,091,395; Mar. 24; Gaz. vol. 200; p. 1052.

Seneca Camera Manufacturing Company. (See Coddard, Joseph, assignor.)

Senzik, Otto P. (See Watson, Richard M., assignor.)

Sergeson, James C., Philadelphia, Pa. Shuttle. No. 1,090,572; Mar. 17; Gaz. vol. 200; p. 744.

Serres, Katheryn M., Boston, Mass. Eyeglass-cleaner. No. 1,091,396; Mar. 24; Gaz. vol. 200; p. 1053.

Sevey, James A., San Marcos, Tex. Saw-filing machine. No. 1,091,397; Mar. 24; Gaz. vol. 200; p. 1053.

Sevison, Luther E. (See Sevison, Luther J. and L. E.)

Sevison, Luther J. and L. E., Elkhart, Ind. Magneto. No. 1,088,736; Mar. 3; Gaz. vol. 200; p. 23.

Sewall, Minott W., New York, N. Y., assignor to The Babcock & Wilcox Company, Bayonne, N. J. Steam-boiler setting. No. 1,090,947; Mar. 24; Gaz. vol. 200; p. 901.

Sgarlata, Assunta, Milwaukee, Wis. Clothes-draining attachment for washboilers. No. 1,090,756; Mar. 17; Gaz. vol. 200; p. 802.

Shabley, Charles, assignor of one-half to A. T. Thompson, Leavenworth, Kans. Manure-spreader. No. 1,088,842; Mar. 3; Gaz. vol. 200; p. 58.

Shackleton, Herbert, Malsis Mount, Keighley, England. Spinning, twisting, and analogous machine. No. 1,090,757; Mar. 17; Gaz. vol. 200; p. 803.

Shackleton, Sugden, Malsis Mount, Keighley, England. Doffing mechanism. No. 1,090,758; Mar. 17; Gaz. vol. 200; p. 803.

Shafer, Elmer E., Benton county, Iowa. Rotary valve for engines. No. 1,091,541; Mar. 31; Gaz. vol. 200; p. 1147.

Shaffer, Howard E. (See Schieb and Shaffer.)

Shaffert, Henry, East Pittsburgh, Pa. Trolley. No. 1,090,657; Mar. 17; Gaz. vol. 200; p. 773.

Shand, James, assignor to Joseph N. Smith & Company, Detroit, Mich. Latch. No. 1,091,398; Mar. 24; Gaz. vol. 200; p. 1053.

Shaner, David P., Mount Healthy, Ohio. Automobile radiator-cap attachment. No. 1,090,573; Mar. 17; Gaz. vol. 200; p. 744.

Shanks, Edward B., Springwood, Va. Advertising device. No. 1,090,172; Mar. 17; Gaz. vol. 200; p. 603.

Shanks, John, Barrhead, Scotland. Combined valve and siphon. No. 1,090,885; Mar. 24; Gaz. vol. 200; p. 880.

Shannon, John J., assignor of one-third to J. P. Dovel, Birmingham, Ala. Air-cooled blast-furnace stack. No. 1,090,574; Mar. 17; Gaz. vol. 200; p. 745.

Shannon, William, East Cleveland, Ohio. Vise. No. 1,090,575; Mar. 17; Gaz. vol. 200; p. 745.

Shannon, Woodford, Louisville, Ky. Spring-bed. No. 1,089,976; Mar. 10; Gaz. vol. 200; p. 494.

Sharp and Dohme. (See Robertson, William P., assignor.)

Sharpnack, Matthew C., Prescott, Ariz. Safety-razor. No. 1,089,726; Mar. 10; Gaz. vol. 200; p. 408.

Sharpnack, Matthew C., Prescott, Ariz. Safety-razor. No. 1,089,727; Mar. 10; Gaz. vol. 200; p. 409.

Shartle, Charles W., Middletown, Ohio. Pulp-reducing apparatus. No. 1,091,899; Mar. 31; Gaz. vol. 200; p. 1270.

Shaw, Bruce A., Oak Park, Ill. Trap. No. 1,089,975; Mar. 10; Gaz. vol. 200; p. 494.

Shaw, Edward C., Portsmouth, N. H. Metallic railway-tie. No. 1,091,088; Mar. 24; Gaz. vol. 200; p. 951.

Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle wheel-rim. No. 1,088,843; Mar. 3; Gaz. vol. 200; p. 58.

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,089,977; Mar. 10; Gaz. vol. 200; p. 495.

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Game-trap. No. 1,090,576; Mar. 17; Gaz. vol. 200; p. 746.

Shaw, Robert E., Whatley, Ala. Machine for catching boll-weevil cotton-squares. No. 1,091,970; Mar. 31; Gaz. vol. 200; p. 1294.

Shawcross, Henry L., New Brighton, England. Making negative or positive plates. No. 1,090,886; Mar. 24; Gaz. vol. 200; p. 880.

Sheehan, Lillian M., *et al.*, administrators. (See Meserole, Milton D., assignor.)

Sheehan, Thomas C., Jersey City, N. J., assignor to Durham Duplex Razor Company, New York, N. Y. Honing-machine. No. 1,090,577; Mar. 17; Gaz. vol. 200; p. 747.

Shepard, Gilbert F., Dodge City, Kans. Bed cooler or heater. No. 1,089,277; Mar. 3; Gaz. vol. 200; p. 206.

Sherburne, Charles H. (See Graham, Benjamin J., assignor.)

Sherman, Willis S., Milwaukee, Wis. End-matcher. No. 1,091,772; Mar. 31; Gaz. vol. 200; p. 1226.

Sherman, Willis S., Milwaukee, Wis. End-matcher. No. 1,091,773; Mar. 31; Gaz. vol. 200; p. 1227.

Sherwood, Aaron W., *et al.* (See Percy, James E., assignor.)

Shipman, Frank L., Whippany, N. J. Puzzle. No. 1,089,278; Mar. 3; Gaz. vol. 200; p. 207.

Shoenberg, Milton H., assignor to F. C. Morgan, San Francisco, Cal. Electric heating device. No. 1,091,774; Mar. 31; Gaz. vol. 200; p. 1227.

Shoop, Irvin E., Elizabethtown, Pa. Ladder. No. 1,090,241; Mar. 17; Gaz. vol. 200; p. 628.

Shore, Albert F., New York, N. Y. Projectile. No. 1,089,161; Mar. 3; Gaz. vol. 200; p. 170.

Short, Jefferson D., Texhoma, Tex. Spring-wheel. No. 1,090,797; Mar. 17; Gaz. vol. 200; p. 817.

Short, Leslie D. (See Thomas, Calvin W., assignor.)

Shotts, Harry P. (See Davidson and Shotts.)

Showalter, Erasmus W., Claypool, Ind. Acetylene-gas generator. No. 1,090,759; Mar. 17; Gaz. vol. 200; p. 804.

Shultz, Michael. (See Blose and Shultz.)

Shute, Nathan. (See Rogers, Joseph W., assignor.)

Sibert, Nicholas S., *et al.* (See Petty, Harry E., assignor.)

Sibson, Walter W. (See Allsop and Sibson.)

Sibson, Walter W., and T. Allsop, assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Singeing-machine. No. 1,089,085; Mar. 3; Gaz. vol. 200; p. 141.





Sidney Suspender Company. (See Bigney, Sidney O., assignor.)

Sifers, Robert B. (See Lightner, Guss A., assignor.)

Sigafoos, Clark A., Omaha, Nebr. Gage for paper-folding machines. No. 1,090,348; Mar. 17; Gaz. vol. 200; p. 664.

Signaigo, Gustavas R., Memphis, Tenn. Life-saving apparatus for aviators. No. 1,089,978; Mar. 10; Gaz. vol. 200; p. 495.

Sikes, Julius, Chicago, Ill. Firearm. No. 1,089,086; Mar. 3; Gaz. vol. 200; p. 141.

Sill Store Works. (See Will and Becker, assignors.)

Silver, Herman, Minneapolis, Minn. Alarm device for ice-box drip-pans. No. 1,091,593; Mar. 31; Gaz. vol. 200; p. 1163.

Simer, Burton W., and A. Nichols, Salmon, Idaho. Self-closing sack. No. 1,089,279; Mar. 3; Gaz. vol. 200; p. 207.

Simmersbach, Oscar, Breslau, Germany. Open-hearth furnace. No. 1,090,503; Mar. 17; Gaz. vol. 200; p. 720.

Simmons, Jesse C., Shelby, Mich. Burner for liquid fuel. No. 1,091,169; Mar. 24; Gaz. vol. 200; p. 979.

Simmons, Robert F., and C. Francisco, assignors to New York Stamping Company, Brooklyn, N. Y. Currycomb. No. 1,089,308; Mar. 3; Gaz. vol. 200; p. 236.

Simmons, William T. (See Kogel and Simmons.)

Simms, Frederick R., London, England. Means for starting motor road-vehicles. No. 1,090,109; Mar. 10; Gaz. vol. 200; p. 540.

Simms Magneto Company, The. (See Wacker, George W., assignor.)

Simon, Saul P., Chicago, Ill. Reinforced and perforated shirt-band. No. 1,089,592; Mar. 10; Gaz. vol. 200; p. 363.

Simonds Manufacturing Company. (See Howard, Leslie E., assignor.)

Simpson, Alexander B., Jersey City, N. J. Binding-post for electric terminals. No. 1,090,887; Mar. 24; Gaz. vol. 200; p. 880.

Simpson, Alexander B., Jersey City, N. J. Connector for electric wires. No. 1,090,888; Mar. 24; Gaz. vol. 200; p. 880.

Simpson, John, assignor to Street Car Indicator Company, Limited, Vancouver, British Columbia, Canada. Advertising device. No. 1,091,399; Mar. 24; Gaz. vol. 200; p. 1054.

Sims, John R., Sr. (See Hill, Truman, assignor.)

Sinding-Larsen, Alf, Christiania, Norway. Separating mixtures of gases. No. 1,091,023; Mar. 24; Gaz. vol. 200; p. 929.

Singer Manufacturing Company, The. (See Traub, Emil, assignor.)

Singleton, Joseph J. C., Fort Worth, Tex. Automatic fire-alarm. No. 1,090,242; Mar. 17; Gaz. vol. 200; p. 628.

Sippel, Charles B., Chicago, Ill. Ledger. No. 1,091,594; Mar. 31; Gaz. vol. 200; p. 1164.

Sisson, Albert H., High Point, N. C., assignor to Forsyth Brothers Company, Chicago, Ill. Sash construction. No. 1,089,873; Mar. 10; Gaz. vol. 200; p. 458.

Sisson, Isaac H., Providence, R. I. Lubricating device. No. 1,091,866; Mar. 31; Gaz. vol. 200; p. 1261.

Skall, Max A., New York, N. Y. Show-case construction. No. 1,089,593; Mar. 10; Gaz. vol. 200; p. 363.

Skinner Engine Company. (See Stevens, Robert C., assignor.) (Reissue.)

Skinner, Victor H. (See Stapleton, John T., assignor.)

Sklovsky, Max, and G. W. Mixter, assignors to Deere & Company, Moline, Ill. Conveyer. No. 1,090,948; Mar. 24; Gaz. vol. 200; p. 902.

Slater, Mabel H., Webster, Mass. Refrigerator. No. 1,089,016; Mar. 3; Gaz. vol. 200; p. 117.

Slater, Warren, Washington, D. C. Rail-splice. No. 1,089,280; Mar. 3; Gaz. vol. 200; p. 207.

Slinack, Victor H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Valve for lighting-fixtures. No. 1,089,503; Mar. 10; Gaz. vol. 200; p. 333.

Slinack, Victor H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Inverted incandescent gas-light. No. 1,089,504; Mar. 10; Gaz. vol. 200; p. 333.

Slinack, Victor H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Inverted incandescent gas-light. No. 1,089,505; Mar. 10; Gaz. vol. 200; p. 333.

Slinack, Victor H., assignor to The Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Automatic gas-distributer. No. 1,090,798; Mar. 17; Gaz. vol. 200; p. 817.

Slitski, Joseph J., Jr., Baldwinsville, Mass. Convertible sprinkler and water-pail. No. 1,091,971; Mar. 31; Gaz. vol. 200; p. 1295.

Sloan, Robert A., and J. E. L. Barnes, Liverpool, England. Cigarette-making machine. No. 1,089,680; Mar. 10; Gaz. vol. 200; p. 393.

Sloan, William B., Cleveland, Tenn. Animal-poke. No. 1,091,972; Mar. 31; Gaz. vol. 200; p. 1295.

Small, Howard, *et al.*, receivers. (See Fesenbek, Frederick C., assignor.)

Smart, J. C. (See Noll and Hollingsworth, assignors.)

Smith, Augustus, Bayonne, N. J. Lightering vessel. No. 1,090,659; Mar. 17; Gaz. vol. 200; p. 774.

Smith, Augustus, North Plainfield, assignor to The Bergen Point Iron Works, Bayonne, N. J. Loading device. No. 1,090,658; Mar. 17; Gaz. vol. 200; p. 773.

Smith, Charles B. (See Wescott and Smith.)

Smith, Charles B., *et al.* (See Younger, Charles, assignor.)

Smith, Charles E., Oak Lawn, R. I. Machine for packaging metallic leaf in rolls. No. 1,089,443; Mar. 10; Gaz. vol. 200; p. 310.

Smith, Charles H., Worcester, Mass. Electric score-board. No. 1,089,798; Mar. 10; Gaz. vol. 200; p. 432.

Smith, Charles L. (See Gullberg and Smith.)

Smith, Edgar M., Chicago, Ill. Rail-joint. No. 1,090,504; Mar. 17; Gaz. vol. 200; p. 721.

Smith, Elberon D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Cigarette-machine. No. 1,090,889; Mar. 24; Gaz. vol. 200; p. 881.

Smith, Elberon D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Cigarette-opening device. No. 1,091,775; Mar. 31; Gaz. vol. 200; p. 1228.

Smith, Elmer J., assignor to Peter Smith Heater Company, Detroit, Mich. Heating apparatus. No. 1,089,728; Mar. 10; Gaz. vol. 200; p. 409.

Smith, Frank L., Chicago, Ill., and T. B. Williams, Orange, Mass., assignors to The Leavitt Machine Company. Rotary cutting mechanism. No. 1,090,243; Mar. 17; Gaz. vol. 200; p. 629.

Smith, Gertrude, Valdosta, Ga. Liquid-applying device. No. 1,088,797; Mar. 3; Gaz. vol. 200; p. 42.

Smith, Harry J., Lakewood, assignor to The Hill Clutch Company, Cleveland, Ohio. Concrete anchor. No. 1,089,874; Mar. 10; Gaz. vol. 200; p. 459.

Smith, Harvey E., assignor of one-half to R. C. Johnson, Represa, Cal. Boat construction. No. 1,090,349; Mar. 17; Gaz. vol. 200; p. 665.

Smith, James, and S. F. Warner, Elmhurst, N. Y. Headlight. No. 1,091,400; Mar. 24; Gaz. vol. 200; p. 1054.

Smith, James H., Buckeystown, Md. Shaft attachment. No. 1,091,024; Mar. 24; Gaz. vol. 200; p. 929.

Smith, James H., New Holland, Ga. Quill-cleaner. No. 1,091,595; Mar. 31; Gaz. vol. 200; p. 1164.

Smith, John, *et al.* (See Hoelscher, Gottlieb H., assignor.)

Smith, John H., Bois-Colombes, France. Sensitising dyestuffs employed in photography. No. 1,089,594; Mar. 10; Gaz. vol. 200; p. 364.

Smith, Love A. (See Day and Smith.)

Smith, Millard, St. Louis, Mo. Window. No. 1,089,087; Mar. 3; Gaz. vol. 200; p. 141.

Smith, Myron A., Rockville Center, N. Y. Crushing-roller. No. 1,089,017; Mar. 3; Gaz. vol. 200; p. 117.

Smith, Oscar E. (See Vail and Smith.)

Smith, Reginald G., and E. N. Percy, Oakland, Cal. Orchard-heater. No. 1,091,170; Mar. 24; Gaz. vol. 200; p. 980.

Smith, Richard I., Crofton, Nebr. Four-horse evener. No. 1,091,711; Mar. 31; Gaz. vol. 200; p. 1204.

Smith, Richard J., Gwanda, Rhodesia, South Africa. Rail-joint. No. 1,090,949; Mar. 24; Gaz. vol. 200; p. 902.

Smith, Sidney, assignor to The Barnes Manufacturing Company, Mansfield, Ohio. Spraying-pump. No. 1,091,401; Mar. 24; Gaz. vol. 200; p. 1054.

Smith, Thomas G., New Orleans, La. Antirobbery and burglar-proof car. No. 1,089,506; Mar. 10; Gaz. vol. 200; p. 334.

Smith, Vendel. (See Menyhért and Smith.)

Smith, Walter W., Shallow Lake, Ontario, Canada. Building-block. No. 1,089,507; Mar. 10; Gaz. vol. 200; p. 334.

Smith, Ward T., Seattle, Wash. Manifolding device for addressing envelops. No. 1,088,798; Mar. 3; Gaz. vol. 200; p. 43.

Smith, Warren S., Bangor, Pa. Cabinet. No. 1,090,890; Mar. 24; Gaz. vol. 200; p. 881.

Smith, Wesley L., Pittsburgh, Pa. Apparatus for administering anesthetics. No. 1,091,973; Mar. 31; Gaz. vol. 200; p. 1295.

Smith, Wheeler. (See Ferguson, Lyman H., assignor.)

Smith, William R., Buffalo, N. Y. Machine for cleaning crude rubber. No. 1,089,162; Mar. 3; Gaz. vol. 200; p. 170.

Smith, William S., Imlay City, Mich. Device for holding cows' tails. No. 1,089,508; Mar. 10; Gaz. vol. 200; p. 334.

Smyth, William H., Berkeley, Cal., assignor to Humphrey Gas Pump Company. Internally-fired engine. No. 1,089,444; Mar. 10; Gaz. vol. 200; p. 310.

Smyth, William H., Berkeley, Cal., assignor to Humphrey Gas Pump Company. Utilizing heat energy. No. 1,089,681; Mar. 10; Gaz. vol. 200; p. 394.

Smythe, Horace E., assignor to The S. R. Smythe Company, Pittsburgh, Pa. Gas-producer. No. 1,088,799; Mar. 3; Gaz. vol. 200; p. 43.

Smythe, Joseph B., Coaticook, Quebec, Canada. Ratchet mechanism. No. 1,090,578; Mar. 17; Gaz. vol. 200; p. 746.

Snedeker, James W., assignor to Page Woven Wire Fence Company, Adrian, Mich. Fence-machine. No. 1,088,844; Mar. 3; Gaz. vol. 200; p. 58.

Snee, James M., assignor to R. H. Newman and W. M. Strawn, Bridgeport, Conn. Rope sling for gun-shells. No. 1,088,939; Mar. 3; Gaz. vol. 200; p. 92.

Snodgrass, Charley, assignor of one-fourth to F. Klehn, one-fourth to J. Zahl, and one-fourth to H. Ililetschko, Los Angeles, Cal. Riveting-machine. No. 1,089,281; Mar. 3; Gaz. vol. 200; p. 208.

Snyder, Herbert T., Baltimore, Md. Bottle-sealing machine. No. 1,089,875; Mar. 10; Gaz. vol. 200; p. 459.

Snyder, Jacob R., Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company. Emergency cut-off valve. No. 1,089,088; Mar. 3; Gaz. vol. 200; p. 142.

Snyder, Jacob R., Pittsburgh, assignor to P. E. Donner, Allegheny county, Pa. Load-controlled air-brake. No. 1,091,596; Mar. 31; Gaz. vol. 200; p. 1164.

Snyder, Jacob R., Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company. Engineer's brake-valve. No. 1,091,597; Mar. 31; Gaz. vol. 200; p. 1165.

Sobush, Vincent, Green Bay, Wis. Milking-machine. No. 1,091,974; Mar. 31; Gaz. vol. 200; p. 1296.

Societe Anonyme des Etablissements Ph. Bonvillain & E. Ronceray. (See Ronceray, Eugene, assignor.)

Societe Anonyme des Usines A. E. Decoulle. (See Gueniffet and Nicault, assignors.)

Société Anonyme Vervietoise pour la Construction de Machines. (See Houget and Rahler, assignors.)

Société du Carburateur Zenith. (See Baverey, François, assignor.)

Société Generale des Nitrures. (See Matignon, Arthème, assignor.)

Société Huet & Cie. (See Huet, Louis H., assignor.)

Socin, Francis C., Brooklyn, N. Y., assignor to himself, and W. B. Scofield, Worcester, Mass. Wrench. No. 1,092,081; Mar. 31; Gaz. vol. 200; p. 1330.

Soderlund, Albert, Fitzgerald, Ga. Metallic piston-packing. No. 1,088,737; Mar. 3; Gaz. vol. 200; p. 23.

Solvay Process Company, The. (See Trump, Edward N., assignor.)

Somers, Roy, Muskegon, Mich. Music-chart. No. 1,091,598; Mar. 31; Gaz. vol. 200; p. 1165.

Son, William H., Wilkes-Barre, Pa. Spring system. No. 1,088,738; Mar. 3; Gaz. vol. 200; p. 24.

Sopha, Hattie, assignor to F. C. Dorment, Detroit, Mich. Spraying device for the hair and scalp. No. 1,089,595; Mar. 10; Gaz. vol. 200; p. 364.

Soule, Russell W. (See Hammond and Soule.)

South, Clarence. (See Neal, Elgin F., assignor.)

Soward, John B., Seattle, Wash. Hand-cultivator. No. 1,091,712; Mar. 31; Gaz. vol. 200; p. 1204.

Sowden, Charles N., Guantanamo, Cuba. Device for opening elliptical springs. No. 1,091,975; Mar. 31; Gaz. vol. 200; p. 1296.

Sowden, Charles N., Guantanamo, Cuba. Actuating means for swivel lamp-holders. No. 1,091,976; Mar. 31; Gaz. vol. 200; p. 1296.

Spar Chemical Company, The. (See Bassett, Harry P., assignor.)

Sparks, William, assignor to The Sparks-Withington Company, Jackson, Mich. Sheet-metal pulley. No. 1,090,505; Mar. 17; Gaz. vol. 200; p. 721.

Sparks, William E., assignor to Sargent & Company, New Haven, Conn. Lock. No. 1,089,729; Mar. 10; Gaz. vol. 200; p. 409.

Sparks-Withington Company, The. (See Sparks, William, assignor.)

Speck, James A., Pawhuska, Okla. Syringe. No. 1,091,977; Mar. 31; Gaz. vol. 200; p. 1297.

Spelling, Thomas C., New York, N. Y. Toy railway system. No. 1,089,799; Mar. 10; Gaz. vol. 200; p. 433.

Spencer, Alfred G., London, England. Manufacturing rubber blocks for springs, &c. No. 1,092,129; Mar. 31; Gaz. vol. 200; p. 1347.

Sperry, Herbert B. (See Dain and Sperry.)

Spies, Louis, St. Louis, Mo. Bevel-square. No. 1,091,978; Mar. 31; Gaz. vol. 200; p. 1297.

Spiess, Georg, Leipzig-Reudnitz, Germany. Paper-sheet-feeding machine. No. 1,091,444; Mar. 24; Gaz. vol. 200; p. 1068.

Spigno, Giovanni B. M., Genoa, Italy. Treatment of hides and skins. No. 1,090,799; Mar. 17; Gaz. vol. 200; p. 818.

Spinney, Charles L., Lynn, Mass., assignor to General Electric Company. Metal-founding. No. 1,091,542; Mar. 31; Gaz. vol. 200; p. 1147.

Spinney, Charles L., Lynn, Mass., assignor to General Electric Company. Induction-motor. No. 1,091,713; Mar. 31; Gaz. vol. 200; p. 1205.

Spitznus, Ferdinand, Essen-on-the-Ruhr-West, Germany. Means for lubricating fluid-driven tools. No. 1,091,776; Mar. 31; Gaz. vol. 200; p. 1228.

Spivey, Thomas S., assignor to The Victor Safe & Lock Co., Norwood, Ohio. Vault-entrance. No. 1,089,018; Mar. 3; Gaz. vol. 200; p. 118.

Spofford, Christopher S., and F. W. Jonas, assignors to Sturgis Steel Go-Cart Company, Sturgis, Mich. Collapsible carriage. No. 1,090,950; Mar. 24; Gaz. vol. 200; p. 902.

Spofford, Christopher S., and J. A. Henry, assignors to Sturgis Steel Go-Cart Co., Sturgis, Mich. Collapsible carriage. No. 1,091,025; Mar. 24; Gaz. vol. 200; p. 923.

Spott, Oscar E., Richmond, Va. Button-clasp. No. 1,091,979; Mar. 31; Gaz. vol. 200; p. 1298.

Sprague Canning Machinery Company. (See Reynolds, Edward, assignor.)

Sprague, Charles C. (See Sprague, Robert M. and C. C.)

Sprague, Henry H., Bridgeport, Conn. Gas-meter. No. 1,089,730; Mar. 10; Gaz. vol. 200; p. 410.

Sprague, Horace M., Denver, Colo. Adjustable jointed-handle wrench. No. 1,090,506; Mar. 17; Gaz. vol. 200; p. 721.

Sprague, Robert M. and C. C., Council Bluffs, Iowa. Grate. No. 1,089,682; Mar. 10; Gaz. vol. 200; p. 394.

Sprong, Severn D., Brooklyn, N. Y. Calibrating device. No. 1,090,419; Mar. 17; Gaz. vol. 200; p. 691.

Sprowson, Robert A., *et al.* (See O'Meara, James J., assignor.)

Sprung, Francis H., San Jose, Cal. Jury-axle. No. 1,089,282; Mar. 3; Gaz. vol. 200; p. 208.

Sprung, George, Vancouver, British Columbia, Canada. Road-making material. No. 1,091,777; Mar. 31; Gaz. vol. 200; p. 1228.

Spry, Townsend H. (See Pelter, Spry, and Busse.)

Sprye, William M. (See Muther and Sprye.)

Staaf, Werner I., and E. B. Tyler, Pittsburgh, Pa. Liquid-meter. No. 1,092,082; Mar. 31; Gaz. vol. 200; p. 1331.

Stacy, Charles E., Dayton, Ohio, assignor to Frank Holton & Company, Chicago, Ill. Mouthpiece. No. 1,089,876; Mar. 10; Gaz. vol. 200; p. 459.

Stahl, Gustav H., Chicago, Ill. Ball-bearing retainer. No. 1,089,877; Mar. 10; Gaz. vol. 200; p. 460.

Stamm, John G., Canton, Ohio. Pneumatic sweeper. No. 1,089,800; Mar. 10; Gaz. vol. 200; p. 433.

Stampa, Nathaniel C., Ocean Park, Cal., assignor to Stromberg Motor Devices Company, Chicago, Ill. Carbureter. No. 1,089,089; Mar. 3; Gaz. vol. 200; p. 142.

Stanbery, George A., Zionville, N. C. Plow. No. 1,090,760; Mar. 17; Gaz. vol. 200; p. 804.

Standard Alcohol Company. (See Gallagher, Francis E., assignor.)

Standard Car Truck Company. (See Barber, John C., assignor.)

Standard Car Truck Company. (See Barber and Webb, assignors.)

Standard Computing Scale Company. (See King, Bert W., assignor.)

Standard Cross-Tie Machine Company. (See Martin and Bryan, assignors.)

Standard Rock Drill Company, The. (See Oliver, George A., assignor.)

Standard Sewing Machine Company, The. (See Mack, William A., assignor.)

Standard Typewriter Company. (See Petermann, Otto, assignor.)

Standeford, Archie D., Kansas City, Mo. Shutter for motion-picture machines. No. 1,091,543; Mar. 31; Gaz. vol. 200; p. 1147.

Stanley Rule & Level Company, The. (See McNutt, Thomas H., assignor.)

Stanley, Theodore D., Detroit, Mich. Friction transmission mechanism. No. 1,089,596; Mar. 10; Gaz. vol. 200; p. 364.

Stanley, William, Great Barrington, Mass., assignor to General Electric Company. Electric cooking device. No. 1,091,714; Mar. 31; Gaz. vol. 200; p. 1205.

Stapler, Alexander, Charlottenburg, assignor to Oja Aktiengesellschaft, Berlin, Germany. Apparatus for dispensing congealed or solid substances. No. 1,089,683; Mar. 10; Gaz. vol. 200; p. 394.

Staples, John A., Walkertown, N. C. Water-elevating apparatus. No. 1,090,244; Mar. 17; Gaz. vol. 200; p. 629.

Stapleton, Birt B., Downing, assignor of one-half to E. J. Goines, Memphis, Mo. Automobile-wheel. No. 1,089,445; Mar. 10; Gaz. vol. 200; p. 311.

Stapleton, John T., Jersey City, N. J., assignor of one-half to V. H. Skinner, Balboa, Canal Zone. Electric hair-drier. 1,090,579; Mar. 17; Gaz. vol. 200; p. 747.

Starck, Gustaf H., Waukegan, Ill. Apparatus for treating waste hydrochloric-acid-pickle liquors. No. 1,090,173; Mar. 17; Gaz. vol. 200; p. 604.

Starin, Frank, Springfield, Mass. Ball-bearing. No. 1,091,544; Mar. 31; Gaz. vol. 200; p. 1147.

Staub, John W. (See Howard, Benjamin F., assignor.)

Stauffer, John, Oakland, assignor to San Francisco Salt Refinery, San Francisco, Cal. Transporting salt. No. 1,091,251; Mar. 24; Gaz. vol. 200; p. 1008.

Stauffer, John, assignor to San Francisco Salt Refinery, San Francisco, Cal. Cleaning salt. No. 1,091,252; Mar. 24; Gaz. vol. 200; p. 1008.

Stearns, Walter A., Hammond, Ind., assignor to American Steel Foundries, New York, N. Y. Car construction. No. 1,088,739; Mar. 3; Gaz. vol. 200; p. 24.

Stebbins, Katharine, New York, N. Y. Operating-table for use in animal research. No. 1,089,283; Mar. 3; Gaz. vol. 200; p. 208.

Stebbins, Walter K., Fairmount, N. D. Egg-tester. No. 1,091,778; Mar. 31; Gaz. vol. 200; p. 1228.

Steed, Robert W., Maplewood, N. J. Dish-washing machine. No. 1,090,420; Mar. 17; Gaz. vol. 200; p. 691.

Steedman, Edwin H., St. Louis, Mo. Tongue-switch. No. 1,090,822; Mar. 17; Gaz. vol. 200; p. 826.

Steel Heddle Manufacturing Company. (See Kaufmann, Jacob, assignor.)

Steele, Charles J., Jersey City, N. J. Device for spacing the upper and lower laps of endless clothes-lines. No. 1,091,089; Mar. 24; Gaz. vol. 200; p. 951.

Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,089,446; Mar. 10; Gaz. vol. 200; p. 311.

Stefater, Frank W., assignor to Jas. Clark, Jr., Electric Co., Louisville, Ky. Squirrel-cage rotor. No. 1,089,597; Mar. 10; Gaz. vol. 200; p. 365.

Steffens, Fred, St. Joseph, Mo. Car-truck. No. 1,089,163; Mar. 3; Gaz. vol. 200; p. 171.

Steidel, Hugo L., Arlington, N. J. Stop attachment for window-shades. No. 1,089,731; Mar. 10; Gaz. vol. 200; p. 410.



Steinberg, Arnold M. (See Alexander and Steinberg.)

Steinberg, Harry, Huntingdon, Pa. Safety-valve. No. 1,091,980; Mar. 31; Gaz. vol. 200; p. 1298.

Steinhart, Eugen. (See Völler and Steinhart.)

Steinhauser, Alfred, Philadelphia, Pa. Studding-fastener. No. 1,089,878; Mar. 10; Gaz. vol. 200; p. 460.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Producing light. No. 1,088,740; Mar. 3; Gaz. vol. 200; p. 24.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Electric lamp. No. 1,091,715; Mar. 31; Gaz. vol. 200; p. 1205.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Electric lamp. No. 1,092,083; Mar. 31; Gaz. vol. 200; p. 1331.

Steinschneider, Leo. (See Porges, Philipp, assignor.)

Stelfox, James C., Westminster, London, England, assignor to A. G. Glasgow, Richmond, Va. Means for delivering oil and other liquids. No. 1,090,800; Mar. 17; Gaz. vol. 200; p. 818.

Stephens-Adamson Mfg. Co. (See Kendall, Myron A., assignor.)

Stephens, Edward U., Battle Creek, Mich. Preparing leguminous products for edible purposes. No. 1,088,741; Mar. 3; Gaz. vol. 200; p. 24.

Stephens, John I., Chaffee, Mo. Cattle-guard. No. 1,089,500; Mar. 10; Gaz. vol. 200; p. 334.

Stephens, Roscoe W., Maricopa, Cal. Strain-indicator support for drilling-rigs. No. 1,091,599; Mar. 31; Gaz. vol. 200; p. 1165.

Stephens, Winston, New Bedford, Mass. Numerical puzzle. No. 1,090,245; Mar. 17; Gaz. vol. 200; p. 629.

Sterling Machinery Company. (See Wege, Ernest F., assignor.)

Steuart, Wilmot N., Brookfield, Ohio. Railway-tie. No. 1,088,940; Mar. 3; Gaz. vol. 200; p. 92.

Stevens, Enoch P., assignor to Locomotive Arch Brick Company, Chicago, Ill. Locomotive-arch construction. No. 1,090,891; Mar. 24; Gaz. vol. 200; p. 881.

Stevens, Frederick C. (See Clement, Edward E., assignor.)

Stevens, Robert C., assignor to Skinner Engine Company, Erie, Pa. Engine valve-gear. (Reissue.) No. 13,604; Mar. 3; Gaz. vol. 200; p. 242.

Steward, John F., Chicago, Ill. Motor-harvester. No. 1,090,246; Mar. 17; Gaz. vol. 200; p. 630.

Stewart, Albert P., *et al.* (See Williamson, John, assignor.)

Stewart, Archibald, Keota, Iowa. Wheel. No. 1,089,284; Mar. 3; Gaz. vol. 200; p. 209.

Stewart, Jasper, Arkansas City, Kans. Heading attachment for Kafir-corn harvesters. No. 1,091,779; Mar. 31; Gaz. vol. 200; p. 1229.

Stewart-Warner Speedometer Corporation. (See Burton, Charles S., assignor.)

Stewart-Warner Speedometer Corporation. (See Thompson, Edward M., assignor.)

Stewart-Warner Speedometer Corporation. (See Warner, Charles H., assignor.)

Stewart-Warner Speedometer Corporation. (See Warner and Cadman, assignors.)

Stimmel, Frederick C., assignor to The Casey-Hedges Company, Chattanooga, Tenn. Steam-boiler furnace. No. 1,089,879; Mar. 10; Gaz. vol. 200; p. 461.

Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Loom-shuttle. No. 1,091,867; Mar. 31; Gaz. vol. 200; p. 1261.

Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Loom-shuttle. No. 1,091,868; Mar. 31; Gaz. vol. 200; p. 1261.

Stimpson, Edwin B., Brooklyn, N. Y., assignor to Edwin B. Stimpson Company. Tire-protective rivet. No. 1,091,981; Mar. 31; Gaz. vol. 200; p. 1298.

Stitzel, Frederick, Louisville, Ky. Spring-wheel. No. 1,089,979; Mar. 10; Gaz. vol. 200; p. 495.

Stjernquist, Charles A., Chicago, Ill. Heating system. No. 1,089,598; Mar. 10; Gaz. vol. 200; p. 365.

Stock, Friedrich. (See Rabba and Stock.)

Stöcker, Hans, assignor to Weckerlein & Stöcker, Nuremberg, Germany. Apparatus for starting multiple-cylinder internal-combustion motors. No. 1,090,580; Mar. 17; Gaz. vol. 200; p. 747.

Stocker, Johannes. (See Lehmann and Stocker.)

Stockstrom, Louis, and H. H. Parpert, assignors to American Stove Company, St. Louis, Mo. Gas-burner. No. 1,091,253; Mar. 24; Gaz. vol. 200; p. 1008.

Stoffels, Henry J., Norwood, Ohio. Guide-frame for gasholders. No. 1,089,090; Mar. 3; Gaz. vol. 200; p. 143.

Stokes, William E. D., Jr., New York, N. Y., and G. W. Davis, Hoboken, N. J., assignors to W. E. D. Stokes, New York, N. Y. Receiving device for wireless systems. No. 1,089,091; Mar. 3; Gaz. vol. 200; p. 143.

Stokes, William J., Crystal Springs, Miss. Harrow. No. 1,089,285; Mar. 3; Gaz. vol. 200; p. 209.

Stoltz, Eugene J., New York, N. Y. Knife-sharpener. No. 1,090,421; Mar. 17; Gaz. vol. 200; p. 691.

Stone, Bruce B., Mount Clare, W. Va. Acetylene-lamp. No. 1,091,982; Mar. 31; Gaz. vol. 200; p. 1298.

Stone, Charles W., Schenectady, N. Y., assignor to General Electric Company. Voltage-regulator. No. 1,091,716; Mar. 31; Gaz. vol. 200; p. 1206.

Stone, James B., Fresno, Cal. Wire cable. No. 1,089,684; Mar. 10; Gaz. vol. 200; p. 395.

Stoneham, Charles A., *et al.* (See Geraghty and Naylor, assignors.)

Stoner, Jordan N., Scottdale, Pa. Movable headlight. No. 1,090,761; Mar. 17; Gaz. vol. 200; p. 805.

Stork, Walter A., St. Louis, Mo. Self-basting roaster. No. 1,091,445; Mar. 24; Gaz. vol. 200; p. 1068.

Stout, Will T., Kinta, Okla. Cotton-sack. No. 1,091,402; Mar. 24; Gaz. vol. 200; p. 1055.

Stovall, John W., and J. T. Furniss, Stovall, Miss. Bottle-seal-detaching device. No. 1,090,422; Mar. 17; Gaz. vol. 200; p. 692.

Straus, Theodore E., and B. Worthington, assignors to Worthington Cotton Harvester Company, Baltimore, Md. Cotton-picker. No. 1,091,254; Mar. 24; Gaz. vol. 200; p. 1009.

Strawn, William M., *et al.* (See Snee, James M., assignor.)

Strayer, William J., Newark, N. J. Hanger for embalming-bottles. No. 1,089,980; Mar. 10; Gaz. vol. 200; p. 496.

Streb, Charles, assignor of one-half to F. Boyer, Rochester, N. Y. Footwear. No. 1,089,599; Mar. 10; Gaz. vol. 200; p. 365.

Street Car Indicator Company. (See Simpson, John, assignor.)

Streeter, Alfred L., Chicago, Ill. Brake-shoe. No. 1,090,892; Mar. 24; Gaz. vol. 200; p. 882.

Streeton, Joseph, Los Angeles, Cal. Combined overshoe jack and scraper. No. 1,089,600; Mar. 10; Gaz. vol. 200; p. 866.

Stricker, Gertrude, assignor of one-third to W. Stricker, Kansas City, Mo. Drain-lid for cooking utensils. No. 1,089,092; Mar. 3; Gaz. vol. 200; p. 143.

Stricker, William. (See Stricker, Gertrude, assignor.)

Strite, George T., Minneapolis, Minn. Connecting-rod. No. 1,092,118; Mar. 31; Gaz. vol. 200; p. 1344.

Ströh, Detlef. (See Müller-Deutschmann and Ströh.)

Stromberg-Carlson Telephone Manufacturing Company. (See Birsfeld, Jules A., assignor.)

Stromberg-Carlson Telephone Manufacturing Company. (See Clausen, Henry P., assignor.)

Stromberg-Carlson Telephone Manufacturing Company, The. (See Webster, Harry G., assignor.) (Reissue.)

Stromberg Motor Devices Company. (See Beesom and Anderson, assignors.)

Stromberg Motor Devices Company. (See Stampa, Nathaniel C., assignor.)

Stromeyer, Julius, Philadelphia, Pa. Vehicle-tire. No. 1,088,845; Mar. 3; Gaz. vol. 200; p. 59.

Strong, Arba R., Leesville, La. Ditching-machine. No. 1,090,247; Mar. 17; Gaz. vol. 200; p. 630.

Stroup, Rena B., Homeworth, Ohio. Fastening for overshoes. No. 1,089,510; Mar. 10; Gaz. vol. 200; p. 334.

Strouse, Jay S., assignor of one-half to C. E. Trace, Baltimore, Md. Carbureting apparatus for internal-combustion engines. No. 1,091,600; Mar. 31; Gaz. vol. 200; p. 1166.

Struble, Robert D., assignor to The Post-Haste Card Systems Company, Inc., Buffalo, N. Y. Filing device. No. 1,090,089; Mar. 10; Gaz. vol. 200; p. 533.

Stuart, Henry J. (See Russ and Stuart.)

Studebaker Corporation, The. (See Mace Glashan, William, assignor.)

Stull, James R., Los Angeles, Cal. Anvil attachment. No. 1,088,742; Mar. 3; Gaz. vol. 200; p. 25.

Sturgis Steel Go-Cart Co. (See Spofford and Henry, assignors.)

Sturgis Steel Go-Cart Company. (See Cleveland, Grover E., assignor.)

Sturgis Steel Go-Cart Company. (See Spofford and Jonas, assignors.)

Stütting, Heinrich, Witten-on-the-Ruhr, Germany. Feed mechanism for tube-rolling mills. No. 1,092,084; Mar. 31; Gaz. vol. 200; p. 1331.

Suelzen, Herman J., Chicago, Ill. Automatic-oiling multiple-die stock. No. 1,089,447; Mar. 10; Gaz. vol. 200; p. 311.

Suggitt, John, Minneapolis, Minn. Side-ballast unloading-plow. No. 1,088,846; Mar. 3; Gaz. vol. 200; p. 59.

Suggs, Theophilus W., Arba, N. C. Planter. No. 1,089,286; Mar. 3; Gaz. vol. 200; p. 209.

Sukup, John, Cudahy, Wis. Padlock. No. 1,089,981; Mar. 10; Gaz. vol. 200; p. 496.

Sullivan, Albert W., Poughkeepsie, N. Y., and W. Benshaw, Chicago, Ill. Railway-car. No. 1,090,174; Mar. 17; Gaz. vol. 200; p. 604.

Sulman, Henry L., and H. F. K. Picard, assignors to The Madagascar Minerals Syndicate Limited, London, England. Recovery of nickel from its ores. No. 1,091,545; Mar. 31; Gaz. vol. 200; p. 1147.

Summers, John, Maybrook, N. Y. Pilot or fender. No. 1,089,287; Mar. 3; Gaz. vol. 200; p. 210.

Sumner, William, assignor of one-half to H. Lodge, Liverpool, England. Audible alarm for motor-vehicles. No. 1,090,801; Mar. 17; Gaz. vol. 200; p. 819.

Sunderland, Sam, High Utley, Keighley, England. Gear-cutting tool. No. 1,090,350; Mar. 17; Gaz. vol. 200; p. 665.

Sundqvist, John, Georgetown, Conn. Toy. No. 1,091,171; Mar. 24; Gaz. vol. 200; p. 980.

Surber, Harmon A., Sullivan, Mo. Saw-oiler. No. 1,090,951; Mar. 24; Gaz. vol. 200; p. 903.

Süsslin, Adolph, Gulfport, Miss. Lighting device for ovens. No. 1,089,982; Mar. 10; Gaz. vol. 200; p. 496.

Sutton, Gramberry. (See Lee, James N., assignor.)

Sutton, Raymond C., North Attleboro, Mass. Chicken-brooder. No. 1,091,900; Mar. 31; Gaz. vol. 200; p. 1271.
Sutton, Simon S., Eldorado, Ill. Internal-combustion engine. No. 1,091,083; Mar. 31; Gaz. vol. 200; p. 1299.
Sutton, William S., Rockford, assignor to American Radiator Company, Chicago, Ill. Coupling. No. 1,088,847; Mar. 3; Gaz. vol. 200; p. 59.
Swain, Charles W. (See Haynes, Venice L., assignor.)
Swainston, William H., Woodlawn, Mich. Saw-set. No. 1,088,941; Mar. 3; Gaz. vol. 200; p. 93.
Swan, Alfred H. S., assignor to Rochester Stamping Company, Rochester, N. Y. Lamp-bracket. No. 1,088,848; Mar. 3; Gaz. vol. 200; p. 60.
Swan, Julius F., Hoboken, N. J. Binder for loose music. No. 1,089,983; Mar. 10; Gaz. vol. 200; p. 497.
Swank, Lafe, assignor to Dwiggins Wire Fence Company, Anderson, Ind. Fence-post and wire-tightener. No. 1,088,942; Mar. 3; Gaz. vol. 200; p. 93.
Swank, Reuben B., Dayton, Ohio. Aeroplane. No. 1,089,880; Mar. 10; Gaz. vol. 200; p. 461.
Swanson, Emil, Boone, Iowa. Nest. No. 1,089,984; Mar. 10; Gaz. vol. 200; p. 497.
Swanson, Nels, Muscatine, Iowa. Fracture-box. No. 1,089,801; Mar. 10; Gaz. vol. 200; p. 433.
Swasey, Oscar F., Beverly, Mass. Knife. No. 1,089,019; Mar. 3; Gaz. vol. 200; p. 118.
Swebilius, Carl G., and H. T. R. Hanitz, assignors to The Marlin Firearms Company, New Haven, Conn. Repeating firearm. No. 1,090,351; Mar. 17; Gaz. vol. 200; p. 665.
Swindler, L. M. (See La Fary, Walter, assignor.)
Swinehart, Clark A., Akron, Ohio. Vehicle-tire. No. 1,089,020; Mar. 3; Gaz. vol. 200; p. 118.
Swing, Alfred J., Cincinnati, Ohio. Vehicle-wheel. No. 1,089,511; Mar. 10; Gaz. vol. 200; p. 335.
Swing, Alfred J., Cincinnati, Ohio. Wheel. No. 1,089,601; Mar. 10; Gaz. vol. 200; p. 366.
Swinglehurst, Harry, Boston, Mass., assignor to Scott & Williams, Inc., Philadelphia, Pa. Needle-cylinder for circular-knitting machines. No. 1,089,021; Mar. 3; Gaz. vol. 200; p. 119.
Swinland, John, Duluth, Minn. Folding umbrella. No. 1,088,743; Mar. 3; Gaz. vol. 200; p. 25.
Synthetic Patents Co. (See Thun, Tust, and Thomaschewski, assignors.)
Syracuse Chilled Plow Company. (See Chase, Aurin M., assignor.)
Syvertsen, Ole C., assignor to Weir Stove Company, Taunton, Mass. Gas-stove. No. 1,088,849; Mar. 3; Gaz. vol. 200; p. 60.
Szczepanik, Jan, Luisenhof, near Dresden, Germany. Producing polychromatic screens, plates, films, and paper for color photography. No. 1,089,602; Mar. 10; Gaz. vol. 200; p. 366.
Szunyik, Jozsef, Dorchester, Va. Kettle. No. 1,089,164; Mar. 3; Gaz. vol. 200; p. 171.
T. Buettner & Co. (See Sencenbaugh, Samuel S., assignor.)
T. L. Smith Company. (See Brackenbury, Edward W., assignor.)
Taber Pump Company. (See Traudt, William F., assignor.)
Tacati, Charles P., Paris, France. Apparatus for massaging gums. No. 1,091,090; Mar. 24; Gaz. vol. 200; p. 951.
Takach, Victor, Cleveland, Ohio. Device for preventing ladders from slipping. No. 1,091,091; Mar. 24; Gaz. vol. 200; p. 951.
Talarico, Nicola, Turner, Me. Railway-track-tamping machine. No. 1,091,984; Mar. 31; Gaz. vol. 200; p. 1299.
Taliaferro, Thomas L., Wheeling, W. Va., assignor, by mesne assignments, to Phoenix Hermetic Company, New York, N. Y. Forming sealing-rings for glass or porcelain covers. No. 1,089,093; Mar. 3; Gaz. vol. 200; p. 143.
Taliaferro, Thomas L., Wheeling, W. Va., assignor, by mesne assignments, to Phoenix Hermetic Company, New York, N. Y. Apparatus for coating covers. No. 1,089,350; Mar. 3; Gaz. vol. 200; p. 229.
Talking Moving Picture Co., The. (See Mitchell, Richard S. M., assignor.)
Tanner, Perry E., Akron, Ohio. Fluid-gage. No. 1,090,423; Mar. 17; Gaz. vol. 200; p. 692.
Tanner, Perry E., Akron, Ohio. Fluid-gage. No. 1,090,424; Mar. 17; Gaz. vol. 200; p. 692.
Tanner, Perry E., Akron, Ohio. Fluid-gage. No. 1,090,425; Mar. 17; Gaz. vol. 200; p. 692.
Tate, Charles G., assignor to United Motor Equipment Co., Chicago, Ill. Starting device. No. 1,091,092; Mar. 24; Gaz. vol. 200; p. 951.
Tatum, Charles A. (See Hall, Willis E., assignor.)
Tatum, Daniel G., Hendersonville, N. C. Running-gear. No. 1,090,762; Mar. 17; Gaz. vol. 200; p. 805.
Tatum, John J., Baltimore, Md. Collapsible stake-pocket. No. 1,091,546; Mar. 31; Gaz. vol. 200; p. 1148.
Taylor, Henry, Chicago, Ill. High chair. No. 1,089,288; Mar. 3; Gaz. vol. 200; p. 210.
Taylor, Henry, Chicago, Ill. Chain-link. No. 1,091,255; Mar. 24; Gaz. vol. 200; p. 1009.
Taylor, Lloyd B. (See Mashek, Frank, assignor.)
Taylor, Scott F., Hyde Park, Mass. Lathe. No. 1,088,850; Mar. 3; Gaz. vol. 200; p. 60.
Taylor, Thomas, Jr., Hubbard Woods, Ill. Golf-club. No. 1,089,881; Mar. 10; Gaz. vol. 200; p. 461.
Taylor, William E., Eastport, Me., assignor to American Can Company, New York, N. Y. Machine for cutting and forming rectangular can-heads. No. 1,091,601; Mar. 31; Gaz. vol. 200; p. 1166.
Teel, Frank H., Salem, Mass. Leather-working machine. No. 1,091,093; Mar. 24; Gaz. vol. 200; p. 952.
Tehan, John J., Pittsburgh, Pa. Milk bottle or jar protector. No. 1,089,985; Mar. 10; Gaz. vol. 200; p. 497.
Telephone Improvement Company, The. (See Clement, Edward E., assignor.)
Tellschow Gebrüder. (See Colombo and Hugo, assignors.)
Temperite Company, The. (See Marx, Richard, assignor.)
Templeton, Calvin M., *et al.* (See Bryant, Clarence R., assignor.)
Terhune, Cornelius F., Clinton, Iowa. Fly-trap. No. 1,091,717; Mar. 31; Gaz. vol. 200; p. 1206.
Terry, Coleman A., deceased, New York, N. Y.; E. J. Terry, administratrix, assignor to Terry Core Drill Company. Brake mechanism. No. 1,091,869; Mar. 31; Gaz. vol. 200; p. 1262.
Terry Core Drill Company. (See Terry, Coleman A., assignor.)
Terry, Emma J., administratrix. (See Terry, Coleman A.)
Terry, Thomas F. (See Davis and Terry.)
Thayer, Walter, Merion, Pa. Return-envelop. No. 1,091,172; Mar. 24; Gaz. vol. 200; p. 980.
Theberath, John H., South Orange, N. J. Expansible metal link. No. 1,090,581; Mar. 17; Gaz. vol. 200; p. 747.
Thibadeau, Joseph, San Francisco, Cal. Mold. No. 1,091,901; Mar. 21; Gaz. vol. 200; p. 1271.
Thiele, Albrecht, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Sulfo compounds of quinolin-4-carboxylic acids arylated in the 2 position. No. 1,091,870; Mar. 31; Gaz. vol. 200; p. 1262.
Thiesen, Jacob J. (See Thiesen, Peter W. and J. J.)
Thiesen, Peter W. and J. J., Tulare county, Cal. Pump. No. 1,091,173; Mar. 24; Gaz. vol. 200; p. 980.
Thissenius, Hans. (See Johnson and Thissenius.)
Thom, George L., Brooklyn, N. Y., assignor to Ideal Coated Paper Co., Brookfield, Mass. Binding and sealing tape. No. 1,089,986; Mar. 10; Gaz. vol. 200; p. 498.
Thomas, Calvin W., assignor of one-half to L. D. Short, Peoria, Ill. Drum. No. 1,090,426; Mar. 17; Gaz. vol. 200; p. 693.
Thomas, Edwin L., Buffalo, N. Y. Explosion-engine. No. 1,088,851; Mar. 3; Gaz. vol. 200; p. 60.
Thomas, Harry A., Springfield, Ill. Electric-battery cell. No. 1,090,763; Mar. 17; Gaz. vol. 200; p. 805.
Thomas, Henry S., and C. H. McFarling, Fargo, Okla. Header. No. 1,090,802; Mar. 17; Gaz. vol. 200; p. 819.
Thomas, James L., Wilmington, Del. Rail-joint. No. 1,090,175; Mar. 17; Gaz. vol. 200; p. 605.
Thomas, Luther B., Shreveport, assignor of one-tenth to J. M. Robinson, Bayou Lachute, La. Combined measuring and dispensing bin. No. 1,090,764; Mar. 17; Gaz. vol. 200; p. 805.
Thomas, Mary E., assignor of one-half to J. M. Fullerton, Pittsburgh, Pa. Garment-hanger. No. 1,089,882; Mar. 10; Gaz. vol. 200; p. 462.
Thomas, Percy H., Montclair, assignor, by mesne assignments, to Cooper Hewitt Electric Company, Hoboken, N. J. Electrical distribution system. No. 1,091,256; Mar. 24; Gaz. vol. 200; p. 1009.
Thomas, William L., Hutchins, Tex. Vehicle for cotton-pickers. No. 1,089,603; Mar. 10; Gaz. vol. 200; p. 367.
Thomaschewski, Paul. (See Thun, Tust, and Thomaschewski.)
Thome, John R., Baltimore, Md. Portable sanitary pan-cleaner. No. 1,091,094; Mar. 24; Gaz. vol. 200; p. 952.
Thompson, Andrew T. (See Shabley, Charles, assignor.)
Thompson, Asa, Spartanburg, S. C. Automatic hoe. No. 1,089,351; Mar. 3; Gaz. vol. 200; p. 230.
Thompson, Edward M., Beloit, Wis., assignor, by mesne assignments, to Stewart-Warner Speedometer Corporation. Means for compensating tachometers for temperature variations. No. 1,088,943; Mar. 3; Gaz. vol. 200; p. 93.
Thompson, Edwin C., and L. S. Dromgold, Chicago, Ill. Device for practising golf-strokes. No. 1,091,985; Mar. 31; Gaz. vol. 200; p. 1299.
Thompson, James M., Milwaukee, Wis. Gear-casing for grinding-machines. No. 1,089,022; Mar. 3; Gaz. vol. 200; p. 119.
Thompson, Ross E. (See Ripley, Gladson, and Thompson.)
Thompson, Roy, and C. Elrich, Otranto Station, Iowa. Attachment for cultivators. No. 1,091,403; Mar. 24; Gaz. vol. 200; p. 1055.
Thompson, Stacy C., Manistee, Mich. Table. No. 1,089,289; Mar. 3; Gaz. vol. 200; p. 210.
Thompson Stacy C., Manistee, Mich. Clothes-rack. No. 1,089,290; Mar. 3; Gaz. vol. 200; p. 210.
Thompson, Thomas A., Loretto, Ky. Bedstead attachment. No. 1,088,800; Mar. 3; Gaz. vol. 200; p. 43.
Thompson, William D., and D. W. Hawksworth, assignors to Hutchins Car Roofing Company, Detroit, Mich. Car-roof. No. 1,089,604; Mar. 10; Gaz. vol. 200; p. 367.
Thomsen, Theodor, Charlottenburg, Germany, assignor to General Electric Company. Multistage-turbine. No. 1,090,110; Mar. 10; Gaz. vol. 200; p. 541.



Thomson, Hugh A., Glasgow, Scotland. Apparatus for operating the points of railways, tramways, and the like. No. 1,089,987; Mar. 10; Gaz. vol. 200; p. 498.
Thomson, John, New York, N. Y. Electric zinc-furnace with integral condenser. No. 1,090,427; Mar. 17; Gaz. vol. 200; p. 693.
Thomson, John, New York, N. Y. Electric zinc-furnace with integral condenser. No. 1,090,428; Mar. 17; Gaz. vol. 200; p. 694.
Thomson, John, New York, N. Y. Universal electric furnace, combined with means for condensing zinc. No. 1,090,429; Mar. 17; Gaz. vol. 200; p. 694.
Thornley, Harry. (See Thornley and Booth.)
Thornley, Samuel and H., and J. Booth, Hyde, England. Bandeau for hats. No. 1,089,201; Mar. 3; Gaz. vol. 200; p. 211.
Thornton, Harry B., Cincinnati, Ohio, and J. W. Hammond, Longbeach, assignors to A. E. Davis, San Diego, Cal. Gas-meter. No. 1,090,507; Mar. 17; Gaz. vol. 200; p. 722.
Thorpe, George B., Chicago, Ill. Roller window-screen. No. 1,091,095; Mar. 24; Gaz. vol. 200; p. 953.
Thorsteinson, Walter, Winnipeg, Manitoba, Canada. Switch-point-controlling device. No. 1,089,685; Mar. 10; Gaz. vol. 200; p. 395.
Thun, Carl, Elberfeld, P. Tust and P. Thomaschewski, Vohwinkel, near Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y. Red alumina color-lake. No. 1,090,352; Mar. 17; Gaz. vol. 200; p. 666.
Thun, Carl, Elberfeld, P. Tust and P. Thomaschewski, Vohwinkel, near Elberfeld, Germany, assignors to Synthetic Patents Co., Inc., New York, N. Y. Red alumina color-lakes obtained from aminoxanthopurpurin-sulfonic acids. No. 1,090,353; Mar. 17; Gaz. vol. 200; p. 666.
Thurber, Frederick H., Newark, N. J., assignor, by mesne assignments, to Gurney Electric Elevator Company, Honesdale, Pa. Elevator-brake. No. 1,088,744; Mar. 3; Gaz. vol. 200; p. 25.
Thurston, William R., Hammond, Ind. Locomotive acetylene-gas headlight. No. 1,089,605; Mar. 10; Gaz. vol. 200; p. 367.
Tichenor, Clyde V. (See Tichenor, Squire W. and C. V.)
Tichenor, Squire W. and C. V., Matanzas, Ky. Vehicle running-gear. No. 1,089,988; Mar. 10; Gaz. vol. 200; p. 498.
Tilden, Arthur, St. Louis, Mo. Butcher's saw. No. 1,091,404; Mar. 24; Gaz. vol. 200; p. 1055.
Tillotson, William L., Denver, Colo. Curved screen for stationary and moving picture reproduction and mechanism for producing the same. No. 1,089,448; Mar. 10; Gaz. vol. 200; p. 312.
Tirelli, Frank, New York, N. Y. Automobile-jack. No. 1,090,430; Mar. 17; Gaz. vol. 200; p. 694.
Toepfer, Charles, Milwaukee, Wis. Portable crane. No. 1,090,248; Mar. 17; Gaz. vol. 200; p. 630.
Toledo Machine & Tool Company, The. (See Hinde, Orton, and Lindgren, assignors.)
Tomkins, Calvin. (See Lange, William, assignor.)
Tömlich, Richard, Munich, Germany. Reservoir-brush. No. 1,088,801; Mar. 3; Gaz. vol. 200; p. 43.
Tomlinson, Charles E., Syracuse, assignor, by mesne assignments, to International Time Recording Company of New York, Endicott, N. Y. Recording-machine. No. 1,091,718; Mar. 31; Gaz. vol. 200; p. 1206.
Tompkins, Stonewall, Brooklyn, N. Y. Double-lever car-brake. No. 1,091,602; Mar. 31; Gaz. vol. 200; p. 1166.
Tomsick, Antone G., assignor to J. Tomsick, Jr., Pueblo, Colo. Rotating gearing. No. 1,091,871; Mar. 31; Gaz. vol. 200; p. 1262.
Tomsick, Joseph, Jr. (See Tomsick, Antone G., assignor.)
Topf, Ludwig, Erfurt, Germany. Germinating apparatus. No. 1,090,431; Mar. 17; Gaz. vol. 200; p. 695.
Torkelson, Nils J., Oakland, Cal. Preparing a preserved meat compound. No. 1,088,944; Mar. 3; Gaz. vol. 200; p. 94.
Tóth, Margarethe, Cleveland, Ohio. Hair-fastener. No. 1,088,745; Mar. 3; Gaz. vol. 200; p. 26.
Towe, Durward N., West Durham, N. C. Street-sweeper. No. 1,088,746; Mar. 3; Gaz. vol. 200; p. 26.
Trace, Charles E. (See Strouse, Jay S., assignor.)
Trägårdh, John, Gottenborg, Sweden. Filling device for loose leaves or similar bodies. No. 1,091,986; Mar. 31; Gaz. vol. 200; p. 1300.
Trambley, Peter L., Albuquerque, N. Mex. Pedal. No. 1,091,405; Mar. 24; Gaz. vol. 200; p. 1055.
Transportation Utilities Company. (See Conwell and Ostrander, assignors.)
Trantom, William. (See Moore and Trantom.)
Traub, Emil, Newark, N. J., assignor to The Singer Manufacturing Company. Clutch. No. 1,089,512; Mar. 10; Gaz. vol. 200; p. 335.
Traub, George E., San Diego, Cal. Pneumatic-tire pressure-gage and dust-cap. No. 1,091,780; Mar. 31; Gaz. vol. 200; p. 1229.
Traub, Ural S., Yonkers, N. Y. Valve mechanism for explosive-engines. No. 1,089,989; Mar. 10; Gaz. vol. 200; p. 499.
Traudt, William F., Rutherford, N. J., assignor to Taber Pump Company. Apparatus for treating and delivering pulp. No. 1,089,165; Mar. 3; Gaz. vol. 200; p. 171.
Traugott, Albert A., Portland, Oreg. Inkstand. No. 1,091,026; Mar. 24; Gaz. vol. 200; p. 930.
Traut & Hine Manufacturing Company, The. (See Humphrey, Ernest N., assignor.)
Traut & Hine Mfg. Co., The. (See Irving, Ira W., assignor.)
Trautner, Nick W., Red Wing, Minn. Clothes-line reel. No. 1,089,023; Mar. 3; Gaz. vol. 200; p. 119.
Trebing, John, guardian. (See Finnegan, John L.)
Tregoning Electric Manufacturing Company, The. (See Tregoning, William C., assignor.)
Tregoning, William C., assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio. Socket for incandescent electric lamps. No. 1,090,354; Mar. 17; Gaz. vol. 200; p. 666.
Treiber, Oscar. (See Bell and Treiber.)
Trescott, John B., and R. C. Busch, St. Louis, Mo. Boat-propelling mechanism. No. 1,091,257; Mar. 24; Gaz. vol. 200; p. 1010.
Tressler, Charles J., Glencoe, Pa. Nut-lock. No. 1,090,765; Mar. 17; Gaz. vol. 200; p. 806.
Trick, Wilkins M., Pittsburgh, Pa. Proportional indicating device. No. 1,091,872; Mar. 31; Gaz. vol. 200; p. 1262.
Triou, André, Seine, France. Locking device for grease-cups. No. 1,090,766; Mar. 17; Gaz. vol. 200; p. 806.
Tripp, C. A. (See Rutledge, William T., assignor.)
Triquet, Paul G., Paris, France. Sterilizer. No. 1,089,990; Mar. 10; Gaz. vol. 200; p. 499.
Troutman, George W., Caldwell, Kans. Adjustable valve-seat-dressing device. No. 1,088,945; Mar. 3; Gaz. vol. 200; p. 94.
Troy Laundry Machinery Company. (See Broderick, James F., assignor.)
Trump, Edward N., Syracuse, assignor to The Solvay Process Company, Solvay, N. Y. Concrete-machine. No. 1,089,883; Mar. 10; Gaz. vol. 200; p. 462.
Tubbs, Mary J., *et al.* (See Akes, Charles Y., assignor.)
Tucker, Philander K., Sioux Falls, S. D. Car coupling and brake. No. 1,089,991; Mar. 10; Gaz. vol. 200; p. 500.
Tule, Oliver W., Hartford, Conn. Cushion-heel for boots or shoes. No. 1,091,174; Mar. 24; Gaz. vol. 200; p. 981.
Tunis, Henry C., Newark, N. J. Safety attachment for automobile cranking mechanism. No. 1,090,660; Mar. 17; Gaz. vol. 200; p. 774.
Turk, Albert R., Chicago, Ill. Manifolding-sales-book manipulator. No. 1,090,582; Mar. 17; Gaz. vol. 200; p. 748.
Turnbull, Alexander, Glasgow, Scotland. Emergency-rim for vehicle-wheels. No. 1,088,747; Mar. 3; Gaz. vol. 200; p. 26.
Turnbull, Percy, Atlantic City, N. J. Cuspidor. No. 1,091,987; Mar. 31; Gaz. vol. 200; p. 1300.
Turner, Cecil L., New York, N. Y., assignor of one-half to S. H. Hart, Houston, Tex. Still. No. 1,091,781; Mar. 31; Gaz. vol. 200; p. 1230.
Turner, John B., and J. S. Briscoe, Okmulgee, Okla. Mowing-machine. No. 1,089,292; Mar. 3; Gaz. vol. 200; p. 211.
Turner, Joseph, and H. Dean, Huddersfield, assignors to Read Holliday & Sons, Ltd., Turnbridge, Huddersfield, England. Dyeing vegetable fibers. No. 1,090,176; Mar. 17; Gaz. vol. 200; p. 605.
Turney, Eugene T., assignor to Artista Piano Player Company, Rock Island, Ill. Automatic speed-controller and stop mechanism for piano-playing attachments. No. 1,091,719; Mar. 31; Gaz. vol. 200; p. 1207.
Tust, Paul. (See Thun, Tust, and Thomaschewski.)
Twist, William J., Tulsa, Okla. Horseshoe. No. 1,089,293; Mar. 3; Gaz. vol. 200; p. 211.
Twombly Motors Company. (See Twombly, Willard I., assignor.)
Twombly, Willard I., assignor to Twombly Motors Company, New York, N. Y. Motor-vehicle. No. 1,089,024; Mar. 3; Gaz. vol. 200; p. 120.
Tyler, Edward B. (See Staaf and Tyler.)
Tyler, William T., Warsaw, Va. Pen cleaner and holder. No. 1,089,992; Mar. 10; Gaz. vol. 200; p. 500.
Tyson Company, The. (See Tyson, Frank, assignor.)
Tyson, Frank, assignor to The Tyson Company, Canton, Ohio. Ice-cream freezer. No. 1,089,094; Mar. 3; Gaz. vol. 200; p. 144.
U. S. Hame Company. (See Wiedrich, Charles L., assignor.)
Uffner, Hyman, New York, N. Y. Album. No. 1,088,748; Mar. 3; Gaz. vol. 200; p. 27.
Ullmann, Emil, assignor to Orenstein & Koppel-Arthur Koppel Aktiengesellschaft, Berlin, Germany. Buffer-coupling for railway-vehicles. No. 1,091,547; Mar. 31; Gaz. vol. 200; p. 1148.
Ullrich, Georg, Magdeburg, assignor to Fried. Krupp Aktiengesellschaft, Grusonwerk, Magdeburg-Buckau, Germany. Magnetic separator. No. 1,089,993; Mar. 10; Gaz. vol. 200; p. 500.
Ulrich, Peter A., Deer Creek, Ill. Fruit-picker. No. 1,091,096; Mar. 24; Gaz. vol. 200; p. 953.
Underwood, Frank G., assignor of one-fourth to J. T. Jensen, Deadwood, S. D. Vaporizer and carbureter. No. 1,088,749; Mar. 3; Gaz. vol. 200; p. 27.
Underwood, Fredrick M., Hastings, Nebr. Mechanical stoker. No. 1,091,406; Mar. 24; Gaz. vol. 200; p. 1055.
Underwood, John T. (See Barnard, Walter E., assignor.)
Underwood, Oliver P., Des Moines, Iowa. Vaporizer. No. 1,091,782; Mar. 31; Gaz. vol. 200; p. 1230.

Underwood Typewriter Company. (See Bates, Harry, assignor.)
Underwood Typewriter Company. (See Busz, Stanislas D., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Underwood Typewriter Company. (See McLaughlin, John C., assignor.)
Underwood Typewriter Company. (See Pfunder, Emil L., assignor.)
Underwood Typewriter Company. (See Rennie, John A., assignor.)
Union Metallic Cartridge Company. (See Hoagland, Frank O., assignor.)
Union Paper Company. (See Anderson, Ernest D., assignor.)
Union Switch and Signal Company, The. (See Hawkins, Laurence A., assignor.)
Union Switch & Signal Company, The. (See McCarthy, Daniel J., assignor.) (Reissue.)
United Button Company. (See Morrissey, Thomas F., assignor.)
United Cotton Gin Company. (See Bullock, Edwin R., assignor.)
United Gas Improvement Company, The. (See Ives, Herbert E., assignor.)
United Injector Company. (See Dobson, William, assignor.)
United Motor Equipment Co. (See Tate, Charles G., assignor.)
United Press and Manufacturing Company. (See Morlock, Albert J., assignor.)
United Shoe Machinery Company. (See Alexander, Alexander M., assignor.)
United Shoe Machinery Company. (See Barclay and Gouldbourn, assignors.)
United Shoe Machinery Company. (See Brogan, Michael E., assignor.)
United Shoe Machinery Company. (See Casgrain, Louis A., assignor.)
United Shoe Machinery Company. (See Coey, Edward, assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Gouldbourn, Joseph, assignor.)
United Shoe Machinery Company. (See Hurd, Edward L., assignor.)
United Shoe Machinery Company. (See Johnson, Albert E., assignor.)
United Shoe Machinery Company. (See Mayo, Benjamin F., assignor.)
United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)
United Shoe Machinery Company. (See Nash, Frederick J., assignor.)
United Shoe Machinery Company. (See Pope, Joseph H., assignor.)
United Shoe Machinery Company. (See Wentworth, Samuel J., assignor.)
United Shoe Machinery Company. (See York, Reuben G., assignor.)
United States Hopper Company. (See Ruggles, Frederick W., assignor.)
United States Incinerator Company. (See Schellhammer, Alfred L., assignor.)
United States Playing Card Co., The. (See McCracken, James D., assignor.)
United States Wave Power Company, The. (See Close, Albert S., assignor.)
Universal Caster & Foundry Company. (See Diss, Albert B., assignor.)
Universal Electric Welding Company. (See Lachman, Maurice, assignor.)
Universal Motor Company, The. (See Rhodes, Harry A., assignor.) (Reissue.)
Universal Winding Company. (See Rand, Festus S., assignor.)
Universal Winding Company. (See Ryden, Claes, assignor.)
Unterberg, Gustav, Durlach, Germany. Apparatus for starting internal-combustion engines. No. 1,089,294; Mar. 3; Gaz. vol. 200; p. 211.
Upp, William C., New York, N. Y. View-changing device. No. 1,090,121; Mar. 10; Gaz. vol. 200; p. 545.
Upson, Maxwell M., Englewood, N. J., assignor to Raymond Concrete Pile Company, New York, N. Y. Concrete piles and piling elements. No. 1,088,946; Mar. 3; Gaz. vol. 200; p. 94.
Urie, George M., Kansas City, Mo., assignor to R. B. Calcutt, Chicago, Ill. Oil duster and polisher. No. 1,089,732; Mar. 10; Gaz. vol. 200; p. 410.
Urquhart, Charles H., Newark, N. J. Precipitating and recovering metals. No. 1,090,661; Mar. 17; Gaz. vol. 200; p. 774.
Usher Automatic Stop Company. (See Usher, Charles H., assignor.)
Usher, Charles H., assignor to Usher Automatic Stop Company, Chicopee Falls, Mass. Planer-stop mechanism. No. 1,088,852; Mar. 3; Gaz. vol. 200; p. 61.
Usonia Machine Company. (See McGirr, Theodore G., assignor.)
Vail, Jesse A., and E. O. Powers, Beloit, Wis., assignors to Fairbanks, Morse & Company, Chicago, Ill. Engine. No. 1,090,249; Mar. 17; Gaz. vol. 200; p. 631.
Vail, Joseph M., Bryan, Ohio. Rail-stay. No. 1,091,603; Mar. 31; Gaz. vol. 200; p. 1167.
Vail, Ralph E., Los Angeles, Cal. Carbon-scraper. No. 1,091,604; Mar. 31; Gaz. vol. 200; p. 1167.
Vail, William A., and O. E. Smith, assignors of one-fourth to said Vail, one-fourth to said Smith, one-fourth to F. Lackner, and one-fourth to J. Holden, Chicago, Ill. Tube for pneumatic tires. No. 1,092,130; Mar. 31; Gaz. vol. 200; p. 1347.
Valerius, Theodore L., Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill. Means for tempering liquids. No. 1,091,097; Mar. 24; Gaz. vol. 200; p. 953.
Valiquet, Benjamin, Chicago, Ill. Electric hammer. No. 1,091,098; Mar. 24; Gaz. vol. 200; p. 954.
Valiler, James W., Independence, Oreg. Combined seat and walking-cane. No. 1,089,295; Mar. 3; Gaz. vol. 200; p. 212.
Vallo, Frank K., Murphysboro, Ill. Chicken-leg-securing device. No. 1,089,296; Mar. 3; Gaz. vol. 200; p. 212.
Valois, Felix E., Haverhill, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Welt-beating machine. No. 1,089,025; Mar. 3; Gaz. vol. 200; p. 120.
Van Arsdall, Alexander L., Kansas City, Mo. Removable saddle for fixed dental bridges. No. 1,091,446; Mar. 24; Gaz. vol. 200; p. 1068.
Van Beuning, Albert, and B. F. Killam, Edgewater, Colo. Rail-joint. No. 1,090,967; Mar. 24; Gaz. vol. 200; p. 908.
Van Brown, Lewis, Asheville, N. C. Store-ladder. No. 1,090,803; Mar. 17; Gaz. vol. 200; p. 819.
Van Der Cruyssen, Frank, Webster Groves, Mo. Piston packing-ring. No. 1,089,026; Mar. 3; Gaz. vol. 200; p. 121.
Van Der Veen, William E., Harvard, Ill. Gambrel. No. 1,091,988; Mar. 31; Gaz. vol. 200; p. 1301.
Van Doren, John B., Berkley Heights, N. J., assignor of one-half to W. A. Luce, Boston, Mass. Pyrotechnic toy. No. 1,089,166; Mar. 3; Gaz. vol. 200; p. 171.
Van Essen, Pieter D., Haag, Netherlands. Delay-action fuse. No. 1,089,994; Mar. 10; Gaz. vol. 200; p. 500.
Van Llew, John, Chicago, Ill. Miner's lamp. No. 1,090,250; Mar. 17; Gaz. vol. 200; p. 631.
Van Ness, Frank W., assignor to F. J. Matchette, Milwaukee, Wis. Vacuum-governor. No. 1,090,893; Mar. 24; Gaz. vol. 200; p. 882.
Van Nostrand, Charles L., Bedford, Iowa, assignor to American Sarcophagus Company. Sarcophagus. No. 1,090,953; Mar. 24; Gaz. vol. 200; p. 904.
Van Schoiack, Isaac L., Sugar Grove, Ill. Seed-tester. No. 1,090,251; Mar. 17; Gaz. vol. 200; p. 631.
Vance, Leo P., Rock Island, Ill. Gasolene-engine. No. 1,090,177; Mar. 17; Gaz. vol. 200; p. 605.
Vandergriff, Robert E., Fellows, Cal. Drill. No. 1,090,952; Mar. 24; Gaz. vol. 200; p. 903.
Vandervoort, Francis M., Fredonia, Kans. Front-drive tractor. No. 1,091,720; Mar. 31; Gaz. vol. 200; p. 1207.
Variety Manufacturing Company. (See Gervais and Gilmore, assignors.)
Varnell, Sidney. (See Buster and Varnell.)
Varsity Underwear Company. (See John, Sidney, assignor.)
Vasbinder, William E. (See Reid, William, assignor.)
Vassalakis, Markos, Washington, D. C. Combined rudder and fender. No. 1,091,027; Mar. 24; Gaz. vol. 200; p. 930.
Vaughan, J. M. (See Vaughan, James S., assignor.)
Vaughan, James S., assignor of one-half to J. M. Vaughan, Leota, Mo. Cotton-chopper. No. 1,091,258; Mar. 24; Gaz. vol. 200; p. 1010.
Veeder, Curtis H., Hartford, Conn. Driving connection for odometers. No. 1,088,853; Mar. 3; Gaz. vol. 200; p. 61.
Vega Company. (See Nelson, Nelon J., assignor.)
Velten, Hugo, Milan, Italy. Ore-dressing apparatus. No. 1,089,606; Mar. 10; Gaz. vol. 200; p. 367.
Venable, William M., assignor to Blaw Collapsible Steel Centering Company, Pittsburgh, Pa. Beam-mold. No. 1,090,583; Mar. 17; Gaz. vol. 200; p. 748.
Venge, John, Milwaukee, Wis. Electric generating device for railway-trains. No. 1,089,995; Mar. 10; Gaz. vol. 200; p. 501.
Ventrice, Bartolo, Collinsville, Cal. Water-intake for power-boats. No. 1,090,584; Mar. 17; Gaz. vol. 200; p. 748.
Vercellini, Stephen, Boston, Mass. Board-puller. No. 1,091,873; Mar. 31; Gaz. vol. 200; p. 1263.
Vereinigte Walz- und Röhrenwerke Act.-Ges. vormals Friedr. Boecker Ph's Sohn & Co. und Friedr. Koenig. (See Bell and Treiber, assignors.)
Vermilya, Edgar L. (See Fowler and Vermilya.)
Vetter, Otto, Seattle, Wash. Gage. No. 1,090,482; Mar. 17; Gaz. vol. 200; p. 695.
Vetvick, Albert J., Foley, Minn. Hoisting-machine. No. 1,091,605; Mar. 31; Gaz. vol. 200; p. 1168.
Viard, Louis E., Bar-sur-Seine, France. Internal-combustion engine. No. 1,090,894; Mar. 24; Gaz. vol. 200; p. 882.
Vickers Limited. (See Dawson and Buckham, assignors.)
Victor Safe & Lock Co., The. (See Spivey, Thomas S., assignor.)





Victor Talking Machine Company. (See English, John C., assignor.)
Vietze, Hans. (See Fanta, Regal, Vietze, and Wessely.)
Vilkie, Joseph E., Titusville, Pa. Nut-lock. No. 1,090,662; Mar. 17; Gaz. vol. 200; p. 774.
Vincent-Alward Company, The. (See Rhenstrom, Anthony, assignor.)
Vincent, Louis N., Prescott, Ariz. Drain-valve. No. 1,091,463; Mar. 24; Gaz. vol. 200; p. 1073.
Vincent, Odeode, Leroy, La. Nut-lock. No. 1,089,607; Mar. 10; Gaz. vol. 200; p. 368.
Vinnemeier, Gerhard, Claremore, Okla. Photographic-printing machine. No. 1,091,099; Mar. 24; Gaz. vol. 200; p. 954.
Vodoz, Frederick W., Chicago, Ill. Power-transmission gearing. No. 1,091,606; Mar. 31; Gaz. vol. 200; p. 1168.
Vogel, Eugene W., assignor to The Railroad Supply Company, Chicago, Ill. Electromagnetic bell. No. 1,091,548; Mar. 31; Gaz. vol. 200; p. 1148.
Vogtländische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Aktiengesellschaft. (See Egli, Arnold, assignor.)
Voight, Henry G., New Britain, Conn. Door-check. No. 1,090,804; Mar. 17; Gaz. vol. 200; p. 819.
Volckmann, Hugo, assignor to Washington Cutlery Company, Watertown, Wis. Grass-hook. No. 1,091,549; Mar. 31; Gaz. vol. 200; p. 1149.
Volibrecht, Frederick A., Detroit, Mich. Manifold-heater. No. 1,089,884; Mar. 10; Gaz. vol. 200; p. 462.
Völler, Karl, Dusseldorf, Germany. Field-gun carriage. No. 1,090,767; Mar. 17; Gaz. vol. 200; p. 807.
Völler, Karl, and E. Steinhart, Dusseldorf, assignors to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Spring-coupling. No. 1,091,980; Mar. 31; Gaz. vol. 200; p. 1301.
Voller, Valdemar, Bemidji, Minn. Water-skee. No. 1,091,259; Mar. 24; Gaz. vol. 200; p. 1010.
Von Dorn, Calvin W., Albuquerque, N. Mex., assignor of one-third to C. K. Schafer, Naco, Ariz. Fly-trap. No. 1,089,513; Mar. 10; Gaz. vol. 200; p. 336.
Von Drak, Charles H. (See Hannon and Von Drak.)
Voorhees, John R., Cedar Falls, Iowa. Friction-clutch. No. 1,091,783; Mar. 31; Gaz. vol. 200; p. 1231.
Voss, Adolph G., Chicago, Ill. Computing-machine. No. 1,090,252; Mar. 17; Gaz. vol. 200; p. 632.
Voss, Carl, Newark, N. J. Leather rolling and embossing machine. No. 1,090,433; Mar. 17; Gaz. vol. 200; p. 696.
Voss, William H., Davenport, Iowa. Mechanical movement for wringers. No. 1,089,733; Mar. 10; Gaz. vol. 200; p. 411.
Vreeland, Henry A. (See Moore, Herbert L. G., assignor.)
Vroman, Smith, assignor to S. A. Guiberson, Jr., San Francisco, Cal. Well-casing spear. No. 1,091,100; Mar. 24; Gaz. vol. 200; p. 955.
W. C. Ritchie & Company. (See Milmoe, Michael J., assignor.)
W. W. Kimball Company. (See Hiscock, Emory C., assignor.)
Wacker, Charles H. (See Wacker, Frederick G., assignor.)
Wacker, Frederick G., assignor to C. H. Wacker, Chicago, Ill. Metallic-barrel-making machinery. No. 1,090,178; Mar. 17; Gaz. vol. 200; p. 606.
Wacker, George W., East Orange, N. J., assignor to The Simms Magneto Company, New York, N. Y. Starter-switch for dual ignition systems. No. 1,089,167; Mar. 3; Gaz. vol. 200; p. 172.
Wacker, William F., Sioux City, Iowa. Bell-ringing apparatus. No. 1,091,902; Mar. 31; Gaz. vol. 200; p. 1271.
Wadhams, George. (See Brampton and Wadhams.)
Wadsworth, George R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Fuel-feed system for engines with starters. No. 1,088,854; Mar. 3; Gaz. vol. 200; p. 62.
Wagemaker, Isaac, Grand Rapids, Mich. Drawer-guide. No. 1,089,514; Mar. 10; Gaz. vol. 200; p. 336.
Wagner, Frederick H., assignor to The Bartlett Hayward Company, Baltimore, Md. Apparatus for subjecting gases to the action of liquids. No. 1,091,464; Mar. 24; Gaz. vol. 200; p. 1074.
Wagner, Joseph F., assignor to Arnold-Wagner Electric Co., South Bend, Ind. Junction-box. No. 1,090,805; Mar. 17; Gaz. vol. 200; p. 820.
Wagner, Lawrence L., Lakemont, Pa. Pneumatic tool. No. 1,091,447; Mar. 24; Gaz. vol. 200; p. 1069.
Wagner, Marion E., assignor of one-half to F. M. Wallis, Pickering, Mo. Adjustable bracket for window-shades. No. 1,090,355; Mar. 17; Gaz. vol. 200; p. 666.
Wagner, Victor, assignor to Drew Carrier Company, Waterloo, Wis. Elevated-trolley track. No. 1,090,253; Mar. 17; Gaz. vol. 200; p. 633.
Wahl, John F. (See Goverts, Johann P., assignor.)
Waidlich, Walter, Detroit, Mich. Fastener for envelops and other containers. No. 1,089,297; Mar. 3; Gaz. vol. 200; p. 212.
Walt, William B., New York, N. Y. Bookbinding. No. 1,090,663; Mar. 17; Gaz. vol. 200; p. 775.
Walt, William B., New York, N. Y. Plate-holding device. No. 1,090,664; Mar. 17; Gaz. vol. 200; p. 775.
Walt, William B., New York, N. Y. Sheet-delivery apparatus. No. 1,090,665; Mar. 17; Gaz. vol. 200; p. 775.
Walt, William B., New York, N. Y. Sheet-gage. No. 1,090,666; Mar. 17; Gaz. vol. 200; p. 776.
Walz, Anton, assignor of one-half to E. L. Greenslit, Worcester, Mass. Tap extension. No. 1,088,855; Mar. 3; Gaz. vol. 200; p. 62.
Wakefield, Frederick W., assignor to The F. W. Wakefield Brass Company, Vermilion, Ohio. Combined receptacle-cover and shade-holder. No. 1,089,352; Mar. 3; Gaz. vol. 200; p. 230.
Wakefield, Frederick W., assignor to The F. W. Wakefield Brass Company, Vermilion, Ohio. Lamp-shade holder. No. 1,090,254; Mar. 17; Gaz. vol. 200; p. 633.
Walker, Alpheus P., *et al.* (See Younger, Charles, assignor.)
Walker, Freeman V., Bluffton, S. C. Sign or display-card. No. 1,089,996; Mar. 10; Gaz. vol. 200; p. 501.
Walker, Henry S., Wales, Mass. Coaster-brake. No. 1,089,997; Mar. 10; Gaz. vol. 200; p. 501.
Walker, J. R., *et al.* (See Walker, James M., assignor.)
Walker, James F., assignor of three-fourths to T. N. Frazier, McKeesport, Pa. Carrier. No. 1,091,260; Mar. 24; Gaz. vol. 200; p. 1010.
Walker, James H. (See Olinger and Walker.)
Walker, James M., Carrollton, Ga., assignor of one-fourth to W. W. Baskin, one-fourth to W. T. Herrin, and one-half to J. M., J. R., T., and M. Walker. Fertilizer-distributer. No. 1,090,356; Mar. 17; Gaz. vol. 200; p. 666.
Walker, John M., *et al.* (See Walker, James M., assignor.)
Walker Manufacturing Company. (See Rasmussen, Laurits T., assignor.)
Walker, Mattie, *et al.* (See Walker, James M., assignor.)
Walker, Oakley S., Worcester, Mass. Grinding-machine. No. 1,091,407; Mar. 24; Gaz. vol. 200; p. 1056.
Walker, Tommy, *et al.* (See Walker, James M., assignor.)
Walker, William E., Woodstock, Ohio. Chronometer-escapement. No. 1,091,261; Mar. 24; Gaz. vol. 200; p. 1011.
Walker, William F. (See Field and Walker.)
Wall, Charles M., assignor of one-half to J. A. Bickford, Curwensville, Pa. Center-bearing for grinding-pans. No. 1,090,667; Mar. 17; Gaz. vol. 200; p. 776.
Wallace, Gustave, New York, N. Y. Angle-finder. No. 1,089,885; Mar. 10; Gaz. vol. 200; p. 463.
Wallis, Frank M. (See Wagner, Marion E., assignor.)
Walsh, Arthur Q., New York, N. Y. Retaining device. No. 1,091,262; Mar. 24; Gaz. vol. 200; p. 1011.
Walsh-Baker Corporation. (See Walsh, Thomas P., assignor.)
Walsh, Eugene W., New York, N. Y. Telephone-booth door. No. 1,089,449; Mar. 10; Gaz. vol. 200; p. 312.
Walsh, James O., Bayonne, N. J. Bottle-stopper. No. 1,090,434; Mar. 17; Gaz. vol. 200; p. 696.
Walsh, James O., New York, N. Y., and A. C. Austin, Hasbrouck Heights, N. J., assignors to said Walsh. Banana food product. No. 1,090,255; Mar. 17; Gaz. vol. 200; p. 633.
Walsh, James O., New York, N. Y., and A. C. Austin, Hasbronck Heights, N. J., assignors to said Walsh. Preparing a food product. No. 1,090,256; Mar. 17; Gaz. vol. 200; p. 634.
Walsh, John M. (See Ricke, George H., assignor.)
Walsh, Thomas P., Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Pile-wire loom. No. 1,088,856; Mar. 3; Gaz. vol. 200; p. 62.
Walter, Charles L., assignor to The Monarch Manufacturing Company, Bascom, Ohio. Baling apparatus. No. 1,090,257; Mar. 17; Gaz. vol. 200; p. 634.
Walter, Guy C. (See Lyon, Roy M., assignor.)
Walters, Guy O., Longbeach, Cal. Fly-trap. No. 1,091,550; Mar. 31; Gaz. vol. 200; p. 1149.
Walters, Julius W., Glens Falls, N. Y. Pulp-grinder. No. 1,088,857; Mar. 3; Gaz. vol. 200; p. 63.
Walton, Frederick, Holborn, London, England. Vehicle suspension apparatus. No. 1,090,954; Mar. 24; Gaz. vol. 200; p. 904.
Wann, John T., Berkeley, Cal. Evaporator. No. 1,089,027; Mar. 3; Gaz. vol. 200; p. 121.
Ward, David H., Vancouver, British Columbia, Canada. Display advertising mechanism. No. 1,090,668; Mar. 17; Gaz. vol. 200; p. 776.
Ward, John S., Weimar, Tex. Garden implement. No. 1,089,298; Mar. 3; Gaz. vol. 200; p. 213.
Warner, Charles H., Beloit, Wis., assignor, by mesne assignments, to Stewart-Warner Speedometer Corporation. Spiral-gear power-transmitting device. No. 1,088,947; Mar. 3; Gaz. vol. 200; p. 95.
Warner, Charles H., and A. B. Cadman, Beloit, Wis., assignors, by mesne assignments, to Stewart-Warner Speedometer Corporation. Speed-indicating instrument. No. 1,088,948; Mar. 3; Gaz. vol. 200; p. 95.
Warner, Sherman F. (See Smith and Warner.)
Warren, Charles E., Helena, Mont. Ditcher. No. 1,089,802; Mar. 10; Gaz. vol. 200; p. 434.
Warren, Frank, Seattle, Wash. Coin-operated vending-machine. No. 1,088,949; Mar. 3; Gaz. vol. 200; p. 96.
Warren, Henry E., Ashland, Mass. Electric apparatus for driving clocks or similar mechanism. No. 1,089,886; Mar. 10; Gaz. vol. 200; p. 463.
Warren, Lew W. (See Rubert, George L., assignor.)
Warren Webster & Company. (See Fitts, James L., assignor.)
Warren, Willis D. P. (See Morse and Warren.)
Warthen, Harry J., Washington, D. C. Electric signal system for railways. No. 1,090,357; Mar. 17; Gaz. vol. 200; p. 667.

Warthen, Harry J., Washington, D. C. System for controlling the operation of railway-trains. No. 1,090,358; Mar. 17; Gaz. vol. 200; p. 667.

Warthen, Harry J., Washington, D. C. Electric train-control system for railways. No. 1,090,359; Mar. 17; Gaz. vol. 200; p. 668.

Warthen, Harry J., Washington, D. C. Electric signal for railways. No. 1,090,360; Mar. 17; Gaz. vol. 200; p. 668.

Warthen, Harry J., Washington, D. C. Apparatus for controlling the speed of railway-trains. No. 1,090,361; Mar. 17; Gaz. vol. 200; p. 669.

Warthen, Harry J., Washington, D. C. Electric signal for railways. No. 1,090,362; Mar. 17; Gaz. vol. 200; p. 669.

Warthen, Harry J., Washington, D. C. Trolley for electric signals for railways. No. 1,090,363; Mar. 17; Gaz. vol. 200; p. 669.

Warthen, Harry J., Washington, D. C. Automatic air-brake control for railways. No. 1,090,806; Mar. 17; Gaz. vol. 200; p. 820.

Warthen, Harry J., Washington, D. C. Device for controlling the speed of railway-trains. No. 1,090,807; Mar. 17; Gaz. vol. 200; p. 821.

Warwick, George T., Springfield, Mass. Machine for making blanks for screws. No. 1,091,551; Mar. 31; Gaz. vol. 200; p. 1149.

Washington Cutlery Company. (See Volckmann, Hugo, assignor.)

Wassell, Clifford R. (See Babendreer and Wassell.)

Waterbury, Emery D., Sawtelle, assignor of one-half to M. Lintner, Napa, Cal. Can sealing and opening device. (Reissue.) No. 13,709; Mar. 31; Gaz. vol. 200; p. 1351.

Watkins, William A., assignor of one-half to S. A. Ratliff, Riverside, Cal. Air-supply means for motors. No. 1,089,998; Mar. 10; Gaz. vol. 200; p. 502.

Watres, Reyburn, Scranton, Pa. Locking-nut. No. 1,088,750; Mar. 3; Gaz. vol. 200; p. 27.

Watson, Harmon, Cullman, Ala. Railway-tie and fastener. No. 1,090,258; Mar. 17; Gaz. vol. 200; p. 634.

Watson, Jesse N., St. Louis, Mo. Casement-window-operating mechanism. No. 1,090,259; Mar. 17; Gaz. vol. 200; p. 634.

Watson, Richard M., Detroit, Mich. Loose-leaf binder. No. 1,089,515; Mar. 10; Gaz. vol. 200; p. 337.

Watson, Richard M., assignor of one-half to O. P. Senzik, Detroit, Mich. Loose-leaf binder. No. 1,089,734; Mar. 10; Gaz. vol. 200; p. 411.

Watt, James A., assignor to W. A. De Hart, New York, N. Y. Mechanical toy. No. 1,091,448; Mar. 24; Gaz. vol. 200; p. 1069.

Watts, Anthony J., St. Louis, Mo. Hydrocarbon-engine. No. 1,090,260; Mar. 17; Gaz. vol. 200; p. 635.

Watts, George E., Brooklyn, N. Y. Shirt. No. 1,089,999; Mar. 10; Gaz. vol. 200; p. 503.

Watts, Walter A., assignor to Massey-Harris Company, Limited, Toronto, Ontario, Canada. Adjustable tongue. No. 1,091,090; Mar. 31; Gaz. vol. 200; p. 1301.

Waugh, Daniel S., assignor to The Denver Rock Drill Manufacturing Company, Denver, Colo. Motor. No. 1,090,179; Mar. 17; Gaz. vol. 200; p. 606.

Waugh, Daniel S., assignor to The Denver Rock Drill & Machinery Company, Denver, Colo. Drill-bit-locking means. No. 1,091,263; Mar. 24; Gaz. vol. 200; p. 1011.

Waugh Draft Gear Company. (See Forsyth, George H., assignor.)

Wazler, Ralph A., Lawrenceville, Ill. Safety gas cut-off. No. 1,091,991; Mar. 31; Gaz. vol. 200; p. 1301.

Waye, August A., assignor of one-fourth to J. Kuppertz, St. Louis, Mo. Bottle. No. 1,089,887; Mar. 10; Gaz. vol. 200; p. 463.

Wayland, Frank, Salem, Mass. Leather-working machine. No. 1,090,895; Mar. 24; Gaz. vol. 200; p. 883.

Wayte, Walter J., Philadelphia, Pa., assignor to The American Agricultural Chemical Company. Defecatant and making same. No. 1,088,751; Mar. 3; Gaz. vol. 200; p. 27.

Wearproof Mat Company. (See Peterson, Christen J., assignor.)

Weaver, John A., Gap, Pa. Tobacco-shears. No. 1,091,607; Mar. 31; Gaz. vol. 200; p. 1168.

Webb, Edwin W. (See Barber and Webb.)

Webb, Wilbur F., Huntington, W. Va. Cabinet. No. 1,089,299; Mar. 3; Gaz. vol. 200; p. 213.

Webber, Wesley, Kearney, N. J. Projecting device. No. 1,091,992; Mar. 31; Gaz. vol. 200; p. 1302.

Weber, Boniface W., Yocemento, Kans. Hay-fork. No. 1,091,408; Mar. 24; Gaz. vol. 200; p. 1056.

Weber Dental Manufacturing Company, The. (See Weber, Henry E., assignor.)

Weber, Henry E., assignor to The Weber Dental Manufacturing Company, Canton, Ohio. Cuspidor. No. 1,089,095; Mar. 3; Gaz. vol. 200; p. 144.

Weber, Theodore T., Buffalo, N. Y. Carbureter. No. 1,091,784; Mar. 31; Gaz. vol. 200; p. 1231.

Weber, William J., Fort Wayne, Ind. Vegetable-washer. No. 1,090,585; Mar. 17; Gaz. vol. 200; p. 749.

Webster, Harry G., Chicago, Ill. Harmonic signaling system. No. 1,090,435; Mar. 17; Gaz. vol. 200; p. 697.

Webster, Harry G., Chicago, Ill. Call-bell. No. 1,090,436; Mar. 17; Gaz. vol. 200; p. 698.

Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to The Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Telephone-exchange system. (Reissue.) No. 13,710; Mar. 31; Gaz. vol. 200; p. 1352.

Webster, John E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Resilient driving connection. No. 1,089,168; Mar. 3; Gaz. vol. 200; p. 172.

Weckerlein & Stöcker. (See Stöcker, Hans, assignor.)

Wedekind, Edgar. (See Kuzel and Wedekind.)

Wege, Ernest F., La Crosse, Wis., assignor to Sterling Machinery Company. Concrete-mixer. No. 1,091,264; Mar. 24; Gaz. vol. 200; p. 1012.

Weidlein, Edward R., Pittsburgh, Pa., assignor, by mesne assignments, to Metals Research Company, New York, N. Y. Hydrometallurgy of copper. No. 1,089,096; Mar. 3; Gaz. vol. 200; p. 144.

Weigel, David J., Platteville, Wis. Tie. No. 1,090,768; Mar. 17; Gaz. vol. 200; p. 807.

Weil, Charles L., assignor to Diamond Crystal Salt Company, St. Clair, Mich. Apparatus for making salt. No. 1,091,721; Mar. 31; Gaz. vol. 200; p. 1208.

Weil, Edward, and M. Deady, La Fayette, Ind. Extension-ladder. No. 1,089,608; Mar. 10; Gaz. vol. 200; p. 369.

Weimer, Noah C., Grand Junction, Colo. Harness. No. 1,089,735; Mar. 10; Gaz. vol. 200; p. 412.

Weinman, Joseph C., Boone, Iowa. Hame-fastener and reinforcement for horse-collars. No. 1,090,896; Mar. 24; Gaz. vol. 200; p. 883.

Weinschenker, Gustave, New Alexandria, Pa. Lubricator for pit-car wheels. No. 1,089,169; Mar. 3; Gaz. vol. 200; p. 173.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Hard body for wearing-surfaces and the like. No. 1,088,858; Mar. 3; Gaz. vol. 200; p. 63.

Weir Stove Company. (See Syvertsen, Ole C., assignor.)

Weis, John P., Brooklyn, N. Y., assignor, by mesne assignments, to Metropolitan Sewing Machine Company. Feeding mechanism for sewing-machines. No. 1,088,752; Mar. 3; Gaz. vol. 200; p. 28.

Weiser, John, Chicago, Ill. Piano sounding-board. No. 1,090,261; Mar. 17; Gaz. vol. 200; p. 635.

Welter, Joseph H., Mexico, Mexico. Clamping device for heels or the like. No. 1,088,753; Mar. 3; Gaz. vol. 200; p. 28.

Welch, John R., assignor to The Kinsey Manufacturing Company, Toledo, Ohio. Door for automobile-bodies. No. 1,091,608; Mar. 31; Gaz. vol. 200; p. 1169.

Welch, John R., assignor to The Kinsey Manufacturing Company, Toledo, Ohio. Hinge. No. 1,091,609; Mar. 31; Gaz. vol. 200; p. 1169.

Welin, Peter, Worcester, Mass., assignor, by mesne assignments, to Krell Auto-Grand Piano Co. of America, Connersville, Ind. Panel-operating mechanism for musical-instrument cases. No. 1,091,175; Mar. 24; Gaz. vol. 200; p. 981.

Wellman, Henry O., Somerville, Mass. Tent-support. No. 1,089,803; Mar. 10; Gaz. vol. 200; p. 434.

Wells, Cherrill H., Chicago, Ill. Garment. No. 1,089,353; Mar. 3; Gaz. vol. 200; p. 230.

Wells, Frank O., and F. Judge, Greenfield, Mass. Caliper-ing-gage for screw-threads. No. 1,090,180; Mar. 17; Gaz. vol. 200; p. 607.

Wells, Joel C., Southbridge, Mass. Spectacles and eye-glasses. No. 1,090,181; Mar. 17; Gaz. vol. 200; p. 607.

Wells, Walter E., and J. H. Maguire, Gardner, Mass. Automatic train-stop device. No. 1,091,610; Mar. 31; Gaz. vol. 200; p. 1169.

Welsbach, Carl F. A. von, Vienna, Austria-Hungary. Manufacture of electric filaments. No. 1,090,111; Mar. 10; Gaz. vol. 200; p. 541.

Welsbach Light Company. (See Litle, Thomas J., Jr., assignor.)

Wendell, Carl A., Joliet, Ill. Continuous automatic drier. No. 1,088,754; Mar. 3; Gaz. vol. 200; p. 28.

Wentworth, Edward F., assignor to Model Underwear Company, Sinking Spring, Pa. Undergarment. No. 1,089,888; Mar. 10; Gaz. vol. 200; p. 404.

Wentworth, Samuel J., Newport, Ky., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Forming heel-seats for boots and shoes. No. 1,090,182; Mar. 17; Gaz. vol. 200; p. 607.

Wentz, William C., Marine, Ill. Headlight-actuator. No. 1,090,262; Mar. 17; Gaz. vol. 200; p. 635.

Werner & Pfleiderer. (See Wild, Anton, assignor.)

Wernig, Frederick A., New York, N. Y. Bracket for license-number plates. No. 1,090,897; Mar. 24; Gaz. vol. 200; p. 883.

Wescott, James M., Hornell, and C. B. Smith, Prattsburg, N. Y. Automatic safety gas-valve. No. 1,090,769; Mar. 17; Gaz. vol. 200; p. 807.

Wessely, Norbert. (See Fanta, Regal, Vietze, and Wessely.)

Wessling, Henry, Hays Station, Pa. Refractory brick. No. 1,088,755; Mar. 3; Gaz. vol. 200; p. 29.

Wessling, Henry, Hays Station, Pa. Refractory brick. No. 1,088,756; Mar. 3; Gaz. vol. 200; p. 29.

West Bend Barn Equipment Company. (See Fitzgerald, Jeremiah C., assignor.)

West, William F., Minneapolis, Minn. Car-wheel guard. No. 1,091,409; Mar. 24; Gaz. vol. 200; p. 1056.

Westaway, Walter C., Belvidere, assignor to W. W. Lufkin, Beloit, Ill. Carbureter or the like. No. 1,089,516; Mar. 10; Gaz. vol. 200; p. 337.





Westerberg, George M., Chicago, Ill. Faucet and drinking-fount. No. 1,091,552; Mar. 31; Gaz. vol. 200; p. 1150.

Western Clock Company. (See Kern, George, assignor.)

Western Electric Company. (See Egerton, Henry C., assignor.)

Western Electric Company. (See Hosford, William F., assignor.)

Western Electric Company. (See McBerty and Adams, assignors.)

Western Electric Company. (See Rainey, Paul M., assignor.)

Western Electric Company. (See Reynolds, John N., assignor.)

Western Union Telegraph Company, The. (See D'Humy, Fernand E., assignor.)

Westin, Louis A., Cumberland, Wis. Overload uncoupling coupling. No. 1,091,449; Mar. 24; Gaz. vol. 200; p. 1069.

Westinghouse Air Brake Company, The. (See Dewson, Edward H., assignor.)

Westinghouse Air Brake Company, The. (See Doyle, James S., assignor.)

Westinghouse Air Brake Company, The. (See Woernley, Harry F., assignor.)

Westinghouse Air Spring Company, The. (See Westinghouse, George, assignor.)

Westinghouse Electric and Manufacturing Company. (See Haefely, Emil, assignor.)

Westinghouse Electric and Manufacturing Company. (See Krauskopf, George H., assignor.)

Westinghouse Electric and Manufacturing Company. (See Mattman, Emil, assignor.)

Westinghouse Electric and Manufacturing Company. (See Mills, Chester B., assignor.)

Westinghouse Electric and Manufacturing Company. (See Perkins and Rose, assignors.)

Westinghouse Electric and Manufacturing Company. (See Webster, John E., assignor.)

Westinghouse Electric and Manufacturing Company. (See Wunderlich, Frederich, assignor.)

Westinghouse, George. (See Kando, Coloman de, assignor.)

Westinghouse, George, Pittsburgh, Pa., assignor to The Westinghouse Air Spring Company. Fluid-pressure device. No. 1,089,517; Mar. 10; Gaz. vol. 200; p. 337.

Westinghouse Lamp Company. (See Housekeeper and Dunning, assignors.)

Westlake, Charles T., assignor to Commonwealth Steel Company, St. Louis, Mo. Separable body-bolster. No. 1,089,450; Mar. 10; Gaz. vol. 200; p. 313.

Westmoreland, Jefferson, Randolph, Miss. Cultivator. No. 1,088,757; Mar. 3; Gaz. vol. 200; p. 29.

Weston, Francis J., assignor of one-half to B. L. Gabriel, Binghamton, N. Y. Package. No. 1,089,889; Mar. 10; Gaz. vol. 200; p. 464.

Wexler, Benjamin, Brooklyn, assignor to The Peelle Company, New York, N. Y. Latch for elevator-doors. No. 1,089,451; Mar. 10; Gaz. vol. 200; p. 313.

Wheeler, John H., assignor to The Marlin Firearms Company, New Haven, Conn. Safety device for repeating firearms. No. 1,088,950; Mar. 3; Gaz. vol. 200; p. 96.

Wheeler, John H., assignor to The Marlin Firearms Company, New Haven, Conn. Repeating firearm. No. 1,089,736; Mar. 10; Gaz. vol. 200; p. 412.

Wheeler, John H., and F. Mangler, assignors to The Marlin Firearms Company, New Haven, Conn. Take-down firearm. No. 1,092,085; Mar. 31; Gaz. vol. 200; p. 1332.

Wheeler, Morris J., and F. B. Foster, Peterboro, N. H. Basket. No. 1,090,000; Mar. 10; Gaz. vol. 200; p. 503.

Wheelwright, John, Ogden, Utah. Trenching and grading machine. No. 1,090,770; Mar. 17; Gaz. vol. 200; p. 808.

Whitcher, Lyman P., Providence, R. I. Sign-bracket for automobiles. No. 1,091,553; Mar. 31; Gaz. vol. 200; p. 1150.

Whitcomb, James, Hillsdale, assignor of one-half to C. F. Kapp, Manchester, Mich. Speedometer. No. 1,091,410; Mar. 24; Gaz. vol. 200; p. 1057.

White Adding Machine Company, The. (See Carroll, Fred M., assignor.)

White, Carl H., Greenfield, Mass. Railway-tie. No. 1,088,802; Mar. 3; Gaz. vol. 200; p. 44.

White, Clarence G., Spokane, Wash. Oil-burning apparatus. No. 1,088,758; Mar. 3; Gaz. vol. 200; p. 29.

White, Elmer S., Mount Carmel, Ill. Electrical fixture. No. 1,089,609; Mar. 10; Gaz. vol. 200; p. 369.

White, Herbert E., assignor to The General Fireproofing Company, Youngstown, Ohio. Expanded-metal structure. No. 1,088,951; Mar. 3. Gaz. vol. 200; p. 97.

White, Peter F., and W. Grant, McNeil Island, Wash. Tooth-brush. No. 1,091,903; Mar. 31; Gaz. vol. 200; p. 1302.

White, Samuel B., assignor to Office Appliance Manufacturing Company, Providence, R. I. Envelop-sealing machine. No. 1,090,771; Mar. 17; Gaz. vol. 200; p. 808.

White, Samuel T., Davenport, Iowa. Mechanical movement for washing-machine wringers. No. 1,088,859; Mar. 3; Gaz. vol. 200; p. 63.

Whiteman, Clarence E. (See O'Connell and Whiteman.)

Whiting, Herman E., assignor to Garlock Auto Specialty Company, Palmyra, N. Y. Mixer for gaseous fuel. No. 1,089,804; Mar. 10; Gaz. vol. 200; p. 434.

Whitmore, Claude C., assignor of one-half to W. B. Carroll, Butte, Mont. Electric furnace. No. 1,089,300; Mar. 3; Gaz. vol. 200; p. 213.

Whitney, William M. (See Loveland, Byron S., assignor.)

Whitwell, Winfred R., and J. C. Kelly, Redondo Beach, Cal. Non-refillable bottle. No. 1,091,411; Mar. 24; Gaz. vol. 200; p. 1057.

Wideman, Edmund C., Wilkes-Barre, Pa. Powdered-soap dispenser. No. 1,089,097; Mar. 3; Gaz. vol. 200; p. 145.

Wiechert, Frank T., assignor to The Wise Soda Apparatus Company, Bellevue, Ohio. Dispensing apparatus. No. 1,091,554; Mar. 31; Gaz. vol. 200; p. 1150.

Wiedeke, Gustav. (See Wiedeke, Otto, assignor.)

Wiedeke, Otto, assignor of one-half to G. Wiedeke, Dayton, Ohio. Tube-expander. No. 1,089,170; Mar. 3; Gaz. vol. 200; p. 173.

Wiedrich, Charles L., assignor to U. S. Hame Company, Buffalo, N. Y. Hame. No. 1,091,874; Mar. 31; Gaz. vol. 200; p. 1263.

Wiegand, Henry J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electrical contact. No. 1,091,875; Mar. 31; Gaz. vol. 200; p. 1263.

Wigginton, George P., assignor to Kalamazoo Loose Leaf Binder Company, Kalamazoo, Mich. Temporary binder. No. 1,090,183; Mar. 17; Gaz. vol. 200; p. 608.

Wigginton, Newton J., Winchester, Va. Friction-clutch. No. 1,089,171; Mar. 3; Gaz. vol. 200; p. 173.

Wilber, Thomas J. (See Godin, Eusebe, assignor.)

Wilbur, Frederick H., Lestershire, N. Y. Combined elastic and pneumatic tire. No. 1,088,860; Mar. 3; Gaz. vol. 200; p. 64.

Wilcox, John M., Cleveland, Ohio. Dump-car. No. 1,090,001; Mar. 10; Gaz. vol. 200; p. 503.

Wilcox, Montreville R., Minneapolis, Minn. Closet. No. 1,090,508; Mar. 17; Gaz. vol. 200; p. 722.

Wild, Anton, assignor to Werner & Pfleiderer, Saginaw, Mich. Machine for forming noodles. No. 1,090,509; Mar. 17; Gaz. vol. 200; p. 723.

Wild, Rudolf, Los Angeles, Cal. Thread-cutting device. No. 1,091,412; Mar. 24; Gaz. vol. 200; p. 1057.

Wiley, Clarence H., Hartford, Conn. Index. No. 1,089,890; Mar. 10; Gaz. vol. 200; p. 464.

Wilkey, William H., Cleveland, Ohio. Dust-collector. No. 1,088,952; Mar. 3; Gaz. vol. 200; p. 97.

Wilkin-Challoner Company. (See Brown, Rush C., assignor.)

Wilkins, Aaron. (See King, Jesse C., assignor.)

Wilkins, Harry, Evansville, Ind. Reinforced-concrete railway-tie. No. 1,089,301; Mar. 3; Gaz. vol. 200; p. 214.

Wilkins, Sarah, Calumet, Mich. Clothes-pin. No. 1,091,413; Mar. 24; Gaz. vol. 200; p. 1057.

Will, Frederick, and H. Becker, assignors to Sill Stove Works, Rochester, N. Y. Gas-stove. No. 1,089,172; Mar. 3; Gaz. vol. 200; p. 173.

Will, Henry F., Michigan City, Ind. Gas-engine. No. 1,089,173; Mar. 3; Gaz. vol. 200; p. 174.

Willet, Warren, Fort Erie, Ontario, Canada, and O. E. Bowen, Buffalo, N. Y. Auto turn-jack. No. 1,088,953; Mar. 3; Gaz. vol. 200; p. 97.

Willey, Arthur L., Providence, R. I., and A. C. Mason, Yonkers, N. Y., assignors to Woonsocket Machine & Press Company, Woonsocket, R. I. Drawing-frame. No. 1,090,586; Mar. 17; Gaz. vol. 200; p. 749.

William Schollhorn Company, The. (See Bernard, William A., assignor.)

Williams, Clarence B. (See Williams, Ira H., assignor.)

Williams, Edwin A., Canton, Pa. Clothes-drier. No. 1,090,002; Mar. 10; Gaz. vol. 200; p. 504.

Williams, George D., Durbamville, N. Y. Unloading apparatus. No. 1,090,510; Mar. 17; Gaz. vol. 200; p. 723.

Williams, Ira H., Maple Creek, Saskatchewan, assignor of one-half to C. B. Williams, Pence, Canada. Animal-poke. No. 1,091,414; Mar. 24; Gaz. vol. 200; p. 1058.

Williams, John W., North Birmingham, Ala. Gage. No. 1,090,003; Mar. 10; Gaz. vol. 200; p. 504.

Williams, Louis N. D., Ogontz, Pa. Stitch transferring and doubling device. No. 1,089,174; Mar. 3; Gaz. vol. 200; p. 174.

Williams, Thomas B. (See Smith and Williams.)

Williamson, John, assignor of one-third to H. E. Randell and one-third to A. P. Stewart, Brooklyn, N. Y. Pneumatic suspension device for vehicles. No. 1,089,610; Mar. 10; Gaz. vol. 200; p. 369.

Wills, Charles M. (See Holland, Julian, assignor.)

Wilson, Eugene W., assignor to Detroit Pneumatic Tire Company, Detroit, Mich. Tire. No. 1,091,176; Mar. 24; Gaz. vol. 200; p. 981.

Wilson, Frank T., Stillwater, Minn. Screen. No. 1,089,611; Mar. 10; Gaz. vol. 200; p. 369.

Wilson, George, Merrill, Oreg. Knob-lock. No. 1,090,772; Mar. 17; Gaz. vol. 200; p. 808.

Wilson, George W., Greenland, assignor of one-half to W. T. Fulton, Winslow, Ark. Sanitary cuff-protector. No. 1,089,612; Mar. 10; Gaz. vol. 200; p. 370.

Wilson, John W., Dorsey, Miss. Garbage-receptacle. No. 1,090,364; Mar. 17; Gaz. vol. 200; p. 670.

Wilson, John W., Boston, Mass. Flying-machine. No. 1,091,555; Mar. 31; Gaz. vol. 200; p. 1151.

Wilson, Kenneth M. (See Barrett and Wilson.)

Wilson, Robert J., Beaver Hills, Saskatchewan, Canada. Tractor-plow. No. 1,092,086; Mar. 31; Gaz. vol. 200; p. 1332.

Wilson, Walter R., Pittsburgh, Pa. Nut-lock. No. 1,089,175; Mar. 3; Gaz. vol. 200; p. 174.

Wilton, Ralph P. (See Long, Theodore B., assignor.)

Wilzin, Arthur, St.-Ouen, France. Manufacture of flat-ware blanks. No. 1,091,415; Mar. 24; Gaz. vol. 200; p. 1058.

Winberg, Anders W., assignor of one-third to F. B. Brown and one-third to W. F. Curry, San Jose, Cal. Nut-lock. No. 1,091,177; Mar. 24; Gaz. vol. 200; p. 982.

Winbourn, Robert E., *et al.* (See Johnson, Harvey A., assignor.)

Winchester Repeating Arms Co. (See Buell, William H., assignor.)

Windberg, Nickolaus J. (See Schulde and Windberg.)

Windeler, George E. (See Day and Windeler.)

Windle, Edward P., Independence, Kans. Clamping device for deep-well-drilling tools. No. 1,089,302; Mar. 3; Gaz. vol. 200; p. 214.

Winegar, William B., Hannibal, Mo. Combination-chair. No. 1,091,994; Mar. 31; Gaz. vol. 200; p. 1302.

Winkler, John, Philadelphia, Pa. Safety-cock. No. 1,089,098; Mar. 3; Gaz. vol. 200; p. 145.

Winkley, Erastus E., Lynn, Mass. Sewing-machine. No. 1,091,101; Mar. 24; Gaz. vol. 200; p. 955.

Winona Wagon Company. (See Wyman, Alton L., assignor.)

Winton, Alexander, Cleveland, Ohio. Lubricating system for automobile-engines. No. 1,090,773; Mar. 17; Gaz. vol. 200; p. 808.

Wise Soda Apparatus Company, The. (See Wiechert, Frank T., assignor.)

Wisner, Andrew J., Philadelphia, Pa. Air-brake. No. 1,091,416; Mar. 24; Gaz. vol. 200; p. 1058.

Witmond, Christopher B. J., San Antonio, Tex., assignor of one-half to F. G. Blume, San Diego, Cal. Safety lamp-burner. No. 1,091,417; Mar. 24; Gaz. vol. 200; p. 1058.

Wittbecker, Frank G. (See Wittbecker, William A. and F. G.)

Wittbecker, William A. and F. G., St. Paul, Minn. Roof-flashing insert. No. 1,091,611; Mar. 31; Gaz. vol. 200; p. 1170.

Wittenburg, William J., Salmon, Idaho. Automatic hay-loader. No. 1,089,028; Mar. 3; Gaz. vol. 200; p. 121.

Wittl, Raymond A., Chicago, Ill. Combined razor and stropper. No. 1,090,823; Mar. 17; Gaz. vol. 200; p. 826.

Wixom, Joseph F., Hammondsport, N. Y. Metallic surfacing. No. 1,089,613; Mar. 10; Gaz. vol. 200; p. 370.

Wm. E. Slaughter Co. (See Schwartz, Edward, assignor.)

Woernley, Harry F., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Yielding coupling-support. No. 1,090,185; Mar. 17; Gaz. vol. 200; p. 608.

Wohlander, Charles J., assignor of one-half to B. Armer, San Francisco, Cal. Sanitary attachment for toilet-bowls and the like. No. 1,091,265; Mar. 24; Gaz. vol. 200; p. 1012.

Wojidkow, Louis, Brooklyn, N. Y. Cooking utensil. No. 1,091,903; Mar. 31; Gaz. vol. 200; p. 1272.

Wojidkow, Louis, assignor to New York Stamping Company, Brooklyn, N. Y. Coffee-pot handle. No. 1,090,808; Mar. 17; Gaz. vol. 200; p. 821.

Wolcott, Newton A., and W. C. Woodland, assignors to The Packard Electric Company, Warren, Ohio. Transformer. No. 1,091,995; Mar. 31; Gaz. vol. 200; p. 1303.

Wolcott, Varanus A., Butte, Mont., assignor to General Electric Company. Synchronism-indicator. No. 1,091,722; Mar. 31; Gaz. vol. 200; p. 1208.

Wold, Andrew, Spokane, Wash. Spool. No. 1,089,452; Mar. 10; Gaz. vol. 200; p. 313.

Wolf, Albert J. L. (See Carman, William, assignor.)

Wolf, C. C., *et al.* (See Muehl, William F., assignor.)

Wolf, G. m. b. H., Georg. (See Wolf, Georg, assignor.)

Wolf, Georg, assignor to Firm of G. Wolf, G. m. b. H., Berlin, Germany. Medical appliance. No. 1,089,805; Mar. 10; Gaz. vol. 200; p. 435.

Wolf, Harvey G., Covington, Ky. Photographic-printing frame. No. 1,090,090; Mar. 10; Gaz. vol. 200; p. 533.

Wolf, Robert B. (See Moore and Wolf.)

Wolfe, Wiltsie F., Atlantic City, N. J., C. R. Fowler, N. C. Schroeder, and A. S. Mappett, Philadelphia, Pa., assignors to Fowler & Wolfe Manufacturing Company. Bracket to support radiators. No. 1,088,861; Mar. 3; Gaz. vol. 200; p. 64.

Wood, Charles, Moulton, Iowa. Switch-stand lock. No. 1,089,176; Mar. 3; Gaz. vol. 200; p. 174.

Wood, Charles, Moulton, Iowa. Switch-stand lock. No. 1,089,177; Mar. 3; Gaz. vol. 200; p. 175.

Wood, Frank J., assignor to Marx and Rawolle, New York, N. Y. Distilling glycerin. No. 1,089,383; Mar. 3; Gaz. vol. 200; p. 240.

Wood, Frank O., Brownsville, assignor of one-half to L. N. Phelps, Fond du Lac, Wis. Stanchion. No. 1,088,862; Mar. 3; Gaz. vol. 200; p. 65.

Wood, Henry A. W., New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J. Web-treating device for printing-presses. No. 1,089,453; Mar. 10; Gaz. vol. 200; p. 314.

Wood, Henry A. W., assignor to The Wood & Nathan Company, New York, N. Y. Printed and slip sheet separating apparatus. No. 1,090,437; Mar. 17; Gaz. vol. 200; p. 698.

Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Liquid-mixer. No. 1,089,806; Mar. 10; Gaz. vol. 200; p. 435.

Wood & Nathan Company, The. (See Wood, Henry A. W., assignor.)

Wood Tire Silo Company. (See Boldt, Herman E., assignor.)

Wooding, Benjamin F., Denver, Colo. Railway signaling apparatus. No. 1,091,102; Mar. 24; Gaz. vol. 200; p. 956.

Woodington, Joseph H., and E. H. Coles, Clevedon, England. Indicating device for drains and the like. No. 1,090,669; Mar. 17; Gaz. vol. 200; p. 777.

Woodland, Frank O., Worcester, Mass. Cigar-banding machine. No. 1,089,354; Mar. 3; Gaz. vol. 200; p. 231.

Woodland, William C. (See Wolcott and Woodland.)

Woodling, Jacob M., Morganton, N. C. Boiler-furnace. No. 1,091,996; Mar. 31; Gaz. vol. 200; p. 1303.

Woodruff, William W., Ardmore, Pa., assignor to The Lamson Company, Boston, Mass. Transfer-bin. No. 1,089,518; Mar. 10; Gaz. vol. 200; p. 338.

Woodworth, George, Sheffield, Ill. Cuspidor. No. 1,091,418; Mar. 24; Gaz. vol. 200; p. 1059.

Woodworth, Robert B., Pittsburgh, Pa. Wheel construction. No. 1,090,184; Mar. 17; Gaz. vol. 200; p. 608.

Woolley, Edward W., Jersey City, N. J. Door-holder. No. 1,089,891; Mar. 10; Gaz. vol. 200; p. 465.

Woonsocket Machine & Press Company. (See Willey and Mason, assignors.)

Wooton, John A., Fort Meade, Fla. Tensioning device for shade-rollers. No. 1,091,103; Mar. 24; Gaz. vol. 200; p. 956.

Wordingham, George, Milwaukee, Wis. Tie and soft-collar case. No. 1,089,519; Mar. 10; Gaz. vol. 200; p. 339.

Worster, Edward T., Woodfield, Ohio, assignor of one-half to J. F. Grasley. Collapsible egg-crate. No. 1,089,614; Mar. 10; Gaz. vol. 200; p. 370.

Worth, Charles H., Darrington, and B. Leon, Camden, N. J. Lacing-holder. No. 1,090,438; Mar. 17; Gaz. vol. 200; p. 698.

Worthington, Bruce. (See Straus and Worthington.)

Worthington Cotton Harvester Company. (See Straus and Worthington, assignors.)

Wright, Charles L., Tucson, Ariz. Filter for atomizers and other devices. No. 1,088,954; Mar. 3; Gaz. vol. 200; p. 98.

Wright, Fenton, Fountain Grove, Mo. Coin-receptacle for savings-banks. No. 1,091,785; Mar. 31; Gaz. vol. 200; p. 1231.

Wright, Gordon K., Hinsdale, Ill., assignor to Chicago Manufacturing & Distributing Company. Ratchet-wrench. No. 1,089,737; Mar. 10; Gaz. vol. 200; p. 412.

Wright, John E., Pittsburgh, Pa. Printing-telegraph. No. 1,090,365; Mar. 17; Gaz. vol. 200; p. 670.

Wright, John E., Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y. Keyboard for printing-telegraph systems. No. 1,090,366; Mar. 17; Gaz. vol. 200; p. 670.

Wright, John E., Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y. Translator for printing-telegraph systems. No. 1,090,367; Mar. 17; Gaz. vol. 200; p. 671.

Wright, John E., Pittsburgh, Pa., assignor to Wright Telegraphic Typewriter Company, New York, N. Y. Transmitter for printing-telegraph systems. No. 1,090,368; Mar. 17; Gaz. vol. 200; p. 671.

Wright, Morris S., assignor to Morris S. Wright Company, Worcester, Mass. Exhaust apparatus. No. 1,089,178; Mar. 3; Gaz. vol. 200; p. 176.

Wright Telegraphic Typewriter Company. (See Wright, John E., assignor.)

Wrightson, Charles M., Melrose Park, Pa. Recording and computing card. No. 1,090,587; Mar. 17; Gaz. vol. 200; p. 749.

Wroeger, Harmon, Winthrop, Mass. Envelop. No. 1,091,028; Mar. 24; Gaz. vol. 200; p. 931.

Wroughton, Ernest, Nelson, Nebr. Cable-forming machine. No. 1,091,104; Mar. 24; Gaz. vol. 200; p. 956.

Wullenweber, Ernest A., Detroit, Mich. Hot-air motor. No. 1,091,904; Mar. 31; Gaz. vol. 200; p. 1272.

Wunderlich, Frederich, Swissvale, Pa., assignor to Westinghouse Electric and Manufacturing Company. Insulating sleeve or tube machine. No. 1,090,369; Mar. 17; Gaz. vol. 200; p. 672.

Wyche, Cyril H., Dallas, Tex. Device for manually propelling a body through the water. No. 1,090,004; Mar. 10; Gaz. vol. 200; p. 504.

Wylde, Edward, New York, N. Y., and C. Schenck, Chicago, Ill., assignors to Elevator Supply & Repair Company. Door-controlling device. No. 1,090,370; Mar. 17; Gaz. vol. 200; p. 672.

Wyllie, Hamilton N., Edinburgh, Scotland, assignor to Babcock & Wilcox Limited, London, England. Ship's davit or the like. No. 1,090,588; Mar. 17; Gaz. vol. 200; p. 750.

Wyman, Alton L., Minneapolis, assignor to Winona Wagon Company, Winona, Minn. Lever. No. 1,089,615; Mar. 10; Gaz. vol. 200; p. 370.

Wyman, George W., Wilmington, Del. Steam-locomotive. No. 1,091,176; Mar. 24; Gaz. vol. 200; p. 982.

Wyman, Horace, Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,089,369; Mar. 3; Gaz. vol. 200; p. 236.

Yandell, William V., Los Angeles, Cal. Tower-wagon. No. 1,091,419; Mar. 24; Gaz. vol. 200; p. 1059.

Yankee Wizard Clock Company. (See Gage, Edward E., assignor.)

Yauch, Christian, Detroit, Mich. Skylight. No. 1,090,186; Mar. 17; Gaz. vol. 200; p. 609.





Yeakel, Abraham M., assignor of one-half to W. L. Yeakel, Perkasie, Pa. Clock. No. 1,089,099; Mar. 3; Gaz. vol. 200; p. 145.

Yeakel, Wilson L. (See Yeakel, Abraham M., assignor.)

Yeatman, Alfred O., Vici, Okla. Cotton-chopper. No. 1,090,005; Mar. 10; Gaz. vol. 200; p. 504.

Yingling, George S., Eau Gallie, Fla. Braking attachment for reels. No. 1,089,616; Mar. 10; Gaz. vol. 200; p. 371.

Yokoyama, Bunkichi, Los Angeles, Cal. Fly-paper holder. No. 1,089,520; Mar. 10; Gaz. vol. 200; p. 339.

York, Reuben G., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting apparatus. No. 1,090,187; Mar. 17; Gaz. vol. 200; p. 609.

Yorke, Patrick, assignor to P. H. Yorke, Washington, Pa. Metallic derrick. No. 1,090,955; Mar. 24; Gaz. vol. 200; p. 904.

Yorke, Patrick H. (See Yorke, Patrick, assignor.)

Yost Electric Manufacturing Company, The. (See Gordon, David D., assignor.)

Young, Charles D., Altoona, Pa. Locomotive superheater apparatus. No. 1,089,807; Mar. 10; Gaz. vol. 200; p. 436.

Young, Clarence H. (See Hammond and Soule, assignors.)

Young, George, Jr. (See Young, Joseph A. and G., Jr.)

Young, Harvey L., Dayton, Ohio. Cloth-cutting machine. No. 1,088,955; Mar. 3; Gaz. vol. 200; p. 98.

Young, Henry B., Wooster, Ohio. Grip-socket. No. 1,091,266; Mar. 24; Gaz. vol. 200; p. 1012.

Young, John M., San Francisco, Cal., assignor to American Can Company, New York, N. Y. Friction-top can. No. 1,091,612; Mar. 31; Gaz. vol. 200; p. 1170.

Young, Joseph A. and G., Jr., Bellevue, Iowa. Glass lens. No. 1,088,863; Mar. 3; Gaz. vol. 200; p. 65.

Young, Listen B., Guthrie Center, Iowa. Knife-arrester for mowers or binders. No. 1,091,105; Mar. 24; Gaz. vol. 200; p. 957.

Younger, Charles, assignor of one-half to A. P. Walker and one-half to C. B. Smith and M. E. Newhouse, Rushville, Ind. Corn gatherer and husker. No. 1,090,371; Mar. 17; Gaz. vol. 200; p. 672.

Yung, George W., Dunkirk, N. Y. Instrument for laying out the edges of cutter-head knives. No. 1,090,006; Mar. 10; Gaz. vol. 200; p. 505.

Zahl, Julius, *et al.* (See Snodgrass, Charley, assignor.)

Zahn, Robert, Plauen, Germany. Jacquard embroidering-machine. No. 1,090,898; Mar. 24; Gaz. vol. 200; p. 884.

Zahner, Edward J., Kansas City, Mo. Sheet-metal door. No. 1,091,905; Mar. 31; Gaz. vol. 200; p. 1273.

Zähringer, Arnold, assignor to Firm of R. Bosch, Stuttgart, Germany. Electrical ignition apparatus for internal-combustion engines. No. 1,091,906; Mar. 31; Gaz. vol. 200; p. 1273.

Zanolli, Angelo, Pittsburgh, Pa. Folding basket. No. 1,089,686; Mar. 10; Gaz. vol. 200; p. 395.

Zart, Arthur. (See Schweitzer and Zart.)

Zeiss, Firm of Carl. (See Orel, Eduard von, assignor.)

Zeyssolff, Paul, Munster, Germany, assignor to L. Lawrence & Co., London, England. Sprinkler for lawns, golf-greens, gardens, and the like. No. 1,089,179; Mar. 3; Gaz. vol. 200; p. 176.

Ziebarth, Friedrich, Frankfort-on-the-Main, Germany. Compressing wood or other elastic material. No. 1,089,687; Mar. 10; Gaz. vol. 200; p. 396.

Ziegenfuss, Friedrich, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Luminous projectile. No. 1,090,007; Mar. 10; Gaz. vol. 200; p. 505.

Zimmerman, Ervin H., Perry, Ill. Elevator. No. 1,090,670; Mar. 17; Gaz. vol. 200; p. 777.

Zimmermann, Paul G., San Juan, Porto Rico. Driving mechanism for airships. No. 1,089,029; Mar. 3; Gaz. vol. 200; p. 121.

Zinteck, William J., St. Paul, Minn. Turbinal screw-propeller. No. 1,090,956; Mar. 24; Gaz. vol. 200; p. 905.

Zirbel, Emil F. (See Osborn and Zirbel.)

Zitscher, Arthur. (See Laska and Zitscher.)

Zoelly, Heinrich, Zurich, Switzerland. Explosion gas-turbine. No. 1,089,892; Mar. 10; Gaz. vol. 200; p. 465.

Zunner, John H. G., assignor to Zunner Machines Company, Rochester, N. Y. Keg-washing machine. No. 1,090,263; Mar. 17; Gaz. vol. 200; p. 635.

Zunner Machines Company. (See Zunner, John H. G., assignor.)

# ALPHABETICAL LIST OF PATENTEES OF DESIGNS.


Aiken, Alice M., Cleveland, Ohio. Sanitary protector. Nos. 45,443–4; Mar. 24; Gaz. vol. 200; p. 1080.
American Tobacco Company. (See Kinghorne, Joseph W., assignor.)
Aronson, Louis V., Newark, N. J. Igniter. No. 45,407; Mar. 17; Gaz. vol. 200; p. 830.
Atterholt, Oliver S., Pittston, Pa. Glass vessel. No. 45,319; Mar. 3; Gaz. vol. 200; p. 243.
Austin, John T., assignor to Austin Organ Company, Hartford, Conn. Organ-stop key. No. 45,320; Mar. 3; Gaz. vol. 200; p. 243.
Austin Organ Company. (See Austin, John T., assignor.)
Auto Metal Company. (See Smith, Michael H., assignor.)
Baldwin, Frederic E., New York, N. Y. Lamp-body for miners' lamps. No. 45,514; Mar. 31; Gaz. vol. 200; p. 1355.
Barber, Reuben E., Pittsburgh, Pa. Towel-rack. No. 45,515; Mar. 31; Gaz. vol. 200; p. 1355.
Barnes, Harry E., Topeka, Kans. Musical instrument. Nos. 45,321–2; Mar. 3; Gaz. vol. 200; p. 243.
Barnes, Thomas A., Pasadena, Cal. Piano-stool. No. 45,365; Mar. 10; Gaz. vol. 200; p. 550.
Bauman, Isaac L., Lancaster, Pa. Coaster. No. 45,366; Mar. 10; Gaz. vol. 200; p. 550.
Becker, John, Marengo, Iowa. Plow-cleaner. No. 45,408; Mar. 17; Gaz. vol. 200; p. 830.
Bentz, Lucille, Seattle, Wash. Souvenir-spoon. No. 45,367; Mar. 10; Gaz. vol. 200; p. 550.
Bernhard, Michael J., Buffalo, N. Y. Sideboard or similar article of furniture. No. 45,516; Mar. 31; Gaz. vol. 200; p. 1355.
Bigelow Carpet Company. (See Elliot, William A., assignor.)
Bigelow Carpet Company. (See Lacouture, Henry C., assignor.)
Bigelow Carpet Company. (See Merry, John, assignor.)
Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
Bigelow Carpet Company. (See Schindler, Francis, assignor.)
Bigelow Carpet Company. (See Spring, John, assignor.)
Bigelow Carpet Company. (See Spring, William A., assignor.)
Bigelow Carpet Company. (See Vetter, Ignatius, assignor.)
Birkin, Charles W., Nottingham, England. Levers lace. Nos. 45,323–6; Mar. 3; Gaz. vol. 200; pp. 243–4.
Bjur, William L., New York, N. Y. Piano-case. Nos. 45,517–20; Mar. 31; Gaz. vol. 200; pp. 1355–6.
Bond, Arthur E., Chicago, Ill. Flower-holder. No. 45,409; Mar. 17; Gaz. vol. 200; p. 830.
Bowers, Thomas G., New Haven, Conn. Shoulder-brace. No. 45,368; Mar. 10; Gaz. vol. 200; p. 551.
Bratton, Willard G., Pittsburgh, Pa. Wind-shield for motor-vehicles and the like. No. 45,327; Mar. 3; Gaz. vol. 200; p. 244.
Brause, Julius, Hartford, Conn. Wardrobe. No. 45,445; Mar. 24; Gaz. vol. 200; p. 1080.
Brinckerhoff, Francis M., Englewood, N. J. Lamp-shade. No. 45,521; Mar. 31; Gaz. vol. 200; p. 1356.
Brown, Leslie A., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Handle for spoons, forks, or similar articles. No. 45,369; Mar. 10; Gaz. vol. 200; p. 551.
Brown, Leslie A., assignor to R. Wallace & Sons Mfg. Co., Wallingford, Conn. Spoon, fork, or similar article. No. 45,446; Mar. 24; Gaz. vol. 200; p. 1081.
Bruns, Alfred E., New York, assignor to Metal Package Company, Brooklyn, N. Y. Tapered oval talcum-powder can. No. 45,447; Mar. 24; Gaz. vol. 200; p. 1081.
Buck, Edward A., Washington, D. C. Clock-dial. No. 45,448; Mar. 24; Gaz. vol. 200; p. 1081.
Burkhart, Frank A., Reading, Pa. Fountain-brush back. No. 45,328; Mar. 3; Gaz. vol. 200; p. 244.
C. O. Sweet and Son Company. (See Sweet, Charles O., assignor.)
Chatillon, Ralph F., Greenburg, N. Y. Scale-beam weight. No. 45,370; Mar. 10; Gaz. vol. 200; p. 551.
Clampitt, Allen G., assignor to The Hamilton Manufacturing Company, Two Rivers, Wis. Table. No. 45,410; Mar. 17; Gaz. vol. 200; p. 830.
Cohn, Charles W., New York, N. Y. Show-case. No. 45,371; Mar. 10; Gaz. vol. 200; p. 551.
Collins, Edward, Chicago, Ill. Hat. No. 45,522; Mar. 31; Gaz. vol. 200; p. 1356.
Congdon, Gilbert, Catonsville, Md. Toy bank and clock-case. No. 45,372; Mar. 10; Gaz. vol. 200; p. 551.
Cooke, Alfred, Harlesden, assignor to Peek Frean and Company, Limited, London, England. Biscuit or like article. No. 45,523; Mar. 31; Gaz. vol. 200; p. 1356.
Cronk, Charles J. (See Schroff and Cronk.)
Cummins, David W. (See Thompson, Knight H., assignor.)
Curtiss, George E., assignor to Landers, Frary & Clark, New Britain, Conn. Percolator. Nos. 45,373–4; Mar. 10; Gaz. vol. 200; pp. 551–2.
Cutler, Joseph W., assignor to Cutler Mail Chute Company, Rochester, N. Y. Street letter-box. No. 45,524; Mar. 31; Gaz. vol. 200; p. 1357.
Cutler Mail Chute Company. (See Cutler, Joseph W., assignor.)
Darling, Warren V., New York, N. Y. Composition or blank book cover. No. 45,411; Mar. 17; Gaz. vol. 200; p. 830.
Dayton Manufacturing Company, The. (See Kirby, John, Jr., assignor.)
Dean Electric Company, The. (See Manson, Ray H., assignor.)
Dean, Harry G., Cleveland, Ohio. Shoe. No. 45,412; Mar. 17; Gaz. vol. 200; p. 831.
Dennison Manufacturing Company. (See Mead, Clara L., assignor.)
Doering, Charles, Jr., Chicago, Ill. Display-cabinet for fish and other foods. No. 45,413; Mar. 17; Gaz. vol. 200; p. 831.
Down, Thomas M., Hammersmith, London, England. Set of playing-cards. No. 45,449; Mar. 24; Gaz. vol. 200; p. 1081.
Down, Thomas M., London, England. Set of playing-cards. No. 45,547; Mar. 31; Gaz. vol. 200; p. 1361.
Dugan, Sylvester, Tarentum, Pa. Post-card. No. 45,414; Mar. 17; Gaz. vol. 200; p. 831.
Dunnock, John L., Baltimore, Md. Bottle. No. 45,375; Mar. 10; Gaz. vol. 200; p. 552.
Ebinger, David A., Columbus, Ohio. Urinal. No. 45,330; Mar. 3; Gaz. vol. 200; p. 245.
Eddy, Robert, Milwaukee, Wis. Rattle. No. 45,450; Mar. 24; Gaz. vol. 200; p. 1082.
Eginton, Arthur V., assignor to International Casket Hardware Co., Meriden, Conn. Burial-casket handle. No. 45,451; Mar. 24; Gaz. vol. 200; p. 1082.
Eick, Otto, St. Louis, Mo. Rubber brush. No. 45,548; Mar. 31; Gaz. vol. 200; p. 1361.
Electric Auto-Lite Company, The. (See Peters, John B., assignor.)
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,452; Mar. 24; Gaz. vol. 200; p. 1082.
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,453–4; Mar. 24; Gaz. vol. 200; p. 1082.
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,455; Mar. 24; Gaz. vol. 200; p. 1082.
Ellis, Ralph N., Des Moines, Iowa. Wind-shield for motorcycles. No. 45,525; Mar. 31; Gaz. vol. 200; p. 1357.
Elms & Sellon. (See Schroff and Cronk, assignors.)
English & Mersick Company, The. (See Wheeler, Gardner E., assignor.)
Evans, Howard S., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa. Lamp-shade. No. 45,415; Mar. 17; Gaz. vol. 200; p. 831.
Falk, Albert, assignor to Falk Tobacco Company, New York, N. Y. Label-blank. No. 45,376; Mar. 10; Gaz. vol. 200; p. 552.
Falk Tobacco Company. (See Falk, Albert, assignor.)
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Percolator-pot. No. 45,331; Mar. 3; Gaz. vol. 200; p. 245.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Kettle. No. 45,332; Mar. 3; Gaz. vol. 200; p. 245.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Pot-body. No. 45,333; Mar. 3; Gaz. vol. 200; p. 245.
Farr, Herman G., Springfield, Mass. Automobile fire-engine body. No. 45,416; Mar. 17; Gaz. vol. 200; p. 831.
Fischer, William, New York, N. Y. Ring or similar article. No. 45,456; Mar. 24; Gaz. vol. 200; p. 1083.
Ford, Charles A., Newark, N. J. Thumb-tack. No. 45,334; Mar. 3; Gaz. vol. 200; p. 245.
Forward, Walter L., Berkeley, Cal. Diffusion-disk. No. 45,335; Mar. 3; Gaz. vol. 200; p. 245.
Foster, William M. C., Chicago, Ill. Bicycle front-fork crown. No. 45,457; Mar. 24; Gaz. vol. 200; p. 1083.
Foster, Winfred C., New York, N. Y., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. No. 45,377; Mar. 10; Gaz. vol. 200; p. 552.
French, William A., assignor to William A. French & Company, Minneapolis, Minn. Humidor. No. 45,526; Mar. 31; Gaz. vol. 200; p. 1357.
Gill Brothers Company. (See Gray, Edward F., assignor.)

Goldsoll, Frank J., New York, N. Y., assignor to M. Tecla & Company. Display-board. No. 45,417; Mar. 17; Gaz. vol. 200; p. 831.
Graham, Edward M., assignor to Vaughan & Bushnell Mfg. Co., Chicago, Ill. Wood-chisel. No. 45,527; Mar. 31; Gaz. vol. 200; p. 1357.
Graham, William P., Brooklyn, N. Y. Plate. No. 45,336; Mar. 3; Gaz. vol. 200; p. 246.
Gray, Edward F., New York, N. Y., assignor to Gill Brothers Company, Steubenville, Ohio. Shade-bowl. No. 45,337; Mar. 3; Gaz. vol. 200; p. 246.
Gray, Edward F., New York, N. Y., assignor to Gill Brothers Company, Steubenville, Ohio. Shade. No. 45,338; Mar. 3; Gaz. vol. 200; p. 246.
Gredelue, Adrien, New York, N. Y., assignor to A. Michaut, Baccarat, France. Glasses or similar articles. No. 45,528; Mar. 31; Gaz. vol. 200; p. 1357.
Gunther, John, St. Paul, Minn. Badge. No. 45,378; Mar. 10; Gaz. vol. 200; p. 552.
Hall, Robert R., Millbrae, Cal. Bridge for spectacles and eyeglasses. No. 45,418; Mar. 17; Gaz. vol. 200; p. 831.
Hamilton Manufacturing Company, The. (See Clampitt, Allen G., assignor.)
Hammond, William P., Passaic, N. J. Mirror attachment for automobiles for showing the rear traffic conditions. No. 45,379; Mar. 10; Gaz. vol. 200; p. 552.
Hartenstein, Jacob A., assignor to Lipper Manufacturing Company, Philadelphia, Pa. Knitted millinery fabric. No. 45,419; Mar. 17; Gaz. vol. 200; p. 832.
Harting, Clayton C., and T. L. Knapp, Woodstock, assignors to The Oliver Typewriter Company, Chicago, Ill. Type-writing-machine frame. No. 45,420; Mar. 17; Gaz. vol. 200; p. 832.
Hartman, John H., Lancaster, Pa. Toy bank. No. 45,458; Mar. 24; Gaz. vol. 200; p. 1083.
Hartmann, Mary S. C., Oakland, Cal. Gas-plate. No. 45,339; Mar. 3; Gaz. vol. 200; p. 246.
Hasburg, John W., Chicago, Ill. Combined paint product and palette. No. 45,421; Mar. 17; Gaz. vol. 200; p. 832.
Helsey & Co., A. H. (See Sanford, Andrew J., assignor.)
Henkels, Max, Langerfeld, near Barmen, Germany. Lace. No. 45,422; Mar. 17; Gaz. vol. 200; p. 832.
Hersee, Frederick C., Roslindale, Mass., assignor to Motor Specialties Company. Wheel-puller. No. 45,459; Mar. 24; Gaz. vol. 200; p. 1083.
Herzog, John, Saginaw, Mich. Cabinet. No. 45,460; Mar. 24; Gaz. vol. 200; p. 1083.
Hester, Dozier, Wade, Miss. Nut-lock. No. 45,340; Mar. 3; Gaz. vol. 200; p. 246.
Hildebrand, Louis P., San Marcial, N. Mex. Stove. No. 45,529; Mar. 31; Gaz. vol. 200; p. 1358.
Hinckley, Henry D., assignor to The R. & H. Manufacturing Company, Hartford, Conn. Casing for vending-machines. No. 45,530; Mar. 31; Gaz. vol. 200; p. 1358.
Hislop, David B. (See Vermilye and Hislop.)
Hoch, Ernest, New York, N. Y., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. Nos. 45,380–2; Mar. 10; Gaz. vol. 200; p. 553.
Holladay, Alfred J., London, England. Toy. No. 45,531; Mar. 31; Gaz. vol. 200; p. 1358.
Houston Manufacturing Company. (See Sutton, William S., assignor.)
Humphrey, Alfred H., New York, N. Y. Gas-lamp. No. 45,461; Mar. 24; Gaz. vol. 200; p. 1083.
Ilse, Frank H., Detroit, Mich. Automobile-curtain. No. 45,423; Mar. 17; Gaz. vol. 200; p. 832.
International Casket Hardware Co. (See Eginton, Arthur V., assignor.)
Isenberger, Jacob N., Lancaster, Pa. Anti-sash-rattler. No. 45,383; Mar. 10; Gaz. vol. 200; p. 553.
Jeavons, William R., Cleveland, Ohio. Stove-window. No. 45,384; Mar. 10; Gaz. vol. 200; p. 553.
Jeavons, William R., Cleveland, Ohio. Stove-base. No. 45,532; Mar. 31; Gaz. vol. 200; p. 1358.
Johnson, Elijah L., Los Angeles, Cal. Butter-tong. No. 45,533; Mar. 31; Gaz. vol. 200; p. 1358.
Jordan, Kate, New York, N. Y. Image. Nos. 45,534–5; Mar. 31; Gaz. vol. 200; p. 1359.
Karpeles, Maurice J., Providence, R. I. Display-cabinet. Nos. 45,536–7; Mar. 31; Gaz. vol. 200; p. 1359.
King, Frederick W., Cleveland, Ohio. Spectacles. No. 45,424; Mar. 17; Gaz. vol. 200; p. 833.
Kinghorne, Joseph W., Burkeville, Va., assignor to American Tobacco Company, New York, N. Y. Pocket-pouch. No. 45,341; Mar. 3; Gaz. vol. 200; p. 247.
Kirby, John, Jr., assignor to The Dayton Manufacturing Company, Dayton, Ohio. Pendent lamp-fixture. No. 45,462; Mar. 24; Gaz. vol. 200; p. 1084.
Kirby, John, Jr., assignor to The Dayton Manufacturing Company, Dayton, Ohio. Hanging lamp-fixture. No. 45,463; Mar. 24; Gaz. vol. 200; p. 1084.
Kirby, John, Jr., assignor to The Dayton Manufacturing Company, Dayton, Ohio. Deck-lamp fixture. No. 45,464; Mar. 24; Gaz. vol. 200; p. 1084.
Kirby, John, Jr., assignor to The Dayton Manufacturing Company, Dayton, Ohio. Electric-lamp fixture. No. 45,465; Mar. 24; Gaz. vol. 200; p. 1084.
Klein, Adolph S., Cleveland, Ohio. Display-case. No. 45,342; Mar. 3; Gaz. vol. 200; p. 247.
Knapp, Theron L. (See Harting and Knapp.)
Korzinek, William C., Weehawken Heights, N. J., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. Nos. 45,385–7; Mar. 10; Gaz. vol. 200; pp. 553–4.
Krements & Co. (See Underwood, Earl, assignor.)
Kuhn, Frank, Detroit, Mich. Toaster. No. 45,388; Mar. 10; Gaz. vol. 200; p. 554.
Kull, Alfred J., Far Hills, N. J. Paper-weight. No. 45,425; Mar. 17; Gaz. vol. 200; p. 833.
Lacouture, Henry C., Arlington, N. J., assignor to Bigelow Carpet Company. Carpet. No. 45,466; Mar. 24; Gaz. vol. 200; p. 1084.
Landers, Frary & Clark. (See Curtiss, George E., assignor.)
Langstaff, John E., New York, N. Y. Boat-hull. No. 45,389; Mar. 10; Gaz. vol. 200; p. 554.
Lascoff, Jacob L., New York, N. Y. Ampule. No. 45,426; Mar. 17; Gaz. vol. 200; p. 833.
Lipper Manufacturing Company. (See Hartenstein, Jacob A., assignor.)
Lockwood, James E., Peoria, Ill. Gas and vapor burner. No. 45,390; Mar. 10; Gaz. vol. 200; p. 554.
London, Louis B., New York, N. Y. Inverted-gas-burner crown. No. 45,427; Mar. 17; Gaz. vol. 200; p. 833.
Longshaw, Arthur E., Salt Lake City, Utah. Plaque. No. 45,343; Mar. 3; Gaz. vol. 200; p. 247.
M. Tecla & Company. (See Goldsoll, Frank J., assignor.)
Macbeth-Evans Glass Company. (See Evans, Howard S., assignor.)
Madeleine, Emile, Flatbush, N. Y., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. No. 45,391; Mar. 10; Gaz. vol. 200; p. 554.
Mainor, Charles O., Owensboro, Ky. Buggy-seat. No. 45,428; Mar. 17; Gaz. vol. 200; p. 833.
Manning, Bowman & Company. (See Farr, Edward A., assignor.)
Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Motor-cycle horn. No. 45,344; Mar. 3; Gaz. vol. 200; p. 247.
Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Motor-cycle horn. Nos. 45,363–4; Mar. 3; Gaz. vol. 200; p. 251.
Matthai, William H., assignor to National Enameling and Stamping Company, Baltimore, Md. Poultry-coop. No. 45,392; Mar. 10; Gaz. vol. 200; p. 554.
McNary, Lillian, Salem, Oreg. Badge. No. 45,538; Mar. 31; Gaz. vol. 200; p. 1359.
McNulty, Harry B., Cleveland, Ohio. Cabinet for talking-machines. No. 45,467; Mar. 24; Gaz. vol. 200; p. 1084.
Mead, Clara L., Rahway, N. J., assignor to Dennison Manufacturing Company, Boston, Mass. Paper sheet or similar article. No. 45,429; Mar. 17; Gaz. vol. 200; p. 833.
Merritt, Arthur A., Worcester, Mass., assignor to Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machine frame. No. 45,345; Mar. 3; Gaz. vol. 200; p. 247.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,468; Mar. 24; Gaz. vol. 200; p. 1085.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,469; Mar. 24; Gaz. vol. 200; p. 1085.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,470–1; Mar. 24; Gaz. vol. 200; p. 1085.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,472; Mar. 24; Gaz. vol. 200; p. 1085.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,473–81; Mar. 24; Gaz. vol. 200; pp. 1086–7.
Metal Package Company. (See Bruns, Alfred E., assignor.)
Meyer, John F., New York, N. Y. Bottle. No. 45,346; Mar. 3; Gaz. vol. 200; p. 247.
Meyers, George W., assignor of one-half to E. W. Rinder, Chicago, Ill. Indirect-lighting fixture. No. 45,539; Mar. 31; Gaz. vol. 200; p. 1359.
Michaut, Adrian. (See Gredelue, Adrien, assignor.)
Milburn, Sidney R., Weehawken, N. J. Watch-holder. No. 45,393; Mar. 10; Gaz. vol. 200; p. 555.
Mix, Henry D., assignor to Wightman & Hough, Providence, R. I. Locket. No. 45,394; Mar. 10; Gaz. vol. 200; p. 555.
Moore, Clinton G., Muncie, Ind. Spring-mattress. No. 45,395; Mar. 10; Gaz. vol. 200; p. 555.
Motor Specialties Company. (See Hersee, Frederick C., assignor.)
Moyle, Edward H., Los Angeles, Cal. Frame for crushers. No. 45,430; Mar. 17; Gaz. vol. 200; p. 833.
Moyle, Edward H., Los Angeles, Cal. Concentrator-frame. No. 45,431; Mar. 17; Gaz. vol. 200; p. 833.
Mundt, Charles, Hoboken, N. J. Sanitary telephone-mouthpiece. No. 45,347; Mar. 3; Gaz. vol. 200; p. 248.
Munier, Emile, Jersey City, N. J., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. Nos. 45,396–400; Mar. 10; Gaz. vol. 200; pp. 555–6.
National Enameling and Stamping Company. (See Matthai, William H., assignor.)
Norberg, Rudolph C., assignor to The Willard Storage Battery Company, Cleveland, Ohio. Connector for storage batteries. No. 45,348; Mar. 3; Gaz. vol. 200; p. 248.
Oliver Typewriter Company, The. (See Harting and Knapp, assignors.)
Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 45,401; Mar. 10; Gaz. vol. 200; p. 556.



Osborne, Charles, assignor to Whiting Manufacturing Company, New York, N. Y. Handle for spoons, forks, or similar articles. No. 45,482; Mar. 24; Gaz. vol. 200; p. 1087.
Owen, Raymond V., assignor to St. Louis Brass Manufacturing Company, St. Louis, Mo. Lamp-shade. No. 45,349; Mar. 3; Gaz. vol. 200; p. 248.
Pacific Mills. (See Foster, Winfred C., assignor.)
Pacific Mills. (See Hoch, Ernest, assignor.)
Pacific Mills. (See Korzinek, William C., assignor.)
Pacific Mills. (See Madeleine, Emile, assignor.)
Pacific Mills. (See Munier, Emile, assignor.)
Pagin, James R., Valparaiso, Ind. Combination-lamp. No. 45,350; Mar. 3; Gaz. vol. 200; p. 248.
Peck Frean and Company. (See Cooke, Alfred, assignor.)
Pepper, Howard E., Bala, Pa. Cornet. No. 45,483; Mar. 24; Gaz. vol. 200; p. 1088.
Peters, John B., assignor to The Electric Auto-Lite Company, Toledo, Ohio. Casing for electrical translating devices. No. 45,402; Mar. 10; Gaz. vol. 200; p. 556.
Peters, John B., assignor to The Electric Auto-Lite Company, Toledo, Ohio. Engine ignition device. No. 45,403; Mar. 10; Gaz. vol. 200; p. 556.
Pickard, Albert E., Roslyn, N. Y. Bottle. No. 45,351; Mar. 3; Gaz. vol. 200; p. 249.
R. Wallace & Sons Mfg. Co. (See Brown, Leslie A., assignor.)
R. & H. Manufacturing Company, The. (See Hinckley, Henry D., assignor.)
Reeder, John F., Shelbyville, Ill. Shoe-clasp. No. 45,432; Mar. 17; Gaz. vol. 200; p. 834.
Reeve, Percival J., Haddonfield, N. J. Parasol-handle ornament. No. 45,352; Mar. 3; Gaz. vol. 200; p. 249.
Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,484; Mar. 24; Gaz. vol. 200; p. 1088.
Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,485–7; Mar. 24; Gaz. vol. 200; pp. 1088–9.
Rinder, Erwin W. (See Meyers, George W., assignor.)
Robbins, Meyer L., New York, N. Y. Cut gem. No. 45,353; Mar. 3; Gaz. vol. 200; p. 249.
Rumble, William, Jr., Cranford, N. J. Buckle. No. 45,540; Mar. 31; Gaz. vol. 200; p. 1360.
S. S. White Dental Manufacturing Company, The. (See Simpson, Edward F., Jr., assignor.)
Saart, William H., Attleboro, Mass., assignor to The W. H. Saart Company. Coin-holder. Nos. 45,354–6; Mar. 3; Gaz. vol. 200; p. 249.
Saart, William H., Attleboro, Mass., assignor to The W. H. Saart Company. Mesh-bag. No. 45,433; Mar. 17; Gaz. vol. 200; p. 834.
Sanderson, Nathaniel, North Yakima, Wash. Match-safe. No. 45,404; Mar. 10; Gaz. vol. 200; p. 556.
Sanford, Andrew J., Newark, Ohio. Pitcher-top. No. 45,488; Mar. 24; Gaz. vol. 200; p. 1089.
Sanford, Andrew J., assignor to A. H. Helsey & Co., Newark, Ohio. Pitcher. No. 45,489; Mar. 24; Gaz. vol. 200; p. 1089.
Sanford, Andrew J. assignor to A. H. Helsey & Co., Newark, Ohio. Molasses-jug. No. 45,541; Mar. 31; Gaz. vol. 200; p. 1360.
Sanford, Andrew J., assignor to A. H. Helsey & Co., Newark, Ohio. Lavender-jar. No. 45,542; Mar. 31; Gaz. vol. 200; p. 1360.
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,490; Mar. 24; Gaz. vol. 200; p. 1089.
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,491–3; Mar. 24; Gaz. vol. 200; pp. 1089–90.
Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 45,494–5; Mar. 24; Gaz. vol. 200; p. 1090.
Schleicher, William A., Cleveland, Ohio. Buckle. No. 45,496; Mar. 24; Gaz. vol. 200; p. 1090.
Schletter, Richard E., Philadelphia, Pa. Sock or stocking. No. 45,497; Mar. 24; Gaz. vol. 200; p. 1090.
Schreiber, Samuel H., New York, N. Y. Hand-bag. No. 45,543; Mar. 31; Gaz. vol. 200; p. 1360.
Schroff, Hermann, New York, N. Y., and C. J. Cronk, Weehawken, N. J., assignors to Elms & Sellon. Textile fabric. No. 45,357; Mar. 3; Gaz. vol. 200; p. 250.
Sheer, Henry M., Quincy, Ill. Incubator. No. 45,434; Mar. 17; Gaz. vol. 200; p. 834.
Simpson, Edward F., Jr., Oak Lane, assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa. Tool-handle. No. 45,435; Mar. 17; Gaz. vol. 200; p. 834.
Sloan, Augustus K., Brooklyn, N. Y. Binding-post. No. 45,358; Mar. 3; Gaz. vol. 200; p. 250.
Smith, Harry R., Lakewood, Ohio. Tire. No. 45,498; Mar. 24; Gaz. vol. 200; p. 1091.
Smith, Michael H., assignor to Auto Metal Company, Springfield, Mass. Automobile-top. No. 45,544; Mar. 31; Gaz. vol. 200; p. 1360.
Sommer, John L., Newark, N. J. Handle for ice-picks. No. 45,499; Mar. 24; Gaz. vol. 200; p. 1091.
Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,500–2; Mar. 24; Gaz. vol. 200; p. 1091.
Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,510; Mar. 24; Gaz. vol. 200; p. 1093.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,503–5; Mar. 24; Gaz. vol. 200; pp. 1091–2.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,506; Mar. 24; Gaz. vol. 200; p. 1092.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,507; Mar. 24; Gaz. vol. 200; p. 1092.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,508; Mar. 24; Gaz. vol. 200; p. 1092.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,509; Mar. 24; Gaz. vol. 200; p. 1092.
St. Louis Brass Manufacturing Company. (See Owen, Raymond V., assignor.)
Strauss & Co. (See Yaeger, William, assignor.)
Sutton, William S., assignor to Houston Manufacturing Company, Rockford, Ill. Frame for vacuum-cleaners. No. 45,405; Mar. 10; Gaz. vol. 200; p. 557.
Sweet, Charles O., Attleboro, Mass., assignor to C. O. Sweet and Son Company. Badge or similar article. No. 45,406; Mar. 10; Gaz. vol. 200; p. 557.
Thamm, Rose, Berkeley, Cal. Napkin-holder. No. 45,436; Mar. 17; Gaz. vol. 200; p. 834.
Thamm, Rose, Berkeley, Cal. Garment-hanger. No. 45,437; Mar. 17; Gaz. vol. 200; p. 834.
Thomas, Imogen N., Troy, N. Y. Carbonator. No. 45,511; Mar. 24; Gaz. vol. 200; p. 1093.
Thompson, Edward A., Cloverdale, Cal. File-cabinet. No. 45,359; Mar. 3; Gaz. vol. 200; p. 250.
Thompson, Knight H., assignor to D. W. Cummins, Shelby, Ohio. Vehicle-lamp. No. 45,545; Mar. 31; Gaz. vol. 200; p. 1361.
Thompson, Ralph C., Attleboro, Mass. Handle for pierced spoons, forks, or similar articles. No. 45,512; Mar. 24; Gaz. vol. 200; p. 1093.
Tillmanns, Carl W., Utica, N. Y. Handle of knives. No. 45,546; Mar. 31; Gaz. vol. 200; p. 1361.
Turckheim, Edouard H. F. de, Paris, France. Motor-car bonnet. No. 45,329; Mar. 3; Gaz. vol. 200; p. 245.
Underwood, Earl, New York, N. Y., assignor to Krements & Co., Newark, N. J. Cuff-button tray. No. 45,438; Mar. 17; Gaz. vol. 200; p. 835.
Vail, John W., Chicago, Ill. Bedstead-fitting. No. 45,360; Mar. 3; Gaz. vol. 200; p. 250.
Van Valkenburg, Burt R., Oakland, Cal. Orchestrion-case. No. 45,361; Mar. 3; Gaz. vol. 200; p. 250.
Vaughan & Bushnell Mfg. Co. (See Graham, Edward M., assignor.)
Vermilye, Theodore C., Ontario, and D. B. Hislop, Upland, Cal. Heater. No. 45,439; Mar. 17; Gaz. vol. 200; p. 835.
Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,513; Mar. 24; Gaz. vol. 200; p. 1093.
W. H. Saart Company, The. (See Saart, William H., assignor.)
Wheeler, Gardner E., assignor to The English & Mersick Company, New Haven, Conn. Automobile radiator-casing. No. 45,440; Mar. 17; Gaz. vol. 200; p. 835.
Whiting Manufacturing Company. (See Osborne, Charles, assignor.)
Wightman & Hough. (See Mix, Henry D., assignor.)
Willard Storage Battery Company, The. (See Norberg, Rudolph C., assignor.)
Willcox & Gibbs Sewing Machine Co. (See Merritt, Arthur A., assignor.)
William A. French & Company. (See French, William A., assignor.)
Williams, Bradford L., Camden, N. J. Rubber-needle massage-brush. No. 45,441; Mar. 17; Gaz. vol. 200; p. 835.
Woodside, Nevin G., Pittsburgh, Pa. Dispensing-receptacle and display-stand. No. 45,362; Mar. 3; Gaz. vol. 200; p. 250.
Yaeger, William, assignor to Strauss & Co., Inc., New York, N. Y. Ticket-booth. No. 45,442; Mar. 17; Gaz. vol. 200; p. 835.

# ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. B. Shubert, Chicago, Ill. Raw furs. No. 95,673; Mar. 3; Gaz. vol. 200; p. 275.

A. S. Kreider Shoe Co., The, Annville, Pa. Boots and shoes. No. 95,769; Mar. 10; Gaz. vol. 200; p. 578.

Acetylene Apparatus Manufacturing Company, assignor to Oxweld Acetylene Company, Chicago, Ill. Acetylene-generators. No. 95,972; Mar. 31; Gaz. vol. 200; p. 1385.

Adirondack Tissue Paper Co., New Hartford, N. Y. Toilet-paper, paper towels and napkins. No. 95,696; Mar. 3; Gaz. vol. 200; p. 276.

Aeolian Company, New York, N. Y., and Meriden, Conn. Certain named musical instruments and attachments and mechanism therefor. Nos. 95,725–6; Mar. 10; Gaz. vol. 200; p. 577.

Alan Wood Iron & Steel Company, Philadelphia, Pa. Iron and steel plates, billets, blooms, and slabs. No. 96,077; Mar. 31; Gaz. vol. 200; p. 1388.

Albert Trostel & Sons Company, Milwaukee, Wis. Flesh-finished leather in the piece. No. 96,061; Mar. 31; Gaz. vol. 200; p. 1388.

Alberti, Firm of Ditta G., Bencvento, Italy. Liquor. No. 95,859; Mar. 24; Gaz. vol. 200; p. 1109.

Aldrich, Anthony B., Weehawken, N. J. Garment-hooks. No. 95,587; Mar. 3; Gaz. vol. 200; p. 273.

American Cement Company, Rockville, Conn. Paste, glue, and cement. No. 95,860; Mar. 24; Gaz. vol. 200; p. 1109.

American Consumers' Association of New York, Inc., New York, N. Y. Certain named foods. No. 95,697; Mar. 3; Gaz. vol. 200; p. 276.

American Hominy Company, Indianapolis, Ind. Adhesive paste and sizing. No. 95,727; Mar. 10; Gaz. vol. 200; p. 577.

American Lumberman, The, Chicago, Ill. Weekly trade journal. No. 95,973; Mar. 31; Gaz. vol. 200; p. 1385.

American Optical Company, Southbridge, Mass. Certain named optical goods. No. 95,861; Mar. 24; Gaz. vol. 200; p. 1109.

American Sugar Refining Company, The, Jersey City, N. J. Molasses. No. 95,586; Mar. 3; Gaz. vol. 200; p. 273.

Archery Co. Inc., The, Glens Falls, N. Y. Toilet-brushes. No. 95,862; Mar. 24; Gaz. vol. 200; p. 1109.

Armstrong Bros. Tool Co., Chicago, Ill. Certain named lathe and machine tools and attachments. No. 95,975; Mar. 31; Gaz. vol. 200; p. 1385.

Atlantic Macaroni Co., The, Long Island City, N. Y. Alimentary paste. Nos. 95,588–90; Mar. 3; Gaz. vol. 200; p. 273.

Austin, Nichols & Co., Inc., New York, N. Y. Cigars. No. 95,591; Mar. 3; Gaz. vol. 200; p. 273.

Automatic Lock Cover Corporation, New York, N. Y. Garbage-cans. No. 95,728; Mar. 10; Gaz. vol. 200; p. 577.

Autoplate Company of America. (See Campbell Printing Press & Manufacturing Company, assignor.)

B. Kuppenheimer & Company, Chicago, Ill. Overcoats, coats, vests, and trousers. No. 95,919; Mar. 24; Gaz. vol. 200; p. 1110.

Backes & Ferguson, Stockton, Cal. Foot salves and powders. No. 95,730; Mar. 10; Gaz. vol. 200; p. 577.

Badische Anilin- & Soda-Fabrik, Ludwigshafen-on-the-Rhine, Germany. Additions to discharges for printing textile material. No. 95,817; Mar. 17; Gaz. vol. 200; p. 853.

Baedeker, Firm of Karl, Leipzig, Germany. Guides and travelers' hand-books. No. 95,592; Mar. 3; Gaz. vol. 200; p. 273.

Baker Chemical Co., Detroit, Mich. Rheumatic remedy. No. 95,698; Mar. 3; Gaz. vol. 200; p. 276.

Barber & Bennett, Albany, N. Y. Rye, wheat, and buckwheat flour. No. 95,863; Mar. 24; Gaz. vol. 200; p. 1109.

Barnes, Henry, Cleveland, Ohio. Tooth-brushes. No. 95,864; Mar. 24; Gaz. vol. 200; p. 1109.

Barnes Mfg. Co., Mansfield, Ohio. Pumps. No. 95,732; Mar. 10; Gaz. vol. 200; p. 577.

Barrett, Denton & Lynn Co., Dalton, Ga. Wheat-flour. No. 95,976; Mar. 31; Gaz. vol. 200; p. 1385.

Barrett Manufacturing Company, New York, N. Y. Prepared roofings. No. 95,865; Mar. 24; Gaz. vol. 200; p. 1109.

Bayer, Eva, Baltimore county, Md. Salves. No. 95,734; Mar. 10; Gaz. vol. 200; p. 577.

Bayless Coffee and Spice Mills, Lexington, Ky. Coffee, rice, tea, and peanuts. No. 95,867; Mar. 24; Gaz. vol. 200; p. 1109.

Beiersdorf & Co., P., Hamburg, Germany. Soap. No. 95,977; Mar. 31; Gaz. vol. 200; p. 1385.

Belle Vernon Mapes Dairy Company, The, Cleveland, Ohio Milk. No. 95,869; Mar. 24; Gaz. vol. 200; p. 1109.

Bellino, Vincenzo S., Philadelphia, Pa. Photographs. No. 95,735; Mar. 10; Gaz. vol. 200; p. 577.

Benj. T. Crump Co. Inc., Richmond, Va. Harness, saddles, collars, bridles, and horse-clothing. No. 95,891; Mar. 24; Gaz. vol. 200; p. 1110.

Bennett & Co., E. W., San Francisco, Cal. Metal-polish. No. 95,593; Mar. 3; Gaz. vol. 200; p. 273.

Bennett, Horace A., Boston, Mass. Rheumatic and lumbago remedy, tonic, and blood-purifier. No. 95,699; Mar. 3; Gaz. vol. 200; p. 276.

Berg, Louis R., New York, N. Y. Playing-card. No. 95,870; Mar. 24; Gaz. vol. 200; p. 1109.

Bergman, Adolph, Philadelphia, Pa. Knit goods. No. 95,871; Mar. 24; Gaz. vol. 200; p. 1109.

Berry & Co., C., Boston, Mass. Whisky. No. 95,736; Mar. 10; Gaz. vol. 200; p. 577.

Berry & Co., C., Boston, Mass. Whisky. No. 95,978; Mar. 31; Gaz. vol. 200; p. 1385.

Best-Clymer Mfg. Co., St. Louis, Mo. Mince-pie filling, fruit preserves and jelly, and apple-butter. No. 95,872; Mar. 24; Gaz. vol. 200; p. 1109.

Best & Company, New York, N. Y. Leather shoes. No. 95,873; Mar. 24; Gaz. vol. 200; p. 1109.

Bishoff, L. H., Braddock, Pa. Coffee. No. 95,874; Mar. 24; Gaz. vol. 200; p. 1109.

Blodgett Milling Co., The, Janesville, Wis. Buckwheat-flour. No. 95,876; Mar. 24; Gaz. vol. 200; p. 1109.

Boa-Lie Gesellschaft mit beschränkter Haftung, Charlottenburg, Germany. Lemonade, limeade, orangeade, cherryade, &c. No. 95,877; Mar. 24; Gaz. vol. 200; p. 1109.

Bogert & Greenbank, New York, N. Y. Wheat-flour. No. 95,878; Mar. 24; Gaz. vol. 200; p. 1109.

Bonney Vise & Tool Works, Inc., Philadelphia and Allentown, Pa., and New York, N. Y. Certain named cement-working tools. No. 95,737; Mar. 10; Gaz. vol. 200; p. 577.

Bormann, May, New York, N. Y. Hosiery. No. 95,882; Mar. 24; Gaz. vol. 200; p. 1109.

Borwick, Cruger H., New York, N. Y. Shampoo preparation, toilet powders and creams. No. 95,981; Mar. 31; Gaz. vol. 200; p. 1385.

Boy Scouts of America, New York, N. Y. Articles of clothing. No. 95,883; Mar. 24; Gaz. vol. 200; p. 1109.

Bradley Candy Co., Marshfield, Oreg. Candy. No. 95,700; Mar. 3; Gaz. vol. 200; p. 276.

Bremner Bros., Chicago, Ill. Cakes, wafers, and biscuits. No. 95,594; Mar. 3; Gaz. vol. 200; p. 273.

Brill, Aron, New York, N. Y. Embroideries and pillow-tops. No. 95,818; Mar. 17; Gaz. vol. 200; p. 853.

Brown Shoe Company, Inc., St. Louis, Mo. Leather shoes. No. 95,884; Mar. 24; Gaz. vol. 200; p. 1109.

Browning, George M., New York, N. Y. Elastic transparent sheet material. No. 95,595; Mar. 3; Gaz. vol. 200; p. 273.

Bruaw, Harry, Harrisburg, Pa. Paint and varnish cleanser and varnish-restorer. No. 95,738; Mar. 10; Gaz. vol. 200; p. 577.

Brunier, Charles H., Baltimore, Md. Composition of cotton-seed oil, oleo-stearin, and pure lard. No. 95,885; Mar. 24; Gaz. vol. 200; p. 1109.

Bruns, William, Columbia, Pa. Thermometers. No. 95,984; Mar. 31; Gaz. vol. 200; p. 1385.

Budd, Henry A., New York, N. Y. Certain named clothing. No. 95,739; Mar. 10; Gaz. vol. 200; p. 577.

Buegeleisen, Samuel, New York, N. Y. Certain named musical instruments and parts therefor. No. 95,701; Mar. 3; Gaz. vol. 200; p. 276.

C. E. Wheelock & Co., Peoria, Ill. Enameled ware. No. 96,073; Mar. 31; Gaz. vol. 200; p. 1388.

C. F. Blanke Tea & Coffee Company, St. Louis, Mo. Spices. No. 95,875; Mar. 24; Gaz. vol. 200; p. 1109.

Cabell Company, The, Baltimore, Md. Egg substitute. No. 95,886; Mar. 24; Gaz. vol. 200; p. 1109.

Cahill, Swift Mfg. Co., St. Louis, Mo. Water-closets, bath-tubs, sinks, lavatories, showers, washstands. No. 95,887; Mar. 24; Gaz. vol. 200; p. 1109.

Caird, Robert A., Chicago, Ill., assignor to National Belting Company, Elyria, Ohio. Belts and belting. No. 95,596; Mar. 3; Gaz. vol. 200; p. 273.

Calculagraph Company, New York, N. Y. Time-printing machines and parts therefor. No. 95,597; Mar. 3; Gaz. vol. 200; p. 273.

Camp Fire Girls, New York, N. Y. Blouses, knickerbockers, bloomers, skirts, hats, &c. No. 95,740; Mar. 10; Gaz. vol. 200; p. 577.

Campbell Printing Press & Manufacturing Company, The, New York, N. Y., assignor to Autoplate Company of America, Jersey City, N. J. Machinery for drying curved stereotype printing-plates. No. 95,985; Mar. 31; Gaz. vol. 200; p. 1385.

Canfield Rubber Company, The, Bridgeport, Conn. Dress-shields. No. 95,741; Mar. 10; Gaz. vol. 200; p. 577.
Canfield Rubber Company, The, Bridgeport, Conn. Dress-shields. No. 95,986; Mar. 31; Gaz. vol. 200; p. 1385.
Cangiano, Gennaro, New York, N. Y. Cigars. No. 95,987; Mar. 31; Gaz. vol. 200; p. 1385.
Capewell Horse Nail Company, The, Hartford, Conn. Horse-nails. No. 95,819; Mar. 17; Gaz. vol. 200; p. 853.
Capper, Arthur, Topeka, Kans. Magazine published semi-monthly. No. 95,598; Mar. 3; Gaz. vol. 200; p. 273.
Carbondale Knitting Mills, Carbondale, Pa. Overcoats, short coats, Norfolk jackets, trousers, &c. No. 95,742; Mar. 10; Gaz. vol. 200; p. 577.
Cataract Refining and Manufacturing Company, Buffalo, N. Y. Lubricants, oils, and greases. No. 95,988; Mar. 31; Gaz. vol. 200; p. 1385.
Cattaraugus Cutlery Co., Little Valley, N. Y. Razors. No. 95,599; Mar. 3; Gaz. vol. 200; p. 273.
Causeway Rice Co., The, Houston, Tex. Food composed of rice. No. 95,888; Mar. 24; Gaz. vol. 200; p. 1109.
Central Fruit Co., South Lake Weir, Fla. Certain named citrus fruits. No. 95,600; Mar. 3; Gaz. vol. 200; p. 273.
Ceramic Art Association, Los Angeles, Cal. Pottery, earthenware, and earthenware and pottery vases. No. 95,889; Mar. 24; Gaz. vol. 200; p. 1110.
Chappell, Allen & Co., Limited, Redfield, Bristol, England. Corsets. No. 95,743; Mar. 10; Gaz. vol. 200; p. 577.
Chase & Company, L. C., Boston, Mass. Waterproof textile fabric. No. 95,744; Mar. 10; Gaz. vol. 200; p. 577.
Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Paints for retouching and coloring photographic pictures. No. 95,989; Mar. 31; Gaz. vol. 200; p. 1385.
Chevrolet Motor Company, Flint, Mich. Automobiles, motor-vehicles, and parts thereof. No. 95,990; Mar. 31; Gaz. vol. 200; p. 1385.
Chippewa Shoe Manufacturing Company, Chippewa Falls, Wis. Leather boots and shoes. No. 95,601; Mar. 3; Gaz. vol. 200; p. 273.
Cinzano & Co., Francesco, Turin, Italy. Vermuth. No. 95,745; Mar. 10; Gaz. vol. 200; p. 577.
Claire Manufacturing Co., Chicago, Ill. Soap. No. 95,746; Mar. 10; Gaz. vol. 200; p. 577.
Cobb Preserving Company, Fairport and Canandaigua, N. Y. Canned fruits and vegetables. No. 95,890; Mar. 24; Gaz. vol. 200; p. 1110.
Code Portwood Canning Co., Oakland, Cal. Canned fruits and vegetables. No. 95,602; Mar. 3; Gaz. vol. 200; p. 273.
Colgate & Co., New York, N. Y. Soaps and soap powders. No. 95,747; Mar. 10; Gaz. vol. 200; p. 577.
Columbia Graphophone Company, Washington, D. C. Talking-machines and records. No. 95,703; Mar. 3; Gaz. vol. 200; p. 276.
Conn, Valley Manufacturing Company, The, Essex, Conn. Wood-boring bits. No. 95,603; Mar. 3; Gaz. vol. 200; p. 273.
Consolidated Grocery Company, Tampa, Jacksonville, and Pensacola, Fla. Oats. No. 95,704; Mar. 3; Gaz. vol. 200; p. 276.
Corset H Company, Worcester, Mass. Corsets, brassières, bust-supporters, and corset-waists. No. 95,748; Mar. 10; Gaz. vol. 200; p. 577.
Corson, Zella S., Chicago, Ill. Leather or cloth shoes. No. 95,749; Mar. 10; Gaz. vol. 200; p. 577.
Cowgill & Hill Milling Co., Carthage, Mo. Flour. No. 95,604; Mar. 3; Gaz. vol. 200; p. 273.
Cox, Edward W., Cleveland, Ohio. Cathartics. No. 95,750; Mar. 10; Gaz. vol. 200; p. 577.
Crowley, Charles H., New York, N. Y. Fiber forms used in embroidery. No. 95,820; Mar. 17; Gaz. vol. 200; p. 853.
Curtis Publishing Company, The, Philadelphia, Pa. Periodical. Nos. 95,991–5; Mar. 31; Gaz. vol. 200; p. 1385.
D'Hondt Manufacturing Co., Detroit, Mich. Rupture-salve. No. 95,998; Mar. 31; Gaz. vol. 200; p. 1386.
Dahlstrom Metallic Door Co., Jamestown, N. Y. Certain named metallic construction materials. No. 95,605; Mar. 3; Gaz. vol. 200; p. 273.
Davis, Frank H., Columbus, Ohio. Mattresses. No. 95,996; Mar. 31; Gaz. vol. 200; p. 1385.
Davis Milling Company, The, St. Joseph, Mo. Self-rising wheat-flour. No. 95,705; Mar. 3; Gaz. vol. 200; p. 276.
Deegan, William J., Chicago, Ill. Preparation for the growth and preservation of the hair. No. 95,706; Mar. 3; Gaz. vol. 200; p. 276.
Dennison Manufacturing Company, Boston, Mass. Mucilage, glue, sealing-wax, and paste. No. 95,751; Mar. 10; Gaz. vol. 200; p. 577.
Dermatine Manufacturing Company, a Partnership, Zanesville, Ohio. Face-powder and a liquid medicinal preparation. No. 95,997; Mar. 31; Gaz. vol. 200; p. 1385.
Diamond Expansion Bolt Co., New York, N. Y. Expansion-shields and bolts, screws, screw-anchors, &c. No. 95,999; Mar. 31; Gaz. vol. 200; p. 1386.
Distillers Coy, Ld., The, Edinburgh, Scotland. Scotch whiskies. No. 95,892; Mar. 24; Gaz. vol. 200; p. 1110.
Dolan Mercantile Company, The, Atchison, Kans. Certain named foods. No. 95,893; Mar. 24; Gaz. vol. 200; p. 1110.
Domestic Utilities Manufacturing Co., Los Angeles, Cal. Ovens. No. 96,000; Mar. 31; Gaz. vol. 200; p. 1386.
Dr. Burke's Catarrh Remedy Co., Kansas City, Mo. Catarrh remedy. No. 95,702; Mar. 3; Gaz. vol. 200; p. 276.
Drayer, John A., Clinton, Iowa. Bread. No. 95,609; Mar. 3; Gaz. vol. 200; p. 273.
Droescher, Severin R., Cranford, N. J., and New York, N. Y. Shears, scissors, razors, and pocket-knives. No. 96,001; Mar. 31; Gaz. vol. 200; p. 1386.
Dwinell-Wright Company, Boston, Mass. Coffee substitute. No. 95,707; Mar. 3; Gaz. vol. 200; p. 276.
Eberhart Pharmacal Co., Dickson, Tenn. Remedies for certain named diseases, and a liniment. No. 95,708; Mar. 3; Gaz. vol. 200; p. 276.
Eisemann & Co., E., New York, N. Y. Ostrich plumes and feathers. No. 95,821; Mar. 17; Gaz. vol. 200; p. 853.
Eisemann, Phil., Lancaster, England. Strops. No. 95,752; Mar. 10; Gaz. vol. 200; p. 577.
Eisemann, Phil., Lancaster, Pa. Razors and shears. No. 96,002; Mar. 31; Gaz. vol. 200; p. 1386.
Ekroth, Clarence V., New York, N. Y. Business-forms, menus, brochures, booklets, &c. No. 95,610; Mar. 3; Gaz. vol. 200; p. 273.
El Reno Mill & Elevator Co., El Reno, Okla. Wheat-flour. No. 95,894; Mar. 24; Gaz. vol. 200; p. 1110.
Electrose Manufacturing Company, Brooklyn, N. Y. Insulators. No. 95,822; Mar. 17; Gaz. vol. 200; p. 853.
Emery, Everett H., Lenoir City, Tenn. Penholders. No. 95,823; Mar. 17; Gaz. vol. 200; p. 853.
Enterprise Enamel Co., The, Bellaire, Ohio. Certain named enameled kitchen and household utensils. No. 95,612; Mar. 3; Gaz. vol. 200; p. 273.
Enterprise Enamel Co., The, Bellaire, Ohio. Buckets, water and dinner pails. No. 95,895; Mar. 24; Gaz. vol. 200; p. 1110.
Ernst Schliemann's Export-Ceresin-Fabrik, Gesellschaft mit beschränkter Haftung, Hamburg, Germany. Ceresin-wax. No. 95,850; Mar. 17; Gaz. vol. 200; p. 854.
Excelovalve Company, New York, N. Y. Certain valves, cocks, bowls, basins, fixtures, and bath-tubs. No. 95,613; Mar. 3; Gaz. vol. 200; p. 273.
F. G. Vogt & Sons, Inc., Philadelphia, Pa. Lard, ham, bacon, and scrapple. No. 95,723; Mar. 3; Gaz. vol. 200; p. 277.
Fensel, Harry L., Philadelphia, Pa. Mops. No. 95,896; Mar. 24; Gaz. vol. 200; p. 1110.
Federal Metallic Packing Company, Boston, Mass. Flexible metallic packing. No. 95,614; Mar. 3; Gaz. vol. 200; p. 273.
Federal Sign System (Electric), Chicago, Ill. Washing-machines. No. 96,003; Mar. 31; Gaz. vol. 200; p. 1386.
Feldenfeld Chemical Co., New York, N. Y. Driers, gloss-finishes, and cut washers for ink ingredients for printers and lithographers. No. 95,897; Mar. 24; Gaz. vol. 200; p. 1110.
Feldheim, A. & L., Barmen, Germany. Laces and ribbons. No. 95,824; Mar. 17; Gaz. vol. 200; p. 853.
Felten & Guilleaume Carlswerk Actien-Gesellschaft, Mülheim-on-the-Rhine, Germany. Certain named wire goods, plumbing-supplies, chain cables, and like hardware. No. 95,898; Mar. 24; Gaz. vol. 200; p. 1110.
Fishman & McGowan, Sidney, Nebr. Eczema-ointment. No. 95,753; Mar. 10; Gaz. vol. 200; p. 577.
Fitz Gerald, Arthur G., Haverhill, Mass. Sleds. No. 95,900; Mar. 24; Gaz. vol. 200; p. 1110.
Fleming & Co., Baltimore, Md. Canned fruits and vegetables. No. 95,015; Mar. 3; Gaz. vol. 200; p. 274.
Fontanella, Henry F., New York, N. Y. Planchette devices. No. 95,902; Mar. 24; Gaz. vol. 200; p. 1110.
Foster, William E., Somerville, Mass. Candy. No. 95,616; Mar. 3; Gaz. vol. 200; p. 274.
Fox & Co., M. Ewing, New York, N. Y. Calcimine or water-paints. No. 96,005; Mar. 31; Gaz. vol. 200; p. 1386.
Francis, G. C., Florin, Cal. Fresh grapes. No. 95,903; Mar. 24; Gaz. vol. 200; p. 1110.
Fulston Clip Co., Yonkers, N. Y., and Chicago, Ill. Clothes-marking clips. No. 96,006; Mar. 31; Gaz. vol. 200; p. 1386.
Fulton Bag & Cotton Mills, Atlanta, Ga. Deodorant. No. 95,754; Mar. 10; Gaz. vol. 200; p. 577.
Fulton Bag & Cotton Mills, Atlanta, Ga. Fireproof textiles. No. 95,755; Mar. 10; Gaz. vol. 200; p. 578.
G. Garnett & Sons, Limited, Apperley Bridge, near Bradford, England. Worsted and cotton piece goods. No. 95,826; Mar. 17; Gaz. vol. 200; p. 853.
General Electric Company, Schenectady, N. Y. Electric incandescent lamps. No. 95,827; Mar. 17; Gaz. vol. 200; p. 853.
Geo. Borgfeldt & Co., New York, N. Y. Certain named toys composed wholly or in part of pyroxylin. No. 95,879; Mar. 24; Gaz. vol. 200; p. 1109.
Geo. Borgfeldt & Co., New York, N. Y. Certain named games and toys. No. 95,880; Mar. 24; Gaz. vol. 200; p. 1109.
Geo. Borgfeldt & Co., New York, N. Y. Enameled ware. No. 95,881; Mar. 24; Gaz. vol. 200; p. 1109.
Geo. Borgfeldt & Co., New York, N. Y. China and earthenware sets for children. No. 95,979; Mar. 31; Gaz. vol. 200; p. 1385.
Geo. Borgfeldt & Co., New York, N. Y. Certain named articles composed of china or porcelain. No. 95,980; Mar. 31; Gaz. vol. 200; p. 1385.
Geo. J. Kelly Co., Haverhill and Lynn, Mass. Russia-leather shoe-polish. No. 95,766; Mar. 10; Gaz. vol. 200; p. 578.



George C. Lynch Company, New York, N. Y. Metal jardinières, vases, and ferneries. No. 95,773; Mar. 10; Gaz. vol. 200; p. 578.
George Worthington Company, The, Cleveland, Ohio. Hammocks. No. 95,970; Mar. 24; Gaz. vol. 200; p. 1112.
Gibbons, John T., New Orleans, La. Molasses feed for horses, mules, and cattle. No. 95,617; Mar. 3; Gaz. vol. 200; p. 274.
Glahn & Son, Henry von, Brooklyn, N. Y. Butter and eggs. No. 95,724; Mar. 3; Gaz. vol. 200; p. 277.
Globe Soap Company, The, Cincinnati, Ohio. Soap, soap and washing powders. Nos. 95,757–8; Mar. 10; Gaz. vol. 200; p. 578.
Goldsmith, Stern & Co., New York, N. Y. Certain articles made of gold and silver or plated with precious metal. No. 95,904; Mar. 24; Gaz. vol. 200; p. 1110.
Goldstein, Harry S., Philadelphia, Pa. Dental cream. No. 95,710; Mar. 3; Gaz. vol. 200; p. 276.
Great Western Pottery Co., The, Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Water-closet bowls. Nos. 96,007–8; Mar. 31; Gaz. vol. 200; p. 1386.
Great Western Smelting & Refining Co., Chicago, Ill. Babbitt and antifriction metals. No. 96,009; Mar. 31; Gaz. vol. 200; p. 1387.
Grondahl, Einar L., Seattle, Wash. Games. No. 95,905; Mar. 24; Gaz. vol. 200; p. 1110.
Gruensfelder, Charles W., East Peoria, Ill. Cornmeal. No. 95,906; Mar. 24; Gaz. vol. 200; p. 1110.
H. F. Barrows & Company, North Attleboro, Mass. Chains. No. 95,866; Mar. 24; Gaz. vol. 200; p. 1109.
H. P. Patents and Processes Company, Inc. (See Hochstetter, Frederick W., assignor.)
H. W. Johns-Manville Co., New York, N. Y. Coating for certain named structures and a fireproof paint. No. 95,632; Mar. 3; Gaz. vol. 200; p. 274.
H. W. Johns-Manville Co., New York, N. Y. Machinery-brake lining. No. 95,633; Mar. 3; Gaz. vol. 200; p. 274.
H. W. Johns-Manville Co., New York, N. Y. Asbestos yarn. No. 95,830; Mar. 17; Gaz. vol. 200; p. 853.
H. W. Johns-Manville Co., New York, N. Y. Liquid composition for fireproofing canvas, cotton goods, &c. No. 95,831; Mar. 17; Gaz. vol. 200; p. 853.
Haas Brothers, New York, N. Y. Woolen dress goods. No. 95,759; Mar. 10; Gaz. vol. 200; p. 578.
Hammond, Boynton Paint & Chemical Co., assignor to Hammond Process Company, Norwich, Conn. Paints, iron oxids, varnishes, driers, and paint-oils. No. 96,010; Mar. 31; Gaz. vol. 200; p. 1386.
Hammond Process Company. (See Hammond, Boynton Paint & Chemical Co., assignor.)
Hampton, Kate P., Washington, D. C. Toys. No. 95,907; Mar. 24; Gaz. vol. 200; p. 1110.
Hanan & Son, New York, N. Y. Leather and cloth boots, shoes, and slippers. No. 96,011; Mar. 31; Gaz. vol. 200; p. 1386.
Hanley & Kinsella Coffee & Spice Company, St. Louis, Mo. Blended coffee. No. 95,908; Mar. 24; Gaz. vol. 200; p. 1110.
Hans W. Egli Ingr, Zurich, Switzerland. Adding and calculating machines. No. 95,611; Mar. 3; Gaz. vol. 200; p. 273.
Haynes Automobile Co., Kokomo, Ind. Automobiles. No. 95,909; Mar. 24; Gaz. vol. 200; p. 1110.
Heinmüller, Virgil, New York, N. Y. Aluminum telescoping cooking outfit. No. 95,618; Mar. 3; Gaz. vol. 200; p. 274.
Helburn Leather Company, Salem, Mass. Leather. No. 96,012; Mar. 31; Gaz. vol. 200; p. 1386.
Henry Disston & Sons, Incorporated, Philadelphia, Pa. Saws. No. 95,608; Mar. 3; Gaz. vol. 200; p. 273.
Hercules Powder Company, Wilmington, Del. Dynamite and gelatinous explosives, &c. Nos. 95,760–1; Mar. 10; Gaz. vol. 200; p. 578.
Herz, Alexander, New York, N. Y. Drinking straws or tubes. No. 95,619; Mar. 3; Gaz. vol. 200; p. 274.
Hibbard, Spencer, Bartlett & Co., Chicago, Ill. Nails, screws, metal pipes and valves, traps. No. 96,013; Mar. 31; Gaz. vol. 200; p. 1386.
Hicks, Edward D., Cranford, N. J., and New York, N. Y. Pencils, penholders, fountain-penholders of precious metal, and gold toothpicks. No. 95,828; Mar. 17; Gaz. vol. 200; p. 853.
High Pressure Cellular Rubber Syndicate, Limited, The, London, England. India-rubber composition. No. 95,620; Mar. 3; Gaz. vol. 200; p. 274.
Hochstetter, Frederick W., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y. Moving-picture machines and picture-films. Nos. 96,014–15; Mar. 31; Gaz. vol. 200; p. 1386.
Hodges, Mollie B., Coal Hill, Ark. Blood remedy. No. 96,016; Mar. 31; Gaz. vol. 200; p. 1386.
Hofmann, Carl, New York, N. Y. Furniture-polish. No. 95,762; Mar. 10; Gaz. vol. 200; p. 578.
Holcomb & Hoke Mfg. Co., Indianapolis, Ind. Popcorn-bags. No. 95,621; Mar. 3; Gaz. vol. 200; p. 274.
Holland Shoe Co., Holland, Mich. Leather boots and shoes and boot and shoe soles. No. 95,911; Mar. 24; Gaz. vol. 200; p. 1110.
Hollister Drug Company, Madison, Wis. Medicinal preparation for certain named diseases. No. 96,017; Mar. 31; Gaz. vol. 200; p. 1386.
Holt & Company, New York, N. Y. Wheat-flour. No. 95,622; Mar. 3; Gaz. vol. 200; p. 274.
Hotpoint Electric Heating Company, Ontario, Cal. Certain named electrically heating, heated, cooking utensils and the like. No. 95,624; Mar. 3; Gaz. vol. 200; p. 274.
Hustisford Canning Co., Hustisford, Wis. Canned vegetables. No. 95,912; Mar. 24; Gaz. vol. 200; p. 1110.
Hyatt Roller Bearing Co., Harrison, N. J. Roller-bearings and parts thereof. No. 95,625; Mar. 3; Gaz. vol. 200; p. 274.
Imperial Merchandise Co., The, Perry, Ohio. Toilet-paper. No. 95,913; Mar. 24; Gaz. vol. 200; p. 1110.
Indian Head Coal & Mining Company, Connellsville, Pa. Coal. No. 95,626; Mar. 3; Gaz. vol. 200; p. 274.
Ingersoll-Rand Company, Jersey City, N. J., and New York, N. Y. Fluid-operated hammer-drills. No. 95,627; Mar. 3; Gaz. vol. 200; p. 274.
Innovation Shirt Company, New York, N. Y. Certain named clothing. No. 95,914; Mar. 24; Gaz. vol. 200; p. 1110.
Ino Manufacturing Company, Nashville, Tenn. Compounds for cleansing the hands and clothing. No. 95,763; Mar. 10; Gaz. vol. 200; p. 578.
International Harvester Company of New Jersey, Chicago, Ill. Certain named machines and separate parts therefor. No. 95,764; Mar. 10; Gaz. vol. 200; p. 578.
International Harvester Company of New Jersey, Chicago, Ill. Harrows and parts thereof. No. 96,022; Mar. 31; Gaz. vol. 200; p. 1386.
International Harvester Company of New Jersey, Chicago, Ill. Grain-drills and parts thereof. No. 96,023; Mar. 31; Gaz. vol. 200; p. 1386.
International Harvester Company of New Jersey, Chicago, Ill. Harrows and parts thereof. No. 96,024; Mar. 31; Gaz. vol. 200; p. 1386.
International Harvester Corporation, Chicago, Ill. Tractors and parts thereof. No. 95,628; Mar. 3; Gaz. vol. 200; p. 274.
International Harvester Corporation, Chicago, Ill. Internal-combustion engines and parts thereof. Nos. 96,018–19; Mar. 31; Gaz. vol. 200; p. 1386.
International Harvester Corporation, Chicago, Ill. Cream-separators and parts thereof. No. 96,020; Mar. 31; Gaz. vol. 200; p. 1386.
International Harvester Corporation, Chicago, Ill. Seed-planters and parts thereof. No. 96,021; Mar. 31; Gaz. vol. 200; p. 1386.
Internationale Galalith-Gesellschaft Hoff & Co., Harburg-on-the-Elbe, Germany. Artificial horn made from casein. No. 95,629; Mar. 3; Gaz. vol. 200; p. 274.
Internationale Galalith-Gesellschaft Hoff & Co., Harburg-on-the-Elbe, Germany. Technical casein. Nos. 95,630–1; Mar. 3; Gaz. vol. 200; p. 274.
Ives, Fannie L., Meriden, Conn. Vegetable pickles, condiments, and relishes. No. 95,915; Mar. 24; Gaz. vol. 200; p. 1110.
J. A. Folger & Company, San Francisco, Cal. Coffee. No. 95,901; Mar. 24; Gaz. vol. 200; p. 1110.
J. B. Williams Company, Glastonbury, Conn. Shaving and toilet soaps. No. 96,075; Mar. 31; Gaz. vol. 200; p. 1388.
J. C. Ayer Company, Lowell, Mass. Hair tonics and dressings. No. 95,729; Mar. 10; Gaz. vol. 200; p. 577.
J. D. Riedel Aktiengesellschaft, Berlin, Germany. Lecithin, a food ingredient. No. 95,944; Mar. 24; Gaz. vol. 200; p. 1111.
J. E. Baker Co., York, Pa. Lining material for furnaces, &c. No. 95,731; Mar. 10; Gaz. vol. 200; p. 577.
J. H. Williams & Co., New York, N. Y. Certain named machine-tools, machine-tool attachments, and tools. No. 96,074; Mar. 31; Gaz. vol. 200; p. 1388.
J. K. Armsby Co., Chicago, Ill., and San Francisco, Cal. Canned fruits and vegetables and dried fruits. No. 95,974; Mar. 31; Gaz. vol. 200; p. 1385.
J. L. Hopkins & Co., New York, N. Y. Soaps. No. 95,623; Mar. 3; Gaz. vol. 200; p. 274.
J. R. Richardson Company, Wilmington, Del. Coffee. No. 95,718; Mar. 3; Gaz. vol. 200; p. 276.
Jaburg Brothers, New York, N. Y. Noodles. No. 95,916; Mar. 24; Gaz. vol. 200; p. 1110.
Jacobs' Pharmacy Company, Atlanta, Ga. Medicine for removing corns. No. 95,765; Mar. 10; Gaz. vol. 200; p. 578.
James S. Kirk & Company, Chicago, Ill. Cologne. No. 96,025; Mar. 31; Gaz. vol. 200; p. 1386.
Jamieson & Co., Alexander, New York, N. Y. Madras muslins, lace and drapery fabrics, and cotton goods. No. 95,829; Mar. 17; Gaz. vol. 200; p. 853.
John J. Fulton Company, Pierre, S. D., and San Francisco, Cal. Medicinal preparations. No. 95,709; Mar. 3; Gaz. vol. 200; p. 276.
John Mares Limited, Basingstoke, England. Certain named clothing for gentlemen, ladies, girls, and boys. No. 95,774; Mar. 10; Gaz. vol. 200; p. 578.
John Wanamaker, Philadelphia, Philadelphia, Pa. Gloves. No. 95,856; Mar. 17; Gaz. vol. 200; p. 854.
John Wanamaker, New York, New York, N. Y. Corsets. No. 95,965; Mar. 24; Gaz. vol. 200; p. 1112.
Jones Agency Company, The, Denver, Colo. Paper, blank books, printed forms, and stationery. No. 95,634; Mar. 3; Gaz. vol. 200; p. 274.
Jones, James T. L., Baltimore, Md. Tea. No. 95,917; Mar. 24; Gaz. vol. 200; p. 1110.

Kabushiki-Kaisha Shibaura Seisakujo, Tokyo, Japan. Certain named electric generators and transformers, motors, switchboards, fuses, &c. No. 95,918; Mar. 24; Gaz. vol. 200; p. 1110.

Kahl, J. Arnold, New York, N. Y. Linen, cotton, silk, woolen, &c., piece goods. No. 95,832; Mar. 17; Gaz. vol. 200; p. 853.

Kendrick Warehouse & Milling Co., Lewiston, Idaho. Dry beans. No. 95,635; Mar. 3; Gaz. vol. 200; p. 274.

Kerner, Rose, New York, N. Y. Corsets. No. 95,707; Mar. 10; Gaz. vol. 200; p. 578.

Klimax Manufacturing Company, Chicago, Ill. Meat-cutters. No. 95,636; Mar. 3; Gaz. vol. 200; p. 274.

Krakauer, Zork & Moyes Sucs. Inc., El Paso, Tex. Certain named cutlery, tools, and agricultural forks. No. 95,768; Mar. 10; Gaz. vol. 200; p. 578.

Kronheim, Milton S., Washington, D. C. Gin compound. No. 95,770; Mar. 10; Gaz. vol. 200; p. 578.

La Porte Mat & Mfg. Co., Laporte, Ind. Metal mats and matting. No. 95,771; Mar. 10; Gaz. vol. 200; p. 578.

Lambertville Rubber Company, Lambertville, N. J. Rubber boots and shoes. No. 95,834; Mar. 17; Gaz. vol. 200; p. 853.

Lamson Company, The, Boston, Mass. Conveying and transmission apparatus. No. 95,637; Mar. 3; Gaz. vol. 200; p. 274.

Lautz Bros. & Co., Buffalo, N Y. Soap. No. 95,638; Mar. 3; Gaz. vol. 200; p. 274.

Le Doyen, Frank J., Baltimore, Md. Cleaning and whitening and color-restoring preparations for shoes, gloves, &c. No. 95,772; Mar. 10; Gaz. vol. 200; p. 578.

Lehman-Rosenfeld Co., The, Cincinnati, Ohio. Flavoring extract for non-alcoholic beverages and a tonic beverage. No. 95,920; Mar. 24; Gaz. vol. 200; p. 1110.

London Film Company, The, Limited, Piccadilly, London, England. Films for kinematographs. No. 96,026; Mar. 31; Gaz. vol. 200; p. 1386.

Louis Barnett Sons Inc., New York, N. Y. Ladies' outer suits, coats, and skirts. No. 95,733; Mar. 10; Gaz. vol. 200; p. 577.

Louisville Paint Mfg. Co., Louisville, Ky. Paints. No. 95,639; Mar. 3; Gaz. vol. 200; p. 274.

Ludlow-Saylor Wire Company, The, St. Louis, Mo. Wire-cloth. No. 95,640; Mar. 3; Gaz. vol. 200; p. 274.

Lyon, Etta, Montclair, N. J. Dolls and dolls' clothes. No. 95,921; Mar. 24; Gaz. vol. 200; p. 1110.

Lyon & Healy, Chicago, Ill. Perforated music-rolls. No. 95,712; Mar. 3; Gaz. vol. 200; p. 276.

M. A. Packard Co., Brockton, Mass. Leather boots and shoes. No. 95,780; Mar. 10; Gaz. vol. 200; p. 578.

Magadi Soda Company, The, Limited, London, England. Alkalis used in manufactures. No. 96,027; Mar. 31; Gaz. vol. 200; p. 1386.

Mariani Bro's., New York, N. Y. Cordials. No. 95,641; Mar. 3; Gaz. vol. 200; p. 274.

Marshall Field & Company, Chicago, Ill. Garment-shields. No. 95,825; Mar. 17; Gaz. vol. 200; p. 853.

Marshall Field & Company, Chicago, Ill. Hosiery. No. 95,899; Mar. 24; Gaz. vol. 200; p. 1110.

Marshall Field & Company, Chicago, Ill. Hosiery. No. 96,004; Mar. 31; Gaz. vol. 200; p. 1386.

Marukin-Shoyu-Kabushiki-Kwaisha, Nobamura, Shozu-gun, Kagawa-Ken, Japan. Soy. No. 95,642; Mar. 3; Gaz. vol. 200; p. 274.

Mason Fence Company, The, Leesburg, Ohio. Wire grips and stretchers and woven-wire stretchers. No. 96,028; Mar. 31; Gaz. vol. 200; p. 1386.

Maurine Company, Portland, Oreg. Face and massage creams, face-lotion, rouge, and hair-tonic. No. 95,922; Mar. 24; Gaz. vol. 200; p. 1110.

Mayflower Mills, Fort Wayne, Ind. Wheat-flour. No. 95,643; Mar. 3; Gaz. vol. 200; p. 274.

McBurney, William F., Los Angeles, Cal. Preparations for the treatment of coughs, rheumatism, &c. No. 96,029; Mar. 31; Gaz. vol. 200; p. 1387.

McCann, William, Minneapolis, Minn. Metal-polish. No. 95,644; Mar. 3; Gaz. vol. 200; p. 274.

McCormick & Co., Baltimore, Md. Table relishes and salad-dressings. No. 95,645; Mar. 3; Gaz. vol. 200; p. 274.

McFerran, Frank L., Syracuse, N. Y. White-kid-glove cleaner. No. 95,646; Mar. 3; Gaz. vol. 200; p. 274.

McNutt Non-Explosive Can Co., New York, N. Y. Safety-containers for explosive and inflammable fluids. No. 95,647; Mar. 3; Gaz. vol. 200; p. 274.

Meyer, Arnold O., Hamburg, Germany. Certain named hardware and plumbing supplies. No. 95,836; Mar. 17; Gaz. vol. 200; p. 853.

Meyer, John C., Lowell, Mass. Thread. Nos. 95,837–8; Mar. 17; Gaz. vol. 200; p. 853.

Meyer & Sons, F., Brooklyn, N. Y. Hosiery and underwear. No. 95,775; Mar. 10; Gaz. vol. 200; p. 578.

Mittell, Mary A., New York, N. Y. Taffy candy. No. 95,923; Mar. 24; Gaz. vol. 200; p. 1110.

Mohawk Condensed Milk Co., Rochester, N. Y. Condensed milk. No. 96,030; Mar. 31; Gaz. vol. 200; p. 1387.

Monolithic Silo & Construction Company, Wilmington, Del., and Chicago, Ill. Molds and mold-clamps, scaffolds, hoists, and clamps. No. 95,776; Mar. 10; Gaz. vol. 200; p. 578.

Monongahela Tube Company, Pittsburgh, Pa. Certain tubes, pipes, tubing, and castings of wrought-iron. No. 96,031; Mar. 31; Gaz. vol. 200; p. 1387.

Montebello & Co., Alfred de, Mareuil-sur-Ay, France. Champagne-wine. No. 95,839; Mar. 17; Gaz. vol. 200; p. 853.

Morales Márquez, Andrés, Malaga, Spain. Brandies and liquors. No. 95,835; Mar. 17; Gaz. vol. 200; p. 853.

Morrow Chemical Company, Platteville, Wis. Remedy for removing superfluous hair. No. 95,840; Mar. 17; Gaz. vol. 200; p. 853.

Motor and Gear Improvement Company, Wilmington, Del., and New York, N. Y. Transmission-gearing. No. 95,648; Mar. 3; Gaz. vol. 200; p. 274.

Moulton, William C., Millbury, Mass. Medicinal tablets. No. 96,032; Mar. 31; Gaz. vol. 200; p. 1387.

Mulconroy Company, Philadelphia, Pa. Flexible-armor hose, asbestos packing, and certain named rubber goods. No. 96,033; Mar. 31; Gaz. vol. 200; p. 1387.

Mullins, Henry A., New York, N. Y. Preparation for the treatment of chronic constipation. No. 95,841; Mar. 17; Gaz. vol. 200; p. 853.

Musicians Supply Company, Boston, Mass. Musical instruments and supplies for same. No. 95,842; Mar. 17; Gaz. vol. 200; p. 853.

Narragansett Machine Co., Pawtucket, R. I. Drill-chucks. No. 95,843; Mar. 17; Gaz. vol. 200; p. 853.

National Belting Company. (See Caird, Robert A., assignor.)

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 95,713; Mar. 3; Gaz. vol. 200; p. 276.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 95,924–31; Mar. 24; Gaz. vol. 200; p. 1111.

National Callophone Co., The, San Francisco, Cal. Device having for its object a loud-speaking telephone system. No. 95,844; Mar. 17; Gaz. vol. 200; p. 853.

National Pharmacy Co., Oakland, Cal. Face-cream. No. 95,777; Mar. 10; Gaz. vol. 200; p. 578.

Neely, Harwell & Co., Nashville, Tenn. Work-shirts, overalls, textile jackets and jumpers. No. 95,932; Mar. 24; Gaz. vol. 200; p. 1111.

Neptune Packing Co., Boothbay Harbor, Me. Smoked fish. No. 95,649; Mar. 3; Gaz. vol. 200; p. 274.

Newark Go-Cart Manufacturing Co., Newark, N. J. Baby-carriages. No. 95,933; Mar. 24; Gaz. vol. 200; p. 1111.

Newmark, John T., Chicago, Ill. Men's hats and caps. No. 95,778; Mar. 10; Gaz. vol. 200; p. 578.

North Ontario Packing Company, Los Angeles, Cal. Dried fruits and raisins. Nos. 95,934–5; Mar. 24; Gaz. vol. 200; p. 1111.

Northwestern Fruit Exchange, Portland, Oreg. Fresh fruits. No. 95,650; Mar. 3; Gaz. vol. 200; p. 275.

O-White-O Cleaner Company, Akron, Ohio. Powder preparation for cleaning white shoes. No. 95,652; Mar. 3; Gaz. vol. 200; p. 275.

Ohio Dairy Company, The, Toledo, Ohio. Ice-cream. No. 95,936; Mar. 24; Gaz. vol. 200; p. 1111.

Onalaska Pickle & Canning Co., Onalaska, Wis. Canned vegetables. No. 95,937; Mar. 24; Gaz. vol. 200; p. 1111.

Opera, The, Inc., New York, N. Y. Weekly publication. No. 95,651; Mar. 3; Gaz. vol. 200; p. 275.

Otis & Company, Cleveland, Ohio. Monthly periodical publications. No. 96,034; Mar. 31; Gaz. vol. 200; p. 1387.

Oxweld Acetylene Company. (See Acetylene Apparatus Manufacturing Company, assignor.)

Oxweld Acetylene Company, Chicago, Ill. Gas-generators, acetylene blowpipes and cutting-torches. No. 95,653; Mar. 3; Gaz. vol. 200; p. 275.

Oxypanthor Co., The, Buffalo, N. Y. Certain named pharmaceutical preparations. No. 95,714; Mar. 3; Gaz. vol. 200; p. 276.

Ozmun, Nancy L., Cleveland, Ohio. Hair-curlers. No. 95,845; Mar. 17; Gaz. vol. 200; p. 853.

P. Hohenadel Jr. Canning Co., Rochelle, Ill. Canned corn and peas. No. 95,910; Mar. 24; Gaz. vol. 200; p. 1110.

Pacific Fisheries & Packing Company, Aberdeen, Wash. Canned salmon. No. 95,654; Mar. 3; Gaz. vol. 200; p. 275.

Pacific Novelty Company, New York, N. Y. Hair-pins made of celluloid and horn. No. 95,779; Mar. 10; Gaz. vol. 200; p. 578.

Pacific Novelty Company, New York, N. Y. Hair-pins. No. 95,846; Mar. 17; Gaz. vol. 200; p. 853.

Packard Motor Car Company, Detroit, Mich. Lubricating-oil. No. 95,655; Mar. 3; Gaz. vol. 200; p. 275.

Panama Banana Food Company, New York, N. Y. Coffee substitute. No. 95,715; Mar. 3; Gaz. vol. 200; p. 276.

Paris, Charles T., Chattanooga, Tenn. Coffee. No. 96,035; Mar. 31; Gaz. vol. 200; p. 1387.

Parker, Donald, New Woodstock, N. Y. Medicines and medical preparations. No. 96,036; Mar. 31; Gaz. vol. 200; p. 1387.

Paul F. Beich Company, Bloomington, Ill. Candy. No. 95,868; Mar. 24; Gaz. vol. 200; p. 1109.

Pavelkovitz, Julia, Chico, Cal. Hair-restorer. No. 95,716; Mar. 3; Gaz. vol. 200; p. 276.

Peck, John W., London, England. Certain mixture used in manufacturing surgical splints and medical appliances. No. 95,781; Mar. 10; Gaz. vol. 200; p. 578.

Petterson, Lars M., Worcester, Mass. Preparation for making non-alcoholic beverages and root-beer. No. 95,938; Mar. 24; Gaz. vol. 200; p. 1111.



Philadelphia School for Nurses, Philadelphia, Pa. Printed books, booklets, pamphlets, and prints. No. 96,037; Mar. 31; Gaz. vol. 200; p. 1387.

Phillips, John A., New York, N. Y. Card games. No. 95,939; Mar. 24; Gaz. vol. 200; p. 1111.

Phoenix Glass Co., The, Pittsburgh, Pa. Lighting units for semi-indirect lighting. No. 95,656; Mar. 3; Gaz. vol. 200; p. 275.

Piel Company, The, G., New York and Long Island City, N. Y. Muffler cut-outs, flexible shafts for machines, and carbureters. No. 95,847; Mar. 17; Gaz. vol. 200; p. 853.

Pieser-Livingston Co., The, Chicago, Ill. Gluten flour, noodles, meal, and bread. No. 95,940; Mar. 24; Gaz. vol. 200; p. 1111.

Pineoleum Company, The, New York, N. Y. Liquid oil preparation for the relief of certain ailments. No. 96,038; Mar. 31; Gaz. vol. 200; p. 1387.

Pioneer Shoe & Rubber Company, Minneapolis, Minn. Leather boot-tops. No. 95,941; Mar. 24; Gaz. vol. 200; p. 1111.

Pirrung Manufacturing Company, Chicago, Ill. Mops. No. 96,039; Mar. 31; Gaz. vol. 200; p. 1387.

Pittsburgh Brewing Company, Pittsburgh, Pa. Beer. No. 95,657; Mar. 3; Gaz. vol. 200; p. 275.

Planert & Sons, F. W., Chicago, Ill. Ice-skates. No. 95,942; Mar. 24; Gaz. vol. 200; p. 1111.

Platt, Mary E., New York, N. Y. Liquid disinfectant. No. 96,040; Mar. 31; Gaz. vol. 200; p. 1387.

Plymouth Coal and Mining Co., Plymouth, W. Va. Coal. No. 95,658; Mar. 3; Gaz. vol. 200; p. 275.

Potvin, Arthur J., Minneapolis, Minn. Corn-shields. No. 95,659; Mar. 3; Gaz. vol. 200; p. 275.

Prée, August, Dresden, Germany. Paint for certain named materials and paste, preventing rust, and varnish. No. 95,782; Mar. 10; Gaz. vol. 200; p. 578.

Pride of the Kitchen Company, New York, N. Y. Washing and scouring soaps and powders. No. 95,660; Mar. 3; Gaz. vol. 200; p. 275.

Procter & Gamble Company, The, Cincinnati and Ivorydale, Ohio, and Macon, Ga. Laundry soap. Nos. 96,041–2; Mar. 31; Gaz. vol. 200; p. 1387.

Providol Gesellschaft mit beschränkter Haftung, Berlin, Germany. Medicinal and toilet soap. No. 96,043; Mar. 31; Gaz. vol. 200; p. 1387.

R. M. Rose Company, Chattanooga, Tenn. Gin. No. 96,046; Mar. 31; Gaz. vol. 200; p. 1387.

R. M. Rose Company, Chattanooga, Tenn. Whisky. No. 96,047; Mar. 31; Gaz. vol. 200; p. 1387.

Rajah Auto Supply Company, Bloomfield, N. J. Spark-plug insulators. No. 95,661; Mar. 3; Gaz. vol. 200; p. 275.

Raymond Porch Shade Company, Richmond, Ind. Porch and window shades and furniture-screens. No. 95,662; Mar. 3; Gaz. vol. 200; p. 275.

Regal Shoe Company, Boston, Mass. Shoe buttoners and horns. No. 95,663; Mar. 3; Gaz. vol. 200; p. 275.

Regal Shoe Company, Boston, Mass. Shoe-lacings. No. 95,664; Mar. 3; Gaz. vol. 200; p. 275.

Reilly, James W., Buffalo, N. Y. Metal plate for the relief of asthma. No. 95,665; Mar. 3; Gaz. vol. 200; p. 275.

Reproduction Co., The, New York, N. Y. Felt pennants. No. 95,666; Mar. 3; Gaz. vol. 200; p. 275.

Reynolds, Harrie N., New York, N. Y. Germicide for the digestive tracts. No. 95,717; Mar. 3; Gaz. vol. 200; p. 276.

Reynolds, James N., Lindsay, Cal. Citrus fruits. No. 95,943; Mar. 24; Gaz. vol. 200; p. 1111.

Rhoades, William R., Cement, Okla. Preparation for the treatment of rheumatism. No. 95,783; Mar. 10; Gaz. vol. 200; p. 578.

Rhoads & Sons, J. E., Philadelphia, Pa., and Wilmington, Del. Certain belting, cord, and lacing. No. 95,667; Mar. 3; Gaz. vol. 200; p. 275.

Rindskopf, Henry P., New York, N. Y. Diapers and infants' pants of waterproof fabric. No. 95,848; Mar. 17; Gaz. vol. 200; p. 854.

Robinson, James S., Memphis, Tenn. Prepared food for infants. No. 95,945; Mar. 24; Gaz. vol. 200; p. 1111.

Rose, Randolph, Chattanooga, Tenn. Port and sherry wine and rose-vin. No. 96,044; Mar. 31; Gaz. vol. 200; p. 1387.

Rose, Randolph, Chattanooga, Tenn. Sherry, port, and dessert wines. No. 96,045; Mar. 31; Gaz. vol. 200; p. 1387.

Rosenberg, Gus. L., New York, N. Y. Woolen and worsted serges in the piece. No. 95,849; Mar. 17; Gaz. vol. 200; p. 854.

Rossendale-Reddaway Belting & Hose Co., Newark, N. J. Woven-hair driving-belts. Nos. 96,048–9; Mar. 31; Gaz. vol. 200; p. 1387.

Rusch & Co., New York, N. Y. Velvet ribbon. No. 95,785; Mar. 10; Gaz. vol. 200; p. 578.

S. & A. Manufacturing Co., Boston, Mass. Automobile kit-tools, wrenches, and screw-drivers. No. 95,668; Mar. 3; Gaz. vol. 200; p. 275.

Sadi, Reshid, New York, N. Y. Cigarettes, cigars, tobacco, cheroots, and stogies. No. 96,050; Mar. 31; Gaz. vol. 200; p. 1387.

San Francisco Salt Refinery, San Francisco, Cal. Table-salt. Nos. 95,786–7; Mar. 10; Gaz. vol. 200; p. 578.

Sanford Riley Stoker Co., Ltd., Worcester, Mass. Underfeed stokers. No. 95,784; Mar. 10; Gaz. vol. 200; p. 578.

"Sanitas" Co. (U. S. A.). (See "Sanitas" Company, Limited, assignor.)

"Sanitas" Company, Limited, London, England, assignor to "Sanitas" Co. (U. S. A.), Jersey City, N. J. Soap and soap powder. No. 96,051; Mar. 31; Gaz. vol. 200; p. 1387.

Sargeant, Mortimer W., East Orange, N. J. Ointment for corns and callouses. No. 95,788; Mar. 10; Gaz. vol. 200; p. 579.

Sarrazin, Jules J., New Orleans, La. Dental flosses and tapes and tongue-cleansers. No. 95,669; Mar. 3; Gaz. vol. 200; p. 275.

Sasso & Sons, G., Brooklyn, N. Y. Olive-oil. No. 95,946; Mar. 24; Gaz. vol. 200; p. 1111.

Schmitt Brothers Tobacco Works, Milwaukee, Wis. Long-cut tobacco for both smoking and chewing. No. 95,670; Mar. 3; Gaz. vol. 200; p. 275.

Schoen, Emil, Philadelphia, Pa. Noodles. No. 96,052; Mar. 31; Gaz. vol. 200; p. 1387.

Schroeder Lamp Works, Edward, Jersey City, N. J. Electric-lighting fixtures. No. 95,671; Mar. 3; Gaz. vol. 200; p. 275.

Schwabacher Hardware Co., Seattle, Wash. Fishing-spoons. No. 96,053; Mar. 31; Gaz. vol. 200; p. 1387.

Seaman, David J., Milwaukee, Wis. Printing-forms. No. 96,054; Mar. 31; Gaz. vol. 200; p. 1387.

Searles, Orren I., Joplin, Mo. Homeopathic medicines. No. 95,851; Mar. 17; Gaz. vol. 200; p. 854.

Sentney Wholesale Grocery Co., Hutchinson, Kans. Certain named foods. No. 95,947; Mar. 24; Gaz. vol. 200; p. 1111.

Seymoure, Horace A., New York, N. Y. Manicuring hand polishers, buffers, and enamelers. No. 95,852; Mar. 17; Gaz. vol. 200; p. 854.

Seyrig, Emille E. A. C., Le Chesnay, France. Laces. No. 95,672; Mar. 3; Gaz. vol. 200; p. 275.

Shaffer, Reuben H., Baldwyn, Miss. Curb, splint, bog, spavin, soreness in tendons, &c. No. 96,055; Mar. 31; Gaz. vol. 200; p. 1387.

Shaughnessy Knitting Company, Watertown, N. Y. Knitted underwear. No. 96,056; Mar. 31; Gaz. vol. 200; p. 1387.

Shawhan Distillery Company, Kansas City, Mo. Whisky. No. 95,789; Mar. 10; Gaz. vol. 200; p. 579.

Shultz Belting Co., St. Louis, Mo. Leather belting. Nos. 95,674–6; Mar. 3; Gaz. vol. 200; p. 275.

Sicre, Auguste F. J. I., Paris, France. Purgative medicine. No. 95,790; Mar. 10; Gaz. vol. 200; p. 579.

Sikes Company, The, Buffalo, N. Y., and Philadelphia, Pa. Certain named furniture. No. 95,948; Mar. 24; Gaz. vol. 200; p. 1111.

Silver-Chamberlin Co., Clayton, N. J. Dusters and mops. No. 95,949; Mar. 24; Gaz. vol. 200; p. 1111.

Slocum, Avram & Slocum, Inc., New York, N. Y. Apparatus, machines, and parts thereof for recording and indicating operations of other machines. No. 96,057; Mar. 31; Gaz. vol. 200; p. 1387.

Smith, Clarence W., New York, N. Y. Sewing silks, threads, cottons, and yarns. No. 96,058; Mar. 31; Gaz. vol. 200; p. 1387.

Société Anonyme des Anciens, Etablissements Panhard & Levassor, Paris, France. Band-saws and band-saw strips. No. 95,677; Mar. 3; Gaz. vol. 200; p. 275.

Southern Citrus Corporation, Lynchburg, Va. Citrus fruits. Nos. 95,950–1; Mar. 24; Gaz. vol. 200; p. 1111.

Southwestern Milling Company, The, Jersey City, N. J., and Kansas City, Mo. Wheat-flour. No. 95,952; Mar. 24; Gaz. vol. 200; p. 1111.

Southwestern Milling Company, The, Jersey City, N. J., and Kansas City, Mo. Wheat-flour. No. 96,059; Mar. 31; Gaz. vol. 200; p. 1387.

Spirella Company, The, Meadville, Pa. Certain named clothing for children and girls. No. 95,791; Mar. 10; Gaz. vol. 200; p. 579.

Spirella Company, The, Meadville, Pa. Certain named extenders, forms, supporters, protectors, pads, clasps, stocks, belts, and ruffles. No. 95,792; Mar. 10; Gaz. vol. 200; p. 579.

Spirella Company, The, Meadville, Pa. Certain named clothing for children and girls. No. 95,793; Mar. 10; Gaz. vol. 200; p. 579.

Spirella Company, The, Meadville, Pa. Certain named extenders, forms, supporters, protectors, pads, clasps, stocks, belts, and ruffles. No. 95,794; Mar. 10; Gaz. vol. 200; p. 597.

Spirella Company, The, Meadville, Pa. Surgical bandages, belts, and elastic or surgical stockings, abdominal belts, &c. Nos. 95,953–5; Mar. 24; Gaz. vol. 200; p. 1111.

Spratt's Patent (America) Limited, London, England, and Newark, N. J. Food preparation for poultry, &c. No. 95,956; Mar. 24; Gaz. vol. 200; p. 1111.

Spratt's Patent (America) Limited, London, England, and Newark, N. J. Food preparation for dogs, cats, poultry, &c. No. 95,957; Mar. 24; Gaz. vol. 200; p. 1111.

Standard American Home Supply Company, Wilmington, Del., and Philadelphia, Pa. Ready-mixed paints. No. 95,795; Mar. 10; Gaz. vol. 200; p. 579.

Standard Sanitary Manufacturing Company. (See Great Western Pottery Co., The, assignor.)

Star Company, New York, N. Y. Newspaper-section published periodically. No. 95,678; Mar. 3; Gaz. vol. 200; p. 275.

Stephen F. Whitman & Son., Inc., Philadelphia, Pa. Candy confections. Nos. 95,968–9; Mar. 24; Gaz. vol. 200; p. 1112.
Stern Brothers, New York, N. Y. Hosiery. No. 95,796; Mar. 10; Gaz. vol. 200; p. 579.
Stewart Fruit Company, Los Angeles and San Francisco, Cal. Certain named fresh fruits. No. 95,958; Mar. 24; Gaz. vol. 200; p. 1112.
Stewart, John H., Dundee, Scotland. Blended whisky. No. 95,959; Mar. 24; Gaz. vol. 200; p. 1112.
Strohmeyer & Arpe Company, New York, N. Y. Cigars, cigarettes, and manufactured tobaccos. No. 95,679; Mar. 3; Gaz. vol. 200; p. 275.
Superior Peanut Company, Cleveland, Ohio. Salted peanuts. No. 95,680; Mar. 3; Gaz. vol. 200; p. 275.
Susskind & Co., J. N., Philadelphia, Pa. Caps. No. 95,797; Mar. 10; Gaz. vol. 200; p. 579.
Terranova-Industrie C. A. Kapferer & Co., Freihung, Germany. Certain named materials for artificial-stone work. No. 95,681; Mar. 3; Gaz. vol. 200; p. 275.
Thermoid Rubber Company, Hamilton township, Mercer county, N. J. Rubber automobile tires and inner tubes. No. 96,060; Mar. 31; Gaz. vol. 200; p. 1387.
Thompson, Girard E., Chatham, Va. Liver-pills. No. 95,798; Mar. 10; Gaz. vol. 200; p. 579.
Thornhill, Elbridge C., Hutchinson, Kans. Stock food. No. 95,960; Mar. 24; Gaz. vol. 200; p. 1112.
Thornton & Chester Milling Co., Buffalo, N. Y. Wheat-flour. No. 95,961; Mar. 24; Gaz. vol. 200; p. 1112.
Thüringische Nadel- & Stahlwaren-Fabrik Wolff, Knippenberg & Co. Actien-Gesellschaft, Ichtershausen, Germany. Sewing and crochet needles, safety-pins, and hair-pins. No. 95,799; Mar. 10; Gaz. vol. 200; p. 579.
Thüringische Nadel- & Stahlwaren-Fabrik Wolff, Knippenberg & Co. Actien-Gesellschaft, Ichtershausen, Germany. Sewing and crochet needles, safety and hair pins. No. 95,853; Mar. 17; Gaz. vol. 200; p. 854.
Tokalon, Incorporated, New York, N. Y. Perfumery. Nos. 95,800–4; Mar. 10; Gaz. vol. 200; p. 579.
Tokalon, Incorporated, New York, N. Y. Perfumery. No. 95,854; Mar. 17; Gaz. vol. 200; p. 854.
Townsend & Co., E. M., New York, N. Y. Hosiery and knitted underwear. No. 95,805; Mar. 10; Gaz. vol. 200; p. 579.
Truax & Company, C. C., Toledo, Ohio. Julep-straws. No. 95,682; Mar. 3; Gaz. vol. 200; p. 275.
Turton Brothers & Matthews, Ltd., Sheffield, England. Buffer, railway-vehicle, and locomotive springs. No. 95,962; Mar. 24; Gaz. vol. 200; p. 1112.
U. S. Cereal Company, The, Upper Sandusky, Ohio. Cereal food. No. 95,720; Mar. 3; Gaz. vol. 200; p. 277.
Underwood & Company, John, New York, N. Y. Adding-machines and parts thereof. No. 96,062; Mar. 31; Gaz. vol. 200; p. 1388.
Union Lard Corporation, New York, N. Y. Cooking-oil. No. 95,683; Mar. 3; Gaz. vol. 200; p. 275.
Union Stove Works, The, New York and Peekskill, N. Y. Stoves and ranges. No. 95,806; Mar. 10; Gaz. vol. 200; p. 579.
United Wine & Trading Co., New York, N. Y. Whisky. No. 95,963; Mar. 24; Gaz. vol. 200; p. 1112.
Universal Film Manufacturing Company, Chicago, Ill., and New York, N. Y. Moving-picture films. No. 96,063; Mar. 31; Gaz. vol. 200; p. 1388.
Universal Road Machinery Co., Kingston, N. Y. Rock-crushers, bin-jacks, and street-sweeping machines. No. 95,855; Mar. 17; Gaz. vol. 200; p. 854.
Updike Milling Company, Omaha, Nebr. Wheat-flour. No. 95,719; Mar. 3; Gaz. vol. 200; p. 277.
Valier & Spies Milling Co., St. Louis, Mo. Wheat-flour. Nos. 95,684–8; Mar. 3; Gaz. vol. 200; p. 276.
Valier & Spies Milling Co., St. Louis, Mo. Wheat-flour. Nos. 95,721–2; Mar. 3; Gaz. vol. 200; p. 277.
Van Vleet-Mansfield Drug Co., Memphis, Tenn. Preparation for internal and external use. No. 96,064; Mar. 31; Gaz. vol. 200; p. 1388.
Venesta Limited, London, England. Boards, sheets, or strips of certain named combinations of materials. No. 96,065; Mar. 31; Gaz. vol. 200; p. 1388.
Vi-Ne-Ro Co., Salt Lake City, Utah. Polish for furniture, pianos, floors, and vehicles. No. 95,807; Mar. 10; Gaz. vol. 200; p. 579.
Victor Animatograph Company, Davenport, Iowa. Stereopticons and slides therefor. No. 95,689; Mar. 3; Gaz. vol. 200; p. 276.
Victor Talking Machine Company, Camden, N. J. Sound recording or reproducing machines and parts thereof, &c. No. 95,964; Mar. 24; Gaz. vol. 200; p. 1112.
Violante, Balbi & Co., New York, N. Y. Canned tomatoes and tomato paste. No. 96,066; Mar. 31; Gaz. vol. 200; p. 1388.
W. F. Gray Company, The, Madison and Nashville, Tenn. Medical ointment. No. 95,711; Mar. 3; Gaz. vol. 200; p. 276.
W. J. Gilmore Drug Company, Pittsburgh, Pa. Medicine for blood, stomach, liver, and bowel diseases. No. 95,756; Mar. 10; Gaz. vol. 200; p. 578.
Wadsworth, Howland & Co., Incorporated, Boston, Mass. Paints and varnishes. No. 95,690; Mar. 3; Gaz. vol. 200; p. 276.
Waldes & Company, New York, N. Y. Dress fasteners and buttons. No. 95,808; Mar. 10; Gaz. vol. 200; p. 579.
Walker, Edwin, Erie, Pa. Certain named cutlery. No. 95,691; Mar. 3; Gaz. vol. 200; p. 276.
Walterhouse, Nelson G., Indianapolis, Ind. Corn-plasters. No. 96,067; Mar. 31; Gaz. vol. 200; p. 1388.
Waltz, George H., Baltimore, Md. Dyspepsia and heartburn. No. 95,809; Mar. 10; Gaz. vol. 200; p. 579.
Warner's Features, Incorporated, New York, N. Y. Moving-picture films. No. 95,692; Mar. 3; Gaz. vol. 200; p. 276.
Waterbury Chemical Company, Des Moines, Iowa. Castor-oil compound. No. 96,068; Mar. 31; Gaz. vol. 200; p. 1388.
Weaver, Costello & Company, Pittsburgh, Pa. Candies. No. 95,693; Mar. 3; Gaz. vol. 200; p. 276.
Weigel, Hoshaw & Heare, North Yakima, Wash. Remedy for syphilis. No. 96,069; Mar. 31; Gaz. vol. 200; p. 1388.
Weiserbs, Abraham, New York, N. Y. Corsets and gloves. No. 95,966; Mar. 24; Gaz. vol. 200; p. 1112.
Wellcome, Henry S., London, England. Pressor substances possessing the properties of an extract of the posterior lobe of the pituitary gland. No. 95,857; Mar. 17; Gaz. vol. 200; p. 854.
Wellcome, Henry S., London, England. Toilet creams, medicated suppositories, and extract of witch-hazel. No. 96,070; Mar. 31; Gaz. vol. 200; p. 1388.
Wenker, Henry, San Francisco, Cal. Cosmetics for the skin. No. 96,071; Mar. 31; Gaz. vol. 200; p. 1388.
Western Legumogerm Company, Topeka, Kans. Nitrogen-fixing bacteria. No. 95,967; Mar. 24; Gaz. vol. 200; p. 1112.
Westheimer, David, New York, N. Y. Medical tonics, cough-drops, and laxatives. No. 95,810; Mar. 10; Gaz. vol. 200; p. 579.
Westheimer, David, New York, N. Y. Laxative composition. No. 96,072; Mar. 31; Gaz. vol. 200; p. 1388.
White & Bagley Co., The, Worcester, Mass. Lubricating-oils. No. 95,811; Mar. 10; Gaz. vol. 200; p. 579.
Wilder & Company, Chicago, Ill. Hides and leather. No. 95,694; Mar. 3; Gaz. vol. 200; p. 276.
William H. Brown & Bro. Company, Baltimore, Md. Perfume, toilet waters, powders, and cold-cream. Nos. 95,982–3; Mar. 31; Gaz. vol. 200; p. 1385.
William L. Dines, Jr. Co., Worcester, Mass. Coffee-hulling machines. No. 95,606; Mar. 3; Gaz. vol. 200; p. 273.
William L. Dines, Jr. Co., Worcester, Mass. Coffee-pulping machines. No. 95,607; Mar. 3; Gaz. vol. 200; p. 273.
Wire Products Company, Wilmington, Del., and New York, N. Y. Garment-fasteners. No. 95,812; Mar. 10; Gaz. vol. 200; p. 579.
Wirick, Carey G., Pittsburgh, Pa. Lubricant for chains and meshing surfaces. No. 96,076; Mar. 31; Gaz. vol. 200; p. 1388.
Wolodarsky, Max, New York, N. Y. Toilet cream and toilet lotion. No. 95,813; Mar. 10; Gaz. vol. 200; p. 579.
Woodfield, Arthur H., Luton, England. Hat-bandeaux. No. 95,814; Mar. 10; Gaz. vol. 200; p. 579.
Woodmansee, Frederick A., Galesburg, Ill. Remedy for certain named diseases of horses and cattle. No. 95,815; Mar. 10; Gaz. vol. 200; p. 579.
Writerpress Company, The, Buffalo, N. Y. Duplicating-machines and parts thereof. No. 95,971; Mar. 24; Gaz. vol. 200; p. 1112.
Young & Swain Baking Co., San Francisco, Cal. Bread. No. 95,695; Mar. 3; Gaz. vol. 200; p. 276.
Zeltmacher, George E., New York, N. Y. Belts for personal wear. No. 95,858; Mar. 17; Gaz. vol. 200; p. 854.
Zerfing and Lightner, Philadelphia, Pa. Men's outer suits. No. 95,816; Mar. 10; Gaz. vol. 200; p. 579.

# ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. Schmidt Jr. & Bros. Wine Co., The, Sandusky, Ohio. "Virginette." (For Wine.) No. 17,632; Mar. 31; Gaz. vol. 200; p. 1389.
Ackerman, Joseph F., Bridgeport, Conn. "Corset de Luxe." (For Corsets.) No. 17,589; Mar. 3; Gaz. vol. 200; p. 278.
American Wine and Spirit Company, Philadelphia, Pa. "Strouse's Ginger Brandy." (For Cordialized Ginger Brandy.) No. 17,601; Mar. 24; Gaz. vol. 200; p. 1113.
Arbuthnot, Stephenson & Company, Pittsburgh, Pa. "Otoyo." (For Safety-Pins.) No. 17,613; Mar. 31; Gaz. vol. 200; p. 1389.
Bachman Chocolate Company, The, Inc., Philadelphia, Pa. "Brown Betty." (For Confectionery.) No. 17,614; Mar. 31; Gaz. vol. 200; p. 1389.
Blum, Lottie C., New York, N. Y. "Carmen." (For a Shampoo Tonic.) No. 17,615; Mar. 31; Gaz. vol. 200; p. 1389.
Crescent Bread Company, Utica, N. Y. "Just Rite." (For Bread.) No. 17,602; Mar. 24; Gaz. vol. 200; p. 1113.
D'urso & Co., Mario, Philadelphia, Pa. "Italian Union Cigar." (For Cigars.) No. 17,590; Mar. 3; Gaz. vol. 200; p. 278.
Eldridge Company, Geo. R., Detroit, Mich. "Sunbonnet Brand." (For Oleomargarin.) No. 17,617; Mar. 31; Gaz. vol. 200; p. 1389.
Empire Mattress Company, Chicago, Ill. "The Empire." (For Mattresses.) No. 17,618; Mar. 31; Gaz. vol. 200; p. 1389.
Fairview Land Company, Cocoa, Fla. "Our Chief Brand." (For Oranges.) No. 17,619; Mar. 31; Gaz. vol. 200; p. 1389.
Filippone, Charles, Philadelphia, Pa. "Roman P. W. Cleanser." (For a Cleanser for White Shoes.) No. 17,603; Mar. 24; Gaz. vol. 200; p. 1113.
Finch & Co., Jos. S., Pittsburgh, Pa. "Fifty Years Ago, When Golden Wedding Whiskey Was Young." (For Whisky.) No. 17,595; Mar. 10; Gaz. vol. 200; p. 580.
Finch & Co., Jos. S., Pittsburgh, Pa. "Golden Wedding Pure Rye Whiskey." (For Whisky.) No. 17,596; Mar. 10; Gaz. vol. 200; p. 580.
Flanagan, Mary A., Columbia, Pa. "Chiques Rock." (For Carbonated Beverages.) No. 17,604; Mar. 24; Gaz. vol. 200; p. 1113.
G. Mennen Chemical Company, Newark, N. J. "Mennen's Tar Shampooing Cream." (For Tar Shampooing-Cream.) No. 17,625; Mar. 31; Gaz. vol. 200; p. 1389.
G. Mennen Chemical Company, Newark, N. J. "Mennen's Shaving Cream." (For Shaving-Cream.) No. 17,626; Mar. 31; Gaz. vol. 200; p. 1389.
G. Mennen Chemical Company, Newark, N. J. "Mennen's Cream Dentifrice." (For Cream Dentifrice.) No. 17,627; Mar. 31; Gaz. vol. 200; p. 1389.
G. Mennen Chemical Company, Newark, N. J. "Mennen's Perfumed Bath Powder." (For Bath-Powder.) No. 17,628; Mar. 31; Gaz. vol. 200; p. 1389.
Genesee Lumber Company, Genesee and Loranger, La. "Orange Tree Brand Fresh Vegetables Product of Loranger Upland Farms Loranger P. O., La." (For Fresh Vegetables.) No. 17,620; Mar. 31; Gaz. vol. 200; p. 1389.
Greenspring Water Company, The, Cleveland, Ohio. "Greenspring Mineral Water." (For Mineral Water.) No. 17,621; Mar. 31; Gaz. vol. 200; p. 1389.
Grimm, Frederick E., Utica, N. Y. "Napoleon Brand Salad Oil." (For Salad-Oil.) No. 17,605; Mar. 24; Gaz. vol. 200; p. 1113.
I. B. Kleinert Rubber Company, New York, N. Y. "Baby Pants." (For Baby-Pants.) No. 17,622; Mar. 31; Gaz. vol. 200; p. 1389.
I. B. Kleinert Rubber Company, New York, N. Y. "Couche-Culotte." (For Baby-Pants.) No. 17,623; Mar. 31; Gaz. vol. 200; p. 1389.
Independent Breweries Company, The, St. Louis, Mo. "National Export." (For Beer.) No. 17,597; Mar. 10; Gaz. vol. 200; p. 580.
J. S. Briggs Co., Watertown, N. Y. "Hopsie." (For a Beverage.) No. 17,616; Mar. 31; Gaz. vol. 200; p. 1389.
Knaub, Urben H., York, Pa. "Ideal." (For Corn-Salve.) No. 17,624; Mar. 31; Gaz. vol. 200; p. 1389.
Little, J. W., Brooklyn, N. Y. "McCann's Urn Brand Coffee With Chicory." (For Ground Coffee with Chicory.) No. 17,606; Mar. 24; Gaz. vol. 200; p. 1113.
Lytle, William F., Indianapolis, Ind. "Lytle's Ever Ready Beef Steak Flour." (For Flour.) No. 17,607; Mar. 24; Gaz. vol. 200; p. 1113.
McNulty & Stiff, Toledo, Ohio. "Lightning Rheumatic Remedy." (For a Rheumatic Remedy.) No. 17,591; Mar. 3; Gaz. vol. 200; p. 278.
Miner, W. H., Chazy, N. Y. "Heart's Delight Farm Jelly." (For Jelly.) No. 17,598; Mar. 10; Gaz. vol. 200; p. 580.
Monadnock Mills, Claremont, N. H. "Equity Crochet Quilt." (For Quilts.) No. 17,599; Mar. 10; Gaz. vol. 200; p. 580.
Morris, Fred A., Mexico, Mo. "Morris' Pennant." (For Cigars.) No. 17,608; Mar. 24; Gaz. vol. 200; p. 1113.
National Cleanser Company, The, New York, N. Y. "Mother's Cleanser." (For a Cleansing Preparation.) No. 17,609; Mar. 24; Gaz. vol. 200; p. 1113.
Pollak, Joseph, Chicago, Ill. "Devil's Stomach Liquor." (For an Alcoholic Liquor.) No. 17,629; Mar. 31; Gaz. vol. 200; p. 1389.
Rex Puncture Cure Company, New York, N. Y. "Rex Puncture Cure." (For a Compound for Sealing Punctures.) No. 17,630; Mar. 31; Gaz. vol. 200; p. 1389.
Richards-Glover Company, Dallas, Tex. "Cotton Boll." (For Sanitary Paper Towels.) No. 17,610; Mar. 24; Gaz. vol. 200; p. 1113.
Robinson, Chester H., Chicago, Ill. "William Morton." (For Cigars.) No. 17,611; Mar. 24; Gaz. vol. 200; p. 1113.
Salant & Salant, New York, N. Y. "Am-O-Kay." (For Shirts.) No. 17,631; Mar. 31; Gaz. vol. 200; p. 1389.
Silverberg Import Co., New York, N. Y. "Fedora Dress Lox." (For Garment-Fasteners.) No. 17,633; Mar. 31; Gaz. vol. 200; p. 1389.
Southern California Music Company, Los Angeles, Cal. "Perfection." (For Violin-Strings.) No. 17,592; Mar. 3; Gaz. vol. 200; p. 278.
Southern California Music Company, Los Angeles, Cal. "Paganini." (For Violin-Strings.) No. 17,593; Mar. 3; Gaz. vol. 200; p. 278.
Southern Fruit Julep Company, Fort Worth, Tex. "Howel's Orange-Julep The Original." (For Orange Julep.) No. 17,594; Mar. 3; Gaz. vol. 200; p. 278.
Stuart & O'Brien, Paris, Ky. "Kentucky Blue Grass Lawn Seed." (For Grass-Seed.) No. 17,600; Mar. 10; Gaz. vol. 200; p. 580.
Thumb, Eugene W., Chicago, Ill. "Sun-Shine." (For Furniture and Brass Polish.) No. 17,634; Mar. 31; Gaz. vol. 200; p. 1389.
Valentine & Company, New York, N. Y. "The Test!" (For Varnish or Painting Material.) No. 17,635; Mar. 31; Gaz. vol. 200; p. 1389.
Wiedmann-St. Louis Cigar Box Co., St. Louis, Mo. "Adolphus Busch." (For Cigars.) No. 17,612; Mar. 24; Gaz. vol. 200; p. 1113.
Yecker Chocolate Company, Inc., New York, N. Y. "Chocolate Almond Wafer." (For Chocolate Almond Wafers.) No. 17,636; Mar. 31; Gaz. vol. 200; p. 1389.

## PRINTS.

A. Schrader's Son, Inc., New York, N. Y. "Schrader Universal Tire Pressure Gauge." (For Tire Pressure-Gages.) No. 3,539; Mar. 31; Gaz. vol. 200; p. 1389.

Auto Parts Co., Chicago, Ill. "Auto Parts Co." (For Auto Parts.) No. 3,517; Mar. 3; Gaz. vol. 200; p. 278.

Beverwyck Brewing Co., Albany, N. Y. "Famous Beverwyck Beer." (For Beer.) No. 3,532; Mar. 31; Gaz. vol. 200; p. 1389.

C. A. Myers Company, Inc., Chicago, Ill. "Pictorial illustration of the Myers Sewing Awl." (For Sewing-Awls.) No. 3,524; Mar. 10; Gaz. vol. 200; p. 580.

Columbia Graphophone Company, New York, N. Y. "The Grafonola School-Girl." (For Grafonolas.) No. 3,533; Mar. 31; Gaz. vol. 200; p. 1389.

Crescent Bread Company, Utica, N. Y. "Just Rite." (For Bread.) No. 3,526; Mar. 24; Gaz. vol. 200; p. 1113.

Depue, William A., Lansing, Mich. "Sanoma." (For Cigars.) No. 3,527; Mar. 24; Gaz. vol. 200; p. 1113.

Depue, William A., Lansing, Mich. "Ceroma." (For Cigars.) No. 3,534; Mar. 31; Gaz. vol. 200; p. 1389.

Du Brock, Hugo, Chicago, Ill. "Friendship Peace Love." (For Middy-Blouses.) No. 3,535; Mar. 31; Gaz. vol. 200; p. 1389.

Finch & Co., Jos. S., Pittsburgh, Pa. "Fifty Years Ago, When Golden Wedding Whiskey Was Young." (For Whisky.) No. 3,521; Mar. 10; Gaz. vol. 200; p. 580.

Finch & Co., Jos. S., Pittsburgh, Pa. "Golden Wedding Bottled in Bond." (For Whisky.) No. 3,528; Mar. 24; Gaz. vol. 200; p. 1113.

Finch & Co., Jos. S., Pittsburgh, Pa. "Fifty Years Ago When Golden Wedding Whiskey Was Young." (For Whisky.) No. 3,536; Mar. 31; Gaz. vol. 200; p. 1389.

G. Ross Korne & Co., Newark, Ohio. "The Game of Song and Story 'It Pleases and It Pays.'" (For Games.) No. 3,522; Mar. 10; Gaz. vol. 200; p. 580.

J. S. Bell Confectionery Co., Cambridge, Mass. "Bell's Forkdipt Chocolates." (For Chocolates.) No. 3,525; Mar. 24; Gaz. vol. 200; p. 1113.

Joseph Mack Printing House, Detroit, Mich. "When Better Automobiles Are Built Buick Will Build Them." (For Automobiles.) No. 3,523; Mar. 10; Gaz. vol. 200; p. 580.

Kelly-Springfield Tire Co., New York, N. Y. "Kelly-Springfield Tires 'Made To Make Good.'" (For Rubber Tires.) No. 3,537; Mar. 31; Gaz. vol. 200; p. 1389.

Meyercord Company, The, Chicago, Ill. "Old Overholt Rye." (For Whisky.) No. 3,518; Mar. 3; Gaz. vol. 200; p. 278.

Meyercord Company, The, Chicago, Ill. "The Edwin Natural Bridge." (For Whisky.) No. 3,519; Mar. 3; Gaz. vol. 200; p. 278.

Miner, W. H., Chazy, N. Y. "Heart's Delight Farm Sausage." (For Sausage.) No. 3,529; Mar. 24; Gaz. vol. 200; p. 1113.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Prince Albert the national joy smoke." (For Smoking-Tobacco.) No. 3,531; Mar. 24; Gaz. vol. 200; p. 1113.

Regal Marble Company, Regal, N. C. "Regal Blue Marble Enduring As The Pyramids." (For Blue Marble.) No. 3,538; Mar. 31; Gaz. vol. 200; p. 1389.

Shredded Wheat Company, The, Niagara Falls, N. Y. "In Cold Weather." (For Shredded Wheat.) No. 3,540; Mar. 31; Gaz. vol. 200; p. 1389.

Stewart Distilling Co., Philadelphia, Pa. "A Good Bottle To Keep Good Whiskey Good." (For Whisky.) No 3,520; Mar. 3; Gaz. vol. 200; p. 278.

Thomas Potter, Sons & Co., Inc., Philadelphia, Pa., and New York, N. Y. "Get the Linoleum Habit." (For Linoleum and Oil-Cloth.) No. 3,530; Mar. 24; Gaz. vol. 200; p. 1113.

Valentine & Company, New York, N. Y. "The Test!" (For Varnish and Painting Material.) No. 3,541; Mar. 31; Gaz. vol. 200; p. 1389.

## DISCLAIMER.

Voight, Henry G., New Britain, Conn.; disclaimer filed by patentee. Door-controlling means. No. 1,040,969; disclaimer filed Feb. 13, 1914; Gaz. vol. 200; p. 285.



# ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

## PATENTS WERE ISSUED DURING THE MONTH OF MARCH, 1914.

[Abbreviations: "Gaz."=Official Gazette.]

Abrading-tool. J. Gouldbourn. No. 1,091,506; Mar. 31; Gaz. vol. 200; p. 1134.

Abrasive material, Apparatus for delivering. J. W. Cruikshank. No. 1,089,909; Mar. 10; Gaz. vol. 200; p. 472.

Acetylene-generator. E. R. Angell. No. 1,089,355; Mar. 3; Gaz. vol. 200; p. 232.

Acids, Alkylalkoxymethyl esters of cresotinic. J. Callsen. No. 1,088,966; Mar. 3; Gaz. vol. 200; p. 101.

Acids and making same, Chromium compounds of oxyanthraquinone sulfonic. R. Bohn and C. Immerheiser. No. 1,090,123; Mar. 10; Gaz. vol. 200; p. 545.

Addressing and stamp-affixing machines, Synchronizing device for. S. A. Anderson. No. 1,091,470; Mar. 31; Gaz. vol. 200; p. 1121.

Addressing envelops, Manifolding device for. W. T. Smith. No. 1,088,798; Mar. 3; Gaz. vol. 200; p. 43.

Adhesive material for gluing purposes. F. Rampichini. No. 1,089,960; Mar. 10; Gaz. vol. 200; p. 489.

Adjustable bracket. W. S. Graham. No. 1,089,337; Mar. 3; Gaz. vol. 200; p. 225.

Adjustable bracket for supporting shelves or the like. R. Owen. No. 1,089,863; Mar. 10; Gaz. vol. 200; p. 455.

Adjustable frame. A. S. and R. Reid. No. 1,091,245; Mar. 24; Gaz. vol. 200; p. 1006.

Adjustable table. G. W. Angell. No. 1,091,615; Mar. 31; Gaz. vol. 200; p. 1171.

Advertising and amusement device. L. E. Hardin. No. 1,090,207; Mar. 17; Gaz. vol. 200; p. 616.

Advertising device. A. T. Fischer. No. 1,090,142; Mar. 17; Gaz. vol. 200; p. 592.

Advertising device. E. B. Shanks. No. 1,090,172; Mar. 17; Gaz. vol. 200; p. 603.

Advertising device. J. Simpson. No. 1,091,399; Mar. 24; Gaz. vol. 200; p. 1054.

Advertising mechanism, Display. D. H. Ward. No. 1,090,668; Mar. 17; Gaz. vol. 200; p. 776.

Aerocycle, Centrifugal. R. J. McLaughlin. No. 1,090,322; Mar. 17; Gaz. vol. 200; p. 655.

Aeroplane. R. B. Swank. No. 1,089,880; Mar. 10; Gaz. vol. 200; p. 461.

Aeroplane-engine. C. F. Jenkins. No. 1,089,645; Mar. 10; Gaz. vol. 200; p. 381.

Aeroplanes, Post connection for. L. F. Miller. No. 1,089,144; Mar. 3; Gaz. vol. 200; p. 164.

Agricultural implement. E. H. Cox. No. 1,088,969; Mar. 3; Gaz. vol. 200; p. 102.

Air-brake. A. J. Wisner. No. 1,091,416; Mar. 24; Gaz. vol. 200; p. 1058.

Air-brake appliance, Safety. A. A. Carpenter. No. 1,090,274; Mar. 17; Gaz. vol. 200; p. 639.

Air-brake control for railways, Automatic. H. J. Warthen. No. 1,090,806; Mar. 17; Gaz. vol. 200; p. 820.

Air-brake, Load-controlled. J. R. Snyder. No. 1,091,596; Mar. 31; Gaz. vol. 200; p. 1164.

Air-compressor. C. H. Erickson. No. 1,091,313; Mar. 24; Gaz. vol. 200; p. 1026.

Air-purifier. E. L. Gross. No. 1,089,548; Mar. 10; Gaz. vol. 200; p. 348.

Aircraft-propeller. K. Schultze. No. 1,089,872; Mar. 10; Gaz. vol. 200; p. 458.

Airship. D. F. Felten. No. 1,091,315; Mar. 24; Gaz. vol. 200; p. 1027.

Airship-driving mechanism. P. G. Zimmermann. No. 1,089,029; Mar. 3; Gaz. vol. 200; p. 121.

Alarm: *See* Burglar-alarm; Fire-alarm; Tire-alarm.

Alarm. A. N. Pierman. No. 1,091,533; Mar. 31; Gaz. vol. 200; p. 1143.

Alarm system, Automatic valve-. F. V. Sackett. No. 1,090,237; Mar. 17; Gaz. vol. 200; p. 626.

Album. H. Uffner. No. 1,088,748; Mar. 3; Gaz. vol. 200; p. 27.

Alkalis from natural rocks, Extracting. A. Messerschmitt. No. 1,089,716; Mar. 10; Gaz. vol. 200; p. 405.

Alloys, Making titanium and other. E. Kraus. No. 1,089,773; Mar. 10; Gaz. vol. 200; p. 425.

Alumina, Making. H. T. Kalmus and W. L. Savell. No. 1,090,479; Mar. 17; Gaz. vol. 200; p. 712.

Alunite, Apparatus for treating. H. F. Chappell. No. 1,089,110; Mar. 3; Gaz. vol. 200; p. 150.

Alunite, Calcining. H. F. Chappell. No. 1,089,109; Mar. 3; Gaz. vol. 200; p. 149.

Ammonia from its constituents, Synthetic preparation of. A. Matignon. No. 1,089,240; Mar. 3; Gaz. vol. 200; p. 195.

Ammonia from its constituents, Synthetic preparation of. A. Matignon. No. 1,089,241; Mar. 3; Gaz. vol. 200; p. 195.

Ammonia, Producing. C. Bosch and A. Mittasch. No. 1,089,185; Mar. 3; Gaz. vol. 200; p. 178.

Ammonium sulfate, Producing. A. Mittasch and H. Morawitz. No. 1,091,234; Mar. 24; Gaz. vol. 200; p. 1002.

Amusement device. W. A. Morey. No. 1,089,004; Mar. 3; Gaz. vol. 200; p. 113.

Anchor, Ground-. A. T. Ballenger. No. 1,090,899; Mar. 24; Gaz. vol. 200; p. 884.

Anchor-pin. I. M. Fry. No. 1,092,936; Mar. 31; Gaz. vol. 200; p. 1315.

Anesthetics, Apparatus for administering. W. L. Smith. No. 1,091,973; Mar. 31; Gaz. vol. 200; p. 1295.

Angle-finder. G. Wallace. No. 1,089,885; Mar. 10; Gaz. vol. 200; p. 463.

Animal matter containing moisture, oil, or grease, Apparatus for treating. G. F. Metzger. No. 1,091,524; Mar. 31; Gaz. vol. 200; p. 1140.

Animal-trap. H. H. Herring. No. 1,088,988; Mar. 3; Gaz. vol. 200; p. 108.

Animal-trap. C. E. Peach. No. 1,090,750; Mar. 17; Gaz. vol. 200; p. 801.

Animal-trap. J. W. Gates. No. 1,091,926; Mar. 31; Gaz. vol. 200; p. 1281.

Ankle-joint for artificial limbs. J. F. Rowley. No. 1,090,881; Mar. 24; Gaz. vol. 200; p. 878.

Ankle support and protector. H. J. Collis. No. 1,090,906; Mar. 24; Gaz. vol. 200; p. 886.

Annealing-furnace. W. P. Bettendorf. No. 1,091,184; Mar. 24; Gaz. vol. 200; p. 984.

Anode and anode-hook. H. R. Boissier. No. 1,091,185; Mar. 24; Gaz. vol. 200; p. 985.

Anti-rail-creeper. H. G. Elfborg. No. 1,088,976; Mar. 3; Gaz. vol. 200; p. 105.

Antifreezing device. A. Babendreer and C. R. Wassell. No. 1,091,472; Mar. 31; Gaz. vol. 200; p. 1121.

Antiskidding device for automobiles. L. M. Keech. No. 1,091,142; Mar. 24; Gaz. vol. 200; p. 970.

Anvil attachment. J. R. Stull. No. 1,088,742; Mar. 3; Gaz. vol. 200; p. 25.

Apron and cup supporting device. E. R. Philip. No. 1,091,698; Mar. 31; Gaz. vol. 200; p. 1200.

Apron and cup supporting device, Combined. E. R. Philip. No. 1,091,699; Mar. 31; Gaz. vol. 200; p. 1200.

Arch, Hollow-tile. P. H. Bevier. No. 1,091,794; Mar. 31; Gaz. vol. 200; p. 1235.

Arch-supporting pad. J. S. Leary. No. 1,091,673; Mar. 31; Gaz. vol. 200; p. 1191.

Arm or support, Adjustable. W. Erwin. No. 1,088,690; Mar. 3; Gaz. vol. 200; p. 7.

Armor-plate. R. A. Hadfield. No. 1,089,638; Mar. 10; Gaz. vol. 200; p. 378.

Armoring-machine. C. T. Pratt. No. 1,091,161; Mar. 24; Gaz. vol. 200; p. 977.

Arseno-metal preparations and making same. P. Ehrlich, B. Reuter, and P. Karrer. No. 1,091,881; Mar. 31; Gaz. vol. 200; p. 1265.

Ash-receptacle. M. M. De Grody. No. 1,090,138; Mar. 17; Gaz. vol. 200; p. 591.

Ash-tray, Pocket. J. H. Bremer. No. 1,090,018; Mar. 10; Gaz. vol. 200; p. 509.

Asphalt-chopping machine. C. E. Bathrick. No. 1,089,356; Mar. 3; Gaz. vol. 200; p. 232.

Asphalt from crude oil or residuum thereof, Manufacture of. C. B. Forward. No. 1,088,692; Mar. 3; Gaz. vol. 200; p. 8.

Asphalt-machines, Drier for portable. C. E. Guelich. No. 1,090,206; Mar. 17; Gaz. vol. 200; p. 615.

Atomiser. G. J. Kelley. No. 1,090,863; Mar. 24; Gaz. vol. 200; p. 871.

Attrition-mill. F. Hamachek. No. 1,091,654; Mar. 31; Gaz. vol. 200; p. 1185.

Auto-lift. E. H. Riopel. No. 1,091,390; Mar. 24; Gaz. vol. 200; p. 1051.

Auto turn-jack. W. Willet. No. 1,088,953; Mar. 3; Gaz. vol. 200; p. 97.

Autodrome. H. J. Cohn. No. 1,091,484; Mar. 31; Gaz. vol. 200; p. 1126.
Autographic register. W. N. Boller. No. 1,090,905; Mar. 24; Gaz. vol. 200; p. 886.
Automatic brake. D. A. Matthews. No. 1,089,242; Mar. 3; Gaz. vol. 200; p. 195.
Automatic drier, Continuous. C. A. Wendell. No. 1,088,754; Mar. 3; Gaz. vol. 200; p. 28.
Automatic gate. D. Samson. No. 1,091,591; Mar. 31; Gaz. vol. 200; p. 1162.
Automobile. G. W. De Witt. No. 1,091,735; Mar. 31; Gaz. vol. 200; p. 1213.
Automobile-bodies, Door for. J. R. Welch. No. 1,091,608; Mar. 31; Gaz. vol. 200; p. 1169.
Automobile-body. A. P. Brush. No. 1,091,187; Mar. 24; Gaz. vol. 200; p. 985.
Automobile-bumper. A. L. McGregor. No. 1,088,832; Mar. 3; Gaz. vol. 200; p. 55.
Automobile cranking mechanism, Safety attachment for. H. C. Tunis. No. 1,090,660; Mar. 17; Gaz. vol. 200; p. 774.
Automobile driving-gear. S. D. Allen. No. 1,091,998; Mar. 31; Gaz. vol. 200; p. 1304.
Automobile emergency-wrench. J. Lukowski. No. 1,088,786; Mar. 3; Gaz. vol. 200; p. 39.
Automobile-fender. C. Pelter, T. H. Spry, and C. F. Busse. No. 1,089,006; Mar. 3; Gaz. vol. 200; p. 114.
Automobile-fender. C. Hammarstrom. No. 1,091,331; Mar. 24; Gaz. vol. 200; p. 1030.
Automobile-fender. J. B. Foret. No. 1,092,033; Mar. 31; Gaz. vol. 200; p. 1313.
Automobile-horn. H. H. Frey. No. 1,088,893; Mar. 3; Gaz. vol. 200; p. 75.
Automobile-jack. F. Tirelli. No. 1,090,430; Mar. 17; Gaz. vol. 200; p. 694.
Automobile light and indicator. R. K. Schleb and H. E. Shaffer. No. 1,089,014; Mar. 3; Gaz. vol. 200; p. 116.
Automobile-lock. J. A. Campbell. No. 1,089,319; Mar. 3; Gaz. vol. 200; p. 219.
Automobile-lock. H. J. Neumann. No. 1,089,581; Mar. 10; Gaz. vol. 200; p. 359.
Automobile-lock. T. S. Keffer. No. 1,090,625; Mar. 17; Gaz. vol. 200; p. 762.
Automobile-puller. J. J. Fisher. No. 1,091,318; Mar. 24; Gaz. vol. 200; p. 1027.
Automobile-radiator. A. J. Carriere. No. 1,090,023; Mar. 10; Gaz. vol. 200; p. 511.
Automobile radiator-cap attachment. D. P. Shaner. No. 1,090,573; Mar. 17; Gaz. vol. 200; p. 744.
Automobile sign-bracket. L. P. Whitcher. No. 1,091,553; Mar. 31; Gaz. vol. 200; p. 1150.
Automobile speed-indicator. C. Gore. No. 1,091,059; Mar. 24; Gaz. vol. 200; p. 940.
Automobile structure. A. P. Brush. No. 1,091,911; Mar. 31; Gaz. vol. 200; p. 1275.
Automobile-wheel. B. B. Stapleton. No. 1,089,445; Mar. 10; Gaz. vol. 200; p. 311.
Automobiles, Bow-rest for. M. J. Molitor and M. Britz. No. 1,090,329; Mar. 17; Gaz. vol. 200; p. 658.
Automobiles, Differential gearing for. W. F. Muehl. No. 1,090,082; Mar. 10; Gaz. vol. 200; p. 530.
Automobiles, Folding storm-door curtain for. E. F. Neal. No. 1,091,380; Mar. 24; Gaz. vol. 200; p. 1047.
Automobiles, Illuminated sign for. G. H. Ricke. No. 1,091,893; Mar. 31; Gaz. vol. 200; p. 1269.
Automobiles, Muffler for. J. Caron. No. 1,092,017; Mar. 31; Gaz. vol. 200; p. 1308.
Automobiles, Rim for steering-wheels of. B. Kormendy. No. 1,088,999; Mar. 3; Gaz. vol. 200; p. 112.
Automobiles, Transmission-gearing for. D. M. Hunt. No. 1,091,342; Mar. 24; Gaz. vol. 200; p. 1034.
Ax and pick, Prospector's. W. E. Seelye. No. 1,088,938; Mar. 3; Gaz. vol. 200; p. 91.
Axle construction. O. Kuepfer. No. 1,090,311; Mar. 17; Gaz. vol. 200; p. 652.
Axle-housings, Forming. C. J. Mogan and R. E. Brock. No. 1,091,751; Mar. 31; Gaz. vol. 200; p. 1218.
Axle, Jury-. F. H. Sprung. No. 1,089,282; Mar. 3; Gaz. vol. 200; p. 208.
Back-band attachment. Z. R. Hall. No. 1,090,146; Mar. 17; Gaz. vol. 200; p. 594.
Bag: *See* Hand-bag.
Bag-holder. A. Minke. No. 1,090,404; Mar. 17; Gaz. vol. 200; p. 685.
Bag-tie. F. Carlson. No. 1,091,288; Mar. 24; Gaz. vol. 200; p. 1018.
Bags or pockets, Apparatus for making. W. E. Molins. No. 1,091,235; Mar. 24; Gaz. vol. 200; p. 1002.
Bait, Artificial. E. L. Evans. No. 1,089,915; Mar. 10; Gaz. vol. 200; p. 474.
Bait holder, Fish-. B. G. Pfeiffer. No. 1,089,074; Mar. 3; Gaz. vol. 200; p. 136.
Balance, Safety-. M. G. Houghton. No. 1,088,991; Mar. 3; Gaz. vol. 200; p. 109.
Balance sheet, Ready-. E. B. High. No. 1,089,764; Mar. 10; Gaz. vol. 200; p. 422.
Balancing-machine. J. Riddell. No. 1,091,708; Mar. 31; Gaz. vol. 200; p. 1203.
Balancing mechanism, Automatic. A. B. Landis. No. 1,091,851; Mar. 31; Gaz. vol. 200; p. 1255.
Baler, Cotton-. W. Cook. No. 1,090,281; Mar. 17; Gaz. vol. 200; p. 641.
Baling apparatus. C. L. Walter. No. 1,090,257; Mar. 17; Gaz. vol. 200; p. 634.
Baling-press. W. L. Greider. No. 1,090,614; Mar. 17; Gaz. vol. 200; p. 759.
Baling-presses, Bale-tying mechanism for. E. Curnutt. No. 1,090,296; Mar. 24; Gaz. vol. 200; p. 1021.
Ball: *See* Base-ball.
Band-cutter and feeder. O. Fackiam. No. 1,090,522; Mar. 17; Gaz. vol. 200; p. 728.
Banjo. N. J. Nelson. No. 1,090,937; Mar. 24; Gaz. vol. 200; p. 898.
Banks, Coin-receptacle for savings-. F. Wright. No. 1,091,785; Mar. 31; Gaz. vol. 200; p. 1231.
Bar: *See* Boring-bar; Cutter-bar; Grate-bar; Railway angle-bar; Sash-bar.
Barn, Cow-. J. P. Bowditch. No. 1,090,131; Mar. 17; Gaz. vol. 200; p. 588.
Barrel holder, Ash-. M. Nagle. No. 1,091,008; Mar. 24; Gaz. vol. 200; p. 922.
Barrel-making machinery, Metallic-. F. G. Wacker. No. 1,090,178; Mar. 17; Gaz. vol. 200; p. 606.
Base-ball. C. S. Lincoln. No. 1,089,714; Mar. 10; Gaz. vol. 200; p. 405.
Base or stand. J. A. Firsching. No. 1,090,702; Mar. 17; Gaz. vol. 200; p. 786.
Basket. M. J. Wheeler and F. B. Foster. No. 1,090,000; Mar. 10; Gaz. vol. 200; p. 503.
Basket, Folding. A. Zanolli. No. 1,089,686; Mar. 10; Gaz. vol. 200; p. 395.
Basting-pin. H. Roucher. No. 1,091,085; Mar. 24; Gaz. vol. 200; p. 950.
Bath: *See* Plunge-bath.
Bath-tub vapor-cabinet appliance. G. W. Caldwell. No. 1,089,819; Mar. 10; Gaz. vol. 200; p. 440.
Batteries, Charging-switch for storage. C. W. Coleman. No. 1,090,201; Mar. 17; Gaz. vol. 200; p. 618.
Battery: *See* Dry battery; Primary battery.
Battery cell, Electric-. H. A. Thomas. No. 1,090,763; Mar. 17; Gaz. vol. 200; p. 805.
Battery support and clamp. W. MacGlashan. No. 1,091,583; Mar. 31; Gaz. vol. 200; p. 1160.
Battery system, Storage-. E. A. Halbleib. No. 1,089,549; Mar. 10; Gaz. vol. 200; p. 348.
Bead-rolling machine for plastic articles. J. W. Denmead. No. 1,091,123; Mar. 24; Gaz. vol. 200; p. 963.
Beam. D. B. Luten. No. 1,089,487; Mar. 10; Gaz. vol. 200; p. 326.
Beam and girder. W. P. Anderson. No. 1,088,676; Mar. 3; Gaz. vol. 200; p. 3.
Beam-mold. W. M. Venable. No. 1,090,583; Mar. 17; Gaz. vol. 200; p. 748.
Beans, &c., Machine for trimming string-. R. C. Adams. No. 1,091,787; Mar. 31; Gaz. vol. 200; p. 1232.
Bearing. A. E. Dotta. No. 1,091,306; Mar. 24; Gaz. vol. 200; p. 1025.
Bearing. I. A. George. No. 1,091,830; Mar. 31; Gaz. vol. 200; p. 1247.
Bearing, Ball-. F. Starin. No. 1,091,544; Mar. 31; Gaz. vol. 200; p. 1147.
Bearing, Ball-. B. W. Fjellman. No. 1,091,822; Mar. 31; Gaz. vol. 200; p. 1244.
Bearing, Pressure-tight. E. G. Bailey. No. 1,089,739; Mar. 10; Gaz. vol. 200; p. 413.
Bearing, Pulley-. A. E. Rhoades. No. 1,089,381; Mar. 3; Gaz. vol. 200; p. 239.
Bearing retainer, Ball-. G. H. Stahl. No. 1,089,877; Mar. 10; Gaz. vol. 200; p. 460.
Bearing, Shaft-. B. R. Hall. No. 1,089,701; Mar. 10; Gaz. vol. 200; p. 400.
Bearing, Thrust-. R. H. Rice and W. Johnson. No. 1,089,671; Mar. 10; Gaz. vol. 200; p. 390.
Beating and mixing device. H. P. Roberts. No. 1,090,567; Mar. 17; Gaz. vol. 200; p. 742.
Beating and mixing machine. J. L. Harr. No. 1,090,148; Mar. 17; Gaz. vol. 200; p. 594.
Bed. F. J. Crouch. No. 1,088,970; Mar. 3; Gaz. vol. 200; p. 102.
Bed-bottom fabric. A. Rhenstrom. No. 1,089,155; Mar. 3; Gaz. vol. 200; p. 168.
Bed-bottom, Spring. J. P. Leggett. No. 1,089,233; Mar. 3; Gaz. vol. 200; p. 193.
Bed, Compartment-. W. R. Fillmore and E. Boillot. No. 1,091,495; Mar. 31; Gaz. vol. 200; p. 1130.
Bed cooler or heater. G. F. Shepard. No. 1,089,277; Mar. 3; Gaz. vol. 200; p. 206.
Bed, Folding. L. E. Pittoni. No. 1,090,340; Mar. 17; Gaz. vol. 200; p. 662.
Bed, Folding. W. R. Fillmore and E. Boillot. No. 1,091,494; Mar. 31; Gaz. vol. 200; p. 1130.
Bed, Invalid-. J. A. Gosnell and J. Olson. No. 1,089,208; Mar. 3; Gaz. vol. 200; p. 185.
Bed-pan. A. B. Knowlton. No. 1,091,352; Mar. 24; Gaz. vol. 200; p. 1038.
Bed, Portable folding. R. H. Anderson. No. 1,089,370; Mar. 3; Gaz. vol. 200; p. 236.
Bed, Sofa-. G. M. B. Hawley. No. 1,090,474; Mar. 17; Gaz. vol. 200; p. 710.
Bed, Sofa-. G. M. B. Hawley. No. 1,090,475; Mar. 17; Gaz. vol. 200; p. 711.
Bed-spring. R. J. Kelly. No. 1,088,996; Mar. 3; Gaz. vol. 200; p. 111.
Bed, Spring-. W. Shannon. No. 1,089,976; Mar. 10; Gaz. vol. 200; p. 494.
Bed-spring, Pneumatic. J. J. Lisbae. No. 1,089,652; Mar. 10; Gaz. vol. 200; p. 383.





Bed-spring tightener. A. Ponton. No. 1,089,007; Mar. 3; Gaz. vol. 200; p. 114.
Beds, Canopy for open-window sleeping-. W. L. Rice. No. 1,088,726; Mar. 3; Gaz. vol. 200; p. 19.
Bedstead attachment. T. A. Thompson. No. 1,088,800; Mar. 3; Gaz. vol. 200; p. 43.
Bee-escape. H. D. Rogers. No. 1,089,157; Mar. 3; Gaz. vol. 200; p. 169.
Beer-cooler. C. Bieger. No. 1,088,763; Mar. 3; Gaz. vol. 200; p. 30.
Beet-blocker. H. W. and A. G. Gribler. No. 1,089,210; Mar. 3; Gaz. vol. 200; p. 185.
Beet topping and digging machine. R. E. Fowler and E. L. Vermilya. No. 1,091,823; Mar. 31; Gaz. vol. 200; p. 1245.
Beetling-machine. T. O. Arnfield and W. Booth. No. 1,090,590; Mar. 17; Gaz. vol. 200; p. 750.
Bell, Call-. H. G. Webster. No. 1,090,436; Mar. 17; Gaz. vol. 200; p. 698.
Bell, Electric. C. J. Schwarze. No. 1,091,898; Mar. 31; Gaz. vol. 200; p. 1270.
Bell, Electromagnetic. E. W. Vogel. No. 1,091,548; Mar. 31; Gaz. vol. 200; p. 1148.
Bell-ringing apparatus. W. F. Wacker. No. 1,091,902; Mar. 31; Gaz. vol. 200; p. 1271.
Belt-shifter. A. C. Pletz. No. 1,089,152; Mar. 3; Gaz. vol. 200; p. 167.
Bicycle-fork. W. H. Buster and S. Varnell. No. 1,090,381; Mar. 17; Gaz. vol. 200; p. 677.
Bicycle propelling mechanism. A. Laffond. No. 1,089,483; Mar. 10; Gaz. vol. 200; p. 325.
Bidet. G. Friedman. No. 1,091,499; Mar. 31; Gaz. vol. 200; p. 1132.
Billiard-cue. J. Hanna. No. 1,092,100; Mar. 31; Gaz. vol. 200; p. 1337.
Bin: *See* Storage-bin; Transfer-bin.
Binder. B. Rothenburg. No. 1,089,269; Mar. 3; Gaz. vol. 200; p. 203.
Binder attachment. J. G. Conger and B. R. Quint. No. 1,090,029; Mar. 10; Gaz. vol. 200; p. 512.
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Blade-holder. R. Marx. No. 1,092,067; Mar. 31; Gaz. vol. 200; p. 1325.
Blast-cap-charge protector, Waterproof. J. M. Cordray. No. 1,091,878; Mar. 31; Gaz. vol. 200; p. 1265.
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Block-forming machine. T. L. Bugler. No. 1,092,090; Mar. 31; Gaz. vol. 200; p. 1334.
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Boiler. L. D. Freeman. No. 1,089,758; Mar. 10; Gaz. vol. 200; p. 420.
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Chair: *See* Combination-chair; Foldable chair; High chair; Life-saving steamer-chair.
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Cigar-making machine. J. D. Lacroix. No. 1,088,827; Mar. 3; Gaz. vol. 200; p. 53.
Cigar-pockets. J. J. Dittgen. No. 1,089,629; Mar. 10; Gaz. vol. 200; p. 375.
Cigar-support attachment. E. W. Howe. No. 1,090,716; Mar. 17; Gaz. vol. 200; p. 790.
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Clamp: *See* Insulator-clamp; Locking-clamp; Printing-plate clamp; Rope-clamp; Saw-clamp; Screw-clamp; Shoe-shiner's clamp; Wheel-clamp.
Clasp: *See* Button-clasp; Chain-clasp; Garment-clasp; Harness-clamp.
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Cleaner: *See* Bobbin-cleaner; Clay-cleaner; Comb-cleaner; Cotton-cleaner; Eyeglass-cleaner; Flue-cleaner; Pan-cleaner; Pea-cleaner; Pen-cleaner; Quill-cleaner; Rake-cleaner; Seed-cleaner; Suction-cleaner; Track-cleaner.
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Clip: *See* Collar-fastening clip; Spring-clip.
Clipper. G. Miller. No. 1,091,232; Mar. 24; Gaz. vol. 200; p. 1001.
Clock. J. E. Guedry. No. 1,088,896; Mar 3; Gaz. vol. 200; p. 76.
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Clock-bank. E. C. Brockway. No. 1,091,422; Mar. 24; Gaz. vol. 200; p. 1060.
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Closet: *See* Water-closet.
Closet. M. R. Wilcox. No. 1,090,508; Mar. 17; Gaz. vol. 200; p. 722.
Closet. H. M. Keith. No. 1,091,346; Mar. 24; Gaz. vol. 200; p. 1035.
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Closure and clamp therefor, Air-tight. E. J. Feeny. No. 1,089,754; Mar. 10; Gaz. vol. 200; p. 419.
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Cloth-sponging apparatus. B. Lapin. No. 1,090,313; Mar. 17; Gaz. vol. 200; p. 653.
Clothes-drier. E. A. Williams. No. 1,090,002; Mar. 10; Gaz. vol. 200; p. 504.
Clothes-drier. J. L. Clarke. No. 1,090,837; Mar. 24; Gaz. vol. 200; p. 863.
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Clothes-lines, Device for spacing the upper and lower laps of endless. C. J. Steele. No. 1,091,089; Mar. 24; Gaz. vol. 200; p. 951.
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Clothes-pounder. N. F. Ambursen. No. 1,089,808; Mar. 10; Gaz. vol. 200; p. 436.
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Cultivator attachment. R. Thompson and C. Elrich. No. 1,091,403; Mar. 24; Gaz. vol. 200; p. 1055.
Cultivator, Hand-. J. B. Soward. No. 1,091,712; Mar. 31; Gaz. vol. 200; p. 1204.
Cultivators and the like, Implement-adjusting device for. R. J. Manderfield. No. 1,091,681; Mar. 31; Gaz. vol. 200; p. 1193.
Cultivators, Weed-cutting attachment for. C. Armstrong. No. 1,092,002; Mar. 31; Gaz. vol. 200; p. 1305.
Cup: *See* Drinking-cup; Grease-cup; Milking-machine teat-cup; Priming-cup.
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Curtain-pole-concealing suspension means for curtains and similar draperies. E. B. Ashmore. No. 1,091,471; Mar. 31; Gaz. vol. 200; p. 1121.
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Cushion: *See* Hat-cushion.
Cushion-spring. G. J. Genebach. No. 1,092,099; Mar. 31; Gaz. vol. 200; p. 1337.
Cushion-wheel. P. H. Martin. No. 1,090,705; Mar. 17; Gaz. vol. 200; p. 796.
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Cutter: *See* Band-cutter; Flue-cutter; Paper-cutter; Stalk-cutter.
Cutter-bar and bushing therefor. F. J. Lapointe. No. 1,088,828; Mar. 3; Gaz. vol. 200; p. 53.
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Electric machine, Dynamo-. E. F. W. Alexanderson. No. 1,091,613; Mar. 31; Gaz. vol. 200; p. 1170.
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Fabric: *See* Bed-bottom fabric; Interlining fabric; Pile fabric.
Fabric, Making metal. J. F. Golding. No. 1,090,843; Mar. 24; Gaz. vol. 200; p. 865.
Facing or milling machine. J. A. Paterson. No. 1,089,258; Mar. 3; Gaz. vol. 200; p. 200.
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Fan. F. Lambert. No. 1,090,481; Mar. 17; Gaz. vol. 200; p. 713.
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Fastener. L. Reiter. No. 1,089,366; Mar. 3; Gaz. vol. 200; p. 235.
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Faucet, Measuring-. W. H. Holmes. No. 1,091,337; Mar. 24; Gaz. vol. 200; p. 1032.
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Feeding material, Means for. W. H. O'Connor. No. 1,089,431; Mar. 10; Gaz. vol. 200; p. 305.
Feeding-trough. J. W. Jewell. No. 1,090,987; Mar. 24; Gaz. vol. 200; p. 915.
Fellies, Machine for removing cleats from. C. B. Hayes. No. 1,091,840; Mar. 31; Gaz. vol. 200; p. 1251.
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Fence stretcher, Wire-. H. F. Hansen and J. C. Scott. No. 1,091,217; Mar. 24; Gaz. vol. 200; p. 996.
Fencing material, Package of. T. G. Ryan. No. 1,091,590; Mar. 31; Gaz. vol. 200; p. 1162.
Fender: *See* Automobile-fender; Car-fender; Plow-fender.
Fender. G. L. Hinderer. No. 1,089,468; Mar. 10; Gaz. vol. 200; p. 319.
Ferry-landing mechanism. H. T. Goss. No. 1,091,835; Mar. 31; Gaz. vol. 200; p. 1249.
Fertilizer-distributer. W. C. Francis. No. 1,090,293; Mar. 17; Gaz. vol. 200; p. 646.
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Films, Apparatus for the production of. B. Borzykowski. No. 1,090,679; Mar. 17; Gaz. vol. 200; p. 779.
Filter. H. Reisert. No. 1,088,929; Mar. 3; Gaz. vol. 200; p. 88.





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Filter for atomizers and other devices. C. I. Wright. No. 1,088,954; Mar. 3; Gaz. vol. 200; p. 98.
Filter-plate. P. Porges. No. 1,091,080; Mar. 24; Gaz. vol. 200; p. 948.
Filterer or strainer, Water. M. L. Crandall. No. 1,090,283; Mar. 17; Gaz. vol. 200; p. 642.
Filtering material, Manufacturing. F. Pott. No. 1,089,346; Mar. 3; Gaz. vol. 200; p. 228.
Filtering or dewatering machine for ore-pulp, Centrifugal. J. C. King. No. 1,088,823; Mar. 3; Gaz. vol. 200; p. 51.
Finger attachment. J. K. Poteat. No. 1,091,892; Mar. 31; Gaz. vol. 200; p. 1269.
Fire-alarm, Automatic. J. J. C. Singleton. No. 1,090,242; Mar. 17; Gaz. vol. 200; p. 628.
Fire-escape. J. C. Brown. No. 1,091,802; Mar. 31; Gaz. vol. 200; p. 1237.
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Fire-hydrant. E. L. Delany. No. 1,089,400; Mar. 10; Gaz. vol. 200; p. 293.
Fire-indicators, Circuits for automatic. O. Rennert. No. 1,090,412; Mar. 17; Gaz. vol. 200; p. 688.
Fire-pot. C. F. Coda. No. 1,091,195; Mar. 24; Gaz. vol. 200; p. 988.
Fire-protector for moving-picture-machine magazines. H. B. Cunningham. No. 1,090,287; Mar. 17; Gaz. vol. 200; p. 644.
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Fire-shutter, Automatic. A. Rush. No. 1,089,347; Mar. 3; Gaz. vol. 200; p. 228.
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Firearm. M. L. Castle. No. 1,091,190; Mar. 24; Gaz. vol. 200; p. 986.
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Firearm, Automatic. P. Mauser. No. 1,091,857; Mar. 31; Gaz. vol. 200; p. 1257.
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Firearm, Repeating. C. G. Swebilius and H. T. R. Hanitz. No. 1,090,351; Mar. 17; Gaz. vol. 200; p. 665.
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Firearm, Take-down. J. H. Wheeler and F. Manglier. No. 1,092,085; Mar. 31; Gaz. vol. 200; p. 1332.
Firearms, Breech-action for. A. Müller-Deutschmann and D. Strèb. No. 1,089,780; Mar. 10; Gaz. vol. 200; p. 427.
Firearms, Safety device for repeating. J. H. Wheeler. No. 1,088,950; Mar. 3; Gaz. vol. 200; p. 96.
Firearms, Toggle-breech mechanism for automatic. H. Borchardt. No. 1,090,515; Mar. 17; Gaz. vol. 200; p. 725.
Fish molds, Shaper for cuttle-. H. Orkin. No. 1,091,158; Mar. 24; Gaz. vol. 200; p. 976.
Fishing-rod support. T. R. L. Ebur. No. 1,091,491; Mar. 31; Gaz. vol. 200; p. 1129.
Flagging device. R. C. Keene. No. 1,090,070; Mar. 10; Gaz. vol. 200; p. 527.
Flange-lubricator. D. Reid. No. 1,088,928; Mar. 3; Gaz. vol. 200; p. 88.
Flat-ware blanks, Manufacture of. A. Wilzin. No. 1,091,415; Mar. 24; Gaz. vol. 200; p. 1058.
Flexible coupling. F. N. Nutt. No. 1,089,859; Mar. 10; Gaz. vol. 200; p. 453.
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Flour, Refining. H. Buckley. No. 1,091,284; Mar. 24; Gaz. vol. 200; p. 1017.
Flue-cleaner. G. F. Pierce. No. 1,088,794; Mar. 3; Gaz. vol. 200; p. 42.
Flue-cutter. F. Dix. No. 1,089,463; Mar. 10; Gaz. vol. 200; p. 317.
Fluid-controlling mechanism for cylinders. A. N. Metzelaar. No. 1,089,718; Mar. 10; Gaz. vol. 200; p. 405.
Fluid-gage. P. E. Tanner. No. 1,090,423; Mar. 17; Gaz. vol. 200; p. 692.
Fluid-gage. P. E. Tanner. No. 1,090,424; Mar. 17; Gaz. vol. 200; p. 692.
Fluid-gage. P. E. Tanner. No. 1,090,425; Mar. 17; Gaz. vol. 200; p. 692.
Fluid-meter. H. C. Alger. No. 1,089,101; Mar. 3; Gaz. vol. 200; p. 146.
Fluid-pressure device. G. Westinghouse. No. 1,089,517; Mar. 10; Gaz. vol. 200; p. 337.
Fluid substances, Desiccating. W. B. McLaughlin. No. 1,090,740; Mar. 17; Gaz. vol. 200; p. 798.
Fluids having different characteristics, Method and means for separating. C. S. Brown. No. 1,089,187; Mar. 3; Gaz. vol. 200; p. 179.
Fluorspar, Purifying. E. Bidtel. No. 1,091,795; Mar. 31; Gaz. vol. 200; p. 1235.
Flushing mechanism. N. G. Goreau and E. M. Babst. No. 1,091,834; Mar. 31; Gaz. vol. 200; p. 1248.
Fly-paper holder. B. Yokoyama. No. 1,089,520; Mar. 10; Gaz. vol. 200; p. 339.
Fly-trap. E. E. Cullen. No. 1,089,399; Mar. 10; Gaz. vol. 200; p. 293.
Fly-trap. C. W. Von Dorn. No. 1,089,513; Mar. 10; Gaz. vol. 200; p. 336.
Fly-trap. G. O. Walters. No. 1,091,550; Mar. 31; Gaz. vol. 200; p. 1149.
Fly-trap. C. F. Terhune. No. 1,091,717; Mar. 31; Gaz. vol. 200; p. 1206.
Flying-machine. C. T. Jones. No. 1,090,068; Mar. 10; Gaz. vol. 200; p. 526.
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Foldable box. J. Nemeth. No. 1,089,580; Mar. 10; Gaz. vol. 200; p. 359.
Foldable chair. L. M. Clouse. No. 1,091,634; Mar. 31; Gaz. vol. 200; p. 1178.
Folder and return-envelop, Combined. M. P. Levine. No. 1,089,486; Mar. 10; Gaz. vol. 200; p. 326.
Folding gate. I. E. Hall. No. 1,091,652; Mar. 31; Gaz. vol. 200; p. 1184.
Folding-machine. C. N. Batt. No. 1,091,557; Mar. 31; Gaz. vol. 200; p. 1151.
Folding-machine. L. Muther and F. S. Glines. No. 1,092,123; Mar. 31; Gaz. vol. 200; p. 1346.
Folding table. C. W. Comin. No. 1,090,451; Mar. 17; Gaz. vol. 200; p. 703.
Folding table. S. W. Baldwin. No. 1,091,272; Mar. 24; Gaz. vol. 200; p. 1014.
Food and producing the same, Article of. D. Brainin. No. 1,088,875; Mar. 3; Gaz. vol. 200; p. 69.
Food, Composition of matter to be used for a. G. H. Mowe. No. 1,089,251; Mar. 3; Gaz. vol. 200; p. 198.
Food product and preparing the same. W. H. Heine. No. 1,089,215; Mar. 3; Gaz. vol. 200; p. 187.
Food product, Banana. J. O. Walsh and A. C. Austin. No. 1,090,255; Mar. 17; Gaz. vol. 200; p. 633.
Food product, Preparing a. J. O. Walsh and A. C. Austin. No. 1,090,256; Mar. 17; Gaz. vol. 200; p. 634.
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Gas-burner. L. Stockstrom and H. H. Parpert. No. 1,091,253; Mar. 24; Gaz. vol. 200; p. 1008.
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Gas-holders, Guide-frame for. H. J. Stoffels. No. 1,089,090; Mar. 3; Gaz. vol. 200; p. 143.
Gas, Indicating the flow and leakage of. D. McDonald. No. 1,090,737; Mar. 17; Gaz. vol. 200; p. 797.
Gas indicator, Inflammable-. A. Guasco. No. 1,089,050; Mar. 3; Gaz. vol. 200; p. 128.
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Gas-light, Inverted incandescent. V. H. Slinack. No. 1,089,504; Mar. 10; Gaz. vol. 200; p. 333.
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Gas-machines, Oil-pumping apparatus for. M. Laux. No. 1,091,357; Mar. 24; Gaz. vol. 200; p. 1040.
Gas-manufacturing apparatus. E. C. and L. B. Jones. No. 1,089,926; Mar. 10; Gaz. vol. 200; p. 479.
Gas-meter. H. Chrlaman. No. 1,089,393; Mar. 10; Gaz. vol. 200; p. 290.
Gas-meter. H. H. Sprague. No. 1,089,730; Mar. 10; Gaz. vol. 200; p. 410.
Gas-meter. H. B. Thornton and J. W. Hammond. No. 1,090,507; Mar. 17; Gaz. vol. 200; p. 722.
Gas-meter. W. H. Knight. No. 1,090,864; Mar. 24; Gaz. vol. 200; p. 871.
Gas-meter. C. E. Hibberd. No. 1,092,048; Mar. 31; Gaz. vol. 200; p. 1319.
Gas-meter, Rotary. E. B. De La Matyr. No. 1,090,780; Mar. 17; Gaz. vol. 200; p. 811.
Gas-producer. H. E. Smythe. No. 1,088,709; Mar. 3; Gaz. vol. 200; p. 43.
Gas-producer hopper. W. A. Jones. No. 1,090,857; Mar. 24; Gaz. vol. 200; p. 869.
Gases, Separating mixtures of. A. Sinding-Larsen. No. 1,091,023; Mar. 24; Gaz. vol. 200; p. 929.
Gases to the action of liquids, Apparatus for subjecting. F. H. Wagner. No. 1,091,464; Mar. 24; Gaz. vol. 200; p. 1074.
Gaseous-fuel heater. R. A. Friable. No. 1,091,501; Mar. 31; Gaz. vol. 200; p. 1132.
Gaseous injections, Apparatus for. M. Braunberger. No. 1,090,833; Mar. 24; Gaz. vol. 200; p. 862.
Gasolene-engine. L. P. Vance. No. 1,090,177; Mar. 17; Gaz. vol. 200; p. 605.
Gasolene traction-engine. L. C. Olesen. No. 1,090,645; Mar. 17; Gaz. vol. 200; p. 768.
Gasket. C. F. Hettinger. No. 1,089,134; Mar. 3; Gaz. vol. 200; p. 160.
Gate: *See* Automatic gate; Card-gate; Folding gate; Sluice-gate.
Gate. J. Long. No. 1,090,732; Mar. 17; Gaz. vol. 200; p. 795.
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Gear-hobbing machine. F. O. Farwell. No. 1,091,493; Mar. 31; Gaz. vol. 200; p. 1130.
Gear, Radial-draft. E. H. Schmidt. No. 1,090,656; Mar. 17; Gaz. vol. 200; p. 773.
Gearing. F. G. Marbach. No. 1,089,065; Mar. 3; Gaz. vol. 200; p. 133.
Gearing. W. E. Martin and G. Bryan. No. 1,089,141; Mar. 3; Gaz. vol. 200; p. 163.
Gearing, Change-speed. C. C. Earnist. No. 1,091,467; Mar. 24; Gaz. vol. 200; p. 1075.
Gearing, Change-speed. W. S. Austin. No. 1,091,618; Mar. 31; Gaz. vol. 200; p. 1172.
Gearing, Power-transmission. F. W. Vodoz. No. 1,091,606; Mar. 31; Gaz. vol. 200; p. 1168.
Gearing, Rotating. A. G. Tomsick. No. 1,091,871; Mar. 31; Gaz. vol. 200; p. 1262.
Gearing, Speed-reduction. V. G. Apple. No. 1,089,181; Mar. 3; Gaz. vol. 200; p. 177.
Generator: *See* Acetylene-generator; Current-generator; Electric generator; Gas-generator; Steam-generator.
Generator and burner, Combined. S. A. Christian. No. 1,089,532; Mar. 10; Gaz. vol. 200; p. 343.





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Gin-saw-space-block-sizing machine. H. W. Ligon. No. 1,089,566; Mar. 10; Gaz. vol. 200; p. 353.
Glass and means for preventing the streaking of glassware, Regulating device for molten. J. W. Gayner. No. 1,090,101; Mar. 10; Gaz. vol. 200; p. 537.
Glass, Grinding-machine for manufacturing plate-. H. S. Heichert. No. 1,089,924; Mar. 10; Gaz. vol. 200; p. 473.
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Golf-club. J. Millar. No. 1,091,231; Mar. 24; Gaz. vol. 200; p. 1001.
Golf-club head. W. Burke. No. 1,089,900; Mar. 10; Gaz. vol. 200; p. 469.
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Golf-strokes, Device for practising. E. C. Thompson and L. S. Dromgold. No. 1,091,985; Mar. 31; Gaz. vol. 200; p. 1299.
Governor. J. M. Primm. No. 1,090,500; Mar. 17; Gaz. vol. 200; p. 720.
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Governor for internal-combustion engines. W. H. Himes. No. 1,090,212; Mar. 17; Gaz. vol. 200; p. 617.
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Grain-loaders, Adjustable grain-spout holder for. J. A. Engelhart. No. 1,090,291; Mar. 17; Gaz. vol. 200; p. 645.
Grain-rack attachment. E. Gerdin. No. 1,090,610; Mar. 17; Gaz. vol. 200; p. 758.
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Grate. H. F. Langenhop. No. 1,089,231; Mar. 3; Gaz. vol. 200; p. 192.
Grate. R. M. and C. C. Sprague. No. 1,089,682; Mar. 10; Gaz. vol. 200; p. 394.
Grate-bar. G. E. Camp. No. 1,089,317; Mar. 3; Gaz. vol. 200; p. 219.
Grate, Forced-draft. R. G. Long. No. 1,089,237; Mar. 3; Gaz. vol. 200; p. 194.
Grating. A. Darroch. No. 1,092,094; Mar. 31; Gaz. vol. 200; p. 1336.
Grease-cup. N. W. Cummins. No. 1,088,770; Mar. 3; Gaz. vol. 200; p. 33.
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Grease-cup-locking device. A. Triou. No. 1,090,766; Mar. 17; Gaz. vol. 200; p. 806.
Grinder, Tire-. J. Dailey and D. Bertolino. No. 1,092,026; Mar. 31; Gaz. vol. 200; p. 1311.
Grinding and polishing machine. R. Ochschim. No. 1,088,922; Mar. 3; Gaz. vol. 200; p. 85.
Grinding and polishing machine. N. J. Downey and S. Kumkumian. No. 1,091,489; Mar. 31; Gaz. vol. 200; p. 1128.
Grinding apparatus. J. A. Bechtel. No. 1,089,894; Mar. 10; Gaz. vol. 200; p. 466.
Grinding-disk for coffee-mills and the like. H. L. Johnston. No. 1,089,413; Mar. 10; Gaz. vol. 200; p. 299.
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Grinding-machine gear-casing. J. M. Thompson. No. 1,089,022; Mar. 3; Gaz. vol. 200; p. 119.
Grinding-machine-truing device. C. W. Beam. No. 1,089,455; Mar. 10; Gaz. vol. 200; p. 314.
Grinding-machines, Applying abrasives to. H. K. Hitchcock. No. 1,089,705; Mar. 10; Gaz. vol. 200; p. 401.
Grinding mechanism, Applying abrading material to. J. A. Bechtel. No. 1,089,895; Mar. 10; Gaz. vol. 200; p. 467.
Grinding-pans, Center-bearing for. C. M. Wall. No. 1,090,667; Mar. 17; Gaz. vol. 200; p. 776.
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Grinding tool, Valve-. H. R. Parsons. No. 1,091,954; Mar. 31; Gaz. vol. 200; p. 1290.
Grinding-wheel. F. B. Jacobs. No. 1,089,766; Mar. 10; Gaz. vol. 200; p. 422.
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Gun-carriages, Detachable spade for wheeled. O. Lauber. No. 1,090,077; Mar. 10; Gaz. vol. 200; p. 529.
Gun loading device, Turret or stationary. M. Bartholdy. No. 1,090,093; Mar. 10; Gaz. vol. 200; p. 534.
Gun-mount. L. V. Benét and H. A. Mercié. No. 1,089,307; Mar. 3; Gaz. vol. 200; p. 215.
Gun, Quick-firing machine-. T. F. Caldwell. No. 1,090,124; Mar. 10; Gaz. vol. 200; p. 546.
Gun, Semi-automatic. F. Lender. No. 1,091,361; Mar. 24; Gaz. vol. 200; p. 1041.
Gun-shells, Rope sling for. J. M. Snee. No. 1,088,939; Mar. 3; Gaz. vol. 200; p. 92.
Gun with fluid-accumulator, Semi-automatic. F. Lender. No. 1,091,360; Mar. 24; Gaz. vol. 200; p. 1041.
Guns, Cartridge-discharging attachment for. J. Kramer. No. 1,089,000; Mar. 3; Gaz. vol. 200; p. 112.
Guns, Cartridge-feed mechanism of automatic. A. T. Dawson and G. T. Buckham. No. 1,091,640; Mar. 31; Gaz. vol. 200; p. 1180.
Guns, Firing mechanism of breech-loading. A. T. Dawson and G. T. Buckham. No. 1,091,638; Mar. 31; Gaz. vol. 200; p. 1179.
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Mill: *See* Attrition-mill; Coffee-granulating mill; Crushing-mill; Crushing and grinding mill; Pulverizing-mill.
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Mixer: *See* Concrete-mixer; Fuel-mixer; Liquid-mixer; Rotary mixer.
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Mold: *See* Beam-mold; Concrete-fence-post mold; Concrete-wall mold; Linotype-mold.
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Mold. J. Thibadeau. No. 1,091,901; Mar. 31; Gaz. vol. 200; p. 1271.
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Molten materials, Apparatus for pouring. C. W. Lummis. No. 1,089,139; Mar. 3; Gaz. vol. 200; p. 162.
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Mop-wringer. E. E. Dobbins and W. P. Bartholow. No. 1,089,914; Mar. 10; Gaz. vol. 200; p. 474.
Mortising-machine. W. W. McMurtry. No. 1,090,323; Mar. 17; Gaz. vol. 200; p. 656.
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Motor: *See* Current-motor; Explosion-motor; Hot-air motor; Induction-motor; Single-phase motor; Thermodynamic motor; Wave-motor.
Motor. D. S. Waugh. No. 1,090,179; Mar. 17; Gaz. vol. 200; p. 606.
Motor. G. and K. Hogg No. 1,091,575; Mar. 31; Gaz. vol. 200; p. 1157.
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Motors, Means for collectively actuating and controlling alternating-current. J. L. Routin. No. 1,090,568; Mar. 17; Gaz. vol. 200; p. 742.
Mount for specimens. M. H. Mead. No. 1,090,403; Mar. 17; Gaz. vol. 200; p. 685.
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Mower. H. C. Bjering. No. 1,089,039; Mar. 3; Gaz. vol. 200; p. 125.
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Musical instruments, Pneumatic playing attachment for. R. J. Bennett. No. 1,089,358; Mar. 3; Gaz. vol. 200; p. 233.
Musical instruments, Pneumato-electric tracker-bar for. C. W. Doricott. No. 1,088,884; Mar. 3; Gaz. vol. 200; p. 72.
Musical instruments, Spool-operating device for. A. Nordeen and A. Krell. No. 1,089,721; Mar. 10; Gaz. vol. 200; p. 407.
Musical instruments, Winding and rewinding device for automatic. F. W. Hempelmann. No. 1,091,658; Mar. 31; Gaz. vol. 200; p. 1187.
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Nailing-machine, String. S. A. Dobyne. No. 1,091,299; Mar. 24; Gaz. vol. 200; p. 1022.
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Nuts, Machine for making castellated. F. E. Brightman. No. 1,092,126; Mar. 31; Gaz. vol. 200; p. 1346.
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Oil-burners, Flame-spreader for. G. W. Knapp. No. 1,091,667; Mar. 31; Gaz. vol. 200; p. 1190.
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Photography, Producing polychromatic screens, plates, films, and paper for color. J. Szczepanik. No. 1,089,602; Mar. 10; Gaz. vol. 200; p. 366.
Photography, Sensitizing dyestuffs employed in. J. H. Smith. No. 1,089,594; Mar. 10; Gaz. vol. 200; p. 364.
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Picture booths, Protective apparatus for moving-. W. J. Kerr. No. 1,091,662; Mar. 31; Gaz. vol. 200; p. 1188.
Picture-exhibiting apparatus, Moving-. J. U. Houseman. No. 1,089,219; Mar. 3; Gaz. vol. 200; p. 188.
Picture films, Indicating device for moving-. F. H. Avers. No. 1,090,128; Mar. 17; Gaz. vol. 200; p. 587.
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Picture machines, Projecting apparatus for moving-. G. E. Ripley, W. N. Gladson, and R. E. Thompson. No. 1,091,864; Mar. 31; Gaz. vol. 200; p. 1260.
Picture machines, Shutter for motion-. A. D. Standeford. No. 1,091,543; Mar. 31; Gaz. vol. 200; p. 1147.
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Picture-projecting machine, Portable motion-. W. J. Branigan. No. 1,090,097; Mar. 10; Gaz. vol. 200; p. 536.
Picture reproduction and mechanism for producing the same, Curved screen for stationary and moving. W. L. Tillotson. No. 1,089,448; Mar. 10; Gaz. vol. 200; p. 312.
Pictures, Apparatus for taking or reproducing animated. L. H. Huet. No. 1,092,053; Mar. 31; Gaz. vol. 200; p. 1321.
Pile-driver. P. W. Leen. No. 1,088,710; Mar. 3; Gaz. vol. 200; p. 14.
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Pipe: *See* Tobacco-pipe.
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Pistol, Automatic. V. Falco. No. 1,089,195; Mar. 3; Gaz. vol. 200; p. 181.
Piston-cooling device. N. S. Beebe. No. 1,090,774; Mar. 17; Gaz. vol. 200; p. 809.
Piston for internal-combustion engines. C. Day and G. E. Windeler. No. 1,089,823; Mar. 10; Gaz. vol. 200; p. 442.
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Plane. A. A. Page. No. 1,090,225; Mar. 17; Gaz. vol. 200; p. 622.
Plane, Iron. T. S. Carlisle. No. 1,089,189; Mar. 3; Gaz. vol. 200; p. 179.
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Planing-machine, Electrically-driven. G. E. Mason. No. 1,089,658; Mar. 10; Gaz. vol. 200; p. 386.
Planter. T. W. Suggs. No. 1,089,286; Mar. 3; Gaz. vol. 200; p. 209.
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Planter and fertilizer-distributer, Combined. N. C. Cross. No. 1,090,284; Mar. 17; Gaz. vol. 200; p. 642.
Planter attachment, Corn-. J. B. Allbee. No. 1,089,893; Mar. 10; Gaz. vol. 200; p. 466.
Planter attachment, Corn-. H. S. Lubben. No. 1,091,068; Mar. 24; Gaz. vol. 200; p. 944.
Planter attachment, Corn-. R. R. Dewey. No. 1,091,879; Mar. 31; Gaz. vol. 200; p. 1265.
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Plow-fender. Z. T. Cash. No. 1,090,025; Mar. 10; Gaz. vol. 200; p. 511.
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Plow, Motor-. G. Hintze and A. Rosewick. No. 1,091,885; Mar. 31; Gaz. vol. 200; p. 1267.
Plow, Side-ballast unloading-. J. Suggitt. No. 1,088,846; Mar. 3; Gaz. vol. 200; p. 59.
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Plows, Stalk-cutter attachment for. E. W. Lancaster. No. 1,090,400; Mar. 17; Gaz. vol. 200; p. 684.
Plows, Steering-wheel for. J. H. Miller. No. 1,090,935; Mar. 24; Gaz. vol. 200; p. 897.
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Plug-gage. D. P. Beckwith. No. 1,090,901; Mar. 24; Gaz. vol. 200; p. 885.
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Post. E. Frantz. No. 1,091,741; Mar. 31; Gaz. vol. 200; p. 1215.
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Press-feeder, Automatic. J. Lynch. No. 1,091,855; Mar. 31; Gaz. vol. 200; p. 1257.
Press-head-operating apparatus. C. R. P. Pool. No. 1,089,008; Mar. 3; Gaz. vol. 200; p. 114.
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Propeller. C. A. Bryan. No. 1,090,271; Mar. 17; Gaz. vol. 200; p. 638.
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Pulley, Friction-. A. R. Ebenreiter. No. 1,090,462; Mar. 17; Gaz. vol. 200; p. 706.
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Rake. C. G. Bradford. No. 1,088,767; Mar. 3; Gaz. vol. 200; p. 32.
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Rake-cleaner. F. B. Boosveld. No. 1,092,011; Mar. 31; Gaz. vol. 200; p. 1307.
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Raker-tooth swager. R. J. Brough. No. 1,091,801; Mar. 31; Gaz. vol. 200; p. 1237.
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Razor. J. Kaufman. No. 1,091,436; Mar. 24; Gaz. vol. 200; p. 1066.
Razor and stropper, Combined. R. A. Wittl. No. 1,090,823; Mar. 17; Gaz. vol. 200; p. 826.
Razor-blade holder. F. L. Humeston. No. 1,090,398; Mar. 17; Gaz. vol. 200; p. 683.
Razor-blade stropping and honing machine. E. Jacobs. No. 1,090,986; Mar. 24; Gaz. vol. 200; p. 914.
Razor-cleaning attachment for barbers' chairs. A. Bongiovanni. No. 1,089,311; Mar. 3; Gaz. vol. 200; p. 217.
Razor-hones, Bath for. J. E. Clark. No. 1,092,023; Mar. 31; Gaz. vol. 200; p. 1311.
Razor-honing device. A. Lo Casto. No. 1,091,939; Mar. 31; Gaz. vol. 200; p. 1284.
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Receptacle. B. Jahn. No. 1,088,779; Mar. 3; Gaz. vol. 200; p. 36.
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Receptacle. J. S. and E. R. Kunkel. No. 1,090,725; Mar. 17; Gaz. vol. 200; p. 793.
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Receptacle-cover. G. P. Jennings. No. 1,092,056; Mar. 31; Gaz. vol. 200; p. 1322.
Receptacle-cover and shade-holder, Combined. F. W. Wakefield. No. 1,089,352; Mar. 3; Gaz. vol. 200; p. 230.
Receptacle, Deposit and collection. E. E. Schnelle. No. 1,089,591; Mar. 10; Gaz. vol. 200; p. 363.
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Receptacle, Storage and display. J. J. Ferrall and E. Mackay. No. 1,090,117; Mar. 10; Gaz. vol. 200; p. 543.
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Recording instrument. R. P. Brown. No. 1,089,744; Mar. 10; Gaz. vol. 200; p. 414.
Recording-machine. C. E. Tomlinson. No. 1,091,718; Mar. 31; Gaz. vol. 200; p. 1206.
Recording mechanism. H. W. Payne. No. 1,090,749; Mar. 17; Gaz. vol. 200; p. 800.
Reel: *See* Clothes-line reel; Fire-hose reel.
Reel braking attachment. G. S. Yingling. No. 1,089,616; Mar. 10; Gaz. vol. 200; p. 371.
Reflector, Prismatic glass. O. A. Mygatt. No. 1,092,114; Mar. 31; Gaz. vol. 200; p. 1342.
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Refrigerator. M. H. Slater. No. 1,089,016; Mar. 3; Gaz. vol. 200; p. 117.
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Refrigerator. J. Schulde and N. J. Windberg. No. 1,091,393; Mar. 24; Gaz. vol. 200; p. 1052.
Refrigerator attachment. F. P. and H. D. Layman. No. 1,090,925; Mar. 24; Gaz. vol. 200; p. 893.
Refrigerator, Vacuum-walled. L. W. Seeman and J. C. Morse. No. 1,091,968; Mar. 31; Gaz. vol. 200; p. 1294.
Refuse disposal and reduction plant. G. W. Haskin. No. 1,091,837; Mar. 31; Gaz. vol. 200; p. 1249.
Register: *See* Autographic register; Card-register; Cash-register; Fare-register; Meter-register.
Register-leaf construction, Credit-. F. J. Peterson. No. 1,091,239; Mar. 24; Gaz. vol. 200; p. 1004.
Registering and change device, Automatic. D. Galbis. No. 1,089,206; Mar. 3; Gaz. vol. 200; p. 184.
Registering system. R. H. Long. (Reissue.) No. 13,707; Mar. 31; Gaz. vol. 200; p. 1348.
Regulator: *See* Current-regulator; Expression-regulator; Feed-regulator; Gas-jet regulator; Pulp-feed regulator; Voltage-regulator.
Relay. J. A. Birsfield. No. 1,088,870; Mar. 3; Gaz. vol. 200; p. 67.
Relay apparatus. A. Orling. No. 1,089,434; Mar. 10; Gaz. vol. 200; p. 306.
Releasable wringer. F. H. Bergman. No. 1,089,622; Mar. 10; Gaz. vol. 200; p. 373.
Reminder, Automatic. H. E. M. Kensit. No. 1,089,712; Mar. 10; Gaz. vol. 200; p. 404.
Resilient wheel. G. Cauvry and L. Salel. No. 1,090,199; Mar. 17; Gaz. vol. 200; p. 613.
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Resilient wheel for vehicles. G. H. Robinson. No. 1,090,087; Mar. 10; Gaz. vol. 200; p. 532.
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Retaining device. A. Q. Walsh. No. 1,091,262; Mar. 24; Gaz. vol. 200; p. 1011.
Retort or still. J. H. Castona. No. 1,092,018; Mar. 31; Gaz. vol. 200; p. 1309.
Reversed images, Apparatus for reading. W. F. Folmer. No. 1,089,917; Mar. 10; Gaz. vol. 200; p. 475.
Ribbon winding and reversing mechanism. W. J. Burchett. No. 1,089,042; Mar. 3; Gaz. vol. 200; p. 125.
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Ring: *See* Emblem-ring; Packing-ring.
Riveting-machine. C. Snodgrass. No. 1,089,281; Mar. 3; Gaz. vol. 200; p. 208.
Road-leveling device. N. S. Monroe. (Reissue.) No. 13,708; Mar. 31; Gaz. vol. 200; p. 1350.
Road-machine. O. A. Moody. No. 1,089,427; Mar. 10; Gaz. vol. 200; p. 304.
Road-making material. G. Sprung. No. 1,091,777; Mar. 31; Gaz. vol. 200; p. 1228.
Road-surfacing machine. T. J. McDonald. No. 1,089,145; Mar. 3; Gaz. vol. 200; p. 164.
Roaster: *See* Self-basting roaster.
Rock-drill. C. H. Locher. No. 1,089,930; Mar. 10; Gaz. vol. 200; p. 481.
Rock-drilling machine. C. C. Hansen. No. 1,088,984; Mar. 3; Gaz. vol. 200; p. 107.
Rod: *See* Connecting-rod; Invoice-rod; Switch-rod.
Roller: *See* Crushing-roller; Shade-roller.
Rolling-mill mechanism. C. M. Grey. No. 1,089,126; Mar. 3; Gaz. vol. 200; p. 156.
Rolling mills, Constructing a transferring device for rod or wire. A. Schöpf and H. Mosaner. No. 1,089,502; Mar. 10; Gaz. vol. 200; p. 332.
Rolling mills, Feed mechanism for tube-. H. Stüting. No. 1,092,084; Mar. 31; Gaz. vol. 200; p. 1331.
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Roof-flashing insert. W. A. and F. G. Wittbecker. No. 1,091,611; Mar. 31; Gaz. vol. 200; p. 1170.
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Roofing-plate, Sheet-metal. H. E. Moomaw. No. 1,090,380; Mar. 17; Gaz. vol. 200; p. 658.
Roofing, Sheet-metal. E. W. Edwards. No. 1,091,049; Mar. 24; Gaz. vol. 200; p. 937.
Rope-clamp. J. Blackburn. No. 1,090,377; Mar. 17; Gaz. vol. 200; p. 675.
Rope-socket. O. Schelling and A. A. Phillips. No. 1,090,570; Mar. 17; Gaz. vol. 200; p. 743.
Rotary engine. L. Holt. No. 1,089,469; Mar. 10; Gaz. vol. 200; p. 319.
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Rotary engine or pump, Horizontal. J. Nielsen. No. 1,088,836; Mar. 3; Gaz. vol. 200; p. 56.
Rotary expansion-engine. R. Eisermann and J. Lehne. No. 1,089,752; Mar. 10; Gaz. vol. 200; p. 418.
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Rubber, Machine for cleaning crude. W. R. Smith. No. 1,089,162; Mar. 3; Gaz. vol. 200; p. 170.
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Rule, Tailor's. M. Carroll. No. 1,090,024; Mar. 10; Gaz. vol. 200; p. 511.
Rule, Underscoring-. J. T. Barton. No. 1,090,965; Mar. 24; Gaz. vol. 200; p. 908.
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Running-gear. D. G. Tatum. No. 1,090,762; Mar. 17; Gaz. vol. 200; p. 805.
S-iron-bending machine. F. J. Schroeder. No. 1,091,540; Mar. 31; Gaz. vol. 200; p. 1146.
Saccharometer. A. Eppens. No. 1,089,464; Mar. 10; Gaz. vol. 200; p. 317.
Sack-holding device. N. Marie. No. 1,090,160; Mar. 17; Gaz. vol. 200; p. 599.
Sack, Self-closing. B. W. Simer and A. Nichols. No. 1,089,279; Mar. 3; Gaz. vol. 200; p. 207.
Sad-iron. J. L. Poalk. No. 1,089,667; Mar. 10; Gaz. vol. 200; p. 389.
Sad-irons and the like, Electrical connection for. E. A. Rutenber. No. 1,091,767; Mar. 31; Gaz. vol. 200; p. 1224.
Safety-deposit box. C. Bartels. No. 1,091,556; Mar. 31; Gaz. vol. 200; p. 1151.
Safety device, Automatic. U. G. Ballinger. No. 1,090,011; Mar. 10; Gaz. vol. 200; p. 506.
Safety-pin. A. G. Kaufman. No. 1,089,416; Mar. 10; Gaz. vol. 200; p. 300.
Salt, Cleaning. J. Stauffer. No. 1,091,252; Mar. 24; Gaz. vol. 200; p. 1008.
Salt-making apparatus. C. L. Well. No. 1,091,721; Mar. 31; Gaz. vol. 200; p. 1208.
Salt, Transporting. J. Stauffer. No. 1,091,251; Mar. 24; Gaz. vol. 200; p. 1008.
Sand-guard. M. W. Lewis. No. 1,090,078; Mar. 10; Gaz. vol. 200; p. 529.
Sand molding apparatus. E. H. Mumford. No. 1,091,948; Mar. 31; Gaz. vol. 200; p. 1288.
Sand-trap. C. P. Ebersole. No. 1,089,541; Mar. 10; Gaz. vol. 200; p. 346.
Sander. C. A. Johnson and H. Thissenius. No. 1,089,224; Mar. 3; Gaz. vol. 200; p. 190.
Sandal. M. Lindberg. No. 1,090,731; Mar. 17; Gaz. vol. 200; p. 795.
Sarcophagus. C. L. Van Nostrand. No. 1,090,953; Mar. 24; Gaz. vol. 200; p. 904.
Sash-balance. J. E. Richardson. No. 1,091,082; Mar. 24; Gaz. vol. 200; p. 949.
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Saw, Meat-. A. S. Erquhart and C. Duclos. No. 1,089,192; Mar. 3; Gaz. vol. 200; p. 180.
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Saw shield, Rip-. W. Hook. No. 1,090,063; Mar. 10; Gaz. vol. 200; p. 524.
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Saw-swage die. A. K. Hanchett. No. 1,091,930; Mar. 31; Gaz. vol. 200; p. 1282.
Saws, Spring-block set for. E. Godin. No. 1,088,895; Mar. 3; Gaz. vol. 200; p. 76.
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Scale. A. A. Callie. No. 1,090,598; Mar. 17; Gaz. vol. 200; p. 753.
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Scissors. D. Borgetti. No. 1,090,130; Mar. 17; Gaz. vol. 200; p. 588.
Score-board, Electric. C. H. Smith. No. 1,089,798; Mar. 10; Gaz. vol. 200; p. 432.
Score indicating and recording device. R. S. Kelley. No. 1,090,626; Mar. 17; Gaz. vol. 200; p. 763.
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Screen. F. T. Wilson. No. 1,089,611; Mar. 10; Gaz. vol. 200; p. 369.
Screen fastener, Window and door. F. M. King. No. 1,091,849; Mar. 31; Gaz. vol. 200; p. 1254.
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Screw. E. J. Foreman. No. 1,088,892; Mar. 3; Gaz. vol. 200; p. 75.
Screw. J. N. Lee. No. 1,091,674; Mar. 31; Gaz. vol. 200; p. 1192.
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Screw-blank-making machine. G. T. Warwick. No. 1,091,551; Mar. 31; Gaz. vol. 200; p. 1149.
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Seat and walking-cane, Combined. J. W. Vallier. No. 1,089,295; Mar. 3; Gaz. vol. 200; p. 212.

Sectional boiler. W. M. Butler. No. 1,089,747; Mar. 10; Gaz. vol. 200; p. 416.

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Seed-grading machine. E. A. Oliver. No. 1,089,433; Mar. 10; Gaz. vol. 200; p. 306.

Seed-tester. I. L. Van Scholack. No. 1,090,251; Mar. 17; Gaz. vol. 200; p. 631.

Selector-switch, Automatic. J. N. Reynolds. No. 1,091,765; Mar. 31; Gaz. vol. 200; p. 1223.

Self-basting roaster. W. A. Stork. No. 1,091,445; Mar. 24; Gaz. vol. 200; p. 1068.

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Separator. H. P. Ewell. No. 1,091,917; Mar. 31; Gaz. vol. 200; p. 1277.

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Separator-disks, Device for cleaning. H. McCornack. No. 1,090,554; Mar. 17; Gaz. vol. 200; p. 738.

Sewed articles, Circular seam for. M. Druckerman. No 1,091,428; Mar. 24; Gaz. vol. 200; p. 1063.

Sewing and embroidering machine, Hemstitch. R. Cornely. No. 1,090,136; Mar. 17; Gaz. vol. 200; p. 590.

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Sewing machine, Insole-lip-. A. E. Johnson. No. 1,089,474; Mar. 10; Gaz. vol. 200; p. 321.

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Sewing-machine, Revolving-hook. R. K. Hohmann. No. 1,091,062; Mar. 24; Gaz. vol. 200; p. 941.

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Shade-holder, Spring-ring. T. J. Little, Jr. No. 1,090,635; Mar. 17; Gaz. vol. 200; p. 766.

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Shade-roller tensioning device. J. A. Wooton. No. 1,091,103; Mar. 24; Gaz. vol. 200; p. 956.

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Sharpener, Knife-. E. J. Stolz. No. 1,090,421; Mar. 17; Gaz. vol. 200; p. 691.

Sharpener, Lawn-mower. G. L. Knowlton. No. 1,090,075; Mar. 10; Gaz. vol. 200; p. 528.

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Shaving-cream. P. C. Magdlen. No. 1,090,733; Mar. 17; Gaz. vol. 200; p. 796.

Shaving-cream, Producing. K. Fischmann. No. 1,091,052; Mar. 24; Gaz. vol. 200; p. 938.

Shears: *See* Tobacco-shears.

Shears-handle. M. Beer. No. 1,089,183; Mar. 3; Gaz. vol. 200; p. 177.

Sheet-delivery apparatus. W. B. Walt. No. 1,090,665; Mar. 17; Gaz. vol. 200; p. 775.

Sheet-feeding apparatus. L. von Sazenhofen. No. 1,089,274; Mar. 3; Gaz. vol. 200; p. 205.

Sheet-feeding device, Automatic. J. de Blonay. No. 1,088,961; Mar. 3; Gaz. vol. 200; p. 100.

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Sheet separating apparatus, Printed and slip. H. A. W. Wood. No. 1,090,437; Mar. 17; Gaz. vol. 200; p. 698.

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Shelf and towel-rack, Combined. F. W. Koebler. No. 1,090,724; Mar. 17; Gaz. vol. 200; p. 793.

Shingle for repairing old or leaky roofs. R. B. Hall. No. 1,090,531; Mar. 17; Gaz. vol. 200; p. 730.

Ships, Hull of steel. S. Holmes. No. 1,089,135; Mar. 3; Gaz. vol. 200; p. 160.

Shirt. C. C. Filson. No. 1,088,891; Mar. 3; Gaz. vol. 200; p. 75.

Shirt. G. E. Watts. No. 1,089,999; Mar. 10; Gaz. vol. 200; p. 503.

Shirt-band, Reinforced and protective. S. P. Simon. No. 1,089,592; Mar. 10; Gaz. vol. 200; p. 363.

Shirt-waist. M. Cohn. No. 1,090,452; Mar. 17; Gaz. vol. 200; p. 703.

Shock-absorber. R. M. Lyon. No. 1,089,002; Mar. 3; Gaz. vol. 200; p. 112.

Shock-absorber. W. R. Frommater. No. 1,089,830; Mar. 10; Gaz. vol. 200; p. 444.

Shock-absorber. C. F. Fernald. No. 1,090,292; Mar. 17; Gaz. vol. 200; p. 646.

Shock-absorber for valves. E. A. Perkins. No. 1,091,238; Mar. 24; Gaz. vol. 200; p. 1003.

Shock-absorber, Road-vehicle. J. J. Griffin and G. M. Peacock. No. 1,091,884; Mar. 31; Gaz. vol. 200; p. 1266.

Shock-absorber, Vehicle spring. J. N. Lewis. No. 1,089,363; Mar. 3; Gaz. vol. 200; p. 234.

Shock-absorbing device. C. H. Foster. No. 1,089,828; Mar. 10; Gaz. vol. 200; p. 444.

Shock-absorbing wheel. H. A. Becker. No. 1,091,622; Mar. 31; Gaz. vol. 200; p. 1174.

Shock-conveyer. G. H. Pallady. No. 1,090,337; Mar. 17; Gaz. vol. 200; p. 661.

Shock-loader. P. J. Donovan. (Reissue.) No. 13,700; Mar. 17; Gaz. vol. 200; p. 829.

Shoe. G. H. Ricke. No. 1,091,165; Mar. 24; Gaz. vol. 200; p. 978.

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Shoe, Electric. K. H. Brown. No. 1,090,682; Mar. 17; Gaz. vol. 200; p. 780.

Shoe-polishing machine. A. H. B. Heller. No. 1,091,657; Mar. 31; Gaz. vol. 200; p. 1186.

Shoe-shiner's clamp. F. L. Campbell. No. 1,090,022; Mar. 10; Gaz. vol. 200; p. 511.

Shoes, Adjustable auxiliary shank for. M. E. Normandin. No. 1,091,696; Mar. 31; Gaz. vol. 200; p. 1199.

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Shotgun-barrel attachment. C. Ehrler. No. 1,089,403; Mar. 10; Gaz. vol. 200; p. 295.

Shovel: *See* Tunnel-shovel.

Show-case construction. M. A. Skall. No. 1,089,593; Mar. 10; Gaz. vol. 200; p. 363.

Show-case door. M. Kump. No. 1,091,670; Mar. 31; Gaz. vol. 200; p. 1190.

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Sign, Electric. G. T. Kelly. No. 1,090,989; Mar. 24; Gaz. vol. 200; p. 915.

Sign, Electric. H. Deschere. No. 1,091,916; Mar. 31; Gaz. vol. 200; p. 1277.

Sign, Illuminated. J. A. Bergmann. No. 1,088,869; Mar. 3; Gaz. vol. 200; p. 67.

Sign or device, Advertising. H. G. De Hamel and G. Makgill. No. 1,090,707; Mar. 17; Gaz. vol. 200; p. 788.

Sign or display-card. F. V. Walker. No. 1,089,996; Mar. 10; Gaz. vol. 200; p. 501.

Sign, Swinging. M. Mayer. No. 1,089,143; Mar. 3; Gaz. vol. 200; p. 163.

Signal: *See* Direction-indicating signal; Railway-signal; Railway electric signal; Vehicle-signal.

Signal apparatus. C. G. Kamiske. No. 1,091,578; Mar. 31; Gaz. vol. 200; p. 1158.

Signal apparatus for mines. A. J. Gurney. No. 1,089,763; Mar. 10; Gaz. vol. 200; p. 421.

Signal system, Normal-danger-. L. A. Hawkins. No. 1,091,134; Mar. 24; Gaz. vol. 200; p. 967.

Signaling apparatus. E. Lissauer. No. 1,091,938; Mar. 31; Gaz. vol. 200; p. 1284.

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Signaling, Transmitting apparatus for electric. P. O. Pedersen. No. 1,091,159; Mar. 24; Gaz. vol. 200; p. 976.

Signature-gathering machines, Jogging attachment for. A. Gullberg and C. L. Smith. No. 1,090,473; Mar. 17; Gaz. vol. 200; p. 710.

Silo. E. N. Cramer. No. 1,090,282; Mar. 17; Gaz. vol. 200; p. 641.

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Silo, Combination wood and concrete. W. D. Pugh. No. 1,089,010; Mar. 3; Gaz. vol. 200; p. 115.

Silo-hoop. H. E. Boldt. No. 1,089,742; Mar. 10; Gaz. vol. 200; p. 414.

Singeing-machine. W. W. Sibson and T. Allsop. No. 1,089,085; Mar. 3; Gaz. vol. 200; p. 141.

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Sink. J. Gardner. No. 1,090,704; Mar. 17; Gaz. vol. 200; p. 787.

Sink, Dumping-. J. D. Hoffa. No. 1,089,130; Mar. 3; Gaz. vol. 200; p. 158.

Siphon. S. B. Drinkhouse. No. 1,088,973; Mar. 3; Gaz. vol. 200; p. 103.

Skates, sleighs, skees, and the like, Blade for. L. von Köppen. No. 1,088,709; Mar. 3; Gaz. vol. 200; p. 14.

Skee, Water-. V. Voller. No. 1,091,259; Mar. 24; Gaz. vol. 200; p. 1010.

Skirt, Divided. F. R. Galluzzo. No. 1,091,827; Mar. 31; Gaz. vol. 200; p. 1246.

Skiving-machine. F. J. Nash. No. 1,090,164; Mar. 17; Gaz. vol. 200; p. 600.

Skiving-machine, L. Muther and W. F. Lautenschlager. No. 1,091,753; Mar. 31; Gaz. vol. 200; p. 1219.

Skiving-machines, Device for mounting the feed-disks in. L. Muther and W. M. Sprye. No. 1,092,122; Mar. 31; Gaz. vol. 200; p. 1345.

Skylight. C. Yauch. No. 1,090,186; Mar. 17; Gaz. vol. 200; p. 609.

Slag-handling apparatus. R. C. Gangewere. No. 1,091,828; Mar. 31; Gaz. vol. 200; p. 1246.

Sled. D. Y. Hallock. No. 1,090,052; Mar. 10; Gaz. vol. 200; p. 520.

Sled. F. Hornquist. No. 1,090,152; Mar. 17; Gaz. vol. 200; p. 596.

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Slicing-machines, Material-clamping mechanism for. J. H. Hampp. No. 1,091,655; Mar. 31; Gaz. vol. 200; p. 1185.

Slitting and scoring machine. J. T. Ferres. No. 1,091,204; Mar. 24; Gaz. vol. 200; p. 991.

Sluice-gate, Automatic. G. Larson. No. 1,089,232; Mar. 3; Gaz. vol. 200; p. 192.

Smoke-consumer. L. Kidd. No. 1,090,072; Mar. 20; Gaz. vol. 200; p. 527.

Smoke-consumer. J. A. Packard. No. 1,091,013; Mar. 24; Gaz. vol. 200; p. 924.

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Smoke-stack protector. E. C. French and T. E. Craig. No. 1,090,389; Mar. 17; Gaz. vol. 200; p. 679.

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Socket-shell and holder combined. L. W. Andersen. No. 1,089,180; Mar. 3; Gaz. vol. 200; p. 177.

Sodium and potassium salts, Separating. H. P. Bassett. No. 1,091,033; Mar. 24; Gaz. vol. 200; p. 932.

Soldering-iron, Self-heating. J. L. Finnegan. No. 1,090,141; Mar. 17; Gaz. vol. 200; p. 592.

Sole evening and grading machine. E. P. Nichols. No. 1,089,492; Mar. 10; Gaz. vol. 200; p. 328.

Solutions, Manufacturing an elastic foam from volatile. F. Laarmann. No. 1,089,482; Mar. 10; Gaz. vol. 200; p. 324.

Sorter. C. E. Leeper. No. 1,091,675; Mar. 31; Gaz. vol. 200; p. 1192.

Sound-box. T. H. Macdonald. No. 1,091,001; Mar. 24; Gaz. vol. 200; p. 920.

Sound-box diaphragm. J. C. English. No. 1,091,202; Mar. 24; Gaz. vol. 200; p. 991.

Sound-reproducing machines, Automatic brake for. E. O. Klemm. No. 1,089,230; Mar. 3; Gaz. vol. 200; p. 192.

Sound-transmitter, Electrical. M. E. Pearson. No. 1,088,923; Mar. 3; Gaz. vol. 200; p. 85.

Sounder, Electromagnetically-operated. C. J. Schwarze. No. 1,092,117; Mar. 31; Gaz. vol. 200; p. 1344.

Spark advancing and retarding mechanism. E. L. Pardee. No. 1,089,256; Mar. 3; Gaz. vol. 200; p. 199.

Spark-arrester. W. G. Chillis. No. 1,090,026; Mar. 10; Gaz. vol. 200; p. 512.

Spark-arrester. W. L. Buck. No. 1,091,283; Mar. 24; Gaz. vol. 200; p. 1017.

Spark-plug. J. R. McDowell. No. 1,089,244; Mar. 3; Gaz. vol. 200; p. 196.

Spark-plug. F. E. Harter. No. 1,090,815; Mar. 17; Gaz. vol. 200; p. 823.

Spark-plug and air-compressor. D. B. Combs. No. 1,091,295; Mar. 24; Gaz. vol. 200; p. 1020.

Spectacles and eyeglasses. J. C. Wells. No. 1,090,181; Mar. 17; Gaz. vol. 200; p. 607.

Speculum. F. P. Nourse. No. 1,090,746; Mar. 17; Gaz. vol. 200; p. 800.

Speed-changing mechanism, Differentially-geared. F. I. and B. P. Remy and A. Berger. No. 1,090,411; Mar. 17; Gaz. vol. 200; p. 688.

Speed-comparing device. R. Miller, Jr. No. 1,091,686; Mar. 31; Gaz. vol. 200; p. 1195.

Speed-controlling device. C. Ryden. No. 1,089,793; Mar. 10; Gaz. vol. 200; p. 431.

Speed indicating and recording device. W. K. Menns. No. 1,089,246; Mar. 3; Gaz. vol. 200; p. 196.

Speed-indicating instrument. C. H. Warner and A. B. Cadman. No. 1,088,948; Mar. 3; Gaz. vol. 200; p. 95.

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Speed-transmission mechanism, Variable-. C. Lea. No. 1,090,401; Mar. 17; Gaz. vol. 200; p. 684.

Speedometer. W. O. Nelson. No. 1,090,938; Mar. 24; Gaz. vol. 200; p. 898.

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Spindle-step. J. R. Mitchell. No. 1,088,919; Mar. 3; Gaz. vol. 200; p. 84.

Spinning-machine doffing mechanism. T. O. Aked. No. 1,090,958; Mar. 24; Gaz. vol. 200; p. 906.

Spinning machines, Building-motion for ring-. J. Poisson. No. 1,091,015; Mar. 24; Gaz. vol. 200; p. 925.

Spinning, twisting, and analogous machine. H. Shackleton. No. 1,090,757; Mar. 17; Gaz. vol. 200; p. 803.

Splint, Adjustable. J. F. Baughman. No. 1,089,305; Mar. 3; Gaz. vol. 200; p. 215.

Spool. A. Wold. No. 1,089,452; Mar. 10; Gaz. vol. 200; p. 313.

Spool. G. W. Adams. No. 1,091,106; Mar. 24; Gaz. vol. 200; p. 957.

Spray-nozzle. J. L. Fitts. No. 1,089,406; Mar. 10; Gaz. vol. 200; p. 296.

Spraying apparatus. C. Reichert. No. 1,089,083; Mar. 3; Gaz. vol. 200; p. 140.

Spraying device for the hair and scalp. H. Sopha. No. 1,089,596; Mar. 10; Gaz. vol. 200; p. 364.

Spraying-machine. R. F. North. No. 1,091,952; Mar. 31; Gaz. vol. 200; p. 1289.

Spring: *See* Bed-spring; Cushion-spring; Metal spring.

Spring-board. M. W. Bush. No. 1,090,836; Mar. 24; Gaz. vol. 200; p. 863.

Spring-clip and yoke. J. F. Holcombe. No. 1,091,513; Mar. 31; Gaz. vol. 200; p. 1137.

Spring-coupling. K. Völler and E. Steinhart. No. 1,091,989; Mar. 31; Gaz. vol. 200; p. 1301.

Spring-seat. F. Jackson. No. 1,089,644; Mar. 10; Gaz. vol. 200; p. 381.

Spring system. W. H. Son. No. 1,088,738; Mar. 3; Gaz. vol. 200; p. 24.

Spring-testing means, Vehicle. E. J. Harvey. No. 1,091,219; Mar. 24; Gaz. vol. 200; p. 997.

Spring-wheel. F. Stitzel. No. 1,089,979; Mar. 10; Gaz. vol. 200; p. 495.

Spring-wheel. F. P. Bacon. No. 1,090,373; Mar. 17; Gaz. vol. 200; p. 673.
Spring-wheel. L. A. Furuseth. No. 1,090,703; Mar. 17; Gaz. vol. 200; p. 787.
Spring-wheel. J. D. Short. No. 1,090,797; Mar. 17; Gaz. vol. 200; p. 817.
Spring-wheel. F. P. Holmes. No. 1,091,515; Mar. 31; Gaz. vol. 200; p. 1137.
Springs, Device for opening elliptical. C. N. Sowden. No. 1,091,975; Mar. 31; Gaz. vol. 200; p. 1296.
Springs, Hanger construction for auto running-gear. E. F. Goodman. No. 1,088,777; Mar. 3; Gaz. vol. 200; p. 36.
Sprinkler and water-pail, Convertible. J. J. Slitski, Jr. No. 1,091,971; Mar. 31; Gaz. vol. 200; p. 1295.
Sprinkler for lawns, golf-greens, gardens, and the like. P. Zeyssoff. No. 1,089,179; Mar. 3; Gaz. vol. 200; p. 176.
Sprinkler supervisory system. C. F. Patterson. No. 1,090,497; Mar. 17; Gaz. vol. 200; p. 718.
Square. H. C. Hart. No. 1,091,332; Mar. 24; Gaz. vol. 200; p. 1030.
Square, Bevel-. L. Spies. No. 1,091,978; Mar. 31; Gaz. vol. 200; p. 1297.
Square, Folding. B. L. Bronson. No. 1,090,811; Mar. 17; Gaz. vol. 200; p. 822.
Squirrel-cage rotor. F. W. Stefater. No. 1,089,597; Mar. 10; Gaz. vol. 200; p. 365.
Stacker, Straw-. J. Maserang. No. 1,090,638; Mar. 17; Gaz. vol. 200; p. 767.
Stairway, Movable. F. E. Bessler. No. 1,088,960; Mar. 3; Gaz. vol. 200; p. 99.
Stake-pocket, Collapsible. J. J. Tatum. No. 1,091,546; Mar. 31; Gaz. vol. 200; p. 1148.
Stalk-cutter and roller, Combined. J. J. Nohr. No. 1,089,948; Mar. 10; Gaz. vol. 200; p. 486.
Stamp, Dating-. H. M. G. Pinkerton. No. 1,091,388; Mar. 24; Gaz. vol. 200; p. 1050.
Stamp, Hand-. E. Fisher. No. 1,089,198; Mar. 3; Gaz. vol. 200; p. 182.
Stamp, Hand-. L. K. Scotford. No. 1,091,394; Mar. 24; Gaz. vol. 200; p. 1052.
Stamp-sticking apparatus. F. Kaspar. No. 1,090,721; Mar. 17; Gaz. vol. 200; p. 792.
Stanchion. F. O. Wood. No. 1,088,862; Mar. 3; Gaz. vol. 200; p. 65.
Stanchion. J. C. Fitzgerald. No. 1,091,646; Mar. 31; Gaz. vol. 200; p. 1182.
Stand: *See* Cheese-stand; Display-stand; Lamp-stand; Printing-stand.
Starching-machine. E. S. Parker and T. W. Durant. No. 1,089,494; Mar. 10; Gaz. vol. 200; p. 329.
Starting device. C. G. Tate. No. 1,091,092; Mar. 24; Gaz. vol. 200; p. 951.
Steam and compressed-air engine, Combined. H. G. Farr. No. 1,090,523; Mar. 17; Gaz. vol. 200; p. 728.
Steam-condensing apparatus. D. B. Morison. No. 1,089,942; Mar. 10; Gaz. vol. 200; p. 484.
Steam-condensing plant working under vacuum. D. B. Morison. No. 1,091,376; Mar. 24; Gaz. vol. 200; p. 1045.
Steam-engine. T. Ganderton. No. 1,089,408; Mar. 10; Gaz. vol. 200; p. 297.
Steam-engine, Terminal-exhaust. J. Davidson. No. 1,090,030; Mar. 10; Gaz. vol. 200; p. 513.
Steam from steam-turbines, Extracting. F. E. Norton. No. 1,091,078; Mar. 24; Gaz. vol. 200; p. 947.
Steam-generator. R. L. Dalley. No. 1,090,779; Mar. 17; Gaz. vol. 200; p. 811.
Steam-generator, Auxiliary. J. J. Plank. No. 1,089,076; Mar. 3; Gaz. vol. 200; p. 137.
Steam-trap. L. Coster. No. 1,088,882; Mar. 3; Gaz. vol. 200; p. 71.
Steel and iron in their manufacture, Treating. C. R. Gostling. No. 1,091,330; Mar. 24; Gaz. vol. 200; p. 1030.
Steel-grit blast-machine. R. J. Barr. No. 1,089,388; Mar. 10; Gaz. vol. 200; p. 289.
Steel, Refining. A. Hethey. No. 1,089,410; Mar. 10; Gaz. vol. 200; p. 298.
Steering-compensator for rowboat-motors. O. F. Fisher. No. 1,091,645; Mar. 31; Gaz. vol. 200; p. 1182.
Steering-gear. F. C. Kainer. No. 1,089,136; Mar. 3; Gaz. vol. 200; p. 161.
Steering mechanism. C. E. Brooks. No. 1,091,423; Mar. 24; Gaz. vol. 200; p. 1060.
Steering mechanism. O. F. Persson. No. 1,091,861; Mar. 31; Gaz. vol. 200; p. 1259.
Steering-wheel. C. T. Schroyer. No. 1,088,796; Mar. 3; Gaz. vol. 200; p. 42.
Steering-wheel. J. S. Hill. No. 1,091,932; Mar. 31; Gaz. vol. 200; p. 1282.
Steps, Means for operating sliding. W. S. Adams. No. 1,090,008; Mar. 10; Gaz. vol. 200; p. 506.
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# ALPHABETICAL LIST OF DESIGNS.

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Anti-sash-rattler. J. N. Isenberger. No. 45,383; Mar. 10; Gaz. vol. 200; p. 553.
Automobile-curtain. F. H. Ilse. No. 45,423; Mar. 17; Gaz. vol. 200; p. 832.
Automobile radiator-casing. G. E. Wheeler. No. 45,440; Mar. 17; Gaz. vol. 200; p. 835.
Automobile-top. M. H. Smith. No. 45,544; Mar. 31; Gaz. vol. 200; p. 1360.
Automobiles for showing the rear traffic conditions, Mirror attachment for. W. P. Hammond. No. 45,379; Mar. 10; Gaz. vol. 200; p. 552.
Badge. J. Gunther. No. 45,378; Mar. 10; Gaz. vol. 200; p. 552.
Badge. L. McNary. No. 45,538; Mar. 31; Gaz. vol. 200; p. 1359.
Badge or similar article. C. O. Sweet. No. 45,406; Mar. 10; Gaz. vol. 200; p. 557.
Bag, Hand-. S. H. Schreiber. No. 45,543; Mar. 31; Gaz. vol. 200; p. 1360.
Battery connector, Storage-. R. C. Norberg. No. 45,348; Mar. 3; Gaz. vol. 200; p. 248.
Bedstead-fitting. J. W. Vall. No. 45,360; Mar. 3; Gaz. vol. 200; p. 250.
Bicycle front-fork crown. W. M. C. Foster. No. 45,457; Mar. 24; Gaz. vol. 200; p. 1083.
Binding-post. A. K. Sloan. No. 45,358; Mar. 3; Gaz. vol. 200; p. 250.
Biscuit or like article. A. Cooke. No. 45,523; Mar. 31; Gaz. vol. 200; p. 1356.
Boat-hull. J. E. Langstaff. No. 45,389; Mar. 10; Gaz. vol. 200; p. 554.
Booth, Ticket-. W. Yaeger. No. 45,442; Mar. 17; Gaz. vol. 200; p. 835.
Bottle. J. F. Meyer. No. 45,346; Mar. 3; Gaz. vol. 200; p. 247.
Bottle. A. E. Pickard. No. 45,351; Mar. 3; Gaz. vol. 200; p. 249.
Bottle. J. L. Dunnock. No. 45,375; Mar. 10; Gaz. vol. 200; p. 552.
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Brush, Rubber. O. Eick. No. 45,548; Mar. 31; Gaz. vol. 200; p. 1361.
Brush, Rubber-needle massage-. B. L. Williams. No. 45,441; Mar. 17; Gaz. vol. 200; p. 835.
Buckle. W. A. Schleicher. No. 45,496; Mar. 24; Gaz. vol. 200; p. 1090.
Buckle. W. Rumble, Jr. No. 45,540; Mar. 31; Gaz. vol. 200; p. 1360.
Buggy-seat. C. O. Mainor. No. 45,428; Mar. 17; Gaz. vol. 200; p. 833.
Butter-tong. E. L. Johnson. No. 45,533; Mar. 31; Gaz. vol. 200; p. 1358.
Cabinet. J. Herzog. No. 45,460; Mar. 24; Gaz. vol. 200; p. 1083.
Cabinet, File-. E. A. Thompson. No. 45,359; Mar. 3; Gaz. vol. 200; p. 250.
Cabinet for fish and other foods, Display-. C. Doering, Jr. No. 45,413; Mar. 17; Gaz. vol. 200; p. 831.
Carbonator. I. N. Thomas. No. 45,511; Mar. 24; Gaz. vol. 200; p. 1093.
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Carpet. W. A. Elliot. No. 45,452; Mar. 24; Gaz. vol. 200; p. 1082.
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Carpet. R. F. Riddell. No. 45,484; Mar. 24; Gaz. vol. 200; p. 1088.
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Chisel, Wood-. E. M. Graham. No. 45,527; Mar. 31; Gaz. vol. 200; p. 1357.
Clock-dial. E. A. Buck. No. 45,448; Mar. 24; Gaz. vol. 200; p. 1081.
Coaster. I. L. Bauman. No. 45,366; Mar. 10; Gaz. vol. 200; p. 550.
Coin-holder. W. H. Saart. Nos. 45,354–6; Mar. 3; Gaz. vol. 200; p. 249.
Composition or blank book cover. W. V. Darling. No. 45,411; Mar. 17; Gaz. vol. 200; p. 830.
Concentrator-frame. E. H. Moyle. No. 45,431; Mar. 17; Gaz. vol. 200; p. 833.
Coop, Poultry-. W. H. Matthai. No. 45,392; Mar. 10; Gaz. vol. 200; p. 554.
Cornet. H. E. Pepper. No. 45,483; Mar. 24; Gaz. vol. 200; p. 1088.
Crusher-frame. E. H. Moyle. No. 45,430; Mar. 17; Gaz. vol. 200; p. 833.
Cycle horn, Motor-. R. H. Manson. No. 45,344; Mar. 3; Gaz. vol. 200; p. 247.
Cycle horn, Motor-. R. H. Manson. Nos. 45,363–4; Mar. 3; Gaz. vol. 200; p. 251.
Cycle wind-shield, Motor-. R. N. Ellis. No. 45,525; Mar. 31; Gaz. vol. 200; p. 1357.
Diffusion-disk. W. L. Forward. No. 45,335; Mar. 3; Gaz. vol. 200; p. 246.
Dispensing-receptacle and display-stand. N. G. Woodside. No. 45,362; Mar. 3; Gaz. vol. 200; p. 250.
Display-board. F. J. Goldsoll. No. 45,417; Mar. 17; Gaz. vol. 200; p. 831.
Display-cabinet. M. J. Karpeles. Nos. 45,536–7; Mar. 31; Gaz. vol. 200; p. 1359.
Display-case. A. S. Klein. No. 45,342; Mar. 3; Gaz. vol. 200; p. 247.
Electrical translating devices, Casing for. J. B. Peters. No. 45,402; Mar. 10; Gaz. vol. 200; p. 556.
Engine ignition device. J. B. Peters. No. 45,403; Mar. 10; Gaz. vol. 200; p. 556.
Fabric, Printed textile. W. C. Foster. No. 45,377; Mar. 10; Gaz. vol. 200; p. 552.
Fabric, Printed textile. E. Hoch. Nos. 45,380–2; Mar. 10; Gaz. vol. 200; p. 553.
Fabric, Printed textile. W. C. Korzinek. Nos. 45,385–7; Mar. 10; Gaz. vol. 200; pp. 553–4.
Fabric, Printed textile. E. Madeleine. No. 45,391; Mar. 10; Gaz. vol. 200; p. 554.
Fabric, Printed textile. E. Munier. Nos. 45,396–400; Mar. 10; Gaz. vol. 200; pp. 555–6.
Fabric, Textile. H. Schroff and C. J. Cronk. No. 45,357; Mar. 3; Gaz. vol. 200; p. 250.
Fire-engine body, Automobile. H. G. Farr. No. 45,416; Mar. 17; Gaz. vol. 200; p. 831.
Flower-holder. A. E. Bond. No. 45,409; Mar. 17; Gaz. vol. 200; p. 830.
Garment-hanger. R. Thamm. No. 45,437; Mar. 17; Gaz. vol. 200; p. 834.
Gas and vapor burner. J. E. Lockwood. No. 45,390; Mar. 10; Gaz. vol. 200; p. 554.
Gas-burner crown, Inverted-. L. B. London. No. 45,427; Mar. 17; Gaz. vol. 200; p. 833.
Gas-plate. M. S. C. Hartmann. No. 45,339; Mar. 3; Gaz. vol. 200; p. 246.
Gem, Cut. M. L. Robbins. No. 45,353; Mar. 3; Gaz. vol. 200; p. 249.
Glass vessel. O. S. Atterholt. No. 45,319; Mar. 3; Gaz. vol. 200; p. 243.
Glasses or similar articles. A. Gredelue. No. 45,528; Mar. 31; Gaz. vol. 200; p. 1357.
Hat. E. Collins. No. 45,522; Mar. 31; Gaz. vol. 200; p. 1356.
Heater. T. C. Vermilye and D. B. Hislop. No. 45,439; Mar. 17; Gaz. vol. 200; p. 835.
Humidor. W. A. French. No. 45,526; Mar. 31; Gaz. vol. 200; p. 1357.
Ice-pick handle. J. L. Sommer. No. 45,499; Mar. 24; Gaz. vol. 200; p. 1091.
Igniter. L. V. Aronson. No. 45,407; Mar. 17; Gaz. vol. 200; p. 830.
Image. K. Jordan. Nos. 45,534–5; Mar. 31; Gaz. vol. 200; p. 1359.
Incubator. H. M. Sheer. No. 45,434; Mar. 17; Gaz. vol. 200; p. 834.
Jar, Lavender-. A. J. Sanford. No. 45,542; Mar. 31; Gaz. vol. 200; p. 1360.
Jug, Molasses-. A. J. Sanford. No. 45,541; Mar. 31; Gaz. vol. 200; p. 1360.
Kettle. E. A. Farr. No. 45,332; Mar. 3; Gaz. vol. 200; p. 245.
Knife-handle. C. W. Tillmanns. No. 45,546; Mar. 31; Gaz. vol. 200; p. 1361.
Knitted millinery fabric. J. A. Hartenstein. No. 45,419; Mar. 17; Gaz. vol. 200; p. 832.
Label-blank. A. Falk. No. 45,376; Mar. 10; Gaz. vol. 200; p. 552.

Lace. M. Henkels. No. 45,422; Mar. 17; Gaz. vol. 200; p. 832.
Lace, Levers. C. W. Birkin. Nos. 45,323–6; Mar. 3; Gaz. vol. 200; pp. 243–4.
Lamp-body for miners' lamps. F. E. Baldwin. No. 45,514; Mar. 31; Gaz. vol. 200; p. 1355.
Lamp, Combination-. J. R. Pagin. No. 45,350; Mar. 3; Gaz. vol. 200; p. 248.
Lamp fixture, Deck-. J. Kirby, Jr. No. 45,464; Mar. 24; Gaz. vol. 200; p. 1084.
Lamp fixture, Electric-. J. Kirby, Jr. No. 45,465; Mar. 24; Gaz. vol. 200; p. 1084.
Lamp-fixture, Hanging. J. Kirby, Jr. No. 45,463; Mar. 24; Gaz. vol. 200; p. 1084.
Lamp-fixture, Pendent. J. Kirby, Jr. No. 45,462; Mar. 24; Gaz. vol. 200; p. 1084.
Lamp, Gas-. A. H. Humphrey. No. 45,461; Mar. 24; Gaz. vol. 200; p. 1083.
Lamp-shade. R. V. Owen. No. 45,349; Mar. 3; Gaz. vol. 200; p. 248.
Lamp-shade. H. S. Evans. No. 45,415; Mar. 17; Gaz. vol. 200; p. 831.
Lamp-shade. F. M. Brinckerhoff. No. 45,521; Mar. 31; Gaz. vol. 200; p. 1356.
Lamp, Vehicle-. K. H. Thompson. No. 45,545; Mar. 31; Gaz. vol. 200; p. 1361.
Letter-box, Street. J. W. Cutler. No. 45,524; Mar. 31; Gaz. vol. 200; p. 1357.
Lighting fixture, Indirect-. G. W. Meyers. No. 45,539; Mar. 31; Gaz. vol. 200; p. 1359.
Locket. H. D. Mix. No. 45,394; Mar. 10; Gaz. vol. 200; p. 555.
Match-safe. N. Sanderson. No. 45,404; Mar. 10; Gaz. vol. 200; p. 556.
Mattress, Spring-. C. G. Moore. No. 45,395; Mar. 10; Gaz. vol. 200; p. 555.
Mesh-bag. W. H. Saart. No. 45,433; Mar. 17; Gaz. vol. 200; p. 834.
Motor-car bonnet. E. H. F. de Turckheim. No. 45,329; Mar. 3; Gaz. vol. 200; p. 245.
Musical instrument. H. E. Barnes. Nos. 45,321–2; Mar. 3; Gaz. vol. 200; p. 243.
Napkin-holder. R. Thamm. No. 45,436; Mar. 17; Gaz. vol. 200; p. 834.
Nut-lock. D. Hester. No. 45,340; Mar. 3; Gaz. vol. 200; p. 246.
Orchestrion-case. B. R. Van Valkenburg. No. 45,361; Mar. 3; Gaz. vol. 200; p. 250.
Organ-stop key. J. T. Austin. No. 45,320; Mar. 3; Gaz. vol. 200; p. 243.
Paint product and palette, Combined. J. W. Hasburg. No. 45,421; Mar. 17; Gaz. vol. 200; p. 832.
Paper sheet or similar article. C. L. Mead. No. 45,429; Mar. 17; Gaz. vol. 200; p. 833.
Paperweight. A. J. Kull. No. 45,425; Mar. 17; Gaz. vol. 200; p. 833.
Parasol-handle ornament. P. J. Reeve. No. 45,352; Mar. 3; Gaz. vol. 200; p. 249.
Percolator. G. E. Curtiss. Nos. 45,373–4; Mar. 10; Gaz. vol. 200; pp. 551–2.
Percolator-pot. E. A. Farr. No. 45,331; Mar. 3; Gaz. vol. 200; p. 245.
Piano-case. W. L. Bjur. Nos. 45,517–20; Mar. 31; Gaz. vol. 200; pp. 1355–6.
Pitcher. A. J. Sanford. No. 45,489; Mar. 24; Gaz. vol. 200; p. 1089.
Pitcher-top. A. J. Sanford. No. 45,488; Mar. 24; Gaz. vol. 200; p. 1089.
Plaque. A. E. Longshaw. No. 45,343; Mar. 3; Gaz. vol. 200; p. 247
Plate. W. P. Graham. No. 45,336; Mar. 3; Gaz. vol. 200; p. 246.
Plow-cleaner. J. Becker. No. 45,408; Mar. 17; Gaz. vol. 200; p. 830.
Pocket-pouch. J. W. Kinghorne. No. 45,341; Mar. 3; Gaz. vol. 200; p. 247.
Post-card. S. Dugan. No. 45,414; Mar. 17; Gaz. vol. 200; p. 831.
Pot-body. E. A. Farr. No. 45,333; Mar. 3; Gaz. vol. 200; p. 245.
Rattle. R. Eddy. No. 45,450; Mar. 24; Gaz. vol. 200; p. 1082.
Ring or similar article. W. Fischer. No. 45,456; Mar. 24; Gaz. vol. 200; p. 1083.
Rug. W. A. Elliot. Nos. 45,453–4; Mar. 24; Gaz. vol. 200; p. 1082.
Rug. J. Merry. No. 45,468; Mar. 24; Gaz. vol. 200; p. 1085.
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Rug. R. F. Riddell. Nos. 45,485–7; Mar. 24; Gaz. vol. 200; pp. 1088–9.
Rug. E. G. Sauer. Nos. 45,491–3; Mar. 24; Gaz. vol. 200; pp. 1089–90.
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Rug. J. Spring. No. 45,510; Mar. 24; Gaz. vol. 200; p. 1093.
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Sanitary protector. A. M. Aiken. Nos. 45,443–4; Mar. 24; Gaz. vol. 200; p. 1080.
Scale-beam weight. R. F. Chatillon. No. 45,370; Mar. 10; Gaz. vol. 200; p. 551.
Sewing-machine frame. A. A. Merritt. No. 45,345; Mar. 3; Gaz. vol. 200; p. 247.
Shade. E. F. Gray. No. 45,338; Mar. 3; Gaz. vol. 200; p. 246.
Shade-bowl. E. F. Gray. No. 45,337; Mar. 3; Gaz. vol. 200; p. 246.
Shoe. H. G. Dean. No. 45,412; Mar. 17; Gaz. vol. 200; p. 831.
Shoe-clasp. J. F. Reeder. No. 45,432; Mar. 17; Gaz. vol. 200; p. 834.
Shoulder-brace. T. G. Bowers. No. 45,368; Mar. 10; Gaz. vol. 200; p. 551.
Show-case. C. W. Cohn. No. 45,371; Mar. 10; Gaz. vol. 200; p. 551.
Sideboard or similar article of furniture. M. J. Bernhard. No. 45,516; Mar. 31; Gaz. vol. 200; p. 1355.
Sock or stocking. R. E. Schletter. No. 45,496; Mar. 24; Gaz. vol. 200; p. 1090.
Spectacles. F. W. King. No. 45,424; Mar. 17; Gaz. vol. 200; p. 833.
Spectacles and eyeglasses, Bridge for. R. R. Hall. No. 45,418; Mar. 17; Gaz. vol. 200; p. 831.
Spoon, fork, or similar article. L. A. Brown. No. 45,446; Mar. 24; Gaz. vol. 200; p. 1081.
Spoon, Souvenir-. L. Bents. No. 45,367; Mar. 10; Gaz. vol. 200; p. 550.
Spoons, forks, or similar articles, Handle for. L. A. Brown. No. 45,369; Mar. 10; Gaz. vol. 200; p. 551.
Spoons, forks, or similar articles, Handle for. C. Osborne. No. 45,401; Mar. 10; Gaz. vol. 200; p. 556.
Spoons, forks, or similar articles, Handle for. C. Osborne. No. 45,482; Mar. 24; Gaz. vol. 200; p. 1087.
Spoons, forks, or similar articles, Handle for pierced. R. C. Thompson. No. 45,512; Mar. 24; Gaz. vol. 200; p. 1093.
Stool, Piano-. T. A. Barnes. No. 45,365; Mar. 10; Gaz. vol. 200; p. 550.
Stove. L. P. Hildebrand. No. 45,529; Mar. 31; Gaz. vol. 200; p. 1358.
Stove-base. W. R. Jeavons. No. 45,532; Mar. 31; Gaz. vol. 200; p. 1358.
Stove-window. W. R. Jeavons. No. 45,384; Mar. 10; Gaz. vol. 200; p. 553.
Table. A. G. Clampitt. No. 45,410; Mar. 17; Gaz. vol. 200; p. 830.
Talcum-powder can, Tapered oval. A. E. Bruns. No. 45,447; Mar. 24; Gaz. vol. 200; p. 1081.
Talking-machine cabinet. H. B. McNulty. No. 45,467; Mar. 24; Gaz. vol. 200; p. 1084.
Telephone-mouthpiece, Sanitary. C. Mundt. No. 45,347; Mar. 3; Gaz. vol. 200; p. 248.
Thumb-tack. C. A. Ford. No. 45,334; Mar. 3; Gaz. vol. 200; p. 245.
Tire. H. R. Smith. No. 45,498; Mar. 24; Gaz. vol. 200; p. 1091.
Toaster. F. Kuhn. No. 45,388; Mar. 10; Gaz. vol. 200; p. 554.
Tool-handle. E. F. Simpson, Jr. No. 45,435; Mar. 17; Gaz. vol. 200; p. 834.
Towel-rack. R. E. Barber. No. 45,515; Mar. 31; Gaz. vol. 200; p. 1355.
Toy. A. J. Holladay. No. 45,531; Mar. 31; Gaz. vol. 200; p. 1358.
Toy bank. J. H. Hartman. No. 45,458; Mar. 24; Gaz. vol. 200; p. 1083.
Toy bank and clock-case. G. Congdon. No. 45,372; Mar. 10; Gaz. vol. 200; p. 551.
Tray, Cuff-button. E. Underwood. No. 45,438; Mar. 17; Gaz. vol. 200; p. 835.
Type-writing-machine frame. C. C. Harting and T. L. Knapp. No. 45,420; Mar. 17; Gaz. vol. 200; p. 832.
Urinal. D. A. Ebinger. No. 45,330; Mar. 3; Gaz. vol. 200; p. 245.
Vacuum-cleaner frame. W. S. Sutton. No. 45,405; Mar. 10; Gaz. vol. 200; p. 557.
Vehicles and the like, Wind-shield for motor-. W. G. Bratton. No. 45,327; Mar. 3; Gaz. vol. 200; p. 244.
Vending-machine casing. H. D. Hinckley. No. 45,530; Mar. 31; Gaz. vol. 200; p. 1358.
Wardrobe. J. Brause. No. 45,445; Mar. 24; Gaz. vol. 200; p. 1080.
Watch-holder. S. R. Milburn. No. 45,393; Mar. 10; Gaz. vol. 200; p. 555.
Wheel-puller. F. C. Hersee. No. 45,459; Mar. 24; Gaz. vol. 200; p. 1083.

# ALPHABETICAL LIST OF TRADE-MARKS.

Acetylene-generators. Acetylene Apparatus Manufacturing Company. No. 95,972; Mar. 31; Gaz. vol. 200; p. 1385.
Adding and calculating machines. H. W. Elgi, Ingr. No. 95,611; Mar. 3; Gaz. vol. 200; p. 273.
Adding-machines, combined type-writing and adding machines, and parts thereof. J. Underwood & Company. No. 96,062; Mar. 31; Gaz. vol. 200; p. 1388.
Adhesive paste and adhesive sizing. American Hominy Company. No. 95,727; Mar. 10; Gaz. vol. 200; p. 577.
Alimentary paste. The Atlantic Macaroni Co. Nos. 95,588–90; Mar. 3; Gaz. vol. 200; p. 273.
Alkalis. The Magadi Soda Company. No. 96,027; Mar. 31; Gaz. vol. 200; p. 1386.
Asthma, Metal plate for the relief of. J. W. Reilly. No. 95,665; Mar. 3; Gaz. vol. 200; p. 275.
Automobile kit-tools, wrenches, and screw-drivers. S. & A. Manufacturing Co. No. 95,668; Mar. 3; Gaz. vol. 200; p. 275.
Automobiles. Haynes Automobile Co. No. 95,909; Mar. 24; Gaz. vol. 200; p. 1110.
Automobiles, motor-vehicles, and parts thereof. Chevrolet Motor Company. No. 95,990; Mar. 31; Gaz. vol. 200; p. 1385.
Babbitt and antifriction metals. Great Western Smelting & Refining Co. No. 96,009; Mar. 31; Gaz. vol. 200; p. 1386.
Bacteria, Nitrogen-fixing. Western Legumogerm Company. No. 95,967; Mar. 24; Gaz. vol. 200; p. 1112.
Bags, Popcorn-. Holcomb & Hoke Mfg. Co. No. 95,621; Mar. 3; Gaz. vol. 200; p. 274.
Beans, Dry. Kendrick Warehouse & Milling Co. No. 95,635; Mar. 3; Gaz. vol. 200; p. 274.
Bearings and parts thereof, Roller-. Hyatt Roller Bearing Co. No. 95,625; Mar. 3; Gaz. vol. 200; p. 274.
Beer. Pittsburgh Brewing Company. No. 95,657; Mar. 3; Gaz. vol. 200; p. 275.
Belting, cord, and lacing, Leather. J. E. Rhoads & Sons. No. 95,667; Mar. 3; Gaz. vol. 200; p. 275.
Belting, Leather. Shultz Belting Co. Nos. 95,674–6; Mar. 3; Gaz. vol. 200; p. 275.
Belts and belting. R. A. Caird. No. 95,596; Mar. 3; Gaz. vol. 200; p. 273.
Belts for personal wear. G. E. Zeltmacher. No. 95,858; Mar. 17; Gaz. vol. 200; p. 854.
Beverages and root-beer, Preparation for making non-alcoholic. L. M. Petterson. No. 95,938; Mar. 24; Gaz. vol. 200; p. 1111.
Biscuit. National Biscuit Company. No. 95,713; Mar. 3; Gaz. vol. 200; p. 276.
Biscuit. National Biscuit Company. Nos. 95,924–31; Mar. 24; Gaz. vol. 200; p. 1111.
Blouses, knickerbockers, bloomers, skirts, hats, &c. Camp Fire Girls. No. 95,740; Mar. 10; Gaz. vol. 200; p. 577.
Boards, sheets, or strips of certain named combinations of materials. Venesta Limited. No. 96,065; Mar. 31; Gaz. vol. 200; p. 1388.
Boot-tops, Leather. Pioneer Shoe & Rubber Company. No. 95,941; Mar. 24; Gaz. vol. 200; p. 1111.
Boots and shoes. The A. S. Kreider Shoe Co. No. 95,769; Mar. 10; Gaz. vol. 200; p. 578.
Boots and shoes and boot and shoe soles, Leather. Holland Shoe Co. No. 95,911; Mar. 24; Gaz. vol. 200; p. 1110.
Boots and shoes, Leather. Chippewa Shoe Manufacturing Company. No. 95,601; Mar. 3; Gaz. vol. 200; p. 273.
Boots and shoes, Leather. M. A. Packard Co. No. 95,780; Mar. 10; Gaz. vol. 200; p. 578.
Boots, shoes, and slippers. Hanan & Son. No. 96,011; Mar. 31; Gaz. vol. 200; p. 1386.
Boring bits, Wood-. The Conn. Valley Manufacturing Company. No. 95,603; Mar. 3; Gaz. vol. 200; p. 273.
Brake lining, Machinery-. H. W. Johns-Manville Co. No. 95,633; Mar. 3; Gaz. vol. 200; p. 274.
Brandies and liquors. A. Morales Márquez. No. 95,835; Mar. 17; Gaz. vol. 200; p. 853.
Bread. J. A. Drayer. No. 95,609; Mar. 3; Gaz. vol. 200; p. 273.
Bread. Young & Swain Baking Co. No. 95,695; Mar. 3; Gaz. vol. 200; p. 276.
Brushes, Toilet-. The Archery Co. No. 95,862; Mar. 24; Gaz. vol. 200; p. 1109.
Brushes, Tooth-. H. Barnes. No. 95,864; Mar. 24; Gaz. vol. 200; p. 1109.
Buckets and water and dinner pails. The Enterprise Enamel Co. No. 95,895; Mar. 24; Gaz. vol. 200; p. 1110.
Business-forms, menus, brochures, booklets, &c. C. V. Ekroth. No. 95,610; Mar. 3; Gaz. vol. 200; p. 273.
Butter and eggs. H. von Glahn. No. 95,724; Mar. 3; Gaz. vol. 200; p. 277.
Cakes, wafers, and biscuits. Bremner Bros. No. 95,594; Mar. 3; Gaz. vol. 200; p. 273.
Calcimine or water-paints. M. E. Fox & Co. No. 96,005; Mar. 31; Gaz. vol. 200; p. 1386.
Candles. Weaver, Costello & Company. No. 95,693; Mar. 3; Gaz. vol. 200; p. 276.
Candy. W. E. Foster. No. 95,616; Mar. 3; Gaz. vol. 200; p. 274.
Candy. Bradley Candy Co. No. 95,700; Mar. 3; Gaz. vol. 200; p. 276.
Candy. Paul F. Beich Company. No. 95,868; Mar. 24; Gaz. vol. 200; p. 1109.
Candy confections. Stephen F. Whitman & Son. Nos. 95,968–9; Mar. 24; Gaz. vol. 200; p. 1112.
Candy, Taffy. M. A. Mittell. No. 95,923; Mar. 24; Gaz. vol. 200; p. 1110.
Canned corn and peas. P. Hohenadel Jr. Canning Co. No. 95,910; Mar. 24; Gaz. vol. 200; p. 1110.
Canned fruits and vegetables. Cobb Preserving Company. No. 95,602; Mar. 3; Gaz. vol. 200; p. 273.
Canned fruits and vegetables. Fleming & Co. No. 95,615; Mar. 3; Gaz. vol. 200; p. 274.
Canned fruits and vegetables. Cobb Preserving Company. No. 95,890; Mar. 24; Gaz. vol. 200; p. 1110.
Canned fruits and vegetables and dried fruits. The J. K. Armsby Co. No. 95,974; Mar. 31; Gaz. vol. 200; p. 1385.
Canned salmon. Pacific Fisheries & Packing Company. No. 95,654; Mar. 3; Gaz. vol. 200; p. 275.
Canned tomatoes and tomato paste. Violante, Balbi & Co. No. 96,066; Mar. 31; Gaz. vol. 200; p. 1388.
Canned vegetables. Hustisford Canning Co. No. 95,912; Mar. 24; Gaz. vol. 200; p. 1110.
Canned vegetables. Onalaska Pickle & Canning Co. No. 95,937; Mar. 24; Gaz. vol. 200; p. 1111.
Caps. J. N. Susskind & Co. No. 95,797; Mar. 10; Gaz. vol. 200; p. 579.
Card, Playing-. L. R. Berg. No. 95,870; Mar. 24; Gaz. vol. 200; p. 1109.
Carriages, Baby-. Newark Go-Cart Manufacturing Co. No. 95,933; Mar. 24; Gaz. vol. 200; p. 1111.
Casein, Technical. Internationale Galalith-Gesellschaft Hoff & Co. Nos. 95,630–1; Mar. 3; Gaz. vol. 200; p. 274.
Cathartics. E. W. Cox. No. 95,750; Mar. 10; Gaz. vol. 200; p. 577.
Cement-working tools, Certain named. Bonney Vise & Tool Works. No. 95,737; Mar. 10; Gaz. vol. 200; p. 577.
Chains. H. F. Barrows & Company. No. 95,866; Mar. 24; Gaz. vol. 200; p. 1109.
China and earthen ware sets for children. Geo. Borgfeldt & Co. No. 95,979; Mar. 31; Gaz. vol. 200; p. 1385.
China or porcelain, Certain named articles of. Geo. Borgfeldt & Co. No. 95,980; Mar. 31; Gaz. vol. 200; p. 1385.
Cigarettes, cigars, tobacco, &c. R. Sadi. No. 96,050; Mar. 31; Gaz. vol. 200; p. 1387.
Cigars. Austin, Nichols & Co. No. 95,591; Mar. 3; Gaz. vol. 200; p. 273.
Cigars. G. Cangiano. No. 95,987; Mar. 31; Gaz. vol. 200; p. 1385.
Cigars, cigarettes, and manufactured tobacco. Strohmeyer & Arpe Company. No. 95,679; Mar. 3; Gaz. vol. 200; p. 275.
Cleaning and whitening preparation. F. J. Le Doyen. No. 95,772; Mar. 10; Gaz. vol. 200; p. 578.
Cleansing compounds for the hands and clothing. Ino Manufacturing Company. No. 95,763; Mar. 10; Gaz. vol. 200; p. 578.
Closet bowls and tanks, Water-. The Great Western Pottery Co. Nos. 96,007–8; Mar. 31; Gaz. vol. 200; p. 1386.
Closets, bath-tubs, sinks, &c., Water-. Cahill, Swift Mfg. Co. No. 95,887; Mar. 24; Gaz. vol. 200; p. 1109.
Clothes-marking clips. Fulston Clip Co. No. 96,006; Mar. 31; Gaz. vol. 200; p. 1386.
Clothing, Articles of. Boy Scouts of America. No. 95,883; Mar. 24; Gaz. vol. 200; p. 1109.
Clothing, Certain named. H. A. Budd. No. 95,739; Mar. 10; Gaz. vol. 200; p. 577.
Clothing, Certain named. John Mares Limited. No. 95,774; Mar. 10; Gaz. vol. 200; p. 578.
Clothing, Certain named. The Spirella Company. No. 95,791; Mar. 10; Gaz. vol. 200; p. 579.
Clothing, Certain named. The Spirella Company. No. 95,793; Mar. 10; Gaz. vol. 200; p. 579.
Clothing, Certain named. Innovation Shirt Company. No. 95,914; Mar. 24; Gaz. vol. 200; p. 1110.
Coal. Indian Head Coal & Mining Company. No. 95,626; Mar. 3; Gaz. vol. 200; p. 274.

Coal. Plymouth Coal and Mining Co. No. 95,658; Mar. 3; Gaz. vol. 200; p. 275.
Coating for certain named structures and a fireproof paint. H. W. Johns-Manville Co. No. 95,632; Mar. 3; Gaz. vol. 200; p. 274.
Coffee. The J. R. Richardson Company. No. 95,718; Mar. 3; Gaz. vol. 200; p. 276.
Coffee. L. H. Bishoff. No. 95,874; Mar. 24; Gaz. vol. 200; p. 1109.
Coffee. J. A. Folger & Company. No. 95,901; Mar. 24; Gaz. vol. 200; p. 1110.
Coffee. C. T. Parls. No. 96,035; Mar. 31; Gaz. vol. 200; p. 1387.
Coffee, Blended. Hanley & Kinsella Coffee & Spice Company. No. 95,908; Mar. 24; Gaz. vol. 200; p. 1110.
Coffee-hulling machines. William L. Dines, Jr. Co. No. 95,606; Mar. 3; Gaz. vol. 200; p. 273.
Coffee-pulping machines. William L. Dines, Jr. Co. No. 95,607; Mar. 3; Gaz. vol. 200; p. 273.
Coffee, rice, tea, and peanuts. Bayless Coffee and Spice Mills. No. 95,867; Mar. 24; Gaz. vol. 200; p. 1109.
Coffee substitute. Dwinell-Wright Company. No. 95,707; Mar. 3; Gaz. vol. 200; p. 276.
Coffee substitute. Panama Banana Food Company. No. 95,715; Mar. 3; Gaz. vol. 200; p. 276.
Cologne. James S. Kirk & Company. No. 96,025; Mar. 31; Gaz. vol. 200; p. 1386.
Construction materials, Certain named metallic. Dahlstrom Metallic Door Co. No. 95,605; Mar. 3; Gaz. vol. 200; p. 273.
Conveying and tranamission apparatus. The Lamson Company. No. 95,637; Mar. 3; Gaz. vol. 200; p. 274.
Cooking outfit, Aluminum telescoping. V. Helnmüller. No. 95,618; Mar. 3; Gaz. vol. 200; p. 274.
Cordials. Mariani Bro's. No. 95,641; Mar. 3; Gaz. vol. 200; p. 274.
Corn-plasters. N. G. Walterhouse. No. 96,067; Mar. 31; Gaz. vol. 200; p. 1388.
Corn-shields. A. J. Potvin. No. 95,659; Mar. 3; Gaz. vol. 200; p. 275.
Cornmeal. C. W. Gruensfelder. No. 95,906; Mar. 24; Gaz. vol. 200; p. 1110.
Corsets. Chappell, Allen & Co. No. 95,743; Mar. 10; Gaz. vol. 200; p. 577.
Corsets. R. Kerner. No. 95,767; Mar. 10; Gaz. vol. 200; p. 578.
Corsets. John Wanamaker, New York. No. 95,965; Mar. 24; Gaz. vol. 200; p. 1112.
Corsets and gloves. A. Weiserbs. No. 95,966; Mar. 24; Gaz. vol. 200; p. 1112.
Corsets, brassières, bust-supporters, and corset-waists. Corset H Company. No. 95,748; Mar. 10; Gaz. vol. 200; p. 577.
Cosmetics for the skin. H. Wenker. No. 96,071; Mar. 31; Gaz. vol. 200; p. 1388.
Cream and lotion, Toilet. M. Wolodarsky. No. 95,813; Mar. 10; Gaz. vol. 200; p. 579.
Cream, Face-. National Pharmacy Co. No. 95,777; Mar. 10; Gaz. vol. 200; p. 578.
Cream-separators and parts thereof. International Harvester Corporation. No. 96,020; Mar. 31; Gaz. vol. 200; p. 1386.
Creama, face-lotion, rouge, and hair-tonic, Face and massage. Maurine Company. No. 95,922; Mar. 24; Gaz. vol. 200; p. 1110.
Creams, medicated suppositories, and extract of witch-hazel. H. S. Wellcome. No. 96,070; Mar. 31; Gaz. vol. 200; p. 1388.
Curb, splint, bog, spavin, soreness in tendons, &c. R. H. Shaffer. No. 96,055; Mar. 31; Gaz. vol. 200; p. 1387.
Cutlery, Certain named. E. Walker. No. 95,691; Mar. 3; Gaz. vol. 200; p. 276.
Cutlery, tools, and agricultural forks, Certain named. Krakauer, Zork & Moyes Sucs. No. 95,768; Mar. 10; Gaz. vol. 200; p. 578.
Dental cream. H. S. Goldstein. No. 95,710; Mar. 3; Gaz. vol. 200; p. 276.
Dental flosses and tapes and tongue-cleansers. J. J. Sarrazin. No. 95,669; Mar. 3; Gaz. vol. 200; p. 275.
Deodorant. Fulton Bag & Cotton Mills. No. 95,754; Mar. 10; Gaz. vol. 200; p. 577.
Diapers and infants' pants of waterproof fabric. H. P. Rindskopf. No. 95,848; Mar. 17; Gaz. vol. 200; p. 854.
Disinfectant, Liquid. M. E. Platt. No. 96,040; Mar. 31; Gaz. vol. 200; p. 1387.
Dolls and dolls' clothes. E. Lyon. No. 95,921; Mar. 24; Gaz. vol. 200; p. 1110.
Dress fasteners and buttons. Waldes & Company. No. 95,808; Mar. 10; Gaz. vol. 200; p. 579.
Dress-shields. The Canfield Rubber Company. No. 95,741; Mar. 10; Gaz. vol. 200; p. 577.
Dress-shields. The Canfield Rubber Company. No. 95,986; Mar. 31; Gaz. vol. 200; p. 1385.
Driers, gloss-finishes, and cut washers for ink ingredients. Feldenfeld Chemical Co. No. 95,897; Mar. 24; Gaz. vol. 200; p. 1110.
Drill-chucks. Narragansett Machine Co. No. 95,843; Mar. 17; Gaz. vol. 200; p. 853.
Drills, Fluid-operated hammer-. Ingersoll-Rand Company. No. 95,627; Mar. 3; Gaz. vol. 200; p. 274.
Drinking straws or tubes. A. Herz. No. 95,619; Mar. 3; Gaz. vol. 200; p. 274.
Driving-belts, Woven-hair. Rossendale-Reddaway Belting & Hose Co. Nos. 96,048–9; Mar. 31; Gaz. vol. 200; p. 1387.
Duplicating-machines and parts thereof. The Writerpress Company. No. 95,971; Mar. 24; Gaz. vol. 200; p. 1112.
Dusters and mops. Silver-Chamberlin Co. No. 95,949; Mar. 24; Gaz. vol. 200; p. 1111.
Dynamite and gelatinous explosives, &c. Hercules Powder Company. Nos. 95,760–1; Mar. 10; Gaz. vol. 200; p. 578.
Dyspepsia and heartburn. G. H. Waltz. No. 95,809; Mar. 10; Gaz. vol. 200; p. 579.
Egg substitute. The Cabell Company. No. 95,886; Mar. 24; Gaz. vol. 200; p. 1109.
Electric generators and transformers, motors, switchboards, fuses, &c. Kabushiki Kaisha Shibaura Seisakujo. No. 95,918; Mar. 24; Gaz. vol. 200; p. 1110.
Electrically heating, heated, cooking utensils, &c., Certain named. Hotpoint Electric Heating Company. No. 95,624; Mar. 3; Gaz. vol. 200; p. 274.
Embroideries and pillow-tops. A. Brill. No. 95,818; Mar. 17; Gaz. vol. 200; p. 353.
Embroidery, Fiber forms used in. C. H. Crowley. No. 95,820; Mar. 17; Gaz. vol. 200; p. 853.
Enameled kitchen-ware. The Enterprise Enamel Co. No. 95,612; Mar. 3; Gaz. vol. 200; p. 273.
Enameled ware. Geo. Borgfeldt & Co. No. 95,881; Mar. 24; Gaz. vol. 200; p. 1109.
Enameled ware. C. E. Wheelock & Co. No. 96,073; Mar. 31; Gaz. vol. 200; p. 1388.
Engines and parts thereof, Internal-combustion. International Harvester Corporation. Nos. 96,018–19; Mar. 31; Gaz. vol. 200; p. 1386.
Explosive and inflammable fluids, Safety-containers for. McNutt Non Explosive Can Co. No. 95,647; Mar. 3; Gaz. vol. 200; p. 274.
Extenders, forms, supporters, &c., Certain named. The Spirella Company. No. 95,792; Mar. 10; Gaz. vol. 200; p. 579.
Extenders, forms, supporters, &c., Certain named. The Spirella Company. No. 95,794; Mar. 10; Gaz. vol. 200; p. 579.
Feed for horses, mules, and cattle, Molasses. J. T. Gibbons. No. 95,617; Mar. 3; Gaz. vol. 200; p. 274.
Fireproof textiles. Fulton Bag & Cotton Mills. No. 95,755; Mar. 10; Gaz. vol. 200; p. 578.
Fireproofing any inflammable textile, Liquid composition for. H. W. Johns-Manville Co. No. 95,881; Mar. 17; Gaz. vol. 200; p. 853.
Fish, Smoked. Neptune Packing Co. No. 95,649; Mar. 3; Gaz. vol. 200; p. 274.
Fishing-spoons. Schwabacher Hardware Co. No. 96,053; Mar. 31; Gaz. vol. 200; p. 1387.
Flavoring extract for non-alcoholic beverages, &c. The Lehman-Rosenfeld Co. No. 95,920; Mar. 24; Gaz. vol. 200; p. 1110.
Flour. Cowgill & Hill Milling Co. No. 95,604; Mar. 3; Gaz. vol. 200; p. 273.
Flour, Buckwheat-. The Blodgett Milling Co. No. 95,876; Mar. 24; Gaz. vol. 200; p. 1109.
Flour, noodles, meal, and bread, Gluten. The Pieser-Livingston Co. No. 95,940; Mar. 24; Gaz. vol. 200; p. 1111.
Flour, Rye, wheat, and buckwheat. Barber & Bennett. No. 95,863; Mar. 24; Gaz. vol. 200; p. 1109.
Flour, Self-rising wheat-. Davis Milling Company. No. 95,705; Mar. 3; Gaz. vol. 200; p. 276.
Flour, Wheat-. Holt & Company. No. 95,622; Mar. 3; Gaz. vol. 200; p. 274.
Flour, Wheat-. Mayflower Mills. No. 95,643; Mar. 3; Gaz. vol. 200; p. 274.
Flour, Wheat-. Valier & Spies Milling Co. Nos. 95,684–8; Mar. 3; Gaz. vol. 200; p. 276.
Flour, Wheat-. Updike Milling Company. No. 95,719; Mar. 3; Gaz. vol. 200; p. 277.
Flour, Wheat-. Valier & Spies Milling Co. Nos. 95,721–2; Mar. 3; Gaz. vol. 200; p. 277.
Flour, Wheat-. Bogert & Greenbank. No. 95,878; Mar. 24; Gaz. vol. 200; p. 1109.
Flour, Wheat-. El Reno Mill & Elevator Co. No. 95,894; Mar. 24; Gaz. vol. 200; p. 1110.
Flour, Wheat-. The Southwestern Milling Company. No. 95,952; Mar. 24; Gaz. vol. 200; p. 1111.
Flour, Wheat-. Thornton & Chester Milling Co. No. 95,961; Mar. 24; Gaz. vol. 200; p. 1112.
Flour, Wheat-. Barrett, Denton & Lynn Co. No. 95,976; Mar. 31; Gaz. vol. 200; p. 1385.
Flour, Wheat-. The Southwestern Milling Company. No. 96,050; Mar. 31; Gaz. vol. 200; p. 1387.
Food, Cereal. The U. S. Cereal Company. No. 95,720; Mar. 3; Gaz. vol. 200; p. 274.
Food for infants, Prepared. J. S. Robinson. No. 95,945; Mar. 24; Gaz. vol. 200; p. 1111.
Food preparation for dogs, cats, poultry, &c. Spratt's Patent (America). No. 95,957; Mar. 24; Gaz. vol. 200; p. 1111.
Food preparation for poultry and other animals. Spratt's Patent (America). No. 95,956; Mar. 24; Gaz. vol. 200; p. 1111.
Food, Rice. The Causeway Rice Co. No. 95,888; Mar. 24; Gaz. vol. 200; p. 1109.
Food, Stock. E. C. Thornhill. No. 95,960; Mar. 24; Gaz. vol. 200; p. 1112.
Foods, Certain named. American Consumers' Association of New York. No. 95,697; Mar. 3; Gaz. vol. 200; p. 276.
Foods, Certain named. The Dolan Mercantile Company. No. 95,893; Mar. 24; Gaz. vol. 200; p. 1110.



Foods, Certain named. Sentney Wholesale Grocery Co. No. 95,947; Mar. 24; Gaz. vol. 200; p. 1111.
Fruits and raisins, Dried. North Ontario Packing Company. Nos. 95,934–5; Mar. 24; Gaz. vol. 200; p. 1111.
Fruits, Certain named fresh. Stewart Fruit Company. No. 95,958; Mar. 24; Gaz. vol. 200; p. 1112.
Fruits, Citrus. Central Fruit Co. No. 95,600; Mar. 3; Gaz. vol. 200; p. 273.
Fruits, Citrus. J. N. Reynolds. No. 95,943; Mar. 24; Gaz. vol. 200; p. 1111.
Fruits, Citrus. Southern Citrus Corporation. Nos. 95,950–1; Mar. 24; Gaz. vol. 200; p. 1111.
Fruits, Fresh. Northwestern Fruit Exchange. No. 95,650; Mar. 3; Gaz. vol. 200; p. 275.
Furnace, &c., linings. J. E. Baker Co. No. 95,731; Mar. 10; Gaz. vol. 200; p. 577.
Furniture, Certain named. Sikes Company. No. 95,948; Mar. 24; Gaz. vol. 200; p. 1111.
Furniture-polish. C. Hofmann. No. 95,762; Mar. 10; Gaz. vol. 200; p. 578.
Furs, Raw. A. B. Shubert. No. 95,673; Mar. 3; Gaz. vol. 200; p. 275.
Games. E. L. Grondahl. No. 95,905; Mar. 24; Gaz. vol. 200; p. 1110.
Games and toys, Certain named. Geo. Borgfeldt & Co. No. 95,880; Mar. 24; Gaz. vol. 200; p. 1109.
Games, Card. J. A. Phillips. No. 95,939; Mar. 24; Gaz. vol. 200; p. 1111.
Garbage-cans. Automatic Lock Cover Corporation. No. 95,728; Mar. 10; Gaz. vol. 200; p. 577.
Garment-fasteners. Wire Products Company. No. 95,812; Mar. 10; Gaz. vol. 200; p. 579.
Garment-hooks. A. B. Aldrich. No. 95,587; Mar. 3; Gaz. vol. 200; p. 273.
Garment-shields. Marshall Field & Company. No. 95,825; Mar. 17; Gaz. vol. 200; p. 853.
Gas-generators, acetylene blowpipes and cutting-torches. Oxweld Acetylene Company. No. 95,653; Mar. 3; Gaz. vol. 200; p. 275.
Gearing, Transmission-. Motor and Gear Improvement Company. No. 95,648; Mar. 3; Gaz. vol. 200; p. 274.
Germicide for the digestive tracts. H. N. Reynolds. No. 95,717; Mar. 3; Gaz. vol. 200; p. 276.
Gin. R. M. Rose Company. No. 96,046; Mar. 31; Gaz. vol. 200; p. 1387.
Gin compound. M. S. Kronheim. No. 95,770; Mar. 10; Gaz. vol. 200; p. 578.
Glove cleaner, White-kid-. F. L. McFerran. No. 95,646; Mar. 3; Gaz. vol. 200; p. 274.
Gloves. John Wanamaker, Philadelphia. No. 95,856; Mar. 17; Gaz. vol. 200; p. 854.
Gold and silver or plated with precious metal, Certain articles made of. Goldsmith, Stern & Co. No. 95,904; Mar. 24; Gaz. vol. 200; p. 1110.
Grain-drills and parts thereof. International Harvester Company of New Jersey. No. 96,023; Mar. 31; Gaz. vol. 200; p. 1386.
Grapes, Fresh. G. C. Francis. No. 95,903; Mar. 24; Gaz. vol. 200; p. 1110.
Guides and travelers' handbooks. K. Baedeker. No. 95,592; Mar. 3; Gaz. vol. 200; p. 273.
Hair-curlers. N. L. Ozmun. No. 95,845; Mar. 17; Gaz. vol. 200; p. 853.
Hair-pins. Pacific Novelty Company. No. 95,846; Mar. 17; Gaz. vol. 200; p. 853.
Hair-pins, Celluloid and horn. Pacific Novelty Company. No. 95,779; Mar. 10; Gaz. vol. 200; p. 578.
Hair, Preparation for the. W. J. Deegan. No. 95,706; Mar. 3; Gaz. vol. 200; p. 276.
Hair-restorer. J. Pavelkovitz. No. 95,716; Mar. 3; Gaz. vol. 200; p. 276.
Hair tonics and dressings. J. C. Ayer Company. No. 95,729; Mar. 10; Gaz. vol. 200; p. 577.
Hammocks. The George Worthington Company. No. 95,970; Mar. 24; Gaz. vol. 200; p. 1112.
Hardware and plumbing supplies, Certain named. A. O. Meyer. No. 95,836; Mar. 17; Gaz. vol. 200; p. 853.
Harness, saddles, collars, bridles, and horse-clothing. Benj. T. Crump Co. No. 95,891; Mar. 24; Gaz. vol. 200; p. 1110.
Harrows and parts thereof. International Harvester Company of New Jersey. No. 96,022; Mar. 31; Gaz. vol. 200; p. 1386.
Harrows and parts thereof. International Harvester Company of New Jersey. No. 96,024; Mar. 31; Gaz. vol. 200; p. 1386.
Hat-bandeaux. A. H. Woodfield. No. 95,814; Mar. 10; Gaz. vol. 200; p. 579.
Hats and caps, Men's. J. T. Newmark. No. 95,778; Mar. 10; Gaz. vol. 200; p. 578.
Hides and leather. Wilder & Company. No. 95,694; Mar. 3; Gaz. vol. 200; p. 276.
Horn, Artificial. Internationale Galalith-Gesellschaft Hoff & Co. No. 95,629; Mar. 3; Gaz. vol. 200; p. 274.
Horse-nails. The Capewell Horse Nail Company. No. 95,819; Mar. 17; Gaz. vol. 200; p. 853.
Hose, asbestos packing, rubber pump-valves, springs, &c., Flexible-armor. Mulconroy Company. No. 96,033; Mar. 31; Gaz. vol. 200; p. 1387.
Hosiery. Stern Brothers. No. 95,796; Mar. 10; Gaz. vol. 200; p. 579.
Hosiery. M. Bormann. No. 95,882; Mar. 24; Gaz. vol. 200; p. 1109.
Hosiery. Marshall Field & Company. No. 95,899; Mar. 24; Gaz. vol. 200; p. 1110.
Hosiery. Marshall Field & Company. No. 96,004; Mar. 31; Gaz. vol. 200; p. 1386.
Hosiery and certain named knitted underwear. E. M. Townsend. No. 95,805; Mar. 10; Gaz. vol. 200; p. 579.
Hosiery and underwear. F. Meyer & Sons. No. 95,775; Mar. 10; Gaz. vol. 200; p. 578.
Ice-cream. The Ohio Dairy Company. No. 95,936; Mar. 24; Gaz. vol. 200; p. 1111.
Insulators. Electrose Manufacturing Company. No. 95,822; Mar. 17; Gaz. vol. 200; p. 853.
Iron and steel plates, billets, blooms, and slabs. Alan Wood Iron & Steel Company. No. 96,077; Mar. 31; Gaz. vol. 200; p. 1388.
Jardinières, vases, and ferneries, Metal. George C. Lynch Company. No. 95,773; Mar. 10; Gaz. vol. 200; p. 578.
Journal, Weekly trade. The American Lumberman. No. 95,973; Mar. 31; Gaz. vol. 200; p. 1385.
Julep-straws. C. C. Truax & Company. No. 95,682; Mar. 3; Gaz. vol. 200; p. 275.
Kinematographs, Films for. The London Film Company. No. 96,026; Mar. 31; Gaz. vol. 200; p. 1386.
Knit goods. A. Bergman. No. 95,871; Mar. 24; Gaz. vol. 200; p. 1109.
Knitted overcoats, short coats, Norfolk jackets, trousers, &c. Carbondale Knitting Mills. No. 95,742; Mar. 10; Gaz. vol. 200; p. 577.
Knitted underwear. Shaughnessy Knitting Company. No. 96,056; Mar. 31; Gaz. vol. 200; p. 1387.
Laces. E. E. A. C. Seyrig. No. 95,672; Mar. 3; Gaz. vol. 200; p. 275.
Laces and ribbons. A. & L. Feldheim. No. 95,824; Mar. 17; Gaz. vol. 200; p. 853.
Lamps, Electric incandescent. General Electric Company. No. 95,827; Mar. 17; Gaz. vol. 200; p. 853.
Lard, ham, bacon, and scrapple. F. G. Vogt & Sons. No. 95,723; Mar. 3; Gaz. vol. 200; p. 277.
Lathe and machine tools and attachments, Certain named. Armstrong Bros. Tool Co. No. 95,975; Mar. 31; Gaz. vol. 200; p. 1385.
Laxative composition. D. Westheimer. No. 96,072; Mar. 31; Gaz. vol. 200; p. 1388.
Leather. Helburn Leather Company. No. 96,012; Mar. 31; Gaz. vol. 200; p. 1386.
Leather in the piece, Flesh-finished. Albert Trostel & Sons Company. No. 96,061; Mar. 31; Gaz. vol. 200; p. 1388.
Lecithin, a food ingredient. J. D. Riedel Aktiengesellschaft. No. 95,944; Mar. 24; Gaz. vol. 200; p. 1111.
Lemonade, limeade, orangeade, cherryade, &c. Bon-Lie Gesellscraft mit beschränkter Haftung. No. 95,877; Mar. 24; Gaz. vol. 200; p. 1109.
Lighting fixtures, Electric-. E. Schroeder Lamp Works. No. 95,671; Mar. 3; Gaz. vol. 200; p. 275.
Lighting units for semi-indirect lighting. Phoenix Glass Co. No. 95,656; Mar. 3; Gaz. vol. 200; p. 275.
Linen, cotton, silk, woolen, &c., piece goods. J. A. Kahl. No. 95,832; Mar. 17; Gaz. vol. 200; p. 853.
Liquor. Ditta G. Alberti. No. 95,859; Mar. 24; Gaz. vol. 200; p. 1109.
Lubricant for chains and meshing surfaces. C. G. Wirick. No. 96,076; Mar. 31; Gaz. vol. 200; p. 1388.
Lubricants, oils, and greases. Cataract Refining and Manufacturing Company. No. 95,988; Mar. 31; Gaz. vol. 200; p. 1385.
Machine-tools, machine-tool attachments, and tools, Certain named. J. H. Williams & Co. No. 96,074; Mar. 31; Gaz. vol. 200; p. 1388.
Machines and separate parts therefor, Certain named. International Harvester Company of New Jersey. No. 95,764; Mar. 10; Gaz. vol. 200; p. 578.
Magazine published semimonthly. A. Capper. No. 95,598; Mar. 3; Gaz. vol. 200; p. 273.
Manicuring hand polishers, buffers, and enamelers. H. A. Seymoure. No. 95,852; Mar. 17; Gaz. vol. 200; p. 854.
Mattresses. F. H. Davis. No. 95,996; Mar. 31; Gaz. vol. 200; p. 1385.
Meat-cutters. Kilmax Manufacturing Company. No. 95,636; Mar. 3; Gaz. vol. 200; p. 274.
Medicinal preparation for certain named diseases. Hollister Drug Company. No. 96,017; Mar. 31; Gaz. vol. 200; p. 1386.
Medicinal preparations. John J. Fulton Company. No. 95,709; Mar. 3; Gaz. vol. 200; p. 276.
Medicinal tablets. W. C. Moulton. No. 96,032; Mar. 31; Gaz. vol. 200; p. 1387.
Medicine for blood, stomach, liver, and bowel diseases. W. J. Gilmore Drug Company. No. 95,756; Mar. 10; Gaz. vol. 200; p. 578.
Medicine for removing corns. Jacobs' Pharmacy Company. No. 95,765; Mar. 10; Gaz. vol. 200; p. 578.
Medicine, Purgative. A. F. J. I. Sicre. No. 95,790; Mar. 10; Gaz. vol. 200; p. 579.
Medicines and medical preparations, Certain. D. Parker. No. 96,036; Mar. 31; Gaz. vol. 200; p. 1387.
Medicines, Homeopathic. O. I. Searles. No. 95,851; Mar. 17; Gaz. vol. 200; p. 854.
Metal mats and matting. La Porte Mat & Mfg. Co. No. 95,771; Mar. 10; Gaz. vol. 200; p. 578.
Metal-polish. E. W. Bennett. No. 95,593; Mar. 3; Gaz. vol. 200; p. 273.
Metal-polish. W. McCann. No. 95,644; Mar. 3; Gaz. vol. 200; p. 274.
Milk. The Belle Vernon Mapes Dairy Company. No. 95,869; Mar. 24; Gaz. vol. 200; p. 1109.

Milk, Condensed. Mohawk Condensed Milk Co. No. 96,030; Mar. 31; Gaz. vol. 200; p. 1387.
Molasses. The American Refining Company. No. 95,586; Mar. 3; Gaz. vol. 200; p. 273.
Molds and mold-clamps, scaffolds, hoists, and clamps. Monolithic Silo & Construction Company. No. 95,776; Mar. 10; Gaz. vol. 200; p. 578.
Mops. H. L. Feasel. No. 95,896; Mar. 24; Gaz. vol. 200; p. 1110.
Mops. Pirrung Manufacturing Company. No. 96,039; Mar. 31; Gaz. vol. 200; p. 1387.
Mucilage, glue, sealing-wax, and paste. Dennison Manufacturing Company. No. 95,751; Mar. 10; Gaz. vol. 200; p. 577.
Muffler cut-outs, flexible shafts for machines, and carbureters. The G. Piel Company. No. 95,847; Mar. 17; Gaz. vol. 200; p. 854.
Music-rolls, Perforated. Lyon & Healy. No. 95,712; Mar. 3; Gaz. vol. 200; p. 276.
Musical instruments and attachments, Certain named. Aeolian Company. Nos. 95,725–6; Mar. 10; Gaz. vol. 200; p. 577.
Musical instruments and parts thereof, Certain named. S. Buegeleisen. No. 95,701; Mar. 3; Gaz. vol. 200; p. 276.
Musical instruments and supplies for same. Musicians Supply Company. No. 95,842; Mar. 17; Gaz. vol. 200; p. 853.
Muslins, lace and drapery fabrics, and cotton goods, Madras. A. Jamieson & Co. No. 95,829; Mar. 17; Gaz. vol. 200; p. 853.
Nails, screws, metal pipes and valves, traps. Hibbard, Spencer, Bartlett & Co. No. 96,013; Mar. 31; Gaz. vol. 200; p. 1386.
Needles, safety-pins, and hair-pins, Sewing and crochet. Thüringische Nadel- & Stahlwaren-Fabrik Wolff, Knippenberg & Co. Actien-Gesellschaft. No. 95,799; Mar. 10; Gaz. vol. 200; p. 579.
Needles, safety and hair pins, Sewing and crochet. Thüringische Nadel- & Stahlwaren-Fabrik Wolff, Knippenberg & Co. Actien-Gesellschaft. No. 95,853; Mar. 17; Gaz. vol. 200; p. 854.
Newspaper-section published periodically. Star Company. No. 95,678; Mar. 3; Gaz. vol. 200; p. 275.
Noodles. Jaburg Brothers. No. 95,916; Mar. 24; Gaz. vol. 200; p. 1110.
Noodles. E. Schoen. No. 96,052; Mar. 31; Gaz. vol. 200; p. 1387.
Oats. Consolidated Grocery Company. No. 95,704; Mar. 3; Gaz. vol. 200; p. 276.
Oil compound, Castor-. Waterbury Chemical Company. No. 96,068; Mar. 31; Gaz. vol. 200; p. 1388.
Oil, Cooking-. Union Lard Corporation. No. 95,688, Mar. 3; Gaz. vol. 200; p. 275.
Oil, Lubricating-. Packard Motor Car Company. No. 95,655; Mar. 3; Gaz. vol. 200; p. 275.
Oil, oleo-stearin, and pure lard. Composition of. C. H. Brunier. No. 95,885; Mar. 24; Gaz. vol. 200; p. 1109.
Oil, Olive-. G. Sasso & Sons. No. 95,946; Mar. 24; Gaz. vol. 200; p. 1111.
Oil preparation for certain ailments, Liquid. The Pineoleum Company. No. 96,038; Mar. 31; Gaz. vol. 200; p. 1387.
Oils, Lubricating-. The White & Bagley Co. No. 95,811; Mar. 10; Gaz. vol. 200; p. 579.
Ointment, Eczema-. Fishman & McGowan. No. 95,753; Mar. 10; Gaz. vol. 200; p. 577.
Ointment for corns and callouses. M. W. Sargeant. No. 95,788; Mar. 10; Gaz. vol. 200; p. 579.
Ointment, Medical. The W. F. Gray Company. No. 95,711; Mar. 3; Gaz. vol. 200; p. 276.
Optical goods, Certain named. American Optical Company. No. 95,861; Mar. 24; Gaz. vol. 200; p. 1109.
Ovens. Domestic Utilities Manufacturing Co. No. 96,000; Mar. 31; Gaz. vol. 200; p. 1386.
Overcoats, coats, vests, and trousers. B. Kuppenheimer & Company. No. 95,919; Mar. 24; Gaz. vol. 200; p. 1110.
Packing, Flexible metallic. Federal Metallic Packing Company. No. 95,614; Mar. 3; Gaz. vol. 200; p. 273.
Paint and varnish. A. Prée. No. 95,782; Mar. 10; Gaz. vol. 200; p. 578.
Paint and varnish cleanser and varnish-restorer. H. Bruaw. No. 95,738; Mar. 10; Gaz. vol. 200; p. 577.
Paints. Louisville Paint Mfg. Co. No. 95,639; Mar. 3; Gaz. vol. 200; p. 274.
Paints and varnishes. Wadsworth, Howland & Co. No. 95,690; Mar. 3; Gaz. vol. 200; p. 276.
Paints, Iron oxids, varnishes, driers, and paint-oils. Hammond, Boynton Paint & Chemical Co. No. 96,010; Mar. 31; Gaz. vol. 200; p. 1386.
Paints, Ready-mixed. Standard American Home Supply Company. No. 95,795; Mar. 10; Gaz. vol. 200; p. 579.
Paper, blank books, printed forms, and stationery. The Jones Agency Company. No. 95,634; Mar. 3; Gaz. vol. 200; p. 274.
Paper, paper towels and napkins, Toilet-. Adirondack Tissue Paper Co. No. 95,696; Mar. 3; Gaz. vol. 200; p. 276.
Paper, Toilet-. The Imperial Merchandise Co. No. 95,913; Mar. 24; Gaz. vol. 200; p. 1110.
Paste, glue, and cement. American Cement Company. No. 95,860; Mar. 24; Gaz. vol. 200; p. 1109.
Peanuts, Salted. Superior Peanut Company. No. 95,680; Mar. 3; Gaz. vol. 200; p. 275.
Pencils, penholders, fountain-penholders, and gold toothpicks, Gold, silver, and plated. E. D. Hicks. No. 95,828; Mar. 17; Gaz. vol. 200; p. 853.
Penholders. E. H. Emery. No. 95,823; Mar. 17; Gaz. vol. 200; p. 853.
Pennants, Felt. The Reproduction Co. No. 95,666; Mar. 3; Gaz. vol. 200; p. 275.
Perfume, toilet waters, powders, and cold-cream. William H. Brown & Bro. Company. Nos. 95,982–3; Mar. 31; Gaz. vol. 200; p. 1385.
Perfumery. Tokalon, Incorporated. Nos. 95,800–4; Mar. 10; Gaz. vol. 200; p. 579.
Perfumery. Tokalon, Incorporated. No. 95,854; Mar. 17; Gaz. vol. 200; p. 854.
Periodical. The Curtis Publishing Company. Nos. 95,991–5; Mar. 31; Gaz. vol. 200; p. 1385.
Pharmaceutical preparations, Certain named. The Oxypathor Co. No. 95,714; Mar. 3; Gaz. vol. 200; p. 276.
Photographic pictures, Paints for retouching and coloring. Chemische Fabrik auf Actien (vorm. E. Schering). No. 95,989; Mar. 31; Gaz. vol. 200; p. 1385.
Photographs. V. S. Bellino. No. 95,735; Mar. 10; Gaz. vol. 200; p. 577.
Pickles, condiments, and relishes, Vegetable. F. L. Ives. No. 95,915; Mar. 24; Gaz. vol. 200; p. 1110.
Picture films, Moving-. Warner's Features, Incorporated. No. 95,692; Mar. 3; Gaz. vol. 200; p. 276.
Picture films, Moving-. Universal Film Manufacturing Company. No. 96,083; Mar. 31; Gaz. vol. 200; p. 1388.
Picture machines and picture-films, Moving-. F. W. Hochstetter. Nos. 96,014–15; Mar. 31; Gaz. vol. 200; p. 1386.
Pie filling, fruit preserves and jelly, and apple-butter, Mince-. Best-Clymer Mfg. Co. No. 95,872; Mar. 24; Gaz. vol. 200; p. 1109.
Pills, Liver-. G. E. Thompson. No. 95,798; Mar. 10; Gaz. vol. 200; p. 579.
Planchette devices. H. F. Fontanella. No. 95,902; Mar. 24; Gaz. vol. 200; p. 1110.
Planters and parts thereof, Seed-. International Harvester Corporation. No. 96,021; Mar. 31; Gaz. vol. 200; p. 1386.
Plumes and feathers, Ostrich. E. Eisemann & Co. No. 95,821; Mar. 17; Gaz. vol. 200; p. 853.
Polish for furniture, pianos, floors, and vehicles. Vi-Ne-Ro Co. No. 95,807; Mar. 10; Gaz. vol. 200; p. 579.
Pottery, earthenware, and earthenware and pottery vases. Ceramic Art Association. No. 95,889; Mar. 24; Gaz. vol. 200; p. 1110.
Powder and a liquid medicinal preparation, Face-. Dermatine Manufacturing Company, a Partnership. No. 95,997; Mar. 31; Gaz. vol. 200; p. 1385.
Preparation for internal and external use. Van Vleet-Mansfield Drug Co. No. 96,064; Mar. 31; Gaz. vol. 200; p. 1388.
Preparation for the treatment of chronic constipation. H. A. Mullins. No. 95,841; Mar. 17; Gaz. vol. 200; p. 853.
Preparation for the treatment of rheumatism. W. R. Rhoades. No. 95,783; Mar. 10; Gaz. vol. 200; p. 578.
Preparations for the treatment of certain named ailments. W. F. McBurney. No. 96,029; Mar. 31; Gaz. vol. 200; p. 1387.
Pressor substances possessing the properties of an extract of the posterior lobe of the pituitary gland. H. S. Wellcome. No. 95,857; Mar. 17; Gaz. vol. 200; p. 854.
Printed books, pamphlets, and prints. Philadelphia School For Nurses. No. 96,037; Mar. 31; Gaz. vol. 200; p. 1387.
Printing-forms. D. J. Seaman. No. 96,054; Mar. 31; Gaz. vol. 200; p. 1387.
Printing machines and parts thereof, Time-. Calculagraph Company. No. 95,597; Mar. 3; Gaz. vol. 200; p. 273.
Printing-plates, Machinery for drying curved stereotype. The Campbell Printing Press & Manufacturing Company. No. 95,985; Mar. 31; Gaz. vol. 200; p. 1385.
Printing textile material, Additions to discharges for. Badische Anilin- & Soda-Fabrik. No. 95,817; Mar. 17; Gaz. vol. 200; p. 853.
Publication, Weekly. The Opera, Inc. No. 95,651; Mar. 3; Gaz. vol. 200; p. 275.
Publications, Monthly periodical. Otis & Company. No. 96,034; Mar. 31; Gaz. vol. 200; p. 1387.
Pumps. The Barnes Mfg. Co. No. 95,732; Mar. 10; Gaz. vol. 200; p. 577.
Razors, Cattaraugus Cutlery Co. No. 95,599; Mar. 3; Gaz. vol. 200; p. 273.
Razors and shears. P. Eisemann. No. 96,002; Mar. 31; Gaz. vol. 200; p. 1386.
Recording and indicating operations of other machines, Apparatus, machines, and parts thereof for. Slocum, Avram & Slocum. No. 96,057; Mar. 31; Gaz. vol. 200; p. 1387.
Relishes and salad-dressings, Table. McCormick & Co. No. 95,645; Mar. 3; Gaz. vol. 200; p. 274.
Remedies for certain named diseases and a liniment, Eberhart Pharmacal Co. No. 95,708; Mar. 3; Gaz. vol. 200; p. 276.
Remedy and a tonic and blood-purifier, Rheumatic and lumbago. H. A. Bennett. No. 95,699; Mar. 3; Gaz. vol. 200; p. 276.
Remedy, Blood. M. B. Hodges. No. 96,016; Mar. 31; Gaz. vol. 200; p. 1386.



Remedy, Catarrh. Dr. Burke's Catarrh Remedy Co. No. 95,702; Mar. 3; Gaz. vol. 200; p. 276.
Remedy for certain named diseases of horses and cattle. F. A. Woodmansee. No. 95,815; Mar. 10; Gaz. vol. 200; p. 579.
Remedy for removing superfluous hair. Morrow Chemical Company. No. 95,840; Mar. 17; Gaz. vol. 200; p. 853.
Remedy for syphilis. Weigel, Hoshaw & Heare. No. 96,089; Mar. 31; Gaz. vol. 200; p. 1388.
Remedy, Rheumatic. Baker Chemical Co. No. 95,698; Mar. 3; Gaz. vol. 200; p. 276.
Ribbon, Velvet. Rusch & Co. No. 95,785; Mar. 10; Gaz. vol. 200; p. 578.
Rock-crushers, bin-jacks, and street-sweeping machines. Universal Road Machinery Co. No. 95,855; Mar. 17; Gaz. vol. 200; p. 854.
Roofings, Prepared. Barrett Manufacturing Company. No. 95,865; Mar. 24; Gaz. vol. 200; p. 1109.
Rubber boots and shoes. Lambertville Rubber Company. No. 95,834; Mar. 17; Gaz. vol. 200; p. 853.
Rubber composition, India-. The High Pressure Cellular Rubber Syndicate. No. 95,620; Mar. 3; Gaz. vol. 200; p. 274.
Salt, Table-. San Francisco Salt Refinery. Nos. 95,786–7; Mar. 10; Gaz. vol. 200; p. 578.
Salve, Rupture-. D'Hondt Manufacturing Co. No. 95,998; Mar. 31; Gaz. vol. 200; p. 1386.
Salves. E. Bayer. No. 95,734; Mar. 10; Gaz. vol. 200; p. 577.
Salves and powders, Foot. Backes & Ferguson. No. 95,730; Mar. 10; Gaz. vol. 200; p. 577.
Saws. Henry Disston & Sons. No. 95,608; Mar. 3; Gaz. vol. 200; p. 273.
Saws and band-saw strips, Band-. Société Anonyme des Anciens Etablissements Panhard & Levassor. No. 95,677; Mar. 3; Gaz. vol. 200; p. 275.
Shades and furniture-screens, Porch-. Raymond Porch Shade Company. No. 95,662; Mar. 3; Gaz. vol. 200; p. 275.
Shampoo preparation, toilet powders and creams. C. H. Borwick. No. 95,981; Mar. 31; Gaz. vol. 200; p. 1385.
Shears, scissors, razors, and pocket-knives. S. R. Droescher. No. 96,001; Mar. 31; Gaz. vol. 200; p. 1386.
Sheet material, Elastic transparent. G. M. Browning. No. 95,595; Mar. 3; Gaz. vol. 200; p. 273.
Shields and bolts, screws, screw-anchors, &c., Expansion. Diamond Expansion Bolt Co. No. 95,999; Mar. 31; Gaz. vol. 200; p. 1386.
Shirts, overalls, textile jackets and jumpers. Neely, Harwell & Co. No. 95,932; Mar. 24; Gaz. vol. 200; p. 1111.
Shoe buttoners and horns. Regal Shoe Company. No. 95,663; Mar. 3; Gaz. vol. 200; p. 275.
Shoe-lacings. Regal Shoe Company. No. 95,664; Mar. 3; Gaz. vol. 200; p. 275.
Shoe-polish, Russia-leather. Geo. J. Kelly Co. No. 95,766; Mar. 10; Gaz. vol. 200; p. 578.
Shoes. Z. S. Corson. No. 95,749; Mar. 10; Gaz. vol. 200; p. 577.
Shoes, Leather. Best & Company. No. 95,873; Mar. 24; Gaz. vol. 200; p. 1109.
Shoes, Leather. Brown Shoe Company. No. 95,884; Mar. 24; Gaz. vol. 200; p. 1109.
Shoes, Powder preparation for cleaning white. O-White-O Cleaner Company. No. 95,652; Mar. 3; Gaz. vol, 200; p. 275.
Silks, threads, cottons, and yarns, Sewing. C. W. Smith. No. 96,058; Mar. 31; Gaz. vol. 200; p. 1387.
Skates, Ice-. F. W. Pisnert & Sons. No. 95,942; Mar. 24; Gaz. vol. 200; p. 1111.
Sleds. A. G. Fitz Gerald No. 95,900; Mar. 24; Gaz. vol. 200; p. 1110.
Soap. Lautz Bros. & Co. No. 95,638; Mar. 3; Gaz. vol. 200; p. 274.
Soap. Claire Manufacturing Co. No. 95,746; Mar. 10; Gaz. vol. 200; p. 577.
Soap. P. Beiersdorf & Co. No. 95,977; Mar. 31; Gaz. vol. 200; p. 1385.
Soap and soap powder. The "Sanitas" Company. No. 96,051; Mar. 31; Gaz. vol. 200; p. 1387.
Soap, Laundry. The Procter & Gamble Company. Nos. 96,041–2; Mar. 31; Gaz. vol. 200; p. 1387.
Soap, Medicinal and toilet. Providol Gesellschaft mit beschränkter Haftung. No. 96,043; Mar. 31; Gaz. vol. 200; p. 1387.
Soap, soap and washing powders. The Globe Soap Company. Nos. 95,757–8; Mar. 10; Gaz. vol. 200; p. 578.
Soaps. J. L. Hopkins & Co. No. 95,623; Mar. 3; Gaz. vol. 200; p. 274.
Soaps and powders, Washing and scouring. Pride of the Kitchen Company. No. 95,660; Mar. 3; Gaz. vol. 200; p. 275.
Soaps, Shaving and toilet. The J. B. Williams Company. No. 96,075; Mar. 31; Gaz. vol. 200; p. 1388.
Soaps and soap powders. Colgate & Co. No. 95,747; Mar. 10; Gaz. vol. 200; p. 577.
Sound recording or reproducing machines and parts thereof, &c. Victor Talking Machine Company. No. 95,964; Mar. 24; Gaz. vol. 200; p. 1112.
Soy. Marukin-Shoyu-Kabushiki-Kwaisha. No. 95,642; Mar. 3; Gaz. vol. 200; p. 274.
Spark-plug insulators. Rajah Auto Supply Company. No. 95,661; Mar. 3; Gaz. vol. 200; p. 275.
Spices. C. F. Blanke Tea & Coffee Company. No. 95,875; Mar. 24; Gaz. vol. 200; p. 1109.
Springs, Buffer, railway-vehicle, and locomotive. Turton Brothers & Matthews. No. 95,962; Mar. 24; Gaz. vol. 200; p. 1112.
Stereopticons and slides therefor. Victor Animatograph Company. No. 95,689; Mar. 3; Gaz. vol. 200; p. 276.
Stokers, Underfeed. Sanford Riley Stoker Co. No. 95,784; Mar. 10; Gaz. vol. 200; p. 578.
Stone work, Certain named materials for artificial. Terranova-Industrie C. A. Kapferer & Co. No. 95,681; Mar. 3; Gaz. vol. 200; p. 275.
Stoves and ranges. The Union Stove Works. No. 95,806; Mar. 10; Gaz. vol. 200; p. 579.
Strops. P. Eisemann. No. 95,752; Mar. 10; Gaz. vol. 200; p. 577.
Suits, coats, and skirts, Ladies' outer. Louis Barnett Sons. No. 95,733; Mar. 10; Gaz. vol. 200; p. 577.
Suits, Men's outer. Zerfing and Lightner. No. 95,816; Mar. 10; Gaz. vol. 200; p. 579.
Surgical bandages, belts, and stockings, abdominal belts, &c. The Spirella Company. Nos. 95,953–5; Mar. 24; Gaz. vol. 200; p. 1111.
Surgical splints and medical appliances, Mixture for use in the manufacture of. J. W. Peck. No. 95,781; Mar. 10; Gaz. vol. 200; p. 578.
Talking-machines and records. Columbia Graphophone Company. No. 95,703; Mar. 3; Gaz. vol. 200; p. 276.
Tea. J. T. L. Jones. No. 95,917; Mar. 24; Gaz. vol. 200; p. 1110.
Telephone system, Device having for its object a loud-speaking. The National Callophone Co. No. 95,844; Mar. 17; Gaz. vol. 200; p. 853.
Thermometers. W. Bruns. No. 95,984; Mar. 31; Gaz. vol. 200; p. 1385.
Thread. J. C. Meyer. Nos. 95,837–8; Mar. 17; Gaz. vol. 200; p. 853.
Tires and inner tubes for automobiles, Rubber. Thermoid Rubber Company. No. 96,060; Mar. 31; Gaz. vol. 200; p. 1387.
Tobacco, Long-cut smoking and chewing. Schmitt Brothers Tobacco Works. No. 95,670; Mar. 3; Gaz. vol. 200; p. 275.
Tonics, cough-drops, and laxatives, Medical. D. Westheimer. No. 95,810; Mar. 10; Gaz. vol. 200; p. 579.
Toys. K. P. Hampton. No. 95,907; Mar. 24; Gaz. vol. 200; p. 1110.
Toys composed wholly or in part of pyroxylin, Certain named. Geo. Borgfeldt & Co. No. 95,879; Mar. 24; Gaz. vol. 200; p. 1109.
Tractors and parts thereof. International Harvester Corporation. No. 95,628; Mar. 3; Gaz. vol. 200; p. 274.
Tubes, pipes, tubing, and casings, Certain named. Monongahela Tube Company. No. 96,031; Mar. 31; Gaz. vol. 200; p. 1387.
Valves, cocks, bowls, &c., Certain. Excelovalve Company. No. 95,613; Mar. 3; Gaz. vol. 200; p. 273.
Vermuth. F. Cinzano & Co. No. 95,745; Mar. 10; Gaz. vol. 200; p. 577.
Washing-machines. Federal Sign System (Electric). No. 96,003; Mar. 31; Gaz. vol. 200; p. 1386.
Waterproof textile fabrics. L. C. Chase & Company. No. 95,744; Mar. 10; Gaz. vol. 200; p. 577.
Wax, Ceresin-. Ernst Schliemann's Export-Ceresin-Fabrik, Gesellschaft mit beschränkter Haftung. No. 95,850; Mar. 17; Gaz. vol. 200; p. 854.
Whiskies, Scotch. The Distillers Coy. No. 95,892; Mar. 24; Gaz. vol. 200; p. 1110.
Whisky. C. Berry & Co. No. 95,736; Mar. 10; Gaz. vol. 200; p. 577.
Whisky. Shawhan Distillery Company. No. 95,789; Mar. 10; Gaz. vol. 200; p. 579.
Whisky. United Wine & Trading Co. No. 95,963; Mar. 24; Gaz. vol. 200; p. 1112.
Whisky. C. Berry & Co. No. 95,978; Mar. 31; Gaz. vol. 200; p. 1385.
Whisky. R. M. Rose Company. No. 96,047; Mar. 31; Gaz. vol. 200; p. 1387.
Whisky, Blended. J. H. Stewart. No. 95,959; Mar. 24; Gaz. vol. 200; p. 1112.
Wine, Champagne-. A. de Montebello & Co. No. 95,839; Mar. 17; Gaz. vol. 200; p. 853.
Wine, rose-vin, and sherry-wine, Port-. R. Rose. No. 96,044; Mar. 31; Gaz. vol. 200; p. 1387.
Wine, Sherry, port, and dessert. R. Rose. No. 96,045; Mar. 31; Gaz. vol. 200; p. 1387.
Wire-cloth. Ludlow-Saylor Wire Company. No. 95,640; Mar. 3; Gaz. vol. 200; p. 274.
Wire goods, plumbing-supplies, chain cables, &c., Certain named. Felten & Guilleaume Carlswerk Actien-Gesellschaft. No. 95,898; Mar. 24; Gaz. vol. 200; p. 1110.
Wire grips and stretchers and woven-wire stretchers. The Mason Fence Company. No. 96,028; Mar. 31; Gaz. vol. 200; p. 1386.
Woolen and worsted serges in the piece. G. L. Rosenberg. No. 95,849; Mar. 17; Gaz. vol. 200; p. 834.
Woolen dress goods. Hans Brothers. No. 95,759; Mar. 10; Gaz. vol. 200; p. 578.
Worsted and cotton piece goods. G. Garnett & Sons. No. 95,826; Mar. 17; Gaz. vol. 200; p. 853.
Yarn, Asbestos. H. W. Johns-Manville Co. No. 95,830; Mar. 17; Gaz. vol. 200; p. 853.

# ALPHABETICAL LIST OF LABELS.

"Adolphus Busch." (For Cigars.) Wiedmann-St. Louis Cigar Box Co. No. 17,612; Mar. 24; Gaz. vol. 200; p. 1113.

"Am-O-Kay." (For Shirts.) Salant & Salant No. 17,631; Mar. 31; Gaz. vol. 200; p. 1389.

"Baby Pants." (For Baby-Pants.) I. B. Kleinert Rubber Company. No. 17,622; Mar. 31; Gaz. vol. 200; p. 1389.

"Brown Betty." (For Confectionery.) The Bachman Chocolate Company. No. 17,614; Mar. 31; Gaz. vol. 200; p. 1389.

"Carmen." (For a Shampoo Tonic.) L. C. Blum. No. 17,615; Mar. 31; Gaz. vol. 200; p. 1389.

"Chiques Rock." (For Carbonated Beverages.) M. A. Flanagan No. 17,604; Mar. 24; Gaz. vol. 200; p. 1113.

"Chocolate Almond Wafer." (For Chocolate Almond Wafers.) Yecker Chocolate Company. No. 17,636; Mar. 31; Gaz. vol. 200; p. 1389.

"Corset de Luxe." (For Corsets.) J. F. Ackerman. No. 17,589; Mar. 3; Gaz. vol. 200; p. 278.

"Cotton Boll." (For Sanitary Paper Towels.) Richards-Glover Company. No. 17,610; Mar. 24; Gaz. vol. 200; p. 1113.

"Couche-Culotte." (For Baby-Pants.) I. B. Kleinert Rubber Company. No. 17,623; Mar. 31; Gaz. vol 200; p. 1389.

"Devil's Stomach Liquor." (For an Alcoholic Liquor.) J. Pollak. No. 17,629; Mar. 31; Gaz. vol. 200; p. 1389.

"Equity Crochet Quilt." (For Quilts.) Monadnock Mills. No. 17,599; Mar. 10; Gaz. vol. 200; p. 580.

"Fedora Dress Lox." (For Garment-Fasteners.) Silverberg Import Co. No. 17,633; Mar. 31; Gaz. vol. 200; p. 1389.

"Fifty Years Ago. When Golden Wedding Whiskey Was Young." (For Whisky.) J. S. Finch & Co. No. 17,595; Mar. 10; Gaz. vol. 200; p. 580.

"Golden Wedding Pure Rye Whiskey." (For Whisky.) J. S. Finch & Co. No. 17,596; Mar. 10; Gaz. vol. 200; p. 580.

"Greenspring Mineral Water." (For Mineral Water.) The Greenspring Water Company. No. 17,621; Mar. 31; Gaz. vol. 200; p. 1389.

"Heart's Delight Farm Jelly." (For Jelly.) W. H. Miner. No. 17,598; Mar. 10; Gaz. vol. 200; p. 580.

"Hopsie." (For a Beverage.) J. S. Briggs Co. No. 17,616; Mar. 31; Gaz. vol. 200; p. 1389.

"Howel's Orange-Julep The Original." (For Orange Julep.) Southern Fruit Julep Company. No. 17,594; Mar. 3; Gaz. vol. 200; p. 278.

"Ideal." (For Corn-Salve.) U. H. Knaub. No. 17,624; Mar. 31; Gaz. vol. 200; p. 1389.

"Italian Union Cigar." (For Cigars.) M. D'urso & Co. No. 17,590; Mar. 3; Gaz. vol. 200; p. 278.

"Just Rite." (For Bread.) Crescent Bread Company. No. 17,602; Mar. 24; Gaz. vol. 200; p. 1113.

"Kentucky Blue Grass Lawn Seed." (For Grass-Seed.) Stuart & O'Brien. No. 17,600; Mar. 10; Gaz. vol. 200; p. 580.

"Lightning Rheumatic Remedy." (For a Rheumatic Remedy.) McNulty & Stiff. No. 17,591; Mar. 3; Gaz. vol. 200; p. 278.

"Lytle's Ever Ready Beef Steak Flour." (For Flour.) W. F. Lytle. No. 17,607; Mar. 24; Gaz. vol. 200; p. 1113.

"McCann's Urn Brand Coffee With Chicory." (For Ground Coffee with Chicory.) J. W. Little. No. 17,606; Mar. 24; Gaz. vol. 200; p. 1113.

"Mennen's Cream Dentifrice." (For Cream Dentifrice.) G. Mennen Chemical Company. No. 17,627; Mar. 31; Gaz. vol. 200; p. 1389.

"Mennen's Perfumed Bath Powder." (For Bath-Powder.) G. Mennen Chemical Company. No. 17,628; Mar. 31; Gaz. vol. 200; p. 1389.

"Mennen's Shaving Cream." (For Shaving-Cream.) G. Mennen Chemical Company. No. 17,626; Mar. 31; Gaz. vol. 200; p. 1389.

"Mennen's Tar Shampooing Cream." (For Tar Shampooing-Cream.) G. Mennen Chemical Company. No. 17,625; Mar. 31; Gaz. vol. 200; p. 1389.

"Morris' Pennant." (For Cigars.) F. A. Morris. No. 17,608; Mar. 24; Gaz. vol. 200; p. 1113.

"Mother's Cleanser." (For a Cleansing Preparation.) The National Cleanser Company. No. 17,609; Mar. 24; Gaz. vol. 200; p. 1113.

"Napoleon Brand Salad Oil." (For Salad-Oil.) F. E. Grimm. No. 17,605; Mar. 24; Gaz. vol. 200; p. 1113.

"National Export." (For Beer.) The Independent Breweries Company. No. 17,597; Mar. 10; Gaz. vol. 200; p. 580.

"Orange Tree Brand Fresh Vegetables Product of Loranger Upland Farms Loranger P. O., La." (For Fresh Vegetables.) Genesee Lumber Company. No. 17,620; Mar. 31; Gaz. vol. 200; p. 1389.

"Otoyo." (For Safety-Pins.) Arbuthnot, Stephenson & Company. No. 17,613; Mar. 31; Gaz. vol. 200; p. 1389.

"Our Chief Brand." (For Oranges.) Fairview Land Company. No. 17,619; Mar. 31; Gaz. vol. 200; p. 1389.

"Paganini." (For Violin-Strings.) Southern California Music Company. No. 17,593; Mar. 3; Gaz. vol. 200; p. 278.

"Perfection." (For Violin-Strings.) Southern California Music Company. No. 17,592; Mar. 3; Gaz. vol. 200; p. 278.

"Rex Puncture Cure." (For a Compound for Sealing Punctures.) Rex Puncture Cure Company. No. 17,630; Mar. 31; Gaz. vol. 200; p. 1389.

"Roman P. W. Cleanser." (For a Cleanser for White Shoes.) C. Filippone. No. 17,603; Mar. 24; Gaz. vol. 200; p. 1113.

"Strouse's Ginger Brandy." (For Cordialized Ginger Brandy.) American Wine and Spirit Company. No. 17,601; Mar. 24; Gaz. vol. 200; p. 1113.

"Sun-Shine." (For Furniture and Brass Polish.) E. W. Thumb. No. 17,634; Mar. 31; Gaz. vol. 200; p. 1389.

"Sunbonnet Brand." (For Oleomargarin.) Geo. R. Eldridge Company. No. 17,617; Mar. 31; Gaz. vol. 200; p. 1389.

"The Empire." (For Mattresses.) Empire Mattress Company. No. 17,618; Mar. 31; Gaz. vol. 200; p. 1389.

"The Test!" (For Varnish or Painting Material.) Valentine & Company. No. 17,635; Mar. 31; Gaz. vol. 200; p. 1389.

"Virginette." (For Wine.) The A. Schmidt Jr. & Bros. Wine Co. No. 17,632; Mar. 31; Gaz. vol. 200; p. 1389.

"William Morton." (For Cigars.) C. H. Robinson. No. 17,611; Mar. 24; Gaz. vol. 200; p. 1113.

## PRINTS.

"A Good Bottle To Keep Good Whiskey Good." (For Whisky.) Stewart Distilling Co. No. 3,520; Mar. 3; Gaz. vol. 200; p. 278.

"Auto Parts Co." (For Auto Parts.) Auto Parts Co. No. 3,517; Mar. 3; Gaz. vol. 200; p. 278.

"Bell's Forkdipt Chocolates." (For Chocolates.) J. S. Bell Confectionery Co. No. 3,525; Mar. 24; Gaz. vol. 200; p. 1113.

"Ceroma." (For Cigars.) W. A. Depue. No. 3,534; Mar. 31; Gaz. vol. 200; p. 1389.

"Famous Beverwyck Beer." (For Beer.) Beverwyck Brewing Co. No. 3,532; Mar. 31; Gaz. vol. 200; p. 1389.

"Fifty Years Ago, When Golden Wedding Whiskey Was Young." (For Whisky.) J. S. Finch & Co. No. 3,521; Mar. 10; Gaz. vol. 200; p. 580.

"Fifty Years Ago When Golden Wedding Whiskey Was Young." (For Whisky.) J. S. Finch & Co. No. 3,536; Mar. 31; Gaz. vol. 200; p. 1389.

"Friendship Peace Love." (For Middy-Blouses.) H. Du Brock. No. 3,535; Mar. 31; Gaz. vol. 200; p. 1389.

"Get the Linoleum Habit." (For Linoleum and Oil-Cloth.) Thomas Potter, Sons & Co. No. 3,530; Mar. 24; Gaz. vol. 200; p. 1113.

"Golden Wedding Bottled In Brand." (For Whisky.) J. S. Finch & Co. No. 3,528; Mar. 24; Gaz. vol. 200; p. 1113.

"Heart's Delight Farm Sausage." (For Sausage.) W. H. Miner. No. 3,529; Mar. 24; Gaz. vol. 200; p. 1113.

"In Cold Weather." (For Shredded Wheat.) The Shredded Wheat Company. No. 3,540; Mar. 31; Gaz. vol. 200; p. 1389.

"Just Rite." (For Bread.) Crescent Bread Company. No. 3,526; Mar. 24; Gaz. vol. 200; p. 1113.

"Kelly-Springfield Tires 'Made To Make Good.'" (For Rubber Tires.) Kelly-Springfield Tire Co. No. 3,537; Mar. 31; Gaz. vol. 200; p. 1389.

"Old Overbolt Rye." (For Whisky.) The Meyercord Company. No. 3,518; Mar. 3; Gaz. vol. 200; p. 278.

"Pictorial Illustration of the Myers Sewing Awl." (For Sewing-Awls.) C. A. Myers Company. No. 3,524; Mar. 10; Gaz. vol. 200; p. 580.

"Prince Albert the national joy smoke." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,531; Mar. 24; Gaz. vol. 200; p. 1113.

"Regal Blue Marble Enduring As The Pyramids." (For Blue Marble.) Regal Marble Company. No. 3,538; Mar. 31; Gaz. vol. 200; p. 1389.

"Sanoma." (For Cigars.) W. A. Depue. No. 3,527; Mar. 24; Gaz. vol. 200; p. 1113.

"Schrader Universal Tire Pressure Gauge." (For Tire Pressure-Gages.) A. Schrader's Son. No. 3,539; Mar. 31; Gaz. vol. 200; p. 1389.

"The Edwin Natural Bridge." (For Whisky.) The Meyercord Company. No. 3,519; Mar. 3; Gaz. vol. 200; p. 278.

"The Game of Song and Story 'It Pleases and It Pays.'" (For Games.) G. Ross Korne & Co. No. 3,522; Mar. 10; Gaz. vol. 200; p. 580.

"The Grafonola School-Girl." (For Grafonolas.) Columbia Graphophone Company. No. 3,533; Mar. 31; Gaz. vol. 200; p. 1389.

"The Test!" (For Varnish and Painting Material.) Valentine & Company. No. 3,541; Mar. 31; Gaz. vol. 200; p. 1389.

"When Better Automobiles Are Built Buick Will Build Them." (For Automobiles.) Joseph Mack Printing House. No. 3,523; Mar. 10; Gaz. vol. 200; p. 580.

## DISCLAIMER.

Door-controlling means. H. G. Voight. No. 1,040,969; date of patent Oct. 8, 1912; disclaimer filed Feb. 13, 1914; Gaz. vol. 200; p. 285.

# OFFICIAL GAZETTE

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VOLUME CCI.

APRIL,

1914.

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1914.

# ERRATA.

**1,092,183,** page 21, fourth claim, line 4, strike out the word "said."

**1,092,264,** page 48, in heading strike out assignment.

**1,092,808,** page 235, in heading, assignment, after the word "assignor" insert the words *of one half*.

**1,093,074,** page 361, first claim, lines 4–5, for the word "displacement" read *displaceable*.

**1,093,092,** page 367, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

**1,093,179,** page 398, third claim, line 7, for the word "for" read *to*.

**1,093,331,** page 450, in heading, assignment, after the word "assignor" insert the words *of one-half*.

**1,094,441,** page 920, fourth claim, line 16, strike out the words "for supplying," same claim, same line after the word "switch" insert the words *for supplying*.

**1,094,840,** page 1062, second claim, line 2, before the word "coating" strike out the article "the."

**1,094,876,** page 1073, first claim, line 2, for the word "intermediate" read *intimate*.

**96,373,** (Trade-Mark,) page 567, date of filing, for "January 20, 1914," read *January 10, 191*



# CONTENTS.


| | Page. |
|---|---|
| PATENTS AND DESIGNS GRANTED, April 7, 14, 21, 28 | 3, 273, 575, 909 |
| TRADE-MARKS PUBLISHED AND REGISTERED, April 7, 14, 21, 28 | 245, 541, 873, 1191 |
| LABELS AND PRINTS REGISTERED, April 7, 14, 28 | 266, 568, 1218 |
| DECISIONS OF THE COMMISSIONER OF PATENTS, April 7, 14, 21, 28 | 267, 569, 903, 1219 |
| INDEX TO THE DECISIONS OF THE COMMISSIONER OF PATENTS | 1223 |
| ALPHABETICAL LIST OF PATENTEES AND INVENTIONS | I |


# ANNOUNCEMENTS.


| | Page |
|---|---|
| ADVERSE DECISIONS IN INTERFERENCE— | |
| Birkeland, No. 772,862 | 269 |
| Birkeland, No. 775,123 | 270 |
| Jack, No. 1,016,830 | 270 |
| Lundgren, No. 1,033,109 | 270 |
| Petersen, No. 889,857 | 1222 |
| APPLICATIONS—Condition of pending | 270 |
| ATTORNEYS—Order disbarring Charles F. Schmelz | 2, 272, 574, 908 |
| CLASSIFICATION— | 1 |
| Changes in—*Order 2114* | 269 |
| *Order 2115* | 269 |
| *Order 2118* | 1222 |
| *Order 2122* | 1222 |
| German patents | 1222 |
| COMMUNICATIONS TO THE PATENT OFFICE—Rule 9 | 1 |
| DISCLAIMER—Dickey, Samuel J | 271 |
| DRAWINGS—Foreign patents—*Order 2096* | 1222 |
| Instructions relative to preparing and mailing | 573 |
| INTERFERENCE NOTICES— | 907 |
| Brokhahne, William | 270, 572 |
| Central Lighting Company | 270, 572 |
| Donaldson, Percy | 270 |
| Fenton, Aurilla B | 270, 572 |
| Goodwill Chemical Company, The | 270, 572 |
| Longhurst, James S., Jr | 270, 572, 906 |
| May & Son | 572, 906, 1222 |
| "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung | 270, 572, 906 |
| Strauss & Jandorf Shoe Co | 571, 906, 1222 |
| OFFICIAL GAZETTE— | 270, 572, 906 |
| Decision leaflets, price of | 1, 573 |
| Trade-mark portion, price of | 573 |
| PATENTS—List of adjudicated | 269, 571, 1222 |
| RULES OF PRACTICE—Amendment of Rule 80—*Order 2101* | 271 |

Patents Nos. 1,092,131 to 1,092,815.

# THE OFFICIAL GAZETTE

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## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF APRIL 7, 1914 | 1 |
| ATTORNEYS | 1 |
| CLASSIFICATION OF GERMAN PATENTS | 1 |
| NOTICE | 1 |
| APPLICATIONS UNDER EXAMINATION | 2 |
| PATENTS GRANTED | 3 |
| REISSUES | 238 |
| DESIGNS | 238 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 245 |
| TRADE-MARKS—REGISTERED | 261 |
| LABELS AND PRINTS | 266 |
| DECISIONS OF THE U. S. COURTS— | |
| Johnson *v.* Martin | 267 |
| Barber *v.* Spalckhaver | 268 |
| ADJUDICATED PATENTS | 269 |
| CHANGES IN CLASSIFICATION | 269 |
| ADVERSE DECISIONS IN INTERFERENCE | 269 |
| INTERFERENCE NOTICES | 270 |

## ISSUE OF APRIL 7, 1914.

| | | | |
|---|---|---|---|
| Patents | 685—No. | 1,092,131 to No. | 1,092,815, inclusive. |
| Designs | 32—No. | 45,549 to No. | 45,580, inclusive. |
| Trade-Marks | 139—No. | 96,078 to No. | 96,216, inclusive. |
| Labels | 8—No. | 17,637 to No. | 17,644, inclusive. |
| Prints | 15—No. | 3,542 to No. | 3,556, inclusive. |
| Reissues | 2—No. | 13,711 to No. | 13,712, inclusive. |
| Total | 881 | | |

### TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 2 | ..... | North Carolina | ..... | 2 |
| Arizona | ..... | ..... | North Dakota | ..... | ..... |
| Arkansas | 4 | ..... | Ohio | 41 | 13 |
| California | 47 | 6 | Oklahoma | 6 | ..... |
| Colorado | 5 | 1 | Oregon | 4 | ..... |
| Connecticut | 18 | 2 | Pennsylvania | 60 | 8 |
| Delaware | 1 | 1 | Rhode Island | 7 | 1 |
| Florida | 6 | 1 | South Carolina | 4 | ..... |
| Georgia | 4 | 1 | South Dakota | 4 | 1 |
| Idaho | 3 | ..... | Tennessee | ..... | 5 |
| Illinois | 75 | 12 | Texas | 15 | 4 |
| Indiana | 17 | ..... | Utah | 3 | ..... |
| Iowa | 16 | 2 | Vermont | ..... | 2 |
| Kansas | 10 | ..... | Virginia | 5 | 4 |
| Kentucky | 8 | 1 | Washington | 9 | 1 |
| Louisiana | 6 | ..... | West Virginia | 1 | ..... |
| Maine | 2 | 2 | Wisconsin | 18 | 2 |
| Maryland | 8 | 2 | Wyoming | ..... | ..... |
| Massachusetts | 30 | 10 | | | |
| Michigan | 25 | 2 | Alaska, District of | ..... | ..... |
| Minnesota | 10 | 1 | Canal Zone | ..... | ..... |
| Mississippi | 4 | 1 | District of Columbia | 6 | 3 |
| Missouri | 17 | 6 | Hawaii Territory | ..... | ..... |
| Montana | 1 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 6 | 1 | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 1 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 36 | 16 | | | |
| New Mexico | 1 | ..... | Total to residents of the United States. | 635 | 152 |
| New York | 91 | 38 | | | |

### TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | ..... | ..... |
| Austria-Hungary | 3 | 1 | Newfoundland | ..... | ..... |
| Belgium | 1 | ..... | New South Wales | 3 | ..... |
| British India | ..... | ..... | New Zealand | 1 | ..... |
| Brazil | ..... | ..... | Norway | 1 | ..... |
| British West Indies | ..... | ..... | Portugal | ..... | ..... |
| Canada | 7 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Rhodesia | ..... | ..... |
| Chile | ..... | ..... | Russia | 1 | ..... |
| Costa Rica | ..... | ..... | Scotland | 1 | ..... |
| Cuba | ..... | 1 | South Australia | ..... | ..... |
| Denmark | 1 | ..... | Spain | 1 | ..... |
| Dominican Republic | ..... | ..... | Sweden | ..... | ..... |
| England | 17 | 3 | Switzerland | 2 | ..... |
| France | 11 | 3 | Transvaal, South Africa | 1 | ..... |
| Germany | 22 | 2 | Victoria | ..... | ..... |
| India | ..... | ..... | Wales | ..... | ..... |
| Ireland | 1 | ..... | | | |
| Italy | 3 | ..... | Total to residents of foreign countries | 77 | 10 |
| Japan | ..... | ..... | | | |
| Mexico | ..... | ..... | | | |

## Attorneys.

(ORDER No. 2,113.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 31, 1914.*

Pursuant to the provisions of section 487 of the Revised Statutes and section 5 of the act approved July 4, 1884, and with the approval of the Secretary of the Interior, Charles F. Schmelz, of Detroit, Mich., registry No. 2,858, is hereby disbarred from practice before the United States Patent Office for gross misconduct.

THOMAS EWING,
*Commissioner.*

## Classification of German Patents.

Printed copies of a translation of the Manual of Classification of the German Patent Office may be had upon application to the Commissioner of Patents at $1.00 per copy.

With the aid of this translation and the numerical list of German patents, classified according to classes, subclasses, and groups, which is accessible in the Scientific Library, it will be possible to make complete searches in the German patents.

## Notice.

Decision leaflets of the OFFICIAL GAZETTE are sold as a separate publication—

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## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business April 4, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Feb. 12 | Feb. 13 | 648 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Dec. 13 | Mar. 5 | 460 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Mar. 5 | Mar. 23 | 180 |
| 332 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Oct. 25 | Mar. 4 | 759 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Jan. 2 | Feb. 7 | 493 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Dec. 10 | Feb. 4 | 743 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 10 | Feb. 16 | 712 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Oct. 3 | Feb. 26 | 1056 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Nov. 14 | Mar. 5 | 592 |
| 235 | 10. Carriages and Wagons | Dec. 8 | Feb. 4 | 1030 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Feb. 11 | Feb. 24 | 426 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Dec. 1 | Jan. 2 | 1307 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Mar. 4 | Mar. 4 | 468 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 16 | Mar. 7 | 473 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Oct. 13 | Jan. 29 | 1403 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 11 | Feb. 5 | 822 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Feb. 17 | Mar. 9 | 208 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Mar. 4 | Feb. 28 | 250 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Feb. 7 | 452 |

*Applications Unaer Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Feb. 2 | Mar. 4 | 280 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Dec. 27 | Feb. 14 | 456 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Jan. 12 | Mar. 3 | 347 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Dec. 9 | Feb. 6 | 495 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Jan. 20 | Feb. 16 | 567 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Feb. 25 | Mar. 2 | 258 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Dec. 15 | 803 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Jan. 30 | Feb. 16 | 466 |
| 65 | 28. Internal-Combustion Engines | Oct. 20 | Feb. 27 | 855 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Feb. 9 | Feb. 9 | 483 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 28 | Mar. 20 | 356 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Jan. 17 | Feb. 21 | 351 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Oct. 16 | Feb. 17 | 605 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Feb. 9 | Feb. 20 | 319 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Feb. 21 | Mar. 6 | 256 |
| 57 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Feb. 4 | Mar. 4 | 542 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Feb. 24 | Feb. 18 | 705 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Oct. 14 | Feb. 16 | 825 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 1 | Feb. 9 | 809 |
| 321 | 39. Water Distribution | Dec. 1 | Feb. 5 | 561 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | D. 17 | Feb. 10 | 1150 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Mar. 3 | Mar. 4 | 461 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Mar. 3 | Mar. 2 | 504 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Feb. 24 | Mar. 5 | 307 |

Oldest new case, Aug. 1; oldest amended, Dec. 15.
Total number of applications awaiting action ..... 25,243

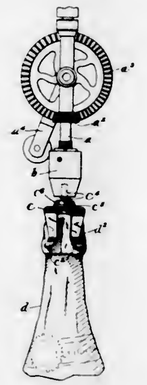
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| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Jan. 22 | Mar. 10 | 1126 |
| | Designs | Feb. 24 | Mar. 14 | 225 |
| | Labels and Prints | Mar. 14 | Mar. 16 | 126 |



# PATENTS

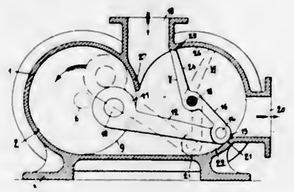
## GRANTED APRIL 7, 1914.

1,092,131. FRAPPEYING-MACHINE. HARRY AUPERL, New York, N. Y. Filed Nov. 13, 1912. Serial No. 731,070. (Cl. 62—14.)



In a manually supported and manually operated device for frappeying wines and other liquids in a bottle, the combination with a rotary shaft and clutch head and means for turning the same, of means for clamping the bottle, comprising a main portion having a plurality of spring arms extending therefrom, the outer extremities of which are curved outwardly, a screw threaded shank, adapted to extend through and beyond the said main portion for engagement with the clutch head and a nut for removably securing the shank in said main portion and causing the clamping means, shank and bottle to rotate with the clutch head.

1,092,132. BLOWER. JOHANN HUGO AXIEN, Hamburg, Germany. Filed Nov. 25, 1912. Serial No. 733,469. (Cl. 230—29.)



1. The described blower comprising in combination, a casing, a force blade inside said casing, a crank pin adapted to rotate in said casing and carrying one end of said force blade, an oscillating blade hinged to the other end of said force blade, and a blade rigidly connected to said oscillating blade, substantially as and for the purpose set forth.

2. The described blower comprising in combination, a casing, a force blade inside said casing, a crank pin adapted to rotate in said casing and carrying one end of said force blade, an oscillating blade hinged to the other end of said force blade, and a blade of the same radial length as and rigidly connected to said oscillating blade substantially as, and for the purpose, set forth.

3. The described blower comprising in combination, a casing, a force blade inside said casing, a crank pin adapted to rotate in said casing and carrying one end of said force blade, an oscillating blade hinged to the other end of said force blade, a blade rigidly connected to said oscillating blade, and a tongue extending from the upper part of the casing to a point substantially between the pivoted ends of the force blade when in upper position, substantially as and for the purpose set forth.

1,092,133. WRENCH. JAMES F. BAILEY, Jacksonville, Fla., assignor of one-half to Franklin T. Sutherland, Jacksonville, Fla. Filed Apr. 22, 1913. Serial No. 762,966. (Cl. 81—113.)

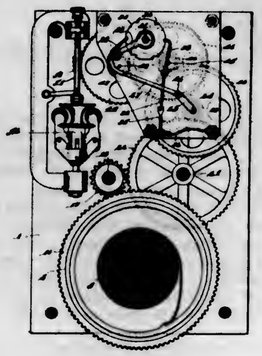


1. A wrench comprising a cylindrical sleeve, semi-cylindrical halves secured within the sleeve, extensions formed at the ends of said semi-cylindrical halves, a plunger slidable longitudinally through said semi-cylindrical halves, a revolving portion, said revolving portion being internally screw threaded, screw threads carried by one extremity of the slidable plunger, jaws pivotally secured intermediate the extensions, cam faces formed at the inner extremities of the jaws, cam faces carried by the slidable plunger at the extremity opposite the screw threaded end, said cam faces being adapted to coöperate with the cam faces on the jaws, whereby adjustment of the jaws is obtained.

2. A wrench comprising a cylindrical sleeve, semi-cylindrical halves secured within the sleeve, extensions formed at the ends of the semi-cylindrical halves, a plunger slidable longitudinally through said cylindrical halves, an enlarged screw threaded portion formed at one end of the plunger, lateral extensions formed at the opposite end of said plunger, said lateral extensions being provided with cam faces, jaws pivotally secured between the extensions, a revolving portion, said revolving portion being internally screw threaded and cam faces formed on the jaws and adapted to coöperate with the cam faces on the plunger, the internal screw threads in the revolving portion and the threads on the enlarged portion of the plunger being adapted to coöperate and thereby provide a means for the adjustment of the jaws.

3. A wrench comprising a fixed cylindrical sleeve, semi-cylindrical halves within said sleeve, extensions formed at the upper extremities of the semi-cylindrical halves, jaws pivotally secured intermediate the extensions, a plunger slidable through the semi-cylindrical halves, an enlarged screw threaded portion formed at the inner extremity of the plunger, a rotatable member, said rotatable member being internally screw threaded and adapted to coöperate with the enlarged portion on the plunger, a revoluble sleeve secured to the rotatable member, and means at the end of the plunger opposite the enlarged portion to adjust the jaws when the sleeve is revolved.

1,092,134. INTERMITTENT-GRIP DEVICE. MARTIN BAUNER, North Chicago, and JOHAN MACEK, Waukegan, Ill. Original application filed July 11, 1912, Serial No. 708,776. Divided and this application filed Dec. 23, 1912. Serial No. 738,208. (Cl. 74—54.)



1. The combination with an operating shaft of a notched wheel operatively connected therewith; a pawl arranged to ride upon the periphery of said wheel and engage said notches; a shaft; means for rotating said shaft; a crank pin carried by said shaft; a link connected with said pin and pawl to oscillate the latter; a check pawl arranged to engage said notches to lock said wheel against movement; and an operative connection between said pin and check pawl arranged to release the latter to permit movement of said wheel, substantially as described.

2. The combination with an operating shaft of a notched wheel operatively connected therewith; a pawl arranged to ride upon the periphery of said wheel and engage said notches; a shaft; mechanism for rotating said shaft; a crank pin carried by said shaft; a link connected with said pin and pawl to oscillate the latter; a check pawl arranged to engage said notches to lock said wheel against movement; a spring held bell crank arranged to operate said pawl to release the same to permit movement of said wheel; and a cam on one arm of said bell crank and arranged to be engaged by said pin to operate the same, substantially as described.

1,092,135. WRENCH. CLARENCE P. BURCH, Spokane, Wash. Filed Sept. 8, 1913. Serial No. 788,726. (Cl. 81—158.)



1. In a wrench the combination with a fixed member including a handle, shank and fixed jaw; a movable member including spaced side plates embracing the shank of the fixed member therebetween, a movable jaw rigidly secured to the said side plates, said side plates provided at their rear extremities with upstanding ears with notches located therein, a lever pivotally secured to said side plates, extending rearwardly therefrom, a thumb screw rotatably and slidably mounted on said lever, said thumb screw provided with bevel edged teeth, said lever provided with a slot extending therethrough with an enlarged portion, a double-headed pin disposed within the said slot and adapted to engage the notches of said ears, means for forcing the said double-headed pin away from the enlarged portion of said slot, and a rack bar carried by the said shank provided with bevel ended teeth coacting with the bevel ended teeth of the screw for the quick and ready engagement thereof.

2. A wrench comprising a fixed member including a handle, shank and fixed jaw; a movable member slidably engaging the shank and including a movable jaw, said movable member including a pair of upwardly extending notched ears, a lever pivotally secured to the movable member and extending rearwardly therefrom, a thumb screw rotatably and slidably mounted upon said lever, said thumb screw provided with beveled edged teeth, said lever provided with a slot extending therethrough with an enlarged portion, a double headed pin disposed within said slot and adapted to engage the notches of said ears, means for forcing the double headed pin away from the enlarged portion of said slot, and a rack bar carried by said shank provided with beveled edged teeth coacting with the teeth of the screw controlling the movement of said movable member.

1,092,136. HINGE. HERMAN BURCHESS, Chicago, Ill., assignor of one-half to Elias Ross, New York, N. Y. Filed Oct. 20, 1913. Serial No. 796,211. (Cl. 16—104.)



1. A hinge comprising a leaf having a pintle; a second leaf having an outwardly looped portion constituting a bearing for said pintle; and a shoulder on said second mentioned leaf adapted for engagement by said first mentioned leaf to limit swinging of the latter in one direction, said first mentioned leaf being adapted to be shifted to disengage said shoulder and permit of a greater amplitude of swinging of said leaf, substantially as described.

2. A hinge comprising a leaf having a pintle; a second leaf having an outwardly looped portion constituting a bearing for said pintle; and a shoulder on said second mentioned leaf adapted for engagement by said first mentioned leaf to permit swinging of the latter in one direction, a portion of said second mentioned leaf being cut away and said first mentioned leaf being adapted to be shifted to register with said cut away portion and disengage said shoulder to permit of a greater amplitude of swinging of said leaf, substantially as described.

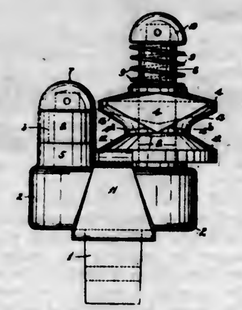
3. A hinge comprising a leaf having a pintle provided at one edge thereof and supported by two ears projecting from said edge; a second leaf having an outwardly looped portion constituting a bearing for said pintle; and a shoulder on said second mentioned leaf adapted for engagement by said supporting ears of said first mentioned leaf to limit swinging of the latter in one direction, a portion of said shoulder being cut away and said first mentioned leaf being adapted to be shifted to move said ears from engagement with said shoulder and into registration with said cut away portion to permit of a greater amplitude of swinging of said leaf, substantially as described.

4. A hinge comprising a leaf having a pintle; a second leaf having an outwardly looped portion constituting a bearing for said pintle; a shoulder on said second mentioned leaf adapted for engagement by said first mentioned leaf to limit swinging of the latter in one direction, said first mentioned leaf being adapted to be shifted to disengage said shoulder and permit of a greater amplitude of swinging of said leaf; and a reinforcing extension on said second mentioned leaf formed for fastening in position, substantially as described.

5. A hinge comprising a leaf having a pintle; a second leaf having an outwardly looped portion constituting a bearing for said pintle; a shoulder on said second mentioned leaf adapted for engagement by said first mentioned leaf to limit swinging of the latter in one direction, said first mentioned leaf being adapted to be shifted to disengage said shoulder and permit of a greater amplitude of swinging of said leaf; and a rubbing plate provided at the inner side of said second mentioned leaf for contact with the inner side of said pintle, substantially as described.



1,092,137. ROPE-GRIP OR JOCKEY FOR MECHANICAL HAULAGE AND THE LIKE. GEORGE TOM CANNON, Johannesburg, Transvaal, South Africa. Filed Dec. 26, 1913. Serial No. 808,896. (Cl. 104—87.)



1. A jockey or rope-grip comprising a rotatable gripping member and a rigid gripping member, the rotatable gripping member being adapted to be lifted by the haulage rope to permit the latter to pass from between the gripping members as set forth.

2. A jockey or rope-grip comprising a rotatable gripping member, a rigid gripping member and a sleeve rotatably mounted upon said gripping member opposite the rotatable gripping member, the rotatable gripping member being adapted to be lifted by the haulage rope to permit the latter to pass from between the gripping members as set forth.

3. A jockey or rope-grip comprising a rotatable gripping member, a rigid gripping member and a spring arranged above the rotatable gripping member, said rotatable gripping member being adapted to be lifted against the spring by the haulage rope to permit the latter to pass from between the gripping members as set forth.

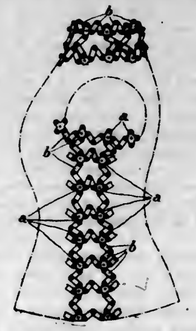
4. A jockey or rope grip comprising a base portion, a pin or projection on said base portion a gripping roller rotatably mounted upon said pin or projection, said pin or projection being of such a length as to allow the gripping roller to be lifted by the inclined haulage rope to a sufficient extent to permit the rope to disengage the grip or jockey and a rigid gripping member between which and the rotatable gripping member the rope is gripped.

5. A jockey or rope-grip comprising a base portion, a pin or projection on said base portion a gripping roller rotatably mounted upon said pin or projection, a spring arranged on said pin or projection above the gripping roller, means for retaining said spring in position, said pin or projection being of such a length as to allow the gripping roller to be lifted by the inclined haulage rope to a sufficient extent to permit the rope to disengage the grip or jockey and a rigid gripping member between which and the rotatable gripping member, the rope is gripped.

[Claims 6 and 7 not printed in the Gazette.]

1,092,138. BODY-FORM. MARIE-LOUISE CARRARA, Renens, near Lausanne, Switzerland, assignor to The Firm of Société Anonyme "Le Buste Universél," Lausanne, Switzerland. Filed Apr. 29, 1912. Serial No. 693,911. (Cl. 223—18.)

An adjustable body form for fitting garments, comprising a plurality of similarly shaped cross bar members, and links employed in pairs, the corresponding ends of each pair of links being pivotally connected together, the other ends of each pair of links being pivotally connected to the corresponding parts of adjacent cross shaped members so that the said cross shaped members may be turned about their centers within the limits of the said links and may also be moved toward and away from each other within



the limits of the said links, the pivotal connections between the several parts being made with a sufficiently frictional contact to maintain the said parts in the position in which they may be set.

1,092,139. ROTARY PUMP. PETER CHRISTMAN, Green Bay, Wis. Filed May 8, 1913. Serial No. 766,370. (Cl. 103—44.)



1. In a rotary pump, the combination with an upright cylinder pierced with a row of inlet ports along one side, a plug closing its lower end, a cap closing its upper end and having an off-center nipple, and an outlet pipe leading upward from the nipple; of a concentric pin upstanding from the plug at the center of the cylinder, an eccentric rotary piston inclosing said pin and contacting with the wall of the cylinder just in advance of said row of ports, the piston having an upright slot through its wall, means leading up the outlet pipe for rotating said piston, and a wing hinged on said pin and projecting through said slot in contact with the wall of the cylinder and dished in its front face.

2. In a rotary pump, the combination with an upright cylinder provided with an inlet opening in one side, a plug closing its lower end, a cap closing its upper end and having an off-center opening, and an outlet pipe leading upward therefrom; of a pin upstanding from the plug, an eccentric rotary piston inclosing said pin and contacting with the wall of the cylinder just in advance of said inlet, the piston having an upright slot through its wall, means for rotating said piston, and a wing hinged on said pin and projecting through said slot in contact with the wall of the cylinder, the front face of said wing in

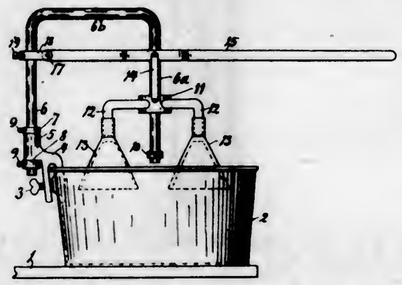
the direction of rotation being dished and its front and rear faces at its outer edge being packed, for the purpose set forth.

3. In a rotary pump, the combination with an upright cylinder pierced with a row of inlet ports along one side, a plug closing its lower end and provided with a central socket and an eccentric circular groove, a cap closing its upper end and having an eccentric nipple, and an outlet leading upward from the nipple; of a pin seated in said socket, an eccentric rotary piston inclosing said pin and seated in said groove, its outer face contacting with the wall of the cylinder just in advance of said row of ports, the piston having opposite upright slots through its wall, means leading out the outlet pipe for rotating said piston, and wings hinged on said pin and projecting through said slots in contact with the wall of said cylinder, the front faces of said wings in the direction of their rotation being dished.

4. In a rotary pump, the combination with an upright cylinder pierced with a row of inlet ports along one side, a plug closing its lower end and provided with a central socket and an eccentric circular groove, a cap closing its upper end and having an eccentric nipple, and an outlet pipe leading upward from the nipple; of a pin seated in said socket, an eccentric rotary piston inclosing said pin and seated in said groove, its outer face contacting with the wall of said cylinder just in advance of said row of ports, the piston having opposite upright slots through its wall, a coupling screwed into the upper end of the piston and having lateral outlet ports communicating with said outlet pipe, a rod within the latter connected with said coupling for rotating the piston, and wings hinged on the pin and projecting through said slots and having rounded outer edges making contact with the wall of the cylinder, the front face of each wing in the direction of rotation being dished and its front and rear faces along its outer edge being packed, for the purpose set forth.

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1,092,140. WASHING-MACHINE. EDWIN CRALL, Eau Claire, Wis. Filed Mar. 17, 1913. Serial No. 754,777. (Cl. 68—19.)

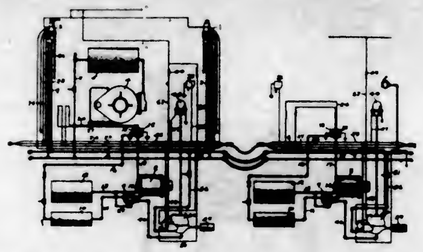


The combination with a wash tub, of a frame securable to the tub and having a vertical standard suspended over the tub substantially above its center, a spider slidable on the standard and having a plurality of radial arms, dashers fixed one to each arm, a hand lever having a slot straddling the standard and having one end pivoted to the frame and the other end extended beyond the tub and adapted to be used as an operating handle, and links connecting said hand lever with the spider, and adjustable and removable means retaining the spider on the standard.

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1,092,141. ELECTROPNEUMATIC BRAKE APPARATUS. EDWARD H. DEWSON, New York, N. Y., and WALTER V. TURNER, Edgewood, Pa., assignors to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 9, 1910. Serial No. 560,172. (Cl. 188—4.)

1. In a fluid pressure brake, the combination with a valve device operated by a reduction in fluid pressure for effecting an application of the brakes, a pneumatically operated vent valve mechanism for effecting a reduction in fluid pressure on said valve device, electrically controlled means also instrumental in effecting a reduction in fluid pressure on said valve device, and an electric switch device governed by said vent valve mechanism for controlling the circuit of said electrically controlled means.



2. In a fluid pressure brake, the combination with a train pipe and a triple valve operated by a reduction in train pipe pressure for applying the brakes, of a vent valve mechanism operated by a sudden reduction in train pipe pressure for opening a vent to the train pipe, electrically controlled means for effecting a reduction in fluid pressure on the triple valve to operate the same, and an electric switch operated by said vent valve mechanism for controlling the circuit of said electrically controlled means.

3. The combination with an automatic valve device operating upon a reduction in train pipe pressure for effecting an application of the brakes, of a vent valve mechanism adapted to locally vent the train pipe, electrically controlled means for effecting a direct reduction in fluid pressure on said valve device, and an electric switch device governed by said vent valve mechanism for controlling the electric circuit of said electrically controlled means.

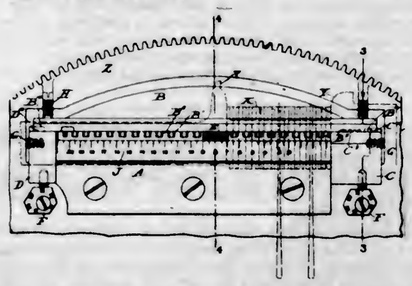
4. In a fluid pressure brake, the combination with a brake cylinder, train pipe, and valve means for locally venting the train pipe, of electrically controlled means for effecting the operation of said valve means, and an electric switch device directly operated by said valve means for controlling the circuit of said electrically controlled means.

5. In a fluid pressure brake, the combination with a brake cylinder, train pipe, and valve means for locally venting the train pipe, of electrically controlled means for effecting the operation of said valve means, and an electric switch device mechanically connected to said valve means for controlling the circuit of said electrically controlled means.

[Claim 6 not printed in the Gazette.]

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1,092,142. MOLD FOR TYPOGRAPHICAL CASTING-MACHINES. PASCUAL M. DIAZ, San Antonio, Tex., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Aug. 14, 1913. Serial No. 784,663. (Cl. 199—13.)



1. A slotted mold comprising upper and lower walls, one adjustable relatively to the other lengthwise of the slot, and a part adjustable relatively to said walls lengthwise of the slot and constituting one of the end walls of the mold proper.

2. A slotted mold comprising a body portion, a cap portion adjustable relatively thereto lengthwise of the slot, and an intermediate liner adjustable relatively to the cap portion lengthwise of the slot.

3. A slotted mold comprising a body portion, a cap portion, and an intermediate liner attached to the cap portion and adjustable relatively thereto lengthwise of the slot, the said cap portion being shiftable lengthwise of the slot to vary the adjustment of the mold proper as determined by the liner.

4. A slotted mold comprising a body portion, a cap portion, and an intermediate liner, the said cap portion and liner being both adjustable lengthwise of the slot, one according to a given typographic unit and the other according to a fraction of such unit.

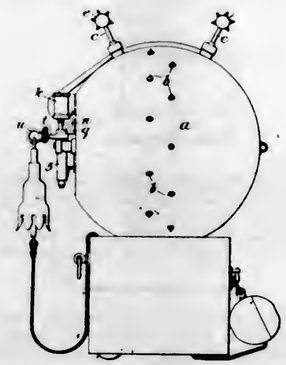
5. A slotted mold comprising a body portion, a cap portion formed on its inner face with projecting ribs whose separation corresponds to a typographic unit, and an intermediate liner recessed to receive the projecting ribs of the cap portion and adapted to be set in different positions thereon, the said cap portion being adjustable lengthwise of the slot according to a fraction of such typographic unit.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,143. SUBMARINE MINE. GIOVANNI EMANUELE ELIA, Rome, Italy. Filed Oct. 28, 1912. Serial No. 728,155. (Cl. 102—3.)



1. A submarine mine, comprising an explosive container, a firing mechanism, and means including an oscillating contact lever carried by the mine and actuated by the successive movements of the mine in contact with the hull of a vessel for releasing said firing mechanism only after a predetermined number of oscillations of said lever have been effected.

2. A submarine mine, comprising an explosive container, a normally retracted firing mechanism, means for locking said firing mechanism in inoperative position, auxiliary means for locking said first locking means, and mechanism operated by successive movements of the mine in contact with the hull of a vessel for releasing the auxiliary locking means.

3. A submarine mine, comprising an explosive container, a normally retracted firing mechanism, means for locking said firing mechanism in inoperative position, adjustable auxiliary means for locking said first locking means, and mechanism operated by successive movements of the mine in contact with the hull of a vessel for releasing the auxiliary locking means.

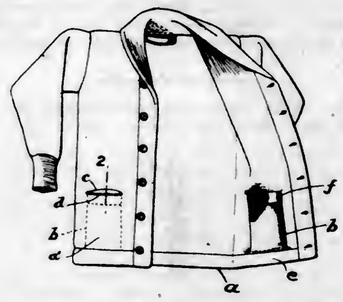
4. A submarine mine, comprising an explosive containing shell, provided with means to cause recurrent movements of the shell upon contact with the hull of a passing vessel, firing mechanism carried by the shell, a system of levers controlling the operation of the firing mechanism and connected to the mooring cable, means for locking said lever system, and mechanism controlled by the recurrent movements of the shell for releasing said locking mechanism; whereby the lever system operates the firing mechanism.

5. In a submarine mine, an explosive containing shell provided with means to cause recurrent movements of the shell upon contact with the hull of a passing vessel, and automatic adjustable firing mechanism, comprising a percussion pin, a controlling lever for said pin connected to the mooring cable, means for locking said lever in operative position, and adjustable means controlled by the recurrent movements of the mine for releasing said lock.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,144. POCKET FOR SWEATERS. SAMUEL GRUSHLAW, Philadelphia, Pa. Filed Nov. 19, 1913. Serial No. 801,777. (Cl. 2—15.)

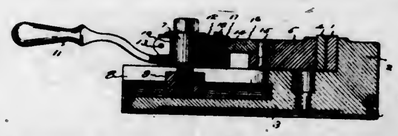


1. A sweater comprising a knitted body, a pocket composed of a tubular knitted fabric on the inside of the body and having a closed lower end and an upper end opening to the outside of the sweater body, and a band or strip extending around and secured to the upper end of the tubular fabric.

2. A sweater comprising a knitted body, a pocket composed of a tubular knitted fabric on the inside of the body and having a closed lower end and an upper end opening to the outside of the sweater body, and a knitted band or strip secured around the tubular fabric and of finer mesh than that of the body and pocket and possessing a substantially less degree of flexibility than that of the tubular fabric in the direction of their circumferences.

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1,092,145. LEVER-VISE. CURTIS HAKES, Winsted, Conn., assignor to The Carter & Hakes Machine Company, Winchester, Conn., a Corporation of Connecticut. Filed Apr. 21, 1913. Serial No. 762,498. (Cl. 81—26.)



1. A lever vise having a fixed jaw, a jaw movable toward and from the fixed jaw, an eccentric, a handle for turning the eccentric, and a pair of jointed toggle levers the outer end of one toggle lever being connected with the movable jaw and the outer end of the other toggle lever being connected with the eccentric.

2. A lever vise having a fixed jaw, a jaw movable toward and from the fixed jaw, an eccentric, a handle for turning the eccentric, and a pair of jointed toggle levers the outer end of one toggle lever being connected with the movable jaw, and the outer end of the other toggle lever being mounted on the eccentric, and means for adjusting the fric-

tion between the eccentric and the end of the toggle lever mounted thereon.

3. A lever vise having a fixed jaw, a jaw movable toward and from the fixed jaw, a pivot stud, an eccentric mounted on said stud, a handle for turning the eccentric, and a pair of jointed toggle levers, the outer end of one toggle lever being connected with the movable jaw and the outer end of the other toggle lever being connected with the eccentric.

4. A lever vise having a fixed jaw, a jaw movable toward and from the fixed jaw, an eccentric, a handle for turning the eccentric, and a pair of jointed toggle levers, the outer ends of said levers being connected respectively with the movable jaw and the eccentric whereby the movement of the movable jaw is equal to the sum of the pitch of the eccentric and the throw of the toggle.

5. A lever vise having a fixed jaw, a sliding jaw, a toggle link connected with the sliding jaw, a fixed pivot stud, an eccentric mounted on said stud, a toggle link frictionally mounted on said eccentric and jointed to the toggle link that is connected with the sliding jaw, means for adjusting the friction between the eccentric and the toggle link mounted on the eccentric, and a handle for turning the eccentric.

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1,092,146. SHOE. OLOF HJELKREM, Chicago, Ill. Filed Aug. 2, 1913. Serial No. 782,630. (Cl. 36—3.)

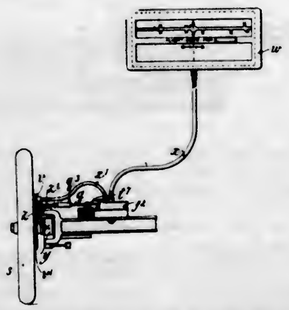


1. In combination, a shoe having an outer wall and a lining with ventilating perforations therethrough; and an eyelet in each of said perforations having an annular rib intermediate its ends disposed between said outer wall and said lining and flanges at its ends clamping said outer wall and said lining against said annular rib, substantially as described.

2. In combination, a shoe having an outer wall and a lining with ventilating perforations therethrough; an eyelet in each of said perforations having an annular rib intermediate its ends disposed between said outer wall and said lining and flanges at its ends clamping said outer wall and said lining against said annular rib, the inner side of said annular rib being provided with an annular groove; and a removable closure in said annular groove, substantially as described.

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1,092,147. ROUTE-INDICATOR MECHANISM. ERNEST ALBERT JONES, New York, N. Y. Filed July 29, 1913. Serial No. 781,806. (Cl. 40—42.)



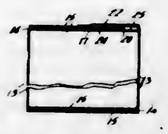
1. A compensating device for the driving mechanism of route indicators and the like employed on vehicles capable of being steered to direct their course, comprising a variable speed gearing of the gradually progressive type, and means for operating said gearing from the steering medium or mechanism so as automatically to reduce the speed of the indicator in relation to the speed of the vehicle when the vehicle deviates from its direct course.

2. The combination with a vehicle capable of being steered and a route indicator or the like carried by said vehicle, of mechanism for imparting positive motion to said indicator from mechanism of the vehicle, of a variable speed gearing of the gradually progressive type interposed in said motion imparting mechanism, and of means for automatically changing the speed ratio of said gearing as and when the steering medium or mechanism of the vehicle is manipulated to cause the vehicle to deviate from its straight or direct course.

3. The combination with a vehicle capable of being steered and a route indicator or the like carried by said vehicle, of mechanism for imparting motion to said indicator from mechanism of the vehicle, of a variable speed gearing of the gradually progressive type interposed in said motion imparting mechanism, of means for automatically changing the speed ratio of said gearing as and when the steering medium or mechanism of the vehicle is manipulated to cause the vehicle to deviate from its straight or direct course, and of means for calibrating the apparatus.

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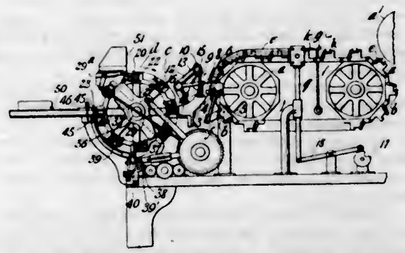
1,092,148. PAPER-WALLED CONTAINER VESSEL OR PACKAGE. HARRY W. JONES, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 7, 1912. Serial No. 735,362. (Cl. 229—17.)



A carton of the character described comprising a body formed of fibrous material folded into box form and having an integral pouring spout attached at two of its sides to the carton, one-half of said pouring spout being inwardly folded upon itself to close the box, substantially as specified.

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1,092,149. GUM-WRAPPING MACHINE. HENRY J. KEMPF, Springfield, Mass., assignor, by mesne assignments, to Package Machinery Company, a Corporation of Massachusetts. Filed Dec. 22, 1911. Serial No. 667,319. (Cl. 93—7.)



1. In a wrapping machine, mechanism to successively fold a wrapper around articles fed into the machine, other mechanism for bunching together a predetermined number of such articles to constitute a package, together with end-folding mechanism interposed between said wrapping and bunching mechanism and means to intermittently reciprocate said end-folding mechanism in a straight line to successively fold the ends of the wrappers inclosing said articles over the ends of certain of them in one direction and over the ends of certain others of said articles in the opposite direction.

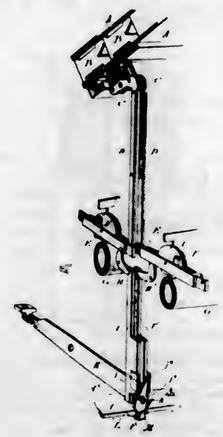
2. In a wrapping machine, mechanism to successively fold a wrapper around articles fed into the machine, other mechanism for bunching together a predetermined number of such articles to constitute a package, together with end-folding mechanism interposed between the wrapping and bunching mechanism and comprising a member having a straight line movement across the path of the articles passing through the machine, means for folding the ends of the wrappers in opposite directions over the ends of the articles being located in different parts of said member, means being provided to move said member at predetermined intervals.

3. In a wrapping machine means to fold a wrapper about an article fed into the machine together with end-folding devices arranged when in one position to fold the ends of the wrapper over the ends of the article in one direction, and means to shift said devices in a straight line to another position in which they are arranged to fold the ends of the wrapper over the article in another direction.

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1,092,150. LINE-CASTING MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 29, 1911. Serial No. 663,156. (Cl. 199—7.)



1. In combination, two vertically arranged slides, a horizontally disposed finger key, and an automatic dog carried by the key and controlled by the operation of the key so as to actuate the slides alternately.

2. In combination, two slides, a single finger key, an oscillating dog carried by the key, and stationary means for reversing the position of the dog at each action of the key so as to actuate the slides alternately.

3. In combination, two slides, an actuating member, and an automatic dog carried and controlled by said member and provided with two shoulders which engage the slides alternately.

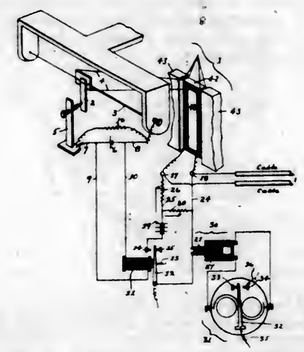
4. The two slides, a reciprocating dog, an actuating member carrying said dog, and stationary coöperating means whereby the reciprocation of the dog reverses its position periodically, so that it will actuate the two slides one at a time.

5. In combination, the actuating member, the dog mounted to vibrate and also shift bodily sidewise on the member, the two slides, and means to vibrate and shift the dog, whereby the dog engages the slides one at a time.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,151. TELEGRAPHIC RECEIVING ORGANISM. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Feb. 14, 1908, Serial No. 415,893. Renewed Jan. 13, 1914. Serial No. 811,905. (Cl. 178—45.)



1. In telegraphy, means to receive and translate impulses transmitted, said means comprising a relay, relaying contacts therefor, a localised circuit including an electro-magnet adapted to be operated through said relaying contacts, a circuit adapted to be operated through said electro-magnet, an inductorium and a polarized relay, the primary of said inductorium connected to the last named circuit; the secondary connected to said polarized relay.

2. In telegraphy, a line, a relay inserted therein, relaying contacts therefor, a localized circuit adapted to be operated through said relaying contacts, an electro-magnet in said circuit, a second circuit, said second circuit adapted to be operated through said electro-magnet, an inductorium and a polar-relay, the primary of the inductorium connected in the second circuit and the secondary of said inductorium connected to said polar-relay.

3. In a relaying organism, a line relay, a localized circuit adapted to be operated through said relay, a second circuit, an inductorium and a polarized relay, and means in the first named circuit to operate the second named circuit, said circuit embracing the primary of said inductorium, the secondary connected to the polarized relay.

4. In a telegraphic relaying organism, a line relay, a local circuit operatively related to said line relay, a second circuit operatively related to said first circuit, said second circuit provided with variable means to allow electric energy, in a predetermined degree, to flow through the coil of the line-relay, an inductorium and a polar-relay, both operatively related to said second circuit.

5. A receiving device for telegraphic signaling impulses comprising a movable coil, a stationary contact and a movable contact for said coil, the movable contact adapted to be actuated through the movements of said coil, an electric circuit connecting both of said contacts with each other, an electromagnet in shunt with said electric circuit, a second electric circuit, a converter or inductorium for said second circuit, the primary of said inductorium inclosed in said second circuit, said second circuit adapted to be operated through said electromagnet, a translating relay, said translating relay connected to the secondary of said converter or inductorium.

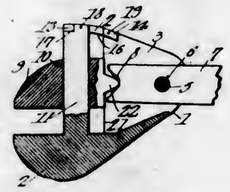
[Claims 6 to 9 not printed in the Gazette.]

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1,092,152. WRENCH. NELSON J. LEBOMBARD, Hyde, Mich. Filed Aug. 18, 1913. Serial No. 785,448. (Cl. 81—127.)

1. A wrench comprising a stationary jaw, a plate extending therefrom, a track carried by the stationary jaw extending at right angles therefrom and spaced a distance from the extremity of the said plate, a sliding jaw pro-

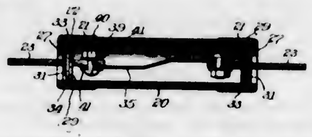
vided with a transverse aperture extending therethrough, said aperture adapted to receive therein the said track for the guiding of the movements of the sliding jaw, the sliding jaw extended and contacting with the surface of the said plate, a projection carried by the sliding jaw, a wrench handle pivotally secured to the said plate and adapted to engage the said sliding jaw projection to force the same toward or away from the said stationary jaw, and a track supporting member rigidly secured to the said plate and to the said track adapted to hold the same in spaced and rigid relation.



2. A wrench comprising a stationary jaw, a plate extending therefrom and carried thereby, a track carried by the stationary jaw and extending at an angle thereto and spaced a distance from the extremity of said plate, a sliding jaw provided with a transverse aperture extending therethrough, said aperture slidably and non-rotatably receiving the track therethrough for the guiding of the movements of the sliding jaw, the sliding jaw extended and contacting with the surface of the said plate, said sliding jaw provided with a projection extending therefrom, a wrench handle pivotally secured to said plate and provided at its inner end with a notch extending thereacross, said notch adapted to engage the sliding jaw projection for the forcing of the same toward or away from the stationary jaw, and a track supporting member secured to the plate and to the outer extremity of said track adapted to hold the same in spaced and rigid relation.

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1,092,153. CARTRIDGE-FUSE. EDWARD B. MALLORY, Chicago, Ill., assignor to Economy Fuse & Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 9, 1912, Serial No. 719,282. Renewed Nov. 20, 1913. Serial No. 802,154. (Cl. 175—273.)



1. In a cartridge fuse, the combination of a hollow insulating body, a pair of contact blades having apertures therein, a fusible element, means for attaching said fusible element to said contact blades, removable means passing through the apertures of said contact blades for centering the latter in said insulating body, and means for holding said centering means in position, substantially as described.

2. In a cartridge fuse, the combination of a hollow insulating body, a pair of contact blades having apertures therein, a fusible element, means for attaching said fusible element to said contact blades, a centering washer passing through an aperture of each of said contact blades, and means for holding said washers in position at the ends of said insulating body, substantially as described.

3. In a refillable cartridge fuse, the combination of a hollow insulating body, a pair of contact blades having apertures therein, a fusible element, means for attaching said fusible element to said contact blades, removable means passing through the apertures of said contact blades and engaging the ends of said insulating body for centering said blades in said insulating body, and means for holding said centering means in position, substantially as described.

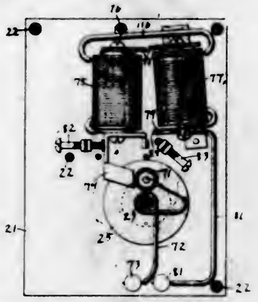
4. In a refillable cartridge fuse, the combination of a hollow insulating body having alining notches in its ends, a pair of contact blades adapted to enter opposite ends of said insulating body, each of said blades having an aperture therethrough, and alining and centering means having removable engagement with said contact blades and passing through the apertures in the latter, said alining and centering means having portions engaging the alining notches in the ends of said insulating body, substantially as described.

5. In a refillable cartridge fuse, the combination of a hollow insulating body having alining notches in its ends, a pair of contact blades adapted to enter opposite ends of said insulating body, each of said blades having an aperture therethrough, alining and centering means having removable engagement with said contact blades and passing through the apertures in the latter, said alining and centering means having portions engaging the alining notches in the ends of said insulating body, and means for locking said alining and centering means in position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,154. REWINDING MECHANISM. IRA F. MANNY, Milwaukee, Wis., assignor to Selective Signal Company, Milwaukee, Wis., a Corporation of Wisconsin. Original application filed Oct. 27, 1911, Serial No. 657,054. Divided and this application filed Feb. 10, 1913. Serial No. 747,279. (Cl. 185—40.)



1. A spring motor, comprising a motor shaft, a balance wheel loosely mounted on the motor shaft and having a ratchet connection therewith, a spring having one end fixed stationary and the other end connected with the balance wheel, a contact on the balance wheel, a swinging member adapted to engage the contact and throw the balance wheel to wind the spring and make a new ratchet engagement for the motor shaft, a magnet for operating the swinging member, and an electrical circuit including the magnet of said swinging member adapted to be closed by the engagement of the contact with said swinging member.

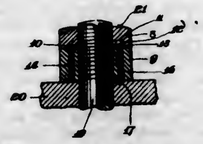
2. A spring motor, comprising a motor shaft, a balance wheel loosely mounted on the motor shaft and having a ratchet connection therewith, a spring having one end fixed stationary and the other end connected with the balance wheel, a contact on the balance wheel, a swinging member for engaging the contact to throw the balance wheel, a magnet mounted thereon, a stationary armature for the magnet, an electrical circuit including the winding of the magnet closed by the engagement of the contact with the swinging member.

3. A spring motor, comprising a motor shaft, a balance wheel loosely mounted on the motor shaft and having a ratchet connection therewith, a spring having one end fixed stationary and the other end connected with the balance wheel, a contact on the balance wheel, a swinging member to engage the contact, an electromagnet comprising a pair of complementary coils, one coil mounted on the swinging member and the other coil fixed stationary, set screws for limiting the movement of the swinging member, said magnet, when energized, causing the swinging member to throw the balance wheel by means of the contact for rewinding the spring, an electrical circuit including both windings of the magnet and closed by the engagement of the contact with the swinging member, and means for short circuiting the magnet coils at the end of the movement of the swinging member.



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1,092,155. LOCK-NUT. JACOB M. MARCH, deceased, Spring City borough, Pa., by Maud March, administratrix, New York, N. Y. Filed July 29, 1913. Serial No. 781,753. (Cl. 151—37.)



1. A lock nut comprising coöperating nut elements, one of said elements having a hole or recess and a pin therein having a hardened point adapted to be driven into an adjacent body to lock the nut therewith, the other nut element having a detent as means for causing locking engagement with the pin.

2. A lock nut comprising coöperating nut elements, one of said elements having a hole and a pin therein adapted to engage an adjacent body, said pin having a projecting head and the other nut element having an annular channel adapted to receive the projecting head and a ball partially sunk in the channel for engaging said projecting head as means for locking the two nut elements and the adjacent body.

3. In combination with an adjacent body, a nut having a headed pin projecting therethrough for engaging the adjacent body, a second nut having an annular channel in its coöperating face for receiving the head of the pin, and a hardened ball secured within the channel for coöperating with the head of the pin as means for locking the nut elements with the adjacent body.

4. Coöperating nut elements, one element having an annular channel in its coöperating face and a ball loosely secured and partially sunk below the channel, the other element having a pin projecting therethrough, for engaging an adjacent body, said pin provided with a head for engaging the ball.

5. Coöperating nut elements, one element having a ball loosely secured and partially sunk below the coöperating face thereof, the other element having a pin projecting therethrough for engaging an adjacent body, and a head on its coöperating face for engaging and locking with the ball.

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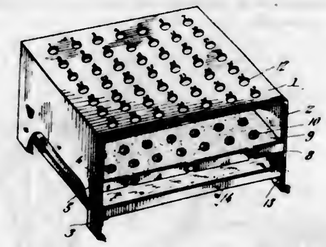
1,092,156. PENCIL-HOLDER. MAJA C. MATHIS, Florence, N. J., assignor of one-half to Ebenezer S. Mathis, Haddonfield, N. J. Filed Feb. 15, 1913. Serial No. 748,711. (Cl. 120—108.)

1. A pencil holder comprising a frame consisting of an apertured top supported on side members, an apertured pencil supporting tray carried beneath the top, and an apertured disinfecting pad mounted on the tray.

2. A pencil holder comprising an elevated apertured top, an apertured pencil supporting tray arranged beneath the top and having notched sides, and an apertured disinfecting pad mounted on the tray and exposed at the notches.

3. A pencil holder comprising an elevated and apertured top, an apertured pencil supporting tray arranged beneath the top and separated therefrom, an apertured disinfecting pad carried on the tray and having its apertures therein in alinement with the apertures in the top and the tray to receive the pencil.

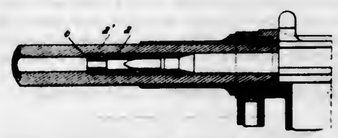
4. A pencil holder comprising an elevated top having apertures therein, a pad supporting tray arranged below the top and having relatively small apertures therein, and a disinfecting pad having relatively large apertures therein arranged in alinement with the apertures in the top and the tray.



5. A pencil holder comprising an elevated and apertured member, a rigidly mounted pencil supporting tray arranged below said member and having relatively small apertures alined within the apertures in the member, and a disinfecting pad removably mounted on the tray and having relatively large apertures alined with the apertures in the member and tray and adapted to permit the passage of a pencil point.

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1,092,157. DEVICE FOR AUTOMATIC FIREARMS FOR SHOOTING WITH BLANK CARTRIDGES. PAUL MAUSER, Oberndorf-on-the-Neckar, Germany. Filed Feb. 21, 1913. Serial No. 749,795. (Cl. 42—77.)



1. A device for automatic firearms for using blank cartridges comprising a bush adapted to be securely arranged in a boring of the barrel of the firearm and constituting at its rear end the front portion of the cartridge chamber and having its front end of reduced caliber.

2. In an automatic firearm adaptable for blank cartridges, the combination of a barrel formed rearwardly with a boring terminating at its front end in an annular shoulder, and a bushing arranged in said boring and constituting at its rear end the front portion of the cartridge chamber and having its forward end abutting against said shoulder and of reduced caliber.

3. In an automatic firearm of the kind described a barrel formed at its rearward end with a cylindrical boring terminating at its forward end in an annular shoulder and a bushing having its front portion of reduced caliber and in threaded engagement with the forward end portion of said boring and abutting against said shoulder, the rear portion of said bushing being adapted to engage with the head of a blank cartridge, substantially as described.

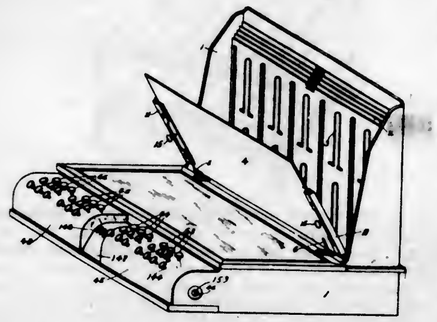
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1,092,158. ACCOUNTING AND FILING APPARATUS. PERRY A. MCCASKEY, Alliance, and SAMUEL E. FOUTS, East Cleveland, Ohio, assignors to The McCaskey Register Company, Alliance, Ohio, a Corporation of Ohio. Filed Jan. 22, 1909. Serial No. 473,733. (Cl. 235—7.)

1. In an apparatus of the character described, the combination with a total adding mechanism, of a series of pivoted leaves for holding account slips, and means for operating the adding mechanism from one of the said leaves.

2. In an apparatus of the character described, the combination with a total adder, of a series of pivoted leaves for holding account slips, and means for operating the total adder from the said leaves.

3. In an apparatus of the character described, the combination with a total adder, of a series of keys for controlling the action of said adder, a series of movable devices for holding account slips, and means for preventing the operation of said devices until a key of the said series is operated.



4. In an apparatus of the character described, the combination with a total adder, of a series of keys for controlling the action of said adder, a series of pivoted leaves for holding account slips, and means for preventing pivotal movement of said leaves until a key of the said series is operated.

5. In an apparatus of the character described, the combination with a total adder, of a bank of value keys containing an order of keys for cents, a series of devices for containing account slips, and means for preventing access to said account slips until after a key in the cents order of the key bank has been operated.

[Claims 6 to 115 not printed in the Gazette.]

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1,092,159. PUMP. ERNEST A. MCCURDY, Taft, Cal. Filed Mar. 20, 1913. Serial No. 755,729. (Cl. 103—65.)



1. In a pump, a casing, pumping means in said casing comprising a set pipe, a spider connected with said set pipe, an anchor pipe passing through said spider into said set pipe, gripping slips slidably connected with said spider, levers pivotally connected with said spider and engaging said anchor pipe and slips whereby movement of said anchor pipe will move said slips into and out of engagement with said casing, a working barrel slidably mounted in said set pipe and connected with the inner end portion of said anchor pipe, an inwardly opening valve at the inner end of said anchor pipe, and a plunger slidably mounted in said working barrel whereby fluid may be sucked into said working barrel and forced past said plunger and forced from the upper end of said barrel into said casing.

2. In a pump, a casing, pumping means in said casing comprising a set pipe, a spider connected with said set pipe, gripping slips carried by said spider, an anchor pipe passing through said spider into said set pipe, operating means for said slips operated by said anchor pipe, a packing surrounding said set pipe, a packing surrounding the inner end portion of said anchor pipe, a working barrel slidably mounted in said set pipe, a collar connecting said working barrel with said anchor pipe and resting upon the packing ring surrounding said anchor pipe, an inwardly opening valve carried by said anchor pipe, arms extending from said working barrel through said set pipe for compressing the packing ring surrounding said set pipe, a pumping plunger slidably mounted in said working barrel, and an outwardly opening valve carried by said plunger.

3. In a pump, a casing, pumping means in said casing comprising a set pipe, an anchor pipe extending into said set pipe, a working barrel slidably mounted in said set pipe, a packing ring surrounding said anchor pipe, a collar connecting said working barrel with said anchor pipe and resting upon said packing ring for compressing the same, an inwardly opening valve carried by said anchor pipe, a packing ring surrounding said set pipe, means extending from said working barrel through said set pipe adapted to compress said last mentioned packing ring, a plunger slidably mounted in said working barrel, and an outwardly opening valve carried by said plunger.

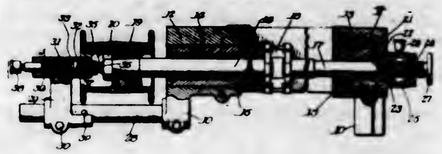
4. In a pump, a casing, pumping means in said casing comprising a set pipe, a spider connected with said set pipe, gripping slips carried by said spider, operating means for said slips, packing rings carried by said set pipe, common means for compressing said packing ring and manipulating the operating means for said slips, and a pumping plunger.

5. In a pump, a casing, pumping means in said casing comprising a set pipe, a cap for said set pipe, an anchor pipe extending into the lower end portion of said set pipe, a working barrel extending through the cap of said set pipe into the interior thereof and having its inner end connected with said anchor pipe, an inwardly opening valve adjacent the inner end of said anchor pipe, a perforated cap for said working barrel limiting the inward movement of said barrel, a plunger slidable in said working barrel, a pump rod extending through said last mentioned cap and engaging said plunger, and an outwardly opening valve carried by said plunger.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,160. END-THRUST BEARING. HARRISON J. MITCHELL, Beloit, Wis., assignor to The Berlin Machine Works, Beloit, Wis., a Corporation of Wisconsin. Filed Nov. 29, 1911. Serial No. 663,012. (Cl. 64—25.)



1. In a device of the character described, the combination of a rotary shaft, an end thrust bearing for said shaft, and a support for said bearing adjustable longitudinally of said shaft and mounted for movement laterally thereof to withdraw the thrust bearing from the end of the shaft and permit the removal of the latter, substantially as described.

2. In a device of the character described, the combination of a rotary shaft, an end thrust bearing for said shaft, and a support for said bearing adjustable longitudinally of said shaft and rotatably mounted eccentrically of said shaft for movement laterally thereof to withdraw the thrust bearing from the end of the shaft and permit the removal of the latter, substantially as described.

3. In a device of the character described, the combination of a shaft, an end-thrust bearing for said shaft, and a longitudinally and laterally adjustable bracket supporting the bearing, said longitudinal adjustment permitting said shaft to be moved longitudinally and the lateral adjustment permitting said bearing to be moved out of line with said shaft, substantially as described.

4. In a device of the character described, the combination of a shaft, an end-thrust bearing for said shaft, a stub-shaft, and a bracket longitudinally slidable on said stub-shaft and supporting said bearing, said bracket being rotatable on said stub-shaft to permit said first-mentioned shaft to be moved longitudinally, substantially as described.

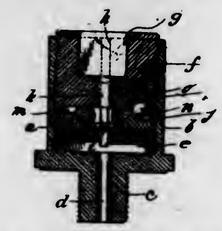
5. In a device of the character described, the combination of a shaft, an end-thrust bearing for said shaft, a longitudinally adjustable and rotatably mounted bracket supporting said bearing, and a resilient member adapted to hold said bearing in engagement with said shaft, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]



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1,092,161. GREASE-CUP. JOHN H. NELLER, Appleton, Wis., and ERNEST T. NELLER, Bakersfield, Cal. Filed Feb. 19, 1913. Serial No. 749,307. (Cl. 184—48.)



1. A grease-cup comprising an interiorly-threaded lubricant-reservoir; a lock-plate interlocked therewith; a plug screwed into said lubricant-reservoir and rotatably mounted on said lock-plate; and locking means which yieldingly hold said lock-plate and plug against relative displacement due to vibration resulting from jars, shocks, pounding and shaking.

2. A grease-cup comprising an interiorly-threaded lubricant-reservoir formed with longitudinal slots; a lock-plate member formed with lugs which are arranged in said slots; a plug member screwed into said lubricant-reservoir and rotatably mounted on said lock-plate member, one of said members being formed with a recess; and a spring-pressed locking device carried by the other of said members and arranged to engage yieldingly in said recess to hold said members against relative displacement due to vibration resulting from jars, shocks, pounding and shaking.

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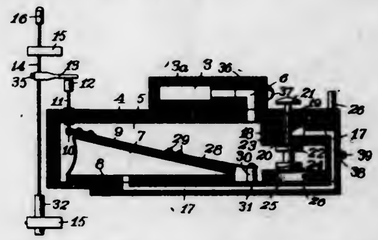
1,092,162. BRAKE MECHANISM. ASHER J. O'BRIEN, Seattle, Wash. Filed Aug. 21, 1912. Serial No. 716,228. (Cl. 21—8.)



A brake comprising in combination with a wheel hub mounted upon the revoluble axle of a vehicle, of a brake rim rigidly secured to said hub, a holding plate closingly positioned within said rim and provided with an opening for receiving said axle therethrough, means for rigidly securing said holding plate to the vehicle, a plurality of brake shoes disposed within said rim, lugs positioned upon the inner face of said plate, housings provided upon said shoes and having recesses therein for slidably-receiving said plate lugs, a turn-hub upon said axle, lever means between said hub and shoes, rearwardly-extending flanges radially positioned upon the outer face of said plate, a circular flange adapted for journaling said axle, an off-set lever arm secured to said turn-hub and extending outwardly of said plate and between said flanges thereof, and interrupted stop members for limiting the movement of said lever arm.

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1,092,163. PIANO-PLAYER ACTION. JOSEPH A. OBST, Pawtucket, R. I. Filed Apr. 28, 1911. Serial No. 623,805. (Cl. 84—178.)



1. In a mechanism of the class described, a vacuum chamber, a motor bellows, a valve controlled air passage between said motor bellows and said vacuum chamber, a pneumatically operated valve for controlling said air passage, a second air passage between said motor bellows and said vacuum chamber, and a valve operated by the action of said motor bellows for controlling said second air passage.

2. In a mechanism of the class described, a motor bellows, means for supplying air to said motor bellows, a vacuum chamber, an air passage between the motor bellows and the air chamber, a supplemental bleed passage between said vacuum chamber and said motor bellows, an elastic arm carried by the movable leaf of said motor bellows, and a valve carried by said elastic arm for closing said supplemental bleed passage.

3. In a mechanism of the class described, a motor bellows, means for supplying air to said motor bellows, a vacuum chamber, an air passage between the motor bellows and the vacuum chamber, a supplemental bleed passage between said vacuum chamber and said motor bellows, and means controlled by the movement of the movable leaf of said motor bellows for closing said supplemental bleed passage.

4. In a mechanism of the kind described, a series of wind trunks, means for exhausting air from the ends of said wind trunks, casings suspended beneath said wind trunks each inclosing a vacuum chamber communicating with a wind trunk, a motor bellows inclosed in said vacuum chamber, an air chamber inclosed in said vacuum chamber provided with an opening through which air is exhausted from said air chamber directly into said vacuum chamber, a valve for closing said opening, and a pneumatic diaphragm exposed in said vacuum chamber for actuating said valve.

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1,092,164. LUBRICATOR. THOMAS O. ORGAN, Germantown, Pa., assignor to Augustus Crane Buzby, Philadelphia, Pa. Filed Oct. 28, 1911. Serial No. 657,232. (Cl. 184—65.)

1. In a lubricator, a cup, an air inlet having a tapered valve seat and including a straight restricted air channel a valve in said inlet having a correspondingly tapered portion and means for adjusting said valve whereby the passage between said tapered valve and seat may be va-

ried and said valve having a straight stem having a loose fit in said restricted channel providing a narrow slit-like passage of constant size and an outlet for the lubricant from the cup.



2. A lubricator comprising a cup, means for supplying air thereto comprising a valve having a tapered portion and a straight portion and adjustably mounted in an air inlet to said cup of corresponding shape, and providing with said inlet a plurality of narrow air passages between the surfaces of said valve and inlet, the passage between the respective tapered surfaces of said valve and inlet adapted to be increased in size by adjustment of the valve and the surface of the straight portion of said valve fitting closely to the corresponding surface of the inlet thereby providing a narrow slit-like passage of constant width at all adjustments of the valve, means for conveying said air to said cup, and an outlet from said cup.

3. In a lubricator, a cup provided with an air inlet, an adjustable valve adapted to control said inlet and provided with a channel of increasing effective width as the valve is opened, and with a straight reduced extension on the stem having a loose fit with a restricted portion of the channel, providing an air inlet of small thickness which is of constant area at all positions of the valve.

4. In a lubricator, a cup provided with an air inlet, an adjustable valve stem for controlling said air inlet, an air channel of variable size on said stem, said inlet provided with an annular tapered seat, and a correspondingly shaped valve on the said stem, the adjustment of said stem varying the effective area of the channel in said stem and of the space between the valve and its seat, and an annular straight reduced extension on said stem having a loose fit in a correspondingly shaped portion in said air inlet, providing a passage between the valve and lubricant reservoir of constant area at all positions of the valve, and of a slight thickness compared with its width.

5. In a lubricator, a cup provided with an air inlet, a valve stem threaded in said air inlet and having an air channel of variable size, said inlet provided with an annular tapered seat inside of said threaded part, and a correspondingly shaped valve on said stem, said valve stem being adjustable whereby the air channel is increased or decreased in size, and an annular straight reduced extension on said stem inside of said tapered part having a close fit in a correspondingly shaped portion in said air inlet, providing an inlet of constant area at all positions of the valve, but of little thickness.

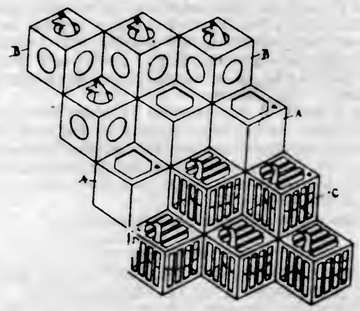
[Claims 6 to 8 not printed in the Gazette.]

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1,092,165. PUZZLE. FRANCIS C. OSBORN, Detroit, Mich. Filed June 25, 1910. Serial No. 568,773. (Cl. 46—41.)

1. A puzzle consisting of a number of tablets, the surface of each representing either a box of corn, a fox cage or a goose cage, and the number of tablets of each kind varying in number from those of each of the other two kinds.

2. A puzzle consisting of a number of hexagonal blocks, the surface of each representing either a box of corn, a fox cage or a goose cage, and the number of blocks of each kind varying in number from those of the other two kinds.



3. A puzzle consisting of a number of hexagonal tablets, the surface of each representing one of three natural objects, and the number of tablets of one kind being one less and one greater than those of the other two respectively.

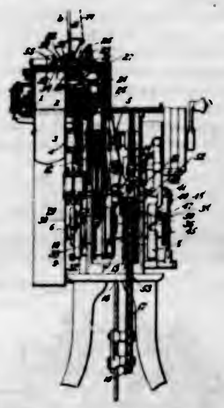
4. A puzzle consisting of twelve hexagonal tablets, the surface of three having a design representing a box of corn, the design of four representing a fox cage and the design of the surface of five representing a goose cage.

5. A puzzle consisting of a number of tablets, having sides which permit the tablets to be arranged so that they adjoin each other, the surface of each representing either a box of corn, a fox cage or a goose cage.

[Claim 6 not printed in the Gazette.]

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1,092,166. CIRCULAR-KNITTING MACHINE. EXILIAS PAQUETTE, Lowell, Mass., assignor to Lawrence Manufacturing Company, Lowell, Mass., a Corporation of Massachusetts. Filed Nov. 25, 1911. Serial No. 662,265. (Cl. 66—12.)



1. A circular knitting machine, having, in combination, a rotary needle cylinder, needle actuating cams, controller cams for controlling the action of the needle actuating cams on the needle, yarn guides, a cam movable independently of the controller cams, connections between the cam and yarn guides, a ratchet connected with the cam, an actuating pawl for the ratchet, mechanism for actuating the controller cams, a pattern chain, and means for independently controlling the actuating mechanism and actuating pawl from the pattern chain, substantially as described.



2. A circular knitting machine, having, in combination, a rotary needle cylinder, needle actuating cams, a cam shaft carrying cams for controlling the action of the needle actuating cams on the needles, vertically movable yarn guides, levers engaging the guides, actuating levers connected with the guide engaging levers, a rock shaft provided with arms arranged to alternately operate the actuating levers, a cam connected to actuate the rock shaft, mechanism for actuating the controller cam shaft, mechanism for independently actuating the yarn guide cam, and a pattern chain for controlling the actuating mechanisms, substantially as described.

3. A circular knitting machine, having, in combination, knitting cylinders, cams and connections for controlling the knitting, mechanism for actuating the controller cams, a pattern chain for controlling the actuating mechanism, yarn changing devices, a cam movable independently of the controller cams for actuating the yarn changing devices to change the yarn, and mechanism independently controlled from the pattern chain for actuating the yarn changing cams, substantially as described.

4. A circular knitting machine, having, in combination, a rotary needle cylinder, needle actuating cams, a cam shaft carrying cams for controlling the action of the needle actuating cams on the needles, vertically movable yarn guides, a cam and connections for raising and lowering the guides, actuating mechanism for the cam shaft, actuating mechanism for the yarn guide cam, a pattern chain, and means for independently controlling the actuating mechanisms from the pattern chain, substantially as described.

5. A circular knitting machine, having, in combination, a needle cylinder, needle actuating cams, mechanism for relatively rotating and reciprocating the needle cylinder and cams, a cam shaft carrying cams for controlling the action of the needle actuating cams on the needles, vertically movable yarn guides, levers engaging the guides, actuating levers connected with the guide engaging levers, a rock shaft provided with arms arranged to alternately engage and depress the actuating levers, a cam connected to actuate the rock shaft, and devices for intermittently actuating the cam, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,167. PROCESS OF PRODUCING AMMONIA. SAMUEL PEACOCK, Chicago, Ill., assignor to International Agricultural Corporation, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1912. Serial No. 736,041. (Cl. 23—21.)

The cyclic process of producing ammonia from a higher iron hydrid in the presence of free nitrogen which consists in causing said higher iron hydrid to split off a portion of its hydrogen at temperatures suitable for the nascent hydrogen thus produced to combine with said free nitrogen to form ammonia and simultaneously feeding free hydrogen to the mass to reform said higher iron hydrid as fast as said ammonia is produced, substantially as described.

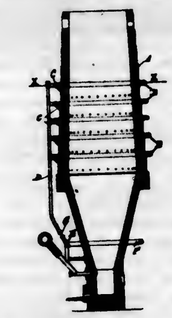
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1,092,168. MANUFACTURE OF PIG-IRON. FRANÇOIS PRUDHOMME, Vienne, France. Filed Aug. 30, 1912. Serial No. 717,929. (Cl. 75—5.)

1. A method whereby soil fuels can be employed for charging furnaces, which consists in effecting the combustion of a mixture of gas and air at a large number of twyer openings located on the inner surface of the furnace shaft, and maintaining the temperature at each of said twyer openings sufficiently low to prevent the production at any point of objectionable secondary reactions.

2. A method whereby soil fuels can be employed for charging furnaces, which consists in supplying a quantity of air through a large number of twyers located around the wall of the furnace shaft, mixing said air with the gases liberated by the distillation of fuel whereby the soil fuel can be carbonized, and maintaining the temperature at each of said twyers sufficiently low to prevent the production of objectionable secondary reactions at any part of the furnace charge.

3. A method whereby soil fuels can be employed for charging furnaces, which consists in effecting the carbonization of the soil fuel by the combustion of a portion of the gases generated by the furnace with a regulable quantity of air supplied by a blower to a relatively large number of points at the inner wall of the furnace shaft located at substantially the central zone thereof, and preventing the temperature at each of said points from rising sufficiently to produce objectionable secondary reactions.



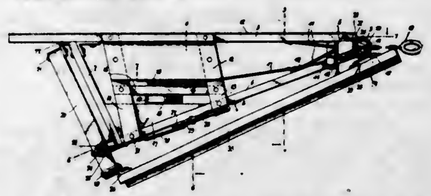
4. A method whereby soil fuels can be employed for charging furnaces, which consists in supplying a regulable quantity of air through a number of rings of twyers located above the boshes of the furnace, mixing the said air with the gases liberated by the distillation of the soil fuel, completing the carbonization of the soil fuel by the ignition of the combustible mixture, and maintaining the temperature at each of said twyers sufficiently low to prevent objectionable secondary reactions.

5. A method whereby soil fuels can be employed for charging furnaces, which consists in supplying a quantity of air to a large number of points within the furnace shaft, mixing the said air with gases liberated within the furnace to obtain the required number of heat units to effect the complete carbonization of the soil fuel and maintaining the temperature at each of said points sufficiently low to prevent the production of undesirable secondary reactions.

[Claim 6 not printed in the Gazette.]

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1,092,169. ROAD-DITCHING MACHINE. JAMES RANNEL, Harlem, Mont. Filed Dec. 27, 1911. Serial No. 668,142. (Cl. 37—5.)



1. In a ditching machine, the combination with a main frame including a land side member, a scraper disposed at an acute angle to and supported by the frame, means for vertically adjusting the front end of the scraper independently of the land side member, and independent means for raising the rear end of the scraper.

2. In a ditching machine, the combination with a main frame including a landside member and a roadside member, the latter being disposed at an acute angle with respect to the former, a scraper disposed at an acute angle to and supported by the frame, means for vertically adjusting the front end of the scraper independently of the land side member, and independent means for raising the rear end of the scraper.

3. In a ditching machine, the combination with a main frame including a landside member and a roadside member,

the latter being disposed at an acute angle with respect to the former, a transversely disposed arm pivotally connected at one end to the landside member and having its free end projecting beyond the rear end of the roadside member, a scraper having its front end loosely connected to the front end of the frame and having its rear end pivotally connected to the free end of the swinging arm, means for vertically adjusting the front end of the scraper independently of the land side member, and independent means for raising the rear end of said scraper.

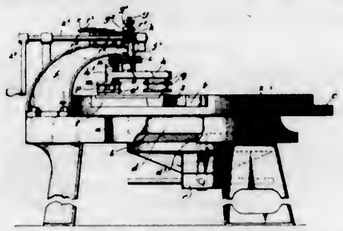
4. In a ditching machine, the combination with a main frame including an inclined roadside member, of a bracket secured to the forward end of the frame, a scraper disposed in spaced relation to the roadside member, a bracket pivoted adjacent the forward end of the scraper, a vertically movable pivot pin connecting said brackets, a pivotal connection between the rear end of the scraper and the frame, means for vertically adjusting the front end of the scraper independently of the land side member, and means for raising the rear end of said scraper.

5. In a ditching machine, the combination with a main frame including a landside member and a roadside member, the latter being disposed at an acute angle with respect to the former, a transversely disposed arm pivotally connected at one end to the landside member and having its free end projecting beyond the rear end of the roadside member, a scraper having its front end loosely connected to the front end of the frame and having its rear end fixedly connected to the free end of the swinging arm, a rearwardly extending overhanging U-shaped bracket secured at its ends to the rear end of the frame, a roller journaled between the legs of said bracket, an operating lever fulcrumed on the frame, and a flexible connection trained over the roller and connected at one end to the swinging arm and at its other end to the lever to elevate the rear end of the scraper upon rearward movement of said lever.

[Claim 6 not printed in the Gazette.]

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1,092,170. GEOMETRICAL MACHINE. JAMES H. REINHARDT, East Orange, N. J., assignor to American Bank Note Company, a Corporation of New York. Filed May 14, 1913. Serial No. 767,501. (Cl. 159—9.)



1. A geometrical machine embodying therein a support for the work, a rotary tool head, a rotary support for said tool head, the axis of which is concentric to the axis of said head, and means for imparting simultaneous rotary movement of said support and said head about their respective axes.

2. A geometrical machine embodying therein a support for the work, a rotary tool head, a plurality of tool holders carried thereby arranged at different distances radially of the axis of rotation of said head, a rotary support for said tool head, the axis of which is eccentric to the axis of said head, and means for imparting simultaneous rotary movement of said support and said head about their respective axes.

3. A geometrical machine embodying therein a support for the work, a rotary tool head, a rotary support for said tool head, the axis of which is eccentric to the axis of said head, a tool holder carried by said support and spaced away from said tool head, and means for imparting simultaneous rotary movement of said support and said head about their respective axes.

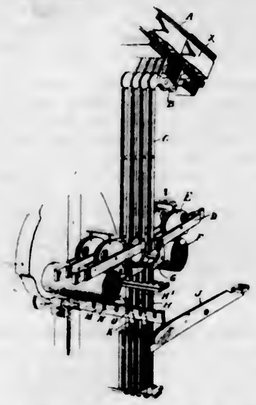
4. A geometrical machine embodying therein a support for the work, a rotary tool head, a plurality of tool holders carried thereby arranged at different distances radially of the axis of rotation of said head, a rotary support for said tool head, the axis of which is eccentric to the axis of said head, a tool holder carried by said support and spaced away from said tool head, and means for imparting simultaneous rotary movement of said support and said head about their respective axes.

5. A geometrical machine embodying therein a support for the work, a rotary tool head, a rotary support for said tool head, the axis of which is eccentric to the axis of said head, means for imparting simultaneous rotary movement of said support and said head about their respective axes, indicating means whereby the location of said tool head and said support will be indicated at all times during the operation of the machine, including therein an indicator dial, and an index finger, and means operative by said support for actuating said indicating means.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,171. TYPOGRAPHICAL MACHINE. WILLIAM H. ROGERS, Batavia, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,797. (Cl. 199—7.)



1. In a typographical machine, the combination of a pair of escapements and a corresponding pair of devices to actuate them individually, with means carried by one of said devices and laterally adjustable at will into direct engagement with the other; whereby the operation of one of said devices effects the conjoint actuation of both escapements.

2. In a typographical machine, the combination of a pair of escapement actuating devices, means carried by one of said devices and movable laterally into direct engagement with the other so as to connect the two together, and devices operable at will for moving said connecting means.

3. In a typographical machine, the combination of a pair of escapements and a corresponding pair of devices to actuate them individually, one of said devices being provided with a member movable laterally into direct engagement with the other; whereby the operation of one of said devices effects the conjoint actuation of both escapements.

4. In a typographical machine, the combination of a pair of escapements B, and means to actuate them individually, comprising the pair of slides H, H', one of said slides being provided with a laterally movable member K to engage directly a stud L on the other slide; whereby the operation of one of said devices effects the conjoint actuation of both escapements.

5. In a typographical machine, the combination of a pair of escapements B, and means to actuate them individually, comprising the slides H, H', one of said slides



being provided with the laterally movable member K to engage directly a stud L on the other slide, together with the element M to shift the said member K.

[Claims 6 to 8 not printed in the Gazette.]

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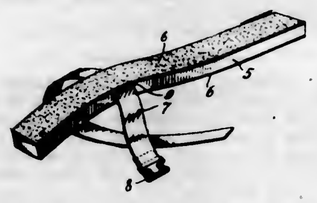
1,092,172. CIGAR-BUNCH SLITTER. LOUIS ROSENBERG, Chelsea, Mass. Filed Apr. 7, 1913. Serial No. 759,328. (Cl. 131—20.)



A cigar end slitter comprising a receiver for the tapered end-portion of the cigar arranged to hold the same in a predetermined position, a set of three knives movable to advance the cutting edges thereof toward said position, to cut longitudinal slits in the cigar held therein, two of said knives being movable in convergent paths at opposite sides of the center line of said position and the other knife being movable oppositely thereto in a path which bisects the angle between said paths and intersects said center line, whereby said blades may pass the center of the cigar without encountering each other, substantially as described.

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1,092,173. DEVICE FOR SUPPORTING THE HANDS OF PIANOFORTE-PLAYERS. ANTONIO SCATO, New York, N. Y. Filed Oct. 28, 1913. Serial No. 797,914. (Cl. 84—91.)



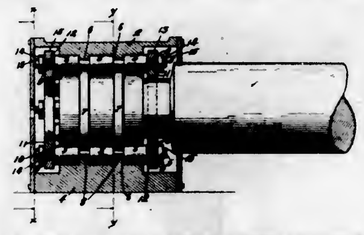
1. A device of the character described comprising a narrow elongated rigid bar having a wrist-engaging portion which is arched, and from which wrist portion the bar has a downward curve engaging the back of the hand, said hand engaging part terminating short of the first joint of the fingers, and attaching means for the bar.

2. A device of the character described comprising a narrow elongated rigid bar having forearm, wrist and hand-engaging parts, the forearm-engaging part having an upward curve to the wrist-engaging part, and the hand-engaging part curving downward from the wrist-engaging part, and attaching means for the bar.

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1,092,174. ANTIFRICTION JOURNAL-BEARING. WILLIAM WOLFGANG SCHIESL, Milwaukee, Wis., assignor of one-fourth to Fred Schmitt, Milwaukee, Wis. Filed July 9, 1910. Serial No. 571,176. (Cl. 74—60.)

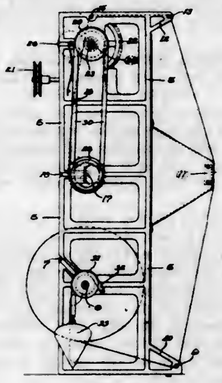
In a device of the described class the combination of a journal box, a journal located in said box, an annular series of bearing rollers interposed between the periphery of said journal and journal box, two annular series of pinions, a pinion being supported from near the respective end of each of said bearing rollers, two pairs of toothed collars carried by said pinions within and independently of said journal box, one pair of such collars being located at each end of the journal box, one collar of each pair being carried upon the exterior side of each series of pinions and the other collar upon the interior side of such series of pinions at the respective ends of the journal box, said collars being adapted to retain said bearing rollers at uniform distances around said journal and two annular



series of collars, one collar being revolubly supported upon each end of each bearing roller, said collars being adapted to retain the toothed collars in place on said pinions, substantially as set forth.

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1,092,175. ADVERTISING DEVICE. HENRY SCHMITT and HENRY J. SCHMITT, Chicago, Ill. Filed Aug. 19, 1912. Serial No. 715,913. (Cl. 40—28.)

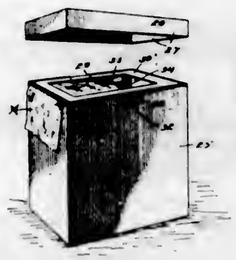


1. In a device of the kind described, the combination of a web of paper bearing matter printed thereon in a normally invisible substance but which, when heat is applied to said paper, becomes visible; an element disposed transversely of said web for heating the latter; rollers about which the ends of said web are wound; means for rotating said rollers to effect unwinding from one of said rollers and winding upon the other thereof whereby said web will be moved past said heating element; and means for tensioning said web to maintain the same in close contact with said heating element, substantially as described.

2. In a device of the kind described the combination of a frame; rollers rotatively mounted in said frame; a web having its ends wound on said rollers, and bearing normally invisible configurations thereon, said configurations being adapted to become visible on being heated; a heating element disposed transversely of said web and adapted to heat the latter as it is passed over such heating element; and ears on said frame spacing said heating element from said frame, substantially as described.

3. In a device of the kind described the combination of a frame; rollers rotatively mounted in said frame; a web having its ends wound on said rollers, and bearing normally invisible configurations thereon, said configurations being adapted to become visible on being heated; a heating element disposed transversely of said web and adapted to heat the latter as it is passed over such heating element; ears on said frame spacing said heating element from said frame; and a tensioning means on said frame maintaining said web in close contact with said heating element, substantially as described.

1,092,176. ASEPTIC PACKAGE FOR SURGICAL DRESSINGS. PAUL A. H. A. SCHULZ, Columbia, S. C. Filed May 13, 1912. Serial No. 697,023. (Cl. 206—63.3.)

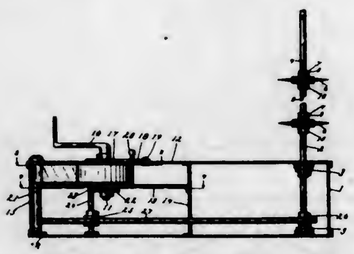


1. The combination with a receptacle open at one end and adapted to contain a roll of absorbent cotton or similar material, of a cover therefor providing a slot-like opening at the top through which ribbon-like material may be pulled, and a hinged flap-like extension of the side wall of the receptacle adapted to lie across the material pulled through the slot and coöperating with said cover to furnish a holding means for the material pulled through the slot.

2. The combination with a box adapted to contain a roll of absorbent cotton or similar material of a cover therefor having a slot-like opening at one edge through which the ribbon-like material may be pulled, and a flap-like extension of the side of the box adjacent the slots, hinged along the side of said slot and adapted to lie across it and coöperating with said cover to provide a holding means for the material pulled through said slot-like opening.

3. The combination with a receptacle open at one end adapted to contain a roll of absorbent cotton or similar material, of a removable cover fitting said open end providing a narrow slot-like opening for the passage of said material, parallel members integral with the cover extending along the side to the bottom of the receptacle, and headed pins projecting through said members for rotatively supporting said roll of material, the heads of the pins engaging the walls of the box to prevent displacement of the pins.

1,092,177. SKIRT-GAGE. CHARLES SEAMAN, Ironwood, Mich. Filed Sept. 8, 1913. Serial No. 788,628. (Cl. 33—9.)



1. In a skirt gage, the combination of a casing adapted as a shoe, a vertical spindle, the bearings for said spindle being disposed within the casing, a chalk holder mounted on said spindle, a spring shaft mounted within said casing to project through the top thereof, the outer end of the spindle being adapted to receive a key, a ratchet wheel on said key shaft arranged on the outside of the casing, a locking dog pivoted to coact with said ratchet wheel, said dog being adapted to be released, a driving spring for said spring shaft, and driving connections for said spring shaft to said spindle, consisting of a transmission shaft geared to said spring shaft and having a sprocket thereon, a sprocket on said spindle, and a connecting chain for said sprocket.

2. In a skirt gage, the combination of a casing adapted as a shoe, a vertical spindle, the bearings for said spindle being disposed within the casing, a chalk holder mounted on said spindle, a spring shaft mounted within said casing to project through the top thereof, the outer end of the spindle being adapted to receive a key, a ratchet wheel on said key shaft arranged on the outside of the casing, a locking dog pivoted to coact with said ratchet wheel, said dog being adapted to be released, a driving spring for said shaft, and driving connections for said spring shaft to said spindle.

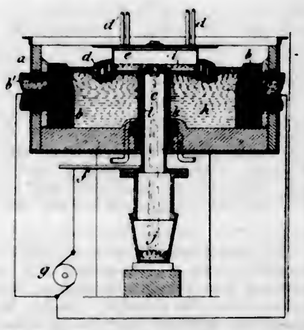
3. In a skirt gage, the combination of a motor casing adapted as a shoe, a vertical spindle, the bearings for said spindle being disposed within the casing, a chalk holder mounted on said spindle, a spring shaft mounted within said casing adapted to receive a winding key, a ratchet wheel on said key shaft, a locking dog coacting with said ratchet wheel and adapted to be disengaged therefrom, a driving spring for said spring shaft, and driving connections for said spring shaft to said spindle, consisting of a transmission shaft geared to said spring shaft and having a sprocket thereon a sprocket on said spindle, and a connecting chain for said sprockets.

4. In a skirt gage, the combination of a motor casing adapted as a shoe, a vertical spindle, the bearings for said spindle being disposed within the casing, a chalk holder mounted on said spindle, a spring shaft mounted within said casing and adapted to receive a winding key, a ratchet wheel on said key shaft, a locking dog coacting with said ratchet wheel and adapted to be disengaged therefrom, a driving spring for said spring shaft, and driving connections for said spring shaft to said spindle.

5. In a skirt gage, the combination of a motor casing adapted as a shoe, a vertical spindle, the bearings for said spindle being disposed within the casing, a chalk holder mounted on said spindle for adjustment thereon, and a driving motor for said spindle.

[Claims 6 to 10 not printed in the Gazette.]

1,092,178. CATHODE FOR ELECTROLYTIC FURNACES. GEORGE O. SEWARD, East Orange, N. J., and FRANZ VON KÜGELGEN, Holcombs Rock, Va., assignors to Virginia Laboratory Company, New York, N. Y., a Corporation of New York. Filed Oct. 10, 1910. Serial No. 586,132. Renewed Sept. 10, 1913. Serial No. 789,171. (Cl. 204—21.)



1. An electrolytic furnace for the separation of metals from their fused salts comprising an anode and a cathode, the cathode having a downwardly-projecting portion separating it from the electrolyte and in conducting contact with it at its upper portion only.

2. An electrolytic furnace for the separation of metals lighter than their fused salts comprising an anode, a cathode, and an intervening insulating partition within which the separated metal is confined and floats on the electrolyte in conducting contact with the cathode, the cathode having a downwardly-projecting portion separating it from the electrolyte and in conducting contact with it at its upper portion only.

3. An electrolytic furnace for the separation of metals lighter than their fused salts comprising a central cathode, an outer anode, and an annular insulating partition between them within which the separated metal is confined and floats on the electrolyte in conducting contact with the cathode, the cathode having a downwardly projecting portion surrounding it and separating it from the electrolyte and in conducting contact with it at its upper portion only.

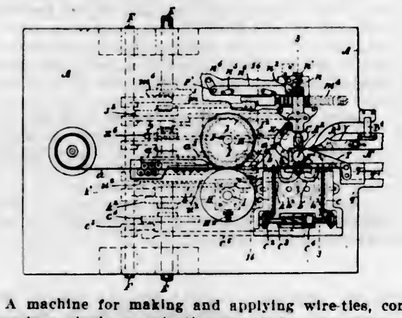
4. A cathode for electrolysis comprising parallel portions in which the electric flow is opposite, whereby to minimize magnetic or inductive effects.

5. A cathode for electrolysis comprising an inner portion and a surrounding skirt separated therefrom except at an end portion and connected to cause the electric flow in the inner and outer portions to take place in opposite directions.

[Claim 6 not printed in the Gazette.]



1,092,179. MEANS FOR MAKING AND APPLYING WIRE TIES. JAMES S. SLOSSON, New Brighton, N. Y., assignor to Clifford L. Miller & Co., New York, N. Y. Filed Feb. 12, 1913. Serial No. 747,831. (Cl. 140—93.)



1. A machine for making and applying wire-ties, comprising in a single organization means for supporting an article, means for making a wire-tie adjacent to such article, means for applying the tie to the article and crossing the ends of the tie, and means for twisting the ends of the tie together, all the said means being connected to operate successively, as and for the purpose set forth.

2. The combination, in a single organization, of means for feeding a continuous wire, means for cutting off lengths of wire and making individual wire-ties, means for applying one of such ties to the bag or other article to be tied, means for securing the ends of the tie together and mechanism connecting all of the said means for operating them in succession.

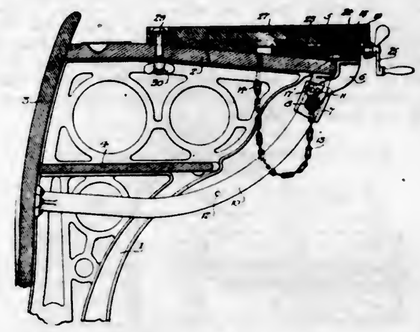
3. The combination in a single organization, of means for feeding a continuous wire, means for cutting off lengths of the wire suitable for wire-ties, means for folding over the ends of the cut wire to form guarded ends on the tie, means for applying the ties to the bag or other article to be tied, and means for securing the guarded ends of the tie together.

4. The combination in a single organization, of means for feeding a continuous wire, means for cutting off lengths of the wire suitable for wire-ties, means for treating the ends of the cut wire to form guards on the tie, means for looping the tie around the article to be tied, and means for twisting the ends of the tie together and leaving the guarded ends separated for untwisting the tie.

5. The combination in a single organization, of means for feeding a continuous wire, means for cutting off lengths of the wire suitable for wire-ties, means for folding over the ends of the cut wire and forming eyes at the folds, means for looping the tie around the article to be tied, and means for twisting the ends of the tie together and leaving the eyes separated for untwisting the tie.

[Claims 6 to 30 not printed in the Gazette.]

1,092,180. SCHOOL-DESK. ROBERT M. SMITH, Chicago, Ill. Filed Feb. 15, 1913. Serial No. 748,758. (Cl. 144—286.)



1. A school desk having a fixed top, a supplemental work top, slides to which said supplemental work top is pivoted, guides whereon said slides are shiftable to permit the movement of said supplemental work top from an operative position upon said fixed top to an inoperative position entirely below said fixed top to afford access to the latter, and means for sustaining said supplemental work top in its inoperative position entirely below said fixed top.

2. A school desk having a fixed top, a supplemental work top, and guides for said supplemental work top extending downwardly and forwardly from the front edge of said fixed top and whereon said supplemental work top is shiftable to operative position upon said fixed top and to inoperative position below the same.

3. A school desk having a fixed top, a shiftable work top, brackets fixed to the forward edge of said work top, slides whereon said brackets are pivoted, said desk having guides for said slides whereby said work top may be shifted into and out of operative position and above and below said fixed top, and locking devices coöperating with said slides and brackets for securing said work top in its operative position and in its inoperative position below said fixed top.

4. A school desk having a fixed top, supporting side frames and a back portion, curved guide rods extending downwardly and rearwardly from the front edge of said top to said back portion, slides mounted on said guide rods, brackets pivoted on said slides, and a supplemental work top fixed at its forward edge to said brackets and movable into and out of operative position on said fixed top.

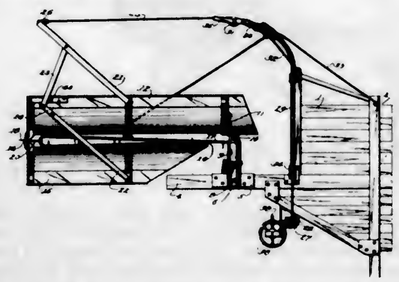
5. A school desk having a fixed top, supporting side frames and a back portion, curved guide rods extending downwardly and rearwardly from the front edge of said top to said back portion, slides mounted on said guide rods, brackets pivoted on said slides, a supplemental work top fixed at its outer edge to said brackets and movable therewith into and out of operative position above said work top and means for holding said guides and brackets against movement on said guide rods, to thereby secure said work top in position on said fixed top.

[Claims 6 to 9 not printed in the Gazette.]

1,092,181. CONVEYER FOR BAND-CUTTERS AND FEEDERS. HOWARD F. SNYDER, Newton, Iowa, assignor to The Maytag Company, Newton, Iowa, a Corporation. Filed July 11, 1910. Serial No. 571,273. (Cl. 193—15.)

1. In a device of the class described, the combination of a conveyer comprising an inner section and an outer section hinged together, a frame, means for pivotally connecting the inner section with said frame, a lever pivoted at one end to each side of the inner section, said levers being connected together at the other end, a link

pivoted to each side of the outer section, a bar connecting the levers and links on the same side of the sections, mechanism connected with said levers for holding the two sections in alinement, said mechanism being adjustable to lower said levers until the outer section swings under the inner section, so that the raising of said levers will continue to swing the outer section upwardly into folding position underneath the inner section, and stops provided on said inner section for guiding said bars to hold the levers and links substantially parallel when the sections are in folded position.



2. In a device of the class described, the combination of a conveyer comprising an inner section and an outer section hinged together, a frame, means for pivotally connecting the inner section with said frame, a lever pivoted at one end to each side of the inner section, said levers being connected together at the other end, connecting rods pivoted at one end to said levers and at the other end to the sides of the outer section, so that said connecting rods and said outer section form a toggle joint, and mechanism for operating said levers to shift the pivot of said toggle joint from one side to the other of a line connecting the pivotal point of said rods and levers with the pivotal point of the sections, whereby the lowering and raising of said levers swings the outer section out of alinement with the inner section either into folded position underneath said inner section or out of folded position into alinement with said inner section.

3. In a device of the class described, the combination of a conveyer comprising an inner section and an outer section hinged together, a frame, means for pivotally connecting the inner section with said frame, connecting rods pivoted at one end to the sides of said outer section, so that the said rods and outer section form a toggle joint, and mechanism pivotally connected with said rods at their other ends to shift the pivot of said toggle joint from one side to the other of a line connecting the pivotal point of said rods and mechanism with the pivotal point of the sections, whereby the lowering and raising of said rods swings the outer section out of alinement with the inner section either in a folded position underneath said inner section or out of folded position into alinement with said inner section.

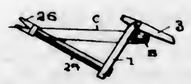
4. In a device of the class described, the combination of a conveyer comprising an inner section and an outer section hinged together, a frame, means for pivotally connecting the inner section with said frame, a lever pivoted at one end to each side of the inner section, said levers being connected together at the other end, connecting rods pivoted at one end to said levers and at the other end to the sides of the outer section, so that said connecting rods and said outer section form a toggle joint, mechanism for operating said levers to shift the pivot of said toggle joint from one side to the other of a line connecting the pivotal point of said rods and levers with the pivotal point of the sections, whereby the lowering and raising of said levers swings the outer section out of alinement with the inner section either into folded position underneath said inner section or out of folded position into alinement with said inner section, said mechanism including a drum secured to said frame, a cable wound at one end upon said drum and at its other end connected to said levers, and means for rotating said drum.

5. In a device of the class described, the combination of a conveyer comprising an inner section and an outer section hinged together, a frame, means for connecting the inner section with said frame, mechanism for holding the outer section in alinement with the inner section, said mechanism including readily adjustable toggle levers for folding and supporting the outer section underneath the inner section, and stops adapted to engage said levers and hold them in a predetermined position, when the sections are folded.

[Claims 6 to 20 not printed in the Gazette.]

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1,092,182. WIRE-STRETCHER. JAMES M. SPARKS, Nadine, N. Mex. Filed Apr. 4, 1911. Serial No. 618,866. (Cl. 39—55.)

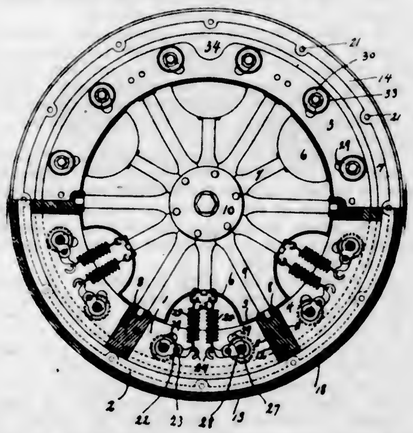



1. A wire stretching tool comprising a handle having one end thereof curved and bifurcated, wire securing means carried by said bifurcated end of the handle, the opposite end of said handle being squared, a cross bar removably secured to the squared end of said handle, and a fulcrum bar secured to the end of said cross bar and disposed at right angles to the latter and parallel to said handle.

2. A wire stretching tool comprising a handle having one end thereof curved and bifurcated, an enlargement adjacent said bifurcated end having a rib, a projection adjacent said rib, the opposite end of said handle being squared, a cross bar removably secured to the squared end of said handle, and a fulcrum bar secured to the end of said cross bar and disposed at right angles to the latter and parallel to said handle.

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1,092,183. WHEEL. JOHN A. STAHLE, Boston, Mass., assignor, by mesne assignments, to Stahle Mechanical Tire Company, Limited, a Corporation of Maine. Filed Jan. 11, 1910, Serial No. 537,520. Renewed Sept. 5, 1913. Serial No. 788,326. (Cl. 152—37.)




1. A wheel comprising a rim portion and a continuous tire portion provided with bearing plates embracing the rim portion, spring actuated levers mounted within the rim portion, shafts carried by said levers and projecting outside the rim portion, and rollers mounted on said shafts and bearing against the bearing plates of the tire portion, substantially as described.

2. A wheel comprising a circular trough shaped rim portion and a continuous circular trough shaped tire portion, the side plates of the tire portion adapted to move with relation to the rim portion, a plurality of levers pivotally mounted within the rim portion and projecting outside of the rim portion at both sides, rollers mounted upon the levers and engaging the tire portion and springs acting upon the levers, substantially as described.

3. A wheel comprising a circular trough shaped rim portion and a circular trough shaped tire portion arranged to have a movement with relation to the rim portion, means to limit the relative circumferential movement of the tire portion with relation to the rim portion, spring actuated levers mounted in the rim portion, shafts carried by said levers and projecting through the sides of the rim portion and rollers carried by said shafts and bearing on the tire portion substantially as described.

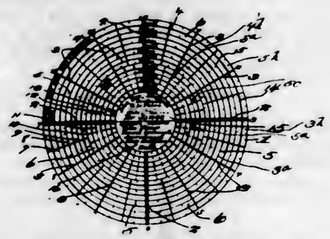
4. A wheel comprising a rim portion and a continuous tire portion capable of movement relative to the rim portion, bearing plates carried by said tire portion, spring actuated levers mounted within the rim portion and said arms rigid with the levers and situated exterior to the rim portion, said arms having bearing against the bearing plates of the tire portion, substantially as described.

5. A wheel comprising a circular trough shaped rim portion and a continuous circular trough shaped tire portion, the side plates of the tire portion embracing and adapted to move with relation to the rim portion, rocking levers pivotally mounted within the rim portion, curved slots in said rim portion and shafts carried by said levers and projecting through said slots and having a bearing engagement with the tire portion, and springs acting on said levers, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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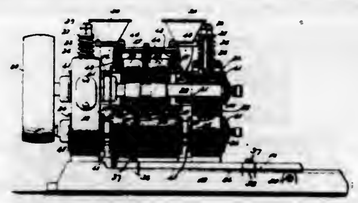
1,092,184. TALLY-CARD. THOMAS ANDREW STEVENS, Caney, Kans. Filed Mar. 29, 1910. Serial No. 552,250. (Cl. 11—19.)



A record label provided with an appropriately designated central space adapted to receive data relating to the administration of medicines, comprising a paper disk, suitably ruled from the periphery of the label toward its center, with a plurality of concentric lines alternating light and heavy, and including annular spaces between the light and heavy lines, the annular spaces appropriately designated to indicate alternating full days and nights, the label having a plurality of heavy radial lines dividing the annular spaces into four equal parts appropriately designated to indicate quarterly day sections, radial lines subdividing each quarterly day section into three appropriately designated hour sections, lines extending radially from the edge of the label for a short distance inwardly subdividing hour sections, into appropriately indicated half hour sections, radial dash lines subdividing the half hour sections into appropriately designated quarter-of-an-hour sections, dash lines subdividing the inner portions of the hour sections into appropriately denoted substantially twenty minute sections, and an indicia arranged at the outer end of each radial line which divides the disk, into every hour, as and for the purpose specified.



1,092,185. CRUSHING-MILL. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed Dec. 13, 1911. Serial No. 665,488. (Cl. 83—9.)



1. In a crushing mill, the combination with elastically mounted crushing rolls, of a plurality of loose crushing rings driven and yieldingly supported by said rolls and spaced apart from each other, and also having clearances at their outer sides so that crushed material may be discharged from both sides of all of said rings.

2. In a crushing mill, the combination with elastically mounted crushing rolls, of a plurality of loose crushing rings driven and yieldingly supported by said rolls and spaced apart from each other, and also having clearances at their outer sides so that crushed material may be discharged from both sides of all of said rings, shafts by which said rolls are carried, and independent, yieldingly-supported bearings at or near the opposite ends of each of said shafts.

3. In a crushing mill, the combination with a plurality of crushing rings separated from each other and also having clearances at their outer sides, so that crushed material may be discharged from both sides of all of said rings, of a crushing roll or rolls, a driving shaft carrying said roll or rolls and provided with means by which it may be driven, and independent yielding bearings for said shaft at or near the opposite ends thereof; whereby said rings are driven and yieldingly supported by said rolls, and whereby also independent yielding movements of the opposite ends of said shaft, without binding, is provided for.

4. In a crushing mill, the combination with a plurality of loose crushing rings spaced apart from each other and also having clearances at their outer sides so that crushed material may be discharged from both sides of all of said rings, of a yieldingly-supported crushing roll or rolls serving to drive and elastically sustain said rings, and other yieldingly mounted crushing rolls coöperating with said first-named roll or rolls and said rings.

5. In a crushing mill, the combination with a plurality of loose crushing rings spaced apart from each other and also having clearances at their outer sides so that crushed material may be discharged from both sides of all of said rings, of a yieldingly-supported crushing roll or rolls serving to drive and elastically sustain said rings, other yieldingly-mounted crushing rolls coöperating with said first-named roll or rolls and said rings, shafts by which said rolls are carried, and independent, yielding bearings for said shafts at or near their opposite ends.

[Claims 6 to 13 not printed in the Gazette.]

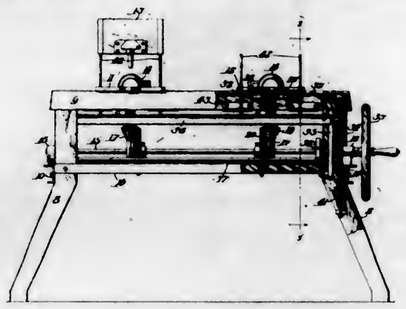
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1,092,186. MOLDING-MACHINE. FRANK VAN CAUWENBERGH, Rockford, Ill. Filed Sept. 15, 1913. Serial No. 789,934. (Cl. 22—30.)

1. In a molding machine, the combination with a platen and a pattern fixedly connected thereto, of a member projecting from the platen, and means adapted to be continuously rotated to alternately rap said member from opposite sides.

2. In a molding machine, the combination with a member associated with a pattern platen, of means for vibrating said member by rapping, said means including two rotatable members adapted to be rotated in opposite directions and to rap said member by oppositely directed raps.

3. In a molding machine, the combination with a pattern platen, of rotatable means having spaced arms extending therefrom in the plane of rotation of said means, a contact member extending from said platen in the path of said arms, and means for rotating said arm carrying means to effect rotation of said arms in opposite directions.



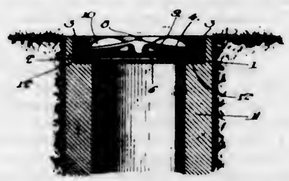
4. In a molding machine, the combination with a pattern platen, of means for rapping said platen, comprising, a rotatable member, arms pivoted to said member, means for rotating said member, and a contact member associated with said platen and disposed in the path of rotation of said arms, to be rapped thereby.

5. In a molding machine, the combination with a pattern platen, of means for rapping said platen, comprising, a rotatable member, arms pivoted to said member and being positioned in contactable relation with said platen, and means for rotating said member whereby the arms will rap the platen intermittently.

[Claims 6 to 16 not printed in the Gazette.]

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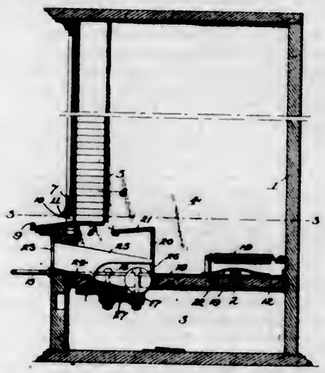
1,092,187. ALFALFA-GATE. PETER HENRY VANDEN BERG, Ontario, Cal., assignor to Pacific Electric Heating Company, Ontario, Cal., a Corporation of California. Filed Apr. 6, 1912. Serial No. 689,069. (Cl. 137—13.)



1. An alfalfa gate comprising a ring adapted to be secured to the distributing pipe, a pair of locking lugs projecting up from said ring, said ring having a vertical flange, a disk having depending lugs adapted to engage said flange to prevent the disk from being shifted off said flange, a packing plate on the underside of said disk, said depending lugs projecting through said plate, pins extending through said depending lugs for holding the plate against the disk, said plate adapted to bear against said vertical flange, and a lever pivoted to said disk and adapted to engage said locking lugs.

2. An alfalfa gate comprising a ring adapted to be secured to the distributing pipe, a pair of locking lugs projecting up from said ring, said ring having a vertical flange, a disk having depending lugs adapted to engage said flange to prevent the disk from being shifted off said flange, a packing plate on the underside of said disk, said depending lugs projecting through said plate, pins extending through said depending lugs for holding the plate against the disk, said plate adapted to bear against said vertical flange, and a lever pivoted to said disk and adapted to engage said locking lugs, wings projecting up from said lever on the opposite sides of the pivot thereof.

1,092,188. VENDING-MACHINE. PIETRO VARIA, White Plains, N. Y. Filed Mar. 22, 1913. Serial No. 756,203. (Cl. 194—91.)



1. The combination of a magazine having a package supporting plate and a delivery opening adjacent thereto; a movable carrier; an ejector pivoted to said carrier and adapted normally to pass beneath but capable of being deflected to pass above said supporting plate to engage and eject packages resting thereon; a coin stop rigidly fixed on said carrier and movable therewith; and a fixed coin guide adapted to position a coin on said stop in deflecting relation to said ejector before and during the initial movement of said carrier.

2. The combination of a magazine having a package supporting plate and a delivery opening adjacent thereto; a movable carrier; means adapted to maintain said carrier normally in retracted position; an ejector pivoted on said carrier and adapted to be deflected into operative position during the forward movement of the carrier and when so deflected to engage and eject a package; a coin stop fixedly mounted on the carrier to move therewith; and a fixed coin guide adapted to position a coin on said stop in deflecting relation with said ejector and in a plane transverse to the pivot thereof before and during the initial outward movement of said carrier.

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1,092,189. BILLIARD-CUE. SAMUEL T. VARIAN, East Orange, N. J. Filed July 31, 1913. Serial No. 782,197. (Cl. 46—9.)



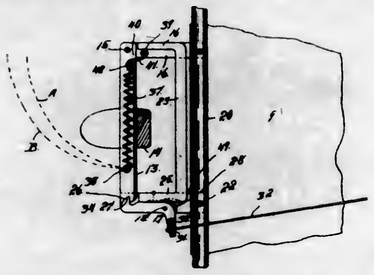
1. A device for use in executing massé strokes, comprising a cue, a sleeve surrounding a portion of the cue, and means for limiting the movement of the cue within said sleeve.

2. A device for use in executing massé strokes, comprising a cue, an elongated sleeve surrounding a portion of the cue and provided with a longitudinal slot, and a stop-pin secured to said cue and projecting into said slot to limit the movement of the cue within said sleeve.

3. A device for use in executing massé strokes, comprising a cue, a sleeve surrounding a portion of the cue and provided with a longitudinal slot, a stop-pin secured to said cue and projecting into said slot, and means for supporting said sleeve in a predetermined position.

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1,092,190. AUTOMATIC VESTIBULE-CURTAIN HOLDER. CHARLES R. VINQUIST, Denver, Colo. Filed Apr. 24, 1913. Serial No. 763,265. (Cl. 105—266.)



1. The combination with two vestibuled cars, a spring roller mounted on one car, a stationary hook mounted on the opposite car, and a curtain connected with the spring roller at one extremity, of a bracket mounted on the opposite extremity of the curtain and including a pivoted arm, and a locking latch engaging said arm, the latch being spring held in position to be engaged by the arm and the latter being normally spring held in interlocking relation with the arm, a wire connected in releasing relation with the latch at one extremity and at its opposite extremity with the curtain roller, the curtain having a pocket inclined to the horizontal and forming a guide for the wire substantially as described.

2. The combination with two vestibule cars, a spring roller mounted on one car, a stationary hook mounted on the opposite car, and a curtain connected with the spring roller at one extremity, of a bracket mounted on the opposite extremity of the curtain and including a pivoted arm, and a locking latch engaging said arm, the latch being spring-held in position to be engaged by the arm and the latter being normally spring-held in interlocking relation with the latch, means connected in releasing relation with the latch at one extremity and at its opposite extremity with the curtain roller for the purpose set forth.

3. The combination with two vestibule cars, a spring roller mounted on one car, a stationary hook mounted on the opposite car and a curtain connected with the spring roller at one extremity, of a bracket mounted on the opposite extremity of the curtain and including a pivoted arm, and a locking latch engaging said arm, the latch being spring-held in position to be engaged by the arm, and the latter being equipped with a spring connected therewith at one extremity and with a relatively stationary part of the bracket at its opposite extremity, the arrangement being such that the spring is placed under tension as the arm is pulled away from the latch, and means connected in releasing relation with the latch at one extremity and at its opposite extremity with the curtain roller, substantially as described.

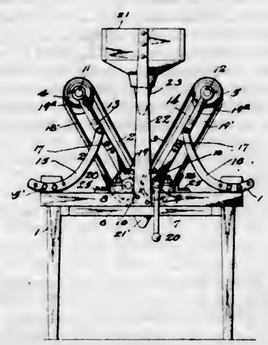
4. The combination with a car, of a vestibule curtain equipped with a bracket including a pivoted arm, and a spring-held latch mounted to interlock with said arm, the latter being normally spring-held in interlocking relation with the latch, substantially as described.

5. The combination with a car, of a vestibule curtain equipped with a bracket including a pivoted arm, and a spring-held latch mounted to interlock with said arm, the latter being equipped with a spring connected therewith at one extremity, and with a relatively stationary part of the bracket at its opposite extremity, the arrangement being such that the spring is placed under tension as the arm is pulled away from the latch, for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

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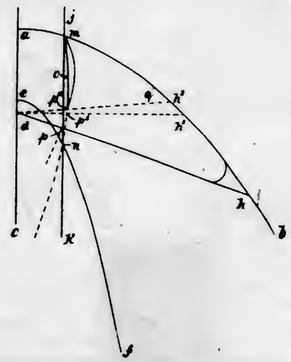
1,092,191. SEED-CLEANER. GEORGE M. WEBSTER, Fort Dodge, Iowa. Filed Aug. 3, 1912. Serial No. 713,109. (Cl. 130—18.)



The combination with a pair of belts and their rollers, said belts arranged at an inclination and contacting at their lower ends, of a supporting frame for each belt comprising sectional, perforated, extensible arms, a plurality of bolts securing the sections of each of the arms, an outwardly extended side bracket loosely attached on one of the bolts of each arm, and each of said brackets adjustably secured to a stationary member, so that the inclination of the belts may be varied.

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1,092,192. WING OR SUPPORTING-PLANE FOR AEROPLANES AND AERIAL MACHINES. JOSÉ WEISS, Houghton, Arundel, and ALEXANDER KEITH, London, England. Filed Oct. 28, 1913. Serial No. 797,704. (Cl. 244—12.)



1. A wing or supporting plane for aeroplanes and aerial machines, having its front edge in the form of a parabolic curve, the focus of which lies in the central or longitudinal axis of the machine, and its rear edge appearing as a straight line in plan, and radiating laterally from the focus of the front edge parabola until it meets the said parabola thus completing with the axis of said parabola, the boundary of the wing.

2. A wing or supporting plane for aeroplanes and aerial machines, having its front edge in the form of a parabolic curve the focus of which lies in the central or longitudinal axis of the machine, and its rear edge appear-

ing as a straight line in plan, and radiating laterally from the focus of the front edge parabola until it meets the said parabola thus completing with the axis of the said parabola, the boundary of the wing and having its underside curved from the front to the rear edge with a curvature equal to that of a portion of the front edge parabola.

3. A wing or supporting plane for aeroplanes and aerial machines, having its front edge in the form of a parabolic curve, the focus of which lies in the central or longitudinal axis of the machine, and its rear edge appearing as a straight line in plan and radiating laterally from the focus of the front edge parabola until it meets the said parabola thus completing with the axis of the said parabola, the boundary of the wing and having the level of each point of the rear edge determined by a point found by the intersection of the outer portion of the front edge parabola, when applied from the front edge curve to the datum parabola in a plane at right angles to the datum plane, with a vertical plane containing the rear edge of the wing.

4. A wing or supporting plane for aeroplanes and aerial machines, having its front edge in the form of a parabolic curve the focus of which lies in the central or longitudinal axis of the machine, and its rear edge appearing as a straight line in plan, and radiating laterally from the focus of the front edge parabola until it meets the said parabola thus completing with the axis of the said parabola, the boundary of the wing and having its underside curved from the front to the rear edge with a curvature equal to that of a portion of the front edge parabola, and having the level of each point of the rear edge determined by a point found by the intersection of the outer portion of the front edge parabola, when applied from the front edge curve to the datum parabola in a plane at right angles to the datum plane, with a vertical plane containing the rear edge of the wing.

5. A wing or supporting plane for aeroplanes and aerial machines, having its front edge in the form of a parabolic curve, the focus of which lies in the central or longitudinal axis of the machine, and its rear edge appearing as a straight line in plan, and radiating laterally from the focus of the front edge parabola until it meets the said parabola thus completing with the axis of the said parabola, the boundary of the wing and having the level of each point of the rear edge raised somewhat above a point found by the intersection of the outer portion of the front edge parabola, when applied from the front edge curve to the datum parabola in a plane at right angles to the datum plane, with a vertical plane containing the rear edge of the wing.

[Claims 6 to 10 not printed in the Gazette.]

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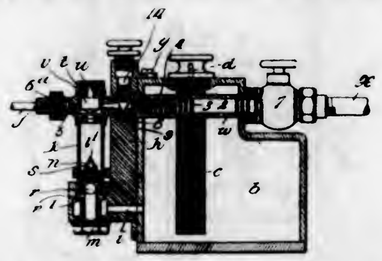
1,092,193. PAPER-PACKAGE. SETH WHEELER, Albany, N. Y. Filed Mar. 14, 1912. Serial No. 683,727. (Cl. 206—57.)



The combination with a receptacle having means for supporting a paper package and having a slot centrally located in its bottom the upper surface of the bottom being inclined downwardly toward said slot on each side thereof, of a package of paper comprising sheets folded both longitudinally and transversely, said sheets being interleaved and the transverse folds of the sheets being disposed alternately in opposite directions.

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1,092,194. AUTOMATIC OILER. ROBERT WOOD, Westmount, Quebec, Canada, assignor to Nathan Manufacturing Co., New York, N. Y., a Corporation of New York. Filed Aug. 21, 1911. Serial No. 645,184. (Cl. 184—20.)



1. In an automatic oiler, the combination with a reservoir, of a stand-pipe supported by the reservoir and including a bottom valve chamber adapted to receive the oil from the reservoir, a hollow perforated plug within the bottom valve chamber, through which the oil passes, a top valve chamber, an oil supply pipe communicating with the top valve chamber, a sight gage in communication with and connecting the two valve chambers and adapted to convey the oil from one valve chamber to the other, a nozzle guiding the oil from the hollow plug into the gage, a back pressure valve within the nozzle, a gravity valve controlling the communication between the gage and the top valve chamber, a pump chamber, a passage leading from the pump chamber to the top valve chamber, such passage being reduced in diameter adjacent to the top valve chamber and tapered to a substantially small orifice leading into the latter, a motive power conduit leading to the pump chamber, a piston in the pump chamber and adapted to be moved in one direction by the motive power in the conduit, a spring adapted to move the piston in the opposite direction and a back pressure valve within the oil supply pipe, for the purpose set forth.

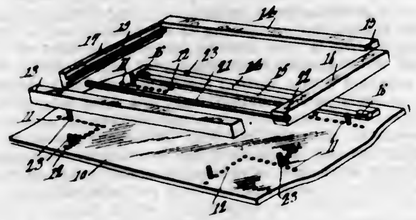
2. In an automatic oiler, the combination with a reservoir, of a stand-pipe supported by the reservoir and including a bottom valve chamber adapted to receive the oil from the reservoir, a hollow perforated plug within the bottom valve chamber, through which the oil passes, a top valve chamber, an oil supply pipe communicating with the top valve chamber, a sight gage in communication with and connecting the two valve chambers and adapted to convey the oil from the hollow plug into the top valve chamber, a nozzle guiding the oil from the hollow plug into the sight gage, a back pressure valve within the nozzle, a gravity valve controlling the opening between the top valve chamber and the sight gage, a pump chamber, a passage leading from the pump chamber to the top valve chamber, such passage being reduced in diameter adjacent to the top valve chamber and tapered to a substantially small orifice leading into the latter, a motive power conduit leading to the pump chamber, a valve controlling the passage through said passage, a piston in the pump chamber and adapted to be moved in one direction by the motive power in the conduit, a spring adapted to move the piston in the opposite direction, and a back pressure valve within the oil supply pipe, for the purpose set forth.

3. In an automatic oiler, the combination with a reservoir, of a stand-pipe supported by the reservoir and including a bottom valve chamber adapted to receive the oil from the reservoir, a top valve chamber, an oil supply pipe communicating with the top valve chamber, a sight gage in communication with and connecting the two valve chambers and adapted to convey the oil from one valve chamber to the other, a nozzle guiding the oil from the bottom valve chamber into the gage, a back pressure valve within the nozzle, a gravity valve controlling the communication between the gage and the top valve chamber, a pump chamber in communication with the top valve chamber, a motive power conduit leading to the pump chamber, a spring controlled piston in the pump chamber and adapted to be moved in one direction by the motive power in the conduit against the influence of the spring, and a back pressure valve within the oil supply pipe.

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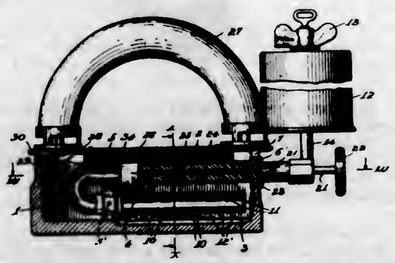
1,092,195. MOLD FOR PLASTIC BLOCKS. EDWARD E. WORKMAN, Lyons, Ind., assignor of one-half to Elias Mees, Lyons, Ind. Filed Aug. 30, 1912. Serial No. 717,978. (Cl. 25—121.)



A mold for plastic blocks embodying a bed plate, side pieces thereon, one of the side pieces having an inner lock tongue forming groove of circular cross section, end pieces slidable betwen the side pieces, and having an inner tongue and groove, respectively, one end piece having a groove in its end adjacent the other side piece, a lock groove-forming rod of circular cross section slidable through the groove last mentioned in the end piece and having one side flattened and resting against the latter side piece, blocks slidable in the groove of the former side piece to cooperate with the respective ends of the end piece, and adjustable means for retaining all of said pieces against separation on the bed plate.

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1,092,196. SELF-HEATING SAD-IRON. DANIEL W. YOUNG, Jr., Chicago, Ill. Filed May 31, 1913. Serial No. 770,984. (Cl. 158—23.2.)



1. In a self heating sad iron, a hollow body having a rectangular recess in its rear wall with smaller recesses extending downwardly from the lower side of said recess; burner mechanism in said hollow body and extending through said rectangular recess; an enlargement on said burner mechanism conforming with and fitted in said rectangular recess; and projections on said enlargement fitting in the recesses at the lower side of said rectangular recess, substantially as described.

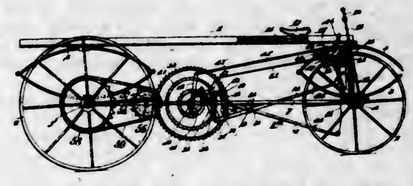
2. In a self heating sad-iron, a hollow body; a burner and a generator arranged in said body in superposed relation; an enlargement at one end of said generator engaging a slot provided in the rear wall of said body for supporting said generator in operative position; pointed ears at the under side of said enlargement engaging recesses in the bottom of said slot for locking said members against relative movement; and a fuel supply communicating with said generator, substantially as described.

3. In a self-heating sad iron, a hollow body; a burner and a generator arranged in said body in superposed relation, the inner ends of said burner and generator being in communication; a fuel supply communicating with the outer end of said generator, said burner having transversely extending fuel discharge openings at the upper and under sides thereof; and obstructions upon the under side of the bottom of said body in alinement with said openings at either side thereof, substantially as described.

4. In a self heating sad iron, a hollow body; a burner in said hollow body having transversely extending fuel openings in its upper and lower sides; and obstructions on the upper side of the bottom of said body in alinement with said openings at either side thereof, substantially as described.

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1,092,197. OPERATING MEANS FOR VELOCIPEDES. LOUIS YUHAS, Chicago, Ill. Filed Mar. 3, 1913. Serial No. 751,920. (Cl. 74—54.)



1. In a device of the kind described, the combination of a frame; a shaft journaled therein; a ratchet wheel fixed on said shaft; a pedal lever pivoted in said frame; a rack bar pivoted at one end of said pedal lever and meshing with said ratchet wheel, a flange on said rack bar; a lever loosely mounted on said shaft; a cam arm pivoted to said lever and having one end engaging said flange; and a connecting link connecting said cam arm with said frame, substantially as described.

2. In a device of the kind described, the combination of a frame; a shaft journaled therein; a smaller ratchet wheel and a larger ratchet wheel fixed on said shaft; a pedal lever pivoted in said frame; two rack bars pivoted to said pedal lever and each meshing with one of said ratchet wheels; a flange on each of said rack bars; a lever loosely mounted on said shaft; two cam arms pivoted to said lever at opposite ends of the pivotal points of the lever, the free ends of said cam arms engaging said flanges; and connecting links connecting said cam arms with said frame, substantially as described.

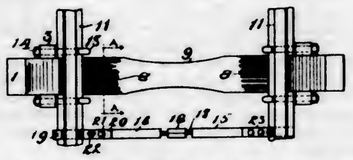
3. In a device of the kind described, the combination of a frame; a shaft journaled therein; a ratchet wheel fixed on said shaft; a pedal lever pivoted in said frame; a rack bar pivoted at one end to said pedal lever and meshing with said ratchet wheel; a flange on said rack bar, and a bell crank lever loosely mounted on said shaft, one arm of said bell crank having a cam surface engaging said flange, substantially as described.

4. In a device of the kind described, the combination of a frame; a shaft journaled in said frame; three ratchet wheels fixed on said shaft; a pedal lever pivoted in said frame; three rack bars pivoted on said pedal lever, two of said rack bars and their coöperating ratchet wheels being adapted to drive said shaft in one direction and the other rack bar and its coöperating ratchet wheel being adapted to drive said shaft in an opposite direction; a flange on each of said rack bars; a lever loosely mounted on said shaft; two cam arms pivoted to said lever on opposite ends of the pivotal point of said lever, the free ends of said cam arms adapted to engage the flanges of two of said rack bars; connecting links connecting said cam arms with said frame; a bell crank lever loosely mounted on said shaft, one arm of said bell crank lever having a cam surface engaging the flange of the remaining rack bar;

and manually operable means connected with said lever and bell crank lever permitting the meshing of only one rack bar and its coöperating ratchet wheel at a time, substantially as described.

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1,092,198. RAILROAD-TIE. CHARLES A. ALLEN, Galion, Ohio. Filed Aug. 12, 1913. Serial No. 784,398. (Cl. 238—5.)



1. A railroad tie embodying a metallic body having an upper and lower walls, the upper wall provided with a corrugated surface extending over those portions of the tie on which the rails are seated, said corrugations adapted to interengage with the base flanges of a rail.

2. A railroad tie comprising a metallic body having an upper and lateral walls, said upper wall provided with inclined seats for the rails, said inclined seats being provided with corrugations interengaging with the flanges of rails seated thereon.

3. A railroad tie comprising a metallic body portion having an upper and lateral walls, the upper face of the upper wall of said tie provided with integral upwardly-extending projections constituting abutments for engaging the side portion of railroad rails, the portions of the upper wall inwardly from said abutments corrugated and constituting seats for rails.

4. A railroad tie comprising a metallic body portion having an upper and lateral walls, the upper face of the upper wall of said tie provided with integral upwardly-extending projections constituting abutments for engaging the side portions of railroad rails, the portions of the upper wall inwardly from said abutments corrugated and inclined and constituting seats for rails.

5. A railroad tie embodying a metallic body portion having an upper and lateral walls, the upper wall provided with an upwardly-extending lug constituting an abutment, the inner face of said abutment adapted to engage the outer face of a rail for holding it in position, said abutment provided with an apertured lug and a hook-shaped bolt positioned in the aperture in said lug with the hook thereof engaging the flange of a rail, and means for shifting the position of said hook for clamping said rail against abutment.

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1,092,199. FOUNTAIN-PEN. FRANK M. ASHLEY, New York, N. Y. Original application filed Dec. 3, 1906, Serial No. 345,979. Divided and this application filed Feb. 27, 1912. Serial No. 680,324. (Cl. 120—48.)



1. A fountain pen comprising a casing having a reservoir therein and an opening at its forward end, a feed-plug located in said opening and provided with an ink duct, a rotatable valve abutting the end of said feed-plug having a port normally in open communication with the duct in said plug, a valve stem extending from the valve into the reservoir; means engaging the stem for rotating said valve to close communication between the reservoir and said ink duct, said feed-plug valve and stem being together removable from the forward end of the casing.

2. A fountain pen comprising a casing having a reservoir therein and an opening at its forward end, a feed-plug located in said opening and provided with an ink duct, a rotatable valve abutting and connected to the end of said feed-plug having a port normally in open communication with the duct in said plug, a valve stem extending within the reservoir, means engaging the stem for rotating said valve to close communication between the reservoir and said ink duct, said feed-plug, valve and stem being freely removable together from the end of the casing.

3. A fountain pen comprising a casing having a reservoir therein and an opening at its forward end, a feed-plug located in said opening provided with an ink duct, a rotatable valve abutting said feed-plug and having a port normally in open communication with said ink duct, and means extending from said valve to the rear end of said casing by which said valve may be rotated to close communication between said reservoir and ink duct, said feed-plug and valve being freely removable from the casing.

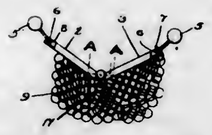
4. A fountain pen comprising a casing having a reservoir therein and an opening at its forward end, a feed-plug located in said opening and provided with an ink duct which extends longitudinally of said feed-plug and is provided with a vertical extension at its rear end and a rotatable valve provided with two ports located diametrically opposite each other and normally in open communication with said ink duct, and means connected to said valve and extending to the rear end of said casing through which said valve may be rotated to cut off communication between said reservoir and said ink duct.

5. A fountain pen comprising a casing having a reservoir therein and an opening at its forward end, a feed-plug located in said opening and provided with an ink duct which extends longitudinally of said feed-plug and is provided with a transverse extension at its rear end and a rotatable valve provided with two ports located diametricaly opposite each other one above the other and in open communication with said ink duct when the pen is held in position for writing, and means for connecting said valve and said feed-plug together.

[Claim 6 not printed in the Gazette.]

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1,092,200. HAND-BAG. CHARLES C. BALL, Irvington, N. J. Filed July 8, 1911. Serial No. 637,438. (Cl. 150—29.)



1. In a bag, the combination with a bag frame having hinged sections, and a body portion with its edge attached to said frame sections intermediate their points of hinging, of supports pivotally mounted on the hinge pins of said frame and connected to the edge of the body portion intermediate the attachments thereof to the frame sections.

2. In a bag, the combination with a bag frame comprising sections hinged together, and a body with its edge attached to said frame sections intermediate their points of hinging, of supports pivotally mounted on the hinge pins of said frame each between the two frame-section ends and connected to the edge of the body portion intermediate the attachments thereof to the frame sections.

3. In a bag, the combination with a bag frame having sections with overlapping ears at their extremities, hinge pins one through each pair of overlapping ears, and a bag body having its edge attached to said frame sections intermediate their points of hinging, of supports each having a main portion pivotally mounted on one of said hinge pins flatwise between the said ears and an arm depending from said main portion, and means connecting the edge of the bag body to said arm intermediate the said attachments of said edge to the bag frame sections.



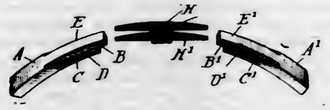
4. In a bag, the combination of a bag frame having sections overlapped at their ends and hinge pins therethrough, one overlapping end on each pin being recessed at its face next the other on the same pin, and a bag body having its edge attached to said frame sections intermediate their points of hinging, of supports each having a main portion pivotally mounted on one of said hinge pins in the said recess of one of the said overlapping frame section ends thereon and an arm projecting from said main portion, the two arms being connected to the edge of the bag body at points intermediate the attachments of said edge to the bag frame sections.

5. In a bag, the combination with a bag frame having sections overlapped at their ends and a hinge pin therethrough, one of the overlapping ends being recessed at its face next the other and having the wall of such recess cut away at the side of the recess away from the frame sections when closed, of a support having a body portion pivotally mounted on the hinge pin in said recess of one of the overlapping ends of the bag frame sections and an arm projecting through said cut-away side, the bag body being attached to said arm.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,201. PISTON PACKING-RING. ROY L. BURD, Chicago, Ill. Filed May 6, 1913. Serial No. 765,750. (Cl. 121—108.)



1. A split packing ring for pistons and the like, having the ends thereof rabbeted on their convex faces to form shoulders, a coupler comprising a member fitting upon the shoulders and a portion extending under the ends of the ring whereby both outward and inward movement of the bridge piece relative to the ring ends is limited.

2. A split packing ring for pistons and the like, the meeting ends of which are cut away to form shoulders on the same plane secant to the outer circumference of the ring, and a coupling having members with straight inner edges adapted and arranged to overlie said shoulders, and a portion extending beneath the meeting ends of the ring.

3. A split packing ring for pistons and the like, having the opposite edges of the convex faces of its ends rabbeted to form longitudinal shoulders, a coupler comprising a pair of longitudinal members fitting upon said shoulders, and a cross-member extending beneath the ends and securing the longitudinal members together.

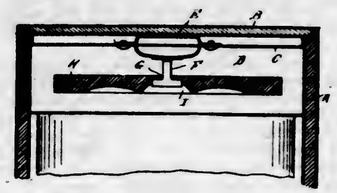
4. A split packing ring for pistons and the like, the ends of which are rabbeted on their exterior edges to form shoulders cut away interiorly, a coupler having longitudinal members adapted to rest upon said shoulders, and a cross-member connecting the same and adapted to underlie the cut-away portion of the ends.

5. A split packing ring for pistons and the like, having its outer edges rabbeted to form longitudinal shoulders in a common plane secant to the outer circumference of the ring and under-cut to form a transverse groove or passage formed partly in each end of the ring, and a coupler comprising a pair of longitudinally extending members adapted to fit within said rabbets, and a transverse member adapted to extend beneath the ends of the ring within said groove.

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1,092,202. FIRELESS COOKER. WILLIAM E. CAMPBELL, Detroit, Mich. Filed Jan. 2, 1912. Serial No. 668,861. (Cl. 62—23.)

1. The combination with a heat-insulated receptacle comprising a casing provided with heat-insulating packing, a cover that acts as a closure for the heating chamber formed by the said casing and that is provided with a handle for removing it, a hanger depending from said cover and removable therewith, and a radiator provided with means wherewith the hanger may be detachably engaged to handle the radiator and support the same in the heating chamber, substantially as described.



2. The combination with a heat-insulated receptacle comprising a casing provided with heat-insulating packing, a cover that acts as a closure for the heating chamber formed by the said casing and that is provided with a handle for removing it, a hanger in the form of a key depending from said cover and removable therewith and a radiator provided with a circular recess opening at the top in a slot whereby the key hanger may be inserted through the slot and given a quarter turn to removably attach it to the radiator so that the radiator may be handled by the key and supported by the same in the heating chamber, substantially as described.

3. The combination with a heat-insulating receptacle comprising a casing provided with heat-insulating packing, a cover that acts as a closure for the heating chamber formed by the said casing and that is provided with a handle for removing it, a hanger in the form of a key depending from said cover and removable therewith, a radiator provided with a circular recess, opening at the top of the radiator in a slot, whereby the hanger may be inserted in the slot and turned a quarter of a turn to connect the same together and a supplemental hanger attachable to the said first mentioned hanger and provided with a key portion that may be inserted in the slot of the radiator, whereby the radiator may be supported at different heights in the heating chamber to vary the heating effects, substantially as described.

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1,092,203. STRAP-TIGHTENER. WILSON EDWARD CARTER, Buxton, Iowa. Filed Apr. 1, 1909. Serial No. 487,322. (Cl. 24—69.)



1. A strap tightener comprising a body having an opening formed near one end thereof and having a flat upper surface, a flat leaf spring having one end secured to the under side of the body, ears integral with the body, one arranged at each side of the opening, a lever pivotally mounted on the body between the ears and provided with an integral depending head projecting into the opening of the body, the head having a flat lower surface adapted to be engaged by the free end of the spring, the lever and body portion having alined recesses adapted to form seats, a link arranged in the seats and provided with fixed washers to engage, one on each side of the head of the lever, the washers constituting means for holding the ring centered.

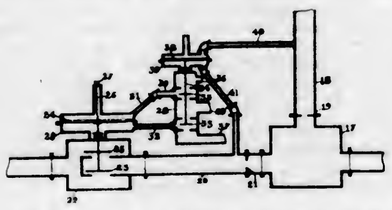
2. A strap tightener comprising a body having an opening formed near one end thereof and having its opposite corners adjacent the opening beveled off, a flat leaf spring having one end secured to the under side of the body, ears integral with the body, one arranged at each side of the opening, a lever pivotally mounted on the body between the ears and provided with an integral depending

head projecting into the opening of the body, the head having a flat lower surface adapted to be engaged by the free end of the spring, the lever having a seat or recess in its head and offset from the pivot of the lever, an isosceles trapezoid shaped link adapted to be received in said seat or recess of the head when the lever is closed, the beveled off corners of said body adapted to be engaged by said link and constituting means to prevent lateral displacement of the link.

3. A strap tightener comprising a body having an opening formed near one end thereof and having its opposite corners adjacent the opening beveled off, a flat leaf spring having one end secured to the under side of the body, ears integral with the body, one arranged at each side of the opening, a lever pivotally mounted on the body between the ears and provided with an integral depending head projecting into the opening of the body, the head having a flat lower surface adapted to be engaged by the free end of the spring, the lever and the body having alined recesses adapted to form seats, a substantially isosceles trapezoid shaped link adapted to engage said seats when the lever is closed and provided with fixed washers to engage, one on each side of the head of the lever, the washers constituting means for holding the link centered relative to the lever, said beveled off corners constituting means to be engaged by said link to prevent lateral movement of the link.

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1,092,204. GAS-REGULATOR FOR MIXING-CHAMBERS. FRANK L. CROSS, Madison, Wis. Filed June 20, 1910. Serial No. 567,840. (Cl. 48—184.)

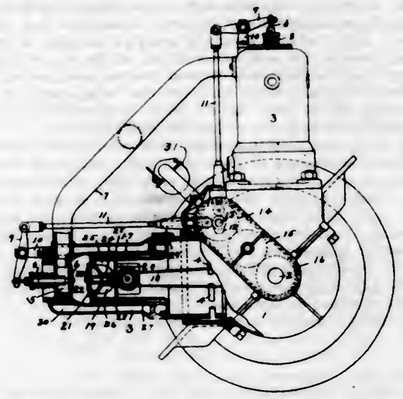


1. In gas apparatus, a chamber having two inlets and an outlet, a primary conduit in communication with one inlet, a secondary conduit in communication with the other inlet, fluid pressure operated means regulating the flow through the secondary conduit, and means controlled by the inlet pressure in the primary conduit and adapted to admit operating fluid to the flow regulating means of the secondary conduit to tend to lessen the resistance to the flow through the secondary conduit when the pressure in the primary conduit rises and to restrict said flow when said pressure falls.

2. In gas apparatus, a chamber having two inlets and an outlet, a primary conduit in communication with one inlet, a secondary conduit in communication with the other inlet, means for regulating the flow through the secondary conduit adapted to be operated by fluid under pressure, and means controlled by the inlet pressure in the primary conduit and adapted to admit operating fluid to the regulating means, the latter being adapted to tend to lessen the resistance to the flow through the secondary conduit when the pressure in the primary conduit rises and to increase the resistance to the flow when the said pressure falls.

3. In gas apparatus, a chamber having two inlets and an outlet, a primary conduit in communication with one inlet, a secondary conduit in communication with the other inlet, a fluid pressure operated valve regulating the flow through the secondary conduit, and mechanism controlled by the inlet pressure of fluid in the primary conduit and adapted to admit operating fluid to the said valve to tend to open said valve when the inlet pressure in the primary conduit increases and to close it when the said pressure falls.

1,092,205. EXPLOSIVE-ENGINE. GEORGE F. DILLIG, Baltimore, Md. Filed Apr. 9, 1912. Serial No. 689,499. (Cl. 123—47.)



1. An explosive engine comprising a crank-case, a crank-shaft mounted in said case, a differential cylinder having communication with the crank-case and having an exhaust port in its outer end, a differential piston having a chambered outer end, a passage between the ends of the piston, and ports leading from the chamber in the outer end of the piston to said passage, a valve to control communication between the chamber in the piston and the combustion chamber, and means connecting said piston with the crank-shaft.

2. An explosive engine comprising a crank-case, a crank-shaft mounted in said case, a differential cylinder having communication with the crank-case and provided with an exhaust port in its outer end, a differential piston having a chambered outer end, a passage between the ends of the piston, and ports leading from the chamber in the end of the piston to said passage, said chamber being provided with a number of radiating ribs and an opening leading to the combustion chamber, a valve to control communication between the piston chamber and the combustion chamber, and means connecting the piston with the crank-shaft.

3. An explosive engine comprising a crank-case, a crank-shaft mounted in said case, a differential cylinder provided with an exhaust port in its outer end and a number of annularly disposed ports in its inner end communicating with the crank-chamber, a differential piston having a chambered outer end and turned down, or contracted, on its outer surface between the ends thereof to form a passage between the piston and the differential cylinder and a number of annularly disposed ports leading from the said passage to the chamber in the end of the piston, a valve to open and close communication between the chamber in the end of the piston and the combustion chamber, and means connecting said piston with the crank-shaft.

4. An explosive engine comprising a crank case, a crank-shaft mounted in said case, a differential cylinder provided with an exhaust port in its outer end and a number of annularly disposed ports in its inner end communicating with the crank chamber, a differential piston having a chambered outer end, and turned down, or contracted, on its outer surface between the ends thereof to form a passage between the piston and the differential cylinder and a number of annularly disposed ports leading from said passage to the chamber in the end of the piston, said chamber being provided with a number of integral radiating ribs and an opening leading to the combustion chamber, a valve to control communication between the said piston chamber and the combustion chamber, and means connecting the piston with the crank-shaft.



5. An explosive engine comprising a crank-case, a crank-shaft mounted in said crank-case, a differential cylinder having annularly disposed ports in its inner end communicating with the crank-chamber and an exhaust port in its outer end, a differential piston in said differential cylinder provided with a chamber in its outer end having an opening leading to the combustion chamber, and a valve to open and close said opening, said piston being turned down, or contracted, on its outer surface between the ends thereof to form a passage between the piston and the differential cylinder, and annular disposed ports leading from said passage to the chamber in the end of the piston, a valve to control the opening and closing of said exhaust port, means operated by the crank-shaft for opening and closing said exhaust valve, and means connecting the piston with the crank-shaft.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,206. PROCESS OF MAKING CATALYZERS. CARLETON ELLIS, Montclair, N. J. Filed Aug. 30, 1913. Serial No. 787,545. (Cl. 23—28.)

1. The process of producing catalytic material adapted for use in the hardening of fatty oils which comprises forming an arc between electrodes comprising nickel material and in the presence of a liquid medium, and in collecting the finely divided nickel-containing precipitate resulting from the eroding action of such arc.

2. The process of producing catalytic material adapted for use in hardening fatty oils which comprises passing an electric current of arc-forming strength between electrodes comprising nickel material and in the presence of a liquid medium and in collecting the finely divided nickel-containing precipitate resulting from the eroding action of said electric current.

3. The process of producing catalytic material adapted for use in the hardening of fatty oils which comprises subjecting a thick mass of nickel as an electrode to the action of an electric arc and in the presence of a liquid medium; whereby nickel of a substantially-colloidal form is obtained, and in collecting the precipitate resulting from the eroding action of such arc.

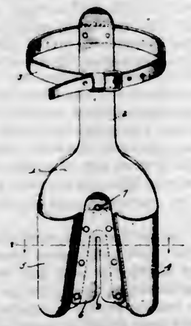
4. The process of producing catalytic material which comprises forming an arc between nickel electrodes in the presence of water and in collecting the finely divided nickel containing precipitate resulting from the eroding action of such arc.

5. The process of producing catalytic material which comprises forming an arc between nickel electrodes in the presence of distilled water and in collecting the finely divided nickel containing precipitate resulting from the eroding action of such arc.

[Claim 6 not printed in the Gazette.]

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1,092,207. HAND-PROTECTOR. WALTER FREDRICKSON, Porterville, Cal. Filed Feb. 24, 1913. Serial No. 750,344. (Cl. 2—104.)

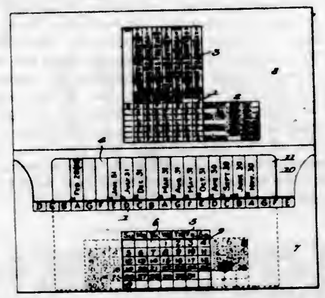


1. A hand protector including a back portion partly reduced and prolonged to engage a wrist band adapted to be passed about the wrist of the operator, finger stalls made integral with said back portion and a guide plate connecting said finger stalls and back portion.

2. A hand protector including a back portion partly reduced and prolonged to engage a wrist band adapted to be passed about the wrist of the operator, finger stalls made integral with said back portion and a longitudinally slotted guide plate connecting said finger stalls and back portion.

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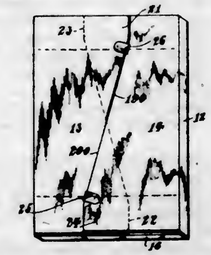
1,092,208. PERPETUAL CALENDAR. EDWARD D. GRABER, Greenwich, Conn. Filed May 13, 1911. Serial No. 626,917. (Cl. 40—109.)



A perpetual calendar comprising a pocket provided with an aperture, and a slide projecting from said pocket, said slide being of less width than the pocket and being adapted to slide laterally therein, said pocket having a single row of dominical letters arranged recurrently and in order along the edge thereof and a week-day column arranged along an edge of the aperture, while the slide has a month-column in which each month is printed but once arranged along its projecting edge adjacent to the dominical letters, and month-day columns adapted to appear through the aperture adjacent to the week-day column.

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1,092,209. MAILING-WRAPPER. HERMAN L. GREVE, New York, N. Y. Filed Apr. 17, 1913. Serial No. 761,712. (Cl. 229—87.)



1. A wrapper formed of stiff fibrous material having a bottom portion and meeting flaps continuing from said bottom portion, said flaps being formed with registering notches which divide the edges of the same into a plurality of sections, the sections of one flap alternately overlapping and underlying the corresponding sections of the other flap and fasteners attached to the underlying flap sections adapted to engage the exposed flap sections to hold the same flat against each other.

2. A wrapper formed of stiff fibrous material having a bottom portion and meeting flaps continuing from said bottom portion, said flaps being formed with registering inclined notches which divide the edges of the same into a plurality of sections, one section of one flap overlapping one section of the other flap and the other section of the first flap underlying the other section of the second flap,

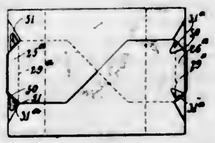
and fasteners attached to the underlying flap sections adapted to be bent over to engage the inclined edges of the exposed flap sections.

3. A wrapper formed of stiff fibrous material comprising a bottom portion and flaps continuing from said bottom portion, said flaps being formed with V shaped notches, the apices of which are adapted to meet when the flaps are in interengaging relation, said notches dividing the edges of the flaps into a plurality of sections, the sections of one flap alternately overlying and underlying the adjacent sections of the other flap and angularly disposed fasteners attached to the underlying flap sections and adapted to engage the overlying sections at their inclined edges.

4. A wrapper formed of stiff, fibrous material comprising a bottom portion and flaps continuing from said bottom portion, one pair of oppositely disposed flaps being formed with V shaped notches and overlying the other flaps, the apices of the notches meeting when the flaps are in interengaging relation, said notches dividing the edges of the flaps into a plurality of sections, one of the sections of one flap overlying the adjacent section of the other flap and the other section of the first flap underlying the adjacent section of the second flap, and angularly disposed fasteners consisting of flat strips of metal attached to the underlying flap sections adapted to be bent over to engage the overlying sections at their inclined edges.

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1,092,210. MAILING-WRAPPER. HERMAN L. GREVE, New York, N. Y. Filed Apr. 17, 1913. Serial No. 761,713. (Cl. 229—87.)



1. A wrapper having a body portion, end flaps, and meeting side flaps extending over the end flaps, said side flaps being formed with registering projections and fasteners attached to the end flaps adapted to engage the projections to hold the side flaps firmly to the end flaps.

2. A wrapper having end and side walls, end flaps and side flaps extending from the respective walls, said side flaps being formed with registering projections, and fasteners attached to the end flaps adapted to engage the projections to hold the side flaps firmly to the end flaps.

3. A wrapper having a body portion, end flaps, and meeting interlocking side flaps extending over the end flaps, said side flaps being formed with registering projections and fasteners attached to the end flaps adapted to engage the projections to hold the side flaps firmly to the end flaps.

4. A wrapper having walls, opposed flaps extending from said walls, one pair of said flaps interlocking with each other and formed with registering projections at their ends, and fasteners attached to the other of the flaps and engaging said end projections.

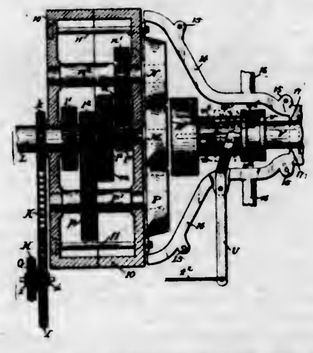
5. A wrapper comprising a bottom portion, two pairs of opposed flaps extending therefrom, the meeting edges of one pair of said flaps having registering notches dividing the flaps into a plurality of interlocking sections, said interlocking flaps being formed with registering end projections, and fasteners attached to the other pair of flaps for retaining said projections.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,211. AUTOMOBILE TRANSMISSION-GEARS. GEORGE F. GROVE, Madison township, Montgomery county, Ohio. Filed Oct. 9, 1913. Serial No. 794,342. (Cl. 74—59.)

1. The combination in a device for the transmission of motion; of the main shaft and its gearing; the inclosing casing mounted on said main shaft; other shafts each having a gear wheel and a cone and journaled in said casing, an idle gear-wheel within said casing; a dial extending from the casing of the steering post for indicating when a respective cone is in position for a desired speed; speed changing mechanism connected with the casing of the steering post for rotating a respective cone in position for a desired speed; another inclosing casing suitably supported; a drive shaft carrying a clutch inclosed by said last mentioned casing; a dial extending from the casing of the steering post for indicating when said clutch has engaged or disengaged a respective cone; and mechanism connected with the casing of the steering wheel for operating said clutch so as to throw same in or out of engagement with a respective cone; all substantially as and for the purposes described.



2. In a means for transmitting motion to automobiles; an engine shaft having mounted thereon gear wheels; a casing floating upon said engine shaft for inclosing the gear wheels of same; several shafts each carrying a gear-wheel and a cone, and journaled in said casing; an idle gear-wheel revolubly supported within said casing; an indicating dial and suitable mechanism connected to the tubular casing of the steering post for throwing the respective cone in alinement with the clutch so as to obtain the speed desired; a second casing inclosing the cones; a drive shaft revolubly supported within said casing and arranged on a level plane below the engine shaft and provided with a spring actuated clutch; a clutch indicating dial and mechanism extending from the tubular casing, and bifurcated lever for operating said clutch; all substantially as described.

3. In a device for the transmission of motion; a main shaft upon which is mounted several gear-wheels; an inclosing casing provided with a sprocket-wheel, and adapted to float upon said main shaft; shafts journaled in said casing each carrying a gear-wheel and a cone, said shafts arranged in a circle around said engine shaft; an idle gear wheel supported within said casing; a second inclosing casing adapted for revolubly supporting therein a drive shaft carrying a spring actuated clutch; a dial extending from the tubular casing of the steering post, and having characters thereon indicative of the speed and when the respective cone is in alinement with said clutch; a shaft, pinions, sprocket wheels and chains for changing the speed; and a dial extending from the tubular casing of the steering post having characters thereon to indicate whether said clutch is in or out of engagement with a respective cone; a shaft, bell-crank lever, bifurcated lever and connections for operating said clutch; all substantially as described.

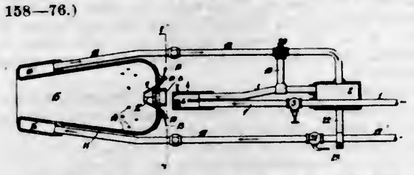
4. Transmission gears for automobiles, comprising;—an engine shaft provided with gear wheels of varying sizes; an inclosing casing for said gear wheels and provided with a sprocket-wheel and adapted to float upon said engine shaft; several shafts journaled in said casing each provided with a gear wheel in mesh with a respective one of the gear wheels on said engine shaft, and each carrying a cone; an idle wheel within said casing in mesh with one of the gear wheels of said engine shaft; another shaft also journaled within said casing and having a gear wheel in mesh with said idle gear wheel and provided with a cone; another casing suitably supported; a drive shaft supported within said last mentioned casing, carrying a spring actuated sleeve and clutch; speed changing dial and mechanism connected to the tubular casing of the steering post, for revolving the gear inclosing casing so as to bring a respective cone at its lowest point and in alinement with said clutch; and a clutch operating dial and mechanism for throwing said clutch in or out of engagement with said lowermost cone; all substantially as described.



5. The combination in automobile transmission gears; of the engine shaft carrying gear wheels varying in size; an inclosing casing upon said engine shaft; several shafts journaled in said casing and each carrying a gear wheel in mesh with one of the gear wheels of said engine shaft and provided with a cone; an idle gear wheel mounted on a short shaft within said casing and in mesh with one of the gears on the engine shaft, also in mesh with one of the gear wheels of one of the other shafts; a dial extending from the tubular casing of the steering post for indicating the desired speed, and mechanism connected to the tubular casing of the steering post for rotating the inclosing casing and the gears so as to bring the desired cone in position to give the speed indicated on said dial; a drive shaft on a level plane below said engine shaft and carrying a spring actuated sleeve and clutch, said clutch adapted to engage or disengage the respective cone for the speed desired; and a dial extending from the tubular casing of the steering post for indicating when said clutch has engaged or disengaged the cone, and clutch operating mechanism extending from the tubular casing inclosing the steering post; all substantially as described.

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1,092,212. OIL-BURNER. ARTHUR E. HAUCK, Brooklyn, N. Y. Filed June 18, 1912. Serial No. 704,320. (Cl. 158—76.)



1. In a heavy oil burner, the combination with a combustion chamber and a mixing device for projecting a blast of air and oil therein, of means for regulating the amount of air drawn into said combustion chamber by the blast comprising a multiple part funnel having its parts relatively adjustable to control the passage of air.

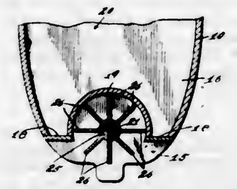
2. In a heavy oil burner, the combination with a conically formed combustion chamber having a flame nozzle at its outer end, an air jacket surrounding said nozzle, and a funnel at the opposite end, of a mixing device adjacent said funnel, an adjustable air regulating cone between said mixing device and said combustion chamber, an air conduit between said air jacket and said mixing device, an oil conduit connected to said mixing device and passing through a portion of said air conduit, said air conduit having a by-pass about said portion of said air conduit, an oil regulating means in said oil conduit located between said mixing device and said air conduit, and a valve for controlling the flow of the heated air either directly through said by-pass to said mixing device or indirectly thereto around said oil conduit.

3. An oil burner comprising a hollow combustion chamber having a gas inlet at one end and a flame outlet at the opposite end, a multiple part funnel within said chamber adjacent said inlet, means for adjusting the parts of said funnel to regulate the admission of air to said combustion chamber, said means being concentric with said inlet opening and movable longitudinally thereof to expand and contract said funnel, and a fuel nozzle adjacent said inlet.

4. An oil burner comprising a hollow combustion chamber having a gas inlet at one end and a flame outlet at the opposite end, an air jacket surrounding said flame outlet, a multiple part funnel within said chamber adjacent said inlet, means for adjusting the parts of said funnel to regulate the admission of air to said combustion chamber, said means being concentric with said inlet opening and movable longitudinally thereof to expand and contract said funnel, and a fuel nozzle adjacent said inlet having connections respectively with said air jacket and a source of fuel.

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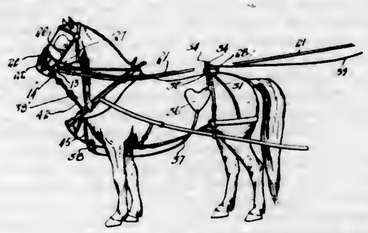
1,092,213. STEERING DEVICE FOR SHIPS. FRANCIS RUSSELL HEMENGER, Algonac, Mich. Filed Mar. 29, 1913. Serial No. 757,641. (Cl. 115—50.)



In a steering device for ships, the combination with a hull having passageways extending across its bow and stern, said passageways being open at the bottom and at both ends, the tops of said passageways being closed by horizontal end walls, said end walls being connected by semi-circular walls forming housings, the sides of said passageways being closed by bulkheads, shafts journaled in the bulkheads and extending across the passageways, steering propellers mounted on the shafts, and means for rotating the shafts.

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1,092,214. BRIDLE AND BIT. ANDREW J. HENTSCHEL, Schulenburg, Tex. Filed Mar. 7, 1913. Serial No. 752,780. (Cl. 54—15.)



1. A strangler bridle comprising a plate for engagement over the animal's nose, extensions on the plate, said extensions being adapted for attachment of the driving reins, shafts rotatably mounted on the plate, arms secured to the shafts and extending laterally from the plate, chains secured at their opposite ends to the extensions, and bars on the arms for engagement against the nostrils of the animal.

2. In a horse checking device, the combination with a bridle and crupper strap of a harness, of a strangler device mounted on the bridle over the horse's nostrils, a chain connected to the strangler, a strap resiliently connected to the chain, said chain passing through the collar of the harness, a detent carried by the collar and engaging the chain to limit the upward movement thereof, a plate attached to the end of the strap, releasable means carried by the crupper strap for supporting the plate, and means for releasing the said plate to permit the same to fall to the ground for the horse to step on.

3. In a horse checking device, a strangler carried by the bridle, and releasable holding means carried by the crupper strap of the harness, means connected to the strangler at

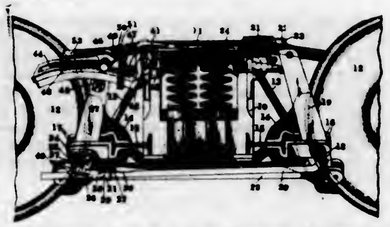
one end and supported at the other end by the holding device for engagement by the driving reins to release the said means for the animal to step upon to actuate the strangler, connections between the strangler and the means for the animal to step upon, means carried by the collar of the harness to prevent release of the strangler, and means carried by the said connections arranged to engage the collar and limit the downward pull of the animal's head.

4. A controlling device for a horse comprising a strangling device carried by the bridle, a driving rein resiliently connected to the strangling device, and a slack rein connected to the bridle, whereby a pull on the resiliently connected rein will draw the second line taut and actuate the strangling device.

5. In a horse checking device, a strangler carried by the bridle, and releasable holding means carried by the crupper strap of the harness, means connected to the strangler at one end and supported at the other end by the holding device for engagement by the driving reins to release the said means for the animal to step upon to actuate the strangler, and means carried by the collar of the harness to prevent release of the strangler.

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1,092,215. SLACK-ADJUSTER. LOUIS A. HOERR, St. Louis, Mo. Filed Dec. 11, 1912. Serial No. 736,086. (Cl. 188—50.)



1. In a slack adjuster for car brakes, the combination with a pair of brake beams, of a live lever pivoted to one side of said beams, a dead lever pivoted to the other of said beams, a rigid connection between the lower ends of said lever, an automatically adjustable connection between the pivoted points of said levers, a pivoted ratchet bar engaging with the upper end of said dead lever and coöperating with said adjustable connection to compensate for slack, and a stop for limiting the return movement of said pivoted ratchet bar in one direction.

2. In a slack adjuster for car brakes, the combination with a pair of brake beams, of a live lever pivoted to one of said beams, a dead lever pivoted to the other of said beams, a rigid connection between the lower ends of said lever, an automatically adjustable connection between the pivoted points of said levers, a ratchet bar, a dog carried by said dead lever and engaging with said ratchet bar, a spring for holding said dog in engagement with said bar, and means for adjusting the tension of said spring.

3. In a slack adjuster for car brakes, the combination with a pair of brake beams, of a live lever pivoted to one of said beams, a dead lever pivoted to the other of said beams, a rigid connection between the lower ends of said levers, an automatically adjustable connection between the pivoted points of said levers, a ratchet bar, a dog carried by said dead lever and engaging with said ratchet bar, said dog being provided with a tail piece for disengaging with said ratchet bar, a spring normally holding said dog in engagement with said ratchet bar, and means for adjusting the tension of said spring.

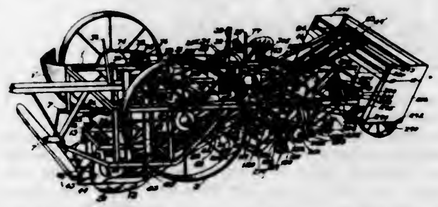
4. In a slack adjuster for car brakes, the combination with a pair of brake beams, of a live lever pivoted to one of said beams, a dead lever pivoted to the other of said beams, a rigid connection between the lower ends of said levers, an automatically adjustable connection between the pivoted points of said levers, a ratchet bar, a dog carried by said dead lever and engaging with said ratchet bar, said dog being provided with a tail piece for disengaging with said ratchet bar, a spring pressed yoke bearing on said dog, and a set screw carried by said yoke for adjusting the tension of the spring.

5. In a slack adjuster for railway cars, the combination with a pair of brake beams, of a live lever pivoted to one of said beams, a dead lever pivoted to the other of said beams, a rigid connection between the lower ends of said levers, a rod connected to the pivoted point of one of said levers and provided with ratchet teeth, a sleeve surrounding said rod and provided with a dog engaging with said teeth, and a slotted lug carried by said sleeve and engaging with the pivot bolt of the other of said levers, said pivot bolt having a collar adjacent to said lug to prevent binding of the lug.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,216. BEET-HARVESTER. ELBERT H. HOLLIS, Kansas City, Kans., assignor of forty-nine one-hundredths to John Thomas, Kansas City, Kans. Filed Oct. 15, 1912. Serial No. 725,774. (Cl. 55—9.)



1. A beet harvester comprising a conveyer adapted for engaging the tops of a beet, means for holding the body of a beet, a top cutter, and a trimmer adapted for actuation following the actuation of the top cutter.

2. A beet harvester comprising means for removing a beet from the ground, conveyer and elevator mechanisms adapted for separately delivering beet tops and bodies, means for separating the bodies from the tops during the travel of the beet through the harvester, and means for trimming the heads of the beets following the top cutting operation.

3. In a beet harvester, a conveyer adapted for engaging the tops of beets and carrying same through the harvester, a gripper adapted for interrupting the travel of the beet bodies, a trimmer, means for cutting the tops from the bodies, and mechanism for moving the gripper toward and from the trimmer and for delivering the beet as the gripper approaches initial position.

4. A beet harvester comprising a conveyer, means for removing beets from the ground and delivering same to the conveyer, a sub-conveyer adapted for engaging the beet bodies, a top cutter, a gripper adapted for receiving the beet bodies from the sub-conveyer, a trimmer, and mechanism for moving the gripper toward and from the trimmer, and for turning the beet during its movement toward the trimmer.

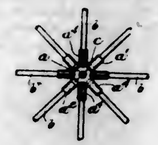
5. In a beet harvester, a conveyer extending continuously through the harvester and adapted for carrying beet tops, a sub-conveyer adapted for holding beet bodies, a gripper adapted for projection into the path of the beet bodies, a trip located within the path of the bodies, mechanism releasable by said trip for closing the gripper and for moving same to and from a trimming position, a trimmer, and means for opening the gripper as the latter reaches a delivery position on its return from the trimmer.

[Claims 6 to 27 not printed in the Gazette.]

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1,092,217. CONSTRUCTION MEMBER. ALFRED HOPKINS, Boston, Mass., assignor, by mesne assignments, to Bill Deesy Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 18, 1913. Serial No. 785,280. (Cl. 189—36.)

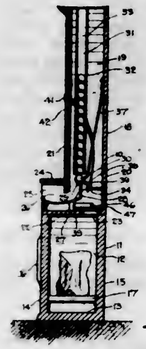
A construction member formed of sheet metal consisting of a flat web or body having a plurality of elongated hollow sockets adapted to receive and frictionally hold rods of a size substantially equal to the size of the sockets, said sockets being flexibly and integrally connected to the body or web so that the connections between the sockets



and the body or web may be bent so as to support the sockets on the body or web in various positions, substantially as described.

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1,092,218. VENDING-MACHINE. OSCAR L. HUTTO, Pelion, S. C. Filed Mar. 26, 1913. Serial No. 757,007. (Cl. 211—8.)



1. In a vending machine, a housing, a plurality of supporting racks arranged therein, a plurality of operating springs arranged in the housing in connection with said racks, fingers formed on said springs, a rotatable shaft in said housing, a plurality of fingers carried on said shaft for coöperation with the fingers of said springs, and means also formed on said springs for coöperation with the contents of the racks in vending the same at predetermined times.

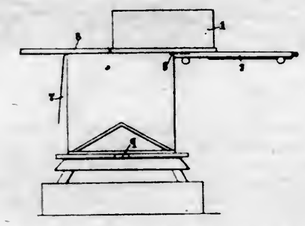
2. In a vending machine, the combination with a housing of racks contained within the housing, a support disposed below each rack, springs secured within the housing in the rear of each support, a finger formed upon each spring, a rotatable shaft, fingers formed upon the shaft to coöperate with the fingers upon the springs, as and for the purposes set forth.

3. In a vending machine such as described, a housing, a plurality of racks contained within the housing, a trough disposed within the housing, supports formed upon the trough and disposed adjacent the racks, springs within the housing and disposed adjacent the supports, fingers formed upon said springs, a rotary shaft, fingers formed upon the rotary shaft for coöperation with the fingers upon the springs, and means whereby the aforesaid fingers may be actuated to vend the articles contained in the housing.

4. In a vending machine such as described, the combination with a housing, a trough disposed within the housing, extensions formed upon the trough, concaved flanges formed upon the extensions, racks disposed above the concaved flanges, springs secured within the housing, said springs being bowed toward the concaved flanges, fingers depending from the bowed portions of the springs, a rotary shaft, fingers formed upon the rotary shaft and arranged in pairs to coöperate with the fingers of the springs, and means whereby the aforesaid fingers and parts connected therewith may be actuated to vend articles contained in said housing.

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1,092,219. APPARATUS FOR REMOVING THE HONEY FROM BEEHIVES. HENRY EDWARD JOLY, Rathangan, Ireland. Filed Oct. 30, 1912. Serial No. 728,643. (Cl. 6—12.)



1. Apparatus for obtaining the honey from beehives having in combination a removable crate containing the honeycomb and some of the bees, a platform for receiving said crate and for preventing the escape of bees therefrom, and a closing member for preventing the escape of bees from the hive while the said crate is being removed therefrom.

2. Apparatus for obtaining the honey from beehives having in combination, a removable crate containing the honey comb and some of the bees, a platform for receiving said crate and for preventing the escape of bees therefrom, a door in said platform adapted to allow the escape of bees from said crate, and a closing member for preventing the escape of bees from the hive while said crate is being removed therefrom.

3. Apparatus for obtaining the honey from beehives, having in combination, a hive, a wall of said hive having recesses in the top thereof, a removable crate containing the honeycomb and some of the bees, a platform for receiving said crate and for preventing the escape of bees therefrom, projections upon said platform adapted to coöperate with said recesses, and a closing member for preventing the escape of bees from said hive while the crate is being removed therefrom.

4. Apparatus for obtaining the honey from beehives having in combination, a hive, a wall of said hive having recesses in the top thereof, a removable crate containing the honeycomb and some of the bees, a platform for receiving said crate and for preventing the escape of bees therefrom, a door in said platform adapted to allow the escape of bees from said crate, projections upon said platform adapted to coöperate with said recesses and a closing member for preventing the escape of bees from said hive while the crate is being removed therefrom.

5. Apparatus for obtaining the honey from beehives having in combination a removable crate containing the honeycomb and some of the bees, a platform for receiving said crate and for preventing the escape of bees therefrom, a closing member for preventing the escape of bees from the hive while said crate is being removed therefrom, and a quilt attached to said closing member for the purpose set forth.

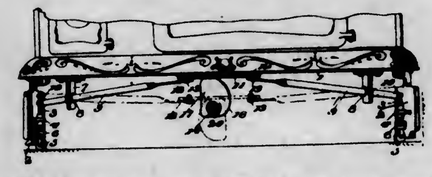
[Claims 6 and 7 not printed in the Gazette.]

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1,092,220. ELEVATING-CASTER. CHARLES W. F. KOCH and ULYSSES G. SHULER, Decatur, Ill. Filed June 12, 1912. Serial No. 703,857. (Cl. 16—166.)

A mechanism of the character described comprising a body, legs fixed to the body, the inner faces of said legs being concaved, brackets supported on said concave faces, sleeves carried by said brackets, standards slidably mounted in said sleeves, casters arranged on the lower terminals of the standards, brackets supported by the body and arranged adjacent the legs, levers pivotally supported by said brackets, said levers being pivotally connected to the

upper terminals of the standards, a plate formed with a plurality of slots, the terminals of the levers being bent at right angles to their body portion and disposed in the same plane as the plate, pins carried by said terminals and extending through the slots in said plate, a shaft supported by the body, and a cam mounted on said shaft and dis-



posed to contact with the plate, said cam being formed with a rounded edge and a straight edge, the plate riding on the rounded edge when it is moved by the cam toward the body to project the standards away from the body and seating upon the straight edge when the standards are moved toward the body.

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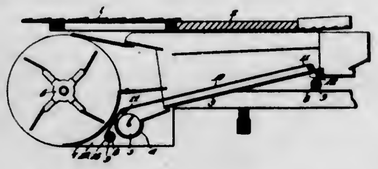
1,092,221. FOOD COMPOSITION FOR STOCK. ARTHUR D. LITTLE, Boston, Mass., assignor to Standard Alcohol Company, New York, N. Y., a Corporation of Maine. Filed July 15, 1912. Serial No. 709,469. (Cl. 99—11.)

1. As a new article of manufacture, a food-product derived from cellulosic materials, said food-product containing sugars resulting from the hydrolytic action of a chlorin-containing hydrolyzing agent, the unconverted residue of the hydrolysis, and sodium chlorid derived from the hydrolyzing agent, and free from excess moisture.

2. The method of preparing food-products from lignocellulose, which consists in subjecting cellulosic materials to a chlorin-containing hydrolyzing agent under conditions to produce sugars, then converting the hydrolyzing agent into sodium chlorid and freeing the mass from excess moisture.

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1,092,222. THRESHING-MACHINE SCREEN. CHARLES L. MANSFIELD, Ravenna, Mich. Filed May 31, 1913. Serial No. 771,123. (Cl. 130—15.)



1. A separator for threshing machines embodying a frame, a plurality of drums carried thereby, an apron attached at its ends to the drums, and having groups of different sized perforations which may be brought into operative position between the drums, a spring for winding up one of the drums, and means coöperating with the other drum for normally constraining it from unwinding.

2. A separator for threshing machines embodying a frame, a pair of shafts carried thereby, a drum secured rigidly on one shaft, a hollow drum mounted loosely on the other shaft, a spring disposed within the last mentioned drum and attached at its ends to the respective shaft and drum, means for locking each of the shafts against retrograde movement, and an apron attached at its ends to the drums and having a plurality of groups of different sized perforations.

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1,092,223. SAFETY-LOCK. CARL AUGUST MÜLLER, Witzenhausen, Germany. Filed Oct. 27, 1908. Serial No. 459,674. (Cl. 70—47.)

1. In a safety lock, a casing, a rotatable plug therein, a plurality of tumblers arranged in said plug and adapted to lock the same, a plurality of counter-tumblers in said casing, and a key controlling said first-mentioned tumblers, which latter are adapted to engage with said counter-tumblers, and said first-mentioned tumblers having such shape that their points of engagement in the casing are not situated in the same plane as the points at which they are engaged by the key, whereby they are rendered substantially inaccessible from the outside.



2. In a safety lock, a casing, a rotatable plug therein, a plurality of tumblers arranged in said plug and adapted to lock the same, a plurality of counter-tumblers in said casing, and a key controlling said first-mentioned tumblers, which latter are adapted to engage with said counter-tumblers, and having such shape that their points of engagement in the casing are not situated in the same plane as the points at which they are engaged by the key whereby they are rendered substantially inaccessible from the outside, the said key comprising a bit portion, a cross-piece carrying the same, and a stem carrying the cross-piece, the said bit portion having a comb-like formation with the teeth lying in the longitudinal direction of the key stem and being radially arranged to position properly the tumblers and counter-tumblers.

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1,092,224. ATTACHMENT FOR FIELD-GLASSES, &c. JOHN T. NESDALL, New York, N. Y. Filed Jan. 26, 1911. Serial No. 604,842. (Cl. 88—38.)

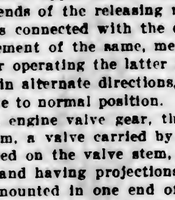


The combination with a field-glass and the like provided with an object-glass, of a reflector disposed in front of said glass, a positioning spindle to which said reflector is connected, a supporting instrumentality in which said spindle is journaled, means for rotating said spindle in either direction to position said reflector in any of a plurality of angular positions relative to the plane of the object-glass, and coacting means on said spindle-rotating means and supporting instrumentality for holding said reflector in any of its adjusted positions.

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1,092,225. STORM-FRONT FOR BABY-CARRIAGES. ALONZO K. RAGSDALE, Hamilton, Ohio. Filed Mar. 26, 1913. Serial No. 756,909. (Cl. 21—81.)

A storm front adapted to be applied to baby carriages and the like, having a top, said storm front comprising a hood-like body having hemmed edges, elastic bands passing through said edges and connected at each side of the body, and an elastic band connected to said first mentioned bands at their intersections, said last mentioned band being adapted to pass around the body of a baby carriage and secure the hood in position with the hemmed



edges overlapping the top and the foot-board of said carriage, respectively.

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1,092,226. STEAM-ENGINE. JAMES E. RANKIN, Fulton, Ky. Filed July 9, 1913. Serial No. 778,149. (Cl. 121—103.)



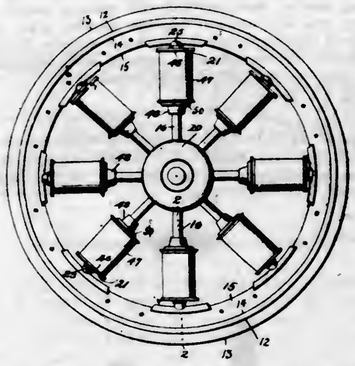
1. The combination in a steam engine valve gear, of a rotary valve stem, a valve carried by said valve stem, a rock arm mounted on the valve stem, a disk mounted on the valve stem and having shoulders formed on its periphery, a laterally directed pin mounted in the rock arm, releasing members mounted on said pin, oppositely directed curved arms carried by the releasing members and adapted to be positioned in the paths of the shoulders on the disk, depending arms mounted on the valve stem and having cam members formed on one end for engagement with the lower ends of the releasing members to actuate the latter, means for controlling movement of the depending arms, means for operating the rock arm to rotate the valve and valve stem in alternate directions, and means for returning the valve to normal position.

2. The combination in a steam engine valve gear, of a rotary valve stem, a valve carried by said valve stem, a rock arm mounted on the valve stem, a disk mounted on the valve stem and having shoulders formed on its periphery, a laterally directed pin mounted in the rock arm, releasing members mounted on said pin, curved arms carried by the releasing members and adapted to be positioned in the paths of the shoulders on the disk, said releasing members having concaved lower ends, depending arms mounted on the valve stem and having cam members formed on their upper ends for engagement with the concaved lower ends of the releasing members to actuate the latter, means connected with the depending arms for controlling movement of the same, means connected with the rock arm for operating the latter to rotate the valve and valve stem in alternate directions, and means for returning the valve to normal position.

3. In a steam engine valve gear, the combination of a rotary valve stem, a valve carried by said valve stem, a rock arm mounted on the valve stem, a disk mounted on the valve stem and having projections formed on its periphery, a pin mounted in one end of the rock arm, releasing members mounted on said pin, oppositely directed arms carried by the releasing members and adapted to be positioned in the paths of the projections on the disk, said releasing members having concave lower ends, depending arms mounted on the valve stem and having cam members formed thereon for engagement with the concave lower ends of the releasing members to actuate the latter, means for controlling movement of the depending arms, means for operating the rock arm to rotate the valve and valve stem in alternate directions, and means for returning the valve to normal position.

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1,092,227. WHEEL. ARTHUR SHERWOOD, New Haven, Conn. Filed Dec. 7, 1911. Serial No. 664,395. (Cl. 152—48.)



1. A wheel including a hub and a hollow rim having a plurality of longitudinal slots, a plurality of spokes extending from said hub and into the hollow rim and through the slots, a covering member for each slot and through which the spokes are slidably disposed, said covering members being arranged externally of the rim and covering and protecting the slots, a clamp member for each covering member within the rim and through which the spokes respectively extend, each of said clamp members having lateral wings bearing against the inner face of the rim, and fastening means connected to the covering member and to the clamp member and extending through the slots.

2. A resilient wheel including a rim and a hub, spokes each formed of an outer tubular member and an inner tubular member telescopically engaging and connected respectively to the rim and to the hub, a cylindrical barrel connected to move with the inner spoke member and extended over the outer spoke member, a plunger carried by the outer spoke member and operating in the barrel, a valve in said plunger, and a member extending into position to be engaged by the cylinder to open said valve when the plunger is moved into an abnormal position.

3. A resilient wheel including a rim and hub, spokes each formed of a plurality of members telescopically engaging, one of the members of each spoke being connected to the hub and each of the other spoke members movably engaging the rim, a cylindrical barrel carried by one of the spoke members, a plunger carried by the other spoke member and operating in the cylindrical barrel, a valve in said plunger, and a member extending into position to be engaged by the barrel for opening said valve when the plunger is moved into an abnormal position.

4. A resilient wheel including a rim and hub, spokes each formed of a plurality of members telescopically engaging, one of the members of each spoke being connected to the hub and each of the other members of each spoke movably engaging the rim, a cylindrical barrel carried by one of the spoke members, a disk carried by the other spoke member and operating in said barrel, an annular packing member carried by said disk and with outwardly directed flanges engaging respectively against the barrel and the rim-engaging spoke member, annular split springs bearing respectively against said flanges, and a plate connected to said packing member and provided with annular guard flanges bearing over said annular springs.

5. A resilient wheel including a rim and hub, spokes each formed of a plurality of members telescopically engaging, one of the members of each spoke being connected to the hub and an outer member of each spoke movably engaging the rim, a cylindrical barrel carried by one of the spoke members, a disk carried by the other spoke member and operating in said barrel, an annular packing member carried by said disk and with outwardly directed flanges engaging respectively against the barrel and the rim-engaging spoke member, annular split springs bearing respectively against said flanges, a plate connected to said packing member and provided with annular guard flanges bearing over said annular springs, another plate bearing upon said disk and provided with an annular flange, and an annular packing member within said last-mentioned flange and bearing against said barrel.

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1,092,228. AIR-COOLED INTERNAL-COMBUSTION ENGINE USED ON MOTOR-BICYCLES. ERNEST SIDWELL, Coventry, England. Filed Apr. 25, 1913. Serial No. 763,639. (Cl. 123—171.)



1. In combination, the cylinder of an air-cooled internal combustion engine, ribs on said cylinder, a spring coil engaging said ribs and surrounding said cylinder, and projecting sufficiently far to act as a shield substantially as set forth.

2. In combination, the cylinder of an air-cooled internal combustion engine, ribs on said cylinder, a spring coil engaging said ribs, and a spring bow contained within said coil and adapted to grip said cylinder substantially as set forth.

3. In combination, the cylinder of an air-cooled internal combustion engine, ribs on said cylinder, an endless spring coil of taper cross-section engaging said ribs and surrounding said cylinder, and projecting sufficiently far to act as a shield substantially as set forth.

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1,092,229. SIGNALING DEVICE. JOHN H. SIMPSON, Providence, R. I. Filed Dec. 11, 1912. Serial No. 736,188. (Cl. 116—31.)



1. The combination with a support; of a pair of vertical rods journaled thereon and spaced from one another, the lower ends of said rods being disposed below said support and being bent rearwardly and thence forwardly, a pair of arms pivoted together at one of their ends and having the opposite ends thereof pivoted respectively to the lower free ends of said rods, signaling members carried on said rods, and operating means connected to said arms, whereby said signals may be individually and simultaneously extended and retracted.

2. A signaling device comprising a support, a pair of vertical rods journaled thereon and spaced from one another, the lower ends of said rods extending slightly below said support and being bent rearwardly and thence forwardly, the latter bent portions of said rods being disposed inwardly toward one another and terminating in a plane forward of the plane of the support, signaling members carried on said rods, a pair of arcuate arms pivoted to one another at their rear ends and having their forward ends respectively pivoted to the free ends of the bent portions of said rods, and an operating rod engaged with said arms at their point of engagement with one another.

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1,092,230. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Original application filed Dec. 31, 1903, Serial No. 187,362. Renewed July 12, 1909, Serial No. 507,086. Divided and this application filed Oct. 21, 1910. Serial No. 588,256. (Cl. 197—27.)



1. The combination of a key, a type bar, a lever pivoted on said type bar, connections between the lever and the key, and a spring connecting the lever to the type bar.

2. The combination of a key, a type bar, a lever upon the type bar, connections comprising a link for connecting the lever to the key, and a spring connecting the lever to the type bar; the link arm of said lever lying radially to the type bar pivot and at an angle to the link when in normal position, and lying substantially in line with said link when the type is in printing position.

3. The combination of a key, a type bar, an elbow lever pivoted on the type bar having a long arm and a short arm, connections comprising a link for connecting the short arm to the key, and a spring connecting the long arm to the type bar.

4. The combination of a key, a type bar, a lever pivoted on said type bar, a connection between the lever and the key, a spring connecting said lever to the type bar, and a stop for said lever upon said type bar.

5. The combination of a type bar, a lever pivoted thereon eccentrically to the pivot of the type bar, a key connected to said lever, and a spring connecting the lever to the type bar.

[Claims 6 to 44 not printed in the Gazette.]

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1,092,231. SYRINGE-TANK. EDWARD TELLESON, Binghamton, N. Y. Filed Sept. 29, 1911. Serial No. 652,012. (Cl. 128—47.)

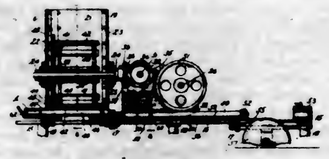


The fountain syringe herein shown and described consisting of a metal body having a large filling spout and a small outlet, a nozzle fitting in said outlet, a fabric covering over the entire body, a band passing centrally around the body and projecting therefrom to form a protector for said body and an arm retained between the body and band and having at its upper end an opening for hanging the syringe in a vertical position.

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1,092,232. MACHINE FOR PACKING PULVERULENT MATERIAL. JAMES C. THOM, Chicago, Ill., assignor to Weyman-Bruton Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 26, 1913. Serial No. 763,757. (Cl. 100—57.)



1. A machine for packing pulverulent material in containers, comprising a receptacle or hopper for said material, a measuring channel opening through said receptacle and provided with means for holding a container, an intermittently movable agitator in said receptacle for stirring the material, means carried by the agitator for separating a determined quantity of material in the channel from the bulk within the receptacle, and means for expelling the measured charge of material from the channel into the container.

2. A machine for packing pulverulent material in containers, comprising a receptacle for said material, a measuring channel opening through said receptacle and provided with means for holding a container, an intermittently movable agitator in said receptacle for stirring the material, means carried by the agitator for closing the outer end of said channel during the filling thereof, and means for expelling the measured charge of the material from the channel into the container.

3. A machine for packing pulverulent material in containers, comprising a receptacle or hopper for said material, a measuring channel opening through said receptacle and provided with means for holding a container, an intermittently movable agitator in said receptacle for stirring the material, means carried by the agitator for separating a predetermined quantity of material in the channel from the bulk within the receptacle, other means carried by the agitator for closing the outer end of said channel during the filling thereof, and means for expelling the measured charge of material from the channel into the container.

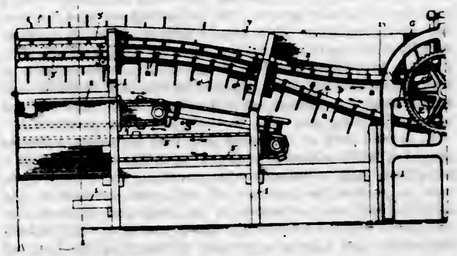
4. A machine for packing pulverulent material in containers, comprising a receptacle for said material, a measuring channel opening through said receptacle and provided with means for holding a container, an agitator movable within said receptacle having periodical movements of rest, means carried by said agitator for directing material into said channel, other means on the agitator following the first named means for completing the filling of the channel and forming a top closure therefor during intervals of rest, and means for expelling the measured charge of material from the channel into the container.

5. A machine for packing pulverulent material in containers, comprising a receptacle for said material, a measuring channel opening through said receptacle and provided with means for holding a container, an agitator movable within said receptacle having periodical movements of rest, means carried by said agitator for directing material into said channel, other means on the agitator following the first named means for completing the filling of the channel and forming a top closure therefor during intervals of rest, means also carried on the outer end of the agitator for closing the delivery exit of said channel during the movement of the agitator, said closing means having openings therein which register with said channel during its period of rest, and means for expelling the measured charge of material from the channel into the container.

[Claims 6 to 18 not printed in the Gazette.]

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1,092,233. MACHINE TO FACILITATE THE USE OF CARTONS. EDWIN L. WALLACE, Niagara Falls, N. Y., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Oct. 20, 1910. Serial No. 588,089. (Cl. 93—7.)



1. In a machine for facilitating the use of cartons, a central longitudinal endless belt, a series of uniformly separated clasping means for holding cartons in fixed relation to the belt and to each other, continuous delivery means for material to be packed in cartons, under and parallel to said series of means for holding cartons, lateral vertical parallel walls for holding the cartons closed above said delivery means and extending alongside said endless belt and said series of means for holding cartons, and lateral tables for holding cartons below and alongside said delivery means.

2. In a machine for facilitating the use of cartons, a central longitudinal endless belt, a series of clasping flanges for holding cartons in fixed relative position thereon, continuous delivery means for material to be packed in cartons, under and parallel to said series of means for holding cartons, lateral vertical parallel walls for holding the carton flaps closed above said delivery means and alongside said endless belt and said series of means for holding cartons, lateral tables for holding cartons below and alongside said delivery means, and means for sealing cartons while in the holding means.

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1,092,234. VENTILATING SASH-LOCK. JOHN W. WATTS, Paducah, Ky. Filed Nov. 24, 1913. Serial No. 802,765. (Cl. 16—52.)



1. A sash lock of the class described including a longitudinally slidable bolt, a laterally movable bolt pivotally connected to the longitudinally slidable bolt at a point intermediate of the ends thereof and carried by the same, means for guiding the bolts in their inward and outward movements, and means arranged in the path of and adapted to engage the inner end of the laterally movable bolt for locking the bolts in their engaged positions.

2. A sash lock of the class described including a longitudinally slidable bolt, a laterally movable bolt pivotally connected to the longitudinally slidable bolt at a point intermediate of the ends thereof and carried by the same,

means for guiding the bolts in their inward and outward movements, and an abutment arranged in the path of the inner end of the pivoted bolt and yieldable in one direction to permit an outward movement of the said bolts and forming a stop for engaging the inner end of the said pivoted bolt for maintaining the bolts in their engaging positions.

3. A sash lock of the class described including a longitudinally slidable bolt, a laterally movable bolt pivotally connected to the longitudinally slidable bolt at a point intermediate of the ends thereof and carried by the same, means for guiding the bolts in their inward and outward movements, and a spring secured at one end and consisting of a longitudinally disposed portion arranged at an angle to the slidable bolt and an outwardly extending portion disposed in substantially a transverse position with relation to the said slidable bolt and arranged to engage with the inner end of the pivoted bolt for locking the bolts in their engaging positions.

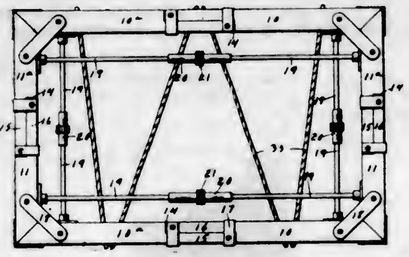
4. A sash lock of the class described including a casing provided with oppositely alined openings and having a lateral opening, a slidable bolt guided in the alined openings, a pivoted bolt connected with and carried by the slidable bolt and arranged to be projected through the lateral opening of the casing, and a spring secured within the casing and having a portion arranged in the path of and adapted to engage with the inner end of the pivoted bolt, said spring having a free handle portion extending through the casing.

5. A sash lock of the class described including a slidable bolt, an oscillatory bolt pivoted at a point intermediate of its ends to the slidable bolt at a point between the ends thereof, the inner portion of the oscillatory bolt being in substantial alinement with the slidable bolt when the bolts are retracted and being carried to a position at an angle to the slidable bolt when the bolts are moved outwardly to their engaging position, and means arranged in the path of the inner projecting portion of the pivoted bolt for locking the bolts in their engaging positions.

[Claim 6 not printed in the Gazette.]

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1,092,235. TRUNK-FILLER. EDWARD A. WOLFE, Indianola, Iowa. Filed Apr. 15, 1913. Serial No. 761,361. Cl. 190—36.)



1. In a device of the class described, two rectangular frames, each comprising end members composed of two parts, slidably connected, side members composed of two parts slidably connected, means for adjustably securing the respective parts of the side members in any position of their sliding movement, said means comprising two pairs of rods arranged in alinement with each other, the respective members on each pair being secured to one part of each end member, the adjacent ends of said rods being oppositely screw threaded, an oppositely screw threaded cylinder on said ends, means for securing the respective end members in any position of their sliding movement, said means comprising two pairs of rods, the rods of each pair being arranged in alinement with each other and secured to parts of said side members, the adjacent ends of said rods being screw threaded in opposite directions, and internally screw-threaded cylinders received on said screw threaded ends, upright corner posts connecting the corners of the respective frames, said corner posts being made in two parts telescopically connected, the inner posts being provided with a plurality of holes, a laterally extending casing on each outer post, a bearing, a spring actuated stem therein designed in one position of its movement to selectively enter one of said holes, said stem extending outwardly through said casing and provided with a head, a lug on said casing, a lug on said head designed in one position of the rotary movement of said stem to engage said first lug and hold the stem away from said post.

2. In a device of the class described, two rectangular frames, each comprising end members composed of two parts, slidably connected, side members composed of two parts slidably connected, means for adjustably securing the respective parts of the side members in any position of their sliding movement, said means comprising two pairs of rods arranged in alinement with each other, the respective members on each pair being secured to one part of each end member, the adjacent ends of said rods being oppositely screw threaded, an oppositely screw threaded cylinder on said ends, means for securing the respective end members in any position of their sliding movement, said means comprising two pairs of rods, the rods of each pair being arranged in alinement with each other and secured to parts of said side members, the adjacent ends of said rods being screw threaded in opposite directions, internally screw threaded cylinders received on said screw threaded ends, upright corner posts connecting the corners of the respective frames, said corner posts being made in two parts telescopically connected, and means on each post for locking the parts thereof in various positions of their slidable adjustment.

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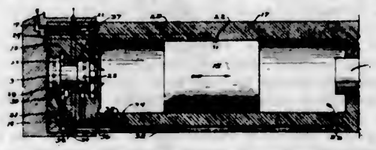
1,092,236. HINGE. JOHN S. WRIKEMAN, Kilgore, Ohio. Filed Oct. 31, 1911. Serial No. 657,754. (Cl. 16—25.)



A hinge comprising coacting leaves swingingly united and having lateral flanges at their upper and lower edges and an opening in each leaf, each of said flanges having a recess at the juncture thereof with the leaves and communicating with the opening, the recesses being of greater length than the width of the openings and extending beyond the edges of the same, and a supporting member adapted to be connected to a door casing with ribs centrally of its edges and conforming to and engaging the outer face of said body adjacent to said openings, said recesses passing over the supporting members and said supporting members being reversible in position.

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1,092,237. PNEUMATIC ROCK-DRILL. THOMAS J. BARBRE, Denver, Colo. Filed Mar. 22, 1912. Serial No. 685,486. (Cl. 121—20.)



In a pneumatic tool, a cylinder, a piston reciprocably mounted in said cylinder, a valve housing, a shoulder formed in said valve housing, a valve piece mounted in said valve housing for controlling the induction of the motive fluid, said valve piece consisting of a hollow member



having an annular flange at each extremity, one of said flanges being arranged to close off the induction of the motive to the rear of the piston when the valve piece is in one position, while the other flange is arranged to establish communication of the motive fluid with the cylinder in front of the piston, the last named flange adapted to rest upon said shoulder of said valve housing while said valve piece is in position to establish communication of the motive fluid with the cylinder in front of the piston, and said last named flange having a relatively small opening therethrough adapted to permit the motive fluid to escape from the rear of said valve piece when the latter moves rearwardly.

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1,092,238. SNAP-HOOK. JOHN B. BAXTER, Watervliet, N. Y., assignor to Covert Manufacturing Company, Watervliet, N. Y., a Corporation of New York. Filed Dec. 20, 1910. Serial No. 598,346. (Cl. 24—233.)



1. In a snap hook the combination of a body part having a hook at one end and a transversely extending slot adjacent the rear end, a tongue engaging at one end the hook and having a downwardly projecting tail piece inserted in said slot, the forward wall of said slot forming means for limiting the forward movement of the tongue, and the rear wall of said slot forming means for preventing rearward movement of the tongue, and said tail part of the tongue engaging one wall of the slot to limit the upward movement thereof, and the body portion of the tongue having a downwardly bent wall connecting with said tail part, the said wall being of a width to overlie the edges of said slot and of a height to position the rear end of the body part of the tongue above the body part of the hook, and a spring interposed between the tongue and body part.

2. In a snap hook, the combination of a body part having a hook at one end and a transversely extending slot adjacent the rear end, a tongue engaging at one end the hook and having a downwardly projecting tail piece inserted in said slot, the forward wall of said slot forming means for limiting the forward movement of the tongue, and the rear wall of said slot forming means for preventing rearward movement of the tongue, said tail part of the tongue engaging one wall of the slot to limit the upward movement thereof, and a part on the tongue to engage the upper surface of the body part to limit the downward movement of the tongue, the tail part of the tongue having an opening therethrough intermediate its sides, and a substantially U-shaped spring mounted at its bend around the forward wall of said slot of the body part and between the side walls of the opening of the tail part of the tongue, that portion of the tail part of the tongue at opposite sides of the opening therein forming relatively wide flat bearing surfaces engaging the wall of the slot.

3. In a pivoted tongue snap hook, the combination of a body portion having a hook at its forward end and separated transversely extending openings therethrough adjacent the rear end, said openings being separated from one another to form an intermediate bearing bar, a sheet metal tongue having a free forward end adapted to engage the hook and having at its opposite end a downwardly bent part to engage the upper surface of the body portion at the ends of the rear opening whereby to position the rear end of the tongue upward above the wall surrounding the transverse opening of the body portion, and also having intermediate the sides of said downwardly bent part a projecting lip of bendable material passing through said rear opening and having relatively wide surfaces engaging a wall of said opening whereby the tongue is pivotally supported, a substantially U-shaped spring mounted at its bend upon said bearing bar and adapted to engage the tongue and body portion of the hook respectively, the said downwardly bent part of the tongue having intermediate its side a recess adapted to overlie the bend of the spring.

4. In a pivoted tongue snap hook, the combination of a body portion having a hook at the forward end thereof and separated transversely extended openings therethrough adjacent the opposite end thereof, said openings forming there between a bearing bar, a tongue the forward terminal of which engages the hook and the rear end of which has a bent part forming an upright wall of a length to overlie the ends of the rear opening and of a height substantially above the upper surface of the body portion and connecting with a lip of a size to project through the rear opening, the said lip being bent about the wall of the rear opening and having relatively wide bearing surfaces whereby the tongue is pivotally supported, the rear wall of the rear opening forming means to limit the rearward movement of the tongue, and a spring interposed between the tongue and body portion of the hook and mounted upon said bearing bar.

5. In a snap hook, the combination of a hook having a body portion terminating at its forward end in a hook part and having adjacent the rear end thereof two transversely extending openings separated from one another by a relatively narrow bearing bar, a substantially U-shaped spring positioned at its bend on its bar with its opposite arms projecting through said openings, a tongue member of bendable material adapted at its forward end to engage the hook and having inwardly bent portions at its sides to engage over the sides of the body portion of the hook, said tongue also having a downwardly extending portion constituting an upright wall resting on the top surface of the body portion and said downwardly bent portion having a projecting relatively wide tail or lip intermediate its sides constituting the terminal of the tongue which tail or lip is bent forwardly whereby its inner surface engages around said bearing bar, and said lip having a cutout part intermediate its sides overlying the bend of the spring.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,239. PRODUCTION OF PRINTING-SURFACES WITH RELIEF EFFECT. NIELS BENDIXEN, Copenhagen, Denmark, assignor to Hans Hendrik Lützhöft-Petersen, Copenhagen, Denmark. Filed Oct. 14, 1911. Serial No. 654,749. (Cl. 101—205.)



1. A process of preparing negatives from a plurality of translucent plates, provided respectively with back-ground and indicia; which consists in first making a preliminary negative by light transmitted through superimposed background and indicia plates, and then making a final negative by light transmitted through said preliminary negative and a superimposed indicia plate with the indicia slightly transposed relative to the indicia in the first negative.

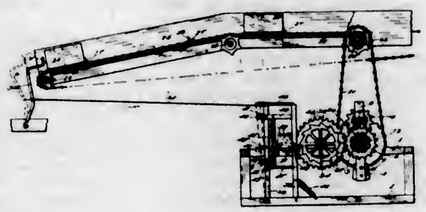
2. A process of preparing negatives from a plurality of translucent plates, provided respectively with back-ground and indicia; which consists in first making a preliminary negative by light transmitted through superimposed background and indicia plates, and then making a final negative by light transmitted through said preliminary negative, and another indicia plate superimposed thereon, with the indicia corresponding to and in relative position slightly transposed from the position of the indicia in the first negative and with other indicia independent thereof.

3. A process of preparing negatives from a plurality of transparent plates; the first one of said plates having in dark colors indicia to be printed with relief effect, the second plate similar to the first one but having in addition

indicia to be printed without relief effect, the third plate having in dark color a pattern of the back-ground; the first step in the process consisting in making a preliminary negative by light transmitted through said third plate with said first plate superimposed, the second step consisting in making a second negative by transmitting light through said preliminary negative with said second transparent plate superimposed and slightly transposed; whereby on printing from said second negative, a print will be produced having indicia, some with and some without relief effect, on a uniform back-ground which does not show through said indicia.

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1,092,240. GEARING. HARRY L. BENNETT, Seattle, Wash. Filed Dec. 18, 1911. Serial No. 666,562. (Cl. 74—34.)



1. A device of the character described, a power shaft, a pinion keyed to said shaft, a gear in mesh with said pinion mounted for planetary movement about the pinion when inoperative, means to lock said gear against planetary movement, a driven member, means interposed between said gear and the driven member to transmit motion from the gear when the same is operative, trip apparatus and means for actuating the trip apparatus to render said power devices ineffective.

2. A device of the character described, comprising power means consisting of a driven shaft, a pinion keyed to said shaft, a frame rotatable on said shaft, a stub shaft mounted therein, a gear fixed on said stub shaft in planetary engagement with the pinion, a second pinion keyed on said stub shaft, a second gear loosely mounted on the driven shaft in mesh with the second named pinion, a driven member, connections between said loose gear and the driven member, and means to lock the gear carried by said stub shaft against planetary movement.

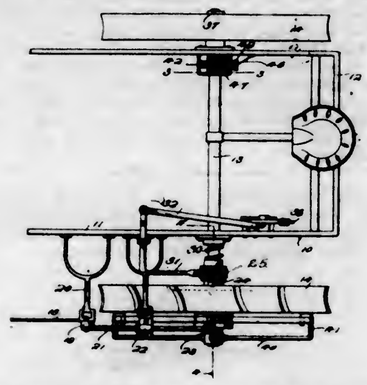
3. A device of the character described, comprising power means consisting of a driven shaft, a pinion keyed to said shaft, a frame rotatable on said shaft, a gear rotatably mounted in said frame in planetary engagement with the pinion, a second pinion rigidly connected to said gear, a second gear loosely mounted on the driven shaft in mesh with the second named pinion, a driven member, connections between said loose gear and the driven member, and means to lock said gear against planetary movement.

4. A device of the character described, comprising power means consisting of a driven shaft, a pinion keyed to said shaft, a frame rotatable on said shaft, a gear rotatably mounted in said frame in planetary engagement with the pinion, a pinion rigidly connected to said gear, a gear loosely mounted on the driven shaft in mesh with the second named pinion, a driven member, connections between said loose gear and the driven member, and means to lock the frame against rotative movement.

5. A device of the character described, comprising power means consisting of a driven shaft, a pinion keyed to said shaft, a frame rotatable on said shaft, a gear rotatably mounted in said frame in planetary engagement with the pinion, a second pinion rigidly connected to said gear, a second gear loosely mounted on the driven shaft in mesh with the second named pinion, a driven member, connections between said loose gear and the driven member, means to lock the frame against rotative movement and means to release the frame from such locked condition.

[Claims 6 and 7 not printed in the Gazette.]

1,092,241. PLANTER. SIGURD B. CHRISTENSEN, Granville, Iowa. Filed Mar. 25, 1913. Serial No. 756,817. (Cl. 111—24.)



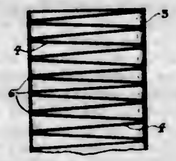
1. A planter including a frame, an axle rotatably mounted on the frame, drive-wheels loosely mounted on said axle, means for clutching the drive-wheels to the axle, arms extending radially from the axle adjacent one of the drive-wheels and projecting beyond the periphery of the said wheel, rods supported by the axle laterally beyond and extending radially in spaced parallel relation to the arms, said rods being terminally bent at right angles and connected to the arms, and a seed-distributing mechanism having a member disposed in the path of and actuated by the bent terminals of the rods.

2. A planter including a frame, an axle rotatably supported by the frame, drive-wheels loosely mounted on said axle, means for clutching the drive-wheel to the axle, a hub mounted on the axle adjacent said wheel and disposed to rotate with the axle, arms extending radially from said hub, rods extending radially from the hub laterally beyond and parallel with the arms, said rods being connected to the arms at their outer terminals, and a seed-distributing mechanism having a member in the path of and actuated by the terminals of said arms and rods.

3. A planter comprising a frame, a seed dropping mechanism mounted thereon and including a rock-shaft mounted upon the frame, a bracket on the frame between the axle and the seed dropping mechanism, a lever fulcrumed on said bracket, a connection between the lower end of said lever and the rock-shaft of said dropping mechanism, a second bracket on the frame between the first mentioned bracket and the axle, means whereby the axle may be rotated, radially disposed marker-arms carried by the axle, and a rod mounted to slide longitudinally in the second bracket and having its front end pivoted to the upper end of the lever and its rear end arranged in the path of the outer ends of said marker-arms.

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1,092,242. RADIATOR. THOMAS COFFELDER, Detroit, Mich. Filed May 17, 1912. Serial No. 698,016. (Cl. 62—28.)



1. In a radiator, the combination with spaced walls forming water passages and air spaces between the water passages open at each side for the passage of air therethrough, of a tortuous strip in each air space upon said walls extending across the same from one open side to the other of said space and positioned therein with its bends curved in the direction of the passage of air through said air space to form a baffle therein.

2. In a radiator, the combination with spaced walls forming water passages and air spaces between said water passages opening through the faces of said radiator for the passage of air therethrough, of a continuous metal ribbon in each air space upon the walls thereof extending across the same from face to face of the radiator throughout the length of said walls and formed with a plurality of bends and portions between the bends extending in the direction of the passage of air through said air space.

3. In a radiator, the combination with spaced vertical walls forming water passages, of radiating means on said walls comprising metal strips each formed with a plurality of diagonal portions extending across said walls in the direction of the passage of air through said radiator from front to rear thereof, and each strip extending from top to bottom of said walls.

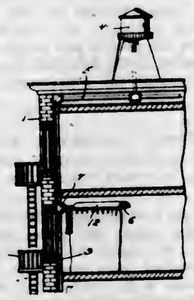
4. In a radiator, a core formed with water passages and air spaces between the water passages extending through the core for the passage of air therethrough, and a single continuous metal strip in each air space secured at its edge to a wall thereof and bent into sig-zag form with its inclined portions inclined to the direction of the passage of air through said air spaces and forming baffling means for the air.

5. In a radiator, a core comprising walls forming water passages extending from top to bottom of the core and air spaces between the water passages opening through the front and rear of said core for the passage of air therethrough, and radiating means within the air spaces comprising a continuous metal strip in each air space secured to said walls at its edges and formed of oppositely inclined portions connected by bends and extending across the walls from front to rear of said core and inclined to the direction of the passage of air through the air spaces.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,243. WATER-CURTAIN. JOSEPH LEWIS COLE, Chicago, Ill. Filed May 7, 1912. Serial No. 695,788. (Cl. 189—81.)



1. In a device of the class described, a spray-pipe, a deflector arranged in juxtaposition to the pipe and having a concave side presented toward and spaced above the pipe, the pipe having discharge outlets presented at different angles toward the concave side of the deflector, and a curtain suspended from the pipe.

2. In a device of the class described, a supply-pipe, a spray pipe leading from the supply pipe, a valve arranged in the spray-pipe, a deflector arranged above the spray-pipe, and a curtain suspended from the spray-pipe.

3. In a device of the class described, an arcuate spray-pipe, an arcuate deflector arranged above the pipe and having a concave under side presented downwardly toward the upper surface of the pipe, the pipe being provided in its upper side with outlets, and a curtain suspended beneath the pipe.

4. In a device of the class described, a spray-pipe provided with a series of outlets presented upwardly at an angle, a deflector arranged above the said pipe and having a concave under side concentric with the pipe and entirely spaced therefrom, and a curtain suspended from the pipe.

5. In a device of the class described, a spray pipe provided with a series of outlets presented upwardly at an angle, a deflector arranged bodily above and entirely spaced from the said pipe and having a concave under side presented toward the pipe, curtain rings slidably mounted upon the pipe, and a curtain suspended from the rings.

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1,092,244. POCKET. LOREN Z. COOLIDGE, Aberdeen, Wash. Filed May 13, 1913. Serial No. 767,481. (Cl. 24—3.)



1. A safety rule holding device adapted to extend into a pocket and constitute a partial lining for the same consisting of a relatively narrow strip of metal of substantially uniform width bent at an intermediate point to form inner and outer sides and a connecting bottom portion, the inner side being adapted to be secured to the garment of which the pocket forms a part and the outer side being provided in the pocket with an upwardly and outwardly inclined top portion adapted to fit against the inner face of the material of the pocket and forming a flaring entrance to the said device, the said inclined portion being provided at its outer terminal with means bent outwardly and downwardly so as to extend around and embrace the upper edge of the pocket, which is clamped and securely held against the said outwardly inclined portion and maintained in an open position.

2. A safety rule holding device adapted to extend into a pocket and constitute a partial lining for the same consisting of a relatively narrow strip of metal of substantially uniform width bent at an intermediate point to form inner and outer sides and a connecting bottom portion, the inner side being provided at the top with an angularly bent portion constricting the space between the inner and outer sides and extending upwardly and adapted to project from the pocket and be secured to the garment of which the pocket forms a part, and the outer side being provided within the pocket with an upwardly and outwardly inclined top portion adapted to be fitted against the inner face of the material of the pocket and forming a flaring entrance to the said pocket, the said inclined portion being provided with means bent outwardly and downwardly so as to extend around and embrace the upper edge of the pocket, which is clamped and securely held against the outer face of the inclined portion and maintained in an open position.

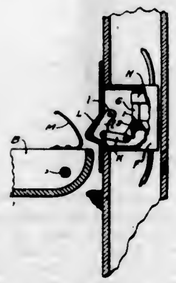
3. A safety rule holding device adapted to extend into a pocket and constitute a partial lining for the same consisting of a relatively narrow strip of metal bent at an intermediate point to form inner and outer sides and a connecting bottom portion, means for securing the inner side to the garment of which the pocket forms a part,

means for securing the outer side to the pocket, and an approximately U-shaped spring arranged exteriorly of the device and extending longitudinally of the same and composed of two sides and a connecting portion, the terminals of the spring being secured to the sides of the said device.

4. A safety rule holding device adapted to extend into a pocket and constitute a partial lining for the same consisting of a relatively narrow strip of metal bent at an intermediate point to form inner and outer sides and a connecting bottom portion, means for securing the inner side to the garment of which the pocket forms a part, means for securing the outer side to the pocket, and an approximately U-shaped spring composed of two sides and a connecting bottom portion, the sides of the spring extending along the exterior of the faces of the sides of the device midway between the side edges thereof and the terminals of the spring being secured to the upper portions of the sides, the intermediate portions of the spring being free.

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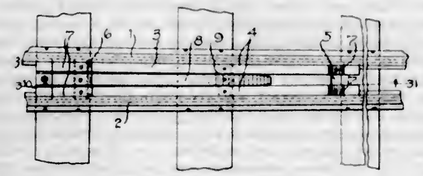
1,092,245. ELECTRIC SWITCH. GEORGE W. CRAVENS, Chicago, Ill., assignor to Delta-Star Electric Company, Chicago, Ill., a Corporation of Illinois. Original application filed July 30, 1910, Serial No. 574,598. Divided and this application filed Nov. 27, 1911. Serial No. 662,575. (Cl. 177—10.)



In combination, a switch box, a switch within the box, said box having a large opening in one side, a plate hinged at one end in said opening and forming a closure therefor, means between the opposite end of the plate and the switch for transmitting motion from the plate to the switch, and an operating member for said plate pivotally supported adjacent thereto and having a part adapted to make sliding contact with the face of said plate.

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1,092,246. FOOT-GUARD. HERBERT FRANCES DAVIS, Cumberland Center, Me. Filed Apr. 19, 1913. Serial No. 762,340. (Cl. 104—50.)



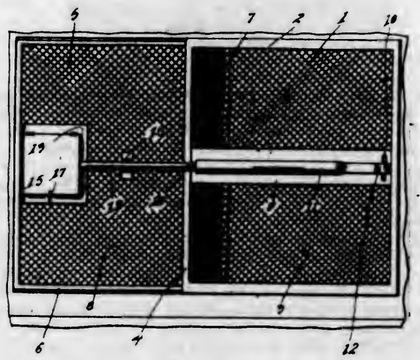
1. A foot guard including a pair of spaced resilient bars converging throughout their entire length, transverse cross pieces securing the ends of said bars and means for securing said bars to the railroad ties.

2. A foot guard including spaced converging bars, transverse pieces connecting said bars at their intermediate portions and at a point adjacent their ends, and a central bar having one end secured to the intermediate transverse piece, the other end of said central bar being rigidly secured to the railroad tie.

3. A foot guard including spaced converging bars, cross pieces connecting said bars at their intermediate portions and at a point adjacent their ends, and a third bar arranged in parallel relation and disposed between the side bars, said third bar having one end rigidly secured to railroad ties and its other end secured to the intermediate cross piece, said side bars being disposed beneath the tread of the rail and of sufficient resiliency so that the same will give and return to its normal position after a deep flange has passed over the same.

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1,092,247. WINDOW-GATE. JACOB DICK, New London, Conn. Filed July 3, 1913. Serial No. 777,266. (Cl. 20—71.)



In a device of the character described, two coöperating telescoping frames, wires secured to said frames and forming fillers therefor, a plate secured to one of said frames, a U-shaped member secured to one end of said plate, a transversely extending bar hingedly secured to the U-shaped member, said transversely extending bar being internally screw-threaded, a coöperating bar threaded into the aforesaid bar, said coöperating bar having an enlarged portion formed at the end opposite its screw-threaded end, a boxing carried by the second of said frames, said boxing having a slot therein, and a cover hingedly secured to the boxing and forming a closure for said slot, said boxing being adapted to receive the enlarged portion formed on the transversely extending bar.

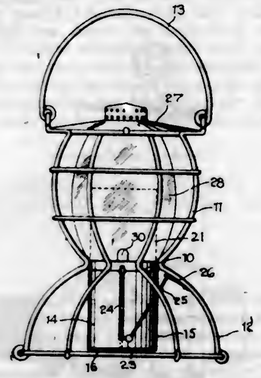
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1,092,248. LANTERN. CONALLY L. DUNN, Abingdon, Va., assignor of one-half to John E. Legard, Abingdon, Va. Filed Mar. 15, 1913. Serial No. 754,626. (Cl. 240—39.)

1. In a lantern such as described the combination with a receptacle having inner and outer spaced walls, a chimney slidable in the space between said walls, one of said walls being slotted, pins projecting from the chimney through the slots in the wall, a bail attached to said pins, and a latch for engagement with the free end of the bail and co-acting therewith for retaining the chimney in its lower position.

2. The combination with a lantern frame, of a vertically slotted receptacle, a chimney mounted for vertical movement in the receptacle, pins connecting with the chimney and extending outwardly through the slots of the receptacle, and a bail connected with said pins and adapted to co-act therewith and with means on the lantern frame adjacent to the top of the receptacle for supporting said chimney in its lowered position.

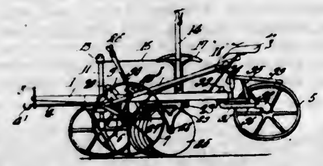
3. The combination with a lantern frame, of a receptacle supported by the frame and having opposite vertical slots therein provided with lateral extensions, a chimney mounted for vertical movement in the receptacle, pins connected with the chimney and extending outward through the slots and adapted for movement therein, and a bail connecting the pins with said frame and co-acting therewith so as to hold the pins in the lateral extensions of the slots



and thereby retaining the chimney securely in its lower position.

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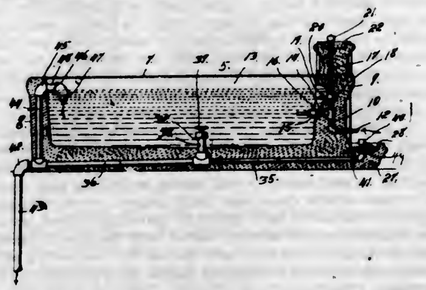
1,092,249. DISK HARROW. ALBERT EMMERT, Corpus Christi, Tex. Filed June 17, 1911. Serial No. 633,735. (Cl. 97—36.)



In a harrow, a main frame, a crank axle mounted to swing laterally under and connected to a portion of the main frame, the rear end portion of the axle being inclined downwardly and laterally, a caster wheel supported by said rear end portion, an L-shaped dog pivotally connected to the main frame and adapted to swing downwardly into position at one side of the crank axle to hold said axle against lateral movement in one direction relative to the frame, a lever, and a link connection between the lever and the angle portion of the dog for lifting the dog out of engagement with the axle, said dog normally engaging the axle at a point remote from the axis of rotation of the axle.

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1,092,250. CEMENT WATERING-TROUGH. ERIC ENGBLOM, Denver, Colo., assignor of one-half to Frank Gyllensten. Filed Feb. 10, 1913. Serial No. 747,254. (Cl. 137—11.)

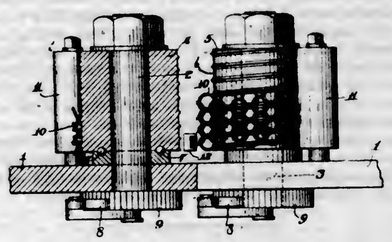


1. A watering trough composed of a cement body member having a relatively large water receiving chamber, the upper portion of one end wall of the trough having a cavity therein, a supply pipe leading up through said end wall to said cavity, a branch from said supply pipe leading to the large chamber, a valve in said pipe controlling the flow of water to said cavity, the stem of said valve being located in a recess in the inner side of said end wall and below the ordinary level of water in the large chamber.

2. A watering trough composed of a cement body member having a relatively large water receiving chamber, the upper portion of one end wall of the trough having a cavity therein, a supply pipe leading up through said end wall to said cavity, a branch from said supply pipe leading to the large chamber, a valve in said pipe controlling the flow of water to said cavity and a second valve controlling the flow to the chamber both of said valves being arranged below the normal water level in the chamber.

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1,092,251. MACHINE FOR MAKING LINK MESH. DANIEL P. FITZGERALD, Newark, N. J. Filed May 13, 1913. Serial No. 767,263. (Cl. 140—3.)



1. In a machine for making tubular fabric of link mesh, a support for the work comprising essentially a roll inclosed by the fabric and having its periphery provided with a spiral groove to engage the inner wall of the fabric and support the same, and means for positively rotating said roll to thereby advance the fabric in directions parallel to and transversely of the plane of the axis of said roll.

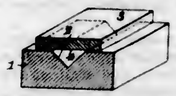
2. In a machine for making tubular fabric of link mesh, a support for the work comprising a plurality of rolls inclosed by the fabric, in parallel relationship to each other and separated some distance from each other, the periphery of said rolls having a spiral groove to engage the inner wall of the fabric, combined with means for positively driving said rolls intermittently to thereby advance the fabric in directions parallel to and transversely of the plane of the axis of said rolls.

3. In a machine for making tubular fabric of link mesh, a support for the fabric comprising essentially two rolls inclosed by the fabric, the periphery of the rolls engaging the inner wall of the fabric to support the same and adapted to move said fabric intermittently at stated and regular periods, and means for positively rotating said rolls.

4. In a machine for making tubular fabric of link mesh, a support for the fabric comprising essentially two parallel rolls inclosed by the fabric, the periphery of the rolls engaging the inner wall of the fabric to support the same and adapted to move said fabric intermittently at stated and regular periods, link-forming mechanism arranged to operate in the space between said parallel rolls, and means for positively rotating said rolls.

5. In a machine for making tubular fabric of link mesh, a support for the fabric comprising essentially two rolls inclosed by the fabric, the periphery of the rolls engaging the inner wall of the fabric to support the same and adapted to move said fabric intermittently at stated and regular periods, a means for positively rotating said rolls, and an auxiliary roll arranged adjacent to each rotating roll and located outside the fabric to press said fabric upon the periphery of the rotating rolls.

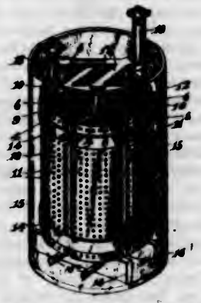
1,092,252. METHOD OF CONSTRUCTING SECONDARY OR STORAGE BATTERIES. GEORGE FULLER, LEONARD FULLER, and GEORGE JOHN ANDREW FULLER, Bow, London, England. Filed Nov. 15, 1912. Serial No. 731,484. (Cl. 204—29.)



1. The method of forming secondary battery electrodes each representing a trianguloid section of a geometric solid, which consists in placing a core in a mold chamber corresponding in shape to the named section and open at the basic portion of the trianguloid, filling the mold with active material, and causing a compression of the material toward the longitudinal bisecting plane of the mold chamber by pressure applied to the active material at the open side of the mold chamber.

2. The method of forming secondary battery electrodes each representing a trianguloid section of a geometric solid, and each having a core embedded therein, which consists in placing a core in a mold chamber corresponding in shape to the named section with the body of the core in spaced relation to the walls of the mold chamber, said chamber being open at the basic portion of the trianguloid, filling the mold chamber with active material, and compressing the active material against the approaching walls of the mold chamber by pressure applied to the open side of the mold chamber to cause said active material to compress about that portion of the core remote from the open side of the mold chamber in intimate relation to said core and to the approaching walls of the mold chamber.

1,092,253. SECONDARY OR STORAGE BATTERY. GEORGE FULLER, LEONARD FULLER, and GEORGE JOHN ANDREW FULLER, Bow, London, England. Filed Sept. 4, 1913. Serial No. 788,129. (Cl. 204—29.)



1. A storage battery electrode of block form with a central metallic support embedded in active material to a depth in all directions greater than the penetrating effect of a discharge reducing the voltage to the discharge minimum.

2. A storage battery electrode of block form consisting of a central metallic support and a surrounding mass of active material embedding the support, said electrode tapering in cross section from an intermediate thick portion toward opposite edges.

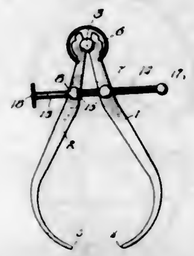
3. A storage battery electrode of substantially trianguloid form in cross section.

4. A storage battery electrode tapering in cross section from an intermediate thick portion toward opposite edges.

5. A storage battery electrode of block form consisting of a central metallic support with terminal heads outstanding from the support, and a mass of active material surrounding and embedding the support and outstanding therefrom to substantially the same extent as the heads.

[Claims 6 to 14 not printed in the Gazette.]

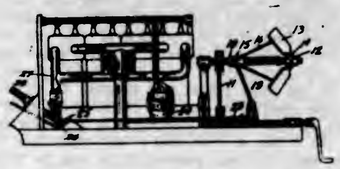
1,092,254. CALIPERS. LEVI S. GARDNER, Shreveport, La. Filed Oct. 28, 1912. Serial No. 728,069. (Cl. 33—1.)



1. In a pair of calipers, a post swiveled on one of the legs thereof, a member swiveled on the other leg thereof, a rod member screw-threaded into said post and extending toward the aforesaid member, said members having engaging parts to permit free relative movements in the direction of the axis of the rod member and prevent relative movements in other directions, said members having coöperating abutments engaging with each other to cause the legs of the calipers to be spread when the rod member is turned in one direction.

2. In a pair of calipers, posts swiveled upon the legs thereof, a rod screw threaded into one of said posts, the other post having an opening therethrough, said rod having a smooth portion extending through said opening, and having a shoulder engaging with the inner side of the latter post, and a shoulder on the outer end of the smooth portion of the rod adapted to prevent the complete withdrawal of the rod through the aforesaid opening.

1,092,255. SPARK-ADJUSTER FOR EXPLOSIVE-ENGINES. JOSEPH PETER GERING, Schrag, Wash. Filed Feb. 10, 1913. Serial No. 747,222. (Cl. 123—99.)



1. A spark adjuster for explosive engines comprising a shaft connected to the engine shaft, a fan having foldable wings upon one end of said shaft, a sleeve upon said shaft to which the foldable wings of said fan are pivotally connected, links connected to said wings, means upon said shaft for regulating the outward movement of said links, and means for controlling said regulating means.

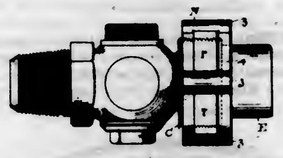
2. A spark adjuster for explosive engines comprising a shaft connected to the engine shaft, a fan upon one end of said shaft having foldable wings, a sleeve upon said shaft to which the foldable wings of said fan are pivotally connected, means upon said shaft for regulating the outward movement of said links, and means for controlling said regulating means synchronously with the speed controlling means of the engine, substantially as described.

3. A spark adjuster for explosive engines comprising a shaft operatively connected to the engine shaft, a sleeve at the end of said shaft, a fan having its wings pivotally secured to said sleeve, a coil spring encircling said shaft, a movable sleeve upon said shaft adapted to be displaced by the actuation of said spring by centrifugal force, means for connecting said movable sleeve with the spark regulating lever of the engine, and means for connecting said lever with the fuel controlling means, substantially as described.

4. A spark adjuster for explosive engines comprising a shaft operatively connected with the engine shaft, a fan having wings pivotally secured to a sleeve upon the end of said shaft, a coil spring encircling said shaft, a movable sleeve upon said shaft displaceable by the operation of said spring, means for connecting said sleeve with the wings of said fan, means for connecting said movable sleeve with the speed regulating lever of the engine, means for limiting the movement of said slidable sleeve, and means for connecting said spark regulating lever with the speed regulating lever for controlling the sparking synchronously with the speed of the engine, substantially as described.



1,092,256. COUPLING OR LOCK-NUT. JOSEPH H. GLAUBER, Cleveland, Ohio. Filed Apr. 9, 1910. Serial No. 554,551. (Cl. 85—32.)



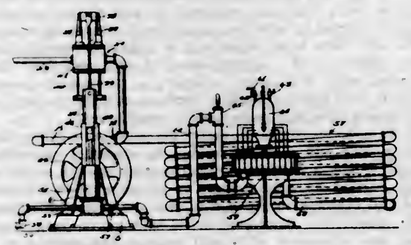
1. A coupling nut having integral enlargements at intervals about its outside with openings through the same from side to side of the nut and slots from said openings into the nut, and provided with flat surfaces parallel to each other oppositely between said enlargements and adapted to engage a wrench therewith.

2. A nut having an inwardly-extending annular flange at one side provided with radial slots and outward projections radially in line with said slots at intervals from side to side provided with circular holes, the walls about said holes being of uniform depth and adapted to be expanded or contracted and thereby change the working size of the nut.

3. A nut of angular formation having spring loops formed integral therewith at the meeting angle of every alternate pair of its wrench-engaging faces.

4. A coupling nut comprising a seamless wall threaded internally and having integral loops of uniform depth longitudinally thereof, and having independent segmental portions projected inwardly at right angles from said wall between said loops to provide a coupling flange adapting uniform expansion of said nut when coupling connections are being made.

1,092,257. POWER PLANT. CHARLES FRANKLIN GOLDSBOROUGH, Monett, Mo., assignor, by direct and mesne assignments, to Peerless Vacuum Engine Company, Phoenix, Ariz., a Corporation of Arizona. Filed Apr. 14, 1913. Serial No. 760,966. (Cl. 121—70.)



1. In a system of the character described, the combination with a reciprocatory engine including a piston, of a rotary engine including a rotor and a movable abutment, means connecting the piston and movable abutment, means for supplying a motive fluid to the reciprocatory engine, and means for supplying the exhaust of the reciprocatory engine to the rotary engine.

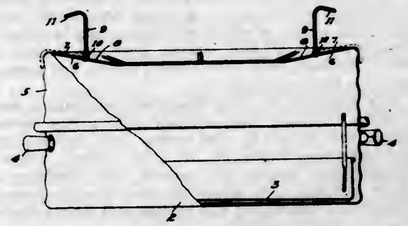
2. In a system of the character described, the combination with a reciprocatory engine including a piston, of a rotary engine including a rotor and a reciprocatory abutment, a rod connecting the piston and the abutment, driving connecting means between the piston and rotor, means for supplying a motive fluid to the reciprocatory engine, and means for supplying the exhaust from the reciprocatory engine to the rotary engine.

3. In a system of the character described, the combination with a reciprocatory engine including a piston, of a rotary engine including a rotor and a reciprocatory abutment, a rod connecting the piston and the abutment, gear wheels disposed upon opposite sides of the rotor and connected with the same for rotation therewith, smaller gear wheels engaging the first named gear wheels, a cross head connected with the piston for movement therewith, pitmen connecting the cross head with the smaller gear wheels, means for supplying a motive fluid to the reciprocatory engine, and means for supplying the exhaust from the reciprocatory engine to the rotary engine.

4. In a system of the character described, the combination with a reciprocatory engine including a piston, of a rotary engine including a rotor and a movable abutment, a gear wheel connected with the rotor for rotation therewith, a second gear wheel engaging the first named gear wheel, a cross head connected with the piston, a pitman connecting the cross head and second gear wheel, means for supplying a motive fluid to the reciprocatory engine, and means for supplying the exhaust from the reciprocatory engine to the rotary engine.

5. In a system of the character described, an upstanding reciprocatory engine including a piston, a rotary engine disposed below the same and including a rotor and movable abutment, gear wheels disposed upon opposite sides of the rotor and connected with the same for rotation therewith, second gear wheels engaging the first named gear wheel, an upstanding rod connected with the piston, a transverse cross head connected with the upstanding rod, pitmen connecting the cross head with the second gear wheels, means for supplying a motive fluid to the reciprocatory engine, and means for supplying the exhaust from the reciprocatory engine to the rotary engine.

1,092,258. ROASTER. HERVEY L. HAPPER, Minneapolis, Minn. Filed Dec. 9, 1912. Serial No. 735,861. (Cl. 53—6.)



1. A cooking utensil comprising a base, a cover therefor provided with ventilating openings, rotating damper disks having openings therein to register with the openings in said cover, said disks having ears thereon and lifting handles consisting of elongated loops of spring material having ends journaled in said ears and laterally turned portions for convenience in lifting.

2. A roaster comprising a base, an upper or cover portion seated thereon having ventilating holes therein and apertured rotating dampers for closing said holes, said dampers being centrally pivoted and having ears upon opposite sides of their pivots and loops having their ends journaled in said ears and adapted to lie flat upon said disks or be raised to an upright lifting position with respect thereto.

3. A roaster comprising a base, an upper or cover portion seated thereon and having ventilating holes therein and apertures rotating dampers for closing said holes, elon-

gated lifting loops pivoted on said rotating dampers and adapted to swing to an upright lifting position, said loops having laterally turned end portions adapted when swung outwardly to engage the walls of the cover and lock said dampers and when swung inwardly to a horizontal position to form a means for conveniently rotating said dampers.

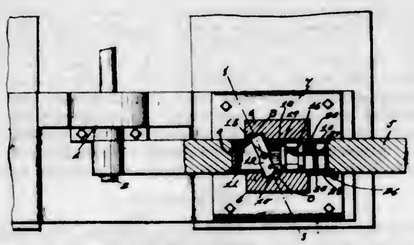
4. A cooking utensil comprising a base, an upper or cover portion resting thereon provided with ventilating openings and rotating dampers for closing said openings, said dampers being located near the ends of said cover, and handles mounted on said dampers for rotating them or lifting said cover, said handles having means to engage the end walls of said cover and lock said dampers.

5. A cooking utensil comprising a base, an upper or cover portion resting thereon provided with ventilating openings near its ends and rotary disk dampers mounted on said cover and having openings therein adapted to register with the openings in said cover or be moved out of register with said openings, handles mounted on said disks and free to swing thereon, said handles having means for locking said dampers either in their closed or open position.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,259. SWITCH-LOCK. CHARLES B. HARN, South Brownsville, Pa., assignor of one-third to Arthur D. Pringle and one-third to Herman W. Tweed, Brownsville, Pa. Filed Dec. 2, 1913. Serial No. 804,300. (Cl. 104—25.)



1. A device of the class described comprising a keeper, a lever, a lock casing carried thereby, a pivotally mounted locking member adapted to be swung transversely of said lever, said keeper provided with means for receiving the respective ends of said locking lever for holding said switch throwing lever in a locked position, and means for operating said locking bar.

2. A device of the class described comprising a keeper, a switch throwing lever provided with a lock casing, a locking bar carried by said casing, said casing provided with apertures formed in the sides thereof, means for throwing said locking bar through said apertures, said keeper provided with means for receiving the respective ends of said locking bar and holding said switch throwing lever in a locked position.

3. A device of the class described comprising a keeper, a switch throwing lever, a locking casing carried thereby, a locking bar carried within said casing and adapted to be moved within said casing for throwing the ends thereof out of said casing, a tumbler bar connected to said locking bar, a sliding tumbler bar, a link connecting said first mentioned tumbler bar and said sliding tumbler bar for swinging said locking bar as said tumbler bars are operated, and means for facilitating the shifting of said sliding tumbler bar.

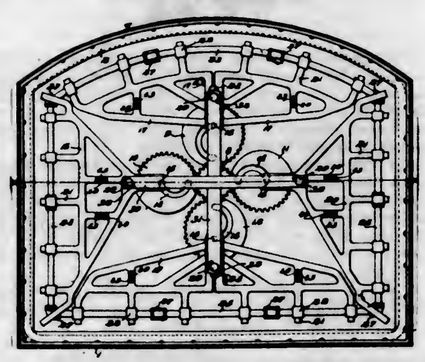
4. A device of the class described comprising a keeper, a switch throwing bar, a lock casing carried thereby, a locking bar carried by said casing, said locking bar being pivotally mounted within said casing, a pivoted tumbler bar secured to said casing, a cleat provided with a notched end, a sliding tumbler bar working through said notched end, a link connecting said sliding tumbler bar with said pivoted tumbler bar, a stop for limiting the sliding movement of said sliding tumbler bar, a key receiving pocket carried by said sliding tumbler bar for facilitating the moving of said sliding tumbler bar within said casing, said pivoted tumbler bar connected to said locking bar for throwing the same to an operative position, and said keeper provided with means for receiving said locking bar whereby said switch throwing bar will be held in a locked position.

5. A device of the class described comprising a switch throwing mechanism, an operating lever coöperating with said switch throwing mechanism, a plurality of keepers, a pivoted locking bar carried by said switch operating lever and adapted to engage said keepers for holding said switch operating lever in a set position, and means for swinging said locking bar within said lever.

[Claim 6 not printed in the Gazette.]

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1,092,260. METALLIC GRAVE-VAULT. CHARLES H. HISER, Springfield, Ohio, assignor to The Springfield Metallic Casket Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 25, 1913. Serial No. 786,576. (Cl. 27—7.)



1. In a device of the character described, the combination, with a door and a casing having an inwardly extending flange, a screw-threaded sleeve carried by said door, a revoluble shaft in said sleeve, a series of cam gears, a support for said gears loosely mounted on said sleeve but movable bodily therewith, a pinion connected with said shaft and meshing with said gears, and a series of locking bolts operatively connected with said gears and fulcrumed at their outer ends.

2. In a device of the character described, in combination with a door and a casing having an inwardly extending rim or flange, of a series of slidable locking bolts carried by said door, a revoluble sleeve screw-threaded in said door, a shaft revolubly mounted in said sleeve, a series of gears carried by said door operatively connected to said bolts, said bolts being capable of a sliding movement relatively thereto, and a pinion connected with said shaft and in mesh with said gears, whereby a movement thereof projects said bolts to locking position and the turning of said sleeve tilts said bolts against said flange.

3. In a device of the character described, in combination with a door and a casing having an inwardly extending rim or flange, a support carried by said door, a series of gears carried by said support, a pinion carried by said door and common to all of said gears, a series of locking bolts operatively connected with said gears, said bolts being also connected with said support but capable of a movement relatively thereto together with springs for holding said bolts yieldably to said support, means extending on the outside of said door for operating said pinion to cause said gears to throw said bolts to locking position with respect to said flange, and means for moving said support inwardly away from said door to tilt said bolts.

4. In a device of the character described, in combination with a door and a casing having an inwardly extending flange, a revoluble sleeve screw-threaded in said door, a shaft revolubly mounted in said sleeve, a support loosely mounted on said sleeve, a series of gears carried by said support, a series of bolts operatively connected with said gears, a pinion connected with said shaft and common to all of said gears, whereby the turning of said shaft will cause said gears to throw said bolts to operative position and the turning of said screw causes the tilting of said bolts.

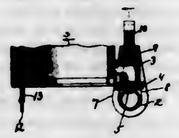
5. In a device of the character described, in combination with a door and a casing having an inwardly-extending rim or flange, a series of locking members mounted on said door, locking mechanism carried by said door, means for movably connecting said locking members with said locking mechanism, means for operating said locking mechanism to project said locking members to locking position and also for tilting said locking members with respect to said mechanism, and resilient cross-bar members carried by said locking mechanism and exerting a pressure upon said locking members to hold said locking members in operative relation with said mechanism but permitting the tilting of the same.

[Claim 6 not printed in the Gazette.]

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1,092,261. OIL-STOVE. RUDOLPH HOFFMAN, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Aug. 8, 1913. Serial No. 783,842. (Cl. 158—94.)



1. The combination of a burner body; an inlet connection secured to said body; a feed pipe; means on said feed pipe arranged to be engaged by said inlet connection; a yoke having openings through its arms, said pipe extending through said openings; a nut within said yoke; and a clamping screw extending through said yoke and said nut and bearing against said inlet connection.

2. The combination of a burner body; an inlet connection secured to said body; a feed pipe; a cup on said feed pipe arranged to receive one end of said inlet connection; a nipple securing said cup to said pipe; a yoke having openings through its arms, said pipe extending through said openings, said yoke passing over the top of said inlet connection; a nut within said yoke and a clamping screw extending through said yoke and said nut and bearing against the top of said inlet connection.

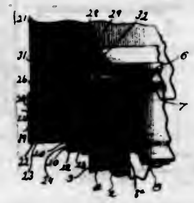
3. The combination of a burner; a frame bar; two arms extending downwardly from one side of said burner and lying at opposite sides of said frame bar; one of said arms having an angular portion arranged to engage said frame bar; a feed pipe; and means for securing the opposite side of the burner to said feed pipe.

4. The combination of a burner body; an inlet connection secured to said body; a feed pipe; means on said feed pipe arranged to be engaged by said inlet connection; a yoke having openings through its arms, said pipe extending through said openings; a nut within said yoke and having a rounded side in contact with the yoke, the latter having an opening opposite said nut, said last mentioned opening being elongated in the direction of extension of the pipe; and a clamping screw extending through said elongated opening and said nut and bearing against said inlet connection.

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1,092,262. BLUE-FLAME OIL-BURNER. RUDOLPH HOFFMAN, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Aug. 8, 1913. Serial No. 783,843. (Cl. 158—94.)

1. In a blue-flame oil burner, the combination of inner and outer wick tubes; means for controlling the supply of air to the inner side of the flame; and means for controlling the supply of air to the outer side of the flame, the last mentioned means comprising an annular vertical flange surrounding and spaced from the outer wick tube and forming a restricted air passage, said flange extending above the wick tube and having its upper portion flared outwardly, and two inwardly extending flanges, one above the other, and both located above the first mentioned flange for directing a sheet of air downwardly against the outer side of the flame.



2. In a blue-flame oil burner, the combination of inner and outer wick tubes; means for controlling the supply of air to the inner side of the flame; and means for controlling the supply of air to the outer side of the flame, the last mentioned means comprising an inner and an outer section, the inner section comprising a perforated flange fixed to the outer wick tube, and the outer section resting upon said flange and being detachably connected to the inner section, said outer section comprising means for supplying a limited amount of air to the base of the flame, the air so supplied entering through the perforations in said flange, and means thereabove for directing a sheet of air against the outer side of the flame.

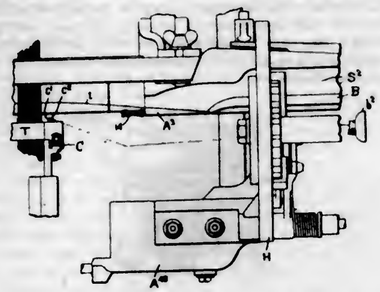
3. In a blue-flame oil burner, the combination of inner and outer wick tubes; means for controlling the supply of air to the inner side of the flame; and means for controlling the supply of air to the outer side of the flame, the last mentioned means comprising an inner and an outer section, the inner section comprising a horizontal perforated flange secured to the outer wick tube and a vertical flange having a locking projection provided with a shoulder, and the outer section comprising means for supplying a limited amount of air to the base of the flame, and means thereabove for directing a sheet of air against the outer side of the flame, said outer section comprising a flange having a slot adapted to receive said locking projection, said outer section being adapted to be rotated to carry said flange beneath the shoulder of said locking projection.

4. In a blue-flame oil burner, the combination of inner and outer wick tubes; means for controlling the supply of air to the inner side of the flame; and means for controlling the supply of air to the outer side of the flame, the last mentioned means comprising an annular ring encircling the outer wick tube, a perforated annular flange, means coöperating with said flange to support said ring, two annular flanges extending inwardly from said ring to a point above the wick tubes and adapted to direct a sheet of air against the outer side of the flame, and means for supplying a limited amount of air to the base of the flame.

5. In a blue-flame oil burner, the combination of inner and outer wick tubes; means for controlling the supply of air to the inner side of the flame; and means for controlling the supply of air to the outer side of the flame, the last mentioned means comprising an outwardly extending flange secured to the outer wick tube, said flange having a vertical portion, a locking projection on said vertical portion, said projection being provided with a shoulder, said outer section comprising a flange having a slot adapted to receive said locking projection, said outer section comprising a flange arranged to rest upon said outwardly extending flange and having a slot adapted to receive said locking projection, said outer section being adapted to be rotated to carry the slotted flange beneath the shoulder of said locking projection.

[Claims 6 to 11 not printed in the Gazette.]

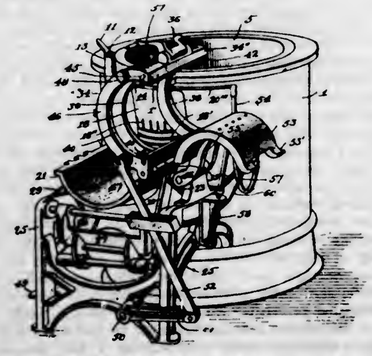
1,092,263. FILLING-SEVERING DEVICE FOR LOOMS. JAMES W. HOLLIDAY, Liberty, S. C., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 30, 1913. Serial No. 764,480. (Cl. 139—85.)



1. In a loom provided with automatic filling supplying mechanism, the lay, a severing device for the end of a fresh supply of filling mounted adjacent the selvage, a filling catching device mounted on the lay and projecting upwardly above the run of the incoming filling and adapted to yield forwardly or toward the fell upon contact with said filling, whereby upon the backward movement of the lay after replenishment the said device yields and passes behind the filling and on the succeeding beat-up insures the filling being carried into the field of operation of the severing device.

2. In a loom provided with automatic filling supplying mechanism, the lay, a severing device for the end of a fresh supply of filling mounted in fixed position adjacent the selvage, a finger pivotally mounted on the lay between said mechanism and said severing device, a stop to limit the rearward movement of said finger on its pivot and maintain it in vertical position, a spring normally holding the finger against said stop but permitting it to yield forwardly upon contact with the filling, whereby upon the backward movement of the lay after replenishment the said device yields and passes behind the filling and on the succeeding beat-up insures the filling being carried into the field of operation of the severing device.

1,092,264. STEREOTYPING APPARATUS. CHARLES E. HOPKINS, Worcester, Mass., assignor, by mesne assignments, of one-half to F. Wesel Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Sept. 7, 1901. Serial No. 74,707. Renewed Nov. 3, 1913. Serial No. 799,022. (Cl. 22—3.)



1. In a stereotyping apparatus, the combination with a furnace, and a casting box, of a stationary hollow core attached to the frame of the furnace, and extending in a vertical position, and having an opening or openings leading therethrough, for the flow of metal into the casting box.

2. In a stereotyping apparatus, the combination with a melting pot, a casting box, and a stationary core, with openings through the lower part thereof for the passage of metal to the casting box, of means for controlling the flow of metal, consisting of one or more valves of cone shape, working in cone shaped extensions which form connections between the end of the opening in the melting pot and the lower end of the core.

3. In a stereotyping apparatus, the combination with a furnace, a melting pot, a casting box, and a stationary core attached to the furnace and having an opening or openings through the lower part thereof for the passage of metal from the melting pot, of a cone shaped connection or connections extending in said opening or openings, and located in the line of draft from the furnace.

4. In a stereotyping apparatus, the combination with a furnace, a melting pot, and a casting box, of a stationary core attached to the furnace and extending in a vertical direction and having openings through its lower end, and connections in said openings forming passages for the flow of metal by gravity from the melting pot to the casting box.

5. In a stereotyping apparatus, the combination with a furnace, a melting pot, and a casting box, of a stationary convexed shaped core attached to the furnace and extending in a vertical direction, and having openings through its lower end, and connections leading from said openings to the melting pot, and forming valve seats, and a water shield, extending inside of the convexed core and having openings through its lower part, through which said connections extend, to guide the water, which passes between said core and shield, away from said connections and prevent the cooling of the same.

[Claims 6 to 44 not printed in the Gazette.]

1,092,265. SHROUD OR OTHER GARMENT. CHARLES G. HOWE, Macon, Mo. Filed Apr. 30, 1912. Serial No. 694,074. (Cl. 2—41.)

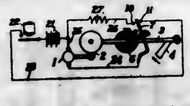


1. An effectively one-piece garment, for the human body, of double the length of the portion of the body to be clothed, with the two lengths permanently joined at the shoulder line and there foldable to bring one-half of the garment over a body lying on the other half, and said garment having an intermediate opening at the foldable portion for the passage of the head and also provided along the long sides with fastening devices for there securing the two lengths together.

2. A garment comprising a front portion and a back portion permanently joined at the shoulders and of a length to cover a body, the front and back portions being provided with sleeve portions common to both said front and back portions and in one piece therewith, the two portions of the garment being divided along the sides from the sleeve members to the bottom portions of the garment and there provided with means for detachably fastening together the meeting edges when the garment is brought together to envelop a body, said garment where joined together at the shoulders having a neck opening common to both members, and an elongated extension of said neck opening formed lengthwise of the front garment member.



1,092,266. ELECTRIC SIGNAL MECHANISM. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Original application filed Dec. 3, 1909, Serial No. 531,264. Divided and this application filed May 28, 1910. Serial No. 564,018. (Cl. 246—21.)



1. Electric signal mechanism comprising a signal having a bias toward danger position, an electric motor connected with the signal to move therewith in its return movement in response to said bias, a circuit controller external to the signal mechanism, means connected with and actuated by said mechanism, and suitable connections whereby said motor is caused by said circuit controller to move said signal to a position other than the danger position and whereby the motor is short-circuited by said means, the elements which short-circuit the motor being distinct from the circuit controller, and being caused to short-circuit the motor during said return movement only and at a predetermined point in said movement.

2. Electric signal mechanism comprising a signal having a bias toward danger position, an electric motor connected with the signal to move therewith in its return movement in response to said bias, a circuit controller external to the signal mechanism, means connected with and actuated by said mechanism, and suitable connections whereby said motor is caused by said circuit controller to move said signal to a position other than the danger position and whereby the motor is short-circuited by said means, the elements which short-circuit the motor being distinct from the circuit controller, and being caused to short-circuit the motor during said return movement only and during a portion only of said movement.

3. Electric signal mechanism comprising a signal having a bias toward danger position, an electric motor connected with the signal to move therewith in its return movement in response to said bias, a circuit controller external to the signal mechanism, means connected with and actuated by said mechanism, and suitable connections whereby said motor is caused by said circuit controller to move said signal to a position other than the danger position and whereby the motor is short-circuited by said means, the elements which short-circuit the motor being distinct from the circuit controller and normally inoperative, and being caused to short-circuit the motor after a portion of said return movement has been completed, and to open the short-circuit again before the completion of said return movement.

4. Electric signal mechanism comprising a signal having a bias toward danger position, an electric motor connected with the signal to move therewith in its return movement in response to said bias, a circuit controller external to the signal mechanism, means connected with and actuated by said mechanism, and suitable connections whereby said motor is caused by said circuit controller to move said signal to a position other than the danger position and whereby the motor is short-circuited by said means, the elements which short-circuit the motor being distinct from the circuit controller and inoperative to close the short-circuit during the movement of the signal to a position other than the danger position and being caused to short-circuit the motor at a predetermined point in the said return movement.

5. Electric signal mechanism comprising a signal having a bias toward danger position, a motor connected with the signal to move therewith in its return movement in response to said bias, a circuit controller external to the signal mechanism, means connected with and actuated by said mechanism, and suitable connections whereby said motor is caused by said circuit controller to move said signal to a position other than the danger position and whereby the motor is short-circuited by said means, said connections including a resistance device, the elements which short-circuit the motor being distinct from the circuit controller and being caused to form a short-circuit on the motor including the resistance device at a predetermined point in the said return movement.

[Claims 6 and 7 not printed in the Gazette.]

1,092,267. PROCESS OF MAKING STORAGE-BATTERY ELECTRODES. HARRY CROSS HUBBELL, Newark, N. J. Filed July 17, 1911. Serial No. 638,941. (Cl. 204—29.)



1. The process of making an active material for a storage battery electrode which comprises briqueting a nickel oxid, reducing it in said briquets by heat in a reducing atmosphere, submerging the hot reduced material in an alkali solution, grinding the damp material, drying it and rebriqueting.

2. The process of making an active material for a storage battery electrode which comprises briqueting a nickel oxid, reducing it in said briquets by heat in a reducing atmosphere, submerging the hot reduced material in an alkali solution, and mixing and rebriqueting this material with a nickel hydrate or its equivalent.

3. The process of making an active material for a storage battery electrode which comprises briqueting a nickel oxid, reducing it in said briquets by heat in a reducing atmosphere, submerging the hot reduced material in an alkali solution, grinding the damp material, drying it, mixing it with a nickel hydrate or its equivalent and rebriqueting.

4. The process of making an active material for a storage battery electrode which comprises briqueting a nickel oxid, reducing it in said briquets by heat in a reducing atmosphere, and then without substantial exposure to the air treating the reduced material with an alkali solution.

5. The process of making an active material for a storage battery electrode which comprises briqueting a nickel oxid, reducing it in said briquets by heat in a reducing atmosphere, and then without substantial exposure to the air treating the reduced material with an alkali solution and briqueting the resulting material.

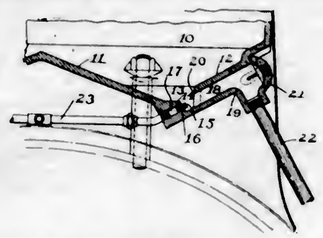
[Claims 6 to 20 not printed in the Gazette.]

1,092,268. LOCOMOTIVE SAND-BOX. HARRY IDOINE, Altoona, Pa. Filed May 14, 1913. Serial No. 767,688. (Cl. 105—263.)

1. A sand box including a base provided with an angularly disposed main discharge opening, a downwardly disposed delivery port at the upper end of said discharge opening, an outlet pocket opening laterally into the lower end of said main discharge opening, a blast pipe opening in communication with said main discharge opening, and an air jet port extending through the base of said outlet pocket and in communication with said blast pipe opening.

2. A sand box including a base provided with an angularly disposed main discharge opening, a downwardly disposed delivery port communicating with the upper end of the main discharge opening, a detachable impinging plate

covering the upper end of the main discharge opening, a blast pipe opening communicating with the lower end of the main discharge opening, and an outlet pocket open-



ing laterally into the main discharge opening and also having a ported communication with the blast pipe opening, and a nozzle fitted in the blast pipe opening.

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1,092,269. ART OF PRINTING FROM INTAGLIO, ENGRAVED, OR UNDERSURFACE PLATES. WILLIAM A. KRITTER, Amityville, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed Nov. 2, 1911. Serial No. 658,099. (Cl. 101—71.)



1. The herein described method or art of printing from intaglio, engraved, or under surface plates, consisting in successively inking in contrasting colors different portions of the intaglio, engraved, or undersurface plate through stencils protecting the previously inked or uninked portions thereof, wiping the plate through the stencil after each application of ink thereto, whereby the wiping of the entire plate and the likelihood of the mixing of the colors thereon is avoided, and taking an imprint from the completely inked plate.

2. The herein described method or art of printing from intaglio, engraved, or undersurface plates, consisting in superimposing a stencil upon the plate so as to expose only portions thereof, applying ink to the exposed portions of the plate, wiping the exposed portions of the plate through said stencil, and thereafter inking and wiping other portions of the plate in the same manner through dissimilar stencils, and taking an imprint from the completely inked plate.

3. The herein described method or art of printing from intaglio, engraved, or undersurface plates, consisting in superimposing a stencil upon the plate so as to expose only portions thereof, firmly holding the stencil upon the plate, applying ink to the exposed portions of the plate, wiping the exposed portions of the plate through said stencil, and thereafter inking and wiping other portions of the plate in the same manner through dissimilar stencils, and taking an imprint from the completely inked plate.

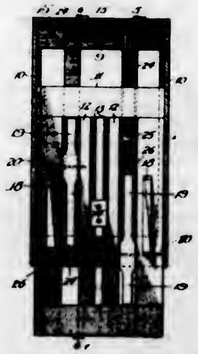
4. The method of inking an engraved plate in a plurality of colors which consists in providing means to cover that portion of the plate reserved for other colors while the ink of one color is being applied to the plate, placing the means for the first color upon the engraved plate, applying the ink to the exposed portion of the plate, wiping the plate while said means remains on the plate, removing said means and applying a second means to cover the portion of the plate already inked, inking the exposed portion of the plate with ink of another color and again wiping the plate before the said means is removed.

5. The method of inking an engraved plate in a plurality of colors which consists in providing a stencil for each color, placing the stencil for the first color upon the engraved plate, applying the ink to the exposed portion of the plate, wiping the plate while the stencil remains on the plate, removing the stencil, placing a second stencil upon the engraved plate, applying ink to the exposed portion of the plate and again wiping the plate before the stencil is removed.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,270. CABINET-DRAWER. DANIEL E. KUBTZ, Chicago, Ill., assignor to Spiegel, May, Stern Company, Chicago, Ill., a Corporation of West Virginia. Filed June 24, 1910. Serial No. 568,760. (Cl. 45—77.)



1. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame to be extended beyond the frame at either end thereof, a drawer slidably mounted on said support, means for automatically locking said support in extended position when it is extended in either direction beyond the frame, and means adapted to engage said locking means and release the same upon closing movement of the drawer.

2. In a cabinet drawer, the combination of a frame, a sliding support adapted to be extended beyond the frame at either end thereof, a drawer slidably mounted on said support, means carried by the support for automatically locking said support in extended position at each end of the frame, and means carried by the drawer in position to release said locking means upon closing movement of the drawer relatively to the support to thereby permit the support and drawer to be slidden into the frame.

3. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame to be projected longitudinally in either direction beyond the frame, a drawer slidably carried by said support, means movable about a horizontal axis carried by the drawer support adapted to engage with the frame beneath said drawer support and adapted to also engage above the drawer support with the drawer whereby movement of the support with respect to the drawer and the frame is controlled by movement of the drawer.

4. In a cabinet drawer, the combination of a frame, a sliding support adapted to be extended along the frame in either direction, a drawer slidably mounted on said support, means pivotally carried on the support and adapted to engage with the frame when the support is extended to maintain the support in extended position, a device for releasing said means from the frame upon predetermined closing movement of the drawer, said means when released being adapted to be connected with the drawer whereby the support is carried inwardly with the drawer, and means for disconnecting the drawer from said means to permit said drawer to slide relatively to the support.

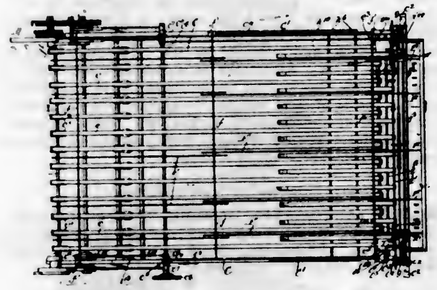
5. In a cabinet drawer, the combination of a frame, a drawer support slidably mounted in said frame and adapted to be extended beyond the frame at either end thereof, a device for limiting the outward movement of said support, means for locking said support in extended position, a drawer carried upon said support, means for limiting the movement of the drawer on the support, and means controlled by the drawer for automatically releasing the locking engagement between said support and frame upon closing movement of the drawer whereby the support and drawer may be slidden into the frame.

[Claims 6 to 10 not printed in the Gazette.]



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1,092,271. SHEET-FEEDING MACHINE. HOMER C. LA BATT, Chicago, Ill., assignor to William J. Herrick, Chicago, Ill. Filed July 17, 1906. Serial No. 326,538. (Cl. 101—36.)



1. In a mechanism of the class described, the combination with a pair of oppositely disposed side registers each of which is provided with a gripper, of a reciprocating rod, a link associated with each register and adapted to detachably connect the gripper thereof to the rod, a lever for reciprocating the rod and having a pair of lateral arms, and an operating rod having an arm associated with each of the said lateral arms and adapted to be detachably connected thereto.

2. In a sheet feeding machine, in combination with a frame provided with carrying tapes, a cross-bar carried by the frame, a pair of oppositely disposed registering devices adjustably mounted on the bar and each of which comprises a reciprocating carrier and a gripper pivotally mounted thereon, a reciprocating rod, a collar associated with each register and adjustably carried on the rod, a link for detachably connecting each collar with the associated register, and detachable means to oppositely move the rod.

3. In a sheet feeding machine, a frame provided with a cross-bar, a pair of oppositely disposed independently adjustable registering devices mounted on the bar and each of which comprises a reciprocating body and a hammer mounted thereon, a reciprocating rod provided with a pair of adjustable collars detachably carried thereon, a link for operating each registering device and adapted to engage the collar associated therewith, a lever having opposite arms adapted to be detachably connected to the rod, and means to move the lever.

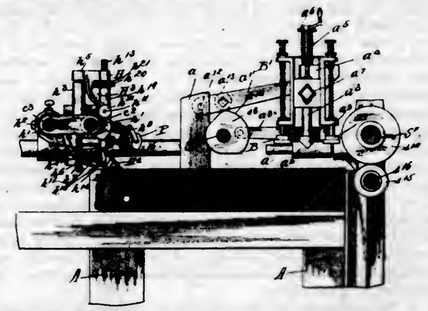
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1,092,272. SHEET-FEEDING MACHINE. HOMER C. LA BATT, Chicago, Ill., assignor to William J. Herrick. Filed Dec. 18, 1903, Serial No. 185,624. Renewed Jan. 10, 1910. Serial No. 537,337. (Cl. 101—40.)

1. In combination with a sheet feeding machine provided with a paper table and front feeding devices, a carriage adjustable lengthwise of the table, of a rear buckling device and a holding device mounted on the carriage at the rear of the buckling device, the said devices being adjustable laterally with respect to and independently of each other.

2. In combination with a sheet feeding machine provided with a paper table and front feeding devices, a guide located at each side of the table, and a carriage adjustable on the guides and lengthwise with respect to the table, of buckling and holding devices adjustable independently of each other and mounted on the carriage adjacent to the corners of the stack of sheets.

3. In combination with a sheet feeding machine provided with a table, front feeding devices and a buckler, of a holding device comprising a normally depressed support under spring pressure, a presser foot carried by the support, means for elevating the support, and means to positively move the foot independently of the support when the latter is elevated.



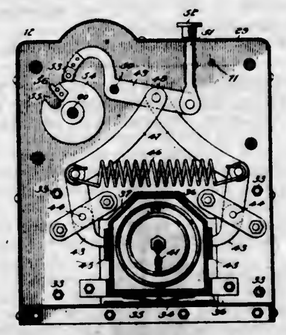
4. In combination with a sheet feeding machine provided with a table, front feeding devices and a buckler, of a holding device comprising a normally depressed support under spring pressure, a pivoted presser foot carried by the support, means for elevating the support, and a spring to move the foot independently of the support and when the latter is elevated.

5. In combination with a sheet feeding machine provided with a table, front feeding devices, and buckling devices, of a holding device associated with each buckling device and comprising a normally depressed support under spring pressure, a pivoted presser foot carried by the support, means for elevating the support, and means to positively move the foot on its pivot when the support is elevated.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,273. AUTOMATIC PHOTOGRAPHING APPARATUS. ARTHUR LATTAU, New York, N. Y. Filed Jan. 15, 1908. Serial No. 410,908. (Cl. 161—26.)



1. The combination with a device of the character described, comprising means for holding the end of a flexible power transmitter, a member for operating upon said transmitter, an actuating spring for said member, means for restraining said operating member and actuating spring and releasing the same, thereby imparting an instantaneous blow to the end of said power transmitter, a clockwork for regulating the operation of said restraining means, a locking mechanism for said clockwork, and means for manually releasing the same, of means for suspending said device and adapted to eliminate the shock of said blow.

2. The combination with a device of the character described comprising time controlling mechanism and mech-

anism controlled by said time controlling mechanism for automatically operating the shutter of a photographic camera, of means for operatively connecting said shutter operating means and shutter, a supporting bracket, and flexible connecting means for suspending said device from said bracket.

3. In a device of the character described, in combination, a casing, means whereby said casing may be loosely suspended, a drawer adapted to receive the end of a flexible power transmitter, said drawer being constructed to be received within said casing and to be drawn therefrom into operative position, means for operating upon said transmitter, a spring for actuating said operating means, means for holding said operating means inoperative, a spring for withdrawing said holding means at a predetermined time, manually operated means for resetting said operating means, manually operated means for resetting said holding means, a clockwork, means for restraining said clockwork, means for removing said restraining means, and suitable operative connections intermediate said clockwork and said holding means, said parts being contained within said casing and both said manually operated means being arranged to be accessible from the exterior of said casing.

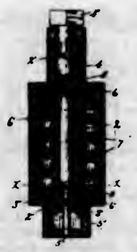
4. In a device of the character described, in combination, a casing, means for holding the end of a flexible power transmitter, means for operating upon said transmitter, means for restraining said operating means, a spring for removing said restraining means, a clockwork for controlling the action of said spring, and means for resetting said restraining means; said operating means, restraining means, removing spring and clockwork being arranged within said casing and said resetting means being accessible from the outside of said casing and extending through said casing into the interior thereof.

5. In a device of the character described, in combination, a casing, means for holding the end of a flexible power transmitter, means for operating upon said transmitter, means for restraining said operating means, a spring for removing said restraining means, mechanism for controlling the time of action of said spring, means for locking said time controlling mechanism, and means for resetting said restraining means; said operating means, restraining means, removing spring and time controlling mechanism being arranged within said casing and said resetting means and locking means being accessible from the outside of said casing and extending through said casing into the interior thereof.

[Claims 6 to 40 not printed in the Gazette.]

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1,092,274. PUNCHING DEVICE. CARL H. LINDSTEDT and HARRY TRAVERS, Hotchkissville, Conn. Filed Feb. 17, 1913. Serial No. 748,983. (Cl. 164—124.)



1. A punching device comprising a stock having a bore varying in diameter to form a seat; a headed hole-forming tip replaceably occupying the reduced portion of said bore, with its head in engagement with said seat, said tip protruding partially endwise from said stock; and means for locking said tip in position, when disposed as stated.

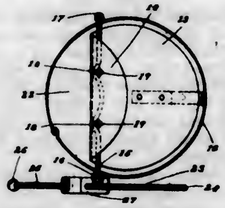
2. A punching device comprising a stock having a bore varying in diameter to form a seat; a headed hole-forming tip replaceably occupying the reduced portion of said bore, with its head in engagement with said seat; and a fastening spindle, the latter having a threaded engagement with said stock, and adapted, when duly turned, to bear on the head of said tip, and lock the same in position, when disposed as stated, said tip protruding partially endwise from said stock.

3. A punching device comprising a stock; a hole-forming tip supported by, and projecting endwise from, said stock; and an elastically controlled stripper, the latter slidably mounted on said stock and having an orifice in alinement with, and occupied by, the free end-portion of said tip.

4. A punching device comprising a stock having an annular shoulder; a hole-forming tip supported by, and projecting endwise from, said stock; a flanged stripper, slidably mounted on said stock and having an orifice in alinement with, and occupied by the free end-portion of said tip; a casing, adjustably engaging said shoulder, at one of its ends, and having an inturned lip at its opposite end, the flange of said stripper overlying said lip; and a spring, said spring disposed within said casing, between said shoulder and said stripper, and exerting a yielding pressure downwardly on the latter.

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1,092,275. AUTOMATIC DAMPER. SIDNEY L. LONG, Minneapolis, Minn., assignor of one-half to George W. McClelland, Minneapolis, Minn. Filed July 29, 1913. Serial No. 781,892. (Cl. 236—2.)



1. In combination with a stovepipe, a circular damper having a fold therein at one side of its diameter, a spindle removably journaled in the stovepipe at one side of the diameter thereof, said spindle being provided with a plurality of indentations in a common plane along the length thereof, and screw bolts extending through the damper and the fold within said indentations for removably securing the damper to the spindle so that the damper is held for rotation with the spindle.

2. In combination with a stovepipe, a circular damper having a fold therein at one side of its diameter, a spindle removably journaled in the stovepipe at one side of the diameter thereof, said spindle being provided with a plurality of indentations in a common plane along the length thereof, screw bolts extending through the damper and the fold within said indentations for removably securing the damper to the spindle so that the damper is held for rotation with the spindle, and a single stop member secured to the damper and engageable with the opposite walls of the stovepipe to hold said damper in maximum closing position and in maximum open position, respectively, said stop being so extended that when the damper is in the maximum open position it will extend in a plane oblique to the elements of the stovepipe cylinder.

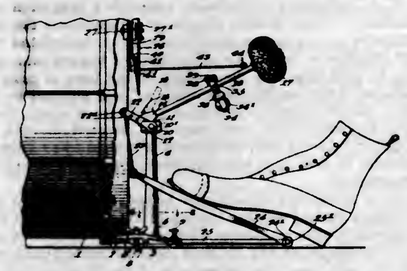
3. In combination with a stovepipe, a circular damper having a fold therein at one side of its diameter, a spindle removably journaled in the stovepipe at one side of the diameter thereof, said spindle being provided with a plurality of indentations in a common plane along the length thereof, screw bolts extending through the damper and the fold within said indentations for removably securing the damper to the spindle so that the damper is held for rotation with the spindle, a reversely turned arm connected with the spindle and lying in a plane perpendicular thereto, said arm extending across and obliquely to the plane of the damper, and a weight slidably mounted on the arm.



4. In combination with a stovepipe, an automatic damper comprising a spindle extending through and journaled in the stovepipe at one side of the diameter thereof, a damper within the pipe secured to rotate with said spindle, a reversely turned arm secured to the spindle outside of the pipe and extending across and obliquely to the plane of the damper, said arm at all times having a portion thereof extending across and on both sides of a plane passing through the spindle parallel with the elements of the stovepipe, and a weight slidable on said arm to either side of said plane for regulating the tendency of the damper to swing upon said spindle under the influence of gravity.

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1,092,276. DRUM AND CYMBAL BEATER. WILLIAM F. LUDWIG, Chicago, Ill. Filed Mar. 12, 1910. Serial No. 549,024. (Cl. 84—10.)



1. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft centrally journaled in the upper portion of said standard, a beater arm secured to said shaft at one side of its bearing, an operating arm for said shaft attached thereto on the opposite side of said bearing, a pedal, and means for operatively connecting said pedal and said operating arm.

2. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft centrally journaled in the upper portion of said standard, an arm secured to said shaft at one side of the bearing, a beater arm removably secured in a socket in said arm, resilient means secured to said arm for normally retaining the same and its beater arm in inoperative position, an operating arm for said shaft attached thereto on the opposite side of said bearing, a pedal, and means for operatively connecting said pedal and said operating arm.

3. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a drum beater arm pivotally mounted on said standard, means for operating said arm, and a cymbal beater carried by said arm and comprising an adjustable clamping member, an arm pivotally secured thereto, and means permitting movement of said arm on said pivot but automatically retaining said arm at either limit of its movement thereon.

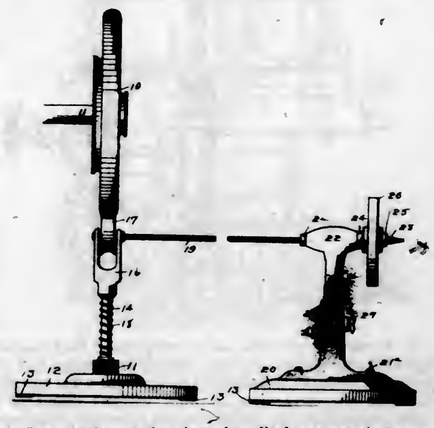
4. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a drum beater arm pivotally mounted on said standard, means for operating said arm, and a cymbal beater carried by said arm and comprising an adjustable clamping member, an arm pivotally secured thereto, and means comprising a resilient member and a pin for permitting movement of said arm on said pivot but automatically retaining said arm at either limit of its movement.

5. In a device of the character described, a vertical standard provided with a supporting base, means for clamping said standard and base to a drum, a transverse shaft journaled in the upper portion of said standard, a beater and an operating arm carried by said shaft, a pedal, means for operatively connecting said pedal and said operating arm, a spring connected at one end to said standard, and an arm on said transverse shaft to which the other end of said spring is connected, said spring exerting its tension substantially in the line of said vertical standard and said arm and spring normally being in alinement.

[Claim 6 not printed in the Gazette.]

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1,092,277. PORTABLE GRINDING-MACHINE. CHARLES G. LUNDSTROM, Des Moines, Iowa. Filed July 21, 1913. Serial No. 780,382. (Cl. 51—7.)



1. In a device of the class described a support, an upright member mounted thereon, a bracket adjustably mounted on said upright member, said bracket having opposite outwardly and upwardly extending arms, wheels carried by said arms, and means for transmitting motion from one of said wheels.

2. In a device of the class described a support, an upright member mounted thereon, a bracket adjustably mounted on said upright member, said bracket having opposite outwardly and upwardly extending arms, wheels carried by said arms, a second support, a shaft rotatably mounted therein, means for transmitting motion from one of said wheels to said shaft, and means for mounting tools on said shaft.

3. In a device of the class described a support, an upright member mounted thereon, a bracket adjustably mounted on said upright member, said bracket having opposite outwardly and upwardly extending arms, wheels carried by said arms, a second support, a shaft rotatably mounted therein, a flexible shaft operatively connected with said shaft and with one of said wheels.

4. In a device of the class described a support, an upright mounted thereon, a bracket slidably mounted on said upright having opposite upwardly and outwardly extending arms, wheels carried by said arms and designed to frictionally engage the fly wheel of a sewing machine, and a coil spring mounted on said upright between said bracket and said support.

5. In a device of the class described a support, an upright member mounted thereon, a bracket adjustably mounted on said upright member, said bracket having opposite outwardly and upwardly extending arms, wheels carried by said arms, a second support, a shaft rotatably mounted therein, a flexible shaft operatively connected with said shaft and with one of said wheels, and means for increasing the tension of said spring for affecting its yielding pressure on said bracket.

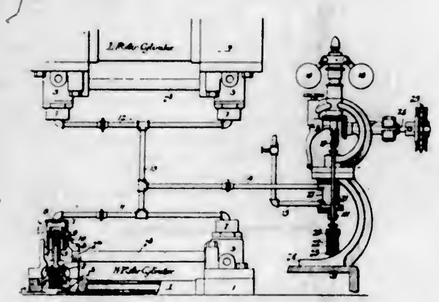
[Claims 6 to 8 not printed in the Gazette.]

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1,092,278. COMPRESSOR. EDWIN M. MACKIE, North Tarrytown, N. Y., assignor to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Mar. 30, 1906. Serial No. 308,889. (Cl. 230—24.)

1. In combination with an air compressor, fluid pressure actuated mechanism, a valve controlled thereby and

coöperating with the compressor and arranged when operated to cause the compressor to work without compression, valve mechanism for admitting and releasing compressed air to and from said fluid pressure actuated mechanism, and comprising independent admission and release valves, and a governor proper controlled by the speed of the compressor and having two plungers movable in unison in accordance with the speed of the compressor and arranged to operate said valves respectively.



2. In combination with an air compressor, fluid pressure actuated mechanism, a valve controlled thereby and cooperating with the compressor and arranged when operated to cause the compressor to work without compression, valve mechanism for admitting and releasing compressed air to and from said fluid pressure actuated mechanism and comprising independent admission and release valves, and a governor proper controlled by the speed of the compressor and having two plungers movable in unison in accordance with the speed of the compressor and arranged to operate said valves respectively, said plungers being independently adjustable toward or away from each other.

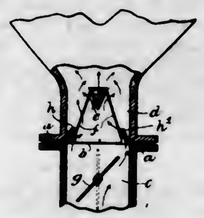
3. In combination with an air compressor, fluid pressure actuated mechanism, a valve controlled thereby and coöperating with the compressor and arranged when operated to cause the compressor to work without compression, valve mechanism for admitting and releasing compressed air to and from said fluid pressure actuated mechanism and comprising independent admission and release valves, and a governor proper controlled by the speed of the compressor and having two plungers, movable heads or supports therefor, and a yoke connecting said heads whereby the plungers move in unison.

4. In combination with an air compressor, fluid pressure actuated mechanism, a valve controlled thereby and coöperating with the compressor and arranged when operated to cause the compressor to work without compression, valve mechanism for admitting and releasing compressed air to and from said fluid pressure actuated mechanism, and comprising a casing having communication with said fluid pressure actuated mechanism, with the atmosphere and with a source of compressed air, valves in the casing for governing respectively said communication with the atmosphere and the communication between said fluid pressure actuated mechanism and the source of compressed air, and a governor having plungers for operating said valves in accordance with the speed of the compressor.

5. In combination with an air compressor, fluid pressure actuated mechanism, a valve controlled thereby and coöperating with the compressor and arranged when operated to cause the compressor to work without compression, valve mechanism for admitting and releasing compressed air to and from said fluid pressure actuated mechanism, and comprising a casing having communication with said fluid pressure actuated mechanism, with the atmosphere and with a source of compressed air, two ball valves in the casing for governing said communications, and a governor having plungers for operating the valves in accordance with the speed of the compressors.

[Claims 6 to 10 not printed in the Gazette.]

1,092,279. CARBURETER ATTACHMENT. JULIUS MARTIN and HARRY SIEBALD, New York, N. Y. Filed Aug. 16, 1913. Serial No. 785,074. (Cl. 48—180.)



1. A carbureter attachment embodying therein a base having a central opening therein of substantially the same diameter as the carbureter offtake pipe, a reticulated conical distributer having its apex directed toward said opening in said base, the dimensions of the base of said distributer being smaller than those of said opening in said base, and divergently arranged supports of small dimension extending from said base and secured to said distributer, whereby said distributer is spaced away from the opening in said base and clearance is afforded about said distributer.

2. A carbureter attachment embodying therein a base having a central opening therein of substantially the same diameter as the carbureter offtake pipe, a reticulated conical distributer having its apex directed toward said opening in said base, the dimensions of the base of said distributer being smaller than those of said opening in said base, divergently arranged supports of small dimension extending from said base and secured to said distributer, whereby said distributer is spaced away from the opening in said base and clearance is afforded about said distributer, and a deflector carried by said base and inclined toward and spaced away from said distributer, whereby, at low engine speeds, the mixture will be directed toward said distributer.

3. A carbureter attachment embodying therein a base having a central opening therein of substantially the same diameter as the carbureter offtake pipe, a reticulated conical distributer having its apex directed toward said opening in said base, the dimensions of the base of said distributer being smaller than those of said opening in said base, divergently arranged supports of small dimension extending from said base and secured to said distributer, whereby said distributer is spaced away from the opening in said base and clearance is afforded about said distributer, and a plurality of oppositely disposed segmental vanes or deflectors carried by said base and adapted to be arranged on opposite sides of the axis of a butterfly throttle valve, said vanes being inclined toward each other and spaced away from said distributer whereby, at low engine speeds, the mixture will be directed toward said distributer

4. A carbureter attachment embodying therein a base having a central opening therein of substantially the same diameter as the carbureter offtake pipe, a hollow, sheet-metal, conical distributer provided with a plurality of openings therethrough and having its apex directed toward said opening in said base, the dimensions of the base of said distributer being smaller than those of said opening in said base, and divergently arranged supports of small dimension extending from said base and secured to said distributer, whereby said distributer is spaced away from the opening in said base and clearance is afforded about said distributer.

5. A carbureter attachment embodying therein a base having a central opening therein of substantially the same diameter as the carbureter offtake pipe, a reticulated conical distributer having its apex directed toward said opening in said base, the dimensions of the base of said distributer being smaller than those of said opening in said base, and a plurality of wires passing through oppositely disposed openings in said distributer and having the ends thereof respectively attached to said base, whereby said distributer is spaced away from the opening in said base and clearance is afforded about said distributer.

[Claim 6 not printed in the Gazette.]



1,092,280. ROAD-SMOOTHER. EUGENE MCKEAN, Oakland, Cal. Filed July 17, 1912. Serial No. 710,102. (Cl. 94—4.)



1. A road surfacer comprising in combination, a supporting frame, and a plurality of spreaders carried thereby, said spreaders having working surfaces of greater area as they approach the rear of the apparatus, substantially as and for the purpose set forth.

2. A road surfacer comprising in combination, a horizontally disposed supporting frame, and a plurality of spreaders stationarily carried thereby in series transversely disposed of the frame, said spreaders having working surfaces of greater area as they approach the rear of the apparatus, and the spreaders of each series being out of actual alinement with those in advance thereof, substantially as and for the purpose set forth.

3. In a road surfacer, the combination of a horizontally disposed supporting frame, means carried by said frame for contact with the road surface to work the same, a plurality of casters, and mechanism carried by said frame for adjusting the position of any of said casters relative to said means, substantially as and for the purpose set forth.

4. In a road surfacer, the combination of a plurality of horizontally disposed frame members, surfacing means carried by said frame members for contact with the road surface to work the same, and mechanism for connecting the said frame members together to move upwardly with respect to a plane comprehended between their farthermost ends, but not below said plane, substantially as and for the purpose set forth.

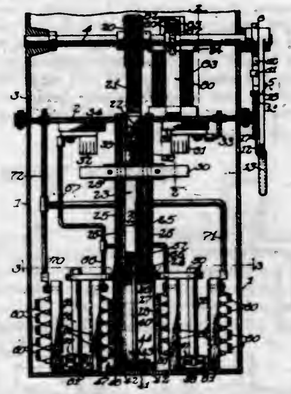
5. In a road surfacer, the combination of a plurality of horizontally disposed frame members, surfacing means carried by each of said frame members for contact with the road surface to work the same, and mechanism for connecting said frame members together, to swing laterally with respect to one another and to move upwardly with respect to a plane comprehended between their farthermost ends, but not below said plane, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,092,281. COMBINED MOTOR-STARTER AND CIRCUIT-BREAKER. ARTHUR C. MCWILLIAMS, Chicago, Ill. Filed June 19, 1912. Serial No. 704,521. (Cl. 172—179.)

1. A combined motor starter and circuit breaker comprising a main switch, a movable motive element adapted to engage said switch for closing it, there being lost motion of said movable element from normal non acting position before said mavoble element engages said switch, a rheostatic controller in circuit with said switch and having a movable element adapted to vary the amount of resistance in circuit, means actuated by said motive element for urging the movable element of the controller in a direction to cut out resistance, means for automatically controlling the rate of movement of the movable element of the controller when moving in a direction to cut out resistance, and a spring actuated by said motive element for urging said movable controller element in a direction to cut in resistance.

2. A combined motor starter and circuit breaker comprising a main switch, a movable motive element adapted to engage said switch for closing it, there being lost motion of said motive element from normal non acting position before said motive element engages said switch, a rheostatic controller in circuit with said switch and having a movable member adapted to vary the amount of resistance in circuit, a spring actuated by said motive element for urging the movable member of the controller in a direction to cut out resistance, means for retarding the action of said spring and a spring actuated by said motive element for urging the movable member of the controller in a direction to cut in resistance.



3. A combined motor starter and circuit breaker comprising a main switch, a movable motive element adapted to engage said switch for closing it, there being lost motion of said movable element from normal non acting position before said movable element engages said switch, a set of resistances in series with said main switch, a movable controller member adapted to vary the amount of said resistance in circuit, a spring actuated by said motive element for urging said controller member in a direction to cut out resistance, a dash pot for retarding the movement of said controller member and a spring actuated by said motive element for urging said controller member in a direction to cut in resistance.

4. In a motor starter, the combination of a main switch for connecting and disconnecting the source of supply with the motor to be controlled, resistances arranged in four parallel banks, the end of two banks being connected to the armature of the motor and an end of the remaining two banks being connected to one of the terminals of said main switch, a controller having two connectors, each connector being adapted to engage two of said banks of resistances simultaneously, the motion of said controller in one direction causing resistance to be cut out of circuit and the motion in the opposite direction causing resistance to be cut into circuit, a movable element adapted to operate said main switch, a spring actuated by said movable element and adapted to move said controller in a direction to cut out resistance, and means for retarding the movement of said controller.

5. In combination, a switch having a movable blade, a relatively strong spring acting upon said blade to hold it in open position, a relatively weak spring acting upon said movable blade to urge it to closed position, a movable element acting upon said weak spring to increase its action upon said switch blade, and engaging means upon said movable element adapted to engage said switch blade and force it to closed position against the action of the stronger spring, said engaging means lying at a distance from the switch blade when the parts are in normal position, whereby the engaging means is permitted to move a certain distance before engaging said switch blade, substantially as described.

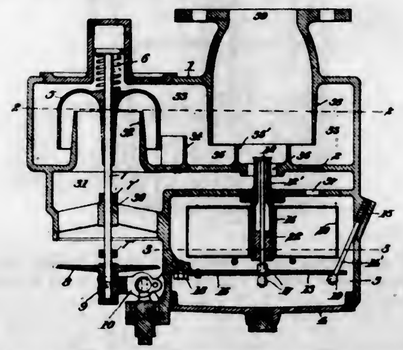
[Claims 6 to 19 not printed in the Gazette.]

1,092,282. CARBURETER. WARD TEMPLE MIXSELL, Washington, D. C. Filed Apr. 10, 1911. Serial No. 620,186. (Cl. 48—155.2.)

1. A carbureter having high and low pressure chambers with a constricted passage therebetween, an oil nozzle dis-

charging at said passage, a by-pass connecting the high and low pressure chambers around said passage, and a valve in said by-pass, comprising a nozzle, and an inverted cup-shaped member surrounding and spaced from said nozzle, and means tending to close said cup shaped member.

2. A carbureter, having high and low pressure chambers with a constricted passage therebetween, an oil nozzle discharging at said passage, a by-pass connecting the high and low pressure chambers around said passage, and a valve in said by-pass, comprising a nozzle, and an inverted cup shaped member surrounding and spaced from said nozzle, the effective area of the space between the nozzle and the cup shaped member being substantially equal to the effective area of the nozzle, and means to close the cup shaped member.



3. In a carbureter, the combination of an oil nozzle, an air passage, having a contracted part surrounding said nozzle, a throttle controlling the inlet to said passage, a vacuum chamber with an outlet pipe into which said nozzle discharges, said chamber and pipe being unobstructed beyond said nozzle, and a by-pass leading from the inlet end of said passage and terminating in a secondary annular air outlet surrounding said contracted part of the air passage and spray nozzle and communicating with the vacuum chamber to form a continuous annular enveloping air current in said chamber around the fluid drawn from the nozzle, to prevent precipitation of liquid particles on the surface of the vacuum chamber.

4. In a carbureter, the combination of a passage having an air inlet and throttle at one end and an outlet at the other end, an oil nozzle discharging into said passage, a by-pass extending around said nozzle, whereby part of the flow of air will be through said by-pass, an automatic valve in said by-pass and controlling said flow, a spring pressing against the valve and tending to close the same, and means to manually increase the tension of said spring, according to the extent of opening of the throttle.

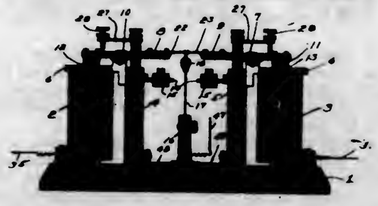
5. In a carbureter, the combination of a passage having an air inlet at one end and an outlet at the other end, an oil nozzle discharging into said passage, a by-pass extending around said nozzle, whereby part of the flow of air will be through said by-pass, an automatic valve in said by-pass and controlling said flow, a spring pressing against the valve and tending to close the same, and a manually operated throttle located at the air inlet, and connected through said spring with said automatic valve for control therewith.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,283. RELAY. MARK S. MORSE, Oakland, Cal. Filed Aug. 22, 1912. Serial No. 716,553. (Cl. 175—281.)

1. In a relay for signal systems, the combination of two electromagnets adapted to be independently energized, an armature for each electromagnet to move to or from the core thereof, a head having two converging faces of conducting material, a mounting for said head adapted to hold the same in a predetermined normal position but whereby the head is movable laterally of said position, an insulation abutment between said converging facings of said head, a hook contact for each of said armatures one disposed in close proximity to each of said faces of said head and adapted to be actuated by movement of its respective armature to make or break contact with the respective facing of said head, the first hooked contact actuated to make contact with the facing of said head forcing the latter laterally to position the other facing thereof out of operative relation to the other contact and disposing said abutment in the path of movement of said last mentioned contact.



2. In a relay for signal systems, the combination of two electromagnets adapted to be independently energized, an armature for each electromagnet to move to or from the core thereof, an oscillatable head provided with two converging faces of conducting material, an insulation abutment between said converging faces of said head, two oscillatable arms one adjacent each electromagnet, said magnets each being adapted to actuate a corresponding arm upon energization of its respective magnet, means for actuating each arm in a counter direction to that resulting from energy of its respective magnet, a hooked contact for each of said arms one disposed in close proximity to each of said faces of said head and adapted to be actuated by movement of its respective arm to make or break contact with the respective face of said head, the first hooked contact actuated to make contact with the facing of said head forcing the latter laterally to position the other facing thereof out of operative relation to the other hooked contact and disposing said abutment in the path of movement of said last mentioned hooked contact.

3. In a relay for signal systems, the combination of two electromagnets adapted to be independently energized, an armature for each electromagnet, to be moved to or from the core thereof, an oscillatable head provided with two converging faces of conducting material, an insulation abutment between said converging faces of said head, two oscillatable arms one adjacent each electromagnet, said magnets each being adapted to actuate a corresponding arm upon energization of its respective magnet, an extension carried by said arms at the opposite sides thereof from the pivot point, from said armatures, a weight adjustable upon each of said extensions, a hooked contact for each of said arms one disposed in close proximity to each of said faces of said head and adapted to be actuated by movement of its respective arm to make or break contact with the respective face of said head, the first hooked contact actuated to make contact with the facing of said head forcing the latter laterally to position the other facing out of operative relation to the other hooked contact and disposing said abutment in the path of movement of said last mentioned hooked contact.

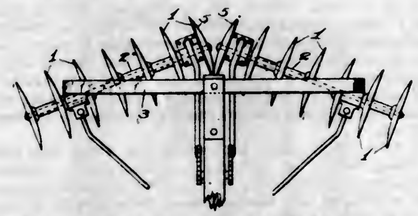
4. In a relay for signal systems, the combination of two electromagnets adapted to be independently energized, an armature for each electromagnet to be moved to or from the cores thereof, an oscillatable head provided with two converging faces of conducting material, an insulation abutment between said converging faces of said head, two oscillatable arms one adjacent each electromagnet, said magnets each being adapted to actuate a corresponding arm upon energization of its respective magnet, means for actuating each arm in a counter direction to that resulting from energy of its respective magnet, means for limiting movement of said arms responsive to said last mentioned means, a hooked contact for each of said arms one disposed in close proximity to each of said faces of said head, and adapted to be actuated by movement of its respective arm to make or break contact with the respective face of said head, the first hooked contact actuated to make contact with the face of said head forcing the latter laterally to position the other face thereof out of operative relation to the other hooked contact and disposing said abutment in the path of movement of said last mentioned hooked contact.

5. In a relay for signal systems, the combination of two electromagnets adapted to be independently energized, an armature for each electromagnet to be moved to or from the cores thereof, a flexible spring, a head carried by said spring and provided with two converging faces of conducting material, an insulation abutment between said converging faces of said head, two oscillatable arms one adjacent each electromagnet, said magnets each being adapted to actuate a corresponding arm upon energization of its respective magnet, means for actuating each arm in a counter direction to that resulting from energy of its respective magnet, a hooked contact of each of said arms one disposed in close proximity to each of said faces of said head and adapted to be actuated by movement of its respective arm to make or break contact with the respective face of said head, the first hooked contact actuated to make contact with the faces of said head, forcing the latter laterally to position the other face thereof out of operative relation with the other hooked contact and disposing said abutment in the path of movement of said last mentioned hooked contact.

[Claims 6 not printed in the Gazette.]

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1,092,284. DISK HARROW. WINFIELD SCOTT NICHOLS, Plano, Ill., assignor to Independent Harvester Company, Plano, Ill., a Corporation of Illinois. Filed July 14, 1913. Serial No. 778,830. (Cl. 55—81.)



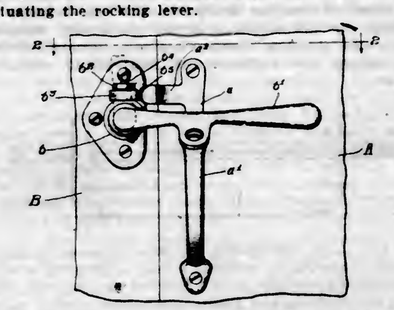
In a disk harrow comprising two gangs of disks, the shafts on which they are respectively mounted, the frame which carries the shafts and the means for adjusting the shafts toward and from alinement with each other, reinforces mounted on the convex side of the proximate disks of the two gangs, said reinforces consisting each of a thin concavo-convex spring metal disk, the curvature of whose concave side toward the harrow disk on which it is mounted is normally slightly greater than that of the convex side of said harrow disk, and means for clamping such reinforce against said convex side of the harrow disk to cause its periphery to seat snugly before contact is produced about the center.

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1,092,285. REFRIGERATOR-LATCH. FLOYD N. PERKINS, Freeport, Ill., assignor to Arcade Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Dec. 29, 1913. Serial No. 809,151. (Cl. 70—49.)

1. A door latch comprising an incline for the door, having a finger projecting beyond the edge of the latter, a standard for the casing, carrying a locking arm swinging from a position out of the path of the door to a position upon said incline and a rocking lever upon the standard arranged in the path of the locking arm and also in the path of said finger and operating to throw the arm upon the incline when struck by the finger when the door is closed.

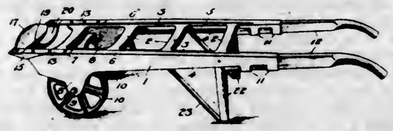
2. A door latch, comprising an incline for attachment to the door, a standard for attachment to the casing, a locking arm pivoted upon the standard and engaging the incline to crowd the door against the casing, a rocking lever upon the standard engaging the locking arm to throw the latter toward the incline, and means upon the door for actuating the rocking lever.



3. A door latch, comprising an incline for the door and a standard for the casing, a locking arm pivoted upon the standard and swinging parallel with the casing to engage the incline, a lever throwing device upon the standard and a finger upon the door, engaging and operating said device when the door is closed.

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1,092,286. HAND-TRUCK. EDWIN L. PETERSON, Pittsburgh, Pa., assignor to Pressed Steel Truck Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 18, 1913. Serial No. 801,629. (Cl. 21—65.)



1. In a hand truck the combination with a truck body, of a lifting nose provided with a pilot blade merging into a saddle downwardly curved in a transverse direction across the truck body

2. In a hand truck the combination with a truck body, of an imperforate lifting nose provided with a pilot blade merging into a saddle downwardly curved in a transverse direction across the truck body.

3. In a hand truck the combination with a truck body, of a lifting nose provided with a pilot blade merging into a saddle downwardly curved in a transverse direction across the truck body, and cross bars also downwardly curved connecting opposite sides of the truck.

4. In a hand truck the combination with a truck body having raised guard-ribs upon the bearing surfaces of its side bars, of coupling irons secured to said side bars in alinement with their respective guide-ribs, and a lifting nose provided with a pilot blade merging into a downwardly curved saddle extending transversely across the truck and secured at opposite ends to the coupling irons aforesaid.

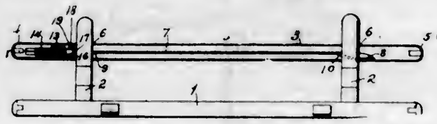
5. In a hand truck the combination with a unitary truck body, of forwardly projecting coupling irons secured to opposite sides of said body, a depressed seat in the surface of each coupling iron, and a lifting nose provided with a pilot blade merging into a downwardly curved saddle which crosses the truck transversely and is secured at opposite ends in the depressed seats of the coupling irons aforesaid.

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1,092,287. LOOSE-LEAF BINDER. WILLIAM P. PITT, Independence, Mo., assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed May 12, 1913. Serial No. 766,997. (Cl. 129—12.)

1. In a loose leaf binder, a tubular follower having a hole therethrough adapted to receive a post, a clamping

member longitudinally movable in said follower and provided with a slot for receiving said post, a nut carried by said clamping member, an adjusting screw fitted in said nut, a second clamping member movable longitudinally in said slot by said adjusting screw, and a stop engaging said second clamping member and said tubular follower for limiting the movement of said second clamping member.



2. In a loose leaf binder, a tubular follower having a hole therethrough for receiving a post, a clamping member longitudinally movable in said follower and provided with a slot for receiving said post, a nut carried by said clamping member, a second clamping member, a stop secured to said second clamping member and engaging said follower, and an adjusting screw fitted in said nut and having a head rotatably mounted between the second clamping member and said stop.

3. In a loose leaf binder, a follower having a hole therethrough for receiving a post, a clamping member longitudinally movable with respect to the follower and having a slot adapted to receive said post, a nut carried by said clamping member, a second clamping member, an adjusting screw fitted in said nut and adapted to bear against said second clamping member, and a stop engaging one of said clamping members and said follower for limiting the movement of the clamping member which is engaged by the stop.

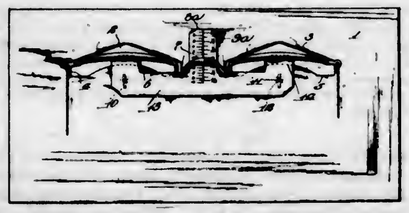
4. In a loose leaf binder, a follower having a hole therethrough for receiving a post, a longitudinally movable clamping member carried by the follower and having a slot for receiving therethrough said post, a nut carried by said clamping member, an adjusting screw fitted in said nut, a second clamping member rotatably engaging said adjusting screw, and a stop engaging said second clamping member and said follower for limiting the movement of said second clamping member.

5. In a loose leaf binder, a tubular follower having a hole therethrough for receiving a post and provided with an opening, a clamping member in said follower and provided with a slot for receiving therethrough said post, a nut carried by said clamping member, a second clamping member, an adjusting screw fitted in said nut and rotatably engaging said second clamping member, and a stop mounted in said opening in the follower and engaging one of said clamping members for limiting the movement thereof.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,288. DEVICE FOR MEASURING SPECTACLE-BRIDGES. CHARLES HENRY PIXLEY, Chicago, Ill., assignor to F. A. Hardy & Company, a Corporation of Illinois. Filed July 26, 1913. Serial No. 781,294. (Cl. 33—200.)

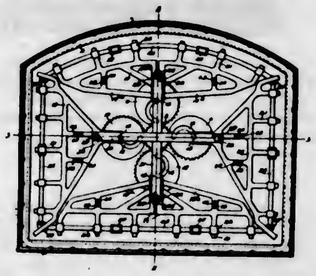


1. A templet having provided therein apertures for the reception of deeply curved lenses of a spectacle, with portions of said apertures designed to contact the rear surfaces of said lenses and scales disposed at the center of a line joining the lens contacting portion of said apertures adapted to indicate the posterior or anterior location of the crown of the bridge of said spectacle with respect to said line and to the rear surface of said lenses.

2. A templet having provided therein apertures for the reception of deeply curved lenses of a spectacle, and a T-shaped member slidably mounted upon said templet the outer ends of said T being adapted to contact the inner surfaces of lenses located in said apertures, and the central portion of said T being provided with scales for showing the posterior or anterior location of the crown of the bridge of the spectacle with reference to a line joining the lens contacting portions thereof.

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1,092,289. BURIAL-VAULT. HERBERT T. REESE, Springfield, Ohio, assignor to The Springfield Metallic Casket Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 25, 1913. Serial No. 786,581. (Cl. 27—7.)



1. In a vault closure, the combination, with a door and a casing having an inwardly extending rim, locking mechanism carried by said door comprising in part a series of locking frames, one or more of said frames being constructed in two sections flexibly connected together, and means for moving said locking frames to locking position over said rim and for causing the same to impinge said rim.

2. In a vault closure, the combination, with a door and a casing having an inwardly extending rim, a locking mechanism consisting in part of a series of locking frames, one or more of said locking frames being formed in two sections with a series of bolts on each of said sections, said sections being flexibly connected together, and means for throwing said locking frames to locking position and for causing the same to impinge said rim.

3. In a vault closure, the combination with a door and a casing having an inwardly extending rim having one of its sides formed on the arc of a circle, a locking mechanism consisting in part of a series of locking frames, the locking frame corresponding to the curved part of the rim being formed in two sections flexibly connected together, and means for throwing said locking frame to locking position over said curved rim and for tilting the same to clamping position.

4. In a vault closure, the combination, with a door and a casing, an inwardly extending rim on said casing having one of its sides formed on the arc of a circle, a locking mechanism consisting in part of a series of locking frames, the locking frame corresponding to the curved part of said rim being formed in two sections flexibly connected together, a series of bolts on said last mentioned locking frame formed rigid therewith and projecting in different directions, and means for throwing said frame to locking position to cause said bolts to extend over said curved rim and for causing said bolts to impinge said rim.

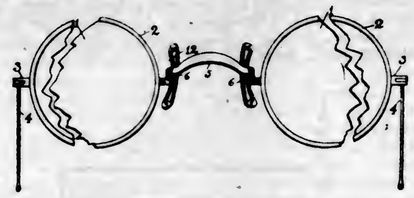
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1,092,290. SPECTACLES. ELWOOD RIGGS, Omaha, Nebr. Filed May 8, 1912. Serial No. 695,892. (Cl. 88—41.)

1. The combination with a bridge having offset portions, of supporting arms carried by the bridge and located with-



in the offsets, and guards carried by the arms and disposed substantially in alinement with the inner face of the bridge.



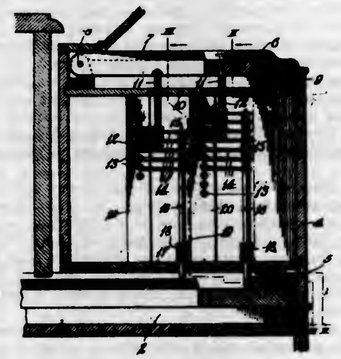
2. In a spectacle mounting, the combination with a bridge having a central portion adapted to rest on the nose of the wearer, of offset portions formed in the bridge adjacent the bearing portion, and nose guards pivotally secured to said offset portions.

3. A bridge of the character described comprising a central arched portion having an adjustable loop at each end thereof and offset portions formed in the arched portion of the bridge.

4. A bridge of the character described comprising a central arched portion having an adjustable loop at each end thereof and offset portions formed in the arched portion of the bridge, and guard supporting arms secured to and disposed within said offset portions of the bridge.

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1,092,291. AUXILIARY KEYBOARD FOR PIANOS. MATCHELL ROBINSON, Detroit, Mich. Filed Jan. 26, 1912. Serial No. 673,545. (Cl. 84—16.)



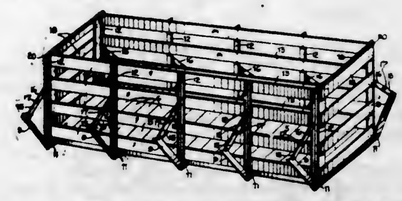
1. The combination with a pianoforte casing, keyboard and keyboard blocks, of a case adapted to be supported on the blocks over the key-board, an auxiliary keyboard in the case, a rock shaft for each key of the auxiliary board journaled in the casing, a rock arm on each shaft, a post resting on the rock arm and supporting the key, a striking finger on each rock shaft, striker posts in the casing each adapted to be operated by a striking finger with the lower end in operative relation to a key of the piano corresponding to a key of the auxiliary board, and guiding means detachably holding the case on the blocks above the key-board with the striker posts in register with the keys of the piano key-board.

2. The combination with a pianoforte casing, keyboard and keyboard blocks, of a case adapted to rest on the blocks over the key-board, a plurality of transverse bearing plates in the casing, a plurality of rock shafts journaled in the bearing plates parallel to the plane of the pianoforte key-board, an upright striker post longitudinally movable in the case over each key of the pianoforte key-board, means yieldingly supporting the hammer posts over the keys, a striking finger on each rock shaft adapted to depress a striker post, a rock arm on each rock shaft, a key post adapted to move each rock arm, an auxiliary key-board mounted in the case whose several members are each adapted to depress the post of a rock arm and operate a key of the key-board, and means detachably securing the pianoforte casing and attachment case for holding the striker posts in register with the piano keys.

3. The combination with a piano-forte casing, key-board and key board blocks, of a case adapted to be supported over the key-board by the key-board blocks, bearing members in the casing, oscillatory shafts journaled in the bearing members in substantially parallel relation to the plane of the pianoforte key-board, longitudinally movable upright striking posts in the casing each over a key of the pianoforte keyboard, yielding means normally supporting the striker posts above the keys, striking members on each shaft adapted to depress a striking post, a rock arm on each shaft, a key-post for operating said rockarm, an auxiliary key-board in the case whose several members are each located to press the post of a rock-arm and thereby operate a key of the key-board, and means detachably securing the case and pianoforte casing in alinement, holding the striking post in register with the piano key.

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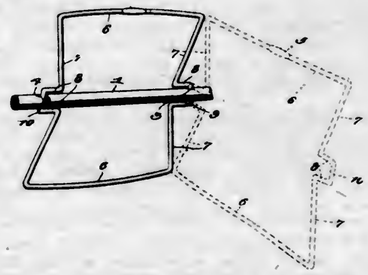
1,092,292. SCALE-RACK. WILFRED K. ROSE, Findlay, Ill. Filed Jan. 10, 1913. Serial No. 741,291. (Cl. 119—20.)



A device of the character described comprising a plurality of bars having their opposite extremities disposed on upward inclines, a platform supported by the intermediate portions of such bars, side frames each including a plurality of vertical standards, said standards being provided upon their lower ends with laterally directed pintles pivotally mounted in the bars beyond one side of the platform, certain of such pintles being extended in a direction opposite to the remainder of the pintles, and means connecting each of the standards at a point intermediate of its ends to the upper end of the adjacent inclined extremity of one of the bars.

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1,092,293. WIRE-REEL GUARD. WILLIAM M. RUSSELL, Sapulpa, Okla. Filed June 9, 1913. Serial No. 772,592 (Cl. 242—77.)



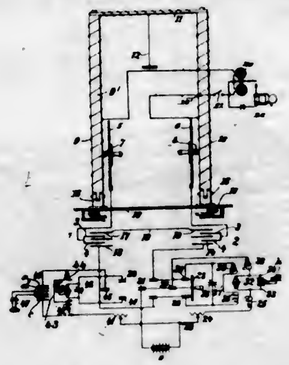
1. A guard of the character described comprising a shaft provided with a hole and a notch spaced from each other, and a spring wire frame of substantially rectangular construction having parallel side arms and with its end bars bent inward at acute angles to said side arms, thence outward on parallel lines and integrally united,

thereby forming two cranks whereof one is journaled in said hole and the other removably engaged with said notch, for the purpose set forth.

2. A guard of the character described comprising a tubular shaft provided with a transverse hole and at a distance from it with a transverse notch opening through one side of the shaft, and a frame of spring wire whose ends are united with each other, one side of the frame being pivotally mounted in said hole and the other side being adapted to engage said notch when the sides of the frame are sprung toward each other, the whole for use substantially as described.

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1,092,294. RECEIVING APPARATUS FOR ALTERNATIVE WIRELESS TELEGRAPHY AND TELEPHONY. JOSEF SCHIESSLER, Baden, near Vienna, Austria-Hungary. Original application filed Apr. 20, 1908, Serial No. 428,255. Divided and this application filed Aug. 11, 1910. Serial No. 576,742. (Cl. 250—8.)



1. In a wireless signaling system, a receiver comprising a supply circuit containing a resistance element, antennæ, a circuit connected thereto containing a winding positioned to magnetically influence said resistance, a condenser in parallel with the resistance and a receiving instrument connected in parallel to said resistance.

2. In a wireless signaling system, a receiver comprising a supply circuit containing a resistance element heated to incandescence by continuous current, antennæ, a circuit connected thereto containing a winding positioned to magnetically influence said resistance, a condenser in parallel with the resistance and a receiving instrument connected in parallel with said resistance.

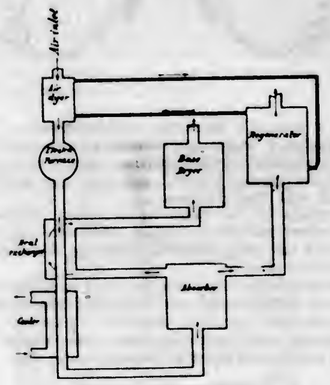
3. In a wireless signaling system, a receiver comprising a supply circuit containing a resistance element, antennæ, a circuit connected thereto containing a winding positioned to magnetically influence said resistance, an adjustable condenser in parallel with the resistance and a receiving instrument connected in parallel with said resistance.

4. In a wireless signaling system, a receiver comprising a supply circuit containing a resistance element heated to incandescence by continuous current, antennæ, a circuit connected thereto containing a winding positioned to magnetically influence said resistance, an adjustable condenser in parallel with the resistance and a receiving instrument connected in parallel with said resistance.

5. In a wireless signaling system, a receiver comprising a supply circuit having a resistance winding therein heated by continuous current, antennæ, a circuit connected thereto containing a winding adjustable with relation to the resistance to vary the action of the magnetic field of said winding on the resistance, a condenser in parallel with the winding and a receiving instrument in parallel with the heated winding.

[Claims 6 to 14 not printed in the Gazette.]

1,092,295. PROCESS AND APPARATUS FOR ABSORBING NITROUS VAPORS IN THE DRY AND WITH HEAT BY THE AID OF A BASE SUCH AS LIME. ALPHONSE THÉOPHILE SCHLOESING, Paris, France, assignor to Norsk Hydro-Elektrisk Kvoelstofaktieselskab, Christiania, Norway, a Corporation of Norway. Filed May 25, 1912. Serial No. 699,795. (Cl. 204—31.)




1. A process for absorbing nitrous vapors from a gaseous mixture in the dry and with heat by the aid of a base such as lime which consists in first passing the gases into a heat interchanger, where it heats a portion of the gases issuing from the absorber, and then into the absorber; a portion of the gaseous mixture deprived of its nitrous vapors passing again into the said heat interchanger for reheating such portion, then passing through the apparatus for drying and dehydrating the absorbent base; the other portion of the gaseous mixture passing out of the absorbing apparatus and deprived of its nitrous vapors passing through the apparatus for regenerating the drying agent which serves to dry the air treated in the installation.

2. A process of absorbing nitrous vapors produced in a vapor generator which consists in introducing said vapors into an absorption base at a temperature varying between 300° and 400°, centigrade, substantially, then heating the gases which leave the absorption base by the heated vapors from the vapor generator and then leading said gases into contact with hydrated base to dehydrate the same.

3. A process of absorbing nitrous vapors produced in a vapor generator which consists in introducing said vapors into an absorption base at a temperature of from 300° to 400° centigrade, substantially, then heating a portion of the gases which leave the absorption base by the heated vapors from the vapor generator, and leading them into contact with hydrated base to dehydrate the same, and leading the remainder of such gases through a drying agent for carrying off moisture from and regenerating the same.

4. In apparatus for absorbing nitrous vapors in the dry and with heat by the aid of a base such as lime the combination with an electric furnace for forming nitrous compounds with the elements of the atmospheric air, of an apparatus in which the nitrous vapors in the gaseous mixture issuing from the furnace are absorbed by a base, a heat interchanger through which pass the gases issuing from the furnace and a portion of the gaseous mixture deprived of nitrous vapors issuing from the absorber and in which this portion is reheated, and an apparatus for previously drying and dehydrating the absorbent base by means of a portion of the gaseous mixture issuing from the absorber and reheated by the gaseous mixture issuing from the furnace.

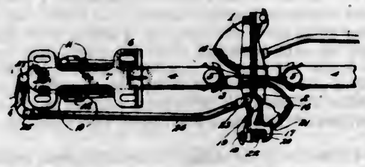
5. In apparatus for absorbing nitrous vapors in the dry and with heat by the aid of a base such as lime the combination with an apparatus for drying air, of an electric furnace for forming nitrous compounds with the elements of air dried by the said drying apparatus, an apparatus in which the nitrous vapors in the gaseous mixture issuing from the furnace are absorbed by a base, a heat interchanger through which pass the gases issuing from the furnace and a portion of the gaseous mixture deprived of nitrous vapors issuing from the absorber and in which this portion is reheated, an apparatus for previously drying and dehydrating the absorbent base by means of a portion of the gaseous mixture issuing from the absorber and reheated by the gaseous mixture issuing from the furnace, and an apparatus for regenerating the air drying agent in which the agent is regenerated by the heat derived from the other portion of the gaseous mixture issuing from the absorber.

[Claim 6 not printed in the Gazette.]



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1,092,296. LOCKING MECHANISM FOR TRAIN-PIPE COUPLINGS. PETER SCHMIDT, St. Louis, Mo., assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo., a Corporation of Arizona. Filed Jan. 6, 1913. Serial No. 740,381. (Cl. 188—13.)



1. In a train pipe coupler, in combination with a spring-pressed plunger carried by the car and having a coupler head, a locking device pivotally mounted on the head, link mechanism pivotally connected with said plunger and said locking device, means carried by the car for causing the link mechanism to release the locking device in the separating movement of the cars, and a spring tending normally to actuate the said link mechanism to force said device into locking position.

2. In a train pipe coupler, in combination with a spring-pressed plunger carried by the car and having a pivoted coupler head, a locking device pivotally mounted on the head, link mechanism pivotally connected with said plunger and said locking device, a spring tending normally to actuate said link mechanism to force said device into locking position, and a lug carried by the car and adapted to engage the link mechanism and cause it to release the locking device in the separating movement of the cars.

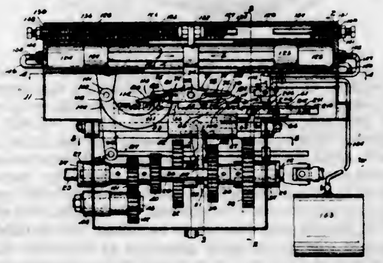
3. In a train pipe coupler, in combination with a spring pressed plunger carried by the car and having a pivoted coupler head, a pivoted locking member mounted on the head, a spring pressed link pivotally mounted on the plunger, a rod pivotally connected to said link and said locking member, respectively, at its opposite ends, the spring of said link tending constantly to force the locking member into locking position, and means carried by the car and adapted to engage said link in the separating movement of the cars to turn the locking member to unlocked position.

4. In a train pipe coupler, a bracket supported on the car and having a rearwardly extending lug, a spring pressed plunger mounted in said bracket and having a coupler head pivotally mounted thereon at its forward end, a locking member pivotally mounted on said head, a link pivotally mounted at the rear end of said plunger, a rod pivotally connecting said link and said locking member, and a spring exerting constant pressure on said link and tending normally to turn the locking member to locked position and to maintain it in such position under spring pressure, said lug being adapted to engage the link in the separating movement of the cars whereby to throw the link backward and thereby turn the locking member to unlocked position.

5. In a train pipe coupler, in combination with a spring pressed plunger carried by the car and having a pivoted coupler head, locking mechanism comprising an intermediate and two terminal pivotally mounted members, one of said members being a locking member, a spring acting on the other member and tending normally to turn and maintain said locking member in a locked position, and means carried by the car and adapted to engage said other member and to turn it against the resistance of its spring to release said locking member.

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1,092,297. SPEED-CHANGING MECHANISM. OSCAR SCHNITZLER, Remington, Ohio. Filed Aug. 12, 1912. Serial No. 714,624. (Cl. 74—58.)



1. In speed changing mechanism, the combination of speed-change parts comprising a movable power-transmitting member movable into a plurality of positions effecting a plurality of changes of speed, and a fluid-actuated device arranged for operative connection with said movable member for moving the same into said plurality of positions for effecting said speed-changes.

2. In speed changing mechanism, the combination of speed-change parts comprising a movable member for effecting the changes of speed, a fluid-actuated device arranged for operative connection with said movable member for moving the same for effecting said speed-changes, and means embracing an electric translating device for initiating movement in said fluid-actuated device.

3. In speed changing mechanism, the combination of a driving member, a drive-clutch therefor, a driven member, speed-change parts between said members comprising a movable member, a fluid-actuated element arranged for operative connection with said drive-clutch for relieving the same and for operative connection with said movable member for moving the same.

4. In speed changing mechanism, the combination of a driving member comprising a drive-clutch, a driven member, speed-change parts between said members comprising a movable member, shifting means for relieving said drive-clutch, shifting means for moving said movable member, and a traveling member having spaced operative connections with said respective shifting means, the spacing in said operative connection for said first-named shifting means being shorter than for said last-named shifting means.

5. In speed changing mechanism, the combination of speed-change parts comprising a movable member, a shifting member for the latter for moving the same in opposite directions for increasing or decreasing speeds, and a fluid-actuated means arranged for operative connection with said shifting member in both directions of its movement for moving the same for effecting said changes of speed.

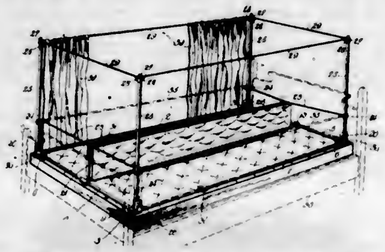
[Claims 6 to 31 not printed in the Gazette.]

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1,092,298. PARTITION FOR BEDS. ALBERT SCHWARZ, Detroit, Mich., assignor of one-fourth to John F. Kornbacher, Detroit, Mich. Filed Sept. 5, 1913. Serial No. 788,195. (Cl. 5—41.)

1. A collapsible frame for beds, comprising side pieces, connections at the ends thereof, foldable end pieces supported by said connections, foldable posts supported by

said connections and tie rods connecting the upper ends of said posts.



2. A collapsible frame for beds, comprising side pieces, connections at the ends thereof, end pieces supported by said connections and adapted to be folded into parallelism with said side pieces, foldable posts carried by said connections, tie rods detachably connected to the upper ends of said posts, an intermediate piece detachably connected to said end pieces, and a partition detachably mounted upon said intermediate piece and braced from said posts.

3. A frame for beds comprising side pieces, end pieces carried thereby and adapted to be folded into parallelism with said side pieces, posts supported at the ends of said side pieces and adapted to be folded into parallelism therewith, an intermediate piece detachably connected to said end pieces, a partition detachably mounted upon said intermediate piece, and means for supporting said partition in a vertical position relatively to said intermediate piece.

4. A frame of the above type comprising side pieces, end pieces connected thereto, an intermediate piece connecting said end pieces, a partition detachably mounted upon said intermediate piece, posts at the ends of said side and end pieces, and braces connecting said posts and the ends of said partition.

5. A frame of the type described comprising side pieces, end pieces carried thereby and adapted to fold into parallelism with said side pieces, posts at the ends of said side pieces and capable of being folded into parallelism therewith, partitions, and means carried by said side and end pieces for detachably supporting said partitions.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,299. ATTACHMENT FOR HITCHING-STRAPS. WILLIAM WELDON SHEPHERD, Wilmington, Ohio. Filed Dec. 30, 1911. Serial No. 668,636. (Cl. 54—34.)

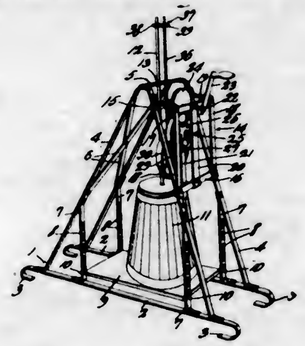


1. An attachment for hitching straps comprising complemental prong carrying members pivotally connected together and mounted to lie lengthwise upon the strap whereby said elements automatically become effective to grip a pole when it is embraced by the strap.

2. An attachment for hitching straps comprising a prong carrying member, and a pronged lever pivotally carried thereby, said member and said lever being mounted to lie lengthwise upon the strap, the prong on said member being arranged to be complementally effective with the prong on said lever to grip a pole to which the strap is applied by inward movement of the end of said lever opposite said pivotal connection.

3. An attachment for hitching straps comprising a member carrying a prong at one end and being pivotally connected to a complemental lever element at its other end, said lever element carrying a complemental prong adjacent said pivotal connection, means carried by the free end of said lever for attachment to the strap body, and means carried by the pronged end of said member for attachment to the strap body.

1,092,300. CHURN-OPERATING MECHANISM. GEORGE E. SLATER, Graceville, Fla. Filed June 18, 1913. Serial No. 774,447. (Cl. 31—30.)

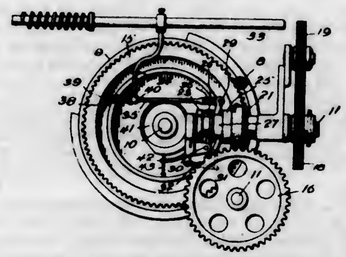


1. In a device of the character described, a frame, a platform adjustably carried thereby, the frame including an upper guide above the platform, a dasher staff slidable through the said guide, an actuating mechanism carried by the frame including an extensible crank, an upwardly projecting pitman connected to the crank, and means for adjustably, pivotally and detachably connecting the upper end portions of the pitman and dasher staff above the said guide.

2. In a device of the character described, base members, a pair of inverted V-shaped standards, upright members connecting the limbs of the standards and the base members, a beam connecting the apices of the standards, a platform adjustably carried by the upright members, a dasher staff slidable through the said beam, a frame secured to a pair of limbs of the standards, an actuating mechanism, carried by the frame and including an extensible crank, an upwardly projecting pitman connected to the crank, and means for adjustably, pivotally and detachably connecting the upper end portions of the pitman and dasher staff.

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1,092,301. CIRCULAR-KNITTING MACHINE. WILLIAM E. SMITH, New Brunswick, N. J., assignor to Kilbourn Manufacturing Corporation, New Brunswick, N. J., a Corporation of New Jersey. Filed June 12, 1913. Serial No. 773,241. (Cl. 66—24.)



1. In a circular knitting machine the combination with pattern mechanism, of a driving mechanism therefor, means for actuating said driving mechanism during circular work and for disconnecting said driving mechanism during reciprocating work and means for preventing the disconnection of said actuating mechanism during the knitting of the toe, to restore the pattern mechanism to its original position.

2. In a circular knitting machine the combination with pattern mechanism, of a driving mechanism therefor, a clutch mechanism for throwing the driving mechanism into and out of operation, means for throwing said clutch mechanism in during circular work and for releasing it during reciprocating work and means for preventing the disengagement of said clutch mechanism during the knitting of the toe, to restore the pattern mechanism to its original position.

3. In a circular knitting machine the combination with the pattern mechanism, means for securing the operation of the said pattern mechanism during the knitting of certain predetermined portions of a stocking and normally permitting the pattern mechanism to remain idle during the knitting of other portions of the stocking, and independent means for securing the operation of the pattern mechanism during one or more of the before mentioned idle periods to insure the restoration of the pattern mechanism to its initial position when a stocking is completed.

4. In a circular knitting machine, the combination with pattern mechanism and driving mechanism therefor including a clutch mechanism, of means for moving said clutch mechanism into operative position during circular work and releasing it during reciprocating work, a cam operatively connected with the pattern mechanism, a part connected with said clutch mechanism for engaging said cam during the knitting of the toe to prevent the disengagement of said clutch mechanism until the pattern mechanism is restored to its original position.

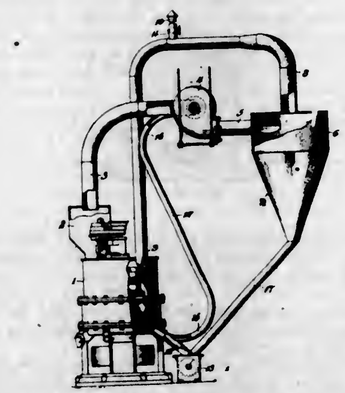
5. In a circular knitting machine, the combination with pattern mechanism of driving mechanism therefor, including a worm wheel, a clutch for connecting the worm to the shaft, a spring normally holding said clutch in disengaged position, a clutch shifting lever, means for moving said shifting lever in a direction to engage the clutch, a cam operatively connected with the pattern mechanism and a part connected with said clutch lever and adapted to engage said cam to hold said clutch in operative position.

[Claims 6 to 11 not printed in the Gazette.]



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1,092,302. PULVERIZING OR GRINDING MACHINE. EDWARD J. STECKLE, El Paso, Tex. Filed July 26, 1913. Serial No. 781,423. (Cl. 83—9.)



1. The combination with a pulverizing mill having means for exhausting air together with fine material from the pulverizing chamber above the pulverizing elements and for returning the air freed from the fine material to the pulverizing chamber of the mill above the pulverizing elements, of means below the pulverizing elements for the escape by gravity of pulverized material from the mill, and means for directing the fine material extracted from the air exhausted from the mill to the material escaping by gravity from the mill.

2. The combination with a pulverizing mill having means for exhausting air together with fine material therefrom, of an outlet for the escape of material from the mill by gravity, and an auxiliary air exhaust duct between the intake side of the air exhausting means and the outlet of the mill provided for the escape of material therefrom by gravity.

3. The combination with a pulverizing mill having an outlet for the escape of pulverized material therefrom by gravity, of an air duct communicating with the pulverizing chamber of the mill, an air exhausting means connected with the air duct, a dust collector into which the air exhausting means discharges, an air pipe leading from the dust collector to the pulverizing chamber of the mill, and an auxiliary air pipe leading from the outlet for the escape of material from the mill by gravity to the intake side of the air exhausting means.

4. The combination with a pulverizing mill having an outlet for the escape of pulverized material therefrom by gravity, of an air duct communicating with the pulverizing chamber of the mill, an air exhausting means connected with the air duct, a dust collector into which the air exhaust means discharges, an air pipe leading from the dust collector to the pulverizing chamber of the mill, and an auxiliary air pipe leading from the outlet for the escape of material from the mill by gravity to the intake side of the air exhaust means, said auxiliary air pipe communicating with the discharge side of the mill and with the intake side of the air exhausting means by gentle curves.

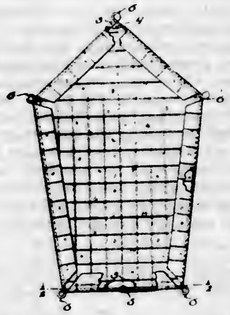
5. The combination with a pulverizing mill, of a discharge duct for the escape of material from the mill by gravity, means for exhausting air from the pulverizing chamber of the mill and from the discharge duct, and means for directing air under pressure to the pulverizing chamber of the mill.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,303. KITE. JOHN STIPPICK, Milwaukee, Wis. Filed Nov. 17, 1913. Serial No. 801,445. (Cl. 244—22.)

1. A kite having a wire frame fashioned at the angles thereof to form eyes for the attachment thereto of the kite-harness.



2. A kite having a single piece wire-frame fashioned at the angles thereof to form eyes for the attachment thereto of the kite-harness.

3. A kite-frame consisting of a single piece of wire joined at its ends and fashioned at the angles of said frame to form eyes for the attachment thereto of the kite-harness.

4. A single piece wire kite-frame fashioned at its angles to form eyes for the attachment thereto of the kite-harness and having the ends of the wire looped one upon the other.

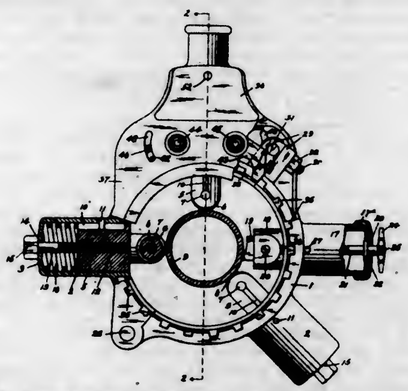
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1,092,304. PIPE-CUTTER, JAMES P. STRICKLER, Columbus, Ohio. Filed Jan. 13, 1913. Serial No. 741,727. (Cl. 81—191.)

1. A pipe cutter comprising a rotatable member, rollers on said member for rotatably supporting said member on the pipe being cut, all of said rollers being adjustable, and a cutter on said member independent of the support of said member on said pipe.

2. A pipe cutter comprising a rotatable member, rollers on said member for rotatably supporting said member on

the pipe being cut, all of said rollers being adjustable, a cutter on said member independent of the support of said member on said pipe, a driving element and means for imparting rotation to said member by oscillating said element.



3. A pipe cutter comprising a rotatable member, rollers on said member for rotatably and yieldingly supporting said member on the pipe being cut, all of said rollers being adjustable, a cutter on said member independent of the support of said member on said pipe, a driving element, and means for imparting rotation to said member by oscillating said element, said cutter being mounted to travel centrally in the path of said supporting rollers.

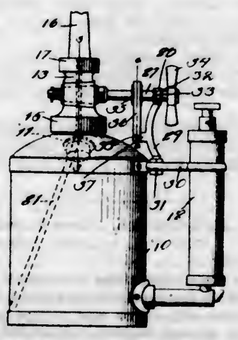
4. A pipe cutter comprising a rotatable annulus, rollers on said annulus for rotatably supporting the pipe being cut, a cutter, a driving element for rotating said annulus and formed with track-ways for slidingly engaging the edges of said annulus, and a pawl and ratchet structure connection between said element and said annulus.

5. A pipe cutter comprising a rotatable annulus formed with smooth edges, rollers on said annulus for rotatably supporting the pipe being cut, said rollers being adjustable to various sizes of pipes, an adjustable cutter carried by said annulus independent of the support of said annulus on said pipe, a substantially semi-circular driving element formed with trackways for slidingly engaging the edges of said annulus, and a pawl and ratchet structure connection between said element and said annulus.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,305. OIL-CAN. HENRY F. STRUEVER, Faulkton, S. D. Filed Aug. 12, 1913. Serial No. 784,425. (Cl. 221—52.)



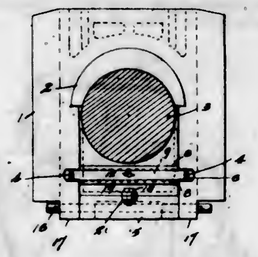
1. A force feed oil can including a body, a stop cock connected to the outlet of said body, a spout connected to said stop cock, a pipe connected to said stop cock and extending to nearly the bottom of said can, means for turning said stop cock to the right or to the left to selectively establish communication between said spout and said pipe or between said spout and the top of said can, a tension device normally holding said stop cock closed, and means for limiting movement of said stop cock in either direction.

2. A force feed oil can including a body, means for charging the body with air, a spout communicating with said body, a two-way valve in said spout, a pipe connected to said valve and extending to the bottom of said can, said valve upon rotation in one direction establishing communication between said pipe and said spout and when rotated in the opposite direction establishing communication between said spout and the top of said can, a bracket arm having a tubular bearing provided with an oblong recess in one side, a stem for said valve rotatably mounted in said bracket, a stop pin in said stem working in said recess for limiting movement of said valve in either directon, and a tension device normally holding said valve in neutral position and adapted to automatically return said valve to neutral position after actuation in either direction.

3. A force feed oil can including a body, means for charging the body with air, a spout communicating with said body, a valve in said spout, said air charging means forming a handle for said body, a bracket secured at the lower end of said handle, a journal box on said bracket receiving the stem of said valve, a pin and slot connection between said stem and said box limiting movement of said stem in either direction, a lateral arm on said bracket, an oblong enlargement on said stem, and a pair of leaf springs secured at their lower ends to said arm and bearing at the upper ends upon opposite sides of said enlargement and normally holding said valve against turning.

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1,092,306. JOURNAL-BOX. WARREN J. SUTLIFF, Schenectady, N. Y. Filed Nov. 11, 1913. Serial No. 800,324. (Cl. 64—10.)



1. The combination with a driving box, of a cellar having a pair of transversely extending horizontally undercut ribs, of a locking key having beveled edges to fit between said ribs and having its ends extended over the driving box, studs projecting from the driving box, said key having perforations to fit over said studs and means for locking the key on the studs.

2. The combination with a driving box, and a cellar having a pair of spaced retaining ribs, of a key dove tail in cross section located between said ribs with its ends extending over the adjoining edges of the driving box, and means for securing said key to the driving box.

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1,092,307. DENTAL INSTRUMENT. JOHN L. TALBOTT and WALTER SCOTT WAIGHT, Lompoc, Cal. Filed Nov. 13, 1913. Serial No. 800,833. (Cl. 32—10.)

1. A dental spatula comprising a hollow handle, a tapering head, a spoon shaped end on said head and an opening from said head to said spoon shaped end substantially as and for the purpose set forth.

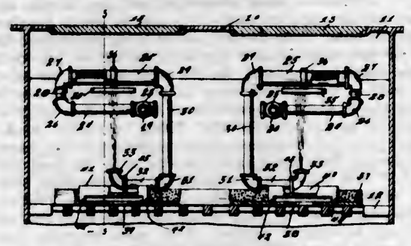
2. A dental spatula comprising a hollow cylindrical handle, a conical head detachably secured thereto, a spoon shaped end on said head, an opening in point of said head leading to said spoon shaped end, a piston in said hollow handle and spring means to urge said piston toward said conical head.



3. A dental spatula comprising a hollow handle, a plunger therein, spring means for urging said plunger forward a conical head on said handle, an inner conical lining in said head, a space therebetween containing an electrical heating element, a spoon shaped end to said conical head composed of several thicknesses of metal with a cavity therebetween, an electrical heating element mounted in said cavity, and switches mounted on said handle adapted to separately throw said heating elements into circuit with a source of electrical energy.

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1,092,308. HYDROCARBON-BURNER. BRADFORD A. THOMAS, San Francisco, Cal. Filed July 25, 1913. Serial No. 781,195. (Cl. 158—63.)



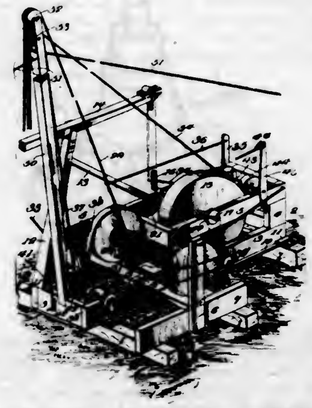
1. A burner comprising an oil main, branch pipes, valves connecting said branch pipes with said oil main, a drip pan provided with openings in its bottom, troughs positioned in said drip pan and located above the openings in the bottom of the pan, absorbent material in said drip pan surorunding said troughs, lead pipes leading from said branch pipes, generating chambers connected with said lead pipes and positioned to one side of said lead pipes and in a higher plane than said lead pipes, conductor pipes extending downwardly from said generators, burner pipes connected with said conductor pipes and extending into said troughs, nozzles carried by said burner pipes and resting in said troughs, said nozzles being provided with collars engaging the sides of said troughs to prevent said burner pipes from moving out of a normal position, and deflector plates carried by said combustion chambers and positioned above the outlets of said nozzles whereby a stream of combustible fluid passing from each of said nozzles will strike one deflector plate whereby the flame will heat said generating chamber and will also heat said lead pipe.

2. A burner comprising an oil main, a branch pipe leading from said oil main, a control valve for said branch pipe, a lead pipe leading from said branch pipe, a generating chamber connected with said lead pipe, a burner pipe positioned beneath said generating chamber and connected therewith, a drip pan, a trough in said drip pan, a nozzle for said burner pipe fitting within said trough and engaging the side walls thereof to prevent transverse movement of said burner pipe, and a deflector carried by said generating chamber and positioned above the outlet nozzle of said burner pipe.

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1,092,309. WELL-DRILLING APPARATUS. CLARENCE W. THORNILEY, Electra, Tex. Filed Dec. 11, 1912. Serial No. 736,156. (Cl. 255—11.)

1. In a well drilling apparatus, the combination of a main frame comprising lower sills, posts rising therefrom and beams secured upon said posts, the beam at one side terminating short of the front ends of the sills, a bull wheel mounted upon the frame in advance of said shorter beam, a supplemental frame slidable laterally into and out of engagement with the main frame and supporting one end of said bull wheel, and means for operating the bull wheel.



2. In a well drilling apparatus, the combination of a main frame, a supplemental frame disposed laterally of the main frame and having a member extending transversely through the main frame, a clip on the main frame fitting over said member, a bull wheel supported by said supplemental frame and the main frame, and means on the main frame for operating the bull wheel.

3. In a well-drilling apparatus, the combination of a frame, a casing wheel mounted on the base of the frame at the front end of the same, a bull wheel mounted on the frame adjacent the casing wheel and above and in rear of the same, a driving wheel mounted on the top of the frame in rear of the bull wheel, gearing at opposite sides of the frame connecting the driving wheel with the bull wheel and the casing wheel respectively, and a sand wheel mounted on the frame in rear of the driving wheel and adapted to directly engage the same.

4. In a well drilling apparatus, the combination of a supporting frame, a driving shaft thereon, a beveled wheel rigid with said shaft, a bull wheel mounted upon the frame in advance of the driving shaft, a beveled wheel rigid with one end of the bull wheel, an obliquely disposed transmission shaft mounted upon the side of the supporting frame, a pinion at the rear end of said shaft engaging the beveled wheel on the driving shaft, a beveled pinion splined upon said shaft and adapted to mesh with the bevel wheel on the bull wheel, and means for shifting said pinion axially along the transmission shaft.

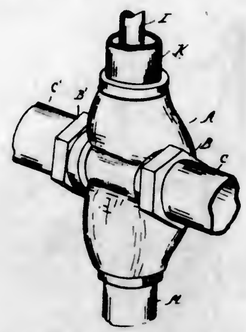
5. The combination of a frame, a driving shaft mounted transversely thereon, a bevel wheel rigid with said shaft, a bull wheel mounted upon the frame in advance of said shaft, a transmission shaft mounted obliquely upon the main frame between the bull wheel and the driving shaft, a bevel pinion on the rear end of said shaft meshing with the bevel wheel on the driving shaft, a bracket secured upon and rising from the main frame and supporting the front end of the transmission shaft, a bevel wheel rigid with one end of the bull wheel, a bevel pinion slidably mounted on the transmission shaft and adapted to engage said bevel wheel, a standard secured upon the side of the main frame adjacent said bracket, and a horizontally disposed forked lever mounted in the upper end of said standard and having its inner end engaging said bevel pinion.

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1,092,310. STOP AND WASTE COCK. FREDERICK TIBBLE, Muskegon, Mich. Filed Jan. 27, 1913. Serial No. 744,451. (Cl. 137—7.)

As an article of manufacture, a stop and waste cock plumbing unit, comprising transversely-extending cham-

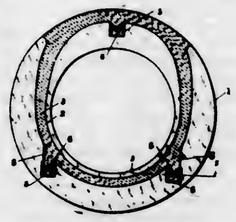
bers, the end portions of one of said chambers being apertured and threaded for inlet and outlet connections respectively, a valve adapted in one position of adjustment to establish through connection between said threaded portions and in another position of adjustment to cut off



one of said threaded portions and to connect the other to the transversely-extending chamber, said last-mentioned chamber being positioned wholly within the end spaced limits of said threaded portions and having its opposite ends apertured for drainage and valve operating connections respectively.

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1,092,311. SECTIONAL CONDUIT. DAVID D. TRACY, Jackson, Mich., assignor of one-half to John H. Casey, Jackson, Mich. Filed Apr. 4, 1912. Serial No. 688,446. (Cl. 72—53.)



1. A sectional conduit comprising abutting tubular sections having opposed facing grooves in their abutting ends, the outer walls of the grooves being omitted at the top of the sections, said grooves coacting to provide a closed segmental channel for the lower part of the joint, the ends of the sections being in planes substantially at right angles to their longitudinal planes, male coupling members having downwardly facing engaging hooks at their ends, upwardly flared female coupling members having upwardly facing keeper portions at their inner ends coacting with the hook portions of said male coupling members, the coupling members embraced by the open portion of the channel being disposed at the inner sides of the grooves, and those embraced by the closed portion of the channel being disposed at the outer side of the grooves so that the closed channel of the joint is unobstructed when the sections are brought to position, the sections containing the female coupling members being provided with openings from the groove into the tops of such members, and a cement filling for said grooves and said female coupling members embedding the said male coupling members.

2. A sectional conduit comprising abutting tubular sections having opposed facing grooves in their abutting ends, the outer walls of the grooves being omitted at the top of the sections, said grooves coacting to provide a closed segmental channel for the lower part of the joint, the ends of the sections being in planes substantially at right angles to their longitudinal planes, male coupling members having downwardly facing engaging hooks at their ends, upwardly flared female coupling members having upwardly facing keeper portions at their inner ends coacting with the hook portions of said male coupling members, the coupling members embraced by the open portion of the channel being disposed at the inner sides of the grooves, and those embraced by the closed portion of the channel being disposed at the outer side of the grooves so that the closed channel of the joint is unobstructed when the sections are brought to position, and a cement filling for said grooves and said female coupling members embedding the said male coupling members.

3. A sectional conduit comprising abutting tubular sections having opposed facing grooves in their abutting ends, the outer walls of the grooves being omitted at the top of the sections, said grooves coacting to provide a closed segmental channel for the lower part of the joint, the ends of the sections being in planes substantially at right angles to their longitudinal planes, male coupling members having downwardly facing engaging hooks, upwardly flared female coupling members having upwardly facing keeper portions coacting with the hook portions of said male coupling members, and a cement filling for said grooves and said female coupling members embedding the said male coupling members.

4. A sectional conduit comprising abutting tubular sections having opposed facing grooves in their abutting ends, the outer walls of the grooves being omitted at the top of the sections, said grooves coacting to provide a closed segmental channel for the lower part of the joint, the ends of the sections being in planes substantially at right angles to their longitudinal planes, male coupling members having downwardly facing engaging hooks, female coupling members having upwardly facing keeper portions at their inner ends coacting with the hook portions of said male coupling members, said coupling members being disposed at the sides of the grooves so that the closed channel of the joint is unobstructed when the sections are brought to position, there being openings from the channel to the female coupling members, and a cement filling for said grooves and said female coupling members embedding the said male coupling members.

5. A sectional conduit comprising abutting tubular sections having opposed facing grooves in their abutting ends, the outer walls of the grooves being omitted at the top of the sections, said grooves coacting to provide a closed segmental channel for the lower part of the joint, the ends of the sections being in planes substantially at right angles to their longitudinal planes, male coupling members having downwardly facing engaging hooks, female coupling members having upwardly facing keeper portions at their inner ends coacting with the hook portions of said male coupling members, said coupling members being disposed at the sides of the grooves so that the closed channel of the joint is unobstructed when the sections are brought to position, and a cement filling for said grooves.

[Claims 6 to 13 not printed in the Gazette.]

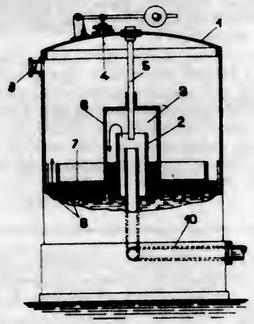
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1,092,312. HEAT-GENERATOR. ELEMÉR VIZ, Kosd, and JULIUS MUALAY, Budapest, Austria-Hungary. Filed June 6, 1912. Serial No. 702,135. (Cl. 60—8.)

1. In a heat generator, a float arranged on the surface of the water to be vaporized, means for guiding said float vertically, an opening in said float, an upwardly directed dome or cap mounted on said float and over said opening, a pipe for the heating gases connected to said dome or cap and a tubular casing surrounding said pipe.

2. In a heat generator, a float arranged on the surface of the water to be vaporized, filaments arranged on the under face of said float, means for guiding said float vertically, an opening in said float, an upwardly directed dome or cap mounted in said float and over said opening, a pipe for the heating gases connected to said dome or cap, and a tubular casing surrounding said pipe.

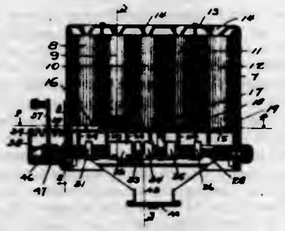
3. In a heat generator, a float arranged on the surface of the water to be vaporized, filaments arranged on the under face of said float, means for guiding said float vertically, an opening in said float, an upwardly directed dome or cap mounted in said float and over said opening, and filaments arranged between said tubular casing and said dome or cap.



4. In a heat generator, a float arranged on the surface of the water to be heated, filaments arranged on the under face of said float, filaments disposed between the inner wall of the generator casing and said float, means for guiding said float vertically, an opening in said float, an upwardly directed dome or cap mounted in said float and over said opening and filaments arranged between said tubular casing and said dome or cap.

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1,092,313. CHANGE-MAKING MACHINE. CLYDE C. VOGLESONG, Oakland, Cal. Filed Aug. 25, 1913. Serial No. 786,395. (Cl. 133—4.)



1. A change making machine comprising a plurality of coin receiving tubes, slides arranged below said tubes, a longitudinally movable rotatable shaft, and means on said shaft adapted to engage certain predetermined slides when the shaft is in a certain predetermined longitudinal position, rotation of the shaft serving to eject the desired coin or coins.

2. A change making machine comprising a plurality of coin receiving tubes of different size, slides arranged below said tubes, a longitudinally movable rotatable shaft provided with means for engaging said slides and adapted to be rotated after engagement with the slide to advance the slide and eject a coin or coins, and means for locating said shaft by its longitudinal movement so that certain predetermined slides only are engaged.

3. A change making machine comprising a plurality of coin receiving tubes, a slide below each of said tubes, a pin on each of said slides, a longitudinally movable rotatable shaft arranged below said slides, and adapted to be set by longitudinal movement in position for actuating the desired slides, means on said shaft adapted to engage certain of said pins, and means indicating the longitudinal position of the shaft for engagement of said means with certain predetermined pins.

4. A change making machine comprising a plurality of coin receiving tubes of different size coincident to the size of the coins, transversely movable slides arranged below said tubes, a longitudinally movable rotatable shaft arranged below said slides, means on said shaft for engaging certain predetermined slides when the shaft is in a predetermined position longitudinally, and means for rotating said shaft to move said slides.

5. A change making machine comprising a plurality of coin receiving tubes of different size coincident to the size of the coins, slides arranged below said tubes adapted to be moved transversely, a pin on each of said slides, a longitudinally movable rotatable shaft, tongues on said shaft adapted to engage certain of said pins when the shaft is in a certain predetermined position longitudinally and a handle on said shaft.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,314. FEEDING-BASKET FOR BIRDS. CHARLES E. WHITE, Wilmette, Ill. Filed Nov. 22, 1913. Serial No. 802,395. (Cl. 119—51.)



1. A feeding basket for birds comprising, in combination, top and bottom plates, the top plate having an upstanding flange, an apertured front member and a back plate interfitting with the bottom plate, the top and back plates having registering apertures for receiving a supporting pin.

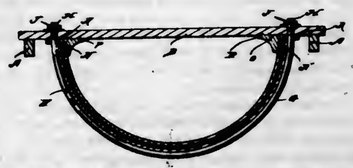
2. A feeding basket for birds comprising, in combination, top and bottom plates, the top plate having an upstanding flange, an apertured front member and a back plate interfitting with the bottom plate and having an overturned lip for engaging the top plate, the top and back plates having registering apertures for receiving a supporting pin.

3. A feeding basket for birds comprising, in combination, top and bottom plates each having an upstanding flange at its rear margin, an apertured front member, and a back plate fitting within the flange of the bottom plate and having an overturned lip for engaging the flange of the top plate, the back plate and top plate flange having registering apertures for receiving a supporting pin.

4. A feeding basket for birds comprising, in combination, top and bottom plates each having an upstanding flange at its rear margin, an apertured front member, and a back plate fitting within the flange of the bottom plate and having an over-turned lip for engaging the flange of the top plate, the back plate and top plate flange having registering apertures for receiving a supporting pin and forwardly projecting perches.

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1,092,315. FLUME OR CONDUIT. HAROLD S. WILLIAMS, Caldwell, Idaho. Filed Apr. 10, 1913. Serial No. 760,118. (Cl. 61—5.)



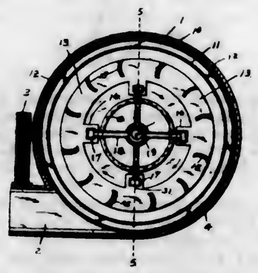
1. In a metal flume or conduit, the combination with the longitudinal rails and the transverse strips supported

thereon, of the binders having the lateral extension formed with an opening, the inward extension having a rib on its upper face to bite into the transverse strips and having the depending portion forming a recess or seat the flume sections having their ends overlapping and fitting withhin the said recesses of said binders, and the tie rods passing around the ends of the flume and having threaded ends passing through the openings in the lateral portions of the binders, and securing nuts on said threaded ends.

2. In a metal flume or conduit, the combination with the longitudinal rails and the transverse strips supported thereon, of the binders having the lateral extension formed with an opening, the inward extension having a rib on its upper face to bite into the transverse strips and having the depending portion forming a recess or seat, the flume sections having their ends overlapping and fitting within the said recesses of said binders and bent to form a space at said ends, packings in said space, and the tie rods passing around the ends of the flume and having threaded ends passing through the openings in the lateral portions of the binders, and securing nuts on said threaded ends.

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1,092,316. WATER-COOLING DEVICE. ROY O. WILLIAMS and HARRY B. COEN, Columbus, Ohio. Filed Aug. 2, 1912. Serial No. 712,886. (Cl. 62—31.)



1. In a water cooling device, the combination of a casing, a positively driven rotating water discharging means within the casing and through which water is discharged into the casing and suction devices located intermediate the discharge end of said water discharging means and the wall of the casing for drawing air into the casing whereby when the water is discharged from said discharging means, it comes in contact with the moving volume of air within the casing.

2. In a water cooling device, the combination of a casing, a positively driven rotating hollow shaft within the casing, water spraying device carried by said hollow shaft and through which the water is discharged from said shaft, and suction devices intermediate the outer ends of the spraying device and the wall of the casing and moving with said spraying devices for drawing air into the casing whereby when the water is discharged from said spraying device it comes in contact with the moving volume of air in the casing.

3. In a water cooling device, the combination of a casing, rotating means for discharging water into the latter, and positively driven air suction means located between the wall of the casing and the discharge end of the water discharging means and in the path of the water discharged from the latter, whereby the water discharged from the water discharging means will pass through the air drawn into the casing and be broken into globules by its contact with the suction means.

4. In a water cooling device, the combination of a reservoir, a casing, a rotating element located within the casing and provided with water spraying devices, rotating means within the casing for drawing air into the casing, a pipe leading from the casing to the reservoir through which the water passes to the latter, a pipe leading from the reservoir to the mechanism to be cooled and a pipe leading from the latter to the rotating element in the casing, the parts being so constructed that circulation through the casing, reservoir, pipes and mechanism to be cooled is maintained by suction and the centrifugal action of the rotating element.

5. In a water cooling device, the combination of a casing, a positively rotated water inlet pipe, a hollow radial spoke carried by and communicating with said pipe for discharging the water into the casing and means carried by the rotating pipe and located intermediate the discharge end of the hollow radial spoke and the wall of the casing for creating a suction and for breaking up the ejected stream of water into globules.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,317. WATER-CLOSET CISTERN. THOMAS C. WILLIAMS, Garfield, Utah, assignor of one-half to Benjamin G. Call, Garfield, Utah. Filed Jan. 8, 1913. Serial No. 740,891. (Cl. 4—5.)



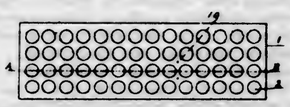
1. A water closet cistern comprising a lever, a water tank suspended from one end of said lever, a counterweight hung from the other end of said lever and depending into the water in said tank, and a water supply valve controlled by the movements of said lever.

2. A water closet cistern comprising a vertically movable water tank, a lever on one end of which said tank is suspended, a counterweight hung from the other end of said lever and depending into the water in said tank, a water supply pipe, a valve seated against the end of said pipe, and a finger for controlling said valve, located on the lever on the same side of its fulcrum as the counterweight.

3. A water closet cistern comprising a counterbalanced water tank, a supply pipe therefor, a valve casing attached to said pipe and having a port in its lower side and its upper side cut away, a flat valve dropped loosely into said casing, a cover sliding over said casing and closing said cutaway portion and having an opening to register with said port, and means controlled by the movements of said tank for actuating said valve.

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1,092,318. CAPSULE-HOLDER. BENJAMIN THOMAS WINCHESTER, Windsor Hills, Md., assignor, by mesne assignments, to Sharp and Dohme, Baltimore, Md., a Corporation of New Jersey. Filed Oct. 28, 1908. Serial No. 459,924. (Cl. 128—32.)

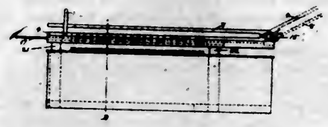


1. A capsule holder consisting of a material with a plurality of openings therein to receive capsules, said openings being smaller at one end than the other and the edges of which openings at one end are burred.

2. A portable capsule holder consisting of a substance relatively rigid with a series of openings therein for the reception of a capsule one end of each of said openings being smaller than the other end thereof and the edges of the smaller ends of the said openings being burred to engage and retain the capsules.



1,092,319. CAPSULE-FILLING MACHINE. BENJAMIN THOMAS WINCHESTER, Windsor Hills, Md., assignor, by mesne assignments, to Sharp and Dohme, Baltimore, Md., a Corporation of New Jersey. Filed Dec. 1, 1908. Serial No. 465,553. (Cl. 128—32.)



1. In a machine for handling capsule parts during filling the combination with rigid means for sustaining the closed ends of the smaller capsule parts, of means above the said rigid means for temporarily engaging said smaller capsule parts to hold them elevated above the said rigid means; means for engaging the larger capsule parts said latter means being pivoted to swing the engaged larger capsule parts away from the smaller capsule parts; means for releasing the smaller capsule parts to allow them to drop into the rigid support and means for permitting the swinging engaging means for the larger capsule parts to be moved vertically toward the rigid support and carry said larger capsule parts onto the smaller parts while the latter are sustained on the rigid support.

2. In a capsule machine for holding capsule parts while filling the combination with a rigid support for the lower closed ends of smaller capsule parts, of a perforated plate above the rigid support; a pinch plate at the side of said perforated plate; a stripping plate above said perforated plate and said stripping plate also having a plurality of perforations to receive the larger ends of the capsules; means for pivotally connecting one edge of the stripping plate with the said perforated plate beneath it and means whereby the pinch plate, perforated plate and stripping plate may all be moved toward the rigid support.

3. In a machine for holding capsule parts while filling the same, the combination with a pinch plate to engage the smaller capsule parts, of a rigid support for the capsules beneath the pinch plate; a stripping plate to engage the larger capsule parts and remove the latter while the smaller parts are held by the pinch plate; means whereby the said smaller capsule parts may be released from the pinch plate and deposited on the rigid support during filling and means for sustaining said pinch plate and stripping plate to enable them to be moved toward the rigid support and downwardly over the open end of the smaller capsule parts.

4. In a machine for holding capsule parts while filling the same, the combination with a perforated plate to receive the smaller capsule parts, of clamping means to temporarily engage said smaller capsule parts while the latter are in the perforated plate; a stripper plate pivoted to the said perforated plate and having perforations to receive the larger capsule parts; a back plate to engage the closed ends of the larger capsule parts to hold the latter in the perforations of the stripping plate during the separation of the capsule parts for filling; means for releasing the smaller capsule parts; a rigid support to receive the released smaller capsule parts and means for allowing the back plate, stripping plate and perforated plate to be moved toward the rigid support to carry the larger capsule parts into telescopic engagement with the smaller parts while the latter are on the rigid support.

5. In a machine for holding capsule parts while filling the same, the combination with a rigid support; of vertically movable posts extending above the rigid support; a perforated plate carried on said posts above the rigid support and movable vertically with respect to the support; means for clamping capsule parts while the latter are in the perforations of said vertically movable plate; a stripping plate pivotally connected to the vertically-movable perforated plate and movable vertically with the latter,—said stripping plate having perforations to receive other capsule parts and a movable back plate to engage the closed ends of the capsule parts in the stripping plate to hold said latter capsule parts in said stripping plate perforations and said back plate also being movable vertically with the perforated and stripping plates.

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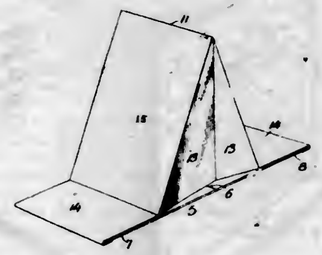
1,092,320. BUILDING MATERIAL AND PROCESS OF MAKING SAME. ARTHUR WINDING and FREDERICK W. GEZELSCHAP, Milwaukee, Wis. Filed Mar. 28, 1910. Serial No. 551,916. (Cl. 106—27.)

1. The process of making substantially water, fire and weather proof non-metallic building material, which consists in forming asbestos mixed with a suitable binder into a porous body of the desired shape and dimensions, saturating such porous body with hydrocarbon having the properties of coal tar in a fluid condition, and then subjecting the saturated body to fire to ignite and burn the tar until all the inflammable constituents of the hydrocarbon are eliminated and refractory carbon is formed and burned into and intimately incorporated with the asbestos.

2. An indurated, non-metallic and substantially fire, water and weather proof building material, consisting of a porous body of asbestos formed with a binder into the desired shape, impregnated with non-inflammable residue of a hydrocarbon and having a dense, hard and lustrous surface of refractory carbon burned into and intimately incorporated with the asbestos and possessing tough, non-friable, pliable and water-proof characteristics.

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1,092,321. TOY TENT. AUGUST WIPLITZHAUSER, New York, N. Y., assignor to McLoughlin Brothers, Brooklyn, N. Y. Filed Sept. 6, 1912. Serial No. 718,869. (Cl. 46—37.)



1. In a toy, the combination with a base adapted to fold centrally, of a tent secured to the base and adapted to collapse and fold with the central portion of the base between the sides, substantially as shown and described.

2. In a toy, the combination with a base adapted to fold inward at a central point, of a paper tent secured by means of its ends to the upper face of the base, substantially as shown and described.

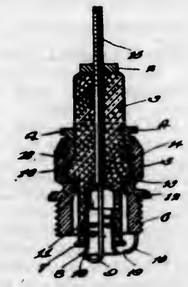
3. In a toy tent, the combination with a base of cardboard having a cut in its upper surface to permit folding the same, of a tent of paper comprising base pieces to be secured to the base board, inclined sides and flaps, and folding lines, substantially as shown and described.

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1,092,322. SPARK-PLUG. WILLIAM SIBERT WITTER, Toledo, Iowa. Filed Jan. 6, 1912. Serial No. 669,852. (Cl. 123—169.)

A spark plug, comprising a shell, an insulating core mounted in said shell and formed at one end with a longitudinally disposed interiorly threaded socket, a tubular intermediate electrode formed with screw threads engaging the screw threads of the socket, whereby the said electrode may be turned and simultaneously moved into and out of the socket, an electrode secured to the shell and extending toward the edge of the intermediate electrode, said intermediate electrode having such edge outwardly flared, and a primary electrode secured in the core and extending down through and spaced from the tubular

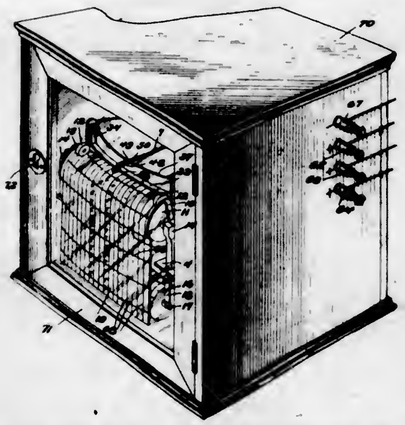
intermediate electrode and formed with a contact point extending away from the shell electrode and toward the



flared edge of the intermediate electrode at a point opposite to the shell electrode.

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1,092,323. ELECTRIC RECORDER. JOHN L. ZANDER, Irvington, N. J., assignor to Charles O. Sander, Irvington, N. J. Filed Nov. 7, 1912. Serial No. 729,922. (Cl. 234—5.5.)



1. In an apparatus of the character described, the combination of a printing device comprising a plurality of characters, means imparting various pressures to the printing device, whereby the several characters are caused to operate singly or together to form single numerals, substantially as described.

2. In an apparatus of the character described, the combination of a printing device comprising a plurality of characters, mechanical means imparting various pressures to the printing device, whereby the several characters are caused to operate singly or together to form single numerals, substantially as described.

3. In an apparatus of the character described, the combination of a printing device comprising a plurality of characters, means imparting various pressures to the printing device, whereby the several characters are caused to operate singly or together in the forming of single characters, said means comprising a toothed wheel having teeth of various length, a pivoted ball engaging the printing device, and means operated by the teeth for moving the ball and exerting varying pressures on the printing device, substantially as described.

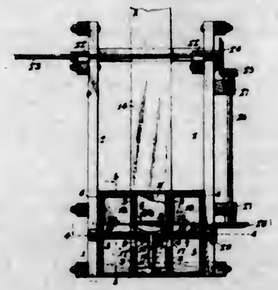
4. In an apparatus of the character described, the combination of a printing device comprising a plurality of characters, mechanical means imparting various pressures to the printing device, whereby the several characters are caused to operate singly or together in the forming of single characters, said means comprising a toothed wheel having teeth of various length, a pivoted ball engaging the printing device, and means operated by the teeth for moving the ball and exerting varying pressures on the printing device, substantially as described.

5. In an apparatus of the character described, the combination of a printing device comprising a plurality of characters, means imparting various pressures to the printing device, whereby the several characters are caused to operate singly or together in the forming of single characters, said means comprising a toothed wheel having teeth of various length, a pivoted ball engaging the printing device, and a lever operated by the teeth for moving the ball and exerting varying pressures on the printing device, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,324. PUMP. CHAIS ANDERSON and HUBERT M. RUDDOCK, Caldwell, Idaho. Filed June 30, 1913. Serial No. 776,685. Cl. 103—43.)



1. A pump of the class described including a horizontal casing comprising side compartments provided at the top with inlet openings and having upper air pockets, and a central compartment located between the side compartments and communicating centrally thereat, a discharge conduit extending from the central compartment, and a vertically disposed rotary water elevating wheel operating within the central compartment.

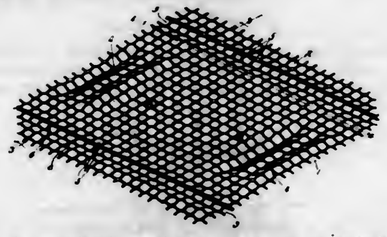
2. A pump of the class described including a horizontal casing comprising side inlet compartments provided at the top adjacent to one side of the casing with inlet openings and having depending partitions extending downwardly from the inner sides of the openings and forming upper air pockets, and a central compartment having central openings in its opposite walls communicating with the side or inlet compartments, a discharge conduit extending from the central compartment, and a vertically disposed rotary water elevating wheel operating within the central compartment.

3. A pump of the class described including a horizontal casing having spaced partitions dividing the casing into central and side compartments and provided with circular openings, said casing being also provided at the tops of the side compartments with inlet openings and having air pockets, a horizontal shaft journaled in the casing and extending through the central compartment, a vertically disposed water elevating wheel mounted on the shaft and having blades tapered inwardly at the said opening, and means for rotating the said shaft.

4. A pump of the class described including a frame, a horizontal casing mounted within the frame at the bottom thereof and composed of communicating side and central compartments, the side compartments being provided with inlet openings, a vertical discharge conduit extending upwardly from the said central compartment and having a width substantially coextensive with the same, and a vertically disposed water elevating wheel operating within the central compartment.



1,092,325. TRUSSED EXPANDED METAL. FRED C. AREY, Oak Park, Ill., assignor to Northwestern Expanded Metal Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1912. Serial No. 716,811. (Cl. 72—117.)



1. A reticulated metal sheet made up of strands or strips forming connected similarly-disposed polygonal members arranged in rows extending diagonally across the sheet, certain of the sides of the members in each row forming a continuous piece extending lengthwise of the row, and a portion of the reticulated metal being pressed laterally into the form of a rib containing at least one of said continuous pieces whereby the sheet is stiffened both transversely and longitudinally.

2. A reticulated metal sheet made up of strands or strips forming connected similarly-disposed polygonal members arranged in rows extending diagonally of the sheet, each row containing a continuous stiffening piece extending lengthwise thereof and composed of corresponding sides of the members in said row, a portion of the reticulated metal being pressed laterally into the form of a rib containing at least one entire row and portions of adjacent rows, said rib extending parallel with and containing a plurality of said stiffening pieces whereby the sheet is stiffened both transversely and longitudinally.

3. A reticulated metal sheet made up of strands or strips forming connected similarly-disposed polygonal members arranged in rows, each of said members lying in two rows crossing each other and extending diagonally of the sheet and corresponding sides of the members in each row forming a continuous stiffening piece extending diagonally across the sheet, portions of the reticulated metal being pressed laterally into the form of a series of continuous parallel ribs each containing at least one of said stiffening pieces, and other portions of the reticulated metal being pressed laterally into the form of short ribs lying between the ribs of the other set and each containing a portion of one of said stiffening pieces.

4. A reticulated metal sheet made up wholly of strands or strips arranged on edge and forming connected open frame-like members arranged in parallel rows, certain of the sides of the members in each row forming a continuous stiffening piece extending in the direction of the length of the row, portions of the reticulated metal being pressed laterally parallel with and each containing a plurality of said stiffening pieces so as to shape said portions into a series of parallel continuous trussed ribs.

5. A reticulated metal sheet made up wholly of strands or strips arranged on edge and forming connected similarly-disposed approximately diamond-shaped polygonal members arranged in rows, certain of the sides of the members in each row forming a continuous stiffening piece extending diagonally across the sheet, and portions of the reticulated metal being pressed laterally with and each containing at least one of said stiffening pieces so as to produce a series of trussed ribs extending diagonally across the sheet and serving to stiffen the sheet both transversely and longitudinally.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,326. FASTENING FOR PLANE-BITS. JOHN BAHMILLER, Salem, Ohio. Filed Nov. 25, 1912. Serial No. 733,449. (Cl. 145—17.)

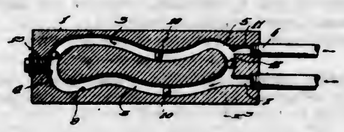
In a plane, the combination with a cap iron having a threaded opening arranged about centrally therein; of a bit provided with a longitudinal slot terminating in an enlargement at one end thereof, one wall of said slot being provided with teeth extending for the greater portion of its length, a sleeve disposed in the slot of said bit having teeth formed on the outer periphery thereof, in engagement with the teeth of the one wall of said slot, the teeth on said sleeve also contacting lightly with the opposite wall of said slot to prevent a loose movement of the sleeve therein, a disk-like head member formed on the upper end of said sleeve to project on opposite sides of the slot in



said bit and rest on the top face of the latter, said head member being of less diameter than the diameter of the enlargement of said slot and provided with a socket in the top face thereof, means provided on the outer peripheral edge of the head member, whereby to readily grasp the same, and a headed screw disposed through said sleeve and engaged at its lower end with the threaded opening of said cap iron, the head of said screw being received snugly in the socket of the head of said sleeve to bind tightly therein and retain the bit in any adjusted position with respect to the cap iron.

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1,092,327. WATER-SOFTENER. GILBERT E. BAILEY, Los Angeles, Cal., assignor to The Ferrochem Company, Los Angeles, Cal., a Corporation of California. Filed May 16, 1911. Serial No. 627,557. (Cl. 210—1.)



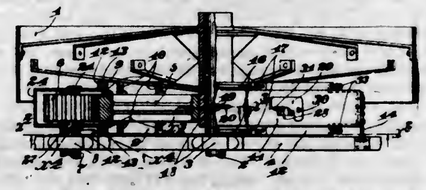
1. A water purifier comprising a composition member having a U shaped passage therein, an inlet pipe for feeding water to said passage, an outlet pipe for taking water from said passage, balls of a material suited to abrade the walls of said passage, and a plug for closing an opening in said composite body, said opening being adapted to render easy the insertion and removal of said balls, said composite body also being provided with an inclined passage connecting the ends of said inlet and said outlet pipes down which said balls are impelled by gravity.

2. The combination with a boiler feed pipe, of a chamber disposed in the line of the feed pipe, and a body whirled therein by the water passing through said chamber, said body and said chamber being of a metallic alloy suited to correct the impurities in the water.

3. The combination with a boiler feed pipe, of a chamber arranged in the line of said pipe having a series of bodies movable in said chamber, said chamber and said bodies being of a material suited to correct the impurities in the water.

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1,092,328. GEARING. FRIEDRICH C. BAST and EMIL J. BAST, Gary, Minn. Filed May 17, 1913. Serial No. 768,202. (Cl. 74—7.)



1. The combination with a gear having reversely extended joint flanges, of an annular casing having joint flanges

seated on the joint flanges of said gear, and means for expanding and contracting the joint flanges of one of said members, substantially as described.

2. The combination with a gear having reversely extended annular joint flanges, of an annular casing having joint flanges seated on the joint flanges of said gear, said casing being transversely divided and the ends thereof overlapped, and an adjusting device connecting the ends of said casing for expanding and contracting its joint flanges on the joint flanges of said gear, substantially as described.

3. The combination with a gear having reversely extended annular joint flanges, of an annular casing having joint flanges seated on the joint flanges of said gear, means securing said casing against rotation, means for expanding and contracting the joint flanges of said casing on the joint flanges of said gear, substantially as described.

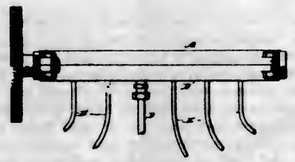
4. The combination with a gear having reversely extended annular joint flanges, of an annular casing having joint flanges seated on the joint flanges of said gear, said casing being transversely divided and the ends thereof overlapped, adjusting devices connecting the ends of said casing for expanding and contracting its joint flanges on the joint flanges of said gear, substantially as described.

5. The combination with a gear and a pinion meshing therewith, of reversely extended annular joint flanges on its rim, of an annular casing having joint flanges seated on the joint flanges of said gear, said casing being transversely divided and the ends thereof overlapped, screw threaded adjusting rods for expanding and contracting the joint flanges of said casing on the joint flanges of said gear, means securing said casing against rotation, said casing having an opening through which said pinion may be inspected, and a removable cover for the opening in said casing, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,329. OILING DEVICE. JESSE BERRY, Bertram, Iowa. Filed Apr. 14, 1913. Serial No. 761,106. (Cl. 184—36.)



1. An oiling device, comprising a rotary cylinder having transverse holes therein reduced in diameter at the periphery of the cylinder, plungers a little shorter than said holes mounted therein, and adapted to alternately close said holes at either end, an inclosing box or bearing for said cylinder, provided with an inlet pipe and a series of outlet pipes, means for delivering oil through the inlet pipe under pressure, and means for revolving the cylinder.

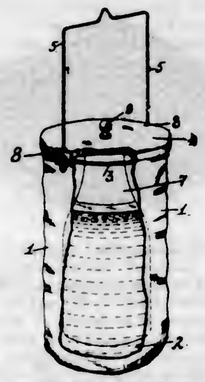
2. In combination with an inclosing box or bearing, and inlet and outlet pipes communicating therewith, an oil feeding device, comprising a rotary cylinder formed in longitudinal halves and provided with holes constricted at the periphery, and plungers adapted to play a little endwise in said holes, and to close opposite ends alternately.

3. In an oiling device, the combination of a rotary cylinder having holes and plungers, substantially as described, and collars near its ends, of an inclosing box or bearing, provided with suitable inlet and outlet pipes, and grooved to receive said collars, an adjusting screw at one end of the cylinder, and a packing and gland at the stem end, substantially as and for the purpose set forth.

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1,092,330. COOLER. GEORGE HERBERT BLAKE, Alameda, Cal., assignor to W. A. Plummer Manufacturing Company, San Francisco, Cal., a Corporation of California. Filed June 3, 1913. Serial No. 771,515. (Cl. 62—14.)

1. A cooler comprising a receptacle, a bail including side bars having a pivotal connection with said receptacle, a closure mounted for free sliding movement between said side bars, said closure engaging the bars whereby it is maintained at right angles to the bars, and a bottle support mounted on said closure.



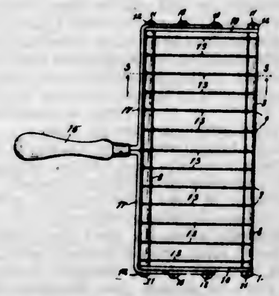
2. A cooler comprising a receptacle, a bail including side bars which are pivotally connected to the receptacle, a closure for the receptacle consisting of a disk, said disk being notched at diametrically opposite points to receive the side bars of the bail whereby the disk is supported for a free sliding movement longitudinally of said bars and maintained at right angles to the bars, and a bottle support carried by the disk.

3. A cooler comprising a receptacle, a bail formed of wire and including side bars which at their terminals are pivotally connected to the receptacle, a closure for the receptacle consisting of a disk provided at diametrically opposite points with notches which receive said bars whereby the disk is normally maintained at right angles to the bars, and a bottle support carried by said disk.

4. A cooler including a receptacle formed of fabric, a ring embracing the receptacle at its open end and maintaining the same extended, a bail including side bars the terminals of which project through the side of the receptacle and engage beneath the ring, and a closure for the receptacle carried by said bail.

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1,092,331. CANDY-CUTTING DEVICE. CLARENCE C. BROWN, Los Angeles, Cal. Filed June 25, 1913. Serial No. 775,972. (Cl. 107—21.)



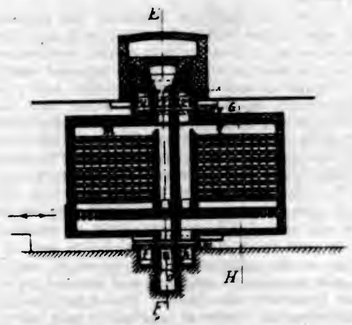
1. A candy cutting device, comprising spaced rods formed with spaced grooves therein, end bars connecting the rods, substantially vertical spring metal cutting blades having the end portions thereof sprung freely into the grooves, and a handle on the device adapted to permit manipulation of the device as set forth.

2. A candy cutting device, comprising spaced rods formed with spaced grooves therein, arched end bars connecting the rods, substantially vertical spring metal cutting blades having semi-circular recesses in the ends thereof whereby they may be quickly detachably mounted on the rods by springing the blades to have the end portions of the blades disposed freely in said grooves, a bracket on the end bars, and a handle on the bracket for manipulating the device in use as set forth.

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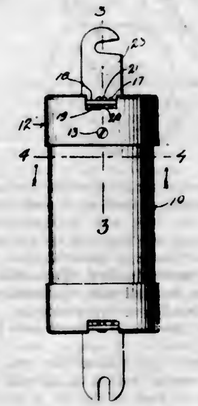
1,092,332. REGENERATOR. ALFRED BRÜNINGHAUS, Duisburg-Ruhrort, Germany. Filed Nov. 29, 1912. Serial No. 734,167. (Cl. 75—94.)



In regenerating apparatus the combination of three stationary induction conduits, three stationary eduction conduits, and two regenerator chambers each having two ports and collectively reciprocatable on a horizontal path, whereby each port of each chamber can be brought to register with an induction conduit and an eduction conduit alternatively, one of the induction conduits and one of the eduction conduits being arranged to serve both chambers alternatively.

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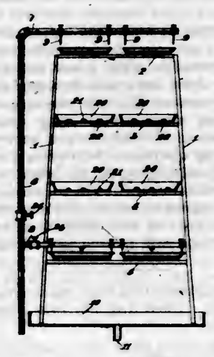
1,092,333. REFILLABLE FUSE. FRANK D. BRYAN, Middletown, Pa. Filed Aug. 27, 1913. Serial No. 786,999. (Cl. 175—273.)



In a fuse holder, an insulated tube, a sleeve detachably secured on each end of the tube and embracing said tube, the outer end portion of each of the sleeves projecting beyond the end of the tube and having portions arranged at diametrically opposite points bent inwardly and transversely to form ears which engage the ends of the tube, said bent portions leaving diametrically opposite openings in the projecting portions of the sleeves, fuse strips having openings formed centrally therethrough approximately midway of their lengths, right angularly turned bifurcated end portions engaged on the ears of the sleeves, disks disposed within the projecting ends of the sleeves and provided with diametrically opposite radial lugs fitted within the openings of the sleeve, said disks resting on the lateral turned ends of the fuse strips, and screws carried by the disks engaging through the bifurcated ends of the fuse strips and through the ears of the sleeves.

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1,092,334. COOLING-TOWER. EDWIN BURHORN, Hoboken, N. J. Filed Apr. 1, 1912. Serial No. 687,609. (Cl. 62—2.)



1. In a cooling tower, a deck comprising a pan provided with a marginal notched gutter section and a perforated bottom, and angle pieces on the underside of the pan having flaring side sections extending below the perforations in the bottom of the pan.

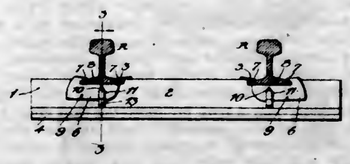
2. In a cooling tower, a deck comprising a pan fitted with a trough-like section around its perimeter so arranged that the water will overflow the inside edge of the trough to distribute the water over the bottom of the pan.

3. In a cooling tower a distributing pan having discharge apertures in its bottom, and a water receiving trough on the side of the pan above the discharge openings, one wall of the trough being of less height than the other to permit overflow of the water from the trough toward the discharge openings.

4. In a cooling tower a distributing pan having discharge apertures in its bottom, a water receiving trough on the side of the pan above the discharge openings, one wall of the trough being of less height than the other to permit overflow of the water from the trough toward the discharge openings, and means carried by the pan below the same to receive the water from the discharge openings.

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1,092,335. RAILWAY-TIE AND FASTENER. JOHN BYRNE, East Liverpool, Ohio. Filed Jan. 22, 1914. Serial No. 813,754. (Cl. 238—4.)



1. The combination with a cross tie having a transverse opening through its body, said opening having a restricted portion at its top and means for anchoring one edge of a rail, of a hook shaped plate contacting with one side of said tie and having an opening registering with and of the same shape as the opening in said tie and a rotatable key passing through said openings and having lateral heads on its opposite ends, one of said heads being of the same shape as said openings and the other head being

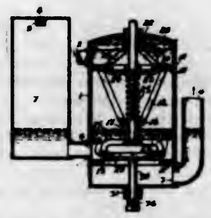
enlarged and eccentrically weighted, the bill of said hook-shaped plate overlying the free edge of said rail, for the purpose set forth.

2. The combination with a cross tie having a substantially ovate opening transversely through its body and means for anchoring one edge of a rail, of a hook-shaped plate having a substantially ovate opening through its shank intermediate its ends and a key substantially circular in cross section and having heads projecting laterally from its opposite ends, one of said heads being substantially ovate in cross section, the bill of said hook shaped plate being adapted to overlie the free edge of said rail and the end of said plate opposite said bill being adapted to contact with the base of said rail when said key is inserted through the openings in said rail and plate.

3. The combination with a rail and a cross tie having substantially ovate openings through its body, of hook shaped plates contacting with the opposite sides of said tie and having substantially ovate openings registering with the openings in said tie and keys revoluble within said registering openings and having laterally extending heads on their opposite ends, the heads on one end of said keys being substantially ovate in cross section and the heads on the opposite ends of said keys being eccentrically weighted, the bills of said hoop shaped plates overlying the flanges of said rail, for the purpose set forth.

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1,092,336. CLOSET-VALVE. BENJAMIN G. CAMPBELL, Oakland, Cal. Filed Aug. 28, 1912. Serial No. 717,534. (Cl. 4—28.)



1. In a closet flushing apparatus, the combination with a valve casing provided with a normally closed valve controlling inlet aperture for connection to a water supply under pressure, a normally open valve controlled water outlet aperture, and an intermediate aperture for connection to a tank for receiving and storing water under pressure, a valve stem connecting said valves and adapted to be operated upon pressure being applied thereto to unseat said water inlet valve and to seat said water outlet valve, means for restoring said valves to their normal position upon the release of pressure on said valve stem, and means associated with said water outlet valve and capable of operation independently of said valve stem for unseating said water outlet valve while pressure is applied to said valve stem, for the purpose described.

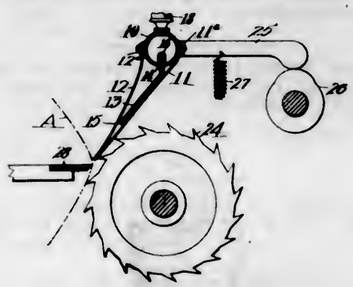
2. In a closet flushing valve, the combination with a casing provided with a normally closed valve controlled water inlet aperture for connection to a water supply under pressure, a normally open water outlet aperture and an intermediate aperture for connection to a tank for receiving and storing water under pressure, a valve controlling said water outlet and the same comprising an annular ring, a seat for receiving said ring, a disk seated in the interior opening of said annular ring and capable of independent movement therein, a valve stem connecting said inlet valve and said annular ring and adapted upon pressure being applied thereto to seat said annular ring and to unseat said inlet valve, means for restoring said inlet valve and said annular ring to their normal positions upon the release of pressure on said valve stem, and means for unseating said disk while pressure is applied to said valve stem for seating said annular ring.

3. In a valve of the class described, the combination with a casing provided with an inlet and an outlet opening, a valve controlling said inlet opening, a valve controlling said outlet opening and the same comprising an annular ring adapted to contact with an annular seat, a disk positioned within and adapted to close the opening in said annular ring and capable of independent movement relative thereto, a stem connecting said inlet valve and said annular ring and adapted upon pressure being applied thereto to seat said ring and unseat said inlet valve, means operatable upon the release of pressure on said stem for seating said inlet valve and unseating said ring, and means for unseating said disk from said ring when the same is seated.

4. In a valve of the class described, the combination with an open topped casing, provided with an inlet and an outlet opening, a cover for said casing, an annular projection on the interior of said casing adjacent said inlet, a ring adapted to seat on said projection and provided with downwardly depending arms, a spider plate adapted to seat on said ring and provided with upwardly extending arms adapted to be engaged by said cover for retaining said plate in position, a valve stem extending through said arms, spider plate and cover and adapted to reciprocate therein, an inlet valve carried by said stem and coacting with said spider plate, an annular projection on the interior of said casing adjacent said outlet, an annular ring carried by said valve stem and adapted to seat on said projection on the application of pressure to said valve stem, a disk mounted in said ring and adapted to seat on the inner peripheral edge thereof, means for seating said inlet valve upon the release of pressure on said valve stem, and means operated independently of said valve stem for unseating said disk from said ring when the same is seated.

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1,092,337. OILING DEVICE. JAMES CATTERALL, Fisherville, Mass. Filed July 17, 1913. Serial No. 779,483. (Cl. 184—102.)



1. An oiling device for a rotatable tool, having in combination a tube, means to feed oil to said tube, a perforated flap secured to said tube and contacting with said tool and a wick to convey oil from said tube to said flap.

2. An oiling device for a rotatable tool, having in combination a tube, means to feed oil to said tube, a perforated flap secured to said tube and contacting with said tool, a clamping bar for securing said flap to said tube, a wick to convey oil from said tube to said flap, and means to oscillate said tube.

3. An oiling device for a rotatable tool, having in combination a tube, means to feed oil to said tube, means to regulate the rate of feed of the oil, a perforated flap secured to said tube, and a wick for conveying the oil to said flap, said tube having a slot at one side and said wick being secured within said tube and projecting through said slot.

4. An oiling device comprising a slotted tube, an oiling flap secured thereto, a covering flap also secured thereto, and a wick having one end confined within said tube and having its other end extending between said flaps and conducting oil from said tube to said oiling flap.

5. In an oiling device, a slotted oil tube, a wick forming a loop with the ends projecting through the slot in said tube, and a corrugated wire within said tube extending through the loop of the wick and preventing withdrawal of the wick from the tube.

[Claim 6 not printed in the Gazette.]



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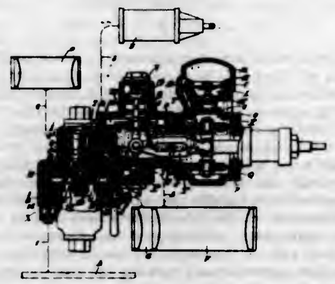
1,092,338. HOOK AND EYE MANIPULATOR. PETER T. CHALFANT, Philadelphia, Pa. Filed July 22, 1913. Serial No. 780,442. (Cl. 223—54.)



A hook and eye manipulator comprising two spring arms having outwardly flared hooks at their free ends adapted to engage through openings in a hook or eye and support such hook or eye by the elasticity of the spring arms, while the hook or eye is being attached to a piece of material, substantially as described.

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1,092,339. DEVICE FOR ACCELERATING THE APPLICATION OF PNEUMATIC BRAKES. FRANÇOIS JULES CHAPSAL and ALFRED LOUIS EMILE SAILLOT, Paris, France. Filed June 26, 1911. Serial No. 635,325. (Cl. 188—1.)



1. In a distributer accelerator for pneumatic brakes, a brake cylinder, a moderating chamber, valve mechanism to control the pressure in the brake cylinder, connections between said moderating chamber and said valve mechanism whereby a pressure in said moderating chamber tends to oppose the application of the brakes, means to supply air under pressure to said moderating chamber and means to release said pressure gradually thereby retarding the application of the brakes.

2. In a distributer accelerator for pneumatic brakes, a brake cylinder, a moderating chamber, valve mechanism to control the pressure in the brake cylinder, connections between said moderating chamber and said valve mechanism whereby a pressure in said moderating chamber tends to oppose the application of the brakes, a compressed air reservoir, means to place said reservoir in communication with the moderating chamber and means to permit the compressed air to escape gradually from said reservoir.

3. In a distributer accelerator for pneumatic brakes, a brake cylinder, a moderating chamber, valve mechanism to control the pressure in the brake cylinder, connections between said moderating chamber and said valve mechanism whereby a pressure in said moderating chamber tends to oppose the application of the brakes, a compressed air reservoir, means to place said reservoir in communication with the moderating chamber and means comprising a restricted passage to permit a gradual escape of air from said reservoir and said moderating chamber.

4. In a distributer accelerator for pneumatic brakes, a brake cylinder, a moderating chamber, valve mechanisms to control the pressure in the brake cylinder, connections between said moderating chamber and said valve mechanism whereby a pressure in said moderating chamber tends to oppose the application of the brakes, a compressed air reservoir in communication with the train pipe when the brakes are released, valve mechanism actuated by the reduction of pressure in the train pipe to place said moderating chamber in communication with the air reservoir and means to permit a gradual escape of air from said air reservoir when the reduction of pressure takes place in the train pipe.

5. In a distributer accelerator for pneumatic brakes, a brake cylinder, a moderating chamber, valve mechanism to control the pressure in the brake cylinder, connections between said moderating chamber and said valve mechanism whereby a pressure in said moderating chamber tends to oppose the application of the brakes, a compressed air reservoir in communication with the train pipe by means of a restricted passage, valve mechanism actuated by the reduction of pressure in the train pipe to place said reservoir in communication with the moderating chamber, said restricted passage permitting of a slow escape of compressed air from the air reservoir, thereby allowing the brakes to be gradually applied, said restricted passage also serving to admit compressed air to the moderating chamber slowly to gradually release the brakes when the pressure in the train pipe is increased.

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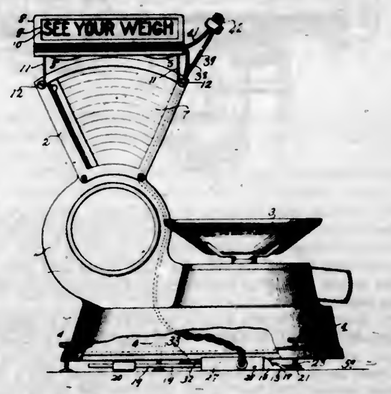
1,092,340. SOLDERING AND WELDING MATERIALS. AUGUSTE CORNAND and HENRI VAN DE CRUYS, Brussels, Belgium. Filed Mar. 23, 1911, Serial No. 616,391. Renewed Jan. 23, 1914. Serial No. 814,002. (Cl. 75—1.)

1. A soldering and welding alloy for aluminum made up of the following four metals,—aluminum, tin, nickel, and zinc.

2. A soldering and welding alloy for aluminum made up of the following metals in substantially the following proportions,—aluminum 17.5 parts, zinc 52 parts, tin 30 parts, and nickel 0.5 parts.

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1,092,341. SCALE. SAMUEL G. CRANE, Toledo, Ohio, assignor to Toledo Scale Co., Toledo, Ohio, a Corporation of New Jersey. Filed Feb. 14, 1912. Serial No. 677,590. (Cl. 73—151.)




1. In an illuminating device for the indicating mechanism of a weighing scale, a yielding support for the scale, an electric lamp, and a switch in the lamp circuit adapted to be closed by pressure on the yielding support in excess of the weight of the empty scale thereon.

2. In an illuminating device for the indicating mechanism of a weighing scale, an electric lamp, arranged adjacent the indicating mechanism of the scale, a switch

in the lamp circuit adapted and arranged to be closed by a load placed upon the scale, and a yielding support normally sustaining the weight of the scale imposed thereon to maintain the switch in open condition but yielding in response to a load imposed upon the scale to permit the switch to close.

3. In an illuminating device for the indicating mechanism of a weighing scale, the combination of one or more rigid supports for the base of the scale with a yielding support therefor adapted to be lowered by weight placed upon the platform of the scale, and a pair of contacts in circuit with the lamp which are normally open but closed when the yielding support yields to a load placed upon the platform of the scale.

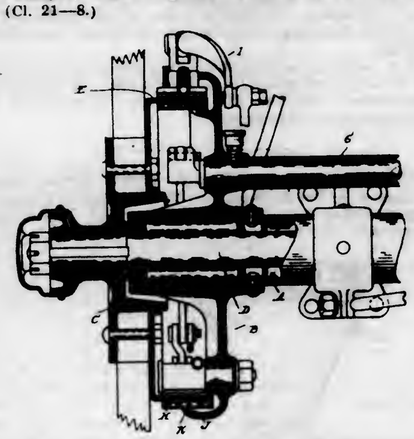
4. In combination with a weighing scale, having a stationary housing, a dial or chart and movable platform parts, of an electric lamp arranged to light said dial or chart, and an automatic illuminating device actuated by said stationary housing and adapted to light said lamp when weight is placed upon said movable platform parts, substantially as specified.

5. In combination with a weighing scale, having a stationary housing, a dial or chart and movable platform parts, of an electric lamp arranged to light said dial or chart, an automatic illuminating device connected in series with said lamp which is adapted to close the circuit independently from the movable platform parts when weight is applied to said parts.

[Claims 6 to 18 not printed in the Gazette.]

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1,092,342. VEHICLE-BRAKE. ARTHUR C. CULVER and ALBERT W. RUSSEL, Detroit, Mich., assignors to Russel Motor Axle Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 30, 1913. Serial No. 787,479. (Cl. 21—8.)



1. The combination with a brake-drum, of a brake-head adjacent thereto, having a laterally-projecting flange with a circular edge portion concentric with the drum, and a brake-strap interposed between said flange and drum and held by the former in concentric relation when in released position.

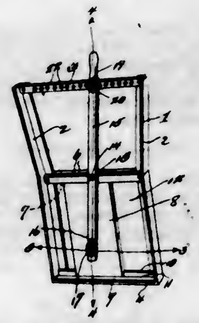
2. The combination with a brake-drum, of a brake-head adjacent thereto, a flange projecting laterally from said head, embracing said drum and having an inturned edge portion machined concentric with the drum, and a brake-strap surrounding said drum and retained in its released position in concentric relation by bearing upon said machined edge.

3. The combination with an axle and a wheel, of a brake-drum mounted upon said wheel, a brake-head mounted upon said axle adjacent to said drum, an annular flange projecting laterally from said brake-head and provided with an inturned edge portion machined concentric with said drum, and a brake-strap embraced by said flange and supported in its released position by said machined edge with uniform clearance from the drum.

4. The combination with an axle and wheel, of a brake-drum mounted on said wheel, a brake-head mounted on said axle, an internal brake mechanism for engaging said drum mounted on said brake-head, an external brake-strap and operating mechanism, also mounted on said head, and an annular flange projecting laterally from said head, embracing said brake-strap and provided with an inturned edge portion machined concentric with said drum and forming a seat for said strap in released position.

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1,092,343. WATER-GATE. CHARLES E. FERRE, Gunnison, Utah. Filed Sept. 3, 1913. Serial No. 787,852. (Cl. 61—46.)



1. In a water gate for a trench or canal, a frame comprising vertical side bars, top and bottom bars, said bottom bar being angular in cross section, and a pair of intermediate bars secured to the side bars of the frame and constituting a guide, a plate permanently closing one half of the space between the side bars and below the intermediate bars, a strip secured to one of the flanges of the lower angle bar, between which strip and the other flange of the lower bar a guide space is provided, a gate mounted in the guides of the intermediate bars and in the guide of the lower bars, and adapted for closing or restricting the other half of the opening between said side bars, and means for operating and holding the gate in adjusted positions.

2. In a water gate for a canal, trench or the like, a frame comprising vertical side bars, top and bottom bars, and a pair of intermediate bars, the bottom and intermediate bars constituting guides, a plate permanently closing one half of the space between the side bars and below the intermediate bars, a gate mounted in said guides, and adapted for closing or restricting the other half of the opening between the side bars, and means for operating and holding the gate in adjusted positions.

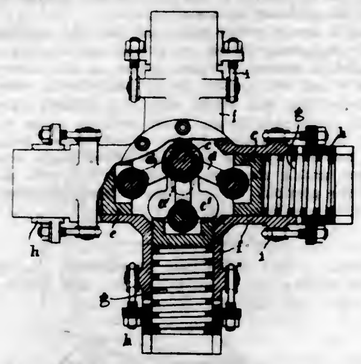
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1,092,344. CLUTCH. ARTHUR JOHN FIPPARD, Hankow, China, and Bournemouth, England. Filed Apr. 1, 1913. Serial No. 758,244. (Cl. 192—18.)

1. A clutch for conveying rotary motion comprising a driving shaft and a driven shaft, a crank on the driving shaft, rods connected to the crank, guides connected to the rods, the said rods and guides being preferably fashioned as piston rods and pistons, a guiding frame rigid with the driven shaft and preferably in the form of a plurality of cylinders, to receive the guides, springs acting upon the guides and means for varying the pressure of the springs upon the guides.

2. A clutch for conveying rotary motion comprising a driving shaft and a driven shaft, a crank on the driving shaft, rods connected to the crank, guides connected to the rods, the said rods and guides being preferably fashioned as piston rods and pistons, a guiding frame rigid with the driven shaft and preferably in the form of a plurality of cylinders, to receive the guides, springs acting upon the guides and means for varying the pressure of the springs upon the guides, said means consisting of a cover connected to flexible cables capable of being simultaneously moved to exercise, through the cover more or less pressure on the springs.





3. A clutch for conveying rotary motion comprising a driving shaft and a driven shaft, a crank on the driven shaft, rods connected to the crank, guides connected to the rods, the said rods and guides being preferably fashioned as piston rods and pistons, a guiding frame rigid with the driving shaft and preferably in the form of a plurality of cylinders, in which the guides are arranged, springs acting upon the guides and means for varying the pressure of the springs upon the guides.

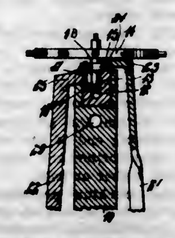
4. A clutch for conveying the rotary motion comprising driving shaft and a driven shaft, a crank on the driven shaft, rods connected to the crank, guides connected to the rods, the said rods and guides being preferably fashioned as piston rods and pistons, a guiding frame rigid with the driving shaft and preferably in the form of a plurality of cylinders, in which the guides are arranged, springs acting upon the guides and means for varying the pressure of the springs upon the guides, said means consisting of a cover connected to flexible cables capable of being simultaneously moved to exercise, through the cover, more or less pressure on the springs.

5. A clutch and variable speed gear for conveying rotary motion having a plurality of guides, for example cylinders, arranged around a crankshaft, in which guide blocks, for example pistons are arranged and are attached to the crank, springs being placed in such a position that pressure can be produced between the eccentric and the guides such pressure being capable of variation so that a variation in speed between the shaft having the eccentric and the guides is obtainable.

[Claim 6 not printed in the Gazette.]

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1,092,345. ROLLER JEWEL-SETTER. JAMES E. FORD, Hydro, Okla. Filed Jan. 31, 1913. Serial No. 745,519. (Cl. 81—8.)



A roller jewel setter comprising an elongated block having an opening in the end for the reception of the shaft of the balance pinion, a pivoted spring-pressed clamp on one side of the block, for engagement with the top of the table against the end of the balance pinion to hold the table against the end of the block, said block having an opening to receive the roller jewel, said opening being formed in one side of the block and communicating with the first named opening, and a pivoted spring-pressed clamp on the other side of the block arranged for passage through the second named opening and engagement against the roller jewel.

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1,092,346. LAND-MARKER. VIRGIL E. FRANKLIN, Graymont, Ga. Filed Aug. 4, 1913. Serial No. 782,899. (Cl. 111—24.)



1. The combination with a plow beam, including parallel marker arms pivoted on superposed pivots carried by said beam, a crank pivotally connected to the upper arm and having one leg engaged through an opening in the lower arm, and a marker shoe fixed to said leg, said arms being adapted to be rotated into horizontal position upon either side of said beam, said crank serving during such rotation to rotate said marker shoe to operative position.

2. The combination with a plow beam of a bracket thereon, a pair of parallel marker arms pivoted on superposed pivots carried by said bracket, a crank pivotally connected to the outer end of the upper arm and having one leg engaged through an opening in the outer end of the lower arm, a marker shoe fixed to said leg, rotation of said arms to either side of said beam serving to actuate said crank whereby said shoe is rotated to operative position, and a brace pivotally connected to said beam in advance of said bracket and connected at the rear end to one of said arms.

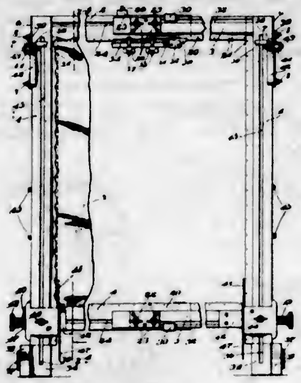
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1,092,347. CURTAIN-STRETCHER. LEWIS FRIDLUND, Willmar, Minn. Filed Jan. 9, 1913. Serial No. 741,107. (Cl. 45—24.)

1. In a device of the kind described, the combination with connected side and end bars in rectangular arrangement, of means connecting one of said end bars to said side bars with freedom for rotary and sliding movements, means for locking said rotary and sliding end bar in either of its two adjustments, means for detachably securing a fabric to said side and end bars, and means carried by said rotary and sliding end bar, for releasing the fabric from said securing means on the side bars during the sliding movement of said rotary and sliding end bars, substantially as described.

2. In a device of the kind described, the combination with connected side and end bars in rectangular arrangement, of means connecting one of said end bars to said side bars with freedom for rotary and sliding movements, means for locking said rotary and sliding end bar in either of its two adjustments, means for detachably securing a fabric to said side and end bars, and fabric releasing fingers carried by said rotary and sliding side bars and arranged to be moved into either operative or inoperative position, substantially as described.

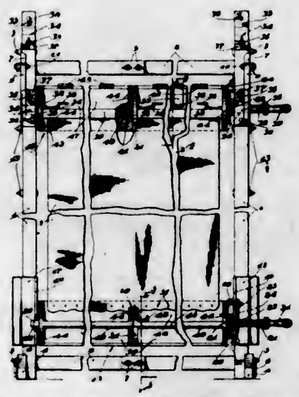
3. In a device of the kind described, the combination with connected side and end bars in rectangular arrangement, one of said end bars having pivotally secured to its ends bearing boxes slidably mounted on said side bars, of means for adjustably securing said bearing boxes to said



side bars and the connected end bar, fabric securing devices on said side and end bars, and fabric releasing fingers pivotally secured to said bearing boxes, for releasing the fabric from said side bars, substantially as described.

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1,092,348. CURTAIN-STRETCHER. LEWIS FRIDLUND, Willmar, Minn. Filed Apr. 16, 1913. Serial No. 761,519. (Cl. 45—24.)



1. In a device of the kind described, the combination with a supporting frame, of a winding roller journaled on said frame and comprising a pair of laterally spaced heads and a body portion connecting said heads, said body portion having a laterally projecting flange equipped with fabric securing barbs, and a clamping bar coöperating with said body portion for securing a fabric therebetween, substantially as described.

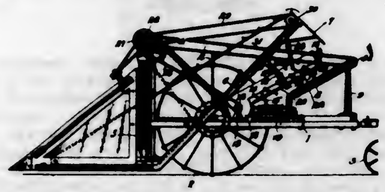
2. In a device of the kind described, the combination with a supporting frame, of a winding roller journaled on said frame and comprising a pair of laterally spaced heads and a body portion connecting said heads, a clamping bar coöperating with said body portion for securing a fabric therebetween, and pawl and ratchet devices connecting said clamping bar to the heads of said roller, substantially as described.

3. In a device of the kind described, the combination with a supporting frame, of a winding roller journaled on said frame and comprising a pair of laterally spaced heads and a body portion connecting said heads, a clamping bar coöperating with said body portion for securing a fabric therebetween, pawl and ratchet devices connecting said clamping bar to the heads of said roller, and a presser device applied to the intermediate portion of said clamp, substantially as described.

4. In a device of the kind described, the combination with a supporting frame, of a sectional winding roller journaled on said frame, each section of said roller comprising a pair of laterally spaced heads and a body portion connecting said heads, each body portion having a laterally projecting flange, fabric securing barbs on said flange, the intermediate heads of said roller being cut away, adjacent to said barbs, to afford fabric entrance passages, and a clamping bar coöperating with each of said body portions for securing a fabric therebetween, substantially as described.

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1,092,349. CORN-HUSKING MACHINE. JAMES W. FROM, Shelby, Nebr. Filed Apr. 21, 1910. Serial No. 556,757. (Cl. 130—5.)



1. A corn husking machine provided with inclined husking rollers, a conveyer at the lower end thereof, and longitudinally extending means disposed at that side of the conveyer remote from the husking rollers and arranged in overlying relation to the rollers and conveyer for producing a series of air streams against the rollers lengthwise thereof and also against the conveyer.

2. A corn husking machine provided with inclined husking rollers, a conveyer at the lower end thereof, and longitudinally extending means disposed at that side of the conveyer remote from the husking rollers and arranged in overlying relation to the rollers and conveyer for producing a series of air streams against the rollers lengthwise thereof and also against the conveyer, said means being provided with devices for varying the direction of the air streams to include either the rollers and conveyer or the rollers alone.

3. A corn husking machine provided with inclined husking rollers, a conveyer at the lower end thereof, and longitudinally extending means disposed at that side of the conveyer remote from the husking rollers and arranged in overlying relation to the rollers and conveyer for producing a series of air streams against the rollers lengthwise thereof and also against the conveyer, said means being provided with devices for varying the direction of the air streams to include either the rollers and conveyer or the rollers alone, said means being further provided with mechanism for adjusting the same toward or from the rollers to diminish or increase the space separating said means from said rollers.

4. A corn husking machine provided with inclined husking rollers and a blower located beyond the lower ends of the rollers and provided with a casing having a tubular arm or body extending in overlying spaced relation to the rollers lengthwise thereof, said body being provided with an open bottom and an open upper end directed toward the receiving end of the rollers, and means for controlling the open bottom and upper end to direct streams of air through either or both.

5. A corn husking machine provided with husking rollers and a blower located beyond one end of the rollers and provided with longitudinally extended means overlying the rollers for directing a series of streams of air against the rollers, and means for adjusting the air stream

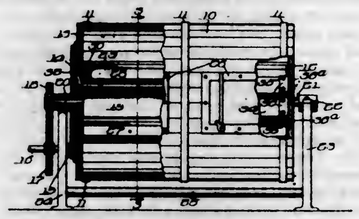


producing means bodily toward and from the rollers to diminish or increase the space separating said air stream producing means from said rollers.

[Claim 6 not printed in the Gazette.]

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1,092,350. COMBINED CHURN AND BUTTER-WORKER. HARVEY R. GARDNER, Owatonna, Minn., assignor to Home Creamery Manufacturing Company, Owatonna, Minn., a Copartnership composed of Carl K. Bennett and Guy B. Bennett. Filed Oct. 11, 1911. Serial No. 654,022. (Cl. 31—25.)

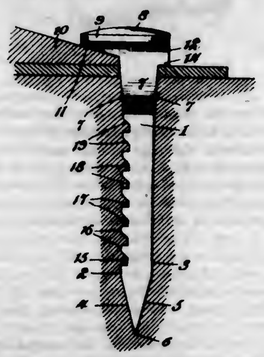


1. In a combined churn and butter-worker, the combination with a churn barrel, of a central roller and two side rollers, means for driving the churn barrel and the central roller independently of each other, the said central roller and the two side rollers lying approximately in a common plane, and a butter-working shelf extending longitudinally of the churn barrel and approximately filling the space between one of the said side rollers and the adjacent wall of the churn barrel, the said butter-working shelf extending at approximately right angles to the common plane of the three rollers.

2. In a combined churn and butter-worker, the combination with a churn barrel, of a central roller and two side rollers, said rollers all being located in a common plane, driving mechanism for imparting rotation to the churn barrel and to the central roller in opposite directions, and butter-working shelves adjacent each of the said side rollers, the said shelves extending on either side of the common plane of the side rollers to a point adjacent the churn barrel, the operative faces of the said shelves lying in planes approximately at right angles to the common plane of the said central and side rollers.

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1,092,351. RAILROAD-SPIKE. GEORGE FRANCIS GARRITY, Scranton, Pa. Filed Nov. 30, 1912. Serial No. 734,372. (Cl. 85—21.)

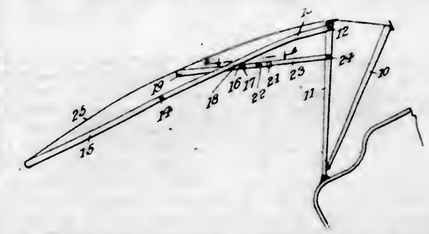


1. A railroad spike having a shank rectangular in cross section and having substantially the same cross sectional area throughout the major portion of its length and provided at its inner face with a series of open ended recesses forming a series of intervening lugs, a head, and a smooth outwardly flared tapering neck connecting the head and the shank and adapted to fill completely and plug the opening formed by the shank to exclude moisture and prevent rotting of the tie at the lugs.

2. A railroad spike having a shank rectangular in cross section and having substantially the same cross sectional area throughout the major portion of its length and provided at its inner face with a series of open ended recesses having a horisontal bottom wall, an inner wall perpendicular to the bottom wall and an upper wall inclined thereto and extending upwardly and outwardly from the inner wall, said recesses forming intervening lugs, which have flat end faces in the vertical plane of the said inner face of the shank, a head, and a smooth outwardly flared tapering neck connecting the head and the shank and flared or tapered on all four sides so as to fill completely and plug the opening formed by the shank to exclude moisture from the interior of the cross tie and prevent rotting of the same at the lugs.

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1,092,352. HINGED VEHICLE-HOOD. TRAUGOTT GOLDE, Gera, Germany, assignor to Golde Patent Manufacturing Company G. M. B. H., Gera, Germany. Filed Nov. 25, 1912. Serial No. 733,274. (Cl. 21—62.)



A vehicle hood comprising a rear bow, an arm pivoted thereto, a lug depending from the arm, a front bow having a shank of reduced thickness which is pivoted to the lug and is provided with a step and a U-shaped bearing at such step, and a brace pivoted to said rear bow and shank-step and occupying substantially the same vertical plane as the arm, said brace being adapted to engage the bearing when the hood is unfolded, the step in the shank permitting the front bow to be placed alongside the arm and brace when the hood is folded.

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1,092,353. TIRE. MICHAEL HALLANAN, New York, N. Y. Filed Aug. 15, 1912. Serial No. 715,205. (Cl. 152—18.)



A tire composed of a rubber tread, a canvas carcass and an inner lining of leather united into an integral structure, the inner leather lining being longitudinally corrugated and provided with transverse arches at suitable intervals.

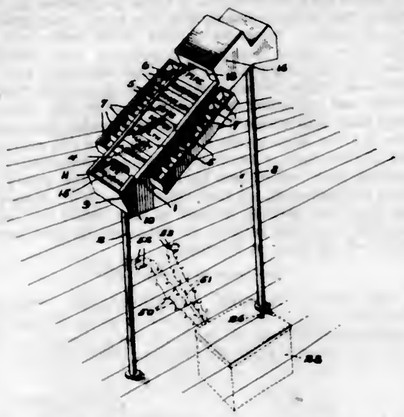
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1,092,354. FORTUNE-TELLING APPARATUS. WILLIAM M. HAMILTON, Philadelphia, Pa. Filed July 22, 1913. Serial No. 780,422. (Cl. 46—49.)

1. A fortune telling apparatus comprising a plate, a housing, and a carrier, the latter movable on the plate and into and out of the housing, substantially as described.

2. A fortune telling apparatus comprising a plate, a housing at one end of the plate, a carrier movable on the

plate and into and out of the housing, and a magnet movable below the plate and controlling the movement of the carrier, substantially as described.



3. A fortune telling apparatus comprising a plate, a housing at one end of the plate, a carrier movable on the plate and into and out of the housing, a wheeled carriage below the plate, and a magnet on said carriage controlling the movement of the carrier, substantially as described.

4. A fortune telling apparatus comprising a plate, a housing at one end of the plate, a door normally closing the entrance to the housing, a carrier, a carriage movable below the plate, a magnet on the carriage arranged to move the carrier along the plate and into and out of the housing, and means operated by the carriage for opening the door in advance of the carrier, substantially as described.

5. A fortune telling apparatus comprising an inclined casing, a plate on top of said casing divided into a plurality of spaces, a carriage movable longitudinally in the casing below the plate, a magnet on the carriage, a cylinder attracted by the magnet and movable on the upper face of the casing, and receptacles provided at opposite sides of the casing in line with the several spaces, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

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1,092,355. TILE-CAR. JOHN J. HAMMEN, Sac City, Iowa. Filed Aug. 21, 1912. Serial No. 717,223. (Cl. 21—122.)



1. In a device of the class described, a car having upright corner posts, supporting devices adjustably mounted on said posts, a removable deck, means thereon for detachably engaging said supporting devices to permit said device to swing upwardly toward one side, said supporting device and said means being so constructed to lock said deck against movement in a horizontal plane, when it is lowered to such plane.

2. A car of the class described having upright corner posts, supporting devices adjustably mounted thereon, a removable deck, means for detachably mounting said deck on said devices to prevent movement of the deck in a horizontal plane while permitting said deck to be swung upwardly toward either side.

3. In a device of the class described, a car, corner posts thereon, a plurality of removable decks of the same kind, and means for detachably mounting said decks on said posts, said means being constructed and arranged to permit said removable decks to be swung upwardly and laterally toward either side with the upper deck in substantially vertical position and with the lower removable deck inclined outwardly and upwardly against the upper deck.

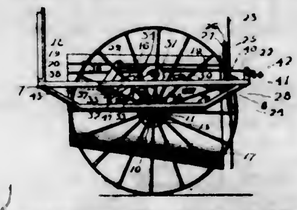
4. In a device of the class described, a car, corner posts thereon, a plurality of removable decks of the same kind, means for detachably mounting said decks on said posts, said means being constructed and arranged to permit said removable decks to be swung upwardly and laterally toward either side with the upper deck in substantially vertical position and with the lower removable deck inclined outwardly and upwardly against the upper deck, and means for securing said removable decks in their raised position.

5. In a device of the class described, a car having upright corner posts, brackets on said posts designed to engage any two adjacent pairs of notches, each bracket being provided with a round lug having a head on its free end, said lug being located off the line of the vertical axis of said bracket, and a plurality of removable decks provided at each corner with a pair of notches, either of the notches of each pair being capable of engaging one of said lugs.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,356. GRAIN-STOOKER. RICHARD HAMMOND, Winnipeg, Manitoba, Canada. Filed Jan. 18, 1911. Serial No. 603,404. (Cl. 56—121.)



1. The combination with a binding machine frame and the deck of said binding machine, of a stooking machine frame hinged to the binder frame at one side, a counter frame carried by the stooking machine frame at the opposite side, a rotatable carriage wheel supporting the latter side of the stooker frame, a dumpable shock forming receiver carried by suitable arms pivotally mounted on the stooker frame and located to receive material passed over the deck aforesaid, a drive gear rotatable with the carriage wheel, a gear wheel fixed on one of the arms adjacent the drive gear, a suspending frame pivotally mounted on the latter arm, an idler gear wheel carried by the latter frame and meshing with the gear wheel on the arm, a link pivotally secured to the suspending frame, a lever centrally pivoted to the frame one end of said lever being pivotally secured to the link, a lug extending from the lever and engageable with the link, a spring passing between the lower end of the suspending frame and the shocker frame, said lug acting as a stop for the lever to lock the gears in engagement and said spring disengaging said gears when said lever has been unlocked, means operated from the binder for shifting the upper end of the lever to engage the idler and drive gears, and automatically operated means for shifting the upper end of the lever to disengage the idler and drive gears, immediately after the receiver is turned a half revolution as and for the purpose specified.

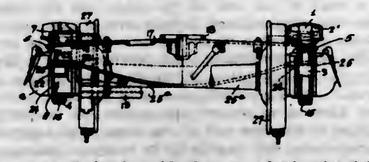
2. The combination with a binding machine frame and the deck of said binding machine, of a stooking machine frame hinged to the binder frame at one side, a counter frame carried by the stooking machine frame at the opposite side, a rotatable carriage wheel supporting the latter side of the stooker frame, a dumpable shock forming receiver carried by suitable arms pivotally mounted on the stooker frame and located to receive material passed over the deck aforesaid, a drive gear rotatable with the carriage wheel, a gear wheel fixed on one of the arms adjacent the drive gear, a suspending frame pivotally mounted on the latter arm, an idler gear wheel carried by the latter frame and meshing with the gear wheel on the arm, a trip mechanism operated from the binder, for engaging the idler and drive gears, a lever for disengaging the idler gear wheel and main gears, a pin extending from the upper end of the lever and toward the receiver, a pivoted molding board secured to the stooker frame forwardly, a pair of hinged leaves one of which is pivotally connected to the molding board, and links connecting one of said leaves to the receiver, a lug on said receiver arranged to strike the pin aforesaid and shift the lever to disengage the idler and drive gears, upon the receiver turning a half revolution as and for the purpose specified.

3. The combination with a shocking machine frame and a receiver rotatably mounted on the frame, of a molding board carried by the frame in advance of the receiver, a leaf pivotally secured to the molding board, a second leaf pivotally secured to the former leaf, and links connecting the second leaf to the receiver pivotally as and for the purpose specified.

4. The combination with a shocking machine frame and a receiver rotatably mounted on the frame, of a pivotally mounted molding board carried by the frame in advance of the receiver, a leaf passing across, but contained within the frame, and having the lower edge thereof pivotally secured to the molding board, a second depending leaf hinged to the upper edge of the former leaf, and links pivotally connecting the lower edge of the second leaf to the receiver as and for the purpose specified.

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1,092,357. PEDESTAL CAR-TRUCK. JOHN M. HANSEN, Pittsburgh, Pa. Filed Oct. 17, 1910. Serial No. 587,437. (Cl. 105—243.)



1. A car truck having side frames, wheel axles joining and supporting the same, each of said frames being provided with a seat, and a spacing member joining said frames and having a flexible connection therewith comprising downwardly extending lips embracing said seat, said connection permitting vertical rocking movement of said spacing member relatively to said side frames, substantially as described.

2. A car truck comprising side frames of the pedestal type, each provided with a recess and bolster support below the same, and a truck bolster spacing said side frames having its end portions in each recess of less depth than said recess, resting on said support, and provided with depending lips embracing the same.

3. A car truck comprising side frames of the pedestal type, each provided with a recess and bolster support below the same, and a truck bolster spacing said side frames having its end portions in each recess of less depth than the same, resting on said support and provided with depending lips embracing the same, said support having upwardly extending shoulders near the base of said recess adapted to center said bolster therewithin.

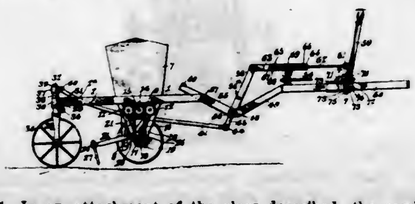
4. In a pedestal car truck, the combination with side frames each provided with a recess between the journal box guides, and having a supporting cross bar forming the base of the recess, of a truck bolster having its end portions of less depth than the depth of said recesses, and provided with flanges adapted to register with said cross bar.

5. In a pedestal car truck, the combination with side frames each provided with bolster guides, and a support for the bolster connecting the same thereby forming a recess to receive the bolster, of a bolster flexibly mounted in the frames having its end portions of smaller size than said recesses so as to freely enter the same, said bolster guides having lugs at the base thereof extending partway up the sides of the bolster, said bolster forming the only connection between said side frames, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,358. SEEDER ATTACHMENT FOR GANG AND SULKY PLOWS. HARRY HARDEN, London, Ohio, assignor of one-half to Robert Lincoln Farrar, London, Ohio. Filed Nov. 29, 1912. Serial No. 734,220. (Cl. 111—18.)



1. In an attachment of the class described, the combination with a front plow frame, and a trailing frame adapted to support seed dropping mechanism, of a supporting wheel pivotally connected with the rear portion of the trailing frame, mechanism connecting the front portion of the trailing frame with the front frame and arranged to raise and lower the front end of the former, means for connecting the supporting wheel with the said mechanism for swinging the supporting wheel upwardly and downwardly simultaneously with the lowering and raising of the front end of the trailing frame and operating means for the said mechanism mounted on the front frame.

2. In an attachment of the class described, the combination with a front plow frame, and a trailing frame adapted to support seed dropping mechanism, of a standard pivotally connected to the rear portion of the trailing frame, a wheel mounted on the standard, mechanism connected with the said frames and with the standard for raising and lowering the front end of the trailing frame and for simultaneously swinging the standard downwardly and upwardly and operating means for the said mechanism mounted on the front frame.

3. In an attachment of the class described, the combination with a front plow frame, and a trailing frame, of a standard pivotally connected with the rear portion of the trailing frame, mechanism connected with the front frame and with the front portion of the trailing frame for raising and lowering the front end of the latter and including an oscillatory arm, a connecting bar extending from the arm to the standard for swinging the latter upwardly and downwardly simultaneously with the lowering and raising of the front end of the trailing frame, and operating means for the said mechanism mounted on the front frame.

4. In an attachment of the class described, the combination with a front plow frame, and a trailing frame adapted to support seed dropping mechanism, of a supporting wheel pivotally connected with the rear portion of the trailing frame, a bell crank member connected with the front frame and with the front portion of the trailing

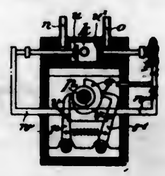
frame for raising and lowering the front end of the latter, means mounted on the plow frame for operating the bell crank member, and means for connecting the supporting wheel with the bell crank member for swinging the said wheel simultaneously with the raising and lowering of the front end of the trailing frame.

5. In an attachment of the class described, the combination with a front plow frame, and a trailing frame, of a lever member having an arm and connected with the front portion of the trailing frame and arranged to raise and lower the front end of the same, supporting means for the rear portion of the trailing frame connected with and actuated by the lever member for raising and lowering the rear end of the said trailing frame simultaneously with the front end, and operating mechanism mounted on the front frame and connected with the lever member for oscillating the same.

[Claims 6 to 17 not printed in the Gazette.]

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1,092,359. CONTROL DEVICE FOR SHEET-SEPARATORS. JACOB HEINRICH, Nuremberg, Germany, assignor to The Firm of Metallpapier- Bronzefarben-Blattmetallwerke Aktiengesellschaft, Munich, Germany. Filed Sept. 18, 1913. Serial No. 790,425. (Cl. 230—32.)

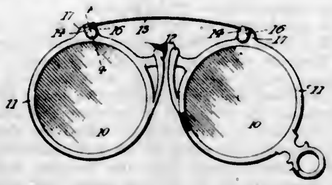


1. An air distributing valve, embodying a casing having ports connected with suction devices, a constantly rotating shaft traversing said casing, a cam set on said shaft, a pair of pivotally mounted, flexibly interconnected levers within the casing and engaging the surface of said cam at opposite sides of said shaft, and valves within said casing actuated by said levers to control the supply of air to said ports.

2. An air distributing valve, embodying a casing having ports connected with suction devices, a constantly rotating shaft traversing said casing, a cam set on said shaft, a pair of levers pivoted within the casing at opposite sides of the shaft, a spring connecting said levers and for normally holding the same in contact with said cam, valves for controlling the supply of air to the ports, bars connected to said valves, and means on said levers acting against said bars to operate said valves.

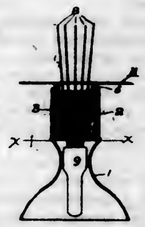
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1,092,360. EYEGLASSES. EDMUND HELLRIEGEL, Brooklyn, N. Y., assignor to The Wagner Comb Manufacturing Co., New York, N. Y., a Corporation. Filed June 4, 1913. Serial No. 771,633. (Cl. 88—42.)



An eyeglass mounting comprising a pair of frames having lugs provided with a pair of opposed recesses, a bridging member having a pair of U-shaped bendable clasps that straddle the lugs and are provided with inwardly extending protuberances that engage the recesses, the ends of the bridging member bearing against the tops of the lugs, whereby the frames are locked to the bridging member against independent movement on the protuberances.

1,092,361. FLY-CATCHER. GUSTAVE HELLWIG and MATHIAS LAGELBAUER, Bridgeport, Conn. Filed May 16, 1913. Serial No. 767,979. (Cl. 43—22.)



An insect catcher comprising a hollow base open at its bottom and forming a handle housing, a reservoir carried by the top of the base and having a perforated top and bottom, insect-catching arms projecting through the perforated top and bottom and slidable through the reservoir, and a handle for operating the arms adapted to be inclosed within the housing.

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1,092,362. RIVET. HERKEN HIERONYMUS HERKENS, Gilman, Ill. Filed Sept. 30, 1913. Serial No. 792,674. (Cl. 85—37.)



1. A rivet comprising a body portion having a stem and a head at one end of the stem, and the other end of the stem threaded and formed with a continuation beyond the threaded part having an axial socket produced therein, and a removable head provided with a threaded socket for the reception of the threaded portion of the stem and a flaring annular groove at the inner end of the socket adapted to receive and spread the socketed continuation at the free end of the stem.

2. A rivet comprising a body portion having a stem and a head at one end of the stem, and the other end of the stem threaded and formed with a continuation beyond the threaded part having an axial socket produced therein, and a removable head provided with a threaded socket for the reception of the threaded portion of the stem and a flaring annular groove at the inner end of the socket adapted to receive and spread the socketed continuation at the free end of the stem, said socketed continuation being slit lengthwise to facilitate the spreading thereof.

3. A rivet comprising a stem having a head formed at one end and at the other end provided with external screw threads and a continuation beyond the screw threaded portion and there free from screw threads, said continuation being formed with an axial entering socket, and a separate head made thinner from the central portion toward the margins and at the central portion provided with a threaded socket having its inner end continued as a flaring annular groove free from screw threads and adapted to receive and spread the socketed free end of the stem.

4. A rivet comprising a stem having a head formed at one end and at the other end provided with external screw threads and a continuation beyond the screw threaded portion and there free from screw threads, said continuation being formed with an axial entering socket, and a separate head made thinner from the central portion toward the margins and at the central portion provided with a threaded socket having its inner end continued as a flaring annular groove free from screw threads and adapted to receive and spread the socketed free end of the stem, both heads of the rivet being provided with means for the application of manipulating tools.



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1,092,363. SAFETY-RAZOR. LEONARD HEUSER, New York, N. Y. Filed Apr. 4, 1912. Serial No. 688,557. (Cl. 30—12.)



1. In a safety razor the combination of a frame having a guard at its upper end and a threaded hole in its lower end, a tongue and two projections integral with said frame, a movable clamp mounted upon said projections and engaged by said tongue, a movable top clamping plate having two extensions thereon, a lug bent inwardly from each extension, each of said extensions provided with a hole near the end thereof, springs carried by said frame and engaging each of said holes, and means for holding said top clamping plate and said clamp on said frame, substantially as described.

2. In a safety razor the combination of a frame having a comb or guard at its upper end, the end teeth of said comb being raised to act as a stop and prevent the blade from going beyond the safety point, a threaded hole at its lower end, a tongue and two projections integral parts of said frame, a movable clamp and a movable top clamping plate adjacent said guard and having two extensions with a lug bent inwardly on each, a small hole near the end of said extensions, said lugs and extensions being integral parts of said top clamping plate, a spring near each end inside of the frame, the one end of said springs being substantially fastened to the back of the frame and extending under the top of the frame to a point under the comb, the other ends of the springs engaging the holes in the extensions of the top clamping plate and means for holding the frame and clamp together substantially as described.

3. A safety razor having a frame provided with a guard at its forward edge, a tongue and two projections integral parts of said frame, a movable clamp and means for holding said clamp and frame together, two springs, located near the ends under the top part and inside of said frame, a top clamping plate adjacent said guard and having two extensions and two lugs, said extensions and lugs being integral parts of the top clamping plate, said extensions being movably connected with said springs substantially as described.

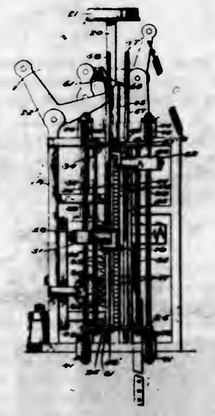
4. A safety razor having a frame provided with a guard at its forward edge, a tongue and two projections integral parts of said frame, a movable clamp and means for fastening said clamp and frame together, a movable top clamping plate, set across the top of the frame, and standing away from the same, an extension and lug on two sides of said plate, springs engaging the end of each of said extensions, the other end of said springs being fastened to the frame substantially as described.

5. A safety razor having a frame provided with a guard at its forward edge, a tongue, and two projections being integral parts of said frame, a movable clamp and means for fastening the clamp to the frame in engagement with said tongue, two springs located inside and near the ends of said frame, a top clamping plate with extensions on two ends, said extensions engaging said springs, and lugs extending inwardly from said extensions and fitted into the space between the under sides of the top part of the frame, and the upper sides of the springs, said extensions and lugs being integral parts of the clamping plates.

[Claim 6 not printed in the Gazette.]

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1,092,364. STOP-MOTION FOR SPEEDERS. EARNEST L. JACKSON, Columbus, Ga., assignor of six-tenths to Richard C. Deignan, Columbus, Ga. Filed May 12, 1913. Serial No. 767,174. (Cl. 118—12.)



1. The combination with a builder motion of a speeder and a stop mechanism for said speeder, of means movable with the traverse of the speeder capable of tripping the stop motion when moving in either direction, and cams actuated by the jaws of the builder motion and moving normally therewith and normally holding the engaging means out of action.

2. The combination with a speeder comprising a traverse and builder motion, of a stop mechanism associated with said speeder, means carried by the stop mechanism for actuating the stop mechanism when moving in either direction, said means being connected with and movable with the traverse, and cams holding such means normally out of action and moving normally with the jaws of the builder motion.

3. The combination with a speeder embodying a traverse and builder motion, of a stop action, means normally moving with the traverse and not affecting the stop motion, and means carried by the jaws of the builder motion for actuating the stopping means when the traverse exceeds the limit of its predetermined movement.

4. The combination with a speeder embodying a traverse and builder motion, of a stop motion adapted to stop the speeder, said stop motion embodying a trip held normally out of engagement but operative upon movement in either direction, means movable with the traverse in both directions, and cams carried by the builder motion for throwing the traveling means into engagement to move the tripping mechanism when the traverse exceeds its movement in either direction.

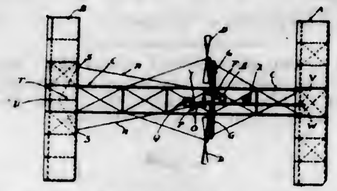
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1,092,365. AEROPLANE OR FLYING-MACHINE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed Apr. 20, 1910. Serial No. 556,514. (Cl. 244—14.)

1. In devices of the class described, the combination with suitable supporting planes, of motor devices, two propellers driven by said devices, an approximately vertical rudder, and means for at will varying the relative speed of the propellers and simultaneously and correspondingly varying the position of the rudder.

2. In devices of the class described, the combination with a rotary power shaft and two transverse propeller shafts upon opposite sides of the power shaft, of variable speed gearing connecting the power shaft with each pro-

peller shaft, a centrally pivoted lever arranged to vary the speed of the propeller shafts inversely as the lever



swings on its pivot, worm and gear devices for swinging and holding the lever, a vertical rudder, and means whereby the swinging of said lever adjusts the rudder.

1,092,366. STILL OR RETORT. SIDNEY E. KELSEY, Kansas City, Mo. Filed Sept. 9, 1913. Serial No. 788,792. (Cl. 196—26.)



1. A still or retort comprising a shell having an outlet port in its upper portion, a mass of refractory material in fluid state contained within the lower portion of the shell, means for conducting material to be treated into said mass, and floating baffles contained within the shell and immersed in said mass.

2. A still or retort comprising a shell, a mass of refractory material in fluid state partially filling said shell, baffles contained within the shell, within and above said mass, means for conducting material to be treated into said mass, and exhaust pipes communicating with the interior of said shell at different elevations.

3. A still or retort comprising a shell having an outlet port, a mass of refractory material in fluid state contained within the lower portion of the shell, baffles contained within the shell, and means for conducting material to be treated into said mass.

1,092,367. SAFETY-RAZOR. JOHN EVERETT KNAPP, Belmont, Mass. Filed Apr. 13, 1910. Serial No. 555,202. (Cl. 30—12.)

1. In a safety razor, a blade-holder comprising two substantially triangular end members, one of which is larger than the other, two tapering side members connecting the end members, means for securing tapering blades against said side members, and a handle connected to the larger end member of the holder.

2. A safety razor, comprising a blade-holder, having two substantially triangular end members, one of which is larger than the other, two tapering side members connecting the end members, tapering blades adapted to be secured against said side members, said blades and side members having complemental engaging devices located to prevent incorrect assembling, clasps pivoted at one end adjacent to the larger end members of the holder and embracing the longitudinal edges of the blades, and a handle connected to the larger end member of the holder.



4. A safety razor, comprising a blade-holder, having two substantially triangular end members, one of which is larger than the other, two tapering side members connecting the end members, tapering blades adapted to be secured against said side members, said blades and side members having complemental engaging devices located to prevent incorrect assembling, clasps pivoted at one end adjacent the larger end members of the holder and embracing the longitudinal edges of the blades, said clasps being U-shaped in cross-section and having their sides separated to engage both the side members of the frame and the blades, and a handle connected to the larger end member of the holder.

5. In a safety razor, a holder comprising substantially parallel sheet metal end members and side members extending from one end member to the other and lying in intersecting planes, said end members having tongues cut from them close to the ends of the side members and lying against such side members, blades adapted to be placed beside the side members of the holder and having notches in their ends to receive the tongues, whereby the blades are properly positioned.

1,092,368. FOUNTAIN-PEN. HENRY EDWARD KNIBB, White Haven, Pa. Filed Nov. 7, 1912. Serial No. 730,087. (Cl. 120—48.)

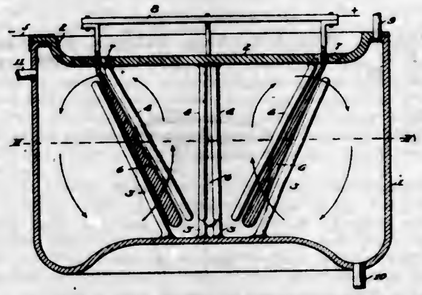


1. A fountain pen having a feed duct; a valve sliding in the pen transversely of the duct; a cap having an internal rib; and a spring connecting the valve with the pen to retract the valve, the rib being adapted to engage directly with the valve independently of the spring and the valve being rigid whereby the valve will be positively thrust, by the action of the rib, through the accumulations in the duct, the valve being located between the point of the pen and the point of attachment between the spring and the pen, whereby the rib will come into direct contact with the rigid valve in the first instance, when the cap is mounted on the pen.

2. In a device of the class described, a barrel; an ink delivery member in the barrel having a duct; a valve slidable in the ink delivery member transversely of the duct; a cap; the barrel having an abutment to receive the open end of the cap; a rib on the interior of the cap, located to engage the valve when the end of the cap is against the abutment, to move said valve inwardly.



1,092,369. PROCESS OF MAKING CHLORATES AND APPARATUS THEREFOR. GEORGE KOLSKY, Niagara Falls, N. Y. Filed Apr. 4, 1913. Serial No. 758,920. (Cl. 204—60.)



1. An electrolytic process of producing chlorates or the like, which consists in passing an electric current through a suitable electrolyte between electrode surfaces separated only by said electrolyte, and maintaining such evolution of gas at the cathodes as will suffice to induce an active circulation of the electrolyte past the electrodes and effect the depolarization thereof, the lines of flow of the electrolyte passing electrodes of opposite polarity in rapid succession.

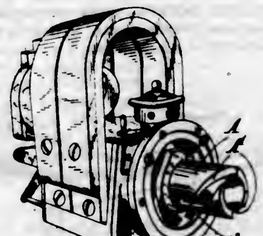
2. An electrolytic process of producing chlorates or the like, which consists in passing an electric current through a suitable electrolyte between inclined electrode surfaces separated only by said electrolyte, and maintaining such evolution of gas at the cathodes as will suffice to induce an active circulation of the electrolyte past electrodes of opposite polarity and effect the depolarization thereof.

3. In electrolytic apparatus for the preparation of chlorates or the like, the combination of a vessel and a plurality of electrodes of opposite polarity therein, said electrodes separated only by the electrolyte and disposed to provide an open or grid-like structure through which the electrolyte may freely circulate, said electrodes being so arranged that the hydrogen liberated at the cathode will induce a repeated circulation of the electrolyte through said grid-like structure, the lines of flow of the electrolyte passing electrodes of opposite polarity in rapid succession.

4. In electrolytic apparatus for the preparation of chlorates or the like, the combination of a vessel and a plurality of electrodes of opposite polarity therein, said electrodes separated only by the electrolyte, arranged at an inclination and disposed to provide an open or grid-like structure through which the electrolyte may freely circulate under the influence of the liberated hydrogen.

1,092,370. ELECTRIC IGNITION-GENERATOR. BENJAMIN LAWRENCE, Leyton, England. Filed June 3, 1913. Serial No. 771,430. (Cl. 123—149.)

1. An ignition-magneto starting-trip having in combination a driving-shaft, a driving-member so mounted thereon as to rotate therewith and also slide along the same, a spring to slide the said member in one direction, a trip consisting of a cam and cam-roll to slide it in the opposite direction, a driven-member fixed to the armature-shaft, and means operatively connecting the driving and driven members so that the driven-member always rotates when the driving-member rotates and also rotates but at a greater speed than the driving-member when the latter is moved endwise by its spring.



2. An ignition-magneto starting-trip having in combination a driving-shaft, a driving-member so mounted thereon as to rotate therewith and also slide along the same, a spring to slide the said member in one direction, a trip to slide it in the opposite direction the said trip having one of its members fixed to the said driving-member, a driven-member fixed to the armature-shaft, and means operatively connecting the driving and driven members so that the driven-member always rotates when the driving-member rotates, and also rotates but at a greater speed than the driving member, when the latter is moved endwise by its spring.

3. An ignition-magneto starting-trip having in combination a driving-shaft, a driving-member so mounted thereon as to rotate therewith and also slide along the same, a spring to slide the said member in one direction, a cam rigidly secured to the said driving-member, an element to contact with the operative face of the said cam and slide the driving-member in the other direction, means for withdrawing the said element from the path of the said cam, a driven-member fixed to the armature-shaft, and means operatively connecting the driving and driven-members so that the driven-member always rotates when the driving-member rotates and also rotates but at a greater speed than the driving-member when the latter is moved endwise by its spring.

4. An ignition-magneto starting-trip having in combination a driving-shaft, a driving-member so mounted thereon as to rotate therewith and also slide along the same, a spring to slide the said member in one direction, a cam rigidly secured to the said driving-member, a plunger to contact with the operative face of the said cam and slide the driving-member in the other direction, a spring and a cam, the one to move the said plunger into the path of the driving-member cam and the other to remove it from the said path, a driven-member fixed to the armature-shaft, and means operatively connecting the driving- and driven-members so that the driven-member always rotates when the driving-member rotates and also rotates but at a greater speed than the driving-member when the latter is moved endwise by its spring.

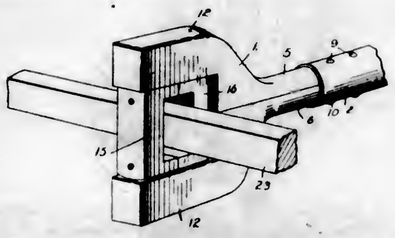
5. An ignition-magneto starting-trip having in combination a driving-shaft, a driving-member so mounted thereon as to rotate therewith and also slide along the same, a spring to slide the said member in one direction, a cam rigidly secured to the said driving-member, a plunger to contact with the operative face of the said cam and slide the driving-member in the other direction, a spring tending to press the plunger into the path of the driving-member cam, an oscillating cam normally actuated by a spring to withdraw the plunger from the said path, means to move the oscillating cam into its inoperative position to permit the plunger to be pressed into operative position, a lock operating automatically to lock the oscillating cam in its inoperative position, means operating automatically at or

about a predetermined speed to release the said lock, a driven-member fixed to the armature-shaft, and means operatively connecting the driving- and driven-members so that the driven-member always rotates when the driving-member rotates, and also rotates but at a greater speed than the driving-member, when the latter is moved endwise by its spring.

[Claims 6 and 7 not printed in the Gazette.]

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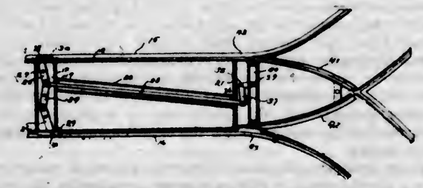
1,092,371. FIFTH-WHEEL FOR BUGGIES. DAVID BRITTON LILLARD, Elkmont, Ala. Filed Oct. 13, 1913. Serial No. 794,927. (Cl. 21—24.)



A device of the character described comprising two coacting members forming a U-shaped member, one of said coacting members having a longitudinal groove extending throughout a portion of its length, a longitudinally extending rib formed integral with the other coacting member, said longitudinally extending rib being adapted to extend into the groove, a link pivotally mounted between the arms of the U-shaped member, and an axle pivotally mounted in the link.

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1,092,372. SWITCH-THROWING DEVICE. CLARENCE E. LONG, Fort Wayne, Ind. Filed Dec. 17, 1912. Serial No. 737,294. (Cl. 104—24.)

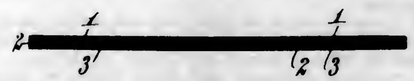


1. In apparatus of the character described, the combination with track rails and pivoted switch rails, of casings extending transversely between said track rails, levers pivoted intermediate their ends within one of said casings and projecting through slots into the flange grooves of the rails said slots forming recesses in the bottoms of the flange grooves, a link pivoted intermediate its ends and connecting the inner ends of said levers, a connecting rod pivotally connected to said link at one end, a bell-crank pivotally connected to the other end of said rod, the bell-crank being pivoted within the other casing, a transverse bar slidable within said second mentioned casing to move the switch rails, and means carried upon the car to actuate said levers.

2. In a device of the character described, the combination with track rails and pivoted switch rails, of casings provided with recesses upon adjacent sides, levers pivoted intermediate their ends within one of said casings, the inner terminals of said levers provided with longitudinal slots, a link pivoted intermediate its ends in a position intermediate said levers and having longitudinal slots at its respective terminals, pins extending through said slots formed in the terminals of the link and the levers, connecting said levers and link, a longitudinal casing disposed between said transverse casings, the open ends of said casings communicating with said recesses in said first mentioned casing, a bar connecting said switch rails and mounted within the other of said transverse casings, and means mounted within said longitudinal casing engaging the bar connecting said switch rails and the adjacent terminals of one of said levers and said link.

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1,092,373. INSOLE. LEVETT A. LONG, Dayton, Ohio. Filed Dec. 1, 1913. Serial No. 803,880. (Cl. 36—44.)



1. An insole comprising an upper layer of pervious material, a lower layer of impervious material, and a layer interposed between said upper and lower layers and a constituent of which is capsicum.

2. An insole, comprising an upper layer of pervious material, a lower layer of impervious material, and an intermediate layer of chemical irritant material consisting of capsicum, wool and a suitable binder.

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1,092,374. TROUSERS. JACOB MARGOLIS, New York, N. Y. Filed June 21, 1912. Serial No. 704,960. (Cl. 2—143.)



Trousers provided with a slit extending through the waist band and the upper part of the trousers and located at the rear of the side seam, thereby forming a front flap and a rear flap, said slit diverging from said side seam from top to bottom, a flap-connecting seam located at the lower portion of the slit for securing the lower portion of the front flap in a position to permanently overlap the lower portion of the rear flap to a fixed extent, and means comprising two series of coöperating engaging devices on said loose upper flap-portions for adjustably securing one of said portions to the other portion, one of said series of engaging devices being arranged in an inclined position to the other series.

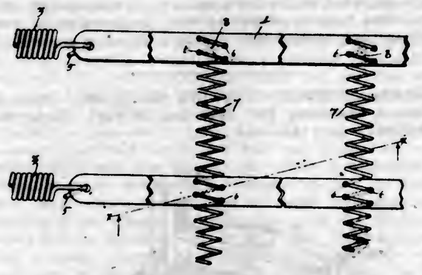
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1,092,375. MATTRESS-SPRINGS. REINHOLD G. MARQUARDT and OSCAR H. STUEWE, Milwaukee, Wis., assignors to Milwaukee Woven Wire Works, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 6, 1913. Serial No. 740,370. (Cl. 5—39.)

1. In a device of the described class, the combination of, a mattress frame, a longitudinal series of flat resilient metallic strips, means for suspending said strips at their respective ends from said mattress frame, a plurality of transverse spiral springs extending at right angles to and across the several flat metallic strips, and means for connecting said springs to said flat strips at the several points of contact.

2. In a device of the described class, the combination of a mattress frame, a longitudinal series of flat metallic strips, each provided with a plurality of apertures, means for suspending said series of strips at their respective ends from said frame, a series of transversely arranged spiral springs, said springs being inserted through the perforations in said flat strips at the several points of contact.



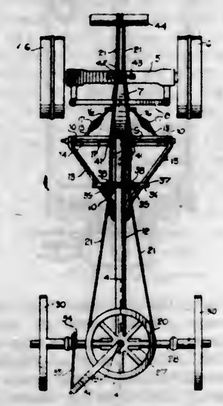


3. In a device of the described class, the combination of a mattress frame, a longitudinal series of flat resilient strips suspended longitudinally at their respective ends from the end members of said frame, means for maintaining said longitudinal strips under constant tension, a plurality of transversely arranged spiral springs supported from said longitudinal strips, means for connecting said springs to said strips at the several points of contact, and means for permanently connecting the ends of said springs with the strips at the respective sides of the mattress frame.

4. In a device of the described class, the combination of a mattress frame, a longitudinal series of flat metallic strips, each provided with a plurality of apertures suspended longitudinally at their respective ends from the end members of said frame, a short spiral sprigg connecting the respective ends of each of said flat strips with the end members of said frame for maintaining said longitudinal strips under constant tension, a plurality of transversely arranged spiral springs, said springs being inserted through the apertures of said longitudinal strips at the several points of contact, and means for permanently connecting the ends of said springs with the strips at the respective sides of the mattress frame.

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1,092,376. STEERING-TRUCK FOR TRACTION-ENGINES. JOHN J. MATHEY and WILLIAM J. BINARD, White Lake, S. D. Filed May 24, 1913. Serial No. 769,743. (Cl. 97—81.)



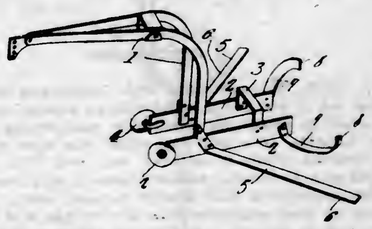
1. A steering truck for traction engines and the like comprising a vertically disposed steering shaft, a truck axle swiveled upon the lower end of said shaft for pivotal movement in two directions, supporting wheels mounted upon the ends of said axle, a radially disposed yieldable arm fixed to the upper end of the steering shaft provided with a plurality of openings, and a rod connected to the truck axle at one of its ends and adapted for adjustable engagement at its other end in the openings of said arm to yieldingly hold the axle against movement with relation to the steering shaft.

2. A steering truck for traction engines and the like comprising a vertically disposed shaft, a truck axle swiveled upon the lower end of said shaft for pivotal movement in two directions, supporting wheels mounted in the ends of said axle, a steering wheel fixed to the upper end of the shaft, a radially disposed yieldable arm secured to said wheel and projecting beyond the periphery thereof, said arm having a depending outer terminal provided with a series of openings, and a rod connected at one end to the axle and adapted for adjustable engagement at its other end in the openings of said arm to hold the truck axle against pivotal movement with relation to the steering shaft.

3. The combination with a traction engine or the like, of a support extending forwardly from the front axle of said engine, a transversely disposed bar pivotally mounted intermediate of its ends, upon said support, a tongue mounted at its rear end upon said bar, a truck supporting the forward end of said tongue, rods attached to the opposite ends of said bar, additional rods attached to said support, the opposed ends of the rods connected to the bar and support being oppositely threaded, and turn buckles connecting the opposed rods to adjust the bar upon the support and swing the tongue to position the truck wheels with relation to the traction wheels.

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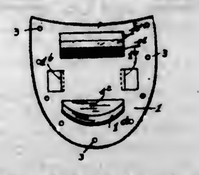
1,092,377. WEEDER. MIRT L. MCATEE, Mountain View, Okla. Filed Oct. 12, 1910. Serial No. 586,766. (Cl. 97—31.)



A straddle-row weeder including rearwardly diverging standards, a runner fixedly connected to the rear terminal of each standard, the two runners being parallel, a yoke fixedly connecting the rear portions of the runners, a rotatable disk journaled at the front end of each runner, said disk arranged to form a furrow for the runner, and a weed cutting blade extending from each runner.

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1,092,378. CUSHION-HEEL AND MEANS FOR ATTACHING SAME. JOSEPH H. MILLER, Duluth, Minn. Filed Feb. 7, 1913. Serial No. 746,706. (Cl. 36—36.)



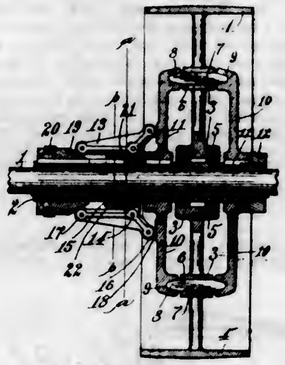
1. The combination with the body heel of a shoe, or boot, of a fastening plate coextensive in area with the bottom of said body heel, said fastening plate having formed thereon an upwardly directed peripheral knife-edge flange, said plate having formed thereon a depending

transversely extending flange provided with a forwardly directed foot, said plate having formed thereon a depending transversely extending flange provided with a rearwardly directed foot, said plate having formed thereon a depending longitudinally extending flange, and a cushion heel of elastic material having formed therein recesses adapted to closely engage said depending flanges.

2. The combination of an attaching plate having an upwardly turned peripheral flange formed thereon, said plate having downwardly directed interior flanges formed thereon of material out of the horizontal area thereof, and a cushion heel having recesses formed therein adapted to receive said downwardly directed flanges, said cushion heel having raised portions formed thereon adapted to extend into the apertures formed in the horizontal area of said plate by the striking of material therefrom to form said downwardly directed flanges.

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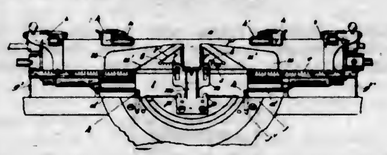
1,092,379. CLUTCH. JOHN F. MORGAL, Dayton, Ohio. Filed Feb. 15, 1913. Serial No. 748,682. (Cl. 192—7.)



In a clutch, the combination with driving and driven members one of which is provided with an annular recess, and actuating means for connecting said driving and driven members, of a split supporting ring upon which said actuating means is mounted, said ring being also provided with an internal annular recess, a split connecting ring mounted in said annular recesses, and a ring mounted on said supporting ring and holding said supporting ring in position in said annular recesses, substantially as described.

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1,092,380. TYPE-WRITING MACHINE. LEWIS C. MYERS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed Apr. 22, 1909. Serial No. 491,547. (Cl. 197—135.)

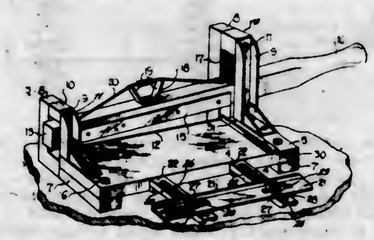


1. A card guide adapted to be mounted between the ribbon vibrator and the printing surface of the platen of a front strike typewriting machine, comprising a flat plate with a recess opposite the printing point on the platen through which the types impact against the platen, apertures on each side of said recess having straight bottom edges engraved with a scale and forwardly obliquely disposed side wings for deflecting an inserted card into position between the central flat part of the plate and the printing surface of the platen.

2. A card guide adapted to be mounted between the ribbon vibrator and the printing surface of the platen of a front strike typewriting machine, comprising a flat plate with a recess opposite the printing point on the platen through which the types impact against the platen, apertures on each side of said recess having straight bottom edges engraved with a scale and also having at said bottom edges tongues projecting into the openings to prevent an inserted card from engaging the edges thereof.

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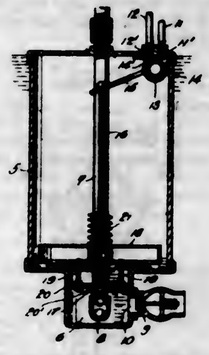
1,092,381. SHINGLE-CUTTING MACHINE. CHARLES NEELY, Ebensburg, Pa. Filed Jan. 30, 1914. Serial No. 815,524. (Cl. 164—41.)



In a cutting device of the character described, a base, uprights arranged at opposite ends of the base in spaced relation to one of its longitudinal edges, standards mounted upon the base in opposed relation to said uprights, a lever pivotally mounted at one of its ends between the standard and upright on one end of the base, and extending between the standard and upright at the opposite end of the base, a metal plate secured to the longitudinal edge of said base, a spring connected to said lever and yieldingly holding the same in an elevated position, a cutting blade secured upon one side of said lever and in spaced relation to the plate on the base, so that said blade will not contact with said plate when the lever is lowered, a plate centrally secured upon the lever and provided with upwardly extending diverging arms, and a truss rod engaged over the ends of said arms and fixed at its ends to said lever.

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1,092,382. PUMP. MARTIN NESS, Bothell, Wash. Filed Oct. 28, 1912. Serial No. 728,184. (Cl. 103—8.)



1. In apparatus of the class described, the combination of a pumping-vessel provided with air inlet and outlet openings, a three-way valve for controlling said openings, an arm connected to said valve, a cylindrical chamber communicating with the lower end of said vessel and provided with a water inlet, a spring closing valve for the water inlet, a water discharge pipe extending through said vessel and into said chamber, a non-return valve for said pipe, a float, an element surrounding said pipe and positioned below said float and operatively connected



with said arm whereby the latter is influenced by the float in its downward movements to open the three-way valve with respect to the air outlet, and a plate secured to said float and operable within said chamber for regulating the motion of the float and the three-way valve during the referred to opening of the same.

2. In apparatus of the class described, the combination of a pumping-vessel provided with air inlet and outlet openings, a three-way valve for controlling said openings, an arm connected to said valve, a chamber communicating with the lower end of said vessel and provided with a water inlet, a valve for the water inlet, a water discharge pipe extending through said vessel and into said chamber, a non-return valve for said pipe, a float, an element positioned below said float and operatively connected with said arm whereby the latter is influenced by the float in its downward movements to open the three-way valve with respect to the air outlet, said float also serving in its upward movements to open the three-way valve for the admission of air from said outlet opening, and a spring carried by the float and engageable with said arm in the upward movements of the float for influencing the opening of the three-way valve with respect to the air inlet.

3. In apparatus of the class described, the combination of a pumping-vessel provided with air inlet and outlet openings, a three-way valve for controlling said openings, an arm connected to said valve, a cylindrical chamber communicating with the lower end of said vessel and provided with a water inlet, a spring closing valve for the water inlet, a water discharge pipe extending through said vessel and into said chamber, a non-return valve for said pipe, a float, an element surrounding said pipe and positioned below said float and operatively connected with said arm whereby the latter is influenced by the float in its downward movements to open the three-way valve with respect to the air outlet, a plate secured to said float and operable within said chamber for regulating the motion of the float and the three-way valve during the referred to opening of the same, and a spring carried by the float and engageable with said arm in the upward movements of the float for influencing the opening of the three-way valve with respect to the air inlet.

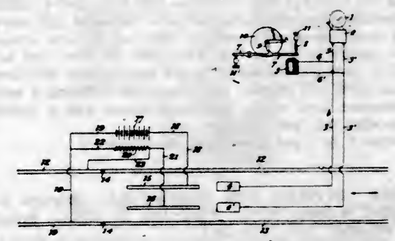
4. In apparatus of the class described, a pumping vessel provided with air inlet and outlet openings, a single valve for alternately opening and closing said openings, an arm connected to said valve, a float, a spring carried by the float, and an element suspended from said arm, said spring and element being adapted to be successively actuated by the float in the upward and downward movements of the latter thereby influencing said valve to permit the passage of air through the respective openings.

5. In apparatus of the class described, the combination of a pumping-vessel having a water inlet and provided with air inlet and outlet openings, a three-way valve for controlling said openings, an arm connected to said valve, a chamber communicating with the lower end of said vessel and provided with a water inlet, a valve for said water inlet, a pipe for the discharge of water from the lower end of said vessel, a non-return valve for said pipe, a float, and an element positioned below said float and operatively connected with said arm whereby the latter is influenced by the float in its downward movements to open the three-way valve with respect to the air outlet, said float also serving in its upward movements to open the three-way valve for the admission of air from said outlet opening.

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1,092,383. SAFETY AND SIGNALING DEVICE FOR RAILROADS. DIMOND C. NEWTON, Owego, N. Y., assignor of one-half to Max Lindeman, Owego, N. Y. Filed Oct. 23, 1913. Serial No. 796,758. (Cl. 246—26.)

1. Railway safety and signaling apparatus for block system roads embodying track-rails in each block insulated from those in the adjoining blocks, a battery and stationary contact devices for each block, each battery being directly connected with one of the stationary contact devices of one block and with one of the track-rails of an adjoining block, a conductor connecting the other contact device of each block with the other track-rail of the adjoining block, a resistance interposed between said conductor and the connection of the battery with the track-rail, and signaling devices, automatic brake mechanism and circuit-closing devices coöperating with said contact devices and carried by the engine, for the purposes set forth.



2. Railway safety and signaling apparatus for block system roads embodying track-rails in each block insulated from those in adjoining blocks, a battery and stationary contact devices for each block, each battery being directly connected with one of the stationary devices of one block and with one of the track-rails of an adjoining block, a conductor connecting the other contact device of each block with the other track rail of the adjoining block, and a resistance interposed between said conductor and the connection of the battery with the track-rail, for the purposes set forth.

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1,092,384. PIPETTE. LESLIE JOHN NICKELS, San Francisco, Cal. Filed May 8, 1913. Serial No. 766,441. (Cl. 226—84.)



1. A pipette of the character substantially as described, having a vent duct, a finger-controlled valve for controlling the same, and a liquid duct, said liquid and vent ducts having inner and outer open ends respectively, the outer ends of said ducts being arranged adjacent to each other.

2. A pipette comprising a tubular member provided with a suction chamber and having a longitudinal liquid duct opening into the lower part of said chamber and a longitudinal air duct opening at its outlet end into said chamber above the liquid level therein and having its inlet end arranged adjacent to the lower end of said member, said member provided with an exterior gage stop near its lower portion, and a finger controlled valve for said air duct.

3. A pipette comprising a finger-controlled suction chamber provided with a tubular member projecting therefrom and having a longitudinal liquid duct open at the outer end of the member and at its opposite end open into

the bottom of said chamber, and having a longitudinal air duct at its inlet open at the outer end portion of said member and at its outlet open into the upper portion of said chamber, a portion of the wall of said chamber forming a valve for opening and closing said outlet.

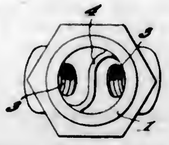
4. A pipette having a suction chamber formed by a compressible bulb, said bulb having a vent tube opening thereinto above the liquid level therein, a portion of the wall of said bulb being arranged to act as a valve controlling the outlet of said tube into said bulb, and a liquid duct opening into said bulb, said vent tube and said duct having outer openings arranged adjacent to each other.

5. A pipette having a vent duct with its inlet end arranged to form an automatic liquid seal to stop the flow of liquid from the pipette, said pipette comprising a suction chamber into which said vent opens, and a liquid tube opening into said chamber.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,385. FITTING FOR RADIATORS. EDWARD E. PARKER, Woburn, Mass. Filed Feb. 11, 1911. Serial No. 608,056. (Cl. 237—19.)



1. A radiator fitting including branches, and an S-shaped diaphragm extending longitudinally within the fitting and forming noncommunicating compartments opening into the respective branches, one of said compartments overhanging the other compartment throughout its length.

2. A radiator fitting including branches, a diaphragm extending longitudinally within the fitting and forming noncommunicating compartments opening into the respective branches, said diaphragm being S-shaped in cross sectional contour throughout its length, one of the compartments in the fitting overhanging the other compartment.

3. A fitting for radiators, including branches, a diaphragm straight from end to end and extending longitudinally within the fitting from one end thereof to a point between the branches, said diaphragm being S-shaped in cross sectional contour throughout its length and forming opposed similar compartments straight from end to end, one of the compartments overhanging the other compartment throughout its length irrespective of the position to which the diaphragm is rotated.

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1,092,386. PROCESS FOR WORKING UP THE ACID SLUDGE AND LIQUORS PRODUCED AS BY-PRODUCTS DURING THE WASHING OF MINERAL OILS. WILHELM PAU and PAUL EBERHARDT, Grabow, Germany, assignors to The Firm of Rütgerswerke-Aktiengesellschaft, Berlin, Germany. Filed Oct. 25, 1911. Serial No. 656,674. (Cl. 196—28.)

1. The herein described process of working up the acid sludge produced when washing petroleum with sulfuric acid, which consists in dissolving the acid sludge in the presence of water in a coal-tar oil having a high boiling point, allowing to settle and separating the upper layer of tar-oil from the aqueous acid liquid.

2. The herein described process of working up the acid sludge produced when washing petroleum with sulfuric acid which consists in dissolving the acid sludge in the presence of water in a coal-tar oil having a high boiling point, allowing to settle, separating the upper layer of tar-oil from the aqueous acid liquid and, neutralising the separated tar-oil solution.

3. The herein described process of working up the acid sludge produced when washing petroleum with sulfuric acid which consists in dissolving the acid sludge in the presence of water in a coal-tar oil having a high boiling point, allowing to settle, separating the upper layer of tar-oil from the aqueous acid liquid, neutralising the separated tar-oil solution with alkaline solutions separating the upper layer, and distilling off the coal-tar oil therefrom and thereby recovering the tar-oil and obtaining an asphalt-like residue.

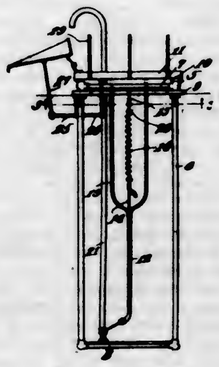
4. The herein described process of working up the acid sludge produced when washing mineral oils with sulfuric acid, which consists in diluting the acid sludge with water, in dissolving the same in a heated coal-tar oil having a high boiling point, in neutralising the solution thereby obtained with soda lye, in distilling off the coal-tar oil therefrom and thereby recovering the coal-tar oil and obtaining an asphalt-like residue.

5. As a new composition of matter, a solution in tar-oil of resinous bodies derived from petroleum.

[Claim 6 not printed in the Gazette.]

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1,092,387. AUTOMATIC WATERING-TROUGH. SAMUEL H. PERRY, York, Nebr. Filed Mar. 10, 1913. Serial No. 753,339. (Cl. 119—76.)



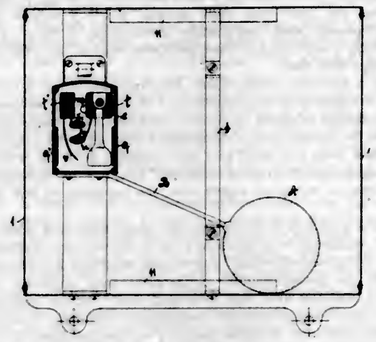
1. In a device of the character described, a supporting structure, a yieldable platform thereon, a trough having one side relatively deep and pivoted to one edge of the platform, the trough projecting away from the platform and having its bottom inclined from the said side to the free portion of the trough, means carried by the supporting structure and operatively connecting with the free portion of the trough and the platform, in order that when the platform is depressed and raised, the free portion of the trough will be raised and depressed respectively, a supply pipe overhanging the trough, and means for opening and closing the passage through the supply pipe when the platform is depressed and raised, respectively.

2. In a device of the character described, a supporting structure, a yieldable platform thereon, a trough having one side relatively deep and pivoted to one edge of the platform, the trough projecting away from the platform and the bottom of the trough being inclined from the said side to the free portion of the trough, a lever fulcrumed to the supporting structure, links connecting the respective arms of the lever and the platform and free portion of the trough, a supply pipe overhanging the trough, and means for opening and closing the passage through the supply pipe when the platform is depressed and raised, respectively.

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1,092,388. WATER-LEVEL INDICATOR. NICHOLAUS PODGOURSKY, St. Petersburg, Russia. Filed Mar. 30, 1912. Serial No. 687,448. (Cl. 177—317.)

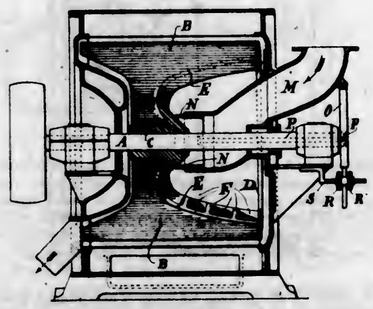
1. The combination with a chamber accessible to water, a water-tight casing pivoted in said chamber, a rigid arm connected to said casing, a float on the arm, an electric circuit having terminals in said casing one of which is a relatively stationary flexible terminal and the other a pivoted terminal, said pivoted terminal arranged to swing into contact with said flexible terminal when the casing is rotated by the float.



2. A water-tight casing, trunnions for mounting said casing one of which is tubular, a cover for the casing having knife contacts thereon and to which electric wires passing through the tubular trunnion are secured, spring contacts in the casing engaged by the knife contacts, a pendulum in the casing electrically connected to one of said spring contacts and a spring in the path of the pendulum connected to the other contact.

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1,092,389. PULP-STRAINER. THEODOR QVILLER, Lilleströmmen, and HANS STUB, Christiania, Norway. Filed Apr. 25, 1912. Serial No. 693,053. (Cl. 92—34.)



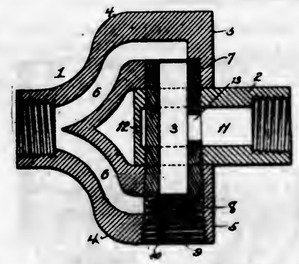
1. In a pulp strainer, a rotary shaft, a hub thereon having a conical end, radial fan blades on the hub, a distributing body inside the blades forming a continuation of said end and adapted to distribute pulp onto the blade at different distances from said end, and a centrally disposed tube arranged to feed pulp onto the conical end of the hub.

2. In a pulp strainer, a horizontal shaft, radial fan blades carried by the shaft, a pulp distributing body on the inside of the blades having a conical portion forming a hub of said distributing body, a centrally disposed feeding tube, and a ring valve adjustably mounted in said tube and surrounding the conical hub.

3. In a pulp strainer, a horizontal shaft, radial fan blades carried by the shaft, a curved pulp-distributing body on the inside of the blades provided with obliquely disposed ribs forming groups of channels opening on each blade at different distances from the pulp inlet.



1,092,390. FLEXIBLE PIPE-COUPLING. WILLIAM H. RAMSEY, Dawson, Pa., assignor of one-third to J. A. Smith and one-third to R. D. Henry, Dawson, Pa. Filed Oct. 15, 1913. Serial No. 795,327. (Cl. 137—34.)



1. A flexible pipe coupling comprising a yoke-member having ducts communicating at one end and terminating at their other ends in the arms of said yoke member, a tubular member entering between the arms of the yoke member, a tubular pin open at both ends and passing through the tubular member and communicating with the duct therein, said pin terminating within the arms of the yoke member and communicating at its respective ends with the ducts therein, and means for retaining said pin against its seats in the two members and automatically compensating for wear.

2. A flexible pipe coupling, comprising a yoke member having heads at the free ends of its arms and having ducts communicating with each other at one end and terminating at their other ends in said heads, said heads having openings in their inner faces, a tubular member having a part entering between said heads, said heads and said tubular member having flat abutting faces, a tubular pin open at its ends and passing transversely through said tubular member and communicating therewith and terminating within the openings in the inner faces of the heads of the yoke member so as to communicate at its ends with the ducts in the yoke member and pivotally connect the two members of the coupling.

3. A flexible pipe coupling comprising a yoke member having ducts, said ducts communicating at one end and terminating at their other ends within the arms of said yoke member, a tubular member having one end entering between the arms of the yoke member, a tubular conical pin passing transversely through said tubular member and communicating therewith and having a bearing in said tubular member, said pin also having bearings in the arms of the yoke member, a spring within one of the arms of the yoke member and bearing against one end of said tubular, conical pin, and a nut against which the other end of said spring bears.

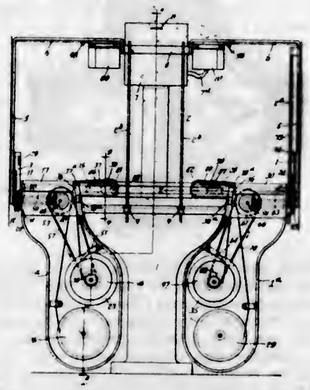
4. A flexible pipe coupling comprising two members, one of said members being bifurcated to receive the other, a tubular conical pin open at its ends and pivotally connecting said members, the ends of said pin being inclosed within the arms of the bifurcated member, a spring bearing against one end of said pin, ducts in the bifurcated member communicating with the open ends of said pin, an annular duct in the other member and communicating with an intermediate portion of the pin, and a duct in said last-mentioned member and communicating with said annular duct.

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1,092,391. SANITARY WATER-CLOSET. WARREN C. REES, Somerville, and STANLEY ETHERINGTON, Winthrop, Mass., assignors to Aseptic Service Company, a Corporation of Maine. Filed July 17, 1912. Serial No. 709,855. (Cl. 4—18.)

1. In a sanitary toilet closet, the combination of a seat, a barrier in its normal position preventing the occupancy of the seat, means permitting the removal of the barrier, and means for automatically returning the barrier to its normal position.

2. In a sanitary toilet closet, the combination of a seat, a barrier in its normal position preventing the occupancy of the seat, means for permitting the removal of the barrier, and means for locking the barrier against return to its normal position.



3. In a sanitary toilet closet, the combination of a seat, a barrier in its normal position preventing the occupancy of the seat, means for permitting the removal of the barrier, and means for preventing the removal of the barrier at any point in its return path to a normal position.

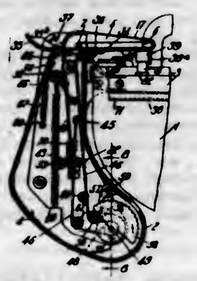
4. In a sanitary toilet closet, the combination of a seat, means for feeding two independent strips of paper over portions of the surface of said seat, separated from each other by a substantial space, a barrier in its normal position preventing occupancy of said seat, means permitting the removal of the barrier, and means for automatically returning the barrier to its normal position.

5. In a sanitary toilet closet, the combination of a bowl and means for feeding a strip of paper above the bowl, said means embodying a horizontally reciprocating paper carrying plunger.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,392. SANITARY WATER-CLOSET. WARREN C. REES, Somerville, Mass., assignor, by direct and mesne assignments, to Aseptic Service Company, Boston, Mass., a Corporation of Maine. Filed June 25, 1913. Serial No. 775,685. (Cl. 4—18.)



1. In a sanitary toilet closet, the combination of a bowl, a reciprocating seat, a compartment adapted to receive said seat, and mechanism adapted to reciprocate said seat between a position over the bowl and its normal position within the compartment.

2. In a sanitary toilet closet, the combination of a bowl, a seat composed of a plurality of reciprocating sections, compartments adapted to receive said sections, and mechanism adapted to reciprocate said sections between a position over the bowl and their normal position within the compartments.

3. In a sanitary toilet closet, the combination of a bowl, a seat composed of a plurality of sections, compartments adapted to receive and conceal said sections, and mechanism adapted to reciprocate said sections between a position over the bowl and their normal position within the compartments, said mechanism embodying a lever provided with a slot, and a lever provided with a pin adapted to engage said slot.

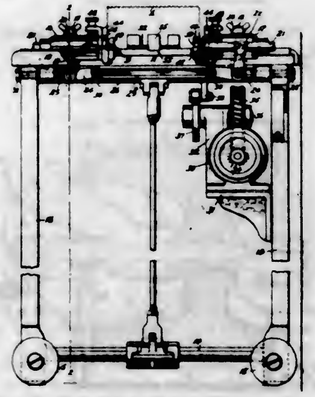
4. In a sanitary toilet closet, the combination of a bowl, a seat composed of a plurality of reciprocating sections, compartments adapted to receive said sections, mechanism adapted to automatically reciprocate said sections between a position over the bowl and their normal position within the compartments, and mechanism adapted to automatically advance strips of paper over the surfaces of the sections.

5. In a sanitary toilet closet, the combination of a bowl, a seat composed of a plurality of reciprocating sections, compartments adapted to receive said sections, mechanism adapted to automatically reciprocate said sections between a position over the bowl and their normal position within the compartments, mechanism adapted to automatically advance strips of paper over the surfaces of the sections, and a common actuating mechanism.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,393. THUMB-HOLE-CUTTING MACHINE. JAMES D. REIFSNYDER, Philadelphia, Pa., assignor to Stokes & Smith Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1913. Serial No. 761,770. (Cl. 93—58.)



1. A thumb hole cutting machine comprising a plurality of adjustable cutter heads, a cutting punch slidably mounted in each head, a pivoted actuating member for positively moving said cutting punches in each direction, and means supported by each head for conveying motion from said actuating member to the punches, said means having continuous interengaging but movable connection with the actuator to permit adjustment of said cutter heads without disconnecting any of the operating parts.

2. A thumb hole cutting machine comprising a plurality of adjustable heads, a cutting punch slidably mounted in each head, a punch operator supported on each head and adjustable therewith, and a pivoted actuating member for positively operating the said punch operators and their coöperating punches in each direction, said operators having a sliding connection with the actuators to permit adjustment of the heads within the limit of the machine without disconnecting said connection.

3. A thumb hole cutting machine comprising a plurality of adjustable heads, a cutting punch slidably mounted on each head, a plurality of supports for the article to be cut, each adjustably mounted on a head and also adjustable with the head, a punch operator carried by each head and movable therewith, and a pivoted actuating member for imparting movement to said punch operators, said operators having a sliding connection with the actuators to permit adjustment of said heads without disengaging any of the connections.

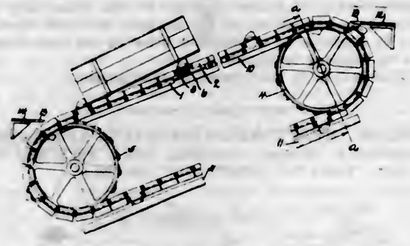
4. A thumb hole cutting machine comprising a plurality of adjustable heads, a cutting punch slidably mounted in each head, a bell crank operating lever pivoted on each head and connected by one arm to the cutting punch to move the same positively in each direction, a pivoted actuating member having a slot therein, and means on the other arm of each punch operating lever in sliding engagement with said slot to rock said levers and permit adjustment of the cutter heads without disconnecting any of the parts.

5. A thumb hole cutting machine comprising a plurality of adjustable heads, a cutting punch slidably mounted in each head, a pivoted actuating member comprising a rocking plate having a slot in its swinging edge, and a bell crank operating lever on each head connected by one arm to the cutting punch to move the same positively in each direction and having sliding engagement by its other arm with the slot in the actuating member to permit adjustment of the cutter heads without disconnecting the lever and actuating member.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,394. CONVEYER. JESSE W. RENO, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporaion of New Jersey. Filed Oct. 21, 1911. Serial No. 656,042. (Cl. 198—8.)



1. In a conveyer, the combination of an endless chain, a plurality of wooden and metal treads or slats secured to said chain so as to form a load carrying surface, rollers carried by said metal treads, a track coöperating with said rollers, and devices projecting above said surface in position to engage articles to be conveyed and to protect the rollers from contact with said articles.

2. In a conveyer, the combination of an endless chain, treads or slats secured to said chain so as to form a load carrying surface, rollers carried by said treads intermediate the ends thereof and extending above said surface, protecting devices for the rollers positioned to form abutments for articles being conveyed, and a track coöperating with the rollers.

3. In a conveyer, the combination of an endless chain, treads or slats secured to said chain so as to form a load carrying surface, rollers carried by said treads and projecting through said surface, tracks coöperating with said rollers, and housings for the projecting portions of the rollers.

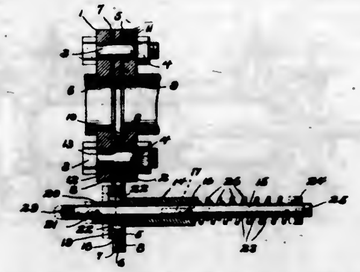
4. In a conveyer, the combination of an endless chain, treads or slats secured to said chain so as to form a load carrying surface, rollers carried by and extending through said treads and located intermediate the ends thereof, tracks coöperating with said rollers, and housings for the rollers.

5. In a conveyer, the combination of a load carrying surface comprising a plurality of treads or slats, and rollers lying in slots in said treads with their axes transverse to the direction of travel.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,395. AUXILIARY AIR-INLET DEVICE FOR INTERNAL-COMBUSTION ENGINES. LEWIS T. RHOADES, Mont Clare, Pa., assignor to New York Coil Company, New York, N. Y. Filed Oct. 7, 1913. Serial No. 793,799. (Cl. 48—180.)



1. Means for admitting air to internal combustion engines, comprising an air chamber having an opening in its wall, a valve movable in said opening and seated against the inner wall of the chamber at the opposite side of the chamber, said valve having perforations therein through which air is admitted to the chamber when the valve is drawn away from the inner wall thereof, and means permitting the valve to be drawn entirely out of the first-mentioned opening to admit an abnormal quantity of air, substantially as described.

2. Means for admitting air to internal combustion engines, comprising an air chamber having an opening in its wall, a valve movable in said opening and seated against the inner wall of the chamber at the opposite side of the chamber, said valve having perforations therein through which air is admitted to the chamber when the valve is drawn away from the inner wall thereof, a stem on said valve, two coiled springs on the stem, one longer than the other, and a shoulder on the stem against which the longer spring bears and against which the larger spring is brought into contact when the valve is moved to a position to be drawn out of the said opening, substantially as described.

3. Means for admitting air to internal combustion engines, comprising an air chamber having an opening in its wall, a valve movable in said opening and seated against the inner wall of the chamber at the opposite side of the chamber, said valve having perforations therein through which air is admitted to the chamber when the valve is drawn away from the inner wall thereof, a stem on said valve, two coiled springs on the stem, one longer than the other, a shoulder on the stem against which the longer spring bears and against which the larger spring is brought into contact when the valve is moved to a position to be drawn out of the said opening, and means preventing rotary movement of the stem, substantially as described.

4. A device of the character described, comprising an air inlet chamber adapted to be positioned between a carbureter and an intake pipe, and having openings in its opposite walls registering with both said carbureter and said intake pipe, said chamber having an air inlet opening in its wall, and a spring held perforated disk controlling the passage of air through said inlet, and said disk adapted to be drawn entirely out of the opening in the wall, substantially as described.

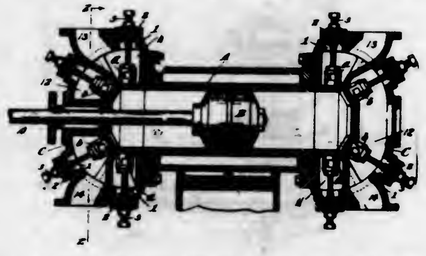
5. A device of the character described, comprising three plates riveted together and of uniform external contour, said intermediate plate having a relatively large opening forming an elongated air chamber, said outside plates

having registering openings adapted to register with the outlet of a carbureter and the end of an intake pipe respectively when said device is clamped between the carbureter and the intake pipe, and means controlling the inlet of air to said chamber, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,396. AIR AND GAS COMPRESSOR. MICHAEL RIESNER, Cincinnati, Ohio, assignor to International Steam Pump Company, a Corporation of New Jersey. Filed Apr. 6, 1911. Serial No. 619,204. (Cl. 230—34.)



1. A pump cylinder having a cylinder head formed separately from and attached to the cylinder, said head being formed to provide suction and delivery chambers extending about the end of the cylinder and said head carrying valves arranged in annular sets, one set of valves being arranged circumferentially about the end of the cylinder and opening radially to the cylinder, and the other set being arranged at the end of and opening in line with the cylinder.

2. A pump cylinder having a cylinder head formed separately from and attached to the cylinder, said head being formed to provide an annular suction chamber and an annular delivery chamber at the end of the cylinder, one of said chambers extending circumferentially about the end of the cylinder and having in the head an annular set of valves opening radially to the cylinder, and the other chamber arranged at the end of the cylinder and having in the head an annular set of valves opening in line with the cylinder.

3. A cylinder head formed separately from the cylinder and having valve chambers extending circumferentially of and in line with the cylinder and annular sets of valves, one set opening radially and the other in line with the cylinder.

4. Cylinder head C formed separately from the cylinder and having valve chamber 11 extending about the cylinder with valves opening radially to the cylinder, and valve chamber 12 in line with the cylinder having valves opening in line with the cylinder.

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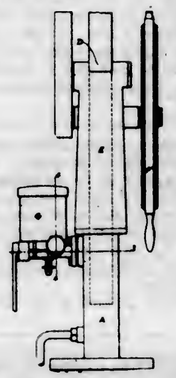
1,092,397. TELEMOTOR. ROBERT SANFORD RILEY, Providence, R. I. Filed July 11, 1912. Serial No. 708,871. (Cl. 138—2.)

1. In a telemotor system, a reservoir containing liquid and means for putting said reservoir into free communication with the idle side of the system in consequence of unbalanced pressure in the active side of the system.

2. In a telemotor system, a container holding a quantity of liquid at a height above any other point in the system, and means operated by excess pressure in either side of the system for establishing free communication between the container and the other side of the system.

3. In a telemotor system, a container holding a quantity of liquid at a height above any other point in the system, channels of communication between said container and both sides of the system, valve means normally closing said channels, and actuating means arranged for operation by pressure in the high-pressure side of the system to open the channel from the container to the low-pressure side.

4. In a telemotor system having an actuating fluid-displacing means and conduits distinct from one another leading from either side of said means, adapted to conduct the flow of liquid caused by movement of said means, a container for a supply of liquid, normally closed connections between said container and each conduit, and movable actuating means exposed to the liquid in the conduits arranged to be so moved by unbalanced pressure in either as to open the connection between the other and the container.

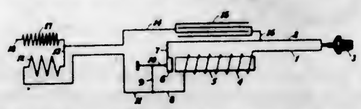


5. In a telemotor system having a displacing means and conduits leading from opposite sides thereof, a means operated by unbalanced pressure in one of said conduits for establishing external communication with the other conduit, whereby excess pressure in the latter may be relieved, or a deficiency in the quantity of liquid therein may be supplied, or an accummulation of gas may escape and be replaced by liquid.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,398. HIGH-TENSION DISCHARGE APPARATUS. GEORGE D. ROGERS, Cleveland, Ohio. Filed May 31, 1913. Serial No. 770,903. (Cl. 250—36.)



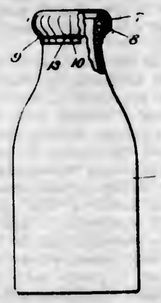
In a high tension discharge apparatus, the combination with a main circuit provided with means for connection to a supply current and including an induction coil and a circuit controller, of a condenser connected to the main circuit at one side of said circuit controller, the primary winding of a high frequency coil connected to the main circuit at the other side of said circuit controller and to the condenser, and the secondary winding of the high frequency coil having one end connected to the primary winding thereof and terminating in a single end for connection to a therapeutical instrument, substantially as described.

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1,092,399. METHOD OF SEALING BOTTLES. RUBIN ROTHMAN, Brooklyn, N. Y. Filed Sept. 20, 1913. Serial No. 790,858. (Cl. 140—94.)

1. The herein described method of securing a cap on a bottle that is provided with a bead at the top by means of a circular wire ring, consisting in placing around the cap below the bead a circular wire ring provided with a helix at one end portion with the other end portion of the wire projecting through such helix, thereupon drawing said free end through the helix to contact the ring and press the cap tightly against the bottle neck, and thereupon causing the helix to be closed upon the said inner wire portion whereby to deflect such inner portion and lock the two end portions of the ring together and secure the cap upon the bottle.





2. The herein described method of securing a cap on a bottle that is provided with a bead at the top by means of a circular wire ring, consisting in placing around the cap below the bead a circular wire ring provided with a helix at one end portion with the other end portion of the wire projecting through such helix, thereupon drawing said free end through the helix to contract the ring and press the cap tightly against the bottle neck, and thereupon causing the helix to be closed upon the said inner wire portion whereby to deflect such inner portion and lock the two end portions of the ring together and secure the cap upon the bottle, and also causing the inner wire to have its extremity bent laterally at the end portion of the helix.

3. The herein described method of securing a cap on a bottle that is provided with a bead at the top by means of a circular wire ring, consisting in placing around the cap below the bead a circular wire ring provided with a helix at one end portion with the other end portion of the wire projecting through such helix, thereupon drawing said free end through the helix to contract the ring and press the cap tightly against the bottle neck, and thereupon comprising the helix and free end into interlocking engagement.

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1,092,400. METER-BOX. EUGENE RYNEARSON, Dallas, Tex. Filed Aug. 10, 1911. Serial No. 643,299. (Cl. 137—13.)

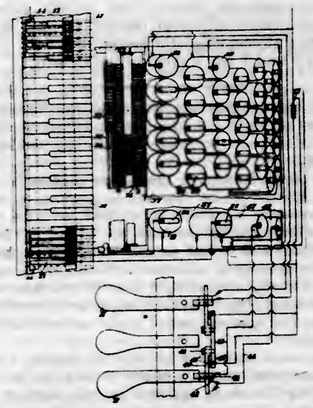


In a locked meter box, a cylindrical box member, an annular shouldered and flanged ring secured in the upper end of the member, a cover fitting in the ring on the flanged portion thereof, a diametrical rib depending from the under side of the cover, a lug at right angles to the rib depending from the cover in position to engage the flange of the ring, a plunger passing transversely through the rib in position to engage the flange of the ring diametrically opposite to the lug, supports for the plunger on each side of the rib, and a coiled spring confined on the plunger and bearing against one of the supports.

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1,092,401. SHEET-MUSIC-PERFORATING DEVICE. AUGUSTO D. SAUMELL, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,665. (Cl. 164—113.)

1. In a sheet music perforator, the combination of a perforating device comprising a member having a series of openings therein, a set of punches arranged to be advanced to enter said openings respectively to perforate the sheet, means for advancing the sheet over the said openings in the member at a certain pre-determined speed, a bank of keys, a circuit closer adjacent each key that is normally opened to be closed by the depression of the key, electro-magnets one for each of said circuits, a core for each magnet, connections between each core and one of said punches, whereby the depression of a key will cause the advance of its corresponding punch to perforate the sheet, a circuit breaker for each of said circuits, and a spring for retracting each punch, said circuit breaker and said sheet moving device being relatively arranged whereby a rapid reciprocation of each punch is effected as long as its key remains depressed to produce a close succession of perforations upon the sheet to form a substantially continuous opening in the sheet whose length depends on the depression of the key.



2. In a music sheet perforator, a perforating device comprising a member having a series of holes, a punch cooperating with each of said holes, means for moving the paper between the punch and said member at a pre-determined speed, a bank of keys, a circuit closer connected with each key, electro-magnetic means in each of said circuits arranged to operate said punches respectively in one direction, retracting means for operating the punches in the opposite direction, and an interrupting device in each of said circuits arranged to cause a rapid reciprocation of any punch when its corresponding key is depressed, whereby a rapid succession of perforations are produced in the paper to produce a substantially continuous opening whose length depends on the time the key is depressed.

3. In a music sheet perforator, the combination of a bank of keys, a cut-out connected with each key that will close a normally open circuit when the key is depressed, a perforating device comprising a member having a series of openings therein and a member carrying a series of punches movable therein and into said openings when advanced, a segment shaped support, a plurality of electromagnets carried by the support with their axes arranged substantially in radiating lines, a core carried by each of the magnets, each of the magnets being in circuit with one of the said circuit closers whereby the core will be actuated by depression of a corresponding key, a cut-out for each of the magnet circuits operated by the core thereof to produce an interrupted current, a shaft, a series of levers arranged on the shaft, the levers having one end arranged adjacent the ends of said punches respectively, the other ends of the levers being connected with said magnet cores respectively whereby to operate the punches as the cores are reciprocated in the magnets.

4. In a music sheet perforator, the combination with the pedal of a musical instrument, of a pair of punches

for the pedal, electro-magnetic means for operating each of said punches, a circuit breaker in the circuit of each of said magnetic operating means, means for causing the pedal when moved from normal position to shift the circuit closer to closed position and then open the same without closing such circuit on the return movement to normal position of such pedal, and means for causing the return movement to normal position of such pedal to operate the other said circuit closer for that pedal to first close and then open the same whereby one of said punches is operated when the pedal is opened and the other punch is operated when the same pedal is returned to closed position.

5. In a music sheet perforator, the combination with a pedal of a musical instrument, of a pair of punches, independent electro-magnetic means for operating each of the punches, and circuit closing means connected with said pedal and adapted at the intermediate part of the opening movement thereof, to close the circuit of one of said electro-magnetic means, and at the intermediate part of the closing movement thereof, to close the circuit of the other electro-magnetic means.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,402. PROCESS OF PRODUCING HEAT-INSULATING MATERIAL. JOHN A. SCHARWATH, Cranford, N. J. Filed Oct. 3, 1908. Serial No. 455,958. (Cl. 106—19.)

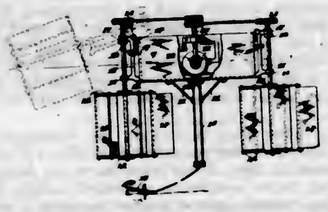
1. The herein described process of making a heat insulating material which consists in heating in the open, a mass primarily composed of alkaline silicates, and agitating the mass during the heating.

2. The herein described process of making a heat insulating material, which consists in heating in an open oven a mass primarily composed of alkaline silicates and agitating the mass, and removing the crust formation thereon during the heating period until an interstitial solid is produced.

3. The herein described process of making a heat insulating material which consists in heating in an open mold, having the shape required for the finished product, a mass primarily composed of alkaline silicates and agitating the mass during the heating, until a uniform interstitial solid is produced, and in then removing the product.

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1,092,403. STREAM-MOTOR. CHARLES SCHOENFELD, Canton, Ohio. Filed Mar. 31, 1913. Serial No. 757,780. (Cl. 170—113.)



1. In a stream motor, the combination of a float, bracket-flanges secured to said float, brackets pivotally connected at their upper ends to the fixed bracket-flanges shafts journaled in the pivoted brackets, motor wheels fixed to the shafts, said motor wheels consisting of a series of arms and pivoted blades, and means for holding the brackets against pivotal movement in one direction.

2. In a stream motor, the combination of a float, bracket-flanges secured to said floats, brackets pivotally connected at their upper ends to the fixed bracket-flanges, shafts journaled in the pivoted brackets, motor wheels fixed to the shafts, said motor wheels consisting of a series of arms and pivoted blades, and means for holding the brackets against pivotal movement in one direction, and power wheels connected to the shafts provided with the motor wheels.

3. In a motor of the class described, the combination of a float, means for anchoring the float, motor shafts spaced from each other, said motor shafts journaled in brackets pivoted to the float, said shafts provided with wheels at their upper ends, a power shaft located intermediate the motor shafts and means for imparting rotary motion to said power shaft.

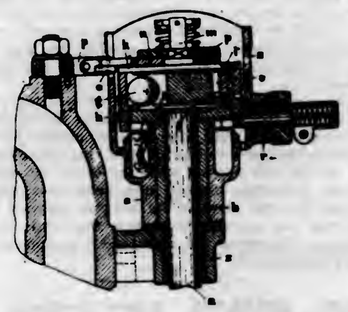
4. In a motor of the class described, the combination of a float, means for anchoring the float, brackets pivoted to the float, shafts journaled in the brackets, said shafts provided with motor wheels, said wheels consisting of a series of blades pivoted between their vertical edges and means for limiting the pivotal movement of said blades, a power shaft and means intermediate the motor shafts to impart rotary motion to said power shaft.

5. In a stream motor, a float, motor shafts carrying brackets pivotally connected to said float, motor shafts journaled in the brackets, motor wheels connected to said shafts and said motor wheels adapted to rotate in opposite directions, a power shaft and means intermediate the motor shaft adapted to actuate said power shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,404. REVERSING DEVICE FOR COMBUSTION-ENGINES. WILLY SECK, Berlin-Wilmersdorf, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Oct. 6, 1909. Serial No. 521,350. (Cl. 123—41.)



1. In a combustion engine, in combination, a timer shaft adapted to be driven by the engine, a circuit-controlling contact carried thereby, a circuit-controlling spring electrically connected to said circuit-controlling contact, said spring normally occupying its open circuit position, a movable member normally out of engagement with said spring and adapted when the speed of the engine passes below a predetermined value to move into engagement with said spring to cause the latter to occupy its circuit closing position, a rotatable circuit-controlling member electrically connected to said circuit-controlling contact, manually operated means to move said circuit-controlling member to cause it to break its circuit and automatically operated means for causing said member to close its circuit when the direction of rotation of said timer shaft is reversed.

2. In a combustion engine, in combination, a timer shaft adapted to be driven by the engine, a circuit-controlling contact carried thereby, a circuit-controlling spring electrically connected to said circuit-controlling contact, said spring normally occupying its open circuit position, a movable member normally out of engagement with said spring and adapted when the speed of the engine passes below a predetermined value to move into engagement with said spring to cause the latter to occupy its circuit closing position, a rotatable circuit-controlling member electrically connected to said circuit-controlling contact, a fork-shaped contact piece provided with two stops adapted to be electrically engaged by said member depending upon the direction of rotation of said timer shaft, manually operated means to move said circuit-controlling member to cause it to break its circuit and automatically operated means for causing said member to close its circuit when the direction of rotation of said timer shaft is reversed.

3. In a combustion engine, in combination, a timer shaft adapted to be driven by the engine, a circuit-controlling contact carried thereby, a circuit-controlling spring electrically connected to said circuit-controlling contact, said spring normally occupying its open circuit position, a movable member normally out of engagement with said spring and adapted when the speed of the engine passes below a predetermined value to move into engagement with said spring to cause the latter to occupy its circuit closing position, a contact lever rotatably secured to the timer shaft, a fork-shaped contact piece provided in the ignition system and provided with two stops for engaging the contact lever and preventing rotation thereof and manually operated means to move said contact lever to cause it to break its circuit.

4. In a combustion engine, in combination, a timer shaft adapted to be driven by the engine, a circuit-controlling contact carried thereby, a circuit-controlling spring electrically connected to said circuit-controlling contact, a movable member normally out of engagement with said spring and adapted when the speed of the engine passes below a predetermined value to move into engagement with said spring to cause the latter to occupy its circuit closing position, a contact lever rotatably secured to the timer shaft, means tending to rotate said lever with said shaft, and a fork-shaped contact piece provided in the ignition system and provided with two stops for engaging the contact lever and preventing rotation thereof, said device having a rotatively adjustable case for removing the contact lever from the stop when the case is adjusted into the reversing position.

5. In a combustion engine, in combination, a timer shaft adapted to be driven by the engine, an electrical contact carried thereby, a pair of electrical contacts carried by said shaft, said pair being insulated from said first mentioned contact and from each other, spring contacts connected to said pair of contacts, contact points adapted to be engaged by said spring contacts, and a ball adapted to engage one or the other of said springs according to the direction of rotation of said shaft to cause the engaged spring to move into contact with its associated contact point.

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1,092,405. TOWEL-CABINET. IRA H. SHATTUCK, Hollywood, Cal. Filed Oct. 25, 1911. Serial No. 656,786. (Cl. 45—32.)



A towel cabinet comprising a case having an upper and lower slot therein, a pair of frames secured to the inside of said case, each having a vertical slot therein and a horizontal slot therein, a lower roller rotatably mounted on said frames, a shaft mounted in said horizontal slots, an intermediate roller mounted on said shaft, a block in said vertical slot slidable therein, a shaft mounted in said blocks, an upper roller mounted on said last named shaft, a curved arm mounted on each frame engaged by one of said blocks and extending between the shaft on the intermediate roller and the upper end of the horizontal slots in said frames, a spool mounted in said case and adapted to receive a strip of toweling thereon, and so placed as to admit of passing one end of the strip of toweling between said upper and intermediate roller in said case, thence through said upper slot to the exterior of the case to form a loop, thence through the lower slot in said case, thence between the intermediate and lower rollers in said case, and means for rotating said rollers to cause said strip of toweling to travel therebetween.





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1,092,406. TYPE-WRITING MACHINE. CHARLES H. SHEPARD, Brooklyn, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Oct. 1, 1896. Serial No. 607,514. (Cl. 197—39.)



1. In a typewriting machine, the combination of a type bar support, a type bar, and a joint consisting of parts that form a raceway and of a set of balls confined therein, the channel of the raceway being two grooves, one of these grooves having two walls each of which forms an annular bearing-surface, and said joint including means to render adjustable the part which forms one of said annular bearing-surfaces and to keep the axis of that bearing-surface constantly in coincidence with the axis of said other bearing-surface and the pivotal axis of the type bar.

2. In a typewriting machine, the combination of a type bar support, a type bar, and a joint consisting of parts that form a raceway and of a set of balls confined therein, the channel of the raceway being two grooves, one of these grooves being formed in the type bar and the other having two annular walls formed by parts of the joint which connect the type bar and balls with said support, one of these parts being movable toward and from the other, and said joint including means to control the adjustment of said movable part and to keep the axis of its annular wall constantly in coincidence with the axis of said other annular wall and the pivotal axis of the type bar.

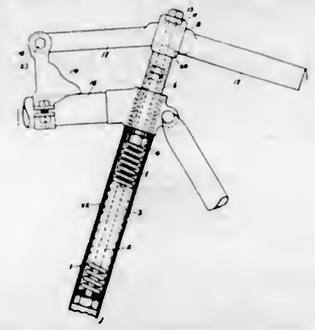
3. In a typewriting machine, the combination of a type bar support, a type bar, and a joint consisting of parts that form a raceway and of a set of balls confined therein, the channel of the raceway being two grooves, one of these grooves having two annular walls one of which is formed on a screw-threaded part, this annular wall and the screw of this part having a common axis, and said screw and its counterpart constituting means to keep said axis constantly in coincidence with the axis of said other annular wall and the pivotal axis of the type bar.

4. In a typewriting machine, the combination of a type bar support, a type bar, and a joint consisting of parts that form a raceway and of a set of balls confined therein, the channel of the raceway being two grooves, one of these grooves being formed in the type bar and the other having two annular walls formed by parts of the joint which connect the type bar and balls with said support, one of these parts being a screw the axis of which coincides with that of the annular wall of this part and said screw and its counterpart constituting means to keep said axis constantly in coincidence with the axis of said other annular wall and the pivotal axis of the type bar.

5. In a typewriting machine, the combination of a type bar support, a type bar, and a joint consisting of parts that form a raceway and of a set of balls confined therein, said parts having annular walls which have a common axis that coincides with the pivotal axis of the type bar, one of these parts being secured in place by a threaded connection the axis of which coincides with the aforesaid axis, and said threaded connection constituting means to enable this part to be adjusted with relation to another of said parts, and to keep the axis of its annular wall coincident with the aforesaid axis irrespective of the position in which the part may be adjusted.

[Claims 6 to 10 not printed in the Gazette.]

1,092,407. ADJUSTABLE-SPRING SEAT-PILLAR AND SADDLE-SUPPORT FOR MOTOR-CYCLES. JOSEPH SMITH, Manchester, England. Filed Dec. 10, 1912. Serial No. 736,013. (Cl. 208—100.)



1. In spring seat pillars and saddle supports for motor cycles a tube having a U shaped upper end, an inclined bearing surface on the base of said U shaped portion, a yielding support for said tube, a saddle support having a correspondingly inclined bearing surface fitting in said U shaped portion, and means for holding said saddle support in said U-shaped portion, said saddle support being hinged at the front end to a bracket mounted on the top tube of the cycle frame, as set forth.

2. In spring seat pillars and saddle supports for motor cycles a tube having a U shaped upper end, an inclined bearing surface on the base of said U shaped portion, a saddle support having a correspondingly inclined bearing surface fitting in said U shaped portion, a bracket mounted on the top rail of the cycle to which the front end of said saddle support is hinged, a bridge piece fitting in slots in the extremities of the U shaped portion, a tube containing a spring in the upper end of which tube the U shape ended tube fits, a spindle passing through the whole of said parts for holding said parts together, a nut, by which the upper end of said spring is held, interposed between said spring and the U shape headed tube for adjusting the tension of the spring as set forth.

1,092,408. PROCESS OF MAKING A COMPOSITION FOR USE IN MATCHES. HENRY STAIER, New York, N. Y. Filed Nov. 16, 1910, Serial No. 592,597. Renewed Sept. 19, 1913. Serial No. 790,781. (Cl. 52—5.)

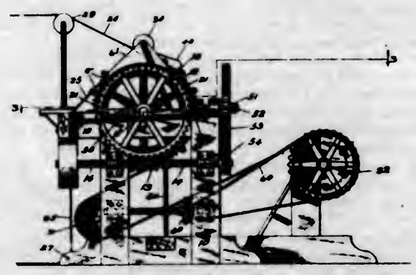
1. The herein described process of producing a substitute for yellow phosphorus in the manufacture of match compositions which comprises thoroughly mixing red phosphorus, metallic sulfid, and sulfur and heating the mixture to a temperature of about 500 degrees Fahrenheit.

2. The herein described process of producing a substitute for yellow phosphorus in the manufacture of match compositions which consists in thoroughly mixing red phosphorus, metallic sulfid, and sulfur and heating the mixture to a temperature of about 500 degrees Fahrenheit, then washing the mixture with water at a high temperature, and then removing the surplus water and drying the product.

3. The herein described process of producing a substitute for yellow phosphorus in the manufacture of match compositions which comprises thoroughly mixing red phosphorus, metallic sulfid and sulfur in the proportion by weight of six parts of red phosphorus, two parts of metallic sulfid, and three parts of sulfur, and heating the mixture to a temperature of about 500 degrees Fahrenheit.

4. The herein described process of producing a substitute for yellow phosphorus in the manufacture of match compositions which comprises mixing red phosphorus, metallic sulfid, and surfur in the proportion by weight of six parts of red phosphorus, two parts of metallic sulfid and three parts of sulfur, heating the mixture to a temperature of about 500 degrees Fahrenheit, then washing the mixture with water at a high temperature and then removing the surplus water and drying the mixture.

1,092,409. FENCE-MACHINE. JOHN D. STODDARD, Cambridge City, Ind., assignor, by mesne assignments, to Interlocking Fence Company, Morton, Ill., a Corporation of Illinois. Filed Dec. 26, 1905. Serial No. 293,188. (Cl. 140—4.)



1. In a fence machine, in combination, a continuously revolved frame, a plurality of rows of twisters on said frame, longitudinally movable rack-bars in mesh with said twisters, a longitudinally movable pusher for shoving the rack-bars in one direction, a second longitudinally movable pusher for shoving the rack-bars in an opposite direction, a frame common to both pushers, and means for alternately moving said pusher frame in opposite directions.

2. In a fence machine, in combination, a continuously revolved frame, a plurality of rows of twisters on said frame, longitudinally movable rack-bars in mesh with said twisters, a longitudinally movable pusher for shoving the rack-bars in one direction, a second longitudinally movable pusher for shoving the rack-bars in an opposite direction, a frame common to both pushers, means for alternately moving said pusher frame in opposite directions, and retractable means for the rack-bars, with which said rack-bars engage during the alternate operations of the pusher frame.

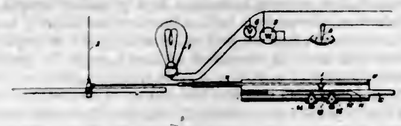
3. In a fence machine, in combination, a shaft, a frame revoluble with said shaft, means for operating the shaft, a plurality of rows of twisters on said frame, rack-bars in mesh with the twisters and movable axially of the shaft, a frame also movable axially of said shaft, means on the last-mentioned frame for moving the rack-bars in one direction and means also on said frame for moving the rack-bars in an opposite direction, and means for moving said axially movable frame.

4. In a fence machine, in combination, a shaft, a frame revoluble with said shaft, worm gearing for operating said shaft, a plurality of rows of twisters on said frame, rack-bars in mesh with the twisters and movable axially of the shaft, a frame also movable axially of said shaft, a pair of pushers on said last-mentioned frame, one of said pushers adapted to successively engage the rack-bars to move them in one direction and the other pusher operating alternately with said first-mentioned pusher to move the rack-bars in an opposite direction, a revoluble member for operating the pusher frame, and a pitman bar connected with said pusher frame, and a pitman bar connected with said pusher frame and with said revoluble member.

1,092,410. MEANS FOR RATING INCANDESCENT LAMPS. ARTHUR J. SWEET, Newark, Ohio, assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed May 16, 1910. Serial No. 561,621. (Cl. 175—183.)

1. Means for determining the rating of an incandescent lamp comprising a movable photometric member, an indicator operated thereby, and a movable scale to coöperate with the indicator, the divisions of which are proportional to the changes in the candle power of the lamp that are produced by the changes in the voltage or current, as represented by each division thereof.

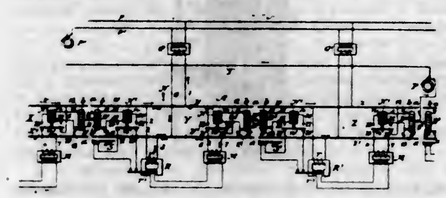




2. Means for determining the rating of an incandescent lamp comprising a movable photometric member, an indicator operated thereby, and a movable scale to coöperate with the indicator, the divisions of which are proportional to the changes in the candle power of the lamp that are produced by the changes in the voltage or current, as represented by each division, and a stationary index with which the movable scale also coöperates.

3. Means for determining the rating of an incandescent lamp comprising a wattmeter and a voltmeter or ammeter for determining the voltage or current of the lamp when it consumes a given number of watts, a movable photometric member, an indicator operated thereby, a movable scale to coöperate with the indicator, and a stationary index opposite which the division of the movable scale that corresponds to the measured voltage or current is placed, the rated voltage or current of the lamp being then designated by the indicator upon the movable scale.

1,092,411. ELECTRIC RAILWAY AND SIGNALING SYSTEM THEREFOR. LOUIS H. THULLEN, Edgewood, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Mar. 3, 1906. Serial No. 303,944. (Cl. 246—36.)



1. The combination with the track rails of a railway both of which are divided into block sections by insulation and conduct propulsion current in one direction and a signaling current in opposite directions, inductive bonds for conducting the propulsion current from the track rails of one block section to another, and means adjacent each inductive bond and operated upon an unbalancing of the resistance in the rails for establishing a short circuit across the rails of the block section.

2. The combination with the track rails of a railway both of which are divided into block sections by insulation and conduct propulsion current in one direction and a signaling current in opposite directions, inductive bonds for conducting the propulsion current from the track rails of one block section to another, a railway signal for each block section, and means in each block section for establishing a short circuit across the track rails of the block section where there is a dangerous unbalancing of the resistance of such rails and for affecting the railway signal to have it give a danger indication.

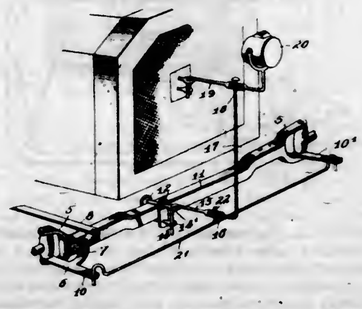
3. The combination with the track rails of a railway divided by insulation to form block sections for signaling purposes and conducting power current, inductive bonds in the track for conducting the power current around insulation points, railway signals, and means operated upon a dangerous unbalancing of the resistance in the track rails for establishing short circuits around the bonds adjacent the point of dangerous unbalancing and to affect a railway signal adjacent the same point to give a danger indication.

4. The combination with the track rails of a railway divided by insulation to form block sections for signaling purposes and conducting power current, inductive bonds in the track for conducting the power current around insulation points, railway signals, and means including an electro-magnetic device operated upon a dangerous unbalancing of the propulsion current in the track rails for establishing short circuits around the bonds adjacent the point of dangerous unbalancing and to affect a railway signal adjacent the same point to give a danger indication.

5. The combination with the track rails of a railway divided by insulation to form block sections for signaling purposes and conducting power current, inductive bonds in the track for conducting the power current around insulation points, railway signals, and means in each block for controlling the potential at the inductive bonds produced by the power current and due to unusual resistance in one of the track rails.

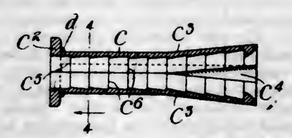
[Claims 6 to 14 not printed in the Gazette.]

1,092,412. AUTOMOBILE-LAMP. MARTIN VACULA, Munhall, Pa. Filed Dec. 10, 1913. Serial No. 805,776. (Cl. 240—62.)



Means for shifting the head lamp of an automobile comprising in combination, a lamp, a pivotally-mounted supporting arm therefor provided with an eye, a pivotally-mounted actuating rod extending into said eye, said actuating rod provided with an eye, a connecting rod between the steering knuckles, and a pin carried by the connecting rod and extending into the eye in the actuating rod for shifting the lamp when the wheels are turned.

1,092,413. BOBBIN-CLEANING DEVICE. JOSEPH F. VAILLANCOURT, Fall River, Mass. Filed Nov. 6, 1913. Serial No. 799,432. (Cl. 118—26.)



1. A hand operated bobbin cleaner comprising two oblong jaw members between which a bobbin with a stub of thread is adapted to be inserted, said jaw members being concavo-convex in cross section and adapted to be grasped by, held in, and operated by one hand, and to be compressed on said stub of thread.

2. A hand operated bobbin cleaner comprising two similar jaw members between which a bobbin with a stub of thread is adapted to be inserted, said jaw members being provided in their inner faces with longitudinal grooves, and being also tensionally connected at one end.

3. A hand operated bobbin cleaner of the class described, said cleaner being tubular in form in cross section and be-

ing composed of two similar jaw members between which a bobbin with a stub of thread is adapted to be inserted, said jaw members being tensionally connected at one end.

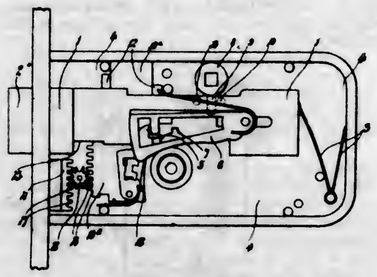
4. A hand operated bobbin cleaner of the class described, said cleaner being tubular in form in cross section and being composed of two similar jaw members between which a bobbin with a stub of thread is adapted to be inserted, said jaw members being tensionally connected at one end, and being separated at the other end by V-shaped recesses.

5. A device of the class described which is tubular in form in cross section and of predetermined length and larger at one end than at the other, said device being divided centrally and longitudinally into separate similar parts, and the separate parts at the larger end being separated by longitudinal V-shaped recesses.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,414. LOCK. FERDINAND JOSEPH WELLISCH, London, England. Filed Nov. 12, 1913. Serial No. 800,537. (Cl. 70—69.)



1. In a lock, the combination of a spring advanced latch bolt adapted to be retracted by a servant key; tumbler mechanism responding to a master key whereby the bolt may be locked in such manner that it can no longer be retracted by the servant key; and locking mechanism responding only to a third or secret key whereby the bolt may be locked when in its advanced position in such manner that it cannot be retracted by either the servant or master key.

2. In a lock, the combination of a spring advanced latch bolt adapted to be retracted by a servant key; tumbler mechanism responding to a master key by which the said bolt may be advanced beyond its normal latching position and retained in its advanced position; a hand actuated hub; a radially projecting arm on said hub engaging the bolt whereby the bolt may be retracted by hand from its normal latching position; a pair of sliding members disposed and operating in a direction at right angles to the path of the lock bolt; tumbler mechanism carried by one of said transversely disposed bolts responding to a secret key whereby the said transversely disposed member is operative, said tumbler mechanism being adapted to pass the master and servant keys without responding to them; and a toothed wheel engaging teeth on each of the transversely disposed members whereby when the one is operative the second one is shifted in the opposite direction so as to engage with the bolt.

3. In a lock, the combination of a spring advanced latch bolt adapted to be retracted by a servant key; tumbler mechanism responding to a master key whereby the bolt may be locked in such manner that it can no longer be retracted by the servant key; a pair of sliding members disposed and operating in a direction at right angles to the path of the lock bolt; tumbler mechanism carried by one of said transversely disposed bolts responding to a secret key whereby the said transversely disposed member is operative, said tumbler mechanism being adapted to pass the master and servant keys without responding to them; and a toothed wheel engaging teeth on each of the transversely disposed members whereby when the one is operative the second one is shifted in the opposite direction so as to engage with the bolt.

4. In a lock, the combination of a spring advanced latch bolt adapted to be retracted by a servant key; tumbler mechanism responding to a master key whereby the bolt may be locked in such a manner that it can no longer be retracted by the servant key; a hand actuated hub; a radially projecting arm on said hub engaging the bolt whereby the bolt may be retracted by hand from its normal latching position; a pair of sliding members disposed and operating in a direction at right angles to the path of the lock bolt; tumbler mechanism carried by one of said transversely disposed bolts responding to a secret key whereby the said transversely disposed member is operative, said tumbler mechanism being adapted to pass the master and servant keys without responding to them; and a toothed wheel engaging teeth on each of the transversely disposed members whereby when the one is operative the second one is shifted in the opposite direction so as to engage with the bolt.

5. In a lock, the combination of a spring advanced latch bolt adapted to be retracted by a servant key; tumbler mechanism responding to a master key whereby the bolt may be locked in such manner that it can no longer be retracted by the servant key; and locking mechanism responding only to a third or secret key whereby the bolt may be locked when in its advanced position in such manner that it cannot be retracted by either the servant or master key.

[Claim 6 not printed in the Gazette.]

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1,092,415. AUTOMATIC SERVICE-SWITCH. RALPH E. WETTER, Dallas, Tex. Filed Aug. 3, 1912. Serial No. 713,156. (Cl. 175—268.)



1. In a device of the character described, the combination with a switch, of a bracket mounted upon the switch base, a latch member carried by the switch and adapted to hold the latter closed through the engagement with said bracket, a tripping arm pivoted upon the bracket, adapted to release the latch member from the correlated bracket when subjected to an upward angular displacement, a vertically mounted solenoid magnet having its coils connected across the switch poles, and a plunger core normally projecting downward from the magnet, and adapted to communicate an upward angular displacement to the tripping arm, when it is itself drawn up into the magnet due to an abnormal voltage being impressed upon the circuit.

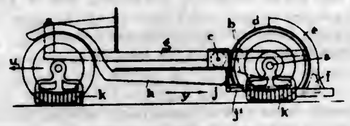
2. In a circuit breaker, the combination with a switch normally closed, means tending to open the switch, a latch device holding the switch closed against the action of the opening means, a solenoid having a plunger carrying a tripping device, said latch device being located in the path of the plunger, a resistance element associated with the switch, the solenoid and resistance element being connected in series across the switch poles, said solenoid being arranged to operate under an abnormal voltage when in series with the resistance element, and an auxiliary switch having constant circuit connection with the solenoid and also having provision for manual operation, two auxiliary contacts alternately engaged by the switch, one of said auxiliary contacts having circuit connection with the solenoid, the other contact having circuit connection with the resistance element, the switch normally engaging the resistance contact whereby the solenoid and resistance element are connected in series, the switch being mounted to be moved out of contact with the resistance contact and engaged with the solenoid contact whereby the resistance element is eliminated.

3. In a device of the character described, the combination with a switch, of a bracket mounted upon the switch base, a latch member carried by the switch and adapted to hold the latter closed through engagement with said bracket, a tripping arm pivoted upon the bracket, adapted to release the latch member from the correlated bracket when subjected to an upward angular displacement, a vertically mounted solenoid magnet having its coils connected across the switch poles, a plunger core normally projecting downward from the magnet, and adapted to communicate an upward angular displacement to the tripping arm, when it is itself drawn up into the magnet due to an abnormal voltage being impressed upon the circuit, a lamp in series with the magnet, and an auxiliary switch having provision for manual operation and arranged to cut out connection with the lamp.

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1,092,416. APPARATUS FOR PREVENTION OF DUST ON MOTOR-VEHICLES. JOSEPH WIDERKEHR, Colmar, Germany. Filed Sept. 29, 1913. Serial No. 792,459. (Cl. 21—90.)



1. In apparatus for preventing the raising of dust by automobiles, the combination of a sheet stretched longitudinally underneath the chassis thereof and downwardly inclined toward the rear, guide ways arranged to deflect the air current under the automobile so as to strengthen its whirling movements at the rear, air channels on the mud guards, means provided at the base thereof for causing a whirling movement of the air passing therethrough in augmentation of the whirling movement of the guide ways, and means for carrying back the exhaust gases of the motor and discharging them in the said guide ways, all substantially as and for the purpose set forth.

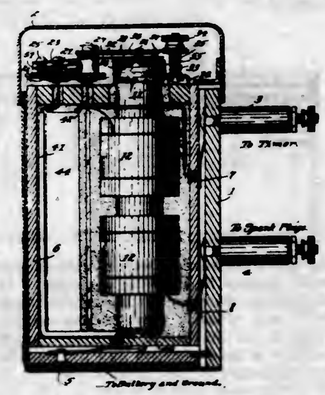
2. In apparatus for preventing the raising of dust by automobiles, the combination of a sheet stretched longitudinally underneath the chassis thereof and downwardly inclined toward the rear, guide ways arranged to deflect the air current under the automobile so as to strengthen its whirling movements at the rear, air channels on the mud guards, a turbine fan driven from the motor of the automobile and supported with the mud guard from the back axle casing for causing a whirling movement of the air passing through the air channel in augmentation of the whirling movement of the guide ways, a slotted breeches pipe for carrying back the exhaust gases of the motor one leg of the breeches pipe discharging in each guide way, and mud guards supported near the roadway from the axles of the automobile for controlling the dust raised laterally by the wheels of the automobile, all substantially as and for the purpose set forth.

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1,092,417. IGNITION APPARATUS. JOSEPH A. WILLIAMS, Cleveland, Ohio. Filed Mar. 5, 1913. Serial No. 752,147. (Cl. 171—122.)

1. In an ignition coil, the combination, with a soft iron core having windings thereon, of a flexible reed mounted adjacent to said core, and movable toward and from the same, the stiffness of said reed being substantially proportional to the distance-gradient of the field in which it is supported.

2. In an ignition coil, the combination, with a soft-iron core having primary and secondary windings thereon, of a flexible reed having a head of magnetic material mounted adjacent to the end of said core and vibratable toward and from the same, the distance of the primary windings from the end of the core being so chosen relatively to the stiffness of the reed that the change in field intensity along the core axis shall be substantially proportional to the change in restoring force of said reed throughout the entire range of ordinary adjustment of said reed, and means for changing the angle between the reed-shank and the core-axis.



3. In an ignition coil, the combination, with a soft iron core having windings thereon and a flexible reed mounted adjacent to said core and having a head of magnetic material vibratable toward and from said core, of a contact point carried by the side of said reed away from said core, a second contact point independent of said reed and adapted to engage said first point, and means for moving said second point toward and from said core, said windings being so arranged with relation to the end of said core that the number of lines of magnetic force piercing said head shall be substantially proportional to the pressure of said contact points against each other throughout substantially all of the range of adjustment of said second contact point.

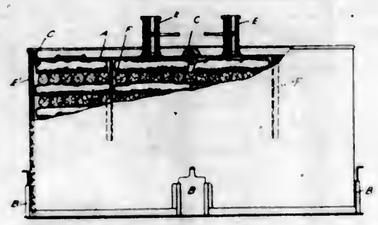
4. In an ignition coil, the combination, with a soft iron core having magnetizing windings thereon and a flexible reed having a shank secured at one side of said core and a head of magnetic material adjacent to said core, of a contact point carried by said reed, a second contact point supported independently of said reed and adapted to be engaged by said first contact point when said reed is at rest and to be disengaged when said head is attracted by said core, the windings on said core being so arranged relatively to the end of the core and to the stiffness of the reed that the intensity of the field traversing the reed-head will increase substantially proportionately with the restoring force acting upon said reed due to a deflection from its normal position, and means for changing the angle between the reed-shank and the core-axis whereby the absolute intensity of the field required to displace the reed may be varied.

5. In an ignition coil, the combination, with a soft iron core having windings thereon and a flexible reed mounted adjacent to said core and having a head of magnetic material vibratable toward and from said core, of a contact point carried by the side of said reed away from said core, a second contact point independent of said reed and adapted to engage said first point, means for moving said second point toward and from said core, said windings being so arranged with relation to the end of said core that the number of lines of magnetic force piercing said head shall be substantially proportional to the pressure of said contact points against each other throughout substantially all of the range of adjustment of said second contact point, and means for changing the angle between the reed-shank and the core-axis whereby the pressure of contact of said con-

tact points may be increased for all positions of their relative adjustment and the field intensity necessary to their separation likewise increased.

[Claims 6 to 18 not printed in the Gazette.]

1,092,418. MANUFACTURE OF CHARCOAL. OSCAR WRIGHT, Pennant Hills, near Sydney, New South Wales, Australia. Filed Aug. 1, 1912. Serial No. 712,731. (Cl. 202—2.)



1. The herein described process of manufacture of charcoal which consists in inclosing a charge of wood in a chamber, lighting the charge at the bottom thereof, admitting air to and releasing gases of combustion from the charge only at the top thereof, and controlling the rate at which the air is thus admitted and the gases of combustion thus discharged in such manner that the combustion proceeds evenly from bottom to top of the charge while the indraft passes downwardly through all parts of the unburned portion of the charge and the gases of combustion pass upwardly through the same.

2. The herein described process of manufacture of charcoal which consists in inclosing a charge of wood in a chamber having a vent or vents in its top, lighting the charge at the bottom thereof, and admitting air to and releasing gases of combustion from the charge only at the top thereof by natural circulation of the air and gases in and out, respectively, through the said top vent or vents.

1,092,419. NON-SKIDDING TIRE. CALVIN THAYER ADAMS, New York, N. Y. Filed Jan. 7, 1907, Serial No. 351,258. Renewed Feb. 15, 1911. Serial No. 608,710. (Cl. 152—14.)



1. In a non-skidding rubber tire, a tread having a plurality of plies of yielding material, said plies being formed with button-holes and so arranged that the corresponding button-holes of the superimposed plies register throughout a small portion only of their extent, hard metal studs having their shanks arranged in said registering portions, whereby the studs are secured in place with their heads outwardly projecting and their flat backs engaging the inner surface of the inner ply.

2. In a non-skidding rubber tire, a tread composed of two plies of fabric combined with sheet rubber, said plies being provided with button-holes and arranged so that the corresponding button-holes of the two plies have one end only registering with the opposite end of the holes in the other ply, and in combination therewith hard metal studs extending through the plies with their shanks arranged in the registering portions of the button-holes, whereby the studs are locked in place.

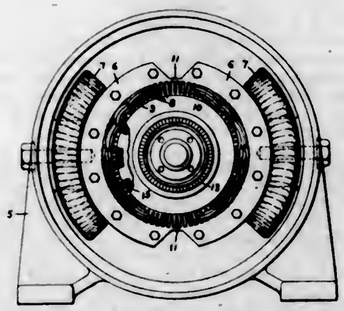
3. In a non-skidding rubber tire, a tread having in combination two plies of yielding material provided each with a series of button-hole slits, said plies being arranged so that the corresponding slits of the superimposed plies register throughout a small portion only of their extent, hard metal studs having flat backs and thick heads arranged with their shanks in said registering portions, whereby the studs are locked in place with their heads projecting outwardly, and a supplementary sheet of yielding material secured to the outer surface of the tread with holes to fit the stud heads and arranged with its surface substantially flush with the stud heads.

4. In a non-skidding rubber tire, a tread having in combination two plies, each formed of a sheet of fabric and sheet rubber and provided with a series of slits, said plies being arranged so that the corresponding slits of the different plies register throughout a small portion only of their length, hard metal studs having flat backs and thick heads connected by shanks arranged in the registering portions of the slits, whereby the studs are secured in place with the heads projecting outwardly, a protecting sheet of rubber secured to the inner surface of the inner ply by stitching through both plies to cover the flat backs of the studs, and a supplementary sheet of rubber vulcanized to the outer surface of the tread with holes to fit the stud heads, whereby the stud heads are substantially flush with the outer surface of the tread as described and shown.

5. In a non-skidding rubber tire, the combination with a tread made up of plies of material, each ply being composed of fabric combined with rubber, and being provided with a series of stud holes, of hard metal studs having heads and backs, said studs being arranged in said holes with the heads projecting outwardly, and a protecting sheet secured to the under surface of the plies by rows of stitching passing between the rows of studs.

[Claim 6 not printed in the Gazette.]

1,092,420. DYNAMO-ELECTRIC MACHINE. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 19, 1913. Serial No. 774,501. (Cl. 172—281.)



1. A dynamo-electric machine comprising in combination, a rotatable armature having teeth and a winding suitably arranged in slots between the teeth, means for conducting electric current to the armature winding, magnetic polar members having teeth arranged in proximity to the periphery of said armature, a winding carried in the slots between the teeth on said members, magnetizing windings on said polar members, and magnetic bridges of reduced cross-sectional area magnetically connecting said polar members and proportioned to be magnetically saturated during the normal operation of the machine.

2. A dynamo electric machine comprising in combination, a rotatable armature having teeth and a winding suitably arranged in slots between the teeth, means for conducting electric current to the armature winding, magnetic polar members having teeth arranged in proximity to the periphery of said armature, a winding carried in the slots between the teeth on said members, magnetizing windings on said polar members, and magnetic bridges forming a rigid mechanical connection between said polar members, said bridges being of reduced cross-sectional area and proportioned to become magnetically saturated by a portion of the total field flux.

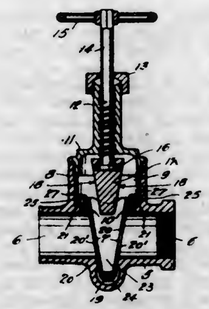
3. A dynamo-electric machine comprising in combination, a rotatable armature having teeth and a winding suitably arranged in slots between the teeth, means for conducting electric current to the armature winding, a plurality of magnetic polar members having teeth arranged in proximity to the periphery of said armature, magnetizing windings mounted on said members, a winding carried in the slots between the teeth on the polar members, bridges of magnetic material connecting said polar members and providing a continuous path of magnetic material for the flux developed by the magnetizing windings, said bridges being of such cross-sectional area that they are magnetically saturated by a portion of the total field flux.

4. A dynamo-electric machine comprising in combination, a rotatable armature having teeth and a winding suitably arranged in slots between the teeth, means for conducting electric current to the armature winding, a magnetic field member comprising a continuous path of magnetic material for a portion of the field flux and having parts of reduced cross-sectional area proportioned to become magnetically saturated by a portion of the total field flux, teeth arranged on said member in proximity to said armature, a winding carried in the slots between the teeth on said member, and magnetizing windings on said member.

5. A dynamo-electric machine comprising in combination, a rotatable armature having teeth and a winding suitably arranged in slots between the teeth, means for conducting electric current to the armature winding, a magnetic field member having a continuous series of teeth arranged in proximity to the periphery of said armature and providing a continuous path of magnetic material for a portion of the field flux and having parts of reduced cross-sectional area proportioned to become magnetically saturated by a portion of the field flux, magnetizing windings on said member, and a winding carried in the slots between the teeth on said member.

[Claims 6 to 8 not printed in the Gazette.]

1,092,421. GATE-VALVE. CHARLES PIKE ANDERSON, Seattle, Wash. Filed Nov. 4, 1912. Serial No. 729,367. (Cl. 137—5.)



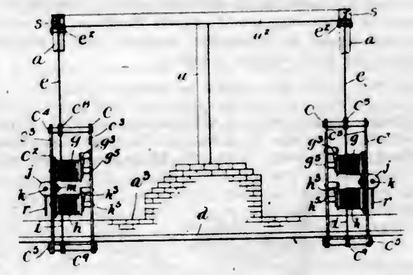
1. A gate-valve having a liner provided with opposing ports which are arranged to respectively register with both the inlet and outlet passages of the valve-body, a frame member adapted to be adjusted to stretch said liner and be subsequently fastened to the valve body for securing the liner thereto.

2. In a gate-valve, the combination with the valve-body having a chamber with inclined opposing walls and provided with shelves at the upper ends of the latter, of a substantially V-shaped liner having terminal flaps, a frame member comprising V-shaped side elements, a bar connecting the lower ends of the side elements, plate elements connecting the upper ends of the respective side elements, and screws extending through the adjacent plate elements and the flaps for securing the liner at the top to the valve-body, said side elements serving to hold the liner about its lateral edges to the aforesaid walls.

3. In a gate-valve, the combination of a valve-body formed with a chamber having inclined opposing walls, a substantially V-shaped liner for said walls, a frame-member, and means for securing said frame-member to the valve-body for securing said liner to the latter, said frame-member also serving to clamp the liner about its lateral edges to the aforesaid walls.

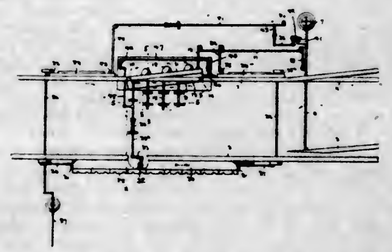


1,092,422. SCAFFOLD. MARIANO BERTODO and ROBERT F. MOHR, New York, N. Y. Filed Apr. 15, 1913. Serial No. 761,172. (Cl. 57—84.)



An apparatus of the class described provided with a vertically arranged cable drum frame, cable drums mounted in said frame one above another and provided at one end with gears and at the opposite end with ratchets, dogs connected with said frame and operating in connection with said ratchets, to prevent the backward movement of said drum, brackets connected with one side of said frame, a crank shaft mounted in said brackets at right angles to the axis of said drums and provided with a worm, a shaft mounted vertically and at right angles to said crank shaft and provided with a gear which meshes with the worm on the crank shaft, and worms connected with said vertical shaft and meshing with the gears on said drum.

1,092,423. AUTOMATIC SWITCH-CONTROLLING MECHANISM. HOWARD S. BLANKENSHIP, Norfolk, Va., assignor of one-half to B. E. Obendorfer, Norfolk, Va. Filed Mar. 19, 1913. Serial No. 755,398. (Cl. 104—77.)



1. The combination of a switch operating mechanism, of means connected therewith adapted to be engaged by the wheels of a passing train for moving said switch operating mechanism into inoperative position, said means including a longitudinally movable member, and a pivoted plate engaging said longitudinally movable member, adapted to be engaged by the wheels of a train.

2. The combination with a switch operating mechanism, of means connected therewith adapted to be engaged by

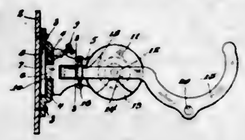
the wheels of a passing train for moving said switch operating mechanism into inoperative position, said last mentioned means including a longitudinally movable member adapted to be frictionally bound during the passage of a train thereover, for retaining the switch operating mechanism in inoperative position.

3. The combination with a switch operating mechanism; of means connected therewith adapted to be engaged by the wheels of a passing train for moving said switch operating mechanism into inoperative position, said means including a longitudinally movable member adapted to be frictionally locked to retain the means in inoperative position, and a plate pivoted over said movable member.

4. The combination with a switch operating mechanism; of means connected therewith adapted to be engaged by the wheels of a passing train for moving said switch operating mechanism into inoperative position, said means including a longitudinally movable member adapted to be locked by the movement of a train thereover for retaining said means in inoperative position, and a sectional support for said movable member.

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1,092,424. ADJUSTABLE SHADE AND CURTAIN SUPPORT. CHARLES F. BOBBING, Junction City, Kans. Filed Jan. 11, 1913. Serial No. 741,519. (Cl. 156—24.)



1. A device of the character described including a shade support member, a relatively slidable pole support member pivotally secured to said shade support, and means upon said shade support engaging said pole support to maintain same against both sliding and pivotal movement, as and for the purpose set forth.

2. A device of the character described including a shade bracket having a recess formed therein, an enlargement formed thereupon, a slidable pole support pivotally secured to said bracket and disposed in engagement with said enlargement, the one end of the said support fitting within said recess to normally maintain said support incapable of pivotal movement independent of the said bracket and means whereby said support may be given both a sliding and pivotal movement, as and for the purpose set forth.

3. A device of the character described including a laterally adjustable shade support, the said support having a recess formed in one face thereof, an enlargement formed upon the said bracket, a laterally slidable pole support pivotally secured to said bracket, the said support being disposed for engagement with the said enlargement, the latter acting as a support therefor, the inner end of the said support adapted to fit within said recess so that the walls of the latter will normally maintain said support incapable of pivotal movement, and means whereby said pole support may be given both a sliding and pivotal movement, as and for the purpose set forth.

4. A device of the character described including in combination, a shade bracket having a recess formed in one face thereof, a stationary base plate to which the said bracket is adjustably secured, an enlargement formed upon the same face of the said bracket as the said recess, a slidable pole support disposed for engagement with the said enlargement, the said support having an elongated aperture formed therein, the one end of the said support being disposed within the said recess, a pin carried by the said bracket adapted to extend through the said aperture to act as a pivot for the said pole support, the latter being thereby normally supported incapable of pivotal movement independent of the bracket, as and for the purpose set forth.

5. A device of the character described including in combination, a shade bracket having a recess formed in one face thereof, a base plate to which the said bracket is detachably and adjustably secured, an enlargement formed upon the said bracket, the said enlargement adapted to project from the same face of the bracket as that within which the said recess is formed, a pole support carried by the said bracket, the said support having an elongated aperture formed therein, near one end thereof, the end of the said bracket within which the aperture is formed adapted to fit within the said recess, the said bracket being normally supported by the said enlargement, a pin carried by the said bracket adapted to extend transversely through the said aperture to provide a pivot for the said pole support, the said pole support adapted to be slid throughout the length of the said aperture to permit pivotal movement thereof independent of the bracket, the said pole support being normally supported incapable of pivotal movement, the wall of said recess forming an abutment against which the said pole support is normally disposed, as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,092,425. APPARATUS FOR MARINE AIMING-DRILL. FRIEDRICH BOHN, Kiel, Germany. Filed Oct. 8, 1913. Serial No. 794,002. (Cl. 124—16.)



1. In an apparatus for marine aiming-drill, in combination, a target, means to move the latter up and down consisting of a motor-driven worm and a nut to gear with the latter, pivotal links to suspend said target from said nut, guiding-bars coupled with said target, and means to impart to the target by said coupling beside said up and down movement lateral displacements, substantially as and for the purpose set forth.

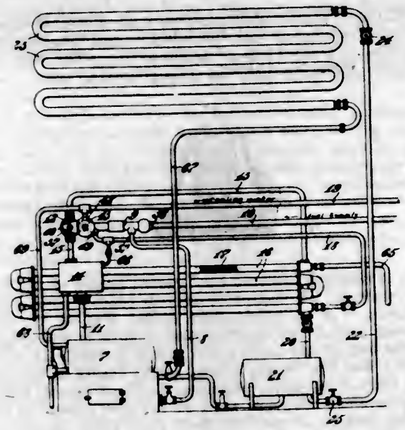
2. In an apparatus for marine aiming-drill, in combination, a target, means to move the latter up and down consisting of a motor-driven worm and a nut to gear with the latter, pivotal links to suspend said target from said nut, pivotal members on the target, guiding-bars adapted to be eventually coupled with the target by said pivotal members, and one cotter adapted to arrest said pivotal members in working position and to fix also the target against the nut, substantially as and for the purpose set forth.

3. In an apparatus for marine aiming-drill, in combination, an up and down movable target, means to move the latter also in lateral directions, a separate aiming-target on one side, and a separate shooting-target on the other side of said target, and means to adjust both the latter targets in horizontal and vertical directions, substantially as and for the purpose set forth.

4. In an apparatus for marine aiming-drill, in combination, an up and down movable target, means to move the latter also in lateral directions, a separate shooting-target directly connected to the target, and adjustable aiming-targets on both sides of said shooting-target, substantially as and for the purpose set forth.



1,092,426. REFRIGERATING APPARATUS. ADOLPHE E. BOSSE, Pittsburgh, Pa. Filed Mar. 15, 1912. Serial No. 683,924. (Cl. 62—6.)



1. In a refrigerating apparatus, an ammonia generator, a condenser, means for supplying a heating medium to the ammonia generator, means for supplying a cooling medium to the condenser, a valve for controlling the supply of heating medium to the generator, and means automatically controlled by the flow of cooling medium to the condenser for operating said valve, said means comprising a cylinder constituting a portion of the conduit for the flow of cooling medium, a piston arranged in said cylinder, and a connection between said piston and the valve.

2. In a refrigerating apparatus, an ammonia generator, a condenser, means for supplying a heating medium to the ammonia generator, means for supplying a cooling medium to the condenser, a valve for controlling the supply of heating medium to the generator, and means automatically controlled by the flow of cooling medium to the condenser for operating said valve, said means comprising a cylinder constituting a portion of the conduit for the flow of cooling medium, a piston arranged in said cylinder, a connection between said piston and the valve, and a spring adapted to seat the valve when the flow of cooling medium is stopped.

3. In a refrigerating apparatus, an ammonia generator, a condenser, means for controlling the flow of ammonia gas from the generator, means for supplying a heating medium to the generator, means for supplying a cooling medium to the condenser, means for controlling the flow of cooling medium to the condenser, and means controlled by the cooling medium controlling means for locking open the means for controlling the flow of ammonia gas from the generator during the flow of cooling medium to the condenser.

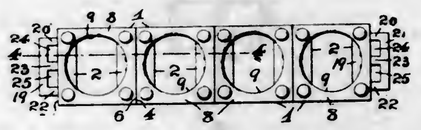
4. In a refrigerating apparatus, an ammonia generator, a condenser, means for controlling the flow of ammonia gas from the generator, means for supplying a heating medium to the generator, means for supplying a cooling medium to the condenser, means for controlling the flow of cooling medium to the condenser, means controlled by the cooling medium, controlling means for locking open the means for controlling the flow of ammonia gas from the generator during the flow of cooling medium to the condenser, and means automatically controlled by the flow of cooling medium to the condenser for controlling the supply of heating medium to the generator.

5. In a refrigerating apparatus, an ammonia generator, a condenser, means for supplying a heating medium to the generator, means for supplying a cooling medium to the condenser, means for controlling the flow of cooling medium to the condenser, a valve for controlling the flow of ammonia gas from the generator to the condenser, and means for locking said ammonia valve open during the flow of cooling medium to the condenser.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,427. CHAIN. HANS BRASSLER, South Orange, N. J., assignor to The Brassler Company, a Corporation of New Jersey. Filed Oct. 4, 1913. Serial No. 793,295. (Cl. 63—5.)



1. A chain-construction of the character herein specified, comprising a series of rigidly connected face-links and back-links, said face-links having marginal walls and post-like members extending from the adjacent edges of the adjacent walls of the face-links and said links having intervening spaces between their connecting parts, and connecting links arranged upon said post-like members of the adjacent links and having portions slidably arranged in said intervening spaces to give flexibility and said connecting links having other portions in retaining engagement wth the connected face-links and back-links.

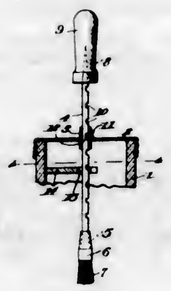
2. A chain-construction of the character herein specified, comprising a series of rigidly connected face-links and back-links, said face-links being provided with marginal post-like members in their adjacent walls and said links being formed with intervening spaces, and connecting links formed with open portions into which said post-like members project, and the said connecting links having portions slidably arranged in said intervening spaces to give flexibility to the assembled links of the chain.

3. A chain-construction of the character herein specified, comprising a series of rigidly connected face-links and back-links, said face-links being provided with post-like members and intervening spaces, and registering lugs extending from the ends of some of said post-like members, said back-links being provided with receiving depressions with which said lugs are adapted to register, and connecting links formed with open portions into which said post-like members project, and the said connecting links having portions slidably arranged in said intervening spaces to give flexibility to the assembled links of the chain.

4. A chain-construction comprising a series of open-faced frame-like face-links, correspondingly formed frame-like back-links secured to the backs of said face-links, said face-links being provided with post-like members and registering lugs extending from the ends of some of said post-like members, said back-links being provided with receiving depressions with which said lugs are adapted to register, and means in engagement with said post-like members for flexibly connecting a series of such assembled face-links and back-links to provide a chain.

5. A chain construction comprising a series of open-faced frame-like face-links, correspondingly formed frame-like back-links secured to the backs of said face-links, said face-links being provided with post-like members and registering lugs extending from the ends of some of said post-like members, said back-links being provided with receiving depressions with which said lugs are adapted to register, and means in engagement with said post-like members for flexibly connecting a series of such assembled face-links and back-links to provide a chain, consisting of frame-like connecting links of rectangular configuration, and each connecting link being provided with a centrally disposed connecting bar, said bar providing with the sides of each connecting link open parts into which the post-like members project for flexibly connecting a series of such assembled face-links and back-links to provide a chain.

1,092,428. BRUSH DEVICE FOR RECEPTACLES. RAY J. BROWNING, Williamsport, Pa. Filed Nov. 16, 1912. Serial No. 731,859. (Cl. 91—63.)

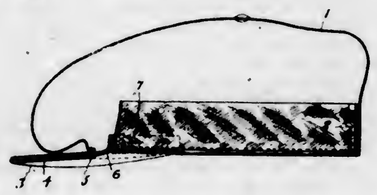


1. In combination with a receptacle, a cap, a brush device extending into said receptacle having a turnable stem passing through said cap provided with a transverse notch extending only partly around the same, and a spring member on said cap extending into said notch, said spring movable out of said notch by the portion of said stem in the same transverse plane with said notch upon turning movement of the stem.

2. In combination with a receptacle, a cap, a sleeve on said cap, a brush device extending into said receptacle having a stem passing through said sleeve provided with series of notches provided thereon, said sleeve having a slot, a spring member fastened to said cap, and extending into said slot of the sleeve, and engageable with said notches.

3. In combination with a receptacle, a cap, a brush dedevice extending into said receptacle having a turnable stem passing through said cap provided with a series of transverse notches, and a spring fastened to said cap at both ends to engage said notches, said cap being provided with an enlarged opening, said spring at one end extending into said opening, said opening permitting lateral yielding movement of the spring upon turning movement of the stem.

1,092,429. CAP. ISAAC CENTNER, Toronto, Ontario, Canada. Filed Mar. 27, 1913. Serial No. 757,197. (Cl. 2—106.)



1. In a cap the combination of a cloth top; a cloth covered peak including a stiffener cut to leave an unstiffened stretchable crescent-shaped portion of cloth at the rearward side of the peak; and a stretchable sweat band secured to the inner edge of said crescent shaped portion, the top of the cap being secured to the peak along the outer edge of said unstiffened portion.

2. In a cap the combination of a cloth top; a cloth covered peak including a stiffener cut to leave an unstiffened stretchable crescent-shaped portion at the rearward side of the peak; and a piece of elastic secured along the inner edge of said crescent shaped portion; and a stretchable sweatband also secured along the inner edge of said crescent-shaped portion.

1,092,430. FUSE-CLIP. ROBERT C. COLE, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 17, 1913. Serial No. 754,921. (Cl. 175—273.)



1. A fuse clip having a base, spring fingers on the base for receiving and making conducting contact with a fuse terminal, and an independent spring arm on the base bearing against the outer surface of each of the contact spring fingers and forcing said fingers toward each other.

2. A fuse clip having a base, spring fingers on the base and adapted to receive and make electrical contact with a fuse terminal, abutment walls on the base outside of said spring fingers to prevent them from being opened too widely, and an independent spring arm on the base and bearing against the outer surface of each of the contact fingers so as to force said contact fingers toward each other.

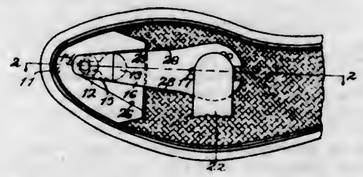
3. A fuse clip having a base, fingers supported by the base and adapted to receive and make electrical contact with a fuse terminal, abutments supported by the base adjacent to the fingers and preventing them from being opened too widely, and spring arms supported by the base with their upper ends bearing against the outer surfaces of said fingers near the free ends thereof and forcing them toward each other.

4. A fuse clip having a base with terminal lugs and abutment walls, spring fingers arranged on the base between the abutment walls, and spring arms arranged on the base outside of the abutments and bearing against the outer surfaces of the spring fingers near the free ends thereof so as to force them toward each other.

5. A fuse clip having a base with abutment walls, fingers arranged between the walls, a spacing block between the fingers, spring arms bearing against the fingers and forcing them toward each other, and means for clamping the parts together.

[Claims 6 and 7 not printed in the Gazette.]

1,092,431. HOLDDOWN FOR LASTING-MACHINES. MILLER COOK, Whitman, Mass. Filed July 22, 1913. Serial No. 780,526. (Cl. 12—14.)



1. The combination of an arm, a stud mounted on said arm having a head displaced from the adjacent surface of said arm and having a shank of which the opposite sides are flattened, and a hold-down device comprising an arm, a spring, and a hold-down plate contained between said spring and said last-named arm, said last-named arm and spring each having an open slot in its end of a width adapting it to be slipped over the flattened sides of the aforesaid stud, and less than the longest diameter of said stud, and having also an enlargement merging with said slot of a diameter sufficient to contain the longest diameter of said stud.

2. In a hold-down device for lasting machines the combination of a hold-down plate, an arm, a coupling device between said arm and plate formed to prevent disengagement of the arm from the plate except upon relative rotation through approximately a right angle, and a spring arranged to take up looseness between the plate and arm and having positive means for preventing such relative rotation.

3. A hold-down device for lasting machines comprising in combination an arm, a hold-down plate having a slot provided with an enlargement, a coupling stud on said arm having a head adapted to enter said enlargement and a shank of less size adapted to pass from the enlargement through said slot, a lock for preventing relative movement between said arm and plate, and a main support having means for detachable engagement with said arm and having means for securing said lock.

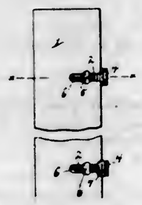
4. In a hold-down device for lasting machines the combination with a part of the machine forming a support, a stud mounted in said support having a head extending over a surface of said support and separated therefrom, an arm detachably engaged with said stud at one end, a coupling member secured to said arm near its other end, a hold-down plate swivelly mounted upon said stud constructed to be locked with or released from said stud by turning thereon, and a spring having one end confined between said support and its stud and its other end bearing on the hold-down plate, said spring being placed under tension by said support and caused to press the hold-down plate toward the arm, and having a positive locking means to limit pivotal movement of the hold-down plate.

5. In a hold-down device for lasting machines the combination of an arm, a stud projecting from one face of said arm and having a head and a shank, a hold-down plate having a recess in which said shank is contained and hving a slot communicating with said recess of a width less than that of the recess and intermediate the longer and shorter diameters of the stud, said plate being separable from said arm only by combination of rotative and translative movements, positive means for restraining the rotative movement within limits less than sufficient to permit separating translative movement of the plate, and a support to which said arm is detachably connected said support being constructed and arranged to hold said locking means in locking position.

[Claims 6 to 9 not printed in the Gazette.]



1,092,432. FENCE-POST. WALTER G. COPELAND, Waco, Tex. Filed Dec. 6, 1911. Serial No. 664,275. (Cl. 256—56.)



1. The combination with a fence post provided with slots for engagement with wires, and a key way formed in each of said slots, of a U-shaped key, one of the arms of which is engaged in said way, and adapted to hold said wire in engagement with said post, the opposite arm extending beyond the face of said post.

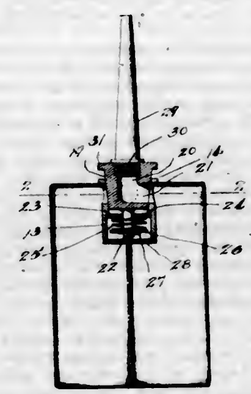
2. In a device as set forth, a substantially U-shaped key having one prong thereof triangular in shape and the other prong flat, said triangular prong adapted to be inserted into an opening of a metal fence post whereby the wires of a fence may be frictionally held in place.

3. In a device as set forth, a substantially U-shaped key having one prong thereof triangular in shape and the other prong flat, said triangular prong adapted to be inserted into an opening of a metal fence post whereby the wires of the fence may be frictionally held in a desired position and the extreme outer end of said flat prong adapted to be bent so as to frictionally engage a post whereby the substantially U-shaped key will be held firmly in place.

4. In a wire fence, the combination of, metallic posts said posts provided with slots therein, substantially U-shaped keys, one prong of said keys being triangular in shape and adapted to be inserted in said slots, the other prong of said keys being flat and adapted to engage the edge of said post and to have the extreme outer end thereof bent substantially at right angles so as to firmly engage the post, thereby firmly holding said key in place.

5. In a wire fence, the combination of, metallic posts, said posts provided with slots therein, substantially U-shaped keys, one prong of said keys being triangular in shape and adapted to be inserted in said slots, the other prong of said keys being flat and adapted to engage the edge of said posts and to have the extreme outer end thereof bent substantially at right angles so as to firmly engage the posts, thereby firmly holding said key in place, and said slots provided with cut-out portions for the reception of two corners of the triangularly shaped prong of said keys.

1,092,433. OIL-CAN. VIRGIL C. COX, Paducah, Ky. Filed Nov. 19, 1913. Serial No. 801,836. (Cl. 221—35.)



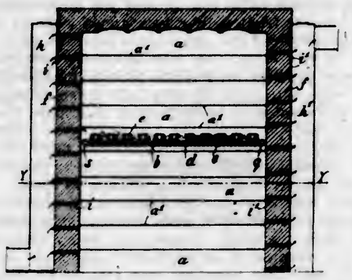
1. The combination with an oil can having a plurality of compartments and a hollow bushing having a single opening to each compartment, of a plug revoluble in said bushing and having a port adapted to register with any one of said openings, a spout in the plug, and a spring holding the plug to its seat in the bushing.

2. The combination with an oil can having a plurality of compartments and a hollow bushing having an opening into each compartment, of a revoluble plug having a port to engage any one of said openings, a stem on the plug, a perforated washer surrounding the stem and seated against the bushing, a spring surrounding the stem, and a washer at the end of the stem, said spring bearing upon said two washers to hold the plug in the bushing.

1,092,434. PROCESS AND APPARATUS FOR DRYING AIR. FÉLIX ADOLPHE DAUBINÉ, Auboué, France. Filed July 5, 1910. Serial No. 570,526. (Cl. 34—1.)

1. A process of drying air by means of calcium chlorid for blast furnaces or other applications, consisting first, in passing the moist air through a layer of calcium chlorid used in excess, at a substantially constant temperature, the calcium chlorid remaining solid and at rest without being incased, second, regenerating the calcium chlorid by flue gases or other source of heat not exceeding 235° C. in temperature and third, recooling the dried calcium

chlorid before repeating the first step, substantially as described.



2. An apparatus for drying air, comprising a chamber of suitable dimensions partitioned into superimposed compartments wherein are gratings for supporting calcium chlorid consisting of pipes through which cooling water may circulate, pipes for passage of flue gases crossing said grating, channels on two sides of the chamber through which flue gases pass to and from said gas pipes, and boxes on the other two sides through which air to be dried and the dried air pass into and out of the chamber respectively, these boxes communicating with the interior of the chamber through openings in the walls thereof, substantially as described.

3. In an apparatus for drying air, the combination of a compartment containing calcium chlorid, an air passage through said compartment, means for cooling said calcium chlorid, said means comprising a series of pipes through which a cooling medium is adapted to circulate, and means for heating said calcium chlorid, said means comprising a series of pipes through which a heating medium is adapted to pass, one of said series of pipes constituting a grating for the support of the calcium chlorid.

4. In an apparatus for drying air, the combination of a compartment containing calcium chlorid, an inlet to said compartment in the upper part thereof and above said support for the calcium chlorid, and an outlet from said compartment in the lower part thereof and below said support for the calcium chlorid, means for cooling said calcium chlorid, said means comprising a series of pipes through which a cooling medium is adapted to circulate, and means for heating said calcium chlorid, said means comprising a series of pipes through which a heating medium is adapted to pass, one of said series of pipes constituting a grating for the support of the calcium chlorid.

5. In an apparatus for drying air, the combination of a plurality of compartments containing calcium chlorid, means for heating said calcium chlorid, means for cooling the same and means for passing air through successive compartments while the calcium chlorid is being heated in a portion of said compartments and cooled in other compartments.

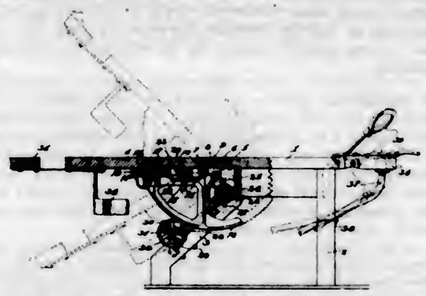
[Claims 6 and 7 not printed in the Gazette.]

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1,092,435. OSTEOPATHIC-TREATMENT TABLE. HAROLD J. DORRANCE, Pittsburgh, Pa. Filed Feb. 7, 1913. Serial No. 746,797. (Cl. 128—16.)

1. In a table of the class described, the combination with a fixed member, of a movable member, operable means for supporting and moving the latter member vertically with respect to the fixed member, means pivotally connecting the movable member and the supporting means to permit a lateral movement of the movable member thereon and relatively to the fixed member, and means for locking the movable member in a laterally extended position.

2. In a table of the class described, the combination with a fixed table member, of a movable table member, supporting means for the movable table member positively operable means coöperating with the supporting means for moving the movable member vertically, a roller bearing for the movable table member, and means pivotally connecting the latter member and the supporting means to permit a lateral movement of the movable table member on the supporting means and relatively to the fixed table member.



3. In a table of the class described, the combination with a fixed table member, of a movable table member, a hinge connection between said members to permit a vertical movement of the movable table relatively to the fixed table member, supporting means for the movable table member, a roller bearing for the movable table member, means pivotally connecting the latter member to the supporting means to permit a lateral movement of the movable table member on its supporting means and relatively to the fixed member, and positively operable means coöperating with the supporting means for raising and lowering the movable table member.

4. In a table of the class described, the combination with a fixed table member, of a movable table member, a hinge connection between the said table members to permit a vertical movement of the movable member relatively to the fixed member, supporting means for the movable member secured to a movable hinge member, and means pivotally connecting the movable table member and its supporting means to permit a lateral movement of the movable table member on said supporting means and relatively to the fixed table member.

5. In a table of the class described, the combination with a fixed member, of a movable member, a hinge connection between the said members, means for supporting the movable member including a segmental rack and positively operable means for moving the supporting means to raise and lower the movable member relatively to the fixed member including an operating shaft, and gearing interposed between said shaft and the segmental rack, and means pivotally connecting the movable table member and its supporting means to permit a lateral movement of the movable table member relatively to the fixed table member.

[Claim 6 not printed in the Gazette.]

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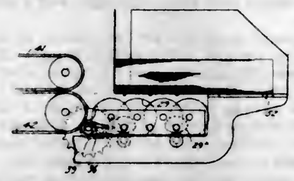
1,092,436. REFILLABLE SOAP-STICK. HARRY D. DYE, San Francisco, Cal. Filed Aug. 28, 1911. Serial No. 646,495. (Cl. 206—56.)




A soap-stick holder, comprising a tubular case or box having one end closed and the other end open, an internally threaded cover adapted to fit into said open end and having an extension forming a handle, a sheet-metal holding cap adapted to receive a soap-stick, and having a main annular portion provided with threads indented in the wall of the metal, and having an inwardly-directed flange forming a partially closed top against which the soap-stick may bear but leaving a central opening whereby the material of the soap-stick may be expanded and forced into the threads of the cap.

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1,092,437. PAPER-FEEDING APPARATUS. MILFORD B. FERGUSON, New York, N. Y., assignor, by mesne assignments, of one-half to Package Machinery Company, a Corporation of Massachusetts. Filed Oct. 21, 1909. Serial No. 523,826. (Cl. 101—39.)



1. In a paper-feeding apparatus, in combination, a support for a stack of paper sheets, feeding disks below the support, means for raising and lowering the disks to carry the same into contact with the paper a given number of times in a given period of time, and driving mechanism for the feeding disks, constructed to rotate the disks a different number of times in the same period, whereby each contact with the paper will begin at a different point on the disks.

2. In an apparatus for feeding paper, in combination, a support for a stack of paper sheets, feeding disks below the support, means for raising and lowering the disks to carry the same into and out of contact with the paper at a given rate, means for rotating the disks at a different rate, and means giving the disks a minimum speed of rotation at the beginning of each contact and increasing to a maximum at the end of each contact.

3. In a paper-feeding apparatus, in combination, a support for a stack of paper sheets, feeding disks below the support, means for raising and lowering the disks to carry the same into and out of contact with the paper, mechanism for rotating the disks, and one or more upwardly extending rearwardly inclined needles arranged to engage the bottom of the stack at the rear thereof.

4. In a paper-feeding apparatus, in combination, a support for a stack of paper sheets, a pair of vertically movable side-frames below the support, a driving shaft and transverse feeding shafts journaled in the side-frames the latter carrying feeding disks, gearing arranged on the driving shaft to drive the feeding shafts, and means actuated by the gearing for raising and lowering the side-frames to carry the feeding disks into and out of contact with the bottom sheet of the stack.

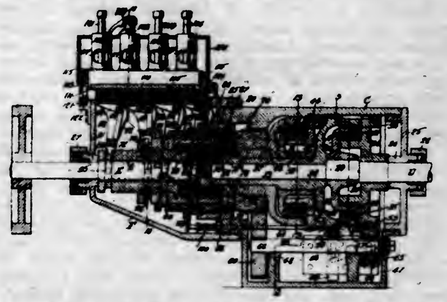
5. In a paper-feeding apparatus, in combination, a support for a stack of paper sheets, driving mechanism and feeding disks below the support, means for raising and lowering the driving mechanism and disks to carry the latter into and out of contact with the bottom sheet of the stack, a train of gears arranged to rotate the feeding disks and actuate the raising and lowering means, the driving mechanism constructed to drive the gear-train at a speed increasing from the minimum at the beginning of the contact of the disks with the paper to the maximum by the time the disks are withdrawn from contact.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,438. SPEED-CHANGING-GEAR MECHANISM. JOHN F. FITCH, Buffalo, N. Y., assignor to Rudolph A. Wittemann, Buffalo, N. Y. Filed Feb. 21, 1913. Serial No. 749,781. (Cl. 74—35.)

1. The combination with a driving shaft and a driven shaft, of a plurality of successive differential speed-changing units interposed between said shafts, each of said units comprising a fixed gear, a rotary gear and a gear engaging both with said fixed and rotary gears, means for driving a subsequent unit from a preceding unit, and means for connecting either unit with said driven shaft, substantially as set forth.



2. The combination with a driving shaft provided with an eccentric, of a primary speed-changing unit mounted on said eccentric and provided with a driving member having an eccentric, a secondary speed-changing unit mounted on the eccentric of the primary unit, a driven shaft, and means for driving said shaft from either of said units, substantially as set forth.

3. The combination with a driving shaft and a driven shaft, of a plurality of successive differential speed-changing units interposed between said shafts, and concentric coupling sleeves coupled together and to said driven shaft and each adapted to be separately coupled to its corresponding speed-changing unit, substantially as set forth.

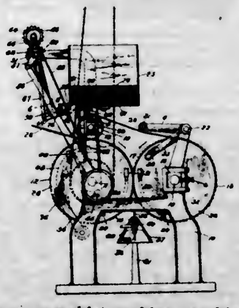
4. The combination with a driving shaft, a driven shaft, a plurality of speed-changing units interposed between said shafts, means for driving a subsequent unit from a preceding unit, means for coupling either unit with said driven shaft, and means for coupling said driving shaft directly with said driven shaft, substantially as set forth.

5. The combination with a driving shaft and a driven shaft, of a plurality of successive differential speed-changing units interposed between said shafts, concentric coupling sleeves coupled together and to said driven shaft and each adapted to be separately coupled to its corresponding speed-changing unit, and shifting levers connected with said coupling sleeves and adapted to move said sleeves to their coupled positions, substantially as set forth.

[Claims 6 to 21 not printed in the Gazette.]

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1,092,439. BOOK OR PAMPHLET MAKING MACHINE. CHARLES GITZENDANNER, New York, N. Y., assignor, by direct and mesne assignments, to Kast Inserting and Gathering Machine Company, a Corporation of Delaware. Filed Feb. 28, 1912. Serial No. 680,506. (Cl. 11—2.)



1. A book or pamphlet making machine including in combination a plurality of signature opening devices,

means for moving opened signatures to bring together opened signatures from a plurality of said opening devices and insetting one within another, and traveling stitching means moving at substantially the same speed as the inset signatures for stitching said signatures together while open and while being moved by said moving means.

2. A book or pamphlet making machine including in combination a plurality of signature opening devices, means for moving opened signatures to bring together opened signatures from a plurality of said opening devices and insetting one within another, traveling stitching means moving at substantially the same speed as the inset signatures for stitching said signatures together while open and while being moved by said moving means, and means for folding said stitched signatures together.

3. A book or pamphlet making machine including in combination a plurality of signature opening devices, means for progressing a signature opened by one of said devices past another of said opening devices, whereby said signature and another opened signature from said other opening device are brought together and one inset within the other, and a traveling stitching device for stitching said signatures together while they are being progressed, open and inset, by said progressing means.

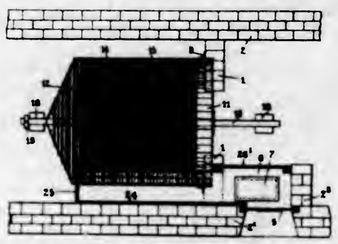
4. A book or pamphlet making machine including in combination a plurality of signature opening devices, means for progressing a signature opened by one of said devices past another of said opening devices, whereby said signature and another opened signature from said other opening device are brought together and one inset within the other, and traveling stitching means for stitching said signatures together while they are being progressed, open and inset, by said progressing means.

5. A book or pamplet making machine including in combination a plurality of signature opening devices, means for progressing a signature opened by one of said devices past another of said opening devices, whereby said signature and another opened signature from said other opening device are brought together and one inset within the other, and traveling stitching means for stitching said signatures together from the back through to the inside while they are being progressed, open and inset, by said progressing means.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,440. AUTOMATIC APPARATUS FOR REMOVING LEAVES, REFUSE, OR LARGE PARTICLES CARRIED ALONG BY WATER, &c. ERNEST ALPHONSE LAURENT GUIU, Prats-de-Mollo, France. Filed Oct. 24, 1912. Serial No. 727,559. (Cl. 210—16.)



1. In a rotary apparatus for the removal of refuse and the like from streams, the combination of a channel; a barrier across the channel and having a round opening therein; a rotary shaft mounted to be co-axial with said opening on the up-stream side thereof; a drum-sieve mounted on said shaft and having an open end disposed around said opening; a broad flat metallic band around the lower end of the drum-sieve; a flexible strip yieldably closing the space between the barrier and the lower end of the drum-sieve; covering means for closing the up-stream end of the drum-sieve; and a trough partially immersed in the water of the stream adjacent and parallel to the drum-sieve and provided with a deformable bottom comprising a part mounted on hinges.

2. In a rotary apparatus for the removal of refuse and the like from streams, the combination of a channel; a barrier across the channel and having a round opening therein; a rotary shaft mounted to be co-axial with said opening on the up-stream side thereof; a drum-sieve mounted on said shaft and having an open end disposed around said opening; a broad flat metallic band around the lower end of the drum-sieve; a flexible strip yieldably closing the space between the barrier and the lower end of the drum-sieve; covering means for closing the up-stream end of the drum-sieve; a propeller at the lower end of the drum-sieve; and reducing gears connecting the propeller with said shaft, the blades of said propeller being capable of being yieldably deflected while the drum-sieve is being rotated.

3. In a rotary apparatus for the removal of refuse and the like from streams, the combination of a channel; a barrier across the channel and having a round opening therein; a rotary shaft mounted to be co-axial with said opening on the up-stream side thereof; a drum-sieve mounted on said shaft and having an open end disposed around said opening; a broad flat metallic band around the lower end of the drum-sieve; a flexible strip yieldably closing the space between the barrier and the lower end of the drum-sieve; covering means for closing the up-stream end of the drum-sieve; and a trough partially immersed in the water adjacent to the drum-sieve and provided with a movable bottom, and counterweights for yieldably holding the bottom in normal position.

[Claim 6 not printed in the Gazette.]

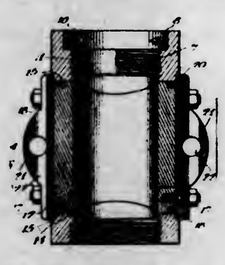
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1,092,441. CONTROL CASING-HEAD. ALFRED G. HEGGEM, Pittsburgh, Pa. Filed Mar. 4, 1914. Serial No. 822,292. (Dedicated to the public.) (Cl. 166—15.)

1. A casing head comprising a body having a longitudinal bore, a transverse passage opening therefrom, and a transverse cylindrical bore at right angles to the longitudinal bore and to the transverse passage and in the plane of the latter, a cylindrical valve plug fitting the cylindrical bore and having a three-way passage corresponding to the longitudinal bore and transverse passage of the body and registering therewith when in open or inoperative position, and plates secured to the ends of the valve plug and overlapping the body to retain the valve in place and whereby the valve may be turned to its several positions.



2. A casing head comprising a T body having a longitudinal bore, a transverse passage opening therefrom, and a transverse bore in the plane of and at right angles to the transverse passage, a rotary valve plug fitting said transverse bore and having a three-way passage corresponding to the longitudinal bore and transverse passage of the body, said valve plug having its ends reduced forming an annular recess at each end providing a seat for an annular packing ring, and plates secured to the ends of the valve plug and overlapping the T body and annular recesses to retain the valve in place and form a fluid-tight joint, and whereby the valve may be turned from either end to its several positions.



3. A casing head comprising a T body having a three-way passage therethrough corresponding to the branches of the T body and a bore transversely of the body and its passage at the juncture of the head and stem of the T, a valve plug in said bore having a three-way passage corresponding to that of the T body, and plates secured to the ends of the valve plug and overlapping the T body to retain the valve in place, such plate having exteriorly a recessed raised portion whereby a pinch bar or other tool may be applied for turning the valve to its several positions.

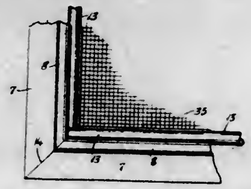
4. A casing head comprising a T body having a three-way passage therethrough and a bore transversely thereof, each end of said bore having an annular countersunk recess for receiving an annular packing ring, a three-way valve plug in said transverse bore, having its ends reduced to form annular recesses, and plates bolted to the ends of the valve and overlapping the annular recesses and the T body to retain the valve in place, and each plate having an annular flange to register with the annular recess of the valve plug to compress the packing therein to form a fluid tight joint.

5. A casing head comprising a T body with a transverse plug valve therein, said body and valve having three-way passages therein corresponding to the branches of the T, each of the three ends of the passage in the body being provided with means for making casing and branch pipe connections, one end of the straight away bore of the T body being screw-threaded and annularly countersunk exteriorly of the screw threads to form a flanged shoulder and provided with set screws for retaining therein an ordinary oil saver disk, and a screw threaded casing nipple engaging the screw threads below said flanged shoulder to protect the threads from injury when not in use as a casing connection.

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1,092,442. WINDOW-SCREEN. HENRY HIGGIN, Newport, Ky., assignor of one-half to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Apr. 7, 1913. Serial No. 759,822. (Cl. 156—14.)

1. In a window screen, in combination with the wire screening, a frame therefor formed from an integral strip of sheet metal, bent into hollow shape with its longitudinal side edges projecting toward the screening, one edge formed into a seat segmental in cross section, and the other edge bent obliquely toward the opposing seat to form a resilient locking member, with a rod between which and the segmental seat the wire screening is engaged, and the rod locked in position by the resilient member of the molding.



2. In a window screen, in combination with the wire screening, a frame therefor formed from an integral strip of sheet metal, bent into hollow shape, with one side portion formed into a seat segmental in cross section, and the other side portion bent obliquely toward the opposing seat to form a resilient locking member, and provided with an inwardly extending flange, with a rod between which flange and the segmental seat the wire screening is engaged, and the rod locked in position by the flange along the resilient member of the frame.

3. In a window screen, in combination with the wire screening, a frame therefor formed from an integral strip of sheet metal, bent into hollow shape with its longitudinal side edges projecting toward the screening, one edge formed into a seat segmental in cross section, and the other edge bent obliquely toward the opposing seat to form a resilient locking member, and having the molding for the vertical sides of the frame bent inwardly to form a groove, with a rod between which and the segmental seat the wire screening is engaged, with the rod locked in position by the resilient member of the molding, and a box having a telescopic engagement with the top and bottom portions of the frame, with plates extending at right angles from the box, having telescopic engagement with the groove walls of the side portions of the frame to lock the frame at the corners.

4. In a window screen, in combination with the wire screening, a frame therefor formed from an integral strip of sheet metal, bent into hollow shape with its longitudinal side edges projecting toward the screening, one edge formed into a seat segmental in cross section, and the other edge bent obliquely toward the opposing seat to form a resilient locking member, and having a molding for the vertical sides of the frame bent inwardly to form a groove, with a rod between which and the segmental seat the wire screening is engaged, with the rod locked in position by the resilient member of the molding, and a box having telescopic engagement with the top and bottom portions of the frame, with plates extending at right angles from the box, having telescopic engagement with the groove walls of the side portions of the frame to lock the frame at the corners, and a spring-pressed rod seated in the box and provided with a cover to engage the guide rail to hold the screen in place.

5. In a window screen, the combination with a hollow molding for the sides and top and bottom of the frame, and with grooves formed in the vertical portions, and one of the grooves having its base cut away at the lower end, of a rod mounted in the horizontal portion of the frame, with a cover plate therefor projecting through said cut away portion and a coiled spring on the rod to force the cover plate against the guide rail to hold the screen thereon.

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1,092,443. AUTOMATIC PARACHUTE ATTACHMENT FOR AEROPLANES. RICHARD F. HOMMEL, San Francisco, Cal. Filed May 5, 1913. Serial No. 765,969. (Cl. 244—21.)

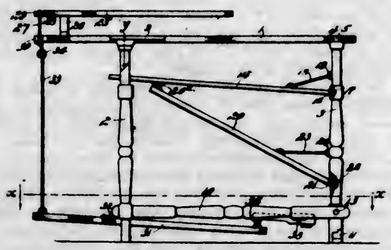
1. An automatic parachute attachment for aeroplanes comprising a plurality of transversely extending channels having one end closed, transverse poles secured within the said channels; collars secured to the poles; springs interposed between the collars on the poles and the closed ends of the channels; means for retaining the poles within the channels against the tension of the springs; canvas

wings folded and secured against the sides of the aeroplanes, the outer edges of the canvas wings being secured to the outer ends of the poles; and means for releasing the poles from the channels.



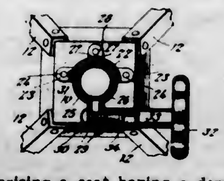
2. In an automatic parachute attachment for aeroplanes the combination with an aeroplane body of suitable transverse channels therein having one end closed; poles within the channels; collars secured to the poles; springs interposed within the channels and between the collars on the poles and the closed ends of the channels; lugs on the outer ends of the poles; latches secured to the aeroplane and adapted to engage the lugs on the poles; horizontal extensions secured to the aeroplane slightly above the transverse channels therein; canvas wings folded against the sides of and having their inner edges secured to the aeroplane body below the horizontal extensions and above the opening of the channels therein and the outer edges of the said wings being connected to the outer ends of the poles; and means for releasing the latches from the lugs on the poles.

1,092,444. IRONING-BOARD. WILLIAM RAMSEY JACOBS, Commerce, Tex. Filed Mar. 23, 1912. Serial No. 685,895. (Cl. 68—10.)



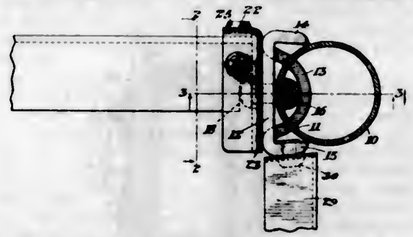
A device of the character described, including a folding structure, and means for holding the same extended, including a shelf having one end hingedly connected to the structure, coöperating means carried by the other end of the shelf and the adjacent portion of the structure to detachably hold the shelf elevated, a brace having one end hingedly connected to the under side of the shelf adjacent the hinged connection of the shelf to the folding structure, and coöperating means carried by the free end of the brace and the adjacent portion of the structure to detachably hold the brace in operative position.

1,092,445. ADJUSTABLE STOOL. GUSTAF O. JOHNSON, Elkhart, Ind., assignor of one-third to Fred Lundquist and one-third to Albin Johnson, Elkhart, Ind. Filed Mar. 17, 1913. Serial No. 754,800. (Cl. 155—40.)



A stool comprising a seat having a depending post, a supporting frame therefor including a head piece and a guide tube in which said seat post is telescopically mounted, a semicircular bracket upon the head piece having an opening therein, a clamp comprising a pair of semi-circular jaws seated in said bracket and embracing said post, one of said jaws being secured to the bracket and said jaws having lugs at one end fitting within the opening in the bracket and apertured ears at their opposite ends, a screw passing through the apertured ears, and an adjusting nut engaging said screw and provided with a hand wheel.

1,092,446. BED. FELIX G. KAPELMAN, New York, N. Y. Filed Aug. 14, 1913. Serial No. 784,667. (Cl. 5—55.)

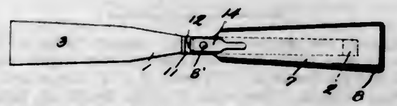


1. In a bedstead and in combination, a hollow post having a slot therein, a bracket, a member associated with the bracket and adapted to enter and fit the slot in the post, means for engaging the said member interiorly of the post, side members extending at an acute angle from the face of the bracket and adapted at their edges to engage the surface of the post when the bracket is secured thereto, and means associated with the bracket for connecting the same to the side rail of the bedstead.

2. In a bedstead and in combination, a hollow post having a slot therein, a bracket plate, a member made integral with the bracket plate and adapted to extend and fit within the slot in the post, side members secured to the said bracket plate and adapted to engage the outer surface of the post, a pin interiorly of the post for engaging the said member to secure the bracket in position, a side rail, an end member therefor having slots therein and head studs fixed in the said bracket and adapted to enter the slots in the end member of the side rail to secure the same in position relatively to the bracket.

3. In a bedstead and in combination, a hollow post having a slot therein, a bracket plate, a member associated with the bracket plate and adapted to enter and fit within the said slot, means engaging the said member interiorly of the post to assist in securing the bracket plate in position, side members associated with the bracket plate spaced apart a distance less than the diameter of the post so that the edges of the said side members grip the outer surface of the said post, a side rail, an end member connected thereto, and means associated with the said bracket plate and adapted to engage the end member of the rail to secure the parts together.

1,092,447. GLAZIER'S TOOL. CHARLES S. LELAND, Mount Desert, Me. Filed Aug. 21, 1913. Serial No. 786,034. (Cl. 7—16.)



In a tool, a tool blade provided with openings therein, a strip of resilient material bent substantially U-shaped to form a handle, the terminal ends of said handle having indented portions formed therein, said terminal ends being normally held out of engagement with said blade, and a catch pivotally carried by said handle for engagement with one of said terminal ends for forcing said indentations into said openings for holding said blade securely in said handle.



1,092,448. METHOD OF TREATING MINERAL OILS. MEILICH MELAMID, Freiburg, Germany. Filed Nov. 18, 1912. Serial No. 732,141. (Cl. 196—26.)

1. Method of treating mineral oil with phosphoric acid consisting in converting the phosphoric acid at a temperature of approximately 300° C. and more into various phosphorus compounds, for instance pyro-phosphoric and meta-phosphoric acid and subjecting the oil to the action of these compounds.

2. Method of treating mineral oil with phosphoric acid consisting in subjecting the oil to the action of the products of conversion of the phosphoric acid at high temperatures.

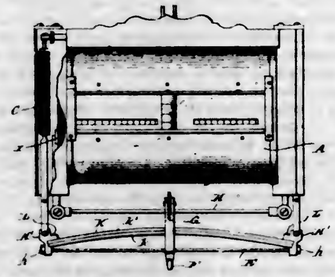
3. Method of treating mineral oil with phosphoric acid consisting in subjecting the oil to the action of products of oxidation of the phosphoric acid.

4. Method of treating mineral oil with phosphoric acid consisting in subjecting the oil to the action of the products of conversion of the phosphoric acid at the start to a lower temperature and finally increasing said temperature.

5. A process for producing pure mineral oils, consisting in treating mineral oil and phosphoric acid at a temperature at which said acid is converted into other phosphorus compounds and finally in letting these compounds act upon the mineral oil.

[Claims 6 to 13 not printed in the Gazette.]

1,092,449. SPRING-BALANCE SCALE. ALBERT N. OZIAS, deceased, Minneapolis, Minn., by David L. Fairchild and Robert Van Loan Haxby, administrators, Minneapolis, Minn. Filed July 3, 1912. Serial No. 707,591. (Cl. 73—46.)



1. In a scale, the combination with a counterbalancing spring tension member, an indicator, and a load support connected with the indicator and with the spring tension member intermediate its ends, of a curved bi-metallic thermostat member having its ends rigidly connected with the ends of said spring tension member to increase the longitudinal tension of said tension member and its resistance to deflection as the temperature rises.

2. In a scale, the combination with indicating mechanism, a load support operatively connected with the indicating mechanism and a counterbalancing spring tension member adapted to be deflected transversely by the load, of a curved bi-metallic member anchored at its ends to the ends of the spring tension member, said bi-metallic member being formed of a metal having a high co-efficient of expansion on the concave side, and a metal having a low co-efficient of expansion on the convex side.

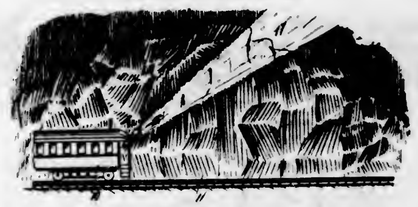
3. In a scale, the combination with indicating mechanism, a load support operatively connected with the indicating mechanism and a substantially straight counterbalancing spring tension member adapted to be deflected transversely intermediate its ends, of a curved bi-metallic member anchored at its end to the ends of the counterbalancing spring tension member, said bi-metallic member being formed of metals having different co-efficients of expansion with the metal having the higher co-efficient of expansion on the concave side, whereby the counterbalancing spring tension member is put under increased longitudinal tension as the temperature rises.

4. In a scale, the combination with indicating mechanism, a counterbalancing spring system embodying coil springs and a straight tension member spring and a load support carried by the tension member intermediate its ends and operatively connected with the indicating mechanism, of a curved bi-metallic thermostat bar rigidly connected at opposite ends with opposite ends of the tension member, the metal of the thermostat bar having the higher coefficient of expansion being located on the concave side of the bar.

5. In a spring balance scale, the combination with two suspended coil springs and an indicator, of a book bar suspended from said coil springs and embodying a substantially straight tension member and a curved bi-metallic member formed of metals having different co-efficients of expansion, a load support carried by said tension member intermediate its ends and connections intermediate the load support and indicator.

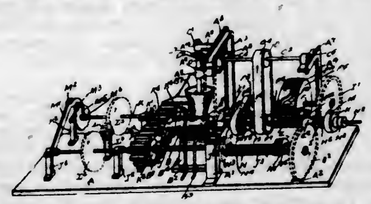
[Claims 6 and 7 not printed in the Gazette.]

1,092,450. REAR-END SEARCH-LIGHT. JAMES D. PERKINS, Washington, D. C. Filed July 17, 1913. Serial No. 779,599. (Cl. 240—52.)



An attachment for removably holding a searchlight in position to direct its beam obliquely upward including an elbow having a horizontal leg provided on the extreme end with an integral attaching plate and having a vertical leg, a tube receiving said vertical leg within its lower end and having a horizontal leg terminating in a searchlight attaching plate disposed obliquely across the last named horizontal leg, means securing said tube removably to the vertical leg of said elbow, and electrical connections extending through the bores of said elbow and said tube.

1,092,451. PLASTIC-CARTRIDGE-MAKING MACHINE. SAMUEL HAMLIN PIERCE, Deseronto, Ontario, Canada. Filed July 30, 1912. Serial No. 712,227. (Cl. 18—12.)



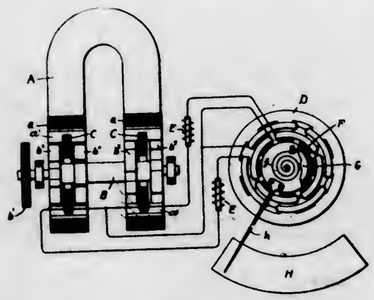
1. In a plastic cartridge making machine the combination with the cylindrical compression chamber having a discharge nozzle and receiving hopper, and means for compressing the mass fed into the compression chamber, and forcing it through the delivery nozzle in cylindrical form, of a receiver comprising a pair of shafts, a drum mounted on each shaft, a belt mounted on the drum, cross slats secured to the belt, gears connecting the shafts together, a pin gear on one of the shafts, and a suitable driving shaft carrying a finger co-acting with the pin gear mounted on the aforesaid shaft, to turn the receiver a definite space on each revolution of the driving shaft, and means for severing the cartridge section from the cylindrical mass as it is delivered on to the cross slats of the receiver, as and for the purpose specified.

2. In a plastic cartridge making machine, the combination with means for compressing the plastic material into cylindrical form, of an endless receiving table provided with an endless series of cross slats suitably spaced apart, means for connecting the slats together, supporting shafts and drums for the slats, a notched wheel mounted on one of the supporting shafts, means for centering the slat intervening space opposite the center of discharge comprising an arm swung upon a suitable bearing, a roller journaled on the arm and spring tension means for holding the roller in contact with the notched wheel, as and for the purpose specified.

3. In a plastic cartridge making machine, the combination with the cylindrical compression chamber having a discharge nozzle and receiving opening, of a main shaft, a peripheral cam mounted thereon, a compressing screw shaft, a compressing screw mounted thereon and operating in the compression chamber, a clutch and clutch pulley mounted on the compressing shaft, a pulley mounted on the driving shaft, a belt connecting the pulley on the driving shaft with the clutch pulley on the compressing shaft, and means for operating the clutch from the peripheral cam, as and for the purpose specified.

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1,092,452. DEVICE FOR MEASURING SPEED. WILLIAM H. PRATT, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 31, 1911. Serial No. 641,454. (Cl. 73—123.)



1. A device for measuring speed, comprising means for producing an alternating current of a frequency proportional to the speed to be measured, means electrically connected to said current producing means and responsive to changes of frequency of the current, an indicator actuated by said last mentioned means, and means comprising a reactance for maintaining the strength of said current approximately constant.

2. A device for measuring speed, comprising means for producing an alternating current of a frequency proportional to the speed to be measured, an electric circuit connected to said current producing means and including means responsive to changes of frequency of said current, an indicator actuated by said last mentioned means, and means for producing an impedance in said circuit approximately proportional to the frequency of the current.

3. A device for measuring speed, comprising means for producing an alternating current of a frequency proportional to the speed to be measured, an electric circuit connected to said current producing means and including means responsive to changes of frequency of said current, an indicator actuated by said last mentioned means, and means for imparting to said circuit a high reactance for maintaining the strength of the current in the circuit approximately constant.

4. A device for measuring speed, comprising means for producing an alternating current of a frequency proportional to the speed to be measured, an induction motor device energized by said current, means for yieldingly restraining the movement of the rotor of said motor, an indicator actuated by said rotor, and means comprising a reactance for maintaining the strength of said current approximately constant.

5. A device for measuring speed, comprising an alternating current generator of constant field strength arranged to be driven at a speed proportional to the speed to be measured, an electric circuit connected to said generator, an induction motor device having its primary member included in said circuit, means for yieldingly restraining the movement of the rotor of said motor, and means for producing an impedance in said circuit approximately proportional to the frequency of the current.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,453. DEVICE FOR AMPLIFYING VARIATIONS IN ELECTRICAL CURRENTS. PAUL M. RAINEY, West Hoboken, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 14, 1913. Serial No. 795,124. (Cl. 179—171.)



1. In a telephone repeater, a plurality of pieces of magnetic material, means for normally subjecting certain of said pieces to steady magnetizing forces of low intensity, and others of said pieces to steady magnetizing forces of relatively high intensity, means for impressing magnetizing forces of variable intensities on said pieces and causing by such variable forces an increase in length of certain of said pieces and a decrease in length of other of said pieces, and means for connecting said pieces to each other, to a support and to a variable resistance element, whereby variations in the intensity of magnetizing force cause a variation in said variable resistance element.

2. In a telephone repeater, a magnetizing coil in the incoming circuit and a variable resistance device in the local or outgoing circuit, a plurality of cores for said coil, means for normally subjecting some of said cores to steady magnetizing forces of low intensities and other of said cores to steady magnetizing forces of relatively high intensities, and means for connecting said cores to each other, to a support and to a movable member of said variable resistance device.

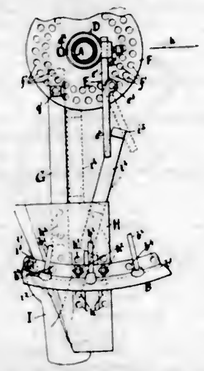
3. A telephone repeater comprising a plurality of pieces of magnetic material, means for normally subjecting some of said pieces to steady magnetizing forces of low intensity and others of said pieces to steady magnetizing forces of relatively high intensity, means for impressing a variable magnetizing force on said pieces and causing by such variable force an increase in length of some of said pieces and a decrease in length in other of said pieces, and means for connecting said pieces to each other, to a support and to a variable resistance element, whereby a movable member of such resistance element is moved a distance equal to the sum of the variations in length of said pieces.

4. In a telephone repeater apparatus, a microphone element embracing a movable member, magnetic members operatively connected with the movable member of said microphonic element, means controlling directionally opposite length changes in said magnetic members, and means for varying said length changes in said members, whereby said movable element is moved a distance equal to the combined change in length of said magnetic members.

5. In a telephone repeater apparatus, a variable resistance device, a plurality of magnetic members operatively connected with said variable resistance device, means for causing some of said magnetic members to expand and others to contract, and means for varying the expansion and contraction of said magnetic members to vary the resistance of said variable resistance device.



1,092,454. PLANT-HOLDER FOR PLANT-SETTING MACHINES. JULIUS RIEMENSCHNEIDER, Milwaukee, Wis. Filed Dec. 4, 1908. Serial No. 465,951. (Cl. 55—121.)



1. A plant-setting device adapted to turn about an axis and comprising a trough-shaped box adapted to be set radially with respect to said axis and to contain the plant, the back of said box constituting the bottom of the trough and sloping backwardly with respect to the radius of rotation passing through said box, whereby the plant resting therein is first set in a backwardly sloping position and brought up to the vertical by the change of angle of said box as it rotates in rising from the ground.

2. A plant-setting device comprising a trough-shaped box adapted to be mounted in substantially radial position on a wheel and projecting therefrom so as to be adapted to dig a hole in the ground, the projecting end of said box tapering to a wedge-shaped extremity and one side thereof being movable whereby after digging the hole, said movable side may be removed to leave the plant in the ground.

3. A plant-setting device comprising a trough-shaped box adapted to be mounted in substantially radial position on a wheel and projecting therefrom so as to be adapted to dig a hole in the ground, the projecting end of said box tapering to a wedge-shaped extremity and one side thereof being movable whereby after digging the hole, said movable side may be removed to leave the plant in the ground; and one side of said box having a lateral re-entrancy between said wedge-shaped extremity and the top of the projecting portion, wherethrough the earth falls and thus covers the roots of the plant.

4. A plant-setting device comprising a trough-shaped box adapted to be mounted in substantially radial position on a wheel and projecting therefrom so as to be adapted to dig a hole in the ground, the projecting end of said box tapering to a wedge-shaped extremity and one side thereof being pivoted with respect to the box about an axis perpendicular to the plane of movement thereof.

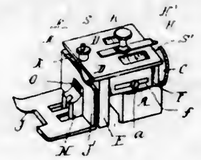
5. A plant-holding device comprising a trough-shaped box adapted to be secured to a wheel in a substantially radial position so that one end projects therefrom; one side of said box being substantially plane and lying in the plane of movement of the wheel and the lower part of the opposite side of said box being edgewise movable in a plane parallel to the first and having its lower end corresponding to the projecting portion of said box obliquely converging toward the first-named side and meeting the latter in a wedge-shaped point thus forming an oblique removable bottom to said box.

[Claims 6 to 23 not printed in the Gazette.]

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1,092,455. FEED-GUIDE FOR LITHOGRAPHIC AND OTHER PRINTING MACHINES. ERNEST JAMES ROBERTS, Christchurch, New Zealand. Filed Feb. 11, 1913. Serial No. 747,664. (Cl. 101—37.)

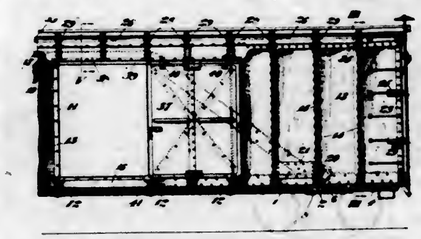
1. In means for the purpose herein described a bearing fixed upon the feed board, an internally threaded hollow spindle mounted to rotate in such bearing, a sliding member adapted to move over the bearing and having a screw fixed thereto and screwing into the hollow spindle, a foot plate carried on the front of the sliding member and adjustable vertically thereon, a guide block mounted on the front of such member, gage plates upon the fixed bearing and transparent plates upon the sliding member extending over such gage plates; substantially as specified.



2. In means for the purpose herein described a bearing fixed upon the feed board, an internally threaded hollow spindle mounted to rotate in such bearing, a sliding member adapted to move over the bearing and having a screw fixed thereto and screwing into the hollow spindle, a foot plate carried on the front of the sliding member and adjustable vertically thereon, a recess in the foot plate a guide block inserted in such recess, a spring arranged between the top of the guide block and the top of the recess in the foot plate and a spring plate arranged between the back of the guide block and the front face of the sliding member, substantially as specified.

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1,092,456. STEEL BOX-CAR. RALPH V. SAGE, Westmont borough, Pa. Original application filed Aug. 3, 1911. Serial No. 642,192. Divided and this application filed Aug. 22, 1912. Serial No. 716,346. (Cl. 105—192.)



1. In a railway car, having its sides constructed from a plurality of flanged metal plate sections, said flanges extending outwardly thereof and riveted together to form the side stakes of the car, a truss of rolled channel shape attached to the car side and to the top of the side-sills.

2. In a railway car, having its sides constructed from a plurality of flanged metal plate sections, said flanges extending outwardly and vertically thereof to form the side stakes of the car, a truss of rolled channel shape extending over the door and attached to the car side, the ends thereof being downwardly inclined and attached to the side-sills.

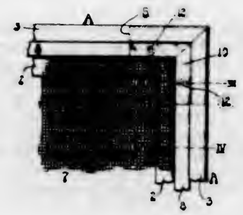
3. In a railway car, having its sides constructed from a plurality of flanged metal plate sections, said flanges extending outwardly and vertically thereof to form the side stakes of the car, a truss formed from a rolled channel riveted to said flanged metal plates, the central portion thereof extending over the door to form the lintel, the ends of same being downwardly inclined and attached to the side-sills.

4. In a railway car, having its sides constructed from a plurality of flanged metal plate sections, said flanges extending outwardly and vertically thereof and riveted together to form the side stakes of the car, a truss of rolled channel shape secured to said flanged metal plates, the central portion thereof extending over the door to form the lintel, while the ends of same are downwardly inclined and attached to the side-sills.

5. In a railway car, having its sides constructed from a plurality of flanged metal plate sections, said flanges extending outwardly and vertically thereof and riveted together with stiffening members between their flanged meeting edges to form the side stakes of the car, a truss of rolled channel shape secured to said flanged metal plates on the inside of the car, its central portion extending over the door to form the lintel, while the ends of same are downwardly inclined with the bottom flange of the extreme ends thereof attached to the top flange of the side-sills.

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1,092,457. WINDOW-SCREEN. FREDRICH E. SCHOENBERG, St. Louis, Mo. Filed Aug. 4, 1913. Serial No. 782,835. (Cl. 156—14.)



1. A screen structure comprising frame pieces, each having a longitudinal groove, a sheet of screen cloth having its margins detachably fastened in said grooves, retainer strips arranged in said grooves to secure the screen cloth, said retainer strips terminating near the corners of the screen structure, and an angular corner piece inserted in the adjacent ends of said grooves to retain the screen cloth therein and to connect said frame pieces and detachably secured to the latter.

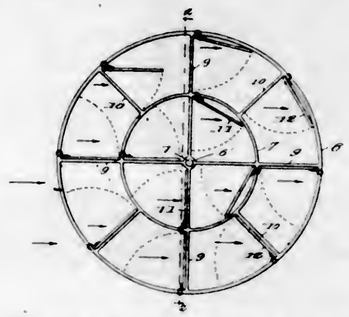
2. A screen structure comprising frame pieces, each having a longitudinal groove, a sheet of screen cloth having its margins detachably fastened in said grooves, retainer strips arranged in said grooves to secure the screen cloth, said retainer strips terminating near the corners of the screen structure, and an angular corner piece removably fastened in said grooves to retain the screen cloth therein and to detachably connect said frame pieces.

3. A screen structure comprising frame pieces, each having a longitudinal groove, angular reinforcing members removably fitted to said frame pieces, a sheet of screen cloth having its margins arranged in said grooves, retainer strips detachably fastened in said grooves to secure the screen cloth, said retainer strips terminating near the corners of the screen structure, and an angular corner piece inserted in the adjacent ends of said grooves to retain the screen cloth therein and to connect said frame pieces and detachably secured to the latter.

4. A screen structure comprising frame pieces each having a longitudinal groove and a box member, an angular reinforcing member inserted in the box members of adjoining frame pieces, a sheet of screen cloth having its margins arranged in said grooves, retainer strips detachably fastened in said grooves to secure the screen cloth, an angular corner piece inserted in the adjacent ends of said grooves to secure the screen cloth, and screws detachably connecting said angular corner piece to said frame pieces.

5. A screen structure comprising frame pieces each formed with an inner box member and an outer box member spaced apart so as to provide a groove between them, angular reinforcing members inserted in said box members of adjoining frame pieces, said angular reinforcing members being removably fitted to said frame pieces, a sheet of screen cloth having its margins arranged in said grooves removable retainer strips detachably fastened in said grooves to secure the screen cloth, an angular corner piece inserted in said grooves to secure the screen, and screws detachably connecting said corner piece to said frame pieces.

1,092,458. MOTOR. BUNKER STEWART and DAVID BAILY STEWART, Garden City, Kans. Filed Mar. 17, 1913. Serial No. 754,740. (Cl. 170—119.)



A motor comprising a shaft or standard provided with spaced stops, frames supported on the shaft at the stops, each frame comprising a hub journaled on the shaft and rings arranged concentrically with the hub, spokes arranged at angular distances of 90° and connecting the hub and the rings, other spokes arranged intermediate the first-named spokes and connecting the rings, said rings being of a diameter such that the innermost ring is at approximately half the distance between the hub and the outermost ring, rods connecting the innermost rings adjacent to the first-named spokes, other rods connecting the outermost rings adjacent to the first-named spokes and adjacent to the last-named spokes, and vanes hinged to the rods and of a width to close against the adjacent spokes, said vanes extending above and below the frame.

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1,092,459. RAILWAY SIGNALING. JACOB B. STRUBLE, New York, N. Y., assignor to The Union Switch and Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Continuation of applications Serial No. 82,523, filed Nov. 16, 1901, and Serial No. 97,861, filed Mar. 12, 1902. This application filed Mar. 4, 1904. Serial No. 196,474. (Cl. 246—36.)



1. In a signaling system for railways having one of its lines electrically continuous and its other line of rails divided into insulated sections, the combination of a series of track circuits, an alternating current generator, a series of transformers, one being provided for each track circuit, a translating mechanism for each track circuit operable by the alternating current of the track circuit and constructed to induce a current in another circuit and thereby control a railway signal, a series of railway signals, one being provided for each track circuit and reactance coils for connecting both ends of the insulated rail sections with the continuous rail.

2. In a signaling system for railways having one of the lines of rails electrically continuous and the other line of rails divided into insulated sections, a track circuit which comprises a portion of the electrically continuous rail and an insulated section of the other track rail, reactance coils connecting the ends of the insulated rail sections with the continuous rail, a source of alternating current supply and a translating device.

3. In a system of electrical distribution and signaling for railways, the combination of two sources of electric energy transmitting currents different in character, an outgoing conductor from one of said sources which forms the feeding conductor, a return conductor formed of the two rails of the railway, said conductor divided into blocks and having reactance devices interposed between the rail sections of the blocks and the source of energy, a transformer for each block having its secondary across the rails of a block and signaling devices under the control of the current transmitted through the transformers connected to each block.

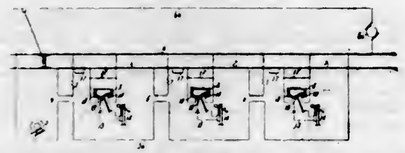
4. In combination with a railway the rails of which are employed as a return for the propulsion current employed for the motors of the cars traveling along the railway and one of said rails being electrically continuous and the other of said rails being divided into insulated sections, a feed conductor for the propulsion current extending along the line of railway, and a signaling system, said system comprising a series of track circuits, an alternating current generator, means for supplying alternating current to said track circuits, a translating mechanism for each track circuit, and reactance coils connected with said track rails whereby the propulsion current will flow through the rails as a return and will be shunted from the translating mechanism.

5. In an electric railway signaling system, employing a closed signal controlling track circuit, a plurality of block sections, one rail being divided into insulated sections corresponding to the block sections, a signal for each block section operable by an alternating current, a source of alternating current for said signals, a source of direct current for propelling the railway cars, and means for permitting the direct current to pass from one insulated rail section to another and for preventing alternating current from passing from one insulated rail section to another.

[Claims 6 to 30 not printed in the Gazette.]

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1,092,460. RAILWAY SIGNALING. JACOB B. STRUBLE, San Francisco, Cal., assignor to The Union Switch and Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Original application filed Mar. 4, 1904, Serial No. 196,474. Divided and this application filed July 25, 1913. Serial No. 781,084. (Cl. 246—36.)



1. In combination with a railway having one rail electrically continuous and the other divided by insulation into track sections, of a direct current generator having one pole connected with the track rails, reactance coils connecting adjacent ends of the insulated sections, reactance coils connecting the sections with the continuous rail, and a signaling system, said system comprising track circuits, an alternating current supply for each track circuit and a translating mechanism for each track circuit which is operated from the alternating current in the track circuit.

2. In an electric railway signaling system employing a closed signal controlling track circuit, a plurality of block sections, one rail being divided into insulated sections corresponding to the block sections, a signal for each block section operable by an alternating current, a source of alternating current for said signals, a source of direct current for propelling the railway cars, means for permitting the direct current to pass from one insulated rail section to another and for preventing alternating current from passing from one insulated rail section to another, and an inductive bond connecting the rails comprised in each block section.

3. In a system of electrical distribution and signaling for railways, the combination of two sources of electrical energy delivering currents differing in character, outgoing feeder conductors, two track rails, one continuous and the other divided into sections to form blocks, a reactance device interposed between each two adjacent sections, and a reactance device connected across the rails of each block.

4. In combination, a railway the trackway of which is divided to form track sections, a direct current generator having one terminal connected with the track rails, reactance coils connecting adjacent ends of the sections, reactance coils connecting the opposite rails of the sections, and a signaling system comprising track circuits for the sections, a source of alternating signaling current for each track circuit, and a translating mechanism for each track circuit which is controlled by the alternating signaling current in the track circuit.

5. In combination, an electric railway both track rails of which are included in the circuit for the propulsion current, a source of propulsion current of one character, a plurality of block sections formed by insulations in one of the lines of track rails; a source of signaling current connected with the rails of each section and differing in character from the propulsion current, a translating device connected with the track rails of each section, signals controlled by said translating devices, means for permitting the propulsion current to pass from each insulated track section to the adjacent track sections and for preventing the passage of the signaling current, and means for permitting the propulsion current to pass from the insulated rail section of each block section to the other rail and for preventing the passage of the signaling current.

[Claim 6 not printed in the Gazette.]

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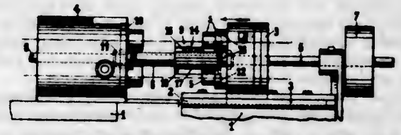
1,092,461. PROCESS OF INCREASING THE EFFICIENCY OF HYDROCARBON LIQUIDS AND THE MATERIAL FOR EFFECTING SUCH RESULTS. ARTHUR W. SWANBERG, Minneapolis, Minn. Filed June 5, 1912. Serial No. 701,798. (Cl. 44—8.)

1. The process of increasing the efficiency of hydrocarbon liquids which consists in first adding thereto, powdered naphthalene and powdered anthracene, and in thereafter adding thereto, sulfuric acid and wood alcohol.

2. A hydro-carbon liquid having therein naphthalene, anthracene, sulfuric acid, and wood alcohol in approximately proportions of one gallon of said hydro-carbon liquid, one ounce of powdered material composed of seven parts of naphthalene and three parts of anthracene, and one ounce of the liquid made up of one-half sulfuric acid and one-half of wood alcohol.

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1,092,462. METAL-WORKING MACHINE. ENOCH TROECK, Charlottenburg, Germany, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 28, 1913. Serial No. 803,452. (Cl. 29—37.)



1. In a machine of the class described, having a bed, the combination with a work carrying head, of a sliding tool carrier mounted on the bed and having a shaft carried thereby for movement therewith and extending into and sliding in said work carrying head on the back and forth movement of the tool carrier for supporting a tool support in advance of the sliding tool carrier.

2. In a machine of the class described having a bed, the combination with a work carrying head, of a sliding tool carrier mounted on the bed and having a tubular shaft carried thereby for movement therewith and extending into and sliding in said work carrying head on the back and forth movement of the tool carrier for supporting a tool support in advance of the sliding tool carrier, and a driving shaft extending through said tubular shaft.

3. In a machine of the class described having a bed, the combination with a work carrying head, of a sliding tool carrier mounted on the bed, a shaft carried by one of said parts and extending into the other of said parts, said shaft and the part into which it extends having a sliding movement relatively one to the other, and a tool support mounted on said shaft between said head and said sliding tool carrier.

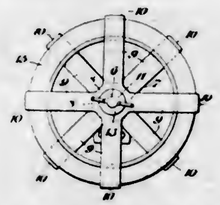
4. In a machine of the class described having a bed, the combination with a rotatable work carrying head, of a non-rotatable sliding tool carrier mounted on the bed, a non-rotatable shaft carried by one of said parts and extending into the other of said parts, said shaft and the part into which it extends having a sliding movement relatively one to the other, and a tool support mounted on said shaft between said head and said sliding tool carrier.

5. In a machine of the class described having a bed, the combination with a rotatable work carrying head, of a non-rotatable sliding tool carrier mounted on the bed, a non-rotatable tubular shaft carried by one of said parts and extending into the other of said parts, said shaft and the part into which it extends having a sliding movement relatively one to the other, a tool support mounted on said shaft between said head and said sliding tool carrier, and a driving shaft extending through said tubular shaft.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,463. CARRIER FOR PNEUMATIC-TIRE SHOES. DAVID L. VAUGHAN, Riverton, N. J. Filed Oct. 4, 1913. Serial No. 793,336. (Cl. 224—29.)



1. A carrier for pneumatic tire shoes, comprising a bracket adapted to be secured to an automobile and having a stem, a clamp member on the bracket for engaging one side of a tire shoe, a second clamp member having an opening therein and radially-extending arms, said stem extending through said opening and said arms being adapted to engage one side of a tire shoe, and means for adjusting one member toward the other member.

2. A carrier for pneumatic tire shoes, comprising a bracket adapted to be secured to an automobile and having a stem, a clamp member on the bracket for engaging one side of a tire shoe, a clamp member having a central opening therein and radially-extending arms having inturned outer ends adapted to embrace a tire shoe, said stem extending through said opening and said arms being adapted to engage one side of a tire shoe, and means for adjusting one member toward the other member.

3. A carrier for pneumatic tire shoes, comprising a bracket adapted to be secured to an automobile and having a stem, and a pair of clamping members adapted to receive a tire shoe therebetween, said members each having a central opening therein and radially-extending arms, said stem extending through the openings in said members, the arms of said members being adapted to receive a tire shoe therebetween, and said stem having a fixed collar and an adjustable collar thereon between which said members are located.

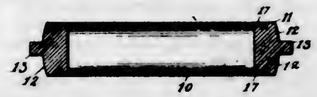
4. A carrier for pneumatic tire shoes, comprising a bracket adapted to be secured to an automobile and having a stem, a pair of clamping members adapted to receive a tire shoe therebetween, each member having a central opening therein through which said stem extends, each member having radially-extending arms provided with inturned outer ends adapted to embrace a tire shoe, and means for adjusting one member toward the other member.

5. A carrier for pneumatic tire shoes, comprising a bracket adapted to be secured to an automobile, a clamp member on the bracket for engaging one side of a tire shoe, a second clamp member on the bracket for engaging one side of a tire shoe, and means for adjusting one member toward the other member, one of said members being formed of spring metal and being adapted to be sprung from a normal condition and to clamp a tire shoe in tending to resume the condition from which it was sprung.

[Claims 6 to 9 not printed in the Gazette.]

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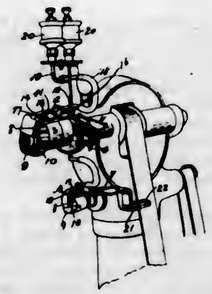
1,092,464. METALLIC ROLLER. WILLIAM W. WATSON and JOHN G. CARLSON, Jamestown, N. Y., assignors to Watson Manufacturing Company, Jamestown, N. Y., a Corporation of New York. Filed Aug. 7, 1912. Serial No. 713,846. (Cl. 64—38.)



A metal roller of the type set forth, consisting of a hollow tube having substantially right angular inwardly curled ends of substantially U-shape in cross section, and a pair of end members for the respective tube ends, said end members having annular grooves of sufficient depth to receive said U-shaped ends, the outer walls of which grooves are directed inwardly and extend toward the outer ends of said end members to provide angular abutments against which the outer legs of the U-shaped ends of the tube engage, the oposite walls formed by said grooves also providing abutments which engage with the inner legs of the U-shaped ends, and act to wedge said legs in said grooves, the free extremities of the inner legs of the U-shaped ends terminating at substantially the inner surface of the tube, the periphery of the end members beyond the grooves being substantially in alinement with the tube periphery whereby to provide a roller possessed of approximately uniform diameter throughout its length.

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1,092,465. LUBRICATING DEVICE FOR THE SHIELDS OF EDGE-TRIMMING MACHINES FOR SHOES. ALONZO E. WEST, Portsmouth, Ohio, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 14, 1906. Serial No. 347,877. Renewed Mar. 12, 1909. Serial No. 483,025. (Cl. 184—1.)



1. A device for lubricating the shield of an edge-trimming cutter, comprising an arm, a pad carried by said arm, means supporting said arm for movement to carry said pad into operative position in contact with the shield or to move said pad into inoperative position, and means acting yieldingly to hold the pad in either of said positions.

2. A device for lubricating the shield of an edge trimming cutter comprising a detachable bracket, an arm supported by said bracket for movement relatively thereto, a pad, means coöperating with said arm to support said pad in position to engage said shield, and a spring acting on said arm to hold said pad yieldingly in contact with the shield.

3. A device for lubricating the shield of an edge trimming cutter comprising a detachable bracket, a pad carrying arm pivoted to said bracket for free movement thereon, a pad carried by said arm and means additional to the pivot for normally holding said pad in contact with said shield, said means being constructed and arranged to hold the pad carrying arm away from the shield when desired.

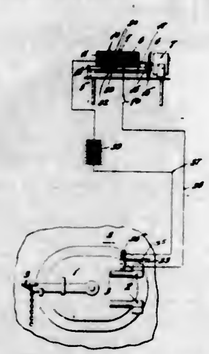
4. A device of the character described, comprising a pad for application to the shield of an edge-trimming cutter, and means whereby said pad is yieldingly held in contact with said shield, said means being constructed and arranged to hold the pad away from the shield when desired.

5. A device for lubricating the shield of an edge-trimming cutter, comprising an arm, a pad carried by said arm, a support upon which said arm is pivotally mounted, a spring acting on said arm at one side of the pivot to hold said arm in operative position with the pad pressed against the shield, and arranged to act on the other side of said pivot when the arm is turned into inoperative position to hold the arm in the latter position.

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1,092,466. LOCOMOTIVE-FIREMAN'S COAL-SHOVELING RECORDER. GEORGE G. WESTON, St. Louis, Mo. Filed Apr. 11, 1913. Serial No. 760,549. (Cl. 234—1.5.)



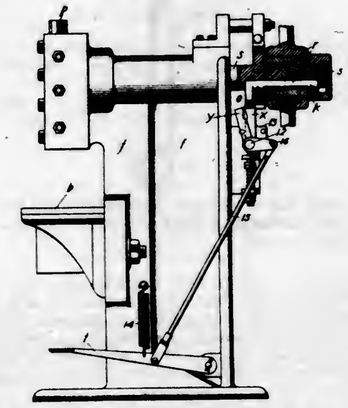
1. The combination of a hinged furnace door, a contact piece fixed thereto and moving therewith, another contact piece, curved and supported so as to be concentric with the hinges of the door and in the path of the contact piece carried by the door, and suitable electrically-operated means controlled by the engagement of the said contact pieces for recording the opening and closing of the door.

2. The combination of a hinged furnace door, a contact piece fixed thereto and moving therewith, another contact piece formed of a curved piece of metal mounted on a fixed support and arranged so as to be concentric with the hinges of the said door and in the path traversed by the contact piece which is carried by the door, the said curved contact piece having an offset arranged to permit the said contact pieces to separate when the door is closed, but to come into engagement as soon as the door is opened, and suitable electrically-operated means controlled by the engagement of the said contact pieces for recording the opening and closing of the door.

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1,092,467. SAFETY DEVICE FOR POWER-PRESSES. MILTON E. WINANS, Newark, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Nov. 30, 1910. Serial No. 594,919. (Cl. 74—46.)

1. In a power driven machine, the combination of a driving part, a driven part, a device for automatically connecting said parts, and means for releasing and then restraining said device at the limits of one movement of said driven part, consisting of a pair of stops for said connecting device, and a manually operated controlling device for removing one stop and moving the other into restraining position by a single movement thereof.



2. In a power driven machine, the combination of an automatic clutch for connecting the driving and driven parts, duplicate devices for releasing and restraining said clutch, a manually operated controlling device, and means whereby a single uni-directional movement substitutes one of said duplicate devices for the other and permits a single operation of said machine.

3. In a power driven machine, the combination of a clutch for connecting the driving and driven parts, a plurality of devices for releasing and restraining said clutch, a treadle for controlling said devices, and means whereby the depression of said treadle removes one device to start said machine and substitutes another device to stop said machine by a single uni-directional movement.

4. In a power driven machine, a driving part, a driven part, and means for operatively connecting said parts together comprising a clutch mechanism having an operating finger, a stop adapted to coöperate with said finger to release the clutch mechanism, means for moving said stop into and out of the path of said finger, and another stop movable with said first named stop into the path of said finger when the first stop moves out of said path.

5. In combination with a rotary clutch having an operating finger projecting therefrom, a stop adapted to coöperate with said finger, means for moving said stop into and out of the path of said finger, and a second stop movable with said first-named stop and arranged to lie in the path of said finger when the first named stop is out of said path.

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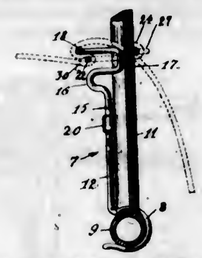
1,092,468. BEDCLOTHES-HOLDER. ANNIE L. WORTHLEY, Los Angeles, Cal. Filed Jan. 29, 1913. Serial No. 744,877. (Cl. 5—22.)

1. A bed clothes holder, comprising an integral bed rail engaging member having an upper looped extension, and a separable clamp member, engaging and embracing said looped extension intermediate its looped extension and the opposite end.

2. In a bed clothes holder, in combination with a bed rail and a rod on said rail, of an integral bed rail engaging member having an extension terminating in a plurality of loops formed of resilient material, a hinged clamp member, and means to secure said clamp member in operative engagement between a pair of said loops and embracing said extension and said rod on said bed rail.

3. In a bed clothes holder, in combination with the side rail of a bed and a vertical rod secured therein, of an integral piece of wire, formed with a plurality of loops and a depending shank, spread to form a yoke, the ends of said

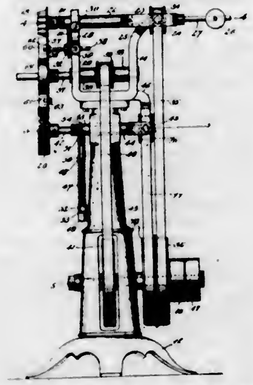
wire and yoke terminating in loops to engage said rail, and a hinged clamp member formed of wire provided with a hook and eye at its oppositely disposed ends, whereby



said clamp can be engaged intermediate said first named loop and embrace said shank and rod to secure a fold of bed clothes thereto.

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1,092,469. MACHINE FOR BURNISHING THE EDGES OF THE HEELS AND SOLES OF BOOTS AND SHOES. ZOTIQUE BEAUDRY, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me., a Corporation of Maine. Filed Jan. 30, 1904, Serial No. 191,247. Renewed Mar. 29, 1905. Serial No. 252,646. (Cl. 12—77.)



1. A burnishing machine for boots and shoes comprising in its construction a rotary burnishing iron, a rotary polishing wheel having a yielding periphery located beneath and in alinement with said burnishing iron, said burnishing iron and polishing wheel adapted to operate upon opposite sides of the heel or sole of a boot as said boot is fed therebetween, and a rotary brush located beneath and in alinement with said polishing wheel, said rotary brush and polishing wheel also adapted to operate upon opposite sides of the heel or sole of a boot as said boot is fed therebetween.

2. A burnishing machine for boots and shoes comprising a pair of rotary polishing wheels, arranged one above the other, one of said wheels having a yielding periphery, said wheels adapted to operate upon opposite sides of the heel or sole of a boot, as said boot is fed therebetween, and a stop located between said wheels at one side of a vertical longitudinal median plane extending through the axes of said polishing wheels and adjustable toward and from that plane to vary the extent to which the boot or shoe may be introduced between the wheels, said stop having an acting face formed to permit the work to be shifted in contact therewith for presenting it to said two wheels.

3. A burnishing machine for boots and shoes comprising in its construction a pivotally supported frame, a shaft journaled upon said pivoted frame, and a finishing wheel fast to said shaft; in combination with a stationary rod, a collar adjustably fastened thereto, a spring interposed between said collar and pivoted frame, and a stop rod adjustably supported and arranged to abut against said pivoted frame and limit its movement.

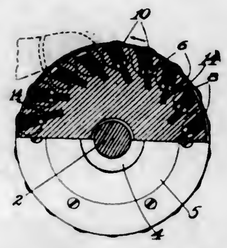
4. A finishing machine for boots and shoes comprising a rigidly sustained frame, a shaft journaled therein and carrying a finishing tool, movable frames mounted above and below said rigidly supported frame and provided with work-rubbing wheels arranged in approximately the same plane as said finishing tool and adapted to be wedged away from said finishing tool by the work, and means for yieldingly holding each of the said wheels normally in a position to act on one side of the heel while the other side is being treated by said finishing tool.

5. A burnishing machine for boots and shoes comprising in its construction two wheels, arranged one above and in alinement with the other and adapted to operate upon opposite sides of the heel or sole of a boot as said boot is fed therebetween, combined with a tread rest for guiding the shoe as it is introduced between the wheels, and a stop adjustable toward and from the plane of the axes of said wheels for variably limiting the distance which a shoe may be introduced, said machine having means for driving one of said wheels in the direction to draw the work toward said stop.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,470. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. CHARLES BENNION, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 19, 1908. Serial No. 453,804. (Cl. 12—51.)



1. A shoe shaping machine comprising a rotary tool having beating devices movably mounted thereon and arranged to be moved outwardly by centrifugal force when the tool is in motion and having means for guiding and controlling the direction of the movement of the beating devices under the action of centrifugal force and their reverse movement under the pressure of the work against the acting faces of the beating devices, said beating devices being normally idle but free to roll on the work as they rub over it.

2. In a shoe shaping machine, in combination, a rotary carrier, shoe beating devices comprising normally idle work-engaging members adapted to act by impact upon the stock to be treated and then by rolling pressure as they are drawn over the stock by the movement of the rotary carrier, supports for said work-engaging members movable in the carrier under the action of centrifugal force when the carrier is actuated and guiding means for determining the direction of said movement.

3. A shoe shaping machine having, in combination, a rotary carrier, beating devices movable therein under the action of centrifugal force when the carrier is actuated, said beating devices being normally idle but mounted to have independent rolling contact with the stock being operated upon, and guideways formed in the carrier to control the direction and extent of the movement of the beating devices therein.

4. A shoe shaping machine having, in combination, a rotary carrier comprising end disks having outwardly extending guideways, guide blocks slidingly mounted in said guideways, axles supported in said blocks and beating devices carried by the axles, the said beating devices normally having no axial movement but mounted to be free to turn about their axes as they progress over the work.

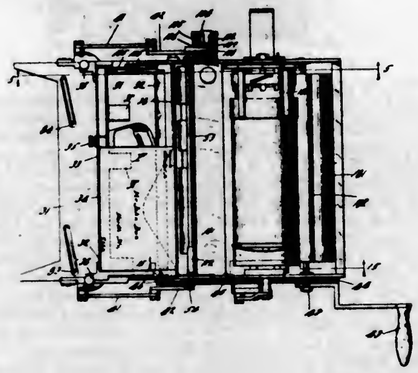
5. A shoe shaping machine having, in combination, a rotary carrier comprising end disks having outwardly extending guideways, guide blocks slidingly mounted in said guideways, axles supported in said blocks, beating devices carried by the axles, and yielding means for holding the guide blocks at one end of said guideways, the said beating devices normally having no axial movement but mounted to be free to turn about their axes as they progress over the work.

[Claims 6 to 13 not printed in the Gazette.]



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1,092,471. ENVELOP-SEALER. CHARLES A. BLAIR, Indianapolis, Ind. Filed July 26, 1909. Serial No. 509,551. (Cl. 120—6.)



1. The combination, in a machine for preparing envelops for mailing, of an envelop holder, a pair of rolls to which each envelop is delivered for further manipulation, a reciprocating bed having fingers adapted to pass beneath the flap of the lowermost envelop and thus give it its initial movement, and means mounted on a substantially fixed support and operated by said reciprocating bed for applying moisture to the surface to be sealed.

2. The combination, in a machine for preparing envelops for mailing, of an envelop holder, a pair of rolls to which each envelop is delivered for further manipulation, a reciprocating bed having fingers adapted to pass beneath the flap of the lowermost envelop and thus give it its initial movement, means mounted on a substantially fixed support and operated by said reciprocating bed for applying moisture to the surface to be sealed, and mechanical connections whereby the reciprocating bed and the moisture-applying devices are operated synchronously.

3. The combination, in a machine for preparing envelops for mailing, of means for moving the envelops one by one from the bottom of a pile, tubular arms swinging about an axis transverse to the envelop and carrying moistening pads adapted to pass beneath the flap of each envelop as it is taken from the pile and moisten the surface to be sealed, a tank, and flexible pipes leading from said tank to said tubular arms.

4. The combination, in a machine for preparing envelops for mailing, of an envelop container wherein a plurality of envelops are placed with the flaps downward, means for delivering the envelops one by one from the bottom of the pile, a pair of swinging arms carrying moistening pads adapted to pass beneath the flap of the envelop and thus moisten the sealing surface, and means whereby one of said pads is caused to pass below the other on its return movement thereby permitting said arms when in retracted position to cross each other.

5. The combination in a machine for preparing envelops for mailing, of an envelop support, a reciprocating bed for giving the envelops their initial movement, a pair of arms carrying moistening pads arranged below said bed and provided with cam slots and pins extending downwardly from said bed into said cam slots whereby said arms are caused to swing on their pivots as the bed reciprocates.

[Claims 6 to 20 not printed in the Gazette.]

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1,092,472. CONNECTING-CLIP FOR ELECTRICAL CONDUCTORS. JOSEPH H. BREAZNELL, New York, N. Y. Continuation of application Serial No. 721,523, filed Sept. 21, 1912. This application filed June 20, 1913. Serial No. 774,828. (Cl. 173—269.)



1. A connecting clip for electrical conductors, comprising a pair of hook-shaped clip members of spring material, and a pivot connecting the said members with each other, the hooks of the members being adapted to encircle one of the conductors and the terminals of the hooks overlapping each other and being inclined in opposite directions, whereby they will be spaced apart.

2. A connecting clip for electrical conductors, comprising a pair of hook-shaped clip members, and a pivot connecting the said members with each other, the hooks of the members being adapted to encircle one of the conductors, and make electrical contact therewith, the said clip members having extensions opposite said hooks, one of said extensions having means for engaging a second electrical conductor, and the other extension having a cam in position to press upon and make electrical contact with such second conductor when the members are in the closed condition.

3. A connecting clip for electrical conductors, comprising a pair of hook-shaped clip members, and a pivot connecting the said members with each other, the hooks of the members being adapted to encircle one of the conductors and make electrical contact therewith, the said clip members having extensions opposite said hooks, one of said extensions having a tapered socket adapted to receive and hold a loop of a second electrical conductor, and the other extension having a cam in position to press upon and make electrical contact with such loop.

4. A connecting clip for electrical conductors, comprising a pair of hook-shaped clip members, and a pivot connecting the said members with each other, the hooks of the members being adapted to encircle one of the conductors and make electrical contact therewith, the said clip members having extensions opposite said hooks, one of said extensions having a tapered socket adapted to receive and hold a loop of a second electrical conductor, and an upturned tongue formed integrally with such extension and arranged to lie in the bight of such loop, and the other extension having a cam in position to press upon and make electrical contact with such loop.

5. A connecting clip for electrical conductors, comprising two plates of spring material pivoted together face to face, hooks on said plates formed integrally therewith and adapted to embrace a conductor between them, the terminals of said hooks overlapping one upon the other and being inclined from each other, whereby they are spaced apart, a tapered socket formed integrally at the opposite end of one of said plates, adapted to receive and hold a loop of a second electrical conductor, an upturned tongue formed integrally on such plate within said socket, arranged to stand in the bight of such loop, and an inclined flange formed integrally on the other of such plates, in position to press upon and make electrical contact with such loop when said hooks are in the closed condition.

1,092,473. SLIDING AND SWINGING SASH WINDOW. BENJAMIN JOSEPH BROWNJOHN, Petersham, near Sydney, and THOMAS JAMES DENNY, Sydney, New South Wales, Australia. Filed July 25, 1912. Serial No. 711,445. (Cl. 20—43.)



1. A sliding and infolding sash window, embodying a window frame, a window sash slidable therein, sash cords for suspending said sash, means whereby the lower end of the sash is pivotally connected near one end of the sash cords, and means near the upper end of the sash whereby the latter may either be locked against pivotal movement in the frame or may be freed, at a predetermined position only of said sash for pivotal movement about said pivotal connection, while being locked against sliding movement in said frame.

2. A sliding and infolding sash window, embodying a grooved window frame, a window sash slidable therein, sash cords for suspending said sash, a slipper slidable in the groove in the frame and attached to one of said sash cords, a pivotal connection between said sash and said slipper, a second slipper slidable in said groove, and means whereby said second slipper may be locked either to the frame or to the sash.

3. A sliding and infolding sash window, embodying a grooved window frame, a window sash slidable therein, sash cords for suspending said sash, a slipper slidable in the groove in the frame and attached to one of said sash cords, a pivotal connection between said sash and said slipper, a second slipper attached to said sash cord and slidable in said groove, and a folding staple carried by said second slipper and attachable either to said frame or to said sash.

4. A sliding and infolding sash window, embodying a grooved window frame provided with recesses, a window sash slidable in said frame, sash cords for suspending said sash, a slipper slidable in the groove in the frame and attached to one of said sash cords, a pivotal connection between said sash and said slipper, a second slipper attached to said cord and slidable in said groove, and a folding staple carried by said second slipper and adapted to be either attached to said sash or moved into one of the recesses in the frame.

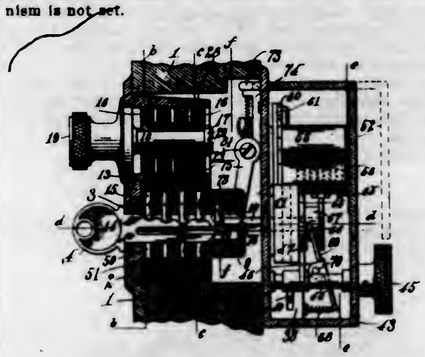
5. A sliding and infolding sash window, embodying a grooved window frame, a window sash provided with a recess therein and slidable in said frame, sash cords for suspending said sash, a slipper slidable in the groove in the frame and attached to one of said cords, a pivotal connection between said sash and said slipper, a second slipper attached to said sash cord and slidable in said groove, a catch plate carried by said second slipper, and means whereby said catch plate may either be locked in the recess in the window sash or locked to said frame.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,474. PERMUTATION-LOCK. THOMAS CARROLL, Dayton, Ohio. Filed Dec. 6, 1912. Serial No. 735,205. (Cl. 70—53.)

1. In a lock of the type specified, a key cylinder adapted to receive a key and to be actuated thereby, permutation lock mechanism, and means interposed between said key cylinder and said lock mechanism and actuated by the key, said means being adapted to prevent said cylinder being actuated when the combination of the lock mechanism is not set.



2. In a lock of the type specified, a cylinder adapted to receive a key, pins adapted to extend into apertures in said cylinder and into serrations in a key, a permutation lock mechanism controlling the positions of said pins whereby the said key is prevented from being inserted in the cylinder until the permutation lock mechanism is set.

3. In a lock of the type specified, a housing, permutation lock mechanism therein, a key cylinder the insertion of a key into which is controlled by said lock mechanism, means for retaining said lock mechanism in the housing, and means under the control of an inserted key whereby the said lock retaining means is controlled by said key.

4. In a lock of the type specified, a housing, a permutation lock mechanism mounted in said housing, means for retaining said lock mechanism in said housing, a key cylinder mounted in said housing, means interposed between said lock mechanism and said key cylinder for controlling the insertion of a key in said cylinder, and means interposed between said lock mechanism and said key cylinder, whereby the inserted key controls the removal of said lock mechanism from the housing.

5. In a lock of the type specified, a housing, a permutation lock mechanism mounted in said housing, a detent for retaining said lock mechanism in said housing, a key cylinder mounted in said housing and adapted to receive a key, pins mounted in said housing and cylinder, and actuated by said key, one of said pins being also adapted to engage said detent to release said lock mechanism when said pins are actuated by said key.

[Claims 6 to 12 not printed in the Gazette.]

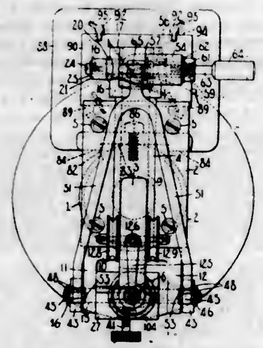
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1,092,475. PROCESS OF MAKING OR FORMING TYPES HAVING CURVED FACES. LOUIS A. DISS, Ilion, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Original application filed June 14, 1898, Serial No. 682,542. Divided and this application filed Dec. 23, 1907, Serial No. 407,850. Renewed Nov. 11, 1909. Serial No. 527,573. (Cl. 101—150.)

1. The process of forming types having curved faces, which consists in engraving in a matrix blank a matrix groove the cuts of which in one direction are curved with the curvature of the type face and the cuts of which in another direction are also curved, and then rolling said matrix against a type blank with a circular motion, the radius of curvature of which is equal to the radius of curvature of the cuts in the second mentioned direction.

2. The process of forming types having curved faces, which consists in engraving in a matrix blank a matrix groove the cuts of which in one direction are curved with the curvature of the type face and the cuts of which in another direction are also curved, then hardening said matrix, and then rolling said matrix against a type blank with a circular motion, the radius of curvature of which is equal to the radius of curvature of the cuts in the second mentioned direction.





3. The process of forming type having curved faces, which consists in engraving in a matrix blank a matrix groove, the cuts of which in one direction are curved with the curvature of the type face and the cuts of which in a direction at right angles to the first mentioned direction are also curved, and then rolling said matrix against a type blank with a circular motion the radius of which is equal to the radius of curvature of the cuts in the second mentioned direction.

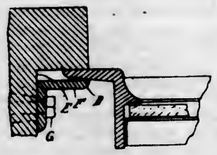
4. The process of forming matrices for the production of types by the rolling process which consists in engraving in a matrix blank a matrix groove, the cuts of which in one direction are curved with the curvature of the type face and the cuts of which in another direction are also curved.

5. The process of forming a matrix for the production of types by the rolling process which consists in engraving in a matrix blank a matrix groove, the cuts of which in one direction are curved with the curvature of the type face and the cuts of which in another direction are also curved, and then hardening said matrix.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,476. EXPANSION-JOINT FOR METALLIC WINDOW-SASHES. ROBERT S. DRUMMOND, Detroit, Mich., assignor to Detroit Steel Products Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 24, 1913. Serial No. 763,355. (Cl. 189—64.)

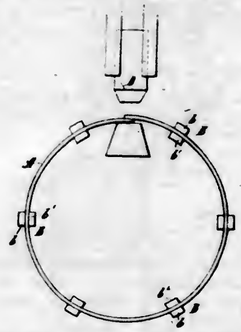


1. The combination with a wall of a window having an angle-shaped bearing, of a metallic bar secured to one side of said bearing and having an outwardly-extending flange arranged substantially parallel to the other face of said bearing and spaced therefrom, and a metallic sash arranged within said space and adapted to move laterally therein upon expansion, said bearing, bar and sash forming a weather-proof joint.

2. The combination with a wall of a window having an angle-shaped bearing, of a metallic bar secured to one side of said bearing having an outwardly-extending flange arranged substantially parallel to the other face of said bearing and spaced therefrom, and a metallic sash having an outwardly-extending flange on its side rail arranged within said space and substantially parallel to the last-mentioned face of the bearing and engaging the same and said flange on the bar, the flange on the sash being tapered and forming a weather-proof joint with the flange on the bar and the bearing.

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1,092,477. METHOD OF MAKING WHEEL-TIRES. EMIL EINFELDT, Davenport, Iowa, assignor, by mesne assignments, to G. Watson French, Nathaniel French, and Joseph L. Hecht, Davenport, Iowa, a Firm. Filed July 9, 1909, Serial No. 506,706. Renewed Aug. 16, 1911. Serial No. 644,415. (Cl. 78—94.)



1. The method of making tires, which consists in providing a tire strip or blank of the general form of the tire with its ends disconnected, holding the blank in true circular form of the required predetermined diameter, and welding the ends of the same while so held.

2. The method of making tires, which consists in providing a tire strip or blank of the general form of the tire with its ends disconnected, holding said blank in true circular form of the required predetermined diameter, welding the ends of the blank, and maintaining said hold thereon until the tire cools.

3. The method of making tires, which consists in providing a tire strip or blank of the general form of the tire with its ends disconnected, forcing the blank into a true circle of the required predetermined diameter, holding the same, and welding the ends of the blank while so held.

4. The method of making tires, which consists in providing a tire strip or blank of the general form of the tire with its ends overlapping and disconnected, forcing the blank into true circular form of the required diameter, and welding the ends of the same together.

5. The method of making tires, which consists in providing a tire strip or blank of the general form of the tire and with its ends disconnected, forcing the blank into a true circle of the required predetermined diameter and holding the same, and then welding the ends of the blank while so held.

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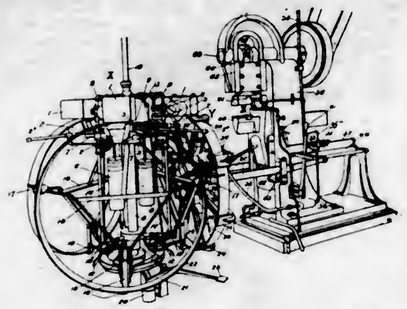
1,092,478. MACHINE FOR MAKING METAL TIRES. EMIL EINFELDT, Davenport, Iowa, assignor, by mesne assignments, to G. Watson French, Nathaniel French, and Joseph L. Hecht, Davenport, Iowa, a Firm. Filed June 22, 1909, Serial No. 503,737. Renewed Sept. 16, 1913. Serial No. 789,170. (Cl. 78—94.)

1. A mechanism of the type described including in combination, heating means, means for holding the tire with its ends in position to be heated thereby, and means for bringing the tire to true circular shape and to the desired size while the ends are so heated.

2. A mechanism of the type described including in combination, heating means, tire finishing means, means for bringing the tire to true circular shape and to the desired size, and means for presenting the tire to the finishing means to be operated upon while it is still so held to shape and size.

3. A mechanism of the type described including in combination means for heating the contiguous ends of an ap-

proximately shaped tire, means for engaging the tire at a plurality of points along its circumference and moving it to proper size and shape and then holding it firmly, and means for finishing the ends while so held.



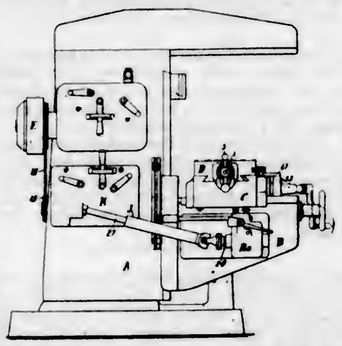
4. A mechanism of the type described including in combination, means for engaging an approximately shaped tire strip on the inside and outside thereof at a plurality of points and moving these points into a substantially true circle of a given size, and then holding the tire firmly to said shape and size, and means for uniting the ends of the tire while so held.

5. A mechanism of the type described including in combination, a series of tire heating means movable in an endless path, means for finishing a tire joint, means for stopping each heating means successively contiguous to said finishing means, and means for transferring the tire thereto from said heating means.

[Claims 6 to 26 not printed in the Gazette.]

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1,092,479. AUTOMATIC FEED, QUICK-TRAVERSE, AND REVERSE CONTROL. SOL EINSTEIN, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Oakley, Cincinnati, Ohio, a Corporation of Ohio. Filed June 10, 1913. Serial No. 772,792. (Cl. 90—21.)



1. A mechanism for automatically alternating a feed and a quick traverse combining a table, a feed screw translating with the table and rotatably mounted thereon, a saddle slidably supporting said table, a fixed nut circumscribing said feed screw and supported by said saddle, a prime mover, a transmission extending therefrom and embodying a feed change mechanism, a second transmission extending from said prime mover, clutch mechanism enabling said first transmission to be connected with said feed screw to rotate the same slowly to feed said table, said clutch mechanism being adapted to connect said second transmission with said feed screw to rotate it rapidly and effect a quick traverse of said table, and a plurality of dogs adjustably secured to said table and effective to actuate said clutch mechanism into one or the other of its effective positions.

2. A mechanism for automatically alternating a feed and a quick traverse combining a table, a feed screw translating with the table and rotatably mounted thereon, a saddle slidably supporting said table, a fixed nut circumscribing said feed screw and supported by said saddle, a prime mover, two transmissions extending therefrom in parallel series, the one embodying a speed change mechanism and transmitting a feeding motion, and the other transmitting a quick traverse motion, a clutch mechanism effective in one position operatively to connect the feed motion transmission with said screw, and its other position effective operatively to connect the quick traverse transmission with said screw, and a plurality of dogs adjustably secured on said table adapted to shift said mechanism from the one to the other of its said positions.

3. A mechanism for automatically alternating a feed and a quick traverse combining a table, a feed screw translating with the table and rotatably mounted thereon, a saddle slidably supporting said table, a fixed nut circumscribing said feed screw and supported by said saddle, a prime mover, a first sleeve and a second sleeve each journaled in said saddle and loosely circumscribing said feed screw, a first transmission enabling said prime mover slowly to rotate said first sleeve, a speed change mechanism in said transmission to vary the rate of rotation, a second transmission enabling said prime mover rapidly to rotate said second sleeve, a clutch adapted in one position operatively to connect said first sleeve with said screw and in another position operatively to connect said second sleeve with said screw, trip mechanism for shifting said clutch, and a dog adjustably mounted on said table to actuate said trip mechanism.

4. A mechanism for automatically alternating a feed and a quick traverse combining a table, a feed screw translating with the table and rotatably mounted thereon, a saddle slidably supporting said table, a fixed nut circumscribing said feed screw and supported by said saddle, a prime mover, a sleeve journaled on said saddle and loosely circumscribing said feed screw, a transmission extending from said prime mover and comprising a speed change mechanism and a vertical shaft having its upper end geared to said sleeve to enable it to be slowly rotated by said prime mover, a second transmission extending from said prime mover adapted to transmit a quick traverse motion, clutch mechanism for rendering either of said transmissions effective to rotate said feed screw, and a dog adjustably mounted on said table adapted to actuate said clutch mechanism.

5. A mechanism for automatically alternating a feed and a quick traverse combining a table, a feed screw translating with the table and rotatably mounted thereon, a saddle slidably supporting said table, a fixed nut circumscribing said feed screw and supported by said saddle, a prime mover, mechanism for rotating said feed screw, two branch-line transmissions extending from said prime mover to said mechanism, the one comprising a speed change mechanism and adapted to transmit power for feeding said table, and the other being adapted to transmit power for effecting a quick traverse of said table, trip mechanism for interchangeably rendering the one or the other of said transmissions effective to rotate said feed screw, and a dog adjustably mounted on said table adapted to actuate said trip mechanism.

[Claims 6 to 25 not printed in the Gazette.]

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1,092,480. RAILWAY-RAIL JOINT. HENRY C. FOX, Richmond, Ind. Filed Sept. 15, 1913. Serial No. 789,728. (Cl. 239—6.)

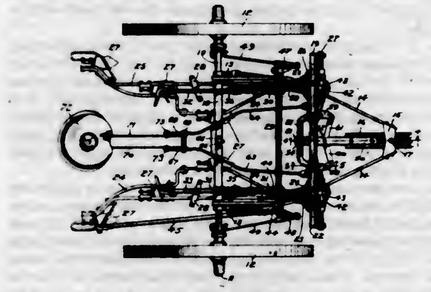
1. A railway rail joint comprising in combination with the adjoining portions of two rails, and cross ties supporting the rails, a plate disposed between the rails and the cross-ties, wings extending out from said plate and secured to the cross-ties, jaws formed integral with said plate and located between said wings and adapted to engage the base of the rails, fish-plates connecting the ends of the rails together, and tongues formed by the lower portion of the fish-plates and adapted to overlap said jaws.



2. A railway rail joint comprising in combination with the adjoining ends of two rails each having a slot formed midway of their meeting edges, a key located in the slot, fish-plates attached to the sides of the rails and retaining said key in its slot, cross ties supporting the rails, a plate disposed between the rails and the cross-ties, wings extending out from said plate and secured to the cross-ties, jaws formed integral with said plate and located between said wings and adapted to engage the base of the rails, and tongues formed by the lower portions of the fish-plates and adapted to overlap said jaws, all substantially as shown and described.

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1,092,481. RIDING-CULTIVATOR. WILLIAM S. GRAHAM, Canton, Ill., assignor to Parlin and Orendorff Company, Canton, Ill., a Corporation of Illinois. Filed May 28, 1913. Serial No. 770,340. (Cl. 97—35.)



1. In a cultivator, the combination of a frame, carrying-wheels mounted thereon, a tongue pivotally mounted relative thereto, a lever adapted to swing laterally relative thereto, and connections between said lever and said tongue comprising laterally-extending arms one at each side of said lever whereby the lateral swinging of said lever pushing forward the arm at one side thereof serves to swing the rear end of the tongue toward the opposite side of the frame.

2. In a cultivator, the combination of a frame, carrying-wheels mounted thereon, a tongue pivotally mounted relative thereto, a lever adapted to swing laterally relative thereto, and connections between said lever and said tongue comprising laterally-extending arms one at each side of said lever whereby the lateral swinging of said lever pulling backward the arm at one side thereof serves to swing the rear end of the tongue toward that side of the frame.

3. In a cultivator, the combination of a frame, carrying-wheels mounted thereon, a tongue pivotally mounted relative thereto, a lever adapted to swing laterally relative thereto, and connections between said lever and said tongue comprising laterally-extending arms one at each side of said lever whereby the lateral swinging of said lever serves to push forward the arm at one side and to pull backward the arm at the opposite side swinging the rear end of the tongue relative to the frame.

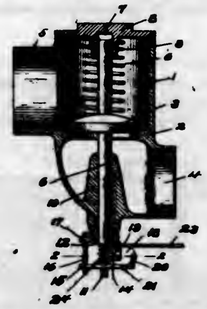
4. In a cultivator, the combination of a frame, carrying-wheels mounted thereon, a tongue pivotally mounted relative thereto, a lever adapted to swing laterally relative thereto, and connections between said lever and said tongue, said connections comprising a member pivotally mounted on said frame at one side of the line of the tongue adapted to be rocked by the lateral swinging of said lever, by the rocking of which member in either direction the rear end of said tongue is moved laterally in the corresponding direction.

5. In a cultivator, the combination of a frame, carrying-wheels mounted thereon, a tongue pivotally mounted relative thereto, a lever adapted to swing laterally relative thereto, and connections between said lever and said tongue, said connections comprising pivotally-mounted members one at each side adapted to be rocked by the lateral swinging of said lever, by the rocking of which members in either direction the rear end of said tongue is moved laterally in the corresponding direction.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,482. VALVE. WILLIAM H. GRIFFIN, Bishop, Md. Filed July 22, 1913. Serial No. 780,425. (Cl. 137—32.)



1. The combination with a valve casing, a valve in the casing, and a spring pressing the valve toward closed position of a stem secured to the valve and projecting through the casing, said stem having a reduced end, a pivoted arm having an opening through which the reduced end of the stem projects, and a coiled spring around the reduced end of the stem bearing at one end against a shoulder on the stem, and at its other end against said pivoted arm, and means for pivoting the said arm, substantially as described.

2. The combination with a valve casing, a valve in the casing, and a spring pressing the valve toward closed position, of a stem secured to the valve and projecting through the casing, said stem having a reduced end, a pivoted arm having an opening through which the reduced end of the stem projects, and a coiled spring around the reduced end of the stem bearing at one end against a shoulder on the stem, and at its other end against said pivoted arm, a fixed bracket, and a cam mounted to turn in the bracket and engaging the free end of said arm, whereby the movement of the cam causes the arm to pivot and controls the tension of the last-mentioned spring, substantially as described.

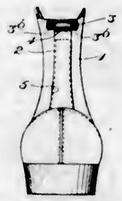
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1,092,483. PULL-ON DEVICE FOR BOOTS AND SHOES. MARTIN A. HAYWARD, East Bridgewater, Mass. Filed June 23, 1913. Serial No. 775,264. (Cl. 36—56.)

1. As a pull-on device for boots or shoes, the combination with the upper of a shoe, of a bar or toggle, and a strap attached to the said upper and looping around the intermediate portion of the said bar or toggle in such manner as to secure the latter in place with the end portions of the bar or toggle projecting laterally from the opposite edges of said strap sufficiently to constitute finger-holds.

2. As a pull-on device for boots or shoes, the combination with the upper of a shoe, of a dumb-bell shaped bar or toggle, and a strap attached to the said upper and encircling the reduced intermediate portion of the bar or toggle and thereby attaching the latter to the upper, with the enlarged heads of the bar or toggle projecting to constitute finger-holds.

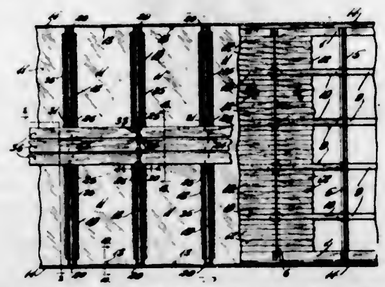
3. As a pull-on device for boots or shoes, the combination with the upper of a shoe, of a bar or toggle, and a strap attached to the upper and looping around said bar or toggle in such manner that the said bar or toggle is se-



cured to the upper near the top of the latter but below the top edge thereof, with the ends of the bar or toggle projecting at opposite edges of the said strap sufficiently to serve as finger-holds.

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1,092,484. METAL CAR-ROOF. JOHN J. HOFFMAN, New Kensington, Pa., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed Jan. 4, 1912. Serial No. 669,475. (Cl. 108—5.)



1. A roof sheet for car roofs, said roof sheet comprising a body portion and end flanges and having a greater length from end to end along the side margins of said body portions than along the middle length thereof.

2. A roof sheet for car roofs, said roof sheet having downturned end flanges wider in the middle portion than at the ends thereof, the overall length of said roof sheet before flanging being the same throughout its width.

3. A roof sheet for car roofs, said roof sheet comprising a body portion varying in length throughout its width, said body portion being shorter along the median line than along the side margins, and flanges of varying width on the ends of said sheet, said flanges being of greater width at the mid portion of the sheet than adjacent the corners thereof.

4. In a metal car roof, carlines having vertical webs, purlins between the webs, and roof sheets supported on said purlins, in combination with sheathing supported by said carlines and arranged between said purlins to form dead air spaces beneath the roof sheets.

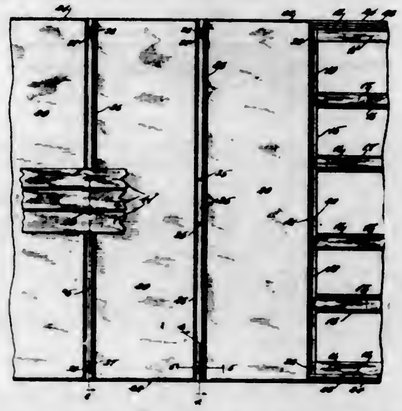
5. In a car roof, carlines having lateral flanges and vertical webs, purlins attached to said carlines and projecting above said flanges between the webs of the carlines, roof sheets arranged on said purlins between the webs of the carlines, and roof sheathing supported on said carline flanges and spaced below said roof sheets.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,485. CAR-ROOF. JOHN J. HOFFMAN, New Kensington, Pa., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed May 15, 1912. Serial No. 697,405. (Cl. 108—5.)

1. A seam cover of trough shape formed from a strip of sheet metal, the ends thereof being crimped longitudinally and flattened out and bent into planes transverse to the longitudinal axis of the seam cover, thereby forming closures for the ends of the trough.



2. A seam cover of trough shape formed from sheet metal, said seam cover having its ends crimped longitudinally and bent into planes transverse to the longitudinal axis thereof, thereby forming closures for the ends of the trough.

3. In a car roof comprising metal roof sheets separated by joints transverse to the eaves of the car, seam covers of inverted trough shape for said joints arranged to rest on the margins of the roof sheets adjacent said joints, said seam covers each being formed from a strip of sheet metal, the eaves ends thereof being crimped longitudinally, said crimped portions being bent down over the ends of said joints, thereby forming eaves covers therefor.

4. In a car roof comprising metal roof sheets separated by joints transverse to the eaves of the car, seam covers of inverted trough shape for said joints arranged to rest on the margins of the roof sheets adjacent said joints, said seam covers being formed from sheet metal and the eaves ends thereof being folded up and bent down in planes transverse to the longitudinal axis of the seam cover, and vertical inward crimps extending upwardly from the lower margins of said downwardly bent ends.

5. In a car roof comprising metal roof sheets separated by joints transverse to the eaves of the car, seam covers of inverted trough shape covering said joints with their ends overhanging the eaves, said seam covers having lateral flanges along the lower edges of their side walls arranged to rest on the margins of the roof sheets adjacent said joints, said seam covers each being formed from a strip of sheet metal, the overhanging eaves ends thereof being narrower than the flanged middle portions and crimped longitudinally, said overhanging portions being bent down in planes transverse to the longitudinal axis of the seam cover to cover the ends of said joints.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,486. PROCESS OF MANUFACTURING SHEET-METAL CAR-ROOF PARTS. JOHN J. HOFFMAN, New Kensington, Pa., assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa., a Corporation of Pennsylvania. Filed Oct. 15, 1912. Serial No. 725,841. (Cl. 113—116.)

1. In the manufacture of sheet-metal car roofing parts, notching the corners of a suitable blank, bending the side margins of said blank to form it to trough shape, flattening and longitudinally crimping the ends of said trough-shaped blank, and bending over said crimped portions at the inner corners of said notches to close the ends of the trough.

2. In the manufacture of sheet-metal car roofing parts, notching the corners of a suitable blank, said notches being deeper at their inner corners than at their outer ends, bending the side margins of said blank to form it to trough shape, flattening and longitudinally crimping the ends of said trough-shaped blank, and bending over said crimped portions at the inner corners of said notches to close the ends of the trough.



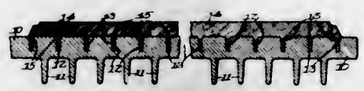
3. The process of manufacturing sheet-metal car roof parts comprising the following operations, first notching the corners of a strip of sheet metal, second, bending the margins of said strip to form the latter to the shape of a trough, the depth of the sides of said trough being greater than the depth of said notches, third, flattening out the side walls of said trough at their ends and crimping its narrow end portions longitudinally, and fourth, bending over said crimped end into planes transverse to said side walls.

4. The process of manufacturing sheet-metal car roof parts comprising the following operations, first, notching the corners of a strip of sheet metal, said notches being deeper at their inner corners than at their outer ends, second, bending the margins of said strip to form the latter to the shape of a trough, third, flattening out the side walls of said trough at their ends and crimping its narrow end portions longitudinally, and fourth, bending over said crimped ends at the inner corners of said notches into planes transverse to said side walls.

5. The process of manufacturing sheet-metal car roof parts comprising the following operations, first notching the corners of a strip of sheet metal, said notches being deeper at their inner corners than at their outer ends, second, bending the margins of said strip to form the latter to the shape of a trough, the depth of the sides of said trough being greater than the depth of said notches, third, flattening out the side walls of said trough at their ends and crimping its narrow end portions longitudinally, and fourth, bending over said crimped ends at the inner corners of said notches into planes transverse to said side walls.

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1,092,487. METHOD OF CASTING PRINTING-PLATES. ROBERT T. JOHNSTON, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 21, 1912. Serial No. 726,976. (Cl. 22—213.)



1. The method of casting a printing plate, which comprises retarding the cooling of the portion of the plate which forms a bearing for the plate upon a press.

2. The method of casting a printing plate, which comprises protecting the portion of the plate which forms a bearing for the plate upon a press against rapid cooling.

3. The method of casting a printing plate, which comprises cooling the major portion of the back face of the plate and retarding the cooling of the portion of the plate which forms a bearing for the plate upon a press.

4. The method of casting a printing plate, a portion only of the back face of which forms the bearing for the plate upon a press, which comprises cooling the back face of said plate with the exception of said bearing portion and retarding the cooling of said bearing portion.

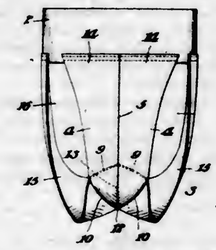
5. The method of casting a printing plate having projecting portions on its back face which form the bearing for the plate upon a press, which comprises retarding the cooling of the bearing faces of said projecting portions and cooling the remainder of the back of said plate.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,488. JOCK-STRAP. ARTHUR B. KENDRICK, East Orange, N. J. Filed May 10, 1913. Serial No. 766,691. (Cl. 128—38.)



1. In a jock strap, a waist band, and a supporting member formed of two flat continuous strips of fabric having their ends attached to the waist band, each of said strips being folded upon itself forming a triangular portion of double thickness of the fabric, said triangular portions being stitched together, said strips extending upwardly from the triangular portions to the front of the waist band and said strips diverging from the triangular portions and extending to the sides of the waist band.

2. In a jock strap, a waist band, and a supporting member formed of two flat strips of fabric having their ends attached to the waist band, each of said strips being folded upon itself forming a triangular portion of double thickness of the fabric and equal substantially to one-half of a square, said triangular portions being stitched together forming a substantially square portion of double thickness of the fabric, portions of said strips being stitched together forming a pouch including said square portion, said strips extending forwardly from the square portion to the front of the waist band, and said strips diverging from the square portion and extending to the sides of the waist band.

3. In a jock strap, a waist band, and a supporting member formed of two flat strips of fabric having their ends attached to the waist band, each of said strips being folded upon itself forming a triangular portion of double thickness of the fabric and equal substantially to one-half of a square, the folded sides of said triangular portion being stitched together forming a substantially square portion of double thickness of the fabric, the parts of said strips forming the square portion being stitched together around the outer portion of the square portion, said strips extending upwardly from the square portion to the front of the waist band, said strips being stitched together above the square portion, forming a supporting pouch including said square portion, and said strips diverging from the square portion and extending to the sides of the waist band.

4. In a jock strap, a waist band, and a supporting member formed of two flat strips of fabric having their ends attached to the waist band, each of said strips comprising a flattened knitted tube more elastic in the direction of its width than in the direction of its length, each of said strips being folded upon itself forming a triangular portion of double thickness of the fabric and equal substantially to one-half of a square, said triangular portions being stitched together forming a substantially square portion of double thickness of the fabric, portions of said strips being stitched together forming a pouch including said square portion, said strips extending upwardly from the square portion to the front of the waist band, and said strips diverging from the square portion and extending to the sides of the waist band.

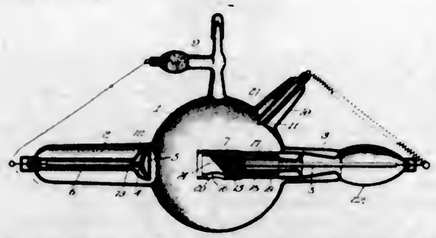
5. In a jock strap, a waist band, and a supporting member formed of two flat strips of fabric having their ends attached to the waist band, each of said strips com-

prising a flattened knitted tube more elastic in the direction of its width than in the direction of its length, each of said strips being folded upon itself forming a triangular portion of double thickness of the fabric and equal substantially to one-half of a square, the folded sides of said triangular portion being stitched together forming a substantially square portion of double thickness of the fabric, the parts of said strips forming the square portion being stitched together around the outer portion of the square portion, said strips extending upwardly from the square portion to the front of the waist band, said strips being stitched together above the square portion, forming a supporting pouch including said square portion, and said strips diverging from the square portion and extending to the sides of the waist band.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,489. X-RAY TUBE. HERMANN M. KESSELRING, Chicago, Ill. Filed Oct. 17, 1912. Serial No. 726,230. (Cl. 250—35.)

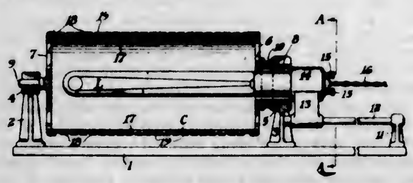


1. In an X-ray tube, the combination with the glass body-portion and electrodes, of a glass extension containing one of the electrodes and formed along its outer-end portion with a compartment of thinner glass than the said body-portion, for the purpose set forth.

2. In an X-ray tube, the combination with the glass body-portion and electrodes, of a glass extension having an enlarged, outer-end portion forming a compartment of thinner glass than the said body-portion, for the purpose set forth.

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1,092,490. PRINTING APPARATUS. ISIDOR KITSEE, Philadelphia, Pa. Filed Oct. 31, 1912. Serial No. 728,773. (Cl. 95—77.5.)



1. In film printing apparatus, the combination with a light transmitting cylinder, of a plurality of members disposed in a helical path on said cylinder and adapted to enter into marginal perforations in master and sensitized films, whereby said films are held in superposed position on said cylinder and in helical relation with respect thereto, and means for producing light within said cylinder.

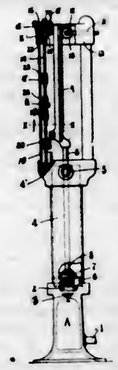
2. The combination with a hollow light transmitting cylinder, of a hollow bearing therefor, a spider supporting said cylinder on said bearing light producing means, and a guide upon which said light producing means may be moved longitudinally of said cylinder through said spider and hollow bearing.

3. The combination with a hollow light transmitting cylinder, of a hollow bearing therefor, a spider supporting said cylinder on said bearing, an incandescent electric lamp, and a guide upon which said lamp is movable longitudinally of said cylinder through said spider and hollow bearing.

4. In film printing apparatus, the combination with a film supporting member, of a master film wrapped upon said supporting member in a helical path, means adapted to hold a sensitized film in a helical path superimposed upon said master film, and means for producing light for transmission through said master film to said sensitized film.

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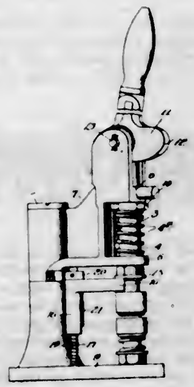
1,092,491. MEASURING-PUMP. EDWARD KUPFERLE, St. Louis, Mo. Filed Jan. 9, 1913. Serial No. 741,045. (Cl. 221—103.)



A measuring device comprising a pump, means for limiting the degree of operation of said pump, said means including a rod, an abutment splined to said rod, and a rotatable member screwed onto said rod and secured to said abutment; and a sealing device connecting said rotatable member to said rod.

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1,092,492. PRESS FOR MAKING BUTTONS. ALBERT C. LAURSEN, Chicago, Ill., assignor to Illinois Modern Button & Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1913. Serial No. 784,806. (Cl. 79—4.)



1. In a machine of the character set forth, the combination of a pair of die-members stationarily supported on the base of the machine, a reciprocatory die-member adapted to be moved laterally into and out of registration with the die-members of said pair and formed of relatively movable members, a reciprocable and oscillatory latch-device pivoted on said base and engageable by said reciprocable die when in position to coöperate with one of said pair of dies for limiting the movement of one of said members relative to the other thereof, means tending to turn said latch, and a stationary stop coöperating with said latch for limiting the turning movement of the latter, for the purpose set forth.

2. In a machine of the character set forth, the combination of a pair of die-members stationarily supported on the base of the machine, a reciprocatory die-member adapted to be moved laterally into and out of registration with the die-members of said pair and formed of relatively movable members, a reciprocable and oscillatory latch-device pivoted on said base and engageable by said reciprocable die when in position to coöperate with one of said pair of dies for limiting the movement of one of said members relative to the other thereof, a spring operating to yieldingly hold said latch in raised condition and to turn it, and a stationary stop coöperating with said latch for limiting the turning movement of the latter, for the purpose set forth.

3. In a machine of the character set forth, the combination of a pair of die-members stationarily supported on the base of the machine, a reciprocatory die-member adapted to be moved laterally into and out of registration with the die-members of said pair and formed of relatively movable members, a pivot-pin on said base, a reciprocable and oscillatory latch-device pivoted on said pivot-pin and engageable by said reciprocable die when in position to coöperate with one of said pair of dies for limiting the movement of one of said members relative to the other thereof, a spring operating to yieldingly hold said latch in raised condition and to turn it, a head on the upper end of said pivot-pin, and a member on said head coöperating with said latch for limiting the turning movement of the latter, for the purpose set forth.



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1,092,493. STREET-CAR-DOOR LOCK. EMIL LAWRENZ, Detroit, Mich. Filed Mar. 7, 1913. Serial No. 752,556. (Cl. 246—61.)



1. In an interlocking device for motor vehicles, the combination of a power controller shaft at the front end of the vehicle, a notched disk at the lower end of said shaft, a shaft vertically mounted at the rear end of the vehicle, devices connected thereto for opening a door of the vehicle, a rod extending from said door operating shaft to the controller shaft and having a lug at its front end, and means connecting said rod and said door operating shaft whereby the rod will move the lug at its front end into the notch on the disk of the controller shaft whenever the door is opened.

2. In an interlocking device for vehicles, the combination of a shaft at one end of the vehicle, a notched disk on the same, a door opening device at the other end of the vehicle, a rod extending longitudinally of the vehicle, means at one end of the same engaging said notched disk, and means at the opposite end of said rod connecting to the door operating means whereby said rod will be moved longitudinally so that the notch in the disk will be so engaged that the shaft of the disk cannot be turned, said disk when turned preventing longitudinal movement of that end of the rod and thereby restraining the operation of the door operating device.

3. In an interlocking device for vehicles, the combination of a door operating device at one end of the vehicle, a power-controller shaft a distance therefrom, a connector extending longitudinally of the vehicle, means attached to one end of the connector whereby the door operating mechanism may move said connector when the door is opened, and means at the other end of the connector for locking said power-controller in inoperative position while the door is open, and for engaging the power controller when in operative position to restrain the door opening mechanism when the controller shaft has been turned.

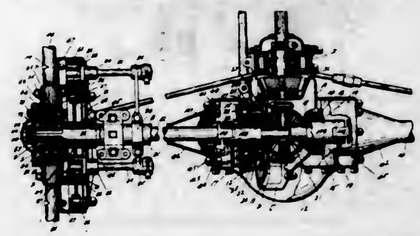
4. In an interlocking device for vehicles, the combination of a door-operating device mounted on the vehicle and a power-controller also mounted on the vehicle, and a connector between them whereby the door-operating device and the power-controller may each restrain the movement of the other.

5. In an interlocking device for vehicles, the combination of a door-operating device, a power-controller, a connector between them so constructed that its length may be varied under stress, and interlocking means at the ends of said connector whereby the door-operating device will prevent the power-controller from being operated and the power-controller will prevent the door from being opened until sufficient stress is applied to vary the length of said connector.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,494. DRIVING-AXLE. THOMAS J. LINDSAY, Indianapolis, Ind., assignor to Lindsay Auto Parts Company, a Corporation of Indiana. Filed Feb. 19, 1912. Serial No. 678,743. (Cl. 21—90.)



1. A driving-axle structure, comprising a tubular casing member, a brake-support sleeved upon the end of said casing member and non-rotatively interlocked therewith, said brake-support comprising a central tubular portion provided at its outer end with a bearing-receiving portion, a wheel-supporting bearing on said portion, a traction wheel mounted on said bearing, a brake-drum carried by said wheel, a brake-band coöperating with said drum, an operating member carried by the brake-support and connected with the brake-band, and a driving shaft extending through and supported by said tubular casing member.

2. A driving-axle structure, comprising a tubular casing member, a brake-support sleeved upon the end of said casing member, said brake-support comprising a central tubular portion provided at its outer end with a bearing-receiving portion, a wheel-supporting bearing on said portion, a traction wheel mounted on said bearing, a brake-drum carried by said wheel, a brake-band coöperating with said drum, an operating member carried by the brake-support and connected with the brake-band, and a driving shaft extending through and supported by said tubular casing member.

3. A driving-axle structure, comprising a tubular casing member, a wheel bearing carried externally by the outer end of said tubular casing member, a shaft rotatively mounted within the casing member, a hub sleeved

within the wheel bearing and connected to the shaft for rotation therewith, a second hub carried by the first and sleeved over and coöperating with the wheel-bearing, a brake-drum carried by said second hub, a brake coöperating therewith, and a traction wheel carried by said second hub.

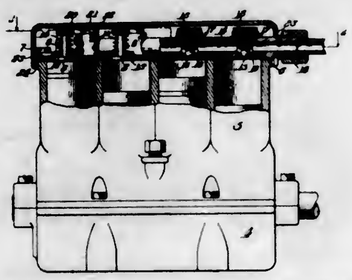
4. A driving-axle structure, comprising a tubular casing member, a wheel bearing carried externally by the outer end of said tubular casing member, a shaft rotatively mounted within the casing member, a hub sleeved within the wheel bearing and connected to the shaft for rotation therewith, a second hub carried by the first and sleeved over and coöperating with the wheel-bearing, a brake-drum carried by said second hub, a brake coöperating therewith, a wheel-hub sleeved upon said second hub, means for clamping said wheel-hub in place, a second brake-drum carried by the wheel-hub concentric with the first brake-drum, and a brake coöperating with said second brake-drum.

5. A driving-axle structure, comprising a tubular casing member, a wheel bearing carried externally by the outer end of said tubular casing member, a shaft rotatively mounted within the casing member, a hub sleeved within the wheel bearing and connected to the shaft for rotation therewith, a second hub carried by the first and sleeved over and coöperating with the wheel-bearing, a brake-drum carried by said second hub, a brake coöperating therewith, a wheel-hub sleeved upon said second hub, and means for clamping said wheel-hub in place.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,495. AIR-PUMP. CARL E. L. LIPMAN, Beloit, Wis., assignor to The Lipman Manufacturing Company, Beloit, Wis., a Corporation of Wisconsin. Filed May 19, 1913. Serial No. 768,580. (Cl. 230—34.)



1. In an air pump, the combination with a cylinder and piston therefor, of a head forming a top for the cylinder, an air intake and exhaust valve located in the head, the intake valve drawing from the atmosphere and the exhaust valve having a discharge passage, and a cap inclosing said valves and carried by the head, the cap leaving an opening intermediate the pump head and cap wherethrough air may pass to said intake valve.

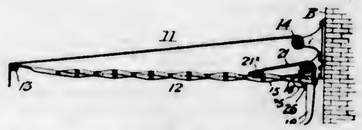
2. In an air pump, the combination with a cylinder and piston therefor, of valve mechanism located on the head of the cylinder including an air intake valve adapted to draw air from the atmosphere, and a casing covering said valve mechanism and having side walls disposed adjacent the sides of said valve mechanism, said side walls forming with the valve mechanism an air passage through which air may pass to said intake valve.

3. In an air pump, the combination with a cylinder and piston therefor, of valve mechanism located on the head of the cylinder including an air intake valve adapted to draw air from the atmosphere, and a casing covering said valve mechanism and pump head, the casing having depending side walls positioned adjacent the sides of the pump head and forming with said head, an air passage through which air may pass to said intake valve.

4. In an air pump the combination with a cylinder and piston therefor, of valve mechanism located on the head of the cylinder including an air intake valve adapted to draw air from the atmosphere, and a casing covering said valve mechanism with sides of the casing spaced from the pump and forming with the pump substantially vertical air passages through which air may be drawn to said intake valve.

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1,092,496. AWNING. JOHN F. LOCKWOOD, Kansas City, Mo. Filed Nov. 2, 1910. Serial No. 590,317. (Cl. 156—42.)



1. The combination of a bracket applied to the building wall and having a depending portion or shank, a set of lazy tongs supported on said bracket, means connected with one of the lazy tong units and operative to project and retract the lazy tongs, and means to guide one end of said unit along the depending portion or shank of the bracket.

2. The combination of a bracket applied to the building wall, a set of lazy tongs supported on said bracket, means acting upon one of the lazy tong units and operative to project and retract the lazy tongs, means to guide the lower end of said unit in a substantially vertical direction adjacent the building wall, and means carried by said unit to abut laterally against the bracket when the lazy tongs are extended, whereby the weight of the structure is transmitted to the building wall in a lateral direction.

3. Awning projecting and retracting mechanism comprising a bracket fixed to the building, a set of lazy tongs supported by said bracket, a pair of sprocket wheels, an endless chain running over said sprocket wheels, one of the units of said lazy tongs being connected to said chain, and mechanism for rotating the sprocket wheels to move the chain and connected unit to project and retract the awning.

4. In awning projecting and retracting mechanism, an awning roller, a set of lazy tongs having one of its outer units fastened to the awning, gearing for projecting the lazy tongs, and separate gearing for actuating the roller.

5. In awning projecting and retracting mechanism, an awning roller, a set of lazy tongs having one of its outer units fastened to the awning, gearing for projecting the lazy tongs, separate gearing for actuating the roller, a winding shaft and mechanism for clutching the winding shaft to either of said gearings at will.

[Claim 6 not printed in the Gazette.]

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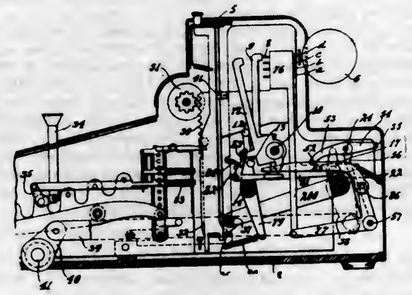
1,092,497. PRINTING MECHANISM FOR ADDING-MACHINES. JASON C. LOTTERHAND, New York, N. Y., assignor to Addometer Corporation, a Corporation of Delaware. Filed Feb. 3, 1913. Serial No. 745,893. (Cl. 235—60.)

1. In a calculating machine, the combination of a signal key, means for printing a signal, a main operating member, means for causing the signal printing means to be cocked by the movement of the operating member and to remain cocked at the conclusion of its normal movement, and means for causing the operation of the said key to effect the actuation of the printing means.

2. In a calculating machine, a signal printing member arranged to print a plurality of signals, a plurality of signal keys, one for each signal, means connecting the printing member and the keys arranged to cause the depression of any of said keys to first shift the printing member and to thereupon effect the printing of the signal corresponding to the signal key depressed, a main operating member, and means for causing the operation of said main operating member to cause the signal printing means to be set to remain cocked at the conclusion of the movement of such operating member.



3. In a calculating machine, a signal member carrying a set of signal type, a hammer movable in a certain path, a set of signal keys, means connecting the keys and the carrier causing the depression of any of the keys to shift the carrier with the type corresponding to the key depressed brought to be engaged by the hammer when swung to thereby print, and which carrier is so shifted at the initial movement of the key, a main operating member for the machine, and means connecting the hammer with the operating member arranged to cause the hammer to be cocked by the normal operation of the member and to remain cocked at the end of the movement of such member.



4. In a calculating machine, a signal printing member arranged to print a plurality of signals, a hammer movable in a certain fixed path to strike the different signals in different positions of the said member to cause them to print, a bar connected with the carrying member and also with the hammer, a set of keys each arranged to connect with said bar and arranged when depressed to each cause the carrying member to be set at a different position, and to thereupon cause the hammer to be operated to print the signal corresponding to the key depressed, a main operating member for the machine, and means connecting the hammer with the operating member arranged to cause the hammer to be cocked by the normal operation of the member and to remain cocked at the end of the movement of such member.

5. In a calculating machine, a rack and type plate provided with a carrier portion, type in the carrier portion, the plate having a set of recesses corresponding in relative position to the type on the plate, a lock bar movably supported on the machine to engage the different recesses as the said plate is shifted to different printing positions, a universal bar arranged to control the movement of all the rack and type plates, means for normally holding said lock bar away from the rack and type plate, and means connected with the lock bar arranged to be engaged by the universal bar when the latter has disengaged the rack and type plates, to shift the lock bar to engage the rack and type plate at said notches.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,498. REFILLABLE CARTRIDGE-FUSE. EDWARD B. MALLORY, Wilkinsburg, Pa., assignor to Economy Fuse & Manufacturing Co., Pittsburgh, Pa., a Corporation of New York. Filed Oct. 3, 1911. Serial No. 652,493. (Cl. 175—273.)

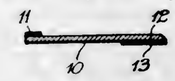


1. A refillable cartridge fuse comprising a shell, washers removably lying against and entirely closing the open ends of the shell each washer having an opening communicating with the interior of the shell adjacent the inner periphery of the latter, a fuse within and extending from end to end of the shell and also through the openings in the respective washers, the portions of the fuse which lie in the openings in the washers filling the portions of the openings which communicate with the interior of the shell, and each end of the fuse being provided with a terminal disposed transversely of the fuse and lying in contact with the outer face of the adjacent washer, and caps embracing the fuse terminals and the washers and connected with the shell to hold the terminals and the washers in intimate contact.

2. A refillable cartridge fuse comprising a shell having threaded ends, washers removably lying against and entirely closing the open ends of the shell, each washer having an opening communicating with the interior of the shell adjacent the inner periphery of the latter, a fuse within and extending from end to end of the shell and through the openings in the respective washers, each end of the fuse being provided with an enlarged terminal disposed transversely of the fuse and lying in contact with the outer face of the adjacent washer and of a size substantially equal to that of the washer, the openings in the washers being filled by the portions of the fuse which lie in said opening, and caps embracing the terminals and the washers to hold them in intimate contact and also provided with threads fitting the threaded ends of the shell.

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1,092,499. PICTURE-MAT AND MATERIAL FOR MAKING SAME. ITIRO N. MATSUO, Chicago, Ill. Filed Jan. 7, 1914. Serial No. 810,751. (Cl. 40—158.)



As an improved article of manufacture, material for the construction of picture mats consisting of a strip having at one of its edges on one of its surfaces a strip of cushioning material and at its opposite edge and on its opposite surface adhesive material.

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1,092,500. ALUMINUM ALLOY. WILLIAM A. MCADAMS, Bay Shore, N. Y. Filed Aug. 15, 1913. Serial No. 784,918. (Cl. 75—1.)

1. An aluminum alloy composed of aluminum, zinc, copper and silver in which the amount of copper is greater than the amount of silver, the amount of zinc is greater than the amount of copper and the amount of aluminum is greater than the amount of zinc.

2. An aluminum alloy composed of aluminum, zinc, copper and silver combined substantially in the proportions by weight of 70 parts of aluminum, 26 parts of zinc, 3 parts of copper and 1 part of silver.

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1,092,501. DOOR. WILLIAM H. MILLER, Peru, Ind. Filed Nov. 20, 1911. Serial No. 661,197. (Cl. 20—20.)



1. In combination with a casing having an opening, a door for closing the opening comprising two members of different width hinged together at a plane outward from the mid-thickness of the door, the narrower member being hinged to the casing at the margin of the opening and at a plane inward from the mid-thickness of the door, the wider member having a trunnion projecting from one end at a distance from the hinged-together edges and at a plane inward from the mid-thickness of the door, the casing having a track for the trunnion extending from the position of the trunnion at the closed position of the door in the general direction of the plane of the door at closed position to a point situated inward from said plane by

the amount of the width of the inner member less the distance of the trunnion from the hinged together edges of the two members, said track being widened at the first-mentioned end to allow transverse movement of the trunnion therein, less than the thickness of the door, and tapered thence to the normal width, the casing having its outer surface rabbeted at the edge to which the door closes, the edge of the door abutting said edge of the casing having a lip to engage the rabbet.

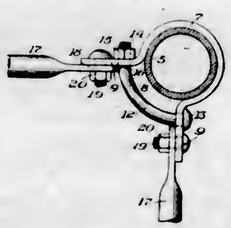
2. In combination with a casing having an opening, a door for closing the opening comprising two members of different width hinged together at a plane outward from the mid-thickness of the door, the narrower member being hinged to the casing at the margin of the opening and at a plane inward from the mid-thickness of the door, the wider member having a trunnion projecting from one end at a distance from the hinged-together edges and at a plane inward from the mid-thickness of the door, the casing having a track for the trunnion extending from the position of the trunnion at the closed position of the door in the general direction of the plane of the door at closed position to a point situated inward from said plane by the amount of the width of the inner member less the distance of the trunnion from the hinged together edges of the two members, said track having at its first-mentioned end a transverse portion adapted to permit the transverse movement of the trunnion therein.

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1,092,502. [WITHDRAWN.]

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1,092,503. STEEL TOWER OR DERRICK. LEE C. MOORE, Pittsburgh, Pa. Filed Apr. 22, 1912. Serial No. 692,261. (Cl. 189—20.)



1. A clamp for towers, derricks and the like, comprising an imperforate, cylindrical, resilient sleeve adapted to be clamped upon a tubular leg section, said sleeve being open or slotted longitudinally at one side, and at the edges of the opening or slot having outwardly extending radially disposed integral flanges, said flanges being each provided with two longitudinal rows of apertures, the inner row for receiving a plurality of bent compression bolts spanning the space between said flanges, and the outer row for the attachment to the clamp of a plurality of girts and braces, the width of said opening or slot between said flanges being less than the internal diameter of said sleeve, and said clamp being adapted either to be placed endwise over the end of a leg section or to be placed sidewise upon the same.

2. A tower, derrick or the like, comprising tubular leg sections arranged to abut each other at their ends, an imperforate, cylindrical sleeve surrounding said leg sections at their meeting ends and having an unbroken interior clamping surface extending around more than half the circumference of said leg sections and provided with radially disposed flanges, said sleeve and flanges being formed of resilient material, said flanges being provided with inner and outer sets of longitudinally spaced perforations, bent compression bolts in the inner set of perforations spanning the space between said flanges and firmly securing the clamp to the leg sections and the leg sections to each other, girts and braces fitting the inner adjacent faces of the flanges, and bolts passing through said girts and braces and said outer set of perforations, the distance between said flanges adjacent to said sleeve being less than the external diameter of said tubular leg sections.

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1,092,504. CHEESE. KONSTANCE E. NELDNER, Milwaukee, Wis., assignor of one-half to Vincent K. Neldner, Milwaukee, Wis. Filed Nov. 26, 1913. Serial No. 803,105. (Cl. 31—69.)

1. A cheese consisting of a cooked mixture of sweet cream and a mass of salted crumbly sour milk curd ripened to a cream color, the proportion of cream being approximately equal in volume to the amount of whey separated from the curd.

2. A cheese-making process that consists in separating sour milk curd from whey under pressure until the curd is crumbly, exposing the crumbly mass of curd to a temperature of from 80° to 100° Fahrenheit for from thirty five to forty hours and stirring the same at intervals of from three to four hours, salting the mass, mixing the salted mass with sweet cream that approximately equals in volume the amount of whey separated from the curd, cooking the mixture in a suitable receptacle exposed to boiling water from fifty to seventy-five minutes, and finally cooling the products in suitable forms.

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1,092,505. COMBINATION WINDOW-SCREEN AND FLY-TRAP. GEORGE W. O'BRYAN, Cambria, Va. Filed Jan. 30, 1913. Serial No. 745,269. (Cl. 43—22.)



1. In an insect trap of the class specified, a window screen frame, a reticulated panel secured to one face thereof and spaced from the lower rail of the frame to provide an inlet, a door frame hinged to the other face of the said frame and having a reticulated panel, and a reticulated member between the lower rail and the panel of the window screen frame forming a chamber to receive the insects from the said inlet, said reticulated member having openings to admit the insects into the chamber between the said panels.

2. In an insect trap of the class specified a window screen frame, a reticulated panel secured to one face thereof and spaced from the lower rail of the frame to provide an inlet, a door frame hinged to the other face of the frame and having a reticulated panel, and a reticulated arch between the lower rail and the panel of the window screen frame to receive the insects from the said inlet, the said arch having openings along the ridge thereof to admit the insects into the chamber between the said panels.

3. In an insect trap of the class specified, a window screen frame including a lower rail, a reticulated panel secured to one face thereof, a door frame hinged to the other face of the said frame and including a lower rail to seat against the lower rail of the said frame, a reticulated panel secured to the door frame and spaced from the lower rail of the door frame to provide an inlet, and a reticulated member between the rail and panel of the door frame and forming a chamber to receive the insects from the said inlet, the said reticulated member having openings to admit the insects into the chamber between the said panels.



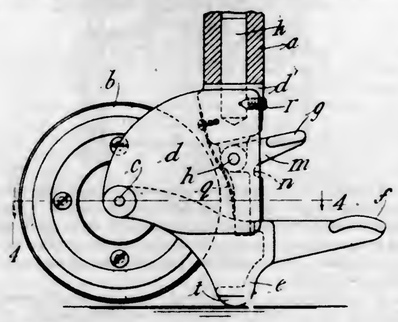
4. In an insect trap of the class specified, a window screen frame including a lower rail, a reticulated panel secured to one face thereof and spaced from the lower rail of the frame to provide an inlet, a door frame hinged to the other face of the said frame and including a lower rail to seat against the lower rail of the said frame, a reticulated panel secured to the door frame and spaced from the lower rail of the door frame to provide an inlet, and reticulated members between the lower rails and the corresponding panels to provide chambers to receive the insects from the respective inlets, the said reticulated members having openings to admit the insects into the chamber between the said panels.

5. In an insect trap of the class specified, a window screen frame including a lower rail, a reticulated panel secured to one face thereon and spaced from the lower rail of the frame to provide an inlet, a door frame hinged to the other face of the said frame and including a lower rail to seat against the lower rail of the said frame, a reticulated panel secured to the door frame and spaced from the lower rail of the door frame to provide an inlet, and reticulated arches between the lower rails and the corresponding panels to receive the insects from the respective inlets, the arches having openings along the ridges thereof, to admit the insects into the chamber between the said panels.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,506. CASTER DEVICE. WALTER J. OLDROYD, Hartford, Conn., assignor to George P. Clark Company, Windsor Locks, Conn., a Corporation of Connecticut. Filed Jan. 24, 1914. Serial No. 814,092. (Cl. 16—165.)



1. In combination, a caster frame, means for raising the frame, comprising, a lever pivoted thereto, said lever having a depending portion to engage the floor and an extended portion to swing the lever on the floor as a fulcrum.

2. In combination, a caster frame, means for raising the frame, comprising, a lever pivoted thereto, said lever having a depending portion to engage the floor and an extended portion to swing the lever on the floor as a fulcrum, together with a device to lock the frame in raised position.

3. In combination, a caster frame, a wheel and a lever for raising the frame pivoted thereto, said frame being constructed to receive a body to be supported thereby at a point one side of the wheel axis, said lever having a portion to engage the floor immediately below said point, and an extended portion operable to swing the lever with the floor as a fulcrum to raise the frame.

4. In combination, a caster frame, a wheel and a lever for raising the frame pivoted thereto, said frame being constructed to receive a body to be supported thereby at a point one side of the wheel axis, said lever having a portion to engage the floor immediately below said point, and an extended portion operable to swing the lever with the floor as a fulcrum to raise the frame, together with means arranged to act in substantially the vertical line through said point to lock the frame.

5. In combination, a caster frame, a wheel and a lever for raising the frame pivoted thereto, a depending portion on said lever to engage the floor, an extended portion on the lever operable to swing the lever to raise the frame, a latch device operable to hold the lever in position after it has raised the frame, said lever and latch device being constructed and arranged for the movement of the lever to operate the latch device.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,507. MUSICAL INSTRUMENT. JOHN MORGAN PUTMAN, Mobile, Ala. Filed Aug. 26, 1911. Serial No. 646,142. (Cl. 46—46.)



1. A musical instrument consisting of a bar having a rounded upper surface formed with a central depression of varying depth and width extending thereinto from one edge, the back wall of the depression being straight from top to bottom and provided with an obliquely disposed slot extending upwardly and backwardly from the lower portion of the wall through the rounded top of the bar, there being another slot extending through the bar from the bottom of the recess and registering with the first named slot.

2. A musical instrument including a bar having a rounded top surface provided with a central depression gradually diminishing in width and increasing in depth from one edge of the bar toward the center of the bar, there being an obliquely disposed slot within the middle portion of the wall of the depression and extending upwardly and rearwardly through the rounded top surface of the bar, and there being another slot extending through the bar from the center of the back portion of the depression, the two slots registering and the obliquely disposed slot being of less width than the bottom slot.

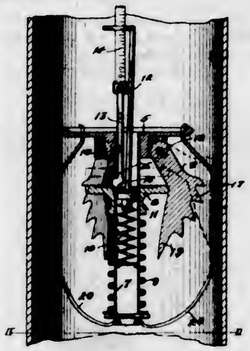
3. A musical instrument consisting of a bar having a rounded upper surface formed with a central depression of varying depth and width extending thereinto from one edge, the back wall of the depression being straight from top to bottom and provided with an obliquely disposed slot extending upwardly and backwardly from the lower portion of the wall through the rounded top of the bar, there being another slot extending through the bar from the bottom of the recess and registering with the first named slot, both slots registering, said bar having rounded front and back edges, the back edges constituting a bearing for the tongue of the user whereby the interior of the mouth is divided into upper and lower cavities opening into the respective slots, that portion of the rounded upper surface between the rear edge and the upwardly extending slot constituting a bearing for the upper lip of the user and that portion of the bottom surface of the bar between the bottom slot and the front edge of the bar constituting a bearing for the lower lip of the user.

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1,092,508. INTERNAL ANCHOR DEVICE FOR OIL, GAS, WATER, AND OTHER WELLS. JOSEPH E. ROBINSON, Oil City, Pa. Filed June 12, 1913. Serial No. 773,254. (Cl. 102—4.)

1. An anchor for use in a well, comprising in combination, a head, a plurality of gripping devices pivoted to the head and adapted to swing out and engage the sides of the well, means vertically movable with respect to the

head for swinging the gripping devices outwardly, a spring for operating the said means, restraining means for the spring, and gravity operated means for releasing said restraining means.



2. An anchor for use in a well, comprising in combination, a head having a vertical shank, a plurality of gripping devices pivoted to the head and adapted to swing out and engage the sides of the well, a member slidable longitudinally on the said shank and adapted to swing the gripping devices outwardly, a spring for operating the said member, restraining means for the spring, and gravity operated means for securing the release of the said restraining means.

3. An anchor for use in a well, comprising in combination a head, a plurality of gripping devices pivoted to the head and each provided with a plurality of teeth, and means for securing the outward movement of the said devices to cause the engagement of the teeth with the wall of the well, the said teeth on each gripping device being arranged at different distances from the points of pivoted support thereof to adapt the anchor to use in wells of varying diameters.

4. An anchor for use in a well, comprising in combination a head, a plurality of gripping devices pivoted to the head and each provided with a plurality of teeth, and means for securing the outward movement of the said devices to cause the engagement of the teeth with the wall of the well, the said teeth on each gripping device being arranged at different distances from the points of pivoted support thereof and with the points thereof lying on a curve to adapt the anchor to use in wells of varying diameters.

5. An anchor device comprising a head, a plurality of supporting devices mounted thereon, a downward extension on said head having an opening within the same, a collar mounted around said downward extension and having engagement with said supporting devices, a spring for moving said collar, a supporting rod for lowering said head into operative position, and trigger means operative to release the engagement between the supporting rod and the head.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,509. STENCIL FABRIC AND PROCESS OF PRODUCING THE SAME. ALBERT E. STRIPPEL, New York, N. Y., assignor of one-half to Mary E. Wallace, New York, N. Y. Filed July 1, 1913. Serial No. 776,893. (Cl. 101—131.)

1. The process of producing a stencil fabric which consists in treating a long fiber fabric with a solution of a colloid of animal origin, glycerin, a hydroscopic nitrate and a chrome salt.

2. The process of producing a stencil fabric which consists in treating a long fiber fabric with a solution of gelatin, glycerin, sodium nitrate and bichromate of potash.

3. The process of producing a stencil fabric which consists in treating a long fiber fabric with a solution of gelatin, glycerin, sodium nitrate and bichromate of potash in substantially the following proportions, by weight; gelatin, 16 ounces; glycerin, 18 to 22 ounces; sodium nitrate, 1.5 ounces and bichromate of potash, .48 to .32 of an ounce.

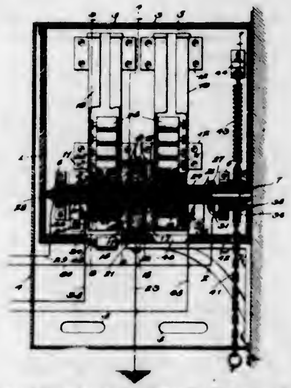
4. The process of producing a stencil fabric which consists in treating a long fiber fabric, first, with a solution of a colloid of animal origin, glycerin, a hydroscopic nitrate and a chrome salt; second, drying the fabric; third, applying thereto a solution of glycerin; and fourth, again drying the fabric.

5. The process of producing a stencil fabric which consists in treating a long fiber fabric, first, with a solution of a colloid of animal origin, glycerin, a hydroscopic nitrate and a chrome salt; second, drying the fabric; third, applying thereto a solution of glycerin, alcohol and aluminum chlorid; and fourth, again drying the fabric.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,510. LIGHTNING-ARRESTER. AUGUSTUS ALLENDORF, Harvard, Ill. Filed Oct. 9, 1912. Serial No. 724,867. (Cl. 175—215.)



1. A device of the character described comprising a rotatable drum, fuses carried by said drum, means whereby said fuses will be automatically dropped from said drum when burnt out, and means for automatically replacing the burnt out fuses upon rotation of said drum, as and for the purpose described.

2. In a cut out and lightning arrester for telephones, comprising a rotatable shaft, drums carried thereby, fuses carried by said drums, means for supporting said fuses within said drums, line terminals in circuit with said fuses, and means whereby said fuses will be released when a strong current of electricity passes therethrough, substantially as described.

3. A device of the character described comprising a rotatable shaft, drums carried by said shaft, fuses carried by said drums, means whereby said fuses will be automatically dropped from said drums when burnt out, and means for rotating said shaft whereby the fuses will be brought into circuit.

4. A combined lightning arrester and cut out for telephones comprising a shaft, carbons carried by said shaft, means for insulating the carbons from one another, drums carried by the shaft, means for feeding fuses to said drums, means carried by the drums for holding the fuses, and means for replacing the burnt out fuses upon rotation of the drums, as and for the purpose described.

5. A combined lightning arrester and cut out comprising a shaft, means for supporting the shaft, carbons carried by said shaft, drums carried by said shaft, conducting wires connected with the carbons, conducting wires connected with the drums, fuses carried by the drums for forming electrical connections between the drums and carbons, and means for replacing the burnt out fuses, as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]



1,092,511. ELECTRICAL-INSULATION COMPOSITION AND METHOD OF PREPARING THE SAME. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, East Orange, N. J., a Corporation of New Jersey. Filed Nov. 4, 1910. Serial No. 590,599. (Cl. 106—22.)

1. The process of forming an electrical insulating material which consists in removing water and uncombined phenol from a fusible phenol resin in which all the methylene-containing element is combined with phenol, dissolving hexa-methylene-tetra-amin in the mass which is maintained in molten condition, causing a hardening reaction to ensue with evolution of ammonia gas, cooling and pulverizing, further heating to from 420 to 500 degrees F., treating with a boiling caustic solution, washing, drying, incorporating with caoutchouc and a vulcanizing agent, vulcanizing and soaking in a hot caustic solution, substantially as described.

2. The process of forming an electrical insulating material, which consists in forming an infusible phenolic condensation product free from uncombined phenol, pulverizing the same, treating with a hot caustic solution, washing free of the caustic, incorporating with an elastic gum and a vulcanizing agent, vulcanizing, and further treating to remove traces of the vulcanizing agent and products thereof uncombined with the gum and condensation product, substantially as described.

3. An insulating compound which is resistant to strong caustic alkaline solutions, comprising an infusible hard phenolic condensation product in granular form, substantially free from phenol, water, ammonia, gaseous products, and other impurities, and incorporated in, and bound together in a tough cohesive mass by, purified vulcanized rubber, substantially as described.

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1,092,512. PROCESS OF COMMINUTING PHENOLIC CONDENSATION PRODUCTS. JONAS W. AYLSWORTH, East Orange, N. J., assignor to Condensite Company of America, East Orange, N. J., a Corporation of New Jersey. Original application filed Aug. 6, 1910, Serial No. 575,970. Divided and this application filed Nov. 4, 1910. Serial No. 590,600. (Cl. 106—22.)

1. The process of comminuting an infusible insoluble hard phenolic condensation product, consisting in dissolving in a sufficient amount of a suitable solvent a methylene-containing substance and a substance which will react therewith on application of sufficient heat to form a hard insoluble infusible phenolic condensation product, heating the same to cause the desired reaction while preventing the escape of the solvent, removing the solvent, and comminuting the insoluble infusible porous product resulting, substantially as described.

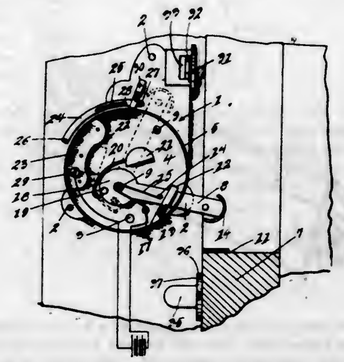
2. The process of forming a porous infusible insoluble hard phenolic condensation product, consisting in dissolving the components thereof in a sufficient amount of a suitable solvent, and heating the same in such a manner as to cause a solidifying and hardening reaction between the said components with separation of the solvent from the mass within the same to form pores while preventing the escape of the solvent, substantially as described.

3. The process of forming an infusible insoluble hard microscopically porous phenolic condensation product, consisting in dissolving in a suitable solvent a methylene-containing substance and a substance which will react therewith on application of sufficient heat to form an insoluble infusible phenolic condensation product, heating the same to cause the desired reaction while preventing the escape of the solvent in such a manner as to leave voids in the mass, and removing the solvent, substantially as described.

4. The process of forming a powdered infusible insoluble hard phenolic condensation product consisting in dissolving ingredients adapted to produce such a product by reaction, in an amount of a suitable solvent at least equal to the reaction mixture, and heating the same in such a manner as to cause a solidifying and hardening reaction between the said ingredients, while preventing the escape of the solvent from the surfaces of the product, with a resulting separation of the solvent from the mass within the same, to form small pores therein, filled with solvent, and comminuting the resulting infusible porous product, substantially as described.

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1,092,513. ELECTRICAL WINDOW ALARM-LOCK. MANUEL BARROS, New York, N. Y. Filed Apr. 28, 1913. Serial No. 764,244. (Cl. 177—202.)



1. The combination with a window having an electrical alarm system, of a combined circuit closure including a cylindrical housing, a base plate for said housing, a lever arm having its inner terminal pivoted on said base plate eccentrically thereto and operating through a slot formed in the wall of said housing, a contact button carried by said lever arm, a contact member arranged in said housing, means for holding the said lever arm in operative position with the said button, spaced from said contact member, means for actuating said lever arm to bring said button in contact with said member when said lever arm is operated through the upward movement of the window sash, and separate adjustable means for holding the lever with the said button out of engagement with the said contact member upon upward movement of the said arm.

2. The combination with a window having an electrical alarm system, of a circuit closer including a housing, a contact member arranged therein, a contact lever pivoted in the said housing eccentrically thereto, a contact button, resilient means connecting said button to said lever, means adapted for holding said lever in open circuit position with the said contact button spaced from said contact member, and exteriorly operable means for moving the said lever from closed circuit to open circuit position, said lever being normally disposed in open circuit position and being adapted to be swung upwardly into closed circuit position by the upward movement of the lower window sash.

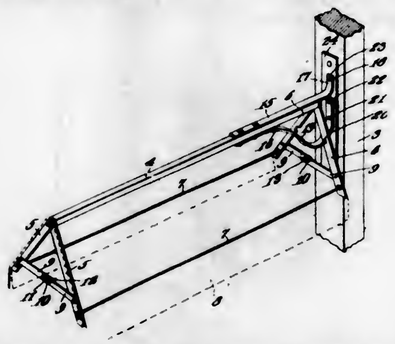
3. The combination with a window sash, having an electrical alarm circuit, of a circuit closer including a cylindrical housing, a contact member mounted in said housing, a contact button, a pivoted contact lever, resilient means connecting said button and lever, a spring clip adapted to hold said lever in open circuit position with said contact button spaced from said contact member, a spring adapted to force said contact lever upwardly into closed circuit position with the said contact button in engagement with said contact member upon the releasing of the said contact lever by the upward movement of the lower sash of the window.

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1,092,514. PORTABLE FOLDING SHELTER. LOUIS A. BELL, Starkville, Miss. Filed Nov. 6, 1913. Serial No. 799,558. (Cl. 135—5.)

1. A foldable and portable shelter comprising a frame including a main beam, downwardly extending arms pivotally secured to the remote ends thereof, adjusting members pivotally secured to the lower extremities of the arms of each pair adapted to hold said arms in extended position, strut bars extending between corresponding arms

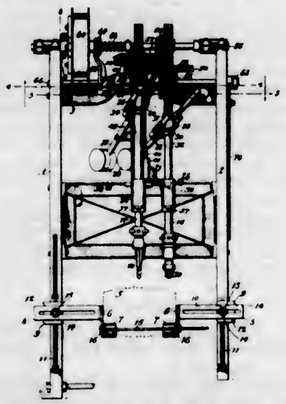
of each pair adapted to hold the same in spaced relation and forming a cover support, and attaching members rigidly secured to the beam at one extremity thereof, projecting thereabove and therebelow, said attaching members provided with upturned ends for the securing thereof to a supporting structure.



2. In a device of the class described, a frame including a main top beam, arms pivotally secured to the remote ends thereof and extending downwardly therefrom, means secured to the lower extremities of the arms of each pair adapted to lock the arms in extended position, strut bars extending between the corresponding arms of each pair forming a cover support and adapted to hold the arms in spaced relation, attaching members secured to the upper and lower surfaces of the main beam adjacent one extremity thereof, the arms adjacent the said attaching members provided with notches for the reception of said attaching members when folded thereagainst, the said attaching members provided with bent ends extending substantially at right angles to the main beam, said attaching members provided with means extending therethrough for the securing thereof to a supporting structure, said frame adapted to support a sheltering cover in a tent-like manner.

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1,092,515. BUNG-BORING AND BUSH-SETTING MACHINE. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y., a Corporation of New York. Filed Jan. 31, 1912. Serial No. 674,510. (Cl. 144—8.)

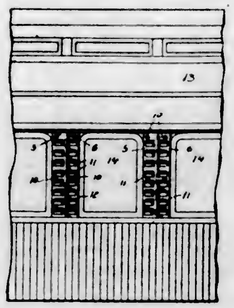


1. A bung boring and bush setting machine comprising a frame, a yoke movable horizontally on said frame, upright boring and bung setting spindles journaled side by side on said yoke and also capable of moving vertically thereon, levers pivoted to swing vertically on said yoke and each connected with one of said spindles, a locking pin mounted on said yoke and adapted to engage with one or another of a plurality of openings in the frame and a member movably connected with the locking pin and also connected with said levers.

2. A bung boring and bush setting machine comprising a frame, a yoke movable horizontally on said frame, upright boring and bung setting spindles journaled side by side on said yoke and also capable of moving vertically thereon, levers pivoted to swing vertically on said yoke and each connected with one of said spindles, a locking pin mounted on said yoke and adapted to engage with one or another of a plurality of openings in the frame and provided with an eye, and a flexible shifting member sliding with its central part through said eye and connected at its opposite ends with said levers.

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1,092,516. CINDER-DEFLECTOR. RUBY A. BEYMER, Columbia, S. C. Filed Aug. 6, 1913. Serial No. 783,427. (Cl. 98—21.)



1. A deflector comprising a pair of converging side walls, a plurality of deflector plates arranged in series upon each of the side walls and forming acute angles therewith, the side walls being slotted behind each of the deflector plates, and rear walls carried by the free longitudinal edges of the side walls.

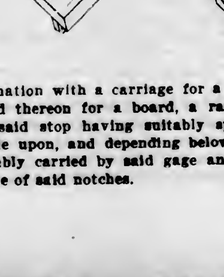
2. A cinder deflector formed of a single sheet of metal and comprising a pair of side walls which form an acute angle, a series of deflector plates carried by each of the side walls, said deflector plates being stamped from the side walls and extended upwardly to form acute angles therewith, and rear walls formed upon the free longitudinal edges of the side walls, said rear walls extending toward one another and formed with screw holes, the side walls being transversely slotted to permit access to the screw holes from the front of the deflector.

3. The combination with a coach, of a cinder deflector secured between a pair of windows thereof, said deflector comprising a pair of outwardly converging side walls, a pair of rear walls carried upon the inner edges of the side walls, said rear walls being disposed against the side of the coach and extending toward each other, the rear walls being formed with screw holes and the side walls being formed with transverse slots in alinement with said screw holes, and a plurality of deflector plates carried upon each of the side walls and arranged in a vertical series thereon, said deflector plates being attached to the side walls at their lower edges and forming angles therewith, the side walls being cut away to the rear of each deflector plate.

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1,092,517. FUNNEL. WILLIE L. BLANCHARD, Lehigh, Okla. Filed June 12, 1913. Serial No. 773,337. (Cl. 226—38.)

1. In combination with a funnel, a substantially U-shaped bracket having its bight portion extended to the axis of the funnel, a brace member having its lower end secured to the body of the funnel and having its upper end bifurcated and terminating in a pair of spaced eyes which engage with the bight portion of said U-shaped bracket and constitute a guide, a chain seated between said eyes and being slidable over said bight portion, a plate hingedly mounted on the funnel and extending in the direction of said bight portion and engaging with said chain, a loop on said plate adapted for engagement with the thumb of an operator, and a stopper secured to the lower end of said chain.

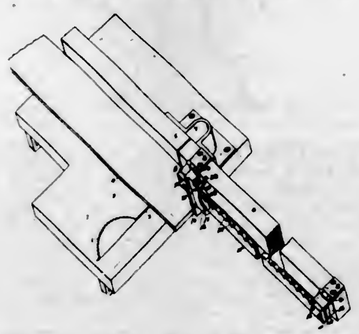


2. In combination with a funnel, a substantially U-shaped bracket secured to the top portion of the funnel and extending inward to the axis thereof, a brace member extended downward from the bight portion of the U-shaped bracket and secured to the body of the funnel, a chain slidable over said bight portion, a keeper on the bight portion for preventing disengagement of the chain therewith, a member hingedly mounted on the funnel and extending inwardly thereof and having an upstanding loop thereon and being engaged with said chain, and a stopper secured to the lower end of said chain and adapted to be raised for closing the mouth of the funnel by means of said chain and hingedly mounted member.

3. In combination with a funnel, a substantially U-shaped bracket having the free ends of its arms secured to the body of the funnel and having its bight portion adjacent to the axis of the funnel, a plate secured between the ends of the bracket, a second plate hingedly connected to the first said plate and provided with an upstanding loop, a stopper for the spout of the funnel, and a chain connecting the stopper with the hingedly mounted plate and being slidable over the bight portion of the bracket.

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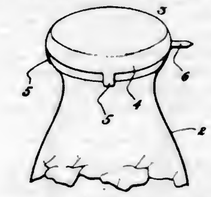
1,092,518. ADJUSTABLE GAGE FOR SAWING-MACHINES. LEON D. BROOKS, San Francisco, Cal. Filed Oct. 4, 1913. Serial No. 793,396. (Cl. 143—174.)



In combination with a carriage for a saw, a side edge stop secured thereon for a board, a rack pivotally supported by said stop having suitably spaced notches, a gage slidable upon, and depending below, said rack, and a dog movably carried by said gage and adapted to engage any one of said notches.



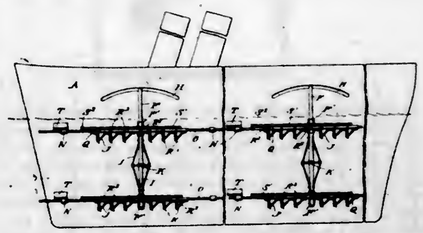
1,092,519. COMBINED BOTTLE-CAP AND EXTRACTOR. WILLIAM H. CADWELL, New Britain, Conn. Filed Jan. 29, 1913. Serial No. 744,801. (Cl. 215—9.)



A bottle cap comprising a substantially flat circular body, and a circular flange depending from said body, said flange having at its lower edge a barb extending outwardly at approximately a right angle to the axis of said body and also having several resilient clip members.

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1,092,520. MARINE PROPULSION APPARATUS. ELMER F. BUBB, Chicago, Ill. Filed Aug. 25, 1913. Serial No. 786,513. (Cl. 115—31.)



1. A marine propulsion apparatus for boats comprising series of rock shafts pivotally mounted upon the sides of the boat, racks having sliding pivotal connection with said shaft upon either side of its pivotal point, feathering blades pivotally mounted upon said racks, means for rocking the shaft, and means for returning the feathering blades to their normal positions as they approach their limit in one direction, as set forth.

2. A marine propulsion apparatus for boats comprising series of rock shafts pivotally mounted upon the sides of the boat, racks having sliding pivotal connection with said shaft upon either side of its pivotal point, feathering blades pivotally mounted upon said racks, means for rocking the shaft, a longitudinally movable bar with pivotal connections between the same and said blades, and a buffer against which said rod is adapted to contact, as set forth.

3. A marine propulsion apparatus for boats comprising series of rock shafts pivotally mounted upon the sides of the boat, racks having sliding pivotal connection with said shaft upon either side of its pivotal point, feathering blades pivotally mounted upon said rack, means upon the latter for limiting the movement of said blades in one direction, a bar having pivotal connection with the blades, and a buffer against which said bar is adapted to contact to return the blades to normal positions as the rack approaches its limit in one direction, as set forth.

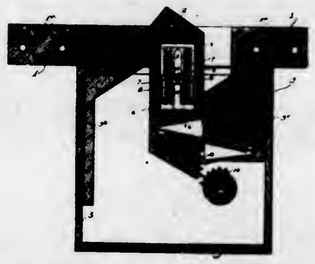
4. A marine propulsion apparatus for boats comprising series of rock shafts pivotally mounted upon the sides of the boat, racks having sliding pivotal connection with said shaft upon either side of its pivotal point, feathering blades pivotally mounted upon said rack, means upon the latter for limiting the movement of said blades in one direction, a lug projecting ffom each blade, a bar pivoted to said lugs, and a buffer in alinement with said bar and against which the latter is adapted to contact as the rack approaches its limit in one direction, as set forth.

5. A marine propulsion apparatus comprising, in combination with a boat having slots in the side thereof, a

rock shaft movable through and guided by said slots, a pivotal pin upon the side of the ship upon which said shaft is pivoted, racks having sliding pivotal connection with said shaft, a series of blades pivotally mounted upon the rack, means for limiting the movements of the blades in one direction, a bar pivotally connected to said blades, and a buffer against which the bar is adapted to contact to cause the blades to return to their normal positions after they have been feathered, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,092,521. RAILWAY-CROSSING SIGNAL. CALOGERO CANNOVA, Sioux City, Iowa. Filed July 13, 1912. Serial No. 709,252. (Cl. 246—57.)



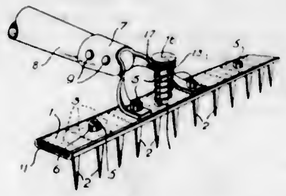
1. A railway-crossing signal comprising a rail having a vertical slot therein; a toothed plunger extending through and above and pivoted below said slot; a pivot-seat carried by and movable longitudinally of the plunger, whereby the plunger may be moved longitudinally or swung laterally; retractable means between said pivot-seat and plunger, whereby the plunger is restored after longitudinal movement; means for preventing lateral movement of the plunger in one direction; means for retracting the plunger after being moved laterally; gearing operated by depression of said plunger; a distant signal; and a retractable link controlled by said gearing for actuating the signal.

2. A railway-crossing signal comprising a rail provided with a vertical slot; a toothed plunger extending through and above said slot and provided with a longitudinal slot; a pivot extending through said latter slot upon which the plunger may reciprocate longitudinally and swing laterally; retractable means between said pivot and plunger whereby the plunger is restored after being moved longitudinally; a retractable toothed segment turned by depression of the plunger; a distant signal; and a retractable flexible link between said signal and plunger, whereby the former is actuated by movement of the latter.

3. A railway-crossing signal comprising a rail having a vertical slot therein; a toothed plunger extending through and above said slot and provided with a longitudinal slot; a pivot within the latter slot upon which the plunger may move longitudinally and laterally; oppositely-disposed arms journaled upon said pivot and movable longitudinally of and within the plunger; compression-springs between said arms and plunger for restoring the plunger after longitudinal movement; means for preventing lateral movement of the plunger in one direction; means for restoring the plunger after being moved laterally; a toothed segment operated by depression of the plunger; means for restoring the segment; a signal; a flexible link between said signal and segment whereby the former is actuated by movement of the latter; and means for retracting the flexible link.

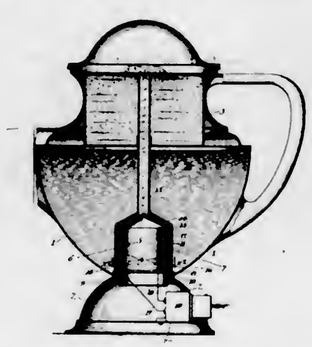
4. The combination with a railroad rail having a vertical slot therein, of a plunger extending through and above said slot; a pivot-seat carried by and movable longitudinally of the plunger; a pivot-pin for the pivot-seat whereby the plunger may be moved longitudinally and laterally; compression-springs between said pivot-seat and plunger for restoring the plunger after longitudinal movement; and gearing actuated by depression of said plunger.

1,092,522. SELF-CLEANING RAKE. JOHN W. DOWDLE, Mineral Springs, Ark. Filed Apr. 26, 1913. Serial No. 763,933. (Cl. 55—146.)



In a device of the class described, a rake head consisting of a plate doubled upon itself to form a pair of spring spaced sections, the upper section thereof projecting slightly beyond the lower section, a plurality of teeth having angular upper portions formed thereon for reception between the sections of said rake head, means to clamp the spring spaced sections of said rake head together and simultaneously secure said teeth therein, a channel-shaped plate adapted to be applied to the under face of said rake head to entirely inclose the front and rear edges of the latter, the bottom of said channel-shaped plate being provided with openings adjacent its forward edge, loosely receiving said teeth therethrough, and means for yieldingly retaining said plate in position against the under face of the rake head, said plate also forming a bracing means for the teeth and the head.

1,092,523. SUBMERGED ELECTRIC HEATER. BJARNE FALKENBERG, Ontario, Cal., assignor to Pacific Electric Heating Company, Ontario, Cal., a Corporation of California. Filed Jan. 31, 1911. Serial No. 605,789. (Cl. 219—44.)



1. In an electric liquid heater, a main receptacle, a housing with a flange resting against the bottom of the main receptacle, a base through which the lower end of the housing projects, a nut screwed to the housing and securing said base, a shell surrounding said housing and forming a liquid chamber, a jacket surrounding said shell and forming an air chamber, an insulating drum within the housing, resistance wire wound on the drum, a tube extending up from the shell, another receptacle in the upper part of the main receptacle through which the tube passes, and a switch plug within the base connected with the resistance wire.

2. An electric liquid heater comprising a drum of non-conductive material, resistance wire wound thereon, a cylindrical brass housing of heat conducting material surrounding the wire, a shell around the housing forming a liquid chamber between the shell and housing, a tube extending up from the liquid chamber, and a jacket surrounding the shell forming an air space between the jacket and shell.

3. An electric liquid heater comprising a drum of non-conductive material, resistance wire wound thereon, a cylindrical brass housing of heat conducting material surrounding the wire, a shell around the housing forming a liquid chamber between the shell and housing, a jacket surrounding the shell forming an air space between the jacket and shell, a tube extending up from said shell, and a series of tubes extending through said jacket and shell to convey liquid from outside the jacket to the interior of the shell.



1,092,524. GOLD-SAVING DEVICE. WILLIAM C. FOX, deceased, San Francisco, Cal., by Lewis J. Fox, administrator, San Francisco, Cal. Filed Jan. 29, 1913. Serial No. 744,997. (Cl. 83—68.)

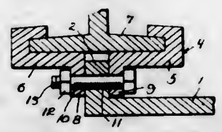


1. A riffle unit consisting of a smaller concave riffle, a larger concave riffle immediately below, and a substantially smooth bottom immediately above, the first-named riffle, and a sheet of amalgamable material lining both of said riffles and having its rear edge bent forward.

2. A riffle unit consisting of a smaller concave riffle, a larger concave riffle immediately below, and a substantially smooth bottom immediately above, the first-named riffle, a sheet of amalgamable material lining both of said riffles, and a lip extending forwardly from the upper end of said bottom and adapted to overlie the larger riffle of another unit.

3. A riffle unit consisting of a smaller concave riffle, a larger concave riffle immediately below, and a substantially smooth bottom immediately above, the first-named riffle, a sheet of amalgamable material lining both of said riffles and having its rear edge bent forwardly, and a lip extending forwardly from the upper end of said bottom and adapted to overlie the larger riffle of another unit.

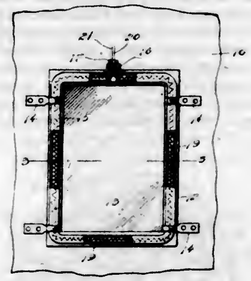
1,092,525. RAIL-HOLDER. SANFORD GASSER, Sherman, Mich. Filed Sept. 2, 1913. Serial No. 787,766. (Cl. 238—5.)



In a device of the character described the combination with the rails of a track of a rail holder adapted to be laid transversely of the rails, said rail holder comprising an elongated metallic bar having upstanding integral apertured lugs on its terminals, a pair of angular clamping plates adapted for engagement with the rail bases adjustably secured to the upstanding lugs on said bar, a bolt inserted through the clamping plates and lugs, said lugs being disposed approximately centrally of the side edges of the rail bases of said rails when the clamping plates are in clamping engagement with the rail bases of the rail and a nut threaded upon said bolt.

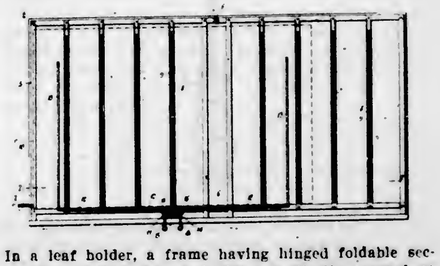
1,092,526. MOISTURE-REMOVING DEVICE. WILLIAM G. HASSEL and RUDOLPH W. ZEDLITZ, Waterbury, Conn. Filed May 16, 1913. Serial No. 768,124. (Cl. 219—19.)

A device of the class described comprising a frame formed of a tubular member and adapted to be supported adjacent and in surrounding relation to a glass pane, said frame being provided with a slot in the side thereof disposed adjacent the pane whereby heat within the frame



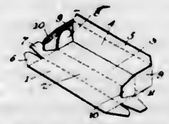
will be directed against the pane, a heating coil mounted within the frame and means for connecting said coil with an electric source.

1,092,527. MUSIC-LEAF TURNER. JOHN R. HINTON, Ontario, Oreg. Filed Dec. 4, 1909. Serial No. 531,373. (Cl. 45—61.)



In a leaf holder, a frame having hinged foldable sections, a plurality of curved plates vertically secured at intervals on said sections and vertical rods located centrally of and contiguous with the plates, the lower ends of said rods being fixed to the lower portions of said sections.

1,092,528. CARTON. CARY N. HOPKINS, Pasadena, and RICHARD T. FRANK, Los Angeles, Cal. Filed Feb. 19, 1913. Serial No. 749,543. (Cl. 229—36.)



1. A carton consisting of a sheet of foldable material, bent to form four side members and provided with end flaps on one of said side members bent to form the ends of the carton, one of said end flaps being longer than the others and being folded back against itself inclosing the flaps on two other of said side members, one of said side members having end flaps extending across the carton and engaging with the opposite side member, and with the first named end flaps to hold them in position to form a sealed end.

2. A carton consisting of a sheet of material folded to form side members comprising a first side member having an upturned flap at each end, a second side member extending upwardly from one edge of the first side member and having a side flap at its upper edge, end flaps extending respectively alongside of the end flaps on the first side member, said end flaps on the second side member

being provided with supplementary flaps folded back thereon to form U-shaped bends respectively embracing the end flaps on said first side member, a third side member extending upwardly from the other edge of the first side member and having end flaps extending alongside of and within the aforesaid end flaps and engaging the opposite second side member, said third side member having inward projections engaging with said end flaps on said second side member, and a fourth side member bent from the upper edge of the third side member and overlapping the side flap on said second side member, and having end flaps folded down and tucked within the U-shaped bend of the end flaps on the second side member.

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1,092,529. BUTCHER'S SKEWERING-AWL. WILLIAM J. HORN, St. Joseph, Mo. Filed May 15, 1913. Serial No. 767,913. (Cl. 223—37.)

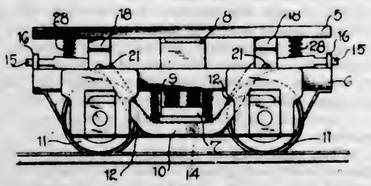


1. A skewering awl including a hollow needle having an aperture formed in its wall and communicating with the hollowed portion, a cylindrical spool magazine formed integrally with the said needle, a threaded plug removably mounted in said magazine, a spool spindle formed integrally with said plug and adapted to rotatably support a spool of cord, and a flat head formed integrally with the free end of said needle.

2. A skewering awl comprising a cylindrical magazine, a removable plug screw threaded into the lower end of said magazine, a spindle secured to said plug and extending longitudinally of the magazine and adapted to support a ball of cord, a hollow needle formed integrally with the magazine, a flattened head formed on said needle, said head being tapered transversely and longitudinally thereof forming a cutting edge and a pointed end, said needle provided with a cord aperture adjacent the cutting edge of said head.

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1,092,530. EQUALIZER FOR CAR-TRUCKS. JAMES H. HOUSMAN and CHARLES F. JORDAN, Clifton Forge, Va. Filed Oct. 27, 1913. Serial No. 797,548. (Cl. 105—32.)



1. The combination of a car body, a car truck pivotally mounted beneath said body, slotted bearings secured to the ends of the truck, toggle levers extending longitudinally of the truck and connected together at their inner ends for relative vertical movement, the outer ends of said levers being mounted in said slotted bearings, hanger bearings rigidly fixed to the under side of the car body, said levers being pivotally mounted intermediate of their ends in the respective hanger bearings, springs arranged in said bearings and engaging the upper edges of said levers, and additional springs interposed between the levers and the under side of the car body.

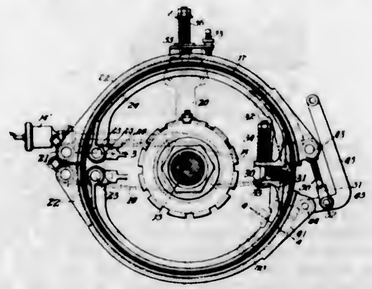
2. The combination of a car body, a car truck pivotally mounted beneath said body, a pair of toggle levers extending longitudinally of the car truck, a sliding pivotal connection between the inner ends of said levers, hanger bearings rigidly fixed to the under side of the car body, said levers being pivotally mounted intermediate of their ends in the respective hanger bearings, and springs arranged in the hanger bearings and bearing upon the upper edges of the levers in line with their pivots.

3. The combination of a car body, a car truck pivotally mounted beneath said body, a pair of toggle levers extending longitudinally of the truck, a sliding pivotal connection between the inner ends of said levers, hanger bearings rigidly secured to the under side of the car body, Babbitt metal bushings secured in said bearings, said toggle levers being loosely mounted upon said bushings, and springs arranged in the bearings and bearing upon the upper edges of the levers.

4. The combination of a car body, a car truck pivotally mounted beneath said car body, a pair of toggle levers extending longitudinally of the truck, a sliding pivotal connection between the inner ends of said levers, hanger bearings rigidly secured to the under side of the car body each having spaced ears, the respective levers extending between the bearing ears and each provided with an opening, a Babbitt metal bushing adapted to be fitted in the bearing ears and the opening of the levers, Babbitt metal plates secured upon the inner faces of said ears, transversely disposed plates secured upon the ends of the truck, each of said plates being provided with a slot, the ends of the respective levers being mounted in said slots whereby the truck may have limited pivotal movement with respect to the car body, and springs interposed between the upper edges of the levers and the under side of the car body and arranged between the hanger bearings and said slotted plates.

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1,092,531. VEHICLE-BRAKE. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Original application filed July 16, 1909, Serial No. 507,940. Divided and this application filed Oct. 14, 1912. Serial No. 725,757. (Cl. 21—8.)



1. In a brake mechanism, the combination with a brake drum, of a brake shoe coöperating therewith, a pivot for the shoe and coöperating means on the shoe and pivot forming a bayonet joint.

2. In a brake mechanism, the combination with a brake drum of a brake shoe coöperating therewith, a pivot for the shoe, and coöperating means permitting endwise removal of the shoe when the shoe is in one position and locking the shoe against such movement when in another position.

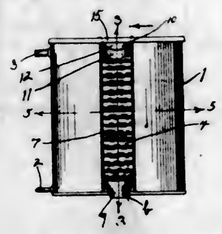


3. In a brake mechanism, the combination with a brake drum of a brake shoe coöperating therewith, a pivot for the shoe and a support for the pivot, the shoe and support being provided with coöperating lugs forming a bayonet joint.

4. In a brake mechanism, the combination with a support and a relatively rotatable braking surface adjacent thereto, of a brake shoe pivoted to said support and having a projecting lug at its pivoted end, said support having a notch in which said lug engages when the shoe is in operative position.

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1,092,532. MILK COOLER AND AERATOR. JOHN JEPPESEN, Centerburg, Ohio. Filed June 18, 1913. Serial No. 774,414. (Cl. 31—93.)



1. A milk cooler comprising a cylindrical casing adapted to contain the cooling fluid, a trough-shaped channel arranged vertically and transversely of the casing having an inclined riffled bottom terminating at its lower end in a spout, the sides of the trough-shaped channel having corresponding riffles or corrugations, a trough-shaped conveyer having a gradually inclined bottom and extending and arranged within the channel between the sides thereof, the upper longitudinal edges of the conveyer terminating in overhanging flanges to overlie and engage the upper edges of the sides of the trough-shaped channel thereby constituting means to loosely and replaceably suspend the conveyer in position.

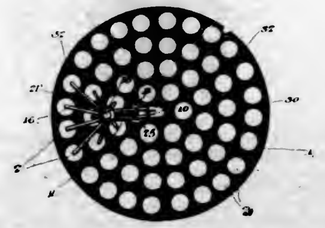
2. A milk cooler comprising a cylindrical receptacle provided with a compartment for the containment of constantly replenished cooling fluid, a trough-shaped channel arranged vertically and extending transversely of the receptacle provided with an inclined bottom corrugated to form riffles, and a trough-shaped conveyer having an inclined bottom suspended from the upper edges of the sides of said channel and extending thereinto, the trough-shaped conveyer adapted to be adjusted toward the riffles to cut off the supply from the conveyer to the riffles.

3. A milk cooler comprising a cylindrical casing adapted to contain cooling fluid, a trough-shaped channel arranged vertically and transversely of the casing having an inclined riffled bottom extending from the top of the casing at one side to the bottom of the casing at the opposite side terminating at the bottom of the casing in a spout, the walls of the riffles being disposed at slight acute angles to one another, the sides of the trough-shaped channel having corresponding riffles, said riffles acting to cause a gradual flow of the milk, a trough-shaped conveyer having a gradually inclined bottom arranged within the channel between the sides thereof and being of a length shorter than the space between the upper portion of the riffled bottom and the opposite side of the casing, said conveyer being closed at one end and opened at the other and having its upper longitudinal edges terminating in overhanging flanges to overlie and engage the upper edges of the sides of the trough-shaped channel thereby constituting means to loosely and replaceably suspend the conveyer in position, said conveyer adapted to be adjusted toward the upper portion of the riffled bottom of the channel to regulate the milk in its flow upon the riffled bottom.

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1,092,533. LIQUID-DISPENSER. PETER KANELLOS, Los Angeles, Cal. Filed May 26, 1913. Serial No. 770,046. (Cl. 225—21.)

1. A liquid dispensing means comprising a tray provided with means dividing the same into segments each adapted to contain a group of glasses, each segment being provided with glass retaining means for holding a group of glasses in proper position in the segment, a distributing and filling device having outlet openings extending in different positions to discharge water into different glasses in such a segment when said segment is under the filling device, said tray and filling device being mounted so as to provide for relative rotative movement, and means controlled by relative rotation of the tray and filling device to control the supply of water to said outlets when the filling device is directed over any of said segments of the tray.



2. A liquid dispensing means comprising a tray and a filling device mounted to provide for relative rotative movement, a supply pipe, valve means for opening and closing connecton between said supply pipe and said filling device in the relative rotative movement of said tray and filling device, said filling device provided with a plurality of outlet pipes, and a manually operated valve for controlling communication through a plurality of said outlet pipes simultaneously.

3. A liquid dispensing means comprising a tray and a filling device mounted to provide for relative rotative movement, a supply pipe, valve means for opening and closing connection between said supply pipe and said filling device in the relative rotative movement of said tray and filling device, said filling device provided with a plurality of outlet pipes, and a manually operated valve for controlling communication through a plurality of said outlet pipes simultaneously, and said filling device being provided with another outlet pipe connecting with the supply pipe independently of said valve and a valve in said last named outlet pipe.

4. A liquid dispensing means comprising a tray and a filling device mounted to provide for relative rotative movement, said filling device being provided with a plurality of outlets extending over said tray, a supply pipe, valve means for opening and closing communication between said supply pipe and said filling means in the relative rotative movement of said tray and filling means, said tray being provided with a waste outlet and a receptacle retainer on said tray perforated for passage of liquid therethrough, and having depressions for receiving and holding receptacles for liquid, said depressions being located so as to be beneath said outlets of the filling device when the tray is in definite angular position, and the aforesaid valve means being adapted to open communication between said supply pipe and said filling means when the tray is in such definite angular position.

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1,092,534. NUT-LOCK. AUGUSTE MARIE LE PIERRE, Korbel, Cal. Filed Oct. 20, 1913. Serial No. 796,278. (Cl. 151—2.)

1. In combination, a bolt having a key-way in its shank, a nut threaded on the shank, a pair of plates having means entering the key-way and mounted on the shank adjacent one side of the nut, a member swiveled between said plates and provided with oppositely arranged pivoted headed bolts, a second pair of plates having peripheral notches and provided with means entering the key-way and mounted on the bolt shank adjacent the other side of the nut, a second member swiveled between the second pair of plates and provided with means for holding the headed bolts in locked engagement with the notches of the second pair of plates.

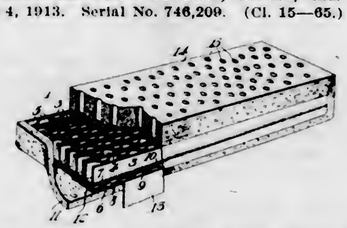
2. In a nut lock, the combination of a bolt having a nut on the shank thereof, of two pair of plates keyed to the bolt shank, one pair on each side of the nut, a member swiveled between each pair of plates, connections between the swiveled members, and means for locking said connections.



3. In a nut lock, the combination of a bolt having a nut threaded on the shank thereof, of a pair of plates keyed to the shank, a member swiveled between the pair of plates and provided with oppositely arranged pivoted headed bolts, said plates being on one side of the nut, a second pair of plates keyed to the shank having peripheral notches, a second member swiveled between the second pair of plates, the second member having a recess to receive one of the headed bolts to permit it to enter notches of the second pair of plates, a spring retained bolt to bridge the recess to hold said headed bolt in place, said second member having a slot and tongue substantially diametrically opposite the recess to hold the other headed bolt in other notches of the second pair of plates.

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1,092,535. DUST-COLLECTING ERASER. CHARLES MCCLINTOCK and LEA MCTURNAN, Elwood, Ind. Filed Feb. 4, 1913. Serial No. 746,209. (Cl. 15—65.)



1. A dust collecting eraser comprising a chambered back consisting of a plurality of paper units including corrugated strips disposed on edge to provide a multiplicity of pockets, and an eraser pad covering said back at one side.

2. A dust collecting eraser comprising a chambered back member composed of a plurality of units arranged in closely abutting relation, a base member secured to one side of said chambered back member, a cushion strip covering the base member and folded over the ends of the back member, and a perforated pad fitted to the back member.

3. A dust collecting eraser back comprising a plurality of parallel side by side and closely abutting back forming units, said units each comprising side walls spaced apart by a corrugated connecting wall, and having the meeting side walls of adjoining units cemented together, a base member also comprising sheets spaced apart by a corrugated connecting sheet cemented to one honey-combed face of the back member, side strips having flaps adapted to cover the exposed side edges of the base and back member, a cushion strip for covering the ends and back of the body member, and an eraser pad secured to the remaining chambered face of the back member.

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1,092,536. HAT-PIN GUARD. FRANK OLECHNOWICZ, Mineola, N. Y. Filed July 29, 1913. Serial No. 781,862. (Cl. 24—155.)

A hat pin guard, comprising an externally-threaded split sheath provided with outwardly projecting stops located at the lower end of said sheath, a clamping nut upon said sheath, a thimble having an end flange to engage said stops, a guide through which the pin is adapted



to extend, and a locking ring interposed between said guide and thimble, and supported upon the flanged end of the latter.

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1,092,537. FLY-TRAP. ALFRED RAIFSNIDER, Granbury, Tex. Filed July 17, 1913. Serial No. 779,620. (Cl. 43—22.)



1. A fly trap comprising a plurality of rods connected together at their upper ends, diverging downwardly and terminating in vertical portions, an annular receptacle secured to the vertical portions and adapted to form a liquid receiving well, and comprising inner and outer walls and a bottom, a foraminous cone-shaped section secured to the outer wall of the receptacle and terminating adjacent the connecting point of the rods and a second conical foraminous section secured to the inner wall of the receptacle and extending in spaced parallel relation to the first section, and said section being provided with an inlet opening.

2. A fly trap comprising a plurality of rods connected together at their upper ends, diverging downwardly and terminating in vertical portions, an annular wall portion secured to the vertical portions of the rods, a plate extending inwardly from the said wall and provided with a central opening, a second annular wall extending upwardly from the plate adjacent the opening, a conical foraminous member secured to the first wall and terminating at the connection of the rods, a second conical foraminous member secured to the second wall and in parallel relation to the first conical member and provided with an inlet opening and means depending from the said plate for carrying a bait pan.

3. In a fly trap, the combination with a receptacle having a central opening, of a strip disposed across the opening and having its intermediate portions downwardly offset, a second strip secured to the central portion of the first and having one end upwardly offset, the upper portions of said strips being secured to the receptacle, spring arms disposed over the strips and a bait pan held on the strips by the said spring arms.

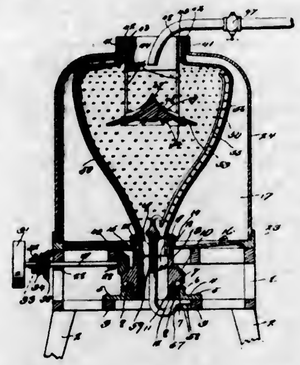
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1,092,538. BEER AND HOPS SEPARATOR. GEORGE F. RAUCH, Platte, S. D. Filed Oct. 6, 1913. Serial No. 793,690. (Cl. 127—3.)

1. In a separator as set forth, a receptacle, a revoluble pear-shaped screen mounted therein, and a distributer



device carried in the upper portion of the screen and rotatable therewith, said distributer having a sleeve provided with key connections with the screen, the distributer comprising a conical portion extending upwardly and having its apex arranged axially with the sleeve and axially with an inflow pipe.



2. In a separator as set forth, a receptacle, a revoluble screen mounted therein, a distributer rotatable with the screen and comprising a member having a conical portion extending upwardly, the apex of which being arranged axially with an inflow pipe, said conical portion having a series of grooves extending downwardly and outwardly from the apex, constituting means to impart a swirling motion to the fluid as it is thrown outwardly by the centrifugal force.

3. In a separator as set forth, a receptacle, a revoluble screen mounted therein, a distributer rotatable with the screen and comprising a member having a conical portion extending upwardly, the apex of which being arranged axially with an inflow pipe, said conical portion having a series of grooves extending downwardly and outwardly from the apex, constituting means to impart a swirling motion to the fluid as it is thrown outwardly by the centrifugal force, said member having a series of wings hinged adjacent its outer peripheral edge, adapted to swing outwardly and upwardly as the member revolves.

4. In a separator as set forth, a receptacle, a revoluble pear-shaped screen operable therein, a distributer suspended in the upper end of the screen and rotatable therewith, and a stationary supported comb arranged on the interior of the screen conforming to the contour thereof.

5. In a separator as set forth, a frame, a receptacle supported thereon, a gear having a tubular portion mounted in a bearing of the frame, a frusto-conical pear-shaped screen having keyed connections with the tubular portion of the gear and mounted in the receptacle, a distributer comprising a member having a conical shape extending upwardly, the apex of which being arranged axially with an inflow pipe, a sleeve having keyed connections with the screen and connected to said distributer member, a series of wings hinged to the distributer member adapted to swing outwardly and upwardly to throw the fluid against the inner circumference of the screen, the beer passing through the perforations of the screen, while the hops pass through the tubular portion, means for carrying off the hops, and means for operating the screen.

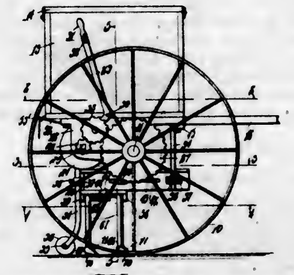
[Claim 6 not printed in the Gazette.]

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1,092,539. CORN-PLANTER. FRANKLIN H. REEDER, Philadelphia, Pa. Filed May 14, 1913. Serial No. 767,658. (Cl. 111—6.)

1. In a planter, a seed hopper, dropper tubes arranged in pairs beneath said hopper, means to vary the distance between said pairs of tubes, and means to deliver seed from the hopper to all four tubes simultaneously.

2. In a planter, a seed hopper, dropper tubes arranged in pairs beneath said hopper, means to vary the distance between said pairs of tubes, means to deliver seed from the hopper to all four tubes simultaneously, earth opening tools carried by the lower ends of said tubes, and an adjusting device arranged to vary the distance of said tools from said hopper simultaneously.



3. In a planter, a seed hopper, dropper tubes arranged in pairs beneath said hopper, means to vary the distance between said tubes, and a link device connected to said tubes to hold said pairs parallel.

4. In a planter, a seed hopper having an opening in its bottom, a reciprocable seed plate having openings therein arranged at the corners of a parallelogram, guide means beneath said hopper wherein said seed plate reciprocates, dropper tubes depending from said guide means and arranged to register with the openings in the plate at one point of its reciprocation, means to reciprocate said plate, a support including a pair of members mounted to move in parallel relation and carrying the lower end of said dropper tubes, and means for varying the distance between said supporting members.

5. In a planter, a seed hopper having an opening in its bottom, a reciprocable seed plate having openings therein arranged at the corners of a parallelogram, guide means beneath said hopper wherein said seed plate reciprocates, dropper tubes depending from said guide means and arranged to register with the openings in the plate at one point of its reciprocation, means to reciprocate said plate, a support including a pair of members mounted to move in parallel relation and carrying the lower end of said dropper tubes, means for varying the distance between said supporting members, brackets connected to said hopper, and adjusting means connecting said brackets and support.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,540. DRY-HOLE PLUG FOR WELLS. LAWRENCE E. ROBINSON, Coffeyville, Kans. Filed Apr. 19, 1913. Serial No. 762,295. (Cl. 166—13.)



1. A plug for oil wells comprising a body formed of a plurality of tapering staves having contacting side edges.

2. A plug for oil wells comprising a body formed of a plurality of tapering staves arranged in pairs having contacting side edges, and means for moving said staves longitudinally in respect to each other.

3. An expansible, cylindrical plug for oil wells, formed of a plurality of tapering staves having contacting side edges slidably mounted in respect to each other.

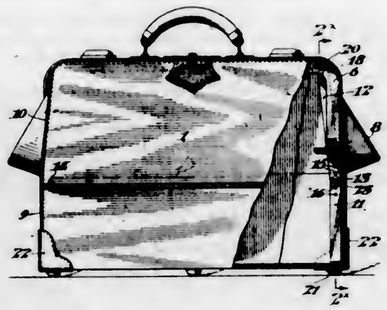
4. A plug for oil wells comprising a body formed of a plurality of tapering staves, headed pins detachably carried by said staves, and means for forcing said pins together for expanding said staves.

5. A plug for oil wells comprising a bottom pin and a top pin, staves connected to said pins, and a packing carried by the bottom pin adapted to be expanded by said staves.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,541. STIFFENER FOR TRAVELING-BAGS. PHILIPP RUEHLMANN, Camden, N. J. Filed May 15, 1911. Serial No. 627,150. (Cl. 190—49.)



1. A bag having upper side portions upwardly and inwardly converging to form an arch having portions immediately on each side adjoining the center of the arch at an angle to each other and an opening along the center line, a frame about the opening, resilient braces, one on each side of the center, extending transversely outwardly and downwardly along the contour of the arch and separate means for securing the brace members to the bag below the arch and to the frame.

2. In a device of the character stated, a bag having opposite upper sides meeting at the center and interiorly concave in proximity to the center in transverse planes, a club bag frame therein, interiorly concave resilient braces, having substantially the same length each between its points of connection as the distance therebetween measured along the side of the bag, and swelled against the side by closing of the bag and by downward pressure on the frame and separate means connecting the braces with the frame and bag.

3. In a device of the character stated, a bag, a club bag frame therein terminating appreciably above the bottom of the bag, a resilient brace for the frame and separate means connecting the brace to the bag and frame, said brace being restrained by and thus reinforced by the bag, having its upper part extending obliquely upwardly from the side to the center of the bag forming an acute angle with longitudinal vertical planes through the bag and thus outwardly pressed against the side of the bag by downward pressure upon the frame.

4. In a device of the character stated, a bag having a flexible upper side structure and gussets, a bag frame therein supported by said sides and gussets and terminating considerably above the bottom of the bag, resilient additional means and connections between the means and the bag and frame, respectively, said means being located inside the bag and supporting the frame.

5. In a device of the character stated, a bag having a boxed lower portion and converging flexible upper portions, a club bag frame therein terminating above the boxed portion, a flexible brace and separate means connecting the brace with the boxed portion and frame, respectively, said brace following the contour of the flexible part of the bag, having the portions of the brace on each side of the center interiorly concave and at an angle to each other.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,542. PROCESS OF PRODUCING BROWN SHADES ON FIBER. HENRI SCHMID, Mülhausen, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 3, 1912. Serial No. 734,654. (Cl. 8—5.)

1. The process of producing brown shades on fiber by applying to the material ortho-dianisidin and less than one equivalent of mineral acid for each equivalent of ortho-dianisidin employed and a chlorate, and then causing the oxidation of the ortho-dianisidin substantially as hereinbefore described.

2. The process of producing brown shades on fiber by applying to the material ortho-dianisidin and less than one equivalent of mineral acid for each equivalent of ortho-dianisidin employed and a chlorate and a suitable catalyzer, and then causing the oxidation of the ortho-dianisidin substantially as hereinbefore described.

3. The process of producing brown shades on fiber by applying to the material ortho-dianisidin and less than one equivalent of mineral acid for each equivalent of ortho-dianisidin employed and a chlorate and a small quantity of potassium ferrocyanid and then causing the oxidation of the ortho-dianisidin substantially as hereinbefore described.

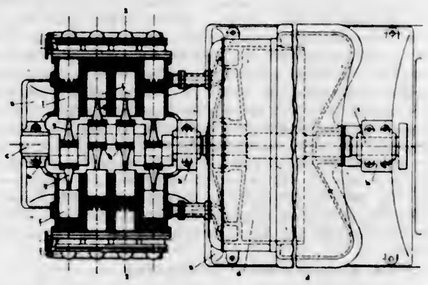
4. The process of producing brown shades on fiber by applying to the material ortho-dianisidin, an organic acid, a quantity of inorganic acid sufficient to combine with about one-fourth of the quantity of base employed, and alkali metal chlorate, and then causing the oxidation of the ortho-dianisidin.

5. The process of producing brown shades on fiber by applying to the material ortho-dianisidin and less than one equivalent of mineral acid for each equivalent of ortho-dianisidin employed and a chlorate, and then subjecting the material to the action of steam.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,543. ENGINE. WILHELM SCHMIDT, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf-Gesellschaft M. B. H., Cassel, Germany, a Corporation of Germany. Filed Dec. 16, 1911. Serial No. 666,276. (Cl. 121—58.)



1. A steam engine comprising, in combination, a shaft, and a plurality of identical single acting engines having their cylinders and said shaft in a common plane and disposed in groups of eight with four on one side and four on the other side of the shaft, the shaft being provided with cranks also in one plane the cranks corresponding to the four outside engines being opposite to those corresponding to the four central engines, and both cylinders and cranks being symmetrical as to a plane perpendicular to the shaft and midway as to the central engines.

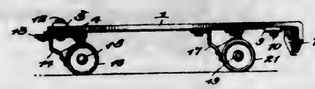
2. A steam engine comprising, in combination, a shaft and a plurality of identical single acting engines arranged in two groups having their cylinders at right angles to one another each group having its cylinders in a plane common to said shaft and disposed in sub-groups of eight with four on one side and four on the other side of the shaft, the shaft being provided with cranks corresponding to the two engine groups, the cranks all being in a single plane, the cranks corresponding to the four outside engines being opposite to those corresponding to the four central engines, and both cylinders and cranks being symmetrical as to a plane perpendicular to the shaft and midway as to the central engines.

3. A steam engine comprising, in combination, a shaft, and a plurality of identical single acting engines having their cylinders and said shaft in a common plane and disposed in groups of eight with four on one side and four on the other side of the shaft, the shaft being provided with cranks also in one plane the cranks corresponding to the four outside engines being opposite to those corresponding to the four central engines, the piston rods of the several engines, furthermore, being abutted against but not attached to the cranks, and both cylinders and cranks being symmetrical as to a plane perpendicular to the shaft and midway as to the central engines.

4. A compound steam engine comprising a turbine for a low pressure element and a reciprocating engine for a high pressure element the two elements being provided with a common shaft and the high pressure element comprising, further, a plurality of identical single acting engines having their cylinders and said shaft in a common plane and disposed in groups of eight with four on one side and four on the other side of the shaft, the shaft being provided with cranks also in one plane the cranks corresponding to the four outside engines being opposite to those corresponding to the four central engines, and both cylinders and cranks being symmetrical as to a plane perpendicular to the shaft and midway as to the central engines.

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1,092,544. TRUCK. FRANCIS H. SMITH, St. Mary, Ky., assignor to Sidney B. Smith, Annadel, Tenn. Filed Aug. 19, 1913. Serial No. 785,587. (Cl. 21—65.)



1. A truck comprising a frame having two rearwardly extending members each having a downwardly extending spur, a cross-bar connecting said members, roller brackets attached to the lower side of said frame, and rollers carried by said brackets.

2. A truck comprising a substantially horse-shoe shaped frame, downwardly extending spurs formed on the ends of said frame, a cross-bar connecting the sides of said frame adjacent its spur ends, a bracket pivotally secured to said frame at its apex, and two brackets secured to said frame, one beneath each arm thereof rearward of the first named bracket, and rollers mounted in said brackets.

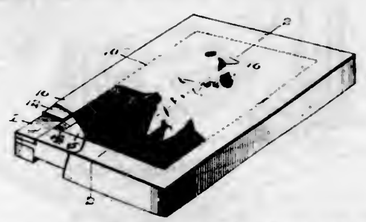
3. A truck comprising a frame having two hinged members each terminating at the rear of the truck in a downwardly extending spur, a cross-bar connecting said members adjacent their spur ends, a plurality of brackets secured to the lower side of said frame, and rollers mounted in said brackets.

4. A truck comprising a frame having two relatively movable members, a link member pivotally secured to each of said members, a pivot carried by said link member, a bracket secured to said pivot for angular movement, a roller mounted in said bracket, a bracket secured to the lower side of each of said relatively movable frame members, and rollers mounted in each of said brackets.





1,092,545. PROCESS OF PRINTING FROM PHOTOGRAPHIC NEGATIVES. JOHN H. SNAPP, Washington, D. C. Filed May 31, 1912. Serial No. 700,786. (Cl. 95—73.)



1. The process of reproducing a desired relation between the high lights and shadows in a photographic picture which consists in interposing a translucent sheet between the negative and the source of light spacing said translucent sheet from the negative, applying to said sheet a coating of plastic adherent amorphous material, the separate particles of which are at all times readily removable from each other and from said sheet to vary the density or extent of the coating, and manipulating said plastic adherent coating to cause its extent to correspond to the portions of the negative through which it is desired to restrain the actinic effect of the light and its density to vary with the transparency of the corresponding adjacent portions of the negative.

2. The process of reducing the contrasts between the high lights and shadows in printing positives from photographic negatives which comprises interposing between the source of light and the negative a translucent film, spacing said film from the negative and placing upon said film a plastic adherent light-restraining medium in alinement with those portions of the negative containing the shadows through which it is desired to restrain the actinic effect of the light, and varying the density of said adherent medium to correspond with the transparency of the corresponding adjacent portions of the negative, the treated translucent film being spaced from the negative a distance productive of coalescent diffusion of minute shadows cast by either the translucent film or the light-restraining medium thereon.

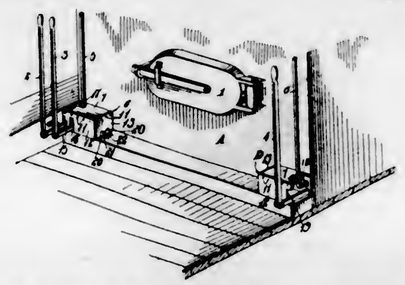
3. The process of producing a desired relation between high lights and shadows in a photographic picture and counteracting the undesirable effect of portions of negatives, which comprises interposing a supporting light-transmitting sheet between the source of light and the negative and in spaced relation to the latter, spreading on said sheet a light toning down coating of amorphous powdered carbon combined with a plastic adherent vehicle, and restricting the coating to those portions of the sheet matching the portions of the negative through which it is desired to restrain the actinic effect of the light, and exposing the shielded and unshielded portions of the negative uniformly to the source of light.

4. The process of producing photographic prints of proper tone values from negatives of false tone values, which consists in placing a sheet of translucent material in spaced relation to the back of the negative, then producing upon said sheet a coating of readily removable light toning-down material opposite those parts of the negative that print too deeply, the coating being graded in density inversely to the thinness of the said parts of the negative, and then subjecting photo-sensitive material to the action of actinic light transmitted through the treated sheet and the negative while in spaced relation.

5. The process of modifying the printing effect of a photographic negative which consists in placing a sheet of light-transmitting material in spaced relation to the face of the negative remote from that from which the prints are to be taken, and then applying light toning-down material to the sheet in locations matching those parts of the negative to be restrained in printing effect.

[Claim 6 not printed in the Gazette.]

1,092,546. GRATE-SHAKING GUARD. JOSEPH L. SPANI, Paragould, Ark. Filed Jan. 4, 1913. Serial No. 740,169. (Cl. 126—169.)

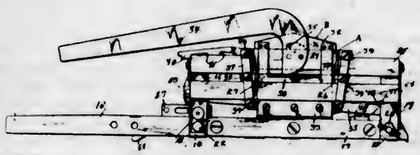


1. In a guard of the class described, comprising a casing having a top section, a side wall and an end wall connected therewith, said side wall having a slot formed therein for the passage of the grate shaking lever, and means at the lower edge of the end wall of the guard for hinging the latter to the engine deck.

2. In a guard of the class described, comprising a casing formed of sheet metal and including a top having a slot therein and provided with depending side and end flanges, a side wall riveted to the side flange of the top and having a vertical slot formed therein for the passage of a grate shaking lever, an end wall connected to the end flange of the top and means at the lower edge of the end wall for hinging the latter to an engine deck whereby when folded back the end wall constitutes a rest and stop for the movement of the casing.

3. A guard of the class described, comprising a casing formed of sheet metal and including a top section, a side wall and an end wall formed integral, said side wall having a plurality of slots therein, and means connected adjacent the lower edge of the wall for hinging the casing to the engine deck.

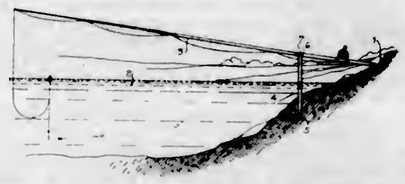
1,092,547. BELT-CUTTING MACHINE. LEWIS G. WARD, William, W. Va. Filed Nov. 18, 1911. Serial No. 660,981. (Cl. 164—57.)



1. In a belt cutting machine the combination of a base, a head mounted on said base, a cutter carrier mounted for vertical movement in said head, said carrier comprising spaced arms mutually connected at their lower ends, parallel plates connecting the upper ends of said arms a lever pivoted on said head and extending between said parallel plates, a cam face on the inner end of said lever adapted when the lever is moved in one direction to cooperate with the inner edge of said mutual connection to force the cutter carrier downwardly, and a transverse pin carried by said lever coöperating with the walls of recesses formed in the lower edges of said parallel arms when the lever is moved in the opposite direction to elevate said cutter carrier.

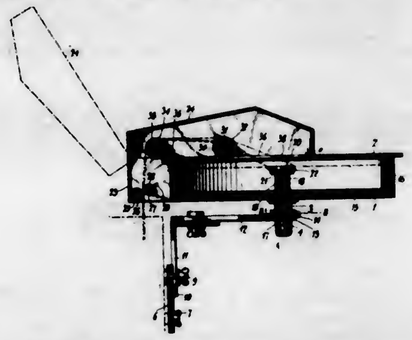
2. In a belt cutting machine the combination of a base, a cutting mechanism mounted on said base for adjustment longitudinally thereof, means for squaring the work on the base with respect to the cutting mechanism, a pair of rods extending transversely of the base, a lever pivoted on one of said rods an arm pivoted on the other rod, and a link having one end pivotally connected with said arm and its other arm pivotally connected with said lever whereby the oscillation of said lever will move said link to and from the base in substantial parallelism to the latter.

1,092,548. FISHING-POLE SUPPORT. ADOLPHUS B. WEBER, Kaufman, Ill. Filed June 14, 1913. Serial No. 773,721. (Cl. 248—37.)



In a support for fishing poles, the combination with a pole; of a stake formed of metal and designed arcuate in cross section, the lower end of said stake being tapered to form a point, a pair of spaced ears formed on the upper end of said stake, and receiving the aforesaid pole therethrough, and means extending through said ears and through said pole to pivotally secure the latter to the stake, the arcuate design of said stake permitting a portion of the pole to be received therein when said stake is folded against said pole.

1,092,549. MOVING-PICTURE MACHINE. CLARENCE H. WEISE and FRANK A. MCAUVIE, Archbald, Pa.; said McAuvie assignor to said Weise. Filed May 25, 1911. Serial No. 629,435. (Cl. 88—18.7.)



1. The combination with a casing, of a reel rotatably mounted therein and adapted to receive a film, said reel comprising a base having a flange extending therefrom, a spool carried by the base and provided with a beveled flange, a cover for the casing having an opening therein for the passage of the film, a supporting and guide roller journaled in the cover.

2. The combination with a casing, of a rotatable film receiving reel mounted therein, a spool disposed centrally of said reel and provided at its upper end with a beveled flange, a tongue formed in the cover of the casing above the spool and having a slot formed adjacent thereto, a tapered roller journaled at said slot and over which the film passes from the spool, and guide rollers for guiding the film when it leaves the tapered roller.

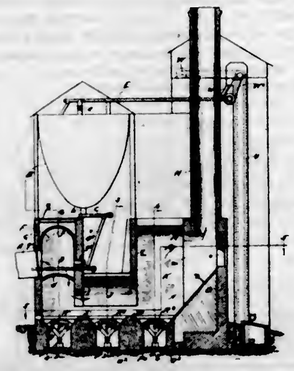
1,092,550. CROTALIN PREPARATION. CHARLES A. WOLF, Philadelphia, Pa. Filed Nov. 7, 1913. Serial No. 799,758. (Cl. 167—7.)

1. A new composition of matter containing crotalin and tricresol.



2. As a new composition of matter, a solution containing crotalin and tricresol, the tricresol in the approximate proportion of one-half of one per cent. by weight of the crotalin solution.

1,092,551. CEMENT-MANUFACTURING APPARATUS. FRITZ WORM, La Salle, Ill., assignor to German-American Portland Cement Works, La Salle, Ill., a Corporation of Illinois. Filed May 24, 1912. Serial No. 699,393. (Cl. 75—30.)



1. The combination with a cement kiln of a stack, a dust collecting chamber intermediate of and communicating with the feed end of the kiln and the stack, said chamber comprising portions progressively larger in cross section toward the stack to effect the settling of particles of material by the decreased velocity through said chamber, and a passage-way through which said chamber communicates with the stack of less area than the cross section of the chamber.

2. The combination with a cement kiln of a stack, a dust collecting chamber intermediate of and communicating with the feed end of the kiln and the stack, said chamber comprising portions progressively larger in cross section toward the stack to effect the settling of particles of material by the decreased velocity through said chamber, a passage-way through which said chamber communicates with the stack of less area than the cross section of the chamber, and an inclined wall extending upwardly from said chamber through said passage-way to the rear wall of the stack.

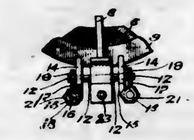
3. The combination with a cement kiln, of a stack, a plurality of dust collecting chambers intermediate of and communicating with the feed end of the kiln and the stack, said chambers being progressively larger in cross section toward the stack, and a chamber adjacent the stack communicating therewith through a passage of less area than the cross section of said chamber.

4. The combination with a cement kiln, of a stack, a duct collecting chamber intermediate of and communicating with the feed end of a kiln and the stack, the cross section of which is greater than the cross sections of the kiln and stack, a passageway through which said chamber communicates with the stack of less area than the cross section of the chamber, and means for admitting air into the stack at a point therein opposite its communication with said passageway.

5. The combination with a cement kiln, of a stack, a dust collecting chamber intermediate of and communicating with the feed end of the kiln and the stack, the cross section of which is greater than the cross sections of the kiln and stack and gradually increases in cross section toward the stack, a passageway through which said chamber communicates with the stack of less area than the cross section of the chamber, a dust receiving pocket in the bottom wall of said chamber, and an inclined wall extending upwardly from said pocket through said passageway to the rear wall of the stack.

[Claims 6 to 11 not printed in the Gazette.]

1,092,552. SOUND-BOX. WILLIAM W. ZACKEY, Philadelphia, Pa., assignor of forty-nine one-hundredths to Charles B. Hewitt, Burlington, N. J. Filed July 25, 1913. Serial No. 781,055. (Cl. 181—11.)



1. In a sound recording and reproducing machine, a sound box, a diaphragm operatively mounted therein, an arbor suitably mounted in a bearing in constant relation with respect to said sound box and adapted for rotary movement, a stylus bar fixedly carried by said arbor, and connected with said diaphragm, and independent springs suitably mounted and each acting torsionally and axially upon the said arbor, on portions thereof on the opposite sides of said bearing, in opposed relation, and tending to rotate said arbor in opposite directions.

2. In a sound recording and reproducing machine, a sound box, a diaphragm operatively mounted therein, an arbor suitably mounted in a bearing in constant relation with respect to said sound box and adapted for rotary movement, a stylus bar fixedly carried by said arbor and connected with said diaphragm, independent springs suitably mounted and each acting torsionally and axially upon the said arbor on the opposite sides of the bearing thereof in opposed relation and tending to rotate said arbor in opposite directions, and means for independent adjustment of said springs for balancing the tension thereof on said arbor.

3. In a device of the character stated, a body member having a centrally disposed opening therein, a diaphragm operatively connected to said body member, a stylus bar connected to said diaphragm, a spindle secured to said stylus bar and having an opening adjacent each end, a bearing for said spindle, a spring seated in each opening, an eyelet on one end of each spring, off-set therefrom and oppositely disposed with respect to each other, and adjusting means oppositely situated and passing through said eyelets for varying the tension of said springs.

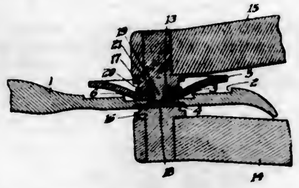
4. In a sound recording and reproducing machine, a sound box, a diaphragm operatively mounted therein, an arbor, a support in which said arbor is mounted and adapted for rotary movement, a stylus bar fixedly carried by said arbor and connected with said diaphragm, and means, acting torsionally directly upon said arbor in opposed relation and tending to rotate said arbor in opposite directions to adjust the axial position thereof and acting to maintain the same frictional engagement of said arbor with said support at all times.

5. In a sound recording and reproducing machine, a sound box, a diaphragm operatively mounted therein, an arbor suitably supported and fixedly carrying a stylus bar connected with said diaphragm, and means acting torsionally and axially upon said arbor in opposed relation and tending to rotate said arbor in opposite directions to adjust the axial position thereof, and acting to maintain the same frictional engagement of said arbor with its support at all times.

1,092,553. PROCESS OF PRODUCING DENTAL SUCTION. JAMES HERMAN ABBOTT, Philadelphia, Pa. Original application filed Aug. 9, 1911, Serial No. 643,111. Divided and this application filed May 18, 1912. Serial No. 698,103. (Cl. 32—4.)

1. The process of cupping disks for dental suctions, which consists in compressing an apertured disk against

a seat by applying cupping pressure annularly about the aperture greater at a short distance from the edge of the aperture than at its edge and uniformly about the length of the annulus.



2. The process of placing a dental suction, which consists in boring a hole entirely through the plate, counterboring the hole thus formed to provide an annularly even surface about the hole, and compressing an apertured rubber disk upon the surface so formed by annular means having greatest compression at a distance from the edges of the hole and aperture.

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1,092,554. SUCTION FOR DENTAL PLATES. JAMES HERMAN ABBOTT, Philadephia, Pa. Filed Aug. 9, 1911. Serial No. 643,111. (Cl. 32—4.)

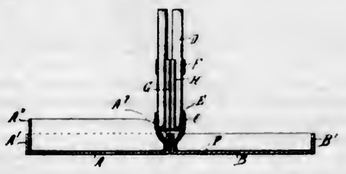


1. In a device of the character stated, a dental plate, apertured for suction attachment, in combination with a disk of flexible material, an annularly disposed narrow rib surrounding the aperture beginning at a distance radially from the walls of the aperture and having the sides of the rib at an angle to the adjoining surface of the plate, having the outside slope of the rib relieved to permit the disk to be cupped and means for retaining the rib in compression against the disk.

2. A dental plate having an aperture, a disk of flexible material, an annularly disposed narrow rib surrounding the aperture, beginning at a distance radially from the walls of the aperture and a compression and retaining device for the rib and plate.

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1,092,555. CIGARETTE-BOX. EDWARD AISENSTEIN, New York, N. Y. Filed May 27, 1913. Serial No. 770,240. (Cl. 206—41.)



1. A box for cigarettes and other articles, comprising two lids hinged to each other, a holder located between said lids, a bottom member secured to said holder, attaching members secured to the respective lids, relatively stiff links having a hinge connection at one end with the said bottom member, and at the other end with said attaching members, and flexible strips secured to said links and to the lower portion of the holder.

2. A box for cigarettes and other articles, comprising two lids hinged together, a holder located between said lids, a bottom member secured to said holder, attaching members secured to the respective lids, and links each connected at one end with one end of said bottom member, and at the other end with the corresponding end of the respective attaching members.

3. A box for cigarettes and other articles, comprising two lids hinged together, a holder located between said lids, attaching members secured to the respective lids, and links connecting said attaching members pivotally with the said holder at points adjacent to the bottom edges of the holder.

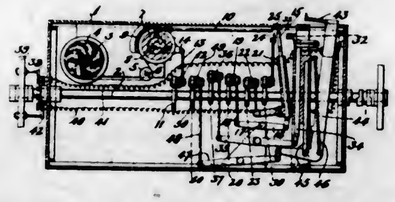
4. A box for cigarettes and other articles, comprising two lids hinged together, a holder located between the lids, attaching members secured to the respective lids adjacent to the hinge connecting said lids, and links connecting said attaching members pivotally with said holder at points adjacent to the bottom of said holder.

5. A box for cigarettes and other articles, comprising two lids hinged together, a holder located between said lids, and links extending from opposite edges of the lower portion of the holder convergingly to the respective lids and having hinge connections at each end.

[Claim 6 not printed in the Gazette.]

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1,092,556. APPARATUS FOR APPLYING LABELS TO FABRICS AT MEASURED DISTANCES APART. ROBERT HUTCHISON ANDERSON, Pool, near Leeds, England, assignor to The Wilanport Company Limited, Leeds, England. Filed Apr. 12, 1913. Serial No. 760,573. (Cl. 216—24.)



1. In apparatus for applying labels to fabrics at measured distances apart; the combination with a stationary shaft, a hollow measuring drum mounted freely thereon to be revolved by gearing or by the fabric to be labeled passing over same, said drum having an aperture for the delivery of labels, a continuous strip of labels coated on one side facing the interior surface of the drum with a dry adhesive calculated to melt under the action of heat, and means located within said drum to intermittently feed said label-strip toward said delivery aperture in said drum; of a label carrier within said drum to seize the leading label, means within the drum for operating said carrier, means within said drum to sever said leading label from said strip, a plunger within said drum, and means therein to move said plunger into contact with said label to press it against the fabric passing over the exterior of the drum, means for heating said plunger, a pressure plate located exterior of the drum, and means within said drum for moving said pressure plate above said fabric and over said delivery aperture to resist the pressure of said plunger.

2. In apparatus for applying labels to fabrics at measured distances apart; the combination with a stationary shaft, a hollow measuring drum mounted freely thereon to be revolved by gearing or by the fabric to be labeled passing over same, said drum having an aperture for the delivery of labels, a continuous strip of labels coated on one side facing the interior surface of said drum with a dry adhesive substance calculated to melt under the action of heat, a guide channel in said drum to guide said label-strip toward said delivery aperture, and means located within said drum to intermittently feed said label-strip through said guide channel; of a label carrier within said drum to seize the leading label projecting from said guide channel, means within the drum for operating said carrier, means within said drum to sever said leading label from said strip, a plunger within said drum, and means therein to move said plunger into contact with said label to press it against the fabric passing



over the exterior of the drum, means for heating said plunger, a pressure plate located exterior of the drum, and means within said drum for moving said pressure plate above said fabric and over said delivery aperture to resist the pressure of said plunger.

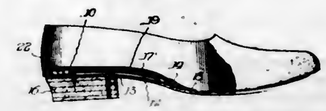
3. In apparatus for applying labels to fabrics at measured distances apart; the combination with a stationary shaft, a hollow measuring drum mounted freely thereon to be revolved by gearing or by the fabric to be labeled passing over same, said drum having an aperture for the delivery of labels, a continuous strip of labels coated on one side facing the interior surface of said drum with a dry adhesive substance calculated to melt under the action of heat, a guide channel in said drum to guide said label-strip toward said delivery aperture, and means located within said drum and operated by the revolution thereof to intermittently feed said label-strip through said guide channel; a label carrier within said drum to seize the leading label projecting from said guide channel, and means within the drum and operated by its revolution for operating said carrier, means located within said drum and operated by its revolution to sever said leading label from said strip, a plunger within said drum, and means within said drum and operated by its revolution to move said plunger into contact with said label to press it against the fabric passing over the exterior of the drum, means for heating said plunger to enable the latter to melt said adhesive on said label, a pressure plate carried exterior of the drum, and means within said drum and operated by its revolution for moving said pressure plate above said fabric and over said delivery aperture to resist the pressure of said plunger.

4. In apparatus for applying labels to fabrics at measured distances apart; the combination with a stationary shaft, a hollow measuring drum freely mounted on said shaft and revolved thereon by gearing or by the fabric passing over same to be labeled at measured distances, said drum having an aperture for the delivery of the labels, a continuous strip of labels within the drum coated on its outer surface with a dry adhesive substance calculated to melt under the action of heat, means for carrying same, a guide channel in said drum to guide said label-strip toward said delivery aperture, and means for intermittently feeding said label-strip through said guide channel; a label carrier within said drum, means for advancing said carrier to seize the leading label projecting from said guide channel, a movable knife within said drum located on one side of said label-strip, an opposed blade fixed on said drum on the other side of said label-strip, means for moving said knife into contact with said blade to sever the leading label held by said label carrier, means for moving said label carrier to bring said label carried thereby opposite said delivery aperture, a plunger located opposite said delivery aperture within said drum, means to move said plunger into contact with said label to press it against the fabric passing over the exterior of said drum, means for heating said plunger to enable the latter to melt said adhesive on said label, a pressure plate carried exterior to said drum, and means for moving said pressure plate above said fabric and over said delivery aperture in said drum to resist the pressure of said plunger.

5. In apparatus for applying labels to fabrics at measured distances apart; the combination with a stationary shaft, a hollow measuring drum revolvible upon said shaft and around which drum the fabric is traversed to be labeled at measured distances, said drum having an aperture for the delivery of the labels, a spindle in the interior of said drum, a continuous strip of labels carried by said spindle, said label-strip being coated on its outer surface with a dry adhesive substance calculated to melt under the action of heat, a feed roller in said drum over which said label-strip passes, a cam fixed on the drum shaft, means operated through said cam to communicate intermittent angular motion to said feed roller to feed said label-strip, and a guide channel in said drum to guide said label-strip toward said delivery aperture; of a forked carrier within said drum and pins on said fork ends, means for radially advancing said carrier to impale the leading label on said pins, a knife within said drum located on one side of said label-strip, a pivot connecting said knife to said drum, an opposed blade fixed on said drum on the other side of said label-strip, a cam fixed on said drum shaft, means operated through said cam to rock said knife to sever the label carried by said carrier, means for rocking said carrier to bring said label carrier thereby opposite to said delivery aperture, a plunger located opposite said delivery aperture within said drum, a slide rod to carry said plunger, a radial stationary guide frame in said drum to carry said slide rod, a cam fixed on said drum shaft within said drum, means operated through said cam to reciprocate said slide rod to bring said plunger into contact with said label to press it against the fabric passing over the exterior of said drum, means for heating said plunger, a pressure plate carried exteriorly of said drum, a bent arm carrying said pressure plate and extending within said drum, a cam fixed on said drum shaft, and means operated through said cam to rock said pressure plate above said fabric and over said delivery aperture in said drum to resist the pressure of said plunger.

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1,092,557. ARCH-SUPPORT AND VENTILATOR FOR SHOES. JAMES BALL, Chicago, Ill. Filed July 28, 1913. Serial No. 781,469. (Cl. 36—71.)



1. A device of the class described, embodying spaced members arranged one above the other, the upper member extending beyond the edges of the lower member, portions of one member being deflected to engage the other member for holding the members spaced, there being openings through the deflected portions communicating with the space between the members, and means securing the members together.

2. A device of the character described, embodying spaced members arranged one above the other, the upper member extending beyond the edges of the lower member, portions of one of the members being deflected to engage the other member to hold the members spaced, there being openings through the deflected portions communicating with the space between the members, and a flexibe member connected with the upper member and projecting beyond the forward edge thereof to form a shield for such edge.

3. A device of the character described, embodying two members arranged one above the other, provisions for holding the members spaced and having an air passage therethrough, means securing the members together, and a cover for the upper member, said cover being connected with the upper member and extending beyond the edges of said member, there being openings in the edges of the cover to form passages for air from the space between the members.

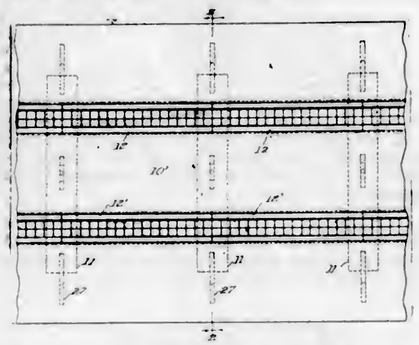
4. A device of the character described, embodying two members arranged one above the other, provisions for holding the members spaced and having an air passage therethrough, means securing the members together, and a cover for the upper member, said cover being connected with the upper member and extending beyond the edges of said member, there being notches in the edges of the cover to form passages for air from the space between the members, a portion of the cover also extending beyond the forward edge of the adjacent member to form a flexible shield for such edge.

5. A device of the character described, embodying two members arranged one above the other, provisions for holding the members spaced and having an air passage therethrough, means securing the members together, and a cover for the upper member, said cover being connected with the upper member and extending beyond the edges

of said member, there being notches in the edges of the cover to form passages for air from the space between the members, the said cover and upper member being both provided with passages therethrough, within their edges, communicating with the space between the members.

[Claims 6 to 10 not printed in the Gazette.]

1,092,558. SECTIONAL HIGHWAY CONSTRUCTION. HERBERT P. BEECHER, Aurora, Ill. Filed Sept. 27, 1913. Serial No. 792,102. (Cl. 104—178.)



1. In a roadway structure the combination of reinforced concrete cross-ties and similar sectional rails, each rail having its end resting upon a tie; of coöperating, integral, fastening means and gage determining means molded with said ties and rail ends to prevent relative displacement of said ties and rails and to maintain parallelism of said rails.

2. In a roadway structure, a reinforced concrete tie, having enlarged ends against which the rail ends abut to determine the gage, or distance of separation between rails, and rails, having integral fastening means at their ends for engagement with the enlarged ends of the ties.

3. In a roadway structure, a reinforced concrete tie, having enlarged ends against which the rail ends abut to determine the gage, or distance of separation, between rails; a ledge, on each vertical side of the tie, extending longitudinally thereof between said heads and upon which the ends of the respective rails rest, and rails, having integral fastening means for engagement with the enlarged ends of the ties and for the tapered surfaces above said ledges.

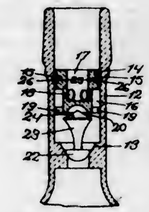
4. A reinforced concrete rail having a laterally extending base part; a head part, of substantially equal width, having a shallow channel in its upper tread surface and having integral fastening means at each of its ends, for engagement with a cross-tie, and a cross-tie, having coöperating integral fastening means for engagement with the rail ends.

5. A reinforced concrete rail having a laterally extending base part; a head part, of substantially equal width, having a shallow channel in its tread surface and intermediate channel between the head and base part and having integral fastening means at each of its ends, including said channel, for engagement with a cross-tie, and a cross-tie having coöperating, integral, fastening means in its sides for engagement with the rail ends.

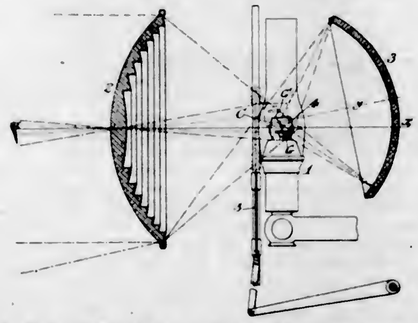
[Claims 6 and 7 not printed in the Gazette.]

1,092,559. NON-REFILLABLE BOTTLE. FRED H. CHAPMAN, Winchester, Mass. Filed Apr. 9, 1913. Serial No. 759,949. (Cl. 215—62.)

A non-refillable bottle having a substantially cylindrical neck, a valve seat and a baffle outlet plug spaced apart from each other in said neck, the inner end of the plug being provided with an annular inwardly facing stop shoulder concentric with and separated from the wall of the neck and surrounding a recess in the plug, and a valve having a semispherical acting face and an integral weighted stem projecting outwardly from said face, and provided at its outer end with an enlarged integral crowning face which projects into said recess and having its end surface inclined with respect to said stop shoulder, said crowning face having a wedging action with the annular stop shoulder to prevent endwise movement of the valve and stem with respect to the seat until the bottle is tilted beyond a horizonal position.



1,092,560. OPTICAL SYSTEM FOR HEADLIGHTS. WILLIAM CHURCHILL, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y. Filed May 29, 1912. Serial No. 700,537. (Cl. 240—41.)



1. In an optical system for headlights, the combination of a casing having a horizontal base, a lamp standing in a vertical line, a lens located with its axis parallel to the base of the casing, and a reflector the axis of which is elevated above and at an angle to the axis of the lens, substantially as described.

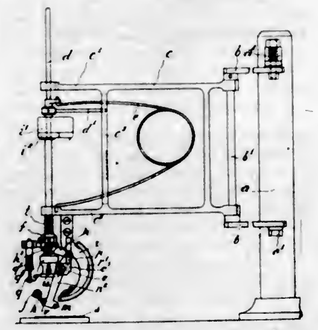
2. In an optical system for headlights, the combination of a casing having a horizontal base, a lamp standing in a vertical line, a lens located with its axis parallel to the base of the casing, a reflector the axis of which is elevated above and at an angle to the axis of the lens, a movable screening device placed in front of the source of illumination, and means for moving said screening device to a plurality of screening positions relatively to said source of illumination, substantially as set forth.

3. In an optical system for headlights, the combination of a lens, a source of illumination located in substantially the axis of the lens, a concave reflector so mounted that its axis is above and at an angle to the axis of the lens, whereby a real image of the source of illumination is formed at one side of the lens-axis, a screen mounted to move between said lens and said source of illumination, and means for moving said screen to a plurality of positions relatively to said image and said source of illumination, substantially as set forth.

1,092,561. STAMP-CANCELING MACHINE. FRÉDÉRIC DE COPPET, Lausanne, Switzerland. Filed July 10, 1912. Serial No. 708,558. (Cl. 101—80.)

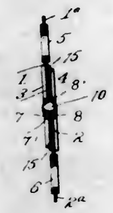
1. A stamp canceling machine comprising a support, a two-part frame connected to the support to swing horizontally thereon, a shaft movable vertically in the said frame, a device detachably connected to the said shaft at the lower end thereof, a die connected to the said device, an inking pad secured to the said frame, a support carried by the said frame, a pair of spaced arms pivotally mounted on the said support, an arbor extending between the said arms, a pin fixed on the said arbor, a roller frame revolubly mounted on the said pin, an inking roller secured in the said roller frame, and means for connecting the said spaced arms to the said shaft so that the same and the inking roller are actuated by the movement of the shaft.





2. A stamp canceling machine comprising a support, a two-part frame connected to the support to swing horizontally thereon, a shaft movable vertically in the said frame, a device detachably connected to the said shaft at the lower end thereof, a die connected to the said device, an inking pad secured to the said frame, a support carried by the said frame, a pair of spaced arms pivotally mounted on the said support, an arbor extending between the said arms, a pin fixed on the said arbor, a roller frame revolubly mounted on the said pin, an inking roller secured in the said roller frame, a pin fixed in the lower portion of the said shaft, and a link connecting the last aforesaid pin with the said spaced arms.

1,092,562. FUSIBLE LINK. HOWARD W. COTTON, New York, N. Y., assignor of one-half to Silas H. Pomeroy, New York, N. Y., and one-half to Peter C. Lenz, Brooklyn, N. Y. Filed Nov. 21, 1912. Serial No. 732,790. (Cl. 236—16.)



1. A fusible link comprising a plurality of link members, provided with openings, a non-fusible holding member free from angular surfaces contained within the openings of said link members and a fusible material capable of binding said holding member within the link members.

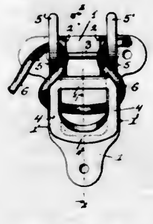
2. A fusible link comprising a plurality of link members provided with openings, a non-fusible holding member contained within said openings but not engaging the walls thereof, and a fusible element capable of binding said holding member within said openings.

3. A fusible link comprising a plurality of link members provided with circular openings extending uniformly therethrough, a ball-shaped non-fusible holding member of less diameter than said openings, and contained within said openings and a fusible material capable of binding said holding member within said openings.

4. A fusible link comprising a plurality of link members provided with openings extending entirely through each of said link members in uniform diameter, and a ball-shaped non-fusible holding member contained within said openings and capable when fused of passing between or through said link members.

5. A fusible link comprising a plurality of link members provided with openings extending entirely through each of said link members in uniform diameter, a ball-shaped non-fusible holding member contained within said openings, and a fusible material capable of binding said holding member within said openings, said holding member when fused adapted to pass between or through said link members.

1,092,563. LINE-FASTENER. EDWARD J. DAY, Milwaukee, Wis., assignor of one-fourth to Walter J. Bauer, Milwaukee, Wis. Filed Oct. 8, 1912. Serial No. 724,568. (Cl. 24—133.)



A line fastener comprising a flat plate constituting a jaw member having ears extending therefrom adjacent to one end, a pair of fixed parallel biting members formed in the base, a second jaw member in hinge connection with the ears of the first named jaw member, a pair of hooked arms extending from the base of the second jaw member, the same being adapted to receive the end of a line that is looped between said jaw members, a pair of movable parallel biting members extending from the base of the hooked arms adapted to co-act with the fixed biting members for gripping the line, a mouthpiece connecting the last mentioned set of biting members at their ends, and an intermediate base-bar connecting said biting members at an intermediate point.

1,092,564. ACCOUNT-CABINET. WILLIAM L. DEMING, Salem, Ohio. Filed June 13, 1910. Serial No. 566,536. (Cl. 45—94.)

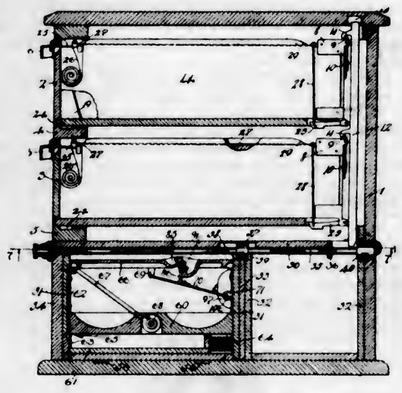
1. In a device of the character described, the combination of a casing, a drawer therein, mechanism for locking the drawer including a rotatable and longitudinally movable rod, and a combination lock, the knob of which is connected with the rod, whereby the lock may both release the rod and furnish the means for rotating it.

2. In a device of the character described, the combination of a casing, a drawer therein, means for locking the drawer, including a rotatable and longitudinally movable rod, and a combination lock, the knob of which is mounted on the forward end of the rod and furnishes means for both rotating it and moving it longitudinally.

3. In a device of the character described, the combination of a casing, a pair of drawers therein mounted to move at right angles to each other, a longitudinally movable and rotatable rod, two mechanisms operated thereby for locking the respective drawers, a combination lock adapted to prevent the movement of the rod, said lock furnishing means to rotate the rod into unlocking position.

4. In a device of the character described, the combination with a casing, of a plurality of drawers slidingly mounted in said casing, a longitudinally slidable and rotatable rod mounted in the casing, means controlled by said rod for locking the drawers when the rod is in one position

and for unlocking the drawers when the rod is in its other position, and a combination lock controlling the longitudinal motion of said rod and furnishing means for rotating it.

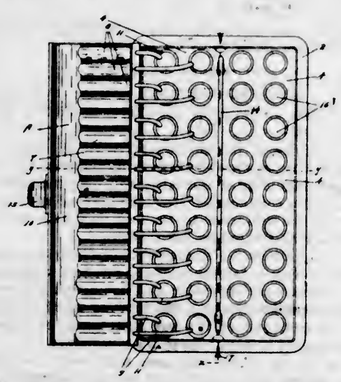


5. In a device of the character described, the combination with a casing, of two drawers slidably mounted in said casing, one above the other, and moving at right angles to each other, a longitudinally slidable and rotatable rod projecting into the casing between the said drawers, means on said rod for engaging directly with one of said drawers when the rod is in one position, thereby locking the last mentioned drawer in its closed position, means controlled by said rod for locking and unlocking the other drawer as the rod is moved longitudinally, and means for preventing the rod moving longitudinally except in a certain position of its rotation.

[Claims 6 to 12 not printed in the Gazette.]

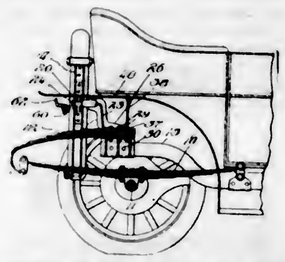
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1,092,565. COMMUNION-SERVICE FILLER. DON R. DIX, Salt Lake City, Utah. Filed Nov. 11, 1912. Serial No. 730,795. (Cl. 226—21.)



In a communion service filler, a receptacle having portions thereof adapted to be supported by two cups and having a longitudinal channel formed in a portion of its bottom and transverse channels contiguous to and opening into said longitudinal channel; open tubes leading from said transverse channels and attached to the side of said receptacle by means of which liquid may be poured into said cups when said receptacle is tilted above the level of said cups.

1,092,566. TIRE-CARRIER BRACKET. THOMAS I. DUFFY, Chicago, Ill., assignor to E. C. Sales Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1912. Serial No. 716,905. (Cl. 224—29.)



1. The combination with a tire carrier equipped with an attaching fitting, of a bracket, one end of which is shaped to constitute a spring clip tie adapted to be clamped upon the rear spring of the vehicle and means for fastening the said fitting to the other end of said bracket.

2. The combination with a tire carrier equipped with attaching fittings, of members comprising clip tie portions adapted to be fitted to the springs of a vehicle and integral, rearwardly extending bracket portions and means whereby said fittings are attached to and carried by said bracket portions.

3. The combination with a tire carrier equipped with an attaching fitting, of a bracket, one end of which is shaped to constitute a spring clip tie adapted to be clamped upon the rear spring of the vehicle and means for fastening the said fitting to the other end of said bracket, said bracket being provided at the clip tie portion with a lug and a fender iron extending through said lug.

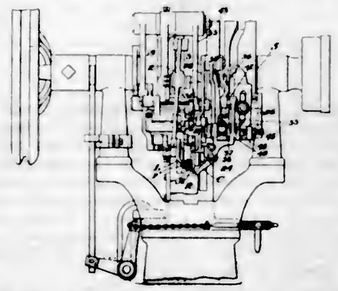
4. A bracket for supporting a tire carrier upon a vehicle, said bracket being flanged at its forward end to be applied to the vehicle spring, and having means at its flanged portion to coöperate with the same fastening means which attach the rear spring to the vehicle frame, whereby the bracket is fastened in place, said bracket having an integral, rearwardly extending portion provided with means to support a tire carrier.

5. A combined spring clip tie and tire carrier bracket comprising a clip tie portion adapted to be fitted over and clipped to a vehicle spring, and an integral rearwardly extending portion having means at its end to support a tire carrier, said clip tie portion being provided with a lateral lug adapted to receive a fender iron to thereby support a portion of the vehicle fender.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,567. SHOE-SEWING MACHINE. ANDREW EPPLER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1905. Serial No. 247,117. (Cl. 112—20.)



1. A shoe sewing machine, having, in combination, a curved hook needle, a looper, a thread finger, a take-up, a spring-actuated auxiliary take-up, a relatively fixed stop for limiting the thread pulling action of the auxiliary take-up, and means for actuating the parts, all timed and arranged to prevent the auxiliary take-up from stealing thread from the thread finger during its thread delivering stroke, substantially as described.

2. A shoe sewing machine, having, in combination, a curved hook needle, a looper, an awl, a reciprocating feed slide to which the awl-carrier is pivoted, a channel guide pivotally mounted upon the feed slide, means for limiting the lateral movements of the channel guide with respect to the feed slide, and means for actuating the parts, substantially as described.

3. A shoe sewing machine, having, in combination, a curved hook needle, a looper, an awl, a channel guide, a feed slide and means for actuating the parts to cause the awl to engage, feed and penetrate the between-substances and to impart lateral reciprocations to the channel guide less in extent than those imparted to the awl, substantially as described.

4. A shoe sewing machine, having, in combination, a curved hook needle, a looper, a curved awl of the same radius of curvature as the needle, a channel guide, a feed slide, said awl and channel guide being pivotally mounted upon the feed slide, and means for actuating the parts in the proper time relation to each other and to cause the lateral reciprocations of the awl to exceed those of the channel guide, substantially as described.

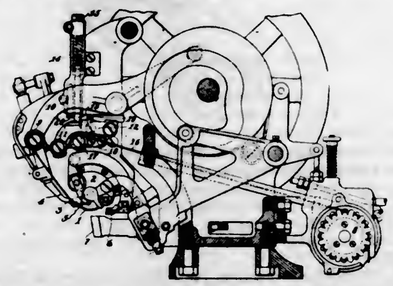
5. A shoe sewing machine, having, in combination, a curved hook needle, a looper, a curved awl of the same radius of curvature as the needle, a reciprocating feed slide upon which the awl is pivotally supported upon the axis of the needle, the movements of the awl and feed slide operating to cause the awl to move diagonally down toward and into engagement with the work, to move the awl laterally the stitch length to retract the awl and to move it laterally in the opposite direction a distance in excess of the stitch length, a channel guide movable toward and from the work and laterally a stitch length, and means for actuating the parts, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]



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1,092,568. SHOE-SEWING MACHINE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 8, 1908, Serial No. 447,542. Divided and this application filed Mar. 11, 1912. Serial No. 683,088. (Cl. 112—20.)



1. A chain stitch shoe sewing machine having, in combination, a hook needle, a looper, a thread arm, a take-up, a spring-pressed auxiliary take-up, and means having provision for adjustment for stopping the movement of the auxiliary take-up under the force of its spring to prevent the auxiliary take-up from stealing thread from the thread arm.

2. A chain stitch shoe sewing machine having, in combination, a hook needle, a looper, a take-up, an auxiliary take-up, and means for adjusting the amount of thread given up by the take-up to the needle to vary the pull exerted upon the thread by the needle in tightening the preceding loop.

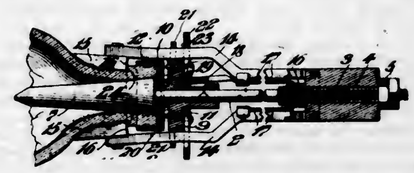
3. A chain stitch shoe sewing machine having, in combination, a hook needle, a looper, a take-up, a rising and falling spring-pressed auxiliary take-up, and a stop to limit the rising movement of the auxiliary take-up having provision for adjustment to vary the amount of thread given up by the take-up to the needle and thereby vary the pull exerted upon the thread by the needle in tightening the preceding loop.

4. A chain stitch shoe sewing machine having, in combination, a hook needle, a looper, a take-up, a rising and falling spring-pressed auxiliary take-up, and means having provision for adjustment to vary both the rising and falling movement of the auxiliary take-up.

5. A chain stitch shoe sewing machine having, in combination, a hook needle, a looper, a take-up, a rising and falling spring-pressed auxiliary take-up and means for adjusting the relative movement of the take-up and auxiliary take-up to vary the amount of thread given up by the take-up to the needle and thereby vary the pull exerted upon the thread by the needle in tightening the preceding loop.

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1,092,569. TOOL FOR FINISHING HEADS OF BOTTLES. KIRJATH ARBA GODWIN, Salem, N. J. Filed Apr. 8, 1912. Serial No. 689,151. (Cl. 49—24.)

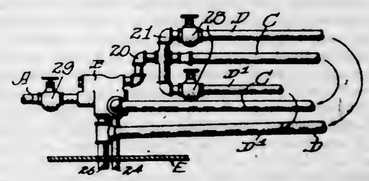


1. In a device of the character stated, a stationary mandrel adapted to contact with the inner wall of the mouth of the bottle to form the same, a rotatable head-shaping former at the inner end of the said mandrel to shape the upper edge of the mouth and the locking means on the exterior of the head of the bottle, means adapted to be actuated to force the glass into said former, and means for normally locking said former against rotation and adapted to be actuated to release said rotatable former, when said forcing means is actuated.

2. In a device of the character stated, a stationary mandrel adapted to contact with the inner wall of the mouth of the bottle to form the same, a rotatable, internally threaded former at the inner end of said mandrel to shape the upper edge of the mouth of the bottle and the screw threads on the exterior of the bottle, jaws adapted to be actuated to force the glass into said former, means for normally holding said jaws in and returning the same to open position, and means for normally locking said former against rotation and adapted to be actuated to release said rotatable former, when said jaws are actuated.

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1,092,570. MULTIPLE-CIRCUIT STEAM-HEATING SYSTEM. EGBERT H. GOLD, Chicago, Ill. Filed July 31, 1912. Serial No. 712,563. (Cl. 237—12.)



1. In a steam heating system the combination with a source of supply of steam of a plurality of radiating units

respectively comprising separate circuits, a controlling device comprising a chamber with which the inlet and return ends of said radiating units communicate, means for introducing the steam from said source of supply into said radiating units in the form of a jet which tends to create a partial vacuum in said chamber, a valve to control the inflow of steam to the controlling device, and a thermostat in said chamber to actuate the movements of said valve; one of said units being constantly open for the passage of steam whenever steam is admitted to said chamber, another of said units being provided with a shut-off valve for the purpose described.

2. In a steam heating system the combination with a source of supply of steam of a plurality of radiating units respectively comprising separate circuits, a controlling device comprising a chamber with which the inlet and return ends of said radiating units communicate, means for introducing the steam from said source of supply into said radiating units in the form of a jet which tends to create a partial vacuum in said chamber, a valve to control the inflow of steam to the controlling device, and a thermostat in said chamber to actuate the movements of said valve; one of said units being constantly open for the passage of steam whenever steam is admitted to said chamber, another of said units being provided with a shut-off valve for the purpose described; and means for preventing the steam from being drawn into the last-named unit through its return end by the vacuum created therein when the shut-off valve is closed.

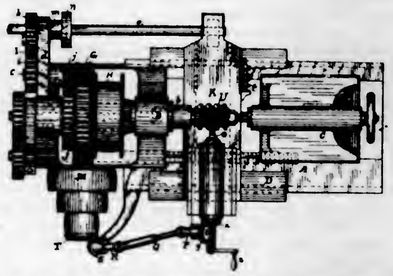
3. In a steam heating system the combination with a source of supply of steam of a plurality of radiating units respectively comprising separate circuits, a controlling device comprising a chamber with which the inlet and return ends of said radiating units communicate, means for introducing the steam from said source of supply into said radiating units in the form of a jet which tends to create a partial vacuum in said chamber, a valve to control the inflow of steam to the controlling device, and a thermostat in said chamber to actuate the movements of said valve; one of said units being constantly open for the passage of steam whenever steam is admitted to said chamber, another of said units being provided at its inlet end with a shut-off valve for the purpose described and communicating at the discharge end with the atmosphere and also, through an effectively smaller opening, with the thermostat chamber.

4. In a steam heating system the combination with a source of supply of steam of a plurality of radiating units respectively comprising separate circuits, a controlling device comprising a chamber with which the inlet ends of said radiating units communicate, means for introducing steam from the source of supply into said radiating units in the form of a jet which tends to create a partial vacuum in said chamber, a valve to control the inflow of steam, a thermostat in said chamber to actuate the movements of the valve, and an outlet pipe leading from said chamber and open to the atmosphere; one of said units discharging directly into said chamber and being constantly open for the passage of steam whenever steam is admitted to said chamber, the other unit being provided with a shut-off valve and discharging into said outlet pipe.

5. In a steam heating system the combination with a source of supply of steam of a plurality of radiating units respectively comprising separate circuits, a controlling device comprising a chamber with which the inlet ends of said radiating units communicate, means for introducing steam from the source of supply into said radiating units in the form of a jet which tends to create a partial vacuum in said chamber, a valve to control the inflow of steam, a thermostat in said chamber to actuate the movements of the valve, and an outlet pipe leading from said chamber to the atmosphere; one of said units discharging directly into said chamber and being constantly open for the passage of steam whenever steam is admitted to said chamber, the other unit being provided with a shut-off valve and discharging into said outlet pipe, the opening between said chamber and outlet pipe being smaller than the cross-sectional area of the outlet pipe.

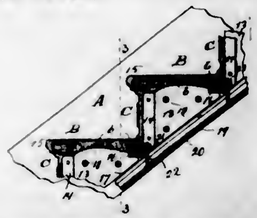
[Claim 6 not printed in the Gazette.]

1,092,571. MACHINE FOR BACKING OFF HOBS OR CUTTERS FOR CUTTING GEARS. CARL J. HALBORG, Rockford, Ill. Filed Sept. 19, 1912. Serial No. 721,330. (Cl. 90—137.)



In a machine of the class specified the combination of a bed, a head stock fixed thereon, a tail stock and a carriage slidably supported on said bed, a spindle journaled in said head stock, means for rotating said spindle, a lead screw and nut adapted to move said carriage laterally, means for transmitting motion from said spindle to said lead screw, a transversely sliding member mounted on said carriage, a cam shaft, means for rotating the same, a ratchet device mounted upon said cam shaft and adapted to transmit motion in one direction only, a single throw cam fixed to said cam shaft and adapted to move said transversely sliding member in one direction, a spring adapted to move said transversely sliding member in the opposite direction, a tool block mounted upon said transversely sliding member, a tool spindle journaled in said tool block and adapted to receive an end mill, an end mill, and means for rotating said tool spindle and end mill, substantially as shown and described and for the purposes set forth.

1,092,572. STAIR CONSTRUCTION. FREDERICK HARTMANN, Cincinnati, Ohio. Filed Jan. 27, 1913. Serial No. 744,302. (Cl. 72—96.)



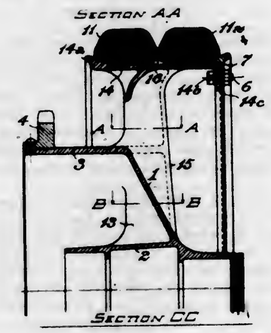
1. In stair-construction, the combination of the steps and metallic side-frames on which they are supported, said side-frames being stiffened by angles on their outer side, attached to the parallel edges of these sides, and a shell of concrete provided on the outer side of these frames and between these angles and spaced from these frames.

2. In stair-construction, the combination of side-frames, independently formed steps each consisting of a metallic riser, rearwardly projecting cheek-plates connected to the ends of these risers, rods provided between these plates and connected thereto, concrete treads formed on these rods and on the upper edge of the risers, and means engaging the cheek-plates for securing the steps to the side-frames above mentioned.

3. In stair-construction, the combination of side-frames, independently formed steps, consisting of metallic risers provided at their upper edges with a forwardly projecting and rearwardly open nosing and at their lower edges with a forwardly projecting flange, cheek-plates projecting rearwardly from the ends of the risers, rods extending between these plates and connected thereto, concrete treads formed on these rods and joined to the nosing at the upper edge of the risers and fitted to extend over the flange on the lower edge of the riser of the step adjoining and means engaging the cheek-plates for supporting these steps on the side-frames above mentioned.



1,092,573. WHEEL FOR VEHICLES. CHARLES L. HEISLER, Schenectady, N. Y. Filed May 27, 1912. Serial No. 699,849. (Cl. 21—69.)




1. In a vehicle wheel, the combination of a hub, a rim, a plurality of spokes integral with said hub and rim, and a conical flange formed on and extending rearwardly around said hub said flange being integral with said spokes and hub.

2. In a vehicle wheel, the combination of a hub, a rim, a plurality of spokes integral with said hub and rim, a conical flange formed on and extending rearwardly around said hub, and a drum extending rearwardly from said conical flange and presenting a bearing for a brake shoe on its surface said flange being integral with said spokes, hub and drum.

3. In a vehicle wheel, the combination of a hub, a rim, a plurality of spokes integral with said hub, a conical flange formed on and extending rearwardly around said hub and between said spokes, and a drum extending rearwardly from said conical flange and integral therewith.

4. In a vehicle wheel, the combination of a hub, a rim, a plurality of spokes connecting the hub and rim, a conical flange formed on and extending rearwardly around the hub and between the spokes, and a drum extending rearwardly from said conical flange, said drum being integral with the hub, rim, spokes and flange.

5. In a vehicle wheel, the combination of a hub, a rim, a plurality of spokes integral with said hub and rim, a conical flange formed on and extending rearwardly around said hub and between said spokes, and a plurality of radial ribs extending from the hub to said conical flange, between said spokes.

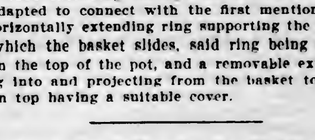
[Claim 6 not printed in the Gazette.]

1,092,574. SHAFT-COUPLING. CHARLES A. JANSSON, New York, N. Y., assignor to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Jan. 4, 1912. Serial No. 669,324. (Cl. 64—13.)

1. A safety coupling comprising a driven member and a driving member, one of said members having sides constructed to spring outwardly, the other member having corners adapted to force the sides of the first member to spring outwardly, so that the second member can slip within said first member.

2. The combination of a slotted yielding tubular grip, and a prismatic clutch member inserted in said grip and having corners inserted in the slots of said grip.

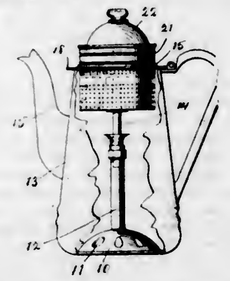
3. A safety coupling comprising a head or grip having sides adapted to spring outwardly, and a member having corners adapted to force the sides of the first member to spring outwardly, said first member having a plurality of slots for receiving the corners of said second member.



4. A coupling comprising a hollow rotary member slotted to form elastic sections and a coöperating member frictionally engaging the slotted portion of the hollow member, said sections being yieldable in a direction to permit relative rotation of the members.

5. In a coupling, the combination of a hollow member slotted to form an elastic arm yieldable in a radial direction, and a member formed with a projection in frictional engagement with a slot of the hollow member, and operable under excessive strain to cause said arm to yield in a radial direction and thereby permit relative rotation of the coupling members.

1,092,575. COFFEE-PERCOLATOR. WILLIAM S. JESSUP, New York, N. Y. Filed Aug. 29, 1913. Serial No. 787,257. (Cl. 53—3.)



1. A coffee percolator comprising a base, a perforated basket, a tubular connection between the basket and base whereby water can flow upward through the tube and into the basket, a supporting ring into which the basket slides, said ring adapted to rest on the top of the pot, a removable extension top projecting from the basket above the ring and a cover for the top.

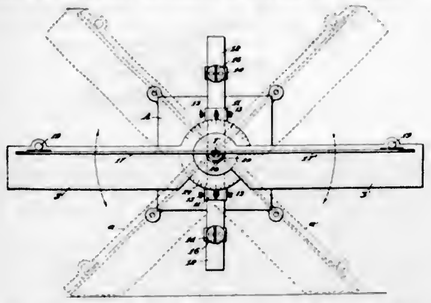
2. The combination with the basket and the tube extending vertically through the basket and downward into a coffee pot, of a ring supporting the basket and into which the basket slides, said ring being adapted to rest on the top of the pot, said ring having an outer flange on the under side, a removable extension top projecting from the basket above the ring, and a cover for the pot.

3. A coffee percolator comprising a base, a tube rising from the base, means for admitting water through the base and into the tube bottom, a perforated metallic basket, a tube extending through the bottom of the basket and adapted to connect with the first mentioned tube, a flat horizontally extending ring supporting the basket and into which the basket slides, said ring being adapted to rest on the top of the pot, and a removable extension top sliding into and projecting from the basket top, said extension top having a suitable cover.

1,092,576. MITER-BOX. WILLIAM E. KAWALLE, Oakland, Cal. Filed Oct. 8, 1912. Serial No. 724,616. (Cl. 143—90.)

1. A miter-box comprising a base, a pair of superposed continuous circular toothed racks, molding supporting plates attached to said racks, a drum interposed between said racks, pinions carried by the drum engaging with the

racks, threaded pivot pins pivotally connecting the toothed racks and the drum to the base plate, and means for rotating one of said pivot pins to clamp the toothed racks and drum against movement in relation to the base.



2. In a miter-box, the combination of a base, a pair of superposed continuous toothed racks, molding supporting plates attached to said racks, a drum interposed between said toothed racks, pinions on said drum meshing with the toothed racks, a threaded pivot pin connecting the uppermost rack to the top of the drum, a threaded pivot pin connecting the lower toothed rack to the underside of the drum and to the base, and means for rotating said last-named pivot pin to clamp the pinions carried by the drum against the teeth of the lower rack to lock the drum and the racks against movement in relation to each other and the base.

3. In a miter-box, the combination of a base, a pair of superposed continuous toothed racks, molding supporting plates attached to said racks, a drum interposed between said toothed racks, pinions on said drum meshing with the toothed racks, a threaded pivot pin connecting the uppermost rack to the top of the drum, a threaded pivot pin connecting the lower toothed rack to the underside of the drum and to the base, means for rotating said last-named pivot pin to clamp the pinions carried by the drum against the teeth of the lower rack to lock the drum and the racks against movement in relation to each other and the base, a bar extending horizontally through the drum, means for adjustably securing the bar to the drum, and saw-guides carried by said bar.

4. A miter-box comprising a base, a pair of superposed continuous circular toothed racks, molding supporting plates on said racks, a drum interposed between said racks, saw guides carried by said drum, pinions on the drum engaging the racks, and threaded pivot pins pivotally connecting the toothed racks and the drum to the base plate.

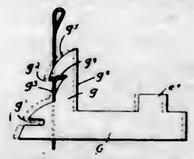
5. A miter-box comprising a base, a pair of superposed continuous circular toothed racks, molding supporting plates on said racks, a drum interposed between said racks, a horizontal bar carried by said drum, a vertical saw guide on said bar on each side of the drum, pinions on the drum engaging the racks, and threaded pivot pins pivotally connecting the toothed racks and the drum to the base plate.

[Claim 6 not printed in the Gazette.]

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1,092,577. CIRCULAR-KNITTING MACHINE. EDWARD E. KILBOURN, WILLIAM E. SMITH, and ISAAC W. KILBOURN, New Brunswick, N. J., assignors to Kilbourn Manufacturing Corporation, New Brunswick, N. J. Original application filed Mar. 29, 1910, Serial No. 550,784. Divided and this application filed Apr. 17, 1911. Serial No. 621,647. (Cl. 66—26.)

1. In a circular stocking knitting machine, the combination with two cam cylinders for actuating all of the needles of the machine, each cam cylinder operating a continuous portion of the needles, one of said cams being stationary during a part of the operation of the machine, and movable web holders, the web holders associated with the needles engaging the riser cam grade of the actuating cam of the stationary cam cylinder when the same is at rest extending outward beyond the other web holders.



2. In a circular stocking knitting machine, the combination with two cam cylinders for actuating the needles, each cam operating a continuous series of needles and one being stationary during a part of the operation of the machine, of movable web holders, a cam ring for operating them, the cam groove of said cam ring varying in depth and width, said web holders being provided with nibs of different lengths to engage both parts of the cam groove.

3. In a circular stocking knitting machine, the combination with the needle cylinder, and needles, and means for actuating the needles, of movable web holders, and actuating means therefor, constructed to permit certain of said web holders associated with those needles which remain at rest during the formation of the heel and toe pockets to move outwardly to a greater extent than the other web holders, to relieve the thread on the adjacent needles from strain.

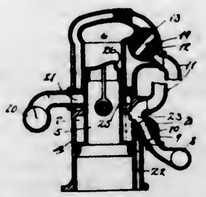
4. In a circular stocking knitting machine, the combination with the needle cylinder, the needles, and the actuating means therefor, of movable web holders, and actuating means therefor including a cam ring, said ring having provision for permitting certain of said web holders associated with the needles which remain stationary during reciproacting work, to move outwardly to a greater extent than the other web holders, to relieve the thread from strain.

5. In a circular stocking knitting machine, the combination with a needle cylinder, the needles, and actuating means therefor, of movable web holders, provided with nibs, the nibs of certain of the said web holders being of less length than those of the other web holders, and actuating means for said web holders including a cam ring provided with a cam groove, said groove having a portion for engaging the longer nibs of said web holders and a wider portion for engaging the shorter nibs of said web holders, said cam ring being provided with cams for engaging all of the nibs of said web holders and moving them inwardly and outwardly, whereby after the passage of the actuating cam the web holders having the shorter nibs are free to move outwardly beyond the web holders having the longer nibs, to relieve the strain on the thread.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,578. INTERNAL-COMBUSTION MOTOR. RUSSELL T. KINGSFORD, Plainfield, N. J. Filed Nov. 26, 1912. Serial No. 733,607. (Cl. 123—59.)



1. In an internal combustion engine, the combination of a plurality of cylinders and pistons reciprocable therein, each of said cylinders forming in connection with its piston a fuel pumping chamber and a combustion chamber, the latter being provided with an exhaust port and an air-inlet port controlled by the movement of the piston; a divided crank-case forming air-compression chambers corresponding with said cylinders, each compression chamber being connected with the air-inlet port in the corresponding combustion chamber and each pumping chamber being connected with the combustion chamber of the cylinder following in order of crank-shaft rotation; means controlling the admission of air to the compression chambers and of fuel to the pumping chambers; and separate means, operable independently of said first-named controlling means adapted to control the trsnafer of fuel from the pumping chambers to the connected combustion chambers.

2. In an internal combustion engine, the combination of a plurality of cylinders and pistons reciprocable therein, each of said cylinders forming in connection with its piston an annular fuel pumping chamber and a combustion chamber, the latter being provided with an exhaust port and an air-inlet port arranged to be successively opened by the piston in the order named in the course of said piston's downward movement; a divided crank-case forming air-compression chambers corresponding with said cylinders, each compression chamber being connected with the air-inlet port in the corresponding combustion chamber and each pumping chamber being connected with the combustion chamber of the cylinder following in order of crank-shaft rotation; means controlling the admission of air to the compression chambers and of fuel to the pumping chambers; and separate means, operable independently of said first-named controlling means adapted to control the transfer of fuel from the pumping chambers to the connected combustion chambers.

3. In an internal combustion engine, the combination of a plurality of cylinders and pistons reciprocable therein, each of said cylinders forming in connection with its piston an annular fuel pumping chamber and a combustion chamber, the latter being provided with an exhaust port and an air-inlet port arranged to be successively opened by the piston in the order named as said piston approaches the lower limit of its movement; a divided crank-case forming air-compression chambers corresponding with said cylinders, each compression chamber being connected with the air-inlet port in the corresponding combustion chamber and each pumping chamber being connected with the upper end of the combustion chamber of the cylinder following in order of crank-shaft rotation; means controlling the admission of air to the compression chambers and of fuel to the pumping chambers; and separate means, operable independently of said first-named controlling means, adapted to control the transfer of fuel from the pumping chambers to the connected combustion chambers.

4. In an internal combustion engine, the combination of a plurality of cylinders and pistons reciprocable therein, each of said cylinders forming in connection with its piston an annular fuel pumping chamber and a combustion chamber, the latter being provided in its opposite side walls with an exhaust port and an air-inlet port arranged to be successively opened by the piston in the order named as said piston approaches the lower limit of its movement; a divided crank-case forming air-compression chambers corresponding with said cylinders, each compression chamber being connected with the air-inlet port in the corresponding combustion chamber and each pumping chamber being connected with the upper end of the combustion chamber of the cylinder following in order of crank-shaft rotation; means controlling the admission of air to the compression chambers and of fuel to the pumping chambers; and separate means, operable independently of said first-named controlling means, adapted to control the transfer of fuel from the pumping chambers to the connected combustion chambers.

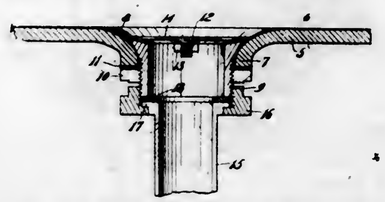
5. In an internal combustion engine, the combination of a plurality of cylinders and pistons reciprocable therein, each of said cylinders forming in connection with its piston a fuel pumping chamber and a combustion chamber, the latter being provided with an exhaust port and an air-inlet port controlled by the movement of the piston; a divided crank-case forming air-compression chambers corresponding with said cylinders, each compression chamber being connected with the air-inlet port in the corresponding combustion chamber and each pumping chamber being connected with the combustion chamber of the cylinder following in order of crank-shaft rotation; a rotary valve controlling the admission of air to the compression chambers and of fuel to the pumping cylinders; and a separate rotary valve controlling the transfer of fuel from the pumping chambers to the connected combustion chambers.

[Claims 6 to 9 not printed in the Gazette.]



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1,092,579. DRAIN CONNECTION. WALTER J. KOHLER, Sheboygan, Wis., assignor to J. M. Kohler Sons Company, Sheboygan, Wis., a Corporation of Wisconsin. Filed Nov. 17, 1909. Serial No. 528,452. (Cl. 137—96.)



1. In an enameled metal sink or the like having a comparatively flat bottom, a drain connection, devoid of angular shoulders in the enameled surface of the sink bottom, comprising a drain pipe, a connector therefor having a flexible engaging flange at its upper end, there being a drain opening in the sink bottom with a flaring funnel-shape inner surface merging with the comparatively flat surface of the sink bottom and having the enameled surface of the sink bottom continued thereon, said connector having its upper end below the plane of the sink bottom and having its flexible flange in engagement with the inclined walls of the funnel-like portion of the drain opening, and means on the connector for engaging the bottom of the sink to hold the connector in close contact with the enameled surface of the drain opening.

2. In an enameled metal sink or the like having a comparatively flat bottom, a drain connection therefor devoid of angular shoulders in the enameled surface of the sink bottom, comprising a drain pipe, a connector therefor having its upper end surrounded by a flaring bearing surface, there being a depression in the bottom of the sink of a funnel-like shape leading to a drain opening, said depression being rounded and merging the inner walls of the drain opening with the comparatively flat surface of the sink bottom and having the enameled surface of the sink bottom continued thereon, said flaring bearing surface of the connector being correspondingly rounded to fit upon the rounded funnel-like inner surface of the depression, the upper end of the connector being below the plane of the main portion of the sink bottom, a strainer plate secured to the upper end of the connector and extending beyond the bearing surface thereof to form a flexible engaging flange for contacting with the enameled surface of the funnel-like depression, and means on the connector for engaging the sink bottom and clamping the bearing surface of the connector and the edge of the strainer plate against the enameled surface of the funnel-like depression.

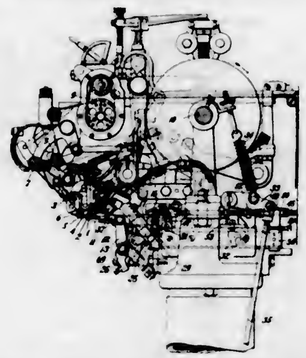
3. The combination of an enameled metal receptacle having an outlet extension formed integral therewith and projecting below the bottom of the receptacle, a strainer arranged horizontally below the plane of the bottom and having an outer comparatively thin edge resting on the inner surface of the extension, said extension having a substantially uniform shallow convex curved surface merging into the surface of the bottom of the receptacle and extending to a point at some distance below the strainer.

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1,092,580. SHOE-SEWING MACHINE. ALBERT LATHAM, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 26, 1911. Serial No. 604,844. (Cl. 112—20.)

1. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle

and looper, a welt guide, means inactive during the sewing for severing the welt in advance of the sewing point, and means for actuating the welt severing means and for advancing the end of the welt beyond the sewing point after the completion of the sewing.



2. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle and looper, a welt guide, a welt severing knife in advance of the sewing point, and mechanism under the control of the operator for actuating the knife and advancing the end of the welt beyond the sewing point after the completion of the sewing.

3. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle and looper, a welt guide, a welt severing knife arranged to reciprocate transversely through the welt guide, welt advancing means inactive during the sewing, and mechanism for advancing and retracting the knife and actuating the welt advancing means after the completion of the sewing.

4. A shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle and looper, a welt guide, a welt severing knife, welt feeding devices engaging the welt in advance of the knife, and mechanism for actuating the knife and welt feeding devices adjustable to vary the feed of the welt.

5. A shoe sewing machine, having, in combination, stitch forming devices, a welt guide, welt severing devices, means inactive during the sewing for advancing the welt through the guide after it is severed, and means for expanding the guide during the advance of the welt, substantially as described.

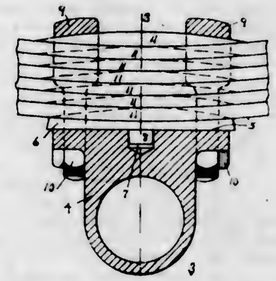
[Claims 6 to 12 not printed in the Gazette.]

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1,092,581. VEHICLE-SPRING. WILLIAM S. LEE, Detroit, Mich., assignor to Briggs-Detroiter Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 8, 1913. Serial No. 759,582. (Cl. 21—103.)

1. In a vehicle spring construction, the combination of a spring perch mounted on the axle, a depression in the upper surface of the spring perch, a filler block mounted on the perch and having its upper surface arched longitudinally and transversely, a lug on the lower surface of the filler block projecting into the depression in the upper surface of the filler block, and a spring mounted on the filler block having the portion adjacent said filler block arched longitudinally and transversely in such a manner that the depression formed thereby is adapted to receive the arched portion of the filler block, said perch formed with upwardly extending flanges between which the filler block and spring may fit, and bolts for securing the parts together.

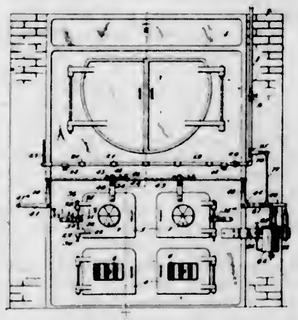
2. In a vehicle spring construction, the combination of a spring perch mounted on the axle, a depression in the upper surface of the spring perch, a filler block mounted on the perch and having its upper surface arched longitudinally and transversely, a lug on the lower surface of the filler block projecting into the depression in the upper surface of the filler block, and a spring formed of a series of leaves mounted on the filler block, each leaf arched transversely and longitudinally away from the



support, the arched portions of one leaf fitting into the depression of the next adjacent leaf, and the arched portion of the filler block fitting into the depression of the leaf nearest thereto, said perch formed with upwardly extending flanges between which the filler block and spring fit, and bolts for securing the parts together.

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1,092,582. SMOKE-PREVENTER. HAMILTON LINDSAY and WILLIAM B. JACKSON, Cleveland, Ohio. Filed Aug. 4, 1911. Serial No. 642,308. (Cl. 110—55.)



1. In a fuel burning furnace, the combination, with a fuel admission door, of steam admission twyers arranged above said door and inclined inwardly and downwardly past the doorway, means for admitting steam through said twyers during the time that such door is open, whereby air entering through said doorway will be directed toward the fuel and will be prevented from passing directly into the combustion chamber and against the boiler, means for quickly bringing the door to a partially closed position, and means for retarding the complete closing of said door so as to permit the entrance of sufficient air to consume the gas evolved from fresh fuel.

2. The combination, with a furnace having a fire box and a laterally swinging fuel admission door to said fire box, of a horizontally shiftable member adjacent to said door, wedging means carried by said member, projecting means carried by said door and extending into proximity to said wedging means, means for shifting said member in one direction whereby said door will be opened, and means for retarding the return movement of said member, said wedging means being so shaped as to cause the rate of angular movement of said door to vary in different parts of its swing.

3. In a furnace, in combination, a front wall, a door hinged to said wall, means associated with said door and



tending to maintain it in closed position and to return it to closed position when opened, a longitudinally shiftable member supported by said front wall adjacent to said door, projecting means carried by said door and extending into proximity to said shiftable member, wedging means carried by said shiftable member and adapted to engage said projecting means for wedging said door into open position against the effect of said door-closing means as said member is shifted in one direction, a regulator for retarding the movement of said member in the opposite direction, and means for varying the angle of said wedging means.

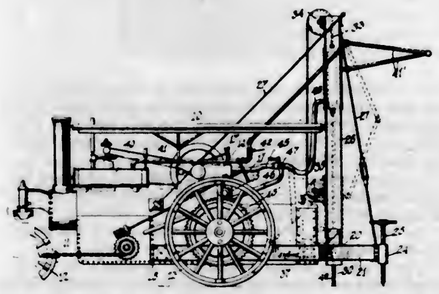
4. In a furnace, in combination, a front wall, a door hinged to said wall, means associated with said door and tending to maintain it in closed position and to return it to closed position when opened, a longitudinally shiftable member adjacent to said door, projecting means carried by said door and extending into proximity to said shiftable member, wedging means carried by said shiftable member and adapted to engage said projecting means for wedging said door into open position against the effect of said door-closing means as said member is shifted in one direction, a regulator for retarding the movement of said member in the opposite direction, said wedging member being reversible whereby it may be rendered inoperative.

5. In a furnace, in combination, a supporting plate, a door hinged to said supporting plate, means for automatically returning said door into closed position after having been opened, a longitudinally shiftable member adjacent to said door, projecting means carried by said door and extending into proximity to said shiftable member, a templet carried by said shiftable member and adapted to engage said projecting means to hold said door away from closed position, means permitting the unimpeded movement of said shiftable member in a direction to open said door, and means for retarding the rate of return of said shiftable member to its original position, said templet being shaped to cause the initial closing movement of said door to be rapid and the final closing movement thereof to be comparatively slow.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,583. APPARATUS FOR ROCK-DRILLING. CHARLES H. LOCHER, Glasgow, Va. Filed Oct. 18, 1909. Serial No. 523,322. (Cl. 255—51.)



1. In a drilling apparatus, the combination of a self-propelled vehicle, suitable arm members extending along each side of said vehicle and along the front thereof, the arms extending in pairs from the corner of the vehicle outwardly at an angle to the longitudinal axis thereof to points longitudinally and laterally beyond the vehicle, suitable bearings upon the ends of said arms, and anchorage points in said bearings.

2. In a drilling apparatus, the combination of a suitable vehicle, drill-supporting guideways on the front end thereof, suitable channel irons extending along the front and sides of said vehicle, and extending from the front corners outwardly in pairs to points longitudinally and laterally beyond the vehicle, braces between the top of the guideways and the ends of said outwardly extending pairs of channel irons and between the top of the guideways and the vehicle in rear thereof, a weighted drill in said guideways, and suitable operating means therefor.

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1,092,584. KNIFE OR CUTTER FOR CLAY-CLEANING MACHINERY. ROBERT W. LYLE, South River, N. J., assignor to Lyle Clay Cleaner Company, a Corporation of New Jersey. Filed Dec. 8, 1910. Serial No. 596,254. Renewed Jan. 23, 1914. Serial No. 814,003. (Cl. 83—6.)



1. A knife or cutter of the class described, comprising a cross bar having its front edge provided with a recess intermediately of its end portions and extending downwardly and rearwardly, whereby the end portions of said cross-bar project forwardly beyond the plane of the front of said recess, a knife-blade set in said recess, a clamping strip accommodated in said recess beneath the knife-blade, and means for retaining said clamping strip in position.

2. In cutting means of the class described, comprising a series of successive cross-bars or members flexibly mounted in relative operative position and carrying cutting edges terminating within the end portions of said cross-bars or members and projecting at the front edge of one member with relation to the rear edge of the next member, means carried at the edge of said end portions of the cross-bars or members for closing the intervening space between said flexibly and sucessively-mounted members at the terminal ends of said cutting edges.

3. In cutting means of the class described, comprising a moving cutter surface, cross-bars or members sucessively-mounted in flexible relative operative position and having their front edges inclined downwardly and rearwardly, said inclined edges terminating within the end portions of said cross-bars or members, knives or cutters carried at said edges and projecting with relation to the rear edge of the adjoining cross-bar or member, and means carried at the front edge of said end portions of said cross-bars or members at the terminal ends of said knives or cutters for closing the intervening space between said flexibly and sucessively-mounted cross-bars.

4. In cutting means of the class described, comprising a moving cutter surface, spaced cross-bars successively mounted in flexible relative operative position and having cutting edges at their front edge, said cutting edges terminating within the end portions of said cross-bars and projecting with relation to the rear edge of the adjoining cross-bar, and means carried by said end portions of the cross-bars beyond said cutting edges and projecting into the intervening space between said bars.

5. A knife or cutter of the class described, comprising a cross-bar having its front edge provided with a recess intermediately of its end portions and extending downwardly and rearwardly, whereby the end portions of said cross-bar project forwardly beyond the plane of the front of said recess, a knife-blade set in said recess, a clamping strip accommodated in said recess beneath the knife-blade, means for retaining said clamping strip in position, and projections extending from the front edge of said end portions of said cross-bar at the terminal ends of said recess.

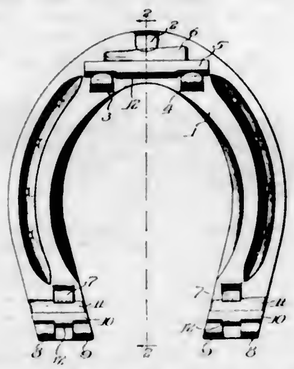
[Claim 6 not printed in the Gazette.]

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1,092,585. HORSESHOE. WILLIAM S. MCCRACKEN, Joliet, Ill. Filed June 20, 1912. Serial No. 704,728. (Cl. 168—35.)

1. In a horse shoe, a bar provided with three lugs at the toe of the shoe, one of said lugs being located cen-

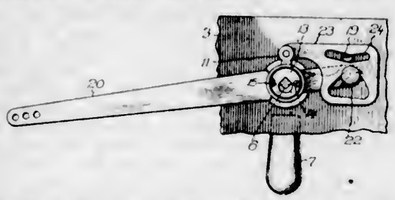
trally of the bar near the forward edge thereof and the other of said lugs being located upon opposite sides of the center of said bar and rearward of said other lug, said lugs having rounded bearing surfaces, a wedge-shaped calk placed between said lugs in the channel formed thereby, and a wedge inserted between the said centrally disposed lug and said calk.



2. In a horse shoe, the combination with a bar having the lug or abutment at the toe and corresponding abutments 3 and 4 provided with rounded bearing surfaces, of a calk provided with an offset to form shoulders which come between the last mentioned abutments; the wedge or key inserted between said calk and the lug at the toe; and removable calks at the heel ends of said bar with means for securing the same in place, as and for the purpose specified.

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1,092,586. MECHANISM FOR OPERATING FLUSH-TANK VALVES. JOHN W. MEAKER, Detroit, Mich. Filed Dec. 1, 1913. Serial No. 803,973. (Cl. 4—5.)



1. Mechanism for operating a flushing tank valve comprising a sleeve adapted to be secured to the inner face of a tank wall in ap opening therethrough and provided with transverse guide slots near the inner end, a rock arm member oscillating in the sleeve and in a slot thereof, a valve operating lever oscillating in the sleeve and slots thereof, a manually operable spindle extending through the sleeve and engaging the rock arm member, and means articulating the rock arm member to the lever to move the latter to open position when the spindle is turned in either direction.

2. Mechanism for operating a flushing tank valve comprising a sleeve adapted to be secured to the inner face of a tank wall in an opening therethrough and provided with transverse slots near the inner end, a rock arm member oscillating in the sleeve and in a slot thereof, a valve operating lever oscillating in the sleeve and slots thereof, a manually operable spindle extending through the sleeve and engaging the rock arm member, means in the sleeve detachably locking with the spindle and holding the latter from longitudinal movement, and means articulating the rock arm member to the lever to move the latter to open position when the spindle is turned in either direction.

3. Mechanism for operating a flushing tank valve comprising a sleeve adapted to be secured to the inner face of a tank wall in an opening therethrough and provided with transverse guide slots near the inner end, a rock arm member oscillating in the sleeve and in a slot thereof, a valve operating lever oscillating in the sleeve and slots thereof, a manually operable spindle extending through the sleeve and engaging the rock arm member, and a cam plate reciprocated by the rock arm member and operatively connected to the sleeve and lever to move the latter to open position when the spindle is moved in either direction.

4. Mechanism for operating a flushing tank valve comprising a sleeve adapted to be secured to the inner face of a tank wall in an opening therethrough and provided with transverse guide slots near the inner end, a rock arm member oscillating in the sleeve and in a slot thereof, a valve operating lever oscillatory in the sleeve and slots thereof, a manually operable spindle extending through the sleeve and engaging the rock arm member, means in the sleeve detachably locking with the spindle and holding the latter from longitudinal movement, and a cam plate reciprocated by the rock arm member and operatively connected to the sleeve and lever to move the latter to open position when the spindle is moved in either direction.

5. Mechanism for operating a flushing tank valve comprising a sleeve adapted to be secured to the inner face of a tank wall in an opening therethrough and provided with transverse guide slots near the inner end, a rock arm member oscillating in the sleeve and in a slot thereof, a valve operating lever oscillatory in the sleeve and slots thereof, a manually operable spindle extending through the sleeve and engaging the rock arm member, a latch member on the rock arm member adapted to engage any one of a series of recesses in the spindle, and means articulating the rock arm member to the lever to move the latter to open position when the spindle is turned in either direction.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,587. GEM-SETTING. HARRY H. MEYERS, New York, N. Y. Filed Aug. 12, 1913. Serial No. 784,309. (Cl. 63—28.)



1. A setting for gems, comprising a cylindrical ring for the gem, a cup adapted to engage the lower part of the gem, and a tongue integral with the ring and bent down below the ring for supporting the cup for retaining the gem against said ring.

2. A gem-setting, comprising a cylindrical gem-ring having an inwardly-projecting gem-holding top-flange, a tongue extending from the ring-wall within the ring, and carrying at its other end a cup below the flange, and a lug extending from said ring-wall and supporting the cup.

3. A plurality of gem-settings, comprising each a cylindrical gem-ring having an inwardly-projecting gem-holding top-flange, and a tongue extending from the wall of the ring within the latter, below the flange, and at or above the plane of the lower edge of the gem-ring, and connecting-members at said plane, connecting the settings into a strip having a smooth lower face.

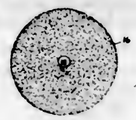
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1,092,588. GRINDING-WHEEL. ALBERT MONKIAWICZ, New Britain, Conn. Filed Jan. 5, 1914. Serial No. 810,525. (Cl. 51—1.)

A grinding wheel built up of a plurality of layers of fabric and provided on the periphery with a layer of abrasive material, the said fabric being subdivided into a plurality of units, each of the said units being composed of a



plurality of layers of fabric and which are secured together by concentric rows of stitching, the said units being secured one to the other successively by means of glue, and



an appreciable quantity of abrasive material being commingled with the said glue and thereby interposed between the opposed faces of the said units.

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1,092,589. CONNECTOR. LOUIS C. NICHOLS, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Nov. 20, 1909. Serial No. 529,063. (Cl. 173—263.)



1. In a cable connector, a pair of terminal members having overlapping longitudinal extensions comprising body portions adapted to engage each other and provided with beveled ends, correspondingly beveled shoulders being formed on the members at the bases of the extensions, the line of engagement between the body portions being at an angle to the beveled ends, and means serving to draw the beveled faces of the ends and shoulders into intimate contact and for clamping the members together.

2. In a cable connector, a pair of terminal members having interfitting longitudinal extensions provided with beveled ends and having beveled shoulders at the bases of the extensions, one of the extensions having at its free end a transverse projection and the other having a transverse slot which receives the projection, and means engaging the longitudinal extensions and serving to force said beveled surfaces into engagement and to clamp the terminal members together.

3. In a cable connection, a pair of terminal members having overlapping extensions and having openings extending through the same, said extensions having between the adjacent faces thereof a recess, cable terminals extending through the openings in the terminal members and having their free ends projecting into said recess and bent laterally therein.

4. In a cable connector, a pair of terminal members having overlapping longitudinal extensions provided with body portions adapted to engage each other and beveled ends, beveled shoulders at the bases of said extensions, and securing means serving to force said beveled ends into engagement with said beveled shoulders and to clamp the terminal members together, the line of engagement between said body portions being at an angle to the beveled faces of said ends and shoulders.

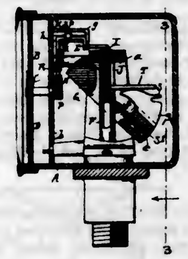
5. In a cable connector, a pair of terminal members having overlapping longitudinal extensions provided with beveled ends and having beveled shoulders at the bases of the extensions, and threaded securing means adapted to embrace said extensions and serving to move said extensions transversely relatively to each other into engagement and to clamp the terminal members together.

[Claim 6 not printed in the Gazette.]

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1,092,590. SPEEDOMETER. EDD C. OLIVER, Detroit, Mich. Filed Aug. 22, 1910. Serial No. 578,343. (Cl. 73—123.)

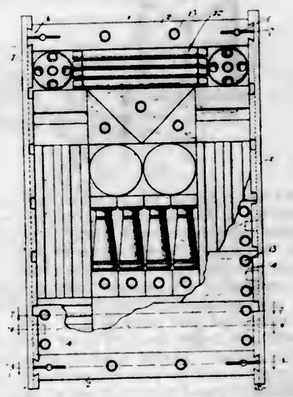
1. The combination with the index hand of a speed measure, of two members having contacting surfaces one of which is the lateral surface of a rod of sufficient rigidity to maintain its shape in the ordinary use of the instrument but sufficiently flexible to be readily bent so as to vary the longitudinal contour of said surface, means connecting said members with said index hand adapted to transmit motion from the former to the latter.



2. The combination with the index hand of a speed measure, of positioning means therefor including two members having contacting surfaces, one of which is the lateral surface of a rod of sufficient rigidity to maintain its shape in the ordinary use of the instrument but sufficiently flexible to be readily bent so as to vary the longitudinal contour of said surface, whereby the indications of the instrument may be rectified.

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1,092,591. MECHANICAL-CONSTRUCTION BLOCKS. CHARLES HAMILTON PAJEAU, Evanston, Ill. Filed Jan. 6, 1913. Serial No. 740,430. (Cl. 46—35.)



1. A set of mechanical construction blocks comprising a plurality of blocks of various shapes and sizes adapted to be interengaged with and superposed upon each other to form structures of various architectural and mechanical forms, a number of said blocks provided with relatively interfitting and interlocking means and adapted, when interengaged, to form a container for the remainder of said blocks.

2. A set of separable mechanical construction blocks of various shapes and sizes adapted to be interengaged with and superposed upon each other to provide various architectural and mechanical structures, said set including four members provided with interfitting interlocking means and adapted when interengaged to form a rectangular frame, and others of said blocks adapted to enter grooves in two opposed frame members to form a bottom and cover for said frame, whereby a container for the remainder of said set is formed.

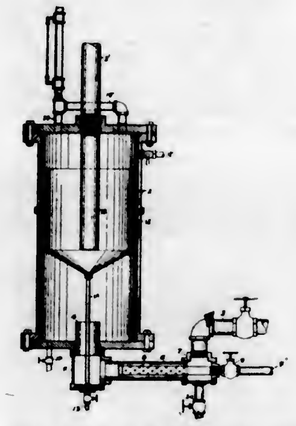
3. A set of mechanical construction blocks comprising a knockdown container consisting of a plurality of separable relatively interfitting, interengaging and interlocking members, and a plurality of blocks of various shapes

and sizes adapted to be received in said container, said blocks comprising said container being adapted, when separated and disengaged to be engaged with and superposed upon each other and the remainder of the set to produce a variety of architectural and mechanical structures.

4. A set of mechanical construction blocks including two pairs of members adapted to be interengaged to form a rectangular frame, one pair of said members having parallel transverse dovetail grooves in their opposed faces, the ends of the other pair of said members having dovetail ends of greater width than said grooves and being longitudinally slotted inwardly of said dovetail ends to render the latter contractible to fit and yieldingly engage in said dovetail grooves.

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1,092,592. FEED-WATER HEATER FOR STEAM-BOILERS. ERNEST PELTON and STANLEY D. HOPTON, Geneva, Ohio. Filed Mar. 28, 1913. Serial No. 757,355. (Cl. 62—31.)



1. A feed water heater for steam boilers comprising a cylinder having a discharge pipe extending downwardly into the same and provided with means to produce a downward flow of water in said cylinder before escaping through said pipe, in combination with a steam jet to heat the water flowing to said cylinder discharge pipe, and a vent pipe opening directly into the upper end of said cylinder, for the air and vapor.

2. An auxiliary heater for feed water for steam boilers comprising a cylinder having a water intake connection, an outlet pipe extending into said cylinder, a sediment trap and shield to guard the mouth end of said pipe, and a discharge connection at the upper end of said cylinder for the air, vapor and oil which is trapped therein.

3. In a feed water heater for boilers, a cylinder having a water supply connection provided with a steam jet to heat the water passing therethrough, a centrally located shield in said cylinder slightly spaced apart from the walls thereof and subdividing said cylinder into upper and lower chambers, a water discharge pipe and a vapor discharge connection for the upper chamber, and a valved connection for the lower chamber to permit removal of sedimentary deposits.

4. In a feed water heater for boilers, a water receptacle having a water supply connection at its bottom and a discharge pipe extending part way into the receptacle from the top, a shield about the end of said pipe having a pipe support adapted to draw off accumulating sediment, and pipe connections with the top of said heater providing an escape for vapor, oil and other objectionable accumulations from the heater.

5. In feed water heating apparatus for steam boilers, a water receptacle having a water intake pipe, a steam jet within said pipe, a valved connection to withdraw sedimentary deposits from said pipe, a water discharge pipe extending into said receptacle, a shield for the mouth of said discharge pipe, a valved connection to remove sedimentary deposits from said shield, and a vent pipe for the air and vapors accumulating within said receptacle.

[Claim 6 not printed in the Gazette.]

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1,092,593. VETERINARY IMPLEMENT. GODFREY W. PETERSON, Genoa, Nebr. Filed May 27, 1913. Serial No. 770,237. (Cl. 128—27.)



1. An implement of the class described comprising a casing having openings of unequal size in its ends, a bar movable through the casing openings and likewise movable laterally in the larger opening, said bar having an aperture at one end, a member connected to the casing and extending through the bar aperture and including a holding loop, and means for clamping said bar against one wall of the larger casing opening.

2. An implement of the class described comprising a bar having a plurality of transverse notches, a casing having openings through which said bar slidably engages, a member connected to the casing and movably engaging the bar and including a holding loop and spaced sides, said sides being secured at their free ends in said casing, and means for moving said bar laterally within said casing to cause one of said notches to engage with one wall of one of said casing openings.

3. An implement of the class described comprising a bar having an aperture at the outer end and provided with a plurality of transverse notches, a casing having openings through which the bar slidably engages, a wire member including a holding loop and extending through the aperture of the bar and secured at one end in said casing, and a cam lever pivoted within said casing and operating to move said bar laterally to cause one of the notches thereof to engage one wall of one of the casing openings.

4. An implement of the class described comprising an inner casing member open at one side and having an opening in each end, an outer casing member open at one side and at the ends and bearing over the inner casing member and closing its open side, means for securing the casing members together, a bar slidable through the end openings of said inner casing and having an opening at one end and with notches spaced apart, said notches adapted to engage one at a time with one wall of one of the end openings of the inner casing member, a wire member including a holding loop and extending through the opening of the bar and secured at one end in said casing, and means carried by the outer casing member for moving said bar laterally to cause the notches to engage the inner casing.

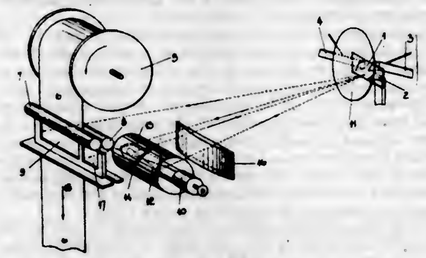
5. An implement of the class described comprising an inner casing member open at one side and having an opening in each end, an outer casing member open at one side and at the ends and bearing over the inner casing member and closing its open side, means for securing the casing members together, a bar slidable through the end openings of said inner casing member, a member including a holding loop and movably supported relative to said bar and secured at one end in said casing, means for clamping said bar to said casing.

[Claim 6 not printed in the Gazette.]

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1,092,594. DEVICE FOR THE PHOTOGRAPHIC REGISTRATION OF VIBRATIONS IN LINE FORM. ANTON POLLAK, Paris, France. Filed Jan. 29, 1913. Serial No. 744,851. (Cl. 178—46.)

1. Device for the photographic printing of vibrations in line form by means of a point of light and for the simultaneous observation of the printing, said device including in combination a movable mirror for reflecting a point of light, an opaque rotating cylinder inclosing said source of light and provided with a spiral slit for producing a moving point of light, a convex cylindrical lens between said source of light and said mirror whose focal length is such in proportion to the distance of the mirror that said lens serves to bring into a common plane the boundaries of the point of light lying in different planes and serves also to increase the length of the line.



2. Device for the photographic printing of vibrations in line form by means of a point of light and for the simultaneous observation of the printing, said device including in combination a movable mirror for reflecting a point of light upon a sensitized paper strip, a linear source of light, an opaque rotating cylinder inclosing said source of light and provided with a spiral slit for producing a moving point of light, a cylindrical lens arranged in the course of light between the mirror and the cylinder and adapted to bring into a common plane the boundaries of the point of light lying in different planes, said cylinder having a supplementary spiral-slit portion, a matte screen located outside of the paper strip and coöperating with said supplementary spiral slit so as to permit the appearance of a second vibrating point of light for the purpose of observing the printing.

3. Device for the photographic printing of vibrations in line form by means of a point of light and for the simultaneous observation of the printing, said device including in combination a movable mirror for reflecting a point of light upon a sensitized paper strip, a linear source of light, an opaque rotating cylinder inclosing said source of light and provided with a spiral slit for producing a moving point of light, said source of light being arranged obliquely to the direction of forward movement of the paper strip, in order, in spite of the forward movement of the paper, to obtain lines running perpendicular to the borders of the strip.

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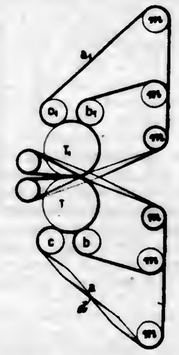
1,092,595. TAPE-CONDENSER. FRIEDRICH QUEISER, Philadelphia, Pa., assignor to G. Josephy's Erben, Bielitz, Austria-Hungary, a Copartnership composed of Gustave Josephy and Sendor Weinschenck. Filed Oct. 9, 1913. Serial No. 794,264. (Cl. 19—13.)

1. In a device of the character stated, dividing rollers, aprons, guide-rollers at the receiving ends of said aprons, tapes passing around said dividing rollers and guide-rollers, and primary guide rollers for said tapes and in close proximity to said dividing rollers and arranged in different axial alinement.

2. In a device of the character stated, dividing rollers, aprons, guide-rollers at the receiving ends of said aprons, tapes passing around said dividing rollers and guide rollers, and primary guide rollers for said tapes and above and below said dividing rollers and in contact with the same and arranged in different axial alinement from each other.

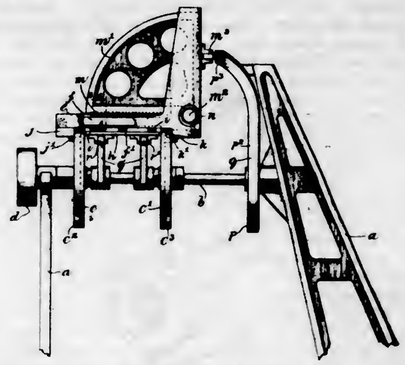
3. In a device of the character stated, dividing rollers arranged one above the other, aprons, guide rollers in proximity to the receiving ends of said aprons, primary guide rollers arranged in different axial alinement above and below said dividing rollers and in contact with the same, and tapes passed around said dividing rollers and guide rollers.

4. In a device of the character stated, a pair of dividing rollers arranged one above the other, aprons, guide rollers in proximity to the receiving ends of said aprons, a plurality of primary guide rollers above the upper dividing roller and arranged in different axial alinement, tapes passing around the upper dividing roller and the differently alined primary guide rollers and one set of guide rollers near the aprons, a plurality of primary guide rollers below the lower dividing roller and arranged in different axial alinement, and tapes passing around the lower dividing roller and the differently alined primary guide rollers, and a set of rollers near the feeding end of the apron and having the portions between the outer primary guide rollers near the lower dividing roller and the roller near the lower apron twisted.



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1,092,596. PERFORATING-MACHINE. JAMES H. REINHARDT, East Orange, N. J., assignor to American Bank Note Company, a Corporation of New York. Filed May 14, 1913. Serial No. 767,502. (Cl. 164—87.)



1. A perforating machine embodying therein a rotary member, a male die or bed having a plurality of movable perforators or punches spaced apart therein, and a platen or female die, carried by said member and rotatable therewith, means whereby said parts of the die are brought together to clamp a sheet or strip therebetween, means simultaneously actuating all of said perforators or punches while said die parts are in the operative relation to each other, and means whereby said die parts are separated after the actuation of said perforators.

2. A perforating machine embodying therein a rotary member, a male die or bed mounted upon and rotatable with said member, a female die or platen carried by and movable laterally of said male die or bed, a movable perforator or punch support carried by said male die or bed, means operative at one point of the rotation of said member whereby said female die or platen is forced toward

said male die or bed to clamp a sheet or strip therebetween, and means, operative while said die parts are in the clamping position, for actuating said punch support.

3. A perforating machine embodying therein a rotary member, a male die or bed mounted upon and rotatable with said member, an oscillatory female die or platen pivotally connected to said male die, a movable perforator or punch support carried by said male die or bed, means operative at one point of the rotation of said member whereby said female die or platen is forced toward said male die or bed to clamp a sheet or strip therebetween, and means, operative while said die parts are in the clamping position, for actuating said punch support.

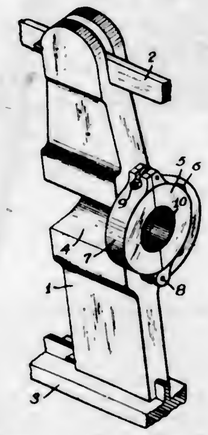
4. A perforating machine embodying therein a rotary member, a male die or bed mounted upon and rotatable with said member, an oscillatory female die or platen pivotally connected to said male die, a movable perforator or punch support carried by said male die or bed, a cam track at one side of said rotary member having a rise adapted to impart oscillatory movement to said female die or platen, means carried by said female die or platen and extending into engagement with said cam, and means, operative while said die parts are in the clamping position, for actuating said punch support.

5. A perforating machine embodying therein a rotary member, a male die or bed mounted upon and rotatable with said member, an oscillatory female die or platen pivotally connected to said male die, a movable perforator or punch support carried by said male die or bed, a cam track at one side of said rotary member having a semi-circular portion, a rise projecting toward said rotary member, a short straight portion and a fall extending therefrom to said semi-circular portion upon the opposite side thereof, means carried by said female die or platen and extending into engagement with said cam, and means, operative while said die parts are in the clamping position, for actuating said punch support.

[Claims 6 to 17 not printed in the Gazette.]

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1,092,597. WHEEL-PRESS TAIL-BLOCK. GEORGE T. REISS, Hamilton, Ohio, assignor to Niles-Bement-Pond Company, Jersey City, N. J. Filed Nov. 8, 1913. Serial No. 799,923. (Cl. 29—86.)



1. A wheel-press tail-block comprising, a gap in the front of the body of the tail-block, a rear fixed thrust-collar-half fixedly secured to the thrust-receiving face of the tail-block at the rear of the gap therein, a front movable thrust-collar-half adjoining the first-mentioned half and bearing against the face of the gapped portion of the body of the tail-block, and means for securing the two halves of the thrust-collar together, combined substantially as set forth.

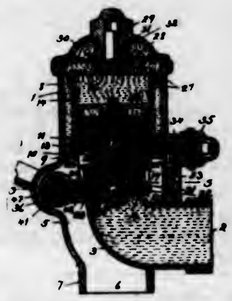
2. A wheel-press tail-block comprising, a gap in the front of the body of the tail-block, a rear fixed thrust-collar-half fixedly but separably secured to the thrust-receiving face of the tail-block at the rear of the gap therein, a front movable thrust-collar-half adjoining the first-mentioned half and bearing against the face of the gapped portion of the body of the tail-block, and means for securing the two halves of the thrust-collar together, combined substantially as set forth.

3. A wheel-press tail-block comprising, a gap in the front of the body of the tail-block, a rear fixed thrust-collar-half fixedly secured to the thrust-receiving face of the tail-block at the rear of the gap therein, a front movable thrust-collar-half adjoining the first-mentioned half and bearing against the face of the gapped portion of the body of the tail-block, a hinge disposed at the lower portion of the thrust-collar and uniting the two halves below the bore of the collar, and means disposed above the bore of the collar for binding the upper portions of the two halves together, combined substantially as set forth.

4. A wheel-press tail-block comprising, a gap in the front of the body of the tail-block, a rear fixed thrust-collar-half fixedly secured to the thrust-receiving face of the tail-block at the rear of the gap therein, a front movable thrust-collar-half adjoining the first-mentioned half and bearing against the face of the gapped portion of the body of the tail-block, means for securing the two halves of the thrust-collar together, and a diametrically divided bushing disposed within the bore of the thrust-collar, combined substantially as set forth.

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1,092,598. FLUSHING-VALVE. EDRO RICHARDSON, Baltimore, Md. Filed July 22, 1912. Serial No. 710,899. (Cl. 137—93.)



1. In a flushing valve the combination with a casing having a water inlet and a water outlet and also having an equalizing chamber with an inlet port and an outlet port, of a valve for the outlet port of the equalizing chamber,—said valve having a piston chamber at its upper side and a shell at its lower side; a piston in said piston chamber; a piston stem carried by the piston and extending through the said valve into said shell; a valve carried by the piston stem and housed within said shell; means in the shell for yieldingly pressing the valve in one direction; a valve lifter pivotally sustained adjacent to the said shell and engaging the latter and means for moving said valve lifter to unseat the valve from the outlet port of the equalizing chamber.

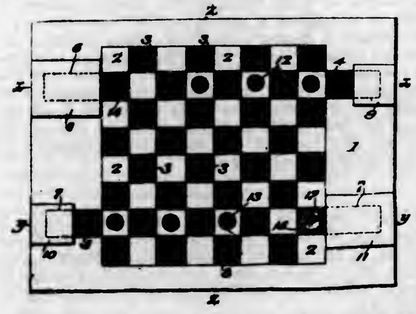
2. In a flushing valve the combination with a casing having a water inlet and a water outlet and also having an equalizing chamber with an inlet port and an outlet port, of a valve for the outlet port of the equalizing chamber; a piston chamber at the upper side of the valve; a shell depending from the bottom side of said valve and projecting through the outlet port of the equalizing chamber; a stem extending up from the depending shell through the valve and into the piston chamber; a piston on the upper end of said stem; a valve on the lower end of said stem; means in the shell for yieldingly drawing the stem down; a shaft at one side of the shell; a valve lifter on said shaft and engaging the shell and a lever for moving the shaft to actuate the valve lifter.

3. In a flushing valve the combination with a casing having a water inlet and a water outlet and also having an equalizing chamber with an inlet port and an outlet port, of a valve for the outlet port of the equalizing chamber; a piston chamber at the upper side of the valve; a shell depending from the bottom side of said valve and projecting through the outlet port of the equalizing chamber; a stem extending up from the depending shell through the valve and into the piston chamber; a piston on the upper end of said stem; a valve on the lower end of said stem; a spring in the shell between the valve on the end of the stem and the upper side of the shell; a shaft at one side of the shell; a valve lifter on said shaft and having two lugs to engage the shell and a lever for moving the shaft and valve lifter to cause the lugs to move the shell.

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1,092,599. CHECKER OR CHESS BOARD. GEORGE W. SCHILLING, Philadelphia, Pa. Filed Dec. 18, 1913. Serial No. 807,529. (Cl. 46—64.)



1. A game board comprising a board having represented thereon, rows of squares of contrasting colors, and a panel movably mounted on said board and having squares of contrasting colors adapted to be brought into register with predetermined squares of a juxtaposed row.

2. A game board having represented thereon, rows of squares of contrasting colors, and panels movably mounted on said board and having squares of contrasting colors which form the second row of squares at each end of the board.

3. A game board having represented thereon, rows of squares of contrasting colors, a movable panel at each end of the board and on which a row of squares is represented, and said panels having a greater number of squares thereon than is represented on the other rows of squares.

4. A game board for playing checkers, chess and the like, comprising a board, a plurality of movable panels thereon and having a representation of rows of squares of contrasting colors on said board and said panels, and said panels being adapted to be moved by a player to bring the squares thereon into register with different squares of the board from those with which they initially registered.

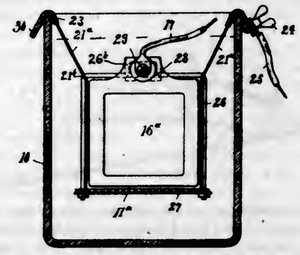
5. A checker-board, comprising a board having grooves therein, panels slidably mounted in said grooves, said board and panels having squares of contrasting colors thereon, and said panels having thereon a greater number of squares in a row than on the rest of the board, whereby double corners at opposite sides of said board may be formed at one side or the other of said board.

[Claims 6 to 8 not printed in the Gazette.]

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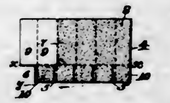
1,092,600. PRIMARY BATTERY. CHARLES B. SCHOENMEHL, Waterbury, Conn. Filed Dec. 9, 1910. Serial No. 596,396. (Cl. 204—38.)

In a primary battery of the class described, the combination with an assembled element including positive and negative electrodes insulatively connected together and carried by a single holding frame, of means for suspending the said elements with a battery jar and below the top thereof, comprising longitudinally disposed side strips secured to and forming a part of the frame and having upwardly and outwardly disposed hangers the ends of which are disposed down to engage the top edge of a battery jar and to prevent lateral movement of the element within the jar, and a binding screw attached to one of said ends.



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1,092,601. IMPERVIOUS BAG. MAXIMILIAN SMETANA, Philadelphia, Pa., assignor of one-half to William C. Wittman, Philadelphia, Pa. Filed June 25, 1913. Serial No. 775,652. (Cl. 229—55.)



1. A container for shipping and storing deliquescent materials, which consists of an impervious multiple-ply bag of paper comprising a sheet of paper coated with a pliable or non-brittle water-proof cementing compound and folded on parallel lines to provide a body having adhering multiple-ply side walls and the lower extensions of the body side plies respectively folded over upon opposite sides of the body to provide a multiple-ply closed bottom, and each of said extensions arranged between the adjacent plies of the sides of the body, the various plies of the body and bottom portions being firmly secured together throughout their entire surfaces and made impervious to moisture by the presence of the water-proof cementing compound and the bag as a whole normally pliable.

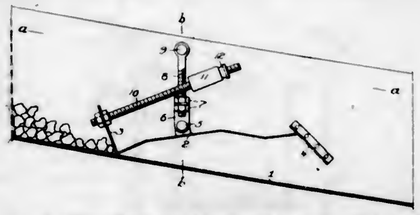
2. A water-proof bag or container for packing and transporting deliquescent material, which consists of a bag-like structure formed of a sheet of suitable material coated with a water-proof normally pliable cementing compound and having one edge split at a plurality of points to form a row of separate tabs of shorter length than the length of the bag or container, said coated material being folded on lines transverse to the length of the material to provide a plurality of superposed and adhering plies forming multiple-ply sides, said folds extending longitudinal of the respective tabs and relatively close to one of their edges, the folded tabs of the plies of the two sides folded over alternately to overlap each other and forming a bottom composed of a plurality of adhering plies and closed corners and the respective ends of said tabs extending between and adhering to adjacent side plies, the whole forming a bag or container in which the entire side-plies and bottom-tabs are all united to form continuous pliable impervious walls, to constitute an impervious adhering multiple-ply structure with multiple-ply corners.

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1,092,602. FEED-REGULATOR. RALPH A. SMITH and NELSON MOWERY, Wilkes-Barre, Pa. Filed Dec. 1, 1911. Serial No. 663,300. (Cl. 57—37.)

1. The combination of an inclined chute for granular material, with a valve located above the floor of said chute and having an upwardly inclined flange at its forward

end and a downwardly inclined rear portion, said valve being pivoted between its front and rear ends whereby rise of either end will cause descent of the opposite end.

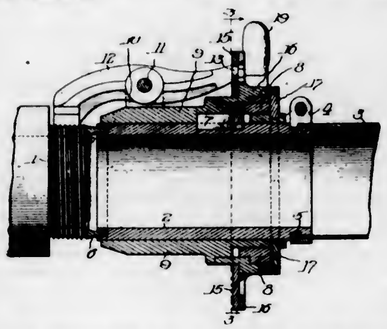


2. The combination of an inclined chute for granular material, with a valve located above the floor of the chute and having between its front and rear ends a longitudinally movable pivotal mounting, and fixedly mounted means for depressing the rear end of the valve as said valve swings rearward and permitting rise of said rear end as the valve swings forward, the forward end of the valve being disposed transversely to the line of flow of the body of granular material whereby the initial tendency of the latter will be to move the valve bodily rearward.

3. The combination of an inclined chute for granular material, with a valve located above the floor of the chute and having between its ends a pivotal axis, and a pivoted and swinging carrier therefor, whereby bodily forward and rearward movement of the valve is permitted, and fixedly mounted means for depressing the rear end of the valve as the same swings bodily rearward and permitting rise of said rear end as the valve swings bodily forward, the forward end of the valve being disposed transversely to the line of flow of the granular material, whereby the initial tendency of the latter will be to move the valve bodily rearward.

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1,092,603. HOSE-COUPLING. HERMAN F. SORUM, Chicago, Ill., assignor of one-half to Richard W. Poelma, Chicago, Ill. Filed Oct. 9, 1913. Serial No. 794,206. (Cl. 137—28.)



1. The combination with a plurality of jaws pivoted about a supporting frame, of a disk, provided with channel cams, one for the free end of each jaw, a central cylinder provided with splines, a cam ring having surface cams adapted to engage with said splines, and grooves in said frame one for each spline, the said disk cam and ring cam being adapted to rotate together, movement a predetermined distance serving to cause the jaws to perform their gripping operation, while further rotation brings the face cams into action on the splines to move the central cylinder endwise.

2. The combination with a fire-plug or connection, of a coupling, said coupling comprising a supporting frame, three gripping jaws mounted thereon, a disk cam for operating said jaws to close on said plug, a central cylinder, a cam ring adapted to engage with said cylinder to move the same endwise, the said cam mechanisms being mounted on said frame to rotate together, and constructed to cause the jaws to grip the plug by a predetermined rotary movement, further rotation causing the ring cam to actuate the said central cylinder to move the same endwise and close upon the end of said plug to complete the union.

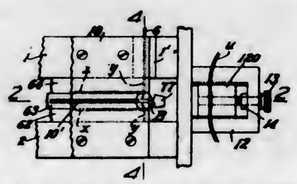
3. The coupling comprising the combination with a supporting frame of cylindrical form, of a central cylinder having splines, said splines projecting into grooves provided in said frame, levers pivotally mounted about said frame, cams to spread the outer ends of said levers to cause the working ends or teeth thereof to approach in the act of gripping, other cams to engage the said splines, after the gripping action has been performed, to move the central cylinder to complete the union.

4. The combination with the central cylinder, and gripping jaws, of a supporting frame for the jaws, and cam mechanisms carried on said frame, with rotatable means mounted on said frame for first actuating the gripping jaws, and the rotation being continued to move the said cylinder in the act of completing the union.

5. The gripping jaws and cams for closing the same, the shell or frame-piece upon which said jaws are mounted, in combination with the inner or main sliding cylinder included in said frame, a gasket provided upon the end of said cylinder, a supporting piece or casting on which said cams are mounted, a cam ring mounted between said piece and the said frame, said cam ring being provided with face cams, splines provided upon the central cylinder and extending into slots or grooves in the supporting frame, and means for rotating the said cam mechanism whereby the jaws are first operated and immediately thereafter the central cylinder moved endwise.

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1,092,604. BUTTON-SETTING MACHINE. ELIS F. STENMAN, Worcester, Mass., assignor, by mesne assignments, to Independent Button Fastener Machine Company, (Inc.), Boston, Mass., a Corporation of Massachusetts. Filed June 10, 1912. Serial No. 702,693. (Cl. 218—8.)



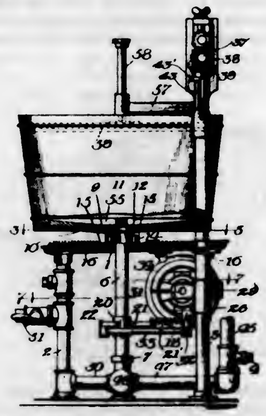
1. In a machine for the setting of buttons and the like, a series of forming dies, one of said dies having a longitudinal groove therein to receive the shank of a button, and a covering plate having a groove registering with said groove to guide and maintain the button in proper position.

2. In a button setting machine of the wire feed type, a series of forming dies, the intermediate die of said series having lateral tongues formed thereon and having a nose beveled rearwardly and a recess extending transversely thereof, the lateral dies each having a transverse groove to house a wire and a longitudinal groove to receive said tongues of the intermediate die, said intermediate die having a longitudinal groove to receive and guide a button shank, and a cover plate having a groove registering with said longitudinal groove of said intermediate die and effective to assist in guiding and centering the button and shank in its advance to the wire and to hold said shank firmly against the wire.

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1,092,605. LAUNDRY MACHINERY. JOHN H. SUTTER, Chicago, Ill. Filed Nov. 21, 1908. Serial No. 463,758. (Cl. 68—24.)

1. In a laundry machine; the combination of a frame or support, a hollow shaft journaled vertically therein, a washing and rinsing tub mounted on the upper end of the shaft and rotatable thereby, means for giving alternating rotary movement to the shaft, and fluid connections opening into the tub through said shaft and adapted to provide a flow of fluid to and from the tub during the movement of the shaft.

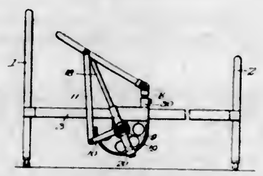


2. In a laundry machine; a supporting structure, a hollow shaft journaled therein, a washing and rinsing tub provided with a sloping bottom mounted on the shaft and opening thereinto, means for keeping the material to be cleansed out of contact with said bottom, and forming radial channels for fluid, means for introducing fluid into said channels through the hollow shaft, and means for giving alternating rotary movement to the shaft.

3. In a laundry machine, a supporting framework including tubular members adapted to be connected with a source of water supply and a discharge outlet, a tub mounted on a hollow shaft opening into the said tub and also opening into said tubular members, means for actuating said shaft to operatively move the tub, and means for regulating the supply of fluid to the tub through said tubular members and said shaft during the operation thereof.

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1,092,606. BEDSTEAD AND THE LIKE. ROBERT J. SUTTON, Chicago, Ill., assignor of one-half to John J. Strobot, Chicago, Ill. Filed Oct. 23, 1912, Serial No. 727,308. Renewed Dec. 17, 1913. Serial No. 807,355. (Cl. 5—43.)



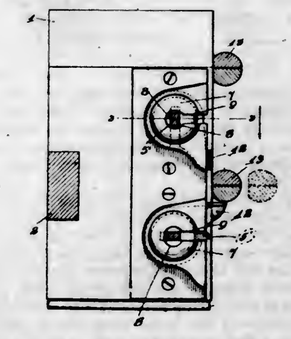
1. A back-support for a bedstead, means for adjusting and locking said back-support and for releasing said locking device, said means comprising a shaft, clutch members provided with teeth adapted to engage with each other, comprising a fixed clutch member and a movable clutch member secured to rotate with said shaft, an operating lever or crank connected with said shaft and movable clutch member adapted for rotating said shaft and for retracting said clutch member, said operating lever or crank extending beyond said shaft, and a track against which said extension of said lever bears, substantially as described.

2. A back-support for a bedstead, means for adjusting and locking said back-support and for releasing said locking device, said means comprising a shaft, clutch members provided with teeth adapted to engage with each other, comprising a fixed clutch member and a movable clutch member secured to rotate with said shaft, a spring adapted for maintaining the clutch teeth on said movable clutch member normally in engagement with the clutch teeth on said fixed clutch member, an operating lever or crank extending beyond said shaft, and a track against which said extension of said lever bears, substantially as described.

3. A back-support for a bedstead, means for adjusting and locking said back-support and for releasing said locking device, said means comprising a shaft, clutch members provided with teeth adapted to engage with each other, comprising a fixed clutch member and a movable clutch member secured to rotate with said shaft, an operating lever or crank connected with said shaft and movable clutch member adapted for rotating said shaft and for retracting said clutch member, said operating lever or crank extending beyond said shaft, a roller rotatably mounted on the extension of said lever, and a track against which said roller bears, substantially as described.

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1,092,607. MAP-HOLDER. FRANK H. SWANSON, Chicago, Ill., assignor to A. J. Nystrom & Company, a Corporation of Illinois. Filed Nov. 13, 1912. Serial No. 731,103 (Cl. 156—36.)



1. In a map holder; the combination with a framework and a roller mounted on a shaft movable relatively thereto, of a bracket rigidly attached to the framework having an enlarged central opening with a guideway leading thereto to revolubly receive one end of said shaft, and a locking member on said bracket having a central opening to receive the end of said shaft, and a radial guideway, the shaft of said roller being engaged in the locking plate against rotation relatively thereto.

2. In a map holder; the combination with a roller having a stub shaft axially rotatable therein, a spring on the shaft secured thereto and to the roller, and means for securing the roller and shaft against relative rotation; of a stationary bracket having a central opening to revolubly receive the end of the stub shaft and a radial slot leading to said opening, and a device on the bracket adapted to engage the stub shaft against rotation relatively thereto and actuated by the spring whereby the shaft is normally locked in the said bracket against transverse removal.

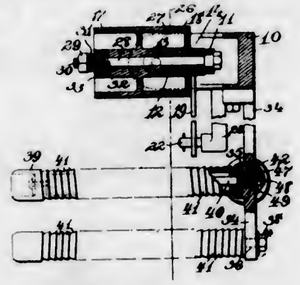
3. In a map holder; the combination with a roller having a stub shaft with a squared end axially rotatable therein, a spring on the shafe secured thereto and to the other roller, and means for securing the roller and shaft against relative rotation; of a slotted bracket adapted revolubly to receive the end of said stub shaft, and a device on the bracket having a slot registrable with the slot in the bracket adapted to receive the squared end of said stub shaft and actuated by the spring so that the slot therein is normally rotated out of register with the slot on the bracket.

4. In a map holder; the combination with a roller having a stub shaft with a squared end and axially rotatable therein, a spring on the shaft secured thereto and to the roller, and means for securing the roller and shaft against

relative rotation; of a cup-shaped bracket having an enlarged central opening and a radial slot and a rotatable device nested in the bracket provided with a squared central opening to engage the squared end of said stub shaft and further provided with a radial slot leading from said opening, said device being actuated by the spring so that the slot therein is normally rotated out of register with the slot on the bracket.

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1,092,608. CLOTH-GUIDING DEVICE. GEORGE W. TAIT, Kearney, N. J. Filed July 3, 1913. Serial No. 777,322. (Cl. 26—18.)



1. In a guiding device for the edge of cloth, a swinging support having a freely revolving roller thereon, a substantially fixed roll abutting against the roller, and yielding means to permit the separation of the roller and the roll but acting to normally force them toward each other so that they abut.

2. In a guiding device for the edge of cloth, a tilting support having a shaft thereon, a roll on the shaft, the roll being arranged to have a very limited rotation, a roller freely rotating on the shaft and abutting against the roll, the end of the shaft projecting beyond the roller, an adjusting device on the end of the shaft, and a spring bearing on the adjusting device and on the roller to permit the separation of the roller from the roll but normally forcing the roller against the roll.

3. In a device for guiding cloth, a plate having a slot therein, a block adapted to slide in the slot, a screw in screw-threaded engagement with the end of the slot and the projecting end of the block, the screw being recessed, a lock-screw in the block and entering the recess of the screw, and a rotary scrimp bar with inclined ribs, the scrimp bar being supported from the block.

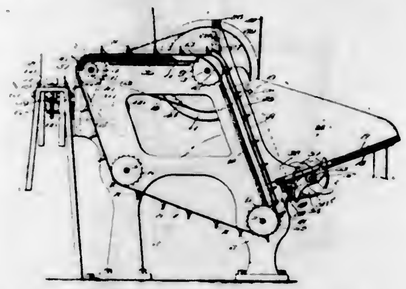
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1,092,609. CAN-TRANSFERRING MECHANISM. THOMAS LUCIEN TALIAFERRO, Baltimore, Md., assignor to Continental Can Company, Syracuse, N. Y., a Corporation of New Jersey. Filed Nov. 30, 1908. Serial No. 465,141. (Cl. 193—8.)

1. The combination of a receptacle in which cans may be promiscuously placed, a run-way for receiving the cans, and means for delivering the cans to the run-way including a carrier for removing the cans from said receptacle, means for positioning the cans in a predetermined relation to the carrier, and means operating upon the cans on the carrier between the receptacle and the runway for placing said cans with their longitudinal axes extending in the same general direction.

2. The combination of a receptacle in which cans may be promiscuously placed, a carrier having devices to engage and lift from the receptacle cans positioned in a certain relation to the carrier, and means operating upon the cans on the carrier during their travel with the carrier for placing said cans with their longitudinal axes extending in the same general direction.

3. The combination of a receptacle in which cans may be promiscuously placed, a run-way for receiving the cans, means for delivering the cans from the receptacle to the run-way in a predetermined order, including a stationary support, means for lifting the cans from the receptacle and moving the same along said stationary support, said support including means located between the receptacle and the runway and operating upon the cans whereby all of the cans as they leave the stationary support will have their longitudinal axes extending in the same general direction.



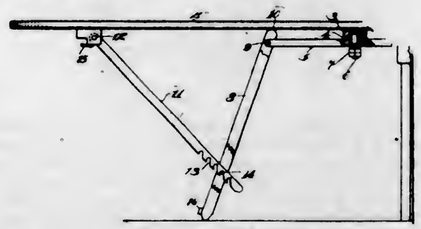
4. The combination of a receptacle in which cans may be promiscuously placed, a run-way, means for delivering cans from the receptacle to the run-way in a predetermined order, including a stationary support forming a part of the receptacle, partitions coöperating with the support for dividing the same into pockets adapted to receive cans having their longitudinal axes arranged in vertical planes, a carrier for lifting the cans from the receptacle and sliding the same along said support in said pockets, and means operating upon the cans during their travel with the carrier, whereby the cans as they leave the support, will have their longitudinal axes extending substantially in the same direction.

5. A can transferring mechanism including in combination a main frame, a support for the cans having an inclined front portion against which the cans are delivered, and an upsetting shoulder on its rearward portion, a series of shelves arranged transversely of the support and in vertical relation thereto, said shelves being suitably spaced to receive between them the cans lengthwise, means for moving the shelves rearwardly over the support, means to deliver the cans to the shelves against the support, and partitions suitably arranged to divide the spaces between the shelves into pockets.

[Claims 6 to 15 not printed in the Gazette.]

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1,092,610. IRONING-BOARD. WILLIAM B. THURMAN, Madera, Cal. Filed Feb. 8, 1912. Serial No. 676,423. (Cl. 68—10.)

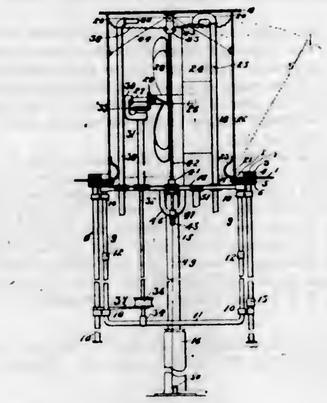


In a device of the class described, a board, a recessed block secured to said board on the under side and near one end thereof, a bolt mounted in the recess in said block and extending away from the plane of said board, said board being recessed at one end to form two bearing surfaces on the outside edges thereof, a lever of less width than said recess loosely mounted upon said bolt to have a limited universal movement, a cam lever carried by said lever and coöperating with said board to support the same, and an independently adjustable rack bar pivoted to the outer end of the board and engageable with the cam lever to hold the parts in adjusted position.



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1,092,611. APPARATUS FOR HEATING INFLATING-GAS IN BALLOONS. RALPH HAZLETT UPSON, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Jan. 29, 1913. Serial No. 745,026. (Cl. 244—3.)



1. A balloon provided with an opening in a wall thereof, reinforcing members surrounding said opening, a heat-generating instrumentality capable of being projected through said opening into the interior of said balloon for heating the fluid therein, and means for maintaining a fluid-tight closure for said opening irrespective of the position of said heat-generating instrumentality.

2. A balloon provided with an opening in a wall thereof, a reciprocating carriage positioned adjacent to said opening, a heat-generating instrumentality mounted on said carriage and adapted to move shuttle-fashion through said opening and arranged when shifted into a position within the interior of said balloon to heat the fluid contained therein.

3. A balloon provided in a wall thereof with an opening, a stiffening medium surrounding said opening, a reciprocally-moving carriage, guiding means for said carriage, a heating instrumentality mounted on said carriage adapted to move shuttle-fashion through said carriage for heating the contents of said balloon.

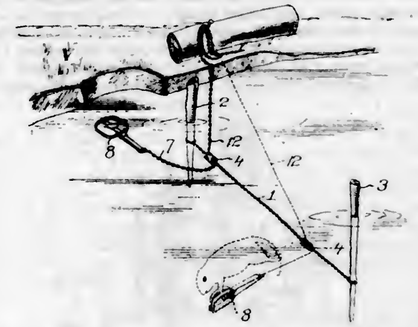
4. A balloon, a wall whereof is provided with an opening, a reciprocally-moving carriage positioned adjacent to said opening, a heating medium mounted on said carriage and adapted to move shuttle-fashion through said opening, and a current-creating medium on said carriage for bringing the fluid contained in said balloon into contact with said heating medium.

5. A balloon provided with an opening in a wall thereof, a reciprocally-movable carriage positioned adjacent to said opening, guiding means for said carriage, a heat-generating instrumentality mounted on the said carriage and adapted to move shuttle-fashion through said opening into said balloon for heating the interior thereof, a current-creating medium on said carriage for creating a current of fluid in said balloon past said heat-generating instrumentality for heating said fluid, and means on said carriage to close the opening in said balloon when said heat-generating instrumentality is removed from the interior of said balloon.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,612. ATTACHMENT FOR ANIMAL-TRAPS. ADALBERT F. VOGT, Detroit, Mich. Filed Oct. 31, 1913. Serial No. 798,437. (Cl. 43—23.)



1. In an attachment for traps, the combination with an anchor line, and a trap, of a sleeve slidable upon said line and connected with said trap, means carried by said sleeve and adapted to engage said line to restrain movement of said sleeve in one direction upon said line, and a hauling-in line connected with said sleeve.

2. In an attachment for traps, the combination with an anchored chain, and a trap, of a sleeve slidable upon said chain and connected with said trap, means carried by said sleeve and adapted to engage said chain to restrain movement of said sleeve in one direction upon said chain, and a hauling-in line connected with said sleeve.

3. In an attachment for traps, the combination with an anchored chain and a trap, of a sleeve slidably mounted upon said chain and connected with said trap, prongs carried by said sleeve and adapted to engage said chain, and a hauling-in line attached to one of said prongs.

4. The combination with a trap, a submerged anchor line, a sleeve slidably mounted upon said line and connected with said trap, means carried by an end of said sleeve to engage the line and prevent a shoreward movement of the sleeve and the trap attached thereto, and manually operated means connected to said sleeve and adapted to release said means whereby said sleeve may be moved shoreward.

5. In an aquatic trap, a combination with an anchoring element, of a pronged device freely movable in one direction upon said anchoring element, and manually operated means connected with said device for moving the same in an opposite direction on said anchoring element.

[Claims 6 and 7 not printed in the Gazette.]

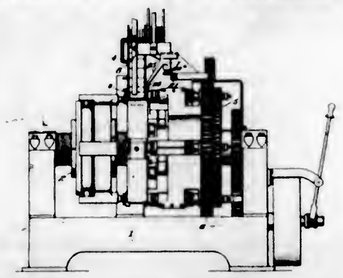
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1,092,613. MECHANISM FOR FEEDING CAN ENDS. IVAR F. WARME, Syracuse, N. Y., assignor, by mesne assignments, to Continental Can Company, Inc., a Corporation of New York. Filed Dec. 17, 1910. Serial No. 597,786. (Cl. 113—114.)

1. In a device for feeding can ends or the like, the combination of a stack holder, means for supporting the stacked ends in said holder and releasing said ends one by one, including a rotatable member having a horizontal supporting ledge, said ledge being cut away to permit the ends to drop from said member, and a separating plate located in a plane above said horizontal ledge and having a substantially radially projecting separating edge extending over said ledge.

2. In a device for feeding can ends or the like, the combination of a stack holder, means for supporting the stacked ends in said holder and releasing said ends one by one, including a rotatable member having a horizontal supporting ledge, said ledge being cut away to permit the ends to drop from said member, and a removable hardened steel separating plate located in a plane above said horizontal ledge and projecting over the same.

3. In a device for feeding can ends or the like, the combination of a stack holder, means for supporting the stacked ends in said holder and releasing said ends one by one, including a rotatable member having a horizontal supporting ledge, said ledge being cut away to permit the ends to drop from said member, and a removable hardened steel separating plate located in a plane above said horizontal ledge and projecting over the same, said plate having a substantially radially projecting separating edge.



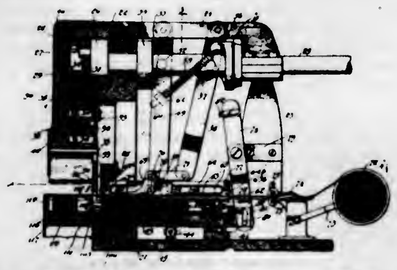
4. In a device for feeding can ends or the like, the combination of a bracket, standards secured to the bracket for supporting a stack, a tapered stud carried by the bracket, means whereby said stud may be adjusted toward and from the center of the stack, and a separating device disposed opposite to said stud for engaging the other side of the can ends, and for releasing one can end at a time.

5. In a device for feeding can ends or the like, the combination of a bracket, standards secured to said bracket, a tapered stud carried by one of said standards for supporting one side of the stack of can ends, a separating device for engaging the other side of the can ends for releasing one can end at a time, and means for adjusting said standard carrying said tapered stud, whereby said holder is adapted for different sized can ends.

[Claim 6 not printed in the Gazette.]

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1,092,614. BOX-STAYING MACHINE. WILLIAM F. WELTER, Chicago, Ill. Filed May 26, 1913. Serial No. 769,813. (Cl. 93—56.)



1. In a box staying machine, the combination of a hollow anvil frame, a plunger reciprocable in said frame and having a conical top forming a seat for the corners of boxes, means for feeding a stay over the anvil, said plunger being adapted to coöperate at its front end with the inner end of the stay, and an elevating mechanism in front of the plunger adapted to raise the box corner above the crest of the plunger during coöperation of said plunger with the stay.

2. In a box staying machine, the combination of an anvil frame, a plunger reciprocable on said frame having a conical top for receiving the corners of boxes to be stayed, means for feeding a stay over the corner of a box on said frame, means for reciprocating said plunger, said plunger being adapted during its forward travel to coöperate with the inner end of the stay to turn said end under and against the inner side of the corner, and elevating mechanism for elevating said box to carry its corner a distance above the path of the plunger crest during coöperation of the plunger with the stay.

3. In a box staying machine, the combination of an anvil frame, a plunger reciprocable in said frame having a conical top for supporting the corners of boxes, an elevating member carried by said plunger, and cam mechanism for effecting raising of the elevating member during the rearward travel of the plunger whereby a supported box will be raised to hold its corner above the path of the crest of the plunger during its forward movement.

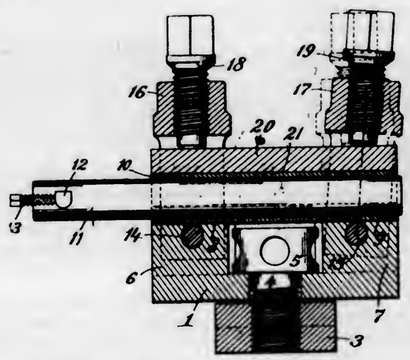
4. In a box staying machine, the combination of a support for boxes, stay applying mechanism for coöperating with the support to fasten a stay to the outside of the box, means for turning down and in the inner end of the stay against the inner side of the corner of a box, and means for effecting raising of the box during such application of the stay end.

5. In a box staying machine, the combination of a supporting anvil structure for boxes, means for feeding a stay over the corner of a box applied to the frame, means coöperating with the frame to secure the stay to the outer side of the box corner, means for turning against the inside of the corner the inner end of the stay, and means for effecting raising of the box during application of the inner end of the stay to the inner side thereof.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,615. TOOL-HOLDER. EDWARD J. WHITE, Newark, N. J. Filed Oct. 26, 1912. Serial No. 727,859. (Cl. 82—36.)



A holder for tools and the like comprising a stationary member having a pair of spaced, fixed uprights, a pair of forked pillars having their forked ends embracing said uprights, means for pivoting the lower extremities of the legs of each of said pillars to said uprights, pressure-applying means mounted in the free end of each of said pillars and adapted to distribute strain along the line of said pillars and said uprights, means for attaching the holder to the machine with which the holder is adapted to be used, said attaching means being located centrally between said uprights and out of the line of pressure of said pressure-applying means, whereby the strain upon said attaching means is obviated, and a second member adapted to be located between a tool and the pressure-applying means, and to transmit the strain from said forked pillars to said uprights.

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1,092,616. PROCESS OF TREATING MILK AND MILK PRODUCTS. ERNST F. W. WIEDA, Paterson, N. J. Filed Aug. 2, 1912. Serial No. 712,898. (Cl. 99—13.)

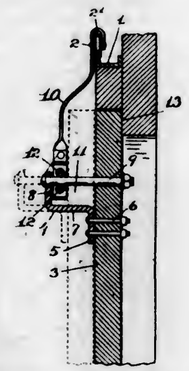
1. The herein-described process consisting in agitating a liquid mixture containing butter-fat and milk at a suitable temperature and meanwhile reducing the temperature appreciably; then subjecting the mixture to the emulsifying operation substantially as herein described; then cooling the mixture appreciably; then, while the mixture is substantially at the temperature at which it was when last cooled, again subjecting the mixture to the emulsifying operation substantially as herein described; and then cooling the mixture to a temperature suitable for the preservation thereof, substantially as described.



2. The herein-described process consisting in agitating a liquid mixture containing butter-fat and milk at a suitable temperature and meanwhile reducing the temperature appreciably; then subjecting the mixture to the emulsifying operation substantially as herein described; then cooling the mixture appreciably and aerating the same; then, while the mixture is substantially at the temperature at which it was when last cooled, again subjecting the mixture to the emulsifying operation substantially as herein described; and then cooling the mixture to a temperature suitable for the preservation thereof, substantially as described.

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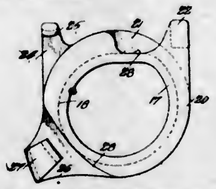
1,092,617. DOOR-HANGER. ELMER L. WILEY, Marion, Kans. Filed Aug. 22, 1913. Serial No. 786,115. (Cl. 16—7.)



In a door hanger, upper members each having a track roller, and a set of upper and lower opposed rollers having their axes at right angles to that of said track roller, and lower members adapted for rigid connection with the door and each carrying a track rod also adapted for rigid connection with the door and disposed at right angles to and located between and in contact with said opposed rollers, the two sets of opposed rollers coöperating with their track rods to resist pivotal movement of the door, whereby the door is capable of being moved bodily inward and outward.

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1,092,618. ROPE TAKE-UP. JAMES CLARENCE WILLIAMSON, Cordele, Ga. Filed July 3, 1913. Serial No. 777,220. (Cl. 24—129.)

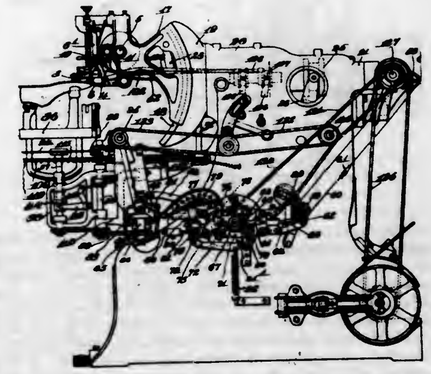


1. A device for connecting a stump engaging rope to a pull rope and comprising a frame having an approximately cylindrical periphery provided with a spiral groove whose ends lie alongside each other at the top of the frame, said frame having a hook overlying each end of the groove and at the outer side of the said groove for engaging the pull rope as it engages and leaves the frame, said frame having means for engagement by one end of the stump rope and arranged at the opposite side of the frame from the other end of the stump rope to constrain the stump rope to overlie the ends of the groove as it passes over the frame from its connection.

2. A device for connecting a stump engaging rope to a pull rope and comprising a frame having an approximately cylindrical periphery provided with a spiral groove whose ends lie alongside each other at the top of the frame, the frame having means for limiting the upward movement of the pull rope at each end of the groove and on the outer side thereof, and having means for engagement by one end of the stump engaging rope, said means being on the opposite side of the frame from the opposite end of the stump engaging rope and below the adjacent limiting means to constrain the stump rope to overlie the ends of the groove as it passes from the engaging means of the frame to the stump.

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1,092,619. MACHINE FOR OPERATING ON SHOES. ERASTUS E. WINKLEY, Lynn, Mass. Filed Sept. 22, 1910. Serial No. 583,286. (Cl. 12—19.)



1. A machine for operating upon shoes, having, in combination, means for operating on a shoe, mechanism for feeding the shoe, guiding devices acting along a contour of the shoe, mechanism acting automatically to relatively shift the guiding devices and operating means transversely of the feed during a predetermined part of the travel of the operating means about the shoe to progressively vary its path of travel with relation to the guiding contour, substantially as described.

2. A machine for operating upon shoes, having, in combination, means for operating on a shoe sole, a guide for the shoe, mechanism for feeding the shoe, and mechanism acting automatically to relatively shift the guide and operating means transversely of the feed during a predetermined portion of the travel of the operating means about the shoe to progressively vary the distance of its path of travel from the inseam, substantially as described.

3. A machine for operating upon shoes, having, in combination, means for operating on a shoe, a shoe supporting jack, mechanism for feeding the shoe, guiding devices acting along a contour of the shoe, mechanism for relatively moving the jack and operating means to maintain them in proper relation during the transfer of the point of operation about the shoe, and mechanism for relatively moving the guiding devices and operating means to progressively vary the path of travel of the operating means with relation to the guiding contour, substantially as described.

4. A machine for operating upon shoes, having in combination, means for operating on a shoe, a shoe supporting jack, a guide for engaging and guiding the shoe, mechanism for swinging the jack, a feeler acting along the con-

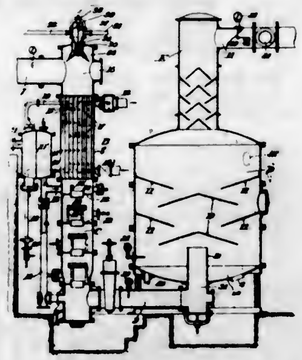
tour engaged by the guide for controlling the swinging movements of the jack mounted for movement with the guide and means for moving the guide to vary the path of travel of the operating means, substantially as described.

5. A machine for operating upon shoes, having in combination, a sole trimming knife guiding devices acting along a contour of the shoe and mechanism acting automatically to feed the shoe and to relatively move the guiding devices and knife to vary the width of the projecting edge of the sole at predetermined times during the trimming of the sole, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

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1,092,620. PROCESS AND APPARATUS FOR WOOD DISTILLATION. FRANZ WOIDICH, Prague-Weinberge, Austria-Hungary. Filed Oct. 8, 1912. Serial No. 724,584. (Cl. 203—4.)



1. The process for the separation from the gases and vapors evolved during the destructive distillation of wood and other organic materials, of acid-free tar and tar-free acid vapors, which consists in bringing liquid tar into contact with the hot gases leaving the ovens whereby the oily constituents of the tar are vaporized and the hot gases saturated with oil vapors, separating the liquid tar from the gas current, lowering the temperature of the gases to the dew-point of the higher-boiling-point oily constituent, then again bringing into intimate contact the distillation gases and the tar from which the oily constituents had previously been removed, and then separating the tar from the gases.

2. The process of treating the gases and vapors evolved during wood distillation, which consists in saturating the hot gases with tar-oil vapors, lowering the temperature of the gases to the dew-point of the higher-boiling-point oil constituent, then bringing into intimate contact the thus treated gas with oil-free tar, whereby the tar absorbs or dissolves the oily constituents, and then separating the tar from the gases.

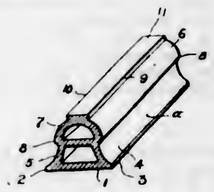
3. The process of treating the gases and vapors evolved during wood distillation, which consists in saturating the hot gases with tar-oil vapors, lowering the temperature of the gases to the dew-point of the higher-boiling-point oil constituent, then bringing into intimate contact the thus heated gas with oil-free tar, whereby the tar absorbs or dissolves the oily constituents, and then separating the tar from the gases by subjecting the mixed tar and gas to a succession of impacts, compressions, expansions, and abrupt changes of direction.

4. An apparatus comprising a wood-distilling oven, a collecting main for the gases evolved from such oven, means for delivering tar into said collecting main, a conduit connected to said collecting main and including therein a cooler, a cataract and a tar-separator, and a conduit for delivering tar from the collecting main to the cataract.

5. An apparatus comprising a wood-distilling oven, a collecting main for the gases evolved from such oven, means for delivering tar into said collecting main, a conduit connected to said collecting main and including therein a mixing head, a cooler, a cataract and a tar-separator, and a conduit for delivering tar from the collecting main to the cataract, and means for introducing fluids into said mixing head.

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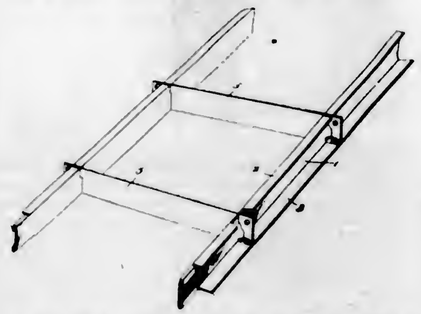
1,092,621. SHAPED OR MOLDED BLOCK FOR MAKING CEILINGS. JOHANNES WÖRNER, Cannstatt, Germany, assignor of one-fourth to Frederick A. Bach, Chicago, Ill. Filed May 17, 1911. Serial No. 627,754. (Cl. 72—68.)



A reversible block of the character set forth, comprising substantially parallel upper and lower faces, one being wider than the other, and side faces, each comprising a concave portion and a convex portion of substantially equal width, the curves of said concave and convex portions being of substantially equal radii and their adjacent edges being offset from each other, forming undercut shoulders for the sides of the block between its upper and lower faces.

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1,092,622. MOLD. JOHN R. ZEISER, Berwick, Pa. Filed Apr. 9, 1912. Serial No. 689,489. (Cl. 25—118.)



1. In a mold form of the class described, a side-bar, a division-plate fitted to the side-bar, and means mounted for turning movement upon the division-plate and bearing against the side-bar and restraining the latter against outward movement, the means being arranged to automatically engage with and disengage from the side-bar when the division-plate is assembled therewith and separated therefrom, respectively.

2. In a mold form of the class described, a side-bar, a division-plate fitted to the side-bar, and a dog pivoted upon the division plate and having oppositely located engaging ends, either of said ends bearing against the side-bar and restraining the latter against outward movement, the side-bar having a portion arranged for engagement by one end of the dog whereby to cause automatic engagement of the other or the same end of the dog with the side-bar when the division-plate is assembled therewith.

3. In a mold form of the class described, a side-bar, a division-plate fitted to the side-bar, the side-bar having a base-flange, and a dog pivoted upon the division-plate and having an engaging end bearing against the side-bar and restraining the latter against outward movement, the dog having a portion arranged to engage with the flange when the division-plate is assembled with the side-bar whereby to direct the engaging end of the dog into engagement with the side-bar.

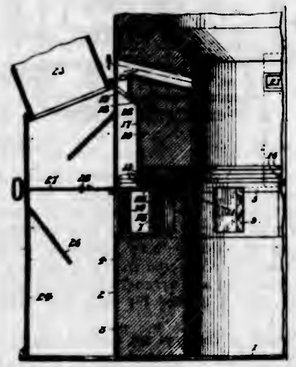
4. A mold form of the class described, a side-bar, a division-plate formed with a slot receiving the side-bar between its walls, one wall of the slot resting against one face of the side-bar, and a dog pivoted upon the division-plate at one side of the slot therein and having an engaging end extending across the slot and bearing against the other face of the side-bar.

5. In a mold form of the class described, a side-bar, a division-plate having a slot receiving the side-bar, and having one of its end walls resting against the face of the said side-bar, the side-bar having a base flange, and a dog pivoted upon the division-plate and having oppositely presented engaging ends and parallel edges between the ends, one of said parallel edges resting upon the said base flange and one of the engaging ends bearing against the said side-bar and holding the same in position against the wall of the slot.

[Claim 6 not printed in the Gazette.]

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1,092,623. CUPOLA-FURNACE. MICHAEL ZIPPLER, Jr., Pittsburgh, Pa. Filed Mar. 29, 1913. Serial No. 757,600. (Cl. 75—111.)



1. In a cupola furnace an annular twyer plate formed of two L-shaped sections oppositely disposed with respect to each other thereby providing a continuous annular air chamber, the vertical portion of one of said sections provided with openings to constitute air inlets and the vertical portion of the other of said sections provided with openings to constitute outlets.

2. In a cupola furnace an annular twyer plate formed of two L-shaped sections oppositely disposed with respect to each other thereby providing a continuous annular air chamber, the vertical portion of one of said sections provided with openings to constitute air inlets and the vertical portion of the other of said sections provided with openings to constitute outlets, the vertical portion provided with outlets being of greater thickness than the vertical portion provided with the inlets.

3. In a cupola furnace, an annular twyer plate forming a continuous annular air chamber and having its inner wall provided with outlets and its outer wall formed with inlets, a laminated body mounted upon the top of said plate, overhanging the inner wall of the air chamber and formed with a series of superposed flat annular metallic members each having its inner edge beveled, the beveled inner edge of an upper member forming a continuation of the beveled inner edge of a lower member, said plate having its top formed with a plurality of openings, said laminated body cut away to provide a continuation of said openings, and means for conducting air from said openings into the furnace at points above said laminated body.

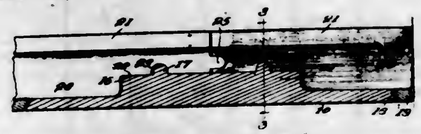
4. In a cupola furnace, an annular twyer plate forming a continuous annular air chamber and having its inner wall provided with outlets and its outer wall formed with inlets, a laminated body mounted upon the top of said plate, overhanging the inner wall of the air chamber and formed with a series of superposed flat annular metallic members each having its inner edge beveled, the beveled inner edge of an upper member forming a continuation of the beveled inner edge of a lower member, said plate having its top formed with a plurality of openings, said laminated body cut away to provide a continuation of said openings, means for conducting air from said openings into the furnace at points above said laminated body, and dampers for controlling the openings in the top of said air chamber.

5. In a cupola furnace an annular hollow twyer plate forming a continuous annular air chamber having the inner wall integral with the bottom and the outer wall integral with the top, said inner wall provided with outlets and said outer wall with inlets, said air chamber being uninterrupted throughout.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,624. RAIL-JOINT. OGLESBY ALLEN, Jr., Chicago, Ill. Filed May 15, 1913. Serial No. 767,848. (Cl. 239—13.)



1. A rail joint in combination, a chair having a longitudinal channel, a stop shoulder formed centrally of the channel, and abutting rail ends having their base and flanges cut-away to permit the seating of their web ends in the channel, said web ends being cut-away to engage about the shoulder and further cut away to provide interlocking tongue and mortise portions.

2. In a rail joint, the combination with a rail chair including a base having lateral flanges and vertically extending spaced apart walls, a stop shoulder formed centrally between the walls and locking lugs extending upwardly from the end portions of the stop shoulder, of rails, the abutting ends of which have their flanges cut-away to permit the seating of their webs between the upstanding walls of the rail chair, said webs being cut-away for locking engagement with the shoulder and lugs thereof.

3. In a rail joint, the combination with a rail chair including a base having lateral flanges and vertically extending spaced apart walls, a stop shoulder formed centrally between the walls and locking lugs extending upwardly from the end portions of the stop shoulder, of rails, the abutting ends of which have their flanges cut-away to permit the seating of their webs between the upstanding walls of the rail chair, said webs being cut-away for locking engagement with the shoulder and lugs thereof, the web at one end being provided with a mortise and the web at the other end with an extended tenon seating in the mortise.

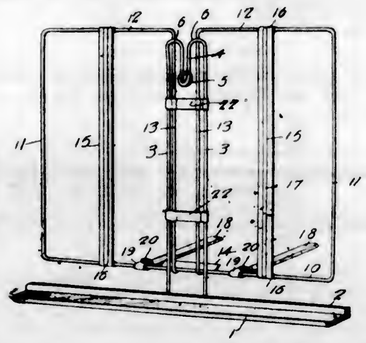
4. In a rail joint, a rail chair including a base having lateral flanges and vertically extending spaced apart walls, a stop shoulder formed centrally between the walls with its upper face parallel to the base, said stop shoulder being provided adjacent each end with an upstanding lug, and abutting rail ends having their flanges and web portions cut-away to permit their seating between the upstanding walls of the rail chair.

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1,092,625. MUSIC-HOLDER. ELWIN JACKSON BABBITT, Onaway, Mich., assignor of one-third to Leland G. Riley, Onaway, Mich., and one-third to Charley R. Willing, Millersburg, Mich. Filed June 27, 1913. Serial No. 776,076. (Cl. 45—80.)

1. A music holder comprising a base plate, a bracket or standard detachably connected with the base plate intermediate the ends thereof, said bracket or standard com-

prising a body and arms extending parallel with each other, each arm having at its lower end an angular lug lapping upon the under face of the base, a bearing plate engaging both lugs and detachably connected with the base, a resilient loop depending from the body of the bracket, a music supporting frame formed from wire bent to substantially rectangular form and having a pair of spaced vertical bars extending from the top to the bottom of the frame and spaced apart a lesser distance than the arms of the brackets, bearing plates rigidly connected with the said bars and extending transversely of the bracket, each plate having a hook at its end for engaging the adjacent arm of the bracket, arms connected with the bottom of the frame at each side of the bracket, each of the said arms having a return bent portion, the bottom of the frame being received between the said return bent portion and the body of the arm, a screw passing through the said return bent portion and the body of the arm, and a covering of flexible material on each of the said arms.



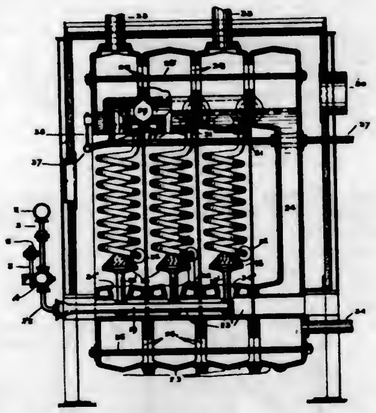
2. A music holder comprising a base plate, a bracket or standard detachably connected with the base plate intermediate the ends thereof, said bracket or standard comprising a body and arms extending parallel with each other, each arm having at its lower end an angular lug lapping upon the under face of the base, a bearing plate engaging both lugs and detachably connected with the base, a resilient loop depending from the body of the bracket, a music supporting frame formed from wire bent to substantially rectangular form and having a pair of spaced vertical bars extending from the top to the bottom of the frame and spaced apart a lesser distance than the arms of the brackets, bearing plates rigidly connected with the said bars and extending transversely of the bracket, each plate having a hook at its end for engaging the adjacent arm of the bracket, and supporting arms for engaging beneath the front board of a piano adjustably connected with the frame at the bottom thereof.

3. A music holder, comprising a base and a substantially U-shaped bracket extending upwardly from the base intermediate the ends thereof, a music support comprising a substantially rectangular frame slidably connected with the standard, said frame having a pair of laterally spaced bars at approximately its center and moving alongside the sides of the standard, bearing plates arranged transversely of the said bars and rigidly connected therewith, each bearing plate having bearings for engaging the sides of the standards.

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1,092,626. STEAM-HEATER. ERNEST C. BARTH, Providence, R. I. Filed May 31, 1913. Serial No. 771,001. (Cl. 122—225.)

1. In a heater of the type set forth, an outer body, a series of substantially O-shaped hollow water containing sections arranged in the body and in abutting relation and having registering openings at their abutting portions, the rearmost of said sections having a vertical water space, the lower portions of the sections being formed with a series of horizontal registering openings that conjointly form a series of chambers, a series of water coils located in the centers of the spaces of the sections, said coils being connected at their upper and lower ends to the respective sections, a gas manifold in each of said chambers, said sections also having vertical openings that lead from said chambers to the said spaces of the sections, pipes connected to the manifolds and extending up through said last named vertical openings, burners on said pipes underlying the water coils, said sections having their upper portions formed with series of vertical flues and also formed with horizontal flues common to all of the vertical flues of a series thereof and further formed at their abutting portions with horizontal flues that lead from the common flues through the outer sides of the sections.



2. In a heater of the type set forth, an outer body, a series of substantially O-shaped hollow water containing sections arranged in the body and in abutting relation and having registering openings at their abutting portions, the rearmost of said sections having a vertical water space, a water coil connected to the upper and lower portions of each section and arranged in the central spaces of the sections, and a burner for each coil underlying the same.

3. In a heater of the type set forth, an outer body, a series of substantially O-shaped hollow water containing sections arranged in the body and in abutting relation and having registering openings at their abutting portions, the rearmost of said sections having a vertical water space, the lower portions of the sections being formed with a series of horizontal registering openings that conjointly form a series of chambers, a series of water coils located in the centers of the spaces of the sections, said coils being connected at their upper and lower ends to the respective sections, a gas manifold in each of said chambers, said sections also having vertical openings that lead from said chambers to the said spaces of the sections, pipes connected to the manifolds and extending up through said last named vertical openings, and burners on said pipes underlying the water coils.

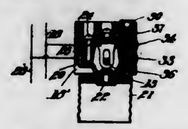
4. In a heater of the type set forth, an outer body, a series of substantially O-shaped hollow water containing sections arranged in the body and in abutting relation and having registering openings at their abutting portions, the rearmost of said sections having a vertical water space, a water coil connected to the upper and lower portions of each section and arranged in the central spaces of the sections, and a burner for each coil underlying the same, said sections being formed with flues that lead from their said central spaces through the outer sides thereof to conduct the heat to the exteriors of the sections.

5. In a heater of the type set forth, an outer body, a series of substantially O-shaped hollow water containing sections arranged in the body and in abutting relation and having registering openings at their abutting portions, a series of water coils located in the centers of the spaces of the sections, said coils being connected at their upper and lower ends to the respective sections, burners underlying the water coils, said sections having their upper portions formed with vertical flues and also formed with a horizontal flue common to all of the vertical flues and further formed at their abutting portions with horizontal flues that lead from the common flue through the outer sides of the sections.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,627. LOCKING DEVICE FOR ELECTRIC LAMPS, &c. ALBERT D. BARTLETT, Washington, D. C. Filed June 9, 1913. Serial No. 772,724. (Cl. 173—356.)



1. In a locking device for electric lamps, an insulating block, and an electric locking device carried thereby comprising a bolt, a spring coil for holding said bolt normally retracted, and a magnetic coil for projecting said bolt in opposition to said spring, in combination with a screw shell having one end wall swiveled to one end of said insulating block, the end wall of said shell being provided with complemental means to be engaged by said bolt.

2. In a locking device for electric lamps, an insulating block, and an electric locking device embedded therein and comprising a reciprocable bolt, a spring coil for holding said bolt normally retracted, and a magnetic coil for projecting said bolt in opposition to said spring, in combination with a shell having one end wall swiveled to one end of said insulating block, the end wall of said shell being provided with complemental means spaced from the periphery thereof to be engaged by said bolt.

3. In a locking device for electric lamps, an insulating block, and an electrically operated bolt carried by said insulating block, in combination with a screw shell having one end swiveled to one end of said insulating block, the end wall of said shell being provided with complemental means to be engaged by said bolt.

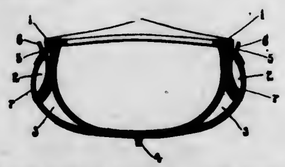
4. In a locking device for electric lamps, an insulating block, and an electric locking device carried thereby comprising a bolt, a spring coil for holding said bolt normally retracted, and a magnetic coil for projecting said bolt in opposition to said spring, in combination with a screw shell having one end wall swiveled to one end of said insulating block, the end wall of said shell being provided with complemental means to be engaged by said bolt, and means independent of the lamp for controlling the circuit to said coil.

5. A locking device of the character described comprising an insulating block, a shell swiveled thereto, and electrically operated means for preventing relative rotation of said block and shell, in combination with an electrical member independent of said lamp for controlling the circuit to said electrically operated means.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,628. NON-CAPSIZABLE BOAT. BERNHARDT A. BECKER, St. Louis, Mo. Filed May 1, 1913. Serial No. 764,812. (Cl. 9—3.)



In a noncapsizable boat, the combination of a hinged air chamber arranged to swing on hinges fastened to the gunwales and chamber, with a spring stop, said stop to be fastened to said air chambers and fixing the limit of the swing of said hinged air chambers.

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1,092,629. PROCESS FOR REFINING AND DECOLORIZING MINERAL WAX. EDGAR CARL WALTHER ADOLF VON BOYEN, Barmstedt, Germany, assignor, by mesne assignments, to The Firm of Wachs und Cerosinwerke zu Hamburg, J. Schlickum & Co., Hamburg, Germany. Filed Oct. 15, 1910, Serial No. 587,346. Renewed Mar. 2, 1914. Serial No. 822,073. (Cl. 196—24.)

1. Process of refining crude mineral wax obtained from lignite, which comprises first treating the crude wax with nitric acid whereby the resins contained in the mass are oxidized, mixing the wax so treated with paraffin, and separating the wax and paraffin from the precipitated oxidized resins.

2. Process of refining crude mineral wax obtained from lignite, which comprises melting the crude wax, adding nitric acid to the melted wax, whereby the resins contained in the mass are oxidized, separating the crude wax from those resins which are precipitated by the treatment with nitric acid, mixing the wax so treated with paraffin, and separating the mixture of wax and paraffin from the precipitated oxidized resins.

3. Process of refining crude mineral wax obtained from lignite, which consists in first treating the crude wax with nitric acid, whereby the resins contained in the mass are oxidized, then mixing the wax so treated with paraffin, separating the mixture of wax and paraffin from the precipitated oxidized resins, and then treating the said mixture with sulfuric acid and a decolorizing agent.

4. Process of refining crude mineral wax obtained from lignite, which consists in first treating the crude wax with nitric acid, whereby the resins contained in the mass are oxidized, separating the crude wax from those resins which are precipitated by the treatment with nitric acid, then mixing the wax so treated with paraffin, separating the mixture of wax and paraffin from the precipitated oxidized resins, then treating the said mixture with sulfuric acid and a decolorizing agent, and separating the paraffin from the wax by subjecting the mass to pressure and melting out the said paraffin.

5. Process of refining crude mineral wax obtained from lignite, which consists in first melting the crude wax, adding nitric acid to the melted wax, whereby the resins contained in the mass are oxidized, separating the crude wax from those resins which are precipitated by the treatment with nitric acid, then mixing the wax so treated with about 50% of paraffin until all of the oxidized resins are precipitated, then separating the mixture of wax and paraffin having a yellowish color from the precipitated oxidized resins, then treating the wax and paraffin with sulfuric acid and a decolorizing mixture consisting of a hydrous silicate and pulverized carbon, and then subjecting the purified mixture of wax and paraffin to high pressure and heating the same to 55°–60° C. whereby the paraffin is melted out and separated from the wax.

[Claim 6 not printed in the Gazette.]

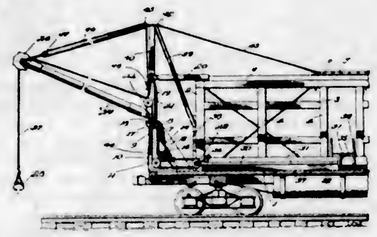
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1,092,630. RAIL-HANDLING APPARATUS. BENJAMIN F. BROWN, Woodsville, N. H. Filed Feb. 7, 1913. Serial No. 746,950. (Cl. 212—35.)

1. In a rail-handling apparatus, the combination with a support, of a pedestal mounted thereon and comprising a central hollow standard and ribs diverging inwardly from and rigid with said standard, a drum supported by said ribs, other ribs diverging laterally from the sides of the standard, a guide pulley in the lower end of the standard, a boom rotatably supported upon the upper end of the standard, and a hoisting cable carried by the boom and extending downwardly through the standard and around the said pulley and secured to said drum.

2. In a rail-handling apparatus, the combination with a support, of a pedestal secured upon the same and comprising a standard provided with a vertical passage and having a vertical slot in its lower end and wings rigid

with and diverging from said standard, some of said ribs extending inwardly from the upper end of the standard and other ribs extending laterally from the sides of the standard, a boom rotatably mounted upon the upper end of the pedestal, a guide pulley mounted in the slot in the lower end of the standard, a hauling cable supported by the boom and passing through the vertical passage in the upper end of the standard and around the pulley at the lower end of the standard, a drum mounted on said wings, means for rotating the drum, and means acting on the cable between the drum and the standard to raise or lower a load.



3. In a rail-handling apparatus, the combination with a supporting frame, of a pedestal thereon, said pedestal comprising a standard having a slot in its lower end and a vertical passage in its upper end and wings diverging from said standard, a guide pulley mounted in the slot in the lower end of said standard, a bearing post having its lower end journaled in the upper end of said standard and its upper end journaled in the upper portion of the support, a boom pivoted to said bearing post near the lower end thereof, a guide roller carried by the said post above the pivoted end of the boom, a cable supported by the boom passing over the guide pulley on the bearing post and under the guide pulley on the pedestal, means on the wings to secure the end of the cable, and operating means connected with said cable.

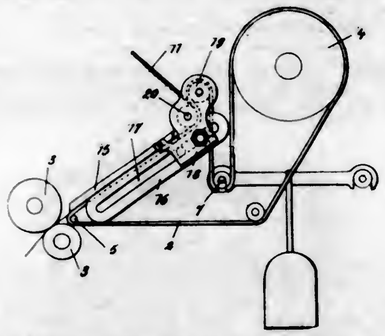
4. In a rail-handling apparatus, the combination with a support, of standards erected thereon at the corners of the same, other standards erected thereon at the sides thereof and spaced from the first-mentioned standards, braces adjustably secured to the several standards and converging upwardly therefrom, a pedestal secured upon the support at the end of the same, a bearing post swiveled in said pedestal and in the top of the support, a boom carried by said bearing post, a hauling cable supported by the boom and the pedestal, operating means connected with said cable, and an adjusting cable extending between the outer end of the boom and the upper ends of the converging braces and having a portion depending from the upper ends of the braces and secured to the bearing post.

5. In a rail-handling apparatus, the combination of a support, a pedestal thereon comprising a base to be secured to the support, a hollow standard rising centrally from the outer edge of said base and wings diverging laterally and inwardly from the upper end of the standard to the base, a drum supported by said wings, a bearing post having its lower end journaled in the upper end of the standard and its upper end journaled in the support, a boom pivoted to said bearing post, a pulley in said post above the boom, a support for the outer end of the boom connected to said post, and a cable carried by the outer end of the boom and passing over said pulley, then downwardly through the standard and thence to the drum.

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1,092,631. SPINNING-FRAME. FERNANDO CASABLANCAS, Sabadell, Spain. Filed May 25, 1912. Serial No. 699,750. (Cl. 118—7.)

1. In a spinning frame, a pair of drawing rollers, a pair of feeding rollers, a movable frame carrying said feeding rollers and adapted to be adjusted to vary the distance between said drawing and feeding rollers, an endless belt trained over said feeding rollers for conducting the fibers in proximity to the drawing rollers, and a plate removably carried by said frame and of a length to correspond approximately to the adjusted distance between said drawing and feeding rollers, said plate being adapted to exert a substantially uniform pressure upon the fibers.

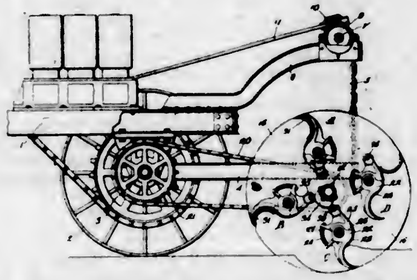


2. In a spinning frame, a pair of drawing rollers, an endless belt for conducting the fibers to said drawing rollers, a pair of movable rollers over which said belt is trained and adapted to receive the fibers, and a plate of a length corresponding to the average length of the fibers being treated extending between said movable rollers and the drawing rollers and exerting a substantially uniform pressure upon the fibers.

3. In a spinning frame, a pair of drawing rollers, a pair of feeding rollers adjustable with respect to said drawing rollers to accommodate fibers of different length, an endless belt trained over said feeding rollers for conducting the fibers in proximity to the drawing rollers, and a plate of a length to correspond to the average length of the fibers extending between said movable rollers and the drawing rollers and exerting a substantially uniform pressure upon the fibers.

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1,092,632. PLOW. JOHN W. CRAIN, Winchester, Ky., assignor of one-fourth to Victor Bloomfield, Winchester, Ky. Filed Sept. 26, 1912. Serial No. 722,549. (Cl. 97—62.)



1. In a rotary plow, the combination of a reel, means for rotatably supporting said reel in contact with the ground, plow blades shiftably mounted on said reel, means for yieldingly maintaining said shiftable blades in cutting position, and means for holding said blades in cutting position through a portion of the rotation of said reel.

2. In a rotary plow, the combination of a reel, means for rotatably supporting said reel in contact with the ground, plow blades shiftably mounted on said reel, means for yieldingly maintaining said shiftable blades in cutting position, and means for yieldingly holding said blades in cutting position through a portion of the rotation of said reel.



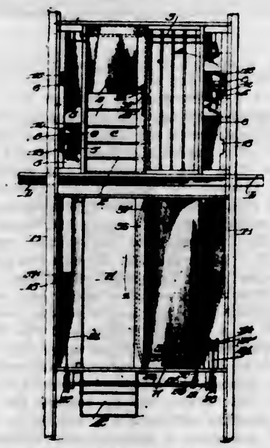
3. In a rotary plow, the combination of a reel, means for rotatably supporting said reel in contact with the ground, plow blades shiftably mounted on said reel, means for yieldingly maintaining said shiftable blades in cutting position, means for holding said blades in cutting position through a porton of the rotation of said reel, and adjustable means for shifting the position of said holding means.

4. In a rotary plow, the combination of a reel, means for rotatably supporting said reel in contact with the ground, coöperating plow-blade supports and holding members rotatably mounted on said reel, and means for engaging said holding members through a portion of the rotation of said reel for holding the plow blades in cutting position.

5. In a rotary plow, the combination of a reel, means for rotatably supporting said reel in contact with the ground, plow-blade supports rotatably mounted on said reel, holding members rotatably mounted on said reel for engaging said blade supports, yielding means for normally maintaining said supports and members in engagement, and means for engaging said holding members through a portion of the rotation of said reel for yieldingly holding the plow blades in cutting position.

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1,092,633. AUTOMATIC DOOR OPENING AND CLOSING DEVICE FOR ELEVATORS. WILLIAM M. CUTTER, San Francisco, Cal. Filed Dec. 14, 1912. Serial No. 736,784. (Cl. 187—60.)



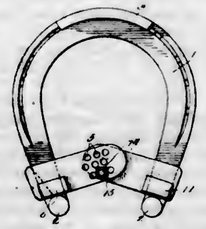
1. The combination with an elevator car and an elevator shaft, of a sliding door, a pair of weights slidably mounted in guideways on each side of the door frame, flexible means connecting the weights with the door, pivoted lifting projections mounted on the front of said weights, actuating means on the car which is so positioned as to become engageable with the lifting projections on the weights during the movement of the car to move the weights from one position to another, and means for retracting the weight actuating mechanism on the car, said means comprising a shaft, flexible connections between the shaft and the weight actuating mechanism, and a crank extending within the elevator car for partially rotating said shaft.

2. The combination with an elevator car and an elevator shaft, of a sliding door, a pair of weights slidably mounted in guideways located one on each side of the door frame, flexible means connecting the weights with the door, tracks secured in front of said guideways, pivoted members mounted on the weights, guide rollers on said members adapted to travel on the tracks, lugs projecting into the path of the elevator, mounted on said pivoted members, said tracks being provided with means for allowing the pivoted members to rock so as to retract the projecting lugs, actuating means on the car which are so positioned as to become engageable with said projections during the movement of the car, and means for retracting said actuating means, said last mentioned means comprising a shaft, a flexible cable connected with the actuating means on the car and adapted to be wound on the shaft, and means for partially rotating the shaft to wind the cable.

3. The combination with an elevator car and an elevator shaft, of a sliding door, guideways on each side of the door, a weight slidably mounted in each guideway, flexible means connecting the weights with the door, tracks secured on the inner face of said guideways, a bifurcated bearing carried by the weight, pivoted lifting projections mounted in said bearing, guide carriages secured to said projections, rollers journaled in said carriages adapted to ride on the tracks, said tracks being provided with pockets into which the carriages may partly enter to rock the lifting projections, spring-projected lugs on the car which are so positioned as to become engageable with the lifting projections on the weights during the movement of the car to move the weights from one position to another, and means for retracting said spring-projected lugs, said means comprising a shaft, means connecting the shaft with the weight actuating mechanism, a crank on the shaft, and a rod projecting into the car and having a sliding connection with said crank.

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1,092,634. DETACHABLE HORSESHOE-CALK. GEORGE I. DE FORCE, Erie, Pa., assignor of one-third to Lynn Ellsworth Stancliff and one-third to Wilbur Lynn Bankson, Erie, Pa. Filed Oct. 3, 1912. Serial No. 723,770. (Cl. 168—30.)



1. A detachable calk for horseshoes consisting of two sections, each section comprising a plate adapted to lie transversely of the under face of the shoe and having at its inner end a plurality of openings and at its outer end and on its lower face a calk and on the upper face an overlying flange offset laterally from the face of the plate and connected to the end of the plate by a web, said web being adapted to engage the outer edge of the shoe with the flanges overlying the shoe, said flanges being of greatest width at the rear edge of the calk and decreasing in width toward the front edge, the openings of each section being arranged in a plurality of approximately longitudinal series, and the openings of one section being square in cross section and those of the other section circular in cross section, and a bolt for connecting the sections together, said bolt having a portion adjacent to its head rectangular in cross section for fitting the square openings, a nut engaging the bolt, and a set screw threaded through the web of each section for engaging the end of the shoe.

2. A detachable calk for horseshoes consisting of two sections, each section comprising a plate adapted to lie transversely of the under face of the shoe and having at its inner end a plurality of openings and at its outer end on its lower face a calk and on the upper face an overlying flange offset laterally from the face of the plate and connected to the end of the plate by a web, said web being adapted to engage the outer edge of the shoe with the flange overlying the shoe, said flange being of greatest width at the rear edge of the calk and decreasing in width toward the front edge, the openings of each section being arranged in a plurality of approximately longitudinal se-

ries, and the openings of one section being square in cross section and those of the other section round in cross section, and a bolt for connecting the sections together, said bolt having a portion adjacent to its head rectangular in cross section for fitting the square openings, and a nut engaging the bolt.

3. A detachable calk consisting of two sections, each section comprising a plate adapted to lie transversely of the under face of the shoe and having at its inner end a plurality of openings and at the outer end on its lower face a calk and on the upper face an overlying flange offset laterally from the face of the plate and connected to the end of the plate by a web, said web being adapted to engage the outer edge of the shoe with the flange overlying the shoe, said flange being of greatest width at the rear edge of the calk and decreasing in width toward the front edge, the openings of one section being square in cross section and those of the other section being round, and a bolt for connecting the sections, said bolt having a squared portion adjacent to the head for engaging the square openings, and a nut threaded on to the bolt.

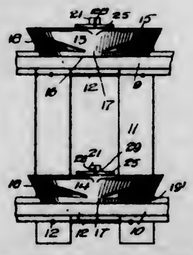
4. A device of the character specified, comprising a plurality of sections, each section consisting of a plate adapted to lie transversely of the under face of one side of a horse shoe with one edge in engagement with the blunt calk of the shoe, each section having its inner end provided with a plurality of openings, sundry of which are adapted to register with the openings of the other section, each plate having at its outer end and on its under face a calk and on its upper face a flange offset upwardly from the upper face of the plate and connected to the outer end of the plate by a web, the web of each section being adapted to engage the outer edge of the shoe and the flange of each section being adapted to overlie the upper face of the shoe, and a bolt engaging the openings to connect the sections together, each of the said flanges being of greatest width at the rear edge of the section, and gradually decreasing in width toward the front edge.

5. A device of the character specified, comprising a plurality of sections, each section consisting of a plate adapted to lie transversely of the under face of one side of a horseshoe with one edge in engagement with the blunt calk of the shoe, each section having its inner end provided with a plurality of openings, sundry of which are adapted to register with the openings of the other section, each plate having at its outer end and on its under face a calk and on its upper face a flange offset upwardly from the upper face of the plate and connected to the outer end of the plate by a web, the web of each section being adapted to engage the outer edge of the shoe and the flange of each section being adapted to overlie the upper face of the shoe, and a bolt engaging the openings to connect the sections together.

[Claim 6 not printed in the Gazette.]

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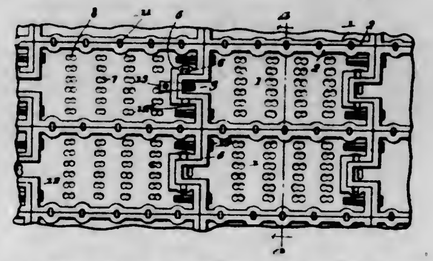
1,092,635. CAR-REPLACER. HOWARD DENISON and SULLIVAN DENISON, Pittsburgh, Pa. Filed Aug. 28, 1913. Serial No. 787,222. (Cl. 104—163.)



A car replacer comprising a body portion including a pair of segment-shaped side walls and an arcuate top, said walls and top being integral with each other and one of said walls having an opening, a coupling member capable of engaging with the base of the rail and including an arm extending up between said walls and through said opening, a reversible compensating block mounted upon said arm and positioned against the outer face of said apertured wall, and a wedge extending through said arm and engaging the block, whereby said body portion is detachably clamped to a rail, said block having one side plane and its other side grooved to compensate for rails of different sizes to prevent looseness when the replacer is clamped to a rail by the engagement of the wedge against said plane face or against the bottom of said groove.

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1,092,636. FOUNDRY-FLASK. THOMAS H. DOWNIE, San Francisco, Cal. Filed May 7, 1912. Serial No. 695,694. (Cl. 22—100.)



1. A flask composed of sections each having a tongue projecting from one end edge and provided at its opposite end with a notch opening through both side faces of the section whereby any two sections may be fitted together in alinement with the tongue of one section fitting in the notch of a meeting section or may be placed at right angles with the tongue of one section passing transversely through the notch of the meeting section.

2. A flask composed of sections each having a tongue at one end provided upon its upper and lower sides with transverse ribs, the opposite end of the section being provided with a notch opening through the opposite side faces of the section and provided in its upper and lower walls with transverse recesses whereby two sections may be fitted together with the tongue of one section fitting in the notch of a meeting section and the ribs on said tongue engaging the recesses in the upper and lower walls of said notch or with the tongue of one section passing transversely through the notch of a meeting section and the ribs on said tongue bearing against the outer side face of the meeting section above and below said notch.

3. A flask composed of sections each having a tongue at one end and a notch at the opposite end and provided with external flanges around said tongues and notches and having slots through said flanges and said tongues, and tapered locking pins adapted to be inserted through the said slots to lock the sections together.

4. A flask composed of sections having flanges on their outer sides and grooves in the outer faces of said flanges having overhanging edges, and tapered locking pins adapted to engage the grooves of adjacent flanges to lock adjacent sections together and shaped to fit snugly in said grooves.

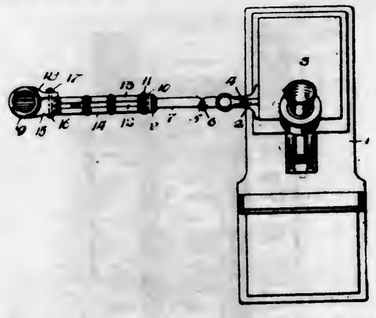
5. A flask section comprising a base having a notch at one end and a tongue at the opposite end, and a flange defining the side and end edges of the plate, grooves being formed in the outer side of the flange at the sides of the notch and ribs being formed on the outer sides of the flange at the sides of the tongue.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,637. TELEPHONE-RECEIVER HOLDER. STANLEY DUSAK, Seanor, Pa. Filed May 25, 1912. Serial No. 699,699. (Cl. 179—150.)

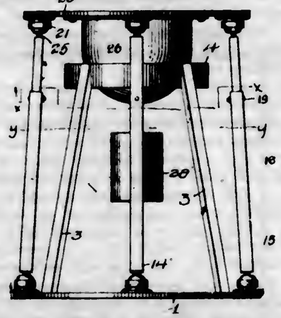
A telephone receiver holder comprising a bracket adapted to be fixed to a telephone and positioned parallel with respect to and projecting beyond the receiver hook of the telephone, an arm pivotally connected to said bracket and having its outer end provided with a plurality of spaced lugs, a series of links pivotally connected together, a series of sets of links, said sets pivotally connected together, means for pivotally connecting the inner link of said series of links and the inner set of said series



of sets, to said lugs, a telephone receiver supporting member, means for pivotally connecting the outer link of said series of links and the outer set of said series of sets to said supporting member, and a clamping member for securing the telephone receiver to said supporting member, said links capable of being swung in the plane of said arm and further capable of being folded upon themselves, whereby the receiver can be mounted in said hook.

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1,092,638. SELF-LEVELING TABLE. JOHANN EBERWEIN, North Tonawanda, N. Y. Filed Oct. 16, 1913. Serial No. 795,613. (Cl. 114—195.)

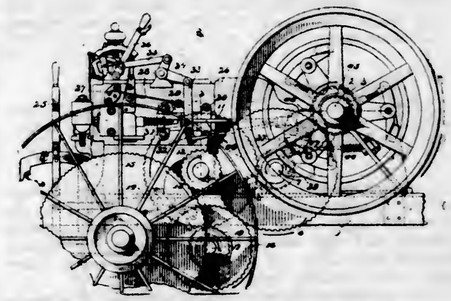


A self-leveling table comprising a stationary base, a table top, a counter-balanced shiftable element fixed to and depending from said table top, a support provided with a seat for said element, supporting members fixed to the base and secured to said support, rods provided with bores constituting guide-ways, vertically movable guide members extending in said guide-ways, means carried by the rods and extending through said members for limiting the movement of the latter, universal joint connections between said members and said table top, and universal joint connections between said rods and said base.

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1,092,639. GEARING. FREDERICK T. FLINCHBAUGH, York, Pa. Filed Jan. 29, 1909. Serial No. 475,028. (Cl. 74—59.)

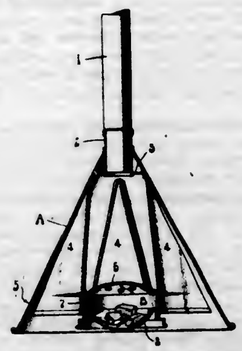
1. The combination with a framework, and a reversible drive shaft mounted thereon, of a transversely extending driven shaft mounted on top of the framework, a counter-shaft interposed between the driven-shaft and the drive shaft, a transmission gear wheel loosely mounted upon said counter-shaft and operatively connected to the drive shaft, said counter-shaft being operatively connected to the driven shaft, a second counter-shaft mounted underneath the frame work and operatively connected to the driven shaft, a gear wheel loosely mounted on said second counter-shaft and meshing with the transmission gear wheel on the first-mentioned counter-shaft, and means for operatively connecting said last-named gear wheel and said transmission gear wheel alternately to their respective shafts.



2. The combination with a framework, and a reversible drive shaft mounted thereon, of a transversely extending driven shaft mounted on top of the framework, a gear wheel on one end of said driven shaft, a counter-shaft journaled on top of the framework, a pinion mounted on one end of said counter-shaft and meshing with the gear wheel on the driven shaft, a transmission gear wheel loosely mounted on the opposite end of said counter-shaft, a pinion meshing with said transmission gear wheel and loosely mounted on the drive shaft, a second counter-shaft mounted underneath the framework, a pinion mounted on one end of said second counter-shaft and meshing with the gear wheel on the driven shaft, a gear wheel loose on the opposite end of said second counter-shaft and meshing with the transmission gear wheel but of relatively smaller diameter than the transmission gear wheel, and means for dissimultaneously locking the loosely mounted gear wheel and pinions to their respective shafts.

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1,092,640. CLOTHES-POUNDER. WILLIAM J. FRANK, St. Louis, Mo. Filed Nov. 12, 1913. Serial No. 800,466. (Cl. 68—5.)

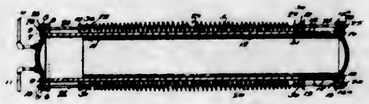


A clothes pounder comprising an approximately conical body open at the bottom and forming a substantially conical chamber, a series of pocket members extending from the inner face of said body, a soap receptacle in the lower end of said substantially conical chamber, the top and bottom walls of said soap receptacle being per-

forated to permit the circulation of water through said soap receptacle and into the conical chamber above the perforated top of said soap receptacle, the said conical chamber being closed so that the water which passes through the top of the soap receptacle will serve as an abutment in compressing the air in the upper portion of the conical chamber, and so that the air compressed therein will forcibly discharge the water through the soap receptacle.

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1,092,641. AIR-TANK. WARD V. GARCEAU, Grand Rapids, Mich. Filed Aug. 5, 1913. Serial No. 783,024. (Cl. 230—25.)



1. A compressed air tank comprising a pair of telescoping air cylinders, springs connected at one end to one of the cylinders and at the opposite end to the opposite cylinder, and rods carried by the cylinders and slidably engaging each other and adapted to prevent rotary movement of the cylinders relative to each other.

2. A compressed air tank comprising a pair of telescoping air cylinders, rods carried by each cylinder, yieldable elements connected at their ends to the rods, and guide means supported by the rods to prevent relative rotary movement of the cylinders.

3. A device of the character described, comprising a pair of air cylinders fitted telescopically together, a plurality of rods carried by one of said cylinders and extending parallel with the axis thereof, a plurality of rods carried by the other of said cylinders and extending parallel with the axis thereof, said last mentioned rods being in substantial registry with said first mentioned rods, a spring extending from each rod carried by one cylinder to another rod carried by the other cylinder, a cross head mounted upon each rod, there being a cross head at each end of each spring and guide rods engaging said cross heads.

4. A device of the character described comprising a pair of air cylinders fitted telescopically together thus forming a tank of variable capacity, rods connected to each cylinder and arranged in pairs, plates carried by said rods, guide rods connected with said plates and arranged in pairs, each guide rod carrying an eye which encircles another guide rod, and springs connected each at its ends with said first mentioned rods.

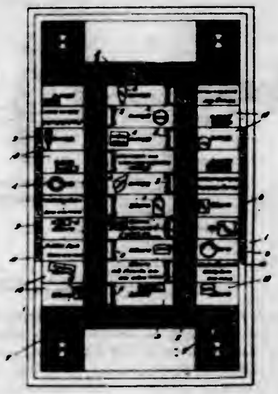
5. The combination with a plurality of air cylinders movable axially with relation to each other, of yieldable elements connected with the cylinders, and guide elements movable axially with relation to each other, adapted to prevent relative torsional movement of the air cylinders.

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1,092,642. GAME APPARATUS. FRANCIS W. GIBSON, Boston, Mass., assignor to Advertisers Company, a Corporation of Massachusetts. Filed Oct. 25, 1913. Serial No. 797,305. (Cl. 46—64.)

1. Game apparatus of the class described comprising a game board having a defined counter containing area suitably divided into relatively smaller subdivisions, and lateral counter containing areas symmetrically disposed relative to said central area and similarly divided, a suitably differentiated play determining area on said board spacing said containing areas, a plurality of counters adapted to be placed in said subdivisions of the containing areas, and game pieces movable on said play determining area according to the relative move values of the respective differentiations thereof.

2. Game apparatus of the class described comprising a game board having a defined counter containing area suitably divided into relatively smaller subdivisions, and lateral counter containing areas symmetrically disposed relative to said central area and similarly divided, a play determining area on said board formed as a suitably differentiated checkered surface extending as an inclosing band about said first named containing area, a plurality of counters adapted to be placed in said subdivisions of the containing areas, and game pieces movable on said play determining area according to the relative move values of the respective differentiations thereof.



3. Game apparatus of the class described comprising a game board having a central containing area suitably divided into relatively smaller subdivisions, and lateral containing areas symmetrically disposed relative to said central area and similarly divided, a play determining area on said board formed as a checkered surface extending as an inclosing band about said central area and composed of a continuous chain of color differentiated spaces, a plurality of trade packages adapted to be placed in said subdivisions of the containing areas, and game pieces movable on said play determining area according to the relative move values of the respective colors forming said play determining area.

4. Game apparatus of the class described comprising a game board having a central containing area suitably divided into relatively smaller subdivisions, and lateral containing areas symmetrically disposed relative to said central area and similarly divided, some of said subdivisions of said areas having suitably differentiated play indications, a play determining area on said board formed as a checkered surface extending as an inclosing band about said central area and composed of a continuous chain of color differentiated spaces, a plurality of trade packages adapted to be placed in said subdivisions of the containing areas, and game pieces movable on said play determining area according to the relative move values of the respective colors forming said play determining area.

5. Game apparatus of the class described comprising a game board having a defined article containing area divided into relatively smaller containing subdivisions, said subdivisions having each an indicated closed end, counters adapted to be located in said subdivisions, game pieces, and means for determining the relative positioning of said game pieces with respect to the subdivisions.

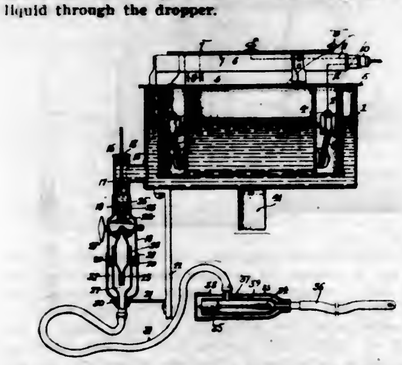
[Claims 6 to 14 not printed in the Gazette.]

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1,092,643. SURGICAL APPARATUS. MARGARET E. GOOLSBY, Orlando, Fla. Filed Aug. 1, 1910. Serial No. 574,760. (Cl. 137—30.)

1. The combination with a shell adapted to be connected to a liquid-containing reservoir, of a dropper disposed in said shell having its opposite ends of reduced diameter with a bulbous portion intermediate said ends, a cup-like receptacle within the casing fitting the bulbous portion of the dropper and inclosing the lower portion of the same, said shell having an internal gasket to which the upper reduced end of the dropper is tightly fitted, and said receptacle having its lower end tightly fitted to the shell, and having its upper end provided with an internal gasket adapted to form a tight joint with the dropper at a point a substantial distance above the lower end thereof, and a regulable valve carried by said dropper above its bulbous portion and controlling the flow of liquid through the dropper.

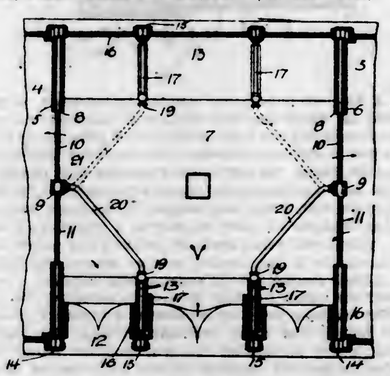




2. In surgical apparatus of the character described, a dropper and a cup-like receptacle inclosing the lower portion thereof, said dropper having contracted upper and lower alined passages and a turning plug valve mounted therebetween, and said cup-like receptacle being separable from the dropper and having an upper end of larger diameter than the lower end and adapted to closely embrace the dropper at a point above the contracted lower end thereof.

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1,092,644. VESTIBULE FOR STREET-RAILWAY CARS. WINFIELD A. HALLER, New York, N. Y., assignor of one-half to Emmer F. Gwynn, Pittsburgh, Pa. Filed Apr. 21, 1911. Serial No. 622,504. (Cl. 105—205.)



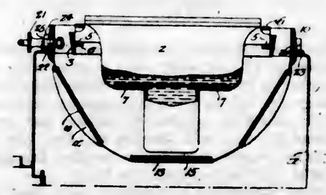
1. In a passenger car and in combination, a vestibule open at both ends, a plurality of door openings at each end of the vestibule, a plurality of steps leading from the bottom of each opening to the floor plane of the car, doors for independently controlling said openings, said doors extending to the lower step, trap doors forming a false floor over the steps, and permanent means for confining the passenger step-space to the respective door openings.

2. In a passenger car and in combination, a vestibule open at both ends, a plurality of door openings at each end of the vestibule, a plurality of steps leading from the bottom of each opening to the floor plane of the car, doors for independently controlling said openings, said doors extending to the lower step, trap doors forming a false floor over the steps, and permanent railings extending inwardly from the walls of the door openings a distance equal to the step space and adapted to confine the passenger step-space to the respective door openings.

3. In a passenger car and in combination, a vestibule open at both ends, a plurality of door openings at each end of the vestibule, a plurality of steps leading from the bottom of each opening to the floor plane of the car, doors for independently controlling said openings, said doors extending to the lower step, trap doors forming a false floor over the steps, permanent railings extending inwardly from the walls of the door openings a distance equal to the step space and adapted to confine the passenger step-space to the respective door openings, and shiftable railings adapted to engage the permanent railings on either side of the vestibule at will.

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1,092,645. COVER FOR NAVIGATION INSTRUMENTS. JOHN L. H. HAND, Atco, N. J. Filed Dec. 23, 1911. Serial No. 667,559. (Cl. 33—223.)



1. A binnacle or pelorus stand comprising a substantially circular shell forming a closed casing, a navigation instrument mounted therein, and a cover journaled on said casing and movable to closed and opened positions respectively, said cover passing into the casing when the navigation instrument is exposed.

2. A binnacle or stand comprising a substantially circular shell forming a closed casing, a navigation instrument trunnioned therein, and a cover journaled on the same axis as the navigation instrument and movable to closed and opened positions respectively.

3. A binnacle or navigation instrument stand, a navigation instrument mounted therein, and a cover comprising a trunnioned ring and a shell, said shell being rotatable with respect to said ring and the ring being movable on its trunnions to expose or inclose the navigation instrument.

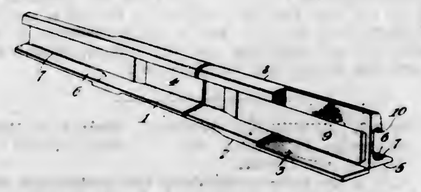
4. The combination with a binnacle or navigation instrument stand, of a cover, a trunnioned ring carrying said cover, and a scale carried by said ring, said cover having a keel line marking.

5. The combination with a binnacle or navigation instrument stand, of a cover journaled therein and movable with respect to the same, said cover having sight openings, two of which are oppositely disposed, and transparent material closing said sight openings, said oppositely disposed sections of transparent material having hair lines.

[Claim 6 not printed in the Gazette.]

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1,092,646. RAILWAY-RAIL. GEORGE R. HANNON, Ivesdale, Ill. Filed July 1, 1913. Serial No. 776,806. (Cl. 239—8.)



1. In a railway rail, a reduced ball and web at each end thereof, a wing-web at each end of said rail, said wing-web being suitably spaced from said reduced web,

a reduced base portion underlying said wing-web, and an undercut base portion integral with said reduced web.

2. In a railway rail, a reduced ball and web at each end thereof, a wing-web at each end of said rail, said wing-web being suitably spaced from said reduced web, a reduced base portion underlying said wing-web, an undercut base portion integral with said reduced web, said undercut base portion being provided with a groove in the upper surface thereof adjacent said reduced web, and an apron on the aforesaid reduced ball portion of said rail.

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1,092,647. FASTENING DEVICE. WILLIAM GEORGE HARRIS and HARRY HARRIS, London, England. Filed June 2, 1913. Serial No. 771,288. (Cl. 24—263.)



1. A buckle comprising a member provided with a recess, a slideway, and opposed slots; a cross piece providing an opening to receive a strap; a plate slidable within said slideway and within said strap opening, and provided with a slot; said slots adapted to register and receive a strap passing through said opening and into the recess; and said plate adapted to be moved to offset the slots and constrict said opening to secure the strap.

2. A buckle comprising a casing, a plate fixed therein and providing therewith a recess and a slideway, a slot in the casing; a cross piece providing an opening to receive a strap; said fixed plate providing a slot adjacent one end of said recess; a plate provided with a slot slidable in said slideway and within the opening provided by said cross piece; said slots adapted to register and receive a strap passing through said opening and into the recess; and said slidable plate adapted to be moved to offset the slots and constrict said opening to secure the strap.

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1,092,648. ELASTIC-BRACELET LINK. JOHN H. HENNESSEY, Providence, R. I., assignor to The John T. Mauran Mfg. Co., Providence, R. I., a Corporation of Rhode Island. Filed Apr. 13, 1912. Serial No. 690,469. (Cl. 74—76.)



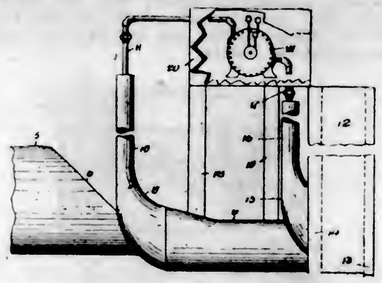
1. A bracelet link comprising a unit of hollow form, a pair of slotted links having their inner ends disposed in the interior of the unit, projections secured to and arranged on the interior of the unit which projections extend through the slots of the links to guide the same in their sliding movements, pins carried by the inner ends of the links, and coil springs connected to said projections farthest from the pins and to the latter.

2. A bracelet link comprising a unit of hollow form, a pair of substantially alined links for the unit having their inner ends arranged in the interior of the unit, a pin carried by the inner end of each link, the pins of the pair of links extending in opposite directions from each other, a spring connected to the pin of one link and extending beneath the other link and connected to the end of the unit farthest from said pin, and a spring connected to the other pin and extending over the first named link and connected to the other end of the unit.

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1,092,649. SEWERAGE SYSTEM. HERMAN C. HUFF, Pittsburgh, Pa. Filed Nov. 12, 1913. Serial No. 800,584. (Cl. 182—7.)

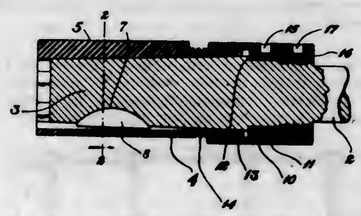
1. A sewer system comprising the combination with the outlet end of a sewer, of an elbow into which extends said outlet end, a compressed air supply pipe communicating with said elbow, a conduit leading from said elbow, an elbow surrounding the outlet end of said conduit, and a compressed air supply pipe opening into the last mentioned elbow.



2. A sewer system comprising the combination with the outlet end of a sewer, of an elbow into which extends said outlet end, a compressed air supply pipe communicating with said elbow, a conduit leading from said elbow, an elbow surrounding the outlet end of said conduit, a compressed air supply pipe opening into the last mentioned elbow, and a rectangular structure supporting the last mentioned elbow above the bottom of said structure.

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1,092,650. ADJUSTABLE TOOL. ARTHUR I. JACOBS, Hartford, Conn. Filed Nov. 3, 1913. Serial No. 798,866. (Cl. 77—76.)



1. A tool comprising an annular tool-member, a body member on which the tool member is mounted, the tool member engaging the body member at a plurality of separated points and being resilient between such points, and means for flexing the tool member between said points.

2. A tool comprising an annular tool-member, a body member on which the tool member is mounted, the tool member engaging the body member at a plurality of separated points and being resilient between the points, and cam means for flexing the tool member between the points.

3. A tool comprising an annular tool member, a body member on which the tool member is mounted, the tool member engaging the body member at a plurality of separated points and being resilient between the bearing points, means for keying the tool member to the body member to prevent rotation of one with respect to the other, and means for flexing the tool member between the bearing points.

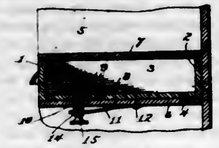
4. A tool comprising an annular tool member, a body member on which the tool member is mounted, the tool member engaging the body member at a plurality of points and being resilient between said points, means for moving the tool member longitudinally of the body member, means for preventing rotation of said tool member with respect to the body member, and means for flexing the tool member between the bearing points.

5. A tool comprising an annular tool member, a body member on which the tool member is mounted, the tool member having a plurality of interior ribs engaging the body at laterally separated points and being resilient between the ribs, and means for flexing the tool member between said ribs.

[Claims 6 to 11 not printed in the Gazette.]



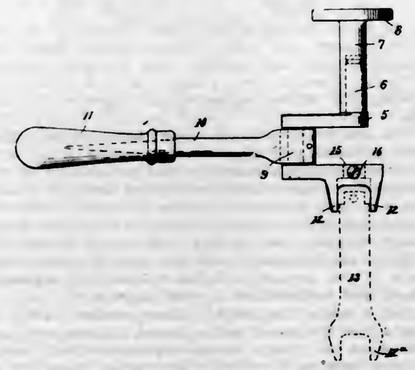
1,092,651. DRAWER-LOCK. JASON W. JORDAN, Jr., Lexington, Miss. Filed May 7, 1913. Serial No. 766,113. (Cl. 45—94.)



In a drawer operated lock, the combination with a drawer, a drawer plate having catch-holes, and a drawer casing having an aperture therein, of a plate spring attached to the under outer sides of the casing and having a free end operated by the sliding movement of the drawer, an adjustable screw pin suspended by the free end of the spring and coöperating with the holes and the aperture, and means for adjustably clamping the spring to the pin.

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1,092,652. VALVE-GRINDING TOOL. JOSEPH KOLETAR and JOHN FEKETE, Bridgeport, Conn. Filed Jan. 23, 1914. Serial No. 813,837. (Cl. 51—4.)



1. A valve grinder comprising a body in the form of a crank and having an upwardly disposed pivotal stem, a head directly beneath the said stem and having two integral and downwardly extended fingers for engagement with a valve, a pivotal bar forming the bearing of the crank, an outwardly disposed handle pivotally connected to the said bar, and a handle rotatably connected to the upwardly extended pivotal member of the body of the grinder.

2. A valve grinder comprising a body forming a crank and including a head having downwardly extended finger ends and having a pocket arranged in said head above and between the said fingers to accommodate an extension blade, a handle connected to the upper portion of the body and in line with the said pocket of the head, and an outwardly extended operating handle pivotally connected to the bottom of the said crank.

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1,092,653. ICE-SKATE. LOTHAR VON KÖPPEN, Potsdam, Germany. Filed Mar. 29, 1912. Serial No. 687,159. (Cl. 46—50.)

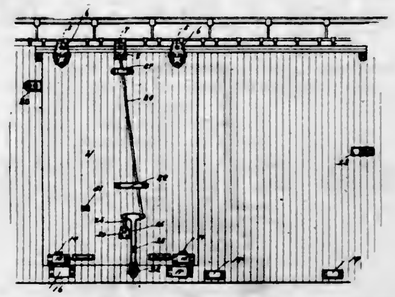


1. A skate having a runner, the forward and rear portions of which are turned upwardly and provided each with an ice engaging surface shaped in the form of a mold-board of a plow, the forward portion having the deeper edge of the ice engaging surface on the inside and the rear portion on the outside, the ice engaging surface of the intermediate portion of the runner being straight.

2. A skate having a runner, the forward and rear portions of which are turned upwardly, provided each with a plow-mold-board-shaped ice engaging surface, and bodily bent in opposite directions out of the center plane of the skate, the intermediate portion of the runner and its ice engaging surface being straight and parallel to the said center.

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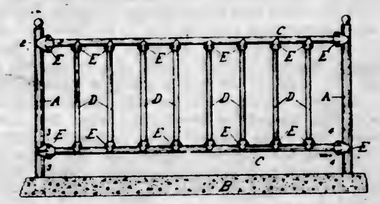
1,092,654. CAR-DOOR. ELESEUS J. LEE, Council Bluffs, Iowa. Filed Apr. 17, 1913. Serial No. 761,788. (Cl. 20—24.)



The combination of a car body having a door opening, a rail fixed to the body above the door opening, spaced hangers movable on said rail in the direction of the length thereof, an edgewise and vertically and laterally movable door, connecting links pivoted to the hangers and the door, a third hanger movable on the rail, an upright shaft section carried by the door and having a crank at its upper end journaled in and connected with the third hanger, said shaft section being movable up and down and adapted to be turned, a lower upright shaft section carried by and movable about its axis on the door, a lever having a T-head interposed between and pivotally connected with the shaft sections, and means for fastening the door.

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1,092,655. STRUCTURAL COUPLING FOR PIPES, SHAFTS, AND THE LIKE. WILLIAM LOUDEN, Fairfield, Iowa. Filed Nov. 18, 1910. Serial No. 593,040. (Cl. 189—36.)



1. A structural coupling for pipes, shafts and the like, which members are adapted to be set at an angle to each other and in substantially the same plane whereby the end of one member will abut the side of the other, comprising two clamping members each made concave longitudinally at its one end to fit the end of the member to be coupled, and at the opposite end provided with a wing curved to fit and embrace the body of the second member to be coupled, lugs formed on each side of the concave portion, and fastening means received through said lugs closely adjacent the second member to cause the coupling members to exert an equal clamping pressure on each of the members to be coupled.

2. A structural coupling for pipes, shafts and the like, which members are adapted to be set at an angle to each other, and in substantially the same plane, whereby the end of one member will abut the side of the other, comprising two clamping members, each made concave longitudinally at its one end to fit the end of the member to be coupled, and at the opposite end provided with a wing curved to fit and embrace the body of the second member to be coupled, lugs formed on each side of the concave portion, said lugs having openings therethrough disposed in the angle approximately equidistant between the members to be coupled, and means received through said openings to clamp the two coupling members together, and to exert an equal pressure on each of the members to be coupled.

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1,092,656. FOUNTAIN-BRUSH AND CAN. JAMES LYNAM, Newman, Cal. Filed Mar. 7, 1913. Serial No. 752,720. (Cl. 15—46.)



1. In a combined can and brush of the type in which the brush head forms a closure for the can, a valve slidable transversely in the brush head, and a cap applicable to the can to protect the brush and close the valve.

2. In a combined can and brush of the type in which the brush head forms a closure for the can, a valve slidable transversely in the brush head having an operating head extending beyond the brush head when the valve is opened, and a cap adapted for engagement with the can to inclose the brush and proportioned to engage the valve head when moved into position and to so close the valve.

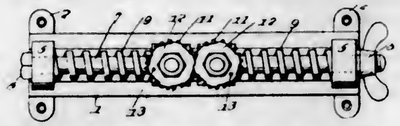
3. An oil applying device including an oil can having a discharge opening, a brush acting as a closure for said opening, the head of the brush being in turn provided with an opening, a valve plate movable across the opening and extending beyond the brush head when the opening is exposed, and a cap adapted to be positioned about the brush and detachably secured to the can, said valve plate being so arranged that when in extended position the application of the cap will force the valve plate inwardly across the opening.

4. An oil applying device including an oil can having a discharge opening, a brush, the head of which acts as a closure for said opening, the head of the brush being provided with an opening, a valve plate slidably mounted in the brush head and movable across the opening, said valve plate being provided at its outer end with an upwardly and inwardly directed terminal which in open position of the valve extends outwardly beyond the side of the brush head, and a cap adapted for detachable engagement with the cam and having a flared flange which, upon application of the cap, engages against the upwardly and inwardly directed terminal of the valve plate to force the same inwardly and across the brush opening.

5. An oil applying device including an oil can having a discharge opening, a brush acting as a closure for said opening, the head of the brush being in turn provided with an opening, a valve plate movable in a recess formed in the brush head to close the opening when in innermost position, said valve plate being provided with a longitudinal slot, a pin passed through the brush head and slot to limit the movement of the valve plate, an upwardly and inwardly directed terminal carried by the free end of the valve plate and extending in spaced relation to the brush head when the valve is opened, and a cap adapted for detachable engagement with the can about the brush and having a flaring flange which engages against said valve terminal during application of the cap to close the valve.

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1,092,657. AUTOMATIC SAW-SET. MICHAEL J. LYNCH, Newport, R. I. Filed May 15, 1913. Serial No. 767,753. (Cl. 76—59.)



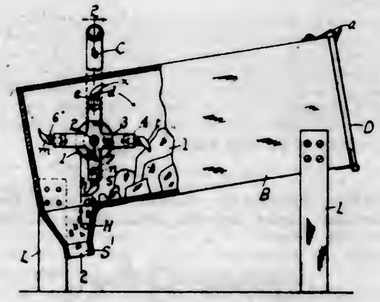
1. In a saw setting device, a base element, a pair of circular opposed saw teeth setting members, means to rotatably support said members from the base element, and spring means to exert pressure on each member to cause same to forcibly engage opposite sides of the saw blade.

2. In a saw setting device, a base having a dovetailed guide, perforated end supports in the guides, a rod having its end portions arranged in said perforations of the end supports, a pair of members slidingly arranged in said guide and being perforated to slidingly receive said rod, intermeshing gears rotatably carried on the upper faces of said members, tooth setting disks rigidly secured to the gears and arranged to set the teeth in unison, and a pair of coil springs encircling the rod and arranged between said members and the end supports.

3. In a saw setting device, a base element having a guide, a pair of opposed spring pressed members slidingly mounted on the guide, intermeshing gears on said members, and saw teeth setting disks rigidly connected to said gears and adapted to act in unison on opposite sides of the saw.

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1,092,658. ICE CRUSHER OR GRATER. JOHN MELISCH, Benld, Ill., assignor of one-half to Joseph Zboyoski, Benld, Ill. Filed Aug. 14, 1913. Serial No. 784,795 (Cl. 83—63.)

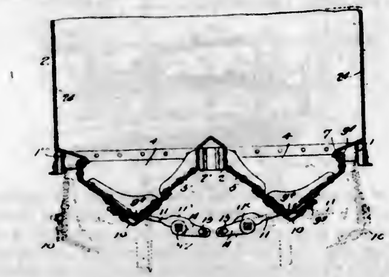


An ice grater comprising a closed receptacle having a charging opening and provided with an inclined flat bottom, said bottom having a discharge opening at the depressed end thereof, a rotary frame mounted across the receptacle and confined therein above the depressed end of the inclined bottom, a series of cutters disposed on the frame and adapted to sweep wholly above the plane of the inclined bottom in circular paths through the ice with the rotation of the frame and tangentially to the edge of the opening over which the crushed ice is delivered, said cutters being distributed longitudinally along the periphery of the rotary frame in distinct rows and spaced apart, the cutters of one row being in staggered relation with the cutters of an adjacent row, and dipping toward the bottom of the receptacle during the cutting operation.



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1,092,659. DUMP-CAR. JOHN DANIEL METTLER, Snydertown, Pa. Filed July 14, 1913. Serial No. 778,941. (Cl. 105—185.)



1. In a dump car, a frame, a compartment therein provided with stationary ends of triangular shape, a stationary bottom member secured to said frame and to said ends, a door of V-shaped cross section arranged to swing into engagement with the under side of said stationary section, said door having end flanges arranged to inclose said end sections, and means for operating said door, said last named means comprising an arm pivotally connected with said link, a rock shaft, a rock arm carried by said rock shaft and having a pivotal connection with said link, and means for rotating said rock arm.

2. In a dump car, a frame, a compartment therein provided with stationary ends of triangular shape, a stationary bottom member secured to said frame and to said ends, a door of V-shaped cross section arranged to swing into engagement with the under side of said stationary section, said door having end flanges arranged to inclose said end sections, means for operating said door, said last named means comprising an arm pivotally connected with said link, a rock shaft, a rock arm carried by said rock shaft and having a pivotal connection with said link, means for rotating said rock arm, including a rotatable shaft, a worm carried by said rotatable shaft, and a gear carried by said rock shaft and arranged to be engaged by said worm.

3. In a dump car, a frame, a compartment therein provided with stationary ends of triangular shape, a stationary bottom member secured to said frame and to said ends, a door of V-shaped cross section arranged to swing into engagement with the under side of said stationary section, means for operating said door, said means comprising a link pivotally connected with said door, a rock shaft, a rock arm connected with said rock shaft and having pivotal connection with said link, and means for rotating said rock shaft to bring the link into engagement with the said rock shaft when the door is closed, thereby bringing the weight of the door on the link and the rock shaft.

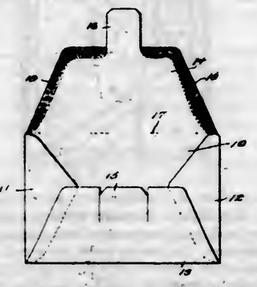
4. In a dump car, a frame, a plurality of compartments carried by said frame, each of said compartments having stationary end members of triangular shape, stationary bottom members secured to said end members and to said frame, a hinged door for each compartment, said hinged door having a V-shaped cross section, means for bringing all of said doors into engagement with their respective stationary bottom members and locking them in their closed positions, said means comprising a pair of parallel rock shafts, links pivotally connected with each of said doors, rock arms carried by said rock shafts and having pivotal connection with each of said links, and means for rotating said rock shafts simultaneously in opposite directions.

5. In a dump car, a frame, a plurality of compartments carried by said frame, each of said compartments having stationary end members of triangular shape, stationary bottom members secured to said end members and to said frame, a hinged door for each compartment, said hinged door having a V-shaped cross section, means for bringing all of said doors into engagement with their respective stationary bottom members and locking them in their closed positions, said means comprising a pair of parallel rock shafts, links pivotally connected with each of said doors, rock arms carried by said rock shafts and having pivotal connection with each of said links, means for rotating said rock shafts simultaneously in opposite directions, said last named means comprising a rotatable shaft arranged to extend transversely of said rock shafts, a gear on each of said rock shafts, a right hand screw on said rotatable shaft arranged to engage one of said gears, and a left hand screw on the rotatable shaft arranged to engage the other of said gears.

[Claim 6 not printed in the Gazette.]

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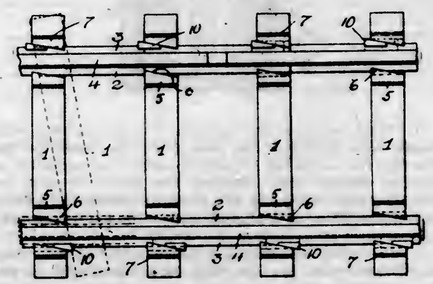
1,092,660. SAFETY-ENVELOP. WILLIAM F. MICHLER, Rhinelander, Wis. Filed Sept. 3, 1912. Serial No. 718,343. (Cl. 229—82.)



An envelop including a body, end flaps, a front flap and a closure flap, said front flap having clefts spaced apart, slits extending inwardly from the clefts in parallel spaced relation to each other, a tongue extending beyond the outer edge of the closure flap with the sides thereof extending in parallel relation and of less width than the distance between the clefts of the front flap, the closure flap being insertible in the clefts and through the slits and the tongue insertible beneath the front flap in advance of the inner ends of the clefts.

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1,092,661. TIE AND RAIL-FASTENER. JOHN R. NAGY Martins Ferry, Ohio. Filed Aug. 20, 1913. Serial No 785,666. (Cl. 238—5.)

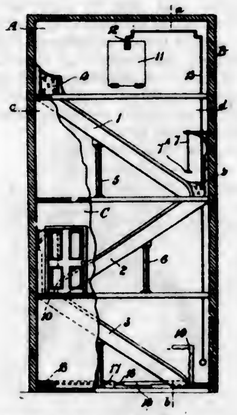


In a metallic tie and rail fastener, the combination with rails, of a metallic slab for supporting the inner and

outer base flanges of said rails, transverse inner fasteners carried by said slab and having the inner faces thereof at an angle, transverse outer fasteners carried by said slab and having the inner faces thereof at an angle the reverse of the inner faces of said inner fasteners, said slab having grooves formed therein adjacent to said outer fasteners, keys driven in said grooves, and auxiliary fasteners carried by said keys and coöperating with said inner and outer fasteners in overhanging the inner and outer flanges of said rails to lock said rails upon said tie.

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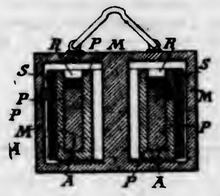
1,092,662. FIRE-ESCAPE. THOMAS OTTIGNON, Wexford, Ontario, Canada. Filed Feb. 26, 1913. Serial No. 750,728. (Cl. 227—7.)



In a fire escape, a combination of inclined chutes the lower most of which is provided with a movable extension at its lower end, said extension comprising a hinged upholstered member, the front part of which is adapted to be turned up when the fire escape is not in use, a forward and rearwardly extending member fixed to said extension, and resilient means tending to force the said extension toward said chute, a tubular bar in which said rearwardly extending member is slidably fixed and a spring within said bar tending to force the said rearwardly extending member outward.

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1,092,663. PROCESS OF MANUFACTURING METAL BODIES. FRANZ PACHER, Dusseldorf-Rath, Germany. Filed Dec. 5, 1911. Serial No. 664,002. (Cl. 22—200.)



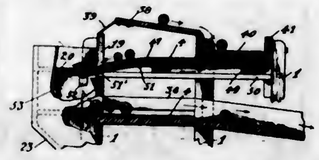
1. The herein described process of manufacturing metal bodies free from gas and blow holes consisting in first heating the metal to a molten state to a condition of finished metal; then allowing the metal to cool and solidify; then reheating the metal as quickly as possible to a temperature only slightly above the solidifying point thereof, and then casting the metal.

2. The herein described process of manufacturing metal bodies free from gas and blow holes consisting in first heating the metal to a molten state to a condition of finished metal; then allowing the metal to cool and solidify into an annular body, then reheating the metal as quickly as possible to a temperature only slightly above the solidifying point thereof, and then casting the metal.

3. The herein described process of manufacturing metal bodies free from gas and blow holes consisting in first heating the metal to a molten state to a condition of finished metal; then allowing the metal to cool and solidify into an annular body; then while in the form of an annular body, and as quickly as possible, reheating the metal to a temperature only slightly above the the solidifying point of the metal, such reheating being effected by an agency enveloping the annular body, and then immediately casting the metal.

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1,092,664. FRUIT-GRADING APPARATUS. GEORGE D. PARKER, Riverside, Cal. Filed Dec. 9, 1912. Serial No. 735,654. (Cl. 130—32.)



1. In an apparatus of the class described, the combination with a runway, a flexible conveyer mounted therein and adapted to be supplied with fruit to be graded, a distributing tray associated with said conveyer, an opening in the side wall of said runway and adapted to be supplied with fruit from said conveyer, and flexible means associated with said runway for permitting said conveyer to incline toward said tray as it is propelled past the same.

2. In an apparatus of the class described, the combination of a runway, a flexible conveyer mounted therein and adapted to be supplied with fruit to be graded, means for operating said conveyer relative to said runway, said runway provided in one of its side walls with a plurality of spaced openings, a distributing tray associated with each of said openings and adapted to be supplied with fruit from said conveyer, and flexible means associated with said runway adjacent each of said openings for permitting said conveyer to incline toward said trays as propelled past the same.

3. In an apparatus of the class described, the combination with a fruit runway, an endless flexible conveyer mounted therein and adapted to be supplied with fruit to be graded, a plurality of distributing trays communicating with said conveyer through openings in the side of said runway formed at spaced intervals throughout its length, said trays adapted to be supplied with fruit from said conveyer, flexible means associated with said conveyer for permitting the same to incline toward said trays as propelled past the same, and means for controlling the inclination of said flexible means.

4. In an apparatus of the class described, the combination with a fruit guideway provided with a plurality of laterally disposed discharge outlets for the fruit, an endless conveyer for the fruit and working in said guideway, a distributing tray communicating with said conveyer at each of said discharge outlets and adapted to be supplied with fruit from said conveyer, flexible means for permitting said conveyer to incline toward said trays, as it is propelled past the same to regulate the flow of fruit from said conveyer into each of said trays, a plurality of conveyers for receiving the fruit after the same has been graded, and channels associated with each of said trays and communicating with the respective conveyers for receiving and directing the graded fruit onto said conveyers.

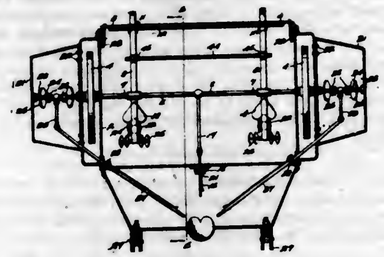
5. In a fruit grading or sorting apparatus, the combination with a fruit guideway provided in its side wall at spaced intervals with a laterally disposed discharge outlet for the fruit, and said guideway being further provided in its base adjacent each discharge outlet with a cutout portion, a flexible endless conveyer for the fruit working in said guideway, said conveyer being substantially horizontal in a plane transverse to its line of travel, means for imparting a longitudinal travel to said conveyer, and devices coöperating with each of said cutout portions for varying the inclination laterally of the conveyer adjacent each discharge outlet for regulating the outflow of the fruit through the respective discharge outlets.

[Claims 6 to 11 not printed in the Gazette.]



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1,092,665. CULTIVATOR. LUTHER M. RUMLEY and CHARLES H. MCFARLINO, Supply, Okla. Filed Feb. 25, 1913. Serial No. 750,575. (Cl. 97—36.)

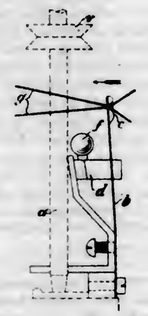


1. In a cultivator, the combination of a frame, a pair of plow beams carried thereby, sets of steering wheels carried at each side of said frame, shiftable means for independently raising and lowering said sets of wheels to ride on the ground or to travel in a previously formed plow furrow, and means for adjusting said steering wheels to furrows of different depths.

2. In a cultivator, the combination of a main frame, auxiliary frames detachably secured to the respective ends of said main frame, crank shafts journaled in said auxiliary frames, sets of steering wheels secured to the cranks of said shafts, and means for independently actuating said crank shafts to raise and lower the steering wheels secured thereto.

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1,092,666. DRIVING OF SPINDLES. PAUL SCHLITTE, Leipzig, Germany. Filed Mar. 13, 1913. Serial No. 754,096. (Cl. 118—24.)

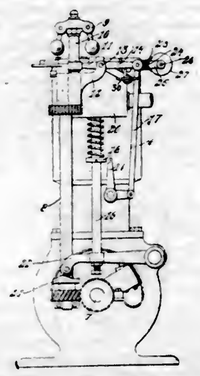


1. In a spinning machine having a spindle and a spindle whirl, a tension arm located at the side of the spindle, and means for stopping at least the outward movement of said arm under tension to a fixed amount.

2. In a spinning machine having a spindle and a spindle whirl, a spring tension arm located at the side of said spindle, means for fixing said spring at one end and a spring controlled catch provided with a handle for stopping at least the outward movement of said arm and tension to a fixed amount.

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1,092,667. SPEED-REGULATOR FOR INTERNAL-COMBUSTION ENGINES. RICHARD G. SHILEY, Cleveland, Ohio. Filed May 22, 1913. Serial No. 769,252. (Cl. 123—108.)



1. In a speed regulator for internal combustion engines, the combination of a throttle valve regulator, an exhaust valve regulator, a centrifugal device operated by the engine, and means to selectively operate either of said regulators by said device.

2. In a speed regulator for internal combustion engines, the combination of a throttle valve regulator, an exhaust valve regulator, a centrifugal device operated by the engine, a lever operated by said device, means to selectively connect said lever to either of said regulators to operate the same.

3. In a speed regulator for internal combustion engines, the combination of a regulator, including a lever, for one of the engine valves, a centrifugal device operated by the engine, a lever operated by said centrifugal device, and a connector between the levers, said connector being manually operable to operatively connect or disconnect the levers.

4. In a speed regulator for internal combustion engines, the combination of a lever connected to the throttle valve for regulating the same, a "hit and miss" mechanism including a lever for controlling the exhaust valve, a centrifugal device driven by the engine, a lever 11 actuated by said centrifugal device and working adjacent to the beforementioned levers, and manually operated means to transmit the motion of said lever 11 to either of said other levers, and regulate either of said valves.

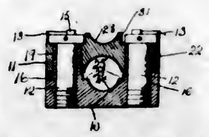
5. In a speed regulator for internal combustion engines, the combination of a lever connected to the throttle valve for regulating the same, a "hit and miss" mechanism including a lever for controlling the exhaust valve, a centrifugal device driven by the engine, a lever 11 actuated by said centrifugal device and working adjacent to the beforementioned levers, and manually operated means to transmit the motion of said lever 11 to either of said other levers, and regulate either of said valves, said manually operated means comprising a turning pin carried by the lever 11 and provided with oppositely disposed cams engageable respectively with the other levers.

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1,092,668. CABLE-CLAMP. AB C. SMITH, Warren, Ark. Filed Apr. 7, 1913. Serial No. 759,487. (Cl. 24—135.)

1. A cable clamp comprising a base member, side socketed posts projecting from one end thereof, a cover member, lugs upon one end of said cover member and adapted to engage the sockets of said posts, hollow posts mounted upon the opposite end of said base member and in alinement with threaded bores through said base member, adjustable locking means positioned within said bores, and said body and cover members having coöperating sockets adapted to engage a cable.

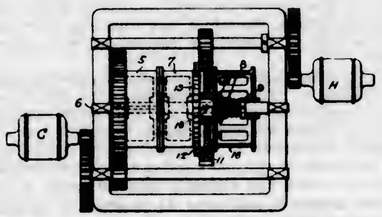
2. A cable clamp comprising a base member, side socketed posts projecting from one end thereof, a cover member, lugs upon one end of said cover member and adapted to engage the sockets of said posts, hollow posts mounted upon the opposite end of said base member and in alinement with threaded bores through said base member, adjustable locking means positioned within said bores, said base member provided with a longitudinal groove in the top thereof, said cover member provided with opposite longitudinal grooves of different diameters centrally positioned therein, said cover member adapted to be positioned with either of its faces adjacent the base member for bringing either of the grooves of said cover in coöperative relation with the groove of said base.



3. A cable clamp comprising a base member, a cover removably hinged thereto, locking means for said base and cover, said base member provided with a central longitudinal socket in one face thereof, longitudinal marginal shoulders at opposite sides of the top of said socket, one face of said cover provided with an extension adapted to be received upon said marginal shoulders and having a longitudinal socket therein of the same diameter as said base socket and the opposite side of said cover provided with a longitudinal socket of a diameter greater than that of the other sockets.

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1,092,669. HOISTING APPARATUS FOR OPERATING GRAB-BUCKETS. AUGUSTUS SMITH, Roselle, N. J., assignor to Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed June 12, 1913. Serial No. 773,266. (Cl. 57—83.)



1. In hoisting apparatus of the character described, a closing drum, a holding drum, a drag device between the same, motor means for rotating said drums, a one-way drive connection therefrom to the holding drum, a counterweight drum, an operative connection therefrom to the motor means, and a connection between said holding drum and the counterweight drum, operative upon the overrunning of its drive connection by the holding drum under the influence of the drag of the closing drum, for freeing the counterweight from its operative connection to the motor means whereby said drum is free to rotate under the pull of its counterweight.

2. In hoisting apparatus of the character described, a holding drum, a motor, a one-way drive between said motor and holding drum, a counterweight drum, means for rotating the latter on the operation of the motor, and means controlled by the holding drum for permitting the counterweight drum to rotate while the motor is halted.

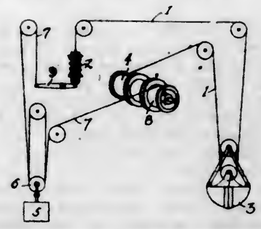
3. In hoisting apparatus of the character described, a holding drum, a motor, a one-way drive between said motor and holding drum, a counterweight drum, a friction clutch between said counterweight drum and motor and means controlled by the holding drum for freeing said clutch to permit the counterweight drum to rotate while the motor is halted.

4. In hoisting apparatus of the character described, a holding drum, a motor therefor, a one-way driving connection between the same, whereby the drum may rotate while the drive is halted, a counterweight drum, a frictional drive connection to said motor maintained by the pull of the counterweight and means operative upon the rotation of the holding drum in advance of the motor for releasing the frictional driving engagement of said counterweight drum whereby the latter is free to rotate under the pull of its counterweight, substantially as described.

5. In hoisting apparatus of the character described, a holding drum, a counterweight drum, a reversible motor, a one-way hoisting driving connection to the holding drum from said motor, and a clutch drive between the motor and the counterweight drum to wind the counterweight upon the latter, in combination with means controlled by said holding drum and operative upon the rotation of the latter in advance of its drive for freeing said clutch drive to the counterweight drum to permit the latter to rotate under the pull of its counterweight alone, substantially as described.

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1,092,670. BUCKET-HOIST. AUGUSTUS SMITH, Roselle, N. J., assignor to Bergen Point Iron Works, Bayonne, N. J., a Corporation of New Jersey. Filed June 16, 1913. Serial No. 773,936. (Cl. 37—14.)



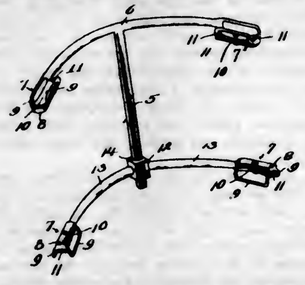
1. In hoisting apparatus of the type described, a hoisting rope having a fixed end, drum end and an interposed hoisting bight, a hoisting bucket on said bight in the rope and a yielding device of predetermined resistance arranged at said fixed end of the rope to cushion the initial hoisting strains after the bucket is closed, in combination with a counterweight rope having a fixed end, a drum end and an interposed bight in which a counterweight is arranged, and means in connection therewith for exerting an auxiliary cushioning action, substantially as described.

2. In hoisting apparatus of the type described, a hoisting rope having a fixed end, drum end and an interposed hoisting bight, a hoisting bucket on said bight in the rope and a yielding device of predetermined resistance arranged at said fixed end of the rope to cushion the initial hoisting strains after the bucket is closed, in combination with a counterweight rope having a fixed end, a drum end and an interposed bight in which a counterweight is arranged, and means in connection therewith for exerting an auxiliary cushioning action, and a rock lever to the ends of which the fixed ends of said hoisting and counterweight ropes are attached, substantially as described.

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1,092,671. DENTAL JAW-BRACE. MATHIEU SOUVIELLE, Jacksonville, Fla. Filed June 10, 1912. Serial No. 702,829. (Cl. 32—16.)

1. In an appliance of the character specified, an upright angular in cross section carrying a fixed arm at its upper end, the arm being terminally provided with a tooth-engaging device longitudinally open at its upper portion and at opposite ends to permit a tooth to enter thereinto, and a head adjustably mounted on the upright and having an opening therethrough of the same contour as the upright and also carrying an arm having a tooth-engaging device longitudinally open at its lower portion and at opposite ends to permit the entrance of a tooth thereinto, the sides of the teeth-engaging devices respectively carried by the arm and the head extending over the teeth engaged and having an open structure to minimize contact with the surfaces of the teeth, the head having a self-locking operation relatively to the upright.



2. In an appliance of the character specified, relatively adjustable arms having fixed teeth engaging saddles with inlet openings extending longitudinally thereof through opposite ends and also having open sides, the saddles being in reverse positions so as to respectively engage teeth of the upper and lower jaws, the sides of the saddles being open to reduce the contact on the surfaces of the teeth engaged and at the same time to insure a positive engagement of the saddles with the teeth.

3. In an appliance of the character specified, relatively adjustable arms having fixed terminal teeth engaging saddles projecting inwardly from the plane of the arms and having inlet openings extending longitudinally thereof through opposite ends and open sides, the saddles being in reverse positions to engage the teeth of upper and lower jaws and also having yielding pressure strips disposed therein at a distance inwardly from the margins of the sides.

4. In an appliance of the character specified, relatively adjustable arms having fixed terminal teeth engaging saddles projecting inwardly from the arms so as to dispose the same fully on one side of the plane of the arms to prevent injury to the inner sides of the cheeks by the saddles, the said saddles having inlet openings extending fully in a longitudinal direction therethrough and also provided with open sides to reduce the contact of the sides of the saddles with the surfaces of the opposite sides of the teeth engaged.

5. In an appliance of the character specified, relatively adjustable arms having fixed teeth engaging saddles with openings extending longitudinally therethrough from end to end to admit the teeth between the sides thereof, the sides being open to reduce the contact of the same on the opposite surfaces of the teeth, and longitudinally curved pressure strips located within the saddles at a distance inwardly from the margins of the sides.

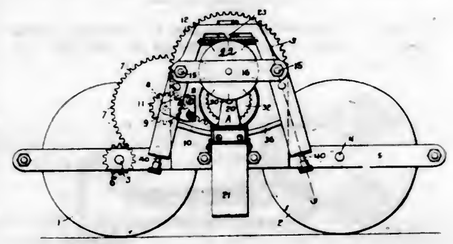
[Claim 6 not printed in the Gazette.]

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1,092,672. ROTARY MEASURING DEVICE. EDWARD CLIFFORD SPEDDEN, Grangeville, Idaho. Filed Apr. 30, 1913. Serial No. 764,569. (Cl. 33—142.)

1. An apparatus of the class described comprising a measuring wheel, an indicating device including a rotary element, a transmission means between the wheel and element, and a pendulum device controlling the transmission means for rotating the said elements at such relative speed to the measuring wheel as to indicate the distance the apparatus is moved horizontally, said transmission means comprising a driven element operatively connected with the rotary element of the indicating device, and a driving element movable with the pendulum for varying the speed ratio of the driving and driven elements automatically.

2. An apparatus of the class described comprising a measuring wheel, an indicating element movable simultaneously with the wheel, and a speed changing means between the wheel and element, the said speed changing means comprising a pendulum, a track, a driving element movable along the track with the pendulum, and a driven element with which the driving element engages and to which the indicating element is operatively connected.



3. An apparatus of the class described comprising a measuring wheel, a frame supporting the same, a pendulum, a shaft carried by the pendulum and operatively connected with said wheel, a driving element slidably mounted on the shaft, a driven wheel carried by the pendulum with its axis eccentric to the pivotal center of the pendulum, means for shifting the driving element on the shaft by the swinging of the pendulum to change the point of engagement of the driving element with the driven wheel, and an indicating means connected with the driven wheel.

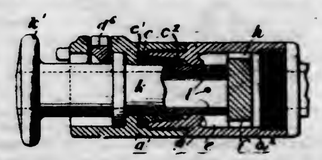
4. An apparatus of the class described comprising a measuring wheel, a frame supporting the same, a pendulum, a shaft carried by the pendulum and operatively connected with said wheel, a driving element slidably mounted on the shaft, a driven wheel carried by the pendulum with its axis eccentric to the pivotal center of the pendulum, means for shifting the driving element on the shaft by the swinging of the pendulum to change the point of engagement of the driving element with the driven wheel, and means for adjusting the last mentioned means toward or from the pivotal center of the pendulum.

5. An apparatus of the class described comprising surface engaging wheels, a frame on which the wheels are mounted, a pair of oppositely-disposed shafts, gearing between one shaft and one of the said wheels, an indicator connected with the other shaft, a pendulum mounted to swing on the said shafts as an axis, a shaft carried by the pendulum, a gear between the pendulum-carried shaft and the shaft connected with one of the said wheels, a driving element slidable on the pendulum-carried shaft, a track fixed with respect to the pendulum, a block movable along the track and operatively connected with the said driving element for shifting the same, and a driven wheel operatively connected with the indicator and with which the driving element engages.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,673. HOSE COUPLING OR UNION. WILLIAM CHARLES STEPHENS, Carn Brea, England. Filed Oct. 31, 1913. Serial No. 798,522. (Cl. 137—30.)

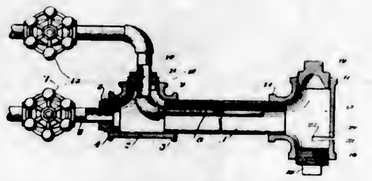


A coupling comprising a socket member and a plug member, said socket member being formed of two separable parts having annular recesses, a cup-leather adapted to fit in said recesses and be clamped by the parts when connected and be engaged by said plug member, a larger recess provided in one of said parts, a disk valve having radial lugs, the outer ends of which slidably engage the walls of said larger recess, said plug member comprising

a hollow cylindrical body having radial apertures near its inner end and a handle upon its outer end, and being adapted to be inserted in said socket member and move the valve in one direction.

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1,092,674. OIL-BURNER. GEORGE F. TINKHAM, Houston, Tex. Filed Oct. 3, 1913. Serial No. 793,231. (Cl. 158—75.)

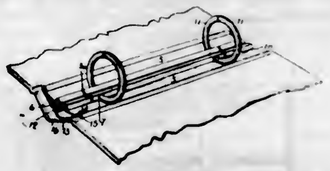


1. An oil burner of the class described comprising a mixing and heating tube, an entrance T secured to and extending longitudinally with the said tube, a steam pipe fitted in a plug at the inner end of the entrance T, an oil supply pipe arranged in the tube longitudinally thereof and having an elbow at its intake end and a supply member arranged in the transverse arm of said entrance T, fitted in a plug in said arm and connected to said elbow, and a discharge or nozzle T arranged transversely with respect to the said tube and having its cross arm secured thereto, the said discharge or nozzle T being provided with plugs in its ends and being also provided with a transverse burner slot extending about halfway around the same, spaced from the lower plug and out of line with the discharge tube.

2. An oil burner of the class described comprising a mixing and heating tube, an entrance T secured to and extending longitudinally with the said tube, a steam pipe fitted in a plug at the inner end of the entrance T, an oil-supply pipe arranged in the tube longitudinally thereof and having an elbow at its intake end and a supply member arranged in the transverse arm of said entrance T, fitted in a plug in said arm and connected to said elbow, and a discharge or nozzle T arranged transversely with respect to the said tube and having its cross arm secured thereto, the said discharge or nozzle T being provided with plugs in its ends and being also provided with a transverse burner slot extending about halfway around the same, spaced from the lower plug and out of line with the discharge tube, the said slot having a narrowed central portion and widening toward its ends.

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1,092,675. LOOSE-LEAF BINDER. WILFRED CHARLES TRAHER, London, Ontario, Canada. Filed Mar. 8, 1913. Serial No. 753,089. (Cl. 129—41.)



1. In a device of the character described, two wires having central portions and bent terminals forming hooks, two plates articulated together and having portions bent around the central portions of the wires, and a spring plate having flanges for engaging and holding the outer edges of the first plates.

2. In a device of the character described, two wires having central portions and terminals bent to form hooks, two plates with openings spaced apart and articulated together, the plates having inner portions bent around the central portions of the wires, with the hooks extending up through the openings in the plates, and a spring plate having flanges for engaging and holding the outer edges of the first plates.

3. In a device of the character described, two wires having central portions and terminals bent to form hooks, two companion plates, each having two openings with their inner portions between the openings bent around the central portions of the wires, with the hooks extending up through the openings, a bent flange on the inner side of each of the plates, the flanges engaging the inner sides of the companion plates and a spring plate formed with flanges for engaging and holding the outer edges of the first mentioned plates.

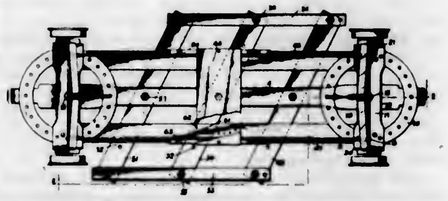
4. In a device of the character described, two wires having central portions and terminals bent to form hooks, two plates, each having a groove in its under side adjacent its inner edge, there being two openings in each of the plates at the grooves, the central portions of the wires being disposed in the grooves between the openings with the hooks disposed up through the openings, flanges on the plates bent up and extending into the grooves in the companion plates beyond the openings therein, and a spring plate having flanges for engaging and holding the outer edges of the first mentioned plates.

5. In a device of the character described, two plates, a hook secured to each of the plates, there being grooves in the under side of the plates, and flanges on the plates extending up into the grooves in the companion plates, and a spring plate for engaging and holding the outer edges of the first plates.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,676. ROAD SCRAPER AND SMOOTHER. GEORGE E. TUCKER, Springwater, N. Y., assignor to Ebenezer Robinson, Springwater, N. Y. Filed Nov. 21, 1912. Serial No. 732,687. (Cl. 37—7.)



1. In a road smoother of the class described, a frame; a plurality of scrapers; a bolt for each of said scrapers for connecting the same with said frame; a nut for each of said bolts and a spring interposed between each of said nuts and said frame whereby said scrapers are allowed a yielding, substantially pivotal movement; means connecting the outer ends of said scrapers together for holding the same substantially parallel; and a locking member engaging said frame and one of said scrapers for locking the scrapers at an angle to said frame.

2. In a road smoother of the class described, a frame; a plurality of scrapers pivotally mounted on said frame; means for connecting said scrapers together so that the same will remain substantially parallel at all times, said frame being formed of a plurality of apertures and said scrapers being formed with apertures therein; a locking pin adapted to be arranged in any of the apertures of said frame and engaging one of the apertures in one of the scrapers for locking the scraper at any desired angle in respect to the frame.

3. In a road smoother of the class described, a frame, a plurality of scrapers, a bolt for each of said scrapers for connecting the same with said frame, a nut for holding said bolts in place, and a spring interposed between each of said nuts and said frame whereby said scrapers are allowed a yielding and substantially pivotal movement, and means connecting the outer ends of said scrapers together for holding the same substantially parallel.



1,092,677. GARMENT. JOHN MARSHALL VANNEMAN, Philadelphia, Pa. Filed Aug. 29, 1913. Serial No. 787,370. (Cl. 2—144.)



The combination with an elastic undergarment; of a horizontal tape inside the same at the front near the waist line, a row of stitching through the garment and tape around the edge of the latter, a loop overlying the tape outside the garment, stitches through the garment and tape and through the ends of the loop, the latter being full and loose when the tape is taut, and a similar loop and tape at the rear of the garment, as and for the purpose set forth.

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1,092,678. SOLDERING-IRON. ROBERT GWINN VAWTER, Woodstock, Va. Filed Dec. 20, 1913. Serial No. 808,032. (Cl. 158—25.)



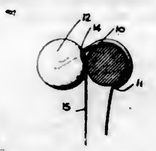
1. A soldering iron including a blow torch, a casing carried thereby, a copper removably secured in the casing and formed with a magazine, a closure for the magazine held in magazine closing position by the casing, said magazine being formed with an outlet, a valve rod controlling the outlet, a manually operable member carried by the casing, and a connection between said member and the valve rod.

2. A soldering iron including a blow torch, a casing carried thereby, a copper removably secured in the casing and formed with a magazine, a closure for the magazine held in magazine closing position by the casing, said magazine being formed with an outlet and with a channel communicating with said outlet, a rod slidably mounted in the channel, a spring for moving the rod longitudinally of the channel and closing the outlet, and a flexible connector secured to the rod and operable from the relatively remote end of the casing, whereby to move the rod to open the outlet.

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1,092,679. CURTAIN-CLASP. WILLIAM HENRY WALLIN, Stromsburg, Nebr. Filed May 16, 1912. Serial No. 697,793. (Cl. 24—255.)

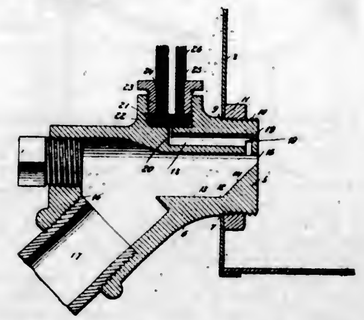
A curtain clasp, comprising a substantially spherical head, and a hook having a bill and an integral shank, the shank being entered directly in the inner side of the head and fixedly embedded therein, said shank having an exposed portion and the bill presenting a return bend extending forwardly and of a length approximately equaling the length of the exposed portion of the shank; and the said exposed portion of the shank, the adjacent inner side of the head and the end of the bill of the hook defining a space to receive a curtain bar; the bill terminating at its



outer end in an inward curve toward the head and being spaced from the head, forming with the latter, a contracted entrance to the mentioned space.

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1,092,680. TRACK-SANDER. JOHN H. WATTERS, Augusta, Ga. Filed Oct. 22, 1913. Serial No. 796,612. (Cl. 105—263.)



1. In a track sander, a casing having an outlet and a bottom member inclined downwardly in the general direction of the outlet, there being a sand opening in a vertical wall of the casing at the top of the inclined bottom member and a jet opening for directing the air against the inclined bottom member.

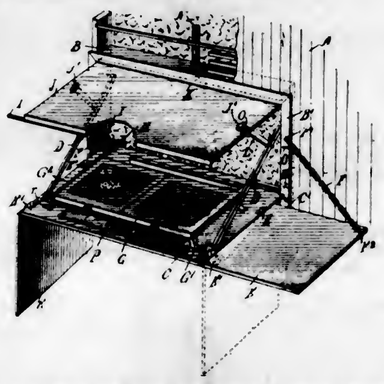
2. In a track sander, a casing having a bottom member, the inner portion of which is inclined down to the outer portion which is disposed substantially horizontally, the casing having an outlet below the horizontal plane of the outer portion of the bottom member, a sand inlet at the top of the inner portion of the bottom member and a jet opening for directing a jet of air against the inclined portion of the bottom member.

3. In a track sander, a casing having an outlet and a bottom member inclined downwardly in the general direction of the outlet, there being a sand inlet in the inner wall of the casing at the top of the inclined bottom member, and an air passage leading in the general direction of the sand inlet with an opening for directing a jet of air against the inclined bottom member.

4. In a track sander, a casing having an outlet and a bottom member inclined in the general direction of the outlet, there being a sand inlet in the inner wall of the casing at the top of the inclined bottom member and a horizontal air passage leading in the general direction of the sand inlet with an air opening for directing a jet of air against the inclined bottom member, there being a second air passage of less area in cross-section than the first air passage and leading to the first air passage and a strainer disposed at the inlet to the second air passage.

5. In a track sander, a casing having an outlet and a bottom member inclined downwardly in the general direction of the outlet, there being a sand inlet in the inner wall of the casing at the top of the inclined bottom member, an air passage leading in the general direction of the sand inlet with an opening for directing a jet of air against the inclined bottom member and another opening above the sand inlet for directing a jet of air against the sand.

1,092,681. FOLDABLE GAS-STOVE. RAYMOND STUART WAY, Los Angeles, Cal., assignor of one-half to Charles W. Pressley, Los Angeles, Cal. Filed Sept. 26, 1912. Serial No. 722,435. (Cl. 126—37.)



1. A foldable gas stove, comprising a casing adapted to be set into a recess in a wall, a support pivoted on the lower portion of the said casing and adapted to fold therein or be extended horizontally therefrom, a gas stove pivoted in the lower portion of the said casing independent of the support and adapted to fold therein or when extended to rest on the said support, and means whereby the gas supply will be cut off when the stove is folded and turned on when the stove is extended.

2. A foldable gas stove, comprising a casing adapted to be set into a recess in a wall, a support pivoted on the lower portion of the said casing and adapted to fold therein or be extended horizontally therefrom, a gas stove pivoted in the said lower portion of the said casing and adapted to fold therein or when extended to rest on the said support, and a hood pivoted on the top of the casing for forming a cover for the same or when extended forming a hood for the said gas stove.

3. In a foldable gas stove, the combination with a wall, having a recess therein, of a pivoted support, hinged links for holding the support in a horizontal position, and a gas stove pivoted independently of the support and adapted to rest upon the said support when in use and to fold into the recess in the wall when not in use so that the support may serve as a shelf for other purposes.

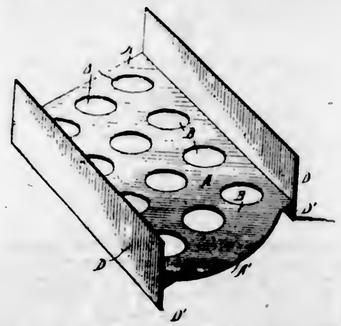
4. In a foldable gas stove, the combination with a wall having a recess therein, of a pivoted support, a pivoted gas stove adapted to rest on the said support and to fold with the said support into the recess in the wall, the support when folded covering the folded stove, and a pivoted hood adapted to extend over the said gas stove when the latter and the support are in extended position and to cover the said support when the latter and the gas stove are in folded position.

5. A foldable gas stove, comprising a casing adapted to be set into a recess in a wall, a support pivoted on the lower portion of the said casing and adapted to fold therein or be extended horizontally therefrom, a gas stove pivoted in the lower portion of the said casing and adapted to fold therein or when extended rest on the said support, side extension supports hinged to the sides of the said support and adapted to be folded thereon, and flexible means detachably connecting the said side extensions with the said casing.

[Claims 6 to 9 not printed in the Gazette.]

1,092,682. EGG-HOLDER. CARL S. WEBER, Hackensack, N. J. Filed Sept. 11, 1912. Serial No. 719,733. (Cl. 65—22.)

1. As an article of manufacture, an egg holder made from a single piece of sheet material and having a horizontal member forming a table provided with spaced circular openings, the walls of said openings being curved downward and slightly inward to form firm seats for supporting an egg, the table being unobstructed at its ends, the sides of the table terminating in integral vertical side flanges extending both below and above the table, the portions of the flanges extending below the table being doubled up to reinforce the flanges and form a firm support for the holder, and the portions of said side flanges above the table serving to protect the eggs from injury.



2. As an article of manufacture, an egg holder made from a single piece of sheet metal and having a horizontal portion forming a table, the table portion being provided with spaced circular openings, the walls of said openings being curved downward and slightly inward to form firm seats each for supporting a single egg, the table being unobstructed at its ends, the sides of the table terminating in integral vertical side flanges extending throughout the length of the table, and projecting both below and above the table, the portion of each of said flanges below the table being doubled up forming a firm support for said holder, and the portions of said flanges above the table being of a height exceeding that of the eggs supported on the table to protect the eggs from injury, the front end of the table portion of the holder being curved outwardly from points adjacent its sides, the outwardly curved portion projecting beyond the front edges of the said side flanges to form a handle for conveniently carrying the egg holder.

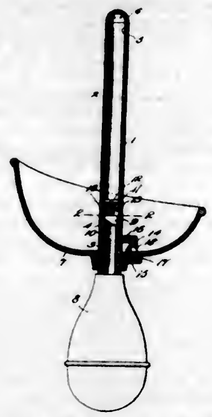
1,092,683. SPIKE. CHARLES M. WICKHAM, Rockford, Ill. Filed Sept. 6, 1911. Serial No. 647,859. (Cl. 85—21.)



A spike comprising a shank having its opposite side faces provided with a plurality of notches forming horizontally disposed shoulders arranged in staggered relations, the terminals of said shoulders lying in a plane with said side faces, and said shoulders increasing in width successively from the upper to the lower end to effect a tight grip on the upper part of the spike for the purpose set forth.



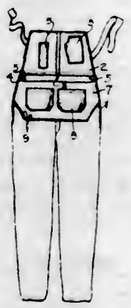
1,092,684. SYRINGE. ARTHUR E. WILDE, New York, N. Y. Filed Jan. 8, 1913. Serial No. 740,848. (Cl. 128—25.)



1. In a syringe, a bulb, a nozzle leading from the bulb and provided with a lateral tubular extension, a cap threadedly mounted on the extension and having an opening communicating with the interior of the extension, a drain cup mounted on the nozzle and having its inner wall flush with the lower wall of the opening in the cap, and a valve arranged within the extension and controlling communication between the interior of the cup and the nozzle.

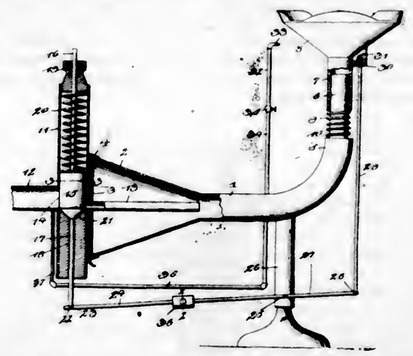
2. In a syringe, a bulb, a nozzle leading from the bulb and provided with a lateral tubular extension, a drain cup mounted on the nozzle and provided with an offset portion, a cap threadedly mounted on the tubular extension and having an opening therein communicating with the interior of the extension and engaging with a vertical wall of the offset portion of the drain cup, and a valve located within the extension and controlling communication between the drain cup and the nozzle.

1,092,685. WEARING-APPAREL. JOHN A. WOOTTEN, Hot Springs, Ark. Filed Aug. 23, 1913. Serial No. 786,303. (Cl. 2—140.)



As a new article of manufacture, a pair of overalls including an upper and a lower section, a downwardly depending flap having its upper longitudinal edge secured between the lower edge of the upper section, and the upper edge of the lower section, buttons carried by said flap and a detachable apron having button holes formed in one of its longitudinal edges, said longitudinal edge being arranged between said flap and the lower section of the overalls and having the buttons detachably engaged within said button holes, as and for the purpose set forth.

1,092,686. CONTROLLING DEVICE FOR GAS-BURNERS. HARVY C. YINGLING, Baltimore, Md. Filed May 7, 1913. Serial No. 766,146. (Cl. 126—52.)



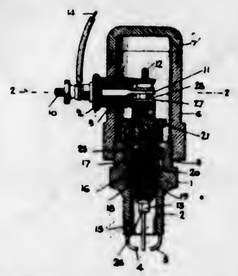
1. In an automatic controlling device for gas burners, a main burner, a member supporting the burner for vertical movements and including a fuel feeding pipe leading from the burner and terminating in a flared mouth, a valve casing located at one side of the mouth and provided with a nozzle extending into the mouth, a pipe connection leading to the valve casing, a rocking lever mounted on the support, a connection between the burner and one end of the lever, a valve slidable in the valve casing, a seat formed in the casing at a point directly below said pipe connection, a gland fitted to the upper end of the valve chamber, an upper stem carried by the valve and slidable through the gland, a spring interposed between the valve and the gland and normally holding the valve against the seat, the opposite end of the rocking lever having a depression therein, and a lower stem formed on the valve and extending below the bottom thereof and having a rounded portion loosely fitting in the depression.

2. In an automatic controlling device for gas burners, a main burner, a member supporting the burner for vertical movements and including a fuel feeding pipe leading from the burner and terminating in a flared mouth, a valve casing located at one side of the mouth and provided with a nozzle extending into the mouth, a pipe connection leading to the valve casing, a rocking lever mounted on the support, a connection between the burner and one end of the lever, a valve slidable in the valve casing, a seat formed in the casing at a point directly below said pipe connection, a gland fitted to the upper end of the valve chamber, an upper stem carried by the valve and slidable through the gland, a spring interposed between the valve and the gland and normally holding the valve against the seat, the opposite end of the rocking lever having a depression therein, and a lower stem formed on the valve and extending below the bottom thereof and having a rounded portion loosely fitting in the depression, said mouth having a foraminous head and a damper operating over the head and revolving about the nozzle of said valve casing.

1,092,687. SPARK-PLUG. JOHN DE LEOAN BARMORE, Apalachicola, Fla. Filed June 18, 1912. Serial No. 704,295. (Cl. 123—169.)

1. A spark plug comprising a supporting housing including a removable sleeve, a contact connected with said

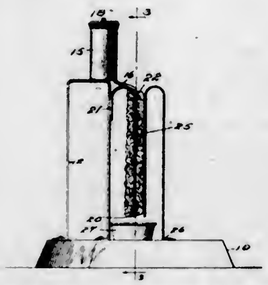
removable sleeve, a second contact arranged with one end in proximity with said first mentioned contact, a stop rigidly secured to said second mentioned contact near said last mentioned end, insulating means for said second mentioned contact, said insulating means comprising a winding or convolution of mica extending for less than the full length of said contact, a plurality of mica disks surrounding said convolution of mica and said contact and extending to a point above said winding or convolution of mica and forming a chamber above said winding or convolution of mica, and an asbestos filling arranged in said chamber for compensating for the length of said disk column in case of compression and a removal of some of the disks, means for clamping said mica and said asbestos so as to press the mica disks against said stop, and means for connecting a source of energy to said second mentioned contact.



2. A spark plug comprising a pair of contact members of opposite polarity, insulating means for one of said contacts, said insulating means comprising a convolution of mica extending for less than the full length of said last mentioned contact, a plurality of disks of mica surrounding said convolution of mica and extending to a point beyond said convolution of mica whereby a chamber is provided around said last mentioned contact at the end of said convolution of mica, a compressible refractory material positioned in said chamber for compensating for the length of the disk column in case some of the disks are removable, means for clamping said insulating means firmly to said last mentioned contact, and means for connecting a source of energy to said last mentioned contact.

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1,092,688. ENVELOP-MOISTENER. JAMES M. BROOKS, Washington, D. C. Filed Aug. 4, 1913. Serial No. 782,904. (Cl. 120—75.)



1. An envelop moistener comprising a strip of absorbent material held substantially vertical, means for applying liquid at the upper end of said material, and a resilient strip extending adjacent the strip of flexible material for substantially the full length thereof, the said strip being supported at a point adjacent the upper end of the strip of absorbent material.

2. An envelop moistener comprising a strip of absorbent material held substantially vertical, means for applying liquid to the upper end of the absorbent material, an inverted U-shaped strip of resilient material one end of which is spaced from the absorbent material and held rigidly at the bottom thereof, the other end of the T-shaped strip of material extending adjacent the strip of absorbent material for substantially the full length thereof, the lower end of said second end of the U-shaped strip being free.

3. An envelop moistener comprising a strip of absorbent material vertically mounted and supported from the upper end thereof, resilient means embracing said absorbent material, the upper end of said means held against movement while the lower end is free to move, and a member adjacent the absorbent material, the flap of an envelop adapted to pass between said means and the absorbent material and engage the latter.

4. An envelop moistener comprising a vertically mounted strip of absorbent material, the free end of said strip being held substantially fixed, while the lower end is free to swing, and a member adjacent the strip of absorbent material extending substantially throughout the length thereof, the flap of an envelop adapted to pass between said means and the absorbent material and engage the latter.

5. An envelop moistener comprising a strip of absorbent material, resilient means embracing the absorbent material fixed adjacent the upper end of the absorbent material, the lower end of the resilient means being free, and resilient guiding means adjacent the strip of absorbent material, the guiding strip supported at the upper end thereof, while the lower end is free.

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1,092,689. HAT-PIN. CARRIE PILCHER BROUSSARD, Youngsville, La. Filed Mar. 7, 1913. Serial No. 752,790. (Cl. 24—155.)



A hat pin point protector, a housing, a disk closing one end thereof and provided with a central opening, guides carried by the disk, a locking element slidable over the disk and working in the guides, said element being provided with a bifurcated locking end extending over the opening in the disk, the guides being spaced along their inner edges to provide an intervening continuous slot, a manipulating portion formed on said locking element and slidable through the housing, a stud extending through the slot between the guides and carried by said locking element and provided with lateral branches extending beyond the guides, and springs carried by the disk and located at the opposite sides of said guides and connected with said lateral portions of the stud and operating to normally hold said locking element under tension, said housing forming a stop to engage the manipulating portion of said locking element so as to limit the movements of the locking element in the direction of the aperture in said disk.

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1,092,690. PACKING-RING. CLARANCE R. BRYANT, Fort Worth, Tex. Filed Nov. 29, 1913. Serial No. 803,825. (Cl. 121—108.)

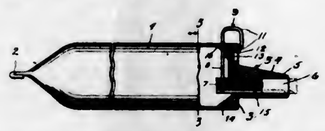


A packing ring including an inner ring member formed with outstanding ledge at one edge, the member being divided and formed to provide interfitting ends, a pin projecting from the ring member, and an outer ring member resting upon the ledge and contacting with the inner ring member, said outer ring member being divided and formed with interfitting ends at the point of division, one of said ends being formed with recesses to coöperate with the pin, the meeting surfaces of the ledge and outer ring member being formed for interfitting to prevent a relatively outward movement of said outer ring member with respect to the inner ring member.



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1,092,691. COLLAPSIBLE TUBE. KENNETH D. BRYSON, New York, N. Y. Filed Aug. 14, 1913. Serial No. 784,756. (Cl. 221—60.)



1. A collapsible tube comprising a pliable shell and a discharge nozzle formed thereon, said nozzle being provided with a closure which is automatically opened by the pressure of the contents of the tube, and means for locking said nozzle when in its closed position.

2. A collapsible tube comprising a pliable shell, a discharge nozzle formed thereon, said nozzle being provided with a closure which is automatically opened by the pressure of the contents of the tube, and releasable means for locking said nozzle when in a closed position.

3. A collapsible tube comprising a pliable shell, a projecting nozzle formed thereon, said nozzle being provided with a closure which is automatically opened by the pressure of the contents of the tube, a spring for normally maintaining said nozzle in its closed position, and means for releasably locking said nozzle when in its closed position.

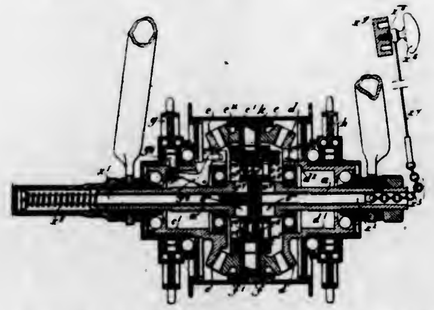
4. A collapsible tube comprising a pliable shell, a projecting nozzle casing formed thereon, a longitudinally movable piston slidable in said casing, resilient means for holding said piston in its innermost position, and means for locking said piston against movement.

5. A collapsible tube comprising a pliable shell, a projecting nozzle casing formed thereon, a piston longitudinally movable in said casing, a spring engaging said piston for holding it normally in its closed position, and means for locking said piston against movement.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,692. VARIABLE-SPEED GEARING. EDOUARD CHENEAUX, Paris, France. Filed July 28, 1911. Serial No. 641,130. (Cl. 74—34.)



1. In a change speed gearing, the combination of a pair of driving sprockets, a hub, a differential gearing, members of which are connected to said hub and driving sprockets respectively, connecting members between said sprockets and said differential gearing and between the planet pinions of the latter and the bosses upon which these pinions are rotatable, operable for obtaining different speeds.

2. In a change speed gearing, the combination of an axle, two sun wheels mounted by means of sleeves to freely rotate thereon, two sprocket wheels adapted to be clutched or unclutched as desired to their respective sun wheels, a hub, a pair of planet wheels mounted on said hub and in engagement with said sun wheels, and means for locking and unlocking said planet wheels as regards rotation about their own axes.

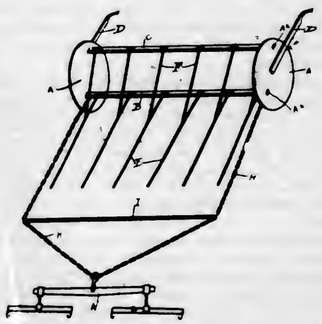
3. In a change speed gearing, the combination of an axle, two sun wheels mounted to rotate freely on said axle, a pair of driving sprockets mounted on said sun wheels, means for clutching and unclutching each sprocket wheel to one of said sun wheels independently of the other, a pair of planet wheels, a hub, a spindle on said hub, and means for locking and unlocking said planet wheels as regards rotation about their own axes.

4. In a change speed gearing the combination of a hollow axle, two sun wheels having sleeves whereby they may run freely on said axle, a pair of driving sprockets mounted on the sleeves of said sun wheels, means for clutching and unclutching either sprocket wheel to its sun wheel independently of the other, a hub, spindles on said hub, two planetary wheels on said spindles, a controlling rod within said axle, means for displacing said rod relatively to said axle, and clutches on said rod adapted to connect said sun wheels to said spindles on the hub.

5. In a change speed gearing the combination of a hollow axle, two sun wheels, two sprocket wheels, clutch members between said sun wheels and said sprocket wheels, a hub, spindles on said hub, planet wheels mounted on said spindles, clutch members adapted to rigidly connect said planet wheels to said spindles, an operating rod mounted within said hollow axle and adapted to operate said clutch members, a retaining spring on said operating rod, an operating handle, means for retaining said handle in the desired position, and connecting means between said handle and said operating rod.

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1,092,693. DRAG RAKE OR FORK. JOHN JOSEPH CRUDEN, Blanchard, N. D. Filed Apr. 21, 1913. Serial No. 762,630. (Cl. 56—66.)



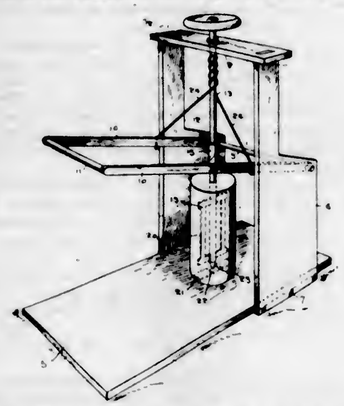
A drag rake comprising circular-outlined disks, bars parallel to each other and rigidly fastened to said disks, handles fastened to the latter, tines secured to one of said bars and provided with brace strips connecting said tines and the other of the bars, and draft means fastened to the bar carrying said tines, as set forth.

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1,092,694. CHURNING-MACHINE. JOHN J. CRUME, Amarillo, Tex. Filed June 18, 1913. Serial No. 774,416. (Cl. 31—17.)

1. A churning machine comprising a container, a base supporting the container, uprights secured to the base, a dasher stem consisting of an upper and a lower section, said upper section being supported by said uprights, the adjacent ends of said sections being oppositely beveled,

a stop pin removably secured in said lower section near the beveled end thereof, a collar slidable upon the upper section and adapted to normally rest against said stop pin and embrace the adjoining ends of the sections, said lower section adapted to enter and be supported within the container, and means for rotating the dasher stem.



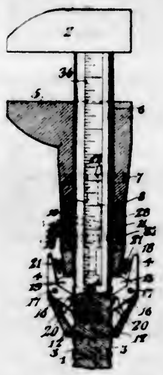
2. A churning machine comprising a container, a flat base member adapted to support the container, uprights secured to the opposite sides of the base member adjacent its rear end, a cross bar secured to the upper end of said uprights, a vertical, sectional dasher stem having its upper section journaled in said cross bar, a fly wheel keyed upon the upper end of said upper section, a dasher on the lower portion of said lower section of the stem adapted to be seated in the container, arms projecting from the rear of said uprights, and at an intermediate portion thereof, a lever pivoted at one end to the outer extremity of said arms and directed toward the front end of said base, a horizontal handle connecting the opposite ends of the levers, the upper section of said dasher stem being formed with a transverse aperture therein adjacent the upper end thereof, and a cable extending through said apertures and having its opposite ends secured to an intermediate portion of opposite levers whereby the dasher may be rotated.

3. A churning machine comprising a base member, uprights projecting from the sides of said base member, a container supported upon said base member, a cross bar connecting said uprights, a vertical, sectional dasher stem having the upper section journaled in said cross bar, a dasher on the lower section of the stem, a strip adapted to be seated in the bottom of said container and having a central portion thereof formed with a recess, a lower extremity of said lower section being tapered and adapted to be received in said recess and to support the dasher within the container, means for removably securing the adjacent ends of the stem, and means for rotating the stem.

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1,092,695. WRENCH. IRA CUNNINGHAM and HAYWOOD FLOWERS, Grand Saline, Tex. Filed May 28, 1913. Serial No. 770,503. (Cl. 81—140.)

1. A wrench including a shank having a fixed jaw, a sliding jaw movable along the shank, a casing slidable on the shank and having a substantially cylindrical outer portion and provided with an intermediate enlarged portion having openings, the inner and outer portions of the casing being closed at the side edges, pawls mounted within the casing and having inner ends located within the inner portion thereof and engaging the shank to lock the casing against inward movement, said pawls having operating portions extending through the openings of the intermediate portion of the casing, springs interposed between the projecting portions of the pawls and the outer portion of the casing for holding the pawls normally in engagement with the shank, and a rotary sleeve swiveled to the cylindrical portion of the casing and to the sliding jaw and having a cam edge for engaging the latter.



2. A wrench including a shank having a fixed jaw, a sliding jaw mounted on the shank and having interiorly arranged longitudinal grooves and provided at the outer ends thereof with openings, a rotary sleeve mounted on the shank and having opposite cam edges for actuating the sliding jaw, said sleeve being also provided with inclined or angularly disposed grooves or ways, coupling members mounted in the longitudinal grooves of the sliding jaw and having outer terminal lugs to engage the openings thereof and provided at their inner ends with lugs engaging in the grooves or ways of the rotary sleeve, and means for holding the rotary sleeve against inward movement on the shank.

3. A wrench including a shank having a fixed jaw, a sliding jaw mounted on the shank, a rotary sleeve having a cam edge for actuating the sliding jaw and provided with transversely disposed grooves or ways, a casing slidable along the shank and having means for engaging the same, said casing being also provided with interiorly arranged longitudinal grooves and having openings at the inner or lower ends thereof, and coupling members arranged in the longitudinal grooves of the casing and provided with terminal lugs engaging the openings of the casing and the transverse grooves or ways of the sliding sleeve.

4. A wrench including a shank having a fixed jaw, a sliding jaw mounted on the shank, a rotary sleeve having a cam edge for actuating the sliding jaw, said rotary sleeve being provided with interiorly arranged inclined and transversely disposed grooves, coupling members carried by the sliding jaw and the casing and having rounded portions extending into the rotary sleeve and provided with terminal lugs engaging in the said grooves, and means carried by the casing for engaging the shank.

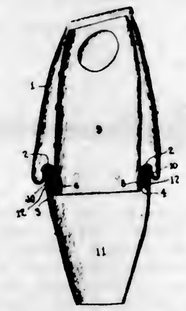
5. A wrench including a shank having a fixed jaw, a sliding jaw mounted on the shank and having an interiorly arranged longitudinal groove, a casing slidable along the shank and provided with means for engaging the same and having an interiorly arranged longitudinal groove, a rotary sleeve arranged on the said shank between the casing and the sliding jaw and provided with a cam edge for actuating the sliding jaw and having interior transversely disposed grooves, and interiorly arranged longitudinally disposed coupling members fitted in the said grooves and provided with means for engaging the jaw and the casing, said coupling members also extending into the rotary sleeve and provided with means for engaging the grooves thereof.

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1,092,696. GARMENT. IDA F. CURRY, Seattle, Wash. Filed Jan. 28, 1914. Serial No. 814,909. (Cl. 2—98.)

1. A blouse having a button and a buttonhole in the back and a button and buttonhole in the front said buttons and button-holes located vertically one above the other, whereby the garment is adapted for attachment to an under independent detachable supporting means, or for attachment to the band of trousers or other lower garment, whereby the blouse effect is maintained, and to prevent separation of the blouse and lower garment while upon the wearer.

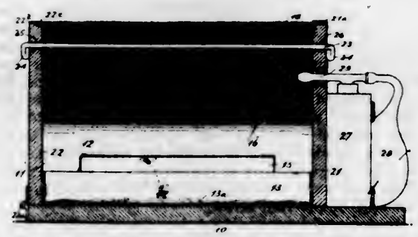




2. A blouse having tabs located respectively at the rear and front thereof, each provided with a button and a buttonhole, whereby the blouse is adapted for attachment to a button on an under supporting means, or for attachment to the band of trousers or other lower garment, whereby the blouse effect is maintained, and to prevent separation of the blouse and lower garment while upon the wearer.

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1,092,697. FLY-TRAP. CHARLES HARDING CURTIS, Bluffton, Fla. Filed June 26, 1913. Serial No. 775,882. (Cl. 43—22.)



1. A fly trap, comprising a base, a casing secured to the base and forming a bait chamber and having an arched top, a trap chamber formed of foraminous material, the said material extending inwardly to the sides of the casing and secured at its lower end, the casing and said material having alined longitudinal slots in the sides, and the material of the casing at the slots being turned outward and serving to clamp the foraminous material, said casing having an opening in the arched top thereof leading to the trap chamber.

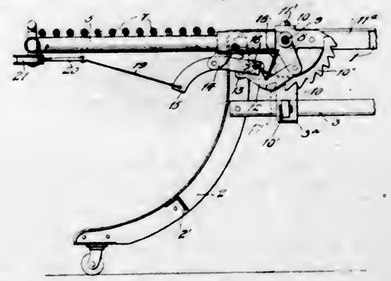
2. A fly trap, comprising a base, a casing secured to said base and having a side opening for the entrance of flies, said casing forming a bait chamber and being open at one end, a trap chamber above the casing, said trap chamber being inclosed by openwork material, said material having connection at its sides with the sides of the casing, and said trap chamber being open at the end adjacent to the open end of the bait chamber, there being an opening leading from the bait chamber upwardly to the trap chamber, a door common to the open ends of the bait chamber and trap chamber, and means for holding the door in closed position to close the ends of the said chambers.

3. A fly trap, comprising a base, a casing forming a bait chamber and having an entrance opening for flies and an outlet through the top thereof, a trap chamber above the bait chamber, one end of the bait chamber and the corresponding end of the trap chamber being open, the opposite end of the trap having a fixed closure for the ends of said chambers, a door at the open ends of the chambers, the door being hinged at its lower end to the base and having a slot near its upper end, there being an alined slot in the opposite fixed end of the trap, and a latch rod extending longitudinally through the fixed end of the trap, the trap chamber and the door, and the ends of the rod having means movable through the slots in one position of the rod.

4. A fly trap, comprising a bait chamber, a trap chamber above the bait chamber, there being an inlet opening leading to the bait chamber and an outlet from the bait chamber to the trap chamber, and a sprayer mounted on the trap and having a spray nozzle extending into the trap chamber at one end, the nozzle being disposed in the direction of the opposite end of the trap chamber.

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1,092,698. ADJUSTABLE SUPPORT FOR BEDS. WILLIAM J. CURTIS, Philadelphia, Pa. Filed Dec. 26, 1913. Serial No. 808,870. (Cl. 5—43.)



1. In combination, a bedstead including side rails, an adjustable spring therefor comprising a central frame, the side members of which are disposed beneath the side rails aforesaid, and having supporting means extending over the side rails, fastening members on the frame cooperating with the supporting means and the side rails to detachably secure the spring to the latter, and an adjustable support connected to said frame.

2. In combination, a bedstead including side rails, and bar members beneath the rails, an adjustable spring therefor comprising a central frame having side members cooperating with said side rails and supporting flanges extended thereover, means for clamping the side rails between the flanges and side members of the frame for detachably securing the spring to the side rails aforesaid, the bar members of the bedstead being disposed to coöperate with the central frame to prevent oscillation of the latter, adjustable supports connected to said frame, and means for holding said supports at adjusted positions extending from the frame.

3. In combination, a bedstead including side rails, a foldable spring therefor comprising a central frame, and adjustable end sections connected to opposite ends of said frame and adapted to be folded in superposed relation upon said frame.

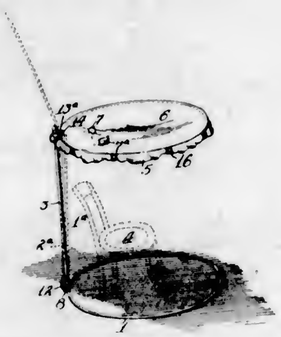
4. In combination, a bedstead including side rails, a foldable spring therefor comprising a rectangular frame composed of corner members, longitudinally connecting bars connected to the upper portions of the corner members, transverse bars connecting the lower portions of the corner members, adjustable end sections adapted to fold upon the frame, and an intermediate spring member adapted to be disposed within the frame and supported by the transverse bars aforesaid.

5. In combination, a bedstead including side rails, a foldable spring therefor comprising a rectangular frame composed of corner members, said corner members being formed with sectors and offstanding flanges adapted to be disposed on the side rails, upper longitudinal connecting bars adapted to coöperate with the side rails beneath the same, transverse bars connecting the lower portions of the corner members, adjustable end sections adapted to fold

upon the frame, and an intermediate spring section adapted to be disposed within the frame and to receive the adjustable end sections when in folded position.

[Claims 6 to 8 not printed in the Gazette.]

1,092,699. COMPACT FOLDING VAPOR-BATH CABINET. FRANK DEPENBROCK, San Francisco, Cal. Filed Jan. 24, 1914. Serial No. 814,215. (Cl. 4—13.)



1. A vapor bath cabinet comprising lower and upper frames, a single standard pivotally connected at its upper and lower ends to said frames, means cooperating with said pivotal connections to hold the frames parallel and at right angles to the standard, and a suitable covering connected to the upper frame, substantially as described.

2. In a vapor bath cabinet, upper and lower frame members or rings, a single standard having its ends pivotally connected to said frame members or rings, locking means for the lower pivotal connection, relatively inclined stops carried by the pivot of the upper frame, and a removable stop pin with which said stops coact.

3. In combination a lower frame member or ring, a standard pivotally connected thereto, locking means for said pivotal connection, a two-armed bracket carried by the upper end of said standard, an upper ring or frame member pivotally supported by the arms of said bracket, relatively inclined stop members carried by said ring or frame member between the arms of the bracket, and a removable pin passing through the arms of the bracket for coacting with said stops, substantially as described.

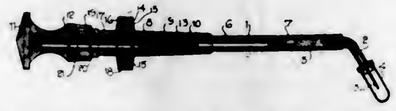
4. In combination a pair of upper and lower rings or frame members, a standard pivotally connected to said upper and lower rings by lock joints, a fabric cover for the upper frame member having a head opening, a side cover or curtain depending from the upper frame member, and fastening devices for holding the curtain elevated, substantially as described.

1,092,700. WIRE SPLICER AND STRETCHER. JOHN CLAUDE DOZE, Conway Springs, Kans. Filed June 13, 1913. Serial No. 773,483. (Cl. 39—50.)



A stretching tool including a cylindrical drum formed with diametrically arranged wire receiving openings and with a handle receiving opening, a handle loosely passed through said handle receiving opening and arranged transversely of the drum, in combination with a stretching rod having terminal eyes, one of said eyes being in the plane of the rod and the other positioned laterally thereof, and a clamp carried by the eye arranged in the plane of the rod.

1,092,701. DENTAL INSTRUMENT. GEORGE S. EDWARDS, Greencastle, Pa. Filed Sept. 13, 1913. Serial No. 789,695. (Cl. 32—10.)



1. A dental instrument of the class described comprising a barrel, an arcuate tubular member connected to one end thereof and having a restricted bore, a plunger mounted for reciprocation in said barrel, a feed screw engaged with one end of said plunger and having a head on the outer end thereof adapted to contact with the opposite end of said barrel, and means in connection with the head on said feed screw and the barrel to limit the stroke of said plunger in the barrel.

2. In a dental instrument of the class described, a barrel, a tubular arcuate member connected to one end thereof and having a restricted bore, a plunger mounted for reciprocation in said barrel, a feed screw engaged with one end of said plunger within the barrel, a head carried on the outer end of said feed screw adapted for engagement with the opposite end of said barrel, and means in connection with the head of said feed screw for calculating the adjustment of the latter and correspondingly limit the stroke of said plunger.

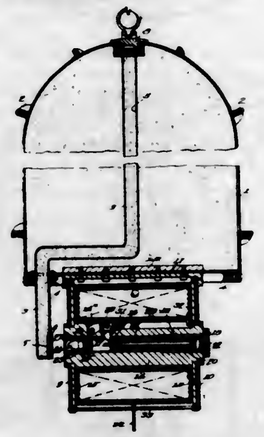
3. In a dental instrument of the class described, a barrel, a tubular member of arcuate design having a restricted bore connected to one end of said barrel, a plunger reciprocally mounted in said barrel, a feed screw connected to said plunger and having a head on the outer end thereof adapted for engagement with the opposite end of said barrel, a member rotatably mounted on said barrel and engaged with said head to rotate with the latter, said head member being so connected with said member as to move longitudinally of the latter, and means in connection with said rotatable member for calculating the adjustment of the feed screw.

4. In a dental instrument of the class described, a barrel, an arcuate tubular member connected to one end of said barrel and having a restricted bore, a plunger mounted for reciprocation in the barrel, a feed screw engaged with said plunger, a head member mounted on the outer end of said feed screw adapted to contact with the opposite end of said barrel, a bowl-shaped head member rigidly mounted on the barrel and having depressions in the base thereof, a member rotatably mounted on the barrel and having a portion thereof received in said head member, a spring-held pawl carried by said rotatable member and adapted for engagement with the depressions in the base of said head member, and means for the engagement of said head member with said rotatable member to cause the latter to be rotated with the former and simultaneously admit of longitudinal movement of the former with respect to the latter.

5. In a dental instrument, a barrel, an arcuate tubular member connected to one end thereof and having a restricted bore, a plunger mounted for reciprocation in said barrel, a feed screw engaged with said plunger, a head member carried on the outer end of said feed screw and adapted to engage the opposite end of said barrel, a tubular-like casing formed on said head member and receiving the last mentioned end of said barrel therein, the extreme free end of said tubular casing having the bore thereof slightly enlarged, a member rotatably mounted on said barrel, and received in the enlarged bore of said casing, means connecting said casing with the rotatable member to cause the latter to be rotated with the former and simultaneously permit longitudinal movement of the former with respect to the latter, a bowl-shaped member rigidly carried on said barrel and having depressions in the base thereof, said bowl-shaped member being adapted to receive a portion of said rotatable member therein, a spring held pawl carried by said rotatable member and adapted to be received in the depressions of the bowl-shaped member, and means to prevent the rotation of said rotatable member in one direction.



1,092,702. SUBMARINE MINE. GIOVANNI EMANUELE ELIA, Rome, Italy. Filed June 26, 1913. Serial No. 775,878. (Cl. 102—3.)



1. The combination with a pair of submarine mines, of a float for each mine, a flexible connection joining said floats, buoyant means for floating said flexible connection, said flexible connection being disposed in the path of a vessel and arranged to be engaged by the latter, whereby both mines are brought into engagement with the sides of the vessel, and means carried by each mine and operated by the forward movement of the vessel for subsequently moving the mine toward the bottom of the vessel.

2. The combination with a pair of submarine mines, of a float for each mine, a flexible connection joining said floats, buoyant means for floating said flexible connection, said flexible connection being disposed in the path of a vessel and arranged to be engaged by the latter, whereby both mines are brought into engagement with the sides of the vessel, means carried by each mine and operated by the forward movement of the vessel for subsequently moving the mine toward the bottom of the vessel, and means for subsequently exploding the mine.

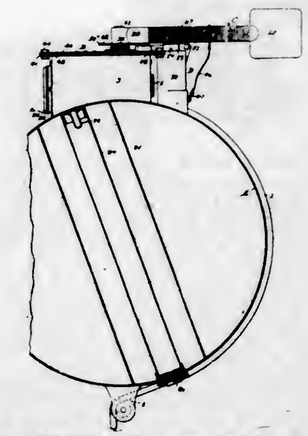
3. The combination with a pair of submarine mines, of a float for each mine, a flexible connection joining said floats, buoyant means for floating said flexible connection, said flexible connection being disposed in the path of a vessel and arranged to be engaged by the latter, whereby both mines are brought into engagement with the sides of the vessel, means carried by each mine and operated by the forward movement of the vessel for subsequently moving the mine toward the bottom of the vessel, and means for subsequently exploding the mine, said last named means being operated by the movement of the vessel through the water.

4. In a submarine mine, a casing containing explosive material, a flexible connection with said casing arranged to be engaged by the prow of a vessel for drawing the casing forward through the water, and means carried by the exterior of the casing for rotating the latter during its movement through the water, thereby producing a rolling movement of the casing at right angles to its forward movement when the casing engages the side of the vessel.

5. In a submarine mine, a casing containing explosive material, a flexible connection with said casing arranged to be engaged by the prow of a vessel for drawing the casing forward through the water, and means carried by the exterior of the casing for rotating the latter during its movement through the water, thereby producing a rolling movement of the casing at right angles to its forward movement when the casing engages the side of the vessel, said last named means comprising a series of spirally arranged flanges secured to the casing.

[Claims 6 to 13 not printed in the Gazette.]

1,092,703. FIRING APPARATUS FOR MOORED TORPEDOES. GIOVANNI EMANUELE ELIA, Rome, Italy. Filed July 5, 1913. Serial No. 777,460. (Cl. 102—3.)



1. The combination with a torpedo adapted to be rotated by contact with a vessel, of a resistance device carried by the torpedo, said resistance device being held in its position by the resistance of the water during the rotation of the torpedo, and means actuated by the movement of the torpedo with respect to the resistance element for exploding the torpedo.

2. The combination with a torpedo adapted to be rotated by contact with a vessel, of a resistance device carried by the torpedo, said resistance device being held in its position by the resistance of the water during the rotation of the torpedo, means actuated by the movement of the torpedo with respect to the resistance element for exploding the torpedo, said means comprising a normally locked firing pin, and means for releasing the firing pin.

3. The combination of a torpedo of the class described, a firing mechanism therefor, a resistance device tending to remain in its initial position while the torpedo moves by contact with a vessel, and means controlled by the relative movement of the said device and torpedo for actuating the firing mechanism.

4. The combination of a torpedo, a firing mechanism therefor, a resistance device connected with the torpedo and adapted to remain substantially stationary while the torpedo moves by contact with a vessel, means for permitting the firing mechanism to operate after a predetermined relative movement of the torpedo and device, a locking means for the said device, and an anchor element for the torpedo operatively connected with the said means to release the latter from the device when the torpedo is moored.

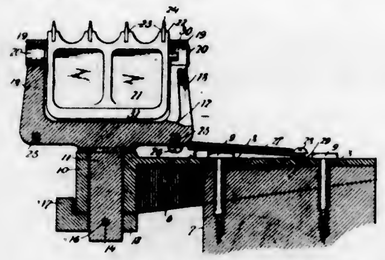
5. The combination of a torpedo adapted to be moored in a body of water and to be rotated by contact with a vessel, firing mechanism for exploding the torpedo, said firing mechanism including a firing pin, a resistance

element carried by the torpedo and shaped to oppose movement through the water during the rotation of the torpedo, and a gearing between the resistance element and the firing pin and adapted to be operated by the rotative movement of the torpedo with respect to the resistance element.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,704. LUMBER-JACK. CHARLES EDMOND EVANS, Weed, Cal. Filed Oct. 10, 1913. Serial No. 794,408. (Cl. 214—6.)



1. In a lumber jack, a supporting arm having a bearing, a yoke having arms, and a stud journaled in the bearing, there being an orifice in the stud, a collar mounted on the stud and provided with an orifice for registering with the orifice in the stud, and with a flange for engaging the supporting arm to check the rotary movement of the yoke, a spring secured to the supporting arm and adapted to be secured as desired to the yoke for holding the yoke yieldingly in a predetermined position relatively to the supporting arm a member pivoted to the arms of the yoke and provided with means for engaging lumber, and a pin disposed in the orifices.

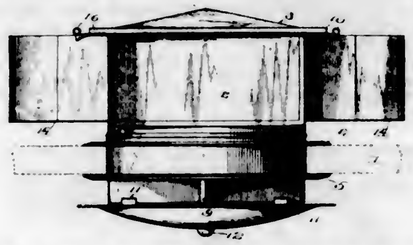
2. In a lumber jack, a supporting arm having a bearing, a yoke having arms, and a stud journaled in the bearing there being an orifice in the stud, a collar mounted on the stud and provided with an orifice for registering with the orifice in the stud, and with a flange for engaging the supporting arm to check the rotary movement of the yoke, a spring secured to the supporting arm and adapted to be secured as desired to the yoke for holding the yoke yieldingly in a predetermined position relatively to the supporting arm, a member pivoted to the arms of the yoke and provided with teeth, pins on the member for engaging the arms of the yoke to limit the rotary movement of the member relatively to the yoke, and a pin disposed in the orifices.

3. In a lumber jack, a supporting member having a bearing, a yoke having arms, and a stud journaled in the bearing, a member having a face with teeth, the member being journaled in the arms of the yoke, pins projecting from the member adjacent the ends of the said face for engaging the arms of the yoke for limiting the rotary movement of the second member relatively to the yoke, and a counterweight on the second member spaced from the said face and at substantially equal distances from the pins.

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1,092,705. CAR-VENTILATOR. WILLIAM J. FLEMING, Jr., Darien, Conn., assignor to Automatic Ventilator Company, New York, N. Y., a Corporation of New York. Filed May 22, 1912. Serial No. 698,925. (Cl. 98—22.)

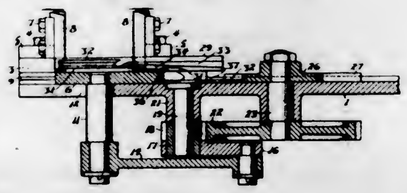
1. In combination with the dome-roof of a car, a hood passing through said roof and secured in position therein, and having louvered openings on either side above the car roof, the interior divided by transverse partitions into quadrant spaces leading to the interior of the car; exterior reversely inclined deflectors between the louvered openings, and a deflecting cup-shaped shield, located at the termini of the quadrant spaces and with air space between the quadrant spaces and said shield, whereby the fresh air may be delivered to the interior of the car and the vitiated air ejected therefrom, as hereinbefore set forth.



2. In combination with a dome-roofed car, a hood provided with quadrant air spaces, having arch-shaped closures at the upper end, louvered openings in the opposite sides of the hood with projecting outside deflectors between each pair of quadrant air spaces; and a cup-shaped shield at the lower extremities of the air spaces substantially as shown and described.

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1,092,706. CAN-TOP FEEDER. CHARLES E. FORRY, Oakland, Cal. Filed Dec. 16, 1912. Serial No. 736,974. (Cl. 113—114.)



1. In a can top feeder, the combination of a holder for holding a stack of can tops and a reciprocating slide underneath the open bottom of the said holder, the said slide having a fixed seat for the lowermost can top to rest on and the said slide having fixed thereon a separating means adapted to pass between the said lowermost can top and the next following one above to separate the lowermost can top from the stack, the said separating means forming with the said seat a guideway for the separated can top, to move the latter downward during the movement of the slide in one direction and while the said lowermost can top is held against lateral movement by the said holder.

2. In a can top feeder, the combination of a holder for holding a stack of can tops, the holder being open at the bottom, a slide reciprocating immediately below the said open bottom of the holder, ledges on the tops of the said slide and forming a horizontal seat for the lowermost can top at the time the said slide is in innermost position, the said ledges having inward extensions, the upper surfaces of which slope inward and downward, ribs on the said slide and having the under faces forming grooves with the said sloping upper faces of the ledges, the forward ends of the said ribs having sharp edges terminating at the inner ends of the horizontal seat formed by the said ledges and adapted to pass between the seated lowermost can top and the next following one above at the time the slide is moved outward to support the said next following can top and to cause the lowermost can top to pass into the said groove and to be moved gradually downward guided by the said holder.

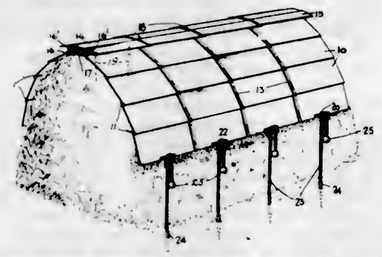
3. In a can top feeder, the combination of a can top guide for holding a stack of can tops, the lower end of the said guide being open, a table provided with guideways, a slide mounted to reciprocate in the said guideways



and provided at the inner end with a recess, side bars on the said slide and having oppositely-disposed ledges forming a seat for the lowermost can top of the said stack of can tops, the said ledges having the upper surfaces of their inner end portions sloping downwardly and merging with the upper face of the said slide at the said recessed end, oppositely-disposed ribs on the said side bars and having their under surfaces forming guide grooves with the said sloping end portions of the ledges, the outer ends of the said ribs having sharp edges to pass between the bottom can top and the next following one above, the inner ends of the said ribs projecting beyond the inner ends of the said ledges, and means for imparting a reciprocating motion to the said slide.

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1,092,707. HAYSTACK-COVER. FRANK A. FREELAND, Uniontown, Mo. Filed Apr. 30, 1913. Serial No. 764,551. (Cl. 108—3.)

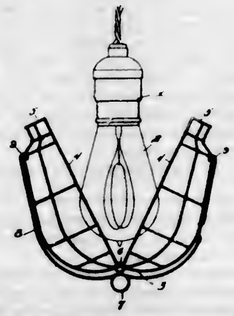


1. The combination with a sectional cover adapted to envelop a stack or the like; of weighted means arranged at either side of the cover to normally draw and maintain the cover in operative position, and means carried by the cover to hold the weighted means against opposite movement.

2. A cover of the class described, comprising a ventilator having overhanging eaves, cover sections connected to the ventilator at either side thereof to envelop a stack, brackets carried at the bottom portions of the cover sections, shafts journaled in the brackets, and tensioning means carried by the shafts to draw the cover toward the stack, said tensioning means embodying sprocket wheels fixed to the shafts, chains engaged on the sprocket wheels and anchored each at one end along the sides of the stack, weighted means at the free extremities of the chains, and means to prevent opposite rotation of the shafts against the action of said weighted means.

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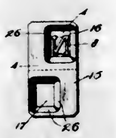
1,092,708. LAMP-GUARD. JOHN GRAY, Jr., New Orleans, La. Filed May 24, 1913. Serial No. 769,673. (Cl. 240—102.)



An electric lamp guard or fender comprising two sections having the upper ends thereof formed to provide gripping elements, a hinge connecting the lower edge of said sections whereby the same may swing to open and closed position, and means normally holding said sections in closed position, said last-named means comprising a single length of wire coiled upon itself centrally to provide a spring, thence extended to form oppositely disposed arms, the latter terminating in hooks.

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1,092,709. PROCESS OF MAKING MATRICES. JOHN E. HANRAHAN, Baltimore, Md., assignor to The Ad-Atype Matrix Company, Baltimore, Md., a Corporation of Delaware. Filed Aug. 8, 1913. Serial No. 783,735. (Cl. 198—7.)



1. In a process for producing matrices the combination of steps which consists in providing a type face holder of the same width as the finished matrix; providing a member of soft material of the same face dimensions as said holder; making an impression of the character it is desired to reproduce in said soft material; and securing said character to said holder while held in said impression, substantially as described.

2. The process of producing matrices from standard type which consists in taking an impression of said type in a predetermined position in material having predetermined face dimensions; transferring the face portion of said type from said impression to a holder having the same face dimensions and securing it in the same relative position on said holder; and suitably preparing a matrix from the said face portion, substantially as described.

3. The process of producing matrices from standard type which consists in making an impression from the face portion of said type in a block having the same width as the finished matrix; transferring said type face from said impression to a holder having the same width as said block and matrix; locating said type face on and securing it to said holder in the same relative position it occupied in said block; and suitably forming a matrix from the said face portion, substantially as described.

4. The process of producing matrices from standard type which consists in making an impression from the face portion of said type in a block having the same width as the finished matrix; severing said face portion from said type and replacing it in said impression; transferring said type face from said impression to a holder having the same width as said block and matrix; locating said type face on and securing it to said holder in the same relative position it occupied in said block; and suitably forming a matrix from the said face portion, substantially as described.

5. The process of producing matrices from standard type which consists in making an impression from the face portion of said type in a predetermined position on a block of soft material having the same width as the body of the finished matrix; severing said face portion from the body of said type and replacing it in said impression; transferring and securing said face portion to a similar predetermined position on a holder having the same width as said block and matrix; suitably associating said holder and face portion with a perforated matrix blank; and forming a matrix from the parts thus assembled, substantially as described.

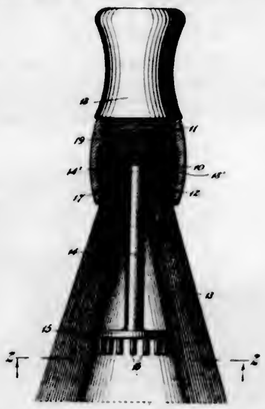
[Claims 6 to 9 not printed in the Gazette.]

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1,092,710. SHAVING AND LATHER BRUSH. DENNIS I. HARTMANN, New York, N. Y. Filed May 7, 1913. Serial No. 766,240. (Cl. 15—38.)

The herein described brush comprising a thimble having an internal thread at one end and a smooth internally tapered surface at the other end, the middle portion of

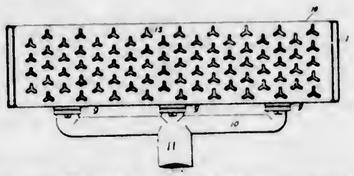
the thimble being larger in diameter than said ends, a mass of bristles, a massager carried within the mass of bristles and including a stem extending with the bristles into said thimble at one end and having at its other end a



head with a series of projecting fingers, a handle having threaded engagement in the threaded end of the thimble, and binding material filling the mass of bristles within the thimble and surrounding the upper end of said stem, substantially as and for the purposes set forth.

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1,092,711. RADIATOR. RICHARD H. HATFIELD, New York, N. Y. Filed Aug. 7, 1912. Serial No. 713,920. (Cl. 62—28.)



A radiator, having a plurality of water-circulating tubes arranged in parallel series, said series being disposed in lines perpendicular to the face of the radiator, said tubes having transversely concaved wall sections disposed lengthwise thereof, the tubes of the adjacent series being arranged in staggered relation to pocket and deflect the air passing between said series, for delivery thereof by each tube of one series to the concave sections of the tubes of the adjacent series.

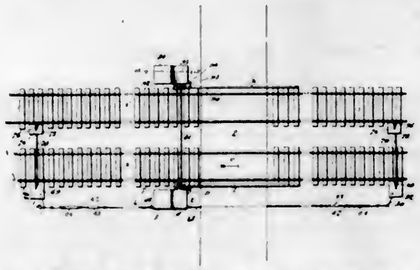
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1,092,712. AUTOMATIC RAILROAD-GATE. SIMEN HAUER and MAGNUS B. JACOBSON, La Crosse, Wis. Filed Mar. 26, 1913. Serial No. 756,953. (Cl. 39—35.)

1. In a crossing gate for railways, a swinging gate adapted to be actuated by a passing train, stop members for supporting the gate in either an open or a closed position, and a brake member adapted to engage with the gate to momentarily support the same before the gate is deposited upon either of its stop members.

2. In a gate for railroad crossings, a housing, a shaft upon the housing, a substantially L-shaped gate mounted upon the shaft, an adjustable weight for one of the arms of the gate, spring stops for the gate and adapted to engage with one of the arms of the gate when the said gate is in either an open or closed position, mechanism operated by a passing train for operating the gate, and a brake adapted to engage with the gate to momentarily support the same before the gate engages with its spring stop.

3. In a gate for railroad crossings, a housing, a shaft upon the housing, an L-shaped gate connected with the shaft, a toothed segment connected with the shaft, a second toothed segment trunnioned within the housing and coöperating with the first named segment, a cam wheel, a rod connection between the cam wheel and second segment, a brake, means connected with the cam wheel and actuated by a passing train for rotating the cam wheel, said cam wheel adapted to co-act with the brake to halt the gate directly before the gate reaches the limit of its swing in either direction, and cushion supports for the gate.



4. In a gate for railroad crossings, a housing, a swinging gate arranged upon the housing, a toothed segment connected with the gate, a second toothed segment arranged within the housing and coöperating with the segment of the gate, a shaft within the housing, a wheel connected with the shaft, a rod connecting the wheel and the second toothed segment, a ratchet wheel upon the shaft, wheel segments upon the shaft and arranged to the opposite faces of the ratchet wheel, oppositely disposed spring pressed dogs, one carried by each of the wheel segments, and engaging the ratchet wheel, cables for the wheel segments, throw mechanism for the cables, and arranged for contact with a passing train, stop members for each of the wheel segments, and adjustable means for returning the segments to initial position directly after the throw mechanism is contacted.

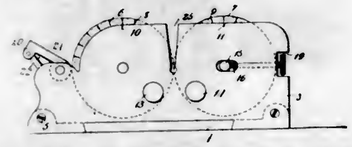
5. In a gate for railroad crossings, a housing, a swinging gate arranged upon the housing, a toothed segment connected with the gate, a second toothed segment trunnioned within the housing and coacting with the first named toothed segment, a shaft mounted in bearings in the housing, a cam wheel upon the shaft, a brake embodying a shoe and a spring pressed arm arranged within the housing and disposed below the first named toothed segment, a pivoted crank arm connected with the spring arm and provided with a roller arranged for engagement with the cam wheel, a ratchet wheel upon the shaft, oppositely disposed wheel segments upon the shaft, a spring pressed dog for each of the wheel segments and co-acting with the ratchet wheel, a cable for each of the wheel segments and arranged longitudinally of the track in opposite directions, adjusting members for the cable, tension members for the cable, a link connected with each of the cable ends, a pivoted bell crank connected with each of the links, a slidable member connected to each of the bell cranks, a roller upon each of the slidable members and arranged within the path of contact of an arcuate contacting member arranged upon a train, stop members for limiting the rotary movement of both of the wheel segments, and springs for normally forcing the segments into engagement with their stops.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,713. KNIFE AND SCISSORS SHARPENER. ALF HELMER, New York, N. Y. Filed Oct. 23, 1913. Serial No. 796,844. (Cl. 51—7.)

1. In a device of the character described, a base, a pair of up-standing members, a fixed abrading roller, means for locking said fixed abrading roller in any desired position, an adjustable abrading roller arranged to co-act with the first mentioned abrading roller, said up-standing members being formed with slots for accommodating the supporting shaft of said adjustable abrading roller, a pair of set screws for said shaft for moving said adjustable abrading roller toward the first mentioned abrading roller, and means for locking said adjustable abrading roller against rotation.

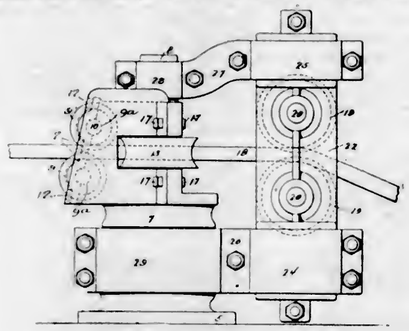


2. In a device of the character described, a housing formed with upstanding side members having alined notches, an abrading roller arranged on each side of said notches journaled in said upstanding members, graduations arranged on each of said rollers, an index mark arranged on one of said upstanding members and co-acting with the graduations on said abrading rollers, clamping members for preventing the rotation of said rollers and means for adjusting one of said rollers toward and from the other roller without interfering with the action of said graduations and said index mark.

3. In a device of the character described, a base, a pair of up-standing members connected to said base, an abrading roller journaled in said up-standing members, a pivotally mounted guide arranged adjacent said abrading member for holding a tool to be sharpened, a pivotally mounted arm connected to the outer end of said pivotally mounted guide, and a plurality of stops engaging the end of said arm opposite that connected with said guiding member, whereby said guiding member may be adjusted to different angles.

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1,092,714. CABLE-GUIDE. HARRY HOLMES, Noyo, Cal. Filed June 11, 1913. Serial No. 773,026. (Cl. 57—34.)

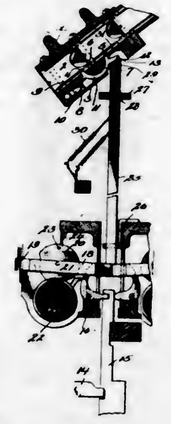


In a cable guide, an open frame having sides, each with a horizontally extending opening, a support at the bottom of the open frame and serving as a bearing, a stud projecting upward from the open frame, guide rollers disposed in the openings and having vertical studs, bearing members for pressing the vertical studs against bearing surfaces of the open frame, two rollers, one disposed above the other in the opening at the rear of the open frame, studs on the last mentioned rollers journaled to the frame, an arm pivoted to the support, an arm pivoted to the stud, a second open frame disposed between and pivoted to the arms and two guide rollers disposed in the second open frame, one over the other and journaled to the second open frame on horizontal axes.

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1,092,715. LINOTYPE-MACHINE. THOMAS S. HOMANS, Hempstead, N. Y., assignor to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed June 18, 1912. Serial No. 704,442. (Cl. 199—7.)

1. In a linotype machine, the combination of a magazine having a matrix controlling escapement, actuating mechanism thereof, and a reed operative by said actuating mechanism to engage and positively actuate the escapement to release a matrix and yieldable into an inoperative position relatively to the escapement to allow overmotion of the reed.



2. In a linotype machine, the combination of a magazine having a matrix controlling escapement, actuating mechanism therefor, a member operative by said mechanism and coöperative with the escapement, and means for holding said member in operative relation to the escapement until the latter has delivered a matrix and yieldable to permit said member to deflect laterally and assume an inoperative relation to the escapement and thereby allow overmotion of said member.

3. In a linotype machine, the combination of a magazine having a matrix controlling escapement, actuating mechanism thereof, and a longitudinally movable reed operative by said mechanism and having a beveled surface to engage and operate the escapement to deliver a matrix and yieldable into a deflected relation to the escapement to allow overmotion of the reed after the latter has operated the escapement.

4. In a linotype machine, the combination of a magazine having a matrix controlling escapement, actuating mechanism thereof, a reed reciprocable by said mechanism, the reed and escapement having coöperative surfaces beveled diagonally of the direction of movement of the reed, and means for retaining such surface in operative relation to actuate the escapement, and permitting a slipping action between such surfaces as the reed continues to operate after the escapement has delivered a matrix.

5. In a linotype machine, the combination of a magazine having a matrix controlling escapement, actuating mechanism therefor, a reed reciprocable by said mechanism, the reed and escapement having coöperative surfaces beveled diagonally of the direction of movement of the reed, and means for retaining such surface in operative relation to actuate the escapement, and causing defection of the reed after the latter has caused delivery of a matrix by said escapement.

[Claim 6 not printed in the Gazette.]

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1,092,716. STERILIZING-CASE. MARCUS C. HURD, Cassoday, Kans. Filed July 9, 1913. Serial No. 778,159. (Cl. 73—52.)

1. A device of the character described comprising a casing composed of detachable sections, a reservoir tube slidably fitted at one end in one of said sections and adapted to be inclosed at its projecting end by the other section, the latter-named end of the tube having a self-sealing closure, and a thermometer support fixed to the first-named casing section and slidably engaged by the inner end of the reservoir, whereby said thermometer is

adapted to be held immersed in a fluid contained within the reservoir and to be projected and retracted through the self-sealing closure by a relative sliding motion of the reservoir.

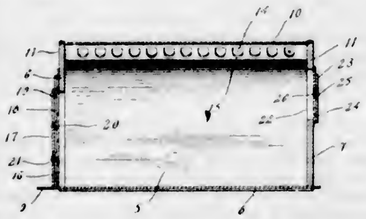


2. A device of the character described comprising a casing formed of a body section and a cap section, a reservoir tube adapted to contain a sterilizing solution, said tube being slidably fitted at one end in the body section and provided at its outer end with a flexible diaphragm having a normally closed slit therein, and a thermometer holder secured to the body section of the casing and projecting into the reservoir and in sliding engagement therewith, whereby the thermometer is adapted to be inserted through the slit and held by said holder and to be projected by a relative sliding motion between the body section of the casing and the reservoir.

3. A device of the character described comprising a casing body, a stem arranged within one end thereof and carrying a thermometer holder, a reservoir slidably fitted at one end into said body section and slidably engaging said stem, said reservoir being provided at its outer end with a closure comprising a diaphragm having a slit therein, and a cap section adapted to engage said body section and inclose the projecting end of the reservoir.

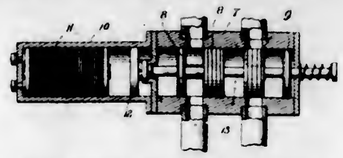
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1,092,717. CHICKEN-COOP. CHARLES S. JAMES, Jonesboro, Ind. Filed Sept. 23, 1912. Serial No. 721,955. (Cl. 119—19.)



A chicken coop comprising front and rear walls, a sheet metal plate bent to provide a top and sides and resting against the said walls, the outer faces of the walls lying flush with the end edges of the said plate, inturned flanges formed on the lower edges of the sides, a bottom slidably engaging and resting upon the flanges whereby the said bottom can be readily removed, the lowermost edges of the said front and rear walls being spaced from the flanges to permit the removal of the bottom, tongues cut in and out-struck from the sides to provide ventilating openings therein, bands disposed against the outer faces of the top and sides in alinement with the front and rear walls, and fasteners passed through the bands, side and top and engaged in the front and rear walls for uniting the same.

1,092,718. TRAIN-STOPPING APPARATUS. ARNOLD O. JOHNSON, Elnora, Ind. Filed Apr. 4, 1913. Serial No. 758,871. (Cl. 137—4.)

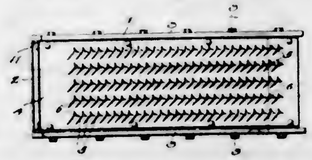


1. In train stopping apparatus, the combination with a locomotive steam main and fluid brake pipe, of a cylinder common to both of said pipes and in communication therewith, a valve slidably disposed within said cylinder and comprising a pair of disks one of which normally obstructs the flow of fluid through the brake pipe, while the other is adapted to act as a balancing disk, and a second pair of disks, the members of said second pair being normally disposed at opposite sides of the path of steam through the cylinder and acting to balance the valve, a stem interconnecting said disks for simultaneous movement, an armature on said stem, a cylindrical casing connected to said cylinder at one end thereof and surrounding said armature, a magnet in said casing and controlling said armature, an electric circuit including said magnet and designed when closed to energize the magnet whereby the disks will be moved out of normal position to shut off the flow of steam through the steam main and permit the flow of fluid through the brake pipe.

2. In train stopping apparatus, the combination with the locomotive steam main and fluid brake pipe, of a cylinder common to both of said pipes and in communication therewith, a valve slidably disposed within said cylinder and comprising a pair of disks one of which normally obstructs the flow of fluid through the brake pipe, while the other is adapted to act as a balancing disk, and a second pair of disks, the members of said second pair being normally disposed at opposite sides of the path of the steam through the cylinder and acting to balance the valve, and means for actuating said valve whereby the disks will be moved out of normal position to shut off the flow of steam through the steam main and permit the flow of fluid through the brake pipe.

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1,092,719. SEPARATOR. HENRY O. JOHNSON, Buda, Ill. Filed June 5, 1913. Serial No. 771,975. (Cl. 83—56.)



1. A separator flume having a false bottom provided with triangular openings each having a depressed lip at the base thereof, the free end of the lip terminating at the base of the triangle and extending toward the opening.

2. A separator flume having a false bottom provided with triangular openings and with diverging slits extending from two corners of said openings with the portion between said slits bent downward to form an inclined lip or chute to facilitate the passage of the material being treated over the false bottom, said lip preventing the material from lodging and filling said triangular openings.

3. A separator flume having a false bottom with a plurality of elongated openings therein, said openings tapering toward one end and each having diverging slits extending from two side walls thereof at the wider end thereof with the portions between said slits bent downward to form an inclined lip extending toward the tapered end of the opening.



1,092,720. MOWING ATTACHMENT FOR MOTOR-VEHICLES. OTTO KLUGE, Golconda, Ill. Filed Jan. 15, 1912. Serial No. 671,185. (Cl. 56—128.)

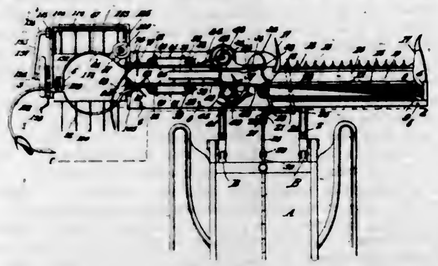


1. An attachment for the front of an automobile, including a frame, a finger bar extending across the front end of the frame and connected thereto, and a segmental platform having an upturned arcuate edge, said platform being pivotally mounted back of the center of the finger bar and adjustable angularly about its pivot and relative to the finger bar to discharge material from either side of the attachment.

2. An attachment for the front of an automobile, including a finger bar, a platform pivotally mounted back of the bar and adjustable angularly about its pivot and relative to the finger bar to bring either of two edges into position parallel with and back of the finger bar, said platform having a deflecting portion between said edges for directing material from the finger bar beyond either of two sides of the platform.

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1,092,721. HARVESTER. OTTO KLUGE, Golconda, Ill. Filed Mar. 28, 1912. Serial No. 686,918. (Cl. 56—122.)



1. An agricultural machine including harvesting mechanism, means for supporting grain in an upstanding position after being cut, bundle forming mechanism at one side of the harvesting mechanism, shock forming mechanism at one side of the bundle forming mechanism, a conveyer for carrying cut grain on end from the harvesting mechanism to the bundle forming mechanism, and a conveyer for carrying the bundles on end to the shock forming mechanism.

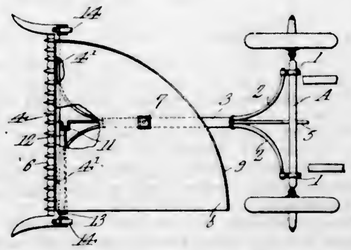
2. An agricultural machine including harvesting mechanism, means for supporting grain in an upstanding position after being cut, bundle forming mechanism at one side of the harvesting mechanism, shock forming mechanism at one side of the bundle forming mechanism, a conveyer for carrying cut grain on end from the harvesting mechanism to the bundle forming mechanism, and a conveyer for carrying the bundles on end to the shock forming mechanism, the grain being moved along substantially straight lines transversely of the path of the machine from the harvesting mechanism to the shock forming mechanism.

3. An agricultural machine including a wheel supported platform extending transversely of the path of movement thereof, harvesting mechanism at the front of the platform adjacent one side, mechanism upon the platform adjacent the center thereof for forming bundles on end, mechanism at the other side of the platform for forming shocks on end, a conveyer for carrying cut grain on end along the platform from the harvesting mechanism to the bundle forming mechanism, and a conveyer for carrying bundles on end along the platform from the bundle forming mechanism to the shock forming mechanism.

4. An agricultural machine including a wheel supported platform extending transversely of the path of movement thereof, harvesting mechanism at the front of the platform adjacent one side, mechanism upon the platform adjacent the center thereof for forming bundles on end, mechanism at the other side of the platform for forming shocks on end, a conveyer for carrying cut grain on end along the platform from the harvesting mechanism to the bundle forming mechanism, a conveyer for carrying bundles on end along the platform from the bundle forming mechanism to the shock forming mechanism, a drive shaft extending rearwardly from the platform, and separate means actuated thereby for actuating the harvesting, bundle forming and shock forming mechanisms and conveyers all in properly timed relation.

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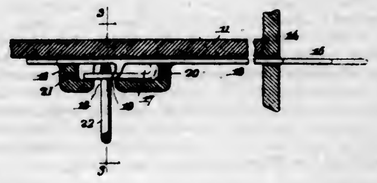
1,092,722. MOWING ATTACHMENT FOR MOTOR-VEHICLES. OTTO KLUGE, Golconda, Ill. Original application filed Jan. 15, 1912, Serial No. 671,185. Divided and this application filed Apr. 8, 1912. Serial No. 689,392. (Cl. 56—78.)



A mowing attachment for automobiles, including rearwardly diverging arms, clamps adapted to engage the front axle of an automobile and pivotally engaged by the respective arms, said arms being adapted to swing upwardly and downwardly relative to the clamps, a frame including forwardly diverging arms, said frame being mounted to rotate relative to the rearwardly diverging arms, said rearwardly diverging arms being swiveled in the frame, a finger bar extending transversely of the front end of the frame and pivotally connected to the forwardly diverging arms, a cutter bar mounted to reciprocate on the finger bar, a shaft extending longitudinally within the frame and between the forwardly and rearwardly diverging arms, said shaft having a crank, and a pitman connection between the crank and cutter bar.

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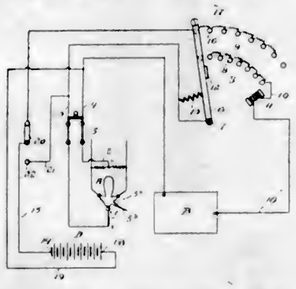
1,092,723. STOCK-RELEASING DEVICE. WILLIAM S. KNOX, Bridgeport, Ill. Filed Feb. 20, 1912. Serial No. 678,776. (Cl. 119—115.)



In a device of the class described, the combination with a plate for rigid connection with the side of a wall and provided with a longitudinal groove and a cut away portion forming a transverse opening in the plate, a releasing rod operable in the said groove, with the said groove constituting a passage for the rod when the plate is attached to the wall, and a locking bar formed integrally with the releasing rod and offset therefrom to extend parallel there-

to, the said locking bar lying wholly within the plate and having its free end spaced from the releasing rod to project through the said transverse opening in the plate for locking a ring thereto, the sliding movement of the releasing rod being limited by the engagement of either end of the locking bar with an inner face of the said plate.

1,092,724. MOTOR-STARTER FOR RECTIFIER SYSTEMS. MAX KUSHLAN, Boston, Mass. Filed Dec. 21, 1911. Serial No. 667,203. (Cl. 172—179.)



1. The combination of a mercury arc rectifier, consumption means in circuit with the direct current side thereof, and means for utilizing the current in excess of that required for the said consumption means in starting and when the circuit of said consumption means is open to maintain the direct current output of the rectifier approximately normal.

2. The combination of a rectifier, consumption means in circuit with the direct current side thereof, means for utilizing the current in excess of that required for the said consumption means in starting and when the circuit of said consumption means is open to maintain the direct current output of the rectifier approximately normal, and means for supplying current to the consumption means from the last-mentioned means when the rectifier is idle.

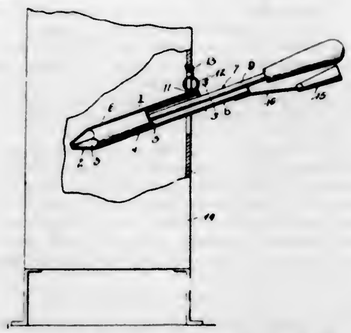
3. The combination of a rectifier, a consumption circuit connected to the direct current side of the rectifier, a storage battery connected with the direct current side, resistance means in circuit with the battery and in the consumption circuit, and means for cutting out the resistance of the consumption circuit in starting and cutting in the resistance of the battery circuit.

4. The combination of a rectifier, a consumption circuit connected to the direct current side of the rectifier, a storage battery connected with the direct current side, resistance means in circuit with the battery and in the consumption circuit, means for cutting out the resistance of the consumption circuit in starting and cutting in the resistance of the battery circuit, and means for utilizing current from the battery for supplying the consumption circuit when the rectifier is idle.

5. The combination of a rectifier, a consumption circuit connected to the direct current side of the rectifier, a storage battery connected with the direct current side, resistance means in circuit with the battery and in the consumption circuit, means for cutting out the resistance of the consumption circuit in starting and cutting in the resistance of the battery circuit, and a no-load responsive device in the consumption circuit for permitting the said circuit to automatically open and for permitting the resistance of the battery circuit to be cut out.

1,092,725. SOLDERING-IRON GUN. HUGO F. LEITNER, Nipomo, Cal. Filed Mar. 8, 1913. Serial No. 753,054. (Cl. 126—236.)

1. The combination with a heating device including a hollow body having a lateral opening therein, of a portable barrel of cylindrical construction adapted to be mounted within the said opening, the inner end of said barrel being closed and its outer end portion having the upper half thereof cut away longitudinally to provide a semi-cylindrical hearth, the said hearth being transversely concavo-convex, the said barrel being adapted for the reception of a soldering iron with its handle projecting outwardly from the hearth, a handle connected with the outer end of the hearth and being disposed in prolongation thereof so as to be substantially coextensive with the soldering iron handle, the barrel being constructed of heat conducting material, and a lining of non-heat-conducting material for the hearth.



2. The combination with a heating device including a hollow body having a lateral opening therein, of a portable barrel of cylindrical construction adapted to be mounted within the said opening, the inner end of said barrel being closed and its outer end portion having the upper half thereof cut away longitudinally to provide a semi-cylindrical hearth, the said hearth being transversely concavo-convex, the said barrel being adapted for the reception of a soldering iron with its handle projecting outwardly from the hearth, a handle connected with the outer end of the hearth and being disposed in prolongation thereof so as to be substantially coextensive with the soldering iron handle, the body of the heating device being provided with a supporting hook depending into the lateral opening therein, the said hook being arranged with its bill projecting transversely within the opening, and a ring provided upon the open end of the barrel at the upper edge thereof for engagement with the supporting hook, the said ring being arranged so that its opening extends laterally with respect to the longitudinal axis of the barrel.

1,092,726. GARMENT-FORM. CARL RUDOLF LENDLE, Chicago, Ill. Filed June 28, 1913. Serial No. 776,344. (Cl. 223—17.)



1. In an apparatus of the class described, a hollow garment form, a water boiler within the form, a trough formed exteriorly of the form above the water boiler, a steam pipe held within the trough and having connection with the upper portion of the water boiler for conveying steam therefrom through the said pipe.

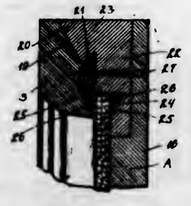
2. The combination with a hollow garment form, of a cylindrical drum fitted in the upper portion thereof and having an open end and also having a perforated opposite end, a slide for controlling the perforation in the said drum and having a handle projected exteriorly of the body, and heating means arranged within the form below the drum.

3. The combination with a garment form, of steam discharging means arranged interiorly thereof at its lower end, a drum having perforated and open ends mounted within the form to extend upwardly from the waist line thereof, and means for closing the perforated end of the drum to exclude steam from the form above the waist line thereof.

4. The combination with a garment form, of steam discharging means arranged interiorly thereof at its lower end, a drum having perforated and open ends mounted within the form to extend upwardly from the waist line thereof, means for closing the perforated end of the drum to exclude steam from the form above the waist line thereof, and means exteriorly of the form for discharging steam upwardly from the lower portion thereof.



1,092,727. FRAME CONSTRUCTION. WILLIAM CURTIS LINDER, Antonia, La. Filed Sept. 6, 1912. Serial No. 718,976. (Cl. 20—56.2.)



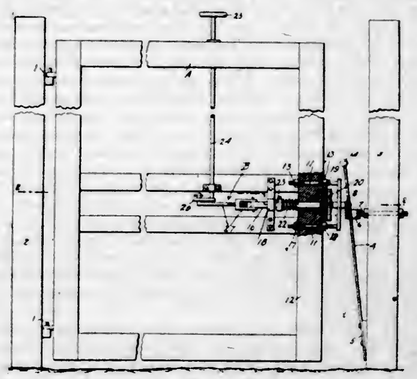
In a window sash in which the stiles are provided with pane grooves, an end rail having one face flush with the side walls of the said pane grooves and provided with a V-shaped groove in the outer side thereof, and a securing strip forming a closure for the said pane grooves and provided with an overhanging lip disposed within said V-shaped groove.

1,092,728. GATE-LATCH. DAVID LOUDENSLAGER, Rising City, Nebr. Filed July 24, 1913. Serial No. 780,926. (Cl. 70—28.)

1. In a gate latch, the combination of a gate and posts coöperating therewith, with a catch bar on the gate, a spring latch mounted on the posts, an adjustable eye mounted on the posts and through which the latch extends, and a strike keeper mounted on the latch and having strike members inclined toward each other and disposed in the path of the catch as the gate swings closed and coöperating to form a recess for receiving the catch when the gate is in closed position.

2. The combination of a gate, a catch outstanding therefrom, a latch releasing device carried by the gate and disposed between the side thereof and the catch and having portions that are projectable beyond the catch, a post, and a spring latch mounted on the post and having a strike device in a position to engage the catch and releasable from the catch by engagement of the projecting portions of the said releasing device with the latch, said latch having a portion projecting beyond the strike device to form a handle for releasing the latch independently of the said releasing device.

3. The combination of a gate, a catch mounted on the free end of the gate and outstanding therefrom, a laterally movable member having a recess to accommodate said catch, yielding means for holding the member retracted, a spring catch having a keeper provided with inclined strike members with which the portions of the said member at opposite sides of the recess are adapted to engage



for releasing the strike members from the catch, and means connected with the laterally-movable member and mounted on the gate for actuating such member against the tension of the spring.

1,092,729. GOLF-CLUB HOLDER. STANLEY LOW and CHARLES HARRY KIRBY, London, England. Filed Jan. 27, 1913. Serial No. 744,490. (Cl. 224—45.)



1. A golf bag comprising in combination an inclosing case having a body wall, a club holder consisting of a bottom plate, a top plate having a plurality of apertures, a plurality of open-ended flexible club-receptacles connecting the top and bottom plates, said receptacles arranged each with an end in register with an aperture in the top plate, and means for securing the holder in position within the inclosing case.

2. A golf bag comprising in combination, an open-mouthed inclosing case consisting of a body wall and a bottom wall, a club holding device consisting of a top plate having a plurality of apertures, a plurality of open ended club receptacles of flexible material connected with the top plate and arranged each with an end in register with an aperture in the top plate, means for securing the top plate to the body wall and means for detachably securing a receptacle end to the bottom wall of the case.

3. A golf bag comprising in combination, an inclosing case consisting of a body wall and an end wall, a removable club holder consisting of a bottom plate adapted to bear on said end wall, a top plate having a plurality of apertures, a plurality of open-ended tubular club-receptacles of flexible material connecting the top and bottom plates, said receptacles arranged each with an end in

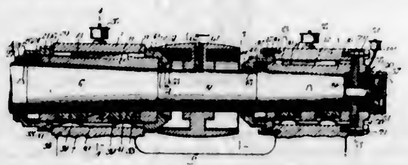
register with an aperture in the top plate, and means for detachably securing the holder in position within the inclosing case.

4. A golf club bag comprising in combination, an apertured side wall constituting an inclosing case, a partition wall secured within the case to the said side wall and forming compartments in the case, one compartment communicating with one end of the case and another communicating with an aperture in the side wall, a closing device for said aperture carried by the wall, a pocket member attached to the inner surface of said side wall and having a mouth communicating with a second aperture therein and means carried by the said side wall adapted to close said second aperture, a club holder disposed within one of said compartments and comprising a top plate, a bottom plate, a plurality of open-mouthed club-receptacles having their lower ends attached to the bottom plate and their mouths communicating each with an aperture in the top plate, the axes of the receptacles being arranged at an inclination to the said top plate and in a manner to converge toward one another in a downward direction and means for detachably connecting said holder to the inclosing case.

5. A golf club bag comprising in combination, an apertured side wall and an end plate constituting an open-mouthed inclosing case, a partition wall secured within the case to the said side wall and an end plate forming compartments in the case, one compartment communicating with one end of the case and another communicating with an aperture in the side wall, a closing device for said aperture carried by the wall, a pocket member attached to said side wall and having a mouth communicating with a second aperture therein and means carried by the said side wall adapted to close said second aperture, a removable club holder disposed within one of said compartments and comprising a top plate, a bottom plate, a plurality of open-mouthed club-receptacles having their lower ends attached to the bottom plate and their mouths communicating each with an aperture in the top plate, the axes of the receptacles being arranged at an inclination to the said top plate and in a manner to converge toward one another in a downward direction, and means for securing said holder to the inclosing case.

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1,092,730. BEARING. CARL GUSTAF LUNDGREN, Chicago, Ill. Filed July 29, 1911. Serial No. 641,204. (Cl. 64—24.)



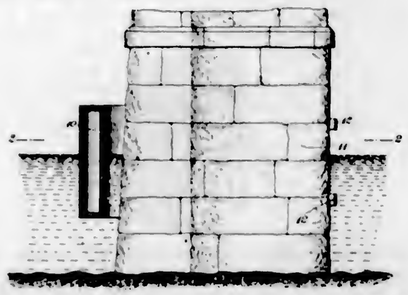
1. A head having a frame with an opening therethrough, a bearing member having outer threads at a terminal and disposed in the opening, a spindle having a shoulder at one end with a projecting terminal, the tapering spindle being journaled in the bearing member, a screw member meshing with the outer threads on the bearing member and abutting against the frame, a thrust plate having an opening in which the terminal of the spindle is disposed, means abutting against the shoulder of the spindle and engaging the thrust plate at one side, a member secured to the spindle, means engaging the last-mentioned member at the other side of the thrust plate, means securing the thrust plate to the head, and a cap disposed around the terminal of the spindle beyond the thrust plate, and means for securing the cap relatively to the frame.

2. A frame having a longitudinal opening therethrough, and a longitudinal groove connected with the opening, a tapering bearing member having outer threads at its terminals, and disposed in the opening, there being openings in the bearing member extending from the groove through the inner surface of the bearing member, additional members having inner threads meshing with the outer threads on the terminals of the bearing member, the additional members abutting against the frame and inclosing the ends of the longitudinal groove, lubricant retainers disposed in the openings, and resilient means slidable longitudinally in the groove for holding the lubricant retainers in position.

3. A frame having an opening therethrough, a tapering bearing member disposed in the opening and having a threaded terminal, a tapering spindle disposed in the bearing member having a shoulder at one end with a projecting terminal, a screw member meshing with the thread on the bearing member, and abutting against the frame, a clamping ring disposed against the outer side of the screw member for pressing the screw member in the direction of the frame, means for holding the clamping ring in position, a thrust plate having an opening in which the terminal of the spindle is disposed, means for abutting against the shoulder of the spindle, and engaging the thrust plate at one side, a member secured to the terminal of the spindle, means engaging the last-mentioned member at the other side of the thrust plate, and means for securing the thrust plate relatively to the frame.

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1,092,731. PIER-PROTECTOR. SAMUEL C. MAY, Modesto, Cal. Filed Sept. 5, 1913. Serial No. 788,241. (Cl. 14—76.)



1. In a pier protector, the combination of a floating guard, cushioning devices connected to the inner vertical wall thereof adapted to bear against the pier, and means applied to the rear end of the guard to prevent separation thereof from the pier.

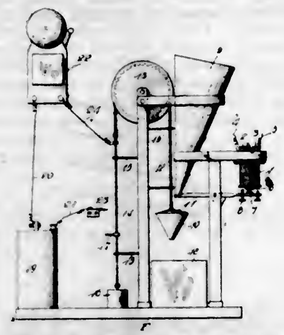
2. In a pier protector, the combination of a hollow buoyant guard adapted to conform to the upstream and lateral portions of the pier, a plurality of cushioning springs connected at one end to the guard, a shoe for the other end of each spring adapted to glide along the face of the pier, and a strap extending across from one corner of the rear end of the guard to the other and adapted to closely embrace the rear face of the pier, substantially as set forth.

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1,092,732. SIGNAL DEVICE. JOHN HENRY MCCARTHY, Stafford Springs, Conn. Filed Jan. 20, 1913. Serial No. 743,174. (Cl. 177—318.)

1. An electric signal comprising a supporting structure, an upright substantially funnel shaped receptacle mounted thereon and open at one end, said receptacle having one perpendicular side and one flared, a magnet mounted in said structure, an armature for said magnet fulcrumed on said structure and having one end extending adjacent said magnet and the other end under said receptacle, the end extending under said receptacle normally closing the open end of said receptacle, a movable funnel shaped receptacle positioned below said first mentioned receptacle and having an opening therein, a bail extending across the wide upper end thereof, a flexible element connected with said bail mid-way its ends and extending parallel with the perpendicular side of said first mentioned receptacle, a pulley over which said flexible element passes, means connected with the other end of said flexible element for normally overcoming the weight of the receptacle attached thereto, an alarm circuit, a circuit closing contact carried by said flexible element and a coöperating contact projecting into the path of said movable contact and an actuating medium in said first mentioned receptacle adapted to be discharged therefrom into said movable receptacle on the energizing of said magnet whereby said movable contact is brought into engagement with the contact in its path for closing the circuit and sounding the alarm.

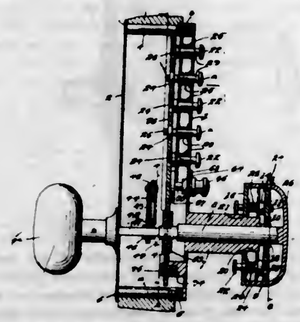




2. An electric signal comprising a supporting structure, a funnel shaped member mounted thereon, a magnet mounted in said structure, an armature for said magnet fulcrumed on said structure and having one end extending under said magnet and the other end under said funnel, the end extending under said funnel normally closing the smaller end thereof, an inverted cone shaped receptacle positioned below said funnel and having an opening in its apex, a flexible element connected with said cone shaped member and mounted on said supporting structure, and means connected with the other end of said flexible element for normally overcoming the weight of said cone shaped receptacle, an alarm circuit, a circuit closing device carried by said flexible element, and an actuating medium in said funnel adapted to be discharged therefrom into said cone shaped receptacle on the energizing of said magnet.

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1,092,733. COMBINATION-LOCK. FLORENS MCCARTHY, Brooklyn, N. Y. Filed Oct. 20, 1913. Serial No. 796,332. (Cl. 70—54.)



1. In a combination lock, a lock casing, an outer knob, an inner knob, spindles connected to said knobs and extending into the casing, a sliding lock bolt connected to one of said spindle members and constantly operable by movement of the inner knob, means within the lock casing for rendering the bolt inoperative from the operation of the outer knob, and means within the outer knob for coöperation with the means in the casing for rendering the sliding bolt operable and inoperable.

2. A lock comprising a casing, an outer knob, an inner knob, spindles projecting from said knobs into said casing, means for connecting said spindles within the casing, a sliding bolt connected to one of said spindles and constantly operable by turning the inner knob, a lock plate suitably mounted within the casing, said lock plate being provided with a series of curved slots, spring push buttons having shanks adapted to engage said slots, master buttons mounted in the casing for engagement with said slots, the outer knob being provided with means for coöperation with the buttons within the lock casing to control the movement of the sliding bolt.

3. A lock comprising a casing, a sliding lock bolt mounted in the casing, means for operating the sliding bolt from the inside of the lock, means within the lock for rendering the bolt operative and inoperative, an outer knob provided with means for coöperating with the controlling means in the casing, an adjusting disk provided with a notch, a shank connected to said disk, a knob for rotating said shank, a stop pin within the casing, to coact with said notch, a pointer carried by the knob, and a dial on the casing for indicating the position of the disk and notch to permit an authorized person to set the lock to render it inoperative or operative.

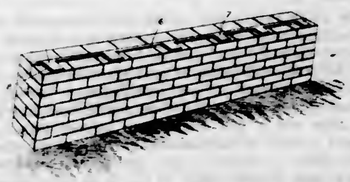
4. In a combination lock, a casing, an inner knob, and an outer knob connected by spindle sections with the lock casing, a lock bolt operatively connected with the spindle of the inner knob, a lock plate within the lock casing, said lock plate being provided with a series of curved keyhole slots and with a series of curved open slots, spring actuated push buttons mounted in the casing, and provided with collars adapted to engage the larger portions of the keyhole slots, master buttons provided with collars which normally engage the larger portion of said slots, an outer knob, and means within said outer knob for rendering the mechanism within the casing operable or inoperable.

5. In a lock, the combination of a casing, an inner knob, an outer knob, spindles connected to said knobs and extending into the casing, a sliding lock bolt connected to one of said spindles and operative by the inner knob, a lock plate pivoted in the casing and provided with a series of keyhole slots, a series of spring controlled push-buttons mounted in said casing and adapted to engage the walls of the slots in said lock plate, a master button mounted in said locked casing and provided with a collar which normally engages the enlarged portion of a keyhole slot, an outer knob, and means within said knob for controlling the locking and unlocking mechanism within the lock casing.

[Claim 6 not printed in the Gazette.]

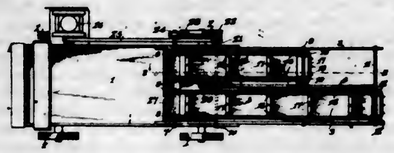
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1,092,734. COMBINATION REINFORCING-ROD AND WALL-PLUG. JAMES MCLOUGHLIN, Glen Cove, N. Y. Filed May 6, 1913. Serial No. 765,746. (Cl. 72—105.)



In a device of the class described, a rod having a plurality of facing flanges at one side thereof, each pair of said facing flanges being at a predetermined distance from another pair of the same, each of said pair of facing flanges converging toward each other and from the said rod; and a wedge-shaped wooden block between each of said pair of facing flanges and in engagement with the same.

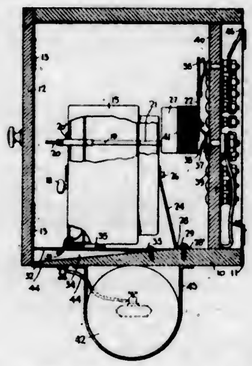
1,092,735. GRAIN HEADER AND CONVEYER. ANNA J. MEEKS, Jennings, La., assignor of one-half to John William Meeks, Jennings, La. Filed Mar. 21, 1913. Serial No. 756,904. (Cl. 146—11.)



1. An apparatus for the purpose described, comprising two elevating conveyers, one of greater linear extent than the other and having their lower or receiving ends in the same plane, means for actuating said conveyers synchronously, a rotatable cutter located intermediately of the conveyers adjacent to the receiving ends thereof, and a wall or partition separating the conveyers and extending from the cutter to the discharge end of the longer conveyer.

2. An apparatus for the purpose described, comprising a pair of adjacent elevating conveyers of different lengths with an intermediately arranged cutter at the lower or receiving ends of the conveyers, and said conveyers having the upper or discharge end of one stopping short of the upper or discharge end of the other by a distance substantially that of the difference in lengths of the conveyers, and means for preventing material on one conveyer from reaching the other between the severing means and the discharge end of the longer conveyer.

1,092,736. AUTOMATIC TIME CONTACT-SWITCH. HENRY B. MEIER, Port Chester, N. Y. Filed Feb. 10, 1913. Serial No. 747,347 (Cl. 161—27.)



1. The combination of a casing having a series of electrical contacts, time mechanism carrying a movable blade adapted to connect certain of said contacts, and means to secure the time mechanism in position with respect to the casing, said securing means comprising a spring brace connected at one end to the time mechanism and having at its other end a foot adapted to project into engagement with a stud at one side of the time mechanism and a spring plate connected to the bottom of the casing cooperating with another part of the time mechanism, the last mentioned coöperation being made effective through the spring action of said brace.

2. The combination with a support and a series of electrical contacts secured thereto, of time mechanism upon said support, a movable switch blade carried by the time mechanism, and means to secure the time mechanism in position, maintaining said switch blade in constant contact with certain of said contacts, said securing means including a pair of spring members coöperating between the support and the front and the rear portions respectively of said time mechanism.

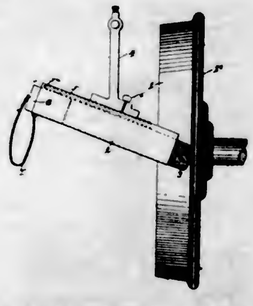
3. The combination of a support having a depression, a clock upon the support, and means to secure the clock firmly in position, said securing means including a spring brace secured to one portion of the clock, a tongue extending from another portion of the clock and a spring plate operating in said support depression and having a hole to receive and interlock with said tongue.

1,092,737. TAILOR'S MEASURING APPARATUS. MAY MENNIS and WILLIAM A. MEAD, Denver, Colo. Filed Aug. 16, 1912. Serial No. 715,475. (Cl. 33—8.)



A measuring apparatus comprising a hollow standard, a graduated upright mounted within the standard and provided with tracks at the opposite sides thereof, cleats engaging with the tracks and slidable thereon, cross bars secured to said cleats and adapted to engage the track ways to bind the cleats to the track ways and prevent accidental movement thereof, and arms secured to said cross bars and projecting at right angles thereto and adapted to embrace the person being measured.

1,092,738. WHEEL-FLANGE LUBRICATOR. JAMES H. MINNS, Lumberton, Miss. Filed Oct. 18, 1912. Serial No. 726,405. (Cl. 184—8.)



1. A wheel flange lubricator comprising an inclined hollow container for supporting a lubricant stick movable by gravity in proximity to a wheel flange and means bearing against the side of said stick with a variable resistance, for compensating for the loss of weight in the stick as the same wears away.

2. A wheel flange lubricator comprising an inclined hollow container for supporting a freely movable lubricant stick in proximity to a wheel flange, a follower weight for pressing on said stick and spring means having a slightly inclined surface for bearing against said stick.

3. A wheel flange lubricator comprising an inclined hollow container for supporting a freely movable lubricant stick in proximity to a wheel flange, a follower weight for pressing on said stick and a leaf spring secured in the container having a free lower end.

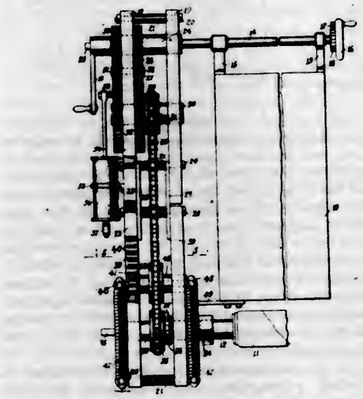
4. A wheel flange lubricator comprising an inclined hollow container for supporting a freely movable lubricant stick in proximity to a wheel flange, a follower weight for pressing on said stick, a leaf spring secured in the container having a free lower end for pressing against the side of the stick, and means for adjusting said spring.

5. A wheel flange lubricator comprising an inclined hollow container for supporting a freely movable lubricant stick in proximity to a wheel flange, a follower weight adapted to bear against said stick, and a leaf spring within the container and in frictional contact with the said weight and having a free end in the lower part of the container and adapted to offer less resistance to the movement of the weight.

[Claims 6 and 7 not printed in the Gazette.]



1,092,739. AUTOMOBILE-STARTER. HARRY HINCKLEY MOSELEY, Atlantic, Mass. Filed June 14, 1913. Serial No. 773,665. (Cl. 123—185.)



1. An automobile starter, comprising the combination with the crank shaft of a motor and a hood; of a frame supported in front of the hood, a shaft journaled on the hood and extending rearwardly thereof, a crank wheel mounted on the rear end of the shaft for rotating the same in one direction, a pair of shafts journaled in the frame, one of said shafts being geared to the first-named shaft, a sprocket wheel fixed to said geared shaft, a sprocket wheel loose upon the other shaft, a chain engaged around said sprocket wheels, a pawl carried by said loose sprocket wheel, a ratchet wheel fixed to said shaft carrying the loose sprocket wheel and engaged by said pawl, whereby rotation may be imparted to the last-named shaft in one direction, coupling means for the crank shaft and the last-named shaft, and means operable upon the release of said shaft on the hood to impart opposite rotation to the shaft carrying the loose sprocket wheel for rotating the crank shaft.

2. An automobile starter, comprising the combination with the crank shaft of a motor and a hood; of a frame supported in front of the hood, a shaft journaled on the hood and extending rearwardly thereof, a crank wheel mounted on the rear end of the shaft for rotating the same in one direction, a pair of shafts journaled in the frame, one of said shafts being geared to the first-named shaft, a sprocket wheel fixed to said geared shaft, a sprocket wheel loose upon the other shaft, a chain engaged around said sprocket wheels, a pawl carried by said loose sprocket wheel, a ratchet wheel fixed to said shaft carrying the loose sprocket wheel and engaged by said pawl, whereby rotation may be imparted to the last-named shaft in one direction, coupling means for the crank shaft and the last-named shaft, means operable upon the release of the hood shaft after rotation of certain of said parts in one direction to impart opposite rotation to the shaft coupled to the crank shaft for rotating the crank shaft, said first and third-named shafts having squared extensions designed to support a turning crank, and means for adjusting the length of the frame.

4. An automatic starter, comprising the combination with the crank shaft of a motor and a hood; of a frame supported in front of the hood, a shaft journaled on the hood and extending rearwardly thereof, a crank wheel mounted on the rear end of the shaft for rotating the same in one direction, a pair of shafts journaled in the frame, one of said shafts being geared to the first-named shaft, a sprocket wheel fixed to said geared shaft, a sprocket wheel loose on the other shaft, a chain engaged around said sprocket wheels, a pawl carried by said loose sprocket wheel, a ratchet wheel fixed to said shaft carrying the loose sprocket wheel and engaged by said pawl, whereby rotation may be imparted to the last-named shaft in one direction, coupling means for the crank shaft and the last-named shaft and means operable upon the release of strain on the crank wheel tending to rotate the hood shaft, to impart rotation to the crank shaft.

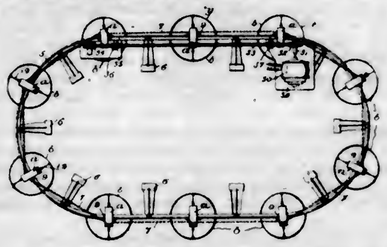
5. The combination with a crank shaft of a motor, an operating shaft and means for imparting rotation thereto in one direction; of a shiftable shaft, drive connections between the operating shaft, crank shaft and shiftable shaft, designed to permit the crank shaft to remain stationary when said third-named shaft is shifted, and springs anchored each at one end and connected to the shiftable shaft to move the same in the opposite direction for imparting rotation to the crank shaft upon release of the operating shaft.

[Claim 6 not printed in the Gazette.]

1,092,740. AMUSEMENT-RAILWAY. HENRY J. MULLER, Brooklyn, N. Y. Filed June 25, 1913. Serial No. 775,790. (Cl. 104—111.)

1. A track, a wheeled truck mounted thereon, means for moving the truck along the track, a car carried by the truck and means operatively connected with the truck wheel and car to simultaneously rotate and vertically reciprocate the car as the truck moves along the track.

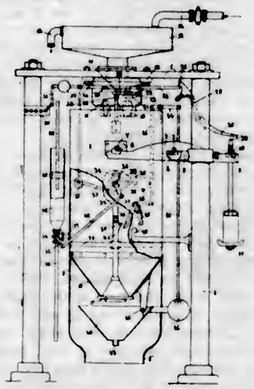
2. A track, a wheeled truck mounted thereon, means for moving the truck along the track, a shaft slidably mounted on the truck, a car attached to the shaft, means for rotating the shaft from the truck wheel, a cam member mounted upon the truck and surrounding the shaft and rolls carried by the shaft and arranged to travel over the cam member as the shaft rotates.



3. An endless track, a series of wheeled trucks mounted thereon, cars carried by the trucks, flexible elements connecting the trucks together, a chain mounted for movement adjacent the track, means for moving the chain and teeth carried by the trucks and engageable with the chain.

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1,092,741. WEIGHING OR MEASURING APPARATUS. CARL NAGEL, Gliesmarode, Brunswick, Germany. Filed July 16, 1913. Serial No. 779,353. (Cl. 73—21.)



1. In an apparatus for measuring liquids, the combination with a receptacle adapted to receive the liquid, a valve to discharge the liquid from said receptacle and means for opening said valve, of a tubular measuring member communicating with said receptacle, and automatic means controlled by the valve opening means to disconnect the measuring member from the receptacle and to open the same.

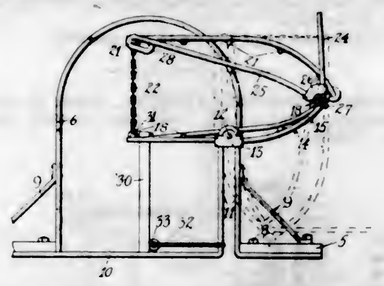
2. In an apparatus for measuring liquids, the combination with a receptacle adapted to receive the liquid, a valve to discharge the liquid from said receptacle and means for opening said valve, of measuring means providing a measuring chamber communicating with said receptacle, the upper portion of said chamber being reduced as compared to the main portion, and automatic means controlled by the valve opening means to disconnect the measuring chamber from the receptacle and to open the same.

3. In an apparatus for measuring liquids, the combination with a receptacle adapted to receive the liquid, a valve to discharge the liquid from said receptacle and means for opening said valve, of a tubular measuring member communicating with said receptacle, adjustable means within said member for varying the capacity thereof, and automatic means controlled by the valve opening means to disconnect the measuring member from the receptacle and to open the same.

4. In an apparatus for measuring liquids, the combination with a receptacle adapted to receive the liquid, a valve to discharge the liquid from said receptacle and means for opening said valve, of measuring means providing a measuring chamber communicating with said receptacle, the upper portion of said chamber being reduced as compared to the main portion, means within said chamber for varying the capacity thereof, and automatic means controlled by the valve opening means to disconnect the measuring member from the receptacle and to open the same.

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1,092,742. ANIMAL-HOLDING MACHINE. SUMNER S. PALMER, Oakland, Iowa. Filed Apr. 24, 1913. Serial No. 763,410. (Cl. 119—108.)



1. In a machine of the character described, a supporting structure, a horizontal shaft journaled thereto, a rigid frame section fixed centrally of its upper and lower edges to said shaft, a second frame section hingedly connected at its upper edge to the upper edge of the first mentioned frame section, a neck engaging rod secured at one end to the lower edge of the second mentioned section and at its upper end to the side of the first mentioned section adjacent its upper edge, and a lever extending angularly from the upper extremity of the neck engaging rod, the two frame sections forming an animal retaining means which may be swung through an arc of 180°, the shaft acting as a pivot.

2. A machine of the character described, comprising a stationary frame, a rotatable shaft supported by said frame, an animal holding frame comprising a pair of sections, said sections being secured to each other at their upper edges only, one of the second mentioned frame sections being rigidly secured intermediate its upper and lower edges to the rotatable shaft, means for forcing the sections of the animal holding frame toward one another, said means also facilitating the swinging of the animal holding frame into various positions, and means for locking the sections of the animal holding frame in fixed relationship to one another.

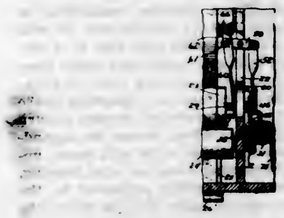
3. A machine of the character described, comprising a stationary frame, a horizontal shaft journaled therein, a swinging frame comprising a pair of sections hingedly secured to each other at their upper edges, one of said sections being rigidly secured between its upper and lower edges to the rotatable shaft, a neck engaging rod connected to the other section adjacent its lower edge and to the first mentioned section adjacent its upper edge, a lever continuing from the upper extremity of the neck engaging rod and forming an acute angle therewith, means for holding the two sections in a fixed relationship, and means for supporting the swinging frame in such a position as to hold an animal upon its side.

4. A machine of the character described, comprising a supporting structure, a shaft journaled thereon, a swinging animal holding frame rigid with said shaft, a platform secured pivotally to the swinging frame, said platform serving to support the swinging frame when the latter is swung so as to support an animal upon its side and means carried adjacent the free edge of the platform for connection to said supporting structure whereby the platform may be locked in a vertical position.

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1,092,743. SANITARY TOWEL AND SOAP SERVICE. CHARLES H. PARVIN, Collingswood, N. J., and MAHLON L. SNYDER, Wyncote, Pa. Filed Apr. 9, 1913. Serial No. 759,948. (Cl. 45—32.)



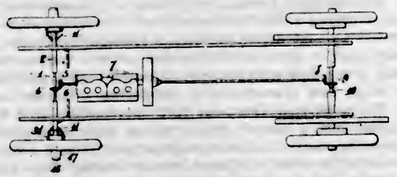
1. The combination of a roller and means to control the rotation of said roller, said controlling means including a threaded gudgeon on one end of the roller, a bar straddling said gudgeon at one end, a stop carried by the end of the roller and adapted to engage said bar, and means to lift the bar out of engagement with said thread and move the same longitudinally of and out of contact with said threaded gudgeon.

2. The combination of a roller and means for controlling the rotation of the roller, said controlling means including a threaded gudgeon for one end of the roller, a bar in normal engagement with said thread, a stop on the adjacent end of the roller normally engaging said bar, and devices coöperating with said gudgeon serving to lift and move said bar out of engagement with said stop and to return it into engagement with the gudgeon spaced from said stop, and means to positively rotate the roller and gudgeon causing the bar to return into position to be struck by said stop.

3. The combination of a roller and means to control the rotation of said roller, said controlling means including a member movable toward and from the end of the roller, a stop carried by said end of the roller adapted in one position to strike said member, means associated with the roller to cause movement of said member in one direction, an actuator serving to cause movement of the member in the other direction, and an adjustable device serving to vary the extent of movement of said device and number of rotations of said roller, substantially as set forth.

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1,092,744. STEERING AND DRIVING MECHANISM FOR MOTOR-VEHICLES. EDWARD S. ROBINSON, Oroville, Cal., assignor to Golden West Motors Company, Sacramento, Cal., a Corporation of California. Filed July 19, 1912. Serial No. 710,467. (Cl. 21—90.)

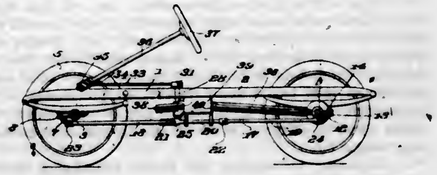


1. In combination, an axle, a spindle arranged in alinement with said axle, a spherical member carried by said axle, said spindle projecting into said spherical member, means whereby said spindle may rotate in unison with said axle, a polysided part formed upon the free end of said spindle, a sleeve surounding said spindle and terminating short of the polysided part, a cup-shaped extension formed upon said sleeve and arranged to swivel upon said spherical member, a hub surrounding the said sleeve, spoke receiving members formed exteriorly around said hub, a hub casing, a ring in said hub casing fitting said polysided part of said spindle, means for expanding said ring to frictionally bind against said polysided part and said hub casing, whereby the latter may be rotated with said spindle, and anti-frictional balls interposed between said sleeve and said hub.

2. In combination, a spindle, a polysided part formed upon said spindle, a sleeve surrounding said spindle, means engaging one end of said spindle to rotate it, a hub loosely mounted upon said sleeve, spoke receiving sockets being formed upon said hub, a terminal flange formed upon said hub in one plane with said sockets, a swiveling part formed terminally upon said sleeve and bearing loosely upon said flange, a hub casing, a flange upon said casing coöperating with said other flange to form a side bearing for spokes, said sleeve being screw-threaded at its free end, an annular member engaging said screw threaded end of said sleeve and holding said hub against endwise displacement, a ring contacting said hub in said hub casing, said ring fitting the polysided part of said spindle, means for causing said ring to bind against said polysided part and hub casing, and a cap removably closing the end of said hub casing.

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1,092,745. STEERING-GEAR FOR AUTOMOBILES. EDWARD S. ROBINSON, Oroville, Cal., assignor to Golden West Motors Company, Sacramento, Cal., a Corporation of California. Filed May 24, 1913. Serial No. 769,660. (Cl. 21—193.)

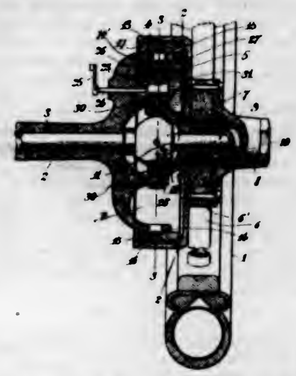


1. In four wheel steering mechanism, steering knuckles at the extremities of both the front and rear axles, a knuckle arm on each knuckle, front and rear equalizing rods respectively connecting the front knuckle arms and the rear knuckle arms, a yoke rod extending diagonally of the machine frame connecting a right hand knuckle arm of one axle and a left hand knuckle arm of the other axle, a two armed lever one arm of which has a jointed connection with said yoke rod, a rod attached to the other arm of said lever and provided with a toothed face, a steering shaft, a gear wheel on said shaft meshing with said toothed face, and a hand control steering wheel on said shaft.

2. In a device of the class described, the combination with a frame, front and rear propulsion axles attached to the frame and provided with movable steering spindles, and wheels mounted upon said spindles, of forwardly projecting arms carried by the spindles of the front axle, a transversely movable connecting rod having its ends pivotally connected to the said arms, rearwardly projecting arms provided on the spindles of the rear axle, a connecting rod having its ends pivotally connected to the last named arms, a diagonally extending yoke rod connecting the right hand knuckle arm of one axle and the left hand knuckle arm of the other axle and passing through a medial portion of the frame, said yoke rod including end sections the outer ends of which are pivotally connected with the last named knuckle and an intermediate section arranged in alinement with the end sections of the steering rod and having one end pivoted to the inner end of the adjacent end rod by means of a horizontal pivot and its other end pivoted to the opposite end rod by means of a vertical pivot, a horizontally movable operating lever piv-

oted to the frame and having one of its arms connected with the end of the intermediate steering rod section by means of a vertical pivot, and means by which the said lever may be operated.

1,092,746. BRAKE. EDWARD S. ROBINSON, Oroville, Cal., assignor to Golden West Motors Company, Sacramento, Cal., a Corporation of California. Filed June 3, 1913. Serial No. 771,488. (Cl. 21—8.)



1. In brake mechanism for motor vehicles, a driving axle, an axle housing, a wheel driving spindle, a universal joint between said axle and spindle, a driving and steering wheel on said spindle, a brake drum fast on said wheel, upper and lower brake band supporting arms on said axle housing in spaced relation to each other and formed with pintle holes extending in a common diametrical line, an internal expanding brake band supported by said arms, pintles on said brake band slidable in said holes in the supporting arms and upon which pintles as a center the brake band is adapted to turn, and means for operating said brake band.

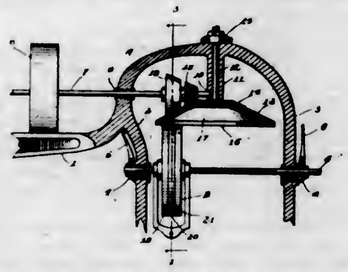
2. In brake mechanism for motor vehicles, a driving axle, an axle housing, a wheel driving spindle, a universal joint between said axle and spindle, a driving and steering wheel on said spindle, a brake drum fast on said wheel, upper and lower brake band supporting arms on said axle housing in spaced relation to each other and formed with pintle holes extending in a common diametrical line, an internal expanding brake band supported by said arms, pintles on said brake band slidable in said holes in the supporting arms and upon which pintles as a center the braking band is adapted to turn, and means for operating said brake band, said brake band embodying a plurality of sections one of which has a wedging action directly against the adjoining section.

3. In braking mechanism for motor vehicles, an axle housing, a wheel driving spindle, a universal joint between said axle and spindle, a driving and steering wheel on said spindle, a brake drum fast on said wheel, upper and lower brake band supporting arms on said axle housing in spaced relation to each other, an internal expanding brake band supported by said arms, pintles connecting said brake band and arms at diametrically opposite points, permitting the band to turn on said pintles as a center and also slide radially with respect to the center of the wheel, pivotally connected links having a jointed connection with said band for expanding the latter into contact with the drum, a roller on the pivot connecting said links, and a manually operated eccentric bearing against said roller.

4. In braking mechanism for motor vehicles, an axle housing, a wheel driving spindle, a universal joint between said axle and spindle, a driving and steering wheel on said spindle, a brake drum fast on said wheel, upper and lower brake band supporting arms on said axle housing in spaced relation to each other, a sectional internal expanding brake band supported by said arms, pintles on the sections of said brake band connecting said brake band and arms at diametrically opposite points, permitting the band to turn on said pintles as a center and also slide radially with respect to the center of the wheel, pivotally connected links having a jointed connection with said band for expanding the latter into contact with the drum, a roller on the pivot connecting said links, a manually operated eccentric bearing against said roller, and a band contracting spring interposed between one of said supporting arms and the point of junction of said links and acting directly upon said links.

5. A brake for motor driven vehicles comprising in combination with a steering wheel, a driving axle for said wheel, a wheel spindle connected with said axle by a universal joint, a housing for said axle, upper and lower arms on said housing in spaced relation to each other, a brake drum carried by said wheel, an internal expanding brake band supported by said arms and mounted thereon to turn on the same axis as the steering wheel, means for expanding said brake band into engagement with said drum, upper and lower knuckle supporting arms on said housing, and a steering wheel knuckle pivotally supported by the last-named arms to turn on the same axis as the brake band.

1,092,747. TRANSMISSION-GEARING. EDWARD S. ROBINSON, Oroville, Cal., assignor to Golden West Motors Company, Sacramento, Cal., a Corporation of California. Filed June 3, 1913. Serial No. 771,489. (Cl. 74—26.)

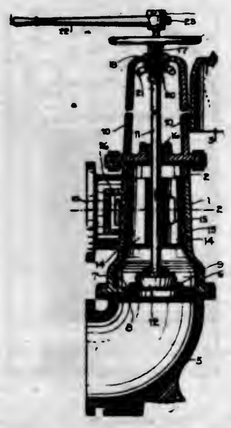


1. Transmission gearing comprising a frame, a driving shaft, a driven shaft, a countershaft at a right angle to said driving and driven shafts, a friction wheel on the driven shaft, a friction driving disk on said countershaft having a flat side which works in contact with said friction wheel and a beveled side embodying a beveled gear face and a beveled abutment face surrounding said beveled gear face, a beveled pinion fast on said driving shaft and meshing with the beveled gear face of said friction driven disk, a rotary abutment loose on said driving shaft and working against the beveled abutment face of said friction driving disk, means on said driving shaft to prevent said rotary abutment from moving longitudinally of the last named shaft, and means for shifting said friction wheel across the flat side of the friction driving disk.

2. Transmission gearing comprising a frame, a driving shaft, a driven shaft, a countershaft at a right angle to said driving and driven shafts, a friction wheel on the driven shaft, a friction driving disk on said countershaft having a flat side which works in contact with said friction wheel and a beveled side embodying a beveled gear face and a beveled abutment face surrounding said beveled gear face, a beveled pinion fast on said driving shaft and meshing with the beveled gear face of said friction driven disk, a rotary abutment on said driving shaft working against the beveled abutment face of said friction driving disk, means for shifting said friction wheel across the flat side of the friction driving disk, an end thrust bearing for said countershaft, and a bearing sleeve for said countershaft formed by an extension of said frame, said sleeve having one end of the driving shaft supported thereby.



1,092,748. THROTTLE-VALVE. GEORGE W. RUDOLPH, Boonville, Ind. Filed Mar. 17, 1913. Serial No. 754,990. (Cl. 137—4.)



1. In a device of the class described, a casing designed to form a valve chamber having an inlet opening and an outlet opening therein, said chamber at the inlet opening being in turn designed to form a valve seat, a valve arranged in said chamber, said valve being provided with a vertical channel in communication with the inlet end of said chamber and a transverse channel communicating with said vertical channel and adapted to be brought into communication with the outlet opening, a stem engaged with said valve and projecting above and below the same, an additional valve carried on the lower end of said stem coöperating with the aforesaid seat in the chamber, an arch bar secured to the upper end of said casing and receiving the upper portion of said stem through the crown thereof, means in connection with said stem for rotating the same and valves carried thereby, and additional means in connection with said stem and said arch bar for lowering the atem and valves carried thereby.

2. In a device of the class described, a casing designed to form a valve chamber and provided with an inlet opening and outlet openings therein, the casing being, in turn, designed to form a valve seat at the inlet opening thereof, a substantially cylindrical valve arranged in the valve chamber and provided with a plurality of vertical spaced apart channels in communication with the inlet end of said chamber, said valve being also provided with transverse channels leading from the outer periphery thereof to certain of the vertical channels and adapted to be brought into communication with the outlet openings, a valve stem connected to said valve and extending above and below the same, an additional valve connected to the lower end of said stem adapted to be seated in the aforesaid seat of said chamber, and means in connection with the upper end of said stem for rotating and reciprocating said valves.

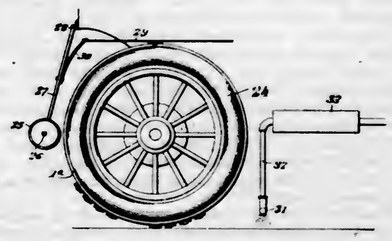
3. A device of the class described comprising an upwardly tapering casing designed to form a valve chamber and provided with an inlet opening and outlet openings therein, a frusto-conical valve arranged in said chamber to fit snugly against the walls thereof, said valve being provided with a plurality of vertical channels in communication with the inlet end of said chamber and also having transverse openings communicating with certain of the aforesaid vertical channels and adapted to be brought into communication with the outlet openings, a stem connected to said valve and projecting above and below the same, an additional valve engaged with the lower end of said stem and adapted to be seated in the aforesaid seat of the chamber, and means for rotating and reciprocating said stem and the valves carried thereon.

4. In a device of the class described, a casing designed to form a valve chamber having an inlet opening and an outlet opening therein, said chamber at the inlet opening being in turn designed to form a valve seat, a valve arranged in said chamber having a vertical channel in communication with the inlet end of said chamber and a transverse channel communicating with said vertical channel and adapted to be brought into communication with the outlet opening therein, a stem suitably engaged with said valve and projecting above and below the same, an additional valve carried on the lower end of said stem coöperating with the aforesaid seat in the chamber, an arch bar secured to the upper end of said casing and having a threaded bearing formed in the crown thereof, the upper projecting portion of said stem extending through said bearing, a threaded sleeve mounted on said stem and engaged with the threaded bearing of the arch bar, said stem being provided with a shoulder to receive the lower end of said sleeve thereagainst, a hand operating means in connection with said threaded sleeve whereby to actuate said stem and valves carried thereon, when turned in one direction, and additional means in connection with the extreme upper end of said stem for further actuating said valves.

5. In a device of the class described, a casing designed to form a valve chamber having an inlet opening and an outlet opening therein, said chamber, at the inlet opening being in turn designed to form a valve seat, a valve arranged in said chamber, said valve being provided with a vertical channel in communication with the inlet end of said chamber and a transverse channel communicating with said vertical channel and adapted to be brought into communication with the outlet opening, a stem engaged with said valve and projecting above and below the same, an additional valve carried on the lower end of said stem coöperating with the aforesaid seat in the chamber, an arch bar secured to the upper end of said casing, and having a threaded bearing formed in the crown thereof, the upper projecting portion of said stem extending through said bearing, a threaded sleeve loosely applied on said stem and engaged with the threaded bearing of said arch bar, said stem being also provided with a shoulder against which the lower portion of said sleeve contacts, a hand wheel formed on the upper portion of said sleeve, whereby when turned in one direction, said stem and valves will be lowered in the casing, means in connection with said sleeve and arch bar to lock the former in any adjusted position, and additional means in connection with the extreme upper end of said stem for rotating the latter and the valves carried thereon.

[Claim 6 not printed in the Gazette.]

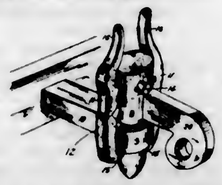
1,092,749. SIGN-PRINTER. WILLIAM J. RYAN, Sapulpa, Okla. Filed Aug. 5, 1913. Serial No. 783,123. (Cl. 101—62.)



The herein described pavement printing device comprising a supporting wheel, a body supported by the wheel and connected thereto for yielding movement, a lever pivotally connected to the body and extending downwardly therefrom, a revoluble ink pad carried by the said lever, a spring arm attached to said lever, a shifting rod connected to the said spring arm, and a printing belt arranged around the periphery of said wheel, the ink pad

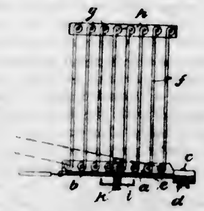
being movable by said lever to and from said printing belt and the spring arm of said lever compensating for the yielding movement of the said body.

1,092,750. LIMBER-PIN FOR MINE-SKIPS. CHARLES HENRY SAWYER and JAMES BOWDITCH, Newcastle, New South Wales, Australia. Filed Sept. 13, 1913. Serial No. 789,715. (Cl. 21—189.)



Improved limber-pin for mine skips or the like comprising in combination a pin member adapted to pass vertically through the eye of an element attached to a skip or the like, a retention member pivotally attached to said pin member and having an inwardly projecting offset taking under said eye and a manually operated offset to release said retention member, and means for attaching draft gear to said pin member.

1,092,751. MACHINE FOR CUTTING BREAD. ELSE SCHMIDT, *geb.* WALTER, Berlin-Tegel, Germany. Filed Mar. 24, 1913. Serial No. 756,389. (Cl. 146—12.)

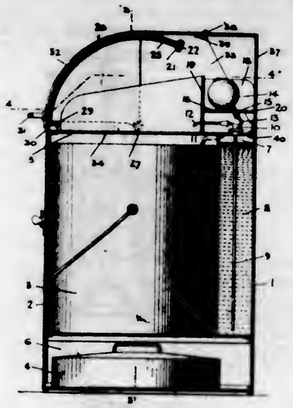


The herein described machine for cutting loaves of bread, comprising in combination, spaced standards, parallel rods, each having its ends pivoted to said standards, and a knife pivoted to one of said standards at right angles to said rods, substantially as, and for the purpose, set forth.

1,092,752. SANITARY GARBAGE-RECEPTACLE. SOLOMON I. SEGALL, New York, N. Y. Filed June 7, 1912. Serial No. 702,202. (Cl. 220—115.)

1. In a device of the character described, a housing formed with a lower part and an upper part, said lower part comprising a can receiving chamber and a liquid receiving chamber, said upper part comprising an entrance hood formed with a pivotally mounted door having an extension arranged thereon and with a flooring structure provided with an aperture therein, said flooring structure being formed with a substantially surrounding upstanding wall for guiding matter through said aperture, and means actuated by the extension on said door for directing liquid from said liquid receiving chamber to said can receiving chamber.

2. In a device of the character described, a housing provided with a can-receiving chamber, a liquid-receiving chamber, an atomizer associated with said liquid-receiving chamber and formed with a discharge member adapted to discharge liquid into said can-receiving chamber and a pneumatic bag for supplying air to said discharge member, said pneumatic bag being formed with a pair of eyelets, a swinging door for said housing, said bag being arranged in the path of movement of said door, a presser arranged on said door formed with a resilient covering member designed to engage and cover the eyelets in said bag when said door has been moved, whereby said bag will be collapsed by said presser upon each opening of



said door to its fullest extent for causing air to be forced into said discharge member.

1,092,753. RESERVOIR-PENHOLDER. GEORGE F. SEITZ, Philadelphia, Pa. Filed Feb. 26, 1912. Serial No. 680,013. (Cl. 120—46.)

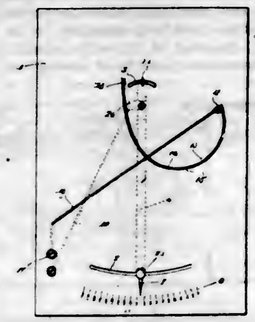


1. A fountain pen holder comprising a handle, a rubber tube connected with one end of said handle, a band surrounding said end of said handle and said tube, a band surrounding the other end of said tube, a casing surrounding said tube and said bands, an opening in said casing, a cylindrical member having a pair of projecting nibs and adapted to clamp a pen against the inner side of said casing, and a reservoir and feed tube within said rubber tube extending through and beyond said clamping member.

2. A fountain pen holder comprising a handle, an elastic tube connected with the end of said handle, a band surrounding said end of the handle and said tube, a band surrounding the other end of said tube, a casing surrounding said tube and said bands, an opening in the side of said casing, a clamping member within the end of said casing adapted to clamp a pen against said casing; said clamping member comprising a cylindrical body having a pair of projecting nibs to press against the rear portion of the pen and a lug to engage with a recess in said casing, and a reservoir and feed tube within said elastic tube extending through and beyond said clamping member.

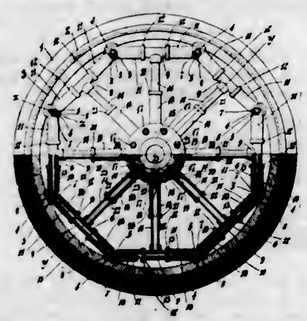


1,092,754. THERMOSTATIC CIRCUIT-CLOSER. ROBERT L. SHANNON, Ripley, Miss. Filed June 7, 1913. Serial No. 772,826. (Cl. 177—128.)



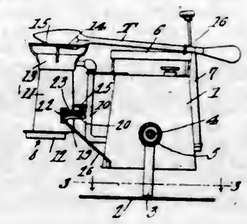
A thermostatic circuit closer comprising a base board having an arcuate-shaped slot formed adjacent to one end thereof and a similar relatively short slot formed adjacent to the opposite end and curved in a direction opposite to that of the first slot and struck on an arc having the same center as that of the first slot, a lever fulcrumed at the center of said arcs, a finger carried by one end of said lever and projecting through said short slot and twisted upon itself, forming a contact, a bracket secured to the base at one side of said contact, a thermostatic element having one end fastened to said bracket and its opposite end disposed in proximity to said contact, a second contact carried by the last-mentioned end of said thermostatic element and adapted to engage said first contact, a pin carried by the opposite end of said lever and projecting through the first-mentioned slot and an indicator finger carried by said pin and movable over a scale formed on said base board adjacent to said first slot and a nut threaded onto said pin and adapted to bind against the adjacent face of said base to prevent accidental movement of the lever subsequent to the adjustment thereof.

1,092,755. RESILIENT VEHICLE-WHEEL. NOAH THOMAS SHARP, Ludlow, Ky., assignor of one-half to Andrew Houck, Cincinnati, Ohio. Filed Aug. 27, 1913. Serial No. 786,846. (Cl. 152—28.)



In a resilient vehicle wheel, the combination with the outer circular part of the wheel and a hub for the wheel, of sockets extending from said hub, chords fixed to said outer circular part of the wheel inside thereof, a member at right angles to each chord movable therealong and guided thereon to maintain its angle to the chord, a stem on each member extending into a respective socket on the hub, springs resisting movement of the members along the chords in both directions, each of said chords having heads at its ends against which the springs bear to resist the movement of said members along the chords, sleeves covering said springs fixed on said heads and extending over respective ends of the members, and stuffing caps on said sleeves around said members preventing the entrance of foreign substances to said springs and to the surfaces of the chords where said members slide thereon.

1,092,756. HYDROCARBON BLOW-TORCH. JOSEPH L. SHEARD and EDGAR E. DUTTON, Fallsdale, Pa. Filed Nov. 18, 1913. Serial No. 801,670. (Cl. 126—239.)



1. In a device of the character described, a base, a fuel tank pivotally carried thereby, an upright burner disposed at one side of and connected to the tank, and seats carried by the upper ends of the burner and tank for supporting an object.

2. In a device of the character described, a base, having a pair of standards, a fuel tank trunnioned between the standards, an upright burner disposed at one side of and attached to the tank, and coöperating seats carried by the upper ends of the burner and the tank for supporting an object.

3. In a device of the character described, a base, a tank pivotally carried thereby, an upright burner disposed at one side of and connected to the tank, and including an upper annular seat, a handle for the upper end of the tank, and a seat carried by the handle and coöperating with the aforesaid seat to support an object thereon.

4. In a device of the character described, a fuel tank, an upright retort coil having its upper terminal connected thereto, the lower end of the coil having an outlet aperture directed upwardly therethrough, a vapor controlling needle valve mounted adjustably over the outlet aperture, a flue surrounding the retort coil, and a damper carried by the lower end of the flue.

5. In a device of the character described, a fuel tank, an upright retort coil disposed at one side thereof, and having its upper terminal connected thereto, the lower end of the coil having an outlet aperture directed upwardly therethrough, a vapor controlling needle valve mounted adjustably over the outlet aperture, a flue surrounding the retort coil, an annular seat carried by the upper end of the flue, and a seat member carried by the upper end of the tank and coöperating with the aforesaid seat to support an object thereon.

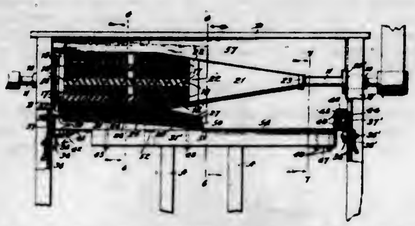
[Claim 6 not printed in the Gazette.]

1,092,757. THRESHING CYLINDER AND CONCAVE. GUY REYNOLDS SHULTZ, Douglas county, Kans. Filed Sept. 25, 1913. Serial No. 791,825. (Cl. 130—27.)

1. A threshing-machine cylinder that is uniform in size in one portion and gradually tapers from that portion toward one end, the larger portion thereof having grain-rubbing elements thereon and a part of the tapered portion being smooth and devoid of projections.

2. In a threshing-machine, the combination of side-frame members, a cylinder journaled therein, supporting projections on the inside of said frame members, a trough-like segmental member resting on the projections on one side and abutting the side of the frame, cross bars extending into said trough-like member and operating to hold the latter against the side of the frame and in supported relation to said projections, means associated with the projections on the other side of the machine whereby

said bars are supported at the other ends, and a concave plate on said bars.



3. In a threshing-machine, the combination of side frame members, a cylinder journaled therein, a concave in coöperative relation to said cylinder, a plurality of bars on which said concave rests, means for supporting the bars on one of said side frame members, splice members secured to some of said bars, a strap secured to the ends of said bars opposite to said supporting means, and means whereby said splice members are supported at their free ends.

4. In a threshing-machine, the combination of side frame members, a cylinder journaled therein, a concave in coöperative relation to said cylinder, a plurality of bars on which said concave rests, means for supporting the bars on one of said side frame members, splice members secured to said bars, a strap connecting said bars and disposed between them and said splice members, and means whereby said splice members are supported at their free ends.

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1,092,758. EXPLOSIVE. OSWALD SILBERRAD, Buckhurst Hill, England. Filed June 3, 1912. Serial No. 701,242. (Cl. 52—3.)

1. A process of preparing liquid difficultly volatile nitro derivatives from coal tar consisting in separating from coal tar a neutral liquid portion of the oils boiling between about 200° C. to 350° C. and nitrating the same by the action of nitric acid of suitable strength alone and then completing the nitration with nitric acid in the presence of sulfuric acid, as set forth.

2. A process of preparing liquid difficultly volatile nitro derivatives from coal tar consisting in separating from coal tar a neutral liquid portion of the oils boiling between about 200° to 350° C. and nitrating the same by the action of successive quantities of nitric acid of increasing strength, finally completing the nitration with nitric acid in the presence of sulfuric acid, as set forth.

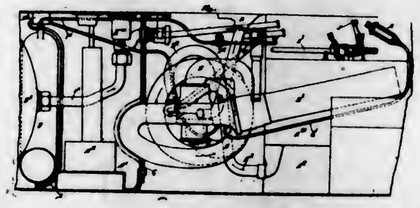
3. A process of preparing liquid difficultly volatile nitro derivatives from coal tar, consisting in separating from coal tar a portion of the oils boiling between 200° C. and 350° C., freeing said portion from phenolic and basic bodies, and nitrating the neutral liquid portion of oils boiling between 200° C. and 350° C. so obtained by successive quantities of nitric acid of increasing strength, and completing the nitration with nitric acid in presence of sulfuric acid, as set forth.

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1,092,759. AUTOMOBILE TORPEDO. FRANKLIN ELIJAH SMITH, Weymouth, England, assignor to Vickers Limited, Westminster, England. Filed Oct. 13, 1913. Serial No. 794,824. (Cl. 60—3.)

1. In an automobile torpedo, the combination with the compressed air container and the propelling engine driven by said compressed air, of a carrier for a slow-burning heat-generating substance, and an air conduit interposed between the container and the engine and heated by the flame and the products of combustion resulting from the ignition of the said substance, the wall of which conduit divides the air from the flame and products of combustion.

2. In an automobile torpedo, the combination with the compressed air container and the propelling engine driven by said compressed air, of a carrier for a slow-burning heat-generating substance, and an air conduit interposed between the container and the engine and heated by the flame and the products of combustion resulting from the ignition of the said substance which pass over the wall of the said conduit in a contrary direction to the flow of the compressed air, the wall of the said conduit dividing the air from the flame and products of combustion.



3. In an automobile torpedo, the combination with the compressed air container and the propelling engine driven by said compressed air, of a carrier for a solid slow-burning heat-generating substance, an air conduit interposed between the container and the engine, and a conduit arranged within said air conduit for the passage of the flame and products of combustion resulting from the ignition of the said substance.

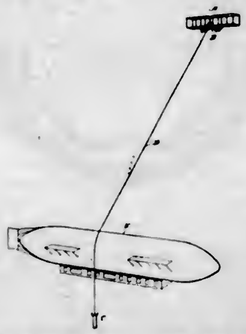
4. In an automobile torpedo, the combination with the compressed air container and the propelling engine driven by said compressed air, of a carrier for a slow-burning heat-generating substance, an air conduit interposed between the container and the engine, and a conduit arranged within said air conduit for the passage of the flame and products of combustion resulting from the ignition of the said substance, said flame and products of combustion passing through its conduit in an opposite direction to that in which the air passes through its conduit.

5. In an automobile torpedo, the combination with the compressed air container and the propelling engine driven by said compressed air, of a carrier for a slow-burning heat-generating substance, an air conduit interposed between the container and the engine, a conduit arranged within said air conduit for the passage of the flame and products of combustion resulting from the ignition of the said substance, and another conduit arranged within the inner conduit for the passage of the air after it has left the outer conduit.

[Claims 6 to 29 not printed in the Gazette.]

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1,092,760. MEANS FOR DESTROYING AIR-CRAFT. JOSEPH A. STEINMETZ, Philadelphia, Pa. Filed May 19, 1913. Serial No. 768,515. (Cl. 244—1.)



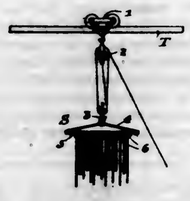
1. For destroying air-craft when the destroyer is in free flight, the combination with a flying machine, of a bomb far below said machine, suspended freely therefrom by a readily flexed connection, and provided with a contact device in position to cause explosion of the bomb when the latter is drawn vertically upward against the said air-craft which deflects that portion of the connection between said machine and bomb by relative lateral movement of the connection and air-craft.

2. The combination with an aeroplane provided with a suitable reel controllable by the aviator, of a flexible wire or the like depending from said reel, and a bomb provided on its uppermost side with a contact device secured to the lower end of the wire, to be drawn upwardly into contact with any body causing lateral deflection of the wire between the bomb and reel.

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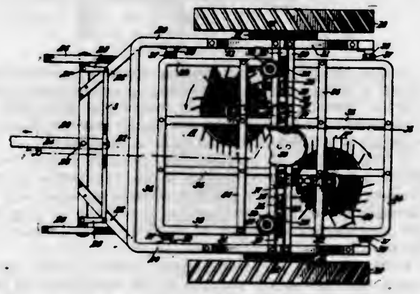
1,092,761. WATERPROOFING APPARATUS. THADDEUS F. TYLER, Lawrence, Mass. Filed Nov. 14, 1910. Serial No. 592,206. (Cl. 91—46.)



An apparatus of the class described, having, in combination, an open impregnating tank, an open drying compartment adjacent thereto, a single means for supporting and introducing work to be treated vertically into both the tank and drier, a plate above said parts having means at its under side for supporting the work to be treated, and means for raising and lowering the plate, said tank, compartment and plate being so proportioned relatively that the plate can be introduced within the tank but forms a cover for the drying compartment, substantially as described.

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1,092,762. COTTON-HARVESTER. LUCIUS L. UPSHAW, Denison, Tex. Filed July 14, 1913. Serial No. 779,012. (Cl. 56—118.)



1. A cotton harvester having a frame and a plurality of vertical, horizontally revoluble members each provided with complementary picking devices, one of said members adapted to operate at one side and the other at the opposite side of a row of cotton plants, one of the members being arranged in advance of the other whereby its picking devices partially divest the plant of its cotton and the picking devices of the other member divest the plant of the cotton which has escaped the first-named picking devices, each of said picking devices including an annular series of picker spindle carriers, a vertical row of horizontal picker spindles rotatably mounted in each of the carriers, a cable connecting the spindles of each carrier in series, and means for imparting a see-saw motion to the outer ends of the cables.

2. A cotton harvester having a main frame, a supplemental frame within the main frame, and a plurality of vertical, horizontally revoluble members carried by the supplemental frame and each provided with complementary picking devices, one of said members adapted to operate at one side and the other at the opposite side of a row of cotton plants, one of the members being arranged in advance of the other whereby its picking device partially divests the plant of its cotton and the picking devices of the other member divest the plant of the cotton which has escaped the first-named picking devices, each of said picking devices including an annular series of picker spindle carriers, a vertical row of horizontal picker spindles rotatably mounted in each of the carriers, a cable connecting the spindles of each carrier in series, and means for imparting a see-saw motion to the outer ends of the cables.

3. A cotton harvester having a main frame, a supplemental frame within the main frame, and a plurality of vertical, horizontally revoluble members carried by the supplemental frame and each provided with complementary picking devices, one of said members adapted to operate at one side and the other at the opposite side of a row of cotton plants, one of the members being arranged in advance of the other whereby its picking device partially divests the plant of its cotton and the picking devices of the other member divest the plant of the cotton which has escaped the first-named picking devices, each of said picking devices including an annular series of picker spindle carriers, a vertical row of horizontal picker spindles rotatably mounted in each of the carriers, a cable connecting the spindles of each carrier in series, and means for imparting a see-saw motion to the outer ends of the cables, and means for vertically adjusting the supplemental frame and said members relatively to the main frame and to the height of the cotton plants.

4. A cotton harvester having a main frame, a supplemental frame mounted within the main frame, a plurality of vertical, horizontally-revoluble members carried by the supplemental frame, each of said members provided with complementary picking devices, one of said members adapted to operate at one side and the other at the opposite side of a row of cotton plants, one of the members being arranged in advance of the other whereby its picking devices partially divest the plant of its cotton and the picking devices of the other member divest the plant of the cotton which has escaped the first-named picking devices, each of said picking devices including an annular series of picker spindle carriers, a vertical row of horizontal picker spindles rotatably mounted in each of the carriers, a cable connecting the spindles of each carrier in series, and means for imparting a see-saw motion to the outer ends of the cables, means for vertically adjusting the supplemental frame and the picking devices carried thereby relatively to the cotton plants, and vertical guides between the main and supplemental frames for accurately guiding the latter in its vertical adjustments.

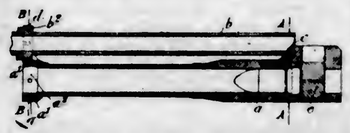
5. A cotton harvester having a main frame, a supplemental frame, mounted within the main frame, a plurality of vertical, horizontally-revoluble members carried by the supplemental frame, each of said members provided with complementary picking devices, one of said members adapted to operate at one side and the other at the opposite side of a row of cotton plants, one of the members being arranged in advance of the other whereby its picking devices partially divest the plant of its cotton and the picking devices of the other member divest the plant of the cotton which has escaped the first-named picking devices, each of said picking devices including an annular series of picker spindle carriers, a vertical row of horizontal picker spindles rotatably mounted in each of the carriers, a cable connecting the spindles of each carrier in series, and means for imparting a see-saw motion to the outer ends of the cables, means for vertically adjusting the supplemental frame and the picking devices carried thereby relatively to the cotton plants, and vertical guides between the main and supplemental frames for accurately

guiding the latter in its vertical adjustments, said adjusting means comprising vertical screw-shafts supported on the main frame, and threaded nuts on the supplemental frame engaged by the screw-shafts.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,763. BREECH-LOADING GUN. EMILE BOURDELLES, Paris, France, assignor to Schneider & Cie., Paris, France, a Limited Joint-Stock Company of France. Filed Apr. 17, 1913. Serial No. 761,844. (Cl. 89—16.)



1. In breech loading ordnance adapted for use with recoil mechanism, the combination of a primary gun and a secondary gun permanently associated therewith, the metal of which furnishes the additional mass necessary for operating the recoil mechanism when the principal gun is fired, said secondary gun being adapted to fit the bore of the primary gun for firing smaller projectiles.

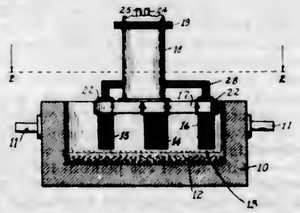
2. In ordnance adapted for use with recoil mechanism, the combination of a primary gun and a secondary gun of different diameter permanently associated therewith, the metal of which furnishes the additional mass necessary for operating the recoil mechanism when the principal gun is fired.

3. In a breech loading gun adapted for use with recoil mechanism, the combination of a primary gun having a threaded muzzle and a secondary gun of different diameter permanently associated therewith, the metal of which furnishes the additional mass necessary for operating the recoil mechanism when the principal gun is fired, and means for securing said guns together comprising on the principal gun a threaded collar and a retaining nose and on the secondary gun a threaded section adapted to engage either the threads of said collar or said threaded muzzle.

4. In combination, a gun having a muzzle provided with internal screw threads, a second gun adapted to fit the bore of the first-named gun and having external threads to engage those of said muzzle, said guns being permanently associated for the purpose described, and a ring for shielding the muzzle threads on the first-named gun when the latter is used for firing.

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1,092,764. ELECTRIC FURNACE FOR METALLURGICAL PURPOSES. HENRY H. BUCKMAN, Jr., Indianapolis, Ind. Filed June 30, 1913. Serial No. 776,665. (Cl. 204—64.)



1. An electric metallurgical furnace including a refractory hearth, horizontal rotatable electrode supporting means extending down into the hearth, and a plurality of electrodes of different polarity extending down from said supporting means and located at different distances from the axis thereof.

2. An electric metallurgical furnace including a refractory hearth, horizontal rotatable electrode supporting means extending down into the hearth, and a plurality of electrodes of different polarity extending down from said supporting means, one electrode of one polarity being located substantially midway between the electrodes of the other polarity.

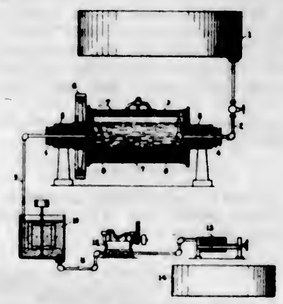
3. An electric metallurgical furnace including a refractory hearth, horizontal rotatable electrode supporting means extending down into the hearth, and a plurality of electrodes of different polarity extending down from said supporting means, one of said electrodes being located near the axis of said supporting means the remaining electrodes being of a different polarity and located substantially equidistant from said first mentioned electrode.

4. An electric metallurgical furnace including a refractory hearth, an electrode support projecting into said hearth and mounted so as to be rotatable horizontally, a plurality of electrodes extending down from the lower end of said supporting means, and conductors for said electrodes extending through and insulated from said supporting means.

5. An electric metallurgical furnace including a refractory hearth, an electrode support projecting into said hearth and mounted so as to be rotatable horizontally, a plurality of electrodes extending down from the lower end of said supporting means, and a plurality of conductors extending through said supporting means, one of said conductors running to one electrode and the other conductor connected with the other electrodes.

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1,092,765. PRECIPITATION OF METALS FROM CYANID SOLUTIONS. CHARLES BUTTERS, Oakland, Cal. Filed Mar. 31, 1913. Serial No. 757,902. (Cl. 75—165.)



1. The process of precipitating precious metals from cyanid solutions which consists in the conduction of the solution through a mill wherein commercial aluminum is contained in the form of granular pieces and continuously subjected to attrition, substantially as described.

2. The process of precipitating precious metals from cyanid solutions which consists in the conduction of the solution through a mill wherein commercial aluminum is contained in the form of granular pieces and as a lining and continuously subjected to attrition, substantially as described.

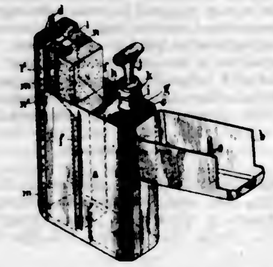
3. The process of precipitating precious metals from cyanid solutions which consists in the conduction of the solution through a rotating mill wherein commercial aluminum is contained in the form of granular pieces and as a lining and continuously subjected to attrition, substantially as described.

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1,092,766. COMBINED BOX AND DROPPING-BOTTLE WITH A SUGAR-MAGAZINE. LÉON COULET, Hyères-les-Palmiers, France. Filed Aug. 1, 1912. Serial No. 712,707. (Cl. 206—47.)

1. The combination, with a case comprising a body and a cover; of a dropping bottle and a lump-sugar magazine housed side by side in said case, said magazine having its outer end disposed adjacent the dropper of said bottle and provided with means for retaining a lump of sugar in place thereon to permit the contents of the bottle to be dropped upon said lump when the case is tilted.





2. A case containing a dropping bottle and a lump-sugar magazine, the latter of which is provided with means for holding a lump of sugar beneath the mouth of the bottle so that during a tilting movement of said case drops of liquid may be poured upon said lump.

3. The combination, with a case comprising a body and a cover; of a dropping bottle and a lump-sugar magazine fitted in said body and projecting into the interior of said cover when the same is closed, said bottle having its neck provided with a stopper whose head is elongated in one direction, to prevent closing of said cover except when said head is disposed longitudinally thereof.

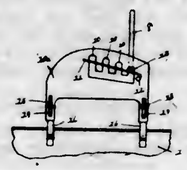
4. A case containing a dropping bottle and a lump-sugar magazine, said magazine being provided with means for retaining a lump of sugar in position for removal therefrom, when the case is tilted, and said bottle being provided with liquid-outlet and air-inlet openings, the former of which is so arranged relative to said retaining means that during such tilting drops of liquid may be poured upon said lump.

5. A case containing a dropping bottle and a lump-sugar magazine, said magazine being provided with means for retaining a lump of sugar in position for removal therefrom when the case is tilted, and said bottle having its neck provided with liquid-outlet and air-inlet openings, the former of which is so arranged relative to said retaining means that during such tilting drops of liquid may be poured upon said lump, and a stopper rotatably fitted in said neck for controlling said openings.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,767. PAIL. MILTON E. DAVIS, Canastota, N. Y. Filed Mar. 23, 1911. Serial No. 616,321. (Cl. 220—27.)



1. A pail having a vertical bracket mounted thereon and provided with a cutout and vertical slots therein opening into said cutout, a handle having one end adapted for engagement in a given slot and means normally retaining the handle in such slot.

2. A pail having an extension mounted on one side with a cutout and vertical slots indirectly connected, a handle adapted to carry the pail by engagement in one of said slots of the adjacent end of the handle and means normally retaining the handle but movable for the release thereof.

3. In a pail of the character described, the combination of a bracket having a plurality of slots therein connected by a common opening, means for adjusting the vertical position of said bracket, said slots being adapted to form bearings for one end of a handle of said pail, substantially as described.

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1,092,768. STENCILING MATERIAL. WILLIAM G. FUERTH, Newark, N. J., assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Jan. 10, 1907. Serial No. 351,646. (Cl. 101—131.)



1. A backing sheet for use in a typewriting machine, said sheet formed of material which is practically unfoldable, and incised between its ends to form a set of tongues, said tongues near one end of the sheet and directed toward the body of the sheet, a margin being left between said tongues and the leading edge of the sheet, to form a thin portion for easy introduction between the rolls of the typewriter; said backing sheet formed of material sufficiently stiff and rough to prevent the sheets carried by said tongues from slipping on said backing sheet.

2. A backing sheet for use in a typewriting machine, said sheet formed of material which is hard, tough and practically unfoldable, and incised between its ends to form a set of tongues, said tongues near one end of the sheet and directed toward the body of the sheet, a margin being left between said tongues and the leading edge of the sheet, to form a thin portion for easy introduction between the rolls of the typewriter; said backing sheet formed of material sufficiently stiff and rough to prevent the sheets carried by said tongues from slipping on said backing sheet.

3. A backing sheet of heavy tough and rough material having near one end rounded end incisions and tongues correspondingly cut out so as to have sharp edges, the rounded ends pointing toward the body of the sheet, the upper ends of the tongues being in line to form a gage for sheets inserted between the tongues and the body of the sheet and the tongues being sufficiently elastic to exert a gripping action upon a wad of inserted sheets and carbons and also wide enough to yield somewhat under the pressure of the platen whereby their gripping action is accentuated, a margin on the backing sheet being left between the straight ends of the tongues and the leading edges of the sheet for easy introduction between the rolls of a typewriting machine.

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1,092,769. SHOOTING-GLASSES. DANIEL D. HUBBELL, Columbus, Ohio, assignor to The White-Haines Optical Company, Columbus, Ohio, a Corporation of Ohio. Filed Aug. 28, 1913. Serial No. 787,217. (Cl. 88—41.)

1. In a device of the class described, the combination with a pair of coöperating lenses, of a pair of clamp members secured one to each of said lenses, a centrally aper-

tured arm extending laterally from the upper and lower ends of each of said members, pivoting means adapted to unite said members by passing through said apertures, a nose-piece, and a coiled wire connection attached to said nose-piece and to one of said members.



2. In a device of the class described, the combination with a pair of coöperating lenses, of a pair of complemental hinge members secured one to each of said lenses, and a nose-piece mounted on one of said members.

3. In a device of the class described, the combination with a pair of coöperating lenses slightly spaced from each other, a pair of clamp members secured one to each of said lenses and to each other, and a shield member carried by one of said clamp members, and designed to cover the space formed by the connecting structure between said lenses.

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1,092,770. MOP. GEORGE HUMPHREIS, Haverhill, Mass. Filed Apr. 2, 1913. Serial No. 758,398. (Cl. 15—56.)



1. In combination with a handle, an attaching plate secured to the end thereof, a mop, a pair of clamping plates engaging opposite sides of said mop, two pairs of ears, one pair connected to one clamping plate and extending through and bent into engagement with the other clamping plate, to hold said clamping plates in engagement with the mop, and the other pair connected to one clamping plate and extending through the other clamping plate and through said attaching plate and bent into engagement with the latter, substantially as described.

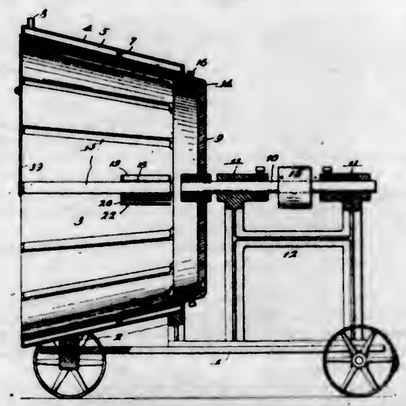
2. In combination with a handle, a sheet metal disk having a central aperture and two diametrically opposite apertures, a pair of clamping plates, one having a pair of oppositely disposed apertures and the other having a pair of correspondingly disposed ears extending therethrough, said ears having their end portions bifurcated to provide clamping lugs, one lug of each ear being bent into locking engagement with said apertured plate, and the other lugs extending through the apertures of said disk and being bent into locking engagement therewith, and a mop disposed between said ears and clamped between said plates, substantially as described.

3. An article of manufacture comprising a pair of metal clamping plates, one having oppositely disposed apertures and the other having two pairs of correspondingly disposed ears extending through said apertures, a mop disposed between said ears and clamped between said plates, one pair of said ears having its end portion bent into engagement with the outer side of the apertured plate, and the other pair of ears extending therefrom to provide attaching means, substantially as described.

4. An article of manufacture comprising a pair of clamping plates, one having two oppositely disposed apertures and the other having a pair of correspondingly disposed ears and having bifurcated end portions extending through said apertures, a mop disposed between said ears and having said plates pressed against opposite sides thereof, one section of said bifurcated portion of each pair being bent into engagement with the outer side of said apertured plate, to hold said plates in clamping engagement with the mop, and the other sections thereof extending therebeyond to provide attaching means, substantially as described.

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1,092,771. MIXING-MACHINE. GEORGE F. HUTCHINGS, Kansas City, Mo., and CORDON A. WOODY, Denver, Colo., assignors to Joseph M. Jones, trustee. Filed Apr. 1, 1912. Serial No. 687,694. (Cl. 83—73.)



1. A machine of the character described, consisting of a support, a stationary shell mounted upon said support, said shell being open at both ends and having two feed openings, each for a different material, a rotary disk closing one end of said shell, and a plurality of paddles carried by said disk and coacting with the shell to mix the material and discharge the resultant product from the shell.

2. A machine of the character described, consisting of a support, a truncated conical shell mounted on said support and having its enlarged open end overhanging the rear end of said support, said shell having two feed openings, each for a different material, a cup-shaped disk closing one end of said shell, paddles secured to said disk and projecting into said shell and extending lengthwise thereof, a driven shaft upon which the cup-shaped disk is mounted, a conveyer to conduct material to one of said feed-openings, and means to conduct material to the other feed-opening.

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1,092,772. COFFEE-POT. JOSEPH EDWARD JOHNSON, Meriden, Conn. Filed Aug. 1, 1913. Serial No. 782,517. (Cl. 53—8.)



1. The combination with a coffee pot provided with a generating chamber at its bottom and with a nipple at the upper end of said chamber, of a valve block formed with a vertical passage and adapted to closely fit the upper end of said nipple, said valve block formed on opposite sides with ports the upper end of the block re-



ceased and formed with an annular rib, valves within the central passage provided at their upper ends with hooks adapted to bear upon said annular rib and at their lower ends to close said ports, and a central tube coupled with said valve block.

2. The combination with a coffee pot provided with a generating chamber at its bottom and with a nipple at the upper end of said chamber, of a valve block formed with a round vertical passage adapted at its lower end to closely fit over the upper end of said nipple, said block formed on opposite sides with ports, said block also formed at its upper end with an annular rib around the vertical passage and with an upwardly extending flange, valves suspended from said annular rib and adapted at their lower ends to close said ports, a central tube, and a disk fixed to the tube and coupled with said flange.

3. The combination with a coffee pot provided with a generating chamber at its bottom and with a nipple at the upper end of said chamber, of a valve block formed with a round vertical passage adapted at its lower end to closely fit over the upper end of said nipple, said block formed on opposite sides with ports, said block also formed at its upper end with an annular rib around the vertical passage and with an upwardly extending flange, valves suspended from said annular rib and adapted at their lower ends to close said ports, a central tube, a disk fixed to the tube and coupled with said flange, the under face of said disk formed with grooves adapting the disk to set over the upper ends of said valves whereby the valves are held in place.

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1,092,773. BUTTON-FASTENER. OSCAR J. JOHNSON, Cloquet, Minn. Filed Sept. 5, 1913. Serial No. 788,346. (Cl. 24—110.)



1. In a button, the combination of a head comprising a shell, an attaching shank adapted to be received in said head, a locking bar disposed in said shell adapted to engage with the shank, means for securing said locking bar, the shell having an opening therein through which the locking bar projects, and means for normally holding said locking bar in locking position, said means coöperating with the shell to also form a closure for the opening aforesaid.

2. In a button, the combination of a shell comprising a body portion, a shank adapted to be received in said body portion, a locking bar disposed in said shell adapted to engage with the shank, a spring adapted to coöperate with said locking bar to normally hold the latter in locking position, flanges on the body portion of the shell for securing the spring and locking bar to the body portion, the shell aforesaid having a slot through which the locking bar projects to permit lateral movement of the locking bar, and the spring aforesaid having one end bent laterally to form a closure for said slot.

3. In a button, the combination of a head comprising a body portion, a shank adapted to be received in said shell, a locking member secured within the shell, spaced projections carried by said locking member with which the shank is adapted to engage, a spring secured in said shell normally contacting with the locking bar, to hold said projections in locking engagement with the shank, said spring being formed with a resistance arm at one end and being bent angularly at its opposite end, the shell having a slot through which the locking bar projects to permit lateral movement of the same, said slot being normally closed by the angularly bent extremity of the spring aforesaid, and a cap for the shell secured about the body portion substantially as described.

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1,092,774. INTERIOR HATBAND. ALBERT LESLIE JONES, Seattle, Wash., assignor of one-half to Edward S. Swain, Seattle, Wash. Filed Aug. 11, 1913. Serial No. 784,259. (Cl. 2—32.)



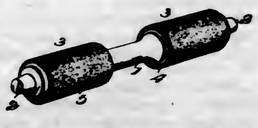
1. A light metal interior hat band, having strips cut therein; hair interwoven between said strips, a circumferential rod secured to the interior crown of the hat, and means for adapting said metal hat band to be adjusted to the said circumferential rod.

2. A light metal interior hat band, having serrated strips cut therein to prevent slipping of hair interwoven therebetween, said metal hat band having one of its side edges curved and adapted to fit over and rest upon a circumferential rod, and means for preventing peripheral displacement when said hat band is adjusted thereto.

3. A light metal interior hat band, in combination with hair interwoven between serrated strips cut therein, and means for adapting independent segments of said metal interior hat band to be adjusted to the original interior band of a hat.

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1,092,775. DRAWING-ROLL. ELEAZER KEMPSHALL, Providence, R. I., assignor to Roll Fabric Company, a Corporation of Rhode Island. Filed Jan. 6, 1914. Serial No. 810,631. (Cl. 118—23.)



1. A drawing roll consisting of a rigid core and a covering of pliable composite material attached thereto, said composite material consisting of a base of cloth of springy character and a thin facing of nitro-cellulose intimately attached to said cloth.

2. A drawing roll consisting of a rigid core and a covering of pliable composite material attached thereto, said composite material consisting of a base of cloth of springy character and a thin facing of softened nitro-cellulose intimately attached to said cloth.

3. A drawing roll consisting of a rigid core and a covering of composite material attached thereto, said composite material consisting of a base of cloth and a thin facing of softened nitro-cellulose intimately attached to said cloth, said facing being pliable and said covering as a whole being sufficiently springy to retain its shape in operation.

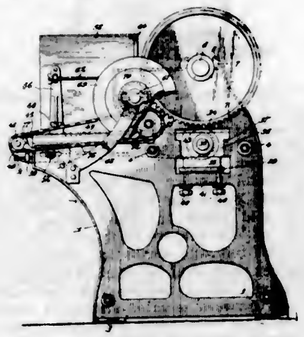
4. A drawing roll consisting of a rigid core and a covering consisting of a strip of composite material attached thereto, having a but joint, said composite material consisting of a base of cloth of springy character attached thereto, and a thin facing of softened nitro-cellulose, tightly attached to said cloth, the surface of said composite material being embossed with slight indentations, to form a leather-like spinning surface.

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1,092,776. BURNING-PRESS. HENRY L. KOEHLER, Louisville, Ky. Filed July 22, 1913. Serial No. 780,521. (Cl. 101—24.)

1. A burning press, comprising a machine frame, a work supporting table, a rotary type carrying and heating cylinder operating above the plane of the table, and a self-adjusting impression roller, said cylinder embodying a shaft, a circular series of tubular burners, and a manifold to which said burners are connected.

2. A burning press, comprising a machine frame, a work supporting table, a rotary type carrying and heating cylinder operating above the plane of the table, and means for regulating the impression of said cylinder, said cylinder embodying a shaft, a circular series of tubular burners, type form supports, and a manifold to which said burners are connected.



3. A burning press, comprising a machine frame, a work supporting table, a rotary type carrying and heating cylinder operating above the plane of the table, means for regulating the impression of said cylinder, said cylinder embodying a shaft, a circular series of tubular burners, type form supports, and a manifold to which said burners are connected, and means for clamping a type form on said cylinder.

4. A burning press, comprising a machine frame, a work supporting table, a rotary type carrying and heating cylinder operating above the plane of the table, means for regulating the impression of said cylinder, said cylinder embodying a shaft, a circular series of tubular burners, type form supports, a manifold to which said burners are connected, and screw operated clamps working between the burners for holding a type form on the cylinder.

5. A burning press, comprising a machine frame, a work supporting table, a rotary type carrying and heating cylinder operating above the plane of the table, means for regulating the impression of said cylinder, said cylinder embodying a shaft, a circular series of tubular burners, type form supports through which the burners pass, and a manifold to which said burners are connected.

[Claims 6 to 9 not printed in the Gazette.]

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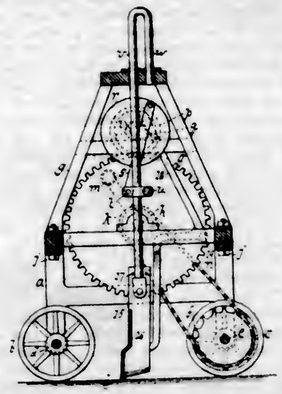
1,092,777. TRENCH-DIGGING MACHINE. JOHN LAPIN, Brooklyn, N. Y. Filed Apr. 11, 1913. Serial No. 760,558. (Cl. 37—11.)

1. A trench digging machine comprising a carriage, a blade swingingly mounted on the carriage, driving devices for propelling the carriage, a crank operated by the driving devices for transmitting reciprocating movement to the blade, a lever actuated by the driving devices for oscillating the blade forward when out of action, said blade being adapted to swing backward by the interrupted actuation of the lever and the forward movement of the carriage.

2. A trench digging machine comprising a carriage, propelling devices including a driving shaft for operating the carriage, a countershaft having a cam and crank actuated by the driving shaft, a link pivoted to the crank, a blade connected to the link, and a lever actuated by the cam for rocking the blade.

3. A trench digging machine comprising a carriage, propelling devices including a driving shaft for operating the carriage, a countershaft having a cam and crank actuated by the driving shaft, a link pivoted to the crank, a blade connected to the link, and a lever actuated by the cam for oscillating the blade forward when out of action.

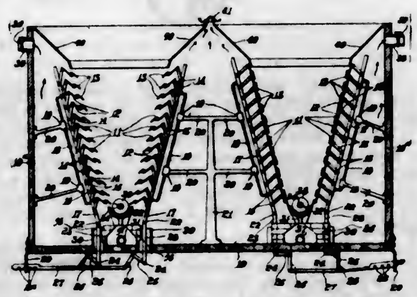
4. A trench digging machine comprising a carriage, propelling devices including a driving shaft for operating the carriage, a countershaft having a cam and crank actuated by the driving shaft, a link pivoted to the crank, a guide bar coupled to the link, a blade swingingly



pivoted to the guide bar, and a lever operated by the cam for oscillating the blade forward when out of action, said blade being adapted to swing backward by the interrupted actuation of the lever and the forward propulsion of the carriage.

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1,092,778. APPARATUS FOR MELTING SNOW AND DRYING SAND AND LIKE SUBSTANCES. ADOLF P. LINK, Brooklyn, N. Y. Filed Jan. 22, 1913. Serial No. 743,467. (Cl. 34—34.)



1. A machine of the character specified, embodying therein suitable heating means, and louvers arranged in the form of series adapted to be heated by the heating means, each louver embodying relatively offset parts.

2. A machine of the character specified, embodying therein suitable heating means, and louvers arranged in series inclined with relation to each other and adapted to be heated by the heating means, each of said louvers embodying parts offset with relation to each other.

3. A machine of the character specified, embodying therein a series of interconnected louvers adapted to temporarily receive the material introduced into the machine, each of said louvers embodying parts offset with relation to each other.

4. A machine of the character specified, embodying therein a series of louvers adapted to temporarily receive the material introduced into the machine, each of said louvers embodying two parts offset with relation to each other.

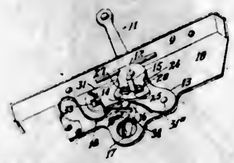
5. A machine of the character specified, embodying therein an inclosing casing, and series of louvers arranged therein, said series of louvers being arranged in opposed pairs inclined with relation to each other, and each of said louvers embodying parts offset with relation to each other.

[Claims 6 to 13 not printed in the Gazette.]



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1,092,779. TYPE-WRITING MACHINE. JULIUS K. LUX, Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 15, 1910. Serial No. 572,073. (Cl. 197—121.)



1. In a typewriting machine, the combination with a platen having a ratchet fixed thereto, of a fractional line-space mechanism comprising a dog mounted for both radial and angular or vibratory movements relatively to the platen axle, and having a tooth to engage the ratchet, and a lever to mesh the tooth with the ratchet and effective by pressure against the tooth to swing the latter to turn the platen through part of a regular line-space and to return it to original position.

2. In a typewriting machine, the combination with a platen having a ratchet, of a shiftable tooth normally lying out of engagement with the ratchet, and a lever rocking in opposite directions from a normal idle position to crowd the tooth into mesh with the ratchet to turn the latter and the platen forwardly or backwardly, said tooth being supported independently of the lever and movable relatively thereto.

3. In a typewriting machine, the combination with a platen having a ratchet, of a shiftable tooth normally out of engagement with the ratchet, a guide wall having a guiding surface substantially concentric with the ratchet and interrupted intermediate its ends by a recess in which the tooth normally seats, a lever to rock in opposite directions from a normal central position and having diverging cam faces, the space between which registers with the recess when the lever is in normal position, a shoulder to block the return of the tooth to its seat when dislodged therefrom by one or the other cam face, abutments controlled by the lever to return the tooth to a point opposite its seat after it has been thrown in one direction or the other, by the lever to effect the partial rotation of the platen in one direction or the other, and a spring to seat the tooth.

4. In a typewriting machine, the combination with a platen having a ratchet, of a dog movable radially and angularly relatively to the platen axle and having a tooth normally seated in a recess out of contact with the ratchet, a lever having divergent cam faces between which the tooth normally seats, to crowd the tooth out of its seat and into mesh with the ratchet, the lever rocking in either direction from its normal central position, shoulders on opposite sides of the tooth to block its return to its seat, and abutments, one or the other of which is effective depending upon the direction of stroke of the lever to press against the tooth and partially rotate the platen.

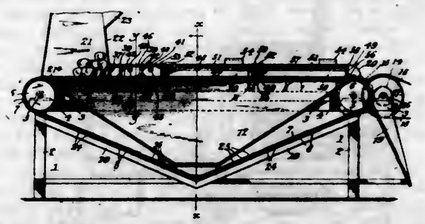
5. In a typewriting machine, the combination with a platen having a ratchet, of a dog radially and angularly movable relatively to the platen axle and having a tooth normally seated in a recess out of contact with the ratchet, a lever having divergent cam faces between which the tooth normally seats, to crowd the tooth out of its seat and into mesh with the ratchet, the lever rocking in either direction from its normal central position, and abutments, one or the other of which is effective depending upon the direction of stroke of the lever to press against the tooth and partially rotate the platen.

[Claims 6 to 24 not printed in the Gazette.]



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1,092,780. MEANS FOR SEPARATING STONES FROM CLAY. ROBERT W. LYLE, New York, N. Y., assignor to Lyle Clay Cleaner Company, a Corporation of New Jersey. Filed July 2, 1909, Serial No. 505,704. Renewed Feb. 4, 1914. Serial No. 816,613. (Cl. 83—6.)



1. In apparatus for separating stones from clay, a moving cutter surface operating to cut the clay and thereby separate the clay from the stones and refuse matter and having openings for the passage of the cut clay, and means for maintaining a continuous successive action of said cutter surface upon the crude clay and for simultaneously permitting the carriage of the stones and refuse matter upon the cutter surface in a continuous movement beyond the operative cutting portion of said surface and to a point of deposit therefrom as they are separated from the crude clay in a simultaneous and continuous action during the movement of said surface and while the crude clay is subject to the action of the cutter surface.

2. In apparatus for separating stones from clay, a moving cutter surface having openings for the passage of the cut clay, means for holding and retaining the crude clay in contact with said cutter surface, and means for maintaining the carriage of the stones and refuse matter upon said moving cutter surface beyond the operative cutting portion of said surface and to a point of deposit therefrom.

3. In apparatus for separating stones from clay, a moving cutter surface having openings for the passage of the cut clay, means for holding and retaining the crude clay in contact with said cutter surface, means for the carriage of the cut clay which passes through said cutter surface to a point of deposit, and means for maintaining the carriage of the stones and refuse matter by and upon said cutter surface beyond the operative cutting portion of said surface and to a point of deposit therefrom.

4. In apparatus for separating stones from clay, a moving cutter surface constituting a traveling carrier for the stones and refuse matter and having openings for the passage of the cut clay, means for holding and retaining the crude clay in contact with said cutter surface, and trap means operating in the direction of the line of travel of said moving cutter and carrier surface for retarding the carriage of the clay upon said moving cutter surface and for permitting the passage thereon of the stones and refuse matter.

5. In apparatus for separating stones from clay, a moving cutter surface having openings for the passage of the cut clay, means for holding and retaining the crude clay in contact with said cutter surface, trap means for retarding the carriage of the clay upon said moving cutter surface and for permitting the passage thereon of the stones and refuse matter, and means for maintaining the carriage of the stones and refuse matter by and upon said cutter surface to a point of deposit therefrom.

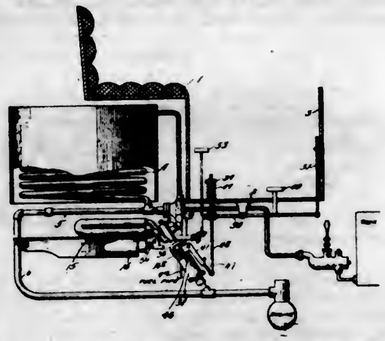
[Claims 6 to 101 not printed in the Gazette.]

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1,092,781. FUEL-REGULATOR FOR STEAM-BOILERS. ROBERT MIEHLE, Chicago, Ill. Filed Apr. 11, 1907. Serial No. 367,618. (Cl. 236—6.)

1. In an apparatus for the purpose described, the combination of a steam generator, a burner for fluid fuel, a pressure controlled means operatively related to the burner and generator for reducing the supply of fuel to the burner when the pressure in the generator reaches a certain degree, said means embodying a fuel passage, two

valves operatively related whereby one moves the other for closing the passage alternately, and means whereby said valves will be actuated by the generator pressure.



2. In an apparatus for the purpose described the combination of a steam generator, a burner for fluid fuel, a pressure controlled means operatively related to the burner and generator for reducing the supply of fuel to the burner when the pressure in the generator reaches a certain degree, said means embodying a fuel passage, two valves operatively related whereby one moves the other for closing said passage alternately, means whereby said valves are actuated by the generator pressure, and means whereby both of said valves may be actuated manually regardless of the generator pressure.

3. I n an apparatus for the purpose described the combination of a steam generator, a burner for fluid fuel, and a pressure controlled means operatively related to the burner and generator for reducing the fuel supply to the burner when the pressure in the generator reaches a certain degree, said means embodying a fuel passage, two valves connected together through said passage for alternately closing the ends thereof, and two manually actuated members operatively connected with said valves for respectively moving them toward their seats.

4. In an apparatus for the purpose described the combination of a steam generator, a burner for fluid fuel, pressure controlled means operatively related to the burner and generator for reducing the fuel supply to the burner when the pressure in the generator reaches a certain degree, said means embodying a fluid pressure abutment exposed to the pressure of the generator, a valve movable independently of said abutment for controlling the fuel supply, means for actuating the valve manually at will, and means whereby the movement of the abutment may be imparted to the valve, embodying means for adjusting the position of the valve with relation to the abutment, said valve adjusting means being operative independently of said means for moving the valve manually.

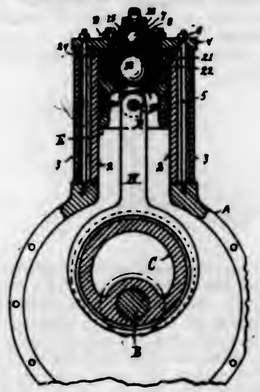
5. In an apparatus for the purpose described the combination of a steam generator, a burner for fluid fuel, pressure controlled means operatively related to the burner and the generator for reducing the fuel supply to the burner when the pressure in the generator reaches a certain degree, said means embodying a fluid pressure abutment subjected to the pressure of the generator and a valve, a manually operating means for said fluid pressure abutment adapted to resist the action of the generator pressure thereagainst for permitting the said valve to move independently of the generator pressure, and a spring for resisting the operation of said manually operated means and also resisting the action of the generator pressure against said abutment.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,782. GAS-COMPRESSOR VALVE MECHANISM. CASPER W. MILES, Anderson township, Hamilton county, Ohio, assignor to Stephen S. Miles, Greensboro, N. C. Filed Aug. 8, 1913. Serial No. 783,764. (Cl. 230—34.)

1. A gas compressor valve mechanism comprising a spherical valve, a cage member beneath said valve provided with a central gas inlet port and an annular raised valve seat encircling said inlet port, and a cage member above said valve provided with a plurality of gas exit ports, said cage members being locked together, and provided with a partly spherical recess above said valve seat concentrically enveloping said valve and affording a passage for the gas around said valve.



2. A gas compressor valve mechanism comprising a spherical valve, a cage member beneath said valve provided with a central gas inlet port and an annular raised valve seat encircling said inlet port and of a diameter equal to substantially ninety degrees of the circumference of said valve, and a cage member above said valve provided with one or more gas exit ports, said cage members being locked together and provided with a recess above said valve seat enveloping said valve to limit the movement of the valve and provide a passage for the gas around said valve.

3. A gas compressor valve mechanism comprising a spherical valve a divided valve cage inclosing said valve and forming a partly spherical chamber enveloping the valve, an annular inwardly projecting valve seat to support the valve concentrically within said chamber, and gas intake and exit ports leading to and from said chamber.

4. A gas compressor valve mechanism comprising a hollow spherical valve a divided valve cage forming a substantially concentric chamber inclosing said valve, an annular inwardly projecting valve seat supporting said valve in a substantially concentric position within said chamber, and gas intake and exit ports leading to and from said chambers.

5. In a gas compressor valve mechanism an intake valve and an exit valve each comprising a spherical valve, a cage forming a substantially concentric chamber inclosing said valve, an annular raised valve seat to support said valve within and out of contact with the walls of said chamber, and gas intake and exit ports leading to and from said chamber.

[Claim 6 not printed in the Gazette.]

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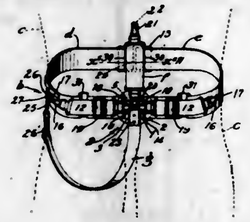
1,092,783. PULL-TENSION TRUSS. WILLIAM A. MURRAY, Los Angeles, Cal. Filed Jan. 2, 1913. Serial No. 739,906. (Cl. 128—26.)

1. A truss comprising a pressure block, laterally extending tension members fastened to the pressure block, an under strap fastened to the pressure block and fastened to one of said tension members, and a metal reinforcing strip at the junction of the under strap and said tension member.

2. A truss comprising a pressure block, laterally extending tension members fastened to the pressure block, an under strap fastened to the pressure block, means fastening the under strap to one of said tension members, and a metal reinforcing strip fastened to said one tension member above said fastening means.



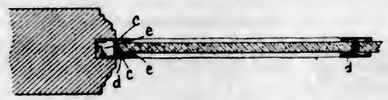
3. A truss comprising a pressure block having a single pivot, and two pairs of diametrically opposed tension members, the adjacent members of different pairs extending from the pivot at right angles to one another, the uppermost one of said tension members extending vertically and being provided with means to fasten said member to the under garment of the wearer.



4. A truss comprising a pressure member having a screw-threaded central perforation and having a counter-bore at one end of the threaded perforation, a pivot-pin having a shoulder resting against one face of the pressure block and screw-threaded into said screw-threaded perforation, a nut screw-threaded onto the end of the pivot-pin and seated in said counter-bore, and tension means connected to the pivot-pin.

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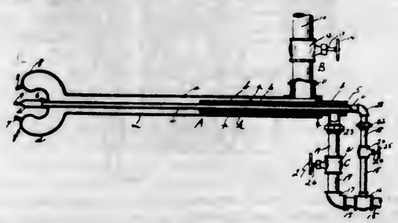
1,092,784. WINDOW-CAME. FREDERICK RECHT, New York, N. Y., assignor to Florence Recht, Brooklyn, N. Y. Filed June 19, 1912. Serial No. 704,694. (Cl. 189—77.)



A came-lead consisting of caps and a heart integral with each cap along the middle line of its body, the edges of the caps being folded in upon themselves.

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1,092,785. BURNER. ROBERT M. STENE, Danby, and SAMUEL D. MCFADDEN, Barstow, Cal. Filed Apr. 28, 1911. Serial No. 623,817. (Cl. 158—75.)



1. A burner comprising a mixing chamber, means for supplying oil to the mixing chamber, means for supplying an atomizing fluid to the mixing chamber, spaced tips applied to the mixing chamber and arranged to produce intersecting jets of the mixture from the mixing chamber, an intermediate tip arranged to provide a third intersecting jet, and an atomizing fluid supply pipe communicating with the intermediate tip.

2. A burner comprising a mixing chamber, a first tubular member extending within and sealed from the mixing chamber, a second tubular member within and opening at one end within the mixing chamber, means for supplying one fluid component to the mixing chamber, means for supplying another fluid component to the mixing chamber through said second tubular member, and means for supplying the latter fluid component to said first tubular member; spaced tips communicating with said mixing chamber; and an intermediate tip communicating with said first tubular member.

3. A burner comprising a mixing chamber, a first tubular member extending within and sealed from the mixing chamber, a second tubular member within and opening at one end within the mixing chamber, means for supplying one fluid component to the mixing chamber, means for supplying another fluid component to the mixing chamber through said second tubular member, and means for supplying the latter fluid component to said first tubular member; spaced tips communicating with said mixing chamber; and an intermediate tip communicating with said first tubular member; said spaced tips being arranged to direct streams convergently.

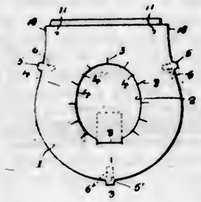
4. A burner comprising a mixing chamber, a first tubular member extending within and sealed from the mixing chamber, a second tubular member within and opening at one end within the mixing chamber, means for supplying one fluid component to the mixing chamber, means for supplying another fluid component to the mixing chamber through said second tubular member, and means for supplying the latter fluid component to said first tubular member; spaced tips communicating with said mixing chamber; and an intermediate tip communicating with said first tubular member; said spaced tips being arranged to direct streams convergently, and said intermediate tip being arranged to direct a stream to the point of convergence of the streams from said spaced tips.

5. A burner comprising a mixing chamber, a steam chamber arranged within and sealed from the mixing chamber, means for supplying oil to the mixing chamber, means for supplying steam to the mixing chamber, spaced tips mounted upon the mixing chamber and producing intersecting jets of the mixture from the mixing chamber, and a third tip communicating with the steam chamber and producing a third intersecting jet.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,786. SANITARY TOILET-SEAT. ROY J. TROUTMAN, Shamokin, Pa. Filed Dec. 13, 1913. Serial No. 806,629. (Cl. 4—18.)



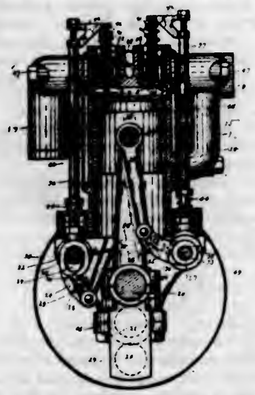
A toilet seat cover comprising a single strip of flexible material provided with a central opening and radial slits extending in the direction of the opening, an apron forming an integral portion of the sheet and located at the front thereof and normally underlying the adjacent body of the sheet and provided with a longitudinal continuous fold.

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1,092,787. INTERNAL-COMBUSTION ENGINE. JOHN R. WARREN, Grand Rapids, Mich. Original application filed July 9, 1910, Serial No. 571,118. Divided and this application filed Apr. 22, 1911. Serial No. 622,754. (Cl. 123—91.)

1. In an engine, the combination with a plurality of engine cylinders each having a piston, a supply valve and an exhaust valve, of a rotatable shaft, means to successively operate the supply valves and actuated by the rotation of the shaft to a certain rotary position for each supply valve, means actuated successively by the pistons to intermittently turn the shaft successive portions of its movement to its several valve-operating positions; a second rotatable shaft, means to successively operate the exhaust valves and actuated by the rotation of the second

shaft to a certain rotary position for each exhaust valve, means actuated successively by the pistons to intermittently turn the second shaft successive portions of its movement to its several valve-operating positions and in engine-operative relation to the position of the first shaft.



2. In an engine, the combination with two pairs of engine cylinders each cylinder having a piston, a supply valve and an exhaust valve, of a rotatable shaft carrying ratchet wheels, each wheel having two teeth, means to successively operate the supply valves and actuated by the rotation of the shaft to a certain rotary position for each supply valve, means actuated by alternate movements of each of a pair of pistons to engage a tooth of a ratchet wheel to turn the shaft successive portions of its movement to one of its valve-operating positions; a second rotatable shaft carrying ratchet wheels, each wheel having two teeth, means to successively operate the exhaust valves and actuated by the rotation of the second shaft to a certain rotary position for each exhaust valve, means actuated by alternate movements of each of a pair of pistons to engage a tooth of a ratchet wheel to turn the second shaft successive portions of its movement to one of its valve-operating positions, and in engine-operative relation to the position of the first shaft.

3. In an engine, the combination with a plurality of engine cylinders each having a piston and a valve, of a rotatable shaft, means to successively operate the valves and actuated by the rotation of the shaft to a certain rotary position for each valve, and means actuated successively by the pistons to intermittently turn the shaft successive portions of its movement to its several valve-operating positions.

4. In an engine, the combination with a plurality of engine cylinders each having a piston and a valve, of a rotatable shaft carrying wheels provided with ratchet teeth, means to successively operate the valves and actuated by the rotation of the shaft to a certain rotary position for each valve, and means actuated successively by the pistons to engage the ratchet teeth to turn the shaft successive portions of its movement to one of its several valve-operating positions.

5. In an engine, two engine cylinders each having a piston and a valve, a rotatable shaft carrying two ratchet wheels each having two teeth, means actuated by the rotation of the shaft to a certain position to operate the valves, and means actuated by alternate movements of each piston to engage a tooth of a ratchet wheel to rotate the shaft.

[Claim 6 not printed in the Gazette.]

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1,092,788. WELL-BAILING DEVICE. EARL E. WEST, Bridgeport, Ill., assignor of one-half to Wilbur H. Jarrett, Bridgeport, Ill. Filed May 7, 1913. Serial No. 765,980. (Cl. 166—19.)

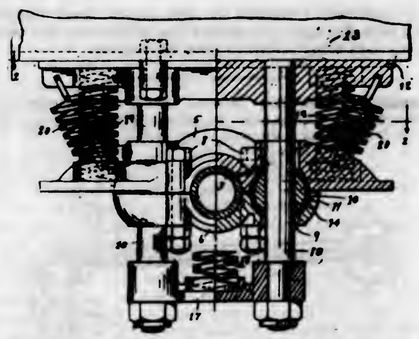
1. In a bailer device, the combination of a tube, a bail secured to its top, a hollow body member secured in the bottom of the tube its top being cone shaped and provided with a pair of openings there being a neck between same, an anchor trip member having arms to engage the said neck, and valve plates to cover said openings and having their undersides connected loosely to the said arms.



2. In a bailer device, the combination of a tube, a bail secured to its top, a hollow body member secured in the bottom of the tube its top being cone shaped and provided with a pair of openings there being a neck between same, an anchor trip member having arms to engage the said neck, valve plates to cover said openings and having their undersides connected loosely to the said arms, a link having engagement with the aforesaid bail, a piston head connected to the bottom end of the link, and a valve in the piston head.

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1,092,789. VEHICLE-SPRING. CARY W. CRAWFORD, Los Angeles, Cal. Filed May 22, 1913. Serial No. 769,195. (Cl. 21—50.)



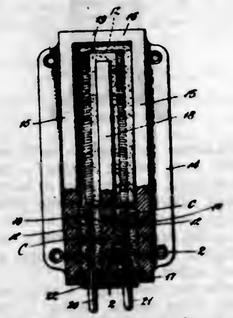
In a vehicle a crown frame secured to the body of the vehicle; an axle frame having a plurality of vertical openings extending therethrough and having said openings enlarged at the central portions to form segmental spherical chambers at the sides of the axle when positioned for use; segmental pierced balls in said chambers; guide rods secured to the crown frame and passing through the axle frame and balls therein; a tie bar connecting the lower ends of said guide rods; a buffer spring on said bar; shock springs between the crown and axle frame; and tension springs secured to the crown and axle frames.

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1,092,790. ELECTRIC HEAT UNIT. PHILIP C. GARRISON and RICHARD BOOMER, Detroit, Mich. Filed Nov. 18, 1911, Serial No. 660,982. Renewed Sept. 11, 1913. Serial No. 789,402. (Cl. 219—68.)

1. An electric heat unit comprising a metallic casing having a plurality of connected troughs spaced from each other by a metallic ridge, a heat-generating element consisting of metallic cores disposed within said troughs, and having adjacent terminals at their free ends, each core being surrounded by a shell of insulating material, an electric conductor closely wound around each shell, a body of cement completely enveloping said conductor and in close contact with the walls of the troughs, and a terminal-plate of insulating material closing the open ends of said troughs.





2. An electric heat unit comprising a metallic casing having a plurality of connected troughs spaced from each other by a metallic ridge of less height than that of the casing-walls, a heat-generating element consisting of metallic cores disposed within said troughs, and having adjacent terminals at their free ends, each core being surrounded by a shell of insulating material, an electric conductor closely wound around each shell, a body of cement completely enveloping said conductor and in close contact with the walls of the troughs, a cover of heat-insulating material for closing the open face of the trough and spaced from the cement body, and a cap for holding said cover in place and insulated against the transmission of heat from the casing.

3. An electric heat-unit comprising a metallic core, a shell of insulating material surrounding the same, an insulated electric conductor closely wound around said shell, a body of cement completely enveloping said conductor, a metallic casing having a trough to receive said cement body and having its inner walls in close contact therewith, a cover of heat-insulating material for closing the open face of the trough and spaced from the cement body, and a cap for holding said cover in place and insulated against the transmission of heat from the casing.

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1,092,791. EXTRACTION OF GLYCERIN AND FATTY MATTERS CONTAINED IN DISTILLERY-VINASSES. GASTON PHILIPPE GUIGNARD, Melun, and HENRI LOUIS ADOLPHE MARIE WATRIGANT, Lille, France. Filed May 29, 1911. Serial No. 630,206. (Cl. 87—4.)

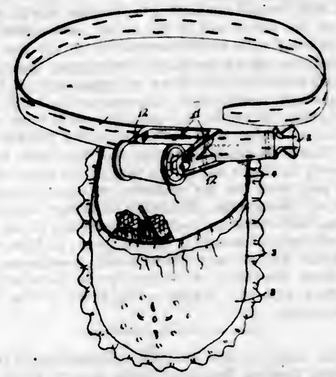
1. The simultaneous extraction of glycerin and fatty matters contained in distillery-vinasses, characterized by the total drying of the vinasses, followed by washing by means of a mixture of anhydrous ethyl alcohol and a solvent of the fatty matters soluble in alcohol.

2. A process for the simultaneous extraction of glycerin and fatty matters from vinasses, comprising the separation of organic acids by precipitation with a suitable base, the filtration and evaporation to dryness of the vinasses, the extraction of the dried residue with anhydrous ethyl alcohol mixed with a solvent soluble therein, the removal by distillation of the mixed solvent, the separation of the remaining glycerin and fat by decantation, and the purification of the glycerin.

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1,092,792. COMBINED CROCHET WORK-BAG AND SPOOL-HOLDER. ADELAIDE STARR HEMSTREET, Indian Head, Saskatchewan, Canada. Filed June 24, 1912. Serial No. 705,651. (Cl. 224—5.)

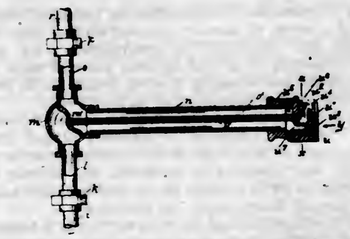
1. In a device of the class described, the combination with a waist-strap, of a bracket comprising a base-plate having flaps formed integral therewith and clamped about said waist-strap and a pair of arms extending outwardly therefrom and having orifices toward the outer ends thereof, a spindle extending through the orifices in said arms and spring means for retaining said spindle in said orifices.



2. In a device of the class described, the combination with a waist-strap, of a bracket formed of sheet metal and having a pair of flaps clamping about said waist-strap, a pair of side arms having the ends thereof turned back upon themselves and a pair of orifices toward said ends in alinement with said turned-back portions, a flat spring secured to one of said side brackets and extending under the turned-back end thereof and over the orifice and a spindle having a collar formed adjacent one end thereof and fitting the orifices in said arms and bearing against said spring.

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1,092,793. OIL-BURNER. EDWARD ELMER HOLMAN, Portland, Oreg. Filed Sept. 20, 1911. Serial No. 650,481. (Cl. 158—75.)



1. An oil burner comprising a hollow member, a partition dividing said member into two compartments, steam and oil pipes communicating with said compartments respectively, a steam tube leading from the steam compartment, a nozzle on the outer end of said tube, walls in said nozzle forming an open well, an oil tube leading from the oil compartment to said well, the forward wall of said well being of reduced height and having an inclined outer face whereby oil may overflow in a thin sheet, a steam chamber in said nozzle beneath the well, and a steam discharge slit leading from said chamber beneath said inclined wall for the emission of steam through the sheet of oil overflowing said forward wall.

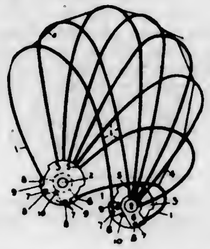
2. An oil burner comprising a hollow member, a partition dividing said member into two compartments, steam and oil pipes communicating with said compartments respectively, a steam tube leading from the steam compartment, a nozzle on the outer end of said tube, walls in said nozzle forming an open well, an oil tube leading from the oil compartment to said well, the forward wall of said well being of reduced height and having an inclined outer face whereby oil may overflow in a thin sheet, a steam

chamber in said nozzle beneath the well, a steam discharge slit leading from said chamber beneath said inclined wall for the emission of steam through the sheet of oil overflowing said forward wall, and the exterior slitted wall of said steam chamber being convexed so as to spread out the flame of burning gases.

3. A fuel-burner comprising a tubular body, a nozzle affixed on the outlet end of the latter, said nozzle formed on the exterior with a well hole of which the rear wall is perforated, an oil ejector pipe discharging through such perforated rear wall, the front or bridge wall of the well being of lesser height than the companion walls of said well, whereby is caused a constant overflow of oil over said front or bridge wall, the nozzle being further formed with a steam passageway under the well hole, and said passageway having a slit at the base of the front or bridge wall of said well for the emission of steam through the sheet of oil overflowing said front or bridge wall, the latter being made with an inclined outer face so as to feed the overflowing oil slowly in a thin sheet; and the exterior of the outer wall of said slitted steam passageway of the nozzle being described on an arc in the horizontal plane intersecting said slit, whereby the flame of the burning gases is spread out.

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1,092,794. LADY'S HEAD-GEAR. NORAH EDITH HUGHES-MAHONE, London, England. Filed Nov. 7, 1912. Serial No. 730,031. (Cl. 2—116.)



1. In a collapsible head-covering for ladies, a frame composed of a series of members pivoted so that they can be collapsed and distended, in combination with locking means consisting of devices forming parts of some of the said members and situated in close proximity to the pivotal points thereof, substantially as described.

2. In a collapsible head-covering for ladies, in combination, a "shape" composed of members hinged about a common pivot at each side of the covering, flexible media attaching said members at intervals, and locking means constituted by parts of some of the said members near the pivots thereof, substantially as described.

3. In a collapsible head-covering for ladies, a frame composed of a series of members pivoted so that they can be collapsed and distended, in combination with locking means consisting of a depression in one extreme member of said series and a complementary straight portion on the other extreme member thereof, said straight portion engaging and disengaging said depression to, respectively, maintain the distended position of the frame and permit the collapse of same, substantially as described.

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1,092,795. SHADE-HOLDER COUPLING. JOHN JECZALIK, Chicago, Ill., assignor to William Hegenscheidt, Worth, Ill. Filed Sept. 25, 1912. Serial No. 722,226. (Cl. 240—114.)

1. In shade-holder couplings, a split circular collar adapted to fit tightly an electric lamp socket having a bead, and to be seated on such bead by means of a bead in its body, in combination with a shadeholder having a circular opening of such size that it will pass over the bead on the socket, and will fit tightly the collar when compressed around the socket above the bead, substantially as and for the purpose described.

2. In shade-holder couplings, a split collar adapted to fit an electric lamp socket having a bead, and to be seated on such bead by means of a flaring flange at its lower end; in combination with a shade holder adapted to be seated on the flange of said collar, and having a flange adapted to compress said collar around such socket.

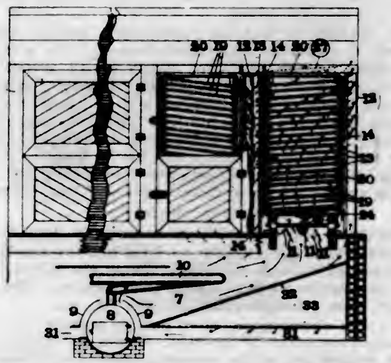


3. In shade-holder couplings, a split collar adapted to fit an electric lamp socket having a bead, and to be seated on such bead by means of a flaring flange at its lower end, and having a bead some distance above the flaring flange; in combination with a shade holder adapted to be seated on the flange of said collar, and having a slotted flange adapted to encircle the collar and to compress it around such socket.

4. In shade-holder couplings, a split collar adapted to fit an electric lamp socket having a bead, and to be seated on such bead by means of a bead at its lower end, and having another bead some distance above the one at its lower end; in combination with a shade holder adapted to be seated on the bead at the lower end of the collar, and having a slotted flange adapted to encircle the collar and to compress it against such socket.

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1,092,796. EVAPORATOR. ALLAN B. KIRK and OLIVER J. HOBSON, Portland, Oreg., assignors, by mesne assignments, to Food Products Co., a Corporation of Oregon. Filed Aug. 24, 1912. Serial No. 716,865. (Cl. 34—39.)



1. In an evaporator, in combination, a drying apartment, a source of heated air directed upwardly through said apartment, dampers for regulating and directing said air currents, movably mounted sheet metal baffle plates within said drying apartment for directing air currents and for radiating heat, a truck adapted to be run into and out of said drying apartment, tray supporting devices on said truck and movable thereon, drying trays upon said supporting devices, and means for moving said supporting devices and trays into tilted positions, for the purposes indicated.

2. In combination with a drying apartment for drying matter, a truck provided with an upright supporting frame, movable supporting devices thereon, drying trays upon said supporting devices, and operating means for moving said supporting devices to tilt said trays simultaneously in either direction.

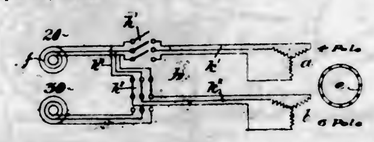
3. In an evaporator, in combination, a drying apartment, movable damper plates for controlling inlets and outlets thereof, movably mounted baffle plates or shutters at opposite sides thereof for directing the heating medium, a truck provided with supporting frame, drying trays movably mounted on said truck one above the other, and means for moving said trays simultaneously into tilted positions.

4. In an evaporator, in combination, a drying apartment, movably mounted damper plates for controlling the inlets and outlets thereof, sheet metal baffle plates movably mounted adjacent the side walls of said apartment, drying trays movably supported between said baffle plates, and means for moving said trays together into tilted positions, for the purpose mentioned.



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1,092,797. ELECTRIC SPEED-CONTROLLING MEANS. HENRY ALEXANDER MAVOR, Glasgow, Scotland. Filed Sept. 20, 1909. Serial No. 518,560. (Cl. 172—237.)



1. Speed controlling means comprising in combination a plurality of electric alternators of different periodicities, an alternating current motor having a plurality of primary windings of different pole numbers arranged in a single stator, the periodicities of said alternators and the pole numbers of said primary windings being so related that a substantially common speed of rotation of the rotor of the motor may be produced by electrically connecting any particular alternator to a particular corresponding primary winding, a secondary winding for the motor inductively related to all of the primary windings, and means for electrically connecting the particular alternators to the corresponding primary windings for simultaneous operation.

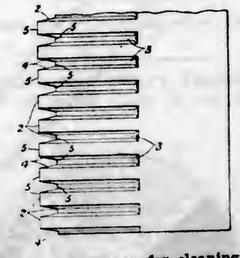
2. Speed controlling means comprising in combination, a plurality of electric alternators of different periodicities, an alternating current motor having a plurality of primary windings of different pole numbers arranged in a single stator, the pole numbers of the primary windings being such that each winding tends to give the rotor of the motor substantially the same speed of rotation when such winding is electrically connected to a particular corresponding alternator, a secondary winding for the motor inductively related to all of the primary windings, and means for electrically connecting a plurality of the primary windings to said particular corresponding alternators for simultaneous operation.

3. Speed controlling means comprising in combination, a plurality of electric alternators of different periodicities, an alternating current motor having a plurality of primary windings of different pole numbers, said primary windings being arranged to excite individually or collectively substantially the same magnetic material thereby producing a single resultant magnetic field and the number of primary windings corresponding to the number of alternators and the pole numbers of the primary windings being such that each winding tends to give the rotor of the motor substantially the same speed of rotation when such winding is connected to a particular corresponding alternator, a secondary winding for the motor inductively related to all of the primary windings, and means for electrically connecting a plurality of said primary windings to their particular corresponding alternators for simultaneous operation.

4. Speed controlling means comprising in combination an alternating current motor having a plurality of primary windings of different pole numbers arranged in a single stator, the pole numbers of said windings being such that a substantially common predetermined speed of rotation of the rotor of the motor may be produced by supplying to any primary winding electric energy of a particular corresponding frequency, a secondary winding for the motor inductively related to all of the primary windings, and means for simultaneously supplying to a plurality of said primary windings electric energy of the appropriate corresponding frequency for producing the common speed of rotation of the rotor whereby the torque developed by the rotor is cumulative and substantially equal to the sum of the torques due to the respective windings.

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1,092,798. DOCTOR OR SCRAPER FOR CLEANING THE SURFACES OF CYLINDERS, ROLLS, AND THE LIKE. JAMES NUTTALL, Bury, England. Filed Aug. 5, 1913. Serial No. 783,183. (Cl. 101—73.)



1. A rigid doctor or scraper for cleaning the surface of a rotating cylinder, said doctor having a continuous scraping edge adapted to lie in contact with the surface of the roller and having portions of said scraping edge adapted to engage the roller simultaneously in planes parallel to the axis of the roller but circumferentially spaced apart, substantially as described.

2. A rigid doctor or scraper for cleaning the surface of a rotating cylinder, said doctor having a continuous scraping edge adapted to lie in contact with the surface of the roller and having portions of said scraping edge adapted to engage the roller simultaneously in planes parallel to the axis of the roller but circumferentially spaced apart, together with other portions of said scraping edge engaging the surface of the cylinder and extending between said parallel portions of the edge, substantially as described.

3. A rigid doctor or scraper for cleaning the surface of a rotating cylinder, said doctor having its blade grooved to afford a continuous scraping edge adapted to lie in contact with the surface of the roller with portions of its scraping edge engaging the roller simultaneously in planes parallel to the axis of the roller but circumferentially spaced apart, substantially as described.

4. A rigid doctor or scraper for cleaning the surface of a rotating cylinder, said doctor having its blade grooved on both upper and lower faces to afford a continuous scraping edge adapted to lie in contact with the surface of the roller with portions of its scraping edge engaging the roller simultaneously in planes parallel to the axis of the roller but circumferentially spaced apart, substantially as described.

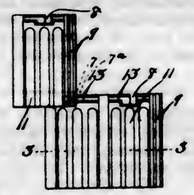
5. A rigid doctor or scraper for cleaning the surface of a rotating cylinder, said doctor having a continuous scraping edge adapted to lie in contact with the surface of the roller and having portions of said scraping edge adapted to engage the roller simultaneously in planes parallel to the axis of the roller but circumferentially spaced apart, together with other portions of the scraping edge engaging the surface of the cylinder at an incline to the direction of rotation of the cylinder and extending between said parallel portions of the edge, substantially as described.

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1,092,799. ROOFING-TILE. JOHN OPELT, Cleveland, Ohio, assignor of one-third to Frank Altmeyer, Cleveland, Ohio. Filed Apr. 10, 1913. Serial No. 760,257. (Cl. 108—10.)

A roofing tile having a notch at the middle of one end and a depending lug beside said notch, and also having

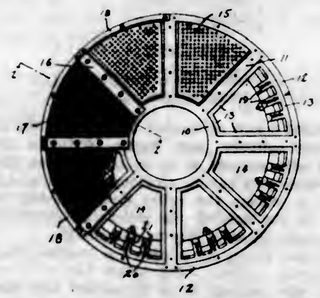
a depending lug at the corner of the opposite end adapted to fit through the notch and beside the lug of an adjacent



tile, and means to fasten together the lugs of adjacent tiles.

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1,092,800. ROTARY PRESS. CARL RACH, Stapleton, N. Y. Filed Oct. 28, 1913. Serial No. 797,811. (Cl. 100—38.)



1. A pressure disk for a rotary press of the character described, comprising hub, rim and interconnecting radial ribs dividing the disk into a plurality of segments, a seating around the inner periphery of each segment, a removable perforated plate segment resting in the seating in each segment, together with an independent superposed screen overlying the plate in each segment, substantially as described.

2. A pressure disk for a rotary press of the character described, comprising hub, rim and interconnecting radial ribs dividing the disk into a plurality of segments, a seating around the inner periphery of each segment, a removable perforated plate segment resting in the seating in each segment, and having its outer face substantially flush with the face of the disk, together with an independent superposed screen overlying the plate in each segment, substantially as described.

3. A pressure disk for a rotary press of the character described, comprising hub, rim and interconnecting radial ribs dividing the disk into a plurality of segments, a seating around the inner periphery of each segment, a removable perforated plate segment resting in the seating in each segment, together with an independent superposed screen overlying the plate in each segment, and forming the means for retaining said perforated plate in its seating, and readily detachable means for securing said screen in position, substantially as described.

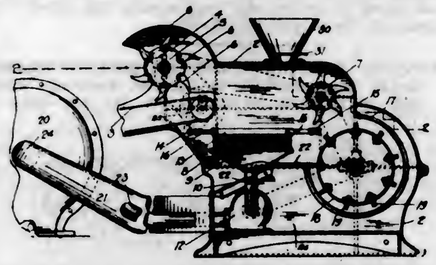
4. A pressure disk for a rotary press of the character described, comprising hub, rim and interconnecting radial ribs dividing the disk into a plurality of segments, a gear ring supporting ledge on the rear face of the disk and spaced radially inward from the disk rim, together with strengthening ribs extending between said rim and ledge, substantially as described.

5. A pressure disk for a rotary press of the character described, comprising hub, rim and interconnecting radial ribs dividing the disk into a plurality of segments, a gear ring supporting ledge on the rear face of the disk and spaced radially inward from the disk rim, together with strengthening ribs extending between said rim and ledge, removable segmental perforated plates supported on the face of the disk between the radial ribs, said strengthening ribs forming auxiliary supports for said plates, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,801. APPARATUS FOR MILLING ALFALFA-HAY. SHERMAN C. ROBERTS, Denver, Colo. Filed Sept. 10, 1912. Serial No. 719,547. (Cl. 146—29.)



1. An apparatus of the class described comprising in combination, means for separating leaves from stalks of alfalfa hay and the like, mechanical means for disintegrating the leaves to a predetermined degree of fineness, and means for reducing the stalks to a meal.

2. An apparatus of the class described comprising in combination, means for separating leaves from stalks of alfalfa hay and the like, mechanical means for disintegrating the leaves to a predetermined degree of fineness, means for reducing the stalks to a meal, and means for uniting the two products.

3. An apparatus of the class described comprising in combination, a rotatory device and a conveyer adapted to coöperatively separate leaves from stalks of alfalfa hay carried on the latter, means for disintegrating the leaves, and means disposed to receive the stalks projected by action of said rotatory device, and adapted to reduce said stalks to a meal.

4. An apparatus of the class described comprising in combination, a rotatory device and a conveyer adapted to coöperatively separate leaves from stalks of alfalfa hay carried on the latter, means for disintegrating the leaves, a rotatory cutter disposed to receive the stalks projected by action of said rotatory device, and means disposed to receive the matter discharged from said cutter and adapted to reduce the same to a meal.

5. An apparatus of the class described comprising in combination, means for separating leaves from stalks of alfalfa hay, mechanical means for disintegrating said leaves, means for reducing the stalks to a meal, and devices for separately removing the products of the said disintegrating and reducing means, and including a common delivery conduit.

[Claims 6 to 8 not printed in the Gazette.]

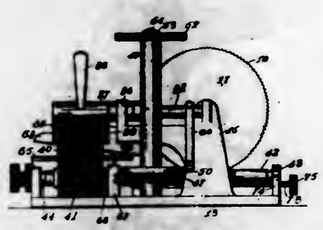
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1,092,802. CLOTH MEASURING AND CUTTING AND COST-COMPUTING MACHINE. CARL SCHWARTZ, St. Louis, Mo. Filed July 1, 1912. Serial No. 707,127. (Cl. 73—9.)

1. In a machine of the class described, a rotatable setting disk for indicating the length of material to be measured, a pair of separable friction rolls located in the clear to permit the insertion edgewise therebetween of the material and to present an uninterrupted path for the passage of the material in a right line in indefinite lengths between the rolls to thereby rotate the same, and means operatively associated with one of said rolls and actuated thereby in its rotation to rotate the setting disk and return it to zero.

2. In a machine of the class described, a rotatable setting disk for indicating the length of material to be measured, a pair of separable friction rolls located in the clear to permit the insertion edgewise therebetween of the material and to present an uninterrupted path for the passage of the material in a right line in indefinite lengths between the rolls to thereby rotate the same, means operatively associated with one of said rolls and actuated thereby in its rotation to return the setting disk to zero, and means for stopping said setting disk at zero.





3. In a machine of the class described, a setting disk for indicating the length of material to be measured, a pair of separable friction rolls located in the clear to permit the insertion edgewise therebetween of the material and to present an uninterrupted path for the passage of the material in a right line in indefinite lengths between the rolls to thereby rotate the same, means operatively associated with one of said rolls and actuated thereby in its rotation to return the setting disk to zero, a cutter located at a distance from, and substantially in the horizontal plane of said roll and serving as the point from which the material is to be measured, and means to simultaneously separate the rolls and actuate the said cutter.

4. In a machine of the class described, a setting disk for indicating the length of material to be measured, a computing drum, a friction roll over which the material to be measured is drawn to thereby rotate said roll, movable means for maintaining the material in frictional contact with said roll during such movement, and means operatively associated with said roll and actuated thereby in its rotation to return the setting disk to zero and the computing drum to a position to indicate the cost of the material measured.

5. In a machine of the class described, a setting disk for indicating the length of material to be measured, a computing drum, a friction roll over which the material to be measured is drawn to thereby rotate said roll, movable means for maintaining the material in frictional contact with said roll during such movement, said means and roll being located in the clear to permit the insertion edgewise therebetween of the material and to present an uninterrupted path for the passage of the material in a right line in indefinite lengths over the roll, and means operatively associated with said roll and actuated thereby in its rotation to return the setting disk to zero and the computing drum to a position to indicate the cost of the material measured.

[Claims 6 and 7 not printed in the Gazette.]

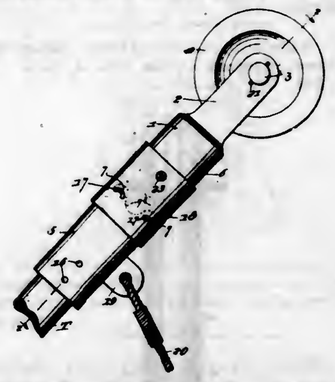
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1,092,803. TROLLEY-WHEEL MOUNT. ROY C. SHOWALTER, Altoona, Pa., assignor of one-half to Fred K. Thieme and one-fourth to John P. Reilly, Altoona, Pa. Filed June 28, 1913. Serial No. 776,222. (Cl. 64—70.)

1. In a trolley harp the combination of two parts having cam surfaces, an adjustable spring for holding the two parts together, a stopping device for limiting the movement of the one relative to the other and means for protecting the joint between the two parts.

2. In a trolley harp the combination of a stationary part attached to the pole, a movable part, a cam surface between two parts, means for automatically retaining them in normal position means for limiting rotation of the movable part and means for protecting the movable parts.

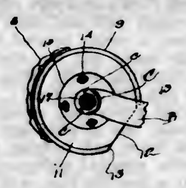
3. In a trolley harp the combination of a stationary portion, a cam surface on said portion, a movable portion, a corresponding cam surface on said movable portion, a pin and spring connecting the two portions, means for adjusting the pressure of said spring and means for protecting the joint of the two portions.



4. In a trolley harp the combination of a stationary part, a movable part, a bolt fastened to the stationary part and passing through the movable part, a spring between the nut of said bolt and the movable part and means for holding the spring in any adjusted position, cam surfaces between the movable and stationary parts, and means for positively limiting the rotation of the movable part.

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1,092,804. PNEUMATIC DUST-REMOVER FOR CARDING-ENGINES. JOSEPH J. SMITH, New York, N. Y., assignor to William Firth, Chestnut Hill, Mass. Filed Mar. 11, 1912. Serial No. 688,144. (Cl. 19—15.)



1. In a pneumatic dust remover of the nature described, a mouth piece having at its ends bearing sleeves having segmental positioning members constructed to fit members carried by a carding machine, and a brush having a shaft journaled in said sleeves.

2. In a pneumatic dust remover of the nature described, a mouth piece having a cylindrical wall and a longitudinal opening in said wall, segmental ends on which said wall is mounted and bearing sleeves adjustably mounted on said end pieces and having positioning members, and a brush having a shaft journaled in said sleeves.

3. In a pneumatic dust remover of the nature described, a mouth piece having a cylindrical wall provided with a longitudinal opening therein, end walls for said cylindrical wall, end plates secured to said end walls provided with bearing sleeves having segmental positioning members, and a brush having a shaft journaled in said sleeves.

4. In a pneumatic dust remover of the nature described, a mouth piece having a cylindrical wall provided with a longitudinal opening therein, end walls for said cylindrical wall, adjustable end plates secured to said end walls provided with bearing sleeves having segmental positioning members, and a brush having a shaft journaled in said sleeves.

5. In a pneumatic dust remover of the nature described, a mouth piece having a cylindrical wall provided with a longitudinal opening therein, end walls for said cylin-

drical wall, said end walls provided with pins, slotted end plates adjustably mounted upon said pins and provided with bearing sleeves, said bearing sleeves having positioning members adapted to engage the bearings on a machine to be operated or to position said opening relatively thereto, and a brush having a shaft journaled in said sleeves.

1,092,805. ELECTRIC SAFETY-FUSE. ERNST WEISSBERG, Cassel, Germany. Filed June 4, 1913. Serial No. 771,684. (Cl. 175—273.)



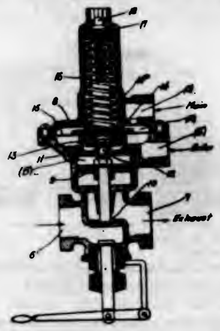
1. In an electric safety fuse, an upright outer tube of insulating material, two metallic caps closing said outer tube above and below and forming contacts, an inner tube of insulating material extending from the lower end to a point beneath the upper end of said outer tube, an annular metallic stopper closing the lower end of said inner tube and adapted to come in contact with the lower cap, an upper metallic stopper closing the upper end of said inner tube, a thin wire electrically connecting said annular stopper with said upper stopper and forming a safety fuse, a spring inserted between said upper stopper and the upper cap for electrically connecting them, and an insulating liquid filling the lower part of said outer tube and said inner tube.

2. In an electric safety fuse, an upright outer tube of insulating material, two metallic caps closing said outer tube above and below and forming contacts, an inner tube of insulating material within said outer tube and surrounded with a metallic tube, said inner tube extending from the lower end to a point beneath the upper end of said outer tube, an annular metallic stopper closing the lower end of said inner tube and adapted to come in contact with the lower cap, a metallic spindle closing the upper end of said inner tube, a thin wire electrically connecting said annular stopper with said spindle and forming a safety fuse, a helical spring surrounding said spindle for electrically connecting same with the upper cap and for pressing said inner tube downward, and an insulating liquid filling the lower part of said outer tube and said inner tube.

1,092,806. PILOT-VALVE. EDWARD V. ANDERSON, Monessen, Pa., assignor of one-half to Charles E. Golden, Crafton, Pa. Filed Oct. 18, 1911. Serial No. 655,435. (Cl. 137—4.)

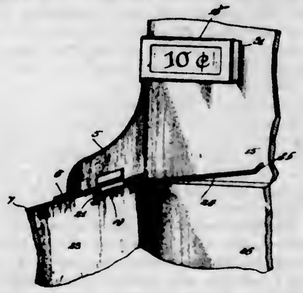
1. An automatic pilot valve for main steam valves comprising a casing having a normally closed exhaust port, a device to open said exhaust port by admission of high pressure from the steam main and means to prevent said admission of high pressure controlled by the difference of pressure between the inlet and outlet sides of the main steam valve.

2. An automatic differential pilot valve, comprising a casing having an exhaust passage adapted to be connected for operating another valve, a valve in said passage, a piston chamber and a piston therein connected with the stem of the valve, a diaphragm chamber and a diaphragm dividing it, a port between the piston chamber and the underside of the diaphragm chamber, a check valve loosely carried by said diaphragm and adapted to normally close said port, ports on the respective sides of the diaphragm adapted to connect the underside and the upperside of the diaphragm chamber, respectively to



the high pressure and low pressure sides of the valve to be governed and a spring to regulate the movements of the diaphragm and therefore the admission of high pressure to the valve operating piston, whereby said piston operates the valve to open the exhaust when a predetermined and regulable difference occurs between the high pressure and low pressure sides of the valve to be governed by the pilot.

1,092,807. LID-HOLDER FOR CIGAR-BOXES. EMERSON A. BOLEN, Morris, Ill., assignor to Northwestern Novelty Company, Morris, Ill., a Corporation of Illinois. Filed Oct. 31, 1910. Serial No. 590,001. (Cl. 217—61.)

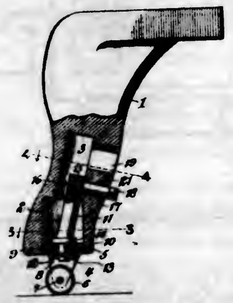



1. In lidholders for cigarboxes, a vertical member 5 having a horizontal shoulder 6 adapted to engage the upper edge of one of the sides of a cigarbox, a vertical flange 9 adapted to engage the outer surface of such side, a sloping flange 14, at right angles to member 5, adapted to engage the outer side of the lid of the box, and a flange 16 adapted to engage the inner side of the lid in combination with a spring lever 24 oscillatably mounted on member 5, and having two claws, one to engage the side of the box, opposite to flange 9, and the other to engage preferably the inner side of the lid.

2. In lidholders for cigarboxes, a vertical member 5, having a horizontal shoulder 6, adapted to engage the upper edge of one of the sides of a cigarbox; a vertical flange 9 adapted to engage the outer surface of such side; a sloping flange 14, at right angles to member 5, adapted to engage the outer side of both the lid and the back of the box, and forming with member 5 angular downward extension 27, adapted to engage a corner of the box; and a flange 16 adapted to engage the inner side of the lid; in combination with a spring lever 24, oscillatably mounted on member 5, and having two claws, one to engage the side of the box, opposite to flange 9, and the other to engage preferably the inner side of the lid.



1,092,808. STOVE-LEG CASTER. ALBERT V. CULVER, Frankfort, Ind., assignor to Valentine C. Alexander, Frankfort, Ind. Filed May 16, 1913. Serial No. 768,061. (Cl. 16—165.)



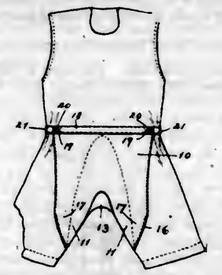
1. A device of the class described including a leg provided with an opening having a cylindrical guiding and bearing portion, a caster movable upwardly and downwardly in the said opening and provided with a substantially cylindrical stock fitting the said cylindrical portion of the opening and braced by the walls thereof, a stem having on the lower end thereof a pivot arranged centrally of the cylindrical portion of the opening and extending through the stock, the latter being freely rotatable on the said stem within the said opening and the caster being received wholly within the said opening to permit the leg to rest upon a supporting surface, and means carried by the stem and engaging the leg for maintaining the caster in a projected position.

2. A device of the class described including a leg provided with an opening having a lower cylindrical guiding and bearing portion and provided with a reduced upper portion, said leg being also provided with a slot located opposite the upper portion of the said opening and provided with an extended lower portion forming a recess, a caster movable upwardly and downwardly in the said opening and having a substantially cylindrical stock fitting the lower cylindrical portion of the said opening, a stem extending into the upper portion of the opening and provided on its lower end with a pivot on which the cylindrical stock is mounted, and a pin mounted on the stem and extending into the slot of the leg and adapted to engage with the said recess to maintain the caster in a projected position, said pin being also movable upwardly in the said slot to carry the caster wholly within the opening of the leg to permit the latter to rest upon a supporting surface.

1,092,809. UNION SUIT OR COMBINATION-GARMENT. EDWARD H. DAVISON and EDWARD L. DUMMER, New Britain, Conn., assignors to American Hosiery Company, New Britain, Conn., a Corporation. Filed Nov. 9, 1912. Serial No. 730,354. (Cl. 2—144.)

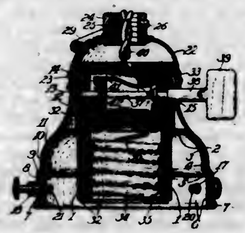
1. In a union suit having the back above the waist closed and below the waist slit to form an opening and the legs slit for the reception of a gusset, a drop seat having swallow tail points with a curved loop like edge at their junction and a smaller gusset fitted and secured to the inner edges of the said points, the said seat being secured to the said suit by seams that extend down on the legs at both the front and the rear thereof and with the seam at the adjoining edges of the gussets extended across the crotch on a loop like curved line.

2. In a union suit having a drop seat, a short belt at the upper edge of the said seat with a button hole at each end and a pair of belt extensions having take up devices at their front ends, and buttons on their opposite ends whereby the short belt at the upper edge of the drop seat may be connected with the said extension to form a complete belt.



3. In a knit garment, a gusset embodied therein and having the general form of a lozenge with a rounded extension in the middle of its length at the junction of two side edges.

1,092,810. LAMP SOCKET AND SHADE HOLDER. GEORGE M. DEWAR, Indianapolis, Ind., assignor of one-half to Albert Thompson, Indianapolis, Ind. Filed Aug. 11, 1913. Serial No. 784,099. (Cl. 240—115.)



1. A lamp socket and shade holder appliance including a socket tube, and a skirt comprising an inner portion and an outer portion formed integrally with one end of the inner portion, the opposite end of the inner portion being integrally connected to one end of the tube, the outer portion extending from the end of the inner portion about and beyond the inner portion.

2. A lamp socket and shade holder including a truncated tube, a skirt comprising an inner portion and an inclosing outer portion secured together and extending about the tube, the inner portion of the skirt being connected to the tube, the outer portion of the skirt having a neck thereon extending beyond the inner portion thereof, and a crown removably secured to the end of the neck.

3. A lamp socket and shade holder appliance including a unitary structure comprising a truncated tube and a skirt extending integrally from one end of the tube and outwardly about the tube, the skirt having a neck thereon extending beyond the plane of the end of the tube, the tube being provided with means for holding a lamp, the skirt being provided with means for holding a shade, and a crown detachably secured to the end of the neck.

4. A lamp socket and shade holder appliance including a truncated tube and a skirt connected together and provided with a neck common to both, the skirt extending about the tube, the neck having a slot extending from the end thereof, a switch box seated in the neck, a switch key connected with the switch box and extending through the slot, and a crown detachably secured to the neck and partially covering the slot.

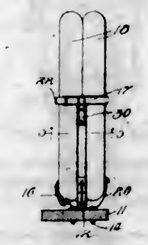
5. A lamp socket and shade holder including a skirt comprising an inner portion and an outer portion extending about the inner portion and having a neck thereon provided with a connecting device, the inner portion of the

skirt having a tubular socket portion connected thereto, screw-threaded bushings inserted in the inner and outer portions of the skirt, set-screws inserted in the bushings respectively, and a crown having a connecting device detachably connected with the connecting device of the neck.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,811. TIRE-CARRIER. THOMAS I. DUFFY, Chicago, Ill. Filed June 19, 1912. Serial No. 704,630. (Cl. 224—29.)



1. A tire carrier, with means for attaching it to a vehicle, said carrier comprising a part-circular frame of channel cross section, with its plain side or web arranged inwardly to constitute a tire seat, and with its flanges extending outwardly from the web to strengthen the web in both radial and lateral directions, and saddle members arranged crosswise of the frame and attached thereto.

2. A tire carrier, with means for attaching it to a vehicle, said carrier comprising a part-circular frame and saddle members arranged crosswise of the frame and attached, one to the central part and one to each end of the frame, the frame being made of two separate parts, one at each side of the central saddle member, and means to adjustably attach the frame parts to said central saddle member to increase the radius of the frame and to thereby adapt the carrier to tires of different diameters.

3. A tire carrier comprising a part-circular frame of channel cross section, with its plain side facing inwardly and with the flanges facing outwardly, and provided on its lower side with attaching brackets fitted to the channel frame between its flanges to attach the same to the running board of a vehicle, and saddle members attached one to the frame between the brackets and one at each end thereof to receive and support a tire.

4. A tire carrier comprising a part-circular frame provided at the sides of its center with attaching brackets to attach the same to the running board of a vehicle, and saddle members attached one to the frame between the brackets and one to each end thereof to receive and support a tire, said frame being composed of two members and the central saddle member being provided with oppositely extending arms which overlap the frame members, and means to adjustably attach the frame members to the arms of the central saddle member.

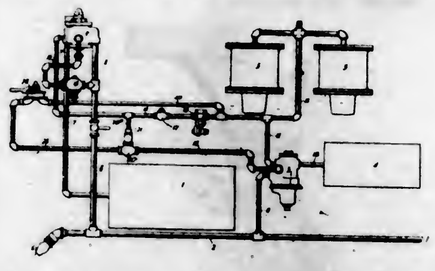
5. In a tire carrier, a part-circular frame provided at the sides of its center with means to attach the same to the running board of a vehicle, said frame being composed of two side members and a central member, the latter being provided with oppositely extending arms which overlap the side frame members, attaching bolts extending through said frame members and said arms, said arms being provided with elongated slots through which bolts extend, whereby the carrier may be adjusted to tires of different diameters.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,812. AIR-BRAKE SYSTEM. FRANK H. DUKESMITH, Meadville, Pa., assignor to Thomas C. Van Horne, Pittsburgh, Pa. Filed Nov. 16, 1912. Serial No. 731,825. (Cl. 188—1.)

1. In an automatic air brake system, the combination of a main reservoir, train pipe, brake cylinder, auxiliary reservoir, triple valve and engineer's valve connected in the usual way, connections from the engineer's valve to the brake cylinder, ports in the engineer's valve arranged to connect a source of fluid pressure to the brake cylinder, a valve actuated by the pressure in the brake cylinder for simultaneously closing the triple valve exhaust port, and an auxiliary control valve arranged to release the brake cylinder pressure.



2. In an automatic air brake system, the combination of a main reservoir, train pipe, brake cylinder, auxiliary reservoir, triple valve and engineer's valve connected in the usual way, connections from the engineer's valve to the brake cylinder, ports in the engineer's valve arranged to connect the main reservoir to the brake cylinder, and an auxiliary control valve connected to the brake cylinder, to the triple valve exhaust port, and to the atmosphere.

3. In an automatic air brake system, the combination of a main reservoir, a single train pipe, brake cylinder, auxiliary reservoir, triple valve and engineer's valve connected in the usual way, a communication between the brake cylinder and a source of fluid pressure, said communication being controlled by the engineer's valve, a valve actuated from said source of fluid pressure for closing the triple valve exhaust port, and an auxiliary hand valve for also controlling the triple valve exhaust port.

4. In an automatic air brake system, the combination of a main reservoir, train pipe, brake cylinder, auxiliary reservoir, triple valve and engineer's valve connected in the usual way, an auxiliary pipe connecting the engineer's valve and brake cylinder, passages in the engineer's valve for connecting said pipe to a source of fluid pressure, and a valve actuated by fluid pressure in said pipe for closing the triple valve exhaust port, and a leak port being provided in the piping between said exhaust valve and the engineer's valve.

5. In an automatic air brake system, the combination of a main reservoir, train pipe, brake cylinder, auxiliary reservoir, triple valve and engineer's valve connected in the usual way, a pipe connecting the engineer's valve and brake cylinder, passages in the engineer's valve arranged to connect said pipe to a source of fluid pressure, a check valve in said pipe seating toward the engineer's valve, a valve for controlling the exhaust port of the triple valve, and fluid pressure connections between said valve and the auxiliary brake cylinder pipe connected to the latter between the check valve and the engineer's valve.

[Claims 6 and 7 not printed in the Gazette.]

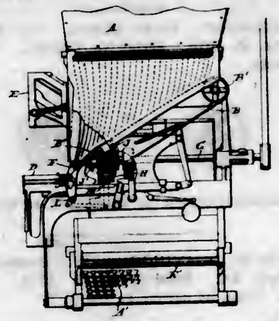
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1,092,813. TYPOGRAPHICAL MACHINE. HENRY A. ARMSTRONG, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 12, 1913. Serial No. 778,667. (Cl. 199—7.)

1. In a typographical machine, the combination of the rotating star wheel C, the cover plate F movable to and from operative position, and means whereby the movement of the cover-plate to inoperative position arrests the star wheel.

2. In a typographical machine, the combination of the star wheel C, actuating means therefor, the cover-plate F movable to and from operative position, and means whereby the movement of the cover-plate to and from operative position connects and disconnects the star wheel and its actuating means.





3. In a typographical machine, the combination of the traveling assembler belt B, the cover-plate F movable to and from operative position, and means whereby the movement of the cover-plate to inoperative position arrests the travel of the belt.

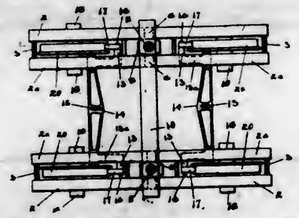
4. In a typographical machine, the combination of the assembler belt B, actuating means therefor, the cover-plate F movable to and from operative position, and means whereby the movement of the cover-plate to and from operative position connects and disconnects the belt and its actuating means.

5. In a typographical machine, the combination of the traveling assembler belt B, the rotating star wheel C, the cover-plate F movable to and from operative position, and means whereby the movement of the cover-plate to inoperative position arrests the assembler belt and star wheel.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,814. COMPENSATING TRUCK FOR RAILWAY-CARS. ALFRED J. KELLOGG, Newberg, Oreg. Filed July 29, 1913. Serial No. 781,810. (Cl. 105—243.)



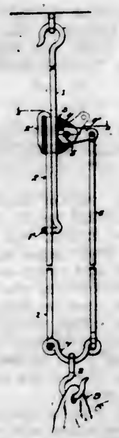
1. In a device of the character described, frames spaced apart, means to secure said frames in such spaced relation, a transversely fixed connection between the frames forming the truck section, longitudinally movable brake-beams secured intermediate the inner frames, said brake-beam also serving to space apart the upper portions of the truck sections, trunnions attached to said brake-beams, brake-shoes attached to said trunnions, transverse apertures in each of said frames, truck center-plates pivotally attached within said apertures by means of trunnions, said trunnions being integral with said truck center-plates, journal-boxes attached to the frames, an axle revolubly mounted in each journal-box, a wheel fixed on each axle, and means to prevent lateral motion of said axle, substantially as described.

2. In a device of the character described, frames spaced apart by means of spreaders, said spreaders being bolted adjacent the ends of said frames, a beam passing transversely of said trucks, said beam being firmly secured to the truck center-plates, said truck center-plates being secured intermediate the upper portions of said frames, bolster center-plates pivoted intermediate said frames, by means of trunnions which are integral therewith, ball-races in said truck center-plates and bolster center-plates, balls in said ball-races, said balls spacing the bolster center-plates and truck center-plates apart, a king-bolt passing downwardly through said beam and through the center-plates and through lugs, said lugs being integral with the lower ends of said beam, journal-boxes attached to the frames, an axle revolubly mounted in each journal-box, a wheel fixed to each axle, and means to prevent lateral motion of said axle attached within said journal-box substantially as described.

3. In a device of the character described, frames spaced apart by means of spreaders, said spreaders being bolted adjacent the ends of said frames, a beam passing transversely of said trucks, guides integral with said beams, gibs integral with the lower portions of said guides, detachable gibs on the upper portions of said guides, said guides being slidably mounted in the slots of the inner frames, said gibs serving as means to prevent longitudinal motion of said brake-beams and to space the trucks to the gage of the rails, said beam being firmly secured to the truck center-plates, said truck center-plates being pivoted intermediate the upper portions of said frames, a flange on each of said truck center-plates the longitudinal vertical edges of which form arcs of a common circle and serve as guides to the horizontal movement of the car-body, bolster center-plates pivoted intermediate said frames by means of trunnions which are integral therewith, ball-races in said truck center-plates and bolster center-plates, balls in said ball-races, said balls spacing the bolster center-plates and truck center-plates apart and also serving to keep the car-body in an upright position when the trucks shear, a king bolt passing downwardly through said beam and through the center-plates and through lugs, said lugs being integral with the lower ends of said beam, said king bolt also serving to prevent any downward thrust of the brake-beam, journal-boxes attached to the frames, an axle revolubly mounted in each journal box, a wheel fixed to each axle, and means within said journal-box to prevent lateral motion of said axles, substantially as described.

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1,092,815. ADJUSTABLE HANGER. HENRY W. A. ROEDER, Oshkosh, Wis., assignor of one-fourth to Albert J. Roeder and one-fourth to Charles E. Roeder, Oshkosh, Wis. Filed Nov. 1, 1913. Serial No. 798,669. (Cl. 248—3.)



1. A hanger comprising a suspension rod section and a load rod section in slidable union, a head secured to one end of the load rod section and incasing the suspension section, an eccentric carried by the head engageable with said suspension section, a controlling rod having one end connected to the eccentric, and a load sustaining link connecting the free ends of said controlling rod and the load section of the other rod.

2. A hanger comprising a telescopic rod having a sus-

pension section and a load section, a head secured to one end of the load section of said rod having ears overlapping the suspension section of said rod, an eccentric pivoted between the head ears provided with an arm extended therefrom, a guide for the load section of the telescopic rod extending from one end of the suspension section, a controlling rod having one end connected to the arm of the eccentric, and a link connecting the free ends of the load section of the telescopic rod and the controlling rod.

# REISSUES.

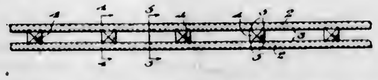
13,711. VEHICLE-SPRING. CHARLES A. BOREHAM, Coalinga, Cal. Filed Mar. 3, 1914. Serial No. 822,238. Original No. 1,082,794, dated Dec. 30, 1913, Serial No. 753,226. (Cl. 21—50.)



1. A leaf spring of the character described, comprising a series of two-part superposed resilient leaves, the inner ends of the two parts of each leaf being adjacent to each other, and the inner portion of each leaf section having a concavo-convex portion forming on one side a recess and on the other side a projection, said leaves being arranged with said concavo-convex portions interlocking, and means for tightly clamping said leaf-sections together in the above-recited relations.

2. In a leaf spring of the character described, a series of two-part leaves abutting in their meeting ends and having concavo-convex interlocking bends, clamping plates extending in each direction across the meeting ends of the springs, with transverse grooves across their outer ends, cylindrical rods lying in said grooves and bearing upon the springs, and bolts passing through the clamp plates and the springs, said lower clamp plate having grooves engaging the convexities of the two lowermost spring members.

13,712. METALLIC STRUCTURE. MAURICE LACHMAN and LAURENCE S. LACHMAN, New York, N. Y. Filed Sept. 15, 1910. Serial No. 582,253. Original No. 966,756, dated Aug. 9, 1910, Serial No. 482,817. (Cl. 189—82.)



1. A metallic frame work or structure comprising longitudinally extending stripe having ribs or ridges at their edges and cross-pieces uniting said strips having vertical ribs or ridges at their edges, said cross-pieces being held between pairs of said strips the ribs on said strips being electrically welded to the ribs on said cross-pieces.

2. A metallic frame work or structure comprising longitudinally extending strips, each having longitudinal ribs on a side thereof, cross-pieces between said strips, each cross-piece having a rib on each side adjacent to a longitudinal strip, the ribs on the strips being welded to the ribs on the cross-pieces.

3. A metallic frame work or structure comprising longitudinally extending members, each member having a projection on a side thereof, cross members between said longitudinal members having projections on each side adjacent to the longitudinal members, the said members being electrically welded together by said projections.

4. A metallic frame work or structure consisting of longitudinally extending members, cross members between said longitudinal members and welding elements between the adjacent faces of said members, the said members being welded by the welding elements.

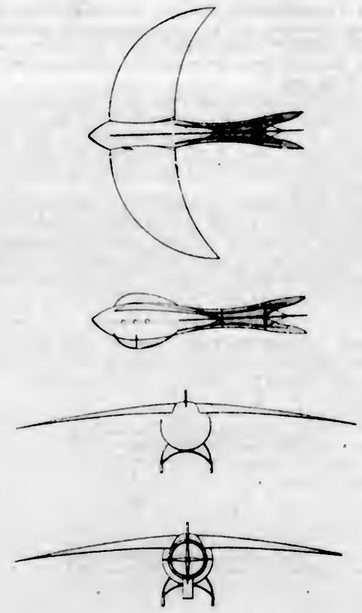
# DESIGNS.

45,549. EMBLEM. KALIL BEHTAR, New York, N. Y. Filed Apr. 30, 1913. Serial No. 764,693. Term of patent 7 years.



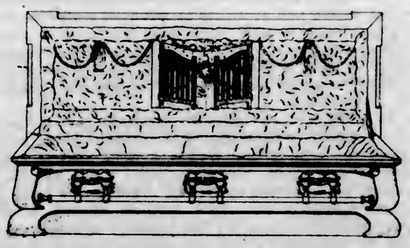
The ornamental design for an emblem as shown.

45,550. AIR-NAVIGATING VESSEL. ROBERT D. BRUCE, Pittsburgh, Pa. Filed Nov. 15, 1913. Serial No. 801,262. Term of patent 14 years.



The ornamental design for an air navigating vessel, as shown.

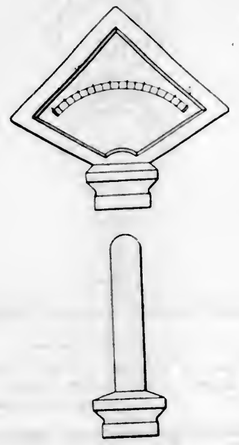
45,551. BURIAL-CASKET. HARRY BURRIS, Newcastle, Ind. Filed Feb. 6, 1914. Serial No. 817,073. Term of patent 7 years.



The ornamental design for a burial casket, as shown.

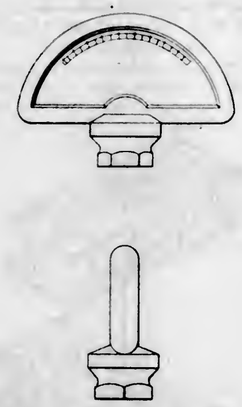


45,552. TEMPERATURE-INDICATOR. ROBERT N. BURTON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,708. Term of patent 7 years.



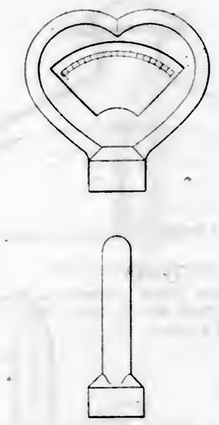
The ornamental design for a temperature indicator as shown.

45,553. TEMPERATURE-INDICATOR. ROBERT N. BURTON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,709. Term of patent 7 years.



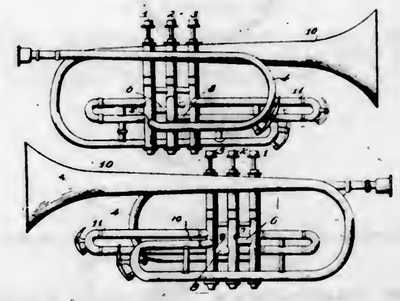
The ornamental design for a temperature indicator as shown.

45,554. TEMPERATURE-INDICATOR. ROBERT N. BURTON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,710. Term of patent 7 years.



The ornamental design for a temperature indicator as shown.

45,555. CORNET. CHARLES G. CONN, Elkhart, Ind. Filed Feb. 21, 1914. Serial No. 820,360. Term of patent 14 years.



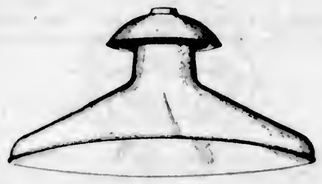
The ornamental design for a cornet substantially as shown.

45,556. WRENCH. WILLIAM GRAVIER and M. PAYSON HUTCHINS, Detroit, Mich. Filed Apr. 19, 1913. Serial No. 762,412. Term of patent 7 years.



The ornamental design for a wrench as shown.

45,557. LAMP-SHADE. EDWIN F. GUTH, St. Louis, Mo. Filed Jan. 15, 1914. Serial No. 812,346. Term of patent 3½ years.



The ornamental design for a lamp shade, as shown.

45,558. COVERED DISH. THEODORE HAVILAND, Limoges, France. Filed Mar. 7, 1913. Serial No. 752,769. Term of patent 7 years.



The ornamental design for a covered dish as shown.

45,559. TRADING-CHECK. JAMES ARTHUR KIDWELL, Dayton, Ohio. Filed June 9, 1913. Serial No. 772,701. Term of patent 14 years.



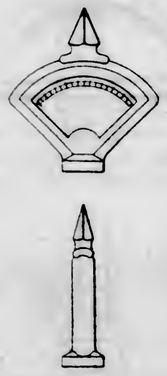

The ornamental design for a trading check, as shown.

45,560. TEMPERATURE-INDICATOR. EDWARD A. LARSON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,711. Term of patent 7 years.



The ornamental design for a temperature indicator as shown.

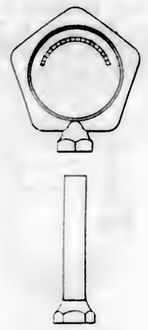
45,561. TEMPERATURE-INDICATOR. EDWARD A. LARSON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,712. Term of patent 7 years.



The ornamental design for a temperature indicator as shown.

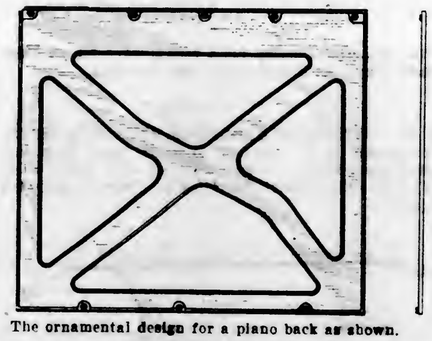


45,562. TEMPERATURE-INDICATOR. EDWARD A. LARSON, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 9, 1914. Serial No. 817,713. Term of patent 7 years.



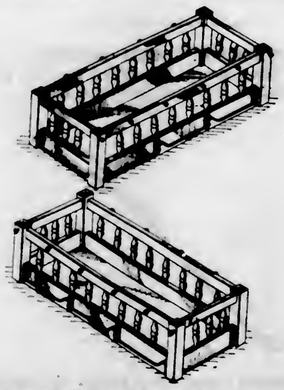
The ornamental design for a temperature indicator as shown.

45,563. PIANO-BACK. ARTHUR O. LECHNER, Pittsburgh, Pa. Filed Dec. 2, 1912. Serial No. 734,635. Term of patent 14 years.



The ornamental design for a piano back as shown.

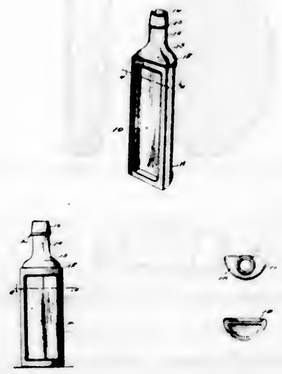
45,564. BURIAL-COUCH. JONATHAN LEE, Ottumwa, Iowa. Filed Feb. 9, 1914. Serial No. 817,707. Term of patent 14 years.



The ornamental design for a burial couch, as shown.

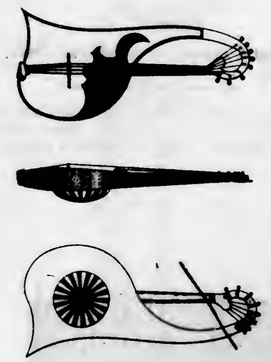


45,565. BOTTLE. GEORGE LLOYD, Chicago, Ill., assignor to Benjamin Heller and Albert Heller, Chicago, Ill., Copartners. Filed Jan. 28, 1914. Serial No. 815,093. Term of patent 14 years.



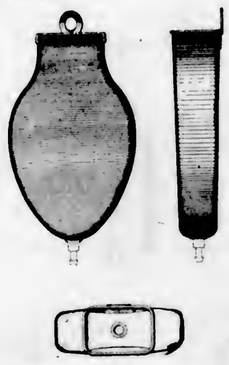
The new, original and ornamental design for bottles as shown and described.

45,566. MUSICAL INSTRUMENT. CATELLO LONGOBARDI, Schenectady, N. Y. Filed Feb. 14, 1914. Serial No. 818,806. Term of patent 14 years.



The ornamental design for a musical instrument, as shown.

45,567. IRRIGATOR-RESERVOIR. CHRISTIAN W. MEINECKE, Jersey City, N. J., assignor to Meinecke & Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 6, 1914. Serial No. 817,079. Term of patent 14 years.



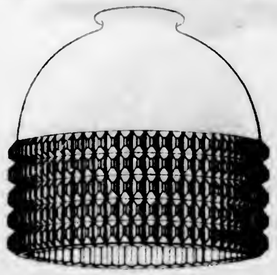
The ornamental design for an irrigator reservoir as shown.

45,568. REBOUND-CHECK. RICHARD MILLER, New Berlin, Ohio. Filed Jan. 11, 1913. Serial No. 741,588. Term of patent 7 years.



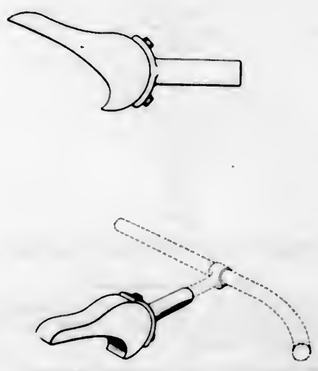
The ornamental design for a rebound check, substantially as shown.

45,569. SHADE, REFLECTOR, OR SIMILAR ARTICLE. OTIS A. MYGATT, New York, N. Y. Filed June 5, 1908. Serial No. 437,001. Term of patent 14 years.



The ornamental design for a glass shade or reflector having a circular plan which consists in providing the same with a lower cylindrical portion having protuberances upon the inner and outer surfaces thereof substantially as shown.

45,570. BASE MEMBER FOR AUTOMOBILE-BUMPERS. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 5, 1913. Serial No. 746,371. Term of patent 7 years.



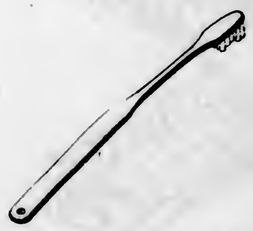
The ornamental design for a base-member for an automobile-bumper as illustrated in said drawings.

45,571. AUTOMOBILE-BUMPER. JAMES H. SAGER, Rochester, N. Y., assignor to J. H. Sager Company, Rochester, N. Y., a Corporation of New York. Filed Feb. 5, 1913. Serial No. 746,372. Term of patent 7 years.



The ornamental design for an automobile-bumper, as shown in said drawing.

45,572. HANDLE FOR TOOTH-BRUSHES. JULES J. SARRAZIN, New Orleans, La. Filed Dec. 22, 1913. Serial No. 808,288. Term of patent 14 years.



The ornamental design for a handle for tooth brushes, as shown.



45,573. STRIPPED LOOPING. JOSEPH S. SHORT, New York, N. Y. Filed Feb. 3, 1914. Serial No. 816,357. Term of patent 7 years.



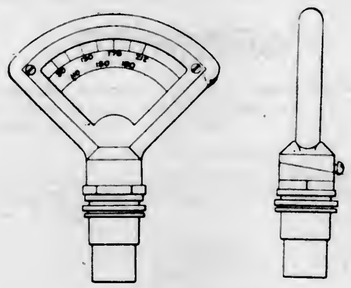
The ornamental design for stripped looping, as shown.

45,574. BATH WATER-DISTRIBUTING FIXTURE. WILLARD A. SPEAKMAN, Wilmington, Del. Filed Dec. 12, 1912. Serial No. 736,420. Term of patent 14 years.



The ornamental design for a bath water distributing fixture, as shown and described.

45,575. TEMPERATURE-INDICATOR. JOHN K. STEWART, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Dec. 24, 1913. Serial No. 808,622. Term of patent 14 years.



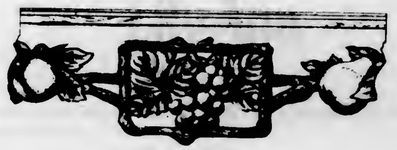
The ornamental design for a temperature indicator as shown.

45,576. NAPKIN-HOLDER. ROSE THAMM, Berkeley, Cal. Filed Feb. 9, 1914. Serial No. 817,714. Term of patent 3½ years.



The ornamental design for a napkin-holder, as shown.

45,577. WALL COVERING, FRIEZE, BORDER, OR SIMILAR ARTICLE. ROGER WEISS, Brooklyn, N. Y., assignor to Walcutt Brothers Company, New York, N. Y., a Corporation of New York. Filed Jan. 27, 1914. Serial No. 814,828. Term of patent 3½ years.



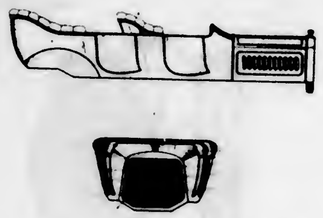
The ornamental design for a wall covering, frieze, border, or similar article, as shown.

45,578. CORNER-PIECE AND PHOTOGRAPHIC DISPLAY-CABINET. JESSE W. WESTERDALE, Gaylord, Kans. Filed Jan. 7, 1914. Serial No. 810,877. Term of patent 3½ years.



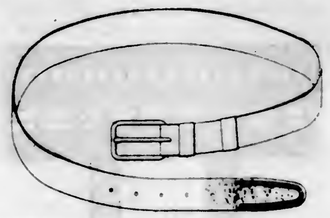
The ornamental design for a corner-piece and photographic display cabinet substantially as shown.

45,579. CAR-BODY. JOHN V. WHITBECK, Cleveland, Ohio. Filed Feb. 6, 1914. Serial No. 817,075. Term of patent 3½ years.



The ornamental design for a car body, as shown.

45,580. WAIST-BELT. ALFRED M. ZIEGLER, Boston, Mass., assignor to A. Ziegler & Sons Co., Roxbury, Mass., a Corporation of Massachusetts. Filed Nov. 13, 1911. Serial No. 660,148. Term of patent 14 years.



The ornamental design for a waist belt as shown and described.



# TRADE-MARKS

## PUBLISHED APRIL 7, 1914.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 56,972. (CLASS 12. CONSTRUCTION MATERIALS.) ALUMINATE PATENTS COMPANY, Camden, N. J., and Philadelphia, Pa. Filed June 12, 1911.

**ALCA**

*Particular description of goods.*—Lime Containing Aluminous Materials.
*Claims use* since July, 1907.

Ser. No. 58,228. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ORINDA STOVE & MANUFACTURING CO., Quincy, Ill. Filed Aug. 16, 1911.




No claim being made to the words "Stoves" and "Ranges."
*Particular description of goods.*—Heating-Stoves.
*Claims use* since the month of January, 1911.

Ser. No. 58,446. (CLASS 39. CLOTHING.) H. KUHN & SONS (INC.), New York, N. Y. Filed Aug. 30, 1911.

*Tearabout*

*Particular description of goods.*—Men's, Youths', Boys', and Children's Outer Suits and Overcoats.
*Claims use* since July 25, 1911.

Ser. No. 60,009. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE I. TRAGER CO., Cincinnati, Ohio. Filed Dec. 1, 1911.

CREME DE LA CREME

*Particular description of goods.*—Whisky.
*Claims use* since the 2d day of February, 1887.

Ser. No. 60,890. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) PERHAM & MORSBACH COMPANY, Chicago, Ill. Filed Jan. 18, 1912.

THE Lily-Ann

*Particular description of goods.*—A Combination Bust-Supporter and Dress-Shield.
*Claims use* since Jan. 7, 1912.

Ser. No. 61,283. (CLASS 7. CORDAGE.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.




*Particular description of goods.*—Cotton Twine, Flax Twine, Hemp Twine, and Linen Twine.
*Claims use* since Mar. 1, 1908.

Ser. No. 61,328. (CLASS 39. CLOTHING.) ASHBY-CRAWFORD CO. INC., Brockton, Mass. Filed Feb. 7, 1912.

TROT-MOC

The same being a coined word—"Trot-Moc."
*Particular description of goods.*—Leather and Canvas Shoes.
*Claims use* since Sept. 22, 1911.

Ser. No. 62,323. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WITE DRI CLEANER CO., Cincinnati, Ohio. Filed Mar. 21, 1912.

VIRGIN WITE DRI

*Particular description of goods.*—Dry Cleaner for White Shoes and Similar Articles.
*Claims use* since Feb. 20, 1912.

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Ser. No. 62,796. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHNSON & JOHNSON, New Brunswick, N. J. Filed Apr. 10, 1912. Under ten-year proviso.

Johnson's

*Particular description of goods.*—Medicinal Plasters, Digestive Tablets, Fumigntors, and Toilet Powders.
*Claims use* since 1887.

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Ser. No. 63,052. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BUFFALO FORGE CO., Buffalo, N. Y. Filed Apr. 22, 1912.

SPIRO

*Particular description of goods.*—Fluid-Driven Engines.
*Claims use* since Sept. 1, 1911.

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Ser. No. 63,639. (CLASS 39. CLOTHING.) THE BECK SHOE COMPANY, Brooklyn, N. Y. Filed May 20, 1912.

Samuel Beck

Which consists of a facsimile of the autograph signature of Samuel Beck, the founder of the business.
*Particular description of goods.*—Leather Boots and Shoes.
*Claims use* since December, 1909.

Ser. No. 63,923. (CLASS 33. GLASSWARE.) GUSTAV RICHARD FISCHER, Ilmenau, Germany. Filed June 1, 1912.



Consisting of red and white strips of equal width made adjacent to each other and located longitudinally of the tube, the representation of the tubes being disclaimed.
*Particular description of goods.*—Colorless Glass Tubes and Glass Rods.
*Claims use* since July 1, 1909.

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Ser. No. 64,802. (CLASS 12. CONSTRUCTION MATERIALS.) EDWIN C. WALLACE, Boston, Mass. Filed July 18, 1912.

DENSASCON

*Particular description of goods.*—Bituminous Cements and Mixtures of Bituminous Cements with Mineral Aggregate for Use in Laying Sidewalks and Roadways.
*Claims use* since about May 10, 1912.

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Ser. No. 66,381. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) AMERICAN ASBESTOS COMPANY, Norristown, Pa. Filed Oct. 19, 1912.

Ambesco

*Particular description of goods.*—Packings and Gaskets Formed of Cloth Woven from Asbestos Yarn and Belting Formed of Woven Asbestos Yarn.
*Claims use* since the 24th day of September, 1912.





Ser. No. 66,605. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COLES COMPANY, Middletown, Conn. Filed Oct. 29, 1912.

COLES MEDALLION

No claim being made to the right to the exclusive use of the names "Coles."
*Particular description of goods.*—Wheat-Flour.
*Claims use* since Aug. 14, 1912.

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Ser. No. 66,735. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. C. MCMICHAEL, Atlanta, Ga. Filed Nov. 6, 1912.

LUSANA

*Particular description of goods.*—Rice.
*Claims use* since Nov. 1, 1912.

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Ser. No. 66,767. (CLASS 12. CONSTRUCTION MATERIALS.) THE MOORES LIME CO., Springfield, Ohio. Filed Nov. 8, 1912.

WHITEKOTE

*Particular description of goods.*—Lime.
*Claims use* since Oct. 30, 1912.

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Ser. No. 66,790. (CLASS 15. OILS AND GREASES.) WILLIAM E. BENSON, St. Paul, Minn. Filed Nov. 9, 1912.

OIL PLUS

The word "Oil" being disclaimed.
*Particular description of goods.*—Lubricating-Oil.
*Claims use* since Aug. 1, 1912.

Ser. No. 67,326. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN PARADISO, New York, N. Y. Filed Dec. 10, 1912.




The applicant disclaims the use of the name "John Paradiso" in the concentric circles and also disclaims the pictorial representation of a hat, a brush, and a shoe contained in the inner circle.
*Particular description of goods.*—Shoe-Blacking, Consisting of Several Preparations, the Ingredients of Which in Their Completed Form are Used for the Purpose of Polishing Boots and Shoes.
*Claims use* since May 1, 1912.

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Ser. No. 68,164. (CLASS 7. CORDAGE.) COLUMBIAN ROPE CO., Auburn, N. Y. Filed Jan. 28, 1913.

KLEAN KLOSE

*Particular description of goods.*—Fiber Clothes-Lines.
*Claims use* since Jan. 7, 1913.

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Ser. No. 68,277. (CLASS 39. CLOTHING.) THE BEACON FALLS RUBBER SHOE COMPANY, Beacon Falls, Conn. Filed Feb. 3, 1913.

TOP NOTCH

*Particular description of goods.*—Rubber Boots, Rubber Shoes, Rubber Overshoes, Rubber Sandals, Arctics, Insoles, Spats, and Overgaiters.
*Claims use* since Dec. 9, 1910.

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Ser. No. 69,274. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Mar. 24, 1913.




*Particular description of goods.*—Lorgnettes, Eyeglass-Chains, Chain Hair-Pins, Eyeglass Reel Covers and Backs, Ornamental Edge Plates, Corners, Name-Plates, and Letters for Use on Eyeglass-Cases or the Like, Safety Pins and Hooks, and Stick-Pins, All Formed from Precious Metals.
*Claims use* since Apr. 1, 1899.

Ser. No. 69,311. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. CHUBBUCK, New York, N. Y. Filed Mar. 25, 1913.

NATURALS

*Particular description of goods.*—Medicines.
*Claims use* since Jan. 1, 1913.

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Ser. No. 69,740. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) H. KLEBER & BRO., LTD., Pittsburgh, Pa. Filed Apr. 12, 1913.

Rockwood

*Particular description of goods.*—Piano-Players and Pianos.
*Claims use* since Jan. 1, 1912.

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Ser, No. 69,857. (CLASS 39. CLOTHING.) IDAN-HA WOOLEN MILLS, Findlay, Ohio. Filed Apr. 17, 1913.

IDAN-HA

*Particular description of goods.*—Men's Coats, Vests, Trousers, and Rain-Coats.
*Claims use* since Oct. 26, 1912.

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Ser. No. 69,911. (CLASS 47. WINES.) JULIUS WILE, SONS & Co., New York, N. Y. Filed Apr. 18, 1913.

PICADOR

*Particular description of goods.*—Sherry-Wine.
*Claims use* since the 24th day of July, 1903.

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Ser. No. 69,950. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN C. HEIN COMPANY, Pittsburgh, Pa. Filed Apr. 21, 1913.




*Particular description of goods.*—Ice-Cream Chocolates, Chocolate-Covered Cream Centers, Fruit and Nut Centers Chocolate-Covered, Solid Chocolates, Hard Candies, Nut-Candies, and Shelled Nuts.
*Claims use* since Oct. 19, 1911.

Ser. No. 70,640. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VALIER & SPIES MILLING CO., St. Louis, Mo. Filed May 24, 1913.

MITO

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Apr. 10, 1913.

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Ser. No. 71,353. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & Co., Chicago, Ill. Filed June 25, 1913.




*Particular description of goods.*—Bleached Cotton Piece Goods.
*Claims use* since about January, 1908.

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Ser. No. 71,428. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EVA HAMMOND, Kansas City, Mo. Filed June 28, 1913.

TRY-IT

*Particular description of goods.*—A Remedy for Piles.
*Claims use* since Mar. 1, 1913.

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Ser. No. 71,720. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARCADIA FOOD CO., New York, N. Y. Filed July 16, 1913.

CRACKER JACK

AFCO

*Particular description of goods.*—Jelly-Powder.
*Claims use* since Mar. 4, 1913.





Ser. No. 71,833. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WALTER M. MITCHELL, Philadelphia, Pa. Filed July 18, 1913.

STICK-EM-FLAT

*Particular description of goods.*—A Solution for Mounting Photographic Prints.
*Claims use* since about Mar. 1, 1912.

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Ser. No. 71,071. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LASH'S BITTERS Co., San Francisco, Cal., and New York, N. Y. Filed July 25, 1913.




No claim being made herein to the words "Lash's" and "Liver Bitters," the words "Lash's Bitters Co." being a facsimile signature of the applicant.
*Particular description of goods.*—Liver-Bitters.
*Claims use* since June 6, 1913.

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Ser. No. 72,260. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) C. C. TRUAX & COMPANY, Toledo, Ohio, assignor to United Grocers Company, Toledo, Ohio, a Corporation of Delaware. Filed Aug. 9, 1913.

UN-GRO-CO

*Particular description of goods.*—Brooms; Dust-Brushes; Hair-Brushes; Mops; Scrubbing-Brushes; Whisk-Brooms.
*Claims use* since June 1, 1913.

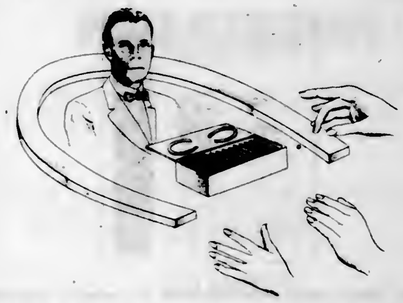
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Ser. No. 72,426. (CLASS 17. TOBACCO PRODUCTS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y Filed Aug. 19, 1913.




*Particular description of goods.*—Cigars.
*Claims use* since July 1, 1912.

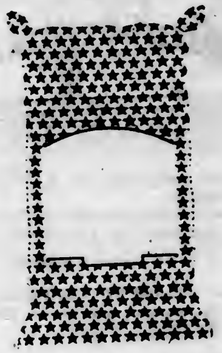
Ser. No. 72,452. (CLASS 17. TOBACCO PRODUCTS.) CHARLES CLARENCE SYMONETT, Live Oak, Fla. Filed Aug. 20, 1913.



Showing my portrait. The representation of a box of cigars in connection with the trade-mark is disclaimed, as it forms no part of the trade-mark.
*Particular description of goods.*—Cigars, Cigarettes, and Smoking and Chewing Tobacco.
*Claims use* since June 1, 1913.

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Ser. No. 72,485. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KEHLOR FLOUR MILLS COMPANY, St. Louis, Mo. Filed Aug. 22, 1913.



The mark consists of a field of stars covering the entire back and front of a sack, except a space on the front of the sack sufficient to insert any desired brand, trade-mark, or description of the contents.
*Particular description of goods.*—Wheat-Flour and Wheat-Bran, Wheat-Middlings, Graham Flour, Self-Rising Flour, and Preparations of Flour by Mixture with Various Proportions of Cleaned Bran or with Wheat-Middlings or with Both Bran and Middlings.
*Claims use* since May 1, 1913.

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Ser. No. 72,497. (CLASS 37. PAPER AND STATIONERY.) L. L. BROWN PAPER COMPANY, Adams, Mass. Filed Aug. 23, 1913.



*Particular description of goods.*—Bond-Paper, Ledger-Paper, and Type-Writer Paper.
*Claims use* since about 1876.

Ser. No. 72,560. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PROF. GIROLAMO PAGLIANO, Florence, Italy. Filed Aug. 27, 1913.




No claim being made herein to the words "Pagliano Girolamo" and "Girolamo Pagliano," (except to the signature "Girolamo Pagliano,") nor to the word "Firenze."
*Particular description of goods.*—A Blood-Depurating Syrup.
*Claims use* since 1904.

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Ser. No. 72,574. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HERBERT PAYNE, San Francisco, Cal. Filed Aug. 28, 1913.




No claim being made to the use of the language appearing on the drawing.
*Particular description of goods.*—Motion-Picture Films.
*Claims use* since about the 15th of July, 1913.

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Ser. No. 72,845. (CLASS 39. CLOTHING.) THE RILEY SHOE MANUFACTURING COMPANY, Columbus, Ohio. Filed Sept. 13, 1913.

Sincerely Yours
Mary Jane

*Particular description of goods.*—Boots and Shoes of Leather.
*Claims use* since August, 1911.

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Ser. No. 73,419. (CLASS 50. MERCHANDISE NOT OTHWISE CLASSIFIED.) KAY BROTHERS LIMITED, Stockport, England. Filed Oct. 16, 1913.

LIZARD

*Particular description of goods.*—A Fly-Catcher Consisting of an Extendible Paper Band Coated with Sticky Material Inclosed in a Cardboard Cylinder, Flat Sticky Fly-Papers, Sticky Fly-Catchers Generally.
*Claims use* since 1908.

Ser. No. 73,608. (CLASS 2. RECEPTACLES.) W. A. PLUMMER M'F'G CO., San Francisco, Cal. Filed Oct. 25, 1913.

DESERT

*Particular description of goods.*—Water-Containing Vessels Serving as Coolers.
*Claims use* since about the 1st of June, 1913.

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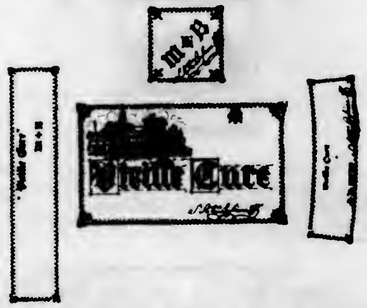
Ser. No. 73,610. (CLASS 38. PRINTS AND PUBLICATIONS.) L. C. PAGE & COMPANY (INC.), Boston, Mass., assignor to The Page Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 25, 1913.

THE GLAD BOOK

The words "The Glad Book," the exclusive use of the word "Book" not being claimed.
*Particular description of goods.*—Books of Fiction.
*Claims use* since Feb. 28, 1913.

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Ser. No. 73,613. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) STE. AME DE LA VIEILLE CURE DE CENON, Cénon, France. Filed Oct. 25, 1913.




The signature appearing in the mark is a facsimile signature of Mr. Marcel Bussiere.
*Particular description of goods.*—Liqueurs.
*Claims use* since June 23, 1911.

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Ser. No. 73,662. (CLASS 25. LOCKS AND SAFES.) THE SLAYMAKER LOCK MANUFACTURING CORPORATION, Lancaster, Pa. Filed Oct. 29, 1913.




Comprising the representation of a seal having the word "Seal" thereon.
*Particular description of goods.*—Padlocks, Door-Locks, Rim-Locks, and Night-Latches.
*Claims use* since about Nov. 1, 1912.





Ser. No. 74,281. (CLASS 50. MERCHANDISE NOT OTHWISE CLASSIFIED) CHARACTER PLASTIC COMPANY, Cincinnati, Ohio. Filed Dec. 1, 1913.

ISCH-KA-BIBBLE
(I SHOULD WORRY)

*Particular description of goods.*—Statues, Statuettes, and Plastic Relief.
*Claims use* since Nov. 29, 1913.

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Ser. No. 74,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CEREO COMPANY, Tappan, N. Y. Filed Dec. 5, 1913.

MELLAZEA

*Particular description of goods.*—A Cereal Flour Derived from *zea mays*.
*Claims use* since July 15, 1913.

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Ser. No. 74,547. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PENNSYLVANIA SUGAR COMPANY, Philadelphia, Pa. Filed Dec. 12, 1913.




*Particular description of goods.*—Sugar.
*Claims use* since Dec. 1, 1913.

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Ser. No. 74,558. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) SILVA BUSSENIUS & COMPANY, Charleston, W. Va., and New York, N. Y. Filed Dec. 13, 1913.




*Particular description of goods.*—Composite Fiber and Metal Packing.
*Claims use* since Nov. 1, 1913.

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Ser. No. 74,659. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE STRONG & TROWBRIDGE CO., New York, N. Y. Filed Dec. 17, 1913.

TEN YEARS

CREAM

We hereby disclaim right to the exclusive use of the words "ten years."
*Particular description of goods.*—Whisky.
*Claims use* since October, 1913.

Ser. No. 74,669. (CLASS 38. PRINTS AND PUBLICATIONS.) JACOB J. DAUCH, Sandusky, Ohio. Filed Dec. 18, 1913.

POWER ON THE FARM

*Particular description of goods.*—A Yearly Periodical Publication Describing Farm Apparatus.
*Claims use* since Feb. 1, 1913.

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Ser. No. 74,739. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HENRY P. RINDSKOPF, New York, N. Y. Filed Dec. 20, 1913.

CUMFY

The word "Cumfy."
*Particular description of goods.*—Bath and Toilet Novelties—viz., Friction Sudsing-Straps.
*Claims use* since Dec. 10, 1913.

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Ser. No. 74,753. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) RANDOLPH ROSE, Chattanooga, Tenn. Filed Dec. 20, 1913.

V. O. S.

*Particular description of goods.*—Whisky, Cherry Cordial, Wild-Cherry Rum, Rum, Cognac Brandy, Gin, Rock and Rye, Dry Martini Cocktail, Apricot Liqueur, Manhattan Cocktail.
*Claims use* since December, 1894.

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Ser. No. 74,824. (CLASS 39. CLOTHING.) THOMAS W. MEREDITH, New York, N. Y. Filed Dec. 24, 1913.

MYROD

*Particular description of goods.*—Leather, Cloth, Satin, and Canvas Boots, Shoes, and Slippers and for Boots, Shoes, and Slippers Having Tops or Quarters of a Mixture of Cloth and Rubber.
*Claims use* since Dec. 18, 1913.

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Ser. No. 74,852. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HENRY HEIDE, New York, N. Y. Filed Dec. 26, 1913.




*Particular description of goods.*—Candies.
*Claims use* since October, 1887.

Ser. No. 74,902. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WALLACE, SCOTT & Co., LIMITED, Glasgow, Scotland. Filed Dec. 30, 1913.

THISTLEDOWN

*Particular description of goods.*—Woolen Cloth for Making Overcoats, Coats, Capes, and Jackets.
*Claims use* since March, 1909.

Ser. No. 74,903. (CLASS 39. CLOTHING.) WALLACE, SCOTT & Co., LIMITED, Glasgow, Scotland. Filed Dec. 30, 1913.




No claim being made herein to the word "Fleece."
*Particular description of goods.*—Overcoats, Coats, Capes, and Jackets.
*Claims use* since November, 1911.

Ser. No. 74,912. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) GIBSON DISTILLING COMPANY, Philadelphia, Pa. Filed Dec. 31, 1913. Under ten-year proviso.

Gibson's

*Particular description of goods.*—Copper-Distilled Whisky.
*Claims use* since the year 1837.

Ser. No. 74,950. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HYDE WINDLASS Co., Bath, Me. Filed Jan. 2, 1914.

Hywinco

The word "Hywinco."
*Particular description of goods.*—Ship-Propellers.
*Claims use* since Nov. 3, 1913.

Ser. No. 74,972. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed Jan. 5, 1914.



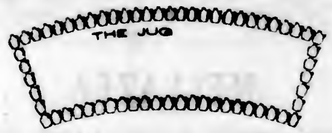
Consisting of the head of an Indian surrounded by a head-dress of feathers.
*Particular description of goods.*—Perfume, Bay-Rum, and Hair-Tonic.
*Claims use* since Aug. 1, 1883.

Ser. No. 75,006. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES HERENDEEN, Chicago, Ill. Filed Jan. 7, 1914.

WANTMOR

*Particular description of goods.*—Bread.
*Claims use* since Dec. 18, 1913.

Ser. No. 75,007. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE JUG CHEMICAL CO., Jonesboro, Ark. Filed Jan. 7, 1914.




*Particular description of goods.*—Medicinal Tonics, Liniments, Cough-Syrups, Laxatives, Castor-Oil, and Headache Compounds.
*Claims use* since May 20, 1911.

Ser. No. 75,143. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WAUGH MEDICINE CO., Grangeville, Idaho. Filed Jan. 12, 1914.

CAMTHOL

*Particular description of goods.*—A Salve for Catarrh, Croup, Colds, Sore Throat, Piles, Salt-Rheum, Eczema, Cuts, Burns, Scalds, Sprains, Skin Diseases, Ulcers, Chilblains, Corns, Bunions, and Insect-Bites.
*Claims use* since Dec. 1, 1904.

Ser. No. 75,144. (CLASS 2. RECEPTACLES.) LEWIS WHARTON, Cambridge, Ohio. Filed Jan. 12, 1914.

LW

*Particular description of goods.*—Shipping-Crates.
*Claims use* since December, 1908.

Ser. No. 75,250. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. R GRACE & COMPANY, New York, N. Y. Filed Jan. 17 1914.

"FARO"

*Particular description of goods.*—Calcium Carbid.
*Claims use* since 1885.





Ser. No. 75,263. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ABRAHAM S. OLIN, St. Louis, Mo., assignor to Three Kays Carbon Compound Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 17, 1914.

THREE KKKYS

The letters "K K K" being printed in red.
*Particular description of goods.*—Compounds for Removing Deposits of Carbon and other Deposits.
*Claims use* since Nov. 1, 1913.

Ser. No. 75,284. (CLASS 37. PAPER AND STATIONERY.) EBERHARD FABER, New York, N. Y. Filed Jan. 19, 1914.

TINTA

*Particular description of goods.*—Lead-Pencils, Colored Pencils, Automatic Lead-Pencils, Chalk Crayons, Pen and Pencil Holders, Pen and Pencil Clips, and Rubber Erasers.
*Claims use* since November, 1911.

Ser. No. 75,328. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) FLEXIBLE STAR NEEDLE Co., Cleveland, Ohio. Filed Jan. 21, 1914.



*Particular description of goods.*—Talking-Machine Needles.
*Claims use* since Nov. 15, 1913.

Ser. No. 75,352. (CLASS 12. CONSTRUCTION MATERIALS.) THE CARBORUNDUM COMPANY, Niagara Falls, N. Y. Filed Jan. 22, 1914.

RETRAX

*Particular description of goods.*—Furnace-Linings, Fire Bricks and Blocks, and Bulk Material for Use in Making the Same.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,353. (CLASS 12. CONSTRUCTION MATERIALS.) THE CARBORUNDUM COMPANY, Niagara Falls, N. Y. Filed Jan. 22, 1914.

CARBOFRAX

*Particular description of goods.*—Furnace-Linings, Fire Bricks and Blocks, and Bulk Material for Use in Making the Same.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,354. (CLASS 12. CONSTRUCTION MATERIALS.) THE CARBORUNDUM COMPANY, Niagara Falls, N. Y. Filed Jan. 22, 1914.

SILITRAX

*Particular description of goods.*—Furnace-Linings, Fire Bricks and Blocks, and Bulk Material for Use in Making the Same.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,355. (CLASS 12. CONSTRUCTION MATERIALS.) THE CARBORUNDUM COMPANY, Niagara Falls, N. Y. Filed Jan. 22, 1914.

ALITRAX

*Particular description of goods.*—Furnace-Linings, Fire Bricks and Blocks, and Bulk Material for Use in Making the Same.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,377. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE WORTHINGTON BALL COMPANY, Elyria, Ohio. Filed Jan. 22, 1914.



*Particular description of goods.*—Golf-Balls.
*Claims use* since Dec. 15, 1913.

Ser. No. 75,416. (CLASS 39. CLOTHING.) J. H. SEMEL & Co., New York, N. Y. Filed Jan. 24, 1914.



*Particular description of goods.*—Hosiery.
*Claims use* since Jan. 16, 1914.

Ser. No. 75,448. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS P. FARMER, Kansas City, Mo. Filed Jan. 26, 1914.




*Particular description of goods.*—Laxative Medicine.
*Claims use* since Jan. 10, 1914.

Ser. No. 75,459. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) GEORGE J. MEYER, New York, N. Y. Filed Jan. 26, 1914.

MEYARELLA

*Particular description of goods.*—Mothproofed Fabrics.
*Claims use* since May 5, 1913.

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Ser. No. 75,479. (CLASS 38. PRINTS AND PUBLICATIONS.) URIEL DAVIS, New York, N. Y. Filed Jan. 27, 1914.

Uriel Davis

Comprising a facsimile of the signature of Uriel Davis, the applicant.
*Particular description of goods.*—Instructive Literary Compositions Published Serially.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,482. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE INVINCIBLE GRAIN CLEANER CO., Silver Creek, N. Y. Filed Jan. 27, 1914.




*Particular description of goods.*—Grain Separators, Cleaners, Scourers, Finishers, and Polishers; Bean and Pea Polishers, Separators, and Graders; Horisontal Two-High Adjustable Close Scourers, Horisontal Double Scourers, Horisontal Adjustable Close Scourers, Upright Adjustable Close Scourers, Friction-Scourers, Buckwheat and Rye Scourers, Barley-Scourers, Corn-Scourers, Horisontal Brush Finishing Machines, Upright Brush Finishing Machines, Oat-Clippers, Corn and Cob Separators and Cleaners, Twentieth Century Mill-Separators, Milling-Separators, Double Receiving Separators, Compound Shake Double Receiving Separators, Warehouse and Elevator Separators, Cracked-Corn Separators, Combined Corn and Small-Grain Cleaners, Malt Polishers and Separators, Flax-Separators, Seed Separators and Graders, Needle-Screen Gravity-Separators, Coffee Polishers, Separators, and Graders; Coffee-Milling Machines, Oatmeal-Milling Machines, Rolling-Screens, Receiving-Shoes, String-Bean Cutters, String-Bean Graders, Green-Pea Cleaners, Automatic Flour-Packers, Automatic Sack-Packers, Automatic Bran-Packers, Automatic Paint-Packers, Automatic Cement-Packers, Automatic Lime-Packers, Automatic Ore-Packers, Automatic Facings-Packers, Automatic Small-Package Packers, Oat-Flake Packers, All-Steel Cleaners, Feed and Molasses Mixers, Corn-Driers, Grain-Driers, Cockle-Cylinders, Needle-Reel Oat-Graders, Needle-Reel Malt-Graders, Rice-Separators, Rice Table-Machines, Oat Table-Machines, Oat-Hull Separators, Rice-Hull Separators, Oat-Flake Aspirators, Cornmeal-Bolts, Centrifugal Disk Aspirators, Screenings-Separators, Wheat and Oat Separators, and Green-Corn-Husking Machines.
*Claims use* since on or about the 1st of January, 1908.

Ser. No. 75,495. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HYGENOL COMPANY, Minneapolis, Minn. Filed Jan. 28, 1914.

MENTHO-LYPTOL

*Particular description of goods.*—A Skin-Cream.
*Claims use* since Sept. 6, 1913.

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Ser. No. 75,524. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HOWARD B. CRESSMAN, Philadelphia, Pa. Filed Jan. 29, 1914.

LIP-BLIS

This trade-mark which consists of the arbitrary word "Lip-Blis."
*Particular description of goods.*—A Medicinal Preparation for the Treatment of Fever-Blisters.
*Claims use* since about Jan. 1, 1914.

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Ser. No. 75,556. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE SYDNEY ROSS CO., New York, N. Y. Filed Jan. 30, 1914. Under ten-year proviso.




The signature shown being a facsimile of that of C. B. Riker, treasurer of the applicant.
*Particular description of goods.*—Remedies for Bowel and Liver Diseases.
*Claims use* since 1892.

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Ser. No. 75,577. (CLASS 39. CLOTHING.) H. KUHN & SONS (INC.), New York, N. Y. Filed Jan. 31, 1914.

Kuhn-Kord

*Particular description of goods.*—Men's, Youths', Boys', and Children's Outer Suits and Overcoats.
*Claims use* since Dec. 15, 1913.

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Ser. No. 75,592. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) UNION METALLIC CARTRIDGE COMPANY, Bridgeport, Conn. Filed Jan. 31, 1914.

UMBRELLA POINT

*Particular description of goods.*—Bullets.
*Claims use* since Jan. 19, 1914.





Ser. No. 75,647. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ELLIS & COMPANY (BIRMINGHAM) LIMITED, Birmingham, England. Filed Feb. 3, 1914.



*Particular description of goods.*—Cake-Baskets, Cruets, Cups, Dish-Covers, Meat-Dishes, Entrée-Dishes, Egg-Frames, Tea and Coffee Services, Wine-Coolers, Inkstands, Liquor-Frames, Mustard-Pots, Muffineers, Salt-Cellars, Sauce-Boats, Soup-Tureens, Siphon-Stands, Sweet-Dishes, Tea-Urns, Toast-Racks, Tea-Caddies, Trays, Vases, and Waiters, All Made of Silver or Plated with Silver.
*Claims use* since November, 1912.

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Ser. No. 75,677. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE JOHNSON-RICHARDSON CO., LIMITED, Montreal, Canada. Filed Feb. 4, 1914.




*Particular description of goods.*—Laundry Blue.
*Claims use* since about Aug. 1, 1913.

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Ser. No. 75,709. (CLASS 5. ADHESIVES.) THE McGOWAN COMPANY, Homestead, Pa. Filed Feb. 5, 1914.

Lightning

*Particular description of goods.*—Puncture Cure for Pneumatic Tires.
*Claims use* since Sept. 24, 1912.

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Ser. No. 75,712. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ABDON V. PISKORSKI, Jersey City, N. J. Filed Feb. 5, 1914.

EX-SO

*Particular description of goods.*—A Laxative and Digestive Remedy.
*Claims use* since Dec. 15, 1913.

Ser. No. 75,779. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM M. BARENTINE, Augusta, Ga. Filed Feb. 9, 1914.



Consisting of my portrait.
*Particular description of goods.*—Blood and Liver Tonic.
*Claims use* since Oct. 1, 1913.

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Ser. No. 75,872. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) F. A. HARDY & Co., Chicago, Ill. Filed Feb. 12, 1914.

AHO

*Particular description of goods.*—Mountings for Spectacles and Eyeglasses.
*Claims use* since Feb. 1, 1897.

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Ser. No. 75,895. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Feb. 14, 1914.

ELASTIGUM

*Particular description of goods.*—Bituminous Roofing Material.
*Claims use* since on or about Feb. 10, 1914.

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Ser. No. 75,898. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID MORTIMER, Boston, Mass. Filed Feb. 14, 1914.

Fleur de Lis

*Particular description of goods.*—A Complexion Preparation.
*Claims use* since Oct. 1, 1912.

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Ser. No. 75,903. (CLASS 2. RECEPTACLES.) SCHORSCH & Co., New York, N. Y. Filed Feb. 14, 1914.

MASCOT

The word "Mascot."
*Particular description of goods.*—Paper Bags.
*Claims use* since Aug. 25, 1913.

Ser. No. 75,904. (CLASS 2. RECEPTACLES.) SCHORSCH & Co., New York, N. Y. Filed Feb. 14, 1914.

AMBER

The word "Amber."
*Particular description of goods.*—Paper Bags.
*Claims use* since Sept. 10, 1913.

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Ser. No. 75,956. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WRIGHT'S INDIAN VEGETABLE PILL CO., New York, N. Y. Filed Feb. 16, 1914. Under ten-year proviso.

THE GROSSMAN MIXTURE

DR. J. GROSSMAN

*Particular description of goods.*—A Remedy for Gonorrhea, Gleet, Strictures, and Analogous Complaints for the Organs of Generation.
*Claims use* since May 1, 1868.

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Ser. No. 75,967. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATZ & BESTHOFF, LTD., New Orleans, La. Filed Feb. 17, 1914.

Astra

*Particular description of goods.*—Perfumery Extracts, Toilet Waters, and Face, Talcum, and Sachet Powders.
*Claims use* since Aug. 29, 1913.

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Ser. No. 75,968. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATZ & BESTHOFF, LTD., New Orleans, La. Filed Feb. 17, 1914.

CLEO

*Particular description of goods.*—Perfumery Extracts, Toilet Waters, and Face, Talcum, and Sachet Powders.
*Claims use* since June, 1913.

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Ser. No. 75,971. (CLASS 2. RECEPTACLES.) SCHORSCH & Co., New York, N. Y. Filed Feb. 17, 1914.

RAMBLER

The word "Rambler."
*Particular description of goods.*—Paper Bags.
*Claims use* since Sept. 2, 1913.

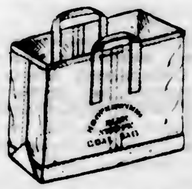
Ser. No. 75,976. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed Feb. 18, 1914.

Dainty Maid

*Particular description of goods.*—Skin-Lotion, Toilet Waters, Perfumes, Toilet Creams, Toilet Powder, and Sachet-Powder.
*Claims use* since Nov. 1, 1913.

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Ser. No. 75,999. (CLASS 2. RECEPTACLES.) WM. E. HOOPER & SONS CO., Baltimore, Md. Filed Feb. 18, 1914.



Which consists of three parallel blue stripes extending vertically around the bag from the center of the handle on one side to the center of the handle on the other, associated with the words "Hooperwood Blue Stripe Coal Bag," no claim being made herein to the representation of the bag or to the words "Coal Bag."
*Particular description of goods.*—Cotton-Duck Bags.
*Claims use* since Sept. 13, 1913.

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Ser. No. 76,021. (CLASS 39. CLOTHING.) L. WOHL & Co., New York, N. Y. Filed Feb. 18, 1914.

Tango

The word "Tango."
*Particular description of goods.*—Infants' and Children's Dresses.
*Claims use* since Feb. 2, 1914.

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Ser. No. 76,042. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SIROLIT LIMITED, London, England. Filed Feb. 19, 1914.

ERINOID

*Particular description of goods.*—A Preparation of Casein.
*Claims use* since about June, 1913.

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Ser. No. 76,059. (CLASS 7. CORDAGE.) THE LEES MFG. CO., Westport, Conn., and New York, N. Y. Filed Feb. 20, 1914.

OCTAGON

*Particular description of goods.*—Twines and Cords, Braided or Twisted.
*Claims use* since Sept. 1, 1913.





Ser. No. 76,060. (CLASS 39. CLOTHING.) A. C. LAWRENCE LEATHER CO., Boston, Mass. Filed Feb. 20, 1914.

JUNIPER

*Particular description of goods.*—Soles for Boots and Shoes.
*Claims use* since February, 1913.

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Ser. No. 76,061. (CLASS 37. PAPER AND STATIONERY.) NORTHERN PAPER MILLS, Green Bay, Wis. Filed Feb. 20, 1914.

NORMIL

*Particular description of goods.*—Paper Towels and Toilet-Paper.
*Claims use* since Sept. 20, 1913.

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Ser. No. 76,082. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALEXANDER SHIRLEY LEVERTY, New York, N. Y. Filed Feb. 21, 1914.

Pilepsie

*Particular description of goods.*—Pills for the Treatment of Epilepsy or So-Called Falling Sickness, Fits of All Kinds, Hysteria, Hystero-Epilepsy, Neurasthenia, Change of Life, Premenstrual Pains, Uterine Neuralgia, St. Vitus's Dance, Shaking Palsy, Delirium Tremens, Headache, Dizziness, Nervousness, Insomnia, and Pains of Locomotor Ataxia.
*Claims use* since Jan. 31, 1914.

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Ser. No. 76,091. (CLASS 2. RECEPTACLES.) SCHORSCH & Co., New York, N. Y. Filed Feb. 21, 1914.

STONEWALL

The word "Stonewall."
*Particular description of goods.*—Paper Bags.
*Claims use* since Aug. 22, 1913.

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Ser. No. 76,103. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DANCZ INSTITUTE OF NEW YORK, INC., New York, N. Y. Filed Feb. 24, 1914.

Tubercin

*Particular description of goods.*—The Following Goods—to wit, a Liniment or Lotion for Rheumatism, Sciatica, Neuritis, Backache, Sprains, and Strains, for Affections of the Muscles and Ligaments and Improving the Condition of the Same, and for Lumbago, Neuralgia, Pleurisy, and Bronchitis; a Liquid Used as a Gargle for the Throat; an Ointment or Salve for Sores, Wounds, and Inflammation; a Cough Remedy, Expectorant, Disinfectant, and Solvent or Remover of Deleterious or Undesirable Substances or Matter from the Body or Parts Thereof; a Remedy for Fever and for Reducing the Temperature of the Body; an Appetizer and Laxative; and an Injection for Hemorrhage and Hemorrhagic Conditions and for Fever and Reducing the Temperature of the Body.
*Claims use* since Feb. 3, 1914.

Ser. No. 76,122. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SILVERBERG IMPORT CO., New York, N. Y. Filed Feb. 24, 1914.




The outer border of the padlock being light blue and the space between the hasp and body of the lock being dark blue, no claim being made to the exclusive use of the words "Dress Lox" nor to the representation of snap-fasteners shown in the drawing.
*Particular description of goods.*—Garment-Fasteners.
*Claims use* since November, 1913.

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Ser. No. 76,141. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HERMAN KLOPPEL AND CO., Baltimore, Md. Filed Feb. 25, 1914.



The portrait shown being fanciful.
*Particular description of goods.*—A Preparation for Dandruff, Falling Hair, and Itching Scalp.
*Claims use* since Sept. 3, 1912.

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Ser. No. 76,153. (CLASS 39. CLOTHING.) STEWART & BACHARACH, New York, N. Y. Filed Feb. 25, 1914.




The picture being fanciful.
*Particular description of goods.*—Caps.
*Claims use* since the 1st day of January, 1914.

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Ser. No. 76,169. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CARL S. DILLENBACK, Cobleskill, N. Y. Filed Feb. 26, 1914.

VALLEY

*Particular description of goods.*—Hops.
*Claims use* since Apr. 1, 1887.

Ser. No. 76,170. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CARL S. DILLENBACK, Cobleskill, N. Y. Filed Feb. 26, 1914.

**Hillside**

*Particular description of goods.*—Hops.
*Claims use* since Apr. 1, 1887.

Ser. No. 76,171. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CARL S. DILLENBACK, Cobleskill, N. Y. Filed Feb. 26, 1914.

SUNNY SIDE

*Particular description of goods.*—Hops.
*Claims use* since Apr. 1, 1887.

Ser. No. 76,182. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ERNEST HUNOLD, Providence, R. I. Filed Feb. 26, 1914.

HUNCO

The trade-mark consists of the coined word "Hunco."
*Particular description of goods.*—Heel and Sole Protectors for Boots and Shoes.
*Claims use* since Nov. 4, 1913.

Ser. No. 76,185. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MASON O. MONTGOMERY, Terre Haute, Ind. Filed Feb. 26, 1914.

Mo-Mex

*Particular description of goods.*—Cough-Drops.
*Claims use* since Jan. 3, 1914.

Ser. No. 76,188. (CLASS 39. CLOTHING.) MARION SHOE COMPANY, Marion, Ind. Filed Feb. 26, 1914.




No claim being made to the representation of the shoe.
*Particular description of goods.*—Leather Shoes.
*Claims use* since July 14, 1913.

Ser. No. 76,192. (CLASS 39. CLOTHING.) THE PITTSBURGH DRY GOODS COMPANY, Pittsburgh, Pa. Filed Feb. 26, 1914.




*Particular description of goods.*—Men's and Boys' Dress, Negligée, and Work Shirts.
*Claims use* since Oct. 14, 1913.

Ser. No. 76,198. (CLASS 12. CONSTRUCTION MATERIALS.) THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y. Filed Feb. 26, 1914.

TIGER

*Particular description of goods.*—A Composition Roofing.
*Claims use* since Jan. 8, 1914.

Ser. No. 76,200. (CLASS 39. CLOTHING.) VOGUE DRESS CO., INC., New York, N. Y. Filed Feb. 26, 1914.

Little Miss Muffet

The words "Little Miss Muffet."
*Particular description of goods.*—Children's, Juniors', and Misses' Fine Dresses.
*Claims use* since Feb. 12, 1914.

Ser. No. 76,212. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE IDEAL CLAMP M'F'G COMPANY INC., New York, N. Y. Filed Feb. 27, 1914.

IDEAL

*Particular description of goods.*—Clamps and Ground-Clamps for Clamping Rubber Hose and for Electric Ground Contacts.
*Claims use* since March, 1913.

Ser. No. 76,260. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH WITTMANN, New York, N. Y. Filed Feb. 28, 1914.



*Particular description of goods.*—Rugs and Druggets.
*Claims use* since May 26, 1912.

Ser. No. 76,297. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 2, 1914.

KURLTEX

*Particular description of goods.*—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
*Claims use* since about July 1, 1913.

Ser. No. 76,298. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 2, 1914.

KURLETTE

*Particular description of goods.*—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
*Claims use* since about Jan. 1, 1912.





Ser. No. 76,321. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MILES MANUFACTURING CO., Philadelphia, Pa. Filed Mar. 4, 1914.



*Particular description of goods.*—Roach-Powder.
*Claims use* since Oct. 28, 1913.

Ser. No. 76,343. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HORACE CLARK & SONS CO., Peoria, Ill. Filed Mar. 5, 1914.

CLARKOAL

*Particular description of goods.*—Coal.
*Claims use* since about the 1st day of August, 1909.

Ser. No. 76,359. (CLASS 2. RECEPTACLES.) GENERAL SANITATION CORPORATION, New York, N. Y. Filed Mar. 5, 1914.

Yellow Cross

*Particular description of goods.*—Disinfecting and Deodorizing Containers.
*Claims use* since Feb. 3, 1914.

Ser. No. 76,368. (CLASS 48. MALT EXTRACTS AND LIQUORS.) MENOMINEE RIVER BREWING CO., Menominee, Mich. Filed Mar. 5, 1914.



*Particular description of goods.*—Beer and Porter.
*Claims use* since about 1886.

Ser. No. 76,385. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE STAR BREWING CO., Minster, Ohio. Filed Mar. 5, 1914.




*Particular description of goods.*—Beer.
*Claims use* since about 1870.

Ser. No. 76,390. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEBSTER CHEMICAL COMPANY, St. Paul, Minn. Filed Mar. 5, 1914.

Ergil

*Particular description of goods.*—A Medicinal Tonic and Nutrient.
*Claims use* since Mar. 3, 1914.

Ser. No. 76,405. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE CHARLES E. HIRES COMPANY, Philadelphia, Pa. Filed Mar. 6, 1914.

Champanale

The word "Champanale."
*Particular description of goods.*—A Beverage Made from White Grape Juice.
*Claims use* since Dec. 20, 1913.

Ser. No. 76,437. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KEYSTONE STEEL & WIRE COMPANY, South Bartonville, Ill. Filed Mar. 7, 1914.

Economy

*Particular description of goods.*—Wire Fence.
*Claims use* since about Jan. 1, 1914.

Ser. No. 76,467. (CLASS 47. WINES.) THE M. HOMMEL WINE CO., Sandusky, Ohio. Filed Mar. 9, 1914.

GOLD TOP

*Particular description of goods.*—Champagnes.
*Claims use* since June, 1889.

Ser. No. 76,483. (CLASS 2. RECEPTACLES.) TIOGA FARMS POULTRY COMPANY, Farmingdale, N. Y. Filed Mar. 9, 1914.



*Particular description of goods.*—Boxes.
*Claims use* since Oct. 1, 1912.

Ser. No. 76,511. (CLASS 47. WINES.) HERMAN C. MYERS, New York, N. Y. Filed Mar. 10, 1914.




*Particular description of goods.*—Wine.
*Claims use* since July, 1913.

Ser. No. 76,577. (CLASS 39. CLOTHING.) BROWN DURRELL CO., Boston, Mass. Filed Mar. 12, 1914.

WINDMILL

*Particular description of goods.*—Hosiery and Underwear.
*Claims use* since Mar. 4, 1914.

Ser. No. 76,588. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ADOLPH SEIDEL & SONS, Chicago, Ill. Filed Mar. 12, 1914.

TANGO-LA

*Particular description of goods.*—A Soda-Water and Soda-Fountain Beverage.
*Claims use* since Mar. 7, 1914.

Ser. No. 76,590. (CLASS 39. CLOTHING.) JOSEPH W. STONE, Boston, Mass. Filed Mar. 12, 1914.

EUREKA

*Particular description of goods.*—Dresses.
*Claims use* since Mar. 7, 1914.

Ser. No. 76,628. (CLASS 39. CLOTHING.) GEO. BORGFELDT & Co., New York, N. Y. Filed Mar. 14, 1914.

The Bo-Co

*Particular description of goods.*—Fabric Gloves.
*Claims use* since Mar. 1, 1914.

Ser. No. 76,651. (CLASS 39. CLOTHING.) MILWAUKEE APRON COMPANY, Milwaukee, Wis. Filed Mar. 14, 1914.

ARISTO

*Particular description of goods.*—Aprons.
*Claims use* since Nov. 22, 1913.

[Vol. 201. No. 1.]



# TRADE-MARKS

## REGISTERED APRIL 7, 1914.

96,078. SELF-RISING WHEAT-FLOUR. THE ALLEN & WHEELER CO., Troy, Ohio.
Filed September 12, 1913. Serial No. 72,808. PUBLISHED JANUARY 27, 1914.

96,079. SPECTACLES, EYEGLASSES, FRAMES, BRIDGES, LENSES, GUARDS, AND MOUNTINGS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed December 7, 1912. Serial No. 67,292. PUBLISHD FEBRUARY 3, 1914.

96,080. SAFETY-PINS. AMERICAN PIN COMPANY, Waterbury, Conn.
Filed December 2, 1913. Serial No. 74,302. PUBLISHED FEBRUARY 3, 1914.

96,081. COFFEE. ARBUCKLE BROTHERS, New York, N. Y., and Chicago, Ill.
Filed November 17, 1913. Serial No. 74,023. PUBLISHED JANUARY 27, 1914.

96,082. SALMON. THE J. K. ARMSBY CO., San Francisco, Cal.
Filed October 30, 1913. Serial No. 73,666. PUBLISHED JANUARY 27, 1914.

96,083. OYSTERS. ARMSTRONG BROTHERS, Hampton, Va.
Filed October 11, 1913. Serial No. 73,306. PUBLISHED JANUARY 27, 1914.

96,084. REMEDY FOR CERTAIN NAMED DISEASES. J. C. AYER CO., Lowell, Mass.
Filed October 23, 1913. Serial No. 73,565. Renewal of No. 10,691, November 6, 1883. PUBLISHED JANUARY 27, 1914.

96,085. CATHARTIC PILLS. J. C. AYER CO., Lowell, Mass.
Filed October 23, 1913. Serial No. 73,566. Renewal of No. 10,696, November 6, 1883. PUBLISHED JANUARY 27, 1914.

96,086. REMEDY FOR THE VARIOUS AFFECTIONS OF THE LUNGS AND THROAT. J. C. AYER CO., Lowell, Mass.
Filed October 23, 1913. Serial No. 73,567. Renewal of No. 10,693, November 6, 1883. PUBLISHED JANUARY 27, 1914.

96,087. HAIR-TONIC. J. C. AYER CO., Lowell, Mass.
Filed October 23, 1913. Serial No. 73,568. Renewal of No. 10,692, November 6, 1883. PUBLISHED JANUARY 27, 1914.

96,088. LAXATIVE PILLS, TONIC MEDICINE, DYSPEPSIA-TABLETS, ANTISEPTIC POWDER, AND OINTMENT. CLYDE KREIDER BAER, Philadelphia, Pa.
Filed November 1, 1913. Serial No. 73,728. PUBLSHED JANUARY 27, 1914.

96,089. POROUS PLASTERS. BAUER & BLACK, Chicago, Ill.
Filed December 3, 1913. Serial No. 74,322. PUBLISHED FEBRUARY 3, 1914.

96,090. POROUS PLASTERS. BAUER & BLACK, Chicago, Ill.
Filed December 3, 1913. Serial No. 74,323. PUBLISHED FEBRUARY 3, 1914.

96,091. FLOUR. BERTON BEEBE, East St. Louis, Ill.
Filed October 23, 1913. Serial No. 73,595. PUBLISHED JANUARY 27, 1914.

96,092. FRUIT JELLY, MUSTARD, FRUIT PRESERVES, AND MINCED PIE-FILLING. BEST-CLYMER MFG. CO., St. Louis, Mo.
Filed November 3, 1913. Serial No. 73,763. PUBLISHED JANUARY 27, 1914.

96,093. FRUIT PRESERVES. BEST-CLYMER MFG. CO., St. Louis, Mo.
Filed November 3, 1913. Serial No. 73,765. PUBLISHED JANUARY 27, 1914.

96,094. BILLIARD BALLS AND TABLES. PHILIPPE BIBEAULT, Woonsocket, R. I.
Filed August 14, 1913. Serial No. 72,329. PUBLISHED FEBRUARY 3, 1914.

96,095. CONDENSED MILK. BORDEN'S CONDENSED MILK CO., New York, N. Y.
Filed July 5, 1913. Serial No. 71,529. PUBLISHED JANUARY 27, 1914.

96,096. DOLLS, TOYS, ROLY-POLIES, JUMPING-JACKS, TOY PAINT-BOXES, AND MECHANICAL METAL FIGURES. GEO. BORGFELDT & CO., New York, N. Y.
Filed September 10, 1913. Serial No. 72,758. PUBLISHED FEBRUARY 3, 1914.

96,097. SALINE LAXATIVES, URIC-ACID SOLVENTS, HEPATIC STIMULANTS, AND ELIMINATORS OF TOXIC PRODUCTS. BRISTOL-MYERS COMPANY, New York, N. Y.
Filed November 26, 1913. Serial No. 74,204. PUBLISHED JANUARY 27, 1914.

96,098. PERFUME, TOILET WATERS, CERTAIN NAMED POWDERS, AND COLD-CREAM. WILLIAM H. BROWN & BRO. COMPANY, Baltimore, Md.
Filed November 6, 1913. Serial No. 73,829. PUBLISHED FEBRUARY 3, 1914.

96,099. ENAMEL. SAMUEL CABOT, INC., Boston, Mass.
Filed March 10, 1913. Serial No. 68,987. PUBLISHED FEBRUARY 3, 1914.

96,100. COATING COMPOUND FOR AUTOMOBILE WHEEL-RIMS AND METALLIC SURFACES. THE CALUMET CO., INC., Chicago, Ill.
Filed January 11, 1913. Serial No. 67,837. PUBLISHED JANUARY 27, 1914.

96,101. CERTAIN NAMED TEXTILE FABRICS IN THE PIECE. E. C. CARTER AND SON, New York, N. Y.
Filed October 30, 1913. Serial No. 73,668. PUBLISHED FEBRUARY 3, 1914.

96,102. TEA. GEO. W. CASWELL CO., San Francisco, Cal.
Filed September 2, 1913. Serial No. 72,613. PUBLISHED JANUARY 27, 1914.

96,103. TOOTH-POWDER, TOOTH-PASTE, AND CERTAIN NAMED MEDICINES AND COMPOUNDS. THE CHASCO CO., Philadelphia, Pa.
Filed September 23, 1913. Serial No. 73,002. PUBLISHED FEBRUARY 3, 1914.

96,104. ADHESIVE HAVING CHARACTERISTICS OF AND USEFUL AS A SUBSTITUTE FOR ANIMAL GLUE. CHEMICAL SPECIALTIES CO., Jersey City, N. J.
Filed September 29, 1913. Serial No. 73,100. PUBLISHED FEBRUARY 3, 1914.

96,105. THREAD AND YARN. NOAH CHERTOFF, New York, N. Y.
Filed October 20, 1913. Serial No. 73,500. PUBLISHED FEBRUARY 3, 1914.

96,106. COMPOUND FOR TREATING COAL. THE CLINEDINST COAL AND HEAT SAVING CHEMICAL COMPANY, Washington, D. C.
Filed December 3, 1913. Serial No. 74,325. PUBLISHED FEBRUARY 3, 1914.

96,107. IRONING-WAX. COLUMBIA WAX PRODUCTS Co., New York, N. Y.
Filed April 24, 1912. Serial No. 63,090. PUBLISHED OCTOBER 8, 1912.

96,108. FIREWORKS. CONSOLIDATED FIRE WORKS COMPANY OF AMERICA, New York, N. Y.
Filed June 21, 1913. Serial No. 71,229. PUBLISHED FEBRUARY 3, 1914.

96,109. FRUIT JELLY. CORN PRODUCTS REFINING COMPANY, New York, N. Y.
Filed November 21, 1912. Serial No. 67,035. PUBLISHED SEPTEMBER 2, 1913.

96,110. TOMATO PASTE WITH BASIL. CRISAFULLI BROS., New York, N. Y.
Filed October 3, 1913. Serial No. 73,199. PUBLISHED JANUARY 27, 1914.

96,111. CHOCOLATES. THE DARBY CANDY CO., Baltimore, Md.
Filed September 27, 1913. Serial No. 73,086. PUBLISHED JANUARY 27, 1914.

96,112. MACARONI AND WHOLE-WHEAT MACARONI. P. DAUSSA & COMPANY, New York, N. Y.
Filed September 25, 1913. Serial No. 73,045. PUBLISHED JANUARY 27, 1914.

96,113. BREAD. DES MOINES BAKERY COMPANY, Des Moines, Iowa.
Filed August 2, 1912. Serial No. 65,096. PUBLISHED JANUARY 13, 1914.

96,114. CABLE-CLAMPS WHICH ARE ESSENTIALLY USED IN CONNECTION WITH ELECTRICAL APPARATUS. DIAMOND EXPANSION BOLT CO., New York, N. Y.
Filed December 12, 1913. Serial No. 74,539. PUBLISHED FEBRUARY 3, 1914.

96,115. CERTAIN KINDS OF METAL BOXES. MAUDE DICKINSON, Brighton, England.
Filed June 16, 1913. Serial No. 71,123. PUBLISHED FEBRUARY 3, 1914.

96,116. CIGARS. M. W. DIFFLEY, INC., Chicago, Ill.
Filed May 23, 1905. Serial No. 6,405. PUBLISHED JANUARY 27, 1914.

96,117. BEER. THE JOHN EICHLER BRG. CO., New York, N. Y.
Filed December 5, 1913. Serial No. 74,393. PUBLISHED FEBRUARY 3, 1914.

96,118. OINTMENT. EQUINOINT LTD., Newcastle-upon-Tyne, England.
Filed April 11, 1913. Serial No. 69,720. PUBLISHED FEBRUARY 3, 1914.

96,119. GINGER-ALE, SARSAPARILLA, BIRCH-BEER, ROOT-BEER, LEMON-SODA, STRAWBERRY-SODA, AND COLA. LEO A. FINN, Washington, D. C.
Filed December 31, 1913. Serial No. 74,911. PUBLISHED FEBRUARY 3, 1914.

96,120. SALVES. GROVER FISHER, Philadelphia, Pa.
Filed November 15, 1911. Serial No. 59,736. PUBLISHED JANUARY 27, 1914.

96,121. CERTAIN MEDICINAL VETERINARY PREPARATION. CARL O. FJERESTAD, Elkton, S. D.
Filed November 29, 1913. Serial No. 74,251. PUBLISHED FEBRUARY 3, 1914.

96,122. TOOTH-POWDER. WILLARD BURDETTE FORCE, New York, N. Y.
Filed November 29, 1912. Serial No. 67,162. PUBLISHED FEBRUARY 3, 1914.

96,123. REMEDY FOR COUGHS AND COLDS. FORT PITT MEDICAL CO., Pittsburgh, Pa.
Filed February 27, 1912. Serial No. 61,769. PUBLISHED FEBRUARY 3, 1914.

96,124. SUGAR. GALBAN & CO., INC., New York, N. Y.
Filed October 4, 1913. Serial No. 73,213. PUBLISHED JANUARY 27, 1914.

96,125. BRANDY. GAUTIER FRÈRES, Aigre, France.
Filed November 15, 1912. Serial No. 66,915. PUBLISHED FEBRUARY 3, 1914.

96,126. BRANDY. GAUTIER FRÈRES, Aigre, France.
Filed November 15, 1912. Serial No. 66,916. PUBLISHED FEBRUARY 3, 1914.

96,127. PREPARATION FOR THE TREATMENT OF CHOLERA INFANTUM. L. C. FUHR, Dennison, Ohio.
Filed November 26, 1913. Serial No. 74,209. PUBLISHED FEBRUARY 3, 1914.

96,128. BREAD AND ZWIEBACK. SAMUEL GLUCK, Wilmington, Del.
Filed March 18, 1913. Serial No. 69,160. PUBLISHED JANUARY 27, 1914.

96,129. FURNITURE-POLISH. GOODRICH DRUG CO., Omaha, Nebr.
Filed May 1, 1912. Serial No. 63,235. PUBLISHED FEBRUARY 3, 1914.

96,130. SKIN-LOTIONS, CERTAIN CREAMS, TOILET WATER, AND PERFUMES, CERTAIN POWDERS, AND BATH SALTS. HAROLD "D" HART, San Francisco, Cal.
Filed October 27, 1913. Serial No. 73,624. PUBLISHED FEBRUARY 3, 1914.

96,131. LIQUID COMPOUND FOR DESTROYING TREES. HATLEY & WOMACK, Hallsville, Tex.
Filed November 29, 1913. Serial No. 74,254. PUBLISHED FEBRUARY 3, 1914.

96,132. CIGARETTE-CASES. HAVONE CIGARETTE CASE COMPANY, New York, N. Y.
Filed April 24, 1913. Serial No. 70,080. PUBLISHED FEBRUARY 3, 1914.

96,133. PURE CRUDE AND PETROLEUM OILS FOR CERTAIN AILMENTS AND HAIR-TONIC. CHARLES G. HERSHEY, Pittsburgh, Pa.
Filed December 23, 1912. Serial No. 67,565. PUBLISHED JANUARY 27, 1914.

96,134. COFFEE. JOHN HOFFMANN & SONS CO., Milwaukee, Wis.
Filed September 16, 1913. Serial No. 72,887. PUBLISHED JANUARY 27, 1914.

96,135. RUSKS. HOLLAND RUSK COMPANY, Holland, Mich.
Filed October 13, 1913. Serial No. 73,341. PUBLISHED JANUARY 27, 1914.

96,136. PROPRIETARY MEDICINE USED AS A SKIN-LOTION. ALFRED S. HULL, Hinesburg, Vt., assignor to Crystalina Company, a Corporation of New York.
Filed March 21, 1912. Serial No. 62,317. PUBLISHED JANUARY 27, 1914.

96,137. EMBROIDERIES. HUNT & VAN NICE, Denver, Colo.
Filed October 13, 1913. Serial No. 73,342. PUBLISHED FEBRUARY 3, 1914.

96,138. FURNITURE AND WOODWORK POLISH. THE HY-POLISH PRODUCTS COMPANY, Cleveland, Ohio.
Filed December 13, 1913. Serial No. 74,577. PUBLISHED FEBRUARY 3, 1914.

96,139. FACE-POWDERS. FREDERICK F. INGRAM CO., Detroit, Mich.
Filed October 2, 1913. Serial No. 73,171. PUBLISHED FEBRUARY 3, 1914.

96,140. CERTAIN NAMED CITRUS FRUIT. MELVILLE E. JOHNSON, Palatka, Fla.
Filed October 30, 1913. Serial No. 73,676. PUBLISHED JANUARY 27, 1914.

96,141. WHEAT-FLOUR. THE KANSAS MILLING & EXPORT CO., Kansas City, Mo.
Filed November 3, 1913. Serial No. 73,756. PUBLISHED JANUARY 27, 1914.

96,142. CANVAS COAL-BAGS. E. L. KOLLER INC., Newark, N. J.
Filed November 17, 1913. Serial No. 74,036. PUBLISHED FEBRUARY 3, 1914.

96,143. WINES AND CHAMPAGNE. LALLIER VAN CASSEL & CIE., Ay, France.
Filed August 15, 1913. Serial No. 72,855. PUBLISHED FEBRUARY 3, 1914.



96,144. CERTAIN NAMED KNIVES, RAZORS, MACHINES, AND TOOLS. LANDERS, FRARY & CLARK, New Britain, Conn.
Filed August 17, 1912. Serial No. 65,301. PUBLISHED JULY 15, 1913.

96,145. LIVER-WAFERS. EDWARD LEHMAN, Memphis, Tenn.
Filed November 5, 1913. Serial No. 73,818. PUBLISHED JANUARY 27, 1914.

96,146. CANDY. JOHN E. LEIKAUF, New York, N. Y.
Filed November 20, 1913. Serial No. 74,101. PUBLISHED JANUARY 27, 1914.

96,147. LAXATIVE. JOHN E. LEIKAUF, New York, N. Y.
Filed November 20, 1913. Serial No. 74,102. PUBLISHED JANUARY 27, 1914.

96,148. EFFERVESCENT MEDICINAL PREPARATION USED AS A REMEDY FOR CERTAIN DISORDERS. EUGENIO LUCARINI, New York, N. Y.
Filed May 3, 1912. Serial No. 63,280. PUBLISHED JANUARY 27, 1914.

96,149. WIRE BELT-LACE. VINCENT M. LUNEBURG, Chicago, Ill.
Filed December 9, 1913. Serial No. 74,469. PUBLISHED FEBRUARY 3, 1914.

96,150. BORAX, BORAX TOOTH-POWDER, BORAX ANTISEPTIC WOUND-POWDER, AND BORAX SHAMPOO PREPARATION. HEINRICH MACK, Ulm, Germany.
Filed May 26, 1913. Serial No. 70,673. PUBLISHED JANUARY 27, 1914.

96,151. CANNED PORK AND BEANS WITH TOMATO SAUCE. CHARLES C. MCDONALD, Elyria, Ohio.
Filed November 21, 1913. Serial No. 74,119. PUBLISHED JANUARY 27, 1914.

96,152. CANNED PORK AND BEANS WITH TOMATO SAUCE. CHARLES C. MCDONALD, Elyria, Ohio.
Filed November 21, 1913. Serial No. 74,121. PUBLISHED JANUARY 27, 1914.

96,153. CANNED SARDINES, CANNED HERRING, AND CANNED SALMON. J. S. MCKENZIE & COMPANY, INC., New York, N. Y.
Filed October 15, 1913. Serial No. 73,385. PUBLISHED JANUARY 27, 1914.

96,154. MEDICINE FOR DIARRHEA, DROPSY, AND PILES. ROBERT E. MCLAIN, Warrenton, Tex.
Filed September 23, 1913. Serial No. 73,009. PUBLISHED FEBRUARY 3, 1914.

96,155. CANNED OR PRESERVED FISH. JOSEPH HOWARD MERCIAN, New York, N. Y.
Filed October 18, 1913. Serial No. 73,487. PUBLISHED JANUARY 27, 1914.

96,156. YARNS OF WOOL, LINEN, COTTON, AND SILK. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed January 19, 1912. Serial No. 60,929. PUBLISHED FEBRUARY 3, 1914.

96,157. CORNMEAL. MOORE & ROGERS, New Albany, Miss.
Filed January 2, 1913. Serial No. 67,686. PUBLISHED JANUARY 27, 1914.

96,158. CERTAIN NAMED FOODS. THE MOSEL-JOHNSON CO., Steubenville, Ohio.
Filed October 15, 1913. Serial No. 73,388. PUBLISHED JANUARY 27, 1914.

96,159. TOILET LOTION FOR PREVENTING EXCESSIVE PERSPIRATION. ABRAHAM D. MURPHEY, Cincinnati, Ohio.
Filed June 21, 1912. Serial No. 64,318. PUBLISHED JANUARY 27, 1914.

96,160. CHEWING-GUM. PETER J. NAGLE, Rochester, N. Y.
Filed January 25, 1913. Serial No. 68,124. PUBLISHED JANUARY 27, 1914.

96,161. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,681. PUBLISHED JANUARY 27, 1914.

96,162. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,684. PUBLISHED JANUARY 27, 1914.

96,163. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,688. PUBLISHED JANUARY 27, 1914.

96,164. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,689. PUBLISHED JANUARY 27, 1914.

96,165. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,691. PUBLISHED JANUARY 27, 1914.

96,166. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,693. PUBLISHED JANUARY 27, 1914.

96,167. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,694. PUBLISHED JANUARY 27, 1914.

96,168. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,695. PUBLISHED JANUARY 27, 1914.

96,169. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,696. PUBLISHED JANUARY 27, 1914.

96,170. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed October 30, 1913. Serial No. 73,697. PUBLISHED JANUARY 27, 1914.

96,171. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 21, 1913. Serial No. 74,113. PUBLISHED JANUARY 27, 1914.

96,172. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 21, 1913. Serial No. 74,115. PUBLISHED JANUARY 27, 1914.

96,173. GERMICIDE, VERMIN-EXTERMINATOR, AND DISINFECTANT. N. Y. DISINFECTING & EXTERMINATING CO., FORST & MENDEL, New York, N. Y.
Filed September 12, 1913. Serial No. 72,825. PUBLISHED FEBRUARY 3, 1914.

96,174. CANNED VEGETABLES. OOSTBURG CANNING COMPANY, Oostburg, Wis.
Filed November 4, 1913. Serial No. 73,793. PUBLISHED JANUARY 27, 1914.

96,175. GAMES, TOYS, AND CHILDREN'S BUILDING-BLOCKS. CHARLES H. PAJEAU, Chicago, Ill.
Filed June 27, 1913. Serial No. 71,412. PUBLISHED FEBRUARY 3, 1914.

96,176. PHARMACEUTICAL PREPARATION FOR THE TREATMENT OF HEADACHES AND NEURALGIA. LOUIS PATMOS, Paterson, N. J.
Filed October 4, 1913. Serial No. 73,220. PUBLISHED JANUARY 27, 1914.

96,177. CANDY-COATED POPCORN AND PEANUTS, CANDY-COATED PECANS AND COCOANUT, CANDY-COATED PECANS AND PEANUTS. SAMUEL C. PECKHAM, Brenham, Tex.
Filed August 15, 1913. Serial No. 72,362. PUBLISHED JANUARY 27, 1914.

96,178. STEEL IN CRUDE AND WORKED CONDITION. POLDIHÜTTE TIEGELGUSSSTAHLFABRIK, Vienna and Kladno, Austria-Hungary.
Filed June 6, 1912. Serial No. 64,023. PUBLISHED FEBRUARY 3, 1914.

96,179. PREPARATION FOR THE TREATMENT OF STOMACH, LIVER, INTESTINES, AND NERVES. CHARLES EDGAR POWELL, Kingston, N. Y.
Filed November 28, 1913. Serial No. 74,241. PUBLISHED FEBRUARY 3, 1914.

96,180. REMEDY FOR CERTAIN NAMED DISEASES. W. P. POYTHRESS CAPSULE CO., INC., Richmond, Va.
Filed November 6, 1912. Serial No. 66,738. PUBLISHED JANUARY 27, 1914.

96,181. NATURAL FILTERED DRINKING-WATER. RAYVIO WATER CO., Chicago, Ill.
Filed December 16, 1913. Serial No. 74,645. PUBLISHED FEBRUARY 3, 1914.

96,182. WHEAT-FLOUR. REA & PAGE MILLING CO., Marshall, Mo.
Filed November 3, 1913. Serial No. 73,774. PUBLISHED JANUARY 27, 1914.

96,183. MALT BEVERAGE. REISCH BREWING CO., Springfield, Ill.
Filed November 12, 1909. Serial No. 45,855. PUBLISHED FEBRUARY 3, 1914.

96,184. CARBON-REMOVER. CHAS. J. REITZ, Buffalo, N. Y.
Filed November 18, 1913. Serial No. 74,066. PUBLISHED JANUARY 27, 1914.

96,185. CITRUS FRUITS. JAMES NATHANIEL REYNOLDS, Lindsay, Cal.
Filed September 16, 1913. Serial No. 72,896. PUBLISHED JANUARY 27, 1914.

96,186. ILLUMINATING-OILS. RILEY-PENNSYLVANIA OIL COMPANY, Burlington, Iowa.
Filed July 7, 1913. Serial No. 71,570. PUBLISHED FEBRUARY 3, 1914.

96,187. DRESS-SHIELDS. HENRY P. RINDSKOPF, New York, N. Y.
Filed December 12, 1913. Serial No. 74,530. PUBLISHED FEBRUARY 3, 1914.

96,188. DRESS-SHIELDS. HENRY P. RINDSKOPF, New York, N. Y.
Filed December 12, 1913. Serial No. 74,532. PUBLISHED FEBRUARY 3, 1914.

96,189. NATURAL MINERAL WATER. WILLIAM H. ROBERTSON, Wright, Wash.
Filed February 17, 1910. Serial No. 47,668. PUBLISHED FEBRUARY 3, 1914.

96,190. CERTAIN NAMED ALCOHOLIC LIQUORS. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,751. PUBLISHED FEBRUARY 3, 1914.

96,191. WINES. RANDOLPH ROSE, Chattanooga, Tenn.
Filed January 2, 1914. Serial No. 74,944. PUBLISHED FEBRUARY 3, 1914.

96,192. WINES. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed January 2, 1914. Serial No. 74,945. PUBLISHED FEBRUARY 3, 1914.

96,193. TEXTILE RUGS, MATS, AND CARPETS. STEPHEN SANFORD & SONS, INC., Amsterdam, N. Y.
Filed December 5, 1913. Serial No. 74,269. PUBLISHED FEBRUARY 3, 1914.

96,194. MACARONI, VERMICELLI, AND SPAGHETTI. SANTA ROSA PASTA CO., Santa Rosa, Cal.
Filed October 25, 1913. Serial No. 73,614. PUBLISHED JANUARY 27, 1914.

96,195. ALKALINE ANTISEPTIC, GERMICIDE, DEODORANT, AND ANTIPHLOGISTIC PREPARATION. R. M. SEIBEL, Kansas City, Mo.
Filed September 15, 1913. Serial No. 72,868. PUBLISHED JANUARY 27, 1914.

96,196. GRAPE-JUICE. JOHN SEXTON & COMPANY, Chicago, Ill.
Filed September 16, 1912. Serial No. 65,787. PUBLISHED NOVEMBER 5, 1912.

96,197. OINTMENTS AND EMULSIONS, PREPARATIONS FOR THE TREATMENT OF CERTAIN NAMED DISEASES. JOHN FRENCH SIMPSON, Washington, D. C.
Filed November 13, 1913. Serial No. 73,959. PUBLISHED JANUARY 27, 1914.

96,198. MINERAL WATERS. LYCURGUS SMITH, Mineral Wells, Tex.
Filed July 10, 1913. Serial No. 71,646. PUBLISHED FEBRUARY 3, 1914.

96,199. FLAVORING-SYRUP FOR NON-ALCOHOLIC BEVERAGES. J. HUNGERFORD SMITH CO., Rochester, N. Y.
Filed December 1, 1913. Serial No. 74,290. PUBLISHED FEBRUARY 3, 1914.

96,200. CITRUS FRUITS. SOUTHERN CITRUS CORPORATION, Lynchburg, Va.
Filed November 3, 1913. Serial No. 73,776. PUBLISHED JANUARY 27, 1914.

96,201. OINTMENT. FRANK SOUKUP, Bayonne, N. J.
Filed July 11, 1913. Serial No. 71,665. PUBLISHED JANUARY 27, 1914.

96,202. CANDY. SOUTHERN CANDY COMPANY, Atlanta, Ga.
Filed August 20, 1913. Serial No. 72,448. PUBLISHED JANUARY 27, 1914.

96,203. FOOD PREPARATION FOR DOGS, CATS, POULTRY, AND OTHER ANIMALS. SPRATT'S PATENT (AMERICA) LIMITED, London, England, and Newark, N. J.
Filed October 17, 1913. Serial No. 73,454. PUBLISHED JANUARY 27, 1914.

96,204. LUBRICATING-OIL. STANDARD OIL COMPANY OF CALIFORNIA, San Francisco, Cal.
Filed January 3, 1913. Serial No. 67,696. PUBLISHED FEBRUARY 3, 1914.

96,205. CERTAIN NAMED POLISHING MATERIALS, CRACK-FILLERS, AND THE LIKE. H. F. STAPLES & COMPANY, Medford, Mass.
Filed December 6, 1913. Serial No. 74,435. PUBLISHED FEBRUARY 3, 1914.

96,206. WINES. STONE HILL WINE COMPANY, Hermann, Mo.
Filed December 26, 1913. Serial No. 74,849. PUBLISHED FEBRUARY 3, 1914.

96,207. CERTAIN NAMED FOODS. STROHMEYER & ARPE COMPANY, New York, N. Y.
Filed November 29, 1913. Serial No. 74,272. PUBLISHED JANUARY 27, 1914.

96,208. WHEAT-FLOUR. UNITED FLOUR MILLS CO., Minneapolis, Minn.
Filed November 21, 1913. Serial No. 74,122. PUBLISHED JANUARY 27, 1914.

96,209. VARNISHES. UNITED STATES GUTTA PERCHA PAINT COMPANY, Saco, Me., and Providence, R. I.
Filed March 20, 1913. Serial No. 69,215. PUBLISHED JUNE 17, 1913.

96,210. PLAYING-CARDS. THE UNITED STATES PLAYING CARD CO., Cincinnati, Ohio.
Filed December 21, 1912. Serial No. 67,545. PUBLISHED FEBRUARY 3, 1914.

96,211. REMEDY FOR IMPURITIES OF THE BLOOD. VAN VLEET-MANSFIELD DRUG CO., Memphis, Tenn.
Filed August 2, 1905. Serial No. 11,187. PUBLISHED JANUARY 27, 1914.

96,212. WATERPROOF MORTAR AND CEMENT. THE WATERPROOFING CO., New York, N. Y.
Filed March 31, 1913. Serial No. 69,498. PUBLISHED FEBRUARY 3, 1914.



96,213. SKIN-LOTIONS. MARCUS H. WATTERS, Castleton, Vt.
Filed January 4, 1909. Serial No. 39,695. PUBLISHED JANUARY 27, 1914.

96,214. DENTAL POWDER USED IN HOLDING DENTAL PLATES IN THE MOUTH. ODELL WILSON, Cleveland, Ohio.
Filed September 11, 1913. Serial No. 72,799. PUBLISHED FEBRUARY 3, 1914.

96,215. SEEDING MACHINERY AND GRAIN-DRILLS OF ALL KINDS. GEORGE MOODY WINWOOD, Jr., Springfield, Ohio.
Filed December 31, 1913. Serial No. 74,925. PUBLISHED FEBRUARY 3, 1914.

96,216. CANDY. ROBERT YOUNG, Columbus, Ohio.
Filed April 26, 1913. Serial No. 70,078. PUBLISHED JANUARY 27, 1914.

# LABELS

## REGISTERED APRIL 7, 1914.

17,637.—*Title:* "EIDER BRAND DOWN QUILTS." (For Quilts.) THE R. BLANKENBURG COMPANY, Philadelphia, Pa. Filed March 19, 1914.

17,638.—*Title:* "SNOW FLAKE COTTON COMFORTS." (For Comforts.) THE R. BLANKENBURG COMPANY, Philadelphia, Pa. Filed March 19, 1914.

17,639.—*Title:* "GOLDEN FLEECE LAMBS WOOL HEALTH COMFORTS." (For Comforts.) THE R. BLANKENBURG COMPANY, Philadelphia, Pa. Filed March 19, 1914.

17,640.—*Title:* "CUBAN OX GALL." (For Soap.) CRUSELLAS HNO Y. CIA., Habana, Cuba. Filed April 22, 1913.

17,641.—*Title:* "OPERA STARS." (For Lozenges.) OPERA STARS COMPANY, New York, N. Y. Filed November 8, 1913.

17,642.—*Title:* "BACILLICIDE." (For an Antiseptic.) PROPHYTOL PRODUCTS COMPANY, INC., Richmond, Va. Filed February 24, 1914.

17,643.—*Title:* "SOCIETY LINEN STATIONERY OF REFINEMENT." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed March 23, 1914.

17,644.—*Title:* "YEASTLESS BREAD." (For Bread.) THE YEASTLESS BAKING CO., Louisville, Ky. Filed March 2, 1914.

# PRINTS

## REGISTERED APRIL 7, 1914.

3,542.—*Title:* "DIAMOND DYES." (For Dyes.) THE AMERICAN ART WORKS, Coshocton, Ohio. Filed March 17, 1914.

3,543.—*Title:* "VASELINE." (For Vaseline.) CHESEBROUGH MANUFACTURING CO., CONSOLIDATED, New York, N. Y. Filed March 14, 1914.

3,544.—*Title:* "VASELINE." (For Vaseline.) CHESEBROUGH MANUFACTURING CO., CONSOLIDATED, New York, N. Y. Filed March 14, 1914.

3,545.—*Title:* "THE DEBUTANTE." (For Chocolates.) CLARENCE A. CRANE, Cleveland, Ohio. Filed September 29, 1913.

3,546.—*Title:* "DUOFOLD HEALTH UNDERWEAR." (For Underwear.) DUOFOLD HEALTH UNDERWEAR CO., Mohawk, N. Y. Filed March 14, 1914.

3,547.—*Title:* "RE-TAN-O." (For Tan Shoe-Dressing.) JOSEPH J. ECKHARD, Alton, Ill. Filed March 16, 1914.

3,548.—*Title:* "THE NEW IDEAL WAY." (For Lather-Protectors.) THE IDEAL LATHER PROTECTOR CO., New York, N. Y. Filed March 14, 1914.

3,549.—*Title:* "MURPHY'S MAGNET SCENT." (For a Scent.) T. J. MURPHY AND SON, Lewiston, Me. Filed January 31, 1914.

3,550.—*Title:* "I TALK FOR MINARD'S LINIMENT." (For Liniment.) ORRIS WENTWORTH NELSON, Framingham, Mass. Filed March 14, 1914.

3,551.—*Title:* "I TALK FOR MINARD'S LINIMENT." (For Liniment.) ORRIS WENTWORTH NELSON, Framingham, Mass. Filed March 14, 1914.

3,552.—*Title:* "DRINK PEPSI-COLA." (For Pepsi-Cola.) THE PEPSI-COLA COMPANY, Newbern, N. C. Filed March 14, 1914.

3,553.—*Title:* "OSTER-BIER." (For Beer.) PIEL BROS., New York, N. Y. Filed March 21, 1914.

3,554.—*Title:* "OSTER-BIER." (For Beer.) PIEL BROS., New York, N. Y. Filed March 21, 1914.

3,555.—*Title:* "JAM THIS NEWS UNDER YOUR HOOD." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed February 25, 1914.

3,556.—*Title:* "VAPO-CRESOLENE." (For Vapo-Cresolene.) VAPO-CRESOLENE CO., New York, N. Y. Filed March 7, 1914.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

JOHNSON *v.* MARTIN.

*Decided February 2, 1914.*

1. INTERFERENCE—USE OF TERM "MEANS"—CONSTRUCTION OF THE ISSUE.

Where the claim in issue includes "means for alternately conveying the cartons one at a time from said streams to the conveyer," *Held* that as there is no limitation that the means convey the cartons directly to the machine the claim should be construed broadly and includes a construction in which several elements are required to convey the cartons to the machine.

2. SAME—CONSTRUCTION OF THE ISSUE—QUESTION OF PATENTABILITY HAS NO BEARING THEREON.

Where it is contended that the issue should not be given a broad construction because the appellee's machine which was claimed as a reduction to practice is alleged to have been in public use more than two years before the filing of his application, *Held* that the question of priority is the only one before the court, and the question of a statutory bar to a patent containing the claims in interference is not in issue.

*Mr. F. L. Chappell* and *Mr. O. A. Earl* for the appellant.

*Mr. S. T. Cameron* for the appellee.

VAN ORSDEL, *J.:*

This is an appeal from a decision of the Commissioner of Patents awarding priority of invention to appellee. Originally, the issue embodied three counts, but the first having been awarded to appellant, and no appeal having been taken by appellee from this decision, only the second and third counts are before us for consideration. They read as follows:

2. In a machine of the character described, the combination of the following instrumentalities, a series of top flap securing devices, a conveyer for feeding the cartons to such top flap securing devices, means whereby the cartons are fed to the machine in a plurality of streams and means for alternately conveying the cartons one at a time from said streams to the conveyer.

3. In a machine of the character described, a series of top flap folding devices, means whereby glue is applied to the flaps, a carton carrying conveyer provided with a plurality of followers secured at intervals to said conveyer and adapted to convey and carry the cartons forward into engagement with said folding and glue applying devices, means whereby the cartons are fed to the machine in a plurality of streams and means for alternately conveying the cartons one at a time from said streams to the conveyer.

The nature of the invention is clearly set forth in the decision of the Examiner of Interferences as follows:

The machines disclosed in the applications involved in this controversy are designed for closing and sealing the top flaps of cartons after they have been filled. To accomplish this, a conveyer is provided which carries the cartons through the machine bringing them in their travel in contact with the folding, gluing and sealing mechanisms. The cartons are received from the filling machines in two rows or streams and as the conveyer of the folding and sealing machine is adapted to handle the cartons only in a single row or stream, a shifting mechanism is provided which automatically transfers the cartons one at a time and in alternate order from each of the two streams to the conveyer of the folding and sealing machine.

Appellant filed his application August 4, 1908. He took no testimony, relying upon his filing date for a date of conception and of constructive reduction to practice. Appellee's application was filed on July 22, 1909.

All of the tribunals below found that appellee in 1905 constructed and successfully operated a machine illustrated in "Martin's Exhibit Drawing of First Martin Machine," and that finding is not contested here. It is contended, however, that this machine does not disclose—

means whereby the cartons are fed to the machine in a plurality of streams and means for alternately conveying the cartons one at a time from said streams to the conveyer of the folding and sealing machine,

as required by the issue. The tribunals below were unanimous in finding against this contention, and with them we agree. Appellee's first machine, on which he relies for a reduction to practice, shows the cartons fed forward in a plurality of streams until a reciprocating member forms them into a single stream on a belt, which carries them to another conveyer, from which they are delivered by a swinging arm to a conveyer which carries them into engagement with the folding and sealing devices. It will thus be seen that appellee's first machine shows—

means for alternately conveying the cartons one at a time from said streams to the conveyer of the folding and sealing machine,

if the word "means" is to be given a construction broad enough to include the several elements there required to convey the cartons from the several streams to the folding and sealing machine.

There is no limitation in the claims that the means convey the cartons directly from the several streams to the folding and sealing machine. The word "means" is used in its generic sense. When thus used, its definition has been settled by this court in the case of *Lecroix* v. *Tyberg*, (33 App. D. C., 586; 150 O. G., 267,) where the construction of the words—

means for transferring the bunches from the mold to the wrapping mechanism—

was in issue. It appeared in that case that Tyberg's "means" consisted of three elements—

a rocking needle for transferring bunches from the mold, a traveling chain support to receive the bunches from the needle bar and transport them to a point adjacent the cigar-wrapping machine, and a horisontal swinging arm provided with grippers to lift the bunches from the chain support and transfer them to the wrapper-applying machine.

The "means" described by Lecroix consisted of swinging arms which lifted the bunches from the mold and transferred them directly to the wrapping mechanism. It was there contended that the machines of the contesting parties were substantially different, but the court said:

We agree with the Commissioner that the words "means for transferring the bunches from the mold to the wrapping mechanism" as used in counts 1, 2, and 3, are applicable alike to the transferring device of each party. The term "means," as used in this connection, must be held to be a generic term, and hence applicable to each species of transferring device. It follows that these counts are readable on Tyberg's structure.

It is also contended by appellant that the issue should be given a strict construction because appellee's first machine had been in public use for more than two years prior to his application for patent. The question of priority is the only one with which we are concerned in this proceeding, and the question of a statutory bar to appellee's right to a patent on these claims is not in issue here. (*Lecroix* v. *Tyberg, supra; Burson v. Vogel*, 29 App. D. C., 388; 131 O. G., 942.)

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

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## Court of Appeals of the District of Columbia.

### BARBER *v.* SPALCKHAVER.

*Decided March 2, 1914.*

INTERFERENCE—PRIORITY—CONCEPTION.

Where B. testifies that he disclosed the invention in issue to a draftsman, who, on September 6, 1905, began work on scale drawings which were completed January 26, 1906, and that on September 27, 1905, he disclosed the invention to the draftsman of the attorney and showed him two free-hand sketches which did not disclose certain details of the issue, which, however, were old in the art, and the draftsman corroborates B.'s testimony as to the date when the scale drawings were commenced and the attorney's draftsman states that B. explained the invention to him on September 27, 1905, and that he prepared the drawings for the application, *Held* that B. has established a conception of the invention prior to December 9, 1905, the earliest date established by S.; *Held*, further, that B. was reasonably diligent and is entitled to an award of priority.

*Mr. W. F. Rogers* for the appellant.

*Mr. J. Q. Rice* for the appellee.

ROBB, *J.*:

This is an appeal from a decision of the Patent Office in an interference case awarding priority of invention to the junior party Spalckhaver, the appellee here. The issue is expressed in a single count, as follows:

The combination with a collecting cylinder, of a forwarding cylinder provided with folding means coacting therewith, means on the forwarding cylinder for taking sheets from the collecting cylinder, web delivery devices for said cylinders, web cutting devices, means for advancing a web, said means running at a lesser surface speed than the speed of the web delivery devices, means for cutting sheets from this web, and means for bringing the sheets up to the speed of, and delivering them to the forwarding cylinder beyond the cutting line of the web cutting devices to be associated with and to be folded off with the sheets delivered to it by the collecting cylinder.

The object of the invention is to produce a mechanism for use in printing-machines by which specially-printed covers and sheets may be associated with the other sheets of a periodical without subjecting such covers and sheets to a second trimming. This is accomplished by bringing the cover and specially-printed sheets into association with the main sheets *after* those sheets have been cut from the main web. The claim specifies that this added matter must also be cut from a web.

Spalckhaver alleged conception of the invention in December, 1905, and reduction to practice in May, 1906. His application was filed May 22, 1907. The Patent Office tribunals agreed in awarding him the date of December 9, 1905, as his date of conception and we accept that finding here. Barber alleged that he conceived and disclosed the invention on September 6, 1905. His application was filed October 2, 1906.

Mr. Barber, chief draftsman and designer for C. B. Cottrell & Sons Co., of Westerly, R. I., manufacturers of printing-press machinery, testified that on September 6, 1905, he disclosed the subject-matter of this interference to a Mr. Austin, a draftsman in the employ of the Cottrell Co. Mr. Austin testified that, under the directions of Mr. Barber, he commenced elaborate scale drawings of this invention on that date. These drawings were completed some time prior to January 26, 1906, and were produced in evidence. They bear the marginal notation—

Cover and center page insert feeding mechanism, commenced September 6, 1905. C. B. Cottrell and Sons Co.

Mr. Austin stated that this notation was made in conformity to the practice of the office. The Patent Office tribunals agreed that these drawings fully disclose the issue and appellee concedes that the *first* of the five sheets thereof discloses it. On September 27, 1905, Mr. Barber had an interview with a Mr. Barry, a draftsman in the employ of the firm of patent attorneys, Brown & Seward, who were to file Mr. Barber's application for this and a closely-related invention. Mr. Barber then exhibited to Mr. Barry two free-hand sketches which he had previously made and Mr. Barry placed thereon the receiving-stamp of his firm, with his own initials underneath the date. The object of this interview, according to Mr. Barber's testimony, was fully to acquaint Mr. Barry with the two inventions.

At the time the disclosure was made to Mr. Barry, says Mr. Barber,

the drawings for the case were being prepared (the Austin drawings) and knowing that he (Barry) would either make the drawings (Patent Office drawings) or that they would be made under his supervision, I took the matter up with him that he might have a thorough understanding of the case when the drawings (Austin drawings) were received, when it was entered in the office of Brown & Seward.

This testimony is corroborated by Mr. Barry, who prepared the Patent Office drawings for the invention here in issue. Mr. Barry testified that, in the interview of September 27th, Mr. Barber explained





both applications and that he prepared the drawings for both at the same time.

In the free-hand sketches which were exhibited to Mr. Barry on September 27th the insert-sheets are fed from a so-called cut-sheet supply, while in the claim here involved, as previously noted, the insert-sheets are supplied from a continuous web. Admittedly, the mechanism by which the insert-sheets are supplied from a continuous web is old, and, given the idea embodied in the September 27th sketches, a mechanic skilled in the art probably would have had no difficulty in producing the mechanism of the claim in issue. But be that as it may, since the Patent Office has ruled that there is a patentable difference between the two structures, the question is not open here. The similarity of the two structures, however, is material in considering the question of conception. According to evidence which is beyond contradiction, the drawings embodying the structure of the issue were commenced by Mr. Austin on September 6, 1905; and these drawings were in the hands of Brown & Seward for the purpose of a patent application on January 26, 1906. When, therefore, Mr. Spalckhaver entered the field on December 9, 1905, these drawings had been under way for more than three months. To our minds it would be almost an absurdity to rule that this draftsman, familiar as he was with mechanism of this sort, could work on these drawings for more than three months, under Mr. Barber's directions, without knowing the result Barber had in mind and the method of achieving it. Nor can the testimony of Mr. Barry be lightly cast aside. In the interview between him and Mr. Barber the free-hand sketches were examined and he states that both forms of the invention were explained to him. This independent testimony clearly shows that Mr. Barber then had conceived both forms of the invention.

Having in mind, therefore, the nature of this invention and that the draftsman Austin commenced drawings of it on September 6, 1905; that it was explained to Mr. Barry in the latter part of that month; and that the drawings were completed some time prior to January 26, 1906, we have no hesitancy in reaching the conclusion that Barber established a date of conception prior to December 9, 1905, the earliest date that can be awarded Spalckhaver. Since Barber, thereafter, was reasonably diligent, the award of priority should have been in his favor.

The decision of the Commissioner is reversed.

Reversed.

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## ADJUDICATED PATENTS.

(U. S. D. C.) The Speer patent, No. 698,916, for a conduit for electric wires, *Held* not infringed. *Dart* v. *Saylor Electric Co.*, 210 Fed. Rep., 462.

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(U. S. C. C. A.) The Pope patent, No. 805,153, for a transfer-ticket, *Held* valid and infringed. *Cincinnati Traction Co.* v. *Pope*. 210 Fed. Rep., 443.

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(U. S. D. C.) The Plym patent, No. 852,450, for an improved store-front construction, *Held* valid and infringed on motion for a preliminary injunction. *Kaomeer Mfg. Co.* v. *Ventwell Store Front Co.*, 210 Fed. Rep., 459.

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(U. S. C. C. A.) An order denying a preliminary injunction against infringement of the Palmer patent, No. 878,995, for apparatus for inverting tubular fabrics, reversed. *Palmer* v. *Superior Mfg. Co.*, 210 Fed. Rep., 452.

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(U. S. D. C.) The Beeman patent, No. 1,002,488, for a method of making garment-stays, *Held* void for anticipation. *Spirella Co.* v. *Nubone Corset Co.*, 210 Fed. Rep., 453.

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(U. S. C. C. A.) The Smith reissue patent, No. 13,033, (original No. 759,637,) for improvement in gas-lamps, *Held* not infringed. *Smith Incandescent Light Co.* v. *Welsbach Gas Lamp Co.*, 210 Fed. Rep., 450.

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## Changes in Classification.

(ORDER No. 2,114.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 31, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 122, Liquid Heaters and Vaporizers, (Division XVIII,) establish the following subclass and definition:

Industrial—

6.5. Port.

6.5. INDUSTRIAL, PORT. Water circulation devices applied to the gas or air ports of a furnace.

This subclass is composed of patents taken from class 75, Metallurgy, subclasses 94, Regenerators, Single surface, and 119, Furnaces, Melting, Open hearth.

THOMAS EWING,
*Commissioner.*

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## Changes in Classification.

(ORDER No. 2,115.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 31, 1914.*

The following transfers of classes are hereby directed, to take effect immediately:

Class 14, Bridges, from Division IV to Division XXXIII; class 30, Cutlery, from Division XXXIII to Division XX; class 53, Domestic Cooking Vessels, from Division XXXIII to Division XXXII; class 61, Hydraulic Engineering, from Division IV to Division XXXIII; class 135, Tents, Canopies, Umbrellas, and Canes, from Division XXXIII to Division II; class 186, Store Service, from Division II to Division IV; class 187, Elevators, from Division XII to Division IV; class 189, Metallic Building Structures, from Division IV to Division XXXIII, and class 243, Pneumatic Despatch, from Division II to Division IV.

THOMAS EWING,
*Commissioner.*

---

## Adverse Decisions in Interference.

PATENT No. 772,862.

On March 26, 1914, a decision was rendered that Kristian Birkeland was not the first inventor of the subject-matter covered by claims 1, 2, and 3 of his Patent No. 772,862, subject, "Process of electrically treating gases," and the right of appeal having been waived such decision has become final.

PATENT No. 775,123.

On March 26, 1914, a decision was rendered that Kristian Birkeland was not the first inventor of the subject-matter covered by claims 1, 2, and 10 of his Patent No. 775,123, subject, "Apparatus for electrically treating gases," and the right of appeal having been waived such decision has become final.

PATENT No. 889,857.

On March 26, 1914, a decision was rendered that Albert Johan Petersaen was not the first inventor of the subject-matter covered by claims 1 and 6 of his Patent No. 889,857, subject, "Electric furnaces," and the right of appeal having been waived such decision has become final.

PATENT No. 1,016,830.

On November 21, 1913, Alexander Mackinsie Jack was held not the first inventor of the invention covered by his sole claim of his Patent No. 1,016,830, subject, "Vacuum cleaning apparatus," and no appeal having been taken within the time allowed such decision has become final.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 26, 1914.*

*Strauss & Jandorf Shoe Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Hood Rubber Co., of Watertown, Mass., for registration of a trade-mark and trade-mark registered October 16, 1894, No. 25,341, to Strauss & Jandorf Shoe Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said Strauss & Jandorf Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Strauss & Jandorf Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*May & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Dueber Watch Case Mfg. Co., of West Tuscarawas street, Canton, Ohio, for registration of a trade-mark and trade-mark registered August 15, 1882, No. 9,609, to May & Son, of New York, N. Y., and a notice of such declaration sent by registered mail to said May & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said May & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*The Goodwill Chemical Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of A. H. Richardson, of Fond du Lac, Wis., for registration of a trade-mark and trade-mark registered December 5, 1899, No. 33,842, to The Goodwill Chemical Company, of 825 North Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to The Goodwill Chemical Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless The Goodwill Chemical Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 24, 1914.*

*William Brokhahne, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Harrington Cutlery Co., of Southbridge, Mass., for registration of a trade-mark and trade-mark registered December 6, 1881, No. 8,906, to William Brokhahne, of New York, N. Y., and Sheffield, England, and a notice of such declaration sent by registered mail to said William Brokhahne at Sheffield, England, having been returned by the post-office undeliverable, notice is hereby given that unless said William Brokhahne, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 23, 1914.*

*Aurilla B. Fenton, her assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Besiers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1888, No. 15,915, to Aurilla B. Fenton, Buffalo, N. Y., and a notice of such declaration sent by registered mail to said Aurilla B. Fenton at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Aurilla B. Fenton, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

E. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 23, 1914.*

*Percy Donaldson, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Besiers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1900, No. 35,187, to Percy Donaldson, 404 South Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Percy Donaldson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Percy Donaldson, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 16, 1914.*

*Central Lighting Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Hydro Carbon Company, 220–224 St. Francis avenue, Wichita, Kans., for registration of a trade-mark and trade-mark registered December 15, 1903, No. 41,678, to the Central Lighting Company, New York, N. Y., and a notice of such declaration sent by registered mail to the said Central Lighting Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Central Lighting Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 201 No. 2. TUESDAY, APRIL 14, 1914. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF APRIL 14, 1914 | 271 |
| AMENDMENT OF RULE 80, RULES OF PRACTICE | 271 |
| COMMUNICATIONS TO THE PATENT OFFICE | 271 |
| APPLICATIONS UNDER EXAMINATION | 272 |
| PATENTS GRANTED | 273 |
| REISSUES | 533 |
| DESIGNS | 534 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 541 |
| TRADE-MARKS—REGISTERED | 563 |
| LABELS AND PRINTS | 568 |
| COMMISSIONER'S DECISIONS— | |
| Manson v. Hutchison | 569 |
| John L. Whiting-J. J. Adams Co. v. Rubber and Celluloid Harness Trimming Co | 569 |
| DECISIONS OF THE U. S. COURTS— | |
| In re Pahn | 570 |
| ADJUDICATED PATENTS | 571 |
| INTERFERENCE NOTICES | 571 |

## ISSUE OF APRIL 14, 1914.

| | | | |
|---|---|---|---|
| Patents | 777—No. | 1,092,816 to No. | 1,093,592, inclusive. |
| Designs | 30—No. | 45,881 to No. | 45,910, inclusive. |
| Trade-Marks | 164—No. | 96,217 to No. | 96,380, inclusive. |
| Labels | 15—No. | 17,645 to No. | 17,659, inclusive. |
| Prints | 12—No. | 3,557 to No. | 3,568, inclusive. |
| Reissues | 1—No. | 13,713. | |
| Total | 1002 | | |

### TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 4 | ..... | North Carolina | 4 | 3 |
| Arizona | 1 | ..... | North Dakota | 4 | ..... |
| Arkansas | 3 | ..... | Ohio | 75 | 9 |
| California | 36 | 7 | Oklahoma | 6 | ..... |
| Colorado | 6 | ..... | Oregon | 3 | ..... |
| Connecticut | 38 | 1 | Pennsylvania | 65 | 14 |
| Delaware | ..... | ..... | Rhode Island | 6 | 2 |
| Florida | 3 | 1 | South Carolina | ..... | 1 |
| Georgia | 3 | 1 | South Dakota | 2 | ..... |
| Idaho | 2 | ..... | Tennessee | 3 | 3 |
| Illinois | 56 | 20 | Texas | 11 | ..... |
| Indiana | 10 | 4 | Utah | ..... | ..... |
| Iowa | 13 | ..... | Vermont | ..... | ..... |
| Kansas | 12 | ..... | Virginia | 6 | 7 |
| Kentucky | 7 | 2 | Washington | 10 | ..... |
| Louisiana | 5 | ..... | West Virginia | 7 | ..... |
| Maine | 2 | 1 | Wisconsin | 18 | 3 |
| Maryland | 6 | 5 | Wyoming | ..... | ..... |
| Massachusetts | 49 | 20 | Alaska, District of | ..... | ..... |
| Michigan | 20 | 3 | Canal Zone | ..... | ..... |
| Minnesota | 14 | 4 | District of Columbia | 9 | 2 |
| Mississippi | ..... | ..... | Hawaii Territory | ..... | ..... |
| Missouri | 25 | 3 | Philippine Islands | ..... | ..... |
| Montana | 4 | ..... | Porto Rico | ..... | ..... |
| Nebraska | 8 | 2 | U. S. Army | ..... | ..... |
| Nevada | 1 | ..... | U. S. Navy | ..... | ..... |
| New Hampshire | 2 | ..... | Total to residents of the United States | 719 | 18$_2$ |
| New Jersey | 46 | 5 | | | |
| New Mexico | 2 | ..... | | | |
| New York | 104 | 50 | | | |

### TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | 1 | ..... |
| Austria-Hungary | 4 | 1 | Newfoundland | ..... | ..... |
| Belgium | ..... | ..... | New South Wales | 1 | ..... |
| British India | ..... | ..... | New Zealand | ..... | ..... |
| Brazil | ..... | ..... | Norway | ..... | ..... |
| British West Indies | ..... | ..... | Portugal | ..... | ..... |
| Canada | 17 | ..... | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Roumania | ..... | ..... |
| Chile | ..... | ..... | Russia | ..... | ..... |
| Cuba | ..... | ..... | Scotland | 1 | 1 |
| Denmark | ..... | ..... | South Australia | 1 | ..... |
| Dominican Republic | ..... | ..... | Spain | ..... | ..... |
| Dutch East India | 1 | ..... | Sweden | ..... | ..... |
| England | 14 | 8 | Switzerland | 1 | 1 |
| France | 8 | 4 | Transvaal, South Africa | ..... | ..... |
| Germany | 34 | 2 | India | 2 | ..... |
| Ireland | ..... | ..... | Victoria | ..... | ..... |
| Italy | 1 | ..... | Western Australia | ..... | ..... |
| Japan | 1 | ..... | Total to residents of foreign countries | 88 | 12 |
| Mexico | 1 | ..... | | | |

## Amendment of Rule 80, Rules of Practice.

(ORDER No. 2,102.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., February 21, 1914.*

Acting under the provisions of section 483 of the Revised Statutes and with the approval of the Secretary of the Interior, Rule 80 of the Rules of Practice in the United States Patent Office is amended by adding the following paragraph:

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term,

so that the rule as amended will read as follows:

80. Patents for designs are granted for the term of three and one-half years, or for seven years, or for fourteen years, as the applicant may, in his application, elect.

Where the applicant requests that the patent issue for one of the shorter terms, he may at any time before the allowance of the application, upon the payment of the additional fee, amend his application by requesting that the patent be issued for a longer term.

THOMAS EWING,
*Commissioner.*

## Communications to the Patent Office.

RULE 9. A separate letter should in every case be written in relation to each distinct subject of inquiry or application. Assignments for record, final fees, and orders for copies or abstracts must be sent to the Office in separate letters.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business April 11, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended. | No. of applications awaiting action. |
|---|---|---|---|---|
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Feb. 18 | Feb. 19 | 641 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Dec. 13 | Mar. 21 | 457 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Mar. 12 | Mar. 30 | 194 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Nov. 1 | Jan. 6 | 766 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Jan. 12 | Feb. 15 | 489 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Dec. 11 | Feb. 10 | 760 |
| 313 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 18 | Feb. 17 | 602 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Nov. 19 | Mar. 2 | 1019 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Nov. 15 | Mar. 12 | 899 |
| 235 | 10. Carriages and Wagons | Dec. 12 | Feb. 16 | 1016 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Feb. 14 | Feb. 27 | 418 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Dec. 15 | Jan. 19 | 1291 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Mar. 4 | Mar. 5 | 468 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 16 | Mar. 13 | 489 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Oct. 27 | Feb. 12 | 1363 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 15 | Feb. 17 | 799 |
| 308 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Feb. 17 | Mar. 23 | 203 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Mar. 10 | Mar. 7 | 255 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Feb. 12 | 422 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. New. | Amended. | No. of applications awaiting action. |
|---|---|---|---|---|
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Feb. 12 | Feb. 26 | 366 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Jan. 16 | Feb. 21 | 483 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Jan. 27 | Mar. 9 | 371 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Dec. 15 | Feb. 12 | 484 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Jan. 29 | Mar. 3 | 557 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Mar. 9 | Mar. 9 | 264 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Dec. 15 | 790 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Feb. 7 | Mar. 6 | 450 |
| 65 | 28. Internal-Combustion Engines | Oct. 27 | Mar. 7 | 830 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools. | Feb. 16 | Feb. 19 | 821 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 28 | Mar. 31 | 360 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Jan. 29 | Mar. 6 | 357 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Nov. 1 | Feb. 21 | 685 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Feb. 9 | Mar. 4 | 494 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Mar. 6 | Mar. 14 | 238 |
| 87 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Feb. 4 | Mar. 13 | 566 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Mar. 4 | Feb. 25 | 675 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Oct. 28 | Feb. 24 | 810 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Aug. 7 | Mar. 2 | 706 |
| 221 | 39. Water Distribution | Dec. 1 | Feb. 16 | 859 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Dec. 23 | Feb. 18 | 1086 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Mar. 4 | Mar. 4 | 477 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Nov. 10 | Mar. 7 | 486 |
| 282 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Mar. 13 | Mar. 12 | 287 |

Oldest new case, Aug. 7; oldest amended, Dec. 15.
Total number of applications awaiting action..... 25,286

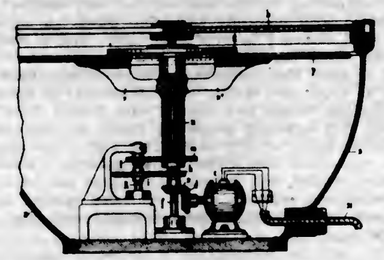
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Feb. 9 | Mar. 17 | 1079 |
| | Designs | Mar. 9 | Mar. 16 | 245 |
| | Labels and Prints | Apr. 3 | Apr. 4 | 37 |



# PATENTS

## GRANTED APRIL 14, 1914.

1,092,816. GYROSCOPE-COMPASS. HERMANN ANSCHÜTZ-KAEMPFE, Neumühlen, near Kiel, Germany. Filed Sept. 9, 1910. Serial No. 581,202. (Cl. 33—204.)



1. The combination, with a gyroscope compass, of a sub-compass comprising a principal card and a secondary card geared thereto to move at a greater speed, and means comprising a synchronizing device controlled by the gyroscope compass for driving the principal card of the sub-compass in a definite relation to the movement of the gyroscope compass.

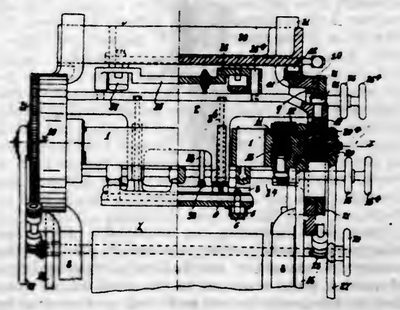
2. The combination of a gyroscope compass comprising a freely-revoluble, vertical axle carrying a compass card; a freely revoluble ring divided into two halves electrically insulated from one another and having a space between the ends of the same arranged concentric with said axle; a contact spring on said card normally in said space; a sub-compass comprising a principal card and a secondary card geared thereto to move at a greater speed; and electrical means connected with the halves of said ring and comprising a synchronizing device for driving the principal card of the sub-compass in a definite relation to the movement of the card of the gyroscope compass.

3. The combination of a gyroscope compass comprising a freely-revoluble, vertical axle carrying a compass card; a freely revoluble ring divided into two halves electrically insulated from one another and having a space between the ends of the same arranged concentric with said axle; a contact spring on said card normally in said space; a sub-compass comprising an axle carrying a principal card, speeding-up gearing driven by the latter axle and a secondary card driven by said gearing; a motor driving the latter axle; a synchronizing device controlling said motor; and electrical means for controlling the synchronizing device in dependence on the movement of the gyroscope compass card, comprising a shaft geared with said ring and controlling said synchronizing device, two three-phase motors wound for running in opposite directions on said shaft, a three-phase system having one feeder electrically connected with said spring, two windings of each motor being connected in parallel with said system and the two third windings of the motors being connected with the halves of the ring, as set forth.

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1,092,817. MACHINE FOR CUTTING DOUGH OR LIKE PLASTIC SUBSTANCES. GEORGE SAMUEL BAKER, London, England. Filed Oct. 11, 1913. Serial No. 794,589. (Cl. 107—26.)

1. In a machine for cutting dough or like plastic substances, the combination with an embosser cross-head and cutter cross-head working through or in slidable connection with each other, of means for bringing the axes of said cross-heads in alinement, and means for rocking or tilting said cross-heads about the common axis thereof.



2. In a machine for cutting dough or like plastic substances, the combination with an embosser cross-head and a cutter cross-head working through or in slidable connection with each other, of sliding bearings for each of said cross-heads, interconnected rotary guiding members in different vertical planes supporting said bearings, means for bringing the axes of said bearings into horizontal alinement, and means for rotating said guiding means about the common axis of said bearings.

3. In a machine for cutting dough or like plastic substances, the combination with an embosser cross-head and a cutter cross-head working through or in slidable connection with each other, of sliding bearings for each of said cross-heads, interconnected rotary guiding members in different vertical planes supporting said bearings, means for adjusting said bearings in the guiding members, means for bringing the axes of said bearings into horizontal alinement, and means for rotating said guiding members about the common axis of said bearings.

4. In a machine for cutting dough or like plastic substances, the combination with an embosser cross-head, and a cutter cross-head adapted to work through or in slidable connection with each other, of a back plate in detachable connection with said embosser cross-head, embossers carried by said back plate, slidable bearings for each of said cross-heads, interconnected rotary guiding members in different vertical planes supporting said bearings, a slidable weight adapted for connection to said back plate when said embosser cross-head is disconnected therefrom, means for bringing the axes of said bearings into horizontal alinement, and means for rotating said guiding members about the common axis of said bearings.

5. In a machine for cutting dough or like plastic substances, the combination of an embosser cross-head and a cutter cross-head adapted to work through or in slidable connection with each other, of a cutter carrying bar connected to said cutter cross-head, an embosser carrying plate in detachable connection with said embosser cross-head, a slidable weight adapted for connection to said embosser carrying plate when its cross-head is disconnected therefrom, means for bringing the axes of said cross-heads into alinement, and means for rocking or tilting said cross-heads about their common axis.

[Claims 6 and 7 not printed in the Gazette.]

1,092,818. WEED-EXTRACTOR. DAVID BITTNER, Jr., St. Louis, Mo. Filed May 15, 1913. Serial No. 767,790. (Cl. 55—65.)



1. In a weed extractor, the combination with a longitudinally-bored body-portion provided at one end with a plurality of elongated longitudinally-extending prongs, said prongs being arranged in the form of an annular series at the perimeter of said body-portion and being adapted to be inserted into the ground and embrace the weed or the like to be extracted, of a plunger longitudinally fitting and slidable in the bore of said body-portion, means connected to said plunger for operatively actuating the same, an annular weed-ejecting and dirt-removing plate having a diameter substantially the same as the diameter of said body-portion fixed to one end of said plunger and adapted normally to abut flatwise against the said end of said body-portion, said plate being provided at its periphery with a plurality of radially-disposed notches for accommodating said prongs and being movable, on the actuation of said plunger, longitudinally of and upon said prongs to eject endwise therefrom the extracted weed or the like embraced thereby and dirt adhering thereto, and a coiled spring having connection with said plunger and said body-portion adapted to resiliently return said plunger and its carried plate to, and hold the same in, normal position; substantially as described.

2. In a weed extractor, the combination with a longitudinally-bored and slotted body-portion provided at one end with a plurality of elongated longitudinally-extending prongs, said prongs being arranged in the form of an annular series at the perimeter of said body-portion and being adapted to be inserted into the ground and embrace the weed or the like to be extracted, of a plunger longitudinally fitting and slidable in the bore of said body-portion, a laterally-extending arm fixed to said plunger and movable in said slot, a plunger-actuating member fixed to said arm, an annular weed-ejecting and dirt-removing plate having a diameter substantially the same as the diameter of said body-portion fixed to one end of said plunger and adapted normally to abut flatwise against said end of said body-portion, said plate being provided at its periphery with a plurality of radially-disposed notches for accommodating said prongs and being movable on the actuation of said plunger longitudinally of and upon said prongs to eject endwise therefrom the extracted weed or the like embraced thereby and dirt adhering thereto, and a coiled spring having connection with said plunger and said body-portion adapted to resiliently return said plunger and its carried plate to, and hold the same in, normal position; substantially as described.

1,092,819. FINGER-RING. EDGAR N. BLOCK, Buffalo, N. Y., assignor to Empire State Ring Company, Buffalo, N. Y., a Copartnership. Filed Jan. 19, 1914. Serial No. 812,943. (Cl. 63—15.)



1. A finger ring, comprising a single circular band having its upper part divided circumferentially to form two supporting bridges and each of said bridges being provided with upwardly projecting claws, an ornament or jewel arranged between said claws, and a clamping device connecting said bridges.

2. A finger ring, comprising a single circular band having its upper part divided circumferentially to form two supporting bridges and each of said bridges being provided with upwardly projecting claws, an ornament or jewel arranged between said claws, and a clamping device connecting said bridges and comprising a screw arranged parallel with the axis of the band and having its threaded end engaging with a threaded opening in one of said bridges and its head engaging with the other bridge.

1,092,820. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Jan. 22, 1914. Serial No. 813,751. (Cl. 70—99.)



1. An improved snap seal having, in combination, a bulb-shaped seal part constructed with an inlet hole in its top, a flexible shackle having a withdrawal-resisting catch portion at each end; a center piece having a central guide for the shackle ends which protrudes through said inlet hole, and withdrawal-resisting means within said seal part in juxtaposition to said inlet hole, including spring catches at the respective sides of said guide, adapted to interlock with said shackle ends respectively; and means within said seal part, including guard flanges above said catches supported by said center piece, and constructed and arranged to protect said catches in the fastened seal against being tampered with.

2. The combination, in a snap seal, of a bulb-shaped seal part having an inlet hole in its top, a flexible shackle having a withdrawal resisting catch portion at each end, and a winged center piece within said seal part in juxtaposition to said inlet hole adapted to interlock with said shackle ends; said seal part having an upper bulb piece provided with lateral indentations forming parallel projections within the seal part which contact with the wings of said center piece and prevent spreading them apart in attempts to release said shackle ends or either of them.

3. The combination, in a snap seal, of a bulb-shaped seal part having an inlet hole in its top, a flexible shackle having a withdrawal resisting catch portion at each end, and a winged center piece within said seal part in juxtaposition to said inlet hole adapted to interlock with said shackle ends; said seal part having an upper bulb piece provided with lateral indentations forming parallel projections within the seal part which contact with the wings of said center piece and prevent spreading them apart in attempts to release said shackle ends or either of them, a lower bulb piece having an annular shoulder upon which said center piece is supported, and a circumferential joint permanently uniting said bulb pieces after the insertion of said center piece.

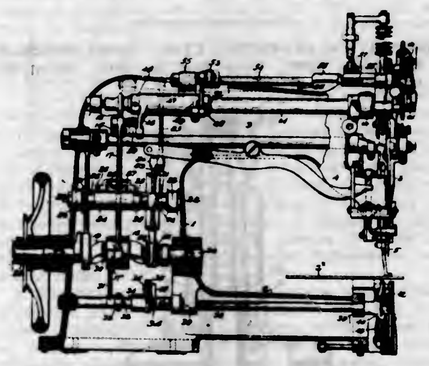
4. The combination, in a snap seal, of a bulb-shaped seal part having an inlet hole in its top, a flexible shackle having a withdrawal resisting catch portion at each end, and a winged center piece within said seal part in juxtaposition to said inlet hole; said center piece having spring catches adapted to interlock with said shackle ends, and inwardly projecting guard flanges above said catches.

5. The combination, in a snap seal, of a bulb-shaped seal part having an inlet hole in its top, a flexible shackle having a withdrawal resisting catch portion at each end, and a winged center piece within said seal part in juxtaposition to said inlet hole adapted to interlock with said shackle ends in the snap-fastened seal; said seal part having an upper bulb piece provided with lateral indentations forming parallel projections within the seal part adapted to contact with the wings of said center piece and prevent spreading them apart, and said wings being provided with inwardly projecting guard flanges and subjacent spring catches protected by said flanges.

[Claims 6 to 10 not printed in the Gazette.]



1,092,821. STITCH-FORMING MECHANISM. OTIS H. BROWN, Brockton, Mass., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Original application filed Feb. 27, 1909, Serial No. 480,338. Divided and this application filed Mar. 4, 1910. Serial No. 547,243. (Cl. 112—28.)



1. In a sewing machine, the combination with a driving shaft a throat-plate, an endwise- and sidewise movable eyed needle, and a loop-taker coöperating with said needle in the production of stitches, of actuating means connected with the driving shaft for imparting to the needle endwise reciprocating movements with a dwell while the needle is between extreme positions and while the needle-eye is at that side of the throat-plate adjacent the loop-taker, means operatively connected with said needle-actuating means for actuating the loop-taker to seize and distend a needle-thread loop before the end of the dwell of said needle, and means for imparting to the needle sidewise work-feeding movements during said dwell in its reciprocatory movements.

2. In a sewing machine, the combination with the main-shaft provided with a crank, of a pitman-lever connected with said crank, a movable fulcrum for said pitman-lever with means for guiding it in a defined path, a rock-shaft, a crank-arm thereon, a connection intermediate said crank-arm and pitman-lever, a needle-bar, a needle carried thereby, an operative connection intermediate said needle-bar and rock-shaft, a loop-taker, and means connected with and actuated through said pitman-lever independently of its fulcrum-guiding means for actuating said loop-taker.

3. In a sewing machine, the combination with the main-shaft provided with a crank, of a pitman-lever connected with said crank and carrying a pivotal stud offset from such point of connection, a movable fulcrum for said pitman-lever with means for guiding it in a defined path, a rock-shaft, a crank-arm thereon, a connection intermediate said crank-arm and pitman-lever, a needle-bar, a needle carried thereby, an operative connection intermediate said needle-bar and rock-shaft, a loop-taker, an actuating rock-shaft for the same provided with a crank-arm carrying a stud, a plural-armed rocker having one arm slotted to embrace said stud, and a connection between a second arm of said rocker and the pivotal stud upon said pitman-lever.

4. In a sewing machine, the combination with the main-shaft provided with a crank, of a pitman-lever connected with said crank, a movable fulcrum for said pitman-lever with means for guiding it in a defined path, a rock-shaft, a crank-arm thereon, a second rock-shaft, a crank-arm thereon, independent connections between said pitman-lever and the crank-arm of said rock-shafts, a needle-bar, a needle carried thereby, an operative connection intermediate said needle-bar and the first-named rock-shaft, a take-up arm mounted upon the second-named rock-shaft, a loop-taker, and means for actuating said loop-taker.

5. In a sewing machine, the combination with the main-shaft provided with a crank, of a pitman-lever connected with said crank, a movable fulcrum for said pitman-lever with means for guiding it in a defined path, a rock-shaft, a crank-arm thereon, a second rock-shaft, a crank-arm thereon, an intermediate rocker, a pitman connection intermediate said rocker and the crank-arm of the second-named rock-shaft, independent connections between said pitman-lever and the crank-arm of the first-named rock-shaft and between said pitman-lever and said intermediate rocker, a needle-bar, a needle carried thereby, an operative connection intermediate said needle-bar and the first-named rock-shaft, a take-up arm mounted upon the second-named rock-shaft, a loop-taker, and means for actuating said loop-taker.

[Claims 6 to 8 not printed in the Gazette.]

1,092,822. SIGHT FOR TRANSITS AND SIMILAR INSTRUMENTS. DAVID W. BRUNTON, Denver, Colo. Filed Mar. 24, 1913. Serial No. 756,416. (Cl. 88—2.3.)



1. A transit, having a peep sight provided with a wide aperture intersected centrally by sight points extending crosewise thereof longitudinally of the sight.

2. A transit, having a peep sight provided with an aperture formed of overlapping circular openings, the intersection of these openings being central of the aperture and forming sight points extending crosswise thereof.

3. A transit, having a peep sight provided with a wide aperture intersected centrally by sight points extending crosswise thereof in the direction of the length of the sight, and a mirror having a transparent portion crossed centrally by a sight line on the mirror with which sight line the sight points aline.

4. A transit, having a casing, a peep sight applied thereto, a cover hinged to the casing and provided with an opening made near its hinge end, a mirror arranged inside of the cover and having a transparent portion opposite said opening, and a sight line extending centrally across the mirror and transparent portion, said peep sight having an aperture composed of overlapping circular openings intersecting centrally with relation to the aperture and alined with the sight line of the mirror, and a similar peep sight on the far edge of the cover which is foldable and adjustable.

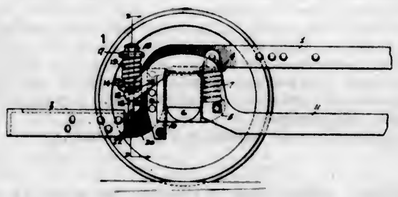
1,092,823. TOOL FOR VACUUM-CLEANERS. WILLIAM E. CHAPMAN, New Britain, Conn. Filed Sept. 4, 1913. Serial No. 788,176. (Cl. 15—60.)



1. A tool for vacuum cleaners comprising a nozzle body having an inlet, and a pair of rollers journaled in bearings on the said nozzle body, and positioned alongside and one on each side of the said inlet, and the lower end of the inclosing wall of the said inlet being plane and positioned slightly elevated relatively to the plane of the lower edges of the said rollers.

2. A tool for vacuum cleaners comprising a nozzle body having an inlet, the walls of the said inlet extending close to the floor, and a pair of rollers journaled in bearings on the said nozzle body, and positioned alongside the said inlet and separated therefrom by the said walls, the exterior of the said rollers being of cushioning material, and the said rollers being so positioned relatively to the said nozzle body that the outer edges project beyond the outer edges of the said nozzle body.

1,092,824. LONG SPRING-BASE FOR TRUCKS. ANDREW CHRISTIANSON, Butler, Pa., assignor to Standard Motor Truck Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 22, 1912. Serial No. 727,268. (Cl. 105—239.)



1. In a car truck comprising a truck frame, equalizer bars and a journal box, a spring connection suspended from said bar and connected to said frame at the outer side of the journal box.

2. In a car truck comprising a truck frame, an equalizer bar and journal box, of spring supports for said truck frame at the inner side of said journal box, and a spring support for said frame suspended from said equalizer bars at the outer side of the journal box.

3. In a car truck comprising a truck frame, a journal box and equalizer bars having an extension beyond said journal box, of a spring support by which the truck frame is suspended from said extension.

4. In a car truck comprising a truck frame, equalizer bars and a journal box, of a hanger connected to an extension of the truck frame beyond the journal box and having a spring connection with the equalizer bars.

5. In a car truck comprising a truck frame, equalizer bars and a journal box, said equalizer bar having an extension at the outer side of the journal box, a spring seat on said extension and hanger attached to said truck frame, and a spring member interposed between said hanger and said spring seat.

[Claim 6 not printed in the Gazette.]

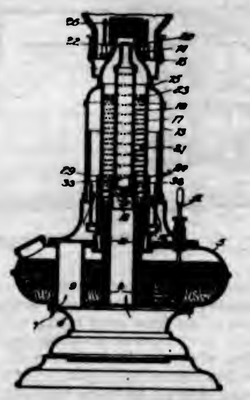
1,092,825. WINDOW-LOCK. JOHN C. CROWLEY, Toledo, Ohio. Filed May 23, 1913. Serial No. 769,393. (Cl. 16—146.)

The combination with the upper and lower sashes of a window, of a vertically elongated member secured to the inner side of the upper sash adjacent to its lower edge and having its opposite side edges formed with internal guideways which flare outwardly at their upper ends, a slide member rising from the upper edge of the lower sash and having parts slidingly fitting into the guide parts of said member, said slide member having its inner side provided with a cavity with an opening in one end of the cavity, a dog disposed upright within the cavity of the slide member and having a spur at its lower end which fulcrums in said opening and having its opposite end



adapted to project without the open side of said cavity and into complemental portions in the guide member, said dog having a control part projecting through the outer wall of the slide member, an element disposed within the outer portion of said cavity to retain the dog therein, and means within the cavity for influencing an outward movement of the free end of the dog.

1,092,826. INCANDESCENT LAMP. JACOB DOORENBOS, Kalamazoo, Mich. Filed Aug. 23, 1911. Serial No. 645,530. (Cl. 67—38.)



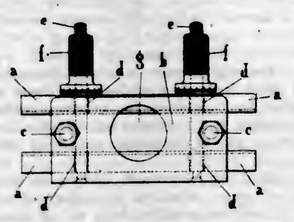
1. In a burner of the character described, the combination of an air and vapor mixing-chamber, an annular oil-feeding wick projecting, when raised, into the lower end of said chamber, and means for maintaining an annular series of sub-flames in the space bounded by the raised wick, for the purpose set forth.

2. In a wick-feed burner of the character described, employing a tubular wick, an air and vapor mixing chamber into the lower end of which the wick projects, an annular sub-flame chamber in the lower part of the mixing-chamber, having an inner imperforate wall and an outer wall formed by the inner surface of the wick when raised, and a base provided with an air-admitting sub-flame burner opening, for the purpose set forth.

3. In a wick-feed burner of the character described, employing a tubular wick, an annular air and vapor mixing-chamber, into the lower end of which the wick projects, having perforate inner and outer walls, an annular sub-flame chamber in the lower part of the mixing-chamber, having an inner imperforate wall, an outer wall formed by the wick when raised, and a base provided with an annular series of air-admitting perforations, for the purpose set forth.



1,092,827. GAGE FOR VERIFYING THE DIMENSIONS OF SCREWS AND SCREW-THREADS. JULES DUBAIL, Delle, France. Filed June 20, 1912. Serial No. 704,788. (Cl. 33—199.)

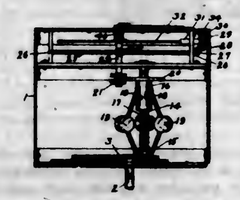


1. Allowance gage for screws comprising spaced interchangeable plates, cut throughout their whole length into longitudinal serrations having the profile of the screws to be verified, the plates being separated at one of their ends to the maximum allowance of the screw to be verified, while at the other end they are separated to the minimum allowance, the gaging of the screw being effected by engaging it between the ends of the plates and by pushing it as far as permitted by the clearance which exists between the two sets of serrations, and means for holding the plates in spaced relation.

2. Allowance gage for screws comprising spaced interchangeable plates, cut throughout their whole length into serrations having the profile of the screws to be verified, a support for said plates, the plates being separated at one of their ends to the maximum allowance of the screw to be verified, while at the other end they are separated to the minimum allowance, the gaging of the screw to be verified being effected by engaging it between the ends of the plates at one end and by pushing it as far as permitted by the clearance which exists between the two sets of teeth.

3. Allowance gage for screws comprising spaced interchangeable plates cut throughout their length into longitudinal serrations having the profile of the screws to be verified, a casing for said plates, the plates being differently separated at their ends, and locking screws for fixing the plates in the casing.

1,092,828. SPEED-INDICATOR. LESTER C. DUNCAN, Lenia, Idaho. Filed Oct. 29, 1912. Serial No. 728,434. (Cl. 73—123.)



1. A speed indicator for vehicles comprising in combination, a graduated dial, a speed indicator movable over said dial, a maximum speed index connected with said indicator for advancement therewith only in a direction toward the highest indication on the dial, shiftable means for moving said indicator, governor mechanism adapted to be operated by the vehicle and operatively connected with said means, a ratchet wheel connected to move with said index, a pawl engaging said ratchet wheel for retaining said index in its advanced position, and a device operated by said mechanism for releasing said pawl, substantially as described.

2. A speed indicator for vehicles comprising in combination, a graduated dial, a rotatable speed indicator movable over said dial, a rotatable maximum speed index connected with said indicator for advancement therewith only in a direction toward the highest indication on said dial, a longitudinally shiftable and non-rotatable rod means for advancing said indicator, governor mechanism operable from the vehicle for shifting said rod means, a rotatable ratchet wheel connected to move with said index, a pawl engaging said ratchet wheel for retaining said index in its advanced position, and a device operated by said rod means for releasing said pawl, substantially as described.

3. A speed indicator for vehicles comprising in combination, a graduated dial, a rotatable speed indicator movable over said dial, a rotatable maximum speed index connected with said indicator for advancement therewith only in a direction toward the highest indication on said dial, a longitudinally shiftable and non-rotatable rod means for moving said indicator, governor mechanism operable by the vehicle for shifting said rod means, a rotatable ratchet wheel connected to move with said index, a spring normally acting to return said ratchet wheel and index to a zero position, a resilient pawl engaging said ratchet wheel for retaining said index in its advanced position, and a gearing device operated by said rod means for releasing said pawl, substantially as described.

4. A speed indicator for vehicles comprising in combination, a graduated dial, a speed indicator movable over said dial, a governor controlled mechanism driven by the vehicle for moving said indicator in opposite directions to indicate the running speed of the vehicle, a maximum speed index adapted to be advanced by said indicator to the highest speed indicated thereby, ratchet means for retaining said index in its maximum position, and a device operated by said mechanism for actuating part of said ratchet means to permit return of said index to a zero position, substantially as described.

5. A speed indicator for vehicles comprising in combination, a graduated dial, a speed indicator movable over said dial, governor controlled mechanism driven by the vehicle for moving said indicator in opposite directions to indicate the running speed of the vehicle, a maximum speed index adapted to be advanced by said indicator to the highest speed indicated thereby, means for retaining said index in its maximum speed indicating position, and a device operated by said mechanism for actuating part of said means to permit return of said index to a zero position, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,092,829. RAZOR. CARL FRIEDRICH ERN, Wald, near Solingen, Germany. Filed Aug. 3, 1911. Serial No. 642,132. (Cl. 30—12.)

1. In a razor, in combination, a blade shank provided with an opening therein, a handle having spaced scales between which said shank extends, and springs positioned between said scales on opposite sides of said shank and having shank engaging portions, said springs being provided with lugs engaging the opening in said shank to form a pivot for the blade.

2. In a razor, in combination, a blade shank provided with an opening therein, a handle having spaced scales between which said shank extends, and springs positioned between said scales on opposite sides of said shank and having shank engaging portions, said springs being provided with lugs engaging the opening in said shank to

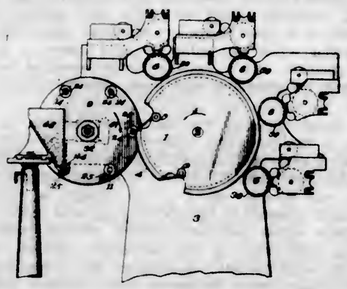
form a pivot for the blade, and adjustable means holding said scales together, whereby the distance between the



scales may be varied to vary the pressure of the springs upon the shank.

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1,092,830. PRINTING-PRESS. ALBERT J. FORD, New York, N. Y. Filed Jan. 15, 1912. Serial No. 671,199. (Cl. 101—84.)



1. A printing press having in combination a printing cylinder, a rotatively shiftable carrier mounted to rotate on an axis parallel with the axis of the printing cylinder, a plurality of impression rollers eccentrically carried by the carrier in parallel relation with the axis thereof, spaced bearings for the carrier, an adjusting device for each bearing, a manually actuatable member, actuating connections between such member and one of said devices, and releasable actuating connections between such member and the other said device.

2. A printing press having in combination a printing cylinder, a rotatively shiftable carrier mounted to rotate on an axis parallel with the axis of the printing cylinder, a plurality of spindles removably carried by the carrier and projecting therefrom in eccentric relation thereto and parallel with the axis thereof, an impression roller rotatively mounted on and removable with each spindle, carrier-shifting mechanism for imparting step-by-step rotation to the carrier to thereby successively shift the impression rollers into coöperative relation with the printing cylinder, spaced bearings for the carrier, an adjusting device for each bearing, a manually actuatable member, and actuating connections between such member and both of said devices.

3. A printing press having in combination a printing cylinder, a plurality of impression rollers, a rotatively shiftable carrier for the impression rollers, means for removably supporting the impression rollers on the carrier, carrier-shifting mechanism for imparting step-by-step rotation to the carrier for successively shifting the impression rollers into coöperative relation with the printing cylinder, a pair of slidable bearing blocks for the carrier shaft, an adjusting screw for each block, an adjusting nut for each screw, a hand wheel, and actuating means connecting the wheel to each of the nuts.

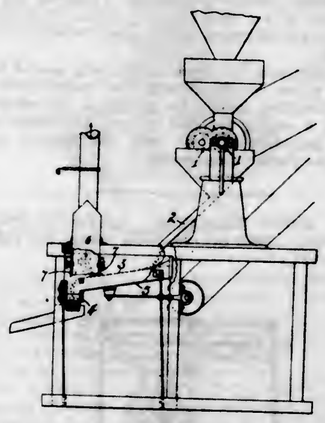
4. A printing press having in combination a printing cylinder, a rotatively shiftable carrier mounted to rotate on an axis parallel with the axis of the printing cylinder, a plurality of impression rollers removably carried by the carrier and projecting therefrom in eccentric relation thereto and parallel with the axis thereof, carrier-shifting mechanism for imparting step-by-step rotation to the carrier for successively shifting the impression rollers into coöperative relation with the printing cylinder, spaced bearings for the carrier, an adjusting device for each bearing, a manually actuatable member, actuating connections between such member and one of said devices, and releasable actuating connections between such member and the other said device, whereby the carrier may be adjusted either bodily or angularly relatively to the printing cylinder for regulating the pressure between the impression rollers and the printing cylinder and also providing for the use of impression rollers of different diameters.

5. An offset printing press having in combination a plurality of plate cylinders, a single transfer cylinder common to and coöperative with all of the plate cylinders, a pressure adjusting device for each plate cylinder for adjusting its pressure on the transfer cylinder relatively to the pressure thereon of the other plate cylinders, a plurality of impression rollers, a rotatively shiftable carrier for the impression rollers, means for removably supporting the impression rollers on the carrier, carrier-shifting mechanism for imparting step-by-step rotation to the carrier for successively shifting the impression rollers into coöperative relation with the transfer cylinder, and adjusting mechanism for regulating the pressure between the transfer cylinder and the impression rollers and also providing for the use of impression rollers of different diameters.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,831. PROCESS OF REMOVING CHAFF FROM COFFEE. MILTON H. GASSER, Toledo, Ohio. Filed June 13, 1913. Serial No. 773,427. (Cl. 130—17.)



The process of removing chaff from broken coffee which consists in screening the fine particles of the coffee from the coarse particles and the chaff and then subjecting the coarse particles and chaff after screening out the fine particles to an upward draft of air while the coarse coffee and chaff are on the screen and the coarse particles are carried downward by gravity and fall through space to remove the light chaff therefrom.



1,092,832. BOOT-CLEANER. GODLOVE E. GOUDSCHAAL, Raymond, Minn. Filed Mar. 20, 1913. Serial No. 755,668. (Cl. 15—2.)



The herein described shoe scraper, comprising a pair of standards, a brace connecting the upper ends of said standards, said standards provided in a portion of their length with slots extending therethrough, a scraper blade having its ends extending through said slots and adapted to be removed laterally from said standards, through said slots, and a tubular brace removably positioned on said blade between the standards, the ends of said brace abutting said standards but not secured thereto.

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1,092,833. POLO-BAG. BASIL HARDING GRANT, Jamaica, N. Y., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed Oct. 18, 1913. Serial No. 794,795. (Cl. 224—45.)



1. A polo bag comprising a main body portion to receive the canes of the polo mallets, end pockets secured to the ends of the main body portion to receive respectively the heads of the mallets whereby the bulk and weight of the mallets may be evenly distributed with respect to the mid-section of the bag, and means to close the pockets.

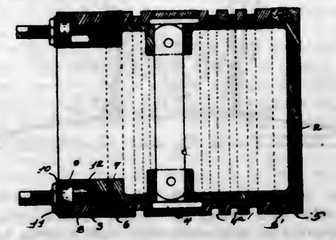
2. A polo bag comprising an elongated body portion to receive the canes of the polo mallets, enlarged end pockets formed continuous with the body portion to receive the heads of the mallets whereby the bulk and weight of the mallets may be evenly distributed with respect to the mid-section of the bag, two pairs of opposed flaps secured to each of said pockets and arranged to overlap to form a substantially water-tight end closure for the bag, and means to secure the opposed flaps together detachably.

3. A polo bag comprising an elongated body portion to receive the canes of the polo mallets, enlarged end pockets to receive the heads of the mallets formed continuous with the body portion and composed of end and side walls united to constitute a substantially rectangular casing of a length corresponding to the length of the mallet heads and of a depth corresponding to the diameter of the mallet heads, opposed flaps secured to the edges of the side walls of the pockets, snap fasteners to secure together said flaps, opposed flaps secured to the edges of the end walls of said pockets and coöperating straps and buckles carried by the last named flaps whereby they may be secured together to overlap the first named flaps and form therewith a substantially water-tight end closure for the bag, the contents of the bag being disposed evenly as regards weight and bulk with respect to the mid-section.

4. A polo bag comprising a main body portion to receive the canes of the polo mallets, end pockets secured to the ends of the main body portion to receive the heads of the mallets whereby the bulk and weight of the mallets may be evenly distributed with respect to the mid-section of the bag, means to close the pockets, an elongated pouch for polo balls secured longitudinally of the body portion of the bag on the outer face thereof and provided at each end with flap covers, the ball pouch being disposed to distribute the weight of the balls evenly with respect to the mid-section of the bag.

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1,092,834. PISTON. FERDINAND G. HAAS, St. Paul, Minn. Filed July 29, 1912. Serial No. 712,056. (Cl. 121—104.)



1. A piston head having a plurality of peripheral piston sleeves slidable longitudinally thereon, resilient packing rings between said piston sleeves and a plurality of compression members on said piston head in operative engagement with one of said sleeves for shifting the sleeves and thereby expanding said rings radially.

2. A piston head formed with an external annular flange, a peripheral piston sleeve slidable on said head, said sleeve being formed with annular grooves to receive piston rings, a resilient packing ring between said sleeve and flange and a plurality of compression devices on said head in operative engagement with said sleeve to shift the same and thereby expand said resilient packing ring radially.

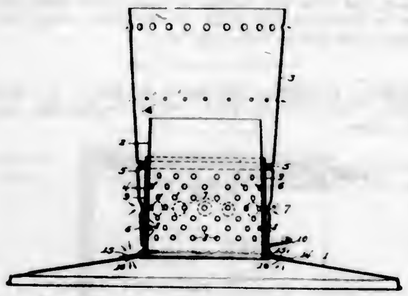
3. A piston head having a plurality of peripheral piston sleeves slidable longitudinally thereon, resilient packing rings between said piston sleeves, a plurality of screws threaded longitudinally into the end of said head and extending outwardly therefrom, devices on said screws to engage one of said sleeves and locking means for said screws, both the screws and locking means being accessible from the end of the piston.

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1,092,835. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Oct. 31, 1913. Serial No. 798,427. (Cl. 158—91.)

1. The combination with the cover of an orchard heater, said cover having an opening therein, of an inner stack mounted on said cover about said opening and having perforations therein, an outer perforated stack surrounding the inner stack to form an annular inclosed chamber between said stacks, an inwardly directed annular crimp formed in the outer stack to inclose said annular chamber, and a perforated sleeve embracing one of said stacks and adapted for rotation with respect to the latter for carrying the perforations thereof into and out of registration with those of the stack which it embraces.

2. The combination with the cover of an orchard heater, said cover having an opening therein, of an inner stack mounted on said cover about said opening and having perforations therein, an outer perforated stack associated with said inner stack and shaped to form an annular chamber between said stacks, and a perforated sleeve embracing one of said stacks and adapted for rotation with respect to the latter for carrying the perforations thereof into and out of registration with those of the stack which it embraces, said cover having a series of perforations therein encircling the opening thereof, and said sleeve having at its lower end an annular flange provided with perforations which are adapted, upon rotation of said sleeve, to be carried into and out of registration with said series of perforations provided in the cover.



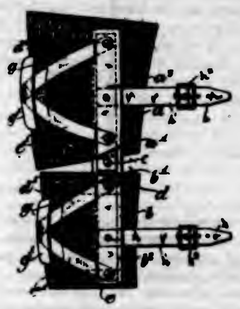
3. The combination with the cover of an orchard heater, said cover having an opening therein, of an inner stack mounted on said cover about said opening and having perforations therein, a perforated sleeve embracing said stack and rotatable with respect thereto for carrying its perforations into and out of registration with those of said stack, and an outer stack having portions disposed in embracing engagement with said sleeve and adapted to rotate with the latter, said outer stack being formed to provide an annular chamber between it and said sleeve and having passages opening therethrough into said chamber.

4. The combination with the cover of an orchard heater, said cover having an opening therein, of an inner stack mounted on said cover about said opening and having perforations therein, a perforated sleeve embracing said stack and rotatable with respect thereto for carrying its perforations into and out of registration with those of said stack, and an outer stack having portions in embracing engagement with said sleeve and adapted to rotate with the latter, said outer stack being formed to provide an annular chamber between it and said sleeve and having passages opening therethrough into said chamber, and an annular flange formed on the lower end of said sleeve and resting on said cover about the opening in the latter, said cover and said flange having perforations which are adapted to register when said sleeve is rotated to certain positions.

5. The combination with the cover of an orchard heater, said cover having an opening therein, of an inner stack mounted on said cover about said opening and having perforations therein, a perforated sleeve embracing said stack and rotatable with respect thereto for carrying its perforations into and out of registration with those of said stack, and an outer tapered stack having its smaller end disposed in embracing engagement with said sleeve near the lower end of the latter, said outer stack having an inwardly directed crimp therein which embracingly engages said sleeve near the upper end of the latter whereby is formed an inclosed chamber intermediate said outer stack and said sleeve, and means admitting air to said chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,092,836. KNEE-GUARD. HENRY RIDGWAY HART, Montclair, N. J., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed Oct. 20, 1913. Serial No. 796,099. (Cl. 2—197.)



1. A knee-guard comprising two elastic bandages adapted to encompass the leg above and below the knee respectively, frames supported by the elastic bandages and pivotally connected at the sides of the leg and means independent of said bandages secured to and extending between the frames to protect the leg.

2. A knee-guard comprising two elastic bandages adapted to encompass the leg above and below the knee respectively, frames supported by the elastic bandages and pivotally connected at the sides of the leg, and pads carried by the frames in front of the leg.

3. A knee-guard comprising two elastic bandages adapted to encompass the leg above and below the knee respectively and frames supported by the elastic bandages and consisting of frame members disposed at the sides of the leg and pivotally connected and bowed strips secured to the side frame members and extending across the front of the leg.

4. A knee-guard comprising two elastic bandages adapted to encompass the leg above and below the knee respectively and frames supported by the elastic bandages and consisting of frame members disposed at the sides of the leg and pivotally connected and bowed strips secured to the side frame members and extending diagonally across the front of the leg and crossing each other.

5. A knee-guard comprising two elastic bandages adapted to encompass the leg above and below the knee respectively and frames supported by the elastic bandages and consisting of frame members disposed at the sides of the leg and pivotally connected and bowed strips secured to the side frame members and extending diagonally across the front of the leg and crossing each other, and pads secured to said bowed frame members in front of the leg and disposed over the point of intersection of said bowed members.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,837. CARRIAGE FOR TYPE-WRITING MACHINES. MARSHMAN W. HAZEN, New York, N. Y., assignor to Standard Typewriter Company, a Corporation of New York. Original application filed June 23, 1908, Serial No. 439,967. Divided and this application filed June 30, 1909. Serial No. 505,248. (Cl. 197—109.)

1. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, a pivotally held device having a substantially U-shaped slot and movable with the carriage, escapement mechanism, a rod rotatably held under the carriage and having one end adapted to be engaged by the device and the other end adapted to be moved in the path of a part of the escapement mechanism to stop the action thereof and thereby prevent further movement of the carriage and when said device is released permits a further movement of the carriage determined by the length of the slot.



2. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, escapement mechanism, means for operating said escapement mechanism, a rod rotatably held under said support and having a projecting end adapted to be moved in the path of a part of the escapement mechanism to stop the action of the same, a spring normally forcing the rod in one direction, said rod having an end projecting upwardly, and a device having an open portion and pivotally held to the carriage, and adapted to engage the end of said rod to rotate the same and stop the escapement and when released to permit a further movement of the carriage and then again engage the rod and stop the carriage.



3. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, escapement mechanism, means for operating said escapement mechanism, a rod rotatably held under said support and having a projecting end adapted to be moved in the path of a part of the escapement mechanism to stop the action of the same, a spring normally forcing the rod in one direction, said rod having an end projecting upwardly and means for limiting the rotary movement of said rod and a device pivotally held to the carriage adapted to engage the end of said rod to rotate the same and stop the escapement and when released to permit a further movement of the carriage and then again engage the rod to stop the carriage.

4. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, escapement mechanism, means for operating said escapement mechanism, a rod rotatably held under said support and having a projecting end adapted to be moved in the path of movement of the escapement mechanism to stop the action of the same, a spring normally forcing the rod in one direction, said rod having an end projecting upwardly, a device having a slot therein and pivotally held to the carriage adapted to engage the end of said rod to rotate the same and stop the escapement and when released to permit a further movement of the carriage and then again engage the rod, and a spring normally forcing said device in one direction.

5. In a typewriting machine, the combination with a support, of a carriage adapted to move along said support, means for moving the carriage for letter spacing, means mounted upon the support adapted to engage a part of the carriage letter spacing means to lock the carriage against movement at the end of the line, and a device having a substantially U-shaped slot pivotally mounted to move with the carriage and having a part thereof adapted to engage the carriage locking means and when released to permit a further movement of the carriage and then again automatically lock the same.

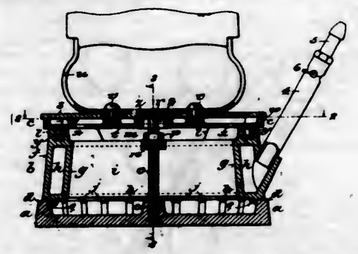
[Claims 6 to 8 not printed in the Gazette.]

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1,092,838. DEPOLYMERIZATION OF TURPENTINE OR TURPENTINE-OIL. ARTHUR HEINEMANN, West Kensington, London, England. Filed Jan. 21, 1913. Serial No. 743,255. (Cl. 23—24.)

An improved process for the depolymerisation of turpentine into compounds boiling below 100° C. consisting in first admixing steam with the turpentine vapors and then passing the mixture over suitable surfaces heated to a temperature ranging between 650° C. and 900° C., substantially as described.

1,092,839. FLAT-IRON. FRITZ JOHNSON, Racine, Wis., assignor to Johnson Combined Pressing & Refinishing Iron Company, Racine, Wis., a Corporation of Wisconsin. Filed Feb. 13, 1913. Serial No. 748,268. (Cl. 158—23.1.)



1. A flat iron having an outer double wall forming an air and gas mixing and an insulating chamber surrounding the combustion chamber and extending substantially from the bottom portion of the combustion chamber to its top, said mixing and insulating chamber having jet apertures in the lower part thereof and a gas and air supply connection.

2. In a flat iron the combination of a base having an upwardly projecting marginal flange, a double walled body and burner section seated upon and overhanging said flange on the inner side thereof and forming a mixing and insulating chamber surrounding a combustion chamber substantially from its bottom portion to its top and having downwardly directed jet apertures in the lower overhanging part thereof inside of said flange, and a gas and air supply connection.

3. In a flat iron the combination of a base section having a central screwthreaded socket, a hollow body and burner section seated on the base section and having a centrally perforated bridge piece spanning the opening between opposite walls of the iron, and a single connecting bolt passing through said bridge piece and threaded in said socket.

4. In a flat iron the combination of a base section having an upwardly projecting marginal flange and a central threaded socket, a hollow body and burner section seated on said flange and having a centrally perforated bridge piece spanning the space between opposite walls of the iron, a cover section removably seated on the top of said body and burner section and provided with a handle, and a single bolt threaded in said socket, passing upwardly through and secured in said bridge piece, the cover being provided with means for detachably securing it to the upper end of said bolt.

5. In a flat iron the combination of a base section, a hollow body and burner section seated thereon, a bolt securing said sections together and having a head at its upper end, and a cover removably seated on said body and burner section and having a locking piece movable into and out of engagement with the bolt head.

[Claim 6 not printed in the Gazette.]

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1,092,840. TOOL FOR SPREADING THE TUBES OF WATER-TUBE BOILERS. JOHN KEERS, Brooklyn, N. Y. Filed Nov. 1, 1913. Serial No. 798,644. (Cl. 81—3.)

1. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is slidable lengthwise of the other, a pair of tube-spreading members secured respectively to said carriers one of which members is pivoted to its carrier to swing relatively to the other tube-spreading member, and means for moving said tube-spreading members toward and from each other.

2. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is slidable in the other, a pair of tube-spreading

members secured respectively to said carriers and disposed end to end one of which members is movable toward and from the other lengthwise of the carrier and one of which is pivoted to its carrier to swing relatively to the other tube-spreading member, and means for moving said tube-spreading members toward and from each other.



3. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool one of which members is fixed to one of said carriers and the other of which is pivoted to the other of said carriers to swing in said plane relatively to the other spreader-head, and means for moving said spreader-heads toward and from each other.

4. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool one of which members is fixed to one of said carriers and the other of which has a central socket for receiving, and is pivoted to, one end of the other of said carriers to swing in said plane relatively to the other spreader-head, and means for moving said spreader-heads toward and from each other.

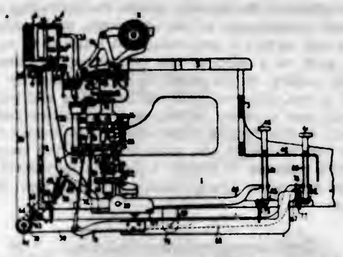
5. A tool for spreading the tubes of water-tube boilers, embodying a carrier comprising two main parts one of which is slidable in the other, a pair of spreader-heads disposed end to end in the same plane lengthwise of the tool one of which members is fixed to one of said carriers and the other of which is pivoted to the other of said carriers to swing in said plane relatively to the other spreader-head and is also movable into and out of engagement with the other spreader-head lengthwise of the tool, and means for moving said spreader-heads toward and from each other.

[Claim 6 not printed in the Gazette.]

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1,092,841. TYPE-WRITING MACHINE. ROBERT BERRIER KETTLEWELL, Harrogate, England, assignor to Yost Writing Machine Company, Ilion, N. Y., a Corporation of New York. Filed Dec. 30, 1912. Serial No. 739,292. (Cl. 197—177.)

1. In a typewriting machine, the combination of a carriage, a series of column stops carried by the carriage and each of said stops having a column selecting engaging portion that travels in one path and a denominational selecting engaging portion that travels in a distinct path, key controlled denominational selecting stops coöperative only with the denominational selecting engaging portion on each of the column stops, and key controlled column selecting stops each of which is coöperative only with the column selecting engaging portion on one of the column stops, the column selecting stops being so disposed that each of them is coöperative with its column stop before said stop reaches a position where any of the denominational selecting stops is coöperative therewith, means controlled by an actuation of a column selecting stop for releasing the carriage, and means controlled by an actuation of a column selecting stop for releasing the carriage.



2. In a typewriting machine, the combination of a carriage, a series of column stops carried by the carriage and each of said stops having a column selecting engaging portion that travels in one path and a denominational selecting engaging portion that travels in a distinct path, key controlled denominational selecting stops coöperative only with the denominational selecting engaging portion on each of the column stops; key controlled column selecting stops each of which is coöperative only with the column selecting engaging portion on one of the column stops, the column selecting stops being so disposed that each of them is coöperative with its column stop before said stop reaches a position where any of the denominational selecting stops is coöperative therewith, means controlled by an actuation of a column selecting stop for releasing the carriage, and means controlled by an actuation of a column selecting stop for releasing the carriage.

3. In a typewriting machine, the combination of a carriage, a series of relatively adjustable column stops carried by the carriage and each of said stops having a column selecting engaging portion that travels in one path and a denominational selecting engaging portion that travels in a distinct path, separate independently operated key controlled denominational selecting stops coöperative only with the denominational selecting engaging portion on each of the column stops; separate independently operated key controlled column selecting stops each of which is coöperative only with the column selecting engaging portion on one of the column stops, the column selecting stops being so disposed that each of them is coöperative with its column stop before said stop reaches a position where any of the denominational selecting stops is coöperative therewith, and automatically actuated carriage releasing means.

4. In a typewriting machine, the combination of a carriage, a series of column stops carried by the carriage and each of said stops having a column selecting engaging portion that travels in one path and a denominational selecting engaging portion that travels in a distinct path, denominational selecting stops coöperative only with the denominational selecting engaging portion on each of the column stops, column selecting stops each of which is coöperative only with the column selecting engaging portion on one of the column stops, the column selecting stops being so disposed that each of them is coöperative with its column stop before said stop reaches a position where any of the denominational selecting stops is coöperative therewith, a series of column selecting keys at the keyboard of the machine, each of said keys controlling one of said column selecting stops, and a series of denominational selecting keys at the keyboard of the machine, each of said denominational keys controlling a denominational selecting stop.

5. In a typewriting machine, the combination of a carriage, a series of column stops carried by the carriage and each of said stops having a column selecting engaging portion that travels in one path and a denominational selecting engaging portion that travels in a distinct path, denominational selecting stops coöperative only with the denominational selecting engaging portion on each of the column stops, column selecting stops each of which is coöperative only with the column selecting engaging portion on one of the column stops, the column selecting stops being so disposed that each of them is coöperative with its column stop before said stop reaches a position where any of the denominational selecting stops is coöperative therewith, a series of column selecting keys at the keyboard of the machine, each of said keys controlling one of said column selecting stops, a series of denominational selecting keys at the keyboard of the machine, each of said denominational keys controlling a denominational selecting stop, means controlled by an actuation of any of said column selecting keys for releasing the carriage, and means controlled by an actuation of any of said denominational selecting keys for releasing the carriage.

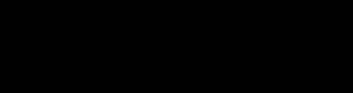
[Claims 6 to 34 not printed in the Gazette.]

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1,092,842. AZO DYESTUFFS AND THEIR PRODUCTION. HERBERT LEVINSTEIN and JAMES BADDILEY, Blackley, Manchester, England, assignors to Levinstein, Limited, Blackley, Manchester, England, a Limited Liability Company. Filed May 20, 1912. Serial No. 698,492. (Cl. 8—1.)

1. The production of azo dyestuffs by combining a diazo body of the aromatic series with the component produced by combining halogenacetylchlorid, a primary aromatic amino body, and an amino-naphthol-sulfonic acid which does not contain the amino group in the ortho position to the hydroxyl group, substantially as herein set forth.

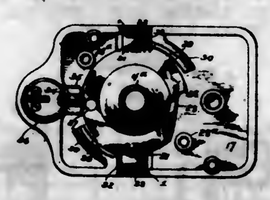
2. An azo dyestuff having the general formula



where $n$ indicates a number less than 3, "R" the residue of a primary aromatic amin and "Y" the residue of the aromatic amin which has been diazotized and coupled with the new component.

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1,092,843. COMBINATION-LOCK. ROLLIN C. LEWIS, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed July 25, 1913. Serial No. 781,141. (Cl. 70—53.)



1. In a combination lock, the combination of a lock casing, a cam, means carried by the casing for rotating the cam, a cover plate, a tumbler carried by the cover plate and removable with the same, means connecting the cam and tumbler whereby the latter is rotated by the former, and a device pivoted to the cover plate and adapted to engage the lock casing at a plurality of points for locking the cover plate to the casing.

2. In a lock, the combination of a lock casing, a bolt and bolt actuating means within the casing, a cover plate, a locking device movably mounted on said cover plate and adapted to engage the casing for locking the cover plate to the casing, and a lock independent of the main lock for shifting the locking device to its locking and unlocking positions and also for locking said locking device against movement.



3. In a combination lock, the combination of a lock casing, a bolt and bolt actuating means within the casing, a cover plate for the casing, a cover locking plate mounted to turn on said cover plate, and a key lock and connections whereby said locking plate may be turned to release and lock the cover plate to the casing and be locked against turning movement.

4. In a combination lock, the combination of a lock case, a cam journaled therein, a sliding bolt, a fence intermediate the cam and bolt for actuating the latter, a cover plate for the lock, a series of tumblers nested on a bearing rigid with the cover plate, and a device also carried by the cover plate and actuated by a key lock on the latter for holding the fence out of contact with the cam and tumblers while the combination of the lock is being changed.

5. In a combination lock, the combination of a lock case, a cam and tumblers therein, a sliding bolt, a fence intermediate the cam and bolt for actuating the latter, a cover plate for the lock and a device carried by the cover plate and actuated by a key lock on the latter for locking the cover plate to the casing and for holding the fence out of contact with the cam while the combination of the lock is being changed.

[Claim 6 not printed in the Gazette.]

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1,092,844. ROLL RAMMING APPARATUS. HARRY P. MACDONALD, Montclair, N. J., assignor to The Snead & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 3, 1912. Serial No. 723,684. (Cl. 22—40.)



1. In roll ramming apparatus the combination of a frame, a flask, a track carried on the frame, a ramming roll carried on the track, a pad above the flask, the top portion of which lies in such relation to the tracks as to be engaged by the roll as the latter is operated, and the bridging member, one end of which is supported on the frame and the other on the pad, the said bridging member carrying the roll on the pad as the roll is advanced.

2. In roll ramming apparatus the combination of a flask, a ramming roll, a flexible ramming element resting on the sand in the flask and adapted to be engaged by the roll as the latter is moved over the flask, and means at an end of said element for maintaining said element in position against the displacing action of the roll and preventing humping up of the flexible element as the roll is advanced from said end over the said element.

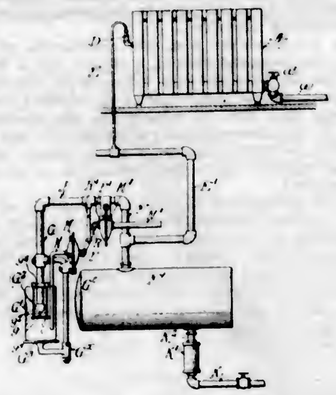
3. In a roll ramming apparatus the combination of a roll, a support therefor adapted to support the roll above a flask, and a flexible pad between the flask and the roll in position to be engaged by the roll as it is operated, said pad comprising a plurality of bars, means for spacing the bars apart, and a cable for binding the bars together.

4. In roll ramming apparatus the combination of a roll, a support therefor adapted to support the roll above a flask, and a flexible pad between the flask and the roll in position to be engaged by the roll as it is operated, said pad comprising a plurality of bars, means for spacing the bars apart, and a plurality of cables for binding the bars together.

5. In roll ramming apparatus the combination of a ramming roll, a flask, a frame, a track carried by the frame and adapted to support the roll above the flask, a sand compression pad between the flask and the roll adapted to be engaged by the roll as the latter is operated, and means for maintaining the pad in position comprising a pair of bars supported on the frame at one end and fastened to the pad at the other end.

[Claim 6 to 15 not printed in the Gazette.]

1,092,845. STEAM-HEATING SYSTEM. EDWARD J. MCARDLE, Chicago, Ill. Filed Jan. 24, 1911. Serial No. 604,431. (Cl. 237—9.)



1. In a steam heating system, in combination with a radiator, an air pipe leading from said radiator, an automatic valve adapted to control the flow from said radiator to said air pipe and to close against the passage of steam therethrough, a receptacle for collecting the condensed steam passing through said air pipe, a vessel containing liquid into which said air pipe depends, said vessel being open at its top above the level of the liquid, the level of said liquid being at or near the open end of said air pipe, a float of slightly less specific gravity than said liquid, normally closing the open end of said air pipe and means for guiding said float to insure its closing against said air pipe.

2. In a steam heating system, in combination with the radiator, means for supplying steam to said radiator, and an automatic valve adapted to discharge the air from said radiator under the pressure of the incoming steam, a fluid conduit into which said automatic valve discharges, a closed tank connected with said fluid conduit adapted for the reception of the water of condensation flowing through said conduit, an air pipe connected to said fluid conduit at a point above the level of its connection with said closed tank, an open jar containing liquid, said air pipe depending into said jar, a float normally closing the open end of said air pipe, a diaphragm chamber and a diaphragm forming one wall thereof, a water pipe connected thereto at one end and at its other end depending into the liquid in said jar, a second diaphragm chamber and a second diaphragm forming one wall thereof being connected with the means for supplying steam, and means connecting said two diaphragms by which the water in said jar is drawn up into said water pipe upon a rise of steam pressure in said second diaphragm chamber.

3. In combination with a radiator, an air pipe leading from said radiator, a receptacle containing liquid into which said air pipe depends, a float valve within the receptacle arranged to seat on the end of the air pipe and adapted to move to open and closed positions with the fall and rise of the liquid in the receptacle, and means for controlling the level of the liquid in said receptacle embracing a diaphragm chamber having a diaphragm forming one wall thereof, a pipe opening into said diaphragm chamber at one end and at its other end depending into the liquid in said receptacle, a steam supply pipe, a second diaphragm chamber having a diaphragm forming one wall thereof, said second diaphragm chamber being connected with said steam supply pipe, and means connecting said diaphragms whereby the level of the liquid in said first pipe varies with the steam pressure in said steam pipe.

1,092,846. WOOD-VENEERING. ANDREW MCILWRATH, Chicago, Ill., assignor to Flood & Conklin Co., Newark, N. J., a Corporation of New Jersey. Filed Nov. 11, 1912. Serial No. 730,599. (Cl. 144—309.)

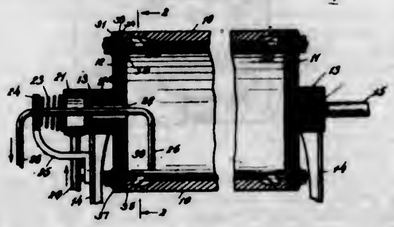


1. That improvement in the art of wood veneering which consists in treating the veneer with a gum solution and causing the material to harden so as to substantially exclude glue from the pores thereof, and gluing the veneer so treated to the packing, substantially as set forth.

2. In combination, a backing of wood, a veneer having a hardened gum solution in the pores and openings therein and being secured to the backing by means of glue, the glue being excluded from the outer surface of the veneer by reason of the presence of the hardened gum solution, substantially as set forth.

3. In combination, a backing piece, a section of wood glued thereto and having its grain crossing that of the backing piece, and a veneer having its grain parallel to that of the backing piece, and glued to the cross-grained section and having a gum solution in the pores and openings therein, substantially as set forth.

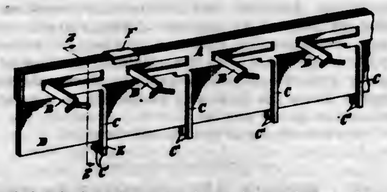
1,092,847. CYLINDER-HEAD FASTENER. WILLIAM H. MILLSPAUGH, Sandusky, Ohio. Filed Jan. 16, 1912. Serial No. 671,458. (Cl. 220—124.)



The combination with a cylindrical shell provided with recesses formed in the body of the shell on the inside near the ends thereof, said recesses being formed with parallel sides, an outwardly inclined end and a curved bottom beginning at said inclined end and terminating in the surface of said shell at the inner ends of said parallel sides, said shell having a portion of its ends cut away to form a step extending completely around said shell, of heads having lugs provided with U-shaped holes oppositely disposed around a circle of a diameter less than that of the heads and equal approximately to the inside diameter of said shell, the said heads being provided with holes in alinement with said U-shaped holes in said lugs and being further provided with a step extending around the periphery thereof adapted to engage the first mentioned step on said shell, means for retaining said heads in rigid position at the ends of said shell, said means comprising bolts, the shanks of which pass through said holes in said heads and lugs, and the heads of which are formed of a contour similar to that of said recesses but of a size considerably smaller, allowing a rotary movement of said bolt heads within said recesses, said inclined ends of said recesses being adapted to engage the corresponding inclined ends of the bolt heads.



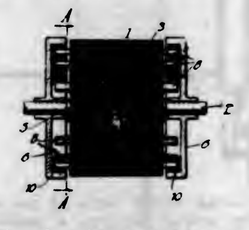
1,092,848. JOINT-PLATE. ALBERT MOYER, New York, N. Y. Filed Nov. 6, 1913. Serial No. 799,428. (Cl. 94—1.)



1. A joint plate for concrete roads consisting of a plate of less depth than the concrete having laterally projecting tongues adapted to be embedded in the concrete and having downwardly projecting integral legs adapted to rest on or in the sub-base of the road.

2. A joint plate for concrete roads consisting of a plate of less depth than the concrete said plate being slit to form two sets of integral tongues one set being bent outward to extend into the concrete and the other set being bent downward to form supporting legs for the plate.

1,092,849. ROTOR CONSTRUCTION FOR INDUCTION-MOTORS. JOHN D. NIES, St. Charles, Ill., assignor to Kimble Electric Co., Chicago, Ill. Filed Feb. 15, 1912. Serial No. 677,757. (Cl. 172—120.)



1. In a rotor adapted to be used in an induction motor field, the combination of a driving member and a driven member journaled to rotate relatively to each other, said rotor having a normally closed high resistance winding and a normally open low resistance winding, said low resistance winding comprising a portion of said driven member and means rotatable with said driving member and adapted to be shifted into engagement with said driven member for mechanically and electrically connecting said members.

2. In a rotor adapted to be used in an induction motor field, the combination of a driving member and a driven member journaled to rotate relatively to each other, said rotor having a normally closed high resistance winding and a normally open low resistance winding, said low resistance winding comprising a portion of said driven member and means rotatable with said driving member and adapted to be shifted by centrifugal force into engagement with said driven member for mechanically and electrically connecting said members at a predetermined speed.

3. In a rotor adapted to be used in an induction motor field, a fixed high resistance winding, movable low resistance bars, adapted to be shifted through centrifugal force, and means rotatably mounted coaxially with the main body of said rotor and normally disconnected therefrom when said motor is at rest or running at low speed, said means being formed and arranged to coact with said low resistance bars for the purpose of forming a low resistance winding on said rotor at a predetermined speed.

4. An induction motor comprising a magnetic element, a high resistance winding on said element, low resistance bars movably mounted on said element and adapted to be shifted by centrifugal force, a driving shaft rotatable relatively to said element, end plates fixed on said shaft and adapted to coact with said low resistance bars for forming a low resistance winding for said rotor.

5. A rotor adapted for use with an induction motor field and wound in part with fixed conductors having high resistance, conductor bars having comparatively low resistance slidably mounted on said rotor and adapted to shift through centrifugal force and means located to coact with said bars, to operate as a mechanical clutch and also as a low resistance circuit closing device at a predetermined speed.

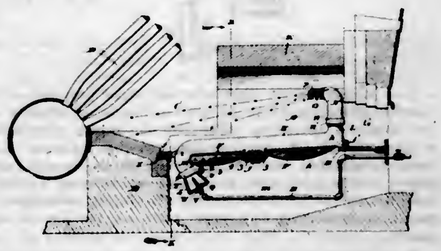
[Claims 6 to 13 not printed in the Gazette.]

1,092,850. HEAD-REST FOR BEDS. ALANSON C. NOBLE, Chicago, Ill. Filed Mar. 11, 1912. Serial No. 682,931. (Cl. 5—43.)



The combination of brackets, means to attach said brackets to the side rails of a frame, journal bearings in said brackets and lever fulcrums rigidly secured to said brackets, disks respectively provided with a spiral groove on one side thereof, hubs on said disks, said hubs fitting in said journal bearings and respectively provided with a hole therethrough, a rod fitting in the holes of the hubs, collars on said hubs, means to secure said collars on said hubs and to secure the rod in place in the hubs, levers movably mounted on said lever fulcrums, abutments on said levers, said abutments fitting into said spiral grooves, and a frame attached to said levers.

1,092,851. FURNACE. JOHN H. PARSONS, Philadelphia, Pa., assignor to Parsons Engineering Company, Wilmington, Del., a Corporation of Delaware. Filed Oct. 29, 1907, Serial No. 399,702. Renewed Aug. 16, 1913. Serial No. 785,126. (Cl. 110—60.)



1. In combination with the fire box of a furnace and its grate structure, of an attachment for injecting air into the fire chamber above the fuel comprising an elongated imperforate heater adapted to occupy a position near the plane of the grate but extending upwardly above said

plane so as to be embedded in the fuel, an upwardly conducting portion at the forward end of the heater terminating in a flat nozzle adapted to discharge air in sheet formation rearwardly over the fuel, and an intake portion leading to the other end of the heater, said heater being provided with a broad flat base portion adapted to engage the grate structure to support the attachment against lateral tilting movement and the upper portion of the heater being rounded to expose its sides to the fuel, substantially as described.

2. In combination with the fire box of a furnace and its grate structure, of an attachment for injecting air into the fire chamber above the fuel comprising an elongated imperforate heater adapted to occupy a position near the plane of the grate but extending upwardly above said plane so as to be embedded in the fuel, an upwardly conducting portion at the forward end of the heater terminating in a flat nozzle adapted to discharge air in sheet formation rearwardly over the fuel, and an intake portion leading to the other end of the heater, said heater being provided with depending lugs adapted to engage on opposite sides of the grate structure to maintain the attachment against displacement.

3. In combination with the fire box of a furnace and its grate structure, of an attachment for injecting air into the fire chamber above the fuel comprising an elongated heater adapted to occupy a position near the plane of the grate but extending upwardly above said plane so as to be embedded in the fuel, an upwardly conducting portion at the forward end of the heater terminating in a flat nozzle adapted to discharge air in sheet formation rearwardly over the fuel, and an intake portion offset in a downward direction from the heater to pass through the grate structure into the ash pit, said depending portion passing between the grate bars to prevent lateral movement of the attachment.

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1,092,852. FURNACE AND AIR-INJECTING NOZZLE THEREFOR. JOHN H. PARSONS, Philadelphia, Pa., assignor to Parsons Engineering Company, Wilmington, Del., a Corporation of Delaware. Filed Mar. 12, 1908, Serial No. 420,557. Renewed Aug. 16, 1913. Serial No. 785,127. (Cl. 110—61.)



1. A nozzle of the character described provided with grooves extending along opposite edges longitudinally of the nozzle, a protective facing for the nozzle comprising a plurality of adjoining sections having marginal portions interfitting with the grooves of the nozzle, and baffles o nthe interior of the nozzle constituting a circuitous course therethrough, one of the baffles comprising a partition connecting the opposite grooved portions of the nozzle.

2. A nozzle of the character described provided with grooves extending along opposite edges longitudinally of the nozzle, and baffles on the interior of the nozzle constituting a circuitous course therethrough, one of the baffles comprising a partition connecting the opposite grooved portions of the nozzle.

3. A nozzle of the character described provided with a tubular body having inwardly deflected sides forming grooves in its opposite sides, and a protective facing for the nozzle having correspondingly disposed flanges at its edges adapted to engage the grooved portions to secure the facing in place, said facing extending across the front and around the corners of the nozzle adjoining the grooves.

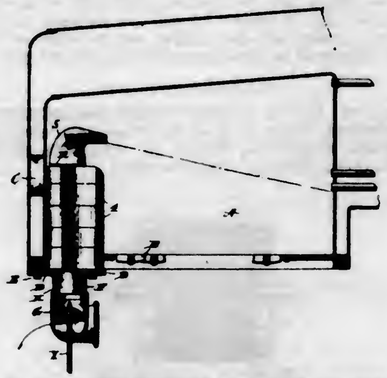
4. In combination with a nozzle of the character described having a tubular body provided with inwardly deflected sides forming grooved portions at its opposite sides, a protective facing for the nozzle consisting of a plurality of adjoining sections, each section having correspondingly disposed flanges at its edges adapted to engage the grooved portions of the nozzle to retain the facing in place, said facing extending across the front and around the corners of the nozzle adjoining the grooves.

5. A nozzle of the character described having its side walls shaped interiorly and exteriorly to constitute retaining means, and a protective facing for said nozzle having complementary retaining portions at its edges adapted to coöperate with the retaining portions of the nozzle to hold the protective facing in place, said facing extending across the front and around the corners of the nozzle adjoining the grooves.

[Claims 6 to 10 not printed in the Gazette.]

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1,092,853. FURNACE AND AIR-INJECTING NOZZLE THEREFOR. JOHN H. PARSONS, Ridley Park, Pa., assignor to Parsons Engineering Company, Wilmington, Del., a Corporation of Delaware. Filed June 1, 1908, Serial No. 435,991. Renewed Aug. 16, 1913. Serial No. 785,128. (Cl. 110—61.)



1. In combination with a nozzle of the character described, having grooved portions, a protecting facing for the front portion of the nozzle consisting of a plurality of adjoining sections flanged to engage said grooved portions at the opposite edges of the facing and at a point intermediate said edges to slidably interlock the sections with the nozzle.

2. The combination with a nozzle of the character described having grooved portions, of a protecting facing for the front thereof flanged to engage said grooved portions at the opposite edges of the facing and at a point intermediate said edges whereby the facing is detachably secured in position.

3. In combination with a nozzle of the character described having three grooves, one of which is approximately T-shaped in cross section, a protecting facing therefor consisting of a plurality of adjoining sections having three flanges formed complementary to the grooved portions of the nozzle slidably engaging the same.

4. The combination with a fire box of a furnace, of means for discharging air thereinto above the fuel comprising a combined heater and nozzle consisting of an elongated vertically disposed heater adapted to be inserted in the fire box in position to be embedded in the fuel, a supply pipe for the heater, the heater being of a substantially enlarged area relative to the pipe to permit expansion of the air therein, a nozzle offset from the latter in an approximately horizontal direction, the mouth of the nozzle being flat to emit the air in sheet formation, the side walls of the heater being deflected inwardly to constitute vertical grooves, and a sectional detachable facing having inwardly turned portions entering the grooves to secure the same in place.

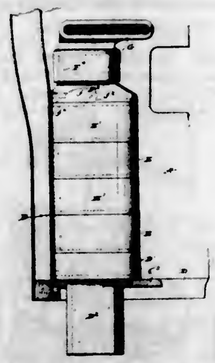
5. The combination with the fire box of a furnace, of means for discharging air thereinto above the fuel comprising a combined heater and nozzle consisting of an elongated vertically disposed heater adapted to be inserted in the fire box in position to be embedded in the fuel, a supply pipe for the heater, the heater being of a substantially enlarged area relative to the pipe to permit expansion of the air therein, a nozzle offset from the heater in an approximately horisontal direction, the mouth of the nozzle being flat to emit the air in sheet formation, a protecting facing for the heater comprising a plurality of superposed sections having portions interfitting with the heater to removably secure the facing in place, the upper end of the heater adjoining the nozzle being contracted relative to the body of the heater and the upper section of the protecting facing being contoured to overlie and protect said contracted portion, the contracted portion of the heater detachably interfitting with the nozzle.

[Claims 6 to 11 not printed in the Gazette.]



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1,092,854. APPARATUS FOR FEEDING AIR TO FURNACES. JOHN H. PARSONS, Ridley Park, Pa., assignor to Parsons Engineering Company, Wilmington, Del., a Corporation of Delaware. Filed May 5, 1909, Serial No. 494,147. Renewed Aug. 16, 1913. Serial No. 785,129. (Cl. 110—76.)



1. In a furnace fire box an air conductor comprising a base member having a chambered upper portion, a series of conductor members located on the base and provided with a series of integral heat radiating ribs projecting into the air space, a commingling chambered member at the upper end of the conductor and a nozzle on the said last mentioned member.

2. In a fire box for furnaces, an air conductor comprising in part, a series of removable sections and an upper commingling section or part having inclined slots entering from its lower edge, the said sections being interlocked, and projections from the walls of the fire box engaging in the said inclined slots whereby the various sections are secured in place.

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1,092,855. PACKAGE-BAND-FASTENING DEVICE. WILLIAM A. PAULUS, Ridgewood, N. J. Filed Nov. 28, 1913. Serial No. 803,433. (Cl. 24—17.)

1. A fastening device consisting of a lock band composed of a strip of flexible material divided, by folding lines, into four parts, one end part being triangular in form and the other parts being substantially equal in dimensions, and said parts being folded to form a lock member and so that the triangular end part will lie on the part adjacent to the other end part, and a tie band passed through the folded lock band and one end of which is adapted to be sealed to the triangular end portion of the lock band, and that other portion of the lock band on which the triangular end portion rests, the other end of the tie band being free, and said folded lock band being adapted to permit the passage of the free end of the tie band centrally therethrough and between the folds of the same and under the front part thereof, the other end of said tie band being also rounded, and the side edges of the front face portion of the lock member being concave.



2. A fastening device consisting of a lock band composed of a strip of flexible material divided by folding lines into four parts three of which are approximately of the same dimensions, one end part being of less dimensions, and said parts being folded to form a lock member and so that the smaller end part will lie on the part adjacent to the other end part, and a tie band passed through the folded lock band and one end of which is adapted to be sealed to the smaller end portion of the lock band, and that other portion of the lock band on which the smaller end portion rests, the other end of the tie band being free, and said folded lock band being adapted to permit the passage of the free end of the tie band centrally therethrough and between the folds of the same and under the front part thereof, substantially as shown and described.

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1,092,856. TYPE-WRITER RIBBON. GEORGE E. PELTON, Georgetown, Ky. Filed Sept. 5, 1913. Serial No. 788,359. (Cl. 197—172.)



A typewriter ribbon comprising pure unadulterated dyed silk woven with a suitable ground and filling to produce a thin close web forming similar firm smooth surfaces on both sides free from nap or lint, and impregnated with ink.

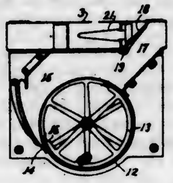
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1,092,857. COTTON-CONVEYING APPARATUS. HAVEN C. PERHAM, Lowell, Mass.; Clara A. Perham, Lowell, Mass., executrix of said Haven C. Perham, deceased, assignor to Kitson Machine Shop, Lowell, Mass., a Corporation of Massachusetts. Filed May 8, 1905. Serial No. 259,806. (Cl. 13—12.)

1. Cotton conveying apparatus, having, in combination, a pneumatic conveyer tube, means for creating a current of air therethrough, a condenser, a passage leading through the condenser and connected at either end with the tube, and means for simultaneously closing each end of the passage and opening the tube or opening each end of the passage and closing the tube, substantially as described.

2. Cotton conveying apparatus, having, in combination, a pneumatic conveyer tube, a condenser connected at both inlet and outlet with the conveyer tube, means for opening or closing the conveyer tube between the inlet and the

outlet of the condenser, means for opening and closing the inlet to the condenser, a blower for creating a current of air in the conveyer tube and means for introducing cotton into the tube between the blower and the condenser, substantially as described.



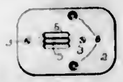
3. Cotton conveying apparatus, having, in combination, a pneumatic conveyer tube, means for creating a current of air in the conveyer tube, means for introducing cotton into the tube, a condenser connected at both inlet and exhaust with the conveyer tube, a swinging gate operating to close alternatively the conveyer tube or the inlet to the condenser, and means for operating the said gate, substantially as described.

4. Cotton conveying apparatus, having, in combination, a pneumatic conveyer tube, means for creating a current of air in the tube, mean for introducing cotton into the tube, a condenser connected with the tube at both inlet and exhaust, a swinging gate for opening and closing the inlet to the condenser, a swinging gate for opening and closing the exhaust from the condenser, and mechanical connections between the said gates whereby they may be simultaneously operated, substantially as described.

5. Cotton conveying apparatus, having, in combination, a pneumatic conveyer tube, means for creating a current of air in the tube, means for introducing cotton into the tube, a condenser connected with the tube at both inlet and exhaust, a swinging gate for opening and closing the inlet to the condenser, a rock shaft on which the gate is mounted, a cam member carried by the rock shaft, a swinging gate for closing the exhaust from the condenser and a rod pivotally connected with the latter gate and engaging the cam member whereby both gates may be closed simultaneously, substantially as described.

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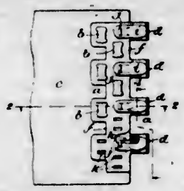
1,092,858. SEWING-MACHINE THROAT-PLATE. ELPHEGE PHANEUF, St. Hyacinthe, Quebec, Canada. Filed Nov. 15, 1912. Serial No. 731,473. (Cl. 112—29.)



1. A sewing machine throat plate consisting of two superposed plates, having corresponding openings of the same form and size, which form a single throat-opening and provided with pairs of registering grooves at the end of said openings, the said plates being also provided with registering screw holes and with screws which permit them to be clamped together accurately in the position stated, in combination with detachable rods adapted to extend in parallel lines across said opening, fitting into the grooves of said plates and securely held therein against lateral movement until said plates are separated.

2. A sewing machine throat plate consisting of two superposed plates having corresponding openings of the same form and size which form a single throat-opening and provided with pairs of registering grooves at the ends of said openings, the said plates being also provided with means permitting them to be accurately clamped together in the position stated, in combination with detachable rods adapted to extend in parallel lines across said opening, fitting into the grooves of said plates and securely held therein against lateral movement until said plates are separated.

1,092,859. BELT-FASTENING. GEORGE E. PURPLE, La Grange, Ill., assignor to Flexible Steel Lacing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1913. Serial No. 741,228. (Cl. 24—33.)



1. A belt fastening comprising a metal member having a cross bar for attachment to the outer face of a belt end formed with hinge loops and with recessed seats to receive and hold the backwardly folded ends of the loops.

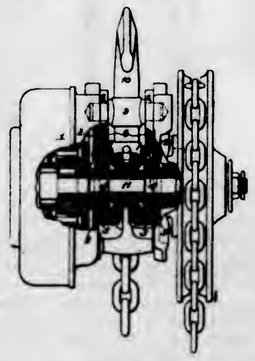
2. A belt fastening comprising a metal member having a cross bar formed at intervals along one edge with hinge loops and on the inner side with recessed seats extending into the proximate ends of the loops and forming reinforcements thereof, the extreme ends of the loops forming tongues which are folded back into said recessed seats approximately flush with the inner face of the cross bar.

3. A belt fastening comprising a metal member having a cross bar provided with means for attachment to the outer face of a belt end and formed with hingle loops and with recessed seats to receive and hold the backwardly folded ends of the loops which are interlocked with the cross bar.

4. A belt fastening comprising a metal member having a cross bar formed at intervals along one edge with hinge loops and on the inner side with recessed seats to receive the backwardly folded ends of the loops which are bent outwardly into engagement with openings in the cross bar.

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1,092,860. HOIST-BLOCK. JOSEPH CHARLES REGAN, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Oct. 12, 1912. Serial No. 725,452. (Cl. 57—5.)



1. In a chain block, the combination of side frames each having an elongated cylindrical bearing projection at both sides, an axle closely fitting said elongated bearings and directly supported by the latter, a main hoist sheave fixed to said axle, a suspension plate secured to the inner face of each side frame, the suspension plates being independent of each other and each provided with an opening of a size and shape to receive the inwardly projecting ends of the side frame bearings, whereby the latter will be directly supported by its suspension plate, and a suspension hook having pivotal connection with each suspension plate.

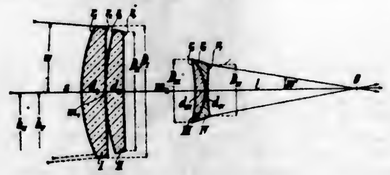
2. In a chain block, the combination of side frames each having an elongated cylindrical bearing projection at both



sides, an axle closely fitting said elongated bearings and directly supported by the latter, a main hoist sheave fixed to said axle, a suspension plate secured to the inner face of each side frame, the said plates being independent of each other and each provided with an opening of a size and shape to receive the inwardly projecting end of its side frame bearing, whereby the latter will be directly supported by its suspension plate and a suspension hook the yoke of which passes through holes in both suspension plates and into openings in the side frames.

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1,092,861. MAGNIFYING-GLASS. MORITZ VON ROHR, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Oct. 1, 1912. Serial No. 723,442. (Cl. 88—57.)



In a magnifying glass of low power a lens system consisting of a collective front combination composed of two single lenses made of crown glass and having exclusively spherical surfaces and a dispersive rear combination, comprising a crown glass and a flint glass lens, the air space bounded by the pair of adjacent surfaces of the two lenses forming the front combination having the form of a dispersive glass meniscus.

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1,092,862. TOY. NATHAN ROITMAN, St. Louis, Mo. Filed Sept. 26, 1912. Serial No. 722,523. (Cl. 46—46.)



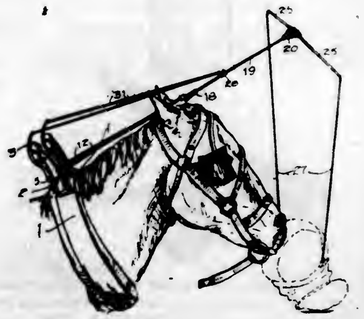
The improved barking or whistling toy, comprising a hollow, metallic body in the form of a dog having a sound-emitting aperture, and having at its rear end a free projecting integral cylindrical clamping-ring; an inflatable bulb having at one end an integral hardened and thickened rubber clamping ring composed of material thicker and harder than the body portion of said bulb; a tubular stem having a countersunk head at one end; and a vibrating strip of rubber stretched across said countersunk head and clamped between the body of said stem and the said hardened and thickened rubber clamping ring, and the latter inserted within the said metallic clamping ring at the rear end of said hollow metallic body.

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1,092,863. FEED-BAG HOLDER. ALBERT L. RUMRILL, West Somerville, Mass. Filed Aug. 27, 1913. Serial No. 786,911. (Cl. 119—67.)

1. In a feed bag holder, rings, upstanding arms hingedly secured to said rings, outstanding arms rigidly secured to said rings, sockets adapted to receive the ends of the outstanding arms, said sockets being pivotally mounted with relation to each other, a support hingedly secured to the sockets, a sleeve adjustably secured to said support, flexible members secured to the upstanding arms and to the sleeve, a socket secured to the free end of the support, transversely extending arms hingedly secured to the socket, and means secured to the free ends of the transverse arms to support a feed bag.

2. In a feed bag holder, rings, upstanding arms hingedly secured to said rings, outstanding arms rigidly secured to said rings, sockets adapted to receive the ends of the outstanding arms, said sockets being pivotally mounted with relation to each other, a support hingedly secured to the sockets, a sleeve adjustably secured to said sup-



port, flexible members secured to the upstanding arms and to the sleeve, a socket secured to the free end of the support, transversely extending arms hingedly secured to the socket, rings secured to the free ends of the transverse arms, flexible members secured to the rings, and a feed bag adapted to be secured to the flexible members and supported thereby when the device is in use.

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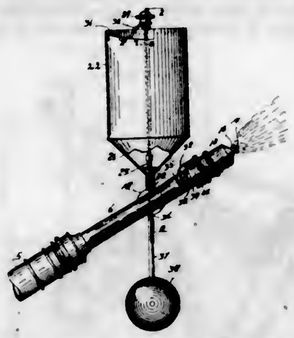
1,092,864. MATTRESS. PAUL SCHILLING, Milwaukee, Wis., assignor of one-half to Theodore D. Schilling, Milwaukee, Wis. Filed Dec. 3, 1910. Serial No. 595,381. (Cl. 5—13.)



1. A mattress consisting of a cover provided with a filling material which has been sewed to the cover by a line of stitching which extends through the side edges of the cover and through and looped around the filling material and entirely within the cover, said filling material engaging loops having been formed outside of the cover by passing the needle and thread back and forth through apertures formed in the cover, and said cover being further stitched to the filling material by another line of stitching which extends through one of the side edges and another portion of the cover and also through the filling material, said last mentioned stitch line having loops which extend over and cover the cover apertures.

2. A mattress consisting of a cover provided with a filling material and having lines of stitching to connect the cover and the filling material together, said stitch lines being formed by sewing through the side edges and the top and bottom portions of the cover and through the filling material and returning the loops of the thread through the needle apertures of the upper and lower portions of the cover to have the said loops engage the filling material and to be positioned entirely within the cover, and said mattress provided with other lines of stitching which extend through the filling material and through the side edges and the top and bottom portions of the cover and loop over and cover the apertures of the said top and bottom portions.

1,092,865. SPRAYING DEVICE. MAX SCHNEIDER and CLARA G. SCHNEIDER, Denver, Colo. Filed Apr. 26, 1913. Serial No. 763,743. (Cl. 137—14.)



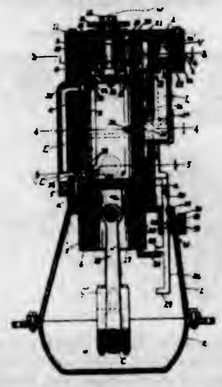
1. In combination, two nozzle members, arranged in suitable proximity, and having their discharge extremities arranged to produce an atomizing effect, a cap mounted upon one nozzle member for regulating said effect, a main water supply conduit in communication with one nozzle member, a receptacle for poisonous liquid in communication with the other nozzle member, the said receptacle being mounted on the nozzle structure by a joint sufficiently loose to permit it to maintain an upright position above the nozzle members, regardless of the relative position of the nozzle structure, and a counterbalance weight connected with the said receptacle and extending below the joint.

2. In a device of the class described, and in combination, a water supply, a main nozzle in connection with said supply, an auxiliary nozzle within the main nozzle and extending beyond the outward extremity of the latter, said extension being provided with a flange to produce a spraying effect, a cap mounted on the main nozzle to regulate said spray, a nipple carried by the main nozzle and communicating with the auxiliary nozzle, a liquid receptacle communicating with said nipple and movably supported thereby in a position above said nozzle, and counterbalanced to maintain an upright position, a valve for controlling the discharge of liquid from said receptacle to said nipple, and means for adjusting the valve to properly regulate the proportion of liquid passing from the receptacle to the auxiliary nozzle as compared with the liquid passing through the main nozzle.

1,092,866. EXPLOSIVE-ENGINE. JOHN H. SCHULZE, St. Louis, Mo. Filed Aug. 12, 1912. Serial No. 714,625. (Cl. 123—50.)

1. In an engine of the character described, a cylinder, a pair of pistons disposed about the axis of the cylinder and reciprocating simultaneously in opposite directions, a shaft, intermediate connections between the shaft and pistons, a vacuum chamber contiguous to one of the pistons, a valve-controlled storage chamber interposed between said chamber and the space between the pistons for conducting the gases from said chamber into said space with a movement of the respective pistons in a given direction, and for cutting off said communication and exposing the vacuum chamber to a suitable source of gas supply with a movement of the pistons in the opposite direction.

2. In an explosive engine, a cylinder, a pair of pistons disposed about the axis of the cylinder and reciprocating simultaneously in opposite directions, a compound-crank shaft coupled to said pistons, a vacuum chamber contiguous to one of the pistons, a storage chamber, means for directing the gases from the vacuum chamber to the storage chamber for the major portion of the strokes of the pistons in given directions, and from said storage chamber into the space between the pistons for the balance of the aforesaid strokes, and for cutting off the last mentioned communication for the major portion of the strokes of the respective pistons in the opposite directions and at the same time exposing the vacuum chamber to a suitable source of gas supply and closing communication between said vacuum chamber and storage chamber, and at the conclusion of such last named strokes restoring communication between the vacuum and storage chambers, and cutting off the flow from the supply source.



3. In an explosive engine, a cylinder, a pair of pistons in said cylinder reciprocating to and from each other, one of the pistons being hollow and enveloping the other piston, a crank-shaft coupled to the pistons, a vacuum chamber contiguous to the hollow piston, a gas-storage chamber adjacent the cylinder, the walls of the cylinder opposite said chamber and the walls of the hollow piston being provided with intake ports adapted to register for admitting the gas from the storage chamber into the hollow piston, the walls of the cylinder and of the hollow piston being provided on either side of the gas intake ports with registrable exhaust ports, a valve having passage ways for alternately establishing communication between the vacuum and storage chambers, and between the vacuum chamber and a suitable source of gas supply, and means controlled by the pistons for actuating the valve.

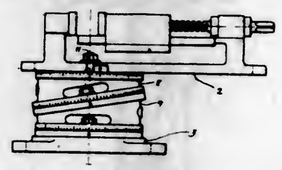
4. In an explosive engine, a cylinder, a pair of pistons in said cylinder simultaneously reciprocating in opposite directions, one of the pistons being hollow and enveloping the other piston, a shaft coupled to the pistons, a vacuum chamber contiguous to the terminal of the hollow piston, a gas-storage chamber formed about the cylinder walls and provided with gas ports registrable with corresponding ports formed in the walls of the hollow piston, suitable exhaust ports registrable with one another being formed in the cylinder walls and walls of the hollow piston on either side of the gas ports, said exhaust ports having a relative overlap whereby the spent gases may discharge before the gas ports are brought into complete register, a valve having passage-ways for alternately establishing communication between the vacuum and storage chambers, and between the vacuum chamber and a suitable source of gas supply, and means controlled by one of the pistons for actuating the valve.

5. In an explosive engine, a cylinder, a pair of pistons in said cylinder simultaneously reciprocating in opposite directions, one of the pistons being hollow and enveloping the opposite piston, a shaft coupled to the pistons, a vacuum chamber contiguous to the terminal of the hollow piston, a gas-storage chamber formed about the cylinder walls and provided with gas ports registrable with corresponding ports formed in the hollow piston walls, suitable exhaust ports registrable with one another being formed in the cylinder walls and walls of the hollow piston on either side of the gas ports, a rock-valve having passage-ways for alternately establishing communication between the vacuum and storage chambers, and between the vacuum chamber and a suitable source of gas supply, a reciprocating shifter bar for actuating the valve, and a tappet on the hollow piston for operating the shifter-bar.

[Claims 6 to 11 not printed in the Gazette.]

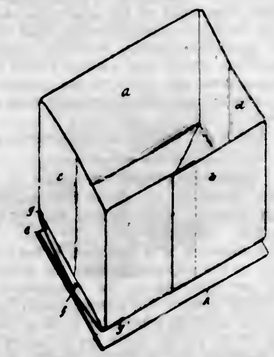


1,092,867. AUXILIARY SUPPORT. ERNEST BUSCHARD SELLEW, Pawtucket, R. I. Filed July 29, 1912. Serial No. 711,950. (Cl. 90—59.)



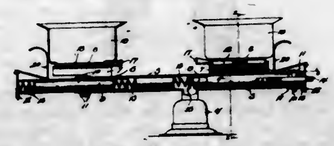
In an auxiliary support, two cylindrical members superposed one upon the other, the upper member having its top face at right angles to the axis of the support and its lower face at an oblique angle to said axis, the lower member having its upper face oblique to match with the oblique face of the upper member and its lower face at right angles to the axis of the support, both of said members provided in their upper faces with an annular inverted T-shaped slot, an annular flange on the lower face of the upper member slidably received in the slot in the upper face of the lower member, clamping bolts positioned through said flange and having their heads slidably received in the slot in the lower member for securing said members in adjusted relation, opposite recesses in the sides of said upper member adjacent the oblique edges thereof, adjusting nuts upon the free ends of said bolts and positioned in said recesses, clamping bolts having their head secured in the slot in the upper member adapted for securing the support to the object to be supported, angularity and obliquity indicating graduations positioned respectively upon the periphery of the top and bottom flange of the upper member, and angularity indicating graduations upon the bottom of the lower member.

1,092,868. PAPER RECEPTACLE. GEORGE D. SMITH, Paterson, N. J. Filed Oct. 24, 1913. Serial No. 797,047. (Cl. 229—66.)




As an article of manufacture, a sack formed of suitably stiff flexible material having two opposite equal-width plain rectangular sides and two opposite equal-width infolded rectangular bellows sides, said sack being folded in the collapsed state twice transversely thereof on lines at right angles to the longitudinal margins of the plain sides and spaced apart a distance equaling the width of each folded bellows side, whereby to produce between said folds a square in each layer of each folded bellows side and, upon holding the material of the sack relatively below and adjoining the relatively lower fold and expanding the part of the sack thereabove sufficiently to substantially extend each bellows side to its limit, to permit the two squares in each bellows side to be folded on diagonals thereof extending from their relatively upper outer to their lower inner corners and thus produce and maintain a receptacle in the upper portion of the sack.

1,092,869. SPITTOON-HOLDER. FRANK SOCHUREK, Jr., West Allis, and JOSEPH SOCHUREK, Milwaukee, Wis. Filed May 31, 1913. Serial No. 771,072. (Cl. 248—1.)



1. The combination of a stand for stationary connection with a floor, a guide-arm extending from the stand, a spittoon-carrier in sliding engagement with the arm, a spring arranged to resist retraction of the carrier, and a latch in connection with said arm for engagement with said carrier to hold the same in retracted position against expansive force of the spring.

2. The combination of a stand for stationary connection with a floor, guide-arms extending in opposite directions from the stand, a spittoon-carrier in sliding engagement with each arm, springs arranged to resist retraction of the carriers, and latches in connection with the arms for engagement with the said carriers to hold the same in retracted position against expansive force of the springs.

3. The combination of a stand for stationary connection with a floor, a guide-arm extending from the stand, a spring-latch in connection with the arm, a spittoon-carrier in spring-controlled sliding engagement with said arm, and a plate attached to the outer end of the carrier for automatic engagement of the latch when said carrier is in retracted position against spring-resistance.

4. The combination of a stand for stationary-connection with a floor, a longitudinally slotted tubular guide-arm extending from the stand, a tubular slide engaging the arm, a spiral-spring in contractile and expansile engagement with said arm and slide, a horizontal plate having a notched vertical fin in connection with the slide and having limited play engagement with the arm-slot, the plate being for the support of a removable spittoon; and a latch in connection with the aforesaid arm for the engagement of said slide to hold the same in retracted position.

5. The combination of a stand, a longitudinally slotted tube in connection with the stand to form guide-arms extending in opposite directions therefrom, a spring-controlled spittoon-carrier in spring-controlled limited play engagement with each arm and a slot therein, and latches in connection with the arms for engagement with said carriers to hold the same in retracted position against spring-resistance.

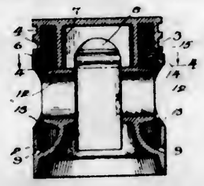
[Claim 6 not printed in the Gazette.]

1,092,870. PISTON FOR EXPLOSION ENGINES OR MOTORS. EDWARD O. SPILLMAN and LOUIS P. MOORES, North Tonawanda, N. Y. Filed July 18, 1913. Serial No. 779,757. (Cl. 121—104.)

1. A piston comprising a head-section, a guide-section having its peripheral wall isolated from the corresponding wall of the head-section by a non-conducting gap extending practically around the piston, the guide-section being relatively long to form a cross head, and means connecting said sections.

2. A piston comprising a head-section, a guide-section forming a cross head and having its wall isolated from the wall of the head-section by a narrow non-conducting gap, and means connecting said sections.

3. A piston comprising a head-section, a separate guide-section therefor, means connecting said sections, and a wrist-pin bearing, the wall of the guide-section extending forwardly beyond the wrist-pin bearing and terminating short of said head-section to leave a non-conducting gap between said sections.



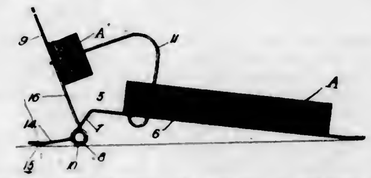
4. A piston comprising a head-section, a guide-section having its wall isolated from the wall of the head-section by a narrow non-conducting gap, and a web arranged lengthwise within said guide and head-sections and connecting the same, said web being located at a distance from the walls of said sections.

5. A piston comprising a head-section, a relatively long guide-section having its wall isolated from the wall of the head-section by a non-conducting gap, and an internal web connecting said sections and joining the guide-section at a point remote from said gap.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,871. HOLDER FOR CALENDAR-PADS. JOHN C. STEVENS, Malden, Mass. Filed Mar. 10, 1913. Serial No. 753,153. (Cl. 40—120.)



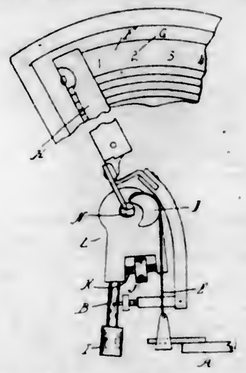
A holder for a calendar pad having, in combination, a base formed of sheet material adapted to support said pad, one end of said base being bent at an angle to the body portion thereof to form a flange, portions of said flange at opposite ends thereof being bent to form pivots, said flange also extending between said pivots to a substantial distance therebeyond and constituting a support for said base, a back formed from sheet material and bent to form eyes adapted to pivotally engage the pivots formed on said base, said back also adapted to support said pad, and means integral with said base adapted to project through said pad and detachably engage and lock said back in a predetermined position relatively to said base.

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1,092,872. ADJUSTABLE INDEX FOR SCALES. WALTER F. STIMPSON, Detroit, Mich., assignor to George W. Hurd, Dundee, Mich. Filed Jan. 30, 1911. Serial No. 605,376. (Cl. 73—29.)

1. In a scale, the combination of a scale lever, a pendulum weight, a support upon which the pendulum weight is pivoted, a compensating mechanism between said pendulum weight and said lever for producing uniform angular movement with equal increments of weight, an index arm adjustable about a point in axial alinement with the pivot of the pendulum weight, and means for adjusting said index arm about said point whereby said index arm is adjustable angularly with respect to said pendulum weight while maintaining said uniform angular movement.

2. In a scale, the combination of a weighing lever, a pendulum weight, a compensating mechanism between said lever and pendulum weight for producing uniform angular movement of the pendulum with equal increments of weight, an indicator, an index arm, a knife edge pivot for supporting said pendulum weight, an independent axially alined knife edge pivot for supporting said index arm, an extension of said index arm below the fulcrum, and an adjustable connection between said extension and said pendulum weight.



3. In a scale, the combination with a pendulum weight, of a knife edge pivot supporting said weight, an index arm, a bifurcated member supporting said index arm embracing said pendulum pivot and having knife edge bearings axially alined therewith, an extension of said index around said knife edge pivot, and an adjustable connection between said extension and said pendulum weight.

4. In a scale, the combination with a pendulum weight, of a knife edge pivot for supporting said weight, a bifurcated supporting bearing for said knife edge pivot, an index arm, a bifurcated member supporting said index arm embracing said pendulum pivot and having knife edge bearings axially alined therewith, said bearings being also in engagement with the bifurcated supporting bearing for the pendulum, and an adjustable connection between said index and pendulum weight.

5. In a scale, the combination with a weighing lever, a pendulum weight, a compensating connection between said weighing lever and pendulum weight for producing uniform angular movement of the pendulum with equal increments of weight, a laterally adjustable weight mounted on said pendulum weight, an index arm independent of said pendulum weight and axially alined therewith, an arm extending from said index to the opposite side of the fulcrum, and an adjustable link between said arm and pendulum weight.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,873. IMPULSE-PUMP. WILLIAM H. STUTTE, Toledo, Ohio, assignor, by mesne assignments, to E. L. Ackerman, Detroit, Mich. Filed May 3, 1913. Serial No. 765,262. (Cl. 230—27.)

1. The combination of a cylinder, a floating pump piston movable in the cylinder, means for permitting air to pass in but one direction to the compression side of the pumping piston, means for pneumatically operating the piston, and an engaging means for holding the said piston at one end of its stroke until the pressure produced by the said pneumatically operating means is sufficient to release the piston which is driven by the said pressure.

2. The combination of a pair of connected pistons having a passage way extending therethrough, cylinders surrounding the said pistons, an engaging means for holding the said pistons at one end of their stroke and a means for forcing a fluid through the pistons and to disengage the pistons by the pressure of the fluid on one of the pistons.

3. The combination of a pair of connected pistons, a passageway extending through the said pistons, a pair of cylinders, each piston being located in a cylinder, a teat located on one piston, one cylinder having a socket to frictionally engage the teat with sufficient force to delay the starting of the piston.





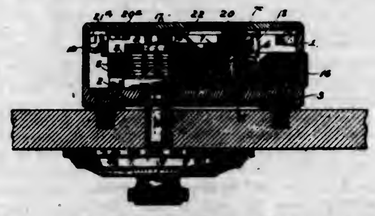
4. The combination of a pair of connected pistons, one being a driving piston and the other a pumping piston, a passage way extending therethrough, a pair of cylinders, each piston working in a cylinder, a teat located on the driving piston, a socket located in one end of the cylinder surrounding the driving piston to frictionally engage the teat, and means for forcing air through the passage way and beneath the driving piston.

5. The combination of a pair of pistons connected together, one being a pumping piston and the other a driving piston, a pair of cylinders, each piston located in a cylinder, a means for permitting air to pass in but one direction to the compression side of the pumping piston, an engaging means for holding said pistons at one end of their stroke and means for forcing a fluid against the compression side of the driving piston to cause disengagement of the pistons when the pressure has been raised by said fluid forcing means.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,874. COMBINATION-LOCK. WARREN H. TAYLOR, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed June 7, 1913. Serial No. 772,409. (Cl. 70—53.)



1. In a combination lock, the combination of a dial, gears actuated by the same, a spindle connected to one of said gears, a pivoted fence having connection with the other gear, a cam secured to said spindle, and a series of disk tumblers intermediate the cam and gear and rotated by the former.

2. In a combination lock, the combination with a dial spindle, a gear actuated by the latter and a cam secured to said spindle, a series of tumblers located intermediate the gear and cam with their axes concentric with the dial spindle, a bolt and a pivoted fence coacting with the cam and tumblers to actuate the bolt.

3. In a combination lock, the combination of a bolt, meshing gears, a spindle rigid with one gear, a shaft rigid with the other gear, a fence having two arms, one engaging the bolt and the other adapted to be engaged by a cam, the said fence being mounted on the shaft and having frictional engagement therewith, a cam secured rigidly to the spindle so as to rotate therewith, and a series of tumblers loosely surrounding the spindle intermediate the cam and gear and notched for the entrance of one arm of the fence.

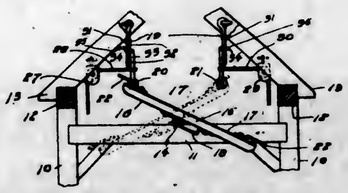
4. In a combination lock, the combination with a spindle, two meshing gears, one of which is secured to said spindle, a shaft secured to the other gear, a fence on said shaft, friction means for causing said fence to turn with the shaft, a cam secured to the spindle and a series of two part disk tumblers embracing said spindle intermediate the cam and gear, each tumbler having means whereby the two parts thereof may be disconnected so as to permit the central member thereof to be turned to change the combination.

5. In a combination lock, the combination of a spindle, a shaft, meshing gears for actuating the spindle and shaft, a cam secured to the spindle, a series of disk tumblers embracing the spindle intermediate the cam and the spindle gear, a bolt and a balanced fence on the shaft, each of said tumblers being composed of two disk members, one within the other, each outer member having means for locking it to its inner member and each outer member having a key hole for the passage of a key for actuating the means which lock the members of the tumblers together, the construction being such that the inner members of the tumblers may be rotated while the outer members are held by the key.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,875. HAY-DISTRIBUTER. FRANK C. TOBIAS, Fort Wayne, Ind. Filed July 24, 1913. Serial No. 780,992. (Cl. 214—2.)



1. In a hay distributer, the combination with a single track rail, of a carriage centrally pivoted and slidable longitudinally upon said rail, and means pivoted above and on both sides of said rail for yieldably holding said carriage in either of two opposite tilted positions.

2. In a hay distributer, the combination with a single track rail, of a carriage having strap brackets on the underneath face loosely embracing said track and mounting said carriage for tilting movement in either of two opposite directions and for sliding movement longitudinally of said track, and means pivoted above and on opposite sides of said rail for yieldably holding said carriage in either of its two tilted positions.

3. In a hay distributer, the combination with a single track rail, of a carriage centrally pivoted for longitudinal sliding movement thereupon and adapted to tilt in either of two directions on said track rail, there being offset fingers on the corners of said carriage, a swinging rod on each side of and above said track rail engageable with the related offset fingers on the adjacent side of said carriage whereby to hold said carriage in tilted position, means for moving said carriage longitudinally of said track in either of its tilted positions, and means for swinging said swinging rods out of engagement with said carriage.

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1,092,876. COTTER. GEORGE L. WAITT, Buffalo, N. Y. Filed Aug. 25, 1913. Serial No. 786,586. (Cl. 85—5.)

1. A cotter constructed of a plate which is provided with transverse cleavages forming two stop plugs at oppo-

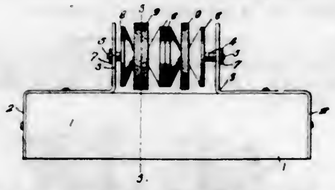
site ends of the plate which are bendable laterally for confining the cotter in the opening of a bolt or the like, the inner transverse edge of one of said lugs being beveled so that said lug tapers laterally.



2. A cotter constructed of a plate which is provided with transverse cleavages forming two stop lugs at opposite ends of the plate which are bendable laterally for confining the cotter in the opening of a bolt or the like, the inner transverse edge of one of said lugs being beveled so that said lug tapers laterally while the inner transverse edge of the other lug is perpendicular relative to the length of said plate.

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1,092,877. SHARPENING DEVICE. JAMES A. WALLACE, Troy, N. Y. Filed June 18, 1912. Serial No. 704,355. (Cl. 51—7.)

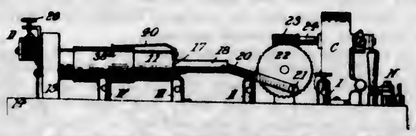


1. In a sharpening device, a threaded shaft supported for rotation, conical guide disks having threaded engagement with said shaft with their apices opposed, and an abrading disk clamped between the guide disks and having an eye to receive the apices thereof.

2. In a sharpening device, a supporting device including upstanding flanges, a screw threaded shaft supported for rotation in said flanges, conical guide disks having threaded engagement with said shaft with their apices opposed, and an abrading disk clamped between the guiding disks and having an eye to receive the apices thereof.

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1,092,878. THERAPEUTIC ELECTRIC APPARATUS. REINHOLD H. WAPPLER, New York, N. Y., assignor to Daniel T. Garrie, New York, N. Y. Filed Aug. 12, 1913. Serial No. 784,335. (Cl. 171—122.)



1. A therapeutic apparatus, comprising an induction coil, an interrupter in circuit therewith, and automatic means for gradually increasing and decreasing rhythmically the strength of the current passing through said induction coil.

2. A therapeutic apparatus comprising an induction coil, a core slidably mounted therein, and automatic means for reciprocating said core.

3. A therapeutic apparatus comprising an induction coil, a core slidably mounted therein, an electromotor, and means actuated by said electromotor for reciprocating the core.

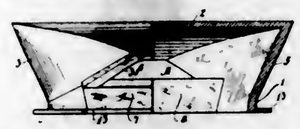
4. A therapeutic apparatus comprising an induction coil, a core slidably mounted therein, an electromotor, a worm secured to the electromotor-shaft, a worm disk engaged by said worm, and a link for operatively connecting said disk to the core.

5. A therapeutic apparatus comprising an induction coil having a primary winding and a short-circuited secondary winding adjustable along said primary winding, an interrupter in circuit with the primary winding, and automatic means for periodically varying the strength of the current passing through said primary winding.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,879. CAR-VENTILATOR. JOHN E. WARD, New York, N. Y., assignor to Standard-Heat and Ventilation Company, Inc., a Corporation of New York. Filed Sept. 7, 1912. Serial No. 719,087. (Cl. 98—22.)



1. A ventilator for cars having the side sections on opposite sides of a centrally located vertically and longitudinally extending plane symmetrical and having the end sections on opposite sides of a vertical and transversely extending plane also symmetrical, said ventilator having an intake opening at the bottom, an upright throat portion which is hexagonal in cross section, a substantially lozenge shaped roof transversely arched and end portions having outer surfaces whose surface elements which lie in a horizontal plane extend outwardly in passing from the end of the ventilator toward the centrally located transverse plane above referred to, and whose surface elements which lie in a vertical plane approach each other in a downwardly direction, the roof, ends and sides of the vertically extending throat portion forming the air suction and delivering means and defining the air delivering openings which are open from below and which are located at the under sides of the ventilator on opposite sides of the longitudinally and vertically extending central plane above referred to.

2. A ventilator for railway cars having a throat portion providing an intake opening at the lower central portion of the ventilator, a roof which extends over the throat portion on opposite sides thereof, and two portions at each end of the ventilator, said portions having surfaces that diverge in passing from the end of the ventilator toward the central portion of the ventilator and which converge in passing from the roof of the ventilator toward the bottom portion thereof, said deflecting portions having therebetween the air delivery means of the ventilator which terminates in the air delivery opening at the under side of the ventilator.

3. In a ventilator for railway cars the combination of a vertically extending throat hexagonal in cross section, securing flanges thereupon, a substantially lozenge shaped roof and walls or portions which extend inwardly and downwardly from the roof to the throat portion and outwardly in passing from the end of the ventilator toward the central portion thereof, said deflecting portion at each side of the ventilator having therebetween the air delivery opening.

4. In a ventilator for railway cars the combination of a vertically extending throat hexagonal in cross section, securing flanges thereupon, a substantially lozenge shaped roof and walls or portions which extend inwardly and downwardly from the roof to the throat portion and outwardly in passing from the end of the ventilator toward the central portion thereof, said deflecting portion at each side of the ventilator having therebetween the air delivery opening, said deflecting portions at each side of the ventilator being provided with depending lips or flanges.

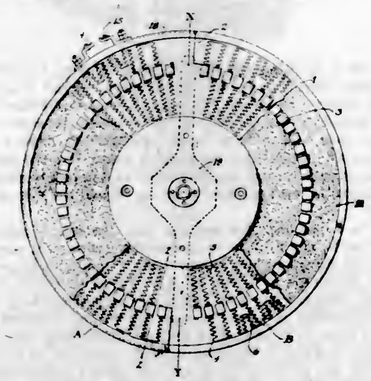


5. A ventilator for railway cars having an intake or throat portion located centrally and at the lower side thereof, a roof portion and deflecting portions at each end of the ventilator which diverge passing toward the central portion and which converge passing toward the bottom portion, said deflecting portions on opposite sides of a vertically and horizontally extending central plane passing through the ventilator being symmetrically arranged and the deflecting portions at each side of the ventilator providing a part of the air suction and delivering means.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,880. RHEOSTAT. HENRY J. WIEGAND, Milwaukee, Wis., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Filed Aug. 2, 1912. Serial No. 712,928. (Cl. 219—53.)



1. A rheostat provided with a series of contacts, a resistance connected thereto, said resistance being reflexed across said series of contacts to form loops on opposite sides thereof.

2. A rheostat provided with a series of contacts arranged in an arc and resistance connected to said contacts and having parts extending in opposite directions from said contacts on substantially radial lines.

3. A rheostat provided with a series of contacts and a resistance connected thereto and divided thereby into sections disposed alternately on opposite sides of said series of contacts.

4. A rheostat provided with a series of contacts and resistance loops arranged on opposite sides of said series of contacts, each loop connecting two adjacent contacts and the loops on opposite sides of said contacts being arranged in a staggered relation.

5. A rheostat provided with a series of contacts arranged in an arc and resistance loops on opposite sides of said series of contacts, each loop connecting two adjacent contacts and the loops on opposite sides of said contacts being staggered.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,881. ART OF MANUFACTURING COMBS. FRIEDRICH WIELAND, East Rutherford, N. J., assignor to The Arlington Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 8, 1910. Serial No. 580,950. (Cl. 18—56.)

1. In the manufacture of combs the method which comprises the subjecting of material while in a plastic condition to the action of opposing dies that are forced toward each other, thereby shaping and defining the back and the teeth of the comb and scoring out the teeth in a manner to leave the superfluous material in masses of substantial thickness and strength in the interdental spaces but connected to the teeth and the rest of the comb proper by thin frangible webs, then subsequently rupturing said frangible webs to remove from said comb the superfluous material between the teeth and finally finishing the comb.

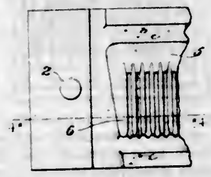
2. In the manufacture of combs the subjecting of celluloid to the pressure of dies which shape and define the back and teeth of the comb and which leave between the teeth superfluous stock of substantial thickness that is connected to the teeth on each side thereof by thin webs, subsequently removing the superfluous stock from the rest of the comb by breaking said thin webs and finally finishing the comb.

3. In the manufacture of combs the step which consists in the subjecting of material while in a plastic condition to pressure between dies having back and tooth forming depressions and scoring edges, thereby shaping and defining the back and teeth of the comb and scoring the material between the teeth in a manner to leave superfluous material in masses of substantial thickness between the teeth but connected thereto by thin webs.

4. A comb blank having the comb teeth and back of substantially the final size and shape, said teeth having between them material of substantial thickness and connected to said teeth by thin frangible webs that permit an easy removal of said material from said comb teeth and back.

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1,092,882. DIE. FRIEDRICH WIELAND, East Rutherford, N. J., assignor to The Arlington Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 8, 1910. Serial No. 580,951. (Cl. 18—44.)



1. In a device for the manufacture of combs, the combination of opposing dies, each having depressions or matrices for the formation of comb teeth, said depressions on one die registering with the corresponding depressions on the other die, said dies being provided with scoring edges that outline the teeth, at least one of the dies being provided between the tooth-forming depressions with grooved portions whereby the material between the teeth of the comb will be of substantial thickness but will adhere to said teeth by thin webs that are easily ruptured.

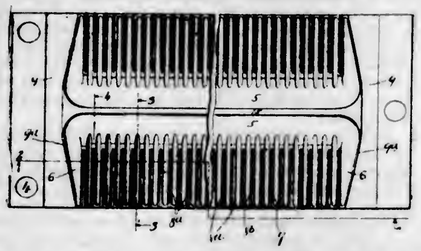
2. The combination with a male die member having a depression for the formation of the back of a comb, end depressions for the formation of the end teeth, and intermediate depressions for the formation of intermediate teeth, of a female die member having depressions corresponding to and adapted to register with the depressions in the male die member, the said depressions in both the male and female dies being shallow and scoring knife edges in each die member outlining the back and each tooth, leaving a substantial space between adjacent teeth, whereby when the die members are superposed the scoring edges of one member will abut and coöperate with the opposing scoring edges of the other member for scoring the material placed between said die members, so that the superfluous material in the interdental spaces will be in thick masses joined to the adjacent teeth by thin frangible webs.

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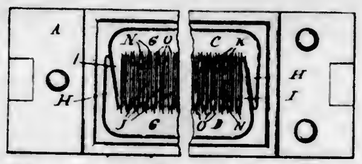
1,092,883. MANUFACTURE OF COMBS. FRIEDRICH WIELAND, Poughkeepsie, N. Y., assignor to The Arlington Company, New York, N. Y., a Corporation of New Jersey. Filed July 26, 1913. Serial No. 781,355. (Cl. 18—55.)

The process of forming combs back to back from a strip of stock having a surplus of material at the points between the backs and an insufficiency of material at the

adjacent back forming portions, said process consisting in placing said strip of stock between a pair of opposed dies and pressing said dies toward each other to cause the surplus material between the backs to flow toward and into the back forming portions to supply some material for the latter.



1,092,884. MANUFACTURE OF COMBS. FRIEDRICH WIELAND, Poughkeepsie, N. Y., assignor to The Arlington Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 18, 1913. Serial No. 801,596. (Cl. 18—55.)



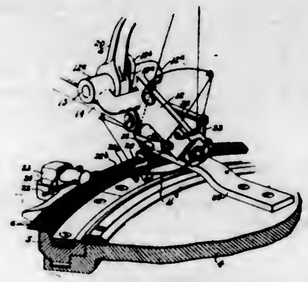
1. The process of forming a comb from a strip of stock that presents a surplus of material at the portion from which the teeth are formed and an insufficiency of material at the portion where the back is formed, said process consisting in placing said strip of material between a pair of opposed dies and pressing said dies toward each other to cause the surplus material at the tooth forming portions to flow toward and into the back forming portions to enlarge and supply material for the latter.

2. The process of forming a comb blank having interdigitating teeth connected by thin frangible webs, from a strip of stock having a surplus of material at the portion from which the comb teeth are formed, and an insufficiency of material at the portions from which the comb backs are formed, said process consisting in placing said strip of material between opposed dies having interdigitating tooth forming depressions and pressing said dies toward each other to cause the surplus material at the tooth forming portions of the blank to flow toward and into the back forming portions to enlarge and supply material for the latter.

1,092,885. MACHINE FOR UNITING KNIT FABRICS. WILLIAM CARPENTER WRIGHT, Paducah, Ky., assignor of one-half to Finis Ewing Lack, Paducah, Ky. Filed Sept. 4, 1912. Serial No. 718,472. (Cl. 112—19.)

1. In a looping machine, a rotatably mounted looper hook, a thread needle, and means for reciprocating said looper hook and thread needle whereby said looper hook will be moved in a semi-circular path above the path of travel of said thread needle and will be stopped and caused to dwell in reversed substantially vertical positions on opposite sides of said thread needle, said looper hook in one position being adapted to take up the thread from the thread needle and in the other being adapted to have the thread needle take up the thread from the looper hook.

2. A looper hook actuating device, comprising a supporting block, a looper carrying shaft rotatably mounted therein and provided with an eccentric member, a reciprocatory member having a curved guide slot taking over said eccentric member whereby to oscillate said looper carrying shaft and cause the latter to dwell at the ends of the throw of said eccentric member, and means for actuating said reciprocatory member.



3. In a machine for uniting knit fabrics, a rotatably mounted looper hook, a reciprocatory thread needle, a stitch finger, and means for reciprocating said looper hook and thread needle in coöperative relation to said stitch finger, said looper hook being mounted to have a half somersault motion over said stitch finger and the path of travel of said thread needle and to be stopped in reversed substantially vertical positions on opposite sides of the latter.

4. In a machine for uniting knit fabrics, a rotatably mounted looper hook, a reciprocatory needle arm carrying a curved thread needle, a stitch finger mounted above and below the paths of travel of said looper hook and thread needle, respectively, and means for actuating said parts in coöperative relation to each other and causing said looper hook to be moved to and fro above said stitch finger and to dwell in reversed vertical positions on opposite sides of the path of travel of said curved thread needle.

5. In a machine for uniting knit fabrics, a looper hook provided with an axle shaft, a reciprocatory thread needle, and means for mounting and actuating said axle shaft whereby said looper hook is moved diagonally over and stopped to dwell in reversed vertical positions at opposite sides of the thread needle and is adapted in one position to take up the thread from the thread needle and in the other to have the latter take up a loop from the looper hook.

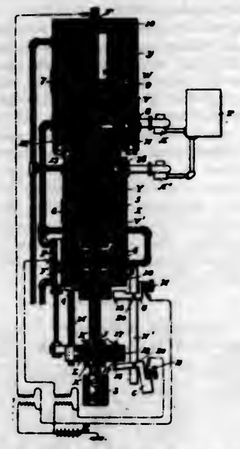
[Claims 6 to 8 not printed in the Gazette.]

1,092,886. ROCK-DRILL. CHARLES ERNEST YOUMANS, Yonkers, N. Y. Filed Apr. 19, 1907. Serial No. 369,152. (Cl. 123—7.)

1. In a rock drill, the combination with two cylinders of different diameters arranged axially in line, of pistons in said cylinders, a piston rod common to both pistons and adapted to receive a tool at its end, the smaller cylinder and piston being at the tool end, the combustion end of the smaller cylinder being nearest the tool, and the combustion end of the larger cylinder being removed from the tool, and means for admitting combustible charges to said cylinders and for igniting said charges to cause the charge in the larger cylinder to drive the tool forward and to cause the charge in the smaller cylinder to retract the tool.

2. In a rock drill, the combination of cylinders of different diameters in line with each other, the largest cylinder being farthest from the tool end of the drill, an intermediate head, a piston in each cylinder, a piston rod common to both pistons and extending through the head of the smaller cylinder and provided at its free end with means for supporting a tool, means for supplying explosive charges to the different cylinders, and means for exploding the charges at the outer ends of the cylinders, as set forth.

3. In a rock drill, the combination with the cylinders, pistons and piston rod and a tool holder on said rod, of means for manually reciprocating said rod to charge the cylinders, said means consisting of a cross-head secured to the rod, handles 24, flexible connections between said handles and cross-head, guides upon the lower cylinder for said connections, and devices adapted to be operated upon contact with the lower cylinder for releasing said connections from the cross-head.



4. The combination in a rock drill, of two cylinders and pistons axially in line, one piston having a greater working area than the other, a piston rod common to both pistons and provided with means for connecting a tool to the free end thereof, the cylinder having the smaller working area being the one nearest the tool, means for admitting buffer charges of different volumes to the cylinders at one end and for then transferring them to the opposite ends of the cylinders and exploding them therein, the larger volume being carried to the cylinder of the larger piston, the parts arranged to effect the outward or cutting movement of the rod and tool by the explosive charge of greatest volume.

1,092,887. LICENSE-PLATE FOR MOTOR-VEHICLES. STEPHEN S. ADAMS, St. Louis, Mo. Filed Aug. 4, 1913. Serial No. 782,894. (Cl. 40—125.)

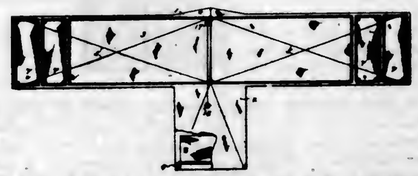



1. A license plate for motor vehicles and the like, having a series of openings arranged between the numbers appearing on the face of said plate, and the edges of the material of which said plate is formed adjacent to said openings being bent rearwardly to form stiffening ribs on said plate.

2. A license plate for motor vehicles and the like, having numbers on its face, which numbers are distinctively colored with respect to the back ground on the face of said plate, and there being slots formed through the plate between the numbers appearing on the face thereof which slots are, in length, equal to the height of the numbers.

3. A license plate for motor vehicles and the like, comprising a plate having a reinforced marginal edge, portions of which plate are embossed to form members, the faces of which are distinctively colored with respect to the face of the main body portion of said plate, there being vertically disposed slots formed through the plate, which slots are, in length, equal to the height of the numbers and the edges of said plate adjacent to said slots being bent rearwardly to form stiffening ribs.

1,092,888. AEROPLANE. AUGUST AHLBRECHT, Pittsburgh, Pa. Filed Apr. 17, 1913. Serial No. 761,683. (Cl. 244—12.)



1. In an aeroplane, the combination of a rigidly-fixed transversely-disposed balancing plane at and projecting beyond each side of the supporting plane, at one side being inclined in a direction opposite to that at the other side and both in a direction transversely to the direction of flight, the space directly above and below said balancing planes being entirely open, and said balancing planes adapted to be adjusted vertically at their fixed points.

2. In an aeroplane, the combination of a plurality of rigidly-fixed transversely-disposed balancing planes at and projecting beyond each side of the supporting planes, the planes at one side being all inclined in a direction opposite to those at the other side and all disposed in a direction transversely to the direction of flight, the inner edges of all of said balancing planes being lowermost, and the space directly above the uppermost planes being entirely open.

3. In an aeroplane, the combination with a fixed support, of an approximately horizontally-disposed rudder hingedly fixed thereto, a wire forming a loop and having said rudder connected thereto, a pivoted member disposed within said loop and adapted to adjust said loop in the direction of its length to move the rudder, and an adjustable hand-operated member connected to and adapted to adjust the said loop member.

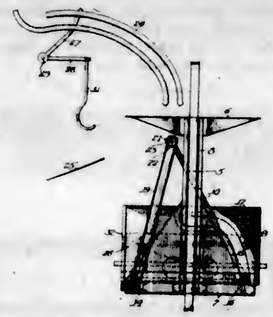
4. In an aeroplane, the combination with a fixed support, of an approximately horizontally-disposed rudder hingedly fixed thereto, a wire forming a loop and having said rudder connected thereto, a pivoted member disposed within said loop and adapted to adjust said loop in the direction of its length to move the rudder, an adjustable hand-operating member connected to and adapted to adjust said loop member, a swinging platform, and means for automatically adjusting said loop to operate the rudder by the swinging movement of said platform.

1,092,889. HOISTING AND DUMPING APPARATUS. ANDREWS ALLEN, Chicago, Ill. Filed Apr. 6, 1912. Serial No. 688,877. (Cl. 214—12.)

1. In a hoisting and dumping apparatus, the combination of a cage floor, a platform normally supported by said floor in horizontal position, members projecting upwardly from said platform and floor and connected together above the platform, and means coöperating with said members for elevating the rear end of the platform relatively to the cage floor.

2. In a hoisting and dumping apparatus, the combination of a cage floor, a platform normally supported at its ends in horizontal position above said floor, a guide mounted on the cage adjacent the rear end of the plat-

form, a fixed guide, pivotally connected links attached to the cage floor and platform, respectively, and means cooperating with said guides to tilt the platform and move the same forward bodily into dumping position.



3. In a hoisting and dumping apparatus, the combination of a cage floor, a car carrying platform disposed above said floor, a roller upon which the forward end of the platform is slidingly and tiltably supported, a guide mounted on the cage adjacent the rear end of said platform, a fixed guide, and means including rollers on the platform and links pivotally connected together above the platform coöperating with said guides whereby the platform is moved relatively to the cage floor into dumping position.

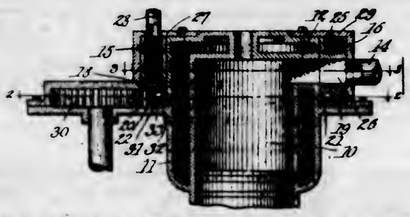
4. In a hoisting and dumping apparatus, the combination of a cage floor, a tilting platform, and means for tilting and sliding said platform into dumping position, said means including a plurality of links connected together above said platform and connected respectively with said cage floor and said platform.

5. In a hoisting and dumping apparatus, the combination of a cage provided with a floor and side walls, a roller mounted adjacent the forward edge of said floor, a platform supported at its forward end on said roller, guides mounted on the cage side walls adjacent the rear ends thereof, rollers secured to said platform and adapted to travel in said guides, and means disposed above said platform for causing said rollers to travel upwardly in the guides whereby the platform is tilted and moved forwardly into dumping position.

[Claims 6 to 13 not printed in the Gazette.]

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1,092,890. VALVE. WILLIAM NORTON AYERS, Jr., Fort Smith, Ark. Filed Mar. 2, 1912. Serial No. 681,125. (Cl. 123—190.)



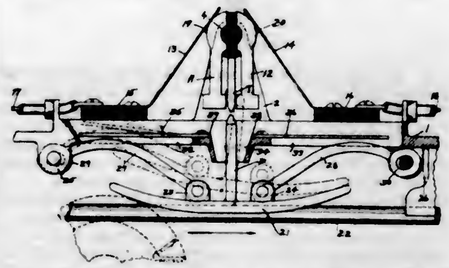
1. A valve for gas engines comprising a hollow annular valve member mounted concentric of the engine cylinder and adapted to rotate about the axis thereof, said cylinder provided with an aperture therein forming a fuel inlet and exhaust port, said annular member provided with an aperture in one wall thereof adapted to bring said hollow annular member into communication with said cylinder aperture, a hood extending through the side walls of said annular hollow member adapted to bring said cylinder aperture and an exhaust pipe into communication, and means for rotating said hollow annular member.

2. The combination with an internal combustion engine cylinder of a hollow annular member embracing the side walls of said cylinder, said hollow annular member adapted to control the admission and exhaust of said cylinder, said hollow annular member adapted to act as a conduit for the gaseous fuel to thereby act as a cooling means for the cylinder, and the cylinder adapted to act as a heating means for the gaseous fuel.

3. The combination with an internal combustion engine cylinder of a hollow annular rotatably mounted member embracing the side walls thereof, an aperture extending through the side walls of said cylinder, said hollow annular member provided with an aperture extending through one wall thereof adapted to bring said hollow annular member in communication with the said cylinder, and means for introducing gaseous fuel within said hollow annular member, a passage extending through said hollow annular member and adapted to bring said cylinder into communication with an exhaust pipe, said gaseous fuel adapted to act as a cooling medium for the said cylinder during its passage through said hollow annular member and said cylinder adapted to act as a heating means for the said gaseous fuel.

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1,092,891. TROLLEY-SWITCH. ALEXANDER BEVAN, Providence, R. I. Filed Mar. 4, 1910. Serial No. 547,297. (Cl. 256—54.)



1. A trolley switch comprising a pivotally mounted depending circuit terminal, a horizontally disposed shoe, an upright contact maker carried by said shoe, means for pivotally suspending said shoe above the trolley wire and below the terminal, said suspending means being connected to said shoe on either side of said contact maker, whereby the trolley wheel passing in either direction will move said shoe and contact maker to close an electrical circuit through said terminal.

2. A trolley switch comprising a frame, a depending circuit terminal pivotally suspended, a horizontally disposed shoe, an upright contact maker centrally attached thereto, links pivotally connected to said frame and said shoe on either side of said contact maker by which said shoe is yieldably suspended above the trolley wire and below said terminal, whereby the said contact maker may be actuated by the trolley wheel passing in either direction to close a circuit through said terminal and then drop by gravity to open said circuit.

3. A trolley switch comprising a frame, a horizontally disposed shoe, a contact maker centrally attached to said shoe, a pivotally suspended circuit terminal on each side of said contact maker, each terminal being included in a separate circuit, links pivotally connecting the said frame and said shoe on either side of said contact maker, whereby the said contact maker may be actuated by a trolley wheel passing in one direction to close one of the said circuits, and passing in the other direction to close the other of said circuits.

4. A trolley switch comprising a frame, two pivotally suspended circuit terminals, each terminal being included in a separate circuit, a horizontally disposed shoe, a contact maker centrally attached to said shoe, links pivotally connected to said frame and said shoe on either side of said contact maker by which said shoe is yieldably suspended above the trolley wire and below said terminal, said shoe and contact maker being actuated by a trolley wheel passing in one direction to close one of the said circuits, and in the other direction to close the other of the said circuits, said shoe and contact maker being adapted to subsequently return automatically to their normal positions.

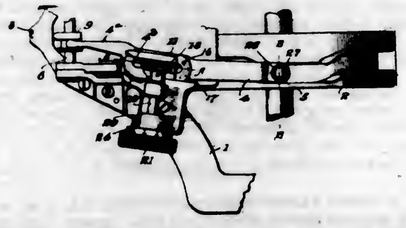
5. In a trolley switch, a pivotally mounted circuit terminal in each of two signal circuits, a horizontally arranged shoe an upwardly extending contact finger fixed to said shoe, said shoe being suspended by links from two points above the trolley wire, whereby the said contact finger may be moved to engage said terminals and close either one of the said signal circuits, said shoe and finger being restored to normal position by gravity.

[Claims 6 and 7 not printed in the Gazette.]



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1,092,892. AWL-FEED ADJUSTMENT FOR SHOE-STITCHING MACHINES. WILLIAM R. BLAIR, St. Louis, Mo., assignor to Landis Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed May 24, 1913. Serial No. 769,703. (Cl. 112—20.)

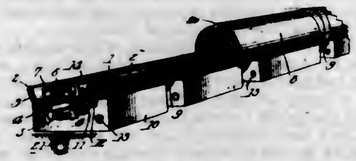


1. In a machine of the class described, a work feeding awl, a shifting lever for the same, a fulcrum pin upon which said lever is pivoted, means for shifting said pin to vary the extent of operation of said lever, a scale adapted to indicate the extent of operation of said lever, means for oscillating said lever, and means for adjusting the working position of said lever circumferentially relative to said fulcrum pin for the purpose described.

2. In a machine of the class described, a work feeding awl, a shifting lever for the same, a cam for operating the shifting lever, a bearing member carried by said shifting lever and coöperating with said cam, and means whereby said shifting lever may be adjusted relative to said bearing member for the purpose described.

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1,092,893. CONDUIT. EDWIN M. CAMPFIELD, Richmond, Ind. Filed Nov. 14, 1912. Serial No. 731,353. (Cl. 137—75.)



1. A conduit including upper and lower contacting sections having air cells in the walls thereof, the said sections coöperating at one end to form a bell, each section including a lining, the linings of the two sections projecting through and beyond the bell end of the conduit and there being spaced ledges within and integral with the bottom section of the lining and having a drain channel therebetween.

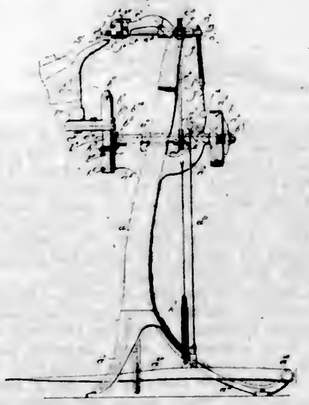
2. The combination with a conduit including upper and lower engaging sections, and spaced longitudinal ledges in the lower section and forming a drain channel therebetween, of rollers bearing at their ends upon the ledges, parallel pipes supported by the rollers, saddles bearing on the pipes and bridging the space therebetween, said saddles having longitudinal channels, rollers within said channels, and an upper pipe bearing directly on the last named rollers, all of said pipes being housed within the conduit and held against lateral displacement relative to the rollers by the wall of the conduit.

3. The combination with a conduit including upper and lower engaging sections, and spaced ledges in the lower section, of members bearing at their ends upon the ledges, pipes supported by said members, saddles bearing on the pipes and bridging the space therebetween, and an upper pipe supported by the saddles, all of said pipes being housed within the conduit and held against lateral displacement relative to each other by the wall of the conduit.

4. The combination with a foundation block having a transversely concaved upper face, and a longitudinal channel in said face, of a conduit contacting directly with and fitting snugly upon the concaved face to close the top of the channel, and a longitudinal reinforcing rib upon the conduit and extending throughout the length of the block, said rib extending into the channel and coöperating with the walls of said channel to hold the conduit against rotation relative to the foundation block.

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1,092,894. NURLING-MACHINE. LOUIS A. CASGRAIN, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 12, 1902. Serial No. 107,031. (Cl. 12—32.)



1. In a nurling machine, a rotatable shaft, a head having bearings therefor, pivots for said head, said pivots being at right angles to said shaft and occupying a position in line with the longitudinal axis of said shaft, a pulley fast on said shaft and rotatable in a vertical plane intersecting the axis of said pivots, and a nurling roller at the end of said shaft and adapted to nurl the stock.

2. In a machine of the class described, a revoluble horn to enter and sustain a shoe, a movable head, a rotatable shaft sustained in said head, and a nurling roller, frictionally and movably held on said shaft.

3. In a machine of the class described, a movable head, a rotatable shaft having a worm and sustained in said head, a second shaft having a worm toothed gear engaging said worm and carrying a feeding wheel, and a nurling roller applied to one end of said first shaft, said first shaft rotating the nurling roller and the feeding wheel.

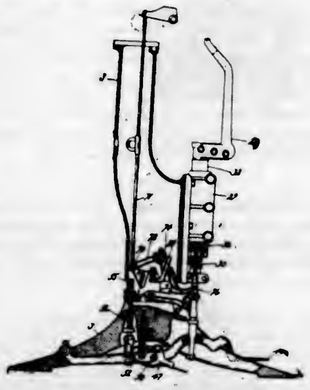
4. In a machine of the class described, a revoluble horn adapted to enter and sustain a shoe, a shoe feeding wheel serrated at its upper side and carried on the upper end of the horn, means carried by said horn to rotate said feeding wheel, and a nurling roller to act on and nurl the face of the sole of the shoe sustained by said shoe feeding wheel.

5. In a machine of the class described, a revoluble horn adapted to enter and sustain a shoe, a shoe feeding wheel serrated at its upper side and carried on the upper end of the horn, means carried by said horn to rotate said feeding wheel, and a roller adapted to act on the edge of the sole, and means to rotate the latter roller.

[Claims 6 to 19 not printed in the Gazette.]

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1,092,895. MACHINE FOR INSERTING FASTENINGS. LOUIS A. CAGGRAIN, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 24, 1904, Serial No. 222,022. Renewed Sept. 11, 1913. Serial No. 789,379. (Cl. 1—41.)



1. In a machine of the class described, a work support movable between work receiving position and work clamping position, a spring by which said support is yieldingly held in work clamping position, a pivoted support for said spring whereby said spring may be moved to permit said work support to come into work receiving position, a treadle, and connections between the treadle and said spring support for moving said spring and through it said work support into work clamping position.

2. In a machine of the class described, a frame, a work support movable between work receiving position and work clamping position, a spring for yieldingly maintaining said work support in work clamping position, a support for said spring movable to permit said work support to come into work receiving position, a treadle, and means whereby said treadle moves said spring support to carry said work support into work clamping position, said means being so interposed between said spring support and said treadle that the downward pressure of said work support and any impact thereon when said work support is held by the spring in work clamping position is transmitted directly to the machine frame.

3. In a machine of the class described, a frame, a normally lowered jack, a sustaining spring therefor, a pivoted support for the spring, said support having a cam surface, a treadle, and a roll connected to said treadle and movable along said cam surface to cause said support to raise the spring and jack, said roll being so located in said connections that the downward pressure of said jack and any impact thereon while it is supported by the spring is transmitted directly to the machine frame and not to the foot of the operator.

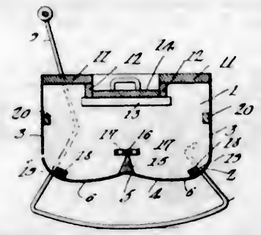
4. In a machine of the class described, a frame, a normally lowered jack, a spring to support the jack, a movable support for said spring, said support being supported by the frame and adapted to raise said spring bodily and hence raise said jack, and manually operated treadle mechanism connected to said support for raising said support and thereby said spring to elevate said jack through the medium of said spring, said connections being so arranged that the treadle is relieved from jars due to impact of the operating tools on the work while the jack is supported by the spring.

5. In a machine of the class described, a movable jack for holding the work, a treadle, a spring to support the jack, a movable member on which the spring is supported and by which the spring is bodily raised to compress it and to raise the jack, means for supporting said member independently of the treadle, and means connected with the treadle for moving said member upon its support to raise the spring and jack, said means and member being so constructed and so operatively associated that when said spring holds the jack in raised position pressure from the weight of said parts and any impact is not transmitted to the foot of the operator but directly to the machine frame.

[Claims 6 to 32 not printed in the Gazette.]

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1,092,896. CLOTHES-WASHER. WILLIAM R. CHISHAM, Hannibal, Mo. Filed Sept. 27, 1913. Serial No. 792,143. (Cl. 68—21.)



1. A clothes washer embodying a rocking tub, a bar secured upon the bottom thereof, and a bar secured upon the aforesaid bar and overhanging the sides thereof, the last mentioned bar having apertures along its edges.

2. A clothes washer embodying a rocking tub, the bottom of which has a central ridge, a bar having its median portion secured over the said ridge and having apertures along its edges, and bars secured upon the bottom of the tub at the sides of the said ridge, and having apertures therein parallel with the bottom.

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1,092,897. PROCESS OF PRESERVING EGGS. VICTOR CLAIRMONT, San Francisco, Cal., assignor to National Egg Company, San Francisco, Cal., a Corporation of California. Filed Mar. 31, 1913. Serial No. 758,067. (Cl. 99—8.)

1. A process of preserving eggs which consists in coagulating the albumen of the egg content immediately in contact with the inner side of the shell without affecting the edible portion by suddenly subjecting the eggs to a higher temperature than that of boiling water for a short period of time, and in applying a sealing coating to the outer side of the shell while in a heated condition.

2. The process of preserving eggs, which consists in immersing the eggs in a solution adapted to form a sealing coating and heated to a temperature of approximately 250° F. for a period of time sufficient only to coagulate the albumen content in immediate contact with the inner side of the shell and render innocuous the germ spores on the exterior of the shell without affecting the edible portion of the egg.

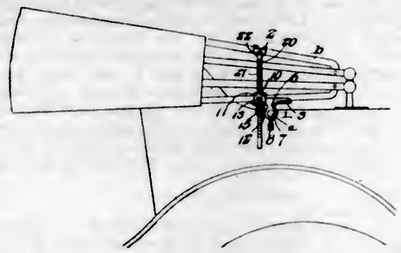
3. The process of preserving eggs which consists in first immersing the eggs in a solution heated to a comparatively low temperature (approximately 100° F.) for a brief period of time to temper the shell and in immediately thereafter immersing the eggs in a solution heated to 250° F. or upward for a period of time insufficient to noticeably coagulate the albumen contents save in immediate proximity to the shell, and in subsequently cooling said eggs.

4. The process of preserving eggs which consists in first tempering the shells by subjecting the eggs to a moderate degree of heat, secondly, while still warm, immersing the eggs in a solution heated to a temperature in excess of 250° F., and in applying a sealing coating to the outer side of the shell.



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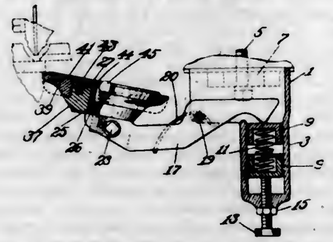
1,092,898. FOLDING-VEHICLE-TOP HOLDER. HARRY DE WITT COX, Richmond, Va. Filed Mar. 26, 1913. Serial No. 756,918. (Cl. 21—61.)



A folding vehicle top holder comprising a lower member having means to receive the lower side of a folding vehicle top and also having attaching means and a vertical guide opening; an upper member to engage over the upper side of a folded vehicle top, a connecting rod attached to the upper member and slidable in the vertical opening of the lower member, means to secure said rod at any desired adjustment to said lower member, the said rod being revoluble in the opening of the lower member, and the upper member being pivotally connected to the upper end of the said rod.

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1,092,899. GAGE. WILLIAM H. CUFF, Braintree, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 18, 1909. Serial No. 472,928. (Cl. 1—19.)



1. A device of the class described having, in combination, an edge gage capable at all times of being moved by the work in two opposite directions to bring it into various operative positions, and means for yieldingly supporting said gage in all operative positions thereof against movement in each direction.

2. A device of the class described having, in combination, an edge gage capable at all times of being moved by the work in two opposite directions to bring it into various operative positions, means for yieldingly supporting said gage in all operative positions thereof against movement in each direction, and means for varying the tension of one of said yielding means.

3. In a machine for inserting successively a plurality of fastenings in a shoe, an edge gage past which the shoe is fed, a support for the gage movable in two directions transverse to the line of feed, and a pair of balanced springs normally holding said gage in a given position and acting to return said gage, when displaced, to said position, said gage being movable at all times in both directions in order to permit said gage to follow movements of the work in directions transverse to the line of feed.

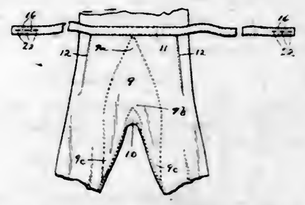
4. In a machine for inserting successively a plurality of fastenings in a shoe, an edge gage past which the shoe is fed, a support for the gage movable in two directions transverse to the line of feed, a pair of balanced springs normally holding said gage in a given position and acting to return said gage, when displaced, to said position, said gage being movable at all times in both directions in order to permit said gage to follow movements of the work in directions transverse to the line of feed, and means acting through one spring to increase the tension of the other.

5. In a machine for inserting successively a plurality of fastenings in a shoe, an edge gage past which the shoe is fed, a pivoted support for said gage angularly movable in two directions transverse to the line of feed, and a pair of oppositely acting balanced springs acting normally to hold the gage in a given position, said gage being at all times movable with the work transversely of the line of feed.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,900. UNION SUIT. EDWARD H. DAVISON and MARTIN K. PASCO, New Britain, Conn., assignors to American Hosiery Company, New Britain, Conn., a Corporation. Filed July 18, 1912. Serial No. 710,171. (Cl. 2—144.)

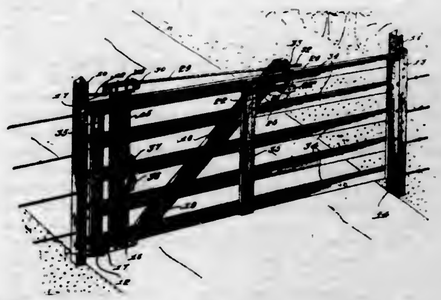


1. A union suit comprising a garment body having a full and complete waist line portion, a drop seat composed of sides whose upper ends fit the said garment body along the said waist line portion, and a gusset inserted between the said sides, and the upper part of the said gusset being V-shape and the apex thereof being connected to the opposed edges of the said upper ends of the drop seat.

2. In a union suit comprising a garment body and a drop seat in the form of a flap having the upper end at the waist line and the said drop seat being provided with a gusset, the said gusset being extended for the entire depth of the said drop seat up to the said waist line and the upper end thereof being V-shape with the apex at the said waist line, the said drop seat having a button-hole adjacent the said apex, and a button being provided at the middle of the said garment body for engaging with the said button-hole.

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1,092,901. GATE. ISAAC N. DAWSON, Peru, Ind. Filed Feb. 1, 1913. Serial No. 745,750. (Cl. 39—34.)



A gate, a support for said gate, a horizontal bracket carried by said support, a vertical strap carried by the upper portion of said support and connected with said bracket, a roller carried by said bracket, the end of said

bracket extending beyond said roller, said gate having one of its horizontal bars resting upon said roller and passing between said strap and brace, the free end of said bracket engaging one of the vertical bars of said gate to limit the movement of said gate in one direction and prevent the vertical bar of the gate from striking said roller.

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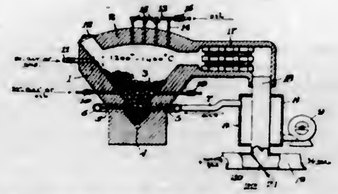
1,092,902. CONTAINER. DANTON DOGGETT, San Francisco, Cal. Filed Oct. 23, 1911. Serial No. 656,083. (Cl. 220—92.)



In a can, an inner plate having an edge slidably fitting said can and having a flange engaging said can and projecting upwardly on one side of the said edge of said plate and inclining downwardly to the surface of said plate on the side of said plate opposite to the location of said flange, and a movable tab connected to the upper side of said plate in proximity to said flange.

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1,092,903. PROCESS OF GENERATING HYDROGEN. CARLETON ELLIS, Montclair, N. J. Filed June 16, 1913. Serial No. 773,864. (Cl. 48—198.)



1. The process of generating hydrogen which comprises heating a bed of fuel to a white heat in a confined space, adding oil thereto to decompose the oil into hydrogen and carbon and sweeping out the hydrogen with steam passed over but not through said bed of fuel.

2. The process of generating hydrogen which comprises heating a bed of fuel to a white heat in a confined space, sweeping the products of combustion away from the surface of the bed of fuel, adding oil to said bed, whereby said oil is decomposed into carbon and hydrogen and sweeping out the hydrogen with steam passed over but not through said bed of fuel.

3. The process of generating hydrogen which comprises charging coke into a closed receptacle, bringing the coke to a white heat by introducing a blast of air thereinto and causing combustion to take place, shutting off the blast of air, flushing out the waste gases surrounding the coke with steam when the coke has reached a white heat, injecting heavy petroleum oil onto the heated fuel, allowing the oil to remain in contact with the heated fuel until such oil has been substantially decomposed into hydrogen and carbon, removing the hydrogen as produced, and flushing out the hydrogen surrounding the coke with steam without substantial contact of the steam with the bed of heated coke.

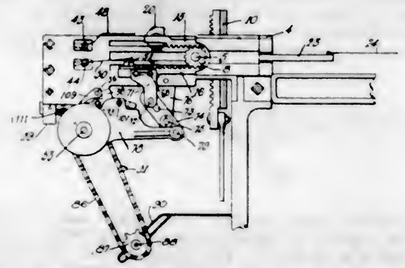
4. The process of generating hydrogen which comprises heating a mixture of coke with a small amount of fluxing material to a white heat in a confined space, adding oil thereto to decompose the oil into carbon and hydrogen and sweeping out the hydrogen with steam passed over but not through said bed of fuel.

5. The process of generating hydrogen which consists in bringing a bed of fuel to a white heat in a refractory chamber, adding oil to the bed of fuel, simultaneously applying oil to the heated surface of the refractory container and sweeping out the gases surrounding the bed of fuel with steam passed over but not through said bed of fuel.

[Claim 6 not printed in the Gazette.]

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1,092,904. MULTIPLIER MECHANISM. GEORGE FORTIER, Warren, R. I., assignor of one-half to Joseph Geoffroy, Warren, R. I. Filed Aug. 23, 1913. Serial No. 786,212. (Cl. 139—79.)



1. The combination with the feelers, pattern chain, chain shaft, and toothed wheel of a shedding mechanism, of a reciprocating plate adjacent the wheel, means for reciprocating the plate, a ratchet loose on the shaft, a sprocket wheel loose on the shaft and fast to the ratchet, a sprocket chain on the sprocket wheel, a lug on the chain, a gravity lever pivotally mounted upon the plate, a hook upon the lever adapted to engage the toothed wheel, a beak upon the lever in the path of the lug, and an arm upon one of the feelers adjacent the wheel in the path of the hook.

2. The combination with the feelers, pattern chain, chain shaft, and toothed wheel of a shedding mechanism, of a reciprocating plate adjacent the wheel, means for reciprocating the plate, a ratchet loose on the shaft, a sprocket wheel loose on the shaft and fast to the ratchet, a sprocket chain on the sprocket wheel, a lug on the chain, a gravity lever adapted to engage the toothed wheel, a beak upon the lever in the path of the lug, a second gravity lever pivotally mounted upon the plate in contact with the first lever and movable into and out of the plane of the ratchet by the first lever, and an arm upon one of the feelers adjacent the wheel in the path of the lever.

3. The combination with the feelers, pattern chain, chain shaft, and toothed wheel of a shedding mechanism, of a reciprocating plate adjacent the wheel, means for reciprocating the plate, a ratchet loose on the shaft, a sprocket wheel loose on the shaft and fast to the ratchet, a sprocket chain on the sprocket wheel, a lug on the chain, a lever pivotally mounted upon the plate, a hook upon the lever adapted to engage the toothed wheel, and movable by the lug, a second lever pivotally mounted upon the plate movable by the first lever and adapted to engage the ratchet, and an arm upon one of the feelers adapted to contact with the first lever and engage said lever with the toothed wheel when the plate reciprocates.

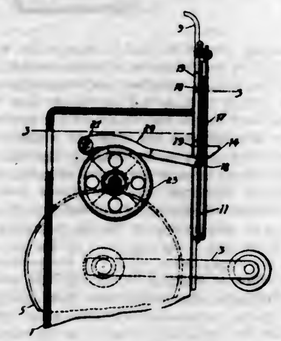
4. The combination with the feelers, pattern chain, chain shaft, and toothed wheel of a shedding mechanism, of a reciprocating plate adjacent the wheel, means for reciprocating the plate, and ratchet loose on the shaft, a sprocket loose on the shaft and fast to the ratchet, a sprocket chain upon the sprocket wheel, a lug on the chain, a gravity lever pivotally mounted upon the plate, a hook upon the forward end of the lever adapted to engage the toothed wheel, and a weight upon the rear end of the lever, a beak upon the weight in the path of the lug, a second lever pivotally mounted intermediate its length upon the plate, a tooth upon the forward end of the second lever in contact with the lower portion of the weight and in alinement with the ratchet, a weight upon the rear end of the second lever, and an inclined arm upon one of the feelers adjacent the wheel and movable into the path of the hook.

5. The combination with the frame, feelers, pattern chain, chain shaft, wheel, and rack of a shedding mechanism, and means for reciprocating the rack, of a block upon the rack, a lever pivotally mounted intermediate its length upon the frame and provided with a longitudinal slot, a pin upon the block registering in the slot, a plate pivotally connected with the lever and provided with a longitudinal opening to receive the chain shaft, a ratchet loose on the shaft adjacent the plate, a sprocket wheel loose on the shaft and fast to the ratchet, a sprocket chain on the sprocket wheel, a lug on the chain, an arm upon one of the feelers extending adjacent the wheel, a gravity lever pivotally mounted upon the plate in the path of the arm and engageable with the wheel and in the path of the lug, and a second gravity lever pivotally mounted upon the plate and movable by the first gravity lever into the plane of the ratchet.

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1,092,905. MOTION-PICTURE-PROJECTING APPARATUS. ADOLPH F. GALL, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 20, 1912. Serial No. 691,989. (Cl. 88—19.4.)



1. In a motion picture projecting apparatus having a projection aperture, film operating mechanism, a screen, a centrifuge having an outwardly movable weight, and a member applied directly to said weight for normally supporting the screen in a position covering said aperture and adapted upon the actuation of said film operating mechanism to be moved by said weight away from the axis of the centrifuge and thereupon move the screen so as to uncover said aperture, substantially as described.

2. In a motion picture projecting apparatus having a projection aperture, film operating mechanism, a reciprocating screen, and means including a centrifuge comprising a casing having a weight loosely mounted therein operatively connected with the film operating mechanism for normally supporting the screen in a position covering said aperture and adapted upon the actuation of said film operating mechanism to reciprocate the screen so as to uncover said aperture, substantially as described.

3. In a motion picture projecting apparatus having a projection aperture, film operating mechanism, a reciprocatory screen normally covering said aperture, and means operatively connected with said film operating mechanism to reciprocate said screen to uncover said aperture upon actuation of the film operating mechanism, said means comprising a centrifuge consisting of a casing with a plurality of weights loosely mounted therein, substantially as described.

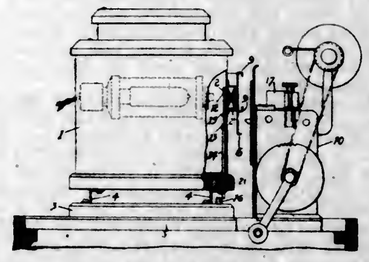
4. In a motion picture projecting apparatus having a projection aperture, film operating mechanism, means operatively connected with said film operating mechanism comprising a centrifuge having a movable weight, a screen, and means applied directly to said weight and normally supporting the screen in a position covering said aperture, the actuation of the said mechanism causing the weight to actuate said last named means and thereby move the screen to uncover said aperture, substantially as described.

5. In a motion picture projecting apparatus having a projection aperture, film operating mechanism, a screen, and means connecting the screen and film operating mechanism comprising a centrifuge having a movable weight and a screen-operating member applied directly to said weight and normally supporting said screen in a position covering said aperture, the actuation of the film operating mechanism causing the weight to actuate said member and thereby move said screen to uncover said aperture, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

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1,092,906. PROJECTING APPARATUS. ADOLPH F. GALL, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 30, 1912. Serial No. 694,166. (Cl. 88—24.)



1. The combination with a lamp house having a projection aperture and adapted to be moved into and out of a projecting position, of means adapted to operate automatically to open and close said aperture when the lamp house is moved into and out of projecting position respectively, substantially as described.

2. The combination with a lamp house having a projection aperture and adapted to be moved into and out of a plurality of projecting positions, of means comprising a shutter adapted to operate automatically to open and close said aperture when the lamp house is moved into and out of any of the projecting positions respectively, substantially as described.

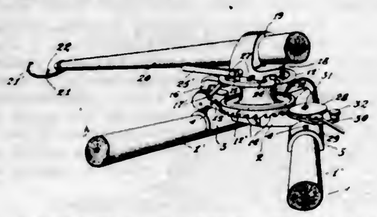
3. The combination with a lamp house having a projection aperture and adapted to be moved into and out of a projecting position, of means comprising a shutter normally closing said aperture, and means adapted automatically to actuate said first means to open said shutter when the lamp house is moved into projecting position, substantially as described.

4. The combination with a lamp house having a projection aperture and adapted to be moved into and out of a plurality of projecting positions, of means comprising a shutter normally closing said aperture, and means adapted automatically to actuate said first means to open said shutter when the lamp house is moved into any of the projecting positions, substantially as described.

5. The combination of a lamp house having a projection aperture, of a bed, means connecting the lamp house to said bed, but permitting said lamp house to be moved relatively thereto, whereby the lamp house may be moved into and out of a projecting position, means comprising a shutter normally closing said aperture, and means on said bed adapted automatically to actuate said second named means to open said shutter when the lamp house is moved into projecting position, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,092,907. STUMP-PULLING APPARATUS. JAMES A. GORMAN and HENRY W. SUMNER, Seattle, Wash., assignors to Phoenix Sales Company, Seattle, Wash., a Corporation of Washington. Filed Nov. 4, 1912. Serial No. 729,392. (Cl. 57—105.)



1. In apparatus of the character described, a base, a drum on said base, a cable, a block on said base for engagement with said cable, an eccentric clamp for clamping the cable against said block, and a guide lug arranged opposite said clamp and adjacent thereto for guiding the cable to said block.

2. An apparatus of the character described, comprising a base, a shaft on said base, a drum on said shaft, an open key member normally engaged over one end of said shaft for locking said drum thereto, said key member and shaft being formed with interlocking parts normally projecting one over the other, a sweep head releasably connected with said drum, and means for disengaging said head from said drum.

3. An apparatus of the character described comprising a base, a shaft fixed at one end to said base and formed in its opposite end portion with a peripheral groove and with a cut-out communicating with said groove, a drum on said shaft, a key comprising an annulus having an inwardly projecting lug for engagement in the groove of said shaft for locking said drum to the latter, a sweep head connected for movement toward and from said drum, interlocking parts on said head and drum, and a shaft rotatably mounted on said head and having an eccentric part for moving said head from said drum during rotary movement of said shaft.

4. An apparatus of the character described comprising a base, a shaft fixed at one end to said base and formed in its opposite end portion with a peripheral groove and with a cut-out communicating with said groove, a drum on said shaft, a key comprising an annulus having an inwardly projecting lug for engagement in the groove of said shaft for locking said drum to the latter, a sweep head connected for movement toward and from said drum, interlocking parts on said head and drum, said interlocking parts consisting of under-cut ratchet teeth in mesh, and a shaft rotatably mounted on said head and having an eccentric part for moving said head from said drum during rotary movement of said shaft.

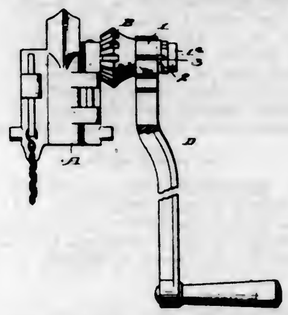
5. An apparatus of the character described comprising a base, a shaft fixed at one end of said base and formed in its opposite end portion with a peripheral groove and with a cut-out communicating with said groove, a drum on said shaft, a key comprising an annulus having an inwardly projecting lug for engagement in the groove of said shaft for locking said drum to the latter, a sweep head connected for movement toward and from said drum, interlocking parts on said head and drum, and a shaft rotatably mounted on said head and having spaced eccentrics normally bearing on said key for moving said head from said drum during rotary movement of said shaft.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,908. LOCKING DEVICE. LESTER C. HARDSOCG, Ottumwa, Iowa, assignor to The Hardsocg Manufacturing Company, Ottumwa, Iowa, a Corporation of Iowa. Filed May 14, 1913. Serial No. 767,700. (Cl. 74—33.)

1. In combination, two companion coacting and coaxially arranged parts, one of which functions as a power transmitting element and the other of which functions as a locking element, two companion rotatable elements operatively connected by the power transmitting part, one of the rotatable elements being detachably mounted on the power transmitting part, and a means of operative connection between the companion coacting parts whereby the locking part rotates with the power transmitting part and during its rotation functions to lock the detachable rotatable element upon said power transmitting part and whereby said parts may be moved relatively to one another into such relation as will enable the detachable rotatable element to be engaged upon or to be removed from the power transmitting part.



2. In a locking device of the character set forth, the combination with a shaft and an element rotatable therewith, of two companion coacting and coaxially arranged parts, one of which is loose on the shaft and functions as a power transmitting connection between the latter and said rotatable element and the other of which is fast on the shaft and functions as a locking element for preventing displacement of said rotatable element, the latter being detachably mounted on the power transmitting part, and a means of operative connection between the companion parts comprising a flange partially circumscribing the shaft and a lug provided on the power transmitting part for engagement with the flange and in such relation that when it engages the flange the locking part exercises its function, the companion parts being capable of relative turning movement whereby they may be related to permit the rotatable element to be engaged upon or to be removed from the power transmitting part.

3. In combination, two companion coaxial parts of similar outline and dimensions, two companion rotatable elements operatively connected by one of the parts, one of the rotative elements being detachably mounted on the connecting part, the other part serving to lock the detachably mounted element in position, and a means of operative connection between the companion parts whereby the locking part turns with the connecting part in such relation as to exercise its locking function and whereby the locking part may be turned relatively to the connecting part to a position wherein it permits the removal of the detachably mounted element.

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1,092,909. COUPON OR TICKET HOLDER. LAWRENCE P. HARDY, South Bend, Ind., assignor to L. P. Hardy Printing Company, South Bend, Ind., a Corporation of Indiana. Filed Nov. 28, 1913. Serial No. 803,514. (Cl. 211—87.)

1. A coupon strip holder comprising a front section and a rear section, means formed integral with the sections for preventing other than endwise separation thereof, the front section being integrally formed to provide a cylindrical casing disposed wholly in advance of the front face of said section, the rear section being integrally formed with projections adapted to partly close the ends of said casing when the sections are in holder forming relation.

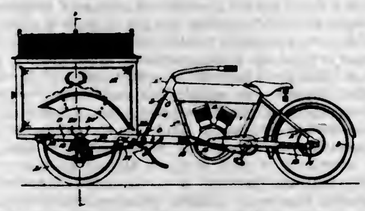
2. A coupon strip holder comprising a front section and a rear section, the front section being formed with integral tongues projected in spaced parallel relation to the rear surface of such sections, said front section being further formed to provide an integral cylindrical casing opening at the ends and disposed wholly in advance of the said surface of said section, the rear section having a width corresponding approximately to that of the front section, the lower edge of said rear section being formed with a tongue arranged in spaced parallel relation to the forward surface of said section, the side edges of the rear section being integrally formed with projections to partly overlie the open ends of the casing, when the sections are in holder forming relation.



3. A coupon strip holder comprising a front section and a rear section, the front section being formed with integral tongues projected in spaced parallel relation to the rear surface of such sections, said front section being further formed to provide an integral cylindrical casing opening at the ends and disposed wholly in advance of the said surface of said section, the rear section having a width corresponding approximately to that of the front section, the lower edge of said rear section being formed with a tongue arranged in spaced parallel relation to the forward surface of said section, the side edges of the rear section being integrally formed with projections to partly overlie the open ends of the casing, when the sections are in holder forming relation, the respective sections being formed in registering openings to permit the manipulation of the coupon strip.

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1,092,910. THREE-WHEEL TRUCK. WILLIAM S. HARLEY, Milwaukee, Wis. Filed Mar. 8, 1913. Serial No. 752,967. (Cl. 208—45.)



1. In a truck of the character described, a motorcycle frame having a steering head, a rear fork, a traction-wheel mounted therein, and a steering stem mounted in the head; the combination of a spider secured to the steering head about the stem, one of the members of which serves as a jacket for said stem, a rectangular body-receiving frame surrounding the motorcycle frame, the same comprising side struts extending forwardly of said motorcycle frame, means for securing the spider to said side struts, a forwardly disposed axle secured to the aforesaid side struts, wheel-carrying knuckles mounted upon the axle ends, a steering mechanism connecting the knuckles and before mentioned stem, and securing means connecting the rear portion of the motorcycle frame and truck frame side struts.

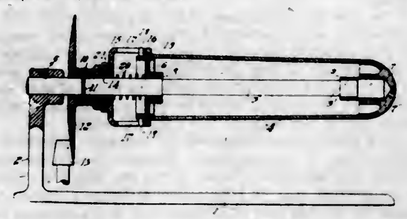
2. In a truck of the character described, a motorcycle frame having a steering head, a rear fork, a traction-wheel mounted therein, and a steering stem mounted in the head; the combination of a spider secured to the steering head about the stem, one of the members of which serves as a jacket for said stem, a rectangular body-receiving frame surrounding the motorcycle frame, the same comprising side struts extending forwardly of said motorcycle frame, means for securing the spider to said side struts, a forwardly disposed axle secured to the aforesaid side struts, wheel-carrying knuckles mounted about the axle ends, a steering mechanism connecting the knuckles and before mentioned stem, and means connecting the aforesaid side struts to the rear fork of the motorcycle frame.

3. In a three-wheel truck, a motorcycle frame having a rear fork, a traction-wheel mounted therein, and a steering head in connection with the forward portion of the frame; the combination of a spider secured to the steering head, a steering stem extending through one of the spider members, a rectangular body-receiving frame surrounding the motorcycle frame, the same comprising side struts extending forwardly of the motorcycle frame, transverse struts connecting the side struts forwardly of said motorcycle frame, a body supported upon said side and transverse struts, means for securing certain of the spider members to the side struts, means for securing the rear ends of the side struts to the rear fork member of said motorcycle frame, a front wheel-carrying axle suspended from the side struts of the truck-frame, wheel-carrying knuckles mounted thereon, and steering mechanism carrying the wheel-carrying knuckles and steering stem.

4. In a three-wheel truck, a motorcycle frame having a steering head, a rear fork, and a traction-wheel mounted therein; the combination of an obliquely disposed tube secured to the steering head, a transversely disposed brace-tube connected to the lower end of the obliquely disposed tube, angular tie-tubes connecting the first tube and upper end of the obliquely disposed tube, the said series of tubes constituting a spider for the support of the forward end of the motorcycle frame, a rectangular body-receiving frame surrounding the motorcycle frame, the same comprising side struts, transverse struts connecting the side struts forwardly of the motorcycle frame, means for securing the horizontal tube member of the spider to the side struts, means for securing the rear ends of the side struts to the fork member of the aforesaid motorcycle frame, an axle supported by the side struts forwardly of the motorcycle frame, swivel-wheels carried by the axle, a steering stem extending through the oblique tube member of the spider, and steering mechanism connecting the stem and swivel wheels.

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1,092,911. PHONOGRAPH. NEWMAN H. HOLLAND, West Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 13, 1911. Serial No. 614,278. (Cl. 181—13.)



1. In a phonograph, a shaft, means supporting the same, a record support mounted on said shaft and movable axially thereof, and means mounted on said shaft in proximity to said record support and adapted to shift a record mounted on said support relatively to the latter when said support is moved axially of said shaft, substantially as described.

2. In a phonograph, a rotatable record support, a bearing therefor, and means for rotating said record support, said support being movable with respect to said means and said means being adapted to shift the record relatively to the said support when the latter and said means are moved relatively to each other, substantially as described.

3. In a phonograph, the combination of a rotatable record support, a bearing therefor, a member rotatable with said record support, said record support being movable relatively to said member, and said member being provided with an abutment adapted to shift the record relatively to the record support when the latter is moved in a given direction relatively to said member, and means for returning said record support to its normal position relatively to said member, substantially as described.

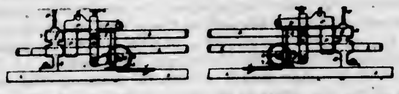
4. In a phonograph, the combination of a rotatable record support, a bearing therefor, a member rotatable with said record support, said support being axially movable relatively to said member, and said member being provided with an abutment adapted to shift the record relatively to the record support when the latter is moved in a given direction relatively to said member, and means for returning said record support to its normal position relatively to said member, substantially as described.

5. In a phonograph, the combination of a rotatable record support, a bearing therefor, a driving member for said record support, said driving member and record support being movable relatively to each other, and said driving member being provided with an abutment adapted to shift the record relatively to the record support when the latter and said driving member are moved toward each other, and yielding means for returning said driving member and said record support to their normal relative positions, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,912. SIDE-LAY MECHANISM FOR PRINTING, RULING, FOLDING, AND LIKE MACHINES. HARRY HOLLINGS, Edinburgh, Scotland. Filed July 22, 1913. Serial No. 780,423. (Cl. 101—36.)



1. In side lay mechanism of the character described, in combination, a reciprocatable gripping mechanism comprising two members between which the paper is adapted to be gripped, and means for moving one of said members relatively to the other member in the direction of travel of said mechanism.

2. In side lay mechanism of the character described, in combination, a reciprocatable gripping mechanism comprising two members between which the paper is adapted to be gripped, one of said members being a roller, and means for moving said roller relatively to the other of said members in the direction of travel of said reciprocatable mechanism.

3. In side lay mechanism of the character described, in combination, a reciprocatable gripping mechanism comprising two members between which the paper is adapted to be gripped, one of said members being a roller, and means for moving said roller relatively to the other of said members in the direction of travel of said reciprocatable mechanism during the forward movement thereof.

4. In side lay mechanism of the character described, in combination, a reciprocatable gripping mechanism comprising two members between which the paper is adapted to be gripped, one of said members being a roller, and means for moving said roller relatively to the other of said members in the direction of travel of said reciprocatable mechanism during the backward movement thereof.

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1,092,913. WELDING-TORCH. HARRY B. HOOVER, Chicago, Ill. Filed July 25, 1913. Serial No. 781,165. (Cl. 158—109.)

1. A welding torch including a mixer head and a mixer therein, fuel supply and regulating devices in connection with said mixer head and mixer, a tubular hand grip surrounding said mixer head and regulating devices, said regulating devices having manipulating means projecting exteriorly of said grip on diametrically opposite sides thereof, and located in close proximity thereto, whereby the fingers of a hand grasping said hand grip may manipulate said means without loosening the grasp on said grip, and a flame tip connected to said mixer.



2. A welding torch including a mixer head and a removable mixer therein, fuel supply and regulating devices in connection with said mixer head and mixer, a tubular hand grip surrounding said mixer head and regulating devices, said regulating devices having manipulating means projecting exteriorly of said grip on diametrically opposite sides thereof, and located in close proximity thereto, whereby the fingers of a hand grasping said hand grip may manipulate said means without loosening the grasp on said grip, and a flame tip connected to said mixer.

3. A welding torch including a mixer head and a mixer therein, fuel supply and regulating devices in connection with said mixer head and mixer, a tubular hand grip surrounding said mixer head and regulating devices, said regulating devices having manipulating means projecting exteriorly of said grip on diametrically opposite sides thereof, and located in close proximity thereto, whereby the fingers of a hand grasping said hand grip may manipulate said means without loosening the grasp on said grip, and a jointed and extensible outlet tube connected to said mixer and a flame tip at the outermost end thereof.

4. A welding torch including a mixer head and a removable mixer therein, fuel supply and regulating devices in connection with said mixer head and mixer, a tubular hand grip surrounding said mixer head and regulating devices, said regulating devices having manipulating means projecting exteriorly of said grip on diametrically opposite sides thereof, and located in close proximity thereto, whereby the fingers of a hand grasping said hand grip may manipulate said means without loosening the grasp on said grip, and a jointed and extensible outlet tube connected to said mixer and a flame tip at the outermost end thereof.

5. A welding torch comprising a flame tip, a jointed, extensible supply tube therefor, a mixing device connected to said tube remotely from said flame tip, a handle connected to said mixer, fuel supply and regulating means in connection with said mixer and located in close proximity to said handle, on opposite sides thereof, whereby the fingers of a hand grasping said handle may manipulate said regulating means without loosening the grip on said handle.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,914. CURETTE. AMBROSE W. JONES, Owingsville, Ky. Filed Apr. 7, 1913. Serial No. 759,508. (Cl. 128—28.)

1. A curette comprising a casing; a rod mounted to slide in the casing; intersecting loop-shaped spring arms secured to the rod and adapted to enter the casing; and means for connecting the arms at their point of intersection, whereby the arms will be prevented from having a mutual shearing action when the curette is rotated to dispose the placenta within the contour of the arms, the connecting means being independent of the rod and the rod terminating adjacent the end of the casing, thus leaving the space within the arms open and unencumbered to receive the placenta.

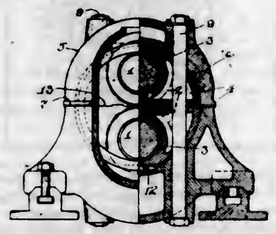




2. A device of the class described comprising a casing; a rod mounted to reciprocate in the casing; looped shaped spring arms secured at their ends to the rod and disposed in intersecting relation, the arms at their points of intersection being provided with registering polygonal openings; a cap bearing against the outer ends of the arms and provided with a polygonal stud registering in the openings, the stud terminating in a reduced, threaded tip; and a nut upon the tip bearing against the inner faces of the arms at their point of intersection.

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1,092,915. PINION-HOUSING. JOHN M. KELLER, Cleveland, Ohio. Filed Oct. 27, 1913. Serial No. 797,377. (Cl. 64—10.)



1. The combination of a sectional housing having an opening of substantially circular form, said housing being divided on a plane passing through such opening; a plate held in such opening between the sections of said housing; and a plurality of spindle-bearings mounted in said plate.

2. The combination of a sectional housing having an opening of substantially circular form, said housing being divided on a plane passing substantially centrally through such opening; a plate held in such opening between the sections of said housing; and a plurality of spindle-bearings mounted in said plate.

3. The combination of a sectional housing having an opening of substantially circular form, said housing being divided on a plane passing through such opening; a disk-like plate held in such opening between the sections of said housing, said plate being likewise divided into sections; and a plurality of spindle-bearings mounted in the sections of said plate, respectively.

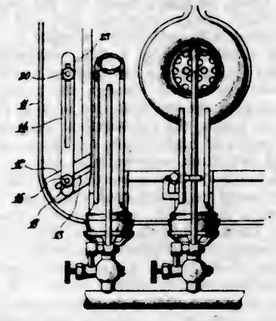
4. The combination of a sectional housing having an opening of substantially circular form, said housing being divided on a plane passing substantially centrally through such opening; a disk-like plate held in such opening between the sections of said housing, said plate being divided into two sections on a diametral plane; and a spindle-bearing mounted in each section of said plate.

5. The combination of a sectional housing having an opening of substantially circular form, said housing being divided on a plane passing substantially centrally through such opening; a disk-like plate held in such opening between the sections of said housing, said plate being divided into two sections on a diametral plane; a spindle-bearing mounted in each section of said plate; and an additional bearing mounted between such sections.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,916. STOVE-TOP-SUPPORTING DEVICE. JAMES E. KENNEDY, Washington, D. C. Filed Sept. 15, 1913. Serial No. 789,865. (Cl. 126—214.)



1. In combination with a stove top for a stove body, a slotted socket carried by the stove top, a slotted adjusting rod, a bolt having a squared shank extending through the slot of the socket and through a squared opening in one end of the adjusting rod, and a second bolt having a squared shank extending through the slot of the adjusting rod, with the said second bolt passing through the top of the said stove body to adjustably support the stove top on the stove body.

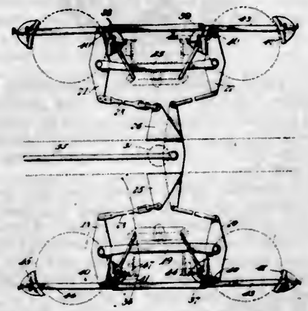
2. In combination with a stove top for a stove body, a slotted socket on the stove top, an adjusting rod, means slidable on the adjusting rod and having connection with the stove body for adjusting the said top relatively to the body, and a sliding connection between the said adjusting rod and the slotted socket of the stove top.

3. In combination with a stove top for a stove body, a slotted adjusting rod interposed between the stove top and the stove body, means for connection with the stove body and having sliding engagement with the said rod, and means connected with the said rod and having sliding connection with the stove top for adjustably supporting the stove top on the stove body.

4. In combination with a stove top for a stove body, means having one end thereof for sliding engagement with the stove top and the other end thereof for sliding engagement with the stove body for adjustably supporting the stove top thereon.

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1,092,917. CAR-BRAKE. WILLIAM F. KIESEL, Jr., Altoona, Pa. Filed June 27, 1913. Serial No. 776,196. (Cl. 188—24.)



1. In a car brake, the combination with the car body and swivel truck, of brake heads for the wheels on one side of the truck, substantially vertical levers connected with the brake heads, an equalizing link connected with each of said levers, a link connected with one of said vertical levers and with the car body at a point adjacent

the transverse center line through the truck pivot, and actuating means connected with one of said vertical levers.

2. In a car brake, the combination with the car body and swivel truck, of brake heads for the wheels on one side of the truck, levers connected with said brake heads, means connected with said levers adapted to actuate the brake heads simultaneously, a link connected with one of said levers and with the car body at a point adjacent the transverse center line through the truck pivot, and actuating means connected with one of said levers.

3. In a car brake, the combination with the car body and swivel truck, of brake heads for the wheels on opposite sides of the truck, substantially vertical levers connected with the brake heads, equalizing links on opposite sides of the truck and connected with said levers, links connected with one of the said vertical levers on each side of the truck and with the car body adjacent the transverse center line through the truck pivot, and on opposite sides of the latter, a transverse equalizing lever, means connecting said equalizing lever with one of the said vertical levers on each side of the truck, and means carried by the car body for actuating said equalizing lever.

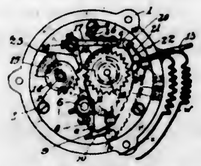
4. In a car brake, the combination with the car body and swivel truck, of brake heads for the wheels on opposite sides of the truck, levers connected with said brake heads, means connecting the said levers on each side of the truck and adapted to effect the simultaneous actuation of the brake heads, links, arranged on opposite sides of the truck, and each having one end connected with a separate one of said levers, means connecting the opposite ends of said links with the car body at points adjacent the transverse center line through the truck pivot, and actuating means connected with certain of said levers on opposite sides of the truck.

5. In a car brake, the combination with the car body and swivel truck, of brake heads for wheels on opposite sides of the truck, levers for actuating said brake heads, means connecting certain of said levers on opposite sides of the truck with points on the car body substantially on the transverse center line through the truck pivot, and actuating means connected with levers on opposite sides of the truck.

[Claims 6 to 11 not printed in the Gazette.]

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1,092,918. SIGNAL DEVICE. DAVID G. KNITTEL, Pittsburgh, Pa., assignor to American Fire Alarm Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Jan. 28, 1913. Serial No. 744,657. (Cl. 177—378.)



1. In a signal transmitter, the combination of a pair of oppositely disposed contact pens each electrically connected to a circuit, a pivoted arm, means for intermittently moving said arm, and a roller contactor rotatably mounted on said arm and in one position thereof closing a circuit through said pens.

2. In a multiple signal transmitter, the combination with an electric circuit, box-number and special-signal wheels, and moving mechanism therefor; of means including a rotatable shaft for setting said mechanism in motion, and an arm secured to and movable with said shaft and having locking engagement with said special signal wheel when said moving mechanism is at rest.

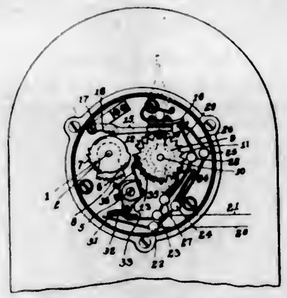
3. In a multiple signal transmitter, the combination with a main electric circuit, a shunt circuit provided with a switch, box-number and special-signal wheels, and moving mechanisms therefor; of a rotatable shaft for setting said moving mechanism in motion, and means secured to and movable with said shaft for locking said special-signal wheel and for controlling said switch.

4. In a multiple-signal transmitter, the combination with an electric circuit, box-number and special-signal wheels provided with peripheral teeth, and moving mechanism therefor; of means including a rotatable shaft for setting said mechanism in motion, and a spring-arm secured to and movable with said shaft and having locking engagement with the teeth of said special-signal wheel when said moving mechanism is at rest.

5. In a multiple-signal transmitter, the combination with a main electric circuit, a shunt circuit provided with a spring switch, box-number and special-signal wheels, and moving mechanism therefor; of a rotatable shaft for setting said moving mechanism in motion, and arms secured to and movable with said shaft for locking said special-signal wheels and for controlling said switch.

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1,092,919. SIGNAL-TRANSMITTER. DAVID G. KNITTEL and WILLIAM J. DAVIS, Pittsburgh, Pa., assignors to American Fire Alarm Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Mar. 19, 1913. Serial No. 755,483. (Cl. 177—364.)



1. In a multiple signal transmitter, the combination of an electrical circuit, box-number and special-signal wheels, and a single pivoted arm provided with a circuit-controlling contact member, said arm bearing upon each of said wheels, the portion thereof between and including its bearing points upon said wheels being in fixed and immovable relative position.

2. In a multiple signal transmitter, the combination of an electrical circuit, box-number and special-signal wheels, and a single rigid arm pivoted at one end and provided at its opposite end with a circuit-controlling contact member, said arm bearing upon each of said wheels between its pivot point and said contact member and movable thereby.

3. In a multiple signal transmitter, the combination of a main electrical circuit, box-number and special-signal wheels, a pivoted arm provided with a circuit-controlling contact member and movable by each of said wheels, a shunt circuit closed while said transmitter is at rest but open during its period of operation, a second shunt circuit, and means for closing said second shunt circuit during a portion of the period of operation of said transmitter.

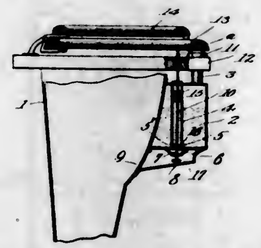
4. In a multiple signal transmitter, the combination of a main electrical circuit, box-number and special-signal wheels, a pivoted arm provided with a circuit-controlling contact member and movable by each of said wheels, a normally-open shunt circuit, and means movable with said special-signal wheel for closing and opening said shunt circuit simultaneously with the closing and opening of said main circuit by said special signal wheel.

5. In a multiple signal transmitter, the combination of a main electrical circuit, box-number and special-signal wheels provided on their peripheries with arm-moving teeth, a pivoted arm provided with a circuit-controlling contact member and movable by said teeth on each of said wheels, a normally-open shunt circuit, and an insulation block provided on its periphery with teeth alternating with the teeth on said special signal wheel, said block movable with said special-signal wheel and effective to close and open said shunt circuit simultaneously with the closing and opening of said main circuit by said special-signal wheel.



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1,092,920. LATRINE. HARRY D. KNOX, Marietta, Ohio. Filed Aug. 19, 1912. Serial No. 715,912. (Cl. 4—30.)



In a latrine, the combination with a hinged seat and a soil hopper having an opening in one wall, of a disinfecting device, including a tank having an outlet port in its bottom, a ported cup depending from the under side of the bottom with its port in axial alinement with the port of the tank, a removed discharge spout below and incasing the bottom of the tank and discharging into the opening of the hopper, a cylindrical tube disposed in the tank with its ends abutting the top and bottom of the tank, its lower end surrounding the outlet port of the tank and being provided with a plurality of ports in its walls at a point slightly above the bottom of the tank, a spring elevated stem extending through the cup, bottom and top of the tank and concentrically of the tube, the upper end of the stem being disposed to engage the seat to be depressed by the seat, and two disk valves fast to the stem, one disk valve being upon the lower end for movement to and from the lower side of the cup to control its port and the other for movement in the lower end of the tube to and from the bottom of the tank, to control the outlet port of the tank and the ports of the tube.

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1,092,921. VAULT-HEAD. AUGUST W. KURZ, New York, N. Y. Filed Dec. 6, 1911. Serial No. 664,238. (Cl. 182—10.)



1. A vault head comprising a main member formed with an interlocking lug on one of its side walls, a cover formed with a downwardly and forwardly extending hook adapted to interlock with the said lug and to thereby prevent the complete detachment of the cover from the main member, and a keeper connected to the main member and arranged to prevent the rearward disconnection of the hook from the locking lug.

2. A vault head comprising a main member formed with supporting lugs and interlocking lugs, a cover formed with a downwardly and forwardly extending hook, said hook being straight on its rear surface and on its bottom surface and extending around the locking lugs, the lower straight surface of said hooks resting on the supporting lugs of the main member when the cover is in its normal spanning position, and a keeper adapted to be engaged by the rear vertical edges of said hooks when said cover is in its normal spanning position, the rear straight edges of the hooks being adapted to rest upon the supporting lugs and sustain the cover in its open or vertical position, the interlocking lugs being so placed that they prevent the withdrawal of the cover from the main member.

3. A vault head comprising a main member formed with lower supporting lugs and upper interlocking lugs, a keeper connected to the main member adjacent said lugs and a cover normally spanning the manhole and formed with depending hooks at its rear edge, said hooks resting on the supporting lugs and receiving within them the interlocking lugs, the keeper preventing the disconnection of the hooks from the lugs.

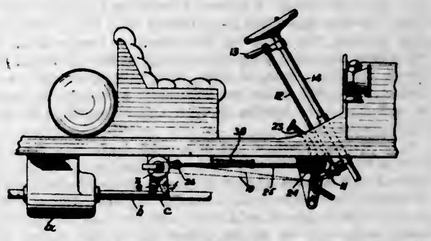
4. A vault head comprising a main member formed with lower supporting lugs and upper interlocking lugs, a keeper connected to the main member adjacent said lugs and a cover normally spanning the manhole and formed with depending hooks at its rear edge, said hooks resting on the supporting lugs and adapted to engage the keeper and receiving between them the interlocking lugs, the interlocking lugs being so placed that the cover may be moved outwardly to move its rear edge away from the keeper to permit the cover to be swung upwardly to a vertical position.

5. A vault head comprising a main member formed with supporting lugs and interlocking lugs, a cover formed at one of its edges with depending extensions having two surfaces one adapted to engage the supporting lug to support the cover in its normal spanning position and the other to engage said lug when the cover is in a vertical open position, said extension locking with the interlocking lugs of the main member to prevent the withdrawal of the cover from said main member.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,922. MECHANICALLY-OPERATED GEAR-CHANGING MECHANISM FOR AUTOMOBILES. DEAN C. LEWIS, Reading, Pa. Filed May 16, 1913. Serial No. 767,970. (Cl. 74—58.)



1. In a gear changing mechanism for automobiles, the combination with gear shifting arms having cams thereon, of a series of movable bars corresponding with different positions to which the gears are shiftable, members on the bars adapted, when the bars are actuated, to engage corresponding cams and thereby operate the arms, means to actuate the bars, and means to bring the bar-actuating means into operative relation with any one of the several bars.

2. In a gear changing mechanism, the combination with gear shifting arms having hubs turnable about a common axis, and cams on the hubs, of a series of bars slidable longitudinally in the direction of said axis and corresponding to different positions to which the gears are shiftable, members on the bars adapted, when the bars are advanced, to engage corresponding cams and thereby operate the arms, means to so actuate the bars, and means to turn the bar-actuating means around said axis and thereby bring the same into operative relation with any one of the several bars.

3. In a gear changing mechanism for automobiles, in combination, a shaft, means to turn the shaft, a pusher turning with the shaft, a series of bars, corresponding with different positions to which the gears are shiftable, arranged around and extending longitudinally of the shaft, means to operate the pusher to longitudinally advance the bar alining therewith, gear shifting arms and means enabling each bar when advanced to operate one of said arms.

4. In a gear changing mechanism for automobiles, in combination, a shaft, means to turn the shaft, a pusher turning with the shaft, a series of bars, corresponding with different positions to which the gears are shiftable, arranged around and extending longitudinally of the shaft, means to operate the pusher to longitudinally advance the bar alining therewith, gear shifting arms, cams thereon and members on the bars adapted, when the bars are so advanced, to engage corresponding cams and thereby operate the arms.

5. In a gear changing mechanism for automobiles, in combination, a shaft, means to turn the shaft, a pusher turning with the shaft, a series of bars, corresponding with different positions to which the gears are shiftable, arranged around and extending longitudinally of the shaft, means to operate the pusher to longitudinally advance the bar alining therewith, gear shifting arms having hubs turnable on said shaft, cams on said hubs, and members on the bars adapted, when the bars are so advanced, to engage corresponding cams and thereby turn the arms.

[Claims 6 to 30 not printed in the Gazette.]

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1,092,923. PIN-TICKET. WILLIAM LIVINGSTON, New York, N. Y., assignor, by mesne assignments, to Noesting Pin Ticket Company, Inc., a Corporation of New York. Filed Mar. 8, 1913. Serial No. 752,806. (Cl. 40—20.)



1. In a pin-ticket, a ticket, a wire bent upon itself to form a double-shank pin so arranged that one of the free ends of said wire opposite the shank is longer than the other free end, said double-shank pin passing through the ticket, the free ends of said wire being bent so as to engage with said ticket on both sides thereof, the longer of said free ends passing around and engaging with said double-shank pin.

2. In a pin ticket, a ticket, a wire bent upon itself to form a double shank pin, said shank passing through the ticket, the free ends of said wire at a predetermined point diverging from each other so as to engage with one side of said ticket, one of said free ends passing through the ticket and bent so as to engage with the under side thereof, and the other free end passing around the edge of said ticket and bent so as to engage with the under side thereof.

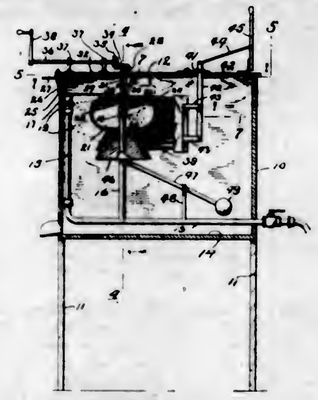
3. In a pin ticket, a ticket, a wire bent upon itself to form a double shank pin, said shank passing through the ticket, the free ends of said wire at a predetermined point diverging from each other so as to engage with one side of said ticket, one of said free ends passing through the ticket and bent so as to engage with the other side thereof, and the other free end passing around the edge of said ticket and bent so as to engage with the other side thereof, and one of said free ends passing around and engaging with the shank of said pin.

4. In a pin ticket, a ticket, a wire bent upon itself to form a double shank pin the members of which lie close to each other, the shank of said pin passing through said ticket, said wire bent so as to engage with the upper side of said ticket, the free ends of said wire being bent so as to engage with the under side of said ticket, one of said free ends passing around the shank on the under side of the ticket.

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1,092,924. SPITTOON-WASHING MACHINE. OSCAR W. LUNDEEN, Oakland, Nebr. Filed Aug. 19, 1912. Serial No. 715,896. (Cl. 141—7.)

1. In a cuspidor cleaning device, a spindle adapted to enter and support an inverted cuspidor, means for rotating said cuspidor on said spindle, a laterally disposed vertically extending brush adapted to engage one side of said cuspidor, and a horisontally swinging lever adapted to engage the bottom of said cuspidor opposite from said brush and center the cuspidor upon said spindle.



2. In a cuspidor cleaning device, an upright water supply pipe, a spindle turnably mounted on the top of said pipe, and adapted to enter and support an inverted cuspidor, means for rotating said cuspidor on said pipe, a laterally disposed and vertically extending brush adapted to engage with one side of said cuspidor, and a horisontally disposed lever adapted to swing on a vertical pivot and engage with the bottom of said cuspidor opposite from said brush whereby to center said cuspidor on said spindle.

3. In a cuspidor cleaning device, an upright water supply pipe, a spindle rotatably mounted on the top of said pipe and adapted to enter and support an inverted cuspidor, a conical brush on said pipe adapted to enter the mouth of said cuspidor, a laterally disposed brush adapted to engage and conform to the contour of one side of said cuspidor, and a lever adapted to swing in a horisontal plane and to engage with the bottom of said cuspidor to one side of the center thereof diametrically opposite from the last named brush and depress the high side of said bottom during rotation of said cuspidor whereby to center said cuspidor on said spindle.

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1,092,925. HARDENING OR TREATMENT OF STEEL, IRON, &c. ADOLPH W. MACHLET, Elizabeth, N. J. Filed July 12, 1907. Serial No. 383,422. (Cl. 148—26.)

1. The process of treating iron or steel, comprising the steps of heating the metal at least to about red heat in an atmosphere of ammonia and hydro-carbon, and then in an atmosphere of ammonia.

2. The process of treating iron or steel articles, comprising the steps of heating them at least to about redness in an atmosphere of ammonia which has been passed or filtered through kerosene, and then in an atmosphere of ammonia alone.

3. The process of passing ammonia through a heavy oil and introducing it into a heated retort containing iron or steel articles, and then causing a current of ammonia alone to flow through the retort over the heated articles.

4. The process of treating low-carbon steel or iron comprising the steps of heating it in an atmosphere of ammonia which has been passed through kerosene, until the article throughout is converted into a hard, brittle, silvery substance and then continuing the action with ammonia alone.

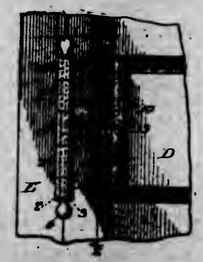
5. The process of carburising iron or steel articles, and then exposing them to ammonia to rid the articles of the surplus deposit of pure carbon upon their surfaces, while the articles are still red hot or above red heat from the carburising operation, and then cooling them without access of air or oxygen.

[Claims 6 to 10 not printed in the Gazette.]



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1,092,926. LOCKING-HINGE. WALDEMAR MADSEN, Chicago, Ill. Filed Jan. 8, 1914. Serial No. 811,008. (Cl. 16—110.)



1. A hinge comprising a pair of hinge leaves having hinge lugs thereon, and a connecting hinge pintle, there being an opening through one of said leaves, a boss on the other thereof, adapted to pass through said opening when said leaves are in contact, and means in connection with said boss preventing the spreading of said leaves.

2. A hinge comprising a pair of hinge leaves having hinge lugs thereon, and a connecting hinge pintle, there being an opening through one of said leaves, a boss on the other thereof, adapted to pass through said opening when said leaves are in contact, there being an opening through said boss and a key adapted to pass through said opening.

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1,092,927. PNEUMATIC-RUBBER-TUBE AND METAL-STEM PROTECTOR. JAMES M. MAJORS, Ottumwa, Iowa. Filed Dec. 1, 1913. Serial No. 804,110. (Cl. 150—52.)



1. In a device of the class described, a flexible waterproof casing, a rigid supporting device, flexibly secured thereto, having a thickened end provided with an opening extending through it to receive the stem of a rubber tube so that the stem may project above the thinner portion of said supporting device, and a non-metallic device for yieldingly engaging the free end of said stem.

2. In a device of the class described, a flexible waterproof covering, a flap secured thereto along one edge, a rigid supporting device secured to the loose portion of said flap near one edge thereof, said supporting device having a thickened end provided with a longitudinal opening to receive the stem of an inner tube, a non-metallic yielding device arranged to engage the end of said stem, and a second flap arranged to cover said rigid supporting device.

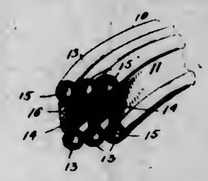
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1,092,928. MAT OR PAD. CHARLES ISRAEL EDGAR MARTIN, Midland Park, N. J. Filed Nov. 1, 1912. Serial No. 729,113. (Cl. 5—1.)

1. A mat or pad consisting of a strip of elastic material wound upon itself and having each of its outer edges of tubular form, all the convolutions of said strip being in substantially the same plane.

2. A mat or pad consisting of a spirally wound, continuous strip of elastic material having each of its outer edges of tubular form.

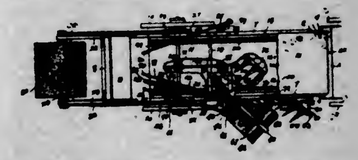
3. A mat or pad consisting of adjacent layers of elastic material having tubular bearing edges on opposite sides inclosing rubber tubes, said layers lying in substantially the same plane.



4. A mat or pad having upper and lower surfaces formed each of a series of tubes, the tubes on one side lying in substantially the same plane, and the two sets of tubes being connected by strip-like members.

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1,092,929. STREET-SWEEPER AND LOADER. ROBERT P. MAXWELL, Prairie City, Ill. Filed Jan. 15, 1912. Serial No. 671,219. (Cl. 15—17.)



1. A sweeper comprising a frame, supporting wheels, an axle driven by said wheels, a main brush driven by said axle, a horisontally arranged axle-driven shaft mounted in bearings on said frame, a vertically arranged shaft driven thereby, a curb-brush shaft driven by the last recited shaft, a bent curb-brush-supporting arm in which the outer end of said curb-brush shaft is mounted, said arm pivotally and slidably mounted on said vertically arranged shaft and provided with upwardly and downwardly extended projections which at their lower ends embrace and support the median portion of said curb-brush shaft, and levers engaged one with the upper end of each of said projections, whereby the curb-brush may be elevated bodily.

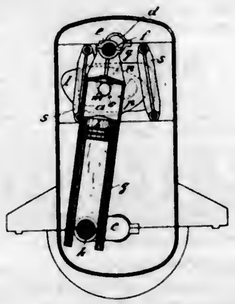
2. A sweeper comprising a frame, supporting wheels, an axle driven by said wheels, a main brush driven by said axle, a horisontally arranged axle-driven shaft mounted in bearings on said frame, a vertically arranged shaft driven thereby, a curb-brush shaft driven by the last recited shaft, a bent curb-brush-supporting arm in which the outer end of said curb-brush-shaft is mounted, said arm pivotally and slidably mounted on said vertically arranged shaft and provided with upwardly and downwardly extended projections which at their lower ends embrace and support the median portion of said curb-brush-shaft, levers engaged one with the upper end of each of said projections, whereby the curb-brush may be elevated bodily, a pulley mounted on the frame, a chain embracing it and secured at one of its ends to the outer portion of said supporting arm, and a lever engaged with the other end of said chain, whereby the outer end of the curb-brush may be swung forwardly or rearwardly.

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1,092,930. INTERNAL-COMBUSTION ENGINE. WILHELM MAYBACH, Cannstatt, Germany. Filed Apr. 8, 1912. Serial No. 689,225. (Cl. 123—50.)

1. An internal combustion engine comprising an oscillatory cylinder closed at one end and having a single port, a piston movable in said cylinder, a main crank shaft to which said piston is connected, said cylinder being oscillated by said main crank shaft, a carrier arm on the closed end of said cylinder, a secondary crank shaft on which said carrier arm is oscillatorily mounted so as to cause said cylinder to oscillate about said secondary crank shaft, valve means having ports for controlling the admission

and exhaust of an explosive charge to and from said cylinder, and ignition means for igniting said charge in the cylinder, the port in said cylinder consecutively registering with the admission port of said valve means, with said ignition means and with the exhaust port of said valve means.



2. An internal combustion engine comprising an oscillatory cylinder closed at one end and having a single port, a piston movable in said cylinder, a main crank shaft to which said piston is connected, said cylinder being oscillatory about said main crank shaft, a carrier arm on the closed end of said cylinder, a secondary crank shaft on which said carrier arm is oscillatorily mounted so as to cause said cylinder to also oscillate about said secondary crank shaft, means for rotating said secondary crank shaft in the opposite direction to and at half the angular velocity of said main crank shaft, valve means having ports for controlling the admission and exhaust of an explosive charge to and from said cylinder, and ignition means for igniting said charge in the cylinder, the port in said cylinder consecutively registering with the admission port of said valve means, with said ignition means and with the exhaust port of said valve means.

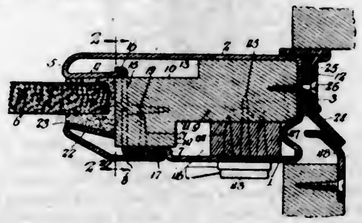
3. An internal combustion engine comprising an oscillatory cylinder closed at one end and having a flat portion at one side with a port therein, a piston movable in said cylinder, a main crank shaft to which said piston is connected, said cylinder being oscillatory about said main crank shaft, a carrier arm on the closed end of said cylinder, a secondary crank shaft on which said carrier arm is oscillatorily mounted so as to cause said cylinder to also oscillate about said secondary crank shaft, and a stationary flat valve plate registering with the flat portion of said cylinder and having admission and exhaust ports therein adapted to successively register with the port in the flat portion of said cylinder.

4. An internal combustion engine comprising an oscillatory cylinder closed at one end and having a flat portion at one side with a port therein, a piston movable in said cylinder, a main crank shaft to which said piston is connected, said cylinder being oscillatory about said main crank shaft, a carrier arm on the closed end of said cylinder, a secondary crank shaft on which said carrier arm is oscillatorily mounted so as to cause said cylinder to also oscillate about said secondary crank shaft, a stationary flat valve plate registering with the flat portion of said cylinder and having admission and exhaust ports therein adapted to successively register with the port in the flat portion of said cylinder and ignition mechanism carried by said valve plate and also adapted to successively register with the port in the flat portion of said cylinder.

5. An internal combustion engine comprising an oscillatory cylinder closed at one end and having a single port, a piston movable in said cylinder, a main crank shaft to which said piston is connected, said cylinder being oscillatory about said crank shaft, a carrier arm on the closed end of said cylinder, a secondary crank shaft on which said carrier arm is oscillatorily mounted so as to cause said cylinder to also oscillate about said secondary crank shaft, valve means having ports for controlling the admission and exhaust of an explosive charge to and from said cylinder, and ignition means for igniting said charge in the cylinder, the port in said cylinder consecutively registering with the admission port of said valve means, with said ignition means and with the exhaust port of said valve means, said secondary crank shaft being rotated in the opposite direction to and at half the angular velocity of the main crank shaft and being so disposed, relatively to said main shaft, that, when the piston is at the end of its in-stroke, the axis of the cylinder is substantially in the plane containing the axes of the two crank shafts.

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1,092,931. METALLIC SASH. BENJAMIN S. MCCLELLAN, Chicago, Ill. Original application filed May 18, 1910, Serial No. 561,954. Divided and this application filed June 7, 1912. Serial No. 702,153. (Cl. 189—76.)



1. A window sash, comprising a sheet metal shell having the margin of one wall thereof bent to provide a rearwardly extending flange forming with said wall a fixed bead at the inner margin of the sash, means extending directly between and permanently connecting said flange with the wall of said shell at the opposite side of the sash, a sheet metal strip having one margin overlapping the wall of the shell with which said flange is connected, and its other margin bent inwardly and rearwardly to form a resilient bead the inner wall of which is free to yield laterally throughout and form with said flange the side walls of the channel provided between said beads, and fastening members inserted through the overlapping parts of the shell and strip.

2. A window sash, comprising a sheet metal shell having the margin of one wall thereof bent to provide a rearwardly extending flange forming with said wall a fixed bead at the inner margin of the sash, means extending directly between and permanently connecting the inner edge of said flange with the wall of said shell at the opposite side of the sash; the wall of said shell with which said flange is connected being inwardly offset at its part adjacent to the inner margin of the sash, and a sheet metal strip having one edge seated in the rabbet formed by said offset part and its other edge bent to provide a yielding bead, the inner wall of which extends rearwardly and is free to yield laterally and forming with said flange the side walls of the channel provided between said beads.

3. A window sash, comprising a sheet metal shell having the margin of one wall thereof bent to provide a rearwardly extending flange forming with said wall a fixed bead at the inner margin of the sash, means extending directly between and connecting said flange with the wall of said shell at the opposite side of the sash, and a sheet metal strip applied to the wall of said shell with which said flange is connected and having a part thereof free to yield laterally throughout and forming with said flange the side walls of the channel provided between said beads, one of said beads being arranged at an angle to the other and forming a channel therebetween the inner end of which is wider than its outer end.

4. A window sash, comprising a sheet metal shell, a wood filler or the like located in said shell, said shell being provided with a bead at one side of the sash, and having an inwardly offset portion forming a rabbet at the opposite side of the sash, means extending directly between and permanently connecting said bead with the wall of said shell at the opposite side of the sash, a sheet metal strip having one margin seated in said rabbet, and its other margin bent to form a second bead provided with a rearwardly directed flange free to yield laterally throughout all portions thereof and forming with said first mentioned bead the side walls of the channel provided between said beads, and fastening members extending through the overlapped parts of said strip and into the said filling.

5. A window sash, comprising a sheet metal shell having a fixed bead at the inner edge of the sash and at one side of the same, means extending directly between and permanently connecting said fixed bead with the wall of said shell at the opposite side of the sash, and a sheet metal strip applied to the wall of said shell with which said fixed bead is connected and forming a second bead opposite to said fixed bead, said strip having a part free to yield laterally throughout all portions thereof and forming with the fixed bead the side walls of the channel provided between said beads.

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1,092,932. POWER-TRANSMISSION MECHANISM. JOSEPH A. MCGEE, Big Spring, Ind. Filed Feb. 11, 1913. Serial No. 747,615. (Cl. 74—26.)



1. In a power transmission mechanism, a pair of opposite friction disks, a rotating driving wheel between and drivingly contacting said disks, a wheel between the two disks driven by friction therefrom, means for moving the last wheel diametrically of the disks, and automatic means operating simultaneously with the movement of said last wheel for varying the angular relation of said two disks to each other.

2. In a power transmission mechanism, a pair of opposite friction disks, a rotating driving wheel between and drivingly contacting said disks, a wheel between the two disks driven by friction therefrom, means for moving the last wheel diametrically of the disks, means for varying the angular relation of said two disks to each other, and means for automatically varying the distance between the two disks as the driven wheel is moved with relation to the driving wheel.

3. In a power transmission mechanism, a pair of opposite friction disks, a rotating driving wheel between and drivingly contacting both disks, pressure wheels bearing against the outside of the friction disks opposite the points of contact of said driving wheel, a friction wheel driven by said disks, means for moving the last wheel diametrically of said disks, and means for automatically varying the distance apart of said pressure wheels against their disks as the driven wheel is moved diametrically of the disks.

4. In a power transmission mechanism, a pair of substantially parallel and opposed friction disks, a rotating driving wheel between and drivingly contacting both of said disks, a driven friction wheel driven by said disks, means for moving the last wheel diametrically of said disks, and automatic means for varying the distance between the two disks as the driven wheel is moved with relation to said driving wheel.

5. In a power transmission mechanism, a pair of substantially parallel and opposed friction disks, a rotating driving wheel between and drivingly contacting both of said disks, a driven friction wheel driven by said disks, means for moving the last wheel diametrically of said disks, and automatic means for increasingly forcing the two disks toward said driving wheel as the driven wheel is moved toward said driving wheel.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,933. WATERPROOF CONCRETE AND PROCESS OF MAKING THE SAME. RICHARD K. MEADE, Roland Park, Md. Filed Feb. 10, 1912. Serial No. 676,754. (Cl. 106—43.)

1. The process of rendering concrete water-proof, which consists in mixing therewith a powdered filler, the particles of which are coated with an oleaginous film, such film being so thin that the filler is not rendered noticeably plastic or sticky thereby.

2. The process of rendering concrete water-proof, which consists in mixing therewith a powdered filler, the particles of which are coated with a thin film of mineral oil, the film being so thin that the filler is not rendered noticeably plastic or sticky thereby.

3. The herein described concrete composition comprising cementitious material and a powdered filler, the particles of which are provided with an oleaginous film, such film being so thin that the filler is not rendered noticeably plastic or sticky thereby.

4. The herein described concrete composition comprising cementitious material and a filler made up of small particles coated with a film of mineral oil, the film being so thin that the filler is not rendered noticeably plastic or sticky thereby.

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1,092,934. PROCESS FOR MAKING EXTRUDED ARTICLES OF METAL OR OTHER MATERIAL. GRENVILLE MELLEN, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company, a Corporation of New York. Filed Apr. 20, 1912. Serial No. 692,151. (Cl. 207—2.)



1. The process of forming extruded products, comprising maintaining a material molten in a closed chamber, injecting a liquid under pressure into the chamber above the molten material, expanding the liquid to a gas, maintaining the gas under substantially constant pressure, and pressing the molten material through a die by the compressed gas.

2. The process of forming extruded products, comprising maintaining a material molten in a closed chamber, injecting water under pressure into the chamber above the molten material, expanding the water to steam, maintaining the steam under substantially constant pressure and pressing the molten material through a die by the compressed steam.

3. The process of forming extruded products, comprising maintaining a material molten in a closed chamber, injecting water under pressure into the chamber above the

molten material, expanding the water to steam, maintaining the steam under substantially the same pressure as the water, and pressing the molten material through a die by the compressed steam.

4. The process of forming extruded metal products, comprising maintaining a material molten in a closed chamber, protecting the metal from oxidation by a covering of flux, injecting into the chamber above the metal a liquid under sufficient pressure to press the molten metal through a die, expanding the liquid to a compressed gas, maintaining the gas pressure substantially equal to the liquid pressure, pressing the molten metal through a die by the compressed gas, and solidifying the metal in the die.

5. The process of forming extruded metal products, comprising maintaining a metal molten in a closed chamber, injecting into the chamber above the metal water under sufficient pressure to press the molten metal through a die, expanding the water to steam under pressure by the heat of the chamber and the molten metal, pressing the molten metal through a die by the compressed steam while maintaining the steam pressure substantially the same as that of the water pressure, and solidifying the molten metal as it passes through the die.

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1,092,935. FLUX FOR PURIFYING ALUMINUM AND ITS ALLOYS. GRENVILLE MELLEN, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company, a Corporation of New York. Filed June 26, 1912. Serial No. 706,041. (Cl. 75—187.)

1. A flux for purifying aluminum and its alloys, comprising a plurality of fusible materials, solid at ordinary temperatures, one of which is volatile at the temperature of melted aluminum, and another fluid at the temperature at which aluminum is cast, and all of lower specific gravity than aluminum.

2. A flux for purifying aluminum and its alloys, comprising an integral mass solid at ordinary temperatures, containing a material volatile at the temperature of melted aluminum, and another fluid at the temperature at which aluminum is cast, and all of a lower specific gravity than aluminum, said materials having the property of attracting the impurities ordinarily existing in remolten aluminum scrap.

3. A flux for purifying aluminum and its alloys, containing sulfur and a less fusible non-metallic carrier.

4. A flux for purifying aluminum and its alloys, comprising a rod or stirrer containing sulfur mixed with a fusible compound.

5. A flux for purifying aluminum and its alloys, containing sulfur and salt.

[Claim 6 not printed in the Gazette.]

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1,092,936. PROCESS FOR PURIFYING ALUMINUM AND ITS ALLOYS. GRENVILLE MELLEN, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company, a Corporation of New York. Original application filed June 26, 1912, Serial No. 706,041. Divided and this application filed Oct. 10, 1912. Serial No. 725,059. (Cl. 75—58.)

1. The process of purifying aluminum and its alloys, comprising adding to the molten metal a flux comprising a substance vaporizable at the temperature of melted aluminum, and a substance fluid at the temperature at which aluminum is cast, and agitating the metal by the vapors of the vaporizable substance.

2. The process of purifying aluminum and its alloys, comprising adding sulfur to the molten metal.

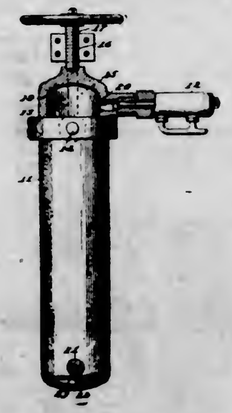
3. The process of purifying aluminum and its alloys, comprising subjecting the melted metal to the action of sulfur vapors bubbling therethrough.

4. The process of purifying aluminum and its alloys, comprising adding sulfur and a fusible solid to the molten metal, said solid having a lower specific gravity than the metal.

5. The process of purifying aluminum and its alloys, comprising subjecting the melted metal to a sulfur-containing purifying agent, and reacting upon the impurities in the melted metal with the sulfur in the sulfur-containing agent.

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1,092,937. APPARATUS FOR MAKING EXTRUDED ARTICLES OF METAL OR OTHER MATERIAL. GRENVILLE MELLEN, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company, a Corporation of New York. Original application filed Apr. 20, 1912, Serial No. 692,151. Divided and this application filed Oct. 10, 1912. Serial No. 725,060. (Cl. 207—2.)



1. An apparatus for making extruded products, comprising a chamber supported within a furnace body, a water-cooled die secured to the chamber, a tightly-fitting removable cap on the chamber, means to clamp the cap to the chamber, and a removable means to supply a constant-pressure-producing medium to the interior of the chamber.

2. An apparatus for making extruded products, comprising a chamber supported within a furnace body, means to heat the furnace, a cooled die attached to the lower part of the chamber, compressing means adjacent the die, a tightly-fitting cap on the chamber, means to clamp the cap to the chamber, and a removable means attached to the cap to supply a constant-pressure-producing medium to the interior of the chamber.

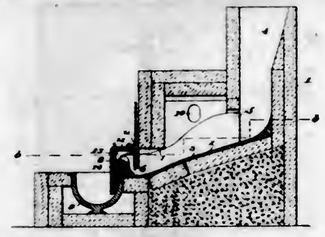
3. An apparatus for making extruded products, comprising a chamber supported within a furnace body, means to heat the furnace, a cooled die attached to the lower part of the chamber, drawing means adjacent the die, a tightly-fitting cap on the chamber, means to clamp the cap to the chamber, and a removable means attached to the cap to supply a constant-pressure-producing medium to the interior of the chamber.

4. An apparatus for making extruded products, comprising a chamber supported within a furnace body, means to heat the furnace, a cooled die attached to the lower part of the chamber, compressing and drawing means adjacent the die, a tightly-fitting cap on the chamber, means to clamp the cap to the chamber, and a removable means attached to the cap to supply a constant-pressure-producing medium to the interior of the chamber.

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1,092,938. MELTING-FURNACE. GRENVILLE MELLEN, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company, a Corporation of New York. Filed Oct. 10, 1912. Serial No. 725,061. (Cl. 75—84.)

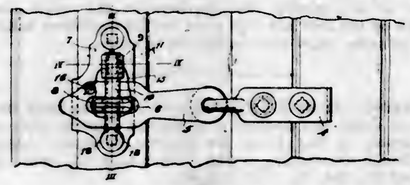
In a melting furnace, the combination of an upwardly projecting stack, a reverberatory furnace at the base of said stack having a sloping bottom and constituting a continuation of said stack and connected thereto by an inclined base, a sump at the other end of said reverberatory furnace, a movable shield dipping into said sump, a receiving pot, a refining chamber comprising a portion of



said sump and a portion of said pot, and a removable cover for said refining chamber.

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1,092,939. CAR-DOOR FASTENING. ROBERT S. MILLER, Cleveland, Ohio. Filed Jan. 16, 1914. Serial No. 812,447. (Cl. 70—23.)



1. In combination in a door fastening, a socket member provided with a pair of opposing perforated walls and a lug lying between the said walls and spaced away therefrom, and a bolt comprising a pair of opposing connected perforated plates fitting slidably between the said walls of the socket member with their edges lying between the said walls and the sides of the lug, the said perforations in the bolt lying in alinement with those of the socket member and in advance of the lug when the bolt is in its forward or locking position.

2. In combination in a door fastening, a socket member provided with a pair of opposing perforated walls and a lug lying between the said walls and spaced away therefrom, and a hollow bolt U-shaped in cross section fitting slidably in the socket between the said walls of the socket member and having its walls perforated with their edges lying between the sides of the said lug and the walls of the socket member, the said perforations in the bolt lying in alinement with those in the socket member and in advance of the said lug when the bolt is in its forward position.

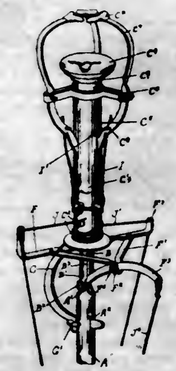
3. In combination in a door fastening, a socket member provided with a pair of opposing perforated walls and a lug lying between the said walls and spaced away therefrom, and a bolt comprising a pair of opposing connected perforated plates fitting slidably between the said walls of the socket member with their edges lying between the said walls and the sides of the lug, the said perforations in the bolt lying in alinement with those of the socket member when the bolt is in its forward position, and the forward ends of the said plates being bent inward to engage the said lug when the bolt is moved to the rear and thus prevent the complete withdrawal of the bolt from the socket member.

4. In combination in a door fastening, a socket member provided with a pair of opposing perforated walls and a lug lying between the said walls and spaced away therefrom, and a bolt comprising a pair of opposing connected perforated plates fitting slidably between the said walls of the socket member with their edges lying between the said walls and the sides of the lug, the said perforations in the bolt lying in alinement with those of the socket member when the bolt is in its forward position, and the forward end of one of said plates being bent in so as to engage the said lug when the bolt is moved to the rear, thus preventing the complete withdrawal of the bolt from the socket member.

5. In combination in a door fastening, a socket member provided with a pair of opposing perforated walls and a lug lying between the said walls and spaced away therefrom, and a hollow bolt U-shaped in cross section fitting slidably in the socket between the said walls of the socket member and having its walls perforated with their edges lying between the sides of the said lug and the walls of the socket member, the said perforations in the bolt lying in alinement with those in the socket member and the forward end of the bolt being bent in so as to engage the said lug when the bolt is moved to the rear, thus preventing the complete withdrawal of the bolt from the socket member.

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1,092,940. GLOBE-MANIPULATOR. WILLIAM FORBES MILLER, Toronto, Ontario, Canada. Filed Apr. 28, 1913. Serial No. 764,254. (Cl. 240—101.)



1. An electric light bulb inserter or extractor, comprising a tubular socket having a flared upper end rotatably mounted upon the upper end of the pole, gripping jaws carried by the tubular socket and having extension pieces extending into the interior of the socket, a sleeve member movable longitudinally within the socket, and means for operating such sleeve member from the lower end of the pole, and means for rotating the tubular socket operated from the lower end of the pole, as and for the purpose specified.

2. An electric light bulb inserter or extractor, comprising a tubular socket having a flared upper end rotatably mounted on the upper end of the pole, gripping jaws carried by the tubular socket and having extension pieces extending into the interior of the socket, a sleeve member movable longitudinally within the socket, a stem depending upon the sleeve portion, a lever pivoted intermediately of its length projecting at one end beneath the stem and provided at its opposite end with an operating cord extending to the lower end of the pole, as and for the purpose specified.

3. An electric light bulb inserter or extractor, comprising an elevating pole having a slotted hole extending therethrough, a bulb-gripping device pivotally connected to the upper end of the pole and an arc-shaped bar formed concentric to the center of the pivotal connection secured at one end to the bulb gripping device and extending at its opposite end through the slotted hole, and means for locking the arc-shaped bar in position, as and for the purpose specified.

4. In an electric bulb manipulator, means for gripping the bulb comprising a tubular socket, gripping jaws carried by said socket, said jaws having extension pieces extending within the socket, means slidable within said socket adapted to engage the extension pieces and open

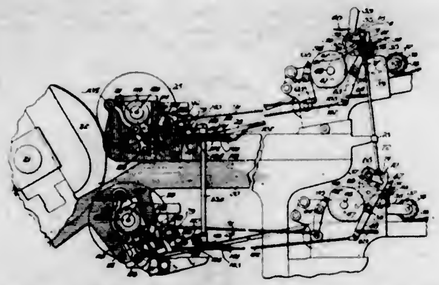
said jaws, and spring means for closing the jaws in and for the purpose described.

5. In an electric bulb manipulator, means for gripping the bulb comprising a tubular socket, gripping jaws carried by said socket, said jaws having extension pieces extending within the socket, longitudinally movable means within said socket adapted to engage said extension pieces and open said jaws, and spring means for closing the jaws for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

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1,092,941. FEED CONTROL AND TRIPPING MECHANISM FOR PRINTING-PRESSES. SIVERT MOE, Chicago, Ill., assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 29, 1912. Serial No. 680,627. (Cl. 101—36.)



1. In a printing press, the combination with an impression cylinder of a plurality of feed tables therefor, a detector for each table, and means to actuate one of said detectors so as to stop feeding without stopping the press when the other detects a defect in the feeding of its sheets, substantially as described.

2. In a printing press, the combination with an impression cylinder of a pair of feed tables therefor, a detector for each table, and a connection between the detectors whereby to actuate the companion detector so as to stop feeding without stopping the press when either of the detectors detects a defect in the feeding of its sheets of paper, substantially as described.

3. In a printing press, the combination of a plurality of feed tables, detector fingers for each of said tables, means to reciprocate said detector fingers, means to arrest the movement of said detector fingers if the feeding of the sheets of paper thereto is defective, and means to arrest the movement of the detector fingers of all of the remaining tables if the detector fingers of any table are arrested in their movement because of improper sheet feeding, substantially as described.

4. In a printing press, the combination with an impression cylinder of a plurality of feed tables therefor, means to remove the sheets from each of said tables, a detector for each of said tables, and means connecting the several detectors whereby to render all of said paper-removing means inoperative without stopping the press when any of said detectors discovers a defect in the feeding of its sheets of paper, substantially as described.

5. In a printing press, the combination of a pair of feed tables, a feed cylinder for each of said tables to remove the sheets therefrom, a detector for each of said tables, and means to render both of said feed cylinders inoperative if either detector discovers a defect in the feeding of its sheets of paper, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,092,942. FENCE-POST. JOHN NAISER, Sr., Tatton, Tex. Filed Nov. 1, 1912. Serial No. 729,057. (Cl. 189—28.)

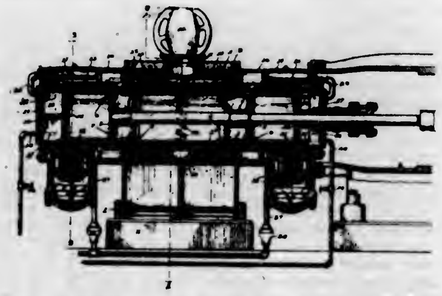
A fence post comprising a body U shaped in cross section having a reduced lower end, shoulders being formed at the junction of the body and said reduced end, and an anchor plate having a central opening through which the reduced end of the post extends with the shoulders seated



on the plate, said plate having a depending flange at one side of the opening that fits between the longitudinal edges of the post and said plate having depending flanges at its outer edges that engage the ground.

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1,092,943. AMMONIA-COMPRESSOR. PETER NEFF, DONALD COLE, and ELBERT L. EBERSOLE, Canton, Ohio, assignors to The Arctic Ice Machine Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 25, 1908. Serial No. 454,741. (Cl. 230—6.)

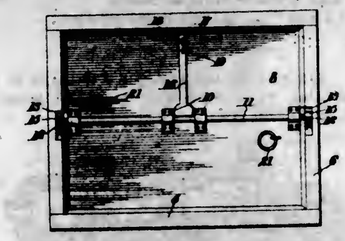


In a compressor of the class described, a cylinder having a chamber extended for a portion of its length, intake ports formed through the cylinder, said chambered portion of the cylinder provided with insulation and portions of said cylinder atmospherically exposed, chambered heads provided with webs adapted to close the ends of said cylinder, water pipes leading to and from the chambered heads, a piston rod and piston located thereon, said piston adapted to open and close, substantially as and for the purpose specified.

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1,092,944. REFRIGERATOR-CAR-HATCH PLUG. EDWARD A. NIX, JOHN J. DOWLING, and HENRY A. BUASLEY, New Orleans, La. Filed Nov. 18, 1912. Serial No. 732,119. (Cl. 62—12.)

The combination of a tapering hatch way provided with a supporting ledge and with recesses in opposite walls formed with flaring mouths with one wall of each mouth of each recess projecting part way across the corresponding recess to form a shoulder, a closure for the hatch way adapted to rest on said ledge and whose sides taper to provide for the wedging fit of the closure in the tapering hatch way, a rock shaft secured to the closure and having its ends provided with bends, and means for rocking the shaft to throw said bends into said recesses and past said shoulders and thereby throw the bends into and out of co-



operative connection with the under sides of said shoulders so as to lock and unlock the closure.

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1,092,945. SLIDING WINDOW. OSCAR OEHRING, Eisleben, Germany, assignor to Internationale Neverfail Patentkurbelfenster G. M. B. H., Berlin, Germany. Filed Jan. 29, 1913. Serial No. 744,862. (Cl. 20—52.1.)



1. In combination with a sliding window, a locking frame adapted to move toward said window in guides inclined to the plane of movement of the window, each of said guides having a resilient side for yieldingly retaining said window in any desired position of adjustment.

2. In combination with a sliding window, a substantially rectangular locking frame adapted to move toward said window in a direction inclined to the plane of movement of the window and, bearing on the marginal edges of the window, retain the same in any position of adjustment, inclined guides for directing the movement of said frame, pins projecting from the frame into said guides, and a spring side to each guide bearing on said pins for yieldingly holding the frame against said window.

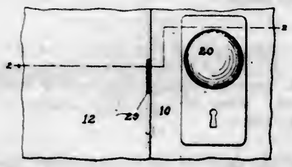
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1,092,946. RABBETED LOCK FRONT AND STRIKE. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Nov. 19, 1912. Serial No. 732,257. (Cl. 70—16.)

1. The combination with a lock having a case, and a face plate extending laterally beyond the case at one side, of a flange extending from the last named side of said face plate alongside and parallel to one wall of the lock case to a point back of the front edge of such wall; substantially as described.

2. The combination with a lock having a case and a face plate, of a rearwardly directed flange extending substantially at right angles from the face plate alongside and parallel to one wall of the case; substantially as described.

3. The combination with a mortise lock having a case and a face plate, of a flange extending rearwardly from the face plate adjacent one side thereof, and lying alongside and substantially parallel to one wall of the case, said flange being extended over the case at one end; substantially as described.



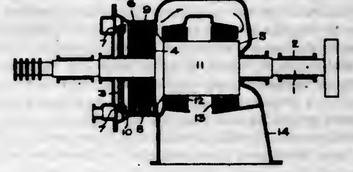
4. The combination with a mortise lock having a case and a face plate, of a flange extending rearwardly from one edge of the face plate alongside and substantially parallel to one wall of the case, said flange being extended over and spaced from the case at the top and bottom of the latter; substantially as described.

5. The combination with a mortise lock, comprising a case and a face plate, of a flange directed rearwardly from the face plate at one side of the same and curved over the case at the top and bottom so as to partially overhang the case; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

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1,092,947. ELASTIC-FLUID TURBINE. WILHELM PAPE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,131. (Cl. 121—58.)



1. In an elastic-fluid turbine having an inclosing casing, the combination of a high pressure velocity-stage, one or more intermediate pressure-stages receiving fluid from the velocity-stage, a plurality of reaction-stages divided into parts and so arranged that the thrust on one opposes the thrust on the other, a conduit arranged in the upper portion of the casing for conveying fluid to said stages from the pressure-stages, a shaft that carries the movable parts of the said stages, an admission conduit and an exhaust conduit leading from the lower portion of the casing adjacent to the reaction stages.

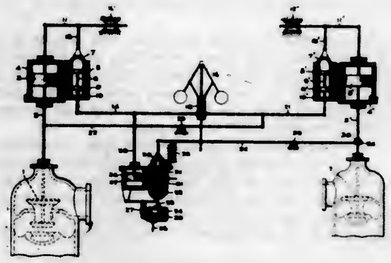
2. In an elastic-fluid turbine, the combination of a high pressure velocity-stage wherein the velocity of the motive fluid is fractionally abstracted, intermediate pressure-stages receiving fluid from the velocity-stage and occupying a position in close proximity thereto, the velocity of the fluid in each pressure-stage being abstracted in one operation, a plurality of reaction-stages receiving motive fluid from the last pressure-stage, a shaft that carries the movable members of said stages, an admission conduit and a single exhaust conduit leading from and forming part of the end of the turbine casing adjacent to the reaction stages.

3. In an elastic-fluid turbine, the combination of a velocity-stage in which the pressure of the motive fluid is reduced from the source of supply to a relatively low value and its velocity abstracted by successive operations, mean- or intermediate-stages that operate on the pure impact pressure-stage plan and in which the steam is ex-

panded to a point where it can be effectively utilized in reaction-stages, reaction-stages receiving motive fluid from the pressure-stages, said reaction-stages being relatively few in number and having a relatively large inlet diameter, a shaft that is common to the said stages, an inlet conduit and a single exhaust conduit leading from and forming part of the end of the turbine casing adjacent to the reaction stages.

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1,092,948. REGULATOR FOR MIXED-PRESSURE TURBINES. WILHELM PAPE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 21, 1913. Serial No. 743,334. (Cl. 121—118.)



1. In a mixed pressure turbine, the combination with a high pressure valve and a low pressure valve, of motors for operating said valves, a pilot valve for each motor, a lever connected to each pilot valve, a speed governor for operating said levers simultaneously, and a long lever connected to the stem of the low pressure valve and pivotally attached to and acting as the fulcrum of the lever operating the pilot valve of the high pressure valve motor.

2. In a mixed pressure turbine, the combination with a high pressure valve and a low pressure valve, of motors for operating said valves, a pilot valve for each motor, a long lever attached at one end to the stem of the low pressure valve, a pressure-responsive device, a speed governor, and levers pivotally attached to said governor and to the pilot valves, one of said levers being fulcrumed on the end of the long lever and the other on the pressure-responsive device.

3. In a mixed pressure turbine, the combination with a high pressure valve and a low pressure valve, of motors for operating said valves, a speed governor, a system of levers connecting both said motors to said governor, a motor connected to said system of levers for affecting the low pressure valve motor, a pressure responsive device controlling said last named motor, and means controlled by the high pressure valve for rendering said last named motor unresponsive to any increase in pressure when the high pressure valve is closed.

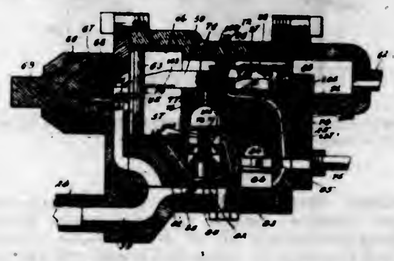
4. In a mixed pressure turbine, the combination with a high pressure valve and a low pressure valve, of motors for operating said valves, a pilot valve for each motor, a lever connected to each pilot valve, a speed governor for operating said levers simultaneously, a long lever connected to the stem of the low pressure valve and pivotally attached to the lever operating the pilot valve of the high pressure valve, a pressure responsive device connected to the governor operated lever of the low pressure valve, and means for rendering said pressure responsive device unresponsive to any increase of pressure when the high pressure valve is closed.

5. In a mixed pressure turbine, the combination with a high pressure valve and a low pressure valve, of motors for operating said valves, a pilot valve for each motor, a long lever attached at one end to the stem of the low pressure valve, a pressure responsive device, a speed governor, levers pivotally attached to said governor and to the pilot valves, one of said levers being fulcrumed on the end of the long lever and the other on the pressure responsive device, and means for rendering said pressure responsive device unresponsive to any increase in pressure when the high pressure valve is closed.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,949. AIR-BRAKE APPARATUS. WILLIAM E. PARKER, Manning, Tex. Filed Mar. 29, 1913. Serial No. 757,723. (Cl. 188—15.)



1. An air brake system comprising means operable by an increase in pressure in the train pipe for admitting air therefrom to the auxiliary reservoir and simultaneously admitting air to the brake cylinder from the auxiliary reservoir, and a further means adapted under an increase in the train pipe pressure to admit direct air from the train pipe to the brake cylinder.

2. In a triple valve, an emergency check valve, means whereby an increase in the train pipe pressure permits the auxiliary reservoir pressure to open said check valve for the admission of direct air from the train pipe to the brake cylinder.

3. In a triple valve, a releasing trip, a main slide valve, means for engaging said trip with said slide valve, and said trip being adapted for operation by a change in pressure in the brake cylinder.

4. In a triple valve, a valve casing, a main slide valve movable therein and having a vertical transverse port therethrough, a train pipe, a brake pipe and auxiliary reservoir connections with said triple valve, and an emergency check adapted for actuation to control the admission of train pipe air to the brake pipe upon the admission of air from the auxiliary reservoir connection through said port to said check upon an increase of pressure in the train pipe.

5. In combination a triple valve comprising a casing having a chamber therein, a slide valve movably-mounted in said chamber and having ports therethrough, a piston head upon said slide valve, an auxiliary reservoir, a train pipe, said chamber communicating at its opposite ends with said train pipe and auxiliary reservoir, a brake cylinder, a conduit from said chamber communicating with said brake cylinder, and one of said ports adapted to register with said conduit whereby communication is effected between said auxiliary reservoir and brake cylinder upon either a reduction or an increase in the train pipe pressure, a conduit between said train pipe and brake cylinder, an emergency check valve positioned in said last-named conduit, the other of said transverse ports adapted upon registering with said check valve to unseat the same by effecting communication between the auxiliary reservoir and said valve whereby the train pipe pressure is directly admitted to the brake cylinder.

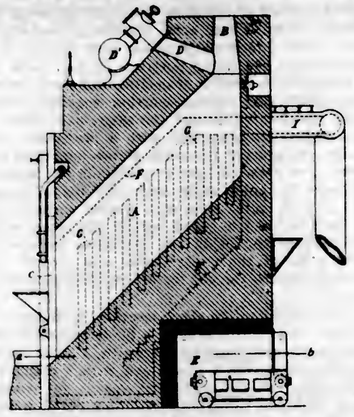
[Claims 6 to 10 not printed in the Gazette.]

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1,092,950. METHOD OF MANUFACTURING COAL-GAS AND COKE. WILLARD P. PARSONS, Flushing, N. Y. Filed Nov. 14, 1908. Serial No. 462,559. (Cl. 202—8.)

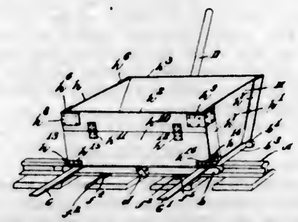
The method of manufacturing coal gas and coke which consists in completely filling a relatively long and high air tight chamber with a mass of coal, supporting the mass at an angle slightly greater than the angle of rest of the mass during distillation so that there will be a substantial and nearly uniform pressure due to gravity throughout all parts of the mass, subjecting the mass to a uniformly distributed external heat, drawing off the coal gas during distillation and collecting the resultant products.





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1,092,951. TRUCK FOR ONE-RAIL TRACKS. EDWARD B. PEIRCE, Lowell, Mass. Filed Apr. 7, 1913. Serial No. 759,275. (Cl. 105—233.)



1. The combination in a truck with its frame and wheels arranged tandem, of skids secured to said frame and projecting laterally therefrom and means of tilting said frame laterally to depress the free ends of said skids, to form an inclined plane.

2. The combination with a truck-frame and wheels arranged tandem, of a handle secured to said frame at one side thereof and projecting therefrom, of skids, secured to said frame and projecting laterally therefrom, on the side opposite said handle, to incline said skids, by tilting said frame.

3. The combination with a truck-frame and peripherally grooved wheels arranged tandem to run on a single rail, of skids secured to said frame and projecting laterally therefrom and a handle for said truck.

4. The combination with the truck-frame and wheels arranged tandem, of the fixed handle secured to one side of said frame, a socket secured to the other side of said frame and a removable handle adapted to fit said socket.

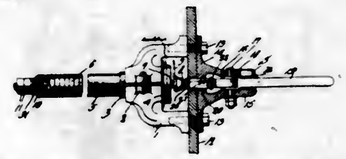
5. The combination in a truck having wheels arranged tandem, of a frame, a brace secured to said frame and extending laterally therefrom in an upwardly inclined direction and an outwardly inclined handle secured to said frame and to said brace.

[Claim 6 not printed in the Gazette.]

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1,092,952. COMPRESSION-RHEOSTAT. PAUL J. RAY, Lakewood, Ohio. Filed June 21, 1913. Serial No. 775,158. (Cl. 219—51.)

1. A compression rheostat, including a resistance medium, the conductivity of which is increased due to pressure exerted thereupon, a pivoted lever provided with a cam, and means interposed between the cam of the pivoted lever and the resistance medium whereby under normal conditions, the resistance medium is held with the members thereof in contact to prevent air gaps, and whereby when the handle is operated, the resistance medium is compressed.



2. A rheostat, including a frame, a clamp carried thereby, an internally insulated tube mounted in the clamp, a plurality of conductor disks mounted in said tube, a cam pivotally mounted in the frame, and a resilient plunger connection between the cam and the disks, whereby the disks are normally held against separation to prevent the formation of air gaps when the cam is in normal position and the disks are compressed when the cam is operated.

3. A rheostat, including a frame, a clamp carried thereby, an internally insulated tube mounted in the clamp, a plurality of conductor disks mounted in said tube, a cam pivotally mounted in the frame, a resilient plunger connection between the cam and the disks, whereby the disks are normally held against separation when the cam is in normal position and the disks are compressed when the cam is operated, said resilient connection comprising a cylindrical socket, a stud slidably mounted in said socket, and two springs of varying tension interposed in the socket between the ends of the stud, the lighter spring normally holding the stud in engagement with the disks to hold the disks against separation.

4. A rheostat, including a frame, a tube of insulation mounted in the frame, a plurality of conductor disks mounted in said tube, a lever pivoted in the frame, a cam carried thereby, and a two membered plunger mounted slidably in the frame and interposed between the cam and the disks, said members being resiliently separated and forming a resilient compression transmission agent between the cam and the disks.

5. A rheostat, including a frame, a sleeve carried thereby, an internally insulated tube mounted in the sleeve, a plurality of conductor disks mounted in said tube, a slidably mounted rod for engaging the disks and projecting exteriorly of the sleeve, a handle pivotally connected to the frame, a cam carried by said handle, a slidably mounted two part plunger carried by the frame and interposed between the cam and the rod, whereby the manipulation of the handle places the disks under compression, and a resilient cushion between the two parts of the plunger to hold the parts extended and to exert sufficient pressure upon the disk to eliminate air gaps when the disks are in normal condition.

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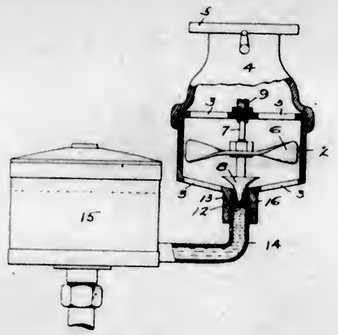
1,092,953. CARBURETER. AUGUSTUS M. SANBORN, Stanford University, Cal. Filed May 11, 1912. Serial No. 696,734. (Cl. 48—155.1.)

1. In a carbureter, a fan arranged in the path of and adapted to be rotated by the air current and a conical shaped member partly immersed in hydrocarbon operatively connected to said fan and adapted to project the hydrocarbon in a circumferential spray into the air current.

2. In a carbureter, a chamber provided with apertures for the passage of air therethrough, a fan arranged in said chamber in the path of said air and adapted to be rotated thereby, an inverted cone connected to said fan, the apex portion of said cone being adapted to be immersed in the hydrocarbon and the base of said cone lying within the chamber.

3. In a carbureter, a vaporization chamber provided with apertures for permitting the passage of air therethrough, a hydrocarbon feed pipe connected to said chamber, means for maintaining the hydrocarbon at a constant

level in said pipe, an inverted concave cone in said chamber having its apex portion extending into the feed pipe



below said level, and a fan in the chamber adapted to be rotated by the air current, connected to said cone.

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1,092,954. PRUNING IMPLEMENT. FREDERICK C. SCOTT, Hornby Island, British Columbia, Canada, assignor to Frank William Trounce, Buffalo, N. Y. Filed July 29, 1912. Serial No. 712,135. (Cl. 30—11.)



1. An implement of the class described including spaced guide plates provided at the front with projecting arms spaced from the outer ends of the guide plates, a blade slidable between the outer portions of the guide plates beyond the projecting arms thereof and provided with a forwardly projecting cutting portion located beyond the said arms and coacting therewith, operating mechanism connected with the inner portion of the blade, and a coiled spring arranged at the back of the implement and connected with the outer portions of the guide plates beyond the arms thereof and with the blade at the inner portion of the same and adapted to open the implement automatically.

2. An implement of the class described including spaced guide plates provided with forwardly projecting arms spaced from the outer ends of the guide plates, a blade slidable between the outer portions of the guide plates beyond the said projecting arms and having a forwardly projecting cutting portion coacting with the arms and located beyond the same, said blade being provided at its inner end with a projecting arm extending to a point below the projecting arms of the guide plates, and operating mechanism connected with the arm of the blade for moving the latter toward the arms of the guide plates.

3. An implement of the class described including spaced guide plates provided with arms projecting from the guide plates at points intermediate of the ends thereof, a blade slidable between the outer portions of the guide plates beyond the said forwardly projecting arms and having a forwardly projecting cutting portion coacting with the said arms and located beyond the same, said blade being also provided at its inner end with a projecting arm located below the arms of the guide plates, operating mechanism connected with the arm of the blade for moving the latter toward the guide arms, said guide plates being also provided at their outer ends with spaced rearwardly projecting portions, and a coiled spring connected with the inner portion of the blade and extending outwardly beyond the arms of the guide plates and secured to the terminal projections thereof for automatically opening the implement.

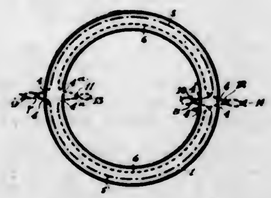
4. An implement of the class described including a pole, guide plates secured to the pole, a blade mounted between the guide plates and coacting therewith, a shaft journaled on the pole and provided at one end with a crank having a ratchet wheel at the other end, means for connecting the crank with the blade, an oscillatory crank handle located at the opposite end of the shaft from the said crank and provided at its inner face with an opening receiving and housing the ratchet wheel, and a spring actuated pawl or dog mounted on the crank handle and coacting with the ratchet wheel.

5. An implement of the class described including a pole provided at its inner end with a socket, cutting mechanism arranged at the outer end of the pole, a body rest constructed of wire bent to form opposite loops and curved longitudinally, one of the terminals of the wire being extended to form a projecting stem having a terminal ball secured in the said socket and coacting therewith to form a ball and socket connection between the body rest and the pole to permit a limited swinging movement of the said pole in any direction.

[Claims 6 to 9 not printed in the Gazette.]

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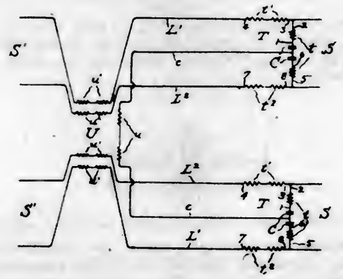
1,092,955. BAG-FASTENER. ELMER C. SHAVER, New York, N. Y., assignor of one-half to Henry V. Piaget, Montclair, N. J. Filed Dec. 11, 1912. Serial No. 736,075. (Cl. 150—11.)



The combination with a bag, having a seam at its mouth and at opposite points of said mouth having openings in the seam at the inside of the mouth and openings at the outside of the mouth, of two cords passed through said seam, each cord having two strands, one of which passes through the seam at one side of the bag mouth and the other through the seam at the opposite side of the bag mouth, said cords having their strands united at each end outside of the seam, and provided with an extension at each end beyond the points where the two strands are united outside of the seam, to form tabs, each of the cords having the point where its strands are united and the adjacent tab, at the outside of the bag mouth at one side of the bag, and the other point of uniting the strands and the adjacent tab at the opposite side of the bag on the inside of the bag mouth, substantially as set forth.



1,092,956. MEANS FOR REDUCING REFLECTION LOSSES IN DUPLEX CIRCUITS. THOMAS SHAW, Hackensack, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Feb. 28, 1913. Serial No. 751,287. (Cl. 179—15.)



1. Two physical circuits associated to furnish a phantom circuit, each of the physical circuits comprising successive sections of different impedance, a transformer having a winding bridged across the junction of the sections and other windings in series with the high impedance section, and a connection to the bridge winding for the current in the phantom circuit.

2. Two physical circuits associated to furnish a phantom circuit, each of the physical circuits comprising successive sections of different impedance, a transformer having a winding bridged across the junction of the sections, and other windings in series with the high impedance section, a connection to the bridge winding for the current in the phantom circuit, and condensers in the bridge on each side of the connection for the phantom circuit.

3. The combination with line sections, of a transformer at the junction of the line sections, said transformer comprising a core, a winding upon the core bridged across the line sections, and other winding in series with a section, one of said windings consisting of a twisted pair.

4. The combination with line sections, of a transformer situated at the junction of the sections and having a core, a winding upon the core bridged across the sections, and other windings in series with one of the sections, one of said windings consisting of a twisted pair extending about the entire core.

5. The combination with line sections, of a transformer situated at the junction of the sections and having a core, a winding upon the core bridged across the sections, and other windings in series with one of the sections, the bridge winding consisting of a twisted pair extending about the entire core.

[Claims 6 to 18 not printed in the Gazette.]

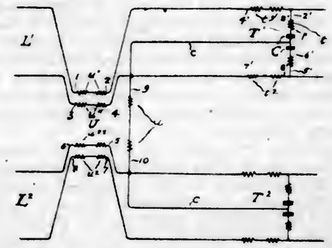
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1,092,957. MEANS FOR REDUCING REFLECTION LOSSES IN PHANTOM CIRCUITS. THOMAS SHAW, Hackensack, N. J., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Feb. 28, 1913. Serial No. 751,288. (Cl. 179—15.)

1. The combination with physical circuits associated to furnish a phantom circuit, said phantom circuit comprising successive sections of different impedance, of a reflection reducing transformer situated at the junction of the phantom sections, said transformer including a winding traversed by current in the phantom circuit only.

2. The combination with physical circuits associated to furnish a phantom circuit, said phantom circuit comprising successive sections of different impedance, of a reflection reducing transformer situated at the junction of the phantom sections, said transformer including a winding traversed by current in the phantom circuit only, and other windings traversed by current in the physical circuits.

3. The combination with physical circuits associated to furnish a phantom circuit, said phantom circuit comprising successive sections of different impedance, of a reflection reducing transformer situated at the junction of the phantom sections, said transformer including a winding traversed by current in the phantom circuit only, and other windings traversed by current in both the phantom and physical circuits.



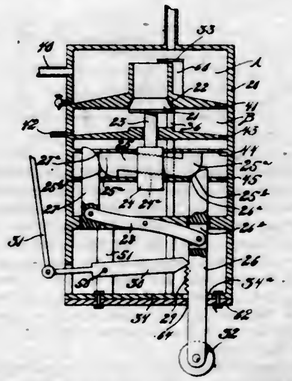
4. The combination with physical circuits associated to furnish a phantom circuit, said phantom circuit comprising successive sections of different impedance, of a reflection reducing transformer situated at the junction of the phantom sections, the relation between the windings of said transformer tending to minimize its effect on the physical circuits.

5. The combination with two physical circuits associated to furnish a phantom circuit, of a transformer associated with the phantom circuit, said transformer including windings in said physical circuits and a winding connected between the conductors of each physical circuit at neutral points in said circuits.

[Claims 6 to 23 not printed in the Gazette.]

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1,092,958. AUTOMATIC RAILWAY-BRAKE VALVE. BENJAMIN F. SHERZ, Marion, Ohio. Filed Feb. 27, 1913. Serial No. 751,081. (Cl. 246—59.)



1. In a device for setting air brakes, the combination of a casing, a valve therein controlling an exhaust opening from the brake pipe and provided with a stem having an inclined slot, a wedge key slidable crosswise in said slot and adapted to thereby move the valve to open or closed position, and a reciprocating trip operated rod having an inclined head bearing against the key and adapted to shift the same.

2. In a device for setting air brakes, the combination of a casing, a valve therein controlling exhaust from the brake pipe, and provided with a stem having an inclined slot, a wedge key shiftable crosswise in said slot, to open or close the valve, a pair of oppositely moving rods with inclined ends bearing against opposite ends of said key and acting to shift said key in opposite directions, and a

lever between the rods, one of said rods projecting beyond the casing in position to strike and be moved by a track device.

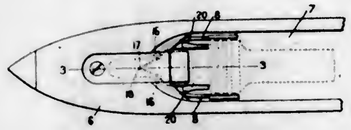
3. In a device for setting air brakes, the combination of a casing, a valve therein controlling exhaust from the brake pipe, and provided with a stem having an inclined slot, a wedge key shiftable crosswise in said slot, to open or close the valve, a pair of oppositely moving rods with inclined ends bearing against opposite ends of said key, and acting to shift said key in opposite directions, and a lever between the rods, one of said rods projecting beyond the casing in position to strike and be moved by a track device and a manually released catch engageable with one of said rods to hold the same in the position to which it is moved by said device.

4. In a device for setting air brakes, the combination with a casing having a chamber under brake pipe pressure, primary and secondary valves controlling exhaust from said chamber, an impact actuated device to open said primary valve by ordinary impact against a track obstacle, and breakable means operatively connected to the secondary valve and to said device, to open the secondary valve by extraordinary impact of said device against the track obstacle.

5. In a device for setting air brakes, the combination with a casing having a chamber under brake pipe pressure, primary and secondary valves controlling exhaust from said chamber, a longitudinally slidable impact actuated rod operatively connected to said primary valve to open the same, a plate mounted on the casing adapted to be moved by lateral movement of the rod, breakable fastenings between said plate and the casing, adapted to be broken by excessive impact against the rod, to permit movement of the plate, and means actuated by said movement of the plate to open the secondary valve.

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1,092,959. LOOM-SHUTTLE. WILLIAM PARKER STRAW, Manchester, N. H. Filed July 28, 1913. Serial No. 781,487. (Cl. 139—27.)



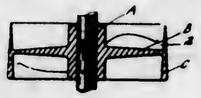
1. In a loom shuttle having spring jaws adapted to engage and hold the rings on the base of a bobbin provided with parallel and flat faces beyond the rings, a pair of flared spring guides extending longitudinally of, and parallel to said jaws, means for securing each guide to a shuttle jaw so that the same shall be capable of a yielding movement toward said jaw and also of a resilient twisting movement, whereby said guides are adapted to engage the end of the bobbin and rotate and direct the same into proper position between the jaws when the bobbin is inserted in the shuttle.

2. In a loom shuttle having spring jaws adapted to engage and hold the rings on the base of a bobbin provided with opposite parallel and flat faces beyond the rings, resilient guides for the bobbin comprising leaf springs disposed longitudinally of said jaws and secured to the same near their bases, and having upwardly extended inclined and flared ends, whereby said guides are adapted to receive between them said flat faces of the bobbin, and rotate and direct the same into proper position between the jaws when the bobbin is inserted in the shuttle.

3. In a loom shuttle having forked spring jaws adapted to engage and hold the rings on the base of a bobbin provided with parallel and flat surfaces beyond said rings, a pair of resilient guides for the bobbin comprising leaf springs, secured to the respective jaws near their bases, one end of each spring abutting against the fork of said jaws, and the other end of each spring having an upward extension which is inclined and flared outwardly, whereby when a bobbin end is improperly presented said guides are adapted to receive, rotate and direct the bobbin into proper position between the jaws when the bobbin is inserted in the shuttle.

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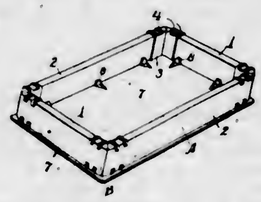
1,092,960. BOAT-PROPELLER. HARRY TAYLOR, Hamilton, Ontario, Canada, assignor to Horace Wellesley Burrett, Toronto, Canada. Filed Mar. 26, 1912. Serial No. 686,270. (Cl. 170—168.)



A propeller comprising a center hub, propeller blades extending therefrom and an encircling protecting rim connected to the blades and tapered from front to rear on its inner face, the distances between the hub and the outer face of the rim in a straight transverse line being substantially the same throughout the width thereof.

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1,092,961. BOX. ADELBERT A. THOMAS, Boston, Mass., assignor to Farrington Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Mar. 12, 1910. Serial No. 548,940. (Cl. 217—5.)



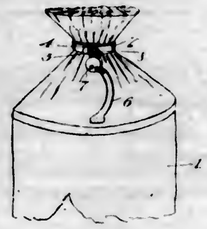
1. A case for jewelry and the like comprising wooden side-members fastened together at their ends, and a sheet metal plate corresponding in outline to the outer periphery of said side-members and extending slightly beyond the same, said plate having spurs struck up from it within said side-members, each spur having its sharp end bent at right angles to the body thereof and forced into the substance composing the side-members and such body being brought flat against the inner surface of the side-member thereat.

2. A case for jewelry and the like comprising wooden side-members fastened together at their ends, a covering applied to the outer periphery thereof and over the edges of the same, a sheet metal plate corresponding in outline to the said periphery and extending slightly beyond the same, a covering applied to the outer face of the plate and brought over upon the inner surface for a substantial distance and between said plate and upper edges of said side-members, and spurs for fastening said plate to the side-members, said spurs being struck up from the plate within the side members and each having its sharp end bent at right angles to the body thereof and forced into the side-members, whereby said plate and side-members can be covered separately and then fastened together.

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1,092,962. MAIL-POUCH. RICHARD S. TWISS, Edgerton, Va. Filed Dec. 8, 1913. Serial No. 805,255. (Cl. 150—15.)

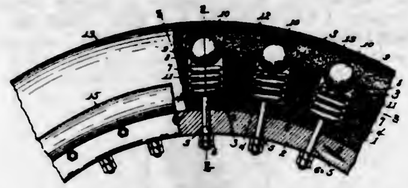
A pouch having a strap for holding the mouth thereof in closed position, said strap having hasp and staple engaging means, a handle comprising a chain section secured to the pouch, a flexible cover over said section, a lock connected with the free end of the chain section



and having a pivoted bail adapted to pass through said staple.

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1,092,963. RESILIENT TIRE. AUGUSTUS TYLER, Wheeling, W. Va. Filed Nov. 5, 1912. Serial No. 729,618. (Cl. 152—8.)

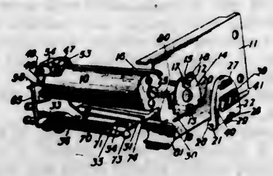


1. A tire comprising a resilient pad shaped to conform to the periphery of a wheel-rim and having therein a plurality of radially-directed pockets located at spaced intervals, anchor bolts having their heads seated in the bottoms of said pockets and adapted to have their ends projected through a wheel-rim, springs seated in said pockets, a cup seated on the outer end of each spring, a ball seated in said cup, means reinforcing the walls of said pockets, a pliable covering attached to the periphery of said pad and resting on said balls, and a flexible casing enveloping said covering and the sides of said pad.

2. A tire comprising a resilient pad shaped to conform to the periphery of a wheel rim and having therein a plurality of radially-directed pockets located at spaced intervals, anchor bolts having their heads seated in the bottoms of said pockets and adapted to have their ends projected through a wheel-rim, springs seated in said pockets, a cup seated on the outer end of each spring, a ball seated in said cup, a flexible compressed asbestos pad cemented to the outer periphery of the first mentioned pad and inclosing said balls, and a protective covering for said pads.

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1,092,964. COMBINED JACK AND DROP. ROBERT M. DE VIGNIER, Hollis Terrace, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Dec. 27, 1911. Serial No. 668,180. (Cl. 179—92.)

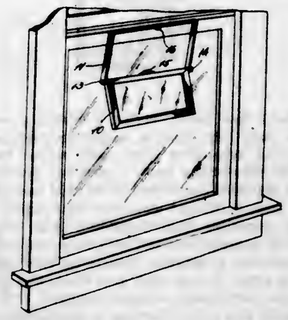


1. In a combined jack and drop, a supporting plate, a magnet shell mounted on the rear thereof, a drop shutter mounted on the front of said plate, an armature and latch for controlling said shutter, a dependent lug having a rearward extension and forward extensions mounted on the rear of the magnet shell, a restoring lever pivotally mounted in said forward extensions, and jack springs mounted upon said rearward extension.

2. In a combined jack and drop, a front supporting plate, a magnet shell located at the rear thereof, a signal plate located on the front of said supporting plate, unitary means for securing said magnet shell and said signal plate to said supporting plate, a magnet coil located within said shell, a screw passing freely through said signal plate and said supporting plate and shell for holding said coil within said shell, a shutter pivotally mounted on said signal plate, an armature and latch pivotally mounted on said shell for controlling said shutter, a dependent lug having a rearward extension and forward extensions mounted on the rear of said magnet shell, a lever pivotally mounted on said forward extensions, and coöperating with said shutter to effect its restoration, jack springs mounted upon the rear extension of said dependent lug, and means connecting one of said jack springs with said lever.

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1,092,965. MIRROR. CARL W. WIEGAND, Los Angeles, Cal. Filed Apr. 1, 1912. Serial No. 687,565. (Cl. 45—18.)



1. A mirror provided with an inclosing frame, said frame having an elongated floor engaging edge; a bolt extending longitudinally through the side of the mirror opposite the floor engaging edge; a bail proportioned to embrace three sides of the mirror and to engage its opposite ends pivotally upon opposite ends of the bolt; and a clamping member carried by the bolt adapted to clamp both ends of the bail simultaneously in angularly adjusted position.

2. A mirror provided with an inclosing frame, said frame embodying opposite sides and ends, one of said sides being an elongated floor engaging side; a bolt extending longitudinally through the opposite side of the frame and extending beyond the end sections of the frame; a bail proportioned to embrace three sides of the frame and pivoted at its opposite ends upon the opposite ends of the bolt; and a clamping member carried by the bolt adapted to fix the bail in angularly adjusted position relative to the frame.

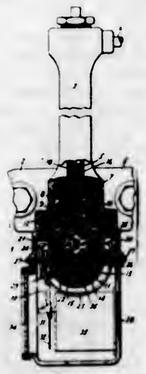
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1,092,966. RECORDING FLOW-METER. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 11, 1912. Serial No. 725,174. (Cl. 73—167.)

1. A fluid flow meter of the U-tube mercury type, having a non-magnetic receptacle for the mercury, a movable magnet having its poles adjacent to said receptacle, a tubular float of magnetic material riding on the mercury between the poles of said magnet, means restricting the opening through the tubular float whereby the mercury has greater freedom to rise and fall outside of said float

than inside thereof, and means for recording the movements of said magnet.

2. A fluid flow meter having a casing, a glass tube therein, a non-magnetic mercury receptacle suspended from said said casing, a tube communicating with said glass tube and depending into said receptacle, a tubular float of magnetic material riding on the mercury and encircling said depending tube, a movable U-magnet outside said receptacle having its poles in line with said float, and means for recording the movements of said magnet.



3. A fluid flow meter having a casing provided with a recess, a glass tube therein, communicating with said recess, a tube depending from said recess and having a downwardly-projecting neck, a mercury receptacle of non-magnetic material suspended from said casing and inclosing said tube, a tubular magnetic float riding on the mercury and encircling said depending tube, means defining a restricted passage between said float and said depending tube, a movable U-magnet underlying said receptacle and having its poles in line with said float, and means for recording the movements of said magnet.

4. A fluid flow meter having a casing provided with a recess, a glass tube therein, communicating with said recess, a tube depending from said recess and having a downwardly-projecting neck, a mercury receptacle of non-magnetic material suspended from said casing and inclosing said tube, a tubular magnetic float riding on the mercury and encircling said depending tube, an internal flange at the bottom of said float approaching said neck, a movable magnet outside said receptacle adapted to be influenced by the movements of said float, and means for recording the movements of said magnet.

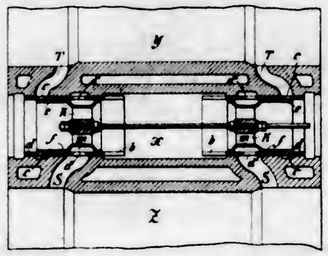
5. In an indicating device, a receptacle, a mass of mercury therein, an annular float riding on said mercury and an inwardly projecting flange on one edge of said float serving to restrict the opening therethrough, whereby an over-deflection of the mercury can occur along the outer surface of said float to exert a starting effect upon said float.

[Claim 6 not printed in the Gazette.]

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1,092,967. PISTON-VALVE FOR STEAM-ENGINES. RUDOLF WOLF, Magdeburg-Buckau, Germany. Filed May 16, 1912. Serial No. 697,657. (Cl. 121—34.)

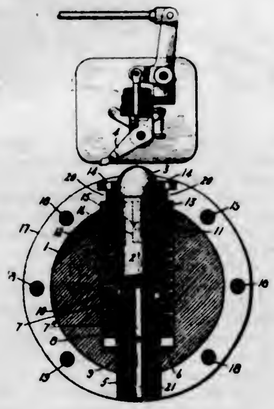
In combination, a high pressure cylinder, a low pressure cylinder, an intermediate cylindrical valve casing having ports communicating with the aforesaid cylinders, cylindrical linings fixed in said valve casing and having ports coinciding with the aforesaid ports, each of said linings being provided with supplemental ports *b*, and a valve consisting of two cylindrical members each being provided with main ports and also with the annular supplemental ports adapted to put said supplemental ports in the lining into communication with the inlet



ports in the low pressure cylinder at the same time the main port is in communication therewith.

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1,092,968. EMERGENCY-GOVERNOR. FRED W. BENTLEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 1, 1912. Serial No. 674,703. (Cl. 121—112.)



1. An emergency governor, comprising a rotary member having a diametrical recess therein, a centrifugally movable plunger housed in said recess and provided with a shoulder, a nut in engagement with said plunger, a spring encircling said plunger and abutting said nut, a second nut encircling said plunger, a sleeve fitting said plunger and rotatable thereon in operative relation with said second nut for the purpose of adjusting said spring, and means for retaining said sleeve in said recess.

2. An emergency governor, comprising a rotary member having a diametrical recess therein, a centrifugally movable plunger housed in said recess and provided with a shoulder, a nut in engagement with said plunger, a spring encircling said plunger and abutting said nut, a second nut encircling said plunger, a sleeve rotatable on said plunger in operative relation with said second nut and adapted to adjust the tension of said spring, and rings on said member engaging with said sleeve and retaining it in said recess.

3. An emergency governor, comprising a rotary member having a diametrical recess therein, a centrifugally movable plunger housed in said recess and provided with a shoulder, a nut in engagement with said plunger, a spring abutting said nut and located at or near the middle of said recess, a sleeve having external screwthreads and rotatable on said plunger, a nut meshing with said screwthreads and abutting one end of said spring, and means for retaining said sleeve in said recess.

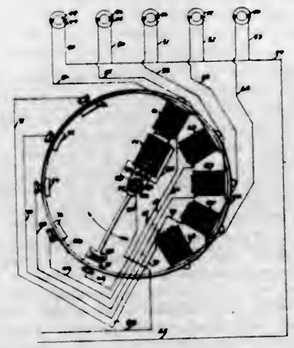
4. An emergency governor, comprising a rotary member having a diametrical recess therein, a centrifugally movable plunger housed in said recess and provided with a shoulder, a nut in engagement with said plunger, a spring encircling said plunger and abutting said nut, a nut engaging the other end of said spring, a screwthreaded sleeve rotatable on said plunger and meshing with said nut, said sleeve having a circumferential groove, and collars on said shaft having ribs engaging with said groove.

5. An emergency governor, comprising a rotary member having a diametrical recess therein, a bushing in one end of said recess, a plunger having one end guided by said bushing, a screwthreaded sleeve surrounding the other end of said plunger and rotatable thereon, a nut screwed upon the inner end of said plunger, a nut meshing with the screwthreads on said sleeve, a spring located between and abutting said nuts, a pin on the sleeve-engaging nut, a longitudinal groove in the wall of said recess to cooperate with said pin, a circumferential groove in said sleeve, and rings on said shaft having ribs fitting said circumferential groove.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,969. AUTOMATIC ELECTROMAGNETIC SWITCH. CURTIS BENTON, San Francisco, Cal. Filed June 12, 1912. Serial No. 703,294. (Cl. 175—279.)



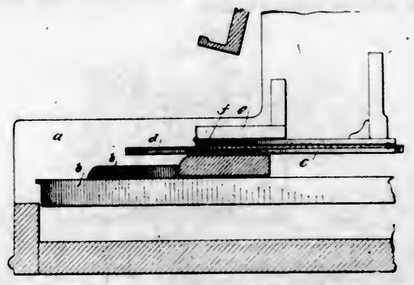
An automatic switch for opening and closing electric circuits alternately, in combination with electric lights, comprising a plurality of magnet windings radially mounted along the inner side of a circular frame, a corresponding number of contacts secured also within said circular frame and at positions diametrically opposite said magnetic windings, a revoluble arm centrally mounted within the frame, said arm being provided at one end with a magnet winding and at the other with a contact, a plurality of lights each electrically connected with said magnets and contacts, and a main source of current connected to said revoluble arm and said lights, substantially as described.

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1,092,970. PIANO FALL-BOARD. WILLIAM L. BJUR, New York, N. Y. Filed Jan. 8, 1913. Serial No. 740,820. (Cl. 84—119.)

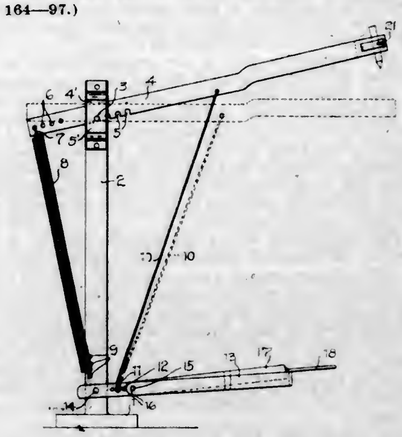
1. A piano case having a sliding fall board with grooves in the ends thereof, rails received in the grooves in the ends of the board and adjustable runners set in the ends of the fall board at the bases of the grooves to engage the rails for the purpose specified.

2. A piano case having a sliding fall board with grooves in the ends thereof, rails received in the grooves in the ends of the board and screws constituting adjustable runners set in the ends of the fall board at the bases of the grooves to engage the rails for the purpose specified.



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1,092,971. TOOL-HOLDER. PETER A. BURLOG, Upham, N. D. Filed Apr. 9, 1913. Serial No. 760,053. (Cl. 164—97.)



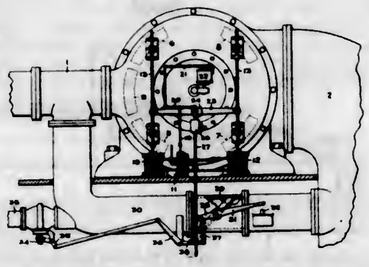
A tool holder including a base, an upright standard mounted thereon, an arm adjustably mounted for pivotal movement upon the upper end of the standard, and normally disposed at an angle with respect to the standard, a coil spring having one end secured to the inner end of said arm and its other end secured to the standard to retain said arm in its normal position, a loop having its end portions arranged upon opposite sides of the standard and pivotally secured thereto, a rod having one of its ends removably engaged with the arm and its other end secured between the end portions of the loop, an actuating lever having one end loosely secured to the ends of said loop and its other end extending beyond the intermediate portion of the loop whereby downward pressure upon the outer end of said lever will actuate the arm.

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1,092,972. GOVERNING LOW-PRESSURE TURBINES. JOHN G. CALLAN, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 4, 1912. Serial No. 734,860. (Cl. 121—118.)

1. The combination with a low pressure turbine connected to receive the exhaust from a high pressure engine, of a source of steam supply connected to said low pressure turbine, a valve controlling said source, valve means for varying the area of admission to said low pressure turbine, a speed governor, and means controlled by said gov-

ernor to first operate said valve means to decrease the effective area of admission upon a decrease of speed, and to then operate said valve to admit steam from said source to said low pressure turbine.



2. The combination with a low pressure turbine connected to receive the exhaust from a high pressure engine, of valve means for varying the area of admission to said low pressure turbine, a normally closed by-pass around said turbine, a speed governor, and means controlled by said governor to first operate said valve means to increase the effective area of admission upon an increase of speed and to then open said by-pass.

3. The combination with a low-pressure turbine, of a connection for supplying steam thereto from the exhaust of a high pressure engine, valve means for varying the area of admission to said low pressure turbine, a conduit joined to said connection for supplying steam thereto, a normally closed valve in said conduit, a speed governor, and means controlled by said governor to first operate said valve means to decrease the effective area of admission upon an increase in load and to then open said valve to admit steam to said connection.

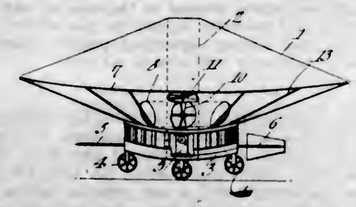
4. The combination with a low pressure turbine of a connection for supplying steam thereto from the exhaust of a high pressure engine, valve means for varying the area of admission to said low pressure turbine, a normally closed by-pass around said turbine, a speed governor, means controlled by said governor to operate said valve means to increase the effective area of admission upon an increase of speed, and further means controlled by said governor to temporarily open said by-pass upon a rapid operation of said valve means to increase the effective area of admission.

5. The combination with a low pressure turbine supplied with steam from a receiver connected with independently loaded engines, of a plurality of nozzle valves, a speed governor, and mechanism enabling said governor to close said valves in succession, as the speed drops, and vice versa.

[Claims 6 to 12 not printed in the Gazette.]

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1,092,973. AIRSHIP. ALBERT A. CALLICOTTE, North Yakima, Wash. Filed Apr. 22, 1913. Serial No. 762,894. (Cl. 244—10.)



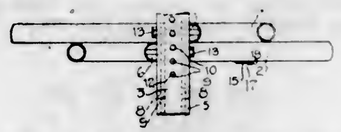
1. An air ship including a tubular post, a car connected thereto, a gas container secured about the post and fastened at its bottom upon the car, horizontally extending parallel tubes within the side portions of the gas container and close to the car, and propellers mounted for rotation within the tubes.

2. An air ship including a circular car, a tubular post extending upwardly from the center thereof, a circular gas container of greater diameter than the car and formed of oppositely disposed upper and lower substantially conical portions connected together at their margins, said container being secured about the post and being fastened at its bottom upon the car, and horizontally extending parallel tubes within the side portions of the gas container and close to the car, and propellers mounted for rotation within the tubes.

3. An air ship including a circular car, a tubular post extending upwardly from the center thereof, a circular gas container of greater diameter than the car and formed of oppositely disposed upper and lower substantially conical portions connected together at their margins, said container being secured about the post and being fastened at its bottom upon the car, horizontally extending parallel tubes within the side portions of the gas container and close to the car, propellers mounted for rotation within the tubes, and a propeller mounted for rotation within the post.

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1,092,974. SAWBUCK. MINTA M. CALLISON, Dewitt, Ill. Filed July 21, 1913. Serial No. 780,351. (Cl. 143—91.)



1. A device of the character described comprising spaced pairs of crossed legs, said legs having recesses formed therein above their crossing points, said legs also having openings therein registering with said recesses, a telescoping cross bar arranged in said recesses at its opposite ends, said cross bar being formed with longitudinal slots, and means disposed through the openings in said legs and through the slots in said cross bar to maintain the several sections in their respective positions.

2. A device of the character described comprising spaced pairs of crossed legs, each of said legs having a recess formed therein above the point of crossing of said legs, each of said legs also having an opening formed therein registering with said recesses, a cross bar comprising a pair of telescoping tubular sections, each of said sections having a pair of diametrically opposite longitudinal slots therein, said cross bar being arranged at its opposite ends within the recesses in said legs, and bolts disposed through the openings in said legs and through the slots in the sections of said cross bar.

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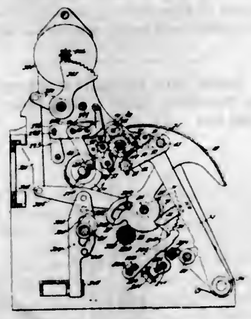
1,092,975. CASH-REGISTER. THOMAS CARROLL, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (Incorporated in 1906.) Filed Feb. 5, 1907. Serial No. 355,924. (Cl. 235—2.)

1. In a registering mechanism, the combination with a computing device, operating means therefor, a controlling device for said operating means, means for adjusting said controlling device normally connected thereto, and separate mechanisms for disconnecting the controlling device from the adjusting means and for connecting it with the operating means.

2. In a registering mechanism, the combination with a computing device, operating means therefor, a controlling device for said operating means, means for adjusting said controlling device normally connected thereto, and mechanism for disconnecting the controlling device from the adjusting means and connecting it with the operating means and thereafter independently returning the controlling device and the adjusting means to normal position.



3. In a registering mechanism, the combination with a computing device, and an operating gear for same, of additional gears beside said operating gear, manipulative devices for adjusting said additional gears differentially, means for disconnecting said additional gears and connecting said operating gear to one of the same, means for restoring the gear connected to the operating gear to normal position, thereby actuating said computing device and means for thereafter independently restoring said manipulative devices also to normal position.



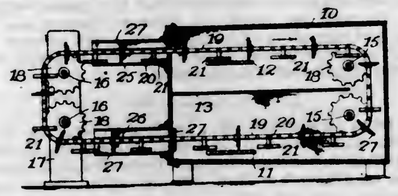
4. In a registering mechanism, the combination with a computing device and an operating device connected to same, controlling and positioning devices for same, separate means for connecting said controlling and positioning devices and said operating and controlling devices, for movement in opposite directions, and means for successively operating said connecting means.

5. In a registering mechanism, the combination with a computing device, of operating mechanism for same, controlling and positioning devices for said operating mechanism, separate means for successively connecting said controlling and positioning devices and said operating and controlling devices for movement in reverse directions, manipulative devices for moving said positioning devices in one direction and means for moving said controlling devices in the opposite direction to operate said computing device.

[Claims 6 to 62 not printed in the Gazette.]

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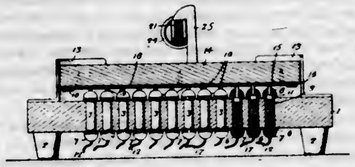
1,092,976. YARN-CONDITIONING MACHINE. OSBORN H. CILLEY, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed Mar. 24, 1913. Serial No. 756,401. (Cl. 28—7.)



A yarn conditioning machine having in combination a moistening chamber having projecting tubular inlet and outlet members, an endless conveyer supported and actuated to pass in through the inlet member and out through the outlet member, a plurality of depending carriers pivotally connected to said conveyer and adapted to support boxes of filling yarn, and a baffle plate secured to said conveyer between each two carriers and extending substantially equal distances above and below said conveyer when in operative position, said plates closely fitting said tubular members and providing clearance for the suspended carrier when on either side of the conveyer.

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1,092,977. PRINTING-CONTROLLED ELECTRIC SIGN. MICHEL COMPOS, Mobile, Ala. Filed Aug. 16, 1911. Serial No. 644,348. (Cl. 177—349.)



1. In a device of the character stated, a circuit-selector comprising a body piece, removable caps therefor, a spring actuated member in said body piece and having one end projecting through one of said caps, a controlling plate and a card of insulating material removably supported on said plate and having perforations some of which are adapted to receive some of said circuit-selectors.

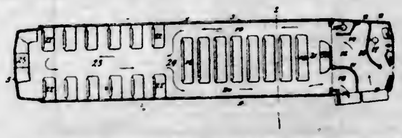
2. In a device of the character described, a circuit-selector comprising a body piece, removable caps therefor, and a spring-actuated member in said body piece and having one end projecting through one of said caps, combined with a controlling plate, a support therefor having guides, an insulating strip and a card of insulating material removably held in said guides and having perforations, some of which are adapted to receive some of said circuit-selectors.

3. In a device of the character described, a board provided with a multiplicity of circuit-selectors with spring-actuated contact members, a controlling plate comprising a base, a metallic plate thereon having its edges turned to form guides, an insulating strip at one end of said guides, a perforated member of insulating material held in said guides, vertical members carried by said board and serving as guides for said plate and holding the latter against lateral and longitudinal shifting, a lever pivoted at one end on said board and extending longitudinally thereof, and means for holding the opposite end in its lowermost position.

4. In a device of the character described, a board provided with a multiplicity of circuit-selectors with spring-actuated contact members, a controlling plate comprising a base, a metallic plate thereon having its edges turned to form guides, an insulating strip at one end of said guides, a perforated member of insulating material held in said guides, vertical members carried by said board and serving as guides for said plate and holding the latter against lateral and longitudinal shifting, a lever pivoted at one end on said board and extending longitudinally thereof, means for holding the opposite end in its lowermost position, and a spring carried by the underside of said lever and extending in the direction of the length thereof and bearing at its ends against said plate to equalize the pressure thereof on the said circuit-selectors.

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1,092,978. STREET-CAR. CHARLES F. DAMM, Buffalo, N. Y. Filed Feb. 3, 1913. Serial No. 745,781. (Cl. 105—205.)



1. A street car comprising a passenger's compartment, a plurality of transverse seats arranged in a row lengthwise of the central part of said compartment and terminating at their opposite ends short of both side walls of the car so as to form two longitudinal aisles between opposite sides of said row of seats and the respective side walls and a vestibule having an entrance passageway leading to one of said aisles and an exit passageway leading from the other aisle.

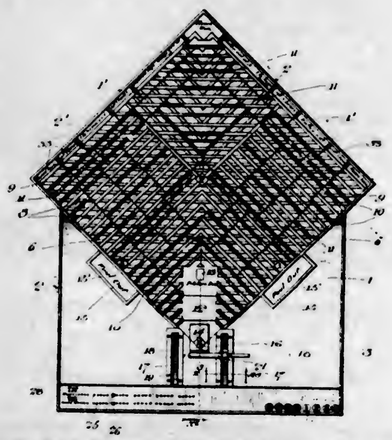
2. A street car comprising a passenger's compartment, a plurality of transverse central seats arranged in a row lengthwise in the front part of said compartment and separated at their opposite ends by two longitudinal aisles from the adjacent side walls of the car and two rows of transverse side seats arranged with their outer ends next to the side walls of the rear part of the car while their opposing inner ends are separated by an intervening aisle extending lengthwise of the central rear part of said compartment.

3. A street car comprising a passenger's compartment, a plurality of transverse central seats arranged in a row lengthwise in the front part of said compartment and separated at their opposite ends by two longitudinal aisles from the adjacent side walls of the car, two rows of transverse side seats arranged with their outer ends next to the side walls of the rear part of the car while their opposing inner ends are separated by an intervening aisle extending lengthwise of the central rear part of said compartment and said compartment being provided with a transverse aisle between the central front seats and the rear side seats and communicating at its opposite ends with the front side aisles and at its center with the central rear aisle.

4. A street car comprising a passenger's compartment, a plurality of transverse central seats arranged in a row lengthwise in the front part of said compartment and separated at their opposite ends by two longitudinal aisles from the adjacent side walls of the car, two rows of transverse side seats arranged with their outer ends next to the side walls of the rear part of the car while their opposing inner ends are separated by an intervening aisle extending lengthwise of the central rear part of said compartment and said compartment being provided with a transverse aisle between the central front seats and the rear side seats and communicating at its opposite ends with the front side aisles and at its center with the central rear aisle, and a vestibule provided with an entrance passageway leading to the front end of one of said front side aisles and an exit passageway leading from the front end of the other front side aisle.

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1,092,979. BASE-BALL-GAME BOARD. BENJAMIN F. DENGLER, Los Angeles, Cal. Filed Apr. 21, 1913. Serial No. 762,726. (Cl. 46—61.)



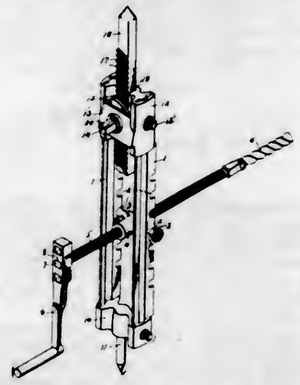
1. A base ball game board provided with marks indicating home plate and bases and pitcher's box, with a field portion including said marks, and a bat movably mounted adjacent the home plate, said board being provided with a guideway and said bat being provided with a post slidably and rotatably mounted in said guideway.

2. A base ball game board provided with marks indicating home plate and bases and pitcher's box, with a field portion including said marks, and a bat movably mounted adjacent the home plate, said field portion of the board being provided with obstructing strips crossing one another to form a net work with depressions between said strips for retarding the movement of the balls over the field.

3. A base ball game board provided with marks indicating home plate and bases and pitcher's box, with a field portion including said marks, and a bat movably mounted adjacent the home plate, said field portion of the board being provided with obstructing strips extending across the field forming, between said strips, depressions for receiving the ball and obstructing its motion over the board, and marks dividing said field portion into zones.

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1,092,980. POST FOR DRILLING-MACHINES. ABDON F. DEGUY, Pittsburg, Kans. Filed Mar. 23, 1912. Serial No. 685,760. (Cl. 255—53.)

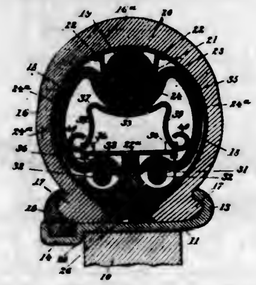


An extensible post for drilling machines, comprising a pair of spaced longitudinal bars for supporting a drill bar, means carried by the lower ends of said spaced bars for pivotally engaging the floor of a tunnel, a block adjustably carried by the upper ends of said spaced bars, said block being provided with two vertically spaced cross bars bridging the space between said longitudinal bars, one of said cross bars having a rectangular opening and the other cross bar having a U-shaped passage in alinement with said opening, means for pivotally engaging the roof of a tunnel and having a ratchet shank portion operating between said longitudinal bars and through said opening and passage of said cross bars, said block being also provided with a bridge portion across the space between said cross bars and on the opposite side of said shank portion from the cross bar having the U-shaped passage, and a scroll gear carried by said bridge portion and adapted to engage and operate said shank portion for adjusting the position of said roof-engaging means.

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1,092,981. VEHICLE-TIRE. CHARLES H. DE VOLL, New York, N. Y., assignor, by mesne assignments, to The American Spring Tire Company, Dover, Del., a Corporation of Delaware. Filed July 31, 1911. Serial No. 641,412. (Cl. 152—8.)

1. A vehicle tire comprising a flexible casing, an annular member arranged upon the inner side of said casing, a series of resilient members arranged within said casing and conformed thereto and to the annular member arranged therein, retaining means arranged at the inner side of said casing adapted to receive and yieldingly retain the ends of said resilient members, securing means extending through said wheel rim and engaging said retaining means whereby to maintain the ends of said resilient members within said retaining means, and resilient reinforcing members having their ends supported upon said retaining means and their intermediate portions engaging said resilient members below the annular member arranged within said casing, substantially as specified.



2. A vehicle tire comprising a flexible outer casing, a relatively thin lining arranged therein, an annular member disposed upon the inner side of said lining below the tread portion of said tire, an annular protecting section secured to said lining and inclosing said annular member, a series of resilient members conformed to the interior of said casing and to said annular member arranged therein, a series of retaining devices, rollers mounted therein adapted to support yieldingly the ends of said resilient members, means for maintaining the ends of said resilient members in position upon said rollers, means for securing said retaining devices in position within said casing and to a wheel rim, and resilient reinforcing members having their ends supported upon said retaining devices, and their intermediate portions bowed and adapted to resist the inward movement of the resilient members first-named, substantially as specified.

3. A vehicle tire comprising a flexible outer casing, a relatively thin lining arranged therein, an annular member disposed upon the inner side of said lining below the tread portion of said tire, an annular protecting section secured to said lining and inclosing said annular member, an annular resilient member arranged within said casing and conformed partly to said casing and partly to said annular member arranged therein, an annular tapering support adapted for securement to a wheel rim, a series of retaining devices mounted upon said annular tapering support, rollers mounted in said retaining devices adapted to support yieldingly the ends of said resilient members; segmental cover plates for said retaining devices, lugs arranged upon said segmental cover plates, resilient reinforcing members having their ends supported upon said segmental cover plates intermediate said lugs, and their intermediate portions bowed and adapted to resist the inward movement of the resilient members first-named, substantially as specified.

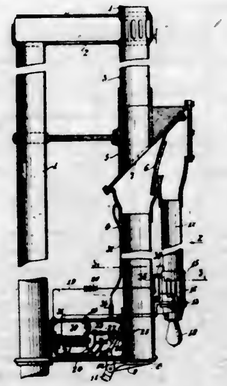
4. A vehicle tire comprising a flexible outer casing, a relatively thin lining arranged therein, an annular member disposed upon the inner side of said lining below the tread portion of said tire, an annular protecting section secured to said lining and inclosing said annular member, an annular resilient member arranged within said casing and conformed partly to said casing and partly to said annular member arranged therein, an annular tapering support adapted for securement to a wheel rim, a series of retaining devices mounted upon said annular tapering support, rollers mounted in said retaining devices adapted to support yieldingly the ends of said resilient members, segmental cover plates for said retaining devices, means for securing said cover plates to said retaining devices, lugs arranged along the opposite edges of said segmental cover plates, resilient reinforcing members having their ends supported upon said segmental cover plates intermediate said lugs, and their intermediate portions bowed and adapted to resist the inward movement of the resilient members first-named, substantially as specified.

5. A vehicle tire comprising a flexible outer casing, a relatively thin lining arranged therein, an annular member disposed upon the inner side of said lining below the tread portion of said tire, an annular protecting section secured to said lining and inclosing said annular member, an annular resilient member arranged within said casing and conformed partly to said casing and to said annular member arranged therein, an annular tapering support adapted for securement to a wheel rim, a series of retaining devices mounted upon said annular tapering support, pockets arranged in opposite sides of said retaining devices adapted to support the ends of said resilient members, segmental cover plates for said retaining devices, means for securing said cover plates to said retaining devices, a series of spacing lugs arranged along each longitudinal edge of said cover plates, resilient reinforcing members having their ends supported upon said segmental cover plates intermediate said lugs, and their intermediate portions bowed and adapted to resist the inward movement of the resilient members first-named, substantially as specified.

[Claim 6 not printed in the Gazette.]

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1,092,982. PNEUMATIC TRANSMISSION SYSTEM. FERNAND E. D'HUMY, Englewood, N. J., assignor to The Western Union Telegraph Company, a Corporation of New York. Filed Mar. 25, 1912. Serial No. 685,908. (Cl. 243—23.)



1. In a pneumatic transmission system of the exhaust type, the combination of a main tube; a receiving pocket connecting with the main tube and normally containing substantially the same working pressure as the main tube and designed to closely fit the carrier to provide for forming in said pocket an air cushion stop designed and adapted to bring the carrier to a complete stop within the pocket, said pocket having a valved discharge opening for the carrier; a check valve between the pocket and the main tube; and a valve controlled by the attendant for opening the pocket to atmospheric pressure to discharge the carrier.

2. In a pneumatic transmission system of the exhaust type, the combination of a main tube; a receiving pocket connecting with the main tube and normally containing substantially the same working pressure as the main tube and designed to closely fit the carrier to provide for forming in said pocket an air cushion stop within the pocket, said pocket having a valved discharge opening for the carrier; a check valve between the pocket and the main tube, said valve having provisions for leakage therethrough in closed position to equalize the pressure on both sides of the valve; and a valve controlled by the attendant for opening the pocket to atmospheric pressure to discharge the carrier.

3. In a pneumatic transmission system, the combination of a main tube; a receiving pocket connecting with the main tube and designed to closely fit the carrier to provide

for forming in said pocket an air-cushion stop for the carrier; a relief valve to admit pressure behind the stopping place of the carrier; and a signal to denote the arrival of the carrier controlled by the air pressure in said pocket and by said relief valve.

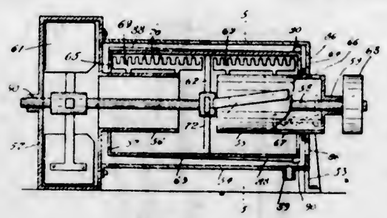
4. In a pneumatic transmission system, the combination of a main tube; a receiving pocket connecting with the main tube and designed to closely fit the carrier to provide for forming in said pocket an air cushion stop for the carrier; a signal circuit and signal to denote the arrival of the carrier; and a circuit closer in said circuit controlled by the air pressure in the receiving pocket.

5. In a pneumatic transmission system, the combination of a main tube; a receiving pocket connecting with the main tube and designed to closely fit the carrier to provide for forming in said pocket an air-cushion stop for the carrier; a signal circuit and signal to denote the arrival of the carrier; a circuit closer in said circuit; and a valve controlling a port near the outer end of the receiving pocket and also controlling said circuit closer.

[Claims 6 and 7 not printed in the Gazette.]

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1,092,983. MACHINE FOR DELINTING COTTON-SEED. KENNEDY DOUGAN, Minneapolis, Minn. Filed Dec. 26, 1911. Serial No. 667,942. (Cl. 13—10.)



1. A machine for delinting cotton seed comprising a container, means for continuously introducing cotton seed within the container, means for rotating the container at high speed whereby centrifugal force will compact said seed against the interior wall of the container into a dense sheet, and a fixed member extending into the path of the moving sheet for causing relative contacting movement of the individual seeds composing the sheet.

2. A machine for delinting cotton seed comprising a container, means for introducing cotton seed within the container, means for rotating the container at high speed whereby centrifugal force will compact said seed against the interior wall of the container into a dense sheet, and a plurality of pins or arms extending in fixed relation radially into the path of said sheet.

3. A machine for delinting cotton seed comprising a container, means for introducing cotton seed within the container, means for rotating the container at high speed whereby centrifugal force will compact said seed against the interior wall of the container into a dense sheet, a plurality of pins or arms extending radially into the path of said sheet, and means periodically to withdraw said pins from and return them to position to contact with said sheet.

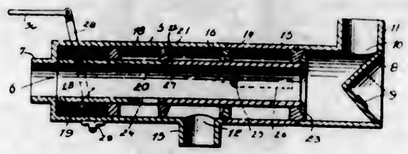
4. A machine for delinting cotton seed comprising a container, means for introducing cotton seed within the container, means for rotating the container at high speed whereby centrifugal force will compact said seed against the interior wall of the container into a dense sheet, means engageable with said sheet in a relatively fixed position for causing relative contacting movement of the individual seeds, and means periodically to withdraw said means from and return the same to engaging position.

5. A machine for delinting cotton seed comprising a container, means for introducing cotton seed within the container, means for rotating the container at high speed whereby centrifugal force will compact said seed against the interior wall of the container into a dense sheet, and a baffle plate arranged in the path of said sheet so as to divide the same and cause relative contacting movement of the individual seeds.

[Claims 6 to 23 not printed in the Gazette.]

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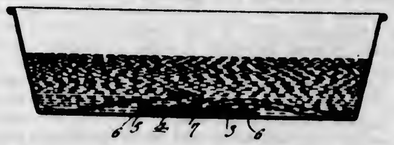
1,092,984. VALVE. GUY L. EWALT, Sykes, Mont. Filed Mar. 11, 1913. Serial No. 753,619. (Cl. 137—26.)



A valve comprising a sectional cylindrical casing, said casing provided with an intake port, and an outlet port adjacent one end of said casing, and a second outlet port intermediate the ends of the casing, flanges surrounding said ports, a conical-shaped cap secured to one end of said casing and extending inwardly, adjacent one of the outlet ports, a plurality of guide rings provided with screw threads on their outer surfaces intermediate of the outlet ports securing the sections of the casing together, said guide rings having faces inclined toward the longitudinal center of the casing, a tubular member mounted in said rings and adapted to slide therein, and to abut against said conical-shaped cap, means for operating said tube, said tube provided with an aperture intermediate its ends, frusto-conical flanges secured to the tube and adapted to abut against said inclined faces of the guide rings whereby movement of the tubular member may open or close either outlet port.

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1,092,985. APPLIANCE FOR CLEANING TARNISHED METALS. HENRY MILTON FETTERS, Laporte, Ind. Filed Dec. 18, 1912. Serial No. 737,579. (Cl. 204—7.)



1. An appliance for cleaning tarnished metal articles comprising peripherally attached electropositive plates, and an electropositive filling therebetween.

2. An appliance for cleaning tarnished metal articles, comprising a pair of electropositive plates, the periphery of one being flanged over the periphery of the other, and an electropositive filling between the plates.

3. An appliance for cleaning tarnished metal articles, comprising peripherally attached electropositive plates, and an electropositive filling therebetween, one of the plates being dished so as to seat on the bottom of a vessel to space the peripheries of the plates thereabove.

4. An appliance for cleaning tarnished metal articles, comprising a pair of superposed electropositive plates, the marginal portion of the upper plate being flanged over the margin of the lower plate, the lower plate being dished to seat on the bottom of a vessel so as to space the margins of the plates thereabove, and an electropositive filling between the plates.

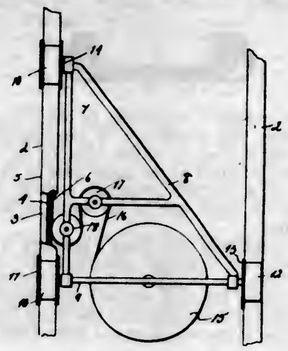
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1,092,986. MEANS FOR INDICATING BROKEN RAILS. JOSEPH H. GARTSIDE, Philadelphia, Pa. Filed Mar. 5, 1912. Serial No. 681,678. (Cl. 246—13.)

1. In combination with the rails of a railway track, stripe of paper attached to said rails throughout their lengths.



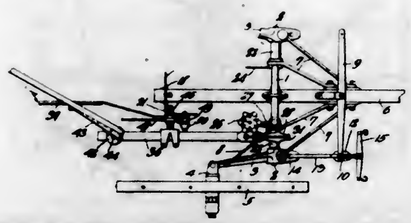
2. In combination with the rails of a railway track, stripe of fragile material pasted to the webs of said rails



throughout approximately their lengths, whereby a fracture in any of the rails will be visible to casual inspection.

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1,092,987. CULTIVATOR. MAX P. GERBING, Wentworth, Mo. Filed Apr. 4, 1912. Serial No. 688,421. (Cl. 97—35.)



In a cultivator the combination with an arched axle including a spindle, and a beam supported by the axle, of a rearwardly extending beam, a clevis secured thereto, a sleeve mounted for rotation on the spindle and having a front engaging face formed with longitudinal projections, said clevis straddling the sleeve and having means for engaging the projections, means engaging the sleeve and clevis for holding said yoke against movement relative to the sleeve, a clamp engaging the outer end portion of the spindle and constituting means for holding the sleeve against displacement relative to the spindle, a crank arm integral with and extending rearwardly from the clamp for engaging a supporting wheel, a connection between the clamp and the first named beam for reinforcing the clamp, a draft lever, and a connection between said lever and the clamp, said connection being extended substantially in the same plane with the arm.

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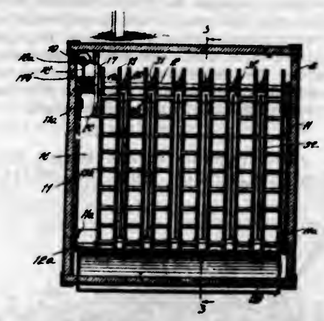
1,092,988. VENDING-MACHINE. SIDNEY C. GILBERT, Newbern, N. C. Filed Apr. 8, 1913. Serial No. 759,623. (Cl. 211—8.)

1. A vending machine, comprising a series of units each having a driven element and a merchandise carrier actuated thereby, means on the units to actuate one by another after a predetermined movement of a unit, and a drive means for the units.

2. A vending machine, comprising a series of units each having a driven element and a merchandise carrier actuated thereby, means on the units to engage and actuate one by another after a predetermined movement of a unit, and a step-by-step drive for the units.

3. A vending machine having a series of units, and a drive therefor, said units having devices by which one unit will engage and actuate another after it has discharged its mechandise.

4. A vending machine having a series of units, a drive therefor, said units having devices by which one unit will engage and actuate another, and means for holding said engaging devices in engagement.

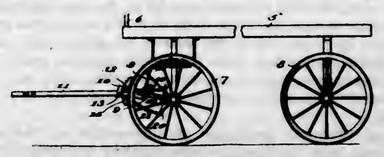


5. A vending machine comprising a drive, a series of units each having a rotary driven element and a traveling merchandise-carrier actuated by said driven element, and devices on the said rotary driven elements to establish actuating engagement of one unit with another after one has discharged its merchandise.

[Claims 6 to 14 not printed in the Gazette.]

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1,092,989. BRAKE ATTACHMENT FOR TRUCKS. FREDERICK A. GRIMM, Salisbury, Md. Filed Feb. 7, 1913. Serial No. 746,944. (Cl. 21—8.)



1. In a wheeled truck, the combination with the front wheels having a draft tongue pivotally associated therewith and movable upwardly and downwardly, of a rigid brake beam loosely supported adjacent to the rear portion of the tongue and having brake shoes on the ends thereof to engage the front wheels of the truck, means for forcing the brake beam into a normally forward position, flexible devices attached to the brake beam on opposite sides of the center of the latter, bell-crank levers supported by the front running gear of the truck and having upper short arms and lower longer arms, the said flexible devices being attached to the upper short arms of the bell-crank levers, and flexible means attached to the lower longer arms of the bell-crank levers and to the rear end of the tongue.

2. In a wheeled truck, the combination with the front wheels and axle, of a frame rigidly secured to the axle, a tongue pivoted to said frame, a rigid brake beam loosely supported by said frame near the pivoted portion of the tongue and having brake shoes at opposite extremities to engage the front wheels of the truck, flexible means connected to the tongue at opposite sides of the center of the brake beam and also to the axle and operated by the movement of the tongue for applying the brake shoes to the front wheels of the truck, and means disposed in the frame for restoring the brake beam and shoes when released to normal position.

3. In a baggage truck having wheels, the combination with the front wheels and axle of the truck and a pivoted draft tongue associated with the front wheels, of a rigid brake beam mounted adjacent to said pivoted tongue and having brake shoes at opposite ends to engage the said front wheels, and flexible devices and levers respectively connected to the axle and different portions of the draft tongue and operated by the movement of the tongue to apply the shoes to the front wheels of the truck.

4. In a truck having wheels, the combination with the front axle and wheels and a tongue pivotally attached to said axle, of a rigid brake beam loosely supported adjacent to the rear portion of the tongue and having brake shoes at opposite ends to engage the front wheels of the truck, means for moving the brake beam into forward normal position when released, levers attached to the axle, and chains connected to the levers and different portions of the brake beam and the tongue and operated by the latter to draw the said brake beam in a rearward direction and apply the shoes to the front wheels of the truck.

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1,092,990. CULTIVATOR. JOSEPH HECHT, Riverside, Cal. Filed Mar. 7, 1912. Serial No. 682,118. (Cl. 97—34.)



1. A cultivator including a supporting frame arranged at an inclination and extending downwardly and rearwardly, a centrally arranged caster wheel supporting the front of the frame, runners secured to the rear portion of the frame at opposite sides thereof, and a transverse tooth carrying beam located at the back of the supporting frame, and means connected with the tooth carrying beam and with the supporting frame and extending over the rear portion of the latter for raising and lowering the said beam.

2. A cultivator including an approximately U-shaped frame set at an inclination and extending downwardly and rearwardly and composed of spaced sides and a front transverse connecting portion, a caster wheel supporting the front portion of the frame, runners connected with the sides of the frame at the rear portions of the same, and cultivating devices carried by the frame and operating in rear thereof.

3. A cultivator including an open frame set at an inclination and composed of spaced sides and a transverse connecting portion, a caster wheel supporting the front of the frame, runners supporting the rear of the frame and secured to the side thereof, cultivating devices carried by the frame, and flexible connections extending along the sides of the frame and connected at their rear ends to the same and provided at their front ends with means for connecting them to a whiffletree.

4. A cultivator including an open frame set at an inclination and composed of spaced sides and a transverse connecting portion, means for supporting the frame at the front and rear of the same, cultivating devices carried by the frame, plates secured to the frame at opposite sides thereof and provided with hooks, and side chains adjustably connected at their rear ends to the said hooks and provided at their front ends with means for connecting them to a whiffletree.

5. A cultivator including an approximately U-shaped frame set at an inclination and composed of spaced sides and a connecting front portion and provided with exteriorly projecting longitudinal flanges, means for supporting the frame at the front and rear thereof, cultivating devices carried by the frame, and side chains arranged at the front portion of the frame and extending along and supported by the longitudinal flanges and secured at their rear ends to the frame and provided at their front ends with means for connecting them to a whiffletree.

[Claims 6 to 16 not printed in the Gazette.]

1,092,991. ASH-RECEPTACLE. OTTO L. HEINTZ, Buffalo, N. Y. Filed June 17, 1912. Serial No. 704,062. (Cl. 131—51.)



1. An ash receptacle comprising an outer tray, and an inner separable tray adapted to be arranged within the outer tray and having its bottom close to the bottom of the latter and provided at the upper edge of its flange or side wall with a laterally projecting annular rim which extends over the upper edge of the flange or side wall of the outer tray.

2. An ash receptacle comprising a plurality of separable trays of different diameters adapted to be nested one within another, the innermost tray having its bottom arranged close to the next adjacent tray being provided with a laterally projecting annular rim which extends over the upper edges of the outermost and intermediate trays.

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1,092,992. JUVENILE CART. THEODORE B. HEMAN, Chicago, Ill. Filed Mar. 1, 1912. Serial No. 680,858. (Cl. 21—12.)

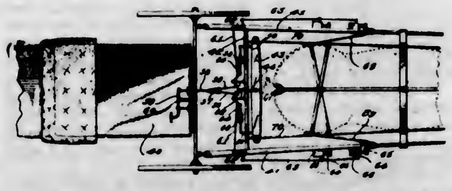


1. In a device of the class described, an axle and coöperating wheels, in combination with a bracket mounted on said axle, a body fixed to said bracket, a strap having one end secured to said body and extending diagonally downwardly and rearwardly with relation to said body and rebent to form a forwardly extending arm, a handle bar attached to the lower free end of said strap and said handle bar and strap being unattached to said axle.

2. In a device of the class described, an axle and coöperating wheels in combination with a bracket mounted on said axle, a body fixed to said bracket, a strap having one end secured to said body and extending diagonally downwardly and rearwardly with relation to said body and rebent to form a forwardly extending arm, a handle bar attached to the free forward end of said forwardly extending arm, said strap being unattached to the axle and said handle bar being unattached to either the axle or the body.

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1,092,993. HORSE-RELEASER. HENRY HOLUB, Louise, Tex. Filed Feb. 15, 1913. Serial No. 748,657. (Cl. 21—75.)

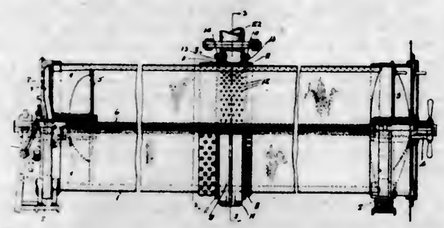


A device of the class described comprising a pair of shafts, a connecting bar for said shafts, bell crank levers connected with said shafts, a swingle-tree connected with said connecting bar, brackets carried by said bar, bell-crank levers pivotally connected upon said brackets, back-strap engaging pins slidably connected with said shafts, lines connecting said back-strap engaging pins with said bell-crank levers of said shafts, rods connecting said bell-crank levers of said shafts with the bell-crank levers of said connecting bar, said swingle-tree provided with an elongated socket at each end thereof, said socket terminating in a reduced pin receiving socket at one end, said swingle-tree also provided with a notch upon one side thereof communicating with said first mentioned socket, an angle pin working in said socket and provided with a projecting portion working in said slot, a coil spring positioned within said socket and wound upon said angle pin, said coil spring normally exerting an outward pressure upon said pin, rods engaging said angle pins, a spring carried by said rods, said spring connected to said bell-crank levers of said connecting bar, and means for operating said bell-crank levers of said connecting bar for moving said trace engaging pins and also moving said back-strap engaging pins.



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1,092,994. COMBINED HOP PRESS AND FILTER. ADOLPH GLASER HUPFEL, New York, N. Y. Filed Sept. 27, 1911. Serial No. 651,507. (Cl. 100—50.)



1. In apparatus of the class described, the combination with a rotatable receptacle, of connections for supplying to said receptacle the material to be operated upon, said connections including a pair of spaced flanges encircling said receptacle and rotatable therewith, the wall of said receptacle between said flanges having openings for the admission of the material thereto, a sleeve having lateral bearing between said flanges, and an exterior supply connection for said sleeve.

2. In apparatus of the class described, the combination with a rotatable receptacle, of connections for supplying to said receptacle the material to be operated upon, said connections including a pair of spaced flanges encircling said receptacle and rotatable therewith, the wall of said receptacle between said flanges having openings for the admission of the material thereto, a sleeve having lateral bearing between said flanges, an exterior supply connection for said sleeve, and rollers carried by said sleeve adapted to bear on the edges of said flanges.

3. In apparatus of the class described, the combination with a rotatable receptacle, of connections for supplying to said receptacle the material to be operated upon, said connections including a pair of spaced flanges encircling said receptacle and rotatable therewith, the wall of said receptacle between said flanges having openings for the admission of the material thereto, a sleeve having lateral bearing between said flanges, said sleeve being shiftable between said flanges transversely of said receptacle's axis, and an exterior supply connection for said sleeve.

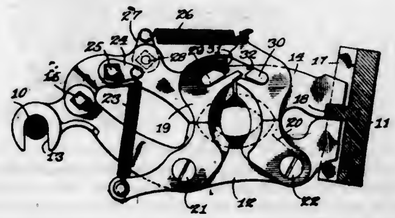
4. In apparatus of the class described, the combination with a rotatable receptacle, of connections for supplying to said receptacle the material to be operated upon, said connections including a pair of spaced flanges encircling said receptacle and rotatable therewith, the wall of said receptacle between said flanges having openings for the admission of the material thereto, a sleeve having lateral bearing between said flanges, said sleeve being shiftable between said receptacle's axis, an exterior supply connection for said sleeve, and rollers carried by said sleeve adapted to bear on the edges of said flanges.

5. In apparatus of the class described, the combination of a rotatable receptacle, of connections for supplying to said receptacle the material to be operated upon, said connections including a pair of spaced flanges encircling said receptacle, the wall of said receptacle between said flanges having openings for the admission of the material thereto, a sleeve inclosing the space between said flanges, an exterior supply connection for said sleeve, and means adapted to prevent the accumulation of material within said sleeve.

[Claims 6 to 9 not printed in the Gazette.]

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1,092,995. SCRAPER FOR GREEN-CORN-CUTTING MACHINES. JOHN M. C. JONES, Onarga, Ill. Filed Oct. 16, 1913. Serial No. 795,401. (Cl. 130—9.)



1. In a scraper for green corn cutting machines, the combination of a scraping blade, a pair of scraping blades pivotally mounted on said first-mentioned scraping blade opposite each other, and yielding means tending to hold said pair of scraping blades together.

2. In a scraper for green corn cutting machines, the combination of a scraping blade, a pair of oppositely disposed scraping blades positioned alongside of said first-mentioned scraping blade at an angle thereto, said second-named scraping blades being movable toward and from each other, and connections between said first-mentioned scraping blade and said second-named scraping blades whereby when said second-named scraping blades are forced apart said first-mentioned blade is moved longitudinally of said second-named scraping blades.

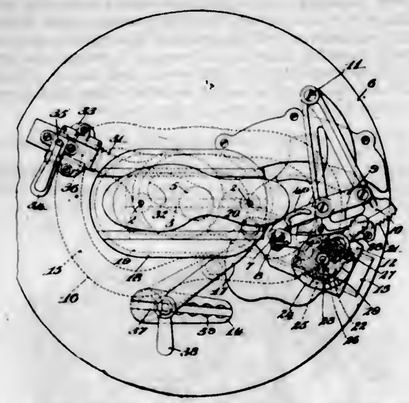
3. In a scraper for green corn cutting machines, the combination of a pair of oppositely disposed scraping blades movable toward and away from each other, a third scraping blade positioned alongside of said first-mentioned scraping blades at an angle thereto, and connections between one of said first-mentioned scraping blades and said third scraping blade whereby when said first-mentioned scraping blades are forced apart said third scraping blade is moved longitudinally of said first-mentioned scraping blades.

4. In a scraper for green corn cutting machines, the combination of a pair of oppositely disposed scraping blades movable toward and from each other, a second pair of oppositely disposed scraping blades positioned alongside of said first-mentioned scraping blades at an angle thereto, said second pair of scraping blades being also movable toward and from each other, and connections between said second-named scraping blades and one of said first-named scraping blades whereby when either pair of blades are forced apart the other pair of blades are at the same time forced apart.

5. In a scraper for green corn cutting machines, the combination of a scraping blade, a second scraping blade pivotally mounted thereon in alinement therewith, a pair of oppositely disposed scraping blades pivotally mounted on said first-mentioned blade at an angle thereto, and connections between said last-named scraping blades and said second scraping blade whereby when either pair of oppositely disposed blades are forced apart the other pair of scraping blades are also forced apart.

[Claims 6 to 10 not printed in the Gazette.]

1,092,996. SOLE-ROUNDING MACHINE. GIDEON JULIAN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 27, 1912. Serial No. 722,581. (Cl. 12—25.)



1. A sole rounding machine, having, in combination, a pattern and a rounding knife relatively movable to transfer the point of operation of the knife around the sole carried by the pattern, means for preliminarily adjusting the relative position of the pattern and knife, means for maintaining the pull upon the knife during the sole rounding operation substantially tangential to the curve of the pattern when the knife and pattern have been correctly preliminarily adjusted, and means for automatically causing the knife to leave the pattern when through an incorrect preliminary adjustment the pull on the knife is across the pattern, substantially as described.

2. A sole rounding machine, having, in combination, a pattern, a carrier, a rounding knife carried thereby, means for preliminarily adjusting the relative position of the pattern and knife and bringing the knife against the edge of the pattern, means for actuating the carrier to maintain the pull upon the knife substantially tangential to the curve of the pattern when the knife and pattern have been correctly preliminarily adjusted, and means for automatically withdrawing the knife from the edge of the pattern when through an incorrect preliminary adjustment the pull on the knife is across the pattern, substantially as described.

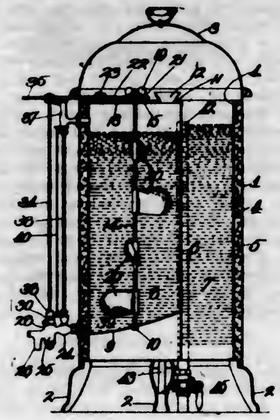
3. A sole rounding machine, having, in combination, a pattern, a carrier, a rounding knife carried thereby, means for preliminarily adjusting the relative position of the pattern and knife and bringing the knife against the edge of the pattern, means for actuating the carrier to maintain the thrust of the knife substantially tangential to the curve of the pattern when the knife and pattern have been correctly preliminarily adjusted, and a cam coöperating with the pattern for automatically withdrawing the knife from the edge of the pattern when through an incorrect preliminary adjustment the pull on the knife is across the pattern, substantially as described.

4. A sole rounding machine, having, in combination, a pattern, a rounding knife, means for adjusting the relative position of the knife and pattern in accordance with the size of the pattern, and means for indicating to the operative an incorrect relative adjustment of the knife and pattern, substantially as described.

5. A sole rounding machine, having, in combination, a pattern, a rounding knife, means permitting the manual manipulation of the knife to advance and withdraw the knife transversely of the pattern, into and out of operating position, and additional means operating automatically during the sole rounding operation for withdrawing the knife transversely of the pattern from its operating position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,092,997. DISPENSING-URN. HENRY D. KELLY, Kansas City, Mo. Filed Feb. 12, 1912. Serial No. 677,143. (Cl. 221—106.)

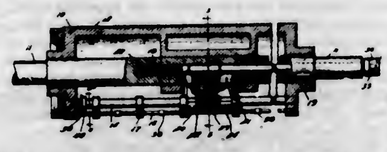


1. A dispensing urn provided with a faucet casing, having a receiving passage communicating with the interior of the urn, and a discharge opening exterior of the urn, a hollow valve plug provided with openings for communicating alternately with said receiving passage and discharge opening, said plug being movable about a vertical axis within said casing and provided with an axial opening in its upper end for maintaining constant communication between the interior of the plug and the outside air.

2. A dispensing urn having a faucet provided externally of the urn with a hollow valve plug mounted to rotate about a vertical axis, said valve plug having an axial opening in its upper end, a vertical tubular shaft connected to said valve plug in communication with said opening, said shaft being open at its upper end to provide constant access of air to the interior of said valve plug, a shaft extending vertically inside the urn and carrying agitating blades, and gear connections between said shafts whereby rotation of the valve plug operates the blade carrying shaft.

3. A dispensing urn having a faucet provided externally of the urn with a rotary valve plug, a shaft connected to said valve plug, a shaft extending through the urn and carrying agitating blades, and gear connections between said shafts whereby rotation of the valve plug rotates the blade carrying shaft.

1,092,998. PRINTING-PRESS. WILLIAM M. KELLY, New York, N. Y., assignor to American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 28, 1913. Serial No. 757,470. (Cl. 101—115.)



1. In a printing press, the combination of an impression cylinder, a gripper shaft carried thereby, an axially movable shaft, carried by the cylinder, a rack and screw operatively connecting said shafts whereby the gripper shaft is rocked by the axially movable shaft, and means for actuating said axially movable shaft.

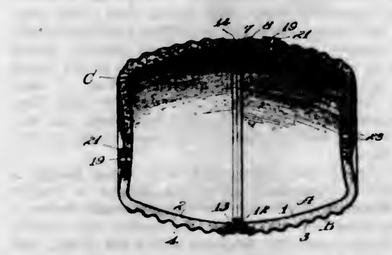
2. In a printing press, the combination of an impression cylinder, a gripper shaft carried thereby, an axially arranged shaft parallel with the gripper shaft and carried by the cylinder, a rack on said axially arranged shaft, a screw on the gripper shaft engaged by said rack and whereby the gripper shaft is rocked by axial movements of said axially arranged shaft, and means for reciprocating said axially arranged shaft.

3. In a printing press, the combination of a shaft, an impression cylinder thereon, a gripper shaft carried by said cylinder, an axially movable shaft in said first-mentioned shaft and projecting outwardly from one end thereof, spring means for moving said axially movable shaft in one direction, cam means for moving said axially movable shaft in opposition to said spring means, and coöperating cams on said gripper and axially movable shafts for rocking said gripper shaft by means of said axially movable shaft.

4. In a printing press, the combination of an impression cylinder, a gripper shaft carried thereby, a shoofly shaft carried by the cylinder and arranged parallel with the gripper shaft, means for rocking the gripper shaft in timed relation to the revolutions of the cylinder, a cam on the gripper shaft, an arm on the shoofly shaft having pivoted thereto a detent adapted to be engaged by said cam, when the gripper shaft is rocked in one direction, and rock the shoofly shaft, and means for rocking the shoofly shaft in the reverse direction before the end of said rocking movement of the gripper shaft, and said detent being adapted to permit the reverse rocking movement of the gripper shaft without rocking the shoofly shaft.



1,092,999. METALLIC KEG. WILLIAM R. KINNEAR, Detroit, Mich. Filed Apr. 23, 1912. Serial No. 692,630. (Cl. 220—3.)



1. A liquid container comprising an inner and an outer shell, each made in two pieces, means connecting the two pieces of each section and spacing the inner and outer shells apart, thereby forming a space between the inner and outer shells.

2. A liquid container comprising an inner and an outer shell, each made in two pieces, means connecting the two pieces of each section and spacing the inner and outer shells apart, thereby forming a space between the inner and outer shells, and a liquid shock absorber confined in the space between the inner and outer shells.

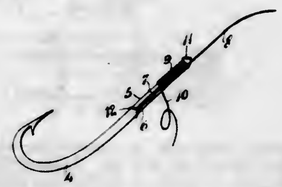
3. In a liquid container, the combination with an inner and an outer shell, each divided into two sections, of a combined spacing and connecting member securing the respective sections of the respective shells together with a liquid proof joint and spacing the shells from each other.

4. In a beer keg, the combination with an inner and an outer shell, each shell being divided into two sections, the sections of the inner shell being coated with enamel, of a combined spacing and connecting member securing the respective sections of the respective shells together with a liquid proof joint and spacing the shells from each other; the enameled inner sections when brought together presenting a continuous enamel surface on the inside of the keg which will not affect or be affected by the contents of the keg; said combined fastening and spacing member being bodily positioned outside the inner shell.

5. In a liquid container, the combination with an inner and an outer shell, each shell being divided into two sections, a screw-threaded annular casting secured to the edge of each section of the outer shell, an annular union having interior and exterior screw threads constructed to engage the screw-threaded castings of the outer sections and draw them together, and a screw-threaded annular collar constructed to engage screw threads on the outer face of the union, said collar being constructed to clamp the edges of the sections of the inner shell between it and the union with a liquid tight joint.

[Claims 6 to 12 not printed in the Gazette.]

1,093,000. SNELL-FASTENING FOR FISH-HOOKS. GEORGE KINSEY, Wyoming, Ohio. Filed Dec. 5, 1913. Serial No. 804,797. (Cl. 43—7.)



1. The combination of a fish hook, a snell and means for securing the snell to the hook, the snell having a loop at its lower end surrounding the shank, and the means comprising a binding material wrapped about the snell and the shank of the hook between the end of the shank and the loop.

2. A snell fastening for fish hooks, comprising a snell and a means for securing the snell to the shank of the hook, the snell being looped around the shank with its ends brought to contact with and to lie parallel to the shank of the hook.

3. The combination of a connective, a shank and a wrapping material, the connective being doubled to form a loop and two branches, the loop embracing the shank, and the branches of the connective contacting a side of the shank, the wrapping surrounding the branches of the connective and the shank between the loop and the end of the shank.

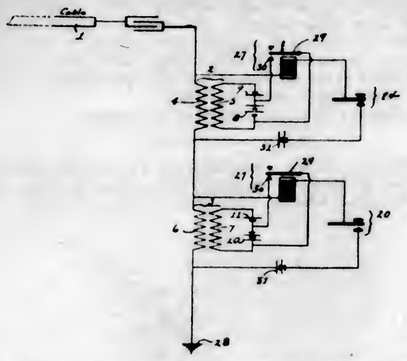
4. A snell fastening for fish hooks, comprising a snell and means for securing the snell to the shank of a book, one end of the snell terminating near the end of the shank, the other end extending parallel to the shank to a point midway between the end of the shank and the hook, then encircling the shank, the second-mentioned end extending toward the end of the shank parallel to and in contact with the first-mentioned end of the snell.

1,093,001. TELEGRAPHY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Aug. 7, 1908, Serial No. 447,412. Renewed Jan. 13, 1914. Serial No. 811,898. (Cl. 178—45.)

1. A telegraphic transmitting organism comprising two converters, the secondaries connected in the line; the primary of each of said converters connected normally to two opposite sources of current, and means for each of said converters to shunt one of said primary sources after its secondary has been shunted; and means to open first the shunt of the secondary and immediately thereafter the shunt of the primary in accordance with the characters to be transmitted.

2. In cable telegraphy, a transmitting organism comprising two converters, the secondary of each converter connected in the line, the primary of each converter connected with two sources of current; one source of higher electro-motive force than the second source; both sources in opposition as to each other; a shunt for the source of higher electro-motive force; and a shunt for the secondary; and means operatively related to the transmitting key to shunt the secondary and primary source through

the depression of the lever of the key, and open both shunts through the releasing of said lever.



3. In cable telegraphy, a transmitting organism comprising two converters and two transmitting keys, and means for each converter to localize the induced impulse due to the depression of its own key and to impress upon the line the impulse due to the opening of said key, the secondaries inserted in the line.

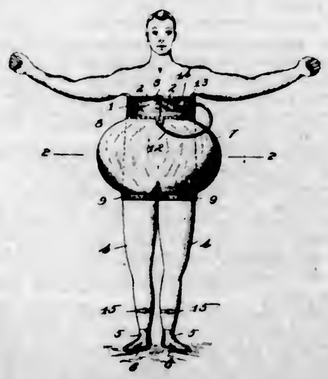
4. In telegraphy, a transmitting organism comprising two converters and two transmitting keys, the secondary of each converter inserted in the line; the primary of each converter connected normally to sources of current, and means to impress upon the line an impulse of one polarity through the manipulation of the key operatively related to one converter and an impulse of opposite polarity through the manipulation of the key related to the second converter.

5. In telegraphy, a transmitting organism comprising two converters, the secondary inserted in the line, means for each converter to localize alternate impulses generated therein and to impress upon the line the impulse not localized; the impulse impressed upon the line through one secondary of a polarity opposite to the impulse impressed upon the line through the other secondary.

[Claims 6 to 9 not printed in the Gazette.]

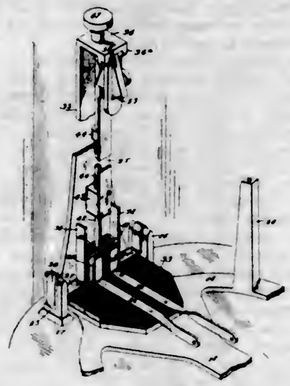
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1,093,002. LIFE-PRESERVER. JOSEPH MAGYAR, Puritan, Pa. Filed Nov. 22, 1913. Serial No. 802,475. (Cl. 9—17.)



A life preserver comprising a pair of trousers, a waterproof inflatable bag secured around the waist and crotch portions of the trousers, and shoes secured to the bottoms of the trousers legs.

1,093,003. COOKER. PERRY A. MCCASKEY, Lakewood, Ohio. Filed July 6, 1911. Serial No. 637,214. (Cl. 219—35.)



1. In a cooker, the combination of a casing, a frame removably supported within said casing, an electric heater supported by said frame, a vessel support carried by said frame, means for supplying electric current to said heater, a circuit-breaking device carried by said frame, a thermostat carried by said frame, and connections whereby said thermostat may operate the circuit-breaking device.

2. In a cooker, the combination of a casing, a frame removably supported within said casing, said frame comprising a base plate, standards projecting from said plate, a vessel support on said standards, an electric heater supported by said plate in operative relation to the vessel support, means for supplying electric current to said heater, a circuit-breaking device carried by said base plate, a thermostat supported by said base plate, and connections whereby said thermostat may operate the circuit-breaking device.

3. In a cooker, the combination of a casing having a pair of electric terminals, an electric heater, a circuit-breaking device, a thermostat for operating said device, a supporting frame for said heater, thermostat, and circuit-breaking device removably mounted within the casing, and terminals carried by said frame and adapted to coöperate with the first-mentioned terminals.

4. In a cooker, the combination of a casing having a pair of electric terminals, an electric heater, a supporting frame for said heater removably mounted within the casing, and terminals carried by said frame and adapted to coöperate with the casing terminals.

5. In a cooker, the combination, with a casing, of a supporting plate within said casing, said supporting plate having an external elevated surface adapted to support a vessel, and a heater at the central portion of said plate, said plate being provided with pockets extending outwardly and upwardly from the heater toward the elevated supporting surface.

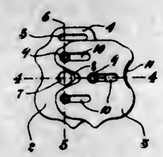
[Claims 6 to 12 not printed in the Gazette.]

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1,093,004. CIGAR-TIP CUTTER. ARTHUR H. MERRILL, Hartford, Conn. Filed Aug. 18, 1913. Serial No. 784,476. (Cl. 131—38.)

1. A cigar-tip cutter comprising a body-member having a cigar-tip-receiving hole, a cutter-member fitted flatwise against the body-member, and a series of three headed rivets arranged in triangular order for connecting the body and the cutter members for relative sliding movement, two of said rivets being disposed at opposite sides of the hole and the cutter member having an elongated slot to receive the third rivet, the heads of the rivets overlying the cutter member to hold the same against the body-member and to also prevent tipping thereof, and the shanks of the rivets engaging and guiding the cutter-member in a straight path.





2. A cigar-tip cutter comprising a body-member having a cigar-tip-receiving hole, a cutter-member fitted flatwise against the body-member, and a series of three headed rivets arranged in triangular order for connecting the body and the cutter members for relative sliding movement, two of said rivets being disposed at opposite sides of the hole, the cutter member having three elongated slots for receiving the three rivets, the heads of the rivets overlying the cutter member to hold the same against the body member and to also prevent tipping thereof and the shanks of the rivets engaging the walls of the slots to guide the member in a straight path.

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1,093,005. ROTARY PUMP. JOHN H. MYERS, Kenmore, N. Y. Filed Aug. 20, 1913. Serial No. 785,678. (Cl. 103—44.)



1. A rotary pump comprising a casing having an inlet and an outlet spaced apart, a rotatable member therein having a plurality of guideways and means for connecting the inner ends of said guideways, a piston or wing movable inwardly or outwardly in each of said guideways, and a pressure port in one of said pistons or wings leading behind the latter.

2. A rotary pump comprising a casing having an inlet and an outlet spaced apart, a rotatable member therein having a guideway, a piston or wing movable inwardly and outwardly in said guideway, and a pressure port opening into said piston or wing at the advancing side thereof.

3. A rotary pump comprising a cylinder having an inlet and an outlet spaced apart, a rotatable member eccentrically arranged within said cylinder and having a plurality of guideways and passages interconnecting said guideways, a piston or wing provided with an inwardly-opening pocket fitting into each of said guideways, and a pressure port extending from the side face of one of said pistons or wings to said pocket.

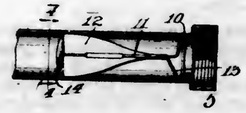
4. A rotary pump comprising a casing having heads provided with depressions on their inner faces, a rotatable member eccentrically mounted in said casing and having a plurality of guideways extending inwardly from its periphery and being in communication with the depressions in said heads, a feed-pipe opening into one of said depressions, and a piston or wing movable inwardly and outwardly in each of said guideways, one of said pistons having an inlet or pressure port leading to its coöperating guideway.

5. A rotary pump comprising a casing having an inlet and an outlet spaced apart, a rotatable member eccentrically mounted within said casing and having a central chamber, a plurality of guideways extending inwardly from its periphery and distributing means connecting said central chamber with said guideways, a piston or wing in each of said guideways constructed with its outer end heavier than its inner, and a pressure port or ports in one of said pistons or wings in communication with said distributing means.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,006. LAWN-SPRINKLER. CHARLES A. NELSON, Chicago, Ill. Filed Oct. 30, 1912. Serial No. 728,526. (Cl. 137—59.)



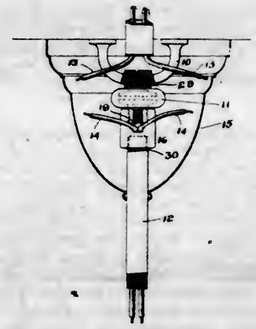
1. A device of the class described embracing a tubular spray nozzle provided with a series of perforations on one side thereof and having one of its ends closed, an internally threaded female pipe member secured in one end thereof, a shaft secured in said spray nozzle and a rotatable jet regulating vane secured on said shaft in position to be actuated by the pressure of the water delivered against the same to effect the delivery of water from the spray nozzle in a plurality of intermittent jets of varying lengths.

2. A device of the class described, embracing a tubular spray nozzle provided with a series of discharge perforations in one side thereof, and a movable jet regulating member disposed in said spray nozzle and operated by the flow of liquid therethrough to produce a constant but pulsating delivery of fluid from said spray nozzle.

3. In a device of the class described, a casing having a plurality of apertures in the side thereof, a shaft mounted in said casing, and a vane pivoted thereon and adapted to be rotated by a fluid flowing through said casing, said vane acting by such rotation to produce a constant but pulsating delivery of the fluid through said apertures.

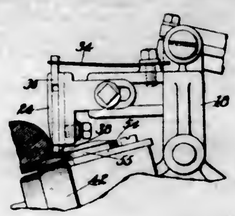
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1,093,007. HICKEY. CLARENCE D. PLATT, Bridgeport, Conn. Filed Jan. 4, 1913. Serial No. 740,111. (Cl. 240—85.)



A hickey comprising a tubular body provided with a central longitudinal opening therethrough and having female threads at each end, shoulders at the termination of said threads, for the purpose set forth and a longitudinal slot extending from one end to a point between the shoulders.

**1,093,008. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES.** ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 29, 1912. Serial No. 700,454. (Cl. 12—51.)



1. A machine for operating upon stitch-down shoes, comprising in combination, means for pressing the out-turned flange of the upper against the sole close to the body of the upper, and means acting simultaneously therewith to cut through said flange against the surface of the sole.

2. A machine for operating upon stitch-down shoes, comprising in combination, means for pounding the out-turned flange of the upper against the margin of the shoe sole, and means acting simultaneously therewith to trim off the marginal portion of said flange.

3. A machine for operating upon stitch-down shoes, comprising in combination, means for pounding the out-turned flange of the upper against the sole, and means acting while the stock is held under pressure by said pounding means to cut through said flange against the surface of the sole.

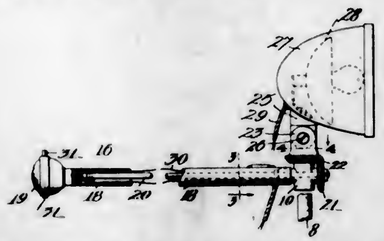
4. A machine for operating upon stitch-down shoes, comprising in combination, means for supporting the tread face of a shoe sole, a hammer for pounding the out-turned flange of the upper, a knife for trimming said flange, and means for driving said hammer and knife to cause them to operate simultaneously upon the shoe.

5. A machine for operating upon stitch-down shoes, comprising in combination, a feed roll for supporting the tread face of a shoe sole, means for pressing against the sole that portion of the out-turned flange of the upper lying close to the body of the shoe, a knife operating simultaneously therewith, and gaging means for causing said knife to trim said flange along a line lying between the edge of the sole and the body of the shoe.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,009. LAMP-SUPPORT. JAMES C. RAMSEY, Jr., Andover, Mass., assignor, by mesne assignments, to Herrick Aiken Company, Incorporated, Lawrence, Mass., a Corporation of Massachusetts. Filed Oct. 31, 1912. Serial No. 728,821. (Cl. 240—61.)



1. In a device of the character described, the combination of a support having a horizontal member projecting therefrom, a lamp carrying frame mounted to swing on said member as a pivot, said frame having a handle thereon and movable therewith for manipulating it, and a lamp mounted on and movable with said frame.

2. In a device of the character described, the combination of a support having a pivot, a lamp carrying frame mounted to swing on said pivot, said frame having a handle thereon and movable therewith for manipulating it, a lamp mounted on and movable with said frame, and means for turning said lamp on the frame about an axis transverse to the axis of the pivot.

3. In a device of the character described, the combination of a support having a horizontal pivot, a lamp carrying frame mounted to turn about said pivot, said frame having a handle projecting therefrom and movable therewith for operating it, and means connected with and operated by the handle for turning the lamp on an axis transverse to the handle.

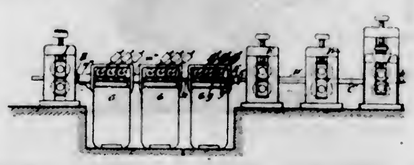
4. In a device of the character described, the combination of a frame, a lamp carried thereby and rotatable thereon, a handle extending from the frame, a hand-hold on the end of the handle rotatable thereon, a rod connected with said hand-hold extending through the handle, a bevel gear on the rod, and a bevel gear connected with the lamp meshing with the first named bevel gear, whereby the rotation of the hand-hold will cause the lamp to be turned.

5. In a device of the character described, the combination of a lamp carrying frame mounted to turn, said frame having a handle thereon for turning it on an axis transverse to the axis of the handle, a lamp mounted on said frame, and means connected with the handle for turning the lamp on an axis transverse to the handle through an unlimited range, said lamp being adjustable through an arc about a third axis transverse to the handle aud in a plane parallel to the first named axis.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,010. METHOD OF AND MEANS FOR MANUFACTURING METAL PIPE AND TUBING. ELIAS E. RIES, New York, N. Y. Filed Nov. 30, 1908. Serial No. 465,229. (Cl. 219—6.)



1. The method of manufacturing pipes or tubing from metal skelp, which consists in bending the skelp into an approximately horse-shoe shaped form, heating the separated end portions thereof simultaneously at a plurality of points along the length of the bent skelp so as to raise said ends to welding temperature, and causing then said ends to coalesce and unite by bringing them together under pressure.

2. The method of manufacturing pipes or tubing from metal skelp, which consists in bending the skelp into an approximately horse-shoe shaped form, subjecting the separated end portions thereof simultaneously at a plurality of points along the length of the bent skelp to the heating effect of an electric current or currents so as to raise said ends to welding temperature, and causing then said ends to coalesce and unite by bringing them together under pressure.

3. The method of manufacturing pipes or tubing from metal skelp, which consists in bending the skelp into an approximately horse-shoe shaped form, heating those faces of the separated end portions thereof which are to be brought into contact simultaneously at a plurality of points along the length of the bent skelp so as to raise said ends to welding temperature, and causing then said ends to coalesce and unite by bringing them together under pressure.

4. The method of manufacturing pipes or tubing from metal skelp, which consists in bending the skelp into an approximately horse-shoe shaped form, subjecting those faces of the separated end portions thereof which are to be brought into contact simultaneously at a plurality of points along the length of the bent skelp to the heating effect of an electric current or currents so as to raise said ends to welding temperature, and causing then said ends to coalesce and unite by bringing them together under pressure.

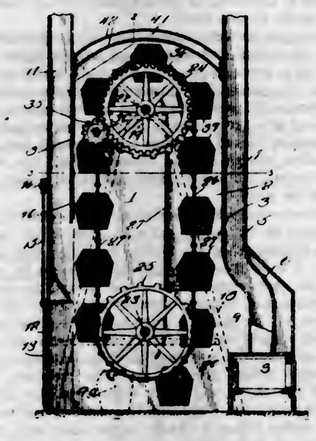
5. The method of manufacturing metal pipes or tubing, which consists in heating a billet or pile, reducing the same to form a skelp, bending the skelp into an approximately horse-shoe shaped form, heating the separated end portions thereof simultaneously at a plurality of points along the length of the bent skelp so as to raise said ends to welding temperature, and causing then said ends to coalesce and unite by bringing them together under pressure.

[Claims 6 to 24 not printed in the Gazette.]



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1,093,011. FRUIT-DRIER. EDWIN T. ROBERTS, Roswell, N. Mex. Filed Apr. 4, 1912. Serial No. 688,348. (Cl. 34—12.)



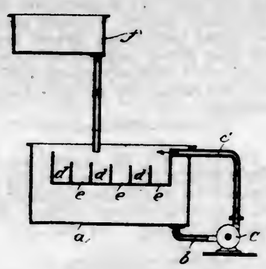
An apparatus of the class described comprising a drying chamber, supports mounted in the chamber, transverse shafts journaled in the supports, pairs of sprocket wheels mounted upon the shafts, sprocket chains passing over and around the sprocket wheels, certain links of the sprocket chains being formed with hooks having spaced ends, fruit containing baskets through which are passed shafts, the ends of which engage or disengage said hooks upon passage thereof between the spaced ends, and means for rotating one of the sprocket wheels to cause the sprocket chains and baskets suspended thereby to travel.

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1,093,012. PROCESS FOR THE PREPARATION OF NITROCELLULOSE. KARL SCHNITER, Frankfort-on-the-Main, Germany, assignor to The Firm of Vereinigte Kunstseidefabriken A. G., Kelsterbach-on-the-Main, Germany. Filed Mar. 18, 1913. Serial No. 755,129. (Cl. 52—3.)

1. The herein described method of preparing nitrocellulose, which consists in completely nitrating cellulose in a single bath of nitrating acid, and thereafter subjecting the nitrated cellulose to a bath of a similar acid at a lower temperature than that of the acid first employed, under such conditions that said nitrated cellulose is cooled and its chemical constitution remains unchanged.

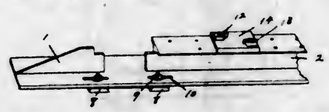
2. The herein described method of preparing nitrocellulose, which consists in completely nitrating cellulose in a single bath of nitrating acid, and thereafter subjecting the nitrated cellulose to a bath of cooled waste acid from the first bath, under such conditions that said



nitrated cellulose is cooled and its chemical constitution remains unchanged.

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1,093,013. METALLIC RAILROAD-TIE. ROMANO SERAFIN, Stafford Springs, Conn. Filed Aug. 27, 1913. Serial No. 786,903. (Cl. 238—5.)

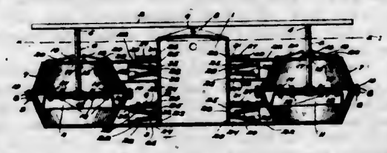


1. A metallic railroad tie T-shaped in cross section partially cut-away to receive a receptacle carrying a resilient block for a rail, said receptacle having at each end thereof projections adapted to receive the upright section of said tie therebetween.

2. A metallic railroad tie, carrying a resilient block of insulating material in a metallic receptacle secured to said tie, and a clamp partially constructed of insulating material, securing said receptacle to the rail, substantially as described.

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1,093,014. PUMP FOR SUCTION-CLEANERS. JOSEPH J. SLEEPER, Moores, Pa. Original application filed Jan. 9, 1912, Serial No. 670,239. Divided and this application filed Apr. 16, 1912. Serial No. 691,235. (Cl. 230—5.)



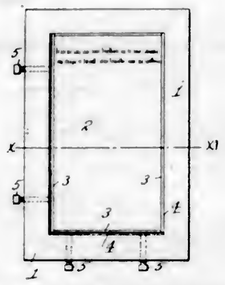
1. A suction creating pump comprising a casing, a diaphragm in the casing, pipes communicating with the casing above and below the diaphragm, approximately V-shaped partitions in said pipes having perforations therein dividing said pipes into upper outlet chambers, lower inlet chambers, and intermediate chambers communicating with the casing, and valves normally closing said perforations and moved by the passage of air caused by the operation of the diaphragm, substantially as described.

2. A suction creating pump comprising a casing, a diaphragm in the casing, pipes communicating with the casing above and below the diaphragm, approximately V-shaped partitions in said pipes having perforations therein, valves normally closing said perforations and moved by the passage of air caused by the operation of the diaphragm, said pipes having perforations in their upper faces, and flap valves secured to said pipes and normally closing the last-mentioned perforations, substantially as described.

3. The combination with a suction chamber, of diaphragm pumps at opposite sides of said chamber, pipes connecting both of said pumps with the chamber, each pump having two pipes, one located above and the other below the diaphragm therein, V-shaped partitions in all of said pipes having perforations therein, the upper faces of all of said pipes having perforations therein above the partitions, and valves normally closing said perforations and moved by the passage of air therethrough, substantially as described.

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1,093,015. PRODUCTION OF MATRICES OR MOLDS FOR PRINTING-PLATES. MICHAEL SMITH, Passaic, N. J., assignor to The Rapid Electrotype Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Feb. 20, 1913. Serial No. 749,641. (Cl. 198—7.)



1. A matrix material for forming stereotypes and printing plates, said material consisting of a fibrous compressible material, impregnated with a gum or resin, said material being hard and rigid at normal temperatures and soft and plastic and capable of taking fine designs by impression when heated to a temperature of about 250° F.

2. A matrix material for forming stereotypes and printing plates, said material consisting of strawboard impregnated with a gum or resin, said material being hard and rigid at normal temperatures and soft and plastic and capable of taking fine designs by impression when heated to a temperature of about 250° F.

3. A matrix material for forming stereotypes and printing plates, said material consisting of a body portion of fibrous compressible material, a facing of blotting paper on said material, said facing and body portion impregnated with a gum or resin, said matrix material being hard and rigid at normal temperatures and soft and plastic and capable of taking fine designs by impression when heated to a temperature of about 250° F.

4. A matrix material for forming stereotypes and printing plates, said material consisting of a body portion of strawboard, a facing of blotting paper on said strawboard, said body portion and facing impregnated with a gum or resin, said matrix material being hard and rigid at normal temperatures and soft and plastic and capable of taking fine designs by impression when heated to a temperature of about 250° F.

5. The process of forming matrices for stereotypes and printing plates which consists in saturating a fibrous compressible material with a solution of a gum or resin in a volatile solvent, evaporating said solvent, heating the material so treated to make the same plastic, pressing the same on the form or design to be reproduced, and maintaining said pressure until the material is cool, then separating the material from the form or design.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,016. CLOTHES-POUNDER. FRANK L. UDELL and GEORGE E. PREDOCK, St. Louis, Mo. Filed May 19, 1913. Serial No. 768,587. (Cl. 68—5.)

1. A clothes-pounder consisting of a cylindrical shell closed at its upper end and provided in its sides with ports, and a plurality of vertically-disposed cylindrical members arranged inside of said shell, some of said members being open at both ends and spaced away from the top wall of the shell and others of said members being closed at their upper ends so that they will form suction chambers.



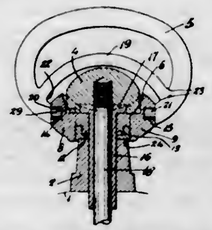
2. A clothes-pounder consisting of a cylindrical shell open at its lower end and closed at its upper end, the shell having ports formed in the side walls of same, a plurality of open-ended cylindrical members arranged in said shell and spaced away from the top wall of the shell, and a plurality of cylindrical suction chambers arranged inside of the shell.

3. A clothes-pounder consisting of a cylindrical shell open at its lower end and closed at its upper end, the shell having ports formed in the side walls of same, a plurality of open-ended cylindrical tubular-shaped members arranged in said shell and spaced away from the top wall of the same, and a plurality of cylindrical suction chambers closed at their top arranged inside of the shell, and a screen at the lower end of the shell that extends across the lower ends of the members arranged inside of the shell.

4. A clothes-pounder consisting of a cylindrical-shaped shell closed at its upper end and open at its lower end, a socket for receiving the handle by which the pounder is actuated, a cone-shaped reinforcing member at the upper end of the shell connected to said socket, an open-ended cylindrical-shaped member arranged inside of the shell at the center of the same, a plurality of vertically-disposed cylindrical-shaped members arranged inside of the shell around said central member, a screen at the lower end of the shell which extends over the members arranged inside of the shell, and ports formed in the side of the shell, some of said vertically-disposed cylindrical-shaped members being closed at their upper ends and the others being open at both ends.

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1,093,017. WATCH PENDANT AND BOW. ARTHUR W. WADSWORTH, Fort Thomas, Ky. Filed Mar. 18, 1912. Serial No. 684,531. (Cl. 58—96.)

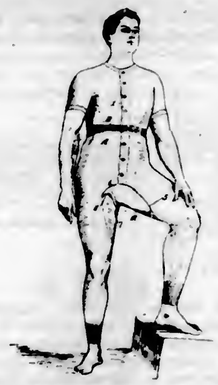


1. A pendant having a cap thereon, two side pieces having bow sockets and interlocking with said cap and means for holding the side pieces in interlocked relation with the cap.

2. In combination with the stem of a watch, a pendant having a cap thereon, two side pieces having bow sockets and interlocking with said cap and a sleeve on the watch stem, with flanges on said sleeve adapted to seat on the interlocked parts.



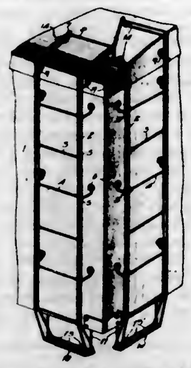
1,093,018. UNION SUIT. KIRK H. WHITE, Oswego, N. Y., assignor of one-half to Marshall S. Ely, New York, N. Y. Filed May 3, 1912. Serial No. 694,891. (Cl. 2—144.)



A union suit having a posterior opening extending through the crotch and closed by overlapping side flaps formed by inserts *a*, *b* extending from the back down the legs and secured to the body of the suit on their outer edges and having hook-shaped portions 8 on their inner edges extending through the crotch and secured to the body across the garment in front of the crotch on their outside edges, said inserts having their inner edges free for opening and closing the posterior opening.

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1,093,019. RAILWAY-CAR LADDER. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 787,122. (Cl. 228—1.)



1. In a car ladder, the combination with two stile members each consisting of two slightly separated parallel rods, of a series of rungs passing between the rods of each stile, welded to both, bent inwardly at the sides of the ladder to form legs, and provided with terminal eyes to be bolted to a car.

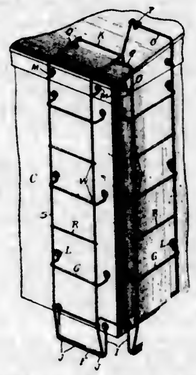
2. In a car ladder, the combination with two stile members each consisting of two parallel rods in a plane perpendicular to the plane of the ladder, bent in that plane near their upper ends to extend for some distance along a car roof, of a series of rungs passing between and welded to the rods of both stiles, bent inwardly at the sides of the ladder to form short legs, and provided with terminal eyes adapting them to be bolted to the car.

3. The combination with a car, of a side ladder having its stiles formed of parallel rods all integrally connected by rungs and bent to extend inwardly along the car roof, and a second similar ladder adapted to be fixed to the end of the car and having its stile rods rigidly connected with those of the first ladder above the roof of the car.

4. In a car ladder, the combination with stiles each consisting of two rods in the same plane integrally united at intervals by rungs and each rod at its lower end being connected to its companion in the other stile by an integral rod section parallel to the rungs of a stirrup interposed between said rod sections and having branches adapted to be secured to the bottom of a car, and filler blocks integrally uniting the rod sections and stirrup.

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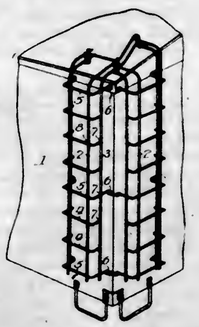
1,093,020. LADDER FOR RAILWAY-CARS. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 787,123. (Cl. 228—1.)



In a ladder, a single rod doubled to form two stiles and a pendant stirrup, of a series of rungs welded to said stiles and having their end portions bent inward and fixed to the car, and a second short stirrup registering with the first, rigidly connected thereto and having its branches terminally fixed to the car.

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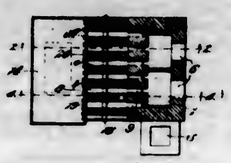
1,093,021. FREIGHT-CAR LADDER. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Nov. 28, 1913. Serial No. 803,481. (Cl. 228—1.)



1. A ladder composed of two stile pieces on each side all integrally connected by rungs each inwardly bent at each end, one of said stile pieces on each side being united to the inwardly bent portions of the rungs and the other to the portions between the bends.

2. A ladder having on each side two stile pieces one integrally united to inwardly bent end portions of a series of rungs and the other similarly united to the rungs between the inwardly bent portions, the inwardly bent ends of some of the rungs being provided with eyes for attaching them to a wall.

1,093,022. HOT-AIR FURNACE. JOHN ZELLWEGER, St. Louis, Mo. Filed Jan. 3, 1913. Serial No. 739,951. (Cl. 126—108.)



1. A hot-air furnace comprising a furnace chamber, an air-heater consisting of a group of hollow members spaced away from each other so as to form alternately arranged air-flues and fire-flues, an air-supply chamber having ports each of which communicates with one end of each of said air-flues, a hot-air collecting chamber having ports which communicate with the opposite ends of said air-flues, and means for causing the fire-gases from the furnace chamber to circulate through said fire-flues in an opposite direction to the circulation of the air through said air-flues, the air absorbing heat from the walls of the flues through which it travels.

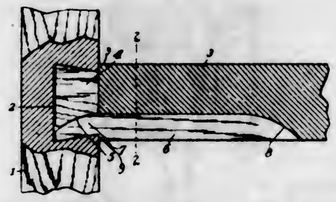
2. A hot-air furnace comprising a combustion chamber having a port wall, an air-heater separate and distinct from said combustion chamber and arranged in such a manner that the expansion and contraction of the combustion chamber will not affect the air heater and vice versa, the air heater comprising alternately arranged fire flues and air flues, an air supply chamber communicating with one end of said air flues, a hot air collecting chamber communicating with the opposite end of said air flues, and means for causing the products of combustion to pass from the combustion chamber into the fire flues and travel through said fire flues in an opposite direction to the circulation of the air through said air flues.

3. A hot-air furnace consisting of a furnace chamber and an air-heater which is separate and distinct from the furnace chamber and composed of alternately arranged vertically-disposed fire-flues and air-flues of approximately oblong-shape in cross section, the furnace chamber having a wall which entirely separates the air-heater from the furnace whereby expansion and contraction of the furnace chamber will not affect the air heater and vice versa, means whereby the fire-gases escaping from the furnace chamber can flow through the fire-flues of the air-heater in an opposite direction to the flow of the air through the air-flues of the air-heater, an air supply chamber communicating with one end of said air-flues, and a hot-air collecting chamber communicating with the opposite end of said air-flues.

4. A hot air furnace comprising a complete furnace consisting of a combustion chamber, fuel grate and ashpit, an air heater separate and distinct from the furnace and comprising a plurality of vertically disposed hollow members of substantially oblong-shape in cross section arranged to form a series of fire flues that are located between a series of air flues, ports in one wall of the furnace that establish communication between the combustion chamber and the upper ends of the air-flues of the air heater, an air supply chamber communicating with the lower ends of the air flues of the air heater, a hot air collecting chamber communicating with the upper ends of said air flues, and means for creating a down-draft through the fire flues so that the fire gases will travel through same in an opposite direction to the circulation of the air being heated.

5. A hot-air furnace comprising a group of substantially oblong-shaped hollow members arranged vertically and spaced away from each other so as to form alternately arranged air-flues and fire-flues, a combustion chamber arranged on one side of said group of members and having ports which communicate with the upper ends of said fire-flues, a smoke-pipe communicating with the lower ends of said fire-flues, and an air-supply chamber and hot-air collecting chamber arranged on the other side of said group of members and in communication with the lower and upper ends, respectively, of said air-flues whereby the air that is being heated will travel in an opposite direction to the flow of the fire-gases.

1,093,023. DOVETAIL MORTISE AND TENON. JOHN ALTA, Grand Rapids, Mich. Filed Sept. 20, 1912. Serial No. 721,342. (Cl. 20—92.)



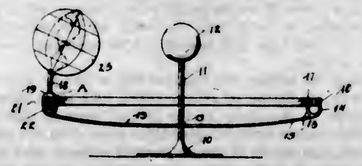
1. A dovetail mortise and tenon, comprising a member having a mortise under-cut or dovetailed at each end, and a tenon having inclined edges to fit within the mortise, said tenon having a removable and tapered portion adapted to be separately inserted in the mortise or removed from the same.

2. A dovetail mortise and tenon, comprising a member having a mortise having under-cut ends, a tenon having a portion adapted to partially fill said mortise and having one edge to fit against one end of the mortise and having an oppositely inclined opposite edge, the other portion of the tenon being detached and forming a locking member to fit between the other end of the mortise and the first named portion and means for inserting and removing said locking member.

3. A dovetail mortise and tenon, comprising a vertical member having a mortise therein under-cut at its respective ends, a horizontal member having a tenon having a portion fixed thereon adapted to partially fill the mortise fitting the under-cut end of the same at one side and having an oppositely inclined opposite side, and a detached wedge portion to said tenon having one side adapted to fit the opposite under-cut end of the mortise said wedge portion also having an extension within a groove in the horizontal member and adapted to fill the same.

4. A dovetail mortise and tenon, comprising a vertical member having a mortise therein under-cut at its upper and lower ends, a horizontal member having a groove in one side, a horizontal member having a fixed tenon adapted to partially fill the mortise and to fit at one side against the under-cut of the same, and having its opposite side concave and oppositely inclined to its other side, and a removable locking member having a wedge portion convex at one side to fit the concave side of the tenon, and inclined at the opposite side to fit the under-cut end of the mortise, said member also having an extension within the groove to fill the same, said extension having a convex end to fit the concave end of the groove.

1,093,024. TELLURIAN. ROSCOE J. APP, Bangor, Pa. Filed Mar. 15, 1913. Serial No. 754,425. (Cl. 35—3.)



A tellurian comprising a base, an upright rising from the base, a sphere fixed on the upper end of said upright, arms radiating from said upright between the base and sphere, the free ends of said arms being forked to form upwardly extending inner and outer fingers, an elliptical track mounted on said outer fingers, a second elliptical track mounted on said inner fingers in spaced relation to the first named track, a carrier slidably mounted on said tracks, said carrier comprising a rod having a flange resting on the upper sides of the tracks, a screw threaded in said rod and extending between the tracks and provided with a flange whereby the operation of said screw inwardly of the rod will clamp the tracks between said flanges and lock the carrier against movement and a sphere rotatably mounted on said carrier.



1,093,025. TROLLEY-WHEEL CONSTRUCTION. WILLIAM H. ARNOLD, Stockton, Cal. Filed Aug. 26, 1912. Serial No. 716,970. (Cl. 64—66.)



A device of the character described comprising the combination of a trolley harp, a pin disposed in said trolley harp, said pin being provided with two spaced conical bearing shoulders, two bushings mounted over said pin and each bearing against one of said shoulders, a casing disposed over said bushings and having inwardly projecting ends holding said bushings in position, a wheel provided with a hub, the ends of said hub being bent inwardly to inclose said casing, as described.

1,093,026. COMBINATION GAS-VALVE. JAMES W. ASHBAUGH, Bremen, Ohio. Filed May 11, 1911, Serial No. 626,472. Renewed Sept. 15, 1913. Serial No. 789,893. (Cl. 158—119.)



1. In combination with a gas supply pipe having a tubular fitting at one end thereof with the bore of said fitting in a plane at right angles with the bore of said pipe, said fitting having an aperture in one wall communicating with the bore of said pipe, a hollow rotary valve plug mounted in said fitting, said plug having an opening in one side thereof positioned to register with the aperture in said fitting when the plug is turned in one direction, one of the apertures of said apertured members communicating with a helically arranged groove formed therein, means for limiting the movement of said plug in opposite directions, a mixing chamber mounted on said fitting inclosing the discharge end of said plug and having an air inlet opening, and a shutter for controlling said inlet opening operable by movement of said plug.

2. The combination of a gas supply pipe, a tubular fitting secured to one end thereof with the bore of said fitting extending in a plane at right angles to the bore of said pipe, said fitting having an aperture in one side wall communicating with the bore of said pipe, a hollow rotary valve plug mounted in said fitting and having an opening in one wall thereof positioned to register with the aperture in said fitting when said plug is turned in one direction, the outer face of said plug having a helically arranged groove extending from the aperture therein and gradually decreasing in depth toward its outer end to provide for the gradual cutting off and turning on of the gas, a needle valve operable in said plug for controlling the passage of gas therethrough, a mixing chamber mounted on said fitting and inclosing the discharge end of said plug, said chamber having an air inlet opening, and a shutter carried by said plug to vary the size of the opening in said chamber.

3. The combination of a gas supply pipe, a tubular fitting secured to one end thereof with the bore of said fitting extending in a plane at right angles to the bore of said pipe, said fitting having an aperture in one side wall communicating with the bore of said pipe, a hollow rotary valve plug mounted in said fitting and having an aperture in one wall thereof positioned to register with the opening in said fitting when said plug is turned in one direction, the outer face of said plug having a helically arranged groove extending from the aperture therein to provide for the gradual cutting off and turning on of the gas, a needle valve operable in said plug for controlling the passage of gas therethrough, a mixing chamber mounted on said fitting and inclosing the discharge end of said plug, said chamber having an air inlet opening, a shutter carried by said plug to vary the size of the opening in said chamber, and coöperating means carried by said plug and fitting for limiting the turning of the plug in opposite directions.

4. A combined air and gas controlling valve including a tubular fitting, a rotary gas supply valve mounted in said fitting, a mixing chamber mounted on said fitting and inclosing the discharge end of said valve, said chamber having an opening in one end, a shutter for varying the size of said opening, said shutter having a collar mounted on said rotary valve, said collar having an obliquely disposed slot therein, and a pin on said valve engaged with said slot and operable to move said shutter toward and away from the opening in said mixing chamber on the turning of the valve in opposite directions.

1,093,027. CENTER-INDICATOR. ALFRED G. BERG and JOHN H. ROOT, Newburgh, N. Y. Filed May 27, 1911. Serial No. 629,872. (Cl. 33—169.)



1. The combination with a universally adjustable scriber-gage, of a plurality of clamping members for at-

tachment to the cross rail of a boring mill, and a plurality of position-finders on said clamping members adapted to engage centering recesses on the cross rail.

2. The combination with a universally adjustable scriber-gage, of a plurality of clamping members for attachment to the cross rail of a boring mill, and a plurality of position-finders on said clamping members adapted to engage centering recesses on the cross rail, said position-finders comprising a plurality of retractable bolts.

3. The combination with a universally adjustable scriber-gage, of a plurality of clamping members for attachment to the cross rail of a boring mill, and a plurality of position-finders on said clamping members adapted to engage centering recesses on the cross rail, said position-finders comprising a plurality of spring-pressed bolts.

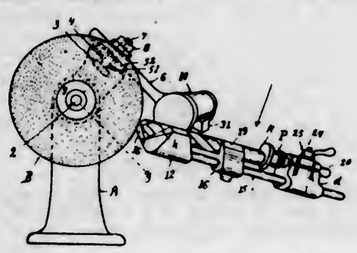
4. In an apparatus of the class described, the combination of a plurality of guide standards, a plurality of clamping members on said standards, with means for vertical adjustment, a slide rod carried by one of said clamping members arranged parallel with said standards, and vertically adjustable, and a scriber capable of universal adjustment with relation to said rod.

5. The combination of a plurality of guide standards, a plurality of clamping members on said standards, with means for vertical adjustment, said clamping members including a plurality of clamping flanges adjustable laterally with relation to said standards, said arrangement adapting the device for attachment to boring mill cross rails of different sizes, a holding-arm projecting laterally from one of said clamping members, a slide rod on said holding arm, and a scriber carried by said rod capable of universal adjustment with relation thereto.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,028. TWIST-DRILL GRINDER. HOWARD M. BOGART, Cincinnati, Ohio. Filed May 10, 1913. Serial No. 766,810. (Cl. 51—7.)



1. A twist drill grinder comprising a grinding wheel, a bracket supported relative to said wheel and adjustable parallel to and transversely to the axle of said wheel and provided with a journal to support the drill holder, a drill holder journaled to said bracket so as to oscillate from below to a horizontal position to present drills to the periphery of the wheel, and a counterweight to substantially counterbalance the weight of said drill holder.

2. In a twist drill grinder in combination with a grinding wheel and a supporting bracket a drill holder comprising a member journaled to said bracket so as to oscillate relative thereto, said member being provided with a face to support the drills, a drill lip gage, a side guide for the drills, and a rearwardly projecting shank, a lateral guide for the rear end of the drills splined to and adjustable upon said shank, a thrust guard holder splined to and adjustable upon said shank, a thrust guard splined to said holder, and means to adjust said thrust guard relative to said holder.

3. A twist drill grinder comprising a standard, a grinding wheel rotatably supported upon said standard, a block adjustable upon said standard parallel to the axis of the grinding wheel, a bracket carried by said block and adjustable transversely to the axis of said wheel, a drill holder journaled to said bracket so as to be oscillated relative thereto upon an axis adjustable by means of said block and bracket to intersect at an acute angle the periphery of said grinding wheel, to present drills to the periphery of said wheel, said drill holder comprising a substantially horisontal drill supporting face, a substantially vertical side guide, a drill lip guide, and an adjustable thrust guard to automatically position drills of different diameter.

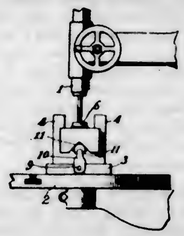
4. A twist drill grinder comprising a grinding wheel, a drill holder pivotally mounted so as to oscillate upon an axis obliquely intersecting the plane of rotation of the grinding wheel slightly outside of the periphery of the wheel, said drill holder comprising a substantially horizontal drill supporting face and a substantially vertical side guide, said drill holder being provided with a drill lip guide at one end and an adjustable end or thrust guard at the opposite end.

5. A twist drill grinder comprising a grinding wheel, a drill holder to present the drills to the periphery of said wheel pivotally mounted upon an adjustable axis so as to oscillate below the center of said wheel upon an axis obliquely intersecting the plane of rotation of said wheel outside the periphery of said wheel, said drill holder comprising a substantially horisontal drill supporting face and a substantially vertical side guide, said drill holder being provided with a drill lip guide at one end and an adjustable end or thrust guard at the opposite end.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,029. WORK-HOLDER FOR DRILLING-MACHINES. HARRY BOWEN, Jackson, Mich., assignor to The Holton Company, Jackson, Mich., a Corporation of Michigan. Filed Mar. 21, 1913. Serial No. 755,837. (Cl. 77—62.)



1. A work holder for drilling machines, comprising a base and a weight provided with opposing V grooves, guiding means for the weight, and a drill jig in the weight communicating with the V groove therein.

2. A work holder for drilling machines, comprising a base, vertical parallel walls on the base, a weight vertically slidable between the walls, the base and weight having opposing V grooves, and a drill jig in the weight communicating with the V groove therein.

3. A work holder for drilling machines, comprising a base, parallel vertical walls on the base, a weight vertically slidable between the walls and having overhanging ends embracing the ends of the base and walls said base and ends being provided with opposing V grooves, and a drill jig extending through the weight radially to the V groove in the ends thereof.

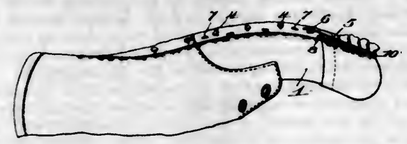
4. A work holding attachment for drilling machines, comprising a base, vertical parallel guides on the base, a weight slidably engaging the guides, said base and weight being provided with opposing V grooves, a drill jig in the weight communicating with the V groove therein, and means for attaching the weight to a vertically movable part of a drilling machine.

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1,093,030. METHOD OF MAKING SHOES. JAMES A. BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 28, 1913. Serial No. 751,213. (Cl. 12—145.)

1. A method of making boots and shoes which consists in lasting the upper over the edge of the sole and securing it in lasted position by temporary metallic fasteners, inserting a series of unconnected thread fasteners through the upper and lip of the sole to retain the upper in its lasted position, removing the metallic fasteners, permanently uniting the upper and sole by a seam of connected thread stitches, and finally trimming the inseam.





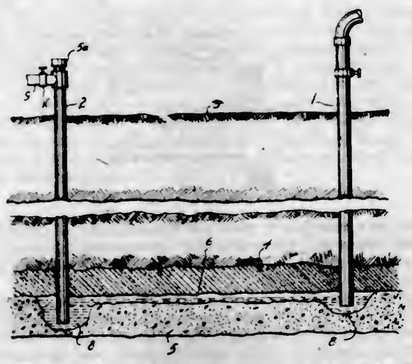
2. A method of making boots and shoes which consists in lasting the upper over the edge of the sole and securing it in lasted position by temporary metallic fasteners, forming a plurality of stitches between said fasteners to retain the upper in its lasted position, severing the thread at the completion of each stitch, removing the metallic fasteners, and permanently uniting the upper and sole by a seam of connected thread stitches.

3. A method of making boots and shoes which consists in lasting the upper over the edge of the sole and securing it in lasted position by temporary metallic fasteners, forming a plurality of stitches from a single thread between said fasteners, locking each stitch to retain the upper in its lasted position, severing the thread at the completion of said stitch, removing the metallic fasteners, and permanently uniting the upper and sole by a seam of connected thread stitches.

4. A method of making boots and shoes which consists in lasting the upper over the edge of the sole and securing it in lasted position by temporary metallic fasteners, inserting a series of unconnected thread fastenings between the metallic fasteners, passing a thread about the toe and securing the thread at its opposite ends by thread fasteners, removing the metallic fasteners, and permanently uniting the upper and sole by a seam of connected thread stitches.

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1,093,031. METHOD OF RAISING FLUIDS FROM ARTESIAN WELLS. FRANK O. BROWN, Dallas, Tex. Filed May 6, 1913. Serial No. 765,751. (Cl. 103—79.)



1. A method of establishing communication between the lower ends of two bored wells extending into a sand or gravel strata, consisting in pumping water under high pressure into one of the wells causing it to force a passage through said strata to the other well.

2. A method of raising fluids from a subterranean fluid-bearing strata, consisting in boring two adjacent wells into said strata, forming a channel between the lower ends of said wells, forcing compressed air into one of the wells, thereby forcing out through the other well the fluid normally standing in both wells and in the passage connecting the same, subsequently connecting either well with a receiver equalizing the air pressure in the receiver and wells, and then pumping air from the wells into said receiver until the air pressure in the wells becomes substantially atmospheric.

3. A method of raising fluids from a subterranean fluid-bearing strata, consisting in forcing compressed air into one of two wells extending into the strata and communicating at their lower ends, thereby forcing out through the other well the fluid normally standing in both wells and in the passage connecting the same, subsequently connecting either well with a receiver, equalizing air pressure in the receiver and wells, and finally pumping air from the wells into said receiver, until the air pressure in the wells becomes substantially atmospheric.

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1,093,032. WEARING-APPAREL. FLORENCE L. CADENAS, New York, N. Y. Filed Oct. 14, 1911. Serial No. 654,577. (Cl. 2—23.)



1. As a new article of manufacture, an elastic leg-covering having an inelastic sole-covering permanently secured thereto, and also having securing means at the top and bottom of the leg-portion.

2. As an article of manufacture, a leg-covering having a sole-covering permanently secured thereto, the two portions being composed of different kinds of material, and means at the top and bottom of the leg-portion for securing the same upon the wearer.

3. As an article of manufacture, a leg-covering having a sole-covering attached thereto, and having means for securing the same upon the wearer, and means for preventing the sole-covering from slipping relatively to the foot of the wearer.

4. As an article of manufacture, a leg-covering having a sole-covering securing thereto, and also having means for securing the same to the wearer, and a vamp secured to the lower end of the leg-covering to reinforce the same.

5. As an article of manufacture, a bathing-garment comprising a stocking having a sole of waterproof material secured thereto, and a reinforcing vamp secured to the sole and stocking at the juncture of the latter two parts, and means for securing the garment to the wearer.

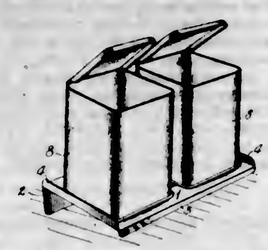
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1,093,033. RECEPTACLE-DISPLAY HOLDER. AMOS G. CANBY, Detroit, Mich., assignor to National Can Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 6, 1913. Serial No. 740,522. (Cl. 211—40.)

1. The combination of a self supporting inclined base provided with projections, and receptacles having out-struck bottom members adapted to detachably interlock with the projections, said out-struck bottom members being in a plane set in from the plane of the bottom edges of the receptacle, whereby said receptacle can be evenly supported independent of said base.

2. The combination of a self supporting inclined base provided with projections and ribs, and receptacles each having an out-struck bottom member adapted to interlock with the projections, said out-struck bottom member being in a plane set in from the plane of the bottom edges of

the receptacle, whereby said receptacle can be evenly supported independent of said base, the ribs adjacent each set of projections bearing against the marginal portions of an applied receptacle.



3. The combination with a base having sets of tongues on the upper face, of receptacles each provided with integral struck-out bottom members adapted to be detachably engaged with a set of the tongues, said out-struck bottom members being in a plane set in from the plane of the bottom edges of the receptacle, whereby said receptacle can be evenly supported independent of said base.

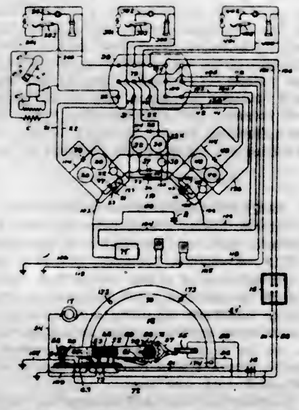
4. The combination of an inclined base, sets of tongues struck up therefrom in offset parallel relation and ribs formed on the base adjacent each set of tongues, and receptacles each having a slotted bottom member adapted to detachably interlock with the tongues when engaged laterally by the ribs, said out-struck bottom members being in a plane set in from the plane of the bottom edges of the receptacle, whereby said receptacle can be evenly supported independent of said base.

5. The combination of a base, sets of offset rigid tongues on the upper face thereof and in a plane parallel with said base, ribs on the upper face adjacent each set of tongues, and guide flanges for each set of tongues, and receptacles each having a counter-sunk slotted base member adapted to detachably interlock with a set of tongues, when engaged laterally by the companion flange and ribs.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,034. PARTY-LINE TELEPHONE SYSTEM. ARTHUR G. CERDA, Morelia, Mexico, assignor, by mesne assignments, to Walter Mooers, Arlington, Mass. Filed June 26, 1908, Serial No. 440,496. Renewed Jan. 3, 1913. Serial No. 740,039. (Cl. 179—26.)



1. In a telephone system comprising a party line having a plurality of branches initially connected therewith, and a central station subject to call by any of the branches, means controlled by a calling operation for severing the connections in all of the branches when one branch calls, said means otherwise making connection with the calling branch so long as the talking circuit of that branch remains closed.

2. In a telephone system comprising a party line having a plurality of branches initially connected therewith, and a central station subject to call by any branch, a normally ineffective cut-out in each branch adapted to discontinue all the branches and otherwise close the branch with which it is associated, said cut-out being operative by insertion of the talking circuit of the calling branch.

3. In a telephone system comprising a party line having a plurality of branches, and a central station subject to call by any branch, an electrically actuated cut-out operable by current in the talking circuit of the calling branch for cutting out all the other branches, and a normally operative detent for holding the cut-out in operative position, said detent being subject to retraction when the said talking circuit is opened.

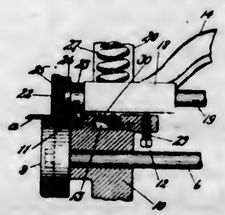
4. In a telephone system comprising a party line having a plurality of branches, and a central station subject to call by any branch, a normally closed cut-out operable by the closing of the talking circuit of a calling branch, said cut-out effecting severance of the other branches and of its own conductor, and a normally operative detent for holding the cut-out in operative position, said detent being subject to retraction by opening the talking circuit of the calling branch.

5. In a telephone system comprising a main line and a plurality of branches, electrically controlled means for selecting a branch, and controlling means comprising a manually operative controller movable from a normal position in different paths, means for governing the selecting means operable by the controller when the latter moves in one path to normal position, and a signaling switch so arranged as to be closed by the controller when the latter is moved away from normal position in another path.

[Claims 6 to 23 not printed in the Gazette.]

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1,093,035. MACHINE FOR THICKENING THE EDGES OF SOLES. JAMES E. COLLINS, Danvers, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 25, 1906. Serial No. 318,733. (Cl. 12—22.)



1. In a machine of the class described, the combination with means for thickening the extreme edge portion of a sole, of means for maintaining the initial size of the sole.

2. In a machine of the class described, the combination with means for thickening and condensing the edge of a sole, of means for maintaining the initial size of the sole.

3. In a machine of the class described, the combination with means for thickening and grooving the extreme marginal portions of a sole, of means for maintaining the initial size of the sole.

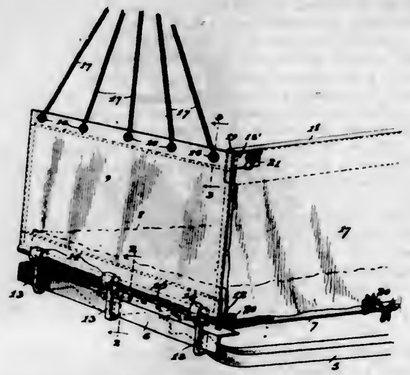
4. In a machine of the class described, the combination with means for condensing the extreme marginal portions of a sole and for grooving the sole, of means for maintaining the initial size of the sole.

5. In a machine of the class described, the combination with means for supporting a sole, of means for thickening, condensing, and grooving the marginal portions of the sole.

[Claims 6 to 12 not printed in the Gazette.]



1,093,036. HAMMOCK-COUCH. EGBERT C. COOK, Chicago, Ill. Filed Sept. 16, 1912. Serial No. 720,488. (Cl. 5—61.)



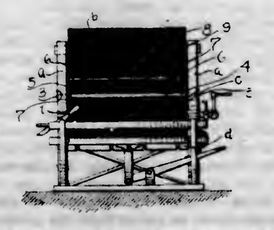
1. In a hammock couch, the combination with a couch-bottom frame comprising rigidly connected side and end bars, of a fabric end suspension-piece having a stiffener at its lower edge disposed above and spaced from an end-bar of said couch-bottom frame, and connector devices disposed in the plane of said end suspension-piece separably attached at their upper ends to said stiffener and formed with hook-shaped lower ends directly engaging beneath said end-bar and suspending the latter from said end suspension-piece.

2. In a hammock couch, the combination with a couch-bottom frame comprising rigidly connected side and end bars, of a fabric end suspension-piece having a pocket formed in its lower edge disposed above and spaced from an end-bar of said couch-bottom frame, a stiffener-rod in said pocket, and connector devices disposed in the plane of said end suspension-piece formed at their upper ends with eyes receiving said pocket and rod and with hook-shaped lower ends directly engaging beneath said end-bar and suspending the latter from said end suspension-piece.

3. In a hammock couch, the combination with a couch-bottom frame comprising rigidly connected side and end bars, said end-bars formed with depending flanges, of a fabric end suspension-piece having a pocket formed in its lower edge, a stiffener rod in said pocket, and connector devices formed at their upper ends with eyes receiving said pocket and rod and with hook-shaped lower ends directly engaging beneath the depending flange of one of said end-bars and suspending the latter from said end suspension-piece.

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1,093,037. BAGGING-MEASURING MACHINE. SAMUEL WANARY DENTON, Brownwood, Ga. Filed Oct. 18, 1913. Serial No. 796,011. (Cl. 33—130.)

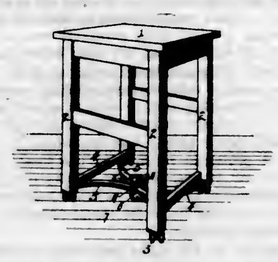


1. In a measuring and cutting machine for bagging, the combination of a frame including uprights provided with segmental slots disposed substantially transversely thereof, measuring rollers mounted between the uprights and below the slots, the axial centers of such rollers being to one side of a vertical line through the slots, a tension roller mounted in such slots, bell levers pivotally supported by the uprights and operatively engaged with the tension roller, and a rod connecting such bell levers whereby they may be caused to be manipulated in unison.

2. In a measuring and cutting machine for bagging, the combination of a frame including uprights provided with segmental slots disposed substantially transversely thereof, measuring rollers mounted between the uprights and below the slots, the axial centers of such rollers being to one side of a vertical line through the slots, a tension roller mounted in such slots, bell levers pivotally supported by the uprights and operatively engaged with the tension roller, and a weighted connection between such bell levers whereby the requisite straining action is imparted to the tension roller, such connection also affording a means whereby the bell levers may be caused to be manipulated in unison.

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1,093,038. PIVOTING MEANS FOR TABLES OR THE LIKE. THOMAS A. DE VILBISS, Toledo, Ohio, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 10, 1913. Serial No. 747,450. (Cl. 45—31.)



1. In combination, a wheeled table, a subjacent support therefor, a pivot stud carried by one and a double mouthed guide member carried by the other of said table and support, one for working in the other and coöperating to provide pivotal means for the table, and a pivoted finger associated with the guide member and adapted to coact with the stud to stop it in a predetermined position relative to the table when entering the guide member from either end thereof.

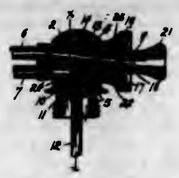
2. The combination with a table, of a pivot member fixedly rising from a subjacent surface over which the table is adapted to move, guide means attached to the lower portion of the table and forming a guide passage from one side to the other of the table for receiving said member, said passage having its ends broadened and having its central portion contracted to substantially the diameter of the pivot member, and a stop-finger pivotally carried by said means and adapted to coact with the pivot member to stop it in central position within the guide when entering from either end thereof.

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1,093,039. ATOMIZER OR THE LIKE. THOMAS A. DE VILBISS, Toledo, Ohio, assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Filed Oct. 25, 1913. Serial No. 797,299. (Cl. 128—2.)

1. In a device of the class described, a receptacle, a closure head for said receptacle having an opening transversely therethrough and a liquid supply passage leading transversely from said opening, a valve plug rotatably mounted in said opening and having a longitudinally extending air passage therethrough and a liquid supply passage in communication with the supply passage in said head when the valve plug is in one position relative to the head, and means for opening communication between said

air passage and the interior of the receptacle when the liquid passages of the plug and head are in register.



2. In a device of the class described, a receptacle, a closure head for said receptacle having an opening transversely therethrough and a liquid supply passage leading transversely from said opening, a valve plug rotatably mounted in said opening and having a longitudinally extending air passage therethrough and a liquid passage opening without an end of the valve plug and registering with said supply passage when the plug is turned in one position relative to the head, and means for opening communication between the interior of the receptacle and the atmosphere and said air passage when the valve plug is in one position and for closing such communication when the valve plug is in another position relative to the head.

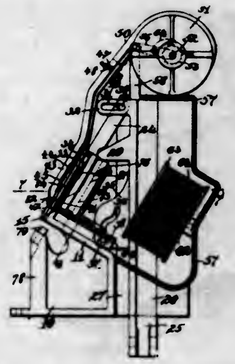
3. In a device of the class described, a receptacle, a closure head for said receptacle having an opening therethrough and a liquid supply passage leading to one side of said opening, a valve plug rotatably mounted in said opening, a liquid tube and an air tube extending from an end of said valve plug and terminating at their outer ends in a common nozzle, said air tube having communication through the valve plug with a source of air supply and said liquid tube having communication through the valve plug with said liquid supply passage when the plug is in predetermined positions relative to the head, and means for supplying air to the interior of the receptacle both from the atmosphere and from said air passage when the valve plug is in position for its liquid passage to register with said supply passage.

4. In a device of the class described, a receptacle, a closure head for said receptacle having a transverse opening therethrough and having a liquid supply passage leading from the interior of the receptacle to a side of said opening, a valve plug rotatably mounted in said opening and having a circumferentially extending segmental groove and separate air and liquid passages extending through portions thereof, said air passage being adapted to have communication with a source of air supply and said liquid passage having communication with said supply passage when the plug is in predetermined positions of its movement relative to the head, tubes extending respectively from the air and liquid passages of the plug and terminating at their outer ends in a common nozzle, said groove having permanent communication with the air passage and having communication with the interior of the receptacle capable of being interrupted by a predetermined turning of the valve plug within the head.

5. In a device of the class described, a receptacle, a closure head for said receptacle having a transverse opening therethrough and having a liquid passage and an air channel leading from a side of said opening into the receptacle, and also having a channel leading from said opening to the atmosphere, a valve plug rotatably mounted in said opening and having an air passage therethrough and a liquid passage with one end branched and each branch positioned to register with said liquid supply passage when the plug is in different predetermined positions relative to the head, said valve plug also having a segmental circumferential groove in register with both of the channels in said head when either branch of the liquid passage is in register with said supply passage and also having restricted communication with said air passage, said groove being movable out of register with the air channel in communication with the receptacle when the valve plug is at a predetermined position of its movement relative to the head.

[Claims 6 and 7 not printed in the Gazette.]

1,093,040. STAPLING-MACHINE. IRVING EPSTEIN, New York, N. Y. Filed Feb. 6, 1913. Serial No. 746,442. (Cl. 218—8.)



1. A stapling machine comprising a support, a vertically reciprocating rod in the support, a wire feeding means in the support, a wire cutting means in the support, a reciprocating die over which the wire cutting means is adapted to pass, a stapling means in the support, an anvil in the path of the stapling means, a nose on the rod arranged to engage the cutting means, wings on the rods engaging the stapling means, a pin on the die, a slotted cheek-piece on the rod, the slot receiving the pin, the movement of the rod actuating the cutting means, the die and the stapling means, and an operative connection between the cutting means and the wire feeding means.

2. A stapling machine comprising a support, a vertically reciprocating rod in the support, a wire feeding means in the support, a wire cutting means in the support, a reciprocating die over which the wire cutting means is arranged to pass, a stapling means in the support, an anvil in the path of the stapling means, a nose on the rod arranged to engage the cutting means, wings on the rod engaging the stapling means, a pin on the die, a slotted cheek-piece on the rod, the slot receiving the pin, the movement of the rod actuating the cutting means, the die and the stapling means, a spring for actuating the wire feeding means when the cutting means retreats, and an operative connection between the wire cutting means and the feeding means for overcoming the spring when the cutting means advances.

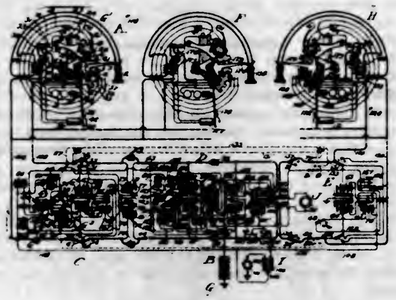
3. A stapling machine comprising a support, a vertically reciprocating rod in the support, the rod having slotted wings, a nose and a cheek-piece, the cheek-piece having a slot therein, a wire cutting means, a stapling means, an anvil in the path of the stapling means, and a die operating in an oblique direction, the stapling means having a pin engaging the slots in the wings, the cutter being engaged by the nose, the die having a pin entering the slot of the cheek-piece, and a wire feeding means operated from the cutting means and operated so that the wire is fed when the cutting means retreats.

4. A stapling machine comprising a support, a vertically reciprocating rod in the support, the rod having slotted wings, a nose and a cheek-piece projecting therefrom, the cheek-piece having a slot therein, a cutter sliding in the support in an oblique direction, a cutter plate alongside of which the cutter passes, the cutter plate being perforated for the passage of a wire, a stapling bar arranged to slide in the cutter, an anvil in the path of the stapling means, the stapling bar having a pin extending in the slots of the wings, the top of the cutter arranged to be engaged by the nose of the rod, a die slidable transversely to the path of the cutter and having a pin entering the slot of the cheek-piece, a feeding lever having means for clamping the wire when the lever swings forwardly, a spring for swinging the lever forwardly, and means operated from the cutter for swinging the lever backwardly when the cutter advances.

5. A stapling machine comprising a support, a vertically reciprocating rod in the support, the rod having slotted wings, a nose and a cheek-piece projecting therefrom, the cheek-piece having a slot therein, a cutter arranged to slide in the support in an oblique direction, a cutter plate alongside of which the cutter passes, the cutter plate being perforated for the passage of a wire, a stapling bar arranged to slide in the cutter, an anvil in the path of the stapling bar, the stapling bar having a pin extending in the slots of the wings, the top of the cutter arranged to be engaged by the nose of the rod, a die arranged to slide transversely to the path of the cutter and having a pin entering the slot of the cheek-piece, a feeding lever having means for clamping the wire when the lever swings forwardly, a spring for swinging the lever forwardly, an L-shaped arm mounted on the support, one portion of the arm resting against the lever, the other portion of the arm having its back adapted to be engaged by a pin, and the aforesaid pin which is secured to the cutter.



1,093,041. PARTY-LINE TELEPHONE SYSTEM. CHARLES J. ERICKSON, Chicago, Ill., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Filed Nov. 15, 1906. Serial No. 343,566. (Cl. 179—17.)



1. In a telephone exchange system, the combination of automatic means for trunking between calling and called subscribers, a telephone line, a plurality of calling dials on said line, a common line, a plurality of calling switching and talking current to said line, means for bridging the battery across the line, a locking magnet for each dial, and means for preventing bridging of the battery across the said telephone line until after the line calls or is called, said magnets bridged across the line.

2. A subscriber's calling dial, a telephone line, a dial-locking magnet bridged across the line, a common battery, means for bridging said battery across the line to energize said magnet, and impulse-transmitting means responsive to the operation of said dial.

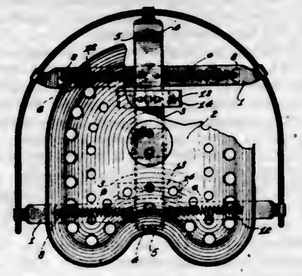
3. A subscriber's calling dial, a telephone line, a telephone bridged across the line, a dial-locking magnet bridged across the line, a common battery, means for bridging said battery across the line to charge the telephone and energize said magnet, and impulse-transmitting means responsive to the operation of said dial.

4. A subscriber's telephone, a calling dial associated with said telephone, a telephone circuit, a dial-locking magnet, subject to control by other subscribers, connected in a parallel branch or shunt of said circuit, and impulse-transmitting means responsive to the operation of said dial.

5. A subscriber's rotatable calling dial, an induction-coil, a dial-locking magnet connected in shunt or parallel with a winding of said coil, and impulse-transmitting means responsive to the operation of said dial.

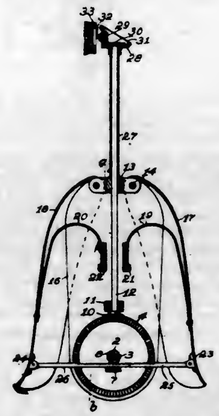
[Claims 6 to 26 not printed in the Gazette.]

1,093,042. SPRING-SEAT FOR AGRICULTURAL MACHINES. ALFRED LORENZO ETHERINGTON, Milton, Nova Scotia, Canada. Filed July 18, 1912. Serial No. 710,110. (Cl. 155—25.)



A fixed frame, in combination with a bar pivotally suspended therein for lateral oscillation, a seat mounted on said bar and pairs of horizontal retarding springs arranged on each side of the front and rear of said seat and attached at their inner ends to said pivoted bar and at their outer ends to said frame, the pivots of said bar supporting the weight of the seat and thereby relieving the said springs therefrom.

1,093,043. OPERATING MECHANISM FOR HAND-OPERATED DEVICES. GAYLE M. FLETCHER, Billings, Mont. Filed Apr. 14, 1913. Serial No. 760,963. (Cl. 74—53.)



1. In combination, a rotary shaft, manually-operable bodies located on opposite sides of said shaft and adapted and supported to be oscillated to and from each other, yieldable resilient means bearing against said bodies to yieldingly force them away from each other, racks movably connected to said bodies and slidable past each other oppositely, gear-wheels meshed with said racks, and operative connections between said gear-wheels and said rotary shaft, said gear-wheels when rotated by said racks being adapted to act upon said operative connections to impart continuous rotation in one direction to said shaft.

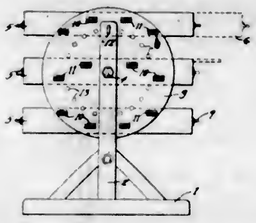
2. In combination, a rotary shaft, a fixed support mounted upon said shaft, levers hinged to said support on opposite sides thereof, fixed bodies on opposite sides of the shaft intermediate between said levers, yieldable resilient means connected between said levers and said fixed bodies and tending to shift the levers apart from each other, racks pivotally connected to said levers and slidable past each other oppositely, gear-wheels meshed

with said racks, a rotatable cross-shaft on which said gear-wheels are separately loosely mounted, means for automatically engaging said wheels alternately with said cross-shaft when rocking over it in certain directions to cause the shaft to rotate continuously in one direction, and a gear-train operatively connected between said cross-shaft and the first-mentioned shaft.

3. In combination, a rotary shaft, a fixed casing supported about said shaft, inwardly-troughed levers hinged to opposite sides of said casing, yieldable resilient means bearing against said levers to tend to yieldingly force them apart, covering-plates supported over opposite sides of said device to cover the inter-space between said levers, racks pivotally connected to said levers and slidable past each other oppositely, supporting-means for said racks, gear-wheels meshed with said racks, a rotatable cross-shaft on which said gear-wheels are loosely mounted, operative connections between said cross-shaft and said first-mentioned shaft adapted to rotate the latter at a greater speed than the former, and tight-and-loose engaging-means located between each gear-wheel and said cross-shaft, adapted to act in driving said shaft continuously in one direction only as the gear-wheels are alternately reversely rocked by said racks to and fro.

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1,093,044. FRUIT-DRIER. OLE L. FURUSETH, Belmond, Iowa. Filed Dec. 8, 1913. Serial No. 805,438. (Cl. 34—28.)



1. In a fruit drier, an adjustable rotary frame suitably supported, cases secured in said rotary frame provided with drawers and top and bottom screens carried by said drawers and movable with or independently thereof.

2. In a fruit drier, an adjustable rotary frame suitably supported, cases secured in said frame slidable longitudinally independently of each other, drawers in said cases and top and bottom screens carried by said drawers and movable with or independently thereof.

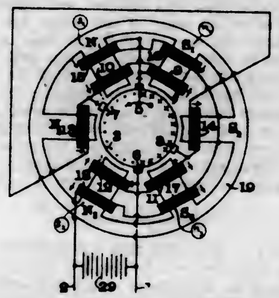
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1,093,045. DYNAMO-ELECTRIC MACHINE. VALÈRE ALFRED FYNN, London, England, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 26, 1911. Serial No. 636,299. (Cl. 171—223.)

1. In a dynamo electric machine, the combination with a revolving member having an $n$-pole winding, main brushes and auxiliary brushes, of a stationary member having $n$ main pole and $2n$ auxiliary poles, main exciting coils on the main poles connected in parallel with one set of brushes and means for producing a magnetization through the auxiliary poles dependent on the difference between the E. M. F.'s generated at the main and auxiliary brushes.

2. In a dynamo electric machine, the combination with a revolving member having an $n$-pole winding, main brushes and auxiliary brushes, of a stationary member having $n$ main poles and $2n$ auxiliary poles, means for producing a magnetization through the main poles dependent only on the E. M. F. generated at one set of brushes, and means for producing a magnetization through the auxiliary poles dependent on the difference between the E. M. F.'s generated at the main and auxiliary brushes.

3. In a dynamo electric machine, the combination with a stationary member, having $3n$ mechanical field poles, of a revolving member having an $n$-pole winding, main brushes, and auxiliary brushes displaced therefrom, means for producing on $2n$ of the field poles a magnetization dependent on the difference between the E. M. F.'s generated at the main and at the auxiliary brushes, and means for producing on the remaining field poles a magnetization dependent on the E. M. F. at the auxiliary brushes.



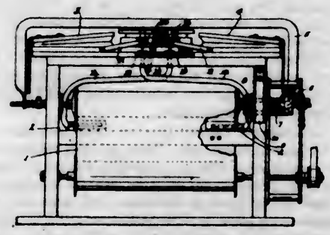
4. In a dynamo electric machine, the combination with a stationary member having $n$ main and $2n$ auxiliary poles each provided with a winding, of a revolving member having an $n$-pole winding, main brushes and auxiliary brushes, means connecting windings on the auxiliary poles in series with a main and an auxiliary brush and means connecting the windings on the main poles in parallel with the auxiliary brushes.

5. In a dynamo electric machine, the combination with a stationary member, having $3n$ mechanical field poles, of an $n$-pole revolving member having main brushes and auxiliary brushes displaced therefrom, means for producing on $2n$ of the field poles a magnetization dependent on the difference between the E. M. F.'s generated at the main and at the auxiliary brushes, means for producing on the remaining field poles a magnetization dependent on the E. M. F. at the auxiliary brushes, and means for controlling the armature reaction along the axis of the main brushes.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,046. WEB-GUIDING DEVICE. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Oct. 15, 1913. Serial No. 795,185. (Cl. 84—161.)



1. A traveling sheet or web, automatic means adapted to restore said sheet or web to its normal travel line when it is deflected therefrom, manually controlled means adapted to determine the travel of said sheet or web in the desired travel line thereof, and means adapted to alternatively make effective either said automatic means or said manually controlled means.

2. A traveling sheet or web, automatic means adapted to restore said sheet or web to its normal travel line when it is deflected therefrom, manually controlled means adapted to determine the travel of said sheet or web in the desired travel line thereof, and means adapted to alternatively make effective either said automatic means or said manually controlled means, and render said other means ineffective.

3. A traveling sheet or web, automatic means adapted to control said sheet or web in its normal travel line, manually controlled means adapted to determine the travel of said sheet or web in the desired travel line thereof, and means adapted to alternatively make effective either said automatic means or said manually controlled means.

4. A traveling sheet or web, automatic means adapted to control said sheet or web in its normal travel line, manually controlled means adapted to determine the travel of said sheet or web in the desired travel line thereof, and means adapted to alternatively make effective either said automatic means or said manually controlled means, and render said other means ineffective.

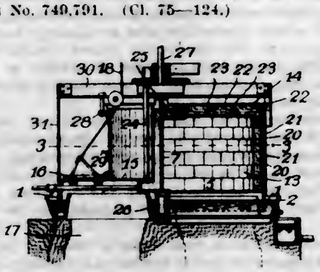
5. A traveling sheet or web, automatic means adapted to restore said sheet or web to its normal travel line when it is deflected therefrom and including an actuating member, manually controlled means adapted to determine the travel of said sheet or web in the desired travel line thereof, and a movable engaging member adapted to engage said manually controlled means with said actuating member of the automatic means when said manual means is operative, and to be disengaged from said actuating means of the automatic means when said automatic means is operative.

[Claims 6 to 13 not printed in the Gazette.]



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1,093,047. REVERSING-VALVE FOR HEATING-FURNACES. JEROME R. GEORGE, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1913. Serial No. 749,791. (Cl. 75—124.)



1. The combination with the series of air and gas flues of a heating furnace, of a reversing valve comprising an outer casing, vertically divided by partitions into segmental sections, with one of said sections closed at the top inclosing a chamber communicating with and connecting two adjacent flues for the passage of gas, a brick lining for the top and sides of said chamber, another of said sections being open at the top and outer side for the admission of air against said vertical partitions, said section provided with a closure having a valve controlled air passage communicating with one of the flues of the furnace.

2. A reversing valve for a heating furnace, comprising a shell or casing inclosing a chamber connecting two adjacent flues for the passage of gaseous fuel, having a central vertical skewback, a brick lined wall curved in a circular arc and two brick lined walls connecting the ends of said circular arc and said skewback, said connecting walls being curved in the opposite direction to said circular arc.

3. A reversing valve for a heating furnace, comprising a shell, a hood carried by said shell and covering a segmental portion of the space inclosed thereby, the remainder of the space inclosed by said shell being covered by a plate lying flush with the upper edge of the shell, whereby the hood is exposed on all sides to the atmosphere.

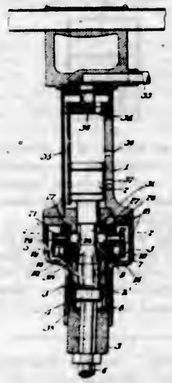
4. The combination with a series of air and gas flues of a heating furnace, of a reversing valve comprising a cylindrical shell, a hood inclosing a portion of said shell to form a segmental chamber in communication with two of said flues, the remaining portion of said shell constituting an air passage to a single flue, and being uninclosed, whereby the hood is exposed on all sides to the atmosphere.

5. A reversing valve for a heating furnace, comprising a cylindrical shell, a central skew-back carried by said shell, and supporting the ends of a pair of arched walls, and means for cooling said skew-back.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,048. PERCUSSIVE TOOL. CHARLES H. HAESELER, Philadelphia, Pa. Filed Nov. 6, 1913. Serial No. 799,417. (Cl. 121—20.)



1. A percussive tool comprising a cylinder, a chuck connected in revoluble relation thereto, a piston having an inclined surface in said cylinder, and means whereby said inclined surface turns said chuck, said means comprising a lever having a fulcrum connection, a work connection and a connection with said inclined surface between said fulcrum and work connections.

2. A percussive tool comprising a cylinder, a chuck connected in revoluble relation thereto, a piston having a tapered section movable in said cylinder, a collar adapted to turn on said cylinder, a lever having a fulcrum and a connection with said collar, means whereby said tapered section applies power to said lever between said fulcrum and connection, and clutching mechanism whereby said collar turns said chuck.

3. A percussive tool comprising a piston having an inclined surface, a cylinder in which said piston is reciprocated, a chuck connected in revoluble relation with said cylinder, clutching mechanism comprising an oscillating member for turning said chuck, and means operated by said inclined surface for moving said oscillating member, said means comprising a fulcrumed lever adapted to oscillate transversely to said piston, a device connecting said lever with said oscillating member and a device connecting said inclined surface with said lever between its fulcrum and its place of connection with said device first named.

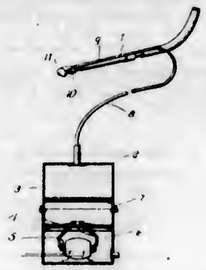
4. A percussive tool comprising a piston having a tapered section, a cylinder in which said piston reciprocates, a collar adapted to turn on said cylinder, a lever, a bearing on which said lever is fulcrumed, a link connecting said lever and collar, and means whereby said tapered section applies power to said lever.

5. A percussive tool comprising a piston having an inclined surface, a cylinder in which said piston reciprocates, a collar adapted to turn on said cylinder, a chuck connected in revoluble relation to said cylinder, clutching mechanism whereby said collar turns said chuck, a lever ful-

crumed so as to oscillate transversely to said piston, means whereby said lever turns said collar, and means whereby said surface moves said lever.

[Claims 6 to 9 not printed in the Gazette.]

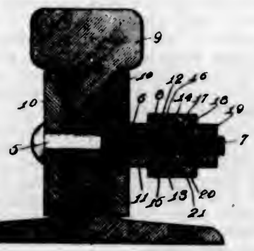
1,093,049. APPARATUS FOR RECOVERING GOLD-DUST. JOEL E. HAWLEY, Kansas City, Mo., assignor of one-half to G. H. Brown, Kansas City, Mo. Filed Sept. 30, 1912. Serial No. 723,166. (Cl. 32—5.)



1. The combination with a tool, of a hood partially inclosing the tool, a receptacle, a conduit connecting the hood and receptacle, and a vacuum apparatus adapted for drawing dust through the hood and conduit and delivering same to the receptacle.

2. The combination with a revoluble tool, of a vacuum apparatus, a conduit leading from the apparatus and provided with a nozzle comprising a hood adapted for inclosing part of the revoluble tool, and a clamp on said nozzle for removably attaching same to a part of the tool.

1,093,050. NUT-LOCK. OTTO A. HECKEL, St. Louis, Mo. Filed Feb. 10, 1912. Serial No. 676,857. (Cl. 151—17.)

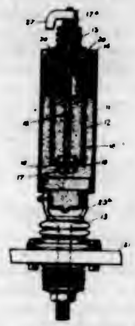


1. A nut lock comprising a bolt a portion thereof being of smaller diameter, the larger portion of the bolt provided with a left hand screw thread and the smaller portion with a right hand screw thread, a nut provided with an internal left hand screw thread, its one face beveled and provided with an internal recess, a second nut having an internal right hand screw thread and provided with a beveled recess which is to communicate with the beveled projection of the first nut, and a pair of fastening devices supported in the second nut, the free ends of the fastening devices arranged to seat themselves in the recess of the first nut for firmly locking the nuts in position when tightly screwed together substantially as specified.

2. A device of the class described comprising a bolt having left and right hand screw threads, the right hand screw thread being of smaller diameter than the left hand screw thread, a nut operating on the right hand screw thread, a nut operating on the left hand screw thread, the nut on the left hand screw thread having its one face tapered and a groove formed in its interior, the nut on the right hand screw thread having an inclined recess to receive the tapered portion of the left hand screw threaded nut and a pair of hook fastening devices firmly held in the right hand screw threaded nut, the free ends arranged to be seated in the groove when the nuts are tightly screwed together, substantially as specified.

3. A device of the class described comprising a nut lock consisting of a bolt, a pair of nuts, a right and left hand thread formed on said bolt, a nut operating on each of the threads, each of said nuts having a tapered contacting surface and an internal frictional fastening device connecting both nuts for preventing the two from turning simultaneously upon the bolt, substantially as specified.

1,093,051. OIL-SWITCH. EDWARD M. HEWLETT and CHARLES E. EVELETH, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Nov. 12, 1904. Serial No. 232,466. (Cl. 175—282.)



1. An electric switch comprising separable contacts, one at least of which is provided with an opening, a chamber for the contacts, and immovable means located therein for confining the pressure produced by the arc so that it can escape only through said contact opening thereby extinguishing the arc.

2. An electric switch comprising an oil pot, separable contacts therein, one of said contacts being tubular, and immovable means within the pot for restraining the displacement of the oil by the arc and permitting escapement only through the tubular contact and returning the oil to its normal location when the pressure due to the arc subsides.

3. An electric switch comprising a chamber, separable contacts arranged to break therein, an opening through one of said contacts, said opening communicating between different portions of said chamber and arranged to direct the pressure produced by the arc against the arc so as to extinguish it.

4. An electric switch comprising an oil pot, separable contacts arranged to break therein under oil, an opening through one of said contacts, said opening communicating between different portions of said pot and arranged to conduct the oil displaced by the arc against the arc so as to extinguish it.

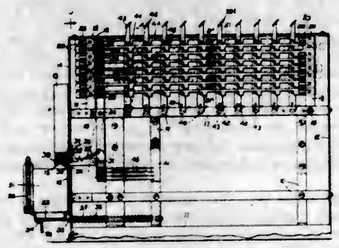
5. An electric switch comprising a two compartment chamber, separable contacts arranged to break in one of said compartments, an opening through one of said contacts, and communicating means between said compartments comprising said opening arranged to direct the pressure produced by the arc against the arc so as to extinguish it.

[Claims 6 to 21 not printed in the Gazette.]

1,093,052. COIN-DELIVERING MACHINE. BENJAMIN C. HOEFER, Chicago, Ill. Filed Mar. 14, 1910. Serial No. 549,226. (Cl. 133—4.)

1. In a coin delivering machine, in combination, a magazine for containing assorted tokens, a plurality of oscillating exposed selector keys, a sliding shift bar for each kind of token disposed in proximity to said keys, means for mechanically connecting a certain combination of said shift bars with each of said keys, said connecting means being effective only in an actuated key, an ejector for each kind of token, and means for mechanically connecting each ejector with one of said shift bars.





2. In a coin delivering machine, in combination, a magazine for containing assorted tokens, a sliding shift bar for each kind of token, an ejector for each kind of token, means for connecting each ejector with one of said shift bars, the movement of any one of said shift bars causing the ejection of a corresponding token, and a plurality of oscillating exposed selector keys each operating in proximity to said shift bars to actuate a certain combination of them.

3. In a coin delivering machine, in combination, a magazine for containing assorted tokens, selecting ejector mechanism associated with said magazine, a plurality of independent banks each comprising a plurality of similarly shaped sliding shift bars, means for mechanically associating each ejector mechanism with a shift bar in each bank, and a plurality of selector keys each operating in proximity to a bank of shift bars to actuate a certain combination of them.

4. In a coin delivering machine, in combination, a magazine for containing assorted tokens, an ejector for each kind of token associated with said magazine, multiple shift bars of identical shape for each ejector, means for mechanically associating each ejector with a shift bar in each bank so that the movement of any one of said shift bars will cause movement of the corresponding ejector, and a plurality of selector keys distributed among the multiple shift bars and operating to move a certain combination of said shift bars.

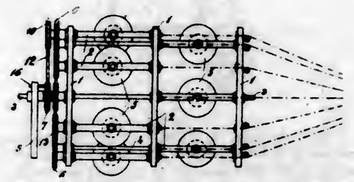
5. In a coin delivering machine, in combination, a magazine for containing assorted coins, selecting ejector mechanism associated with said magazine, a plurality of independent banks each comprising a plurality of similarly shaped shift bars, means for mechanically connecting each ejector mechanism with a shift bar in each bank, said connection being in the form of a mechanical engagement, whereby the movement of any one of said shift bars will cause the proper operation of the ejecting mechanism without the operation of any of the other shift bars, and a plurality of selector keys mounted for actuation in proximity to said shift bars and having parts for engagement with said shift bars, whereby each key may actuate a certain combination of them.

[Claims 6 to 21 not printed in the Gazette.]

1,093,053. ROPE-MACHINE. GUIDO HORN, Weissensee, near Berlin, Germany. Filed Apr. 16, 1913. Serial No. 761,621. (Cl. 28—21.)

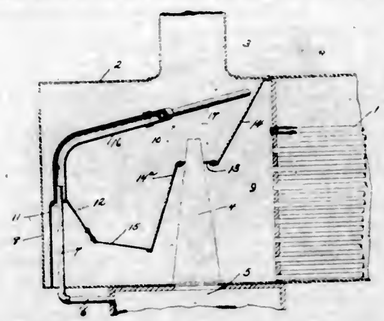
1. In a machine of the class described, the combination with a rotary member, and bobbin frames rotatably mounted on said member, of rotating means for said bobbin frames comprising a driven member on each of the bobbin frames and a driving member operatively connected with said driven members and mounted axially of the rotary frame, and means to lock at will either said driving member or driven members in position.

2. In a machine of the class described, the combination with a rotary member, and bobbin frames rotatably mounted on said member, of rotating means for said bobbin frames comprising a driven member on each of the bobbin frames and a driving member mounted axially of the rotary frame, flexible means providing an operative connection between said driving and driven members, and means to lock either said driven members or said driving member in position.



3. In a machine of the class described, the combination with a rotary member, and bobbin frames rotatably mounted on said member, of rotating means for said bobbin frames comprising sprocket wheels on each of said bobbin frames, a sprocket wheel located axially of the rotary member, a chain connection between said sprocket wheels, and means to lock at will either said sprocket wheels on the bobbin frames or said axially located sprocket wheel in position.

1,093,054. SPARK-ARRESTER. ROBERT E. JACKSON, Victoria, and FRANK E. BELL, Norfolk, Va. Filed Apr. 17, 1913. Serial No. 761,796. (Cl. 110—124.)

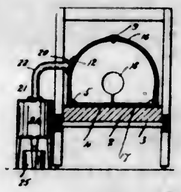


The combination in a locomotive, of a fire box, a smoke box, flues extending between and connecting the fire box and the smoke box, a diaphragm dividing the smoke box into a rear chamber in communication with the flues, and a forward chamber; said diaphragm including in its forward portion a foraminous plate, a smoke discharge leading from the upper portion of the forward chamber a steam discharge pipe adapted to be connected with a source of steam supply and alined with said smoke discharge and communicating with the forward chamber, a conduit leading from the forward portion of the rear chamber, at a point in front of the foraminous plate of the diaphragm, and back to and communicating with the fire box, and a conduit connected with a source of steam supply and arranged to discharge steam into the said conduit that leads back to the fire box.

1,093,055. BATH-CABINET. JAMES M. JOHNSON, Rice Lake, Wis. Filed Dec. 27, 1913. Serial No. 808,971. (Cl. 4—13.)

1. In a bath cabinet, the combination, with a support for the patient, of a base frame, foldable arch-shaped supports having their ends pivoted to the end portions of the base frame and provided with stops which prevent them from folding outwardly, a stretcher engaging with the

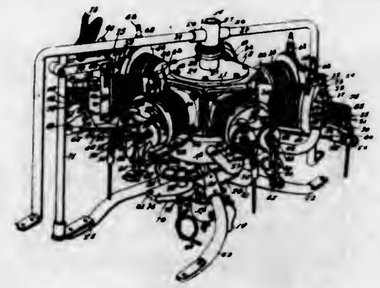
tops of the supports and holding them in a vertical position, a canopy of flexible material arranged over the arch-shaped supports and the stretcher, and a pipe connection for the supply of steam or hot air to the canopy



2. In a bath cabinet, the combination, with a support for the patient, of a base frame, foldable arch-shaped supports having their ends pivoted to the end portions of the base frame and provided with stops which prevent them from folding outwardly, a stretcher engaging with the tops of the supports and holding them in a vertical position, an intermediate arch-shaped support having its end portions sprung into engagement with the side bars of the base frame, a canopy of flexible material arranged over the arch-shaped supports and the stretcher, and a pipe connection for the supply of steam or hot air to the canopy.

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1,093,056. ROTARY EXPLOSIVE ENGINE OR MOTOR. ARTHUR K. LANDSMANN and FRITZ DIPPON, St. Louis, Mo. Filed Dec. 6, 1910. Serial No. 595,958. (Cl. 123—44.)



1. A four-cycle engine of the class described comprising a stationary crank shaft, a casing located around the same, a gas chamber located at the bottom of said casing, a plurality of cylinders mounted on the casing in the same horizontal plane, and rotating with the casing around the stationary shaft, the same when in rotation acting as a gyroscope, exhaust and intake valves mounted in the cylinders, a valve mechanism operating the exhaust valves of each cylinder at a given period, a sparking device for igniting the gases in the cylinder at a given period, a timing device whereby the spark is regulated firing the cylinders alternately, a pipe connection between each cylinder and the gas chamber, means for admitting gas to the gas chamber through the crank shaft, means for preventing the intake valves from becoming tightly seated through the centrifugal force exerted on them when the engine is in motion, and means for transmitting the power developed by the engine, substantially as specified.

2. A horizontal rotary engine comprising a stand, a crank shaft rigidly mounted therein, a second stand supporting the crank shaft at its upper end, a casing revolubly supported by the crank shaft, cylinders attached to the casing, inlet and exhaust valves mounted in the cylinder heads, a gas chamber mounted below the casing, a double grooved cam located within the gas chamber and a connecting means between the cam and the exhaust valves only for operating the same.

3. A device of the class described comprising a casing, a plurality of cylinders rigidly located on the periphery of said casing, a vertical stationary crank shaft rigidly held at its upper and lower extremities, a gas chamber located beneath the casing, intake and exhaust valves located in the piston heads and a cam mounted in the gas chamber for operating the exhaust valves only.

4. A device of the class described comprising a hollowed vertical crank shaft rigidly supported at both its ends, a revoluble casing mounted around the crank shaft, cylinders radiating from the periphery of said casing, said cylinders having their outer ends of larger diameter than the main body thereof, a gas chamber located around the shaft and secured to the under side of said revoluble casing, means for supplying the gas chamber with gas, and pipes connecting the gas chamber and the enlarged portion of the cylinders for supplying the cylinders with gas.

5. A device of the class described comprising a vertical crank shaft rigidly supported at both of its ends against revolution, a revoluble casing mounted around the crank shaft and between the supports, cylinders radiating from the periphery of said casing, said cylinders having their outer portion of larger diameter than the main body thereof, a gas chamber located around the shaft and secured to the under side of the revolving casing, a passage formed in the center of the lower portion of the crank shaft extending from the lower end thereof and communicating with the gas chamber, a carbureter attached to the lower end of the crank shaft for supplying the gas chamber with the proper mixture, and a timing device whereby the cylinders are fired alternately.

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1,093,057. TRAVELING CRANE. ALFRED LAUKHUFF, Duisburg, Germany. Filed May 22, 1908, Serial No. 434,247. Renewed Sept. 29, 1913. Serial No. 792,485. (Cl. 212—21.)



1. A traveling crane including in combination, a series of spaced supports arranged in line, a runway mounted on said supports, a crane traveling on said runway, said crane having a portion arranged below the runway and extending beyond both sides thereof, means whereby said crane is permitted to travel past said supports, and a carriage traveling on said crane below said runway and across the line of the supports.

2. A traveling crane including in combination, a series of spaced supports arranged in line, a runway mounted on said supports, a crane traveling on said runway, said crane having a track portion arranged below said runway and extending on opposite sides thereof, means whereby said crane is permitted to travel past said supports, and a carriage constructed to travel on said track portion across the line of the supports.

3. A traveling crane including in combination, a series of spaced supports arranged in line, a runway mounted on said supports, a crane traveling on said runway, said crane having a sectional track portion arranged below said runway and with a track section on each side thereof, and a carriage constructed to travel on said sectional track across the line of the supports.

4. A traveling crane including in combination, a series of spaced supports arranged in line, a runway mounted on said supports, a crane traveling on said runway, said crane having a sectional track portion arranged below said runway with a track section on each side thereof connected by a movable track section whereby said crane is permitted to travel past said supports, and a carriage constructed to travel on said track and across the line of the supports.

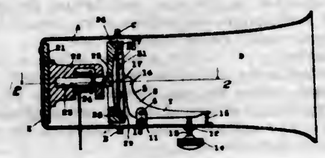
5. A traveling crane including in combination, a series of spaced supports arranged in line, a runway mounted on said supports, a crane traveling on said runway, said crane having a sectional track portion arranged below said runway and with a track section on each side thereof, and a carriage traveling on said track, said carriage having a series of wheels, three at least of said wheels being so spaced that the distance between the adjacent wheels is at least equal to the distance between the said track sections.

[Claims 6 to 19 not printed in the Gazette.]



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1,093,058. WARNING DEVICE. ALPHEUS C. LIPPINCOTT, East Orange, N. J. Filed Mar. 14, 1913. Serial No. 754,172. (Cl. 116—1.)



1. In a horn, a movable diaphragm having a center free to vibrate and having projections thereon spaced from the center and movable with the diaphragm over a fixed path, and a projection-engaging member disposed in the path of movement of said projections and adapted to engage the same to set the center of the diaphragm into vibration.

2. A horn, having an amplifier, in combination with a rotating diaphragm capable of vibrating, a wear-piece carried by said diaphragm, and a wear-piece-engaging member mounted in fixed position on said amplifier and having a part disposed in the path of movement of said wear-piece, and adapted to transmit vibrations to said amplifier.

3. In a horn, a rotating shaft, a vibrating diaphragm fixed adjacent its periphery to said shaft, said diaphragm having a wear-piece projecting therefrom, and a relatively stationary finger disposed in the path of movement of said wear-piece.

4. In a horn, the combination with a moving and vibrating diaphragm having a wear-piece projecting therefrom, of a lever having a part adapted to be disposed in the path of travel of said wear-piece, and means for adjusting the position of said lever relative to said path.

5. In a horn, a vibrating amplifier, in combination with a movable and vibrating diaphragm having a wear-piece thereon, and a lever having one arm adapted to be positioned in operative relation to said wear-piece and the other arm in operative engagement with said amplifier to vibrate the same.

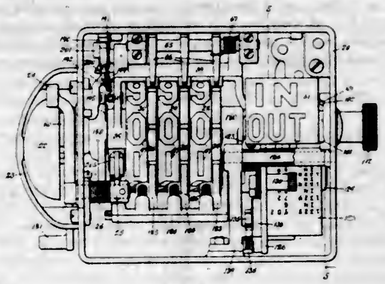
[Claims 6 to 12 not printed in the Gazette.]

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1,093,059. RECORDING FARE-REGISTER. CHARLES F. LITTLEJOHN, New Haven, Conn., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 26, 1906. Serial No. 297,997. (Cl. 234—4.)

1. The combination in a registering machine, of registering and resetting mechanism, an external registering lever for operating the registering mechanism, interlocking devices between the said mechanisms, and a locking bolt operated by the interlocking devices, and mounted to swing into and out of the path of movement of the said external lever, whereby that lever is directly locked throughout the operation of the resetting mechanism.

2. The combination with registering and resetting mechanism, of an external lever serving as a prime mover for operating the registering mechanism, interlocking devices between the said mechanisms, a locking device mounted to swing into and out of the pathway of the registering lever, and operatively connected with and controlled by the interlocking devices, whereby the said prime mover is locked prior to the operation of the resetting mechanism and is unlocked at the end of that operation.




3. The combination with registering and recording mechanism, of an external prime moving lever for operating the registering mechanism, a locking device mounted to move into and out of the path of movement of the lever, and means connected with and controlled by the recording mechanism for moving the locking bolt to its locking position in the path of movement of the said lever at the beginning of the recording operation.

4. The combination with incased registering, recording and resetting mechanisms, of an external prime moving lever for operating the registering mechanism, a locking device mounted for movement into and out of the pathway of the lever, and means controlled by the movements of the recording and resetting mechanisms for moving the locking device into the pathway of the said lever to lock the registering mechanism out of operation, and allowing the said lever to be released at the completion of the resetting operation.

5. The combination with registering, recording and resetting mechanism, of an external operating lever for the registering mechanism, a locking member mounted for movement into and out of the pathway of the said lever, and interlocking devices operating under the joint control of the recording and resetting mechanisms for moving the locking member, whereby the said operating lever is locked externally of the case at the beginning of the recording operation, and is released from the said control at the end of the resetting operation to allow the lever to be unlocked.

[Claims 6 to 38 not printed in the Gazette.]

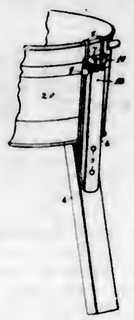
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1,093,060. WASHTUB-SUPPORTING LEG. ANTON T. LUECKENBACH, Neenah, Wis. Filed May 9, 1912. Serial No. 696,129. (Cl. 68—35.)

1. A wash tub support, consisting of a longitudinally angular leg, a support for the chine of a tub upon the outside of the angle intermediate the ends of the leg, said support having a groove upon opposite side edges of the leg from its upper end downward toward said angle, a rod bent upon itself and forming a hook at said bend adapted to be hooked over the top of a tub and its two depending portions arranged parallel with each other, spaced apart and fitted for sliding along the aforesaid grooves, and means for releasably securing the rod within said grooves with its hook hooked over the top of a tub.

2. A wash tub support, consisting of a longitudinally angular leg, a support for the chine of a tub upon the outside of the angle intermediate the ends of the leg, said support having a groove upon opposite side edges

of the leg from its upper end downward toward said angle, a rod bent upon itself and forming a hook at said bend adapted to be hooked over the top of a tub, and its two depending portions arranged parallel with each other, spaced apart and fitted for sliding along said grooves, a sheet metal holding plate secured upon the leg and inclosing said sliding rod portions, a sheet metal clamping plate mounted above the upper end of the leg, a bore having a sliding fit, through the plate at one side thereof for each of said two portions, an aperture through the plate at one side of said two bores, a screw bolt secured in the upper end of said leg and extending upward through said aperture, and a thumb nut on said screw bolt for drawing said clamping plate downward upon the screw bolt.



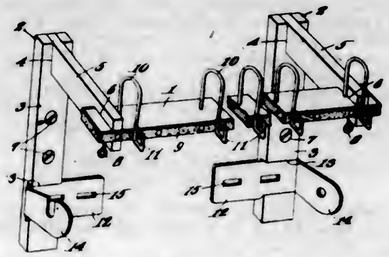
3. A wash tub leg, consisting of an upper and lower section, the upper section being adapted to be detachably secured to the lower section with suitable fastening means at an angle therewith, the upper end of the lower section when connected to the upper section with one of its sides in contact with the upper section being provided with a seat curved to receive a comparatively thick chine and fitted to support a tub of the usual wood wash tub type, and when connected to the upper section with its opposite side in contact, being provided with a seat of less width curved for fitting under the chine of a tub of the usual sheet metal type.

4. A wash tub leg, consisting of two sections, a lower section fitted to and adapted to support a wash tub upon its upper end, an upper section fitted to the lower section at an angle therewith, secured thereto and extending to near the top of the tub, a groove in the opposite side edges of the upper section longitudinally thereof, a rod bent upon itself and forming a hook at said bend adapted to be hooked over the top of a tub, and two depending portions arranged parallel with each other, spaced apart and fitted for sliding along the aforesaid grooves, and means for releasably securing the rod within said grooves with said hook hooked over the top of a tub.

5. A wash tub leg, consisting of two sections, a lower section fitted to and adapted to support a wash tub upon its upper end, an upper section fitted to and secured detachably to the lower section at an angle therewith and extending to near the top of a tub, a groove in the opposite side edges of the upper section longitudinally therewith, a rod bent upon itself and forming a hook at said bend adapted to be hooked over the top of a tub, and its two depending portions arranged parallel with each other, spaced apart and fitted for sliding along said grooves, a sheet metal holding plate secured upon the upper section and bent for inclosing said two depending portions, a perforated plate mounted above the upper end of said upper section, a bore having a sliding fit through the plate for each of said two rod portions, an aperture through the plate at one side of said two bores, a screw bolt secured in the upper end of said upper leg section and extending upward through said aperture, and a thumb nut on said bolt for drawing said perforated plate downward upon the screw bolt.

[Claim 6 not printed in the Gazette.]

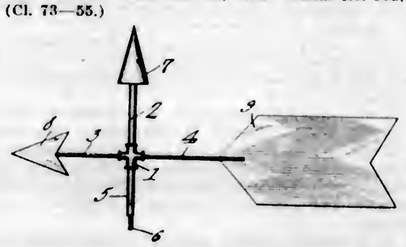
1,093,061. WINDOW SHADE AND CURTAIN HANGER. JOHN F. MCGILL, Outcrop, Pa. Filed Nov. 10, 1913. Serial No. 801,898. (Cl. 156—23.)



1. A curtain pole, and U-shaped clamps, each having one end attached to the pole, and having its free end yieldingly held against one portion of the pole, the bends of the clamps being spaced from the pole.

2. A curtain pole, in the form of a bar, a cushion strip attached to one edge of the bar, and U-shaped curtain clamps, each having one end attached to the bar intermediate its edges, and having its free end yieldingly held against the said cushion strip, the bends of the clamps being spaced from the bar.

1,093,062. WEATHER-VANE. ALDUS M. MELLINGER, Ephrata, Pa. Filed Nov. 24, 1913. Serial No. 802,772. (Cl. 73—55.)



1. In a device of the character described, a coupling, a vane embodying two sections attached to the coupling, a pipe section attached to and depending from the coupling, an anti-frictional ball within the coupling, and a spindle received by the said pipe section and engaging the said ball.

2. In a device of the character described, a cruciform coupling, pipe sections engaged to the several arms thereof, a vane head and wing attached to the remote ends of one pair of alining pipe sections, a head piece mounted upon the end of one of the other pair of alining pipe sections, a bearing ball disposed within the coupling, and a spindle received by the other pipe section of the last mentioned pair, and engaging the said ball.

1,093,063. FUSIBLE DEVICE. JONATHAN C. MELOON, Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1912. Serial No. 686,790. (Cl. 236—16.)



1. An article of the character described comprising a two-part member having two legs and provided with an indentation in one side of one of the legs, and a one-part member adapted to be inserted between the legs of said two-part member and provided with an annular protuberance in one side arranged to register with the indentation in the leg of said two-part member.



2. An article of the character described comprising a two-part member having two legs and provided with a conico-hemispherical indentation in one side and a conico-hemispherical protuberance in the opposite side of each leg, and a one-part member adapted to be inserted between the legs of said two-part member and provided with a protuberance on one side arranged to enter the indentation in one leg of said two part member and provided with an indentation on the opposite side arranged to be engaged by the protuberance upon the other leg of said two-part member.

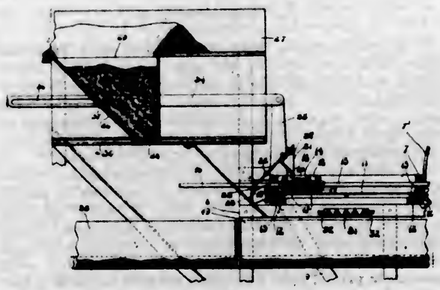
3. An article of the character described comprising a two-part member having two legs and provided with a series of conico-hemispherical indentations in one side and a series of conico-hemispherical protuberances in the opposite side of each leg, and a one-part member adapted to be inserted between the legs of said two-part member and provided with a series of protuberances on one side arranged to enter the indentations in one leg of said two-part member and provided with a series of indentations in the opposite side arranged to be engaged by the series of protuberances upon the other leg of said two-part member.

4. An article of the character described comprising a two-part member having two legs and provided with a series of indentations and a series of protuberances in each leg and a series of holes arranged both in and between said protuberances, and a one-part member adapted to be inserted between the legs of said two part member and provided with a series of protuberances arranged to enter the indentations in one leg of said two-part member, a series of indentations arranged to be engaged by the protuberances upon the other leg of said two-part member and a series of holes in and between said protuberances arranged to register with the holes in both legs of said two-part member.

5. An article of the character described comprising a two-part member having two legs and provided with an eyelet extending through both legs of said two-part member and an annular indentation in one of said legs having a cam-surface, and a one-part member adapted to be inserted between the legs of said two-part member provided with an annular protuberance having a cam surface arranged and adapted to engage the cam surface on the indentation in said two-part member.

[Claim 6 not printed in the Gazette.]

1,093,064. TILE-COATING MACHINE. OTTO METZNER, Cincinnati, Ohio, assignor to The Rookwood Pottery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 16, 1912. Serial No. 720,454. (Cl. 91—43.)



1. In an apparatus of the character described, a distributing screen for spreading coating material, a tile support located below the screen and an open bottomed receptacle for receiving coating material and for spreading it across the screen, said receptacle being movable across the screen.

2. In an apparatus of the character described, a movable conveyer, a distributing screen carried by the conveyer, a distributer movable across the screen and mounted on the conveyer, and means actuated by the conveyer for filling the distributer.

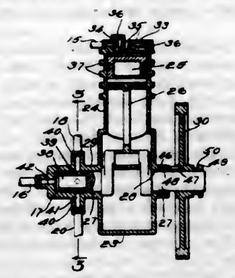
3. In an apparatus of the character described, a frame, a tile support mounted on the frame, a conveyer movably mounted on the frame and movable to a position over the support, a distributing screen mounted on the conveyer, a distributer mounted on the conveyer above the screen and provided with an open bottomed coating material receiving chamber, and means for moving the distributer across the screen.

4. In an apparatus of the character described, a tile support, a movable conveyer located above the support, a distributing screen mounted on the conveyer, a distributer mounted on the conveyer above the screen and movable thereacross and having a coating material receiving chamber formed thereon, and means for guiding the motion of the distributer across the screen.

5. In an apparatus of the character described, a distributer having a coating material receiving chamber formed therein and extending longitudinally thereof, a receptacle adapted to dump a supply of coating material into the chamber, a screen substantially equal in width to the length of the chamber and proportioned in area to the capacity of the receptacle, such that the charge held by the receptacle will cover the screen to a predetermined depth, and means for moving the distributer across the face of the screen.

[Claims 6 to 30 not printed in the Gazette.]

1,093,065. STARTING DEVICE FOR INTERNAL-COMBUSTION ENGINES. FRANK MORGAN, Melrose, Mass. Filed Mar. 29, 1913. Serial No. 757,491. (Cl. 123—181.)



A starting device for internal combustion engines having, in combination, a multiple cylinder internal combustion engine, a reservoir for compressed fluid, a pump for compressing the fluid and having journal bearings, ports in one of said bearings, pipes connecting the ports and the cylinders of the engine respectively, a chamber hollowed into one end of the crank-shaft of said pump, a port in the crank-shaft leading into the chamber and adapted to register successively with the ports in the pump-bearing so as thereby to supply the compressed fluid to the cylinders of the engine respectively.

1,093,066. DEVICE FOR REMOVING OBSTRUCTIONS FROM PLUMBING PASSAGEWAYS. JOHN A. MORRISON and JACOB H. LEVIN, Minneapolis, Minn.; said Morrison assignor to said Levin. Filed Mar. 8, 1913. Serial No. 753,139. (Cl. 137—70.)

1. A device for removing obstructions from passageways in plumbing comprising an extended flexible member, a hooked head secured to the flexible member, a handle, a tension member formed of a flat steel ribbon extending from the handle to the head, and means for rotating the head.

2. A device for removing obstructions from passageways in plumbing comprising an extended flexible member, a hooked head secured to one end of the flexible member, a handle secured to the other end of the flexible member, said handle being formed with an interior cavity and an

aperture leading therefrom, a flat steel ribbon extending through said aperture and having an enlarged portion within the cavity, the other end of said ribbon being connected with the head, and means to rotate the head.

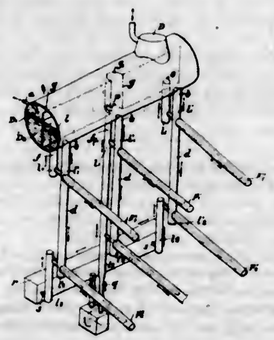


3. A device for removing obstructions from passageways in plumbing comprising an extended flexible member, a hooked head secured to one end of the flexible member, a handle secured to the other end of the flexible member, said handle being formed with an interior cavity and an aperture leading therefrom, a flat steel ribbon extending through said aperture and having an enlarged portion within the cavity, a plurality of interconnected links connecting said ribbon with said head, and means to rotate the head.

4. A device for removing obstructions from passageways in plumbing comprising an extended flexible member, a cylindrical head secured to the end of said flexible member and having the outer margins thereof extended beyond the transverse limits of the flexible member, said head being provided with a plurality of perforations, staples set through said perforations having the pointed ends thereof extending outwardly from the flexible member and turned forwardly and angularly from the front face of the head to form a series of hooks said staples being located in that portion of the head which is extended beyond the flexible member, and means to rotate the head.

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1,093,067. STEAM-BOILER. JULES NICLAUSSE and ALBERT NICLAUSSE, Paris, France. Filed Nov. 21, 1910. Serial No. 593,495. (Cl. 122—315.)



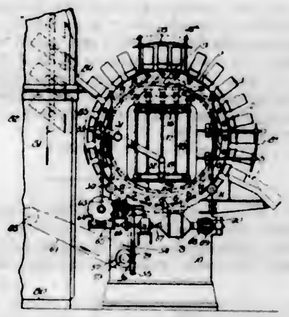
1. In a steam boiler, a feed water compartment, a stack of steam-generating tubes and a communicating passage between the same, in combination with a steam-collector also communicating with said tubes, a stack of steam-generating pipes arranged between the same and the heating medium and a communication passage connecting the steam-collector with the latter stack, and a communicating duct arranged between the said communicating passages.

2. In a steam boiler, a feed water compartment, a stack of steam-generating tubes and a series of communicating passages between the same, in combination with a steam-collector also communicating with said tubes, a second stack of steam-generating tubes arranged between the same and the heating medium, and a further communicating passage connecting the steam-collector with a portion of the two stacks, and a duct arranged between the latter passage and the first named passages, whereby a third steam-generating element is fed solely with water purified by its passage through the first stack of tubes.

3. In a steam boiler, a feed water compartment, a stack of steam-generating tubes and a series of communicating passages between the same, in combination with a steam-collector also communicating with said tubes, a second stack of steam-generating tubes arranged between the same and the heating medium, and a further communicating passage connecting the steam-collector with a portion of the two stacks, a stand pipe arranged in the steam-collector and communicating with the same, and a duct arranged between the latter passage and the first named passages, whereby a third steam-generating element is fed solely with water purified by its passage through the first stack of tubes.

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1,093,068. BOTTLE-WASHING MACHINE. IVER C. NIELSEN, Chicago, Ill., assignor of one-half to George A. Master, Chicago, Ill. Filed June 28, 1913. Serial No. 775,244. (Cl. 141—7.)



1. A bottle-washing machine, comprising a rotatable spider, means for rotating the same, a plurality of longitudinal and circumferential rows of bottle-holders, each longitudinal row being pivotally mounted upon said spider, bottle washing means adapted to be presented to said bottle holders and means for causing the topmost rows of bottles to stand parallel each to the other.

2. A bottle-holder comprising a rotatable spider, a plurality of longitudinal and circumferential rows of bottle-holders, each longitudinal row being pivotally mounted upon said spider, a crank in connection with each of said longitudinal rows, a cam adapted to coöperate with said cranks and thereby cause said bottle-holders to rock upon their pivots, said cam being adapted to rock a plurality of rows so that all of the bottles of said rows are parallel to each other, bottle-washing means adapted to be presented to said bottle holders and means to advance the spider.

3. A bottle-holder comprising a spider, a plurality of longitudinal and circumferential rows of bottle-holders, each longitudinal row being pivotally mounted upon said spider, a crank in connection with each of said longitudinal rows, a cam adapted to coöperate with said cranks and thereby cause said bottle-holders to rock upon their pivots, said cam being adapted to rock a plurality of rows so that all of the bottles of said rows are parallel to each other, a movable frame, a plurality of bottle-washing tubes carried thereby and movable therewith, means to reciprocate said frame and said tubes toward or away from the bottles to which said tubes are to be presented, and means to advance the spider.

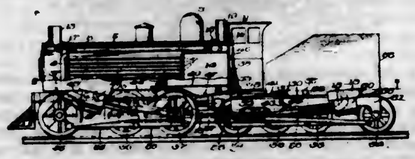
4. A bottle-holder comprising a spider, a plurality of longitudinal and circumferential rows of bottle-holders, each longitudinal row being pivotally mounted upon said spider, a crank in connection with each of said longitudinal rows, a cam adapted to coöperate with said cranks and thereby cause said bottle-holders to rock upon their pivots, said cam being adapted to rock a plurality of rows so that all of the bottles of said rows are parallel to each other, a movable frame, a plurality of bottle-washing tubes carried thereby and movable therewith, means to reciprocate said frame and said tubes toward or away from the bottles to which said tubes are to be presented, and means to advance the spider.

5. A bottle holder comprising a spider, a plurality of longitudinal and circumferential rows of bottle-holders, each longitudinal row being pivotally mounted upon said spider, a crank in connection with each of said longitudinal rows, a cam adapted to coöperate with said cranks and thereby cause said bottle-holders to rock upon their pivots, said cam being adapted to rock a plurality of rows so that all of the bottles of said rows are parallel to each other, a movable frame, a plurality of bottle-washing tubes carried thereby and movable therewith, means to reciprocate said frame and said tubes toward or away from the bottles to which said tubes are to be presented, means to rotate said tubes, and means to advance the spider.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,069. LOCOMOTIVE. CARL L. NILSON, Transcona, Canada. Filed Apr. 28, 1913. Serial No. 764,000. (Cl. 105—17.)



1. The combination with a locomotive and its tender carrying the supply of fuel and water for said locomotive, of a water tank forming a part of said tender, a water tank forming a part of said locomotive and arranged below the boiler of said locomotive, and means providing fluid connection between the tender water tank and the tender forming a part of said locomotive, whereby the tender and locomotive tanks are connected as a single tank and a part of the water supply is utilized as weight for the locomotive as specified.

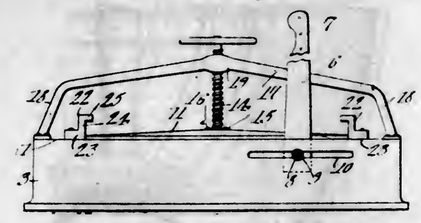
2. The combination with a locomotive of the smoke box into which the boiler flues of the locomotive have their outlets at the front end of the locomotive, a substantially similar smoke box at the rear end of the locomotive boiler, flues connecting the front and rear smoke box, and an outlet or smoke stack for the latter.

3. The combination with a locomotive and its cylinder cocks, of means for exhausting through said cylinder cocks and the smoke stack of said locomotive.

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1,093,070. BELT-CUTTER. PORTER H. PARKER, Carthage, Mo. Filed May 21, 1913. Serial No. 769,088. (Cl. 164—45.)

1. A cutter comprising a base provided with an elongated aperture in the side wall thereof, a knife blade pivotally and adjustably secured within said elongated aperture, a compression plate mounted above the said base and adapted to be moved into forced contact therewith, and a guide member contacting with the end of the compression plate for the guidance thereof and adapted to receive the material to be cut thereagainst.



2. A belt cutter comprising a base with a slot extending longitudinally thereof, a knife blade pivotally secured to the said base and adapted to move within the said slot, a compression plate mounted above the said base and adapted to be moved into forced contact therewith, and a guide member contacting with the end of the compression plate and adapted to receive the material to be cut thereagainst.

3. In a belt cutter the combination of a bed plate with a longitudinal slot therein, supporting rims projecting downwardly therefrom, a knife blade pivotally secured to one of the said rims and adapted to move within the bed plate slot, a compression plate with a threaded rod extending upwardly therefrom, a superstructure threadedly engaging said rod and adapted to support the same, guide members disposed at the ends of the said compression plate adapted to prevent the rotation thereof and adapted to receive the material to be cut thereagainst.

4. A belt cutter comprising a base with a longitudinal slot therein, a knife blade pivotally and adjustably secured to the said base and adapted to move within the said slot, an arch construction extending above and rigidly secured to the said base, a threaded rod threadedly engaging the said arch construction and rotatably engaging a compression plate, guide members extending transversely of the base at right angles to the said slot and contacting with the ends of the said compression plate to prevent the rotation thereof, said guide members adapted to hold the material to be cut at right angles to the plane of movement of the knife blade.

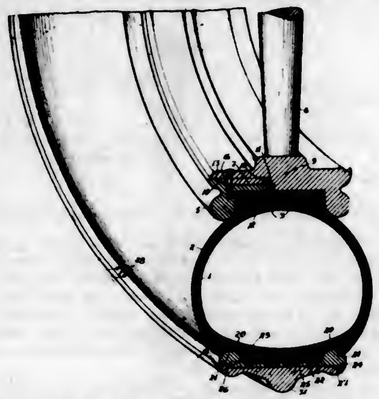
5. A belt cutter comprising a bed plate with a slotted aperture extending longitudinally thereof adjacent one edge thereof, a knife blade pivotally mounted and adapted to move within the said bed plate slot, an arch construction rigidly secured to the said bed plate, a threaded rod threadedly engaging the arch construction, a compression plate rotatably secured to the said threaded rod and adapted to be moved in a vertical manner thereby, guide members rigidly secured to the said bed plate and contacting with the ends of said compression plate and adapted to prevent the rotation and limit the vertical movement thereof, said guide members adapted to receive thereagainst the material to be cut, said guide members extending at right angles to the plane of movement of said knife blade, the side edge of the said compression plate adapted to lie flush with the said bed plate slot to thereby compress the material adjacent the point at which the same is to be cut.

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1,093,071. TIRE-FASTENING. JOHN P. A. PEARSON, San Francisco, Cal. Filed Mar. 28, 1911. Serial No. 617,465. (Cl. 152—21.)

In combination with an inner rim section having its outer surface recessed on one side only, said recessed portion having a circumferential series of raised portions or teeth having smooth surfaces and alternating with a circumferential series of recessed portions or notches, and also having angular recesses between the inner edges of the teeth and the main portion of said rim section, an outer rim section formed on its inner surface with a cir-

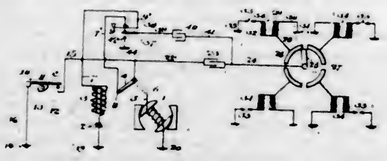
cumferential series of angular hooks adapted to fit snugly within said recesses and spaced apart from one another at intervals slightly longer than the length of the raised



portions or teeth, and means for securing said outer section to said inner section in the positions in which said angular hooks engage said recesses.

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1,093,072. HIGH-FREQUENCY DISCHARGE APPARATUS. HOWARD WILLIAM PERKIN, Glendale, Cal., assignor to High Frequency Ignition Coil Company, Los Angeles, Cal., a Corporation of California. Filed Dec. 30, 1912. Serial No. 739,392. (Cl. 123—148.)



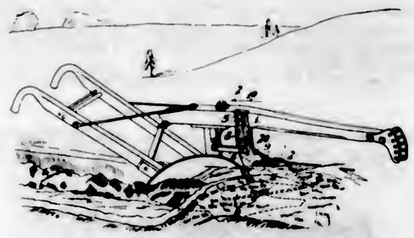
1. A high frequency discharge apparatus comprising a charging circuit of high self induction, including a source of current and circuit controlling means for making and breaking the circuit to generate high potential impulses therein by extra current induced in said circuit on breaking the circuit, a disruptive discharge coil, spark gap electrodes connected to the secondary winding of said coil, a discharge circuit connected to receive the high potential impulses from said charging circuit and including the primary winding of said disruptive discharge coil, and a condenser included in said discharge circuit in series connection with said primary winding and between the connection of the charging circuit and the primary winding, permitting high tension high frequency oscillating discharge said circuit, but preventing passage of low tension current from said charging circuit to said disruptive discharge coil.

2. A high frequency discharge apparatus comprising a charging circuit including a magneto and a circuit breaker, said circuit being grounded at one side of said magneto, a disruptive discharge coil having primary and secondary windings, spark gap electrodes, one of which is connected to the secondary winding of said coil and the other of which is grounded, a ground connection for the primary winding of said coil, and a condenser, connected at one side to the ungrounded side of the windings of the said coil and at the other side to the ungrounded side of the charging circuit, so that said condenser is in series connection between the charging circuit and the said primary winding to permit high frequency high tension discharge to pass in a circuit including said circuit breaker, condenser and coil, but to prevent passage of low tension current from said charging circuit to said coil.

3. A high frequency discharge apparatus for ignition of an internal combustion engine, comprising a charging circuit including a source of current and a circuit controller for closing and opening said circuit, means adapted to be operated by the engine for periodically operating said circuit controller, a key normally closing said charging circuit, a disruptive discharge coil and spark gap electrodes connected to receive high frequency, high tension discharge of current from the secondary winding of said coil, a condenser having one side connected to said charging circuit and the other side being connected to the primary of said disruptive discharge coil, a second condenser having one side connected to said disruptive discharge coil, and contact means controlled by said key and connected to the other side of said second condenser to establish a closed circuit for said source of current, independent of said periodically operated circuit controller when said key is opened, and to simultaneously connect the said other side of said second condenser with said circuit and to open said circuits so established in the return movement of said key, to cause said condenser to discharge and to energize said disruptive discharge coil independently of the operation of the periodically operated circuit controller.

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1,093,073. PLOW ATTACHMENT. HARRY KAHLB PHIPPS, Emlenton, Pa. Filed Jan. 24, 1913. Serial No. 743,976. (Cl. 97—6.)



1. An attachment for plows which comprises a thin metal body including a vertical penetrating portion having an upwardly extended shank for attachment to the plow beam, and a laterally and rearwardly extending splitting blade extending from the lower edge of said body in a plane at right angles thereto, and a guard member extending laterally from said body and lying in a plane inclined to the horizontal and to said cutting blade.

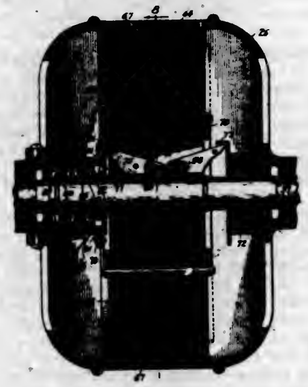
2. An attachment for mold board plows comprising a thin flat vertical web, including a front penetrating edge and a rear upwardly projecting shank adapted for attachment to the plow beam, a cutting blade extending horizontally from the lower edge of said body and held in a plane at right angles to said body, said body including a portion cut away and bent over laterally to lie in a plane inclined to the horizontal and form a guard member substantially as specified.

3. An attachment for mold board plows which comprises a vertically disposed thin metal body, which includes a front penetrating edge inclined to the horizontal, and a rear upwardly projecting shank for attachment to a plow beam, said body having a portion cut and bent laterally to form a guard member, a laterally projecting cutting blade lying in a horizontal plane and extending from and integrally formed with the lower edge of said body, all being arranged substantially as shown and described.

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1,093,074. ELECTRIC MOTOR. EDWIN S. PILLSBURY, St. Louis, Mo., assignor to Century Electric Company, a Corporation of Missouri. Filed Apr. 11, 1911. Serial No. 620,350. (Cl. 172—279.)

1. In an electric motor, a shaft, a rotor thereon, said rotor comprising a plurality of annular laminæ and having a slot through said laminæ eccentric to the shaft, an electric conductor for said motor comprising a displacement element, means automatically to displace said element at a certain speed comprising toggle mechanism within the said eccentric slot, an abutment fixed relatively to the rotor to which one member of the toggle mechanism is pivoted, and a sliding abutment on the rotor shaft to which the other member of the toggle mechanism is pivoted, said sliding abutment being connected to said displaceable element.



2. In an electric motor, a shaft, a rotor thereon, said rotor having a plurality of equally spaced slots around its axis, an electric conductor for said motor, means automatically to change the continuity of said conductor at a certain speed comprising two heavy toggle members in each slot, an abutment fixed relatively to the rotor for one of each pair of toggle members, a sliding abutment for the other member of each pair, said toggle members lying entirely between said abutments and adapted to push said abutments apart when acted upon by centrifugal force, and a member comprised in said electric conductor and operated by said sliding abutment to change the continuity of the same.

3. In an electric motor, a rotor shaft, a conductor for the motor, a centrifugal device to change the conductor at a certain speed comprising a fixed abutment on the rotor shaft, a sliding abutment on the rotor shaft, a spring adapted to push the sliding abutment toward the fixed abutment, and a pair of toggle members acting between the two abutments, said toggle members being weighted and the entire weight thereof lying between the two abutments.

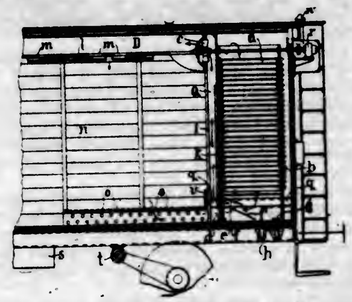
4. In an electric motor, a rotor, a rotor shaft, an end plate, a conductor for the motor, means automatically to change the conductor at a certain speed comprising an annular boss projecting beyond the rotor from the end plate of the motor and surrounding the rotor shaft, an insulated ring slidably mounted on said boss, two contact terminals adapted to rest on said ring and be electrically connected thereby, said ring and terminals being comprised in said conductor, and centrifugal mechanism carried by the rotor to displace said ring in an axial direction.

5. In an electric motor, a rotor, a rotor shaft, an end plate, a conductor for the motor, and means automatically to change the relation of the parts of the conductor at a certain speed comprising an annular boss projecting toward the rotor from the end plate of the motor and surrounding the rotor shaft, a sliding sleeve on said boss having an outwardly turned flange on the end thereof toward the rotor, a collar having an inwardly directed groove engaging said flange, said collar being mounted to rotate with the rotor, an insulated metal ring carried by said sliding sleeve, contact terminals resting on said ring, and centrifugal mechanism engaging the said collar and adapted to displace the same.

[Claims 6 to 12 not printed in the Gazette.]



1,093,075. REFRIGERATING DEVICE FOR RAILWAY-CARS. PHILIPP POSCHA, Vienna, Austria-Hungary. Filed July 7, 1913. Serial No. 777,685. (Cl. 62—12.)



1. A refrigerator car, comprising a storage compartment, an ice compartment having a sheet metal wall opposite a wall of the storage compartment and forming therewith an air-conduit communicating with said compartments, and ribs on the sheet metal wall for carrying off water of condensation on the latter.

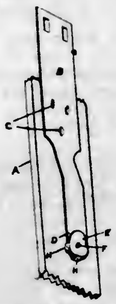
2. A refrigerator car, comprising a storage compartment, an ice compartment having a sheet metal wall opposite a wall of the storage compartment and forming therewith an air-conduit communicating with said compartments, ribs on the sheet metal wall for carrying off water of condensation on the latter, and a fan for conveying the air from the conduit to the storage compartment.

3. A refrigerator car, comprising a storage compartment, an ice compartment having a sheet metal wall parallel to an end wall of the storage compartment and forming therewith an air conduit communicating with the storage and ice compartments at the top and bottom respectively, and ribs on the sheet metal wall in the conduit for carrying off water of condensation on the latter.

4. A refrigerator car, comprising a storage compartment surrounded by air chambers and communicating therewith through openings in the top and bottom of the compartment, an ice compartment adjacent the storage compartment and having a sheet metal wall forming a conduit with the end wall of the storage compartment and communicating with the latter, said sheet metal wall having an opening near its bottom through which the ice compartment communicates with the conduit, baffle plates in the ice compartment above said opening and ribs on the metal wall in the conduit to conduct the water of condensation around said opening.

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1,093,076. REMOVABLE TIP FOR THE CONTACTING ENDS OF ARMATURE-SPRINGS. CHARLES M. PROCTOR, Detroit, Mich. Filed Oct. 19, 1912. Serial No. 726,684. (Cl. 177—7.)



1. A renewable contact tip for an armature spring, comprising a body portion adapted to engage one face of

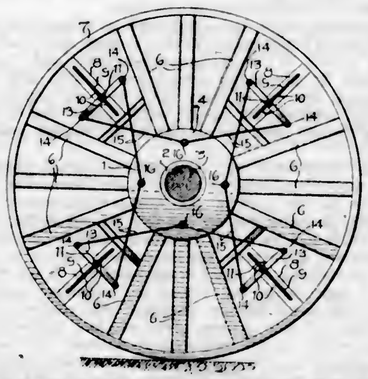
the end of the spring, arm members projecting from the edge of said body portion, adapted to be bent over the edge of said spring end and against that face thereof not engaged by the body section of the tip, and a contact knob projecting outwardly from the central part of said body portion.

2. As a new article of manufacture, a renewable tip for an armature spring comprising a unitary member whose central portion is adapted to engage one face of the spring, radiating branch portions adapted to be bent over the edges of the spring, thereby removably attaching the tip thereto, and a contact knob supported thereby in position to be engaged by an adjacent contact pin, substantially as described.

3. A contact tip for an armature spring, comprising a central body portion, and integral radiating arms for engagement over the edges of said spring, whereby the tip is held firmly in position thereon, and a contact knob carried by said body portion in position to engage an opposing contact point.

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1,093,077. VEHICLE-WHEEL. CHARLES W. RENZ, Diller, Nebr. Filed July 26, 1913. Serial No. 781,445. (Cl. 152—28.)



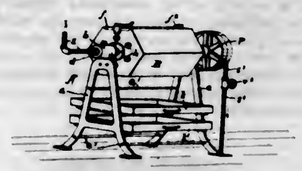
1. A device of the class described including a rigid hub, a second hub movable with respect to the rigid hub, radial spokes carried by the movable hub, a rim connecting the outer ends of said spokes, casings carried by said rim and having alined slots, coil springs in said casings, transverse shafts having their medial portions arranged between said springs and their ends projecting through said slots, transverse bars mounted upon the ends of said shafts and pivotal connecting means between said bars and the rigid hub.

2. A device of the class described including a rigid hub, a second hub movable with respect to the rigid hub, radial spokes carried by the movable hub, coil springs in said casings, transverse shafts having their medial portions arranged between said springs and their ends projecting through said slots, transverse bars mounted upon the ends of said shafts and rods having their outer ends pivotally connected to the ends of the transverse bars and their inner ends crossed and pivoted to the rigid hub as and for the purpose set forth.

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1,093,078. MACHINE FOR DRYING AND POLISHING ARTICLES OF JEWELRY, &c. HENRY B. RICHARDSON, Attleboro, Mass. Filed Sept. 3, 1912. Serial No. 718,201. (Cl. 34—5.)

1. In a machine for drying and polishing articles of jewelry, the combination with a revolubly mounted drum having its ends provided with annular central journals alining with each other, and a closable charging opening formed in the drum's wall, of a stationary hollow heater mounted within the drum, and inlet and outlet pipes fixed to the heater extending outward from the latter through the respective annular journals for conducting steam into and from the heater.



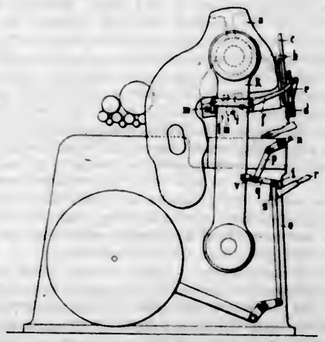
2. A machine of the general character described, comprising in combination a stationary frame or housing provided with a pair of longitudinally separated alining bearings, a vented polygonal-shaped hollow drum adapted to loosely contain a moisture-absorbent substance, as dry sawdust, said drum having a normally closed charging opening formed in its side wall, annular trunnions fixed to and extending outward from the ends of the drum mounted in said bearings, means for revolving the drum, a non-revoluble hollow member adapted to form a heater positioned within the drum, and steam inlet and outlet pipes connecting with the heater's interior passing centrally through said trunnions.

3. In a jewelry drying machine of the general character described, having a revolubly mounted drying drum provided with a normally closed charging opening formed in its wall and outwardly extending central annular end trunnions, the combination therewith of a non-revoluble chambered member positioned within the drum, and controlled means for supplying said member with a heating medium.

4. A device of the class described comprising end frames having openings positioned therethrough, a polygonal-shaped drum, tubular trunnions extending from opposite ends of said drum and journaled in said openings, a power pulley upon the projecting end of one of said trunnions, and an eccentrically mounted stationary tubular heater positioned within said drum and with its major portion lying above the longitudinal axis of the latter.

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1,093,079. SAFETY DEVICE FOR PLATEN PRINTING-PRESSES. MAX ROCKSTROH, Klein Sedlitz, near Pirna, Germany. Filed Dec. 21, 1912. Serial No. 738,023. (Cl. 101—13.)



1. In a platen-press of the character described, the combination with the frame, a platen fixed thereto, a rocking press-head for carrying the form, and driving means mounted on the frame for rocking the press-head, of a guard movably mounted on the press-head and adapted to cover the gap between the platen and the rocking form at the end of the downward movement of the latter, and mechanism mounted on the driving means and on the press-head and actuated by said driving means for imparting to the guard a leading motion as compared with that of the press-head during the last part of the downward motion of the latter, and a locking device controlled by said driving means for automatically locking said mechanism at the end of the downward movement of the press-head, whereby when the press-head begins to move upward, the guard moves upward with the same.



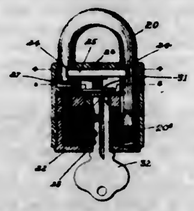
2. In a platen-press of the character described, the combination with the frame, a platen fixed thereto, a rocking press-head for carrying the form, and driving means mounted on the frame for rocking the press-head, of a guard movably mounted on the press-head and adapted to cover the gap between the platen and the rocking form at the end of the downward movement of the latter, and mechanism mounted on the driving means and on the press-head and actuated by said driving means for imparting to the guard a leading motion as compared with that of the press-head during the last part of the downward motion of the latter, and a locking device controlled by said driving means for automatically locking said mechanism at the end of the downward movement of the press-head, whereby when the press-head begins to move upward, the guard moves upward with the same, the mechanism being automatically unlocked before the guard arrives at its highest position.

3. In a platen-press of the character described, the combination with the frame, a platen fixed thereto, a rocking press-head for carrying the form, and a connecting-rod mounted on the frame for rocking the press-head, of a grid mounted to reciprocate vertically on the press-head, a two-armed lever fulcrumed on the press-head and having one arm pivotally connected to the grid, a roller carried by the end of the other arm, a cam mounted on the connecting-rod and adapted to control said roller and thereby rock said lever and drive said grid, a stop fixed on the connecting-rod, and a catch mounted on the press-head and adapted to coact with said stop for locking the roller in the upper position of the grid.

4. In a platen-press of the character described, the combination with the frame, a platen fixed thereto, a rocking press-head for carrying the form, and a connecting-rod mounted on the frame for rocking the press-head, of a grid mounted to reciprocate vertically on the press-head, a two-armed lever fulcrumed on the press-head and having one arm pivotally connected to the grid, a roller carried by the end of the other arm, a cam mounted on the connecting-rod and adapted to control said roller and thereby rock said lever and drive said grid, a stop fixed on the connecting-rod, and a catch mounted on the press-head and adapted to coact with said stop for locking the roller in the upper position of the grid; disconnecting means for throwing the press out of gear and braking the same, a second stop on the connecting-rod adapted to actuate the disconnecting means, a lever pivotally connected with the disconnecting means for removing the same out of the path of the second stop and adapted to be rocked by the grid at the end of the downward stroke of the same.

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1,093,080. PIN-TUMBLER LOCK. EVAN J. SHIPMAN, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 25, 1913. Serial No. 763,641. (Cl. 70—96.)



1. The combination with a member to be locked and released, of a locking device therefor having a releasing position in which it is blocked from returning to its locking position, and a pin tumbler lock having a barrel non-rotatably connected with said locking device; substantially as described.

2. The combination with a sliding member to be locked and released, of a locking device therefor having a definite locking position and blocked from returning to such position by the unlocking of said member, a pin tumbler lock comprising a barrel, and connecting means between said barrel and said locking device whereby the latter partakes of the movements of the former in both directions; substantially as described.

3. The combination with a member to be locked and released, of a pivoted locking device therefor having a locking position to which it is blocked from returning when said member is unlocked, and a pin tumbler lock having a barrel non-rotatably connected with said locking device; substantially as described.

4. The combination with a sliding member to be locked and released, of a pivoted locking device therefor having a definite angular position to which it is blocked from returning by the unlocking of said member, and a pin tumbler lock having a movable element non-rotatably connected with said locking device; substantially as described.

5. The combination with a pin tumbler lock having a rotary barrel, of means, including a sliding manually operable member, to prevent the return of said barrel to its initial position when it has been released and moved angularly by the key; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

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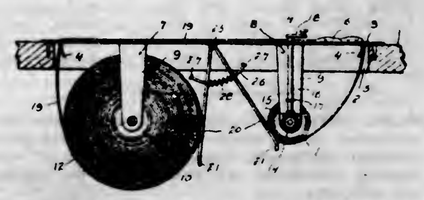
1,093,081. TREATING CITRUS FRUITS. JAMES N. G. SINGLETON, Orlando, Fla. Filed Aug. 18, 1913. Serial No. 785,400. (Cl. 99—11.)

1. The process of treating citrus fruit which consists in separating the juice from the rind, adding cane sugar to the juice and allowing it to ferment, boiling slowly the rind with about one-quarter of its volume of water until the rind becomes saturated and the excess water evaporated, squeezing the saturated rind, straining the solution obtained thereby, boiling the rind pulp again with about one-quarter of its volume of water for a shorter time, squeezing the saturated rind, straining the solution and adding to the first rind solution, adding to the solution the fermented juice, one pint of juice to each quart of rind solution, and boiling slowly to the jell line.

2. The process of treating citrus fruit which consists in separating the juice from the rind, adding cane sugar to the juice and allowing it to ferment, boiling slowly the rind with about one-quarter of its volume of water until the rind becomes saturated and the excess water evaporated, squeezing the saturated rind, straining the solution obtained thereby, boiling the rind pulp again with about one-quarter of its volume of water for a shorter time, squeezing the saturated rind, straining the solution and adding to the first rind solution, adding to the solution the fermented juice, one pint of juice to each quart of rind solution, and boiling slowly to the jell line, adding an equal amount of cane sugar and twice as much fermented juice and boiling slowly until the syrup line is reached.

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1,093,082. WRITING-TABLET. JOHN E. SMID, George, Iowa. Filed July 10, 1913. Serial No. 778,345. (Cl. 11—22.)



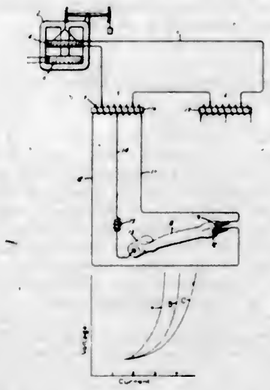
1. In a device of the character described, a base plate, a pair of paper rolls, means for winding the paper from

one roll to the other, and a brake comprising a pair of brake plates pivotally secured at their upper ends to the base plate and projecting between the paper rolls, a curved rod extending through openings formed in the plates and having its center of curvature at the pivot point of the brake plates, and an expansive spiral spring surrounding that portion of the rod included between the plates, whereby said plates are forced against the rolls.

2. The combination with a supporting surface having an opening formed therein, of a base plate positioned over said opening and resting upon the supporting surface, said base plate being formed with depending lugs engaging with the supporting surface, spools supported under said plate, means for winding paper from one spool to the other, the paper passing over the top of the plate, a pair of ears formed upon the under side of the plate between the spools, a pivoted rod supported by said ears, a pair of brake plates connected to said pivot rod, and means for forcing the plates against the spools.

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1,093,083. DISTRIBUTION SYSTEM FOR VAPOR ELECTRIC DEVICES. REGINALD G. STANDERWICK, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 24, 1913. Serial No. 769,599. (Cl. 171—253.)



1. The combination of a high pressure vapor electric device having a cathode and a plurality of anodes, and an alternating current supply means therefor, proportioned to operate at a flux density corresponding substantially to the maximum wattage output, whereby an increase of voltage will be accompanied by a decrease of current.

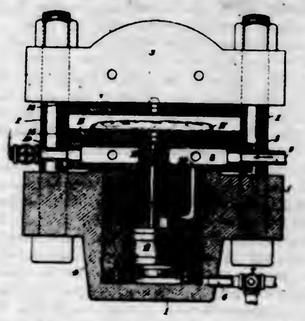
2. The combination of a constant current variable voltage line, a transforming device having its primary connected in series therewith, a vapor electric device having anodes connected to the secondary terminals of said device and a cathode connected to a point of intermediate potential on said secondary, the transforming device being proportioned with respect to the vapor device to operate near its maximum wattage output.

3. The combination of a high pressure alternating current mercury lamp, and a transforming device supplying electrical energy thereto, said device having a magnetic core proportioned to operate so near to saturation that an increase of the secondary voltage will be accompanied by a correspondingly greater decrease of the secondary current.

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1,093,084. HYDRAULIC PRESS. THOMAS STEVENTON, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Oct. 11, 1912. Serial No. 725,282. (Cl. 138—10.)

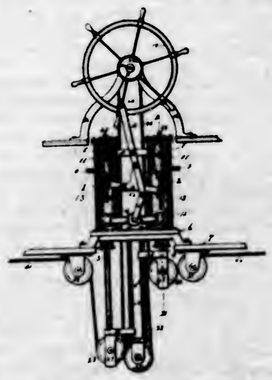
In a hydraulic press comprising a chambered bed-plate and a head-piece held rigidly together, a press-ram fitted in said chamber and carrying a chambered platen at its upper end, there being a chamber in the lower part of said ram and a restricted opening leading therefrom through the top of said platen and a passage connecting the upper end of the last-named chamber with the cham-



ber in said platen, a piston and its plunger fitted respectively in said last-named chamber and said opening, means for admitting hydraulic pressure to the bottom of said ram and means for admitting water under lower pressure into said platen-chamber.

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1,093,085. STEAM STEERING APPARATUS. FREDERICK WILLIAM THOMSON, Fort William, Ontario, Canada. Filed Feb. 19, 1913. Serial No. 749,496. (Cl. 121—13.)



1. An apparatus for the purpose specified comprising cylinders, one end of each adapted for steam and the other end for fluid, alternately reciprocated pistons in the cylinders between the steam and fluid ends thereof, a passage for the flow of fluid between the cylinders and valves controlling the admission and exhaust of steam to and from said cylinders and the flow of fluid through said passage, the closing of said steam and fluid valves stopping the movement of said pistons, and relief valves in the steam ends of said cylinders preventing the unpremeditated movement of said pistons due to a vacuum in said cylinders created by the condensation of steam remaining therein after the closing of said steam and fluid valves.

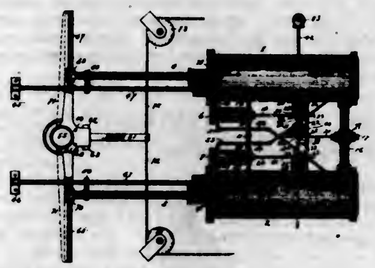
2. An apparatus for the purpose described comprising two cylinders mounted adjacent each other, pistons movable in said cylinders, the piston rods projecting from said cylinders connected with each other, a pipe connecting one end of one cylinder with one end of the other, and a valve in said pipe, a liquid filling said pipe and the space in each cylinder between the piston therein and the connected end thereof, the space in said cylinders on the opposite sides of said pistons being adapted for steam, and valves controlling the admission of steam thereto, the closing of said steam and fluid valves stopping the movement of said pistons, and means whereby unpremeditated movement of said pistons due to a vacuum in either cylinder is prevented.

3. An apparatus for the purpose specified comprising two cylinders, one end of each being adapted for steam and the other end for fluid, a passage between the cylinders for the flow of the fluid from one to the other, and valves controlling the admission of steam to said cylinders and the flow of said fluid through said passage, pistons reciprocable in said cylinders and disposed between the steam and fluid contained therein, guide rods extending in the same longitudinal direction as said cylinders and a sheave at the ends of said guide rods, the piston-rods extending from the ends of said cylinders having sliding connection with said guide rods and a flexible member passing about said sheaves and connecting with the piston rods on either side, whereby the pistons in said cylinders are allowed to move in opposite directions while their relative position to each other is maintained, and valves in said cylinders adapted to prevent a vacuum therein and a movement of said pistons due thereto.

4. An apparatus for the purpose described comprising two perpendicularly disposed cylinders, the upper end of each adapted for steam and the lower end of each for fluid, a passage between the cylinders for the flow of the fluid from one to the other, and valves controlling the admission of steam to the cylinders and the flow of fluid through said passage, pistons reciprocable in said cylinders and disposed between the steam and fluid ends thereof, whereby the water due to the condensation of steam in said cylinders collecting above said pistons prevents the blowing of steam past said pistons and the boiling of the fluid in the lower ends of said cylinders.

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1,093,086. STEAM STEERING APPARATUS. FREDERICK WILLIAM THOMSON, Fort William, Ontario, Canada. Filed Feb. 19, 1913. Serial No. 749,497. (Cl. 121—13.)



1. A steering rig for vessels in which is included a rudder, a rudder-stock, and a yoke secured to the rudder-stock, the arms of said yoke connecting with the piston rods of a prime mover comprising twin cylinders, alternately steam reciprocated fluid brake controlled pistons in the cylinders, means for operating the steam and fluid valves, and means for maintaining the amount of fluid in said brake, guide rods extending from the ends of said cylinders, said pistons having sliding connection with said guide rods and being thereby maintained in parallel alinement.

2. A steering rig for vessels, comprising a rudder and rudder-stock, a tiller secured to said rudder-stock, and a yoke loosely mounted on said rudder-stock, and having yielding connection with said tiller, arms extended on either side of said yoke, said arms operatively connecting with the piston rods of a prime mover comprising twin cylinders with steam reciprocating fluid brake controlled pistons in said cylinders, and means controlling the steam and fluid valves whereby movement of said pistons may be started, reversed, or stopped and held at any point of their movement, the movements of said rudder being in unison therewith.

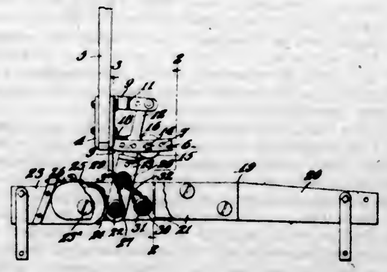


3. A steering rig for vessels comprising a rudder and rudder-stock, a tiller secured to said rudder-stock, a yoke loosely mounted on said rudder-stock and yieldingly connected with said tiller, arms extended on either side of said yoke, truss like reinforcement extending from the points of said arms to the center of said yoke, clips slidably mounted on said arms and having adjusting connection with piston rods of a prime mover comprising twin cylinders with steam reciprocated fluid brake controlled pistons in said cylinders, said cylinders having means whereby the fluid in said brake is maintained at a fixed quantity, and a means whereby a vacuum in either cylinder is broken.

4. A steering rig for vessels in which is included a rudder, a rudder-stock, and a tiller secured to the rudder-stock, a yoke loosely mounted on said rudder-stock, arms extended from the sides of said yoke and an extension projecting from said yoke in the same direction as said tiller, a passage through said extension wider than the lateral dimension of said tiller, said tiller extending through said passage, and coiled springs interposed between the sides of said passage and said tiller, whereby yielding connection is established between said yoke and said rudder-stock, the arms on said yoke having connection with a steam operated fluid brake controlled prime mover adapted to operate said rudder.

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1,093,087. DRAFT-EQUALIZER. VENCEL J. TICHOTA, Dodge, Nebr. Filed Mar. 7, 1913. Serial No. 752,707. (Cl. 21—76.)



1. In a draft equalizer, a frame, a lever fulcrumed thereto, a draft member connected to the lever, and a flexible member connecting the lever and draft member and guided by the frame.

2. In a draft equalizer, a frame, a bell crank lever fulcrumed thereto, a draft member pivoted to one arm of the said lever, a guide carried by the frame, and a flexible member connecting the draft member and the other arm of the said lever and trained around the guide.

3. In a draft equalizer, a frame including a pair of guides at its forward end, a bell crank lever fulcrumed to the rear end of the frame, a draft member passing through the guides and pivoted to one arm of the said lever, a pivot member passing through the guides, a rotary guide mounted on the pivot member, and a flexible member connecting the draft member and the other arm of the bell crank lever and trained over the rotary guide.

4. In a draft equalizer, a frame embodying a U-shaped body to straddle the end of a plow beam and having a pair of guides projecting laterally from its bend, a bell crank lever fulcrumed to one end of the body, a draft bar passing through the guides and pivoted to one arm of the bell crank lever, a pivot member passing through the guides, a rotary guide mounted on the pivot member, and a flexible member connecting the draft member and the other arm of the bell crank lever and trained over the rotary guide.

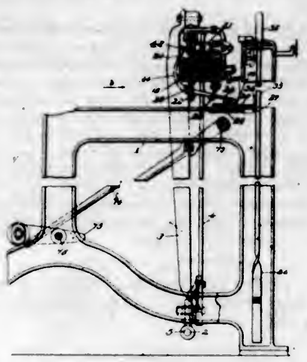
5. In a draft equalizer, a frame, a lever fulcrumed thereto, a draft member pivoted to the lever, a flexible member connecting the said lever and draft member and guided by the frame, a long lever pivoted to the draft member, a short lever pivoted to the long lever, and a flexible draft connection between the long and short levers

and the draft member, whereby the long and short levers are moved through relatively small and large arcs as the draft transmitted to one lever is proportionately greater than that transmitted to the other.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,088. PROTECTING MEANS FOR SHUTTLE-REPLENISHING DEVICES. SAKICHI TOYODA, Shimasaki-cho, Nagoya, Japan. Filed July 1, 1911. Serial No. 636,499. (Cl. 139—51.)



1. In a loom, in combination, a swinging lay, a dagger and frog mechanism associated therewith, a picker bar, and a rocking bar provided with a cam engaged by the picker bar for preventing and causing operative coaction between the dagger and frog.

2. In a loom, in combination, a swinging lay, a dagger and frog associated with the lay, a picker bar provided with a roller, and a rocking bar having a cam portion engaged by said roller for preventing and causing operative coaction between said dagger and frog.

3. In a loom, in combination, a swinging lay, a dagger and frog, a picker bar, and a rocking bar having a cam engaged by the picker bar and connected with the dagger for preventing and causing operative coaction between the dagger and frog.

4. In a loom, in combination, a swinging lay, a dagger carried by the lay, a frog arranged in the field of movement of the dagger, and a rocking bar having a cam engaged by the picker bar and connected with the dagger for preventing or causing operative coaction between the dagger and the frog.

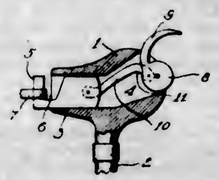
5. In a loom, in combination, a swinging lay, a rock shaft mounted thereon, a dagger carried by the rock shaft, a frog arranged in the field of movement of the dagger, a picker bar, and a rocking lever connected with the dagger and provided with a cam adapted for engagement by the picker bar for preventing and causing operative coaction between the dagger and frog.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,089. HITCHING-POST. JOHN ROBERT WESTON, Dubuque, Iowa. Filed June 24, 1912. Serial No. 705,568. (Cl. 119—123.)

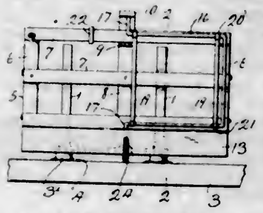
In a hitching post, a head having a reduced front rein receiving portion, the latter having formed therein a rectangular shaped longitudinal recess extending entirely through the head, the rear portion of said recess being inclined upwardly, a rectangular shaped strap gripping jaw slidably mounted in the forward portion of the recess and having therein a strap engaging notch forming an outer upstanding end, a disk pivotally mounted in the inclined portion of the recess and provided with a curved operating handle, a link having one end pivotally secured within the inner end of said jaw with its outer end curved and eccentrically pivoted to said disk, whereby when the jaw is completely retracted the end of the curved handle of the disk will be in contact with the head and the outer end of the rein receiving jaw flush with the outer end of the head, the strap fastening jaw



being of sufficient width to receive and bindingly hold the rein between its opposite sides and the inner adjacent walls of the recess through which it passes.

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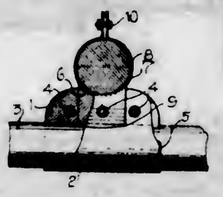
1,093,090. MUSIC-LEAF TURNER. GEORGE WHITMORE, Mulberry, Kans. Filed Oct. 8, 1913. Serial No. 794,098. (Cl. 84—17.)



A device of the character described including spaced upright bars, horizontally disposed rods connecting such bars, a rack bodily slidable upon such rods, a toothed member interposed between the bars and maintained stationary relatively thereto, a bracket pivotally supported by the rack, and a pinion connected with said bracket meshing with the toothed member whereby such bracket is turned upon its pivot when the rack is caused to move upon the rods.

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1,093,091. NECK-YOKE ATTACHMENT. WILLIAM RAY WINTERSTEEN, Danville, Pa. Filed Jan. 23, 1914. Serial No. 813,937. (Cl. 21—77.)



1. A neck yoke attachment of the class described comprising a block, a plate bent and arranged against the sides of said block to form a sleeve with respect to the latter for the reception of a pole therethrough, a clamping sleeve having depending spaced ears for engagement with the sides of the block, and means to secure said plate to the ears of said clamping sleeve in position on the block.

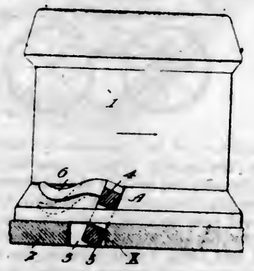
2. A neck yoke attachment of the class described comprising a block, a plate bent and secured to the sides of said block to form a sleeve with respect to the latter, whereby to receive a pole therethrough, a clamping sleeve having depending spaced apart ears for engagement with the sides of the block, the axis of said clamping sleeve being disposed in a plane at right angles to the axis of the aforesaid sleeve and adapted to receive a neck yoke therethrough, and means to secure the ears of said clamping sleeve in position, said last mentioned means also securing portions of the first mentioned plate in position on the block.

3. A neck yoke attachment comprising a block, a plate bent and arranged against the sides of the said block to form a sleeve with respect thereto for the reception of a pole therethrough, a clamping sleeve provided with depending ears designed for contact with the sides of the aforesaid plate, the axis of said clamping sleeve being disposed in a plane at right angles to the ax's of the first-mentioned sleeve, bolts extending through the block and said plate to secure the latter to said block, one of said bolts also securing the ears of said clamping sleeve to said block, as and for the purpose described.

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1,093,092. WITHDRAWN. ROBERT E. [illegible], New Rochelle, N. Y. Filed Feb. 25, 1911. Serial No. 610,908. (Cl. 238—4.)



1. An anti-creeping device including a rail engaging member adapted to grip the rail when canted, and yielding means for normally holding the rail engaging member canted from a vertical plane.

2. An anti-creeping device including a clip adapted to loosely receive the base flange of a rail and having one of the jaws thereof provided with teeth, and a spring arm projecting laterally from one of the jaws, the said spring arm loosely engaging the rail to cant the clip and cause the same to grip the rail.

3. An anti-creeping device including a clip adapted to loosely receive the flange of a rail, the jaws of the clip being formed with angular corners and one of the jaws being provided with transverse serrations to form teeth, and yielding means for canting the clip to cause the same to grip the rail.

4. An anti-creeping device including a clip adapted to loosely receive the base flange of a rail, the jaws of the clip being formed with angular edges and the lower jaw being provided with transverse serrations forming teeth, and a spring arm projecting laterally from the upper jaw and bearing loosely against the rail to hold the clip in a canted position.

5. An anti-creeping device including a clip designed to receive the base flange of a rail, and a holding plate formed with a slot receiving the lower arm of the clip, the engagement of the said arm of the clip with a wall of the slot tending to cant the clip so as to cause the same to grip the rail.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,093. GO-CART OR PERAMBULATOR. ARTHUR J. ADAMS, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 2, 1910. Serial No. 546,925. (Cl. 21—83.)

1. In means of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear end portion of said frame and adapted to fold forwardly thereon, foldable links connecting the handle and running-gear frame, and locking-bars connected with said links and engaging locking means carried by the running-gear frame, said locking-bars having forward extensions and a cross-bar disposed in close relation to the front member of the running-gear frame, for the purpose set forth.



2. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and adapted to fold forwardly upon the running-gear frame, arms pivotally connected with the handle-bars, links connecting the front portions of said arms and the running-gear frame at a distance from the front end thereof, guides carried by the front portion of the running-gear frame and provided thereat with locking-shoulders, and locking-bars connected with said links and extending through said guides and provided with notches adapted to engage said locking-shoulders, said locking-bars having forward extensions connected by a cross-bar, for the purpose set forth.

3. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, arms pivotally connected at their rear ends to the handle-bars, links pivotally joined to the front ends of said arms and to the running-gear frame, guides applied to the inner sides of the side-bars of the running-gear frame near the front ends thereof, and a U-form locking-member extending through said guides and having its arms pivotally connected with said links and having a web disposed near the front cross-member of the running-gear frame.

4. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, links foldably connected with each other and with the running-gear frame and handle, guides carried by the front portion of the running-gear frame and equipped with spring-followers and locking-studs, and a U-shaped locking-member comprising a cross-member disposed near the front cross-member of the running-gear frame and arms extending through said guides and pivotally connected with said links, said arms having their lower edges provided with locking-notches, for the purpose set forth.

5. In a structure of the character set forth, the combination with a running-gear frame and a foldable superstructure mounted thereon, of a foot-support comprising a frame having a front cross-member and rearwardly extending arms pivotally supported at their rear ends, and pivotally mounted arms extending through the front end portion of the running-gear frame and loosely engaging the front cross-member thereof, whereby the foot-rest will be automatically lowered in the operation of folding the structure.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,094. GO-CART OR PERAMBULATOR. ARTHUR J. ADAMS, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 2, 1910. Serial No. 546,927. (Cl. 21—83.)

1. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and adapted to fold forwardly thereon, arms foldably connected with said

handle, links connecting the front portions of said arms with the running-gear frame some distance in the rear of the front end of said frame, a seat, a foldable back, arms rigidly connected with the intermediate portions of said links and extending forwardly and downwardly, a U-shaped locking-lever having arms pivotally connected with said second-named arms and provided at their lower edges with locking-notches, and locking-studs carried by the front portion of the running-gear frame and co-acting with said locking-notches.



2. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, arms foldably connected with said handle, links connecting the front portions of said arms with the running-gear frame, a U-shaped locking-member having arms pivotally connected with said links, and a cross-member located adjacent the front cross-member of the running-gear frame, a U-shaped foot-support frame having arms lying adjacent the arms of said U-shaped locking-member, and means carried by the arms of said U-shaped foot-support frame and said U-shaped locking-member, whereby the foot-support may be maintained in an elevated position.

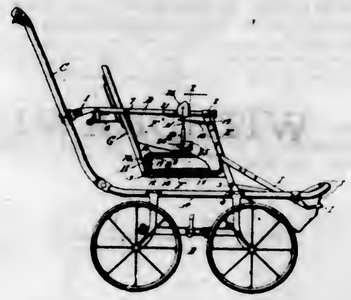
3. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, arms foldably connected with said handle, links connecting the front portions of said arms with the running-gear frame, a seat, a foot-support having a frame with rearwardly extending arms pivotally connected with the running-gear frame adjacent the lower end of said links, a locking-member having arms pivotally connected with said links and lying adjacent the arms of the foot-support frame, and studs carried by the arms of said locking-member and upon which the arms of said foot-support member rest in the elevated position of the foot-support.

4. In a structure of the character set forth, the combination of a running-gear frame, a handle adapted to fold forwardly thereon, arms foldably connected with said handle, links connecting the front portions of said arms to the running-gear frame, a seat, a locking-member having arms pivotally connected with said links and equipped with inwardly extending studs, and a foot-support having arms pivotally connected with the running-gear frame and provided with offsets adapted to engage said studs.

5. In a structure of the character set forth, the combination of a running-gear frame having a front cross-member, a handle pivotally connected with the rear portion of said running-gear frame, arms pivotally connected with said handle, links connecting the front ends of said arms with said running-gear frame, a U-shaped locking-member having arms pivotally connected with said links and a cross-member adjacent the front cross-member of the running-gear frame, a foot-support having a U-shaped frame with its arms pivotally connected with the running-gear frame, means of engagement between the arms of said locking-member and the arms of said foot-support frame, and means of engagement between the front member of the foot-support frame and the front member of the running-gear frame.

[Claims 6 to 14 not printed in the Gazette.]

1,093,095. GO-CART OR PERAMBULATOR. ARTHUR J. ADAMS, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Original application filed Mar. 2, 1910, Serial No. 546,927. Divided and this application filed Sept. 30, 1912. Serial No. 723,162. (Cl. 21—83.)



1. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear end portion of said frame and adapted to fold forwardly thereon, links foldably connected with the handle and running-gear frame, one pair of said links affording arms for the structure, flexible side-pieces connected with said arms, a seat between the lower portions of said side-pieces, and means serving to automatically fold the medial longitudinal portions of said side-pieces inwardly in the operation of collapsing the superstructure.

2. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear end portion of said frame and adapted to fold forwardly thereon, links foldably connecting the handle and running-gear frame, one pair of said links affording arms for the structure, flexible side-pieces connected with said arms, a seat between the lower portions of said side-pieces, a pair of levers carried by said arms and adapted to fold said side-pieces inwardly and a pair of cam-links connected with the links joined to the front portions of said arms and serving to actuate said levers in the operation of collapsing the superstructure.

3. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and adapted to fold forwardly thereon, arms pivotally connected with said handle, links pivotally connected with the front ends of said arms and with the running-gear frame, flexible side-pieces depending from said arms, a seat interposed between the lower portions of said side-pieces, and means for folding said side-pieces comprising members carried by said arms and engaging the side-pieces and members connected with the upper portions of said links and serving to actuate said other members.

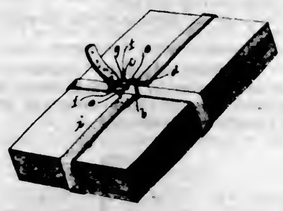
4. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof and adapted to fold forwardly thereon, arms pivotally connected with said handle, links pivotally connected with the front ends of said arms and with the running-gear frame, flexible side-pieces depending from said arms, a seat interposed between the lower portions of said side-pieces, and means for folding said side-pieces comprising depending links pivotally supported by said arms and engaging said side-pieces, guides carried by said arms adjacent the upper ends of said last-named links, and links pivotally connected with said first-named links and having wedge portions extending through said guides and engaging said second-named links.

5. In a structure of the character set forth, the combination of a running-gear frame, a handle pivotally connected with the rear end thereof and adapted to fold forwardly thereon, arms foldably connected with said handle and running-gear frame, flexible side-pieces depending from said arms, a seat connected with the lower edge portions of said side-pieces, a back foldably connected with said arms and connected with the rear portion of said seat, links connecting the front portions of said arms with the running-gear frame, and means for automatically folding said side-pieces having actuating members connected with the upper portions of said links.

[Claims 6 and 7 not printed in the Gazette.]

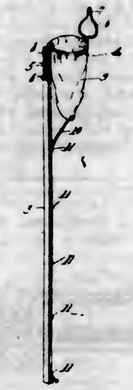


1,093,096. PACKAGE-TIE. JOHN S. ALLEN, Columbus, Ga. Filed Nov. 24, 1909. Serial No. 529,735. (Cl. 24—17.)



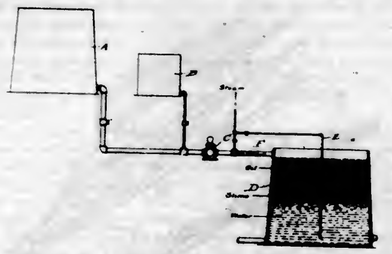
A package tie, comprising a right-angle triangle wire frame, a strap secured to one of the right-angle sides of said frame and adapted to be guided around a package in alinement with the other right-angle side by the hypotenuse side, a U-shaped wire frame having its terminals pivoted on said second mentioned right-angle side and a tongue pivoted to the same side as the terminals, said tongue and U-shaped frame adapted to coöperate to retain the free end of said strap in position.

1,093,097. FRUIT-PICKER. WILLIAM H. ANDREWS, Atlanta, Ga. Filed June 24, 1912. Serial No. 705,602. (Cl. 56—99.)



In a fruit picker, a combination bag support and fruit detaching member fashioned from a length of wire, the intermediate portion of the wire being bent to form a loop adapted to pass over the fruit, the loop having a contracted fruit severing mouth and a contracted fruit severing extension opposite the mouth, the wire being bent from the mouth of the loop to form semi-circular sections constituting a bag supporting ring, the said ring and loop being disposed in planes at right angles to each other, and the wire being bent angularly from the said semi-circular sections, the said angular portions constituting the terminal portions of the wire and providing means for the attachment of a handle.

1,093,098. PROCESS FOR TREATING CRUDE OIL. WILLIAM S. BARNICKEL, St. Louis, Mo. Filed Mar. 13, 1912. Serial No. 683,619. (Cl. 196—26.)



1. The process of treating natural emulsions of petroleum, in which the foreign matter amounts to at least 10% and consists of water and slimy substances which act to maintain the water and petroleum emulsified, which consists in intimately mixing therewith a soluble metallic sulfate, in an amount relatively small as compared with the foreign matter, whereby the slimy substances are caused to collect in an intermediate layer between the water and the petroleum.

2. The process of treating natural oils containing slimy substances which act to hold the petroleum in suspension in water, which consists in intimately mixing therewith, in the presence of heat, a small percentage of a solution of a metallic sulfate, such as sulfate of iron, whereby said slimy substances are caused to collect in a mass and form an intermediate stratum between the freed petroleum and the water.

3. The process of treating natural oils of the kind described, which consists in introducing therein a solution of a metallic sulfate of such strength and quantity that the sulfate will amount to less than 1% of the matter foreign to the oil, thoroughly mixing the same and finally drawing off the petroleum from the top.

4. The process of treating natural oils of the kind described, which consists in introducing therein a solution of iron sulfate of such strength and quantity that the sulfate will amount to less than 1% of the matter foreign to the oil, thoroughly mixing the same and finally drawing off the petroleum from the top.

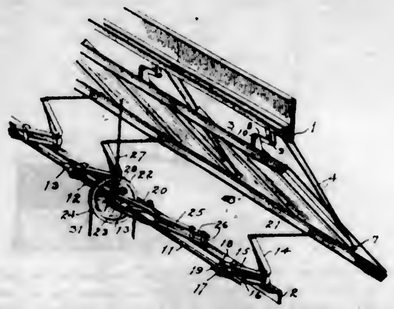
5. The process of treating natural emulsions of oil and water, containing foreign matter consisting of slimy substances and water, which substances act to maintain the oil and water emulsified, and in which such foreign matter amounts to at least 10%, for the purpose of recovering the petroleum without in any way altering its composition, which consists in intimately mixing therewith a soluble metallic surfate in an amount relatively small as compared with the amount of foreign matter, and allowing the mixture to stand, whereby the slimy substances are caused to collect in a mass, and the water and petroleum are left free to separate.

1,093,099. WINDOW-SASH ADJUSTER. WILLIAM BAYLEY, Springfield, Ohio. Filed Aug. 4, 1913. Serial No. 782,858. (Cl. 70—28.)

1. In an adjuster for movable window sashes, a plurality of pivoted operating levers connected one with the other for simultaneous oscillation, an adjusting member adapted by its adjustment to oscillate the levers, and a swinging carrier for the adjusting member having a different radial length than that of the operating levers.

2. In an adjuster for movable window sashes, a plurality of pivoted operating levers connected with the sash to be operated, a reciprocatory bar connecting the levers one with the other, a screw threaded portion in said reciprocatory bar, an adjusting nut engaging the screw threaded portion of the bar and a swinging carrier for the adjusting nut, the swinging carrier and levers describing arcs of different radii, the construction and arrangement being such that the relative rotation of the

nut and screw will cause a reciprocatory movement of the bar to simultaneously oscillate the operating levers.



3. In an adjuster for movable window sashes, an operating lever connected with the sash to be operated, a bar connected with the lever, an adjusting member adapted by its operation to reciprocate the bar to oscillate the lever, and a swinging carrier for the adjusting member.

4. In an adjuster for movable window sashes, a reciprocatory bar, a plurality of swinging arms carried by the support and engaging the bar and adapted to guide the bar through a reciprocatory parallel movement, a screw threaded section in said bar, an adjusting member engaging the screw threaded section, a swinging arm pivoted to the support and engaging the adjusting member to limit the reciprocatory movement of the adjusting member in unison with the bar, but permitting an oscillatory movement thereof.

5. In an adjuster for movable window sashes, a pivoted lever connected with the sash to be operated, a floating screw connected with the lever, an adjusting member engaged with the screw and adapted by the relative rotation of the adjusting member and screw to cause a reciprocatory movement of the latter and a swinging arm engaging the adjusting member to prevent its lateral movement in line with the screw, but permitting transverse oscillation of the screw and adjusting member.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,100. MULTIPLE KEY. CLARENCE E. BEACH, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed Sept. 12, 1910. Serial No. 581,610. (Cl. 177—10.)



1. A multiple key having a series of circuit contacts, a corresponding series of current supply contacts, said circuit contacts arranged at successively different distances from said current supply contacts, and reciprocating means for moving said current supply contacts into engagement with said circuit contacts.

2. A multiple key having a series of circuit contacts, a corresponding series of current supply contacts, said circuit contacts arranged at successively different distances from said current supply contacts, and means for reciprocating said current supply contacts.

3. A multiple key having a series of circuit contacts, a corresponding series of current supply contacts, said circuit contacts arranged at successively different distances from said current supply contacts, means for reciprocating said current supply contacts, a current supply terminal, a switch for controlling the connection of said terminal with said current supply contacts, and means controlled by said reciprocating means for operating said switch.

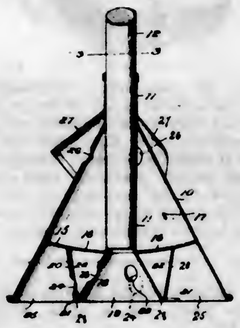
4. A multiple key having a series of circuit contacts, a corresponding series of current supply contacts, said circuit contacts arranged at successively different distances from said current supply contacts, a current supply terminal, a switch for controlling the connection of said terminal with said current supply contacts, means for connecting said circuit contacts and said current supply contacts, and means for operating said switch.

5. A multiple key having a series of circuit terminal springs, a corresponding series of circuit-controlling springs normally in engagement therewith, said circuit-controlling springs having their ends arranged at different levels, a bar having battery-terminal connections thereon arranged to engage the circuit-controlling springs, and means for reciprocating the bar.

[Claims 6 to 20 not printed in the Gazette.]

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1,093,101. CLOTHES-WASHER. MAURICE J. BEENEY and ERNEST W. BEENEY, Newark, Ohio, assignors to H. F. Wendell, Leipsic, Ohio. Filed Apr. 8, 1913. Serial No. 759,815. (Cl. 68—5.)



A downwardly opening conical shell having transverse openings near its apex, an intermediate transverse substantially horizontal baffle member within the shell, and a hollow member depending from the baffle member and converging toward its lower end whereby an outer annular chamber and an inner chamber are formed with downwardly diverging sides, said baffle member having a plurality of openings communicating with the interior of the annular member and the annular member having a plurality of openings communicating with the chamber.

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1,093,102. SAFETY-RAZOR. GUY L. BONHAM, West Hartford, Conn. Filed Aug. 4, 1913. Serial No. 782,992. (Cl. 30—12.)



1. In a device of the class described, a handle; a driving member movable in the handle; a blade carrying head movable in the handle; variable speed gear change mechanism operatively connecting the driving member with the head; and means under the control of an operator for actuating the gear change mechanism.

2. In a device of the class described, a handle; a shaft journaled in the handle; a blade carrying head journaled in the handle and including a shaft; variable speed gear change mechanism operatively connecting the shafts for simultaneous rotation; and means movable with respect to the handle for operating the gear change mechanism.

3. In a device of the class described, a handle; a motor located in one end of the handle and including a shaft; a blade carrying head journaled in the other end of the handle and including a shaft; variable speed gear change mechanism operatively connecting the shafts for simultaneous rotation; and means movable upon the handle for operating the gear change mechanism.

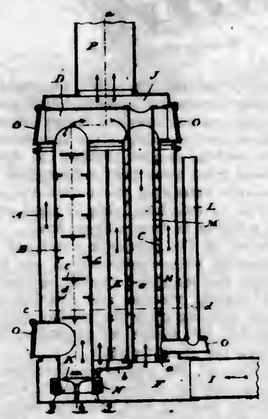
4. In a device of the class described, a handle; a motor mounted in the handle and including a shaft; a blade carrying head journaled in the handle and including a shaft; a pair of gear wheels secured in spaced relation to one shaft, and of different sizes; a wheel splined upon the other shaft and including a pair of gear wheels of different sizes, and adapted to coöperate with the first specified gear wheels; and means for shifting the splined wheel upon its shaft.

5. In a device of the class described, a handle including a casing having an opening; a rotatable, blade carrying head journaled in the casing and adapted to rotate adjacent the opening; a resilient plate bearing upon one edge of the casing and constituting an adjustable closure for the opening, the other edge of the plate being curved, and being secured to the casing; and an adjusting member mounted on the casing, the adjusting member being operatively connected with the curved portion of the plate.



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1,093,103. HEATING APPARATUS. MAUNSELL BOWERS JACKSON, the Younger, Vancouver, British Columbia, and PHILIP T. JACKSON, Toronto, Ontario, Canada; said Jackson, the Younger, assignor to said Philip T. Jackson. Filed Oct. 23, 1911. Serial No. 656,230. (Cl. 126—90.)



1. In a heater the combination of a casing; a radiator provided with a long up-draft and a long down-draft flue connected at the top by a short transverse flue; a wall dividing the casing into two separated, unobstructed up-draft air passages in one of which is located the up-draft flue and in the other the down-draft flue; a cold air chamber at the bottom of the heater common to both air passages; and a mixing chamber at the top of the heater in which said transverse flue is located and into which said separate air passages discharge.

2. In a heater the combination of a casing; a radiator provided with a long up-draft and a long down-draft flue connected at the top by a short transverse flue; a wall dividing the casing into two separated, unobstructed up-draft air passages in one of which is located the up-draft flue and in the other the down-draft flue; a cold air chamber at the bottom of the heater common to both air passages; and a mixing chamber at the top of the heater in which said transverse flue is located and into which said separate air passages discharge; a burner located at the lower end of the up-draft flue; and baffles located in both the up-draft and down-draft flues.

3. In a heater the combination of a casing; a radiator provided with a long up-draft and a long down-draft flue connected at the top by a short transverse flue; a wall dividing the casing into two separated, unobstructed up-draft air passages in one of which is located the up-draft flue and in the other the down-draft flue; a cold air chamber at the bottom of the heater common to both air passages; a mixing chamber at the top of the heater in which said transverse flue is located and into which said separate air passages discharge; and a smoke exit flue connected with the down-draft flue and extending through the cold air chamber to the outside of the apparatus.

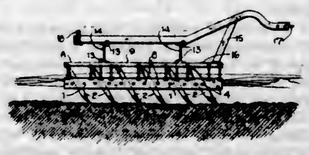
4. In a heater the combination of a radiator provided with an up-draft and a down-draft flue; separate air passages surrounding said flues; means for admitting air at the bottom of each passage; a mixing chamber at the top of the heater into which said separate air passages discharge; a fluid burner in the lower end of the up-draft flue; a smoke exit pipe connected with the down-draft flue near its lower end; a drip trough at the lower end of the down-draft flue; a water pan outside the lower end of the up-draft flue; and a pipe leading from the drip trough to the water pan.

5. In a heater the combination of an up-draft flue; a down-draft flue; a drip trough at the lower end of the down-draft flue; a water pan outside the lower end of the up-draft flue; and a pipe leading from the drip trough to the water pan.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,104. SCARIFIER. DAVID C. BOYD, Galion, Ohio, assignor to The Galion Iron Works and Manufacturing Company, Galion, Ohio, a Corporation of Ohio. Filed Mar. 24, 1913. Serial No. 756,539. (Cl. 37—50.)



1. A road scarifier, including a frame-work, embodying sides consisting of laterally spaced bars, teeth disposed between said bars, blocks interposed between said bars and connected thereto and spacing said teeth from each other, and teeth-retaining bars connected to said frame-work and serving to prevent the upward displacement of said teeth.

2. A road scarifier, including a frame-work embodying side bars, a plurality of teeth mounted between said side bars and projecting both below and above the latter, tooth-retaining bars mounted above the said bars and engaging the upper ends of the teeth, and tie bolts connecting said tooth-retaining bars to the side bars.

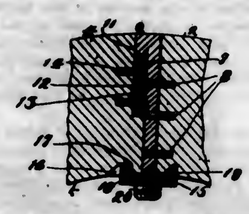
3. A road scarifier, including a frame-work, embodying sides which consists of bars disposed in laterally spaced relation to each other, teeth interposed between said bars, and blocks disposed between said bars and between the teeth, said blocks being formed on their adjoining edges with lips engaging the sides of said teeth and holding the latter in oblique position relative to the bars.

4. A road scarifier, including a frame-work, the sides of which consist of laterally spaced bars, teeth disposed between said bars, and blocks arranged between said bars and interposed between the teeth, said blocks being formed on their adjoining edges with beveled lips adapted to engage the side faces of the teeth so as to hold the latter in oblique position relative to the length of the side bars.

5. A road scarifier, including a frame-work, teeth carried by said frame-work and projecting above the same, tooth-retaining bars engaging the upper ends of the teeth and connected to the frame-work, draw bars above said tooth-retaining bars, and transverse beams connected to the tooth-retaining bars and the draw bars.

[Claim 6 not printed in the Gazette.]

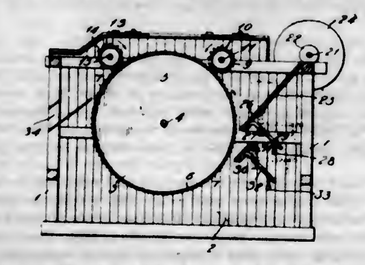
1,093,105. COLLAPSIBLE CORE. HARRY E. BOYD, Akron, and RUSSELL B. KOONTZ, Springfield township, Summit county, Ohio. Filed May 26, 1913. Serial No. 769,922. (Cl. 18—45.)



1. In a collapsible core for the manufacture of tire shoes, the combination of a series of segment-shaped sections adapted to be assembled into a circular core, the ends of the sections abutting against each other and each formed with an inwardly-extending flange, the opposing ends of the sections being provided with registering radially-extending notches, radially-extending members mounted in each of said notches and fashioned to permit the members on the opposing ends of contiguous sections to interengage, one of the members on each section projecting radially and inwardly beyond the flange of its section, the abutting flanges surrounding said projecting portion provided with annular grooves spaced from said notches having inclined faces, and washer members provided with inclined faces for coöperating with inclined faces of said grooves applied to said projecting ends, and means for shifting said washer members to bring the inclined faces into coöperation for forcing the contiguous ends of sections together.

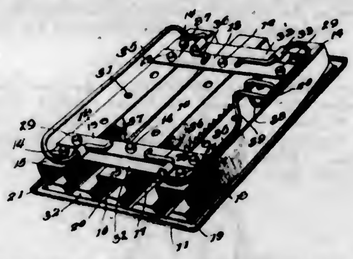
2. In a collapsible core for the manufacture of tire shoes, the combination of a series of segment-shaped sections adapted to be assembled into a circular core, the ends of the sections abutting against each other and each formed with an inwardly-extending flange, the opposing ends of the sections being provided with registering radially-extending notches arranged when said sections are abutted to form radial openings, locking members mounted in the grooves at one end of each section and arranged to project into the groove in a contiguous section, coöperating members in the grooves in the ends of the other sections adapted to interengage with said first members, a portion of said members extending inwardly and provided with threaded shanks, the inner faces of the flanges surrounding said threaded members provided with annular grooves having inclined faces, washer members having inclined faces for engagement with the inclined faces of said grooves applied to said threaded members, and nuts on said threaded members for shifting said washer members outwardly to bring the inclined faces of the washer members and grooves into engagement for forcing the ends of the sections into snug engagement.

1,093,106. COTTON-SEPARATING MACHINE. CHARLES AUGUST BRUST, Memphis, Tenn. Filed July 29, 1912. Serial No. 712,155. (Cl. 13—12.)



The combination with the opposite side walls of the frame of a cotton separating machine, of a conveyer drum mounted transversely between said walls, a knocker and a brushing roll mounted to engage with said conveyer drum, an inclined hull board arranged in the front of the frame and leading from the receiving end of the latter, a door hinged to the lower edge of the hull board for alinement with the latter, a weighted lever secured to said door for yieldingly holding the same in operative position, a supplemental hull board hingedly mounted below the first named hull board, and also provided with a weighted lever to hold the same at the proper inclination in respect to the door forming a part of the first named hull board, whereby said hull boards are yieldingly held in position, and means to operatively connect the conveyer drum and rolls, whereby the same are driven in the proper direction.

1,093,107. CURRYCOMB. NEWTON H. BURNS, Cincinnati, Ohio. Filed July 21, 1913. Serial No. 780,248. (Cl. 119—88.)



1. In a device of the character described, a spring pressed combing member, a cleaning plate positioned on one side of said combing member, means connecting said combing member and cleaning plate and hand grips for projecting the combing member through the cleaning plate, one of said hand grips being bent intermediate its ends to form an upwardly extending and outwardly turned loop, the bight portion of said loop lying at right angles to the arms thereof whereby to form a finger stop.

2. In a device of the character described, a combing member, a cleaning plate positioned on one side of said combing member and connected thereto, springs interposed between said combing member and cleaning plate, studs formed in said cleaning plate for holding said springs in operative position, and means for projecting the combing member through the cleaning plate.

3. In a device of the character described, a spring pressed combing member, a cleaning plate, means connecting said combing member and cleaning plate, head bars loosely mounted thereon, loops formed in said head bars and hand grips loosely mounted in said loops for projecting said combing member through the cleaning plate.

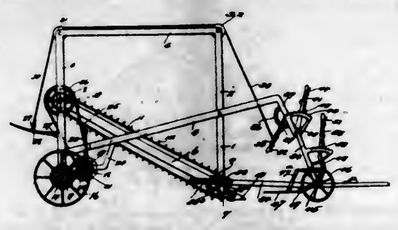
4. In a device of the character described, a spring pressed combing member, a cleaning plate positioned on one side of said combing member, means connecting said combing member and cleaning plate, head bars loosely mounted thereon, and oppositely disposed handles pivotally connected to said head bars for projecting the combing member through the cleaning plate.

5. In a device of the character described, a spring pressed combing member, a cleaning plate positioned on one side of said combing member, means connecting said combing member and cleaning plate, head bars loosely mounted thereon, and means pivotally connected to said head bars for projecting the combing member through the cleaning plate.

[Claims 6 and 7 not printed in the Gazette.]

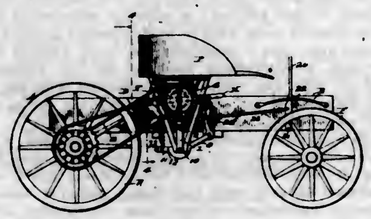
1,093,108. HARVESTER FOR BEANS AND THE LIKE. JESSE S. CAIN, Grand Rapids, Mich. Filed Aug. 10, 1911. Serial No. 643,353. (Cl. 56—1.)

In a harvester, a main frame, provided with forward extensions, the forward lower portion of the main frame being provided with a fork, a supplemental frame pivotally connected with the forward extensions, connections between the supplemental frame and the lower forward end of the main frame, the connections embodying bars having slot and bolt connections with the lower forward end



of the main frame, means for swinging the forward portion of the supplemental frame whereby the fork may be raised or lowered, cutting mechanism arranged beneath the fork, and means for adjusting the cutting mechanism in a substantially horizontal plane.

1,093,109. KAFIR CORN TOPPER. ELMER E. CANNON, Waukomis, Okla. Filed July 24, 1913. Serial No. 781,018. (Cl. 56—131.)



1. In a topping machine of the class described, the combination with a wagon body and its running gear, a U-shaped member whose body portion is mounted in bearings beneath said wagon body and whose arms project to the rear, the outer arm having a depressed portion near its rear end, a framework comprising an L-shaped member whose horizontal arm rests in said depression and is pivoted at its inner end to the inner arm of said U-shaped member and a V-shaped member mounted on said horizontal arm, a pan mounted on said framework, and a contractile spring connecting the rear side of the pan with the rear end of the outer arm of said U-shaped member; of a radius rod pivotally connecting the rear axle of the wagon body with the rear arm of said V-shaped member, a cutting apparatus within the pan, driving connections therefor, and a sprocket chain connecting said connections with a sprocket wheel on the rear axle, for the purpose set forth.

2. In a topping machine of the class described, the combination with a wagon body and its running gear, a U-shaped member whose body portion is mounted in bearings beneath said wagon body and whose arms project to the rear, the outer arm having a depressed portion near its rear end, a framework comprising an L-shaped member whose horizontal arm rests in said depression and is pivoted at its inner end to the inner arm of said U-shaped member and a V-shaped member mounted on said horizontal arm, a pan mounted on said framework, and a contractile spring connecting the rear side of the pan with the rear end of the outer arm of said U-shaped member; of a radius rod pivotally connecting the vehicle axle with said framework, a driving wheel on one rear wheel of the wagon, a cutting apparatus within the pan, connections between said driving wheel and apparatus, and means for adjusting the U-shaped member within its bearings, for the purpose set forth.



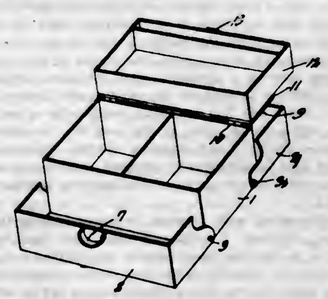
3. In a topping machine of the class described, the combination with a wagon body and its running gear, a U-shaped member whose body portion is mounted in bearings beneath said wagon body and whose arms project to the rear, the outer arm having a depressed portion near its rear end, a framework comprising an L-shaped member whose horizontal arm rests in said depression and is pivoted at its inner end to the inner arm of said U-shaped member and a V-shaped member mounted on said horizontal arm, a pan mounted on said framework, and a contractile spring connecting the pan with the rear end of the outer arm of said U-shaped member; of a radius rod pivotally connecting the vehicle axle with said framework, a driving wheel on one rear wheel of the wagon, a cutting apparatus within the pan, connections between said driving wheel and apparatus, an arm upstanding from said U-shaped member, a hand lever pivoted to the wagon body and moving over a toothed sector, and a rod connecting said arm and hand lever, for the purpose set forth.

4. In a topping machine of the class described, the combination with a wagon body and its running gear, a U-shaped member whose body portion is mounted in bearings beneath said wagon body, and whose arms project to the rear, a framework comprising an L-shaped member whose horizontal arm is pivoted to the arms of said U-shaped member and whose upright arm stands alongside the wagon body, a pan mounted on said upright arm, a cutting apparatus therein, and driving mechanism for said apparatus; of a driving wheel on the hub of one rear wagon wheel, connections between this driving wheel and said driving mechanism, a radius rod connecting the axle of said wheel with said framework, and means for raising and lowering the framework and the parts carried thereby.

5. In a topping machine of the class described, the combination with a wagon body and its running gear, a U-shaped member whose body portion is mounted in bearings on said wagon and whose arms project to the rear, a framework comprising an L-shaped member whose horizontal arm is pivoted to the arms of said U-shaped member and whose upright arm stands alongside the wagon body, a pan mounted on said upright arm, a cutting apparatus therein, and driving mechanism for said apparatus; of a driving wheel on the hub of one rear wagon wheel, connections between this driving wheel and said driving mechanism, a radius rod connecting the axle of said wheel with said framework, a spring connecting said pan with one arm of said U-shaped member and of a strength nearly sufficient to overcome the weight of parts carried thereby, and a hand lever for assisting the operation of said spring.

[Claim 6 not printed in the Gazette.]

1,093,110. DINNER-PAIL. CALVIN F. CHRISTOPHER, Asheville, N. C. Filed Dec. 30, 1912. Serial No. 739,350. (Cl. 220—50.)

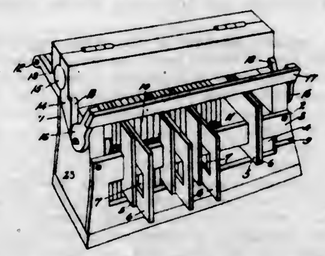


A dinner pail including a body, a leaf hingedly connected to one side thereof and adapted to extend partly across the top of the body, a tray hingedly connected along

its longitudinal center to the free longitudinal edge of the leaf and adapted to bear downwardly upon the leaf and upon the body when in normal position, means for holding the leaf and tray in normal position upon the body, and means fixedly connected to the tray and normally bearing against one side of the body, said means being shiftable away from the body when the tray is moved out of normal position, to support one side of the tray, the leaf and body supporting the other side of the tray.

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1,093,111. PRINTER'S STICK. GEORGE W. CLARKE, Santa Monica, Cal., assignor, by direct and mesne assignments, of one-half to Francis M. Wright, San Francisco, Cal. Original application filed Nov. 27, 1903, Serial No. 182,936. Divided and this application filed Mar. 26, 1910, Serial No. 551,698. Renewed Sept. 9, 1913. Serial No. 788,933. (Cl. 199—10.)



1. In combination with a series of plates having thereon type-forming devices, a printer's stick for said plates, having a bottom adapted to support the plates, slotted sides adapted to confine the vertical edges of the plates, ends adapted to confine lengthwise a series of such plates, and an open top through which the plates can be inserted in the stick, and spacing devices for the plates, having parts movable through said slots at right angles to said sides and in a direction parallel with the plane of said bottom, substantially as described.

2. In combination with a series of plates having thereon type-forming devices, a printer's stick for said plates having a bottom adapted to support the plates, slotted sides adapted to confine the vertical edges of the plate, ends adapted to confine lengthwise a series of such plates, and an open top through which the plates can be inserted in the stick, and spacing devices, having parts adapted to move transversely through said slots and having recesses adapted to receive parts of said sides adjacent to the slots, substantially as described.

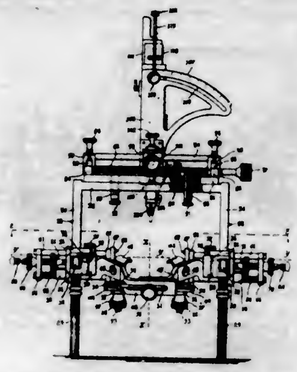
3. In combination with a series of plates having thereon type-forming devices, a printer's stick for said plates consisting of a bottom to support the plates, side supports for said plates, and ends for confining lengthwise a series of plates, the stick being open at the top for the insertion of the plates therein, and spacing devices slidable on said side supports in a direction parallel to the plane of the bottom, substantially as described.

4. In combination with a series of plates having thereon type-forming devices, a printer's stick for said plates consisting of a bottom to support the plates, side supports for said plates, and ends for confining lengthwise a series of plates, the stick being open at the top for the insertion of the plates therein, and spacing devices slidable both transversely and longitudinally on said side supports in a direction parallel to the plane of the bottom, substantially as described.

5. In combination with a series of plates having thereon type-forming devices, a printer's stick for said plates, consisting of a bottom upon which the plates can rest, sides arranged to contact with the vertical edges of the plates, and ends for confining lengthwise a series of such plates, and spacing devices secured to the sides of said stick but movable longitudinally and transversely relative thereto, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,093,112. SURGICAL APPARATUS. ROBERT HENRY CLARKE, Warlingham, England. Filed July 17, 1913. Serial No. 779,453. (Cl. 128—28.)



1. Stereotaxic apparatus for use in performing surgical operations within the cranium, comprising three self-contained and mutually-separable parts, namely, a so-called head-vise serving for adjusting and holding the cranium and the instrument as a whole in the required position relatively to one another; a so-called rectangular frame or cage adapted to be fixed in predetermined position upon the head-vise; and a stage adapted to be fixed in either of several predetermined positions on the rectangular frame at will, and carrying a compound slide-rest provided with means for adjustably supporting the so-called probe, substantially as described.

2. In a surgical apparatus of the kind specified, a head-vise comprising a pair of parallel side-rails, means for securing the same together at a fixed distance apart, means for supporting said rails and means mounted upon and adjustable transversely of said rails for locating and securing a cranium thereto in the required relative position, substantially as described.

3. In a surgical apparatus of the kind specified, a head-vise comprising a pair of parallel side rails secured together at a fixed distance apart, means for supporting said rails, adjustable means mounted upon said rails for locating the inter-aural axis of a cranium and adjustable means adjustably mounted upon said rails for securing the cranium in the required relative position, substantially as described.

4. In a surgical apparatus of the kind specified, a head-vise comprising a pair of parallel side-rails secured together at a fixed distance apart, adjustable means mounted upon said rails for locating the inter-aural axis of a cranium, and means coöperating with the orbits of the cranium for positioning the latter so that the orbital plane, through the inter-aural axis, shall coincide with or be parallel to the plane of said side rails, substantially as described.

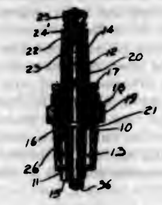
5. In a surgical apparatus of the kind specified, a head-vise comprising a pair of parallel side-rails secured together at a fixed distance apart, adjustable means mounted upon said rails for locating the inter-aural axis of a cranium, means coöperating with the orbits of the cranium for positioning the latter so that the orbital plane, through the inter-aural axis, shall coincide with or be parallel to the plane of said side rails, and a bit operating in conjunction with said last named means for clamping the cranium in the desired position, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,113. SPARK-PLUG. CHARLES M. CONKLIN, Cincinnati, Ohio. Filed Nov. 6, 1909. Serial No. 526,507. (Cl. 123—169.)

1. In a spark plug, a central electrode, an insulating sleeve surrounding said electrode, means for securing the sleeve on the electrode and a spark point mounted on the electrode so as to be non-rotatable relatively thereto and bent to lock said means in place.



2. In a spark plug, a metallic shell, a central electrode, an insulating core divided into two parts and surrounding said electrode, a nut for securing one of said parts to said electrode, and a spark point secured to said electrode by said nut and provided with means for locking said nut.

3. In a spark plug, an insulated electrode, a spark point mounted on the electrode, and non-rotatable relatively thereto, a nut for holding the point in place, and prongs on the spark point capable of being bent into nut-locking engagement with the nut.

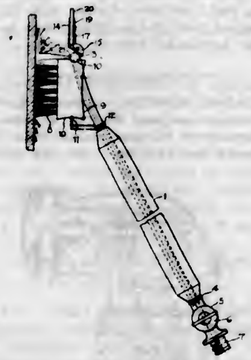
4. In a spark plug, a shell, an electrode projecting through the shell and having spark-point engaging slots near its inner end, a bifurcated spark point engaging the slots in the electrode, a nut for securing the point in place and prongs on the point adapted to be bent into nut-locking engagement with said nut.

5. In a spark plug, a shell forming an electrode, a central electrode extending longitudinally through the shell, a sleeve surrounding and carried by the central electrode, means mounted on the electrode for securing the sleeve in place and a spark point carried by the electrode and locking said means in place.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,114. FOUNTAIN-BRUSH. JAMES G. CORBETT, Beaver Falls, Pa. Filed Sept. 17, 1913. Serial No. 790,273. (Cl. 15—53.)



1. A device of the character described comprising a pipe adapted to be connected with a suitable source of fluid supply, said pipe being formed with a transversely extending apertured head on its opposite end, a brush head having longitudinal grooves in its opposite edges, one of said grooves being adapted to engage the transversely extending head of said pipe, and means secured to said pipe and adapted to engage in the groove in the opposite edge of said brush head, the back of the brush head being provided with a recess to accommodate a portion of the pipe whereby endwise movement of the brush head is prevented.



2. A device of the character described comprising a tubular pipe adapted to be connected with a suitable source of fluid supply, said pipe being formed with a transversely extending apertured head at its other end, a brush head having longitudinal grooves in its opposite edges, one of said grooves being adapted to engage the transversely extending head in said pipe, a spring having its opposite ends secured to said pipe, and the intermediate portion of said spring being adapted to engage the other groove in said brush head, the back of the brush head being provided with a recess to accommodate a portion of the pipe whereby endwise movement of the brush head is prevented.

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1,093,115. WHEEL FOR AUTOMOBILES, &c. ROBERT E. L. CROSBY, Jonesboro, Ark. Filed Mar. 1, 1912. Serial No. 680,870. (Cl. 152—8.)



1. A wheel of the class described provided with a tire consisting entirely of a plurality of courses of reversely wound spirally coiled material of different diameters arranged one within the other, each course consisting of a single continuous spring and the material of the courses increasing in diameter outwardly from the interior, said springs forming a flexible tubular tire having practically solid walls with exterior transverse corrugations.

2. A wheel of the class described provided with a tire consisting of inner, intermediate and outer courses of spirally coiled spring metal, each course consisting of a single continuous spring, the coiling of the intermediate course being the reverse of the inner and outer courses and having its coils or convolutions crossing those of the inner and outer courses, and the materials of the several courses increasing in diameter from the inner course to the outer course, said springs forming a circumferentially yieldable tire.

3. A wheel of the class described provided with a tire comprising a plurality of circumferentially arranged courses of spirally coiled material, each course consisting of a single continuous spring having its coils arranged in close proximity to one another, said courses having a uniform number of coils or convolutions and reversely coiled to cross the coils or convolutions, and the material of the successive courses being increased in diameter outwardly from the interior of the tire.

4. A wheel of the class described including a tubular tire consisting entirely of transversely disposed contacting coils or convolutions forming exterior corrugations, said wheel having a groove or channel presenting a smooth concave face to the tire and provided at intervals with curved ribs disposed transversely with relation to the tire and tapered cross sectionally and fitting between the coils or convolutions in the corrugations formed by the same, said groove or channel presenting smooth faces to the tire at the space between the ribs, which prevent a separation of the coils or convolutions.

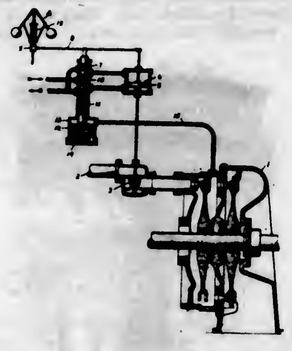
5. A wheel of the class described including a tire consisting of spirally coiled metal, an annular shoe composed of pivotal sections provided with spaced projecting means

for engaging the coils or convolutions of the tire to prevent the latter from creeping, and cushioning devices provided with projecting fulcrums arranged centrally of the shoe sections and permitting a pivotal action of the same on the cushioning devices and interlocking the latter with the shoe to hold both the tire and the shoe against circumferential creeping around the wheel.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,116. GOVERNING MECHANISM FOR TURBINES. LUDWIG CUBELIC, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed July 30, 1913. Serial No. 781,989. (Cl. 121—118.)



1. In combination, an elastic fluid turbine, a spring-loaded speed governor, a regulator for the turbine controlled by the governor, and automatic means for varying the effective action of the spring on the governor in response to varying loads on the turbine.

2. In combination, an elastic fluid turbine, a spring-loaded speed governor, a regulator for the turbine controlled by the governor, a spring acting on the governor in opposition to its spring, and a device responsive to load conditions on the turbine for changing the tension of the second mentioned spring.

3. The combination with an elastic fluid turbine, of a spring-loaded speed governor, and means controlled by the pressure in a stage of the turbine for opposing the tension of the spring.

4. The combination with an elastic fluid turbine, of a spring-loaded speed governor, a spring opposing the tension of the governor spring, and means responsive to variations in the pressure in a stage of the turbine for controlling the action of said opposing spring.

5. The combination with an elastic fluid turbine, of a spring-loaded speed governor, a spring opposing the tension of the governor spring, a piston acting upon the opposing spring, and means for subjecting said piston to fluid pressure from the first stage of the turbine so that the action of said opposing spring varies with variations in the stage pressure.

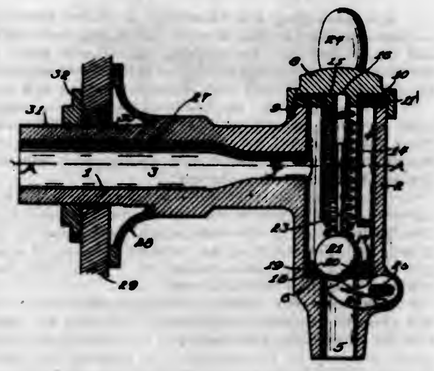
[Claim 6 not printed in the Gazette.]

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1,093,117. FAUCET. EUGENE M. DEILLER, Newark, N. J. Filed Jan. 27, 1912. Serial No. 673,706. (Cl. 137—4.)

1. In a faucet, the combination of a horizontal flow portion and an upright flow portion, a valve in said upright portion below its junction with the horizontal portion, a spring in the upper part of said upright flow portion engaging the valve to normally seat the same, a cylinder around said spring extending from the upper part of the upright flow portion downward below its junction with the horizontal flow portion, means for opening said valve against said spring, and means inside said spring for preventing displacement of the valve.

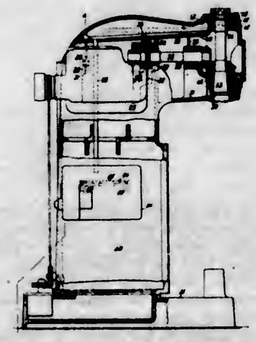
2. In a faucet, the combination of a horizonal flow portion and an upright flow portion having a reduced lower end providing an interior shoulder, a ball valve in said upright flow portion, a ring between said ball valve and shoulder having its inner edges beveled to fit said ball, a seat ring of softer material than the first-mentioned ring arranged between said first-mentioned ring and the shoulder, said seat ring having an aperture smaller than that of the first-mentioned ring whereby it will become beveled by wear until it is flush with the bevel of the first-mentioned ring and the two together form a continuous seat for the ball valve, means for holding the first-mentioned ring against movement away from the seat ring, and a rocker arm adapted to displace the ball valve from its seat.



3. In a faucet, a body portion having horizontal and upright flow portions with flow passages therein, the flow passage of the horizontal portion being reduced at the end thereof which opens into the upright flow passage, a ball valve in said upright flow passage below its communication with the horizontal flow passage, a rocker arm beneath said ball valve, a spring in the upper part of said upright flow passage engaging the ball valve to seat the same, and a cylinder around said spring extending from the upper part of the upright flow portion downward below the horizontal flow portion.

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1,093,118. OILING SYSTEM. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, a Corporation of Ohio. Filed June 23, 1913. Serial No. 775,200. (Cl. 184—6.)



1. A machine-tool oil-distributing organization of the nature disclosed combining a hollow frame providing an overhanging head having a vertical bearing, a vertical spindle journaled in said bearing, said frame providing an uppermost pocket having an oil-drainage into said bearing and having an overflow into a lower oil distributing canal provided by said frame, a horizontal shaft interiorly journaled to said frame and having a driving relation with said spindle, the bearings of said shaft being arranged to receive oil drainage from said canal, an oil-well at the base of said frame for receiving oil-returns, and a pump for elevating oil from said well to said uppermost pocket.



2. A machine-tool oil-distributing organization of the nature disclosed combining a hollow frame providing an overhanging head having a vertical bearing, a vertical spindle journaled in said bearing, said frame providing an uppermost pocket having an oil-drainage into said bearing and having an overflow into a lower oil distributing canal provided by said frame, a plurality of bearings located below said canal, a plurality of individual conduits each receiving oil directly from said canal and conveying it directly to one of said bearings, an oil-well at the base of said frame for receiving oil-returns, and a pump for continuously elevating oil from said well to said uppermost pocket.

3. A machine-tool oil-distributing organization of the nature disclosed combining a hollow frame providing an overhanging head having a vertical bearing, a vertical spindle journaled in said bearing, said frame providing an uppermost pocket having an oil-drainage into said bearing and having an overflow into a lower oil-distributing shelf-like canal interiorly provided by one side of said frame, a journal-box interiorly provided by said frame below said canal and having a conduit for receiving oil drainage therefrom, an oil-well at the base of said frame for receiving oil-returns from said bearings, and a pump for elevating oil from said well to said uppermost pocket.

4. A machine-tool oil-distributing organization of the nature disclosed combining a hollow frame providing an overhanging head having a vertical bearing, a vertical spindle journaled in said bearing, said frame providing an uppermost pocket having an oil-drainage into said bearing and having an overflow into a lower oil distributing canal interiorly integral with said frame, a horizontal shaft interiorly journaled to said frame and having a driving relation with said spindle, each bearing of said shaft being arranged to receive oil directly from said canal, a plurality of other bearings below said canal, a conduit for each of said other bearings receiving oil directly from said canal, an oil-well at the base of said frame for receiving oil-returns, and a pump for continuously elevating oil from said well to said uppermost pocket.

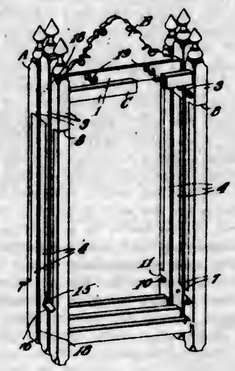
5. A machine-tool oil-distributing organization of the nature disclosed combining a frame having a vent in its upper part and an oil well in its lower part, a pump for continuously elevating excess oil from said well to said vent, a trunk-line over-flow oil-course interiorly provided by said frame for conducting excess oil from said vent to said well, a plurality of branch-line conduits each individually leading from said trunk-line oil-course to said well, and a single bearing in each of said branch-line conduits.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,119. COLLAPSIBLE SCREEN AND RACK. LILLIAN DONAVAN, Lexington, N. C. Filed Dec. 16, 1911. Serial No. 666,151. (Cl. 45—106.)

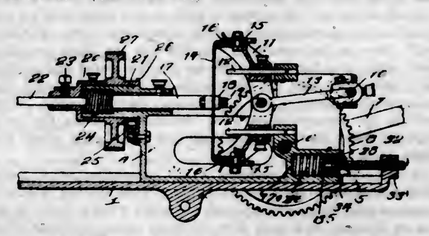
1. A collapsible screen including hingedly connected sections, each section comprising upper side members, a connection between the upper ends thereof, lower side members slidably engaged by the upper side members, a connection between the lower end portions of the lower side members, each side member having a shoulder constituting an abutment for the other side member contacting therewith, each of said side members having a recess therein, one of said recesses being of a greater depth than the opposed recess and there being a groove within the inner face of one of the side members and leading to the recess in said member, cross rods supported by the side members, each rod being insertible at one end into one of the recesses and then insertible at its other end into the groove and the recess communicating with the groove and opposite the first named recess, and a fabric mounted at its ends upon the cross rods.



2. A collapsible screen including hingedly connected sections, each section comprising upper side members, a connection between the upper ends thereof, lower side members slidably engaged by the upper side members, a connection between the lower end portions of the lower side members, each side member having a shoulder constituting an abutment for the other side member contacting therewith, each of said side members having a recess therein, one of said recesses being of a greater depth than the opposed recess and there being a groove within the inner face of one of the side members and leading to the recess in said member, cross rods supported by the side members, each rod being insertible at one end into one of the recesses and then insertible at its other end into the groove and the recess communicating with the groove and opposite the first named recess, a fabric mounted at its ends upon the cross rods, the lower side members having transverse grooves therein, and a catch pivotally mounted upon one of the upper side members and adapted to swing into the grooves to hold said members against movement relative to each other.

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1,093,120. ROCK-DRILL. DUDLEY T. FISHER, Columbus, Ohio, assignor to the Jeffrey Manufacturing Company, a Corporation of Ohio. Filed July 1, 1909. Serial No. 505,403. (Cl. 255—42.)



1. In a drill, a carriage having a hollow cylindrical portion, a hammer slidably mounted internally in the said cylindrical portion, means for reciprocating the hammer, a sleeve slidably mounted externally on the said portion, a cutting tool mounted in the sleeve in position to be struck by the reciprocating hammer, and a spring in the hollow cylindrical portion adapted to engage the sleeve and hold the cutting tool out of range of the hammer, substantially as set forth.

2. In a drill, a carriage having a hollow cylindrical portion, a hammer slidably mounted internally in the said cylindrical portion, means for reciprocating the hammer, a sleeve slidably mounted externally on the cylindrical

portion, a cutting tool mounted in the sleeve in position to be struck by the reciprocating hammer, a spring in the hollow cylindrical portion adapted to engage the sleeve and hold the cutting tool out of range of the hammer, and means limiting the motion of the sleeve.

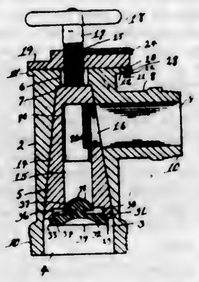
3. In a drill, the combination of a relatively stationary and hollow cylindrical member, two reciprocable alined elements one of which is slidable internally in the said member, a guiding and supporting sleeve connected to the other element and axially slidable externally on the said member, and means for reciprocating one of the elements to strike it against the other, substantially as set forth.

4. In a drill, a carriage having a hollow cylindrical portion, a hammer slidably mounted internally in the said cylindrical portion, means for reciprocating the hammer, a guiding and supporting sleeve slidably and rotatably mounted externally on the said cylindrical portion, a cutting tool secured in the sleeve in a position to be struck by the reciprocating hammer, and means for rotating the sleeve and cutting tool, substantially as set forth.

5. In a drill, a carriage having a hollow cylindrical portion, a hammer slidably mounted internally in the said cylindrical portion, means for reciprocating the hammer, a guiding and supporting sleeve slidably mounted externally on the said cylindrical portion, a cutting tool mounted in the sleeve in a position to be struck by the said reciprocating hammer, and means for limiting the motion of the sleeve.

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1,093,121. VALVE. EDWARD F. FITZGERALD, Philadelphia, Pa. Filed Feb. 6, 1913. Serial No. 746,633. (Cl. 237—19.)

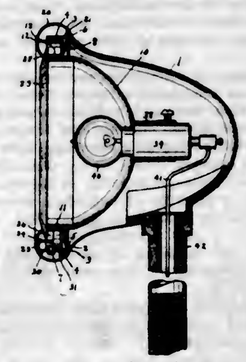


1. In combination with a valve consisting of a valve casing and a valve plug, said valve plug having a single passage way therethrough and provided with a filter opening in its base end, said filter opening being provided with threads, a filter comprising a body and a neck and an approximately hemispherical head, said body being provided with threads for mounting the filter in the filter opening, said body also having a chamber in the outer end acting as a deflector, and vertical channels disposed around the outer circumference, the head being provided with channels in its arcuate face, said channels forming the only passage ways to the interior of the valve plug when the filter is in position.

2. In combination with a valve consisting of a valve casing and a valve plug, said valve plug having a single passage way therethrough and provided with a filter opening in its base end, said filter opening being provided with threads, a filter comprising a body having vertical channels, said body being mounted in the filter opening, a neck carried by the body and a head carried by said neck, said head having channels therein, the channels in the body and head forming the only passage to the valve plug opening when the head is disposed across said opening.

3. In combination with a valve consisting of a valve casing and a valve plug, said valve plug having a passage way therein and having an outlet leading therefrom, and further provided at its base end with a filter opening, a strainer mounted in the passage way overlying the outlet therefrom, and a steam filter mounted in the filter opening as specified.

1,093,122. LAMP. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds and Jones Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 24, 1913. Serial No. 791,500. (Cl. 240—111.)



1. In a lamp, a cup-shaped body having its edge integral therewith and extended in the form of a bead, said edge and bead together constituting a groove within which a spring for supporting a reflector is seated.

2. In a lamp, a body having a flaring front end extended in the form of a bead and terminating in a cylinder, a series of pins projecting from the inner surface of the cylinder, said flaring front end and bead together constituting a groove within which a spring is seated, a reflector mounted within the cylinder and resting upon the spring, and means on the reflector for engaging with the pins to secure the reflector in position.

3. In a lamp, a lamp body, a reflector therein, a circumferential spring seated in the body and against which the reflector rests, said spring tending to force the reflector away from the body, means for retaining the reflector in the body against the force of the spring, a lens-ring secured to the lamp body, and means for retaining the lens ring in position on the body against the force of the spring.

4. In a lamp, a lamp body, a reflector therein, a circumferential spring seated in the body and against which the reflector rests, a lens ring mounted on the body and resting against the reflector, and means for locking the lens ring in position on the body against the force of the spring.

5. In a lamp, a lamp body, a reflector therein, a circumferential spring seated in the body and against which the reflector rests, said spring tending to force the reflector away from the body, a lens ring mounted on the body and resting against the reflector, pins projecting laterally from the lamp body, and locking means on the lens ring adapted to engage with the pins to hold the lens ring in position on the body against the force of the spring.

[Claims 6 to 18 not printed in the Gazette.]

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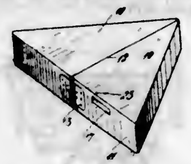
1,093,123. TRIANGLE-BOX. OLIVIER GOYETTE, New York, N. Y. Filed Jan. 10, 1914. Serial No. 812,870. (Cl. 46—6.)

1. In a device of the class described, the combination of two hollow elements each formed in the shape of a right angle triangle, connections hinged to the bases thereof, spring engaging means on said elements and means for operating the said engaging means.

2. In a device of the class described, the combination of a triangular element having a joint therein extending from the apex to the center of its base, a plate pivoted in the base of one of said elements, a rod connecting therewith, coöperative engaging elements within said triangular casing, and means combined with said rod for disengaging said elements.

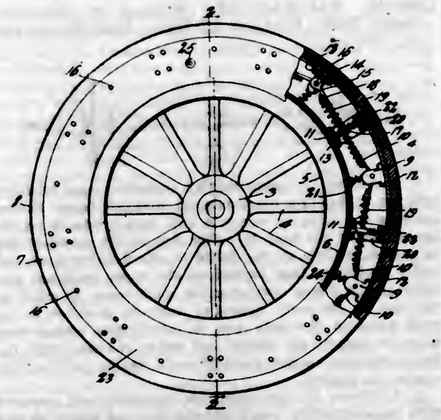


3. In a device of the class described, the combination with a hollow triangular receptacle jointed from the apex to the center of its base, of means for preventing the entrance of dust therein from the upper side thereof, the corresponding lower edges being sharply beveled to enter under a triangle, a locking means for said receptacle and means for manipulation thereof.



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1,093,124. SPRING-WHEEL. GEORGE W. GRAVES, MOSLEY MCCOLLMAN, and ALEXANDER P. GIBSON, Alderson, W. Va. Filed Mar. 10, 1913. Serial No. 753,402. (Cl. 152—37.)



1. In a spring wheel, a spaced felly and tire, inwardly projecting transverse bearing blocks secured to the tire, and each having a plurality of slots, transverse webs secured to the felly intermediate the bearing blocks, the webs projecting outwardly and each having a plurality of apertures, side rings between the felly and tire, pins engaged through the bearing blocks and terminally riveted through the side rings, a plurality of chordal arms pivoted to each pin within the respective slots of the bearing blocks, the arms passing slidably through the apertures of the webs, and projecting in opposite directions, and springs disposed between the webs and arms.

2. In a spring wheel, a spaced felly and tire, U-shaped members secured to the tire with their arms projecting inwardly, outwardly projecting members secured to the felly and fitting slidably within the arms of the U-shaped members to permit the felly and tire to move in various directions in the plane of the wheel, inwardly projecting members secured to the tire intermediate the U-shaped members, yielding connections between the felly members and the last mentioned tire members, and side rings secured to the arms of the U-shaped members and slidably engaging the respective sides of the felly.

3. In a spring wheel, a spaced felly and tire, U-shaped members secured to one of the said parts with their arms projecting toward the other part, guides secured to the last mentioned part and fitting slidably between the arms of the U-shaped members, side rings secured to the arms of the U-shaped members and slidably engaging the respective sides of the last mentioned part, pins terminally riveted through the rings intermediate the U-shaped members, arms pivoted to the pins and slidable loosely through the guides, and springs disposed between the guides and arms.

4. In a spring wheel, a spaced felly and tire, U-shaped members secured to the tire with their arms projecting inwardly, outwardly projecting guides secured to the felly and fitting slidably between the arms of the respective U-shaped members, bearing blocks secured to the tire intermediate the U-shaped members, pins engaged through the bearing blocks, side rings secured to the arms of the U-shaped members and overlapping the sides of the felly, said pins having their terminals riveted through the rings, arms pivoted to the said pins and slidable loosely through the guides, and springs disposed between the guides and arms.

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1,093,125. IMPRESSION DEVICE FOR DENTAL USE. WILLIAM C. J. GUILFORD, Washington, D. C., assignor to Wilhelminia M. Guilford, Washington, D. C. Filed Jan. 7, 1910. Serial No. 536,913. (Cl. 32—6.)



1. A device of the character described comprising a handle, a support carried by the handle adapted to rest against a jaw, an expansible former of a character and formation to conform to the irregular surfaces of mouths carried by the support and adapted to carry a conformable substance and force the same into engagement with the mouth to obtain an impression of the same, and fluid pressure means for expanding the expansible former to force the same and the conformable substance carried thereby over the parts of the mouth to be treated.

2. A device of the character described comprising a handle, a support carried by the handle adapted to rest against a jaw, and an expansible former of a character and formation to conform to the irregular surfaces of mouths carried by the support adapted to carry a conformable substance and force the same into engagement with the mouth to obtain an impression of the same, in combination with means for supplying uniform fluid pressure to said former through the extent of the same, said means comprising a supply medium and a pipe connection from the same to the former, said pipe connection being connected to the end of the handle and communicating through the handle to the former.

3. A device of the character described comprising a support adapted to rest against a jaw, and an expansible former of a character and formation to conform to the irregular surfaces of mouths carried by the support and adapted to carry a conformable substance, means for supplying pressure to the former, to force the same and said substance over the parts of the mouth to be treated, and controlling means for maintaining the pressure in the former and for relieving the pressure to permit the former to collapse.

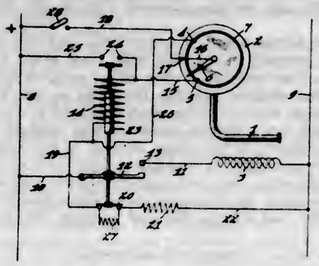
4. A device of the character described comprising a support formed for insertion in the mouth, an expansible former of a character and formation to conform to the irregular surfaces of mouths, carried by the support, and adapted to carry a conformable substance, and means constituting part of the device and in addition to the support, for expanding the expansible former to force the same and said substance over the parts of the mouth to be treated.

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1,093,126. TEMPERATURE-REGULATOR. WILLIAM S. HADAWAY, Jr., New York, N. Y. Filed Aug. 16, 1911. Serial No. 644,466. (Cl. 219—20.)

1. In a temperature regulator, the combination with a heater and a thermometer containing a liquid subjected to a temperature to be controlled and adapted to be partially vaporized by said temperature whereby a saturated vapor under pressure varying with said temperature is formed in the thermometer, of means automatically re-

sponsive to the variations in pressure of said saturated vapor for controlling said heater.



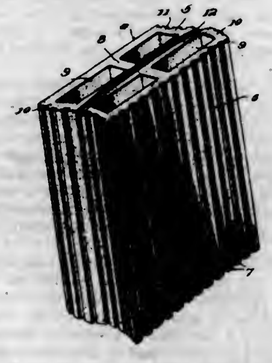
2. In a temperature regulator, the combination with an electric heater and a thermometer comprising a closed body partially filled with liquid, subjected to the temperature to be controlled and adapted to be partially vaporized by said temperature, of a control switch for governing the electric heater automatically responsive to the variations in pressure of said vapor.

3. In a temperature regulator, the combination with an electric heater, an electrically operated switch for opening and closing the circuit of the heater and a thermometer comprising a pressure gage, a tubular body communicating therewith and partially filled with liquid, subjected to the temperature to be controlled and adapted to be partially vaporized by said temperature, of a control switch automatically responsive to the variations in pressure of said vapor for actuating said electrically operated switch to open and close the heater circuit.

4. In combination, a heating appliance, means containing a saturated vapor, the pressure of which varies with its temperature, and means automatically responsive to the variations in the pressure of said saturated vapor for controlling the heating appliance.

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1,093,127. BUILDING-BLOCK. DAVID C. HARGRA, Elgin, Ill. Filed Apr. 9, 1913. Serial No. 759,858. (Cl. 72—41.)



A relatively flat hollow building block having substantially square inner and outer faces adapted to stand on edge in circular wall construction and having reversely curved vertically disposed connecting surfaces adapted to interlock with the corresponding surfaces of adjacent blocks, the outer surface of the block being wider than the inner surface, intersecting interior walls connecting the inside and outside walls and also the two side walls, curved grooves in the top and bottom surfaces of one intersecting wall in which reinforcing or tie rods are adapted to be embedded and the connecting and inner faces of said block being provided with grooves to retain mortar when positioned in the wall.

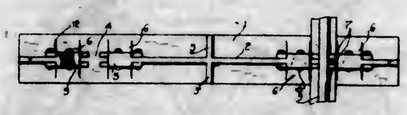
1,093,128. SHIELD FOR PORTABLE ACETYLENE-GAS LAMPS. AUGIE L. HANSEN, Chicago, Ill., assignor to The Justrite Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed July 10, 1912. Serial No. 708,559. (Cl. 240—111.)



The combination with a lamp provided with a reflector having a central burner, of a shield comprising an annular flaring portion, one side of which extends outwardly beyond the rest of the annular portion and means to detachably and rotatably secure the said shield to the reflector.

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1,093,129. RAILWAY-TIE. WILLIAM P. HASTINGS, Henry, Tenn. Filed Jan. 10, 1914. Serial No. 811,404. (Cl. 238—5.)



1. A railway tie comprising an elongated body provided with an upstanding longitudinally directed flange having portions cut away to receive a rail, lugs produced on the upper face of the body to either side of the openings and in spaced relation to the flange to afford guide-ways, laterally projecting lugs formed on the upper marginal portions of the flange overlying the guide-ways afforded by the lugs on the body, clamping members mounted in the guide-ways on the body and in interlocking engagement with the lugs of the flange, and means coacting with the flange and the clamps whereby such clamps may be held against movement.

2. A railway tie comprising an elongated body provided with an upstanding longitudinally directed flange having portions cut away to receive a rail, lugs produced on the upper face of the body to either side of the openings and in spaced relation to the flange to afford guide-ways, laterally projecting lugs formed on the upper marginal portions of the flange and having their under faces disposed on a downwardly directed bevel, clamping members mounted within the guide-ways on the body and having their upper faces beveled correspondingly with the under faces of the lugs on the flange, whereby such clamping members may be interlocked therewith, and means for holding the clamps against movement.

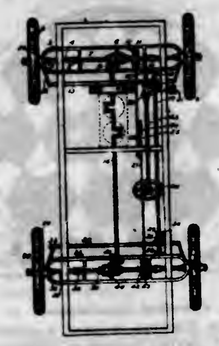
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1,093,130. STEERING MECHANISM FOR MOTOR-VEHICLES. CHARLES LEPLEY HAYS, Eldora, Iowa. Filed Feb. 16, 1912. Serial No. 678,009. (Cl. 21—193.)

1. In combination, pairs of carrying-wheels, stub-axles on which said wheels are mounted, pivotal supports for said axles, said axles being provided with laterally-projecting arms, a transverse rack-bar pivotally connecting each pair of oppositely-located axle-arms, like pinions intermeshing with said rack-bars, a shaft connecting said pinions, a third like pinion mounted on another shaft and intermeshing with one of said rack-bars, and movable supporting-means for the ends of said shafts permitting only vertical oscillatory play thereof.

2. In combination, pairs of carrying-wheels, stub-axles on which said wheels are mounted, pivotal bearings for said axles, a framework in which said pivotal bearings are mounted, said axles having laterally-projecting arms, a transversely movable rack-bar pivotally connecting each pair of oppositely-located axle-arms, like pinions intermeshing with said rack-bars, a shaft connecting said pinions, and bearings in said framework for said shaft formed to permit vertical play only of the latter relative thereto.





3. In combination, pairs of carrying-wheels, stub-axles on which said wheels are mounted, pivotal bearings for said axles, a framework in which said pivotal bearings are mounted, said axles having laterally-projecting arms, a transversely-movable rack-bar pivotally connecting each pair of oppositely-located axle-arms, like pinions intermeshing with said rack-bars, a shaft connecting said pinions, spaced arms pivoted at one end of each to said framework for vertical movements and having alined bearing openings in their other ends, said shaft being rotatably seated in the bearings in said arms.

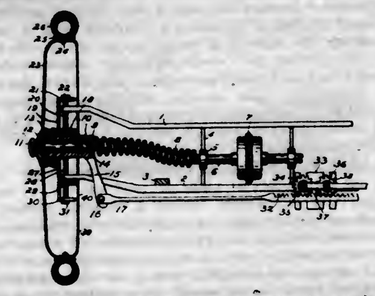
4. In combination, pairs of carrying-wheels, stub-axles on which said wheels are mounted, pivotal bearings for said axles, a framework in which said pivotal bearings are mounted, said axles having laterally-projecting arms, a transversely-movable rack-bar pivotally connecting each pair of oppositely located axle-arms, like pinions intermeshing with said rack-bars, a shaft connecting said pinions, spaced arms pivoted at one end of each to said framework for vertical movements, and having alined bearing-openings in their other ends, said shaft being rotatably seated in the bearings in said arms, and vertically-slotted bearings in said framework in which the extremities of said shaft are both rotatably and vertically slidably seated.

5. In combination, pairs of carrying-wheels, stub-axles on which said wheels are mounted, pivotal bearings for said axles, a framework in which said pivotal bearings are mounted, said axles having laterally-projecting arms, a transversely-movable rack-bar pivotally connecting each pair of oppositely-located axle-arms, like pinions, intermeshing with said rack-bars, a shaft connecting said pinions, another pinion mounted on a rotary shaft and in mesh with one of said rack-bars, means for rotating the last-mentioned pinion, vertically-grooved bearings in said framework adapted to rotatably seat the ends of said shafts for vertical play only therein, swing-arms connected to said framework for vertical play and having bearing-openings for said shaft, said arms and bearings preventing displacement of said shafts transversely of the frame while permitting vertical play only thereof.

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1,093,131. LOAD-SUPPORTING MEANS FOR CARRYING-WHEELS. CHARLES LEPLEY HAYS, Eldora, Iowa. Filed Feb. 16, 1912. Serial No. 678,011. (Cl. 21—90.)

1. In combination, a wheel secured on a rotary spindle, a sleeve-bearing about said spindle, oppositely-directed vertical guide-bars fixed to said bearing, connected springs located respectively above and below said bearing, the one resting upon the bearing, and the other movable over the under guide-bar, and rigidly connected frame-members, one movable over the upper guide-bar over the upper spring, and the other supported upon the lower spring and movable over the lower guide-bar.

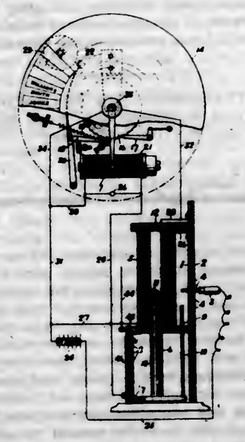


2. In combination, a wheel secured on a rotary spindle, a sleeve-bearing about said spindle, oppositely-directed vertical guide-bars fixed to said bearing and having stops on their upper and lower ends respectively, springs located respectively above and below said bearing, the one resting upon the bearing, and the other mounted on the lower guide-bar, and rigidly-connected frame-members, one slidably mounted upon the upper guide-bar between the stop on the latter and the uppermost spring, and the other supported on the lower spring and slidably mounted on the lower guide-bar between said spring and said bearing.

3. In combination, a wheel secured on a rotary spindle, a sleeve-bearing about said spindle, oppositely-directed vertical plates fixed to said bearing and having their extremities bent over at a right angle, oppositely-directed vertical guide-bars fixed to said bearing adjacent and parallel to said plates and having their extremities detachably secured to the bent-over parts of the latter, connected springs located respectively above and below said bearing, the one resting upon the bearing and orificed to be mounted upon the upper guide-bar, the other being orificed to be slidably mounted upon the lower guide-bar, rigidly-connected frame-bars, the end of one being orificed to be slidably mounted upon the upper guide-bar above the upper spring and the other having its end orificed to be slidably mounted upon the lower guide-bar and supported upon the lower spring.

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1,093,132. CALL SYSTEM. JOHN HERGESHEIMER, Glenside, Pa. Filed Mar. 5, 1913. Serial No. 752,007. (Cl. 177—338.)



1. A call system comprising a freely movable pointer and its complemental plate or face, an electro-magnetic an-

nunciator mechanism having a rotating element with which the pointer may be connected and disconnected, a make and break device and its circuit for actuating said annunciator mechanism with a step by step movement, a solenoid having a circuit and provided with a core for operating the make and break device, an electro-magnet and its circuit for connecting and disconnecting the pointer and said rotating element, and switch mechanism for controlling said circuits and including means for mechanically arresting the core of the solenoid at the end of its travel to position the pointer at the end of its travel, substantially as described.

2. A call system comprising a freely movable pointer and its complemental plate or face, an electro-magnetic annunciator mechanism having a rotating element with which the pointer may be connected and disconnected, a make and break device and its circuit for actuating said mechanism with a step by step movement, a solenoid having a circuit and provided with a core for operating the make and break device, means for retarding the movement of said core when its coil is energized to insure step by step motion of said mechanism, an electro-magnet and its circuit for connecting and disconnecting the pointer and said rotating element, and switch mechanism for controlling said circuits and including means for mechanically arresting the core of the solenoid at the end of its travel to position the pointer at the end of its travel, substantially as described.

3. A call system comprising the combination of a ratchet wheel, a freely movable pointer and its plate or face, spring pawl-and-ratchet connections for driving the ratchet wheel, an electro-magnet and its circuit for operating said connections, a series of contacts and their contact maker for making and breaking the circuit of said electro-magnet, a solenoid and its core for operating the contact maker, a second electro-magnet and its circuit for connecting and disconnecting the pointer and ratchet wheel, a plug board, and a plug for establishing and disestablishing said circuits and for mechanically limiting the travel of the solenoid after it has operated to shift the pointer into position corresponding with the plug.

4. In a call system the combination of a step-by-step annunciator mechanism and a step-by-step transmitting mechanism and their circuits, a self-setting pointer freely movable in respect to the annunciator mechanism, and electro-magnetic connections for connecting said pointer with said annunciator mechanism to drive the pointer and for disconnecting the pointer and annunciator mechanism to permit the pointer to reset itself.

5. In a call system the combination of a solenoid coil, a circuit interrupter, a solenoid core for operating the interrupter, a plug board, a plug for closing the solenoid circuit, and provisions whereby the plug mechanically arrests the travel of the core, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

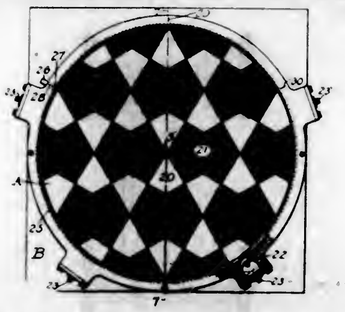
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1,093,133. ATTACHMENT FOR PENHOLDERS. FRANCIS A. HERMAN, Slatington, Pa. Filed Mar. 11, 1913. Serial No. 753,575. (Cl. 120—104.)



The combination with a penholder, of an attachment formed of a single length of spring wire initially bent and forming a closed spring loop, the terminals thence being crossed and bowing outwardly then toward each other and forming a second spring loop, the terminals thence being twisted together and forming a straight shank, one of said terminals being then bent at the extremity at a rightangle to said shank, said penholder being inserted through both of said loops with the loops binding snugly upon said penholder, and said shank extending longitudinally of said penholder toward the pen point and said bent terminal extending at a rightangle to said penholder.

1,093,134. PHOTOGRAPHIC METHOD. WILLIAM C. HUEBNER, Buffalo, N. Y., assignor to Huebner-Bleistein Patents Company, Buffalo, N. Y. Filed May 19, 1911. Serial No. 628,286. (Cl. 95—2.)



1. The herein described improvement in photography which consists in exposing to light a sensitized surface through a screen having numerous transparent angular units arranged around a common center while the remainder of the sensitized surface is protected against light, and thereafter rotating said screen and exposing portions of the sensitized surface which were previously protected, while protecting the portions which were previously exposed, substantially as set forth.

2. In color photography, the herein described method which consists in producing upon a sensitized surface a color record by photographing the object through a screen composed of angular units of different colors, said screen exposing the units of one color while the units of different color are protected against light, substantially as set forth.

3. In color photography, the herein described method which consists in producing a color record photographically and then printing said record upon a sensitized multi-color base having its area composed of numerous angular units of different color by exposing the units of one color at a time while protecting the units of different color against light, substantially as set forth.

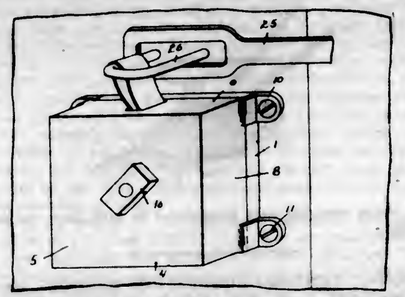
4. In color photography, the herein described method which consists in producing upon a sensitized surface a color record by photographing the object through a screen composed of angular units of different colors, said screen exposing the units of one color while the units of different color are protected against light, and printing said record upon a sensitized multicolor base having its area composed of numerous angular units of different color and exposing the units of one color at a time while protecting the units of different color against light, substantially as set forth.

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1,093,135. SEAL-LOCK. PRESLEY B. JOHNSON, Sacramento, Cal. Filed Oct. 17, 1913. Serial No. 795,737. (Cl. 70—23.)

1. In a seal lock, a casing having an opening formed therein, a cylinder rotatable within the casing, means for holding the cylinder against rotation in one direction, a plurality of pins carried by the periphery of the cylinder, a seal strip inserted through said opening and formed with a plurality of apertures to receive the pins, and a spring pressed plate hinged to the periphery of the cylinder to engage the ends of the strip and hold said strip against the periphery of the cylinder.

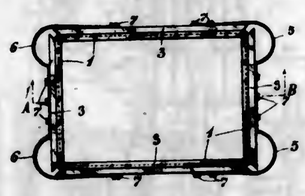
2. In a seal lock, a base plate formed in its inner side with a central circular recess, a casing having a front wall and side walls secured to the base plate around the recess formed therein, a shaft journaled through the casing and base plate, a ratchet wheel rigidly secured to said shaft and seated in the circular recess, a spring pawl fixed to the periphery of the recess and engaging the ratchet wheel, a cylinder rigidly secured to the shaft, a plurality of pins carried by the periphery of the cylinder, one side wall of the casing being formed with an opening, a seal strip inserted through said opening having a plurality of apertures to receive the pins and means carried



by the periphery of the cylinder for engagement with the end of the seal strip to hold said strip in engagement with the cylinder periphery.

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1,093,136. TENSIONING-FRAME FOR FABRIC TO BE EMBROIDERED AND THE LIKE. ALBERT JUCKER and THEODOR HEMPEL, Kreuzlingen, Switzerland. Filed Sept. 3, 1913. Serial No. 787,944. (Cl. 45—24.)



1. In a tensioning frame for fabric to be embroidered and the like, a rigid inner frame part and an outer frame part consisting of a plurality of separate side members connected together by means of springs, the two frame parts being held together by means of their opposite sides beveled in the form of steps and working into each other.

2. In a tensioning frame for fabric to be embroidered and the like, a rigid inner frame part, an outer frame part consisting of a plurality of separate side members connected together by means of springs and means to swing at least one of these separate side members out of the plane of the frame, when the two frame parts held together by means of their opposite sides beveled in the form of steps and working into each other have to be disconnected.

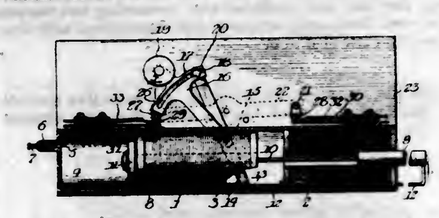
3. In a tensioning frame for fabric to be embroidered and the like, a rigid inner frame part and an outer frame part consisting of four separate side members connected together by means of plate springs, of which at least one is pivotally connected to opposite sides of the outer frame part, so that the side of this outer frame part situated between said two first mentioned opposite sides may be swung out of the plane of the frame when the inner and outer frame parts held together by means of their opposite sides beveled in the form of steps and working into each other have to be disconnected.

4. In a tensioning frame for fabric to be embroidered and the like, a rigid inner frame part and an outer frame part consisting of a plurality of separate side members connected together by means of springs, at least one of these springs forming at the same time one of the separate side members of the outer frame part and being pivotally connected to opposite sides of this outer frame part, so that it is capable of being swung out of the frame plane when the inner and the outer frame parts held together by means of their opposite sides beveled in the forms of steps and working into each other have to be disconnected.





1,093,137. ELECTROMAGNETIC CONTROLLING DEVICE. HARRY J. KEATING, Chicago, Ill. Filed Aug. 6, 1912. Serial No. 713,686. (Cl. 172—126.)



1. In a device of the character described in combination with a pair of solenoids, a pair of cores, one for each solenoid, means for mechanically connecting said cores, pneumatic means to govern the speed of response of said cores to their respective solenoids, a circuit controlling device for each solenoid to control the flow of current therethrough, quick acting means interposed between said cores and said circuit controlling devices to control the said devices, and means for maintaining said circuit controlling devices between the actuations of said quick acting means in their last actuated position.

2. In a device of the character described in combination with a pair of solenoids, a pair of cores, one for each solenoid, means for mechanically connecting said cores, pneumatic means to govern the speed of response of said cores to their respective solenoids, a circuit controlling device for each solenoid to control the flow of current therethrough, quick acting means interposed between said cores and said circuit controlling devices to control the said devices, and means for maintaining said circuit controlling devices between the actuations of said quick acting means in their last actuated position, said last aforesaid means including a rocking arm.

3. In a device of the character described in combination with a pair of solenoids, a pair of cores, one for each solenoid, means for mechanically connecting, said cores, pneumatic means to govern the speed of response of said cores to their respective solenoids, a circuit controlling device for each solenoid to control the flow of current therethrough, quick acting means interposed between said cores and said circuit controlling devices to control the said devices, and means for maintaining said circuit controlling devices between the actuations of said quick acting means in their last actuated position, said last aforesaid means including a frictionally controlled rocking arm.

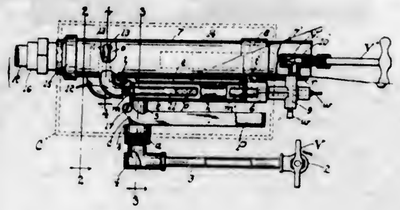
4. In a device of the character described in combination with a pair of solenoids, a pair of cores, one for each solenoid, means for mechanically connecting said cores, pneumatic means to govern the speed of response of said cores to their respective solenoids, a circuit controlling device for each solenoid to control the flow of current therethrough, quick acting means interposed between said cores and said circuit controlling devices to control the said devices, and means for maintaining said circuit controlling devices between the actuations of said quick acting means in their last actuated position, said last aforesaid means including a frictionally controlled rocking arm, said quick acting means including a weighted arm and a tilting arm controlled by said cores, the connection between said tilting arm and said weighted arm permitting lost motion between them.

5. In a device of the character described in combination with a pair of solenoids, a pair of cores, one for each solenoid, means for mechanically connecting said cores, pneumatic means to govern the speed of response of said cores to their respective solenoids, a circuit controlling device for each solenoid to control the flow of current therethrough, quick acting means interposed between said cores and said circuit controlling devices to control the said devices, and means for maintaining said circuit controlling devices between the actuations of said quick acting means in their last actuated position, said last aforesaid means

including a frictionally controlled rocking arm, said quick acting means including a weighted arm and a tilting arm controlled by said cores, the connection between said tilting arm and said weighted arm permitting lost motion between them, said weighted arm controlling said frictionally controlled arm.

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1,093,138. VAPOR-GENERATOR. CHARLES MAX KRUGER, Hannibal, Mo. Filed July 14, 1913. Serial No. 778,930. (Cl. 158—58.)



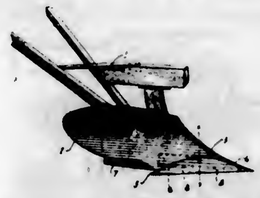
1. A vapor generator comprising a generator member provided with a central passage-way for the traverse of the liquid to be vaporized, burner tubes provided with perforations on their inner walls and operating to project jets of flame against the opposite walls of said member, a valve-controlled casing at the discharge end of the passage-way of said member, a mixing chamber disposed parallel, and close to, the generator member, a perforated disk at the intake end of the mixing chamber, a tube leading from the disk and discharging into the mixing chamber, the latter extending on the opposite side of the disk and open to the atmosphere, the tube aforesaid receiving the discharges from the valve-controlled casing and the proper complement of air mixed therewith, shunts in the mixing chamber having intake openings facing the current traversing the mixing chamber, means for connecting the discharge ends of the shunts to the intake ends of the burner tubes, discharge means for the mixing chamber beyond the shunts, and means for conducting the liquid hydrocarbon to the intake end of the passage-way of the generator member.

2. A vapor-generator comprising a generator member provided with a central passage-way for the traverse of the liquid to be vaporized, burner tubes provided with perforations on their inner walls and operating to project jets of flame against the opposite walls of said member, a valve-controlling casing at the discharge end of the passage-way of said member, a mixing chamber disposed parallel to and close to the generator member, a perforated disk at the intake end of the mixing chamber, a tube leading from the disk and discharging into the mixing chamber, the mixing chamber extending on the opposite side of the disk and open to the atmosphere, the tube aforesaid receiving the discharges from the valve-controlled casing and the proper complement of air mixed therewith, overlapping shunts in the mixing chamber spaced apart and provided with peripheral openings facing the current traversing the mixing chamber, means for connecting the shunts to the intake ends of the burner tubes, discharge means for mixing chamber beyond the shunts, and valve-controlled means for conducting the liquid hydrocarbon to the intake end of the passage-way of the generator member.

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1,093,139. PLOW. CHARLES E. LEASE and CHARL JACOBSON, Galt, Cal. Filed Apr. 22, 1913. Serial No. 762,762. (Cl. 97—22.)

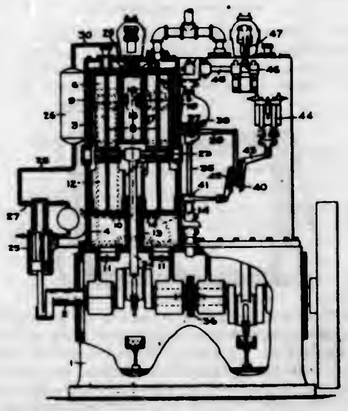
A device of the character described comprising the combination with a plow having a mold board, of a plow share adapted to engage said mold board, a projecting mortised flange at each end of said plow share, a land side secured to said plow, a plate secured to said land side and projecting flush with said plow share, said plate being shaped at its rear end to receive one of said flanges,



and means securing said plow share to said plate, as described.

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1,093,140. INTERNAL-COMBUSTION ENGINE. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 24, 1911. Serial No. 635,118. (Cl. 123—71.)



1. In an engine of the character described, the combination of a pair of working cylinders, pistons that compress air in one end of said cylinders to a temperature above the igniting temperature of the fuel, a crank shaft connected with the pistons, a conduit connecting the cylinders at their compression ends, exhaust ports for one of the working cylinders, a pair of air pumps, the pistons of which have greater displacement than the working pistons, means for conveying the air from both pumps to the other working cylinder, said air flowing through the cylinders and their connecting conduit serially and driving out the burned products of combustion, and a means including air under pressure for injecting fuel into the conduit connecting the cylinders wherein it is ignited by the high temperature air compressed by the working pistons.

2. In an engine of the character described, the combination of a pair of working cylinders and their pistons, a crank shaft connected to the pistons, a conduit connecting the cylinders, exhaust ports for one of said cylinders only which are controlled by the working piston therein, air-admitting ports for the other working cylinder which are controlled by the piston therein, a fresh air pump whose piston displacement is materially greater than that of the working pistons, a conduit conveying air from the pump the said air ports, the air from said ports flowing serially through the cylinders and conduit and escaping through the exhaust ports, a fuel supply, and an air compressor for forcing fuel and air into the cylinder spaces of both of the working cylinders against the compression produced by the working pistons.

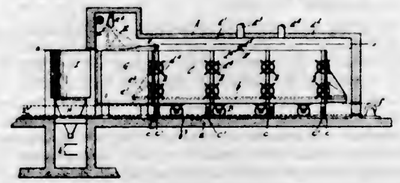


3. In an engine of the character described, the combination of a pair of working cylinders, pistons in the cylinders that compress air in the ends thereof, a crank shaft connected to the pistons, a conduit connecting the compression spaces of the cylinders, an air pump having a piston displacement greater than that of the working pistons, a receiver connected thereto having a cubical capacity substantially equal to the displacement of the pump, air-admitting ports in one of said cylinders that communicate with the receiver and are controlled by the piston, exhaust ports in the other cylinder which are controlled by its piston, and means including air under pressure for injecting fuel into said conduit where it is ignited by the high temperature air forced into it from both working cylinders.

4. In an engine of the character described, the combination of a pair of working cylinders and their pistons, a crank shaft for the pistons, a conduit connecting the cylinders at their compression ends, an air pump having a piston displacement greater than that of the working pistons, a receiver connected thereto, air-admitting ports in one of said cylinders that communicate with the receiver and are controlled by a working piston, exhaust ports in the other cylinder which are controlled by its piston, a staged air compressor, and a receiver that receives air from the compressor and forces fuel into the conduit where it is ignited by the high temperature air forced into it from the cylinders by the working pistons.

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1,093,141. APPARATUS FOR USE IN THE MANUFACTURE OF SUPERPHOSPHATE. GEORG H. LYNEN, Passaic, N. J. Filed Apr. 9, 1913. Serial No. 759,869. (Cl. 71—1.)



1. The combination with a chamber, of a movable support which is adapted to be moved into and out of said chamber, and walls in said chamber adapted to engage said movable support to form a receptacle therewith, said support being movable relative to said walls into and out of said chamber, substantially as set forth.

2. The combination with a chamber, of a movable support in said chamber, and upright walls in said chamber at opposite sides of said support which coöperate with said support to form a receptacle for the material, said support being movable with the material thereon from between said walls and out of said chamber, substantially as set forth.

3. The combination with a chamber, of a movable support which is adapted to be moved into and out of said chamber, and walls for said support which are movably supported in said chamber and are adapted to be moved toward the support to form a receptacle for the material and away from the support to free the material, substantially as set forth.

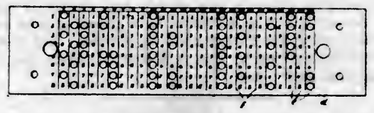
4. The combination with a chamber, of a platform which is adapted to be moved into and out of said chamber, front and side walls for the platform which are movably mounted in said chamber, and means for moving said walls into and out of engagement with said platform, substantially as set forth.

5. In an apparatus for emptying superphosphate chambers, the combination with a chamber, of a platform which is adapted to be moved into and out of said chamber, removable walls for said platform between which material can be poured, and unloading means outside of said chamber underneath which said platform is adapted to pass and which engage the material on the platform and remove the same from said platform, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,142. BLANK JACQUARD-CARD. EDWARD MAAG, Mount Vernon, N. Y. Filed July 22, 1913. Serial No. 780,448. (Cl. 139—42.)



1. The herein described blank jacquard card having markings distinguishing from each other the several rows of the card corresponding to row-sections on the pattern from which such card is to be punched.

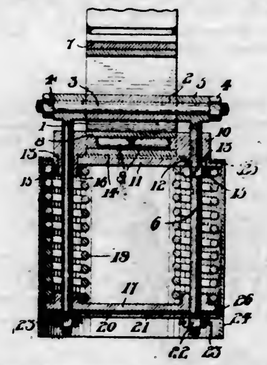
2. The herein described blank jacquard card having the several rows thereof corresponding to row-sections on the pattern from which such card is to be punched provided with consecutive indices.

3. The herein described blank jacquard card having markings distinguishing from each other the units of each row of units of the card corresponding to a row-section of units on the pattern from which such card is to be punched.

4. The herein described blank jacquard card having the units of each row of units thereof corresponding to a row-section of units on the pattern from which such card is to be punched provided with consecutive indices.

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1,093,143. ELASTIC SPRING-SUPPORT. JAMES MCNEIL and ROBERT LIENHARD, Jr., Pittsburgh, Pa. Filed Nov. 27, 1912. Serial No. 733,913. (Cl. 21—50.)



1. In a shock absorber, a bolt adapted to be connected to the rear end of the lower spring of a vehicle, suspension rods mounted upon the ends of said bolt, oppositely disposed stud bolts adapted to be connected to the rear end of the upper spring of the vehicle and having their heads formed with vertical openings and bosses through which said rods extend, a spacer plate mounted upon said bosses and against said heads, means engaging the bosses for supporting the spacer plate, a support at the lower ends of said rods, and means interposed between said plate and support and surrounding the rods for cushioning the movement of the plate.

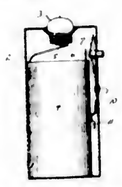
2. In a shock absorber, a pair of oppositely disposed stud bolts adapted to be secured to the rear end of the upper spring of a vehicle and having their heads provided with vertical openings and bosses, suspension means adapted to be connected to the rear end of the lower spring of a vehicle and extending through said openings

and bosses, a spacer plate mounted upon said bosses and abutting against said heads, means mounted upon the bosses for securing said spacer plate in position, and cushioning elements supported by said suspension means.

3. In a shock absorber, a pair of oppositely disposed stud-bolts adapted to be connected to the rear end of the upper spring of a vehicle and having their heads provided with vertical openings and peripherally threaded depending bosses, suspension means adapted to be connected to the rear end of the lower spring of a vehicle and extending through said heads and bosses, a spacer plate mounted upon said bosses, nuts engaging said bosses for maintaining the spacer plate in position, and cushioning elements carried by said suspension means and abutting against said plate.

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1,093,144. PORTABLE ELECTRIC LAMP. WILLIAM J. MONAGHAN, Waterbury, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed Oct. 27, 1913. Serial No. 797,497. (Cl. 240—8.5.)

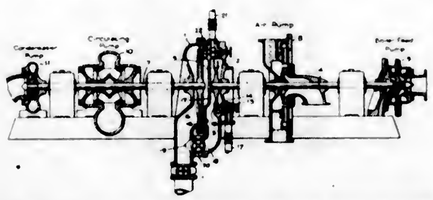


1. A portable electric lamp comprising a casing, a spring contact riveted in one side of the casing, a button adapted to operate said spring-contact, said spring-contact extended below its rivet forming a spring arm adapted to engage with a battery introduced into the casing.

2. A portable electric lamp comprising a casing, a spring contact riveted in one side of the casing, a button adapted to operate said spring contact, said spring contact extended below its rivet forming a spring arm which is provided with a transverse bend adapted to bear against a battery introduced into the casing.

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1,093,145. TURBINE-DRIVEN AUXILIARIES. GUSTAV PAGEL, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Jan. 29, 1914. Serial No. 815,296. (Cl. 121—58.)



1. The combination with two groups of pumps rotating at different speeds, of a multistage steam turbine having a high pressure high speed wheel and a low pressure low speed wheel, and means whereby each wheel drives a separate group of pumps.

2. The combination with a multistage steam turbine having a high pressure high speed wheel and a low pressure low speed wheel, of independent shafts for said wheels, and a group of centrifugal pumps mounted on each shaft.

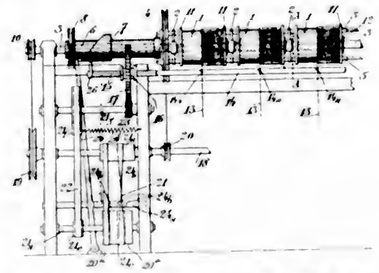
3. The combination of a multistage elastic fluid turbine having a high speed high pressure wheel and a low pressure low speed wheel, means for supplying the first wheel with high pressure steam and the second with the exhaust from the first, independent shafts for said wheels, and centrifugal pumps having different operating speeds mounted on said shafts.

4. The combination with a multistage steam turbine having a high pressure wheel and a low pressure wheel running at different speeds, of two shafts for the two wheels, one or more pumps driven by each shaft, a direct exhaust outlet for the steam from the high pressure wheel, and means for supplying steam directly to the low pressure wheel independently of the high pressure wheel.

5. The combination of a multistage elastic fluid turbine having a high speed wheel and a low speed wheel each occupying a separate compartment, means for supplying steam in series to the wheels for normal operation, means for cutting out one of the wheels for emergency conditions and supplying steam to only one wheel, and pumps driven by said wheels at different speeds.

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1,093,146. MACHINE FOR MANUFACTURING ARTIFICIAL SILK AND LIKE THREAD. VICTOR PLANCHON, Lyon, France. Filed June 3, 1913. Serial No. 771,392. (Cl. 242—44.)



1. In a machine for manufacturing artificial silk and the like thread, the combination of a shaft, means for rotating same, a pair of bobbins adapted to receive the thread arranged diametrically opposite one another on each side of said shaft, one of which is normally in position for winding the thread, a rotatable frame on which said bobbins are detachably mounted and having its axis of rotation coaxial with the axis of said shaft, means for imparting rotary movement to said bobbins by said shaft, a bar, a thread guide on said bar, means for imparting horizontal movement to said bar in two directions to guide the thread on to one or other of said bobbins, and means controlled by said bar for periodically imparting a semi-rotation to said frame to bring the one or other of said bobbins into the normal position for winding the thread.

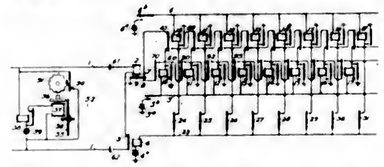
2. In a machine for manufacturing artificial silk and the like thread, the combination of a shaft, means for rotating same, a series of pairs of bobbins adapted to receive the thread, flanges on said bobbins, a series of rotatable frames having their axes of rotation coaxial with the axis of said shaft, spring governed means carried by said frames adapted to detachably hold said bobbins thereon, tie pieces connecting said frames, disks mounted on said shaft engaging with said flanges of said bobbins and whereby the latter are rotated, a sleeve on said shaft, a pulley on said sleeve connected to one of said frames, means for imparting rotation to said pulley and said frames, means for automatically reversing said rotation, means for limiting said rotation to a semiturn in either direction, to bring one or other of the bobbins of the series of pairs into position for winding the threads, a bar, thread guides thereon, and means for automatically imparting reciprocating horizontal movement to said bar to guide the threads on to the bobbins in operation.

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1,093,147. ELECTRICAL CONTROLLING MECHANISM. FRANK N. REEVES, Newark, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 20, 1912. Serial No. 715,966. (Cl. 179—27.)

1. The combination with a series of successively operable electrical devices, of means for selecting a variable group of said devices, a responsive device, and means for preparing a circuit for said responsive device simultaneously with the preparation of a circuit for the last one of said electrical devices in any predetermined group.





2. The combination with a series of electrical devices, and means for causing the successive operation of a variable group of said devices, of controlling means for said last named means responsive over a circuit prepared simultaneously with the circuit for the last one of said electrical devices in any predetermined group.

3. The combination with a series of electrical devices and means for causing their successive operation, of means for selecting a predetermined group of said devices and means operating simultaneously with the last device of any selected group adapted to change the condition of said means for causing their operation.

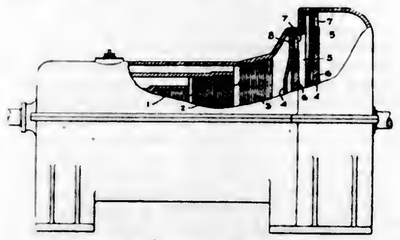
4. The combination with a series of electrical devices and means for operating them in succession, of a series of selective switches arranged to select for effective operation a variable group of said electrical devices, a responsive device, and circuits connecting said device to cause its operation simultaneously with the last operated electrical device in any selected group.

5. The combination with an interrupter of a series of electromagnetic devices, a series of independently operated switches, a responsive device, and a circuit adapted to cause the simultaneous operation of the responsive device and a selected one of the electromagnetic devices.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,148. ELASTIC-FLUID TURBINE. RICHARD H. RICE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 20, 1913. Serial No. 807,813. (Cl. 121—58.)



1. A steam turbine having a high pressure portion of the reaction type and its final low pressure portion formed into one or more stages of the impact type.

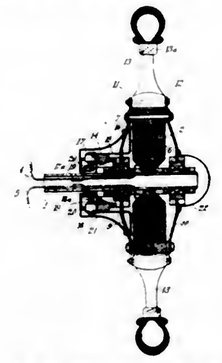
2. A steam turbine having its high pressure portion of the reaction type, and its low pressure portion of the impact type.

3. The combination with a steam turbine of the Parsons type, of one or more low pressure stages provided with nozzles, and impulse wheels coöperating therewith.

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1,093,149. DRIVING MECHANISM FOR ELECTRICALLY-PROPELLED VEHICLES. EUGENE W. SCHNEIDER, New York, N. Y. Filed May 31, 1910. Serial No. 564,101. (Cl. 172—287.)

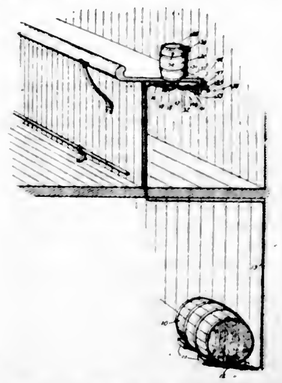
The combination with a non-rotatable vehicle-axle; of a field magnet rigidly mounted on the said axle, a hub comprising plates or disks rotatably mounted on the axle at opposite sides of the said field magnet, the disks being oppositely convex; an armature encircling the field magnet, between the said disks at the periphery thereof, and having a core composed of laminæ or plates perpendicular to the axle; flat binding rings on opposite sides of said core, between the same and the respective disks; said rings extending radially beyond the edges of the disks and the outside of the armature core; binding bolts at the



periphery of the disks, extending through the disks, the binding rings, and the laminæ of the armature core to bind all said parts firmly together; radial spokes having their inner ends arranged between the binding rings; binding bolts extending through the binding rings and the inner ends of said spokes to bind the same firmly between the rings; and a felly carried by the outer ends of the spokes.

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1,093,150. ALE-DRAWING APPARATUS. HENRY SCHWARZ, Brooklyn, N. Y. Filed Apr. 5, 1913. Serial No. 759,145. (Cl. 226—9.)



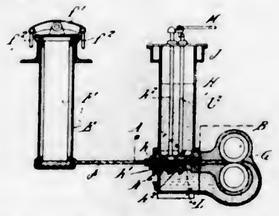
1. In a liquid dispensing apparatus, the combination with a liquid containing tank and an inlet pipe extending therein, of a yieldingly mounted false head hermetically sealing said tank, a removable protective cover over said false head, a faucet on said inlet pipe, operative connections between said faucet and said false head and a weight adapted to keep said faucet normally open, all of said elements being contained within the body of said tank.

2. In a liquid dispensing apparatus, the combination with a liquid containing tank and an inlet pipe extending therein, of a yieldingly mounted false head hermetically sealing said tank, a removable protective cover over said false head, a faucet on said inlet pipe, operative connections between said faucet and said false

head, a weighted lever for keeping said faucet open, all of said elements being encompassed within said tank body and an outlet pipe at the bottom thereof adapted to discharge the liquid contents of said tank by gravity.

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**1,093,151. HYDRAULIC LIFTING MECHANISM.** KARL HEINRICH WILHELM LUDWIG SECK, Mannheim, Germany, assignor to The Firm of Heinrich Lanz, Mannheim, Germany. Filed Jan. 28, 1913. Serial No. 744,648. (Cl. 138—9.)



1. Hydraulic lifting mechanism comprising a cylinder, a piston working therein and adapted to be connected to an element to be lifted, a rotary geared-vane pump connected to said cylinder, a fluid receptacle between said pump and cylinder and open always to the receiving end of said pump, and valves in said receptacle for enabling said pump either to supply fluid from said receptacle to said cylinder or to circulate it idly to and from said receptacle, while the fluid in said cylinder may return to said receptacle without passing through said pump.

2. Hydraulic lifting mechanism comprising a cylinder, a piston working therein and adapted to be connected to an element to be lifted, a rotary geared-vane pump, a fluid receptacle connected to and open always to the suction side of said pump, a valve casing bridged across the interior of said receptacle, a pressure fluid passage passing through said valve casing from the pressure side of said pump to said cylinder, a branch fluid passage in said valve casing leading from said pressure fluid passage and opening into said receptacle, rotatable valves in said valve casing for controlling said fluid passages, and means for manipulating said valves.

3. Hydraulic lifting mechanism comprising a cylinder, a piston working therein and adapted to be connected to an element to be lifted, a rotary geared-vane pump, a fluid receptacle connected to and open always to the suction side of said pump, a valve casing in said receptacle, a pressure fluid passage passing through said valve casing from the pressure side of said pump to said cylinder, a branch fluid passage in said valve casing leading from said pressure fluid passage and opening into said receptacle, valves in said valve casing for controlling said fluid passages, and mechanism for automatically closing the valve in said pressure fluid passage and for automatically opening the valve in said branch fluid passage on a pre-determined movement of said piston.

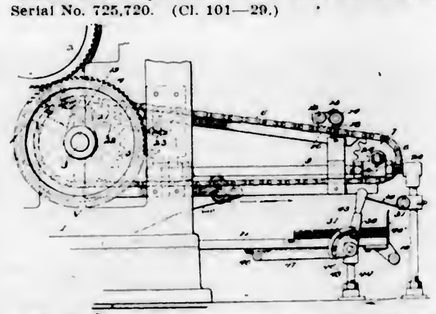
4. Hydraulic lifting mechanism comprising a cylinder, a piston working therein and adapted to be connected to an element to be lifted, a fluid receptacle, a pump, a fluid passage from the pressure side of said pump to said cylinder, a branch fluid passage leading therefrom into said receptacle, a connection from said receptacle to the suction side of said pump, valves in said fluid passages, operating levers for said valves, and mechanism for automatically operating said levers on a pre-determined movement of said piston.

5. Hydraulic lifting mechanism comprising a cylinder, a piston working therein and adapted to be connected to an element to be lifted, a fluid receptacle, a pump, a fluid passage from the pressure side of said pump to said cylinder, a branch fluid passage leading therefrom into said receptacle, a connection from said receptacle to the suction side of said pump, valves in said fluid passages, operating levers for said valves, an elbow lever pivoted on said cylinder, one arm of which is connected to said operating levers, means for temporarily locking said elbow lever, a spring adapted to bear against the other arm of said elbow lever on the outward movement of said piston, and mechanism for releasing said locking means on a predetermined outward movement of said piston to enable said spring to actuate said elbow lever.

[Claims 6 and 7 not printed in the Gazette.]

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**1,093,152. DELIVERY MECHANISM.** WALTER H. SMITH, Niles, and CHARLES J. WRIGHT, Warren, Ohio, assignors to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Oct. 14, 1912. Serial No. 725,720. (Cl. 101—29.)



1. In combination with a press having a cylinder, delivery mechanism comprising stock engaging means, adapted to receive stock directly from said cylinder, a continuously-operating carrier therefor traveling at a slower speed than such cylinder, and means for accelerating the speed of travel of the stock-engaging means at the point of receiving the stock from the press cylinder without affecting the operation of the carrier.

2. In combination with a press having a cylinder, delivery mechanism comprising a plurality of separate stock engaging means adapted to receive stock directly from said cylinder, a constantly-operating endless carrier therefor traveling at a slower speed than such cylinder, and means for accelerating the speed of travel of the several stock engaging means at the point of receiving the stock from the press cylinder, the acceleration of the travel of one stock engaging means having no effect on the speed of travel of the remaining stock engaging means.

3. In combination with a press having a cylinder, delivery mechanism comprising a constantly-operating carrier traveling at a slower speed than such cylinder, separate sets of grippers carried by said carrier, and adapted to receive stock directly from said cylinder, means for operating the grippers to receive and discharge stock, and means for effecting a differential movement in the travel of the grippers as between the points of receiving the stock from the press cylinder and discharging the stock.

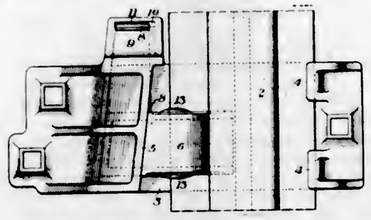
4. In combination with a printing press having a cylinder, delivery mechanism comprising a constantly-traveling carrier, separate sets of grippers mounted on said carrier, and adapted to receive stock directly from said cylinder, means for operating the grippers to receive and discharge stock, and means for effecting a differential movement in the travel of the grippers at the points of receiving stock from the press cylinder and discharging the stock, the grippers traveling at the face speed of said cylinder when receiving stock therefrom.

5. In combination with a press having a cylinder, delivery mechanism comprising a plurality of sets of stock-engaging grippers, adapted to receive stock directly from said cylinder, a continuously-operating endless carrier for said grippers, a receiver above which said carrier is located, means for accelerating the speed of travel of the grippers through a portion of their travel while the speed of travel of the carrier remains unaltered, and means for actuating the grippers to receive the stock while they are traveling at an accelerated speed, said grippers discharging the stock on said receiver.

[Claims 6 to 11 not printed in the Gazette.]



**1,093,153. RAILWAY-TRACK CONSTRUCTION.** JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 8, 1911. Serial No. 619,874. (Cl. 238—2.)



1. A track structure comprising a fastener plate, a bracing and wedging member comprising a base portion and an upwardly projecting rail head engaging portion and also having an integral projection extending longitudinally therefrom in the direction in which the base is adapted to be driven for seating it in the fastener plate, and a curved deflecting channel in the plate into which the projection is adapted to be driven and deflected.

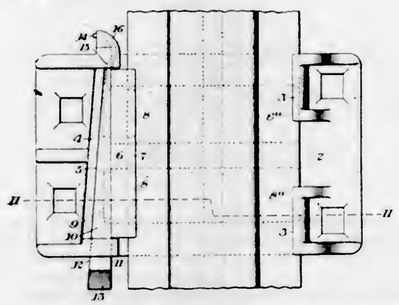
2. In railway track construction, the combination with a rail-seating member having an upward projection formed with a wedging face, of a rail-engaging member driven between said face and the rail, said member having an integral bendable locking projection, and the rail-seating member having a portion to engage said projection and bend or clench the same, substantially as described.

3. A track structure, comprising a tie plate, and a rail brace seated on the tie plate and between it and a rail also seated on the tie plate, one of said members having a projection extending longitudinally therefrom, and the other member having an integral longitudinally extending curved deflecting channel to receive and bend the said projection when said members are driven into engagement with each other; substantially as described.

4. A track structure, comprising a tie-plate and a rail brace member seated on the tie-plate and between it and a rail also seated on the tie plate, the rail engaging member having an integral projection extending longitudinally therefrom, and the tie plate having a curved longitudinally extending deflecting channel to receive and deflect said projection; substantially as described.

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**1,093,154. ANTI-RAIL-CREEPER.** JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 17, 1911. Serial No. 655,211. (Cl. 238—2.)



1. An anti-creeping device comprising a plate having rail receiving flanges and having an inclined surface formed thereon, and a track engaging wedge adapted to be driven between one of the flanges of the plate and the rail and adapted to be bent upon said inclined surface for locking it in position.

2. In an anti-creeper for rails, a base member having a rail-seating portion, a member adapted to be driven longitudinally of the rail into wedging engagement with the base member and between an undercut face of the base member and the base flange of the rail, and means for locking the said members in wedging engagement, comprising a bendable portion upon one of said members adapted to be automatically deflected and locked in a curved guideway upon the other of said members.

3. In an anti-creeper for rails, a base member having a plurality of projections thereon, one of said projections being adapted to engage one base flange of the rail, a second member adapted to be inserted between the other base flange of the rail and the other projection and to be driven longitudinally of the rail and the base member whereby pressure is exerted upon the other base flange of the rail to secure the rail firmly in the device, and a bendable key comprising part of said second member adapted to be bent in a curved guideway in said base member.

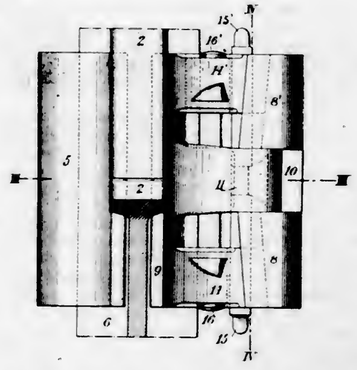
4. A track fastening comprising a plurality of members relatively movable longitudinally of the rail into locking engagement with each other, said members having rail-engaging portions, and means for locking said members in wedging engagement comprising a bendable portion integral with one of said members arranged to be automatically deflected and locked in a curved guideway in another of said members.

5. In railway track construction, a base member provided at one side with an upwardly extending portion adapted to engage one of the base flanges of the rail, and at the other side of the base member a projection inclined longitudinally of the rail and forming with the rail a guideway, a wedge member adapted to be driven into the guideway to secure the base member and the rail firmly together, a keyway on the base member, said wedge member having a bendable locking portion adapted to be locked in the keyway in said base member.

[Claims 6 to 8 not printed in the Gazette.]

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**1,093,155. RAIL-JOINT.** JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company. Filed Aug. 27, 1912. Serial No. 717,233. (Cl. 239—6.)



1. In a rail joint, a base member having a rail seating surface, a projection at one side of said surface being adapted to engage the rails between their heads and base flanges, a rail engaging member adapted to co-act with the heads and base flanges of the other side of the rails, wedge members interposed between said rail engaging member and portions of the base plate, and bendable members adapted to lock the wedge members in wedging position.

2. A rail joint comprised of a base member, a projection on said base member forming a rail engaging portion for one side of the rails, a rail engaging member for the other

side of the rails, the rear faces of the rail engaging member and abutments on the base member forming wedging seats, wedge members adapted to be driven into said wedging seats and bendable members adapted to lock said wedging members in said seats.

3. In a rail joint, a base member having at one side an upwardly extending portion adapted to engage one side of the rails, a rail engaging member adapted to engage the other side of the rails, projections on said base member inclined from the ends of said base member longitudinally of the rails, and inwardly toward the joint between the rails, and forming with the rear side of the rail engaging member wedging seats, wedge members adapted to be driven into said wedging seats and means for locking the wedge members in wedging position in said seats.

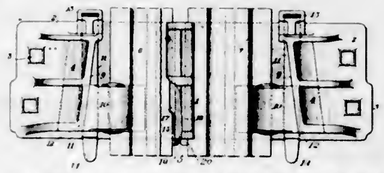
4. In a rail joint, a base member having a rail seating portion and at one side of said portion wedging abutments and fastening means including wedge members, and bendable members for locking the wedge members in wedging position on said base member.

5. A rail joint comprising rail-gripping parts, a part underlying the rail, wedges operating between a rail-gripping part and a projection of that part which underlies the rail, and bendable locking means for securing the wedge members in wedging engagement against a rail gripping part, one of said rail-gripping parts having an engagement with the part underlying the rail to prevent relative longitudinal movement therebetween.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,156. GUARD-RAIL TIE-PLATE. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company. Filed Aug. 31, 1912. Serial No. 718,006. (Cl. 239—18.)



1. In a guard-rail support, a base member adapted to support the main-rail and the guard-rail, an abutment on said base member adapted to co-act with the base flanges of said rails, rail engaging members adapted to support the outer sides of the rails and to be secured to the base member by bendable key members.

2. In a guard-rail support, a base member having a central longitudinal abutment thereon, rail engaging members adapted to operate in guide-ways between projections on said base member and the webs of the rails, and bendable key members adapted to secure the rail engaging members to the base member.

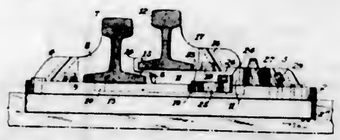
3. A tie-plate having means for securing a main-rail and a guard-rail thereon, an abutment secured to said tie-plate projecting upwardly between the base flanges of said rails, guide-ways extending longitudinally of the rails between projections on the tie-plate and the webs of the rails, rail engaging members adapted to operate in said guide-ways and to be secured therein by bendable key members, and means for adjusting the gage between the main rail and the guard-rail to compensate for wear.

4. A tie-plate having supports for a guard-rail and a main-rail, mechanism for adjusting the gage of the rails comprised of a shim and rail braces, the rail braces being secured to the tie-plate by bendable key members.

5. A tie-plate having supports for a guard-rail and a main-rail, a shim adapted for insertion between an abutment on said plate and one of said rails and comprising means for adjusting the gage of the rails to compensate for wear, rail engaging members for fastening the rails to the tie plate and bendable locking means for securing the rail engaging members to the tie-plate.

[Claim 6 not printed in the Gazette.]

1,093,157. RAIL-SUPPORT. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company. Filed Oct. 26, 1912. Serial No. 727,821. (Cl. 239—18.)



1. In a rail support, a base member adapted to support the main rail, a guard rail support mounted in a recess in said base member, means for securing the main rail to the base member and the guard rail to the guard rail support, and wedge members adapted to move the guard rail support relative to the base member.

2. In a rail support, a base member adapted to be secured to a tie and to support the main rail, a plate for the guard rail, the said plate being movable transversely of the base member, and wedging means for moving the guard rail plate to maintain the proper gage between the heads of the rails.

3. In a rail support, a base member, a main rail mounted thereon, a guard rail support positioned in said base member and a guard rail mounted thereon, means for securing the main rail and the guard rail to the base member and the guard rail support respectively, and wedging means for adjusting and securing the guard rail plate relative to the base plate.

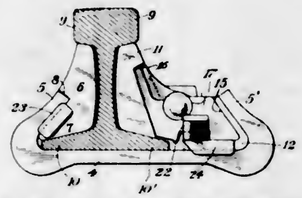
4. In a rail support, a base member, a main rail mounted thereon, a guard rail support positioned in said base member and a guard rail mounted thereon, means for securing the main rail and the guard rail to the base member and the guard rail support respectively, a wedge for moving the guard rail away from the main rail, and a wedge for moving the guard rail toward the main rail, the two wedges comprising means for adjusting the guard rail in any desired position relative to the main rail.

5. In a rail support, a base member adapted to support the main rail, a support for the guard rail mounted in a recess in said base member, securing means for the rails, wedge members adapted to move the guard rail support relative to the base member, one of said wedge members overlying one end of the guard rail support, and being adapted to hold it in position in the base member and to move it toward the opposite side of the base member.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,158. RAIL-JOINT. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company. Filed Feb. 11, 1913. Serial No. 747,603. Renewed Oct. 31, 1913. Serial No. 798,589. (Cl. 239—6.)



1. In a rail joint, a joint-plate having upturned sides, rail engaging members on opposite sides of the rail extending uninterruptedly across the joint, and adapted to grip the rails between their heads and base flanges, one of said members having a bearing on said joint plate, a plate bearing against one of the sides of the joint-plate, and adapted to form with a rail engaging member a plurality of guideways, wedges for the guideways, and bendable key members for locking the wedges in the guideways.

2. In a rail joint, rail engaging members on opposite sides of the rail extending uninterruptedly across the joint and adapted to grip the rails between their heads and base flanges, a guide member, a guide way formed by a rail engaging member and by the guide member, a wedge operating in the guide way, and a bendable key member adapted to lock the wedge in the guide way.

3. A rail joint comprising a joint plate of substantially uniform cross section throughout its length, rail gripping parts coöperating with the joint plate, wedging means operating between one of the sides of the joint plate and one of the rail gripping parts, and bendable locking means for locking the wedging means against movement.

4. A rail joint comprising a rail joint plate with symmetrically up-turned sides, rail engaging members adapted to engage the rails between their heads and base flanges, one of said members having a shoulder overlying an up-turned side of said joint plate, the other of said members having a projection and socket engagement with a guide member, wedges operating in guide ways between the rail engaging member and the guide member, and bendable means for locking the wedges against movement.

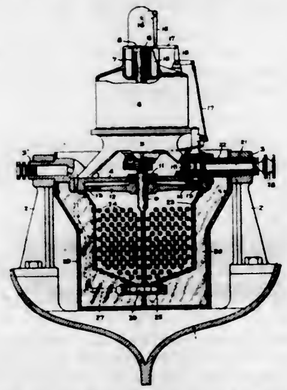
5. A rail joint, comprising a joint-plate, rail gripping parts adapted to bear against the flanges of the rails and to support the rail heads, a plate bearing against the joint plate and adapted to form guideways with the rear face of one of said rail gripping parts, wedges for said guideways and bendable locking means for locking wedges in the guideways.

[Claims 6 and 7 not printed in the Gazette.]



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1,093,159. TURBO SHIP-STEADYING DEVICE. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 19, 1913. Serial No. 790,796. (Cl. 114—122.)



1. Means for preventing the rolling of a steamship comprising a vertical shaft turbo-generator mounted to act as a gyroscopic steadying device.

2. A gyroscopic anti-rolling device for ships, comprising a vertical shaft turbo-generator mounted on trunnions whose axis is athwartships.

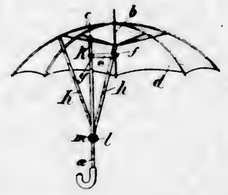
3. In a system of ship propulsion comprising electric motors for driving the propellers, a turbo-generator of the vertical shaft type mounted to swing in a fore and aft plane and yieldingly connected to the hull.

4. A gyroscopic anti-rolling device for ships, comprising a vertical shaft turbo-generator mounted on trunnions whose axis is athwartships, and buffers connected to the frame of said turbo-generator.

5. A gyroscopic anti-rolling device for ships, comprising a vertical shaft turbo-generator having a condensed base, tubular trunnions for supporting said machine on an axis athwart the ship, means for supplying steam to the turbine through one of said trunnions, and means for leading off the products of condensation through the other.

[Claims 6 to 11 not printed in the Gazette.]

1,093,160. UMBRELLA. HANS WAGNER, Ludwigsburg, Germany. Filed Nov. 8, 1912. Serial No. 730,203. (Cl. 135—20.)



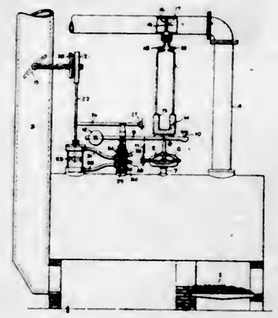
1. In an umbrella, the combination of a divided umbrella stick having an upper portion and a handle portion adapted to be offset from each other; an umbrella frame-work adapted to be entirely supported on said upper portion; flexible members extending from said lower portion to said frame-work and lying outside of and on both sides of the plane determined by said portions; and means for holding said stays tightened and adapted to permit the stays to be slackened.

2. In an umbrella, the combination of an umbrella stick comprising upper and handle portions adapted to be disposed off-set and parallel to each other; a runner adapted to be held on said upper portion, ribs pivoted to the upper part of said upper portion; stays pivoted at opposite ends to said ribs and runner respectively; and flexible members connected at their ends to said lower portion and at their upper ends to said upper portion and disposed on respectively opposite sides of the plane determined by said upper and lower portions.

3. In an umbrella, the combination of an umbrella stick comprising a handle portion and an upper portion adapted to be offset from each other; a runner adapted to be moved onto the upper portion; means for holding the runner on said upper portion; a frame-work comprising ribs, and stays pivoted to said ribs and runner; and flexible members secured at the lower ends to said handle portion and at the upper ends to said ribs and disposed respectively on opposite sides of the plane determined by said handle and upper portions.

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1,093,161. DAMPER-REGULATOR. JAMES WILKINSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 14, 1913. Serial No. 767,491. (Cl. 236—7.)



1. In combination, a boiler, a source of heat, a flue for the exhuast gases, a regulator for the draft due to said flue, a main for conveying vapor from the boiler, a means sensitive to changes of pressure of the vapor in the boiler for adjusting the regulator, and a means sensitive to changes in the rate of flow of vapor through the main from the boiler which also adjusts the regulator.

2. In combination, a boiler, a source of heat, a flue for the exhaust gases, a regulator for the draft due to said flue, a motor for moving the regulator, a controller therefor, a main for conveying vapor from the boiler, a means sensitive to changes of pressure in the boiler which acts on the controller, and a means responsive to changes in the rate of flow of vapor through the main which also acts on the controller.

3. In combination, a boiler, a source of heat, a flue for the exhaust gases, a regulator for the draft due to the flue, a main for conveying vapor from the boiler, a movable member which determines the position of the regulator, a means sensitive to changes in the rate of flow of fluid through the main, and a means sensitive to changes in boiler pressure, both of said last mentioned means cooperating to move said member.

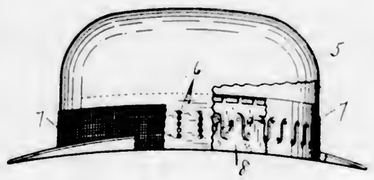
4. In combination, a boiler, a source of heat, a flue for the exhaust gases, a regulator for the draft due to said flue, a main for conveying vapor from the boiler, a means sensitive to the boiler pressure, a movable member having a fulcrum which is supported by the means, a fluid containing vessel that acts on the member to move it, an agent adapted to cause a pressure difference which varies as the rate of flow of vapor through the main changes and communicates this pressure difference to the vessel to displace the fluid therein and cause it to move the member, and means responsive to the movements of the member for adjusting the regulator.

5. In combination, a boiler, a source of heat, a flue for the exhaust gases, a regulator for the draft due to said flue, a main conveying vapor from the boiler, an agent in the main which causes a pressure difference dependent upon the rate of flow of vapor through the main, a means sensitive to changes in boiler pressure, a device connected to the agent and movable subject to the pressure difference due to the agent, a member jointly acted upon by the device and said boiler pressure responsive means, and mechanism responsive to movements of the member to adjust the regulator.

[Claims 6 to 9 not printed in the Gazette.]

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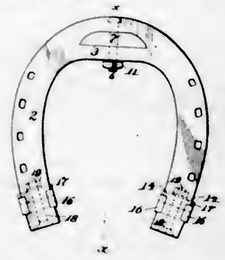
1,093,162. HEAD-COVERING. JISHIU YOKOSEKI, Seattle, Wash. Filed May 2, 1912. Serial No. 694,745. Renewed Jan. 2, 1914. Serial No. 810,049. (Cl. 2—114.)



1. In a head-covering, a crown having a plurality of ventilating holes extending through and disposed around the lower portion of the wall thereof, and an external band of loosely woven material surrounding said crown and disposed to conceal said ventilating holes, in combination with a perforated sweat band disposed within the crown to which it is attached by sewing the lower edge of said sweat band to the lower edge of said crown, the upper edge of said sweat band being turned over toward the wall of the crown to insure the existence of a space between said sweat band and the wall of said crown, the turned down portion of said edge of said sweat band being provided with a plurality of vertical slots to provide vertical passageways for air.

2. In a head covering, a perforated crown, a perforated sweat band whose upper edge is turned over to form an external ridge around its upper portion, said external ridge being vertically slotted to provide a plurality of slots whereby are formed a series of projections extending outwardly from the upper portion of said sweat band.

1,093,163. HORSESHOE. WILLIAM D. P. AIMS, Jr., Philadelphia, Pa. Filed Mar. 21, 1913. Serial No. 755,835. (Cl. 168—40.)



A horse-shoe consisting of a body part having an elongated opening transversely disposed adjacent the toe portion of said shoe and extending entirely through the body and said opening having the forward bounding wall curved and the rear bounding wall a plane surface, and also having a downwardly projecting rib extending across the lower surface of said shoe and presenting a plane surface toward the toe portion of said shoe and alined with one side of said opening, in combination with a detachable toe calk bolted to said rib and having an upward extension fitting within said shoe opening and conforming to the contour thereof, said calk having a rear plane surface seating against the plane surface of said rib and having its front surface curved to conform to the curved toe portion of said shoe body and also having an extended shoulder portion at the root of the upward extension of the forward side and resting against the under surface of the shoe body, said calk projecting below said rib and extending substantially from one edge of said shoe to the other to provide a wide strong calk held to the body against vertical and lateral thrust independent of the fastening means.

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1,093,164. REFILLABLE FUSE-CARTRIDGE. GRAFTON W. APPLER, Lyons, N. Y. Filed May 6, 1913. Serial No. 765,789. (Cl. 175—273.)



1. A fuse cartridge comprising an insulating tube, flat conductor blades secured diametrically in the ends of the tubes in the same flat plane, a fuse, and separate devices on said blades for clamping the ends of the fuse thereto, said insulating tube having an opening through the periphery thereof alined with the fuse-clamping devices for the reception of a tool by which the clamping device may be operated.

2. A refillable fuse cartridge comprising an insulating tube, conductor blades secured diametrically within the tube in the same flat plane, a fuse, separate clamping devices for securing the ends of the fuse to the blades, and metal ferrules secured to the ends of the tube and electrically connected to their corresponding blades, said ferrules being provided with radial openings alined with the adjacent clamping device.

3. A refillable fuse cartridge comprising an insulating tube, conductor blades secured diametrically within the tube in the same flat plane, a fuse, separate clamping devices for securing the ends of the fuse to the blades, and metal ferrules secured to the ends of the tube and electrically connected to their corresponding blades, said ferrules being provided with radial openings alined with the adjacent clamping device, and metal caps closing the open ends of the tube.



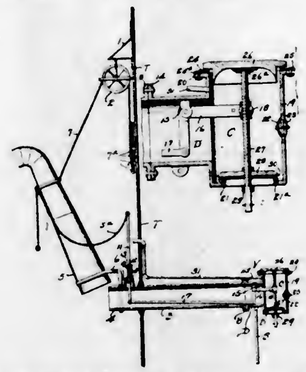
4. A refillable fuse cartridge comprising an insulating tube, flat conducting plates secured diametrically in opposite ends of the tube, a plurality of fuses secured to opposite sides of said plates, separate clamping devices for the ends of the fuse, ferrules secured to the ends of the tube in electrical contact with the adjacent plates, and metal caps slidably fitted upon the ferrules and closing the open ends of the tube.

5. A refillable fuse cartridge comprising an insulating tube having lengthwise slots in its opposite ends, conductor blades projecting into said slots to hold them against turning, and a fuse connecting the blades.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,165. VALVE FOR WATER-TANKS. CHARLES W. ARNDT, Hutchinson, Kans. Filed Jan. 17, 1913. Serial No. 742,725. (Cl. 137—21.)



1. A valve attachment for water supply tanks including in combination with the tank, an outlet pipe arranged to project into the interior of the tank and having an exterior stub portion, a valve casing open at both ends secured to the inner end of the said outlet pipe, valve heads arranged on a common valve stem and adapted to close the open ends of said casing, valve operating means arranged within said valve casing and outlet pipe, and manually controlled means for actuating said valve operating means located on the exterior portion of said outlet pipe.

2. A valve attachment for water supply tanks including in combination with the tank, an outlet pipe arranged to project into the interior of the tank and having an exteriorly projecting stub portion, a valve casing having an offset neck attached to the inner end of the said outlet pipe and provided with an internal valve seat at its lower end and an external valve seat at its upper end, valve heads adapted to seat on said valve seats, a valve stem connecting said valve heads, a valve lifting lever pivoted in said valve casing and adjustably connected to said valve stem, a lever pivoted in the exterior stub portion of the outlet pipe, and a link arranged within said outlet pipe connected with the last mentioned lever and said valve lifting lever.

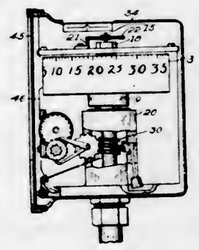
3. A valve attachment for water supply tanks including in combination with the tank, an outlet pipe arranged to project into the interior of the tank and having an exteriorly projecting stub portion, a valve casing having inner and outer valve seats and provided with an offset neck secured to the inner end of said outlet pipe, valve heads for the said valve seats arranged on a common valve stem, valve operating means located within said offset neck and said outlet pipe and connecting with the valve stem for lifting said valve heads, and manually controlled means exterior of the tank for actuating the valve operating means.

4. A valve attachment for water supply tanks including in combination with the tank, an outlet pipe provided at its inner end with a valve, said valve comprising an open ended valve casing having an offset pipe extension, a valve stem operable in the valve casing, valve seats formed at the upper and lower openings of the valve casing, a pair of valve heads adapted to register with the said valve seats to close the valve, the lower one of which is adjustably mounted on the valve stem, and one of said valve heads being of greater diameter than the other, valve operating means suspended from said offset pipe extension and adjustably connected with the valve stems between the valve heads, and means for actuating the valve operating means.

5. A valve attachment for water supply tanks including in combination with the tank, an outlet pipe having a valve casing at its inner end, said valve casing having a flanged pipe extension and being open at both ends, a flanged valve seat on the top of the said valve casing, an inturned and upwardly projecting portion forming a lower valve seat, a threaded valve stem guided in the valve casing, an upper valve head having a swiveled connection with the valve stem, a lower valve head having an adjustable connection with the said valve stem, a bell crank lever pivotally suspended in the flanged pipe extension, and having an adjustable connection with the valve stem, a valve operating lever located exterior of the tank, a link in said outlet pipe connecting the said valve operating lever and the bell crank, and means for actuating the valve operating lever.

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1,093,166. SPEEDOMETER. STEAD A. ASQUITH, Waterloo, Iowa, assignor of one-half to Frank R. Asquith, Waterloo, Iowa. Filed Dec. 5, 1913. Serial No. 804,868. (Cl. 73—123.)



1. In combination, fixed supporting means, disconnected alined driving and driven shafts rotatably mounted in said supporting means, relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially about said driven shaft with broad surfaces opposite each other, and other relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially with the driving shaft, and being alternated with the first-mentioned pieces, between them and having their broad surfaces adjacent to and spaced from the broad surfaces of said other pieces.

2. In combination, disconnected alined driving and driven shafts, a fixed support, said shafts being mounted in said support, a coiled spring having one end secured to said fixed support and the other end secured to said driven shaft, relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially about said driven shaft with their broad surfaces opposite each other, and other relatively thin spaced rigid pieces of material rigidly connected to and arranged coaxially with the driving shaft, and being alternated between said first-mentioned pieces and spaced therefrom.

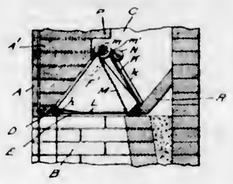
3. In combination, disconnected alined driving and driven shafts, a frame having bearings for said shafts, a coiled spring whose inner end is secured to said driven shaft and having its outer end secured to said frame, spaced rigid pieces of material rigidly connected to and arranged about said driven shaft, other spaced rigid pieces of material rigidly connected to and arranged about said driving shaft, the former pieces being alternated between

the latter pieces in spaced relation with their broad surfaces in close juxtaposition, and with the interspaces between said spaced pieces forming a convoluted channel therebetween.

4. In combination, disconnected alined driving and driven shafts, a fixed support, bearings therefor in said support, a coiled spring having one end secured to the driven shaft and its other end secured to said fixed support, a cup-shaped body secured to one end of said driving shaft coaxially, spaced rigid relatively thin plates secured to said body in parallel relation to each other, another cup-shaped body secured coaxially to said driven shaft and inclosing said plates at their outer edges in spaced relation thereto, and other spaced rigid relatively thin plates secured to the second-mentioned body and extending between the first-mentioned plates in spaced relation thereto.

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1,093,167. DAMPER. JAMIESON BONE, Boston, Mass., assignor to Clifford M. Tyler, Brookline, Mass. Filed Mar. 10, 1911. Serial No. 613,543. (Cl. 126—288.)



1. In a device of the character described the combination of a frame comprising two side walls spaced apart and a cross-bar extending from one of said walls to the other; and a damper mounted at its front edge to swing on said frame entirely between said walls, one entire side edge of the damper being adjacent to the inner side of one of said walls throughout the swing of the damper and the other entire side edge of the damper being adjacent to the inner side of the other of said walls throughout the swing of the damper; and means supported by the cross-bar for balancing the damper in any desired position within its range of swing.

2. In a device of the character described the combination of a support; a damper mounted at its front edge to swing on the support; and a finger-piece to move the damper, said finger piece being connected directly to the damper and extending forward from the damper itself in front of said edge so as to be readily accessible in whatever position the damper may be.

3. In a device of the character described the combination of a damper mounted to swing; a roller weight to balance the damper; a flexible member connected with the damper and connected with the weight so as to permit the latter to roll; and a track out of the path of the damper upon which the weight rolls.

4. In a device of the character described the combination of a damper mounted to swing; a roller weight to balance the damper; a member connected at one end to the damper and at the other end to the weight so as to permit the latter to roll; a track upon which the weight rolls; and a guide to keep the weight on the track.

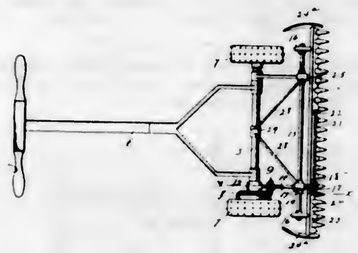
5. A device of the character described comprising a damper mounted to swing; a chain connected at one end to the inner edge of the damper and connected at the other end with a roller weight so as to permit the latter to roll; a pulley over which the chain travels; and a track for the weight out of the path of the damper and provided at each side with guides.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,168. LAWN-MOWER. ROBERT W. BOYDSTUN, Natchitoches, La. Filed Nov. 6, 1913. Serial No. 799,556. (Cl. 56—19.)

1. A lawn mower, comprising a transverse shaft, ground wheels supported thereon, a floating shaft disposed in advance of the first named shaft and in parallelism therewith, ground wheels upon which said floating shaft is mounted, arms extending between said transverse shaft and said floating shaft for connecting said shafts together while permitting said floating shaft to have swinging movement with relation to said transverse shaft, a cutter bar disposed in advance of the floating shaft, an adjustable connection between said floating shaft and said cutter bar, a cutter blade disposed in said cutter bar, and connections between said cutter blade and one of the first named ground wheels.



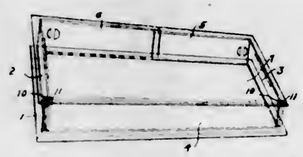
2. A lawn mower comprising a transverse shaft, ground wheels supported thereon, a floating shaft disposed in advance of the first named shaft, ground wheels upon which said floating shaft is mounted, arms extending between said transverse shaft and said floating shaft for connecting said shafts together while permitting said floating shaft to have swinging movement with relation to said transverse shaft, a cutter bar disposed in advance of the floating shaft, an adjustable connection between said floating shaft and said cutter bar, a cutter blade disposed in said cutter bar, and connections between said cutter blade and one of the first named ground wheels, said connections comprising a rotative disk, a pitman connected to said disk at one end and to said cutter blade at its opposite end, a rotative shaft having a bearing at one end upon said floating shaft, and supported at its opposite end upon said transverse shaft, gearing between said rotative shaft and one of the first named ground wheels, and a pawl and ratchet connection between said disk and said rotative shaft.

3. A lawn mower comprising a transverse shaft, ground wheels upon which said shaft is supported, an operating handle secured to said shaft, a floating shaft in advance of said transverse shaft, ground wheels upon which said floating shaft is supported, a cutter bar disposed in advance of said floating shaft, a cutter blade mounted in said cutter bar, a pitman connected to said cutter blade, a disk to which said pitman is pivotally connected, a rotative shaft, a pawl and ratchet connection between said rotative shaft and said disk, bearings carried by the floating shaft adjacent the opposite ends thereof through one of which said rotative shaft passes, a bearing carried by the transverse shaft in which the rear end of said rotative shaft is journaled, said rotative shaft being provided with an enlarged collar within said last named bearing to prevent endwise movement of said shaft, bevel gearing between one of the first named ground wheels and said rotative shaft, and an arm mounted to swing upon the transverse shaft and engaging the other bearing of the floating shaft, said arm and said rotative shaft complementally forming members which support the floating shaft rigidly in advance of the transverse shaft while permitting floating movement thereof.

4. A lawn mower comprising a transverse shaft, ground wheels upon which said shaft is supported, an operating handle secured to said shaft, a floating shaft in advance of said transverse shaft, ground wheels upon which said floating shaft is supported, a cutter bar disposed in advance of said floating shaft, a cutter blade mounted in said cutter bar, a pitman connected to said cutter blade, a disk to which said pitman is pivotally connected, a rotative shaft, a pawl and ratchet connection between said rotative shaft and said disk, bearings carried by the floating shaft adjacent the opposite ends thereof through one of which said rotative shaft passes, a bearing carried by the transverse shaft in which the rear end of said rotative shaft is journaled, said rotative shaft being provided with an enlarged collar within said last named bearing to prevent endwise movement of said shaft, bevel gearing between one of the first named ground wheels and said rotative shaft, an arm mounted to swing upon the transverse shaft and engaging the other bearing of the floating shaft, said arm and said rotative shaft complementally forming members which support the floating shaft rigidly in advance of the transverse shaft while permitting floating movement thereof, and braces extending between the central portion of the transverse shaft and said bearings of the floating shaft.

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1,093,169. SHOW-CASE. ANDREW BRYMER, Kittanning, Pa. Filed Aug. 9, 1910. Serial No. 576,394. (Cl. 211—25.)



1. In combination in a knock-down glass show case; glass sides; a glass top removable therefrom vertically and provided adjacent its rear edge with a longitudinally extending glass guideway substantially M shaped in cross section; a pair of over-lapping glass doors with their opposing faces closely adjacent and having their upper edges beveled to fit the two sides of the said guideway in the top; a base receiving the lower edges of the sides and the lower edges of the glass doors; and a guide strip in the base between the lower side edges of the doors.

2. In combination in a show case; a glass top provided adjacent its rear edge with a longitudinally extending glass guideway approximately M shaped in cross section, a pair of over-lapping glass doors with their opposing faces closely adjacent and having their upper edges beveled to fit the two sides of the said guideway in the top; a base provided with a groove for the lower edges of the door; a pair of rollers pivoted side by side for rotation in the groove and each engaging the lower edge of one of the doors; and a metallic strip mounted between the rollers and engaging the lower side faces of the doors and holding them against lateral movement.

3. In combination in a show case; a glass top having adjacent its rear edge in its lower surface a groove having vertical outside edges and a ridge with inclined sides dividing the groove into two parts; a pair of over-lapping glass doors with their opposing faces closely adjacent and having their upper edges beveled to fit the guideway in the top; a base provided with a groove for receiving the lower edges of the doors; and a spacing strip carried by the base in the groove and lying between the opposing faces of the doors.

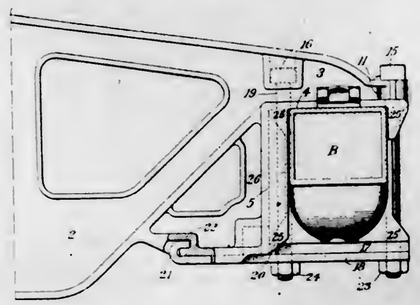
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1,093,170. JOURNAL-BOX-SECURING MECHANISM. ALBERT O. BUCKIUS, Jr., Chicago, Ill., assignor to The National Malleable Castings Company. Filed Apr. 24, 1913. Serial No. 763,319. (Cl. 105—243.)

1. A truck side frame having two bearing surfaces at an angle to each other, one of said bearing surfaces having upstanding ribs adapted to receive between them V-shaped projections on a journal box of the Master Car Builders' type, the said ribs being adapted to enter between flanges upon a journal box of another type, seats for bolts to secure a box of the Master Car Builders' type, and an additional seat coöperating with one of the first-named seats to receive between them a strap to secure a journal box of a different type.



2. In journal box securing mechanism, a truck side frame having a journal box seat, a bolt hole arranged for securing in said seat journal boxes having differently dimensioned bearings for the journal box seat, and a second bolt hole arranged to assist in securing in said seat a journal box of the Master Car Builders' type.



3. A truck side frame having two bearing faces at an angle to each other, a journal box seated on said faces, and a strap arranged to draw and hold the box against said faces, one of said faces having ribs adapted to receive therebetween V-shaped projections on the side of a box of the Master Car Builders' type.

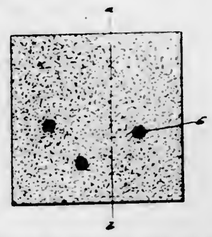
4. A truck side frame having two bearing faces at an angle to each other, one of said faces being adapted to take about V-shaped projections on a box of the Master Car Builders' type, and bolt-seating apertures for receiving bolts to secure said box to the frame, one of said apertures being adapted to receive a strap arranged to draw and hold a box of another type against said faces.

5. In a journal box securing mechanism, a truck side frame having a journal box seat, said seat being adapted to secure therein a journal box having a wider seating surface than that of the Master Car Builders' type, said seat being arranged to receive therein the narrower bearing of a journal box of the Master Car Builders' type, and apertures for receiving bolts to secure either of said boxes to the frame.

[Claims 6 to 8 not printed in the Gazette.]

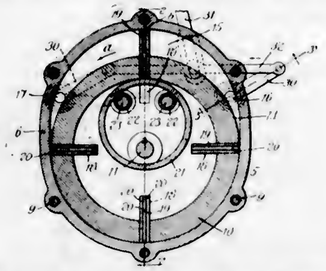
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1,093,171. IMPACT-ILLUMINATED TARGET FOR PLEASURE-SHOOTING. WILLIAM H. BUELL, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Oct. 11, 1913. Serial No. 794,593. (Cl. 124—15.)



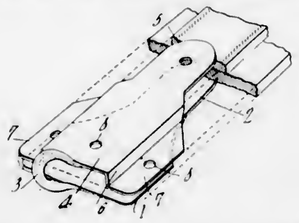
As a new article of manufacture, an impact-illuminated target for pleasure-shooting having its surface treated with an illuminating composition ignited only when combined with a chemically complementary composition carried by a bullet, whereby a circumscribed momentary, illumination of the point of impact of the bullet upon the target is effected for the information of the person holding the gun from which the bullet was fired.

1,093,172. BRAKE MECHANISM. WILLIAM P. COLLINS, Boston, Mass., assignor to Automatic Air Brake Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 25, 1913. Serial No. 750,518. (Cl. 74—69.)



A device of the class described having, in combination, a cylindrical piston blade carrier, a casing within which said carrier is arranged, said casing having a chamber formed outside of and adjacent to the periphery of said carrier, the inner wall of said casing within said chamber being eccentrically arranged relatively to the axis of said carrier, said chamber having ports adjacent opposite ends thereof, piston blades on said carrier adapted to engage the inner wall of said casing, means to create a relative rotary movement between said carrier and said casing, means to cause said blades to engage the inner wall constituting said chamber during said rotary movement, said means including rings mounted to revolve about an axis substantially coincident with the axis of said eccentrically arranged wall, said rings adapted to be engaged by said pistons only when said pistons are passing through said chamber, rollers adapted to support said rings, and means to open and close said ports.

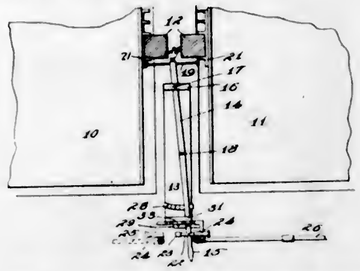
1,093,173. TUG-CLIP. WALTER B. DUNCAN, Paris, Tex. Filed Feb. 26, 1913. Serial No. 750,918. (Cl. 54—30.)



1. A tug clip comprising a lower plate with a rearwardly extending portion, an upper plate of relatively less width than the lower plate, spaced a distance therefrom and extending parallel thereto, downwardly extending side flanges carried by the upper plate, outwardly extending flanges carried by the lower edges of said side flanges and extending parallel to the said lower plate, the said top plate and side flanges adapted to embrace the raised central ply of a trace therebetween, the outwardly extending flanges of the upper plate and the lower plate adapted to engage the body portion of a trace therebetween, and an eye extending forwardly from the central portion of the upper and lower plates.

2. A tug clip comprising a broad flat lower plate with a rearwardly extending narrowed portion, an eye carried by and extending forwardly from the central front portion of said lower plate, an upper plate carried by the upper arm of said eye, the said upper plate of relatively smaller width than the lower plate, spaced a distance therefrom and extending parallel thereto, downwardly extending side flanges carried by the said upper plate, outwardly extending flanges carried by the said side flanges extending parallel to the lower plate and terminating in alinement with the outer edges thereof, the upper plate and downwardly extending side flanges adapted to embrace the raised central ply of a trace therebetween, the outwardly extending flanges and the lower plate adapted to engage the body portion of a trace therebetween, and means extending through the upper and lower plates and the outwardly extending flanges, adapted to engage and secure a trace thereto.

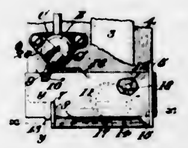
1,093,174. GATE-LOCKING MEANS. GUSTAV E. ERICSSON, Dubois, Pa., assignor of one-half to Edward W. Webster, Dubois, Pa. Filed June 15, 1912. Serial No. 703,866. (Cl. 187—50.)



1. The combination with a well or shaft, a cage to travel therein, and means for controlling the movements of said cage, of a gate for closing the entrance to said cage, locking means for said gate, and automatically-operated locking means for the cage controlling means, said latter locking means being rendered active by the unlocking of the gate and including a switch operable to provide such locking activity solely in the presence of the cage.

2. The combination with a cage, means for controlling the movements of the cage, and a gate for closing the entrance to the cage, of a lock-receiving element carried by the gate, a manually-operable locking member supported independently of the gate adjacent thereto and engageable with said receiving element to lock the gate, said locking member being normally in engagement with said element and movable to break such engagement and unlock the gate solely when the cage is opposite the gate, and automatically-operated locking means for the cage-controlling means comprising a main switch operated by the manually-operable locking member and an auxiliary switch operated by the gate, said automatic locking means being operable only when the gate is unlocked.

1,093,175. COIN-CONTROLLED LOCK. WILLIS S. FARNSWORTH, San Francisco, Cal., assignor to Coin Controlled Lock Co., San Francisco, Cal., a Corporation of California. Filed May 14, 1912. Serial No. 697,142. (Cl. 194—55.)



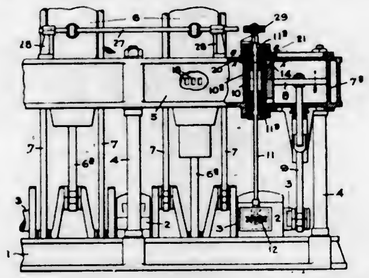
1. In a lock, the combination with a bolt, a key operated bit engaging the bolt, a plate spring on the bolt, a rigid shoulder engaged by the spring, means on the spring for supporting a coin, and means engageable with the coin controlled by the bit operating through the coin to throw the spring out of engagement with the shoulder.

2. In a lock, the combination with a bolt, a key operated bit engaging the bolt, a plate spring on the bolt, a rigid shoulder engaged by the spring, means on the spring for supporting a coin, and means engageable with the coin controlled by the bit operating through the coin to throw the spring out of engagement with the shoulder, comprising a pin on the bolt and a fixed, stationary pin spaced therefrom.

3. In a lock, the combination with a bolt, a key operated bit engaging the bolt, a plate spring on the bolt, a rigid shoulder engaged by the spring, means on the spring for supporting a coin, means engageable with the coin controlled by the bit operating through the coin to throw the spring out of engagement with the shoulder, comprising a pin on the bolt and a fixed, stationary pin spaced therefrom, and means for delivering a coin between said pins to the spring.



1,093,176. INTERNAL-COMBUSTION ENGINE. KARL FRÜH, Weinheim, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1912. Serial No. 733,019. (Cl. 123—59.)



1. In an internal combustion engine, the combination of a working cylinder, a piston, a main shaft to which the piston is connected, a compressor, a receiver in which the working and compressor cylinders are located, said compressor supplying air to the receiver from which it passes into the working cylinder, a rotary valve controlling the action of the compressor, a valve controlling the admission of fuel to the working cylinder, a shaft for actuating the fuel valve, and a second shaft driven by the main shaft which rotates the compressor valve and also the fuel valve shaft.

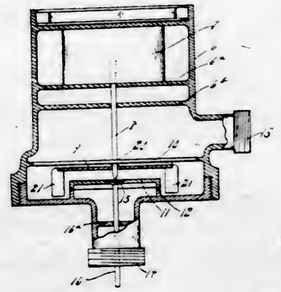
2. In an internal combustion engine, the combination of a receiver, a cylinder located in the receiver and receiving air therefrom, a piston, a main shaft to which the piston is connected, a compressor located in and supplying air to the receiver, a rotary valve that controls the passage of air from the compressor to the receiver, a valve controlling the admission of fuel to the cylinder, a cam shaft for actuating it, a second shaft driven by the main shaft for rotating the compressor valve, and gearing between the cam shaft and said second shaft whereby the former is rotated.

3. In an internal combustion engine, the combination of a receiver, a cylinder mounted therein and receiving air therefrom, a piston for the cylinder, a main shaft connected thereto, a compressor located in and supplying air to the receiver, a valve admitting fuel to the cylinder, a cam shaft for actuating it, a rotary valve controlling the action of the compressor, and a shaft driven by the main shaft that rotates the air compressor valve and also the cam shaft.

4. In an internal combustion engine, the combination of a receiver, a cylinder vertically disposed in the receiver and supported thereby, said cylinder receiving air from the receiver, a piston for the cylinder, a main shaft, a compressor located in and supplying air to the receiver, a valve for the compressor, a shaft for rotating it, gearing between the main and valve shafts, a fuel valve for the cylinder, a shaft for actuating it, and gearing between the compressor valve shaft and the fuel valve shaft.

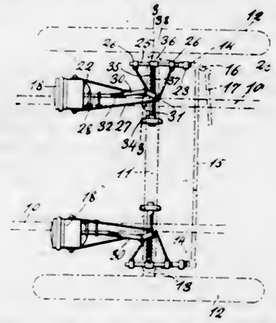
5. In an internal combustion engine, the combination of a receiver, a cylinder receiving air therefrom, a piston, a main shaft, a compressor delivering air to the receiver, a rotary valve for controlling the compressor, a shaft which passes loosely through the valve and rotates it, said valve and shaft being capable of mutual lateral adjustment, and gearing between the valve shaft and the main shaft.

1,093,177. GAS OR FLUID MOTOR. PAUL GAETH, Cleveland, Ohio. Filed Feb. 25, 1913. Serial No. 750,600. (Cl. 138—4.)



In a fluid motor, the combination of a casing having an inlet and an outlet, a spindle, a wheel attached to the spindle and provided with a projecting ring of blades, said spindle having a bearing end depending below the wheel, and a pressure-opened valve controlling the inlet to the casing and located within the ring of blades and under the spindle and adapted to lift under pressure and form a bearing for the lower end of the spindle, and shaped to direct flow radially against the blades, and acting to prevent any back flow through the motor.

1,093,178. DIRIGIBLE HEADLIGHT. HENRY L. GALBRAITH, Bozeman, Mont. Filed July 17, 1913. Serial No. 779,525. (Cl. 240—62.)



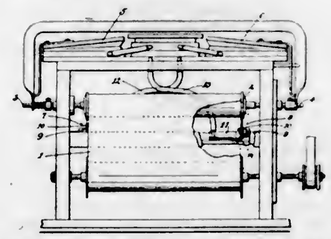
1. The combination with a vehicle and its steering arm; of a bracket carried by the steering arm, a lamp having a rotatable supporting-stem, a pulley fixed to said stem, said pulley comprising inner and outer sections which are adjustable angularly relative to each other, and a flexible connection passing around the pulley and having its ends connected to the bracket.

2. The combination with a vehicle and its steering arm; of a bracket carried by the steering arm, a lamp having a rotatable supporting-stem, a pulley fixed to said stem, said pulley comprising inner and outer sections which are adjustable angularly relative to each other, a finger extending radially from one of the sections, and opposite axially alined screws carried by the other section, between which screws the finger extends, and a flexible connection passing around the pulley and having its ends connected to the bracket.

3. The combination with a vehicle, an axle, a steering wheel, a knuckle-joint connection between the axle and the steering wheel, and a steering arm extending from the knuckle-joint; of a bracket carried by said steering arm and having a horizontal arm located above the knuckle-joint and crossing a point which is in alinement with the axis of said joint, said bracket being in hinged sections, a brace between the axle and the horizontal arm, said brace comprising telescopically connected sections, a lamp having a rotatable supporting-stem, a pulley fixed to said stem, and a flexible connection passing around the pulley and having its ends connected to the horizontal arm on opposite sides of the knuckle-joint axis.

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1,093,179. WEB-GUIDING DETECTOR DEVICE. ROBERT A. GALLY, Cincinnati, Ohio, assignor to The Baldwin Company, Cincinnati, Ohio. Filed Oct 20, 1913. Serial No. 796,152. (Cl. 84—161.)



1. A web guiding detector device having a contact-arm adapted to contact with the edge of a web to be guided, and disposed and movable in a plane at an acute angle to the horizontal plane, a fulcrum for said detector having its axis substantially at a right angle to the said plane of said arm, and an action controlling member of said detector extended in a similar plane to that of the said contact-arm, the weight of said detector being so disposed relatively to said fulcrum as to force said contact-arm toward the position of the edge of the web with which said contact-arm is adapted to contact.

2. A web guiding detector device having a contact-arm adapted to contact with the edge of a web to be guided, and disposed and movable in a plane at an acute angle to the horizontal plane, a fulcrum for said detector having its axis substantially at a right angle to the said plane of said arm, and an action controlling member of said detector extended in a similar plane to that of the said contact-arm, a part against which said action controlling-member bears when in normal position, the weight of said detector being so disposed relatively to said fulcrum as to force said action controlling member against said part against which it bears when in normal position.

3. A web guiding detector device having a contact-arm adapted to contact with the edge of a web to be guided, and disposed and movable in a plane at an acute angle to the horizontal plane, a fulcrum for said detector having its axis substantially at a right angle to said plane of said arm, and an action controlling member of said detector extended in a similar plane for that of the said contact-arm, the weight of said detector being so disposed relatively to said fulcrum as to force said contact-arm toward the position of the edge of the web with which said contact-arm is adapted to contact, said disposition of said weight relatively to said fulcrum and the plane of motion of said contact-arm being such as to make effective only a minor part of the total weight of said detector in the force of said contact-arm toward said web.

4. A web guiding detector device having a contact-arm adapted to contact with the edge of the web to be guided, and disposed and movable in a plane at an acute angle to the horizontal plane, a fulcrum for said detector having its axis substantially at a right angle to the said plane of said arm, and an action controlling member of said detector extended in a similar plane to that of the said contact-arm, a part against which said action controlling-member bears when in normal position, the weight of said detector being so disposed relatively to said fulcrum as to force said action controlling member against said part against which it bears when in normal position, said disposition of said weight relatively to said fulcrum, the controlling member, and the part against which said member so bears, being such as to make effective only a minor part of the total weight of said detector in the force of said controlling member against said part.

5. A web guiding detector device having a contact-arm adapted to contact with the edge of a web to be guided, and disposed and movable in a plane at an acute angle to the horizontal plane, a fulcrum for said detector having its axis substantially at a right angle to the said plane of said arm, and an action controlling member of said detector extended in a similar plane to that of the said contact-arm and to one side of said fulcrum, and a counterweight comprised with said detector and disposed to the other side of said fulcrum than that of the said controlling member.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,180. SAFETY DEVICE FOR BUNSEN BURNERS, GAS COOKING-RANGES, AND THE LIKE. ISIDORE DE HAAN, Amsterdam, Netherlands. Filed Nov. 22, 1913. Serial No. 802,454. (Cl. 137—35.)



1. A safety device for gas burners and the like including in combination with a burner and a gas inlet pipe, a mixing tube between said burner and inlet pipe, a shutoff valve for said inlet pipe, thermostatic means carried by said mixing tube, said means having an opening, and spring tension means connected at one end with said shutoff valve and provided at its other end with an enlargement, said opening in the thermostatic means normally preventing the passage of the enlargement of said spring tension means therethrough.

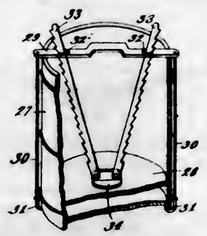
2. A safety device for gas burners and the like comprising in combination with the mixing tube thereof, an element dilating under the influence of the temperature of the same mixing tube, a second, spring tensioned, element in its normal position being prevented from moving by said first element and being allowed to move upon dilation of said first element caused by extraordinary heating of the mixing tube, means controlled by the movement of said second element for shutting off the flow of gas, and means for returning the second element to its normal position during the opening of the gas jet over another path than that followed in its initial movement.

3. A safety device for gas burners and the like including in combination with the burner, a mixing tube insulated from said burner, a shutoff valve communicating with said tube, thermostatic means integral with said tube and having an opening, and a spring tensioned member connected at one end to the shutoff valve and having its other end normally bearing against the rim of the opening in the thermostatic means, said spring tensioned member adapted to pass through the opening of the thermostatic member when the latter becomes dilated by heat thereby closing the valve.

4. A safety device for gas burners and the like including in combination with the burner, a mixing tube having an insulated connection with said burner and a groove adjacent thereto, a shutoff valve in communication with said tube, a thermostatic element having an opening carried by said tube, a spring tensioned valve closing member connected at one end to the said valve and having its other end normally held by spring tension against the rim of the opening in the thermostatic element, and wings hinged at one end to the thermostatic element and having their other ends resting on the top of said groove, said valve closing member adapted to move under spring tension through the opening in the thermostatic element when the latter is dilated by heat to close the valve.



1,093,181. TOBACCO-PRESS. CHRISTOPHER C. HARRIS, Bowling Green, Ky. Filed May 23, 1913. Serial No. 769,527. (Cl. 100—8.)



In an apparatus of the character described, a cross bar adapted to be secured upon a container, said bar having its central portion offset for the passage of a compression member and having longitudinal slots intermediate said central portion and its ends, ratchet bars passing through the said slots, and a shoe to which the lower ends of the ratchet bars are pivoted, the shoe being designed for the engagement of the said compression member, and the ratchet bars diverging upward so as to engage over the remote ends of the said slots.

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1,093,182. ARC-ELECTRODE AND PROCESS FOR MAKING IT. JOSEPH L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 17, 1908. Serial No. 448,797. (Cl. 176—136.)

1. An arc light electrode, the arc supporting body of which consists of the powder of a solidified fusion containing metallic compounds.

2. An arc light electrode, the arc supporting body of which consists of the powder of a solidified fusion containing metallic oxids.

3. An arc light electrode, the arc supporting body of which consists of the powder of a solidified fusion of magnetite, rutile, chromite and fluorid of potassium.

4. An arc light electrode consisting of an iron tube packed with the powder of a solidified fused mass containing metallic oxids.

5. An arc lamp electrode consisting of an iron tube packed with the powder of a solidified fused mass containing metallic oxids and a fluorid.

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1,093,183. FIBROUS THREAD. ALBERT H. HENDERSON, Baltimore, Md., assignor to The Henderson Rubber Company, Baltimore, Md., a Corporation of Maryland. Filed Jan. 6, 1913. Serial No. 740,344. (Cl. 28—5.)

1. The herein described article of manufacture consisting of a mercerized fibrous thread the interior of each constituent part of which is filled and the exterior of which is coated with rubber.

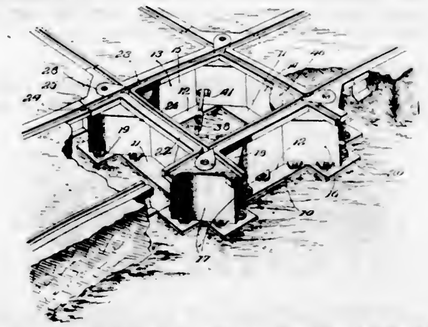
2. The herein described article of manufacture consisting of a mercerized fibrous thread the interior of each constituent part of which is filled and the exterior of which is coated with rubber, the latter being vulcanized.

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1,093,184. CROSSING FOR STREET-RAILWAYS. ARTHUR M. HOFFMAN, Camden, N. J. Filed Dec. 4, 1912. Serial No. 734,950. (Cl. 104—116.)

1. A railway crossing including crossing rail sections, movable points pivoted at the intersections of said sections and movable to form with the rail sections continuous bearing surfaces for wheels passing over either track, said points being arranged to be swung by direct engagement of the wheels in passing over the crossing.

2. A railway crossing including intersecting rail sections, and points pivotally mounted and movable to form with the rail sections continuous bearing surfaces for wheels passing over the crossing, the edges of said points extending across the rails extending at an acute angle toward the center of the crossing.



3. A railway crossing, including movable points adapted to co-act with the rails of the crossing to provide continuous bearing surfaces for wheels passing over the rails, each of said points being movable by direct engagement by a wheel, and connecting means between diagonally disposed points.

4. A railway crossing including pivoted points placed at the intersections of the rails of the tracks and arranged to be turned by direct engagement with wheels passing over the tracks, and connecting rods joining diagonally located points, said rods being adjustable in length.

5. A railway crossing including a bed-plate, a rail-carrying frame mounted upon the bed-plate, points pivoted upon said frame and co-acting with the rails to provide continuous treads for wheels passing over the rails, and connecting means between diagonally disposed points.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,185. SEWING-MACHINE ATTACHMENT. JOHN HUDSON, Spokane, Wash. Filed Apr. 18, 1913. Serial No. 762,040. (Cl. 112—9.)



1. The combination with a presser foot piece having a bracket, of a spring presser foot member secured to and spaced from the bottom face of the presser foot piece, said presser foot member terminating at one end over the presser foot piece in a spring lip, a bar mounted transversely on the presser foot piece in front of the bracket and engaged at its forward edge portion by the lip on the spring presser foot, and a guide carried by said bar.

2. The combination with a presser foot piece provided with a bracket, of a bar mounted transversely on said presser foot piece in front of said bracket, a guide carried by said bar, a spring lip upon the presser foot piece having frictional engagement with said bar near the front edge thereof and a projection on said bracket and engaging said bar near its rear edge.

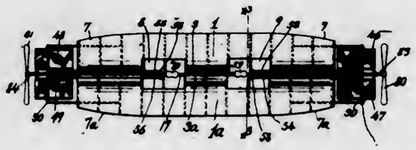
3. The combination with a presser foot piece provided at one end with a bracket, of a bar mounted transversely on said foot piece and having grooves near its respective edges, a guide carried by said bar, a spring lip secured to the foot piece and having frictional engagement with said bar, and a projection on the bracket and entering one or the other of the grooves in the bar.

4. The combination with a presser foot piece provided at one end with a bracket, of a bar mounted transversely

on said foot piece, a spring lip on the foot piece engaging said bar near one edge, a projection on the bracket engaging said bar near its other edge, a post at one end of said bar, a guide carried by said post, means for adjusting the guide vertically, and a spring secured to the bar and engaging said guide to press it downwardly.

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1,093,186. NAUTICAL APPARATUS. HOWARD HUNTINGTON, Princeton, N. J. Filed Dec. 23, 1908. Serial No. 468,917. (Cl. 244—14.)



1. Nautical apparatus of the class described; comprising a monoplane having laterally extending supporting wings, and an upright member extended flightwise, said wings presenting downwardly a concavely arched under surface on each side of said upright member, with relatively flatter margins, inclined outwardly and downwardly at a flat angle relatively to the horizontal, so that the equilibrium of said monoplane is preserved under the influence of currents of air acting upon said upright member and wings transversely of the direction of flight.

2. Nautical apparatus of the class described; comprising a thin upright wing extended flightwise and dividing upwardly and outwardly to form oppositely extending wings each having a concave outwardly extending portion presenting a concave surface downwardly.

3. In an aerodrome; mechanism to direct the flight of said aerodrome laterally and vertically, including a horizontal rudder and a vertical rudder; and controlling means for said directing mechanism, said means comprising a member free to move bodily lengthwise and to swing laterally of the machine and connected to operate said horizontal rudder by longitudinal movements of said member and a flexible tension member connecting said vertical rudder with said member to permit operation of said vertical rudder by lateral movement of said member; substantially as described.

4. In an aerodrome; mechanism to direct the flight of said aerodrome in vertical and lateral directions, including a horizontal rudder and a vertical rudder; and controlling means for said directing mechanism, said means comprising a longitudinally moving and laterally swinging push-rod to operate said horizontal rudder by longitudinal movements of said rod and flexible tension members connecting said vertical member with said push-rod to permit operation of said vertical rudder by lateral movement of said rod; substantially as described.

5. In an aerodrome; a rudder; a controlling rod therefor, free to move longitudinally and swing laterally; a rest for said rod; collars on said rest to hold said rod in adjusted position laterally; a notched device on said rod to engage said rest and hold said rod in adjusted longitudinal position; and a flexible member to hold said rod yieldingly toward said rest; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,187. SHOCK-ABSORBER. CHRIS P. JOHNSON, San Francisco, Cal. Filed June 17, 1913. Serial No. 774,166. (Cl. 21—50.)

1. A shock absorber including a spiral spring, the ends of which are adapted for attachment to relatively movable parts of a vehicle, the inner end of the spring being disposed eccentrically within the inner whirl thereof.

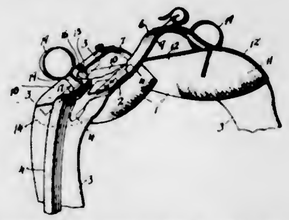
2. In a shock absorber, the combination with a semi-elliptic spring, of a pair of spiral springs, pivotal connecting means passed through the outer end of the spiral springs and one end of the semi-elliptic spring to secure the spiral springs one upon either side of the semi-elliptic spring, and means for attaching the inner ends of the spiral springs to a relatively movable part of a vehicle



body, the inner ends of the spiral springs being disposed eccentrically of the inner whirls thereof.

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1,093,188. HARNESS-SADDLE. CHARLES F. JOY, North Attleboro, Mass. Filed May 13, 1908. Serial No. 432,641. (Cl. 54—38.)



1. A harness saddle comprising a tree, the framework of which consists of transverse forward and rear arched strips and cross strips rigidly connecting the ends of the transverse strips, the forward strip being more abruptly arched than the rear strip, covering pieces overlying the ends of the arched strips and the cross-connecting strips, extensions from said covers lying along the arched strips and stitched around the edges thereof, saddle skirts stitched to the outer edges of the upper covers, under covers stitched to the upper covers and to said saddle skirts and cut full to provide pockets, and pneumatic pads contained within said pockets.

2. A harness saddle comprising an open metal framework including arched members arranged to extend across the backbone of the animal and end cross members, pads underlying the ends of the frame and adapted to rest on the back of the animal at each side of the backbone, leather straps and pieces overlying and covering the members of the frame, under covers inclosing the pads and connected to the aforesaid leather covers, skirts secured to said covers, a metal casting having upper and lower arms embracing one of the cross strips of the frame, said arms and the strip having apertures, a terret ring bolt having a shank passing through said apertures, a nut screwed upon the end of the shank whereby the casting is fastened to the frame, and a thill tug bearing strap held by said casting.

3. In a harness saddle, a metal tree frame comprising a pair of strips each provided with an arched portion between its ends, connecting strips for uniting the adjacent ends of said strips, a pair of terret rings each having its shank tapped through the adjacent connecting strip, thill tug bearing straps having connecting loops each provided with a pair of eyed arms separated from one another sufficiently to embrace the adjacent connecting strip, the eyes of said arms receiving the shank of the adjacent terret ring, and a nut threaded on the lower end of said shank to clamp and secure the parts together.

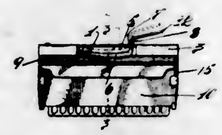
4. An open back harness saddle, comprising in combination, a tree provided with a front strip having substantially straight end portions and a central arched portion, a rear arched strip having smaller end portions and a central arch of less height and curvature, rigid connections between the end portions at each side of the saddle, protecting covers for the upper and lower faces of the flat end portions of the tree and said connections, resilient pads retained between said covers in supporting



relation to said tree strips and thereby separated from one another, and a thill tug, a terret ring and a thill-tug-strap loop at each side of the saddle, said straps having arms embracing the rigid side connections of the saddle and the upper protecting cover thereof, and the rings having shanks passing through said arms and side connections to secure them together.

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1,093,189. LOCKING MEANS FOR SAFETY-RAZOR BLADES. RICHARD KAMPFE, New York, N. Y. Filed May 9, 1913. Serial No. 766,533. (Cl. 30—12.)



1. The combination with a safety razor frame, formed with an opening immediately adjacent the position of the heel of the blade when arranged in said frame, said frame being further formed with a laterally extending opening communicating with the first mentioned opening, of a latch pivotally secured to the frame and having a portion extending through the first mentioned opening therein, said latch being normally resilient to bear upon the head of the blade when in position, and a handle portion for the latch normally resting in and capable of lateral movement in the lateral opening in the frame, whereby to permit a swinging movement of the latch to a position one side of the heel of the blade.

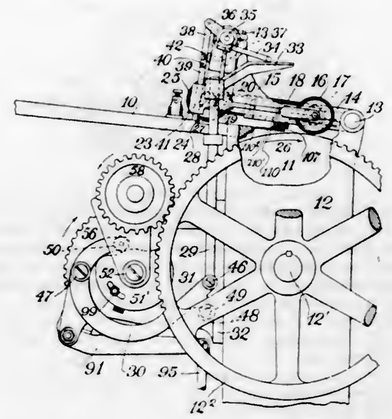
2. The combination with a safety razor frame, formed with an opening immediately adjacent the position of the heel of the blade when arranged in said frame, said frame being further formed with a laterally extending opening communicating with the first mentioned opening, of a latch pivotally secured to the frame and having a portion extending through the first mentioned opening therein, said latch being normally resilient to bear upon the head of the blade when in position, and a handle portion for the latch normally resting in and capable of lateral movement in the lateral opening in the frame, the handle portion of the latch being cut away to permit an increased lateral movement of the latch beyond the wall of the lateral opening.

3. The combination with a safety razor frame, formed with an opening immediately adjacent the position of the heel of the blade when arranged in said frame, said frame being further formed with a laterally extending opening communicating with the first mentioned opening, of a latch pivotally secured to the frame and having a portion extending through the first mentioned opening therein, said latch being normally resilient to bear upon the heel of the blade when in position, and a handle portion for the latch normally resting in and capable of lateral movement in the lateral opening in the frame, said latch including a laterally extending portion curved to conform to the curvature of the heel of the blade.

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1,093,190. PRINTING-PRESS. MATTHIAS MILLER KANDLE, Springfield, Mass., assignor to Kandle-Born Company, Springfield, Mass., a Corporation of Massachusetts. Filed July 5, 1913. Serial No. 777,528. (Cl. 101—36.)

1. In an inaccurately-fed sheet-detecting device for printing presses, the combination with the press impression-cylinder, of stop devices against which the sheet is placed to position the same, an electrical contact on each stock device operated by the sheet, a circuit connecting the contacts, sheet-rejecting devices, an electro-mechanical latch included in the circuit to maintain the rejecting devices inoperative when the sheet is accurately located, a main or master-gear wheel, a contact operated thereby to periodically open and close the circuit, said wheel having a groove formed therein, an arc-shaped cam in the groove, and means comprising a roller mounted on a slidable rod to engage the cam to effect the reset of the latch after the machine has been tripped to permit the sheet-rejecting devices to operate.



2. In a machine of the class described, comprising, in combination, a main wheel having a groove therein, cams in the groove, a trip-mechanism, a latch-device to retain the trip-mechanism inoperative, a second cam on the main wheel, a device normally retained in an inoperative position by means of the latch-device but when released engages the bottom of the groove to be reset by said cams, the second cam being designed to move the press cylinder away from the printing form when a sheet is inaccurately placed, and connecting mechanism between the second-mentioned cam and the press cylinder.

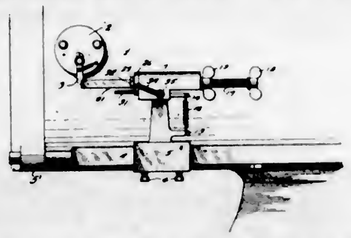
3. An inaccurately-fed sheet-detecting mechanism for printing presses, comprising, in combination, with the feed-board, of circuit-closing guide devices thereon and against which the edge of the sheet engages, means comprising wheel members to eject the sheet should any one of the guide-devices remain closed during the positioning of the sheet, an electro-mechanical latch-device to maintain the sheet-ejecting means inoperative, connections from the guide-devices to the latch-device, a timing device in the circuit, means comprising a reciprocating rod, a bracket on the rod, a cam-operated lever connected to the reciprocating rod, and a stop device engaged by the lever to limit the downward movement of the sheet-ejecting means, and means to permit the sheet-ejecting means to operate when the circuit to the latch-device is closed.

4. In a machine of the class described, the combination, guide-members to position a sheet of paper, sheet-ejector devices, stop-devices to limit the downward movement of the ejector devices with relation to the press feed-board, a latch to retain the stop-device in an operative position, devices to operate the stop-devices, means to reset the latch, means to move the press cylinder to its non-printing position when the sheet is inaccurately positioned, and means to operate the ejector devices when the sheet is inaccurately placed on the press feed-board.

5. The combination, a main-wheel formed with a groove therein, cams in the groove, a cam attached to the wheel, a press impression cylinder and operative connections between the cam and said cylinder to move the cylinder to an inoperative position when a sheet of paper is inaccurately fed, a latch-device, guide means to position the paper, sheet-ejector means operable from the press cylinder, means operated by the cams in the groove to operate the latch-device, and means controlled by the latch to permit the sheet-ejector means to operate.

[Claims 6 to 10 not printed in the Gazette.]

1,093,191. IGNITER TRIP DEVICE FOR EXPLOSION-ENGINES. ROY KELLEY, Minden City, Mich. Filed Aug. 13, 1913. Serial No. 784,605. (Cl. 123—164.)



1. In an internal combustion engine, a push rod, a trip bracket adjustably mounted on said rod, an igniter trip rod support pivoted on said bracket to rock from a normal position in one direction, a spring for holding said support in a normal position, a trip rod rotatably and longitudinally movable in said support, a perforated element fixed on said trip rod, a rod fixed on said support and slidable in one of the perforations of said element to hold the trip rod against rotation, an adjustable stop for limiting the movement of the trip rod in said support in one direction, and spring means engaging said perforated element to hold said trip rod in engagement with said adjustable stop, substantially as described.

2. In an internal combustion engine, a reciprocating rod, a trip bracket adjustably mounted on said rod, an igniter trip rod support on said bracket, an igniter trip rod longitudinally movable in said support, an adjustable stop for permitting said trip rod to advance or retard the sparking, spring means for holding said trip rod against said stop, and slidable means for preventing rotation of said trip rod, substantially as described.

3. In an internal combustion engine, an igniter device, a trip rod having a plurality of independent portions for engaging said device to actuate the same, and means for holding said trip rod in any one of several positions to dispose any one of said portions in engaging proximity to said device.

4. In an internal combustion engine, an igniter device, an element having a plurality of portions for engaging said device, and means slidably connected with said element for holding the same in any one of a number of predetermined positions to maintain one of said engaging portions in operative proximity to said device, substantially as described.

5. In an internal combustion engine, an igniter device, a longitudinally movable trip rod for actuating said device and provided with a plurality of independent actuating portions, means rotatably supporting said trip rod and mechanism having slidable engagement with said trip rod, for holding the same in any one of selected positions to dispose selected engaging portions in operative proximity to said device and maintain said trip rod in such selected position, substantially as described.

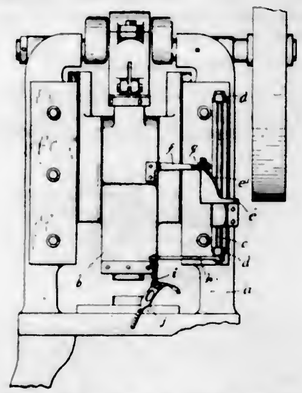
[Claim 6 not printed in the Gazette.]

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1,093,192. SAFETY DEVICE FOR MACHINE OPERATORS. NELSON B. KEYES, Unionville, Conn., assignor to Hubert C. Hart, Unionville, Conn. Filed Feb. 16, 1914. Serial No. 818,842. (Cl. 164—107.)

1. In a safety device of the character described, the combination with a machine and one of its moving parts, of a rotarily mounted shaft, a lever secured thereto, a hand-engaging strap connected with the lever, and coöperating means on said moving part and shaft for causing a rotary movement of the latter and its connected parts during a portion of the longitudinal motion of the moving part of the machine.

2. In a safety device of the character described, the combination with a machine and one of its moving parts, of a hand-engaging strap, a lever from which said strap is suspended, and means on said moving part operatively connected with said lever and actuated upon the movement of said moving part to move said lever and its suspended parts.



3. In a safety device of the character described, the combination with a machine and one of its moving parts, of a shaft rotarily mounted in bearings on said machine, a cam secured to said shaft, an arm on said moving part coöperating with said cam, a lever secured to said shaft, and a hand-engaging strap suspended from said lever.

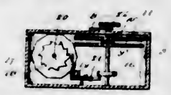
4. In a safety device of the character described, the combination with a machine and one of its moving parts, of a shaft rotarily mounted in bearings on said machine, a cam secured to the shaft and adjustable both longitudinally and rotarily thereon, an arm on said moving part coöperating with said cam, a lever secured to said shaft, and a hand-engaging strap suspended from said lever.

5. In a safety device of the character described, the combination with a machine and one of its moving parts, of a shaft rotarily mounted in bearings on said machine, a double-faced cam secured to the shaft and adjustable both longitudinally and rotarily thereon, an arm on said moving part coöperating with said cam, a lever secured to said shaft, and a hand-engaging strap suspended from said lever.

[Claim 6 not printed in the Gazette.]

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1,093,193. METER-READING DEVICE. RUSSELL B. KLAPPER, Monticello, Ind. Filed Oct. 19, 1912. Serial No. 726,694. (Cl. 235—113.)



1. In a meter reading device, the combination of a plurality of dials, indicators for said dials, mechanism for imparting movement of one of said indicators to all of said indicators in unison at a positive ratio, but permitting independent movement of any of the indicators one from another, and registering mechanism associated with each of said indicators and actuated upon movement thereof for registering the relative position of the respective indicator with respect to its dial, substantially as and for the purpose set forth.

2. In a meter reading device, the combination of a plurality of dials, indicators for said dials, a spindle for each dial carrying its respective indicator, means carried by said spindles for imparting movement of one to all spindles in unison at a positive ratio, but permitting independent movement of any spindle one from another, and registering mechanism for each dial operatively connected with the spindle of its respective indicator, to register the relative position of the latter with respect to is dial, substantially as and for the purpose set forth.

3. In a meter reading device, the combination of a plurality of dials, an indicator for each dial movable independently with respect to each other, and registering mechanism associated with each of said indicators and actuated upon movement thereof for registering the relative position of the respective indicator with respect to its dial, substantially as and for the purpose set forth.

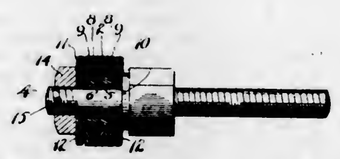
4. In a meter reading device, the combination of a plurality of dials, an indicator for each dial movable independently with respect to each other, a spindle for each dial carrying its respective indicator, and registering mechanism for each dial operatively connected with the spindle of its respective indicator to register the relative position of the latter with respect to its dial, substantially as and for the purpose set forth.

5. A meter reading device, comprising in combination, a body portion having dials, an indicator for each dial, a spindle for each indicator carried by said body portion, a pinion rigid on one of said spindles, a train of gears and pinions carried by the other spindles and adapted to be driven from said first mentioned pinion at a positive ratio, coupling mechanism carried by gears of said train and coacting with the spindles they are carried by to impart movement thereto, but permitting independent movement of the said spindles one from another, and registering mechanism for each dial operatively connected with the spindle of its respective indicator to register the relative position of the latter with respect to its dial, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

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1,093,194. BEARING. BURTON L. LAWTON, Meriden, Conn. Filed Oct. 13, 1913. Serial No. 794,807. (Cl. 21—105.)



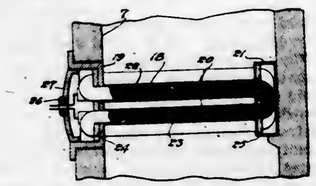
1. In an anti-friction bearing support for shock absorbers, a supporting stud, a pair of side supporting washers mounted thereon, a holding nut on said stud and a removable combined bearing and spacer sleeve mounted on said stud, a shoulder at one end of said stud forming a rigid abutment for one end of said sleeve, said sleeve serving to space the holding nut at a fixed distance from said shoulder.

2. In an anti-friction bearing support for shock absorbers, a supporting stud having a shoulder at one end and screw-threaded at its other end, a holding nut threaded on said threaded portion of said stud, a combined spacer and bearing sleeve removably mounted on said stud and arranged to hold said nut a fixed distance from said shoulder, a member rotatably mounted upon said sleeve, and side supporting washers carried by said stud and arranged to support said rotatable member against side slap.

3. In an anti-friction bearing support for shock absorbers, a supporting stud having a shoulder at one end and screw-threaded at its other end, a holding nut threaded on said threaded portion of said stud, a combined spacer and bearing sleeve removably mounted on said stud and arranged to hold said nut a fixed distance from said shoulder, a member rotatably mounted upon said sleeve, and side supporting washers carried by said stud and arranged to support said rotatable member against side slap, said rotatable member including a central removable bushing arranged to bear directly on said combined spacer and bearing sleeve.



1,093,195. ELECTRICAL WATER-HEATER. ROBERT ROY LOCKHART, Winnipeg, Manitoba, Canada, assignor to himself, George A. Glines, William E. Wright, Victor Williams, Daniel Boyce Sprague, and John D. Sinclair, Winnipeg, Manitoba, Canada. Filed May 28, 1913. Serial No. 770,360. (Cl. 219—39.)

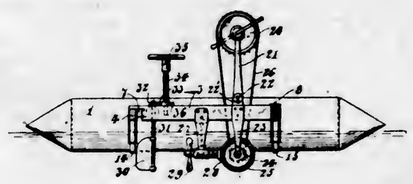


1. The combination comprising a cylindrical water container having the ends thereof closed by suitable heads supplied with inlet and outlet pipes, a plurality of socket shaped end pieces screw threaded into the sides of the container, a set of similar horizontally disposed and spaced tubes carried by each end piece and passing across the container, a hollow casing connecting the inner ends of the tubes of each set, a suitable insulated resistance coil threaded through the tubes of each set, said coil being threaded forwardly and backwardly through said tubes, caps screw threaded into the end pieces and inclosing the coil in each instance and feed wires communicating with each of the coils, said feed wires passing through suitably located insulating ferrules carried by the caps, as and for the purpose specified.

2. The combination with an open-ended cylindrical water container having a number of longitudinally disposed passage-ways in the walls thereof and a number of electrical heating elements contained within the container and passing through the wall thereof, of an inlet feed water pipe opening to one of said passage-ways, an outlet water pipe communicating with another of the passage-ways and heads closing the ends of the container and provided with facial ducts designed to connect alternately at the top and bottom the passage-ways, as and for the purpose specified.

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1,093,196. CATAMARAN. JOSEPH LOMBARDI, New York, N. Y. Filed Aug. 23, 1913. Serial No. 786,289. (Cl. 115—22.)



1. In a portable catamaran, the combination with a pair of collapsible pontoons of a central frame member, an upright arm pivotally attached to and adapted to be folded back upon said frame member, a sprocket wheel journaled in said upright arm adapted to be turned by hand and operatively connected with a propeller, steering means mounted upon said central frame member, and transverse frame members adapted to bear upon and be supported by said collapsible pontoons.

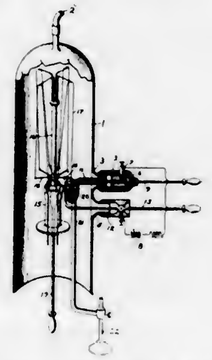
2. In a portable catamaran, the combination with a pair of collapsible pontoons of a central frame member, an upright arm pivotally attached to and adapted to be folded back upon said frame member, a sprocket wheel journaled in said upright arm adapted to be turned by hand and operatively connected with a propeller, a seat and a rudder mounted upon said central frame member the rudder being adapted to be turned by the seat, and

transverse frame members adapted to bear upon and be supported by said pontoons.

3. In a portable catamaran, the combination with a pair of collapsible pontoons consisting of inner air retaining means and outer pressure resisting means of a central frame member, an upwardly extending arm pivotally attached to said central frame member and adapted to be folded back upon said central frame member, a sprocket wheel journaled in said arm operatively connected with a propeller, a rudder and a seat mounted upon said central frame member said rudder being operatively connected with said seat, a transverse frame member removably jointed to said central frame member, a second transverse member consisting of two sections pivotally attached to said central frame member and adapted to be folded back upon said central frame member, plates at the ends of said transverse members, and straps passing through said plates adapted to hold the pontoons firmly against said plates.

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1,093,197. METHOD OF WELDING LAMP-FILAMENTS. GEORGE F. MORRISON, Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Mar. 16, 1907. Serial No. 362,621. (Cl. 176—38.)



1. The method which consists in placing a filament in contact with a metal wire, drawing an arc from said wire near the point of contact of said filament, and magnetically deflecting the arc away from said filament.

2. The process of connecting a filament to its current supply wire which consists in drawing an arc between said wire and a suitable electrode for melting a portion of said wire near the leg of said filament and electrodynamically deflecting said arc from the leg of the filament.

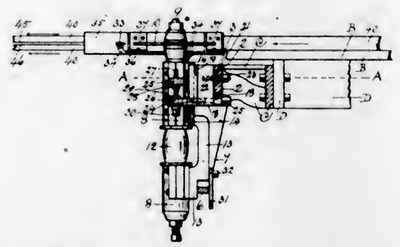
3. The step in the process of connecting a lamp filament to the leading-in conductor, which consists in producing an arc at the junction of the filament and conductor and simultaneously deflecting the arc away from the leg of said filament.

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1,093,198. WOODWORKING MACHINERY. WILLIAM ALFRED NEWPORT, Hamilton, Ontario, Canada, assignor of one-half to George J. White, Hamilton, Ontario, Canada. Filed Dec. 20, 1913. Serial No. 807,950. (Cl. 143—36.)

1. A wood working machine, a frame rigidly secured to the rear end part of the machine, bearings one above the other connected to the frame, a vertical shaft in the bearings and extending therethrough, a drive pulley on the shaft between the bearings, a brace rigidly connecting the bearings, a saw on the upper part of the shaft and above the table of the machine, and means connected to the lower part of the brace adapted to engage with the lower part of the frame to lock the lower bearing thereto.

2. A wood working machine, a frame secured to the rear end part of the machine, bearings one above the other, a vertical plate having beveled side flanges secured to the frame, a vertical shaft in the bearings, a drive pulley on the shaft between the bearings, a saw on the upper part of the shaft, a brace rigidly connecting the bearings together, slide means on the upper bearing adapted to slide between the said side flanges, lugs on the upper bearing and on the plate, means through said lugs adapted to raise and lower the bearings together with the saw, and means on a lower part of the brace to engage with the lower part of the frame, to lock the lower bearing thereto.



3. A wood working machine, a frame rigidly secured to the rear end part thereof having a transverse recess and a transverse slot therethrough, a block provided with a transverse guide fitting in said recess and adapted to slide therein, and rigidly secured to the frame, bearings in vertical alinement, a brace rigidly connecting said bearings, said block connected to the upper bearing and means on a lower part of the brace to lock the lower bearing to the frame.

4. A wood working machine, a frame secured to the rear end part thereof, a block provided with a hub on the upper part of the rear face thereof, and having a lower slot therethrough concentric with the hub, and secured to the frame, a plate having a round hole to receive said hub, a bolt extending through the slot and screwed into said plate, beveled side flanges on the rear or opposite side of the plate, vertical bearings one above the other, and a distance apart, the upper said bearing adjustably secured to said plate, a brace rigidly connecting the bearings, and means on a lower part of the brace to lock the lower bearing to the frame.

5. A wood working machine, a frame secured to the rear end part thereof, bearings one above the other, a brace rigidly connecting the bearings, means on the lower end part of the brace adapted to lock the frame to the lower bearing, a saw guard in the rear of the saw and in horizontal alinement therewith, bracket arms secured to the upper bearing and to the guard to support said guard, a horizontal guide plate to guide the board being re-sawed, and means secured to the guide plate, and adjustably secured to the arms.

[Claim 6 not printed in the Gazette.]

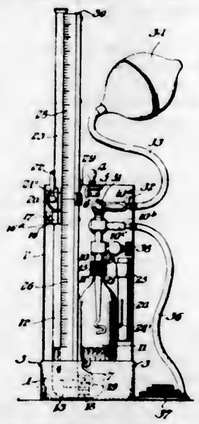
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1,093,199. SPHYGMOMANOMETER. PERCIVAL NICHOLSON, Ardmore, Pa. Filed June 21, 1913. Serial No. 775,068. (Cl. 73—44.)

1. In a sphygmomanometer, means comprising a cistern and a tube connected therewith for containing a fluid, means connected therewith for applying pressure thereto and for obliterating the pulse, a second tube, means comprising a valve through which said second tube is connected with said first tube and by which said first tube is adapted to be closed, and a scale for reading the height of the liquid in said tube or tubes.

2. In a sphygmomanometer, means comprising a tube for containing a fluid, means connected therewith for applying pressure thereto, a second tube, and means comprising a socket engaging an end of said first tube, a valve casing, and a valve through which an end of said second tube extends into registration with said first tube.





3. In a sphygmomanometer, means comprising a tube for containing a fluid, means connected therewith for applying pressure thereto, a second tube, and means comprising a fenestrated socket in which an end of said first tube is disposed, a valve casing through which an end of said second tube is adapted to extend into registration with said first tube, and a fenestrated valve in said casing through which said second tube extends, said second tube passing freely through said valve.

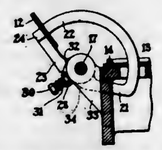
4. In a sphygmomanometer, means comprising a tube containing a fluid, means connected therewith for applying pressure thereto, a second tube, and means comprising a fenestrated socket in which an end of said first tube is engaged, a valve casing through which an end of said second tube extends into the end of said first tube in said socket, and a fenestrated valve through which said end of said second tube passes freely and by which said first tube is adapted to be closed when said second tube is withdrawn.

5. In a sphygmomanometer, the combination with a case having a lid, means comprising a valve casing and communicating with the interior thereof a fenestrated socket fixed to said lid, means comprising a glass tube having an end fixed in said socket, a fenestrated valve with a diametral passage therethrough revoluble in said casing to control flow through said tube, a device movable with said valve and engaging said case to prevent the closure of said lid when said valve is open, and a tube adapted to extend through said casing and the passage in said valve when in the open position into registration and in alinement with said tube first named, said second tube when inserted preventing the operation of said valve.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,200. EJECTOR FOR PRESSES. MICHAEL W. O'BRIEN, Rochester, N. Y. Filed Dec. 24, 1913. Serial No. 808,575. (Cl. 12—48.)

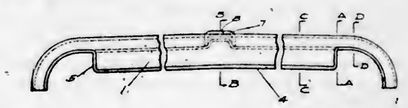


1. An ejector for a press of the type in which flat blanks are compressed, in horizontal position, in a die open at top and bottom; the ejector comprising an upper member and a lower member adapted to engage the respective surfaces of a blank in the die and movable in a direction to raise the blank from the die and carry it to one side thereof, and mechanism, for actuating and controlling said ejector-members, adapted to cause movement thereof in unison during the ejecting operation but to cause a separation of said members, after the ejecting operation and before the return of the lower member to normal position, whereby the blank is released while at one side of the die.

2. An ejector for a press of the type in which blanks are compressed in a die open at opposite faces; the ejector comprising two members adapted to engage opposite surfaces of a blank while in the die, and movable, substantially about a common axis, in a direction to discharge the blank from the die; mechanism for moving one ejector-member in said direction; a spring tending to move the second ejector member in the opposite direction; and detent-mechanism coöperating with both ejector-members and adapted to retain the second member against return-movement during the first part of the return-movement of the first ejector-member, and then to release the second member and permit it to be returned by said spring.

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1,093,201. CAR-ROOF. WILLIAM J. OWEN, Collinwood, Ohio, assignor, by direct and mesne assignments, to Peter H. Murphy, Pittsburgh, Pa. Filed Nov. 4, 1910. Serial No. 590,640. (Cl. 108—5.)



1. In a car roof, the combination with the side plates and side sheathing, of a channel carline having side walls extending below the bottom of the channel and forming a pocket at each end into which said plates and sheathing project, the extreme ends of the carline depending below the eaves of the car, whereby the joint between the top of the side plates and sheathing and the carline is covered.

2. A carline comprising side walls, laterally extending flanges at the bottom of the side walls, the top of said side walls being rebent to form a hollow strengthening member for each of said walls, a flat spacing member between said rebent members extending in a plane below the top of the side walls from end to end of the carline except at the center of the carline where it is struck up to approximately the plane of the top of the walls to serve as a bearing for a running board saddle.

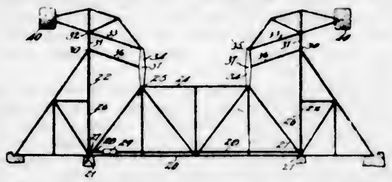
3. A carline for cars comprising side walls having laterally extending base flanges, hollow strengthening ribs integral with the top of said walls, a flat spacing member between and integral with the lower edge of said members, between the side walls, said side walls being rebent near their ends into said hollow ribs to form a pocket, the extreme ends of the carline being downwardly deflected.

4. A carline of channel shape and comprising side walls extending below the bottom of the channel and terminating in wide outwardly extending base flanges, extending from end to end of the carline, said walls being reduced in height near the ends of the carline and the extreme ends of the carline being bent downwardly to form a pocket for the side plates and upper ends of the car walls, the said flanges constituting a wide flat bearing for the carline on the rear and upper faces of the side plate.

5. In a car roof, the combination with a channel carline having a pocket near each end, side plates and the upper ends of the side walls seated in said pockets, the roofing sheets having return bent vertical side flanges which extend in to the channel of the carline, a cap covering the carline and vertical flanges of the roof sheets, the outer ends of the roof sheets, cap and carline being bent below the eaves of the car to constitute a hood covering the joints between the side plates, carline and side walls, and a bolt passing through the ends of the roof sheets, cap, carlines, side walls and side plate.

[Claims 6 to 16 not printed in the Gazette.]

1,093,202. BRIDGE. CLIFFORD E. PAINE, Chicago, Ill., assignor of one-fourth to Luther Johns, Chicago, Ill. Filed July 5, 1913. Serial No. 777,509. (Cl. 14—42.)



1. In a counterbalance for a bridge having a vertically movable part, the combination with such vertically movable part, of a fixed support, a plurality of links having a common pivotal axis mounted on said fixed support, a lever pivoted to each of said links, said levers being pivoted together, one of said levers being connected operatively to said vertically movable part, and a counterbalancing weight attached to another of said levers and adapted to counterbalance a proper portion of the weight of such vertically movable part.

2. In a counterbalance for a bridge having a vertically movable part, the combination with such vertically movable part, of a fixed support having a pivot, a plurality of levers operatively maintained in spaced relation to said pivot by a plurality of links mounted on said pivot, said levers being pivoted together, one of said levers being operatively connected to said vertically movable part, and a counterweight on one of said levers adapted to counterbalance a proper portion of the weight of such vertically movable part.

3. In a bridge, the combination of a vertically movable span, a fixed support, a plurality of links pivotally mounted on a common axis on said fixed support, a plurality of levers pivotally carried by said links, said levers being pivoted together, a counterbalancing weight on one of said levers adapted to counterbalance a proper portion of the weight of said vertically movable span, and a connection between one of said levers and said span.

4. In a bridge, the combination of a vertically movable span, a fixed support adjacent to said span, two levers pivoted together and each lever pivoted to one of two links respectively, said links being pivotally mounted on a common axis on said fixed support, a connection between said associated levers and links and said span, and a counterbalancing weight associated with one of said levers and adapted to counterbalance a proper portion of the weight of said span.

5. In a bridge, the combination of a vertically movable span, a plurality of fixed supports adjacent to said span, and a counterbalancing mechanism associated with each support, one of said counterbalancing mechanisms comprising a plurality of links pivoted on a common axis on one of said fixed supports, a counterbalance lever pivotally connected to one of said links, and a connecting lever pivotally connected to another of said links, said levers being pivotally connected together, said links and levers forming a parallelogram, a counterbalancing weight rigidly attached to said counterbalance lever, said connecting levers being pivotally connected to said span, said counterbalancing weight being adapted to counterbalance both the weight of the span to be counterbalanced and the weight of said links and levers in all operative positions as the span is vertically moved, and means for vertically moving said span.

[Claims 6 to 13 not printed in the Gazette.]

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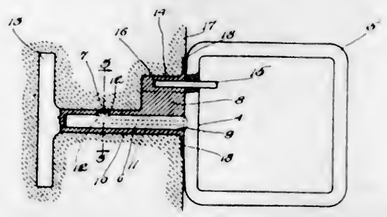
1,093,203. METHOD OF PREFORMING REFRACTORY MATERIAL PRIOR TO ROLLING. MARCELLO VON PIRANI, Wilmersdorf, near Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1912. Serial No. 733,077. (Cl. 29—148.)

1. The method of preparing refractory metals for rolling free from cracks or fractures which consists in giving to the raw metal prior to rolling and without changing the structure of its internal portions an external shape similar to that of the rolled article and with a transverse section similar to that imposed upon said metal during the rolling operation.

2. The step in the method of rolling refractory metal which consists in externally working the unrolled metal without affecting its internal structure to a shape having a transverse section similar to that assumed by said metal during the operation of rolling.

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1,093,204. DETACHABLE MANHOLE-STEP. ALFRED M. PITTS, Boston, Mass., assignor to Walter F. Pitts, Boston, Mass. Filed June 11, 1912. Serial No. 703,041. (Cl. 228—2.)



1. A detachable man-hole step comprising an insert member provided with an elongated socket member having a longitudinal groove terminating in a segmental recess, a tread member having a shank adapted to fit snugly in said socket, a projection on said shank to enter said groove and be retained in said recess when said tread is turned in supporting position, and means for positively preventing said tread from rotation.

2. A detachable man-hole step provided with an insert member provided with an elongated socket having a longitudinal groove terminating in a segmental recess, a tread member frictionally engaging the face of said insert and provided with a shank fitting within said socket, said shank having a projection to enter said groove and be retained in said recess when said tread is turned in supporting position, and a pin passing through said tread and entering a portion of said insert for positively retaining said tread against rotation.

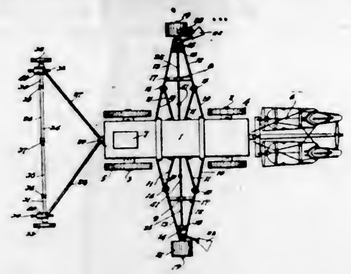
3. A detachable man-hole step provided with an insert member provided with an elongated socket having a longitudinal groove terminating in a segmental recess, a tread member frictionally engaging the face of said insert and provided with a shank fitting within said socket, said shank having a projection to enter said groove and be retained in said recess when said tread is turned in supporting position, and a pin for positively locking said tread against rotation.

4. A detachable man-hole step comprising an insert member provided with an elongated socket having a longitudinal groove terminating in a segmental recess, a tread member frictionally engaging the face of said insert and provided with a shank fitting within said socket, said shank having a projection to enter said groove and be retained in said recess when said tread is turned in supporting position, a shoulder on said socket member, and a pin passing through said tread and engaging said shoulder for positively locking said tread against rotation.

5. A detachable man-hole step comprising an insert having an elongated socket provided with a longitudinal groove terminating in a segmental slot, a shoulder formed on the end of said socket member, a tread member frictionally engaging said socket member, and provided with a shank closely fitting within said socket, a projection on said shank adapted to enter said groove and be retained within said recess when said tread is turned into supporting position, and means connecting said tread and shoulder to positively lock said tread against rotation.



1,093,205. FIRE-GUARD. AMOS MOORE KANNEY, Watrous, Saskatchewan, Canada. Filed Apr. 11, 1913. Serial No. 760,486. (Cl. 126—271.1.)



In combination a portable water tank, outstanding supports carried by the water tank and at opposite sides thereof rollers supporting the outer ends of the supports, nozzles located at the outer ends of the supports, said nozzles projecting forwardly in the path of the rollers, hose connecting the nozzles with the tank, said hose being provided with suitable valves, a support connected to the rear end of the tank and torches carried by the latter support, as and for the purpose specified.

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1,093,206. CONTINUOUS DRYING-KILN WITH VERTICAL AXIS. JEAN RÉOL, Alais, France, assignor to Société de Constructions Mécaniques d'Alais, Alais, France, a Corporation. Filed Dec. 24, 1912. Serial No. 738,438. (Cl. 34—23.)

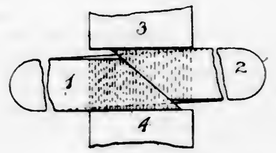


In a vertical drying kiln the combination of a central vertical spindle with a plurality of superposed, spaced platforms alternately arranged around said spindle, vertical scrapers upon each of said platforms, horizontal sections secured to said scrapers, and vertical ribs secured to the underside of said platforms forming at given moments an obturator with said sections for forcing the hot gases to pass through the falling material removed from said platforms by said scrapers in an automatical and continuous operation.

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1,093,207. METHOD OF MAKING WELDED CHAIN. MICHAEL B. RYAN, Bridgeport, Conn. Filed Oct. 23, 1912. Serial No. 727,288. (Cl. 219—5.)

1. The method of welding overlapping beveled ends of metal which consists in oversetting said beveled ends to extend partially beyond each other, and applying electric welding heat to said ends with pressure transversely of the plane of the beveled heated ends and in a direction to press said heated ends into alinement.




2. The method of welding overlapping beveled ends of metal which consists in oversetting said beveled ends to extend partially beyond each other, and applying electric welding heat to said ends with pressure transversely of the plane of the beveled heated ends and in a direction to press said heated ends into alinement, and then applying finishing shaping pressure to the welded joint.

3. The method of welding overlapping beveled ends of metal which consists in oversetting said beveled ends to extend partially beyond each other, and applying electric welding heat to said ends with pressure transversely of the plane of the beveled heated ends and in a direction to press said heated ends into alinement, and then applying finishing shaping pressure to the welded joint while the latter is still soft from welding heat.

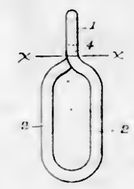
4. The method of welding beveled overlapping ends of metal which consists in oversetting said ends to extend partially beyond each other, and applying electric welding heat to said ends with yielding pressure transversely of the plane of the bevel of the heated ends and in a direction to press said heated ends into alinement.

5. The method of welding beveled overlapping ends of metal which consists in oversetting said ends to extend partially beyond each other and applying simultaneously to said ends electric welding heat and pressure transversely of the plane of the bevel of said heated ends and in a direction to press said ends into alinement.

[Claims 6 to 10 not printed in the Gazette.]

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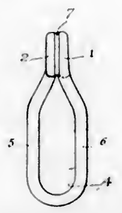
1,093,208. CHAIN-LINK. MICHAEL B. RYAN, Bridgeport, Conn. Filed Dec. 5, 1911, Serial No. 664,089. Renewed Dec. 20, 1912. Serial No. 737,918. (Cl. 59—83.)




1. A chain link made of a single piece of wire having its terminals welded together and bent to form a comparatively large bow portion and a comparatively small eye portion, said bow and eye being disposed in planes at substantially right angles to each other, the side wires of the bow being welded together at the point where they converge and merge into the eye.

2. A chain link formed throughout its area of a single thickness of wire whose end portions are welded together and which is bent to form eye and bow portions that are in planes that are at substantially right angles to each other, the wires at the base of said eye, at the point where the latter joins the bow, being welded together.

1,093,209. WIRE CHAIN-LINK. MICHAEL B. RYAN, Bridgeport, Conn. Filed Nov. 18, 1911, Serial No. 661,125. Renewed Dec. 20, 1912. Serial No. 737,919. (Cl. 59—90.)

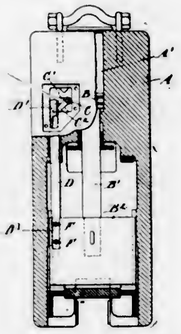


1. A chain link comprising a bow portion and two eyes disposed side by side, the metal forming the eyes extending in opposite directions, and said eyes being welded together.

2. A wire chain link comprising a bow portion and two eyes disposed side by side, the metal forming the eyes extending in opposite directions relatively to each other and in a plane substantially at right angles to the plane of the bow, the said eyes being welded together throughout substantially their entire circuit to form a substantially integral eye structure.

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1,093,210. PILE-HAMMER. MAX SCHALSCHA, Summit, N. J., assignor to Union Iron Works, Hoboken, N. J., a Corporation of New Jersey. Filed Aug. 19, 1913. Serial No. 785,584. (Cl. 61—39.)



In a hammer of the character set forth, a reciprocating ram-head having a dovetailed recess in its face, a valve-rod carrying at one end means for operating the valve of such hammer, and dovetailed at the opposite end to match to and fit closely in such recess, and bolts extending through said dovetailed lower end into said ram-head.

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1,093,211. PROTECTIVE RUBBER CAP WITH STOPPLE FOR MILK-BOTTLES. SAUL SCHULHOFF, Philadelphia, Pa. Filed Nov. 5, 1913. Serial No. 799,264. (Cl. 215—14.)

In combination a bottle having the neck wall internally formed with an annular recess of greater diameter at the base than at the mouth end of said neck and said neck externally formed into a rounded enlargement tapering from the mouth end toward the neck proper and a rubber stopper having a flat face and a downwardly extending circular rim thickened toward the lower end and a downwardly extending central projection expanded toward the lower end, to respectively fit into the base portion of said recessed neck-wall and said rim fitting over the external



enlargement of said bottle-neck, substantially as shown and for the purposes described.

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1,093,212. RAIL. EDWIN E. SLICK, Westmont borough, Pa. Filed Feb. 2, 1914. Serial No. 815,863. (Cl. 239—16.)



1. A compound rail comprising a head portion, a base portion provided with a locking flange, a clamping bar adapted to be held by said locking flange, a portion of said clamping bar being bent into contact with said head portion.

2. A compound rail comprising a head portion, a base portion provided with integral locking flanges on the edges thereof, clamping bars adapted to be held by said locking flanges, portions of said clamping bars being bent into contact with said head portion.

3. A compound rail comprising a head portion with small flanges on the sides thereof, a base portion provided with integral locking flanges on the edges thereof, one of said locking flanges extending over one of the head flanges aforesaid, a clamping bar adapted to be held by the other locking flange, a part of said bar being bent over the other one of the head flanges.

4. A compound rail comprising a compact head portion, comparatively small integral flanges on the lower edges thereof, a base portion provided with integral locking flanges, clamping bars adapted to be held by said locking flanges and bent into contact with the flanges of the head portion.

5. A compound rail comprising a head portion, comparatively small flanges on the lower edges thereof, a girder base portion, the upper flanges of which are provided with integral locking flanges, clamping bars adapted to be held by said locking flanges and bent into contact with the flanges of the head portion.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,213. ANCHORING MEMBER FOR FABRIC ARTICLES. THOMAS SLOPER, county of Wilts, England. Filed Dec. 27, 1913. Serial No. 809,077. (Cl. 152—13.)

1. An anchoring member having projections to receive lengths of cord in forming a fabric said anchoring member consisting of a wire bent into a continuous zigzag upon itself to form a strip one edge of such strip being folded about a longitudinal axis back upon itself toward the center portion of the strip and the other edge being folded about another longitudinal axis into a plane inclined to that of the center portion substantially as set forth.

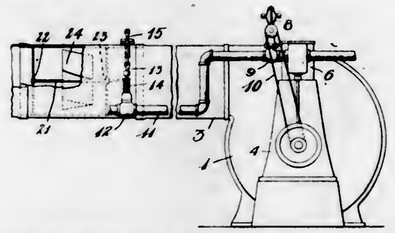


2. An anchoring member having projections to receive lengths of cord in forming a fabric said anchoring member consisting of a wire bent into a continuous zigzag upon itself to form a strip one edge of such strip being folded about a longitudinal axis back upon itself toward the center portion of the strip and the other edge being folded about a longitudinal axis adjacent to the edge of that portion of the strip already folded back into a plane inclined to that of the center portion of the strip substantially as set forth.

3. An anchoring member having projections to receive lengths of cord in forming a fabric said anchoring member consisting of a wire bent into a continuous zigzag upon itself to form a strip one edge of such strip being folded about a longitudinal axis back upon itself toward the center portion of the strip and the other edge being folded about a longitudinal axis adjacent to the edge of that portion of the strip already folded back into a plane inclined to that of the center portion of the strip and then outward again into a plane inclined to the center portion of the strip and the other edge of the strip being folded about a longitudinal axis into a plane inclined to that of the center portion of the strip substantially as set forth.

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1,093,214. FAN OR BLOWER SYSTEM. NORMAN L. SNOW, Plainfield, N. J. Filed July 13, 1912. Serial No. 709,130. (Cl. 230—24.)



1. In an apparatus of the character described, the combination of a blower having inlet and outlet openings, a reactive member acted upon by the discharge of said blower and responsive to changes in momentum of the fluid discharged, a prime mover for operating said blower, and means for controlling said prime mover actuated by said reactive member so as to increase the speed of the prime mover as the momentum of the discharge decreases, and vice versa, the movement of said reactive member being limited by said controlling means.

2. In an apparatus of the character described, the combination of a blower having inlet and outlet openings, a reactive member acted upon by the discharge of said blower and responsive to changes in momentum of the fluid discharged, a prime mover for operating said blower, and means for controlling said prime mover actuated by said reactive member so as to increase the speed of the prime mover as the momentum of the discharge decreases, and vice versa, said reactive member comprising a movable blade mounted in a passage through which the discharge from said blower passes, the movement of said blade being limited by said controlling means.

3. In an apparatus of the character described, the combination of a blower having inlet and outlet openings, a reactive member acted upon by the discharge of said blower and responsive to changes in momentum of the fluid discharged, a prime mover for operating said blower, and means for controlling said prime mover actuated by said reactive member so as to increase the speed of the prime mover as the momentum of the discharge decreases, and vice versa, said reactive member comprising a plurality of blades mounted in a passage through which the discharge from said blower passes, the movement of said blades being limited by said controlling means.

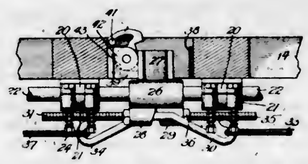
4. In an apparatus of the character described, the combination of a blower having inlet and outlet openings, a reactive member acted upon by the discharge of said blower and responsive to changes in momentum of the fluid discharged, a prime mover for operating said blower, and means for controlling said prime mover actuated by said reactive member so as to increase the speed of the prime mover as the momentum of the discharge decreases, and vice versa, said reactive member comprising a plurality of blades mounted in a passage through which the discharge from said blower passes, and movable about an axis parallel to the axis of said passage, the movement of said blades being limited by said controlling means.

5. In an apparatus of the character described, the combination of a blower having inlet and outlet openings, a reactive member acted upon by the discharge of said blower and responsive to changes in momentum of the fluid discharged, a prime mover for operating said blower, means for controlling said prime mover actuated by said reactive member so as to increase the speed of the prime mover as the momentum of the discharge decreases, and vice versa, said reactive member comprising a movable blade mounted in a passage through which discharge from said blower passes, the movement of said blade about an axis parallel to the axis of said passage being limited by said controlling means, and a dash-pot connected to said reactive member so as to dampen its movements.

[Claim 6 not printed in the Gazette.]

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1,093,215. SAWMILL-CARRIAGE. BURT D. STEVENS, Beloit, Wis., assignor to The Berlin Machine Works, Beloit, Wis., a Corporation of Wisconsin. Filed July 5, 1910. Serial No. 570,349. (Cl. 143—110.)



1. In a saw mill carriage, the combination of a platform, means for supporting said platform, means for longitudinally and reciprocatingly moving said platform and its supporting means, means for shifting said platform laterally on the supporting means before its longitudinal movement begins, the path of travel of said platform thereby being made of rectangular shape, and frictional means for retarding the movement of the laterally shifting means, substantially as described.

2. In a saw mill carriage, the combination of supporting axles, a platform laterally movable on said axles, shifting means carried by said platform, oppositely disposed propelling means attached to said shifting means, the application of power to said propelling means serving to move the platform into a corresponding lateral position and then to move the carriage in a longitudinal direction, and friction means for preventing shock when power is so applied, substantially as described.

3. In a saw mill carriage, the combination of supporting axles, a platform laterally movable on said axles, shifting means supported by said platform, and having movement longitudinally thereof, oppositely disposed propelling means attached to said shifting means, the application of power to said propelling means serving to move

the platform into a corresponding lateral position and then to move the carriage in a longitudinal direction, friction means for retarding the movement of said shifting means, and means for preventing at will the lateral movement of said platform, substantially as described.

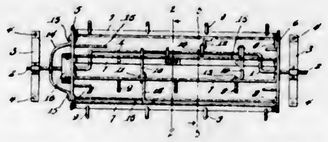
4. In a saw mill carriage, the combination of supporting axles, a platform laterally movable on said axles, a shifting block movable with respect to said platform, means for moving the platform laterally on said axles when the shifting block is moved longitudinally, means for retarding the movement of said block, and propelling means attached to said shifting block and adapted to move the same in opposite longitudinal directions, substantially as described.

5. In a saw mill carriage, the combination of supporting axles, a platform laterally movable on said axles, a shifting block, a shaft on which said block is mounted, means for carrying said shaft supported by said platform and adapted to apply pressure thereto, a shifting rod connected with said shaft, means connecting said platform with said shifting rod whereby when the same is moved longitudinally, the platform is shifted laterally, and propelling means attached to said shifting block for moving the carriage in opposite longitudinal directions, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,216. BEATER FOR THRESHERS. JOHN L. TORSKE, Plummer, Minn. Filed Feb. 21, 1913. Serial No. 749,934. (Cl. 130—22.)



1. A beater for threshing machines including a stationary crank shaft, a frame bodily rotatable thereupon, and means connecting said shaft to certain of the frame elements for independently moving said elements during bodily rotation of said frame.

2. A beater for threshing machines including a stationary shaft, a frame bodily rotatable upon said shaft, and means connecting said shaft to certain of the frame elements for oscillating said elements during bodily rotation of said frame.

3. A beater for threshing machines including a crank shaft, spaced apart plates rotatably mounted upon said shaft, beater bars connecting said plates, and a plurality of links connecting said shaft to the said bars for imparting motion to the latter.

4. A beater for threshing machines including a crank shaft, spaced apart plates rotatably mounted upon said shaft, beater bars pivoted to the said plates and forming a connection therebetween, a plurality of pivoted links connecting said shaft to the said bars for imparting movement to the latter.

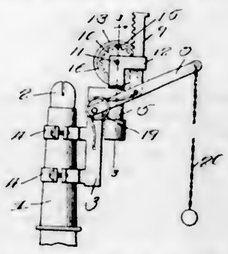
5. A beater for threshing machines including a stationary crank shaft, plates rotatably mounted upon said shaft, means for imparting movement to one of said plates, beater bars connecting said plates, and means including a plurality of pivoted links for connecting said shaft and the said bars for imparting movement to the latter independent of the shaft.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,217. IGNITING DEVICE. JAMES R. VALLIANT, Atlantic City, N. J. Filed Aug. 22, 1913. Serial No. 786,051. (Cl. 67—20.)

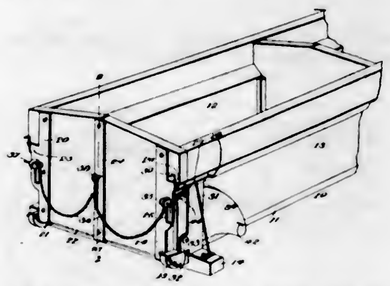
The combination with a gas burner, of an arm clamped thereto, a tube carried by the arm, a spring actuated lever having one end pivoted to the arm, a shaft supported by the upper end of the tube, a steel disk rotatably mounted upon the shaft and having one of its faces provided with ratchet teeth, a pinion supported by said shaft, a resilient washer interposed between the disk and pinion and fixed to the latter, said washer having a tongue for intermittently engaging said ratchet teeth to rotate the disk in one direction only, a guide carried by the tube, a rack bar slidably engaging the guide and in mesh with



the pinion, said rack bar having its lower end pivotally connected to said lever, a spring mounted in the tube, a pyrophoric element having its lower end engaging the spring, whereby its upper end is held in yielding contact with the periphery of the disk, whereby when said disk is rotated a spark will be created at the point of yielding engagement of its periphery and the pyrophoric element.

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1,093,218. END-GATE. GEORGE M. VAN PATTEN, Council Bluffs, Iowa. Filed Apr. 27, 1912. Serial No. 693,593. (Cl. 21—21.)

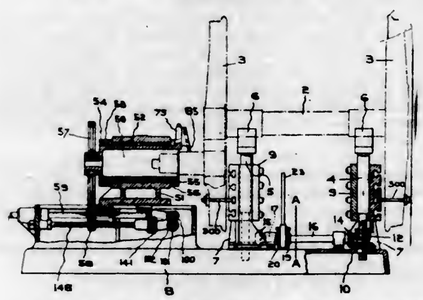


1. In an end gate construction, a wagon body, an end gate hinged by its lower edge to the bottom of the body and provided at its end portions with vertically extending slots, vertically extending braces secured to the sides of the wagon body adjacent their rear ends and spaced from the outer faces thereof, pivot pins passed through said braces and sides, sector shaped shields pivoted upon said pins between the braces and sides, projections extending from said shields and passing through the slots of the end gate, pins passed through said projections and engaging against the outer face of the end gate, and laterally directed pins extending from the opposite ends of the shields and adapted to engage against the braces when the shields are swung rearwardly to limit the swinging movement of the end gate.

2. In an end gate construction, plates adapted for attachment to the lower portions of the sides of a wagon body to extend rearwardly thereof, said plates being formed with slots, an end gate, a shaft secured to the lower edge of the gate and normally bearing by its ends in the lower ends of the slots, being movable upon raising of the gate into the upper ends of the slots, said end gate being provided with vertical slots, and means adapted for attachment to the sides of the wagon and movable in said slots of the gate to hold the gate against swinging movement and permit vertical movement.



1,093,219. MEANS FOR TURNING CRANK-PINS WHILE IN PLACE IN DRIVING-WHEELS AND BORING THE DRIVING-WHEEL FOR THE PIN. HENRY H. VAUGHAN, Montreal, Quebec, Canada, assignor to Harry Osborne and William Andrew Petersen, Montreal, Canada, and said Vaughan. Filed Aug. 19, 1911. Serial No. 644,913. (Cl. 82—9.)



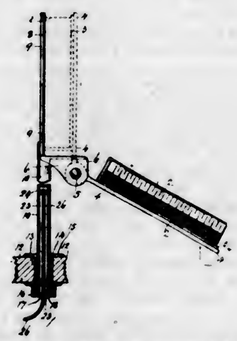
1. A machine for turning crank pins while in place in driving wheels comprising in combination upright means for supporting and rigidly retaining an axle with wheels in place thereon with a crank pin in the wheel and extending at right angles to the said supporting means; a hollow tool holder adapted to receive the crank-pin; means for rotating the holder; and means for feeding the said holder toward the support.

2. A machine of the type described comprising, in combination, a bed; a pair of lifting jacks carried by the bed; means for clamping upon the jacks an axle with driving-wheels rigidly thereon; means for operating the jacks independently and together; a saddle supported by the bed and slidable in the direction of the jacks; a hollow tool-carrying spindle rotatably supported in the saddle; means for feeding the saddle; and means for rotating the spindle.

3. In a machine of the type described, the combination with vertically adjustable means for rigidly retaining the wheel, of a hollow tool-carrying spindle disposed at right angles to the wheel and having the end thereof opposite the wheel-retaining means of reduced diameter; a driving member rotatively connected to the diminished end of the spindle; and means for feeding the said spindle in the direction of the said wheel-retaining means.

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1,093,220. ROTATABLE OPEN-BOOK REST. WILLIAM J. WALSH, Hamilton, Ontario, Canada. Filed Oct. 21, 1912. Serial No. 727,054. (Cl. 45—81.)



In an open book rest, a casing, a tubular shaft extending downwardly therefrom and integral therewith, a table, or desk, a bushing extending through the table and beyond, and provided with an upper annular flange to rest solidly on the table, the end portion of the bushing screw threaded, and a nut provided with an annular flange abutting the underside of the table, and a shoulder in the nut, said nut having an opening concentric therewith, and with the shaft, and screwed on said end of the bushing, and said shoulder adapted to support the end of the shaft, and allow the shaft to be rotatable therein.

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1,093,221. CASE FOR INCANDESCENT-ELECTRIC-LAMP SOCKETS. AUGUST WEBER, Sr., and JOHN WEBER, Schenectady, N. Y., assignors to Weber Electric Company, Schenectady, N. Y., a Corporation of New York. Filed Apr. 7, 1908. Serial No. 425,715. (Cl. 173—362.)

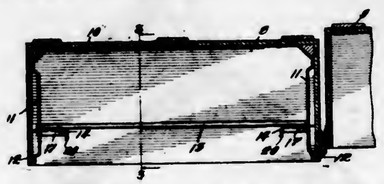


1. A device of the class described, comprising a sleeve and a cap having latching mechanism to prevent separation, said sleeve having notches in its end, and said cap having a horizontally offset portion, and a member bent downwardly from said horizontally offset portion engageable with said notches to prevent relative rotation of the cap and sleeve.

2. A device of the class described, comprising a pair of case members consisting of a sleeve and a cap, one provided with a continuous annular seat and the other having projections interlockable with said seat to prevent separation, said sleeve having notches in its end, and said cap having a horizontally offset portion, and a member bent downwardly from said horizontally offset portion engageable with said notches to prevent relative rotation of the sleeve and cap.

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1,093,222. CLOTHES-RETAINER. GEORGE H. WHEARY, Racine, Wis., assignor to Hartmann Trunk Company, a Corporation of Wisconsin. Filed July 5, 1911. Serial No. 636,930. (Cl. 190—36.)



1. A clothes retainer, comprising a bar retaining member having a rear bracing portion with side portions extending at an angle from the opposite ends thereof, said member adapted to be placed within a trunk and to be fastened to the walls of the trunk, and a retainer bar adjustably connected to the side portions of the member.

2. A clothes retainer, comprising a bar engaging member having a rear portion with side portions extending at an angle from the opposite ends thereof, said member adapted to be placed within a trunk and to be fastened to the three side walls thereof, and a retainer bar adjustably connected to the side portions of the member and having parts which extend around the edges and outer sides of the side portions of the member.

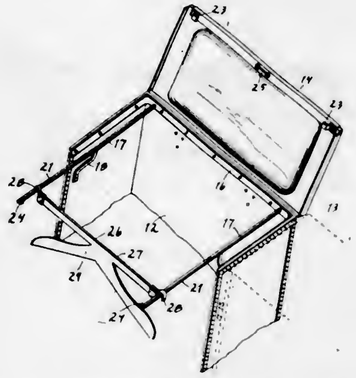
3. A clothes retainer, comprising a retainer bar provided with locking means on opposite ends, and a U-shaped band adapted and constructed to be positioned within a trunk and fastened to the walls thereof, the stem portions of the U-shaped band being in part spaced from the walls of the trunk and provided with openings which are engaged by the locking means, said retainer bar provided with means engaging and holding the said stem and serving to brace the stems of the U-shaped band against lateral movement toward and away from each other.

4. A clothes retainer, comprising a retainer bar, casings positioned on opposite end portions of the bar and provided with shouldered projecting portions, spring actuated bolts carried by the casings, and a U-shaped band adapted and constructed to be positioned within a trunk and fastened to the walls thereof, the stem portions of the U-shaped band extending toward the opening of the trunk and being in part spaced from the walls of the trunk and the spaced portions which are automatically engaged by the locking means when the retainer bar is pressed into the trunk and said shouldered projecting portions also engaging the outer side faces of the stem portions, said retainer bar serving to brace the stems of the U-shaped band against lateral movement toward and away from each other.

5. In combination with a trunk having a garment compartment, of a clothes retainer therefor comprising a U-shaped band positioned within and fastened to the side and rear walls of the garment compartment, the stem portions of the U-shaped band extending toward the opening of the compartment and having portions thereof spaced from the side walls of the compartment and the spaced portions provided with bolt engaging openings, the end portions of said stems being of less width than the spaced portions, a retainer bar, casings positioned on opposite end portions of the bar and provided with shouldered projecting portions which are adapted to removably extend over the edges and backs of the spaced portions of the band, and spring actuated bolts having beveled band engaging ends which are adapted to slide over the bands and enter the bolt openings when the bar is pressed into the compartment, said bar serving to brace the side walls of the compartment against lateral movement toward or away from each other.

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1,093,223. TRUNK. GEORGE H. WHEARY, Racine, Wis., assignor to The Hartmann Trunk Company, Racine, Wis., a Corporation of Wisconsin. Filed May 11, 1912. Serial No. 696,549. (Cl. 190—13.)



1. A trunk, comprising a compartment provided with a cover having a locking means connected thereto, a fixed garment hanger rail mounted within the compartment, and an extensible rail directly engaging the locking means of the cover and adapted to be swung out of the compartment to disengage the locking means and to longitudinally aline with the fixed rail.

2. A trunk, comprising a compartment provided with a cover having a locking member connected thereto, a fixed rail mounted within the compartment, and an extensible rail hinged to the outer end of the fixed rail and directly engaging the locking means of the cover and adapted to be swung horizontally out of the compartment to disengage the locking means and to longitudinally aline with the fixed rail.

3. A trunk, comprising a compartment provided with a cover having locking members connected thereto, fixed rails mounted within the compartment, horizontally movable extensible rails hinged to the outer ends of the fixed rails and adapted to swing horizontally out of the compartment, said extension rails adapted to engage the locking members of the cover and lock said cover in closed position when swung into the compartment.

4. A trunk, comprising a compartment having a cover, a fixed rail mounted within the compartment, and a horizontally movable extensible rail hinged to the outer end of the fixed rail and engaging the cover and adapted to swing horizontally out of the compartment and free from engagement with the cover and to a position in longitudinal alinement with the fixed rail and to be held in extended position thereby.

5. A trunk, comprising a compartment having a cover provided with a medial locking member, fixed rails mounted within the compartment, and extensible rails hinged to the outer ends of the fixed rails and having angular fingers projecting from their free ends which engage the locking member of the cover when swung horizontally into the compartment.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,224. HANGER-FIXTURE FOR TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed May 16, 1913. Serial No. 767,988. (Cl. 190—13.)



1. In combination with a trunk, a hanger fixture therefor comprising a rail mounted within the trunk and provided with an extensible end portion, the free end of said end portion provided with a fixedly connected locking finger and with a fixedly connected locking member which engage portions of the trunk when the extensible end portion is swung to closed position.

2. In combination with a trunk, a hanger fixture therefor comprising a fixed rail mounted within the trunk, an extensible rail hinged to the outer end of the fixed rail and having a projecting tongue, a bracket mounted within the trunk and provided with a downwardly inclined flanged portion which is in the path of movement of the tongue and is engaged thereby, the outer free end of said extensible rail provided with a locking finger and with a locking member which engage portions of the trunk when the extensible end portion is swung to closed position.

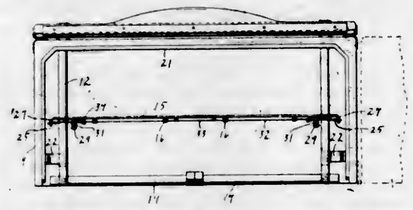
3. In combination with a trunk having a side door and a top cover, a hanger fixture therefor comprising a rail mounted within the body portion of the trunk, an extensible rail hinged to the outer end of said rail and having a projecting tongue adjacent to the connection with said mounted rail, a bracket carried by the top cover and provided with a downwardly inclined flange which is engaged by the tongue to draw the cover downwardly to closed position when the extensible rail is swung inwardly to closed position, the outer free end of the extensible rail provided with a locking finger and with a locking member, and a locking bracket carried by the top cover which is engaged by the locking finger when the extensible arm is swung to closed position, the locking member extending between the abutting edges of the top cover and the side door to hold the locking finger in engagement with the locking bracket.

4. In combination with a trunk having a side door and a top cover, a hanger fixture therefor comprising a pair of fixed rails mounted within the trunk body and positioned on opposite sides of the trunk near the top cover thereof, extensible rails hinged to the outer ends of the fixed rails and having projecting tongues forming part of the hinged connections, brackets carried by the top cover and provided with downwardly inclined flanges which are engaged by the tongues of the extensible rails to draw the cover downwardly to closed position when the extensible rails are swung to closed positions, the outer free ends of the extensible rails provided with angular locking fingers and with locking members, and a locking bracket carried by the top cover which is engaged by the angular locking fingers when the extensible rails are swung to closed position, the locking members extending between the abutting edges of the top cover and the side door to hold the locking fingers in engagement with the locking bracket.



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1,093,225. WARDROBE-TRUNK. GEORGE H. WHEARY, Racine, Wis. Filed Aug. 13, 1913. Serial No. 784,501. (Cl. 190—13.)



1. In a wardrobe trunk, the combination of a wardrobe section, parallel rail sections located in the upper portion of the wardrobe section, and extending forwardly from the rear of said wardrobe section, and on opposite sides thereof, a presser bar mounted on said rail sections, and adapted to travel inwardly and outwardly thereon, locking dogs carried by said presser bar, means normally holding said locking dogs in engagement with the rail sections to prevent outward movement of the presser bar, and means, when operated, for releasing said locking dogs from engagement with the rail sections to permit movement inwardly and outwardly of the presser bar upon said rail sections.

2. In a wardrobe trunk, the combination of a wardrobe section, parallel rail sections located in the upper portion of the wardrobe section and extending forwardly from the rear of said wardrobe section, and on opposite sides thereof, a presser bar mounted on said rail sections, and adapted to travel inwardly and outwardly thereon, locking dogs carried by said presser bar, means also carried by the presser bar for normally holding said locking dogs in engagement with the rail sections to prevent outward movement of the presser bar, and means carried by the presser bar and adapted, when operated, to release the locking dogs from engagement with the rail sections to permit movement inwardly and outwardly of the presser bar upon said rail sections.

3. In a wardrobe trunk, the combination of a wardrobe section, parallel rail sections located in the upper portion of the wardrobe section and extending forwardly from the rear of said wardrobe section, and on opposite sides thereof, a presser bar mounted on said rail sections and adapted to travel inwardly and outwardly thereon, locking dogs carried by said presser bar, means normally holding said locking dogs in engagement with the rail sections, said means preventing outward movement of the presser bar, but permitting inward movement at all times, and means, when operated, for releasing said locking dogs from engagement with the rail sections, to permit free movement inwardly and outwardly of the presser bar upon said rail sections.

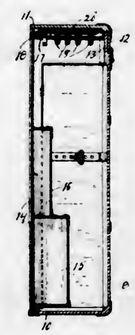
4. In a wardrobe trunk, the combination of a wardrobe section, parallel rail sections located in the upper portion of the wardrobe section and extending forwardly from the rear of said wardrobe section, and on opposite sides thereof, outer rail sections hinged to the fixed rail sections, and adapted, when turned outwardly, to be alined longitudinally with the fixed rail sections, a presser bar mounted on said rail sections, and adapted to travel inwardly and outwardly thereon, locking dogs carried by said presser bar, means normally holding said locking dogs in engagement with the rail sections, said means preventing outward movement of the presser bar, but permitting inward movement thereof at all times, and means, when operated, for releasing said locking dogs from engagement with the rail sections, to permit free movement inwardly and outwardly of the presser bar upon said rail sections.

5. In a wardrobe trunk, the combination of a wardrobe section, parallel rail sections located in the upper portion of the wardrobe section, and extending forwardly from the rear of said wardrobe section, and on opposite sides thereof, a presser bar mounted on said rail sections, and adapted to travel inwardly and outwardly thereon, locking dogs tiltingly carried by the presser bar, said locking dogs provided with openings through which the rail sections pass, means for normally holding the locking dogs in a tilted position so as to cause a binding of the bordering edges of the openings of the locking dogs against the rail sections, and thereby cause a locking of the presser bar and dogs against outward movement, and means for tilting the locking dogs to a substantially straight position to permit of free movement inwardly and outwardly on the rail sections of the presser bar and locking dogs.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,226. INSIDE PAD FOR TRUNKS. GEORGE HENRY WHEARY, Racine, Wis. Filed Jan. 30, 1914. Serial No. 815,333. (Cl. 190—13.)



1. A wardrobe trunk, comprising a trunk body divided vertically into two sections which are hinged together, one of said sections having an upper open end, a cover hinged to the trunk body for closing said open end, garment hanger tracks mounted in the upper portion of the open ended section, garment hangers slidably mounted on said tracks, and a pad interposed between the cover and the garment hangers and into which the garment hangers are adapted to embed when the cover is in closed position.

2. A wardrobe trunk, comprising a trunk body divided vertically into two sections which are hinged together, one of said sections having an upper open end, a cover hinged to the trunk body for closing said open end, garment hanger tracks mounted within the upper portion of the open ended section on the opposite side walls of said section, garment hangers extending transversely across the open ended section and slidably mounted on said tracks, and a pad interposed between the cover and the tracks and engaging the portions of the hangers between the tracks, the said pad being of greater thickness than the distance between the cover and the upper edge portions of the garment hangers to cause the said hangers to embed into the pad when the cover is closed.

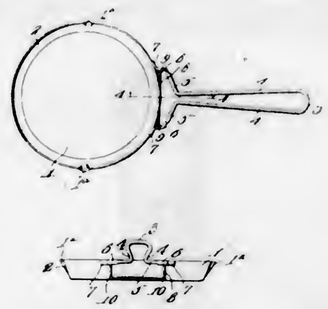
3. A wardrobe trunk, comprising a trunk body divided vertically into two sections which are hinged together, one

of said sections having an upper open end, a cover hinged to the trunk body for closing said open end, garment hanger tracks mounted within the upper portion of the open ended section on the opposite side walls of said section, garment hangers extending transversely across the open ended section and slidably mounted on said tracks and a loose pad interposed between the cover and the tracks and engaging the portions of the hangers between the tracks, the said pad being of greater thickness than the distance between the cover and the upper edge portions of the garment hangers to cause the said hangers to embed into the pad when the cover is closed.

4. A wardrobe trunk, comprising a trunk body divided vertically into two sections which are hinged together, one of said sections having an upper open end, a cover hinged to the trunk body for closing said open end, garment hanger tracks mounted within the upper portion of the open ended section on the opposite side walls of said section, garment hangers extending transversely across the open ended section and slidably mounted on said tracks, and a pad removably positioned between the cover and the garment hangers, the said pad being of greater thickness than the space between the cover and the upper edge portions of the garment hangers to cause the hangers or clothes draped thereon to embed into the pad.

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1,093,227. COOKING UTENSIL. ENOCH S. WHEELER, Moline, Ill. Filed Oct. 11, 1912. Serial No. 725,331. (Cl. 53—7.)



1. A cooking utensil comprising a pan; a loop-shaped handle comprising arms secured to the pan; and a loop-shaped prop having its ends secured to the arms, the lowermost portion of the prop being upwardly arched to define spaced supporting points at the sides and at the bottom of the prop.

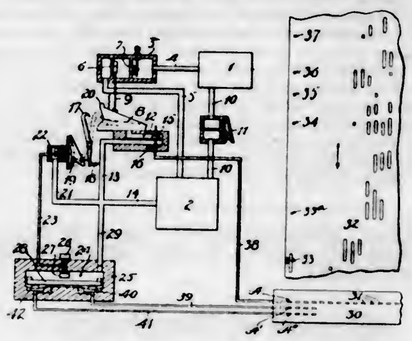
2. A cooking utensil comprising a pan; a U-shaped handle comprising arms rigidly secured to the outer face of the pan; and a U-shaped prop having its ends disposed between the arms and rigidly secured to the adjacent, inner faces only of the arms.

3. A cooking utensil comprising a pan; a loop-shaped handle including arms provided with lateral extensions, the extensions being thinned parallel to the plane of the handle and being broadened transversely of the plane of the handle, the ends of the extensions terminating in laterally extended feet secured to the pan; and a loop-shaped prop having flattened ends secured to the thinned parts of the extensions.

4. A cooking utensil comprising a pan; a U-shaped handle comprising arms secured to the pan; and a U-shaped prop, the extremities of which are secured to the arms.

5. A cooking utensil comprising a U-shaped wire handle including converging arms provided with diverging extensions, the ends of the extensions being approximately parallel and terminating in laterally extended feet; a pan secured to the feet; and a prop supported by the approximately parallel ends of the extensions.

1,093,228. EXPRESSION-CONTROLLER. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Jan. 27, 1913. Serial No. 744,280. (Cl. 84—168.)



1. In a player piano having a tracker-board, a pneumatic action, an exhauster, a regulated low tension air circuit leading from the former to the latter, means for abruptly increasing the tension in the action above the regulated tension, controllable from the tracker-board, a group of expression openings arranged in said tracker, the openings of said group being arranged in the line of travel of the note sheet across said tracker in combination with a note sheet having complementary expression perforations arranged in line, one of said perforations being sufficiently long to bridge at least two of said expression openings.

2. In a player piano having a tracker-board, a pneumatic action, an exhauster, a regulated low tension air circuit leading from the former to the latter, means for abruptly increasing the tension in the action above the regulated tension, controllable from the tracker-board, a group of expression openings arranged in said tracker, the openings of said group being arranged in the line of travel of the note sheet across said tracker, said group of openings comprising one opening for abruptly increasing the tension in said action, and means for locking the tension-controlling means in position to prolong the increased tension with at least two openings in the tracker to control said means.

3. In a player piano, a tracker-board having a group of expression controlling openings arranged substantially in the line of travel of the note sheet and arranged to be uncovered by substantially one line of note sheet perforations for controlling the operation of said pneumatic instrument, in combination with a note sheet having a series of perforations arranged substantially in line and arranged to traverse said group of tracker openings, one of said note sheet perforations being of sufficient length to bridge all of one group of tracker openings, a relatively shorter complementary note sheet perforation of a size incapable of bridging all of the openings of a group and arranged in the rear of the longer perforation, and another perforation of a size sufficient to open only one of the tracker openings of said group and arranged to operate independently of the first two described perforations and also located in the rear of the second mentioned note sheet perforation.

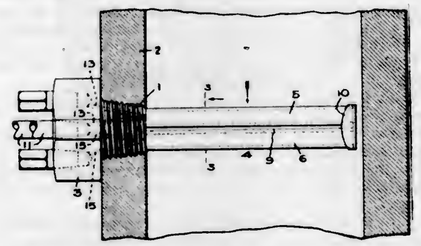
4. In a player piano, an action, an exhauster, a regulated circuit leading from the former to the latter for maintaining relatively low tension, means for abruptly increasing the relative tension in the action, including suitable normally closed choker mechanism and also a pneumatic for operating said choker mechanism, a tracker-board, means controllable from the tracker-board for putting said pneumatic in communication with the atmosphere or with the exhauster at will to cause said pneumatic to become distended or contracted, a latch mechanism for holding said pneumatic contracted, a latch operating pneumatic, and means for putting said latch operating pneumatic in communication with either the exhauster or atmosphere to operate the same, said means being controllable from said tracker-board, said means including a valve with a valve-operating device controllable by two pneumatics, the latter being respectively connected with two openings in the tracker-board in addition to the opening by which the choker pneumatic is controlled, all of said openings in said tracker being arranged in substantial alinement in the direction of travel of the note sheet to comprise one group.

5. In a player piano of the pneumatic type, a pneumatic action, an exhauster connected therewith, means for effecting a normal regulated low tension in the action relatively to the tension in the exhauster, means for increasing the tension in the action including a normally closed choker with a pneumatic for opening and closing said choker, said pneumatic also being in communication with the said exhauster, a normally closed valve in the line of said communication, a primary pneumatic for controlling said valve, said primary pneumatic being controlled from the tracker-board and including a duct leading from said primary pneumatic to an opening in the tracker-board, two additional openings in the tracker-board directly behind the first-mentioned opening relatively to the direction of travel of a note sheet, with means in communication with the last mentioned two openings, and including a latch for locking the choker pneumatic open in the choker opening position when all of said openings are uncovered at one time, and means for releasing said latch and freeing said choker pneumatic when the first mentioned opening is next uncovered, in combination with a note sheet having the alined perforations for coacting with said openings, one of said perforations being long enough to open all of said tracker openings at one time, and other perforations long enough to open only one of said tracker openings at a time.

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1,093,229. PITOT PLUG FOR FLUID-METERS. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Aug. 5, 1912. Serial No. 713,285. (Cl. 73—167.)



1. A Pitot device comprising two channels open to the action of the flowing fluid to be metered and communicating with one another independently of the means for indicating their pressure difference so that during operation water of condensation may pass from one channel to the other.

2. A Pitot plug provided with two members that are acted upon by the flowing fluid, and having means independent of that for indicating the pressure difference produced by said members for transferring water of condensation from one member to the other during operation.

3. A Pitot plug comprising two parallel tubes open to the action of the fluid to be metered and means independent of that for indicating the pressure difference produced by said members for transferring from one tube to the other water of condensation filling said tubes.

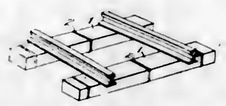
4. A Pitot plug comprising two parallel tubes open to the action of the fluid to be metered, and means independent of that for indicating the pressure difference produced by said members whereby the water of condensation filling said tubes can pass from one to the other while the plug is in operation.

5. A Pitot plug comprising two parallel tubes communicating along their adjacent sides and having a longitudinal opening to permit the fluid to be metered to act upon the water of condensation filling said tubes.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,230. METHOD OF PRESERVING RAILWAY-TIE TIMBER AGAINST INJURY FROM SPLITTING AND DECAY. WILLIAM ERASTUS WILLIAMS, Chicago, Ill. Filed Sept. 26, 1913. Serial No. 791,963. (Cl. 238—1.)



1. The method of preserving ties which consists in compressing the corners and body of the tie timber at intervals of its length, and while compressed securing a metal band tightly around the tie at the compressed places.

2. The method of preserving the timber of ties which consists in compressing the corners and body of the tie stick and banding it with metal bands at the zones of compression.

3. The method of preserving the timber of ties which consists in compressing the corners of the tie at intervals of its length and applying bands around the tie at the compressed points and welding the bands when the same are in compression on the tie.

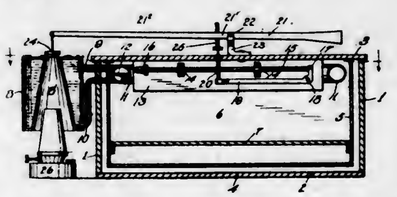
4. A method of preserving the timber of ties which consists in drawing around the body of the tie at intervals of its length metal bands under great tension and welding the same integrally when they are under tension.

5. A method of preserving the tie timber which consists in applying metal bands around the tie at intervals of its length and then coating the zones occupied by the bands with a preserving coating material.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,231. INCUBATOR. THOMAS WILSON, Seattle, Wash., assignor of one-half to Paul Wilson, Seattle, Wash. Filed May 7, 1912. Serial No. 695,713. (Cl. 236—5.)



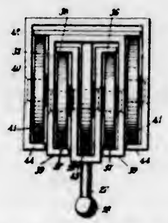
1. In an incubator, the combination with a water heater having a vertical draft flue, a balance lever pivotally mounted upon the top of the incubator, a damper upon one end of said lever arranged for movement over said draft flue, a wooden plate edge-wise positioned within said incubator longitudinally and secured to the top thereof, an expansion rod longitudinally slidably positioned upon one side of said plate, a fixed stop upon said plate abutting against one end of said rod, a bell crank pivoted to said plate at the opposite end thereof from said stop and having a short end engaging the opposite end of said rod, a vertically-disposed pin rigidly mounted in the other and longer of said arms of said crank and positioned substantially centrally of said rod, and an adjusting member secured in said lever in contact with the upper end of said pin.

2. In an incubator, the combination with a water heater having a draft flue, water tubes arranged in the incubator and communicating with said heater, a removable cover for said incubator, a balance lever pivoted upon the top

of said cover, a longitudinal plate secured along one of its side edges to the under face of said cover, an expansion rod mounted on one side of said plate, a bell-crank lever having a relatively long and short arm pivoted to said plate, said plate provided with means engaging one end of the rod to prevent the expansion of the rod in one direction, the other end of said rod engaging the short arm of said lever, the end of the longer arm provided with a flattened portion, and a pin extending through said cover engaging at its upper end the balance lever adjacent the pivot point and resting at its lower end upon the bell-crank lever.

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1,093,232. SUPPORT FOR GARMENT-HANGERS. AARON WOLF, New York, N. Y., assignor to Fannie Wolf, New York, N. Y. Filed Dec. 6, 1909. Serial No. 531,564. (Cl. 211—15.)



1. A garment hanger support, including depending stationary side walls, two opposed channels having the side flanges of one extending toward the side flanges of the other, and one of said channels and the edges of the flanges of the other channel being disposed between and concealed by said side walls, said channels being held rigid in respect to each other and movable longitudinally in respect to said side walls, a roller disposed between said channels and extending between the flanges and adjacent to the web of each, and a support for said roller extending horizontally between said channels and supported at opposite ends by said side walls.

2. A garment hanger, including a channel having a web and depending side flanges, a second channel having a web, upwardly-extending flanges between the depending flanges of the first-mentioned channel, inwardly-extending flanges on the free edges of the flanges of the first-mentioned channel, outwardly-extending flanges at the free edges of the flanges of the second-mentioned channel and serving to reinforce the latter, and a roller journaled on each channel and having engagement with the other channel, to support one channel from the other and permit of their relative longitudinal movement.

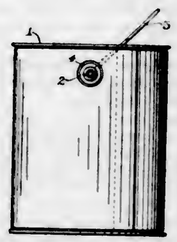
3. A garment hanger support including a member movable longitudinally and having a channel provided with side flanges, each terminating in an outwardly-extending flange for the reinforcement of said channel, a roller mounted to rotate upon a horizontal axis and serving to support said channel, and means carried by said channel for supporting a plurality of garment hangers.

4. A garment hanger support, including two channel members held rigid in respect to each other and having their open sides facing toward each other, a roller supported between the flanges of both of said channels, and a pivotal support therefor projecting outwardly from between said channels, and said roller serving as a support for said members and permitting of the limited longitudinal movement thereof.

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1,093,233. LABEL FOR CANS. JOHN G. WOOD, Detroit, Mich. Filed Apr. 26, 1912. Serial No. 693,350. (Cl. 40—2.)

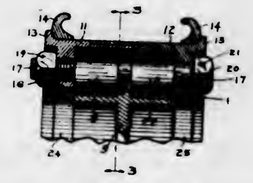
A label for receptacles having bail ears comprising a strip having a length greater than the circumferential length of the receptacle to provide overlapping ends of the label when applied to the receptacle, said label having perforations spaced from the side edges and free from communication therewith, said perforations having a configuration corresponding to the base of the bail ears of the receptacle and positioned to permit the passage there-



through of the ears when the label is snugly fitted to the receptacle body, the walls of the perforations and the bail ears coöperating to retain the label against shifting when in position.

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1,093,234. FELLY-BAND AND RIM FOR WHEELS. CHARLES H. ALBERT, Indianapolis, Ind., assignor of one-half to Edward A. Potter and J. Carlyle Luds, Indianapolis, Ind. Filed Nov. 11, 1913. Serial No. 800,278. (Cl. 152—21.)



1. In a wheel, a rim, a plurality of cam-bolts extending transversely of and located on the side of the rim toward the axis of the wheel and rotatively secured to the rim, and a felly-band adjacent to the rim having indentations in which the bolts and cams are assembled and to which the rim is locked by the contact of the cams with said band.

2. In a wheel, a rim having inwardly projected ears in pairs, a bolt for each pair of ears journaled in holes in the ears, a pair of spaced-apart cams on each bolt and a felly-band adjacent the rim having indentations to receive the bolts and cams, each indentation having a rib transverse thereto to enter the space between said pair of cams.

3. In a wheel, a rim having ears in oppositely disposed pairs, a bolt for each pair of ears journaled in holes in the ears, a pair of spaced-apart cams on each bolt, a felly band adjacent to the rim receiving the bolts and cams between it and the rim and an external circumferential rib on the felly band to enter the space between said pair of cams when the cams are in contact with the felly band.

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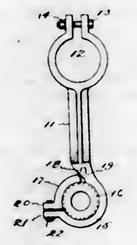
1,093,235. TROLLEY-WIRE-FEED-TAP INSULATOR. ELLIOT LANDON ALVORD, Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 27, 1913. Serial No. 786,853. (Cl. 173—251.)

1. A feed tap insulator having a metallic hanger with a clamp at its upper end and a supporting hook at its lower end, an insulating bushing supported by the hook, said bushing having flanges at its ends which by engagement with the walls of the hook prevent the longitudinal movement of the bushing, and a clamp plate removably connected with the hook for binding and securing said insulator in place in the hook.

2. A feed tap insulator consisting of a hanger, a clamp at the upper end of the hanger, a hook at the lower end



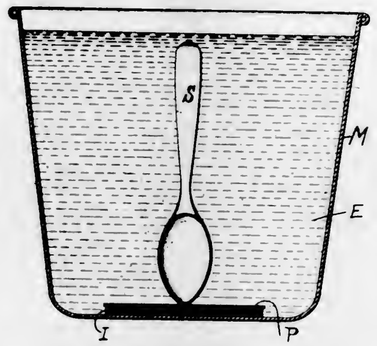
of the hanger, an insulator supported by the hook, and a clamp for the insulator having its upper end extending



into an opening in the lower end of the hanger and having its lower end fastened to the outer end of said hook.

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1,093,236. ELECTROLYTIC-CLEANING ELECTRODE. THOMAS APPLEBY, Philadelphia, Pa. Filed June 24, 1913. Serial No. 775,465. (Cl. 204—7.)




1. As an article of manufacture, a unit consisting of an electro-positive electrolytic cleaning element and insulating material attached thereto for supporting said element in and electrically separating the same from a metallic container of electrolytic solution.

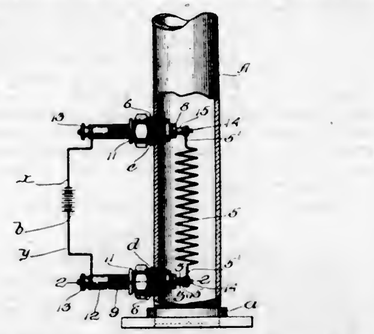
2. As an article of manufacture, a unit consisting of a zinc electrolytic cleaning plate and insulating material attached thereto for supporting said plate in and separating the same electrically from a metallic container of electrolytic solution.

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1,093,237. ELECTRIC HEATER. GEORGE A. ARNOLD, Middletown, Conn., assignor to Arnold Electric Company, a Corporation of Massachusetts. Filed Mar. 19, 1913. Serial No. 755,304. (Cl. 219—38.)

1. An electric heater comprising a pipe having a pair of openings spaced apart, a pair of bushings removably fitting said openings, terminals mounted in said bushings, and an electric heating element of less diameter than one of said openings carried by said terminals whereby said heating element may be introduced through one of said openings.

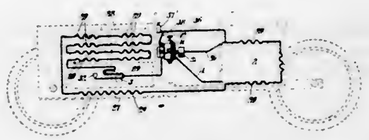
2. An electric heater comprising a pipe having a pair of openings spaced apart, a pair of bushings removably fitting said openings, terminals mounted in said bushings, and a spiral distensible heating coil of less diameter than one of said openings connected at its ends to said terminals whereby one of said terminals and its bushing may be removed and said coil distended to permit the disengagement thereof from its terminal to permit the



removal of said coil with the other of its terminals and bushings through the other of said openings.

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1,093,238. AUTOMATIC SHUT-OFF. JAMES E. BALDWIN, Hempstead, N. Y., assignor of one-half to Frederick N. Van Zandt, Brooklyn, N. Y. Filed Nov. 22, 1912. Serial No. 732,935. (Cl. 137—92.)



1. An automatic shut-off for fuel for internal combustion engines comprising, in combination with the fuel conduit and the air pressure conduit and a normally closed vent for the air pressure conduit, a normally open valve arranged in control of the fuel conduit, valve operating means adapted to close the valve and open the vent, and a thermostatic device adapted to be arranged in proximity to the engine and associated parts and operative to permit the actuation of the valve operating means under the influence of excessive heat.

2. An automatic shut-off for fuel for internal combustion engines comprising, in combination with the fuel conduit and the air pressure conduit and a normally closed vent for the air pressure conduit, a normally open valve arranged in control of the fuel conduit, valve operating means adapted to close the valve and open the vent, and a thermostatic system having fire-detecting parts adapted to be arranged in proximity to the engine and associated parts at a plurality of points and operative to permit the actuation of the valve operating means under the influence of excessive heat at any fire-detecting part.

3. An automatic shut-off for fuel for internal combustion engines comprising, in combination with the fuel conduit, a valve having a bias to closed position arranged in control of the conduit, restraining means arranged to normally hold the valve open, and a thermostatic device operatively related to the restraining means and adapted to extend about the engine and associated parts and operative under the influence of excessive heat at any point throughout its length to release the valve from the restraining means and permit it to close.

4. An automatic shut-off for fuel for internal combustion engines comprising, in combination with the fuel conduit, a valve arranged in control of the conduit, resilient means tending to close the valve, a latch device arranged to normally lock the valve open against the tention of the resilient means, and a thermostatic device op-

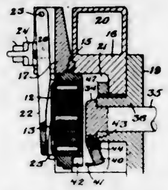
eratively related to the latch and adapted to extend about the engine and associated parts and operative under the influence of excessive heat at any point throughout its length to release the latch and permit the valve to close.

5. An automatic shut-off for internal combustion engines comprising, in combination with the fuel conduit, a tube containing expansive fluid adapted to extend about the engine and associated parts and to develop increased pressure of the fluid under the influence of excessive heat at any point throughout its length, and normally open valvular means arranged in control of the conduit and biased to closed position and connected with the said tube and controlled by said increase in fluid pressure therein to assume its biased position.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,239. SHUTTLE-DRIVING MECHANISM. HARRIE A. BALLARD, Boston, Mass., assignor to The Boylston Manufacturing Company, South Boston, Mass., a Corporation of New Jersey. Filed Sept. 29, 1908. Serial No. 455,330. (Cl. 112—22.)



1. Shuttle driving mechanism comprising a circular shuttle race, a shuttle movable therein, a rotary driver arranged to engage and drive the shuttle, a pivot carried by said driver, a member arranged upon said pivot to rotate with the driver, said member and shuttle having faces adapted to coact, and means for turning said member about its pivot to engage the shuttle and advance it from said driver, said member being retractable from the path of the shuttle and from the path of the loop of thread which passes over the shuttle.

2. Shuttle driving mechanism comprising a circular shuttle race, a shuttle movable therein, a rotary driver arranged to engage and drive the shuttle, a pivot mounted on and carried by said driver, an oscillatory member arranged on said pivot so as to be movable toward and from the shuttle, said shuttle and said oscillatory member having coactive faces, a fixed cam arranged to engage the back of said member to cause it to engage the shuttle and move it ahead of the driver, and spring-tension means for retracting said oscillatory member.

3. Shuttle driving mechanism comprising a circular shuttle race, a shuttle movable therein, a rotary driver arranged to engage and drive the shuttle, a member pivotally mounted on and carried by the driver so as to be adapted to engage the shuttle, said member and shuttle having coactive faces adapted to move the shuttle ahead of the driver, and said member having an inclined face arranged to guide the loop of needle thread between said follower and the shuttle.

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1,093,240. WIRELESS-TELEGRAPH RECEIVER. JOHN GROEME BALSILLIE, Melbourne, Victoria, Australia. Filed Feb. 10, 1914. Serial No. 817,762. (Cl. 250—8.)

1. A wireless telegraph receiver comprising a looped absorbing circuit the legs of which are connected to a master capacity, one of said legs containing a reactance variometer and a variable condenser and the other of said legs containing a variable condenser, an oscillation circuit shunted around said last mentioned condenser and containing a variable condenser and an inductance, and a detector circuit inductively coupled to said oscillation shunt and including a telephone receiver, a variable condenser in parallel with said receiver, and a quantity detector in series with said last named condenser.

2. A wireless telegraph receiver comprising a looped absorbing circuit having legs, both of which are connected to a master capacity, one leg including a variometer reactance and a variable condenser, the other leg including a variable condenser, and a shunt circuit connected around said condenser, said shunt circuit itself including a variable condenser and a variable inductance which forms the primary of a coupling transformer and by means of which said shunt circuit can be tuned to the oscillation frequency of the received waves, and a detector circuit coöperating with said shunt circuit and including an inductance which forms the secondary of said transformer, a quantity detector, a variable condenser, and a telephone receiver, said last named condenser and said telephone receiver being connected in parallel.



3. In a wireless telegraph receiver, in combination, a looped absorbing circuit having both of its legs connected to the earth, each of said legs including a variable condenser, one of said condensers being connected in parallel with a shunt circuit and the other of said condensers being connected in series with a variometer reactance, said shunt circuit including a variable condenser and a variable inductance connected in series, said inductance forming the primary of a coupling transformer; and a detector circuit coöperating with said shunt circuit and including an inductance which forms the secondary of said transformer, a quantity detector arranged in series with said inductance, and a variable condenser connected in series with said quantity detector, there being a telephone earpiece shunted around said last named condenser.

4. In a wireless telegraph receiver the combination with a looped absorbing circuit having legs, both of which are connected to a master capacity, each of said legs including a variable condenser and at least one of said legs having therein a reactance variometer; of a shunt circuit connected around each of said condensers, each of said shunt circuits comprising an additional variable condenser in circuit with a variable inductance, which inductance forms the primary of a coupling transformer; together with a detector circuit which includes an inductance common to both of said variable inductances and forming the secondary of a transformer which is adapted to be energized by either of said primaries, said detector circuit also including a quantity detector and a variable condenser in series with said secondary; and a telephone earpiece in parallel with said last named variable condenser.

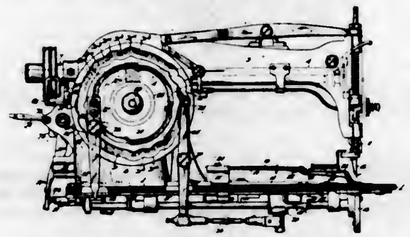
5. A wireless telegraph receiver comprising, in combination, a looped absorbing circuit having two legs both of which are grounded, a variometer reactance in each of said legs, a variable condenser in each leg and arranged in series with the corresponding variometer reactance, a shunt circuit connected around each of said condensers, each of said shunt circuits itself containing a variable condenser arranged in series with a variable inductance, each of said variable inductances forming the primary of an air core transformer; together with a detector circuit comprising an inductance which forms the secondary of said transformer and is arranged to coöperate with either of both of said primaries, means for detecting the existence of waves in said detector circuit, and means for tuning said detector circuit.

[Claim 6 not printed in the Gazette.]



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1,093,241. BUTTON-SEWING MACHINE. WILLIAM L. BARRON, New York, N. Y., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Oct. 5, 1911. Serial No. 652,936. (Cl. 112—32.)



1. In a button sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, a button-holder, and means for producing between the needle and the button-holder in each stitching cycle series or successions of relative lateral jogging movements and intermediate said series or successions of jogging movements relative side-shift movements transverse thereto, of means for cutting the needle-thread beneath the work at the completion of each series of jogging movements preceding a side-shift movement.

2. In a button sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, a button-holder, and means for producing between the needle and the button-holder during each complete stitching cycle series or successions of relative lateral jogging movements and intermediate said series or successions of jogging movements relative side-shift movements transverse thereto, of a needle-thread cutting device, and means whereby said cutting device may be actuated to cut the needle-thread a plurality of times in each stitching cycle.

3. In a button sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, a work-holder, and means for producing between the needle and the work-holder during each complete stitching cycle series or successions of relative lateral jogging movements and intermediate said series or successions of jogging movements relative side-shift movements transverse thereto, a stop-motion device for arresting the action of the stitch-forming mechanism, and automatically acting means for repeatedly tripping said stop-motion device into action during each stitching cycle, of a thread-cutting device for severing the thread, and means connected with a moving part of the machine for actuating said cutting device after each actuation of the stop-motion device.

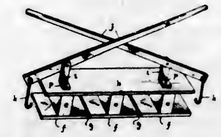
4. In a button sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, a button-holder, means for producing relative lateral jogging movements between the needle and the button-holder, and means for producing relative side-shifting movements between the needle and the button-holder, whereby button-fastening stitches may be produced in spaced and connected groups, of means for arresting the action of the stitch-forming mechanism intermediate said groups of fastening stitches, and means for adjusting the side-shifting means to render the same either effective or ineffective.

5. In a button sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, a button-holder, means for producing relative lateral jogging movements between the needle and the button-holder to form a plurality of fastening stitches and for then interrupting the said jogging movements while the needle continues to reciprocate for production of a series of tying stitches, and means for producing relative side-shifting movements between the needle and the button-holder after completion of each series of tying stitches, of means for arresting the action of the stitch-forming mechanism at the completion of each series of tying stitches, and means for adjusting the side-shifting means to render the same either effective or ineffective.

[Claim 6 not printed in the Gazette.]

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1,093,242. BLOCK-MOLDING MACHINE. WILLIAM HENRY BARTEN, Gordon, Nebr. Filed June 24, 1910. Serial No. 568,754. (Cl. 25—120.)



An apparatus for molding blocks comprising a pallet, a form open at its upper and lower sides adapted to rest upon the pallet and provided at its ends with rods, a flat plate, levers fulcrumed upon the plate, hooks carried by the levers and engageable with the rods, supports attached to the underside of the said plate and a plate carried by the supports and adapted to fit within the form, the parts being so arranged that when the last mentioned plate is moved into the form the material in the form is compressed between the said plate and the pallet and the sides of the form.

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1,093,243. ARTIFICIAL WREATH. MARTIN L. BEISTLE, Shippensburg, Pa., assignor to The Beistle Company, Inc., Shippensburg, Pa. Filed May 7, 1913. Serial No. 766,105. (Cl. 41—12.)



1. In an imitation wreath, a frame, elements arranged thereon and comprising the wreath proper, one of said elements having a marginal notch receiving a portion of another element whereby the elements are held against relative displacement.

2. In an artificial wreath, a frame, elements arranged thereon and comprising the wreath proper and having stem portions, one of said elements having a marginal notch receiving the stem portion of another element whereby the elements are held against relative displacement.

3. In an imitation wreath, a frame, leaf and berry or similar elements arranged thereon and comprising the wreath proper, each leaf element having a marginal notch receiving a portion of the berry or similar element whereby the said elements are held against relative displacement.

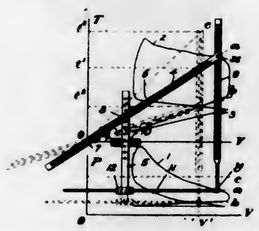
4. In an imitation wreath, a frame, leaf and berry or similar elements arranged thereon and comprising the wreath proper, each of the berry or similar elements being arranged at the base of one of the leaf elements and each leaf element being provided with a marginal notch receiving the berry element of the next adjacent leaf element.

5. In an imitation wreath, a frame, elements arranged thereon and comprising the wreath proper, the said elements each including a stem portion attached to the frame and one element having a marginal notch receiving the stem of the next adjacent element.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,244. RECORDER. CHARLES W. BERRY, West Somerville, Mass. Filed Mar. 5, 1910. Serial No. 547,417. (Cl. 234—21.)



1. In a recording apparatus for recording the entropy variations of a gas the combination with means responsive to the pressure variations thereof of means responsive to the volume variations and means actuated by said two responsive means for automatically recording in units of entropy the entropy variations of the gas.

2. In a recording apparatus for recording the temperature variations of a gas the combination with means responsive to the pressure variations thereof of means responsive to the volume variations and means actuated by said two responsive means for automatically recording the temperature variations of the gas.

3. In an indicator the combination with a marker of a recording surface, a pressure-actuated director, a volume director and a logarithmic director for transmitting the movement of one of said directors to produce a relative displacement between the marker and recording surface.

4. In a recording apparatus the combination with a follower of a pair of directors movable simultaneously but independently, connections for imparting a movement to said follower proportional to the movement of one director, and means for imparting to said follower a movement at right angles thereto derived from the joint movements of said directors.

5. In a recording apparatus the combination with a follower of a pair of directors movable simultaneously but independently and connections for imparting to said follower a movement proportional to the product of the movements of said two directors.

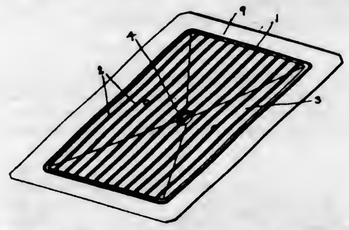
[Claims 6 to 22 not printed in the Gazette.]

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1,093,245. BROILER. WILLIAM J. BEST, Detroit, Mich., assignor to Best Stove Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 18, 1912. Serial No. 732,046. (Cl. 53—5.)

1. The herein described meat broiler consisting of a plate having a raised border and having the portion within the border sloping downward from all sides toward an aperture, a receptacle below the aperture and a bracket connected to the bottom of the plate having upturned edges to position and support said receptacle below the aperture.

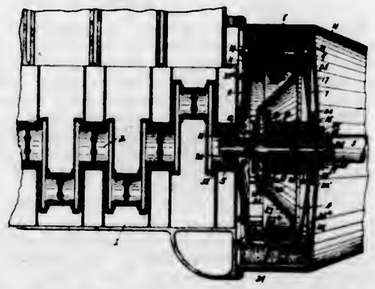
2. The herein described meat broiler consisting of a plate sloping downward from all sides toward an aperture, a receptacle below the aperture, and a bracket connected to the bottom of the plate to position and support



said receptacle below the aperture, said bracket having front and rear flanges to position said receptacle.

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1,093,246. FLY-WHEEL. HENRY L. BOCK, Toledo, Ohio, assignor to William E. Bock, Toledo, Ohio. Filed Apr. 10, 1911. Serial No. 620,215. (Cl. 74—6.)



1. An article of the class described, having a rim portion and laterally-spaced disk-like web members of sheet-metal secured at their outer edges to the rim portion, one of said members having an integral outwardly projecting central portion forming a trunnion and the other having an integral inwardly projecting central portion forming a broadened hub bearing surface.

2. An article of the class described, having a rim portion and laterally-spaced outwardly dished disk-like web members of sheet-metal, one of said members having an integral outwardly projecting central part of cylindrical form with its end partly closed to provide a trunnion and the other of said members having an integral inwardly projecting central part providing a broadened hub bearing surface.

3. In combination, a shaft, a wheel having a rim portion and sheet-metal web members, one of which has an integral outwardly projecting central part forming a trunnion and the other having an integral laterally projecting central portion providing a broadened hub opening for the shaft to project through, and bearing members disposed between said shaft and said laterally turned portion of the web member.

4. In combination, a shaft, a wheel comprising a rim portion and sheet-metal web members, one of which has an integral inwardly projecting central portion providing a broadened hub opening for the shaft to project through, a casing part having a cylindrical bearing portion projecting within the hub opening of said web member, and bearing members coöperating with said shaft, cylindrical casing part and inwardly-projecting portion of the web member to carry the wheel.

5. In combination, a shaft, a wheel having a rim portion and sheet-metal web members, one of which has an integral outwardly projecting central portion forming a trunnion and the other having an integral inwardly projecting central portion forming a broadened hub opening for the shaft, a casing part inclosing a part at least of



the wheel and having a cylindrical bearing portion projecting within said inwardly projecting portion of one of said web members, and members coöperating with said shaft and cylindrical casing part to form a bearing for the inwardly projecting portion of the web member.

[Claims 6 to 9 not printed in the Gazette.]

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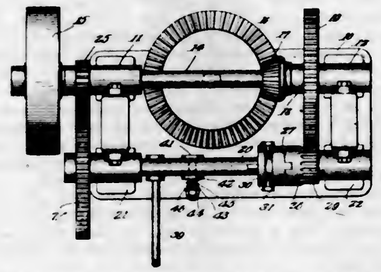
1,093,247. CELLULOSE FORMATES AND PROCESS OF MAKING SAME. OTTO BONHOEFFER, Elberfeld, and HUGO GUNTRUM, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 27, 1910. Serial No. 589,449. (Cl. 23—24.)

1. The process of producing cellulose esters of fatty acids, which consists in treating cellulose compounds with a reagent containing the radical of a fatty acid in presence of a chlorin derivative of sulfuric acid, substantially as and for the purpose specified.

2. The process of producing the formic acid ester of cellulose, which consists in treating cellulose with formic acid in presence of a chlorin derivative of sulfuric acid, substantially as and for the purpose specified.

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1,093,248. DRIVING MECHANISM. LIONEL F. BOWERS, Columbia, Pa., assignor to Columbia Manufacturing Company, Columbia, Pa. Filed May 16, 1912. Serial No. 697,751. (Cl. 74—59.)



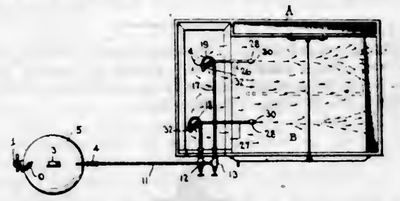
1. A driving mechanism including a driving shaft, a pinion loosely mounted on said shaft, a gear fixed to said pinion, a counter shaft, meshing gears carried by said first mentioned shaft and said counter shaft, a clutch member loosely mounted on the counter shaft, a gear fixed to said clutch member and arranged to mesh with the gear which is fixed to the pinion mounted on the first shaft and a clutch member splined on the counter shaft for locking the first mentioned clutch member to the shaft.

2. In a driving mechanism, a support, a driving shaft, a gear loosely mounted upon said shaft, a gear fixed to said shaft, a counter shaft driven by said gear, a sleeve loosely mounted upon said counter shaft, a gear mounted upon said sleeve, said sleeve being formed with a clutch face, a clutch member splined upon said shaft, a pivoted bifurcated member having an operative connection with said member, a lever having a link connection with said members and a rock shaft for imparting movement to said lever to actuate said clutch.

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1,093,249. OIL-BURNER. JAMES H. BOWLING, Russellville, Ky. Filed Dec. 16, 1913. Serial No. 807,034. (Cl. 158—63.)

1. A liquid fuel burner, comprising in combination, a T, a supply pipe entering said T, a needle valve secured to each end of said T, a nipple extending from each valve, a fuel pipe extending from each nipple, said pipes held in parallel spaced relation each ending in a recurved portion from which is continued at right angles a threaded end section, said end sections held in parallel spaced relation, one of said pipes being shorter than the other, a burner head secured at right angles to each end section, a burner pipe bent L-shaped extending from each head, one end of each burner pipe continued through the bend of one fuel pipe, the other ends of said burner pipes extending in parallel spaced relation at right angles to and above said fuel pipes.



2. A liquid fuel burner, comprising in combination, a T, a supply pipe entering said T, a needle valve secured to each end of said T, a nipple extending from each valve, a fuel pipe extending from each nipple, said pipes held in parallel spaced relation each ending in a recurved portion from which is continued at right angles a threaded end section, said end sections held in parallel spaced relation, one of said pipes being shorter than the other, a burner head secured at right angles to each end section, a burner pipe bent L-shaped extending from each head, one end of each burner pipe continued through the bend of one fuel pipe, the other ends of said burner pipes extending in parallel spaced relation at right angles to and above said fuel pipes, and a burner tip secured to each of said heads.

3. A liquid fuel burner, comprising in combination, a T, a supply pipe entering said T, a needle valve secured to each end of said T, a nipple extending from each valve, a fuel pipe extending from each nipple, said pipes held in parallel spaced relation each ending in a recurved portion from which is continued at right angles a threaded end section, said end sections held in parallel spaced relation, one of said pipes being shorter than the other, a burner head secured at right angles to each end section, a burner pipe bent L-shaped extending from each head, one end of each burner pipe continued through the bend of one fuel pipe, the other ends of said burner pipes extending in parallel spaced relation at right angles to and above said fuel pipes, a burner tip secured to each of said heads, and a baffle plate having its ends secured to the recurved portions of each of said fuel pipes and held above said burner tips.

4. A liquid fuel burner, comprising in combination, a T, a supply pipe entering said T, a needle valve secured to each end of said T, a nipple extending from each valve, a fuel pipe extending from each nipple, said pipes held in parallel spaced relation each ending in a recurved portion from which is continued at right angles a threaded end section, said end sections held in parallel spaced relation, one of said pipes being shorter than the other, a burner head secured at right angles to each end section, a burner pipe bent L-shaped extending from each head, one end of each burner pipe continued through the bend of one fuel pipe, the other ends of said burner pipes extending in parallel spaced relation at right angles to and above said fuel pipes, a burner tip secured to each of said heads, a baffle plate having its ends secured to the recurved portions of each of said fuel pipes and held above said burner tips, and a metal filler within said fuel pipes.

5. A liquid fuel burner, comprising in combination, a T, a supply pipe entering said T, a needle valve secured to each end of said T, a nipple extending from each valve, a fuel pipe extending from each nipple, said pipes held in parallel spaced relation each ending in a recurved portion from which is continued at right angles a threaded end section, said end sections held in parallel spaced relation, one of said pipes being shorter than the other, a burner head secured at right angles to each end section, a burner pipe bent L-shaped extending from each head, one end of each burner pipe continued through the bend of one fuel pipe, the other ends of said burner pipes extending in parallel spaced relation at right angles to and above said fuel pipes, a burner tip secured to each of said heads, a baffle

plate having its ends secured to the recurved portions of each of said fuel pipes and held above said burner tips, a metal filler within said fuel pipes, and a burner tip secured to the end of each burner pipe.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,250. SNAP-SEAL. WINFRED MUDGE BROOKS, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed Dec. 17, 1913 Serial No. 807,220. (Cl. 70—99.)



1. An improved snap seal having, in combination, a bulb-shaped seal part constructed with a suitable inlet hole, a resiliently flexible shackle constructed with a normally flat withdrawal-resisting catch portion at each end, and a center piece comprising snap catches within said seal part and a central guide portion protruding through said inlet hole; one shackle end being adapted to be preliminarily inserted with the aid of said guide, and snap fastened within the seal part, and further provided with a guard projection located immediately above said guide in the fastened position of said shackle end and projecting over said guide, whereby the insertion of the other shackle end between said guide and the preliminarily fastened shackle end which carries said guard projection is prevented.

2. The combination, in a snap seal, of a bulb-shaped seal part constructed with a suitable inlet hole, a resiliently flexible shackle constructed with a normally flat withdrawal-resisting catch portion at each end, and a center piece comprising a pair of snap catches within said seal part and a central guide portion protruding through said inlet hole; said shackle being further provided with an embossed rounded protuberance arranged to project immediately above said guide in the fastened position of the shackle, and to guard the space between said guide and the adjoining shackle surface from which said protuberance projects.

3. The combination, in a snap seal, of a hollow sheet-metal seal part having a suitable inlet hole in its top, a resiliently flexible shackle having its ends provided with catch members and adapted to be inserted through said inlet hole, and a center piece comprising a pair of snap catches within said seal part adapted to interlock with said shackle ends; said seal part being composed of bulb members permanently united with each other by a circumferential joint and provided respectively with said inlet hole and with an internally concave bottom contracted to contact with the fastened shackle ends and an annular shoulder at a distance below the plane of said joint adapted to support said center piece.

4. The combination, in a snap seal, of a hollow sheet metal seal part having a suitable inlet hole in its top, a resiliently flexible shackle having its ends provided with catch members including a pair of withdrawal-resisting shoulders near each extremity and adapted to be inserted through said inlet hole, and a center piece having catch members adapted to interlock with those of said shackle ends including portions constructed and arranged to contact with said withdrawal-resisting shoulders; the length between said shoulders and the extremities of the shackle ends being sufficient to compel springing the shackle ends in contact with the bottom of said seal part in the act of snap fastening each shackle end, whereby the resiliency of the shackle ends is made to press said shoulder upward into effective engagement with said center piece in the fastened seal, substantially as hereinbefore specified.

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1,093,251. APPARATUS FOR EFFECTING SUBAQUEOUS IRRIGATION OF THE BOWELS. ANTON BRÖSCH and OTTO VON AUFSCHNAITER, Vienna, Austria-Hungary. Filed June 22, 1911. Serial No. 634,792. (Cl. 128—25.)



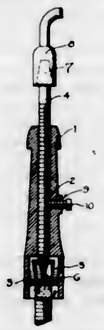
1. In an apparatus for subaqueous internal irrigation, the combination of a dish like member provided with a rigid edge having the reverse form of the buttocks and adapted to be pressed tightly in the region of the anus so as to surround the same; an irrigation pipe movably inserted in the hollow member in a water-tight manner; a large caliber discharge pipe connected with the hollow member; and a flushing pipe independent of and in addition to the irrigation pipe and connected to the hollow member.

2. An apparatus for subaqueous internal irrigation, comprising a hollow member having an opening therein, the edge of which is adapted to surround the anus of the patient; elastic bands secured to said member and adapted to be placed over the shoulders of the patient and to hold said hollow member tightly pressed with said edge surrounding the anus; an irrigation pipe entering said hollow member, and a discharge pipe communicating with the hollow member and adapted to carry off the used irrigation water, said hollow member being provided with a flushing device independent of the irrigation pipe.

3. In an apparatus for subaqueous internal irrigation, comprising a hollow member having an opening therein, the edge of which is adapted to surround the anus of the patient; elastic bands secured to said member and adapted to be placed over the shoulders of the patient and to hold said hollow member tightly pressed with said edge surrounding the anus; an irrigation pipe entering said hollow member, and a discharge pipe communicating with the hollow member and adapted to carry off the used irrigation water.

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1,093,252. NUT-REMOVING TOOL. JOHN P. CARNES, Cold Spring, Tex. Filed Mar. 3, 1913. Serial No. 751,852. (Cl. 81—180.)



1. A device of the character described, including a body portion formed with a threaded bore and a nut receiving socket at one end of said bore, said body portion being also formed with a side opening aperture, a set screw working in said aperture, a threaded spindle adapted to work in the threaded bore of the body portion, and a cutting bit rotatable in the socket of the body portion and carried by said threaded spindle.

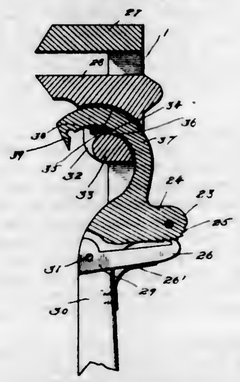


2. A device of the character described, including a body portion provided with a threaded longitudinal bore and a nut receiving socket at one end of said bore, a spindle in threaded engagement with said bore, a cutting bit carried by one end of said spindle and rotatable in said socket, and means for clamping the body portion to the spindle.

3. A device of the character described, including a body portion formed with a longitudinally extending threaded bore and a socket at one end of said bore, a threaded spindle adapted to work in the bore, a cutting bit connected to one end of said spindle and rotatable in said socket, the body portion being formed intermediate of its ends with a side opening aperture communicating with the bore, and a set screw working in said aperture and adapted to impinge against the spindle to secure the latter to the body portion, one end of said spindle being formed for engagement by a brace.

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1,093,253. WRENCH. AUGUST CHATO, Pittsburgh, Pa. Continuation of application Serial No. 612,013, filed Mar. 3, 1911. This application filed Apr. 30, 1913. Serial No. 764,477. (Cl. 81—126.)



1. The described wrench consisting of a shank having a fixed jaw, an elongated slot, a pair of right angularly disposed lugs projecting in a direction opposing said jaw, a jaw having a head movable in said slot and having an arcuate opening therein, a handle having a lug pivoted to the ends of said first lugs, said handle having an arcuate extension operable in said arcuate opening whereby said second jaw is movable and means whereby said shank and handle may be held in locked relation.

2. The described wrench consisting of a shank having a fixed jaw, an elongated slot, a pair of right angularly disposed lugs projecting in a direction opposing said jaw, a jaw having a head movable in said slot and having an arcuate opening therein, a handle having a lug pivoted to the ends of said first lugs, said handle having an arcuate extension operable in said arcuate opening whereby said second jaw is movable, and means whereby said shank and handle may be held in locked relation, said means consisting of a dog mounted on said handle.

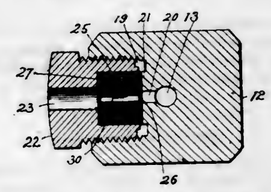
3. The described wrench consisting of a shank having a fixed jaw, an elongated slot, a pair of right angularly disposed lugs projecting in a direction opposing said jaw, a jaw having a head movable in said slot and having an arcuate opening therein, a handle having a lug pivoted to the ends of said first lugs, said handle having an arcuate extension operable in said arcuate opening whereby said second jaw is movable, means whereby said shank and handle may be held in locked relation, said means consisting of a dog mounted on said handle, and teeth on said first lugs adapted to be engaged by said dog.

4. The described wrench consisting of a shank having a fixed jaw, an elongated slot, a pair of right angularly disposed lugs projecting in a direction opposing said jaw, a jaw having a head movable in said slot and having an opening therein, a handle having a lug pivoted to said first lugs, said lug having an arcuate extension operable in said opening whereby said second jaw is movable and means whereby said shank and handle may be held in locked relation.

5. The described wrench consisting of a shank having a fixed jaw, an elongated slot, a jaw having a head movable in said slot and having an opening therein, a handle pivoted to said shank, said handle having an arcuate extension operable in said opening whereby said second jaw is movable, said handle being in alinement with said arcuate extension, and an arcuate surface on said movable jaw whereby said extension may directly contact said movable jaw during the entire course of its travel.

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1,093,254. BLOW-OFF AND VALVE FOR GAS-TANKS. GRAHAM CLARKE, Cleveland, Ohio, assignor to The Ohio Chemical and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 30, 1912. Serial No. 728,586. (Cl. 220—110.)



1. The combination of a tank adapted for containing gas under pressure, a piece which is secured in a hole in said tank and has a threaded recess opening outward and an outlet duct of smaller diameter leading from the bottom of said recess inward through said piece, with a gland nut which screws into said threaded recess and has a recess in its inner end, and a relief duct extending from said recess out through the end of the nut, a valve which is fitted in said recess and has a relief duct through it from end to end, a non-collapsible metal tube fitted in the last mentioned relief duct, and a thin rupturable disk in the recess in the nut in contact with the end of said recess and with the outer end of the valve.

2. A gas tank tap, comprising a casing adapted to screw into the gas tank and having an outlet duct, and a valve for said outlet duct, said casing having also a threaded recess in one side from which a relief duct extends into communication with the gas delivery duct at a point between the said valve and the inner end of the top casing, a gland nut which screws into said threaded recess, and has a recess in its inner end, and a relief duct extending from said said recess out to the end of the nut, a valve which is fitted in said recess and has a relief duct through it from end to end, a non-collapsible metal tube fitted in the last mentioned relief duct,—and a thin rupturable disk in the recess in the nut and in contact with the outer end of the valve.

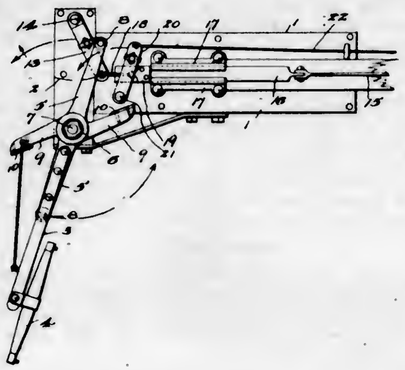
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1,093,255. BALING-PRESS. LAWRENCE H. CONNER, Headrick, Okla. Filed May 31, 1913. Serial No. 771,025. (Cl. 100—7.)

1. The combination with a platform and axle supported thereon, of a hub having a pair of long lever arms and a shorter pair of arms revoluble therewith, a pivoted packer-actuating link in the path of movement of the long arm, and a link in the path of movement of a long lever and having connections with which the short lever arm is adapted to contact.

2. The combination with a platform and axle supported thereon, of a hub having a pair of long lever arms and a shorter pair of arms revoluble therewith, a pivoted link in the path of movement of the long arms and having connections to the plunger of a hay press, and means

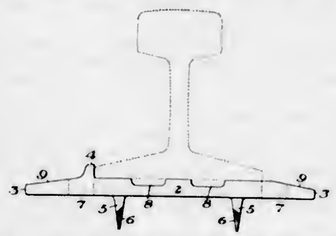
on said connections to be contacted by the short lever for continuing the movement initiated by the long lever and link.



3. The combination with a revoluble hub having a pair of long levers and a pair of shorter levers, of a pivoted link, a slide plate connected thereto and provided with a contact block, said link located in the path of movement of the long levers and said block in the path of movement of the short levers.

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1,093,256. TIE-PLATE. LAWRENCE DILWORTH, Pittsburgh, Pa., assignor to Dilworth, Porter & Company, Limited, Pittsburgh, Pa., a Limited Partnership. Filed Oct. 12, 1910. Serial No. 586,655. (Cl. 238—2.)



1. A tie plate having projecting from its bottom face a plurality of relatively narrow, deep, rolled and sharpened claws, located underneath the rail base portion of the plate, substantially as described.

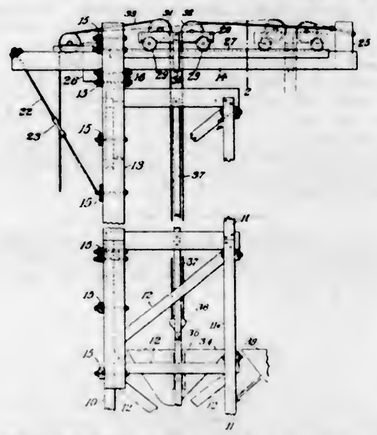
2. A tie plate having a recess or depression beneath the rail base, said plate having a plurality of relatively narrow, deep, rolled and sharpened claws projecting from its bottom face underneath the rail base, substantially as described.

3. A tie plate having a recess or depression beneath the rail base, said plate having a plurality of relatively narrow, deep, rolled and sharpened claws projecting from its bottom face underneath the rail base, said plate having an upper longitudinal rib arranged to engage the side edge of the rail base and located nearer the edge of the plate than the sharpened claws, substantially as described.

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1,093,257. HOISTING-TOWER. FRANCIS DONALDSON, Yonkers, N. Y., assignor to The T. A. Gillespie Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 3, 1912. Serial No. 734,662. (Cl. 214—12.)

1. The combination of an elevated structure composed of a plurality of sections arranged one on top of the other, a hoisting frame movable vertically in a rectilinear path, mounted on the side of the topmost section of the structure and having a horizontal portion above and extending across and beyond the top of the structure, and means to raise the hoisting frame relatively to the topmost section on which it is mounted and space the overhanging portion vertically from the top of the section on which the frame is carried, whereby another section may be introduced laterally between the said overhanging portion of the frame and the topmost section of the structure.



2. The combination of an elevated structure composed of sections mounted one on top of the other, a hoisting frame mounted on the structure at the top thereof and having a part extending laterally past the front of the structure, and hoisting devices carried by said horizontal part, the hoisting frame being movable vertically in a rectilinear path above the top of the structure whereby to provide a space between the hoisting devices and the top of the structure, permitting one or more structure-sections raised by said devices to be moved laterally to a position immediately above the structure and then seated on the top thereof.

3. The combination of an elevated structure, a hoisting frame mounted on the structure at the top thereof and having a part extending laterally past the front of the structure, and laterally movable hoisting mechanism mounted on said laterally extending part, the hoisting frame being movable vertically relatively to the top of the structure to provide a space between the hoisting mechanism and the top of the structure whereby one or more structure-sections hoisted outside of the structure can be moved laterally to a position immediately above the top of the structure and then seated on said top.

4. The combination of a hollow tower, a hoisting frame mounted on the tower at the top thereof and over-hanging the tower top, hoisting mechanism carried by said frame and adapted to hoist materials inside the tower and outside the tower, the hoisting frame being vertically movable to provide a space between the top of the tower and the hoisting devices whereby one or more tower-sections hoisted outside of the tower can be moved laterally to a position over the tower top and then be seated thereon.

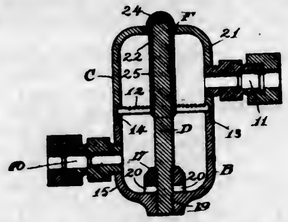
5. The combination of an elevated structure, a gallows frame slidably mounted on the structure at the top thereof and having a beam overhanging the structure, means for securing the frame against downward movement, and hoisting devices carried by said beam and laterally movable thereon, for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,258. GASOLENE-STRAINER. ALBERT D. ELSTER, Meriden, Conn. Filed Mar. 4, 1912. Serial No. 681,533. (Cl. 210—16.)

A gasolene strainer comprising a pair of hemispherical members having edges in abutment, and a strainer proper bridging the open interior space of one of the said members, and an inlet connection provided on one of the said members and an outlet connection provided on the other of the said members, and securing means comprising a



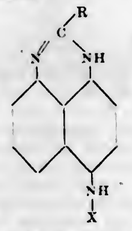
screw axially positioned and operative to hold the said members together, one of the said members provided with an axial flushing outlet, and the said screw normally filling the said flushing outlet.

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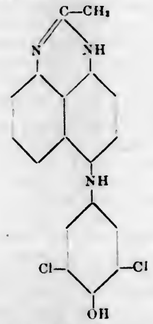
1,093,259. GREEN SULFUR DYE. JOSEPH FLACHSLAENDER and KARL PAUL GRÄLERT, Elberfeld, and MAX BUFF, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Aug. 19, 1912. Serial No. 715,946. (Cl. 8—1.)

1. The herein-before described new copper-containing sulfur dyes, being sulfur-containing derivatives of leuco-indophenols of the formula:



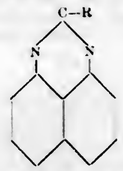
in which R means a substituent and X a phenolic radical, which contain copper and are after being dried and pulverized dark powders being soluble in a solution of sodium sulfid generally with a green coloration; being scarcely soluble in concentrated sulfuric acid generally with a bluish coloration; and dyeing unmordanted cotton green shades fast to light and to washing, substantially as described.

2. The hereinbefore described new copper-containing sulfur dye, being a sulfur-containing derivative of the leuco-indophenol of the formula:



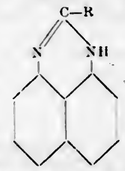
which contains copper and is after being dried and pulverized a dark powder soluble in a sodium sulfid solution with a yellowish-green coloration and soluble in concentrated sulfuric acid with a bluish-green coloration and in hot caustic soda lye (30° Bé.) with a dark green coloration; dyeing unmordanted cotton in pure yellowish green shades fast to light and to washing, substantially as described.

3. The herein-before described new copper-containing sulfur dyes being sulfur containing derivatives of indophenols obtainable from a perimidin compound having the following general structure:



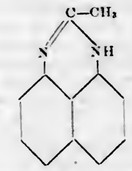
in which R means a substituent, and from a para-aminophenol, these new dyes contain copper and being when dried and pulverized dark powders soluble in an alkali-sulfid solution generally with a green coloration, and dyeing cotton green shades, substantially as described.

4. The herein-before described new copper-containing sulfur dyes being sulfur containing derivatives of the indophenols obtainable from a perimidin compound of the general formula:



in which R means an organic radical, and from a para-aminophenol, which dyes contain copper and are when dried and pulverized dark powders being soluble in an alkali-sulfid solution generally with a green coloration, and dyeing cotton green shades, substantially as described.

5. The herein-before described new copper-containing sulfur dye being a sulfur containing derivative of the indophenol obtainable from methyl-perimidin having the formula:



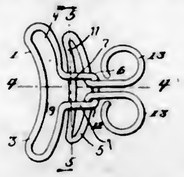
and from 2.6-dichloro-4-amino-1-phenol, which new dye contains copper and is when dried and pulverized a black powder, soluble in a sodium-sulfid solution with a green coloration, and dyeing cotton green shades, substantially as described.

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1,093,260. HOOK AND EYE. SAMUEL H. GLIDDEN, Seattle, Wash., assignor of one-half to M. H. Ingersoll, Seattle, Wash. Filed Sept. 5, 1912, Serial No. 718,701. Renewed Sept. 17, 1913. Serial No. 790,352. (Cl. 24—228.)

1. The combination with an eye having a transverse elongated portion, a longitudinally extending portion formed therewith comprising arms terminating in an abutment, of a hook adapted to be inserted in said eye and having a transversely extending head which is adapted to extend beneath said arms, the outer extremity of said head being curved upwardly, a contracted shank extending from said head and adapted to overlie said abutment, the curved outer extremities of said head being adapted to engage the transverse elongated portion of the eye when said hook and eye are connected, substantially as described.

2. The combination with an eye having a transverse elongated loop, a longitudinally extending portion formed therewith comprising arms terminating in an abutment, of a hook comprising an elongated loop being curved upwardly in a transverse plane, a contracted portion extending from the medial portion of said loop and adapted to overlie said abutment, the ends of the loop of the hook being adapted to engage the loop of the eye when the hook and eye are connected, substantially as described.



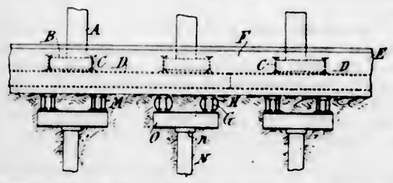
3. The combination with an eye formed of one piece of material bent to form a transversely extending loop, a longitudinally extending portion formed therewith comprising arms terminating in an abutment, the outer arm of the transversely extending loop being curved inwardly, of a hook comprising an elongated head which is adapted to extend beneath said arms, a contracted shank portion extending therefrom and adapted to overlie said abutment, and the outer extremities of the head portion being curved upwardly to engage the loop of the eye when the hook and eye are connected, substantially as and for the purpose described.

4. The combination of an eye formed of one piece of material bent to form a transversely extending loop, arms extending from said loop and in the same plane therewith, an angular down-turned portion formed at the extremities of said arms, of a hook comprising an elongated head adapted to extend transversely across said arms, a contracted shank portion extending therefrom and adapted to overlie said angular down-turned portion, and the outer extremities of said head portion being curved upwardly to engage the transverse extending loop when the hook and eye are connected, substantially as and for the purpose described.

5. The combination of an eye formed of one piece of material bent to form a transversely extending loop, arms extending from said loops in the same plane therewith, an angular down-turned portion formed at the extremities of said arms, the outer arms of the transversely extending loop being curved inwardly, of a hook comprising a transverse elongated head, a contracted shank portion extending therefrom, the outer extremities of said head portion being curved upwardly to engage the transversely extending loop of the eye when said hook and eye are connected, said arms being adapted to overlie said head of the hook and the angular portions formed at the extremities of the arms of the eye being adapted to engage underneath the contracted shank portion of the hook when said hook and eye are connected, substantially as and for the purp se described.

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1,093,261. METHOD OF UNDERPINNING BUILDINGS. JOHN B. GOLDSBOROUGH, Croton, N. Y. Filed Aug. 27, 1912. Serial No. 717,303. (Cl. 72—77.)



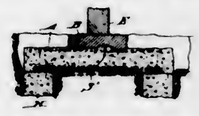
1. The method of underpinning buildings or other structures, which consists in forcing hollow beams through the earth transversely of the wall and closely adjacent the base portion thereof, cleaning out the earth from said hollow beams, in inserting supporting beams through said hollow beams having projecting ends, in filling said hollow beams with grout or the like, in locating underpinning columns in the earth and connecting them to the ends of said beams.

2. The method of underpinning buildings or other structures, which consists in forcing hollow beams through the earth transversely of the wall and closely adjacent the base portion thereof, in cleaning out said hollow beams, in inserting supporting beams therein having projecting ends, in filling said hollow beams with grout or the like, in locating underpinning columns in the earth between the projecting ends of adjacent supporting beams, and in interposing a connecting member between the head of said column and the projecting ends of said adjacent supporting beams.

3. An underpinning for buildings or the like, comprising hollow beams or casings located in separated positions beneath the base portion of the said wall, supporting beams in said hollow beams and having their ends projecting therefrom, columns located in the earth between the said projecting ends, and distributing beams connected to the head of said columns and to the projecting ends of said pair of supporting beams, said hollow beam or casing being filled with grout or the like.

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1,093,262. METHOD OF UNDERPINNING BUILDINGS. JOHN B. GOLDSBOROUGH, Croton, N. Y. Filed June 17, 1913. Serial No. 774,258. (Cl. 72—77.)



1. The method of underpinning buildings or other structures, which consists in forcing a supporting member having side walls and open at the top through the earth transversely of, and closely adjacent to, the base portion of said building or other structure, in cleaning out the earth from said supporting member and up to the underside of said base portion, and filling the spaces between the top of said supporting member and the underside of said base portion and the space between the side walls of said supporting member with grout or the like.

2. The method of underpinning buildings or other structures, which consists in locating an underpinning column in the earth adjacent the structure to be underpinned, in forcing a supporting member having side walls and open at the top through the earth transversely of the foundation of said building or other structure and closely adjacent the base portion thereof, in cleaning out the earth from said supporting member and up to the base of the said foundation, and filling the spaces between the top of said supporting member and the underside of said base portion and the space between the side walls of said supporting member with grout or the like, and in interposing a pressure resisting connection between the said column and said supporting member.

3. The method of underpinning buildings or other structures, which consists in locating an underpinning column in the earth adjacent the structure to be underpinned, in then temporarily supporting said structure upon said column, in forcing a supporting member having side walls and open at the top through the earth transversely of the foundation of said building or other structure, and closely adjacent the base portion thereof, in cleaning out the earth from said supporting member and up to the base of the said foundation, and filling the spaces between the top of said supporting member and the underside of said base portion and the space between the side walls of said supporting member with grout or the like, and in interposing a pressure resisting connection between the said column and said supporting member.

4. The method of underpinning a building or other structure, which consists in forcing a pair of substantially parallel I-beams through the earth transversely of the foundation of said building or other structure and closely adjacent the base portion thereof, in cleaning out the earth between said I-beams and up to the base of the said foundation and filling the spaces between the top of said I-beams and the underside of said base portion and the space between the side walls of said I-beams with grout or the like.

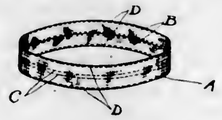
5. The method of underpinning a building or other structure, which consists in forcing a pair of substantially parallel I-beams through the earth transversely of the foundation of said building or other structure, and closely adjacent the base portion thereof, in cleaning out the earth between said I-beams and up to the base of the said foundation and filling the spaces between the top of said I-beams and the underside of said base portion and the space between the side walls of said I-beams with grout or the like, and in connecting the said beams to supporting columns.

[Claims 6 to 13 not printed in the Gazette.]



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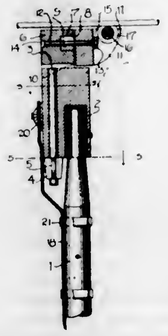
1,093,263. BELT. ROBERT P. GRANT, Hartford, Conn. Filed Dec. 20, 1912. Serial No. 737,845. (Cl. 74—63.)



A two-ply belt comprising an endless band of woven fabric having a face portion and a back portion in superposed relation, the face portion being of relatively greater thickness than the back portion, the back formed of strips integral with the longitudinal edges of the face and each of substantially half the width of the face, said strips folded against the face and having their meeting edges secured together, said strips being also secured to the face both at their meeting edges and at the outer edges of the face and back.

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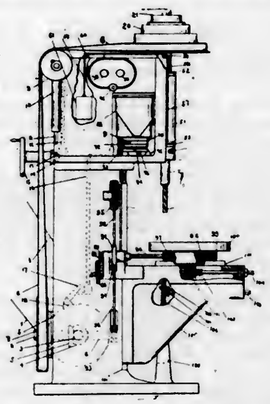
1,093,264. WHEEL-MOUNT. HENRY GRUSONG, Cresson, Pa. Filed Sept. 17, 1913. Serial No. 790,266. (Cl. 64—70.)



A device of the class described comprising a trolley pole including a stationary portion and a rotatable portion positioned parallel to the stationary portion and beyond the free end of the same, a bearing collar mounted on the stationary portion, said rotatable portion being rotatably mounted in the bearing collar, a bearing block carried by one end of the rotatable portion, a trolley head mounted upon the bearing block and adapted for rotation in a plane at right angles to the plane in which the rotatable portion of the trolley pole is adapted to rotate, a trolley wheel mounted in said head, and means mounted upon the opposite end of the rotatable portion of the trolley pole for limiting movement of the same in either direction.

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1,093,265. MACHINE-TOOL. GEORGE E. HALLENBECK, Toledo, Ohio, assignor to Baker Brothers, Toledo, Ohio, a Firm. Filed June 5, 1911. Serial No. 631,262. (Cl. 77—5.)



1. A machine tool provided with a holder, means effecting reciprocation thereof comprising a sleeve coaxial with said holder and provided with means for holding said sleeve against relative endwise movement as to said holder, a cam drum for reciprocating said sleeve, driving mechanism for rotating the holder, and connecting means from said mechanism to drive the cam drum.

2. A machine tool provided with a holder, and means effecting reciprocation thereof comprising a pair of coaxial sleeves provided with holding means against relative endwise movement, one of which sleeves is rotated relatively to the other, and adjusting means for holding the last named sleeve in position as to the holder.

3. A machine tool provided with a holder, means effecting reciprocation thereof comprising a pair of coaxial sleeves mounted on the holder, said sleeves being provided with holding means against relative endwise movement, one of which sleeves is non-rotative, and driving means for the rotatable sleeve.

4. A machine tool provided with a rotary holder, and means effecting reciprocation of the holder comprising a sleeve mounted on the holder, said sleeve being coaxial with the holder, and adjusting means for varying the position of the sleeve relatively to the holder, said adjusting means being effective when set to preclude relative endwise movement between the holder and sleeve.

5. A plurality of tool carriers, a common support therefor, a work holder, driving mechanism providing relative rotation therebetween, and means effecting simultaneous reciprocation of the carrier relatively to the holder and eccentric thereto, comprising a cam and a member reciprocated by the cam and engaging said carriers.

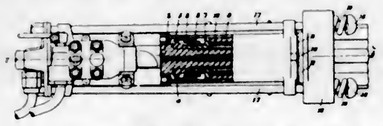
[Claims 6 to 12 not printed in the Gazette.]

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1,093,266. PERCUSSIVE DRILL. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed May 31, 1912. Serial No. 700,635. (Cl. 121—20.)

1. In a percussive drill, a cylinder, its piston, a buffer for said piston, drill steel holding means, said buffer and drill steel holding means being longitudinally movable in said cylinder by the forward movement of said piston, and said buffer being so positioned as to contact with said drill steel holding means after slight forward movement, resilient means opposing the forward movement of said buffer

and further resilient means opposing the forward movement of said drill steel holding means.



2. In a percussive drill, a cylinder, its piston, a buffer for said piston, drill steel holding means, a sleeve forward of said buffer and engaging said drill steel holding means, said buffer, steel holding means, and sleeve being movable longitudinally of said cylinder, a spring yieldably holding said sleeve slightly separated from said buffer, and resilient means yieldably holding said steel holding means against forward movement.

3. In a percussive drill, a cylinder, its piston, a resiliently held buffer against which said piston contacts near the forward end of its stroke, movable drill steel holding means forward of said buffer, positioned to be engaged by said buffer after slight movement of said buffer, and resilient means opposing forward movement of said drill steel holding means.

4. In a percussive drill, a cylinder, its piston, a resiliently held buffer against which said piston contacts near the forward end of its stroke, movable drill steel holding means forward of said buffer, positioned to be engaged by said buffer after slight movement of said buffer, a front head cap engaging the forward end of said steel holding means, and movable longitudinally of said cylinder, bolts through said cap, and springs on said bolts for resiliently holding said cap and said steel holding means against forward movement.

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1,093,267. RIGID ELEMENT. CHARLES R. HARRIS, Los Angeles, Cal., assignor of one-half to Worthington Hoyt, Cleveland, Ohio. Filed Jan. 17, 1912. Serial No. 671,676. (Cl. 189—34.)



1. As a new article of manufacture, a hollow coiled element comprising a plurality of advancing convolutions and a continuous direct lateral opening interposed therebetween, one edge of each convolution being bent at an angle and projecting outwardly.

2. As a new article of manufacture, a hollow coiled element comprising a plurality of advancing convolutions and a continuous direct lateral opening interposed therebetween, said convolutions having angular edges substantially perpendicular to the imaginary axis.

3. As a new article of manufacture, an integral member of coiled formation, the convolutions of said member forming together a pair of flutes and an opening alternately arranged, each such convolution having a laterally projecting edge surface perpendicular to the imaginary axis.

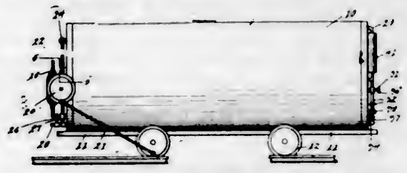
4. As a new article of manufacture, a hollow coiled element comprising a plurality of convolutions progressively converging relative to the imaginary axis, and a direct lateral opening extending therebetween; each such convolution being formed with parallel flute-sections, and having outwardly projecting edges interposed between said opening and different of said parallel flute-sections.

5. As a new article of manufacture, a hollow integral member of coiled formation, said member having an alternately arranged helically extending surface opening and flute, said flute bottom having an outward projection.

[Claim 6 not printed in the Gazette.]

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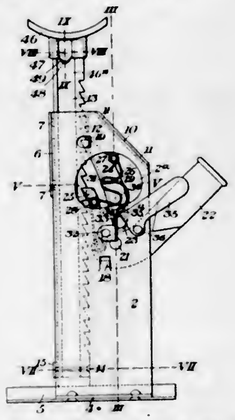
1,093,268. SPRINKLING-CAR FOR MINES. JESSE J. HARRIS, Canonsburg, Pa. Filed Apr. 24, 1913. Serial No. 763,416. (Cl. 137—63.)



A sprinkling car for mines, including a tank, a wheeled truck supporting the tank, a pipe extending longitudinally through the tank and extending beyond the ends thereof, a centrifugal sprinkler mounted upon one end of said pipe and communicating therewith; means connecting the sprinkler with one of the truck wheels, whereby the sprinkler is rotated on movement of the truck, an air pipe entering the tank above the water line and communicating with the other end of the first mentioned pipe, and a water pipe entering the tank below the water line and also communicating with the first mentioned pipe, a rotation of the sprinkler causing water and air to be drawn into it and discharged therefrom.

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1,093,269. JACK. ISAIAH E. HINDMAN, Crafton, Pa., assignor to The Duff Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 7, 1912. Serial No. 729,978. (Cl. 57—100.)



1. A jack having a lifting pawl, a holding pawl, and a spring connected to both pawls and alternately placed under compression and tension by the operating movements of the pawls in lowering the load, and a movable device arranged to engage said spring to cause each end of the spring to act independent of the other when raising the load; substantially as described.

2. A jack having a lifting bar, a pivoted lever connected to the frame of the jack, a lifting pawl pivotally connected to said lever, a holding pawl pivoted to the frame of the jack, a leaf spring having a central loop connected to the pawls, said spring being arranged to be alternately placed in compression and tension during the movement of the pawls in lowering the lifting bar to alternately withdrawn the pawls from the lifting bar and to move them into engagement therewith, and a control device arranged to engage the central portion of the spring within the recess to permit each end of the spring to act independently of the other when raising the lifting bar; substantially as described.

3. A jack having a lifting pawl, a holding pawl, a single leaf spring connecting the two pawls and alternately placed in compression and tension by the operating movement of the pawls when lowering a load, and a lever for changing the action of said spring, so that said spring will move both pawls in the same direction when raising a load; substantially as described.

4. In a single-acting jack, the combination with a frame and a socket lever pivoted thereto, of a lifting pawl pivoted to the socket lever, a holding pawl pivoted to the frame, and a leaf spring connected to said pawls which is alternately placed under compression and tension by the operating movement of the pawls in lowering the load, and a shifting lever for engaging the spring at approximately its central portion to reverse the action of the pawls to lower the load; substantially as described.

5. A lifting jack having a lifting pawl, a holding pawl, a single-leaf spring connecting the two pawls and alternately placed under compression and tension by the operating movement of the pawls when lowering the load, said spring having a loop at its intermediate portion, and a lever for engaging the spring within he loop to change the action of the spring so that the spring will move both pawls in the same direction when raising a load; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]



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1,093,270. TOBACCO-HANGER. WALTER M. HINSON, Enfield, Conn. Filed Feb. 7, 1913. Serial No. 746,822. (Cl. 131—21.)



1. A tobacco hanger comprising an integral structure composed of strands of wire formed into successive loops, said loops being supported one by another, and each loop having a broadened receiving part and a narrower clamping part, and means for securing the wires together between the loops.

2. A tobacco hanger including a number of loops formed in line and from a single strand of wire, each loop having a broadened receiving part and a narrower clamping part, and a member dividing each loop into two parts.

3. A tobacco hanger composed of strands of wire twisted into a single structure to form successive loops, said loops being supported one by another, and each loop having a broadened receiving part and a narrower clamping part, said parts being formed into a twist between the loops.

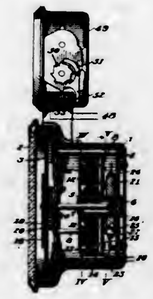
4. A tobacco hanger composed of strands of wire twisted together at intervals to form loops therebetween, each loop having a broadened receiving part at its upper end and a narrower clamping part at its lower end, and a wire secured to the structure and dividing each of the loops.

5. A tobacco hanger composed of strands of wire twisted at intervals to form loops between the twists, each loop consisting of a broadened receiving portion and a narrow clamping portion, and a smaller strand of wire dividing each of the loops into two parts.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,271. ELECTROMAGNETIC TACHOMETER. NEVIL MONROE HOPKINS, Washington, D. C., assignor, by mesne assignments, to The Electric Tachometer Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Feb. 10, 1911. Serial No. 607,802. (Cl. 73—123.)



1. A tachometer, comprising an electromagnetic system constructed to provide a rotating magnetic field, a speed-indicating rotor in inductive relation thereto, consisting of a cup having a thin web and a thicker rim, yielding means for opposing the torque of said rotor, and means for supplying electric current to said electromagnetic system, including a member driven by the wheel or shaft whose speed is to be measured.

2. A tachometer, comprising an electromagnetic system constructed to provide a rotating magnetic field, a speed-indicating rotor in inductive relation thereto, having a relatively thick rim of concentric annuli, yielding means for opposing the torque of said rotor, and means for supplying electric current to said electromagnetic system, including a member driven by the wheel or shaft whose speed is to be measured.

3. A tachometer, comprising an electromagnetic system constructed to provide a rotating magnetic field, a speed-indicating rotor in inductive relation thereto, consisting of a cup of metal of relatively low specific gravity and electric conductivity, and a band, secured to the rim of said cup, of metal of relatively high specific gravity and electric conductivity, yielding means for opposing the torque of said rotor, and means for supplying electric current to said electromagnetic system, including a member driven by the wheel or shaft whose speed is to be measured.

4. A tachometer, comprising an indicator member and a winding or windings adapted to receive electric current and actuate said indicator member, means for supplying electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured, and a thermostatic temperature-regulator in the electric circuit of said tachometer, consisting of a rheostat and a temperature-responsive member controlling the resistance of said rheostat.

5. A tachometer, comprising an indicator member and a winding or windings adapted to receive electric current and actuate said indicator member, means for supplying electric current to said winding or windings, including a member driven by the wheel or shaft whose speed is to be measured, and a thermostatic temperature-regulator in the electric circuit of said tachometer, consisting of a revoluble disk having insulated segments connected through resistances, and a bi-metallic strip fixed at one end and connected at its other end to said disk.

[Claims 6 and 7 not printed in the Gazette.]

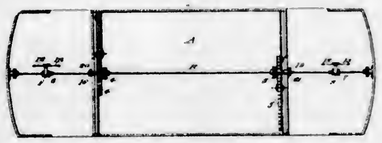
1,093,272. ADJUSTABLE STEEL WINDOW-SCREEN. FRANCIS M. JONES, Emporia, Kans. Filed Jan. 30, 1913. Serial No. 745,283. (Cl. 156—38.)



1. In an adjustable window screen, a frame consisting of corner sections, each corner section consisting of sheet metal sections bent in substantially rectangular and hollow form with their edges spaced apart, said latter portions being connected at the corners of the frame, the extremities of the corner sections being slidably engaged, means connecting said latter portions to hold the same in adjusted relation, a section of screen wire having its corners diagonally cut and the adjacent portions rebent on the portions between the cuts and wire holding members rotatable in the frame sides and having the last named portions of the screen wire wound thereon, said wire holding members being adjustable in length and extended through the frame at one end to permit turning thereof.

2. In an adjustable window screen, a frame consisting of corner sections, each corner section consisting of sheet metal sections bent in substantially rectangular and hollow form with their edges spaced apart, said latter portions being connected at the corners of the frame, the extremities of the corner sections being slidably engaged, means connecting said latter portions to hold the same in adjusted relation, a section of screen wire having its corners diagonally cut and the adjacent portions rebent on the portions between the cuts, wire holding members rotatable in the frame sides and having the last named portions of the screen wire wound thereon, said wire holding members being adjustable in length and extended through the frame at one end to permit turning thereof and means for holding said wire holding members against rotation.

1,093,273. CAR-DOOR-OPERATING MECHANISM. JAMES A. LAIDLAW, Sacramento, Cal. Filed Dec. 22, 1913. Serial No. 808,149. (Cl. 39—92.)



1. In a car having a plurality of sliding doors, a shaft journaled above the doors longitudinally of the car, a rack member secured to the top of each door, gears fixed on the shaft adapted to be moved into mesh with the racks, means for moving the shaft longitudinally, and means for revolving the shaft.

2. In a car having a plurality of sliding doors, a shaft journaled above the doors longitudinally of the car, a rack member secured to the top of each door, gears fixed on the shaft adapted to be moved into mesh with the racks, means for moving the shaft longitudinally, means for revolving the shaft, and means for automatically throwing the gears out of engagement with the racks.

3. The combination with a car having a pair of slidably mounted end doors, of a journaled shaft extending longitudinally through the car above the doors, a pair of gears secured on said shaft, rack members secured to the top of the doors, means for throwing one or the other of said gears into mesh with its corresponding rack, and means for automatically holding the gears out of mesh with the racks.

4. The combination with a car having a pair of slidably mounted end doors, of a journaled shaft extending longitudinally through the car above the doors, a rack member secured on the top of each door, a pair of gears fixed on the shaft, one for each rack, a grooved collar on the shaft, a pivotally mounted forked arm straddling said collar, means for rocking said arm, and means for revolving the shaft.

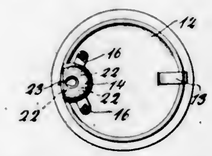
5. The combination with a car having a pair of slidably mounted end doors, of a journaled shaft extending longitudinally through the car above the doors, a rack member secured on the top of each door, a pair of gears fixed on the shaft, one for each rack, a grooved collar on the shaft, a pivotally mounted forked arm straddling said collar, means for rocking said arm to move the shaft longitudinally to bring one of the gears into mesh with its corresponding rack, means for revolving the shaft, and means for automatically throwing the gears out of mesh with the racks.

1,093,274. WASHSTAND. ARTHUR LANCASTER, Alva, Okla. Filed Jan. 25, 1913. Serial No. 744,181. (Cl. 45—38.)



A device of the class described including a tubular body member having radially projecting supporting legs secured to the lower end thereof, a longitudinal bulged portion formed upon one side of the body member to provide a longitudinal channel upon the inner side of the body, alternately transverse bulged portions formed upon the opposite sides of the longitudinal bulged portion to provide tapering grooves upon the inner side of the channel which communicate with the longitudinal channel and a movable member adjustably mounted within said body and having a lug formed upon one side thereof adjacent the lower end and adapted to normally engage within the transverse tapering grooves to retain the second member in an adjusted position.

1,093,275. SERVICE-BOX COVER. FRANK M. LANE, Memphis, Tenn. Filed June 4, 1913. Serial No. 771,756. (Cl. 94—7.)



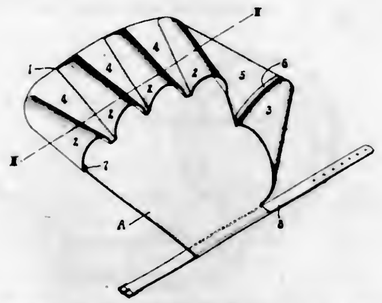
1. A cover having a housing on one side adjacent to the rim, the portion of the housing which is next to the rim being open, a turn-button in the housing, said turn-button being spaced from the cover and rotatable to project from the housing and to be retracted thereinto, the cover and the housing having lugs between which the turn-button is rotatably held, and said turn-button being dished, one set of lugs engaging the concave side of the turn-button and the other set of lugs engaging the convex side thereof.

2. A cover having a housing on one side adjacent to the rim, the portion of the housing which is next to the rim being open, a turn-button in the housing, said turn-button being spaced from the cover and rotatable to project from the housing and to be retracted thereinto, the cover and the turn-button having apertures to permit the application of an operating device to the turn-button, and the housing having an opening in alinement with said apertures.

3. A cover having a housing on one side adjacent to the rim, the portion of the housing which is next to the rim being open, a turn-button in the housing, said turn-button being spaced from the cover and rotatable to project from the housing and to be retracted thereinto, the cover and the housing having lugs between which the turn-button is rotatably held, and said turn-button being dished and having a central opening, one set of lugs engaging the concave side of the turn-button, and the other set of lugs engaging the convex side thereof, and the housing having an opening in alinement with the central opening of the turn-button, and the cover having an opening to permit access to the turn-button.

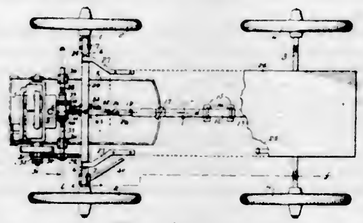


1,093,276. SWIMMING-GLOVE. WILLIAM LASER, St. Louis, Mo. Filed Sept. 8, 1913. Serial No. 788,590. (Cl. 9—21.)



A swimming glove made from a single sheet of material, the said sheet of material being folded and stitched to provide finger and thumb pockets spaced from each other, and double web portions between said pockets.

1,093,277. VEHICLE PROPELLING MECHANISM. JOSEPH P. LEGGETT, Carthage, Mo. Filed May 29, 1911. Serial No. 630,136. (Cl. 21—90.)



1. In a vehicle propelling mechanism, running gear having a vertically pivoted front axle, a rear axle, a driving wheel on the front axle, and a reach connected to the rear axle, a frame supported by the front axle and movable vertically relatively thereto, a motor carried by the frame forward of the front axle, driving means connecting the motor and running gearing by which the driving wheel is driven and by which the motor may exert a prying effect upon the driving wheel which respectively assists and resists forward turning of the driving wheel when said wheel moves upwardly and downwardly relatively to the motor, and yielding means connecting the reach and frame for resisting the said movement of the frame.

2. In a vehicle propelling mechanism, running gearing having a vertically pivoted front axle, a rear axle, a front driving wheel on the front axle, and a reach connected to the rear axle, a frame pivoted on the front axle to swing vertically, a motor carried by the frame forward of the front axle, driving means connecting the motor and running gearing by which the said driving wheel is driven and by which the motor may exert a prying effect upon the said driving wheel which respectively assists and resists forward turning of the driving wheel when said wheel moves upwardly and downwardly relatively to the motor, and means yieldingly connecting the reach and said frame for resisting the swinging vertically of said frame.

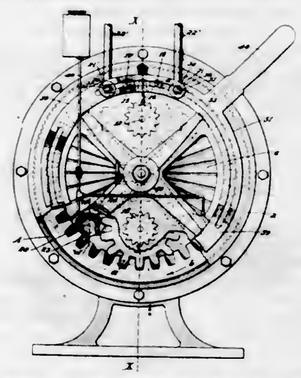
3. In a vehicle propelling mechanism, a running gearing having a vertically pivoted front axle, a rear axle, a driving wheel, and a reach secured to the rear axle, a frame pivoted to the front axle and pivoted to the reach so as to swing vertically and horizontally relatively thereto, a spring connecting the reach and frame for resisting vertical movement of the frame in either direction, a motor carried by the frame, and driving means connecting the motor and running gearing by which the driving wheel is driven and by which the motor may exert a prying effect upon the driving wheel when the frame swings vertically.

4. In a vehicle propelling mechanism, running gearing having a vertically pivoted front axle, a rear axle, a driving wheel on the front axle, and a reach secured to the rear axle, a frame pivoted to the front axle to swing vertically and pivoted to the reach to swing vertically and horizontally relatively thereto, a spring connecting the reach and frame for resisting movement vertically in either direction of said frame, a motor carried by the frame forward of the front axle, and driving means connecting the motor and running gearing by which the driving wheel is driven and by which the motor may exert a prying effect upon the driving wheel when the frame is swung vertically.

5. In a vehicle propelling mechanism, running gearing having a vertically pivoted axle, a driving wheel on the axle, and a reach, a frame mounted on the axle and vertically movable relatively thereto, yielding means connected to the frame at one side of the axle and to the reach for resisting vertical movement of the frame, a motor mounted on the frame at the other side of the axle, and driving means connecting the motor and running gearing by which the driving wheel is driven and by which the motor may exert a prying effect on the driving wheel which respectively assists and resists forward turning of the driving wheel when said wheel moves upwardly and downwardly relatively to the motor.

[Claims 6 and 7 not printed in the Gazette.]

1,093,278. ROTARY FLUID-MOTOR. THOMAS J. LOFTUS, Castella, Cal., assignor of one-half to Harmon Bell, Oakland, Cal. Filed Sept. 5, 1911. Serial No. 647,550. (Cl. 123—12.)



1. In a motor of the successive explosion type, having an internal gear and a pinion meshing with said gear, means for delivering an explosive mixture between the teeth of the gear and pinion on one side of the latter to be carried forward by the intermeshing teeth, means for exploding the mixture between the gear and pinion, means for scavenging the burnt gases on the side of the pinion opposite the point of delivery of the explosive mixture, and valve means for directing the explosive mixture to either side of the pinion to govern the direction of rotation of the gear.

2. A motor comprising an internal gear, a pinion meshing with said gear, a casing inclosing the gear and pinion, barriers on the casing arranged on opposite sides of the pinion adjacent the teeth of the gear, and having the surfaces contiguous to the passing teeth curved in arcs to form substantially close joints with the teeth, valves on said casing, and means controlled by said valves for delivering an explosive mixture to the space inclosed by one barrier and opening the space inclosing the other barrier to the atmosphere.

3. A motor comprising an internal gear, a pinion meshing with said gear, a casing inclosing the gear and pinion, barriers on the casing arranged on opposite sides of the pinion adjacent the teeth of the gear, and having the surfaces contiguous to the passing teeth curved in arcs to form substantially close joints with the teeth, valves on said casing, means controlled by said valves for delivering an explosive mixture to the space inclosed by one barrier and opening the space inclosing the other barrier to the atmosphere, and means for exploding the mixture between the meshing teeth of the gear and pinion to cause them to rotate.

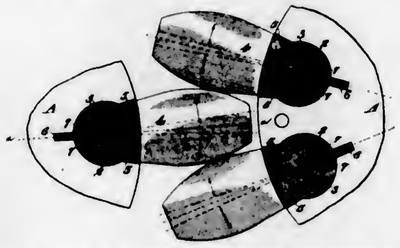
4. An internal combustion motor, consisting of a cylindrical case, a centrally journaled revoluble internal gear, a journaled spur gear meshing therewith, annular plates forming joints with the ends of the gear and pinion, means to introduce an explosive mixture between the teeth anterior to a plane intersecting both axis longitudinally, whereby the mixture is compressed between the meshing teeth, means to ignite the mixture as the teeth commence to separate, a hollow transverse barrier located between the teeth at their point of separation to conduct away the products of combustion, an axially located chamber, and an open connection between the barrier and the chamber.

5. An internal combustion motor comprising a cylindrical case having a centrally journaled revoluble internally toothed gear, spur gears journaled in the case and each intermeshing with the teeth of the internal gear, means to form close moving joints at the ends of the gears, means to admit an explosive mixture to be compressed by the approach of the intermeshing teeth, means to ignite the mixture at the instant of greatest compression and when the teeth commence to separate, transverse passages with which the gear teeth form close joints, said passages conducting the exhaust products, and means to open and close the passages when the engine is reversed.

[Claim 6 not printed in the Gazette.]

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1,093,279. GEAR-WHEEL. THOMAS J. LOFTUS, Castella, Cal., assignor of one-half to Harmon Bell, Oakland, Cal. Filed June 9, 1913. Serial No. 772,571. (Cl. 74—29.)



1. A yieldable tooth for gear-wheels comprising a tooth member mounted to have rocking movement, and a resilient member connected with the tooth member to normally maintain the latter in a central position.

2. A gear-wheel comprising a rim, a series of teeth mounted to rock circumferentially of the rim, and resilient connections between the teeth and rim.

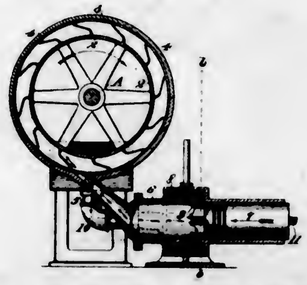
3. In a gear-wheel, a rim formed with sockets on its peripheral edge, gear-teeth mounted in the sockets to rock circumferentially of the rim, and spring connections between the rim and gear teeth to normally maintain them in radial relation to the rim.

4. In a gear-wheel, a rim formed with sockets on its peripheral edge, gear-teeth mounted in the sockets to rock circumferentially of the rim, means for limiting the movement of the gear-teeth in either direction, and spring connections between the rim and gear-teeth to normally maintain them in radial relation to the rim.

5. The combination with a wheel rim, of a series of teeth mounted on the rim to have a rocking movement circumferentially thereof, and flexible members engaging the teeth and wheel rim adapted to oppose movement of the teeth in relation to the rim.

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1,093,280. POWER-GENERATOR. ALEXANDER LUDWIG, Redding, Cal. Filed June 18, 1913. Serial No. 774,388. (Cl. 138—18.)

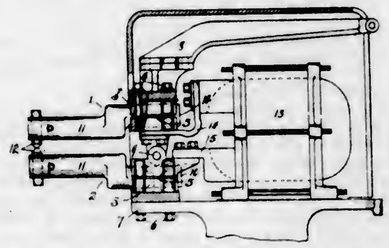


1. In an apparatus of the character described, parallel cylinders with plungers, motors by which said plungers are reciprocated in opposite directions, hollow chambers surrounding the cylinders, ports opening into the cylinders and in communication with the chambers at each retraction of the plungers, impulse wheels and casings in which said wheels are journaled, jet nozzles connecting the cylinders with the wheel casings, and return conduits connecting the wheel casings with the cylinder inclosing chambers.

2. In an apparatus of the character described, cylinders having annular surrounding chambers with ports opening into the cylinders intermediate of their length, plungers and means to reciprocate them within the cylinders, said plungers being of such length as to expose the ports when fully retracted, means to supply liquid to the chambers, incased wheels mounted upon a power transmitting shaft, nozzles through which jets are impelled by the plungers to impinge against the wheel buckets, and return passages from the wheel casings to the cylinder inclosing casings.

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1,093,281. ELECTRIC WELDING-MACHINE. NEIL MACNEALE, Cincinnati, Ohio, assignor to The Toledo Electric Welder Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 31, 1913. Serial No. 809,716. (Cl. 219—4.)



1. In an electric welding machine, a horn having a laterally-offset die-carrying portion and being adjustable about a longitudinal axis.



2. In an electric welding machine, a horn having a laterally-offset die-carrying portion and adjustable to place the offset portion at different positions relative to its longitudinal axis.

3. In an electric welding machine, a horn having a laterally-offset die-carrying portion, and means carrying the horn for rotatable adjustment about its longitudinal axes.

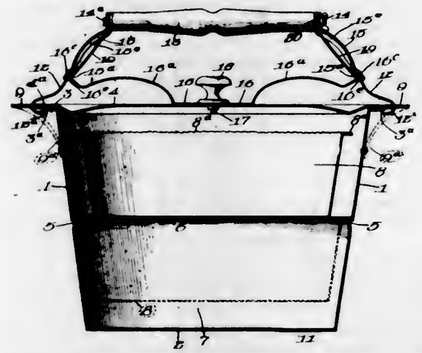
4. In an electric welding machine, a horizontally projecting die-carrying horn angularly adjustable to vary the vertical position of its die-carrying portion.

5. In an electric welding machine, a pair of die-carrying parts, one of which is rotatably adjustable to vary the alining space betwen the die-carrying parts thereof.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,282. COOKING VESSEL. THADDEUS D. MCCALL, Chicago, Ill. Filed Mar. 13, 1908. Serial No. 420,821. (Cl. 53—8.)



1. In a cooking vessel, in combination, a peripheral rim on the upper edge of the walls of the vessel, a lid or cover provided with a movable handle, clutching means pivotally connected with the said movable handle, elastic means interposed between the handle and the cover, said elastic means normally tending to separate the said handle and cover to cause the clutching means secured to the handle to engage the periphery of the cover and the rim of the vessel, a beaded portion extending around the periphery of the cover, and a trough or groove in the peripheral rim adapted to coöperate with the beaded periphery of the lid or cover.

2. In a cooking vessel, in combination, a cover, an annular flange or rim on the vessel adapted to coöperate with the cover, clamping means mounted on the cover and secured thereto comprising hooked members adapted to be adjusted over the edge of the cover and the flange or rim of the vessel, and means for securing the said clamping means against accidental displacement from its adjusted position, comprising a plurality of guide members adjacent each of said clamping means, said guide members being formed integrally with the flange or rim of the vessel and extending approximately parallel with the periphery of said flange or rim.

3. In a cooking vessel, in combination, a cover, an annular flange or rim on the vessel adapted to coöperate with the cover, elastically controlled clamping means mounted on the cover and adapted to clamp the cover on the flange or rim of the vessel, means for guiding the clamping means in position on the vessel, said last mentioned means comprising diametrically disposed ears formed integral with the rim or flange of the vessel and provided with approximately parallel guide slots adapted to receive the said clamping means, and a discharge or drain spout formed integral with said rim or flange.

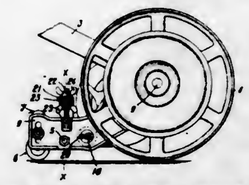
4. In a device of the character described, the combination with a cover, of a movable handle, a pair of depending brackets secured to said handle, hooks pivotally connected with said brackets, extensions on said hooks beyond their pivotal connections with the brackets, springs engaging said extensions on the hooks and bearing thereon and tending to force them inwardly, and a spring secured to the cover and having its free ends connected with the brackets.

5. In a device of the character described, the combination with a cover, of a movable handle, a pair of depending brackets secured to the handle, hook members pivotally connected with said brackets, elastic means secured to the cover and operatively connected with said handle and brackets and controlling the movement thereof, means formed integral with said hook members adapted to engage the periphery of the cover and the walls of a vessel, and means for normally depressing the engaging ends of said hook members.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,283. LAWN-MOWER. ELWOOD W. MCGUIRE, Richmond, Ind. Filed Nov. 11, 1912. Serial No. 730,783. (Cl. 56—19.)



1. In a lawn mower, a pair of side frames, a cutting reel journaled between said frames, a pivotally mounted cutter bar for coöperation with the blades of the cutting reel, means for adjusting the axial plane of the cutter bar to coincidentally aline said cutting elements longitudinally, an apertured extension projecting from one end of the cutter bar transversely over one of the side frames coöperatively engaging with adjusting elements on such side frame.

2. In a lawn mower, a pair of side frames, forward and rearward tie rods uniting said frame, a cutting reel journaled between said frames, a pivotally mounted cutter bar for coöperation with the blades of the cutting reel, means for adjusting the axial plane of the cutter bar to coincidentally aline said cutting element longitudinally, adjusting elements on one of said side frames coöperatively engaging with said cutter bar on one side of the cutter bar axis to adjust the cutting edge of said cutter bar relatively to and from the blades of the cutting reel.

3. In a lawn mower, a pair of side frames, a cutting reel journaled between said frames, a pivotally mounted cutter bar for coöperation with the blades of the cutting reel mounted in bearings in said side frame, means for varying the fulcrum position in one of said side frames to change the axial plane of said cutter bar, means on one of said side frames engaging said cutter bar to swing and lock the same.

4. In a lawn mower, a pair of side frames, a cutting reel journaled between said frames, a stationary cutter bar having a cutter blade for coöperation with the blades of the cutting reel, said cutter bar fulcrumed within the said frames, an extension projecting from one end of said cutter bar overlapping its adjacent side frame, a rigid screw-threaded element projecting from the side frame and passing through an aperture in said cutter bar extension, thumb nuts on said element oppositely engaging said extension, for swinging and locking the cutter bar to adjust its cutting edge coördinately with the blades of the cutting reel.

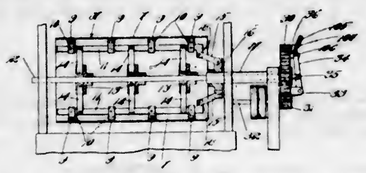
5. A lawn mower of the nature disclosed combining a pair of side frames, a rotative cutter reel supported intermediate of said side frames, a pivoted cutter bar intermediate of the side frames having transverse extensions, one adjacent each side frame, an axis connected with one of said bar extensions located in a permanent bearing in its adjacent side frame, an axis connected with the opposite extension located in an adjustable bearing in its ad-

jacent side frame to coincidentally aline the bar with the cutter reel, and an element projecting from said bar engaging with one of the side frames for swinging and adjusting the bar relatively toward and from the cutter reel.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,284. COLLAPSIBLE MANDREL. CASPER MEHLUM, Cambridge, Mass. Original application filed Dec. 26, 1912, Serial No. 738,573. Divided and this application filed Mar. 3, 1913. Serial No. 751,792. (Cl. 242—112.)



1. In a mandrel, a hollow cylinder slitted lengthwise thereof, a shaft whose axis is concentric with said cylinder, a plurality of boxes fixedly mounted on said shaft, a plurality of rods within the periphery of said cylinder extending lengthwise thereof parallel with said shaft, link connections between said rods and said boxes of the shaft, connections between the inner periphery of the cylinder and said rods, and means for moving said shaft or cylinder one with relation to the other in an endwise direction whereby the cylinder is contracted in diameter.

2. In a mandrel, a collapsible cylinder, a shaft whose axis is concentric with said cylinder, bearings for said shaft in which said shaft is movable longitudinally, link connections between said shaft and said cylinder, and means for causing a longitudinal movement of the shaft with relation to the cylinder whereby through the said link connections the cylinder is collapsed.

3. In a machine for making fiber tubes, a collapsible mandrel comprising a plurality of segmental plates which when set up form a cylinder, a shaft extending centrally through said cylinder, a plurality of rods extending lengthwise within said cylinder parallel with said shaft, there being at least one of said rods for each of said segmental plates, a flexible connection between each of said segmental plates and one of said rods, a plurality of boxes fixedly mounted on said central shaft, link connections between said boxes and said rods, bearings for said shaft within which said shaft is movable longitudinally, and means for moving said shaft longitudinally in its bearings with relation to said segmental plates whereby said segmental plates are drawn inwardly toward said central shaft.

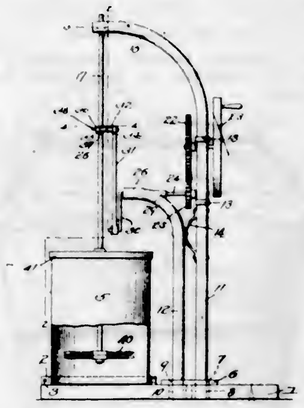
4. In a mandrel, a hollow cylinder slitted lengthwise thereof, a shaft whose axis is concentric with said cylinder, a plurality of boxes fixedly mounted on said shaft, a plurality of rods within the periphery of said cylinder extending lengthwise thereof parallel with said shaft, a plurality of link connections between said rods and said boxes whereby said rods are supported and are adapted to hold the mandrel in expanded form, a sleeve loose on said shaft and link connections between said sleeve and said rods, said sleeve and shaft being longitudinally movable one with relation to the other whereby the said link connections are adapted to move the said parallel rods toward and from said shaft and thereby allow the contraction and expansion of the mandrel.

5. In a machine for making fiber tubes, a collapsible mandrel comprising a plurality of segmental plates which when set up form a cylinder, a shaft extending centrally through said cylinder, each of said plates having on its inner periphery a plurality of ears secured thereto and disposed at intervals lengthwise thereof, a hanger pivoted to each of said ears, a rod supported by said hangers extending lengthwise of said segmental plate, a plurality of boxes fixedly mounted on said shaft, link connections between said boxes and said longitudinal rods, bearings for said shaft, and means for moving said shaft longitudinally in its bearings and with relation to said mandrel plates whereby through said link connections said mandrel plates are drawn inwardly toward the axis and also drawn into overlapping relation with each other.

[Claims 6 to 13 not printed in the Gazette.]

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1,093,285. OPERATING MEANS FOR CHURNS AND OTHER DEVICES. SAVIL D. MERCER, Eldorado, Okla. Filed Dec. 30, 1912. Serial No. 739,287. (Cl. 74—5.)



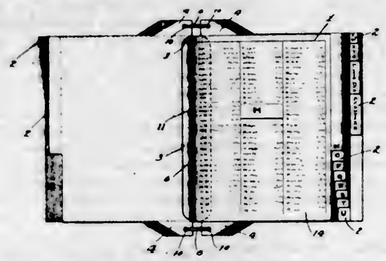
The herein described operating means, comprising a base, a support formed of gas pipe and having an upright portion and an overhanging arm; said support being fixed at its lower end to the base, a comparatively small support formed of gas pipe and fixed at its lower end to the base and having an overhanging arm disposed below and in the same vertical plane as the first-named overhanging arm, means fixedly connected to and fixing said supports with respect to each other, upper and lower horizontally-disposed anti-friction bearings housed in the upright portion of the comparatively large support, horizontally-disposed anti-friction rollers housed in the overhanging arm of the large support and spaced apart adjacent the upper end thereof, a shaft journaled in the upper of the horizontal bearings in the upright portion of the large support, a spur gear fast on said shaft, means for transmitting rotary motion to said shaft, a horizontally-disposed anti-friction bearing housed in the overhanging arm of the comparatively small support, a crank shaft journaled in said bearing and also in the lowermost horizontal bearing in the upright portion of the comparatively large support, a spur gear fast on said shaft and intermeshed with the first-named spur gear, and a dasher rod means for connecting the said crank shaft with the dasher rod.

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1,093,286. INDEX FOR BOUND BOOKS. EDWARD J. MILLS, San Francisco, Cal. Filed June 7, 1913. Serial No. 772,304. (Cl. 11—7.)

1. An index for bound books, the same comprising a plurality of index sheets for insertion between the leaves of a book in spaced relation thereto and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, a perforated stub extension projected from the upper and bottom edge of each sheet adjacent the rear edge thereof to extend a slight distance beyond the said edges of the book, a base plate for engaging the outer surface of the back of the binding of the book and of a length to project at each end a slight distance beyond the same, and means for detachably connecting the projecting ends of said plate with the perforated stub extension of each index sheet.





2. In index for bound books, the same comprising a plurality of index sheets for insertion between the leaves of a book in spaced relation thereto and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, and the tab of successive sheets extending a slight distance beyond the tab of the preceding sheets, a perforated stub extension projected from the upper and bottom edge of each sheet adjacent the rear edge thereof to extend a slight distance beyond the said edges of the book, a base plate for engaging the outer surface of the back of the binding of the book and of a length to project at each end a slight distance beyond the same, and a clamp ring secured to each end of the said plate for detachably connecting the same with the perforated stub extensions of the index sheets.

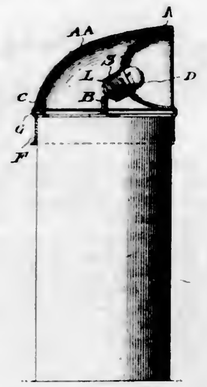
3. An index for bound books, the same comprising a plurality of index sheets for insertion between the leaves of a book in spaced relation thereto and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, and the tab of successive sheets extending a slight distance beyond the tab of the preceding sheets, a perforated stub extension projected from the upper and bottom edge of each sheet adjacent the rear edge thereof to extend a slight distance beyond the said edges of the book, a base plate for engaging the outer surface of the back of the binding of the book and of a length to project at each end a slight distance beyond the same, a clamp ring secured to each end of the said plate for detachably connecting the same with the perforated stub extensions of the index sheets, and means for detachably uniting the base plate to the back of the binding of the book.

4. An index for bound books, the same comprising a plurality of index sheets for insertion between the leaves of a book in spaced relation thereto and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, an extension projected from the upper and bottom edge of each sheet adjacent the rear edge thereof to extend a slight distance beyond said edges of the book, a base member for extending longitudinally of the outer surface of the back of the binding of the book, and of a length to project at each end a slight distance beyond the same, means for retaining the back member in position relative to the back of the binding of the book, and means for hingedly connecting the projected ends of said member with the extension of each index sheet.

5. An index for bound books, the same comprising a plurality of index sheets for insertion between the leaves of a book in spaced relation thereto and each provided with a projecting tab containing a letter indicative of the alphabetical position of the sheet relative to the leaves of the book, an extension projected from the upper and bottom edge of each sheet adjacent the rear edge thereof to extend a slight distance beyond said edges of the book, a base member for extending longitudinally of the outer surface of the back of the binding of the book and of a length to project at each end a slight distance beyond the same, and means whereby the projected ends of said member are hingedly connected to the extension of each index sheet.

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1,093,287. ELECTRIC CAP-LIGHT. ABNER R. NEFF, Los Angeles, Cal. Filed Nov. 20, 1913. Serial No. 802,028. (Cl. 240—8.5.)

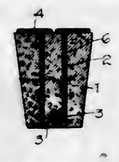


1. An electric cap light consisting of a metal cap slidingly engageable over the top of a dry battery, said cap having an arcuate side and top portion, a reversely arcuate reflector portion integrally formed therewith, said reflector portion having its axis or median line horizontal, and a flanged portion integrally formed with the aforesaid cap, and an incandescent lamp mountable in the aforesaid socket, substantially as set forth.

2. An electric cap light consisting of a metal cap having an interior peripheral groove, a slightly flaring peripheral flange adapted to engage over the top of a dry battery, a reflector, and a lamp socket in the reflector, and a lamp socket in the reflector portion, all integrally formed, in combination with an incandescent lamp mountable in the aforesaid socket.

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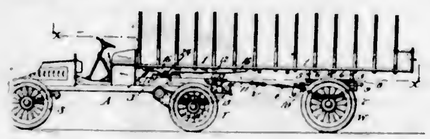
1,093,288. STOPPER AND EXTRACTOR THEREFOR. ALBERT L. NEWSOM, Richmond, Va., assignor to Oscar C. Hockett, Richmond, Va. Filed July 23, 1913. Serial No. 780,841. (Cl. 215—53.)



1. As a new article of manufacture, a stopper and extractor therefor, the extractor consisting of a single length of pliable material, the end portions whereof are embedded in the stopper and provided with means for retaining the extractor in place and the intermediate portion whereof is extended around the major portion of the top surface of the stopper in the form of a loop with converging reverse bends where it joins the end portions, as and for the purpose set forth.

2. As a new article of manufacture, a stopper and extractor therefor, the extractor consisting of a single length of pliable wire, the end portions of which are extended through the stopper longitudinally and are embedded therein and provided at their extremities with means for retaining them in place, and the intermediate portion of the stopper being extended around the major portion of the top surface of the stopper to form a loop with converging reverse bends where it joins the end portions that extend longitudinally into the stopper, the stopper being provided in its top with an edge nick underneath the loop at a point opposite the reverse bends.

1,093,289. TRACTION-VEHICLE. WILLIAM E. PAINE, New York, N. Y. Filed Apr. 30, 1913. Serial No. 764,636. (Cl. 21—33.)



1. A motor vehicle having a plurality of wheels, a bed or platform and a trailer, the front end of said bed or platform being slidingly and pivotally attached to the rear end of the vehicle and the rear end thereof pivotally attached to the trailer, substantially as described.

2. A motor vehicle having a plurality of wheels and a bed or platform slidingly and pivotally attached thereto at its front end; in combination with a turn table the fixed part of which is attached beneath the bed or platform with the movable part carried directly by the wheels of the trailer, substantially as described.

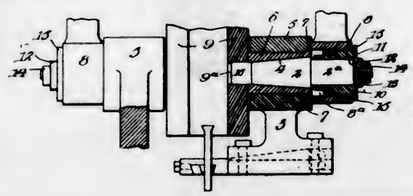
3. A motor vehicle in combination with a trailer and a bed or platform therefor, said bed or platform being slidingly and pivotally attached to the vehicle in front of the axle of the traction wheels thereof, the trailer being horizontally pivotally fixed beneath the rear end of the bed or platform, substantially as described.

4. A motor vehicle having a trailer and a rigid bed or platform pivotally connected thereto and slidingly and pivotally connected to the rear end of the vehicle in such a manner as to have lateral motion in relation thereto, substantially as described.

5. A motor vehicle having a bed or platform and a trailer adapted to carry the rear end thereof; together with means for slidingly and pivotally connecting the front end of the same to the rear end of the vehicle and yielding means for maintaining the bed or platform in alinement with the body of the vehicle when the latter and the trailer are running in alinement, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,093,290. COMPENSATING BEARING. JOHN FRED PENDER, St. John, New Brunswick, Canada, assignor of one-half to James Pender, St. John, New Brunswick, Canada. Filed July 17, 1912. Serial No. 709,945. (Cl. 64—7.)



1. A compensating bearing including a bearing portion having an opening therein, a portion of which is screw-threaded, a bearing pin having one of its ends located in said opening and presenting a tapered portion to form a bearing and a bushing exteriorly screw-threaded to take into said screw-threaded opening and engage with the pin to move it longitudinally.

2. In a wire nail machine, the combination of a fixed frame portion having an opening therethrough, a portion of which is screw-threaded; a second frame portion having an opening therethrough; a bearing pin having its ends located in said openings and presenting a tapered portion located between the frame portions to form a bearing for a lever, and a bushing screw-threaded exteriorly to take into said screw-threaded opening and engage with the pin to move it longitudinally.

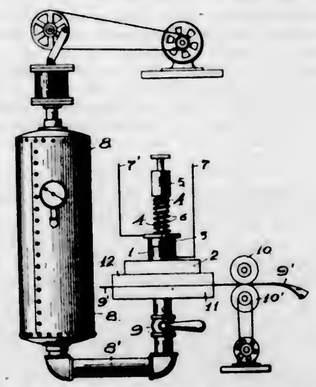
3. In a wire nail machine, the combination of a fixed frame portion having an opening therethrough partly screw-threaded; a second frame portion having an unthreaded opening therethrough; a bushing screw-threaded exteriorly to take into the screw-threaded opening, having an internal shoulder formed thereon and a diminished opening at one end thereof; a bearing pin having its ends located in said openings, formed with a shoulder to bear against the shoulder of the bushing and a screw-threaded reduced end projecting through the diminished opening in said bushing, such pin presenting a tapered portion located between the frame pieces to form a bearing for a lever; a lock nut screwed upon the bushing and a nut upon the screw-threaded reduced end of the pin.

1,093,291. INSECT-TRAP. CHARLES QUIST, Fruitvale, Cal., assignor of one-third to Nils Quist, Haywards, Cal. Filed June 11, 1913. Serial No. 772,929. (Cl. 45—15.)



An insect trap comprising a body, said body tapering toward its lower rear portion, an enlarged plate integrally formed upon the lower rear side of said body and projecting beyond the surface of said body, said plate adapted to fixedly engage a vertical support, thereby holding the upper portion of said body at a spaced distance from the support, said body provided with an enlarged pocket, a staff integrally formed upon said body, said staff extending up through the central portion of said pocket and terminating at a spaced distance above said pocket, said staff adapted to support a shelf upon its upper end, whereby said shelf will be held at a spaced distance from the supporting means of said trap, said pocket of said body adapted to contain a germicide liquid whereby insects will be prevented from traversing said pocket and climbing said staff.

1,093,292. APPARATUS FOR PRODUCING ELECTRIC SIGNALS. FRANK RIEBER, Berkeley, Cal. Filed July 24, 1911. Serial No. 640,131. (Cl. 178—69.)



1. In an apparatus for breaking an electric circuit for producing electric signals in spaced telegraphy and wiping out the ensuing arc, the combination with a fixed tubular contact, a movable contact associated therewith, electrical connections between each of said contacts and a source of electric energy, a connection between said fixed contact and a supply of air under pressure, and means for admitting air under pressure to the movable contact for separating the same from the fixed contact for a period corresponding to either a dash or a dot in spaced telegraphy, the air passing between the contacts when separated to extinguish the arc formed therebetween.



2. In an apparatus for breaking an electric circuit for producing electric signals in spaced telegraphy and wiping out the ensuing arc, the combination with a fixed tubular contact, a movable contact associated therewith, a connection between each of said contacts and a source of electric energy, a connection between said fixed contact and a supply of air under pressure, means for admitting air under pressure to the movable contact for separating the same from the fixed contact for a period corresponding to a dot or dash in spaced telegraphy, the air passing between the contacts when separated to extinguish the arc formed therebetween, and means for restoring the movable contact to normal position on the interruption of the air pressure applied thereto.

3. In an apparatus for breaking an electric circuit for producing electric signals in spaced telegraphy and wiping out the ensuing arc, the combination with two normally engaged contacts, a connection between each of said contacts and a source of electric energy, a connection between one of said contacts and a source of air under pressure, and means for permitting air under pressure from said connection to separate said contacts for a period corresponding to a dot or a dash in spaced telegraphy, the air passing between the contacts when separated to extinguish the arc formed therebetween.

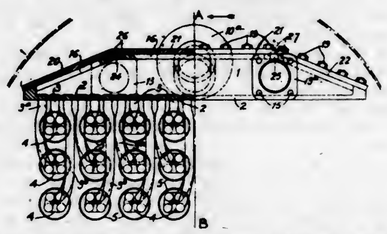
4. In an apparatus for breaking an electric circuit for producing electric signals in spaced telegraphy and wiping out the ensuing arc, the combination with two normally engaged contacts, a connection between each of said contacts and a source of electric energy, a connection between one of said contacts and a source of air under pressure, means for permitting air under pressure from said connection to separate said contacts for a period corresponding to a dot or a dash in spaced telegraphy, the air passing between the contacts when separated to extinguish the arc formed therebetween, and means for restoring the contacts to normal position on the interruption of the air pressure applied thereto.

5. In an apparatus for breaking an electric circuit for producing an electric signal in spaced telegraphy and wiping out the ensuing arc, the combination with a fixed tubular contact, a spring held movable contact normally in engaged relation with said fixed contact, a connection between each of said contacts and a source of electric energy, an air pressure reservoir, a connection between the fixed tubular contact and the air reservoir, and means for intermittently admitting air under pressure to flow through said connection and said fixed tubular contact for separating the movable contact from the fixed contact for periods corresponding to dots or dashes in spaced telegraphy, the air passing between the contacts when separated to extinguish the arc formed therebetween.

[Claims 6 and 7 not printed in the Gazette.]

1,093,293. STEAM-SUPERHEATER FOR LOCOMOTIVE AND LIKE TUBULAR BOILERS. JOHN GEORGE ROBINSON, Manchester, England. Filed Mar. 23, 1912. Serial No. 685,858. (Cl. 122—462.)

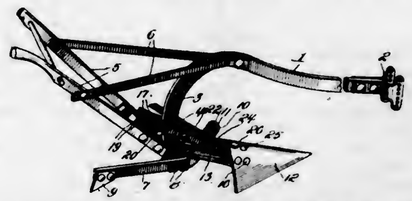
1. The combination, with a boiler having three fire-tubes arranged one above another in substantially the same vertical plane, of a header provided with steam chambers, and superheater pipes arranged in the fire-tubes and having upwardly projecting end portions which are operatively connected to the said steam chambers, the end portions of the superheater pipes pertaining to the two lower fire-tubes being curved outwardly at their upper parts and inwardly at their lower parts and arranged with their intervening middle parts clear of the superheater pipes across which they extend, each superheater pipe being removable from its fire-tube without disturbing the remaining superheater pipes.



2. The combination, with a boiler provided with a smoke-box, and fire-tubes communicating therewith and arranged one above another in sets of three; of a header secured in the smoke-box and arranged horizontally above the level of the fire-tubes and provided with chambers for saturated steam and superheated steam respectively, superheater pipes arranged in the upper fire-tube of each set and having their projecting end portions operatively connected with the said chambers and arranged substantially in the vertical plane of the axis of the upper fire-tube, and superheater pipes arranged in the middle and lower fire-tubes of each set and having their projecting end portions curved outwardly at their upper parts and inwardly at their lower parts and arranged with their intervening middle parts clear of the superheater pipes across which they extend, their said upper parts being operatively connected with the said chambers and arranged upon opposite sides of the said vertical plane, so that each superheater element can be removed and replaced independent of the others.

3. The combination, with a header provided with chambers for saturated steam and superheated steam arranged side by side longitudinally, said chambers having hand openings and removable covers at their tops for giving free access to the upper ends of the superheater pipes, said heater having also a chamber or pocket for hot air extending between the aforesaid chambers and being open at its bottom and closed at its ends and top; of superheater pipes having their upper ends secured to the bottoms of the said steam chambers.

1,093,294. PLOW. HENRY F. SALGE, Lockhart, Tex. Filed June 5, 1913. Serial No. 771,943. (Cl. 97—26.)



1. A plow including a beam carrying a standard, a longitudinally-extending supporting bar secured to the standard and having an up-turned forward end, a shank connected with the up-turned end of the bar for longitudinal and vertical adjustments, and a plow point or share adjustably secured to the forward end of the shank.

2. A plow including a beam having a depending standard, a longitudinally-extending supporting bar secured to the lower end of the standard, said bar having an up-turned forward end, a guide runner upon the rear end of the bar, a shank composed of spaced members connected at their forward ends, said members being arranged to embrace the standard and up-turned end of the bar, fastening devices connecting the shank with the standard and up-turned end of the bar for longitudinal and vertical

adjustments, and a plow point or share adjustably connected with the forward end of the shank.

3. A plow including a beam having a depending standard, a longitudinally-extending supporting bar secured to the lower end of the standard, said bar having its forward end projecting upward at an angle to form a bracket arm, a guide runner carried by the rear end of the supporting bar, a shank composed of spaced members arranged to embrace the standard and bracket arm and connected at their forward ends, fastening devices connecting the shank with the standard and bracket arm for longitudinal and vertical adjustments, a plow point or share resting upon the forward end of the shank, a stop lug carried thereby and fitting between the members of the shank and abutting against the forward end thereof, and a bolt passing through the plow point or share and between the members of the shank and adjustably securing said plow point or share to the shank.

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1,093,295. PROCESS OF MANUFACTURING ARTIFICIAL HORSEHAIR. CLAUDE MARIE SANLAVILLE, Le Coteau, France. Filed Oct. 18, 1912. Serial No. 726,492. (Cl. 92—15.)

1. A process of manufacturing artificial horsehair from vegetable fibers, consisting in boiling said fibers in a weak solution of caustic soda to free said fibers from gum, then rinsing and drying said fibers, treating them in a cold bath of caustic soda at 18° Baumé or more, again drying the fibers, immersing same in an acid bath to twist and curl the fibers and finally rinsing and drying said fibers.

2. A process of manufacturing artificial horsehair from alfa or aloe fibers consisting in first boiling said fibers at a pressure of about three atmospheres in a weak solution of caustic soda to free said fibers from gum, rinsing and drying the fibers, and immersing them in a cold bath of caustic soda at 18° Baumé or more and again drying said fibers, and finally treating said fibers in a 1% sulfuric acid bath and rinsing and drying the same.

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1,093,296. TRANSOM-OPERATOR. LOUIS B. SMYSER, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 13, 1913. Serial No. 753,953. (Cl. 16—28.)



1. Operating means for swinging closures comprising a lever adapted for connection to and operation of a swinging closure, an actuating bell-crank lever pivoted adjacent one end and on a center different from that of said closure lever and operatively connected therewith to provide a varying leverage thereagainst progressively decreasing from a maximum with the decrease from maximum of closure load on said closure lever, and manually controlled means for operating said bell-crank lever.

2. Operating means for swinging closures comprising a lever adapted for connection to and operation of a swinging closure, an actuating bell-crank lever pivotally mounted adjacent one end and on a center different from that of said closure lever and having an elongated slot between its apex and pivot point, said closure lever having a pin seating in said slot to move therein and relative to said pivot point, and manually controlled operating connections for the other end of said bell-crank lever, whereby maximum leverage is secured through said bell-crank against said closure lever, said leverage progressively decreasing from maximum with the decrease of closure load on said closure lever.

3. Operating means for swinging closures comprising a lever adapted for connection to and operation of a swinging closure, an actuating bell-crank lever pivotally mounted adjacent one end and on a center different from that of said closure lever and having an elongated slot between its apex and pivot point, said closure lever having a pin seating in said slot to move therein and relative to said pivot point, a movable operating bar, a link pivotally connecting said bar and the other end of said bell-crank lever; and manually controlled mechanism in operating connection with said bar and adapted to move the same to swing said bell-crank lever on its pivot, said bell-crank lever providing a leverage against said closure lever progressivley decreasing from maximum with the decrease from maximum of the closure load on said lever.

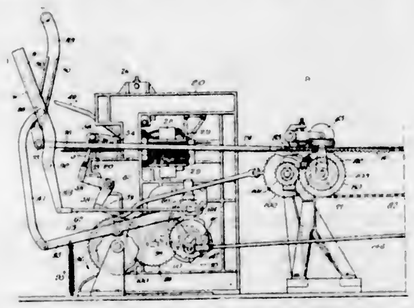
4. In a swinging transom operating means, an assembled unit construction comprising a carrier, a closure actuating means mounted thereon, a manually controllable operating mechanism spaced apart from said actuating means and also mounted on said carrier, and power transmitting means between said manually operable controllable means and said actuating means.

5. In a concealed operating device for swinging transoms and the like, an assembled unit construction including a carrier, a transom actuating lever pivotally mounted on said carrier, manually controllable operating means also mounted on said carrier and spaced apart from said lever, a power transmitting means operatively connecting said manually controllable operating means and said lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,297. MACHINE FOR WELDING REINFORCEMENTS FOR CONCRETE. WILLIAM S. SOUTHWICK, Clinton, Mass., assignor to Clinton Wire Cloth Company, Clinton, Mass., a Corporation of Massachusetts. Filed Oct. 26, 1911. Serial No. 656,984. (Cl. 140—112.)



1. A machine for making welded fabric, comprising in combination, two feeding means arranged in tandem relation to act respectively upon the unfabricated portions of the strand members and upon the fabric, and welding means arranged to weld stay members to the strand members between said two feeding means.

2. A machine for making welded fabric, comprising in combination, two feeding means arranged in tandem relation to act respectively upon the strand members and upon the stay members of the fabric, and welding means arranged to weld stay members to the strand members between said two feeding means.

3. A machine for making welded fabric, comprising means for supporting a plurality of rods, means for placing metallic members across said rods in contact therewith, means for electrically welding said rods and cross members at their points of intersection, reciprocatory means for engaging the welded cross members to feed the work step by step, and driven means for varying the relation of the elements of said feeding means whereby the length of feeding steps is varied.

4. A machine for making welded fabric, comprising means for imparting step-by-step feeding movement to the work, and welding means arranged to weld the fabric members to each other, said feeding means having provisions for automatically varying the length of the feeding steps of the fabric.

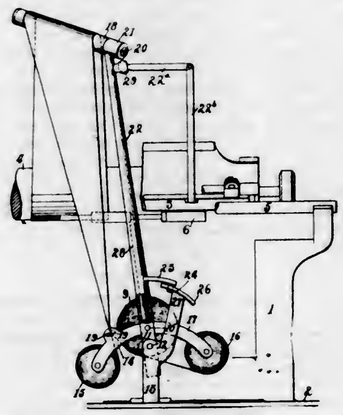
5. A machine for making welded fabric, comprising electric welding mechanism, means for feeding rods thereto, means for placing metallic members across said rods in position to be welded, and means in advance of the welding mechanism for grinding said rods at the points which are to be engaged by said welding mechanism.

[Claims 6 to 23 not printed in the Gazette.]



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1,093,298. TYPE-WRITING MACHINE. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to John T. Underwood, Brooklyn, N. Y. Filed Mar. 5, 1912. Serial No. 681,744. (Cl. 197—134.)



1. The combination with a typewriter carriage, of a swinging frame having a stationary support, and connected to said carriage to swing as the latter travels, means on said swinging frame for supporting a roll or spool of paper, and a guide on said swinging frame over which the web is looped in passing from the roll or spool to the typewriter carriage.

2. The combination with a typewriter carriage, of a swinging frame having a stationary support, and connected to said carriage to swing as the latter travels, means on said swinging frame for supporting a roll or spool of paper, and a guide on said swinging frame over which the web is looped in passing from the roll or spool to the typewriter carriage; said guide being inclined to take up the slack in the web.

3. The combination with a typewriter carriage, of a swinging frame having a stationary support, and connected to said carriage to swing as the latter travels, means on said swinging frame for supporting a roll or spool of paper, and a guide on said swinging frame over which the web is looped in passing from the roll or spool to the typewriter carriage; said guide being inclined laterally, upwardly and forwardly to take up the slack in the web.

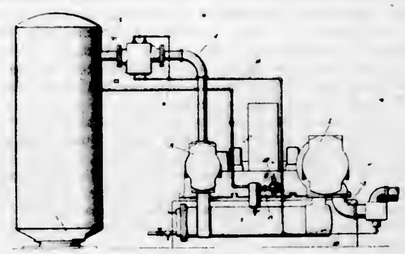
4. The combination with a typewriter carriage, of a swinging frame having a stationary support, and connected to said carriage to swing as the latter travels, means on said swinging frame for supporting a roll or spool of paper, a guide on said swinging frame over which the web is looped in passing from the roll or spool to the typewriter carriage, said guide inclined to take up the slack in the web, and means for shifting the position of said guide as the carriage travels, so that it may take up the slack in the web at all the relative positions of said carriage and swinging frame while the web is being written upon.

5. The combination with a typewriter carriage, of a swinging frame having a stationary support, means on said swinging frame for supporting a roll or spool of paper, a guide on said swinging frame over which the web is looped in passing from the roll or spool to the typewriter carriage, an arm connected to said carriage, and a link connecting said arm to said swinging frame.

[Claims 6 to 24 not printed in the Gazette.]

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1,093,299. UNLOADING DEVICE FOR COMPRESSORS. WILLIAM F. TREIBER, Corning, N. Y., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed May 16, 1912. Serial No. 697,708. (Cl. 230—24.)



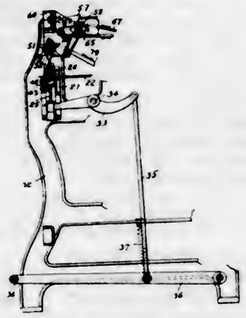
1. In combination, a fluid compressor, a receiver, a discharge line connecting said compressor and said receiver, a valve for closing the intake of the compressor, an unloader in said discharge line comprising check valve mechanism and a discharge valve between said check valve mechanism and said compressor, pistons operating said intake closing valve and said discharge valve, cylinders for said pistons and auxiliary valve mechanism for connecting said cylinders with fluid under pressure when the receiver pressure reaches a predetermined amount, and with fluid at atmospheric pressure when the receiver pressure falls below a predetermined amount.

2. In combination, a fluid compressor, a receiver, a discharge line connecting said compressor and said receiver, an unloader in said discharge line comprising a line closing valve, a discharge valve, means for positively closing the line closing valve by means of fluid pressure, and means for opening the discharge valve to unload the compressor outlet to atmospheric pressure by fluid pressure, and auxiliary valve mechanism to supply fluid pressure to operate said line closing valve and said discharge valve at a predetermined pressure in said receiver.

3. In an unloading device for compressors, a discharge line unloader comprising a valve having a valve face and a hollow body, a stationary piston plug in said body, said body sliding thereon, a fluid inlet passage through said piston plug, a discharge valve, a stem on said valve, a piston engaging said stem, a cylinder for said piston and means for admitting fluid under pressure to said inlet passage and said discharge valve cylinder.

4. In an unloading device for compressors, a discharge line unloader comprising a line closing valve, means including a cylinder and piston for positively closing said line closing valve, a discharge valve, means for operating said discharge valve including a cylinder and piston and means for supplying fluid to said cylinders to operate said valves.

1,093,300. TACKING DEVICE. BENJAMIN W. TUCKER, Newark, N. J., assignor to John Beecher Patton, Kent, Ohio. Original application filed Feb. 14, 1906, Serial No. 301,072. Divided and this application filed Mar. 3, 1906. Serial No. 304,080. (Cl. 1—6.)



1. In a machine of the character described, the combination with a support, of a hopper adjustably mounted on said support and adapted to hold tacks *en masse*, means for agitating the tacks, a rotary tack collecting device movably mounted below the hopper, means for conveying the tacks from the hopper to a point adjacent to the tack collecting device, and means whereby the tacks may be fed singly to said tack collecting device.

2. The combination with a support, of a series of hoppers adjustably mounted on said support and adapted to hold tacks, means for agitating the tacks, a series of rotary tack collecting devices movable with the hoppers, means for conveying the tacks from the hoppers to a point adjacent to the tack collecting devices, together with means whereby the tacks may be fed singly to said tack collecting devices.

3. The combination with a support, of a tack holding device, a pivotably held hopper, means for agitating the tacks in the hopper, a chute comprising a fixed and a yielding member for conveying the tacks to the tack holding device, means for moving the hopper on its pivot to carry the lower end of the chute away from said device, and a stop or projection for raising the yielding member and releasing one tack at a time for delivery to said tack holding device.

4. The combination with means for supporting shade material, of a support, a plurality of movable devices adapted to hold fastening elements and located on the support, means for permitting individual adjustment of said devices, supporting means for a shade-roller, and means for imparting a vertical movement to the shade-roller supporting means whereby the series of devices may be made to simultaneously force a plurality of festening elements into the shade-roller to fasten the shade material thereto.

5. The combination with means for supporting shade material, of a shaft, a plurality of movable devices adapted to hold fastening elements and located on the shaft, a backing for a shade-roller, and means for moving the shade roller toward the devices whereby the series of devices may be made to simultaneously force a plurality of the fastening elements while held by said devices into the shade-roller to fasten the shade material thereto.

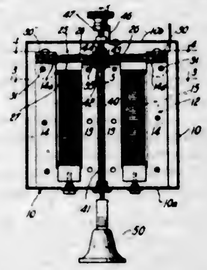
[Claims 6 to 23 not printed in the Gazette.]

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1,093,301. VIBRATOR. GERARD VANDE, Los Angeles, Cal. Filed June 16, 1913. Serial No. 773,803. (Cl. 171—126.)

1. A vibrator, comprising a double-U-shaped magnet with a central core and lateral pole extensions, an energizing coil for the magnet and a spring armature attached to both polar extensions and extending medially over the core.

2. A vibrator, comprising a double-U-shaped magnet with a central core and lateral pole extensions on opposite sides thereof, an energizing coil for the core, and a spring armature pivotally attached to both polar extensions and extending medially over the core.



3. A vibrator, comprising a double-U-shaped magnet with a central core and lateral pole extensions on opposite sides thereof, an energizing coil for the core, and a spring armature attached to both polar extensions and extending medially over the core, said armature comprising a body of soft iron laminæ and a flat strip of spring steel.

4. A vibrator, comprising a double-U-shaped magnet with a central core and lateral pole extensions on opposite sides thereof, an energizing coil for the core, and a spring armature attached to both polar extensions and extending medially over the core, said armature comprising a body of soft iron laminæ broken centrally over the core, and a flat strip of spring steel continuous between the points of attachment to the lateral pole extensions.

5. A vibrator, comprising a double-U-shaped magnet with a central core and lateral pole extensions on opposite sides thereof, an energizing coil for the core, and a spring armature attached to both polar extensions and extending medially over the core, said armature comprising a body of soft iron laminæ broken centrally over the core, and a flat strip of spring steel continuous between the points of attachment to the lateral pole extensions, and means to hold the soft iron laminæ to the steel strip at its center.

[Claim 6 not printed in the Gazette.]

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1,093,302. PRESSURE-DEVELOPING PNEUMATIC TOOL. JOHN L. WAGNER, Syracuse, N. Y., assignor to The Pneumelectric Machine Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 1, 1910. Serial No. 546,686. (Cl. 125—20.)



1. A fluid driven tool of substantially the character described, comprising a compressing piston, a pressure driven piston and suitable housing for said pistons in which the compressing piston compresses a charge of air and exerts retracting influence upon the pressure driven piston; said housing having a reservoir, a port between said reservoir and the part of the housing where the air is compressed; a second port between the reservoir and the space between the pistons by means of which two ports and said reservoir the charge of compressed air is conveyed into the space between the pistons and permitted to there act expansively when retraction has taken place, an outlet valve leading to said reservoir from the front part of said housing and a similarly arranged valve close behind the driven piston in its foremost position, said two valves adapted to permit escape of air in advance of the pistons on their forward strokes, and a port in the forward end of said housing adapted to admit air in front of the pressure driven piston on its rearward stroke; and an air passage establishing communication from the compressing space of the compressing piston to said air admitting port in advance of the pressure driven piston, whereby some of the air compressed by the compressing piston is utilized to drive the pressure driven piston rearward.

2. A fluid driven tool of substantially the character described comprising a compressing piston, a pressure driven piston and suitable housing in which said pistons work, confining air in driving relation to the driven piston and providing by its rear portion a compression chamber in which a charge of air is compressed by the compressing piston; said housing having a reservoir and ports connecting the interior of said housing with said reservoir and adapted respectively to release air in advance of the pistons on their forward stroke, and to release a charge of compressed air from said reservoir to the space between the pistons when in their retracted position, and a replenishing valve in said reservoir; said housing also having a port connecting said compression chamber with said reservoir and furthermore a by-pass with a port at each end extending from the front end to the rear portion of the housing for supplying compressed air to the space in advance of the driven piston when the compressing piston recedes.

3. A fluid driven tool of substantially the character described comprising a compressing piston, a pressure driven piston and suitable housing in which said pistons work, confining air in driven relation to the driven piston and providing by its rear portion a compression chamber in which a charge of air is compressed by the compressing piston; said housing having a reservoir and ports connecting the interior of said housing with said reservoirs and adapted respectively to release air in advance of the pistons on their forward stroke, and to release a charge of compressed air from said reservoir to the space between the pistons when in their retracted position, and a replenishing valve in said reservoir; said housing also having a port connecting said compression chamber with said reservoir and furthermore a by-pass with a port at each end extending from the front end to the rear portion of the housing, for supplying compressed air to the space in advance of the driven piston when the compressing piston recedes, one of said by-pass ports being located in the compression chamber and adapted to be closed by said compressing piston after commencement of the compressing stroke, whereby retracting pressure is supplied during but a portion of the compression stroke.

4. A fluid driven tool of substantially the character described comprising a compressing piston, a pressure driven piston and suitable housing in which said pistons work, confining air in driving relation to the driven piston and providing by its rear portion a compressing chamber in which a charge of air is compressed by the compressing piston; said housing having a reservoir, ports connecting the interior of said housing with said reservoir and adapted to release air in advance of the pistons on their forward strokes, and other intercommunicating ports adapted to supply air from said compressing chamber in advance of the driven piston when at its forward limit; one of said intercommunicating ports being controlled by the compressing piston and located in the compression chamber and adapted to be closed by the compressing piston after commencement of the compressing stroke, whereby retracting pressure is supplied during but a portion of compression stroke and said last named port remaining closed until after the forward stroke of the driven piston, and trapping air in advance of the driven piston to cushion the latter; said housing also having a port releasing the charge of compressed air from said reservoir to the space between the pistons when retracted, and also having a port in the compression chamber and in communication with said reservoir.

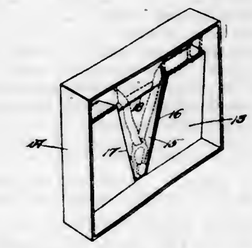
5. A fluid driven tool of substantially the character described, comprising a compressing piston, a pressure driven piston, and suitable housing for said pistons in which the compressing piston compresses a charge of air and exerts retracting influence upon the pressure driven piston; said housing having a reservoir, a port between said reservoir and the part of the housing where the air is compressed, a second port between the reservoir and the space between the pistons, by means of which two said ports and said reservoir the charge of compressed air is conveyed into the space between the pistons and permitted to there act expansively when retraction has taken place, an outlet valve leading to said reservoir from the front part of said housing and a similarly arranged valve close behind the driven piston in its forward position, said two valves adapted to permit escape of air in advance of the pistons on their forward strokes, and a port in the forward end of said housing adapted to admit air in front of the pressure driven piston on its rearward stroke; and an air passage establishing communication from the compressing space of the compressing piston to said air admitting port in advance of the pressure driven piston, whereby some of the air compressed by the compressing piston is utilized to drive the pressure driven piston rearward, said reservoir receiving air displaced on the forward stroke of the compressing piston, communication with the compression chamber and said reservoir being established when air is being supplied from said compression chamber to the space in front of the driven piston.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,303. DISPLAY-CARD. PETER R. WARREN, Boston, Mass. Filed Aug. 29, 1913. Serial No. 787,383. (Cl. 211—28.)



1. A display card formed of a single sheet of material slitted to form a tongue portion integral with the body and entirely within the borders thereof, the body having a substantially vertical top portion above the tongue, the said body portion having on each side of the tongue a substantially horizontal shelf portion and a downwardly extending leg portion, the body portion below the tongue being bent to form a substantially horizontal base, the said tongue portion being bent to form at its upper end a shelf portion which slopes downward at an angle to the shelf of the body, thence a leg portion which extends downward at an angle to said shelf portion to the said base of the body, thence is bent to form a substantially horizontal foot which rests on the inner face of the base of the body.

2. A display card formed of a single sheet of material slitted to form a tongue portion integral with the body and entirely within the borders thereof, the body having a substantially vertical top portion above the tongue, the said body portion having on each side of the tongue a substantially horizontal shelf portion and a downwardly extending leg portion at an acute angle to the shelf portion, the body portion below the tongue being bent to form a substantially horizontal base, the said tongue portion being bent to form at its upper end a shelf portion which slopes downward at an angle to the shelf of the body, thence a leg portion which extends downward at an angle to said shelf portion to the said base of the body, thence is bent to form a substantially horizontal foot which rests on the inner face of the base of the body.

3. A display card formed of a single sheet of material slitted to form a tongue portion at some distance below the top, the body portion being bent in a line with the upper end of said tongue portion at substantially right angles to the upper part of the body, forming a shelf, said body being bent down from the edge of the shelf portion

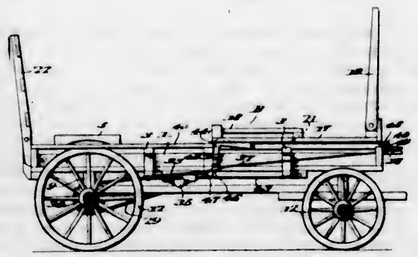
to form a leg, said tongue portion being bent to form at its upper end a shelf portion which slopes downward in a plane at an acute angle to the shelf of the body portion, thence is bent downward to form a leg portion which together with the leg portions of the body support said card.

4. A display card formed of a single sheet of material slitted to form a tongue portion at some distance below the top, the body portion being bent in a line with the upper end of said tongue portion at substantially right angles to the upper part of the body, forming a shelf, said body being bent down from the edge of the shelf portion to form a leg, and thence is bent to form at its lower end a substantially horizontal base, said tongue portion being bent to form at its upper end a shelf portion which slopes downward in a plane at an acute angle to the shelf of the body portion, thence is bent downward to form a leg portion, and thence is bent to form a substantially horizontal foot which rests on the inner face of the base of said body portion.

5. A display card formed of a single sheet of material slitted to form a tongue portion integral with the body and entirely within the borders thereof, the body having a substantially vertical top portion above the tongue, the said body portion having on each side of the tongue a substantially horizontal shelf portion and a downwardly extending leg portion, the body portion below the tongue being bent to form a substantially horizontal base, the said tongue portion being bent to form at its upper end a shelf portion which slopes downward at an angle to the shelf of the body, thence a leg portion which extends downward at an angle to said shelf portion to the said base of the body, thence is bent to form a substantially horizontal foot which rests on the inner face of the base of the body, in combination with a box having one wall which is engaged by the upper end of the body portion and a wall at the opposite side which is engaged by the base of the body portion of said display card.

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1,093,304. HAY-RACK. HARRY S. WILLCOX, Oxford, N. Y. Filed Oct. 7, 1913. Serial No. 793,941. (Cl. 21—74.)

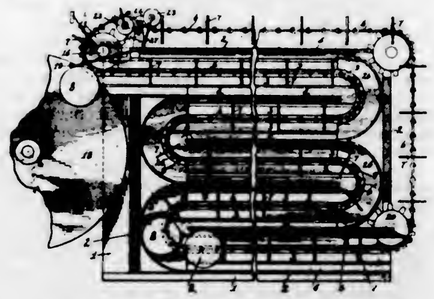


1. In a device of the class described, a wheel supported frame, a platform longitudinally movable on said frame, means for forcibly moving the platform in one direction including a drum shaft, flexible connecting members, a clutch, a spring actuated shipping lever, a hand lever, and a rod connecting the hand lever with the shipping lever, said rod having an offset, a stop member to retain the platform at one end of its movement, said stop member comprising a bar having an arm provided with a sleeve engaging the offset portion of the connecting rod, a spring actuated bell crank having an offset that moves in the path of the hand lever when the latter is operated to actuate the shipping lever, said bell crank having also an obstructing member, and a lip associated with the platform to engage the obstructing member of the bell crank when the platform reaches the limit of its movement in one direction, thereby rocking the bell crank and releasing the hand lever.

2. In a device of the class described, a frame, including longitudinal sills and track members, a platform supported for longitudinal movement on the track members, means for forcibly propelling the platform in one direction, said means including a transmission clutch, and means for actuating the same, obstructing means to retain the platform in load receiving position at one limit of its movement, and means for simultaneously actuating the clutch device and releasing the obstructing member, said means including a sleeve associated with the obstructing member and a rod having an offset cam portion engaging the said sleeve.

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1,093,305. EXHAUST-BOX FOR FRUIT-CANNING. WILLIAM C. ANDERSON and ALBERT R. THOMPSON, San Jose, Cal., assignors to Anderson-Barngrover Mfg. Co., San Jose, Cal., a Corporation of California. Filed Apr. 24, 1911. Serial No. 622,897. (Cl. 126—272.)



1. In a heating box for fruit cans, and in combination with the box and means for heating it, a traveling carrier for conveying open-ended, filled cans in an upright position through said box, said carrier and cans being in the same vertical plane, and said carrier being directed to move the cans in a to and fro course in said box at a uniform speed.

2. In a heating box for fruit cans, and in combination with the box and means for heating it, a traveling carrier and a can support for conveying open-ended, filled cans in an upright position through said box, said carrier and cans being in the same vertical plane, and said carrier being directed to move the cans in a to and fro course over said support in said box at a uniform speed, said support being so positioned as to maintain said cans in an upright position.

3. In a heating box for fruit canning and in combination with the box having an inlet and an outlet opening, and means for heating said box, an endless traveling carrier for conveying the cans in an upright position into, through and out of said box, said carrier entering the box through the inlet opening, and being continuously directed in a to and fro course in a horizontal plane within the box, thence emerging from the outlet opening of the box and continuing beside the exterior of the box to the inlet opening again.

4. In a heating box for fruit canning, and in combination with the box and means for heating it, a carrier chain having links provided with cross flights on one edge, a series of horizontal parallel tracks within the box composed of pairs of spaced flanged bars to guide the articulations of the links and support the flights of the chain; a series of parallel flanged bars flanking the spaced flanged bars and forming can supporting tracks lying in the horizontal plane of the chain supporting tracks; curved can-guides and supports at alternately opposite ends of adjacent can tracks; and sprockets at said ends disposed to rotate in horizontal planes and arranged to direct the chain within the box in a to and fro course in a horizontal plane.

5. In a heating box for fruit canning, and in combination with the box and means for heating it, a carrier chain having links provided with cross flights on one edge, a series of horizontal parallel tracks within the box composed of pairs of spaced flanged bars to guide the articulations of the links and support the flights of the chain; a



series of parallel flanged bars flanking the spaced flanged bars and forming can supporting tracks lying in the horizontal plane of the chain supporting tracks; curved can-guides and supports at alternately opposite ends of adjacent can tracks; track-supporting cross plates within the box at intervals; and sprockets at said ends disposed to rotate in horizontal planes and arranged to direct the chain within the box in a to and fro course in a horizontal plane.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,306. CLUTCH. GEORGE K. ATKINSON, Cincinnati, Ohio, assignor of one-half to The John Steptoe Shaper Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 27, 1911. Serial No. 617,051. (Cl. 192—13.)



1. A clutch mechanism, comprising two members, a clamping ring connected to one member, and adapted to be expanded, and clamped to the second member, a lever mechanism, for operating said ring mounted on the first member, and a link member, having its ends guided in oppositely disposed planes, and in connection with said lever mechanism, shifting means mounted and movable within the first member in connection with the opposite end of said link member, for moving the same to and from an end alined position and adjusting means interposed between said link and lever for regulating the lever movement.

2. A clutch mechanism comprising a driving and a driven member, a split ring interposed between said members, fixed to one and adapted to be clamped to the second, lever mechanism engaged with said split ring, a link connected with said lever mechanism with its ends adapted to be moved in relative right-angled planes, means mounted and movable within the driving member at right angles to the link for moving said link to and from a relative end alined position and adjusting means interposed between said link and lever for regulating the lever movement.

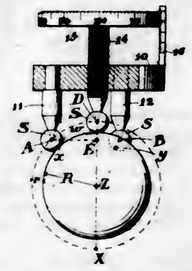
3. A clutch mechanism comprising a driven shaft, a driving member loose thereon, a driven member fixed on said shaft, a split ring interposed between said members fixed to one, and adapted to be clamped to the second, a lever engaging said split ring to expand the same, a link connected to said lever at one end and an actuating member movably mounted within said shaft and engaged with the opposite end of said link for moving the link in different planes for actuating said lever, and adjusting means interposed between said link and lever for regulating the lever movement.

4. A clutch mechanism comprising a shaft, a driving member concentric and loose thereon, a split ring interposed between said shaft and driving member, adapted to be frictionally clamped to the latter, means for expanding said ring, an actuating member movably mounted within said shaft, a link having one end thereof engaged with said actuating member, its opposite end with the expanding means, whereby the movement of the actuating member will change the angular plane of the link operating the expanding means and adjusting means interposed between said link and lever for regulating the lever movement.

5. A clutch mechanism comprising a driven shaft, a driving member concentric and loose thereon, having an annular flange projected therefrom, a driven member fixed on said shaft having its periphery parallel with said flange, a split ring interposed between said flange and driven member connected to one member, and adapted to be expanded to connect with the second member, a lever pivotally mounted within the driven member for expanding said ring, an actuating member movably mounted within the shaft, a link having one end socketed within the lever, its opposite end socketed within the actuating member, whereby in the movement of the actuating member the plane of the link will be varied for rocking said lever and adjusting means interposed between said link and lever for regulating the lever movement.

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1,093,307. SPHEROMETER. JOSEPH BECKER, Washington, D. C. Filed Dec. 30, 1910. Serial No. 600,003. (Cl. 33—172.)

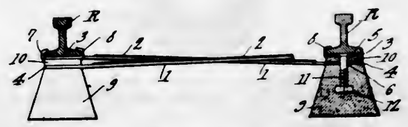


1. A spherometer having rigidly connected contact members composed of relatively large rigid spheres of the same radius, arranged so that the geometrical centers of such spheres shall correspond to the ideal geometrical needle points of the instrument.

2. A spherometer of the tripod type, having three rigidly connected feet or contact members composed of relatively large rigid spheres of the same radius, arranged so that the geometrical centers of such spheres shall correspond to the three ideal geometrical needle points of the instrument.

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1,093,308. RAILROAD-TIE WITH CUSHIONS. WILLIAM C. BENSON, Owensville, Ind. Filed Dec. 18, 1913. Serial No. 807,512. (Cl. 238—6.)



1. In a railroad tie, a pair of oppositely inclined cross strips having superimposed end plates, and cushions disposed between the said plates.

2. In a railroad tie, a pair of oppositely inclined cross strips having superimposed end plates, cushions disposed between the said plates, the upper plates having rail holding means, and securing means engagable with the superimposed end plates and cushions of each set.

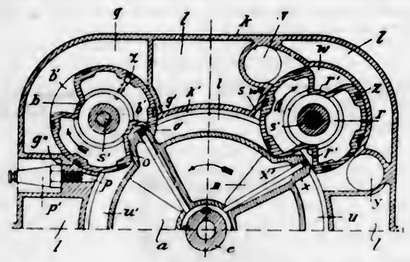
3. A railroad tie structure embodying a pair of pillars, a pair of cross strips having superimposed end plates, the lower plates resting on the pillars, cushions disposed between the plates, and securing means engaging through the plates and cushions and taking into the pillars.

4. A railroad tie structure embodying a pair of pillars, a pair of cross strips having superimposed end plates, the lower places resting on the pillars, cushions disposed between the plates, and securing means engaging through the plates and cushions and taking into the pillars, the upper plates having means engageable over the edges of the rail base flanges.

5. In a railroad tie, a pair of strips disposed side by side and having angular plates at their ends, the plates of the two strips projecting in opposite directions and being superimposed, and cushions disposed between the said plates.

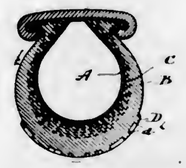
[Claims 6 to 11 not printed in the Gazette.]

1,093,309. ROTARY INTERNAL-COMBUSTION ENGINE. GUILLAUME BOURET, Paris, France. Filed Feb. 12, 1912. Serial No. 677,101. (Cl. 123—13.)



In a rotary internal combustion engine, the combination of a casing provided with a rotor cavity, cavities for accommodating an inlet port drum valve and a compression controlled drum valve, a rotary disk mounted on a concentric shaft and provided with teeth forming pistons dividing said rotor cavity into conduits, rotary valves provided with a plurality of peripheral cavities and segments, said valve cavities being equal in number to the number of teeth for regulating the admission of the explosive mixture, cranks keyed to the axles of the rotary valves for actuating said valves at a positive ratio for movement of said rotary disk to position said cavities of said valves in operative relation to the teeth of said rotary disk, a fly-wheel, and cam driven rollers within cam grooves of said fly-wheel for controlling said cranks, substantially as described.

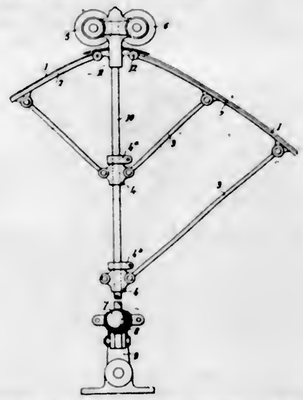
1,093,310. VEHICLE-TIRE. STACY G. CARKHUFF, Akron, Ohio. Filed Sept. 4, 1908. Serial No. 451,698. (Cl. 152—14.)



A vehicle tire of the character described having on its peripheral surface throughout its circumference projections of differing outlines arranged in rows disposed obliquely across the tread face of the tire, the projections having solid portions constituting ribs extending angularly with respect to a circumferential line and also angularly with respect to a transverse line and angularly also with respect to other ribs, such projections providing a variety of wedge elements at different angles adapted to co-act to grip the road surface and prevent side and drive slipping, substantially as described.

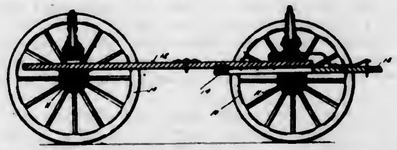
1,093,311. PARACHUTE FOR AEROSTATION AND AVIATION. MARIUS CHAUMERET, Paris, France. Filed Apr. 10, 1912. Serial No. 689,726. (Cl. 244—2.)

1. A parachute of the character described for an aerial craft comprising in combination, a central pole, two superposed sleeves sliding along said pole, stops for limiting the upward movement of said sleeves, two sets of steel rods pivotally secured with their lower ends to their respective sleeves, a supporting bracket upon the upper end of said pole, ribs carrying the material forming the roof of the parachute, adapted to be expanded by said rods and pivotally secured with their inner ends to said bracket, pulleys upon said bracket at opposite sides thereof, cords passing over said pulleys in opposite directions, one of said cords being secured with one of its ends to a ring of the upper movable sleeve engaging a hook of the lower stop and having its other end at the disposal of the aviator, the engagement between the upper sliding sleeve and the lower stop being for the purpose of allowing an automatic expansion of the parachute on release, and the other of said cords being secured with one of its ends to the lower of said movable sleeves, and having its other end at the disposal of the aviator for starting the automatic opening of the parachute by its expanding ribs, an elastic ring for securing the lower ends of said ribs while the parachute is folded, and means for detachably securing the parachute in its closed position to the tail-end of an aerial craft, substantially as described.



2. A parachute of the character described for an aerial craft detachably secured to said craft, and comprising in combination, a central pole supporting superposed sliding sleeves and upper and lower stops for limiting their upward movement, a bracket upon the upper end of said pole, ribs for carrying the material forming the roof of the parachute pivotally secured with their inner ends to said bracket, two sets of steel rods pivotally connected to said sliding sleeves and to said ribs, means for securing the parachute in its folded position, and means for mechanically releasing said securing means for positively expanding the parachute, a pair of pulleys upon said bracket at opposite sides thereof, over which cords are guided in opposite directions, a hook upon the lower stationary stop adapted to be engaged by a ring of the upper of the sliding sleeves to which one end of one of said cords is secured for disengaging said ring from said hook, upon a pull exerted upon the free end of said cord, a ring upon the lower of said sliding sleeves to which one end of the other cord is fastened for moving said sliding sleeve upward upon a pull exerted upon the free end of said cord for positively opening the parachute under the expansion of said ribs, substantially as described.

1,093,312. ATTACHMENT FOR WAGON-REACHES. JACOB B. CHEOUT, Des Moines, Iowa. Filed July 28, 1913. Serial No. 781,668. (Cl. 21—85.)

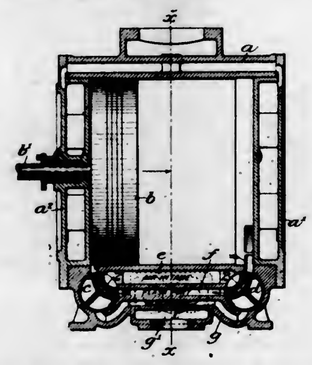


1. An attachment for vehicle reaches, comprising a receptacle substantially in the shape of a three quarter cylinder having a longitudinal slot in its lower portion, said three quarter cylinder being provided at the sides of said slot with laterally extending flanges and with transverse flanges connecting said side flanges, the flange at one end being slightly bent outwardly at its center to permit the insertion of balls into the three quarter cylinder and being provided with a tongue capable of being bent to proper position for holding the balls in position.

2. In a device of the class described, the combination of a wagon reach having a longitudinal slot in its lower surface, with a receptacle having substantially the form of a three quarter cylinder provided with laterally extending flanges at the edges of the longitudinal openings in said three quarter cylinder and with transverse flanges connecting said side flanges one of said transverse flanges being bent away from the body of said three quarter cylinder to permit the insertion of balls into the latter, said last named flange having a tongue formed thereon and designed to be bent inwardly for holding balls in said three quarter cylinder, and a plurality of balls in said three quarter cylinder, said attachment being received in said slot in said reach, and said flanges being secured to the reach.



1,093,313. DRY VACUUM-PUMP. EVI WILLSON CHRISTIE, Sewaren, N. J., assignor to Wheeler Condenser and Engineering Company, Carteret, N. J., a Corporation of New Jersey. Filed Feb. 16, 1912. Serial No. 678,030. (Cl. 230—34.)

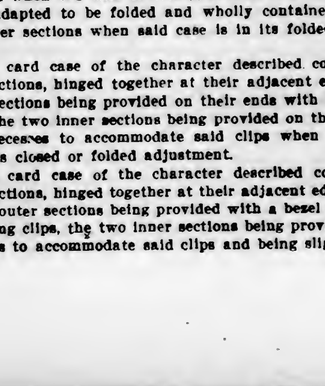


In a dry vacuum pump, two similar oppositely disposed oscillating valves placed adjacent to the opposite ends of the cylinder and stroke and piston, and each having a curved port therethrough, an intervening flashport, an air intake chamber located above the flashport, a discharge chamber located below the flash port, series of puppet valves freely communicating with the opposite ends of the discharge chamber and a second discharge chamber located below the first aforesaid discharge chamber and with which the puppet valves establish communication when open.

1,093,314. AUTOMATIC VENTILATOR-CONTROLLER. WILLIAM HUMBOLDT CLANDENING, Carman, Manitoba, Canada. Filed Aug. 29, 1912. Serial No. 717,751. (Cl. 236—6.)

1. In combination, a movable rod, a window, connections between said rod and window, a bell crank lever connected to said rod, a piston, means for operating said piston by expansion, a rod carried by said piston, connections between said rod and the aforesaid movable rod, a second piston, means for operating the same by expansion, a movable pivot for the bell crank lever carried by said piston, and sliding connections between said pivot and the lever.

2. In combination, a centrally slotted bell crank lever, a movable pivot therefor slidably operative in the slot, a movable rod carrying said pivot, a pivot head secured to the lower end thereof, a casing containing said head and exposed to the atmosphere, expansion and contraction means for raising and lowering the head according to thermo-atmospheric variations, said means being contained by the casing, a second movable rod connected to one arm of the bell crank, a piston head connected to the lower end thereof, a casing containing the piston head, a second casing connected therewith and at right angles thereto and



containing an element susceptible to thermal variations, a slidably mounted rod connected to the other arm of the bell crank lever, a window, connections between the rod and the window, and means for keeping the window normally closed.

1,093,315. DOUBLE CARD-CASE. LOUIS COHN, New York, N. Y. Filed Jan. 17, 1914. Serial No. 812,620. (Cl. 40—16.)



1. A card case of the character described comprising four sections joined at their adjacent edges, the two inner sections being adapted to be folded and bent within the outer sections when the case is in its closed adjustment.

2. A card case of the character described, comprising four sections hinged at their adjacent edges, the two inner sections being of slightly less length and width than the two outer sections, the said two inner sections being adapted to be folded and contained within the outer sections when the case is in its closed adjustment.

3. A card case of the character described comprising four sections hinged at their adjacent edges, each of the outer sections being provided on their ends with a bezel of such width as not to interfere with the folded inner sections when the case is closed, said two inner sections being adapted to be folded and wholly contained within the outer sections when said case is in its folded adjustment.

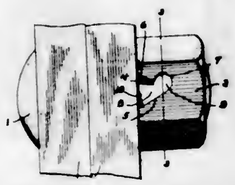
4. A card case of the character described comprising four sections, hinged together at their adjacent edges, the outer sections being provided on their ends with retaining clips, the two inner sections being provided on their edges with recesses to accommodate said clips when the case is in its closed or folded adjustment.

5. A card case of the character described comprising four sections, hinged together at their adjacent edges, each of the outer sections being provided with a bezel and with retaining clips, the two inner sections being provided with recesses to accommodate said clips and being slightly less

in length and width than the two outer sections, whereby to be wholly contained within said outer sections when the case is closed.

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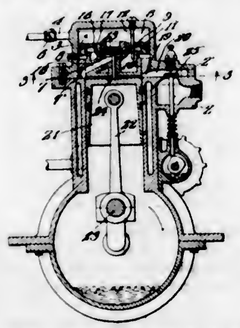
1,093,316. NUT-LOCK. MARTIN T. CONVERY, Philadelphia, Pa. Filed Apr. 8, 1913, Serial No. 759,590. Renewed Mar. 11, 1914. Serial No. 824,049. (Cl. 151—40.)



As a new article of manufacture, a nut having a recess in one face, said recess having a curved inner end constituting a bearing, and a flared outer end, said recess at the point of juncture between the bearing and the flared outer end of a width less than the diameter of the bearing, a dog located in the recess and having a curved inner end mounted to turn in the bearing, and the wall of said curved inner end of the recess projected over the curved portion of the dog, substantially as described.

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1,093,317. EXPLOSIVE-ENGINE. FRANK J. CHOUCH and HENRY STUTSMAN, Portland, Oreg. Filed July 14, 1913. Serial No. 779,047. (Cl. 123—78.)

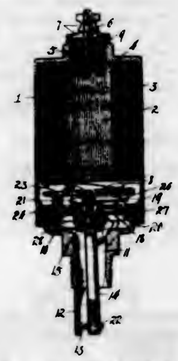


1. An explosion engine, including a cylinder, a head therefor, a power piston mounted therein, a plunger mounted in the head of the cylinder, means for supplying compressed air to the cylinder head in the rear of the plunger, whereby the plunger is held toward the power piston, said plunger being elastically cushioned by the compressed air but yielding to move away from the power piston at the compression and explosion strokes thereof, said plunger being provided with a port disposed to communicate at the rear thereof and into the upper end of the cylinder, and a valve mounted in the plunger for controlling the port, said valve being operated by the power piston at the end of the exhaust stroke to admit the compressed air to scavenge the cylinder.

2. An explosion engine, including a cylinder, a power piston mounted therein, an elongated cap forming the head of the cylinder, a ring mounted in the end of the cap and providing an enlarged chamber at the upper end of the cap, a double diametered plunger having a port therethrough and mounted in the cap with the reduced portion mounted in the ring, means for supplying compressed air at the rear of the enlarged end of the plunger to elastically cushion the plunger during the compression and explosion strokes, and a valve in the plunger for controlling the port and communication between the enlarged chamber of the cap and the cylinder, said valve being operated by the power piston to admit a scavenging charge of air at the end of the exhaust stroke of the power piston.

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1,093,318. ELECTRICAL SPARKING DEVICE. WILLIAM J. CUNNINGHAM, Toledo, Ohio, assignor of one-half to Fred G. Meyer, Toledo, Ohio. Filed Aug. 5, 1912. Serial No. 713,460. (Cl. 123—154.)



1. In an electrical sparking device, an electromagnet, an armature responsive thereto, a fixed electrode, a movable electrode movable by a responsive movement of the armature to break contact with the fixed electrode, and compression actuated means for assisting the electromagnet in moving the armature to break the contact.

2. An electrical sparking device having fixed and movable electrodes, and both compression and electrically operated means for assisting in imparting movements to the movable electrode to cause it to break contact with its companion.

3. An electrical sparking device having relatively movable electrodes, compression actuated means for imparting relative movements to the electrodes, said means normally standing in one position and being inoperative when in such position, and electrically operated means for initially moving said first means from normal position.

4. The combination with an engine cylinder, of an electrical sparking device having relatively movable electrodes, a second cylinder in communication with the combustion end of the engine cylinder, means normally closing the communication between said cylinders and operable by engine cylinder compression to impart contact breaking movements to one of said electrodes when said communication is opened, and electrical means for controlling the opening of the communication between the two cylinders.

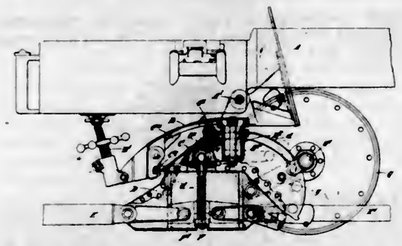
5. The combination with an engine cylinder, of an electrical sparking device having relatively movable electrodes, a second cylinder in communication with the engine cylinder, means having a part working in said second cylinder and normally closing the communication between the two cylinders and operable by engine cylinder compression to break contact between the electrodes when the communication between the cylinders is open, and electrical means for controlling the opening of such communication.

[Claims 6 to 22 not printed in the Gazette.]

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1,093,319. TRIPOD-MOUNTING FOR AUTOMATIC GUNS. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed July 14, 1910. Serial No. 571,887. (Cl. 89—40.)

1. In a tripod mounting for automatic guns, the combination of a top carriage, a training pivot, a trail and legs, an adjusting gear for the said trail and legs, a casing carrying said adjusting gear, and guides on said casing upon which the said top carriage and the training pivot can be adjusted with respect to the said casing to cause the said pivot to occupy a vertical position.



2. In a tripod mounting for automatic guns, the combination of a top carriage, a training pivot, a trail and legs, an adjusting gear for the said trail and legs, a casing carrying said adjusting gear and comprising side plates provided with curved guides, a training arc, and a member carrying said training arc and engaging in said curved guides.

3. In a tripod mounting for automatic guns, the combination of a top carriage, a training pivot, a trail and legs, an adjusting gear for the said trail and legs, a casing carrying said adjusting gear and comprising side plates provided with curved guides, a training arc, a member carrying said training arc and engaging in said curved guides, and a clamping device for retaining said training arc member in the adjusted position.

4. In a tripod mounting for automatic guns, the combination of a training pivot of the gun, a trail and legs, means whereby the said pivot can be adjusted with respect to the mounting to occupy a vertical position when the mounting is standing on sloping ground, a receptacle for the ammunition belt, gear for adjusting said trail and legs, said gear including a spindle, and means for detachably connecting the said receptacle to the said spindle.

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1,093,320. ANVIL-BLOCK. CHARLES A. DIECKMAN, Warrenton, Mo. Filed Oct. 8, 1913. Serial No. 794,004. (Cl. 78—68.5.)

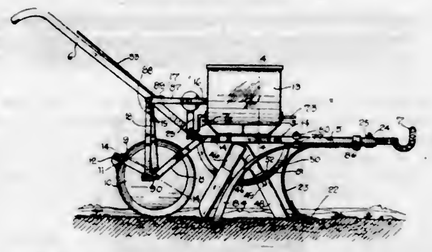


A plow anvil, comprising a block having a flat surface at one end portion, and having a raised portion adjacent thereto, said raised portion having one end arranged diagonally of the block and forming a point at one side of the block, the pointed side of the raised portion being longer than its opposite side and the surface of the block being inclined from its shorter to its longer side, and the opposite end portion of the raised part being rounded and provided with a slot extending crosswise of the block.

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1,093,321. COMBINED SEED-PLANTER AND FERTILIZER-DISTRIBUTER. EDGAR ELLIS, Sulphur Springs, Ala. Filed June 11, 1913. Serial No. 773,124. (Cl. 111—15.)

1. In a machine of the character described, fertilizer and seed hoppers, a depositing boot arranged beneath each of the hoppers, each of said boots including an upper pivotally mounted section and a lower extensible section, a curved bar secured to the frame of the machine, clamping bolts adjustable in said bar, the extensible boot sections being slotted to receive said bolts, whereby the same are held in their adjusted positions with relation to the upper boot sections and with relation to each other, and means for feeding fertilizer and seed from the respective hoppers to said boots in the movement of the machine.



2. In a machine of the character described, fertilizer and seed hoppers, depositing boots arranged beneath said hoppers, means for adjusting said boots with respect to each other to space their discharge ends, means for automatically feeding the fertilizer and seed to the respective boots in the movement of the machine, and covering blades laterally and longitudinally adjustable with respect to the boots.

3. In a machine of the character described, fertilizer and seed hoppers, depositing boots arranged beneath said hoppers and adjustable with relation to each other to space their lower discharge ends, a longitudinally adjustable furrow opening shovel arranged in advance of said boots, longitudinally and laterally adjustable covering blades disposed rearwardly of the shovel, and means for automatically feeding the fertilizer and seed to the boots in the movement of the machine.

4. In a machine of the character described, fertilizer and seed hoppers, depositing boots arranged beneath said hoppers, a feeding plate mounted in the bottom of each hopper for longitudinal reciprocating movement, a cover wheel, a rock shaft provided with a crank arm, a crank extending from one end of the wheel axle, a pitman connecting the crank of the axle to the crank arm of said shaft, disks fixed upon said shaft, arms loosely mounted on the disks and connected to the feeding plates, and independently operable means mounted upon said shaft and normally locking the arms to the disks whereby either of the arms may be released from connection with the disk to discontinue the operation of the feeding plates.

5. In a machine of the character described, fertilizer and seed hoppers, depositing boots arranged beneath said hoppers, a feed plate mounted to reciprocate longitudinally in the bottom of each hopper, a transverse shaft, arms loosely mounted upon said shaft and connected to the respective feed plates, a crank on one end of said shaft, a covering wheel, the axle of said wheel being provided with a crank on one of its ends, a pitman connecting the crank of the axle to the crank arm of said shaft to actuate the latter, and means operable at the will of the operator to connect either of said arms to the shaft for movement thereby, whereby the feeding plates are reciprocated.

[Claim 6 not printed in the Gazette.]

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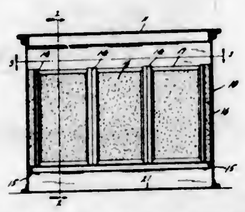
1,093,322. PUSH-HANDLE FOR GO-CARTS AND THE LIKE. MELVIN J. FOYER, Toledo, Ohio, assignor to The Foyer Brothers & Company, Toledo, Ohio, a Corporation of Ohio. Filed Aug. 16, 1911. Serial No. 644,427. (Cl. 21—12.)



In a device of the character described, a pair of side-bars having inwardly turned opposed horizontal upper ends, a hand-piece having at each end a socket which receives respectively one of the said ends of the side-bars, a rod passing lengthwise through the hand-piece and hav-

ing threaded extremities, and threaded members carried by said ends of said side-bars and concealed within said recesses and engaged with the ends of said rod.

1,093,323. METHOD OF PREPARING DRY MATS FOR STEREOTYPING. JOHN FREMONT FREY, Indianapolis, Ind. Filed Feb. 26, 1913. Serial No. 750,800. (Cl. 198—7.)



1. That improvement in the art of preparing a matrix for stereotype plates, comprising the immersion of a dry mat in a heavily humid gas for a sufficient time to produce the uniform humidification of the mat to such a degree of humidity as to render it pliant but still capable of scorching without preliminary drying; the formation of type impression in such humidified mat; and scorching the matrix thus formed.

2. That improvement in the art of preparing a matrix for stereotype plates, comprising the immersion of a dry mat in a heavily humid gas for a sufficient time to produce the uniform humidification of the mat to such a degree of humidity as to render it pliant but still capable of scorching without preliminary drying; and the formation of type impression in such humidified mat.

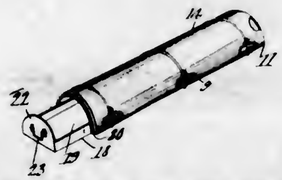
3. That improvement in the art of producing stereotype plates, comprising the introduction of a dry mat into a humidor and the maintenance in a heavily humid state of the air in such humidor and the consequent uniform humidification of such mat to a degree such that, after the formation of type impression therein, the matrix may be immediately scorched; the withdrawal of such mat from the humidor and the formation of type impression therein; and the prompt scorching of the matrix.

4. That improvement in the art of producing stereotype plates, comprising the introduction of a dry mat into a humidor and the maintenance in a heavily humid state of the air in such humidor and the consequent uniform humidification of such mat to a degree such that, after the formation of type impression therein, the matrix may be immediately scorched; the withdrawal of such mat from the humidor and the formation of type impression therein.

5. That improvement in the art of preparing a matrix for stereotype plates, comprising the immersion of a dry mat in a substantially vertical position in a heavily humid gas for a sufficient time to produce the uniform humidification of the mat to such a degree of humidity as to render it pliant but still capable of scorching without preliminary drying; and the formtaion of a type impression in such humidified mat.

[Claim 6 not printed in the Gazette.]

1,093,324. BURIAL-CASKET. OZRO H. GILLESPIE, Madison, Nebr. Filed Oct. 11, 1913. Serial No. 794,576. (Cl. 27—7.)



A coffin comprising a case and corpse tray mounted to slide in the case, the case having an opening through which the corpse tray may be inserted into the case, and the corpse tray including a part which covers the opening and closes the case when the tray is slid into the case.

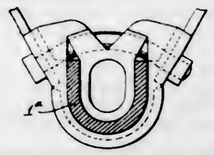
1,093,325. DISPENSING-CAN. GEORGE W. HAGERTHEY, Linwood, N. J. Filed Sept. 18, 1912. Serial No. 720,968. (Cl. 221—31.)



1. In combination with a dispensing can having a screw-threaded opening therein, a cylindrical member screwed into the opening in the can and having a closed outer end, a cap on the cylindrical portion, a valve normally closing an opening in the inner end of the cylindrical portion, a rod connecting the valve and the cap, a spring interposed between the end of the cylindrical portion and the cap and normally holding the valve in closed position, said cylindrical portion and cap having openings therein normally out of register, and said openings registered when the cap is moved to open the valve, substantially as described.

2. An air inlet device of the character described, comprising a cylindrical member having a closed outer end, and externally screw-threaded at its inner open end, a valve adapted to close said inner end, a rod secured to said valve and projecting through the closed outer end of said cylindrical member, a cap telescoping on the outer end of said cylindrical member and secured to said rod, a coiled spring around the rod between the cap and the closed outer end of the cylindrical member, said cylindrical portion and cap having openings therein normally held out of register by said spring, and said openings registered when the cap is moved to open position.

1,093,326. TELEGRAPH-POLE AND THE LIKE. BRODERICK HASKELL, Franklin, Pa. Filed July 2, 1913. Serial No. 776,984. (Cl. 189—25.)



1. A pole comprising a plurality of separated upright channel bars having their channels facing toward the center of the pole, filler blocks adapted to fit within and conform to the channel of each of the bars and provided with a projection at each of their ends and extending beyond the inner edges of the upright bars, clips engaging the outer surfaces of the upright bars and provided with an inwardly projecting lug at each of their ends adapted to engage the corresponding projection of the filler blocks, a bolt passing through the ends of each of the clips and forcing said projections and lugs against each other and clamping said bars between the blocks and clips, and means for connecting the adjacent ends of the several clips.

2. A pole comprising a plurality of separated upright channel bars having their channels facing toward the center of the pole, filler blocks adapted to fit within and conform to the channel of each of the bars and provided with a projection at each of their ends and extending beyond the inner edges of the upright bars, clips engaging the outer surfaces of the upright bars and provided with an inwardly projecting lug at each of their ends adapted to engage the corresponding projection at the end of the filler blocks, a bolt passing through the ends of each of the clips and below the projections of each of the blocks, and means for connecting the adjacent ends of the several clips.



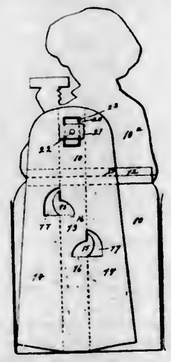
3. A pole comprising a plurality of separated upright channel bars having their channels facing toward the center of the pole, filler blocks adapted to fit within and conform to the channel of each of the bars and provided with a beveled projection at each of their ends and extending beyond the inner edges of the upright bars, clips engaging the outer surfaces of the upright bars and provided with an inwardly projecting beveled lug at each of their ends adapted to engage the bevel of the corresponding projection of the filler blocks, a curved bolt passing through the ends of each of the clips and below the projections of each of the blocks, and means for connecting the adjacent ends of the several clips.

4. A pole comprising a plurality of separated upright channel bars having their channels facing toward the center of the pole, filler blocks adapted to fit within and conform to the channel of each of the bars and provided with separated upper and lower projections at each of their ends and extending beyond the inner edges of the upright bars, clips engaging the outer surfaces of the upright bars and provided with separated upper and lower inwardly projecting lugs at each of their ends adapted to engage the corresponding projections of the filler blocks, a bolt passing through the ends of each of the clips and between the upper and lower projections of each of the blocks, and means for connecting the adjacent ends of the several clips.

5. A pole comprising a plurality of separated upright channel bars having their channels facing toward the center of the pole, filler blocks adapted to fit within and conform to the channel of each of the bars and provided with separated upper and lower projections having beveled outer sides at each of their ends and extending beyond the inner edges of the upright bars, clips engaging the outer surfaces of the upright bars and provided with separated upper and lower inwardly projecting lugs having beveled inner sides at each of their ends adapted to engage the corresponding beveled outer sides of the projections of the filler blocks, a bolt passing through the ends of each of the clips and between the upper and lower projections of each of the blocks, and means for connecting the adjacent ends of the several clips.

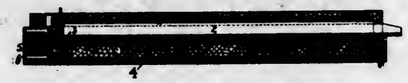
[Claims 6 to 8 not printed in the Gazette.]

1,093,327. DISPLAY-STAND. WILLIAM J. HAUSSLER, Brooklyn, N. Y., assignor to The Firm of M. Hohner, New York, N. Y. Filed Nov. 5, 1913. Serial No. 799,260. (Cl. 40—125.)



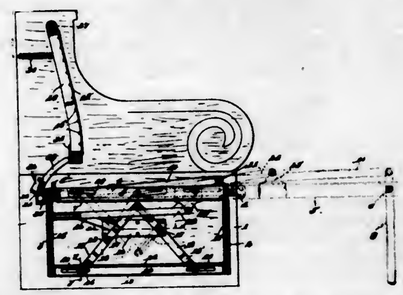
A display stand comprising a face plate, having an upper foldable section, a back plate having an upper apertured flap, a turn button on the foldable section of the face plate adapted to be projected through the flap-aperture, and means on the back plate for sustaining it in an upright position.

1,093,328. ELECTRIC INDUCTION HEATER OR FURNACE. ALOIS HELFENSTEIN, Vienna, Austria-Hungary. Filed June 5, 1912. Serial No. 701,893. (Cl. 204—64.)



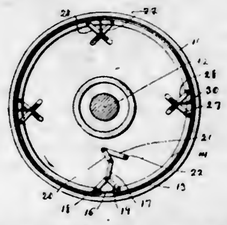
An electric induction furnace comprising an elongated furnace casing surrounding the metal bath, concentrically for reducing the self-induction, a transformer, water cooled poles at the ends of said casing for transmitting the induced secondary current through the furnace casing to the bath to be heated, substantially as described.

1,093,329. FOLDING BED. ARTHUR HIRSH, Chicago, Ill. Filed Mar. 18, 1912. Serial No. 684,403. (Cl. 5—51.)



The combination with a frame; of a back hinged therein; a seat hingedly secured to said frame; a bracket secured to said frame opposite to the hinges of said seat; a bell crank mounted in said bracket, one arm of which contacts with the free edge of the back and the other arm with the free side of the seat, whereby the angle of the back to the seat may be adjusted as the seat is moved; and means whereby the movement of said bell crank may be limited.

1,093,330. DRUM-BRAKE. WILLIAM SANFORD HUTCHINSON, Oyster Bay, N. Y. Filed Nov. 15, 1913. Serial No. 801,145. (Cl. 74—37.)



1. A brake of the kind described comprising a drum, a shoe arranged within and in close proximity to the rim of the drum, and crossing arms pivotally connected to the shoe and having a sliding connection with a stationary support between the shoe and the axis of the drum.

2. A brake comprising a rotatable drum, a shoe concentrically arranged within the drum and adapted to impinge upon the rim of the drum, and crossing slotted arms having their slotted portions arranged on a stationary stud between the shoe and the axis of the drum and their outer ends pivoted to the shoe.

3. A drum brake having a rim, a shoe arranged concentrically with the drum rim and within the latter, arms of opposed pitch within the drum and pivoted to the shoe,

stationary supports between the shoe and the axis of the drum, and a sliding and pivotal connection between the aforesaid arms and the stationary supports.

4. A brake comprising a rotatable drum having a rim, an expansible shoe arranged within the drum and in near relation to the rim of the drum, stationary supports between the shoe and the axis of the drum, and arms of opposed pitch pivoted to the shoe and having sliding connections with the aforesaid stationary supports.

5. A brake comprising a rotatable drum having a rim, an expansible shoe arranged within the rim of the drum and in close relation thereto, stationary supports arranged between the shoe and the axis of the drum, and crossing arms arranged in pairs, the outer ends of the arms being pivoted to the shoe, and the body portions of the arms having sliding and pivotal connections with the aforesaid supports.

[Claims 6 to 10 not printed in the Gazette.]

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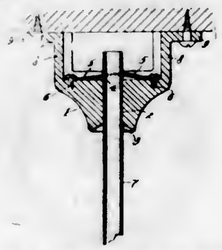
1,093,331. COMBINED TAP AND DRILL-GAGE. FERNANDO OSCAR JAQUES, Jr., Cranston, R. I., assignor, by mesne assignments, to Louis Shelden Moulthrop, Providence, R. I. Filed Mar. 30, 1911. Serial No. 617,922. (Cl. 10—141.)



A tap having a shank provided with a drill gage formed of a circular cavity having a cone-shaped bottom and conforming to the pointed end of a twist drill.

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1,093,332. SECURING DEVICE FOR ELECTROLIERS AND THE LIKE. GEORGE W. JOCKERS, Cleveland, Ohio, assignor to Evan H. Hopkins, Cleveland, Ohio. Filed Feb. 13, 1913. Serial No. 748,087. (Cl. 240—85.)



1. In a device of the character described, the combination, with a receiving member having a bore and an entering member adapted to traverse said bore, said receiving member also having a substantially flat surface transverse to said bore, of a gripping member of yielding sheet metal secured rigidly to said flat surface at a distance from said bore, the end of said gripping member conforming substantially to the shape of said bore and normally overlapping the same to an extent sufficient to cause it to engage said entering member, the free end of said gripping member being yieldable in a direction along the axis of said bore to permit the insertion of said entering member, and being non-yieldable in a direction radially of said bore whereby the direct withdrawal of said inserted member is prevented.

2. In a fixture, the combination, with a receiving member and means whereby said member can be secured against a supporting surface, said receiving member having a bore substantially normal to said surface, and also having a flat surface transverse to said bore, of an entering member adapted to traverse said bore, a gripping member of yielding sheet metal secured rigidly to said flat surface at a distance from said bore, the end of said gripping member conforming substantially to the shape of said bore and normally overlapping the same to an extent sufficient to cause it to engage said entering member, said gripping member being yieldable in a direction axially of said bore to permit the insertion of said entering member and being non-yieldable in a direction radially of said bore whereby the direct withdrawal of said inserted member is prevented, and a hollow cap or bell rigidly secured to said entering member and adapted to engage said supporting surface about said receiving member whereby said receiving member is inclosed.

3. In a device of the character described, the combination with a receiving member having a bore and an entering member adapted to traverse said bore, of a plurality of separate segmental gripping members carried by said receiving member and overlapping slightly the wall of said bore, the ends of said gripping members conforming substantially to the shape of said bore, each of said gripping members being yieldable axially of said bore to permit the insertion of said entering member and being non-yieldable in a direction radially of said bore whereby the direct withdrawal of said inserted member is prevented, and the forward ends of said gripping members being inclined progressively with respect to the axis of said inserted member.

4. In a device of the character described, the combination, with a body member having a cylindrical bore therethrough and a substantially flat securing surface intersected by said bore, of a cylindrical member adapted to be inserted into said bore, a plurality of symmetrically arranged resilient plates rigidly secured to said securing surface at a point removed from said bore and having their forward ends overhanging the sides of said bore, the forward ends of said plates conforming in shape to said bore and being inclined transversely thereof to permit the withdrawal of said inserted member by rotation in the appropriate direction.

5. In a device of the character described, the combination, with a body member having a cylindrical bore therethrough and a smooth surfaced cylindrical member adapted to be inserted into said bore, said body member also having a recess surrounding said bore and a wall surrounding said recess, of a plurality of separate, segmental, normally straight, gripping members secured against the bottom of said recess at a point removed from their inner ends and having their outer ends braced against said wall, the length of said members being greater than the distance between said bore and wall and said members being elastic in the direction of the axis of said bore whereby they may be sprung to permit the free insertion of said entering member and to grip the same upon the inception of any movement of withdrawal, the forward ends of said yielding members being inclined transversely of said bore to permit the withdrawal of said inserted member by rotation in the appropriate direction.

[Claims 6 to 13 not printed in the Gazette.]

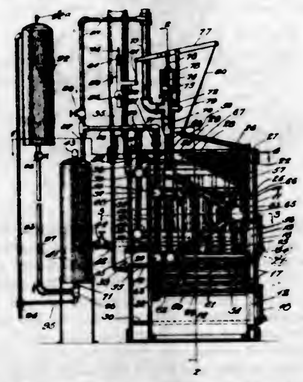
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1,093,333. HEATING APPARATUS. CHARLES J. JOHNSON, Chicago, Ill. Filed Apr. 18, 1913. Serial No. 761,961. (Cl. 122—235.)

1. The combination with a furnace-casing, of a water-circulating pipe-system arranged therein, the said system having means for the induction of water thereinto at a suitable point within the furnace-casing and for conducting it partially around and then upwardly within the casing, and then downwardly, and then partially around and upwardly, and again downwardly, and then entirely around and upwardly within the casing, and then upwardly in a zig-zag course, and then out through the top of the casing to a service pipe.



2. The combination with a furnace consisting of an inner and an outer casing having their walls spaced apart, of a water-circulating pipe-system arranged partly between said casings and partly within the inner one, the said system having means for the induction of water to the piping between the casings and for conducting it partially around and then upwardly between the casings, and then downwardly, and then partially around and upwardly, and again downwardly, and then entirely around and upwardly within the casings, and then upwardly in a zig-zag course, and then out through the top of the casings to a service pipe.



3. In a heating apparatus, a furnace consisting of an inner and an outer casing having their walls spaced apart and provided with a fire chamber a grate and an ash pit and having doorways leading to said chamber and pit, the outer casing being higher than the inner one, a vertical partition closing the space between each of the side walls of the casing at the front wall of the inner casing from the top of the outer casing to a point below the doorway to the fire chamber, a horizontal partition located between the side and rear walls of the casings at the lower ends of said vertical partitions, a horizontal partition located between the side and rear walls of the casings at a distance above the first named horizontal partition and terminating at their front ends rearwardly of said vertical partitions, a horizontal partition located between each of the side walls of the outer casing and the upper portion of each of the side walls of the inner casing and extended rearwardly from said vertical partitions but terminating forwardly of the rear walls, the outer casing having an opening in its rear wall leading to the space between the lower horizontal partitions and an opening in its upper rear portion, the inner casing having an opening in its rear wall below the lower horizontal partition, a flue conduit communicating with said openings in the outer casing, a cover for the outer casing having an opening therein, a chute or flue leading from said opening to the upper portion of the space between the front walls of the casings, and a door to close said opening.

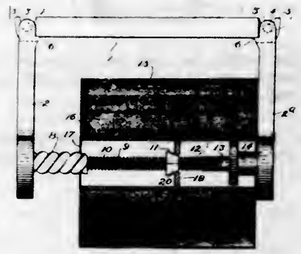
4. The combination with a furnace-casing, of a water-circulating pipe system arranged therein, the said system having means for the induction of water thereinto within the casing and for conducting it partially around and then upwardly within the casing, and then downwardly, and then partially around and upwardly, and again downwardly, and then entirely around and upwardly within the casing, and then upwardly through the fire chamber and out through the top of the casing to a service pipe.

5. The combination with a furnace consisting of an inner and an outer casing having their walls spaced apart and provided between said walls with passages for the circulation of heated air, of a water-circulating pipe system consisting of a primary coil located between the upper portion of the side and rear walls of said casings and having means for the inlet of water thereto, a secondary coil located within the upper portion of the inner casing and having communication with the upper rear portion of the first named coil, a third coil located in the lower part of the fire chamber of the inner casing and having communication with the upper part of the secondary coil, and a fourth coil located in the fire chamber of the inner casing and having communication with the upper portion of the third coil and provided at its upper part with an outlet.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,334. ROLL-PAPER. GEORGE T. JOHNSON, Melrose, Mass. Filed Apr. 26, 1913. Serial No. 763,795. (Cl. 206—58.)



1. The novel article of manufacture comprising a wound roll of paper or the like sheet-material in continuous web-form, said roll having a central opening or passage, and a nut-element permanently in connection with said opening or passage and adapted for engagement with a quick-threaded portion of a shaft occupying said central opening or passage.

2. The novel article of manufacture comprising a wound roll of paper or the like sheet-material in continuous web-form, said roll having as a permanent part thereof a central core with passage therethrough for a supporting shaft, said core having a nut-element adapted for engagement with a quick-threaded portion of said shaft.

3. The novel article of manufacture comprising a wound roll of paper or the like sheet-material in continuous web-form, said roll having as a permanent part thereof a core with central shaft-fittings, one thereof constituting a nut-element adapted to engage and coöperate with a quick thread upon a supporting shaft upon which the roll is mounted.

4. The novel article of manufacture comprising a wound roll of paper or the like sheet-material in continuous web-form, said roll having as a permanent part thereof a core with disks having central shaft-openings, one of said disks constructed as a nut-element adapted to engage and co-operate with a quick thread upon a supporting shaft occupying said shaft-openings.

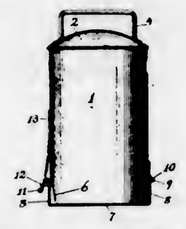
5. The improved roll-core provided with disks 17, 18, having central shaft-openings, one of said disks constructed as a nut-element adapted to engage and coöperate with a quick thread upon a supporting shaft occupying said shaft-openings.

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1,093,335. FOUNTAIN FOR FOWLS. WILMER FRANKLIN KENLY, Glen Rock, Pa., assignor to The Glen Rock Stamping Company, Glen Rock, Pa., a Corporation of Pennsylvania. Filed May 3, 1912. Serial No. 694,906. (Cl. 119—77.)

In a water fountain the combination with a drinking pan longer in one direction than the other and provided with an upright wall all around the same, of a cylindric water reservoir having an open lower end which seats on the pan and the diametrically opposite portions of which are in close proximity to the two opposite sides of the upright pan wall across the narrow portion of the pan,—said water reservoir having a hinge which pivotally connects the reservoir with the pan wall at the narrow portion and diametrically opposite said hinge the lower edge of the reservoir being provided with a cut-away portion

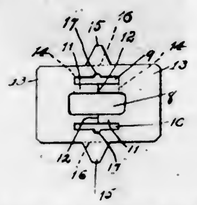
whereby to allow the said reservoir wall to clear the pan wall to allow it to be turned back on the hinge, and a



catch device having one part on the pan wall adjacent to said reservoir cut-out and a coacting catch part on the reservoir wall.

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1,093,336. LAMP-BURNER. ANDREW J. KING, Hope, N. D. Filed July 17, 1913. Serial No. 779,575. (Cl. 67—72.)



An article of manufacture consisting of a blank comprising a plate having a rectangular aperture extending longitudinally of the plate centrally thereof, and V-shaped ears on opposite side edges thereof in alinement with the said central aperture, the said plate having longitudinally disposed slots on each side of the central aperture, each of the webs between the central slot and the side slots being severed intermediate its length, the outer edges of the side slots being recessed to form seats for a wick tube, the said plate being adapted to have its ends bent at angles with relation to the central portion thereof whereby the severed webs are caused to stand at angles with relation to the central portion and form supports, the said ears being adapted to be bent at an angle with relation to the central portion between the ends of the said plate.

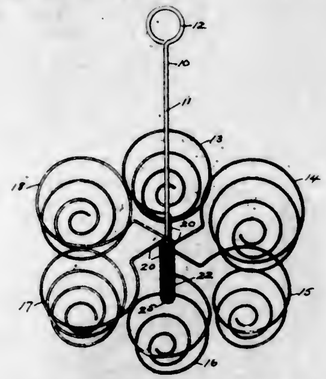
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1,093,337. FOLDABLE EGG-BOILER. CLAUDE B. KISHLER, New York, N. Y. Filed Oct. 17, 1913. Serial No. 795,693. (Cl. 53—1.)

1. A foldable egg boiler of the character described, comprising a handle, a plurality of pockets formed of spring material convoluted in parabolic shapes, said pockets being disposed laterally with relation to the handle, and means provided upon the handle for pivotally connecting the pockets thereto, whereby the pockets may be swung circumferentially of the handle so as to slide together to a folded position.

2. A foldable egg boiler of the character described, comprising a handle having an annular recess, a plurality of pockets formed of spring material convoluted in parabolic shapes, said pockets being disposed laterally with relation to the handle, and a plurality of stems movably inserted in the annular recess of the handle, whereby the pockets may be swung circumferentially of the handle so as to slide together to a folded position.

3. A foldable egg boiler of the character described, comprising a handle having a post, a sleeve provided upon the post, a plurality of spirally constructed parabolic shaped pockets disposed laterally with relation to the handle, and means provided upon each of the pockets, and engaging the sleeve, whereby the pockets may be swung circumferentially of the handle so as to slide together to a folded position.



4. A foldable egg boiler of the character described, comprising a handle having a post, a sleeve provided upon the post, said sleeve being of greater diameter than the post to provide an annular recess around the post, a plurality of spirally constructed parabolic shaped yielding pockets disposed laterally with relation to the handle, a plurality of arms, one extending from each of the pockets, and a plurality of stems, one extending at an angle from the arm of each pocket and all of the stems being rotatably disposed in the annular recess around the post, whereby the pockets may be swung circumferentially of the handle so as to slide together to a folded position.

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1,093,338. HAT-BINDING. GUSTAV KREMER, Paterson, N. J. Filed Nov. 15, 1913. Serial No. 801,106. (Cl. 2—110.)



1. A woven hat binding shaped throughout its whole length with a normal transverse curvature from one to the other of its lateral edges.

2. A woven hat binding shaped throughout its whole length with a transverse curvature from one to the other of its lateral edges and being also curved longitudinally.

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1,093,339. MINING-HEADLIGHT. RUDOLPH C. KRUSCHKE, Duluth, Minn. Filed Feb. 25, 1913. Serial No. 750,560. (Cl. 240—60.)

1. A device of the character described comprising a bracket having a rear hook provided with side ears, and said bracket having forwardly projecting side wings, a burner pivotally connected to the wings, and a reflector carried by the burner.

2. A device of the character described comprising a bracket formed of a single length of material shaped to provide a front body and a rear hook, said hooks being provided with perforated side ears, the body having wings projecting forwardly from the lower ends of its longitudinal edges, said wings being provided with radial seats and central transverse openings, a coupling extending through said seats, and a burner tube selectively held to said seats by said coupling.

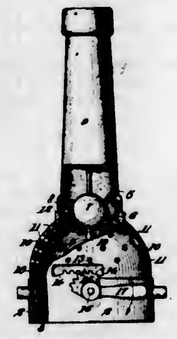
3. A device of the character described comprising a bracket, a burner pivotally connected thereto and provided with a threaded portion and a collar, a chimney support



being provided with a chimney holding flange, and a reflector carried by the flange.

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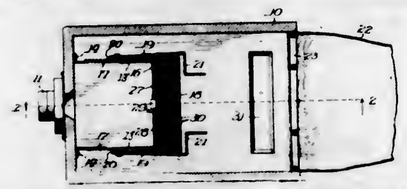
1,093,340. VARIABLE-SPRAY NOZZLE. JACOB LOOSEN, Oakland, Cal. Filed May 24, 1913. Serial No. 769,580. (Cl. 137—17.)



A nozzle for producing a shower spray or discharge a solid stream, comprising a suitably shaped body member provided with a plurality of apertures, and having a large aperture, with means for closing the smaller apertures and opening the larger aperture to cause the discharge of the fluid therethrough to form a solid stream, or to close the large aperture and open the smaller apertures to form a shower spray, said means comprising a movable valve member encompassing the body of the nozzle and having apertures adapted to coincide with the smaller apertures of the body, and a plug or valve member movable coincidently therewith for controlling the discharge of fluid through the larger aperture of the nozzle body.

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1,093,341. MAGAZINE-CAMERA. LOUIS MANDEL, Chicago, Ill. Filed July 16, 1913. Serial No. 779,250. (Cl. 95—20.)



1. The combination of a camera body, a plate magazine within the body, said magazine embodying a fixed and a relatively movable portion between which portions the plates are clamped, and a catch for securing the said portions in clamping relation.

2. The combination of a camera body, a plate magazine within the body, said magazine embodying a fixed and a relatively movable portion between which portions the plates are clamped, and a catch housed within and accessible only from the interior of the camera body for securing the parts in adjusted position and for permitting such relative movement to clamp and release the plate.

3. The combination of a camera body, a plate magazine, said magazine embodying two coöperating and relatively adjustable elements housed within the body and between which elements the plates are arranged, and manually controlled means housed within and accessible only from the interior of the body for securing the elements together for adjustment to clamp and release the plates.

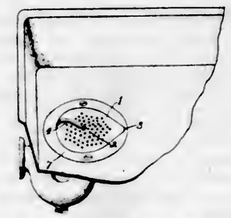
4. The combination of a camera body, a plate holder embodying two coöperating and relatively adjustable elements housed within the body and between which the plates are arranged, and manually controlled interengaging means entirely housed within the body and connected with the elements for adjustably securing the elements together.

5. The combination of a camera body, a plate holder embodying two coöperating and relatively adjustable elements housed within the body and between which elements the plates are arranged, manually operable means housed within and accessible from the interior of the camera body for causing such relative adjustment and for securing the parts together.

[Claims 6 to 26 not printed in the Gazette.]

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1,093,342. SINK-STRAINER. THOMAS MCG. AIKEN, Pittsburgh, Pa., assignor of one-third to Charles D. Kuhns, Knoxville, Pa., and one-third to Ernest C. Mull, Pittsburgh, Pa. Filed May 7, 1913. Serial No. 766,055. (Cl. 4—35.)



1. In combination with the fixed apertured cover for a sink drain, a portable perforated straining member of a disk formation to seat over and contact with the cover, said disk involving a spring actuated tongue or extension bent back over and raised above the body portion, the free end of said extension being depressible, and a stem carried by said extension which passes through the apertured body, the lower extremity of said stem terminating in a hook adapted to contact with the under side of said apertured cover and releasably lock said member to the cover.

2. A portable perforated straining and scraping member involving a spring actuated tongue or extension bent back over and raised above the plane of the body portion, the free end of said extension being depressible and a stem carried by said extension which passes through the apertured body, the lower extremity of said stem terminating in a hook.

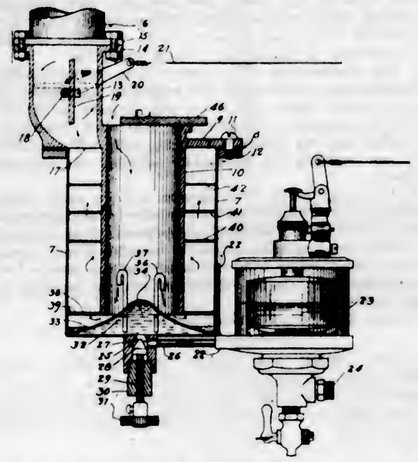
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1,093,343. CARBURETER. WILLIAM H. MCANDREWS, Chicago, Ill. Filed June 21, 1913. Serial No. 774,974. (Cl. 48—155.1.)

1. In a carbureter, the combination with a casing having in its lower part a reservoir for hydrocarbon and in its upper part an outlet, of means to supply hydrocarbon to said reservoir, an air conduit located in the casing and extended at its inner end to near the top of the reservoir, and a plurality of nozzles communicating at their lower ends with the reservoir and extended upwardly into the lower part of said conduit and having their upper portions bent downwardly.

2. In a carbureter, the combination with a casing having in its lower part a reservoir for hydrocarbon and in its upper part an outlet, of means to supply hydrocarbon to said reservoir, an air conduit located in the casing and extended at its inner end to near the top of the reser-

voir, and a plurality of nozzles communicating at their lower ends with the reservoir and extended upwardly into the lower part of said conduit and having their upper portions bent downwardly with their free or discharging ends located in different horizontal planes.



3. In a carbureter, the combination with a casing having in its lower part a reservoir for hydrocarbon and in its upper part an outlet, said reservoir having a conical cover or top, of means to supply hydrocarbon to said reservoir, an air conduit located in the casing and extended at its inner end to near the top of the reservoir and surrounding the central part thereof, and a plurality of nozzles communicating at their lower ends with the reservoir and extended upwardly into the lower part of said conduit and having their upper portions bent downwardly with their free or discharging ends located in different horizontal planes.

4. In a carbureter, the combination with a casing having in its lower part a reservoir for hydrocarbon and in its upper part an outlet, of means to supply hydrocarbon to said reservoir, an air conduit located in the casing and extended at its inner end to near the top of the reservoir, a plurality of nozzles communicating at their lower ends with the reservoir and extended upwardly into the lower part of said conduit and having their upper portions bent downwardly with their free or discharging ends located in different horizontal planes, and a series of foraminous baffle plates located horizontally and spaced apart between the air conduit and the casing.

5. In a carbureter, the combination with a casing having in its lower part a reservoir for hydrocarbon and in its upper part an outlet, said reservoir having a conical cover or top, of means to supply hydrocarbon to said reservoir, an air conduit located in the casing and extended at its inner end to near the top of the reservoir and surrounding the central part thereof, a plurality of nozzles communicating at their lower ends with the reservoir and extended upwardly into the lower part of said conduit and having their upper portions bent downwardly with their free or discharging ends located in different horizontal planes, and foraminous baffle plates horizontally located at distances apart between the air conduit and the casing.

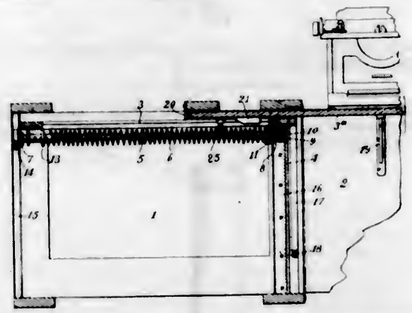
[Claims 6 to 11 not printed in the Gazette.]

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1,093,344. CABINET FOR TYPE-WRITING, ADDING, PRINTING, OR OTHER ANALOGOUS MACHINES. FRANK E. MCLEAN, Muskegon, Mich., assignor of one-half to Richard H. Browne, Muskegon, Mich. Filed June 7, 1912. Serial No. 702,216. (Cl. 45—52.)

1. A cabinet comprising a case, an elevator vertically movable within the case, a horizontally movable table carried by said elevator and adapted to project outside the case, the table having recesses in its margin, guide elements adapted to engage said recesses as the table traverses vertically on the elevator, said elements also engaging the table to hold the same when elevated or lowered.

2. A cabinet, comprising a case, an elevator vertically movable in the case, means for balancing the elevator and the load thereon, a table slidably interlocked with and horizontally movable on the elevator and adapted to project outside the case at one end, and means for locking the elevator in raised position under the influence of the movement of the table to its projected position outside the case.



3. A cabinet, comprising a case, an elevator vertically movable in the case, a table horizontally movable on the elevator, a spring-actuated shaft journaled on the elevator, means for raising the front end of the elevator, operated by the shaft, a rack at the rear of the case and a pinion on the shaft traversing the rack.

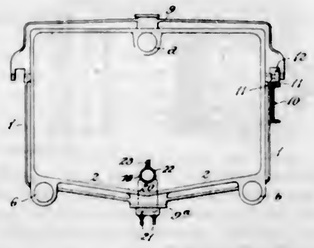
4. A cabinet, comprising a case, an elevator vertically movable in the case, a table horizontally movable on the elevator, a shaft journaled on the elevator, a spring to rotate the shaft, means for adjusting the tension of the spring, means for supporting and raising the elevator operated by the shaft, the means at the rear of the elevator also adapted to prevent the rear end of the elevator from rising in advance of the front end of the same.

5. A cabinet, comprising a case, an elevator vertically movable in the case, a table horizontally movable on the elevator, a longitudinal shaft and a transverse shaft journaled on the elevator, miter gears connecting the shafts, a spring to rotate the shafts, means for adjusting the tension of the spring, vertical racks in the case, and pinions on the shafts engaging the racks to raise and lower the elevator.

[Claims 6 to 12 not printed in the Gazette.]

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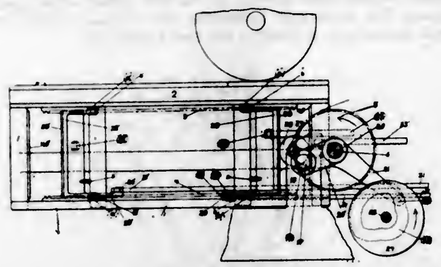
1,093,345. FILTER-PRESS. CHARLES W. MERRILL, Berkeley, Cal. Filed Feb. 28, 1911. Serial No. 611,482. (Cl. 210—13.)



The combination with the rotary sluicing pipe of a vertical supporting block passing through an opening in the frame of a container, and devices for adjusting the same from the exterior of the press, substantially as described.



1,093,346. BED-MOTION FOR PRINTING-PRESSES. ROBERT MIEHLE, Chicago, Ill., assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Filed July 26, 1911. Serial No. 640,682. (Cl. 101—158.)



1. A printing press including an impression cylinder, a reciprocated form bed operating in connection therewith, a gate, a crank operating upon said gate for actuating the bed, and means for actuating the gate including a cam for closing the gate, and a cam for opening the gate, said cams being located at one side of the gate.

2. A printing press including an impression cylinder, a reciprocated form bed operating in connection therewith, a pivoted gate, means operating through the gate for actuating the bed, means for actuating the gate including a cam for closing the gate, and a cam for opening the gate, said cams engaging the gate structure respectively upon opposite sides of its pivotal axis.

3. A printing press including an impression cylinder, a reciprocated form bed operating in connection therewith, a gate carried by the bed, means operating upon the gate for reversing the bed, and means for actuating the gate including a cam for opening the gate, said cam extending substantially the full length of the movement of the gate for positively holding the gate open.

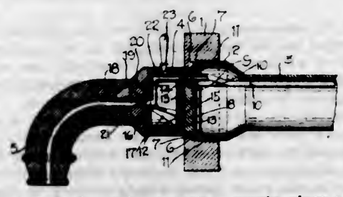
4. A printing press including an impression cylinder, a reciprocated form bed operating in connection therewith, a gate carried by the bed at each end thereof, and means operating successively upon the said gates for reversing the bed, and means for actuating the gates including cams operating upon the respective gates for closing the same, and cams operating upon the respective gates for opening the same, all of said cams being located at one side of said gates.

5. The combination of a type bed, mechanism for moving said bed, and mechanism for reversing the movements of the bed including a crank, a gate, rollers carried by the gate, a cam for closing the gate, and a second cam for opening said gate, said cams being located at one side of the gate and operated upon respectively by said rollers.

[Claims 6 to 18 not printed in the Gazette.]

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1,093,347. FLUID-DISPENSING APPARATUS. WAYNE T. MILLER, Angola, Ind. Filed June 27, 1913. Serial No. 776,136. (Cl. 137—26.)



1. In a soda fountain, a casing, supply pipes arranged therein, a faucet having a hollow body, a disk mounted in the inner end thereof and provided with threaded openings adapted to receive the ends of the supply pipes, a Z-shaped movable connecting pipe forming communication between the supply pipes and the faucet, and means for actuating said pipe, as and for the purpose set forth.

2. A device of the class described including a casing, a plurality of supply pipes arranged therein, a faucet having a hollow body portion, a disk arranged within said body and provided with a plurality of threaded openings to receive the ends of the supply pipes, a washer bearing arranged within said body adjacent the disk and provided with openings communicating with the ends of the supply pipes, a Z-shaped connecting pipe movable with respect to said bearing and forming communication between the supply pipes and the faucet, and means for actuating said connecting pipe, as and for the purpose set forth.

3. A device of the class described including a plurality of supply pipes, a faucet having a hollow body portion, a disk arranged within the inner end of said body and provided with threaded openings to receive the ends of the supply pipes, a washer bearing arranged within the body adjacent the disk and provided with openings communicating with the ends of the supply pipes, said washer bearing having an annular groove therein, a ring rotatably mounted within said groove, a connecting pipe carried by said ring and having one end communicating with the faucet, and a handle member carried by said pipe to actuate the same and bring the other end of the pipe into communication with the supply pipe, as and for the purpose set forth.

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1,093,348. BALL-BEARING. LOUIS P. MOOERS, Geneva, Ohio, assignor of one-half to J. S. Bretz Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 14, 1908. Serial No. 462,699. (Cl. 64—58.)



In a ball bearing, the combination of a member constituting a portion of the raceway and having a smooth annular flange, a removable ring constituting another portion of the same raceway and having a smooth cylindrical surface seated on said flange, said flange and ring having a groove and shoulder respectively coöperating with each other, a soft metal wire in said groove and extending across said shoulder, the ring carrying the shoulder being flared away from the groove to afford a space for the insertion of the wire or for the insertion of a wire removing tool, the throat of the opening thus provided to the groove being narrower than the wire when in place, a grooved annular member completing the raceway of the bearing, and a plurality of balls in said raceway.

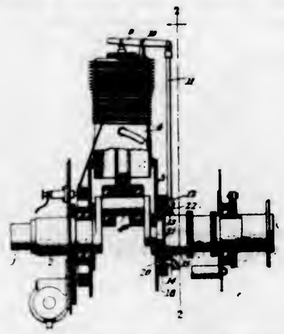
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1,093,349. ROTARY-CYLINDER GAS-ENGINE. ROBERT S. MOORE, Washington, D. C., assignor to Gyro Motor Company, Washington, D. C., a Corporation of Delaware. Filed Nov. 8, 1913. Serial No. 799,948. (Cl. 123—44.)

1. A rotary gas engine including a plurality of cylinders, a piston for each cylinder, an intake port for each cylinder adapted to be uncovered by the piston during the intake period, means forming a passage connecting the intake port of each cylinder with a supply chamber, a rotating member for closing the passages leading to the intake ports, said rotating member having means for uncovering one of said passages at a time, and means for rotating said member in the same direction as the cylinders and at a differential speed relative thereto, whereby said intake passages are uncovered substantially during the period of intake for the respective cylinder.

2. A rotary engine including a plurality of cylinders, a piston for each cylinder, an intake port for each cylinder

adapted to be uncovered by the piston during the intake period, means forming a passage connecting the intake port of each cylinder with a supply chamber, a rotating member located adjacent the supply chamber and away from the cylinders for closing the passages leading to the intake ports, said rotating member having means for uncovering one of said passages at a time, and means for rotating said member in the same direction as the cylinders and at a differential speed relative thereto, whereby said intake passages are uncovered substantially during the period of intake for the respective cylinder.

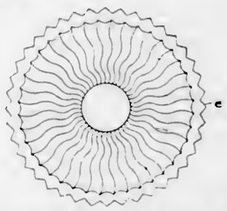


3. A gas engine including in combination a rotary casing, a plurality of cylinders carried thereby, an intake port for each cylinder, means forming a passage connecting the intake port with the casing, a rotating member for closing the passages leading from the casing to the intake ports, said member having means for uncovering one of said passages at a time and substantially during the period of intake for the cylinders.

4. A gas engine including in combination a rotary casing, a plurality of cylinders carried thereby, an intake port for each cylinder adapted to be uncovered by the piston, a pipe leading from each intake port to the casing, a rotating disk for normally closing the passage from the casing to the pipes, said disk having elongated openings therein adapted to register in turn with the passages leading to the pipes, and means for giving said disk a differential movement relative to the cylinders whereby the passage leading to each cylinder will be uncovered at every other revolution of the casing and substantially during the intake period for the cylinder.

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1,093,350. PRESSED GLASS STRUCTURE. OTIS A. MYGATT, New York, N. Y. Filed June 15, 1909. Serial No. 502,378. (Cl. 240—106.)

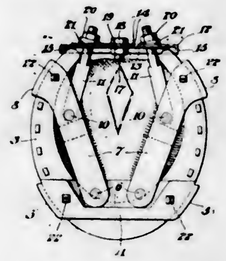


A body of transparent glass backed on one side by a ribbed silvered coating and having opposite thereto ribbed light diffusing media, the ribbed surface of which is out of parallel with the ribbed silver-coated side.

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1,093,351. ATTACHMENT FOR HORSESHOES. SHIKICHI NOBO, Gladwyne, Pa. Filed July 29, 1913. Serial No. 781,716. (Cl. 168—30.)

1. In an attachment for horseshoes, the combination of a cross-bar adapted to extend beneath a horseshoe and having upwardly-extending projections on the ends thereof, a pair of arms having their forward ends pivoted to said bar and having upwardly-extending projections on their rearward ends, a bar having ends adapted to be engaged with the ends of a horseshoe, a second pair of arms having their forward ends pivoted to the first named arms, and means for adjustably connecting the rearward ends of said second pair of arms to the last named bar.



2. In an attachment for horseshoes, the combination of a cross-bar adapted to extend beneath a horseshoe and having upwardly-extending projections on the ends thereof, a pair of arms having their forward ends pivoted to said bar and having upwardly-extending projections on their rearward ends, a bar having ends adapted to be engaged with the ends of a horseshoe, a second pair of arms having their forward ends pivoted to the first named arms and having their rearward ends screw-threaded and extended through the last named bar, and adjustable nuts screwed on to the rearward ends of said second pair of arms.

3. In an attachment for horseshoes, the combination of a telescopic bar having ends adapted to be engaged with the ends of a horseshoe, said bar comprising two sections and means for securing the sections together in different positions of adjustment, each of said sections having a top wall slidable against the top wall of the other section and adapted to engage the upper face of the rearward end of a horseshoe, each of said sections having a rear wall slidable against the rear wall of the other section and adapted to engage the rearward face of the rearward end of a horseshoe, and a bar forwardly of the first named bar and connected thereto and having upwardly-extending projections.

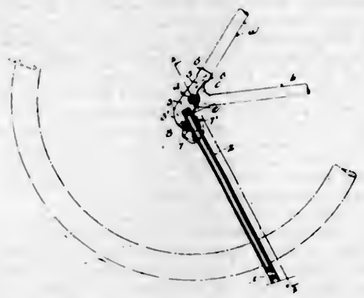
4. In an attachment for horseshoes, the combination of a telescopic bar having ends adapted to be engaged with the ends of a horseshoe, said bar comprising two sections and means for securing the sections together in different positions of adjustment, each of said sections having a top wall slidable against the top wall of the other section and adapted to engage the upper face of the rearward end of a horseshoe, each of said sections having a rear wall slidable against the rear wall of the other section and adapted to engage the rearward face of the rearward end of a horseshoe, each of said sections having an end wall adapted to engage the outer face of the rearward end of a horseshoe, and a bar forwardly of the first named bar and connected thereto and having upwardly-extending projections.

5. In an attachment for horseshoes, the combination of a telescopic bar having ends adapted to be engaged with the ends of a horseshoe, said bar comprising two sections having openings therein and means for securing the sections together in different positions of adjustment, a cross-bar forwardly of the telescopic bar and having upwardly extending projections, a pair of arms having their forward ends pivoted to said cross-bar and having upwardly extending projections on their rearward ends, a second pair of arms having their forward ends pivoted to the first named arms and having their rearward ends screw-threaded and extended through the openings in the sections of the telescopic bar, and adjustable nuts screwed on to the rearward ends of said second pair of arms.

[Claim 6 not printed in the Gazette.]



1,093,352. BICYCLE-STAND. EWALD F. PAWSAT, Sheboygan, Wis., assignor to Wald Manufacturing Company, Sheboygan, Wis. Filed Nov. 3, 1913. Serial No. 798,851. (Cl. 208—75.)



1. A stand for the purpose described comprising a pair of heads, each having a body portion provided with an axle aperture, a pair of arms extending approximately at a right-angle, a pair of gripping fingers projecting inwardly from one of the arms, a stop-lug projecting outwardly from the opposite arm, and a stand-bail having legs in pivotal union with the body portion of each head, the pivot-point of each leg being approximately alined with the axle aperture and arm of the head carrying the gripping fingers.

2. A head for stands of the described character comprising a flat body portion provided with an axle receiving aperture and a leg pivoting aperture, an arm extending from the body portion in approximate alinement with said apertures having side ears bent inwardly from its end to form gripping fingers, and a second arm extending from said body portion at approximately a right-angle to the first mentioned arm, the same being provided with an outwardly extended ear constituting a stop-lug.

3. A head for stands of the described character comprising a flat body portion provided with an axle receiving aperture and a leg pivoting aperture, an arm extending from the body portion in approximate alinement with said apertures having transversely disposed gripping fingers extending from its end, and a second arm extending from said body portion at approximately a right-angle to the first mentioned arm, the same being provided with a stop-lug extending transversely from its end.

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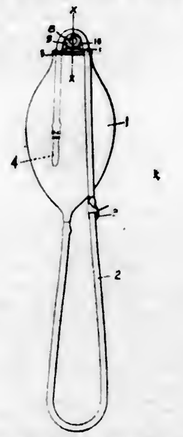
1,093,353. FOUNTAIN-SYRINGE. LEWIS E. PEASE, West Somerville, Mass. Filed Mar. 19, 1913. Serial No. 755,352. (Cl. 128—47.)

1. In a fountain syringe, the combination with a bag and an eduction tube connected thereto, said bag having at its upper end a supporting tab of moldable material which has molded integral therewith a tube support presenting a tube-receiving groove having a contour corresponding to the exterior of the tube.

2. In a fountain syringe, the combination with a bag and an eduction tube connected thereto, said bag having a supporting tab at its upper end, of a tube support on said tab, said tab and support having an aperture extending therethrough to receive a hook or other supporting means.

3. In a fountain syringe, the combination with a bag and an eduction tube connected thereto, said bag having a supporting tab at its upper end, of a tube support on said tab, said tab and support having a metal-lined aperture extending therethrough to receive a hook or other supporting means.

4. In a fountain syringe, the combination with a bag and an eduction tube connected thereto, said bag having a supporting tab at its upper end, of a tube support on said tab, said tab and support having an aperture extending therethrough to receive a hook or other supporting means, and a metal eyelet lining said aperture and provided with a flange which embraces the tube support and holds it in the desired shape.



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1,093,354. BATHING-SUIT. LOUIS PELTON, SARAH PELTON, and FREDERICK E. FLEURY, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 659,967. (Cl. 2—145.)



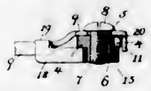
In a bathing suit, a pair of bloomers, a skirt, and a waist, said three garments being stitched together all of the way around the belt line, said bloomers and skirt each having a single opening in the front portion thereof extending downwardly from the belt line and adapted to be spread to permit the suit to be drawn upwardly over the hips of the wearer, said openings being offset from each other a short distance to prevent exposure of person if both should be unfastened at the same time, a fly on the bloomers, and another fly on the skirt, said flies being arranged to overlap and close the openings in the respective garments, said flies extending in opposite directions, and each fly extending away from the opening in the other garment.

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1,093,355. EYEGLASS-MOUNTING. FRANK A. PERSOHN, Baltimore, Md. Filed Sept. 19, 1913. Serial No. 790,596. (Cl. 88—50.)

1. An eye-glass mounting having in combination a nose-bridge; a lens strap; a circular portion connecting said two parts and having a central tube whose upper and

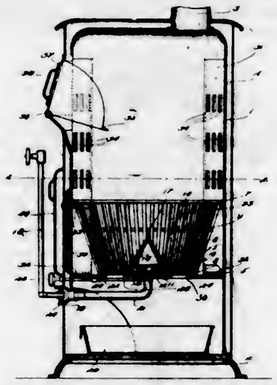
lower ends project from said circular portion and the latter provided with a segment-shaped slot that opens through its top and one end of which slot has an incline, 21; an arm pivoted on one end of said tube; and a sheet-metal spring coiled about the other end of said tube and provided near its coiled end with a hook having an inclined undercut, 17, and entered into said segment-shaped slot and locking therewith.



2. An eye-glass mounting having in combination a nose-bridge; a lens strap; a circular portion connecting said two parts and having a central vertical tube, 5—6, internally screw-threaded from end to end, and said circular portion provided with a slot that opens vertically close to said tube; an arm resting on said central portion and pivoted around the tube; a sheet-metal coiled spring having on the coiled end a hook with an inclined undercut which enters said slot and interlocks therewith, and a screw whose shank passes entirely through the said vertical tube from top to bottom.

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1,093,356. GARBAGE-INCINERATOR. JESSE PRESCOTT, Webster, Mass. Filed Mar. 14, 1911. Serial No. 614,496. Renewed July 9, 1912. Serial No. 708,512. (Cl. 110—18.)



1. A garbage incinerator, comprising a vertically extending casing angular in cross section, means for holding garbage therein composed of a grate in the lower part thereof having an upstanding open-work holder portion spaced away from a part of the walls of the casing, means for dividing off corner spaces of said casing to form flue deliveries, and a burner for gaseous fuel mounted in the lower part of the casing to direct flame to encompass the garbage mass, the upstanding open-work holder portion and the corner flues being arranged and having provision to insure vent for the products of combustion of said burner when the casing is filled with garbage.

2. A garbage incinerator, comprising an upright casing angular in cross section, garbage holding means in the lower part thereof consisting of a grate having an open-work upstanding holder spaced away from the casing walls at its lower portion, but substantially fitting said walls at its top, means for forming flues in the corners of said casing, and a gas burner mounted and arranged to direct flame to encompass the garbage mass in the casing, said corner flues having openings below the top of said upstanding portion whereby vent passage up through the casing is insured when it is filled with garbage.

3. A garbage incinerator, comprising an upright casing angular in cross section, means for partitioning off the corners of said casing to form flues, a garbage holder in the lower part of said casing having an outwardly flaring upstanding holder spaced away from the casing walls for most of its height, but substantially fitting said walls at its top, and a central burner for gaseous fuel arranged to spread and direct flame to encompass the garbage mass, said corner flues having openings into the space below the top of said upstanding holder for the purpose stated.

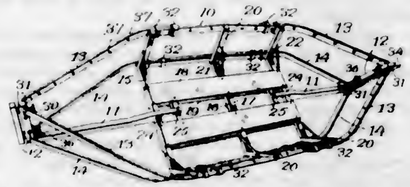
4. A garbage incinerator comprising a casing, a flue extending vertically along a side thereof, a flaring open-work holder for matter to be burned in the lower part of said casing, and means for producing heat centrally of the casing and directing the same outward to pass upward around said flaring openwork holder, there being a passage to permit heated currents to pass thence up said flue, whereby heated currents are caused to directly attack all parts of the garbage mass simultaneously.

5. A garbage incinerator comprising a casing, a central burner mounted in the lower portion thereof and having provision to direct flame downwardly and outwardly, a garbage holder with flaring openwork sides extending around said burner, whereby flame and heated currents may pass from the bottom upward along said openwork sides to impinge on all parts of the garbage mass, and flue means opening near the top of said garbage holder to promote the movement of flame as described.

[Claims 6 to 19 not printed in the Gazette.]

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1,093,357. FOLDING BOAT. EDWARD M. SANDERS, Fitchburg, Mass. Filed Oct. 18, 1913. Serial No. 796,056. (Cl. 9—2.)



1. A folding boat having in combination a canvas cover, a central frame comprising side and bottom sections adapted to fold along a plurality of longitudinal lines, keel sections detachably secured to said central frame, bow and stern-posts mounted on the outer ends of said keel sections, and upper and lower rails at each side of each end of the boat detachably secured to one of the posts and to the central frame, said canvas being attached to said rails.

2. A folding boat having in combination a canvas cover, a folding central frame, keel sections detachably secured thereto, bow and stern-posts mounted on said keel sections, and upper and lower side rails at each side of each end of the boat, each upper side rail having an eye at one end sliding freely over an upwardly extending pin on one of the posts, each lower side rail having a similar eye sliding freely over a downwardly extending pin on one of the posts, and said cover when in place acting to draw the upper and lower rails toward each other and to prevent their detachment from the posts.

3. A folding boat having in combination a canvas cover, a folding central frame, keel sections, sectional upper and lower side rails, and bow and stern-posts, each comprising a substantially vertical member hinged to a keel section and detachably secured to the corresponding side rails, and a second substantially vertical member supported on the first member and adjustable relatively thereto in a direction longitudinal of the boat, by which adjustment the canvas cover may be tightly stretched on the frame.

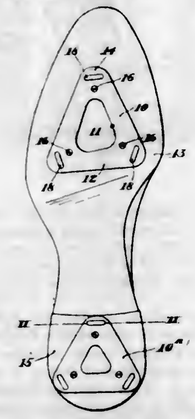
4. A folding boat having in combination, a cover, a central folding frame, keel sections, detachably secured to the central frame, bow and stern posts mounted on said keel sections, and sectional side rails each secured to said central frame and to one of said posts.

5. A folding boat having in combination a canvas cover and a frame work comprising a central frame adapted to fold along longitudinal lines, keel sections detachably secured to the central frame, bow and stern posts hinged to said keel sections, and sectional upper and lower side rails detachably secured to said central frame and to said bow and stern posts.



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1,093,358. SHOE-CLEAT. FREDERICK A. SCHROEDER, Park Ridge, Ill., assignor of one-half to John E. Sheridan, Chicago, Ill. Filed Apr. 11, 1911. Serial No. 620,507. (Cl. 36—59.)



1. As a new article of manufacture, a shoe cleat comprising a frame provided with an anti-slipping staple permanently secured to the frame and having its closed end directed away from the frame, said staple having an unobstructed opening between its closed end and the frame.

2. As a new article of manufacture, a shoe cleat comprising a frame carrying an elongated anti-slipping staple having a rounded edge fixed in position relatively to the frame, said staple having an unobstructed opening between its closed end and the frame.

3. As a new article of manufacture, a shoe cleat comprising a frame carrying an anti-slipping member having a rounded edge and also having an unobstructed opening between the edge and the frame, the axis of the opening extending substantially parallel with the frame.

4. As a new article of manufacture, a shoe cleat comprising a frame provided with an anti-slipping staple permanently secured to the frame and having its closed portion directed away from the frame, said staple also having an unobstructed opening between its closed end and the frame and being provided adjacent to its point of connection with said frame with shoulders, substantially as set forth.

5. As a new article of manufacture, a shoe cleat comprising a frame provided with an anti-slipping staple permanently secured to the frame and having an unobstructed opening between its closed end and the frame, said frame being bored and counter-bored for the reception of said staple and the formation of rivet heads upon the ends thereof.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,359. ART OF KNITTING FABRICS. ROBERT W. SCOTT, Boston, Mass., assignor to General Knit Fabric Company, Utica, N. Y., a Corporation of New York. Filed June 29, 1912. Serial No. 706,685. (Cl. 66—4.)

1. The method of knitting a fabric having all of its loops drawn toward the same face, and presenting regular alternations in both the needle wales and yarn courses of large and small loops, which consists in knitting a course by successively first knitting in each of certain wales only a normally sized loop, and thereafter drawing upon the loop of a previous course in each of said certain wales whereby said loops of said previous course are decreased in size; and in thereafter repeating said operations in a subsequent course in a different order of wales.



2. The method of knitting a fabric having recurrent long and short loops drawn to the same face of the fabric, which consists in knitting a first course, in then knitting loops in certain wales only of a second course, whereby the loops in said wales of the first course are freed from the instruments upon which they were formed, in then drawing upon the yarn and knitting at the location of the neighboring wales, to shorten the freed loops of said first course in said certain wales, and in then repeating the operation.

3. The method of knitting a fabric having recurrent long and short loops drawn to the same face of the fabric, which consists in knitting a first course, in then knitting loops in certain wales only of a second course, whereby the loops in said wales of the first course are freed from the instruments upon which they were formed, in then drawing upon the yarn and knitting at the location of the neighboring wales, to shorten the knit loops of said first course in said certain wales, and in then repeating the operation, in a subsequent course, in a relatively different order of wales.

4. The art of knitting fabrics having a recurrent series of long and short loops drawn to the same face of the fabric, which consists in first knitting in a course of successively formed loops and as a loop of normal size, that loop which is thereafter to become a small loop, the operation including the casting of said loop on to the following loop, and then subsequently drawing excessively upon the yarn and forming knit loops in wales preceding in the direction of formation of said short-loop wale, whereby the previous course loops in said preceding wales take part of the yarn from and shorten the first formed loops; in repeating all of said operations in successive wales to form a course of loops, and in subsequently forming another course by repeating the operation.

5. The method of knitting a fabric having recurrent short and long loops, which consists in knitting a course of yarn through a previous course, all the loops being drawn to the same face of the fabric, in subsequently completing the operation by knitting loops of a following course in certain predetermined wales only, whereby some only of the loops of the first mentioned course are completed and cast off as stitches of a normal size, and in then drawing upon the yarn of the remaining loops of the first mentioned course to reduce in size said completed stitches, and thereafter knitting the remaining loops of said following course.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,360. JEWEL-GAGE. FRANK W. SEIDL, deceased, Manitowoc, Wis., by Minnie Seidl, executrix, Milwaukee, Wis. Filed Mar. 21, 1912. Serial No. 685,372. (Cl. 33—178.)



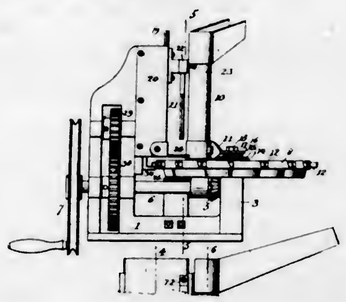
1. A jewel gage comprising a stopper, a stem secured to said stopper, an offset formed on said stem at an angle to the axis thereof, and a jewel secured to said offset so as to depend from the under side thereof in the direction of the axis of said stem.

2. A jewel gage comprising a stopper, a stem detachably secured to said stopper and a jewel secured to said stem.

3. A jewel gage comprising a stopper, a stem having a sharpened point inserted into said stopper and pendent therefrom and a jewel secured to said stem.

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1,093,361. CHERRY SEEDER OR PITTER. JASPER H. STANFIELD, Muskegon, Mich., assignor of one-half to Michigan Washing Machine Company, Muskegon Heights, Mich., and one-fourth to William H. Bozell, Muskegon, Mich. Filed May 15, 1908. Serial No. 433,053. (Cl. 146—6.)



1. In a device of the kind described, a stationary spindle, a rotatable carrier mounted upon said spindle, mechanism for continuously rotating said carrier, and a cell plate provided with a plurality of apertures supported by and frictionally engaging said carrier, in combination with means controlled by said rotating mechanism for periodically engaging said cell plate to stop the plate and momentarily control the position of said apertures.

2. In a device of the kind described, a rotatable carrier, mechanism for continuously rotating said carrier, and a cell plate provided with a plurality of apertures, supported by and frictionally engaging said carrier, and adjustable resilient and stationary means for controlling the frictional engagement between said cell plate and said carrier, in combination with means controlled by said rotating mechanism for periodically engaging said cell plate to stop the plate and momentarily control the position of said apertures.

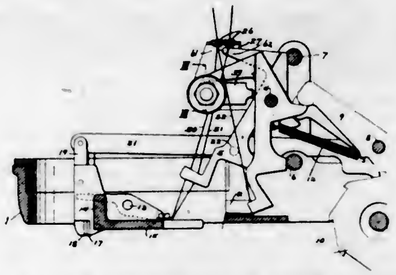
3. In a device of the kind described, a stationary spindle, a rotatable carrier mounted upon said spindle, mechanism for continuously rotating said carrier and a cell plate provided with a plurality of apertures supported by and frictionally engaging said carrier, in combination with a plurality of dentils upon said cell plate, and means for periodically engaging said dentils to stop the plate and momentarily control the position of said apertures.

4. In a device of the kind described, a stationary spindle, a rotatable carrier mounted upon said spindle, mechanism for continuously rotating said carrier and a cell plate, provided with a plurality of apertures, supported by and frictionally engaging said carrier, in combination with a plurality of dentils positioned at the periphery of said cell plate, and means controlled by said rotating mechanism for periodically engaging said dentils to stop the plate and momentarily control the position of said apertures.

5. In a device of the kind described, a stationary spindle, a rotatable carrier mounted upon said spindle, mechanism for continuously rotating said carrier and a cell plate, provided with a plurality of apertures, supported by and frictionally engaging said carrier, in combination with a plurality of dentils upon said cell plate one for each aperture, and means for periodically engaging said dentils to stop the plate and momentarily control the position of said apertures.

[Claims 6 to 14 not printed in the Gazette.]

1,093,362. YARN-CHANGING DEVICE FOR KNITTING-MACHINES. HARRY SWINGLEHURST, Collingswood, N. J., assignor to Scott & Williams, Inc., Boston, Mass., a Corporation of New Jersey. Filed Nov. 9, 1912. Serial No. 730,382. (Cl. 66—12.)



1. In a yarn changing device for knitting machines, a yarn clamp, a tension device, and a fixed yarn guide substantially in line with each other, in combination with a movable yarn guide and means to move it into and out of operation on a line passing between the clamp and the tension device.

2. In a yarn changing device for knitting machines, means having therein a yarn throat for guiding the knitting yarn to the knitting wave, a series of guides relatively fixed with respect to said throat, a series of movable guides between said throat and said fixed guides and a tension device located between one position of the movable guides and said fixed guides.

3. In a knitting machine, a series of yarn guides, and means to move one or more of them at a time from operative to inoperative positions, and the reverse, in combination with means to place the yarn carried by each of the inoperative guides under tension during the time when said yarn is not being knit, and means to cause a yarn restored to operation after knitting with it has begun to be relieved from tension.

4. In a yarn changing device for knitting machines, a yarn clamp, a tension device and a fixed yarn guide, substantially in line with each other, in combination with a movable yarn guide and means to move it into and out of operation on a line passing between the clamp and the tension device, and means to release the tension device at one extreme of the movement of the movable yarn guide.

5. In a yarn changing device for knitting machines a series of independently movable yarn guides and means to move a selected member of the series at a predetermined time into an operative position, in combination with a series of tension devices operative upon the yarns of the inoperative yarn guides, and means operating coincidently with the movement of a yarn guide into operative position to release the tension device for the yarn of that guide.

[Claims 6 to 13 not printed in the Gazette.]

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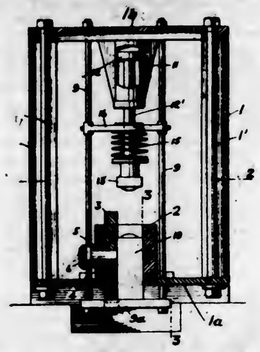
1,093,363. PROCESS AND APPARATUS FOR MANUFACTURING STONE. CHARLES W. THOMAS, Laurel Springs, N. J., assignor to Silica Stone Works, Planebrook, Pa. Filed June 17, 1910. Serial No. 567,380. (Cl. 49—77.)

1. In the manufacture of stone, the method which consists in heating sand with a fusible material so as to produce a plastic clot and then confining said clot and subjecting it while hot and plastic to pressure and a face thereof to a continuous rubbing movement in one direction.

2. In the manufacture of stone, the combination of a mold having a movable side, means for moving said side continuously in one direction, and means for simultaneously pressing material in said mold against said side.



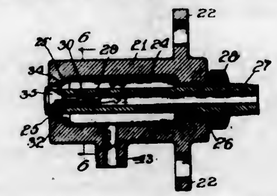
3. In the manufacture of stone, the combination of a form having a revoluble side, means for pressing a plastic



mass in said form against said side, and means for moving said side continuously in one direction.

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1,093,364. BURNER FOR OIL-FURNACES. CHARLES H. TRUE, Chicago, Ill., assignor to The Railway Materials Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 2, 1909. Serial No. 515,836. (Cl. 158—76.)



1. A burner for an oil furnace comprising a compressed air chamber having inlet and outlet openings, a fuel delivery tube disposed through said chamber and having an open end disposed adjacent to and centrally of said outlet opening, a deflector having a stem disposed in said tube and freely movable longitudinally thereof, and means disposed through said tube for limiting the longitudinal movement of said deflector.

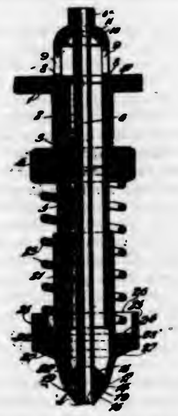
2. A burner for an oil furnace comprising a compressed air chamber having inlet and outlet openings, a fuel delivery tube disposed through said chamber and having an open end disposed adjacent to and centrally of said outlet opening, and a deflector having a stem disposed in said tube and a frusto-conical head disposed adjacent the end of said tube, said head and stem being provided with grooves extending longitudinally thereof from points intermediate of the ends of said head throughout the length of the said stem.

3. A burner for an oil furnace comprising a compressed air chamber having inlet and outlet openings, a fuel delivery tube disposed through said chamber and having an open end disposed adjacent to and centrally of said outlet opening, a deflector having a stem disposed in said tube and freely movable longitudinally thereof, and means disposed through said tube for limiting the longitudinal movement of said deflector, said deflector being disposed partly within the open end of said tube and partly within said outlet opening of the said chamber without said tube.

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1,093,365. VALVE FOR BOTTLE-FILLING APPARATUS. HENRY W. VAN LEER, Philadelphia, Pa., assignor, by mesne assignments, to S. S. Wenzell Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 7, 1912. Serial No. 695,620. (Cl. 226—12.)

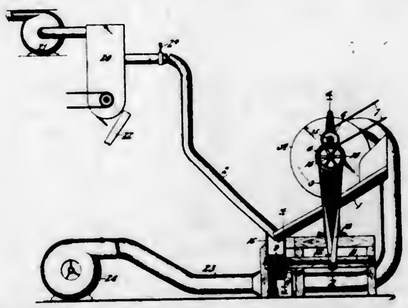
1. The combination, in a bottle filling apparatus, of a filling tube, a valve, an air vent tube passing through said filling tube and having at its upper end a supporting collar and at its lower end a plug having a seat for the valve, a ring having a seat for said supporting collar and a side opening through which the filling tube can be passed laterally, a support for said ring and legs extending downwardly from said ring to said support and serving to rigidly and fixedly mount the ring.



2. The combination of the tank having an opening therein, and a counter-sunk recess surrounding said opening, a filling tube, a valve therein, an air vent tube having a seat for said valve, a support for said tube carried by said tank and having an annular base seated in sid counter-sink, legs carried by said base and projecting above the same, and an open-sided ring carried by said legs and having a seat in its upper face, the air tube being adapted to pass through said open side of the ring and having a collar adapted to the seat therein.

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1,093,366. MATCH-SPLINT-CONVEYING APPARATUS. BERNARD GEORGE VAUGHAN, Joliet, Ill., assignor to National Match Company, Joliet, Ill., a Corporation of Illinois. Filed July 19, 1913. Serial No. 779,957. (Cl. 193—10.)



1. A match-splint-conveying apparatus comprising pneumatic conduits that lead from a common or central point to individual machines to which splints are to be supplied, a distributing means for supplying splints to said conduits, individual means for rendering each of said conduits inoperative, and means whereby the closing or rendering inoperative of one or more of said conduits will cause the splints intended for same to be conveyed back to said distributing means.

2. A match-splint-conveying apparatus comprising conduits that lead from a common point to individual ma-

chines to which match-splints are to be supplied, a continuously operating delivering means for supplying splints to said conduits, a means coöperating with each of said conduits for cutting off the flow of splints through same, and means comprising a mechanically-operated conveyer and a blast pipe for causing the splints that are intended for a particular conduit to be conveyed back to said delivering means when said conduit is closed or rendered inoperative.

3. A match-splint-conveying apparatus comprising a plurality of conduits, each of which coöperates with an individual machine to which match-splints are to be supplied, means for creating a suction in said conduits so as to draw splints through same, means coöperating with each conduit for cutting off the suction in same, a delivering means common to all of said conduits for supplying match-splints to same, and means for conveying back to said delivering means the splints that are intended for a conduit which has been rendered inoperative.

4. In a match-splint-conveying apparatus, a plurality of suction conduits that lead from a central or common point to machines to which splints are to be supplied, means for rendering said conduits inoperative individually, a match-splint-supplying means arranged in proximity to the receiving ends of said conduits for holding match-splints that are adapted to be sucked into said conduits, and a conveying means for receiving splints from said supplying means when one or more of said conduits are rendered inoperative.

5. In a match-splint-conveying apparatus, a plurality of suction conduits that lead from a central or common point to machines to which splints are to be supplied, means for rendering said conduits inoperative individually, a match-splint-supplying means arranged in proximity to the receiving ends of said conduits for holding match-splints that are adapted to be sucked into said conduits, and a conveying means for receiving splints from said supplying means when one or more of said conduits are rendered inoperative, said conveying means being so designed that the splints received by same are conducted back to said supplying means.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,367. TERMINAL FOR ELECTRIC-LIGHT FIXTURES. FREDERICK W. WAKEFIELD, Vermilion, Ohio, assignor to The F. W. Wakefield Brass Company, Vermilion, Ohio, a Corporation of Ohio. Filed Mar. 29, 1913. Serial No. 757,503. (Cl. 240—76.)



1. The combination of a plate having oppositely disposed notches in its outer edges, with a terminal member having converging arms provided with lugs on the inner faces of the same, whereby said plate may be slipped between said arms at the wider portion of the space between the arms, said arms engaging in the notches, and thereupon said plate may be moved toward the narrower portion of the space between the arms until said plate engages the lugs.

2. The combination of a circular plate having two oppositely disposed notches in its outer edge with an open terminal member having two converging arms being provided with lugs on the inner faces of the same, the diameter of said plate between such notches being slightly greater than the distance between said arms adjacent such lugs.

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1,093,368. VAPOR ELECTRIC DEVICE. EZECHIEL WEINTRAUB and ALLEN E. HIRSCHMAN, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed Jan. 3, 1914. Serial No. 810,165. (Cl. 176—45.)



1. A vapor electric device comprising an envelop, a cathode, an anode, and a conductive coating upon the surface of said envelop near said anode only and electrically connected to said anode.

2. A mercury vapor rectifier comprising a nonconducting envelop, a mercury cathode, coöperating solid anodes located in separate arms of said envelop, and conducting coatings on said anode arms, connected electrically to the respective anodes.

3. A vapor electric device comprising a vitreous envelop, an easily vaporisable cathode, a solid anode, and a conductive coating upon the outside surface of the envelop surrounding the anode, and electrically connected to the anode.

4. A mercury vapor rectifier comprising a glass envelop, a mercury cathode, coöperating anodes, and a conductive coating in intimate contact with the wall of said envelop near each of said anodes, said coatings being respectively each electrically connected to the anode surrounded thereby.

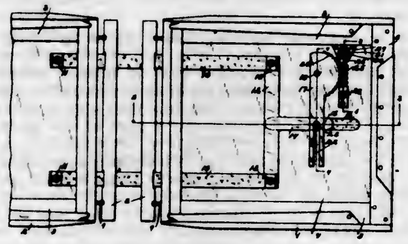
5. A vapor electric device comprising a nonconducting envelop provided with at least one side chamber having a bend, an anode in said side chamber, an easily vaporizable cathode in the main envelop, and a conductive coating on the surface of said anode chamber electrically connected to the anode.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,369. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Filed Sept. 22, 1913. Serial No. 791,180. (Cl. 129—41.)

1. The combination with the covers, one of said covers comprising a frame with outer and inner walls providing a chamber therein, the inner wall being longitudinally slotted, binding strips extending between said covers, a cross bar to which said binding strips are connected, arranged in said chamber, the other ends of said binding strips being connected to the other cover, said cross bar being provided with an outwardly projecting arm having a part engaging said slot in the inner wall of said cover, a lever provided with a segment, pivoted in the front and rear walls of said cover, said lever being arranged under said arm on said cross bar to support the same in engagement with said slot in said wall and being longitudinally slotted to engage a roller on said arm, a worm coacting with said segment, said worm being provided with a journal at one end and a beveled gear at the other, there being an annular bearing groove at the inner side of said gear, a bearing bracket for the journal on said worm, a bearing bracket having a forked bearing engaging said bearing groove of said worm, said bearing brackets being disposed on the inner wall of said cover, and a beveled gear coacting with said gear on said worm and journaled in said bearing bracket for the gear end of said worm and in the inner cover, said actuating gear being arranged on the inner side of said gear on said worm, whereby said worm is retained in said forked bearing, the journal of said actuating gear being adapted to receive a key at both ends.



2. The combination with the covers, one of said covers comprising a frame with outer and inner walls providing a chamber therein, the inner wall being longitudinally slotted, binding strips extending between said covers, a cross bar to which said binding strips are connected, arranged in said chamber, the other ends of said binding strips being connected to the other cover, said cross bar being provided with an outwardly projecting arm having a part engaging said slot in the inner wall of said cover, a lever provided with a segment, pivoted in the front and rear walls of said cover, said lever being arranged under said arm on said cross bar to support the same in engagement with said slot in said wall and being longitudinally slotted to engage a roller on said arm, a worm coacting with said segment, said worm being provided with a journal at one end and a beveled gear at the other, there being an annular bearing groove at the inner side of said gear, a bearing bracket for the journal on said worm, a bearing bracket having a forked bearing engaging said bearing groove of said worm, said bearing brackets being disposed on the inner wall of said cover, and a beveled gear coacting with said gear on said worm and journaled in said bearing bracket for the gear end of said worm and in the inner cover, said actuating gear being arranged on the inner side of said gear on said worm, whereby said worm is retained in said forked bearing.

3. The combination with the covers, one of said covers comprising a frame with outer and inner walls providing a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected, arranged in said chamber, the other ends of said binding strips being connected to the other cover, a guide for said cross bar, a lever provided with a segment, pivoted in the front and rear walls of said cover, and operatively connected to said cross bar, a worm coacting with said segment, said worm being provided with a journal at one end and a beveled gear at the other, there being an annular bearing groove at the inner side of said gear, a bearing bracket for the journal on said worm, a bearing bracket having a forked bearing engaging said bearing groove of said worm, said bearing brackets being disposed on the inner wall of said cover, and a beveled actuating gear coacting with said gear on said worm and journaled in said bearing bracket for the gear end of said worm and in the inner cover, said actuating gear being arranged on the inner side of said gear on said worm, whereby said worm is retained in said forked bearing, the journal of said actuating gear being adapted to receive a key at both ends.

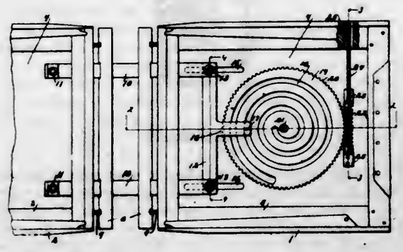
4. The combination with the covers, one of said covers comprising a frame with outer and inner walls providing a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected, arranged in said chamber, the other ends of said binding strips being connected to the other cover, a guide for said cross bar, a lever provided with a segment, pivoted in the front and rear walls of said cover, and operatively connected to said cross bar, a worm coacting with said segment, said worm being provided with a journal at one end and a beveled gear at the other, there being an annular bearing groove at the inner side of said gear, a bearing bracket for the journal on said worm, a bearing bracket having a forked bearing engaging said bearing groove of said worm, said bearing brackets being disposed on the inner wall of said cover, and a beveled actuating gear coacting with said gear on said worm and journaled in said bearing bracket for the gear end of said worm and in the inner cover, said actuating gear being arranged on the inner side of said gear on said worm, whereby said worm is retained in said forked bearing.

5. The combination with the covers, one of said covers comprising a frame with outer and inner walls providing a chamber therein, the inner wall being longitudinally slotted, binding strips extending between said covers, a cross bar to which said binding strips are connected, arranged in said chamber, the other ends of said binding strips being connected to the other cover, said cross bar being provided with an outwardly projecting arm having a part engaging said slot in the inner wall of said cover, a lever provided with a segment pivoted on the front and rear walls of said cover, said lever being arranged under said arm on said cross bar to support the same in engagement with said slot in said wall and being longitudinally slotted to engage a roller on said arm, a worm coacting with said segment, a beveled gear on said worm, and a beveled actuating gear coacting with said gear on said worm, journaled in bearings on said front and rear cover walls, the journal of said actuating gear being adapted to receive a key at both ends.

[Claims 6 to 29 not printed in the Gazette.]

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1,093,370. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON, Kalamazoo, Mich., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Filed Sept. 22, 1913. Serial No. 791,181. (Cl. 129—41.)



1. The combination with the covers, one of said covers having a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected arranged in said chamber, the other ends of said binding strips being connected to the other cover, guides for said cross bar, said cross bar having a central outwardly projecting arm thereon provided with a roller, a worm gear having a spiral cam groove on its face with which the roller on said cross bar arm is engaged, and an actuating worm for said gear.

2. The combination with the covers, one of said covers having a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected arranged in said chamber, the other ends of said binding strips being connected to the other cover, guides for said cross bar, said cross bar having a central outwardly projecting arm thereon provided with a roller, a worm gear having a cam groove on its face with which the roller on said cross bar arm is engaged, and an actuating worm for said gear.

3. The combination with the covers, one of said covers having a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected arranged in said chamber, the other end of said binding strips being connected to the other cover, guides for said cross bar, said cross bar being provided with a roller, and a rotatable actuating member provided with a spiral cam with which the roller on said cross bar engages.

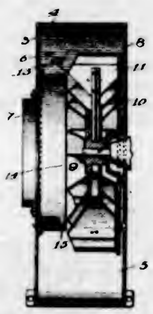
4. The combination with the covers, one of said covers having a chamber therein, binding strips extending between said covers, a cross bar to which said binding strips are connected arranged in said chamber, the other end of said binding strips being connected to the other cover, guides for said cross bar, said cross bar being provided with a roller, and a rotatable actuating member provided with a cam with which said cross bar engages.

5. The combination with the covers, one of said covers having a chamber therein, a binding strip extended between said covers, an adjustable member to which said binding strip is connected arranged in said chamber, the other end of said binding strip being connected to the other cover, a worm gear provided with a spiral cam operatively associated with said adjustable member to adjust the same as the gear is rotated, and an actuating worm for said gear.

[Claims 6 to 28 not printed in the Gazette.]

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1,093,371. CENTRIFUGAL FAN. WILLIAM E. ALLINGTON, Saginaw, Mich. Filed Sept. 7, 1909. Serial No. 516,318. (Cl. 230—11.)



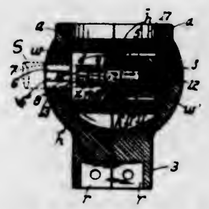
1. A centrifugal fan providing a relatively deep casing, having an axial side inlet, and a peripheral outlet; a relatively narrow fan wheel in the rear portion of said casing opposite the axial inlet to leave a relatively large clearance space on the inlet side of the casing, said fan wheel providing blades each having its front edge sloping from a point of maximum width toward the heel of the blade in a direction receding from the inlet, and a circular guard within said clearance space, said guard being of a greater diameter than the inlet, and arranged to oppose and extend substantially to said point of maximum width of the wheel blade to divide said clearance space into a relatively large intake chamber into which the inlet opens, and an area conforming to the peripheral wall of the casing, and communicating with the intake chamber only through the field of operation of the fan wheel.

2. A centrifugal fan providing a relatively deep casing, having an axial side inlet, and a peripheral outlet; a relatively narrow fan wheel in the rear portion of said casing opposite the axial inlet to leave a relatively large clearance space on the inlet side of the casing, said fan wheel providing blades each having its front edge sloping from a point of maximum width toward the heel of the blade in a direction receding from the inlet, and a circular guard within the clearance space, said guard being of a greater diameter than the inlet, and arranged to oppose and extend substantially to said point of maximum width of the wheel blade to divide said clearance space into a relatively large intake chamber into which the inlet opens, and an area conforming to the peripheral wall of the casing, and communicating with the intake chamber only through the field of operation of the fan wheel, said circular guard wall having a tangential extension connecting the circular wall with the peripheral wall of the casing adjacent the outlet.

3. A centrifugal fan comprising a fan casing having an inlet eye and a tangential outlet, a guard concentric with said inlet eye and provided with an integral extension paralleling the outlet, said guard and extension extending inwardly at right angles from the inlet side of the fan casing a distance approximating a third of the width of the casing, and the guard lying in a circle radially spaced from the edge of the inlet eye by a distance approximating the distance of its extension inward from the front of the casing, and a fan having a plurality of blades, each having a front edge portion adjacent the free inner edge of said guard, the edge sloping from such point of coaction with the guard respectively toward the heel and toward the tip of the blade as described.

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1,093,372. REVERSIBLE TYPE-WRITER KEY. JAMES C. E. ALLUM and JOSIAH F. PERKINS, Chicago, Ill., assignors of one-third to Charles B. Yoder, St. Louis, Mo. Filed Oct. 10, 1913. Serial No. 794,442. (Cl. 197—104.)



1. In a type-writer, a casing having an open top and provided with hollow bosses, a key rotatably mounted in the casing, said key being provided with character-carrying disks disposed so as to be successively exposed through the open top of the casing with a rotation of the key through a given arc, a central wall connecting the character disks and provided with a polygonal opening for receiving one end of an operating key, terminal walls connecting the key-disks and receiving the hollow bosses of the casing, the wall of one of the bosses having a longitudinal slot, a spring-controlled plunger in the chamber of the slotted boss, a tongue on the plunger traversing the slot, a tumbler in the casing provided with an arm adapted to be actuated by the operating key aforesaid, a second arm on the tumbler adapted to sweep across the slot in front of the tongue for engaging the latter, a stem on the plunger normally positioned in the polygonal opening of the central wall and adapted to be engaged by the operating key, and a detachable member on the character key on which one of the characters are marked.

2. In combination with a sectional casing, a key provided with opposing disks, rotatably mounted in the casing, the latter having an open top for the successive exposure of the characters on the respective disks, a rotatable gravity tumbler in the casing, an arm on said tumbler, the casing being provided with an opening in the wall thereof for the insertion of a rotatable operating key, the character-key having a wall provided with a polygonal opening for receiving the operating key, a hollow longitudinally slotted boss on the casing, a spring-controlled plunger operating in said boss and provided with a tongue traversing the slot, a second arm on the tumbler normally engaging the tongue, the operating key being adapted to disengage said second arm from said tongue with a tripping of the first arm of the tumbler, and permit the operating key to enter the opening of the wall of the character-key, and thereby permit the actuation of the character key by means of the operating key with a further rotation of the latter.

3. In a type-writer, a rotatable key having oppositely disposed disks, one of said disks being perpanent and having a character marked thereon, the other disk being removable and provided with a character.

4. In a type-writer, a rotatable character key, a casing therefor, a spring-controlled plunger mounted in the casing, a rotatable tumbler normally holding said plunger against movement, said tumbler operating to release the plunger and thereby permit rotation of the character-key.

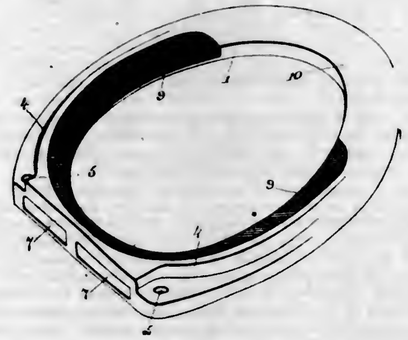
5. In a type-writer, a rotatable character key, a casing therefor, a spring-controlled plunger mounted in the casing and coöperatively engaging the character-key under the tension of the spring, a key-operated rotatable tumber normally holding the plunger against movement, and operating to release the plunger from the character-key with a given rotation of the tumbler.

[Claims 6 and 7 not printed in the Gazette.]

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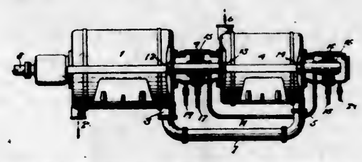
1,093,373. WATER-CLOSET SEAT. FRANK W. BAMFORD, Trenton, N. J., assignor to John Maddock & Sons, a Corporation of New Jersey. Filed Jan. 4, 1912. Serial No. 669,366. (Cl. 4—18.)



1. As a new article of manufacture, a detachable earthenware seat adapted to be hinged to a water closet structure, said seat being made hollow with walls comparatively thin to form a passageway throughout the seat of a cross section approximating the exterior cross section of the seat, and provided with openings from said passageways to the external atmosphere, whereby ample room is provided for the circulation through said seat of air at room temperature for the purpose of warming said seat.

2. As a new article of manufacture, a detachable porcelain seat adapted to be hinged to a water closet structure, said seat being hollow and having in cross section a flat bottom wall and thin top and side walls of approximately arch shape, provided with openings at the rear connecting the internal passageway with the external atmosphere, and with openings through the bottom adapted to receive suitable bumpers.

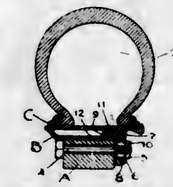
1,093,374. PRESSURE-EQUALIZER FOR ROTARY BLOWERS. OTTO BANNER, Sterkrade, Germany, assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 15, 1911. Serial No. 665,994. (Cl. 230—11.)



In a rotary blower or compressor, a plurality of cylinders, intermediate and end journal boxes and means for maintaining an equal fluid pressure in said intermediate and end journal boxes.

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1,093,375. DEMOUNTABLE RIM. ALBERT R. BEHNKE, St. Paul, Minn., assignor of one-half to William C. J. Timmerman, St. Paul, Minn. Filed Mar. 25, 1913. Serial No. 756,712. (Cl. 152—21.)



1. In a demountable rim structure for wheels, the combination with a wheel felly, and a demountable rim associated therewith, of a plurality of abutments arranged in spaced relation on said rim and interposed between the latter and said felly, each of said abutments comprising an elongated plate the opposite faces of which are provided with studs, the studs at the outer face of said plate being received by openings in the demountable rim and suitably secured therein to hold the abutment on the rim, the studs at the inner face of the abutment projecting toward the wheel felly, the faces of the abutments next adjacent to the wheel felly being inclined, a clamping wedge associated with each abutment and fitted between the inclined face of the latter and the wheel felly for coöperation with said inclined face, said clamping wedges also fitting between the studs at the inner faces of the abutments, and means for holding the clamping wedges in clamping relation to the rim.

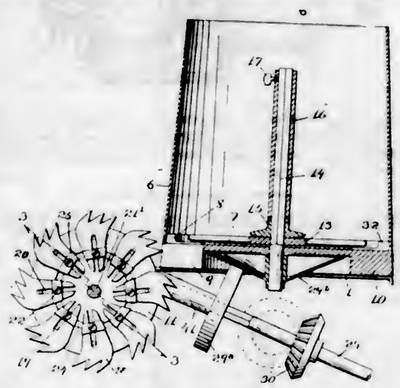
2. In a demountable rim structure for wheels, the combination with a wheel felly, a band thereon, and a demountable rim associated therewith and provided with a series of inclined faces next adjacent to the felly band, of a clamping wedge associated with each of said inclined faces and provided with an inwardly-extending foot fitted between the inclined face and the felly band, said foot having its outer face inclined to coöperate with said inclined face of the rim, the body of each of said clamping wedges having an elongated opening the end of which next to the foot of the wedge is rounded in cross section, a bolt arranged in the wheel felly for coöperation with each of said clamping wedges, and a nut carried by each of said bolts, each of said nuts having a conical elongation fitted in the elongated opening of the adjacent clamping wedge, and seated against the rounded end of said opening.

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1,093,376. SEED-PLANTER. WILLIS A. BIRD, Headland, Ala. Filed Oct. 30, 1913. Serial No. 798,366. (Cl. 111—7.)

1. In a seed planter, a hopper having a bottom provided in rear with a discharge opening, a bottom plate having a discharge opening in line with said opening of

the hopper bottom, a rotary member above said bottom plate, a finger disk in rear of the hopper, a series of radial fingers having pivotal connection with said disk and provided with inclined serrated outer ends engaging the discharge opening of the hopper bottom, means for adjusting said fingers upon their pivots to vary their degree of projection from said disk and the inclination of the serrated ends, and means for rotating said rotary member and said disk.



2. In a seed planter, a hopper having a bottom provided in rear with a discharge opening, a bottom plate having a discharge opening in line with said opening of the hopper bottom, a rotary member above said bottom plate, a finger disk in rear of the hopper, a series of fingers having pivotal connection with said disk and provided with inclined serrated outer ends engaging the discharge opening of the hopper bottom, a side plate for said disk having screws engaging slots of said disk and slots of the said fingers, said disk having rotation with respect to said side plate to adjust the fingers upon their pivots, and means for rotating said rotary member and said side plate and disk.

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1,093,377. CATALYTIC MATERIAL AND PROCESS OF PRODUCING THE SAME. THORON BOBERG, London, England, assignor to Techno-Chemical Laboratories Limited, London, England. Filed Mar. 3, 1913. Serial No. 751,698. (Cl. 23—28.)

1. The method of preparing a catalyst consisting in subjecting a high oxid of nickel to the reducing action of hydrogen to produce a compound in which the nickel is contained mainly as one or more sub-oxids.

2. The method of preparing a catalyst consisting in subjecting a high oxid of nickel, at a temperature of approximately 230° C. to 270° C., to the reducing action of hydrogen to produce a compound in which the nickel is contained mainly as one or more sub-oxids.

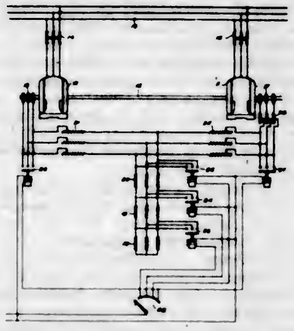
3. The method of preparing a catalyst consisting in subjecting a high oxid of a metal to the reducing action of hydrogen to produce a compound in which the metal is contained mainly as one or more sub-oxids, collecting the product in an indifferent liquid, and separating the product from the liquid and drying it.

4. The method of preparing a catalyst consisting in subjecting a high oxid of a metal to the reducing action of hydrogen to produce a compound in which the metal is contained mainly as one or more sub-oxids, and preparing it for use by heating at about 180° C. in an atmosphere of hydrogen.

5. The method of preparing a catalyst consisting in subjecting a high oxid of nickel to the reducing action of hydrogen to produce a compound in which the nickel is contained mainly as one or more sub-oxids, collecting the product and preparing it for use by heating in an atmosphere of hydrogen at a relatively low temperature.

[Claims 6 and 7 not printed in the Gazette.]

1,093,378. MOTOR-CONTROL SYSTEM. LOUIS E. BOGEN, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed July 28, 1911. Serial No. 641,128. (Cl. 172—274.)



1. In combination, a plurality of motors mechanically connected, a common sectional resistance therefor, a separate resistance through which each motor is connected to the common resistance, means for cutting out sections of said sectional resistance, means for cutting out said separate resistances, and separate means for regulating the division of load between said motors.

2. In combination, a plurality of induction motors of the wound rotor type connected together, a common sectional resistance for the secondary circuits thereof, a separate resistance through which the secondary winding of each motor is connected to said common resistance, means for cutting out sections of said common resistance, means for cutting out said separate resistances, and separate means for regulating the division of load between said motors.

3. In combination, a plurality of induction motors of the wound rotor type connected together, a common sectional resistance for the secondary circuits thereof, a separate resistance through which the secondary winding of each motor is connected to said common resistance, a power-operated switch for cutting out each section of said common resistance, a power-operated switch for cutting out each of said separate resistances, and separate means associated with one of said motors for regulating the division of load between said motors.

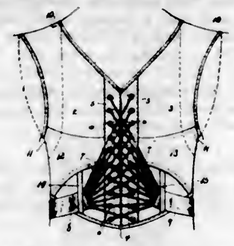
4. In combination, a plurality of induction motors of the wound rotor type connected together, a common sectional resistance for the secondary circuits thereof, a separate resistance through which the secondary winding of each motor is connected to said common resistance, a power-operated switch for cutting out each section of said common resistance, a power-operated switch for cutting out each of said separate resistances, common means for controlling all said power-operated switches, and separate means associated with one of said motors for regulating the division of load between said motors.

5. In combination, a plurality of motors mechanically connected so as to be capable of driving a common load, a common resistance therefor, a separate resistance through which each motor is connected to the common resistance, means for cutting out said common resistance, means for cutting out said separate resistances, and separate means for regulating the division of load between said motors.

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1,093,379. SHOULDER-BRACE. THOMAS G. BOWERS, New Haven, Conn. Filed Apr. 10, 1913. Serial No. 760,209. (Cl. 2—93.)

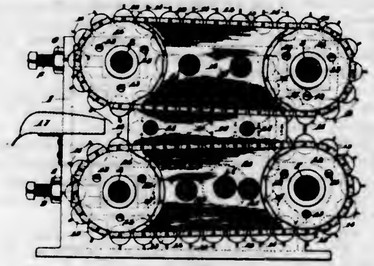
1. A shoulder brace comprising two back sections each including an arm hole, said sections provided at their adjacent edges with lacing strips, lacings extending from said strips, belts with which the respective ends of the lacings are connected, and reinforcing stays connected with said back sections and extending at their upper edges from the lacing strips forward to the rear of the arm holes and at their lower edges from the said lacing strips forward and downward to the lower edge of said sections beneath said arm holes said reinforces also extending forward and upward in front of the arm holes.



2. A shoulder brace comprising two back sections each including an arm hole, said sections provided at their adjacent edges with lacing strips, lacings extending from said strips, belts with which the respective ends of the lacings are connected, reinforcing stays connected with said back sections and extending from the lacing strips forward and downward to the lower edge of said sections beneath said arm holes, said reinforces also extending forward and upward in front of the arm holes, and loops extending from said stays to the lower edges of the sections forward of the lacing strips, and substantially parallel therewith.

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1,093,380. CONFECTIONERY-MACHINE. EMIL J. BRACH, Chicago, Ill. Filed July 25, 1912. Serial No. 711,559. (Cl. 107—20.)



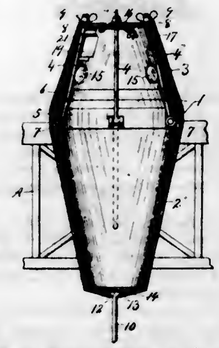
1. A machine of the class described comprising a supporting frame; guides on said frame; rollers journaled in said frame; two endless flexible elements mounted on said rollers, each comprising two spaced endless chains and a plurality of parallel members extending laterally between said endless chains, each parallel member being provided with a flat surface at each end thereof engaging one of said guides, the ends of said parallel members being extended across said guides and secured to said endless chains; and a cutter blade extending outwardly from each of said parallel members, substantially as described.

2. A machine of the class described comprising a supporting frame; rollers journaled in said frame; a plurality of spaced parallel members, each having a flattened end portion at each end and a pin extending longitudinally from each flattened end portion, endless chains on said rollers, each chain comprising a plurality of perforated plates pivotally mounted on said pins, each plate connecting two adjacent pins at adjacent ends of said parallel members; outwardly extending cutter blades on said parallel members; guides on said frame; and other guides on said rollers, all of said guides engaging said flattened ends holding said parallel members against rotation, substantially as described.

3. A machine of the character described comprising a supporting frame; rollers mounted in said frame; plates rigidly secured to said rollers and having flattened peripheral portions thereon; two superposed endless flexible elements mounted for rotation about said rollers each comprising two spaced endless members and a series of transversely extending parallel members provided with flattened end portions between said endless members and having the remote ends of their flattened end portions secured thereto; an outwardly extending cutter blade on each transversely extending member and superposed straight edged members arranged in spaced relation in said frame, the flattened edge portions of said parallel members being adapted for passage between said superposed straight edged members and for contact with the flattened peripheral portions of said plates whereby said parallel members are guided and held from relative rotary movement, substantially as described.

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1,093,381. LIFE-SAVING BUOY. ALBERT W. BROWN, Elmira, N. Y. Filed Nov. 27, 1912. Serial No. 733,864. (Cl. 9—10.)



1. A life-saving buoy composed of hollow shell sections having their open ends fitted to each other and bolts hinged to the inner sides of one of the sections to swing inwardly and extending through the wall of the other section, and removable means for tightening the bolts.

2. A life-saving buoy comprising an upper and a lower shell section having their open ends fitted one to the other, bolts hinged to the interior of the lower section to swing inwardly and extending through the top of the upper section and provided with removable exterior means for tightening the bolts.

3. A life-saving buoy comprising an upper and a lower shell section having their open ends fitted to each other, bolts hinged to the interior of the lower section to swing inwardly and downwardly along the inner sides of said section and extending through the top of the upper section, nuts engaging the outer ends of the bolts, and a lid in the top of the upper section allowing communication with said nuts from the interior of said shell.

4. A life-saving buoy comprising a hollow shell and a device for holding the shell in an upright position consisting of a rigid rod having sliding interlocking connection with the bottom of the shell, and a weighted member rigidly secured to the lower end of said rod.

5. A life-saving buoy comprising a hollow shell, a rod having a sliding interlocking connection with the bottom of the shell and having its lower end provided with radially projecting fins rigid therewith.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,382. ELECTRIC FURNACE. JOHN W. BROWN, Lakewood, Ohio, assignor to National Carbon Company, Cleveland, Ohio, a Corporation of New Jersey. Filed Jan. 8, 1912. Serial No. 670,069. (Cl. 204—64.)

1. The method of treating a granular conducting charge which consists in moving it in one direction as a heat absorbing envelop, then moving the advanced portions in

the opposite direction within the incoming envelop and passing an electric current through the material within said envelop.



2. The method of treating a granular conducting charge which consists in moving it in one direction as a heat absorbing envelop then moving the advanced portions in the opposite direction within the incoming envelop and passing an electric current through the material after it has substantially completed its movement as a heat absorbing envelop.

3. In an electric furnace having a conducting charge, a plurality of co-axial channels adapted to be completely filled with the charge, heating electrodes and means for moving the furnace charge succesively through the channels in opposite directions.

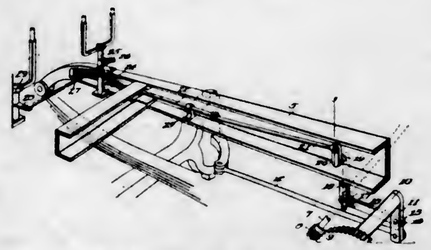
4. In an electric furnace the combination of an outer vertical channel, and inner vertical channel, heating electrodes and means whereby the incoming furnace charge is moved through the outer channel in one direction and through the inner channel in the reverse direction.

5. In an electric furnace an outer channel, and intermediate channel, and inner channel, heating electrodes and means for moving the furnace charge successively through the said three channels in alternate directions.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,383. LAMP MECHANISM FOR AUTOMOBILES. ROY C. BROWNE, East St. Louis, Ill. Filed Mar. 7, 1913. Serial No. 752,618. (Cl. 240—62.)

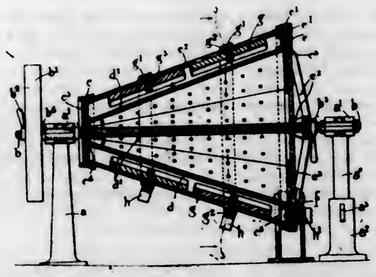


1. A lamp mechanism for automobiles, comprising a vehicle body provided with a frame of substantially U form in cross section, a crank located within said U frame and adapted to rock, steering mechanism for the vehicle, connections from said steering mechanism to said crank for the purpose of actuating the latter, a connecting rod pivotally connecting with said crank and located within said frame, a sliding rod pivotally connected with said connecting rod and likewise located within said frame, and a lamp bracket provided with an arm extending into said frame and connected with said sliding rod for the purpose of enabling said lamp bracket to be turned by the steering mechanism.

2. In a lamp mechanism for automobiles, the combination of a steering mechanism, an arm connected therewith and movable thereby, means for actuating said arm, a link pivotally connected with said arm, another arm pivotally connected with said link, a rocking shaft secured rigidly to said last-mentioned arm, a frame to which said rocking shaft is journaled, a crank connected with said rocking shaft, a pitman pivotally connected with said crank, a sliding rod pivotally connected with said pitman, and a lamp bracket provided with an arm, this arm being pivotally connected with said sliding rod.

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1,093,384. ROTARY ELECTROPLATING APPARATUS. CHRISTOPHER JAMES CHARLTON, South Benfleet, England. Filed Nov. 7, 1913. Serial No. 799,721. (Cl. 204—11.)



1. In an electro-plating apparatus, the combination of an outer conical drum, an inner tapered perforated drum, a rotating shaft by which both drums are carried and rotated, anodes fixed to the inner surface of the outer drum and a cathode located at the larger ends of the two drums, substantially as set forth.

2. In an electro-plating apparatus, the combination of an outer conical drum, an inner tapered perforated drum polygonal in cross section, a rotating shaft by which both drums are carried, anodes located on the inner surface of the outer drum, metal bands fitted around the outer drum, bolts and nuts electrically connecting the metal bands to the anodes and a cathode located at the larger ends of the two drums, substantially as set forth.

3. In an electro-plating apparatus, the combination of an outer conical drum, an inner tapered perforated drum polygonal in cross section, a rotating shaft, by which both drums are carried, anodes located on the inner surface of the outer drum, metal bands fitted around the outer drum, bolts and nuts electrically connecting the metal bands to the anodes, a metal door mounted on the rotating shaft closing the larger ends of the two drums and acting as a cathode, a cross frame or spider pressing against said metal door and a nut on the shaft acting against the cross frame or spider, substantially as shown and described.

4. In an electro-plating apparatus, the combination of an outer conical drum, an inner tapered perforated drum polygonal in cross section, a rotating shaft by which both drums are carried, anodes located on the inner surface of the outer drum, metal bands fitted around the outer drum, bolts and nuts electrically connecting the metal bands to the anodes, a metal door mounted on the rotating shaft closing the larger ends of the two drums and acting as a cathode, a cross frame or spider pressing against said metal door, a nut on a screw threaded part of the shaft acting against the cross frame and a wooden lining over part of the inner surface of the metal door, substantially as shown and described.

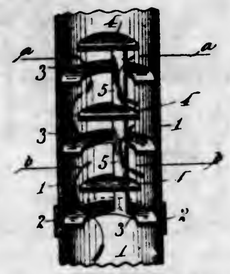
5. In an electro-plating apparatus the combination of an outer conical drum, rings supporting the ends of the drum, two metal plates each acting against one of the rings and closing the ends of the conical drum, a tapered perforated inner drum polygonal in cross section, a seating carried by the plate closing the smaller end of the outer conical drum and a seating carried by the ring supporting the larger end of the conical drum by which seatings the inner drum is supported, anodes fixed to the inner surface of the outer drum and metal bands around the outer drum electrically connected to the anodes, substantially as shown and described.

[Claims 6 and 7 not printed in the Gazette.]



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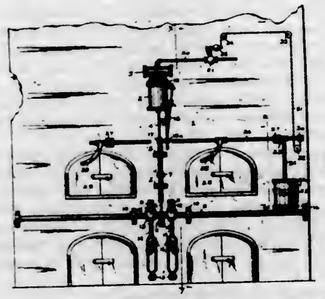
1,093,385. FUEL-MIXER. GEORGE H. CLEMMER, West Alexandria, Ohio. Filed Dec. 29, 1913. Serial No. 809,169. (Cl. 48—180.)



In a device of the character specified, the combination with the fuel intake pipe having a jointed connection, of a mixer or fluid agitator arranged therein and consisting of a series of rings placed one in advance of the other and engaging the inner circumference of said pipe, one of said rings being fixed at the joint of the pipe, a series of imperforate disks similarly arranged one in advance of each ring, the diameters of said disks being substantially equal to the diameters of the openings of said rings, and oppositely arranged bars extending from the ring secured at the joint of the pipe and connecting the remaining rings and the disks thereto, substantially as shown and described.

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1,093,386. GRATE-SHAKER. JAMES A. DEMPSEY, New York, N. Y. Filed Nov. 13, 1913. Serial No. 800,850. (Cl. 126—169.)



1. The combination with a furnace, of a motor for operating the furnace grates and means for automatically controlling said motor, said means being adapted to be actuated by the opening of the furnace door.

2. The combination with a furnace, of a motor connected to the furnace grate; means for actuating the motor by the act of opening the furnace door, and adjustable means for automatically terminating the operation of the motor.

3. The combination with a furnace, of a motor; a shaking lever connected to the grates of the furnace; adjustable connecting means between the motor and the shaking lever; means for automatically controlling the operation of the motor adapted to be actuated by the opening of the furnace door.

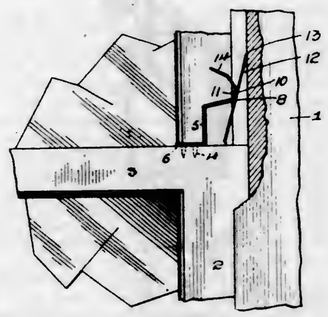
4. The combination with a furnace, of a motor; a rock shaft to which the motor is connected; a shaking lever connected to the grates of the furnace; adjustable connecting means intermediate the rock shaft and shaking lever; means for actuating the motor by the opening of the furnace door; and means for automatically terminating the operation of the motor.

5. The combination with a furnace, of a motor connected to the furnace grate; means for disconnecting the motor from the grate at will; means engaging the furnace door adapted to actuate the motor by the act of opening the door; means connected with said actuating means for automatically terminating the operation of the motor.

[Claims 6 and 7 not printed in the Gazette.]

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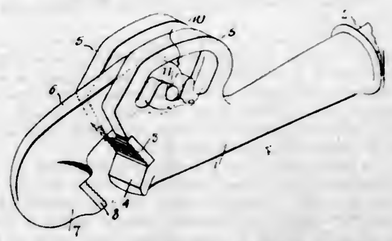
1,093,387. SASH-HOLDER. STEVE DUCSAY, Canonsburg, Pa. Filed Nov. 27, 1912. Serial No. 733,843. (Cl. 16—146.)



In a sash holding device, the combination with a window frame and sash, of an angle strap mounted upon the meeting rail of said sash and extending in proximity to said frame, a strap hinged to said angle strap and terminating in a finger piece, and a holding member carried by said hinged strap and having the ends thereof curved and toothed whereby the ends of said member can engage in said frame.

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1,093,388. CAR-WRENCH. HARRY L. FLACK, Dayton, Ohio. Filed Sept. 29, 1913. Serial No. 792,381. (Cl. 81—110.)



A car wrench comprising a shank having a jaw face at one end thereof, said jaw face extending upwardly and forwardly at an acute angle to the length of said shank, said shank also having a lip extending downwardly and forwardly from the lower edge of the first-mentioned jaw face, said shank further having two upwardly extending parallel portions having longitudinal slots arranged above the horizontal plane of said shank and each provided at its lower edge with a plurality of upwardly and rearwardly extending bearing recesses, a dog extending between the two portions of said shank and having oppo-

sitely extending trunnions to enter the respective recesses, and each adapted to enter different recesses, said dog having a downwardly and forwardly extending portion provided at its lower end with a head having a jaw face arranged at substantially right angles to said dog and adapted to extend parallel with the jaw face of said shank when in its operative position, whereby said dog may be adjusted to cause the coöperating parts of said dog and said shank to form a substantially rectangular socket of any one of a plurality of sizes.

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1,093,389. SUCTION APPARATUS. JOHN C. FORD, deceased, Keokuk, Iowa, by Mary E. Brown, administratrix, Keokuk, Iowa, assignor of one-half to Corey F. McFarland, Keokuk, Iowa. Filed Apr. 17, 1913. Serial No. 761,777. (Cl. 230—34.)



1. In an apparatus of the character described, a casing, a rotary suction inducing means therein, an extension of said casing, a reciprocatory valve stem therein, a valve controlled by said stem, and a receiver mounted upon the said extension and within which said valve is located and provided with a perforated cap inclosing said valve.

2. In an apparatus of the character described, a casing, a rotary suction inducing means therein, an extension of said casing, a reciprocatory valve stem therein, a valve controlled by said stem, a receiver mounted upon the said extension and within which said valve is located, and rotary means embracing said extension for regulating the admission of air.

3. In an apparatus of the character described, a casing, a rotary suction inducing means therein, an extension of said casing, a reciprocatory valve stem therein, a valve controlled by said stem, a receiver mounted upon the said extension and within which said valve is located, and rotary manually operated means embracing said extension for regulating the admission of air.

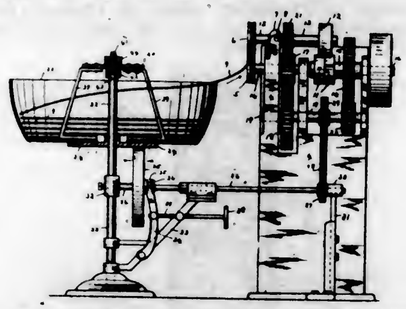
4. In an apparatus of the character described, a base, a casing mounted thereon and having means for the connection of a tube therewith, rotary suction inducing means within said casing, an extension on said casing, a receptacle on said casing, a reciprocatory valve stem in said extension, a valve thereon outside said extension and within said receptacle, rotary means embracing said extension, and means on said stem engageable with said rotary means.

5. In an apparatus of the character described, a base, a casing mounted thereon and having means for the connection of a tube therewith, rotary suction inducing means within said casing, an extension on said casing, a receptacle on said casing, a reciprocatory valve stem in said extension, a valve thereon outside said extension and within said receptacle, rotary means embracing said extension, means on said stem engageable with said rotary means, and a perforated cap within said receptacle receiving said valve.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,390. WIRE-FEEDING DEVICE FOR COILING-MACHINES. WILLIAM S. FOSTER, Utica, N. Y., assignor to Foster Brothers Manufacturing Company, Utica, N. Y., a Corporation of New York. Filed May 9, 1912. Serial No. 696,098. (Cl. 140—128.)



1. In combination, a spring coiling machine having parts consuming wire intermittently, a reel from which the wire for said coiler is to be unwound, and means adapted to rotate said reel to unwind the wire therefrom and allowing further rotation of said reel and unwinding therefrom by the tension from the consuming feed.

2. In combination, a spring coiling machine having parts consuming wire intermittently, a reel from which the wire for said coiler is to be unwound, and means operatively connected to said coiler and adapted to rotate said reel to unwind the wire therefrom and allow further rotation of said reel and unwinding therefrom by the tension from the consuming feed.

3. In combination, a spring coiling machine having parts consuming wire intermittently, a reel from which the wire for said coiler is to be unwound, and means adapted to rotate said reel to unwind the wire therefrom at the average rate of consumption and allow further rotation of said reel and unwinding therefrom by the tension from the consuming feed.

4. In combination, a spring coiling machine having parts consuming wire intermittently, a reel from which the wire for said coiler is to be unwound, and means operatively connected to said coiler and adapted to rotate said reel to unwind the wire therefrom at the average rate of consumption and allowing further rotation of said reel and unwinding therefrom by the tension from the consuming feed.

5. In combination, a spring coiling machine having parts moving continuously but consuming wire intermittently, a reel from which the wire for said coiler is to be unwound, and means operatively connected to said continuously moving parts and adapted to rotate said reel continuously to unwind the wire therefrom and allowing its further rotation by the tension from the consuming feed.

[Claim 6 not printed in the Gazette.]

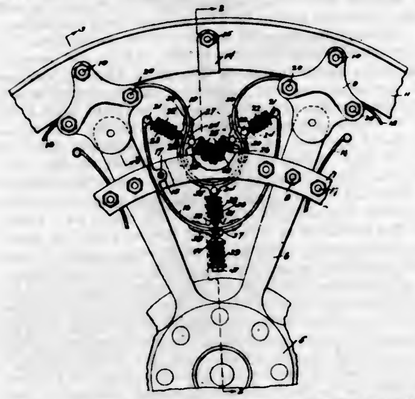
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1,093,391. SPRING-WHEEL. RICHARD FOURCHY, Kansas City, Mo. Filed June 30, 1913. Serial No. 776,596. (Cl. 152—28.)

1. In a spring wheel, a hub, a felly, spokes from the hub to the felly, and resilient units intermediate the hub, the spokes and the felly, each of the resilient units comprising a spring having the shape of two oppositely disposed S's engaging the felly, a U-shaped spring engaging the adjacent spokes, and compression springs connecting said U-shaped spring with the S-shaped springs, substantially as set forth.



2. In a spring wheel, a hub, a felly, spokes rigidly secured to the hub and extending to the felly, means pivotally attached to the felly engaging the spokes, and resilient units intermediate the hub, spokes and felly, each comprising a spring having the shape of oppositely disposed S's, the ends of which are secured to said means, a U-shaped spring secured to the adjacent spokes, and compression springs connecting the U-shaped and S-shaped springs, substantially as set forth.



3. In a spring wheel, a hub; spokes rigidly secured to the hub; a felly; means on the felly engaging the spokes, and whereby the hub with the spokes can only move in the plane of the wheel, and resilient units intermediate the hub spokes and felly, each comprising a spring between the adjacent spokes connected to the felly; a second spring connected to the adjacent spokes; and compression springs connecting the two springs, substantially as and for the purpose set forth.

4. In a spring wheel, a hub, a felly, spokes rigidly secured to the hub and extending to the felly, means pivotally attached to the felly engaging the spokes, and resilient units intermediate the hub, spokes and felly, each unit comprising a flat spring having the shape of oppositely disposed S's, the ends of which are pivotally secured to said means, a flat U-shaped spring secured to the adjacent spokes, and pairs of mutually opposing compression springs normally balancing each other connecting said flat springs, substantially as set forth.

5. In a spring wheel, a hub, a felly, spokes rigidly secured to the hub and extending to the felly, means on the felly engaging the spokes, and resilient units intermediate the hub, spokes and felly, each unit comprising a flat spring having the shape of oppositely disposed S's, the ends of which are secured to the means on the fellies, a U-shaped flat spring secured to the adjacent spokes, the major part of said oppositely disposed S-shaped spring being located within the U-shaped spring, pairs of balanced compression springs positioned on both sides of the oppositely disposed S-shaped spring and connected to the extremities of said U-shaped spring, and another pair of balanced compression springs positioned at each side of the central portion of the U-shaped spring and connecting it to the S-shaped spring, substantially as set forth.

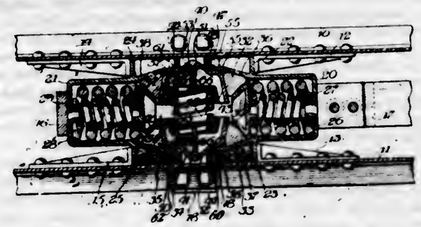
[Claim 6 not printed in the Gazette.]

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1,093,392. DRAFT-GEAR. ROBERT E. FRAME, Michigan City, Ind. Filed Nov. 6, 1913. Serial No. 799,479. (Cl. 213—64.)

1. In a draft gear, in combination, a pair of opposed casings, a pair of spring-separated laterally movable members having inclined outer ends, springs seated within the casings, and wedging elements interposed between the springs and the laterally movable members, the end portions of the walls of the casings being inclined and engageable with the inclined ends of the laterally movable members.

2. In a draft gear, in combination, a pair of opposed casings, a pair of spring-separated laterally movable members having inclined outer ends, springs seated within the casings, and wedging elements interposed between the springs and the laterally movable members, the end portions of the walls of the casings being inclined and engageable with the inclined ends of the laterally movable members, but normally spaced apart therefrom.



3. In a draft gear, in combination, a pair of casings having their side walls flaring, a laterally compressible abutment between the casings, springs seated within the casings, a set of wedging elements interposed between each spring and the abutment, the outer ends of the abutment and of the side walls of the casings having coöperating inclined surfaces normally out of engagement.

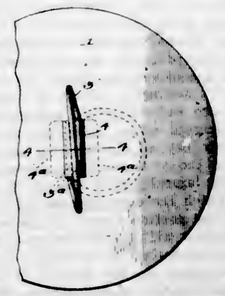
4. In a draft gear, in combination, a pair of casings, a laterally compressible abutment between the casings and comprising a pair of chambered members whose outer ends are wedge-shaped and a spring urging such members apart, springs seated within the casings, and a set of friction elements located between each of the last-named springs and the abutment, the ends of the side walls of the casings being outwardly inclined and engageable with the wedge-shaped ends of the abutment members.

5. In a draft gear, in combination, a central laterally compressible abutment comprising a pair of chambered members, the ends of such members having shoulders parallel to the line of draft and outwardly inclined surfaces intermediate of such shoulders, a pair of casings having their side walls provided with parallel portions engaging the shoulders of the abutment members and inclined portions engageable with the inclined portions of the ends of such members, springs seated within the casings, and friction elements located between such springs and the abutment.

[Claims 6 to 16 not printed in the Gazette.]

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1,093,393. HANDLE FOR THE COVERS OF COOKING UTENSILS AND THE LIKE. JULIUS FRITZ, Petaluma, Cal. Filed July 16, 1913. Serial No. 779,275. (Cl. 53—8.)



1. In a finger piece for the lids of cooking utensils and the like, the combination of a ferrule adapted to be applied to the lid, and a looped finger piece formed of spring wire, the ends of the wire being straight and being disposed at the base of the loop in a spaced and parallel po-

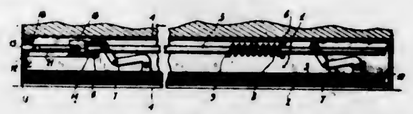
sition, the said straight ends being received within the ferrule so as to rotate freely therein although be held against shifting their position when the finger piece is swung laterally out of normal position, the tension thus produced in the wire causing the finger piece to return to normal position as soon as released.

2. In a finger piece for the covers of cooking utensils and the like, the combination of a flattened ferrule adapted to be applied to the cover, and a looped finger piece formed of a single length of spring wire, the ends of the wire being straight and being bent into a parallel position at the base of the loop, the said straight ends of the wire being fitted within the flattened ferrule so as to rotate freely therein and at the same time be held against shifting their position when the finger piece is swung laterally, the tension thus produced in the wire causing the finger piece to spring back to normal position as soon as released.

3. A finger piece for the covers of cooking utensils and the like, including a transversely flattened ferrule adapted to be applied to the cover, and a looped finger piece formed from a single length of spring wire, the extremities of the wire being straight and being disposed in a spaced and parallel position at the base of the loop, said straight extremities of the wire being in a plane transverse to the plane of the body portion of the loop and being sprung together and inserted into the flattened ferrule when assembling the parts, the ends of the wire rotating freely within the ferrule although being held against shifting their position when the finger piece is swung laterally, and the tension thus produced in the wire causing the finger piece to swing back into normal position as soon as released.

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1,093,394. WEATHER-STRIP. JOHN P. GARDNER, Cairo, Ill. Filed Oct. 1, 1913. Serial No. 792,823. (Cl. 20—68.)



1. The combination with a door having a bottom recess, of a weather strip mounted for vertical movement in said recess, operating means for the weather strip including a rod slidable longitudinally of the recess, connections for transmitting the movements of the rod to the weather strip and a spring acting on the rod to hold the weather strip projected, the rod having an end extension which, when the weather strip is projected, projects beyond the door to engage the adjacent door jamb as the door comes into closed position, and an arm projecting laterally from the rod, the door having a slot through which the arm projects, and the arm having an inturned end portion beyond the door.

2. The combination with a door having a bottom recess, of a weather strip mounted for vertical movement in said recess, operating means for the weather strip including a rod slidable longitudinally of the recess, connections for transmitting the movements of the rod to the weather strip and a spring acting on the rod to hold the weather strip projected, the rod having an end extension adjustably connected thereto which, when the weather strip is projected, projects beyond the door to engage the adjacent door jamb as the door comes into closed position, and an arm projecting laterally from the rod, the door having a slot through which the arm projects, and the arm having an inturned end portion beyond the door.

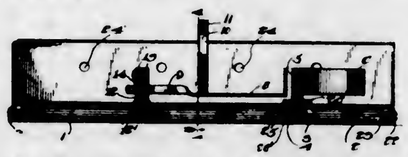
3. The combination with a door having a bottom recess, of a weather strip mounted for vertical movement in said recess, operating means for the weather strip including a rod slidable longitudinally of the recess, connections for transmitting the movements of the rod to the weather strip and a spring acting on the rod to hold the weather strip projected, the rod having an end extension adjustably connected thereto which, when the weather strip is projected, projects beyond the door to engage the adjacent door jamb as the door comes into closed position, an arm projecting laterally from the rod, the door having a slot through which the arm projects, and the arm having an inturned end portion beyond the door, and a sleeve which surrounds the adjoining ends of the rod and the adjustable extension thereof and into which the inner end of the arm is threaded to engage said adjoining ends and to fix said rod and its extension against relative movement.

4. The combination with a door having a bottom recess, of a weather strip mounted for vertical movement in said recess, operating means for the weather strip including a rod slidable longitudinally of the recess, connections for transmitting the movements of the rod to the weather strip, and a spring acting on the rod to hold the weather strip projected, the rod having an end extension which, when the weather strip is projected, projects beyond the door to engage the adjacent door jamb as the door comes into closed position, an arm projecting laterally from the rod, the door having a slot through which the arm projects, and the arm having an inturned end portion beyond the door, and a plate secured to the door jamb and having an inclined surface with which the arm coacts as a buffer.

5. The combination with a door having a bottom recess, of a weather strip mounted for vertical movement in said recess, operating means for the weather strip including a rod slidable longitudinally of the recess, connections for transmitting the movements of the rod to the weather strip and a spring acting on the rod to hold the weather strip projected, the rod having an end extension adjustably connected thereto which, when the weather strip is projected, projects beyond the door to engage the adjacent door jamb as the door comes into closed position, an arm projecting laterally from the rod, the door having a slot through which the arm projects, and the arm having an inturned end portion beyond the door, a sleeve which surrounds the adjoining ends of the rod and the adjustable extension thereof and into which the inner end of the arm is threaded to engage said adjoining ends and to fix said rod and its extension against relative movement, and a plate secured to the door jamb and having an inclined surface with which the arm coacts as a buffer.

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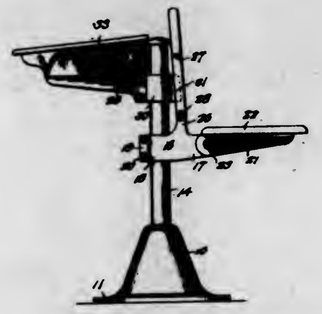
1,093,395. AUTOMATIC FIRE-ALARM. EDWARD A. GEHRKE, Lincoln, Nebr. Filed Mar. 22, 1913. Serial No. 756,186. (Cl. 177—128.)



A fire alarm comprising a base plate, a hood carried by said base plate, a binding post carried by said base plate, a thermostatic strip carried by said binding post, said thermostatic strip provided with a laterally-bent contact arm, said arm terminating in a twisted portion, said arm also provided with a vertically-extending indicating arm, said hood provided with a transverse slot, said indicating arm passing through said slot and having, at its upper end, a horizontal operating member, a spring finger carried by the side of said hood, adjacent said slot, said spring finger provided with a transverse bar, a contact post carried by said plate and provided with an adjustable contact screw, said hood and plate provided with a plurality of openings, whereby the heat may be allowed to circulate within said hood for expanding said thermostatic strip so as to move said twisted portion and said contact arm in engagement with said contact screw, electric means connected to the lower portions of said posts for forming a circuit when said contact arm engages said contact post, and said spring finger adapted to give slightly when said operating member strikes the same when the circuit is closed by hand, whereby said spring finger will be prevented from breaking off the side of the hood.



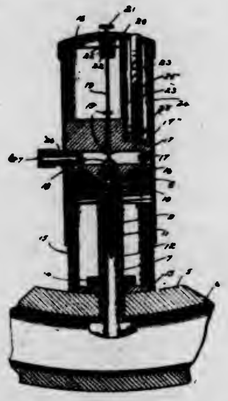
1,093,396. COMBINATION DESK AND CHAIR. EMIL GERHARDT, Newport, Ky. Filed Apr. 8, 1913. Serial No. 759,724. (Cl. 155—34.)



The combination with a post, of a bracket adjustably mounted thereon and adapted to support a seat, of a back section pivoted to the bracket and having a slot, a second bracket adjustably connected to the post and adapted to support a desk, and a wing formed on the second bracket and engaged in the slot in the back section to prevent displacement of the brackets with relation to each other.

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1,093,397. TIRE-VALVE. WILLIAM A. GOETZE and WALTER A. DAY, Weaverville, Cal. Filed Aug. 26, 1911. Serial No. 646,225. (Cl. 152—12.)



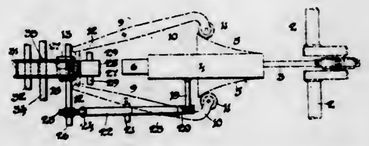
1. In combination with a tire valve having a casing and an air valve working in said casing, a casing mounted over said first casing, a plug disposed in said casing and provided with a passage adapted to communicate with the first casing, a rod movable in said second casing and adapted to unseat the valve, an indicating tube disposed in said second casing and communicating with said passage, a disk movable in said indicating tube, and a spring disposed in said indicating tube and adapted to hold said disk in its outermost position therein.

2. In combination, a tire valve having a casing and an air valve working in said casing and provided with a stem projecting above said casing, a casing mounted over said first casing, a plug having passages therein disposed in said casing, an indicating tube disposed in said second casing and having communication with said passages, a disk movable in said tube and adapted to control said communication, a spring in said tube adapted to hold said disk in a closing position, a spring controlled rod movable in said casing across the plug and adapted to engage the upper end of the valve stem and unseat said valve, stops on said rod adapted to limit the movement thereof, and a tap communicating with one of said passages.

3. In combination with a tire inlet-tube, a valve in said tube, a spring in said tube holding said valve seated, a tubular seat for said valve in said inlet tube, a rod on said valve projecting from said tube, a casing removably engaging said first casing, a push-rod carried by said casing disposed in alinement with said first-named spring, a spring in said casing engaging said push-rod adapted to engage said first-named rod to move said valve against the tension of said first-named spring, a tube mounted in said casing, a member supporting said tube and having an opening, a disk in said tube covering said opening, a spring in said tube bearing against said disk, said member formed with a channel communicating with the tubes and with said opening, and a cap-controlled outlet pipe mounted on said casing.

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1,093,398. MACHINE FOR MANUFACTURING SPRING-HEADED NAILS. FRANK GOLD, Richmond, Victoria, Australia. Filed June 17, 1913. Serial No. 774,250. (Cl. 10—157.)



1. In a nail making machine, the combination of a frame, a nail stem die formed at its end with a flange receiving recess, a punch having a recess corresponding to the shape of the recess in the end of the die, the center of the recess in the die being deepened to form a seat for the head of a nail, means for interposing a strip of metal from which the flange of the nail is to be formed between the die and the punch, means for moving the punch into engagement with the die and forming a flange from the interposed strip and causing the end of the nail stem to be forced through said flange and into the deepened recess and formed into a head on the outside of the flange.

2. In a nail making machine, the combination of a die comprising a stationary part and a movable part to hold and clamp a rod, the end of the latter projecting beyond the free end of said die, means for interposing and holding a strip of metal in front of the projecting end of the rod, said die having a flange receiving recess in its free end, a punch formed with a recess corresponding to the shape of the recess in the end of the die, the center of the recess having a central depression, and means for moving the punch toward the die and forcing the strip against the rod, the latter piercing the strip, and the subsequent movement of the punch severing the strip to form a flange and upsetting the end of the rod on the outer surface of said flange.

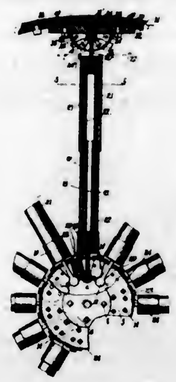
3. In a nail making machine, the combination of a nail die formed in its end with a flange receiving recess, means for introducing a strip of metal in front of the recess in the die, a punch formed with a recess corresponding to the recess in the end of the die, the center of the recess in the punch being deepened, centers for severing the metal operated upon by the die, means operated by movement of the punch for operating the cutters, and means for operating the cutter, whereby the strip will be forced on the nail stem held by the die and the recesses will simultaneously form a flange on the stem and the end of the latter will be headed on the outside of the flange.

4. In a nail making machine, the combination of a nail stem die formed in its end with a recess and a cutting edge surrounding the recess, means for introducing a strip of metal in front of the die, a cross head, a punch extending

from the cross head and formed at its end with a recess corresponding to the recess in the end of the die, said recess in the punch being centrally deepened, cams on the side of the cross head, pivoted levers in engagement with the cams and operated thereby, cutters carried by the pivoted levers and operable to sever the stem of the nail adjacent the die, and means for reciprocating the cross head to operate the punch to force the strip of interposed metal against the stem and cause the latter to penetrate said strip, and subsequently force the strip into the recess in the die and sever same to form a flange, and simultaneously upset the outer end of the stem on the outside of the flange.

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1,093,399. RESILIENT WHEEL. ALBERT TREFETHEN GOOKIN, Cambridge, Mass. Filed Oct. 26, 1911. Serial No. 656,818. (Cl. 152—29.)

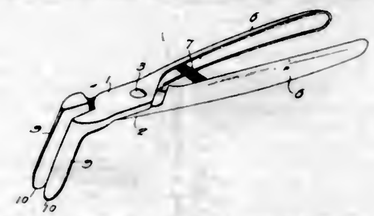


A wheel comprising a hub made up of a number of plates secured together and including a middle plate and face plates on opposite sides of the middle plate, the middle plate comprising a body plate of less diameter than the face-plates and having a plurality of notches around its periphery, and a plurality of removable outer sections arranged between the face plates and having reduced inner ends adapted to engage the portions of the middle or body plate between the notches, the removable sections being spaced apart and forming with the body of the plate radial pockets, the inner ends of said pockets being circular and the outer ends of said pockets having diverging sides, a rim, a plurality of resilient spokes secured at one end to the rim, the other end of each spoke comprising a head and a shank, the head being of greater diameter than the shank and rotatably engaged in the inner circular portion of one of said pockets of the hub, and means for rigidly securing the removable sections to the face plates, whereby the heads are held in position in the said pockets and movement of the spokes relatively to the hub is permitted when the wheel is in use.

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1,093,400. WEED-PULLER. DANIEL GOTTFRID, Kansas City, Kans. Filed June 20, 1913. Serial No. 774,817. (Cl. 55—148.)

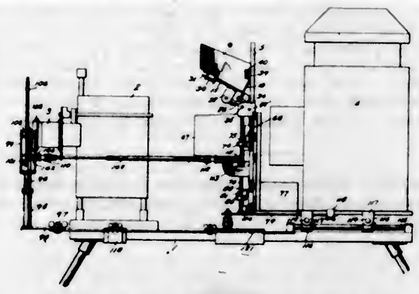
A device of the character specified, comprising crossed members, each consisting of a shank having at one end a handle and having at the other end a gripping jaw extending at an obtuse angle from the crossed member, each of the jaws having a flat meeting face fitting against the face of the opposite jaw throughout the length of the jaw, said members being pivoted together at the shank, one of the members having a transverse slot between the pivotal connection and the jaw and the other member having a pin engaging the slot to limit the opening movement of the jaws, and a spring normally holding the jaws in open position, the said gripping surfaces extending from



the upper surfaces of the crossed members to the free ends of the jaws.

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1,093,401. ATTACHMENT FOR STEREOPTICONS. HERMAN A. GOTTLIEB, New York, N. Y. Filed July 6, 1912. Serial No. 707,961. (Cl. 88—28.)



1. The combination of a magazine adapted to contain a number of slides, means whereby the slides may be successively moved therefrom into position of exposure in front of a lantern, other means for bringing each succeeding slide into such position in front of the previous slide and removing the said previous slide from such position, and devices for taking care of the previous slide after such removal.

2. The combination of a magazine adapted to contain a number of slides, means whereby each succeeding slide is brought into position in front of a lantern and held in such position, the said means permitting each succeeding slide to be positioned in front of the previous slide in such position, and means for removing the first slide from such position and bringing the succeeding one into the position occupied by the previous slide.

3. The combination of a magazine adapted to contain a number of slides, means whereby the slides are removed successively therefrom into position in front of a lantern, means for moving a slide from such position into a second position, means whereby the next slide is caused to come into position in front of the first one and a carrier, the said means for moving the second slide into the position occupied by the first one, also removing the first slide and permitting it to fall into the carrier.

4. The combination of a magazine adapted to contain a number of slides, means whereby each succeeding slide is singly moved from the magazine into position in front of a lantern, means for bringing such slide into a second position, means engaging the slide for holding it secured in such position, means for causing the next succeeding slide to come into position in front of the first one and a carrier, the said means for moving the second slide into secured position occupied by the first one also forcing the said first slide out of such secured position and permitting it to fall into the carrier.

5. The combination of a magazine adapted to contain a number of slides, resilient elements for holding each succeeding slide in fixed position in front of a lantern, a passageway between the magazine and the said resilient elements, and a second passageway to the rear of the first one and extending between the said resilient elements and a carrier, and means whereby the slides may be successively passed through the passageways from the magazine to the carrier.

[Claims 6 to 13 not printed in the Gazette.]



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1,093,402. BED-SPRING. GEORGE GRAY, Sisseton, S. D. Filed Dec. 13, 1913. Serial No. 806,562. (Cl. 5—62.)



A bed spring comprising a spring fabric interengaged U-shaped members clamped upon the fabric at opposite ends of the spring, a flange formed on one of the U-shaped members for holding the other U-shaped member in position, side bars passed through said U-shaped members and adjusting and clamping nuts threaded upon the side bars and arranged upon opposite sides of the U-shaped member for assisting in holding them in position.

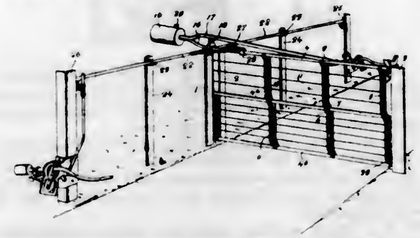
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1,093,403. SOLDER. CHARLES F. GRIMM, Le Roy, Minn. Filed Apr. 18, 1913. Serial No. 762,013. (Cl. 75—1.)

A solder composed of zinc twenty-five per cent., tin fifty per cent., and lead twenty-five per cent.

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1,093,404. GATE. FREDERICK A. GUTH, Waverly, Ohio. Filed May 5, 1911. Serial No. 625,251. (Cl. 39—13.)

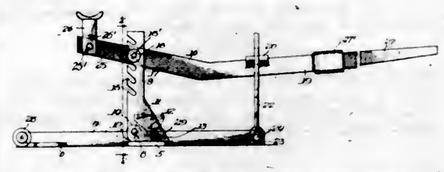


1. In combination with a pair of spaced supports, a tilting and folding gate comprising uprights, and horizontal members pivotally connected thereto, the uprights at the inner end of the gate comprising a pair of spaced members detachably secured to and between the said supports, the said horizontal members being arranged between the members of said inner end upright and the uppermost of the said horizontal members being formed with a brace arm which extends inwardly and upwardly from the upper, inner corner of the gate, a strut extending above the said upper horizontal member and having spaced lugs at its lower end astride of and engaging the upper ends of the members of said inner uprights and mounted on the pivot which connects said upper horizontal member to said upright members, a brace arranged above and having its outer end recessed to the said upper horizontal member, said brace bearing on and being secured to the strut and having a rearwardly extending arm united to the first-named brace, and a counterbalancing weight carried by the rearward extensions of the said braces.

2. In combination with a pair of spaced supports, a tilting and folding gate comprising end and intermediate uprights, each composed of a pair of spaced members, and said members of the inner end upright being secured to and between said spaced supports, horizontal members extending between and pivotally connected to the members of said uprights, horizontally arranged wire supporting members connecting and pivotally mounted between the members of the inner end and intermediate uprights, substantially V-shaped horizontally arranged wire supporting members connected and pivotally mounted between the members of the outer end upright and tensioned wires secured to and connecting the inner end upright and V-shaped wire supporting members and passing through and slidably engaged with the intermediate wire supporting members.

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1,093,405. AUTOMOBILE-JACK. KASPER HALLEN, Chicago, Ill. Filed Aug. 30, 1913. Serial No. 787,463. (Cl. 57—43.)

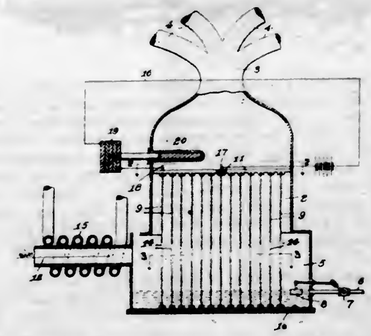


1. A lifting jack comprising a base, a supporting roller provided upon the forward portion of the base, a standard rising from the base, a lifting lever fulcrumed upon the standard and having a handle portion extending rearwardly from said standard, and means to hold the lever against movement of the handle upwardly with respect to the base, whereby the device may be tilted into an inclined position upon the roller as a support by lifting the handle of the lever.

2. A lifting jack comprising a base, a supporting roller upon the forward portion of the base, a pair of spaced standard members rising from the base and provided in their front edges with corresponding sockets, a lever disposed between the standard members and provided with oppositely extending pivots for detachable engagement with the respective sockets of the standard members, said lever having a handle portion extending rearwardly from the standard members, and a lever locking arm rising from the base in rear of the standard members and having detachable engagement with the lever to hold said lever against movement of the handle portion thereof upwardly with respect to the base, whereby the device may be tilted into an inclined position upon the roller as a support by lifting upon the handle portion of the lever.

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1,093,406. METHOD OF PRODUCING AN EXPLOSIVE MIXTURE. ARTHUR A. HAMERSCHLAG, Pittsburgh, Pa. Filed Apr. 17, 1913. Serial No. 761,706. (Cl. 48—103.)



1. The method of producing an explosive mixture consisting in heating a film of kerosene to an efficient vaporizing temperature, utilizing such temperature for automatically maintaining the same, and subjecting the heated kerosene to a current of air.

2. The method of producing an explosive mixture consisting in producing a film of kerosene, heating the film-holding surface and automatically maintaining such tem-

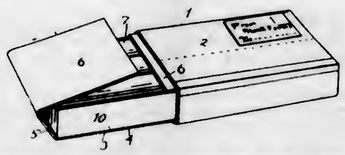
perature by thermostatic action, and subjecting the film to a current of air.

3. The method of producing an explosive mixture consisting in producing a film of kerosene, heating the film, controlling the temperature of the film automatically by means of its own temperature, preheating air to a lower temperature than that of the film, and subjecting the film to the action of the preheated air.

4. The method of producing an explosive mixture consisting in producing a film of kerosene, heating the film-holding surface to a film-vaporizing temperature, mixing air with the vapor from the film, and utilizing the temperature of the mixed air and vapor for controlling the temperature of the film-holding surface.

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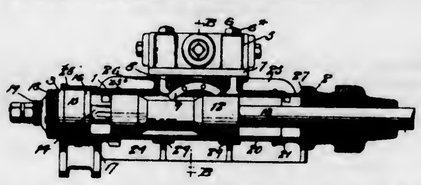
1,093,407. EGG-CARRIER. ROBERT O. HAMMOND, Amityville, N. Y., assignor to Tywacana Farms Poultry Company, Farmingdale, Long Island, N. Y. Filed Sept. 28, 1912. Serial No. 722,802. (Cl. 229—11.)



A paper box comprising an open-end outer cover part, an inner open-top and open-bottom rectangular frame, and an intermediate part having a bottom, upturned ends and inturned separate top flaps, each top flap being attached to one of said ends, the bottom and the top flaps closing said frame at top and bottom and each top flap and its attached end flap being unfoldable flat upon the ground upon partial withdrawal of the inner frame and the intermediate part from the cover part.

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1,093,408. DRILL-CYLINDER. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Jan. 10, 1910. Serial No. 537,240. (Cl. 121—10.)



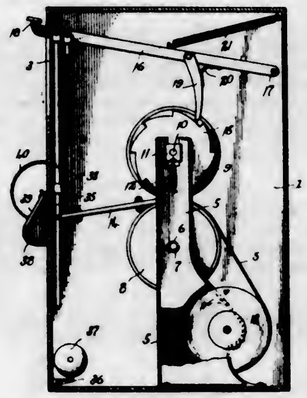
1. A rock drill cylinder of skeleton form, its front and back heads, through bolts holding the front and back heads in place and a removable lining for the cylinder interposed between the front and back heads, said skeleton cylinder comprising cross rings embracing the lining, longitudinally arranged feed guides rigidly connecting the cross rings along the base of the cylinder and a valve chest seat and its port extensions rigidly connecting the said rings along the top of the said cylinder, said cross rings, feed guides, valve chest seat and port extensions being all formed integral.

2. A rock drill cylinder of skeleton form, its front and back heads, through bolts holding the front and back heads in place and a removable lining for the cylinder interposed between the front and back heads, said skeleton cylinder comprising front, back and intermediate cross rings embracing the lining, longitudinally arranged feed guides rigidly connecting the rings at the base of the cylinder and a valve chest seat and its port extensions rigidly connecting the front, back and intermediate cross rings along the top of the cylinder, said cross rings, feed guides, valve chest seat and port extensions being all formed integral.

3. A rock drill cylinder of skeleton form comprising front and back cross rings, longitudinally arranged feed guides connecting the front and back rings, a valve chest seat and port extensions connecting the seat with the front and back rings, said cross rings, feed guides, valve chest seat and port extensions being all formed integral, said front ring being provided with an interior shoulder, front and back heads, through bolts holding them in position, and a removable lining for the cylinder interposed between said shoulder and back head.

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1,093,409. STAMP-VENDING MACHINE. MAURICE HELMAN, Sidney, Ohio. Filed May 6, 1913. Serial No. 765,914. (Cl. 211—33.)



1. In a stamp vending machine, a delivery mechanism, an operating lever for said mechanism, a stamp receiving receptacle, means for locking said receptacle against access in the operation of delivery mechanism.

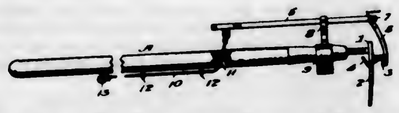
2. In a stamp vending machine, a delivery mechanism, an operating lever for said mechanism, a stamp receiving receptacle, and means controlled by said lever for locking said receptacle against access in the operation of said delivery mechanism.

3. In a stamp vending machine, a delivery mechanism, an operating lever for said mechanism, a stamp receiving receptacle, and means operable automatically for locking said receptacle against access in the operation of said delivery mechanism.

4. In a stamp vending machine, a delivery mechanism, an operating lever for said mechanism, a stamp receiving receptacle, a horizontal closure for said receptacle, and means for locking said closure in the operation of said delivery mechanism.

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1,093,410. RAKE-CLEANER. GEORGE C. HENNES, Benton Harbor, Mich. Filed Nov. 14, 1913. Serial No. 801,006. (Cl. 55—146.)



1. In a rake cleaner, the combination with a rake handle, and a rake head having teeth, of a bar having V-shaped guards connected thereto, the guards located adjacent to the teeth of the rake handle, and means for normally holding the bar at the upper ends of the teeth, said bar, when released, adapted to fall by gravity for causing the apexes of the guards to engage and be wedged into the foreign matter clinging to the teeth for separating the foreign matter to cause it to be removed from the teeth.

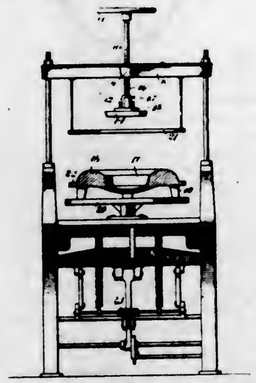
2. In a rake cleaner, the combination with a rake head having teeth thereon, of a bar located normally at the upper ends of the teeth of the head, V-shaped guards connected to the bar and extending along the sides of the teeth, and means whereby said bar is allowed to travel along said teeth for causing the apexes of the guards to engage and be wedged into the foreign matter clinging to the teeth for separating the foreign matter to cause it to be removed from the teeth.

3. The combination with a rake handle, a head having teeth thereon, of a right angular bar, one edge of which is adapted to engage an outer surface of the teeth, wire guards made in the form of a right angle connected to said angular bar, and a guard extending about each tooth of the rake head, said bar adapted to fall by gravity for causing the teeth to be cleaned by the guards, a lever pivotally connected to said bar, and means for normally holding the bar in a position whereby the guards will be at the upper ends of the teeth.

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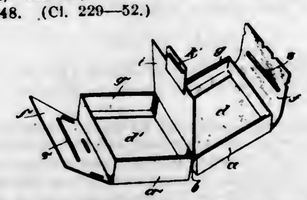
1,093,411. HAT-BRIM PRESS. FREDERICK HERR, New York, N. Y. Filed June 13, 1913. Serial No. 773,425. (Cl. 223—31.)



A press as characterized, comprising a table; a cross-head; a clamping ring mounted on said cross-head; means for raising and lowering said cross-head and clamping ring; a hat-brim shape adapted to rest on said table and embodying an annular offset and a central depression, said offset registering with, and forming a seat for, said clamping ring; a relatively thin plunger plate adapted to fit within said depression to shape an inner edge of a hat-brim and to mark the same for guidance in cutting away the center of the material of which the hat-brim is composed; and a manually manipulated auxiliary press for said plunger plate to force the same into said central depression after the cross-head and clamping ring have been placed in service relation.

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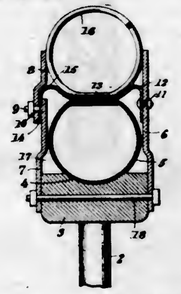
1,093,412. FOLDING BOX. ALBERT HESS, Friedberg, Hesse, Germany. Filed Feb. 3, 1913. Serial No. 746,048. (Cl. 229—52.)



A folding box comprising a plurality of sections hinged together along one edge, a partition located between two of said sections, a slotted extension projecting from said partition, and flaps carried by the outer sections and provided with slots adapted to engage over the extension when the box is closed.

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1,093,413. AUTOMOBILE-WHEEL. HENRY HILL, Phoenix, Ariz. Filed Feb. 15, 1913. Serial No. 748,637. (Cl. 152—8.)



In a device of the character described, a rim, a tube embracing the rim, guide plates removably secured to the sides of the rim, one of the said plates including separable portions, a spiral spring embracing the tube and interposed between the said plates and having a portion projecting beyond the plates so as to provide a tread portion, a yieldable strip of material interposed between the spring and the tube and having its sides extended and embracing a portion of the spring, so as to provide a central fullness, said sides of the strip having their ends extended downwardly in parallelism with the said plates, one of said ends being interposed between the separable portions of the plate and adapted to be clamped therebetween, and the other end of the strip being adapted to have detachable connection with the other of the plates.

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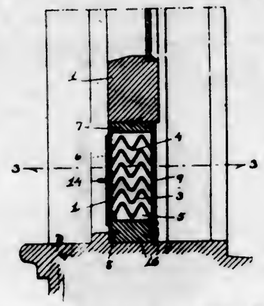
1,093,414. FLOAT. JAMES B. HILL, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 674,175. (Cl. 43—4.)



1. A fishing float in the form of a hollow water tight cylindrical tube whose cylindrical wall is shaped to form a plurality of spaced apart outsetting annular beads as integral parts of the cylindrical wall of the float, the float having unbeaded cylindrical zones intervening between the beads and which are protected by the outsetting beads from injurious contact.

2. A fishing float in the form of a hollow water tight tube and having cord attaching caps fixedly secured to its ends whereby the places of securement of the attaching cord or cords are relatively fixed with respect to each other and with respect to the float proper, each of said caps having eyes therein through which cord portions may be passed between the caps and the tube ends, the eyes of each cap being substantially equally spaced upon opposite sides of the float axis.

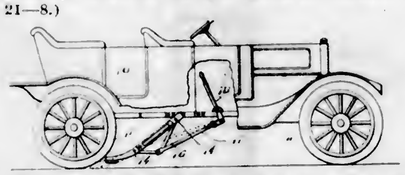
1,093,415. WINDOW-VENTILATOR. JAMES M. HIMES, Washington, D. C. Filed Nov. 19, 1913. Serial No. 801,976. (Cl. 98—31.)



1. In a window ventilator, an outer carrying frame having a longitudinal slot, a ventilator frame fitting within said slot and provided with a series of overlying zig-zag air passages, and an inner vertical cover frame for said slot having end pockets, and adjustable vertical door leaf sections engaging said pockets and each other and sliding upon each other to close said passages to a regulated degree.

2. In a window ventilator, an outer carrying frame having a longitudinal slot, a ventilator frame fitting within said slot and provided with a series of continuous overlying zig-zag bent metal strips parallel with and spaced apart from each other to provide zig-zag air passages, each of said strips having a central inner channel and outwardly and downwardly inclined leaves at the sides, said channel having a perforated bottom, and an inner vertical cover frame for said slot having end pockets and adjustable vertical door leaf sections engaging said pockets and each other and sliding upon each other to close said passages to a regulated degree.

1,093,416. ANTISKIDDING DEVICE FOR AUTOMOBILES. EDWARD HINES, Louisville, Ky., assignor of forty-nine one-hundredths to Fred Tross, Jr., Louisville, Ky. Filed Oct. 14, 1913. Serial No. 795,090. (Cl. 21—8.)



A vehicle brake including a frame adapted to be fixedly connected to the vehicle body in advance of the wheels to be braked, said frame including spaced sides each comprising an upper stationary section and a lower section slidably secured to the upper section and terminating in a brake shoe, a cross bar connecting the upper sections of both sides, a second cross bar connecting the lower sections of both sides, helical springs connecting said cross bars and normally holding said lower sections retracted, a toggle lever having the legs connected to said cross bars, and means connected to said toggle lever for expanding the toggle lever to move said lower sections away from said upper sections to dispose said brake shoes underneath said wheels whereby the wheels are raised from the roadbed and the brake shoes bear forcibly upon the roadbed.

1,093,417. SWIMMING APPARATUS. MIKE HLINKA, Cleveland, Ohio. Filed Nov. 24, 1913. Serial No. 802,687. (Cl. 9—17.)

A swimming apparatus comprising a pair of longitudinal and transverse straps connected at their crossing points, said transverse straps being adjustably connected at their meeting rear ends, a plurality of inflated bags, a pair of straps arranged at right angles and inclosing each



bag, said bag inclosing straps being connected to the longitudinal and transverse straps at their front crossing points.

1,093,418. FLOAT-VALVE. ANDREW A. HOFFMAN, Rome, N. Y., assignor to Rome Sanitary Company, Rome, N. Y. Filed Dec. 1, 1909. Serial No. 530,754. (Cl. 4—5.)



1. In a device of the character described, the combination of hemispheres, one of said hemispheres having a groove formed in its side adjacent its base, and having its remote edge curved in the form of a peripheral groove and a cover formed with enlarged edges each adapted to fit into the adjacent groove, the last-named curved portion of the hemisphere being inclosed by a correspondingly curved portion of the other of said hemispheres.

2. In a float valve of the character described, the combination of hemispheres, one of said hemispheres having a base portion and a side portion united to form a groove let into the surface of the hemisphere, the latter hemisphere having its edge formed in a circumferential groove or flange, the other of said hemispheres formed with a circumferential groove adapted to inclose the adjacent edge of the first mentioned hemisphere, and a cover having its edges enlarged to seat within said grooves.

3. In a float valve, the combination with a body portion having a curved exterior surface and outwardly-opening circumferential grooves therein, of a cover adapted to be supported on the body by engagement of its edges in said grooves.

4. In a float valve, the combination of hemispheres, one of said hemispheres having its edge curved outwardly adapted to contain the edge of a cover mounted on the outside of the float, and the other of said hemispheres having its edge curved in a manner adapted to form a closure for the curved edge of the aforementioned hemisphere, and the adjacent edge of the said cover and said cover, substantially as described.

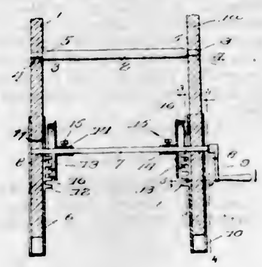
5. In a float valve, the combination with a valve body, of a cover inclosing a portion of the side wall of the lower portion of said body and means formed by the shaping of said body engaging the cover and retaining it in place, said cover having enlarged edges held close to the body by said engaging means.

1,093,419. LADDER. MARTIN HENRY HOFFMAN, Masontown, W. Va. Filed Sept. 18, 1913. Serial No. 790,423. (Cl. 228—5.)

The combination with the ladder, of an extension at the lower end of each stile and slidably connected with the stiles, each extension having a longitudinal series of teeth, a shaft journaled transversely of the stiles, and a rib arranged spirally of the shaft adjacent to each extension and rigidly connected with the shaft, each rib

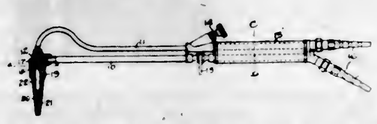


engaging the adjacent series of teeth and the said ribs being oppositely arranged to simultaneously move the



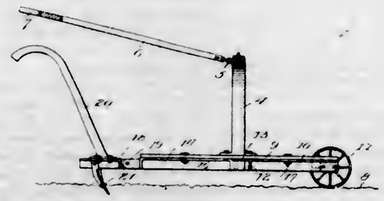
extensions in opposite directions when the shaft is rotated.

1,093,420. BLOWPIPE. CHARLES HOLDER, Jr., New York, N. Y., assignor to Holder Welding Equipment Co., a Corporation of New York. Filed May 24, 1910. Serial No. 563,234. (Cl. 158—109.)



A blow pipe comprising a head having at one side a chamber and a nozzle centrally positioned therein with its discharge end terminating short of a plane in which the edge of the chamber lies, a gas pipe communicating with said chamber at the inner end thereof, an air pipe connected to the head at the receiving end of the nozzle, and a detachable nozzle connected to the head and having an end portion extending into the chamber and terminating short of the communication between the first mentioned pipe and the chamber, the said end portion of the detachable nozzle receiving and being spaced from the discharge end of the first mentioned nozzle, said nozzles having alined bores, the bore in the detachable nozzle being of three different diameters with the section thereof of smallest diameter located at its discharge end, the next largest section located at the delivery end of the first mentioned nozzle and the section of the bore of largest diameter located in the chamber of the head, the intermediate bore of the detachable nozzle being of greater diameter than the bore of the first mentioned nozzle.

1,093,421. STEERING DEVICE FOR CULTIVATORS. ASA T. HOLMES, St. John, Wash. Filed July 31, 1913. Serial No. 782,221. (Cl. 97—42.)



1. In a steering device for cultivators, the combination of an arch, a breast lever connected therewith, a pair of beams rigidly connected with said arch, a bar pivotally connected with each of said beams, mechanism connected with said beams and controllable at the will of the operator for tilling the soil, said mechanism being connected with said bar, for the purpose of turning the latter relatively to said arch.

2. In a steering mechanism for cultivators, the combination of a frame, pivot bars connected therewith and adapted to swing relatively thereto, levers connected with said pivot bars for actuating the same and means controllable at the will of the operator for actuating said levers.

3. In a steering mechanism for cultivators, the combination of a pair of beams, an arch mounted rigidly upon said beams, a pair of bars pivotally connected with said beams and located upon the under sides thereof, each bar being provided with a bearing member, a pair of levers pivotally mounted upon the under side of said beams and provided with a bearing portion mating said bearing portion of a bar, a member pivotally connected with each lever and adapted to swing in a vertical plane, a plow point carried by said member for engaging the soil and a plow handle rigidly connected with said member for shifting the latter relatively to the lever with which it is associated.

4. A device of the character described, comprising a frame, a bar pivotally mounted upon the under side thereof and provided with a wheel for engaging the ground, said bar being further provided with a substantially V-shaped bearing member, a lever pivotally mounted upon the under side of said frame and provided with a mating bearing member engaging said bearing member of said bar, a plow point for engaging the ground, and a supporting member carrying the said plow point and pivotally connected to said lever.

1,093,422. HAY-FORK. JOHN HOLST, Berkeley, Cal., assignor to Byron Jackson Iron Works, Berkeley, Cal., a Corporation of California. Filed May 12, 1913. Serial No. 766,918. (Cl. 57—42.)



1. In a hay fork, a central bracket having a front plate, upper and lower plates which project rearwardly from the front plate, the lower plate being extended downwardly and then rearwardly to lie in substantial parallelism with the upper and lower plates, tines having eyes which are received between the upper and lower plates and extend to the rear of the front plate, a back plate which abuts the rear ends of the eyes and engages said extension of the lower plate, bolts passed through the front and rear plates and through the eyes, a latch pivoted to the top plate, a coil spring inclosed by the back plate and seating on said rear extension of the lower plate and bearing against the latch, and means for pivotally supporting the tines engageable with said latch.

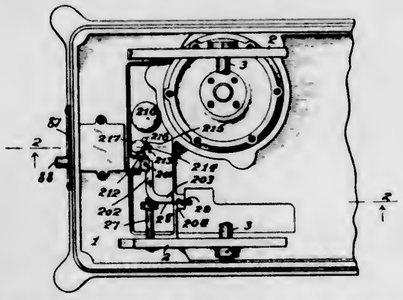
2. In a hay fork, a central bracket having a front plate, upper and lower plates which project rearwardly from the front plate, the lower plate being extended downwardly and then rearwardly to lie in substantial parallelism with the upper and lower plate, tines having eyes which are received between the upper and lower plates and extend to the rear of the front plate, a back plate which abuts the rear ends of the eyes and engages said extension of the lower plate, means passed through the front and rear plates and through the eyes to secure said parts together, said upper plate having an aperture, a latch having a part extended through said aperture and having the end portion of said part disposed in parallelism with the upper plate, a coil spring seated on said rear extension of the lower plate and abutting the latch, and means for pivotally supporting the tines engageable with said latch.

1,093,423. SPARK-PLUG. EDWARD HOLEWORTH, Alliance, Ohio. Filed Apr. 9, 1912. Serial No. 689,564. (Cl. 123—169.)



In a spark plug, the combination with an inner insulating stem having an enlarged shouldered part intermediate its ends, of an outer metallic two-part attaching member for securing the plug to the engine, said attaching member being engaged with the enlarged part of the stem, a terminal extending through the stem and provided with an electrode, another terminal having an electrode and extending through the enlarged part of the stem and emerging from the shouldered portion of said enlarged part, a clamping device for holding the last named terminal in position, and a contact member held by the clamping device and engaged with the two-part attaching member.

1,093,424. ADDING-MACHINE. JOHN PIRRONG HUNTER and HENRY KÜNTZLER, Wilkes-Barre, Pa., assignors, by direct and mesne assignments, to Adder Machine Company, a Corporation of Pennsylvania. Filed Dec. 30, 1908. Serial No. 470,073. (Cl. 172—239.)



1. The combination with a motor a machine adapted to be intermittently operated by the motor, of an actuator by the movement of which the motor is coupled to the machine, a source of energy for the motor, a switch intermediate the same and the motor and means actuated from the switch adapted to hold the actuator inoperative so long as the motor is not energized.

2. The combination with a motor a machine adapted to be intermittently operated by the motor, of an actuator by the movement of which the motor is coupled to the machine, a source of energy for the motor, a switch intermediate the same and the motor, and means actuated from the switch adapted to hold the actuator inoperative so long as the motor is not energized, the same means serving to release the actuator as an incident of the movement of the switch to energize the motor.

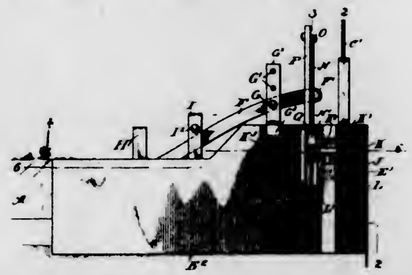
3. In combination, a calculating machine, an electrical motor, a connection between them including a depressible actuator, a source of energy from which the motor is energized, a switch and means actuated from the switch to engage the depressible actuator.

4. In combination, a calculating machine, an electrical motor, a connection between them including a depressible actuator, a source of energy from which the motor is energized, a switch and means actuated from the switch to engage the depressible actuator when the circuit is broken by the movement of the switch.

5. In combination, a calculating machine, an electrical motor, a connection between them including a depressible actuator, a source of energy from which the motor is energized, a switch and means actuated from the switch to engage the depressible actuator when the circuit is broken by the switch and automatically to disengage it when the circuit is closed.

[Claims 6 to 17 not printed in the Gazette.]

1,093,425. CONTROLLING DEVICE FOR WATERWAYS. WILFORD LAFAYETTE HURST, Aspen, Colo. Filed Oct. 18, 1913. Serial No. 795,895. (Cl. 61—46.)



1. A water-controlling device for water-ways, comprising a shut-off gate arranged in the water-way and normally in open position, a regulating gate arranged in the said water-way, means actuated by the rise and fall of the water in the said water-way for lowering and raising the said regulating gate to regulate the amount of the water flowing through the water-way under normal conditions, and means for automatically controlling the closing of the said shut-off gate on an abnormal rise of the water in the water-way.

2. A water-controlling device for water-ways, comprising a gate arranged in the water-way and normally open, a regulating gate in the water-way next below the said shut-off gate, means actuated by the rise and fall of the water in the water-way for lowering or raising the said regulating gate, and supporting means controlled by the said regulating gate for normally holding the said shut-off gate in raised open position and for releasing the said shut-off gate on an abnormal rise of the water in the water-way to allow the said shut-off gate to drop into closed position.

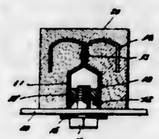
3. A water-controlling device for water-ways, comprising a shut-off gate arranged in the water-way, supporting means engaging the said shut-off gate to hold the same normally in raised open position, the said supporting means being adapted to release the said shut-off gate to allow the latter to drop into closed position, a regulating gate arranged in the water-way next below the said shut-off gate, a float in the said water-way below the said regulating gate, connecting means connecting the said float with the said regulating gate, and releasing means controlled by the said regulating gate and connected with the said supporting means for the shut-off gate.

4. A water-controlling device for water-ways, comprising a shut-off gate arranged in the water-way, supporting means engaging the said shut-off gate to hold the same normally in raised position, the said supporting means being adapted to release the said shut-off gate to allow the latter to drop into closed position, a regulating gate arranged in the water-way next below the said shut-off gate, a float in the said water-way below the said regulating gate, a float lever connecting the said float with the said regulating gate, and a releasing device having bars held on the said regulating gate and spring-pressed arms mounted to swing and adapted to be engaged by the said bars, the said arms being connected with the said supporting means.



5. A water-controlling device for water-ways, comprising a regulating gate arranged in the water-way, a float in the said water-way, a lever pivotally connecting the said float with the said gate, and a guide for the said lever and held on the said float intermediate the gate and the pivotal connection of the lever with the float.

1,093,426. FENCE-POST. RICHARD IRWIN, Farmington, Mo. Filed June 10, 1911. Serial No. 632,388. (Cl. 72—82.)



In a cement fence post, including a skeleton box-like frame, comprising a pair of complemental members having their body portions in parallel relation and having their rear edges bent into abutting relation and united, spaced fins formed upon the rear edges of each of said members, the fins of one member alternating with respect to the fins of the other of said members, the fins of said members being bent between the fins of opposite members so as to interlock said members, the ends of opposite fins being extended and adapted to lie adjacent and parallel with opposite surfaces of said post so as to reinforce the same, and fence retaining means disposed between said members.

1,093,427. ANTHRAQUINONE DYES AND PROCESS OF MAKING THEM. MAX HENRY ISLER and OSCAR BALLY, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Feb. 4, 1913. Serial No. 746,191. (Cl. 8—1.)

1. The process of producing coloring matters of the anthraquinone series by treating dibenzanthrone with an oxidizing agent.

2. The process of producing coloring matters of the anthraquinone series by treating dibenzanthrone with an oxidizing agent and then treating the product with a reducing agent.

3. The process of producing coloring matters of the anthraquinone series by treating dibenzanthrone with nitric acid in the presence of sulfuric acid.

4. The process of producing coloring matters of the anthraquinone series by treating dibenzanthrone with nitric acid in the presence of sulfuric acid and then treating the product so obtained with sodium bisulfite.

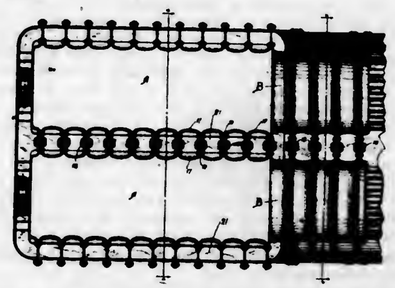
5. As new articles of manufacture the coloring matters of the anthraquinone series which are obtainable by treating dibenzanthrone with an oxidizing agent which consist when dry of dark powders, which are insoluble in water, and in dilute acids, which dye cotton olive-green shades, from a blue hydrosulfite vat, and which in the oxidized form give red-brown solutions in concentrated sulfuric acid and in the reduced form violet-red to bluish-red solutions.

[Claim 6 not printed in the Gazette.]

1,093,428. MEANS FOR STAYING SECTIONAL WALLS. FRANK M. JACOBS, Topeka, Kans. Filed June 5, 1913. Serial No. 771,914. (Cl. 122—493.)

1. Means of the class described, comprising members adapted to be secured to the opposing walls to be stayed and having outwardly presented portions, a second member adapted to be slipped onto the outwardly presented portions of the first mentioned and opposing members, both sets of members being provided with interlocking surfaces whereby lateral movement is prevented, and means whereby a spaced relation between a multiple of the second members is maintained.

2. Means of the class described, comprising means adapted to be secured to the opposing walls to be stayed, said means being provided with protruding portions, and linking means adapted to engage with the protruding portions of the first mentioned means so as to prevent lateral movement.



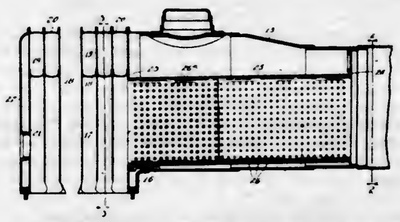
3. Means of the class described, comprising stay-sheet members adapted to be secured to the opposing walls to be stayed, said stay-sheet members being provided with protruding portions, and means adapted to engage with the protruding portions of oppositely disposed stay-sheet members whereby transverse movement is prevented, said last mentioned means being so formed as to maintain the proper relative position thereof.

4. Means of the class described, comprising stay-sheet members adapted to be secured to the opposing walls to be stayed, said stay-sheet members being provided with protruding portions, and linking means provided with surfaces adapted to engage with the protruding portions of oppositely disposed stay-sheet members to prevent lateral movement and with surfaces whereby a proper spaced relation will be maintained between the stay-sheet engaging portions of said means.

5. Means of the class described, comprising a stay-sheet member provided with water circulating portions and with protruding head portions, and a link member provided with surfaces adapted to engage with the head portions of the stay-sheet member and prevent lateral movement.

[Claims 6 to 9 not printed in the Gazette.]

1,093,429. BOILER-FLUE. HENRY W. JACOBS, Topeka, Kans., and FRANK W. SHUPERT, Bristol, Ind. Filed June 29, 1912. Serial No. 706,567. (Cl. 122—511.)



1. A boiler flue composed of sheet metal provided with one or more indentations or impressions, the sheet metal being bent so as to form substantially flat parallel side walls, with the indentations or impressions arranged in the flue interior so as to prevent collapsing of the flue sides.

2. A boiler flue composed of flat sheet metal provided with a series of indentations or impressions at prearranged intervals, the sheet metal being bent so as to produce an elongated flue in cross section with the indentations or impressions on the portions of the sheet constituting the opposite side walls adapted to register with each other.

3. A boiler flue having substantially parallel side walls arranged to produce an elongated passage in cross section, and a series of spaced circular indentations or teats formed on the inner surfaces of the flue side walls, the indentations or teats of the opposite walls being adapted to register with each other.

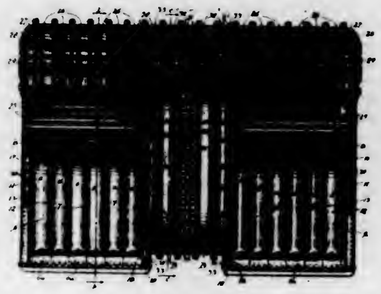
4. Flues for boilers composed of sheet metal bent so as to provide elongated passages in cross section, the abutting edges of the sheets being secured together, with the ends of the flues arranged to be secured to the flue sheets of a boiler, the portions of the sheets adapted to constitute the side walls of the flues being arranged parallel throughout and provided with oppositely disposed aymmetrical indentations or teats arranged to register with each other and prevent collapsing of the side walls of the flues.

5. Boiler flues formed of sheet metal bent to provide elongated flues in cross-section, the abutting edges of the sheets being secured together while the ends of the sheets are bent to provide bridges, while the corners of said ends are bent to adapt the flues being secured to the flue sheets of a boiler, the side walls of the flues being provided with inwardly presented and oppositely disposed indentations or impressions arranged at predetermined intervals whereby collapsing of the side walls of the flues is prevented and both vertical and horizontal passages for the gases provided.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,430. BOILER. HENRY W. JACOBS, Topeka, Kans. Filed Apr. 21, 1913. Serial No. 762,634. (Cl. 122—149.)



1. In a boiler of the class described, a furnace and combustion chamber portion formed of sections of substantially U-shape cross section with the flanges of the sections presented outwardly, the flange of the furnace section adjacent to the combustion chamber being elongated upwardly to constitute an integral flue sheet and secured to the flange of the adjacent combustion chamber section on the water side of the boiler.

2. A boiler, composed of one or more fire-boxes and one or more combustion chambers arranged at opposite ends of the boiler with the combustion chambers arranged adjacent to the vertical center line of the boiler, the fire-boxes and combustion chambers being composed of sections substantially U-shape in cross section, having their flange portions presented outwardly, with the flange portions of the adjacent fire-box sections and combustion chamber sections elongated upwardly and downwardly, respectively, so as to provide integral flue sheets and fire-box inner end sheets adapted to be secured to the adjacent flanges on the water side of the boiler.

3. A dry bottom boiler of the class described, the furnace portion and combustion chamber portion being composed of channel sections substantially U-shape in cross section, the furnace portion being of approximate U-shape contour, the flange of the furnace section adjacent to the combustion chamber portion being extended upwardly and constituting a combustion chamber flue sheet, and the flange portion of the combustion chamber section adjacent to the furnace section extending downwardly and constituting the furnace inner end sheet, with the inner end of the combustion chamber portion provided with a head composed of channel sections having their flanges presented outwardly and secured together on the water side of the boiler.

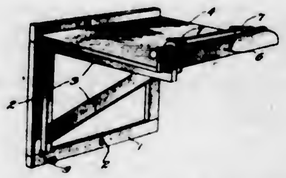
4. A boiler of the class described, comprising furnace portions and combustion chamber portions arranged on opposite sides of the vertical center line and longitudinal center line of the boiler, the furnace and combustion chamber portions being composed of subdivisions substantially U-shape in cross section with their adjacent sides or flange portions presented outwardly and secured together, the flange portions of the furnace sections adjacent to the combustion chamber portions being presented upwardly to constitute combustion chamber flue sheets, while the combustion chamber section flanges adjacent to the furnace portions are presented downwardly to constitute furnace inner end sheets, the inner ends of the combustion chamber portions being provided with heads composed of channel sections having their flanges presented outwardly, and stay sheets intermediate of the sections composing the adjacent walls of furnaces arranged at the same end of the boiler and between the sections of oppositely disposed combustion chambers whereby the adjacent walls of the furnaces and of the combustion chambers are secured together.

5. A boiler of the class described, provided with two furnaces at each end thereof and with combustion chambers intermediate of the inner ends of the furnaces, the furnaces and combustion chambers being composed of sections substantially U-shape in cross section, with the flanges of the fire-box sections adjacent to the combustion chambers being extended upwardly to constitute flue sheets integral with said fire-box sections, all of the sections being secured together on the water side of the boiler, and stay sheets secured intermediate of the sections of the different furnaces and combustion chambers whereby the sections are reinforced, with the stay sheets intermediate of the sections of the furnaces arranged at the same end of the boiler being adapted to tie the sections of the parallelly arranged furnaces together and provide an intervening water leg.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,431. DOUGH-BOARD. CARL JUSTICE, Henlawson, W. Va. Filed Aug. 2, 1912. Serial No. 712,948. (Cl. 45—51.)



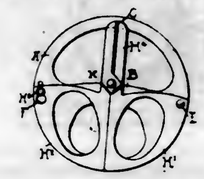
The combination of a support, a bracket pivoted to said support for movement about a vertical axis, a board pivotally secured to said support above the bracket and movable about a horizontal axis, and locking means intermediate the board, the bracket and the support comprising a locking member mounted on the board and engageable with the bracket to lock the same in a position supporting the board, said member being adapted to engage the support on downward folding of the board against the latter, to thereby prevent accidental movement of the board and lock the bracket in a position housed by said board.

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1,093,432. COMBINATION-TOOL. LOESER KALINA, New York, N. Y. Filed Jan. 4, 1913. Serial No. 740,142. (Cl. 30—13.)

1. A combination tool, comprising a ring, scissors having handles, of which one handle is pivoted on one face of the ring to permit of swinging the scissors outward to one side of the ring or to swing the scissors inward to overlie the said face of the ring, and a retaining device between the other handle of the scissors and the ring to hold the scissors closed and locked when in folded position on the ring.

2. A combination tool comprising a ring, scissors having handles, of which one handle is pivoted on one face of the ring to permit of swinging the scissors outward to one side of the ring or to swing the scissors inward to overlie the said face of the ring, the other handle of the scissors having a bayonet opening, and a retaining pin on the said ring approximately diametrically opposite the pivot of the other handle, the said retaining pin being adapted to engage the said bayonet opening of the handle.



3. A combination tool, comprising a ring, scissors having handles, of which one handle is pivoted on one face of the ring to permit of swinging the scissors outward to one side of the ring or to swing the scissors inward to overlie the said face of the ring within the peripheral edge of the ring, and a retaining device between the other handle of the scissors and the ring to hold the scissors closed and locked when in the folded position on the ring.

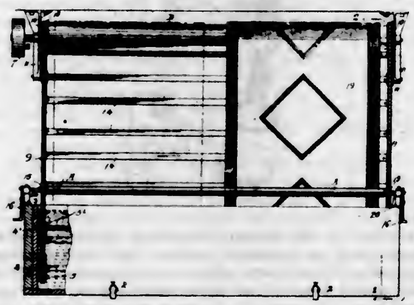
4. A device of the character described, comprising a main plate and a pair of scissors foldable and conformed relatively to the main plate whereby the scissors may lie within the contour of the main plate when not in use and may project beyond the contour of the said plate when in use, said scissors and main plate having relatively engaging means to lock the former when not in use.

5. A device of the character described, comprising a main plate having an edge curved on approximately the arc of a circle, and a pair of scissors one section of which is pivoted to the main plate whereby the scissors may be adjusted beyond the main plate for use, the butt-edge of the handle portion of the scissors being curved to correspond with the curved edge of the main plate when the scissors are folded alongside said main plate, said scissors and main plate having relatively engaging means to lock the former when not in use, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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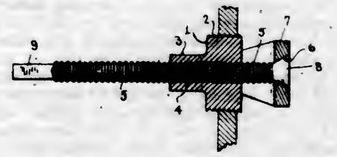
1,093,433. MACHINE FOR TREATING AND REFINISHING RUGS AND TEXTILE FABRICS. GEORGE S. KEBABIAN, New York, N. Y. Filed Sept. 13, 1912. Serial No. 720,135. (Cl. 8—16.)



In a machine for treating rugs, the combination with a tank, of frames or castings anchored in the tank for supporting horizontal shafts, frames or castings hung above and parallel to the said frames or castings, horizontal shafts supported by the frames or castings, sprocket wheels carried by the shafts, two endless chains, opposite to each other, trained over the said sprocket wheels; webs on links of said chains for carrying cleats, cleats horizontally fastened on said webs for supporting and carrying rugs; driving mechanism whereby said shafts, sprocket wheels and chains are rotated and revolved and whereby the chains are caused to pass in and out of said tank and means for wringing and smoothing the rugs.

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1,093,434. STEAM-BOILER PLUG. SAMUEL R. KENT, High Springs, Fla. Filed Mar. 13, 1913. Serial No. 754,105. (Cl. 137—99.)



1. A tubular plug adapted to be inserted into a hole in a boiler, the plug having a head at its outer end and a threaded bore; combined with a yoke adapted to span such hole and having a perforation, a bolt having a threaded body engaging said bore and its inner end swivelly mounted in said perforation, and means for turning the bolt from its outer end.

2. A tubular plug adapted to be inserted in a hole in a boiler, and having a threaded bore; combined with a yoke adapted to span the hole in the boiler, and a bolt having a threaded body screwed into said bore and swiveled through said yoke, its head being at the inner side of the latter and its outer end being squared.

3. A tubular plug having external threads adapted to be screwed into a hole in a boiler, an angular head at its outer end, and a threaded bore; combined with a yoke adapted to span said hole and having a perforation through its center, a bolt having a threaded body engaging said bore and a headed inner end swivelly mounted in said perforation in the yoke, and means for turning the bolt from its outer end.

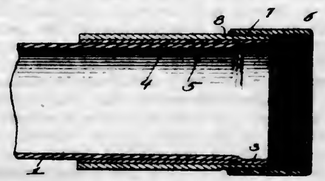
4. A tubular plug having external threads adapted to be screwed into a hole in a boiler, an angular head at its outer end, and a threaded bore; combined with a yoke adapted to span the hole in the boiler, and a bolt having a threaded body engaging said bore, a headed inner end swiveled through said yoke, and a squared outer end.

5. A tubular plug adapted to be inserted into a hole in a boiler and having a threaded bore enlarged at its outer end into a socket; combined with a yoke adapted to span such hole and having a perforation, a bolt having a threaded body engaging said bore and a headed inner end swivelly mounted in said perforation, its outer end being squared and standing within said socket, and means for sealing the latter.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,435. METHOD OF TREATING METAL TUBING. OSCAR D. KILLLEBREW, Richmond, Va. Filed June 2, 1913. Serial No. 771,300. (Cl. 29—148.)



1. The hereindescribed method of treating metal tubing which consists in inserting the end of a tube into a short section of standard pipe having an internal diameter slightly greater than the external diameter of the tube, so as to produce an annular chamber between said pipe section and tube; expanding the end of said tube in said pipe section continuously and directly against the inner surface of the latter, to form a continuous tight joint between said tube and pipe section; and filling said chamber with metal packing.

2. The hereindescribed method of treating metal tubing which consists in inserting the end of a tube into a short externally-threaded section of standard pipe; expanding the end of said tube in said pipe section continuously and directly against the inner surface of the latter, to form a continuous, tight joint between said tube and pipe section; and applying an internally-threaded standard pipe fitting upon the threaded end of said pipe section.

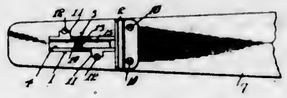
3. The hereindescribed method of treating metal tubing which consists in inserting the end of a tube into a short externally-threaded section of standard pipe having an internal diameter slightly greater than that of the tube, so as to produce an annular chamber between said pipe section and tube; expanding the end of said tube in said pipe section continuously and directly against the inner surface of the latter, to form a continuous tight joint between said tube and pipe section; filling said chamber with metal packing; and applying an internally-threaded standard pipe fitting upon the threaded end of said pipe section.

4. As a new article of manufacture, a metal tube having a short externally threaded section of standard pipe fitted upon its end, the end of said tube terminating flush with that of said pipe section and being continuously expanded within the latter and directly against the inner surface thereof, to form a continuous tight joint between said tube and said pipe section; and an internally-threaded standard pipe fitting applied upon the threaded end of said pipe section.

5. As a new article of manufacture, a metal tube having fitted upon its end a short section of standard pipe, the internal diameter of which pipe section is slightly greater than that of the tube, to produce an annular chamber between said pipe section and tube, the end of said tube terminating flush with that of said pipe section and being continuously expanded within the latter and directly against the inner surface thereof, to form a continuous tight joint between said tube and said pipe section; and a filling of metal packing inserted in said chamber.

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1,093,436. TRACE-FASTENER. FREDERICK KLEEMAN, Artesia, N. Mex., assignor of one-half to Elza B. Foster, Artesia, N. Mex. Filed Oct. 14, 1913. Serial No. 795,134. (Cl. 21—79.)

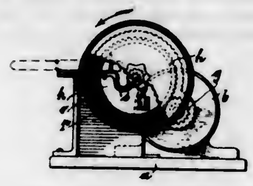


The herein described fastener comprising a main member having an outwardly projecting stop and also having an arm which projects from the inner side of the stop at right angles thereto, said arm having a longitudinal channel open on the side next the stop and being further provided with an opening in the bottom of the channel and at a point intermediate the ends of the arm, in combination with a catch comprising a pair of arms arranged at right angles to each other and pivotally mounted at a point in the angles between the said arms in the center of the channel of the arm of the main member, and a spring arranged in the bottom of the channel, extending across the opening in the channel bottom and bearing against the said catch to hold the latter against casual movement and yet permitting the said catch to be turned to arrange either of its arms in the channel and the other arm parallel with the stop.

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1,093,437. KNIFE CLEANING AND POLISHING MACHINE. ERNST KOEPPEN, Jersey City, N. J. Filed Sept. 19, 1913. Serial No. 790,615. (Cl. 51—6.)

1. In a knife cleaning and polishing machine, a set of cleaning and polishing wheels consisting each of supporting disks with a peripheral portion forming two chambers, an annular section of knife cleaning means in the inner chamber, and an annular section of knife polishing means in the outer chamber.



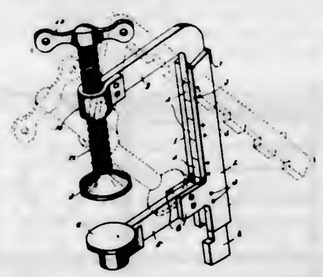
2. In a knife cleaning and polishing machine, a set of cleaning and polishing wheels consisting each of supporting disks with a peripheral portion forming two chambers, an annular section of bristles in the inner chamber, and an annular section of jammed leather pieces in the outer chamber.

3. In a knife cleaning and polishing machine, a driving shaft, a set of cleaning and polishing wheels consisting each of supporting disks with a peripheral portion forming two chambers, an annular section of bristles in the inner chamber, an annular section of jammed leather pieces in the outer chamber, and a knife blade guiding device loosely mounted on the shaft within the cleaning and polishing wheels.

4. A knife cleaning and polishing machine comprising a casing, a bearing cast on the top side portion of said casing, a driving shaft in said bearing, a larger separate casing, a set of cleaning and polishing wheels on the shaft in the separate casing comprising each a peripheral portion forming two chambers, an annular section of bristles in the inner chamber, a similar section of jammed leather pieces in the outer chamber, and a knife blade guiding device loosely mounted on the shaft within the cleaning and polishing wheels.

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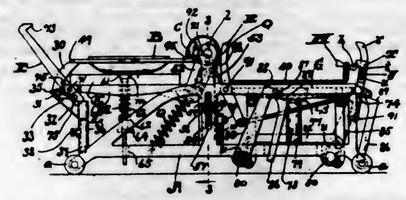
1,093,438. C-CLAMP. JAKOB G. KRUECK, Cleveland, Ohio, assignor of one-half to Caroline Krueck, Cleveland, Ohio. Filed Nov. 2, 1911. Serial No. 658,186. (Cl. 144—299.)



A clamp of the character described including a socket member and an extension member, said socket member comprising straight side plates spaced apart throughout their entire length, the intermediate space being terminally unobstructed, and provided near their lower ends with forwardly extending lugs, a forwardly extending arm secured between the lugs and having a clamping head, spacing blocks secured between the side plates adjacent to their front edges, and a cross bar connecting the rear edges of the side plates adjacent to their upper ends; said extension member comprising a bar slidable between the side plates of the socket member and capable of projecting at both ends thereof, said bar having notches engaging the spacing blocks of the socket member and a forwardly extending arm carrying a clamping screw.



1,093,439. MOLD-MAKING MACHINE. WILLIAM C. LANG, Cleveland, Ohio. Filed Oct. 31, 1913. Serial No. 798,422. (Cl. 22—33.)



1. In a mold-making machine, the combination, with a framework; a table for supporting a mold-bottom which is capable of entering and moving endwise of the lower flask-section of a mold and thick enough to extend externally of said flask-section when the latter has been supplied with molding sand; a suitably supported double-faced pattern-plate movable into a position in which it covers said flask-section when the latter is arranged over the aforesaid table, of a carrier supported from the aforesaid framework, a head adapted to cover a body of molding sand in the upper flask-section of the mold when said upper flask-section has been mounted on the pattern-plate in the aforesaid position of the pattern-plate, which head is borne by said carrier and capable of entering the upper flask-section upon being actuated into a position in which it covers said last-mentioned body of molding-sand, said head in its said position, the pattern-plate in its aforesaid position, and the table being capable of relative readjustment to reduce the distance between the table and the pattern-plate and between the pattern-plate and said head.

2. In a mold-making machine, the combination, with a table for supporting a mold-bottom; an oscillatorily supported holder or carrier for a pattern-plate, which carrier is arranged to swing in a vertical plane, and a double-faced pattern-plate borne by said carrier and arranged to be swung by said carrier into position over the aforesaid table, of another oscillatorily supported carrier arranged to swing in a vertical plane, and a head borne by said last-mentioned carrier and arranged to be swung by its carrier into position over the pattern-plate in the aforesaid position of the pattern-plate, the pattern-plate in its said position, the head in its aforesaid position, and the table being capable of relative readjustment to reduce the distance between the table and the pattern-plate and between the pattern-plate and the head.

3. In a mold-making machine, two laterally spaced posts which are free to move upwardly; a holder or carrier for a pattern-plate, which carrier is pivotally connected to said posts and arranged to swing in a vertical plane; vertically arranged tubular members loosely embracing and instrumental in guiding the said posts; vertically adjustable blocks arranged within the post-guiding members and under and forming seats for the posts, and means for securing said blocks to the post-guiding members in the desired adjustment of the blocks.

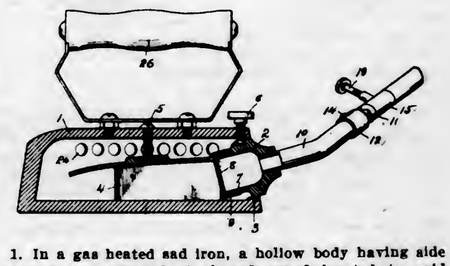
4. In a mold-making machine, the combination, with two vertically adjustable spaced members; a holder or carrier for a pattern-plate, which carrier is pivotally connected to said spaced members and arranged to swing in a vertical plane; a table arranged at one side of and below the axis of said carrier; a pattern-plate borne by said carrier and being arranged in a substantially horizontal position over said table, or being arranged in a substantially horizontal position at the opposite side of said axis, according as the pattern-plate has been swung by said carrier the extent required in the one or the other direction, of vertically adjustable brackets arranged at the last-mentioned side of said axis and provided with seat-forming members instrumental in supporting the pattern-plate in the last-mentioned position of the pattern-plate.

5. In a mold-making machine, the combination, with an oscillatorily supported holder or carrier for a pattern-plate, which carrier is arranged to swing in a vertical plane; seats arranged at one side of the axis of said carrier for supporting a pattern-plate; a table arranged at the opposite side of said axis for supporting a mold-bottom; a pattern-plate borne by the aforesaid carrier and lying in a substantially horizontal position at the first-mentioned side of the aforesaid axis to receive the lower flask-section of a mold lower-end-up to be there supplied from above with molding sand and a mold-bottom, or being arranged in a substantially horizontal position over the aforesaid table with said mold-bottom resting on said table, according as the pattern-plate has been swung by said carrier the extent required in the one or the other direction, of an oscillatorily supported frame having a portion thereof adapted to extend across the outer side of said mold-bottom when the aforesaid flask-section and said mold-bottom are assembled over the pattern-plate in the first-mentioned position of the pattern-plate, said frame being provided with means for holding the pattern-plate to said flask-section, the aforesaid portion of said frame being adjustable relative to the pattern-plate.

[Claims 6 to 36 not printed in the Gazette.]

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1,093,440. GAS-HEATED SAD-IRON. GEORGE W. LA RUE, Kansas City, Mo. Filed Feb. 25, 1913. Serial No. 750,489. (Cl. 158—23.1.)



1. In a gas heated sad iron, a hollow body having side openings, an inverted U shaped guard located in said body with the side arms disposed longitudinally upon the upper side of the bottom of the body and forming therewith a channel completely closed at its sides, a space being provided between each arm and the sides of the body and the top of the guard being provided at its forward end with a forwardly and downwardly extending deflector, and a burner arranged to discharge into the rear end of said guard.

2. In a gas heated sad iron, a hollow body having side openings, an inverted U shaped guard located in said body with its side arms disposed longitudinally and spaced apart from the sides of the body, the lower edges of the side arms resting their full length upon the upper side of the bottom of the body, the guard having a forwardly and downwardly inclined top, and a burner located so as to discharge into the rear end of the guard.

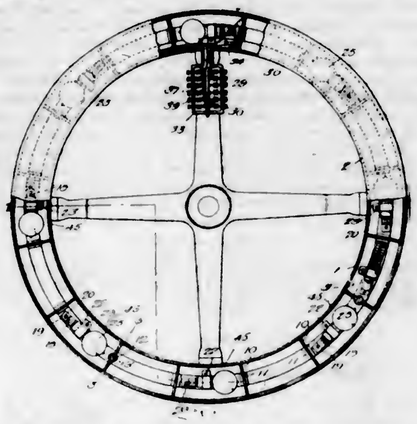
3. In a gas heated sad iron, a hollow body having side openings, an inverted U shaped guard located in the body with its side arms disposed longitudinally and spaced apart from the sides of the body, the lower edges of the side arms resting their full length upon the upper side of the bottom of the body, the guard having a forwardly and downwardly inclined top which extends beyond the sides of the guard, and a burner located so as to discharge into the rear end of the guard.

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1,093,441. SECTIONAL STEERING-WHEEL. LIONEL EDWARD LAURANCE, Stites, Idaho. Filed Mar. 1, 1913. Serial No. 751,431. (Cl. 74—33.)

1. A device of the character specified, comprising a wheel having a hollow rim, composed of upper and lower sections, the lower section having extensions for engagement by the spokes, each of the said sections having its edges rabbeted to form lapping ribs when the sections are placed together to prevent lateral movement thereof, one of the sections having transverse inwardly extending partitions at spaced intervals and the other section having

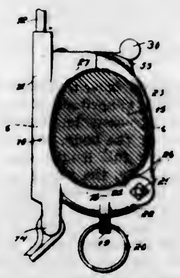
spaced pairs of ribs for receiving the edges of the partitions therebetween, said partitions dividing the hollow of the rim into a plurality of separate compartments, means for securing the sections of the wheel together, said wheel having openings on the inner surface thereof at sundry of the compartments, and a transparent covering for each opening.



2. A device of the character specified, comprising a wheel having a hollow rim and composed of upper and lower sections, one of the sections having spaced transverse partitions for closing the bore of the rim to form within the said bore a plurality of compartments, said wheel having openings at sundry of its compartments at the inner surface thereof, and transparent coverings for the openings.

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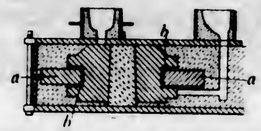
1,093,442. BUGGY-SHAFT TUG. BENJAMIN F. LEFTER, Daleville, Ind. Filed July 23, 1912. Serial No. 711,156. (Cl. 54—51.)



A thill tug including a substantially hook shaped member having a vertical shank portion in the form of a sleeve, an outwardly extending lug on the upper end of the shank, means carried by the said sleeve for attachment to the billet of a harness, the lower end of the sleeve being provided with an integral loop for the attachment of a belly band, the lower portion of the hook being bifurcated and having an intermediate depending connecting portion, a ring suspended from said connecting portion centrally of the lengths of the bifurcations, the extremities of the bifurcations having circular heads and having upper and lower shoulders, a front locking section having a reduced tongue pivoted between said heads to operate in the bifurcation, and also provided with oppositely extending transversely concavo-convexed portions arranged to engage the shoulders and limit the movement of the locking section when opened, the free end of the locking section engaging the said lug to limit the movement of said section toward closed position, and catch means carried by the billet attached member for holding the locking section in a position to form a loop.

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1,093,443. CASTING OF IRON. ISAAC ENOCH LESTER, Birmingham, England. Filed July 5, 1913. Serial No. 777,505. (Cl. 22—127.)

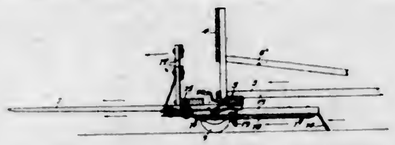


1. In the casting of iron, the combination consisting of a metal chill mold, and a thin layer of sand of uniform thickness on the surface thereof, adapted to contact with the casting, as set forth.

2. In the casting of iron, the combination consisting of metal segments forming a chill mold, and a thin layer of sand of uniform thickness on the surface thereof, adapted to contact with the casting, as set forth.

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1,093,444. AUTOMATIC HAY-EJECTOR FOR SWEEP-RAKES. BENJAMIN F. LEWIS and JOHN W. LEWIS, Hartland, Kans. Filed Sept. 9, 1913. Serial No. 788,780. (Cl. 56—137.)



1. The combination, with a sweep-rake, of a hay-ejector comprising a frame adapted to slide on the rake and provided at its rear end with earth-engaging teeth, and a flexible means for connecting the rear portion of the ejector with the rake head, said flexible connector being of such length that, when the rake is fully retracted, the teeth of the ejector are raised and disengaged from the earth, as described.

2. The combination, with a sweep-rake, of a hay-ejector comprising a frame adapted to slide on the rake and provided at its rear end with earth-engaging teeth, and a flexible connector between the rake head and ejector, said connector having a fixed attachment to the rake and a sliding attachment to the rear extension of the ejector, said flexible connector being of such length that, when the loaded rake is withdrawn from the load by backing the team, the toothed rear end of the ejector is at first allowed automatically to drop into engagement with the earth, and, when the hay has been ejected or pushed off the rake, the ejector is automatically disengaged from the earth, as described.

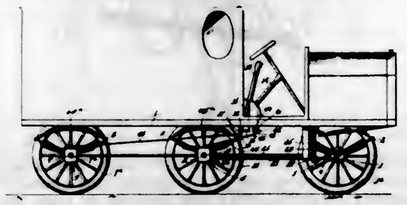
3. The combination, with the sweep-rake having a rear frame extension, of a hay-ejector comprising a frame adapted to slide on the rake proper and provided with earth-engaging teeth and also with a rod extending rearward on the under side of the ejector frame, a ring adapted to slide on said rod, a stop arranged at the rear end of the rod with which the ring engages, and a flexible medium connecting said ring with the head of the rake and being of such length as to serve to automatically limit the backward movement of the rake relative to the ejector and to also disengage the latter from the earth when the hay has been fully discharged, as described.

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1,093,445. MOTOR-VEHICLE. CHARLES E. LIGHTER, Mason City, Iowa. Filed June 1, 1912. Serial No. 701,005. (Cl. 21—90.)

1. In a motor vehicle, the combination with a chassis, of a propulsion axle carried thereby, wheels carried by said axle, a principal steering axle mounted on said chassis, wheels carried by said steering axle, an intermediate axle mounted on said chassis, said axle being adapted for use in propulsion and steering, means by which said steering axle may be operated, means connecting the steering mechanism of said principal steering axle with the steering mechanism of the intermediate axle to cause corresponding operation of the same, means by which the intermediate propulsion axle may be operated independently, and means by which the first-named propulsion axle may be operated while the said intermediate axle is in operation.





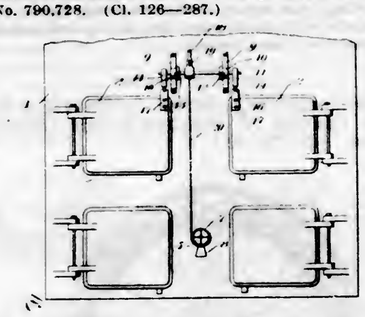
2. In a motor vehicle, the combination with a chassis, of a propulsion axle carried thereby, wheels carried by said axle, a principal steering axle mounted on said chassis, wheels carried by said steering axle, an intermediate axle mounted on said chassis, said axle adapted for use in propulsion and steering, means by which said steering axle may be operated, means connecting the steering mechanism of said principal steering axle with the steering mechanism of the intermediate axle to cause corresponding operation of the same, reversible means by which the intermediate propulsion axle may be operated independently, and means by which the first-named propulsion axle may be operated while the said intermediate axle is in operation.

3. In a motor vehicle, the combination with a chassis, of a propulsion axle carried thereby, wheels carried by said axle, a principal steering axle mounted on said chassis, wheels carried by said steering axle, an intermediate axle mounted on said chassis, said axle adapted for use in propulsion and steering, means by which said steering axle may be operated, means connecting the steering mechanism of said principal steering axle with the steering mechanism of the intermediate axle to cause corresponding operation of the same, reversible means by which the intermediate propulsion axle may be operated independently, and reversible means by which the first-named propulsion axle may be operated while the said intermediate axle is in operation.

4. In a motor vehicle, the combination with the chassis thereof, of a stationary principal axle attached thereto, a principal steering axle having movable spindles, wheels mounted upon said spindles, an intermediate axle having movable spindles, wheels mounted on said spindles, a longitudinal shaft rotatably mounted in said intermediate axle, means operatively connecting the ends of said shaft with the wheels on the spindles of the intermediate axle, a gear casing formed on said intermediate axle, an operating shaft section having one end journaled in said casing and extending forwardly therefrom, means for attaching a source of power to said shaft section, a gear casing formed on the stationary axle, a longitudinal shaft journaled in said stationary axle and having spindles, wheels mounted fixedly upon said spindles, a second operating shaft section having its ends journaled in both gear casings, a clutch mechanism in the gear casing carried by the intermediate axle, means by which said mechanism may be operated to connect the first-named operating shaft section with the longitudinal wheel-connected shaft in said intermediate axle to cause rotation of the latter shaft in either direction or for rendering the same inoperative, clutch mechanism in the gear casing upon the stationary axle, and means for operating the said clutch mechanism to connect the longitudinal wheel-attached shaft in said axle with the second-named operating shaft section to cause rotation of the said wheel-attached shaft in either direction or to render the same inoperative.

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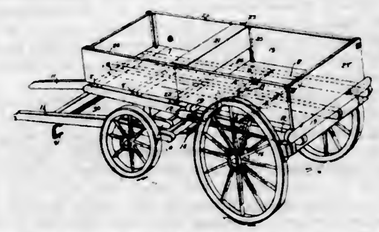
1,093,446. FIRE-DOOR DRAFT-CHECK. ROBERT G. LONG, Lawrence, Kans. Filed Sept. 19, 1913. Serial No. 790,728. (Cl. 126—287.)



In combination with a furnace having a plurality of fire doors and a damper, a draft check comprising a shaft journaled upon the furnace, a handle lever fixed to the shaft, a member pivoted to the handle lever and arranged to move so that the point of pivotal connection between the said member and the handle lever may be carried from one side to the other of a vertical line passing through the center of the shaft, a flexible member connected with the said pivoted member and the damper, blocks fixed to the shaft and corresponding in number to the number of fire doors, each block having a recess, a pawl pivoted in each recess and projecting into the path of movement of one of the fire doors.

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1,093,447. ROAD-WAGON. ALEXANDER MACDONALD, Inverell, New South Wales, Australia. Filed Nov. 18, 1912. Serial No. 731,974. (Cl. 21—20.)



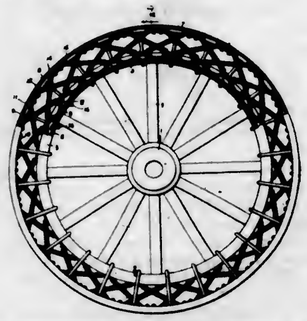
1. A wagon, comprising a rear wheel supported frame mounted to tilt on the axle and having forwardly projecting side members, a body mounted on the said frame, a swiveled front wheel supported frame having rearwardly projecting side members extending between the side members of the rear frame adjacent to the axle of said frame, a body mounted on the front frame and approximately of the same size and shape as the body of the rear frame, shafts for the wagon, a removable rod passing through the side members of the front and rear frames adjacent to the axle of the said rear frame and connecting the frames together with their bodies meeting at the center of length of the wagon, said rod also serving as a means for connecting the shafts with the rear portion of the wagon when the front portion is detached, and means for locking the said side members together.

2. A wagon, comprising a rear wheel supported tilting body having side supporting members, a front body having side members projecting rearwardly beyond the body and lapping upon the sides of the members of the rear body, means for connecting the rear end board of the front body and the front end board of the rear body together, a swiveled fore-carriage upon which the front body is mounted, means for pivotally connecting the side members of the bodies together, the pivotal connection being in front of and adjacent to the axle of the rear body, and means in front of the pivotal connection for locking the said members together.

3. In a wagon of the character described, a fixed front body section, a rear tilting body section, the rear end board of the front section and the front end board of the rear section being spaced apart, and an inverted U-shaped cover fitting over said boards.

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1,093,448. RESILIENT WHEEL. PETER FRANK MARCANTE, Allentown, Pa. Filed July 25, 1913. Serial No. 781,116. (Cl. 152—32.)



1. In a resilient wheel of the class described, an outer rim, a plurality of springs connected with said outer rim at one end, the opposite ends of said springs being free, each of said springs extending at a tangent, a second set of springs connected with said outer rim in a different plane to said first mentioned springs and crossing said first mentioned springs at substantially right angles thereto, an inner rim adapted to bear against the inner end of said springs, means associated with the springs arranged at the point of crossing of the respective sets of springs for limiting the outward radial movement of the springs, spokes connected to said inner rim, and a hub connected with said spokes.

2. In a resilient wheel of the class described, an outer rim, a plurality of sets of flat springs connected at one end to said outer rim, the springs of one set crossing the springs of the other set at substantially right angles, each set of said springs being in a different plane, an inner rim adapted to bear against the inner end of all of said springs, means loosely fitting in the crotch between said springs and loosely engaging said inner rim for limiting the radial outward movement of said outer rim, a plurality of spokes connected with said inner rim, and a hub connected with said spokes.

3. In a resilient wheel of the class described, an outer rim, a plurality of springs rigidly connected to said outer rim at one end, the opposite ends of the springs being free, each of said springs extending at a tangent, a second set of springs connected with said outer rim in a different plane to said first mentioned springs and crossing said first mentioned springs at substantially right angles thereto, an inner rim adapted to bear against the inner end of all of said springs, a link having a part thereof arranged in the crotch between said springs loosely engaging said inner rim for limiting the radial movement of said outer rim, spokes connected with said inner rim and a hub connected with said spokes.

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1,093,449. CLOTHES-PIN. OWEN MATHIS, Granite, Okla. Filed Sept. 17, 1913. Serial No. 790,286. (Cl. 24—261.)

1. A reversible clothes pin constructed from a single strand of resilient wire bent in its main length to provide companion clamping coils, each of said coils comprising a plurality of convolute portions, the wire extending from said convolute portions at one side of the coils to form guides, and said wire extended from the convolute portions at the other side of said coils to form guides extending in opposite directions from the first mentioned guides.

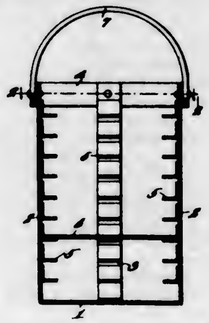
2. A reversible clothes pin constructed from a single length of resilient wire bent in its main length to provide clamping coils, each of said coils comprising a plurality of convolute portions, the wire extending from said convolute portions at one side of the coils to form a guide, said wire extending from the convolute portions at the other



side of said coils in an opposite direction to form a second guide, and the outer ends of said guides being formed with oppositely extending offset eyes disposed at right angles to the said coils and having their inner surfaces arranged in a direct line with the space between said coils, substantially as and for the purpose described.

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1,093,450. ICE-CREAM PACKER. HELENA GRACE MCLAUGHLIN, New Orleans, La. Filed June 12, 1913. Serial No. 773,290. (Cl. 224—48.)



An ice cream packer comprising a frame composed of a U-shaped strip and an L-shaped strip secured thereto and forming the back of the frame, supports secured to the strips, shelves adapted to be received on the supports, and a handle pivotally connected to the top of the U-shaped strip, said handle when in a horizontal position being a distance from the back of the frame equal to that of the width of the frame.

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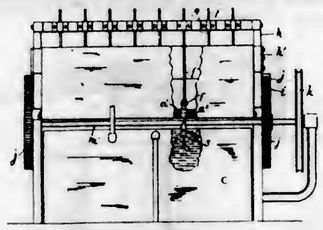
1,093,451. MACHINE FOR PREPARING SPRUCE-GUM FOR THE MARKET. ADELBERT H. MCRONALD, Portland, Me., and ISAAC DANIELS, Boonville, N. Y.; said McRonald assignor, by mesne assignments, to said Daniels. Filed Nov. 23, 1912. Serial No. 733,039. (Cl. 18—12.)

1. A machine for forming natural spruce gum into marketable form consisting of a heated gum tank for containing the gum, said tank having a series of normally unobstructed cylindrical openings through its bottom, a series of vertically movable plungers fitting said openings and movable to a point above the upper ends of said openings and a water tank beneath said gum tank and separated therefrom.

2. A machine for forming natural spruce gum into marketable form consisting of a heated gum tank for containing the melted gum, a series of drop forming cylinders in the bottom thereof, a series of vertically movable



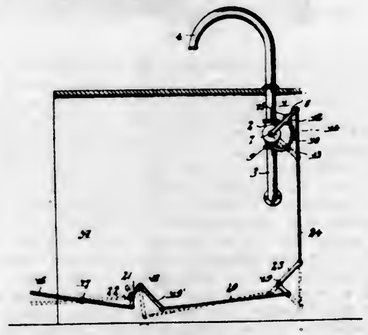
plungers fitting said cylinders and means for forcing said plungers downward through said cylinders from a point above their upper ends, thence lifting the plungers to a point within the cylinders and then checking their speed



and finally raising them with a quick motion whereby each discharged drop of gum is severed from the residue left in the cylinders, and a water tank beneath the gum tank.

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1,093,452. FAUCET-OPERATING MECHANISM. HENRY D. METCALF, Casey, Ill. Filed Aug. 27, 1912. Serial No. 717,354. (Cl. 137—7.)

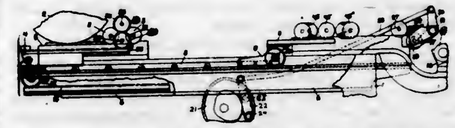


A valve comprising a casing having a rotary plug therein, a lever fixed to the stem of the plug and provided adjacent its free end with a socket and a passage respectively, the latter opening into the former, an arcuate guide member having one end fixedly secured to the lower end of the casing and having its free end extended through the socket in the lever, the said free end of the guide being terminally bent to provide a laterally extending arm disposed in spaced relation toward the top of the valve casing and adapted to act as a stop to limit the upward movement of the lever, the said stop being adapted to be bent in the longitudinal plane of the passage in the lever to permit the removal of the lever from the guide, a shoulder formed on the guide member adjacent the lower end thereof, and a spring interposed between the shoulder and the socket and bearing against the lever so as to hold the latter normally against the said laterally extending arm.

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1,093,453. PRINTING-PRESS. ROBERT MIEHLE, Chicago, Ill., assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Filed Dec. 18, 1911, Serial No. 666,586. Renewed Jan. 20, 1914. Serial No. 813,276. (Cl. 101—78.)

1. A printing press including main and auxiliary ink beds; inking mechanism for applying ink to the auxiliary bed; inking mechanism operating upon said beds for transferring ink from the auxiliary bed to the main bed; inking mechanism for transferring ink from the main bed to the press printing surface; and means for moving the auxiliary bed slower than the main bed when the second aforesaid inking mechanism is operating upon the auxiliary bed and for reducing the speed of the main bed when said second inking mechanism operates thereupon.



3. A printing press including main and auxiliary reciprocating ink beds; inking mechanism for applying ink to the auxiliary bed; inking mechanism operating upon said beds for transferring ink from the auxiliary bed to the main bed; inking mechanism for transferring ink from the main bed to the press printing surface; and means for moving the auxiliary bed slower than the main bed when the second aforesaid inking mechanism is operating upon the auxiliary bed.

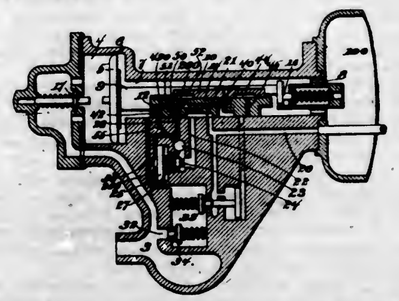
4. A printing press including main and auxiliary reciprocating ink beds; inking mechanism for applying ink to the auxiliary bed; inking mechanism operating upon said beds for transferring ink from the auxiliary bed to the main bed; inking mechanism for transferring ink from the main bed to the press printing surface; and means for moving the auxiliary bed slower than the main bed when the second aforesaid inking mechanism is operating upon the auxiliary bed and for reducing the speed of the main bed when said second inking mechanism operates thereupon.

5. A printing press including main and auxiliary reciprocating ink beds; inking mechanism for applying ink to the auxiliary bed; inking mechanism operating upon said beds for transferring ink from the auxiliary bed to the main bed; inking mechanism for transferring ink from the main bed to the press printing surface; and means for causing said beds to reciprocate in the same directions and causing the auxiliary bed to move slower than the main bed when the second aforesaid inking mechanism is operating upon the auxiliary bed.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,454. AIR-BRAKE APPARATUS. BLYTHE J. MINNIER, Watertown, N. Y., assignor to New York Air Brake Company, a Corporation of New Jersey. Filed Nov. 1, 1909. Serial No. 525,716. (Cl. 188—15.)



1. In a triple valve for automatic air brake apparatus, the combination with the triple valve piston and main valve, and supplementary valve movable relative to the main valve, of a yielding stop which overcomes a predetermined preponderance of train pipe pressure on the

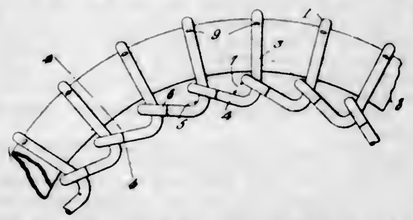
triple valve piston but is overcome by a larger preponderance; and a restricting device coöperating with the brake cylinder exhaust passage and controlled by the supplemental valve according as the preponderance of train pipe pressure is sufficient to overcome the resistance of the yielding stop or not.

2. In a triple valve for automatic air brake apparatus, the combination of the triple valve piston and main and supplementary valves operated thereby, with a restricting device coöperating with the brake cylinder exhaust passage and an operating piston therefor, the fluid pressure for operating said piston being governed by ports in said main and supplementary valves.

3. The combination of the triple valve cylinder, and piston, and main and supplementary valves operated thereby; of a yielding stop which overcomes a predetermined preponderance of train pipe pressure on the triple valve piston, but is overcome by a larger preponderance; a restricting device coöperating with the brake cylinder exhaust passage, and an operating piston therefor; fluid pressure to actuate said piston to bring said restricting device into operation, being admitted by said supplementary valve when train pipe pressure is sufficient to overcome said stop; and an exhaust passage being provided which permits said restricting device to be inactive when the triple valve piston is arrested by said stop.

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1,093,455. TIRE-PROTECTOR. DAVID G. MITCHELL, Oberon, N. D. Filed Sept. 6, 1913. Serial No. 788,477. (Cl. 152—16.)



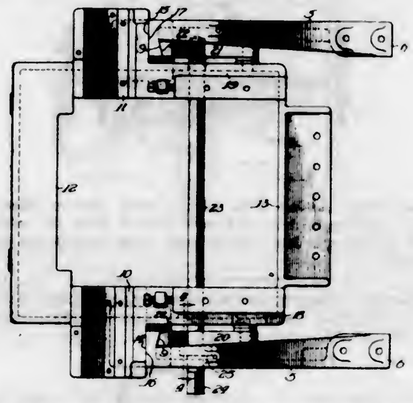
A tire protector comprising a plurality of arched ribs, each comprising arms terminating in circumferentially extending fingers having eyes, the ribs having curved portions located at the juncture between the arms and the fingers, the eyes of each rib being engaged with the arms of an adjoining rib in spaced relation to the fingers and curved portions of said adjoining rib; and a flexible shield assembled with certain of the ribs, the eyes being adapted to ride upon said curved portions toward the fingers to effect a contraction of the shield when the same is compressed.

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1,093,456. CLAMPING DEVICE FOR WOODWORKING-MACHINES. HARRISON J. MITCHELL, Beloit, Wis., assignor to The Berlin Machine Works, Beloit, Wis., a Corporation of Wisconsin. Filed Sept. 7, 1911. Serial No. 648,099. (Cl. 144—114.)

1. In a wood working machine, the combination of a pair of side members each having a sliding surface and also beveled abutment surface thereon, a carrier member having sliding engagement with the sliding surfaces on said side members, a pair of clamps pivoted to said carrier member and having beveled edges engaging said abutment surfaces, and a connecting rod for simultaneously moving said clamps toward or away from each other, thereby correspondingly increasing or decreasing the frictional engagement between said carrier member and said side members, substantially as described.

2. In a wood working machine, the combination of a pair of side members having beveled abutment surfaces thereon, a cutter head carrier frame having sliding engagement with said side members, a pair of clamps pivotally mounted upon said carrier frame and having beveled edges engaging said abutment surfaces, and a connecting rod having threaded engagement with one of said clamps and a collar engaging the other of said clamps, whereby on rotation of said connecting rod said clamps may be moved toward or away from each other, thereby correspondingly increasing or decreasing the frictional engagement between said carrier frame and said side members, substantially as described.



3. In a wood-working machine, the combination of a pair of side-frames, each having a sliding surface thereon and each provided with a clamping surface disposed so that a portion of the side-frame lies between the sliding surface and said clamping surface thereon, a movable frame having surfaces adapted to bear upon said sliding surface, a pair of clamping members each arranged to have a portion thereof bear against said movable frame, and another portion against said clamping surfaces respectively, means for moving said clamping members relative to the side frame respectively, the arrangement being such that said movable frame may be clamped upon said side frames at varying positions thereof, substantially as described.

4. In a wood working machine, the combination of a pair of side members each having a sliding surface and also a beveled abutment surface thereon, a carrier member having sliding engagement with the sliding surface on said side members, a pair of clamps pivoted to said carrier member and having beveled edges engaging said abutment surfaces, and means for simultaneously moving said clamps to cause the same to ride up and down the beveled abutment surfaces, thereby correspondingly increasing or decreasing the frictional engagement between said carrier member and said side members, substantially as described.

5. The combination of a fixed and a movable member having co-acting sliding surfaces, one of said members having a beveled abutment surface inclined slightly to the plane of the sliding surfaces, a clamp loosely mounted on one of the members and having a surface in a plane substantially parallel to the abutment surface, and means to move the clamp in a direction parallel to the plane of the sliding surfaces to cause the surface of the clamp to ride up or down the abutment whereby to increase or decrease the friction between the sliding surfaces, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

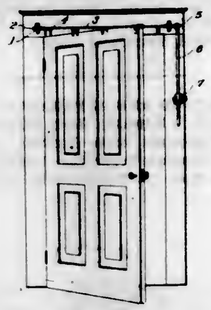
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1,093,457. DOOR-HOLDER. GEORGE D. MOORE, Rowena, S. D. Filed Oct. 3, 1913. Serial No. 793,234. (Cl. 16—6.)

1. A door holder comprising a rod journaled to the frame of the door and provided with an intermediate bowed portion having spaced lugs, a crank provided upon the rod for turning the rod and means for swinging the crank.

2. A door holder comprising a rod journaled to the frame of the door and provided with an intermediate bowed portion having spaced lugs, a crank carried by the rod, a rod pivotally connected with the crank and adapted to swing the same when moved longitudinally and means

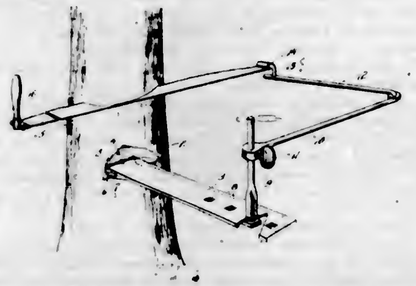




mounted upon the frame of the door for securing the last mentioned rod against longitudinal movement.

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1,093,458. SAW-GUIDE. GEORGE WASHINGTON MOORE, Florence Logging Camp, Snohomish county, Wash. Filed Oct. 3, 1911. Serial No. 652,617. (Cl. 143—163.)



1. A supporting bar for saw guides having an upturned knife edge at one end and depending knife edges at opposite sides and on the lower surface thereof and adjacent to the first knife edge.

2. A supporting bar for saw guides having an upturned knife edge at one end and depending knife edges on the lower surface thereof and adjacent to the first knife edge, said depending knife edges being disposed longitudinally of the supporting bar and at right angles to the upturned knife edge.

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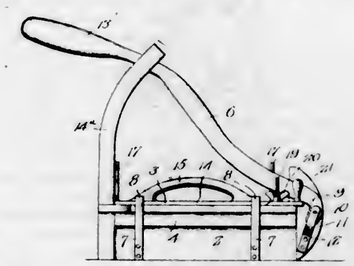
1,093,459. COMB. JACK C. MORGAN, Los Angeles, Cal., assignor of one-half to Robert J. Conway, Oakland, Cal. Filed Feb. 15, 1913. Serial No. 748,650. (Cl. 132—3.)



A comb comprising a back provided with a groove of wedge formation having its restricted side opening onto the upper edge of the back and having its ends opening onto the ends of said back, the lower edge of the back being provided with a series of wedged passages opening into the said groove, teeth removably mounted in the passages, a wedge shaped retaining member co-extensive with the back member and slidably and removably mounted in the groove and retained by the side walls of the latter against upward displacement, the said retaining member being provided with a continuous flat bottom surface operating to engage the upper ends of the teeth, whereby to project the said teeth into the passages in the back, during the operation of applying the slide.

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1,093,460. STAMP-CUTTER. OLLIE MULLINS, Terre Haute, Ind., assignor of one-half to Milton T. Hutts and one-fourth to Julian J. Ury, Terre Haute, Ind. Filed Oct. 25, 1913. Serial No. 797,272. (Cl. 164—45.)



1. A stamp cutter comprising a bed plate having a guide slot, stops at one side of said slot, a pivotally mounted clamping member at the same side of the slot for engagement with one end of a portion of the sheet resting on the adjacent portion of the bed plate, said clamping member being adjustable to positions parallel with and at right angles to the slot, a pivoted cutting knife movable in line with and downward through said slot, and a movable clamping device arranged at the opposite side of the slot from the stops.

2. A stamp cutting device comprising a bed plate having a guide slot, stops at one side of said slot, a clamping member at the same side of the slot and adjacent one end thereof, said member being adjustable to positions parallel with and at right angles to the slot, a pivoted cutting knife movable in line with and downward through said slot, pins projecting upward from the bed plate at the opposite side of the slot, and a clamping plate slidably engaging said pins and provided with a handle whereby downward pressure may be exerted thereon.

3. A stamp cutter comprising a bed plate, a support therefor, an extension at one side of the bed plate and spaced therefrom to provide a guide slot, brackets reinforcing said extension from the support and projecting above the extension to form stops, a clamping member pivotally mounted at one end of the extension for adjustment to positions parallel with or at right angles to said extension, a pivotally mounted knife movable downwardly through said slot, a clamping member mounted for vertical movement at the opposite side of the slot.

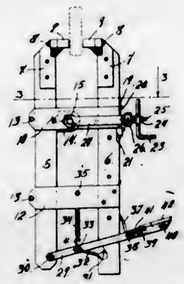
4. A stamp cutter comprising a bed plate having a guide slot, stops at one side of said slot, a clamping member at the same side of the slot for engagement with one end of a portion of the sheet resting on the adjacent portion of the bed plate, a pivoted cutting knife movable in line with and down through said slot, and a movable clamping device arranged at the opposite side of the slot from the stops.

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1,093,461. FOOT-VISE. EDWARD B. NEWNAM, deceased, Denver, Colo., by Sarah Frances Newnam, administratrix, Denver, Colo. Filed Feb. 27, 1913. Serial No. 751,068. (Cl. 81—25.)

1. In a vise, two clamping jaws each supported upon one of a pair of substantially parallel bars, arms extending inwardly beyond said bars one bar being movable with respect to the arms, a pivotal connection between said arms at a point fixed with relation to both of said arms, means for moving the last named bar toward or away from said pivotal connection and means for rocking said bars upon said pivotal connection.

2. In a vise, two clamping jaws, two substantially parallel bars, upon which said jaws are supported, an inwardly extending arm upon one bar and an inwardly extending yoke upon the other bar, a pivot connection between the adjacent extremities of said arm and yoke, means for longitudinally adjusting said yoke upon its bar, and means for rocking said bars upon said pivot.



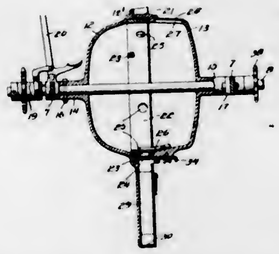
3. In a vise, two clamping jaws, two substantially parallel bars upon which said jaws are mounted, arms extending inwardly beyond said bars, a pivotal connection between the said arms at a point fixed with relation to said arms, means for moving said pivotal connection with respect to one of said bars and means for rocking said bars upon said pivot.

4. In a vise, two clamping jaws, two vertical bars upon which said jaws are mounted, arms extending inwardly from said bars below the jaws, a pivotal connection between said arms, means adapted to be operated by hand for moving said pivotal connection with respect to one of said bars and means located at the lower extremities of the bars and adapted to be operated by the foot for spreading the bars.

5. In a vise, vertical bars, clamping jaws at the upper extremities of said bars, a lever pivoted to the lower extremity of one of said bars, a link pivotally connected to said lever and to the other of said bars, a dog pivoted upon said lever, a foot piece pivoted intermediate of its extremities upon said lever, a link pivoted at its extremities to the dog and a foot piece, said link being pivoted intermediate of its extremities to the lever.

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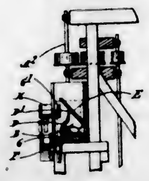
1,093,462. SEEDER AND PLANTER. SAMUEL E. NORRIS, Crowell, Tex. Filed Feb. 19, 1913. Serial No. 749,512. (Cl. 111—37.)



In a seed planter, a hopper comprising mating cup-shaped members, one of said members being relatively stationary and the other member being supported for rotation, an annular lip formed on the stationary hopper member and having a seed aperture, a cut-off secured within the stationary hopper member and overlapping the seed aperture, a seed ring secured within the rotary hopper member and projecting between the annular lip and the cut-off of the stationary hopper member, a shaft supported for rotation on the stationary hopper member and carrying a seed distributer, and means imparting rotary motion to the seed distributer shaft.

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1,093,463. METHOD AND APPARATUS FOR ORE CONCENTRATION. EDWARD HOIT NUTTER, New York, N. Y., and THEODORE JESSE HOOVER, London, England, assignors to Minerals Separation Limited, London, England. Filed Sept. 25, 1911. Serial No. 651,188. (Cl. 83—85.)



1. A method of concentrating ores by the formation of a mineral-bearing froth which consists in causing the froth as it is formed to pass over a lip below the level of the free air surface, causing the body of the pulp to pass onward to further treatment without passing over said lip, and causing the more permanent froth thus separated to pass over a second lip.

2. A method of concentrating ores by the formation of a mineral bearing froth which consists in agitating an ore pulp mixture to aerate the same, leading off the agitated and aerated mixture and entrapping the froth as it is formed and separating the froth from the mixture before the bubbles can reach a free air surface and burst, and further separating the more permanent froth from the froth which was entrapped as it was formed.

3. A method of concentrating ores which consists in mixing the ore with water containing a mineral-frothing agent, agitating the mixture so as to beat air into it leading off the agitated and aerated mixture in which a froth forms, deflecting or guiding the froth as it rises, entrapping the froth as it forms and separating the froth from the liquid before the bubbles can reach a free air surface and burst, and further separating the more permanent froth from the froth which was entrapped as it was formed.

4. In an apparatus for concentrating ores by gaseous flotation of certain mineral particles in liquid, the combination of a vessel having agitation froth forming means, a conduit leading from the froth forming vessel to convey the liquid and the froth which forms therein, a trap to catch the froth before the bubbles reach the surface, and an overflow lip for the more permanent froth of the froth thus entrapped.

5. In an apparatus for concentrating ores by gaseous flotation of certain mineral particles in liquid, the combination of a vessel having agitation froth forming means, means forming an outlet passage leading therefrom, and a lip in the wall of said passage which is below the free air surface and over which the froth passes, whereby the froth is collected and removed before the bubbles can burst.

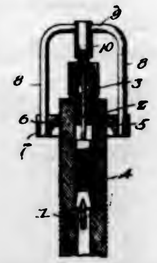
[Claims 6 to 10 not printed in the Gazette.]

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1,093,464. ATTACHMENT FOR PNEUMATIC-TIRE VALVES. THOMAS J. O'LEARY, St. Paul, Minn. Filed Feb. 25, 1913. Serial No. 750,631. (Cl. 152—12.)

As a new article of manufacture, a valve opening device for the valves of pneumatic tires, comprising an internally threaded ring, an arch rigid with and projecting from one of the faces of the ring, and a pin rigid with and supported by the crown of the arch between the sides of the arch and in line with the axis of the ring, said pin being provided

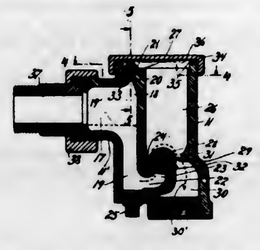




with a reduced portion having a seat recess therein to receive and engage the end of the valve stem.

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1,093,465. ONE-WAY VALVE. JAMES S. OTIS, New York, N. Y., assignor, by mesne assignments, to Hazel K. Otis, New York, N. Y. Filed Nov. 9, 1912. Serial No. 730,513. (Cl. 237—28.)



1. A device for the purpose described, including a shell having an inlet, an outlet, a valve-seat located within said shell, a ball adapted normally to be accommodated within said valve-seat, an interior passage communicating with said inlet and with said valve-seat, a second valve-seat located within said shell at a higher lever than the first-mentioned valve-seat, a ball adapted normally to be accommodated within said second valve-seat, and a second interior passage communicating with said inlet and with said second valve-seat, the only means of communication between said inlet and said outlet interiorly of said shell being provided by way of either one of said valve-seats.

2. A device for the purpose described, including a shell having an inlet, an outlet, a valve-seat located within said shell, a ball adapted normally to be accommodated within said valve-seat, an interior passage bent upon itself to constitute a vertically arranged U-tube, one leg of said U-tube communicating directly with said inlet and the other leg of said U-tube communicating directly with said valve-seat, a second valve-seat located within said shell and at a higher level than the first-mentioned valve-seat, a ball normally adapted to be accommodated within said second valve-seat, and an upwardly extending interior passage communicating with said inlet and with said second valve-seat, the only means of communication between said inlet and said outlet interiorly of said shell being provided by way of either one of said valve seats.

3. A device for the purpose described, including a shell having an inlet, an outlet, an interior chamber, a valve-seat located within said chamber, a ball adapted normally to be accommodated within said valve-seat, a vertically arranged interior passage communicating with said inlet and with said valve-seat, a second valve-seat located within said shell and at a higher level than the first-mentioned valve-seat, a ball adapted normally to be accommodated within said second valve-seat, an upwardly extending interior passage communicating with said inlet and with said second valve-seat, a passage communicating with said first-mentioned chamber and said outlet, the only means of communication between said inlet and said outlet interiorly of said shell being provided by way of the last-mentioned passage and by way of either one of said valve-seats, and means adapted to cause each of said balls to seek its proper valve-seat and prevent it from entering the valve-seat of the other ball.

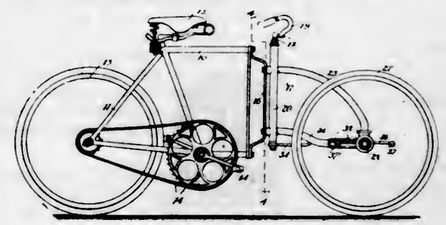
4. A device for the purpose described, including a shell having an inlet, an outlet, an interior chamber, a valve-seat located within said chamber, a ball adapted normally to be accommodated within said valve-seat, said ball being heavier than a volume of water equal to the volume of the ball, an interior passage bent upon itself to constitute a vertically arranged U-tube, one leg of said U-tube communicating directly with said inlet and the other leg of said U-tube communicating directly with said valve-seat, a second valve-seat located within said shell and at a higher level than the first-mentioned valve-seat, a ball adapted normally to be accommodated within said second valve-seat, an upwardly extending interior passage communicating with said inlet and with said second-mentioned valve-seat, and a passage communicating with said first-mentioned chamber and said outlet, the only means of communication between said inlet and said outlet interiorly of said shell being provided by way of the last-mentioned passage and by way of either one of said valve-seats.

5. A device for the purpose described, including a shell having an inlet, an outlet, an interior chamber, a valve-seat located within said chamber, a ball adapted normally to be accommodated within said valve-seat, a vertically arranged interior passage communicating with said inlet and with said valve-seat, a second valve-seat located within said shell and at a higher level than the first-mentioned valve-seat, a ball adapted normally to be accommodated within said second valve-seat, an upwardly extending interior passage communicating with said inlet and with said second valve-seat, a passage communicating with said first-mentioned chamber and said outlet, the only means of communication between said inlet and said outlet interiorly of said shell being provided by way of the last-mentioned passage and by way of either one of said valve-seats, and a device carried interiorly of said chamber adapted to guide the first-mentioned ball to become seated in the first-mentioned valve-seat and to clear said last-mentioned passage.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,466. STEERING-GEAR FOR VEHICLES. ALOIS OTTER, New York, N. Y. Filed Sept. 11, 1913. Serial No. 789,317. (Cl. 208—114.)



1. In a device of the character set forth, the combination of a rigid front frame, a pair of wheels supporting said frame, steering means for said wheels serving to maintain them in positive parallelism, a pair of independent rear frames connected at their front ends to said front frame, a spring plate serving to make the connection between each of said rear frames and the front frame, and rear supporting wheels journaled in said rear frames.

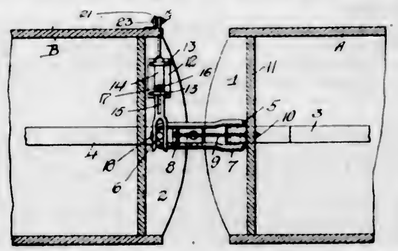
2. In a device of the character set forth, the combination of a front frame having a pair of substantially ver-

tical steering heads and a series of bars extending forwardly therefrom, a pair of wheels supporting said frame, steering mechanism between said wheels and said steering heads, a pair of spaced independent rear frames each having a supporting wheel and propelling mechanism, and a vertically arranged flat spring plate securing the front end of each of said rear frames to the corresponding steering head aforesaid, whereby the rear frames may partake of independent movements in parallel vertical planes.

3. In a device of the character set forth, the combination of a rigid front steering frame comprising vertical steering heads 20, transverse bars 21 and 22 connecting the same, forwardly extending braces 23 and 24, transverse front bars 25 and 26, a pair of steering knuckles journaled on vertical axes to said braces, said knuckles having forwardly and rearwardly extending arms, distance bars connecting the respective arms of both knuckles and constituting therewith a parallelogram, a pair of rearwardly extending links connected to said knuckles, and steering mechanism journaled in said steering heads serving to control the operation of said links and knuckles, substantially as set forth.

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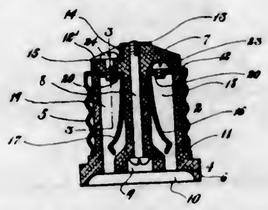
1,093,467. COUPLING. JOSEPH PATRICK, Crabtree, Pa. Filed Dec. 1, 1913. Serial No. 803,928. (Cl. 213—36.)



In a car coupler, the combination with car sills having draw bars, of a link loosely connected to one of said draw bars, a coiled retractile spring connected to said link, a pin carried by the other of said draw bars and over which said link is adapted to extend, and a bifurcated slide bar adjacent to said pin and adapted to extend over said link to hold said link in engagement with said pin.

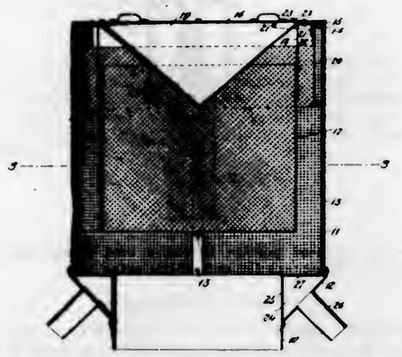
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1,093,468. SEPARABLE ATTACHMENT-PLUG. JOHANN G. PETERSON, Jersey City, N. J., assignor to Manhattan Electrical Supply Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 31, 1913. Serial No. 758,013. (Cl. 173—343.)



An attachment plug comprising an insulating base having main and auxiliary sections, a threaded contact shell surrounding the main section, having a flange at its bottom clamped between the sections of the base, contact fingers in the base having outwardly extending feet provided with laterally disposed lugs also clamped between said sections, the main section being chambered to receive said contact fingers, and an end contact electrically connected with one of said fingers, the other finger being electrically connected with said shell.

1,093,469. SPARK-ARRESTER. SAMUEL ELSWORTH PHEISTER, Yacolt, Wash. Filed Oct. 16, 1913. Serial No. 795,452. (Cl. 110—130.)



1. A spark arrester, comprising a base having an inlet and adapted for support on a smokestack, an outer tubular screen supported on the base and of greater diameter than the inlet, a cover on the said screen, an imperforate, inverted cone suspended from the cover and having its apex in line with the inlet, the cover forming a closure between the cone and the outer screen, an inner tubular screen suspended from the cover, within and spaced from the outer screen, approximately co-axial with the inlet and of greater diameter than said inlet, said inner screen being open at the top and bottom, the lower end being above the inlet and the upper end spaced from the cover and cone, an intermediate tubular element between the inner and outer screens and spaced from both, the intermediate element being suspended from the cover and extending from the under side thereof terminating below the top of the inner screen, there being an annular imperforate shield at the upper end of the intermediate element, the lower portion of said element being in the form of a screen, and an annular spark receiver on the base outside of the inlet, said spark receiver being in communication at the top with the interior of the outer screen.

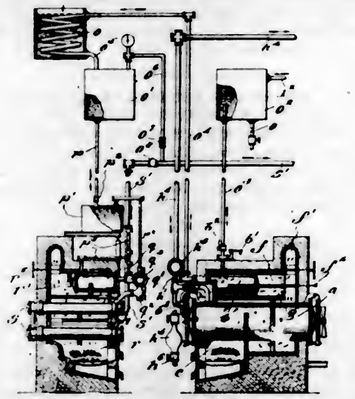
2. A spark arrester, comprising a base having an inlet, an outer tubular screen supported on the base, an inner tubular screen supported within the outer screen and spaced therefrom, a deflector in the form of an inverted cone extending into the top of the inner screen, said inner screen being spaced from the cone and terminating below the top of the outer screen, there being a closure between the base of the cone and the outer screen, and a depending annular element extending downwardly from said closure into the space between the inner and outer screens, the said element comprising an imperforate upper portion and a lower portion in the form of a screen.

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1,093,470. PROCESS OF MANUFACTURING ILLUMINATING AND FUEL GASES FROM WOOD. ROBERT MURTON POOLE, Mount Gambier, South Australia, Australia. Original application filed Aug. 26, 1912, Serial No. 717,200. Divided and this application filed May 6, 1913. Serial No. 765,815. (Cl. 48—209.)

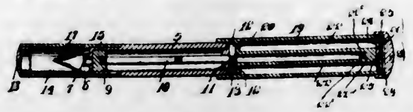
The process, as described, for the manufacture of wood gas, consisting in retorting the wood to liberate the volatile products, discharging the volatile products below the liquid level of similar pre-condensed products for condensing the same and causing the permanent gas to pass up through the liquid, drawing off and purifying the permanent gas, drawing off and distilling the lighter of the condensed products, condensing such distillates, conducting away the permanent gases evolved during such distillation, heating to cause vaporization and partial gasification of the condensed distillates, subjecting the gases to a fixing temperature, and mixing such fixed gases with the permanent gases.





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1,093,471. HYPODERMIC SYRINGE. ROBB S. PORTER, Charleston, W. Va. Filed Mar. 16, 1911. Serial No. 614,864. Renewed Aug. 22, 1913. Serial No. 786,183. (Cl. 128—25.)



1. A hypodermic syringe comprising a syringe barrel, a piston working therein, a cap mounted on the discharge end of the barrel and provided with a cone shaped partition, a cap closing the opposite end of the barrel and a removable plug for the first named cap.

2. A hypodermic syringe embracing a syringe barrel having a discharge end, a piston working in the barrel, a hollow piston rod detachably connected thereto and having a handle at one end disposed outwardly of the barrel, a cap having a transverse partition removed from one end to contact with the handle when said cap is in position, said cap being divided into longitudinal chambers to contain different drugs and having a central bore adapted for securing said piston rod therein in a reverse position, said chambers being located concentric to the central portion of the cap and communicating with one end thereof, a rotatable closure having a single opening adapted to register with one of the chambers and a closure mounted thereover.

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1,093,472. GREASE-CUP. EDWARD H. PRESBREY, New York, N. Y. Filed Sept. 2, 1913. Serial No. 787,652. (Cl. 184—38.)



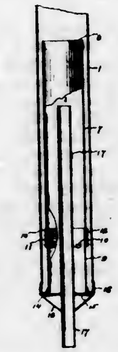
1. In a grease cup, the combination of a base having an outwardly projecting hollow stem and a surrounding flange, a cup adapted to be applied on the outside of said stem and fitted at one end within said flange, means to lock the cup and base together for normal operation, a follower movable longitudinally but non-rotatably along said stem, said cup and follower being screw threaded whereby the rotation of the cup will cause the follower to approach one end of the cup to force the grease from the cup through said hollow stem, and a spring between the follower and the base, substantially as set forth.

2. In a grease cup, the combination of a base having an outwardly projecting flange, a cup having one end closed and the other end open, the open end being seated within said flange, means to permit rotation of the cup but prevent longitudinal displacement thereof from the flange, delivery means for the grease through the base, a follower within the cup and having screw threaded engagement therewith, and means connected with the base to prevent rotation of the follower due to the rotation of the cup and serving to cause the means normally holding the cup and base together to release the cup.

3. In a grease cup, the combination of a base having an outwardly projecting discharge tube and a concentric flange having a smooth interior surface having a circumferential groove, a cup for grease adapted to be projected into said flange and having its end within the flange slightly tapered and provided with an exterior groove adapted to register with the aforesaid groove, a spring ring serving to lock the cup and flange together and yet permit rotation of the cup, a follower within the cup, and means to cause relative rotation between the cup and the follower for the purpose of forcing grease from the cup through said tube and also cause the cup to be forced outwardly from said spring ring, substantially as set forth.

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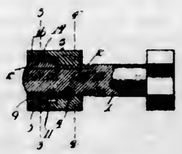
1,093,473. VACUUM-CLEANER. EDWIN A. REEVES, Milford, Conn. Filed Sept. 11, 1913. Serial No. 789,374. (Cl. 83—47.)



In a vacuum cleaner, the combination with a cylinder; of a head connected therewith, having two concentric parallel flanges thereon, by one of which said head is separably secured to said cylinder; a tube connected with said head and projecting upon both sides thereof; a dust bag covering that portion of said tube that projects upon one side of said head; and a collar fixed to the open end of said dust bag at one end and separably secured to the second flange upon said head at its opposite end.

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1,093,474. LOCK-NUT. IGNATIUS B. ROLKA, Niagara Falls, N. Y. Filed Oct. 8, 1913. Serial No. 794,113. (Cl. 151—8.)

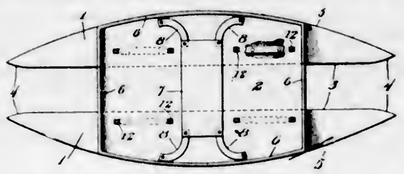


In a device for the purpose set forth, a bolt having its threaded shank formed with a recess, a nut for the bolt,

said nut having an enlarged chamber which communicates with its threaded bore, the said chamber being formed with teeth, the outer face of the nut having angular notches which communicate with the chamber, the side of the nut having an angularly disposed opening which communicates with the chamber, a locking sleeve having its bore formed with a rib which is adapted to engage with the depression of the bolt when the sleeve is placed upon the bolt and within the chamber of the nut, the sleeve having its outer face adjacent its inner end provided with teeth which engage with the teeth in the chamber of the nut, the said sleeve having an annular peripheral depression which communicates with the opening in the side of the nut, a malleable headed member adapted to be inserted through the opening to within the depression of the sleeve, the sleeve between the dpression and its outer face having a continuous channel, and the inclined walls of the notches of the nut communicating with the said channel.

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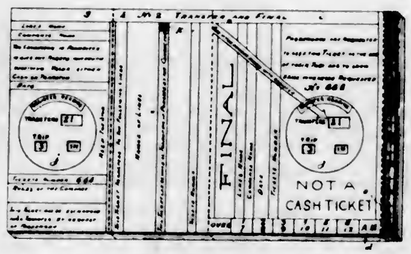
1,093,475. BOAT. ORVAR G. ROSING, Minneapolis, Minn. Filed Feb. 1, 1913. Serial No. 745,694. (Cl. 9—1.)



A boat comprising two floats having their major axes parallel to each other, an imperforate deck supported on and connecting said floats, said deck extending transversely across both floats flush with the outside edges thereof and terminating in a fore and aft direction short of the bow and stern of said floats, a seat supported at an elevation above the deck and floats, and metal straps running in a fore and aft direction and fastened to the tops of the floats flush therewith and having their opposite extremities bent upwardly and extended through said deck, said upturned extremities being threaded to receive nuts.

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1,093,476. TRANSFER-TICKET. PETER G. ROUSSEAS, Brooklyn, N. Y. Filed July 17, 1912. Serial No. 709,948. (Cl. 11—15.)

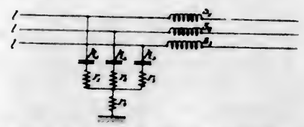



1. A ticket comprising a body portion and a stub, a fac-simile of the dial of a register inscribed on the body portion and stub, each of said fac-similes having corresponding inscriptions denoting the number of fares, trips, and the direction of travel, a corresponding serial number on each body portion and stub, inscriptions on the body of the ticket designating the intersecting transfer line, and numbers on the body of the ticket for indicating the time limit of the transfer.

2. A transfer ticket comprising a body portion, a detachable coupon, and a stub, a fac-simile of the dial of a fare register inscribed on the body portion and stub, each of said fac-similes having corresponding inscriptions denoting the number of transfers, trips, and the direction of travel, a corresponding serial number on the body of the body portion and the stub, inscriptions on the ticket and coupon designating the intersecting transfer line, and numbers on the body of the ticket and coupon for indicating the time limit of the ticket.

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1,093,477. MEANS FOR PROTECTING ELECTRIC CIRCUITS FROM EXCESSIVELY-HIGH DIFFERENCES OF POTENTIAL AND SIMILAR DISTURBANCES. REINHOLD RÜDENBERG, Charlottenburg, Germany, assignor to Siemens Schuckert Werke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Mar. 14, 1913. Serial No. 754,314. (Cl. 175—30.)



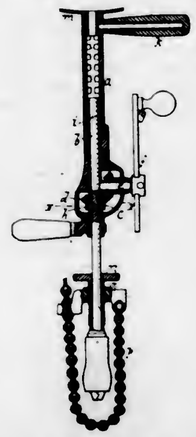
1. In an electric circuit the combination with a line constituting one side of the circuit, of a concentrated inductance inserted into the line, a concentrated capacity connected between the line and the other side of the circuit, and a resistance connected in series with said capacity.

2. In an electric circuit comprising several lines, the combination with said lines, of a concentrated inductance inserted into each of said lines, a concentrated capacity connected between said lines, and resistance connected in series with each of said capacities.

3. In a polyphase electric circuit, the combination with the lines, of a concentrated inductance inserted into each of said lines, a star connection between said lines, each branch containing a resistance and a capacity in series, and a connection between the ground and the neutral point of the star, said connection also containing a resistance.

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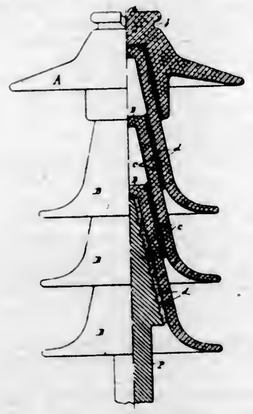
1,093,478. EXTENSION-DRILL. JOSEPH H. RUSBY, Nutley, N. J. Filed Sept. 18, 1909. Serial No. 518,308. (Cl. 77—14.)



In an extension drill, the combination with a frame, of a shaft rotatably and telescopically mounted in said frame and having a longitudinal series of alined depressions, a driving gear mounted in the frame and a gear driven thereby splined on said shaft, and a retractile spring catch carried by said driven gear and adapted to engage any one of said depressions to secure the shaft in adjusted positions in said frame.



1,093,479. INSULATOR. JOSEPH ADDISON SANDFORD, Jr., East Liverpool, Ohio, assignor to The R. Thomas and Sons Company, East Liverpool, Ohio, a Corporation of Ohio. Filed Dec. 16, 1911. Serial No. 666,273. (Cl. 173—318.)

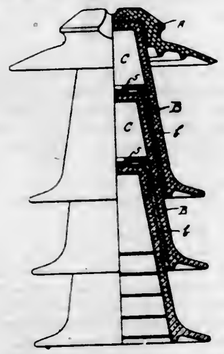


1. A built-up insulator comprising interchangeable, nested units, top-closure diaphragms for each of said units, said diaphragms being spaced apart and serving to form inclosed air chambers, cementitious material uniting the units, the joint between one unit and its superposed unit overlapping the joint between the latter and the unit next above, for the purpose described.

2. A built-up insulator comprising a cap-unit shaped to receive an electric cable, a series of interchangeable nested insulator units beneath the same, top-closure diaphragms for said units, said diaphragms being spaced apart to form inclosed air chambers, cementitious material uniting the units, the joint between one unit and its superposed unit overlapping the joint between the latter and the unit next above, the bottom unit of the series receiving the supporting pin, substantially as described.

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1,093,480. INSULATOR. JOSEPH A. SANDFORD, Jr., East Liverpool, Ohio, assignor to R. Thomas and Sons Company, East Liverpool, Ohio, a Corporation of Ohio. Filed June 13, 1912. Serial No. 703,487. (Cl. 173—318.)



1. A built up insulator having nested units, in combination with a plug disk peripherally engaged and supported within the head of one unit and serving to space the succeeding unit from the latter and prevent the entry of cement into the space between the heads of juxtaposed units.

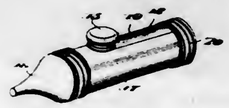
2. A built up insulator having nested units, in combination with a plug disk wedged within the superposed unit for spacing the succeeding nested unit therefrom.

3. A built up insulator having nested units spaced apart, an imperforate spacing plug disk serving as spacing means and having its periphery beveled to the incline of the inner face of the insulator unit with which it is designed for use.

4. A built up insulator having nested units spaced apart, an imperforate spacing plug disk serving as spacing means and having its periphery shouldered and beveled to the incline of the inner face of the insulator unit with which it is designed for use.

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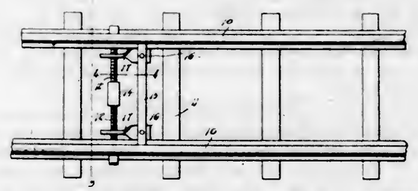
1,093,481. MEDICINE-DROPPER. LOUIS P. SAVAGE, Laporte, Ind. Filed Sept. 3, 1913. Serial No. 787,962. (Cl. 215—3.)



In a medicine dropper, the combination with a receptacle, of a longitudinally slotted shield encircling the receptacle, with the slot of the shield opening at one end thereof, an ejector supporting member formed with the receptacle and projecting therefrom to extend through the slot of the shield, an ejector carried by the said member and lying exteriorly of the shield, and means for connection with the shield and adapted to close the slot and hold the said receptacle against removal from the shield.

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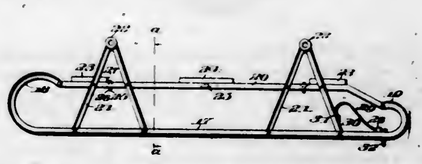
1,093,482. RAIL-BRACE. WILLIAM SCHEUERMAN, Leoti, Kans. Filed Oct. 30, 1913. Serial No. 798,845. (Cl. 238—4.)



A rail brace including a pair of hooks engageable over the outer edges of both rails of a track, a turn buckle connecting the inner ends of said hooks between the rails, a brace parallel with said hooks and having endwise engagement with the inner faces of the webs of said rails, and a pair of parallel links carried by said brace and engaging said hooks between said rails whereby the inner ends of said hooks are supported by said brace.

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1,093,483. DETACHABLE SLEIGH-RUNNERS FOR BABY-CARRIAGES. CHARLES SCHILPP, Philadelphia, Pa. Filed Mar. 28, 1913. Serial No. 757,419. (Cl. 21—96.)



A sleigh comprising a pair of runners having standards each provided with a cross piece and also provided at its

upper end with a hub member to receive a spindle of a vehicle axle, raves secured to the inner sides of said standards at points below the hub members, cross boards detachably secured on the raves and transversely arranged brace rods securing the runners together and detachably secured to the cross pieces of the standards.

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1,093,484. SUITCASE. FREDRICK A. SCHWARZROCK, Milwaukee, Wis. Filed Feb. 18, 1911. Serial No. 609,305. (Cl. 190—53.)



The herein described construction of suit case embodying a body portion and a closure therefor, said body comprising a side, a top, a bottom, and a pair of ends, the side, top and bottom being formed of a single board which is provided with longitudinal and transverse scores adjacent its edges, the board being further provided with substantially V-shaped cut away portions at the juncture of the scores, a coating of adhesive material upon the board, a facing secured by the adhesive material to the board, binding tapes overlapping the board and secured to the said board and case, the ends of the case each comprising a board, said board having its face provided with an adhesive coating, a facing secured to the board by the adhesive material, an overlapping binding strip connected with the board and facing, the board being longitudinally scored, the scores of the board providing the side, top and bottom being bent to provide laps, the end sections adapted to be connected with the laps, the upper scores of all of the boards being bent inwardly and their binding strips connected with a rectangular bail and adapted to have their free ends connected with the inside of the body, and a cover for the body, all substantially as and for the purpose set forth.

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1,093,485. HAND-STAMP. LOUIS K. SCOTFORD, Chicago, Ill., and MAX C. PRICE, Muskegon, Mich., assignors to Hill-Independent Mfg. Co., Muskegon, Mich., a Corporation of Illinois. Filed Nov. 11, 1911. Serial No. 659,764. (Cl. 101—160.)



1. In a hand stamp, a support for the printing characters, and a frame for the same comprising two substantially U-shaped members, each having a recess at one extremity of the U and a recess and an integral interiorly screw-threaded tubular post at the other extremity of the U; said U-shaped members being secured together with the extensions fitting into said recesses, and the integral posts providing a means for supporting the aforesaid support, substantially as described.

2. In a hand stamp, and in combination with a frame and printing characters thereof, and a cap adapted to fit over said frame by surrounding the same and to be sprung onto said frame, said frame having cones projecting therefrom and said cap having recesses coinciding with said cones, and said cap adapted to have its walls sprung over said cones as the cap is sprung onto said frame, whereby the cones fit into said recesses and securely hold the cap to the frame, substantially as described.

3. In a hand stamp, a die plate adapted to carry printing characters, two rings on opposite sides of said die plate, one ring having a flange and the other ring fitting within the flange, said rings being rotatable around said die plate, substantially as described.

4. In a hand stamp, a die plate adapted to carry printing characters, two rings on opposite sides of said die plate, one ring having a flange and the other ring fitting within the flange and held together by friction, said rings being rotatable around said die plate, printing characters representing the hours carried by one of said rotatable parts, and a pointer or arrow carried by the die plate, whereby the characters representing the hours may be rotated with respect to said pointer or arrow, substantially as described.

5. In a hand stamp, a frame carrying movable printing characters, a slotted die plate comprising a disk hinged to one side of said frame, and arranged when the disk is in operative position to have the printing characters projecting through the slot of said disk, two rings on opposite sides of said die plate, one fitting within a flange of the other and held together by friction, and said rings being rotatable around said die plate, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,093,486. HALTER. ROBERT SCOTT, Kalispell, Mont., assignor of one-half to Harvey B. Dick, Kalispell, Mont. Filed Feb. 6, 1912. Serial No. 675,744. (Cl. 54—24.)



1. In a halter, two U-shaped members, the terminals of one of the U-shaped members telescoping with the terminals of the other U-shaped member, with the U-shaped members disposed around the head of a horse, means for holding the members relatively to each other, a strap normally disposed over the head of a horse, and additional straps connecting the strap with each side of the U-shaped members, for supporting the latter, spaced from the head of the horse.

2. In a halter, two U-shaped members, the terminals of one of the U-shaped members telescoping with the terminals of the other U-shaped member, means for securing the U-shaped members relatively to each other, and straps secured to the sides of the U-shaped members for supporting the U-shaped members around the head of the horse.

3. In a halter, a continuous rigid member normally disposed around the head of a horse, with the upper end of the member normally disposed in front of the vertical plane of the bottom member, and two straps at each side of the continuous member, for supporting the continuous member, and straps secured to the rigid member and extending laterally therefrom for holding the U-shaped member in position.



4. In a halter, two U-shaped members, the terminals of one of the U-shaped members telescoping with the terminals of the other U-shaped member, means for preventing the movement of the members toward each other, and straps secured to a member and extending laterally for holding the U-shaped members in position.

5. In a halter, a continuous rigid member, normally disposed with its forward end above the horizontal plane of its rear end, and around the head of the horse, and straps secured to the member and extending laterally.

[Claim 6 not printed in the Gazette.]

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1,093,487. SWEEP-RAKE. WILLIAM H. SELLERS, Jr., Florence, Kans. Filed July 29, 1913. Serial No. 781,791. (Cl. 56—66.)



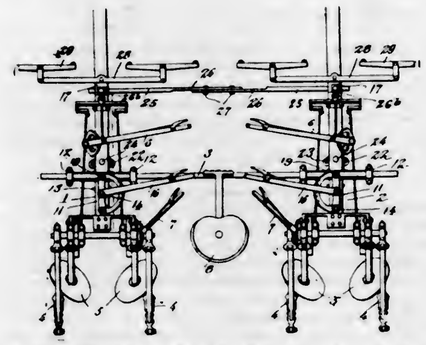
1. A sweep rake having its teeth provided intermediate their ends with depending lugs, whereby to compress and pack hay when the forward ends of the teeth are thrust into the hay.

2. A sweep rake having a casting secured upon the lower surface of each of its teeth intermediate the ends thereof, said casting having a depending lug, the forward face of which forms a compressing and packing shoulder, for the purpose described.

3. An attachment of the character described comprising a casting having an elongated body provided with transverse apertures adjacent its opposite ends and having a pin projecting from one face intermediate its ends and having a lug also intermediate its ends and projecting from its opposite face, said lug being provided with a flat forward face constituting a compressing and packing shoulder, for the purpose described.

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1,093,488. DRAFT-TONGUES FOR AGRICULTURAL IMPLEMENTS. MARTIN WALTHER SHOGREN, Louisville, Nebr. Filed Oct. 11, 1912. Serial No. 725,288. (Cl. 97—31.)



1. The combination with a listed cultivator including companion frames connected together in spaced relation, a pair of coacting draft tongues, each being secured pivotally to one of the frames for swinging movement in a horizontal plane, connecting bars extending inwardly from their points of rigid attachment to said tongues and centrally attached to each other, the said bars being resilient and adapted to be deflected during movement of the draft tongues and adapted to aid in returning the same to their normal positions, and means operatively connected with each draft tongue by which both tongues may be caused to swing laterally in either direction and may be secured in their different adjusted positions.

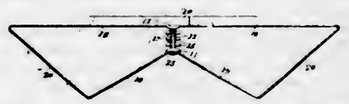
2. In combination with a listed cultivator including companion frames connected together in spaced relation, a pair of draft tongues, each tongue being pivotally connected to one of the frames for movement in a horizontal plane, an arcuate rack carried by each tongue, a gear segment operatively associated with each rack, an adjustable hand lever carried by each frame and connected to the corresponding gear segment, and yieldable means connecting the tongues to cause corresponding movement of both tongues upon operation thereof and being adapted to restore both tongues to normal position when released.

3. In a device of the class described, the combination with a listed cultivator including a transverse frame bar and a pair of relatively spaced cultivator frames slidably connected with said bar, of draft tongues connected to said frames, one of said tongues being pivotally connected to the corresponding frame for horizontal swinging movement, and a resilient connecting rod extending between the said tongues and rigidly connected thereto, the point of connection between the movable tongue and the said connecting rod being disposed in advance of the tongue pivot.

4. In a device of the class described, the combination with a listed cultivator including a transverse frame bar and a pair of relatively spaced cultivator frames slidably connected with said bar, of draft tongues connected to said frames, one of said tongues being pivotally connected to the corresponding frame for horizontal swinging movement, a resilient connecting rod extending between the said tongues and rigidly connected thereto, the point of connection between the movable tongue and the said connecting rod being disposed in advance of the tongue pivot, and adjustable means for securing the movable tongue rigidly to its cultivator frame in different angularly adjusted positions.

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1,093,489. POT-LID-SUPPORTING DEVICE. JACOB W. SHOOK, Williamsport, Pa. Filed July 22, 1913. Serial No. 780,498. (Cl. 211—14.)



1. A pot lid supporting device comprising a base, a bracket member having vertical grooves in the sides thereof, laterally extending horizontally disposed wings each including outwardly divergent front and rear limbs and a corrugated portion connecting the outer ends of said limbs, said limbs being provided at their inner ends with upwardly extending arms, and means for fastening the bracket on the base, the arms of the rear limbs between the base and the rear portion of the bracket and the arms of the front limbs adjacent to the front face of the bracket.

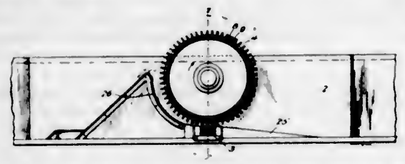
2. In a device of the class described, a base, a bracket including front and rear members and a plurality of spacing members, supporting wings each comprising outwardly divergent front and rear members and a corrugated portion connecting the outer ends of said front and rear members, said front and rear limbs being provided with upturned arms at their inner ends, and means for securing the bracket on the base, the arms of the rear limbs between the rear member of the bracket and the base and the arms of the front limbs adjacent to the front member of the bracket.

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1,093,490. KNIFE-BAR FOR BEATING-ENGINES. HERBERT R. SIMONDS, Dayton, Ohio, assignor to The A. A. Simonds & Son Company, Dayton, Ohio, a Corporation of Ohio. Filed Feb. 21, 1913. Serial No. 749,916. (Cl. 92—22.)

1. A knife bar for beating engines comprising a stock portion to engage the beating cylinder and an edge portion of reduced thickness extending along the outer portions

of the bar, and corrugated transversely of the length of the bar, the alternate corrugations having their axes inclined to each other, said axes diverging toward the outer edge of the bar.



2. A knife bar for beating engines comprising a stock portion to engage the beating cylinder and a reduced edge portion corrugated transversely of the length of said bar, the alternate corrugations having their axes disposed angularly to each other and diverging toward the outer edge of the knife bar, said corrugations increasing in thickness at their junction with the stock portion, forming inclined shoulders for reinforcing the edge portion of the bar and assisting in discharging material from between adjacent bars of a cylinder.

3. A knife bar for beating engines comprising a stock portion to engage the beating cylinder having its front and rear faces disposed angularly to each other and diverging from the inner edge of the bar outwardly, and a reduced edge portion corrugated transversely of the length of the bar, the alternate corrugations having their axes disposed angularly to each other and diverging outwardly from the stock partion, said corrugated portions being gradually increased in thickness adjacent to their union with the stock portion to form inclined shoulders for assisting in discharging material from between adjacent bars of a cylinder said bar having its greatest thickness at the union of said shouldered portions with the stock portion.

4. A knife bar for beating engines comprising a stock portion to engage the beating cylinder having its front and rear faces disposed angularly to each other and diverging from the inner edge of the bar outwardly, and a reduced edge portion corrugated transversely of the length of the bar, the alternate corrugations having their axes disposed angularly to each other and diverging outwardly from the stock portion, said corrugated portions being gradually increased in the thickness adjacent to their union with the stock portion to form inclined shoulders, said bar having its greatest thickness at the union of said shouldered portions with the stock portion, said corrugated portions having the apices of their alternate corrugations at the outer edge of the bar, substantially in the planes of the front and rear faces respectively of the stock portion of the bar.

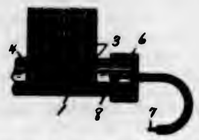
5. A knife bar for beating engines comprising a stock portion to engage the beating cylinder and an edge portion of reduced thickness, said edge portion being corrugated transversely of the length of the bar, the alternate corrugations having their axes disposed angularly to each other and diverging from their union with the stock portion outwardly, the corrugations presenting their concave faces toward the forward face of the bar having their forward faces inclined outwardly and rearwardly with respect to the plane of the rear face of the stock portion to assist in throwing the material outwardly and imparting a wiping action to the material in connection with the stationary knives of the machine.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,491. STATIC ELECTRIC ERADICATOR. FRANK A. SMITH, Syracuse, N. Y., assignor to Static Electro Eradicator, Incorporated, Syracuse, N. Y., a Corporation of New York. Filed Mar. 28, 1913. Serial No. 757,339. (Cl. 175—264.)

1. In combination a split tube, wire fabric confined by said tube and having projecting strands, an insulating casing within which said tube telescopes, said casing provided with a longitudinal opening through which said strands extend, means for confining said tube within said casing, and a discharge wire electrically connected with said fabric.



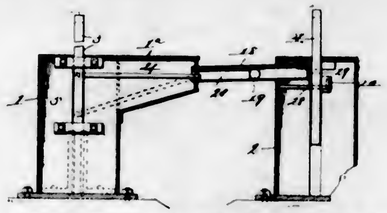
2. In combination a split tube, a row of transversely extending wires confined by said tube and projecting therefrom, an insulating casing within which said tube telescopes, said casing provided with an opening through which said wires extend, means for confining said tube within said casing, and a discharge wire electrically connected with said projecting wires.

3. In combination a tube split through one side, a row of transversely extending wires having one end confined by said tube, an insulating material surrounding said tube and from which said wires project, caps upon the ends of said insulating material, and a discharge wire electrically connected to said transversely extending wires and passing through an opening in one of said caps.

4. In combination a tube split through one side, a row of transversely extending wires having one end confined by said tube, an insulating casing within which said tube telescopes and from which said wires project, caps upon the ends of said casing and confining said tube, and a discharge wire electrically connected to said transversely extending wires and passing through an opening in one of said caps.

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1,093,492. RAILROAD SAFETY APPLIANCE. WILLIAM GREENLEAF SMITH, Waterbury, Conn. Filed Apr. 5, 1913. Serial No. 759,084. (Cl. 246—59.)



1. A device of the kind described comprising a normally locked operating device adjacent a track adapted to coöperate with a suitable brake setting device carried by a train, a releasing mechanism, an upwardly inclined chute leading to said mechanism, a ball freely movable in said chute, and means adapted to be actuated by passage of a train for throwing said ball.

2. In a railway safety device, means carried by a train for releasing air brake pressure in the train pipe line, an obstruction arranged adjacent the road bed, means for normally locking said obstruction in an inoperative position with respect to the air pressure releasing means, a freely movable ball adapted to strike said locking means and release the obstruction, said ball returning to its original position by gravity, and means adapted to be engaged by a train for striking said ball.

3. The combination with the handle of an air brake valve, said handle being carried by a train, of an obstruction adapted to be struck by said handle when in operative position, means for locking said obstruction in an inoperative position a freely moving body adapted to release said obstruction and means set in operation by passage of an engine for acting upon said freely moving body, the force exerted upon said body being in proportion to the speed of travel of the train.

4. A safety device comprising means carried partially by a train and arranged partially adjacent the road bed for reducing the speed of said train at a particular point, the means arranged adjacent the road bed being normally locked in an inoperative position, a freely movable body adapted when projected against said locking means to release the same, and means partly carried by an engine and partly arranged adjacent the road bed for setting said body in motion, as and for the purpose set forth.

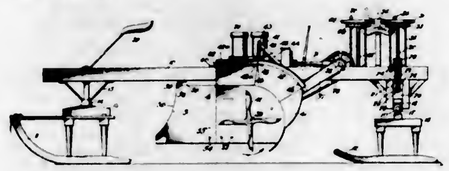
5. A safety device comprising means carried in part by a train and in part arranged adjacent a road bed for setting the air brakes upon the train at a predetermined point, means for locking that portion of the device adjacent the road bed in inoperative position, an inclined chute, a ball adapted to be projected up said chute and to engage and release said locking means, and means carried in part by an engine and in part arranged adjacent the road bed for propelling said ball, the force exerted upon said ball varying with the speed of the train.

[Claims 6 and 7 not printed in the Gazette.]



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1,093,493. SNOW-PLOW. WALTER LESLIE STADIG, St. Francis, Me. Filed Apr. 10, 1913. Serial No. 760,173. (Cl. 37—35.)



1. A snow plow having a driven rotary cutter mounted on a horizontal axis and provided with radial curved blades, the blades carrying side knives, and a front knife, and a flaring shear in the form of a hood extending over and behind the cutters, and the said cutter serving to raise the snow and discharge the same by centrifugal force against the inner surface of the said shear.

2. In a snow plow, driven rotary cutters turning on a laterally extending horizontal axis, the cutter having radial blades each provided with knives at opposite side edges approximately perpendicular to the plane of the blade, and a front knife extending transversely between the side knives approximately parallel with the axis of the cutter, in combination with a hood extending over and behind the rotary cutter and opening at the outside.

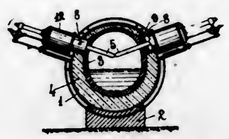
3. In a snow plow, the combination of an elevated frame, a suspension frame mounted on the main frame for rocking movement on the latter, and a snow-removing unit comprising a plow having diverging wings, driven rotary cutters turning on a laterally disposed horizontal axis at the rear of the plow and outside the wings of the latter, and hoods extending in flaring form continuously over and behind the cutters and opening at the outside, the hoods being disposed in the general direction of the axis of the rotation of the cutters and the flare being with respect to the said axis of rotation.

4. In a snow plow, the combination of a supporting main frame, a snow-removing unit comprising a suspension frame, driven rotary cutters turning on a horizontal axis on the suspension frame, a flaring hood opening at the outside and extending over and behind the cutters, a plow having diverging wings, arms on the suspension frame, means for rockably supporting the plow on said arms at different heights, and connecting means between the first-mentioned frame and the apex of the plow for raising and lowering the apex to suit the adjustment between the wings of the plow and the mentioned arms.

5. In a snow plow, the combination of front and rear sleds, an overhead frame mounted to tilt laterally on said sleds, a snow-removing unit having support from said frame and comprising driven rotary cutters at the sides of the main frame, a snow plow in front of the cutters and having diverging wings leading to the latter, and connections between the main frame and one of the sleds serving to tilt the main frame and with it the snow-removing unit relatively to the sleds to cause the cutters at one side to cut deeper than the cutters at the opposite side.

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1,093,494. ELECTRIC FURNACE FOR MEDIUM TEMPERATURES PARTICULARLY FOR MELTING COPPER AND ITS ALLOYS. ERNESTO STASSANO, Turin, Italy, and NAPOLEON PETINOT, Niagara Falls, N. Y. Filed July 18, 1913. Serial No. 779,818. (Cl. 204—64.)



1. In an electric furnace comprising an outer envelop, electrodes and a closed substantially cylindrical melting chamber, said melting chamber arranged with its axis horizontal and eccentric with regard to the outer envelop, and a filling of refractory material encircling said chamber and having a greater thickness in its lower portion.

2. In an electric furnace comprising an outer envelop, electrodes and a closed melting chamber having a cross section constituted by two arcs connected by two right lines, said chamber having its axis horizontal and eccentric with regard to the outer envelop, and a filling of refractory material encircling said chamber and having a greater thickness in its lower portion.

3. In an electric furnace comprising an outer envelop, electrodes and a closed melting chamber eccentrically located with regard to the envelop, a charging hole, a plate on which a turning disk is pivoted, a funnel arranged on said disk, a plug of refractory material arranged above said charging hole, and means for causing said disk to turn and bring said funnel above the charging hole.

4. In an electric furnace comprising an outer envelop, electrodes and a closed melting chamber eccentrically located with regard to the outer envelop, electrodes entering in said chamber, each electrode being inclosed in an external cylinder, a hollow rod to which each electrode is connected, means for establishing a circulation of water in said rod, supports for each end of said rod, guides carried by said cylinders on which said supports may slide, and means for causing said rod to travel longitudinally to control the position of the electrode.

5. An electric furnace consisting of a casing, an inner furnace chamber having a substantially elliptical vertical cross-section eccentric thereto, a filling of refractory material between said casing and chamber, said filling being thicker below said chamber than above, and an air-lock charging means to said chamber.

[Claim 6 not printed in the Gazette.]

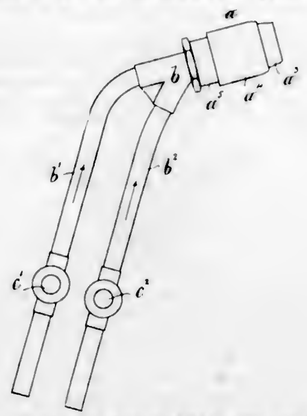
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1,093,495. BLOWPIPE. MATTHEW STEEL, Sr., and MATTHEW STEEL, Jr., Gosforth, England. Filed May 25, 1912. Serial No. 699,784. (Cl. 158—109.)

1. A blow-pipe burner comprising in combination a combustion chamber forwardly converging, a mixing chamber behind the combustion chamber, a disk between the two, said disk being provided with a central aperture and with a series of apertures surrounding said central aperture, and radially about equidistant from said central aperture and the periphery of said disk, whereby, when a combustible mixture of air and carbureted air is ignited within the combustion chamber, the streams of burning gas are directed toward each other and away from the walls of said combustion chamber.

2. A blow-pipe burner comprising in combination a tapered combustion chamber converging to a discharge orifice, a mixing chamber behind the combustion chamber, a disk between the two, said disk being provided with a central aperture of less area than and coaxial with the discharge orifice, there being an annular space equal at least in width to the width of the diameter of the disk

aperture, surrounding said aperture, whereby a combustible mixture of air and carbureted air, ignited in said




combustion chamber is directed away from the walls of said combustion chamber, by incoming drafts of cooling air.

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1,093,496. PIPE-WRENCH. ROBINSON L. STRINGFELLOW, Shreveport, La. Filed June 24, 1913. Serial No. 775,563. (Cl. 81—67.)



A pipe wrench comprising a handle provided with an end recess, a pair of pivotally-connected curved jaws, the free ends of said jaws constructed respectively with a recess having a curved surface and a projecting curved surface adapted to engage and form a flush joint, and said connecting jaws forming a complete circle for completely surrounding the pipe, a pair of links connecting one of said jaws and the handle, a head extending outwardly from the free end of the other of said jaws, said head and the adjoining ends of the jaws adapted to fit between said links, and said head adapted to enter the recess of said handle and to fulcrum on any point along the front wall of such recess, and a curved face on said head adapted to be engaged with a wedging action by the rear wall of such end recess upon rearward swing of said handle.

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1,093,497. PENCIL ATTACHMENT. CHARLES SWINBOWSKY, Houston, Tex. Filed Oct. 1, 1912. Serial No. 723,387. (Cl. 120—8.)

A pencil attachment including a ferrule formed at one end to engage the pencil, an eraser secured in and projecting beyond the opposite end of the ferrule and a tube having a closed end and an open end to be passed over the eraser carrying end of the ferrule, the interior surface of the tube being provided with a roughened or sanded portion to coöperate with that surface of the eraser projecting beyond the ferrule, the tube being adapted for rotative movement upon the ferrule to cause the roughened or



sanded surface of said tube to have an abrading effect upon the projecting surface of the eraser.

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1,093,498. SUN-POWER WATER-HEATER. ALFRED C. THRING, Philadelphia, Pa. Filed Sept. 19, 1913. Serial No. 790,705. (Cl. 126—271.)



1. A sun-power water heater comprising a casing, a water tank therein and spaced from the walls thereof, non-conducting material in the space between the casing and the tank, a cover for the tank having openings therein and radiating casings on the under side of the tank cover, under the said openings and arranged in the water in the tank, and lenses on the tank cover in the said openings and provided with supporting flanges which bear on the tank cover.

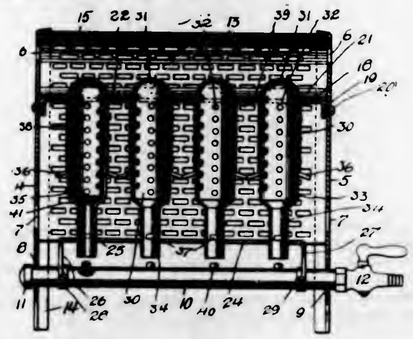
2. The herein described sun-power water heater comprising a casing, a water tank in the lower portion of the casing spaced from the walls and bottom thereof, non-conducting material in the space between the casing and the tank, a cover for the tank having circular openings therein and semi-spherical, radiating casings on the under side of the cover, under said openings and arranged in the water in the tank, spherical lenses having their lower portions arranged in said radiating casings, said lenses having supporting flanges which bear on the tank cover and a glass top on the outer casing.

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1,093,499. GAS HEATING-STOVE. JOHN MARK TOBIAS, Pittsburgh, Pa. Filed Nov. 22, 1913. Serial No. 802,512. (Cl. 158—99.)

1. A gas burner including a body having a closed top and a funnel-shaped bottom, that part of said body between the top and bottom being cylindrical throughout and provided with perforations, an imperforate mixing tube integral with said bottom and of materially less diameter than the diameter of the perforated part of said body, said tube positioned in alinement with the longitudinal axis of said body, and a foraminous member positioned in said bottom.

2. A gas burner including a body having a closed top and a funnel-shaped bottom, that part of said body between said top and bottom being cylindrical and provided with perforations, a mixing tube integral with said bottom, and said cylindrical part of said body near said bottom provided with a pair of rectangular openings arranged opposite each other and said cylindrical part further having a lateral lug projecting from the top of each of said rectangular openings, said cylindrical part of said body formed of a single member and providing a gas chamber uninterrupted from said bottom to said top.



3. A gas burner comprising a body portion cylindrical throughout and having a closed top and a funnel-shaped bottom, said body portion provided with perforations, an imperforate mixing tube integral with said bottom and of materially less diameter than the diameter of said body portion, said body portion provided near its bottom with a pair of rectangular openings arranged opposite each other and further having a lateral lug projecting from the top of each of said rectangular openings, and said body portion further provided with a vertically disposed rib extending from said lug to said closed top.

4. A gas burner comprising a body portion cylindrical throughout and having a closed top and a funnel-shaped bottom, said body portion provided with perforations, an imperforate mixing tube integral with said bottom and of materially less diameter than the diameter of said body portion, said body portion provided near its bottom with a pair of rectangular openings arranged opposite each other and further having a lateral lug projecting from the top of each of said rectangular openings, said body portion further provided with a vertically disposed rib extending from said lug to said closed top, and oppositely disposed laterally extending supporting lugs integral with said mixing tube.

5. A gas burner comprising a body portion cylindrical throughout and formed with rows of perforations, said body portion having a rounded closed top and a funnel-shaped imperforate bottom, a mixing tube integral with and depending from said bottom and of materially less diameter than said body portion, and provided with oppositely disposed laterally extending supporting lugs.

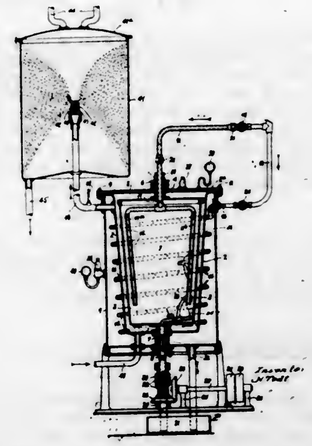
[Claims 6 to 15 not printed in the Gazette.]

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1,093,500. STERILIZER. HEINRICH TÖDT, Lensahn, Germany. Filed Dec. 9, 1913. Serial No. 805,619. (Cl. 210—20.)

1. In an apparatus for use in pasteurizing liquids, the combination with a stationary vessel and a revoluble drum arranged inside the said vessel so as to leave an intervening space, and means for revolving the drum, of means for conveying a heating fluid to the surfaces of the walls of the vessel and drum, said means comprising a pipe disposed in coils around the vessel and formed with perforations on the side adjacent to said vessel, and a second pipe with means for carrying the same through one end of the revolving drum, said second pipe being disposed adjacent to the inner surface of the wall of the drum, and formed with perforations on the side adjacent to said wall.

2. In a pasteurizing apparatus, the combination with a container, a conical stationary vessel therein, a conical drum smaller than said vessel and fitting within the same so as to leave an intervening space, means for rotating the drum and bearings for supporting the same, of a plurality of perforated hollow members and means for supplying a heating medium thereto, said perforated members being disposed respectively adjacent to the outer surface of said vessel and to the inner surface of said drum, and means for carrying away the cooled heating medium from within the drum and from the container.



3. In an apparatus for pasteurizing liquids, the combination of a double-walled vessel whose inner wall is conical in form, a conical revoluble drum adapted to fit in said vessel so as to leave a space between said drum and the conical wall of the vessel, and closing means for the top of said vessel, with bearings for supporting the drum at its ends, means for revolving said drum at high speed, means for adjusting the height of said drum in the vessel for the purpose of varying the volume of the space between the circumferential walls of the drum and the conical surface of the vessel, perforated hollow members disposed in the vessel and in the drum respectively adjacent to the conical walls thereof, and means for conveying a heating fluid thereto for the purpose of heating said walls.

4. In a pasteurizing apparatus the combination of a double-walled vessel, a revoluble drum disposed within the same, means for rotating said drum and for supporting the same at its ends, pipes for conveying a heating fluid into the double-walled vessel and into the interior of the drum respectively, said pipes having perforations therein directed toward the conical walls, means for supplying steam to said pipes, and means for removing condensed water comprising a pipe leading away from the double-walled vessel, a pipe leading away from the lower end of said drum through its lower bearing, a scoop for conveying the liquid from the inner surface of the drum to said latter pipe, and an arm supporting said scoop from a portion of the pipe which supplies the steam to the interior of the drum.

5. In a pasteurizing apparatus, the combination of a stationary receptacle, a rotating drum within and spaced from the walls of the stationary receptacle to form a milk passage, means for introducing milk at the bottom of the milk passage, means at the upper end of the milk passage to carry off the pasteurized milk, means for rotating the drum, a plurality of perforated pipes in the drum to introduce steam to heat the walls of the drum, a drain at the bottom of the drum, a pipe communicating with the drain and having at its outer end a flared mouth to engage the inner wall of the drum to carry off the condensed steam, and means including a coil around the stationary receptacle to heat the latter.

1,093,501. CLOSURE FOR VESSELS. EUGENE A. TOWLE, St. Paul, Minn. Filed July 21, 1906. Serial No. 327,148. (Cl. 215—9.)



In combination with a vessel neck, a closure comprising a cap embracing the end of the neck, said cap being doubled upon itself and bent to form an annular flange opposed to the end of the bottle neck, the inner edge of said flange terminating short of the interior opening of the bottle neck whereby to constitute a central opening larger than the opening through the neck of the bottle, a disk interposed between said flange and bottle neck, and a secondary closure for said central opening.

1,093,502. FLY-CATCHER. KARL THÄGER, Zeitz, Germany, assignor to Pyramiden Fliegenfängerfabrik Max Dametz, G. M. B. H., Zeitz, Germany. Filed Mar. 19, 1913. Serial No. 755,374. (Cl. 43—22.)




1. In a fly-catcher, the combination with an envelop, of a fly-catching tape contracted to reduced length by corrugating, and means arranged between said envelop, and tape for permanently securing the same together and preventing the tape coming in contact with the envelop when inserted therein.

2. In a fly-catcher, an envelop, a pair of tapes secured along the outside edges of the mouth of the envelop and adapted to fold within the same, and a corrugated tape coated with fly-catching substance and secured at one end between the free ends of said pair of tapes.

3. In a fly-catcher, an envelop, a tape secured along one outside edge of the mouth of the envelop, a second tape secured along the opposite outside edge of the mouth of the envelop, and a corrugated coated tape secured between the outer free edges of the two former-named tapes.

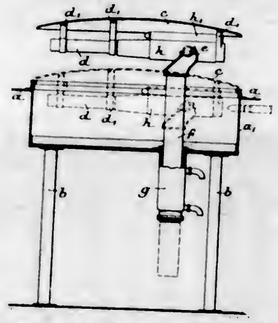
1,093,503. PROCESS OF CONVERTING PHOTOGRAPHIC SILVER-PRINTS INTO COLORED PRINTS. ARTHUR TRAUBE, Charlottenburg, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed May 15, 1907. Serial No. 373,773. (Cl. 95—88.)

The process of converting silver prints into pure color pictures, which consists in converting the material of which the picture is composed into substances capable of being colored directly and soluble in fixing compounds, then coloring the pictures with basic dyes and treating the colored pictures with a mixture including substances which dissolve the silver salts and also containing substances which produce insoluble lakes with the dyes used for coloring the prints.

1,093,504. GUN ADAPTED PREFERABLY FOR USE IN SUBMARINE BOATS. KARL VÖLLER, Dusseldorf, Germany. Filed June 24, 1913. Serial No. 775,504. (Cl. 89—38.)

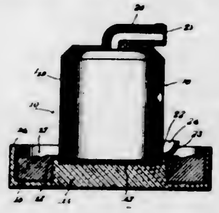
1. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing movable vertically with said gun, and means for simultaneously raising and lowering the gun and said cover, said cover being also movable with said gun in the recoil thereof.

2. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing carried by said gun and movable therewith on its recoil, and means for raising and lowering said gun.



3. In combination with a submarine boat, a casing extending beneath the deck thereof, a gun adapted to fit in said casing, a cover for the latter capable of being raised and lowered concurrently with the gun, and means for raising and lowering the gun, said cover being also movable with said gun in the recoil thereof.

1,093,505. INKSTAND. JOSEPH VOLZ, Englevale, N. D. Filed May 10, 1913. Serial No. 766,764. (Cl. 120—59.)



In an inkstand, the combination with a base, of an inner flange formed on the base to provide a depression constituting a seat, an outer flange formed on the base and spaced from the inner flange to form an annular compartment around the inner flange, a receptacle removably supported on the seat, an outlet spout formed with the receptacle and reposing upon the said inner flange to facilitate the supporting of the receptacle upon the said seat, with the said outlet spout projecting beyond the flange and having its outlet above the upper edge of the outer flange, said outer flange being higher than the inner flange and spaced from the said spout.

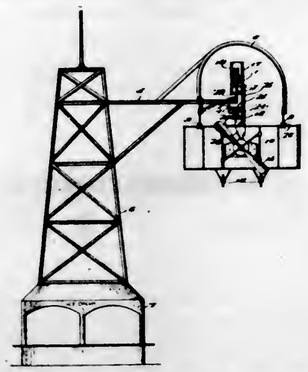
1,093,506. AERIAL AMUSEMENT APPARATUS. THOMAS E. WADE, Philadelphia, Pa. Filed July 30, 1913. Serial No. 782,111. (Cl. 104—111.)

1. An aerial amusement apparatus comprising upper and lower coplanar conductor rails, an aerial vehicle, a carrier frame attached to the vehicle, upper vertically disposed supporting and conducting wheels carried by said frame and running upon the upper conductor rail, a lower horizontally disposed conducting wheel running in contact with one of the sides of the lower conductor rail, an electric motor on the vehicle, an aerial propeller driven by said motor, and conductors between the motor and the upper and lower conducting wheels.

2. An aerial amusement apparatus comprising a frame work, upper and lower coplanar conducting rails mounted on the frame work, an aerial vehicle, a carrier frame for suspending said vehicle, upper vertically disposed conductor wheels journaled on the carrier frame and running upon the upper conducting rail, a lower horizontally disposed conductor wheel mounted on the carrier frame and



arranged to ride in contact with one side of the lower conductor rail, an electric motor mounted on the vehicle, a propeller driven by said motor, conducting connections between the vertical and horizontal carrier wheels and the motor, guard rails upon the frame work on opposite sides of the plane of the conductor rails, and guard wheels upon the upper surface of the vehicle arranged to engage said guard rails.



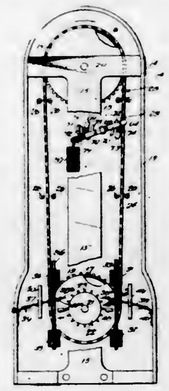
3. An aerial amusement apparatus comprising a supporting frame work, arms extending therefrom and carrying yokes, upper and lower coplanar conductor rails supported by the arms on a line between the arms of the yokes, an aerial vehicle, a carrier frame for suspending said vehicle, upper vertically disposed conductor wheels journaled on the carrier frame and running upon the upper conductor rail, a lower horizontally disposed conductor wheel mounted on the carrier frame and running in contact with one side of the lower conductor rail, conducting connections between the motor and the vertical and horizontal conductor wheels, guard rails mounted upon the arms of the yokes, guard wheels on the upper surface of the vehicle arranged to engage said guard rails, and upper and lower pairs of stops disposed at opposite sides of the upper conductor rail and adjacent portion of the supporting frame work for engagement therewith in coöperation with the guard rails to limit the vertical and lateral oscillatory movements of the vehicles.

1,093,507. TROLLEY-WHEEL GUARD. EDWARD W. WARNICK, Cuyahoga Falls, Ohio. Filed Oct. 1, 1913. Serial No. 792,851. (Cl. 191—80.)



In a trolley guard, a harp, a trolley wheel therein adapted to engage the wire, wings extending outwardly from the opposite sides of said harp and rigidly secured thereto, plates disposed at the opposite sides of said harp and having the lower edges thereof pivotally connected to said wings at the inner edges thereof, flanges formed on the upper edges of said plates and having the confronting edges thereof in engagement and normally overlying the trolley wire, means for swinging said plates about their pivot points so that the guard will be opened said wings serving to limit the movement of the plates to open position whereby further pressure upon said plates will lower the trolley wheel, and springs interposed between said wings and plates and acting to hold the latter in normal position, one end of each spring abutting the upper surface of the respective wing and the opposite end engaging the adjacent plate.

1,093,508. STREET-INDICATOR FOR CARS. FAY H. WEBSTER, Marvell, Ark. Filed June 17, 1913. Serial No. 774,188. (Cl. 40—59.)



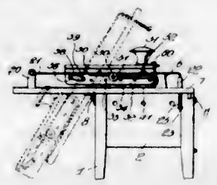
1. A street indicator for cars comprising revoluble drums, a name ribbon mounted thereupon and provided with legends for displaying the designations of streets, mechanism for actuating one of said drums step by step so as to display said legends one at a time in a definite order of succession, and means for causing said step by step mechanism to quickly withdraw a legend after displaying the same so as to prevent said legend from making an effective indication.

2. A street indicator for cars comprising indicator mechanism movable step by step, means for actuating said mechanism and for stopping the same after each successive actuation thereof, mechanism controllable by progress of the car for reversing the direction of travel of said indicator mechanism relatively to the car upon reaching the end of the route, and means for preventing the indicating mechanism from effectively making a predetermined indication along the route.

3. A device of the character described comprising a rocking arm, a pair of solenoids connected with said rocking arm and adapted to be energized at different moments for rocking said arm into and out of a predetermined normal position, means controllable by movements of a car for energizing one of said solenoids, mechanism controllable by the shifting of said rocking arm for energizing the other solenoid, and indicator mechanism controllable by said solenoids and movable step by step for displaying legends indicating street designations.

4. A device of the character described comprising a rocking arm, a pair of solenoids connected with said rocking arm and adapted to be energized at different moments for rocking said arm into and out of a predetermined normal position, means controllable by movements of a car for energizing one of said solenoids, mechanism controllable by the shifting of said rocking arm for energizing the other solenoid, indicator mechanism controllable by said solenoids and movable step by step for displaying legends indicating street designations, and mechanism controllable by said solenoids for periodically holding and releasing said indicator mechanism.

1,093,509. PHOTOGRAPH-PRINTING STAND. HARVEY H. WEIDNER, Plymouth, Ind. Filed Mar. 3, 1913. Serial No. 751,858. (Cl. 95—73.)



1. In a printing stand, the combination with a framework including a hollow body supported on legs and having an opening across its front, a hinged door adapted to close said opening, a catch carried by said door, a top hinged to the rear of said body and extending beyond its hinge line and having an opening through it where it overlies such body, a cleat across the lower face of the front edge of said top, and a hook carried by said cleat and adapted to be engaged with said catch; of guides carried by said top, a carriage movably mounted on said guides, and a mat secured to the rear portion of said top and adapted to be carried across said opening by the forward movement of said carriage.

2. In a printing stand, the combination with a framework including a hollow body supported on legs, a catch carried by said body, a top hinged to the rear of said body and extending beyond its hinge line and having an opening through it where it overlies such body, and a hook carried by the front of said top and adapted to be engaged by said catch when the top is closed upon the hollow body; of guides carried by said top, a carriage movably mounted on said guides, and a mat secured to the rear portion of said top and adapted to be carried across said opening by the forward movement of said carriage.

3. In a printing stand, the combination with a framework including a hollow body, a top overlying the same and having an opening above said body, and means within the latter for producing light; of standards rising from the rear end of said top, guide rods pivoted at their rear ends to said standards and downturned at their front ends, tubes set in the table top and through which said downturned front ends extend, stops at the lower extremities of said ends, expansive springs between said stops and the lower side of the top, a carriage movable over the table top, rollers thereon beneath said guide rods, and a mat secured to said top and adapted to be spread across the opening therein by the forward movement of the carriage.

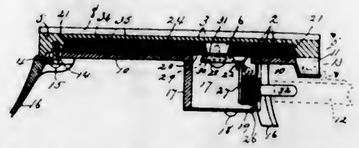
4. In a printing stand, the combination with a framework including a hollow body, a top overlying the same and having an opening above said body, and means within the latter for producing light; of guide rods movably connected at their rear ends with said top and having their front ends turned downward and passed through the same, springs drawing said downturned ends normally downward, a carriage movable over said top between said rods, a mat secured to the rear end of the top and adapted to be spread across said opening by the forward movement of the carriage, stub shafts projecting rigidly from opposite sides of the latter, and wheels on said stub shaft underlying said guide rods, for the purpose set forth.

5. In a printing stand, the combination with a framework including a hollow body, a top overlying the same and having an opening above said body, and means within the latter for producing light; of guide rods movably connected at their rear ends with said top and having their front ends turned downward and passed through the same, stout expansive springs drawing said downturned ends normally downward, a carriage movable over said top between said rods, idle rollers journaled within said carriage, a spring roller journaled within the same across its rear end, a rubber mat secured at its rear end to the back of said table top and passing beneath said idle rollers and around the foremost thereof, a belt connecting said spring roller with the free edge of said mat whereby the latter is drawn around said foremost idle roller when the carriage is moved to the rear and is spread across said opening when the carriage is moved to the front, stub shafts projecting rigidly from opposite sides of the carriage, and wheels on said stub shafts underlying said guide rods, for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,510. ELECTRIC STOVE OR IRON. GUSTAVE WENZELMANN, Galesburg, Ill. Filed Nov. 11, 1913. Serial No. 800,314. (Cl. 219—37.)



1. A device of the character described comprising a hollow body-member to be heated, said body provided with an annular flange, a heating element contained in said hollow body, a disk-like body-member insulated from the hollow-body member and provided with a box-like projection, a closure for said projection, terminal brackets within said projection, means for connecting them with the heating element, insulated bushings supported by said closure, and terminal posts insulated by said bushings from said closure and electrically connected with said brackets.

2. An electric stove comprising a hollow top-plate provided with an annular flange, a heating element contained in said hollow body, a lower body-member provided with a box-like projection, a closure for said projection, terminal-brackets within said projection, a heating element intermediate said body members, means for connecting it with said brackets, terminal posts insulated from said closure and electrically connected with said brackets, means for insulating said lower body-member from said heating element, legs having each a groove in which the annular flange of the top rests, and means for securing said body members and legs together.

3. A device of the character described comprising a hollow body to be heated, said body provided with an annular flange, a heat-conducting, electric-insulating material contained in said hollow body, a resistance element enveloped by said material, an asbestos cord also enveloped thereby and disposed intermediate adjacent portions of said ribbon but out of contact therewith, a pair of bosses embedded in said material, a bracket supported by said bosses and insulated therefrom, and terminal posts engaged with said bracket.

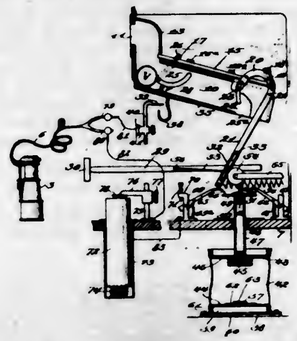
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1,093,511. COIN OR CHECK CONTROLLED APPARATUS. WEBSTER B. WHEELER, Washington, D. C. Filed Aug. 6, 1909. Serial No. 511,574. (Cl. 161—1.)

1. In an apparatus of the class specified, a pull means, a timing mechanism connected to and rendered active by the pull means and carrying an electrical contact device, movable contact elements engaging the contact device of the timing mechanism, one of said movable contact elements being released from contact with the timing mechanism after a certain lapse of time, a main circuit closer embodying two coöperating elements, one of said elements being movable toward and from the other, and an electric circuit including the main circuit closer and the movable contact elements engaging the contact device of the timing mechanism.

2. In an apparatus of the class specified, an electric circuit, a timing mechanism having circuit making and breaking means coöperating therewith, a pull device connected to the timing mechanism and operating to make the circuit therewith, and a main circuit closer having movable means to open and close the said electric circuit and electrically connected to a part of the timing mechanism.





3. In an apparatus of the class specified, an electric circuit, a timing mechanism having a contact device, movable contact elements for engaging the contact device of the timing mechanism to make the circuit through said timing mechanism, one of the said elements being automatically disengaged from the contact device of the timing mechanism at a certain interval to break the circuit through the timing mechanism, a main circuit closer preliminarily operated to render all the parts and elements of the electric circuit active when the circuit is made through the operation of the timing mechanism, and means associated with the said timing mechanism for actuation by the user to set the timing mechanism and complete the circuit through said mechanism.

4. In an apparatus of the class specified, an electric circuit, timing mechanism having a vertically movable element with a contact at its upper extremity, movable contact elements to engage the contact at the upper extremity of the movable element of the timing mechanism, a main circuit closer, one of said contact elements being automatically disengaged from circuit making contact with relation to the contact of the movable element of the timing mechanism, the circuit being first broken through the timing mechanism and then through the circuit closer, and pull means connected to the movable element of the timing mechanism and operable by the user to actuate said mechanism and complete the circuit through the latter.

5. In an apparatus of the class specified, a main circuit closer provided with fixed and a movable projecting means arranged for contact, a timing mechanism comprising a bellows having a movable element with a contact device, a pull means arranged for operation by the user of the apparatus and connected to the movable element of the bellows, movable contact devices arranged to engage the contact with the movable element of the bellows, one of said contact devices being automatically disengaged from circuit making contact with the said contact of the movable element at a certain interval of time, and an electric circuit including all the foregoing devices and mechanisms.

[Claim 6 not printed in the Gazette.]

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1,093,512. SHEATHED-WIRE TERMINAL. WILLIS R. WHITNEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 17, 1912. Serial No. 726,205. (Cl. 219—63.)

1. An electric unit comprising an inner continuous conductor having insulation surrounding the same and a metal sheath surrounding said insulation, an end portion of said inner conductor being larger in cross section than the body portion thereof to constitute a terminal.

2. An electrical resistance heating unit consisting of a resistance conductor of small cross section, insulation surrounding the same, a metal sheath surrounding said insulation, and terminals of larger cross section than said resistance conductor and integral therewith projecting beyond said sheath and insulation.



3. A metal sheathed wire unit consisting of a middle or body portion of small cross section and end portions of larger cross section than said body portion, the sheath and resistance wire of said end portions being integral with the corresponding elements of said body portion.

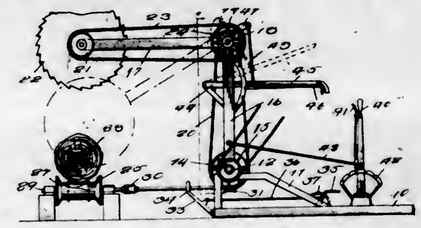
4. An electrical resistance heating unit consisting of a resistance conductor of small cross-section, insulation surrounding the same, a metal sheath surrounding said insulation, and terminals of larger cross-section than said resistance conductor and integral therewith, the connecting portion between the resistance and the terminal being tapered.

5. The method of making a metal sheathed wire unit which consists in reducing a portion of an ingot of the sheathed wire in which the inner conductor is of the proper cross section for a terminal so that the inner conductor of the reduced portion is of a proper cross section for use in a particular apparatus.

[Claims 6 to 8 not printed in the Gazette.]

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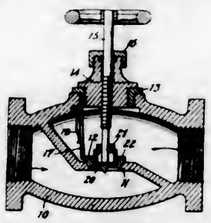
1,093,513. WOOD-SAWING MACHINE. ROGER T. WILLIAMS, Sandusky, N. Y. Filed July 26, 1912. Serial No. 711,697. (Cl. 143—46.)



In a sawing machine a platform, a frame rising from said platform, a pair of standards pivoted at the lower ends on said frame, a lever pivoted on said platform, means for locking said lever in adjusted positions, a link pivotally connecting one of said standards with said lever whereby manipulation of said lever serves to rock said standards to vertical position or to angular positions from the vertical, a pair of arms pivoted at the upper ends to said standards, one of said arms having a projection extending rearwardly from the adjacent standard, a lever pivoted on the last named standard, means on said standard for locking said lever in adjusted positions, a link connection between the last named lever and said projection whereby manipulation of said lever serves to rock

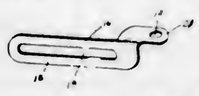
said arm to horizontal position or to various angular positions from the horizontal, a saw carried by said arms, and operative connections carried by said standards and said arms for actuating said saw.

1,093,514. VALVE. JOHN A. WILSON, Detroit, Mich., assignor of one-half to George Moore, Detroit, Mich. Filed Sept. 16, 1913. Serial No. 790,064. (Cl. 137—4.)



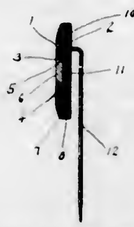
In a valve of the character set forth, the combination of a valve casing having a valve seat and an opening opposite the same, a bushing secured in said opening, a check valve pivoted within the casing adjacent the inner edge of said bushing adapted to close said opening, a plug removably secured in said bushing, a valve stem passing through said plug, and a valve detachably connected to the inner end of said stem, said valve serving to normally hold the check valve open.

1,093,515. BRACKET FOR LICENSE-PLATES. THOMAS FORD WILSON, Providence, R. I. Filed Mar. 20, 1913. Serial No. 755,602. (Cl. 40—128.)



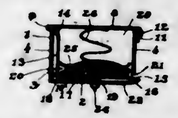
A number plate bracket comprising an elongated plate-like body provided with a longitudinal slot to receive a securing device, and an upper flat supporting portion extending beyond one end of said body, the longitudinal edges of said body and said supporting portion being substantially parallel, said supporting portion extending rearwardly in a plane at right angles to the plane of said body, said body and supporting portion being united by a bend in line with the upper longitudinal edge of said body, the front edge of said supporting portion being substantially in alinement with said bend and with the top longitudinal edge of said body, said supporting portion being perforated for the passage of securing means.

1,093,516. DISPLAY DEVICE OR BADGE. GEORGE L. WINTERHALTER and HOWARD E. WINTERHALTER, Canton, Ohio. Filed June 18, 1912. Serial No. 704,367. (Cl. 40—152.)



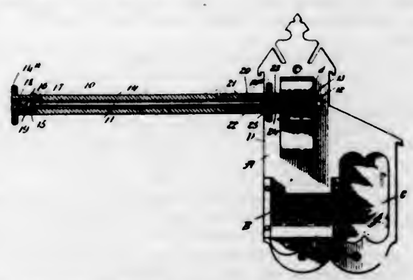
An article of the character described comprising a facing having an opening therein circular in cross section, the walls of the opening converging outwardly and offset laterally adjacent one end of the opening to provide an annular shoulder, the diameter of said shoulder exceeding the diameter of said opening, a frusto-conical transparent member mounted in the opening and formed on one end thereof with an enlarged annular shoulder seated against the former mentioned shoulder, a display object seated behind the transparent member, said display object being of the same diameter as the shoulder of the transparent member, a backing extending across the display element so as to secure the same against the transparent member, means engaging with the backing and the face at points adjacent the peripheral edges thereof for connecting the latter with the former.

1,093,517. TICKET-HOLDER. CHARLES J. WOHL, El Paso, Tex. Filed June 20, 1913. Serial No. 774,925. (Cl. 206—40.)



A ticket holder comprising a receptacle having a discharge slot, said receptacle having a double-walled side and a double-walled bottom, both walls of the bottom having slots therein respectively extending in opposite directions, an ejector slidable in the space between the walls of said bottom and having a ticket engaging projection extending through the slot in one wall of the bottom and into the receptacle and movable in the direction of the discharge slot, one wall of said double walled side having a passage for receiving the projection whereby the latter may be disposed between both walls of said double-walled side on one adjusted position of the ejector, a manipulating portion formed on the ejector and extending through the slot in the other wall of the bottom and a follower mounted in the receptacle and movable in the direction of said double walled bottom and operable to hold the tickets in the path of discharge movement of the carrier.

1,093,518. TOWEL-HOLDER. JOHN EDWARD ADAMS, Loveland, Ohio. Filed Oct. 25, 1913. Serial No. 797,230. (Cl. 45—32.)

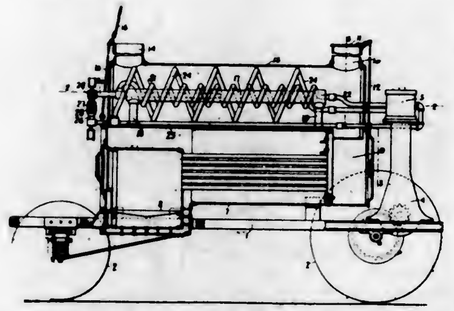


1. A towel-holding arm comprising an elongated core, a sleeve on said core, one end of the core terminating short of the outer end of the sleeve, and the opposite end of the core projecting beyond the sleeve, the first mentioned end having a head and the adjacent end of the sleeve having a counterbore, there being a ring in the counterbore adjacent to the head and a plug fitting said counterbore and recessed at its inner end to accommodate the head, the inner end of the said plug bearing against the ring, the projecting end of the core being threaded and having spaced clamp nuts to bind the holder onto a bracket, the end of the sleeve adjacent to the projecting end of the core having a counterbore and there being a ring at the inner end of said counterbore, and a bushing in the counterbore surrounding the core and bearing by its inner end against said ring.

2. A towel-holding arm, comprising an elongated core and a roller sleeve on said core, the core projecting beyond the sleeve at one end and provided with means to secure the core to a support, the ends of the roller having interior bearing rings, there being a member on the outer end of the core adjacent to a bearing ring to prevent longitudinal displacement of the sleeve, and elements fitting the ends of the sleeve outside of the bearing rings, and engaging the latter to hold the same in place.



1,093,519. SUPERHEATER. EDWIN J. AKINS, Moundsville, W. Va. Filed Nov. 29, 1912. Serial No. 734,032. (Cl. 122—486.)



1. In a superheater device for traction engines, the combination with the boiler of a traction engine, of a steam dome connected to the upper port of said boiler and in free communication with the upper part of the interior of the boiler, means for directing steam from said steam dome to a point of discharge, and exhaust reheating coil surrounding said dome, and means for automatically connecting said dome and said coil for maintaining a predetermined pressure in said coil.

2. In a superheater for engines, the combination with a boiler, of a dome connected at the upper part of said boiler whereby the same is adapted to receive steam regardless of the angle of said boiler, means for directing steam from said dome to a point of utilization, an exhaust reheating coil arranged adjacent said dome, means for directing the exhaust from said point of utilization to said superheater coil, and means for directing the steam from said exhaust reheating coil to a second point of utilization.

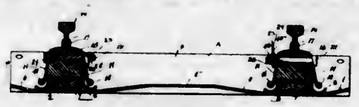
3. In a superheater for engines, the combination with a boiler, of a steam dome connected with said boiler, a pipe entering said dome and extending to an appreciable distance therein, a superheater coil connected with said pipe, means for discharging steam from said superheater coil, means for receiving the exhaust from said superheater coil, an exhaust reheating pipe extending for substantially the full length of said dome for receiving said exhaust steam, and a pipe for discharging said steam to a second point of discharge.

4. In a superheater of the class described, the combination with a boiler, of a steam dome connected with said boiler, and a superheater pipe connected with and surrounding said steam dome.

5. In a superheater of the class described, the combination with a boiler, of a steam dome positioned adjacent said boiler, means for connecting said steam dome with said boiler, a superheater coil connected with said dome, means for directing the steam from said superheater coil to a point of utilization, an exhaust reheating coil surrounding said superheater coil, means for directing the exhaust from said point of utilization to said exhaust reheating coil, and a pipe connected with said exhaust reheating coil for directing the steam to a second point of utilization.

[Claims 6 to 8 not printed in the Gazette.]

1,093,520. TIE AND RAIL-FASTENING. CHRISTIAN ANDERSON, Aldermere, British Columbia, Canada. Filed June 28, 1913. Serial No. 776,326. (Cl. 238—5.)



1. The combination with a tie, of a rail supporting block yieldably supported thereon, rail clamping plates pivotally connected to the tie and respectively disposed on opposite sides of the block, and means for clamping the plates to the block.

2. The combination with a tie, of a rail supporting block yieldably supported thereon and formed with a longitudinal groove in its upper face, rail clamping plates pivotally connected to the tie and respectively disposed on opposite sides of the block and formed with openings registering with the groove of said block, a bolt disposed in the openings of the plates and in the groove of the block, and means engageable with the bolt for clamping the plates to the block.

3. The combination with a tie, of a rail-supporting block yieldably supported thereon and formed with a rectangular longitudinal groove in its upper face, rail clamping plates pivotally connected to the tie and respectively disposed on opposite sides of the block and formed with openings registering with the groove of said block, a bolt having a rectangular shank disposed in the openings of the plates and in the groove of the block, said bolt being formed at one end with a head engageable with a respective plate and having an opening formed in its other end beyond the other plate, and a wedge-shaped key engageable in the opening of the bolt for clamping the plates to the block.

4. The combination with a tie of channel iron construction including spaced sides and a bottom, of a rail-supporting block yieldably supported upon the bottom of the tie and between the sides thereof, said block being formed in its upper face with a longitudinal groove, rail-clamping plates respectively disposed on opposite sides of the block and having pivotal connection with the sides of the tie, said plates being formed with openings registering with the groove of said block, a bolt disposed in the openings of the plates and in the groove of the block, and means engageable with the bolt for clamping the plates to the block.

5. The combination with a tie of channel iron construction including spaced side walls and a bottom, said bottom having its central portion disposed in a plane above and in spaced relation to the lower edges of said side walls, of up-standing leaf springs disposed in pairs near the ends of said bottom, a rail supporting block supported upon each pair of springs, and rail clamping elements carried by the tie and engageable with said block.

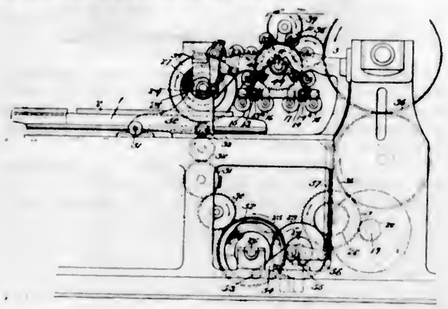
[Claim 6 not printed in the Gazette.]

1,093,521. INKING MECHANISM FOR BED-AND-CYLINDER PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed June 30, 1911. Serial No. 636,204. (Cl. 101—71.)

1. In a machine of the character described, a main frame, a supplemental frame hinged thereto, a reciprocating bed and its form carried by the main frame, an inking mechanism for the form carried by the supplemental frame, and rotary means having an uninterrupted driving connection with the inking mechanism arranged to automatically raise and lower the supplemental frame for bringing the inking mechanism out of and into contact with the form.

2. In a machine of the character described, a main frame, a supplemental frame hinged thereto, a reciprocating bed and its form carried by the main frame, an inking mechanism carried by the supplemental frame including an ink cylinder, a pair of vibrators driven continuously

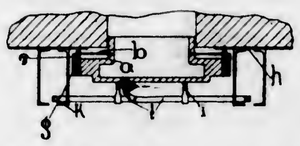
in one direction therefrom and a pair of form rollers driven continuously by each vibrator and rotary means having an uninterrupted driving connection with the inking mechanism arranged to automatically raise and lower the supplemental frame for bringing the form rollers out of and into contact with the form.



3. In a machine of the character described, a main frame, a supplemental frame hinged thereto, a reciprocating bed and its form carried by the main frame, an inking mechanism carried by the supplemental frame including an ink fountain, its roller, a ductor roller, an ink cylinder, distributing rollers, carrying rollers, vibrators, and form rollers, and rotary means having an uninterrupted driving connection with the several parts of the inking mechanism and arranged to raise and lower the supplemental frame for bringing the form rollers out of and into contact with the form.

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1,093,522. COKE-OVEN DOOR. HEINRICH BARBUTER, Essen-West, Germany. Filed Jan. 19, 1914. Serial No. 813,039. (Cl. 202—6.)

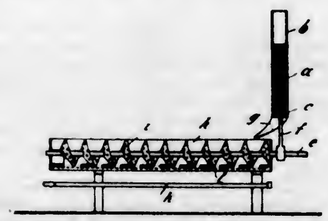


1. The combination, with a coke-oven door, of a flexible spring-pressed rim mounted at the edges thereof, and flexible packing mounted on the outside face of said rim.

2. The combination with a coke-oven door, of a sheet-metal rim mounted by one edge at the edge of the door, springs carried by the door tending to force the rim outward, and a strip of flexible packing mounted on the outside face of said rim.

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1,093,523. AUTOMATIC CONVEYER OR FEEDING APPARATUS. AMANDUS BARTELS and OTTO MIECH, Harburg-on-the-Elbe, Germany. Filed Apr. 23, 1913. Serial No. 763,046. (Cl. 193—24.)

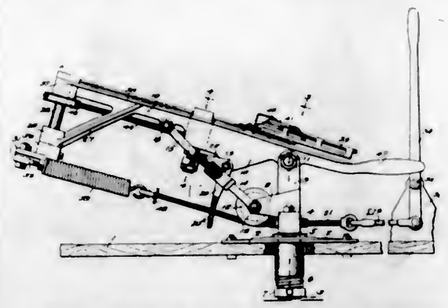


1. An apparatus of the class described comprising a conveyer including a rotary shaft, an arm fixed to and extending from said shaft, a feed chute located over the arm and with which the latter coöperates to eject a blank, and a guide from the feed chute to the conveyer.

2. An apparatus of the class described comprising a conveyer including a shaft, an arm extending from the shaft, a feed chute located in the path of movement of the arm and formed with a transverse and horizontal slot, the end of the arm passing through the transverse slot to eject a blank through the horizontal slot, and a guide extending from the feed chute to the conveyer to direct the blanks to the latter.

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1,093,524. BLUE-ROCK TRAP. DANIEL BENT, San Leandro, Cal. Filed July 25, 1913. Serial No. 781,130. (Cl. 124—6.)



1. In a blue rock trap, a base, a main frame rotatably mounted thereon on a vertical axis, a carrier frame mounted on said main frame on a horizontal axis, a crank shaft rotatably carried by said carrier frame at one end thereof, an arm secured to said crank shaft, a rock carrier mounted on said arm, a trigger carried by said main frame for holding said arm in operative position, a spring for exerting tension on said crank shaft, an operating handle, a cable secured to said operating handle at one end and to said spring at the other, movable means carried by said frame and arranged to engage said trigger for operating the latter, means carried by said trigger for regulating the time of engagement by said movable means, and means carried by said cable for actuating said movable means.

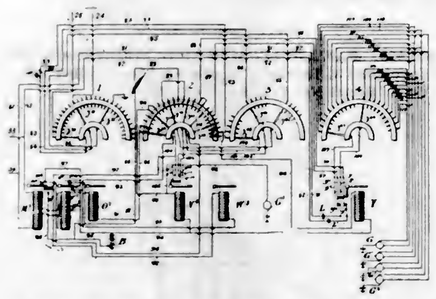
2. In a blue rock trap, a base, a main frame rotatably mounted thereon on a vertical axis, a carrier frame mounted on said main frame on a horizontal axis, a crank shaft rotatably carried by said carrier frame at one end thereof, an arm secured to said crank shaft, a rock carrier mounted on said arm, a trigger carried by said main frame for holding said arm in operative position, a spring for exerting tension on said crank shaft, an operating handle, a cable secured to said operating handle at one end and to said spring at the other, a bell-crank lever pivotally mounted on said main frame, one end of said bell-crank lever being arranged to engage said trigger for operating the latter, means carried by said trigger for regulating the time of engagement of the bell-crank lever with the trigger, and a lug carried by said cable and arranged to engage the other end of said bell-crank lever for actuating the latter.

3. In a blue rock trap, a base, a main frame rotatably mounted thereon on a vertical axis, a carrier frame mounted on said main frame on a horizontal axis, a crank shaft rotatably carried by said carrier frame at one end thereof, an arm secured to said crank shaft, a rock carrier mounted on said arm, a trigger carried by said main frame for holding said arm in operative position, said trigger being provided with a threaded portion having an opening therethrough, a spring for exerting tension on said crank shaft, an operating handle, a cable secured to said operating handle at one end and to said spring at the other, a bell-crank lever pivotally mounted on said main frame, one end of said bell-crank lever being arranged to extend through the opening in said trigger for operating the latter, a lug carried by said cable and arranged to engage the other end of said bell-crank lever for actuating the latter, and adjustable nuts carried by said trigger on the threaded portion thereof for adjusting the time of operation of the trigger by the bell-crank lever.



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1,093,525. AUTOMATIC TELEPHONE-EXCHANGE SYSTEM. WILLIAM RAGAN BINKLEY, New Bedford, Mass., assignor of one-half to Edward E. Clement, Washington, D. C. Filed July 22, 1905. Serial No. 270,852. (Cl. 179—17.)



1. In a telephone exchange system, a sub-station and a central station and a metallic line-circuit interconnecting them, means at the sub-station for separately grounding the two sides of the line, means to simultaneously ground both sides of the line, switching means at the central station and controlling magnets therefor having their windings directly connected to the line, one of said magnets wound and connected so that it will respond only to simultaneous grounding of both sides of the line, and another magnet wound and connected so that it will respond only to grounding of one side, whereby the switch may be controlled as desired, and substantially as described.

2. In a telephone exchange system, a sub-station and a central station and a metallic line-circuit interconnecting them, means for producing current changes in either or both sides of the line, switching apparatus at the central station for interconnecting the subscribers' lines, and controlling magnets for said switching apparatus, one of said magnets responsive to current changes in one side of line, and another of said magnets irresponsive thereto, both magnets, however, being responsive to current changes in the other side of line, whereby one magnet may be actuated separately, or both magnets may be actuated together, substantially as described.

3. In a telephone exchange system, a subscriber's station and a central station and a metallic line-circuit interconnecting them, means for producing current changes in either or both sides of the line, switching apparatus at the central station for interconnecting the subscribers' lines, and controlling magnets for said switching apparatus, one magnet responsive to current changes in either side of line, but irresponsive to simultaneous changes in both sides, the other magnet irresponsive to changes in one side of the line, but responsive to changes in the other side or in both sides, whereby with the two magnets three changes in control may be obtained, one by the energization of one magnet separately, another by the energization of the other magnet separately, and a third by the energization of both magnets, or their deënergizations in the order stated, substantially as described.

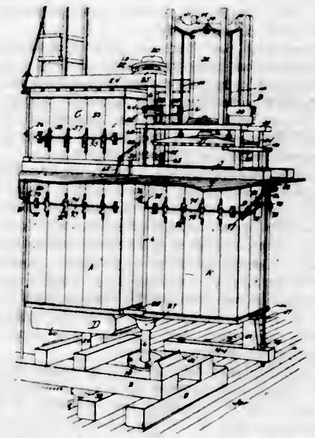
4. In a telephone exchange system, a subscriber's station and a central station and a metallic line-circuit interconnecting them, switching apparatus at the central station for interconnecting the subscribers' lines, controlling magnets for said switching apparatus, one of said magnets bridged across the line and having its windings differential with respect to current in the same direction through both sides of the line, another of said magnets also connected in a bridge on the line and having its windings so laid on and so proportioned as to make the magnet responsive to current in the same direction in both sides of the line, but irresponsive to current in one side only, substantially as described.

5. In a telephone exchange system, a subscriber's station and a central station and a metallic line-circuit interconnecting them, switching apparatus at the central station for interconnecting the subscribers' lines, controlling magnets for said switching apparatus, one of said magnets bridged across the line and having its windings differential with respect to current in the same direction through both sides of the line, another of said magnets also connected in a bridge on the line and having a plurality of windings so laid on, proportioned and connected to the respective line wires as to make the magnet responsive to current in the same direction in both sides of the line, irresponsive to current in one side, but responsive to current in the other side, whereby the first magnet may be separately controlled, or the second magnet may be separately controlled, or both may be controlled together, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

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1,093,526. COTTON-PRESS. JAMES ROBERT BODDIE, Muskogee, Okla. Filed May 21, 1913. Serial No. 768,990. (Cl. 100—28.)



1. A platformless press comprising a fixed bale box, a stamper to one side thereof, revolving press boxes mounted respectively in alinement with and under the stamper and baling box and adapted to simultaneously register therewith, and simultaneously operated locking devices for engaging the opposite sides of one of the press boxes to hold the same in alinement with the stamper and baling box.

2. In a press of the class described, the combination of a stamper, a press box movable to and from a position under the stamper, a support at one side of the press box, and a manually-controlled support movable into and out of engagement with the opposite side of the press box to resist the thrust of the stamper.

3. In a press of the class described, the combination of a stamper, a press box, a shaft on which the press box is revolubly mounted, and a thrust-resisting device disposed below the path of the lower end of the box and movable into and out of engagement with the box to oppose the thrust from the stamper and including operating means arranged above the box.

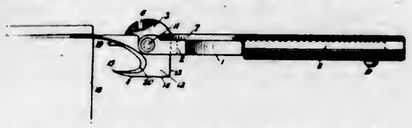
4. In a press of the class described, the combination of a stamper, a press box, a shaft on which the press box is revolubly mounted, a thrust-resisting device movable into and out of engagement with the box to oppose the thrust from the stamper, said device comprising a lever

disposed under the press box, and means for moving the lever into and out of engagement with the press box to support the same during the operation of the stamper.

5. In a press of the class described, the combination of a press box movable into and out of material-receiving position, a stamper disposed to press the material in the box, a support for the press box disposed at one side thereof, a device disposed under the press box for receiving the thrust of the stamper, and means operatively connected with the said device for moving the same into and out of engagement with the press box.

[Claims 6 to 13 not printed in the Gazette.]

1,093,527. TOOL. JOHN E. W. BOESCH, Columbia, Nev. Filed Oct. 9, 1912. Serial No. 724,731. (Cl. 145—21.)



1. In a tool, a body, a pivotally mounted handle connected with said body, a tubular hammer slidingly mounted on said handle formed with a slot in one side, a pin extending through said handle and projecting through said slot for slidably connecting said handle with said tubular hammer, and means for locking said pivotally mounted handle rigidly to said body.

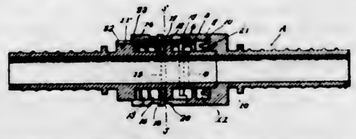
2. A wedging tool formed with a substantially arc-shaped projection, said projection having a plurality of notches therein, a handle pivotally mounted on said wedging tool, and a reciprocating hammer mounted on said handle formed with an extension designed to fit into said notches at different times for locking said wedging structure to said handle at different angles.

3. A wedging tool having a body, an arc-shaped projection extending therefrom formed with a plurality of substantially radiating notches, an enlarged portion extending from the opposite side of said body from said arc-shaped projection, and a bifurcated extension projecting from said enlarged portion, a pivotally mounted handle connected with said wedging tool, and a reciprocating member mounted on said handle formed with an extension adapted to engage at different times the notches in said arc-shaped projection for locking said handle to said wedging tool at different angles.

4. A wedging tool formed with a wedge-shaped projection, an arc-shaped notched member, a fulcrumed extension and a stop for limiting the insertion of the wedge-shaped member into an article, a handle pivotally mounted on said wedge-shaped member, and a sliding member mounted on said handle for engaging at different times the notches in said arc-shaped member for locking the handle to the wedge structure at different angles.

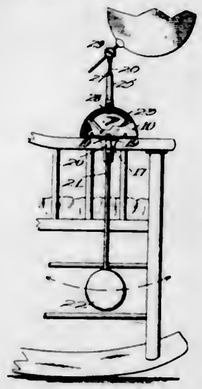
5. In a tool, a body portion formed with a hammer portion and a pair of claw portions, a handle pivotally connected with said body portion, means for locking said handle at different angles on said body portion whereby the body portion may act as a wedging tool and also a hammer according to the adjustment provided, and a pounding or hammer structure acting on said handle.

1,093,528. HOSE-COUPLING. JOHN J. BOWES, Jr., Pensacola, Fla. Filed July 18, 1913. Serial No. 779,842. (Cl. 137—28.)



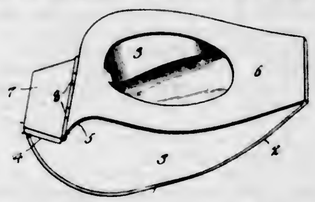
A coupling comprising male and female members, spaced annular shoulders formed on the male member, a coiled spring surrounding the male member between the shoulders, a sleeve arranged concentrically with respect to the shoulder and slidably supported thereby, the said sleeve being formed with an annular groove in its inner face, a resilient split ring engaged in the said groove to form a seat for one end of the spring and also to serve as an abutment for one of the annular shoulders, the other shoulder being formed with a groove arranged longitudinally with respect to the male member, an instruck lip formed on the sleeve and projected into the last-named groove for sliding movement therein, and means on the female member for reciving a portion of the male member and having means for interlocking engagement with the same and the said sleeve.

1,093,529. FAN ATTACHMENT FOR ROCKING-CHAIRS. ALCIBIADE A. BRODEUR, Worcester, Mass. Filed Feb. 5, 1912. Serial No. 675,444. (Cl. 230—7.)



In a fan attachment for rocking chairs, the combination of a semi-circular hollow casing having an integral hollow projection extending up therefrom, a shaft mounted to rotate in said hollow projection and extending down into the casing, a pinion on the end of said shaft in the casing, a plate extending outwardly from the casing below the center thereof and having a base thereon provided with a longitudinal passage therethrough into the casing, a shaft in said passage projecting across the casing and having a bearing on the other side thereof, and a pendulum fixed on said shaft and having a rack in the casing meshing with said pinion.

1,093,530. BED-PAN. JACOB BURKAM, Brooklyn, N. Y. Filed Jan. 28, 1911. Serial No. 605,310. (Cl. 4—19.)

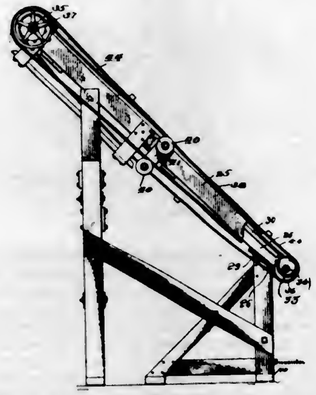


A bed pan comprising a bottom having its rearward portion gradually extending upwardly and forming the rear wall of the pan, sides secured to the bottom and being higher than the rear wall at a point spaced inwardly from and above the rear wall, and from thence extending downwardly to a point adjacent to and below the terminal end of the rear wall, and from thence abruptly inclined upwardly to the terminal end of the rear wall, a seat secured



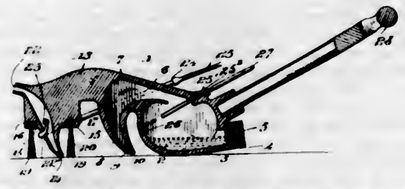
to the sides and terminating at the juncture where the sides are abruptly inclined upwardly, a cover hingedly connected to the terminal end of the seat and adapted to close the space between the seat and the rear wall, the said cover being limited in its path of movement by the seat.

1,093,531. BALE-CONVEYER. HENRY C. BURKLE, Toronto, Kans. Filed May 28, 1912. Serial No. 700,238. (Cl. 193—8.)



In a device of the class described, the combination with a frame provided with an inclined endless conveyer, said conveyer provided with a plurality of transversely extending flights, of a plurality of hooks carried by the lower end of said frame adjacent the end of said conveyer, to hold the article to be conveyed upon said frame, said transversely extending flights of said conveyer passing around the outer portion of said hooks and engaging the article carried by said hooks for conveying the same.

1,093,532. STEAMING DEVICE. BENJAMIN CAVALIER, Baltimore, Md. Filed Nov. 18, 1913. Serial No. 801,701. (Cl. 26—7.)



1. The herein-described method of treating cloth having a raised pile at one side, which consists in first treating the pile to the action of heat and then spraying the pile with dry steam and then causing the pile to be drawn outwardly by suction, as and for the purpose specified.

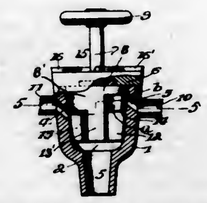
2. The herein-described method of treating cloth having a raised pile at one side, which consists in first treating the pile to the action of heat and then spraying the pile with dry steam and then causing the pile to be drawn outwardly by suction, and then finally re-brushing the pile as and for the purpose specified.

3. A device of the character described for treating cloth having a raised pile at one side comprising a heat distributing member, means for applying dry steam to the cloth, brushing means for the cloth, and means for drawing the pile.

4. A device of the character described for treating cloth having a raised pile at one side comprising a heat distributing member, means for applying dry steam to the cloth, brushing means for the cloth, and means for drawing the pile and operated by induced suction.

5. A device of the character described for treating cloth having a raised pile at one side comprising a heat distributing member, means for applying dry steam to the cloth, brushing means for the cloth, means for drawing the pile and operated by induced suction, and second means for brushing the pile.

1,093,533. FAUCET. GEORGE MEADE CHARLES, Washington, D. C. Filed Dec. 12, 1912. Serial No. 736,335. (Cl. 137—26.)

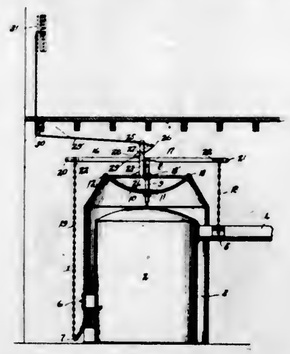


1. A faucet, comprising a body provided with a valve-chamber, an upwardly-inclined inlet duct for hot water, a downwardly-inclined inlet-duct for cold water, a common outlet, and a valve provided with a port extending nearly the entire length of the valve, and a port of lesser length, whereby cold water may be drawn through either port.

2. A faucet, comprising a body provided with a valve-chamber, an upwardly-inclined inlet-duct, a downwardly-inclined inlet-duct, a common outlet, and a valve provided with a divided port, whereby liquid may be caused to pass through one division of said divided port, from said upwardly-inclined duct, while the downwardly-inclined duct is closed.

3. A faucet, comprising a body having a valve-chamber, an upwardly-inclined duct for hot water, a downwardly-inclined duct for cold water, a common outlet, and a valve provided with a port extending nearly its entire length, and a port extending midway its length, said ports being separated by cut-off portions of different widths, whereby hot and cold water may be cut off at the same time, the longer port being divided into smaller ports, so that the liquid may be caused to pass through one of the small ports from the upwardly-inclined duct when the downwardly-inclined duct is closed.

1,093,534. AUTOMATIC FURNACE-DAMPER REGULATOR. THOMAS C. CHRISTIE, Lebanon, Ohio. Filed July 8, 1913. Serial No. 777,891. (Cl. 236—5.)



1. In combination with a furnace expansible by heat and having a draft door and a check draft door, a casing for the furnace having a head and a supporting bar arranged across said head, a guide tube vertically arranged and secured to and extending through said supporting bar and the casing head, a standard on the supporting bar, a

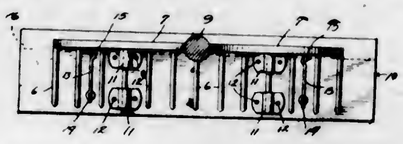
balance post extending vertically through the guide tube and bearing at its lower end on the top of the furnace, a balance bar pivotally mounted on the said balance post and having its ends connected to the draft door and check draft door, an inclined bar pivotally mounted on the standard and bearing at its lower end on and forming a shiftable fulcrum for the balance bar and means to adjust said inclined bar.

2. A heat regulating apparatus comprising in combination a heater adapted to expand and contract under variations of temperature, a draft door and a check draft door for the heater, a balance post connected to the heater and movable theremostatically thereby, a bar balanced on the balance post and connected to the draft bar and check draft, and a relatively fixed fulcrum for the balance bar and arranged at a point to one side of the connection between the balance bar and the balance post, the said fulcrum comprising a pivotally mounted inclined bar arranged with its lower end bearing on the balance bar.

3. A heat regulating apparatus comprising in combination a heater adapted to expand and contract under variations of temperature, a draft door and a check draft door for the heater, a balance post connected to the heater and movable thermostatically thereby, a bar balanced on the balance post and connected to the draft bar and check draft, and a relatively fixed fulcrum for the balance bar and arranged at a point to one side of the connection between the balance bar and the balance post, the said fulcrum comprising a pivotally mounted inclined bar arranged with its lower end bearing on the balance bar, and means to vary the inclination of the fulcrum bar and hence vary the leverage of said balance bar.

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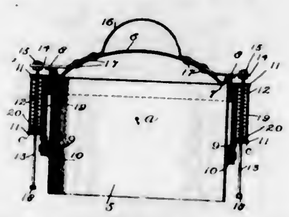
1,093,535. COMBINED RAKE, GRADER, AND SNOW-SCRAPER. TONY CIVITA and BENJAMIN C. LEGHORN, Arlington, Oreg. Filed Aug. 12, 1913. Serial No. 784,460. (Cl. 55—114.)



A combined structure of the class described comprising a rake head, spaced teeth depending therefrom, eyes carried by the rake head, a plate, members secured thereto and forming therewith sockets for receiving certain of the rake teeth, pivoted hooks carried by the plate and adapted to engage in the eyes to hold the plate with relation to the rake teeth and a scraper plate secured to the top edge of the first plate.

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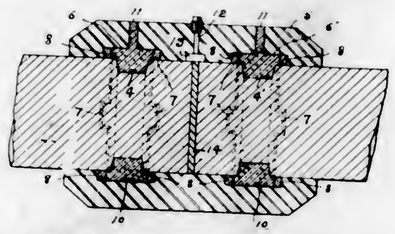
1,093,536. SANITARY GARBAGE-CAN. EDWARD CLADEL, New York, N. Y. Filed Mar. 28, 1913. Serial No. 757,449. (Cl. 220—22.)



A can comprising a body, two sets of brackets pivotally mounted one at each side of the body, upon pivots which are common to both members of the sets of brackets, the brackets of each set having spaced end portions, a cylinder located between the said end portions of the brackets of each set, a cover having lugs, rods adjustably attached to the lugs and passing through the cylinders and the end portions of the brackets and a spring located in each cylinder and bearing at one end against the end portion of one bracket of each set, said springs being operatively connected with the rods.

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1,093,537. DIFFERENTIAL SHAFT-COUPLING. WILLIAM CLIFFORD, Duluth, Minn. Filed Nov. 13, 1913. Serial No. 800,817. (Cl. 105—66.)



1. A differential shaft coupling comprising a sleeve, shafts extending into the sleeve from opposite ends, said shafts having grooves adjacent their ends said sleeve having grooves opposite the grooves in the shaft and having lateral locking recesses and molten metal within the grooves in the sleeve forming rings for permanently and rotatably uniting the ends of the shaft within the sleeve.

2. A differential shaft coupling comprising a sleeve having grooves in its inner periphery, shafts extending into the sleeve from opposite ends and having grooves opposite the grooves in the sleeve and of less width, the grooves in the sleeve having lateral locking recesses, and molten metal within the grooves in the sleeve and rings for permanently and rotatably uniting the ends of the shafts within the sleeve.

3. A differential shaft coupling comprising a sleeve having dovetail grooves in its inner periphery and lateral locking recesses communicating with the grooves, shafts extending into the sleeve from opposite ends and having grooves opposite the grooves in the sleeve, and molten metal within the grooves in the sleeve and rings for permanently and rotatably uniting the ends of the shafts within the sleeve.

4. A differential shaft coupling comprising a sleeve having dovetail grooves in its inner periphery and lateral locking recesses communicating with the grooves, shafts extending into the sleeve from opposite ends and having grooves the walls of which diverge outwardly and of a width less than that of grooves in the sleeve and molten metal within the grooves in the sleeve and rings for permanently and rotatably uniting the ends of the shafts within the sleeve.

5. A differential shaft coupling, comprising a sleeve having dovetail grooves in its inner periphery and lateral locking recesses communicating with the grooves and dovetailed longitudinally and transverse the sleeve, shafts extending into the ends of the sleeve from opposite ends and having grooves the walls of which diverge outwardly and of a width less than that of the grooves in the sleeve and molten metal within the grooves in the sleeve forming rings for permanently and rotatably uniting the ends of the shafts within the sleeve.

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1,093,538. IMPREGNATOR. BOSWELL CLOUGH, New Richmond, Ind. Filed Sept. 15, 1910. Serial No. 582,242. (Cl. 128—27.)

As a new article of manufacture, an impregnator comprising a bottle shaped inelastic body open throughout and having an elongated neck, said body and neck having relatively thick parallel side walls terminating to provide rounded-off upper and lower ends, said upper end being adapted to receive the index finger thereagainst so that the finger will form a guide to facilitate the insertion of



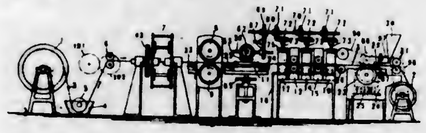
the neck of said body into the neck of the uterus, and the opposite end of the body being adapted to be engaged by



the hand to cause said neck of the body to enter the neck of the uterus.

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1,093,539. MACHINE FOR COVERING ELECTRIC CONDUCTORS. EDWARD H. COOK, Wilkes-Barre, Pa., assignor, by direct and mesne assignments, to International Wire Company, a Corporation of New York. Filed June 5, 1908. Serial No. 436,787. (Cl. 173—244.)

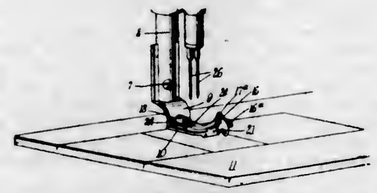


1. In a machine for covering electrical conductors, the combination with means for applying flocculent material to a wire, of a tank for containing a liquid impregnating material, a rotary drum, whose lower portion lies in the said tank, a wiper comprising spring arms whose free ends press together so as to work in contact with the wire covering, said wiper being arranged on the delivery side of the drum, as described.

2. In a machine for covering electrical conductors, the combination with means for applying flocculent material to a wire, a tank for containing a liquid impregnating material, an air chamber inclosing the said tank save at the top and provided with vent holes, and burners arranged in the air chamber and under the bottom of the tank, as described.

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1,093,540. STRIP-GUIDE FOR SEWING-MACHINES. FRED L. CONSON, Rochester, N. H. Filed Mar. 9, 1912. Serial No. 682,738. (Cl. 112—9.)



1. In a device of the character described, a member having bearings, a wheel journaled in the bearings, and having sides which converge toward the periphery of the wheel, the wheel serving to separate the side portions of a ribbed member, a drum journaled in a bearing in the first-mentioned member for engaging the said portions of the ribbed member, for holding them in substantially the same plane, there being a channel in the first mentioned member through which the rib may travel.

2. In a device of the character described, a member having a bearing, a wheel journaled in said bearing and having sides which converge outwardly toward its periphery, the wheel serving to separate the side portions of a ribbed member, the first-mentioned member having a passageway with sides for receiving the said portions of the ribbed member and a channel disposed at an angle with and between the sides of the passageway, for receiving the rib on the ribbed member, there being needle holes in the member to permit needles to engage the said side portions of the ribbed member.

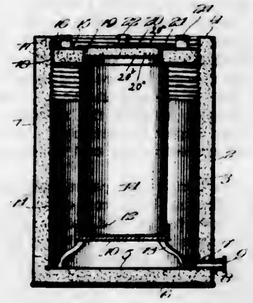
3. In a device of the character described, a member having a foot with a portion extending from the foot and having a passageway with sides for receiving portions of a ribbed member at each side of the rib and a channel for receiving the said rib, the said portion of the member being disposed forwardly and upwardly from the foot to assist in separating the sides of the ribbed member, and a wheel journaled in the member, the sides of the wheel converging in the direction of the channel.

4. In a device of the character described, a member having a foot with a portion extending from the foot, and having a passageway with sides for receiving portions of a ribbed member at each side of the rib and a channel for receiving the said rib, the said portion of the member being disposed forwardly and upwardly from the foot to assist in separating the sides of the ribbed member, and a drum journaled in the member for holding the sides of the rib member substantially in the same plane.

5. In a device of the character described, a member having a bearing, a separating wheel journaled in the bearing for separating the side portions of a rib member, the first-mentioned member having a passageway with sides for receiving the said portions of the rib member and a channel disposed at an angle with and between the sides of the passageway for receiving the rib on the rib member.

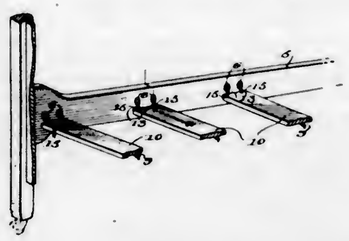
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1,093,541. REFRIGERATING VESSEL. JOHN H. CRAIG, Cincinnati, Ohio. Filed June 18, 1912. Serial No. 704,344. (Cl. 62—10.)



A refrigerating cabinet comprising a casing having an interiorly threaded portion, a rack removably mounted in said casing and having its sides and bottom spaced from the adjacent walls of the casing, a can removably mounted in the casing and having its bottom portion fitting within said rack, a threaded member adjustable in the threaded portion of the casing and adapted to bear against the upper edge of the can and to hold the latter against tilting movement on the rack and to seal the joint between the member and the can, said member having an opening therein in line with the can and a closure removably fitting the opening and serving to cover the upper end of the can.

1,093,542. BED-SLAT FASTENER. THOMAS G. CRISSMAN, Pilot Mountain, N. C. Filed Feb. 14, 1914. Serial No. 818,707. (Cl. 5—25.)



A bed slat fastener consisting of separate strands of wire intertwisted throughout the major portion of their length and secured to the underside of the slat and extending longitudinally thereof, each strand having its opposite end extended outwardly and upwardly into spaced grooves in the ends of the slat and terminating in hook-like portions for engagement with the said rails of the bed.

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1,093,543. PAPER-CUTTER ATTACHMENT FOR TABLES. ISAAC DEATHERAGE, Duluth, Minn., assignor of fifty-five one-hundredths to J. P. Simon, Fred W. Koehler, and James F. Glynn, Superior, Wis. Filed May 27, 1913. Serial No. 770,231. (Cl. 164—78.)



1. The combination with a paper supporting table having a recess formed in one edge thereof, of a straight edge including a supporting element attached to the table and covering the recess thereof, and a paper trimming device supported by said element and operable in said recess.

2. The combination with a paper supporting table, of a straight edge movable toward and away from one edge of the table and in parallel therewith, and an intermediate paper support between the straight edge and the table, said paper support comprising a plurality of similar extensible links connecting the said table and said straight edge.

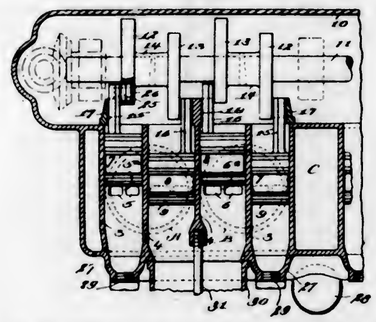
3. The combination with a paper supporting table, of a plurality of swinging links connected to said table, a straight edge supported by said links and movable toward and away from one edge of the table and in parallel therewith, and a guard rail disposed below the links and secured to the table in advance of the pivots of said links.

4. The combination with a paper supporting table, of a plurality of swinging links connected to said table, vertical studs journaled in the outer ends of said links, and a straight edge rigidly connected with said studs.

5. The combination with a paper supporting table, of a supporting element secured to one edge thereof, a straight edge supported by said table and movable toward and away from said edge of said table and in parallel therewith, said straight edge being formed from angle iron and comprising a horizontal and vertical flange, and extensible links constituting an intermediate paper support connected to said element and said horizontal flange and adapted to be positioned under said flange when the straight edge is disposed against said element.

[Claims 6 to 8 not printed in the Gazette.]

1,093,544. INTERNAL-COMBUSTION ENGINE. CHARLES DE LUKACSEVICS, West Nutley, N. J., assignor to George W. Morgan, Jr., New York, N. Y. Filed Jan. 12, 1912. Serial No. 670,814. (Cl. 123—188.)



1. In an internal combustion engine, the combination with a cylinder thereof, of inlet and exhaust valve chests communicating with said cylinder, a casing communicating with corresponding ends of said chests, valves slidable axially of the respective chests and having axially disposed rods rigid therewith and which extend into said casing, guides secured at the ends of the chests and through which the rods work, the guides being disposed in the casing, a shaft extending through the casing, valve operating cams on the shaft, and rollers carried by the valve rods for engagement with the cams.

2. In an internal combustion engine, the combination with a cylinder thereof, of inlet and exhaust valve chests communicating with said cylinder, a casing communicating with corresponding ends of said chests, valves slidable axially of the respective chests and having axially disposed rods which extend into said casing and have a T-shaped cross section, guides secured at the ends of the chests and through which the rods work, the guides conformably fitting over the rods, and being disposed in the casing, a shaft extending through the casing, valve operating cams on the shaft, and rollers carried by the valve rods for engagement with the cams.

3. In an internal combustion engine, the combination with a cylinder thereof, of inlet and exhaust valve chests communicating with said cylinder, a casing communicating with corresponding ends of said chests, valves slidable axially of the respective chests and having axially disposed rods which extend into said casing, guides secured at the ends of the chests and through which the rods work, the guides being disposed in the casing, a shaft extending through the casing, valve operating cams on the shaft, each cam having a cam groove in a side face provided with offset ways of the same direction and extent, and a pair of rollers carried by each valve rod, one roller contacting only with one face of one of the cam ways and the other roller contacting with the opposite face of the other cam way.

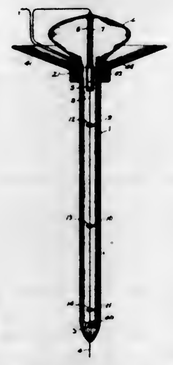
4. In an internal combustion engine, the combination with a cylinder thereof, of inlet and exhaust valve chests communicating with said cylinder, a valve operating shaft, valves slidable axially of the respective chests and having axially disposed rods, cams mounted on said valve operating shaft, each cam having a cam groove in a side face provided with offset ways of the same direction and extent, and a pair of rollers carried by each valve rod, one roller contacting only with one face of one of the cam ways and the other roller contacting with the opposite face of the other cam way.

5. In an internal combustion engine, the combination with the cylinders thereof, of an exhaust valve chest and an inlet valve chest for each cylinder, the valve chests extending in diverging relation toward the cylinder and being related to one another at an angle of ninety degrees and to the axis of the cylinder at an angle of forty-five degrees, piston valves operating in said respective chests, and a cam producing the operation of said valves and being common thereto, the cam being arranged intermediate the chests, substantially as set forth.



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1,093,545. STARTING MEANS FOR VAPOR ELECTRIC APPARATUS. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 19, 1903. Serial No. 185,771. (Cl. 176—49.)



1. A combination of electrodes one at least of which is of vaporizable material, a filament or conductor making contact with the vaporizable electrode and extending into close proximity to another of said electrodes, an armature secured to said filament, and a coil in circuit with said filament and operatively related to said armature.

2. The combination of an exhausted envelop, coöperating fixed electrodes therein one of which consists of vaporizable material, a filament initially engaging with said vaporizable electrode and capable of a motion of translation in said envelop out of engagement with said vaporizable electrode, an electrical connection between the filament and another electrode and a magnetizing coil acting to move said filament out of contact with the vaporizable electrode.

3. The combination of an exhausted envelop, a fluid electrode, a coöperating fixed electrode and a filament dipping in said electrode and movable bodily with respect to said envelop.

4. The combination of an exhausted envelop, coöperating fixed electrodes therein one of which consists of fluid material, a high resistance conductor engaging with said fluid electrode and disengageable from said fluid electrode by a movement of translation.

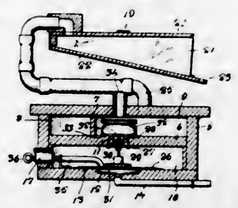
5. In a device of the character described, a conducting filament formed of carbon and having one end tipped with titanium carbid.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,546. PNEUMATIC VALVE. JUDSON ROGERS DE NOYELLES, Binghamton, N. Y. Filed May 16, 1913. Serial No. 768,130. (Cl. 84—178.)

1. A pneumatic comprising a body having a partition therein forming superposed compartments, said body being further provided with a diaphragm chamber in its bottom, a flexible diaphragm closing the diaphragm chamber from communication with a compartment adjacent thereto, an inlet tube adjustably mounted in the top of the body and establishing communication between the uppermost compartment therein and the atmosphere, the said partition being formed with an opening in alinement with the inlet tube, a double valve for alternately closing the inlet tube and the said opening and having its stem working through the opening in the partition, flexible reinforcing strips crossing each other and superimposed upon the diaphragm and fixed to the bottom of the body, a disk mounted at the crossing point of the said strips, an abutment block formed on the stem and engageable with the disk upon the raising and lowering of the diaphragm to actuate the double valve, and means for guiding the stem through the opening in the partition.



2. A pneumatic comprising a body having a partition therein forming superposed compartments, said body being further provided with a diaphragm chamber in its bottom, a flexible diaphragm closing the diaphragm chamber from communication with a compartment adjacent thereto, an inlet tube adjustably mounted in the top of the body and establishing communication between the uppermost compartment therein and the atmosphere, the said partition being formed with an opening in alinement with the inlet tube, a double valve for alternately closing the inlet tube and the said opening and having its stem working through the opening in the partition, flexible reinforcing strips crossing each other and superimposed upon the diaphragm and fixed to the bottom of the body, a disk mounted at the crossing point of the said strips, an abutment block formed on the stem and engageable with the disk upon the raising and lowering of the diaphragm to actuate the double valve, means for guiding the stem through the opening in the partition, a tube leading from the diaphragm chamber into the lowermost compartment in the body, and an adjusting screw threaded in one end of the body and forming a valve for the free end of the tube.

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1,093,547. HORSE-OVERSHOE. CHARLES A. DEUSCHER, New York, N. Y., assignor of one-third to Jeremiah J. Lyons, New York, N. Y. Filed Apr. 4, 1913. Serial No. 758,830. (Cl. 168—30.)



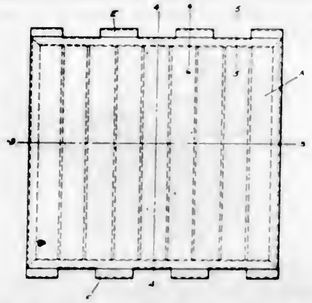
In a horse overshoe, the combination of a plate adapted to conform to the usual shoe, a plurality of grippers in the form of links pivotally connected to said plate and extending below the same, each of said grippers consisting of a body and end pintles extending therefrom and bent toward each other within the plate, and means to secure the plate to the hoof.

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1,093,548. PANEL FOR BOXES. WILLIAM H. DOBLE, Quincy, Mass., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass., a Corporation of Maine. Filed Mar. 7, 1913. Serial No. 752,592. (Cl. 220—17.)

1. A box panel comprising an inner and an outer wall plate spaced apart from each other, and a closure member for the space between said plates at one or more of the edges throughout the length thereof consisting of an integral channel piece having two parallel leg portions and a head portion, all of which fit between the two plates,

said head portion bridging the space between the edges throughout the length thereof and being flush with said edges.



2. A box panel comprising an inner and an outer wall plate spaced apart from each other and a closure member consisting of an integral channel piece extending the entire length of the edges of the plates and having two parallel leg portions which fit between the two plates, a plurality of knuckle portions for a hinge which project beyond the edge of the panel, with spaces between the knuckles, and flange portions between the knuckle portions which bridge the space between the inner and outer walls at the edges of said walls, said knuckles and intermediate flange portions being integral with each other.

3. A box panel comprising an inner and an outer wall plate spaced apart from each other, closure members for some of the spaces between said plates, at the edges thereof, each consisting of a channel piece having two parallel leg portions and a continuous head portion all of which fit between the two wall plates, said head portion bridging the space between the said wall plates throughout the length and being flush with the edges thereof, and channel pieces at other edges of the plates composing said panel having two parallel leg portions which fit between the two plates and a plurality of knuckle portions to receive a hinge pin with intervals between the knuckles, and bridge portions for the intervals between said knuckles flush with the edges of the wall plates, said leg portions, knuckles, and intermediate bridge portions all being integral with each other.

4. A box panel comprising an inner and an outer wall plate spaced apart from each other and a closure member for the space between said plates at their edges consisting of a channel piece having two parallel leg portions which extend into the space between the two plates, a plurality of knuckle portions for a hinge integral with said leg portions, said knuckle portions having intervals between them and flange portions integral with said knuckle portions which bridge the space between the inner and outer walls in the intervals between said knuckle portions.

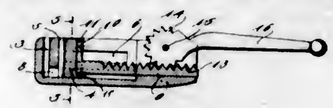
5. A box panel comprising an inner and an outer wall plate spaced apart from each other and a closure member for the space between said plates at their edges consisting of a channel piece having two parallel leg portions which extend into the space between the two plates, a plurality of knuckle portions for a hinge integral with said leg portions, said knuckle portions having intervals between them, flange portions between the knuckle portions which bridge the space between the inner and outer wall plates at the outer edge, and a flange portion extending from the inner end of one of said leg portions across the intervening space between the walls to the other leg portion.

[Claim 6 not printed in the Gazette.]

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1,093,549. NUTCRACKER. MARYAN DOLINGA, St. Louis, Mo. Filed Jan. 27, 1913. Serial No. 744,562. (Cl. 146—3.)

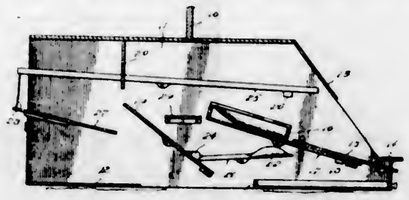
The herein described nut cracker comprising a hollow frame having oppositely positioned guide slots formed in the vertical longitudinal walls thereof, a plunger slidably mounted in said frame and having lugs projecting from the opposite sides thereof for sliding engagement with said slots, an upstanding dove-tail shaped lug forming a part of said plunger, a block detachably secured to said upstanding lug, and provided with serrations in its operating face, a lip forming an integral part of the block



and adapted for engagement with the lower face of the plunger and bottom of the frame, whereby said plunger is properly guided and the block held in operative position, the forward end of said frame being also serrated, and means for reciprocating said plunger whereby the block is moved to and from the serrated closed end of the frame.

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1,093,550. TRAP-NEST. LEVI DOWNS, Monticello, N. Y. Filed Apr. 9, 1913. Serial No. 760,038. (Cl. 119—47.)



A trap nest comprising a box disposed between rooms of a hen house, a nest proper pivoted in one end of the box, a door pivoted in the forward end of the box and arranged to move vertically, an extension on the nest for engaging the door to close the same when the nest is rocked on its pivot, a pivoted platform at the opposite end of the box, a longitudinally extending bar pivoted in one side of the box and pivotally connected to the said platform, a vertically, moving pivoted door between the nest and the platform, the free end of said bar being arranged to be engaged by the first mentioned door to hold the door in closed position, the bottom of the said nest having an egg exit opening, a member pivoted below the nest and connected to the second mentioned door, and an egg receiving cup carried by the member and disposed below the egg opening of the nest whereby, when an egg is deposited in the nest the same will be received in the cup and cause the tilting of the same to release the said second door and permit the hen to pass from the trap.

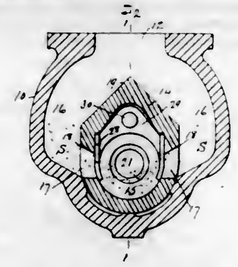
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1,093,551. SAND-BLAST APPARATUS. CHARLES A. DREISBACH, New Haven, Conn., assignor to New Haven Sand Blast Company, New Haven, Conn., a Corporation of Connecticut. Filed May 10, 1913. Serial No. 766,854. (Cl. 51—12.)

1. In a sand blast apparatus, a sand feed box adapted to receive sand from a superposed hopper, a mixing chamber within said feed box, passages opening from the feed box through the sides of said mixing chamber to admit sand by gravity to the latter, together with blast inlet and outlet ports opening to the mixing chamber above the level of gravity-accumulated sand therein, substantially as described.

2. In a sand blast apparatus, a sand feed box adapted to receive sand from a superposed hopper, an independent hollow casting arranged within said feed box and forming a mixing chamber, passages opening from the feed box through the sides of said casting to admit sand by gravity to said mixing chamber, together with blast inlet and outlet ports opening through opposite ends of said casting above the level of gravity-accumulated sand therein, substantially as described.





3. In a sand blast apparatus, a sand feed box having a receiving chamber open at the top to admit sand from a superposed hopper, an independent hollow casting seated in the lower portion of said chamber and forming the mixing chamber, said casting being open at opposite ends and having side ports for the admission of sand to said mixing chamber by gravity, a blast entry port opening to the mixing chamber above the level of gravity-accumulated sand therein, and opposed thereto, a hose-receiving discharge nozzle, substantially as described.

4. In a sand blast apparatus, a sand feed box having a receiving chamber open at the top to admit sand from a superposed hopper, an independent hollow casting seated in the lower portion of said chamber and forming the mixing chamber, said casting being open at opposite ends and having side ports for the admission of sand to said mixing chamber by gravity, a blast entry port opening to the mixing chamber above the level of gravity-accumulated sand therein, and, opposed thereto, a readily-detachable hose-receiving discharge nozzle bearing against said receiving-chamber casting and serving to hold the latter in position, substantially as described.

5. In a sand blast apparatus, a sand feed box adapted to receive sand from a superposed hopper, an independent hollow casting arranged within said feed box and forming a mixing chamber, passages opening from the feed box through the sides of said casting to admit sand by gravity to said mixing chamber, together with blast inlet and outlet ports opening through opposite ends of said casting above the level of gravity-accumulated sand therein, together with a slide valve for controlling the lateral sand inlet ports to the mixing chamber, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,093,552. ASSEMBLING SOLDERING-TOOL. JOHN E. EBAUGH, Shenandoah, Iowa. Filed June 24, 1913. Serial No. 775,481. (Cl. 113—99.)



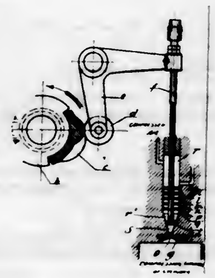
1. A tool comprising two movably connected elements each consisting of rigidly connected jaws extending in the same general direction, the jaws of one element cooperating with the corresponding jaws of the other element to form two pairs of gripping members, one pair of members being resilient and arranged to close before the other pair of gripping members.

2. A tool comprising two movably connected elements each consisting of rigidly connected jaws extending in the same general direction, the jaws of one element coöperating with the corresponding jaws of the other element to form two pairs of gripping members, one pair of members being resilient and arranged to close before the other pair of gripping members, the said elements being inclined toward each other in such disposition that the tips of each pair of members will contact first in the closing of the jaws.

3. A tool comprising two movably connected elements having handles and each element consisting of two rigidly connected jaws extending in the same general direction, the jaws of one element coöperating with the corresponding jaws of the other element to form two pairs of gripping members, one pair of gripping members being arranged to close before the other pair.

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1,093,553. PROCESS OF SUPPLYING FUELS WHICH IGNITE WITH DIFFICULTY TO INTERNAL-COMBUSTION ENGINES. EUGEN EBERLE, Augsburg, Germany. Filed June 17, 1913. Serial No. 774,137. (Cl. 123—109.)



1. The process of supplying to internal combustion engines of Diesel type, mixtures containing fuels which ignite with difficulty and varying the fuel element according to the load upon the engine, which consists in delaying the commencement of fuel introduction relatively to the dead center of the engine, proportionately to the increase of load, and increasing the duration of admission as the period of introduction is delayed.

2. The process of supplying to internal combustion engines of Diesel type, mixtures containing fuels which ignite with difficulty and varying the fuel element according to the load upon the engine, which consists in delaying the commencement of fuel introduction relatively to the dead center of the engine, proportionately to the increase of load, and increasing the quantity of fuel supplied as the period of introduction is delayed.

3. The process of supplying to internal combustion engines of Diesel type, mixtures containing fuels which ignite with difficulty and varying the fuel element according to the load upon the engine while maintaining the air supply at constant pressure, which consists in delaying the commencement of fuel introduction relatively to the dead center of the engine, proportionately to the increase of load, and increasing the duration of admission as the period of introduction is delayed.

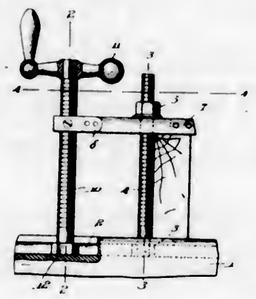
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1,093,554. CLAMP. AUGUST ERMAN, Omaha, Nebr. Filed Jan. 10, 1914. Serial No. 811,454. (Cl. 90—59.)

1. In a clamp, a jaw member having a longitudinal slot, a nut swiveled in one end of the jaw member, an adjusting screw passing therethrough, a bolt having a nut-threaded thereon, said last-named bolt being adjustable in the slot toward and away from the screw and means for connecting the screw and bolt to the bed plate of the machine.

2. In combination, a bed plate having a dove-tail groove therein, a screw having an integral polygonal head slidably mounted in the groove, an adjusting nut threaded onto the bolt, a jaw provided with a longitudinal slot to receive said bolt, a nut swiveled in the jaw at one end thereof, a screw having a polygonal nut swiveled upon

one end thereof and arranged to slide within the groove, said screw being threaded in the nut and having relative



adjustment toward and away from the bolt and means for operating the screw.

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1,093,555. RAIL-JOINT. JAMES B. EVANS, Sr., Fort Worth, Tex. Filed July 18, 1913. Serial No. 779,826. (Cl. 239—8.)



1. In a rail joint, two rails, each of said rails having a web enlargement upon one of its faces and which is offset from the web proper to provide the end of the web proper with a shoulder, the head and the base flange of each of the rails terminating a distance beyond the shoulders of the webs and a distance from the ends of the web extensions, the outer face of each of the enlarged web extensions having reinforcing flanges to provide both the upper and lower faces of the extensions with flat bearing faces, the said bearing faces of one of the rails adapted to be received between the head and base flanges of the second rail having the end of its web extension contact with the shoulder of the second rail and the head and base flanges of both the rails abut, and means for connecting the web extensions.

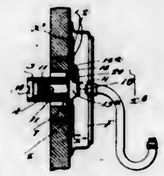
2. In a rail joint, two rails, each of said rails having a web enlargement upon one of its faces and which is offset from the web proper to provide the end of the web proper with a shoulder, the head and base flange of each of the rails having enlargements which are arranged parallel with the shoulder to provide continuations of the said shoulders, the head and the base flange of each of the rails terminating a distance beyond the shoulders of the webs and a distance from the ends of the web extensions, the outer face of each of the enlarged web extensions having reinforcing flanges to provide both the upper and lower faces of the extensions with flat bearing faces, the said faces of one of the rails adapted to be received between the head and base flange of the second rail and to have the end of its web extension contact with the shoulder of the second rail when the heads and base flanges of both the rails abut, and means for connecting the web extensions.

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1,093,556. FIXTURE-HANGER. WARD S. FERGUSON, Los Angeles, Cal., assignor to McCurdy-Ferguson Company, a Partnership composed of L. C. McCurdy and W. S. Ferguson, doing business in Los Angeles, Cal. Filed Oct. 27, 1913. Serial No. 797,445. (Cl. 240—85.)

1. In a fixture hanger, a hanger supported on a wall or ceiling adapted to receive a fixture and adapted to draw the fixture in position against the wall and to maintain said fixture in such position and against turning.

2. In a fixture hanger, a hanger supported on a wall or ceiling adapted to receive a fixture and adapted to draw the fixture into position against the wall and to maintain said fixture in position against the wall and against turning, said hanger adapted to rest within the fixture out of view.



3. In a fixture hanger, a hanger supported on a wall or ceiling and adapted to receive a fixture and hold said fixture against turning thereon, a spring adapted to draw said hanger inwardly and said fixture in position against the wall whereby the fixture is maintained in position against the wall.

4. In a fixture hanger, a hanger supported on the wall adapted to be drawn forwardly, means for maintaining the hanger in such forward position to receive a fixture, said hanger adapted to be released by moving the fixture, and means for drawing the hanger inwardly when released and the fixture into position against the wall, whereby the fixture is maintained in position against the wall.

5. In a fixture hanger, a hanger supported on the wall adapted to be drawn forwardly and turned, means for maintaining the hanger in forward position when so turned to receive a fixture, a fixture adapted to be placed on said hanger, said hanger being adapted to be released when the fixture is turned into its proper position, and means for drawing the hanger inwardly when released and the fixture into position against the wall, whereby the fixture is maintained in position against the wall.

[Claims 6 to 11 not printed in the Gazette.]

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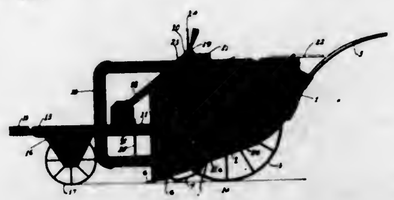
1,093,557. ALLOY. EDWARD D. GLEASON, New York, N. Y., assignor, by mesne assignments, to Neu-Metals and Process Company, Long Island City, N. Y., a Corporation of New York. Filed Feb. 18, 1913. Serial No. 749,109. (Cl. 75—1.)

1. An alloy comprising iron 80 to 120 parts, nickel 80 to 120 parts, copper 1 part and aluminum 4 parts.

2. An alloy comprising Swedish iron 110 parts, nickel 90 parts, copper 1 part, and aluminum 4 parts.

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1,093,558. SCRAPER. CHARLES H. GUNN, Modesto, Cal. Filed Jan. 6, 1913. Serial No. 740,318. (Cl. 37—33.)

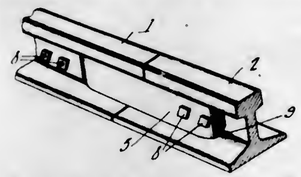


A device of the character described comprising a scraper bowl mounted on wheels, draw beams flexibly connected with the inside of the ends of said scraper bowl, a rigid cross beam secured to said draw beams intermediate their ends, another cross beam secured to the outer ends of said draw beams, a pair of spaced beams rigidly secured centrally across said cross beams, a frame carried by said pair of beams, a wheel disposed in said frame, a beam rigidly disposed across the top of said scraper bowl, a catch on said last named beam, a latch on the beam secured centrally on said draw beams, said latch being adapted to engage said catch, and a handle member on said bowl, as described.



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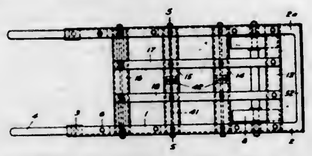
1,093,559. RAIL-JOINT. JAMES W. HUNTER, Andrew, W. Va., assignor of one-fourth to Boyd D. Banks and one-fourth to Opiedie P. Moses, Sterling, W. Va. Filed Apr. 22, 1913. Serial No. 762,879. (Cl. 239—8.)



A rail joint wherein the rail webs have interengaging portions, and a pair of arms secured to the respective sides of the respective rail webs and overlapping the opposite webs, the said extension fitting between the treads and base flanges of the rails and having their lower edges internally beveled throughout their lengths and cooperating with the corners between the webs and base flanges of the rails to provide passages for rail bonds.

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1,093,560. TRUCK. FRANK W. HUSSEY and CHARLES H. DOTY, Columbus, Ohio, assignors to The Kilbourne and Jacobs Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed June 20, 1912. Serial No. 704,762. (Cl. 21—65.)



1. In a truck an angle side sill having a rectangular sleeve formed at one of its ends, a handle piece constructed to be inserted into said sleeve and applied to the flanges of said side sill, the upper face of the inner end of said handle piece being beveled, and means for adjustably securing the inner end of said handle piece to the side sill.

2. In a truck having angle sidesills facing inwardly, a channel crossbar secured at its ends to said sidesills, leg braces secured at one end to said cross-bar, and a tie rod secured at its ends to said sidesills and being engaged by said leg members to truss said tie rod.

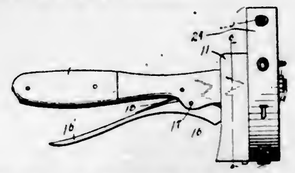
3. In a truck an angle side sill having a sleeve formed at one end thereof, a handle piece adapted for insertion into said sleeve and the angle of said side sill, and means for springing said handle into adjustable engagement with the said sleeve and said side sill.

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1,093,561. HAND-STAMP. BERNHARD KULLA, Ivanhoe, Minn. Filed Mar. 13, 1913. Serial No. 754,051. (Cl. 101—160.)

1. A hand stamp comprising a handle, a marking wheel rotatably mounted on one end of the handle, and a lever mounted on the handle for rotating the marking wheel step by step and holding the wheel from movement in either direction at each step of its rotation.

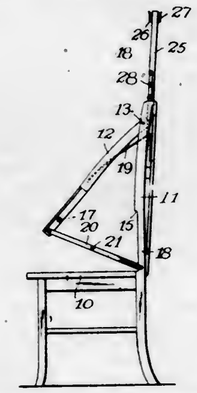
2. A hand stamp comprising a handle, a head carried at one end of the handle, detachable marking devices carried by the head, a marking wheel rotatably mounted on the handle adjacent the head said wheel being formed with a series of notches, a pivoted spring pressed member mounted on the handle between the head and the wheel, a ratchet face carried by the wheel, means carried by the spring pressed member for engagement with the ratchet face, and a pivoted operating lever carried by the handle and connected to the spring pressed member for actuating said member to rotate the marking wheel in a step by step fashion, said lever being arranged to engage in said notches to hold the wheel from rotation in either direction at each step of movement.



3. A marking device comprising a handle having a head on one end, a marking wheel rotatably mounted on the end of the handle, a ratchet faced boss carried centrally by the marking wheel, the face of the marking wheel surrounding said boss being formed with a circular series of notches having inclined and straight sides, a rocking pawl mounted on the end of the handle and engaging the face of the boss, and a pivoted spring pressed operating lever carried by the handle, and connected to the rocking pawl, said operating lever having an extension engaging in the said notches for holding the marking wheel against rotation when advanced one step.

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1,093,562. GARMENT-DISPLAY CHAIR. SOLOMON MARCUS, Worcester, Mass. Filed Jan. 22, 1913. Serial No. 743,465. (Cl. 155—6.)



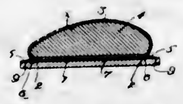
In a chair the combination with a seat and a fixed back, of means extending from a point near the top of the back forward to a point near the front of the seat for supporting a garment or the like in front of the back, a device mounted on the back and adapted to be projected above the top of the back for supporting a garment hanger above the first named means, and means for holding said device adjustably in raised position.

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1,093,563. METHOD OF MANUFACTURING SHOES. FRANK W. MERRICK, Boston, Mass., assignor to Union Lock Stitch Company, Boston, Mass., a Corporation of Maine. Original application filed May 20, 1911, Serial No. 628,379. Divided and this application filed Dec. 17, 1913. Serial No. 807,240. (Cl. 12—142.)

1. The improved method of making a welt shoe which comprises the steps of taking a thin flexible insole-blank, producing an upstanding edge-flange or lip thereon by a

bend around the margin of the said blank defining the extreme outer boundary of the tread-surface of the insole and so that a continuation of said tread-surface forms the exterior of the flange or lip at the bend, then applying the prepared insole to the central portion of the tread-surface of a last with the marginal portion of the latter tread-surface projecting outwardly beyond the outer margin of the tread-surface of the insole, then applying an upper to the last and bending it around the edge of the last, drawing it inward upon the exposed marginal portion of the tread-surface and last and against the continuation of the insole tread-surface immediately at the bend, and then applying a welt, stitching an inseam, trimming the inseam, applying an outsole, and connecting the outsole with the welt by an outseam.



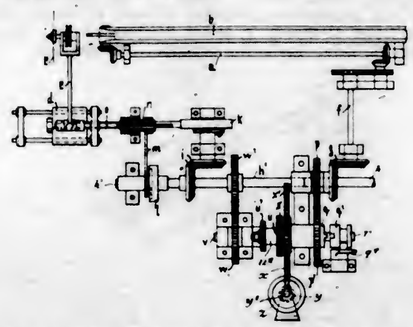
2. The improved method of making a welt shoe which comprises the steps of taking a thin flexible insole-blank, producing an upstanding edge-flange or lip thereon by a bend around the margin of the said blank defining the extreme outer boundary of the tread-surface of the insole, with the whole substance of the insole extending to the said boundary and a continuation of the said tread-surface forming the exterior of the flange or lip, then applying the prepared insole to the central portion of the tread-surface of a last with the marginal portion of the latter tread-surface projecting outwardly beyond the outer margin of the tread-surface of the insole, then applying an upper to the last and bending it around the edge of the last, drawing it inward upon the exposed projecting marginal portion of the tread-surface of the last and against the continuation of the insole tread-surface immediately at the bend, then placing a welt against the flange of the upper, making an inseam, trimming the same, applying an outsole, and connecting the outsole with the welt by an outseam.

3. The improved method of making a welt shoe which comprises the steps of taking a thin flexible insole-blank, forming an upstanding edge-flange or lip thereon by a bend around the margin of the said blank defining the extreme outer boundary of the tread-surface of the insole and so as to change the direction of the continuation of such surface at the bend, then applying the prepared insole to the central portion of the tread-surface of a last having a rounded or chamfered marginal reduction of its tread-surface located externally with relation to the outer margin of the insole, then applying an upper to the last and bending it inward around and upon the rounded or chamfered marginal portion of the tread-surface of the last and against the outer surface of the flange of the insole, then placing a welt against the flange of the upper, then forming an inseam located inside the circuit of the rounded or chamfered margin, then trimming said inseam, then applying the outsole, and then connecting the outsole with the welt by an outseam.

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1,093,564. CIGARETTE-MAKING MACHINE. ERNST CURT MÜHLBAUER, Dresden-Löbtau, Germany, assignor to Universelle Cigaretten-Maschinen-Industrie System Otto Bergsträsser Aktiengesellschaft, Dresden-Löbtau, Germany. Filed Nov. 12, 1913. Serial No. 800,478. (Cl. 131—37.)

1. In a cigarette machine the combination of a cigarette rod feeding mechanism, a cigarette rod cutting mechanism, a secondary shaft composed of independent rotary sections, transmitting means between one of said sections and said feeding mechanism for operating the latter, means between the other section and said cutting mechanism for imparting a reciprocatory motion to the cutter slide thereof, means between the same section and said cutting mechanism for imparting a lateral oscillation to the cutter thereof, a primary shaft composed of independent rotary sections disposed in alinement, separate gearings between the respective sections of said primary and secondary shafts, a differential gearing connecting the adjacent sections of said shafts and comprising pinions of different diameters fixed on opposite ends of said sections, a rotary disk provided with a hub loose on one of said sections and carrying a lateral stud and a sleeve loose on said stud and provided with pinions of different diameters engaging said primary shaft pinions, and means for adjusting said rotary disk to accelerate or retard the diverse movements of said cutting mechanism during the operation of the machine.



2. In a cigarette machine the combination of a cigarette rod feeding mechanism, a cigarette rod cutting mechanism, a secondary shaft composed of independent rotary sections, transmitting means between one of said sections and said feeding mechanism for operating the latter, means between the other section and said cutting mechanism for imparting a reciprocatory motion to the cutter slide thereof, means between the same section and said cutting mechanism for imparting a lateral oscillation to the cutter thereof, a primary shaft composed of independent rotary sections disposed in alinement, separate gearings between the respective sections of said primary and secondary shafts, a differential gearing connecting the adjacent sections of said shafts and comprising pinions of different diameters fixed on opposite ends of said sections, a rotary disk provided with a hub loose on one of said sections and carrying a lateral stud and a sleeve loose on said stud and provided with pinions of different diameters engaging said primary shaft pinions, and means for adjusting said rotary disk to accelerate or retard the diverse movements of said cutting mechanism during the operation of the machine.

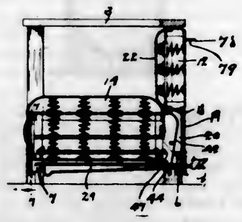
3. In a cigarette machine the combination of a cigarette rod feeding mechanism, a cigarette rod cutting mechanism, a secondary shaft composed of independent rotary sections, transmitting means between one of said sections and said feeding mechanism for operating the latter, means between the other section and said cutting mechanism for imparting a reciprocatory motion to the cutter slide thereof, means between the same section and said cutting mechanism for imparting a lateral oscillation to the cutter thereof, a primary shaft composed of independent rotary sections disposed in alinement, separate gearings between the respective sections of said primary and secondary shafts, a differential gearing connecting the adjacent sections of said shafts and comprising pinions of different diameters fixed on opposite ends of said sections, a rotary toothed disk provided with a hub loose on one of said sections and carrying a lateral stud and a sleeve loose on said stud and provided with pinions of different diameters engaging said primary shaft pinions, and a worm engaging said toothed disk to accelerate or retard the diverse movements of said cutting mechanism during the operation of the machine.

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1,093,565. DAVENPORT-BED. THEODORE B. SCHULTE, Cleveland, Ohio. Filed Sept. 16, 1912. Serial No. 720,466. (Cl. 5—48.)

1. In a device of the character indicated, a main frame, a head mattress section pivotally supported in said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, a middle mattress section slidably mounted in said main frame in a plane below the plane occupied by the head section when said section is in a horizontal position, means supported by the main frame and operatively connected with said middle section for raising said middle section to the plane of the head section when said middle section is pulled out and means for supporting the front end of said middle section.





2. In a device of the character indicated, a main frame, a head mattress section pivotally supported in said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, a middle mattress section slidably mounted in said main frame in a plane below the plane occupied by the head section when said section is in a horizontal position, means supported by the main frame and operatively connected with said middle section for raising said middle section to the plane of the head section when said middle section is pulled out, means for supporting the front end of said middle section, a foot mattress section hinged to said middle section and capable of being either folded over on top of said middle section or folded down beyond said middle section to form a horizontal continuation of said middle section and legs operatively connected to the front end of said foot section.

3. In a device of the character indicated, a main frame, a head mattress section pivotally supported at its rear end at the rear end of said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, a horizontally arranged middle mattress section slidably mounted in said main frame in a plane below the plane occupied by the head section when in a horizontal position, a supporting member pivotally secured at one end to said middle section and having its other end supported by the main frame and adapted to slide in the main frame when the middle section is pulled out or shoved back into the main frame, means for arresting the forward movement of said supporting member so as to cause said supporting member to swing up and raise the rear end of the middle section and means for supporting the front end of the middle section.

4. In a device of the character indicated, a main frame, tracks arranged in said main frame at each side thereof and extending from the front to the rear thereof, a bar arranged in the main frame intermediate of said tracks and extending from the front to the rear thereof, a head mattress section pivotally supported in the main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, said head mattress section when in a horizontal position occupying a plane a distance above said tracks, a horizontally arranged middle mattress section adapted when in said frame to rest on said tracks, a supporting member pivotally secured to the rear end of said middle mattress section, the lower end of said supporting member being arranged to travel on the said bar, a spring connected to said supporting member and engaging said bar and arranged to resiliently resist the folding of said supporting member down on said bar, means for arresting the forward movement of the lower end of said supporting member and means for supporting the front end of said middle mattress section.

5. In a device of the character indicated, a main frame, tracks arranged in said main frame at each side thereof and extending from the front to the rear thereof, a pair of bars arranged in the main frame intermediate of said tracks and extending from the front to the rear thereof and having seats at their front ends, a head mattress section pivotally supported in said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, said head mattress section when in a horizontal position occupying a plane a distance above said tracks, a horizontally arranged middle mattress section adapted when in said frame to be supported by said tracks, rollers arranged on the bottom of said middle mattress section and adapted to travel on said tracks, a supporting member pivotally secured to the rear end of said middle mattress section, the lower end of said supporting member being arranged to travel on the said bars and rest in said seats at the front ends of said bars, a spring connected to said supporting member and engaging said bars and arranged to resiliently resist the folding of said supporting member down on said bars and means for supporting the front end of said middle mattress section.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,566. FIRELESS COOKER OR THE LIKE. CHARLES E. SWARTZBAUGH, Toledo, Ohio, assignor to The Toledo Cooker Company, Toledo, Ohio, a Corporation of Ohio. Filed Mar. 1, 1913. Serial No. 751,468. (Cl. 137—53.)



In a fireless cooker or the like, a cage mounted in the cover thereof and forming a passage therethrough, said cage having its inner end provided with a restricted opening and its outer end provided with an enlarged opening, a nipple threaded into said restricted opening, a ball valve seating against the inner end of said nipple to normally close the passage therethrough, a diaphragm disposed within the cage intermediate its ends and closing the passage therethrough except at opposite sides of the cage where restricted passages are provided, and a diaphragm closing the outer end of the cage and having a restricted centrally disposed opening therein.

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1,093,567. STABLE NITROBENZENE-DIAZONIUM DERIVATIVES. OTTO NICHOLAS WITT, Westend, near Berlin, Germany, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Filed July 17, 1913. Serial No. 779,633. (Cl. 23—24.)

1. As new products the herein described stable nitrobenzene-diazonium derivatives consisting of double salts of a naphthalene-sulfonic acid with a nitrobenzene-diazonium and a metal.

2. As new products the herein described stable nitrobenzene-diazonium derivatives consisting of double salts of a naphthalene-sulfonic acid with a nitrobenzene-diazonium and an alkali metal.

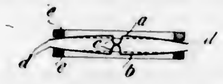
3. As new products the herein described stable nitrobenzene-diazonium derivatives consisting of double salts of naphthalene-2-sulfonic acid with a nitrobenzene-diazonium and an alkali metal.

4. As a new product the herein described stable nitrobenzene-diazonium derivative consisting of the double salt of naphthalene-2-sulfonic acid with 4-nitrobenzene-diazonium and an alkali metal.

5. As a new product the herein described stable nitrobenzene-diazonium derivative consisting of the double salt of naphthalene-2-sulfonic acid with 4-nitrobenzene-diazonium and sodium and corresponding to the formula

$$C_6H_4\begin{cases}NO_2\\ N{=}N{-}SO_3{-}C_{10}H_7\end{cases} + NaSO_3{-}C_{10}H_7 + H_2O.$$

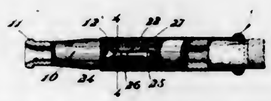
1,093,568. PROCESS FOR THE MANUFACTURE OF HOLLOW BODIES OF PERFECT SHAPE. PAUL ALFRED ACHILLES, Hamburg, Germany. Filed Feb. 8, 1913. Serial No. 747,155. (Cl. 29—148.)



1. Process for the manufacture of hollow bodies made from metal plates or metal cups welded or soldered together, consisting in supporting the middle parts of said plates in such a manner that the edges of the plates do not touch one another and in bringing said edges in contact and maintaining the same in contact during the welding or soldering by means of special clamping devices, the tensions produced by the soldering or welding being thus transmitted to the middle part of said plates, substantially as described and shown and for the purpose set forth.

2. Process for the manufacture of hollow bodies made from metal plates or metal cups welded or soldered together, consisting in supporting the middle parts of said plates by means of strengthening ribs provided in said plates in such a manner that the edges of the plates do not touch one another and in bringing said edges in contact and maintaining the same in contact during the welding or soldering by means of special clamping devices, the tensions produced by the soldering or welding being thus transmitted to the middle part of said plates, substantially as described and shown and for the purpose set forth.

1,093,569. STUB ADJUSTING AND EJECTING CIGARETTE-HOLDER. EDITH BANCROFT ASHMORE, Philadelphia, Pa. Filed Sept. 19, 1913. Serial No. 790,757. (Cl. 131—10.)



1. A cigarette holder comprising a sliding extension sleeve having a longitudinal slot, and a tubular mouthpiece having a lateral stud engaging said slot, said sleeve being adapted to hold the cigarette and said mouthpiece being arranged to abut at its forward end the inner end of the cigarette and being movable under frictional resistance to extrude the stub thereof and permit it to be smoked at different stages of adjustment substantially to the end thereof which abuts said mouthpiece.

2. A cigarette holder comprising a tubular mouthpiece provided with a lateral stud, and a sliding extension sleeve on said mouthpiece provided with a concave bead at its outer end forming a circumferential holding lip and with a longitudinal slot the sides of which form a frictional holding contact with said stud.

1,093,570. EGG-CARRIER. PAUL P. BENNETT, Rockford, Ill., assignor to Otis and Moe Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 19, 1911. Serial No. 655,505. (Cl. 217—29.)

1. A protective egg cell consisting of a tubular casing adapted to contain a single egg, and a cushioning and displacement-preventing ring located within each end of the casing, the diameter of each ring being less than that of the egg, and the inner end of each fitting as a wedge between the side of the egg and the casing.

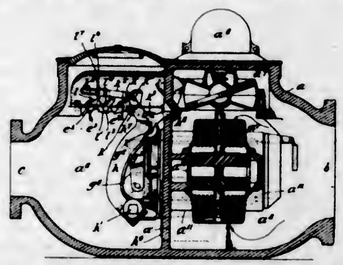


2. A protective egg cell consisting of a casing the internal diameter of which is substantially the same as the length of the shorter axis of an egg, cushioning means in one end of the casing, and a cushioning ring located within the outer end of the casing, the inner end of the ring fitting as a wedge between the side of the egg and the casing, to prevent longitudinal displacement of the egg.

3. A protective egg cell comprising an expansible tubular casing of greater length than the egg to be protected, and a strip of corrugated paper bent into ring form with its ends overlapping and located within each end of the casing, each ring being of sufficient width so that its inner end shall come in contact with the egg, whereby the egg is cushioned and held against endwise displacement.

4. A protective egg cell consisting of a tube the internal diameter of which is substantially the same as the length of the shorter axis of an egg, means for preventing the egg from escaping from one end of said tube, and a ring of yieldable material fitting in the opposite end of said tube, the inner end of said ring being wedged between the egg and the casing to cushion the egg and hold it against longitudinal displacement.

1,093,571. WATER-METER. JAMES M. BURTON, Long Island City, N. Y., assignor to Neptune Meter Company, New York, N. Y., a Corporation of New Jersey. Filed July 18, 1913. Serial No. 779,661. (Cl. 73—167.)



1. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in said casing, a low-duty valve to control the same, and means actuated by the movement of the high-duty valve during the last of its closing movement to open temporarily the valve of the low-duty passage to equalize partially the pressure on the high-duty valve.

2. A meter comprising a casing having a high-duty passage a high-duty valve to control said passage, an arm moving with said high-duty valve, a low-duty passage in said casing, a low-duty valve to control the same, and means independent of the arm but actuated by the arm during the beginning of its movement and before the high-duty valve opens to close the low-duty valve.

3. A meter comprising a casing having a high-duty passage, a high-duty valve to control said passage, an arm moving with said high-duty valve, a low-duty passage in said casing, a low-duty valve to control the same, and means independent of the arm but actuated by the movement of said arm to close the low duty valve during the beginning of the movement of the arm and to open the low-duty valve during the final movement of the arm in the opposite direction.

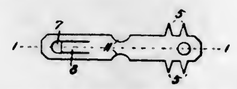
4. A meter comprising a casing having a high-duty passage, a high-duty valve to control said passage, an arm moving with said high-duty valve, a low-duty passage in said casing, a low-duty valve to control the same, a Geneva gear on the shaft of the low-duty valve, a second Geneva gear coöperating with the first named gear, a notched arm carried with the last named gear, and a pin carried by the first named arm and engaging the notched arm to close the low-duty valve during the beginning of the movement of the first named arm and to open the low-duty valve during the final movement of the first named arm in the opposite direction.

5. A meter comprising a casing having a high-duty passage, a high-duty valve to control the same, a low-duty passage in said casing, low-duty valves to control the same, an arm moving with the high-duty valve and means actuated by the movement of said arm to open and then close one of the low-duty valves during the last of the closing movement of said arm.

[Claims 6 to 13 not printed in the Gazette.]

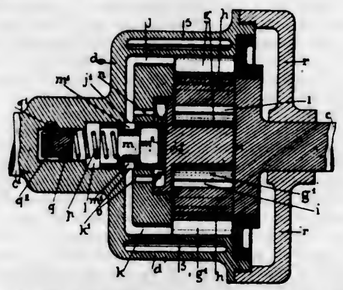


1,093,572. ENVELOP-FASTENER. FREDERICK H. DAVIS, Syracuse, N. Y., assignor to The National Book Cover Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 6, 1913. Serial No. 799,634. (Cl. 229—78.)



An article of manufacture—an envelop fastener—consisting of a strip of flexible material one end portion of which is provided with means for securing it to an envelop and also with a headed post while the other end portion of said strip is provided with an aperture of the same transverse diameter as the head of said post and with a resilient tongue extending longitudinally of said strip and formed by cutting parallel slits in said strip tangential to said aperture, the free end of said tongue protruding slightly into said aperture thereby reducing the diameter of said aperture extending longitudinally of the strip, for the purpose set forth, said strip being adapted for folding whereby one end portion may be superimposed upon the other so that said headed post may enter said aperture.

1,093,573. DIFFERENTIAL GEARING. JEAN ALBERT HARDY, Paris, France. Filed Feb. 5, 1913. Serial No. 746,337. (Cl. 74—34.)

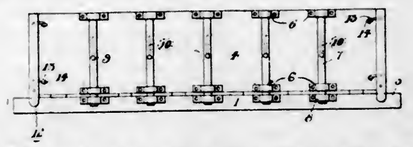


1. In a device of the character described, a pair of rotors, a common driving rotor therefor and an operative connection between said rotors whereby the same may have varying speeds and fluid brake means operatively connected to two of said rotors and serving to automatically brake the rotor moving at a speed in excess of that of the coöperating rotor.

2. In a device of the character described, a pair of rotors, a common driving rotor therefor and an operative connection between said rotors whereby the same may have varying speeds and fluid brake means operatively connected to two of said rotors and serving to automatically lock said rotors against relative rotation after one of said rotors has reached a predetermined speed in excess of the coöperating rotor.

3. In a device of the character described, a pair of rotors, a common driving rotor therefor and an operative connection between said rotors whereby the same may have varying speeds and fluid brake means operatively connected to two of said rotors and comprising a casing with fluid circulating passages, fluid driving means, a throttle valve arranged in said fluid circulating passage, and means for subjecting said throttle valve to the variation in pressure on opposite sides of the fluid driving means, whereby the valve is actuated to control the circulatory passage, substantially as described.

1,093,574. COLLAPSIBLE CAR-BODY. CARL HEINZ and JOHN DU ROTH, Johnstown, Pa. Filed Apr. 12, 1913. Serial No. 760,792. (Cl. 105—15.)



1. The combination with a truck frame, side walls adapted to fold inwardly upon said frame, end walls adapted to fold inwardly upon the outer sides of said side walls, locking bars vertically disposed in parallelism upon the outer sides of said side walls, straps carried by said truck frame and adapted to receive the lower ends of said bars for maintaining said walls in a vertical position, and means carried by said end walls for engaging the ends of said side walls whereby said end walls will be maintained in a vertical position.

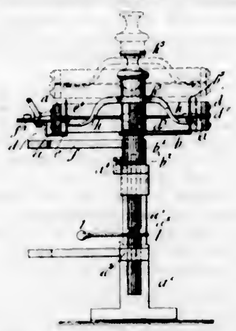
2. The combination with a truck frame, side walls hinged thereto and adapted to fold inwardly upon said frame, end walls hinged to said truck frame and adapted to fold inwardly upon the outer sides of said side walls, straps carried by the outer sides of said side walls, vertically disposed parallel locking bars arranged in said straps, straps carried by said frame and adapted to receive the lower ends of said locking bars, means carried by said bars and engaging in said side walls for limiting the opening and closing movement of said bars, and means carried by said end walls and adapted to engage the ends of said side walls whereby said end walls will be maintained in a vertical position relatively to said side walls.

1,093,575. DOUBLE-SHUTTLE ANVIL FOR TYPEWRITING MACHINES. ARTHUR LOPEZ, New York, N. Y., assignor to The Hammond Typewriter Co., a Corporation of New York. Filed July 30, 1913. Serial No. 781,959. (Cl. 197—48.)

1. In a typewriting machine having an anvil-shaft, an anvil and two shuttles thereon, the combination of radial arms extending from the anvil-shaft toward the shuttles, and means for supporting the radial arms so that the ends of said arms are normally out of engagement with the shuttles, said means being movable on the anvil-shaft for bringing the radial arms into locking engagement with the shuttles.

2. In a typewriting machine, the combination of the anvil-shaft, two shuttles, radial arms supported by the anvil-shaft and movable thereon, the ends of said radial arms being normally below and out of engagement with said shuttles and capable of movement on the anvil-shaft into engagement with the shuttles for locking the same when the anvil-shaft with the shuttles is raised, the

shuttles transposed and the anvil-shaft with the shuttles again lowered, and means for returning the radial arms to normal position out of engagement with the shuttles.

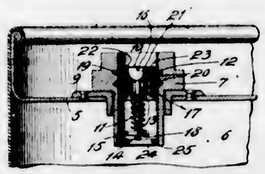


3. In a typewriting machine having an anvil-shaft, an anvil, two shuttles on the anvil, a shuttle-driving arm engaging one shuttle and a fixed pin engaging the other shuttle, radial arms the ends of which are adapted to engage both shuttles and are normally out of engagement with the same, a knob connected with the radial arms on the anvil-shaft for raising the radial arms into engagement with the shuttles, and raising the anvil-shaft with the anvil and shuttles out of one position and transposing the same into another position, and again lowering the same into desired position, and means for returning the knob with the radial arms into normal position out of engagement with the shuttles.

4. In a typewriting machine, an anvil-shaft, an anvil thereon and two shuttles on the anvil, a plate at the upper end of the anvil-shaft projecting over the sides thereof, a support movable on the anvil-shaft and provided with a socket at its upper end of slightly larger diameter than the plate on the anvil-shaft, arms extending rigidly away from the support toward the shuttles of the anvil, a spring interposed between the support and the plate, and a knob for the open upper end of the socket and secured to the support.

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1,093,576. SAFETY-CLOSURE. WILLIAM H. MCNUTT, New York, N. Y., assignor to Carrie Emma Owen, Franklin, N. Y. Filed Mar. 13, 1913. Serial No. 753,909. (Cl. 220—121.)



1. In a safety closure for containers, a body member, a valve seated in the bore of the body member and having its stem threaded and extending through the bore of the body member, a nut on the valve stem, and a spring for normally holding the valve seated and arranged with one end secured to the nut and the other end portion secured to the body member to prevent the nut turning with the valve stem.

2. In a safety closure for containers, a body member, a valve seated in the bore of the body member and having its stem threaded and extending through the bore of the body member, a nut on the valve stem, and a spring for normally holding the valve seated and arranged with one end secured to the nut and the other end portion secured to the body member to prevent the nut turning with the valve stem, the valve head having a tool-engaging end portion.

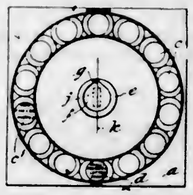
3. In a safety closure, a lining sleeve of fusible metal, a valve seated in the bore of the sleeve and having its stem threaded and extending through the bore of the sleeve, a nut on the valve stem, and a spring for normally holding the valve seated and arranged with one end secured to the nut and the other end portion connected with the sleeve to prevent the nut turning with the valve stem.

4. A reciprocating valve mechanism including a seat and a valve operating through the seat and a spring to hold the valve normally seated, the valve being connected with the spring to permit of its adjustment by the rotation of the valve.

5. A reciprocating valve mechanism including a fusible seat and a valve operating through the seat and a spring to hold the valve normally seated, the valve being connected with the spring to permit of its adjustment by the rotation of the valve.

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1,093,577. GAME APPARATUS. HARRY B. PALMER, New York, N. Y., assignor to Milton Bradley Company, Springfield, Mass., a Corporation. Filed Aug. 31, 1912. Serial No. 718,121. (Cl. 46—41.)



1. In a game apparatus, the combination, two charts each being formed with a series of regularly spaced divisions, one being designated the question chart and the other the answer chart, a pointer device, a base member, the upper part of which is rotatable relative to the lower part, the pointer device being secured to the upper part for positioning said device with relation to the lower part, means mounted in the base member, and means in the answer chart to cause the base member to always assume the same position when the base member and its pointer device are transferred from the question chart to the answer chart.

2. A game apparatus comprising two chart members, one being provided with questions and the other with answers, a pointer device adapted to be transferred from the question chart to the answer chart member, and means to cause the pointer device to automatically assume a predetermined position on the answer chart.

3. A game of the class described comprising two chart members, one being provided with questions and the other with answers, a pointer device for transfer from one chart to the other to indicate the questions and answers, means to permit the pointer device to be rotated to any desired question on the question chart member, and means to cause the pointer device to assume a predetermined position when transferred from the question chart to the answer chart to indicate the answer as described.

4. A game apparatus of the kind described comprising two chart members, a pointer device rotatably mounted on a base member and adapted to be transferred from one chart to the other, means to retain the base member in a fixed position on one of the chart members, means to cause the base member and the pointer member to assume a definite position on one chart member when transferred from the first chart member to the second chart member.

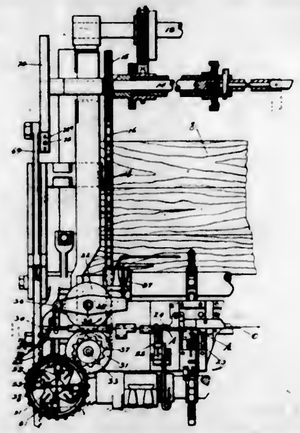
5. In a game apparatus, the combination, two chart members formed with equally spaced divisions, one being designated a question and the other an answer chart, a two-part base member rotatably connected together for transfer from one chart member to the other, a pointer secured to the upper part of the base member to designate any question on the question chart, means in the base member, and means in the answer chart to cause the base member to assume a definite position when the base member is transferred to the answer chart, whereby the pointer will pick out the answer intended, as described.

[Claim 6 not printed in the Gazette.]



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1,093,578. WIRE-FEEDING MECHANISM. WILLIAM H. SOMMER, Peoria, Ill. Filed Aug. 4, 1911. Serial No. 642,364. (Cl. 140—129.)



1. In a wire fabricating machine, in combination, a pair of coöperating feeding wheels, gearing for operating one of said wheels, and a frictional clutch for controlling said gearing.

2. In a wire fabricating machine, in combination, a pair of coöperating feeding wheels, gearing for operating one of said wheels, friction means controlling said gearing, and means for operating said gearing.

3. In a wire fabricating machine, in combination, a pair of coöperating feeding wheels, gearing for operating one of said wheels, friction means controlling said gearing, and a rack bar in operative connection with said gearing.

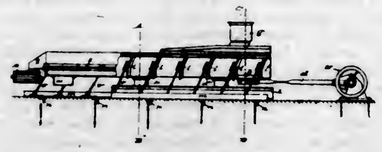
4. In a wire fabricating machine, in combination, a pair of feeding wheels, a gear wheel operatively connected with one of said feeding wheels, a shaft, clutch devices connected with said shaft and adapted to engage said gear wheel, means controlling the clutch devices, and means for operating said shaft.

5. In a wire fabricating machine, in combination, a pair of feeding wheels, a gear wheel operatively connected with one of said feeding wheels, a shaft, clutch devices connected with said shaft and adapted to engage said gear wheel, means controlling the clutch devices, and means for driving said shaft, first in one direction and then in an opposite direction.

[Claims 6 to 31 not printed in the Gazette.]

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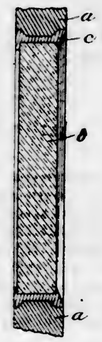
1,093,579. SHAKING-SIEVE APPARATUS. CORNELIS DAVID VAN RAALTEN, Gempolkrep, near Modjokerto, Dutch East India. Filed Jan. 12, 1914. Serial No. 811,721. (Cl. 210—16.)



A liquid straining apparatus, comprising a substantially horizontal filtering screen having a discharge at one end; means for feeding to said screen the liquid to be filtered; a receiving channel below said screen to receive the filtered liquid; and means for imparting to said filtering screen a combined up and ddwn, forward and backward motion, whereby the solid matter collecting on the screen is automatically fed to the discharge end thereof and the filtration of the liquid through the screen accelerated, substantially as described.

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1,093,580. SETTING GLASS. CURTIS HUSSEY VEEDER, Hartford, Conn., assignor to The Veeder Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 2, 1913. Serial No. 758,382. (Cl. 189—77.)



1. In combination, a frame, the inner peripheral surface of which is cut to form a locking member, a glass, and a ring of malleable metal having one surface formed in locking relation to the said locking member and adapted to be forced between said frame and said glass to thereby interlock with the frame and support the glass.

2. In combination, a frame, the inner peripheral surface of which is cut to form a locking member, a glass, a ring of malleable metal having two surfaces formed parallel with the peripheral surfaces of said frame, and adapted to be forced between said frame and said glass to interlock with said frame and support the glass.

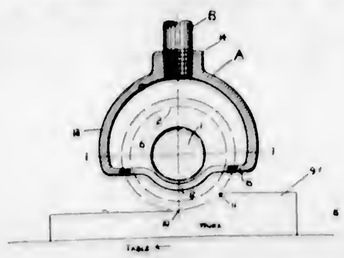
3. In combination, a frame, having interior surfaces disposed in synclinal relation, a glass having its edges formed parallel with the interior surfaces of said frame, and a ring of malleable metal adapted to be inserted between said frame and glass, said ring having two of its surfaces parallel with the interior surfaces of the frame, its opposite surfaces parallel with an edge and the top of the glass, so that the glass will contact at one edge with the frame, and at the other edge and top with said metal ring to be thereby held in a locked position.

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1,093,581. MEANS INCREASING CUTTER EFFICIENCY. ARTHUR J. BAKER, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Oakley, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 15, 1914. Serial No. 812,188. (Cl. 29—106.)

1. A tooling mechanism of the nature disclosed combining an arbor, a cutter rotated thereby, a hood provided with end-walls and circumscribing a large portion of said cutter and having an opening through which the working-portion of said cutter protrudes, an end-wall of said shell providing an opening through which said arbor extends, and means for admitting a copious quantity of cooling fluid into said hood whereby the exposed working-teeth of the cutter will be maintained in a torrent of heat-absorbing fluid and the body of said cutter will be kept submerged in said fluid.

2. A high-speed tooling-device of the nature revealed combining a rotary milling-cutter, a rotating arbor therefor, a hood having two end-walls each providing an opening through which said arbor extends and also having an aperture through which emerge the working-teeth of the cutter, and means for admitting a copious quantity of cooling-fluid into said hood whereby the teeth will be submerged in a stream of said fluid during the greater portion of their peripheral travel and effectively cooled.



3. A cutter-cooling instrumentality combining a milling cutter having a suitably contoured cutting periphery, an arbor for rotating it at high speed, a hood having an opening in its lower periphery through which a portion of said cutter protrudes, the edges of said opening being contoured in close correspondence with the contour of the protruding portion of said cutter, said hood having an end-opening through which said arbor extends, and means whereby a stream of heat-absorbing fluid may flow, continuously into said hood.

4. A temperature-controlled cutting-mechanism combining a suitably contoured milling-cutter, an arbor therefor, a hood enveloping said cutter and providing an aperture through which a working-portion of said cutter protrudes in close proximity with the edges of said aperture, said hood also having a round opening through which emerges said arbor in close fitting relation with the edges of said opening, and means for admitting a continuous stream of heat-absorbing fluid into said hood.

5. A low-temperature high-speed tooling-means combining an arbor, a suitably contoured milling-cutter rotatably mounted thereby, a hood encompassing more than 180° of the cutting-periphery of said cutter and providing an aperture through which the working-portion of said cutter protrudes in close proximity with the edges of said aperture, said hood having an end-wall providing a U-shaped slot adapted to fit over said arbor with its semi-circular edge-portion in close-fitting concentric relation with the periphery of said arbor, and means for admitting a continuous stream of heat-absorbing fluid into said hood whereby the major-portion of said cutter will be submerged in a flowing body of a cooling-medium.

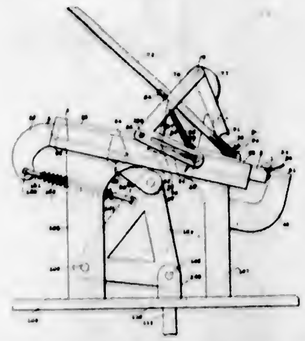
[Claim 6 not printed in the Gazette.]

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1,093,582. BUTTON-ATTACHING MACHINE. PIUS HAMMER, Grants Pass, Oreg. Filed Mar. 2, 1911. Serial No. 611,860. (Cl. 218—8.)

1. In a button attaching machine, a frame work,—a casing having a longitudinal slot in its floor secured thereon,—a plunger in the casing having a depending lug adapted to reciprocate in said slot,—a detachable button-chute having a vertical slot at its lower end mounted upon the casing,—a bell crank having a longitudinal slot in its lower arm mounted on said casing,—a feed bar pivotally secured by one end to the upper arm of said bell crank, the lower end reciprocating in the slot of said chute, a guide-pin extending from the plunger through said casing and engaged in the slot of said bell-crank,—and means for reciprocating the plunger whereby the feed bar is operated.

2. A button attaching machine comprising a casing, a staple-former consisting of a bar pivotally mounted in the casing and having a staple-forming projection at its lower end,—a plunger mounted to reciprocate above said bar,—a staple-holder slidably held at the lower end of the plunger and adapted to embrace said projection,—a stop pivotally connected to said plunger and bearing against the staple-holder, upon which stop is formed a lateral projection,—a stud mounted in the base of the casing,—a retainer having a slot in its upper end adapted to slide upon said stud and pivotally connected to said lateral projection, whereby the stop is swung from engagement with the staple-holder, which permits the plunger to descend within the staple-holder.



3. In a button attaching machine a casing, a bar pivoted at an intermediate point therein, a staple former formed in the face of said bar at its lower end, a plunger mounted to reciprocate above said bar, a staple holder slidably mounted on the lower end of said plunger and adapted to embrace said staple former, a stop pivotally secured to the plunger and bearing on the staple holder for driving it forward, a link having limited longitudinal movement pivotally secured in the casing and connected to said stop whereby the latter is withdrawn from the holder during the advance of the plunger, means for preventing recoil of the holder, means for reciprocating the plunger, and means on the plunger for rocking the bar on its pivot whereby the staple former is brought into line with the staple holder during its upward stroke and withdrawn from the path of the plunger during its downward stroke.

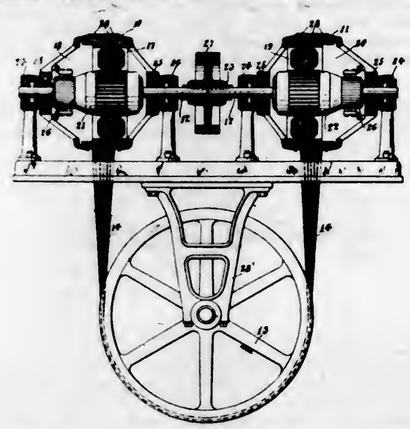
4. In a button attaching machine, a casing having a bottom formed on an inclined plane with a longitudinal slot therein, a plunger adapted to reciprocate upon the bottom of said casing, a lug depending from the plunger through said bottom slot, a button chute having a slot in its lower end mounted above the casing, a bell crank lever having a slot in its lower arm pivotally mounted on the casing above the line of movement of the plunger, a feed-bar pivoted to the upper end of said bell crank, the lower end reciprocating in the slot of the button chute, a pin extending laterally from the plunger through the slot in said bell crank, and means connected to said depending lug for operating the plunger.

5. In a button attaching machine, a casing having a bottom formed on an inclined plane with a longitudinal slot therein and a slot in the side member adjacent thereto, a plunger adapted to reciprocate on the bottom of said casing, a lug depending from the plunger through the bottom slot, a button chute having a slot in its lower end mounted above the casing, a bell-crank lever having a slot in its lower arm pivotally mounted on the casing above the line of movement of the plunger, a feed-bar pivoted to the upper end of the bell-crank, the lower end reciprocating in the slot of the button chute, a pin extending laterally from the plunger through said lateral slot and the slot in said bell crank, a bell-crank pivoted to the frame work below said casing, a spring for holding the last named bell-crank normally at its upper limit, a link connecting said bell-crank with said depending lug, and means for depressing it for operating said plunger.

[Claim 6 not printed in the Gazette.]



1,093,583. ELECTRIC ELEVATOR SYSTEM. ETHELBERT M. FRASER, Yonkers, N. Y., assignor, by mesne assignments, to General Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 29, 1912. Serial No. 711,957. (Cl. 172—152.)



1. In an electric elevator system, the combination with two electric motors having rotatable armatures and field structures rotatable in opposite directions of a plurality of pulleys, two of said pulleys being secured to and driven by said field structures, and power-transmitting means engaging said pulleys.

2. In an electric elevator system, the combination with two electric motors having their armatures mechanically coupled together and their field structures rotatable in opposite directions, of means for varying the field strength of either or both of said motors, and power-transmitting means driven by said field structures.

3. In an electric elevator system, the combination with a car, of a counterweight, two electric motors having rotatable field structures and armatures, means for varying the field strength of said motors, a plurality of sheaves, two of said sheaves being operated by said field structures, and power-transmitting means connecting said car and counterweight and engaging said sheaves.

4. The method of operating an electric elevator driven by two electric motors or dynamos, having their armature shafts mechanically connected together and their field magnets rotatable in opposite directions, which consists in making the field strength of the two motors or dynamos unequal so that one motor or dynamo will always act as a motor when the other acts as a dynamo, and transmitting the reactive thrust of the armatures on the field magnets to an elevator car and counterweight.

5. The method of controlling an elevator car driven by two electric motors or dynamos, having their armature shafts mechanically connected together and their field magnets rotatable in opposite directions, which consists in varying the field strength of either or both of said motors or dynamos to control the direction of rotation of said field magnets.

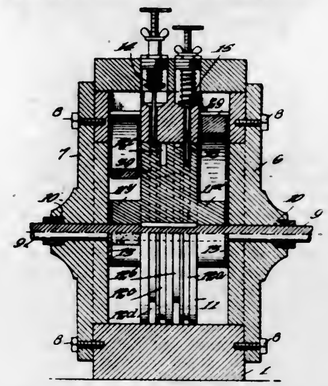
[Claims 6 to 14 not printed in the Gazette.]

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1,093,584. ROTARY ENGINE. EDGAR FLIOH GIBOD, Monroe, La. Filed Aug. 20, 1912. Serial No. 715,974. (Cl. 121—84.)

1. In a rotary engine, a casing, a shaft extending through said casing, a cylinder provided with cam grooves, a series of valves having stems arranged to enter said cam grooves, a piston disposed on each side of said cylinder, a chamber on each side of said cylinder, an oscillating abutment disposed in each of said chambers, each end of said abutment being arranged to be brought into engagement with its individual piston and each of said valves controlling a passage leading into one of said chambers.

2. In a rotary engine, a casing, a shaft extending through said casing, a cylinder provided with cam grooves, a series of valves having stems arranged to enter said cam grooves, a piston disposed on each side of said cylinder, a chamber on each side of said cylinder, an oscillating abutment disposed in each of said chambers, an inlet passage controlled by one of said valves leading into each of said chambers on each side of its oscillating valve, and an exhaust passage on each side of said chambers.



3. In a rotary engine, a casing, a shaft extending therethrough, a pair of pistons for said shaft, a series of valves, means disposed between said piston for operating said valves, an oscillating abutment for each piston, passages controlled by certain of said valves for delivering motive fluid on one side of each of said abutments for driving the engine in one direction, and similar passages for delivering motive fluid on the other side of said abutments for driving the engine in the reverse direction.

4. In a rotary engine, a casing, a shaft extending therethrough, a cam cylinder disposed within said casing, a chamber on each side of said cam cylinder, an oscillating abutment member disposed within each of said chambers, an inlet for motive fluid into each of said chambers on each side of said oscillating abutment, a valve for controlling each of said inlets, said valve being operated by said cam cylinder, and a pair of exhaust pipes extending from each chamber.

5. In a rotary engine, a casing, a shaft extending therethrough, a cam cylinder disposed within said casing, a chamber on each side of said cam cylinder, an oscillating abutment member disposed within each of said chambers, an inlet for motive fluid into each of said chambers on each side of said oscillating abutment, a valve for controlling each of said inlets, said valve being operated by said cam cylinder, a pair of exhaust pipes extending from each chamber, means for simultaneously cutting off the motive fluid from one pair of said valves and admitting it to the other pair, and means for simultaneously closing one pair of the exhausts and for opening the other pair.

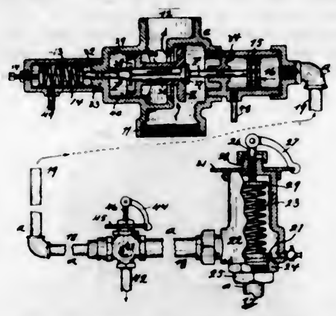
[Claims 6 to 9 not printed in the Gazette.]

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1,093,585. GOVERNOR FOR FIRE-ENGINES. FRANK HOFFMAN, Cincinnati, Ohio, assignor to Michael F. Hoffman, Cincinnati, Ohio. Filed Oct. 25, 1913. Serial No. 797,339. (Cl. 103—93.)

1. In means for controlling the pressure of water pumped by a steam-operated pump, the combination of a valve-housing, a spring-housing provided on one side thereof and a cylinder which forms a water-chamber provided in axial alinement therewith on its other side, and both closed against the valve-housing, a stem which traverses the valve-housing and extends therefrom respectively into the spring-housing and into the water-chamber mentioned, a valve supported on the stem-portion which traverses the valve-housing, a spring contained in the spring-housing and adapted to act against that portion

of the stem which extends into it, a piston in the water-chamber adapted to act against that portion of the stem which extends into it and means to admit water from the pump into the water-chamber.



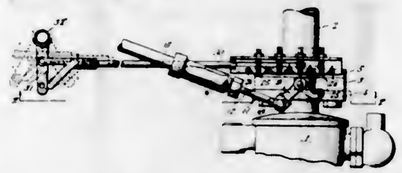
2. In means for controlling water-pressure, the combination of a pump, a steam-engine to operate it, a steam-pipe to supply this latter, a throttle-valve in this steam-pipe to control the passage of steam therethrough, an automatic valve adapted to control the passage of steam between the throttle-valve and the steam-engine, an auxiliary valve seated upon the automatic valve, a stem on which both valves are supported in a manner that one may move independently of the other the auxiliary valve being rigidly connected, a spring adapted to act against one end of this stem, a piston at the other end of it and means to admit pumped water to the piston so as to cause it to act upon the stem in opposition to the spring mentioned and to move the auxiliary valve against the automatic valve.

3. In means for controlling water pressure, the combination of a pump, a steam-engine to operate it, a steam-pipe to supply this latter, a throttle-valve in this steam-pipe to control the passage of steam therethrough, a valve-housing between the throttle-valve and the steam-engine, an extension on one side of this housing forming a steam-chamber, a cylinder forming a water-chamber on the other side of this housing and a spring-housing beyond the steam-chamber all three being axially alined, a valve contained in the valve-housing and adapted to control passage of steam through the steam-pipe, a follower fitted to the steam-chamber and forming a connected part of the valve, an auxiliary valve adapted to admit steam to the steam-chamber so as to act against the follower contained therein, a stem whereby the valves mentioned are supported in a manner that one may move independently of the other and which stem extends from the spring-housing, through the steam-chamber and valve-housing and into the water-chamber, a spring contained in the spring-housing and acting against the stem in a manner that passage for steam through the valve-housing is normally open, a piston contained in the water-chamber and means to admit pumped water to this chamber so as to cause the piston contained therein to act against the stem in opposition to the spring mentioned.

4. In means for controlling the pressure of the water moved by the pump of a steam-operated fire-engine, the combination of the pump, steam-engine and boiler, a frame whereby these parts are supported, a steam-pipe to supply the engine from the boiler, a throttle-valve provided in this steam-pipe to control the steam-supply to the engine, a spring-actuated valve which controls passage through the steam-pipe between the throttle-valve and the engine and tends to keep this passage normally open, a housing in which this valve is contained and which forms a part of the steam-conduit between the boiler and the engine, an operatively connected piston adapted to operate in a manner tending to close this valve, a cylinder which forms a connected extension of the housing mentioned and constitutes a water-chamber closed against said housing and to which the piston is fitted, a pipe-conduit whereby this water-chamber is connected with the pump-delivery, means to connect this pipe-conduit in position to the longitudinal members of the frame mentioned, a spring-actuated valve which controls passage of water to the water-chamber and makes such passage dependent on pressure-conditions of the pumped water, adjusting means to regulate the action of this valve, a housing in which it is contained and a normally open waste-outlet in the pipe conduit between this housing and the water-chamber.

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1,093,586. INTERNAL-COMBUSTION-ENGINE CONTROL. IRA R. KNOX, Philadelphia, Pa. Filed May 6, 1913. Serial No. 765,892. (Cl. 123—103.)



1. The combination with the intake pipe of an internal combustion engine, of a throttle valve controlling said pipe and actuated by the current of the engine cooling medium in accordance with the velocity of said medium, and an adjustable stop for limiting positively the amplitude of movement of said valve in accordance with the requirements of the engine under varying loads.

2. The combination with the intake pipe of an internal combustion engine, of a throttle valve controlling said pipe and actuated by the current of the engine cooling medium in accordance with the velocity of said medium, and an element connected with the gear shift lever for limiting the amplitude of movement of said valve in accordance with the requirements of the engine under varying loads.

3. The combination with the intake pipe of an internal combustion engine, of a throttle valve controlling said pipe and actuated by the current of the engine cooling medium in accordance with the velocity of said medium, an element connected with the gear shift lever, and a series of stops carried by said element and acting to limit the amplitude of movement of said valve in accordance with the requirements of the engine under varying loads.

4. The combination with the intake pipe of an internal combustion engine, of a throttle valve controlling said pipe and actuated by the current of the engine cooling medium in accordance with the velocity of said medium, an element connected with the gear shift lever, and a series of stops carried by said element and acting to limit the amplitude of movement of said valve in accordance with the requirements of the engine under varying loads, each of said stops being adjustable independently of the others for the purpose specified.

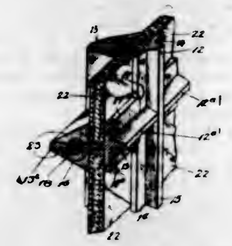
5. The combination with the intake pipe of an internal combustion engine, of a throttle valve controlling said pipe and actuated by the current of the engine cooling medium in accordance with the velocity of said medium, an element connected with the gear shift lever, and a series of stops carried by said element and acting to limit the amplitude of movement of said valve in accordance with the requirements of the engine under varying loads, each of said stops embodying a spring bow, and means for varying the radius of the arc of said bow.

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1,093,587. WINDOW-SASH. EDWARD MCCLURE, Chicago, Ill., assignor of one-half to Franklin P. Smith, Chicago, Ill. Filed Apr. 21, 1913. Serial No. 762,501. (Cl. 189—77.)

1. A window sash comprising longitudinal sash bars spaced apart, short length sash bars extending, in alinement, between and abutting against the sides of said longitudinal sash bars, each of said sash bars comprising a central web portion and laterally extending flanges integral therewith, rods, one lying adjacent to and parallel with the central web portions of alined short length sash bars and extending through the webs of said longitudinal sash bars, and means on the ends of said rods for rigidly securing together said longitudinal and short length sash bars.





2. In a window sash, a plurality of longitudinal sash bars spaced apart, a plurality of series of short length sash bars, those of each series extending in alinement between and abutting against the sides of the longitudinal sash bars, each of said sash bars comprising a central web portion and laterally extending flanges integral therewith, tie rods, one for each series of short length sash bars, and lying adjacent to and parallel with the central web portions thereof, said tie rods extending through the web portions of said longitudinal sash bars and being screw threaded upon their ends and having nuts threaded thereon, bearing against the outer longitudinal sash bars.

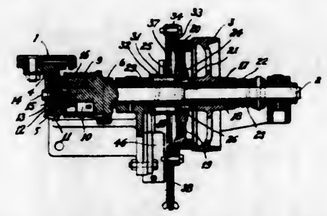
3. In a window sash, a plurality of spaced longitudinal sash bars, a plurality of short length sash bars, arranged in series, and those of each series lying in alinement between and abutting against the sides of the longitudinal sash bars, each of said sash bars comprising a central web portion and laterally extending flanges integral therewith, and the webs of said short length sash bars having longitudinally extending grooves therein, tie rods, there being one tie rod for each series of short length sash bars, and lying in the grooves of the central webs, said tie rods extending through holes in the longitudinal sash bars and having nuts threaded thereon and bearing against the outside longitudinal sash bars.

4. In a window frame, a plurality of longitudinal sash bars spaced apart, a plurality of short length sash bars arranged in series, and those of each series extending in alinement between and abutting against the sides of the said longitudinal sash bars, each of said sash bars comprising a web portion, and laterally extending flanges, the webs of the short length sash bars having longitudinal grooves formed therein, tie rods, one for each series of short length sash bars lying in the grooves thereof and extending through holes in the longitudinal sash bars, said tie rods having nuts threaded upon their ends and bearing against the outside longitudinal sash bars.

5. In a window sash, a plurality of longitudinal sash bars spaced apart, a plurality of short length sash bars arranged in series, and those of each series extending in alinement between and abutting against the sides of the longitudinal sash bars, each of said sash bars comprising a central web portion and two lateral flanges integral therewith, the edges of the flanges of the longitudinal sash bars having oppositely disposed notches formed therein to receive the corresponding ends of the flanges of the short length sash bars, and the web portions of the short length sash bars being formed with longitudinally extending grooves, and tie rods, there being one tie rod for each series of short length sash bars lying in the grooves thereof, and extending through holes in the webs of the longitudinal sash bars, said tie rods having nuts threaded upon their ends bearing against the outer longitudinal sash bars.

[Claims 6 to 8 not printed in the Gazette.]

1,093,588. STOP MECHANISM. FREDERICK J. NASH, Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 11, 1906. Serial No. 325,568. (Cl. 74—13.)



1. A stop mechanism having, in combination, a shaft, means for actuating said shaft, means for connecting and disconnecting said shaft and its actuating means and stopping said shaft, mechanism driven by said shaft, a spring connection between the shaft and said mechanism arranged to allow an independent forward movement of the mechanism and to impart a return movement thereto after said shaft is stopped, and means for retarding said independent forward movement, substantially as described.

2. A stop mechanism having, in combination, a shaft, means for actuating said shaft, means for connecting and disconnecting said shaft and its actuating means and stopping said shaft, mechanism driven by said shaft, a spring connection between the shaft and said mechanism arranged to allow an independent forward movement of the mechanism and to impart a return movement thereto after said shaft is stopped, and means for retarding said return movement, substantially as described.

3. A stop mechanism having, in combination, a shaft, a gear driven by the shaft, means for imparting a positive forward movement to the gear from the shaft, a spring connection between the shaft and the gear arranged to allow an independent forward movement of the gear and to impart a return movement thereto, and a retarding device for checking such relative movements of the shaft and gear, substantially as described.

4. A stop mechanism having, in combination, a shaft, a gear driven by the shaft, means for imparting a positive forward movement to the gear from the shaft, a spring connection between the shaft and the gear arranged to allow an independent forward movement of the gear and to impart a return movement thereto, and a frictional checking device for checking such relative movements of the shaft and gear, substantially as described.

5. A stop mechanism having, in combination, a shaft, mechanism driven by the shaft, means for actuating the shaft, means for stopping the shaft, a spring connection between the shaft and said mechanism arranged to allow an independent forward movement of said mechanism and to impart a return movement thereto after said shaft is stopped, and a retarding device for checking such return movement, substantially as described.

[Claim 6 not printed in the Gazette.]

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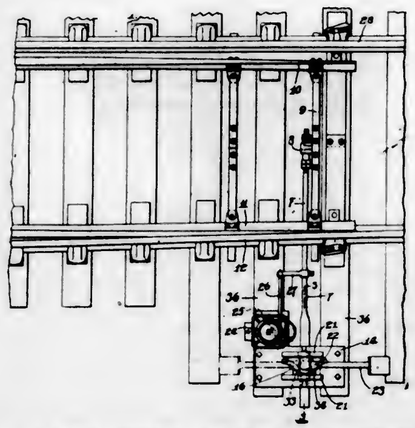
1,093,589. SWITCH-OPERATING MECHANISM. JOHN WILLIAM STONE, Downingtown, Pa. Filed May 7, 1912. Serial No. 695,603. (Cl. 104—25.)

1. In switch operating mechanism, the combination of a recessed slide bar, a cam for coöperating with said recess and an actuating lever projecting directly from the cam member at a point midway between the two ends of its recess-engaging periphery.

2. In switch operating mechanism, the combination of a recessed slide bar, a cam for coöperating with said recess and a counterbalanced actuating lever projecting directly from the cam member at a point midway between the two ends of its recess-engaging periphery.

3. In switch operating mechanism, the combination of a slide rod provided with a channel having oppositely

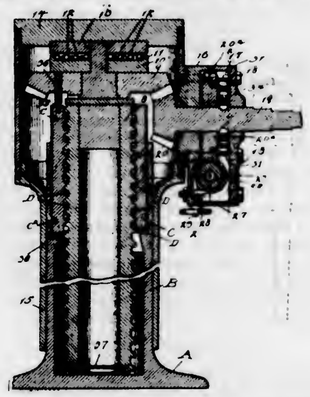
disposed faces, said faces being angularly disposed with respect to each other, and rotatable means, operating between two of said faces, for locking the slide rod against accidental movement.



4. In switch operating mechanism, the combination of a slide rod having a groove therein, each side of said groove comprising two adjacent angularly disposed faces parallel with corresponding faces on the opposite side of the groove, a cam for working in said groove, and means connected with the periphery of the cam for coöperating with the groove to automatically lock the slide rod against accidental movement.

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1,093,590. LIFTING-JACK. CALVIN T. STARBUCK, Birmingham, Ala., assignor to A. O. Norton, Incorporated. Filed May 13, 1912. Serial No. 696,969. (Cl. 57—44.)



1. In a lifting jack, a base member, a nut supported by the base member, a screw member associated with the nut, a ball race leading to the threads of the screw, a gear wheel on the screw operating above the nut, a post projecting from the upper surface of the nut, a post depending from the gear wheel, the said post on the gear wheel adapted to engage the post projecting from the nut, for arresting the downward movement of the screw.

2. In a lifting jack, a base member, a jacket operating on the base member, a nut carrying a head supported by the base, a screw associated with the nut, a gear on the upper portion of the screw, anti-friction devices between the threads of the nut and screw, means for operating the screw, a brake for controlling the movement of the screw operating means, means adapted to co-act with means on the nut for arresting the downward movement of the screw.

3. In a lifting jack, a base, a nut supported thereby, a screw threaded in the nut, a gear wheel mounted on the screw, a post on the nut, a depending post on the gear wheel, the said posts being adapted to co-act to limit the rotation of the screw in one direction, a post projecting laterally from the screw near the bottom thereof, and a member projecting into the path of travel of the last mentioned post for arresting the rotation of the screw at the limit of its upward movement, and means for rotating the screw.

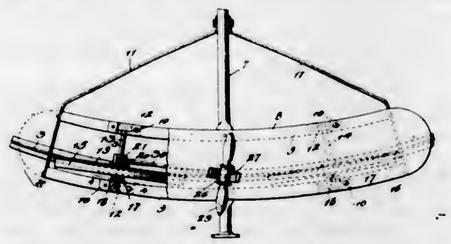
4. In a lifting jack, a base having a casing, a nut in said casing, a screw threaded in the nut, a head mounted to take motion from the screw, a gear wheel mounted on the screw for rotating the same in the nut, a post projecting from the upper edge of the nut, a post projecting from the gear wheel adapted to engage the post projecting from the nut for arresting the rotation, of the screw, a post projecting radially from the casing, a post projecting from the screw adapted to engage the post projecting from the casing to arrest the rotation of the screw at the limit of its upward movement, and means for rotating the gear wheel.

5. In a lifting jack, a base having a casing, a nut supported in the casing, a screw threaded in the nut, a gear wheel on the screw, a shaft having a pinion meshing with the gear wheel, a worm wheel rotatable on the shaft, a ratchet wheel keyed to the said shaft, pawls pivoted to the worm wheel adapted to engage the teeth of the ratchet wheel, a worm in engagement with the worm wheel, means for communicating motion to the worm wheel, and a brake in engagement with the worm having means for adjusting the said brake to control the rotation of the worm.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,591. ROUNDABOUT. ROSS WILLIAM SATTLER, Mount Vernon, Ohio. Filed June 14, 1911. Serial No. 633,089. (Cl. 46—27.)

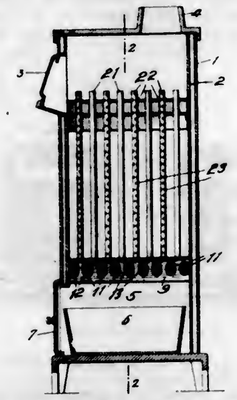


1. In a structure of the class described, the combination with a central vertical mast, of a car member comprising a main platform, a pair of bars disposed in spaced relation beneath the platform, standards connecting said bars and platform, a shaft pivoted to the mast and extending radially therefrom and secured to the intermediate portions of the bars, straps secured to the end portions of the bars and directed inwardly and secured to the shaft, and wheeled axles carried by the end portions of said bars.

2. In a roundabout, the combination with a circular track of inverted T-shape design, a mast mounted centrally thereof, a substantial hub supporting the lower end of said mast and having upper and lower annular flanges thereon, said flanges being provided with a plurality of openings, bracing wires engaged at their inner ends with the openings in said flanges, the outer ends of said wires being threaded and disposed through the vertical portion of the inverted T-shape track, and nuts engaging the threaded ends of said wires to secure the same in position; of a truck mounted on the track, and means to support said truck from the mast.



1,093,592. INCINERATOR. MERRIT H. RICE, New Rochelle, N. Y., assignor to National Electric Utilities Corporation, New York, N. Y., a Corporation of New York. Filed Sept. 19, 1913. Serial No. 790,648. (Cl. 219—19.)



1. In an incinerator, the combination with the furnace walls, of a grate adapted to support wet material and comprising spaced heating units containing heating elements embedded in refractory insulating material.

2. In an incinerator, the combination with the furnace body, of a heater adapted to support the material to be burned and having an auxiliary vertical heater comprising means to heat the material above the level of the first said heater.

3. In an incinerator, the combination with the furnace body, of a grate having heating means and an auxiliary heater comprising means to heat the material above the grate and to supply air in the mass of material.

4. In an incinerator, the combination with the furnace body, of a grate having heating means and an auxiliary heater comprising means to supply air in the mass of material and additional means to heat the mass at points above the grate.

5. In an incinerator, the combination with the furnace body, of a grate having heating means and an auxiliary heater comprising means to supply air in the mass of material, said means consisting of flues leading from the vicinity of the grate to the material perforated along their lengths.

[Claims 6 to 10 not printed in the Gazette.]

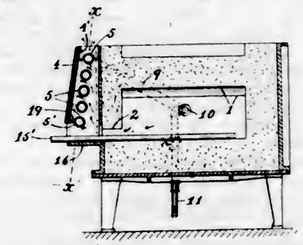
# REISSUES.

13,713. PREHEATER AND FURNACE-SHIELD. WALTER S. ROCKWELL, New York, N. Y., assignor to W. S. Rockwell Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 3, 1913. Serial No. 804,511. Original No. 1,079,266, dated Nov. 18, 1913, Serial No. 784,912. (Cl. 75—196.)

1. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of air-heating pipes with connections for the supply and delivery of air, a non-conducting plate at one side of such pipes and secured thereto, and means for supporting the preheater and shield upon the outside of the furnace.

2. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of a plurality of pipes connected together at their ends and provided with inlet and outlet for air, a plate attached to such pipes and provided with a layer of non-conducting material to form a shield, and means for supporting the preheater and shield upon the outside of the furnace.

3. An attachment for metal-heating furnaces, comprising a preheater and shield consisting of a plurality of parallel pipes, headers connected respectively to the opposite ends of such pipes and provided with inlet and outlet for air, a plate attached to the headers and provided with a layer of non-conducting material to form a shield, and means for supporting the headers upon the outside of the furnace.



4. The combination, with a metal-heating furnace having a heating-chamber with an outlet for the waste-gases, of a casing of non-heat-conducting material supported adjacent to such outlet with the waste-gases conducted therethrough, and air-conduits in the casing in the path of the heated gases, and such conduits having inlet with connection to an air-blower, and to an outlet delivering the heated air to the fuel during the combustion of the same.

5. In a metal-heating furnace, the combination, with a furnace-front having a heating-chamber with working-opening in such front from which the waste-gases may escape, of a shield of non-heat-conducting material supported adjacent to the furnace-front above such working-opening, with a vertical passageway between such shield and front through which the waste-gases may travel, and an air-blast-pipe supported above the said opening at the bottom of the passageway, and directing an air-blast upon the gases escaping from the said opening and operating to deflect them into said passageway.

6. In a metal-heating furnace, the combination, with a furnace-front and a heating-chamber, with working-opening in such front from which the waste-gases may escape, of a shield of non-heat-conducting material supported adjacent to the front above said opening, forming a casing adjacent to such opening through which the waste-gases may travel, and connected air-conduits in such casing with outlet delivering the heated air to the fuel of the furnace, and with inlet connected to a pipe supplying air under pressure.

7. In a metal-heating furnace, the combination with a furnace-front and a heating-chamber, with working-opening in such front from which the waste-gases may escape, of a shield of non-heat-conducting material supported adjacent to the front above said opening, forming a casing adjacent to such opening through which the waste-gases may travel, connected air-conduits in such casing with outlet delivering the heated air to the fuel of the furnace, the bottom conduit being perforated and the air-blast therefrom directed against the waste-gases to deflect them from the operator into the said casing, an air-supply-pipe connected to the conduit, and a valve in such supply-pipe controlling the supply of air to the blast-pipe, the conduits, and the fuel.

8. In a metal-heating furnace, the combination, with a heating-chamber provided with fluid-fuel-burners and having a working-opening at the front permitting the escape of waste-gases therefrom, of a preheater casing above such opening, and air-conduits therein connected to the fuel-burners and supplying heated air thereto.

9. In a metal-heating furnace, the combination, with a heating-chamber provided with fluid-fuel-burners and having a working-opening at the front permitting the escape of waste-gases therefrom, of a preheater casing above such opening, with horizontal air-conduits arranged in an inclined series therein transverse to the movement of the gases, and supplying heated air to the fuel-burners.

10. In a metal-heating furnace, the combination, with a heating-chamber provided with fluid-fuel-burners and having a working-opening at the front permitting the escape of waste-gases therefrom, of a preheater casing above such

opening with a non-heat-conducting shield upon its outer side, and air-conduits therein connected to the fuel-burners and supplying heated air thereto.

11. In a metal-heating furnace, the combination, with a heating-chamber provided with fluid-fuel-burners and having a working-opening at the front permitting the escape of waste-gases therefrom, of a preheater casing above such opening with a series of air-conduits 5, 5' therein connected to an air-supply-pipe and to the fuel-burners, the lower pipe 5' having perforations directed against the current of waste-gases to deflect them from the operator, and having a guard-plate 19 to throw the gases toward the inner sides of the air-conduits.

12. In a metal-heating furnace, the combination, with a furnace-front and a heating-chamber with working-opening in such front permitting the escape of waste-gases therefrom, of a preheater casing above such opening having free passage for the rise of the gases therein, a sill projected outwardly, and an air-blast-pipe supported upon the casing and directing a blast toward the said sill, to obstruct the forward movement of the gases and cause them to rise within the said casing.

13. The combination, with a heating-furnace having a heating-chamber with a normally open working-opening in the furnace-front through which the waste-gases may escape, of a shield extended upwardly above such working-opening outside of the furnace-front with space between such shield and front to permit the passage of hot-gases upwardly from the working-opening, a sill projected outwardly below the working-opening and an air-blast pipe supported near the top of such working-opening outside of the furnace-front and directing a blast obliquely upon the current of gases escaping from the working-opening to deflect them upwardly into the said space.

14. The combination, with a heating-furnace having a heating-chamber with a working-opening in the furnace-front from which the escaping gases may pass directly upward, of an air-conduit supported above such working-opening in such upward path of the gases and connected with an air-blower supplying air to the combustion-chamber of the furnace, a sill projected outwardly below the working-opening and an air-blast-pipe supported near the top of such working-opening and directing a blast obliquely upon the current of heated gases to deflect them upwardly into contact with the said conduit.

15. In a metal-heating furnace, the combination, with a heating-chamber provided with fluid-fuel-burners and having a working-opening at the front permitting the escape of waste-gases therefrom, of a preheater having a shield extended upwardly above such opening, with space to permit the passage of the gases, an air-conduit in such space, a sill projected outwardly below the working-opening, and an air-blast-pipe supported above the sill and directing a blast toward the said sill, to obstruct the forward movement of the gases, and divert them upwardly against the conduit.

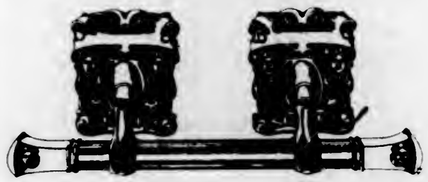
16. The combination, with a heating-furnace having a heating-chamber with a working-opening in the furnace-front from which the escaping gases may pass directly upward, of an air-conduit supported adjacent to such outlet in the path of such gases and its ends connected respectively to an air-supply-pipe and to the combustion-chamber of the furnace.

17. The combination, with a heating-chamber having a working-opening in the furnace-front from which the escaping gases may pass directly upward, of a shield supported upon the furnace-front adjacent to such working-opening, and an air-conduit supported in the space between such shield and the furnace-front and its ends connected respectively with an air-supply-pipe and with the combustion-chamber of the furnace.

18. The combination, with a heating-chamber having a working-opening in the furnace-front from which waste-gases may escape, of a shield supported adjacent to the furnace-front, an air-conduit supported in the space between such shield and the furnace-wall, and an air-blast-pipe discharging an air-blast obliquely downward against the waste-gases to deflect them into the said space against the air-conduit.

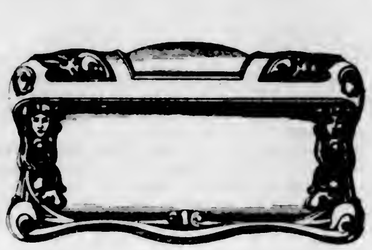
# DESIGNS.

45,581. CASKET-HANDLE AND LUGS. GEORGE R. BAILEY, Brooklyn, N. Y., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 7, 1914. Serial No. 817,361. Term of patent 7 years.



The ornamental design for a casket handle and lugs as shown.

45,582. NAME-PLATE FOR CASKETS. GEORGE R. BAILEY, Brooklyn, N. Y., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 7, 1914. Serial No. 817,362. Term of patent 7 years.



The ornamental design for a name plate for caskets as shown.

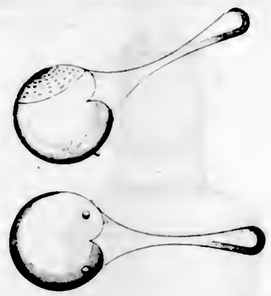
45,583. CASKET-HANDLE AND LUGS. GEORGE R. BAILEY, Brooklyn, N. Y., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y., a Corporation of New York. Filed Feb. 7, 1914. Serial No. 817,363. Term of patent 7 years.



The ornamental design for a casket handle and lugs as shown.

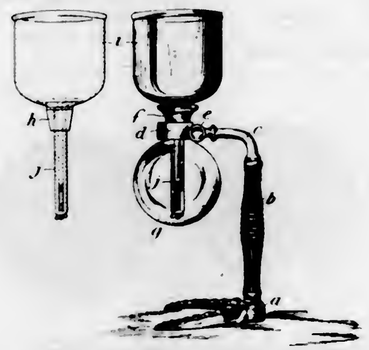


45,584. SALT OR PEPPER SHAKER. LOGAN A. BROADDUS, Denver, Colo. Filed Feb. 16, 1914. Serial No. 819,106. Term of patent 14 years.



The ornamental design for a salt or pepper shaker, as shown.

45,585. COFFEE-PERCOLATOR. ALBERT COHN, London, England. Filed Jan. 29, 1914. Serial No. 815,314. Term of patent 7 years.




The ornamental design for a coffee percolator as shown and described.

45,586. POWDER-CONTAINER. JAY E. CROSS, South Lancaster, Mass. Filed Dec. 16, 1913. Serial No. 807,130. Term of patent 3½ years.



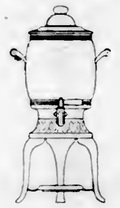
The ornamental design for a powder container as shown.

45,587. PERCOLATOR. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Feb. 16, 1914. Serial No. 819,101. Term of patent 14 years.



The ornamental design for a percolator, as shown.

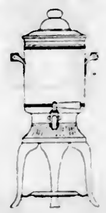
45,588. URN. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Feb. 16, 1914. Serial No. 819,103. Term of patent 14 years.





The ornamental design for an urn, as shown.

45,589. URN. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Feb. 16, 1914. Serial No. 819,102. Term of patent 14 years.





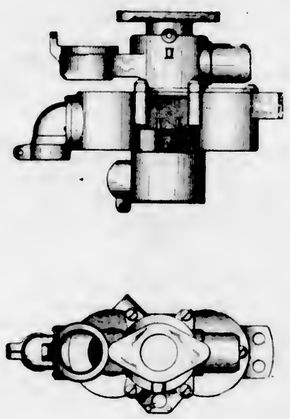
The ornamental design for an urn, as shown.

45,590. URN. GEORGE E. CURTISS, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation. Filed Feb. 16, 1914. Serial No. 819,104. Term of patent 14 years.



The ornamental design for an urn, as shown.

45,591. CARBURETER. WADE HAMPTON DE FONTAINE, New York, N. Y. Filed Jan. 24, 1914. Serial No. 814,249. Term of patent 3½ years.



The ornamental design for a carbureter as shown.

45,592. ORCHARD-HEATER. EMANUEL W. DUNN, Oakland, Cal. Filed Dec. 15, 1913. Serial No. 806,930. Term of patent 14 years.



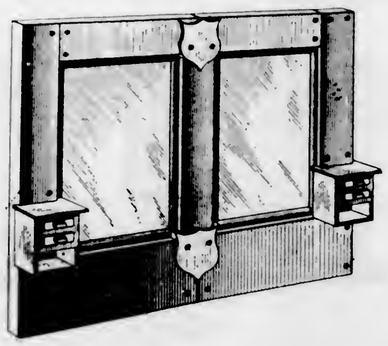
The ornamental design for an orchard heater, as shown.

45,593. PARASOL. CHARLES J. FOLLMER, New York, N. Y. Filed Feb. 12, 1914. Serial No. 818,421. Term of patent 14 years.



The ornamental design for a parasol, as shown.

45,594. BARBER'S WALL-CASE. WILLIAM L. GOLDSTEIN and GEORGE C. VAN ESSEN, Pittsburgh, Pa. Filed Oct. 23, 1913. Serial No. 796,970. Term of patent 7 years.



The ornamental design for a barber's wall case as shown.



45,595. PROTECTIVE SHIELD. VICTOR GUINZBURG, New York, N. Y., assignor to I. B. Kleinert Rubber Company, New York, N. Y., a Corporation of New York. Filed Sept. 5, 1913. Serial No. 788,357. Term of patent 14 years.



The ornamental design for a protective shield as shown.

45,596. CAP. ALBIN G. HUETTEL, West Hoboken, N. J. Filed Jan. 29, 1914. Serial No. 815,313. Term of patent 7 years.




The ornamental design for a cap, as shown and described.

45,597. CURTAIN-SUSPENDER. CASPAR KAPFINGER, Jr., Kufstein, Austria-Hungary. Filed Jan. 30, 1912. Serial No. 674,402. Term of patent 3½ years.



The ornamental design for a curtain suspender as shown and described.

45,598. BADGE, PIN, OR FRATERNAL EMBLEM. JAMES R. MANSFIELD, Alexandria, Va. Filed Jan. 14, 1913. Serial No. 742,060. Term of patent 7 years.



The ornamental design for a badge, pin, or fraternal emblem, as shown and described.

45,599. ENVELOP OPENER AND SEAL. THOMAS J. MCADAMS, Marion, Ill. Filed Jan. 31, 1914. Serial No. 815,827. Term of patent 3½ years.



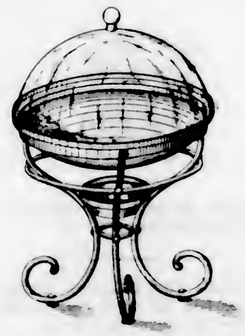
The ornamental design for an envelop opener and seal as shown.

45,600. VIOLIN-BRIDGE. WILLIAM A. E. MICHAELIS, Seattle, Wash. Filed Sept. 11, 1913. Serial No. 789,377. Term of patent 3½ years.



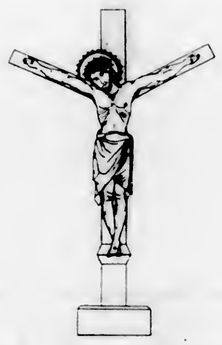
The ornamental design for a violin bridge, as shown.

45,601. CASSEROLE. REGINA MOHAHENN, New York, N. Y. Filed Jan. 24, 1914. Serial No. 814,247. Term of patent 7 years.



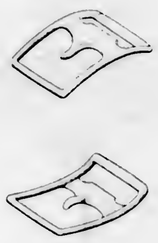
The ornamental design for a casserole, as shown.

45,602. CRUCIFIX. WILLIAM O'SHEA, Kansas City, Mo. Filed Feb. 2, 1914. Serial No. 816,109. Term of patent 7 years.



The ornamental design for a crucifix, as shown.

45,603. BUCKLE. CHARLES F. REYNOLDS, Cleveland, Ohio. Filed Feb. 13, 1914. Serial No. 818,610. Term of patent 14 years.



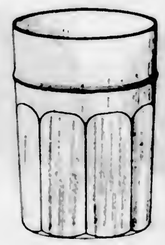
The ornamental design for a buckle, as shown.

45,604. BUCKLE. CHARLES F. REYNOLDS, Cleveland, Ohio. Filed Feb. 13, 1914. Serial No. 818,612. Term of patent 14 years.



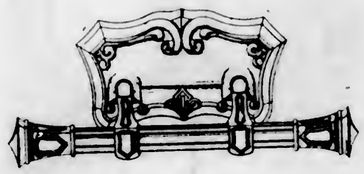
The ornamental design for a buckle, as shown.

45,605. TUMBLER. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio. Filed Dec. 12, 1913. Serial No. 806,349. Term of patent 14 years.



The ornamental design for a tumbler as shown.

45,606. CASKET-HANDLE. EDWARD B. STEWART, Elgin, Ill., assignor to Western Casket Hardware Company, Elgin, Ill., a Corporation of Illinois. Filed Jan. 20, 1914. Serial No. 813,336. Term of patent 7 years.



The ornamental design for a casket handle as shown.



45,607. HOLDER FOR RESILIENT DISHES. RILEY SWEERS, Toledo, Ohio. Filed Dec. 29, 1913. Serial No. 809,426. Term of patent 14 years.



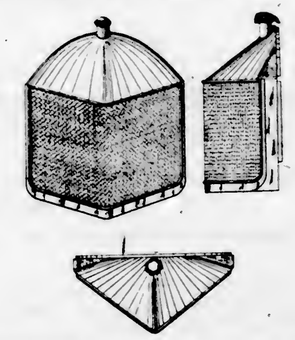
The ornamental design for a holder for resilient dishes, as shown.

45,608. FONT OF TYPE. SIDNEY M. WEATHERLY, Philadelphia, Pa. Filed Oct. 17, 1907. Serial No. 397,939. Term of patent 14 years.

ABCDEFGHIJKLMNOP
QRSTUVWXYZ&
abcdefghijklmnopqrstuv
wxyz.,#"'"-!?
$1234567890

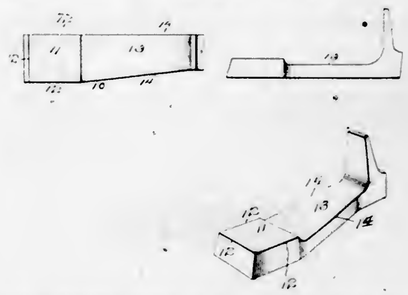
The ornamental design for a font of type shown in the accompanying drawing.

45,609. AUTOMOBILE RADIATOR-CASING. GARDNER E. WHEELER, New Haven, Conn., assignor to The English & Mersick Company, New Haven, Conn., a Corporation of Connecticut. Filed June 24, 1912. Serial No. 705,665. Term of patent 14 years.



The ornamental design for an automobile radiator casing, substantially as shown.

45,610. PIANO-PEDAL. ALBERT F. NORRIS and CLIFTON H. NORRIS, Stoughton, Mass. Filed Nov. 25, 1912. Serial No. 733,540. Term of patent 7 years.



The ornamental design for a piano pedal as shown and described.

# TRADE-MARKS

## PUBLISHED APRIL 14, 1914.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 46,064. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BEAN SPRAY PUMP CO., San Jose, Cal. Filed Nov. 22, 1909. Under ten-year proviso.

Bean Spray

*Particular description of goods.*—Pumps and Discharge-Nozzles for Applying Spray Materials to Trees, Fruits, &c.
*Claims use* since 1887.

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Ser. No. 53,382. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) EDES ROBE TANNING COMPANY, Dubuque, Iowa; Omaha, Nebr.; St. Paul, Minn., and Sioux Falls, S. D. Filed Dec. 20, 1910.

EDE

*Particular description of goods.*—Hides and Skins.
*Claims use* since about Jan. 1, 1905.

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Ser. No. 55,447. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) UNITED STATES FASTENER COMPANY, Portland, Me., and Boston, Mass. Filed Apr. 1, 1911.

T&H

*Particular description of goods.*—Snap-Fasteners Used as Garment-Fasteners.
*Claims use* since January, 1900.

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Ser. No. 57,973. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CONSOLIDATED FASTENER COMPANY, Portland, Me. Filed Aug. 1, 1911.

RG

*Particular description of goods.*—Snap-Fasteners Used as Garment-Fasteners.
*Claims use* since July 27, 1900.

Ser. No. 60,265. (CLASS 39. CLOTHING.) PARKER, STEARNS & COMPANY, New York and Brooklyn, N. Y. Filed Dec. 15, 1911.

"Surf Queen"

*Particular description of goods.*—Rubber Bathing-Caps.
*Claims use* since Dec. 6, 1911.

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Ser. No. 60,758. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ELCHEMCO MANUFACTURING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912.

ELCHEMCO

*Particular description of goods.*—Rubber Tires.
*Claims use* since Mar. 1, 1911.

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Ser. No. 61,263. (CLASS 27. HOROLOGICAL INSTRUMENTS.) HARDINGE BROTHERS, Chicago, Ill. Filed Feb. 5, 1912.

PATROL

*Particular description of goods.*—Watchman's Clocks.
*Claims use* since January, 1909.

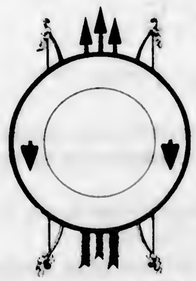
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Ser. No. 62,265. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MERRY OPTICAL COMPANY, Kansas City, Mo. Filed Mar. 19, 1912.

EVERYBODY'S

*Particular description of goods.*—Spectacles and Eyeglasses.
*Claims use* since Feb. 16, 1912.

Ser. No. 63,666. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn. Filed May 20, 1912.



*Particular description of goods.*—Wheat-Flour.
*Claims use* since on or about April, 1910.

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Ser. No. 64,203. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WYETH HDW. & MFG. CO., St. Joseph, Mo. Filed June 15, 1912.

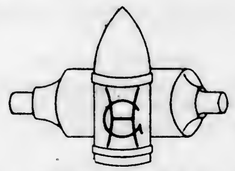



No claim is made to the exclusive use of the word "Wyeth."

*Particular description of goods.*—Axes, Broadaxes, Adzes, Hatchets, Hammers, Tack-Claws, Pocket-Knives, Drawing-Knives, Carving-Knives, Butcher-Knives, Cooks' Knives, Cheese-Knives, Bread-Knives, Paring-Knives, Shoe-Knives, Broom-Corn Knives, Oil-Cloth Knives, Scraping-Knives, Hedge-Knives, Corn-Knives, Putty-Knives Spatulas, Slicers, Hoof-Parers, Steel Table-Knives, Razors, Chisels, Gouges, Handsaws, Bucksaws, Crosscut-Saws, Saw-Blades, Saw-Sets, Saw-Rods, Scissors, Shears, Grass-Shears, Animal-Shears, Hedge-Trimmers, Picks, Shovels, Spades, Trowels, Mattocks, Hoes, Rakes, Scoops, Augers, Braces and Bits, Screw-Drivers, Scythes, Grass-Hooks, Bush-Hooks, Solid Punches, Belt-Punches, Spring-Punches, Nail-Sets, Wrenches, Pliers, Files, Corn-Shellers, Corn-Planters, Lawn-Mowers, Sewing-Machines, and Tool-Handles.
*Claims use* since on or about July 1, 1884.

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Ser. No. 66,618. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FRIED. KRUPP, AKTIENGESELLSCHAFT, GRUSONWERK, Magdeburg-Buckau, Germany. Filed Oct. 30, 1912.



*Particular description of goods.*—Gravel-Sorting Machinery; Cleaning and Hulling Machines; Automatic Oil-Presses; Hydraulic Box-Pressing Plant; Oil-Filters; Pressure-Pumps; Cane-Crushers; Cane and Bagasse Carrier; Fiber-Extracting Machines; Brushing-Machines; Fiber-Pollishers; Spreading and Coiling Machines for India-Rubber, Asbestos, and Celluloid Works; Roller-Beds; Shearing-Machines; Automatic Lifting-Tables; Ingot-Trolley for Rolling-Mills; Stranding-Machines; Drawing-Off and Winding Gears for Stranding-Machines; Armoring-Machines; Compounding and Whitewashing Machinery; Covering-Machines for Cables; Braiding-Machines; Tubing-Machines for Cable Works and Wire Roperies; Locomotive-Cranes; Hydraulic Lifting-Jacks; Windlasses; Loading and Unloading and Conveying Apparatus; Lifts and Tips for Railway-Trucks; Traversers; Bed-Plates; Steel Balls for Ball-Mills; Cam-Shafts; Stems for Stamp-Batteries; Piston and Shaking Feeders; Worm and Roller Feeders; Revolving Screens; Sizing-Drum; Worm Conveyers; Break-Jaws; Side Wedges and Toggle-Plates for Crushers; Grinding-Worms; Grinding-Cones and Grinding-Boxes; Toothed Disks; Shafting; Collars; Couplings; Bearings; Sole-Plates; Belt-Pulleys; Hemp and Wire Rope Pulleys; Toothed Wheels; Screw-Keys; Cross-Heads; Eccentrics; Cranks; Connecting-Links; Valve-Chambers; Parts of Dredgers; Engine-Cylinders; Pistons; Heads for Hydraulic Presses; Worm-Wheels and Cams; Heads and Tappets; Shoes and Dies for Stamp-Batteries; Breaking-Rolls; Spindles and Bearers; Steam-Hammer Blocks and Swages; Press-Rams; Punching-Plates; Chain-Drums; Turn-Tables, and Machinery Frames.
*Claims use* since the 23d of December, 1879.

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Ser. No. 67,181. (CLASS 38. PRINTS AND PUBLICATIONS.) BRAUN & CIE., Dornach, Germany. Filed Nov. 30, 1912.




*Particular description of goods.*—Photographs, Engravings, Hellogravures, as Well Monochrome as in Colors.
*Claims use* since Aug. 3, 1912.

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Ser. No. 67,479. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WARREN WEBSTER & CO., Camden, N. J. Filed Dec. 18, 1912.



*Particular description of goods.*—Steam-Traps.
*Claims use* since Dec. 2, 1912.

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Ser. No. 67,480. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WARREN WEBSTER & CO., Camden, N. J. Filed Dec. 18, 1912.

STAR

*Particular description of goods.*—Steam-Traps.
*Claims use* since Dec. 2, 1912.





Ser. No. 67,694. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) NEW METHOD STOVE COMPANY, Mansfield, Ohio. Filed Jan. 3, 1913.




*Particular description of goods.*—Gas-Ranges, Gas Hot-Plates, Gas Water-Heaters, and Gas Heating-Stoves.
*Claims use* since 1905.

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Ser. No. 67,842. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOUSTON PACKING COMPANY, Houston, Tex. Filed Jan. 11, 1913.

RED CROSS



The cross being printed in red.
*Particular description of goods.*—Canned Meat Products—Namely, Lard, Potted Meat, and Cereal with Ham Flavor; Pork and Beans, Corned Beef, Roast-Beef, and Vienna-Style Sausage.
*Claims use* since 1897.

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Ser. No. 68,052. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PERRY G. DAVIS, Chicago, Ill., assignor to P. G. Davis Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 22, 1913.




The words "Look for the Tree" and "Woodshine" form no essential part of the trade-mark, which consists of the representation of a tree with the sun in the background and shining through the tree.
*Particular description of goods.*—Wood-Polishes.
*Claims use* since Jan. 8, 1913.

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Ser. No. 68,106. (CLASS 17. TOBACCO PRODUCTS.) WEYMAN-BRUTON COMPANY, New York, N. Y. Filed Jan. 24, 1913.

RIGHT-BLEND

*Particular description of goods.*—Chewing and Smoking Tobacco.
*Claims use* since about December, 1912.



Ser. No. 68,107. (CLASS 17. TOBACCO PRODUCTS.) WEYMAN-BRUTON CO., New York, N. Y. Filed Jan. 24, 1913.

PRINCESS



PURE SCOTCH

The word-phrase "Pure Scotch" is not essential to the mark.
*Particular description of goods.*—Snuff.
*Claims use* since about Jan. 13, 1913.

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Ser. No. 68,171. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE TO-KALON MANUFACTURING COMPANY, Syracuse, N. Y. Filed Jan. 28, 1913.

Olivfoam

*Particular description of goods.*—Soap.
*Claims use* since Dec. 1, 1911.

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Ser. No. 68,751. (CLASS 17. TOBACCO PRODUCTS.) A. RUBEN & Co., Pittsburgh, Pa. Filed Feb. 26, 1913.

Fold Flower

*Particular description of goods.*—Tobies and Stogies.
*Claims use* since June 1, 1912.

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Ser. No. 68,787. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) REMY, SCHMIDT & PLEISSNER, New York, N. Y. Filed Feb. 28, 1913.

IMPERIAL

*Particular description of goods.*—Household Linen—viz., Towels, Toweling, Table-Cloths, Napkins, Doilies, Scarfings, Tray-Cloths, Sheets and Sheetings, Pillow-Cases—Made in Linen, Half Linen, Cotton.
*Claims use* since 1897.

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Ser. No. 68,818. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) KOKOMO SANITARY MANUFACTURING COMPANY, Kokomo, Ind. Filed Mar. 3, 1913.

Ultra

*Particular description of goods.*—Water-Closet Bowls.
*Claims use* since Dec. 3, 1912.

Ser. No. 68,855. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PETER LUDWIG SCHMIDT, Elberfeld, Germany. Filed Mar. 5, 1913.

Old Stan-bi

*Particular description of goods.*—Razors, Scissors, Pocket-Scissors, Pocket-Knives.
*Claims use* since January, 1912.

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Ser. No. 68,969. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FOOTE & JENKS, Jackson, Mich. Filed Mar. 12, 1913.

"KILLARNEY"

*Particular description of goods.*—Carbonated Beverages, Syrups for Beverages, and Carbonated Flavoring Extracts.
*Claims use* since Jan. 1, 1913.

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Ser. No. 68,975. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HUBERT A. MYERS, Toledo, Ohio. Filed Mar. 12, 1913.




The words "Trade Mark" being disclaimed.
*Particular description of goods.*—A Foot-Powder.
*Claims use* since Mar. 1, 1913.

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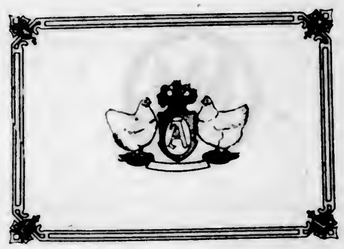
Ser. No. 69,078. (CLASS 39. CLOTHING.) BURROW, JONES, & DYER SHOE CO., St. Louis, Mo. Filed Mar. 17, 1913.

Built like a Bridge



*Particular description of goods.*—Leather Boots and Shoes.
*Claims use* since May 30, 1910.

Ser. No. 69,195. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BENJAMIN LEWIS ALDRIDGE, Maple Shade, N. J. Filed Mar. 20, 1913.



The representation of the egg being shown in gold.
*Particular description of goods.*—Poultry, Eggs, Fresh Fruits and Vegetables, Preserved Fruits and Vegetables, and Nuts.
*Claims use* since Feb. 1, 1913.

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Ser. No. 69,476. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) RUSH DIST. CO. INC., Fort Smith, Ark. Filed Mar. 31, 1913.

RUSH

*Particular description of goods.*—Straight Whisky.
*Claims use* since the 1st of March, 1912.

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Ser. No. 70,521. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) LEWIS K. BROWN, Zanesville, Ohio. Filed May 20, 1913.

DUX BACK

*Particular description of goods.*—Parting Compound.
*Claims use* since about January, 1913.

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Ser. No. 70,538. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) RICHMOND CEDAR WORKS, Richmond, Va. Filed May 21, 1913.

RAPIDWAY

*Particular description of goods.*—Laundry-Washing Machines.
*Claims use* since Sept. 10, 1912.





Ser. No. 70,803. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WILHELM ROTHE, Reichenbach, Germany. Filed May 31, 1913.




The trade-mark is that shown in the accompanying drawing, except the words "Die Neue Putzwolle in Strangform."
*Particular description of goods.*—Wood-Wool, Cotton-Waste, Wool and Hemp Fibers.
*Claims use* since about 1895.

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Ser. No. 70,998. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHAS. F. C. HERTING, San Jose, Cal. Filed June 10, 1913.



*Particular description of goods.*—Metal-Polish.
*Claims use* since Sept. 1, 1912.

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Ser. No. 71,466. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) "AGO"-LEDERKITT-INDUSTRIE-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Trieste, Austria-Hungary. Filed June 30, 1913.

AGO

*Particular description of goods.*—Boot-Trees, Cement-Applying Devices, Heel-Machines, Channeling-Tools, Inseam-Trimming Machines, Lasting-Machines, Lasting-Tools, Lasts, Patters, Shank-Machines, Sole-Trimmers, Heel-Trimmers, Sole-Machines, Toe and Heel Stiffener Machines, Upper-Machines, Vamp-Trimming Machines, Welt-Machines, Rand-Machines, Work-Supports, Follows, Plastic Cushions, Press-Pillows, Tubes and Sockets, Shoe-Presses, and Leather-Scratching Apparatus.
*Claims use* since the 20th day of January, 1911.

Ser. No. 71,531. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE DART MANUFACTURING COMPANY, Waterloo, Iowa. Filed July 5, 1913.

Dart

The trade-mark consists of the word "Dart."
*Particular description of goods.*—Motor-Trucks.
*Claims use* since on or about Jan. 1, 1893.

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Ser. No. 71,630. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ARCTIC CLEANSER COMPANY, Seattle, Wash. Filed July 10, 1913.




No claim being made to the words "Cleanser," "Made Me White," "Keeps Me White."
*Particular description of goods.*—Abrasive Cleansing Compound.
*Claims use* since Mar. 20, 1913.

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Ser. No. 71,980. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SMITH & HEMENWAY COMPANY, INC., New York, N. Y. Filed July 25, 1913.

RED DEVIL

*Particular description of goods.*—Glass-Cutters, Putty-Knives, Scrapers, Nail-Pullers, Wrenches, Auger-Bits, Braces, Screw-Drivers, Tack-Claws, Staple-Pullers, Water-Motors, Miter-Boxes, Chisels, Tool-Handles, Saws, Saw-Frames, Axes, Hatchets, Drills, Files, Pliers, Climbers, Snips and Wire-Cutters, Wire-Stretchers, Food-Choppers, Tool-Grinders, and Fence-Tools.
*Claims use* since on or about Feb. 1, 1900.

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Ser. No. 71,981. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SMITH & HEMENWAY COMPANY, INC., New York, N. Y. Filed July 25, 1913.

RED DEVIL

*Particular description of goods.*—Electrical Connectors and Spark-Plugs.
*Claims use* since on or about Feb. 1, 1900.

Ser. No. 72,014. (CLASS 39. CLOTHING.) A. STIEGLITZ & CO., INC., New York, N. Y. Filed July 28, 1913.




No claim being made to the representation of the stocking.
*Particular description of goods.*—Hosiery.
*Claims use* since on or about July, 1912.

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Ser. No. 72,162. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) UNITED STATES INCINERATOR COMPANY, INCORPORATED, Buffalo, N. Y. Filed Aug. 4, 1913.

Fly-Rid

*Particular description of goods.*—Incinerators, Garbage-Consumers, Sanitary Toilets, and Refuse-Destroyers.
*Claims use* since June 18, 1913.

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Ser. No. 72,166. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) FLINT VARNISH WORKS, Flint, Mich. Filed Aug. 5, 1913.

RE-NOO-VIT

*Particular description of goods.*—Varnishes.
*Claims use* since about Dec. 1, 1905.

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Ser. No. 72,261. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) C. C. TRUAX & COMPANY, Toledo, Ohio, assignor to United Grocers Company, Toledo, Ohio, a Corporation of Delaware. Filed Aug. 9, 1913.

Un-GRO-CO

*Particular description of goods.*—Bath-Brick; Shoe-Blacking; Castile Soap; Shoe-Dressing; Laundry Soap; Mineral Soap; Metal-Polish; Shoe-Polish; Stove-Polish; Soap Powder; Scouring-Soap; Shaving-Soap; Silver-Polish; Toilet Soap; Washing Fluid.
*Claims use* since June 1, 1913.

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Ser. No. 72,268. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) C. C. TRUAX & COMPANY, Toledo, Ohio, assignor to United Grocers Company, Toledo, Ohio, a Corporation of Delaware. Filed Aug. 9, 1913.

Un-GRO-CO

*Particular description of goods.*—Bird-Gravel and Sunflower-Seeds for Seeding Purposes.
*Claims use* since June 1, 1913.

Ser. No. 72,275. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. C. TRUAX & COMPANY, Toledo, Ohio, assignor to United Grocers Company, Toledo, Ohio, a Corporation of Delaware. Filed Aug. 9, 1913.

Un-GRO-CO

*Particular description of goods.*—Ground Allspice, Whole Allspice, Alphabet Macaroni; Anchovies; Antipasti; Canned Apples; Evaporated Apples; Canned and Evaporated Apricots; Canned Asparagus; Canned Artichokes; Baby Food; Baked Beans; Canned Beans; Canned Beets; Bird Food; Dog-Biscuits; Canned Blackberries; Evaporated Blackberries; Canned Bloaters; Paste Bloaters; Smoked Bloaters; Canned Blueberries; Bouillon-Capsules; Canned Clam Bouillon; Bread; Buckwheat-Flour; Butter; Olives; Calf's-Foot Jelly; Camembert Cheese; Candy; Canned Fish; Cantaloup, Spiced; Canton Ginger; Capers; Canned Carrots; Cassava Cakes; Catsup; Canned Cauliflower; Canned Caviar; Cayenne Pepper; Canned Celery; Celery-Salt; Canned Cepes; Cereal-Coffee; Canned Cherries; Evaporated Cherries; Maraschino Cherries; Menthe Cherries; Canned Chicken; Chilli-Con-Carne; Chilli Sauce; Chocolate Adapted for Use in Making a Food Beverage; Chow-Chow; Canned Clam-Chowder; Chutney; Cinnamon; Citron-Peels; Canned Clams; Canned Clam-Juice; Whole Cloves; Ground Cloves; Cocktail Sauce; Cocoa; Pickled Codfish; Canned Codfish Balls; Coffee; Honeycomb; Condensed Milk; Condensed Soups; Cooking-Butter; Canned Corn; Corn Flakes; Corn, Popped; Cornmeal; Corn-Starch; Canned Crab Meat; Crackers; Cracked Wheat; Fresh Cranberries; Cranberry Sauce; Crushed Oats; Crushed Wheat; Crushed Fruit; Currants; Curry-Powder; Cut Oatmeal; Dates; Stuffed Dates; Dietetic Flour; Dressing Salad; Egg-Noodles; Entire-Wheat Flour; Evaporated Milk; Farina, (Flour;) Figs; Flagolets, (Fish;) Wheat-Flour; Corn-Flour; Graham Flour; Rice-Flour; Canned Fowl; French Prunes; Fresh Mackerel, Canned; Canned Garlic; Gelatin; Ginger, Whole; Ginger, Green; Ground Ginger; Preserved Ginger; Glacé Fruits; Canned Gooseberries; Graham Flakes; Canned Grapes, Muscat; Canned Green Turtle; Canned Guavas; Guava Jelly; Canned Gumbo; Pickled Haddock; Canned Haddock; Smoked Halibut; Canned Herring; Salt and Smoked Herring; Holland Herring; Hominy; Canned Hominy; Honey; Canned Horse-Radish; Evaporated Huckleberries; Ice-Cream Powder; Japan Tea; Jelly-Fruit; Jelly-Powder; Imported Kippered Herrings; Lemon-Peels; Fresh Lemons; Lentils; Canned Lima Beans; Dried Lima Beans; Liquid Rennet; Canned Lobster; Macaroni; Ground Mace; Whole Mace; Canned Macedoine; Salt Mackerel; Maize in Vinegar; Malt; Malted Milk; Stuffed Mangoes; Maple Cream; Maple Flake; Maple-Sugar; Maple-Syrup; Orange Marmalade; Nut-Meats; Milk Chocolate; Mint Sauce; Mixed Pickles; Mixed Spices; Mixed-Tea Pkg.; Molasses; Mushroom Catsup; Canned Mushrooms; Ground Mustard; Mustard Horse-Radish; Prepared Mustard; Noodles; Nut-Butter; Nut-Wheats; Oatmeal; Salad-Oil; Cooking-Oil; Canned Okra; Olives in Oil; Olive-Oil; Pickled Onions; Onion-Salt; Orange-Peel; Canned Oysters; Pancake-Flour; Pancake-Syrup; Paprika; Canned Peaches; Evaporated Peaches; Peanuts; Salted Peanuts; Peanut-Butter; Canned Pears; Evaporated Pears; Dried Pears; Pea-Beans; Canned Peas; Split Peas; Ground Pepper; Whole Pepper; Pepper Sauces; Peeled California Peppers; Canned Spanish Peppers; Pickles; Pickled Fish; Pickled Peaches; Pickling-Spice; Pineapple, Canned; Canned Plum-Pudding; Canned Plum-Pudding Sauce; Canned Plums; Evaporated Plums; Popcorn; Potato Chips; Potato-Flour; Potato-Starch; Sweet Canned Potatoes; Poultry-Seasoning; Prunes; Canned Pumpkin; Canned Quinces; Raisins; Canned Raspberries; Evaporated Raspberries; Raspberry Vinegar; Canned Red Kidney-Beans; Rennet; Canned Rhubarb; Rice; Roasted Coffee; Rolled Oats; Rolled Wheat; Rye-Flour; Canned Salmon; Pickled Salmon; Sardine Paste; Sauer-Kraut; Sausage-Seasoning; Shredded Cocoanut; Shredded Cod;





Shrimp, Canned; Shrimp Paste; Soda-Biscuit; Canned Soups; Soused Mackerel; Spaghetti; Spiced Cantaloup; Canned Spinach; Canned Brussels Sprouts; Canned Squash; Canned Strawberries; Strawberry Jam; Canned Stringless Beans; Succotash, Canned; Crystal Sugar; Sweet Olive-Oil; Canned Sweet Pepper; Sweet Pickled Peaches; Corn-Syrup; Rock-Candy Syrup; Tobasco Sauce; Tapioca; Tapioca-Flour; Thyme; Tomato Catsup; Canned Tomatoes; Sugar; Canned Brook-Trout; Canned Truffles; Tunny-Fish; Canned Turkey; Canned Turnips; Vermicelli; Vinegar; Pickled White Fish; Whole Spices; and Yeast Cakes.
*Claims use* since June 1, 1913.

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Ser. No. 72,332. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) AUGUSTE DUPEYRON, Paris, France. Filed Aug. 14, 1913.




Applicant disclaims the sole use of the word "Invisible."
*Particular description of goods.*—Hinges.
*Claims use* since May 9, 1913.

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Ser. No. 72,800. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK LUTZ, Kansas City, Mo. Filed Sept. 10, 1913.



The trade-mark shown in the accompanying drawing and embodying a facsimile of my signature. I do not claim the sole right to the use of the pictorial representation inclosing my signature.
*Particular description of goods.*—Pork Bait for Fishing Purposes.
*Claims use* since Aug. 1, 1901.

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Ser. No. 72,814. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GOTTF. HAGEN, Vingst, near Kalk, near Cologne, Germany. Filed Sept. 12, 1913.

KAW

*Particular description of goods.*—Storage Batteries.
*Claims use* since Jan. 5, 1905.

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Ser. No. 73,073. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MOODY & BOBB, New Orleans, La. Filed Sept. 26, 1913.

"VOBO."

*Particular description of goods.*—A Material Used in the Place of Fire-Clay or Soap in the Preparation of Babbitt-Metal Bearings.
*Claims use* since April, 1913.

Ser. No. 73,137. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) TAYLOR-BAYNE DRUG COMPANY, Macon, Ga. Filed Sept. 30, 1913.

HELIO-PEPSIN

No claim is herein made to the word "Pepsin" shown in the drawing.
*Particular description of goods.*—A Non-Alcoholic Carbonated Beverage Pleasing to the Taste and Usually Sold at Soda-Fountains.
*Claims use* since Jan. 1, 1912.

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Ser. No. 73,172. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK F. INGRAM CO., Detroit, Mich. Filed Oct. 2, 1913.

VELVEOLA
SOUVERAINE

*Particular description of goods.*—Face-Powders.
*Claims use* since about Jan. 1, 1912.

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Ser. No. 73,263. (CLASS 17. TOBACCO PRODUCTS.) SCHINASI BROS., New York, N. Y. Filed Oct. 7, 1913.




*Particular description of goods.*—Cigarettes.
*Claims use* since 1896.

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Ser. No. 73,286. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) AMERICAN CHAIN COMPANY, INCORPORATED, Bridgeport, Conn. Filed Oct. 9, 1913. Under ten-year proviso.

EUREKA

*Particular description of goods.*—Chain and Halter-Chains, Dog-Chains, Chain Cow-Ties, Tie-Out Chains, Hammock-Chains, Swing-Chains, Coil-Chains, Guard-Chains, Well-Chains, Antispreader-Chains, Fire-Door Chains, Chain Pipe-Hangers, Fish-Net Chains, Agricultural-Implement Chains, Seal-Pin Chains, Hose-Coupler Chains.
*Claims use* since the year 1894.

Ser. No. 73,297. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) AVERY LOWRY COMPANY, Boston, Mass. Filed Oct. 10, 1913.




The trade-mark comprises a representation of two dogs, each pulling at opposite ends of a side of leather, the leather being shown in black, the words "No-Se-Raja" being disclaimed.

*Particular description of goods.*—Leather, Tanned and Untanned and Cut and Uncut.

*Claims use* since May 19, 1913.

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Ser. No. 73,460. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed Oct. 18, 1913.



*Particular description of goods.*—Lubricating-Oils, Lubricating-Greases, Refined Oil, and Gasolene.

*Claims use* since the 4th day of October, 1913.

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Ser. No. 73,523. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ANDREW ROHAN CO., Cincinnati, Ohio. Filed Oct. 20, 1913.

RED RIBBON

*Particular description of goods.*—Butter and Cheese.

*Claims use* since about June, 1904.

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Ser. No. 73,657. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JESSE M. PEASE, Buffalo, N. Y. Filed Oct. 29, 1913.

KIMO
KIND-I-MUST-ORDER

No claim being made to the words "Kind-I-Must-Order."

*Particular description of goods.*—Metal, Shoe, and Stove Polishes and Polishing-Mittens and Polishing-Cloths.

*Claims use* since June, 1910.

Ser. No. 73,664. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) UNION BRASS & METAL MFG. CO., St. Paul, Minn. Filed Oct. 29, 1913.




*Particular description of goods.*—Plumbers' Bibs, Cocks, Soldering-Nipples, and Unions, Flush-Valves, Trap-Screws, Ferrules, Slip-Joint Nuts, and Spun Flanges.

*Claims use* since Jan. 1, 1912.

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Ser. No. 74,042. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROESSLER & HASSLACHER CHEMICAL CO., New York, N. Y. Filed Nov. 17, 1913.

CYANEGG
R. & H. C. CO.

*Particular description of goods.*—Cyanid Salts Adapted for Metallurgical and other Uses.

*Claims use* since Nov. 14, 1913.

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Ser. No. 74,087. (CLASS 39. CLOTHING.) BILTMORE SHIRT, INC., New York, N. Y. Filed Nov. 20, 1913.

Biltmore

*Particular description of goods.*—Work, Dress, and Negligée Shirts and Pajamas and Nightgowns.

*Claims use* since Oct. 21, 1913.

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Ser. No. 74,253. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANCISCO GIFFONI, Rio de Janeiro, Brazil. Filed Nov. 29, 1913.




No claim is made to the use of the words "Gerador de Cabellos."

*Particular description of goods.*—Hair-Restoring and Antiseptic Lotion.

*Claims use* since May 14, 1908.





Ser. No. 74,301. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAX R. ZAEGEL, Sheboygan, Wis. Filed Dec. 1, 1913.




*Particular description of goods.*—A Compound of Medicinal Oils for Use as a Remedy for Rheumatism, Insect-Bites, Pain in the Back, Sore Throat, Frost-Bite, Chapped Hands, Piles, Cuts, Sores, Burns, and Bruises.

*Claims use* since Oct. 27, 1897.

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Ser. No. 74,336. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) PACIFIC ORIENTAL SPECIALTY COMPANY, Stockton and San Francisco, Cal. Filed Dec. 3, 1913.

MYSTIC ROTARY

No claim being made to the exclusive use of the word "Rotary."

*Particular description of goods.*—Advertising Apparatus.

*Claims use* since Aug. 1, 1913.

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Ser. No. 74,479. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROSSENDALE-REDDAWAY BELTING & HOSE CO., Newark, N. J. Filed Dec. 9, 1913.

CAMEL

The word "Camel."

*Particular description of goods.*—Driving-Belts, Machine-Belting, and Woven Machine-Belting.

*Claims use* since June 1, 1893.

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Ser. No. 74,494. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) MULCONROY COMPANY, Philadelphia, Pa. Filed Dec. 10, 1913. Under ten-year proviso.

MULCONROY

*Particular description of goods.*—Belt-Hooks; Metallic Hose-Coverings; Hose-Couplings; Hose-Clamps; Hose-Pipe Nozzles; Hose-Nipples; Suction Foot-Valves and Strainers; Hose-Coupling Spanners, and Force-Cups.

*Claims use* since Jan. 1, 1887.

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Ser. No. 74,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. FRANK & SON COMPANY, Milwaukee, Wis. Filed Dec. 12, 1913.

SAUSAGETTES

*Particular description of goods.*—Pork Breakfast-Sausages.

*Claims use* since 1895.

Ser. No. 74,649. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN JAQUES & SON, LIMITED, London, England. Filed Dec. 16, 1913.

MANIFESTO

*Particular description of goods.*—A Game.

*Claims use* since about Nov. 3, 1913.

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Ser. No. 74,655. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PETER KERN CO., Knoxville, Tenn. Filed Dec. 17, 1913.

APPALACHIAN SWEETS

No claim being made to the word "Sweets."

*Particular description of goods.*—Candy.

*Claims use* since Sept. 1, 1913.

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Ser. No. 74,680. (CLASS 17. TOBACCO PRODUCTS.) ANTONIO ROCHA, Tampa, Fla. Filed Dec. 18, 1913.

Z.H.S.

*Particular description of goods.*—Cigars and Cigarettes.

*Claims use* since May, 1911.

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Ser. No. 74,686. (CLASS 32. FURNITURE AND UPHOLSTERY.) FORT PITT BEDDING COMPANY, Pittsburgh, Pa. Filed Dec. 19, 1913.

"SANI-SEAL"

*Particular description of goods.*—Pillows.

*Claims use* since about Oct. 1, 1913.

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Ser. No. 74,697. (CLASS 38. PRINTS AND PUBLICATIONS.) BEET SUGAR GAZETTE CO., Chicago, Ill., and New York, N. Y. Filed Dec. 20, 1913.

SUGAR

Consisting of the word "Sugar."

*Particular description of goods.*—A Technical Journal Devoted to the Interests of Sugar-Producers.

*Claims use* since prior to June 20, 1904.

Ser. No. 74,805. (CLASS 17. TOBACCO PRODUCTS.) STEINMANN G. HOLBROOK, Brooklyn, N. Y. Filed Dec. 23, 1913.




As indicated by the vertical hatching on the drawing, the letters of the word "Exposition" and the background of the triangle in the upper right-hand corner of the label are printed in red. The background of the remainder of the label is white, as is also the letters of the word "Official" appearing on the red triangular background. The border-line around the white portion of the background is red. No claim is made to the word "Official."

*Particular description of goods.*—Cigarettes.

*Claims use* since Sept. 1, 1913.

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Ser. No. 74,820. (CLASS 39. CLOTHING.) WILLIAM BLOOM, New York, N. Y. Filed Dec. 24, 1913.



The shield being shown in alternate stripes of red and black.

*Particular description of goods.*—Men's Waistcoats and Vests.

*Claims use* since Jan. 1, 1911

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Ser. No. 74,872. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARTUS, NOT INCLUDING ELECTRICAL APPARATUS.) CARNEGIE AUTOMATIC FUEL SAVING COMPANY, Minneapolis, Minn. Filed Dec. 29, 1913.

CHIMNEY SENTINEL

*Particular description of goods.*—Wind-Operated Devices for Regulating the Draft in the Chimney.

*Claims use* since Nov. 28, 1913.

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Ser. No. 74,929. (CLASS 39. CLOTHING.) THE ABRO WAIST CO., New York, N. Y. Filed Jan. 2, 1914.




*Particular description of goods.*—Ladies' Shirt-Waists.

*Claims use* since May 15, 1912.

Ser. No. 74,942. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ORION PHARMACAL COMPANY, Chicago, Ill. Filed Jan. 2, 1914.

Salmagnez M Compound

No claim is made for the word "Compound."

*Particular description of goods.*—Medicinal Preparations Used in the Treatment of Liver and Stomach Troubles, Constipation, Incipient-Stage Typhoid, Bilious, and Malarial Fevers, Jaundice, Gastritis, Dropsy, Rheumatism, Gout, Diabetes, Obesity, and Nausea.

*Claims use* since Dec. 16, 1913.

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Ser. No. 74,952. (CLASS 12. CONSTRUCTION MATERIALS.) CHARLES S. WALDO, Boston, Mass. Filed Jan. 2, 1914.




The words "Waldo Brothers" being disclaimed.

*Particular description of goods.*—Brick, Portland Cement, Fire-Clay, Flue-Lining, Metal Corner-Bead, Metal Lath, Plaster, Plaster-Blocks, Plaster-Board, Asphalt Roofing, Asphalt Shingles, Roofing-Tile, Floor and Wall Tile, and Wall-Board.

*Claims use* since Oct 1, 1913.

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Ser. No. 74,953. (CLASS 12. CONSTRUCTION MATERIALS.) CHARLES S. WALDO, Boston, Mass. Filed Jan. 2, 1914.

CERVIS

*Particular description of goods.*—Asphalt Roofing, Asphalt Shingles, Wall-Board, Plaster-Board.

*Claims use* since Oct. 1, 1913.





Ser. No. 74,994. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BERTALAN BARNA, New York, N. Y. Filed Jan. 7, 1914.




*Particular description of goods.*—Face-Powder, Cold-Cream, and Toilet Preparations in the Form of Liquid, Semiliquid, Paste, and Powder to be Externally Applied for Improving the Skin.

*Claims use* since Nov. 17, 1913.

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Ser. No. 75,058. (CLASS 38. PRINTS AND PUBLICATIONS.) F. M. LUPTON, PUBLISHER, INCORPORATED, New York, N. Y. Filed Jan. 9, 1914.

The Green Meadow Club

*Particular description of goods.*—Periodicals Published Monthly.

*Claims use* since the 20th day of December, 1913.

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Ser. No. 75,110. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BIELEFELDER NÄHMASCHINEN-FABRIK BAER & REMPEL, Bielefeld, Germany. Filed Jan. 12, 1914.

Phoenix

*Particular description of goods.*—Sewing-Machines and Sewing-Machine Parts.

*Claims use* since the year 1880.

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Ser. No. 75,267. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) A. SCHRADER'S SON, INCORPORATED, New York, N. Y. Filed Jan. 17, 1914. Under ten-year proviso.

SCHRADER UNIVERSAL

*Particular description of goods.*—Fluid-Pressure Gages and Fluid-Pressure Indicators.

*Claims use* since the 12th day of February, 1895.

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Ser. No. 75,277. (CLASS 37. PAPER AND STATIONERY.) WILLIAM H. BEAVER, Philadelphia, Pa. Filed Jan. 19, 1914.

DIVIDEND

*Particular description of goods.*—Writing-Paper.

*Claims use* since Nov. 25, 1913.

Ser. No. 75,283. (CLASS 38. PRINTS AND PUBLICATIONS.) THE JOSEPH N. EISENDRATH COMPANY, Chicago, Ill. Filed Jan. 19, 1914.

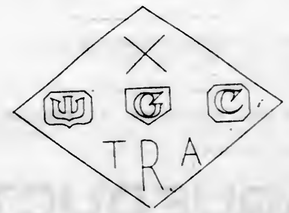
Action

*Particular description of goods.*—Periodical Publications.

*Claims use* since the month of November, 1912.

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Ser. No. 75,351. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) W. G. CLARK & COMPANY, North Attleboro, Mass. Filed Jan. 22, 1914.

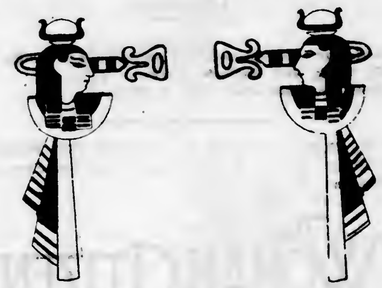



*Particular description of goods.*—Steel Pocket-Knives, Razors, and Scissors.

*Claims use* since Jan. 14, 1914.

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Ser. No. 75,391. (CLASS 48. MALT EXTRACTS AND LIQUORS.) A. SCHREIBER BREWING COMPANY, Buffalo, N. Y. Filed Jan. 23, 1914.



*Particular description of goods.*—Beer.

*Claims use* since Nov. 25, 1913.

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Ser. No. 75,417. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NATHAN F. SOLOMON, St. Louis, Mo. Filed Jan. 24, 1914.




No claim being made to the word "Brand."

*Particular description of goods.*—All Kinds of Shoe-Polish and Shoe-Staining Preparations.

*Claims use* since about Nov. 1, 1913.

Ser. No. 75,429. (CLASS 33. GLASSWARE.) COLEMAN BARDOS, Jr., New York, N. Y. Filed Jan. 26, 1914.

EMPCO

*Particular description of goods.*—Ampoules.
*Claims use* since Nov. 17, 1913.

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Ser. No. 75,460. (CLASS 2. RECEPTACLES.) WILLIAM D. MORGAN, Hartford, Conn. Filed Jan. 26, 1914.




*Particular description of goods.*—Wallets.
*Claims use* since Nov. 20, 1913.

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Ser. No. 75,462. (CLASS 33. GLASSWARE.) PENNSYLVANIA WIRE GLASS COMPANY, Philadelphia, Pa. Filed Jan. 26, 1914.

AQUEDUCT

*Particular description of goods.*—Sheet-Glass.
*Claims use* since July 1, 1913.

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Ser. No. 75,473. (CLASS 39. CLOTHING.) CLUETT, PEABODY & CO. INC., Troy, N. Y. Filed Jan. 27, 1914.

Radiac

*Particular description of goods.*—Collars, Cuffs, and Dress, Work, and Negligée Shirts.
*Claims use* since about Jan. 5, 1914.

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Ser. No. 75,491. (CLASS 38. PRINTS AND PUBLICATIONS.) HELEN K. WILLIAMS, San Francisco, Cal. Filed Jan. 27, 1914.

THE WOMAN CITIZEN

*Particular description of goods.*—A Monthly Magazine.
*Claims use* since June 5, 1912.

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Ser. No. 75,512. (CLASS 1. RAW AND PARTLY-PREPARED MATERIALS.) HELMUTH VOSS, Hamburg, Germany. Filed Jan. 28, 1914.

Novapercha

The word "Novapercha."
*Particular description of goods.*—A Gutta-Percha Substitute.
*Claims use* since Sept. 30, 1913.

Ser. No. 75,544. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ALMA MOTOR TRUCK CO., Alma, Mich. Filed Jan. 30, 1914.

REPUBLIC

*Particular description of goods.*—Motor-Trucks.
*Claims use* since July 1, 1913.

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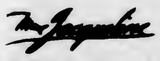
Ser. No. 75,560. (CLASS 32. FURNITURE AND UPHOLSTERY.) LOUISE BRIGHAM, New York, N. Y. Filed Jan. 30, 1914.



*Particular description of goods.*—Beds, Bedsteads, Wardrobes, Chiffonniers, Dressers, Bureaus, Dressing-Tables, Tables, Chairs, Sideboards, Buffets, Cabinets, Stools, Bookcases, Hat-Racks and Clothes-Trees, Benches, Couches, and Window-Seats Not in the Nature of Receptacles.
*Claims use* since Jan. 1, 1905.

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Ser. No. 75,563. (CLASS 39. CLOTHING.) AMERICAN LADY CORSET COMPANY, Detroit, Mich. Filed Jan. 31, 1914.



*Particular description of goods.*—Corsets.
*Claims use* since Jan. 15, 1914.

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Ser. No. 75,572. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BRUCE E. FOGLE, Woodsboro, Md. Filed Jan. 31, 1914.

HE-LO

*Particular description of goods.*—Salve.
*Claims use* since about Sept. 20, 1913.

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Ser. No. 75,580. (CLASS 39. CLOTHING.) W. H. MCELWAIN COMPANY, Boston, Mass. Filed Jan. 31, 1914.

BABY=STUART

*Particular description of goods.*—Leather Boots and Shoes.
*Claims use* since on or about Sept. 1, 1909.





Ser. No. 75,581. (CLASS 39. CLOTHING.) W. H. MCELWAIN COMPANY, Boston, Mass. Filed Jan. 31, 1914.



*Particular description of goods.*—Leather Boots and Shoes.
*Claims use* since on or about Sept. 1, 1909.

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Ser. No. 75,582. (CLASS 39. CLOTHING.) W. H. MCELWAIN COMPANY, Boston, Mass. Filed Jan. 31, 1914.



*Particular description of goods.*—Leather Boots and Shoes.
*Claims use* since on or about July 14, 1900.

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Ser. No. 75,645. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LLEWELLYN T. BARNES, Sea Cliff, N. Y. Filed Feb. 3, 1914.

SENRAB

*Particular description of goods.*—Carbureters.
*Claims use* since Jan. 2, 1914.

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Ser. No. 75,653. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) I. LEVINSTEIN & CO. INC., Boston, Mass. Filed Feb. 3, 1914.

VALKOL

*Particular description of goods.*—Water-Soluble Oils. The Principal Use of These Oils is for the Lubricating of Textile Fibers.
*Claims use* since Dec. 1, 1913.

Ser. No. 75,664. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CURT D. VOSBURGH, Chicago, Ill. Filed Feb. 3, 1914.




*Particular description of goods.*—Medical Preparations and Remedies—to wit, Remedies for Colds.
*Claims use* since Jan. 19, 1914.

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Ser. No. 75,703. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) J. F. GINSBERG, Niederschönewelde, near Berlin, Germany. Filed Feb. 5, 1914.

ENESWE

*Particular description of goods.*—Unworked Base Metals.
*Claims use* since Oct. 1, 1913.

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Ser. No. 75,727. (CLASS 17. TOBACCO PRODUCTS.) L. W. HAHN, Kansas City, Mo. Filed Feb. 6, 1914.

Smoke-One

*Particular description of goods.*—Cigars.
*Claims use* since Jan. 31, 1914.

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Ser. No. 75,746. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN B. ARMOUR, Saco, Mont. Filed Feb. 7, 1914.

WARRIOR



*Particular description of goods.*—A Liniment.
*Claims use* since about Oct. 16, 1913.

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Ser. No. 75,752. (CLASS 33. GLASSWARE.) CHICAGO HEIGHTS BOTTLE CO., Chicago Heights, Ill. Filed Feb. 7, 1914.

SIGNET

*Particular description of goods.*—Glass Bottles.
*Claims use* since Dec. 11, 1913.

Ser. No. 75,773. (CLASS 17. TOBACCO PRODUCTS.) WALDORF ASTORIA SEGAR COMPANY, New York, N. Y. Filed Feb. 7, 1914. Under ten-year proviso.



*Particular description of goods.*—Cigars, Cigarettes, and Smoking and Chewing Tobacco.
*Claims use* since March, 1893.

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Ser. No. 75,794. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPRAGUE, WARNER & COMPANY, Chicago, Ill. Filed Feb. 9, 1914.




*Particular description of goods.*—Canned Corn.
*Claims use* since on or about the 12th day of January, 1914.

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Ser. No. 75,838. (CLASS 39. CLOTHING.) FLEISHMAN, MORRIS & CO., INC., Richmond, Va. Filed Feb. 10, 1914.




The exclusive use of the word "Shoes" is disclaimed.
*Particular description of goods.*—Men's, Women's, Children's, and Boys' Leather Shoes.
*Claims use* since Jan. 28, 1914.

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Ser. No. 75,840. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Feb. 11, 1914.

**PROSPERITA**

*Particular description of goods.*—Macaroni.
*Claims use* since October, 1913.

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Ser. No. 75,841. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed Feb. 11, 1914.

**VERONICA**

*Particular description of goods.*—Macaroni.
*Claims use* since October, 1913.

Ser. No. 75,843. (CLASS 39. CLOTHING.) CURRICK, LEIKEN & RANDLES, New York, N. Y. Filed Feb. 11, 1914.

*Wethercoat*

Consisting of the word "Wethercoat."
*Particular description of goods.*—Overcoats.
*Claims use* since Jan. 1, 1910.

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Ser. No. 75,854. (CLASS 37. PAPER AND STATIONERY.) THE STENOTYPE CO., INCORPORATED, Indianapolis, Ind. Filed Feb. 11, 1914.

STENOTYPE

*Particular description of goods.*—Writing-paper.
*Claims use* since Nov. 28, 1913.

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Ser. No. 75,860. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNCLE SAM'S MACARONI CO., Tecumseh, Mich. Filed Feb. 11, 1914.

**MIDGET**

*Particular description of goods.*—Macaroni Paste Products.
*Claims use* since May 1, 1913.

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Ser. No. 75,873. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT MARTIN, Baltimore, Md. Filed Feb. 12, 1914.




No claim being made for the term "Trade Mark."
*Particular description of goods.*—A Tinted Cloth for the Complexion.
*Claims use* since Jan. 1, 1912.





Ser. No. 75,876. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE PHILIP J. RITTER CONSERVE COMPANY, Philadelphia, Pa. Filed Feb. 12, 1914. Under ten-year proviso.

RITTER

The trade-mark which consists of the word "Ritter."
*Particular description of goods.*—Catsup; Pork and Beans; Apple-Butter; Soups; Pure Fruit Preserves; Pure Fruit Jams; Pure Fruit Jellies; Mustard; Olives; Honey, and Compound Fruit Jams.
*Claims use* since 1854.

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Ser. No. 75,925. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWERS BROTHERS, INC., Richmond, Va. Filed Feb. 16, 1914.

R.A.J.

*Particular description of goods.*—Coffee.
*Claims use* since May, 1909.

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Ser. No. 75,926. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWERS BROTHERS, INC., Richmond, Va. Filed Feb. 16, 1914.

**CONTENT**

*Particular description of goods.*—Coffee.
*Claims use* since September, 1913.

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Ser. No. 75,927. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWERS BROTHERS, INC., Richmond, Va. Filed Feb. 16, 1914.

TEN PENNY

*Particular description of goods.*—Coffee.
*Claims use* since September, 1908.

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Ser. No. 75,928. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOWERS BROTHERS, INC., Richmond, Va. Filed Feb. 16, 1914.

SURPRISE

*Particular description of goods.*—Coffee.
*Claims use* since March, 1911.

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Ser. No. 75,931. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DENISON & COMPANY, Chicago, Ill. Filed Feb. 16, 1914.

SEMINOLE

*Particular description of goods.*—Coffee.
*Claims use* since 1908.

Ser. No. 75,940. (CLASS 39. CLOTHING.) LEVINSON & SHAPIRO, New York, N. Y. Filed Feb. 16, 1914.

*Cabinet*

*Particular description of goods.*—Dress and Negligée Shirts.
*Claims use* since Dec. 15, 1912.

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Ser. No. 75,946. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RANDOLPH MILLING COMPANY, Baldwin, Ill. Filed Feb. 16, 1914.

**RMC**

*Particular description of goods.*—Wheat-Flour.
*Claims use* since May 1, 1913.

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Ser. No. 75,947. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RANDOLPH MILLING COMPANY, Baldwin, Ill. Filed Feb. 16, 1914.

**CHARACTER**

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Jan. 1, 1907.

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Ser. No. 75,957. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BARTON SALT COMPANY, Hutchinson, Kans. Filed Feb. 17, 1914.




*Particular description of goods.*—Salt of Different Grades and Varieties.
*Claims use* since Jan. 30, 1914.

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Ser. No. 75,961. (CLASS 32. FURNITURE AND UPHOLSTERY.) FORT PITT BEDDING COMPANY, Pittsburgh, Pa. Filed Feb. 17, 1914.

DREEMO

*Particular description of goods.*—Bed-Springs.
*Claims use* since Jan. 22, 1914.

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Ser. No. 75,966. (CLASS 39. CLOTHING.) WM. HECHT, New York, N. Y. Filed Feb. 17, 1914.

**DOMBEY**

*Particular description of goods.*—Children's Washable Outer Suits.
*Claims use* since October, 1912.

Ser. No. 75,980. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) BENOLITE COMPANY, Pittsburgh, Pa. Filed Feb. 18, 1914.

INSUPLASTIC

*Particular description of goods.*—Varnishes and Similar Compounds for Electrical Insulation.
*Claims use* since June 1, 1913.

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Ser. No. 75,986. (CLASS 47. WINES.) M. P. GUIMARAENS & SON, London, England, and Oporto, Portugal. Filed Feb. 18, 1914. Under ten-year proviso.

FONSECA & CO.

*Particular description of goods.*—Port-Wine.
*Claims use* since the year 1863.

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Ser. No. 75,987. (CLASS 47. WINES.) M. P. GUIMARAENS & SON, London, England, and Oporto, Portugal. Filed Feb. 18, 1914. Under ten-year proviso.

GUIMARAENS & Co

*Particular description of goods.*—Port-Wine.
*Claims use* since the year 1873.

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Ser. No. 75,988. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Feb. 18, 1914.

COUGAR

*Particular description of goods.*—Belting.
*Claims use* since June 1, 1913.

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Ser. No. 75,991. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Feb. 18, 1914.

HYTEMP 200

*Particular description of goods.*—Belting.
*Claims use* since June 1, 1913.

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Ser. No. 75,992. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Feb. 18, 1914.

JOVE

*Particular description of goods.*—Belting.
*Claims use* since June 1, 1913.

Ser. No. 75,998. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Feb. 18, 1914.

THOR

*Particular description of goods.*—Belting.
*Claims use* since June 1, 1913.

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Ser. No. 75,994. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE GOODYEAR TIRE AND RUBBER COMPANY, Akron, Ohio. Filed Feb. 18, 1914.

WYOGA

*Particular description of goods.*—Belting.
*Claims use* since June 1, 1913.

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Ser. No. 75,998. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) B. HELLER & Co., Chicago, Ill. Filed Feb. 18, 1914.

VARN-I-GLO

*Particular description of goods.*—A Polish and Cleaner for Wood.
*Claims use* since August, 1913.

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Ser. No. 76,018. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOSEPH S. SHORT, New York, N. Y. Filed Feb. 18, 1914.
Filed Feb. 18, 1914.

HOOKALOOP

*Particular description of goods.*—Edging on Wearing-Apparel Forming the Loop with Which to Hook or Button the Same.
*Claims use* since Jan. 1, 1914.

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Ser. No. 76,024. (CLASS 38. PRINTS AND PUBLICATIONS.) THE AMERICAN MUSEUM OF SAFETY, New York, N. Y. Filed Feb. 19, 1914.

Safety

The exclusive use of the words "Now Let Us Conserve Human Life" not being claimed.
*Particular description of goods.*—A Monthly Periodical.
*Claims use* since Jan. 1, 1912.

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Ser. No. 76,039. (CLASS 38. PRINTS AND PUBLICATIONS.) JACOB RAPOPORT, New York, N. Y. Filed Feb. 19, 1914.

COATOGRAPH

*Particular description of goods.*—A Periodical Issuing Eight Times a Year Devoted to Clothing.
*Claims use* since Jan. 15, 1914.





Ser. No. 76,057. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE LUEDERS & Co., New York, N. Y. Filed Feb. 20, 1914.

GAPRICE

*Particular description of goods.*—Olive-Oil.
*Claims use* since Dec. 1, 1913.

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Ser. No. 76,081. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) LONDON-SAVANNAH NAVAL STORES Co., Savannah, Ga.; Chicago, Ill.; Pensacola, Fla., and New Orleans, La. Filed Feb. 21, 1914.

UNCLE SAM BRAND



The word "Brand" not being claimed.
*Particular description of goods.*—Pure Gum Spirits of Turpentine.
*Claims use* since January, 1914.

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Ser. No. 76,099. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) LOUIS CAHÜC. Neumarkt, Germany. Filed Feb. 24, 1914.

Cahücit.

*Particular description of goods.*—Blasting and Explosive Material, Blasting-Fuses, Firework, Igniting Appliances, Apparatus for Loading Firework and Blasting-Cartridges, and Gunpowder.
*Claims use* since about January, 1901.

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Ser. No. 76,106. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. PETER FAHRNEY & SONS Co., Chicago, Ill. Filed Feb. 24, 1914.

MAGOLO

Consisting of the word "Magola."
*Particular description of goods.*—A Preparation for the Relief of Stomach Trouble and All Relaxed Conditions of the Bowels.
*Claims use* since Feb. 2, 1914.

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Ser. No. 76,108. (CLASS 39. CLOTHING.) FROLASET CORSET COMPANY, Detroit, Mich. Filed Feb. 24, 1914.

La Gavotte

*Particular description of goods.*—Corsets.
*Claims use* since Jan. 31, 1914.

Ser. No. 76,109. (CLASS 39. CLOTHING.) FROLASET CORSET COMPANY, Detroit, Mich. Filed Feb. 24, 1914.

La Minuette

*Particular description of goods.*—Corsets.
*Claims use* since Jan. 31, 1914.

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Ser. No. 76,112. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOENIGSMARK MILL COMPANY, Waterloo, Ill. Filed Feb. 24, 1914.

KAY-MIL

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Jan. 21, 1914.

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Ser. No. 76,113. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOENIGSMARK MILL COMPANY, Waterloo, Ill. Filed Feb. 24, 1914.

Mary

*Particular description of goods.*—Wheat-Flour, More Specifically Pancake-Flour.
*Claims use* since July, 1913.

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Ser. No. 76,114. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOENIGSMARK MILL COMPANY, Waterloo, Ill. Filed Feb. 24, 1914.

SILVER FOX

*Particular description of goods.*—Wheat-Flour.
*Claims use* since February, 1912.

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Ser. No. 76,137. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE D. HOOVER, Des Moines, Iowa. Filed Feb. 24, 1914.

AS-NO-MOR

*Particular description of goods.*—A Remedy for Hay-Fever, Asthma, and Bronchitis and All Bronchial Affections.
*Claims use* since November, 1912.

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Ser. No. 76,140. (CLASS 48. MALT EXTRACTS AND LIQUORS.) KEELEY BREWING COMPANY, Chicago, Ill. Filed Feb. 25, 1914.

Koenig Brau

No claim being made to the word "Brau."
*Particular description of goods.*—Beer.
*Claims use* since Feb. 18, 1914.

Ser. No. 76,162. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Feb. 26, 1914.

BIOCHROM

*Particular description of goods.*—Photographic Chemicals.
*Claims use* since Feb. 3, 1914.

Ser. No. 76,163. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BURNSTINE & NACHMAN, New York, N. Y. Filed Feb. 26, 1914.

The Magnet

*Particular description of goods.*—Hair-Nets, Veilings, Mulines, Dish-Rags, and Netted Fabrics.
*Claims use* since Nov. 24, 1913.

Ser. No. 76,176. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN W. EMERY, Berne, Ind. Filed Feb. 26, 1914.




*Particular description of goods.*—A Stock-Powder.
*Claims use* since Jan. 27, 1914.

Ser. No. 76,179. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GULF CITY COFFEE COMPANY, Pensacola, Fla. Filed Feb. 26, 1914.

WA-HA-KA

*Particular description of goods.*—Blended Coffee.
*Claims use* since Oct. 1, 1905.

Ser. No. 76,180. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GULF CITY COFFEE COMPANY, Pensacola, Fla. Filed Feb. 26, 1914.

EL DELITO

*Particular description of goods.*—Blended Coffee.
*Claims use* since Oct. 1, 1905.

Ser. No. 76,199. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) VOIGT MILLING COMPANY, Grand Rapids, Mich. Filed Feb. 26, 1914.

MARK TWAIN

*Particular description of goods.*—Wheat-Flour.
*Claims use* since June, 1913.

Ser. No. 76,201. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEST DISINFECTING COMPANY, New York, N. Y. Filed Feb. 26, 1914.

CORO-NOLEUM

*Particular description of goods.*—Disinfectants and Insecticides.
*Claims use* since the 31st day of December, 1913.

Ser. No. 76,202. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) YAKIMA COUNTY HORTICULTURAL UNION, North Yakima, Wash. Filed Feb. 26, 1914.

RED RIBBON

The trade-mark consists of the words "Red Ribbon."
*Particular description of goods.*—Second Quality of Fresh Deciduous Fruits, Apples, and Pears.
*Claims use* since 1908.

Ser. No. 76,205. (CLASS 15. OILS AND GREASES.) LOUIS BLAUSTEIN, Baltimore, Md. Filed Feb. 27, 1914.

EZE-LUBE

*Particular description of goods.*—Lubricating-Oils.
*Claims use* since Sept. 1, 1913.

Ser. No. 76,214. (CLASS 32. FURNITURE AND UPHOLSTERY.) INNOVATION TRUNK COMPANY, New York, N. Y. Filed Feb. 27, 1914.

INNOVATION

The essential feature of the trade-mark is the word "Innovation," which is generally printed in the form shown in the accompanying drawing.
*Particular description of goods.*—Wardrobes and Hangers for Wardrobes.
*Claims use* since about the 1st day of May, 1898.





Ser. No. 76,226. CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNITED DRUG COMPANY, Boston, Mass. Filed Feb. 27, 1914.

THYMO-DENTALINE

*Particular description of goods.*—A Non-Irritating, Deodorizing, Alkaline, Antiseptic Solution in the General Care of the Teeth, Mouth, and Nasal Passages as a Preserver, Antiseptic, and Deodorizer.
*Claims use* since prior to Nov. 22, 1908.

Ser. No. 76,251. (CLASS 15. OILS AND GREASES.) MILLER OIL CO., Chanute, Kans. Filed Feb. 28, 1914.

Majestic

*Particular description of goods.*—Lubricating Oils and Greases and Kerosene and Gasolene.
*Claims use* since Feb. 18, 1914.

Ser. No. 76,269. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) DEFENDER PHOTO SUPPLY CO., Rochester, N. Y. Filed Mar. 2, 1914.

VULCAN

*Particular description of goods.*—Photographic Dry-Plates.
*Claims use* since February, 1909.

Ser. No. 76,282. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE INVINCIBLE GRAIN CLEANER CO., Silver Creek, N. Y. Filed Mar. 2, 1914.




*Particular description of goods.*—Magnetic Separators and Electromagnetic Separators.
*Claims use* since on or about the 1st of January, 1908.

Ser. No. 76,287. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE MURINE EYE REMEDY COMPANY, Chicago, Ill. Filed Mar. 2, 1914.

ZaM ZaM

*Particular description of goods.*—A Laxative.
*Claims use* since May, 1911.

Ser. No. 76,304. (CLASS 37. PAPER AND STATIONERY.) SEARIGHT MANUFACTURING CO., Detroit, Mich. Filed Mar. 3, 1914.

DEPOSIT

*Particular description of goods.*—Pencil-Sharpeners.
*Claims use* since November, 1912.

Ser. No. 76,317. (CLASS 32. FURNITURE AND UPHOLSTERY.) FLINT FINE FURNITURE COMPANY, INC., New York, N. Y. Filed Mar. 4, 1914.

FFF

*Particular description of goods.*—Bookcases, Hall-Seats, Tables, Upholstered Chairs, Upholstered Stools.
*Claims use* since Mar. 3, 1914.

Ser. No. 76,323. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ROYAL EMBROIDERY WORKS, NADAY & FLEISCHER, New York, N. Y. Filed Mar. 4, 1914.

SWANETTE

The word "Swanette."
*Particular description of goods.*—A Feather Trimming.
*Claims use* since Feb. 4, 1914.

Ser. No. 76,393. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BADISCHE ANILIN- & SODA-FABRIK, Ludwigshafen-on-the-Rhine, Germany. Filed Mar. 6, 1914.

Adronol

*Particular description of goods.*—Solvents for Cellulose Esters, Resins, and the Like.
*Claims use* since Aug. 9, 1912.

Ser. No. 76,400. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 6, 1914.

Uraloff

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since the 2d of January, 1914.

Ser. No. 76,402. (CLASS 39. CLOTHING.) WM. HECHT, New York, N. Y. Filed Mar. 6, 1914.

Kewpie

*Particular description of goods.*—Children's Washable Suits.
*Claims use* since February, 1914.

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Ser. No. 76,410. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN G. NORGALL EXTERMINATING COMPANY, New York, N. Y. Filed Mar. 6, 1914.

MOUSE ROUT

*Particular description of goods.*—Rodent-Exterminators.
*Claims use* since on or about Jan. 1, 1911.

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Ser. No. 76,422. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) COMMERCIAL ELECTRICAL SUPPLY CO., St. Louis, Mo. Filed Mar. 7, 1914.

HI-LIFE

PIG TAIL



*Particular description of goods.*—Dry-Cell Batteries.
*Claims use* since Mar. 2, 1914.

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Ser. No. 76,434. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 7, 1914.

Ristana

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since Jan. 2, 1914.

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Ser. No. 76,456. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LILLIAN TUCKER, Gray Summit, Mo. Filed Mar. 7, 1914.

ANTI-SMOKINE

*Particular description of goods.*—A Pharmaceutical Preparation Designed to Overcome the Smoking Habit.
*Claims use* since Jan. 29, 1914.

Ser. No. 76,474. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) LA'ROMA SYRUP & BOTTLING CO., Chattanooga, Tenn. Filed Mar. 9, 1914.

La'Roma

*Particular description of goods.*—A Soft Drink, Beverage, Non-Alcoholic, Carbonated, and Served in Bottles, Also Carbonated and Served at Soda-Founts, of a Brownish Color.
*Claims use* since Jan. 15, 1914.

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Ser. No. 76,479. (CLASS 15. OILS AND GREASES.) PURIFIED PETROLEUM PRODUCTS CO. OF ILLINOIS, Dover, Del., and Chicago, Ill. Filed Mar. 9, 1914.

MAX-I-MUS

*Particular description of goods.*—Gasolene, Kerosene, and Naphtha.
*Claims use* since Feb. 3, 1914.

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Ser. No. 76,494. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBWERKE-HOECHST COMPANY, New York, N. Y. Filed Mar. 10, 1914.

N.S.

*Particular description of goods.*—Anesthetics.
*Claims use* since Mar. 6, 1914.

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Ser. No. 76,516. (CLASS 15. OILS AND GREASES.) SLIDO MANUFACTURING CO., Philadelphia, Pa. Filed Mar. 10, 1914.

SLIDO

*Particular description of goods.*—Lubricating-Oils.
*Claims use* since about January, 1914.





Ser. No. 76,553. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK LINDBERG, Minneapolis, Minn. Filed Mar. 11, 1914.



*Particular description of goods.*—A Liquid Compound for Use in the Treatment of Skin Diseases, Cuts, Bruises, Boils, Sore Feet, Frost-Cracks, and Frost-Bites and for a Liquid Compound for Use in Treating Horses and Cattle for Skin Diseases, Cuts, Sore Necks, Shoulders, and Sores from Saddle or Harness.
*Claims use* since July 1, 1910.

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Ser. No. 76,562. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE RED CROSS CHEMICAL CO., New York, N. Y. Filed Mar. 11, 1914.




No claim being made to the words "Trade Mark."
*Particular description of goods.*—A Liniment.
*Claims use* since Feb. 26, 1914.

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Ser. No. 76,570. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WIZARD ELECTRIC LAMP CO., San Francisco, Cal. Filed Mar. 11, 1914.

THE LITTLE WIZARD

*Particular description of goods.*—Electric Lamps.
*Claims use* since Jan. 15, 1913.

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Ser. No. 76,571. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) WIZARD ELECTRIC LAMP CO., San Francisco, Cal. Filed Mar. 11, 1914.

D'LIGHT

*Particular description of goods.*—Electric Lamps.
*Claims use* since Jan. 15, 1913.

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Ser. No. 76,572. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MANHATTAN DRUG COMPANY, New York, N. Y. Filed Mar. 11, 1914.

CERATOL

*Particular description of goods.*—Medicinal Ointment.
*Claims use* since Nov. 15, 1913.

Ser. No. 76,610. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MORLEY BUTTON MANUFACTURING COMPANY, Portsmouth, N. H. Filed Mar. 13, 1914.

Ebonide

*Particular description of goods.*—Buttons.
*Claims use* since Mar. 5, 1914.

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Ser. No. 76,616. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn. Filed Mar. 13, 1914.

POMOIRÉ

*Particular description of goods.*—Velvets and Plushes in the Piece.
*Claims use* since Dec. 15, 1913.

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Ser. No. 76,617. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn. Filed Mar. 13, 1914.

LAMBTEX

*Particular description of goods.*—Velvets and Plushes in the Piece.
*Claims use* since Dec. 15, 1913.

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Ser. No. 76,618. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn. Filed Mar. 13, 1914.

SIBERTA

*Particular description of goods.*—Velvets and Plushes in the Piece.
*Claims use* since Dec. 15, 1913.

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Ser. No. 76,629. (CLASS 39. CLOTHING.) GEO. BORGFELDT & CO., New York, N. Y. Filed Mar. 14, 1914.

WASHRITE

*Particular description of goods.*—Fabric Gloves.
*Claims use* since about Feb. 15, 1914.

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Ser. No. 76,635. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHARLESTON ELECTRICAL SUPPLY CO., Charleston, W. Va. Filed Mar. 14, 1914.

CESCO

*Particular description of goods.*—The Following Electrical Apparatus and Supplies: Tape, Terminals, Trolley-Wheels, Switches, Switchboards, Fans, Pumps, and Motors.
*Claims use* since Apr. 1, 1905.

Ser. No. 76,637. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DICKSON PHARMACAL CO., St. Louis, Mo. Filed Mar. 14, 1914.

Angocine

*Particular description of goods.*—An Antiseptic Liquid Compound.
*Claims use* since Mar. 5, 1914.

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Ser. No. 76,767. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PETER DAWSON, LTD., Dufftown and Glasgow, Scotland. Filed Mar. 19, 1914.

P. D.

*Particular description of goods.*—Whisky.
*Claims use* since Mar. 1, 1889.

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Ser. No. 76,774. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FERDINAND NEUMER, INC., New York, N. Y. Filed Mar. 19, 1914.



*Particular description of goods.*—Lager-Beer.
*Claims use* since Dec. 20, 1883.

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Ser. No. 76,811. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DUPLAN SILK COMPANY, New York, N. Y. Filed Mar. 21, 1914.

TAPAGEUSE

*Particular description of goods.*—Broad-Silk Piece Goods.
*Claims use* since on or about the 15th of January, 1914.

Ser. No. 76,813. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. J. GEER, New York, N. Y. Filed Mar. 21, 1914.

"Ondula"

*Particular description of goods.*—Woolen, Worsted, Silk, Mohair, and Cotton Piece Goods and Piece Goods Made of a Combination of Two or More of Those Fibers.
*Claims use* since Dec. 24, 1913.

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Ser. No. 76,816. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HERRMANN, AUKAM & CO., New York, N. Y. Filed Mar. 21, 1914.

Ajax



*Particular description of goods.*—Handkerchiefs.
*Claims use* since March, 1913.

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Ser. No. 76,817. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HERRMANN, AUKAM & CO., New York, N. Y. Filed Mar. 21, 1914.

BUSY B



*Particular description of goods.*—Handkerchiefs.
*Claims use* since July, 1912.





# TRADE-MARKS

## REGISTERED APRIL 14, 1914.

96,217. CERTAIN NAMED FOOTWEAR MADE OF CERTAIN MATERIALS OR COMBINATIONS THEREOF. "AGO" LEDERKITT-INDUSTRIE-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Trieste, Austria-Hungary.
Filed June 24, 1912. Serial No. 64,355. PUBLISHED FEBRUARY 3, 1914.

96,218. LUBRICATING OIL AND GREASE. AMERICAN MOTOR EQUIPMENT CO., Boston, Mass.
Filed January 15, 1914. Serial No. 75,186. PUBLISHED FEBRUARY 10, 1914.

96,219. KNEADING AND MIXING MACHINES FOR BAKERS' AND CONFECTIONERS' USE. AMERICAN OVEN & MACHINE COMPANY, Chicago, Ill.
Filed December 26, 1913. Serial No. 74,835. PUBLISHED FEBRUARY 10, 1914.

96,220. TYPE-WRITING MACHINES. AMERICAN WRITING MACHINE COMPANY, Ilion and New York, N. Y.
Filed January 14, 1911. Serial No. 53,885. PUBLISHED FEBRUARY 10, 1914.

96,221. CIGARETTES CONTAINING TURKISH TOBACCO. ATHOS TOBACCO COMPANY, INC., New York, N. Y.
Filed October 15, 1913. Serial No. 73,366. PUBLISHED FEBRUARY 3, 1914.

96,222. MONTHLY ALMANAC OR MAGAZINE OF BUSINESS. THE ATLAS PORTLAND CEMENT COMPANY, Northampton, Pa., and New York, N. Y.
Filed May 9, 1913. Serial No. 70,307. PUBLISHED FEBRUARY 3, 1914.

96,223. PRINTING-PRESSES. THE AUTOPRESS COMPANY, New York, N. Y.
Filed December 22, 1913. Serial No. 74,771. PUBLISHED FEBRUARY 10, 1914.

96,224. GARMENTS—NAMELY, HOUSE-DRESSES, MAIDS' AND NURSES' DRESSES, AND NEGLIGÉES. SAMUEL E. BADANES, New York, N. Y.
Filed November 28, 1913. Serial No. 74,226. PUBLISHED FEBRUARY 10, 1914.

96,225. OIL USED IN CONNECTION WITH CUTTING AND LUBRICATION OF METAL. HAROLD S. BANCROFT, New York, N. Y.
Filed December 31, 1913. Serial No. 74,908. PUBLISHED FEBRUARY 10, 1914.

96,226. BOOKS OF CIGARETTE-PAPERS. EUGÈNE BARDOU, Perpignan, France.
Filed May 10, 1913. Serial No. 70,337. PUBLISHED FEBRUARY 3, 1914.

96,227. CERTAIN NAMED MACHINES, TOOLS, TOOL-HANDLES, AND THE LIKE. BARKER, ROSE & CLINTON CO., Elmira, N. Y.
Filed November 22, 1913. Serial No. 74,133. PUBLISHED FEBRUARY 10, 1914.

96,228. HAIR-PINS. KIRBY BEARD & CO. LIMITED, Birmingham, England.
Filed June 20, 1912. Serial No. 64,282. PUBLISHED FEBRUARY 10, 1914.

96,229. CORDIALS, WHISKY, AND BRANDY. WILLIAM P. BERNAGOZZI, New York, N. Y.
Filed December 17, 1913. Serial No. 74,650. PUBLISHED FEBRUARY 10, 1914.

96,230. GRINDING-DISKS. CHARLES H. BESLY & COMPANY, Chicago, Ill.
Filed October 8, 1913. Serial No. 73,269. PUBLISHED FEBRUARY 3, 1914.

96,231. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,505. PUBLISHED FEBRUARY 10, 1914.

96,232. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,506. PUBLISHED FEBRUARY 10, 1914.

96,233. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,509. PUBLISHED FEBRUARY 10, 1914.

96,234. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,510. PUBLISHED FEBRUARY 10, 1914.

96,235. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,511. PUBLISHED FEBRUARY 10, 1914.

96,236. CRAYONS. BINNEY & SMITH COMPANY, East Orange, N. J., and New York, N. Y.
Filed February 6, 1913. Serial No. 68,341. PUBLISHED FEBRUARY 3, 1914.

96,237. WASHING-MACHINES. THE BLACKSTONE MANUFACTURING COMPANY, Jamestown, N. Y.
Filed December 26, 1913. Serial No. 74,843. PUBLISHED FEBRUARY 10, 1914.

96,238. WASHING-MACHINES. THE BLACKSTONE MANUFACTURING COMPANY, Jamestown, N. Y.
Filed December 26, 1913. Serial No. 74,844. PUBLISHED FEBRUARY 10, 1914.

96,239. WASHING-MACHINES. THE BLACKSTONE MANUFACTURING COMPANY, Jamestown, N. Y.
Filed December 26, 1913. Serial No. 74,845. PUBLISHED FEBRUARY 10, 1914.

96,240. OVERCOATS. HARRY BLOCK, St. Joseph, Mo.
Filed September 25, 1913. Serial No. 73,035. PUBLISHED FEBRUARY 10, 1914.

96,241. LEATHER BOOTS AND SHOES. BLYN SHOE MANUFACTURING COMPANY, New York, N. Y.
Filed November 18, 1912. Serial No. 66,992. PUBLISHED FEBRUARY 10, 1914.

96,242. CIGARETTES. J. HARPER BONNELL, 2d, New York, N. Y.
Filed October 3, 1913. Serial No. 73,186. PUBLISHED FEBRUARY 3, 1914.

96,243. CERTAIN NAMED ARTICLES OF CLOTHING. BOY SCOUTS OF AMERICA, New York, N. Y.
Filed December 2, 1912. Serial No. 67,196. PUBLISHED FEBRUARY 10, 1914.

96,244. KNIT UNDERSHIRTS, UNION SUITS, AND LADIES' VESTS. BOYCE, WHEELER & BOYCE, New York, N. Y.
Filed July 16, 1913. Serial No. 71,732. PUBLISHED FEBRUARY 10, 1914.

96,245. CERTAIN MATTER PRINTED FROM TYPE, PLATES, OR DIE IMPRESSIONS. THE BRELSFORD PRINTING CO., Dayton, Ohio.
Filed May 3, 1912. Serial No. 63,278. PUBLISHED FEBRUARY 3, 1914.

96,246. BITS, SPURS, STIRRUPS, AND SADDLERY HARDWARE. AUGUST BUERMANN MANUFACTURING CO., Newark, N. J.
Filed October 16, 1913. Serial No. 73,411. PUBLISHED FEBRUARY 10, 1914.

96,247. LADIES' COATS, CLOAKS, SUITS, SKIRTS, AND DRESSES. HARRY BURSTEIN, Philadelphia, Pa.
Filed January 15, 1913. Serial No. 67,928. PUBLISHED SEPTEMBER 2, 1913.

96,248. LADIES' COATS, SUITS, AND OUTER SKIRTS. HARRY BURSTEIN & CO., Philadelphia, Pa.
Filed December 20, 1913. Serial No. 74,699. PUBLISHED FEBRUARY 3, 1914.

96,249. LACES. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed January 10, 1914. Serial No. 75,080. PUBLISHED FEBRUARY 10, 1914.

96,250. CLEANING COMPOUND FOR TEXTILE FABRICS. CHICAGO CLEANING COMPANY, York, Nebr.
Filed September 5, 1911. Serial No. 58,529. PUBLISHED FEBRUARY 3, 1914.

96,251. CURRENT-BINDERS, TRANSFER-BINDERS, SPRING-HOLDERS, RECORD-BINDERS, PRONG-BINDERS, AND RING-BOOKS. CHICAGO SHIPPING & RECEIPT BOOK CO., Chicago, Ill.
Filed December 13, 1913. Serial No. 74,560. PUBLISHED FEBRUARY 3, 1914.

96,252. RAZORS, RAZOR-BLADES, SCISSORS, SHEARS, AND CERTAIN NAMED KNIVES. F. A. CLAUBERG & CO., New York, N. Y.
Filed December 6, 1913. Serial No. 74,410. PUBLISHED FEBRUARY 10, 1914.

96,253. AUTOMOBILES, MOTOR-BOATS, MOTOR-CYCLES, AEROPLANES, AND AEROHYDROPLANES. JULES EPHRAIM COHEN, Paris, France.
Filed October 19, 1912. Serial No. 66,360. PUBLISHED FEBRUARY 10, 1914.

96,254. AUTOMOBILES OF THE TYPE KNOWN AS CYCLE-CARS. COMET CYCLE CAR COMPANY, Indianapolis, Ind.
Filed December 29, 1913. Serial No. 74,874. PUBLISHED FEBRUARY 10, 1914.

96,255. ILLUMINATING AND FUEL OILS. HARRY COOLEY, Madison, Wis.
Filed January 7, 1914. Serial No. 75,000. PUBLISHED FEBRUARY 10, 1914.

96,256. LIQUIDS FOR CLEANING GLASS AND OTHER SURFACES, EXCEPTING WOOD. DEUTSCHE ORBAT-GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Dusseldorf, Germany, assignor to Carl Gossweiler, Olten, Switzerland.
Filed June 10, 1913. Serial No. 70,996. PUBLISHED FEBRUARY 3, 1914.

96,257. CIGARS. M. W. DIFFLEY, INC., Chicago, Ill.
Filed May 23, 1905. Serial No. 6,403. PUBLISHED FEBRUARY 3, 1914.

96,258. REMEDIES FOR CERTAIN NAMED DISEASES. MELANCTHON A. DODSON, Norfolk, Va.
Filed March 27, 1912. Serial No. 62,451. PUBLISHED FEBRUARY 3, 1914.

96,259. CERTAIN NAMED MACHINES, STILLS, PUMPS, AND THE LIKE AND PARTS THEREOF. DURIRON CASTINGS COMPANY, New York, N. Y.
Filed October 31, 1913. Serial No. 73,709. PUBLISHED FEBRUARY 10, 1914.

96,260. LEATHER BOOTS AND SHOES. CHARLES A. EATON COMPANY, Brockton, Mass.
Filed August 18, 1913. Serial No. 72,392. PUBLISHED FEBRUARY 3, 1914.

96,261. BEER. THE JOHN EICHLER BREWING CO., New York, N. Y.
Filed January 7, 1914. Serial No. 75,003. PUBLISHED FEBRUARY 10, 1914.

96,262. VALVES. THE FAIRBANKS COMPANY, New York, N. Y.
Filed January 2, 1914. Serial No. 74,934. PUBLISHED FEBRUARY 10, 1914.

96,263. CERTAIN NAMED ARTICLES OF PRECIOUS METAL AND ORNAMENTAL BUCKLES. FISCHER & PRUEFER, Providence, R. I.
Filed May 31, 1912. Serial No. 63,914. PUBLISHED JUNE 17, 1913.

96,264. MINERALS AND MINERAL SAMPLES. FOOTE MINERAL CO., Philadelphia, Pa.
Filed October 27, 1913. Serial No. 73,622. PUBLISHED FEBRUARY 3, 1914.

96,265. CALCIMINE OR WATER-PAINT. M. EWING FOX & CO., New York, N. Y.
Filed September 16, 1913. Serial No. 72,881. PUBLISHED FEBRUARY 10, 1914.

96,266. VARNISHES. W. P. FULLER & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,076. PUBLISHED FEBRUARY 10, 1914.

96,267. VARNISHES. W. P. FULLER & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,077 PUBLISHED FEBRUARY 10, 1914.

96,268. VARNISHES. W. P. FULLER & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,078. PUBLISHED FEBRUARY 10, 1914.

96,269. CERTAIN PARTS FOR CERTAIN AGRICULTURAL IMPLEMENTS. GALESBURG COULTER-DISC CO., Galesburg, Ill.
Filed November 17, 1913. Serial No. 74,031. PUBLISHED FEBRUARY 10, 1914.

96,270. PUNCTURE-PROOF COMPOUND. JOHN H. GARDNER, San Jose, Cal.
Filed December 4, 1913. Serial No. 74,360. PUBLISHED FEBRUARY 3, 1914.

96,271. ELECTRIC VEHICLES. GENERAL VEHICLE COMPANY INC., Rotterdam and Long Island City, N. Y.
Filed December 18, 1913. Serial No. 74,672. PUBLISHED FEBRUARY 10, 1914.

96,272. ELECTRIC VEHICLES. GENERAL VEHICLE COMPANY INC., Rotterdam and Long Island City, N. Y.
Filed December 18, 1913. Serial No. 74,673. PUBLISHED FEBRUARY 10, 1914.

96,273. RANGES, HEATING AND COOKING STOVES, AND FURNACES, NOT ELECTRICALLY HEATED. GOHMANN BROS. & KAHLER CO., New Albany, Ind.
Filed December 18, 1912. Serial No. 67,477. PUBLISHED FEBRUARY 3, 1914.

96,274. TRUNKS. L. GOLDSMITH & SON, Newark, N. J., and New York, N. Y.
Filed December 4, 1912. Serial No. 67,229. PUBLISHED FEBRUARY 10, 1914.

96,275. TRUNKS. L. GOLDSMITH & SON, Newark, N. J., and New York, N. Y.
Filed December 4, 1912. Serial No. 67,230. PUBLISHED FEBRUARY 10, 1914.

96,276. NEGLIGÉE OR SOFT OVERSHIRT. GOSHEN SHIRT MANUFACTURING COMPANY, Chicago, Ill.
Filed November 17, 1913. Serial No. 74,029. PUBLISHED FEBRUARY 10, 1914.

96,277. WORK-SHIRTS. GOSHEN SHIRT MANUFACTURING COMPANY, Chicago, Ill.
Filed November 17, 1913. Serial No. 74,030. PUBLISHED FEBRUARY 3, 1914.

96,278. MEN'S, BOYS', AND YOUTHS' LEATHER SHOES. C. GOTZIAN & CO., St. Paul, Minn.
Filed November 23, 1912. Serial No. 67,076. PUBLISHED JULY 15, 1913.



96,279. LUBRICATING OILS AND GREASES. W. R. GRACE & COMPANY, New York, N. Y.
Filed January 17, 1914. Serial No. 75,251. PUBLISHED FEBRUARY 10, 1914.

96,280. KEROSENE, BENZIN, GASOLENE, AND NAPHTHA. W. R. GRACE & COMPANY, New York, N. Y.
Filed January 17, 1914. Serial No. 75,255. PUBLISHED FEBRUARY 10, 1914.

96,281. WATER-CLOSET BOWLS. THE GREAT WESTERN POTTERY CO., Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey.
Filed August 7, 1913. Serial No. 72,204. PUBLISHED FEBRUARY 10, 1914.

96,282. BABBITT AND ANTIFRICTION METALS. GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill.
Filed March 10, 1913. Serial No. 68,941. PUBLISHED FEBRUARY 10, 1914.

96,283. SWEATERS, KNITTED UNDERWEAR—VIZ., SHIRTS AND DRAWERS AND UNION SUITS. A. S. HAIGHT & CO., New York, N. Y.
Filed December 12, 1913. Serial No. 74,545. PUBLISHED FEBRUARY 10, 1914.

96,284. HOSIERY. HALCYON KNITTING MILLS CO., South Bethlehem, Pa.
Filed September 9, 1913. Serial No. 72,745. PUBLISHED FEBRUARY 10, 1914.

96,285. HOSIERY. HALCYON KNITTING MILLS CO., South Bethlehem, Pa.
Filed September 9, 1913. Serial No. 72,746. PUBLISHED FEBRUARY 10, 1914.

96,286. LENSES. F. A. HARDY & CO., Chicago, Ill.
Filed December 8, 1913. Serial No. 74,444. PUBLISHED FEBRUARY 10, 1914.

96,287. FERTILIZER-DISTRIBUTERS, PLOWS, AND PLANTERS. HARTSVILLE IMPLEMENT CO., Hartsville, S. C.
Filed September 11, 1912. Serial No. 65,684. PUBLISHED FEBRUARY 3, 1914.

96,288. LEATHER—NAMELY, SHEEP, GOAT, CALF, AND SIMILAR SKINS FOR USE ON TEXTILE MACHINERY. HELBURN LEATHER COMPANY, Salem, Mass.
Filed November 10, 1913. Serial No. 73,886. PUBLISHED FEBRUARY 3, 1914.

96,289. BOOTS, SHOES, AND SLIPPERS MADE WHOLLY OR PARTLY OF CERTAIN MATERIALS. JULIA GOLDSBOROUGH HELFRICH, Baltimore, Md.
Filed December 4, 1913. Serial No. 74,364. PUBLISHED FEBRUARY 3, 1914.

96,290. CERTAIN NAMED ARTICLES MADE OF SHEET METAL. THE HERO MANUFACTURING CO., INC., Philadelphia, Pa.
Filed October 5, 1910. Serial No. 52,128. PUBLISHED FEBRUARY 10, 1914.

96,291. DISH WASHERS AND DRIERS. EUSEBIUS E. HERSHEY, Philadelphia, Pa.
Filed December 11, 1913. Serial No. 74,516. PUBLISHED FEBRUARY 10, 1914.

96,292. GIN. G. F. HEUBLEIN & BRO., Hartford, Conn.
Filed January 10, 1914. Serial No. 75,086. PUBLISHED FEBRUARY 10, 1914.

96,293. WATERPROOF LEATHER FIBER-BOARD. HIDE-ITE LEATHER COMPANY, Brockton, Mass.
Filed October 11, 1913. Serial No. 73,312. PUBLISHED FEBRUARY 3, 1914.

96,294. PAMPHLETS. THE HINDE & DAUCH PAPER CO., Sandusky, Ohio.
Filed May 7, 1913. Serial No. 70,278. PUBLISHED FEBRUARY 3, 1914.

96,295. ANKLE-PROTECTORS FOR USE AS SURGICAL APPLIANCES AND HOT-WATER BAGS. HOWE RUBBER CO., Newark, N. J.
Filed January 20, 1911. Serial No. 53,985. PUBLISHED FEBRUARY 10, 1914.

96,296. CERTAIN NAMED MEN'S CLOTHING. THE IDEAL CLOTHING COMPANY, Grand Rapids, Mich.
Filed July 17, 1913. Serial No. 71,812. PUBLISHED FEBRUARY 10, 1914.

96,297. CERTAIN NAMED CLOTHING, UNDERWEAR, AND ATHLETIC GARMENTS. INNOVATION SHIRT COMPANY, New York, N. Y.
Filed September 8, 1913. Serial No. 72,721. PUBLISHED FEBRUARY 3, 1914.

96,298. WAGONS AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed December 20, 1913. Serial No. 74,708. PUBLISHED FEBRUARY 10, 1914.

96,299. CERTAIN NAMED UNDERWEAR FOR WOMEN AND CHILDREN. ROBERT G. JENNINGS, Elmira, N. Y.
Filed March 1, 1913. Serial No. 68,801. PUBLISHED FEBRUARY 10, 1914.

96,300. ASBESTOS TWINE AND CORD. H. W. JOHNS-MANVILLE CO., New York, N. Y.
Filed November 29, 1913. Serial No. 74,256. PUBLISHED FEBRUARY 3, 1914.

96,301. DRESSES AND OUTER SKIRTS OF TEXTILE MATERIAL. JUDA BROTHERS, New York, N. Y.
Filed November 30, 1912. Serial No. 67,177. PUBLISHED FEBRUARY 3, 1914.

96,302. BLACK SHOE-POLISH. GEO. J. KELLY CO., Haverhill and Lynn, Mass.
Filed November 20, 1913. Serial No. 74,096. PUBLISHED FEBRUARY 3, 1914.

96,303. CLEANER OR WHITENER FOR WHITE BUCK OR CANVAS SHOES. GEO. J. KELLY CO., Haverhill and Lynn, Mass.
Filed November 20, 1913. Serial No. 74,097. PUBLISHED FEBRUARY 3, 1914.

96,304. ADJUSTABLE STRAPS FOR HARNESS AND THE LIKE. KERR ADJUSTABLE STRAP COMPANY, New York, N. Y.
Filed October 22, 1913. Serial No. 73,553. PUBLISHED FEBRUARY 10, 1914.

96,305. EYEGLASS-MOUNTINGS. E. KIRSTEIN SONS COMPANY, Rochester, N. Y.
Filed October 20, 1913. Serial No. 73,515. PUBLISHED FEBRUARY 10, 1914.

96,306. MEN'S OUTER SHIRTS, WITH OR WITHOUT SEPARATE COLLARS. M. KOBLENZER & SON, New York, N. Y.
Filed October 30, 1912. Serial No. 66,620. PUBLISHED FEBRUARY 3, 1914.

96,307. LEATHER BOOTS AND SHOES. THE KROHN-FECHHEIMER COMPANY, Cincinnati, Ohio.
Filed September 13, 1913. Serial No. 72,838. PUBLISHED FEBRUARY 10, 1914.

96,308. WIRE CORSET-STAYS. THE LA RESISTA CORSET COMPANY, Bridgeport, Conn.; New York, N. Y.; Boston, Mass., and Paris, France.
Filed June 6, 1913. Serial No. 70,908. PUBLISHED FEBRUARY 10, 1914.

96,309. HATS FOR MEN'S AND BOYS' WEAR. M. S. LEVY & SONS, INCORPORATED, Baltimore, Md.
Filed October 18, 1913. Serial No. 73,479. PUBLISHED FEBRUARY 10, 1914.

96,310. ADHESIVE COMPOSITION FOR ATTACHING ARTIFICIAL TEETH TO GUMS. MAGIC SUCTION COMPANY, New York, N. Y.
Filed November 13, 1913. Serial No. 73,952. PUBLISHED FEBRUARY 10, 1914.

96,311. LADIES' GARMENTS—NAMELY, LADIES SUITS, DRESSES, AND SKIRTS. ALBERT MALSIN, New York, N. Y.
Filed November 26, 1912. Serial No. 67,142. PUBLISHED FEBRUARY 10, 1914.

96,312. VEHICLES, VEHICLE TOPS AND BODIES. THE MANDEL LIMOUSINE CO., Chicago, Ill.
Filed January 7, 1914. Serial No. 75,010. PUBLISHED FEBRUARY 10, 1914.

96,313. DRY BATTERIES. MANHATTAN ELECTRICAL SUPPLY CO., Jersey City, N. J., and New York, N. Y.
Filed July 21, 1911. Serial No. 57,761. PUBLISHED FEBRUARY 10, 1914.

96,314. SOAP FORMED INTO BARS OR CAKES. THE GEORGE E. MARSH COMPANY, Portland, Me., and Lynn, Mass.
Filed October 2, 1913. Serial No. 73,173. Renewal of No. 10,626, October 9, 1883. PUBLISHED FEBRUARY 3, 1914.

96,315 NECKTIES. D. & E. L. MAYER, New York, N. Y.
Filed January 9, 1914. Serial No. 75,060. PUBLISHED FEBRUARY 10, 1914.

96,316. DRY, PASTE, AND READY-MIXED PAINT AND VARNISH. GEBRÜDER MAYER, Esslingen, Germany.
Filed October 15, 1913. Serial No. 73,387. PUBLISHED FEBRUARY 10, 1914.

96,317. LADIES' COMBINED SHIRT-WAIST AND BLOOMER GYMNASIUM AND ATHLETIC SUITS. MYERS MANUFACTURING COMPANY, Los Angeles, Cal.
Filed November 9, 1911. Serial No. 59,631. PUBLISHED FEBRUARY 3, 1914.

96,318. AUTOMATIC MULTIPLE-SPINDLE SCREW-MACHINES. THE NATIONAL-ACME MANUFACTURING COMPANY, Cleveland, Ohio.
Filed September 27, 1913. Serial No. 73,088. PUBLISHED FEBRUARY 10, 1914.

96,319. PERIODICALS. THE NATIONAL CASH REGISTER COMPANY, Dayton, Ohio.
Filed March 10, 1913. Serial No. 68,945. PUBLISHED FEBRUARY 3, 1914.

96,320. BATH-TUBS, LAVATORIES, SINKS, PLUMBING-TRAPS, PLUMBING-BENDS, PLUMBING-FERRULES, AND PLUMBING-FITTINGS. N. O. NELSON MANUFACTURING COMPANY, St. Louis, Mo.
Filed December 22, 1913. Serial No. 74,788. PUBLISHED FEBRUARY 10, 1914.

96,321. THREAD. NEW ENGLAND COTTON YARN COMPANY, New Bedford, Mass.
Filed January 12, 1914. Serial No. 75,126. PUBLISHED FEBRUARY 10, 1914.

96,322. THREAD. NEW ENGLAND COTTON YARN COMPANY, New Bedford, Mass.
Filed January 12, 1914. Serial No. 75,127. PUBLISHED FEBRUARY 10, 1914.

96,323. THREAD. NEW ENGLAND COTTON YARN COMPANY, New Bedford, Mass.
Filed January 12, 1914. Serial No. 75,128. PUBLISHED FEBRUARY 10, 1914.

96,324. THREAD. NEW ENGLAND COTTON YARN COMPANY, New Bedford, Mass.
Filed January 12, 1914. Serial No. 75,129. PUBLISHED FEBRUARY 10, 1914.

96,325. LEATHER SHOES. O'DONNELL SHOE CO., St. Paul, Minn.
Filed December 13, 1913. Serial No. 74,587. PUBLISHED FEBRUARY 3, 1914.

96,326. COTTON AND WOOL DRESS GOODS. OSGOOD & SILVERBLATT, Pittsburgh, Pa.
Filed December 10, 1913. Serial No. 74,495. PUBLISHED FEBRUARY 10, 1914.

96,327. PORTABLE DECARBONIZING APPARATUS. OXYCARBON CO., Worcester, Mass.
Filed December 24, 1913. Serial No. 74,826. PUBLISHED FEBRUARY 10, 1914.

96,328. FERTILIZERS. THE PACIFIC GUANO & FERTILIZER CO., Honolulu, Territory of Hawaii.
Filed October 21, 1912. Serial No. 66,438. PUBLISHED FEBRUARY 3, 1914.

96,329. FERTILIZERS. THE PACIFIC GUANO & FERTILIZER CO., Honolulu, Territory of Hawaii.
Filed October 21, 1912. Serial No. 66,440. PUBLISHED FEBRUARY 10, 1914.

96,330. LEATHER BOOTS, SHOES, SLIPPERS, LEGGINGS, AND GAITERS. PADMORE & BARNES, LIMITED, Northampton, England.
Filed November 14, 1913. Serial No. 73,987. PUBLISHED FEBRUARY 3, 1914.

96,331. DRY AND READY-MIXED PAINTS, ENAMELS, STAINS, AND VARNISHES. THE PATTERSON-SARGENT COMPANY, Cleveland, Ohio.
Filed January 5, 1914. Serial No. 74,979. PUBLISHED FEBRUARY 10, 1914.

96,332. BELT-DRESSING. RENÉ G. PECHIN, Philadelphia, Pa.
Filed November 29, 1913. Serial No. 74,264. PUBLISHED FEBRUARY 3, 1914.

96,333. METAL-POLISHES. PINGO COMPANY, Cambridge, Mass.
Filed November 8, 1913. Serial No. 73,875. PUBLISHED FEBRUARY 3, 1914.

96,334. BEER. G. PSCHORR, Munich, Germany.
Filed December 12, 1913. Serial No. 74,528. PUBLISHED FEBRUARY 10, 1914.

96,335. CARPET AND RUG CLEANING COMPOSITION. DANIEL O. QUIVEY, La Fayette, Ind.
Filed October 7, 1913. Serial No. 73,258. PUBLISHED FEBRUARY 3, 1914.

96,336. SPARK-PLUGS. THE RANDALL-FAICHNEY COMPANY, Boston, Mass.
Filed January 3, 1914. Serial No. 74,965. PUBLISHED FEBRUARY 10, 1914.

96,337. SPARK-PLUGS AND PARTS THEREOF. THE RAPP MFG. CO., Toledo, Ohio.
Filed December 6, 1912. Serial No. 67,267. PUBLISHED FEBRUARY 10, 1914.

96,338. RUBBER HEELS FOR BOOTS AND SHOES. REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass.
Filed February 1, 1912. Serial No. 61,184. PUBLISHED FEBRUARY 3, 1914.

96,339. CERTAIN NAMED CLOTHING. REVILLON FRÈRES, New York, N. Y.
Filed November 13, 1913. Serial No. 73,945. PUBLISHED FEBRUARY 3, 1914.

96,340. MECHANICAL DEVICES FOR OPERATING THE WINDOW-SASHES OF CARRIAGE-DOORS. RHEIMS & AUSCHER, Paris, France.
Filed October 15, 1913. Serial No. 73,402. PUBLISHED FEBRUARY 10, 1914.

96,341. DRESS-SHIELDS. HENRY P. RINDSKOPF, New York, N. Y.
Filed December 12, 1913. Serial No. 74,529. PUBLISHED FEBRUARY 10, 1914.

96,342. CYLINDER-OIL, ENGINE-OIL, AND MARINE-ENGINE OIL. WM. C. ROBINSON & SON CO., Baltimore, Md.
Filed December 27, 1913. Serial No. 74,864. PUBLSHED FEBRUARY 10, 1914.

96,343. BLENDED WHISKIES. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,740. PUBLISHED FEBRUARY 10, 1914.

96,344. BLENDED WHISKY. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,744. PUBLISHED FEBRUARY 10, 1914.

96,345. BLENDED WHISKY. R. M. ROSE COMPANY, Chattanooga, Tenn.
Filed December 20, 1913. Serial No. 74,745. PUBLISHED FEBRUARY 10, 1914.

96,346. WORK-SHIRTS. SALANT & SALANT, New York, N. Y.
Filed December 13, 1913. Serial No. 74,596. PUBLISHED FEBRUARY 3, 1914.



96,347. BLOW-OFF VALVES AND COCKS. SARGENT COMPANY, Chicago, Ill.
Filed August 14, 1913. Serial No. 72,337. PUBLISHED FEBRUARY 10, 1914.

96,348. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed June 9, 1913. Serial No. 70,984. PUBLISHED JANUARY 27, 1914.

96,349. WOVEN YARD GOODS AND FABRICS WHOLLY OR PARTLY OF CERTAIN MATERIALS. SCHERMERHORN BROS. CO., Chicago, Ill.
Filed December 18, 1913. Serial No. 74,683. PUBLISHED FEBRUARY 10, 1914.

96,350. GLASS FLASKS AND GLASS BOTTLES. THE SCHUSTER COMPANY, Cleveland, Ohio.
Filed September 8, 1913. Serial No. 72,727. PUBLISHED FEBRUARY 3, 1914.

96,351. PRINTED BOOKS. F. A. O. SCHWARZ, New York, N. Y.
Filed July 28, 1913. Serial No. 72,015. PUBLISHED FEBRUARY 3, 1914.

96,352. WATCHES. ADOLPHE SCHWOB, New York, N. Y.
Filed May 21, 1913. Serial No. 70,551. Renewal of No. 10,301, May 22, 1883. PUBLISHED JANUARY 27, 1914.

96,353. NOTE-PAPER, CERTAIN NAMED BLANK CARDS, AND PAPER AND CARDBOARD INITIALS. W. N. SHARPE, LIMITED, Bradford, England.
Filed March 22, 1913. Serial No. 69,266. PUBLISHED FEBRUARY 3, 1914.

96,354. CERTAIN NAMED SEEDS. ARTHUR E. SHULTZ, Olney, Ill.
Filed May 3, 1913. Serial No. 70,218. PUBLISHED FEBRUARY 3, 1914.

96,355. CERTAIN NAMED HOUSEHOLD FURNISHINGS MADE FROM TEXTILE MATERIALS. ERNEST SIMONS MFG. CO., Port Chester, N. Y.
Filed December 6, 1913. Serial No. 74,423. PUBLISHED FEBRUARY 10, 1914.

96,356. PAPER FOR WRITING AND PRINTING AND ENVELOPS. BRADNER SMITH & CO., Chicago, Ill.
Filed November 17, 1913. Serial No. 74,025. PUBLISHED FEBRUARY 3, 1914.

96,357. PAPER FOR WRITING AND PRINTING AND ENVELOPS. BRADNER SMITH & CO., Chicago, Ill.
Filed November 17, 1913. Serial No. 74,026. PUBLISHED FEBRUARY 3, 1914.

96,358. PAPER FOR WRITING AND PRINTING AND ENVELOPS. BRADNER SMITH & CO., Chicago, Ill.
Filed November 26, 1913. Serial No. 74,205. PUBLISHED FEBRUARY 3, 1914.

96,359. PLIERS. SMITH & HEMENWAY COMPANY, New York, N. Y.
Filed October 25, 1912. Serial No. 66,525. PUBLISHED FEBRUARY 10, 1914.

96,360. PROJECTION APPARATUS, FILMS, AND PHOTOGRAPHIC PLATES. SOCIÉTÉ INTERNATIONALE DE LUMIÈRE FROIDE (PROCÉDÉS DUSSAUD), Paris, France.
Filed December 12, 1913. Serial No. 74,543. PUBLISHED FEBRUARY 10, 1914.

96,361. IMPLEMENTS, APPARATUS, AND ARTICLES USED IN CERTAIN ATHLETIC GAMES OR SPORTS. A. G. SPALDING & BROS., New York, N. Y.
Filed September 25, 1913. Serial No. 73,062. PUBLISHED FEBRUARY 10, 1914.

96,362. CERTAIN PAPERS, CARDS, ENVELOPS, RUBBER ERASERS, CLIPS, AND NOTE-BOOKS. THE STENOGRAPHY AND REPORTING COMPANY, Trenton, N. J.
Filed April 9, 1913. Serial No. 69,687. PUBLISHED FEBRUARY 3, 1914.

96,363. BRAIDS AND EDGINGS. STRAUSS BROS. & CO., New York, N. Y.
Filed December 31, 1913. Serial No. 74,922. PUBLISHED FEBRUARY 10, 1914.

96,364. COCKTAIL INGREDIENTS, INCLUDING WHISKY, GIN, AND RUM LIQUORS. SYMPHONY COCKTAIL COMPANY, Chicago, Ill.
Filed December 30, 1913. Serial No. 74,898. PUBLISHED FEBRUARY 10, 1914.

96,365. TIRE-TREADS. TEN BROECK TYRE CO., Louisville, Ky.
Filed October 29, 1913. Serial No. 73,663. PUBLISHED FEBRUARY 3, 1914.

96,366. SANITARY NAPKINS. MARGARETH THEOBALD, New York, N. Y.
Filed March 22, 1913. Serial No. 69,269. PUBLISHED FEBRUARY 10, 1914.

96,367. SHINGLES. WILLIAM G. TILGHMAN, Palatka, Fla.
Filed November 15, 1913. Serial No. 74,020. PUBLISHED FEBRUARY 3, 1914.

96,368. TOBACCO-POUCHES AND COMBINED TOBACCO AND PIPE POUCHES. CHARLES TWINING, New York, N. Y.
Filed December 4, 1913. Serial No. 74,374. PUBLISHED FEBRUARY 10, 1914.

96,369. METAL-POLISHES. ALEXANDER M. ULLMAN, New York, N. Y.
Filed August 25, 1913. Serial No. 72,524. PUBLISHED FEBRUARY 3, 1914.

96,370. RUBBER BOOTS AND SHOES AND RUBBER HEELS THEREFOR. UNITED STATES RUBBER COMPANY, New York, N. Y.
Filed May 6, 1913. Serial No. 70,273. PUBLISHED FEBRUARY 10, 1914.

96,371. MACHINES FOR MILLING, DRILLING, AND GRINDING METAL. VALLEY CITY MACHINE WORKS, Grand Rapids, Mich.
Filed December 23, 1912. Serial No. 67,569. PUBLISHED FEBRUARY 10, 1914.

96,372. RAIN-PROOF COATS, CAPES, JACKETS, BREECHES, AND LEGGINGS. WALLACE, SCOTT & CO., LIMITED, Glasgow, Scotland.
Filed December 30, 1913. Serial No. 74,901. PUBLISHED FEBRUARY 10, 1914.

96,373. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed January 20, 1914. Serial No. 75,107. PUBLISHED FEBRUARY 3, 1914.

96,374. ELECTRICAL INSULATING SHEETS AND TUBES. WESTINGHOUSE ELECTRIC & MANUFACTURING CO., East Pittsburgh, Pa.
Filed December 28, 1912. Serial No. 67,610. PUBLISHED FEBRUARY 10, 1914.

96,375. CHEWING AND SMOKING TOBACCO. WEYMAN-BRUTON CO., New York, N. Y.
Filed January 24, 1913. Serial No. 68,109. PUBLISHED FEBRUARY 3, 1914.

96,376. COTTON BLANKETS AND WOOL-FINISH BLANKETS. WHEELER & MOTTER MERCANTILE COMPANY, St. Joseph, Mo.
Filed December 27, 1913. Serial No. 74,867. PUBLISHED FEBRUARY 10, 1914.

96,377. LUBRICANTS. THE WHITMORE MANUFACTURING COMPANY, Cleveland, Ohio.
Filed January 16, 1914. Serial No. 75,242. PUBLISHED FEBRUARY 10, 1914.

96,378. BLENDED WHISKY. WICHMAN, LUTGEN & CO., San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,108. PUBLISHED FEBRUARY 10, 1914.

96,379. WRITING-TABLETS. ARTHUR E. WILSON, Kalamazoo, Mich.
Filed December 29, 1913. Serial No. 74,889. PUBLISHED FEBRUARY 3, 1914.

96,380. FIELD AND GARDEN SEED. M. J. YOPP SEED CO., Paducah, Ky.
Filed October 29, 1913. Serial No. 73,665. PUBLISHED FEBRUARY 3, 1914.

# LABELS

## REGISTERED APRIL 14, 1914.

17,645.—*Title:* "SPHINX RUBBER ROOFING." (For Rubber Roofing.) A. J. ARIEL, New York, N. Y. Filed March 11, 1914.

17,646.—*Title:* "PYRAMID RUBBER ROOFING." (For Rubber Roofing.) A. J. ARIEL, New York, N. Y. Filed March 11, 1914.

17,647.—*Title:* "OLD SOL." (For Self-Rising Flour.) EMPIRE MILLS COMPANY, Columbus, Ga. Filed February 21, 1914.

17,648.—*Title:* "VINTAGE BLEND." (For Tobacco.) FALK TOBACCO CO., New York, N. Y. Filed March 9, 1914.

17,649.—*Title:* "SWEETHEART BRAND." (For Coffee.) GERMAN-AMERICAN COFFEE COMPANY, Omaha, Nebr. Filed March 6, 1914.

17,650.—*Title:* "THE YALE BRASS AND METAL POLISH." (For Brass and Metal Polish.) W. C. GLIENKE, Buffalo, N. Y. Filed February 25, 1914.

17,651.—*Title:* "DODGE COUNTY." (For Canned Peas.) HUSTISFORD CANNING CO., Hustisford, Wis. Filed March 4, 1914.

17,652.—*Title:* "HERKIMER." (For Canned Peas.) HUSTISFORD CANNING CO., Hustisford, Wis. Filed March 4, 1914.

17,653.—*Title:* "BRUGG'S ANAESTHESIA MIXTURE." (For an Anesthesia Mixture.) DAVID B. LEVY, Brooklyn, N. Y. Filed March 22, 1913.

17,654.—*Title:* "CALORA CALIFORNIA CANDY ORANGE SLICES." (For Candy Orange-Slices.) MATHEWS CANDY COMPANY, Los Angeles, Cal. Filed February 11, 1914.

17,655.—*Title:* "VERY BEST CHEWING GUM." (For Chewing-Gum.) A. MEDWEDEFF, Baltimore, Md. Filed March 3, 1914.

17,656.—*Title:* "MIKAH WHITE PASTE." (For Adhesive Paste.) NATIONAL GUM & MICA COMPANY, New York, N. Y. Filed March 27, 1914.

17,657.—*Title:* "MELRICH." (For Ginger-Ale.) L. N. PALMORE, Richmond, Va. Filed March 10, 1914.

17,658.—*Title:* "BLUE BOOK FINE CAMBRIC." (For Fine Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed February 11, 1914.

17,659.—*Title:* "ARABIAN TAPESTRY." (For Fine Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed February 11, 1914.

17,660.—*Title:* "EMERALD IRISH LINEN." (For Fine Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed February 13, 1914.

17,661.—*Title:* "PEERAGE LINEN." (For Fine Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed February 13, 1914.

17,662.—*Title:* "SÈVRES SUPERFINE." (For Fine Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed February 13, 1914.

# PRINTS

## REGISTERED APRIL 14, 1914.

3,557.—*Title:* "'AH' RECKON AS HOW HE'S DE BES KNOWN MAN IN DE WORL." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed March 31, 1914.

3,558.—*Title:* "NO! ROLLO—." (For Root-Beer.) CHARLES E. HIRES COMPANY, Philadelphia, Pa. Filed March 12, 1914.

3,559.—*Title:* "OH, NO, OLD MAN! YOU CAN'T STOP US! WE USE McGOWAN'S LIGHTNING PUNCTURE CURE." (For Puncture Cure for Pneumatic Tires.) THE McGOWAN COMPANY, Homestead, Pa. Filed February 16, 1914.

3,560.—*Title:* "V. B." (For Cigars.) VEILLARD BROTHERS, Tell City, Ind. Filed February 4, 1914.

3,561.—*Title:* "THIS LITTLE PIG WENT TO MARKET." (For Shortening.) THE OXOLA MANUFACTURING CO., Baltimore, Md. Filed March 6, 1914.

3,562.—*Title:* "QUALITY SAWS." (For Hacksaws, Band-Saws, and Circular Saws.) QUALITY SAW AND TOOL WORKS, Springfield, Mass. Filed March 30, 1914.

3,563.—*Title:* "YOU FIRE UP A JIMMY PIPE." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed March 25, 1914.

3,564.—*Title:* "BIG JOY FOR *YOU* ROLLING 'EM WITH P. A." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed March 25, 1914.

3,565.—*Title:* "EVERY PUFF OF P. A. IS A WALLOP!" (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed March 25, 1914.

3,566.—*Title:* "SUPERIOR CARNATION STAPLES." (For Staples.) WM. SCHLATTER & SON, Springfield, Mass. Filed March 30, 1914.

3,567.—*Title:* "MERITAS." (For Oil-Cloth.) STANDARD OIL CLOTH CO., New York, N. Y. Filed March 12, 1914.

3,568.—*Title:* "BETWEEN YOU AND THE WEATHER." (For Linen Felt.) UNION FIBRE COMPANY, Winona, Minn. Filed March 13, 1914.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### MANSON *v.* HUTCHISON.

*Decided March 26, 1914; on rehearing, April 6, 1914.*

INTERFERENCE—APPLICANT AND PATENTEE—MOTION BY PATENTEE TO DISSOLVE ON GROUND THAT ISSUE IS NOT PATENTABLE—SHOULD NOT BE TRANSMITTED.

Where a patentee moves to dissolve the interference in which he is involved on the ground that the issue is not patentable, *Held* that such a motion should not be transmitted, since otherwise the patentee could contend in this Office that the subject-matter of the patent is not patentable and in the courts that his patent is valid. (*Baltzley* v. *Seeberger*, 115 O. G., 1329, overruled.)

APPEAL from Examiners-in-Chief.

SIGNALING DEVICE.

*Mr. F. O. Richey* for Manson.

*Mr. George Cooper Dean* for Hutchison.

EWING, *Commissioner:*

This case is before me on an appeal by Hutchison from a decision of the Examiners-in-Chief affirming the decision of the Primary Examiner dissolving the interference.

The issues in this interference are in the language of the claims of Manson's patent.

It is contended on behalf of Manson that he is entitled to bring this motion to dissolve on the ground that the claims constituting the counts are not patentable. As there are thirteen claims of the patent and all of them are involved in this interference and the motion includes all of the counts, this is equivalent to the contention that the patent which Manson holds is invalid.

The only question that the Office can pass upon at this time is whether Hutchison is entitled to a patent containing claims in the language of the counts. If Manson were one of the general public, he could not be heard in opposition to Hutchison's right to these claims. It has been held, however, that a patentee may bring such a motion to dissolve as is here involved. (*Baltzley* v. *Seeberger*, 115 O. G., 1329; 1905 C. D., 120.)

The right of a patentee to bring such a motion must arise out of the fact that he has received a grant. No disclaimer has been filed by the patentee, and however persuasive this motion might be against his right to sue upon his patent he would not be legally estopped. Under the doctrine of the case above referred to he would be privileged as a patentee to contend in this Office that the subject-matter of his patent is unpatentable and in the courts that his patent is valid and should be enforced against infringers. Here, therefore, are two inconsistent rights claimed as arising out of the grant.

After fully considering the situation presented in this case I am satisfied that a patentee has no right to move to dissolve on the ground that an issue drawn in the language of one of his claims and directed to the same subject-matter as his patent purports to cover is unpatentable. It follows that the motion to dissolve should not have been transmitted. The result in this case is that the Office is troubled with an interference over subject-matter which two tribunals thereof have held to be unpatentable, but the remedy for such annoyance is to develop the state of the art fully before granting patents.

The case of *Baltzley* v. *Seeberger* is overruled.

The motion to dissolve is denied.

ON PETITION FOR REHEARING.

A petition for rehearing has been filed by Manson, with an offer to enter a disclaimer of the counts of the interference if the tribunal having final jurisdiction shall hold that they are not patentable.

The patentee cannot distinguish himself from the general public in any way or acquire any right arising out of his patent by maintaining that the patent is void.

The petition for rehearing is denied.

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JOHN L. WHITING-J. J. ADAMS CO. *v.* RUBBER AND CELLULOID HARNESS TRIMMING CO.

*Decided March 26, 1914.*

TRADE-MARKS—CANCELATION PROCEEDING—NEW EQUITY RULES—INTERROGATORIES.

*Held* that the new equity rules apply to cancelation proceedings and that either party thereto may file interrogatories and that in the event of the failure to answer such interrogatories the party in default is liable to the penalty provided by Equity Rule 58.

ON PETITION.

TRADE-MARK FOR BRUSHES.

*Mr. William Quinby, Mr. Frank F. Reed, Mr. Edward S. Rogers, Mr. William S. Hodges*, and *Mr. F. M. Phelps* for John L. Whiting-J. J. Adams Co.

*Mr. Charles C. Gill* and *Mr. Wm. G. Henderson* for Rubber and Celluloid Harness Trimming Co.

NEWTON, *Assistant Commissioner:*

This is a petition that the supervisory authority of the Commissioner be exercised to set aside an

order of the Examiner of Interferences of February 2, 1914, requiring the Rubber and Celluloid Harness Trimming Co. to answer certain interrogatories submitted under the provision of new Rule 58 of the Federal equity rules.

In the notice sent by the Examiner of Interferences to the Rubber and Celluloid Harness Trimming Co. that an application for cancelation of their trade-mark had been filed by the John L. Whiting-J. J. Adams Co. the following paragraph occurs:

> The practice of the United States equity courts should be followed in pleading (rules in force Feb. 1, 1913, to be followed). All papers when filed must be accompanied by proof of service on the adverse party.

There is no proof accompanying the filing of the interrogatories by the Whiting-Adams Co. that a copy thereof had been served on the adverse party. However, the Examiner of Interferences states in his notice to the Rubber and Celluloid Harness Trimming Co. that he had inclosed a copy of the interrogatories with the notice. This will be accepted in the present case as the equivalent of the proof of service.

The said notice also states that—

> exceptions, if any, to be filed on or before February 18, 1914.
> Answers to the interrogatories are required to be filed on or before March 5, 1914.

It will be noted that this notice contains no provisions as to what will be done in case the Rubber and Celluloid Harness Trimming Co. fails to file any exceptions to the interrogatories or to answer the same.

The Rubber and Celluloid Harness Trimming Co. seems to take the position that the filing of interrogatories in cancelation proceedings is an innovation not adapted to Patent Office proceedings and is contrary to the rules.

The only rule in the trade-mark rules that could have any bearing on this question is Rule 55, which is as follows:

> The proceedings, on oppositions, and on applications for cancelation, shall follow, as nearly as practicable, the practice in interferences between applications for patents.

It is true that no provision is made in the interference practice between applications for patents for filing such interrogatories as have been filed in this case; but in interference practice, where the issues are all formulated by the Office, there is ordinarily no necessity for such interrogatories. In a cancelation proceeding the issues are formulated by the plaintiff (applicant for cancelation) and the defendant (registrant) and, as in the present case, it is entirely conceivable that interrogatories may perform as important functions as in an equity court proceeding.

Equity Rule 58 is as follows:

> The plaintiff at any time after filing the bill and not later than twenty-one days after the joinder of issue, and the defendant at any time after filing his answer and not later than twenty-one days after the joinder of issue, and either party at any time thereafter by leave of the court or judge, may file interrogatories in writing for the discovery by the opposite party or parties of facts and documents material to the support or defense of the cause, with a note at the foot thereof stating which of the interrogatories each of the parties is required to answer. But no party shall file more than one set of interrogatories to the same party without leave of the court or judge.
> If any party to the cause is a public or private corporation, any opposite party may apply to the court or judge for an order allowing him to file interrogatories to be answered by any officer of the corporation, and an order may be made accordingly for the examination of such officer as may appear to be proper upon such interrogatories as the court or judge shall think fit.
> Copies shall be filed for the use of the interrogated party, and shall be sent by the clerk to the respective solicitors of record, or to the last known address of the opposite party, if there be no record solicitor.
> Interrogatories shall be answered, and the answers filed in the clerk's office, within fifteen days after they have been served, unless the time be enlarged by the court or judge. Each interrogatory shall be answered separately and fully and the answers shall be in writing, under oath, and signed by the party or corporate officer interrogated. Within ten days after the service of interrogatories, objections to them, or any of them, may be presented to the court or judge, with proof of notice of the purpose so to do, and answers shall be deferred until the objections are determined, which shall be at as early a time as is practicable. In so far as the objections are sustained, answers shall not be required.
> The court or judge, upon motion and reasonable notice, may make all such orders as may be appropriate to enforce answers to interrogatories or to effect the inspection or production of documents in the possession of either party and containing evidence material to the cause of action or defense of his adversary. Any party failing or refusing to comply with such an order shall be liable to attachment, and shall also be liable, if a plaintiff, to have his bill dismissed, and if a defendant, to have his answer stricken out and be placed in the same situation as if he had failed to answer.
> By a demand served ten days before the trial, either party may call on the other to admit in writing the execution or genuineness of any document, letter or other writing, saving all just exceptions; and if such admission be not made within five days after such service the costs of proving the document, letter or writing shall be paid by the party refusing or neglecting to make such admission, unless at the trial the court shall find that the refusal or neglect was reasonable.

It is a principle in equity proceedings and should be in cancelation proceedings that a party must disclose his case at as early a date as possible, and whatever can be reasonably done to require this should be done by the Office.

The question that most seriously presses itself for consideration in this matter is whether or not the Office can enforce its orders requiring answers to the submitted interrogatories. It is recognized that the Office is in a different position as regards this matter from the courts; but no reason is seen, either legally or equitably, why the Office should not follow the court practice under this Rule 58 and apply that part of the rule specifying that any party failing or refusing to comply with the order shall be liable, if a plaintiff, (applicant for cancelation,) to have his application for cancelation dismissed and if a defendant (registrant) to have his answer stricken out and placed in the same situation as if he had failed to answer.

I see nothing, therefore, inconsistent with the rules in the order issued by the Examiner of Interferences, and it is approved; but said order should state the penalty in case the Rubber and Celluloid Harness Trimming Co. fails to answer the interrogatories or file its exceptions, and as this petition has acted as a stay of proceedings in the present case and it will be necessary to set new times for filing the answers or exceptions the new notices should be framed in accordance with this decision.

The petition is denied.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

IN RE PEIN.

*Decided March 2, 1914.*

PATENTABILITY—LIQUID-MEASURING DEVICE.

Claims for a measuring device for aerated liquids under high pressure *Held* unpatentable in view of the prior art.

*Mr. J. L. Levy* and *Mr. O. E. Edwards* for the appellant.





*Mr. W. S. Ruckman* for the Commissioner of Patents.

VAN ORSDEL, *J.*:

Appellant's application for patent relates to improvements in liquid-measuring devices. Claims 1 and 2 of his application were allowed by the Primary Examiner, but the following were rejected on reference to a patent to one Williams, which holding was affirmed by the appellate tribunals of the Patent Office:

> 3. A measuring device for aerated liquids under high pressure, comprising a pair of cups, a vent pipe connecting said cups and provided with check valves at each end, so arranged and disposed that the vent pipe will be open only when said cups are being filled or discharged, and means for filling one cup and discharging the other cup simultaneously, each cup being adapted to hold a predetermined quantity of aerated liquid under high pressure.
> 4. In a liquid measuring device for high pressure liquids, a pair of cups, a vent pipe connected with said cups and provided with a check valve at each end, a float for each valve, free and unobstructed supply and discharge pipes connected to said cups and a four-way valve connected to said pipes so that by turning said valves, said cups may be alternately charged and discharged with an aerated liquid under high pressure.
> 5. In a liquid measuring device adapted for high pressure liquids, a pair of cups, a vent pipe connecting the upper portions of said cups, a valve in each cup for closing the communication with the vent pipe, a float connected with each valve and disposed within its cup and constructed to be actuated to close the valve by high pressure only, and means for filling one cup and automatically discharging the other cup simultaneously, the discharge being occasioned by the passage of gas under high pressure from one cup to the other.
> 6. In a liquid measuring device adapted for high pressure liquids, a pair of cups, a vent pipe connecting the upper portions of said cups, a valve in each cup for closing the communication with the vent pipe, a float connected with each valve and disposed within its cup and constructed to be actuated to close the valve by high pressure only, means for filling one cup and automatically discharging the other cup simultaneously, the discharge being occasioned by the passage of gas under high pressure from one cup to the other.
> 7. In a measuring device for aerated liquids under high pressure, a pair of cups, a vent pipe connected with each of said cups, there being restricted communication between said cups and pipe, a valve stem in each communication, a valve carried by each stem adapted to seat at the top of the cup to close said communication, a hemispherical float of large capacity connected with each stem constructed to be actuated by high pressure only, and means for filling one cup and discharging the other cup simultaneously.
> 8. In a measuring device for aerated liquids under high pressure, a pair of cups provided with supply and discharge pipes, a vent pipe connected with each of said cups, there being restricted communication between said cups and pipe, a valve stem in each communication, a valve carried by each stem adapted to seat at the top of the cup to close said communication, a hemispherical float of large capacity connected with each stem constructed to be actuated by high pressure only, means for filling one cup and discharging the other cup simultaneously, the supply and discharge pipe for said cups being valveless.

We agree with the tribunals below that the Williams structure is capable of being operated with a liquid under high pressure; hence every element of claim 3 is readable on the prior device.

Claim 4 calls for a check-valve for each end of the vent-pipe and a float for each valve, while Williams shows merely a float which also acts as a check-valve. It is contended that the float of Williams will not prevent the backflow of a liquid under pressure. This contention was not sustained in the Patent Office, where it was held properly, we think, that the float of Williams is capable, or may be made capable without the exercise of inventive skill, of withstanding such back pressure, and that the use by appellant of a check-valve with a float therefor is but the substitution of one well-known equivalent for another.

It is next contended that the claim under consideration calls for a "four-way" valve, while the Williams patent specifies a "two-way" valve. Though these valves are called by different names, in structure they are substantially the same. The next difference alleged is that this claim demands that the supply and discharge pipes be unobstructed. In the Williams patent, floats are described situated within the cups at the ends of the supply and discharge pipes, which would probably, as claimed by appellant, be forced against their seats by liquid under pressure, thus preventing the operation of the device. But the purpose of these floats is to prevent, by means of locking devices with which they are connected, the turning of the handle carrying the valve in the supply and discharge pipes of the cups, until one of the cups is entirely empty and the other entirely full. It would require but the exercise of mere mechanical skill to remove these floats. The omission of this element, with a corresponding loss of function, does not amount to invention.

In regard to claims 5 and 6, we agree with the Board of Examiners-in-Chief, who said:

> Claim 5 provides that the floats which close the vents shall be actuated by high pressure only. Williams's floats, so far as perceived, will be operated by either high or low pressure. It is not understood wherein there could be any invention in modifying these floats so that they could be operated only by high pressure. This claim, therefore, was also rightly rejected. Claim 6 involves merely the considerations hereinabove discussed and was also rightly rejected.

Claims 7 and 8 provide that the floats shall be hemispherical and of large capacity. We are unable to discover invention in merely altering the size and shape of an element described in a patented device, where the difference in function is one already well known in the art.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

**Affirmed.**

## ADJUDICATED PATENTS.

(U. S. D. C.) The Work and Haskell patent, No. 622,834, for a golf-ball, *Held* valid and infringed. *Haskell Golf Ball Co.* v. *Sporting Goods Sales Co.*, 210 Fed. Rep., 624.

(U. S. D. C.) The Callahan patent, No. 701,839, for an envelop, *Held* void for lack of invention. *Outlook Envelope Co.* v. *Sherman Envelope Co.*, 210 Fed. Rep., 630.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE.
*Washington, D. C., April 4, 1914.*

*"Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Octavie Rincheval, 258 Rue du Faubourg St. Martin, Paris, France, for registration of a trade-mark and trade-mark registered February 28, 1899, No. 32,546, to "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, of Hamburg, Germany, and a notice of such declaration sent by registered mail to said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, shall enter an

appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 4, 1914.*

*James S. Longhurst, Jr., his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Standard Oil Co. of New York, of 26 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered December 24, 1901, No. 37,517, to James S. Longhurst, Jr., of 72 Nevine street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said James S. Longhurst, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James S. Longhurst, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 28, 1914.*

*Strauss & Jandorf Shoe Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Hood Rubber Co., of Watertown, Mass., for registration of a trade-mark and trade-mark registered October 16, 1894, No. 25,341, to Strauss & Jandorf Shoe Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said Strauss & Jandorf Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Strauss & Jandorf Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*May & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Dueber Watch Case Mfg. Co., of West Tuscarawas street, Canton, Ohio, for registration of a trade-mark and trade-mark registered August 15, 1882, No. 9,609, to May & Son, of New York, N. Y., and a notice of such declaration sent by registered mail to said May & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said May & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*The Goodwill Chemical Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of A. H. Richardson, of Fond du Lac, Wis., for registration of a trade-mark and trade-mark registered December 5, 1899, No. 33,842, to The Goodwill Chemical Company, of 325 North Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to The Goodwill Chemical Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless The Goodwill Chemical Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 24, 1914.*

*William Brokhahne, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Harrington Cutlery Co., of Southbridge, Mass., for registration of a trade-mark and trade-mark registered December 6, 1881, No. 8,906, to William Brokhahne, of New York, N. Y., and Sheffield, England, and a notice of such declaration sent by registered mail to said William Brokhahne at Sheffield, England, having been returned by the post-office undeliverable, notice is hereby given that unless said William Brokhahne, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 23, 1914.*

*Aurilla B. Fenton, her assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Beziers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1888, No. 15,915, to Aurilla B. Fenton, Buffalo, N. Y., and a notice of such declaration sent by registered mail to said Aurilla B. Fenton at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Aurilla B. Fenton, her assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*

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DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 23, 1914.*

*Percy Donaldson, his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the applications of J. H. Newbauer & Co., San Francisco, Cal., and Rene Beziers, Douarnenez, Finistere, France, for registration of a trade-mark and trade-mark registered October 2, 1900, No. 35,187, to Percy Donaldson, 404 South Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Percy Donaldson at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Percy Donaldson, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

The notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *First Assistant Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 201—No. 3. TUESDAY, APRIL 21, 1914. Price—$5 per year.

**The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.**

**Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.**

## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF APRIL 21, 1914 | 573 |
| DRAWINGS OF FOREIGN PATENTS | 573 |
| NOTICE | 573 |
| TRADE-MARKS | 573 |
| APPLICATIONS UNDER EXAMINATION | 574 |
| PATENTS GRANTED | 575 |
| REISSUES | 849 |
| DESIGNS | 861 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 873 |
| TRADE-MARKS—REGISTERED | 895 |
| LABELS AND PRINTS | None. |
| COMMISSIONER'S DECISIONS— | |
| Brown v. Campbell | 903 |
| DECISIONS OF THE U. S. COURTS— | |
| Brown v. Campbell | 905 |
| INTERFERENCE NOTICES | 906 |

## ISSUE OF APRIL 21, 1914.

| | | | |
|---|---|---|---|
| Patents | 817—No. | 1,093,593 to No. | 1,094,409, inclusive. |
| Designs | 53—No. | 45,611 to No. | 45,663, inclusive. |
| Trade-Marks | 239—No. | 96,381 to No. | 96,619, inclusive. |
| Labels | None. | | |
| Prints | None. | | |
| Reissues | 6—No. | 13,714 to No. | 13,719, inclusive. |
| Total | 1115 | | |

### TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 5 | 1 | North Carolina | 1 | 3 |
| Arizona | 1 | 1 | North Dakota | 2 | ..... |
| Arkansas | 2 | 1 | Ohio | 53 | 13 |
| California | 40 | 9 | Oklahoma | 10 | 1 |
| Colorado | 8 | 1 | Oregon | 7 | 1 |
| Connecticut | 22 | 1 | Pennsylvania | 77 | 14 |
| Delaware | ..... | ..... | Rhode Island | 7 | 1 |
| Florida | 1 | 1 | South Carolina | 3 | ..... |
| Georgia | 3 | 2 | South Dakota | 2 | ..... |
| Idaho | ..... | 2 | Tennessee | 5 | 5 |
| Illinois | 82 | 13 | Texas | 12 | 3 |
| Indiana | 15 | 12 | Utah | 3 | ..... |
| Iowa | 19 | 1 | Vermont | ..... | ..... |
| Kansas | 12 | 3 | Virginia | 8 | 6 |
| Kentucky | 6 | 1 | Washington | 12 | 4 |
| Louisiana | 3 | 5 | West Virginia | 5 | ..... |
| Maine | 3 | 3 | Wisconsin | 16 | 4 |
| Maryland | 4 | 3 | Wyoming | 1 | ..... |
| Massachusetts | 55 | 12 | | | |
| Michigan | 34 | 2 | Alaska, District of | ..... | ..... |
| Minnesota | 18 | 5 | Canal Zone | ..... | ..... |
| Mississippi | 5 | 1 | District of Columbia | 7 | ..... |
| Missouri | 21 | 3 | Hawaii Territory | 1 | ..... |
| Montana | 3 | ..... | Philippine Islands | ..... | ..... |
| Nebraska | 11 | 2 | Porto Rico | ..... | 1 |
| Nevada | 1 | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 5 | 3 | U. S. Navy | ..... | ..... |
| New Jersey | 36 | 9 | | | |
| New Mexico | 2 | ..... | Total to residents of the United States | 776 | 217 |
| New York | 127 | 64 | | | |

### TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | 1 | ..... | Netherlands | 1 | ..... |
| Austria-Hungary | 2 | ..... | Newfoundland | ..... | ..... |
| Belgium | 3 | ..... | New South Wales | ..... | ..... |
| British India | ..... | ..... | New Zealand | ..... | ..... |
| Brazil | ..... | ..... | Norway | 1 | 2 |
| British West Indies | ..... | ..... | Portuguese East Africa | 1 | ..... |
| Canada | 8 | 1 | Rhodesia | ..... | ..... |
| Cape Colony | ..... | ..... | Russia | ..... | ..... |
| Chile | ..... | ..... | Scotland | ..... | 1 |
| Costa Rica | ..... | ..... | South Australia | ..... | ..... |
| Cuba | ..... | ..... | Spain | ..... | 1 |
| Denmark | ..... | ..... | Dominican Republic | ..... | 1 |
| England | 31 | 4 | Sweden | 2 | ..... |
| France | 6 | 6 | Switzerland | ..... | ..... |
| Germany | 34 | 6 | Transvaal, South Africa | ..... | ..... |
| India | ..... | ..... | Victoria | ..... | ..... |
| Ireland | 2 | ..... | Wales | ..... | ..... |
| Italy | 1 | ..... | | | |
| Mexico | ..... | ..... | Total to residents of foreign countries | 94 | 22 |
| Natal | 1 | ..... | | | |

## Drawings of Foreign Patents.

(ORDER No. 2,096.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., January 21, 1914.*

In addition to the data required to be given by Rule 66 the Examiner, when citing foreign patents, will include a statement identifying the particular figures of the drawings relied upon as showing the anticipating structure. If the drawing of the foreign patent as issued comprises a single sheet, the Examiner will say: "(One sheet)." If the drawings of the foreign patent as issued comprise more than a single sheet, the particular figures and number of sheets will be indicated.

The purpose of this order is to give applicants and attorneys information respecting foreign patents cited as references, so that photographic copies thereof may be ordered without unnecessary correspondence and delay.

THOMAS EWING,
*Commissioner of Patents.*

## Notice.

Decision leaflets of the OFFICIAL GAZETTE are sold as a separate publication—

Single numbers ..... 5 cents
Subscription per year ..... $2.00

## Trade-Marks.

**Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment therefor.**

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business April 18, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Feb. 18 | Feb. 25 | 628 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Jan. 2 | Mar. 21 | 444 |
| 176 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Mar. 23 | Apr. 6 | 201 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Nov. 1 | Jan. 6 | 772 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Jan. 12 | Mar. 3 | 468 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Jan. 3 | Mar. 4 | 725 |
| 312 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Dec. 18 | Mar. 2 | 669 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Nov. 25 | Mar. 9 | 1013 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Nov. 29 | Mar. 19 | 610 |
| 235 | 10. Carriages and Wagons | Dec. 19 | Feb. 28 | 994 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Feb. 18 | Mar. 10 | 420 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Dec. 22 | Jan. 19 | 1232 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Mar. 18 | Mar. 18 | 461 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 16 | Mar. 19 | 475 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Nov. 12 | Mar. 2 | 1287 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Oct. 17 | Mar. 13 | 786 |
| 308 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Feb. 26 | Mar. 25 | 198 |
| 327 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Mar. 13 | Mar. 16 | 235 |
| 286 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Mar. 3 | 410 |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Mar. 3 | Mar. 4 | 382 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Jan. 17 | Mar. 2 | 455 |
| 249 | 22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Jan. 27 | Mar. 18 | 346 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Dec. 15 | Feb. 12 | 470 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Feb. 3 | Mar. 4 | 567 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Mar. 13 | Mar. 17 | 266 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Dec. 20 | 778 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Feb. 16 | Mar. 17 | 438 |
| 65 | 28. Internal-Combustion Engines | Nov. 1 | Mar. 14 | 528 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Feb. 24 | Feb. 26 | 511 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 28 | Apr. 2 | 360 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Feb. 7 | Mar. 9 | 348 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Nov. 1 | Mar. 10 | 687 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Nov. 11 | Mar. 4 | 526 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Mar. 6 | Mar. 14 | 249 |
| 57 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Feb. 16 | Mar. 20 | 549 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Mar. 5 | Mar. 5 | 663 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Mar. 19 | Mar. 5 | 807 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Sept. 16 | Mar. 7 | 790 |
| 321 | 39. Water Distribution | Dec. 29 | Feb. 26 | 559 |
| 290 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Jan. 2 | Feb. 24 | 1093 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Mar. 4 | Mar. 18 | 466 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Nov. 18 | Mar. 18 | 472 |
| 382 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Mar. 20 | Mar. 20 | 268 |

Oldest new case, Aug. 27; oldest amended, Dec. 20.
Total number of applications awaiting action..... 24,896

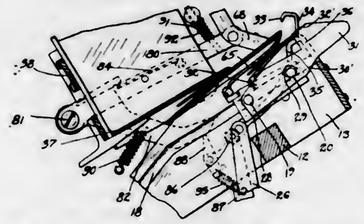
| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Feb. 9 | Mar. 24 | 1168 |
| | Designs | Mar. 16 | Mar. 16 | 216 |
| | Labels and Prints | Apr. 4 | Apr. 4 | 55 |



# PATENTS

## GRANTED APRIL 21, 1914.

1,093,593. AUTOMATIC SELECTING AND FEEDING DEVICE FOR CARDS, ENVELOPS, OR THE LIKE. GUIDO J. ALBRECHT and SIDNEY L. LONG, Minneapolis, Minn., assignors to Long Mailing Machine Company, Minneapolis, Minn., a Corporation. Filed May 16, 1912. Serial No. 697,826. (Cl. 101—39.)



1. In a machine for operating upon loaded envelops a magazine provided with a discharge opening, a member oscillating in proximity to said opening and having means for engaging and pushing said envelops singly and successively first into position to pass through and then in reverse direction through said opening at each complete oscillation of said member, and means for temporarily clamping the positioned envelop while change of engagement takes place from reverse movement of the oscillating member.

2. In a machine for operating upon envelops a magazine for holding the envelops in a stack provided with a discharge opening, means for discharging the envelops transversely through said opening singly and successively, means movable therewith for first moving said envelops partly out of the stack so that one edge may extend free of the stack and be engaged by the discharging means and the other edge will extend out of said opening, and means for temporarily clamping the moved envelop until the discharging means is caused to engage said free edge.

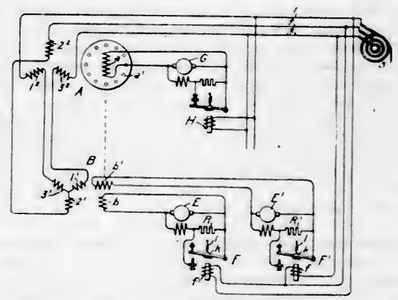
3. In a machine for operating upon envelops a magazine for holding the envelops in a stack provided with a discharge opening, means for engaging an edge of and discharging the envelops transversely through said opening singly and successively, means movable therewith for first moving said envelops partly out of the stack so that one edge may be engaged by the discharging means and the other edge will extend out of said opening, and means for causing the discharging means to grip the engaged edge of the envelop.

4. In a machine for operating upon envelops a magazine for holding the envelops in a stack provided with a discharge opening, means for discharging the envelops transversely through said opening singly and successively, means movable therewith for first moving said envelops partly out of the stack so that one edge may be engaged by the discharging means and the other edge will extend out of said opening, and means for gripping the moved envelop to hold the same in fixed position until the discharging means has gripped the same.

5. A feeding device comprising means for holding articles in a stack, means for moving the articles singly and successively so that an edge thereof extends free of the stack, a hook normally out of the plane of movement of said article, means to move the hook to cause the same to engage the free edge and then to push the moved article from the stack, and means to temporarily clamp the article after initial movement thereof and until the hook has engaged the same.

[Claims 6 to 24 not printed in the Gazette.]

1,093,594. PHASE-BALANCER. ERNST F. W. ALEXANDERSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 20, 1912. Serial No. 704,706. (Cl. 171—119.)



1. A phase balancer comprising a synchronous dynamo-electric machine and an auxiliary dynamo-electric machine connected therewith, the phase rotation of said machines being opposite.

2. A phase balancer comprising a polyphase synchronous dynamo-electric machine and a polyphase auxiliary dynamo-electric machine connected in series therewith, the phase rotation of said machines being opposite.

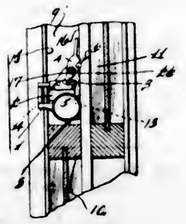
3. A phase balancer comprising a synchronous dynamo-electric machine and an auxiliary dynamo-electric machine connected therewith, the phase rotation of said synchronous machine and said auxiliary machine being opposite, and means for relatively changing the phase relation of the voltages of said synchronous machine and said auxiliary machine.

4. In a system of transmission, polyphase mains, and means for balancing a component of the energy on said mains comprising a synchronous dynamo-electric machine and an auxiliary dynamo-electric machine connected in series across the mains, the phase rotation of said synchronous machine and said auxiliary machine being opposite, and means for shifting the phase of the voltage of said auxiliary machine relatively to that of said synchronous machine.

5. In a system of transmission, polyphase mains, and means for balancing a component of the energy on said mains comprising a polyphase synchronous dynamo-electric machine, a polyphase auxiliary dynamo-electric machine mechanically connected to said synchronous machine, the armature of said auxiliary machine being connected in series with the armature of said synchronous machine across the mains, the phase rotation of said synchronous machine and said auxiliary machine being opposite, and means for relatively changing the phase relation of the voltages of said synchronous machine and said auxiliary machine.

[Claims 6 to 33 not printed in the Gazette.]

1,093,595. WINDOW-FASTENER. LOUIS BAUER, New York, N. Y. Filed May 15, 1913. Serial No. 767,792. (Cl. 16—18.)



1. A window fastener consisting of a support adapted to fit the groove of a window frame, a slide adapted to hold said support in position, a spring-pressed releasing-pin carried by said slide, a lock for said slide, means to actuate said lock, a catch adapted to engage a window sash.

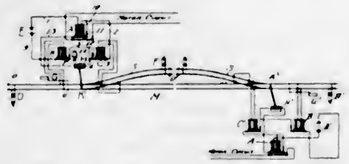
2. A window fastener consisting of a support adapted to fit the groove of a window frame, a slide adapted to hold said support in position, teeth carried by said slide, a slidable lock, teeth carried by said lock adapted to mesh with the teeth on said slide, a lever for actuating said lock, a link connecting said lever and lock, a catch carried by said lever adapted to engage a window sash.

3. A window fastener, consisting of a support adapted to fit the groove of a window frame, a slide carried by said support adapted to hold said support in position, a lock for said slide, a spring pressed releasing pin carried by said slide, a lever to actuate said lock, and a catch carried by said lever adapted to engage the other window-sash.

4. A window fastener consisting of a support adapted for attachment to a window-frame, a serrated slide adapted to hold said support in position, a slidable lock adapted to engage the serrations on said slide, said slide being provided with cam-slots, pins passing through said slots and into said support, and a lever adapted to actuate said lock, and cause it to move downwardly to engage said slide and to actuate the same.

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1,093,596. ELECTRIC BLOCK-SIGNAL APPARATUS. JOSEPH BEAUMONT and FREDERICK G. WHITE, Chicago, Ill. Filed Mar. 21, 1912. Serial No. 685,392. (Cl. 246—30.)



1. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for connecting same, a signal adjacent said switch and at the outside thereof, a motor for operating said signal, a relay controlling the motor circuit, a second relay connected with the opposite rails of the track section just outside said switch and a source of current connected with said rails, a third relay connected with the opposite rails of the side track section adjacent the switch and a source of current connected with said side track rails, a circuit for the first relay mutually controlled by the second and third relays when the track switch is open, said circuit being closed when both said track sections are clear and said circuit being open when either of said track sections is occupied by a train, and means controlled by said track switch for destroying the control of said first relay circuit by said side track section.

2. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for connecting same, a signal adjacent said switch and at the outside thereof, a motor for operating said signal, a relay controlling the motor circuit, a second relay connected with the opposite rails of the track section just outside said switch and a source of current connected with said rails, a third relay connected with the opposite rails of the side track section adjacent the switch and a source of current connected with said side track rails, a circuit for the first relay mutually controlled by the second and third relays when the track switch is open, said circuit being closed when both said track sections are clear and said circuit being open when either of said track sections is occupied by a train, and a shunt circuit controlled upon closure of the track switch for preventing opening of the first relay circuit when a train enters said side track section connected with the third relay.

3. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for connecting same, a signal at said switch, a motor controlling the actuation of said signal, a relay controlling the motor circuit, a second relay connected with the rails of said main track section and a source of current connected with said rails to cause energization of said second relay when said track section is unoccupied, a third relay connected with the rails of said side track section adjacent said switch and a source of current connected with said rails whereby said third relay is energized when said side track section is unoccupied, an energizing circuit for said first relay and contacts controlled by said second and third relays respectively to normally close said circuit whereby the deënergization of either the second or the third relay will effect opening of said first relay circuit, and a circuit in shunt with the third relay contacts controlled by said track switch to be opened when said switch is in position to disconnect the side track section from the main track and to be closed when said switch is moved to connect said track sections whereby said signal will be uninfluenced by the condition of said side track section.

4. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for connecting same, a signal at said switch, a motor controlling the actuation of said signal, a relay controlling the motor circuit, a second relay connected with the rails of said main track section and a source of current connected with said rails to cause energization of said second relay when said track section is unoccupied, a third relay connected with the rails of said side track section and a source of current connected with said rails whereby said third relay is energized when said side track section is unoccupied, an energizing circuit for said first relay and contacts controlled by said second and third relays respectively to normally close said circuit whereby deënergization of either the second or the third relay will effect opening of said first relay circuit, and a circuit in shunt with the third relay contacts controlled by said switch to be opened when the switch disconnects the side track section from the main track section and to be closed when the switch connects the side track section to the main track section to shift full control of the first relay circuit to the second relay.

5. In electric signaling, the combination of a main track and a side track and a track switch for connecting and disconnecting same, a section of the main track just outside of the switch being insulated and the section of the side track just inside of the switch being insulated, a signal outside the switch, electromagnetic mechanism for controlling said signal and circuit connections from said mechanism to both said insulated track sections whereby entrance of a train on either insulated section will cause setting of the signal to danger indication when said sections are disconnected by the track switch, and means controlled by the setting of the switch to connect the track sections for preventing control of the signal by the side track section whereby said signal will remain at clear indication upon entrance of a train on the side track section and until the train enters the main track section.



1,093,597. ELECTRIC BLOCK-SIGNAL APPARATUS. JOSEPH BEAUMONT and FREDERICK G. WHITE, Chicago, Ill. Filed Mar. 21, 1912. Serial No. 685,393. (Cl. 246—30.)



1. In a block signaling system, the combination of a main track and a side track and a track switch adapted to be set to connect or to disconnect said tracks, the main track section at the outside of and adjacent said switch being insulated and the side track section adjacent said switch being insulated, a signal adjacent said switch, a relay for controlling the operation of said signal, a source of current connected with the main track insulated section, an electrical switch mechanically connected with said track switch to be operated upon setting of the latter, circuit connections for connecting said relay with both rails of the side track insulated section, circuit connections for connecting both rails of said main track section to the respective rails of the said side track section, both sets of said circuit connections being controlled by said electrical switch and closed when said switch has been adjusted to one position by the setting of the track switch to mechanically disconnect the track sections whereby entrance of a train on either of said sections will affect the circuit conections to cause deënergization of said relay, a shunt circuit connection from said main track section to said relay, contacts controlled by said relay and included in said shunt circuit, said shunt circuit connection being controlled by said electrical switch when said switch is shifted to another position by the setting of said track switch to connect the main track and side track sections whereby said relay will be controlled independently of train movement on said side track section.

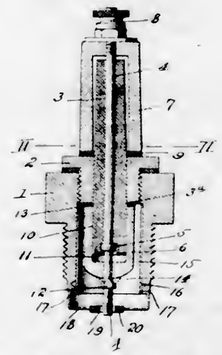
2. In a block signaling system, the combination of a main track and a side track and a track switch for connecting or disconnecting said tracks, the rails of said tracks being insulated from direct contact with each other, an electrically controlled signal at said switch, a relay for controlling the electrical circuit for said signal, a source of current bridged across the main track, circuit connections connecting one terminal of said relay with one rail of each of said track sections, a second circuit connection connecting the other terminal of said relay with the other rail of said side track and a third circuit connection from said other side track rail to the other rail of said main track, electrical switch mechanism mechanically connected with the track switch, said switch mechanism being in position to close said second circuit connection and said third circuit connection when said track switch has been set to disconnect the side track from the main track whereby the entrance of a train on either track will change the circuit conditions to effect deënergization of said relay, a shunt circuit connection from said main track section to said relay, contacts controlled by said relay and included in said shunt circuit said shunt circuit being under the control of said electrical switch mechanism, setting of said track switch to connect the tracks causing adjustment of the switch mechanism to open said second circuit connection and said third circuit connection and to close said shunt circuit connection whereby said relay operation becomes independent of said side track.

3. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for mechanically connecting said sections, a source of current connected with said main track section, a signal adjacent said switch, a relay for controlling the operation of said signal, an electrical switch connected with said track switch to be moved upon setting of said track switch, circuit connections controlled by said electrical switch for connecting said track sections together, circuit connections controlled by said electrical switch for connecting said relay with said side track section, said electrical switch when in one position closing said circuit connections whereby the passage of a train over either track section will cause response of said relay, a direct circuit connection controlled by said switch mechanism for connecting said relay directly with said main track section, and contacts for said relay included in said direct circuit connection, said electrical switch mechanism when moved to another position causing closure of said direct circuit connection and opening of said first mentioned circuit connections whereby said relay will respond only to passage of a train over the main track section.

4. In a block signaling system, the combination of an insulated main track section and an insulated side track section and a switch for mechanically connecting said sections, a source of current connected with said main track section, a signal adjacent said switch, a relay for controlling the operation of said signal, an electrical switch connected with said track switch to be moved upon setting of said track switch, circuit connections controlled by said electrical switch for connecting said track sections together, circuit connections controlled by said electrical switch for connecting said relay with said side track section, said electrical switch when in one position closing said circuit connections whereby the passage of a train over either track section will cause response of the relay, a direct circuit connection controlled by said switch mechanism for connecting said relay directly with said main track section, said electrical switch mechanism when moved to another position causing closure of said direct circuit connection and opening of said first mentioned circuit connections whereby said relay will respond only to passage of a train over the main track section, and contacts controlled by said relay and included in said direct circuit connection.

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1,093,598. SPARK-PLUG. CHARLES W. BECK, Rockville Center, N. Y., assignor, by mesne assignments, to Michigan Motor Specialties Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 17, 1910. Serial No. 549,873. (Cl. 123—169.)



1. A spark plug comprising a base, a rolled mica core secured within said base, a porcelain cap inclosing the inner end of said core and protecting it from the engine gases, an electrode extending through said core and said cap, and means on the electrode engaging the end of the cap for yieldingly securing said cap in place.

2. A spark plug comprising a base, an insulating core secured in said base, a cap inclosing the inner end of said core, an electrode extending through the core and said cap, and yielding means on the electrode and engaging the cap for securing said cap in place.

3. A spark plug comprising a base, an insulating core secured in said base, a porcelain cap inclosing the inner end of said core, an electrode extending through the core and said cap, a nut screwed on the inner end of said

electrode and carrying yielding fingers or spider arms adapted to bear against the inner end of the cap for yieldingly holding said cap in place.

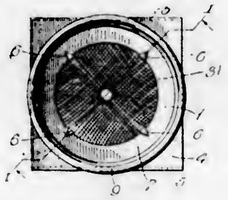
4. A spark plug comprising a base, a rolled sheet mica core extending through said base, said core being tapered outwardly, an electrode extending through said core, a porcelain protecting cap within the base and inclosing the mica core, a washer between the end of said cap and the base, a porcelain cap inclosing the outer end of the core, a washer between the inner end of said cap and the outer surface of the base, the electrode extending through both of said protecting caps, a clamp nut threaded on the outer end of said electrode, means on the electrode for engaging the inner end of the mica core, and means on the electrode for engaging the inner end of the inner protecting cap, whereby the core will be wedged in the base and the protecting caps will be held rigidly against the base.

5. A spark plug comprising a base, a rolled sheet mica core tapered outwardly and fitting in said base, an electrode extending through said core, a protecting cap surrounding the inner end of said core, means on the electrode to engage the inner end of the core within the cap, means on the electrode to engage the protecting cap and means on the outer end of the electrode for drawing said electrode outwardly and thereby wedging the core in the base and holding the protecting cap tightly over the inner end of the core.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,599. FLY-TRAP. WATSON BEEBE, Detroit, Mich., assignor to Metallic Novelty Works, Detroit, Mich., a Copartnership. Filed Sept. 22, 1913. Serial No. 791,001. (Cl. 43—22.)



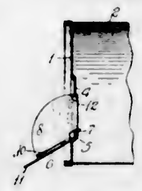
1. A fly trap comprising a metal base plate resting on downturned end flanges and having a central aperture, a conical screen having a flange at its wider end superposed on the aperture margin of the base, a collar having an inner annular flange superposed on the flange of the screen and an upwardly extending flange, tongues formed on the base at the margin of the opening and bent upwardly to pass through the mesh of the screen and reverted on the collar flange, and an inverted jar having a neck detachably interlocked with the upper flange of the collar.

2. A fly trap comprising a metal base plate resting on downturned end flanges and having a central aperture, a conoidal screen having a flange at its wider end superposed on the aperture margin of the base, a collar having an inner annular flange superposed on the flange of the screen and an upwardly extending flange, tongues formed on the base at the margin of the opening and bent upwardly to pass through the mesh of the screen and reverted on the collar flange, and an inverted jar having a neck detachably interlocked with the upper flange of the collar.

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1,093,600. POURING-SPOUT. GEORGE W. BLAKE, Wyandotte, Mich. Filed Apr. 15, 1913. Serial No. 761,212. (Cl. 221—11.)

1. The combination of a receptacle and a cover therefor having a pouring opening and a hinge slot adjacent one end of the opening, with a pouring spout having an off-set hinge tongue adapted to engage in the hinge slot and to limit the movement of the spout in one direction and sides on the spout adapted to yieldingly bear against the margins of the opening when the spout is in pouring position and inset adjacent to the body of the spout to interlock with said margins when the spout is closed against the cover.



2. The combination of a receptacle and a cover with pouring opening therethrough having convergent lateral margins and a hinge slot adjacent the wider end of the opening, of a pouring spout having an off-set hinge tongue adapted when passed through the slot to bear upwardly against the inner face of the cover to limit the movement of the spout in one direction and sides bent up from the body of the spout along convergent lines whereby the sides yieldingly bear against the convergent margins of the opening when the spout is out-turned, the sides being inset adjacent to the cover to interlock with the margins of the opening when the spout is closed.

3. The combination of a receptacle and a cover with pouring opening therethrough having convergent lateral margins and a hinge slot adjacent the wider end of the opening, of a pouring spout having an off-set hinge tongue adapted when passed through the slot to bear upwardly against the inner face of the cover to limit the movement of the spout in one direction and sides bent up from the body of the spout along convergent lines whereby the sides yieldingly bear against the convergent margins of the opening when the spout is out-turned, the sides being inset adjacent to the cover to interlock with the margins of the opening when the spout is closed, and having curvilinear margins whose centers of curvature are substantially co-incident with the center of motion of the spout on the hinge tongue, whereby they extend for substantially the entire length of the pouring opening in all positions of the spout.

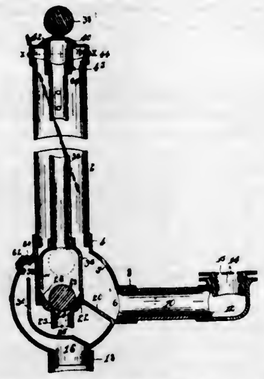
4. The combination of a receptacle and a cover therefor with pouring opening and hinge slot adjacent one end of the opening, with a pouring spout having an off-set hinge tongue at one end adapted to engage the hinge slot and to limit the movement of the spout in one direction, the body of the spout being reverted whereby flanges are formed to overlie the cover along the margins of the pouring opening when the spout is closed and being outbent beyond the lines of reversion, the resultant sides bearing frictionally against the margins of the opening when the spout is out-turned and being inset along the lines of bending to interlock with the cover when the spout is closed.

5. The combination of a receptacle and a cover therefor with pouring opening therethrough having rectilinear lateral margins and a hinge slot adjacent one end of the opening, with a pouring spout of spring sheet material having an off-set hinge tongue at the inner end adapted to engage the hinge slot, and sides outbent from the body along lines non-coincident with the lateral margins of the opening whereby the sides frictionally engage the margins when the spout is in open position, the body of the spout being reverted beyond the sides to form flanges that overlie the margins of the opening when the spout is closed and the sides being inset adjacent the lines of bending to interlock with the cover when the spout is closed, and a finger pull on the spout opposite the hinge, the portion of the cover in which the opening of the spout is formed being in-set from the face of the cover body.

[Claim 6 not printed in the Gazette.]



1,093,601. BATH TRAP AND OVERFLOW. JOHN A. BLICHMANN, Dubuque, Iowa. Filed Feb. 10, 1913. Serial No. 747,416. (Cl. 4—24.)



1. In a device of the character described, a basin, a bulb, a ball valve in the bulb, a tube connected to the bulb and opening directly upon the top of the ball valve, a waste pipe connected to the bulb and set substantially in the same horizontal plane with the ball valve, and a siphon in the bulb connected to and receiving the waste water from the base of the outlet of the ball valve.

2. In a device of the character described, an outer tube, a bulb, to which the outer tube is connected, a siphon within the bulb, a ball valve within the bulb, and an inner tube adapted to surround the ball and control the entrance of the water into the ball cavity around the ball.

3. In a device of the character described, a bulb, provided with a compartment therein, a ball valve in the compartment, a tube connected to the bulb and opening directly into the compartment upon the top of the ball valve, a waste pipe connected to the bulb and set in substantially the same horizontal plane with the ball valve and having water communication directly into the compartment of the ball valve, and a siphon in the bulb connected with the base of the outlet of the ball valve.

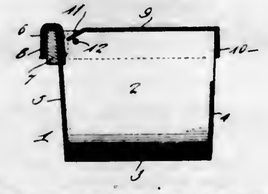
4. In a device of the character described an outer tube, a bulb to which the tube is attached, a siphon within the bulb, a waste pipe leading to the siphon, a ball valve between the waste pipe and siphon, and an inner pipe adapted to be seated around the ball valve and control the waste water that enters the siphon through the ball valve.

5. In a device of the character described, a bulb, an outer tube connected with the bulb, a siphon within the bulb, a ball valve at the entrance to the siphon and an inner tube seated around the ball upon the valve seat said tube provided with openings near the top through which the overflow from the basin is delivered to the siphon through the ball valve.

[Claims 6 and 7 not printed in the Gazette.]

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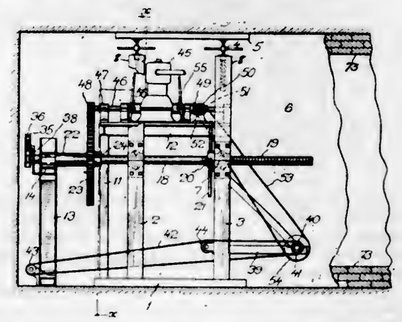
1,093,602. HEN'S NEST. HUGH G. BONNER, Clay Center, Nebr. Filed Dec. 16, 1912. Serial No. 737,150. (Cl. 119—45.)



A hen's nest comprising a sheet metal body having a front end extending part way up the sides, a rear end plate secured to the rear ends of said sides and having its upper edge extended and bent to form a supporting hook, a reinforcing hook whose shank is secured to said rear end and whose bill fits closely over the supporting hook, a cover comprising a metal sheet having depending side flanges and its rear edge notched adjacent the flanges and bent inwardly to form a ventilating opening between it and said hooks, and a cross rod underlying the rear portion of the cover and passing through said sides and flanges, for the purpose set forth.

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1,093,603. TUNNELING AND EXCAVATING MACHINE. CHARLES H. BONNETT, Port Huron, Mich. Filed Oct. 22, 1913. Serial No. 796,554. (Cl. 61—44.)



1. In a tunneling and excavating machine, a main frame, a revoluble feed screw carried thereby, a rotary adjustable cutter carried by said feed screw, a semi-circular bearing support for said cutter and means carried by said main frame work for revolving said feed screw and the cutter thereof.

2. In a tunneling and excavating machine, a main frame, a revoluble feed screw carried thereby, a rotary adjustable cutter carried by said feed screw, a semi-circular bearing support for said cutter means carried by said main frame work for revolving said feed screw and the cutter thereof, and means carried by said feed screw for adjusting the same relatively to said main frame.

3. An excavating machine comprising a bearing frame, a feed screw carried thereby, a cross head carried by said feed screw, a bit holder adjustably mounted upon said cross head, means carried by said cross head for manually adjusting said bit holder, and means in proximity to said frame for imparting movement to said feed screw.

4. An excavating machine comprising a movable frame, a revoluble driven feed screw supported thereby, a cross head carried by said feed screw, bit holders adjustable upon said cross head, means carried by said cross head for manually adjusting said bit holder, means supported by said frame for revolving said feed screw, and means carried by said feed screw for adjusting the same relatively to said frame.

5. In a tunneling and excavating machine, a main frame, a bearing support, a feed screw revolubly supported by said frame and said support, a rotary cutter supported by said feed screw and adapted to be manually adjusted radially thereto, and means carried by said main frame for imparting movement to said feed screw.

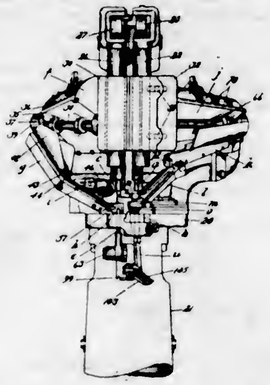
[Claims 6 to 10 not printed in the Gazette.]

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1,093,604. MACHINE FOR SETTING GROMETS AND SIMILAR ARTICLES. IRA C. BUCKMINSTER, Beverly, Mass., assignor to The S. O. & C. Co., Ansonia, Conn., a Corporation of Connecticut. Filed Mar. 22, 1906. Serial No. 307,444. (Cl. 218—15.1.)

1. In a machine of the class described, the combination with a container of substantially circular cross-section for holding a plurality of washers superposed in line, said container being of such diameter as to prevent substantial

lateral movement of the washers, of means for agitating the washers to cause them to assume desired positions, said means acting directly on the washers in the container.



2. In a machine of the class described, the combination of washer-feeding means for arranging a plurality of washers superposed in line, and means acting directly on the washers for agitating said washers to cause them to assume desired positions.

3. In a machine of the class described, the combination of a washer well for holding a plurality of washers substantially in line one resting on another, and means acting axially of the well for agitating the washers in the well.

4. In a machine of the class described, the combination of a well for holding a plurality of washers superposed one upon another; means for feeding washers to the well; and means acting axially of the well and directly on the washers for agitating the washers in the well.

5. In a machine of the class described, the combination of a well arranged for holding a plurality of washers one resting on another; means for feeding washers to said well; means for removing a washer from said well; and means arranged to act upon each washer prior to its removal for agitating the washers in said well.

[Claims 6 to 23 not printed in the Gazette.]

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1,093,605. PACKET AND PROCESS OF MAKING SAME. CHARLES LAURENCE BURDICK, London, England. Filed Oct. 25, 1911. Serial No. 656,734. (Cl. 229—93.)

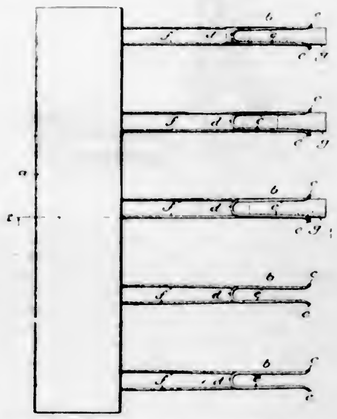


1. A packet comprising a cylindrical tube folded in at the ends by a series of folds successively one over the other, each of said folds being at approximately right angles to the preceding fold, the last fold having its end folded back upon itself and tucked under the next preceding fold.

2. A packet comprising a tubular roll of a sheet of paper with an oblique longitudinal edge, said tubular roll being folded in at the ends by a series of folds successively one over the other, each of said folds being at approximately right-angles to the preceding fold, the last fold having its end folded back upon itself and tucked under the next preceding fold.

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1,093,606. PARALLEL-LINER. ROBERT L. COOLEY, Milwaukee, Wis. Filed June 27, 1913. Serial No. 776,004. (Cl. 33—41.)



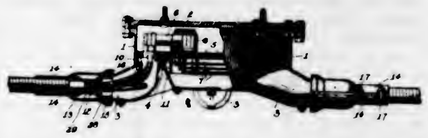
1. A parallel liner comprising a head and a number of chalk holders secured at one end to said head transversely thereto and each consisting of a looped spring wire having four approximately parallel outwardly yieldable limbs.

2. A parallel liner comprising a head and a number of flexible chalk holders consisting of looped spring wires inserted and secured at their ends in the head transversely thereto and parallel with one another, the wire of each holder having two shorter and two longer approximately parallel limbs joined by loops or return bends.

3. A parallel liner comprising an oblong and comparatively thin and wide head and a number of flexible spring wire chalk holders, each consisting of a single piece of wire looped into four approximately parallel limbs and secured at the ends to one edge of the head transversely thereto and approximately parallel with the wires of the other holders, the loops being bent outwardly to permit the four opposing limbs of the holder to grasp a piece of chalk inserted therein lengthwise.

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1,093,607. JUNCTION-BOX FOR ELECTRICAL CONDUCTORS. CHARLES W. DAVIS, Edgeworth, Pa., assignor to Standard Underground Cable Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 24, 1909. Serial No. 485,476. (Cl. 247—12.)



1. In a junction-box structure, the combination of a casing, provided internally with a partition wall extending from the bottom of the casing and affording support for a removable transversely extending partition, said supporting wall dividing the space within the casing and beneath said transverse partition into central and peripheral chambers, substantially as described.



2. In a junction-box structure, the combination of a casing, provided internally with partition walls extending from the bottom of the casing and affording support for a removable transversely extending partition, said supporting walls dividing the space within the casing and beneath said transverse partition into a central chamber and a plurality of peripheral chambers, substantially as described.

3. In a junction-box structure, the combination of a casing of substantially circular contour and provided internally with circular and radial partition walls extending from the bottom of the casing and affording support for a removable transversely-extending partition, said supporting walls dividing the space within the casing and beneath said transverse partition into a central substantially circular chamber and a plurality of peripheral sector-shaped chambers, said transverse partition composed of a plurality of sector-shaped parts, each covering one of said peripheral chambers, and orifices in the wall of said casing opening one into each of said peripheral chambers, substantially as described.

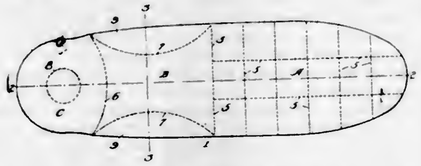
4. In a junction-box structure, the combination of a casing, provided internally with a partition wall extending from the bottom of the casing and affording support for a removable transversely extending partition of insulating material, and a pair of binding posts extending through said transverse partition one on either side of said partition wall, substantially as described.

5. In a junction-box structure for electrical cables, a collocation of cartridge fuses arranged in substantially radial position about a center, each individual fuse being provided at its inner end with a knife-blade contact, and at its outer end with a yoke contact, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,608. ARCH AND HEEL SUPPORT AND INSOLE. BERNARD DELANEY, Rochester, N. Y. Filed May 5, 1913. Serial No. 765,485. (Cl. 36—71.)



1. As an article of manufacture an arch-support comprising a convex intermediate padded body portion, in combination with individual correspondingly-padded side supports of segmental form flanking said intermediate portion, and an inclosing envelop flexibly connecting said body portion and side supports.

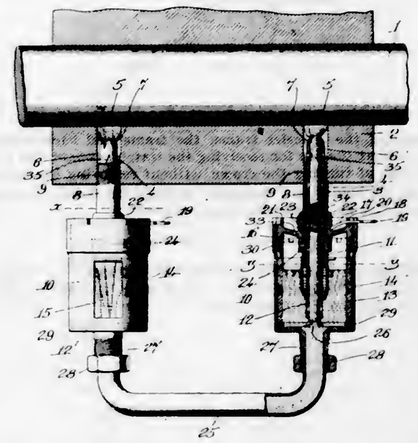
2. As an article of manufacture an arch-support comprising a convex intermediate padded body portion, in combination with individual correspondingly padded duplicate side supports of segmental form flanking said intermediate portion, and an inclosing envelop flexibly connecting said body portion and side supports.

3. As an article of manufacture an arch-support comprising a double convex intermediate padded body portion, in combination with individual correspondingly padded side supports of segmental form flanking said intermediate portion, and an inclosing envelop connecting said body portion and side supports throughout the inner curved edges thereof.

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1,093,609. OILER FOR SHAFTS. ISSACHAR W. DOEG, Exeter, N. H. Filed Nov. 8, 1912. Serial No. 730,193. (Cl. 184—64.)

1. In an oiler, the combination with a tubular wick tube carrier adapted to be secured to a bearing, of a wick tube extending longitudinally through said carrier and having an external spiral groove at its lower end, a wick extending longitudinally through said wick tube, and a spiral spring connected at its upper end to said carrier, the lower coils of said spring engaging said groove thereby yieldingly connecting the wick tube to its carrier and permitting an adjustment of said wick tube relative to the carrier.



2. In an oiler for shafts, the combination with a wick tube carrier adapted to be secured to the shaft bearing, of an oil cup sustained by said carrier, a wick tube extending through said carrier and having its lower end entering the oil cup, said lower end having a spiral groove formed on its exterior, a wick extending longitudinally through said carrier, and a spiral spring secured at its upper end to the carrier and having its lower turns confined in said groove.

3. In an oiler for shafts, the combination with a wick tube carrier adapted to be secured to the shaft bearing, of an oil cup swiveled on said carrier, a wick tube extending through said carrier and having its lower end entering the oil cup, said lower end having a spiral groove formed on its exterior, a wick extending longitudinally through said carrier, and a spiral spring secured at its upper end to the carrier and having its lower turns confined in said groove.

4. In an oiler for shafts, the combination with a bearing, of a wick tube carrier sustained thereby and provided with a collar, of a wick tube extending through said carrier, a wick carried by said tube, the lower end of said wick tube having a spiral groove, a coiled spring connected at its upper end to the wick tube carrier and having its lower turns confined in said groove, and an oil cup having a cover through which the carrier extends and which is sustained by said collar.

5. In an oiler for shafts, the combination with a bearing, of a wick tube carrier sustained thereby and provided with a collar, of a wick tube extending through said carrier, a wick carried by said tube, the lower end of said wick tube having a spiral groove, a coiled spring connected at its upper end to the wick tube carrier and having its lower turns confined in said groove, and an oil cup having a cover removably sustained thereby and provided with a bearing through which the carrier extends, said cover being sustained by said collar.

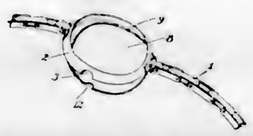
[Claims 6 to 9 not printed in the Gazette.]

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1,093,610. BRACELET WATCH-HOLDER. ALFRED C. ECKERT, Glen Ridge, N. J. Filed June 12, 1912. Serial No. 703,158. (Cl. 224—4.)

In a bracelet watch holder, the combination with a bracelet, of a watch holding frame shaped as a bezel and having a convexed outer and a concaved inner surface to

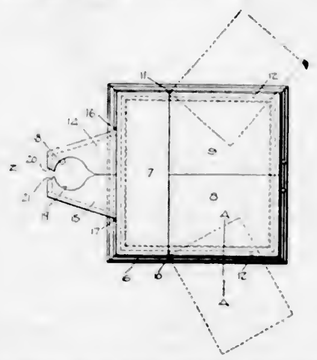
fit on the watch case center, lugs on said frame, bracelet links pivoted to said lugs whereby the frame forms an integral part of the bracelet proper, a removable back for said frame, which back has its convexed outer face at the



inside of the bracelet frame, the frame and back having notches at the top for receiving the watch pendant and permitting of turning the crown without removing the watch from the holder and means for holding the removable back on the frame, substantially as set forth.

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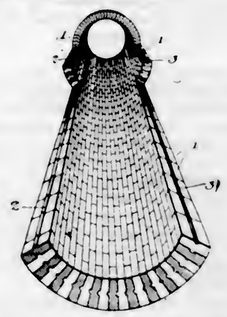
1,093,611. TALKING-MACHINE. EUGENE A. FRIEDLANDER, Cleveland, Ohio. Filed Sept. 1, 1910. Serial No. 580,109. (Cl. 45—120.)



1. A cabinet for a talking machine of the kind having an amplifier and a swinging sound conveyer supported on a bracket projecting rearwardly from the box inclosing said machine, said cabinet comprising a relatively fixed part open in front and having a skeleton base adapted to removably rest upon the top edge of said box said fixed part also having a hole in its rear wall for said sound conveyer; two similar parts vertically pivoted to the respective lateral edges of said relatively fixed part, said parts being adapted to completely inclose the top of said box; and a second box secured to said rear wall, said second box including two parts pivoted to said wall on vertical axes and formed with complementary, substantially semi-circular openings in their top walls, so as to be adapted to inclose the rear portion of said sound conveyer without interfering with its movement.

2. A cabinet for a talking machine of the kind having an amplifier and a swinging sound conveyer supported on a bracket projecting rearwardly from the box inclosing said machine, said cabinet comprising a relatively fixed part open in front and having a skeleton base adapted to removably rest upon the top edge of said box said fixed part also having a hole in its rear wall for said sound conveyer; two similar parts vertically pivoted to the respective lateral edges of said relatively fixed part, said parts being adapted to completely inclose the top of said box; and a second box secured to said rear wall, said second box including two parts pivoted to said wall on vertical axes and formed with complementary, substantially quarter-cylindrical recesses in the outer sides of their rear walls, so as to be adapted to inclose the rear portion of said sound conveyer without interfering with its movement.

1,093,612. SEWER OR STORM-DRAIN CONSTRUCTION AND METHOD OF FORMING THE SAME. CHARLES HENRY FROST, Pasadena, Cal. Filed June 3, 1912. Serial No. 701,456. (Cl. 72—51.)

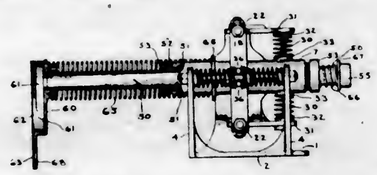


1. An arched conduit of circular form composed entirely of bricks all of which are of the same dimensions in cross-section, and each brick having a groove on one side and a rib on the other, the rib in each brick fitting in the groove of the adjoining brick to prevent the bricks from falling apart, the width of each brick being substantially greater than its thickness, and the bricks in each transverse row of the conduit arranged to break joint with the bricks in the succeeding row, said bricks being first laid to form a portion of the lower half of the arch, and then laid to close the upper part of the arch for one row by laying the bricks on a gradual incline longitudinally of the arch, and as soon as one row of bricks is carried across the first arch the upper segment is extended forwardly, and the operation continued.

2. The method of forming a conduit of circular form in cross-section entirely of bricks of identical size in cross-section and having each a rib on one side and a groove on its other side and its width considerably greater than its thickness, consisting in first building the lower half of the arch for a considerable length by laying said bricks in mortar side by side in transverse rows in which the bricks in each row break joint with those in each succeeding row, then closing the upper part of the arch by laying the bricks on a gradual incline longitudinally of the arch with one brick in advance of the other so that the lower and forward bricks interlock with and support the adjacent and upper bricks, and as soon as one row of bricks is carried completely across the top of the arch extending the upper segment of the arch forwardly, and continuing the operation throughout the conduit.

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1,093,613. AIR-COUPLING DEVICE. RUDOLPH GEISER, Toledo, Ohio, assignor of one-half to Ferdinand C. Heyer, Toledo, Ohio. Filed Aug. 18, 1913. Serial No. 785,305. (Cl. 188—13.)



1. In an automatic pneumatic coupler, the combination of a cylindrical shell, a ball-and-socket joint communicating with the interior of the shell, a frame, a rack pivoted to the frame, said shell being pivoted in said rack, springs located on opposite sides of the shell for maintaining the shell in a normally horizontal position, springs located on the opposite sides of the rack for maintaining the rack normally with respect to said frame, a pipe communicating with the interior of the shell and movable longitudinally in the shell, a contact plate secured to the outer end of the pipe, and a spring for pressing the plate and pipe outward from the shell.

2. In a car air coupler, the combination of a cylindrical shell, a ball and socket joint located at one side of the shell, a pipe movable in the shell and extending therethrough, a plate having an opening communicating with the pipe and adapted to hold the pipe in position when in contact with a similar plate on an adjoining car.

3. In a car air coupler, the combination of a shell, an oscillating frame for supporting the shell, a pipe located within the shell, a plate connected to the end of the said pipe, the said plate having a central opening communicating with the pipe, the plate depending from the pipe, connection being made above the center of the plate.

4. In a car air coupler, the combination of a cylindrical shell, a hollow ball communicating with the interior of the shell and located on one side thereof, a fixed support having a socket for receiving the said ball, a pivoted frame connected to the said support and having an axis passing through the said ball, the said shell pivotally supported in the frame and support, a pipe movable in the said shell, a plate located at the end of the pipe for keeping the pipe in alinement with a similar pipe on an adjoining car.

5. In a car air coupler, the combination of a shell, a hollow ball communicating with the interior of the shell and located at one side thereof, a fixed support having a socket for receiving the ball, a frame pivotally supported on the fixed support and movable about an axis extending through the center of the ball, the shell pivoted in the said frame and in the said fixed support, a pipe movable in the shell, a plate having an opening communicating with the interior of the pipe and adapted to press against a corresponding plate on an adjoining car whereby the pipes of the two connected cars will be kept in alinement.



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1,093,614. BRUSH FOR DYNAMO-ELECTRIC MACHINES. EMERY G. GILSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 29, 1913. Serial No. 745,021. (Cl. 171—210.)



Contains Copper and Iron.

1. A brush for dynamo-electric machines consisting of copper, an alloying metal softer than copper, a lubricating substance, and a few per cent. of iron.

2. A current collector consisting of copper, a soft alloying metal, graphite and about 2 to 5 per cent. of iron.

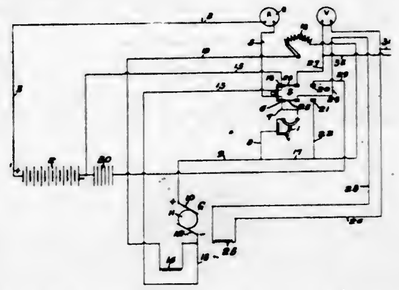
3. A brush for dynamo electric machines comprising a molded mass of metal particles consolidated by heating and containing copper, a soft alloying metal and a substantial amount of iron as elementary constituents.

4. A brush for dynamo electric machines, comprising copper, graphite, tin and more than a trace of iron as elementary constituents.

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1,093,615. CIRCUIT FOR ELECTRIC LIGHTING OR POWER. MILTON H. GRAY, Springfield, Ohio. Filed Nov. 5, 1912. Serial No. 729,597. (Cl. 171—314.)

1. In a circuit, as described, the combination with a generator having a series winding and a battery, of a double-throw two-pole switch having terminals, a circuit breaker, one pair of terminals of said switch being connected to the poles of said battery and the other to the poles of said generator through said circuit breaker, and a translation circuit connected to the poles of said switch in series with the series winding of said generator.



2. In an arrangement such as described, the combination of a generator and a storage battery, a circuit breaker, a double-pole double-throw switch with the poles of said battery connected to one set of terminals of said switch and through said circuit breaker to the terminals of said generator, a translation circuit connected in series with the series winding of said generator to the poles of said switch, a connection from said generator to the opposite pair of terminals of said switch and said battery, and a counter electromotive force in said circuit between said generator and one of said terminals, as and for the purpose specified.

3. In an arrangement such as described, a generator and battery, a double-pole switch, a circuit breaker, a connection from the poles of said battery to the terminals of said switch and from said generator through said circuit breaker to the same terminals, a shunt winding and a series winding for said generator, the series winding being in series with a translation circuit, and the shunt winding in parallel with the battery circuit when the circuit breaker is closed, said switch being adapted when closed in one position to connect said battery and in the other position to connect said generator to said translation circuit with the circuit breaker open, and to connect said battery and generator in parallel to said translation circuit with the circuit breaker closed, and when in neutral position to connect said battery and generator independently of the translation circuit when the circuit breaker is closed.

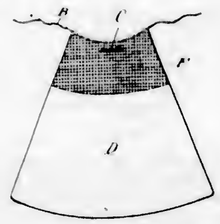
4. In an arrangement such as described, a generator and storage battery, a double-pole double-throw switch and a circuit breaker, a translation circuit connected to the poles of said switch and a connection from the poles of the battery and generator respectively to one set of the switch terminals with the generator connection passing through the circuit breaker and a connection from the poles of said generator to the other set of switch terminals with one of said connections passing through a counter electromotive force, whereby, with the switch in neutral position, the generator and battery may be connected through the circuit breaker and with the switch in one position the generator and battery may be connected in parallel to the lighting circuit with the circuit breaker closed and the battery alone connected with the lighting or power circuit with the circuit breaker open and with the switch in the other position, the generator alone can be connected to the lighting circuit with the circuit breaker open, and with the circuit breaker closed, the generator will be connected in multiple to the lighting circuit and to the battery with the counter electromotive force between the generator and power circuit, whereby the generator will furnish current to light the circuit and to charge the battery without increasing the voltage on the lighting circuit.

5. In an arrangement such as described, the combination of a generator, storage battery and switching device and translation circuit, said generator having a series winding which is connected in series with the translation circuit, said switching device being arranged to connect the

battery or generator or both to said translation circuit with the series winding in circuit therewith, and means for connecting the generator to said series winding whereby the generator is used as a shunt machine when charging and as a compound machine when furnishing current for other purposes.

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1,093,616. SANITARY GARMENT-PROTECTOR. VICTOR GUINZBURG, New York, N. Y., assignor to I. B. Kleinert Rubber Company, a Corporation of New York. Filed July 20, 1911. Serial No. 639,609. (Cl. 128—5.)




1. A garment protector of the class described, comprising a waist tape or band and an integral sheet of textile fabric dependent therefrom consisting of lower and upper portions in seamless continuity, the lower portion having added to it a substance rendering it substantially impervious and also relatively stiffer, and being thereby adapted to hang smoothly and evenly from its seamless junction with the upper portion, the said upper portion being of relatively thin, light, pervious and stretching material adapted to readily yield and stretch to conform to the back of the figure in the area between the waist tape or band and such seamless junction, such upper stretching portion thereby also coöperating to afford to the stiffer hanging portion a more stretching and accommodating support, facilitating the latter hanging more evenly from the seamless junction with smooth and unbroken curves at such junction.

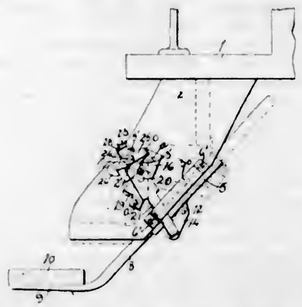
2. A garment protector of the type described, comprising an integral sheet of fabric consisting of two portions, the lower impervious and the upper pervious, the lower relatively stiff and the upper of relatively open and stretchable fabric, and a waist tape or band for securing the upper edge of the said upper portion, and means located below the waist tape or band for directly securing said upper portion against lateral displacement, the said upper open and stretchable portion being adapted to conform by stretching without other fitting device to the person between the waistband and the relatively stiff lower portion.

3. A garment protector of the class described, comprising an integral sheet of foundation fabric of loosely woven, readily stretching and flexibly yielding character increasing in width from its upper edge downward to the lower edge, a securing waist-tape or band secured along and continuous with the upper edge of said flexibly yielding fabric and having free ends extending outward therefrom, and a layer of impervious and stiffening material adherently united to and relatively stiffening the lower portion of said sheet, such portion embracing the greater lateral and longitudinal extent of said sheet, its upper edge seamlessly joining the relatively more yielding portion at a line sufficiently removed from the said tape or band to permit the upper and yielding portion to conform without wrinkling to the figure of the wearer and the impervious section to curve unbrokenly and drop pendently therefrom.

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1,093,617. EXTENSION CAR-STEP. BENJAMIN GUSSETTE, Ward Springs, Minn. Filed Sept. 5, 1913. Serial No. 788,312. (Cl. 105—87.)

1. The combination with a car step, of two slotted housings secured to the rear of the risers, a riser bar slidably held within each housing one having a stop ear and the other a stop lug, a tread secured to the lower ends of said riser bars, a rub plate secured to one of the runners of said steps having an outstanding lip and a pivot pin, an operating lever upon said pivot pin ending at its lower end in a pivot stem, a link secured to said stem and said ear, and a detent pivotally secured to said lever having a beak hook arranged to engage said lip in one position.



2. The combination with a car step, of two slotted housings secured to the rear of the risers, a riser bar slidably held within each housing one having a stop ear and the other a stop lug, a tread secured to the lower ends of said riser bars, a rub plate secured to one of the runners of said steps having an outstanding lip and a pivot pin, an operating lever upon said pivot pin ending at its lower end in a pivot stem, a link secured to said stem and said ear, a detent pivotally secured to said lever having a stop ear and a beak hook arranged to engage said lip in one position, and a spring secured to said lever to force said stop ear against said lever.

3. The combination with a car step, of two slotted housings secured to the rear of the risers, a riser bar slidably held within each housing one having a stop ear and the other a stop lug, a tread secured to the lower ends of said riser bars, a rub plate secured to one of the runners of said steps having an outstanding lip and a pivot pin, an operating lever upon said pivot pin ending at its lower end in a pivot stem, a link secured to said stem and said ear, a detent pivotally secured to said lever having a stop ear, and a beak hook arranged to engage said lip in one position, a spring secured to said lever to force said stop ear against said lever, and a handle extending from said detent.

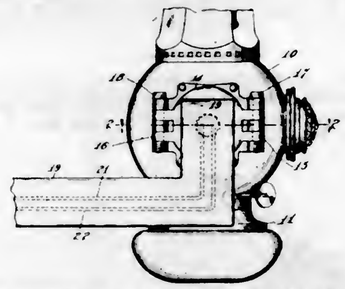
4. The combination with a car step, of two slotted housings secured to the rear of the risers, a riser bar slidably held within each housing one having a stop ear and the other a stop lug, a tread secured to the lower ends of said riser bars, a rub plate secured to one of the runners of said steps having an outstanding lip and a pivot pin, an operating lever upon said pivot pin ending at its lower end in a pivot stem, a link secured to said stem and said ear, a detent pivotally secured to said lever having a stop ear and a beak hook arranged to engage said lip in one position, a spring secured to said lever to force said stop ear against said lever, a handle extending from said lever, and a handle extending from said detent held parallel to said lever handle.

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1,093,618. AUTOMOBILE-LAMP. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed May 2, 1912. Serial No. 694,607. (Cl. 240—52.)

1. In a lamp, in combination, a body having an aperture, a plate hinged to the body and covering the aperture, a bracket for supporting the lamp and being attached to the plate, a socket for an incandescent bulb mounted on the plate, and an electric circuit extending through the bracket and plate to the socket.

2. In combination, a bracket arm having a laterally facing plate provided at its side margins with vertically apertured lugs, a lamp body having an aperture for fitting upon the plate, vertically apertured lugs at each side of the aperture of the body adapted to mate with the lugs of the plate, and pins removably located in the apertures of the coöperating lugs of the body and plate.



3. In combination, a lamp bracket having a pair of parallel tubular hinge ears, a lamp body having a rearward opening and tubular hinge ears flanking the opening and complementary to the hinge ears of the bracket, and hinge pins connecting coöperating hinge ears.

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1,093,619. LAMP. WILLIAM S. HAMM Hubbard Woods, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed July 27, 1912. Serial No. 711,860. (Cl. 240—76.)



1. In a lamp, in combination, a depending stem, an illuminator carried by the stem, a casing inclosing the stem and having radiating downwardly-inclined arms at its lower end, a diaphanous reflector carried by and within the arms, and a diaphanous shade inclosing the illuminator and extending downwardly from the central portion of the reflector and being supported by the arms.

2. In a lamp, in combination, a depending stem, an illuminator carried by the stem, a casing inclosing the stem and having radiating downwardly-inclined arms at its lower end, a diaphanous reflector carried by and within the arms, and a diaphanous shade inclosing the illuminator and extending downwardly from the central portion of the reflector and being supported by the arms, the joints between the shade, reflector and lower end of the casing being dustproof.

3. In a lamp, in combination, a depending stem, an illuminator carried by the stem, a casing inclosing the stem and having radiating downwardly-inclined arms at its lower end and united at their outer ends to form an annulus, an annulus hinged to the first-named annulus, an annular dome-shaped diaphanous reflector carried by the second-named annulus, and a diaphanous shade seated within and carried by the reflector and inclosing the illuminator.

4. In a lamp, in combination, a depending stem, an illuminator carried by the stem, a casing inclosing the stem and having radiating downwardly-inclined arms at its lower end and united at their outer ends to form an annulus, an annulus hinged to the first-named annulus, an annular dome-shaped diaphanous reflector carried by the second-named annulus, and a diaphanous shade seated within and carried by the reflector and inclosing the illuminator, the upper end of the shade making a closed joint with the lower end of the casing.

5. In a lamp, in combination, a depending stem, an illuminator carried by the stem, a casing inclosing the stem and having radiating downwardly-inclined arms at its lower end and united at their outer ends to form an annulus, an annulus hinged to the first-named annulus, an annular dome-shaped diaphanous reflector carried by the second-named annulus, a diaphanous shade seated within and carried by the reflector and inclosing the illuminator, and an imperforate screen inclosing the upper end of the illuminator and closing the lower end of the casing.

[Claims 6 to 8 not printed in the Gazette.]

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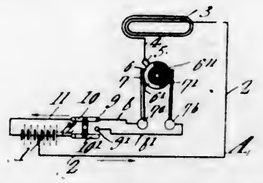
1,093,620. BEARING AND PACKING-GLAND FOR MIXING-MACHINES. DAVID J. HANNA and FRANK H. VAN HOUTEN, Fishkill-on-the-Hudson, N. Y.; said Van Houten assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y., a Corporation of New York. Filed Jan. 8, 1913. Serial No. 740,835. (Cl. 107—30.)



1. In a bearing and packing gland for mixing machines, the combination with a bracket having fixed parallel spaced arms carried by the frame of the machine, a dumping member having a trunnion journaled in one of said arms, and being centrally perforated and recessed to form a shaft bearing and packing chamber, a shaft journaled in said bearing and extending through both arms of the bracket, a tubular gland surrounding and forming a bearing for the shaft outside of the trunnion, said gland extending at one end into the recess in the trunnion and at the opposite end being journaled in the outer fixed arm of the bracket, substantially as described.

2. In a bearing and packing gland for mixing machines, the combination with a bracket having parallel spaced arms and carried by and rigid with the frame of the machine, a dumping member having a trunnion journaled in one of said arms, and being centrally perforated and recessed to form a shaft bearing and packing chamber, a shaft journaled in said bearing and extending through both arms of the bracket, a tubular gland surrounding and forming a bearing for the shaft, said gland extending at one end into the recess in the trunnion and at the opposite end journaled in the outer arm of the bracket, and means for adjusting said gland connected thereto intermediate the ends of the gland and between the bracket arms.

1,093,621. INDICATOR. ALLEN BARBER HAZARD, Chicago, Ill., assignor of one-half to Richard E. Humpston, Chicago, Ill. Filed June 22, 1911. Serial No. 634,761. (Cl. 177—339.)



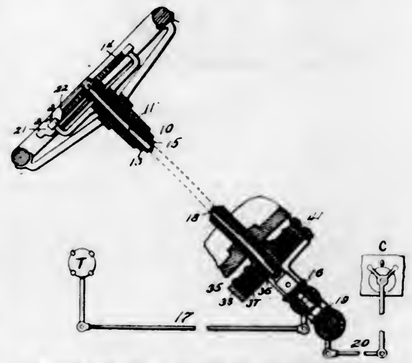
1. The combination with a series of cells, two conductors, one leading from each end cell thereof, a conductor leading from the center cell of said series, and a two point switch for connecting one of the two first named conductors at a time to the center conductor to close one circuit at a time, of a permanent magnet, an armature capable of oscillatory movement disposed between the poles of said magnet and connected with the center conductor, a commutator having a contact portion carried by the armature two brushes one connected to each of the two points of the switch, and adapted to contact alternately the contact portion of the commutator, and a target carried by said armature, whereby said switch connects the brushes alternately with the respective two conductors and determines the direction of flow of the current from the cells to the armature, and whereby the circuit through the armature is alternately made by way of the contact segment of the commutator and one of the brushes.

2. The combination with a battery, a conductor leading from the center cell thereof, two auxiliary conductors, one leading from each end cell thereof, and a two point switch having its separate members connected to the respective auxiliary conductors and contacts engageable by the respective members, of an indicating mechanism, comprising two brushes, each one of said brushes being connected to its respective contact of the switch, an armature having a coil and a commutator, the contact portion of the commutator being a 180° segment, the contact portion of said commutator being connected to the center conductor and for alternate contact with said brushes the coil of the armature being interposed in the center conductor, an indicating device carried by said armature, and a permanent magnet, the poles of which are disposed diametrically opposite to said armature, whereby the switch may be manipulated to alternately connect the brushes with the cells to cause the armature to be oscillated.

3. The combination with a battery, a conductor leading from the center cell thereof, two auxiliary conductors, one leading from each end cell thereof, and a two point switch having its separate members connected to the respective auxiliary conductors and contacts engageable by the respective members, of an indicating mechanism, comprising two brushes, each one of said brushes being connected to its respective contact of the switch, an armature having a coil and a commutator, the contact portion of the commutator being a 180° segment, the contact portion of said commutator being connected to the center conductor and for alternate contact with said brushes the coil of the armature being interposed in the center conductor, an indicating device carried by said armature, and a permanent magnet having its poles straddling but out of contact with said armature, whereby the switch may be manipulated to alternately connect the brushes with the cells to cause the armature to be oscillated.

4. The combination with a battery, a main conductor led from the center cell thereof, and two auxiliary conductors led from the respective end cells of the battery, and a reversing switch having separate members permanently connected to the respective auxiliary conductors and contacts engageable by the respective members, of an indicating mechanism, comprising a base, a permanent horse-shoe magnet mounted rigidly thereon, an armature capable of an oscillatory movement disposed between the poles of said permanent magnet, a commutator carried thereby, said armature being connected to the main conductor, two brushes in contact with said commutator and alternately engaging the contact portion thereof, each brush being connected to its contact, said reversing switch connecting the brushes alternately with a portion of the battery, an arm carried by the upper portion of the armature, and a 180° segmental target carried by said arm.

1,093,622. AUTOMATIC SWITCH AND LOCKING DEVICE FOR LEVER CONTROL OF STEERING-POSTS. REINHOLD HERMAN, Crafton, Pa. Filed Mar. 8, 1910. Serial No. 548,079. (Cl. 123—165.)



1. In combination, a timing mechanism for controlling the movements of a motor, a circuit for said mechanism, a lever control for said mechanism, and means independent of the timing mechanism and permanently movable with and controlled by movements of the lever control for rendering said circuit inoperative when the lever control is shifted to a pre-determined inactive position.

2. In combination, a timing mechanism for controlling the movements of an explosive motor, a steering post, a control circuit for effecting motor explosions, a lever control carried by said post for controlling the rapidity of motor explosions, and a make and break device located within said circuit and permanently movable with said lever control for rendering the circuit inoperative when the lever control is shifted to a predetermined inactive position.

3. In combination, a timing mechanism, a steering post, a control circuit, a lever carried by the post, and a make and break device in said circuit and operated by said control, said device comprising a pair of spaced-apart terminals within the circuit and a terminal-connecting member permanently carried by and movable with the control, said member rendering the circuit inoperative only when the lever control is shifted to zero position.

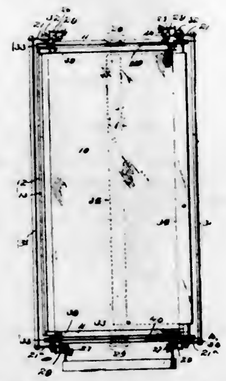
4. In combination, a timing mechanism, a steering post, a quadrant carried by the post, a control circuit, a lever control for the timing mechanism also carried by said post, a make and break device including an element permanently movable with and controlled by movements of the lever control for rendering the circuit inoperative when the lever control is shifted to zero position, and means carried by the quadrant for securing the lever control in such zero position to prevent surreptitious operation of the motor.

5. In combination, a timing mechanism, a steering post, a quadrant carried by the post, a control circuit, a lever control for the timing mechanism also carried by said post, carbureter control mechanism also carried by the post and including a lever control, said lever controls being movable in the same direction to place them in substantial alinement in zero position, a make and break device for rendering the circuit inoperative when the timing lever control is shifted to zero position, and means carried by the quadrant and located at a single point for securing both controls in such zero position to prevent surreptitious operation of the motor.

[Claims 6 and 7 not printed in the Gazette.]



1,093,623. BLUE-PRINTING APPARATUS. REINHOLD HERMAN, Crafton, Pa. Filed May 8, 1913. Serial No. 766,374. (Cl. 95—77.5.)



1. In printing apparatus, a printing frame having a transparent section, said frame having end members formed ⌙-shaped in cross-section to form an overhang for the edge of the transparent section and a portion projecting beyond the overhang, and a curtain carrier supported on said projecting portions, the latter forming ways to control the travel path of the carrier.

2. In printing apparatus, a printing frame having a transparent section, a curtain carrier supported at the ends of said section and adapted to position the curtain relative to said section, the ends of said carrier shiftable relative to each other to permit canting of the curtain roller.

3. In printing apparatus, a printing frame having a transparent section, a curtain carrier supported at the ends of said section and adapted to position the curtain relative to said section, and a cable supported on the frame and having its ends mounted on the carrier to travel therewith, the intermediate portion of the cable being endless and movable in the direction of length of the cable to permit canting of the curtain roller.

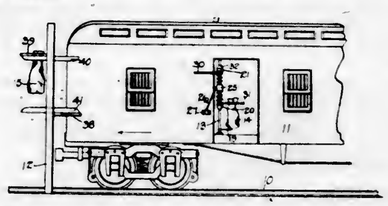
4. In printing apparatus, a printing frame having a transparent section, a curtain carrier supported at the ends of said section and adapted to position the curtain relative to said section, and a cable adapted to support the ends of the carrier, said cable being movable in its direction of length to permit canting of the curtain roller.

5. In printing apparatus, a printing frame having a transparent section, a curtain carrier supported at the ends of said section and adapted to position the curtain relative to said section, a spring roller for the curtain mounted in said carrier, and means for varying the tension of the roller spring by movements of the carrier, the tension of the spring being ineffective to move the carrier when the latter is in a position of rest.

[Claims 6 to 8 not printed in the Gazette.]

1,093,624. MAIL-BAG CATCHER AND DELIVERER. AUGUST A. HERTHER, Indianapolis, Ind. Filed Dec. 30, 1912. Serial No. 739,298. (Cl. 258—17.)

1. A mail bag delivering and catching apparatus including a mail bag catching and delivering device on a car, a mail bag catching and delivering device mounted beside the railway in position to coöperate with the means on the car, a guide board on the bag catching and delivering means beside the railway and extending parallel with the railway, the ends of said guide board being beveled, and a cushion on the bag catching and delivering means on the car in position to engage said guide board as the car passes.



2. A mail bag delivering and catching apparatus including a mail bag catching and delivering device on a car, a mail bag catching and delivering device mounted beside the railway in position to coöperate with the means on the car, a guide board on the bag catching and delivering means beside the railway and extending parallel with the railway, the ends of said guide board being beveled, a cushion on the bag catching and delivering means on the car in position to engage said guide board as the car passes, and means for mounting the bag catching and delivering means on the car so that they will yield vertically.

3. A mail bag catching and delivering apparatus including a plurality of bag holding and catching means on a car, a plurality of bag holding and catching means mounted beside the railway and between which said means on the car are adapted to pass, a guide board on the upper side of one of said bag catching and delivering means beside the railway, a similar guideway on the underside of the other bag catching and delivering means beside the railway, a cushion on each of the bag catching and delivering means from the car in position to engage said guide boards, and means for rendering the bag catching and delivering means on the car vertically yieldable.

4. A mail bag catching and delivering apparatus including a pair of vertical yieldable bars mounted in connection with a railway car, one of said bars being above the other, bag catching and holding means projecting laterally from one of said bars in one direction, a bag catching and holding means projecting laterally from the other one of said bars in the opposite direction, a pair of arms mounted beside the railway and between which said bars are adapted to pass, bag catching and holding means on each of said arms which extend in directions opposite to the corresponding bag catching and delivering means mounted on the car, and means for controlling the vertical relationship of the coöperating bag catching and holding means.

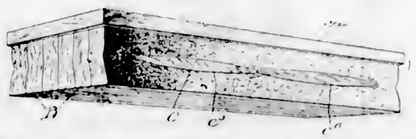
5. A mail bag catching and delivering apparatus including a pair of vertical yieldable bars mounted in connection with a railway car, one of said bars being above the other, bag catching and holding means projecting laterally from one of said bars in one direction, a bag catching and holding means projecting laterally from the other one of said bars in the opposite direction, a pair of arms mounted beside the railway and between which said bars are adapted to pass, bag catching and holding means on each of said arms which extend in directions opposite to the corresponding bag catching and delivering means mounted on the car, cushions on said bars, and guide boards on said arms and parallel with the railway and in position to be engaged by said cushions as the car passes.

[Claims 6 and 7 not printed in the Gazette.]

1,093,625. BLACKBOARD-ERASER. FREDERICK A. HOLBROOK, Chicago, Ill., assignor to Caxton School Supply Company, Chicago, Ill., a Corporation of Illinois. Filed June 2, 1913. Serial No. 771,140. (Cl. 15—65.)

1. A blackboard eraser comprising a back, a plurality of strips of erasing material arranged side by side in contact with each other, and attached at their inner edges to the back, and binding means extending transversely through the strips intermediate their inner and rubbing edges;

said binding means acting to join the strips with each other and hold the same under compression, independently of the connection of the inner edges of said strips with each other by their attachment to the back; said binding means having no connection with the back and being independent of the means connecting the strips and the back.

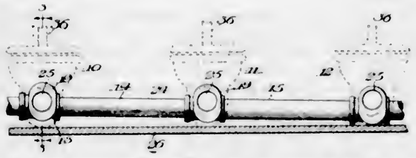


2. A blackboard eraser, comprising a back, a plurality of strips of erasing material arranged side by side in contact with each other, and attached at their inner edges to the back, and a flexible binding member having parts which extend transversely through the strips intermediate the inner and rubbing edges of said strips, and other parts of which extend longitudinally of and in engagement with the outermost strips; said binding member acting to join the strips with each other and hold the same under compression, independently of the connection of the inner edges of said strips with each other by their attachment to the back, and said binding member having no connection with the back and being independent of the means connecting the strips with the back.

3. A blackboard eraser comprising a back, a plurality of strips of erasing material arranged side by side in contact with each other, and attached at their inner edges to the back, and a continuous flexible binding member having a plurality of parts extending transversely through the strips between the inner and rubbing edges of said strips; one of said transversely extending parts being located adjacent each end of said strips and the other of said transversely extending parts crossing each other and located intermediate the ends of the strips, and other parts of said binding member extending longitudinally over the outer faces of the outermost strips, and integral with and connecting the transversely extending parts of said binding member; the ends of said binding member being secured together.

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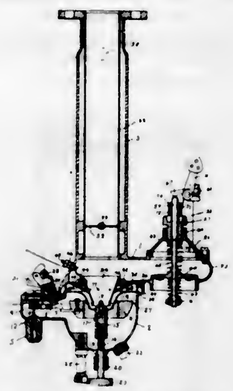
1,093,626. PLUMBING-FITTING. CHARLES P. HULBERT, Chicago, Ill., assignor to Hulbert & Dorsey, a Firm composed of Charles P. Hulbert and John T. Dorsey, Chicago, Ill. Filed Feb. 13, 1914. Serial No. 818,471. (Cl. 137—94.)



1. A drain for closets and the like comprising, in combination, a plurality of inclined pipe sections located in alinement and a plurality of integral fittings each comprising a tubular part interposed between and connecting adjacent pipe sections and a vertically extended lateral receiving chamber communicating with the bore of the said tubular part and having an upright end wall, the said end walls of all of the said fittings being drilled at the same elevation for connection with the horizontally directed outlets of wall closets and the like.

2. A fitting for inclined drains comprising in combination, a cylindrical tubular body portion having its opposite ends adapted for connection with sections of the drain pipe and a pair of oppositely facing vertically extended lateral arms each having an end wall adapted to be drilled at any one of a plurality of different elevations for connection with the horizontally directed outlet of a wall closet.

1,093,627. CARBURETER. CHESTER F. JOHNSON, Detroit, Mich. Filed Apr. 10, 1912. Serial No. 689,706. (Cl. 48—155.2.)



1. In a carbureter, the combination of a body, a float-chamber secured thereto, a cap forming a top for the float-chamber and having a central depression, a fuel nozzle extending through said depressed portion, a diaphragm mounted in said body above the cap and having air-inlets, a downwardly tapering tube mounted in said diaphragm and having its lower end extending into the depression, and an electric heater-coil extending around said tube.

2. In a carbureter comprising a float-chamber and a carbureting chamber, a cap separating said chambers and having a central depression, a fuel nozzle extending through the central part of said diaphragm, means to cause liquid fuel to flow into said depression, a tube in said carbureting chamber and extending downward into said depression, and an electric heater-coil mounted on said tube.

3. In a carbureter comprising a float-chamber and a carbureting chamber, a cap mounted to separate said chambers and having a central depression, a fuel nozzle extending from the float-chamber into said depression, a downwardly tapering tube mounted in said carbureting chamber and extending into said depression, and an electric heater to raise the temperature of said tube.

4. In a carbureter, the combination of a float-chamber, a carbureting chamber, a cap between the two and having a central depression, a fuel nozzle extending from the float-chamber into said depression, a downwardly concave head mounted above said cap and having a down-turned, perforated edge resting thereon, a tube mounted in said head centrally of the same and of said nozzle and the depression in the cap and extending down to the same, an electric heater-coil surrounding the tube above said head, contact posts mounted in the wall of the carbureting chamber and insulated therefrom, and contact plates engaging said posts and connecting to the ends of said coil.

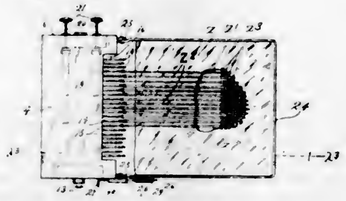
5. In a carbureter, the combination of a body, a fuel receptacle, a cap forming a top for the fuel receptacle and having a central depression and a fuel passage through said central depression, a diaphragm mounted in said body above the cap and having air inlets, a downwardly extending tube supported by said diaphragm and having its lower end extending into said depression, and a heating element mounted adjacent said tube to heat the same and thereby the fuel in said depression.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,628. DARNING DEVICE. MARTINA JOHNSON, Forsyth, Mont. Filed Sept. 19, 1913. Serial No. 790,779. (Cl. 223—14.)

1. The combination with a casing, of a pair of warp holders mounted in said casing, means for alternating the action of said warp holders, a work holder pivotally attached to said casing for swinging movement toward and from said warp holders, and means for locking said work holder in an operative position.



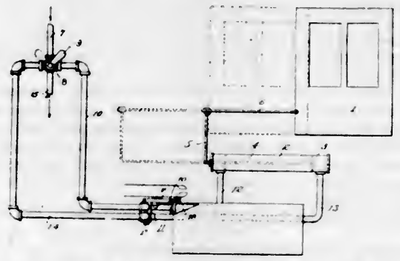
2. The combination with a casing, of a rocker arm intermediately pivoted in said casing, a pair of warp holders attached one to each end of said rocker arm, a pair of finger piece equipped leaf springs mounted in said casing for alternate action on said warp holders, and a work holder attached to said casing.

3. The combination with a casing, of a rocker arm intermediately pivoted in said casing, a pair of warp holders attached one to each end of said rocker arm, a pair of finger piece equipped leaf springs mounted in said casing for alternate action on said warp holders, a work holder pivotally attached to said casing for movement toward and from said warp holders, and means for locking said work holder in an operative position.

4. The combination with a casing, of a rocker arm intermediately pivoted in said casing, a pair of hook equipped warp holders pivotally attached, on to each end of said rocker arm, a pair of finger piece equipped leaf springs mounted in said casing for alternate action on said warp holders, stops limiting the pivotal movements of said warp holders, a work holder pivotally attached to said casing for movement toward and from said warp holders, and means for locking said work holder in an operative position.

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1,093,629. DOOR-CONTROL DEVICE FOR VEHICLES. WILNER E. JOHNSON, Brooklyn, N. Y. Filed Oct. 8, 1913. Serial No. 793,204. (Cl. 105—205.)



1. In a vehicle, the combination with a door, of operating means therefor, a seat movable into and out of seating position adjacent said door, and means operated by said seat for controlling the operation of said door-operating means.

2. In a vehicle, the combination with a door, of operating means therefor, a seat movable into and out of seating position adjacent said door, means operated by said seat for controlling the operation of said door-operating means, and locking means for said door adapted to be operated by said seat.

3. In a vehicle, the combination of a door, a motor for said door, means for controlling the operation of said door motor, and a movable seat adapted to actuate said motor controlling means.

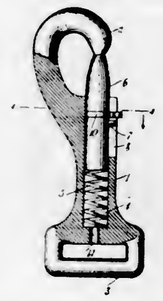
4. In a vehicle, the combination of a door, a motor for said door, a seat movable into and out of seating position adjacent said door, and means operated by said seat for rendering said door motor operative and inoperative successively.

5. In a vehicle provided with a doorway, a door for said doorway, means for operating said door, a seat movable into and out of seating position adjacent said doorway, and an operative connection between said door-operating means and said seat, said door-operating means being adapted to be rendered operative and inoperative successively by said operating connection when the seat is shifted in position.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,630. SNAP-HOOK. CROSBY E. KELLY, Griffin Corners, N. Y. Filed Nov. 24, 1911. Serial No. 662,081. (Cl. 24—241.)



1. In a fastening device, the combination of a body having a hook-shaped end, a slidable locking member carried by said body to engage said end, resilient means carried by said locking member and secured thereto to be held against bodily movement with respect to said locking member, said resilient means having projecting portions which are normally sprung apart, and means carried by said body to be engaged by the projecting portions of said resilient means to hold said slidable locking member in engaging position.

2. A fastening device comprising a body portion having a bore therein, a locking member mounted in said bore, said body having a slot therein extending longitudinally of said bore and forming an opening leading from the outside of the body to the inside of the bore, and resilient means carried by said member and rigidly secured thereto to prevent the said resilient means from moving bodily with respect to said member, said resilient means having projecting portions which extend through said slot and are normally sprung apart, said slot having oppositely-located recesses in its sides to receive the projecting portions of the spring and hold the locking member in closed position.

3. A safety hook comprising a body portion having a bent portion at one end and having a bore therein in line with the extremity of the bent portion, a catch mounted in said bore, and a U-shaped spring encircling said catch, rigidly secured thereto, said body having a slot therein adjacent one end of the bore to receive the arms of said spring, said slot having oppositely-located recesses in its sides to receive the arms of the spring and lock the catch in position to close the bent portion, the ends of said spring when pressed toward each other being withdrawn from the recesses in the sides of the slot to permit the catch to move down into the bore of the body to open the bent portion.

4. An improved safety hook comprising a body having a hook or bent portion at one end thereof and having a bore therein in line with the extremity of the bent portion, a catch fitting in said bore, a guiding lug carried by said catch and fitting into a slot in the side of the body portion, to hold said catch against rotation in the bore, and a U-shaped spring bent around the body of the catch and rigidly secured thereto, the ends of said U-shaped spring

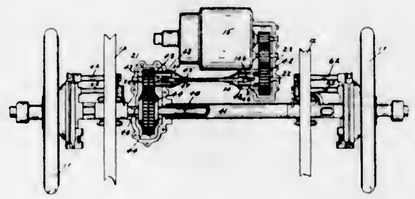
passing outward through the slot, said slot having recesses in its opposite sides to receive the ends of the spring and lock the catch in closed position.

5. In a fastening device, the combination of a body having a hook-shaped end, a locking member movably carried by said body to engage said end, resilient means carried by said locking member and rigidly secured to the same to prevent bodily movement of said resilient means with respect to the said member, said resilient means having projecting portions which are normally sprung apart, means carried by said body to be engaged by said projecting portions to hold said locking member in engaging position, and guiding means carried by the fastening device to control the movement of the locking member with respect to the body.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,631. AUTOMOBILE-DRIVE. HAROLD H. KENNEDY, Indianapolis, Ind., assignor to Waverley Company, Indianapolis, Ind., a Corporation. Filed Jan. 28, 1909. Serial No. 474,808. (Cl. 21—90.)



1. An automobile including traction wheels, a dead axle supported on the same, a vehicle body, springs for supporting the body on the dead axle and rigidly secured to the axle, a gear case secured to the dead axle so as to be held in fixed position relatively thereto and the springs, a live axle within said dead axle for transmitting power to the wheels, a gear in said gear case and secured on said live axle for rotating it, an intermediate gear in said gear case for driving said axle gear, a motor mounted in connection with the vehicle body and at one side of the dead axle, a motor shaft and a flexibly and yieldingly mounted shaft parallel with said motor shaft for transmitting power between said motor shaft and one of the gears in the gear case secured to the dead axle so that it will automatically adjust itself and operate regardless of any vertical play or movement of the vehicle body or the dead axle or both.

2. An automobile including traction wheels, a dead axle supported on the same, a vehicle body, springs for supporting the body on the dead axle and rigidly secured to the axle, a gear case secured to the dead axle so as to be held in fixed position relative thereto and the springs, a live axle within said dead axle for transmitting power to the wheels, a gear in said gear case and secured on said live axle for rotating it, an intermediate gear in said gear case for driving said axle gear, a motor mounted in connection with the vehicle body and at one side of the dead axle, and a flexibly and yieldingly mounted shaft substantially parallel with said dead axle for transmitting power between said motor and one of the gears in the gear case secured to the dead axle so that it will automatically adjust itself and operate regardless of any vertical play or movement of the vehicle body or the dead axle or both.

3. An automobile including traction wheels, a dead axle supported on the same, a vehicle body, springs for supporting the body on the dead axle and rigidly secured to the axle, a gear case secured to the dead axle so as to be held in fixed position relative thereto and the springs, a live axle within said dead axle for transmitting power to the wheels, a gear in said gear case and secured on said live axle for rotating it, an intermediate gear in said gear case for driving said axle gear, a motor mounted in connection with the vehicle body and at one side of the dead axle, a gear case secured to the body, gears in said case for transmitting power from the motor, and a flexibly mounted shaft substantially parallel with said dead axle for transmitting power between one of the gears in the gear case secured to the body of the vehicle and one of the gears in the gear case secured to the dead axle, said shaft being connected with said intermediate gears at each end by a universal joint and formed so as to permit the longitudinal movement of one end of said shaft.

4. In an automobile having a frame and a driving axle, mechanism including live axle sections and a differential mechanism with a driving gear having its axis disposed transversely of the frame, a motor suspended from said frame and having its shaft transversely disposed relative to the frame, driving shafting parallel with and located between the driving axle and the motor shaft and connected at one end to said differential driving gear and extending along one side of said motor, a pair of bearings rotatably supporting said driving shafting near its other end, said bearings in turn being supported by the motor casing, and reduction gearing between the adjacent ends of the motor shaft and driving shafting.

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1,093,632. ANIMAL-TRAP. ELIAS KESLER, Oklahoma, Okla. Filed Aug. 1, 1913. Serial No. 782,482. (Cl. 43—24.)



1. In a trap, a cage, an entrance tunnel leading to the cage, an inclined outer door in the outer portion of the tunnel pivotally mounted for vertical angular movement, an inner door at the inner end of the tunnel pivotally mounted for angular movement in a vertical plane and adapted to open into the cage, a stop to prevent the inner door from swinging into the tunnel from the cage, and a tilting gravity-acting platform in the tunnel, arranged with its outer end normally lowered and its inner end normally raised, said platform and said door having coacting means to cause the platform when in normal position to release the outer door and lock the inner door and when in tilted position to lock the outer door and release the inner door.

2. In a trap having an entrance portion, a tiltable platform having a catch and an inclined door in the entrance portion above the platform and pivotally mounted for angular movement in a vertical plane, and adapted to close by its own weight, the said platform and door having coacting means to cause the platform to release the door when the platform is in normal position and to lock the door when the platform is in tilted position.

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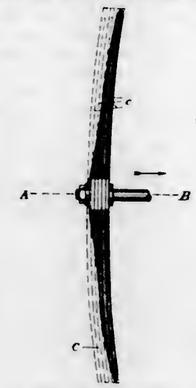
1,093,633. AIR SCREW-PROPELLER. RALF KORNMANN, Berlin, Germany. Filed July 15, 1912. Serial No. 709,369. (Cl. 170—158.)

1. A propeller having blades curved to present their convex side rearward with relation to the direction of propulsion, said blades composed of a plurality of united curved thin wooden sections, the curvature of said sections corresponding to the curvature of the propeller.

2. A propeller comprising a plurality of unitarily united curved sections so bent as to present their convex side rearward with relation to the direction of propulsion.

3. A propeller having a plurality of blades bent to a curvature substantially corresponding to the resultant of the force produced by the wind pressure and by the centrifugal force of the propeller.

4. A propeller having a plurality of blades bent to a curvature substantially corresponding to the resultant of the force produced by the wind pressure and by the centrifugal force of the propeller, said blades composed of a plurality of united curved thin wooden sections, the curvature of which corresponds to the curvature of the propeller.



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1,093,634. BRUSH-HOLDER. ADOLF KRAUSS, Cannstatt, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed May 23, 1911. Serial No. 629,017. (Cl. 171—210.)



1. In electrical apparatus, a brush having a channel therein, a brush holder having a guide for the brush, a spring adapted to feed the brush outwardly of the guide to compensate for wear, and a hook-shaped member engaging said channel and coöperative with the end thereof to limit the outward movement of the brush; substantially as described.

2. In electrical apparatus, a rotatable brush holder having a radial guide, a brush mounted in said guide and having a channel, a spring adapted to feed the brush radially outward to compensate for wear, and a resilient hook-shaped member engaging said channel and coöperative with the end thereof to limit the outward movement of the brush; substantially as described.

3. In electrical apparatus, a brush holder of insulating material having a radial guide projecting within the block and outside the end thereof, a brush mounted in said guide and having a stop, a spring adapted to feed the brush radially outward to compensate for wear, and a resilient hook-shaped member adapted to engage a stop on the brush to limit its outward movement; substantially as described.

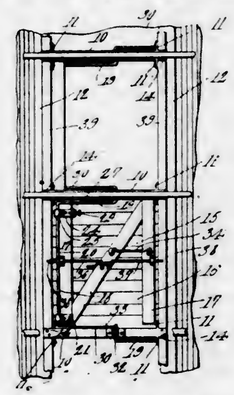
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1,093,635. SILO-DOOR FRAME. CHRISTOPHER J. LAWLESS, Lincoln, Nebr. Filed Jan. 15, 1912. Serial No. 671,287. (Cl. 20—1.4.)

1. In a silo, a door frame; a door therefor; and a sickle-shaped hanger comprising a head and an extension, one end of the head being pivoted to the frame, and the door being pivoted to the extension; the other end of the head engaging the frame to support the door when the same is open, and the extension defining an angle with the head, into which the edge of the door may retire.

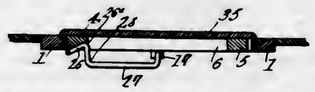


2. In a silo, stiles defining a doorway; trough-shaped cross-pieces disposed transversely of the doorway, the ends of the upper and lower walls of each cross-piece being bent in opposite directions to form primary flanges lying against the adjacent edges of the stiles to render the cross-pieces efficient as braces preventing a distortion of the door-way, the front wall of each cross-piece being terminally extended to form secondary flanges which overlap the outer faces of the stiles; securing elements uniting all of the flanges with the stiles; bearings secured to the intermediate portions of the cross-pieces; a hanger engaged with the bearings; and a door mounted on the hanger.



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1,093,636. SILO-DOOR. CHRISTOPHER J. LAWLESS, Lincoln, Nebr. Filed Nov. 19, 1913. Serial No. 801,902. (Cl. 20—1.4.)



1. In a silo, a frame; a hanger supported by the frame; and a door carried by the hanger; the hanger including a step, and a portion of the hanger being disposed directly above the lower portion of the frame to serve as a support for the door.

2. In a silo, a frame; a hanger supported by the frame; and a door carried by the hanger, the hanger including a part engaged across the lower portion of the frame when the door is open, thereby to support the door.

3. In a silo, a frame; a hanger supported by the frame; and a door carried by the hanger; the hanger including an arm offset to form a step and to define an angle in the step, the angle being disposed above the lower portion of the frame when the door is closed, thereby to support the door.

4. In a silo, a frame including a cross bar; a bracket secured to the cross bar and including vertically spaced arms; an upper hanger having one end journaled in one arm; a lower hanger having one end journaled in the other arm; and doors carried by the hangers.

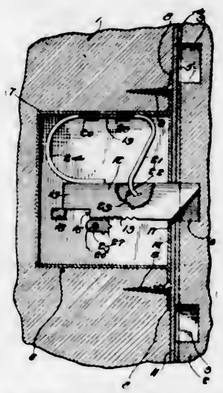
5. In a silo, a frame; an S-shaped bracket secured to the frame and comprising an upper arm projecting away from the frame and a lower arm projecting toward the frame, the lower arm being disposed below the lower face of the frame; a hanger having its ends journaled in the arms; and a door carried by the hanger.

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1,093,637. LOCK. EDWARD L. LINT, Paw Paw, Mich. Filed Sept. 22, 1913. Serial No. 791,165. (Cl. 70—42.)

1. In a lock of the class described the combination with a casing, a bolt slidably mounted within said cas-

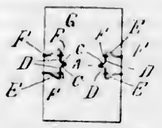
ing, said bolt provided with teeth upon its lower side, of a thumb turn carried by said casing, said thumb turn comprising a cam-like body having flat sides, teeth formed upon said body and a tooth extending from each side of said body, said teeth of said thumb turn engaging the teeth of said bolt whereby said bolt may be reciprocated by means of said thumb turn, said bolt adapted to be held in a locked position by means of one of said teeth formed upon said body, one of said flat sides of said cam normally resting snugly against the lower side of said body whereby said thumb turn will be held against accidental rotation, and one of said teeth of said thumb turn will engage said teeth of said bolt by said bolt bearing upon said body.



2. In a lock of the class described, the combination with a casing, a bolt slidably mounted within said casing, and provided with teeth upon its lower side, a thumb turn carried by said casing, said thumb turn comprising a cam-like body having flat sides, teeth formed upon one end of said body and a tooth extending from each of said flat sides, said thumb turn adapted to reciprocate said bolt, one of said teeth extending from one of said flat sides engaging the teeth of said bolt for holding said bolt in a locked position, a flat spring carried within said casing, said spring provided at one end with a depending arm terminating in a curved foot, said bolt provided with a curved pocket adapted to receive said curved foot whereby said bolt is normally urged forwardly by said arm, said spring also provided with a curved finger bearing upon the upper side of said bolt for holding the same in engagement with said thumb turn whereby said thumb turn will be held against accidental rotation since the lower side of said bolt will bear upon one of the flat sides of said cam body.

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**1,093,638. PIN-TICKET.** WILLIAM LIVINGSTON, New York, N. Y., assignor, by mesne assignments, to Noesting Pin Ticket Company, Inc., a Corporation of New York. Filed Apr. 29, 1913. Serial No. 764,330. (Cl. 40—25.)



1. In a pin-ticket, a ticket, a pin formed of a wire bent upon itself to form a double-shank pin, said wire at a predetermined point being bent to form a support for the ticket, the free ends of said wire being bent around the ticket and through same, and being folded over upon a part of the wire forming said support.

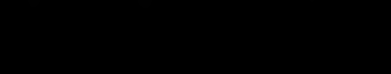
2. In a pin-ticket, a ticket, a pin formed by bending a piece of wire upon itself to form a double-shank pin, said wire at a predetermined point being bent at an angle to said shank to form a support for the ticket, the free ends of said wire being arranged substantially parallel to each other and folded around and passed through said ticket and engaging with a portion of said support.

3. In a pin-ticket, a ticket, a pin formed by bending a piece of wire upon itself to form a double-shank pin, said wire at a predetermined point being bent at an angle to said shank, and being again folded at a predetermined point so that two portions of the wire are provided lying in substantially the same line, the free ends of said wire being folded around a portion of said ticket, penetrating same, and brought into engagement with the wire on the underside of the ticket.

4. In a pin ticket, a ticket, a wire bent upon itself to form a double-shank pin, said wire being bent at a predetermined point so as to form a base for the underside of the ticket, the free ends of said wire bent around and passed through said ticket and folded upon the support on the underside of the ticket, all so arranged that said pin is held firmly in engagement with said ticket.

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**1,093,639. METHOD OF AND APPARATUS FOR SIMULATING THE APPEARANCE OF MOVEMENT IN A TARGET CAUSED AT SEA BY ROLLING AND YAWING.** WILLIAM DUGALD MACDOUGALL, Washington, D. C. Filed Aug. 27, 1912. Serial No. 717,361. (Cl. 88—1.)



1. The method of simulating the appearance of movement in a target caused at sea by rolling and yawing which consists in bending the line of sight of the gun pointer up and down to simulate the rolling and at the same time to right and left to simulate the yawing.

2. The method of simulating the appearance of movement in a target caused at sea by rolling and yawing which comprises the following steps, sighting the target through one or more alterable prismatic devices, and refracting the line of sight up and down to simulate the rolling and at the same time to right and left to simulate the yawing.

3. The method of simulating the appearance of movement in a target caused at sea by rolling and yawing which comprises the following steps, sighting the target through two alined alterable prisms, having their zero positions substantially 90° apart, refracting the line of sight up and down to simulate the rolling by altering one of the prisms and at the same time refracting the line of sight to right and left to simulate the yawing by altering the other of said prisms.

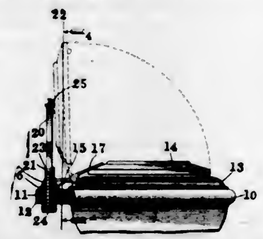
4. The method of simulating the appearance of movement in a target caused at sea by rolling and yawing which comprises the following steps, sighting the target through two alined alterable prisms, having their zero positions substantially 90° apart, refracting the line of sight up and down to simulate the rolling by altering one of the prisms and at the same time refracting the line of sight to right and left to simulate the yawing by altering the other of said prisms independently of the first.

5. The method of simulating the appearance of movement in a target caused at sea by rolling and yawing which comprises the following steps, sighting the target through two alined alterable prisms, having their zero positions substantially 90° apart, refracting the line of sight up and down to simulate the rolling by completely and continuously rotating in opposite directions the component prisms of one of said alterable prisms and at the same time refracting the line of sight to right and left to simulate the yawing by oscillating in opposite directions the component prisms of the other of said alterable prisms.

[Claims 6 to 9 not printed in the Gazette.]



**1,093,640. STOP FOR CLOSET-SEATS.** RALPH MCCORD, St. Louis, Mo. Filed Aug. 15, 1912. Serial No. 715,212. (Cl. 4—18.)



1. The combination with a closet bowl, of a seat hinged to said bowl, a rod forming a stop for the seat and passing through said hinge and a portion of the bowl, a nut on said rod and bearing on said hinge, said nut being provided with a sleeve covering the threaded portion of the rod, and a socket nut on the lower end of said rod.

2. The combination with a closet bowl, of a seat hinged to said bowl, a bent rod secured at both ends to the bowl and forming a stop for the seat, a buffer of flexible material carried by the central portion of said rod, and means for securing said rod in position on the bowl.

3. The combination with a closet bowl, of a seat hinged to said bowl, a bent rod forming a stop for the seat and having both ends passing through said hinge and a portion of the bowl, and means for securing said rod in position.

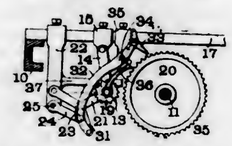
4. The combination with a closet bowl, of a seat hinged to said bowl, a bent rod forming a stop for the seat and having both ends passing through said hinge and a portion of the bowl, and nuts on said rod, said nuts being provided with sleeves to cover the threaded portion of the rod.

5. The combination with a closet bowl, of a seat hinged to said bowl, a bent rod forming a stop for the seat and having both ends passing through said hinge and a portion of the bowl, nuts on said rod and bearing on said hinge, said nuts being provided with a sleeve covering the threaded portion of the rod, and socket nuts on the ends of said rod.

[Claim 6 not printed in the Gazette.]

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**1,093,641. STARTING DEVICE FOR MOTOR-VEHICLES.** CHARLES J. MENGES, St. Louis, Mo. Filed Feb. 4, 1911. Serial No. 606,457. (Cl. 123—185.)



1. In a starting device for motors, the combination with a motor, of a shaft driven therefrom, a starting shaft geared to said first-named shaft, means for automatically moving said second shaft laterally when said first shaft is reversed, and yielding means normally preventing the reversal of said first named shaft.

2. In a starting device for motors, the combination with a motor, of a shaft driven therefrom, a starting shaft geared to said first-named shaft, a toggle mechanism for moving said second named shaft into and out of engagement with said first-named shaft, and automatic means for actuating said toggle mechanism when said first-named shaft is reversed.

3. In a starting device for motors, the combination with a motor, of a shaft driven therefrom, a starting shaft geared to said first-named shaft, a toggle mechanism for moving said second shaft into and out of engagement with said first-named shaft, an arm provided with a pawl engaging with a gear on said first shaft, and connections between said arm and toggle mechanism for automatically operating the latter when said first-named shaft is reversed.

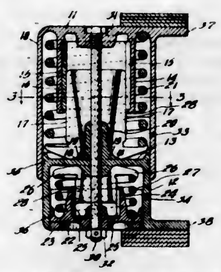
4. In a starting device for motors, the combination with a motor, of a shaft driven therefrom, a starting shaft geared to said first-named shaft, a toggle mechanism for moving said starting shaft into and out of engagement with said first-named shaft, an arm provided with a pawl engaging with the gear on said first shaft, connections between said arm and toggle for operating the latter, and means within control of the operator for operating said toggle.

5. In a starting device for motors, the combination with a motor, of a shaft driven therefrom, a gear wheel carried by said shaft, a second shaft carrying a gear wheel adapted to mesh with said first named wheel, an adjustable support, a pivotal link suspending said second shaft from said support, a toggle connected at one end of said second shaft, a second adjustable support to which the other end of said toggle is connected, a pivoted lever provided with a pawl engaging said first named wheel, and a link connecting said lever and toggle.

[Claims 6 and 7 not printed in the Gazette.]

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**1,093,642. SHOCK-ABSORBER.** JOHN E. MUHLFELD, Kansas City, Mo. Filed Mar. 24, 1913. Serial No. 756,278. (Cl. 21—105.)



1. A compound, graduated shock absorber, equalizer and stop of the character described including, in combination: a main case; an auxiliary case telescoped and movable with respect to the main case; a set of combined spring and frictional shock absorbing devices in each of said cases; and means for causing pneumatic resistance to the relative movement of said cases coöperating with said shock absorbing devices, substantially as specified.

2. A compound, graduated shock absorber, equalizer and stop of the character described including, in combination: a main and auxiliary case slidably telescoped one within the other, said cases having their axes in alinement; and a set of combined spring and frictional shock absorbing devices located within each of said cases, substantially as specified.

3. A compound, graduated shock absorber, equalizer and stop of the character described including, in combination: a main case; an auxiliary case, said cases having their axes in alinement; and a set of devices within each of said cases for absorbing shock, each set including a spring, a friction cylinder, and pivoted friction levers, said levers being pressed by the spring into engagement with the friction cylinder, substantially as specified.

4. A compound, graduated shock absorber, equalizer and stop of the character described including, in combination: a main case; an auxiliary case; a set of devices within each of said cases for absorbing shock, each set including a spring, a friction cylinder, and pivoted friction levers, said levers being pressed by the spring into engagement with the friction cylinder; and an adjusting rod extending through both cases for holding all the parts under an initial compression, substantially as specified.

5. A compound, graduated shock absorber, equalizer and stop of the character described including, in combination:

a main case having a normally open air vent; an auxiliary case having a normally open air vent, said cases being telescoped one within the other; a washer slidable within the auxiliary case; and expansible cushioning means located within each of said cases, the cushioning means in the main case normally pressing the auxiliary case outwardly and the cushioning means in the auxiliary case normally pressing the washer outwardly to thereby keep the air vents open, substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

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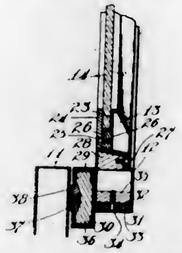
1,093,643. FASTENING DEVICE. MARTIN J. MYERS, New York, N. Y. Filed Apr. 27, 1912. Serial No. 693,563. (Cl. 24—222.)



In a fastening device, a fabric member having a longitudinally extending slot, the said slot terminating at one end in a stud opening extending in the fabric member wholly at one side of the slot, the other end of the slot terminating in a stud opening extending in the fabric member wholly at the other side of the slot.

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1,093,644. CAR-WINDOW. ALFRED H. NEWPHER, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed June 21, 1909. Serial No. 503,387. (Cl. 189—72.)



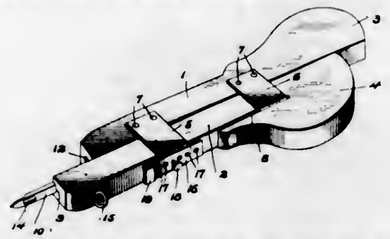
1. In a window, in combination, a vertically movable sash, a bar crossing the window opening and coöperating with the upper rail of the sash, such bar being made of sheet metal wrought to the form of a tube, the edges of the sheet being overlapped, a filler bar interposed between the upper rail of the sash and the bar, such filler bar being made of sheet metal folded to form a flange fitting between the overlapping marginal portions of the first-named bar and a chambered head having a longitudinal opening, and a cushion housed within the head and projecting through its opening and adapted to bear against the upper rail of the sash.

2. In a window, in combination, a sash made of sheet metal wrought to the form of a tube, the edges of the sheet being overlapped, a filler bar for frictionally engaging an adjacent sash, such bar being made of sheet metal folded to form a flange fitting between the overlapping marginal portions of the first-named sheet, and a chambered head having a longitudinal channel, and a cushion housed within the channel and projecting beyond the side face of the head.

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1,093,645. TURFING-MACHINE. CARL V. NILSSON, Philadelphia, Pa. Filed Oct. 29, 1913. Serial No. 797,931. (Cl. 112—40.)

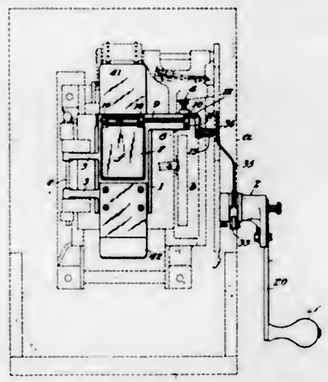
1. A turfing machine comprising two members having handle portions at one end, straps secured to one member and positioned around the other, the handle portion of the last-mentioned member having a longitudinal slot therein in which one of said straps is movable, a needle secured to one member, a spring tongue secured to the other member and pressing against the needle, a stop in one member, an eye fixed to one member and operating as a guide for the cord to be positioned through the needle, and a strip adjustably secured to one of said straps and engaged by the eye to limit the movement of the members in one direction, substantially as described.



2. A turfing machine comprising two members having handle portions at one end, straps secured to one member and positioned around the other, the handle portion of the last-mentioned member having a longitudinal slot therein in which one of said straps is movable, a needle secured to one member, a spring tongue secured to the other member and pressing against the needle, an eye fixed to one member and operating as a guide for the cord to be positioned through the needle, a strip having a plurality of openings therein, and a screw positioned in any of said openings and screwed into one of the straps holding the strip at various positions of adjustment in the path of movement of the eye, substantially as described.

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1,093,646. KINETOSCOPE. JOHN OERTLY, Cincinnati, Ohio, assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 24, 1906. Serial No. 710,698. (Cl. 88—19.4.)



1. In a kinetoscope, the combination of a frame having a display opening, driving means for passing a film across said opening, a normally closed shutter back of said opening, frictional means for holding said shutter open during the operation of the film driving means and means for rendering said frictional means inoperative, whereby the shutter remains closed during the operation of the film driving means, substantially as set forth.

2. In a kinetoscope, the combination of a frame having a display opening, means for passing a film across said opening, a normally closed shutter back of said opening, a friction member connected to said shutter, and a rotary friction member automatically moved by the driving torque toward the other friction member, substantially as set forth.



3. In a kinetoscope, the combination of a frame having a display opening, means for passing a film across said opening, a normally closed shutter back of said opening, a friction member connected to said shutter, a rotary friction member automatically moved by the driving torque toward the other friction member, and means for restoring said latter friction member to its normal position when the torque is removed, substantially as set forth.

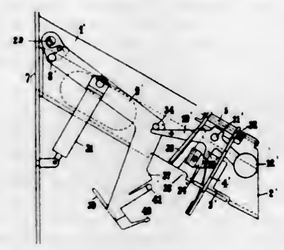
4. In a kinetoscope, the combination of a frame having a display opening, driving means for passing a film across said opening, a normally closed shutter back of said opening, a friction member connected to said shutter, a pair of members for transmitting power to said film driving means and connected to each other by a pin and inclined slot connection, and a friction member movable thereby into operative relation to said first named friction member, substantially as set forth.

5. In a kinetoscope, the combination of a frame having a display opening, driving means for passing a film across said opening, a normally closed shutter back of said opening, a friction member connected to said shutter, a pair of members for transmitting power to said film driving means and connected to each other by a pin and inclined slot connection, a friction member movable thereby into operative relation to said first named friction member, and a spring for restoring said power transmitting members to their normal position, substantially as set forth.

[Claims 6 to 27 not printed in the Gazette.]

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1,093,647. COIN-TESTER. WLADISLAW PACIORKIEWICZ, Charlottenburg, Germany, assignor to Allgemeine Handelsgesellschaft M. B. H. Bock & Co., Berlin-Charlottenburg, Germany, a Corporation of Germany. Filed May 14, 1913. Serial No. 767,724. (Cl. 194—97.)



1. In a coin-tester, the combination of a channel having a till outlet and a repayment outlet, feelers projecting from both sides of the channel into the path of a coin therein, a member for receiving an inserted coin and driving the same between the feelers with only such a small force that the coin remains stuck between the feelers when the same coact with an inscription or impression on the coin, and means normally blocking the repayment outlet and adapted to open the same when a coin has been driven beyond a predetermined position relative to the feelers.

2. In a coin-tester, the combination of a channel having a till outlet and a repayment outlet, feelers projecting from both sides of the channel into the path of a coin therein, said feelers slanting downward in the direction of motion of a coin in the channel, a member for receiving an inserted coin and driving the same between the feelers with only such a small force that the coin remains stuck between the feelers when the same coact with an inscription or impression on the coin, and means normally blocking the repayment outlet and adapted to open the same when a coin has been driven beyond a predetermined position relative to the feelers.

3. In a coin-tester, the combination of a channel having a till outlet and a repayment outlet, feelers projecting from both sides of the channel into the path of a coin therein, a resilient member for coacting with an inserted coin and driving the same between the feelers with only such a small force that the coin remains stuck between the feelers when the same coact with an inscription or impression on the coin, and a spring-pressed lever having a lug normally blocking the repayment outlet and adapted to open the same when a coin has been driven beyond a predetermined position relative to the feelers, said lever being normally locked by said member and adapted to be released therefrom by a coin impacting against the member.

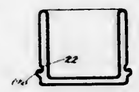
4. In a coin-tester, the combination of a channel having a till outlet and a repayment outlet, feelers projecting from both sides of the channel into the path of a coin therein, a resilient member for coacting with an inserted coin and driving the same between the feelers with only such a small force that the coin remains stuck between the feelers when the same coact with an inscription or impression on the coin, and a spring-pressed lever having a lug normally blocking the repayment outlet and adapted to open the same when a coin has been driven beyond a predetermined position relative to the feelers, said lever being normally locked by said member and adapted to be released therefrom by a coin impacting against the member; and a gravity-influenced lever adapted to lock said spring-pressed lever in its normal position.

5. In a coin-tester, the combination of a channel having a till outlet and a repayment outlet, feelers projecting from both sides of the channel into the path of a coin therein, a resilient member for coacting with an inserted coin and driving the same between the feelers with only such a small force that the coin remains stuck between the feelers when the same coact with an inscription or impression on the coin, and a spring-pressed lever having a lug normally blocking the repayment outlet and adapted to open the same when a coin has been driven beyond a predetermined position relative to the feelers, said lever being normally locked by said member and adapted to be released therefrom by a coin impacting against the member; and a gravity-influenced lever adapted to lock said spring-pressed lever in its normal position, and a pivoted arm normally holding the gravity-influenced lever in its locking position and adapted to release the same and to rock said spring-pressed lever when a coin is inserted into the channel.

[Claim 6 not printed in the Gazette.]

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1,093,648. DOUBLE-WALLED CONTAINER. CHARLES F. POTTER, Woodhaven, N. Y. Filed June 24, 1912. Serial No. 705,454. (Cl. 62—23.)



1. A double walled container comprising merging inner discoid and tubular elements and a torus, an outer tubular element united to said torus, merging outer discoid and tubular elements and a concavo-convex circumferential element formed on one of said outer tubular elements and adapted to form a molding on the assembled container, said outer tubular members being welded together.

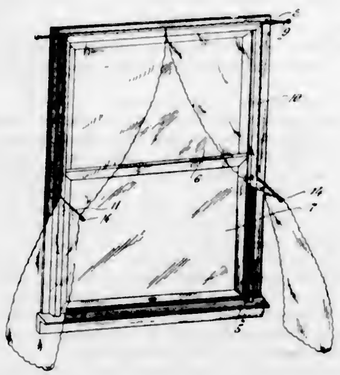
2. A double-walled container comprising merging inner discoid and tubular elements and a torus, an outer tubular element united to said torus, merging outer discoid and tubular elements and complementary concavo-convex circumferential elements formed on said outer tubular elements, and adapted to form concavo-convex molding on the assembled container, said outer tubular members being welded together.

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1,093,649. CURTAIN-HOLDER. WILLIAM B. ROBERTS, Philadelphia, Pa., assignor of one-half to Frank Huster, Philadelphia, Pa. Filed Apr. 26, 1913. Serial No. 763,932. (Cl. 156—33.)

A curtain holder comprising an arm formed from a single strand of wire bent to provide a single eye at

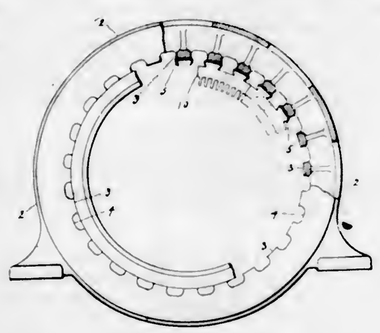
one end and a double eye at its opposite end, the said double eyes being at right angles to the length of the arm, and one of these eyes being open to form a hook, and a



screw passed through the other eye at right angles to the arm and fastened in a window casement for swingingly supporting the said arm.

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1,093,650. ELECTRIC GENERATOR OR MOTOR. WILLIAM RODGERS, Hamilton, Ontario, Canada. Filed Sept. 18, 1913. Serial No. 789,682. (Cl. 171—252.)

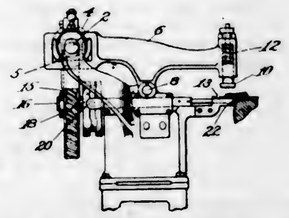


1. In an electric generator, or motor, a frame having an inner bore, dovetail-plates equally spaced apart on said bore and having counter-sunk holes therethrough threaded holes in the frame opposite to the holes in the plates, and screws provided with heads to fit the holes in the plates to rigidly secure said plates to the frame, and to be flush with the inner base of the dovetail-plates.

2. In an electric generator or motor, a frame having an inner bore, dovetail plates spaced apart on said bore and having countersunk holes through the base parts thereof, threaded holes in the frame opposite to the holes in the plates, and means in said holes to rigidly secure the plates to the frame, and to be flush with the inner base of the dovetail-plates.

3. In an electric generator or motor, a stationary frame having an inner bore with equally spaced recesses around the same, dovetail-plates, having counter-sunk holes through the base parts thereof, on said bore, threaded holes in the frame opposite to the holes in the plates, and means in said holes to rigidly secure the plates to the frame and to be flush with the base of the inner sides of the dovetail.

1,093,651. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ARTHUR L. RUSSELL, Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 30, 1908. Serial No. 460,332. (Cl. 12—67.2.)



1. A welt shaping machine having, in combination, a support for the welt, a hammer, means for operating the hammer to beat the welt including connections with the hammer constructed to prevent variation in the angular relation of the hammer to its path of movement toward the welt for successive operations of the hammer, and means for relatively moving the hammer and the shoe to effect a pulling action on the welt in addition to the beating operation.

2. A welt shaping machine having, in combination, a support for the welt, a hammer, means for operating the hammer to beat the welt including connections with the hammer constructed to prevent variation in the angular relation of the hammer to its path of movement toward the welt for successive operations of the hammer, a shoe rest, and means for relatively moving said hammer and rest to subject the welt to a pulling action in the direction of its width during the beating operation.

3. A welt shaping machine of the class described, having in combination, an anvil, a hammer, a shoe rest and means for relatively actuating said devices to beat the welt between the hammer and the anvil and then force the shoe laterally from the portion of the welt held between the hammer and anvil.

4. A welt shaping machine having, in combination, a welt beating hammer, an anvil which is of adequate dimensions to render it rigid in the direction of the hammer blows, said machine being arranged to present an unobstructed space between the hammer and said anvil for the direct engagement of both the hammer and said anvil with the welt, means for actuating the hammer to beat the welt, a shoe rest, and means for actuating the rest relatively to the hammer and the anvil and in a direction to push the shoe away from the machine while the hammer and anvil hold the welt.

5. A welt shaping machine of the class described, having in combination, an anvil, a hammer, a shoe rest and means for relatively actuating said devices to beat and pull a welt, said machine having provision for varying the relative beating and pulling movements.

[Claims 6 to 52 not printed in the Gazette.]

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1,093,652. CARLINE. THOMAS N. RUSSELL, Chicago, Ill., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1912. Serial No. 718,654. (Cl. 108—5.)



1. A carline comprising a long member extending transversely across a car roof and having its ends secured to the side plates thereof, alined short members arranged at



angles to the long member and on the opposite sides thereof and having their inner ends adjacent to said long member, and a bridge secured diagonally across the long member connecting the inner ends of the short members together, said bridge having a seat arranged diagonally therein for the reception of the ridge pole of said car roof to hold the same from lateral displacement.

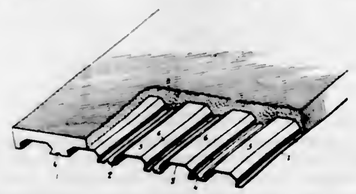
2. A carline comprising a relatively long member extending transversely across a car roof and having its ends secured to the side plates thereof, a pair of relatively short members arranged at angles to said long member and having their inner ends adjacent to the central portion of said long member, and uniting means for securing the inner ends of the short members to the long member and constituting a support for the ridge pole of said car roof.

3. A compound carline comprising in combination, two members in alinement and spaced apart, a third member located between said two members, each of said three members being formed of a bar section having a horizontal web and a vertical web, a bridge extending over the horizontal web of said third member and having end portions adapted to fit over the horizontal webs of the two alined members, and means for securing said bridge to the vertical webs of all three of said members.

4. A metal carline formed of a strip having a horizontal and a vertical web which are separated near one end and the vertical web turned to form a wing with a narrow outwardly-extending flange at its end and the end of the horizontal web having a downwardly-extending flange, whereby a side plate of a car can be secured between said wing and last-named flange with the said narrow flange of the wing engaged in a groove in such side plate.

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1,093,653. BASE FOR COMPOSITION FLOORS. JULIUS H. SCHLAFLY, Canton, Ohio, assignor to The Berger Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Feb. 20, 1912. Serial No. 678,928. (Cl. 72—70.)



In a base for composition floors formed of sheet metal and provided with relatively narrow and relatively wide grooves, said relatively wide and relatively narrow grooves opening on opposite sides of the sheets, the tops of the relatively wide sheets arched and the bottoms of the relatively narrow grooves provided with ridges, said ridges located in the openings of the relatively narrow grooves, substantially as and for the purpose specified.

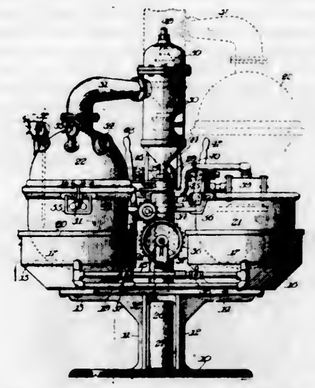
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1,093,654. COOKING VESSEL. PETER H. SCHLUETER, Chicago, Ill. Filed Nov. 28, 1913. Serial No. 803,536. (Cl. 127—4.)

1. In a cooking device, in combination, a plurality of stationarily supported kettles, a vertically extensible support, a hood mounted upon the support and movable about the axis thereof and being adapted to hermetically seal the kettles, the hood and kettles being uniformly spaced from the axis of the support.

2. In a cooking device, in combination, a plurality of stationarily supported kettles, a vertically extensible support, a hood mounted upon the support and movable about the axis thereof and being adapted to hermetically seal the kettles, the hood and kettles being uniformly spaced from the axis of the support, and means for creating a vacuum in the kettle when closed by the hood.

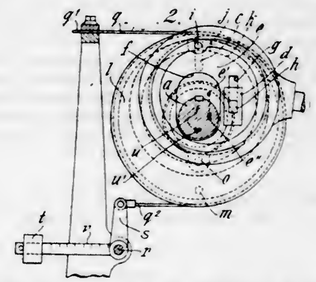
3. In a cooking device, in combination, a plurality of stationarily supported kettles, a vertically extensible support, a hood mounted upon the support and movable about the axis thereof and being adapted to hermetically seal the kettles, the hood and kettles being uniformly spaced from the axis of the support, and means for extending the support.



4. In a cooking device, in combination, a standard, a pair of furnaces mounted laterally on the standard, a kettle mounted on each furnace, a vertically movable shaft on the axis of the standard, a collar rotatably mounted on the upper end of the shaft, a bracket projecting laterally from the collar, a hood carried by the bracket and adapted to hermetically seal the kettles in alternation, a condenser mounted on the collar and connected with the interior of the hood, and means for applying suction to the condenser.

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1,093,655. STEAM-ENGINE. ERICH SCHWETER, Wilkes-Barre, Pa. Filed Jan. 23, 1914. Serial No. 813,826. (Cl. 121—100.)



1. In a device of the character described, the combination with the crank shaft of an engine, of a disk fixed thereon, an eccentric upon said disk and lineally displaceable with respect thereto, and a brake disk loosely supported on said shaft and having an annular groove eccentrically positioned with respect to said shaft, said eccentric being provided with means engaging said groove whereby by varying the relative positions of said disk and said brake disk the center of said eccentric will be varied in a lineal direction to vary the steam supply.

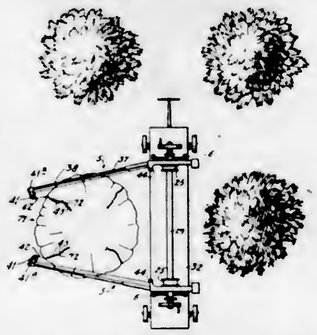
2. In a device of the character described, the combination with the crank shaft of an engine, of a disk fixed thereon, an eccentric upon said disk and lineally displaceable with respect thereto, and a brake disk loosely supported on said shaft and having an annular groove eccentrically positioned with respect to said shaft, a spring connecting said fixed disk and said brake disk, a brake band engaging said brake disk, and means for varying the pressure of said band upon said brake disk, whereby said

brake disk may be made to lag behind said fixed disk at varying angles depending on the pressure.

3. In a device of the character described, the combination with the crank shaft of an engine, of a disk fixed thereon, an eccentric upon said disk and lineally displaceable with respect thereto, and a brake disk loosely supported on said shaft and having an annular groove eccentrically positioned with respect to said shaft, a block slidingly engaging said groove, means connecting said eccentric with said block, whereby by varying the relative positions of said disk and said brake disk the center of said eccentric will be varied in a lineal direction to vary the steam supply, the diameter of said annular groove being such that said sliding block is self braking, whereby shocks due to the valve gear will not affect the angle between the fixed disk and the brake disk.

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1,093,656. DEVICE FOR HANDLING TREE-FUMIGATING TENTS. LESTER L. SIDWELL, Rivera, Cal. Filed Mar. 20, 1913. Serial No. 755,669. (Cl. 212—8.)



1. In a tent moving machine, a support, a pair of booms mounted on said support to swing from one side thereof to the other side thereof, means to operate said booms, hoisting ropes carried by said booms, means to operate said ropes, and means to adjust the angle of said booms with relation to each other.

2. In a device of the character described, a support, a pair of booms, means to swing said booms from side to side of said support, a compression spring located at the side of each boom, and means to adjust the booms against the opposition of said springs to vary the angle of said booms with relation to each other.

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1,093,657. CARLINE. VISTON E. SISSON, Chicago, Ill. Filed July 15, 1912. Serial No. 709,516. (Cl. 108—5.)



1. A pressed steel channeled carline formed with lateral flanges, the channel of which is deepest at the center of the carline and becomes shallower toward the ends, the width of the channel and the width of the flanges being least at the middle of the carline and increasing toward the ends.

2. A pressed steel channeled carline formed with lateral flanges, the channel of which is deepest at the center of the carline and becomes shallower toward the ends, the width of the channel and the width of the flanges being least at the middle of the carline and increasing toward the ends, said flanges being formed with angularly disposed stiffening rims.

3. A carline consisting of a sheet of steel of uniform width pressed so as to form a channel, and flanges extending laterally therefrom, with the depth of the channel diminishing and the width of the channel and of the flanges increasing from the middle of the carline toward the ends in such proportion that at any cross section the combined width of the flanges equals, substantially, the width of the middle web of the channel.

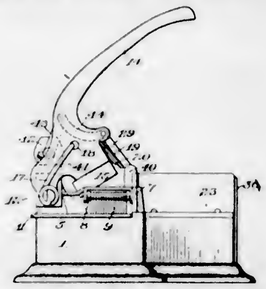
4. A pressed steel carline in the form of an inverted channel having laterally extending flanges, with the middle web of the channel extending at opposite ends beyond the side webs thereof so as to be attachable to the side plates of a car and with the flanges likewise longer than said side webs with their extremities bent downwardly so as to bear against the inner surfaces of the side plates.

5. A pressed steel carline in the form of an inverted channel having laterally extending flanges, with the middle web of the channel extending at opposite ends beyond the side webs thereof so as to be attachable to the side plates of a car and with the flanges likewise longer than said side webs with their extremities bent downwardly so as to bear against the inner surfaces of the side plates, the middle web of said channel being formed at each end with a pressed out rib which extends over the portion of the same which overlaps the side plate.

[Claim 6 not printed in the Gazette.]

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1,093,658. STAMP-AFFIXER. BENNETT D. STRAIGHT, Rochester, N. Y., assignor to Multipost Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 20, 1912. Serial No. 672,450. (Cl. 216—28.)



1. In a stamp affixer, the combination with a stamp affixing plunger, of a cutting device carried thereby, a stamp feeding means operatively connected to the stamp affixing plunger, and a locking device for preventing movement of the stamp strip, the locking device being normally in locking position and automatically released from engagement with the stamp strip upon the feeding movement of the stamp feeding means.

2. In a stamp affixer, the combination with a stamp affixing plunger, of a cutting device carried thereby, stamp feeding means operatively connected to the stamp affixing plunger, and independent locking devices for preventing movement of the stamp strip, the locking devices being alternately released from engagement with the stamp strip upon the feeding movement of the stamp feeding means.

3. In a stamp affixer, the combination with a stamp affixing plunger, of a cutting device carried thereby, a guideway for the stamp strip, stamp feeding means operatively connected to the stamp affixing plunger, and a locking device projecting into said guideway to engage the stamp strip, the stamp feeding means being arranged to move the locking device out of the guideway to permit movement of the stamp strip.

4. In a stamp affixer, the combination with a supporting surface having an opening therein, of a liquid holder below said opening, a plurality of pivotally mounted metal fingers projecting through said opening to engage the liquid holder, a stamp affixing plunger arranged above the supporting surface, and stamp feeding means operatively connected to the stamp affixing plunger.

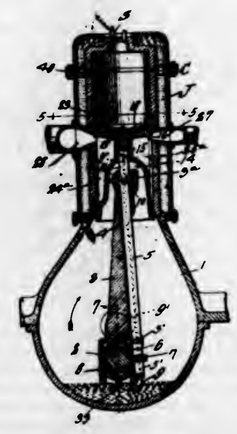
5. In a stamp affixer, the combination with a supporting surface having an opening therein, of a liquid holder below said opening, a plurality of movable metal fingers having rounded extremities projecting through said opening to engage the liquid holder, a stamp affixing plunger arranged above the supporting surface, and stamp feeding means operatively connected to the stamp affixing plunger.

[Claims 6 to 12 not printed in the Gazette.]



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1,093,659. INTERNAL-COMBUSTION ENGINE. FREDERIC S. THORNLEY, Clarion, Iowa. Filed Apr. 10, 1912. Serial No. 689,749. (Cl. 123—47.)



1. An internal combustion engine, having a crank case, a cylinder with oppositely disposed intake and exhaust ports intermediate of its ends, a crank shaft, a power piston mounted in the cylinder and operably connected to the crank shaft, said piston having two oppositely disposed recesses in its walls and two ports in its head, a rotary valve having a single port mounted in the head of the piston for controlling the ports thereof, and means operably connecting said valve with the crank shaft.

2. An internal combustion engine, having a crank case, a cylinder provided with an intake and an exhaust port, a crank shaft, a power piston mounted in the cylinder and operably connected to the crank shaft, said piston being provided with an intake and an exhaust port, a rotary valve carried by the piston and having a single port disposed for registration with the respective intake and exhaust ports of the piston, and means operably connecting said valve with the crank shaft.

3. An internal combustion engine, having a crank case, a cylinder provided with an intake and an exhaust port, a crank shaft, a power piston mounted in the cylinder and operably connected to the crank shaft, said piston being provided with an intake and an exhaust port, a rotary valve carried by the piston and having a single port disposed for registration with the respective intake and exhaust ports of the piston, and means carried by the piston, and piston rod, and operated from the crank shaft for operating the valve.

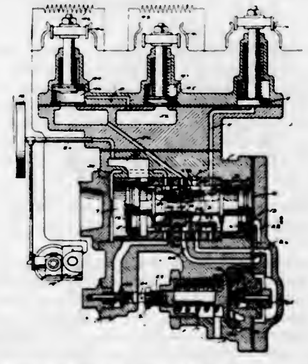
4. An internal combustion engine, having a crank case, a cylinder provided with an intake and exhaust port, a crank shaft, a power piston mounted in the cylinder, a rod operably connecting the power piston to the crank shaft, said power piston being provided with an intake and an exhaust port therein, a rotary valve having a single port carried by the power piston, and means journaled in the piston rod and operably connected to the crank shaft and valve for actuating the valve to control the intake and exhaust ports of the piston.

5. An internal combustion engine, having a crank case, a cylinder provided with an intake and an exhaust port, a crank shaft, a power piston mounted in the cylinder, a rod operably connecting the power piston to the crank shaft, said power piston being provided with an intake and an exhaust port therein, a rotary valve having a single port carried by the power piston, and a shaft journaled in the piston rod, said shaft having its lower end operably connected to the crank shaft and its upper end operably connected to the rotary valve, whereby the rotary valve is actuated from the crank shaft.

[Claims 6 to 23 not printed in the Gazette.]

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1,093,660. PRESSURE-GOVERNOR FOR PUMPS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 16, 1907. Serial No. 393,019. (Cl. 230—24.)



1. A pressure governor comprising a controlling device, an actuating piston, a main valve and abutment for controlling the pressure on said actuating piston, a low tension regulating valve and a high tension regulating valve for governing the action of said main abutment, and a movable abutment for actuating said regulating valves.

2. A pressure governor comprising a controlling device, a high tension regulating valve and a low tension regulating valve for governing the operation of said controlling device, and a single diaphragm for actuating said valves.

3. A pressure governor comprising a controlling device, an actuating piston therefor, means for controlling the pressure on said actuating piston, high and low tension release valves for controlling the pressure on said means, and a single diaphragm, subject to the opposing pressures of an adjustable spring and pump pressure, for actuating said valves.

4. A pressure governor comprising a controlling device, an actuating piston therefor, means for controlling the pressure on said piston, a release valve governed by pump pressure for releasing fluid from said controlling means to operate the same, the outlet through said release valve being controlled by said means.

5. A pressure governor comprising a controlling device, an actuating piston therefor, a main valve and abutment for controlling the pressure on said piston, valve means for controlling the release of fluid from said abutment to operate the same, the outlet through said valve means being controlled by said main valve.

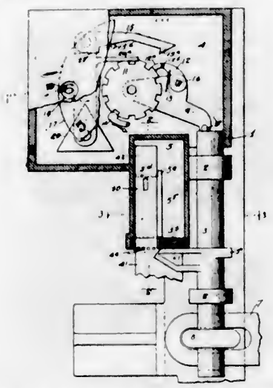
[Claims 6 to 18 not printed in the Gazette.]

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1,093,661. SEAL-LOCK. EMIL TYDEN, Hastings, Mich. Filed Aug. 23, 1912. Serial No. 716,595. (Cl. 70—23.)

1. In combination with a lock having a seal chamber and a locking member, a seal comprising a lock-engaging end and a tag end; said tag end comprising a shoulder which limits the insertion of the lock-engaging end into the seal chamber; the locking member having a closure for the seal chamber formed for closing said chamber at locking position of the locking member and for being engaged at that position by said shoulder of the seal.

2. In combination with a lock comprising a casing and a locking member mounted thereon for moving from and into locking position; the casing having a seal chamber and an opening for entry of the seal thereinto; a seal having a lock-engaging end portion adapted to be inserted through said opening into said chamber, and means by which the seal is automatically engaged against the withdrawal when so inserted, the seal having also a tag end weakened for breaking off the tag end; said tag end comprising a shoulder which limits the insertion of the lock-engaging end into the chamber; the locking member having a closure for the seal chamber at the locking position of the locking member; the shoulder of the seal being positioned for engaging the locking member at the position at which it closes said chamber.



3. A seal lock comprising a casing, a locking member mounted in the casing, the latter having a seal chamber provided with an entrance and an exit aperture for the seal, the locking member having a closure for the seal chamber positioned on said member for closing the seal exit when at locking position; a seal adapted to be inserted in said chamber and automatically engaged against withdrawal, and when so engaged to stop the locking member against movement away from seal-exit-closing position.

4. In a seal lock, in combination with a seal chamber and a locking member, a seal adapted to be inserted in the seal chamber and automatically engaged therein against withdrawal, such seal having a shoulder which limits its movement into the chamber and which coöperates with the means by which the seal is engaged in the chamber for resisting the unlocking movement of the locking member, the seal being weakened at a suitable line for detaching the part containing said shoulder to release the locking member.

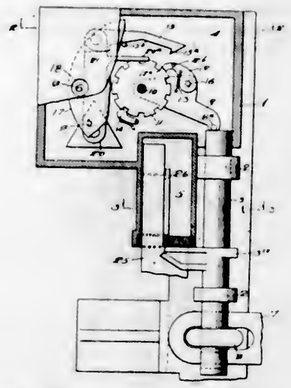
5. A seal lock comprising a casing, a locking member mounted in the casing, the latter having a seal chamber provided with an entrance and exit aperture for the seal, and a locking member having a closure for said seal chamber positioned thereon for closing said chamber by turning movement followed by a sliding movement of the locking member to the locked position; a seal adapted to be inserted in said chamber and to be automatically engaged against withdrawal, and when so engaged to stop the locking member against reverse sliding movement.

[Claims 6 to 13 not printed in the Gazette.]

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1,093,662. INDICATOR-LOCK. EMIL TYDEN, Hastings, Mich. Original application filed Aug. 23,1912, Serial No. 716,595. Divided and this application filed Sept. 29, 1913. Serial No. 792,336. (Cl. 70—6.)

1. A lock for cars comprising in combination with a casing adapted to be mounted on the car body, a locking member mounted in the casing for locking and unlocking movement, an indicator mounted in the casing for step-by-step movement to change its indication; a device by which one full movement of the locking member actuates the indicator one step; means for engaging the indicator-actuating device and positioned for such engagement when the latter is out of position for such actuation by the locking member; an oscillator mounted for oscillation by the bodily movement of the casing, and means by which the oscillator releases the indicator-actuating device.



2. A lock for cars comprising in combination with a casing adapted to be mounted on the car body, a locking bolt mounted for reciprocation in the casing for locking and unlocking, a dial mounted in the casing for step-by-step rotation; a device by which one unlocking movement of the bolt rotates the dial one step at the limit of such unlocking movement; means for engaging the dial-rotating device and positioned for such engagement when the latter is out of position for actuation by the bolt; an oscillating member mounted for oscillation by the bodily movement of the casing, and means by which its oscillation releases the dial-rotating device.

3. A lock for cars comprising a casing adapted to be mounted on the car body; a locking bolt mounted for reciprocation in the casing; an indicator mounted in the casing for step-by-step movement to change its indication; a device by which one complete reciprocation of the bolt actuates the indicator one step; means for engaging the indicator-actuating device to hold it out of position for such actuation; an oscillator mounted for oscillation by the bodily movement of the casing, and means by which said oscillator releases the indicator-actuating device.

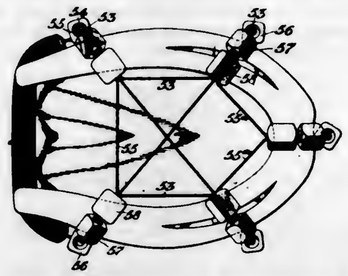
4. A lock comprising in combination with a casing, a locking member mounted on the casing for locking and unlocking movement; an indicator comprising a toothed wheel mounted on the casing for step-by-step rotation to change the indication of the indicator; a dog engaging such toothed wheel for rotation of the latter in one direction; a lever which carries said dog extending into the path of the locking member for actuation thereby in the movement of the latter; means for engaging the lever to hold the dog out of position for engaging the wheel; an oscillator and means by which its oscillation releases the lever.

5. A lock comprising in combination with a casing, a locking member mounted in the casing for locking and unlocking movement; an indicator comprising a toothed wheel mounted in the casing for step-by-step movement to change the indication; a dog for engaging such toothed wheel for rotation of the latter in one direction, the dog and the wheel being correlatively formed to adapt the dog to lock the wheel against rotation relatively to the dog in either direction; a lever which carries the dog extended into the path of the locking member for actuation by the latter; a latch for engaging the lever to hold it out of position for actuation by said locking member; an oscillator and means by which, when oscillated, it releases the latch and disengages the dog from the wheel.

[Claim 6 not printed in the Gazette.]



1,093,663. NON-SLIP TREAD. ALEXANDER G. UPTEGRAFF, Lenox, Mass. Original application filed Mar. 12, 1909, Serial No. 482,898. Divided and this application filed Aug. 3, 1909. Serial No. 511,074. (Cl. 168—1.)



1. In a non-slip attachment for hoofed animals, a tread strand comprising a longitudinal member secured to the hoof of the animal and extending across the tread of the shoe and a series of bodies of larger diameter than said tension member rotatively mounted thereon and adapted when in use to move longitudinally thereof.

2. In a non-slip attachment for hoofed animals, a tread strand comprising a flexible tension member secured to the hoof of the animal and extending across the tread of the hoof and protected by a series of perforated bead-like bodies rotatively mounted thereon.

3. In a non-slip attachment for hoofed animals, a tread strand comprising a flexible tension member protected by a series of perforated bead like bodies movable on said tension member, the perforations in said bodies being rounded toward the ends so as to prevent cutting of said tension members.

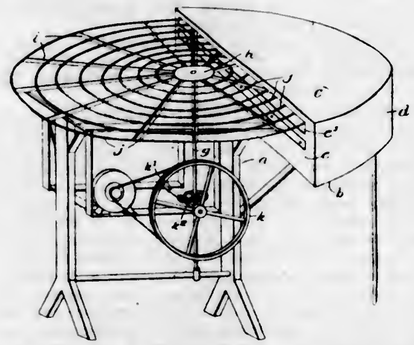
4. In treads for overshoes for horses, a piano wire extending across the tread and secured to the hoof of the animal, and metallic bodies secured thereto and capable of limited longitudinal movement when in use.

5. In treads for overshoes for horses, piano wire adapted to be secured to the hoof of the animal and to extend across the tread thereof, and perforated metallic beads rotatively mounted on the portions of the wire crossing the tread portions of the shoe thereof and movable longitudinally of said wire during use.

[Claims 6 to 18 not printed in the Gazette.]

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1,093,664. EMBOSSING APPARATUS. MARTIN VERBEYST, Park Ridge, N. J. Filed Feb. 19, 1913. Serial No. 749,561. (Cl. 34—32.)



1. An embossing apparatus embodying therein a heating chamber having a closed top and bottom, and side walls, one portion of which has a reduced opening therein, heating means within said chamber, a circular carrier rotatably mounted exteriorly of and adjacent to said heating chamber, a portion only of said carrier projecting through said opening, the carrying surface of said carrier comprising a plurality of grids spaced apart radially of said carrier, and means rotating said carrier.

2. An embossing apparatus embodying therein a heating chamber having a closed top and bottom, and connecting side walls, one portion of which has a reduced opening therein adjacent to the closed top thereof, heating means adjacent the closed bottom of said chamber, a circular carrier rotatably mounted exteriorly of and adjacent to said heating chamber, a portion only of said carrier projecting through said opening, said carrier having a surface thereon presented toward the top of said chamber and adapted to receive sheets of paper, whereby said paper is carried through the upper zones of heat in said chamber and subjected to heat from above, and means rotating said carrier.

3. An embossing apparatus embodying therein a heating chamber having a closed top and bottom, and side walls, one portion of which has a reduced opening therein, heating means within said chamber, a circular carrier rotatably mounted exteriorly of and adjacent to said heating chamber, a portion only of said carrier projecting through said opening, the carrying surface of said carrier comprising a plurality of grids spaced apart radially of said carrier, and actuating means for said carrier comprising a rotary shaft, a source of power, and connecting means between said source of power and said shaft whereby said shaft is driven at a continuous, uniform speed.

4. An embossing apparatus embodying therein a heating chamber having a closed top and bottom, and connecting side walls, one portion of which has a reduced opening therein adjacent to the closed top thereof, heating means adjacent the closed bottom of said chamber, a circular carrier rotatably mounted exteriorly of and adjacent to said heating chamber, a portion only of said carrier projecting through said opening, said carrier having a surface thereon presented toward the top of said chamber and adapted to receive sheets of paper, whereby said paper is carried through the upper zones of heat in said chamber and subjected to heat from above, and actuating means for said carrier comprising a rotary shaft, a source of power, and connecting means between said source of power and said shaft whereby said shaft is driven at a continuous, uniform speed.

5. An embossing apparatus embodying therein a heating chamber having a closed top and bottom, and side walls, one portion of which has a reduced opening therein, heating means whereby the temperature within said chamber is raised, a circular carrier rotatably mounted adjacent to said heating chamber and projecting through said opening, said carrier comprising a plurality of radiating spokes and a series of wires carried by said spokes and spaced apart radially of said carrier, and means rotating said carrier.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,665. LAST. JOHN E. WEEDEN, Somersworth, N. H. Filed July 9, 1913. Serial No. 778,023. (Cl. 12—141.)



1. A last having a lever presenting a sole retaining point, means for mounting said lever to have an engaging position when the point thereof will project outwardly from the bottom of said last, or become turned to have a disengaging position when the point thereof will project forward in the general direction of the toe of the last, said lever presenting also a portion by which it may be turned to and maintained in said engaging position, and means

movable to engage said portion of the lever for turning said lever to said engaging position and maintaining the same in such position, or movable into a position of disengagement with said lever when said lever may become turned to occupy its position of disengagement as aforesaid.

2. A last having a lever presenting a sole retaining point, means for mounting said lever to have a defined engaging position when the point thereof will project outwardly from the bottom of the last, or become turned to have a defined disengaging position when the point thereof will project forward in the general direction of the toe of the last, said lever presenting also a portion by which it may be turned to and maintained in said engaging position, and means contained within the last movable to engage said portion of the lever for turning the lever to said defined engaging position and for maintaining the same in such position, or become moved into a disengaging position with respect thereto, permitting said lever to turn and assume its disengaging position as aforesaid.

3. A last having a lever presenting a sole retaining point, means for mounting said lever to have an engaging position when the point thereof will project outwardly from the bottom of said last, or become turned to have a disengaging position when the point thereof will project forward in the general direction of the toe of the last, said lever presenting also a portion by which it may be turned to and maintained in said engaging position, a bar socketed to slide longitudinally within said last to engage said portion of the lever for turning it to said engaging position and maintaining it in such position, or become withdrawn into a disengaging position with respect to said lever, permitting said lever to turn to and assume its disengaging position as aforesaid.

4. A last having a fore part and a heel part movable relatively to the fore part whereby the last may be extended or collapsed, a lever presenting a sole retaining point, means for mounting said lever in the fore part of said last to have an engaging position when the point thereof will project outwardly from the bottom of the last, or become turned to have a disengaging position when the point thereof will project forward in the general direction of the toe of the last, said lever presenting also a portion by which it may be turned to and maintained in said engaging position, and means whereby said lever may be automatically turned to and maintained in an engaging position upon extending said last, or released whereby it may assume a disengaging position upon collapsing said last.

5. A last having a lever presenting a sole retaining point, a slotted stud secured to said last in which said lever is mounted to have an engaging position when the point thereof will project through the bottom of said stud to extend outwardly from the bottom of the last in a defined engaging position, or become turned in said stud to have a disengaging position when the point thereof will project forward in the general direction of the toe of the last, said stud presenting an edge against which said lever may turn for defining the engaging position thereof, and releasable means for engaging said lever for turning it to said engaging position and maintaining it in such position.

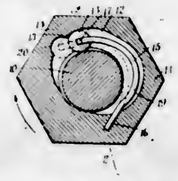
[Claims 6 to 10 not printed in the Gazette.]

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1,093,666. NUT-LOCK. ARNOLD HEINRICH WEGENER, Hoboken, N. J. Filed June 16, 1913. Serial No. 773,944. (Cl. 151—25.)

1. The combination of a bolt having a thread, a nut threaded thereon, and locking means for the nut comprising a roller operating between the bolt thread and a portion of the nut, said nut being provided with a tapered cavity, and means acting upon the roller to normally force the same into the taper of said cavity, said nut being provided with means whereby when forcibly reversed the roller will cease its automatic gripping action, substantially as set forth.

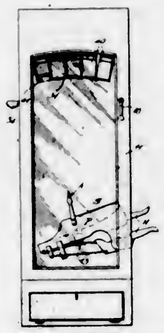
2. The combination of a bolt having a thread, a nut threaded thereon and movable freely in one direction, said nut having a crescent-shaped cavity formed adjacent the bolt in one face thereof, a roller operating in the tapered end of the crescent-shaped cavity, and means to maintain the roller in such position and in normal contact with both the bolt and the outer wall of said cavity, said nut furthermore being provided with means whereby the gripping action of said roller is decreased when the nut is slightly unscrewed under force.



3. The combination of a bolt having a thread, a nut threaded thereon, said nut being provided with a tapered recess adjacent the bolt, a roller operating in said tapered recess and normally resisting movement of the nut in a certain direction while permitting free movement of the nut in the other direction, said nut being provided with a pocket formed in the wall of said recess adjacent said tapered portion into which the roller may be caused to be received when the nut is turned in said certain direction under force.

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1,093,667. TARGET. GEORGE A. WEHNER, Savannah, Ga. Filed Mar. 8, 1913. Serial No. 753,137. (Cl. 46—56.)



1. The herein described target comprising a group of hoods, and means for opening their mouths successively and irregularly toward the player.

2. The herein described target comprising a group of hoods disposed in a row transverse to the direction in which the player will shoot, and means for opening their mouths one at a time.

3. The herein described target comprising a group of hoods disposed in a row transverse to the direction in which the player will shoot, spring actuated means for closing their mouths, and setting mechanism opposing said means and opening the mouths of the hoods one at a time.

4. The herein described target comprising a group of hoods disposed in a row transverse to the direction in which the player will shoot, a support to which said hoods are pivoted with their mouths disposed toward the player, springs normally swinging said hoods in a direction to close their mouths, and setting mechanism opposing said means and opening the mouths of the hoods one at a time.

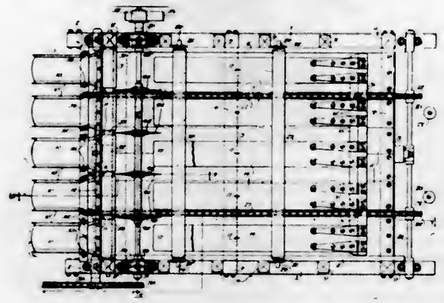
5. The herein described target comprising a group of hoods disposed in a row transverse to the direction in which the player will shoot, a support to which said hoods are hinged on a line struck on a curve around the point whence the projectile will be shot, said hoods having their mouths disposed toward the player, springs normally swinging said hoods in a direction to close their mouths, and setting mechanism opposing said spring and opening the mouths of the hoods.

[Claims 6 to 28 not printed in the Gazette.]



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1,093,668. MACHINE FOR FILLING COMPARTMENT-MATTRESSES. IKE J. WEINBERG, Chicago, Ill., assignor, by mesne assignments, to Dixie Cotton Felt Mattress Company, Chicago, Ill., a Corporation. Filed Nov. 20, 1911. Serial No. 661,410. (Cl. 100—57.)



1. In a machine for filling compartment mattresses, the combination with means for holding the tick, of a reciprocating carrier for receiving and compressing a bat of filling material, and means for dividing the bat into sections as said carrier is advanced to convey such sections into the compartments of the tick.

2. In a machine for filling compartment mattresses, the combination with means for holding the tick, of upper and lower sets of bars arranged in pairs for receiving a bat of filling material, means for advancing said bars into the compartment of the tick, and means for dividing the bat into sections as said bars are advanced.

3. In a machine for filling compartment mattresses, the combination with a frame having means for holding a tick, of a reciprocating carrier comprising upper and lower sets of bars arranged in pairs and adapted to receive a bat of filling material, means for reciprocating said bars into and out of the compartments of the tick, and a series of knives arranged between the paths of movement of the bars for severing the bat into sections as said bars are advanced.

4. In a machine for filling compartment mattresses, the combination with a frame having means for holding a tick, of a reciprocating carrier comprising upper and lower sets of bars arranged in pairs and adapted to receive a bat of filling material, means for reciprocating said bars into and out of the compartments of the tick, rollers arranged to engage the upper set of bars for compressing the bat, and a set of knives arranged between the paths of movement of said bars for dividing the bat into sections.

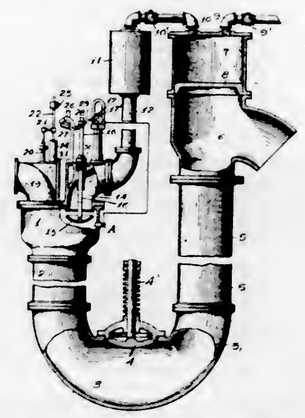
5. In a machine for filling compartment mattresses, the combination of a series of spouts over which the ticking is placed, a number of pairs of bars for receiving a bat of filling material and arranged to reciprocate through said spouts and into the compartment of the ticking, and a set of knives in advance of said spouts and between the paths of movement of said pairs of bars for severing the bat into sections.

[Claims 6 to 22 not printed in the Gazette.]

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1,093,669. INTERNAL-COMBUSTION PUMP. CHARLES E. WHITE, San Francisco, and CHARLES H. MCINTOSH, Berkeley, Cal. Filed Oct. 4, 1912. Serial No. 723,975. (Cl. 160—1.)

1. An internal combustion pump comprising a combustion chamber; a delivery pipe connected thereto and having a gas compression chamber at the upper end thereof; a receiver having connections to the compression chamber and the combustion chamber; and a piston within the gas compression chamber which operates to compress an explosive gas into the receiver.



2. An internal combustion pump comprising a combustion chamber; a delivery pipe connected thereto and having a valve controlled liquid inlet, and a gas compression chamber in the upper end thereof; a piston within the gas compression chamber adapted to be operated by a liquid piston within the delivery pipe; a gas supply pipe; a valve controlled connection between the gas compression chamber and the combustion chamber; and means for igniting a charge of gas within the combustion chamber.

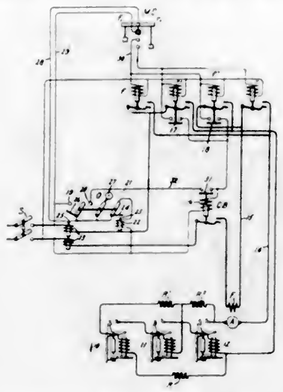
3. In an internal combustion pump, the combination of a combustion chamber having valve controlled inlet and exhaust ports; a delivery pipe connected thereto having a valve controlled liquid inlet, and a gas compression chamber in the upper end thereof; a piston within the gas compression chamber adapted to be operated by a liquid piston within the delivery pipe; a valve controlled gas supply pipe; a valve controlled connection, having a receiver, between the gas compression chamber and the combustion chamber; an igniter associated with the combustion chamber; and means for operating the igniter.

4. In an internal combustion pump, the combination of a combustion chamber having suitable inlet and exhaust ports and an igniter associated therewith, a delivery pipe connected to the combustion chamber and having a valved liquid inlet, and a gas compression chamber at the upper end thereof; a piston within the gas compression chamber adapted to draw an explosive charge therein and compress the same within a receiver; a gas supply pipe; a connection having a receiver between the gas compression chamber and the combustion chamber; suitable valves within the inlet and exhaust ports of the combustion chamber; and means for securing and releasing the inlet valve.

5. In an internal combustion pump a combination of a combustion chamber having suitable inlet and exhaust ports and an igniter associated therewith; a delivery pipe connected thereto and having a valve controlled liquid inlet, and a gas compression chamber at the upper end thereof; a connection having a receiver between the gas compression chamber and the combustion chamber; a piston within the gas compression chamber adapted to draw an explosive charge within the gas compression chamber by gravity and to be operated by a liquid piston within the delivery pipe for the purpose of compressing the gas within the receiver; an inlet valve within the inlet port adapted to operate the igniter on its upward stroke; and an exhaust valve adapted to open by gravity.

[Claims 6 to 9 not printed in the Gazette.]

1,093,670. MOTOR-CONTROL SYSTEM. MAX A. WHITING, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1913. Serial No. 742,839. (Cl. 172—179.)



1. The combination with an electric motor, of a controller therefor, an overload relay having an actuating coil on each side of the supply circuit and arranged to close in the off position of said controller, and a circuit breaker electromagnetically closed upon the movement of the controller to operative position and controlled by said relay.

2. The combination with an electric motor, of a controller therefor, an overload relay having an overload coil on each side of the supply circuit arranged to be electromagnetically closed in the off position of said controller, a circuit breaker having an actuating winding which is energized upon the movement of the controller to operative position, and a maintaining circuit controlled by said relay.

3. The combination with an electric motor, of a controller therefor, an overload relay arranged to be closed in the off position of said controller, and a circuit breaker having an actuating circuit which is energized upon the movement of the controller to operative position, and a maintaining circuit controlled by said relay.

4. The combination with an electric motor, of a contactor for controlling the circuit thereof, a master controller therefor, an overload relay arranged to be closed in the off position of the master controller for controlling the circuit of said contactor, and a circuit breaker having an actuating circuit which is energized upon the closing of said contactor and a maintaining circuit controlled by said relay.

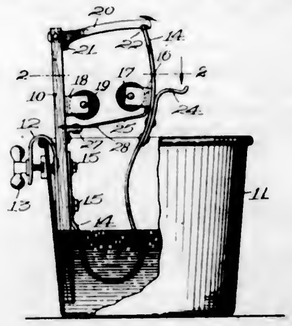
5. The combination with an electric motor, of a plurality of consecutively operating contactors for controlling the circuit thereof, a master controller therefor, an overload relay arranged to be closed in the off position of said master controller for controlling the operation of said contactors, and a circuit breaker having an actuating circuit which is energized upon the closing of the first of the contactors, and a maintaining circuit controlled by said relay.

[Claim 6 not printed in the Gazette.]

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1,093,671. MOP-WRINGER. BENJAMIN WILLIAMS, Worcester, Mass. Filed May 24, 1909. Serial No. 497,997. Renewed July 13, 1912. Serial No. 709,270. (Cl. 15—12.)

1. In a mop wringer, the combination of a bar adapted to be mounted in a receptacle, a wringer roll mounted on the bar in fixed position, a second roll movable toward and from the first roll, resilient means in the receptacle for holding the second roll toward the first roll, a latch above the receptacle for holding the rolls apart, and means whereby the downward motion of the mop near the movable roll will cause the latch to set the spring.



2. In a mop wringer, the combination of a wringer roll mounted in fixed position, a second roll movable toward and from the first roll, resilient means for moving the second roll toward the first roll, a latch for holding the rolls apart, and means adapted to be engaged by the mop for causing the latch to set the spring, said latch being located in such position that the upward motion of the mop between the rolls will disengage it and release the spring.

3. In a mop wringer, the combination of a main support, a roll mounted thereon, a spring connected with said suport, and extending downwardly and then upwardly at a distance from the support, a second roll mounted on said spring, said spring being adapted to normally force the second roll toward the first named roll, a latch pivotally mounted on the support and adapted to engage said spring to hold the rolls apart, and an arm projecting from the spring in position to be engaged by a mop in descending near the spring so as to pull the spring downward and permit the latch to drop by gravity and set the spring.

4. In a mop wringer, the combination of a support having means by which it is adapted to be secured in fixed position on the inside of a bucket or pail, a spring connected therewith and extending upwardly at a distance therefrom, two wringer rolls, one mounted on the spring and the other on the support, a gravity latch, and means whereby when the mop is being inserted into the bucket or pail the gravity latch will be permitted to fall into position to engage and hold the spring so as to keep the roll thereon away from the other roll.

5. In a mop wringer, the combination of a support, a spring connected therewith and extending upwardly at a distance therefrom, two wringer rolls one mounted on the spring and the other on the support, a gravity latch adapted to hold the spring back so as to keep the rolls apart and located in such position over the rolls that when the mop is drawn up betwen the rolls it will engage such latch and disengage it from the spring so as to permit the spring to force the movable roll resiliently toward the stationary roll.

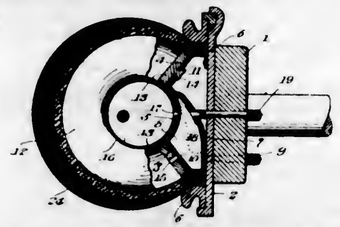
[Claims 6 to 10 not printed in the Gazette.]

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1,093,672. SECTIONAL PNEUMATIC TIRE. JAMES C. WILSON, Belchertown, Mass. Filed Sept. 22, 1913. Serial No. 791,151. (Cl. 152—22.)

1. In a pneumatic tube the combination of a rim having oppositely inclined side portions and an intermediate depressed portion, a pneumatic tube seated upon the intermediate depressed portion of the rim, a plurality of U shaped pneumatic sections extending over the pneumatic tube and having their end portions in engagement with the inclined side portions of the rim, the latter having a passage which is in communication with the pneumatic tube and sections, and an expansible closure located in the passage of the rim and adapted to seal the openings by means of which the pneumatic tube and sections are in communication with the passage of the rim.



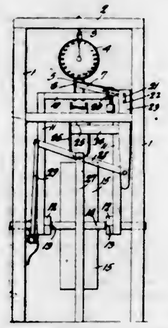


2. In a pneumatic tire, the combination of a rim embodying oppositely inclined side portions and an intermediate continuous passage, a plurality of U-shaped tubes having a transverse arrangement with their ends seated against and secured to the oppositely inclined side portions of the rim, each of such tubes being in communication with the said passage and an expansible closure located in the passage of the rim for sealing the openings by means of which the several tubes have communication therewith.

3. In a pneumatic tire, the combination of a rim having oppositely inclined side portions and an intermediate continuous passage, the said side portions of the rim being provided with corresponding openings, the openings of one of the side portions communicating with the continuous passage, a plurality of U-shaped tubes arranged transversely of the rim and secured at one of their ends to the side portion of the rim having communication with the passage and having projections at their opposite ends to engage the openings in the other side portion of the rim and an expansible closure located in the passage of the rim for sealing the openings by means of which the U-shaped tubes have communication with the said passage.

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1,093,673. AUTOMATIC WEIGHING APPARATUS. WESLEY D. WILSON, Cordele, Ga. Filed Dec. 1, 1913. Serial No. 804,028. (Cl. 73—182.)

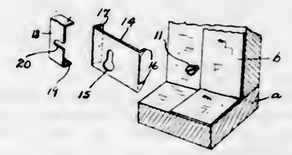


1. A weighing apparatus, including a supporting structure, a spring scale connected thereto, a weight controlled scale beam connected to the spring scale, a material receiving member connected to one end of the scale beam, two receptacles rotatably mounted and carried by the material receiving member, a chute leading into one of the receptacles at a time, a valve for controlling the supply of material through the chute, and automatic means connected to the opposite end of the scale beam for actuating the valve to close the same when one of the receptacles is emptied and for opening the same when the receptacle is emptied.

2. A weighing apparatus, including a supporting structure, a spring scale connected thereto, a weight controlled scale beam connected to the spring scale, a material receiving member connected to one end of the scale beam, two receptacles rotatably mounted and carried by the material receiving member, a chute leading into one of the receptacles at a time, a valve for controlling the supply of material through the chute, automatic means connected to the opposite end of the scale beam for actuating the valve to close the same when one of the receptacles is filled and for opening the same when the receptacle is emptied, and coöperating means carried by the rotating receptacles and operably connected to the valve actuating means for starting the initial tilting of the receptacle when filled.

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1,093,674. DEVICE FOR SECURING CARPETS TO STAIRS. WESLEY G. WINANS, Cleveland, Ohio. Filed Oct. 2, 1913. Serial No. 793,059. (Cl. 16—68.)



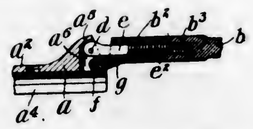
1. In a device of the character described, the combination of a member adapted to be secured to a stair at one side of a carpet arranged on said stair, said member comprising a shank portion and a head portion, a carpet engaging member comprising a plate provided with a slot adapted to permit the passage of the head of said stationary member and a locking plate arranged to slip over said carpet engaging plate, said locking plate being provided with a slot adapted to receive the shank of the stationary member below the head thereof.

2. In a device of the character described, the combination of a member adapted to be secured to a stair at one side of a carpet arranged on said stair, said member comprising a shank portion and a head portion, a carpet engaging member comprising a plate provided with a slot adapted to permit the passage of the head of said stationary member, said plate being provided with a pair of prongs at its front edge and a locking plate arranged to slip over said carpet engaging plate, said locking plate being provided with a slot adapted to receive the shank of the stationary member below the head thereof.

3. In a device of the character described, the combination of a member adapted to be secured to a stair at one side of a carpet arranged on said stair, said member comprising a shank portion and a head portion, a carpet engaging member comprising a plate provided with a slot adapted to permit the passage of the head of the stationary member therethrough, said plate being also provided with a pair of prongs at its front edge and with a supporting flange at its rear edge and a locking plate arranged to slip over said carpet engaging plate, said locking plate being provided with a slot adapted to receive the shank of the permanent member below the head thereof for the purpose set forth.

4. In a device of the character described, the combination of a member adapted to be secured to a stair at one side of a carpet arranged thereon, said member comprising a shank portion and a head portion, a carpet engaging member comprising a plate provided with a key-hole-slot, the larger portion of said slot being adapted to permit the passage of the head of the stationary member and the smaller portion of said slot being adapted to receive the shank portion of said stationary member, said plate being provided with a pair of prongs at its front edge and with a supporting flange at its rear edge and a locking plate arranged to slip over said carpet engaging plate, said locking plate being provided with a slot adapted to receive the shank of the permanent member below the head thereof.

1,093,675. VETERINARY-SURGEON'S TOOL. LOUIS WIASCHING, New York, N. Y. Filed Dec. 24, 1913. Serial No. 808,523. (Cl. 128—27.)



A tool of the class described comprising a head and a handle, the head being provided in the end thereof adjacent to the handle with a recess, a threaded pin pivoted in said recess, a threaded sleeve through which said pin is passed, said sleeve being provided with a shank pivoted in said recess, and the end of the handle being provided with a threaded sleeve adapted to be screwed onto the sleeve through which the pin is passed, and a central threaded bore adapted to receive the threaded pin.

1,093,676. PIPE-LINE COUPLING FOR RAILWAY-CARS. WILLIAM H. WYVILL and JOHN A. TALBOTT, Upper Marlboro, Md. Filed May 13, 1913. Serial No. 767,285. (Cl. 188—13.)

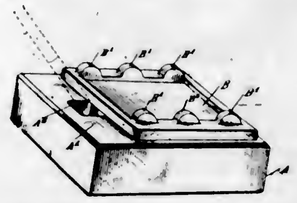


1. The combination with a supporting frame, of a pipe line coupler for railway cars having independent fluid ducts arranged vertically therein, a controlling valve vertically disposed in said coupler and common to all of said ducts, a lever provided with a slot closed at its end and secured to said controlling valve and projecting in a horizontal plane to one side thereof, an operating rod projecting from a relatively fixed support and arranged to operate in the slot of said lever, said rod being adapted to open the controlling valve each time the coupler is reciprocated in the act of coupling, and an angular continuation of said slot for permitting further reciprocation of the coupler while the controlling valve stands open.

2. In a train pipe coupling a pair of coupling members each of which comprises a stem having ducts arranged independently therein, a head provided on said stem, a controlling valve positioned in said stem having openings therein adapted to register with said ducts, supporting frames at the outer ends of said stems having rollers mounted therein, means whereby said frames are suspended to hold said stems upon the rollers, interlocking means formed on said stems adapted to engage openings formed in the head of said stem whereby the coupling members are fastened together, packing glands located in the end of each head and having openings registering with the ducts in the coupling members, and means including a lever provided with a slot closed at its ends and secured to said controlling valve and a relatively fixed operating rod engaging said slot for turning said valve and regulating the flow of fluid through said ducts when the coupling members are brought together.

3. In a train pipe coupling a pair of coupling members each of which comprises a stem having ducts arranged inpenendently therein, a head provided on said stem, a controlling valve positioned in said stem having openings therein adapted to register with said ducts, supporting frames at the outer ends of said stems having rollers mounted therein, means whereby said frames are suspended to hold said stems upon the rollers, interlocking means formed on said stems adapted to engage openings formed in the head of said stem whereby the coupling members are fastened together, packing glands located in the end of each head and having flared openings therein registering with the ducts in each coupling member, a plurality of grooves provided in said packing glands between said openings, and means including a lever provided with a slot closed at its ends and secured to said controlling valve and a relatively fixed operating rod engaging said slot for turning said valve and regulating the flow of fluid through said ducts when the coupling members are brought together.

1,093,677. INKSTAND. FRANK M. ASHLEY, New York, N. Y. Filed Mar. 1, 1910. Serial No. 546,622. (Cl. 120—57.)



1. A two part inkstand comprising a body portion having a reservoir therein and a cover for the reservoir resting on the top of said body portion, said cover being provided with a rib having an extended surface projecting within said reservoir, and projections extending upward within the reservoir for engaging said rib and guiding the cover throughout the range of its movement in either direction.

2. A two part inkstand comprising, a body portion having a flat top, a reservoir within the body portion and a guide extending from the bottom of said reservoir upward nearly to the top thereof, and a low solid cover for the reservoir resting on said body portion and movable longitudinally thereof and provided with a depending portion having an extended surface adapted to co-act with said guide to guide said cover longitudinally thereon, throughout its range of movement.

3. A two part inkstand comprising a body portion having an extended surface having a flat top, a main reservoir within the body portion and a dip cup located at one side thereof and a restricted passage connecting said main reservoir with said dip cup, and a low cover for said reservoir and dip movable longitudinally over the reservoir and dip to cover and expose the dip, said cover having a depending portion projecting into said passage and serving to guide same longitudinally of the body portion, throughout its range of movement, said depending portion being adapted to pass through the dip to abut the outer wall of the base.

4. A two part inkstand comprising a body portion the top of which presents a plane surface, and having its reservoir entirely therein, means connected to and extending upward from the bottom of the interior of said reservoir for guiding the cover, and a cover for said reservoir movable longitudinally over the reservoir resting on said plane surface and having depending means co-acting with said upwardly extending means in the reservoir to guide said cover longitudinally on said body portion.

5. A two part inkstand comprising a body portion having its top formed with a plane surface and a low cover mounted and movable longitudinally thereon and having its under side recessed to form a rib at its edge and contacting with the plane surface of the body portion for the purpose set forth, and means comprising a rib having an extended surface depending from the cover within said reservoir for guiding the cover and limiting its movement in each direction.

[Claims 6 to 11 not printed in the Gazette.]

1,093,678. GUARD. NELSON M. BAKER, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed May 3, 1912. Serial No. 694,866. (Cl. 88—48.)

1. A guard comprising an upper outwardly offset bearing portion with a straight front edge, a lower inwardly offset bearing portion with a straight rear edge, and a stem connecting the bearing portions adapted to incline the straight edges toward the nose when given a torsional twist.



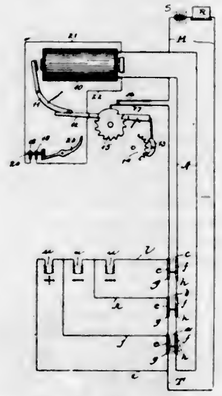


2. A nose guard comprising upper and lower offset bearing portions having straight front and rear edges respectively and disposed on opposite sides of a connecting stem adapted to incline the straight edges toward the nose when given a torsional twist.

3. A nose guard comprising an upper outwardly offset bearing portion having a downwardly and inwardly inclined straight front edge, a lower inwardly offset bearing portion having an upwardly and outwardly inclined rear edge and a stem connecting the bearing portions adapted to incline the straight edges toward the nose when twisted torsionally.

4. A nose guard comprising a stem, a straight edged upper bearing portion outwardly offset from the stem, a straight edged lower bearing portion inwardly offset from the stem, said straight edges being relatively short, terminally disposed and cut back from a sharp corner to the stem and adapted to be turned toward the nose by twisting the stem.

1,093,679. AUXILIARY ALARM SYSTEM. CLARENCE E. Beach, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed June 30, 1913. Serial No. 776,603. (Cl. 177—369.)



1. In a fire alarm system, the combination of a main alarm circuit including a source of current and a translating device, a fire alarm box having signaling contacts adapted for serial inclusion in said circuit, a signaling train for controlling said contacts, an electro-magnet for controlling the starting of said train, a controlling circuit for said electro-magnet extending from the box to a plurality of auxiliary stations, an annunciator circuit in the form of a loop extending from the main circuit through the various stations, an annunciator device for each station, switch mechanism at each station normally closing the loop circuit and short-circuiting the annunciator devices and normally adjusting the auxiliary circuit to prevent operation of the electro-magnet at the box, actuation of the switch mechanism at any station causing inclusion in the main alarm circuit of the annunciator device associated with the said station and causing adjustment of the auxiliary circuit to allow operation of the electro-magnet to cause starting of the fire alarm box.

2. In a fire alarm signaling system, the combination of a main alarm circuit, fire alarm signaling mechanism serially included in said main circuit, an electro-magnet for controlling the starting of said fire alarm signaling mechanism, a controlling circuit extending from said electro-magnet to a plurality of auxiliary stations, an indicator circuit extending from the main alarm circuit to said auxiliary stations, an indicator device for each station associated with said indicator circuit, and switch mechanism at each station for controlling said auxiliary circuit and indicator circuit.

3. In a signaling system, a signaling circuit including a source of current, a translating device and signaling mechanism, an auxiliary controlling circuit for said signaling mechanism, a plurality of switches in said auxiliary controlling circuit, a loop circuit included serially in circuit with said signaling mechanism, a plurality of switches in said loop circuit each associated with one of the switches in the auxiliary controlling circuit, and an annunciator device bridged about each of said loop circuit switches to be normally shunted thereby, actuation of any set of associated switches causing opening of the auxiliary controlling circuit to release the signaling mechanism and causing inclusion in the loop circuit of the associated annunciator device, whereby indication is given by the actuated annunciator device of the point at which the auxiliary circuit is opened.

4. In a signaling system, the combination of a main signaling circuit including a source of current, a translating device and signaling mechanism, an auxiliary controlling circuit extending from said signaling mechanism as a shunt path around said mechanism to normally cause said mechanism to be unaffected by the current flow from said source, a plurality of switches in said auxiliary circuit for controlling the continuity thereof, an annunciator circuit looped serially in the main circuit with said signaling mechanism, a plurality of switches in said annunciator circuit, each of said switches being associated with one of the switches in said auxiliary circuit to form a switch set, an electrically controlled annunciator device associated with each of the annunciator circuit switches to be normally shunted thereby, actuation of any switch set causing opening of the auxiliary controlling circuit to release the signaling mechanism and at the same time causing inclusion in the annunciator circuit of the associated annunciator device.

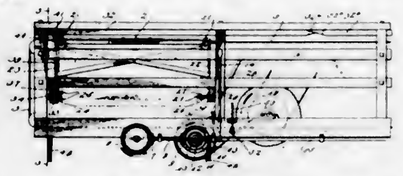
5. In a signaling system, the combination of a main circuit including a source of current, a translating device, and signaling mechanism, an auxiliary controlling circuit for said signaling mechanism extending therefrom as a normally closed short-circuit path around said mechanism to prevent effective operation of said signaling mechanism, an annunciator circuit paralleling said auxiliary controlling circuit and extending as a loop from the main circuit and serially including the signaling mechanism, electrically controlled annunciator devices, and a plurality of switch mechanisms normally closing both said auxiliary controlling circuit and said annunciator circuit and each adapted, when actuated, to simultaneously open the auxiliary circuit and to operatively include one of the said annunciator devices in said annunciator circuit.

[Claims 6 to 16 not printed in the Gazette.]

1,093,680. MACHINE FOR MAKING RAILWAY-TIES. JOSEPH W. BECK, JOSEPH W. REID, and RAYMOND W. SKINNER, El Rito, N. Mex. Filed June 27, 1912. Serial No. 706,330. (Cl. 143—50.)

1. The combination of a supporting structure having a track, a log carriage mounted to travel on said track, longitudinally spaced saws disposed in the path of said carriage, rocking log engaging means carried by said carriage, longitudinally movable laterally spaced rods connected with said log engaging means, and means on said supporting structure for alternately engaging and actuating said rods for rocking said log engaging means and

turning the log on the carriage at a point between the saws.



2. The combination of a supporting structure having a track, a log carriage mounted to travel on said track, pairs of longitudinally spaced saws disposed in the path of said carriage, rocking log engaging means carried by said carriage, vertically movable rods connected with said means, and cams on said supporting structure for successively engaging said elements for rocking said log engaging means and turning a log on the carriage at a point between said pairs of saws.

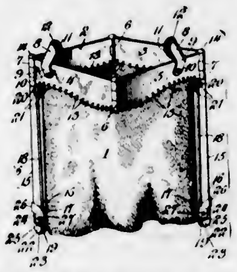
3. The combination of a supporting structure having a track, a log carriage mounted to travel on said track, log engaging elements at opposite ends of said carriage, one of said elements being revoluble and the other slidable in a plane at right angles to the plane of movement of said revoluble member and cam actuated means for rocking said revoluble member at predetermined intervals.

4. The combination of a supporting structure having a track, a log carriage mounted to travel on said track, log engaging elements at opposite ends of said carriage, one of said elements comprising a revoluble shaft extending through one end of said carriage and having plates fixed to its opposite ends, one of said plates being provided with a plurality of spurs, vertically movable rods connected with the other plate on opposite sides of said shaft, means on said supporting structure for alternatingly depressing said rods to rock said plates and the other log engaging element comprising a single spur slidably mounted in the other end of said carriage to move in a plane at right angles to the first mentioned log engaging member.

5. The combination of a supporting structure having a track, a log carriage mounted to travel on said track, pairs of longitudinally spaced saws disposed in the path of said carriage, trip blocks disposed in parallel planes laterally spaced from each other, one of said blocks being arranged in advance of the other, said blocks having their inner ends inclined in opposite directions, rocking log engaging means on said carriage, vertically movable bars conencted with said rocking log engaging means and having their free ends arranged to engage said trip blocks whereby said log engaging means is rocked to partially turn a log, said blocks being arranged to cause the logs to be turned after passing one pair of saws and before reaching the other pair.

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1,093,681. PURSE. MARY H. CUTTING BESTE, Summit, N. J. Filed Oct. 30, 1912. Serial No. 728,630. (Cl. 150—47.)



1. A purse having a flexible body portion with a mouth opening at one end and closed at the other end, and also provided with means for normally closing the mouth opening, bars at opposite side edges of the body portion and extending from the mouth end to substantially the closed end and having the corresponding side edges of the flexible body portion made fast thereto, and means on each bar for securing them to the clothing of the wearer and thereby holding the flexible body portion of the purse substantially flat.

2. A purse comprising a flexible body portion having a mouth opening at one end and closed at the other end and bars at opposite side edges of the body portion and each extending from the mouth end to substantially the closed end and provided with means for securing it to the clothing of the wearer, the flexible body portion being secured to the side bars to be maintained extended thereby at the closed end when the bars are fast to the clothing of the wearer.

3. A purse comprising a body member, a mouth frame therefor attached to one end of the body member and movable to open and closed positions and having end hinge connections provided with traversing pintles extending in the direction of the length of the sides of the body member, bars at the sides of the body of the purse and carried by the pintles and extending from the mouth end of the purse to the permanently closed end thereof, and fastening pins each carried at one end by a corresponding end of a bar and each bar being provided at the other end with a seat for the free end of the pin and with a latch plate movable into and out of covering relation to the seat.

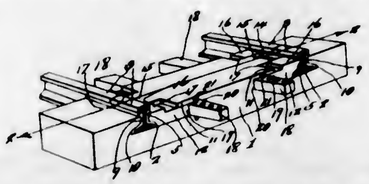
4. A purse provided with a flexible body portion having a mouth opening at one end and closed at the other end with the mouth opening provided with means for closing it and constructed to move to the open position on the approach of the sides of the purse, bars fast to opposite sides of the body portion and extending from the mouth end to substantially the closed end, and a fastening device on each bar for securing the purse to the clothing of the wearer at opposite sides of the purse.

5. A purse comprising a body member of flexible material permanently closed at one end and along the sides and open at the other end, a mouth frame at the open end of the purse movable into open and closed positions, end bars for the body of the purse fast thereto and to the mouth frame in eccentric relation to the longitudinal center line of he bars, and fastening devices carried by the bars, said fastening devices having clothing piercing members and locking members movable into and out of covering relation to the clothing piercing portions of the fastening devices.

[Claims 6 and 7 not printed in the Gazette.]

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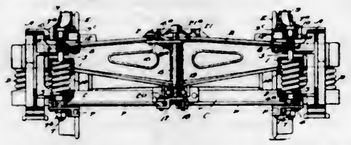
1,093,682. COMBINATION RAIL-JOINT AND RAIL-CLAMP. JAMES HENRY BROWDER, McKenzie, Ala. Filed Oct. 11, 1913. Serial No. 794,547. (Cl. 238—5.)



In combination, a pair of adjoining rails including means for connecting them, a rail tie having a recess, the end wall of which overlies a portion of the rail connecting means, the other wall of said recess having an overlying T-shaped flange extending toward the rails, a clamping block slidably mounted in said recess having a flange overlying the other part of the rail clamping means, the upper face of said clamping block having a recessed out portion corresponding in shape to slidably fit the overlying T-shaped flange, a wedge for tightening the clamping block in place interposed between the block and the end wall of the recess having said T-shaped flange, and means for locking the wedge in place.



1,093,683. BRAKE MECHANISM. HARRY C. BUHOUP, Chicago, Ill. Filed July 30, 1913. Serial No. 781,955. (Cl. 188—43.)



1. The combination in a car-truck, of a side-frame having a bolster opening therein, wheels, a bolster having laterally projecting arms extending beyond the bolster opening of the side-frame, brake-shoe carrying means supported on the truck, means capable of supporting the bolster from the brake-shoe carrying means, and means for shifting the bolster load to the brake-shoe carrying means when the braking power is applied.

2. The combination in a car-truck, of a side-frame having a bolster opening therein, wheels, a bolster having laterally projecting arms provided with spring seats extending beyond the bolster opening of the side frame, brake-shoe carrying means supported on the truck, springs which engage the laterally disposed spring seats, means involving said springs and capable of supporting the bolster from the brake-shoe carrying means, and means for shifting the bolster load to the means which carry the brake-shoes when braking power is applied.

3. The combination in a car truck having a bolster opening therein, of a side-frame, wheels, a bolster provided with a saddle having spring seats extending beyond the bolster opening of the side frame, springs which engage the laterally disposed spring seats, movable spring seats supported on the side-frame, brake-shoe carrying means supported on the truck, rods adapted to support the bolster from the brake-shoe carrying means, and means for shifting the bolster load to the brake-shoe carrying means when braking-power is applied.

4. The combination in a car-truck of a side frame having laterally disposed spring chambers, wheels, a bolster having laterally disposed spring seats, movable spring seats in the spring chambers of the side-frame, springs which engage the spring seats of the bolster and the movable spring seats in the spring chambers, brake-shoe carrying means supported on the truck, rods adapted to support the bolster from the brake-shoe carrying means, and means for shifting the bolster load to the brake-shoe carrying means when braking-power is applied.

5. The combination in a car-truck, of a side frame having laterally disposed spring chambers, wheels, a bolster having laterally disposed spring seats, movable spring seats arranged in the spring chambers of the side-frame, said movable spring seats each having a cam, springs which engage the movable spring seats and the laterally disposed spring seats of the bolster, cam members coacting with the cam members of the movable spring seats, brake-shoe carrying means supported on the truck, and rods adapted to support the bolster from the brake-shoe carrying means.

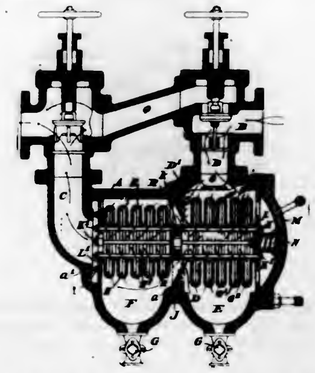
[Claims 6 to 13 not printed in the Gazette.]

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1,093,684. WATER-FILTER. RICHARD CAMPBELL, Liverpool, England. Filed Dec. 13, 1910. Serial No. 597,102. (Cl. 210—16.)

1. In a filter, the combination of a chest or casing provided with two chambers, one chamber being provided with an inlet opening and the other with an outlet; and a filtering member removable as a whole and adapted to be mounted in said chest, said member comprising a centrally-disposed diaphragm having openings or passages extending therethrough, shells secured to and carried by said diaphragm upon opposite sides thereof, a filtering medium mounted upon each of said shells, and means for securing said diaphragm and shells in position.

2. In a filter, the combination of a chest or casing, provided with two intercommunicating chambers; an inlet opening into one chamber and an outlet extending from the other; a diaphragm adapted to be seated between the two chambers, said diaphragm having openings or passages extending therethrough; filtering shells secured to said diaphragm, one upon each side thereof; a filtering cloth secured upon each shell, the cloth of one shell overlying the openings in the diaphragm; and means for securing the diaphragm and shells in position within the chest or casing.



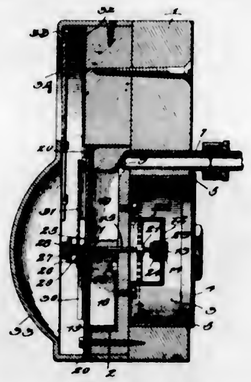
3. In a filter, the combination of a chest or casing provided with two chambers; an inlet opening into one chamber and an outlet extending from the other; a diaphragm adapted to make a close joint with the walls of the chest or casing between the two chambers, said diaphragm being provided with a series of openings extending therethrough; a pair of filtering shells secured to the diaphragm, one upon each side thereof; a groove formed upon each side of the diaphragm; a filtering cloth secured upon each shell and terminating at one end in one of the grooves, where it is secured, one of said cloths overlying the opening in the diaphragm; and means for securing the diaphragm and shells in position in the chest or casing.

4. In a filter, the combination of a chest or casing provided with two chambers, one having an inlet and the other an outlet opening; a diaphragm adapted to make close contact with the walls of the chest or casing between the two chambers, said diaphragm having openings or passages extending therethrough; filtering elements carried by said diaphragm, one in each chamber, said diaphragm and filtering elements being removable as a unit; and a distributer located in the inlet opening leading to the first chamber and serving to distribute fluid in the first chamber, so as to cause an even action over the entire filtering element therein.

5. In a filter, the combination of a chest or casing provided with two alined chambers; an inlet opening into one and an outlet extending from the other of said chambers; a filtering member adapted to be mounted in said chambers, said member comprising a diaphragm carrying a packing ring, said ring being adapted to make close contact with the walls of the chest or casing between the two chambers, said diaphragm having openings extending therethrough between the periphery and a central solid boss formed as an integral portion of the diaphragm, said diaphragm being likewise provided with a groove or curved flange extending around the forward face thereof at a distance from the center greater than the openings formed in the diaphragm, a plurality of bolts extending from the diaphragm to each side thereof, a pair of end plates one for each chamber, a corrugated ring-shaped member mounted upon the bolts to each side of the diaphragm and between it and the end plates, and filtering cloths mounted upon said ring-shaped members, secured thereto and to the diaphrgam; and means for securing the filtering member thus composed in position within the chest or casing.

[Claim 6 not printed in the Gazette.]

1,093,685. METER. WILLIAM G. CARROLL, Beaumont, Tex. Filed Apr. 11, 1913. Serial No. 760,446. (Cl. 73—167.)



1. A magnetic vane and a shaft with which it turns and on which it is mounted at the middle of said vane, in combination with a fluid chamber containing said vane and having an inlet and an outlet, also leaving space for the passage of fluid around each half of said vane on each side of said shaft, a partition between said inlet and outlet extending to said shaft, a stop arranged to prevent said vane from turning in either direction beyond the inlet or outlet and an index turning with said vane by magnetic attraction to register the flow of fluid, though dispensing with mechanical connection between said index and vane.

2. A magnetic vane and a shaft with which it turns and on which it is mounted at the middle of said vane, in combination with a fluid chamber containing said vane and having an inlet and an outlet, also leaving space for the passage of fluid around each half of said vane on each side of said shaft, a partition between said inlet and outlet extending to said shaft, a stop arranged to prevent said vane from turning in either direction beyond the inlet or outlet, a magnetic bar moving with said vane by magnetic attraction but mechanically unconnected thereto, and an index carried by said bar to register the flow of fluid.

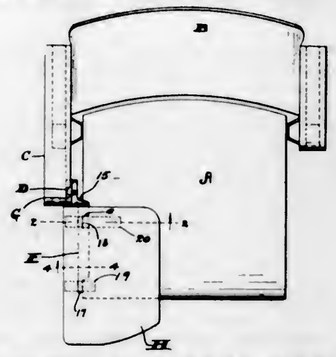
3. A magnetic vane oscillating on its middle point, in combination with a fluid chamber in which it turns and which is provided with an inlet and an outlet, indicating means moving with said vane by magnetic attraction and without mechanical connection of said means and vane, a partition between said inlet and outlet compelling the flow of fluid in one direction only, and means preventing said vane from turning past said inlet or outlet, the said vane and coöperating parts being arranged and adapted to insure the action of the fluid twice on the said vane as stated during the passage of such fluid from the inlet to the outlet.

4. A magnetic vane oscillating on its middle point, in combination with a fluid chamber in which it turns and which is provided with an inlet and an outlet, a magnetic bar and index mechanically unconnected to said vane but moving therewith by magnetic attraction, a partition between said inlet and outlet compelling the flow of fluid in one direction only, and means for preventing said vane from turning past said inlet or outlet, the said vane and coöperating parts being arranged and adapted to insure the action of the fluid twice on the said vane in the same direction during the passage of such fluid from the inlet to the outlet.

5. In combination with a magnetic bar and index carried thereby, a magnetic vane oscillating on its middle point and mechanically unconnected to said bar, but magnetically actuating the same, a balance spring for said vane acting on the latter, and a fluid chamber containing said vane and having an inlet and an outlet, said chamber and vane being adapted and provided with means for causing the fluid to act successively on both halves of said vane in the passage of said fluid from the inlet to the outlet, for the purpose set forth.

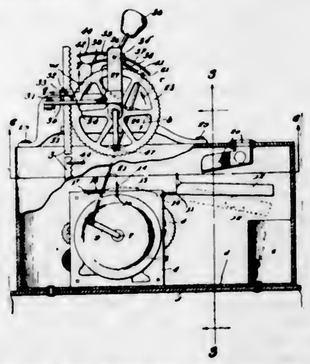
[Claims 6 to 8 not printed in the Gazette.]

1,093,686. COMBINED CHAIR AND TABLE-LEAF. WILLIAM B. COGGER, Cleveland, Ohio, assignor to Theodor Kundtz, Lakewood, Ohio. Filed Dec. 26, 1911. Serial No. 667,734. (Cl. 45—82.)



The combination, with an arm of a chair, of a swinging bracket overlapping the inner side of said arm and pivotally connected to the arm at the forward end of the arm and arranged to swing forwardly and rearwardly in a vertical plane, which bracket is offset laterally and inwardly relative to said arm at the forward end of but adjacent to the arm; a swinging table-leaf pivotally connected to the offset portion of the bracket and having its axis arranged substantially at a right angle to the axis of the bracket and being forward of said arm in the forward position of the bracket, which table-leaf lies on said offset portion of the bracket, or is in a substantially vertical position and abuts against the outer side of said portion of the bracket, according as the leaf has been swung into one or the other of its extreme positions independently of the bracket, and has a thickness substantially equal to the amount of offset of said portion of the bracket, said leaf in its substantially vertical position being movable with the bracket and in its rearwardly swung position being arranged at the inner side of and in close proximity to the chair-arm and between said arm and the bracket.

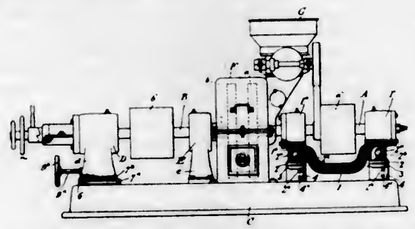
1,093,687. GASOLENE OR OIL VENDING MACHINE. WARREN L. COOPER, Pueblo, Colo. Filed Apr. 22, 1913. Serial No. 762,905. (Cl. 194—53.)



In combination with a gasolene tank including a pump mechanism therefor having a rack pump rod, a manually operated gear for actuating the rack pump rod, a tilting member having an arm to engage the gear to lock the same when the pump rod is down, a coin releasable motor having an element to actuate said tilting member unlocking said gear to allow the same to be rotated in one direction to raise the pump rod, said tilting member having an additional arm to engage said gear when the member is tilted to release the gear to prevent the gear from being rotated in the opposite direction, a device on the pump rod to contact with the additional arm as the rod nears the limit of its upward position to tilt said member so as to restore the first arm in engagement with said gear, so that said gear may be operated manually in said opposite direction, said first arm slips by the teeth of said gear when rotated in said opposite direction to lower the pump rod, said first arm constitutes means to lock the gear when the rod reaches its lowermost position, and a collar adjustable on the pump rod to engage the gear to limit the rod in its downward movement.



1,093,688. BEARING FOR GRINDING-MILLS. CHANDOS ROY DIMM, Muncy, Pa. Filed Sept. 28, 1911. Serial No. 651,877. (CL. 64—52.)



1. In a grinding mill the combination of a shaft, bearings for said shaft, a yoke rigidly connecting said bearings, bearing plates pivotally connected to each end of the yoke, and means for vertically adjusting either bearing plate.

2. In a grinding mill the combination of a shaft, bearings for said shaft, a yoke rigidly connecting said bearings, a bearing plate pivotally connected to each end of the yoke, means for vertically adjusting either bearing plate, and means for horizontally adjusting either bearing plate.

3. In a grinding mill the combination of a shaft, bearings therefor, a yoke rigidly connecting the bearings, a bearing plate at each end of the yoke, a bolt pivotally connecting each end of the yoke to the adjacent bearing plate, and adjustable wedges for vertically adjusting said bearing plates.

4. In a grinding mill the combination of a shaft, bearings therefor, a yoke rigidly connecting said bearings, a bearing plate at each end of the yoke, bolts pivotally connecting the ends of the yoke to said bearing plates, and adjustable wedges for vertically adjusting said bearing plates, and means for horizontally adjusting either bearing plate on its supporting wedges.

5. In a grinding mill the combination of a bearing, a bearing plate in which the bearing is mounted, a base, a wedge plate fixed on the base, an adjustable wedge plate mounted upon the fixed wedge plate, means for adjusting the movable wedge plate upon the fixed wedge plate, and means for adjusting the bearing plate longitudinally of the wedge plates.

[Claim 6 not printed in the Gazette.]

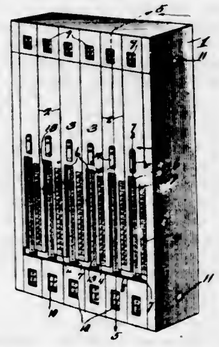
1,093,689. WASHING-MACHINE. FRANK DUMAS, Burke, N. Y. Filed May 6, 1913. Serial No. 765,896. (Cl. 68—15.)

A washing machine comprising a tub, a hinged top therefor, a rotary beater mounted on the top, an actuating lever also mounted on the top operatively connected with the beater, said lever including a handle projected beyond the top and horizontally swingable relatively to the said top, a tension device mounted on the tub with which the said handle engages when the top is down, and which operates to limit the swingable movements of the said handle, the said handle having a longitudinal slot, the said tension device consisting of a resilient member whose free end projects upwardly and is held to extend into the slot of



the handle when the latter is swung down, and supplemental tension members that connect with the resilient member at each side thereof, said supplemental tension members being secured to the body of the tub and disposed at right angles to the resilient member.

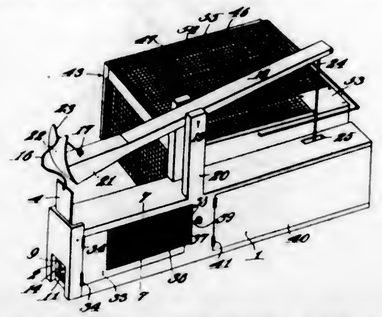
1,093,690. EDUCATIONAL APPLIANCE. LABAN TAYLOR FREEMAN, Brookville, Miss. Filed Aug. 24, 1912. Serial No. 716,857. (Cl. 35—2.)



In a calculating device, a box like structure, the front face of which is provided with vertical spaces, a column of spaces numbered 1 to 18 inclusive on the lower right hand portion of each vertical space, the front face of the box like structure being provided with a plurality of vertical slots, one being located in the lower portion of each vertical space to the left of the column of spaces 1 to 18, the front face of the box having a transverse slot into which said vertical slots merge, shafts mounted in bearings in the upper and lower portions of the box and provided with a plurality of cog wheels, endless belts having series of apertures or perforations throughout their length traveling about said wheels, the apertures or perforations receiving said cogs, each endless belt having a series of numerals from 1 to 150 alternating with the apertures and adapted to coöperate with the numerals 1 to 18 of the numbered spaces above mentioned, whereby problems in addition may be performed, the sum total of a problem in addition designed to appear in the lower ends of said vertical slots, when the belts are moved to effect a problem, said perforations or apertures constituting means to receive a pencil point to move the belts, spring devices on

the face of the box having means to penetrate the face of the box to enter the perforations of the belts, whereby the belts may be moved a numeral at a time, the belts operating adjacent to and in the rear of said vertical slots.

1,093,691. RAT OR ANIMAL TRAP. JOSEPH FRITSCH, Sedro Woolley, Wash. Filed Feb. 6, 1913. Serial No. 746,601. (Cl. 43—26.)



1. In a device of the class described, a case; a door mounted to move on the case; a latch on the case and adapted to engage the door to hold the door in an open position; a releasing lever fulcrumed upon the case; means carried by the releasing lever for engaging the latch, to disengage the latch from the door; a primary runway pivotally supported within the case; a setting lever fulcrumed intermediate its ends upon the case; a connection between one end of the setting lever and the primary runway; a connection between the other end of the setting lever and the door; an auxiliary runway pivotally supported in the case and located between the primary runway and the releasing lever, the auxiliary runway being depressible to engage the primary runway.

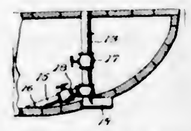
2. In a device of the class described, a case; a door mounted to move upon the case; means for holding the door in an opened position; a releasing lever fulcrumed into the case and coöperating with the door holding means to disengage the door holding means from the door; a primary runway pivotally supported in the case; an operative connection between the primary runway and the door, for moving the door into an open position; an auxiliary runway pivotally supported intermediate its ends upon the case and adapted to engage the primary runway to actuate the same; and closure members carried by the top and bottom of the case, the closure members coöperating with the ends of the auxiliary runway to prevent an animal from passing above or below the auxiliary runway after the animal has passed upon the primary runway.

3. In a device of the class described, a case; locking mechanism carried by the case; a frame pivoted to the case and constituting a closure for the case; members secured to the frame, one member being foraminous, the members and the frame defining a bait receptacle, open at the top, the frame being adapted to swing beneath the top of the case, whereby the top of the case will constitute a closure for the upper edge of the bait receptacle.

4. In a device of the class described, a box-like case; locking mechanism carried by the case; a door movably connected with the case and having an opening in its upper edge, defining a bait receptacle, said edge of the door being adapted to move beneath one wall of the case, whereby said wall of the case will constitute a closure for the bait receptacle, when the door is in closed position; one wall of the door being overlapped upon the case and being engaged by the locking mechanism.

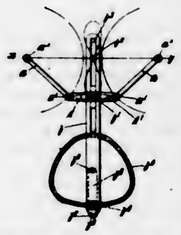
5. In a device of the class described, a case; a door mounted to slide upon the case; a latch including arms pivotally supported in the case, and a helix connecting the arms, the intermediate portion of the helix being extended to form a detent, adapted to engage with the door, to hold the door open, the helix constituting a counter-weight for moving the latch to position beneath the detent for engagement with the door; and a releasing member including a finger adapted to traverse one arm of the latch to withdraw the detent out of engagement with the door, one end of the helix being spaced from said arm to permit the finger to move with respect to said arm.

1,093,692. SHIP CONSTRUCTION. THOMAS R. GAWLEY, Bellingham, Wash. Filed Feb. 20, 1913. Serial No. 749,702. (Cl. 115—0.5.)



An apparatus of the character described comprising a series of chambers located at the stern of a vessel below the water-line, an air pipe extending vertically from said chambers above the water-line, the upper terminal of said pipe being open, a valve arranged in said pipe, and a fluid receiving pipe connected to the air pipe and disposed at an angle thereto, a valve arranged in said fluid receiving pipe, a vacuum being created in the chamber by the forward movement of the vessel, the suction being alternately directed through either of the pipes which are connected to said chamber.

1,093,693. PROPULSION OF VESSELS ON AND IMMERSED IN WATER. ALLAN GLENN, London, England. Filed June 11, 1913. Serial No. 773,028. (Cl. 115—28.)



1. Propelling mechanism for vessels, comprising in combination, a propelling blade, means to bodily move the blade, means to support the blade to enable all parts of the propelling surface to be equally operative during its working strokes, and means to guide the blade through a figure of eight orbit and to angularly displace it into inoperative or feathering positions at the ends of the figure of eight orbit.

2. Propelling mechanism for vessels, comprising in combination, a propelling blade of which all parts of the propelling surface are equally operative during its working strokes, means to bodily move the blade, and guiding means to produce a figure of eight path for the blade and to rapidly angularly displace the blade into an inoperative or feathering position at the end of each working stroke to bring the reverse side of the blade into operation.

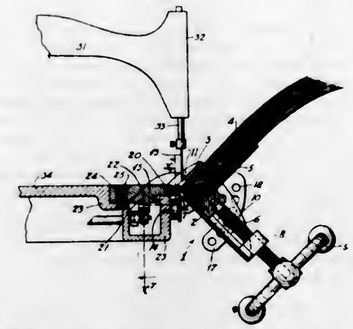
3. Propelling mechanism for vessels, comprising in combination, a propelling blade, a link carrying said blade, means to move said link, means to engage with the ends of said link to guide the link and blade through a figure of eight orbit and to angularly displace the blade into inoperative positions at the ends of the figure of eight orbit.

4. Propelling mechanism for vessels, comprising in combination, a propelling blade, a link carrying said blade at an intermediate position, means to bodily move said link, means to guide the ends of the link through oppositely disposed and equal arcuate paths to cause the blades to describe a figure of eight orbit.



5. Propelling mechanism for vessels, comprising in combination, a propelling blade, a movable element carrying said blade to enable all parts of the propelling surface of the blade to be equally operative during its working stroke, means to reciprocate said element, means to engage with the ends of said movable element to guide them through oppositely disposed and equal arcuate paths and to cause the blade to be angularly displaced through a figure of eight orbit to produce a feathering of the blade at the ends of the figure of eight orbit and thus bring the reverse side of the blade into operation.

1,093,694. BOOK-SEWING MACHINE. JOHN GRIESINGER, Los Angeles, Cal. Filed Nov. 4, 1912. Serial No. 729,492. (Cl. 112—41.)



1. In a book-sewing machine, the combination, with the frame and stitch-making mechanism of a sewing machine, of a carriage, a book-holding device mounted on said carriage, said device having a right-angled seat adapted to receive one of the edges of the back of a book to hold said book in position for the needle to pass through a portion of the book adjacent to the said edge, a hinge connecting said right-angled portion of said book-holding device with said carriage, a segmental extension carried by said carriage and having a series of apertures, and adjustable means to removably engage said apertures to vary the inclination of said book-holding device.

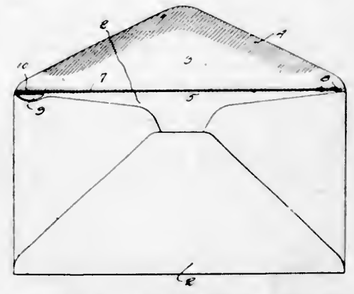
2. In a book-sewing machine, the combination, with the frame and stitch-making mechanism of a sewing machine, of a carriage to support the layers of a book during sewing, said carriage comprising a right-angled seat adapted to receive an edge portion of a book during sewing, there being needle-receiving apertures formed in the carriage to permit the needle to sew in front of and adjacent to said edge of said book, the walls of said seat extending at an acute angle to the needle path, the needle-point coming out at the back of the book, and a follower movable toward and from one of the walls of the seat to clamp the book in position for sewing.

3. The combination, with the frame of a sewing machine, of a book-holding carriage having a base plate and an abutment plate disposed at an angle to said base plate, and a follower comprising an upwardly extending plate adapted to coöperate with said abutment plate to support a book being formed with the back edge of said book resting upon said base plate, and stitch making mechanism comprising a needle disposed at an oblique angle with relation to said base plate, said needle during the stitch-forming operation reciprocating to and from a position exterior to the angle between the inner surfaces of said abutment plate and base plate and being thereby adapted to pass obliquely through the lower edge portions of the outer leaf sections of the book being built up.

4. The combination, with the frame and stitch-making mechanism of a sewing-machine, of a book-supporting carriage comprising a base plate and an abutment plate reciprocally movable in a path at right angles to the needle path of said sewing machine, a hinge or pivotal support for said carriage extending in the direction of the reciprocation thereof, and means to adjustably secure said carriage in various pivotal positions with respect to said support, said base, plate and also the abutment plate adjoining thereto having needle-receiving apertures.

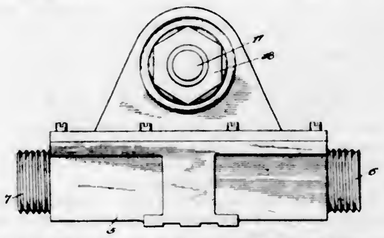
5. The combination, with the frame and stitch-making mechanism of a sewing machine, of a book-supporting carriage adjustable through an angle of less than ninety degrees with respect to the needle of said machine, said carriage being reciprocally movable in the direction of an edge thereof, a small portion of said carriage lying upon one side of the line of said needle while the major portion of said carriage lies upon the opposite side of the line of said needle, there being apertures through adjoining sides of said carriage for the passage of said needle in the process of sewing.

1,093,695. ENVELOP-OPENING DEVICE. HENRY E. GRIZZARD, Franklin, Va. Filed July 10, 1913. Serial No. 778,358. (Cl. 229—86.)



An envelop opening device comprising an envelop having a string opener gummed throughout its length inside of one marginal fold of and extending substantially throughout the length of such fold but not outside of the envelop, the envelop having an opening near one end of the cord extending in advance of the line of fold and string and along one side portion of the envelop and the remaining side portion and the fold to which the string is attached being imperforate whereby the string may be gummed to the fold throughout the length of that portion of the string extending along the opening, and the remaining end of the string being knotted to collect larger masses of the gum and prevent detachment of the string when the same is being pulled to open the envelop, substantially as described.

1,093,696. CIRCULATING-PUMP MECHANISM FOR EXERTING PRESSURE. EDWARD GUENTHER, West New York, N. J. Filed Jan. 30, 1913. Serial No. 745,255. (Cl. 103—73.)



1. In a machine for exerting pressure, the combination of a conduit having an elongated way for the flow of fluid and a reduced intake and discharge, a flat vane in said conduit adapted to forward the fluid, and means for retaining said flat vane closely adjacent one wall of said conduit and out of alinement with the said intake and

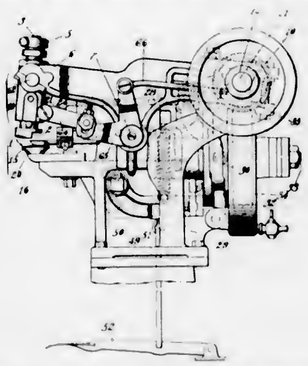
discharge for permitting free passage of fluid through the conduit when desired.

2. In a machine for exerting pressure, the combination of a conduit and a vane therein, said conduit being relatively wider than said vane and normally open at one face, detachable walls interposed between the sides of said vane and walls of said conduit, each detachable wall being in sections to provide transverse guide ways laterally of the vane, a detachable cover for the open face of said conduit and engaging said detachable walls to hold the latter in place, means carried by said vane and guided by said ways for confining said vane to a predetermined path transversely of said conduit, and means for simultaneously oscillating and reciprocating said vane in said conduit, substantially as and for the purpose set forth.

3. In a machine for exerting pressure, the combination of a conduit and a vane therein, said conduit being relatively wider than said vane, detachable walls interposed between the sides of said vane and the walls of said conduit, each detachable wall being in sections to provide transverse guide ways laterally of the vane, means carried by said vane and guided by the said ways for confining said vane to a predetermined path transversely of said conduit, and means for simultaneously oscillating and reciprocating said vane in said conduit, substantially as and for the purpose set forth.

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1,093,697. MACHINE FOR USE IN THE MANUFACTURE OF WELT-SHOES. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 3, 1910. Serial No. 585,163. (Cl. 12—67.2.)



1. A welt beating machine having, in combination, a support for the welt, a lever, a hammer carried by the lever and connected therewith at a fixed distance from the fulcrum of the lever, means for operating the lever to cause the hammer to beat the welt, and means for moving the hammer relatively to the lever in a direction widthwise of the welt while it is in beating engagement with the welt.

2. A welt beating machine having, in combination, a work support upon which the welt directly rests, a hammer, a lever carrying the hammer and having a fixed fulcrum, an axis fixed in the lever and about which the hammer can turn, means for oscillating the lever about said fulcrum to cause the hammer to beat the welt, and additional means to move the hammer about said axis to cause it to draw out the welt widthwise.

3. A welt beating machine having, in combination, a work support upon which the welt directly rests, a hammer, a holder in which the hammer is yieldingly mounted, a lever carrying the holder and a connection between the lever and the holder permitting turning movement only of the holder relatively to the lever, means for oscillating the lever to cause the hammer to beat the welt, a spring between the hammer and said actuating means to be compressed when the hammer strikes the welt and while the actuating means completes its stroke whereby the hammer has a dwell upon the work, and additional means to actuate the hammer toward the body of the machine during the said dwell.

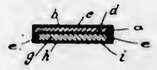
4. A welt beating machine having, in combination, a work support upon which the welt directly rests, a hammer having direct engagement with the welt, a lever carrying the hammer, connections permitting turning movement of the hammer and preventing forward and backward sliding movement thereof on the lever, means for oscillating the lever, said machine being constructed and arranged to cause the hammer to have a dwell upon the work, and means to actuate the hammer outwardly over the welt in the direction toward the welt edge during said dwell.

5. A welt beating machine having, in combination, a work support upon which the welt directly rests, a hammer directly engaging the welt, a lever carrying the hammer, connections permitting endwise sliding and forward and backward turning movements of the hammer and arranged to prevent forward and backward sliding movements thereof on the lever, means for actuating the lever, a spring between the hammer and said actuating means to be compressed during the last portion of the down-stroke of the lever and to expand during the first portion of the upstroke while the hammer is in contact with the welt, and means to actuate the hammer outwardly from the shoe during said compression of the spring to pull the welt relatively to the shoe and to continue the upward movement of the hammer in rubbing contact with the welt during the expansion of the spring.

[Claims 6 to 24 not printed in the Gazette.]

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1,093,698. PROCESS OF PLATING. CHARLES D. HEATON, Providence, R. I. Filed Oct. 4, 1913. Serial No. 793,409. (Cl. 29—148.)



1. The process of forming ornamental articles consisting in compressing a precious metal covered shell over one surface and the edge of a precious metal covered blank, with a film of solder intermediate the shell and blank, and subjecting the parts to heat to fuse the solder and producing a seam at the corner of the article.

2. The process of forming ornamental articles consisting in first assembling a precious metal covered shell over one surface and the edge of a precious metal covered blank, with a film of solder intermediate the shell and blank, next subjecting the compressed parts to heat to fuse the solder, and then compressing the soldered shell and blank.

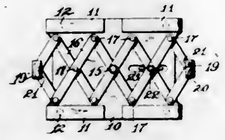
3. The process of forming ornamental articles consisting in forming a blank comprising a base metal body, a precious metal exterior layer and an interior solder layer into a shell comprising a flat body provided with a peripheral inclined flange, placing loosely within the flange a blank comprising a convex base metal body, and a precious metal outer layer, subjecting the parts to heat to fuse the solder layer, and finally compressing the shell and the last mentioned blank.

4. The process of forming ornamental articles, which consists in forming a substantially cup-shaped blank with an interior solder layer and an exterior layer of precious metal, placing therein a blank with a precious metal covering, subjecting the parts thus assembled to heat to fuse the solder and unite said blanks, forcing outwardly the precious metal cover of the last-named blank and causing it to unite with that of the first-named blank at the corners of the article, rendering the seam invisible.

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1,093,699. ATTACHMENT FOR SHOE-STANDS. CHARLES HOHMANN, Newark, N. J. Filed Sept. 6, 1913. Serial No. 788,492. (Cl. 15—58.)

1. An attachment for shoe stands consisting of a clip adapted to fit under a shoe stand and having fingers to engage the top of the shoe stand, lazy tongs fastened substantially at the center of the clip, studs on the lazy tongs for engaging the edges of a shoe, the clip having a slot therein, and a screw passing through the slot and engaging the lazy tongs whereby the lazy tongs can be clamped in adjusted positions.

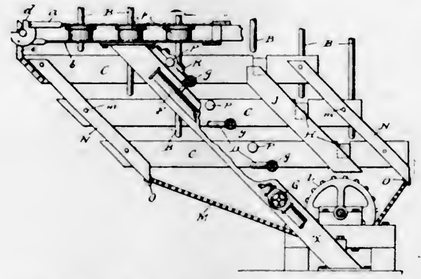


2. An attachment for shoe stands consisting of a clip having a plate at the bottom and having portions extending to the top of the shoe stand, fastening means passing through the bottom plate of the clip and adapted to bear against the bottom of the stand to clamp the clip in place, thereby insuring a space between the stand and the lower plate, and adjustable means operating in said space and attached to the bottom plate, said means acting to grasp the sides of a shoe.

3. An attachment for shoe stands consisting of a clip having a plate at the bottom and having portions extending to the top of the shoe stand, fastening means passing through the bottom plate of the clip and adapted to bear against the bottom of the stand to clamp the clip in place, thereby insuring a space between the stand and the lower plate, lazy tongs secured to the bottom plate and projecting from the ends thereof, and studs on the ends of the lazy tongs for engaging the sides of a shoe.

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1,093,700. PROCESS OF EXTRACTION OF PRECIOUS METALS FROM THEIR CARRIER. ELLIS EDGAR HOWSON, Salt Lake City, Utah. Filed Apr. 14, 1913. Serial No. 761,107. (Cl. 75—18.)



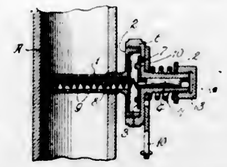
1. The method of extracting precious metals, which comprises forming a relatively thin layer of a solid bearing solution, downwardly removing the solution during the formation of the layer, supplying a wash solution and agitating the mass with a warm current of air, downwardly removing the wash solution, applying a drying current of air from beneath and disengaging the layer of solids.

2. The method of extracting precious metals, which comprises forming a relatively thin layer of a solid bearing solution, downwardly removing the solution during the formation of the layer, supplying a solvent solution and agitating the mass with a warm current of air, downwardly removing the solvent solution, supplying a wash solution, agitating the mass with a warm current of air, downwardly removing the wash solution and disengaging the layer of solids.

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1,093,701. AIR-INLET DEVICE FOR THE MANIFOLD OF AN ENGINE. LEWIS H. KIRBY, Kalamazoo, Mich. Filed Aug. 7, 1913. Serial No. 783,457. (Cl. 137—26.)

1. In an air inlet device, the combination with the manifold of an engine, of a hollow head in communication therewith, an apertured cap carried by said head, a tubular extension carried by said cap, a spring pressed valve normally seated against the inner side of said cap and provided with a tubular stem slidable in the tubular extension of said cap, a manually controlled apertured closure member supported against the outer side of said cap and upon said tubular extension, and means carried by said tubular extension for holding said member against said cap.

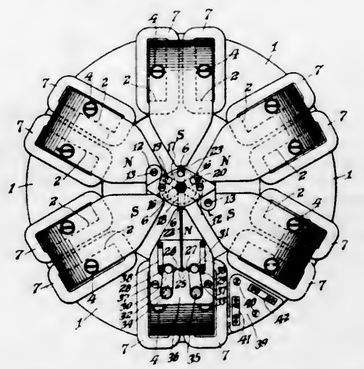


2. A device of the type described comprising a hollow head, an apertured cap screwed thereon and provided with a tubular extension, a spring pressed disk valve normally seated against the inner side of said cap and adapted to be unseated by suction in said head, a tubular stem carried by said disk valve and movably supported in the tubular extension of said cap, a manually controlled apertured member carried by the extension of said cap, a nut mounted upon the outer end of said extension, and means interposed between said nut and said closure member for holding said member normally against said cap.

3. In an air inlet device, the combination with the manifold of an engine, of a hollow head in communication therewith, an apertured cap detachably mounted upon said head, a tubular extension carried thereby, a yieldable valve seated against the inner side of said cap, a stem carried by said valve and movable in said tubular extension, a manually controlled apertured closure member carried by said tubular extension, means upon said tubular extension for holding said closure member normally seated against the outer side of said cap, and means adapted to limit the movement of said closure member.

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1,093,702. RELAY. ISIDOR KITSEE, Philadelphia, Pa., assignor, by direct and mesne assignments, to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Mar. 31, 1911, Serial No. 618,096. Renewed Jan. 13, 1914. Serial No. 811,902. (Cl. 175—328.)



1. A relay comprising a plurality of pairs of pole pieces, circumferentially narrow coils associated therewith and having restricted rotary movement, the pole faces of said pole pieces being circumferentially narrow, each pole piece enlarging as it recedes from its pole face, a plurality of field poles common to each pole piece and en-

gaging the same at its enlarged portion, and a yoke common to said field poles.

2. A relay comprising a plurality of pairs of pole pieces having circumferentially narrow pole faces, circumferentially narrow coils having restricted rotary movement with respect to said pole pieces, each pole piece enlarging as it recedes from its pole face, a plurality of field poles for each pole piece and engaging the same at its enlarged portion, a yoke common to all said field poles, and a field winding for each field pole.

3. A relay comprising a yoke, a plurality of sets of field poles secured and common thereto, a pole piece common to each set of field poles, a magnetizing coil for each pair of said field poles, and a circumferentially narrow coil for each of said pole pieces having restricted rotary movement, each pole piece having a circumferentially narrow pole face.

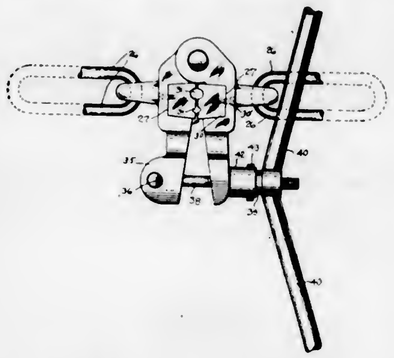
4. In a relay, a yoke, a plurality of pairs of pole pieces, adjacent pole pieces being oppositely magnetized, a plurality of field poles common to each pole piece, a magnetizing coil for each field pole, and a movable coil for each pair of pole pieces.

5. In a relay, a yoke, a plurality of pairs of pole pieces, adjacent pole pieces being oppositely magnetized, a plurality of field poles common to each pole piece, a magnetizing coil for each field pole, and a movable coil for each pair of pole pieces, said coils being secured together and moving as a unit.

[Claims 6 to 15 not printed in the Gazette.]

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1,093,703. CLAMP. WILLIAM LAWRENCE KNIGHT, Tulsa, Okla., assignor to Paul Arbon, Tulsa, Okla. Filed Jan. 13, 1912. Serial No. 671,109. (Cl. 24—135.)

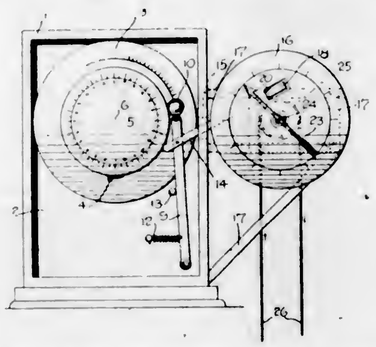


1. A clamping device for wire lines of well drilling tools, comprising hinged jaws for clamping the wire line, a threaded bolt pivotally connected to the free end of one of the jaws and the other jaw having a slot to receive said bolt, a lever nut, and a ball bearing washer loosely mounted on said nut.

2. A clamp for the wire lines of well drilling tools, comprising hinged jaws for clamping the wire line, a threaded bolt pivotally connected to one of said jaws, a lever nut for said bolt, having a groove therein, a washer loosely mounted on said nut, screws entering said grooves to loosely connect said nut and washer, and friction balls arranged between said nut and washer.

3. A clamping device for the wire lines of well drilling tools, comprising hinged jaws, a threaded bolt hinged to one of said jaws, a nut for said bolt having a reduced portion, a washer loosely mounted on the reduced portion of the nut, antifriction balls between said washer and nut, means for connecting said washer and nut, said means being adapted to prevent longitudinal separation of the parts and permitting independent revolution of the same, and means for suspending the device from a temper screw.

1,093,704. RECORDING INSTRUMENT. OSCAR E. KRONE, Mapleton, Mich. Filed Apr. 26, 1913. Serial No. 763,850. (Cl. 234—1.)



1. A device of the class described including a frame, an indicating dial mounted thereon and having an opening, a marker, an actuating bar connected with said marker, a trip hingedly secured to the actuating bar and normally projecting through the opening in the dial, a lug formed on the inner end of said trip, and an indicator mounted upon the dial and adapted to engage the lug to force the trip into engagement with one edge of the opening and actuate said bar and marker.

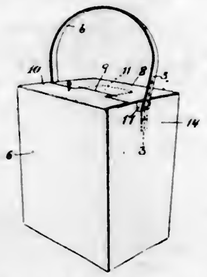
2. A device of the class described including a frame, an indicating dial mounted thereon having an opening therein, a marker, an actuating bar connected with said marker, a trip member hingedly secured to the actuating bar and normally projecting through said opening at an angle, a lug formed on the inner end of the trip, an indicator rotatably mounted upon the dial and adapted to engage the lug to force said trip into engagement with one end of the opening to actuate said bar and force the trip inwardly to permit the indicator to pass thereover, and a coil spring disposed between the bar and the trip for returning the trip to its normal position.

3. A recording instrument including a frame, a circular plate rotatably mounted thereon, a dial carried by the plate, means for rotating said plate, a rod pivotally mounted upon said frame and normally disposed in a vertical position, means for holding said rod in its normal position, a marker carried by the upper end of the rod to engage the plate adjacent the periphery of the dial, a bar pivotally secured to the rod adjacent the upper end thereof, a trip member hingedly secured to the other end of the bar and arranged in spaced relation therewith, a coil spring disposed between the trip member and the bar, a lug formed at the top end of the trip and extending downwardly through an opening in the bar, and means for actuating said trip and reciprocate the bar and actuate the marker.

4. A recording instrument including a frame, a circular plate mounted thereon, a dial carried by the plate, means for rotating said plate, a rod pivotally mounted upon said plate and normally disposed in a vertical position, a marker carried by the upper end of the rod to engage the plate adjacent the periphery of the dial, a bar pivotally secured to the upper end of the rod, an indicating dial having an opening, a trip member hingedly secured to the outer end of the bar and normally disposed through said opening at an angle, a lug formed on the inner end of the trip, an indicator rotatably mounted upon the dial and adapted to engage the lug to force the trip into engagement with one edge of the opening to actuate said bar and also force the trip inwardly toward the bar to permit the indicator to pass thereover, and a coil spring disposed between the bar and trip for returning the trip to its normal position after the indicator has passed thereover.



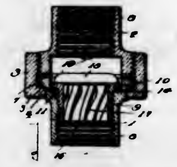
1,093,705. PAPER BOX AND BLANK THEREFOR. ELIE W. LABOMBARDE, Nashua, N. H. Filed Oct. 28, 1910. Serial No. 589,606. (Cl. 229—16.)



A box having two of its sides composed of overlapping sections, the outer sections having slits and tongues below their upper margins, and a tape extending over the top of the box and over the outer surfaces of the upper portions of the sides and through the slits and having its ends secured to the inner surface of the outer sections and protected by the inner sections, the inner sections being uncut or continuous, whereby the contents of the box cannot reach the tongues or tape ends, the overlapping side sections being adhesively connected to hold the parts in position to cause the edges of the tongues to bite the tape.

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1,093,706. COMBINED UNION AND VALVE. HIRAM F. LAUBACH, Tacoma, Wash. Filed June 3, 1911. Serial No. 631,177. (Cl. 137—32.)



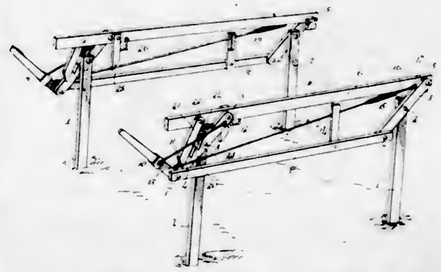
1. In a valve structure, a casing including mating sections one of which is provided interiorly with a shoulder formed with an upstanding sharp-edged rib extending the entire width thereof and radially with respect to the axis of the bore, a relatively thin, pliable packing gasket disposed upon the shoulder and overlying the said rib, a valve seat comprising a barrel fitted in said casing section and having a circumscribing flange resting upon the packing gasket, the said flange having its contacting side formed with a notch of the same contour as the rib and arranged to receive the portion of the gasket flexed by the rib upon the shoulder, and a fluid actuated valve slidably and rotatably fitted in the barrel and having the peripheral portion of its head resting against that end of the valve seat at which the flange is formed, the mating sections of the casing being free to rotate to permit separation of said casing sections without disturbing the barrel.

2. A valve structure comprising a casing section having a bore, the inner end of which is cylindrical and smooth, the said section being formed interiorly with a flat shoulder entirely surrounding the bore, the said casing section being interiorly enlarged surrounding the shoulder, a second casing section having a bore interiorly enlarged at its inner end to conform to and forming a continuation of the enlarged interior of the first mentioned casing section, a collar surrounding and connecting the said inner ends of the casing sections, a guard carried by the inner end of the second mentioned casing section, a valve-seat comprising a cylindrical barrel removably fitted into the cylindrical inner end of the bore of the first mentioned casing section and provided at its inner end exteriorly with a circumscribing flange designed to rest upon the said shoulder within the said first mentioned casing section, and a fluid actuated valve having a cylindrical stem of greater length than the barrel of the valve seat and formed with a circumferential series of spiral grooves extending to the end of said stem, and a head flat upon its under side, the stem being removably and rotatably fitted in the barrel, the valve-seat and the said flat under side of the head resting flat upon the flanged-end of the seat, the said head when resting upon its seat being spaced from the guard a distance less than the length of the valve-stem.

3. A valve structure comprising a casing including mating sections one of which is provided with exterior threads and the other with a smooth interior bore extending for a portion of the length thereof and an exterior shoulder, the last-mentioned casing section being provided with an interior shoulder entirely surrounding the bore, a gasket interposed between the adjacent ends of the casing sections, a coupling collar having one end thereof provided with a flange engaging the exterior shoulder on one section and having its other end formed with interior threads engaging the exterior threads on the mating section for clamping said sections in engagement with the gasket, a barrel engaging the walls of the bore and provided at one end with a laterally extending flange, a gasket interposed between the flange on the barrel and the interior shoulder of the adjacent casing section, a valve slidably and rotatably mounted within the barrel and provided with a head normally resting on the flange of the barrel, said valve including a stem of greater length than the barrel having a circumferential series of spirally disposed ribs formed thereon extending the entire length of the stem and defining intermediate grooves opening into the adjacent casing below the end of the barrel, and a guard carried by one of the casing sections and adapted to engage the upper surface of the head of the valve for limiting the opening movement thereof.

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1,093,707. HOISTING MECHANISM. GEORGE LAUGHRIN, Savanna, Ill. Filed June 7, 1913. Serial No. 772,437. (Cl. 57—15.)



1. In a hoisting mechanism, a supporting member, levers pivoted thereto, means connecting said levers, one of said levers provided with a plurality of notches and means engaging said notches for holding said supporting member in adjusted position, an operating lever and means connecting said operating lever with each of said first mentioned levers.

2. In a hoisting mechanism, a supporting member, first and second levers pivoted thereto, a connecting member pivoted to said levers, said first lever provided with a plurality of notches, a pawl engageable with said notches, an operating member, and a spring fastened to said operating member and said second lever.

3. In a hoisting mechanism, a supporting member, posts, first and second levers pivoted to said posts and to said supporting member, a connecting member pivoted to said levers, said first lever provided with a plurality of notches, a pawl engageable with said notches, means to normally maintain said pawl in engagement with said notch, an operating lever, a link fastened to said operating lever and

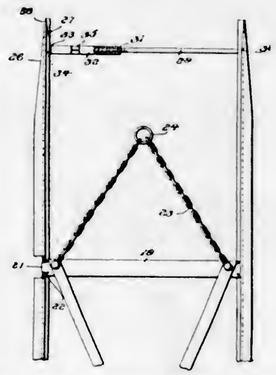
said first lever and a spring fastened to said operating lever and said second lever.

4. In a hoisting mechanism, a supporting member, posts, first and second levers pivoted to said posts and to said supporting member, a connecting member pivoted to said levers, said first lever provided with a plurality of notches, a pawl pivoted to said supporting member engageable with said notches, a spring to normally maintain said pawl in engagement with the proper notch, an operating lever connected to said first lever, a link fastened to said operating lever and said first lever, and a coil spring fastened to said operating lever and said second lever.

5. In a hoisting mechanism, a supporting member, posts, first and second levers pivoted to said posts and to said supporting member, a connecting member pivoted to said levers, said first lever provided with a plurality of notches, a pawl pivoted to said supporting member engageable with said notches, a spring secured to said first lever and said pawl to normally maintain said pawl in engagement with the proper notch, an operating lever connected to said first lever, a link fastened to said operating lever and said first lever, a coil spring fastened to said operating lever and said second lever, supporting means for said coil spring secured to said connecting member and an abutment member secured to said supporting member and adapted to engage said posts for rigidly holding said supporting member in adjusted position.

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1,093,708. SLIDING TRACK FOR SKIP-ROADS. OTTO LIEBER, Hancock, and CHESTER A. GIBBS, Houghton, Mich. Filed June 3, 1913. Serial No. 771,570. (Cl. 104—45.)



1. In skip roads for sinking shafts, a permanent track including spaced rails, and a sliding track including rails braced in spaced relation and having interlocking engagement throughout their length with the rails of the permanent track.

2. The combination with the rails of a skip road of a shaft, of inverted rails having their inner flanges positioned between the first rails and with their heads bearing below the heads of the first rails and against the webs thereof, and braces maintaining said inverted rails in spaced relation, whereby said inverted rails and braces may be slid up and down the permanent track.

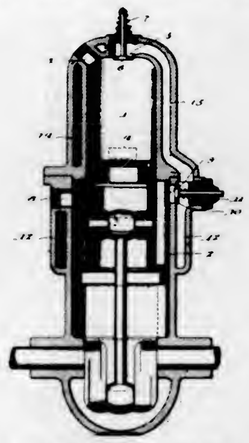
3. A sliding rail section for skip roads including rails, braces connecting the rails in parallel spaced relation, said rails being adapted for interlocking engagement with the rails of the skip road, and means for spreading the upper ends of said rails to force them into engagement with the inner faces of the skip road rails.

4. A sliding rail section for skip roads including rails, braces connecting the rails in parallel spaced relation, said rails being adapted for interlocking engagement with the rails of the skip road, and means for spreading the upper ends of said rails to force them into engagement with the inner faces of the skip road rails, said means including a threaded rod secured by one end to the inner face of one of the rails, and an internally threaded sleeve engaging about the threaded end of said rod and having a conical terminal seating in a bore formed in the web of the other rail.

5. The combination with spaced rails of a skip road, of rails engaging against the inner faces of the first rails, said latter rails being braced and held in spaced relation and in engagement with the former rails, the upper ends of said latter rails being tapered to form inclined wheel flange engaging faces merging with the inner faces of the first rails, and means for spreading the upper ends of said rails to force the same into engagement with the first rails.

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1,093,709. INTERNAL-COMBUSTION ENGINE. CLARENCE C. LONGARD, Halifax, Nova Scotia, Canada. Filed Feb. 24, 1913. Serial No. 750,319. (Cl. 123—71.)

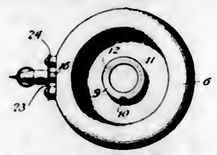


The herein described internal combustion engine, comprising a cylinder and a piston; the cylinder being divided by the piston into an explosion chamber and a compression chamber and having an inlet port for explosive mixture communicating with the compression chamber and also having a container surrounding and separated by a single wall from the compression chamber and connected through a port therewith and further having an inlet port and an exhaust port communicating with the explosion chamber, a water jacket around the explosion chamber, and a by-pass passage extending through said water jacket and connecting the container and the inlet port of the explosion chamber and separated by a single wall from said chamber; an inwardly seating valve controlling the port between the compression chamber and the container and constructed and arranged to be opened by the inward traverse of the piston and closed by the outward traverse thereof, and an outwardly seating valve controlling the inlet port of the explosion chamber and constructed and arranged to be opened by the outward traverse of the piston and closed by the inward traverse thereof, the exhaust port being relatively arranged to be opened by the piston as the latter approaches the end of its outward traverse, all substantially as and for the purpose set forth.

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1,093,710. SOUND-BOX AND MOUNTING THEREFOR. THOMAS H. MACDONALD, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed July 1, 1909. Serial No. 505,459. (Cl. 181—11.)

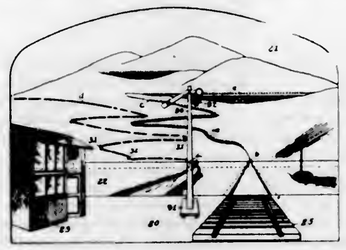
In a sound-box for talking-machines, the combination of the casing containing the diaphragm, the stylus-bar therefor connected to said diaphragm and carrying a transverse spring-plate perforated at each end, a sleeve cupped at its outer end and located between each end of said spring-plate and said casing, and a screw passing through



each perforation and sleeve into said casing and having beneath its head a conical surface.

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1,093,711. METHOD OF PRODUCING ILLUSORY EFFECTS. LANGDON MCCORMICK, New York, N. Y. Filed July 19, 1913. Serial No. 779,955. (Cl. 46—70.)



1. As an improvement in the art of producing illusory effects, the method herein described which consists in producing the effect of movement of an object by the successive appearance of lights at different points in perspective and continuing such illusion by varying the position of some distinctive part of the object.

2. As an improvement in the art of producing illusory effects, the method herein described which consists in producing the effect of movement of an object by the successive appearance of lights at different points in perspective and continuing such illusion by varying the dimensions of some distinctive part of the object.

3. As an improvement in the art of producing illusory effects, the method herein described which consists in producing the effect of movement of an object by the successive appearance of lights at different points in perspective and continuing such illusion by varying the position of some distinctive part of the object and causing an apparent movement of the object by changing the relative positions of such object and some adjacent object.

4. As an improvement in the art of producing illusory effects, the method herein described which consists in producing the effect of movement of an object by the successive appearance of lights at different points in perspective and continuing such illusion by varying the position of a light carried by said object.

5. As an improvement in the art of producing illusory effects, the method herein described which consists in producing the effect of movement of an object by the successive appearance of lights at different points in perspective and continuing such illusion by varying the brilliancy and dimensions of lights carried by said object.

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1,093,712. FOUNTAIN-PEN. ERNEST G. MCLEOD, Brockton, Mass. Filed Aug. 2, 1912. Serial No. 712,915. (Cl. 120—50.)

1. In a fountain pen, in combination: an ink barrel having a screw threaded portion; a pen section coöperating with said barrel and having a pen secured thereto, said pen section being provided with a feeder having an ink feed passage extending to the inner end thereof and terminating within the periphery of the pen section, said pen section having a notch at its extreme inner end cut through the periphery thereof and intersecting said feed passage to thereby provide a direct path for the ink from the feed passage to the inner wall of the barrel and vice versa, substantially as specified.



2. In a fountain pen, in combination: an ink barrel; a pen section provided with an ink feed passage extending to the inner end thereof, said pen section being provided with means for causing the ink to drain from the feed passage directly to the inner wall of the barrel, said means comprising a cut-out portion in the pen section extending from the feed passage clear to the inner wall of the barrel and forming a path for the ink from the feed passage directly to the inner wall of the barrel, substantially as specified.

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1,093,713. SELF-THREADING SHUTTLE. ALFRED MEUNIER, Taunton, Mass. Filed Apr. 25, 1913. Serial No. 763,671. (Cl. 139—46.)



1. The combination with a shuttle body, of a hollow tubular shuttle eye having a yarn receiving opening, a bowed tension spring completely housed within said yarn receiving opening, and exteriorly accessible tension adjusting means for said spring.

2. The combination of a shuttle eye formed with a yarn receiving opening and a transverse slot intersecting the yarn receiving opening, a tension spring doubled upon itself to form leaves and mounted within the yarn receiving opening, and operative means bearing against one of the leaves of said spring for adjusting the tension thereof.

3. The combination of a hollow tubular shuttle eye, a bowed tension spring mounted within the said eye, and means for adjusting the tension of said spring, said means also constituting retaining means for holding the eye in operative position in the shuttle body.

4. A shuttle eye formed with a longitudinal yarn receiving opening and also provided at an intermediate point in its length with a slot which intersects the yarn receiving opening and extends through one side of the eye, longitudinally inclined guide slits being provided which extend from opposite ends of the eye to the slot, and adjustable tensioning means within the yarn receiving opening.

5. A shuttle provided with a bore and a guide slit intersecting the bore, an eye fitted within the bore and formed with a longitudinal yarn receiving opening, said eye being provided with a transverse slot intersecting the yarn receiving opening and opening through one side of the eye so as to communicate with the guide slit of the shuttle head, end slits being provided in the eye which lead from opposite ends thereof to the transverse slot, and an adjustable tension spring mounted within the longitudinal yarn receiving opening of the eye.

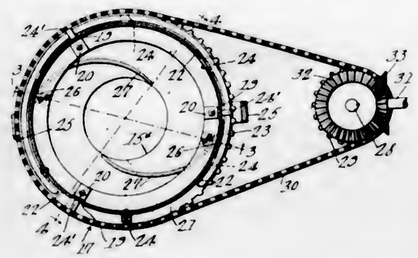
[Claims 6 and 7 not printed in the Gazette.]

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1,093,714. FEEDER FOR TILE-MACHINES. ST. JOHN MILLER, Pioneer, Ohio. Filed June 28, 1913. Serial No. 776,407. (Cl. 25—30.)

1. In combination with the hopper of a tile machine, an annular frame, an arcuate supporting member embracing the said frame and supporting the same for rotatory move-

ment, brackets connecting the supporting member and hopper, a wing carried by the said frame and working within the hopper to feed the material through the opening of the hopper, and means for actuating the said frame.



2. In combination with the hopper of a tile machine, a ring, hangers secured to the inner side thereof, an annular sprocket wheel secured to lower end of the hangers, a supporting member embracing the said hangers underneath the ring, brackets connecting the said supporting member and the hopper, a wing carried by the sprocket wheel and working within the hopper to feed to the material through the opening of the hopper, and means for actuating the sprocket wheel.

3. In combination with the hopper of a tile machine, a frame embodying a ring, hangers secured to the inner side thereof, and an annular sprocket wheel secured to the lower ends of the hangers, an arcuate supporting member embracing the said hangers underneath the ring, curved plates secured to the inner side of the ring intermediate the hangers and engaging the sprocket wheel, keepers carried by the said plates and hangers and engaging under the supporting member, brackets connecting the said supporting member and the hopper, a wing carried by the sprocket wheel working within the hopper to direct the material through the opening thereof, and means connected to the said sprocket wheel for rotating the said frame.

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1,093,715. THREAD-BOARD FOR SPINNING, TWISTING, AND LIKE MACHINES. ALBERT H. MORTON, Lowell, Mass. Filed Dec. 20, 1912. Serial No. 737,769. (Cl. 118—16.)

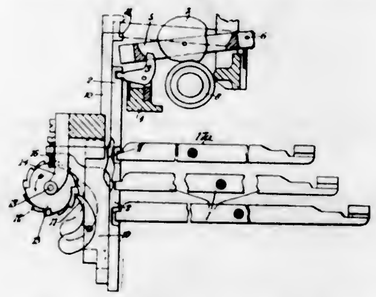


1. A spinning frame having, in combination, a thread board having two depending lugs provided with round holes, and a thread guide having a shank supported in the holes in the lugs of the thread board, a thread guide holder for holding the thread guide from rotation and nuts to hold the thread guide in adjusted position on the thread board, substantially as described.

2. A spinning frame having, in combination, a cast metal thread board having two depending lugs, a thread guide having a threaded shank provided with a slabbed end supported in the hole in the lugs of the thread board, a thread guide holder having an opening corresponding in shape to the slabbed end of the thread guide shank and nuts to hold the parts in position, substantially as described.

3. A spinning frame having, in combination, a cast metal thread board having a depending lug provided with a hole, a thread guide having a threaded shank provided with a slabbed end supported in the hole of the lug, a thread guide holder having a hole therein corresponding in shape to the slabbed end of the thread guide shank, and nuts on the thread guide located on opposite sides of the lug for holding the thread guide in adjusted position, substantially as described.

1,093,716. TYPOGRAPHICAL COMPOSING-MACHINE. CARL MUEHLEISEN, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 26, 1912. Serial No. 722,398. (Cl. 199—7.)



1. In a typographical composing machine, the combination of a plurality of escapement actuating devices, a finger key common to all of said devices, and an intermediate power-operated device controlled by the finger key to actuate said devices in succession, one only at each operation of the finger key.

2. In a typographical composing machine, the combination of a plurality of escapement actuating devices, a finger key common to all of said devices, a rotatable switch formed with a series of cams or projections arranged in staggered relation to each other so as to engage and actuate the said devices in succession, one only at each operation of the finger key, and power-driven mechanism controlled by the finger key for rotating the switch.

3. In a typographical composing machine, the combination of a plurality of escapement actuating devices, a finger key common to all of said devices, and intermediate power-driven mechanism for actuating the said devices in succession, one only at each operation of the finger key, said mechanism comprising a cam carriage, a rotatable switch to engage the actuating devices successively, and a connection between the carriage and the switch.

4. In a typographical composing machine, the combination of a plurality of escapement actuating devices, a finger key common to all of said devices, and intermediate power-driven mechanism for operating said devices in succession, one only at each operation of the finger key, the said mechanism comprising a cam carriage, a rotating switch turned intermittently at successive operations of the cam carriage, a reciprocating rod operatively engaged with the cam carriage, and a pawl and ratchet connection between the rod and switch.

5. In a typographical composing machine, the combination of a plurality of escapement actuating devices, separate finger keys for operating said devices independently, an additional finger key common to all of said devices, and intermediate power-driven mechanism for operating said devices in succession, one only at each operation of said additional finger key.

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1,093,717. RECTIFIER OF ELECTRIC CURRENTS. THOMAS J. MURPHY, Rochester, N. Y. Filed July 24, 1908. Serial No. 445,102. (Cl. 171—253.)

1. In a rectifier the combination of a source of alternating current, a plurality of pairs of electrodes, a high resistance connected in shunt with each pair of electrodes, a circuit having a source of high potential current, means for causing the said high potential current to pass across the said pairs of electrodes in succession.

2. In a rectifier the combination of a circuit having a source of alternating current, two pairs of electrodes connected with two branches of the said circuit, a return wire, a circuit having a high potential current, a high resistance connected in shunt with each pair of electrodes, means for causing the last named circuit to be completed alternately through the said pairs of electrodes synchronously with the current of the first named circuit.





3. In a rectifier the combination of a main circuit, and a subsidiary circuit having a source of a variable current, a high resistance body located in the main circuit, means for shunting and short circuiting the high resistance body synchronously with the changes of the current in the first named circuit.

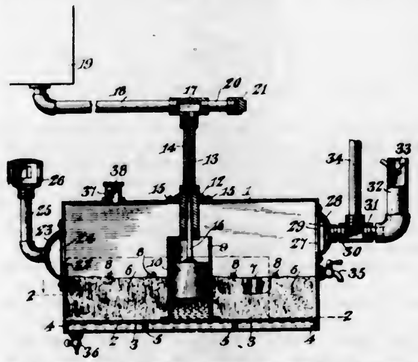
4. In a rectifier the combination of a circuit, having a source of variable current, a high resistance body located in the said circuit, a pair of opposing electrodes connected to the terminals of the high resistance body, a translating device located in the circuit of the said electrodes, means for short circuiting the high resistance body across the electrodes periodically as the current in the said circuit changes.

5. In a rectifier the combination of a main circuit, a source of alternating current, a translating device, two resistance bodies connected in the said circuit, means for alternately cutting the said resistances out of the circuit as the current changes.

[Claims 6 to 19 not printed in the Gazette.]

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1,093,718. CARBURETER. CHARLES H. MYERS, Buffalo, N. Y. Filed Mar. 1, 1912. Serial No. 680,799. (Cl. 48—156.)



1. A structure for the purpose described, comprising a casing, a float chamber within the casing, a closely packed mass of fibrous absorbent material surrounding the float chamber and extending therefrom to the inner walls of the casing and stopping short of the top of the casing to define a chamber between the top of the casing and the top of the mass of absorbent material, inlet and outlet means for the casing communicating with the last-named chamber, a float within the float chamber, a valve carried by the float, and a supply duct leading from the exterior of the casing into the float chamber and provided with a seat for the valve.

2. A structure for the purpose described, comprising a casing with a closely packed mass of fibrous material therein having upright strands with their upper ends forming the upper surface of the mass, and said mass of absorbent material being located within the casing in spaced relation to and above the bottom of the latter and stopping short of the top of the casing to define a chamber between the top of the mass and the top of the casing, a float chamber within the casing communicating with the space below the absorbent material and extending upwardly through and above said absorbent material, a float within the float chamber, a valve carried by the float, a supply duct leading from the exterior of the casing into the float chamber and provided with a seat for the valve, and inlet and outlet means for the chamber above the absorbent material.

3. A device for the purpose described, comprising a casing having a pervious false bottom in elevated relation to the bottom of the casing, absorbent material lodged on the false bottom, and defining a substantially unobstructed space or chamber between its upper surface and the top of the casing, a float chamber within the casing communicating with the space between the false bottom and the bottom of the casing, a duct leading from the exterior of the casing downwardly into the float chamber and provided with a valve seat, a float in said float chamber, a valve carried by the float in operative relation to the valve seat in the duct, an air inlet to the chamber above the fibrous material at one end of the casing, and an outlet for said last named chamber at the other end of the casing.

4. A device for the purpose described comprising a casing having a pervious false bottom in elevated relation to the bottom of the casing, absorbent material lodged on the false bottom, and defining a substantially unobstructed space or chamber between its upper surface and the top of the casing, a float chamber within the casing communicating with the space between the false bottom and the bottom of the casing, a duct leading from the exterior of the casing downwardly into the float chamber and provided with a valve seat, a float in said float chamber, a valve carried by the float in operative relation to the valve seat in the duct, an air inlet to the chamber above the fibrous material at one end of the casing, and an outlet for said last named chamber at the other end of the casing, the outlet being located at a higher point than the inlet.

5. In a device for the purpose described, a casing having a mass of fibrous material therein, and a support sustaining the fibrous material in spaced relation to and above the bottom of the casing, said fibrous material stopping short of the top of the casing, a float chamber extending through the fibrous material and communicating at the ends with the respective spaces above and below the fibrous material, a duct entering the chamber from the top and extending into the float chamber and also provided with an elongated tapering valve seat, a float within the float chamber, and an elongated tapering needle valve carried by the float and entering the duct in operative relation to the valve seat, the needle valve and its seat being elongated to an extent to define an elongated capillary space resistant to the passage of liquid before the valve needle engages its seat.

[Claims 6 to 8 not printed in the Gazette.]

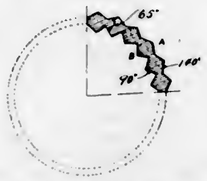
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1,093,719. GLASSWARE. OTIS A. MYGATT, New York, N. Y. Filed June 25, 1907. Serial No. 380,763. (Cl. 240—106.)

1. Glassware having prismatic surfaces upon both sides of the glass body, the angle of the sides of those surfaces opposite each other constituting spectrum forming angles.

2. Glassware having prismatic surfaces upon both sides, the angle of the sides of those surfaces opposite each other forming angles of about 60°.

3. A transparent glass inclosure having prismatic surfaces upon both sides, the angle of the sides of those surfaces opposite each other constituting spectrum-forming angles.

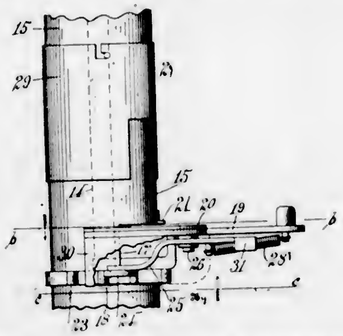



4. Inclosures having prismatic surfaces upon both sides of the glass body, the angle of the sides of those surfaces opposite each other constituting spectrum forming angles.

5. An inclosure having prismatic surfaces upon both sides, the angle of the sides of those surfaces opposite each other forming angles of about 60°.

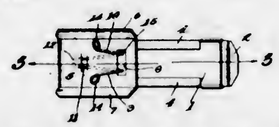
[Claim 6 not printed in the Gazette.]

1,093,720. OPERATING DEVICE FOR REGISTERING AND INDICATING MECHANISM. WALTER H. NELSON, Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio, a Corporation of New York. (Incorporated in 1902.) Filed Nov. 7, 1912. Serial No. 729,952. (Cl. 235—29.)




In a device of the type specified, a standard having an opening therein, an operating shaft journaled in said standard, a pin-receiving disk fixed to said shaft, a handle secured to said disk and extending through the opening in the standard, said handle having a portion provided with indications thereon, a peripheral serrated member secured to the standard, and a lever pivoted to the handle and coöperating with said serrated member to lock said handle in the positions to which it is moved, substantially as specified.

1,093,721. PEN-EXTRACTOR. CHARLEY A. OLSON, St. Peter, Minn. Filed May 24, 1913. Serial No. 769,687. (Cl. 120—97.)



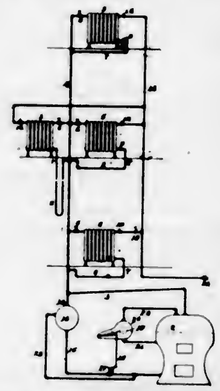
1. A pen extractor comprising a receptacle, a support extending above said receptacle and provided with a slot, and pen gripping means carried by said support and extending through said slot, said pen-gripping means being formed from a strip of resilient material bent intermediate its length to provide a pair of arms, said arms being secured adjacent their connected ends to the inner face of said support and being bent away from said support and passed through the slot of said support and bent back upon themselves to form operating handles whereby said arms may be brought together to grip a pen inserted through said slot between said arms.

2. A pen extractor comprising a support provided with an opening, and pen engaging means carried by said support and comprising a pair of resilient arms secured to the inner face of said support and being then carried away from said support and passed through said slot and bent back upon themselves to form operating handles whereby said arms may be moved toward each other to grip a pen inserted into said slot between said arms.

3. A pen extractor comprising a support provided with an opening, and pen gripping means formed of resilient wire secured to the inner face of said support and passed through said opening and bent back above said support to form handles whereby said gripping means may be moved to engage a pen inserted through said opening between said gripping means.

4. A pen extractor comprising a receptacle, guard flanges extending inwardly from the sides of said receptacle, a tongue extending from one end of said receptacle and forming a handle portion, a second tongue extending from the opposite end portion of said receptacle and forming a support provided with an opening and pen gripping means secured to the under face of said support and passing through said opening and bent back above said support to form handle means for said pen gripping means.

1,093,722. STEAM-HEATING SYSTEM. MILLARD P. OSBOURN, Merchantville, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed June 30, 1909. Serial No. 505,119. (Cl. 237—9.)



1. In a steam heating system the combination of a steam generator, a radiating system in communication therewith, adjustable means for accumulating and varying the amount of accumulation of water of condensation within the system, a reservoir for receiving and storing the water of condensation from the radiating system, and automatic means for controlling the flow of water of condensation from said reservoir to the generator and for maintaining a predetermined water level in the generator.

2. In a steam heating system, the combination of a steam generator, a radiating system in communication therewith, adjustable means for accumulating and varying the amount of accumulation of water of condensation within the system, a reservoir for receiving and storing the water of condensation from the radiating system, said reservoir being at a higher level than the normal water level in said steam generator, a water feed pipe connecting said reservoir with said generator to return the water of condensation, a valve to control the flow of water in said feed water pipe, and automatic means under the control of variations in the level of the water in the boiler for controlling the operation of said valve whereby the flow of water of condensation to said generator is regulated, and a predetermined water level maintained in said generator.

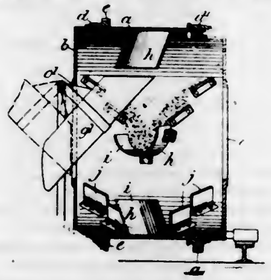


3. In a steam heating system, the combination of a steam generator, a radiating system in communication therewith, adjustable means for accumulating and varying the amount of accumulation of water of condensation within the system, a reservoir for receiving and storing the water of condensation from the radiating system, said reservoir being located at a higher elevation than the normal water level in said generator, a steam pipe connecting the upper portion of said reservoir with the steam space of said generator, a water feed pipe connecting the lower portion of said reservoir with said generator for returning the water of condensation to said generator, a valve to control the flow of water in the said feed water pipe, and a float under the control of the level of the water in the boiler and suitably connected to said valve to control the operation thereof, whereby the flow of water of condensation is automatically regulated and a predetermined water level maintained in said generator.

4. In a steam heating system, the combination of a steam generator, a radiating system in communication therewith, adjustable means for accumulating and varying the amount of accumulation of water of condensation within the system, a reservoir for receiving and storing the water of condensation from the radiating system, said reservoir being located at a higher elevation than the normal water level in said generator, a steam pipe connecting the upper portion of said reservoir with the steam space of said generator, a water feed pipe connecting the lower portion of said reservoir with said generator for returning the water of condensation to said generator, a valve to control the flow of water in the said feed water pipe, a float under the control of the level of the water in the boiler and suitably connected to said valve to control the operation thereof, whereby the flow of water of condensation is automatically regulated and a predetermined water level maintained in said generator, and an overflow pipe from the upper part of said reservoir adapted to discharge water into the generator in case the level in the reservoir reaches an abnormal height.

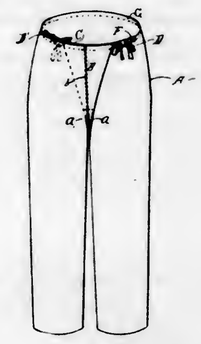
5. In a steam system, a steam pipe for delivering steam by expansion and returning the water of condensation by gravity, and a steam boiler for supplying steam to the steam pipe, combined with a reservoir arranged at a higher elevation than the normal water level in the steam boiler for receiving the water of condensation from the steam pipe, a feed water pipe connecting the reservoir with the boiler for returning the water of condensation to the boiler, a valve to control the flow of water in the said feed water pipe, means controlled by the level of the water in the boiler to operate the said valve whereby the water in the boiler may be maintained at a normal level, and an overflow pipe from the upper part of the reservoir for discharging water into the boiler whenever the level in the reservoir reaches an abnormal height.

1,093,723. ROTARY MIXING-MACHINE. JOHN SWITZER OWENS, London, England, assignor to John Malan De Mendoza ver Mehr, London, England. Filed Jan. 31, 1911. Serial No. 605,772. (Cl. 83—73.)



A rotary mixing machine comprising a rotary mixing drum having a circular series of centrally arranged obliquely-set lifting pockets projecting inwardly from the rim part of the drum, and a circular series of spaced apart inclined mixing blades projecting inwardly from the rim part of the drum at both sides of the vertical plane of the pockets and convergently arranged with respect to the latter.

1,093,724. PAJAMAS. HATTIE JANE PAGE, Grand Rapids, Mich. Filed May 5, 1913. Serial No. 765,706. (Cl. 2—143.)



1. In combination with pajama pantaloons, a gathering cord passed longitudinally through the waistband and secured against being drawn out, two V shaped inserts in the front arranged to have the gathering cord pass through them so that they may be made to lap by each other to close the front of the pantaloons, and a short cord secured to the right and to the left of the center of the waistband to unite with the ends of the gathering cord to tie each flap independent of the other for securing the pantaloons upon the person.

2. In combination with pajama pantaloons, a gathering cord through the waistband, V shaper inserts on the fronts of the pantaloons with the upper edges slidingly connected with the gathering cord and the lower ends arranged to extend well down into the inner seams of the legs of the pantaloons, and means for securing the free ends of the gathering cords to tie each flap independent of the other, substantially as shown.

3. In combination with the waist and legs of a pajama pantaloons, a gathering cord passed through the waistband longitudinally and the ends extending considerably beyond the center line of the front of the pantaloons, short cords secured to the waistbands some ways to the right and to the left of the front center line of the pantaloons the front of the pantaloons having a vertical opening from the waistband to the crotch, inserts connected at the crotch with the upper ends threaded on the gathering cord in such a manner that they may be lapped by each other for closing the front of the pantaloons, or drawn back on the cords to open the front of the pantaloons, and means for securing the ends of the cords to tie each flap independent of the other to secure the pantaloons upon the person of the wearer, substantially as shown and described.

1,093,725. ATTACHMENT FOR TELEGRAPH APPARATUS. LYMAN C. PAGE, Decoto, Cal. Filed July 30, 1913. Serial No. 782,094. (Cl. 178—307.)



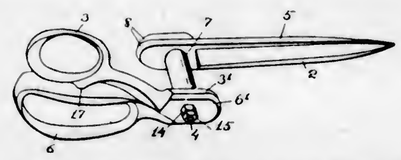
1. In a telegraphic apparatus, the combination with a relay and a sounder, each having an armature suitably arranged in connection therewith; of a member removably

engaged with the armature of the sounder, a pin adjustably connected to said member and depending to a plane below the armature, and a flexible connection engaged with said pin and also engaged with the armature of the relay, whereby to actuate the armature of the sounder upon the actuation of the latter armature.

2. In a telegraphic apparatus, the combination with a relay and a sounder, each having an armature suitably arranged in connection therewith; of a U-shaped frame engaged with the ineffective end of the armature of the sounder, a member removably secured to the yoke portion of said U-shaped frame, a pin adjustably secured to said member and depending vertically therefrom to a plane below said last mentioned armature, and a flexible connection engaged with the lower end of said pin and the armature of said relay to actuate the armature of the sounder upon the actuation of the latter armature.

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1,093,726. SCISSORS AND SHEARS. GEORGE F. PEARSON, Lowell, Mass., assignor of one-half to George W. Morrison, Lowell, Mass. Filed June 4, 1913. Serial No. 771,676. (Cl. 30—13.)



1. A pair of shears, comprising an upper cutting blade, a lower handle, and an intermediate pivot-tube integral with said blade and handle, a lower blade, and a pivot-bar integral with the lower blade and engaging said tube and having a squared and threaded end, an upper handle engaging said squared end, bracing extensions of the blades in rear of their pivotal portions, and securing nuts engaging the threaded end of the pivot-bar, the plane of the blades and the plane of the handles being offset from each other by the tubular bearing and the pivot bar.

2. A pair of shears, comprising a lower blade, a rigid pivot-bar extending at right angles from said blade, a bracing extension of the handle having a plane bearing face in rear of the pivot, an upper handle having a squared seat engaging the upper end of the pivot-bar, an upper blade having a rigid tubular bearing and a bracing extension of the blade in rear of said bearing, a lower handle integral with the tubular extension, and securing nuts engaging the upper end of the pivot-bar, the plane of the blades and the plane of the handles being offset from each other by the tubular bearing and the pivot bar.

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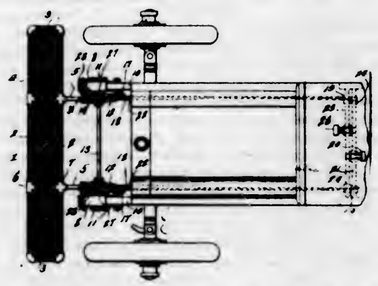
1,093,727. RAIL-JOINT. WILLIAM M. PUGH, Pocahontas, Va. Filed Sept. 29, 1913. Serial No. 792,343. (Cl. 239—9.)



In combination with a rail joint embodying the usual fish plates and bolts and nuts, of a plate *d* clamped by the aforesaid nuts against the adjacent face of the fish plate, a bar *f* and supplemental bolts for removably clamping the same against the face of said plate *d*, this bar being provided with portions which depend between the nuts on the joint bolts and also being provided along its upper edge above said nuts with a longitudinal flange beveled at each end and projecting outwardly beyond the nuts, for the purposes set forth.

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1,093,728. FENDER. ELMER H. ROYER, Altoona, Pa. Filed Mar. 21, 1913. Serial No. 755,986. (Cl. 105—253.)



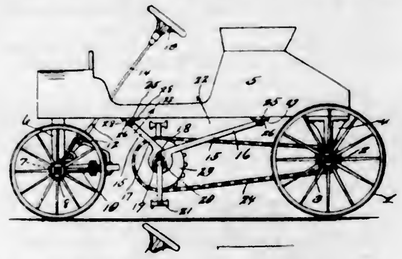
1. In a fender for automobiles and the like, a pair of brackets adapted to fit over and embrace the front ends of the side frame bars of the chassis, means for clamping said brackets in place, a fender embodying rearwardly projecting arms, wheels journaled on said brackets and having the fender arms rigidly attached thereto, dogs engaging said wheels to hold the fender up, and manually controlled means for tripping the dogs and releasing the fender, permitting it to swing downwardly.

2. In a fender for automobiles and the like, a pair of brackets adapted to fit over and embrace the front ends of the side frame bars of the chassis, means for clamping said brackets in place, a fender embodying rearwardly projecting arms, wheels journaled on said brackets and having the fender arms rigidly attached thereto, a shaft connecting said wheels, dogs engaging said wheels to hold the fender up, and manually controlled means for tripping the dogs and releasing the fender, permitting it to swing downwardly.

3. In a fender for automobiles and the like, a pair of brackets adapted to fit over and embrace the front ends of the side frame bars of the chassis, means for clamping said brackets in place, a fender embodying rearwardly projecting arms, wheels journaled on said brackets and having sockets for receiving said arms, locking means for said wheels, and manually controlled means for releasing said locking means to permit the fender to swing downwardly.

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1,093,729. ADJUSTABLE CRANK-HANGER FOR POLYCYCLES. CHRISTIAN S. RUFF, Riverside, N. J. Filed Sept. 26, 1913. Serial No. 792,067. (Cl. 208—32.)



1. In an adjustable crank-hanger for polycycles, a rear driven shaft having a sprocket and provided with wheels, a body, bracket supports adjustably connected to the body, each of said bracket supports comprising two sections pivoted together and having adjacent hooks at their pivoted ends, a pedal crank shaft detachably mounted in said adjacent hooks and provided with a sprocket wheel, and a sprocket chain passing about said sprockets.

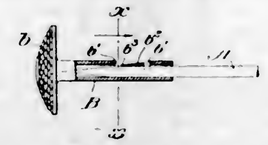
2. In an adjustable crank-hanger for polycycles, a rear driven shaft having a sprocket and provided with wheels, a body, bracket supports, each comprising two sections, forward and rear bearings adjustably secured to the body in



which the opposite ends of the sections of the bracket supports are mounted, the adjacent ends of the sections of each bracket support being pivoted together and having adjacent hooks at their pivoted ends forming a bearing, a pedal crank shaft detachably mounted in the hook bearings of said sections and provided with a sprocket wheel, and a sprocket chain passing about said sprockets.

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1,093,730. HAT-PIN GUARD. ROBERT W. SCHMIDT and FRANK M. SCHMIDT, New York, N. Y. Filed Mar. 29, 1913. Serial No. 757,632. (Cl. 24—155.)



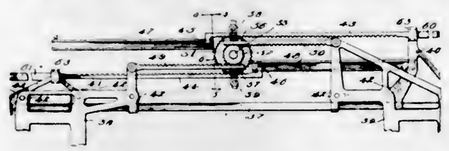
1. A pin guard having a tubular portion to receive the pointed end of a pin, said tubular portion having two transverse slots, the part between said slots being depressed and inclined to form a gripping member the inner edge of which is depressed to a greater extent.

2. A pin guard having a tubular portion to receive the pointed end of a pin, said tubular portion having two transverse slots, the part between said slots being depressed and reduced in thickness to form a resilient gripping member the inner edge of which is depressed to a greater extent and thinner for the purpose specified.

3. A pin guard having a tubular portion to receive the pointed end of a pin, said tubular portion having two transverse slots, the part between said slots being depressed so as to lie obliquely to the axis of the tubular portion and gradually reduced in thickness to its inner edge which is also depressed to a greater extent for the purpose specified.

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1,093,731. CAR-DOOR. TERANCE SCULLIN and SOREN ROBERTSON SKOV, Cleveland, Ohio. Filed Jan. 26, 1912. Serial No. 673,646. (Cl. 39—94.)



1. In a car door operating mechanism, the combination with a pair of sliding doors moving in the same direction, of operating mechanism for said doors, a slip joint between one of the doors and the operating mechanism to permit the said mechanism to continue its movement when the said door meets an obstruction, and means storing energy when the said mechanism operates independently of the door to close the door after the obstruction is removed.

2. The combination with a pair of sliding doors moving in the same direction, of means moving said doors at different rates of speed, and means permitting one of the doors to stop on meeting an obstruction without stopping the other door.

3. The combination with a pair of sliding doors moving in the same direction, of means moving said doors at different rates of speed, means permitting one of said doors to stop on meeting an obstruction without stopping the other door, and means to store energy when said door is obstructed, whereby the door is moved to closed position when the obstruction is removed.

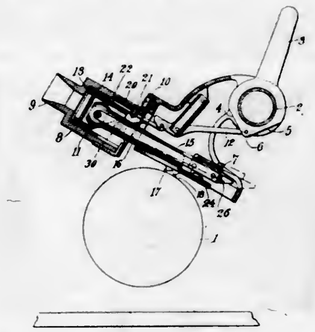
4. The combination with a pair of sliding doors; of a rack bar connection with each door, a small pinion engaging one of said racks and a large pinion engaging the other of said racks, said pinions being mounted on a common shaft, and a flexible connection between one of said racks and its door.

5. The combination with a pair of sliding doors, of a rack bar connected with each door, a large pinion engaging one of said racks and a relatively small pinion engaging the other of said racks, said pinions being mounted on a common shaft, a bearing on which the rack engaging the larger pinion may slide, a bar extending from said bearing beyond a coiled spring secured on said rod, one end of which is seated on the bearing and the other on the rear end of the rack bar.

[Claim 6 not printed in the Gazette.]

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1,093,732. COMBINED RECORDER AND REPRODUCER. JOHN J. SCULLY, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Oct. 28, 1912. Serial No. 728,113. (Cl. 181—2.)



1. In a recorder-reproducer for talking-machines, the combination with a head pivoted to swing laterally as well as vertically and having a diaphragm carrying a recording-stylus and a reproducing-stylus, and means for shifting either stylus into operative position while removing the other, of a weight-device pivoted upon said head to swing concentrically therewith in the same vertical plane and adapted to apply pressure upon the reproducing-stylus during reproducing and to have its entire weight held automatically lifted so as not to apply pressure to the recording-stylus during recording.

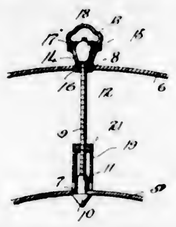
2. In a recorder-reproducer for talking-machines, the combination with a head pivoted to swing laterally as well as vertically and having a diaphragm carrying a recording-stylus and a reproducing-stylus, and means for shifting either stylus into operative position while removing the other, of a boss arranged on each side of the rear of said head concentrically of its horizontal pivot, a weight-device pivoted upon said bosses so as to swing concentrically with said head in the same vertical plane and with its free end adapted to bear upon said head during the reproducing-operation, and a seat for automatically holding the free end of said weight-device lifted out of contact with said head during the recording-operation.

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1,093,733. BOILER. JOHN SETH, Brooklyn, Iowa. Filed June 28, 1913. Serial No. 776,339. (Cl. 85—1.5.)

In combination with a boiler having a shell sheet and a crown sheet, a stay bolt, having a screw threaded shank, connecting said sheets, the head thereof being engaged with said crown sheet and the opposite end extending through a screw threaded opening in said shell sheet, a sleeve having a straight conical inner periphery terminating in a reduced externally screw threaded portion, the latter engaging the threaded opening in said shell sheet, a nut mounted on said shank and in said sleeve, said nut conforming to the configuration of the inner

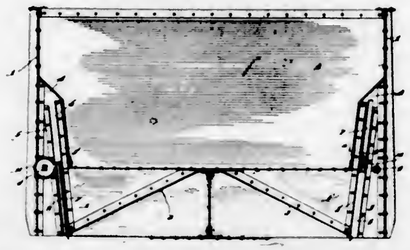
periphery of said sleeve and lying in engagement therewith, whereby stress is passed to said shell sheet from



said sleeve when undue pressure is exerted on said nut, and a cap carried by said sleeve.

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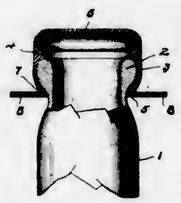
1,093,734. DUMPING FREIGHT-CAR. GUSTOV C. SHAFFER, Chicago, Ill. Filed July 11, 1913. Serial No. 778,465. (Cl. 105—186.)



A freight car comprising a side wall having a discharge opening, said opening having vertical guide grooves at the ends thereof; a door coöperating with said opening having its ends mounted for vertical sliding in said guide grooves, said door being positioned inwardly of the corresponding side of the car, said wall being offset to accommodate said door; and means for effecting vertical movement of said door, substantially as described.

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1,093,735. CLOSURE. SAMUEL SHAPIRO, Philadelphia, Pa. Filed Oct. 1, 1913. Serial No. 792,708. (Cl. 215—11.)

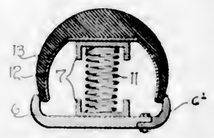


1. An elastic air tight closure of general cup shape having an annular internal flange at its open end, and a second annular internal flange at a point removed from the top of said closure, the upper end of said closure arranged to extend across the open end of the receptacle at right angles to the longitudinal axis of the receptacle, whereby the top of said closure may expand and contract without affecting the position of said flanges, substantially as described.

2. An elastic air tight closure of general cup shape having two internal annular flanges adapted to grip between them the annular bead of a receptacle, the upper end of said closure arranged to extend across the open end of the receptacle at right angles to the longitudinal axis of the receptacle, an integral annular external bead on the lower end of said closure, and tabs on said closure at opposite sides, substantially as described.

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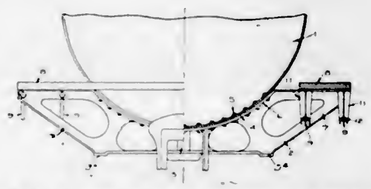
1,093,736. WHEEL-TIRE. MANUEL SILVA, Provincetown, Mass. Filed Oct. 15, 1913. Serial No. 795,342. (Cl. 152—37.)



A wheel tire consisting of inner and outer annular rings, each of said rings consisting of a plurality of sections, spring hinges connecting the ring sections to yieldingly prevent their relative movement, bolts for connecting the opposed ends of adjacent ring sections, each of said sections having continuous longitudinal flanges formed upon its edges, a plurality of coiled springs carried by the sections of the outer ring and adapted to be seated upon the inner ring sections between the flanges thereof, a resilient sheet metal casing removably engaged upon the outer ring and having outwardly curved side walls, and a rubber covering secured upon the sheet metal casing ring, the resilient side walls thereof holding said cover at its edges in frictional engagement with the edges of the wheel rim, substantially as and for the purpose specified.

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1,093,737. TANK-CAR. ABRAM E. SMITH, New York, N. Y. Filed June 23, 1913. Serial No. 775,197. (Cl. 105—194.)



In a tank car construction, in combination, a tank body, members for receiving the tank body, said members each having an extension projecting beyond the side of the tank body, a running board supported by said extensions, a truss member connecting said extensions, and a strut between said truss member and the running board.

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1,093,738. PAVEMENT. LOUIS P. SMITH and JAMES H. HEAVERSIDE, Cleveland, Ohio. Filed Mar. 2, 1914. Serial No. 822,094. (Cl. 104—14.)



1. The combination with a road bed, ties arranged thereon and rails arranged on said ties, of means for supporting the pavement adjacent to said ties, said means comprising a device consisting of a chair adapted to arch a tie and form an open space above the tie and below said chair to permit the upward and downward movement of the tie.

2. The combination with a road bed, ties arranged on said road bed and rails carried by said ties, of means for supporting the pavement adjacent to the rails and above the ends of the said ties, said means comprising a series of devices arranged at each side of the rail, each device comprising a horizontally arranged top member and a pair of downwardly extending legs, the said legs being adapted to straddle the end of a tie and support the top member of the device a distance above the tie leaving a free space between the tie and the top member of the device.

3. The combination with a road bed, ties arranged on said road bed and rails carried by said ties, of means for supporting the pavement adjacent to the rails and above the ends of said ties, said means comprising a series of devices arranged at each side of each rail, each device comprising a horizontally arranged top member and a pair of downwardly extending legs, the said legs being adapted to straddle the end of a tie and support the top member of the device a distance above the tie leaving a free space between the tie and the top member of the device and tamping openings arranged in the sides of said legs.

4. The combination with a road bed, ties arranged on said road bed and rails carried by said ties, of means for supporting the pavement adjacent to the rails and above said ties, said means comprising a series of devices arranged at each side of each rail and adapted to arch the ends of the said ties, said devices being provided with openings in the sides thereof, tubes extending upwardly from said openings, and means for closing the upper end of said tubes.

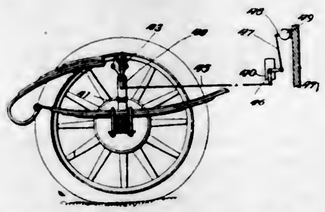
5. The combination with a road bed, ties arranged on said road bed and rails carried by said ties, of means for forming a pavement adjacent to the rails and above the ends of the ties, said means comprising a plate arranged to extend longitudinally of each rail, legs extending downwardly from said plate and adapted to support said plate a distance above the ends of the ties leaving an open space between the plate and the ends of the ties and having the upper surface of the plate flush with the surrounding pavement, openings formed in said plate and covers for closing said openings.

[Claim 6 not printed in the Gazette.]



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1,093,739. ALARM MECHANISM FOR PNEUMATIC-TIRED WHEELS. MAX F. STADTMULLER, Fort Dodge, Iowa. Filed Oct. 7, 1912. Serial No. 724,404. (Cl. 116—1.)



1. A device of the class described comprising a plate supported by the spoke of a pneumatic tired wheel adjacent its rim, a yoke embracing the spoke, said yoke being formed with threaded terminals which extend through apertures in the plate, a bar supported on the plate by said yoke, said bar being formed with a concaved enlargement, the spoke being received between said yoke and said bar, ears supported by the plate on its face remote from said bar, a latch member pivotally supported between said ears, a trip one terminal of which is bifurcated, the bifurcations of said terminal being pivotally supported on the outer face of said ears, a member supported by said trip and adjustable longitudinally of the same, the terminal of said member extending between the bifurcations of the trip in the path of said latch member, a spring supported by the plate and disposed to extend between the bifurcations of the trip to contact with the adjustable member carried thereby, the said latch member being disposed to engage the adjustable member supported by the trip to maintain the trip substantially parallel with the plate, said trip when the latch member is released being disposed at right angles to the plate, and means actuated by the trip for sounding an alarm.

2. A device of the class described comprising a plate supported by the spoke of a pneumatic tired wheel adjacent its rim, said plate being provided with spaced arms, a substantially L-shaped latch member pivotally supported between said arms, a trip pivotally supported by the arms, and means interposed between the plate and trip for normally maintaining the latch member in a position where the tire may contact with the same when deflated.

3. A device of the class described comprising a plate supported by the spoke of a pneumatic tired wheel adjacent its rim, arms carried by the plate, a member formed with extensions disposed at right angles to each other, one of which is more extensive than the other, a member pivotally supported between said arms, a resilient latch arranged on said member, and resilient means interposed between said latch and the plate for maintaining the latch in contact with the less extensive arm of the first-mentioned member, whereby the more extensive arm of said member will be disposed where the tire may contact with the same when it is deflated.

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1,093,740. MEDICINE-DOSE MEASURER AND BOTTLE-STOPPER. ALEXANDER T. STEVENSON, Portland, Oreg. Filed July 18, 1912. Serial No. 710,130. (Cl. 215—15.)



A combined measurer and stopper for bottles, comprising a graduated bulb having a neck projecting diagonally upward and outward in substantially the same plane with the long axis of the bulb; and a downwardly-extending tubular branch connected to the bottom of the graduated bulb adapted to be inserted in and form a closure for the bottle.

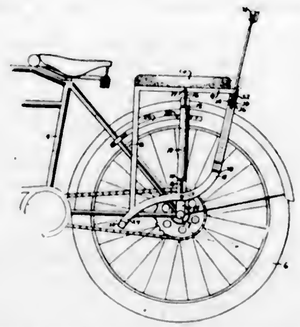
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1,093,741. COMBINED MOTOR-CYCLE REAR SEAT AND LUGGAGE-CARRIER. FRANK M. STOLL, Denver, Colo., assignor to The Stoll Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed May 7, 1912. Serial No. 695,677. (Cl. 208—24.)

1. A combined seat and luggage carrier for vehicles, comprising a frame member arranged on each side of one wheel of the vehicle, an upright pivoted to the vehicle on each side of said wheel, cylinders secured to said uprights, springs arranged in said cylinders, an approximately vertically disposed rod secured to each of said frame members, said rods being secured to said frame members at both extremities and passing through said cylinders, means carried by said rods and engaged by said springs for supporting said frame members, and sector shaped members secured to the vehicle and connected in adjustable relation with said uprights to hold said uprights against movement on their pivots.

2. A vehicle seat, comprising a frame member adapted to be arranged on each side of one of the wheels of the vehicle, an upright secured to the axle of said wheel on each side of the latter, a cylinder carried by each of said uprights, springs arranged in said cylinders, rods passing through the cylinders and secured, at both their upper and lower extremities, to the respective frame mem-

bers, and pistons on the rods within the cylinders and engaging the springs.

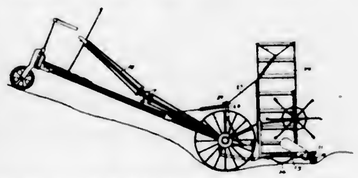


3. A vehicle seat, comprising frame members, uprights secured to the vehicle, cylinders secured to said uprights, springs arranged in said cylinders, a seat proper carried by said frame members, rods passing through the cylinders and secured, at both their upper and lower extremities, to the respective frame members, and parts on the rods within the cylinders and engaging the springs.

4. A motor-cycle seat, comprising frame members respectively arranged on each side of one of the motor-cycle wheels, uprights respectively arranged on each side of said wheel and secured to the motor cycle, a cylinder secured to each of said uprights, rods passing through the cylinders and secured, at both their upper and lower extremities, to the respective frame members, means on said rods within the cylinders and engaging the said springs, and a seat proper mounted upon said frame members.

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1,093,742. HEADER AND HEADER-BINDER. JACOB STOLZ, Warden, Wash. Filed Oct. 29, 1912. Serial No. 728,369. (Cl. 56—100.)



1. In an improved header of the character described, a combination of a header platform, a caster wheel and a supporting member for attachment to the header platform, a spring runner for engaging with the ground and attached to said header platform at its extreme right end, a tilting lever hinged intermediate its ends and provided to be held rigid by means of a scoop shaped member and a bolt engaging the tilting lever.

2. In an improved header of the character described, a combination of a header platform, a caster wheel and a spring runner both mounted on and beneath said platform and both in position to engage with the ground to raise the header platform; a tilting lever attached to the header platform and broken intermediate its ends and hinged to allow the raising of a header platform when said caster wheel and spring runner engage the ground, a means for holding the tilting lever rigid and means for holding one end of the broken tilted lever to the other to prevent lateral movement and to relieve the hinge.

3. In an improved header of the character described, a combination with a header platform of a caster wheel and a spring runner both mounted on and beneath said platform, of a tilting lever hinged intermediate its ends to allow for the raising of the platform, a scoop shaped member provided to limit the movement in one direction of the hinged parts in a normal position and a means for locking the hinged parts rigid.

4. In an improved header of the character described, a combination of a header platform, the caster wheel and a spring runner both mounted on and beneath said platform, of a hollow tilting lever hinged intermediate its ends and provided with means to lock and hold it rigid, said means comprising a bolt slidably mounted in one portion of the tilting lever and extending into the other portion of the tilting lever; means for unlocking and allowing said tilting lever to break, comprising means for withdrawing said bolt from second mentioned portion of the tilting lever, said last mentioned means comprising an extension of said bolt positioned within reach of the operator.

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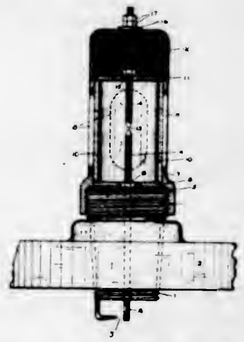
1,093,743. LEG-BAND FOR POULTRY. CHARLES A. TEGARDEN, Colfax, Ind. Filed Dec. 16, 1912. Serial No. 737,143. (Cl. 40—3.)



A leg band for poultry including an elongated metallic body, spur members struck out from said body and arranged in spaced longitudinal alinement, a strip of felt or other suitable material arranged upon said body and engaged by the spur members to hold the same in position, said felt being adapted to be saturated with any desired medicamental disinfectant, and means for securing said band to the leg of a fowl.

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1,093,744. SPARK-PLUG. JOSEPH F. TRACY, Chicago, Ill. Filed Apr. 1, 1912. Serial No. 687,864. (Cl. 123—169.)



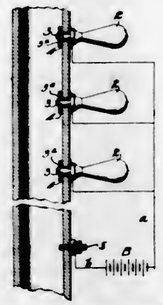
The combination with a spark plug having a central conductor projecting outwardly and beyond said plug; a metallic shell threaded to the outer end of said plug and provided with side openings; a glass casing in said shell; a plug of insulating material threaded in the outer end of said shell and holding said casing in position; a nut embedded in said insulating plug; a second conductor passing through said insulating plug and threaded in said nut in alinement with said first mentioned conductor; and nuts on the outer end of said second conductor and coöperating with said embedded nut to lock said conductor in adjusted positions, and to furnish a means for securing the wire to said second conductor, substantially as described.

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1,093,745. LIQUID-LEVEL INDICATOR. JOHN A. TURNER, Washington, D. C. Filed Aug. 21, 1912. Serial No. 716,313. (Cl. 73—54.)

1. A liquid level indicator comprising a metal conducting tube adapted to hold a rising and falling column of the liquid, a series of separate electrical visual indicator elements arranged in spaced relation and each of which elements is provided with a single metal terminal exposed to the interior of the said tube but insulated from the wall thereof, and an electrical working circuit including the single metal terminals of all of the said indicator elements and having a common metallic return circuit connection with the metal wall of the tube whereby the liquid as it rises and falls in the tube respectively closes and opens the circuit between said wall and the nearest single metal terminal.

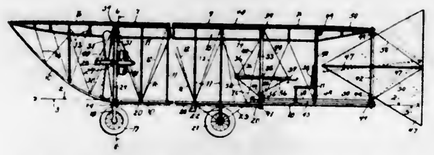




2. A liquid level indicator comprising a single metal tube adapted to contain a rising and falling column of water, a series of electrical lamps arranged in spaced relation at different elevations, each of said lamps having a single supporting metal terminal exposed to the interior of the metal tube but insulated from the wall thereof, and an electrical working circuit including the said single metal terminals of all of the lamps and also having a common metallic return circuit connection with the metal wall of the tube whereby the liquid as it rises and falls in the tube respectively closes and opens the circuit of each lamp between the single terminal of the latter and the metal wall of the tube.

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1,093,746. AEROPLANE. WALTER E. VERCLAIRE, Chicago, Ill. Filed Dec. 23, 1912. Serial No. 738,201. (Cl. 244—14.)



1. In an aeroplane, the combination of a frame; a propeller pivotally mounted in said frame; a post in said frame; a vertically movable lever pivoted on said post; a second vertical post in said frame; a stabilizing plane pivoted for vertical movement on said last mentioned post; and cables operatively connecting said propeller and stabilizing plane with said lever, substantially as described.

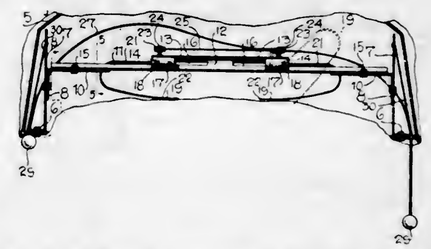
2. In an aeroplane, the combination of a frame; a propeller mounting in said frame; a lever on said mounting; a controller lever pivoted on said frame; a cable connecting the forward end of said lever with the rearward end of said controller lever; a cable connecting the rearward end of said lever with the forward end of said controller lever; a stabilizing plane pivotally mounted in said frame; and cables operatively connecting said controller lever with said stabilizing plane, substantially as described.

3. In an aeroplane, the combination of a frame; a propeller mounting in said frame; a lever on said mounting; a controller lever pivoted on said frame; a cable connecting the forward end of said lever with the rearward end of said controller lever; a cable connecting the rearward end of said lever with the forward end of said controller lever; a stabilizing plane pivotally mounted in said frame; a cable having one end connected with said operating lever, extending to the upper portion of said frame and having its other end secured to the rear edge of said stabilizing plane; and a cable having one end connected to the other end of said controller lever, extending to the lower portion of said frame and having its other end connected to the rear edge of said stabilizing plane, substantially as described.

4. In an aeroplane, the combination of a frame; a propeller pivotally mounted in said frame; a post in said frame; a vertically movable lever pivoted on said post; a second vertical post in said frame; a stabilizing plane pivoted for vertical movement on said last mentioned post; cables operatively connecting said propeller with said controller lever; and cables operatively connecting said stabilizing plane with said controller lever, one of said last mentioned cables extending above said stabilizing plane and the other of said cables extending under said stabilizing plane, substantially as described.

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1,093,747. HAT-FASTENER. OTTO VOSS, Summerville, S. C. Filed July 26, 1913. Serial No. 781,425. (Cl. 132—25.)

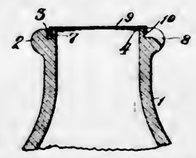


1. A hat fastener comprising a supporting member, adapted to be mounted within a hat crown, blocks slidable upon the supporting member toward and from each other, a fastener carried by each of the blocks, a movable endless wire having parallel stretches mounted upon the support, the parallel stretches of said wire being connected to the respective blocks, and actuating means connected to one of said blocks.

2. A hat fastener comprising standards provided with openings and adapted to be arranged within the crown of a hat at diametrically opposite points, a supporting member mounted upon said standards, a pair of fasteners longitudinally movable upon said member toward and from each other and adapted for engagement in the hair of the wearer, means for actuating said fasteners including a wire extending through said openings in the standards, the extremities of said wire adapted to be disposed through the hat rim, buttons secured to the extremities of said wire, and elastic tapes secured to said buttons and to the standards to normally hold the buttons yieldingly in engagement with the rim of the hat.

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1,093,748. CLOSURE FOR RECEPTACLES. FRIEDRICH WAIKE, Akron, Ohio. Filed May 2, 1913. Serial No. 765,169. (Cl. 215—14.)

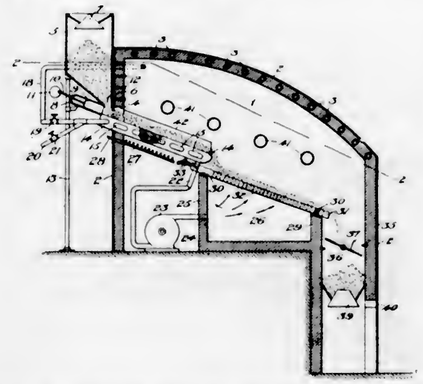


A milk bottle provided in the open end thereof with an annular channel and further provided in said open end with a plurality of lateral channels leading outwardly

from the annular channel to the periphery of the bottle neck and constituting drain outlets, the bases of said drain outlets sloping downwardly and outwardly, and a cap having a marginal depending flange of less depth than the channel and frictionally engaging the inner wall of the channel, there being a space between the outer wall of the channel and said flange, for the purpose described.

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1,093,749. CYANAMID-PRODUCING APPARATUS. VICTOR M. WEAVER, Harrisburg, Pa. Filed June 9, 1913. Serial No. 772,600. (Cl. 23—13.)



1. In a cyanamid producing apparatus the combination in a heating zone, of grate bars within said zone adapted to be constantly agitated, a heating plate adjacent to said bars having a gas heating pipe embedded therein, means for continuously feeding calcium carbid over said plate and grate bars, and means for continuously forcing a supply of nitrogen gas through said bars and body of calcium carbid.

2. In a cyanamid producing apparatus the combination in a heating zone, of grate bars within said zone adapted to be constantly agitated, a heating plate adjacent to said bars having a gas heating pipe embedded therein, a burner beneath said plate, means for continuously feeding calcium carbid over said plate and grate bars, and means for continuously forcing a supply of nitrogen gas through said bars and body of calcium carbid.

3. In a cyanamid producing apparatus the combination in a heating zone, of downwardly sloping grate bars within said zone adapted to be constantly agitated, a downwardly sloping heating plate adjacent to said bars having a gas heating pipe embedded therein; means for continuously feeding calcium carbid over said plate and grate bars, and means for continuously forcing a supply of nitrogen gas through said gas heating pipe, grate bars and body of calcium carbid.

4. In a cyanamid producing apparatus the combination in a gas tight heating zone, of grate bars within said zone arranged and adapted to be constantly agitated, a heating plate adjacent to said bars, a gas pipe leading from the interior of said heating zone through said heating plate and beneath the grate bars aforesaid, means for continuously feeding calcium carbid over said plate and grate bars, and means for continuously forcing a supply of nitrogen gas through said bars and body of calcium carbid thereon.

5. In a cyanamid producing apparatus the combination in a gas tight heating zone, of perforated grate bars within said zone arranged and adapted to be constantly agitated, a heating plate adjacent to said bars, a gas pipe leading from the interior of said heating zone circuitously through said heating plate and beneath the grate bars, a fresh nitrogen supply pipe communicating with the gas pipe aforesaid, means for continuously feeding calcium carbid over said plate and grate bars, and a blower for continuously forcing a supply of nitrogen gas through the perforations of said grate bars and body of calcium carbid therein.

[Claims 6 to 8 not printed in the Gazette.]

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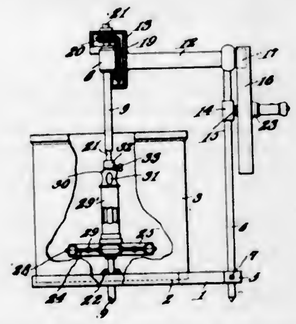
1,093,750. COMBINATION TRIPOD AND STAFF. HARRY S. WELBY, Fresno, Cal. Filed Apr. 23, 1913. Serial No. 763,161. (Cl. 248—44.)



In a device of the character described, the combination of a head member, a plurality of supporting legs hingedly connected at one of their ends to said head member, said legs when in their folded position constituting a staff of circular form in cross section, the lower end of each of said legs being tapered to form a pointed terminal upon the staff, a conical protecting metal tip for said terminal, and resilient holding members on said legs coacting with the metal tip to retain the same in position.

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1,093,751. BUTTER-SEPARATOR. GEORGE E. WHEELER, Burlington, Iowa, assignor to The Burlington Separator Co., Burlington, Iowa, a Corporation of Iowa. Filed Oct. 24, 1913. Serial No. 797,086. (Cl. 31—42.)



1. A butter separator including a container, a shaft extending thereinto, means for rotating the shaft in either direction, and a dasher revoluble with the shaft and including upper and lower disks having spaced portions forming non-communicating radial air passages extending from the centers of the disks to the peripheries thereof, a tubular stem projecting upwardly from one of the disks and concentric with the shaft, a spherical head at the upper end of the stem and having an air inlet port, and means for holding the dasher against sliding movement on the shaft, said dasher operating with equal efficiency, when rotated in either direction, for discharging air therefrom and into the container.

2. A butter separator including a container, a shaft extending thereinto, means for rotating the shaft, and a dasher revoluble with the shaft and including upper and lower disks having registering radial grooves forming non-communicating passages, the walls of the grooves being inclined, the corresponding walls of opposed grooves converging toward each other to pack air at one side of each passage during the rotation of the dasher and to discharge air radially from the passage in the form of a jet, said grooves extending from the centers to the peripheries of the disks, those portions of the disks between the grooves being in contact and connected together, a tubular stem projecting from the upper disk and concentric with the shaft, there being an air inlet at the upper end of the stem, and means carried by the stem for engaging the shaft to hold the dasher against sliding movement.

3. A butter separator including a container, a shaft extending thereinto, means for rotating the shaft, and a dasher revoluble with the shaft and including upper and lower disks having registering radial grooves forming non-communicating passages, the walls of the grooves being inclined, the corresponding walls of opposed grooves converging toward each other to pack air at one side of each passage during the rotation of the dasher and to discharge the air in a jet from the passage, said grooves extending from the centers to the peripheries of the disks, those portions of the disks between the grooves being in contact and connected together, a tubular stem projecting from the upper disk and concentric with the shaft, a spherical head at the upper end of the stem and having air inlets, said inlets being elliptical, and means above the head for engaging the shaft to hold the dasher against sliding movement on the shaft.

4. In a separator the combination with standards, driving mechanism supported thereby and a shaft actuated by the mechanism, of a base detachably and adjustably mounted on the standards, a container supported by the base, said shaft extending into the container, and a dasher revoluble with the shaft and in the container, said dasher including spaced disks fixedly connected and forming radial non-communicating passages therebetween extending from the center to the periphery of the disks, a tubular stem projecting upwardly from one of the disks and concentric with the shaft, said stem having an air inlet at its upper end, and means for holding the dasher against longitudinal movement upon the shaft.

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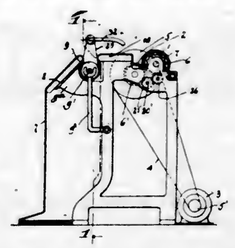
1,093,752. COLLAR-BUTTON. MICHAEL W. WISMER, Doylestown, Pa. Filed June 21, 1911. Serial No. 634,552. (Cl. 24—101.)



As a new article of manufacture, a collar button comprising an outer tubular shank having a flared end and a slightly tapered end, a base fixed to the flared end of said tubular shank, spring arms, curved in cross section in the arc of a circle secured within the tubular shank, and formed of a single piece of spring metal, said spring arms being permanently held in said tubular shank by crimping said tubular shank adjacent its lower extremity and the ends of said arms projecting beyond the tapered end of said shank and normally flared apart, and semi-spherical sections on the outer ends of said arms adapted when forced together to form a spherical head, and of a size when expanded appreciably greater in diameter than the diameter of said tubular shank, substantially as described.



1,093,753. FABRIC-WINDING DEVICE FOR EMBROIDERING-MACHINES. ROBERT ZAHN, Plauen, Germany. Filed Jan. 23, 1913. Serial No. 743,844. (Cl. 26—2.)



1. In embroidering machines, the combination with the fabric roller, of a fabric winding device comprising a smooth guide table, a fabric stretching table, a loose rough roller capable of vertical movement parallel to itself and arranged between said two tables and means for braking said loose roller to regulate the tension of the fabric.

2. In embroidering machines, the combination with the fabric roller, of a fabric-winding device comprising a smooth guide table, a fabric stretching table, a loose rough roller between said two tables, a loose pulley, and a band guided over said pulley and which passes around the said loose roller, and means whereby a braking action can be imparted to said loose roller to regulate the tension of the fabric.

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1,093,754. EXPANSION MEMBER FOR ELECTRIC HEATING DEVICES. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 14, 1912. Serial No. 736,707. (Cl. 219—19.)



1. The combination in an electrically heated device, of a sheet metal casing, a metal incased electric resistance unit mounted in an aperture therein and an expansion member located between the said heating unit and said casing of greater flexibility than the latter.

2. The combination in an electrically heated device, of a sheet metal casing, a metal incased heating unit mounted in an aperture therein and an expansion member located between said heat unit and said casing having a portion thereof extending outside of the plane of said casing.

3. The combination in an electrically heated device, of a sheet metal casing, an expansion member mounted in an aperture therein and an electric resistance heating unit substantially flush with said casing and mounted upon the said expansion member, said expansion member being sinuous in section.

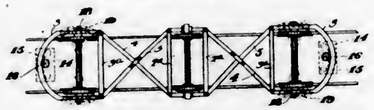
4. The combination in an electrically heated device with a sheet metal casing having an aperture therein, a metal incased electric resistance heating unit substantially flush with said casing located in said aperture and a continuous expansion member extending between the said heating unit and said casing and having a portion thereof extending outside of the plane of said casing.

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1,093,755. AXLE-TRUCK OF RAILWAY AND TRAMWAY VEHICLES. THOMAS WALTER BARBER, South Norwood, London, England. Filed Sept. 6, 1910. Serial No. 580,719. (Cl. 105—137.)

1. In the running gear of cars, the combination of a truck-frame composed of two end sections and a middle section jointed together with double joints to insure vertical stability, an axle mounted in each section, a roller at

each end of the end sections and a car body having arc grooves in its bottom which receive said rollers to limit the movement of the end trucks.



2. In the running gear of cars, the combination of a truck-frame composed of two end sections and a middle section jointed together for horizontal flexure, an axle mounted in each section, a roller at each end of the end sections and a car body having arc grooves in its bottom which receive said rollers to limit the movement of the end trucks.

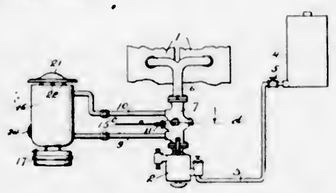
3. In the running gear of cars, the combination of a truck-frame composed of two end sections and a middle section jointed together with double joints to give vertical stability and devices for effecting such double jointing, each of said devices consisting of two parallel beams and intervening parts and being pivoted at each end in two different horizontal planes to one of said sections substantially as set forth.

4. In the running gear of cars, a truck-frame composed of two end sections and a middle section, in combination with pairs of crossed links, each of which consists of two horizontal beams and intervening parts and is pivotally connected at each end in two different horizontal planes to one of said sections.

5. In the running gear of cars, the combination of a truck frame, vertically rigid and horizontally flexible, composed of two end sections and a middle section jointed together with double joints to give vertical stability, an axle mounted in each section, an arc-slotted plate attached to the bottom of the car body at each end thereof, a grooved roller on each end section of said frame working in said slot, the edges of said plate fitting in the groove of said roller, and a roller on each end of the end axles working in an arc groove in the bottom of the car body to limit the movement of the end trucks in relation to the same.

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1,093,756. DEVICE FOR HEATING CHARGES FOR EXPLOSIVE-ENGINES. FRANK A. BEASLEY, Garnett, Kans., assignor of one-half to W. A. Rollins, Kansas City, Mo. Filed Feb. 21, 1911. Serial No. 609,875. (Cl. 123—122.)

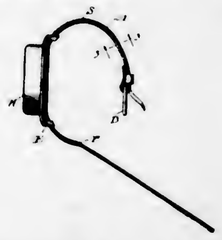


The combination with the explosion chamber of an explosive engine, of a carbureter, a conductor connecting the carbureter with the explosion chamber and provided with a by pass having a heating chamber, a shut off valve in the conductor between the ends of the by pass, and a lamp for heating said heating chamber and having a chimney which encircles said heating chamber.

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1,093,757. BRACELET-HOLDER FOR WATCHES. ALBERT C. BECKEN, Chicago, Ill. Filed June 23, 1913. Serial No. 775,337. (Cl. 224—4.)

1. In a bracelet holder for watches, the combination with a holder, a strap, and a buckle for securing the strap and holder to the wrist of a wearer, of a spring secured to the strap and extending in the form of a hook from the buckle to a point beyond the holder and equal in length to more than one-half the circumference of the wrist but less than the entire circumference, said spring serving to normally hold the strap in such form that it may be easily placed upon the wrist by one hand only and also serving to retain the strap in position on the wrist so that the free end of the strap may be inserted in the buckle by one hand only.



2. In a bracelet holder, a holder, a strap secured thereto, a buckle secured to one end of the strap, and a spring secured to the strap and extending from the buckle to the holder, said spring being bent so that the part of the strap between the buckle and the holder will be held in the form of a hook adapted to engage the wrist and support the buckle in a position convenient for the insertion of the free end of the strap in the buckle by one hand only.

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1,093,758. BRACELET WATCH-HOLDER. ALBERT C. BECKEN, Chicago, Ill. Filed June 23, 1913. Serial No. 775,338. (Cl. 224—4.)



1. In a bracelet holder, a watch, a spring secured to one side of the watch and shaped to correspond in form to a portion of the circumference of the wrist, a second spring secured to the other side of the watch and shaped to correspond in form to the opposite side of the wrist, a snap joint in the connection between the second spring and the watch, and a locking device for holding the second spring for displacement on its snap joint.

2. In a bracelet holder, a watch, a spring secured to one side of the watch and shaped to correspond to one side of the wrist of the wearer, a second spring secured to the other side of the watch and shaped to correspond to the other side of the wrist, a hinge in the form of a snap joint by which one side of the bracelet may be opened, and locking devices for securing the two sides of the bracelet together when closed.

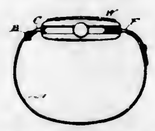
3. In a watch holder, a watch, a spring secured to one side of the watch and shaped to correspond to one side of the wrist of the wearer, a second spring secured to the other side of the watch and shaped to correspond to the other side of the wrist, and adjustable locking devices for securing the free ends of the springs together on the side of the wrist opposite the watch.

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1,093,759. BRACELET WATCH-HOLDER. ALBERT C. BECKEN, Chicago, Ill. Filed June 23, 1913. Serial No. 775,339. (Cl. 224—4.)

1. In a watch holder, a spring band shaped to conform substantially to the form of the wrist of the wearer and of a length exceeding one-half of the wrist circumference, a watch, a snap joint connecting one side of the watch to one end of the band, and a locking device for connecting the other side of the watch to the other end of the band.

2. In a watch holder, a spring band shaped to conform substantially to the form of the wrist of the wearer and of a length exceeding one-half of the wrist circumference, a watch pivoted at one side to one end of the band, a spring in the pivotal connection arranged to hold the watch at either of two positions with respect to the band,

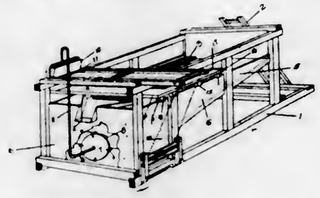


a spring piece secured to the other side of the watch and provided with slots, and a button secured to the band at the end opposite the pivotal connection, said button being adapted to engage one of said slots to lock the bracelet on the wrist.

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1,093,760. PLACER-MACHINE. JOHN BERGER, Salt Lake City, Utah. Filed Feb. 18, 1913. Serial No. 749,272. (Cl. 83—82.)



1. A placer machine comprising in combination, a tank having an inclined riffled bottom, a settling compartment in proximity to the lower end of the bottom, a screen overlying the tank, means for feeding gravel containing gold thereto, discharging and elevating means in the settling compartment, a straining means overlying the tank and screen adapted to receive material from said discharging and elevating means, and having a mesh adapted to freely pass water, a chute under said straining means provided with collecting pockets for fine silt passing through the straining means and having its discharge end positioned to deliver the water to the tank over the inclined bottom.

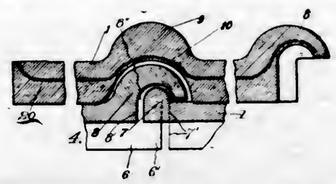
2. A placer machine comprising in combination, a tank having an inclined riffled bottom, a settling compartment in proximity to the lower end of the bottom, agitating and elevating means in the settling compartment, a straining means overlying the tank and screen adapted to receive material from said agitating and elevating means, and having a mesh adapted to freely pass water, a chute under said straining means provided with collecting pockets for fine silt passing through the straining means having its discharge end positioned to deliver the water to the tank over the inclined bottom.

3. In combination with a placer machine having a settling tank containing water containing silt and particles of gold, discharging and elevating means, an endless belt of fibrous material revolving upon a system of pulleys, said belt being placed below the said discharging means and above the said settling tank, a chute between the said settling tank and the said fibrous belt provided with collecting pockets for fine silt passing through the straining means and having its discharging end positioned to deliver water to the settling compartment.

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1,093,761. TILE. CHARLES G. BLAKE, Pittsburgh, Pa. Filed Mar. 24, 1913. Serial No. 756,340. (Cl. 108—10.)

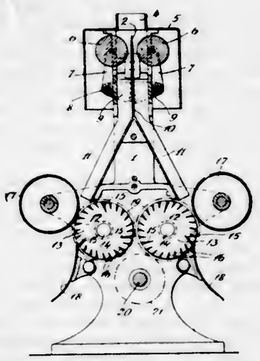
In combination, roof purlins, reinforced concrete roofing slabs adapted to rest on the purlins, each slab having an upright rib extending across the upper edge, a depending rib at this point and a depending rib extending across the lower edge, the under-surface of the tile adjacent to this rib and the upper surface adjacent the upright rib being substantially flat, the depending rib at the top being hooked over the purlins of the roof and the depending rib at the bottom edge resting on the flat surface beyond the upright rib of the tile next below over which it



is hooked, the flat surfaces of the tiles adjacent the ribs serving to permit them to slide one over the other, means for joining the adjacent lateral edges of the tiles and an elastic cement in the space between the overlapping ribs.

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1,093,762. BANANA-PEELING MACHINE. GEORGE J. BRAGG, Philadelphia, Pa. Filed June 26, 1911. Serial No. 635,289. (Cl. 146—11.)



1. A fruit peeling machine such as described, comprising in combination splitting means, a spreader in the line of movement of the fruit through such splitting means, diverging chutes extending outward from said spreading means, and pulp-gathering means receiving the split fruit from such chutes.

2. A fruit peeling machine such as described, comprising in combination splitting means, a spreader in the line of movement of the fruit through such splitting means, diverging chutes extending outward from said splitting means, and pulp-gathering means receiving the split fruit from such chutes, such pulp-gathering means comprising obtunding blades whereby the pulp is divided into pieces without cutting of the peel.

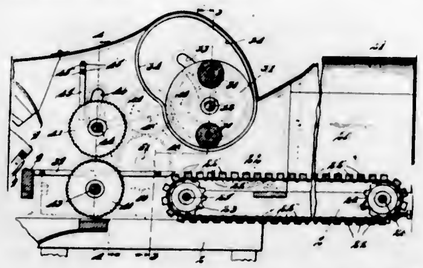
3. A fruit peeling machine such as described, comprising splitting means, diverging chutes arranged to receive the sections of the fruit split by said splitting means, and pulp-gathering means receiving the split fruit from such chutes.

4. A fruit peeling machine such as described, comprising splitting means, diverging chutes arranged to receive the sections of the fruit split by said splitting means, and a plurality of pulp-gathering means, one located in operative relation to each such chute, and arranged to separate the pulp of the fruit from the peel.

5. A fruit peeling machine such as described, comprising splitting means, diverging chutes arranged to receive the sections of the fruit split by said splitting means, a plurality of pulp-gathering means, one located in operative relation to each such chute, and arranged to separate the pulp of the fruit from the peel, a driving member, and means driven thereby for driving said pulp-gathering means.

[Claims 6 to 8 not printed in the Gazette.]

1,093,763. FEEDER FOR ENSILAGE-MACHINES. NORTON M. BROWN, Aurora, Ill. Filed Feb. 12, 1913. Serial No. 747,842. (Cl. 193—14.)



1. In a machine of the class described, conveying mechanism comprising in combination an endless belt; a pair of revoluble rollers mounted to float above said belt; and means for driving said rollers and said belt, substantially as described.

2. In a machine of the class described, conveying mechanism comprising in combination an endless belt; a rotatable member mounted to float above said belt for coöperation therewith in feeding material deposited upon said belt, said member comprising rotatable end pieces; a pair of rollers extending between and having their ends secured to said end pieces so that when the latter are rotated said rollers will be revolved; and means for revolving said rollers and driving said belt, substantially as described.

3. In a machine of the class described, conveying mechanism comprising in combination an endless belt; a rotatable member mounted to float above said belt for coöperation therewith in feeding material deposited upon said belt, said member comprising rotatable end pieces; a pair of rollers extending between and having their ends secured to said end pieces so that when the latter are rotated said rollers will be revolved; means for rotating said rollers during revolution thereof, and : eans for revolving said rollers and for driving said belt, substantially as described.

4. In a machine of the class described, conveying mechanism comprising in combination an endless belt; a pair of superposed rollers at the discharge end of said belt; a rotary member arranged above and adapted for coöperation with said belt in feeding material deposited upon said belt, the upper one of said superposed rollers and said rotary member being mounted to float; means for driving the lower one of said superposed rollers; and an operative connection between said last mentioned roller and the other of said rollers and said rotary member permitting of free floating movement of the latter, substantially as described.

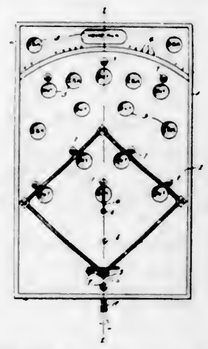
5. In a machine of the class described, conveying mechanism comprising in combination an endless belt; a pair of superposed rollers at the discharge end of said belt; a rotary member arranged above and adapted for coöperation with said belt in feeding material deposited upon said belt, the upper one of said superposed rollers and said rotary member being mounted to float; means for driving the lower one of said superposed rollers; and a gear connection between said last mentioned roller and the other of said rollers and said rotary member permitting of free rotary movement of the latter, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,764. GAME APPARATUS. SAMUEL F. BROWN, Indian Orchard, Mass. Filed Nov. 16, 1912. Serial No. 731,819. (Cl. 46—61.)

1. In game apparatus, the combination of a ball, a bat member, a board, a lever, means to shift said lever, a post rising from said lever, a bat member fastened to said post, a slidable rod member pivoted to said lever, said rod member having a post, an elongated slot in the board, said post projecting beyond the board, an adjustable ball actuating member on said latter post, and return spring means for said rod member.



2. In game apparatus, the combination of a ball, actuating means for the ball consisting of a post, and an actuating member rotatable on said post, said member having an eccentric recess engaging said post.

3. In game apparatus, the combination of a ball, actuating means for said ball consisting of a post, a cylindrical actuating member for the ball, said member having an eccentric recess to removably engage the post.

4. In game apparatus, the combination of a post, a player member provided with a transversely elongated slot and a recess.

5. In game apparatus, the combination of a bat member, of a post member extending at right angles thereto, of a player member supported on said post and bat member provided with a transversely elongated recess to engage said bat member, and a slot to engage said post.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,765. HAT-PIN-POINT PROTECTOR. JOHN HENRY BURNS, Beloit, Wis. Filed May 19, 1913. Serial No. 768,488. (Cl. 24—155.)



A hat pin point protector comprising a plate; ears formed integral with said plate and bent at substantially right angles thereto to constitute the sides of a channel adapted for the reception of a pin point; a tongue formed integral with said plate and bent back therefrom over said channel for frictionally engaging a pin point positioned in said channel, the bight of said tongue serving as a stop for the point of the pin inserted into said channel; a manually adjustable lever rockingly mounted between said ears for pressing said tongue into and retaining the same in engagement with the pin point positioned in said channel; and a shell supporting said plate centrally thereof and having an opening at one side alining with said channel for the admission of the pin point, said shell being provided with a slot through which one end of said lever projects exteriorly, substantially as described.

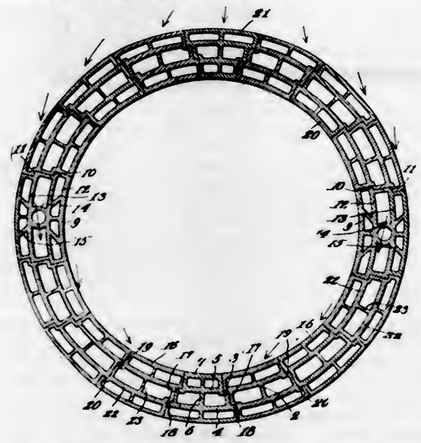
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1,093,766. SECTIONAL CONDUIT. EDWIN M. CAMPFIELD, Richmond, Ind. Filed Oct. 15, 1913. Serial No. 795,296. (Cl. 72—51.)

1. A conduit or the like made up of superposed courses of blocks, the blocks of the bottom course having their sides stepped inwardly or upwardly, the blocks of the top course having their sides stepped inwardly or downwardly, the blocks of the side courses having their sides stepped outwardly, the blocks of the courses between the bottom course and the side courses having their lower sides stepped outwardly and their upper sides stepped inwardly and the blocks between the side courses and the top courses having their lower sides stepped inwardly and their upper sides stepped outwardly, the blocks of all the courses having lapping ends.



2. A conduit or the like made up of superposed courses of blocks, the blocks of the bottom course having their sides stepped inwardly or upwardly, the blocks of the top course having their sides stepped inwardly or downwardly, the blocks of the side courses having their sides stepped outwardly, the blocks of the courses between the bottom course and the side courses having their lower sides stepped outwardly and their upper sides stepped inwardly and the blocks between the side courses and the top courses having their lower sides stepped inwardly and their upper sides stepped outwardly, the blocks of all the courses having lapping ends.



3. A conduit or the like made up of superposed courses of blocks, the blocks of the bottom course having their sides stepped inwardly or upwardly, the blocks of the top course having their sides stepped inwardly or downwardly, the blocks of the side courses having their sides stepped outwardly, the blocks of the courses between the bottom course and the side courses having their lower sides stepped outwardly and their upper sides stepped inwardly and the blocks between the side courses and the top courses having their lower sides stepped inwardly and their upper sides stepped outwardly, each of the blocks having a transverse partition and intermediate radial webs.

4. A conduit or the like made up of superposed courses of blocks, the blocks of the bottom course having their sides stepped inwardly or upwardly, the blocks of the top course having their sides stepped inwardly or downwardly, the blocks of the side courses having their sides stepped outwardly, the blocks of the courses between the bottom course and the side courses having their lower sides stepped outwardly and their upper sides stepped inwardly and the blocks between the side courses and the top courses having their lower sides stepped inwardly and their upper sides stepped outwardly, each of the blocks having a transverse partition and intermediate radial webs, the blocks of each course having lapping ends.

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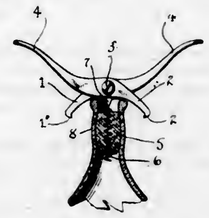
1,093,767. EXPLOSIVE. AUGUSTE E. CHARBONNEAUX, San Francisco, Cal. Filed May 24, 1913. Serial No. 769,602. (Cl. 52—1.)

1. An explosive consisting of an ammonium sulfonate of a hydrocarbon, potassium chlorate and potassium permanganate.

2. An explosive consisting of ammonium sulfonate of naphthalene and potassium chlorate and potassium permanganate.

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1,093,768. CORK-PULLER. EDMUND J. CORKERY, Grand Rapids, Mich. Filed Sept. 11, 1913. Serial No. 789,391. (Cl. 65—51.)



1. A cork puller, comprising a pair of pliers, one member of which serves as a lever to engage the mouth of a bottle and a cork screw attached to said member and adapted to enter a cork in said bottle.

2. A cork puller, comprising a pair of pliers and a cork screw attached to said pliers and extending between the jaws thereof, said pliers being adapted to engage the mouth of a bottle to act as a lever to raise the cork and to grip the cork to aid the cork screw.

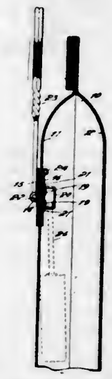
3. A cork puller, comprising a pair of pliers having prongs on its jaws and a cork screw attached to said pliers and extending between the jaws thereof, said pliers being adapted to engage the mouth of a bottle to act as a double lever to raise the cork and to grip the cork to aid the cork screw.

4. A cork puller, comprising a pair of pliers and a cork screw pivotally attached to said pliers at their pivotal connection, and extending between the jaws of the same, said pliers being adapted to engage the mouth of a bottle to act as a double lever to raise the cork or to engage the cork to aid the cork screw.

5. A cork puller, comprising a pair of pliers having prongs on its jaws, a removable pivot bolt to connect said jaws, and a cork screw pivotally attached to said pliers by said pivot bolt, said jaws being adapted to engage the mouth of a bottle to act as a double lever to raise the cork or to engage said cork to aid the cork screw.

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1,093,769. MOTHPROOF BAG AND THE LIKE. CHARLES A. CORCORAN, Brooklyn, N. Y. Filed Nov. 4, 1913. Serial No. 799,076. (Cl. 206—7.)



1. Hanger mechanism for moth-bags and the like comprising an elongated outer plate applied to the outer face

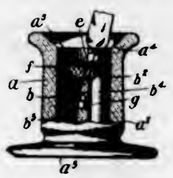
of one side of the bag and having openings therein near the ends thereof, a correspondingly elongated inner plate applied to the inner face of said side of the bag to match said outer plate and having at its inwardly facing side a loop to receive an inner hanger and at its outwardly facing side near its ends outwardly projecting loops extending through the side of the bag and the openings in said outer plate, and an outer hanger formed from a rod of wire double at its middle portion and there forming a hook and having below the hook a laterally extended box loop portion, the extreme ends of the rod constituting lateral members extended through the exposed portions of said outwardly projecting loops and binding said plates and said side of the bag together and securing said hanger to the bag.

2. Hanger mechanism for mothbags and the like comprising an elongated outer plate applied to the outer face of one side of the bag and having openings therein near the ends thereof, a correspondingly elongated inner plate applied to the inner face of said side of the bag to match said outer plate and having at its inwardly facing side means from which an article may be suspended and at its outwardly facing side near its ends outwardly projecting loops extending through the side of the bag and the openings in said outer plate, and an outer hanger having at its lower portion members extended through the exposed portions of said outwardly projecting loops and binding said plates and the said side of the bag together and securing said hanger to the bag.

3. Hanger mechanism for mothbags and the like comprising an elongated outer plate applied to the outer face of one side of the bag and having openings therein near the ends thereof, a correspondingly elongated inner plate applied to the inner face of said side of the bag to match said outer plate and having at its inwardly facing side means from which an article may be suspended and at its outwardly facing side near its ends outwardly projecting loops extending through the side of the bag and the openings in said outer plate, and an outer hanger having at its lower portion members extended through the exposed portions of said outwardly projecting loops and binding said plates and the said side of the bag together and securing said hanger to the bag, said plates having outwardly flaring edges and oppositely dished body portions.

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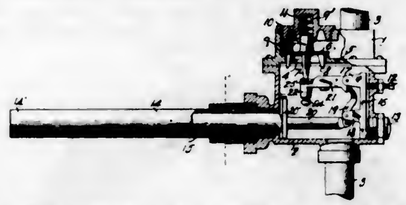
1,093,770. INKSTAND. EMRY DAVIS, Brooklyn, N. Y. Filed Jan. 30, 1913. Serial No. 745,060. (Cl. 120—61.)



1. An inkstand comprising a main well or receiver portion having a funnel-shaped top and a vertical cylindrical chamber into which said top opens, a vertically movable hollow cylindrical float placed in said chamber, said float being open at the bottom and provided with a cup-shaped top having a central tube which extends upwardly therethrough, and a tubular baffle device inserted into and removable from said tube and provided centrally of the top thereof with a transverse raised member.

2. An inkstand comprising a main well or receiver portion having a funnel-shaped top and a vertical cylindrical chamber into which said top opens, a vertically movable hollow cylindrical float placed in said chamber, said float being open at the bottom and provided with a cup-shaped top having a central tube which extends upwardly therethrough, and a tubular baffle device inserted into and removable from said tube and provided centrally of the top thereof with a transverse raised member, said baffle-device being vertically adjustable in said tube.

1,093,771. THERMOSTATIC GAS-VALVE-OPERATING MECHANISM. JOHN ELLIS, Pittsburgh, Pa., assignor to Beler Water Heater Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 25, 1913. Serial No. 763,566. (Cl. 236—5.)



1. The combination of a thermostat, a lever operated thereby, a valve, a member engaging said valve and pivotally mounted to said thermostat-operated lever, and a spring interposed between said member and lever.

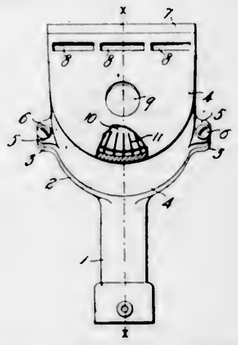
2. The combination of a thermostat, a lever operated thereby, a valve, a member engaging said valve and pivotally mounted to said thermostat-operated lever, a spring interposed between said member and lever, and means to regulate the tension of said spring.

3. The combination of a thermostat, a lever operated thereby, a valve, a member engaging said valve and pivotally mounted to said thermostat-operated lever, a spring interposed between said member and lever, and means to limit the movement of said pivoted member.

4. The combination of a thermostat, a lever operated thereby, a valve, a member engaging said valve and pivotally mounted to said thermostat-operated lever, a spring interposed between said member and lever, means to regulate the tension of said spring, and means to limit the movement of said member.

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1,093,772. GAS-BURNER. JOHN ELLIS, Pittsburgh, Pa., assignor to Beler Water Heater Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 16, 1913. Serial No. 785,034. (Cl. 158—112.)



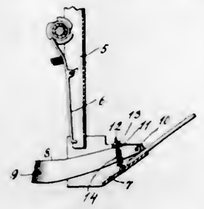
1. A gas burner, comprising a tubular gas inlet terminating at its outlet end in a chamber head, an inverted cup-shaped burner cap seated upon said head over the outlet and provided thereabout with spaced gas outlets, and a gas chamber having an integral head at its face portion also seated upon and secured to the inlet head and inclosing the burner cap, said chamber having a transversely-disposed forwardly-projected flange formed upon the upper face portion thereof, and a gas outlet directly beneath and in parallel relation therewith formed through said face portion.

2. A gas burner, comprising a tubular gas inlet terminating at its outlet end in an inclined chamber head, a frusto-conical burner cap seated upon said head over the outlet and provided thereabout with spaced slits forming gas outlets, and a gas chamber inclosing said burner cap and also seated upon and secured to the inlet head, said chamber having a transversely-disposed forwardly-projecting flange formed upon the upper face portion thereof and a plurality of elongated gas outlets formed through said face portion all of which aline and are in parallel relation with said flange and located directly beneath the same.



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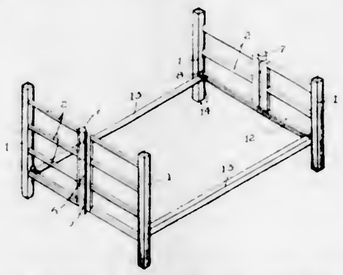
1,093,773. COVERER. THOMAS J. ELLISON, Terrill, Ky. Original application filed Feb. 1, 1912. Serial No. 674,689. Divided and this application filed Dec. 12, 1912. Serial No. 736,366. (Cl. 111—11.)



In a planter, a furrow opener, and a covering device, said device comprising laterally spaced plates pivoted at their forward ends to the side walls of the furrow opener on the inside thereof and a cross bar connecting said plates adjacent to the pivot, a screw stem carried by the cross bar, a nut securing the screw stem, and a spring connected at one end to the screw stem and at its other end to the furrow opener.

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1,093,774. BEDSTEAD. PHILIP J. FAGAN, St. Louis, Mo. Filed July 30, 1910. Serial No. 574,615. (Cl. 5—9.)



1. In a bedstead, end members each comprising a plurality of sections hinged together to fold against each other, recessed corner blocks secured to the outer ends of said sections, end rails detachably engaging the recesses in said blocks, and side rails also fitting in said recesses and locking said end rails against displacement.

2. In a bedstead, end members each comprising a plurality of sections hinged together to fold against each other, recessed corner blocks secured to the outer ends of said sections, end rails detachably engaging the recesses in said blocks, and side rails having T-headed ends adapted to fit into said recesses and rigidly to connect said end members and to lock said end rails therein.

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1,093,775. ADJUSTABLE LEVEL ATTACHMENT. ALBERT K. FRANTZ, Flourtown, Pa. Filed Mar. 27, 1912. Serial No. 686,716. (Cl. 33—213.)

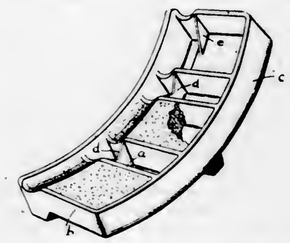
A device of the character described, comprising a flat plate, a casing located entirely on one side of the plate and secured to the plate with its upper edge flush with the upper edge of the plate, said plate being of general triangular form having extended tongues at its upper edge, one of said tongues having a circular screw-receiving opening therein, the other of said tongues having a



screw-receiving slot therein, and said plate between its ends having a circular screw-receiving opening therein, substantially as described.

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1,093,776. BRAKE-SHOE. JUDSON M. GRIFFIN, Detroit, Mich. Filed Jan. 19, 1914. Serial No. 812,917. (Cl. 188—27.)



1. An abrading brake shoe, comprising a shell with a plurality of cross partitions forming one or more abrading material containing pockets and one or more vacant pockets, integral braces for preventing vibration and fracture of the partition walls, and abrading material contained in the abrading material containing pockets.

2. An abrading brake-shoe, comprising a shell provided with a plurality of transverse partitions dividing the shell into one or more abrading material containing pockets and one or more vacant pockets, integral braces contained in the vacant pockets for bracing the partition walls to prevent vibration or fracture, and abrading material contained in the abrading material containing pockets.

3. An abrading brake-shoe, comprising a shell provided with transverse integral partitions dividing the shell into one or more abrading material containing pockets and one or more vacant pockets, integral braces in the vacant pockets comprising double triangular webs running together at their meeting ends, and abrading material contained in the abrading material containing pockets.

4. An abrading brake-shoe, comprising a shell having integral cross partitions dividing the shell into one or more abrading material containing pockets and one or more vacant pockets, said partitions of the abrading material containing pockets being slightly converging to form a dove tail, abrading blocks contained in said abrading material pockets and held therein by the dove tail lock, and integral braces attached to the partition walls of the abrading material containing pockets.

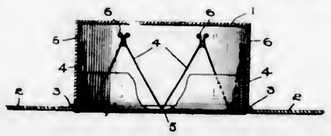
5. An abrading brake-shoe, comprising a shell having integral cross partitions dividing the shell into one or more abrading material containing pockets and one or more vacant pockets, said partitions being cut away at one end to accommodate the wheel flange, integral bracing webs connecting the partition walls and the back of the shell, the said integral bracing webs being located adjacent the inside end of the flange-cut in the partition.

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1,093,777. HAT. JACKSON O. HAAS, Philadelphia, Pa. Filed Sept. 11, 1913. Serial No. 789,230. (Cl. 2—108.)

1. As a new article of manufacture, a hat comprising a crown having an outwardly flared lower edge, a rim adapted to be positioned against the outwardly flared lower edge, means within the crown securing the rim against

said outwardly flared lower edge, said means comprising an elastic cord laced upwardly and downwardly from the rim to the upper portion of the crown and connected to both the rim and the crown, substantially as described.



2. As a new article of manufacture, a hat comprising a crown having an outwardly flared lower edge, a rim adapted to be positioned against the outwardly flared lower edge, and elastic means connecting the rim with the inner portion of the crown, said means comprising an elastic cord laced upwardly and downwardly from the rim to the upper portion of the crown and connected to both the rim and the crown, substantially as described.

3. As a new article of manufacture, a hat comprising a crown and a rim, said crown composed of a top piece and a band, means at the ends of the band securing the band in shape conforming in shape to the top piece, and coupling means connecting the top piece, the band, and the rim, said means comprising an elastic cord laced upwardly and downwardly from the rim to the upper portion of the crown and connected to both the rim and the crown, substantially as described.

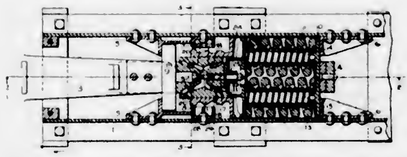
4. As a new article of manufacture, a hat comprising a crown, a rim independent of the crown, and elastic means securing the crown and rim together, substantially as described.

5. As a new article of manufacture, a hat comprising a crown having an outwardly flared lower edge, a rim adapted to be positioned against the outwardly flared lower edge, and means within the crown securing the rim against said outwardly flared lower edge, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,778. FRICTION DRAFT-RIGGING. STACEY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 16, 1911. Serial No. 603,014. (Cl. 213—64.)



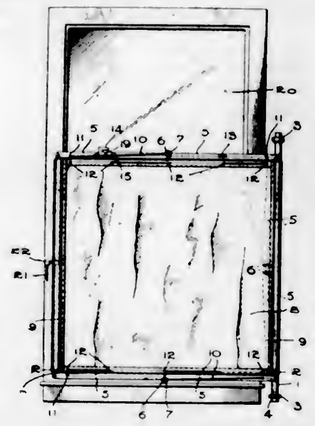
In a friction draft rigging, the combination with a draw-bar, draft yoke, twin springs, a twin spring follower and a twin spring bearing member, of a friction shell, friction shoes within the shell, a supplemental wedge and anti-friction rollers interposed between said twin spring bearing member and the friction shoes, and a main wedge and anti-friction rollers interposed between the draw-bar and friction shoes, substantially as specified.

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1,093,779. SCREEN. ROSE HELLER, Philadelphia, Pa. Filed Sept. 16, 1913. Serial No. 789,973. (Cl. 156—14.)

1. A screen of the character described, comprising two rods, links pivotally connecting the rods, flexible material connected to the rods and to the links, and one of said rods longer than the other and adapted to be pivotally connected to a support, substantially as described.

2. A screen of the character described, comprising two rods, pivoted links connecting the rods, flexible material connected to the rods and to the links, a lug on one of said links, and a sliding lock on another of said links having a hooked end adapted to engage said lug and lock the links together when said links are moved side by side, substantially as described.



3. A screen of the character described, comprising two vertical rods, one rod longer than the other, devices receiving the ends of the longer rod and providing rotary mounting therefor, links pivotally connected to the rods and to each other, flexible material connected to the rods and to the links, a lug on one of the upper links, a sliding lock on the other of the upper links, said lock having a hooked end adapted to engage over the lug when the links are folded together, substantially as described.

4. A screen of the character described, comprising two vertical rods, a pair of pivoted links connecting the rods adjacent their upper ends, a second pair of pivoted links connecting the rods adjacent their lower ends, a sheet of flexible material connected at its ends to the rods, lacings connecting the upper and lower edges of the flexible material to the links, and means for locking one pair of said links in folded position, substantially as described.

5. A screen of the character described, comprising two vertical rods, a pair of pivoted links connecting the rods adjacent their upper ends, a second pair of pivoted links connecting the rods adjacent their lower ends, a sheet of flexible material connected at its ends to the rods, lacings connecting the upper and lower edges of the flexible material to the links, means for locking one pair of said links in folded position, said means comprising a lug on one of said links, and a lock on the other of said links, said lock movable in a slot in said last-mentioned link and having a hooked end adapted to engage over said lug, substantially as described.

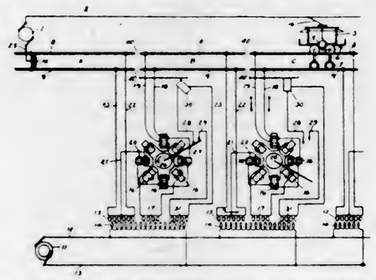
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1,093,780. RELAY-BOND. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company Gates, N. Y., a Corporation of New York. Filed Aug. 8, 1911. Serial No. 643,041. (Cl. 246—36.)

1. In a signaling system for electric railways, a source of propulsion current, a trackway composed of two lines of rails, insulating means interposed in each line of rails at approximately opposite points at intervals forming sections, a relay having a field winding, the two ends of the winding being connected to the two rails at one end of a section, means to energize the relay, means connecting the middle point of the winding to the two rails at the end of the next section adjacent the relay, said means affording a path for propulsion current, and a signal device controlled by the relay.

2. In a signaling system for electric railways: a source of propulsion current; a trackway composed of two lines of rails; insulating means interposed in each line of rails at approximately opposite points at intervals forming sections; a relay having a field piece of magnetic material; a plurality of coils wound thereon, said coils being disposed in pairs, and the corresponding coils of the several pairs being joined in a series; a conductor connecting the end coil of one series with one track rail and a conductor connecting the end coil of the other series to the other track rail, that pair of coils which form the other end coils of the two sections being joined together forming a junction; a conductor connecting the junction to the two rails of an adjacent section, said conductor affording a path for propulsion current; means to energize the relay; and a signal device controlled by the relay.

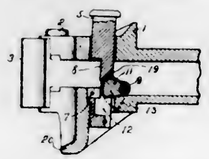




3. In a signaling system for electric railways: a source of propulsion current having two terminals; a feeder extending from one terminal of the source; a trackway composed of two lines of rails; insulating means interposed in each line of rails at approximately opposite points at intervals forming sections; a relay having a field piece of magnetic material; a plurality of coils wound thereon, said coils being disposed in pairs, and the corresponding coils of the several pairs being joined in a series; a conductor connecting the end coil of one series with one track rail and a conductor connecting the end coil of the other series to the other track rail, that pair of coils which form the other end coils of the two sections being joined together forming a junction; means connecting said junction with the said other terminal of the source of current; means to energize the relay; a signal device controlled by the relay; and a car having an electrical propelled means having two terminals, one of the terminals in contact with the feeder, the other in contact with the trackway.

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1,093,781. CAR-COUPLING. MATTHEW C. IRONSIDE, Kansas City, Kan. Filed May 6, 1910. Serial No. 559,743. (Cl. 213—10.)

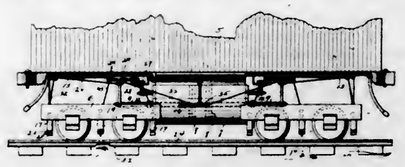


In a car coupler, a coupler head having a shelf, a laterally and vertically movable locking pin having an inclined face, a rock member having two unyielding cams one having means for engaging said inclined face for lifting the pin and guiding it laterally onto said shelf, and a knuckle pivoted to the coupler head and movable by the other cam to the open position, the knuckle having means by which as it is moved to the open position, it will dislodge and hold the locking pin disengaged from said shelf.

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1,093,782. AUTOMATIC TRAIN CONTROL. WILLIAM H. JOHNSON, Stamps, Ark. Filed Sept. 26, 1913. Serial No. 791,973. (Cl. 188—48.)

1. In a train braking mechanism, the combination with main brakes, of detectors traveling in advance of said main brakes and arranged to be actuated by their passage over a frog or switch to release the individual main brake with which they are associated.



2. In a train braking mechanism, the combination with an air brake, of a guard or detector arranged to travel in advance thereof and actuated by contact with a frog or switch to release said air brake.

3. In a device of the character described, the combination with a main air cylinder, of rail engaging brakes actuated by the admission of air thereto, valves controlling the passage of air to said cylinder, and a rail straddling guard or detector arranged to travel in advance of each of said air brakes and the movement of which controls said valve, said detectors normally lying in position to be engaged by a frog or switch.

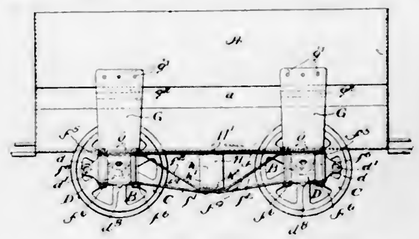
4. In a device of the character described, the combination with a main air cylinder, of air brakes actuated by the admission of air to said cylinder, valves for controlling the admission of air to and from said cylinder, an auxiliary air cylinder and guards or detectors arranged to be moved to operative position by the admission of air to said auxiliary air cylinder, and means for shifting said valves when said guards or detectors are moved by their contact with a frog or switch.

5. In a device of the character described, the combination with a main air cylinder, of air brakes actuated by the admission of air to said cylinder, valves for controlling the admission of air to and from said cylinder, an auxiliary air cylinder, a plurality of guards or detectors mounted for bodily swinging movement, connections between said detectors and said valves, and means actuated by the admission of air to the auxiliary cylinder for moving said detectors to operative position.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,783. MINE-CAR TRUCK. DAVID S. JOHNSTON, Hiawatha, Utah. Filed Jan. 24, 1914. Serial No. 814,158. (Cl. 105—32.)



1. A truck for mine cars comprising, the two side members open at their ends to receive the journal boxes, a transverse brace to support the car body and secured at its ends to the middle portions of the said side members, and vertical braces secured at their lower ends to the ends of the side members and adapted at their upper ends to be secured to the sides of a car body.

2. A truck for mine cars comprising, the two side members open at their ends to receive the journal boxes, a transverse brace to support the car body and secured at its ends to the middle portions of the said side members, vertical braces secured at their lower ends to the ends of the side members and adapted at their upper ends to be secured to the sides of a car body, and angle plates or shoul-

ders on the inner sides of said vertical braces to engage the incline portions of the sides of a car.

3. A truck for mine cars comprising, two side members having journal box-receiving openings at their opposite ends, a transverse brace to support the car, and having its ends forked and rigidly secured to the middle portions of the upper and lower sides of the said side members.

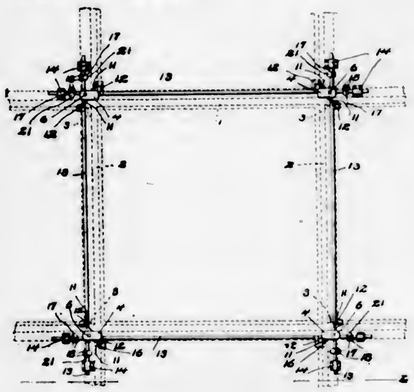
4. A truck for mine cars comprising, two side members each formed of upper and lower bars spaced at their opposite ends to form journal-box-receiving openings, a longitudinal strut bent down at its middle and secured to the lower longitudinal bar and thence inclined upwardly and along the lower face of the upper bar to the ends thereof, a transverse brace extending from the middle of one side member to the other and thence downwardly and outwardly and bolted or riveted at its ends to the middle of the lower longitudinal truck bars and the middle of said longitudinal braces, and a top bar extending along the upper side of said transverse brace and bolted or riveted to the middle of the top bars of said side members.

5. A mine car provided with journal boxes formed with extensions at their outer ends having transverse sprag holes.

[Claim 6 not printed in the Gazette.]

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1,093,784. RAILROAD-CROSSING. CHARLES F. KELLY, Philadelphia, Pa. Filed June 17, 1913. Serial No. 774,114. (Cl. 104—117.)



1. The combination with a railroad crossing having recesses at the juncture of the crossing rails, of vertical shafts supported in the rails, blocks secured to turn with said shafts and adapted to be moved in the recesses to position said blocks so as to bridge the gaps in the rails, horizontal shafts supported by the rails and crossing each other at the juncture of the rails, crank arms on said horizontal shafts, a crank arm on each vertical shaft, links connecting the crank arm on each vertical shaft with the crank arms of both horizontal shafts crossing each other adjacent said vertical shaft, and means operated by the car for turning said horizontal shafts, substantially as described.

2. The combination with a railroad crossing having recesses at the juncture of the rails, of short vertical shafts supported in said recesses, blocks secured to the shafts and adapted to bridge the gaps between the tread portions of the rails, longitudinal shafts supported by the rails, crank arms on said shafts, crank arms on the vertical shafts, links connecting the crank arms of the vertical shafts with the crank arms of the horizontal shafts, whereby all of said shafts are compelled to turn in unison, and means for turning said horizontal shafts, substantially as described.

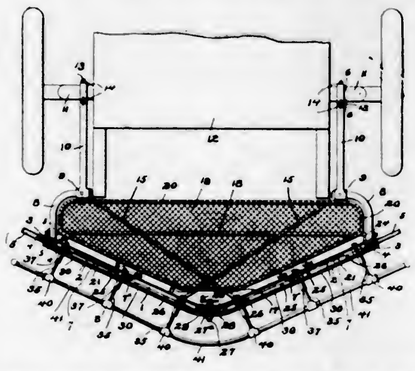
3. The combination with a railroad crossing having recesses at the juncture of the rails, of short vertical shafts supported in said recesses, blocks secured to the shafts and adapted to bridge the gaps between the tread portions of the rails, longitudinal shafts supported by the rails, crank arms on said shafts, crank arms on the vertical shafts, links connecting the crank arms of the vertical shafts with the crank arms of the horizontal shafts, whereby all of said shafts are compelled to turn in unison, crank arms on said horizontal shafts, and pins projecting above the tread portions of the rails and operatively connected to said last-mentioned crank arms, substantially as described.

4. The combination with a railroad crossing having recesses at the juncture of the rails, of short vertical shafts supported in said recesses, blocks secured to the shafts and adapted to bridge the gaps between the tread portions of the rails, longitudinal shafts supported by the rails, crank arms on said shafts, crank arms on the vertical shafts, links connecting the crank arms of the vertical shafts with the crank arms of the horizontal shafts, whereby all of said shafts are compelled to turn in unison, crank arms on said horizontal shafts, pins projecting above the tread portions of the rails and operatively connected to said last-mentioned crank arms, said rails having recesses in their tread portions, and heads on said pins movable in said recesses and adapted when depressed to bear against the inner or base portions of the recesses, substantially as described.

5. The combination with a crossing having recesses at the juncture of the rails, vertical shafts located in said recesses, blocks removably secured upon the upper ends of said shafts and adapted to bridge the gaps between the rails, crank arms on said vertical shafts, two lugs on said crank arms, horizontal shafts supported by the rails and crossing each other, crank arms on said horizontal shafts, curved links connecting the last-mentioned crank arms with said lugs, and means operated by a car for compelling all of said shafts to turn and move the blocks, substantially as described.

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1,093,785. FENDER. CONRAD KLEIN, Philadelphia, Pa. Filed Apr. 8, 1913. Serial No. 759,820. (Cl. 105—130.)



1. The combination with a hollow bar having guides therein, vertical posts movable in the guides, enlargements on the upper ends of the posts limiting their movement through the bar, a fender bar secured to the lower ends of the posts, means within the hollow bar normally holding the fender bar in elevated position, and springs between the bars adapted to force the fender bar downwardly when permitted by said holding means, substantially as described.

2. The combination with a hollow bar having guides therein, vertical posts movable in the guides, enlargements on the upper ends of the posts limiting their movement through the bar, a fender bar secured to the lower ends of the posts, means in the first-mentioned bar for holding elevated the fender bar, a bumper adapted to release said means and permit the fender bar to fall, means within the hollow bar normally holding the fender bar in elevated position, and springs between the bars adapted to force the fender bar downwardly when permitted by said holding means, substantially as described.

3. The combination with a bar having guides therein, vertical posts movable in the guides, enlargements on the upper ends of the posts limiting their movement through the bar, a fender bar secured in the lower ends of the posts, means in the first-mentioned bar for holding elevated the fender bar, a bumper adapted to release said means and permit the fender bar to fall, said first-mentioned bar having a grooved lower face, said fender bar having a grooved upper face, and springs secured to the upper bar and engaging the lower bar, and housed within the grooves of said bars when the lower bar is elevated, substantially as described.

4. The combination with a hollow bar, and guides in the ends of said hollow bar, of posts movable in said guides, means on the posts limiting their downward movement, a fender bar secured to said posts below the first-mentioned bars, springs exerting downward pressure on the fender bar, a shaft supported in the first-mentioned bar, flexible devices connecting the shaft with the fender bar, means for turning the shaft to wind the flexible devices and elevate the fender bar, a ratchet wheel secured to turn with the shaft, a pawl controlling the ratchet wheel, and a bumper controlling the releasing pawl, substantially as described.

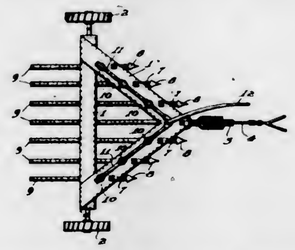
5. The combination with a hollow bar, and guides in the ends of said hollow bar, of posts movable in said guides, means on the posts limiting their downward movement, a fender bar secured to said posts below the first-mentioned bars, springs exerting downward pressure on the fender bar, a shaft supported in the first-mentioned bar, flexible devices connecting the shaft with the fender bar, means for turning the shaft to wind the flexible devices and elevate the fender bar, a ratchet wheel secured to turn with the shaft, a pawl controlling the ratchet wheel, rods movable through the first-mentioned bar, said rods having openings therein, flexible devices connected to the pawl and extending through said openings, and a bumper connected to and adapted to move said rods, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]



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1,093,786. WEED-DESTROYER. WILLIAM L. KORTHAUER, Verdi township, Lincoln county, Minn. Filed Sept. 29, 1913. Serial No. 792,305. (Cl. 111—34.)



1. A machine of the class described comprising a plurality of spaced furrowers; a plurality of parallel perforated pipes arranged in alinement with and rearward of said furrowers; and means for supplying steam to said pipes, substantially as described.

2. A machine of the class described comprising a plurality of spaced furrowers; a plurality of horizontally disposed parallel perforated pipes arranged in alinement with and rearward of said furrowers and adapted to travel in the furrows cut by said furrowers in the operation of the machine; and means for supplying steam to said pipes, substantially as described.

3. A machine of the class described comprising a plurality of spaced furrowers, each of which consists of a vertically disposed blade adapted to cleave the ground and a spreading element at the lower end of said blade; a plurality of horizontally disposed parallel perforated pipes arranged in alinement with and rearward of said spreading element; and means for supplying steam to said pipes, substantially as described.

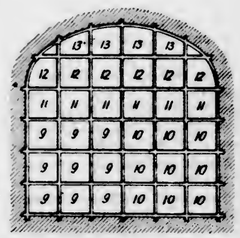
4. A machine of the class described comprising a wheeled frame; a plurality of transversely spaced furrowers provided at the under side of said frame, each of said furrowers comprising a depending vertically disposed blade adapted to cleave the ground and a spreading element at the lower end of said blade; a plurality of horizontally disposed parallel perforated pipes arranged in alinement with and rearward of said spreading element; and means for supplying steam to said pipes, substantially as described.

5. A machine of the class described comprising a wheeled frame; a plurality of transversely spaced furrowers provided at the under side of said frame, each of said furrowers comprising a depending vertically disposed blade adapted to cleave the ground and a spreading element at the lower end of said blade; a plurality of horizontally disposed parallel pipes arranged in alinement with and extending rearwardly from said spreading element; a manifold communicating with all of said pipes; and a source of steam supply communicating with said manifold, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,093,787. METHOD OF TUNNELING. HARRY A. KUHN and WALTER W. MACFARREN, Pittsburgh, Pa. Filed Oct. 30, 1909. Serial No. 525,531. (Cl. 61—16.)



1. A method of tunneling comprising the following steps: 1st, forming simultaneously a number of intersecting slots or channels in one half of the "head;" 2nd, forming simultaneously similar slots or channels in the other half of the "head" and at the same time removing the material previously cut, and the material between said previous cuts in the first half of the "head," and so on alternately "*ad libitum*."

2. The method of continuously advancing a tunnel "heading" comprising the alternate operations of forming slots in the left half of the "head" to prepare the rock for dislodgment, and at the same time dislodging and removing the rock at the right half of the "head," and then forming simjar slots at the right half of the "head" while simultaneously dislodging and removing the rock from the left half of the "head."

3. A method of tunneling comprising the formation of intersecting channels or slots of uniform depth in the "head" said slots being parallel to the bore of the tunnel and at regular intervals, and then breaking out the blocks of stone between said slots, whereby the major part of the excavated material is removed in pieces of regular size and shape suitable for building purposes.

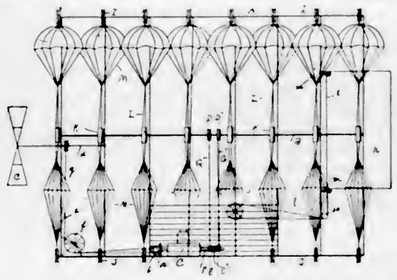
4. A method of tunneling comprising the following steps: 1st, driving a lower "heading" the full width of the tunnel; 2nd, separating the material to be excavated above said "heading" into blocks hanging by one end only; 3rd, breaking off said blocks by the application of a suitable force or forces; 4th, removing said blocks from the tunnel.

5. A method of tunneling comprising the following steps: 1st, driving a lower "heading" of the full width of the tunnel; 2nd, separating the material to be excavated above said "heading" into blocks hanging by one end only; 3rd, breaking off said blocks by the application of a suitable force or forces; 4th, dropping or lowering said blocks into cars placed under the same; 5th, removing said blocks from the tunnel.

[Claim 6 not printed in the Gazette.]

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1,093,788. FLYING-MACHINE. VINCENT A. LAMARE, Chicago, Ill., assignor of one-half to Linwood F. Jordan, Portland, Me. Filed June 8, 1908. Serial No. 437,270. (Cl. 244—11.)

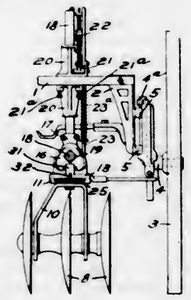


1. In a flying machine, a suitable frame, a driving shaft, a series of pulleys mounted on said frame and shaft, each series comprising five pulleys, two on each side of the machine, one at the top and the other at the bottom, and one driving pulley on said shaft, an endless cable passing around said pulleys, two parachutes secured to said cables, one on each side of the frame, and means for operating said shaft, whereby a vertical reciprocating movement is imparted to said parachutes.

2. In a flying machine, a suitable frame, a driving shaft, a series of pulleys mounted on said frame and shaft, each series comprising five pulleys, two on each side of the machine, one at the top and the other at the bottom, and one driving pulley on said shaft, an endless cable passing around said pulleys, two parachutes, one on each side of the frame, secured to and supported only by said cables, and means for rotating said shaft, whereby a vertical reciprocating movement is imparted to said parachutes.

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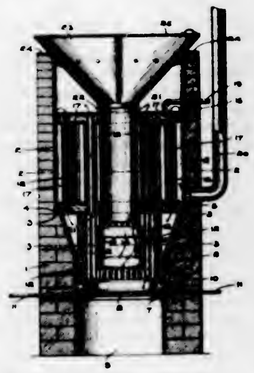
1,093,789. CULTIVATOR. PEARL A. LEWIS and HENRY N. FAAS, Springfield, Ohio, assignors to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Apr. 16, 1912. Serial No. 691,133. (Cl. 97—37.)



In a cultivator, a disk cultivating member comprising a yoke, a bearing plate secured to the upper end of said yoke, said plate having a centrally upwardly-extending projection and an outer upwardly-extending flange, a support, a plate connected with said support having a journal for said projection, means for pivotally connecting said plates together, a series of notches arranged in the front and rear of said flange respectively, and a spring-pressed dog carried by said support plate for engagement with said notches to hold said cultivating member in different positions of adjustment with respect to said support in both positions of operation of said cultivating member.

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1,093,790. STEAM-BOILER FURNACE. CHARLES E. LLOYD, Philadelphia, Pa. Filed Aug. 30, 1913. Serial No. 787,412. (Cl. 122—272.)



1. The combination with a furnace wall having an internal supporting shoulder, a drum supported on said shoulder, a second drum above the first-mentioned drum, water tubes connecting said drums, tubular flues extending through the last mentioned water tubes and communicating with the spaces above and below said drums, a magazine projecting through the central openings in both of said drums, the lower portion of the furnace below the lower drum constituting a fire box, vertical water tubes in said fire box communicating with the lower drum, and a base ring communicating with all of said last-mentioned water tubes, substantially as described.

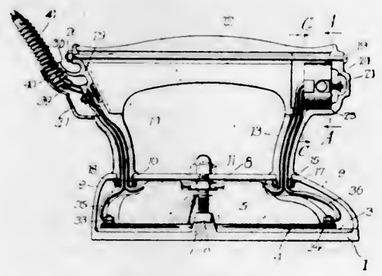
2. The combination with a furnace wall of two internal diameters, a drum having an annular flange supported on the wall at one end of the larger internal diameter thereof, a hollow ring supported within the furnace wall below the drum, water tubes connecting the ring with the drum, hollow segments located above and below the door space in the wall, water tubes connecting said segments with the drum and with the ring respectively, a second drum above the first-mentioned drum, water tubes connecting said drums, tubular flues extending through said last-mentioned water tubes and communicating with the spaces above and below said drums, and a magazine projecting through central openings in both of said drums, substantially as described.

3. The combination with a furnace wall of two internal diameters having an annular ledge at the lower end of its larger diameter, said larger diameter constituting a heating chamber, and said smaller diameter constituting a fire box, a water inlet ring horizontally positioned in the fire box, a drum located in the heating chamber at the juncture of the heating chamber with the fire box, water tubes connecting the ring with said drum, a second drum smaller in diameter than the internal diameter of the heating chamber located above the first-mentioned drum, water tubes connecting said drums, tubular flues extending through the drums and through the water tubes, and an outlet flue located in the furnace wall adjacent the lower drum, substantially as described.

4. The combination with a furnace wall of two internal diameters having an annular ledge at the lower end of its larger diameter, said larger diameter constituting a heating chamber, and said smaller diameter constituting a fire box, a water inlet ring horizontally positioned in the fire box, a drum located in the heating chamber at the junction of the heating chamber with the fire box, water tubes connecting the ring with said drum, a second drum smaller in diameter than the internal diameter of the heating chamber located above the first-mentioned drum, water tubes connecting said drums, tubular flues extending through the water tubes, an outlet flue located in the furnace wall adjacent the lower drum, said drums having alined central openings, a cylindrical magazine located in said openings, and a hopper secured in the upper end of the furnace wall and communicating with said magazine, substantially as described.

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1,093,791. ELECTRIC FLAT-IRON. CHARLES P. MADSEN, Chicago, Ill., assignor to The Michigan Stove Company, a Corporation of Michigan. Filed Sept. 26, 1912. Serial No. 722,417. (Cl. 219—25.)



1. In an electric flat iron, the combination of a body portion, a handle mounted thereon, and a controlling switch located within said handle and comprising a movable operating member formed and arranged to project outwardly through the walls of the handle at opposite sides thereof to permit said operating member to be shifted in opposite directions by the thumb and forefinger respectively of the same hand which grips the handle.

2. An electric flat iron comprising a body portion, a heating element in said body portion, a switch adapted to be set either open or closed and located in said handle, and a tubular support connecting said handle and body portion and serving as a conduit for conductors between said switch and heating element.

3. In an electric flat iron, the combination of a body portion, a heating element in said body portion, a handle having a casing at one end thereof, a controlling push switch mounted in said casing, a key projecting on each side for controlling the operation of said switch; and projecting ears on said casing for protecting said projecting key.

4. In an electric flat iron, the combination of a body portion; a pair of supports extending upwardly therefrom and having caps at their upper ends; a handle extending between said supports and having its ends connected to said caps, one of said caps being hollow with an opening on each side; and a push switch mounted therein and operable through said opening.

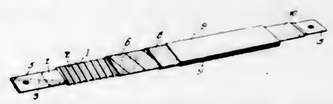
5. In an electric flat iron, the combination of a bottom plate, a pressure plate, a heating element interposed between said plates, a hollow casing surrounding said pressure plate and heating element and coacting with said bottom plate to form a housing therefor, tubular supports extending upward from said casing, a handle mounted between the upper ends of said supports, a switch at one end of said handle, and conductors housed within said casing and supports and adapted to connect said heating element and switch in circuit with an outside source of electricity.

[Claims 6 to 9 not printed in the Gazette.]



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1,093,792. ARMORED ELECTRIC HEATING-UNIT. CHARLES P. MADSEN, Chicago, Ill., assignor to The Michigan Stove Company, a Corporation of Michigan. Filed Feb. 3, 1913. Serial No. 745,936. (Cl. 219—67.)



1. An electric heating unit comprising a heating element, a covering of porous insulating fabric therefor, a thin filling of powdered insulating material applied to the latter, and a close fitting metallic armor tightly inclosing and compressing the same, said powdered material filling all the minute spaces between said heating element, insulation and armor, and filling the pores or interstices of said insulation.

2. An electric heating unit, comprising a flat core of insulating material, a winding of high resistance conducting material mounted on said core, a wrapping of insulating material inclosing said winding, a pair of strips of comparatively stiff material longitudinally disposed and secured to opposite flat sides of said wrapping of insulating material, and a flat tubular shell tightly holding and compressing said parts and serving as an armor therefor.

3. A heating unit, comprising a heating element having a thin fibrous fireproof insulating covering permeated with a powdered refractory insulating material.

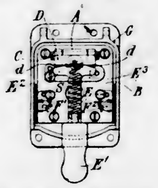
4. A heating unit, comprising a coil of resistance material covered with a wrapping of fibrous fireproof insulating material, said wrapping being permeated and covered by a continuous layer of powdered refractory insulating material.

5. A heating unit, comprising a coil of resistance material covered with a wrapping of fibrous fireproof insulating material, said wrapping being covered by a continuous layer of powdered silica.

[Claims 6 to 19 not printed in the Gazette.]

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1,093,793. ELECTRIC SWITCH. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car-Heating Company, a Corporation of West Virginia. Filed Aug. 11, 1911. Serial No. 643,575. (Cl. 177—10.)



1. The combination with a switch-arm, of a pivotally mounted spring anchorage, a spring connecting the arm and anchorage, and oppositely disposed laterally projecting wings carried by the arm for engaging and moving the anchorage.

2. The combination with a pivotally mounted switch arm, of a spring anchorage movable in a direction other than the movements of the arm, a spring connection between the arm and anchorage, and laterally projecting wings carried by the arm for moving the anchorage.

3. The combination with a pivoted switch arm, provided with lateral extensions one on each side of the pivotal point, of a movable spring-anchorage bearing against said extensions, and a spring between said anchorage and the arm.

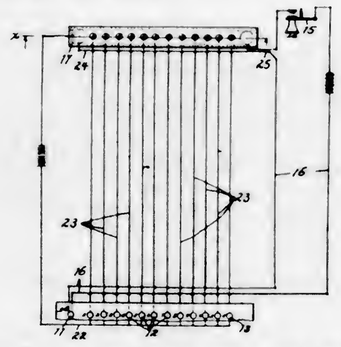
4. The combination with a freely movable pivoted switch arm provided with oppositely disposed extensions one on each side of the pivotal point, of a pivotally mounted piece bearing upon the said extensions and tending to ro-

tate the arm toward its central position and a spring connection between said arm and said piece.

5. The combination with a pivoted switch arm having lateral extensions one on each side of its pivotal point, of a pivotally mounted U-shaped piece having its respective branches bearing upon the said extensions, and an operating spring for the said piece.

[Claims 6 to 10 not printed in the Gazette.]

1,093,794. TELEPHONE SIGNAL SYSTEM. JACOB MEYERHOFF, Chicago, Ill. Filed Nov. 15, 1912. Serial No. 731,491. (Cl. 179—1.)



1. A telephone signal system comprising an individual electric light and a plurality of numbered electric lights for each telephone in the system; a receiver supporting lever connected in circuit with each of said individual lights to control the same; and electrical circuits under the control of the user and said receiver supporting lever for lighting said numbered lights, substantially as described.

2. A telephone signal system comprising a signal board equipped with an individual electric light and a plurality of numbered electric lights for each telephone instrument in the system, each of said telephone instruments being provided with a spring-actuated lever supporting the receiver proper, said lever being connected in circuit with said individual light so that removal of said receiver closes said circuit; a plurality of circuits for lighting said numbered lights; a plurality of spring-held push buttons adapted to close said circuits; an electro-magnet arranged to hold said buttons in closing positions; and an electric circuit for exciting said magnet, said circuit being connected to be made or broken by said receiver lever, substantially as described.

1,093,795. ROLLER-BEARING. ONESIME E. MICHAUD, St. Louis, Mo. Filed Aug. 16, 1913. Serial No. 785,042. (Cl. 64—62.)



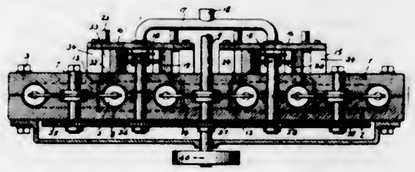
1. A retaining device for a conical roller bearing comprising a tapered roll cage having lengthwise pockets conforming to the taper of the rolls, said cage having a flange around its larger end, a retaining ring surrounding the larger end of said cage spaced inside said flange, and having inward projecting portions seated in the adjacent ends of said pockets, said inward projecting portions being provided with seats for the ends of the rolls, and a locking ring in the space between said retaining ring and flange.

2. A retaining device for a conical roller bearing comprising a tapered roll cage having lengthwise pockets conforming to the taper of the rolls, said cage having a flange around its larger end, a retaining ring surrounding the larger end of said cage spaced inside said flange, and having inward projecting portions seated in the adjacent ends of said pockets, said inward projecting portions being provided with seats for the ends of the rolls, a second retaining ring arranged within said cage at its smaller end and having outward project portions seated in the adjacent ends of said pockets, said outward projecting portions being provided with seats for the ends of the rolls, and a locking ring in the space between said retaining ring and flange.

3. A retaining device for a roller bearing comprising a skeleton roll cage having an out-turned peripheral flange at one end and an inturned peripheral flange at its other end and lengthwise portions parallel to the axes of the rolls connecting said flanges and forming spaced roll pockets between them, a retaining ring having ears formed with seats for the ends of the rolls arranged on said cage near one end thereof, with said ears projecting into said roll pockets, and a removable locking ring between said retaining ring and the adjacent flange of said cage.

4. A retaining device for roller bearing comprising a skeleton roll cage having an out-turned peripheral flange at one end and an inturned peripheral flange at its other end and lengthwise portions parallel to the axes of the rolls connecting said flanges and forming spaced roll pockets between them, retaining rings having ears formed with seats for the ends of the rolls arranged on said cage near the ends thereof, with said ears projecting into said roll pockets, and a removable locking ring between one of said retaining rings and the adjacent flange of said cage.

1,093,796. ROTARY ENGINE. CHARLES MILLER, New York, N. Y., assignor to Miller Motor Company, New York, N. Y., a Corporation of New York. Filed Dec. 7, 1909. Serial No. 531,881. Renewed Jan. 23, 1913. Serial No. 743,874. (Cl. 121—53.)



1. In a rotary engine of the class described a system of steam control comprising a pair of independent inlet ports each leading from the power cylinder to one side of independent valves, a pair of outer ports each leading from the steam chest to the other side of said valves, and an outer exhaust port leading from the last mentioned sides of said valves, and common to both valves, to the atmosphere, said valves being each adjustable so as to connect an inlet port with an outer port or with the exhaust port at will, substantially as and for the purpose described.

2. In an engine having a rotary piston system coöperating with an abutment, in combination, a rotary valve adapted to control the steam supply, a steam port, an adjustable ring closely embracing said valve, said ring being provided with an opening adapted to coöperate with said port, and a block projecting into said ring opening at the side of said port, substantially as and for the purpose described.

3. In an engine having a rotary piston system coöperating with an abutment, in combination, a valve chamber, a rotary valve within said chamber, a steam supply pipe connected with said chamber and means for spreading the steam supply as it enters the valve chamber, substantially as and for the purpose described.

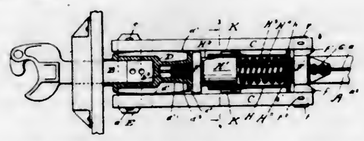
4. In an engine having a rotary piston provided with an expansion ring means attached to said piston and operable from without the engine whereby said ring may be adjusted without stopping the engine, substantially as and for the purpose described.

5. An engine comprising, in linear arrangement, a plurality of rotating piston systems alternated with a plurality of coöperating rotating abutments, connecting rods uniting the piston systems together, and a gear uniting each abutment to its adjacent piston system, as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]



1,093,797. DRAFT-RIGGING FOR SINGLE CENTER-SILL CARS. CHARLES J. NASH, Chicago, Ill., assignor, by mesne assignments, to William H. Miner, Chicago, Ill. Filed Mar. 30, 1908. Serial No. 424,195. (Cl. 213—42.)

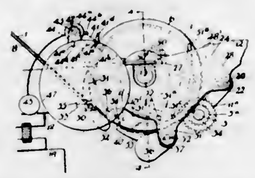


1. In a draft rigging, the combination with the draw-bar, of a draw-bar yoke and a connecting block having a socket to receive the rear end of the draw-bar, and rocker faces for engagement with the limbs of the draw-bar yoke to allow for lateral play of the draw-bar, said connecting block having at its rear end an upright slot to receive a bridge member of a center sill web and the crossarms of center-sill-web-reinforcing members, the walls of said rear slot being curved to allow for lateral play of the draw-bar, substantially as specified.

2. In a draft rigging, a draw-bar and draw-bar yoke connecting block having a socket to receive the rear end of the draw-bar, rocker faces for engagement with the draw-bar yoke and a rear slot or recess to receive a center sill web member and center sill web reinforcing members, substantially as specified.

3. In a draft rigging, a center sill having a portion of its central web cut out to form a pocket to receive draft rigging followers and cushioning devices, and provided with combined web reinforcing and draft lug members secured to said web and surrounding said pocket at sides and ends, said reinforcing and draft lug members being secured on both sides of said center sill web and said members breaking joints with each other at their meeting ends or faces, substantially as specified.

1,093,798. TYPE-WRITING MACHINE. WILLIAM J. NEIDIG, Madison, Wis., assignor, by mesne assignments, to Chicago Title and Trust Company, a Corporation of Illinois, trustee. Filed Sept. 23, 1912. Serial No. 721,785. Renewed Sept. 17, 1913. Serial No. 790,353. (Cl. 197—189.)



1. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, means acting to give said member a constant starting position when disconnected from the platen, and means under the control of the leading end of the sheet for connecting said member to move with the platen from said starting position.

2. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, a paper-feeler, driving devices rendered effective by said paper-feeler beginning with the control of the feeler by the entered sheet for giving said operative member movement coördinate with that of the platen, and devices operating to give said member a constant starting or initial position when released from the control of said driving devices.

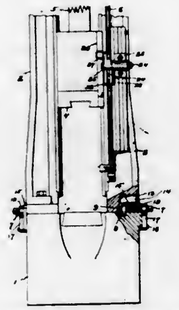
3. In a typewriting machine, in combination, a platen, an index-carrier bearing indices, means acting to return said carrier into initial position when disconnected from the platen, a paper-feeler, and means rendered effective by said paper-feeler beginning with the control thereof by the entered sheet for giving said carrier movement with the platen.

4. In a typewriting machine, in combination, a platen, an operative member, indicating means called into operation through said member, means including a spring and coöperating stop devices for giving said member a predetermined initial position, and means under the control of the leading end of the sheet for giving said member movement coördinate with that of the platen from such position.

5. In a typewriting machine, in combination, a platen, an index-carrier having indices, means including a spring for returning said carrier into initial position, and means under the control of the leading end of the sheet for giving said member movement coördinate with that of the platen from such position.

[Claims 6 to 19 not printed in the Gazette.]

1,093,799. DROP-HAMMER. CLARENDON NICKERSON, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed Apr. 7, 1913. Serial No. 759,407. (Cl. 78—37.)



1. In a drop hammer, the combination with a plurality of uprights; of a base, having screw receiving recesses therein, corresponding in number with said uprights; a screw within each of said recesses, a nut upon each of said screws; and means for closing the open sides of said recesses, to prevent the accidental removal of the said screws therefrom.

2. In a drop hammer, the combination with a base, having recesses therein; of a plurality of uprights, each having a pocket in the outer edge near the bottom thereof; an adjusting screw within each of said recesses; a keeper key within each of said pockets and closing the said recesses; and means for preventing the endwise movement of said keeper key.

3. In a drop hammer, the combination with a plurality of uprights, each having a pocket in the outer edge near the bottom thereof, with retaining lips thereon; of a base having a plurality of lugs thereon, corresponding in number with said uprights, each of said lugs having a recess in the top thereof; a screw within each of said recesses;

a keeper key within each of the said pockets and lying between the said lug and retaining lips; and a retaining member, having contact with said keeper key to prevent the endwise movement thereof.

4. In a drop hammer, the combination with a base, having recesses therein; an adjusting screw within each of said recesses; a plurality of uprights upon said base, each having a pocket in the outer edge near the bottom thereof that is opposite one of said recesses and of such size as to permit the entrance of the said adjusting screw outside of the said recess; and a keeper key within each of said pockets and closing the said recesses when said adjusting screw is in its corresponding recess.

5. In a drop hammer, the combination with a plurality of uprights; of a base, having screw receiving recesses therein corresponding in number with said uprights; a screw within each of said recesses; a nut upon each of said screws; and means for closing the open sides of said recesses to prevent the accidental removal of the said screws therefrom, said means having contact at one end with said nut.

[Claim 6 not printed in the Gazette.]

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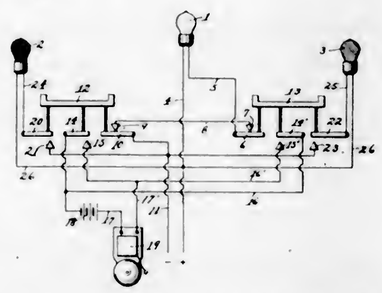
1,093,800. PIN-POINT GUARD. ALBERT PETIT, Los Angeles, Cal. Filed Nov. 25, 1912. Serial No. 733,367. (Cl. 24—155.)



1. A pin point guard comprising a body portion having a central bore of equal diameter extending longitudinally thereof nearly its entire length for the reception of a pin; a clear opening extending transversely through said body intermediate the ends thereof; and an L-shaped locking lever pivotably mounted in one side of said opening having one of the legs thereof extending through said body portion, the other leg extending outwardly from the body, and a V-shaped spring one end of which is secured to the inner side of said outer leg, and the other end resting upon the outer portion of said body; said locking lever having an elongated opening therein for the passage of the pin and adapted to bite and bend the pin to lock the pin against withdrawal from the body.

2. In a pin point guard formed of a solid body portion having a clear opening extending transversely therethrough intermediate the ends thereof; a central bore extending longitudinally through said body from one end to near the opposite end thereof; an L-shaped locking lever pivotably mounted in the top and bottom walls of one side of said opening and having one of the legs thereof extending through said opening free to operate within said opening, and having an elongated opening therein for the passage of a pin; the other leg extending outwardly from the body and having a socket formed in the side thereof adjacent the body at the end; a V-shaped spring having the end of one leg secured in said socket and the end of the other leg bearing against the side of said body adapted to force the end of the lever to which it is secured away from the body member and rock the lever to secure the pin against withdrawal from the body.

1,093,801. SIGNAL SYSTEM. GEORGE W. PHELPS, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,275. (Cl. 177—314.)



1. An electrical device comprising a main circuit; a normally closed switch and a signaling device connected in series in said main circuit; a branch circuit connected with said main circuit; a normally open switch and a signaling device connected in series in said branch circuit; an independent circuit; a normally open switch and a signaling device connected in series in said independent circuit, each of said signaling devices being provided with a distinguishing feature from each of the other of said signaling devices; a foot operable member; a connection connecting each of said switches with said member, whereby downward movement of said member renders the signaling device in said main circuit inoperative and causes an operation of the signaling devices in said branch circuit and said independent circuit, substantially as described.

2. An electrical device comprising a main circuit; two normally closed switches and a signaling device connected in series in said main circuit; two branch circuits connected in parallel with said main circuit; a normally open switch and a signaling device connected in series in each branch circuit; an independent circuit having two normally open switches and a signaling device therein, each switch being connected in series with the signaling device in said circuit, each of all of said signaling devices having a distinguishing feature distinguishing it from each of the other signaling devices; two manually operative connections, each connecting one of the switches in said last mentioned circuit, the switch in one of said branch circuits and one of the switches in said main circuit, whereby operation of one of said connections renders the signaling device in said main circuit inoperative and causes the operation of the signaling device in the corresponding branch circuit and the signaling device in said independent circuit, and operation of the other of said connections renders the signaling device in said main circuit inoperative and causes operation of the signaling device in the corresponding branch circuit and the operation of the signaling device in said independent circuit, substantially as described.

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1,093,802. RAZOR-BLADE-SHARPENING DEVICE. WALTER W. RICHARDS, Philadelphia, Pa. Filed July 22, 1913. Serial No. 780,438. (Cl. 30—25.)

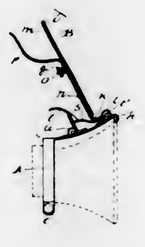


1. The combination with a blade supporting member, a bar movable longitudinally relative to the supporting member, means coupling the bar and the supporting member together when said bar is moved longitudinally in one direction, whereby a blade may be clamped between the supporting member and the bar, said supporting member having a recess at its inner end, said bar having a beveled inner end adapted to be projected into the recess, and said bar adjacent said beveled end having a lip adapted to be engaged and moved by the thumb to project the bar in a direction to move the inner end out of the recess and release the blade, substantially as described.

2. In combination with a blade supporting member, a bar movable longitudinally relative to the supporting member, said member and said bar both of a width appreciably less than the width of the blade to be held so that the latter will project at both edges beyond the bar and the supporting member, means coupling the bar and the supporting member, whereby the longitudinal movement of the bar operates to clamp a blade between the same and the supporting member, a finger on one end of said supporting member, inwardly projecting fingers on the end of the bar adapted to receive the first-mentioned finger between them when the bar is moved into clamping position, said supporting member having a recess, said bar having a beveled inner end adapted to be moved into the recess, and a lip projecting at right angles from the bar at a point adjacent said beveled end, substantially as described.

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1,093,803. COMBINED TELEPHONE-MOUTHPIECE GUARD AND ADVERTISING DEVICE. CHARLES ROSS, Chicago, Ill. Filed Mar. 14, 1913. Serial No. 754,208. (Cl. 179—185.)



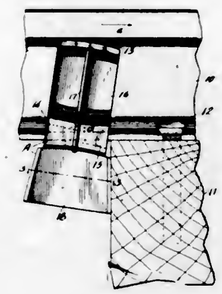
1. A telephone mouth-piece guard having a body with means for clamping the guard to the mouth-piece and a lid suitably hinged on said body, said body consisting of a single T-shaped piece one arm of which is folded to conform with the neck of the mouth-piece and the other arm folded to conform with the flaring curve of the mouth-piece and approximately at right angles to the first arm, and a latch also supporting on said body for latching the lid when raised.

2. A telephone mouth-piece guard having a body with means for clamping the guard to the mouth-piece and a lid suitably hinged on said body, said body consisting of a single T-shaped piece one arm of which is folded to conform with the neck of the mouth-piece and the other arm folded to conform with the flaring curve of the mouth-piece and approximately at right angles to the first arm, and a latch also supporting on said body for latching the lid when raised, the hinge of said lid consisting of a single piece having means near its center for supporting the lid and having one end folded to receive the hinged pin of the lid, and forming also a latch engaging member, the other end of said piece bent to form a finger guard.

3. A telephone mouth-piece guard having a body with means for clamping the guard to the mouth-piece and a lid suitably hinged on said body, said body consisting of a single T-shaped piece, one arm of which is folded to conform with the neck of the mouth-piece and the other arm folded to conform with the flaring curve of the mouth-piece and approximately at right angles to the first arm, and a latch also supporting on said body for latching the lid when raised, the hinge of said lid consisting of a single piece having means near its center for supporting the lid and having one end folded to receive the hinged pin of the lid, and forming also a latch engaging member, the other end of said piece bent to form a finger guard, the body having integral with it one set of flanges for supporting the lid hinged pin and another set supporting the latch hinged pin.

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1,093,804. RAIL-ANCHOR. BENTON C. ROWELL, Chicago, Ill. Filed Aug. 4, 1913. Serial No. 782,761. (Cl. 238—4.)



1. A single piece rail anchor having three relatively elongated gripping surfaces adapted to engage respectively the under side of the rail head, the top side of the base and the under side of the base, said surfaces being so arranged that the points of contact between said surfaces and the rail head and under side of the base are located on one side of the central line of the anchor and the point of contact of the third gripping surface is on the opposite side of said line, substantially as specified.

2. As an article of manufacture, a rail anchor having a portion thereof adapted to fit between the under side of the head and top side of the base of a rail, said portion having curved, upper and lower gripping surfaces struck on relatively long radii whereby when the anchor is tilted relatively to the rail it will be wedged thereon, substantially as specified.

3. A rail anchor having three curved, gripping surfaces adapted to engage respectively the under side of the rail head, the upper side of the rail base and the under side of the rail base, all of said gripping surfaces being struck on relatively long radii whereby the anchor grips the rail more firmly as it is tilted from the vertical.

4. As an article of manufacture, a rail anchor having a portion thereof adapted to fit between the under side of the head and top side of the base of a rail, said portion having curved, upper and lower gripping surfaces struck on relatively long radii, and means extended beneath the rail base and adapted to be clenched thereover for securing the anchor in place, substantially as specified.

5. A single piece rail anchor having three curved, gripping surfaces adapted to engage respectively the under side of the rail head, the upper side of the rail base and the under side of the rail base, all of said surfaces being struck on relatively long radii, the portion of the anchor having the surface adapted to grip the under side of the rail base being provided with an extension having a bendable tongue thereon by which the anchor may be clenched to the rail, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

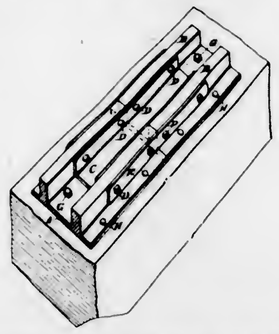
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1,093,805. RAILWAY-RAIL AND JOINT THEREFOR. GUSTAVE SANDE, Seattle, Wash. Filed May 20, 1913. Serial No. 768,853. (Cl. 239—14.)

1. A railway rail having a base web and two tread flanges spaced inward from its side edges, and a connecting bar of channel cross-section fitting closely between the tread flanges of the rail and bolted thereto.

2. A railway rail having a base web and two separated tread flanges spaced inward from its side edges, and a connecting bar of a channel cross-section fitting closely between the tread flanges of the rail and bolted thereto.

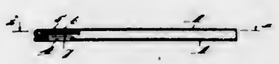
the upper edge surfaces of the flanges of the connecting bar conforming to the tread surfaces of the rail flanges,



whereby it forms a tread surface to carry the wheels over the joint.

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1,093,806. MUSICAL TOY. MATTHEW W. SANDERS, Chicago, Ill. Filed Sept. 20, 1913. Serial No. 790,927. (Cl. 46—46.)



1. A device of the class described comprising a flat tubular member having an opening in one side thereof; a wire mesh arranged in said tubular member under said opening; and a vibratory member under said mesh, substantially as described.

2. A device of the class described comprising a flat tubular member closed at one end and having an opening in one side thereof; a wire mesh arranged in said tubular member under said opening; and a vibratory member under said mesh, substantially as described.

3. A device of the class described comprising a flat tubular member having registering openings in the sides thereof; a wire mesh arranged in said tubular member under one of said openings; and a vibratory member under said mesh, substantially as described.

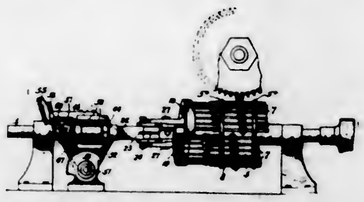
4. A device of the class described comprising a flat tubular member closed at one end and having registering openings in the sides thereof adjacent said closed end; a wire mesh arranged in said tubular member under one of said openings; and a vibratory member under said mesh, substantially as described.

5. A device of the class described comprising a flat tubular cardboard member closed at one end and having registering openings adjacent said closed end; a wire mesh arranged in said tubular member under one of said openings, said wire mesh being secured to the corresponding side of said tubular member along three edges thereof but being free from said tubular member on the side toward the open end thereof; and a vibratory member consisting of a piece of paper arranged under said mesh, said piece of paper being secured in position along three edges thereof but being free along the edge toward the open end of said tubular member, substantially as described.

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1,093,807. GEARING. FREDERICK H. SANDHERR, St. Louis, Mo. Filed Nov. 29, 1911. Serial No. 663,016. (Cl. 74—36.)

1. Reversing and change speed gearing comprising a continuously rotating shaft, a worm secured thereto, means operative while said worm is rotating and in mesh with a worm wheel for reversing and varying the inclination of the thread of said worm and for adjusting said thread to the form of a continuous annulus normal to the axis of said shaft, and supplemental means for automatically adjusting said thread to predetermined positions, whereby said worm may communicate movement to said worm wheel in either direction at varying speeds or may rotate idly.



2. Reversing gearing comprising a continuously rotating shaft, a worm secured thereto, means operative while said worm is rotating and in mesh with a worm wheel for reversing the inclination of the thread of said worm and for adjusting said thread to the form of a continuous annulus normal to the axis of said shaft, and supplemental means for automatically adjusting said thread to predetermined positions, whereby said worm may communicate movement to said worm wheel or may rotate idly.

3. In a device of the class described, a worm, means for adjusting the pitch of the thread of said worm, and supplemental means for automatically adjusting said thread to predetermined positions.

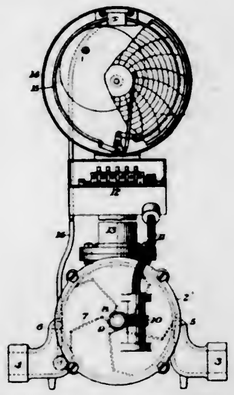
4. In a device of the class described, a worm, the thread of said worm consisting of a plurality of separate sections, means for adjusting said sections whereby the pitch of said thread may be varied, and supplemental means for automatically adjusting said thread to predetermined positions.

5. In a device of the class described, a worm having a thread of adjustable pitch, said thread being composed of sections adjustable axially of the worm, and means for simultaneously adjusting said sections to vary the pitch of the thread formed thereby.

[Claims 6 to 24 not printed in the Gazette.]

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1,093,808. LIQUID-METER. WERNER I. STAAF, Pittsburgh, Pa., assignor of one-half to Edward B. Tyler, Pittsburgh, Pa. Filed Mar. 21, 1912. Serial No. 685,317. (Cl. 73—167.)



1. A liquid meter, comprising a cylinder having an inlet opening at one side and an outlet opening at the opposite side, a horizontal shaft journaled in said cylinder and extending through one end thereof, blades or buckets carried by the shaft within the cylinder, a vertical column mounted on said cylinder, a meter device supported by said column, gear connections between the movable elements of the meter and the extended end of said shaft, a thermometric element extending into the path of flow through said cylinder, and a recording thermometer instrument also mounted on said column, and having an actuating connection with said thermometric element; substantially as described.

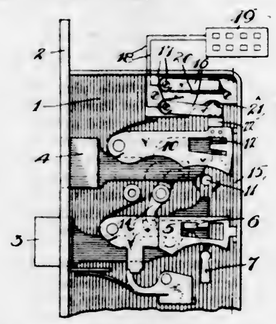
2. A liquid meter, comprising a cylindrical casing, a shaft extending therethrough, a series of bucket-shaped blades fixedly connected to said shaft, each of said blades having an outer wall which extends in an upward and outward direction when the blade is at the down-going side of the meter, the casing having lateral inlet and outlet openings at opposite sides thereof, at points nearly at the horizontal center line of the shaft, the upper edge of the inlet opening being at a point near the horizontal center line of the shaft, and said opening being wider than the adjacent edge of a blade so that liquid will be discharged into the casing above and also below each blade when the latter is adjacent to the center line of the opening; substantially as described.

3. A liquid meter, comprising a cylindrical casing, a shaft extending therethrough, a series of bucket-shaped blades fixedly connected to said shaft, each of said blades having an outer wall which extends in an upward and outward direction when the blade is at the down-going side of the meter, the casing having lateral inlet and outlet openings at opposite sides thereof and at points nearly at the horizontal line of the shaft, the upper edge of the inlet opening being at a point near the horizontal center line of the shaft, said opening being wider than the adjacent edge of a blade so that liquid will be discharged into the casing above and also below each blade when the latter is adjacent to the center line of the opening, and the edges of the blades contacting with the inner wall of the casing throughout their travel between the edges of the inlet and the outlet openings; substantially as described.

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1,093,809. LOCK CONSTRUCTION. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 17, 1913. Serial No. 761,759. (Cl. 177—203.)



1. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and a plurality of locking tumblers therefor, said bolt and tumblers being arranged to be operated by a plurality of keys having differently bitted edges offset from the longitudinal axis of the key, said keys including a certain key having one end longitudinally extended relative to the rest and offset from the longitudinal axis of the key, and movable controlling means in operative relation to said making and breaking device and positioned for engagement and actuation by the extended end of said certain key upon bolt-actuating movement thereof.

2. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and a plurality of locking tumblers therefor, said bolts and tumblers being arranged to be operated by a plurality of keys having differently bitted edges offset from the longitudinal axis of the key, said keys including a certain key having one end longitudinally extended relative to the rest and offset from the longitudinal axis of the key, movable controlling means in operative relation to said make and break device and having at least two circuit controlling positions relative thereto, said means being positioned for engagement and actuation by the extended end of said certain key upon bolt actuating movement thereof, and means associated with the locking mechanism and cooperating with said controller to hold the same in said two circuit controlling positions when actuated to said positions through said certain key.

3. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and a plurality of locking tumblers therefor, said bolt and tumblers being arranged to be operated by a plurality of keys having differently bitted edges offset from the longitudinal axis of the key, said keys including a certain key having one end longitudinally extended relative to the rest and offset from the longitudinal axis of the key, said keys including a certain key having one end longitudinally extended relative to the rest and offset from the longitudinal axis of the key, movable controlling means in operative relation to said make and break device and having at least two circuit controlling positions relative thereto, said means being positioned for engagement and actuation by the extended end of said certain key upon bolt actuating movement thereof, and means associated with said bolt and cooperating with said controller to hold the latter in one circuit controlling position upon movement of said controller and of said bolt through the cooperative actuation of said certain key in one direction.

5. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and a plurality of locking tumblers therefor, said bolt and tumblers being arranged to be operated by a plurality of keys having differently bitted edges offset from the longitudinal axis of the key, said keys including a certain key having one end longitudinally extended relative to the rest and offset from the longitudinal axis of the key, and a movable controlling member for said make and break device having at least two circuit controlling positions relative thereto, said controlling member being positioned for operation through the extended end of said certain key upon the operation of said key to actuate said bolt, and means associated with said lock and operable upon actuation of said bolt in one direction by said certain key to hold said controlling means in one circuit controlling position until said bolt is actuated in the reverse direction by said certain key.

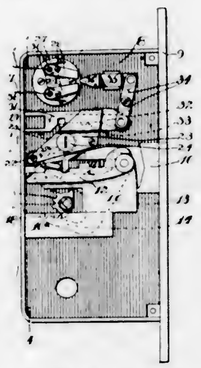
[Claims 6 to 8 not printed in the Gazette.]

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1,093,810. LOCK MECHANISM. HENRY G. VOIGHT, New Britain, Conn. Filed Apr. 19, 1913. Serial No. 762,213. (Cl. 177—203.)

1. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism

including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and means controlled by a plurality of keys, for projecting and retracting said bolt, said plurality of keys including a certain key having a longitudinal end extension and means controlled by said end extension of said certain key and operable by bolt actuating movement of said key to operate said making and breaking device.



2. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and a controlling tumbler therefor, said tumbler and bolt being operable through a plurality of keys including a certain key having an axial end extension; and means controlled by said end extension of said certain key and operable by bolt actuating movement of said key, to operate said circuit making and breaking device.

3. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and means controlled by a plurality of keys, for projecting and retracting said bolt, said keys including a certain key having longitudinal end extension, a movable controlling means for said make and break device having at least two circuit controlling positions relative thereto, said controlling means being controlled by said end extension of said certain key and being moved thereby into circuit controlling positions upon bolt actuating movements of said key, and means associated with the lock and coöperating with said controlling means to retain said means in one circuit controlling position until said bolt is again actuated and in the reverse direction by said certain key.

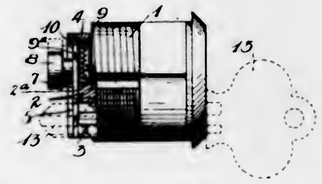
4. In a lock, a locking mechanism, in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a bolt and means controlled by a plurality of keys for projecting and retracting said bolt, said keys including a certain key having a longitudinal end extension, movable controlling means for said device having at least two circuit controlling positions relative thereto and positioned for movement into said positions through the end extension of said certain key and upon bolt retracting and projecting movements of said key, and means associated with the lock and coöperating with said movable controlling means to lock said means against movement from one circuit controlling position to the other, until said bolt is again operated through said certain key.

5. In a lock, a locking mechanism in combination with an electric signaling mechanism, said signaling mechanism including a circuit making and breaking device associated with the lock, said locking mechanism including a dead bolt, means, including a plurality of keys for projecting and retracting said bolt, a certain one of said plurality of keys having a longitudinal end extension, controlling means for said make and break device positioned in front of the key-passage, the end extension of said certain key being arranged to engage and operate said controlling means, and another of said keys being arranged to operate said bolt without operating said controlling means.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,811. CYLINDER LOCK MECHANISM. HENRY G. VOIGHT, New Britain, Conn. Original application filed Mar. 18, 1913, Serial No. 755,191. Divided and this application filed July 3, 1913. Serial No. 777,236. (Cl. 70—92.)



1. As an article of manufacture, a cylinder lock embodying a key-controlled rotatable plug provided with a relatively fixed roll-back member, and a second roll-back member carried by and movable relative to the first.

2. As an article of manufacture, a cylinder lock embodying a rotatable plug, a roll back member carried by and fixed relatively to said plug and rotating therewith, said plug and roll-back member being controlled and rotatable by a plurality of keys, a second roll-back member carried by the first and mounted for movement relatively thereto, and means whereby one certain of said plurality of keys may move said second roll-back member relatively to the first and may rotate both of said members simultaneously.

3. In a cylinder lock, a rotatable plug having a key-slot therein, a cam rigidly carried thereby, tumbler mechanism coöperating with said plug and operable by a plurality of keys to permit rotation of said plug and cam, a second cam carried by said plug, movable relatively thereto and positioned in a different plane from said fixed cam, means normally positioning said movable cam in the line of said key-slot, one of said plurality of tumbler operating keys being arranged to engage said movable cam to move it relatively to said plug.

4. In a cylinder lock, a rotatable plug having a key-slot therein, a cam rigidly carried thereby, tumbler mechanism coöperating with said plug and operable by a plurality of keys to permit the rotation of said plug and cam, a second cam offset from and guided on said first cam and movable relative thereto and to said plug, spring means normally positioning said cam in the line of said key-slot, one of said tumbler operating keys being constructed to engage said alined cam to move it relatively to said fixed cam and plug.

5. As an article of manufacture, a cylinder lock provided with a key-actuated roll-back member and an auxiliary roll-back member carried thereby and movable relatively thereto, said roll-back members being arranged to coact simultaneously with a certain key.

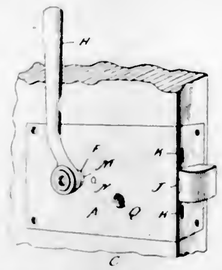
[Claim 6 not printed in the Gazette.]

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1,093,812. VEHICLE DOOR-LOCK. HARLAN P. WELLS, Amesbury, Mass., assignor to Walker-Wells Company, a Corporation of Massachusetts. Filed Aug. 25, 1913. Serial No. 786,472. (Cl. 70—42.)

1. The combination of a base plate having a hole for a shank and a perforated flange, a latch bolt with a tail piece provided with guiding flanges, a cover plate with a hole therethrough secured to the base plate and the edges of said cover plate engaging the flanges of the tail piece, a spring anchored at one end and its free end bearing against the tail piece, a rotary shaft or shank journaled within the holes in the base and cover plates and having a lever arm or arms which frictionally engage the tail piece, and an operating handle in connection with the shank.





2. The combination of a base plate having a hole for a shank and a flange with a perforation for a bolt, a latch bolt with a hollow tail piece provided on its inner edge with bearing surfaces for a spring and lever arm or arms, a cover plate having a hole for a shank and arms which engage and guide the latch bolt, a spring located inside the hollow tail piece and held at one end between the base and cover plates and the free end engaging the bearing surface inside the tail piece, a shank journaled within the holes in the base and cover plates and carrying an arm or arms located within the hollow tail piece and which engage the inner edge of the tail piece, and an operating handle secured to the shank.

3. The combination in a carriage door lock, of a base plate with a flange and slotted boss Q formed by striking up the metal of the base plate, a latch bolt with an extended tail piece having the metal removed from the central part thereof to form a space for a spring and lever mechanism, a spring bearing against the tail piece at one end and the other end anchored in said boss Q, a cover plate secured to the base plate and guiding the tail piece and latch bolt, and a shank carrying a handle and lever arm or arms journaled to the base and cover plate.

4. A lock comprising a base plate with a flange, a latch bolt having a hollow tail piece with two bearings X, X on its inner edge and flanges V V, a spring engaging the tail piece, a cover plate located between the flanges V V for guiding the tail piece and latch bolt, and a shank provided with two lever arms G, G located within the hollow tail piece adapted to engage the bearings X, X, journaled to the cover and base plates and carrying a handle whereby the bolt and tail piece will be operated by moving the handle in either direction.

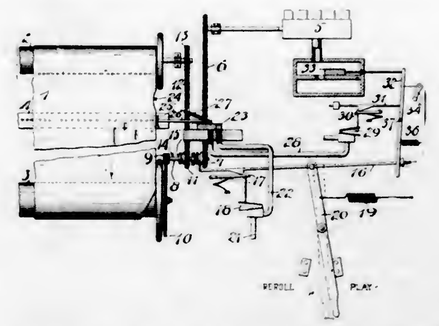
5. A lock comprising a base plate with a flange having slots, a latch bolt with a tail piece having raised flanges V, V, a spring engaging the tail piece, a cover plate with its side edges engaging the flanges V, V for guiding the tail piece and latch bolt the said cover plate having arms the ends of which are seated within the slots in the flange, said cover plate being secured to the base plate by a screw or rivet seated within a recess P formed by striking up the metal of the base plate to engage the surface of the cover plate and form a support, and a shank or shaft journaled to the cover and base plates and carrying a handle and a lever arm.

[Claim 6 not printed in the Gazette.]

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1,093,813. AUTOMATIC REWIND AND STOP MECHANISM FOR MECHANICAL MUSIC-PLAYING INSTRUMENTS. FRANK C. WHITE, Meriden, Conn., assignor to The Wilcox & White Company, Meriden, Conn., a Corporation of Connecticut. Filed Jan. 10, 1912. Serial No. 670,361. (Cl. 84—166.)

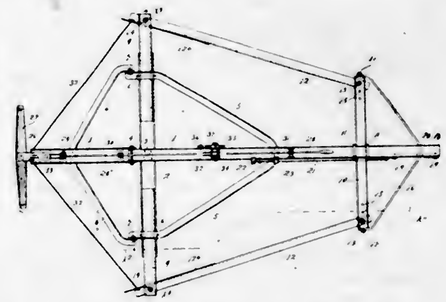
In an auto-pneumatic music playing instrument, a music roll mechanism including two winding arbors, a pneumatic motor, means for connecting said motor to said arbors to drive one or the other at will, including means for reversing the direction of said drive, a stop mechanism, with pneumatics for controlling said reversing mechanism and said stop mechanism, a valve mechanism for controlling said pneumatics, and movable means controllable




by contact with the edge of a note sheet for controlling said mechanism.

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1,093,814. ROAD DRAG AND GRADER. BENNIE WHITTEMORE, Albert Lea, Minn. Filed Sept. 11, 1913. Serial No. 789,298. (Cl. 37—5.)



1. In a road drag or grader, the combination with a framework and transversely extensible bars mounted thereon, of a transverse follower movable forwardly and rearwardly on said frame, and drag bars pivotally connected to the ends of said follower and to the ends of said extensible bars.

2. In a road drag or grader, the combination with a framework and transversely extensible bars mounted thereon, of a transverse follower movable forwardly and rearwardly on said frame, drag bars pivotally connected to the ends of said follower and to the ends of said extensible bars, and means for drawing together and letting out the said extensible bars to vary the spacing of the front ends of said drag bars.

3. In a road drag or grader, the combination with a framework and transversely extensible bars mounted thereon, of a transverse follower movable forwardly and rearwardly on said frame, drag bars pivotally connected to the ends of said follower and to the ends of said extensible bars, and scraper blades or knives secured to said drag bars and projecting below the front end portions of the same.

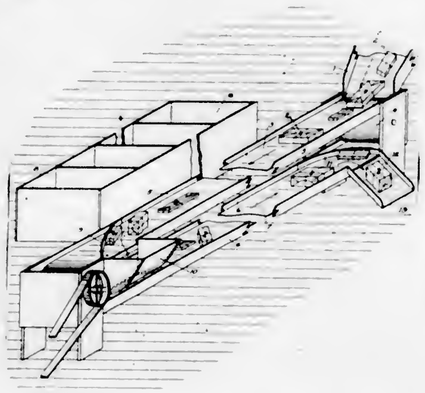
4. In a road drag or grader, the combination with a central longitudinally extended frame beam and a cross beam rigidly secured thereto, of extension bars telescopically movable on said cross beams, a transverse follower bar mounted for sliding movements on the rear portion of said center beam, and drag bars pivotally connected at their rear ends to the projecting ends of said follower bar and pivotally connected at their front ends to the outer ends of said extension bars.

5. In a road drag or grader, the combination with a central longitudinally extended frame beam and a cross beam rigidly secured thereto, of extension arms telescopically movable on said cross beam, a transverse follower bar mounted for sliding movement on the rear portion of said center beam, and drag bars adjustably pivoted at their rear ends to the projecting ends of said follower bar and pivotally connected at their front ends to the outer ends of said extension bars.

[Claims 6 to 11 not printed in the Gazette.]

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1,093,815. PARCEL-ROUTING APPARATUS. FREDERICK O. WHITTIER, Brookline, Mass., assignor to The Lamson Company, Boston, Mass., a Corporation of New Jersey. Filed Dec. 4, 1912. (Serial No. 734,830. (Cl. 193—4.)



1. In apparatus for facilitating the distribution of parcels and the like, means, portions of which normally move in opposite directions, for conveying, by one of said portions, exposed parcels along a determined path from whence they may be distributed, means for diverting sidewise from said path parcels not previously removed from said means, and means for automatically delivering said diverted parcels to a returning portion of said means which moves in an opposite direction to that in which said parcels travel along said path.

2. In apparatus for facilitating the distribution of parcels and the like, means, portions of which normally move in opposite directions, for conveying, by one of said portions, exposed parcels along a determined path from whence they may be distributed, means for sweeping from said path parcels not previously removed from said means, means for automatically delivering the swept-off parcels to a returning portion of said means which moves in an opposite direction to that in which said parcels travel along said path, and means for laterally removing said returning parcels from said returning portion of the conveying means.

3. In apparatus for facilitating the distribution of parcels and the like, a flexible conveyer, the carrying surfaces of which are at all times substantially continuous and unbroken, said conveyer having an upper portion thereof normally moving in one direction and a lower portion normally moving in an opposite direction, means for diverting parcels from said upper to said lower portion, and means for thereafter laterally removing said diverted parcels from said lower portion.

4. In apparatus for facilitating the distribution of parcels and the like, a belt adapted to carry parcels upon both the upper and lower sides thereof, the carrying surfaces of said belt being at all times substantially continuous and unbroken, one side of said belt normally moving in one direction and the other side of said belt normally moving in an opposite direction, means, co-acting with said belt for removing parcels from one side thereof and for thereafter automatically delivering said removed parcels to the other side of said belt, and means, co-acting with said belt, to remove said parcels thereafter from said last mentioned side.

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1,093,816. DOOR-LOCK KEEPER. THOMPSON H. WILEY, Omaha, Nebr. Filed July 28, 1913. Serial No. 781,543. (Cl. 70—15.)



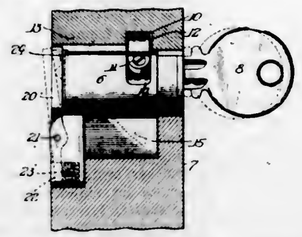
1. In devices for the purpose described, a first plate formed with an elongated aperture opening on its front and back, and having grooves formed in its back to open on its ends and on said aperture; a second plate having a greater length than the aperture of the first plate and formed with attenuated end-portions having slots opening on its terminals, and provided intermediate said attenuated end-portions with an apertured platform substantially equal in thickness to that of the first plate; said second plate being adapted to be mounted with its apertured platform disposed in the elongated aperture with its attenuated end-portions engaging in the grooves of said first plate; and keepers traversing the grooved parts of the first plate for engagements in the slots of the second plate.

2. In devices for the purpose described, a first plate formed with an elongated aperture opening on its front and back, and having grooves formed in its back to open on said aperture; a second plate of greater length than the aperture of the first plate and having attenuated end-portions with slots formed therein, and provided intermediate said attenuated end-portions with an apertured platform; said second plate being adapted to be mounted with its apertured platform disposed within said elongated aperture, the front and back surfaces of said platform being substantially in alinement with the respective front and back surfaces of the first plate, its attenuated end-portions engaging the grooves of said first plate; and a keeper traversing a grooved part of the first plate for engagement within a slot of the second plate.

3. In devices for the purpose described, a first plate formed with an elongated aperture opening on its front and back, and having grooves formed in its back to open on said aperture; a second plate having a greater length than the aperture of the first plate and formed with attenuated end-portions having slots formed therein, and provided intermediate said attenuated end-portions with an apertured projected part; said second plate being adapted to be mounted with its projected part disposed in said elongated aperture with its attenuated end-portions engaging in the grooves of said first plate; and a keeper traversing each grooved part of the first plate for engagement in a slot of the second plate.



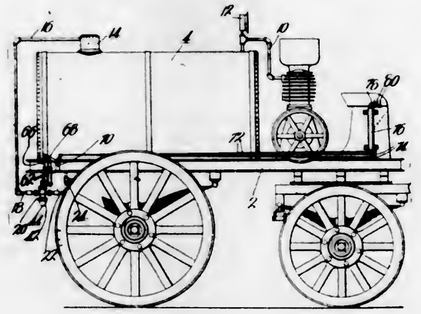
1,093,817. LOCK. EDWARD L. WILLIAMS, Santa Cruz, Cal., assignor of one-half to Amos A. Wyckoff, Santa Cruz, Cal. Filed Jan. 20, 1913. Serial No. 742,987. (Cl. 70—47.)



A lock comprising a casing, a key cylinder rotatably mounted therein and provided with a longitudinally disposed key slot, a notch formed on the inner end of said cylinder at one edge of said key slot, a notch formed in said casing at the inner end of said cylinder and diametrically opposite from said notch in the cylinder, a latch pivotally mounted in the casing at one side of said cylinder and adapted to overlie the end of said cylinder, dogs carried by said latch in position to engage in said notches whereby to lock the cylinder against rotation in the casing, and a spring housed in said casing and adapted to urge said latch into operative position, the latch being disposed across the end of the key slot when the cylinder is in locked position, to be engaged and released by a key projected through said slot.

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1,093,818. ROAD-OILING VEHICLE. GEORGE I. WORLEY, Kansas City, Mo., assignor of one-half to Charles F. Dehner, Kansas City, Mo. Filed Apr. 1, 1913. Serial No. 758,265. (Cl. 137—63.)



1. A road oiling vehicle comprising an air tight oil tank provided with a wheeled support, compressed-air-supplying means also mounted on said support in communication with the space over the oil in said oil tank, a series of compound oil and air discharge nozzles each communicating with both the oil and the air in said tank whereby the oil is forced out of the tank by air pressure and atomized as it is discharged from said nozzles, and connections between said nozzles and the front of the vehicle whereby the nozzles may be controlled each independently of the others.

2. A road oiling vehicle, comprising an oil tank and supporting means therefor, a discharge pipe connected to the tank, a series of compound air and oil discharge nozzles connected with said pipe, means for supplying compressed air to said nozzles, and a connection between each nozzle and the front of the vehicle whereby the nozzles may be controlled each independently of the others.

3. A road oiling vehicle, comprising an oil tank and supporting means therefor, a discharge pipe connected to the tank, a series of compound air and oil discharge nozzles connected with said pipe, means for supplying compressed air to said nozzles, each nozzle being provided with an air valve and an oil valve, and independent connections between each nozzle and the front of the vehicle whereby the valves of each nozzle may be controlled simultaneously.

4. A road oiling vehicle comprising an oil tank and supporting means therefor, an oil discharge pipe connected to the tank, a compressed-air supply pipe, the delivery ends of said pipes approaching each other in a line extending longitudinally of the vehicle, a compound air and oil discharge nozzle swiveled at one side to one of said pipes and at its other side to the other pipe, thereby permitting said nozzle to be swung laterally into different positions about a longitudinally extending horizontal axis, said nozzle being provided with an air valve and an oil valve, and connections from the front of the vehicle whereby the valves of said nozzle may be controlled simultaneously.

5. A road oiling vehicle comprising an oil tank and supporting means therefor, an oil discharge pipe connected to the tank, a compressed-air supply pipe, each of said pipes having a branch extending to each of the rear corners of the vehicle, the delivery ends of the branches at each of said corners approaching each other in a line extending longitudinally of the vehicle, a compound air and oil discharge nozzle at each of said corners, each nozzle being swiveled between one set of delivery ends, thereby permitting it to be swung laterally into different positions about an axis extending longitudinally of the vehicle, and a connection between each nozzle and the front of the vehicle whereby the nozzles may be controlled each independently of the other.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,819. PROCESS OF MAKING NITROGENOUS COMPOUNDS. THOMAS B. ALLEN, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Nov. 9, 1910. Serial No. 591,496. (Cl. 23—13.)

1. The process of forming nitrogenous compounds which consists in heating silicon carbid, and a metal, with substantially pure nitrogen.

2. The process of forming nitrogenous compounds which consists in passing substantially pure nitrogen into contact with a molten metal containing silicon carbid.

3. The process of forming nitrogenous compounds which consists in heating silicon carbid and iron with substantially pure nitrogen.

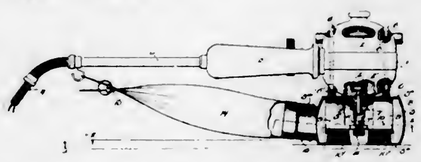
4. The process of forming nitrogenous compounds, which consists in passing substantially pure nitrogen in contact with molten iron containing silicon carbid.

5. The process of forming nitrogenous compounds which consists in causing silicon carbid to react with a metal, and causing substantially pure nitrogen to combine with the reaction-product.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,820. VACUUM-CLEANER. CHESTER H. BEACH, Racine, Wis., assignor to Wisconsin Electric Company, Racine Junction, Wis. Filed June 9, 1913. Serial No. 772,463. (Cl. 15—60.)



1. A vacuum cleaner comprising a housing having a handle extended therefrom, a motor mounted within the

housing having a shaft extension, an inverted cup-like casing secured to one face of the housing through which the shaft extension protrudes, a brush-carrying spider mounted upon the shaft extension and revoluble therewith, and means for permitting longitudinal yield of the spider upon said shaft extension.

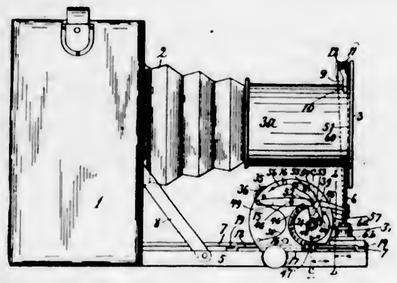
2. A vacuum cleaner comprising a housing having a handle extending therefrom, a motor mounted within the housing having a shaft extension, an inverted cup-like casing secured to one face of the housing through which the shaft extension protrudes, a fan secured to the shaft extension having vanes extending downwardly, a spider loosely mounted upon the shaft extension, the spider being disposed in the path of travel of the fan vanes, bristles extending from the spider having their brushing ends normally exposed slightly below the plane of the mouth of the casing, and a coiled spring surrounding the shaft extension adapted to exert pressure against the spider.

3. A vacuum cleaner comprising a housing having a handle extension therefrom, a motor mounted within the housing having a shaft extension, an inverted cup-like casing secured to one face of the housing through which the shaft extension protrudes, a fan secured to said shaft extension having vanes extending downwardly, a spider mounted upon the shaft extension, means for causing the spider to revolve with the shaft, bristles carried by said spider, a coiled spring surrounding the shaft extension adapted to exert downward pressure upon the spider, and adjustable means carried by the aforesaid shaft extension for limiting movement of said spider.

4. A vacuum cleaner comprising a housing having a handle extending therefrom, a motor mounted within the housing having a shaft extension, an inverted cup-like casing depending from the housing through which the shaft extension protrudes, a fan secured to the shaft extension having vanes extending downwardly, a spider loosely mounted upon the shaft extension, the spider being disposed in the path of travel of the fan vanes, bristles extending from the spider having their brushing ends normally exposed slightly below the plane of the mouth of the casing, and a spring carried by the aforesaid shaft extension adapted to exert pressure upon the spider.

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1,093,821. CAMERA ATTACHMENT. JOHN E. BJORLIE, Pekin, N. D. Filed June 30, 1913. Serial No. 776,565. (Cl. 161—26.)

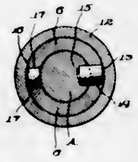


1. The combination with a camera and its shutter, of a device adapted to be mounted on the camera and connected with the shutter; said device comprising a frame, a clock work in the frame, a winding shaft, a disk mounted on the winding shaft and having a wide radial notch, a main lever fulcrumed on the frame and having a lateral pin adapted to engage in said notch when the lever is swung downward, a spring acting on the lever to swing it downward, a spring-pressed trip-lever mounted on the frame and having a catch adapted to engage the lateral pin and hold the main lever in its upper position, a cord or other flexible member attached to the front end of said main lever and operatively and detachably attached to the shutter lever, said disk having a lateral pin arranged to disengage the trip lever when the main lever is to drop, and means indicating different lengths of time at which the disk may be set with its pin away from the trip lever.

2. In a device of the class described and mounted on a camera having a shutter and a lever operating the shutter, a frame, a clock work in the frame, a winding shaft, a disk mounted on the winding shaft and having a wide radial notch, a main lever fulcrumed on the frame and having a lateral pin adapted to engage in said notch when the lever is swung downward, a spring acting on the lever to swing it downward, a spring-pressed trip-lever mounted on the frame and having a catch adapted to engage the lateral pin and hold the main lever in its upper position, a cord or other flexible member attached to the front end of said main lever and operatively and detachably attached to the shutter lever, said disk having a lateral pin arranged to disengage the trip lever when the main lever is to drop, and means indicating different lengths of time at which the disk may be set with its pin away from the trip lever, said disk being slidable on the winding shaft and having a circular concentric row of apertures, an arm fixed on the shaft and having a finger arranged to engage in either one of said apertures, a spring acting on the disk to hold it toward said arm; a cam fixed on the shaft, a second lever pivoted on the frame and having a flexible member detachably attached to the shutter lever, said second lever having a lateral pin arranged to be engaged by the cam so as to open the shutter some time before the pin in the disk operates to close it.

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1,093,822. SHAFT-COUPLING. GEORGE J. BLUM, Chicago, Ill., assignor to Armstrong-Blum Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 3, 1912. Serial No. 707,417. (Cl. 74—8.)



A shaft coupling comprising two semi-cylindrical portions forming between them an opening to receive a shaft, a sleeve fitting tightly around said semicylindrical portions and causing them to clamp the shaft; adjacent edges of said semicylindrical portions being recessed at diametrically opposite points; a pin extending transversely with relation to said members and the shaft, and lying in certain of said recesses and extending into the shaft; and a pin lying in the other recesses and opposite the first mentioned pin, said sleeve holding said pins against longitudinal movement.

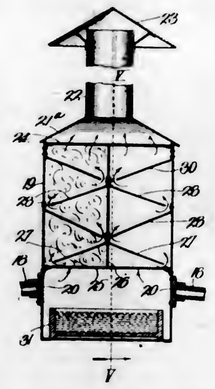
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1,093,823. DISINFECTING DEVICE FOR MAUSOLEUMS. FREDERICK BORGOLTE, Hutchinson, Kans. Filed Dec. 28, 1912. Serial No. 739,029. (Cl. 167—3.)

A disinfecting and deodorizing device for mausoleums, comprising a receptacle having a discharge stack at its upper end, a horizontally perforated partition between said receptacle and stack, a vessel adapted to contain a disinfectant in the lower end of the receptacle, a horizontally perforated partition through the lower portion of the receptacle above said vessel, a series of pipes communicating with said lower portion below said partition, a vertical partition extending through the middle of the receptacle and connecting said horizontal partitions, a series of downwardly and outwardly extending baffle plates carried by said vertical partition at each side thereof, a series of downwardly and inwardly extending baffle plates carried by the sides of the receptacle and arranged in alternate relation with said first-named baffle



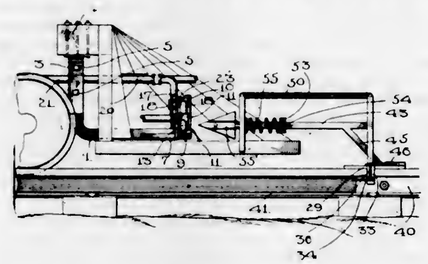
plates thereby forming a zigzag passage between said horizontal partitions at each side of the vertical partition,



and a mass of absorbent material arranged in each of said zigzag passages.

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1,093,824. AUTOMATIC EMERGENCY FLAGGING-MACHINE. LEONARD L. BROWN, Clifton Forge, Va., assignor of one-half to John W. Bear, Clifton Forge, Va. Filed Sept. 14, 1912. Serial No. 720,376. (Cl. 246—59.)



1. In a device of the class described, the combination with a receiving mechanism carried by a train comprising a framework having yieldable jaws, of a track instrument detachably secured to a rail and said yieldable jaws adapted to engage said track instrument for lifting said track instrument from a rail.

2. In a device of the class described, the combination with a support carried by a train, of a framework carried thereby, a plurality of jaws carried by said framework normally held in a closed position, one of said jaws being slidably mounted upon said framework and adapted to move upwardly, spring means engaging said last named jaw and said framework for normally holding the jaw in a closed position, an air brake controlling valve positioned in the rear of said jaws, a controlling arm carried by said valve, a projecting arm carried by said slidably-mounted jaw and adapted to engage said arm carried by said valve for operating the same and causing said air brakes to be operated when said slidably-mounted jaw is moved upwardly, and means adapted to be carried by a rail for engaging said jaws for operating said slidably-mounted jaw, and said jaws adapted to grip said means carried by said rail for picking said last-mentioned means up.

3. In a device of the class described, the combination with a support carried by a car, of a framework carried by said support, said framework comprising a pair of divergently-extending arms terminating in upwardly-extending parallel arms, means for securing said upwardly extending arms together, a pair of jaws positioned between said upwardly extending arms, means for holding one of said jaws in a set position relative to said upwardly extending arms, a pair of spring-engaging arms carried by the other jaw, said other jaw slidably mounted between said parallel arms, spring means engaging said spring-engaging arms and said framework for holding said jaws together, said jaws provided with means for directing an object toward the center thereof, a track instrument adapted to be carried by a rail for engaging said jaws and spreading said jaws apart, and brake-throwing mechanism coöperating with said slidably-mounted jaw for operating the brakes as said jaw is slid upon said parallel arms.

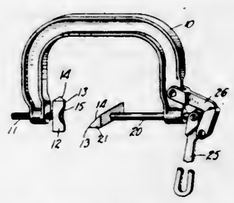
4. In a device of the class described, the combination with a support carried by a train, of a framework carried by said support, a pair of track instrument gripping jaws carried by said framework, one of said jaws being slidably mounted upon said framework, said jaws provided with notches formed intermediate their side edges having sloping sides, a track instrument adapted to be carried by a rail adapted to engage said notches for spreading said jaws apart, and brake operating means coöperating with said slidably-mounted jaw for throwing the brakes of a train.

5. In a device of the class described the combination with brake operating mechanism carried by a train, of a track instrument comprising a base adapted to be removably attached to a rail, a frame resting upon said base, a releasing arm pivotally connected to the base and capable of swinging upwardly, triggers carried by the base and engaging the frame and a rail to hold the base to the rail, a link connected to the frame, a depending arm carried by the link and through which the releasing arm extends, and a head carried by the releasing arm for engaging and operating the brake mechanism and to cause said brake mechanism to actuate the frame to release the triggers from the rail.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,825. TIRE-TOOL. GEORGE W. BRYANT, New York, N. Y. Filed Aug. 17, 1912. Serial No. 715,561. (Cl. 157—6.)



1. A tool, for yieldable tires, embodying a yoke, members carried thereby each provided with a terminal having a tire engaging factor and a rim engaging factor, said terminals being adjustable to operatively present either of said engaging factors, and means for diminishing the distance between said terminals.

2. A tool, for yieldable tires, embodying a yoke, members carried thereby each provided with a terminal having a tire engaging factor and a rim engaging factor, said terminals being adjustable to different angles to operatively present either of said engaging factors, and means for diminishing the distance between said members.

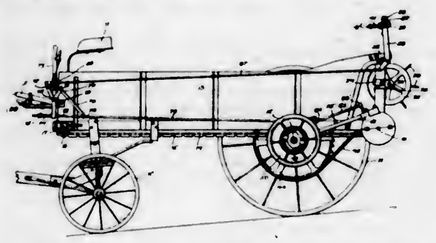
3. A tool for yieldable tires, embodying a yoke, members carried thereby each provided with a terminal having a tire engaging factor and a rim engaging factor, said terminals being adjustable to operatively present either of said engaging factors, a side-ring engaging device carried by one of said terminals and retractable relatively thereto, and means for diminishing the distance between said members.

4. A tool for yieldable tires, embracing in combination a yoke, members carried thereby each provided with a terminal embodying a rotatable, blunt-edged prism adapted

to engage a tire, said prism being provided with a transverse recess in its edge adapted to engage a wheel rim, and means for diminishing the distance between said members.

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1,093,826. FERTILIZER-DISTRIBUTER. WILLIAM W. CAMERON, La Crosse, Wis., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed July 14, 1910. Serial No. 571,985. (Cl. 111—40.)



1. In a fertilizer distributer, the combination of an apron, variable-speed driving-mechanism for the apron, a beater, driving-mechanism for the beater, a main-lever, a retarder, and connections whereby said lever will conjointly control the operation of the retarder, the driving mechanism for the beater and the driving-mechanism for the apron, the connection for controlling the variable speed driving mechanism for the apron comprising an adjusting lever for controlling the speed of the apron.

2. In a fertilizer distributer, the combination of an apron, variable-speed driving-mechanism for the apron, a beater, driving-mechanism for the beater, a main-lever, and connections whereby said lever will conjointly control the operation of the driving-mechanism for the beater and the driving-mechanism for the apron, the connections for controlling the variable-speed driving-mechanism for the apron, comprising an adjusting lever for said mechanism.

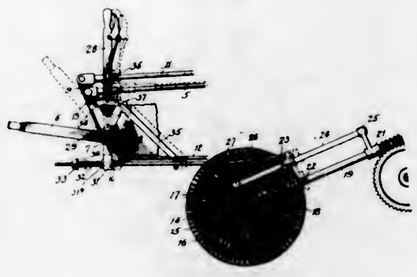
3. In a machine of the character described, the combination of an apron, variable-speed driving-mechanism for the apron, controlling-mechanism for said driving-mechanism, comprising a main-lever, an adjusting-lever operatively connected to said main-lever, a connection for the variable-speed mechanism, operated by said main-lever through said adjusting-lever, means controlling the movement of the adjusting-lever relatively to the main-lever, when it is shifted to operate the adjusting-lever, to cause bodily shift of the adjusting-lever, a beater, driving-mechanism for the beater, and controlling-means for the beater-driving mechanism, operated by the main-lever.

4. The combination of an apron, variable-speed driving-mechanism for the apron, controlling-mechanism for the driving-mechanism, comprising a main-lever, an arm connected to said lever, an adjusting-lever pivoted to said arm and sustained thereby, a connection between said variable-speed driving-mechanism and the adjusting-lever, and means for controlling the movement of the adjusting-lever relatively to the arm when the arm is shifted to cause bodily shift of the adjusting-lever, a beater, beater-driving mechanism, and controlling-means for the beater-driving mechanism, connected to the main-lever.

5. The combination of an apron, variable-speed driving-mechanism for the apron, controlling-mechanism for the driving-mechanism, comprising a main-lever, an arm connected to said lever, an adjusting-lever pivoted to said arm and sustained thereby, a connection between said variable-speed driving-mechanism and the adjusting-lever, means controlled by said connection for controlling the movement of the adjusting-lever relatively to the arm, a beater, beater-driving mechanism and controlling-means for the beater-driving mechanism, operated by the main-lever.

[Claims 6 to 14 not printed in the Gazette.]

1,093,827. CONTROLLING MECHANISM. WILLIAM W. CAMERON, La Crosse, Wis., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 19, 1911. Serial No. 645,043. (Cl. 74—39.)



1. In controlling-mechanism, the combination of a pivotally movable primary shifting element, an adjusting-lever, an eccentric pivotal connection between said lever and said element, operated by said element to bodily shift the adjusting-lever, a connection operative by said element through said adjusting-lever, locking means for holding the adjusting-lever in different positions relatively to the primary shifting element, and means for controlling the pivotal movement of the locking-means when the eccentric-connection is operated by the primary element.

2. In controlling-mechanism, the combination of a pivotally movable primary shifting element, an adjusting-lever, an eccentric pivotal connection between said lever and said element, operated by said element to bodily shift the adjusting-lever, a connection operative by said element through said adjusting-lever, locking means for holding the adjusting-lever in different positions relatively to the primary shifting element, and means controlled by said connection, for controlling the pivotal movement of the locking-means and lever when the eccentric connection is operated by the primary element.

3. In controlling-mechanism, the combination of a pivotally movable primary shifting element, an adjusting lever, an eccentric pivotal connection between said lever and said element operative by said element to bodily shift the adjusting-lever, a rod connected to and operative by said adjusting lever, lever locking means for holding the adjusting lever in different positions relatively to the primary shifting element, and means connected to said rod, for controlling the pivotal movement of the locking means when the eccentric connection is operated by the primary element.

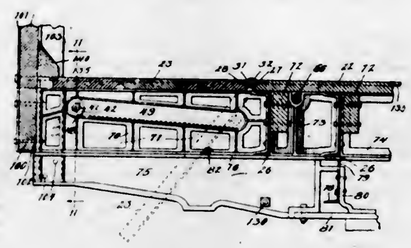
4. In controlling-mechanism, the combination of a pivotally movable primary shifting element, an adjusting lever, an eccentric pivotal connection between said lever and said element, operative by said element to bodily shift the adjusting lever, a rod operative by and connected to said adjusting lever, locking means for holding the adjusting lever in different positions relatively to the primary shifting element, and means connected to said rod and to said locking-means for controlling the pivotal movement of the lever when the eccentric connection is operated by the primary element.

5. In controlling-mechanism, the combination of a pivotally movable primary shifting element, an adjusting lever, an eccentric pivotal connection between said lever and said element, operative by the primary element to bodily shift the adjusting lever, a rod connected to and operative by said adjusting lever, means between said rod and lever for controlling the pivotal movement of the adjusting lever about said eccentric connection to cause it to move relatively to said element when the pivotal connection is operated by the primary element, and an adjustable connection between the lever and said means.

[Claims 6 to 12 not printed in the Gazette.]



1,093,828. RAILWAY-CAR. WILLIAM A. CASWELL, Chicago, Ill., assignor, by mesne assignments, to National Dump Car Company, a Corporation of Maine. Filed July 11, 1903, Serial No. 165,096. Renewed Feb. 26, 1914. Serial No. 821,287. (Cl. 105—14.)



1. In a dump car, the combination with a hinged door of a flat plate carried by the door and covering the hinges, and a stationary curved plate overlapping the plate upon the door, and effecting a tight joint therewith in all positions of the door.

2. In a dump car, the combination with a hinged door of a stationary member of the car frame, a plate supported thereon and having its projecting edge curved upwardly as shown, and a coacting plate carried by the door and projecting over the hinge, and adapted to substantially maintain contact with the under side of the curved portion of the plate on the frame member, in all positions of the door.

3. The dump car having in combination with a hinged floor door, a plate on the door covering its hinge, and a stationary plate secured to and forming part of a level floor of the car and overlapping said door plate, and curved so that the door plate may substantially maintain contact therewith in all positions of the door.

4. The dump car having hinged doors in its floor, forming when closed part of a level floor, longitudinal plates secured to the doors along their hinged sides, and the stationary plates secured to and forming part of said floor along the door openings and lapping over said door plates, and curved concentrically with axis of the hinges.

5. The dump car having hinged doors in its floor forming when closed part of a level floor, longitudinal plates secured to the doors along their hinged sides and extending over the hinges, and plates secured to the stationary part of said level floor and themselves forming a part of the same floor, and also extending over the hinges and over the door plates, said last mentioned plates being curved so their under surfaces will be in contact with the door plates in all positions of the latter.

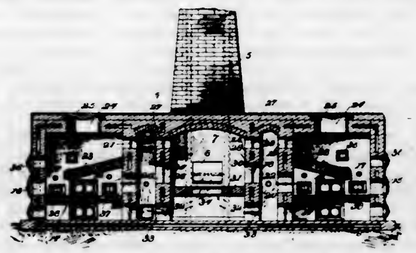
[Claims 6 to 39 not printed in the Gazette.]

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1,093,829. INCINERATOR. JOSEPH CONLEY, Anadarko, Okla. Filed June 26, 1913. Serial No. 775,994. (Cl. 110—12.)

1. In an incinerator the combination with a stack, a chamber connected with the stack, a plurality of furnaces each of which is connected to the chamber by a plurality of flues, each provided with a damper, each furnace comprising a main chamber and a secondary chamber, a plurality of flues, each provided with a damper connecting the main and secondary chambers, a bridge located in the main chamber between the flues, and a grate located beneath the bridge.

2. In an incinerator the combination with a stack, a chamber connected with the stack, a plurality of furnaces, each of which is connected to the chamber by a plurality of flues, each provided with a damper, each furnace comprising a main chamber and a secondary chamber, a plurality of flues each provided with a damper connecting the main and secondary chambers, a bridge located in the main chamber between the flues, a grate located beneath the bridge, and a second grate located in the first mentioned chamber with one of the flues from the secondary



chamber connected to said first mentioned chamber located beneath the last mentioned grate.

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1,093,830. SHOCK-ABSORBER FOR PERCUSSION-OPERATED TOOLS. GEORGE COOK, Sioux City, Iowa. Filed Sept. 2, 1913. Serial No. 787,718. (Cl. 121—20.)



A shock absorber for percussion-operated tools having reduced shanks and shoulders afforded thereby, said shock absorber comprising an open ended cylindrical casing adapted to freely encircle the shanks of the tools and having an internal shoulder in one end thereof and threaded at the opposite end; a collar freely inclosed by said casing, adapted to receive the shanks and engage the shoulders of the tools and having a flange to engage said internal shoulder; a nut engaged with the threaded end of the casing; and a compression spring interposed between said collar and nut.

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1,093,831. ART OF PRINTING. GEORGE R. CORNWALL, Rye, N. Y., assignor to American Planograph Company, a Corporation of West Virginia. Filed May 29, 1905, Serial No. 262,820. Renewed Aug. 12, 1913. Serial No. 784,436. (Cl. 101—173.)




1. The combination with a surface bearing a line of characters and comprising a continuous layer of elastic material, and a layer of inelastic material, said inelastic layer being severed between the various groups of characters, of means for automatically changing the length of the said elastic layer to bring the line of printed characters to a predetermined measure.

2. The combination with a surface bearing a line of characters and comprising a continuous layer of elastic material and a layer of inelastic material which is discontinuous between the various groups of characters, of means for changing the tension of the said elastic layer so as to bring the line of characters to a predetermined measure and then hold the line at the said predetermined measure.

3. The combination with a surface bearing a line of printed characters and comprising a continuous layer of elastic material and a layer of inelastic material which is discontinuous between the groups of characters, of means for holding the elastic layer under tension, means for increasing or decreasing the tension of the said elastic layer so as to bring the line of characters to a predetermined measure and means for maintaining the tension of said elastic layer so as to keep the line of characters at the said predetermined measure.

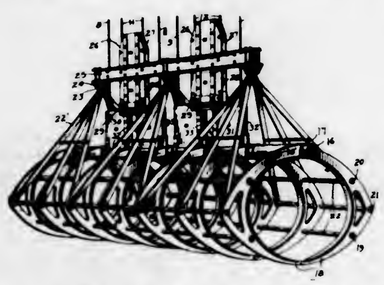
4. The combination with a surface bearing a line of characters and comprising a continuous elastic layer and a discontinuous inelastic layer, of means for holding said elastic layer under tension, means for increasing or decreasing the tension of the said elastic layer so as to bring the line of characters to a predetermined measure, and means operating upon said tension-changing means to maintain the said line of characters at the said predetermined measure.

5. The combination with a surface bearing a line of characters and comprising a continuous layer of elastic material and a layer of inelastic material discontinuous between the groups of characters, of means for holding the said elastic layer under tension, means for releasing the said holding means and for increasing or decreasing the tension of said elastic layer so as to bring the line of characters to a predetermined measure, and means for holding the said line of characters at such predetermined measure.

[Claims 6 to 17 not printed in the Gazette.]

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1,093,832. GRAPPLE. OLIVER CROSBY, EDWARD A. WILHELM, and HARRY LE ROY BRINK, St. Paul, Minn., assignors to American Hoist & Derrick Co., St. Paul, Minn., a Corporation. Filed Oct. 20, 1911. Serial No. 655,778. (Cl. 57—9.)



1. A grappling apparatus comprising a shaft, grappling fingers journaled thereon, a beam, links connecting said beam with said grappling fingers, sheave boxes rigidly mounted on said beam and having sheaves above and below said beam, sheave boxes mounted on said shaft and having sheaves therein, closing cables having running connections with the sheaves on said shaft and with the lower sheaves on said beam, and opening cables having running connections with the upper sheaves of said beam.

2. A grappling apparatus comprising a shaft, grappling fingers journaled thereon, a beam composed of channel bars placed back to back and spaced apart, ears secured to said bars, links pivotally connected with said ears and to said grappling fingers, sheave boxes fitting between the bars of said beam and rigidly secured thereto and projecting above and below said beam and each block having a sheave above and below said beam, boxes mounted on said shaft and also having sheaves therein, closing cables having running connections with the sheaves on said shaft and with the sheaves below said beam, and opening cables having running connections with the sheaves above said beam, said grappling fingers closing when said closing cables are wound up and opening by gravity when said closing cables are released and said opening cables are held stationary.

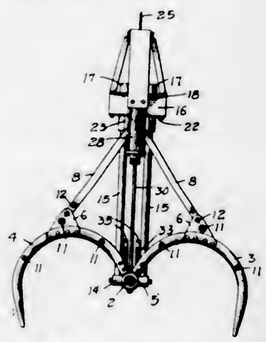
3. A grappling apparatus comprising a shaft, grappling fingers journaled thereon, a beam composed of bars spaced apart and secured together, links pivotally connected with said bars and with said grappling fingers, sheave boxes fitting between the bars of said beam and rigidly secured thereto and projecting above and below said beam and having sheaves above and below said beam, sheave boxes mounted on said shaft and having sheaves therein, closing cables having running connections with the sheaves on said shaft and with the sheaves below said beam, and opening cables having running connections with the sheaves above said beam.

4. A grapple comprising a shaft, grappling fingers journaled thereon, a beam, middle links pivotally connected with the middle portion of said beam and with the middle fingers on said shaft, end links pivotally connected with the ends of said beam and with the outer fingers on said shaft, sheave boxes mounted on said beam between said middle and end links and having sheaves journaled therein, a pair of sheave boxes mounted on said shaft on each side of the middle portion thereof, sheaves mounted in said sheave boxes, closing cables having running connections with said shaft sheaves and with one of the sheaves in said beam boxes, there being a pair of closing cables, one for each set of shaft sheaves, and opening cables having running connections with the other sheaves of said beam boxes.

5. A grappling apparatus comprising a shaft, grappling fingers journaled thereon, a beam, links pivotally connecting said beam with said grappling fingers, sheave boxes mounted on said beam on each side of the middle portion thereof and having flanged lower ends and sheaves for said boxes, sheave boxes mounted on said shaft and arranged in pairs upon opposite sides of the middle portion thereof, flanged plates bridging the space between the shaft boxes of each pair and beneath the flanged lower ends of said beam boxes and contacting therewith when said shaft is raised, and opening and closing cables having running connections with the sheaves of said shaft boxes and with the sheaves of said beam boxes.

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1,093,833. GRAPPLE. OLIVER CROSBY, HARRY LE ROY BRINK, and EDWARD A. WILHELM, St. Paul, Minn., assignors to American Hoist & Derrick Co., St. Paul, Minn., a Corporation. Filed Oct. 20, 1911. Serial No. 655,781. (Cl. 57—9.)



1. A grappling device comprising a cross head, a shaft, grappling fingers journaled on said shaft, links connecting said cross head and said fingers, a cable having a running connection with said cross head and with said shaft, cylinders having their middle portions mounted on the ends of said cross head and plungers slidable in said cylinders and having connecting rods attached to said shaft, said plungers and cylinders operating as cushions to relieve the shock when said shaft is dropped to open the grapple.

2. A grappling apparatus comprising a cross head, a shaft, grappling fingers journaled on said shaft, links connecting said cross head and said fingers, rods mounted on said shaft and slidable in bearings in said cross head, a pulley block slidable on said rods, means for temporarily locking said shaft and pulley block together, cushioned sleeves carried by said rods in the path of said block, a cable having a running connection with said cross head and with said pulley block.

3. A grapple comprising a cross head, a shaft, grappling fingers journaled on said shaft, links connecting said cross head and said fingers, rods mounted on said shaft and slidable in bearings in said cross head, springs inclosing said rods within said cross head, sleeves slidable on said rods and having flanges forming seats for said springs, a pulley block slidable on said rods, means for temporarily locking said pulley block and said shaft together, said pulley block contacting with said sleeves and being cushioned by said springs, and a cable having a running connection with said cross head and with said pulley block.

4. A grapple comprising an elongated cross head, a cylinder mounted on each end of said cross head, pistons and connecting rods for said cylinders, said cylinders being provided with exhaust ports, a shaft whereto said connecting rods are attached, grappling fingers mounted on said shaft, rods mounted on said shaft near the middle portion thereof and sliding in bearings in said cross head, a sheave block slidable on said rods, means for locking said block to said shaft, links pivotally connecting said cross head with said fingers and a cable having a running connection with said cross head and with said sheave block.

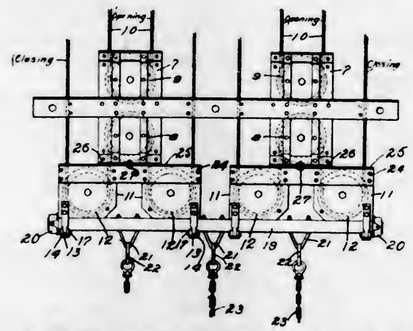
5. In a grapple, a shaft, curved fingers mounted thereon, forgings secured to the middle portions of said fingers and having comparatively long bearings thereon, and rods passing through said forgings parallel with said shaft and operating to hold said forgings in alinement with one another.

[Claims 6 to 16 not printed in the Gazette.]

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1,093,834. GRAPPLE. OLIVER CROSBY, EDWARD A. WILHELM, and HARRY LE ROY BRINK, St. Paul, Minn., assignors to American Hoist & Derrick Co., St. Paul, Minn., a Corporation. Filed Oct. 3, 1912. Serial No. 723,755. (Cl. 57—11.)



1. A grapple comprising a beam, upper sheave blocks mounted on said beam, lower sheave blocks disposed below said first named blocks and having seats to receive said first named blocks, means for rigidly securing said upper and lower blocks together, cables having running connections with said blocks, a shaft and cane supporting means thereon, and means for temporarily clamping said shaft on said lower blocks.

2. A grapple comprising a beam, upper sheave blocks mounted on said beam, lower sheave blocks, means for temporarily securing said upper and lower blocks together, cables having running connections with said blocks, a shaft, slings carried by said shaft and adapted to pass around a load of cane, means for temporarily clamping said shaft on said lower blocks.

3. A grapple comprising a beam, upper sheave blocks mounted on said beam, lower sheave blocks, cables having running connections with said sheave blocks, a shaft, cane engaging means carried thereby, straps mounted on said lower blocks and spaced apart to receive said shaft, and links pivotally connected with one of said straps and having means for connection with the other strap, said links temporarily supporting said shaft upon said lower blocks.

4. A grapple comprising a cross head, a sheave block mounted therein and having an upper and a lower sheave, a second sheave block arranged transversely of said first named block and having means for securing it thereto, and sheaves mounted side by side in said second named block, cables having running connections with the sheaves of said blocks, and a cane sling having means for connection with said second named block.

5. A cane lifting device comprising a cross head, a pair of sheave blocks mounted thereon, a second pair of sheave blocks arranged side by side beneath said first named blocks and having means for securing them respectively to said first named blocks, cables having running connections with the sheaves of said blocks, and cane lifting means for connection with said second named blocks.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,835. BOOKBINDING. FRANK H. CRUMP, Los Angeles, Cal. Filed Apr. 19, 1912. Serial No. 691,898. (Cl. 11—17.)



1. In a binder, spaced leaf-confining members, a tubular post carried by one member, the other member being formed with an opening receiving one end of the tubular post and being formed with a recess located at the opening, the said end of the post being laterally compressed and thereby expanded laterally to form a head of a width greater than the diameter of the said opening and received in the recess.

2. In a binder, leaf confining members, a tubular post secured at one end to one of said members, the post projecting at its other end through the other member, the last-mentioned end of the post being compressed laterally and thereby expanded to form a transverse head flared in the direction of its extremity.

3. In a binder, spaced leaf-confining members, one of said members including a strip, a tubular post fitted at one end through the strip and provided at its said end with a head bearing against one side of the strip, the other leaf-confining member including a strip formed with an opening through which the other end of the post projects, the said post at its last mentioned end being compressed and thereby expanded laterally whereby to form a diametrically extending head of a width greater than the diameter of the post.

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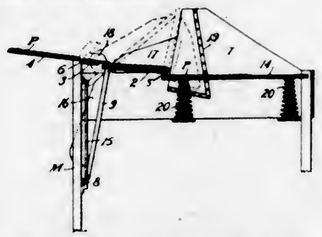
1,093,836. FRUIT-GRADING APPARATUS. FRANK W. CUTLER and ASA B. CUTLER, Hood River, Oreg. Filed Apr. 16, 1913. Serial No. 761,441. (Cl. 130—32.)

1. In a device of the class described a fruit delivery chute, a receiving compartment, and a sectional feed chute establishing communication therebetween, said chute sections being pivoted to move in different directions, and means to simultaneously operate said sections.

2. In a device of the class described a fruit delivery chute, a receiving compartment, and a sectional feed chute establishing communication therebetween, said chute sections being pivoted to move upwardly in opposite directions, and means to simultaneously operate said sections.

3. In a device of the class described a fruit delivery chute, a receiving compartment and a sectional folding feed chute establishing communication therebetween, said chute sections being pivoted to move in different directions, vertically movable lifting members operatively connected to said chute sections, a cross piece connecting said

members at their free ends, and an operating lever operatively connected with said cross piece to effect the movement of said chute sections.



4. In a device of the class described a fruit delivery chute, a gravity feed, and a receiving compartment, said compartment having a stiff receiving plane padded at the point of fruit delivery.

5. In a device of the class described a fruit delivery chute, a gravity feed, and a receiving compartment, said compartment having a stiff receiving plane padded at the point of fruit delivery, and springs yieldingly supporting the bottom of said compartment.

[Claims 6 to 9 not printed in the Gazette.]

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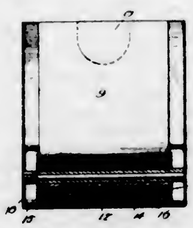
1,093,837. SHUTTLE-THREADER. JOSEPH DUFRESNE, Montreal, Quebec, Canada. Filed Nov. 26, 1913. Serial No. 803,320. (Cl. 139—43.)



In a device of the character described; a base plate; a box, obliquely slidable thereon; means for securing the box to the base plate and for limiting and controlling its movement; slidably adjustable shuttle holding means contained within the box; a shuttle carried thereby, and provided near one end with a horizontal, centrally slotted, and angularly disposed tube, one end of which is alined with a bore in one side of the box; a standard secured to the base plate, contiguous to one side of the box and near one end thereof; a threading needle mounted in the standard in alinement with the tube and in the same plane therewith; a pivotally mounted cam, thread depressing means, mounted on the side of the box and adapted to depress the thread across the slot in the tube; guiding means therefor; means for depressing the thread depressing means as the box is depressed; means for returning the thread depressing means to its original position; and means for returning the box to its original position.

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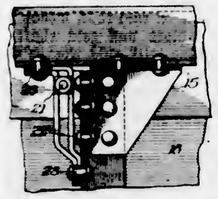
1,093,838. PAPER-CASE. MARSHALL WHARTON FASSMANN, Natchez, Miss. Filed Nov. 1, 1912, Serial No. 729,044. Renewed Sept. 19, 1913. Serial No. 790,783. (Cl. 206—39.)



A paper case comprising a cylindrical part having a longitudinal slot and projecting lips on opposite sides of said slot, one of the lips having at one end thereof a flange engageable with and disengageable from the corresponding edge of the opposite lip, whereby the lips may be opened at said end to permit lateral insertion of the paper strip, and a roll holder removably mounted in the cylindrical part of the casing.

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1,093,839. CAR SIDE. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1913. Serial No. 792,265. (Cl. 105—192.)



1. In a railway car, the combination of a metallic frame and a single, interior, longitudinally extending sheathing, a metallic strap located interiorly of the car with its edges flush with the surface of said sheathing, and a bolt securing said strap and said sheathing to the frame, said bolt extending to one side of a frame member, substantially as described.

2. In a railway car, the combination of metallic frame posts, a single, interior, longitudinally extending sheathing, an angular tightening strap and retaining member located on the inside of the car, said member having engagement with said sheathing near the top thereof and extending through the floor of the car, means for exerting downward pressure on said strap to tighten said sheathing, and means for securing said sheathing to the frame, said securing means being connected to said tightening strap and being located adjacent to but not passing through a frame post, substantially as described.

3. In a railway car, the combination of a metallic frame, a single interior, longitudinally extending sheathing, an interior, angular post extending from top to bottom of the car, a loop secured to a frame post, and securing means passing through said interior post and coöperating with said loop whereby to retain said sheathing in position, substantially as described.

4. In a railway car, the combination of a metallic frame, a single interior longitudinally extending sheathing, an interior post, a strap coöperating with the frame exteriorly of said frame and sheathing, and a bolt passing through said post and said strap and extending to one side of a frame member, substantially as described.

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1,093,840. BOLTLESS CAR SIDE. WILLIAM E. FOWLER, Sr., Chicago, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1913 Serial No. 792,266. (Cl. 105—192.)

1. In a car side, the combination of metallic frame posts, an interior, longitudinally extending sheathing, said sheathing on the sides extending from door to end posts, and means located interiorly of the car and extending from the upper portion of said sheathing downwardly through the floor of the car for securing said sheathing in place, substantially as described.

2. In a railway car, the combination of metallic frame posts, an interior, longitudinally extending sheathing, said sheathing on the sides extending from door to end posts, and a plurality of angular shapes located on the inside of the car flush with the surface of the sheathing, such shapes extending from top to bottom of the car and acting to secure such sheathing in place, substantially as described.

3. In a railway car, the combination of metallic frame posts and an interior, longitudinally extending sheathing, said sheathing on the sides extending from door to end posts, an angular shape located on the inside of the car flush with the surface of the car and acting as a means for securing such sheathing in place, and means for exerting downward force on said shape whereby to tighten said sheathing, substantially as described.





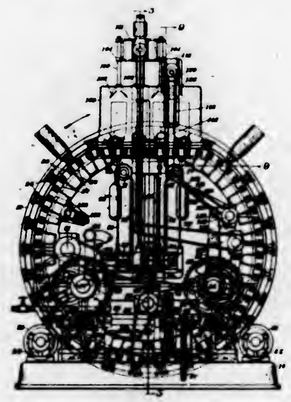
4. In a railway car, the combination of metallic frame posts, an interior, longitudinally extending sheating, said sheathing at the sides extending from door to end posts, and a plurality of interior removable posts, said posts acting as the sole means for retaining said sheathing against said frame posts, substantially as described.

5. In a railway car, the combination of metallic frame posts, an interior, longitudinally extending sheathing, said sheathing at the sides extending from door to end posts, and a plurality of interior removable posts, said interior posts having a slidable connection with said frame posts, said interior posts acting as the sole means for retaining said sheathing in proper relation in said frame, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,841. BOTTLE-WASHING MACHINE. ROCKWELL L. GALLUP, Chicago, Ill., assignor, by mesne assignments, to Nicholas Glab, Dubuque, Iowa. Filed Jan. 16, 1911. Serial No. 602,834. (Cl. 141—7.)



1. In a bottle washing machine, the combination of a plurality of bottle carrying members, a stationary frame having a track along which the bottle carrying members travel, and a cylindrical propelling frame rotatably mounted upon rollers disposed beneath the same, said frame being provided with radially disposed slots loosely engaging bottle carrying members to move the bottle-carrying members along the track, and means for rotating said frame whereby the bottle carrying members are propelled successively around said track.

2. In a bottle washing machine, the combination of a plurality of bottle carrying members, a stationary frame having a guideway on which the bottle carrying members travel, a rotatively mounted cylindrical propelling frame engaged with each of said bottle carrying members to move the bottle-carrying members along the guideway, and means for intermittently imparting a rotary movement to said propelling frame whereby to propel said members along said guideway.

3. In a bottle washing machine, the combination of a stationary guideway, a rotatably mounted hollow propelling frame, and a plurality of bottle carrying members equipped with bottle-receiving sockets, each bottle carrying member traveling in said stationary guideway and loosely engaged with said propelling frame to permit radial movement of said members and enable said members to follow the contour of said guideway.

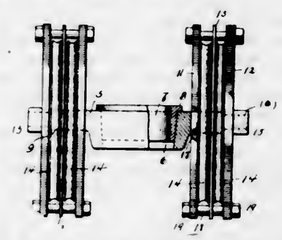
4. In a bottle washing machine, the combination of a stationary frame provided with a substantially circular track or guide-way flattened at one side, a cylindrical propelling frame mounted to rotate concentrically of said substantially circular track, supporting means located outside said frame upon which the frame is carried, and a plurality of bottle carrying members adapted to travel in an orbit defined by said track, said members being engaged by and having a movement radially upon said frame whereby to enable said members to traverse the flattened portion of said track.

5. In a bottle washing machine, the combination of a substantially circular track or guideway flattened throughout a portion of its length, a cylindrical propelling frame mounted to revolve about an axis concentric with said track and provided with radial guideways, a plurality of bottle carrying members equipped at each end with a plurality of rollers adapted to travel in said track and prevent the members from turning over, said members being slidably engaged with the guideways of said propelling frame to be propelled along the track thereby, said engagement permitting movement of said members radially of the propelling frame to enable the members to follow the flattened portion of said track.

[Claims 6 to 21 not printed in the Gazette.]

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1,093,842. ELEVATOR AND SPIDER FOR HANDLING WELL-CASINGS. WILLIAM H. GARRIGAN and PHILIP B. DAUBENSPECK, Coalinga, Cal. Filed May 24, 1913. Serial No. 769,601. (Cl. 57—9.)



1. In a device of the character described, the combination with a horizontally disposed spider, having a bore formed vertically therethrough and adapted to embrace a well casing, a casing engaging and supporting means carried by said spider diametrically opposed, transversely extending arms carried by said spider, and a sheave or pulley having rotative bearing upon each of said arms.

2. In a device of the character described, the combination with a horizontally disposed spider, having a bore formed vertically therethrough and adapted to embrace a well casing, a casing engaging and supporting means carried by said spider diametrically opposed, transversely extending arms carried by said spider, and a plurality of sheaves or pulleys having rotative bearing upon said arms.

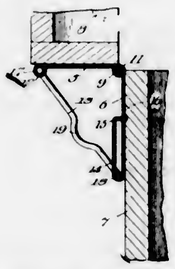
3. In a device of the character described, the combination with a horizontally disposed spider, having a central bore formed therein and carrying a pair of diametrically opposed, transversely extending arms, of a casing engaging means located in said central bore, a pair of spaced shield plates carried by each of said arms and through which said arms pass, said shield plates engaging angular portions of said arms to prevent the shield plates from turning with relation to said arms, tie bars spacing said shield plates from each other, and a pair of pulleys having rotative bearing upon said arms and between said shield plates, substantially as shown and described.

4. In a device of the character described, the combination with a horizontally disposed spider having a central bore formed therein and having a pair of diametrically opposed, transversely extending arms, of a casing engaging means located in said central bore, a pair of spaced shield plates carried by each of said arms, and a pair of sheaves rotatively mounted upon said arms between each pair of shield plates.

5. In a device of the character described, the combination with a horizontally disposed spider having a central bore formed therein and having a pair of diametrically opposed, transversely extending arms, of a casing engaging means located in said central bore, a pair of spaced shield plates carried by each of said arms, a pair of sheaves rotatively mounted upon said arms between each pair of shield plates, and means for preventing said shield plates from bodily turning upon said arms.

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1,093,843. STAY-HINGE. HUEY EDWARD GASSAWAY, Floyd, Tex. Filed May 8, 1913. Serial No. 766,303. (Cl. 16—104.)



A stay hinge comprising a pair of hinged leaves, and a stay extending therebetween, one of the leaves having at its end which is opposite its hinged end a bearing, and the corresponding end of the other leaf having an integral tongue of a width less than that of the leaf, which tongue is bent to extend in spaced relation with the outer face of said leaf and connected at its end thereto, the stay being a link having parallel sides and cross bars connecting the ends thereof, one of said cross bars being journaled in the aforesaid bearing and the other cross bar being slidably mounted on the second-mentioned leaf under the bent over tongue thereof, the width of the link being less than the width of the hinged leaves, and the intermediate portions of the sides of the link having bends to clear the hinge connection of the leaves when the link is folded.

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1,093,844. PROCESS FOR THE CEMENTATION OF ARTICLES OF IRON, STEEL, AND ALLOYS OF STEEL. FEDERICO GIOLITTI, Turin, Italy, assignor to Societa Anonima Italiana Gio. Ansaldo Armstrong & Co., Genoa, Italy. Filed June 13, 1910. Serial No. 566,576. (Cl. 148—40.)

1. The improved process of cementing an article of iron, steel or alloy of steel, wherein the article to be cemented is heated to a temperature of from about 900 degrees to about 1100 degs. centigrade in the presence of pure carbon in a state of comparatively fine subdivision and carbon dioxid, whereby said article is provided with a surface layer of any desired depth carburized to any degree more than the remainder of the article, as set forth.

2. The improved process of cementing an article of iron, steel or alloy of steel, wherein the article to be cemented is packed in pure carbon in a state of comparatively fine subdivision, a current of carbon dioxid passed therethrough while heating said packed article to a temperature of from about 900 to 1100 degrees centigrade, then after a certain interval, that portion of the pure carbon which is in contact with the surfaces of the article to be cemented is removed, and then the circulation of the carbon dioxid and the heating continued as before, whereby very deep zones of cementation are produced without increasing unduly the percentage of carbon therein, as set forth.

3. The improved process of cementing an article of iron, steel or alloy of steel, wherein the article to be cemented is packed in granulated charcoal, a current of carbon dioxid passed therethrough while heating said so packed article to a temperature of from about 900 degrees to 1100 degrees centrigrade, then after a certain interval, that portion of the granulated charcoal which is in contact with the surfaces of the article to be cemented is removed, and then the circulation of the carbon dioxid and the heating continued as before, whereby very deep zones of cementation are produced without increasing unduly the percentage of carbon therein, as set forth.

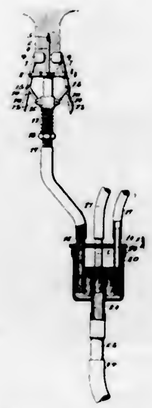
4. The improved process of cementing an article of iron, steel or alloy of steel, wherein the article to be cemented is packed in pure carbon in a state of comparatively fine subdivision and a current of carbon dioxid passed therethrough with the addition of a certain quantity of air while heating said so packed article to a temperature of from about 900 degrees to 1100 degrees centigrade as set forth.

5. The improved process of cementing an article of iron, steel, or alloy of steel, wherein the article to be cemented is packed in granulated charcoal and a current of carbon dioxid passed therethrough with the addition of a certain quantity of air while heating said so packed article to a temperature of from about 900 degrees to 1100 degrees centigrade, as set forth.

[Claim 6 not printed in the Gazette.]

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1,093,845. MILKING DEVICE. MAX GOEHLER, Vancouver, British Columbia, Canada. Filed Nov. 18, 1913. Serial No. 801,675. (Cl. 31—71.)



1. In a milking device, the combination with a flexible tube connected to each teat of the animal, of a sealing vessel having a delivery tube to the milk pail projecting upward within it, a removable cover having a series of inlet tubes projecting through it within the vessel to below the level of the delivery outlet to each of which inlet tubes a teat tube is connected.

2. A milking device, comprising the combination with a hollow needle closed at its upper end and pointed and apertured near the upper end below the point which needle is socketed into a tube, of a resilient clamp secured to the upper end of the tube which clamp is adapted to resiliently grip the lower part of the teat, and means for flexibly connecting each teat tube to the milk pail.

3. A milking device, the combination with a series of teat attachments, of a vessel having a delivery pipe which is connected to a milk pail said vessel having a removable cover in which a number of pipes are secured corresponding to the teat attachments, said pipes projecting into the vessel below the level of the delivery pipe therefrom and means for flexibly connecting the teat attachments to the inlet pipes of the vessel cover.

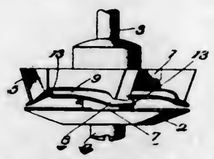
4. A milking device, comprising the combination with a tube for each teat of the animal in the upper end of which tube a hollow apertured needle is removably inserted, a finger operated clamp secured to each teat tube which clamp is adapted to normally resiliently grip the lower part of the teat, a sealing vessel having a series of tubes inserted in the cover and projecting to near the bottom of the vessel and a delivery outlet from the bottom of the vessel the upper end of which outlet is above the level of the inlet tubes, means for flexibly connecting each teat tube to an inlet tube of the vessel, and means for flexibly connecting the delivery outlet to the milk pail.

5. A milking device, comprising the combination with a teat tube, of a hollow needle removably inserted in the upper end of the teat tube and projecting upward therefrom, which needle is apertured in the upper end, opposed finger engaging levers pivotally connected to the teat tube the upper end of each lever having a crescent shaped portion adapted to grip the lower part of the teat, a sleeve slidably mounted on the teat tube below the fulcrum, a nut threaded on the teat tube below the sleeve, a coil spring between the nut and the sleeve and links pivotally connecting the sleeve to each clamp lever intermediate of the fulcrum and the finger engagement, and means for flexibly connecting the lower part of each teat tube to a sealing vessel which vessel delivers into the milk pail.

[Claim 6 not printed in the Gazette.]

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1,093,846. HEEL-TRIMMER. RUPERT LEWIS GREENLEAF, Brockton, Mass., assignor of one-half to Frank A. Carlson, Brockton, Mass. Filed May 16, 1913. Serial No. 768,183. (Cl. 12—93.)



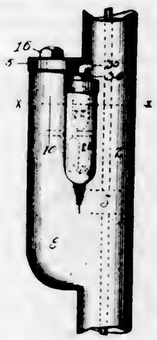
1. In a heel-trimmer, the combination of a shield having spaced depressions in its upper face, said depressions being deeper at their rear sides than their front sides, a rand cutter having lips seating in said depressions, and means for clamping the cutter to the shield.

2. In a heel-trimmer, the combination of a shield having spaced depressions in its upper face at its edge, said depressions being deeper at their rear side than at their front sides, a rand cutter having lips adapted to seat in said depressions, an edge cutter bearing upon the lips of the rand cutter, and means for clamping the rand cutter between the shield and the edge cutter whereby the edge cutter will force the lips of the rand cutter to the bases of the depressions.

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1,093,847. PUMP-VENT. JOSEPH F. HAENNIG, Masonville, Iowa. Filed Apr. 23, 1913. Serial No. 763,127. (Cl. 103—60.)

1. In a device of the character described, a cylinder provided with two openings in one side, a plunger in the cylinder between the openings, a member secured around the openings for taking the water from the cylinder and returning it to the cylinder, a weight controlled valve in the member, a second member provided with water communications with the first member and the cylinder, a valve in the second member, and means connected with the second member for drawing off the water from the upper part of the cylinder when the pump has ceased pumping.



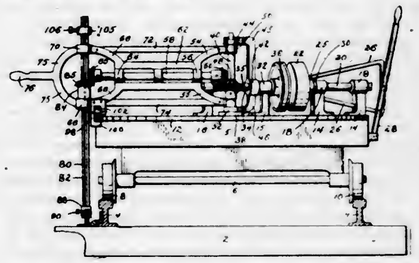
2. In a device of the character described, a cylinder provided with two openings, a member connected to the cylinder at the two openings and closed at one end, a weighted valve in said member, a second member opening into the first member and the cylinder, a valve in said second member between the two openings, and a valve in the second member for drawing off the water from the upper part of the cylinder when the pump has ceased pumping.

3. In a device of the character described, a cylinder provided with two openings, a member connecting the two openings, and forming water communications between the cylinder below the plunger and the cylinder above the plunger, a weight controlled valve in the first member, a second member having water communications between the first member and the cylinder, a valve in the second member on a plane substantially parallel with the valve seat in the first member, a cap over the valve, a second valve in the second member above the first valve and controlled by said cap for drawing off the water from the cylinder after the pump has ceased pumping.

4. In a device of the character described, a cylinder provided with two openings in the side of the cylinder, a plunger in the cylinder between the openings, a water conducting member connected with the cylinder at both openings, a weighted valve in said member, a second member opening into the first, and into the cylinder and a valve in said second member that prevents the water which is in the second member and cylinder from returning back into the cylinder through the first member and draws off the water from the cylinder above the second member.

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1,093,848. SCREW-DRIVING MACHINE. DELBERT D. HARBOT, Nichols, N. Y. Filed Jan. 11, 1911. Serial No. 602,127. (Cl. 144—32.)

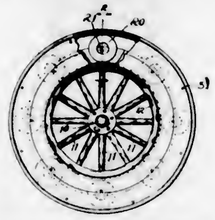


In a screw driving machine, a platform, an arcuate guide rail fixed to the platform, a driving shaft journaled

at fixed points upon the platform and having a screw gear, a shaft journaled upon the platform and disposed at a right angle to the driving shaft, a gear wheel fixed to the last mentioned shaft and meshing with the screw gear, a bar pivotally mounted upon the last mentioned shaft, a bracket carried by the bar and extending around and under the edge of the arcuate guide rail, a shaft journaled upon the bar and having a gear wheel which meshes with the first mentioned gear wheel, a spindle slidably journaled in the bar and means for rotating the spindle from the shaft journaled upon the bar.

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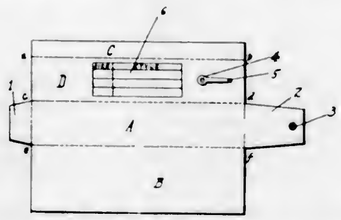
1,093,849. WHEEL. WILLIAM T. HARRIS, Louisville, Ky. Filed June 24, 1907. Serial No. 380,488. (Cl. 152—36.)



A wheel comprising a body carrying an inner rim, having outwardly extending flanges, an outer rim having inwardly extending flanges which telescope with the flanges of the inner rim, a plurality of independent rubber annuli arranged within and between the flanges of the two rims with their axes substantially parallel with the axis of the wheel, and comparatively small retainers carried by the inner rim and extending into the center openings of the annuli, each of said retainers lying at a distance from the bottom of the inner rim exceeding the thickness of its annulus, thereby permitting free rotative movement of the annulus but preventing too great circumferential displacement.

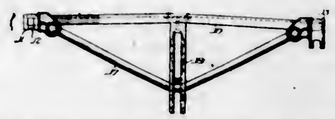
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1,093,850. MAILING-PACKAGE. REDGE HARVEY, Detroit, Mich., assignor of one-half to Harry E. Marshall, Detroit, Mich. Filed June 10, 1812. Serial No. 702,658. (Cl. 229—74.)



A combined post-card and package, comprising a rectangular blank having a plurality of scorings parallel with the sides of the blank forming in the completed article at one side a rectangular flat surface larger than the other rectangular surfaces formed by the scorings and which becomes the post-card portion of the completed article, the said blank being provided with flaps adjoining the ends of the rectangular flat portion adjoining the post-card portion, the said blank being foldable along the scoring that separates the rectangular portion which carries the flaps and the rectangular portion opposite the post-card portion, the said rectangular portion opposite the post-card portion when folded being securable to the rectangular portion carrying the flaps to form a flat envelop one end of which is closed by sealing one flap over the same, and fastening means for securing the other flap over the opposite end of the flap envelop, substantially as described.

1,093,851. BRAKE-BEAM. WILLIAM C. HEDGCOCK, Hammond, Ind., assignor to Simplex Railway Appliance Company, Chicago, Ill., a Corporation of Delaware. Filed Aug. 14, 1913. Serial No. 784,694. (Cl. 188—22.)

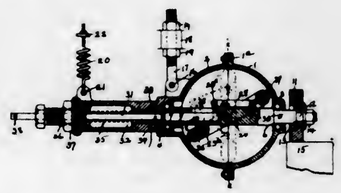


1. In a brake beam, the combination of a compression member, a rod tension member having eyes in the ends thereof, sleeves fitted on the ends of said compression members and united by pins to said tension member, and brake heads rotatably mounted on said sleeves, substantially as described.

2. In a brake beam, the combination of a channel shaped compression member, and a round rod tension member having eyes in its ends, sleeves fitted to the ends of said compression member, said sleeves having apertured ears, pins connecting said tension member to said sleeves, and brake heads rotatably mounted on said sleeves, substantially as described.

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1,093,852. GOVERNOR-HEAD. ROBERT O. HENDRICKSON, Portland, Oreg., assignor, by mesne assignments, to Wallis Tractor Company, Racine, Wis., a Corporation of Wisconsin. Filed July 3, 1911. Serial No. 636,812. (Cl. 121—112.)



1. In a governor head, the combination, of a governor frame; a spindle rotatively mounted in the frame; a weight pivotally mounted on the spindle; a centripetal element; a governing device actuated by the weight; and a pivotal mounting for the frame.

2. In a governor head, the combination of a governor frame; a spindle rotatively mounted in the frame; a weight pivotally mounted on the spindle; a centripetal element; a governing device actuated by the weight; a pivotal mounting for the frame; a friction pulley on the spindle; and means operating on the frame for forcing the friction pulley into engagement.

3. In a governor head, the combination of a pivoted governor frame; a spindle rotatively mounted in the frame; a weight pivotally mounted on the spindle; a centripetal element; a governing device actuated by the weight; a friction pulley on the spindle; and a spring engaging the frame on that side of its pivot opposite the friction pulley for forcing the latter into engagement with a moving surface.

4. In a governor head, a frame; a spindle journaled therein; a centrifugal weight pivoted on the spindle; means for revolving the spindle also mounted thereon; a pair of anti-friction bearings for the spindle within the frame and oppositely faced with respect to each other; a spring surrounding the spindle and interposed between an abutment thereon and one of said bearings to maintain the position of the spindle with reference thereto; means for offsetting the centrifugal action of the weight and connection from said weight to a governing device.

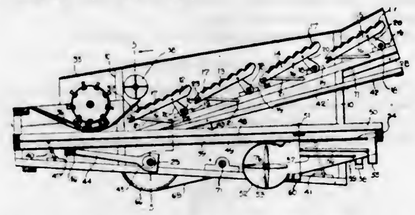
5. In a governor head, a frame; a rotary spindle journaled in the frame; a centrifugal weight pivoted transversely to the spindle; means for rotating the spindle; a pair of anti-friction bearings oppositely faced with respect to each other and supporting the spindle; a washer surrounding the spindle and covering one of said bearings; a spring interposed between said washer and an abutment of the spindle; means for off-setting the centrifugal effect of the weight; and connections from the weight to a governing device.

[Claim 6 not printed in the Gazette.]



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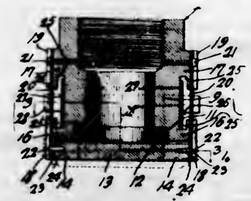
1,093,853. GRAIN-SEPARATOR. HERMAN HOFMANN, Fontanelle, Iowa. Filed Apr. 1, 1913. Serial No. 758,213. (Cl. 130—24.)



In a grain separator, the combination with a main frame, a plurality of transverse shafts mounted for oscillation thereon, and crank arms carried on said shafts; of a plurality of shakers consisting of side bars and a plurality of transverse bars, the side bars of said shakers being pivotally connected adjacent one of their ends to the outer ends of said crank arms, the opposite ends of the side bars of said shakers being slotted to provide bearings therein, U-shaped rock frames having the arms thereon pivotally mounted on said main frame in planes adjacent the transverse shafts and the base portions thereof loosely received in the bearings at the outer ends of the side bars of said shakers, said rock frames being of a length greater than the length of the crank arms, said crank arms and rock frames being arranged on the main frame in such position as to normally dispose said shakers in stepped relation thereon, and means to oscillate said transverse shafts whereby to actuate said shakers.

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1,093,854. SAFETY ATTACHMENT FOR RAILWAY-CARS. BENJAMIN HOOVER, Meridian, Miss. Filed Jan. 3, 1914. Serial No. 810,212. (Cl. 188—2.)



1. In combination with a car truck and body, brake-applying means carried by the body, and arch bars straddling certain of the truck wheels, the outer ends of the said bars being attached to the oil boxes of the said wheels, and the inner ends of the said bars being operatively connected to the aforesaid means.

2. The combination with a car truck and body, of brake applying means carried by the body, arch bars straddling certain of the truck wheels and having their outer ends attached to the oil boxes of the said wheels, and flexible connections between the inner ends of the said bars and the aforesaid means.

3. The combination with a car truck and body, and a train pipe carried by the body, of a valve casing attached to the train pipe, a valve normally closing the said casing, and arch bars straddling certain of the truck wheels, having their outer ends attached to the oil boxes of the said wheels and having their inner ends operatively connected to the said valve for opening the same upon an abnormal swinging movement of the truck.

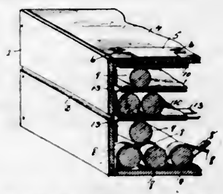
4. The combination with a car truck and body, and a train pipe carried by the body, of a valve casing attached to the train pipe, a valve for normally closing the said casing, detent means carried by the casing for holding the valve seat seated, a slide carried by the said casing and arranged to release the detent when the slide is moved to a predetermined distance in either direction, arch bars straddling certain of the truck wheels, and having their outer ends attached to the oil boxes of the said wheels, and flexible connections between the inner ends of the said bars and the ends of the said slide.

5. In a safety attachment of the character described, a valve casing arranged for connection with a train pipe, a valve seatable within the said casing to normally close the same, detent means carried by the casing and coöperable with the valve to normally hold the same seated, and a slide carried by the casing adapted for connection to a car truck and arranged to release the said detent upon a predetermined movement of the slide in either direction.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,855. NON-REFILLABLE CIGAR-BOX. WILLIAM E. HOPKINS, Pittsburgh, Pa. Filed Apr. 19, 1912. Serial No. 691,935. (Cl. 131—11.)



1. In combination with a box, a double sheet of paper interposed between each successive layers of goods, a series of longitudinally-arranged ribbons within the fold of said sheets, a means of attaching the ends of said ribbons to the inside walls of the box, and a transverse ribbon arranged within the fold of the paper and beneath the longitudinally-arranged ribbons.

2. In combination with a box, a double sheet of paper arranged between each successive layers of goods, the one sheet cemented to the other, a series of longitudinally-arranged ribbons within the fold of said sheets, and a means comprising metallic strips having barbs for attachment with the free ends of the longitudinal ribbons and with the inner walls of the box.

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1,093,856. SEED-CORN HANGER. GEORGE M. HUAFF, Peoria, Ill., assignor to Wallace D. Glidden, Kewanee, Ill. Filed Oct. 2, 1913. Serial No. 792,943. (Cl. 34—26.)

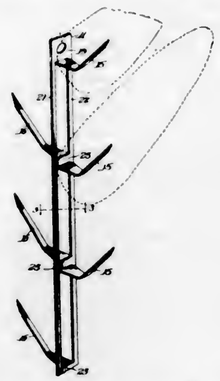
1. A seed corn hanger comprising a metal bar with integral impaling prongs connected thereto on opposite sides and in a common plane at substantially right angles to the plane of the bar, substantially as described.

2. A seed corn hanger comprising a metal bar with integral impaling prongs connected thereto in a common plane at substantially right angles to the plane of the bar, the base of each prong having a width greater than half the width of the bar, substantially as described.

3. A seed corn hanger comprising a metal bar, consisting of parallel side members with integral impaling prongs extending from therebetween at an inclination and in a plane at substantially right angles to the plane of the bar, substantially as described.

4. A seed corn hanger comprising a metal bar consisting of parallel side members with integral impaling prongs projecting from therebetween at an upward inclination, the base of each prong having a width substantially equal to the space separating the side members, substantially as described.

5. In a seed corn hanger, a metal bar comprising spaced side members connected at intervals by cross members,

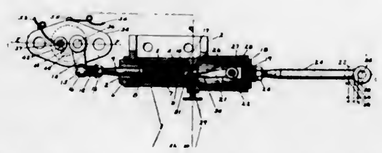


and integral impaling prongs projecting from therebetween at an upward inclination from the cross members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,857. ELECTRIC IGNITING DEVICE FOR EXPLOSIVE-ENGINES. LUCIAN C. JACKSON, Buffalo, N. Y. Filed May 16, 1906. Serial No. 317,231. (Cl. 123—157.)



1. The combination, in an explosive engine, of an igniting plug having a movable rod and mechanism for operating the movable rod in said igniting plug, said mechanism consisting of a casing inclosing a hammer and a spring for holding said hammer in its normal position when out of action, a second spring in said hammer, the two springs coöperatively returning said hammer to its normal position and in so doing operating the movable rod in said plug and a trip for operating said hammer.

2. In an explosive engine in which the charge is ignited by an electric spark, the combination, of an igniting plug having a stationary and a movable rod with contact pieces and mechanism for operating said movable rod, said mechanism consisting of a hammer and a spring for inclosing and holding said hammer in its normal position, a second spring in said hammer, the two springs operating said movable rod in said plug by means of said hammer, a trip for operating said hammer and means for adjusting the operation of said hammer by said trip, whereby the timing of the separation of said contact pieces may be varied.

3. In a self contained mechanism for operating the movable rod of the igniting plug in an explosive engine, the combination, of a hollow cylindrical hammer surrounded by a coiled spring for holding said hammer in its normal position, a second spring in said hammer, the two springs coöperatively returning said hammer to its normal position, a trip for operating said hammer, means to adjust the operation of said hammer by said trip and means to hold said trip in an operative position against said hammer.

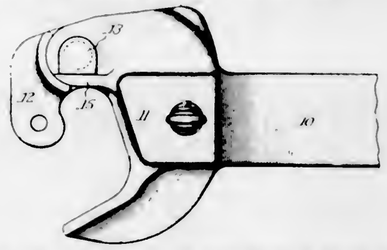
4. A hollow cylindrical hammer surrounded by a spring to hold said hammer in its normal position, and inclosing a coiled spring, the two springs coöperatively returning said hammer to its normal position, connections between said hammer and the movable rod of an electric igniting plug, a trip to operate said hammer and means to operate said trip.

5. The combination, in an explosive engine having a combustion chamber, of an igniting plug with two rods extending through it and into said combustion chamber, one of said rods being movable and having an arm on which is mounted a contact piece straight across its face and the other of said rods being stationary and having a contact piece mounted spirally thereon, and means to operate said movable rod, said means consisting of a hollow cylindrical hammer surrounded by a spring and inclosing another spring, and an adjustable trip.

[Claims 6 to 17 not printed in the Gazette.]

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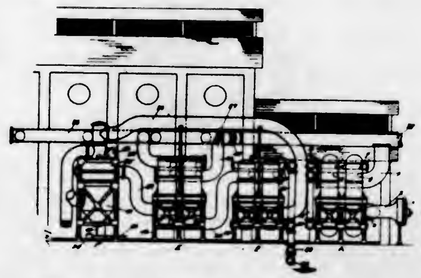
1,093,858. CAR-COUPLING. ROBERT E. L. JANNEY, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Jan. 20, 1911. Serial No. 603,638. (Cl. 213—65.)



In a car coupler, a coupler head having a vertical aperture for a pivot pin, and an abutment adjacent to said aperture, in combination with a D-head knuckle pin having its squared portion overhanging the side of the pin and adapted to contact the abutment, the latter being so located with reference to the pin aperture as to permit the use of the standard round-head pin, substantially as described.

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1,093,859. METHOD OF DRYING AIR FOR BLAST-FURNACES. MARK W. JOHNSON, Jr., Birmingham, Ala. Filed Nov. 2, 1911. Serial No. 658,243. (Cl. 62—20.)



1. The method of drying air which consists in compressing the air, cooling it to condense the moisture contained, removing the condensed moisture, and then heating the air by bringing it into heat interchanging relation with the compressed air before the latter is cooled.

2. The method of drying air which consists in compressing the air, cooling it to a point above freezing to condense the moisture contained, removing the condensed moisture, and then heating the air by bringing it into heat interchanging relation with the compressed air before the latter is cooled.

3. The method of drying air which consists in first compressing the wet air the required pressure for use, cooling the wet air by bringing it into heat interchanging relation with the air after it has been chilled, lowering the temperature of the cooled air to a point above freezing to condense the moisture therein, removing the condensed moisture and vapors, and finally heating dried air by means of the warm wet air in the manner described.

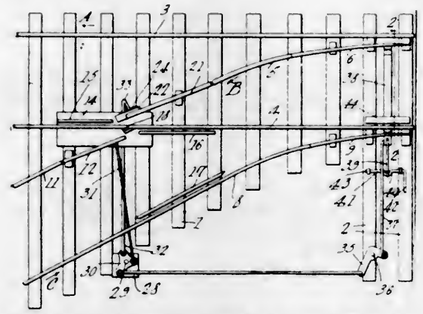
4. The method of treating the air blast of furnaces for the removal of moisture which consists in bringing the blast as compressed for furnace use into heat interchanging relationship with the cold compressed air to lower its temperature, then refrigerating the cooled air to condense its moisture without freezing the moisture or lowering the pressure of the air blast, then separating and removing the condensed moisture from the cold air, and finally warming said air by heat interchange with the warm compressed air.

5. The herein described method for extracting moisture from the air blast of furnaces which consists in taking the air blast at furnace pressure, refrigerating the blast, separating the moisture therefrom and raising the temperature of the chilled dry air by causing it to absorb heat from the wet air before it is refrigerated.



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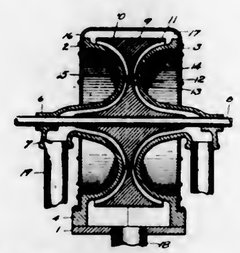
1,093,860. SWITCH-FROG. WILLIAM KELLER, Decatur, Ill. Filed July 25, 1913. Serial No. 781,234. (Cl. 104—118.)



In a device of the class described, a main line rail; a siding rail including a movable extension; a lead rail including a movable end portion adapted to overlap the main line rail; a fixed filler located between the end of the movable extension and the main line rail; and means for moving the extension and the movable portion of the lead rail into alinement with each other and with the filler.

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1,093,861. ROTARY ENGINE. RAY KELLY, Knobnoster, Mo. Filed Apr. 18, 1913. Serial No. 762,005. (Cl. 121—60.)



1. A rotary engine comprising a stationary casing, a rotary member inclosed within the casing and spaced therefrom to provide passages along its opposite faces, oppositely directed spiraled plates on said casing, a rotary member, and means for delivering fluid under pressure into the interior of the casing from opposite sides thereof.

2. A rotary engine comprising a stationary casing, a rotary member inclosed within the casing and spaced therefrom to provide passages along its opposite faces, oppositely directed, spiraled plates on said casing, a rotary member diverging from the hubs of said parts, and means for simultaneously delivering fluid under pressure inwardly to the passages at opposite sides of the rotary member.

3. A rotary engine comprising a stationary casing, a rotary member inclosed within the casing and spaced therefrom to provide passages along its opposite faces, oppositely directed, spiraled plates on said casing, a rotary member, and separate means for simultaneously delivering fluid inwardly under pressure in balanced quantities to the passages at opposite sides of said rotary member.

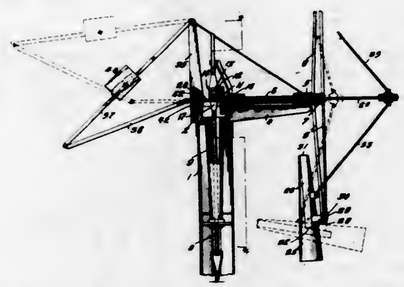
4. In a rotary engine, a casing, a rotary member revolubly mounted within the casing and spaced peripherally therefrom to provide an exhaust chamber, an exhaust conduit leading from said chamber, oppositely arranged spiraled blades on adjacent faces of the casing, a rotary member, and means for delivering fluid under pressure in balanced quantities between opposite sides of the rotary member and opposite sides of the casing.

5. In a rotary engine, a casing having annular convex portions on its opposite faces, a rotary member contained within the casing and having annular concaves in its opposite faces into which the convex portions of the casing are projected, and oppositely directed blades on the relatively convex and concave faces of the casing and rotary member.

[Claims 6 and 7 not printed in the Gazette.]

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1,093,862. WINDMILL. AUGUST C. KRUEGER, Cambria, Wis. Filed July 17, 1911. Serial No. 638,795. (Cl. 170—69.)



1. A windmill comprising the combination of a set of vane supporting frames having forwardly projecting frame supporting arms, a tubular shaft provided with radially extending arms, a pivot rod for each of said frames extending through said frame supporting arms and journaled in said radially extending arms, a controlling rod extending through the shaft, links connecting the front end of said rod with the respective side of each vane supporting frame between the pivot rod and the inner end of said frame, the links for adjacent sides of adjacent vane supporting frames being nearly parallel, a set of vanes mounted in each vane supporting frame and means for applying a predetermined pressure to the controlling rod.

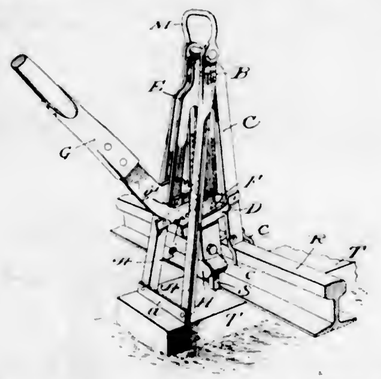
2. A windmill, comprising the combination of a support, a wind-wheel provided with radial arms and having vanes arranged in sets, each set being mounted in a frame which is pivotally supported in a position offset from said arms, a tubular shaft for the wind-wheel, a controlling rod extending through the shaft, links connecting the controlling rod to each side of the inner portion of each vane carrying frame, and a weighted member arranged to be lifted by the rod, when the vanes swing outwardly on their pivotal connections with the radial arms, together with a vertically reciprocating connecting rod, a crank operatively connected with said tubular shaft, a block journaled

on said crank in a position to revolve about the controlling rod, and a yoke, provided with an open ended transverse channel for said block, housed in at top, bottom and rear with the rear wall provided with a vertical slot through which the controlling rod passes, said yoke being secured to the connecting rod.

3. A windmill comprising the combination of a support, a tubular rotary shaft mounted thereon and provided at one end with a set of radial arms, a series of vane supporting frames pivotally supported from the arms, and offset therefrom along the shaft axis in a position to swing outwardly by centrifugal force, a set of vanes mounted in each vane supporting frame, a controlling rod extending through said shaft, a link rod having end to end connection with the rear end of the controlling rod and extending rearwardly therefrom, an upwardly projecting arm carried by said support, a weighted link pivoted thereto at one end and having its other end connected with the rear end of said link rod to push it and the controlling rod forwardly, and a set of links arranged in pairs and connecting the front end of the controlling rod with each side of each vane supporting frame.

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1,093,863. SPIKE-PULLER. CHARLES H. KUGLER, Cozad, Nebr. Filed Dec. 9, 1913. Serial No. 805,520. (Cl. 145—37.)



A spike puller, comprising a supporting frame, a swinging hanger pivoted at its upper end to the frame, a rack bar guided vertically in the hanger and swinging therewith, a spike-engaging claw carried by the rack bar, and an operating lever pivotally connected with the hanger, swinging therewith and engaging the rack bar.

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1,093,864. RESILIENT BRAKE-HANGER. WILLIAM G. LAMB and ORANGE S. LAMB, Waterloo, Iowa. Filed Nov. 16, 1912. Serial No. 731,780. (Cl. 188—52.)

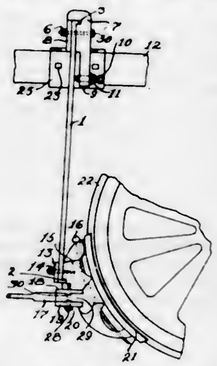
1. In combination, a supporting-body, a spring-hanger, and a brake-head, said hanger being secured to said supporting-body and to said brake-head and means for placing said hanger under tension.

2. In combination, a supporting-body, a spring-hanger, a brake-head, said hanger being secured to said supporting-body and to said brake-head by independent tongue-joints, and means for placing said spring-hanger under tension.

3. In combination, a supporting-body, a spring-hanger, a brake-head, said hanger being secured to said supporting-body and brake-head by independent tongue-joints, and adjustable means for placing said spring-hanger under tension, variably.

4. In combination, a brake-block, a brake-shoe removably attached thereto, a flat spring-hanger, means for detachably securing said brake-block to one end of said hanger, means for placing said spring-hanger under tension, and means for securing the other end of said hanger detachably to a supporting-body.

5. In combination, a brake-block, a brake-shoe removably attached thereto, a flat spring-hanger, means for detachably securing said brake-block to one end of said

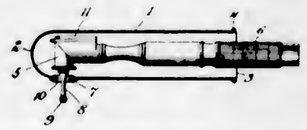


hanger, adjustable means for placing said spring-hanger under a desired amount of tension, and means for securing the other end of said hanger detachably to a supporting-body.

[Claims 6 and 7 not printed in the Gazette.]

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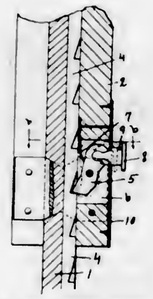
1,093,865. SANITARY SHIELD FOR DENTAL INSTRUMENTS. CHAPIN F. LAUDERDALE, Portland, Oreg. Filed Mar. 5, 1913, Serial No. 752,179. Renewed Mar. 7, 1914. Serial No. 823,242. (Cl. 32—5.)



A sanitary shield for angle dental instruments consisting of a thin elastic elongated waterproof casing of tubular form, having one end closed by an integral rounded wall and the other end open, the said casing having an orifice in the tubular wall adjacent the closed end thereof, the edges of said orifice being strengthened by a metallic ring or eyelet secured thereon.

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1,093,866. RATCHET TRIPOD-LEG. CHARLES S. LAWRENCE, Mount Lowe, Cal. Filed Sept. 3, 1912. Serial No. 718,235. (Cl. 248—43.)



In a ratchet tripod, the combination with a plurality of upright sections extending substantially parallel in spaced relation, means for holding said sections in spaced



relation, one of said sections being provided with a longitudinally-extending slot leading from the outer side face and communicating with the space between the sections, a cover plate for the outer end of the slot in the section, a lower member slidably mounted in the space between the sections of said upper member, a tooth rack bar carried by said lower member, a pawl pivotally mounted in said slot and having one end portion provided with a curved arm forming a substantially circular pocket, said pawl provided with a circular socket formed in one end thereof terminating in a substantially conical-shape entrance opening, a lever extending through said cover plate and provided with a rounded inner end fitting in said socket, said lever provided with a neck tapering toward said rounded end adapted to work in said substantially conical-shape entrance opening for permitting said pawl to be swung upon its pivot without binding upon the sides of said lever, said lever provided with a notch upon its upper end of the same width as the thickness of said cover plate, said notch adapted to fit over said cover plate for firmly holding said lever against reciprocal movement, said lever provided with an enlarged head, said head being spaced from said notch for causing said head to be held in spaced relation relative to said cover plate for facilitating the withdrawal of said lever through said cover plate.

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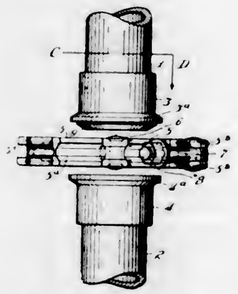
1,093,867. ADJUSTABLE CROWN-TEMPLET. THOMAS KEITH LEGARÉ, Columbia, S. C. Filed June 29, 1912. Serial No. 706,804. (Cl. 33—174.)



In a stake setting templet, the combination of a beam, leveling means secured thereon, a plurality of gages adjustable in the same direction transversely of said beam, means on the beam constituting an index for each of said gages, measuring scales on each of said gages adapted to indicate the relation of the ends thereof, on the same side of said beam, to said indexing means, and means for independently securing each of said gages in different positions on said beam.

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1,093,868. MEANS FOR FORMING COUPLINGS OR JOINTS. WILLIAM J. LEIGHTY, Topeka, Kans., assignor of one-half to Henry W. Jacobs, Topeka, Kans. Filed Mar. 11, 1912. Serial No. 683,112. (Cl. 137—28.)

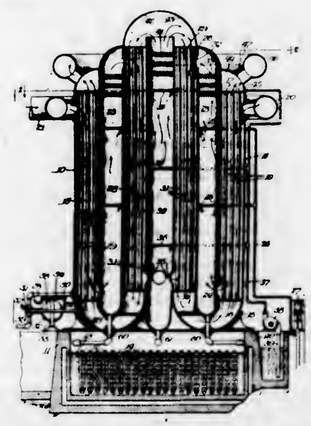


1. Means for forming couplings or joints, comprising a circumferential member which may be expanded or contracted, a series of segmental members secured within the circumferential member and normally spaced apart, said segmental members being provided with wedge-shaped grooves on their inner surfaces, a lever pivotally secured at one end of said circumferential member, a bolt pivotally secured to said lever at a point intermediate of the ends of the lever, and a member pivotally secured to the circumferential member at a point adjacent to the point where said lever is secured, said pivoted member being adapted to receive the other end of said bolt and permit of adjustment lengthwise of the bolt, the relation between the pivotal points of the lever, the bolt, and said last mentioned member being such that movement of the pivotal point of the bolt on the lever toward either side of the pivotal point of the lever on the circumferential member will contract or expand said circumferential member.

2. Means for forming couplings or joints, comprising a circumferential member which may be expanded or contracted, a series of segmental members secured within the circumferential member and normally spaced apart, said segmental members being provided with wedge-shaped grooves on their inner surfaces, a lever pivotally secured at one end to said member, a bolt pivotally secured to said lever at a point intermediate of the ends of the lever, and a member pivotally secured to the circumferential member at a point adjacent to the point where said lever is secured, said pivoted member being adapted to receive the other end of the bolt and permit of adjustment of the bolt, the relation between the pivotal points of the lever, the bolt, and said last mentioned member being such that movement of the pivotal point of the bolt on the lever toward either side of the pivotal point of the lever on the circumferential member will contract or expand said circumferential member, in combination with means secured at the adjacent ends of the two members to be joined together, provided with outer surfaces substantially similar in peripheral form to the inner periphery of the said segmental members, said outer surfaces and the inner surfaces of the segmental members being correlated and so arranged that contraction of the circumferential member will force the two members together, and a removable member having surfaces corresponding with the inner surfaces of said last mentioned means and adapted to seat between the adjacent ends thereof.

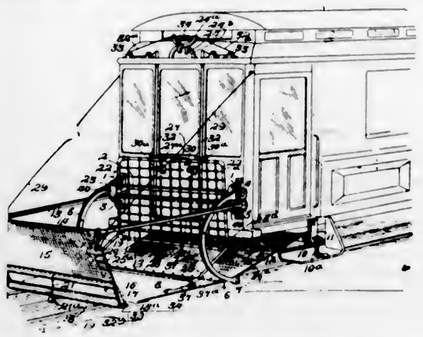
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1,093,869. APPARATUS FOR DRYING GASES. CHARLES H. LEINERT, Chicago, Ill. Filed May 21, 1913. Serial No. 769,034. (Cl. 62—22.)



In a drying apparatus, a substantially cylindrical cooling tower comprising a pair of annular equalizing chambers, a cooling chamber between said equalizing chambers, a second cooling chamber within the inner equalizing chamber, said equalizing and cooling chambers communicating with each other *seriatim*, and a plurality of pipes extending through each of said equalizing chambers and communicating with said inner cooling chamber, whereby the gas flowing from said inner chamber serves to cool the gas passing through said equalizing chambers to said cooling chambers, substantially as described.

1,093,870. CAR-FENDER. WILLIAM H. MARTIN, Ukiah, Cal. Filed June 25, 1912. Serial No. 705,711. (Cl. 105—255.)



1. In a car fender of the character described, a catcher platform, swingable arms that support the platform, other swingable drop arms operatively connected with the platform supporting arms, means for operating the said last named arms, a detent carried by the said platform supporting arms, a releasable connection between the said detent and the said platform for holding the front of the said platform up, and means for holding the said drop arms in a vertical position to cause the said platform supporting arms to maintain the said platform in its retracted position.

2. In a car fender of the character described, a catcher platform, swingable arms that support the platform, other swingable drop arms operatively connected with the platform supporting arms, means for operating the said last named arms, a detent carried by the said platform supporting arms, a releasable connection between the said detent and the said platform for holding the front of said platform up, means for holding the said drop arms in a vertical position to cause the said platform supporting arms to maintain the said platform in its retracted position, and a drop apron carried by the drop arms to fall in front of the said platform when the said arms are released.

3. In a car fender of the character described, a catcher platform, ejector devices for the platform rockably mounted on the car frame, means normally tending to swing the said devices in a platform ejecting position, swingably mounted drop arms operatively connected with the ejector devices, a detent connected with the ejector devices for holding the catcher platform raised, and releasable as the ejector devices eject the platform, other detent devices for holding the drop arms to the raised position and means for releasing the said detent devices whereby to permit the ejector devices moving outwardly.

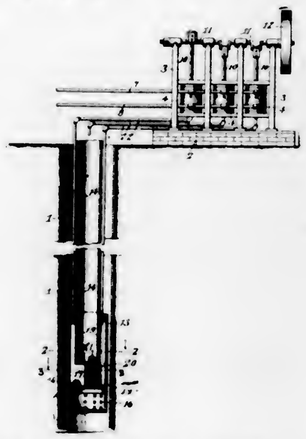
4. In a car fender of the character described, a catcher platform, means for ejecting the said platform, said means including swingable side arms that connect with and support one end of the platform, a detent carried by the said side arms, a connection that joins the front end of the platform and the detent, the said detent being arranged to disengage the connection when the swingable arms are swung to eject the platform, means tending to continuously swing the said arms to eject the platform and other releasable means for restraining the said swingable arms when the platform is at the retrieved position.

5. In a car fender of the character described, a catcher platform, means for ejecting the said platform, said means including swingable side arms that connect with and support one end of the platform, a detent carried by the said side arms, a connection that joins the front end of the platform and the detent, the said detent being arranged to disengage the connection when the swingable arms are swung to eject the platform, means tending to continuously swing the said arms to eject the platform and other releasable means for restraining the said swingable arms when the platform is at the retrieved position, the said means including opposing clamping jaws and a keeper, and means operable from the car platform for releasing the said clamping jaws.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,871. COMPRESSED-AIR WATER-ELEVATOR. ROBERT SAFFORD MCINTYRE, Riverside, Cal. Continuation of application Serial No. 656,671, filed Oct. 25, 1911. This application filed Sept. 4, 1912. Serial No. 718,529. (Cl. 103—52.)



1. A water elevating apparatus comprising a cylinder with inlet and outlet valves and adapted to be immersed in the water to be elevated, an air cylinder, a reciprocatory piston in the air cylinder, and an air conduit of relatively small capacity connecting one end of the air cylinder to the water cylinder, the air cylinder being void of valves and having ports between its interior and exterior at that end only of the stroke of the piston remote from the end of the air cylinder connected to the water cylinder, and the water cylinder being provided with a balancing passage between its interior and exterior.

2. A water elevating apparatus comprising a cylinder with inlet and outlet valves, the outlet valves being at a point intermediate of the ends of the cylinder with the inlet valves at one end of the cylinder, said cylinder being adapted to be immersed in the water to be elevated, an air cylinder, an air conduit of relatively small bore connecting one end of the air cylinder to that end of the water cylinder remote from the inlet valve, and a reciprocatory piston in the air cylinder, said air cylinder and piston being void of valves, and the air cylinder having ports between the interior and exterior at that end only of the stroke of the piston remote from the end of the air cylinder connected to the water cylinder, and said water cylinder having at the water inlet end a free passage between the interior and exterior.

3. A water elevating apparatus comprising a water receiving compartment adapted to be immersed in the water to be elevated and provided with inlet and discharge valves and with a freely open passage between the interior and exterior of the compartments, an air duct of relatively small size connected to the water compartment at the end remote from the inlet valve, a valveless air pump provided with a reciprocatory piston and with an unobstructed air port extending from the interior to the exterior of the pump and uncovered by the piston for communication of the interior of the pump with the atmosphere at the limit of the stroke of the piston away from the air conduit connection, and means for actuating the piston rapidly in one direction and slowly in the other direction.

4. A water elevating apparatus comprising a cylinder adapted to be immersed in the water to be elevated and having inlet and outlet valves and also having a balancing passage between its interior and exterior, a valveless air pump provided with a reciprocatory piston, an air duct leading from the pump to the water cylinder in free communication with both and of relatively small size, and means for actuating the piston of the air pump slowly in one direction and rapidly in the other direction.

5. A water elevating apparatus comprising a cylinder adapted to me immersed in the water to be elevated and provided with inlet and outlet valves and also provided with a balancing passage between its interior and exterior, an air duct of relatively small bore connected to the end of the water cylinder remote from the inlet valve, an air cylinder connected at one end to the air duct in free communication therewith, a reciprocatory piston in the air cylinder, both the piston and air cylinder being void of valves, and means for actuating the piston slowly on the suction stroke and rapidly on the compression stroke.

[Claims 6 to 8 not printed in the Gazette.]



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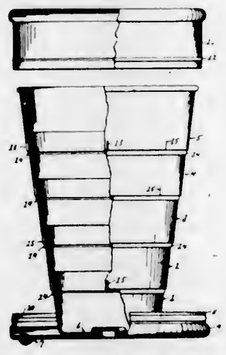
1,093,872. CONTROLLER FOR GAS-STOVES. SIDNEY FITZHUGH MIOTON, New Orleans, La., assignor of two-fifths to Joseph Oury, New Orleans, La. Filed May 2, 1913. Serial No. 765,102. (Cl. 126—52.)



An attachment for gas ranges comprising a bracket secured to the gas feed pipe and having a curved arm and parallel ears, a slotted lever pivoted between said ears, a counter-weight carried by the lever, the inner end of said lever having a longitudinally adjustable extension, said extension having an upturned terminal arranged to be disposed within a burner, a link having a pin projecting therefrom and entering the slot in the weighted end of the lever, a valve casing, a vertically-disposed shut-off valve therein provided with a curved feed groove, a by-pass communicating with the groove, and a horizontally-disposed controlling valve in said casing projecting at one side of the valve casing and having the other end of the link connected thereto for controlling the movement of the valve.

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1,093,873. COLLAPSIBLE DRINKING-CUP. JOHN F. MITCHELL, Topeka, Kans. Filed Apr. 14, 1913. Serial No. 760,888. (Cl. 65—58.)



1. In a collapsible drinking cup of the kind described, the combination of a series of tapered sections, one section of each two contiguous sections being formed with a circumferential rib and the other of said two contiguous sections having its end expansible, said end bearing against said rib when the sections are extended with relation to each other so as to prevent collapsing thereof, and said expansible end being adapted to pass over said rib when said sections are forced lengthwise of the cup.

2. In a collapsing drinking cup of the kind described, the combination of a series of tapered sections, one section of each two contiguous sections being formed with a rib engaging against the other of said two sections to prevent the accidental collapsing of said sections.

3. In a collapsible cup of the kind described, the combination of a series of tapered sections, one section of each two contiguous sections being formed with a circumferential rib adapted to bear against the contiguous end of the other of said two sections to prevent accidental collapsing thereof, and said end being circumferentially expansible when said sections are forced relatively lengthwise of the cup so as to pass over said rib.

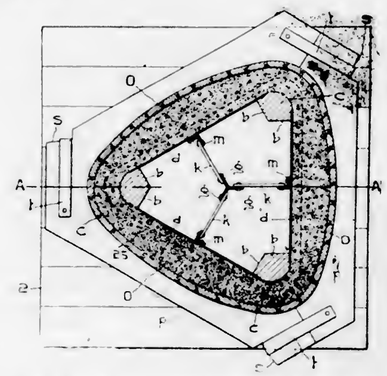
4. In a collapsible cup of the kind described, the combination of a series of tapered sections, the section at the smaller end being closed to form the bottom of the cup, each section being formed with a circumferential rib at the lower end of the adjacent sections respectively so that when the cup is extended, the lower end of each section bears against the rib formed in the adjacent section, and each of said lower ends having slits extending longitudinally of the cup for permitting said lower ends to expand circumferentially to pass over the respective ribs.

5. In a collapsible drinking cup of the kind described, the combination of two contiguous tapered sections, one of said sections being formed with a stop that prevents the sections collapsing when in extended position, said sections being also formed with means whereby they may be collapsed by forcing the other section over said stop.

[Claim 6 not printed in the Gazette.]

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1,093,874. MOLD. PHILLIPS BATHURST MOTLEY, Westmount, Quebec, Canada, assignor to himself, Charles Nicholas Monsarrat, and John G. Sullivan, Westmount, Canada. Filed Feb. 2, 1911. Serial No. 606,218. (Cl. 25—128.)



1. In a mold the combination with a shell, of a core consisting of a plurality of inflexible corner members and a plurality of resilient side members uniting the said corner members; and means for inwardly bending the said side members.

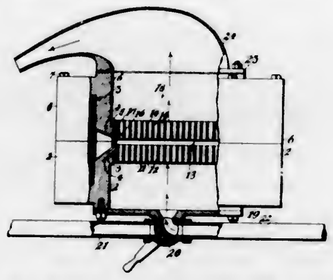
2. In a mold the combination with a shell, of a core consisting of a plurality of wooden corner members presenting arcoid outer surfaces and resilient metal plates rigidly fastened to the said corner members and forming therewith an encircling matrix surface of unbroken continuity; and means for inwardly bending the said plates.

3. In a mold the combination with a triangular shell the interior of the sides whereof are concave, and the

corners round, of a triangular core, consisting of inflexible corner members presenting round outer surfaces disposed in coincidence with the round corners of the shell, resilient side plates secured to the said corner members, and means for inwardly springing the said plates.

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1,093,875. ELECTROMAGNETIC SEPARATOR. BYRON T. MOTTINGER, Youngstown, Ohio. Filed Aug. 4, 1913. Serial No. 782,860. (Cl. 83—71.)



1. A field magnet having a passageway through the same adapted for the passage of the material to be separated, pole plates bridging such passageway and spaced apart to form an interpolar gap, said plates having bores extending through the same in the direction of the lines of magnetic force between and through the plates.

2. A field magnet having a passageway through the same, pole plates bridging such passageway and spaced apart to form an interpolar gap, said plates having bores extending through the same in the direction of the lines of magnetic force between and through the plates, and means for passing the materials to be separated through said passage way.

3. A field magnet having a passage way through the same adapted for the passage of the materials to be separated, pole plates bridging such passage way and spaced apart to form an interpolar gap, said pole plates having bores extending through the same in the direction of the lines of magnetic force between and through the plates, one of said pole plates being removable.

4. A field magnet having a passageway through the same, pole plates bridging such passageway and spaced apart to form an interpolar gap, said pole plates having bores extending through the same in the direction of the lines of magnetic force between and through the plates, means for passing the materials to be separated through said passageway, one of said pole plates being removable.

5. A field magnet having a passageway through the same adapted for passage of the materials to be separated, pole plates bridging such passageway and spaced apart to form an interpolar gap, said pole plates having bores extending through the same in the direction of the lines of magnetic force through and between the plates, one of said pole plates being removable, and said field magnet having a wire chamber, magnet wire wound in said chamber for magnetizing purposes, and means for excluding the magnetic particles from said chamber.

[Claims 6 to 13 not printed in the Gazette.]

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1,093,876. CAR SIDE. CHARLES F. MURRAY, Evanston, Ill., assignor to The Fowler Car Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1913. Serial No. 792,250. (Cl. 105—192.)

1. In a railway box car, the combination of metallic frame posts, a single, interior, sheathing, said sheathing extending from door to end posts on the sides, and interior posts extending from top to bottom of the car, said posts having a rigid but removable connection to the car frame at the top and bottom of said posts, said posts acting as the sole means for maintaining said sheathing in proper relation to said frame, substantially as described.

2. In a railway box car, the combination of metallic frame members, a single, interior, sheathing, said sheathing extending from door to end posts on the sides, a plurality of flanged posts located interiorly of the car and acting as the holding means for maintaining said sheathing in position on said frame, said posts having a rigid but removable connection to the frame members at the top and bottom of the car, substantially as described.



3. In a railway box car, the combination of metallic frame members, a single, interior, sheathing, said sheathing extending from door to end posts on the sides, a plurality of channel-shaped posts located interiorly of the car with their surfaces flush with the surface of said sheathing, said posts having a vertically immovable bolt connection to said frame members at the top and bottom of the car, substantially as described.

4. In a railway box car, the combination of metallic frame members, a single, interior, sheathing, said sheathing extending from door to end posts on the sides, sheathing retaining posts located interiorly of the car with their surfaces flush with the surface of said sheathing, a rigid but removable connection between said interior posts and said frame members at the top and bottom of the posts, and means for exerting tightening force on said sheathing, said force acting between an upper frame member and the top of said sheathing, substantially as described.

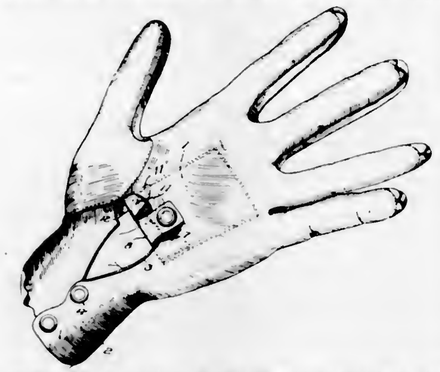
5. In a railway box car, the combination of metallic frame members, a single, interior, sheathing, said sheathing extending from door to end posts on the sides, sheathing retaining posts located interiorly of the car with their surfaces flush with the surface of said sheathing, a rigid but removable connection between said interior posts and said frame members at the top and bottom of the posts, and wedge means for tightening said sheathing, substantially as described.

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1,093,877. GLOVE. EDITH F. NICKERSON, Bourne, Mass. Filed Mar. 31, 1913. Serial No. 757,990. (Cl. 2—9.)

1. A glove having a palm opening, a pocket located within the glove and having a mouth presented at the palm opening, a closure flap for the mouth of the pocket arranged to extend over the edge of the palm at the said opening and the said pocket at its mouth having corner pieces located at opposite sides of the closure flap and constituting auxiliary pockets closing the mouth of the first mentioned pocket at each side of the closure flap.

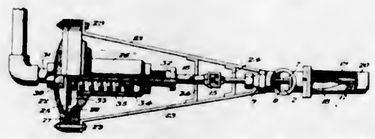
2. A glove having a palm opening, a pocket wall attached to the inner side of the palm and forming a pocket in conjunction with the said palm, the pocket having a mouth presented at the opening in the palm, a closure flap for the mouth of the pocket carried by the first mentioned wall thereof and arranged to extend over the edge of the palm at the said opening, means for holding the flap in closed position, the first mentioned wall of the pocket being provided at opposite sides of the closure flap with corner pieces folded over and secured at their outer edges



between the walls of the pocket the said corner pieces closing the mouth of the pocket at opposite sides of the closure flap.

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1,093,878. AUTOMATIC FUEL-FEEDING MECHANISM FOR BURNERS. ORA O'BRIEN, Hanford, Cal. Filed Aug. 28, 1913. Serial No. 787,149. (Cl. 236—6.)

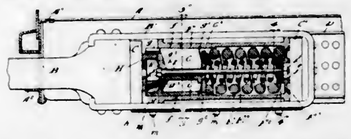


A fuel feeding mechanism for the burners of steam boilers comprising a double valve casing having in one side an oil chamber and in the opposite side a steam chamber, said chambers having discharge passages, valves to open and close said passages, stems connected with said valves, a valve operating rod, a yoke secured thereto and having an adjustable connection with the stems of said valves, a fuel mixing chamber connected with the discharge passages of said valve casing, a casing having therein a diaphragm chamber and a spring chamber, a diaphragm arranged in said diaphragm chamber, a steam pipe connected with said diaphragm chamber on one side of said diaphragm, a combined rod guiding and spring adjusting nut arranged in one end of said spring casing and adapted to receive and slidably support said valve operating rod in said spring casing, a head on said rod to engage said diaphragm, a stop plate in said spring casing and engaged with the inner end of said spring adjusting nut, and a spring arranged between said plate and the head on said valve operating rod and adapted to resist the pressure of the steam applied to the diaphragm whereby said valves are held open until the pressure of the steam against the diaphragm overcomes the resistance of said spring.

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1,093,879. FRICTION DRAFT-RIGGING FOR RAILWAY-CARS. MARTIN A. O'CONNOR, Buffalo, N. Y., assignor to W. H. Miner Company, Chicago, Ill., a Corporation of Illinois. Filed June 26, 1909. Serial No. 504,500. (Cl. 213—64.)

1. In a friction draft rigging, the combination with a draw-bar, draft yoke, draft lugs, spring and followers, of a longitudinally movable friction shell having a plurality of longitudinally extending and slightly slanting internal friction faces, a plurality of longitudinally movable segmental friction shoes within said friction shell, and having each an external friction face conforming to and in sliding frictional engagement with one of said longitudinally extending and slightly slanting internal friction faces of said shell, each of said friction shoes also having at its outer end a blunt wedge face and a wedge having a plurality of blunt wedge faces, one for and engaging the blunt wedge face of each of said friction shoes, said friction shoes being provided with beveled faces at the outer portions of their inner ends and a bearing plate interposed between the inner ends of the friction shoes and the adjacent end of the spring to concentrate the pressure of the spring against the central portion of the inner ends of the shoes, substantially as specified.

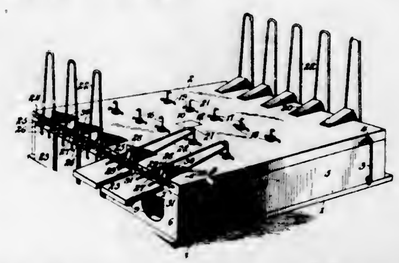


2. In a friction draft rigging, the combination with a friction case having a plurality of curved internal, slightly slanting, separate and distinct longitudinal cylindric friction faces, of a plurality of friction shoes having external curved friction faces engaging the internal friction faces of said case, and provided at their outer ends with blunt angle wedge faces, a blunt faced wedge bearing against said shoes and a spring reacting at one end against the friction shell and at the other against the friction shoes, the friction face of each of said shoes being in full contact with one of the friction faces of said shell in all positions of the shoes as they move longitudinally back and forth in the shell, substantially as specified.

3. In a friction draft rigging, the combination with a friction case having a plurality of internal slightly slanting longitudinal friction faces, of a plurality of friction shoes having external friction faces engaging the internal friction faces of said case, and provided at their outer ends with blunt angle wedge faces, a blunt faced wedge bearing against said shoes and a spring reacting at one end against the friction shell and at the other against the friction shoes, a bearing plate interposed between the inner ends of said friction shoes and the adjacent end of the spring, the central portions only of the inner ends of the shoes engaging said bearing plate, substantially as specified.

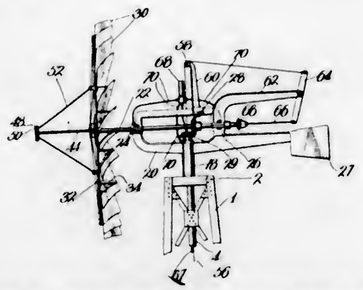
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1,093,880. MOUSE OR RAT TRAP. JOSEPH PALMOWSKI, Wilkes-Barre, Pa. Filed Apr. 14, 1913. Serial No. 761,016. (Cl. 43—19.)



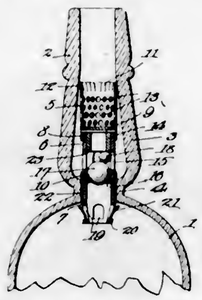
A trap of the class described including a body composed of a bottom, side and end walls, the end walls being provided with entrance openings, partitions dividing the space within the body into compartments extending inwardly from the entrance opening and closed at their inner ends, a central post mounted within the body and projecting above the partitions thereof, a removable top detachably secured on the body and having a central opening receiving the upper end of the post, whereby the top is interlocked with the body, hinged spring actuated doors carried by the top and arranged to cover the entrance openings, and setting devices for the said doors also mounted on and carried by the said top and having bait holding means extending into the said compartments.

1,093,881. WIND-WHEEL. LEWIS A. PAYTON, Ellendale, Okla. Filed Feb. 24, 1913. Serial No. 750,156. (Cl. 170—69.)



A windmill comprising a hollow vertical shaft, a frame having bearings for said shaft, a hollow horizontal shaft geared to the upper end of said vertical shaft, a second frame having a sleeve supported upon the top of said first frame and journaled on the upper end of said vertical shaft, said second frame having bearings for said horizontal shaft at opposite sides of said vertical shaft, a wind wheel composed of tilting blade sections and mounted on the outer end of said horizontal shaft, a rod mounted slidingly within said horizontal shaft and operatively connected to said blade sections to tilt the same, said second frame having a pair of horizontally projecting arms on the opposite side thereof from said wind wheel, one of said arms carrying a counterweight and the other arm being provided with a lever having its lower end in line with said horizontal shaft and connected therewith, a vertical arm projecting upward from said second frame and carrying a pulley in line with said vertical shaft, and a cord passing through said vertical shaft and around said pulley and connected to the upper end of said lever.

1,093,882. NON-REFILLABLE BOTTLE. MIGUEL PEREZ, Chicago, Ill. Filed May 5, 1913. Serial No. 765,671. (Cl. 215—69.)

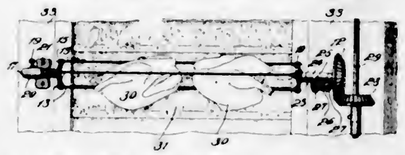


1. In a device of the character described, a tube insertible into the neck of a bottle and embodying three sections, means for attaching the lower and intermediate sections together, a gasket clamped between the lower and intermediate sections, the intermediate and upper sections being telescoped, a socket fitting in the tube adjoining the telescopic portions of the intermediate and upper sections, securing means engaged through said telescopic ends of the respective sections and the socket, the intermediate and upper sections having ports, and a ball valve and a supplemental ball disposed within the intermediate section, the valve being seatable on the gasket, and the supplemental ball being adapted to lodge between the said valve and the socket to maintain the valve seated and to enter the socket when the tube is inverted.

2. In a device of the character described, a tube insertible into the neck of a bottle, a flexible gasket disposed within the tube intermediate its ends, a ball valve disposed within the tube above the gasket and seatable thereon, the gasket being adapted to flex to permit the ball valve to be forced therethrough, and the tube having means at its lower end for retaining the ball valve within the tube below the gasket.

3. In a device of the character described, a tube insertible into the neck of a bottle, a flexible gasket fitting within the tube intermediate its ends, a ball valve disposed within the tube above the gasket and seatable thereon, the gasket being adapted to flex to permit the ball valve to be forced therethrough, the lower end of the tube being tapered to retain the ball valve therein, and the tube having lateral ports adjoining its lower end.

1,093,883. BROILER. LOUIS HENRY RAILLERE, New York, N. Y. Original application filed Mar. 29, 1911, Serial No. 617,686. Divided and this application filed Jan. 11, 1913. Serial No. 741,420. (Cl. 53—5.)



1. An improved spit comprising a head, a second head, bars between the heads slidably connected with one of said heads, all arranged distant to the axis of rotation of the heads and circumferentially arranged in respect to the material placed substantially centrally thereof for inclosing the material to be roasted, said bars surrounding the material to be roasted and being slidable in respect to at least one of said heads.

2. A rotary spit comprising a head, a closing head having holes, bars secured in said first-named head and engaging in the holes of the closing head, a shaft connected with said first-named head, and a trunnion pivoted to said closing head.

3. A rotary spit comprising a head, a closing head having holes, bars spaced apart and secured in said first-named head and engaging in the holes of the closing head, a shaft integral with said first-named head, and having a bevel-gear thereon, and a trunnion pivoted to said closing head and having an annular groove.

4. The combination with bearings spaced apart, and means for supporting the same at opposite sides of a broiler-fire, one of said bearings having a screw, and the other of said bearings having a removable cap, of a spit comprising a head, a supporting-member, spaced food-supporting bars carried by said head and detachably engaging said supporting-member, a shaft secured to the head, and provided with driving means, and a trunnion secured to the supporting member and having an annular groove engaged by said screw.

1,093,884. CURTAIN-SUPPORT. WLADISLAUS RAKOWSKI, Davis, W. Va. Filed July 27, 1912. Serial No. 711,863. (Cl. 156—19.)

1. A curtain support including a hollow member, a fixed jaw extending longitudinally of and forming a part of one side of the hollow member, a projecting member carried by the hollow member at its middle and extending beyond the fixed jaw, and a pair of jaws disposed one on each side of said projection and opposed to the fixed jaw, each of said pair of jaws being pivoted to the projection and to the end of the hollow member respectively, each of the pivoted jaws having movement in an arc intersecting the edge of the fixed jaw whereby the pivoted jaws may be moved into or out of position to wedge a curtain between the fixed jaw and the pivoted jaws.

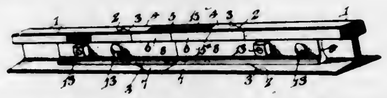
2. A curtain support including a hollow body member comprising a top wall, a pair of side walls extending downwardly therefrom, a fixed jaw extending longitudinally of and forming a part of the body member, said jaw partially closing the space between the lower edges of the side walls, a projecting member carried centrally of the body member and extending downwardly beyond the fixed jaw, and a pair of removable jaws pivoted at their





adjacent terminals to the projection and at their opposite terminals to the hollow body member, each of said movable jaws being mounted for swinging movement toward and away from the fixed jaw, whereby they may be moved into or out of position to wedge a curtain against the fixed jaw.

1,093,885. RAIL-JOINT. JAMES GREENE ROYSE, Staunton, Va., assignor of one-half to Charles J. Lurie, Staunton, Va. Filed Mar. 25, 1913. Serial No. 756,773. (Cl. 239—3.)



1. In a rail joint, the combination with ordinary rails, of end members rigidly secured to the rails and forming an overlapping joint at the end of each rail to provide a continuous tread, and a separate connecting piece or key slidably connected with each of the said end members and bridging the inner terminals of the same and arranged to form a continuous tread thereat.

2. In a rail joint, the combination with ordinary rails, of end members rigidly secured to the rails and forming an overlapping joint at the end of each rail to provide a continuous tread, and a connecting piece or key bridging the inner terminals of the end members to form a continuous tread and slidably interlocked with each of the said members to permit the expansion and contraction of the rails.

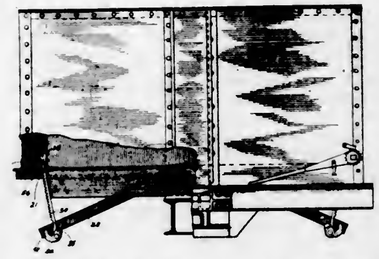
3. In a rail joint, the combination with ordinary rails, of end members rigidly secured to the rails and forming an overlapping joint at each rail to provide a continuous tread, said end members having vertical slots or bifurcations at their inner ends, and a connecting piece or key fitting in the said slots or bifurcations and slidably interlocked with each of the said end members and bridging the inner terminals of the latter to form a continuous tread thereat and permitting relative longitudinal movement of the parts to provide for the contraction and expansion of the rails.

4. In a rail joint, the combination with ordinary rails, of end members rigidly secured to the rails and forming an overlapping joint at each rail to provide a continuous tread, said end members having vertical slots or bifurcations at their inner ends, and a connecting piece or key fitting in the said slots or bifurcations and bridging the inner terminals of the end members to form a continuous tread thereat, said end members and connecting piece or key having coacting interlocking means adapted to permit a relative longitudinal sliding movement of the connecting piece on each of the said end members and arranged to resist vertical and lateral play.

5. In a rail joint, the combination with ordinary rails, of end members rigidly secured to the rails and forming an overlapping joint at each rail to provide a continuous tread thereat, said end members having vertical slots or bifurcations at their inner ends, and a connecting piece or key fitting in the said slots or bifurcations and bridging the inner terminals of the end members to form a continuous tread, said end members and connecting piece or key being provided with coacting interlocking means slidably connected with each of the said end members and including a groove formed in one part and a rib projecting from the other part and fitting in the groove.

[Claims 6 to 10 not printed in the Gazette.]

1,093,886. CAR. FREDERICK SEABERG, Chicago, Ill., assignor to National Dump Car Company, a Corporation of Maine. Filed July 2, 1909. Serial No. 505,554. (Cl. 105—14.)



1. In a car of the clas described, a dump door operating mechanism comprising an operating shaft, a hollow side stake, collars fixed to said shaft and journaled in the walls of said side stake, and a pinion non-rotatably engaging said collars.

2. In a car of the class described, a dump door operating mechanism comprising an operating shaft, collars fixed to said shaft and journaled in the side stakes of the car, and a pinion carried by said collars.

3. In a car of the class described, a dump door operating mechanism comprising collars fixed to a shaft and journaled in the car frame, and a pinion non-rotatively attached to said collars.

4. In a car of the class described, a dump door operating mechanism comprising an operating shaft, collars fixed to said shaft, and a pinion supported by said collars, said pinion being non-rotatively attached to said collars.

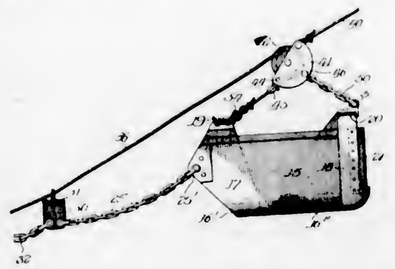
5. In a car of the class described, a dump door operating mechanism comprising an operating shaft, collars fixed to said shaft and having polygonal extensions encompassing said shaft, and a pinion having polygonal sockets to fit said extensions on said collars.

[Claims 6 to 27 not printed in the Gazette.]

1,093,887. EXCAVATOR-BUCKET. EMILE R. SINABLE, Chicago, Ill. Filed Apr. 5, 1912. Serial No. 688,623. (Cl. 37—54.)

1. In an excavator bucket, the combination of a bucket body having side walls, a bottom provided with a forward cutting edge and a removable rear wall, a draft cable, connections between the draft cable and the front edge of the bucket body, a hoisting cable, connections between the hoisting cable and one end of the bucket body at the top thereof, a block carried by said hoisting cable, controlling cable trained over said block and connected at one end to said draft cable and at its other end to the top of the bucket body at the opposite end from the connections with the hoisting cable, and a stop secured on said controlling cable in position to engage with said block and limit the travel of the controlling

cable in one direction, said controlling cable and the connections between the hoisting cable and the bucket body being adapted to be transposed relatively to the bucket body whereby the bucket may be caused to dump either forwardly or rearwardly upon slackening of the controlling cable.



2. In an excavator bucket, the combination of a bucket body having side walls and a bottom provided with a forward cutting edge, a pair of draft elements leading forward from said bucket, an arched cross-bar between said draft elements, a draft cable with which said draft elements are connected, and means connected with said bucket and said draft cable and slidably engaged with said cross-bar for retaining the bucket in non-dumping position.

3. In an excavator bucket, the combination of a bucket body, a draft cable connected with the front end of said body, a hoisting cable connected with one end of said body, a controlling cable connected with the other end of said body and with said draft cable and adapted to vary the inclination of said bucket body, a block carried by said hoisting cable over which said controlling cable runs, and a stop adjustable on said controlling cable to engage said block for limiting the movement of the controlling cable in one direction, said controlling cable and hoisting cable being adapted for connection to either end of the bucket, whereby said bucket may be caused to dump either forwardly or rearwardly.

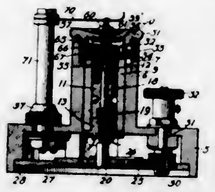
4. In an excavating bucket, the combination of a bucket-body having side walls and a bottom provided with a forward cutting edge, a pair of draft elements leading forward from said side walls and secured thereto, an arched cross-bar between said draft elements, a controlling cable adapted to vary the inclination of said bucket, and an eye on said arched cross-bar and above the plane of said draft elements, said eye being adapted slidingly to accommodate said controlling cable and to hold the same substantially out of contact with the earth during digging operations, substantially as described.

5. In an excavator bucket, the combination of a bucket body having side walls and a bottom provided with a forward cutting edge, a draft cable connected to the front end of said bucket a removable closure for the rear end of said bucket, a hoisting cable connected with one end of said body, a controlling cable connected with the other end of said body and with said draft cable and adapted to vary the inclination of said bucket body, and a block carried by said hoisting cable over which said controlling cable runs, said controlling cable and hoisting cable being adapted for connection to either end of the bucket whereby said bucket may be caused to dump either forwardly or rearwardly.

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1,093,888. CURRENT-AMPLIFYING APPARATUS AND CIRCUITS. HERBERT E. SHREEVE, Milburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 20, 1912. Serial No. 715,967. (Cl. 179—171.)

1. In a repeater for amplifying current impulses a supporting frame comprising a base and an integrally formed container thereon, a receiving element carried within said container, a microphonic element removably carried by said container in operative relation to said receiving element, and combined contact and retaining means for said microphonic element supported by said base.



2. In a repeater for amplifying current impulses a supporting frame comprising a base and an integrally formed container thereon, a receiving element carried within said container, a microphonic element removably carried by said container in operative relation to said receiver element, a combined contact and retaining device having one end in engagement with said microphonic element, and supporting means for said contact and retaining device secured to said base.

3. In a repeater for amplifying current impulses a supporting frame comprising a base and an integrally formed container, a receiving element carried within said container, a microphonic element removably mounted in the upper end of said container in operative relation to said receiver element, a rotatably mounted contact and retaining means for said microphone element, and a connecting post secured to said base and supporting said contact and retaining means.

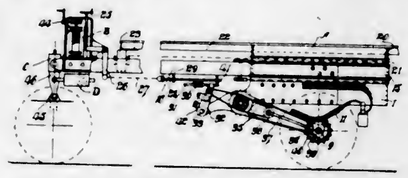
4. In a repeater for amplifying current impulses a frame comprising a base and a container carried thereby said container having an enlarged bore at its upper end, a receiver element located in said container, a unitary microphonic element removably supported in the enlarged portion of said container in operative relation to said receiver element, and a combined contact and retaining device for said microphonic element pivotally supported adjacent to said container.

5. In a repeater for amplifying current impulses a frame comprising a base and a container carried thereby, a microphonic element carried by said container, a receiver element located in said container in operative relation to said microphonic element, an adjustable pole for said receiver, and adjusting means for said receiver pole located in said base.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,889. TRANSPORT-VEHICLE. CHARLES SCOTT SNELL, London, England. Filed June 2, 1913. Serial No. 771,213. (Cl. 21—90.)



1. In a truck, the combination, with a wheeled carriage provided at its upper part with a circular frame, of a longitudinal draft member provided with a band at its rear end which is mounted on the circular frame, a circular platform-frame pivoted concentric with the said frame, a platform secured to the platform-frame, means for connecting the front end of the draft member to a tractor, and steering mechanisms mounted on the front end portion of the draft member and operatively and independently connected with the two said circular frames, whereby the supporting carriage and the platform are moved pivotally and independent of each other.



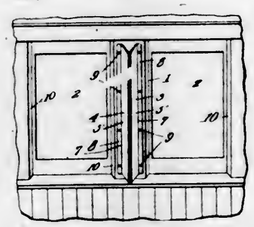
2. In a truck, the combination, with a wheeled carriage provided at its upper part with a circular frame, of a longitudinal draft member provided with a band at its rear end which is mounted on the circular frame, a circular platform-frame pivoted concentric with the said frame, a platform secured to the platform-frame and projecting forwardly over the draft member, an antifriction device supporting the overhanging portion of the platform from the draft member, means for connecting the front end of the draft member to a tractor, and steering mechanisms mounted on the front end portion of the draft member and operatively and independently connected with the two said circular frames, whereby the supporting carriage and the platform are moved pivotally independent of each other.

3. In a truck, the combination, with a supporting carriage provided at its upper part with a circular frame, an axle carried by the carriage in front of the circular frame, pivoted arms carried by the axle and projecting rearwardly and having axle spindles at their ends, springs arranged between the said arms and the supporting carriage, and road wheels mounted on the axle spindles; of a longitudinal draft member provided with a band at its rear end which is mounted on the circular frame, a circular platform-frame pivoted concentric with the said frame, a platform secured to the platform-frame, means for connecting the front end of the draft member to a tractor, and steering mechanisms mounted on the front end portion of the draft member and operatively and independently connected with the two said circular frames, whereby the supporting carriage and the platform are moved pivotally and independent of each other.

4. In a truck, the combination, with a wheeled carriage provided at its upper part with a circular frame, of a longitudinal draft member provided with a band at its rear end which is mounted on the circular frame, a circular platform-frame pivoted concentric with the said frame, a platform secured to the platform-frame, brakes operatively connected with the wheels of the wheeled carriage, a brake operating mechanism supported in front of the wheeled carriage, intermediate connections between the brake operating mechanism and the said brakes, means for connecting the front end of the draft member to a tractor, and steering mechanisms mounted on the front end portion of the draft member and operatively and independently connected with the two said circular frames, whereby the supporting carriage and the platform are moved pivotally and independent of each other.

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1,093,890. CINDER-DEFLECTOR. DAVID A. SOX, Carrollton, Ga., assignor of one-half to Louis A. Wood, Carrollton, Ga. Filed Mar. 11, 1913. Serial No. 753,599. (Cl. 98—21.)



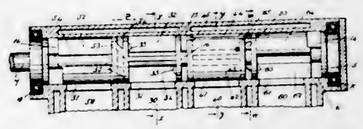
1. A cinder deflector comprising right and left hand sections, each section made from a similar blank, a portion along one side edge of which is bent right handedly for one section and left handedly for the other section, said sections adapted to be secured to the outer surface of a car stile, said sections adapted to be interchanged and secured to the sides of the car stile.

2. A cinder deflector comprising two sections each made from similar parallelogrammic blanks, a portion of one edge of each blank bent right handedly for one section and left handedly for the other, to thereby form outstanding wings, and securing ledges, the said wings and ledges including an angle of substantially 135 degrees therebetween, each section being adapted to be secured to the front surface of a car stile and extend at an angle of 45 degrees thereto, and adapted to be reversed and secured to the side surface of the car stile with the outstanding wing extending at 45 degrees to the outer stile surface.

3. In a cinder deflector comprising two independent sections made from similar blanks, a portion of one edge blank being bent right-handedly for one section and left-handedly for the other, to thereby form outstanding wings and securing ledges, said ledges adapted to be secured to the front surface of a car stile and to the side of a car stile with the wings in each case extending at the same angle to the surface of the car stile, the lower edge of the said wings being beveled to conform with the window ledge and adapted to contact therewith.

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1,093,891. ROTARY VALVE. STEPHEN O. STANFIELD, Orange, Cal. Filed Aug. 29, 1912. Serial No. 717,722. (Cl. 123—190.)



1. The combination, with a plurality of power cylinders arranged to work successively and provided with an exhaust pipe, of a single rotary valve provided with a central hub and having a circumferential exhaust groove which encircles the said hub and communicates constantly with the said exhaust pipe, said valve having also a separate exhaust cavity for each cylinder and having lateral ports, in the end walls of the exhaust cavities around the said hub, which place the exhaust cavities in constant communication with each other and with the said circumferential exhaust groove.

2. The combination, with a plurality of power cylinders arranged to work successively and provided with an exhaust manifold pipe, of a single rotary valve provided with a central hub and having a series of circumferential exhaust grooves which encircle the said hub and communicate constantly with the said manifold pipe, said valve having also a separate exhaust cavity for each cylinder and having lateral ports, in the end walls of the exhaust cavities around the said hub, which place the exhaust cavities in constant communication with each other and with the series of circumferential exhaust grooves.

3. The combination, with a plurality of power cylinders arranged to work successively, of a single rotary valve provided with a central hub and having a separate pair of inlet and exhaust cavities for each cylinder, said valve having also a peripheral inlet notch or groove arranged around the said hub between two of the pairs of cavities, and having also lateral ports, in the end walls of the inlet cavities around the said hub, which constantly connect the peripheral inlet notch or groove with the inlet cavities on each side of it.

4. The combination, with a plurality of power cylinders arranged to work successively, of a single rotary valve provided with a central hub and having a separate pair of inlet and exhaust cavities for each cylinder, said valve having also a peripheral inlet notch or groove partially encircling the said hub and an exhaust port formed in the partition wall of the exhaust cavities around the said hub, said notch and port being arranged between two of the pairs of cavities and connecting the similar cavities together.

5. The combination, with a plurality of power cylinders arranged to work successively, of a single rotary valve provided with a central hub and having a separate pair of inlet and exhaust cavities for each cylinder, said valve having also a peripheral inlet notch or groove in it arranged around the said hub between two of the pairs of cavities and constantly communicating with the inlet cav-

ity of each pair, said valve having also a port formed in its solid portion around the said hub and opposite the said inlet notch or groove and constantly connecting the exhaust cavities of each pair.

[Claim 6 not printed in the Gazette.]

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1,093,892. METHOD OF IMPROVING PIG-IRON. VICTOR STONE, Sheffield, England. Filed July 7, 1913. Serial No. 777,778. (Cl. 75—27.)

1. The method of treating molten iron which comprises covering the same with a reacting slag and causing mechanical agitation of the contacting surfaces of iron and slag by the evolution of a neutral gas at said contacting surfaces.

2. The method of improving the physical properties of blast-furnace pig iron which comprises covering a body of molten pig iron with a layer of refining slag, liberating a neutral gas from a compound containing the same in contact with said slag and iron, and agitating the contacting surfaces of said iron and slag by the liberation of said neutral gas.

3. A method of improving the properties of blast-furnace pig iron, comprising covering a body of molten pig iron with molten slag, and vigorously agitating the contacting surfaces of said pig iron and slag by carbon-dioxid generated adjacent the contacting surfaces of said iron and slag.

4. A method of improving the properties of blast-furnace pig iron, comprising covering a body of molten pig iron with a layer of molten refining slag, adding sufficient limestone to said slag to evolve enough carbon-dioxid by the heat of said slag and iron to cause vigorous mechanical stirring of the contacting surfaces of said iron and slag.

5. A method of improving the quality of blast furnace pig iron consisting in maintaining it in a molten condition while covered with a slag of more or less equal portions of lime and silica and maintaining said slag free of iron by addition of a deoxidant; as set forth.

[Claim 6 not printed in the Gazette.]

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1,093,893. MOUNTING FOR FUSES. CLARENCE G. STOLL, Brooklyn, N. Y., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 1, 1907. Serial No. 365,874. (Cl. 175—273.)



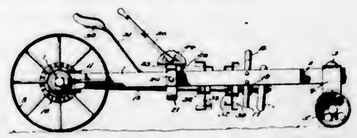
1. In a fuse mounting the combination with a tubular porcelain shell having a tapered and threaded recess at the end thereof, of a tubular terminal bolt smaller than and fitting within said recess, a fuse wire within said shell and bolt and secured to the outer end of said bolt, and molded metal filling said recess around said bolt and engaging the inner threaded walls of said porcelain shell.

2. In a fuse mounting, the combination with vitreous insulating tube having enlarged openings at each end, of a plurality of V-shaped projections lining the entire wall about said openings, a terminal for each end inserted within the enlarged opening and closing the bore of said tube, a fuse passing through the tube electrically attached at its ends to said terminals, and molded metal within the enlarged openings of said tube surrounding and engaging said terminals and securing them to the tube by means of the V-shaped projections on the walls thereof.

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1,093,894. COTTON-CHOPPER. JOSEPH H. STONE, Okemah, Okla. Filed Mar. 25, 1913. Serial No. 756,809. (Cl. 97—46.)

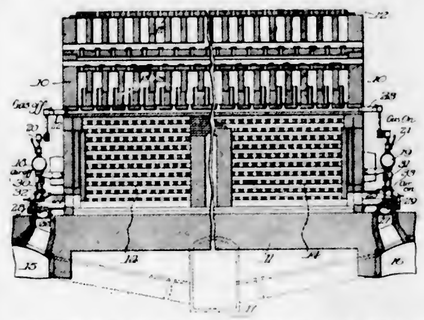
1. A cotton chopper comprising a main frame, a driving shaft mounted transversely thereon, a chopper shaft disposed longitudinally of the main frame, gearing connecting said shafts, an elongated bearing for the chopper shaft having divergent branches at its rear and terminating in sleeves encircling the driving shaft, a cross bar on the main frame having a depressed portion extending under the chopper shaft, a second cross bar secured upon the main frame having an arched portion extending over the chopper shaft, a support for the front end of the chopper shaft movable vertically in the arched portion of said second cross bar, and chopper blades secured upon the chopper shaft between the cross bars.



2. A cotton chopper comprising a main frame, a cross bar secured thereto and having a depressed central portion, a chopper shaft disposed longitudinally of the main frame and extending over the said depressed portion of the said cross bar, means for rotating said shaft, chopper blades carried by said shaft, a rock shaft mounted upon said cross bar and provided with a crank portion, links pivotally hung upon said crank portion of said rock shaft, and a stirrup suspended from said links and supporting the chopper shaft.

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1,093,895. METHOD OF PREVENTING DEPOSITION OF CARBON IN REVERSING-FURNACES. FREDERICK TSCHUDY, Birmingham, Ala. Filed June 17, 1911. Serial No. 633,883. (Cl. 75—94.)



The method of heating air regenerative coke ovens consisting in supplying air to a regenerator and fuel to a combustion chamber from one side, then discontinuing the supply of fuel to the combustion chamber and permitting the stack draft to withdraw the products of combustion through the previously heated regenerator, then simultaneously reversing the flow of air through the regenerators and cleaning the regenerators of any remaining products of combustion and the carbon residue, then supplying fuel to the combustion chamber on the opposite side of the furnace.

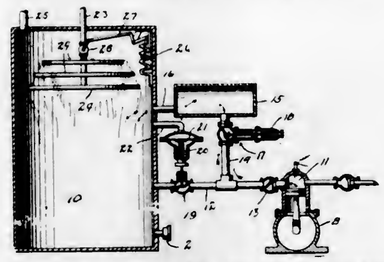
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1,093,896. COMBUSTION-INJECTED FLASH-GENERATOR. CHARLES A. ULREY, Villa Nueva, Argentina. Filed Aug. 4, 1913. Serial No. 782,974. (Cl. 60—31.)

1. In a combustion injected flash generator, a tank, an internal combustion apparatus, means for conducting the gases from the explosions in said apparatus into said tank, a water pipe entering said tank, means for spreading the entering water in a thin veil whereby the heat of the gases acting upon said veil causes the latter to flash into steam, and means controlled by the temperature of said gases in governing the water supply.

2. In a combustion injected flash generator, a tank, an internal combustion engine, means for conducting the gases from the explosions in said engine into said tank, a water pipe entering said tank, a cut-off valve in said pipe, and a thermostatic pyrometer operatively connected to said valve and serving to close said valve upon such a fall in temperature as would cause the generation of steam from the incoming water to cease and operating to open said valve upon a sufficient rise in temperature to cause the production of steam from said incoming water.





3. A combustion injected flash generator comprising a tank, an internal combustion engine, connections between said engine and said tank, a check valve in said connections exposed to tank pressure, means for cutting off the connections between the engine and tank, means for holding said cut-off means normally in operative position, connection between said cut-off means and the tank for operation to open the cut-off means when the tank pressure has reached a predetermined point, a by-pass communicating with the engine and with the tank and extending around the cut-off means, a valve in the by-pass, and means for holding the valve in the by-pass closed against the pressure to which the fresh gases in the engine are compressed for ignition, said holding means being yieldable under a higher pressure.

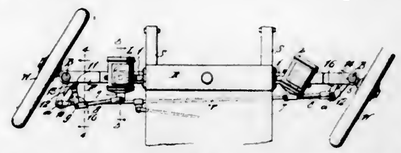
4. In a combustion injected flash generator, a tank, an internal combustion engine, a connection between said engine and said tank, a check valve in said connection exposed to tank pressure and normally held closed thereby until the moment of explosion whereupon the pressure of the explosion blows open the valve, yieldable means for cutting off direct communication between the engine and tank to initially raise the pressure in said tank above the pressure to which the fresh gases in the engine are compressed before ignition, and means for automatically rendering such cut-off means inactive when a proper pressure within the tank has been reached.

5. In a combustion injected flash generator, a tank, an internal combustion engine, a pipe connection between said engine and said tank, a check valve in said pipe exposed to tank pressure and normally held closed thereby, and means for initially raising the pressure in said tank above the pressure to which the gases in the engine are compressed before ignition, such means including a valve in said pipe between said check valve and said tank normally held closed by a spring and acted upon against the action of said spring by a diaphragm which is exposed to tank pressure, a bypass connected to said pipe between said valve and said check valve and opening into said tank, and a valve in said bypass normally held closed by a spring, said bypass valve opening at each explosion to permit of the gases entering said tank until the pressure within the tank has been raised above the pressure to which the gases in the engine are compressed before ignition whereupon such pressure acting upon said diaphragm opens the first named valve and establishes direct communication to the first named pipe from said tank to said engine.

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1,093,897. DEVICE FOR TURNING AUTOMOBILE-HEADLIGHTS. THEODORE EDDY VAN DERWERKEN, Green Island, N. Y., assignor of one-half to William Henry Rabbett, Green Island, N. Y. Filed Dec. 26, 1913. Serial No. 808,811. (Cl. 240—62.)

1. The combination with a vehicle having a fixed front axle, stub axles pivoted thereto and means for turning said stub axles in a substantially horizontal plane, of stops secured to said stubs, arms pivoted at one side of said stops, revolubly mounted head lights, operating arms thereon, means for normally causing said head lights to face forwardly and connections between said head light operating arms and the first mentioned arms for the purpose set forth.



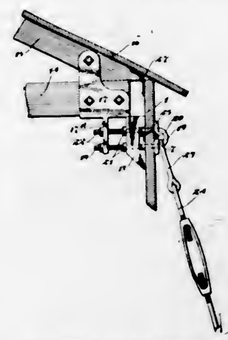
2. The combination with a vehicle having a fixed front axle, stub axles pivoted thereto and means for turning said stub axles in a substantially horizontal plane, of stops secured to said stubs, arms pivoted at one side of said stops, supporting brackets, head lights revolubly mounted on said brackets, co-acting stops on said head lights and said brackets, operating arms on said head lights, links connecting said head light operating arms and the first mentioned arms and means for normally holding the stops on said brackets and head lights in contact for the purpose set forth.

3. The combination with a vehicle having a fixed front axle, stub axles pivoted thereto and means for turning said stub axles in a substantially horizontal plane, of laterally projecting stop fingers secured to said stubs, arms pivoted in the same plane therewith, springs normally holding said arms in contact with said stop fingers, supporting brackets having front and rear stops, head lights revolubly mounted on said brackets and having stops coacting with the stops on said brackets, operating arms on said head lights and links connecting said head light operating arms and the first mentioned arms for the purpose set forth.

4. The combination with a steering mechanism, of a vehicle and independently movable head lights on opposite sides of the vehicle, head light actuating arms, means for limiting the movement of each of said arms in one direction, stops movable with the movement of the steering mechanism, pivotally mounted spring actuated arms adapted to be engaged and actuated by said stops and connecting links uniting the two sets of arms on each side of the machine.

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1,093,898. SILO. DENNIS E. VIRTUE, Owatonna, Minn. Filed May 8, 1912. Serial No. 695,905. (Cl. 20—1.4.)



1. In a silo, a wall and a roof having a slip joint connection, an expansible and contractible brace secured to said wall, and means anchoring said roof to said brace and permitting expansion and contraction of said wall in respect to said roof.

2. In a silo, a wall and a roof, having a slip joint connection, an expansible and contractible brace secured to said wall, means anchoring said roof to said brace and

permitting expansion and contraction of said wall in respect to said roof, and anchoring rods anchored to said brace at their upper ends.

3. In a silo, the combination with a cylindrical wall made up of wooden staves, of a roof connected on said wall by a slip joint, an expansible and contractible hoop surrounding the upper portion of said wall, and a connection anchoring said roof to said hoop and permitting expansion and contraction of said wall in respect to said roof.

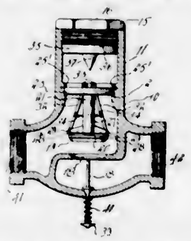
4. In a silo, the combination with a cylindrical wall made up of wooden staves, of circumferentially expansible hoops surrounding said staves, bearing blocks secured to the inner surface of certain of said staves, a roof structure resting on said bearing blocks and having clearance from the said wall permitting expansion and contraction of the latter, and devices anchoring said roof to said wall but permitting adjustments for circumferential expansion and contraction of the latter.

5. In a silo, the combination with a cylindrical wall made up of wooden strips, of circumferentially expansible hoops surrounding said staves, bearing blocks secured to the inner surface of certain of said staves, a roof structure resting on said bearing blocks and having clearance from the said wall permitting expansion and contraction of the latter, devices anchoring said roof to said wall but permitting adjustments of circumferential expansion and contraction of the latter, and circumferentially spaced segmental reinforcing bars clamped to the inner surface of said wall by said bearing blocks.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,899. AUTOMATIC SAFETY-VALVE. EDWARD BRAYNT WADDELL, Jr., Williamson, W. Va., assignor of one-third to Hawthorne A. Goodloe and one-third to Montezuma White, Williamson, W. Va. Filed Nov. 4, 1913. Serial No. 799,223. (Cl. 67—115.)



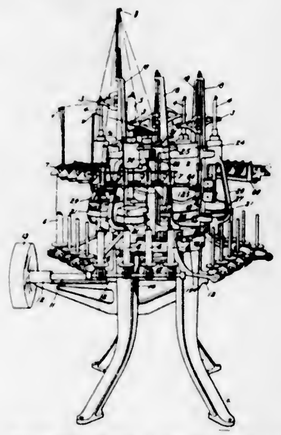
1. In combination with a valve body provided with a bonnet and a valve seat; a valve disk movable to and from said seat, a stem projecting from said disk and provided with a notch, a diaphragm extending across the lower end of said bonnet and having openings therein, a tubular stem depending from said diaphragm and receiving said valve stem, said tubular stem having a lateral opening therein, a locking pin slidable in said lateral opening and adapted to engage the notch, a piston slidable in said bonnet and means operable upon movement of the piston downward to withdraw said locking pin.

2. In combination with a valve body provided with a bonnet and a valve seat; a valve disk movable to and from said seat, a stem projecting from said disk and provided with a notch, a diaphragm extending across the lower end of said bonnet and having openings therein, a tubular stem depending from said diaphragm and receiving said valve stem, said tubular stem having a lateral opening therein, a locking pin slidable in said lateral opening and adapted to engage the notch, a lever having one end projecting through said diaphragm, a piston slidable in said bonnet, and means carried by the piston for engaging the lever to withdraw the pin from the notch when the piston falls.

3. In combination with a valve body provided with a bonnet and a valve seat; a valve disk movable to and from said seat, a stem projecting from said disk and provided with a notch, a diaphragm extending across the lower end of said bonnet and having openings therein, a tubular stem depending from said diaphragm and receiving said valve stem, said tubular stem having a lateral opening therein, a locking pin slidable in said lateral opening and adapted to engage the notch, a lever carrying said pin and having one end projecting through said diaphragm, a piston slidable in said bonnet, and a wedge projecting from said piston and adapted to engage said lever and withdraw the pin from the notch when the piston falls.

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1,093,900. WINDING-MACHINE. SIMON W. WARDWELL, Providence, R. I. Filed Oct. 3, 1910. Serial No. 585,059. (Cl. 242—44.)



1. In a winding machine, the combination with a single cam, a plurality of winding spindles arranged about the cam and transmission connections between said spindles and cam, of a plurality of winding guides all actuated by the single cam, each guide being independent of the others, and means to disconnect the guides from the cam.

2. In a winding machine, the combination with a single cam, of a plurality of winding spindles arranged about the cam and transmission connections between the spindles and the cam, of a plurality of winding guides all actuated by the single cam, each guide being independent of the others, and means to disconnect any one of the guides from the cam.

3. In a winding machine, the combination with a winding spindle, a continuously moving cam, a traverse slide reciprocated by the cam, and a winding guide connected with the traverse slide, of means to stop the winding spindle and means to concurrently disconnect the winding guide from the traverse slide, to stop the winding.

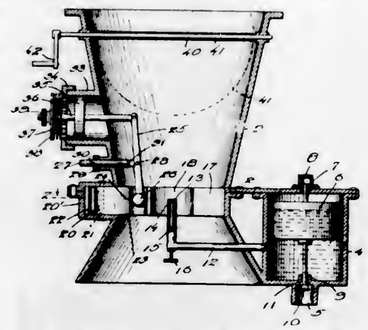
4. In a winding machine, the combination with a winding spindle and continuously rotating cam, of a traverse slide continuously engaging the cam, a guide coöperating with the winding spindle and a guide carrying device therefor coupled to the traverse slide, means to stop the winding spindle and means to concurrently uncouple and stop the guide carrying devices.

5. In a winding machine, the combination with a continuously moving cam, a winding spindle and transmission mechanism connecting it with the cam, of a reciprocating winding guide, actuated by the cam through a coupling, means to uncouple the guide from the cam, a frame which actuates the said means to uncouple the guide, and also acts to stop the winding spindle, means through which said frame acts to stop the winding spindle, and a yarn controlled knock-off on the frame which, when released by the yarn, engages the cam and is acted on thereby to swing said frame for the purpose described.

[Claims 6 to 36 not printed in the Gazette.]



1,093,901. CARBURETER. HORACE B. WYMAN, Houston, Tex. Filed Dec. 6, 1912. Serial No. 735,305. (Cl. 48—155.2.)



1. In a carbureter of the character described, a main shell, a pair of pivoted valves disposed therein and provided with a permanent air supply opening or openings, a pivoted lever having its lower end operating between portions of the pair of valves to move the same away from each other when the lever is swung in one direction, a cylinder connected with the main shell, a piston mounted to operate within the cylinder, connecting means between the piston and lever, and a fluid fuel discharging nozzle disposed in the main shell.

2. In a carbureter of the character described, a main shell, means operated by suction in the main shell, a vertically swinging lever connected with the means, a horizontally adjustable support for the lever and with which the same is pivotally connected, a movable valve mounted within the main shell and operated upon the movement of the lever, and a fluid discharging nozzle disposed within the main shell in coöperative relation to the valve.

3. In a carbureter of the character described, a main shell provided between its ends with laterally extending oppositely arranged horizontal chambers, horizontal pivoted valves mounted within the horizontal chambers and provided upon their inner adjacent edges with openings forming a permanent air passage when the valves are closed, a spring to move the valves inwardly, an upstanding pivoted lever having its lower end operating in engagement with portions of the valves to move the same, a cylinder connected with the main shell and in free communication therewith, a piston operating within the cylinder, connecting means between the piston and upstanding pivoted lever, and a liquid fuel supply device disposed near and below the valves.

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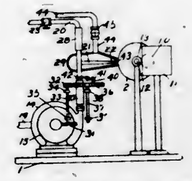
1,093,902. RESILIENT WHEEL-TIRE. THOMAS BATES YEAMAN, Nashville, Tenn. Filed Oct. 1, 1913. Serial No. 792,862. (Cl. 152—8.)



A wheel tire including an outer casing, a core in said casing embodying a plurality of annular rubber laminations, frictionally engaging at their edges with the wall of the casing, and each provided with a series of radially extending slots, springs arranged in said slots, the slots in each lamination being disposed in staggered relation to the slots in adjacent laminations transversely of the tire, said slots being closed by the laminations upon each side thereof whereby the transverse movement of the springs with respect to the laminæ is prevented.

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1,093,903. SMOKE-RECORDING APPARATUS. HARLEY C. ALGER, Chicago Heights, Ill. Filed Sept. 6, 1912. Serial No. 719,009. (Cl. 234—1.)



1. In a device of the character described, a recording member, a nozzle for delivering gas thereto, a supply pipe and means for intercepting a portion of the gas supplied by the supply pipe and for delivering said intercepted portion to the nozzle.

2. In a device of the character described, a recording member, means for delivering gas thereto, a supply pipe and means for intercepting a portion of the gas supplied and for conveying said portion to the delivering means.

3. In a device of the character described, a recording member, means for delivering gas thereto, a supply pipe, means for intercepting a portion of the gas supplied, means for conveying said portion to the delivering means and a separator in said conveying means for the purpose of separating moisture from the intercepted portion.

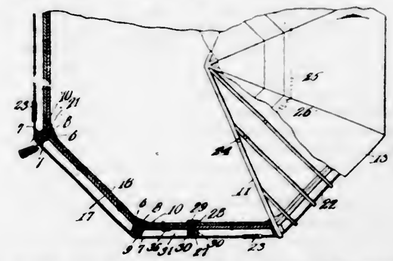
4. In a device of the character described, a recording member, a nozzle for delivering gas to the recording member and means for moving the nozzle to cause an intermittent record upon this recording member.

5. In a device of the character described, a recording member, a casing having an aperture adjacent to the recording member, a gas supply pipe passing through the casing and a swinging tube adapted to receive gas from the supply pipe and deliver it through the aperture to the recording member.

[Claims 6 to 18 not printed in the Gazette.]

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1,093,904. SILO. JAMES W. AMES, Lubbock, Tex. Filed May 3, 1913. Serial No. 765,364. (Cl. 217—4.)



1. A knock-down silo including standards each comprising a central timber, side timbers, said central timber extending inwardly from the side timbers to form a spacing rib, and a retaining cleat secured longitudinally along the rib, and siding boards fitted at their ends against the ribs and between the side timbers and the retaining cleats.

2. A knock-down silo including standards each comprising a central timber, side timbers, said central timber extending inwardly from the side timbers to form a spacing rib, and a retaining cleat secured longitudinally along the rib, siding boards fitted at their ends against the ribs and between the side timbers and the retaining cleats, and a tie device extending around the silo and engaging the outer faces of the standards.

3. A knock-down silo including standards and siding boards fitted at their ends against the standards, said siding strips being arranged in inner and outer layers, the strips of the outer layers having the upper and lower edges beveled downwardly and outwardly and the strips of the inner layer having their upper and lower edges inclined downwardly and inwardly, said strips of the inner layer lapping the joints between the strips of the outer layer.

4. A knock-down silo including standards, siding strips fitted at their ends against the standards, said siding strips being arranged in inner and outer layers, the strips of the outer layer having the upper and lower edges thereof beveled downwardly and outwardly and the strips of the inner layer having their upper and lower edges inclined downwardly and inwardly, said strips of the inner layer lapping the joints between the strips of the outer layer, and an adjustable tie device extending around the silo and engaging the outer faces of the standards.

5. A knock-down silo including standards, each consisting of a central timber and side timbers, said central timber extending inwardly from the side timbers to form a rib, and rafters having their outer ends cut away and bearing downwardly upon the central timbers of the standards, there being shoulders at the inner ends of said cut away portions and abutting against the ribs, the side timbers lapping the sides of the rafters and having their upper ends flush with the upper edges of the rafters.

[Claims 6 to 12 not printed in the Gazette.]

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1,093,905. HAME-TRACE. GEORGE W. AYRES, Rolla, Mo. Filed Jan. 26, 1912. Serial No. 673,690. (Cl. 54—33.)



1. A hame trace comprising a supporting body having out-turned edges, plates having guide ribs and bearing between said out-turned edges, compression devices spaced apart and supported by said plates, an inner jaw having flanges engaging said guide ribs and movable between said compression devices, and an outer wedge-shaped jaw movably coupled at its thicker end to said inner jaw and extending at its thinner end between said compression devices.

2. A hame trace comprising a supporting body having out-turned edges, plates having guide ribs and bearing between said out-turned edges, compression devices spaced apart and supported by said plates, an inner jaw movable between said compression devices and having flanges engaging said guide ribs and out-turned edges, and an outer wedge-shaped jaw provided with a relatively large aperture and bearing at its thinner end between said compression devices, and a pin extending through the ears of said inner jaw and through the aperture of the outer jaw, said jaws being designed to receive a trace between them.

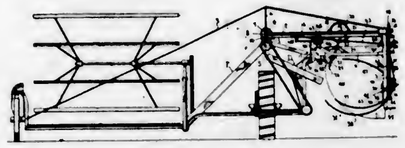
3. A hame trace comprising a supporting body, compression devices spaced apart and supported relatively to said body, an inner jaw having its faces in parallel relation and movable over one of said compression devices, an outer jaw having one face in parallel relation to the confronting face of the inner jaw and its outer face extending obliquely to its inner face and movable against the other of said compression devices, and means for coupling the outer jaw for movement bodily toward and away from the inner jaw.

4. A hame trace comprising a supporting body, compression devices spaced apart and supported relatively to said body, an inner jaw movable against one of said compression devices and provided with outstanding ears, a pivot pin extending through said ears, and an outer wedge shaped jaw movable against the other of said compression devices and having a relatively large aperture through which said pin passes, whereby the whole face of the outer jaw is arranged to engage a trace disposed between the jaws.

5. A hame trace comprising a longitudinally channeled body including spaced sides and having means for attachment to the hames, backband and girth of a harness, plates connected to said body sides and each having a guide rib, an outer and an inner roller mounted between said plates, and an inner clamp member and an outer wedge-shaped clamp member between which a long trace may pass, said inner clamp member having guide ribs engaging in the guide ribs of the plates and bearing over the inner roller and said outer clamp member swingingly connected at its thicker end to the inner clamp member and bearing at its thinner end beneath the outer roller.

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1,093,906. SHOCK-FORMING ATTACHMENT FOR GRAIN-BINDERS. CHARLES BARNUM, Redwood Falls, Minn. Filed Feb. 20, 1913. Serial No. 749,687. (Cl. 56—121.)



1. A shock forming attachment for grain binders comprising a carrier supporting frame suitably secured to the frame of the binder, a carrier pivotally mounted on said frame, a detent, a holding bar on said carrier, a stop finger on said bar to engage said detent and hold said carrier in a horizontal position, means to retract said detent whereby the carrier is permitted to tilt and discharge the bundles thereon, a power transmitting shaft driven by the binder, a gear loosely mounted on said shaft, a clutch mechanism between said gear and shaft, means for automatically closing the clutch when the carrier is swung to a dumping position, a chain connecting the carrier with said gear, and a roller mounted on said stop finger and adapted to open said clutch when the carrier is brought to a horizontal position.

2. A bundle shocking attachment for grain binders comprising a supporting frame having a depending arm, a bundle carrier comprising a main bar pivotally connected near one end with said arm, a series of fingers projecting from said bar in position to receive the bundles discharged from the binder, a crank shaft mounted on the carrier, a bundle engaging arm on said shaft, a rod connected with the crank of said arm and having a sliding and yielding connection with the support for the carrier whereby when the latter is tilted said bundle engaging arm is pressed into yielding engagement with the bundles, means for dumping the carrier, and means to automatically return the carrier to an operative position.

3. A shock forming attachment for grain binders comprising a carrier supporting frame suitably secured to the frame of the binder, a carrier pivotally mounted on said frame, a detent to hold said carrier in an operative position for receiving the bundles discharged from the machine, a detent retracting mechanism whereby said detent is retracted to permit the carrier to dump, a power transmitting shaft geared to a moving part of the binder, a carrier retracting gear loosely mounted on said shaft and having thereon one member of a clutch, a co-acting clutch member fixed on said shaft, a gear shifting lever engaged with said gear, a spring actuated rock shaft on said carrier, a cam on one end of said shaft, a trip arm on the shaft adapted to be engaged by the bundles in said carrier when the latter is in an operative position and which is released when the carrier is tilted and the bundles discharged, thereby permitting said spring actuated shaft to rock and engage the cam end thereof with said gear shifting lever whereby said gear is shifted into engagement with said fixed clutch member and thereby connected with said power transmitting shaft, a carrier retracting chain having an operative engagement with said gear, means to yieldingly and adjustably connect said chain with said carrier whereby the latter is restored to a horizontal position after being dumped, and means to throw said gear out of engagement with said power transmitting shaft.

4. A shock forming attachment for grain binders comprising a carrier supporting frame suitably secured to the frame of the binder, a carrier pivotally mounted on said frame, a detent, a holding bar on said carrier, a stop finger on said bar to engage said detent and hold said carrier in a horizontal position, means to retract said detent whereby the carrier is permitted to tilt and discharge the bundles thereon, a power transmitting shaft geared to and driven by a moving part of the binder, a carrier retracting gear loosely mounted on said shaft and having thereon one member of a clutch, a co-acting clutch member fixed on said shaft, a gear shifting lever adapted to be automatically operated when the carrier is swung to a dumping position to shift said gear into engagement with said fixed clutch member whereby the gear is driven by said shaft, a carrier retracting chain connected at its end with said carrier and having an operative engagement with said gear whereby when the latter is driven the carrier will be swung upwardly to an operative position, and a roller revolubly mounted on said stop finger and adapted to be engaged with said gear shifting lever when the carrier is brought to an operative position and to thereby disconnect said gear from said power transmitting shaft.

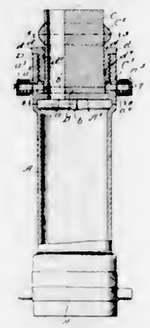
5. A shock forming mechanism for grain binders comprising a carrier supporting frame secured to a suitable part of the binder, a bundle carrier, a drive shaft geared to a moving part of the binder, a power transmitting shaft geared to said drive shaft, a pinion fixed on said power transmitting shaft, a revolubly mounted bevel gear engaged with and driven by said pinion, a crank pin on said gear, a bundle throwing arm pivotally connected to and operated by said crank pin, adjustably mounted guide rollers adapted to guide said arm, a plate yieldingly secured to the end of said arm and having bundle engaging hooks whereby the bundles are engaged and thrown from the discharging mechanism of the binder into said carrier and means for dumping the latter.

[Claim 6 not printed in the Gazette.]

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1,093,907. NOZZLE. HENRY BIRNBAUM, Rapid City, S. D. Filed Mar. 10, 1913. Serial No. 753,194. (Cl. 137—17.)



1. A hose nozzle comprising the combination of a cylindrical body provided with a transverse wall adjacent its outer end, said wall having an opening at one side of its center, a nozzle head rotatable within the outer end of the body and provided with openings of different sizes adapted for registry with the said wall opening, and a spray nut surrounding the said head and adjustable in the space between the head and the body at the outer end of the latter and having spray forming grooves on its inner surface, for the purpose described.

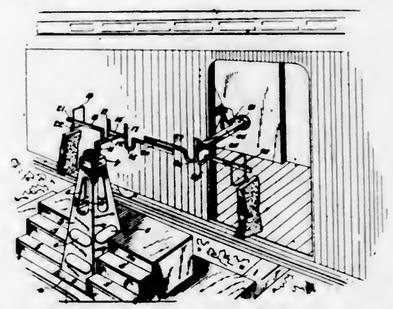
2. A hose nozzle comprising the combination of a cylindrical body having a transverse wall provided with an opening, a rotatable head disposed in the outer end of the body and having a plurality of openings of various sizes, a spray nut surrounding the head and adjustably mounted in the space between the head and the body, the said nut being provided with grooves in its inner surface and having a beveled inner edge at its outer end, and a spreader ring carried by the said head and having a beveled inner edge, for the purpose described.

3. A hose nozzle comprising the combination of a cylindrical body having a transverse wall adjacent its outer end provided with an opening, an adjustable rotatable head mounted in the outer end of the body and provided with a plurality of openings of various sizes therethrough, a valve plate disposed between the said wall of the body and the inner end of the head, and a spray nut surrounding the head and adjustable in the space between the head and the body and having spray forming grooves on its inner surface for the purpose described.

4. A hose nozzle comprising the combination of a cylindrical body having an apertured transverse wall adjacent its outer end, an apertured head rotatable in the outer end of the body, a valve plate between the inner end of the said head and the said transverse wall, the said head having an enlarged annular shoulder at its inner end, and a spray nut surrounding the head and having a threaded engagement with the body of the nozzle, said spray nut being provided with grooves in its inner surface for the purpose described.

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1,093,908. MAIL RECEIVING AND DELIVERING APPARATUS. PETER A. BLOMBERG, Jesse Lake, Minn., assignor of one-half to Carl Krantz, Deer River, Minn. Filed Aug. 2, 1913. Serial No. 782,659. (Cl. 258—15.)



1. A mail delivering and receiving apparatus comprising a stationary crane, said crane constituting a substantially rectangular body tapering toward its upper end, a mail bag delivering and receiving arm carried thereby, and an adjusting screw carried by said frame and coöperating with said arm for raising and lowering the same as said screw is rotated.

2. A mail bag delivering and receiving apparatus comprising a hollow standard, a bracket carried thereby, a mail bag delivering and receiving arm extending vertically thereof and working in said bracket, said arm being provided with a laterally extending finger, and an adjusting screw carried by said standard and working in said finger whereby said mail bag delivering and receiving arm will be vertically adjusted when said screw is rotated.

3. A mail bag delivering and receiving apparatus comprising a standard, a mail bag delivering and receiving arm vertically adjustable therein and being provided with an overhanging end, laterally extending fingers formed upon said arm each of said fingers being provided with notches, said fingers terminating at their inner ends in a loop portion, an abutment finger adjacent said loop portion and said abutment finger being adapted to retard the motion of a mail bag supporting hook while being placed upon said finger.

1,093,909. GAME APPARATUS. FRANZ J. L. BOLLHORN, Lauenburg-on-the-Elbe, Germany. Filed Nov. 3, 1913. Serial No. 798,997. (Cl. 46—69.)



1. In game apparatus, a stand, an arm mounted thereon for turning movement, and limb engaging means carried by the arm.

2. In game apparatus, a stand, an arm mounted thereon for turning movement and for shifting movement, and limb engaging means carried by the arm.

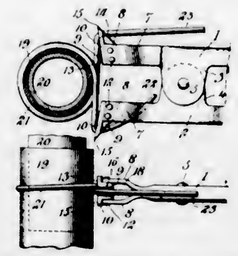
3. In game apparatus, a stand, an arm mounted thereon for turning movement, a cruciform frame carried by the arm, and limb engaging fingers projecting from adjacent sides of adjacent arms of the frame.

4. In game apparatus, a stand, an arm mounted thereon for turning movement, a cruciform frame carried by the arm, and limb engaging fingers projecting from the arms of the frame and yieldably held in engageable position.

5. In game apparatus, a stand, an arm mounted thereon for turning movement, a cruciform frame carried by the arm, and limb engaging means extending between adjacent arms of the frame.

[Claims 6 to 10 not printed in the Gazette.]

1,093,910. HOSE-BANDING TOOL. ALBERT HENLEY CAIN, Roodhouse, Ill. Filed June 5, 1913. Serial No. 771,934. (Cl. 81—9.3.)



1. A hose banding tool comprising two members hinged together and each formed at one end into a handle and at the other into a jaw portion, each jaw portion having an engaging member formed with a notch located at a point remote from that of the other member and also having a face directed toward the handle portion and formed with a longitudinal groove, and said jaw portion between the grooved part of the engaging member and the hinge having a passage transversely therethrough enlarged lengthwise of the tool and connecting with the inner end of the longitudinal groove.

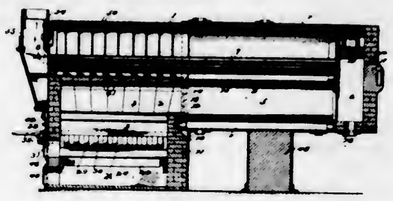
2. A tool for the purpose described, comprising two members hinged together and each located on its respective side of the hinge connection, each of the two members comprising a handle portion and a jaw portion, with the latter having a part extending away from the jaw portion of the other member and terminating in a nose laterally outstanding from the jaw portion and from thence on the outer side beveled toward the handle portion to which the jaw portion belongs, said beveled side being provided with a longitudinal groove opening through the nose to form a notch, and the jaw portion between the grooved part and the hinge having a passage transversely therethrough enlarged in the direction of the length of the tool, the groove having the end remote from the notch opening into said passage.

3. A tool for the purpose described comprising two members hinged together, and each comprising a handle portion on one side of the hinge and a jaw portion on the other side of the hinge, each jaw portion having a part extended in a direction away from the other jaw portion and terminating in a nose and from thence on the side toward the hinge being beveled toward the respective jaw member, said beveled portion having a longitudinal groove therein opening through the nose to form a notch, and the jaw portion between the grooved part and the hinge having a passage therethrough in line with the groove, those parts of the terminal portion of the jaw remote from the hinge being inclined from the inner end toward the nose.

4. A tool for the purpose described, comprising two members, each formed of a handle portion and a jaw portion, and intermediately shaped to coact to form a hinge with both parts of each member on the same side of the hinge, the jaw end of each member being divided and expanded, and a block secured in the divided end of each jaw member, said block having the face remote from the hinge inclined outwardly and terminating in a nose and from thence beveled inwardly toward the jaw member, the beveled face being provided with a V-shaped groove opening through the nose to form a V-shaped notch and leading to the space between the two sides of the divided jaw member.

5. A hose banding tool comprising two members hinged together, each member having a jaw with a notch opening on that side of the jaw remote from the other jaw and each jaw having a passage extending transversely therethrough and enlarged in a direction lengthwise of the tool.

1,093,911. BOILER-FURNACE. JOHN M. CAMERON, Johnson City, Tenn., assignor, by mesne assignments, to Cameron Smokeless Boiler Company, Johnson City, Tenn., a Corporation of Tennessee. Filed May 12, 1911, Serial No. 626,846. Renewed Oct. 15, 1913. Serial No. 795,357. (Cl. 110—29.)



1. The combination with a boiler, of a grate extending longitudinally beneath the boiler and a coal hopper extending longitudinally with relation to the boiler and extending down around the side of the boiler and opening upon the grate, of a reciprocable feed plate extending longitudinally parallel to and disposed within the hopper, said plate having a corrugated face, the corrugations of which extend transversely to the direction of movement of the plate and parallel to the direction of feed of the fuel, and means for longitudinally reciprocating said plate.

2. The combination with a boiler, of a grate extending longitudinally beneath the boiler and a coal hopper extending parallel with the boiler and down around the same and opening upon the grate, the side wall of the hopper at its junction with the grate being formed with a projecting supporting face, and a reciprocable feed plate having its face extending parallel to the boiler but spaced therefrom and resting upon said supporting face, the face of the plate being corrugated, transversely to the direction of reciprocation of the plate and means for reciprocating said feed plate longitudinally of the boiler.

3. The combination with a boiler, of a grate extending longitudinally beneath the boiler and a coal hopper of the same length as the grate and extending parallel with the boiler and down around the same and opening upon the grate, of a supporting plate forming the lower margin of the outer wall of the hopper and forming the lower wall

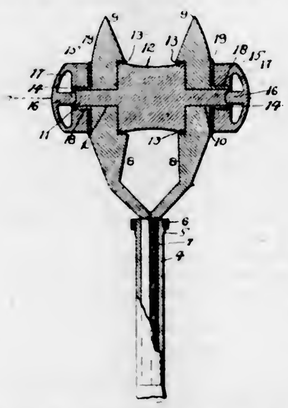


of an air passage extending from the outer wall of the hopper to the inner face thereof, means for controlling the amount of air entering said passage, and a longitudinally extending reciprocable feed plate having its upper margin disposed in said passage, the lower margin of the plate projecting out of the passage, the face of the plate being corrugated transversely to the line of movement of the plate, and means for longitudinally reciprocating said plate.

4. The combination with a boiler, a grate extending longitudinally beneath the boiler and a hopper wall extending down around the boiler and spaced therefrom, the boiler forming the inner wall of said hopper, of a supporting wall adjacent to the lower margin of the hopper wall, a plurality of tiles supported on the wall and having inclined upper faces, a supporting plate carried upon the inside faces of said tiles and projecting above the same, the upper end of the plate overlapping the lower end of the outer wall of the hopper and being spaced therefrom to provide air openings between the plate and the lower margin of the hopper, spacing members disposed at intervals in the said air openings, means for controlling the passage of air into said air openings, a longitudinally reciprocable feed plate mounted upon said supporting plate and having a corrugated face, the corrugations extending transversely to the line of movement of the plate and parallel to the direction of feed of the fuel, and means for reciprocating said feed plate parallel to the boiler and transversely to the direction of feed of the fuel in the hopper.

5. The combination with a boiler, a grate beneath and a coal hopper extending down to and opening upon the grate, said hopper being provided with a passage at its lower end extending longitudinally of the hopper and having air inlet openings, of a reciprocable feed plate located in said passage and formed with a corrugated face, said corrugations extending transversely to the line of movement of the plate and parallel to the direction of feed of the fuel and constituting air passages whereby air may be introduced into the interior of the coal.

1,093,912. WHEEL-MOUNT. FRANK E. V. CHAPMAN, Asbury Park, N. J., assignor of one-fourth to Frank Durand, Charles H. Ivins, and James D. Carton, Partners as Durand, Ivins & Carton, Asbury Park, N. J. Filed Apr. 22, 1913. Serial No. 762,885. (Cl. 64—66.)



1. A trolley head including a trolley wheel and fork, clamp nuts having inwardly extending pivots for cooperating with the trolley wheel and having chambers surrounding the said pivots for containing a lubricant.

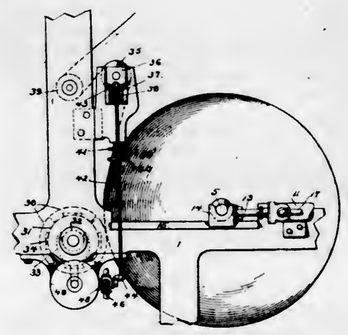
2. A trolley head including a trolley wheel and fork, the latter having offstanding threaded bushings or tubular extensions, clamp nuts adapted to screw upon said threaded bushings and provided with pivots for coöperation with the trolley wheel.

3. In a trolley head, a trolley wheel having journals depressed in their outer ends, and a fork forming bearings for said journals, clamp nuts having screw thread connection with the fork members and provided with inwardly extending pivots adapted to enter the depressions in the outer ends of the trolley wheel journals.

4. In combination, fork sides comprising shanks, and disk shaped portions centrally perforated and having depressions in their inner faces and having opposite sides of the outer portions of the disk shaped parts beveled in opposite directions, means for connecting the fork members, a trolley wheel having journals obtaining bearings in the openings of their outer portions and having its ends fitted into depressions of the said disk shaped parts, and a rod connecting said disk shaped portions adjacent their peripheries.

5. In combination, fork sides comprising shanks, and disk shaped portions centrally perforated and having depressions in their inner faces and having opposite sides of the outer portions of the disk shaped parts beveled in opposite directions, means for connecting the fork members, a trolley wheel having journals obtaining bearings in the openings of their outer portions and having its ends fitted into depressions of the said disk shaped parts, and a rod one terminal of which is threaded into one of said disk shaped portions adjacent its periphery, the other terminal of said rod extending through the other disk shaped portion adjacent its periphery and receiving a nut.

1,093,913. PAPER-ROLL-DRIVING MECHANISM. GEORGE W. CHURCH, Stamford, Conn., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed July 23, 1910. Serial No. 573,540. (Cl. 242—65.)



1. A driving mechanism for paper rolls of printing machines including in combination a roll support, a continuously running driver roll, means including a source of fluid pressure for maintaining the driving engagement between the driver roll and the paper roll as the paper roll decreases in size, and fluid pressure operated means controlled by the web tension for varying the surface speed of the driver roll.

2. A driving mechanism for paper rolls of printing machines including in combination a roll support, an expansible driver roll, means for maintaining driving engagement between the driver and the paper roll as the paper roll decreases in size, a web tension, and means controlled by the tension for varying the size of the driver roll.

3. A driving mechanism for paper rolls of printing machines including in combination a paper roll support, a source of fluid pressure, a continuously running driver roll, connections from the source of fluid pressure whereby the driving engagement is maintained between the driver roll and the paper roll as the paper roll decreases in size, a web tension, and connections between the source

of fluid pressure and the driver roll controlled by the tension for varying the surface speed of said roll.

4. A driving mechanism for paper rolls of printing machines including in combination a roll support, an expansible driver roll, a source of fluid pressure, connections from the source of fluid pressure whereby the driving engagement between the driver roll and the paper roll is maintained as the roll decreases in size, and connections from the source of fluid pressure controlled by the web tension for varying the size of the driver roll.

5. A driving mechanism for paper rolls of printing machines including in combination a roll support, a continuously running expansible sectional driver roll, a source of fluid pressure, connections from said source of fluid pressure for maintaining the driving engagement between the paper roll and the driver roll as the paper roll decreases in size, a controller for varying the position of the sections on the driver roll, a web tension, and connections from the source of fluid pressure controlled by the tension for operating the controller.

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1,093,914. ART OF FORMING JOINTURE MEANS UPON TUBULAR MEMBERS. JAMES CLOSE, Newark, N. J. Filed Aug. 3, 1912. Serial No. 713,066. (Cl. 29—148.)



1. The method of forming jointure means upon a tubular member composed of thin material which consists in piercing the member from the outside without supporting the adjacent material from the inside, thereby producing a lip or bur on the opening thus formed, the axial length of the wall of said opening thus being substantially greater than the original thickness of the material, and then fashioning locking means upon the inner surface of said wall.

2. The method of forming jointure means upon a tubular member composed of thin material which consists in piercing the member from the outside without supporting the adjacent material from the inside, thereby producing a lip or bur on the opening so formed, the axial length of the wall of said opening thus being substantially greater than the original thickness of the material, and then fashioning a screw thread upon said wall.

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1,093,915. TUBULAR FABRIC. HENRY Z. COBB, Winchester, Mass. Original application filed Oct. 18, 1911, Serial No. 655,352. Divided and this application filed Apr. 8, 1912. Serial No. 689,232. (Cl. 28—25.)

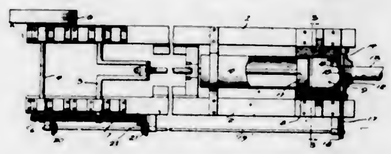


1. A tubular fabric consisting of outer and inner braided webs and parallel longitudinal warp yarns interweshed with and uniting the webs.

2. A multiple tubular fabric consisting of parallel inner and outer braided webs, and parallel longitudinal warp yarns passing back and forth through the fabric and uniting said webs.

3. A multiple tubular fabric consisting of outer and inner braided webs and parallel longitudinal warp yarns passing back and forth through both webs and appearing on the exterior and interior surfaces of the fabric.

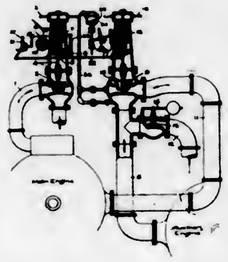
1,093,916. CONCRETE-PUMP. CHARLES A. CORNELL, Hollywood, and SAMUEL E. MCKEE, Los Angeles, Cal. Filed Apr. 9, 1913. Serial No. 759,920. (Cl. 103—75.)



In a concrete pump, a pump head having a chamber leading forwardly and backwardly and upwardly, a pump cylinder connected to the back end of the chamber, a hopper connected to the upper end of the chamber, a wing valve controlling the passage from the hopper to the chamber, a delivery pipe connected to the forward end of the chamber, a gate valve controlling the passage to the delivery pipe, a gear rack upon the gate valve, a piston in the pump cylinder, a crank shaft for operating the piston, and a counter shaft connected to the gate valve rack and intermittently connected to the crank shaft.

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1,093,917. STEAM-CONTROLLING APPARATUS. LUDWIG CUBELIC, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 20, 1912. Serial No. 704,890. (Cl. 121—118.)



1. The combination with a multi-stage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, and means responsive to a drop in the steam pressure in said intermediate stage for stopping the flow of low pressure steam to said stage.

2. The combination with a multi-stage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, a piston responsive to a drop in the steam pressure in said intermediate stage, and a valve controlled by said piston and operating to stop the flow of low pressure steam to said stage.

3. The combination with a multi-stage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, an escape pipe opening from the low pressure steam pipe, a valve controlling said escape pipe, and means for controlling said valve, said means comprising a movable abutment exposed on one side to the pressure of an intermediate stage and operating to cause the valve to open when the pressure in the intermediate stage falls below a predetermined minimum.

4. The combination of a mixed presure main engine, an auxiliary engine, a supply of high pressure fluid for the main engine, valve means controlling such supply, a conduit connecting the exhaust of the auxiliary engine to an intermediate stage of the main engine, valve means in such conduit, an emergency governor which acts on both said valve means to close the same when the speed of the main engine becomes excessive, and means responsive to



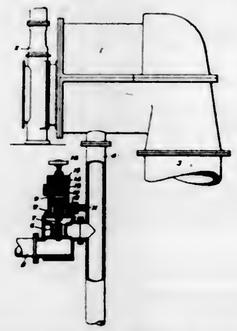
the pressure of the low pressure fluid which acts to shut off the supply thereof when said pressure becomes too low.

5. The combination of a mixed pressure main engine, an auxiliary engine, a supply of high pressure fluid for the main engine, valve means controlling such supply, a conduit connecting the exhaust of the auxiliary engine to an intermediate stage of the main engine, valve means in such conduit, an emergency governor which acts on both said valve means to close the same when the speed of the main engine becomes excessive, means responsive to the pressure of the low pressure fluid which acts to shut off the supply thereof when said pressure becomes too low, a second exhaust conduit, and means controlled by the pressure in said first named conduit for connecting the exhaust of the auxiliary engine to said second exhaust conduit.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,918. REGULATING LOW-PRESSURE TURBINES. LUDWIG CUBELIC, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Sept. 30, 1913. Serial No. 792,586. (Cl. 121—118.)



1. The combination with a multistage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, an escape pipe opening from the low pressure steam pipe, a valve controlling said escape pipe, and a movable abutment connected to said valve and exposed to the pressure in said intermediate stage, such pressure acting on said abutment to hold said valve closed and means for opening said valve when the presure falls too low.

2. The combination with a multistage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, an escape pipe opening from the low pressure steam pipe, a valve controlling said escape pipe, a movable abutment exposed to the pressure in said intermediate stage and acting to hold said valve closed, and an adjustable spring for opening said valve when the stage pressure drops below a predetermined value.

3. The combination with a multi-stage turbine, of a pipe conveying low pressure steam to an intermediate stage thereof, an escape pipe opening from the low pressure steam pipe, a valve controlling said escape pipe, a cylinder, a piston in the cylinder, a valve stem connecting the valve and piston, opposed springs in said cylinder acting on opposite sides of said piston, and means for subjecting one side of said piston to the pressure in said intermediate stage.

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1,093,919. DEVICE FOR TRISECTING ANGLES. CONRAD L. DENNIS, Bucklin, Kans. Filed Oct. 30, 1913. Serial No. 798,279. (Cl. 33—1.)

1. A device of the class described comprising a plate having a pivot point upon which same is adapted to rotate, a bar slidable longitudinally on the plate, and a pair of arms adjustable on said bar, said arms being disposed transversely of the plate, a pin carried on the free end of the arm remote from the pivot point, and a marking material holder carried on the free end of the arm adjacent the pivot point, said pivot point, marking material holder and pin being disposed in a common plane.

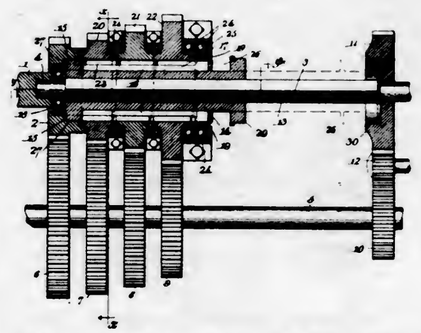


2. A device of the class described comprising a plate having a pivot point upon which same is adapted to rotate, guide members mounted on said plate, a bar slidable in said guide members longitudinally of the plate, a pair of clamps adjustably mounted on said bar, arms carried by said clamps respectively and extending transversely of the plate, a marking material holder and a pin mounted on the free ends of said arms, said marking material holder, pin and pivot point being disposed in a common plane.

3. A device of the class described comprising a plate having a pivot point upon which same is adapted to rotate, a bar slidable longitudinally of the plate, a pair of arms adjustably mounted on said bar and disposed transversely of the plate, a marking material holder and a pin mounted on the free ends of said arms respectively, said marking material holder, pin and pivot point being disposed in a common plane, in combination with a plate having means at each end for securing same against movement to a fixed member and having a slot therein adapted to receive said pin and guide same in a straight line during the rotation of the first named plate.

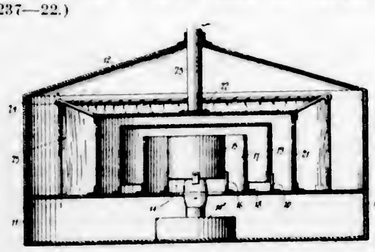
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1,093,920. TRANSMISSION-GEARING. FRANCOIS DEVES, New York, N. Y. Filed Dec. 28, 1911. Serial No. 668,296. (Cl. 74—59.)



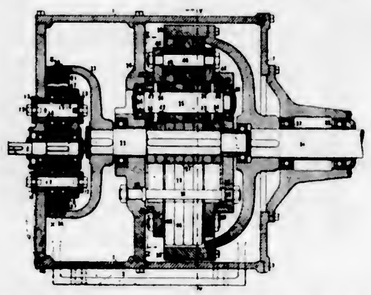
In a transmission gearing a power shaft, a transmission shaft in alinement therewith and having one end journaled in the end of said power shaft, a jack shaft parallel with the first said shafts, a member slidably mounted on said transmission shaft and fixed against relative rotation thereon, a sleeve surrounding said sliding member, said sleeve comprising two similar halves and spacing portions connecting the same at the ends thereof and forming longitudinal grooves between said halves, spacing bearings interposed between the end of said sleeve adjacent said power shaft and the adjacent portion of the transmission shaft, there being lugs on said sliding member extending through said grooves, the opposite end of said sleeve being formed with an outwardly turned flange, an abutment for said flange, a pinion on the end of said power shaft, a plurality of gears loosely mounted on said sleeve between said pinion and said flange and provided with key ways for coöperation with the said lugs on said sliding member, the said pinion and flange forming abutments for said gears, a gear fixed to said jack shaft and meshing with said pinion and a plurality of gears on said jack shaft meshing with the gear on said sleeve, there being a ratchet connection between each of said plurality of gears on said jack shaft and said shaft, substantially as described.

1,093,921. BROODER. MILES DE WITT, White Sulphur Springs, N. Y. Filed July 1, 1911, Serial No. 636,378. Renewed Oct. 7, 1913. Serial No. 793,962. (Cl. 237—22.)



A brooder including a casing having a false bottom in the nature of a diaphragm, a heater on the casing bottom projecting upwardly through an opening in said diaphragm, a cap carried by said diaphragm housing said heater above said diaphragm and having the lower edge spaced from said diaphragm, a cylindrical baffle surrounding and spaced in all directions from said cap and having the lower edge bearing upon and fixed to said diaphragm, the upper edge of said baffle being flush with the top of said cap, an intermediate cap carried by said diaphragm housing and spaced in all directions from said baffle and having the lower edge spaced from said diaphragm, and an outer cap housing and spaced in all directions from said intermediate cap and having the lower edge bearing upon and secured to said diaphragm, there being a vent in said outer cap.

1,093,922. POWER-TRANSMISSION APPARATUS. LUDWIG M. DIETERICH, Mount Vernon, N. Y. Filed May 6, 1911. Serial No. 625,626. (Cl. 74—26.)



1. In an apparatus of the character described, in combination, a driving member, a driven member, and a plurality of sets of coacting rollers for transmitting motion from one to the other.

2. In an apparatus of the character described, in combination, a shaft, a member eccentrically disposed thereto, and surrounding said shaft, and a plurality of sets of roller means adapted to transmit power interposed between said member and said shaft whereby said driven member assumes a different rate of rotation.

3. In an apparatus of the character described, in combination, a shaft, a second shaft eccentrically disposed thereto, a member upon said second shaft about said first shaft, and a plurality of roller means adapted to transmit power interposed between said member and said second shaft, said roller means having springs associated therewith for urging the same to gripping position at all times.

4. In an apparatus of the character described, in combination, a shaft, a member eccentrically disposed thereto, and a plurality of roller means adapted to transmit power interposed between said member and said shaft, said roller means comprising a plurality of rollers, and spring means within said roller means for forcing said rollers into frictional engagement with the driving and driven parts.

5. In an apparatus of the character described, in combination, a shaft, a member eccentrically disposed thereto, and a plurality of sets of roller means adapted to transmit power interposed between said member and said driving shaft, said roller means comprising a plurality of rollers held against rotation about said shaft, and means urging the rollers into frictional engagement with the driving and driven parts.

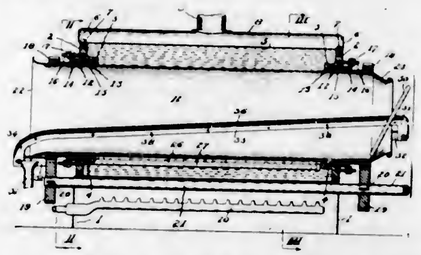
[Claims 6 to 40 not printed in the Gazette.]

1,093,923. PROCESS OF PREPARING RUBBER FROM HYDROCARBONS. RICHARD B. EARLE, Boston, Mass., assignor to Hood Rubber Company, Boston, Mass., a Corporation. Filed Nov. 12, 1910. Serial No. 592,098. (Cl. 23—24.)

1. The herein described method of producing artificial rubber which consists in saturating a hydrocarbon of the homologous series of which 1.3-butadien is the lowest member with ammonia gas and subjecting the same to heat and pressure.

2. The hereinbefore described method of producing artificial rubber which consists in saturating isoprene with dry ammonia gas and subjecting the same to heat and pressure, substantially as described.

1,093,924. PASTEURIZING-MACHINE. GUSTAV A. FISCHER, Cleveland, Ohio. Filed Nov. 30, 1912. Serial No. 734,259. (Cl. 31—91.)



1. In a machine of the character described the combination of a cylinder provided at each end with an opening, distinct means for rotating and heating said cylinder, means for supplying the fluid to be treated to the interior of said cylinder, and a wiper projecting into said cylinder and having inclined lineal contact therewith.

2. In a machine of the character described the combination of a cylinder having open ends, distinct means for rotating and heating said cylinder, means for supplying the fluid to be treated to the interior of said cylinder, and a stationary wiper extending through said cylinder and contacting the lower downwardly moving quadrant thereof.

3. In a machine of the character described the combination of a substantially horizontal cylinder having open ends, one such end tapering and the other being flared, distinct means for rotating and heating said cylinder, a member extending between opposite ends, and a wiper removably secured to said member and adapted to contact said cylinder.

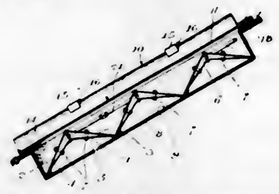
4. In a machine of the character described the combination of a cylinder provided at opposite ends respectively with an inlet and an outlet opening, distinct means for rotating and heating said cylinder, and a wiper projecting through and contacting the interior surface of the latter, said wiper being downwardly inclined away from said inlet.

5. In a machine of the character described the combination of a substantially horizontal cylinder having opposite end openings, means for rotating said cylinder, a water container surrounding said cylinder intermediately of its ends, and means for heating the water in said container.

[Claims 6 and 7 not printed in the Gazette.]



1,093,925. SOLAR HEATER. HARRY L. FORESMAN, San Dimas, Cal. Filed May 17, 1913. Serial No. 768,348. (Cl. 126—271.)



1. In a solar heater, a heating unit comprising a sheet metal upper member bent to form two surfaces extending at an angle to one another, in the form of an inverted V, and a sheet-metal lower member bent to form two lower surfaces extending in the form of an inverted V within the V-shaped upper member, end portions connecting said upper and lower members and forming therewith a closed chamber, and inlet and outlet means in said end portions.

2. In a solar heater, a heating unit comprising two outer plates at an angle to each other, two inner plates at an angle to each other and separated from the outer plates to form a receptacle for water, means for the inlet and discharge of water, and U-shaped wires extending through said plates, the inner ends of the wires being bent to brace the plates, said wires also acting to conduct heat to the water within the unit.

3. In a solar heater, a series of heating units, each unit comprising a shallow box with its outer exposed surface in two planes at an angle to each other, a box inclosing said unit, a cover for said box comprising transverse supporting bars with horizontal flanges, glass plates resting on said flanges, and retaining bars with V-cross sections nesting on said supporting bars and retaining said glass plates.

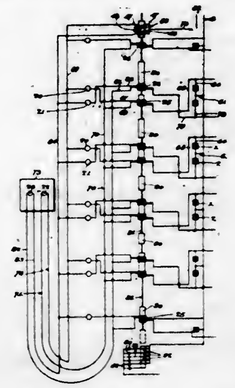
4. In a solar heater, a series of heating units, each unit comprising a shallow box with its outer exposed surface in two planes at an angle to each other, a box inclosing said unit, a cover for said box comprising transverse supporting bars with horizontal flanges, glass plates resting on said flanges, retaining bars with V-cross sections nesting on said supporting bars and retaining said glass plates, and hooks on the supporting bars projecting up through slots in the retaining, bars and being bent over the retaining bars to secure them in position.

5. In a solar heater, a series of heating units, each unit comprising a shallow box with its outer exposed surface in two planes at an angle to each other, a box inclosing said unit, a cover for said box comprising transverse supporting bars with horizontal flanges, glass plates resting on said flanges, retaining bars with V-cross sections nesting on said supporting bars and retaining said glass plates, said box having flanges, and a frame with its edge portions folded over said box flanges, said frame also being folded over the outer glass edges.

1,093,926. SIGNALING SYSTEM. ROBERT H. GAYLORD, Pasadena, and GUY B. CAPPS, Los Angeles, Cal., assignors to Foulkes-Gaylord Company, Los Angeles, Cal., a Corporation of California. Filed Apr. 28, 1913. Serial No. 764,274. (Cl. 177—336.)

1. In a signaling system for elevators, the combination of a plurality of signals, an alternating current supply connection for said signals, circuit connections from said alternating current supply connection to each of said signals, each of said circuit connections including a coil, and core means connected to move in correspondence with the movement of the elevator car and moving successively in inductive relation with respect to the respective coils aforesaid so as to control the reactance of the signal circuits successively in the movement of the elevator car.

2. Signaling means for indicating the position of a moving car comprising a plurality of electric signals, an alternating current circuit, branches from said circuit to the respective signals, each branch including a coil, and core means connected to move in correspondence with the movement of said car and movable into and through the respective coils aforesaid to change the reactance thereof.



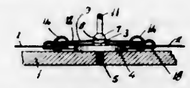
3. An elevator signaling system comprising a plurality of signals corresponding to different floors, alternating current circuit connections for said signals, coils in said circuit connections, and core means for said coils connected to move in correspondence with the movement of the elevator car and operated thereby to move into and out of said coils to control the signals.

4. An elevator signaling system comprising a plurality of signals corresponding to different floors, alternating current circuit connections for said signals, coils in said circuit connections, a cable connected to move in correspondence with the movement of the elevator car and core means for said coils supported by said cable and operated thereby to move the core means into and out of said coils to control the signals.

5. An elevator signaling system comprising a plurality of signals corresponding to different floors, alternating current circuit connections for said signals, coils in said circuit connections, a suspending means connected to move in correspondence to the movement of the elevator car and cores for said coils adjustably mounted on said suspending means and operated thereby to move the cores into and out of said coils to control the signals.

[Claims 6 to 13 not printed in the Gazette.]

1,093,927. CURTAIN-FASTENER. JOSEPH HAAS, Jr., Newport, Ky. Filed Aug. 19, 1911. Serial No. 645,045. (Cl. 24—211.)



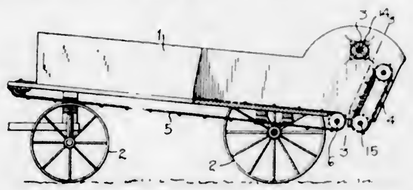
1. In a curtain fastener, the combination with a fixed button stud having a laterally extending head and adapted to be secured to the frame, of a turn button fastener adapted to be secured to the curtain, comprising an upper and a lower fixed plate with a rotatable plate mounted between the fixed plates, the rotatable plate provided with an opening to allow the passage of the head of the stud when in one position, and to lock under the head of the stud in another position, the rotatable plate formed of resilient sheet metal bent transversely to maintain a spring pressure between the upper and lower fixed plates, and provided with raised portions to engage correspondingly depressed portions in the fixed plate to lock the rotatable plate in open and closed positions.

2. In a curtain fastener, the combination with a fixed button stud and adapted to be secured to the frame hav-

ing a laterally extending head, of a turn button fastener adapted to be secured to the curtain, comprising an upper and a lower fixed plate with a spring plate rotatably mounted between the two fixed plates, said spring plate having an opening to allow the passage of the head of the stud in one position and to lock thereunder in another position, with a finger hold comprising a semi-circular loop extending upwardly from the rotatable plate to rotate the same, the rotatable plate and one of the fixed plates having correspondingly raised and depressed portions to lock the rotatable plate in open and closed positions with said rotatable plate bent transversely to maintain spring pressure between the rotatable plate and the fixed plate.

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1,093,928. FERTILIZER-DISTRIBUTER. JOHN T. HAGEMAN, Ottawa, Ohio. Filed Aug. 11, 1913. Serial No. 784,139. (Cl. 111—40.)

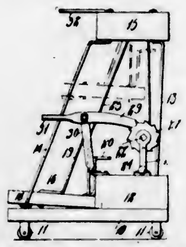


1. In a fertilizer distributer, the combination with a body for holding fertilizing material, and means for advancing the material therein toward one end of the same; of a distributing cylinder mounted for rotation in the last mentioned end of the body at the upper portion thereof, and an endless conveyer arranged in the last mentioned end of the body below said cylinder and beyond the same for conveying material upwardly in said cylinder to be distributed therefrom.

2. In a fertilizer distributer, the combination with a body for holding fertilizing material, and means for advancing the material therein toward one end of the same; of a distributing cylinder mounted for rotation in the last mentioned end of the body at the upper portion thereof, and an endless conveyer arranged on an inclination in the last mentioned end of the body, the lower end of said conveyer terminating in the plane of the advancing means for the material in the body and the upper end of said conveyer terminating in planes beyond and below said cylinder whereby the material advanced in the body may be conveyed to said cylinder to be distributed therefrom.

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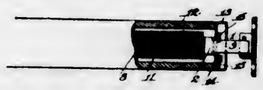
1,093,929. ELEVATOR. ALBERT HANKEY, Galloway, Wis., assignor of one-half to Edward Nelson, Galloway, Wis. Filed July 11, 1913. Serial No. 778,539. (Cl. 187—11.)



An elevator including a base, a frame rising from said base and comprising spaced side members, each side member including upper and lower blocks, a rear vertical member connecting both blocks, a front upwardly and rearwardly inclined member connected to the base and to the upper block, means for preventing displacement of said side members comprising a single horizontally disposed outwardly bowed bar terminally connected to the upper blocks of the side members, a platform between said side members, eyes carried by said platform and engaging said front members of said frame, a windlass carried by the lower blocks of said frame in rear of said elevator, sheaves carried by the upper blocks of said frame above said windlass, and cables connected to said windlass trained through said sheaves and connected to said platform near the rear edge thereof.

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1,093,930. SPEAR FOR SPRING SHADE-ROLLERS. EDMUND F. HARTSHORN, Newark, N. J., assignor to Stewart Hartshorn Company, East Newark, N. J., a Corporation of New Jersey. Filed July 1, 1912. Serial No. 706,879. (Cl. 156—36.)



1. A spear for a spring shade roller, of substantially rectangular cross-section throughout its length and having a long flat tip of the same cross-section throughout, said tip being adapted for engagement with the pawls, and also with the supporting bracket.

2. A spear for a spring shade roller, of substantially rectangular cross-section throughout its length, with a long flat tip, of the same cross-section throughout, said tip being adapted for engagement with the pawls and also with the supporting bracket, and means for engaging the spear with the spindle.

3. A spear for a spring shade roller, of substantially rectangular cross-section throughout its length with a tip, of the same cross-section throughout its length, said tip being sufficiently long to be engaged by the pawls and also engaged by the supporting bracket.

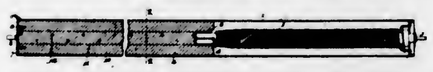
4. A spear for a spring shade roller, of substantially rectangular cross-section throughout its length, with a portion adapted to engage with the spindle, also having a tip, said tip being of uniform cross-section throughout its length and having a portion which is adapted to engage with the pawls, and a portion which is adapted to engage with the supporting bracket.

5. A spear for a spring shade roller, of substantially rectangular cross-section throughout its length and having a long flat tip of uniform cross-section throughout, said tip being adapted for engagement with the pawls, and also with the supporting bracket, said spear having legs which straddle the spindle and engage with it.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,931. SHADE-ROLLER. EDMUND F. HARTSHORN, Newark, N. J., assignor to Stewart Hartshorn Company, East Newark, N. J., a Corporation of New Jersey. Filed July 1, 1912. Serial No. 706,880. (Cl. 156—36.)



1. A spring shade roller having a sheet metal shell of the length of the roller, a spindle within the shell, a skeleton core extending through the greater part of the length of the shell, said core carrying a bearing for the spindle.

2. A spring shade roller having a sheet metal shell of the length of the roller, a spindle having a bearing in one end of the shell, a reinforced skeleton core extending from the spindle to the other end of the shell, said spindle having a bearing in the core.

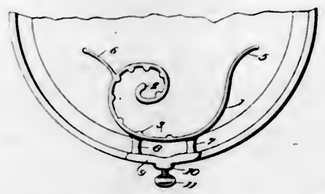
3. A spring shade roller having a sheet metal shell of the length of the roller, a spindle having a bearing in one end of the shell, a reinforcing skeleton core within the shell, said core being formed of strips of wood secured together in such a manner as to present numerous points of contact extending longitudinally of the shell, and a bearing for the spindle in the core.



4. A spring shade roller having a sheet metal shell of the length of the roller, a spindle within the shell, a core contacting with the shell at diametrical intervals, the points of contact extending longitudinally of the shell, said core carrying a bearing for the spindle.

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1,093,932. MOP-WRINGER. HOWARD T. INGHRAM, Fairfield, Iowa. Filed Jan. 30, 1912. Serial No. 674,410. (Cl. 15—12.)



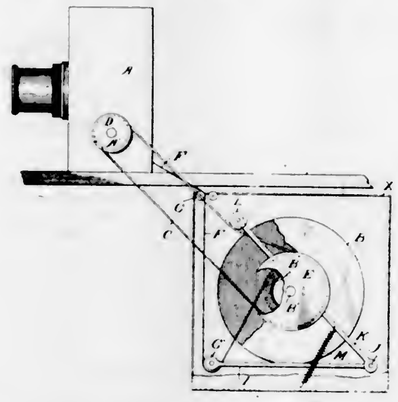
1. A wringer comprising a body which is spiral in plan, said body having upon its inner side spaced ribs and at its lower edge spaced notches.

2. A wringer including a body which is spiral in plan, said wringer having upon its inner side ribs and being provided at its lower edge with notches formed one between each pair of adjacent ribs.

3. A wringer including a vertically disposed wall of spiral configuration extended at its free end to form a guide curving away from the spiral, said wall being provided intermediate its length with an outwardly curved guide extending in the opposite direction to the first, the inner face of the wall of the spiral being provided throughout its entire length with spaced apart vertically formed ribs, while the bottom edge of the said wall is notched to provide a downwardly directed tooth at the base of each rib, a clamp arm formed integrally with said wall at its juncture with the first mentioned guide, and a set screw operating in said clamp arm.

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1,093,933. FILM-WINDING DEVICE. CHARLES FRANCIS JENKINS, Washington, D. C. Filed May 22, 1911. Serial No. 628,841. (Cl. 88—17.)

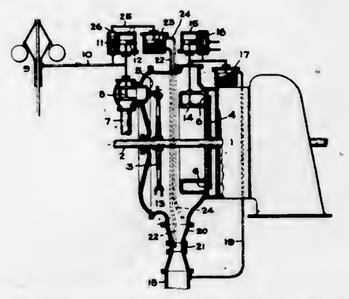


1. The combination with a closed casing, of a film drum mounted in the casing with its shaft projecting therefrom and bearing an external driving pulley, a belt driving said pulley, a rock-shaft parallel to the drum's axis mounted in and projecting from the casing, a rigid arm fixed to the rock-shaft without the casing and provided with a roller normally deflecting one fold of the driving belt, and a rigid arm fixed to the rock-shaft within the casing and bearing at its free end a roller parallel to the rock-shaft in position, normally, for deflecting the film passing to the drum.

2. The combination with a film delivery device having a rotary shaft bearing a pulley, of a closed casing or film magazine, a film drum mounted in the casing upon a rotary shaft projecting from the latter, a pulley mounted upon the projecting portion of the drum shaft, a belt operatively connecting the two pulleys, a rock-shaft mounted in the casing and parallel to the drum, an internal arm extending from the rock-shaft across the casing to a point below and at one side of the vertical plane of the drum, an external arm projecting from the rock shaft to a point alongside said belt, a roller, parallel to the drum, mounted on the free end of the internal arm, a pulley mounted on the free end of the external arm and normally resting upon the belt, a film guide mounted in the top of the casing directly above the roller, and a spring resisting swinging of the arms under tension of the film upon said roller.

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1,093,934. TAPPED TURBINE. HERMANN JOOS, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 8, 1912. Serial No. 730,217. (Cl. 121—118.)



1. The combination with a turbine, of a regulator therefor, a speed governor for controlling the regulator, a conduit for drawing off motive fluid for industrial purposes, and means responsive to a change in the rate of flow of the fluid passing through the conduit for modifying the action of the regulator.

2. The combination with a turbine, of a regulator therefor, a speed governor for controlling the regulator, a conduit for drawing off motive fluid for industrial purposes, and means responsive to a change in the rate of flow of the fluid passing through the conduit for causing the regulator to admit more fluid to the turbine as the rate of flow through the conduit increases and causing the regulator to admit less fluid to the turbine as the rate of flow decreases, said means acting independently of the governor.

3. The combination with a turbine having a high pressure regulator controlled by a speed governor, of a conduit for drawing off steam for industrial purposes, means responsive to changes in the rate of flow in said conduit for exerting an additional governing effect upon said regulator, and independent means responsive to pressure changes of the steam drawn off through said conduit for additionally controlling the passage of steam through the turbine.

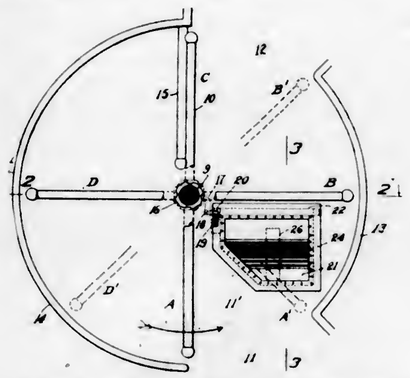
4. The combination with a turbine having a high pressure regulator, of a motor for actuating the same, a speed governor connected to the pilot valve of said motor, a conduit for drawing off steam for industrial purposes, and means responsive to changes in the rate of flow in said conduit for exerting an additional control of said motor.

5. The combination with a turbine having a high pressure throttle valve, of a motor for actuating said valve, a pilot valve for said motor, a regulating sleeve inclosing

said pilot valve, a speed governor connected to said pilot valve, a conduit for drawing off steam for industrial purposes, and means responsive to the rate of flow in said conduit for shifting said regulating sleeve.

[Claims 6 to 8 not printed in the Gazette.]

1,093,935. SAFETY DEVICE FOR TURNSTILES. EVERETT E. KENT, Newton, Mass. Filed June 4, 1913. Serial No. 771,585. (Cl. 39—99.)



1. A safety device for a turnstile comprising the combination, with the turnstile, of ratchet and pawl mechanism having tooth-abutments for preventing rotation in forward direction; higher abutments, facing oppositely, for preventing rotation in backward direction; and means positioned to be actuated by a person passing through to release the lower abutments without releasing the higher.

2. A safety device for a turnstile comprising the combination, with the turnstile, of ratchet and pawl mechanism having teeth facing in two directions and adapted to prevent rotation of the turnstile in either direction beyond points predetermined thereby; and means, engaged automatically by a person passing through, to release the teeth opposing his passage, leaving the others locked.

3. A safety device for a turnstile comprising the combination, with the turnstile, of means automatically stopping rotation of the turnstile in either direction at positions predetermined as being safe; and releasing means for rotation in one direction positioned in the path of and adapted to be actuated by a person entering the turnstile.

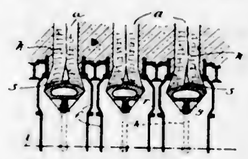
4. A safety device for a turnstile comprising the combination, with the turnstile, of means automatically preventing rotation of the turnstile arms across the turnstile entrance; and releasing means actuated automatically by a person passing through the turnstile and restricted by location so as to be actuated by such person only when he has passed the entrance.

5. A safety device for a turnstile comprising the combination, with the turnstile, of means automatically preventing rotation of the turnstile arms beyond predetermined positions; releasing means adapted to be actuated by contact of a person passing through, the passage through the turnstile being divided into predetermined areas of safety, and of danger, and said releasing means being arranged for operative contact of the person therewith only in the predetermined safe area.

1,093,936. APPARATUS FOR DISCHARGING VERTICAL RETORTS. HEINRICH KOPPERS, Essen-on-the-Ruhr, Germany, assignor to H. Koppers Company, Chicago, Ill., a Corporation. Filed July 28, 1913. Serial No. 781,464. (Cl. 202—5.)

1. Apparatus for discharging retorts of coke ovens comprising means for splitting the coke cake, and means for imparting a to and fro movement to said splitting means.

2. Apparatus for discharging retorts of coke ovens, comprising means for splitting the coke cake substantially along its central vertical plane to subdivide the cake into two sections, and means for moving the splitting means alternately against one and the other of said sections.



3. Apparatus for discharging retorts of coke ovens, comprising a water cooled hollow device for splitting the coke cake substantially along its central vertical plane, and means for oscillating said device.

4. A coke oven provided with a plurality of coking chambers, coke cake-splitting members located at the bottom of said chambers, and means for simultaneously imparting a to and fro movement to said members.

1,093,937. SKYLIGHT AND GREENHOUSE BAR. DANIEL KRAFT, Oyster Bay, N. Y. Filed Sept. 26, 1913. Serial No. 791,887. (Cl. 108—16.)



A greenhouse or similar structure embodying metallic rafters or bars composed of T beams the upper surface whereof is hollowed, a wooden bar attached to the longitudinal center of each T beam by nails driven through openings in the beam and entering the wooden bar, sealing material placed in the hollowed upper surface of the beam by the sides of the wooden bar, glass plates supported at their edges upon the sealing material and nails driven into the wooden bar outside the glass to hold it in position.

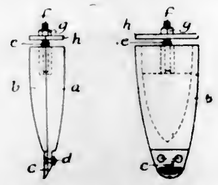
1,093,938. TRANSPORTABLE POTATO-HOLE-DIGGING MACHINE. GUSTAV KRATZMANN, Barsbüttel, Altrahlstedt, Germany. Filed July 28, 1913. Serial No. 781,558. (Cl. 55—67.)

1. Improved transportable potato-plant-hole digging machine comprising, in combination with the rim of one of the wheels, interchangeable and adjustable digging implements, which are radially adjustable in regard to the wheel, substantially as and for the purposes set forth.

2. Improved transportable potato-plant-hole digging machine, which comprises in combination with one of the wheels interchangeable and adjustable digging implements, said digging implements consisting of bi-convex bodies of larger convexity at the front than at the rear, substantially as and for the purposes set forth.



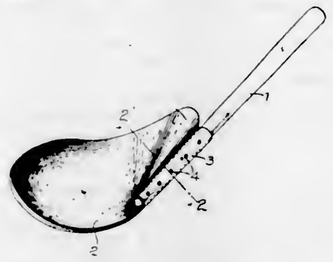




3. Improved transportable potato-plant-hole digging machine, which comprises, in combination with one of the wheels, interchangeable and adjustable digging implements of bi-convex shape, a shovel blade being attached at the tip of the digging implements, substantially as and for the purposes set forth.

4. Improved transportable potato-plant-hole digging machine, which comprises, in combination with one of the wheels, interchangeable and adjustable digging implements of bi-convex shape, a shovel blade being attached at the tip of the digging implements, said shovel blade registering flush with the rear surface and with the marginal edge of the digging implements, substantially as and for the purposes set forth.

1,093,939. DIAPER-CLEANER. NIXON LANGTON, Clare, La. Filed May 26, 1913. Serial No. 769,956. (Cl. 65—12.)

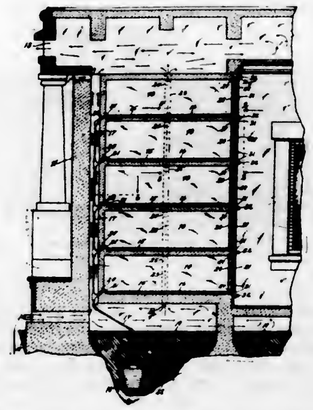


1. A device of the character described comprising a substantially rectangular plate curled at one edge to form a tube, said plate being curved adjacent said tube to form a longitudinally extending upstanding rib, and a handle mounted in one end of said tube, as and for the purpose described.

2. A device of the character described comprising a substantially rectangular plate curled at one edge to form a tube, a handle mounted at one end in said tube, said plate being curved adjacent said tube to form a longitudinally extending upstanding rib, said plate being also curved longitudinally and transversely, as and for the purpose described.

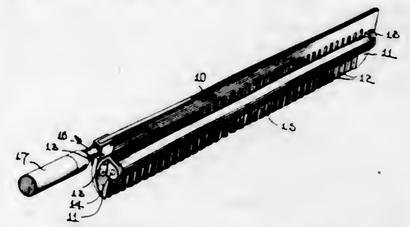
1,093,940. PLURAL-CRYPT STRUCTURE. CHARLES H. LELAND and HERBERT S. WEBBER, Los Angeles, Cal. Filed Oct. 13, 1913. Serial No. 795,025. (Cl. 72—7.)

The herein-described plural crypt structure, comprising a tier of crypts open at the front end thereof and each having air inlet and outlet passageways, said crypts each having the bottom thereof sloping downwardly from front to rear and provided with a plurality of standards and air drying material disposed between the standards, screens on



the standards, removable plugs in said passageways, and means for closing the front end of the crypts.

1,093,941. COMB. EDWARD C. LURCH, New York, N. Y. Filed Feb. 27, 1913. Serial No. 751,084. (Cl. 132—3.)



1. The combination with a hair comb, of a roll revolubly mounted on the comb and extending along the side thereof.

2. The combination with a hair comb provided with teeth, of a smooth surfaced roll revolubly mounted on said comb extending longitudinally along the side thereof and intermediate of the space occupied by said teeth.

3. The combination with a hair comb having a back and teeth, of rolls revolubly mounted on opposite sides of said teeth extending over the space thereby occupied and spaced equally from the back.

4. The combination with a hair comb provided with a back, and teeth, and intermediate teeth; of journal brackets carried by said end teeth, and a roller provided with journals rotatably mounted in said brackets.

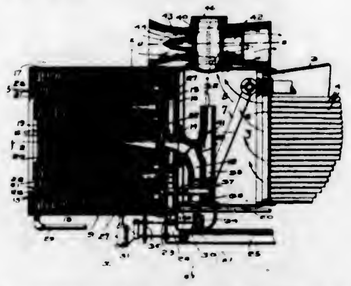
1,093,942. CONDENSER FOR LOCOMOTIVES. JAMES M. MCCLELLON, Everett, Mass. Filed Feb. 14, 1908. Serial No. 415,826. (Cl. 62—27.)

1. The combination with a locomotive boiler, of an open-ended casing extending forwardly beyond the smoke chamber, condensing pipes within said casing, means to admit the exhaust steam into said pipes and means within the casing to deflect air currents across said pipes.

2. The combination with a locomotive boiler, of a condenser situated in front thereof, said condenser comprising a plurality of pipes through which the steam is exhausted, and deflectors within the casing to deflect air currents against said pipes.

3. The combination with a locomotive boiler, of a condenser comprising an open-ended casing extending forwardly from said boiler, concentrically-arranged condens-

ing pipes within said casing, means to admit the exhaust steam to said pipes, and deflectors to deflect air currents across said pipes.



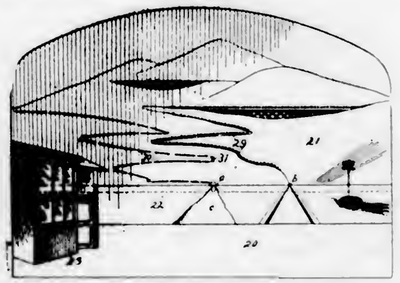
4. The combination with a locomotive boiler, of an open-ended casing extending forwardly therefrom, a plurality of sets of concentrically-arranged condensing pipes within said casing, means to admit the exhaust steam to said pipes, and means to deflect air currents across said pipes.

5. The combination with a locomotive boiler, of an open-ended casing extending forwardly therefrom, two upper headers and two lower headers extending longitudinally of the casing, pipes connecting said upper and lower headers, and means to admit the exhaust steam to said pipes.

[Claims 6 to 10 not printed in the Gazette.]

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1,093,943. APPARATUS FOR PRODUCING SCENIC EFFECTS. LANGDON MCCORMICK, New York, N. Y., assignor to Thurston-McCormick Co. Inc., New York, N. Y., a Corporation of New York. Filed Feb. 10, 1913. Serial No. 747,310. (Cl. 46—70.)



1. In an apparatus for producing stage illusions the combination of a curtain having lines of apertures therethrough adapted to be illuminated in succession thereby giving the effect of a moving object.

2. In an apparatus for producing stage illusions, the combination of a curtain having a line of apertures therethrough having gradually increased areas, adapted to be illuminated in succession, thereby giving the effect of a moving object.

3. In an apparatus for producing stage illusions the combination of curtain formed in sections, and having a line of apertures therethrough gradually increasing in area, adapted to be illuminated in succession, thereby giving the effect of an approaching vehicle, a movable frame having the appearance of such vehicle arranged behind the curtain and means for shifting such curtain to permit of the forward movement of the frame in the direction indicated by the light passing through the apertures.

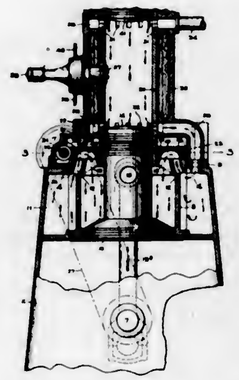
4. In an apparatus for producing stage illusions, a movable frame having the external appearance of a vehicle in combination with means for so shifting some distinctive portion as to give the effect of the movement of such vehicle toward the audience.

5. In an apparatus for producing stage illusions, the combination of a movable frame having the external appearance of a vehicle, means for so shifting the position and size of some distinctive part of the vehicle as to give the effect of the approach of such vehicle.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,944. INTERNAL-COMBUSTION ENGINE. ALFRED G. MORETON, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Dec. 30, 1912. Serial No. 739,182. (Cl. 123—51.)



1. In an internal combustion engine, the combination of a working cylinder, a scavenging pump cylinder, pistons for said cylinders, an air receiver for the pump, an annular valve seat formed on the head of said pump cylinder and having ports therein, an annular rotary valve having ports coöperating with the first named ports for admitting air to the pump cylinder and conveying compressed air from the pump cylinder to the receiver, means for rotating the valve, and scavenging ports in the working cylinder which communicate with the receiver and are controlled by the working piston.

2. In an internal combustion engine, the combination of a working cylinder, a scavenging pump cylinder, pistons for said cylinders, an air receiver for the pump, a flat ring valve having inlet ports and also discharge ports, a seat for the valve formed on the head of said pump cylinder and having sets of ports in circular arrangement that are adapted to register with the valve ports, means for slowly rotating the valve, and free passages leading from the receiver and terminating in ports in the working cylinder which are controlled by the working piston.

3. In an internal combustion engine, the combination of a base, a receiver supported thereby, working and pump cylinders also supported by the base, pistons therefor which are mechanically united, said working cylinder having scavenging and exhaust ports therein, a ring valve which surrounds one of the cylinders and controls the passage of air to the pump cylinder and from the pump cylinder to the receiver, means for slowly turning the valve, and passages conveying air from the receiver to said scavenging ports.

4. In an internal combustion engine, the combination of a base, a cylinder supported thereby and terminating at one end in a flat seat, an air receiver formed between the outer wall of the cylinder and walls of said base, said flat seat having sets of ports formed therein for supplying air to the cylinder and from the cylinder to said receiver, a rotary valve which is provided with sets of ports adapted to register with the ports in said seat for controlling the air supply, means for rotating the valve to cause its ports to successively register with those in the seat, a working cylinder which is supported by the base, and is provided with scavenging ports, a piston therefor controlling the ports, and passages conveying air from the receiver to the scavenging ports.

5. In an internal combustion engine, the combination of a base, working and pump cylinders supported thereby, a ported ring valve that controls the admission of free air to the pump cylinder, and the passage of compressed air therefrom, a receiver for the compressed air, a means for guiding the valve and holding it central with respect to the axis of the cylinders, means for continuously rotating the valve, and means for conveying air from the receiver to the working cylinders.

[Claims 6 to 12 not printed in the Gazette.]



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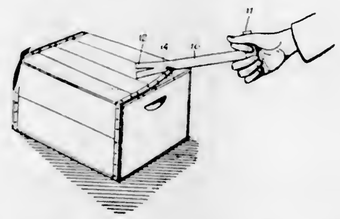
1,093,945. HOOK. CHARLES J. OHLSSON, New York, N. Y. Filed Dec. 22, 1910. Serial No. 598,774. (Cl. 24—239.)



A hook composed of a single piece of wire having an eye member formed at one end thereof, and a hook member formed at its other end, a pair of movable flat locking plates carried by and loosely arranged upon said hook intermediate said eye and hook member, one of said plates being provided with a longitudinal slot adapted to receive the upper end of said shank and the free end of said eye and the other of said plates provided with a circular opening adjacent to each of its ends one opening adapted to receive the shank of said hook and the other opening adapted to embrace the extremity of the hook member, a coil spring disposed upon the shank of said hook intermediate of and adapted to contact with said locking plates to simultaneously maintain the plates in their respective position upon said hook, and an integral stop arranged upon the outer side of said hook member adapted to limit the downward movement of said last named plate upon said hook, substantially as specified.

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1,093,946. BOX-OPENER. ARTHUR I. PLATT, Bridgeport, Conn., assignor to The Bridgeport Hardware Manufacturing Corporation, Bridgeport, Conn., a Corporation of Connecticut. Filed July 15, 1913. Serial No. 779,147. (Cl. 145—21.)



An implement of the character described comprising a shank having in its otherwise substantially continuous edge a forwardly inclined notch forming at its forward side an acute angle with said edge and providing a rearwardly inclined horn beveled on its inner side toward one face of the shank and forming a point in substantial alinement with the edge of said shank.

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1,093,947. UNIT AND PROCESS OF MAKING THE SAME. MERRIT H. RICE, New Rochelle, N. Y., assignor to National Electric Utilities Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 1, 1913. Serial No. 792,724. (Cl. 219—75.)



1. A unit for electric stoves and the like, comprising a resistance element having an air-tight cementitious coating, and a high temperature-melting electric insulating material fused to said coating.

2. A unit for electric stoves and the like, comprising a resistance element having an air-tight covering of cementitious material, an electric insulating and heat conducting material fused to said coating, and a protective covering for said material.

3. A unit for electric stoves and the like, comprising a resistance element having a coating of cementitious material containing asbestos, a high temperature-melting electric insulating material fused to said coating, and a protective covering for said material.

4. The process of making an electric heating unit, which comprises locating a resistance element in sufficient fusible insulating material contained in a protective casing to fill said casing and heating the said material to fuse it to the element.

5. The process of making an electric heating unit, which comprises coating an element with an air-tight cementitious covering, locating such element in fusible insulating material contained in a protective casing and heating the said material to fuse it to the element.

[Claims 6 to 14 not printed in the Gazette.]

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1,093,948. PHOTOGRAPHIC PROCESS OF MAKING PRINTS IN NATURAL COLORS. RUDOLF RUTH, Mortsell, near Antwerp, Belgium. Original application filed Nov. 4, 1909, Serial No. 526,228. Divided and this application filed Apr. 5, 1913. Serial No. 759,013. (Cl. 95—2.)



1. The process of making prints in natural colors which comprises making a positive through a Joly-McDonough screen, exposing through said positive a superposed film which is developed by the bichromate process and which has a Joly-McDonough screen formed upon or within it, developing said film, and transferring said superposed film and positive to paper.

2. The process of making prints in natural colors which comprises making a positive through a Joly-McDonough screen, exposing through said positive a superposed film which is developable by the bichromate process and which has a Joly-McDonough screen formed upon or within it, developing said film, and transferring said superposed film and positive, film side up, to paper.

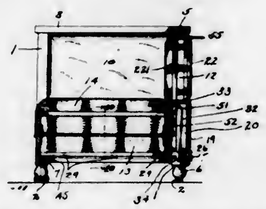
3. The process of making prints in natural colors which comprises making a positive through a Joly-McDonough screen, exposing through said positive a superposed gelatin film, and which has a Joly-McDonough screen formed upon or within it, developing said film, and transferring said superposed film and positive to paper.

4. In the process of making prints in natural colors, the sequence of operations which consists in exposing through a positive a superposed film developable by the bichromate process and having a Joly-McDonough screen formed upon or within it, developing said film, and transferring said superposed film and positive to paper.

5. The process of making prints in natural colors which comprises providing a plate embodying a pellucid support,

a sensitive emulsion and a film which may be sensitized by a bichromate solution, said film being between said support and said emulsion, and being further provided with a Joly-McDonough screen, converting said emulsion into a positive by exposure through said screen and subsequent development, stripping said film and said positive as a whole from the support, sensitizing and exposing said film through said positive and then developing the same, and finally transferring said film and diapositive, film side up, to paper.

1,093,949. DAVENPORT-BED. THEODORE B. SCHULTE, Cleveland, Ohio. Filed July 29, 1911. Serial No. 641,281. (Cl. 5—48.)



1. In a device of the character indicated, a main frame, a mattress section pivotally supported at its rear end at the rear end of said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section and means for counterbalancing said section comprising a pair of bow springs, each bow spring being secured at one end to the rear of the main frame, and a coil spring secured at one end to the free end of each bow spring and at its other end to the rear end of the mattress section.

2. In a device of the character indicated, a main frame, a mattress section pivotally supported at its rear end at the rear end of said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section and means for counterbalancing said section comprising a pair of bow springs, each bow spring being secured at one end to the rear of the main frame, a coil spring secured at one end to the free end of each bow spring and at its other end to the rear end of the mattress section and a block having an inclined face mounted on the main frame between the main frame and each bow spring at a point intermediate of the ends of said bow springs.

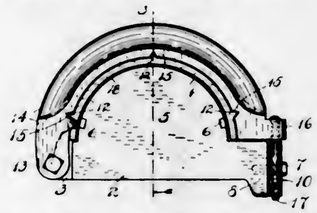
3. In a device of the character indicated, a main frame and a mattress section pivotally supported at its rear end at the rear end of said main frame and capable of being raised to a vertical position to form a seat back or lowered to a horizontal position to form a bed section, said mattress section being upholstered on both sides from a point intermediate of the front and rear ends to the front end and having a compartment extending from the upholstered portion to the rear end thereof.

4. In a device of the character indicated, the combination of a main frame, a mattress section pivotally supported at its rear end at the rear of said main frame and capable of occupying either a vertical or a horizontal position in said main frame, counterbalancing springs secured to the rear end of said pivoted section and to the main frame and adapted to normally hold the pivoted section in a position intermediate its horizontal position and its vertical position, a mattress section arranged horizontally at the bottom of said main frame and slidable therein, means for operatively connecting the slidable section and pivoted section so that the forward movement of the slidable section will draw down the pivoted section and the backward movement of the slidable section will swing up the pivoted section and means for locking the pivoted section in its lower position.

5. In a device of the character indicated, the combination of a main frame, a mattress section pivotally supported at its rear end at the rear of said main frame, counterbalancing means connected to the rear end of said pivoted section and adapted to hold said section in a position intermediate its vertical position and its horizontal position, a mattress section slidably mounted in the bottom of said frame and means for locking the two sections together when the pivoted section is in a horizontal position consisting of a pair of tongues secured to one section and a pair of grooves formed in the frame of the other section and adapted to receive the said tongues.

[Claims 6 to 8 not printed in the Gazette.]

1,093,950. GUTTER-END-FORMING CLAMP. WILLIAM B. SHOEMAKER, Galesburg, Ill., assignor of one-half to Gustave Wenzelmann, Galesburg, Ill. Filed May 31, 1912. Serial No. 700,757. (Cl. 153—10.)



1. A gutter-end-former comprising a base providing a ledge upon which one end of the gutter is adapted to stand, and having a semicircularly faced portion rising perpendicularly therefrom and adapted to receive the concave of the gutter, the last recited portion having a less cross-sectional area than said flange and their upper faces parallel, a binding segment adapted to seat on said flange and its face to oppose said semicircular face, and a clamping-bow adapted to be swung into substantial parallelism with said segment, the top of the semicircularly faced portion affording a plane faced anvil on which one end of a gutter may be battered down into the concave after being bent at the angle formed at the junction of the face and top, the lower edge of said gutter resting on said ledge and its lower portion adapted to be clamped by said segment and locked by said binding bow.

2. A gutter-end-former comprising a base providing a ledge upon which one end of the gutter is adapted to stand, and having an arciform-faced portion rising perpendicularly therefrom and adapted to receive the concave of the gutter, the upper faces of said portions being parallel, a binding-bow adapted to swing into parallelism with said arciform portion and to rest when in operative position over said ledge, and means for bringing it to said position, the angle at the junction of the top and face of the arciform-faced portion being sharp and adapted for bending the upper portion of the gutter thereover inwardly and at a right angle to its longitudinal axis, and said top adapted for use as an anvil, whereon said inwardly bent portion may be battered down at said right angle.

3. In a device of the nature described, an element comprising a unitary upper and lower portion, said upper portion having a semicircular face and a plane top, and the lower portion being flanged therefrom and having an upper face parallel with said top and substantially at a right angle to said face, and a concave clamping bow in pivotal engagement with said element and its face when in closed position confronting said semicircular face, the angle at the junction of the top and the semicircular face affording a sharp edge over which the upper portion of a gutter, the lower end of which rests on said ledge, may be bent in a line transverse to its longitudinal dimension, and the top affording an anvil on which said bent portion of the gutter may be battered down to close the end thereof.

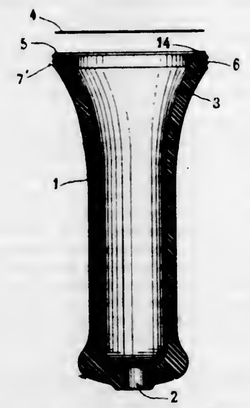
4. A gutter-end-former comprising a base having a semicircularly arranged foot providing a ledge, and having also an arcuate-faced portion above said foot, the tops of said portions being parallel and the arcuate face perpendicular to both, a removable binding segment of selective size adapted to rest on said ledge and one of its faces to parallel said arcuate face, a binding bow arranged to swing into substantial parallelism with said segment, and means for holding it in said position, the angle at the junction of the top and face of the arcuate faced portion being sharp and adapted for bending the upper portion of the gutter thereover inwardly and at a right angle to its longitudinal axis, and said top adapted for use as an anvil whereon said inwardly bent portion may be battered down at said right angle.

5. A device of the nature described comprising a base having a flanged portion providing a ledge, and a portion surmounting it and of less superficial dimension, the upper faces of both being plane and their forward faces semicircular, a removable semicircular binding element, one of its edges adapted to rest on said ledge and its concave face confronting and conforming to the conformation of said semicircular portion, and a clamping bow adapted to swing into parallelism with said binding element, the angle provided at the junction of the upper face and the higher semicircular face affording a sharp edge over which the upper portion of a gutter section may be bent transversely to its longitudinal line, and inwardly, and said top affording an anvil on which the said bent portion may be battered down to close the end thereof.

[Claim 6 not printed in the Gazette.]



1,093,951. CASE AND CAP FOR TELEPHONE-RECEIVERS. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Jan. 13, 1913. Serial No. 741,861. (Cl. 179—179.)



1. In a telephone receiver, a body portion having an annular open end, and a reinforcing ring for said end, said ring having an annular groove for receiving portions of the material of the body for preventing movement of the ring in one direction relatively to the body, and having a transverse groove for receiving portions of the material of the body to prevent movement of the ring in another direction relatively to the body.

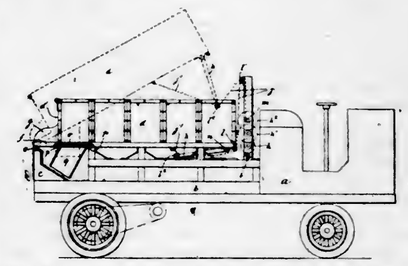
2. In a telephone receiver, a body portion having an annular open end, and a reinforcing ring for said open end, one edge of said ring forming a diaphragm seat, and the opposite edge of said ring having an inwardly projecting annular rib or flange thereon extending into embedded relation in the material of the body.

3. In a telephone receiver casing comprising a body portion having an annular open end, the combination therewith of a reinforcing ring fixed to the material of said body encircling said open end and projecting thereabove to form a diaphragm seat, and the lower edge of said reinforcing ring being formed with an inwardly projecting annular rib or flange extending into embedded relation in the material of the body.

4. A telephone receiver comprising a body portion having an annular open end, a reinforcing ring for said open end being formed with an inwardly projecting annular rib or flange adjacent one edge thereof extending to embedded relation in the body, and said rib or flange being provided with one or more transversely extending grooves into which the material of the body extends, for the purpose set forth.

5. In a telephone receiver structure, the combination with a casing having an annular open end, of a reinforcing ring fixed to the material of said casing for strengthening said open end and said ring projecting above the end of the casing, a cover for the open end of said casing having a separately formed reinforcing ring thereon, and having an annular depression adjacent said reinforcing ring, both of said reinforcing rings having parts whereby they may be connected together for retaining the cover upon the casing, the projecting portion of the ring upon the casing serving as a diaphragm seat for engaging the outer annular edge portion of the receiver diaphragm, and being disposed for forcing the outer annular edge portion of the receiver diaphragm toward the annular depression in the cover.

1,093,952. VEHICLE-BODY. RODERICK STEPHENS, New York, N. Y. Filed Feb. 11, 1913. Serial No. 747,660. (Cl. 21—86.)

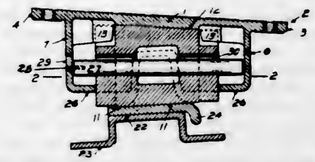


1. A vehicle body, means for elevating one end thereof, a support at the other end thereof to which said body is pivoted, an opening in the bottom of the body adjacent the pivoted end, means for closing said opening and a hopper beneath said opening, said hopper sloping upwardly and inwardly from one side of the body toward the other side thereof.

2. A vehicle body, means for elevating one end thereof, a support for the other end thereof to which said body is pivoted, a sliding panel extending transversely of the body in the bottom thereof adjacent the pivoted end and a hopper beneath said panel, said hopper sloping upwardly and inwardly from one side of the body to the other and extending the entire length of said panel.

3. A vehicle body, means for elevating one end thereof, a support for the other end thereof to which said body is pivoted, means for discharging the contents of said body at said pivoted end in a direction parallel to the length of the body, an opening in the bottom of the body transversely of the body adjacent said pivoted end, means for closing said opening and a hopper beneath said opening, said hopper sloping upwardly and inwardly from one side of the body toward the other side thereof.

1,093,953. ROLLER SIDE BEARING. ARNOLD STUCKI, Pittsburgh, Pa. Filed Aug. 26, 1909. Serial No. 514,677. (Cl. 64—64.)



1. A side bearing for railway cars comprising a housing for the upper bolster provided with a bearing surface and with substantially vertical downwardly projecting end por-

tions, a freely traveling roller in said housing arranged to roll on said bearing surface between said downwardly projecting end portions, means for preventing said roller from dropping out of said housing, and a coöperating bearing for the lower bolster provided with substantially vertical end portions projecting upwardly into the path of said roller, said lower bearing being plain from side to side whereby dirt can escape therefrom, the upwardly projecting end portions of said lower bearing and the downwardly projecting end portions of the upper housing extending beyond the axis of the roller and one thereof being recessed to permit the passage therethrough of the other.

2. A side bearing for railway cars comprising a housing for the upper bolster provided with a bearing surface and with substantially vertical downwardly projecting end portions, a roller in said housing arranged to roll on said bearing surface and being free to travel horizontally therein between the end portions thereof, said housing being movable vertically relative to said roller to such an extent that the latter remains in contact with the lower bolster or bearing during normal clearances, means connecting said housing and roller and arranged to move the roller horizontally with all changes in the angular relation of the bolsters, means for preventing said roller from dropping out of said housing, and a coöperating bearing for the lower bolster provided with substantially vertical end portions projecting upwardly into the path of said roller and being plain from side to side whereby dirt can escape therefrom.

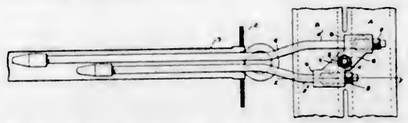
3. A side bearing for railway cars comprising a housing for the upper bolster provided with a bearing surface and with substantially vertical downwardly projecting end portions, a roller in said housing arranged to roll on said bearing surface and being free to travel horizontally therein between the end portions thereof, said housing being movable vertically relative to said roller to such an extent that the latter remains in contact with the lower bolster during normal clearances, intermeshing teeth on said housing and roller to move the roller horizontally with all changes in the angular relation of the bolsters, means arranged to prevent the roller from dropping sufficiently to disengage said intermeshing teeth, and a coöperating bearing for the lower bolster provided with substantially vertical end portions projecting upwardly into the path of the roller and being plain from side to side whereby dirt can escape therefrom.

4. A side bearing for railway cars comprising a housing for the upper bolster provided with a bearing surface and with substantially vertical downwardly projecting end portions and downwardly projecting side walls having horizontal ways, a roller in said housing arranged to travel freely horizontally therein in contact with the bearing surface and between the end portions thereof, journal members projecting beyond the ends of said roller and over the ways on the housing and serving to prevent said roller from dropping out of said housing, and a coöperating bearing for the lower bolster provided with substantially vertical end portions projecting upwardly into the path of the roller and being plain from side to side whereby dirt can escape therefrom.

5. A side bearing for railway cars comprising a housing for the upper bolster provided with a bearing surface and with substantially vertical downwardly projecting end portions and with downwardly projecting side walls having horizontal ways, a roller in said housing arranged to travel freely horizontally therein in contact with the bearing surface and between the end portions thereof, said roller being provided with a large axial opening, a journal bar extending through the axial opening of said roller and projecting over the ways on the housing and being of less diameter than said axial opening, thereby permitting said housing to have a vertical up and down movement relative to the roller but preventing the roller from dropping out of said housing, and a coöperating bearing for the lower bolster provided with substantially vertical end portions projecting upwardly into the path of said roller and being plain from side to side whereby dirt can escape therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,093,954. STEAM-SUPERHEATER. MAX TOLTZ, St. Paul, Minn., assignor, by mesne assignments, to Locomotive Superheater Company, Wilmington, Del., a Corporation of Delaware. Filed Nov. 4, 1910. Serial No. 590,699. (Cl. 122—462.)



1. In a steam superheater, a pair of headers arranged one in front of the other across the smoke box and with their sides in substantially the same plane, a superheater element or loop having a short and a long end, an elongated integral connector having a pair of independent wholly separated elbow passages one at each end, one pair of corresponding ends of the two passages going to different headers and the other pair of ends having the aforesaid long and short element ends joined respectively thereto, and means for fastening the connector to the headers.

2. In a steam superheater, a saturated and a superheated steam header arranged edge on one in front of the other across the smoke box with their side faces substantially in the same planes and perpendicular to the flue sheets, each header having a hole on a corresponding side face, a superheater element, a connector block clamped against the headers and provided with independent elbow passages at opposite ends communicating respectively with the aforesaid header holes said elbow passages being, at their ends remote from the header holes, parallel with the aforesaid side faces and receiving the ends of the superheater element.

3. In a steam superheater, a saturated and a superheated steam header arranged edge on one in front of the other across the smoke box with their side faces substantially in the same planes and perpendicular to the flue sheets, each header having a pair of holes one on each side face, a superheater element, a pair of connector blocks on opposite side faces of the two headers each provided with independent elbow passages at opposite ends communicating respectively with the aforesaid header holes on one side face of the two headers said elbow passages being, at their ends remote from the header holes, parallel with the aforesaid side faces and receiving the ends of the superheater element, and means for securing the connector blocks in place.

4. In a steam superheater, a superheater element or loop adapted to be placed in the flue of a boiler, in combination with a connector or block joining the ends of said loop and provided with cavities, coaxial with, and to receive respective ends thereof, plugs closing the outer ends of said cavities and said cavities having substantially right angled ducts for connection to saturate and superheated steam headers respectively, substantially as described.

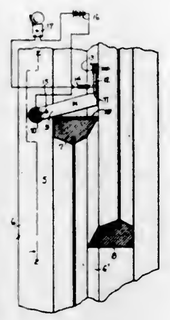
5. In a steam superheater, a pair of headers arranged edge to edge and provided with holes in their sides, in combination with a bolt extending through said headers, a pair of connectors or blocks, secured upon opposite sides of the headers by said bolt and containing elbow passages communicating with respective holes in the headers, and a pair of superheater elements, the ends of which extend into the elbow passages of respective blocks, substantially as described.

[Claim 6 not printed in the Gazette.]

1,093,955. COMBINATION SASH-LOCK AND ALARM. JOHN TREGONING, New Haven, Conn. Filed Nov. 27, 1912. Serial No. 733,903. (Cl. 177—202.)

1. The combination with a window including upper and lower sashes, of a stop plate carried by the upper sash, a barrier arm pivoted upon the frame and extending across the top bar of the lower sash, an electric circuit, and an alarm device in said circuit, the terminal wires of the circuit being connected to said arm and to the plate, respectively, the elevation of the lower sash engaging the arm with said plate to close the circuit and sound the alarm.





2. The combination with a window frame and upper and lower sashes, of a circuit closing element mounted upon one of said parts, a stop plate carried by the upper sash, said circuit closing element having one of its ends projecting over the lower sash and disposed in the path of movement of said stop plate, whereby said element is brought into contact with said plate when the lower sash is raised, said element being pivotally mounted at one of its ends and movable with respect to the lower sash out of the path of movement of said stop plate to render the device inoperative, an electric circuit, the terminal wires of which are connected to the stop plate and the circuit closing element respectively and an alarm device in said circuit.

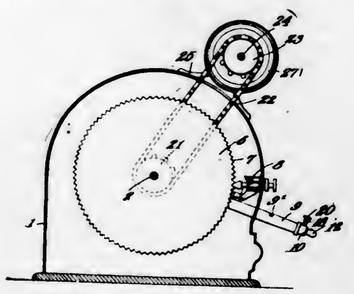
3. The combination with a window frame and upper and lower sashes therein, of a stop plate mounted upon the upper sash for swinging movement, a barrier arm pivotally mounted at one of its ends upon the frame and adapted to extend across the top bar of the lower sash, an electric circuit, the terminals of which are connected to the stop plate and arm, respectively, an alarm device in said circuit, the elevation of the lower sash moving said arm in an arcuate path and engaging the free end thereof with said plate to close the circuit and sound the alarm, said stop plate being adapted to be swung upon the upper sash to permit of the swinging movement of the barrier arm upon its pivot to an inoperative position.

4. The combination with a window frame and upper and lower sashes therein, of a stop plate carried by the upper sash, a circuit closing element pivotally mounted upon the window frame and extending over the lower sash, the free end of said element normally resting against the upper sash beneath the stop plate and acting to prevent said upper sash from being lowered, an electric circuit, the terminal wires of which are connected to said plate and element, respectively, and an alarm device in said circuit, the raising of the lower sash beyond a predetermined point engaging said element with said plate to close the circuit and sound the alarm.

1,093,956. ACCOUNT-FILE. EDWIN J. VICKERS, New Comerstown, Ohio. Filed Nov. 27, 1912. Serial No. 733,886. (Cl. 45—3.)

1. In an account file, the combination of a rotatable tray carrying drum, a plurality of radially slidable trays mounted therein, each of said trays being provided with a knob projecting exteriorly of the drum, and an extractor for extracting a single tray at a time, including a slidably mounted member, a pair of pivoted tray knob engaging arms mounted in said member, a knob carrying pin mounted slidably in said member for controlling the movement of the tray knob engaging arms, said tray knob engaging arms being placed in engagement with the knob of the tray when the knob of the pin is moved outwardly and the extractor is simultaneously moved therewith, and a spring actuated manually released lock for locking the tray knob engaging arms extended.

2. In an account file, the combination with a rotary tray carrying drum, and a plurality of trays radially disposed and slidably mounted therein, of an extractor for the trays, including a slidably mounted plate, another plate carried at right angles thereto, a casing mounted upon the exterior face of the last plate, a spring retracted slidably mounted rod mounted in the casing and carrying a knob



upon the outer end thereof, a pair of pivoted tray engaging arms mounted in the casing and having the tray engaging ends thereof disposed to project in the path of to engage a single tray at a time when the pin is pulled outwardly, and a spring actuated manually released means for locking the arm actuating rod in its innermost position to hold the tray engaging arms extended.

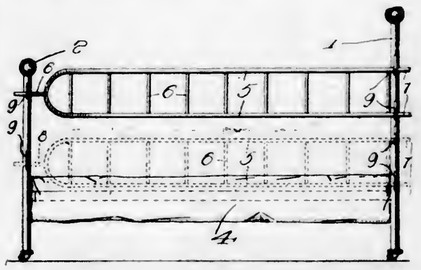
1,093,957. ELECTRODE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 6, 1912. Serial No. 689,056. (Cl. 176—134.)

1. An electrode containing calcium cyanamid, titanium oxid and carbon.

2. An electrode containing calcium cyanamid, titanium oxid, carbon and a flux.

3. An electrode containing a predominating amount of carbon as a vehicle for the arc, calcium cyanamid and rutile.

1,093,958. DETACHABLE BEDSTEAD SIDE. WILLIE F. WELLMAN, Hoxie, Kans. Filed Sept. 30, 1913. Serial No. 792,640. (Cl. 5—41.)



1. In a device of the class described the combination with a bedstead having corner posts, L-shaped clamping fingers carried by said corner posts, said fingers provided with a threaded bolt portion, said bolt portion adapted to pass through one of said posts and receive the nut for holding the fingers in engagement with the posts, and side rails detachably carried by said clamping fingers.

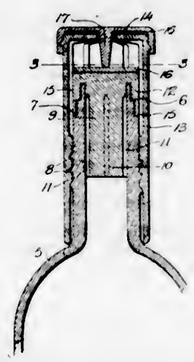
2. In a device of the class described the combination with a bed having corner posts, L-shaped clamping fingers detachably carried by said posts, side rails carried by said fingers, each of said side rails comprising a U-shaped body having spaced rungs positioned therebetween, an arm extending from one end of said U-shaped body, said arm adapted to be engaged by one of said clamping fingers, and the outer end of said U-shaped body adapted to be engaged by a plurality of said clamping fingers for holding said side rail in position upon the posts.

3. In a device of the class described the combination with a bed having corner posts, L-shaped clamping fingers carried by said corner posts, said fingers each provided with a plurality of notched portions, side rails carried by said clamping fingers, said side rails adapted to be engaged by said notched portions whereby said side rails will be held in a clamped engagement with said clamping fingers, and said posts, said clamping fingers each provided at its upper portion with an enlarged round head adapted to prevent the accidental removal of said rails from engagement therewith provided the clamping fingers become accidentally loosened.

4. In a device of the class described the combination with a bed having corner posts, each of said posts provided with a vertical slot, clamping fingers carried by said posts, said clamping fingers provided with threaded bolt portions passing through said slots, side rails carried by said clamping fingers, means for holding said clamping fingers within said slots, said fingers adapted to move upwardly or downwardly within said slots for adjusting the height of the side rails, as described.

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1,093,959. BOTTLE. MICHAEL H. WHALEN, New York, N. Y. Filed May 9, 1913. Serial No. 766,640. (Cl. 215—69.)

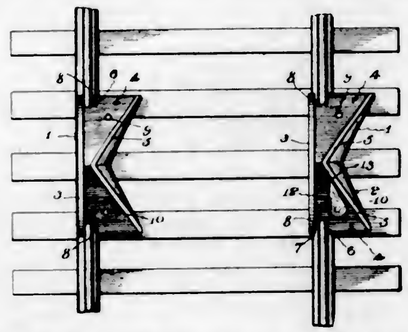


In a bottle, the combination with a neck having stepped shoulders, of a solid valve having a stem with channels that are closed when the valve is seated, a flange on the valve and having interior shoulders to fit the shoulders on the neck, an interiorly grooved cap to limit the play of the valve, and a supplemental cap with a stud to prevent the movement of the valve.

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1,093,960. CAR-REPLACER. EDWIN B. WRIGHT, Hoxie, Ark. Filed Mar. 7, 1912. Serial No. 682,102. (Cl. 104—162.)

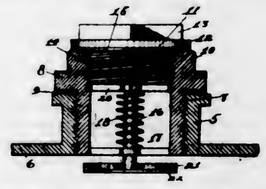
A car replacer consisting of a base, a side rib for said base, a longitudinal rail receiving groove formed in the under surface of the base, a pair of triangular surfaces formed upon the base and arranged in opposing relation, convergingly arranged flanges disposed opposite the side rib to form guideways for the wheels, flanged passages located at the ends of the replacer adjacent the side of said side rib, two sockets formed in said surfaces, and an



interchangeable tongue having a shank for detachably engaging with either one of said sockets, whereby the wheels are guided to the rails.

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1,093,961. COMBINATION PLUG AND VALVE. GUSTAVUS R. YEOMANS, Marietta, Ohio. Filed July 27, 1912. Serial No. 711,804. (Cl. 220—120.)



A closure of the character described, comprising in combination with a tubular body portion having an externally threaded lower portion and an internally threaded upper portion, an overhanging external flange carried by said body portion, an annular packing member disposed beneath said flange, that portion of the body above said flange having an angularly formed side face and a plane top face, an imperforate closure plug having its lower portion externally threaded for engagement with the internally threaded part of the body portion, a flange integral with said plug and overhanging the plane upper face of the body portion, an annular packing member disposed between said flange and said face, an angularly formed head upon said plug above said flange, a spider spanning the lower end of the body portion, a valve stem slidable through said spider, a valve of uch size as to span the entire opening in said body portion and to have a seating upon the lower face of said body portion carried by said stem, a transverse head carried by said stem and substantially spanning the bore of the body portion, said head when the valve is closed, extending far enough up into said body portion to lie within the internally threaded part thereof, but lying some distance below the upper face thereof and said transverse head being capable of a free endwise movement with relation to said body portion, and a spring bearing between said spider and said head.

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1,093,962. BEVERAGE EXTRACT. JAMES M. ALLISON, Indianapolis, Ind. Filed Mar. 10, 1913. Serial No. 753,367. (Cl. 99—11.)

1. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of roasted coffee germs, roasted seeds of the cocoa tree and milk.

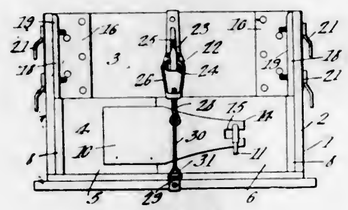


2. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of the roasted coffee-berry germs from which the hull has been removed and roasted seeds of the cocoa tree.

3. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of roasted coffee-berry germs from which the hull has been removed, roasted seeds of the cocoa tree and milk.

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1,093,963. WAGON END-GATE. LEMMET L. AMSPACKER, Glasco, Kans. Filed May 2, 1913. Serial No. 765,160. (Cl. 21—21.)



1. Holding means for a wagon end gate comprising plates rigidly secured to the side edges of the end gate and provided with outwardly struck lips, guide plates rigidly secured to the side boards of the vehicle and provided with inwardly bent retaining flanges, strips fitting between the end gate plates contacting with the retaining flanges of the guide plates, and means extending through the vehicle side walls engaging the said strips and adapted to force the same into wedged contact with the guide plate retaining flanges to thereby force the said end gate into forced contact with the remote retaining flange of the guide plates, to thereby withdraw the vehicle side boards into forced contact with the end gate.

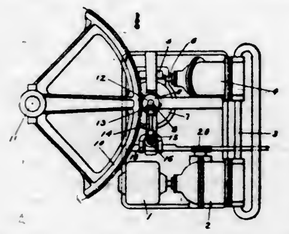
2. The combination with a vehicle body with side boards, of an end gate with metallic plates rigidly secured to the ends thereof, said metallic plates provided with outstanding lips, metallic guide plates rigidly secured to the body side boards and provided with inwardly extending side flanges, a strip, wing bolts extending through the vehicle side boards, through the said metallic guide plates and threadedly engaging said strip, said strip forming a guide during the insertion of the said end gate, said strip wedgedly engaging the said end gate plate and one of the said guide plate flanges and adapted to engage the end gate plate lips to thereby hold the said end gate in rigid position and to hold the said vehicle side boards in spaced relation.

3. The combination with a vehicle body with side boards, of an end gate with plates rigidly secured to the ends thereof, said metallic plates provided with outstanding lips, guide plates rigidly secured to the body side boards and provided with inwardly extending side flanges, strips fitting between the end gate plates contacting with the outstanding lips thereof and contacting with the outstanding flanges of the body side board plates, and means engaging the body side boards and the said strips, arranged to force the said strips into wedged engagement with the said lips and flanges, to hold the end gate in rigid posftion.

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1,093,964. SHIP'S STEERING SYSTEM. JACOB R. ANDREWS, Bath, Me. Filed Dec. 20, 1910. Serial No. 598,367. (Cl. 121—13.)

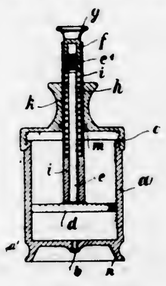
In combination a motor adapted to be run constantly in one direction, a reversible and variable speed fluid delivery pump, means for constantly driving said pump from said motor, a steering post, a rotary fluid pressure motor connected to receive motive fluid from said pump, and gear-



ing between the shaft of said rotary motor and the steering post.

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1,093,965. CONTAINER HAVING APPLIANCE FOR DISCHARGING THE CONTENTS THEREOF. GOTTFRIED BÄHR, Schramberg, and HANS DORESCH, Stuttgart, Germany, assignors to Senfgefäss-Werke, Gesellschaft mit beschränkter Haftung, Stuttgart, Germany. Filed Oct. 19, 1912. Serial No. 726,599. (Cl. 65—45.)

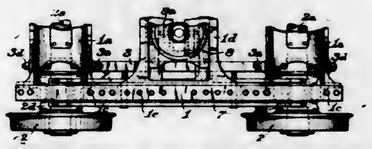


1. The combination, with a container having a discharge orifice, of a plunger movable in said container toward and from said orifice, a spring arranged to move said plunger from said orifice, an abutment movably engaged with said container in the path of said plunger from said orifice, and means whereby movement of said plunger toward said orifice imparts movement to said abutment after said plunger has traversed part of its path.

2. The combination, with a container having a discharge orifice, of a plunger movable in said container toward and from said orifice, a plunger rod extending out of said container, a movable sleeve embracing part of said rod and frictionally engaged with said container, and a spring engaged with said sleeve and said rod, allowing limited movement of the latter in said sleeve and tending to move said plunger from said orifice.

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1,093,966. TRUCK FOR RAILROAD-VEHICLES. HERMAN F. BALL, New York, N. Y. Filed Feb. 18, 1914. Serial No. 819,304. (Cl. 105—243.)



1. In a frame for a railroad truck, the combination of two side bars and two pedestal transoms, said transoms

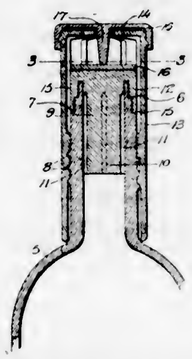
2. In a device of the class described the combination with a bed having corner posts, L-shaped clamping fingers detachably carried by said posts, side rails carried by said fingers, each of said side rails comprising a U-shaped body having spaced rungs positioned therebetween, an arm extending from one end of said U-shaped body, said arm adapted to be engaged by one of said clamping fingers, and the outer end of said U-shaped body adapted to be engaged by a plurality of said clamping fingers for holding said side rail in position upon the posts.

3. In a device of the class described the combination with a bed having corner posts, L-shaped clamping fingers carried by said corner posts, said fingers each provided with a plurality of notched portions, side rails carried by said clamping fingers, said side rails adapted to be engaged by said notched portions whereby said side rails will be held in a clamped engagement with said clamping fingers, and said posts, said clamping fingers each provided at its upper portion with an enlarged round head adapted to prevent the accidental removal of said rails from engagement therewith provided the clamping fingers become accidentally loosened.

4. In a device of the class described the combination with a bed having corner posts, each of said posts provided with a vertical slot, clamping fingers carried by said posts, said clamping fingers provided with threaded bolt portions passing through said slots, side rails carried by said clamping fingers, means for holding said clamping fingers within said slots, said fingers adapted to move upwardly or downwardly within said slots for adjusting the height of the side rails, as described.

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1,093,959. BOTTLE. MICHAEL H. WHALEN, New York, N. Y. Filed May 9, 1913. Serial No. 766,640. (Cl. 215—69.)

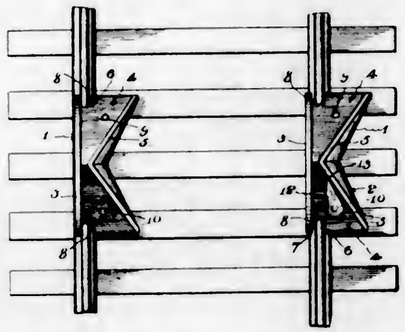


In a bottle, the combination with a neck having stepped shoulders, of a solid valve having a stem with channels that are closed when the valve is seated, a flange on the valve and having interior shoulders to fit the shoulders on the neck, an interiorly grooved cap to limit the play of the valve, and a supplemental cap with a stud to prevent the movement of the valve.

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1,093,960. CAR-REPLACER. EDWIN B. WRIGHT, Hoxie, Ark. Filed Mar. 7, 1912. Serial No. 682,162. (Cl. 104—162.)

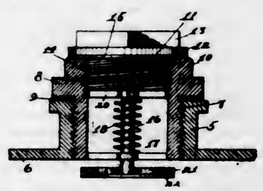
A car replacer consisting of a base, a side rib for said base, a longitudinal rail receiving groove formed in the under surface of the base, a pair of triangular surfaces formed upon the base and arranged in opposing relation, convergingly arranged flanges disposed opposite the side rib to form guideways for the wheels, flanged passages located at the ends of the replacer adjacent the side of said side rib, two sockets formed in said surfaces, and an



interchangeable tongue having a shank for detachably engaging with either one of said sockets, whereby the wheels are guided to the rails.

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1,093,961. COMBINATION PLUG AND VALVE. GUSTAVUS R. YEOMANS, Marietta, Ohio. Filed July 27, 1912. Serial No. 711,804. (Cl. 220—120.)



A closure of the character described, comprising in combination with a tubular body portion having an externally threaded lower portion and an internally threaded upper portion, an overhanging external flange carried by said body portion, an annular packing member disposed beneath said flange, that portion of the body above said flange having an angularly formed side face and a plane top face, an imperforate closure plug having its lower portion externally threaded for engagement with the internally threaded part of the body portion, a flange integral with said plug and overhanging the plane upper face of the body portion, an annular packing member disposed between said flange and said face, an angularly formed head upon said plug above said flange, a spider spanning the lower end of the body portion, a valve stem slidable through said spider, a valve of uch size as to span the entire opening in said body portion and to have a seating upon the lower face of said body portion carried by said stem, a transverse head carried by said stem and substantially spanning the bore of the body portion, said head when the valve is closed, extending far enough up into said body portion to lie within the internally threaded part thereof, but lying some distance below the upper face thereof and said transverse head being capable of a free endwise movement with relation to said body portion, and a spring bearing between said spider and said head.

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1,093,962. BEVERAGE EXTRACT. JAMES M. ALLISON, Indianapolis, Ind. Filed Mar. 10, 1913. Serial No. 753,367. (Cl. 99—11.)

1. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of roasted coffee germs, roasted seeds of the cocoa tree and milk.

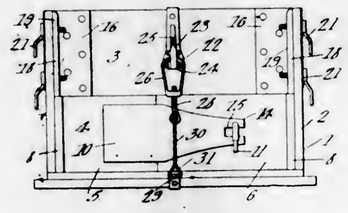


2. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of the roasted coffee-berry germs from which the hull has been removed and roasted seeds of the cocoa tree.

3. A solid soluble extract for preparing beverages consisting of extractive matter in hard, dry, homogeneous, comminuted condition of roasted coffee-berry germs from which the hull has been removed, roasted seeds of the cocoa tree and milk.

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1,093,963. WAGON END-GATE. LEMMET L. AMSPACKER, Glasco, Kans. Filed May 2, 1913. Serial No. 765,160. (Cl. 21—21.)



1. Holding means for a wagon end gate comprising plates rigidly secured to the side edges of the end gate and provided with outwardly struck lips, guide plates rigidly secured to the side boards of the vehicle and provided with inwardly bent retaining flanges, strips fitting between the end gate plates contacting with the retaining flanges of the guide plates, and means extending through the vehicle side walls engaging the said strips and adapted to force the same into wedged contact with the guide plate retaining flanges to thereby force the said end gate into forced contact with the remote retaining flange of the guide plates, to thereby withdraw the vehicle side boards into forced contact with the end gate.

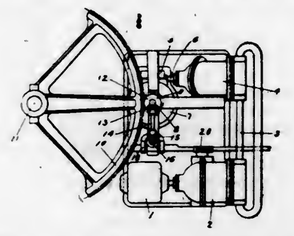
2. The combination with a vehicle body with side boards, of an end gate with metallic plates rigidly secured to the ends thereof, said metallic plates provided with outstanding lips, metallic guide plates rigidly secured to the body side boards and provided with inwardly extending side flanges, a strip, wing bolts extending through the vehicle side boards, through the said metallic guide plates and threadedly engaging said strip, said strip forming a guide during the insertion of the said end gate, said strip wedgedly engaging the said end gate plate and one of the said guide plate flanges and adapted to engage the end gate plate lips to thereby hold the said end gate in rigid position and to hold the said vehicle side boards in spaced relation.

3. The combination with a vehicle body with side boards, of an end gate with plates rigidly secured to the ends thereof, said metallic plates provided with outstanding lips, guide plates rigidly secured to the body side boards and provided with inwardly extending side flanges, strips fitting between the end gate plates contacting with the outstanding lips thereof and contacting with the outstanding flanges of the body side board plates, and means engaging the body side boards and the said strips, arranged to force the said strips into wedged engagement with the said lips and flanges, to hold the end gate in rigid position.

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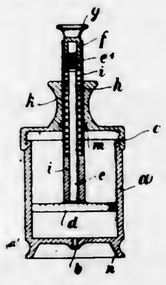
1,093,964. SHIP'S STEERING SYSTEM. JACOB R. ANDREWS, Bath, Me. Filed Dec. 20, 1910. Serial No. 598,367. (Cl. 121—18.)

In combination a motor adapted to be run constantly in one direction, a reversible and variable speed fluid delivery pump, means for constantly driving said pump from said motor, a steering post, a rotary fluid pressure motor connected to receive motive fluid from said pump, and gearing between the shaft of said rotary motor and the steering post.



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1,093,965. CONTAINER HAVING APPLIANCE FOR DISCHARGING THE CONTENTS THEREOF. GOTTFRIED BÄHR, Schramberg, and HANS DORESCH, Stuttgart, Germany, assignors to Senfgefäss-Werke, Gesellschaft mit beschränkter Haftung, Stuttgart, Germany. Filed Oct. 19, 1912. Serial No. 726,599. (Cl. 65—45.)

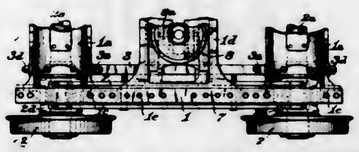


1. The combination, with a container having a discharge orifice, of a plunger movable in said container toward and from said orifice, a spring arranged to move said plunger from said orifice, an abutment movably engaged with said container in the path of said plunger from said orifice, and means whereby movement of said plunger toward said orifice imparts movement to said abutment after said plunger has traversed part of its path.

2. The combination, with a container having a discharge orifice, of a plunger movable in said container toward and from said orifice, a plunger rod extending out of said container, a movable sleeve embracing part of said rod and frictionally engaged with said container, and a spring engaged with said sleeve and said rod, allowing limited movement of the latter in said sleeve and tending to move said plunger from said orifice.

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1,093,966. TRUCK FOR RAILROAD-VEHICLES. HERMAN F. BALL, New York, N. Y. Filed Feb. 18, 1914. Serial No. 819,304. (Cl. 105—243.)



1. In a frame for a railroad truck, the combination of two side bars and two pedestal transoms, said transoms

having pairs of pedestal jaws formed integral with their ends, and being secured at their ends to the side bars, adjacent to the ends thereof.

2. In a frame for a railroad truck, the combination of two side bars, two pedestal transoms having pairs of pedestal jaws formed integral with their ends, and being secured at their ends to the side bars, adjacent to the ends thereof, and a transverse swing bearing frame secured at its ends to the side bars, intermediate of the pedestal transoms.

3. In a frame for a railroad truck, the combination of two side bars, two pedestal transoms, having pairs of pedestal jaws formed integral with their ends and being secured at their ends to the side bars, adjacent to the ends thereof, and two tie bars, each extending longitudinally in a plane on the inner sides of the pedestal jaws, and secured at its ends to the pedestal jaws nearer the middle transverse plane of the truck.

4. In a frame for a railroad truck, the combination of two side bars, two pedestal transoms having pairs of pedestal jaws formed integral with their ends and being secured at their ends to the side bars, adjacent to the ends thereof, two tie bars each extending longitudinally in a plane on the inner sides of the pedestal jaws and secured at its ends to the pedestal jaws nearer the middle transverse plane of the truck, and pedestal binder bolts, each connecting the members of a pair of pedestal jaws and also connecting a tie bar to one of said members.

5. In a railroad truck, the combination of two side bars, two pedestal transoms having pairs of pedestal jaws formed integral with their ends and being secured at their ends to the side bars, adjacent to the ends thereof, two tie bars, each extending longitudinally in a plane on the inner sides of the pedestal jaws, and secured at its ends to the pedestal jaws nearer the middle transverse plane of the truck, a transverse swing bearing frame secured at its ends to the side bars, intermediate of the pedestal transoms, a swing beam suspended on said bearing frame, and axle boxes fitted in the several pairs of pedestal jaws.

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1,093,967. INSULATING COMPOUND. LAWRENCE E. BARRINGER and FRANK C. ZAPF, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Sept. 12, 1911. Serial No. 648,993. (Cl. 134—51.)

1. A flexible insulating composition comprising China wood oil, pitch and asphalt.

2. A flexible insulating compound comprising China wood oil, pitch, asphalt and a mineral oil.

3. A flexible insulating compound comprising China wood oil, stearin pitch and asphalt.

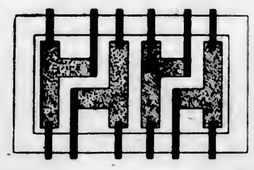
4. A flexible insulating compound comprising China wood oil, stearin pitch, asphalt and a mineral oil.

5. An insulating compound comprising substantially twenty-five per cent. China wood oil, fifteen per cent. mineral oil, thirty per cent. pitch and thirty per cent. asphalt.

[Claim 6 not printed in the Gazette.]

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1,093,968. ELECTRIC FURNACE. RICHARD STUART BICKNELL, New York, N. Y. Filed Oct. 25, 1913. Serial No. 797,191. (Cl. 204—64.)



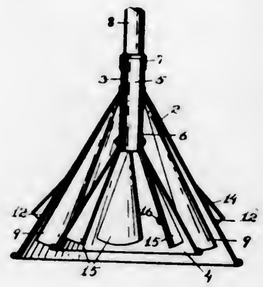
1. In an electric furnace of the resistance type, the combination of a non-metallic resistor, having more than two electrodes, and arranged in such a manner so that by changing the path of the current the resistance of that portion of the circuit or circuits comprised by the resistor is raised or lowered, with one or more non-metallic resistors.

2. In an electric furnace of the resistance type, the combination of a non-metallic resistor, which has more than two electrodes, and which is arranged in such a manner so that by changing the path of the current the resistance of that portion of the circuit or circuits comprised by the resistor is raised or lowered, with one or more similar non-metallic resistors.

3. In an electric furnace of the resistance type, the employment of a plurality of branched non-metallic resistors, which are arranged so that by changing the path of the current the resistance of that portion of the circuit or circuits comprised by the resistors is raised or lowered, and each of which resistors has more than two electrodes.

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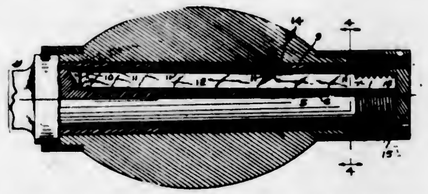
1,093,969. CLOTHES-POUNDER. EDWARD M. BIGELOW, Lincoln, Nebr. Filed Mar. 28, 1913. Serial No. 757,457. (Cl. 68—5.)



In a clothes washer, an inner cone having semi-conical inside air pockets and air holes between said pockets, an outer cone having semi-conical inside air pockets and air holes between the pockets and separated from the inner cone by an interval, the inside air pockets of the outer cone having a bearing against the inner cone to brace the same and preserve said intervals, telescoping sleeves at the upper ends of the inner and outer cones, and a handle having a threaded connection with one sleeve and a bearing against the other sleeve.

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1,093,970. SPINDLE-LUBRICATOR. AUTTUM J. BRITT, Glenwood, Ind. Filed Oct. 18, 1913. Serial No. 796,053. (Cl. 64—27.)



1. In a lubricating apparatus a spindle having a longitudinal top channel, a lubricant holding trough seated in said channel and slidingly removable through the outer end of the channel for filling, a false bottom in said trough, and means introduced through the outer end of the trough for moving and for retaining the false bottom away from the fixed bottom of the trough.

2. In a lubricating apparatus, a spindle having a longitudinal top channel, a lubricant holding trough seated in said channel and slidingly removable through the outer end of the channel for filling, a false bottom in said trough, and a tongue slidingly entering the trough between the fixed and the false bottoms of the trough and through the outer end of the trough.

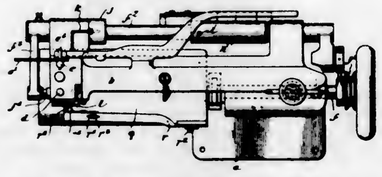


3. In a lubricating apparatus, a spindle having a longitudinal top channel said channel having longitudinal side grooves, a lubricant holding trough seated in said channel and slidingly removable through the outer end of the channel for filling, said trough having lateral extensions entering said grooves in the channel, a false bottom in said trough, a tongue slidingly introduced into the trough between the fixed and false bottoms through the outer end of the trough and means to limit the outward movement of the false bottom from the fixed bottom.

4. In a lubricating apparatus, a spindle having a longitudinal top channel with longitudinal side grooves, a lubricant holding trough seated therein and slidingly removable through the outer end of the channel for filling, said trough having lateral extensions entering the grooves in the channel, said trough having inturned tongues at its upper side edges, a false bottom in said trough, a pin supported by the trough and passing loosely through the inner end of the false bottom, and means for moving the tongue away from the fixed bottom and for holding it in contact with the inturned tongues of the trough.

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1,093,971. SEWING-MACHINE. LOUIS BULASKY, New York, N. Y. Filed July 2, 1913. Serial No. 776,985. (Cl. 112—29.)



1. In a sewing machine, the combination of a main drive shaft, a rock shaft, a reciprocating needle bar, operative connections between the rock shaft and the drive shaft and the needle bar respectively and a torsional counter-balancing spring operatively connected to the rock shaft at one end and fixed at the other end whereby oscillations of the rock shaft in one direction are opposed by the spring and in the reverse direction assisted thereby.

2. In a sewing machine, the combination of a supporting frame, a main drive shaft, a rock shaft bearing in the supporting frame, a reciprocating needle bar, operative connections between the rock shaft and the drive shaft and the needle bar respectively, a collar adjustably secured on the rock shaft, and a counter-balancing spring encircling the rock shaft and having one end secured to the collar and the other end anchored in the supporting frame.

3. In a sewing machine, the combination of a supporting frame, a main drive shaft, a rock shaft bearing in the supporting frame, a reciprocating needle bar, operative connections between the rock shaft and the drive shaft and the needle bar respectively, a collar adjustably secured on the rock shaft, a counter-balancing spring encircling the rock shaft and having one end secured to the collar and the other end anchored in the supporting frame, and a sleeve to inclose the spring.

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1,093,972. WIRE-CONNECTOR. WALTER G. CADY, Middletown, Conn. Filed July 11, 1913. Serial No. 778,549. (Cl. 173—324.)

1. In a wire connector, the combination of a case of non-conducting material; companion plates within said case provided with oppositely disposed recesses in the meeting faces thereof; means for moving one of said plates toward the other and plugs connected with one of said plates and projecting through said case.

2. In a wire-connector, the combination of an outer case of non-conducting material; a fixed plate; a movable plate, both of said plates being within said case; a spring for normally moving said movable plate toward said fixed plate; and plugs connected with said movable plate and projecting through said case, the portion thereof exposed upon the outside of said case being covered with non-conducting material.



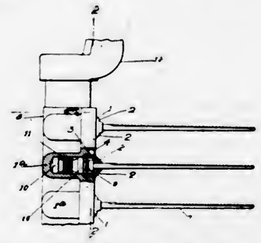
3. In a wire connector, the combination of a hollow case of non-conducting material; companion plates within said case, the ends of which are accessible through the ends of said case, and are provided with wire receiving means; a plug connected with one of said plates and passing through the case, being operatively exposed upon the outside; and a spring contacting with one of said plates and the case for normally moving one of said plates toward the other.

4. In a wire-connector, the combination with a case of non-conducting material; companion plates within said case provided with oppositely disposed recesses in the meeting faces thereof; a spring for normally moving one of said plates toward the other; and plugs connected with one of said plates and projecting through said case, the portion thereof exposed outside of the case being covered with non-conducting material.

5. In a wire-connector, the combination with a case of non-conducting material; companion plates within said case, each having one flat face provided at both ends with wire receiving means; a spring for normally moving one of said plates toward the other; and plugs connected with one of said plates and projecting through said case, the portion thereof exposed outside of the case being covered with non-conducting material.

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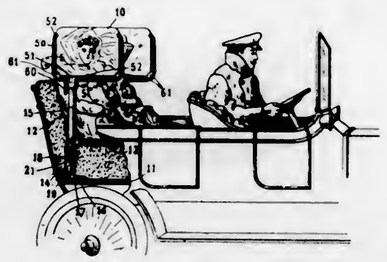
1,093,973. LOCKING-RING FOR RETAINING PICKING-FINGERS. BENJAMIN CRABTREE CALDERWOOD, Valley Falls, R. I., assignor to Price-Campbell Cotton Picker Corporation, New York, N. Y., a Corporation of Delaware. Filed Apr. 30, 1913. Serial No. 764,517. (Cl. 56—118.)



1. The combination with a picker-finger carrier having a picker-finger-receiving bearing-socket, of a picker-finger having bearings running in the socket; a locking-ring having a central opening for passage of the picker-finger and covering the entrance to the socket; said ring having a pin-receiving groove; and a pin held in the groove by the carrier.

2. The combination with a picker-finger carrier having a picker-finger-receiving bearing-socket, of a picker-finger having bearings running in the socket; a locking-ring having a central opening for passage of the picker-finger and covering the entrance to the socket; said ring having a pin-receiving groove; a pin held in the groove by the carrier; the carrier having a hole for reception of the pin and the hole having an enlargement for an enlarged portion of the pin; and a coiled spring between an end of the enlarged portion and an end wall of the socket.

1,093,974. WIND-SHIELD. CHARLES ROCKWELL CLARK, Plainville, Conn. Filed Feb. 24, 1913. Serial No. 750,087. (Cl. 21—148.)



1. In a vehicle, a seat having a back and side arms, upright cushions for the back and side arms extending downward substantially to the seat and a seat cushion resting on the seat with its edges fitting closely against the lower edge of the upright cushions, a supporting bracket secured to the seat beneath the seat cushion and adjacent to one of the upright cushions, a post carried by said bracket disposed between said upright cushion and the edge of the seat cushion, extending upwardly above the seat cushion and lying relatively close against said upright cushion to be thereby out of the way of the occupant of the seat, an angularly adjustable transparent wind shield mounted on the post and conveniently accessible means for securing the wind shield in different angular adjustments.

2. In an automobile wind shield, the combination of a supporting bracket arranged for attachment to the body portion of an automobile and provided with a hook on its upper end, a post resting upon the hooked upper end of the bracket and provided with a downwardly extending part engaging the side of the bracket, a dependent clutch member carried by the post, engaging the opposite side of the bracket and making wedging engagement beneath the hook on the bracket, means for drawing the clutch member into firm engagement with the hook whereby to clamp the post upon the bracket and a wind shield mounted upon the upper end of the post.

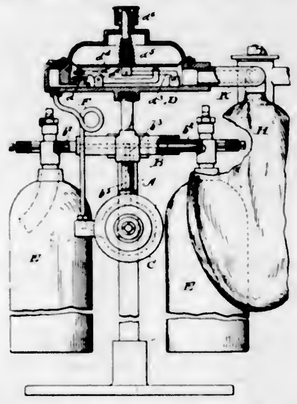
3. In an automobile wind shield, the combination of an upstanding supporting bracket arranged for attachment to the body portion of an automobile and provided with a hook on its upper end, a hollow post resting upon the hooked upper end of the bracket and provided with a downwardly extending part engaging one side of the bracket, a dependent clutch member carried by the post, engaging the opposite side of the bracket and making wedging engagement beneath the hook on the bracket, a screw rod fixed to the clutch member and extending up through the hollow post, a rotatable head seated in the upper end of the post, making abutting engagement with the end of the post and provided with a screw threaded seat receiving the threaded end of the rod and a shield member mounted on the head.

4. In an automobile wind shield, the combination of a one-piece supporting bracket made with a broad flat base, an upright portion bent up from the base and a hook turned down at the upper edge of such upright portion, a post resting upon the upper edge of the bracket and having a backing part, an adjustable clamping hook carried by the post and engaging beneath the hook on the supporting bracket opposite said backing part, a shield carrying member rotatably adjustable on the post and means for securing said member in adjusted position upon the post.

5. In an automobile wind shield, the combination of a support having a flat base secured to the seat of the automobile and an upright portion extending up between the back cushion and the edge of the seat cushion, said upright portion being inclined at its lower end to substantially fit the inclination of the lower end of the back cushion, so as not to interfere with the seat cushion being pushed back into proper engagement with the back cushion, an angularly adjustable shield member mounted upon the support and means for securing said shield member in its adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,093,975. ANESTHETIZER. GRAHAM CLARKE, Cleveland, Ohio, assignor to The Ohio Chemical & Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 14, 1911. Serial No. 665,637. (Cl. 128—13.)



1. In an anesthetizer, the combination of a gas conduit adapted for connection with a source of gas supply, a gas pressure reducer, and an automatic gas pressure regulator connected in series and forming a part of said gas conduit, and a manually controlled valve in said gas conduit between the gas pressure regulator and the final outlet of said conduit, capable in one position of entirely cutting off the escape of said gas.

2. In an anesthetizer, the combination of a gas conduit adapted for connection with a source of gas supply, a gas pressure reducer, and an automatic gas pressure regulator connected in series and forming a part of said gas conduit, a manually controlled valve in said gas conduit between the gas pressure regulator and the final outlet of said conduit capable in one position of entirely cutting off the escape of said gas, and a gas bag connected with the gas conduit between the gas pressure regulator and said valve.

3. In an anesthetizer, the combination of two gas conduits adapted respectively for connection with independent sources of gas supply, a gas pressure reducer and an automatic gas pressure regulator connected in series forming a part of each gas conduit, a valve casing which is connected with the delivery end of each gas conduit, and has a discharge port, and a manually controlled three way valve adapted to connect either or both gas conduits with said gas discharge port capable in one position of entirely cutting off the escape of said gases.

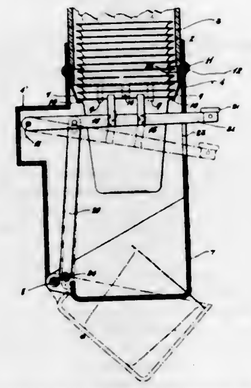
4. In an anesthetizer, the combination of two gas conduits adapted respectively for connection with independent sources of gas supply, a gas pressure reducer and an automatic gas pressure regulator connected in series forming a part of each gas conduit, a valve casing which is connected with the delivery end of each gas conduit, and has a discharge port and a manually controlled three-way valve adapted to connect either or both gas conduits with said gas discharge port and capable in one position of entirely cutting off the escape of said gases, a graduated dial, and a pointer fixed to said valve and moving in juxtaposition to said dial.

5. In an anesthetizer, the combination of a base having a standard, a frame fixed thereto and containing a gas port, one end of which may be connected with a source of gas, a gas pressure regulator connected with said gas port and secured to and supported by said frame, an automatic gas regulator also secured to and supported by said frame, a pipe connecting the gas pressure reducer and the gas pressure regulator, an outlet pipe connected with the gas pressure regulator, and a manually controlled valve in said outlet pipe capable in one position of entirely cutting off the escape of said gas.

[Claim 6 not printed in the Gazette.]



1,093,976. DISPENSING APPARATUS. EDWARD E. CLAUSSEN, Hartford, Conn. Filed Dec. 2, 1911. Serial No. 663,600. (Cl. 211—8.)



1. In an apparatus of the class described, the combination of a container for a stack of nested drinking cups, means for supporting said stack, means for positively withdrawing the lowermost cup from the stack, and yieldable fingers for engaging the stack and preventing accidental upward movement thereof on the return movement of said withdrawing means.

2. In an apparatus of the class described, the combination of a container for a stack of nested drinking cups, means for positively withdrawing the lowermost cup from the stack, and a ring fitted within the container and provided with yieldable fingers for engaging the stack and for preventing accidental upward movement thereof on the return movement of said withdrawing means.

3. In an apparatus of the class described, the combination of a container for a stack of nested drinking cups, a plurality of springs within the container for supporting the stack, a ring in the container to aid in holding said springs in place, and means for positively withdrawing the lowermost cup from the stack, said ring having means to prevent accidental upward movement of the stack on the return movement of said withdrawing means.

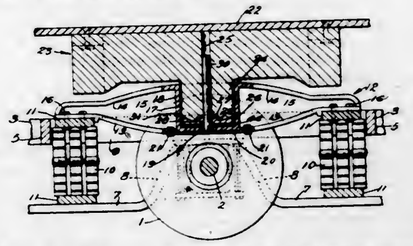
4. In an apparatus of the class described, the combination of a container for a stack of nested drinking cups, yieldable means for engaging the lowermost cup to thereby support the stack, and auxiliary yieldable supporting means, for engaging the stack at a higher point, the lowermost cup of the stack extending below the first mentioned supporting means.

5. In an apparatus of the class described, the combination of a container for a stack of nested drinking cups, a lever pivotally supported within the container and accessible exteriorly thereof, a pivoted valve for said container, constituting a dispensing member therefor, means upon the lever for positively separating the lowermost cup from the stack on the downward movement of the lever, a link connecting the lever and the valve at a point to the rear of said cup separating means, and means active independently of the valve, for supporting the stack.

[Claims 6 and 7 not printed in the Gazette.]

1,093,977. SUPPORTING ARRANGEMENT FOR CARS. MICHAEL F. SCHOENBERGER, Los Angeles, Cal. Filed Oct. 7, 1913. Serial No. 793,938. (Cl. 105—108.)

1. In a railway car, the combination with a truck having a recess provided with a bottom that is fixed relative to said truck, a center plate loosely positioned in said recess in order to be raised, a car body to be supported by said truck, said car body having a projection to fit into said recess on said center plate, and means inserted under said center plate on the said rigid bottom when it is desired to raise said car body.



2. In a railway car, the combination of a truck having a recess, a center plate adapted to fit into said recess, and a car body to be supported by said truck, said car body having a projection to fit into said recess and rest on said center plate, said center plate being loosely positioned in said recess that the same may be raised and shims inserted underneath the same when it is desired to hoist the car body.

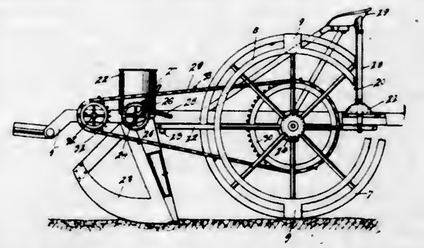
3. A device of the character described having a recess, a center plate adapted to fit into said recess, and a projection formed on a car body to fit into said recess and to rest on said center plate; and pin holes in said recess, center plate and projection alining with one another so that a pin can pass through all three portions.

4. A device of the character described having a supporting member provided with a recess, a center plate adapted to fit into said recess, and a projection on the lower side of a car body to fit into said recess and rest on said center plate; pin holes in said recess, center plate and car body projection alining with one another to receive a pin; and a plate adapted to be secured to the lower side of said supporting member to retain said pin in position.

5. A device of the character described having a recess, a center plate adapted to fit into said recess, and a projection of the car body adapted to fit into said recess, the upper face of said center plate being formed to receive said car body projection and to permit the same to rock, said center plate being loosely positioned in said recess so that it may be raised and shims inserted under the same when it is desired to raise the car body.

[Claims 6 to 14 not printed in the Gazette.]

1,093,978. CORN-PLANTER. JOHN CORCORAN, Chicago, Ill., assignor of one-half to Justus Laun, Chicago, Ill. Filed Apr. 21, 1913. Serial No. 762,599. (Cl. 111—46.)



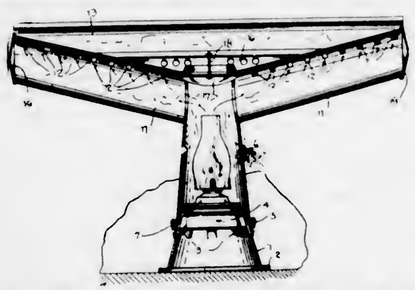
1. In a corn planter a frame, an axle, ground wheels rigidly secured to said axle, a clutch member rigid with the axle, a sprocket wheel loosely mounted on the axle, a clutch member carried by said sprocket wheel, means for engaging the two said clutch members, an idler sprocket wheel journaled in the plane of first mentioned sprocket wheel, a chain running around said sprocket wheels, seed

dropping mechanism including a rotatable valve rod projecting between the leads of said chain, a ratchet wheel rigidly secured to said valve rod between the leads of the chain, an arm forked at one end, the forks at one end of the arm straddling the ratchet wheel and loosely connected with the valve rod, a pawl pivoted to said arm and engaging the teeth of the ratchet wheel, trip bars carried by said chain for engagement with the free fork of said arm, whereby the arm is swung in one direction and spring means for returning the arm to its normal position when disengaged from the trip bars.

2. In a corn planter of the character described a seed hopper, seed dropping mechanism including a rotatable valve rod disposed in a horizontal plane, a ratchet wheel rigid with said rod, an arm forked at each end, the forks at one end of the arm straddling the ratchet wheel loosely connected with the valve rod, a pawl pivoted to said arm and engaging the teeth of the ratchet wheel, a chain running through the forks on the free end of the arm, trip bars carried by said chain for engagement with the last mentioned forks whereby the arm is swung forwardly to turn the valve rod, and spring means for returning the arm to its normal position when disengaged from the trip bars.

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1,093,979. PIANO DAMP-ABSORBER. JAMES WEBSTER CORLISS and JAMES WHARMBY, Lakeland, Fla., assignors of one-half to James W. Corliss, Lakeland, Fla., and one-half to Charles L. King, St. Petersburg, Fla. Filed Nov. 18, 1912, Serial No. 732,115. Renewed Feb. 6, 1914. Serial No. 817,051. (Cl. 126—96.)



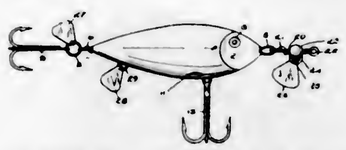
A device of the class described comprising a base provided with inwardly punched supporting tongues, a lug supported on the outer face of said base, a vertically extending flue supported upon said base by means of said lug, laterally extending flues carried by said vertically extending flue and secured thereto, a deflector member straddling said laterally extending flues, a second deflector arranged over the junction of said laterally extending flues and beneath said first mentioned deflector, each laterally extending flue provided with ventilating apertures formed in the upper face thereof, and a deflector plate suspended over said vertically extending flue from said last mentioned deflector for causing heat formed within said vertically extending flue to be radiated to said laterally extending flues.

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1,093,980. FISHING-BAIT. JAMES L. DONALY, Newark, N. J. Filed Jan. 7, 1911. Serial No. 601,277. (Cl. 43—30.)

1. In a fishing bait, the combination with an elongated buoyant body, of a non-rotatable member providing a bowed portion projecting from the body in fixed relation thereto and longitudinally thereof, and a substantially triangular blade with a perforation near its apex receiving said bowed portion, said blade adapted to oscillate transversely of the body and be limited at the ends of its oscillations by contact with said body, whereby an effect is secured in the bait simulating the moving fin of a fish.

2. In a fishing bait, the combination with an elongated buoyant body, of a non-rotatable member at the rear part of said body providing a bowed portion disposed longitudinally of said body, a triangular blade with a transverse perforation near its apex receiving said bowed portion, said blade adapted to oscillate in a plane transverse to the body and prevented from rotating by engaging the part adjacent said bowed portion, and a hook attached to the body and adapted to lie adjacent said blade in operation of the bait.



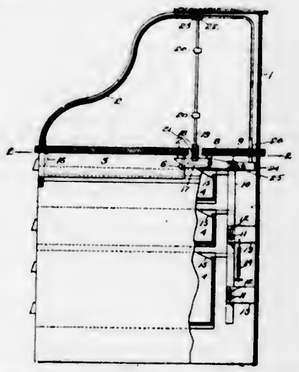
3. In a fishing bait, the combination of an elongated body having a tubular socket extending transversely inward from its outer surface, a spring-link in said socket comprising arms hinged together at one end and at the other resiliently engaging each other, and means for securing said link at the hinged end of said arms pivotally in said socket, the other end of the spring-link lying free in the mouth of the socket.

4. In a fishing bait, the combination of an elongated body having a tubular socket extending transversely inward from its outer surface, a wire extending longitudinally of said body and transversely through said socket, and a spring-link in said socket having at one end an eye receiving said wire and at its other end arms oppositely curved in the plane of the spring-link and resiliently engaging each other in sidewise relation.

5. In a fishing bait, the combination of an elongated body having a tubular socket extending transversely inward from its outer surface, and a spring-link in said socket comprising resilient arms hingedly connected at one end and at the other end curved in the plane of the spring-link and normally lying flatwise together, one of the curved ends of said arms being bent flaring outward away from the other arm.

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1,093,981. DESK. JAMES FRANK DUNLEAVY, Newton, Mass. Filed Oct. 7, 1912. Serial No. 724,235. (Cl. 45—94.)



1. A desk of the character described comprising a tier of drawers; a master drawer; a roll top; means operated by movement of the master drawer for locking the drawers of the tier in their closed positions, and means operated by movement of the master drawer for locking the roll top in its closed position, said latter means being yieldingly mounted to permit operation of the tier locking means without regard to the position of the roll top with respect to its locking means.



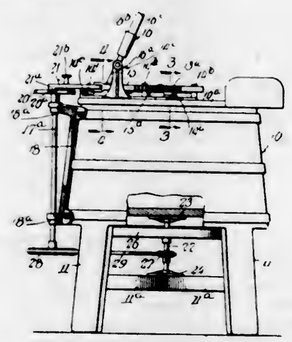
2. A desk of the character described comprising a tier of drawers; a master drawer; a roll top; means operated by movement of the master drawer for locking the drawers of the tier in their closed positions; means operated by movement of the master drawer for locking the roll top in its closed position, said latter means being yieldingly mounted to permit operation of the tier locking means without regard to the position of the roll top with respect to its locking means, and means through which the roll top when in its fully open position acts to hold both locking means inoperative.

3. A desk of the character described comprising a drawer, a master drawer, a lock bar slidably mounted in the desk in rear of said drawers, a spring for actuating the lock bar in one direction, a hook carried by said lock bar to engage the drawer, a lever pivotally mounted in the desk and connected to the lock bar, means carried by the master drawer to operate the lever in one direction, a roll top for the desk, a locking member for said roll top, and a yieldable connection intermediate said member and lever.

4. A desk of the character described comprising a drawer, a master drawer, a lock bar slidably mounted in the desk in rear of said drawers, a spring for actuating the lock bar in one direction, a hook carried by said lock bar to engage the drawer, a lever pivotally mounted in the desk and connected to the lock bar, means carried by the master drawer to operate the lever in one direction, a roll top for the desk, a locking member for said roll top, a yieldable connection intermediate said member and lever, and means operatively connected with the lock bar and adapted to be operated by the roll top in the movement of the latter in one direction.

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1,093,982. OPERATING-GEARING FOR WASHING-MACHINES. JOHN EDENS, Davenport, Iowa, assignor to H. F. Brammer Manufacturing Company, Davenport, Iowa, a Corporation of Iowa. Filed Sept. 19, 1912. Serial No. 721,116. (Cl. 74—50.)



1. Operating mechanism for washing machines and the like comprising, in combination with an operating shaft capable of rotary reciprocating movement, a gear fixed to said shaft, a reciprocable rack-bar in mesh with said gear, a hand-lever for actuating said rack-bar, a second shaft spaced from and parallel to said operating shaft, means connecting said second shaft with said rack-bar for continuously rotating said second shaft, a fly-wheel located below said operating shaft and a pulley and belt connection between said second shaft and said fly-wheel.

2. Operating mechanism for washing machines and the like comprising, in combination with a support including a movable top member, an operating shaft capable of rotary reciprocating movement carried by said top member, a gear secured to said shaft, a reciprocable rock-bar carried by said top member in mesh with said gear, a hand-lever fulcrumed on said top member for actuating said rack-bar, a second shaft rotatively mounted at the side of said support, means connecting said second shaft with said rack-bar for continuously rotating said second shaft, said means including a device adapted to be detached when said top member is raised, a fly-wheel located below said support and a pulley and belt speed increasing connection between said second shaft and said fly-wheel.

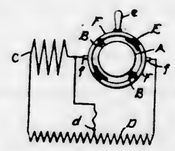
3. Operating mechanism for washing machines and the like comprising, in combination with a support, an operating shaft capable of rotary reciprocatory movement, a gear secured to said shaft, a reciprocable rack-bar in mesh with said gear, a hand-lever for actuating said rack-bar, an intermediate shaft located at the side of said support extending parallel to said operating shaft, a crank-disk secured to the upper end of said intermediate shaft, a pitman for connecting said rack-bar with said crank-disk, a fly-wheel rotatively mounted below said support, and a belt and pulley speed-increasing connection between the lower end of said intermediate shaft and said fly-wheel.

4. Operating mechanism for washing machines and the like comprising, in combination with a support including a movable top member, a vertical operating shaft capable of rotary reciprocatory movement carried by said top member, a gear secured to said shaft, a horizontal, reciprocable rack-bar carried by said top member in mesh with said gear, a hand-lever fulcrumed on said top member for actuating said rack-bar, an intermediate vertical shaft located at the side of said support, a horizontal crank-disk secured to the upper end of said intermediate shaft, a pitman for connecting said rack-bar with said crank-disk, said pitman being detachable at one end, and a fly-wheel rotatively mounted below said support and driven from said intermediate shaft.

5. Operating mechanism for washing machines and the like comprising, in combination with a support including a vertically swinging top member, a vertical operating shaft capable of rotary reciprocatory movement carried by said top member, a gear secured to said shaft, a reciprocable rack-bar carried by said top member in mesh with said gear, a hand-lever fulcrumed on said top member for actuating said rack-bar, an intermediate vertical shaft located at the side of said support, a horizontal crank-disk secured to the upper end of said intermediate shaft, a pitman for connecting said rack-bar with said crank-disk, said pitman having detachable connection with said crank-disk, a horizontal fly-wheel below said support, and a pulley and belt speed-increasing connection between the lower end of said intermediate shaft and said fly-wheel.

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1,093,983. REPULSION-MOTOR CONTROL. FRIEDRICH EICHBERG, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Nov. 18, 1911. Serial No. 661,019. (Cl. 172—276.)



1. In combination, an alternating current motor of the commutator type having an inducing winding and an induced winding locally short circuited through commutator brushes, connections for impressing voltages on both the inducing winding and the induced winding, means for shifting the brushes to reverse the motor, and means actuated by the brush shifting means for reversing the phase of the voltage impressed on the induced winding when said brushes are shifted to reverse the motor.

2. In combination, an alternating current motor of the commutator type having an inducing winding and an induced winding locally short circuited through commutator brushes, connections for impressing voltages on both the inducing winding and the induced winding, a brush holder yoke which is movable for reversing the motor, and means

carried by said yoke for reversing the phase of the voltage impressed on the induced winding when said yoke is shifted to reverse the motor.

3. In combination, an alternating current motor of the commutator type having an inducing winding and an induced winding locally short circuited through commutator brushes, connections for impressing voltages on both the inducing winding and the induced winding, a brush holder yoke comprising two segmental contacts secured together but insulated from each other, a brush secured to substantially the middle point of each of the segmental contacts and adapted to bear on the commutator of the motor, additional brushes connected to the source of impressed voltage for said induced winding and adapted to bear on said segmental contacts, and means for shifting the position of said segmental contacts.

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1,093,984. GEARING. LOUIS J. FLINT, South Whitley, Ind., assignor to Grip Nut Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 18, 1911. Serial No. 655,334. (Cl. 74—34.)



1. In a device of the class described in combination, a frame comprising two disk-like members having central apertures, and rigidly secured together, a bearing bushing in each of said apertures provided with a flange larger than the aperture, fastening means for said bushings, a driving shaft mounted in one of said bushings, a gear fixed on said shaft normally carried between said members, a second gear loose on said shaft normally carried between said members, said gears being of greater exterior diameter than the interior of said bushings, but of less exterior diameter than the interior of said apertures, whereby said shaft and gears may be removed from said frame by removing said bushings.

2. In a device of the class described in combination, a frame comprising two disk-like members having central apertures, and rigidly secured together, a bearing bushing in each of said apertures provided with a flange larger than the aperture, fastening means for said bushings, a driving shaft mounted in one of said bushings, a gear fixed on said shaft normally carried between said members, and a second gear loose on said shaft normally carried between said members, said gears being of greater exterior diameter than the interior of said bushings, but of less exterior diameter than the interior of said apertures, whereby said shaft and gears may be removed from said frame by removing said bushings and gears carried between said members for driving said loose gear from said fixed gear.

3. Gearing, comprising a frame, a drive shaft journaled in and supported by the frame, a drive gear rigidly secured on the drive shaft, a driven gear rotatively mounted on the drive shaft, and intermeshing gears journaled in the frame parallel with the drive shaft and intermeshing with the drive and driven gears.

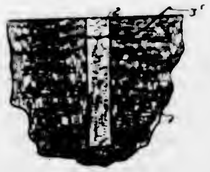
4. Gearing, comprising an annular frame, a drive shaft journaled axially of the frame and supported thereby, a fixed gear and a loose gear on said shaft, shafts mounted in the frame parallel with the drive shaft, and a train of intermeshing intermediate gears on said shafts meshing at one end with the fixed gear and at the other end with the loose gear.

5. Gearing comprising a drive shaft, a frame in which said shaft is rotatively mounted, a stationary casing in which said frame is rotatably mounted, a fixed drive gear and a loose driven gear on the drive shaft, intermeshing intermediate gears journaled in the frame and meshing with the fixed and loose gears, and means for rotating the frame and causing the intermediate gears to vary the angular rotation of the driven gear with respect to the drive gear independently of the variation caused by the operation of the drive shaft.

[Claims 6 to 17 not printed in the Gazette.]

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1,093,985. DETACHABLY-SECURED LABEL. JOSEPH FRENCH, Woonsocket, R. I. Filed June 1, 1908. Serial No. 436,011. (Cl. 112—34.)



1. The combination with an article substantially such as specified, and an identification label or the like, of a draw-thread engaging with the said label and with the said article and securing the said label to the article with capacity for readily being detached by withdrawal of said thread.

2. The combination with an article substantially such as specified, and an identification label or the like, of threads engaging with each other and holding the label to the article and adapted to be readily unraveled and withdrawn to release the label.

3. The combination with an article, of a laundry marking consisting of a washable identification label or the like, and a thread formed into a plurality of loops passing through the article, and a second thread extending lengthwise through the said loops and adapted to be withdrawn lengthwise therethrough to release the label, whereby the label is detachably secured to the article.

4. The combination with an article, and an identification label or the like, of two threads interengaging in a plurality of stitches holding the label to the article, one thereof a draw-thread which is relatively less flexible than the other whereby it occupies in the stitches a position facilitating its withdrawal, whereby the label is detachably secured to the article.

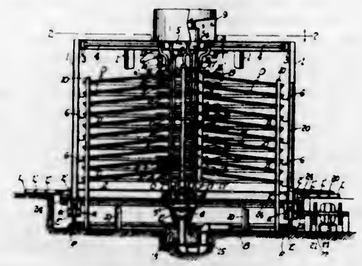
5. The combination with an article, and an identification label or the like, of two threads interengaging in a plurality of stitches holding the label to the article, one thereof constituting a draw-thread and differentiated in appearance from the other, to guide in unraveling the stitches, whereby the label is detachably secured to the article.

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1,093,986. MULTIPLE-DECK CONCENTRATOR. ULYSSES A. GARRED, Anaconda, Mont., assignor of one-third to Albert E. Wiggin and one-third to Frederick Laist, Anaconda, Mont. Filed Oct. 22, 1913. Serial No. 796,653. (Cl. 83—89.)

1. A concentrator comprising a series of superposed decks having continuous annular concentrating surfaces and spaced apart and provided with concentric openings forming a central well, a series of fixed columns disposed about, and supporting the decks at their peripheries, a frame encompassing the decks and rotatable around the same about the axis of the well, a member traversing the well and rotatable in unison with the frame aforesaid, pulp-feed launders secured to said member and disposed above the several decks around the well and discharging pulp onto the decks, discharge launders secured to the frame and provided with compartments for receiving the classified materials discharged along various points from the peripheries of the decks, means on the frame for supplying pulp to the feed-launders, and means coupled to the member traversing the well for supplying dressing and wash water currents to the several decks.

2. In combination with a series of superposed stationary decks having continuous annular concentrating surfaces and spaced apart, a series of fixed columns disposed about, and supporting the decks at their peripheries, means moving across the decks and supplying pulp thereto whereby the latter distributes itself in zones identified with the material classified from the original pulp, discharge launders disposed adjacent the outer edges of the decks outside the columns and moving in unison with the pulp-supply means for receiving the various products of the classification.



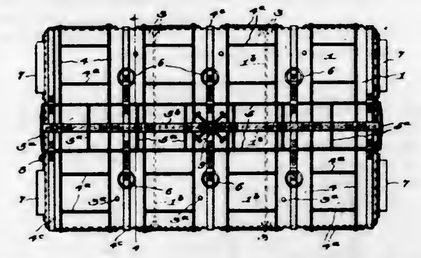
3. In combination with a series of superposed stationary decks having continuous annular concentrating surfaces and spaced apart, a series of fixed columns disposed about, and supporting the decks at their peripheries, means moving across the decks and supplying pulp thereto whereby the latter distributes itself in zones identified with the material classified from the original pulp, discharge launders disposed adjacent the outer edges of the decks outside the columns and moving in unison, and in the same general direction with, the pulp-supply means for receiving the various products of the classification.

4. In combination with a series of superposed stationary decks having continuous annular concentrating surfaces and spaced apart, a series of fixed columns disposed about, and supporting the decks at their peripheries, means rotating across the decks and supplying pulp thereto whereby the latter distributes itself in zones supplying material classified from the original pulp, discharge launders disposed adjacent the outer edges of the decks outside the columns and rotating in unison, and in the same general direction with, the pulp-supply means, compartments in said discharge launders for receiving the various products of the classification, and a common discharge for the contents of the corresponding compartments of the several launders.

5. A multiple-deck concentrator comprising a series of fixed columns disposed about a central vertical axis, concentrating decks supported at their peripheries in the space between the columns and superposed over one another and spaced apart, the several decks having openings forming collectively a central well through the decks, the concentrating surfaces of the decks sloping downwardly and outwardly from said well toward the peripheries of the decks, a rotatable frame comprising a series of columns disposed about the axis of the well and surrounding the decks, rings connecting the upper and lower ends of the columns respectively, a central tower connected to the upper ring and traversing the well, the base of the tower being provided with a step-bearing, a circular track below the columns, wheels on the rotatable frame traversing the track, means for imparting rotation to the frame and to the tower, pulp-feed launders and discharge launders carried by the tower and frame respectively, a pulp-distributer on the frame supplying pulp to the pulp-feed launders, a stationary water-feed pipe centrally traversing the bearing of the tower, a rotatable pipe leading from said stationary pipe, branches leading from said rotatable pipe, dressing water and wash water lines leading from the respective branches along the tower and through the well, means leading from said lines over the several decks to supply dressing and wash currents thereto, and means for removing the classified materials from the several discharge launders.



1,093,987. LIFE-SAVING APPARATUS. THOMAS F. GLEASON, Muscatine, Iowa, assignor of one-third to Am Davis, Muscatine, Iowa. Filed Oct. 30, 1913. Serial No. 798,243. (Cl. 9—11.)



1. A life saving raft comprising a collapsible casing provided with a bottom layer of buoyant material, and an inflatable collapsible compartment above said layer.

2. A life saving raft comprising a collapsible casing provided with a bottom layer of buoyant material, and having a plurality of collapsible independently inflatable compartments above said layer.

3. A life saving raft comprising a collapsible casing provided with a bottom layer of buoyant material, and having a plurality of collapsible independently inflatable compartments above said layer and an inflatable bag in each compartment.

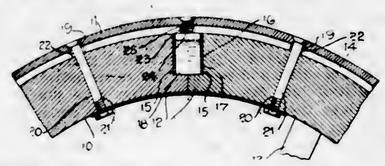
4. A life saving raft comprising a collapsible casing provided with a bottom layer of buoyant material, and a collapsible inflatable compartment above said layer, with exterior reinforcing bands surrounding the casing, and bracing the same.

5. A life saving raft comprising a collapsible casing provided with a bottom layer of buoyant material, and a collapsible inflatable compartment above said layer, with exterior reinforcing bands surrounding the casing, and bracing the same, and flexible ladders attached to the exterior of the casing.

[Claims 6 to 9 not printed in the Gazette.]

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1,093,988. WHEEL. OSCAR VELANDINGHAM HANNA, Meridian, Tex. Filed Mar. 10, 1913. Serial No. 753,404. (Cl. 21—165.)



1. In a wheel, the combination with a tire having a groove therein, a plurality of felly sections having grooves in their meeting ends, tubular dowels disposed within the grooves formed in the meeting ends of said felly sections, the groove in said tire being in communication with the tubular dowels, said tire having an opening in communication with the groove therein, a closure for said opening, and means for securing the tire to the felly sections.

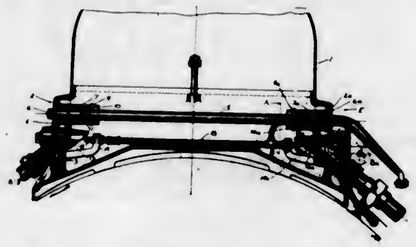
2. In a wheel such as described, the combination with a tire having a circular groove formed therein, of a plurality of felly sections, fastening means extending through the felly sections and tire, the groove in the tire being enlarged adjacent the fastening means, the meeting ends of the felly sections having grooves formed therein producing a socket, a tubular dowel disposed within said socket and holding the felly sections against displacement, said tubular dowel producing a cell, the said tire having an opening formed therein in communication with the groove and the cell, a closure for said opening extending adjacent the

month of the cell for limiting the movement of fluid from the cell and the groove in the tire adjacent the closure being enlarged as and for the purpose set forth.

3. In a wheel, the combination with a tire, of a plurality of felly sections having registering grooves in their meeting ends, and a tubular dowel disposed within each pair of registering grooves, said tire having an annular opening in communication with each tubular dowel.

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1,093,989. LOCOMOTIVE-SAND-BOX ARRANGEMENT. CHARLES L. HEISLER, Schenectady, N. Y. Filed Feb. 13, 1911. Serial No. 608,475. (Cl. 105—263.)



1. The combination of a casing having means for filling and adaptation for storing sand or other comminuted material, a discharge outlet, a discharge conduit communicating therewith, and disposed outside of the casing, an air blast tube disposed within the casing, near the bottom thereof, and in communication with the outlet, the inner end of the tube being at a considerable distance from the outlet, means adapted to jet an air blast through the tube toward said outlet and conduit, and means adapted to admit material into the tube and blast at a plurality of points along the tube beginning near said outlet and extending for a considerable distance inward therefrom, and adapted to exhaust the material from within the casing over an extended space along the tube, for the purpose of increasing the available capacity of the casing and to prevent clogging.

2. The combination of a casing having means for filling and adaptation for storing sand or other comminuted material, a discharge outlet, a discharge conduit communicating therewith, and disposed outside of the casing, an air blast tube disposed within the casing, near the bottom thereof, and in communication with the outlet, the inner end of the tube being at a considerable distance from the outlet, means adapted to jet an air blast through the tube toward said outlet and conduit, and means adapted to admit material into the tube and blast at a plurality of points along the tube beginning near said outlet and extending for a considerable distance inward therefrom, and adapted to exhaust the material from within the casing over an extended space along the tube, a port communicating with said outlet and a manually operable valve adapted to govern said port, for the purpose of manually governing the discharge of material from the casing.

3. The combination of a casing having means for filling and adaptation for storing sand or other comminuted material, a discharge outlet, a discharge conduit communicating therewith, and disposed outside of the casing, an air blast tube disposed within the casing, near the bottom thereof, and in communication with the outlet, the inner end of the tube being at a considerable distance from the outlet, means adapted to jet an air blast through the tube toward said outlet and conduit, and means adapted to admit material into the tube and blast at a plurality of points along the tube beginning near said outlet and extending for a considerable distance inward therefrom, and adapted to exhaust the material from within the casing over an extended space along the tube, a port communicating with said outlet; a like constructed and oppositely disposed discharge outlet, discharge conduit, blast tube, port, and manually operable valve; and a crank shaft extending horizontally through the casing and adapted to engage and actuate said valves for the purpose described.

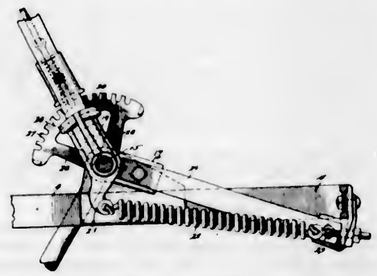
4. The combination of a casing having means for filling and adaptation for storing sand, or other comminuted material, a plurality of discharge outlets, a plurality of discharge conduits communicating therewith and disposed without the casing, a plurality of air blast tubes disposed within the casing near the bottom thereof and having an intervening space between adjacent tubes which extend inwardly for a considerable distance from the corresponding outlets, means adapted to jet an air blast through each tube toward the correaponding outlet and conduit, and means adapted to admit material into each tube and blast at a plurality of points along each tube for the purpose of exhausting the material from within the casing over a plurality of spaces extending along the tubes, thereby increasing the available capacity of the casing.

5. The combination of a casing having means for filling and adaptation for storing sand, or other comminuted material, a plurality of discharge outlets, a plurality of discharge conduits communicating therewith and disposed without the casing, a plurality of air blast tubes disposed within the casing near the bottom thereof and having an intervening space between adjacent tubes which extend inwardly for a considerable distance from the corresponding outlets, means adapted to jet an air blast through each tube toward the corresponding outlet and conduit, and means adapted to admit material into each tube and blast at a plurality of points along each tube, a plurality of ports communicating with the outlets, manually operable valves adapted to govern said ports for the purpose of manually governing the discharge of material from the casing through the outlets.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,990. WHEEL ADJUSTMENT FOR PLOWS. EDWARD M. HEYLMAN, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Aug. 19, 1911. Serial No. 644,986. (Cl. 97—36.)



1. In a wheel plow, a frame, a land-side wheel, an axle upon which said wheel is mounted, a shock absorbing spring connected to said axle, a lever loosely mounted upon said shaft for raising and lowering said frame with respect to said wheel, and means controlled by said spring for assisting said raising operation.

2. In a wheel plow, a frame, a land-side wheel, an axle upon which said wheel is mounted, a casting keyed to said axle, a shock absorbing spring connected to said casting, and an operating lever loosely mounted upon said axle, and adapted to engage said casting for raising and lowering the frame with respect to said wheel.

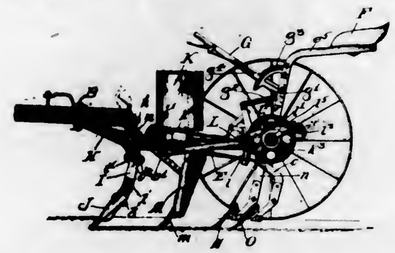
3. In a wheel plow, a frame, a land-side wheel, an axle upon which said wheel is mounted, a casting keyed to said shaft, a shock absorbing spring connected to said casting, a pair of lips on said casting, an operating lever loosely mounted upon said axle and extending between said lips, means for locking said lever in any desired position, and means whereby said casting is permitted a limited rotation independent of said operating lever.



4. In a wheel plow, a frame, a land-side wheel, an axle for said wheel mounted in said frame, a casting keyed to said axle, a shock absorbing spring connected to said casting, an arc-shaped rack rigidly mounted upon said frame, an operating lever loosely mounted upon said axle and provided with a spring finger adapted to engage said rack to lock said lever in any desired position, and means for causing said lever to engage said casting to oscillate said shaft in order to raise or lower said frame in respect to said wheel.

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1,093,991. PLANTING-MACHINE. WILLIAM E. JOHNSON and GEORGE A. PENNOCK, Rock Island, Ill., assignors to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed July 30, 1904. Serial No. 218,797. (Cl. 111—6.)



1. A planting machine comprising a body-frame, a tongue rigid with said body-frame, a furrow-opener carried by the body-frame, seed-dropping mechanism carried by the body-frame and provided with means for dropping the seed in the furrow made by said opener, vehicle wheels swingingly connected with the body-frame, a manually operated device for locking the said wheels against bodily movement relatively to the body-frame, and a plurality of shovel-beams swingingly connected with the said body-frame on opposite sides of and to the rear of said seed dropping mechanism, said beams being each adapted for free independent up-and-down swinging movement, and each beam having a shovel for covering the seed dropped in said furrow.

2. A planting machine comprising a body-frame, a tongue rigid with said body-frame, a single-furrow seed-dropping mechanism carried by said body-frame, a bail shaped axle having its middle portion mounted to oscillate in bearings carried by said body-frame, vehicle wheels mounted on the spindles of said axle, and a plurality of independently free-swinging covering shovels carried by the body-frame, and located on opposite sides of and to the rear of said seed dropping mechanism.

3. A planting machine comprising a body-frame, seed-dropping mechanism carried by said body-frame, covering shovels carried by said body frame connected to swing up and down relatively to the body-frame, on opposite sides of the furrow, a bail-shaped axle swingingly connected with the body-frame, and vehicle wheels on said axle.

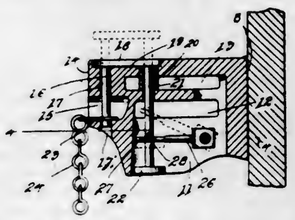
4. A planting machine comprising a body-frame, a tongue rigid with said body-frame, a bail-shaped axle swingingly connected with the body-frame and provided with vehicle wheels, a driver's seat rigidly mounted on the said axle, means including a bell-crank-shaped hand-lever for both producing relative movement between the body-frame and the axle and locking same against relative movement, seed-dropping mechanism carried by the body-frame, means for opening a furrow in which to drop the seed, and a plurality of free-swinging or floating beams whereof each is adapted for independent rise and fall, and whereof each is provided with a suitable shovel for covering the seed.

5. A planting machine comprising a tongue, a body-frame rigidly connected with the rear end of said tongue, seed-dropping mechanism, vehicle wheels swingingly connected with the body-frame, a sweep-beam secured to the under side of the tongue, two brace-bars having their lower end-portions secured to said sweep-beam and their upper portions disposed at opposite sides of said tongue, clamping bolts extending through said brace-bars above and below the tongue, a sweep-shank adjustably secured to said sweep-beam, a sweep secured to said sweep-shank, and free swinging covering shovels.

[Claims 6 to 8 not printed in the Gazette.]

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1,093,992. RESTRAINING DEVICE. CHARLES KACHELMEIER, Sheboygan, Wis. Filed July 30, 1913. Serial No. 782,093. (Cl. 119—116.)



1. A restraining device of the character described including a body having a chamber formed therein and opening upon the lower edge thereof, the body being also formed with a recess in its forward face, a locking pin movable across said recess, a vertically movable push rod, and means for connecting the upper end of the locking pin to the upper end of the push rod, said push rod extending through the chamber formed in the body, an upward movement of the push rod withdrawing the locking pin from said recess.

2. A restraining device, including a body having a chamber formed therein and opening upon the lower edge thereof, the body being also formed with a recess opening upon its forward edge, a locking pin movable into and from said recess, a push pin extending through the chamber formed in the body, means connecting the push pin with the locking pin, a rotatable member extending transversely through the body, and means rigid with the rotatable member for elevating the push pin.

3. A restraining device, including a body having a chamber formed therein and opening upon the lower edge thereof, the body being also formed with a recess opening upon its forward edge, a vertically movable locking pin movable into and from said recess, a vertically movable push rod extending through the chamber formed in the body, means connecting the push rod and the locking pin, a rotatable rod extending transversely through the chamber formed in the body, a fork rigidly secured to said rotatable rod and having a pair of tines extending on opposite sides of the push rod, and a pin carried by the push rod for engagement by the upper faces of the tines, a rotation of the actuating rod causing the fork to lift the push rod.

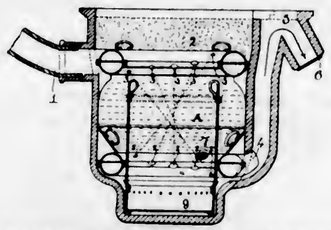
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1,093,993. PESSARY. CARL FELIX KAFKA, Vienna, Austria-Hungary. Filed Aug. 24, 1908. Serial No. 450,089. (Cl. 128—21.)



A pessary consisting of a hollow integral body formed wholly of a material of a single character and having a uniform thickness, and being relatively thin, the marginal portions being of the same thickness as the body portion, said pessary being made to conform to the exact shape of the cervix uteri of the wearer and secured solely by adhesion, said body being formed with a rigid enlargement for the reception of medicaments and having a second enlargement of a bag-like shape adapted to receive absorbent materials for collections of secretions, substantially as described.

1,093,994. SEWAGE AND REFUSE SEPARATOR. BURKHARDT KAIBEL, Darmstadt, Germany. Filed Mar. 29, 1913. Serial No. 757,697. (Cl. 210—5.)



1. In a separator the combination of a settling tank or vessel, an annular perforated pipe or chamber in said tank or vessel, means for admitting matter to be separated to said annular pipe or chamber, a second annular perforated pipe or chamber located below said first-named annular pipe or chamber with the intervention of a clear space between them and means for drawing off water from said clear space.

2. In a separator the combination of a settling tank or vessel, an annular perforated pipe or chamber in said tank or vessel, the perforations being only on its inner circumference, means for admitting matter to be separated to said annular pipe or chamber, a second annular perforated pipe or chamber located below said first-named annular pipe or chamber with the intervention of a clear space between them, and means for drawing off water from said clear space.

3. In a separator the combination of a settling tank or vessel, an annular perforated pipe or chamber in said tank or vessel, means for admitting matter to be separated to said annular pipe or chamber, means for determining a fixed water level, means for determining another fixed water level, and means controlled by said first-named water level determinant for intermittently drawing off water.

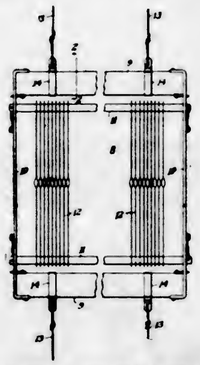
4. In a separator the combination of a settling tank or vessel, an annular perforated pipe or chamber in said tank or vessel, means for admitting matter to be separated to said annular pipe or chamber, a second annular perforated pipe or chamber located below said first-named annular pipe or chamber with the intervention of a clear space between them, means for determining a fixed water level, means for determining another fixed water level, and means controlled by said first-named water level determinant for periodically reducing the volume of water from the higher of said levels to the lower one.

5. In a separator the combination of a settling tank or vessel, an annular perforated pipe or chamber in said tank or vessel, means for admitting matter to be separated to said annular pipe or chamber, a receptacle for the sludge, means for determining a fixed water level, means for determining another fixed water level, water drawing-off means communicating with the settling tank or vessel at a point below said annular perforated pipe or chamber and so disposed as not to draw off water except when said water is at the upper or higher of the aforesaid levels and not to reduce the water below the lower of the aforesaid levels so as to insure intermittent drawing off of water and quiescence in the intervals of drawing-off.

[Claims 6 and 7 not printed in the Gazette.]

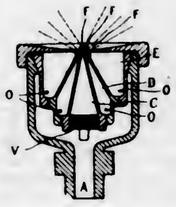
1,093,995. LOOM-HARNESS. JACOB KAUFMANN, Philadelphia, Pa., assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 6, 1912. Serial No. 669,788. (Cl. 139—73.)

A device of the character described comprising a strip of metal surrounding the heddle frame bar, said strip having its ends brought together and having slots in said ends for engagement by the jack cord or strap, said slots having continuations extending to the side margins of the strip, the continuation of the slot in one end of the strip extending to the opposite side to that to which extends the continuation of the slot in the other end of



the strip, and the metal from said slots being curled over on the outer faces of the ends of the strip to thereby provide rounded bearing portions at the ends of the slots.

1,093,996. NOZZLE FOR VENTILATING AND HUMIDIFYING APPARATUS. PAUL KESTNER, Lille, France. Filed May 16, 1910. Serial No. 561,552. (Cl. 137—80.)



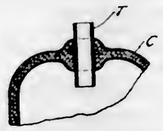
1. A nozzle for ventilating and humidifying apparatus, comprising a casing having a main inlet for fluid, a central, tapered chamber within and communicating at its larger end with the interior of the casing and having an outlet at its smaller end, and a surrounding chamber having an annular outlet concentric with the outlet of the central chamber and provided with fluid inlets communicating directly with the interior of the casing, said concentric chambers being formed in a plug detachably connected with and closing one end of the casing.

2. A nozzle for ventilating and humidifying apparatus, comprising a casing having a main inlet for fluid, a central, tapered chamber within and communicating at its larger end with the interior of the casing and having an outlet at its smaller end, and a plurality of concentric chambers surrounding the central chamber and having annular outlets concentric with the outlet of said central chamber, the said concentric chambers being provided near their inner ends with inlet ports communicating directly with the interior of the casing.

1,093,997. CONDUCTING-SEAL FOR VACUUM-CONTAINERS. CHARLES A. KRAUS, Newton Highlands, Mass. Filed Apr. 5, 1912. Serial No. 688,815. (Cl. 176—50.)

1. The combination with a vacuum-container of non-conducting material, of a tube of conductive material sealed through the container-wall, the coefficient of thermal expansion of the tube being greater than that of the container material.

2. The combination with a vacuum-container of non-conducting material, of a tube of conductive material sealed through the container-wall and in contact therewith on one side only of the tube-wall, the coefficient of thermal expansion of the tube being greater than that of the container-material.



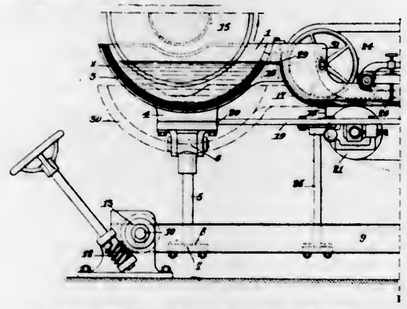
3. The combination with a vacuum-container of non-conducting material, of a tube of conductive material sealed through the container-wall, the coefficient of thermal expansion of the tube being greater than that of the container-material, the proportions of the tube and the tenacity of contact with the container being such as to maintain the material of the tube under tension under conditions of uniform normal temperature.

4. The combination with a vacuum-container of non-conductive material, of a tube of conductive material passing through and fused to the container wall, the coefficient of thermal expansion of the tube being greater than that of the container-material, and the material of the tube having such plasticity that its contractile effort under normal temperature conditions in resistible by the adhesive strength of contact with the container wall.

5. In a seal, a member of non-conducting material and a tube of conductive material sealed through the non-conducting member, the coefficient of thermal expansion of the tube being greater than that of the member through which it is sealed.

[Claims 6 to 8 not printed in the Gazette.]

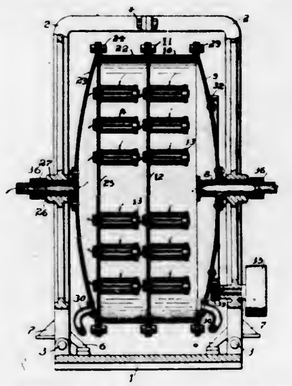
1,093,998. PAPER-MAKING MACHINE. MARCEL LAMORT, Vitry-le-François, France. Filed Dec. 30, 1912. Serial No. 739,363. (Cl. 92—44.)



1. In paper making machines an arrangement according to which the working frame proper of the machine over which the wire passes is connected with the strainer in a rigid and uninterrupted structure so that the strainer participates in the shaking motion of the frame, and also participates in the vertical adjustment of the said frame, the said arrangement including the combination of a straining drum; a vat receiving the drum; vertical rods supporting the vat, the said rods being hinged to the vat at their upper ends, and adapted to turn about their lower ends; a main frame supporting the wire; vertical rods supporting the main frame, the said rods being hinged to this frame at their upper ends, and adapted to turn about their lower ends; a sheet connecting the vat of the strainer and the working frame, and adapted to guide the pulp from the strainer on to the wire cloth; side plates fixed to the vat, and adapted to effect a tight joint between the vat and the working table; means for imparting a rotary movement to the drum of the strainer; and means for imparting a shaking motion to the working table and the vat.

2. In paper making machines an arrangement according to which the working frame proper of the machine over which the wire passes is connected with the strainer in a rigid and uninterrupted atructure so that the strainer participates in the shaking motion of the frame, and also participates in the vertical adjustment of the said frame, the said arrangement including the combination of a straining drum; a vat receiving the drum; vertical rods supporting the vat, the said rods being hinged to the vat at their upper ends, and adapted to turn about their lower ends; a main frame supporting the wire; vertical rods supporting the main frame; the said rods being hinged to this frame at their upper ends, and adapted to turn about their lower ends; longitudinal beams supporting the lower ends of the vertical rods of the vat and the working table; such beams being pivoted at one of their ends and adapted to be raised or lowered at their other ends, by any other suitable means; longitudinal beams supporting the upper ends of the vertical rods of the working table, such beams being hinged to the vertical supporting rods and fixed to the vat at one of their ends; a connecting rod hinged to the other ends of the said beams; a crank adapted to drive the said connecting rod in such a manner as to impart a shaking motion to the main frame and to the vat of the strainer; and means for vertically adjusting the vat of the strainer with regard to the main frame.

1,093,999. FILTER. OSCAR M. LAMSENS, Detroit, Mich. Filed May 31, 1913. Serial No. 770,811. (Cl. 210—11.)



1. A filter comprising a cylindrical casing journaled to turn on its axis and provided with heads having a plurality of openings therethrough, cylindrical filtering members each secured to a head over an opening, means forming bearings for the shell at each end thereof and each having an inlet in communication with the several openings of the adjacent head, means in which the bearings are journaled, and means for rotating the shell therein.

2. A filter comprising a pair of substantially cylindrical shell sections adapted to be secured together at their ends, a crowned plate detachably secured at the outer end of each shell, a hollow trunnion secured to each plate, tiltable supporting means in which each trunnion is journaled, a head for each shell adapted to be secured to either end thereof and provided with a plurality of cylindrical filter members, an outer plate for the outer end of each shell provided with a hollow trunnion forming a passage into the shell, tiltable supports in which the plate trunnions are each journaled, and means for rotating the shell sections.

3. A filter comprising a shell, heads each adapted to be secured to an end of the shell and provided with inlet openings, a cylindrical filter member secured to each head over each opening, hollow trunnions each secured to the shell as a bearing therefor, and means for turning the shell in the supports.

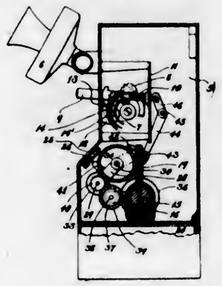
4. A filter comprising a shell having two cylindrical sections adapted to be detachably secured together at their ends, filter plates each adapted to be detachably secured to an end of a section, head plates adapted to be secured to either end of each section, a plurality of cylindrical filter members secured in sets on the filter plates, the latter having openings whereby liquid may escape through the bores of the filter members, tiltable supports and head plates detachably secured on the section ends and provided with hollow trunnions journaled in the supports, the trunnions forming the inlet and outlet to the shell.

5. A filter comprising a shell having two cylindrical sections adapted to be detachably secured together at their ends, filter plates each adapted to be detachably secured to an end of a section, head plates adapted to be secured to either end of each section, a plurality of cylindrical filter members secured in sets on the filter plates, the latter having openings whereby liquid may escape through the bores of the filter members, tiltable supports, head plates detachably secured on the section ends and provided with hollow trunnions journaled in the supports, the trunnions forming the inlet and outlet to the shell, and granular scouring material partially filling the drum around the filter members.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,000. COIN-CONTROLLED TELEPHONE PAY-STATION. GEORGE A. LONG, Hartford, Conn., assignor to The Gray Telephone Pay Station Company, Hartford, Conn., a Corporation of Connecticut. Original application filed Feb. 19, 1912, Serial No. 678,661. Divided and this application filed Mar. 19, 1913. Serial No. 755,316. (Cl. 194—84.)



1. The combination of a signal, an indicator, coin controlled means for advancing said indicator to a degree proportionate with the amount of money employed in the operation of said coin controlled means, and signal operating mechanism having means for retracting said indicator.

2. The combination of an indicator, coin controlled means for advancing said indicator varying distances and in proportion with the amount of money employed in operating said coin controlled means, a signal, and signal operating mechanism having means for retracting said indicator.

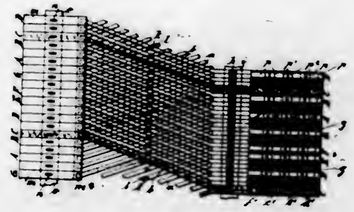
3. The combination of coin controlled means advancable to various extents and in proportion with the amount of money utilized in the operation thereof, an indicator advancable with the coin controlled means, a signal, and mechanism for intermittently retracting the coin controlled means, each intermittent movement being a fraction of the amount of advancing movement, said mechanism having means for operating said signal on each of said intermittent movements and for also retracting the indicator.

4. The combination of a telephone transmitter, an audible signal in resonant connection with the transmitter, an indicator, coin controlled means for advancing said indicator to a degree proportionate with the amount of money employed in the operation of said coin controlled means, and signal operating mechanism having means for retracting said indicator.

5. The combination of an audible signal, a telephone transmitter to receive the sounds of said signal, an indicator, coin controlled means for advancing said indicator to a degree proportionate with the amount of money employed in the operation of said coin controlled means, and signal operating mechanism having means for retracting said indicator.

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1,094,001. PIANO-KEYBOARD. CONRAD MAHLKE, Elbing, Germany. Filed Jan. 23, 1913. Serial No. 743,818. (Cl. 84—16.)



1. A musical instrument having a keyboard consisting of two sets of key-levers grouped in pairs at the front so that the twenty-four keys of two octaves are grouped in the space of a single octave, comprising a plurality of pairs of key-levers extended to the front, the levers of each pair being juxtaposed at their forward parts to form keys of equal length and diverging toward the rear, the levers of each pair corresponding respectively to the upper and lower notes of the same octave, and finger-pieces on each of said levers, the finger-pieces of each pair being in alinement with each other transversely of the keyboard so that the finger-pieces of each set of 12 keys are arranged in chromatic order in a single row.

2. A musical instrument having a keyboard consisting of two sets of key-levers grouped in pairs at the front so that the 24 keys of two octaves are grouped in the space of a single octave, comprising a plurality of pairs of key-levers extended to the front, the levers of each pair being juxtaposed at their forward parts to form keys of equal length and diverging toward the rear, the levers of each pair corresponding respectively to the upper and lower notes of the same octave, and finger-pieces on each of said levers, the finger-pieces of each pair being in alinement with each other transversely of the keyboard and arranged in stepwise relation to each other so that the finger-pieces of each set of 12 keys are arranged in chromatic order in a single row.

3. A musical instrument having a keyboard with two sets of key-levers grouped in pairs at the front so that the 24 keys of two octaves are grouped in the space of a single octave, comprising a plurality of pairs of key-levers extended to the front, the levers of each pair being juxtaposed at their forward parts to form keys of equal length and diverging toward the rear, the levers of each pair corresponding respectively to the upper and lower notes of the same octave, said levers having stepped recesses at their forward ends, and finger-pieces mounted in said stepped recesses, the finger-pieces of each pair being in alinement with each other transversely of the keyboard and the finger-pieces of one lever alternating with the finger-pieces of the other lever of said pairs of levers.

4. A musical instrument having a keyboard consisting of two sets of key-levers grouped in pairs at the front so that the 24 keys of two octaves are grouped in the space of a single octave, comprising a plurality of pairs of key-levers, extended to the front, the levers of each pair being juxtaposed at their forward parts to form keys of equal length and diverging toward the rear, the levers of each pair corresponding respectively to the upper and lower notes of the same octave, and finger-pieces on each of said levers, the finger-pieces of each pair being in alinement with each other transversely of the keyboard and arranged in stepwise relation to each other and having a horizontal upper surface terminating at the front in a downwardly inclined surface and at the rear in a correspondingly upwardly inclined surface.

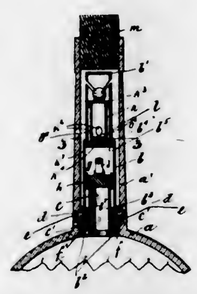
5. A musical instrument having a keyboard with two sets of key-levers grouped in pairs at the front so that the 24 keys of two octaves are grouped in the space of a single octave, comprising a plurality of pairs of key-levers extended to the front, the levers of each pair being juxtaposed at their forward parts to form keys of equal length and diverging toward the rear, the levers of each pair corresponding respectively to the upper and lower notes of the same octave, said levers having stepped recesses at their forward ends, and finger-pieces mounted in said stepped recesses, the finger-pieces of each pair being in alinement with each other transversely of the keyboard and the finger-pieces of one lever alternating with the finger-pieces of the other lever of said pairs of levers, said finger-pieces having a horizontal upper surface terminating at the front in a downwardly inclined surface and at the rear in a correspondingly upwardly inclined surface.

[Claims 6 to 8 not printed in the Gazette.]



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1,094,002. NON-REFILLABLE BOTTLE. ANTON P. MAZINSKI, Jersey City, N. J. Filed Aug. 30, 1913. Serial No. 787,475. (Cl. 215—68.)



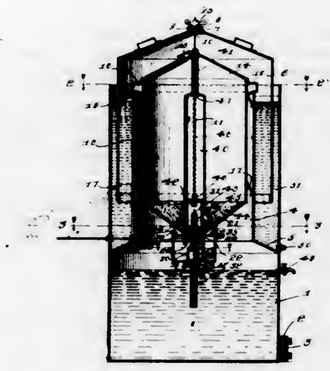
A non-refillable bottle, comprising a tubular casing fixed in the neck of the bottle, and having an open bottom and downwardly slanting perforations near its top, two superposed valve mechanisms in said casing, one comprising a tube having an open bottom, a non-buoyant valve pivotally connected to the said tube and the other comprising a peripherally perforated tube forming an annular passage between itself and said casing and a buoyant body in said tube.

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1,094,003. ACETYLENE-GAS GENERATOR. ZADOCK MCVAY, Double Springs, Ala. Filed Apr. 29, 1913. Serial No. 764,421. (Cl. 48—53.1.)

1. An acetylene gas generator comprising an outer casing, a gas bell, a carbid receptacle carried therein, said carbid receptacle provided with a discharge opening at its lower end, a bracket suspended from the lower end of said receptacle, a tubular casing suspended from said bracket, a spring positioned therein, a rod supported upon said spring, a valve carried by said rod and adapted to normally close said discharge opening, a trigger engaging the lower end of said valve for normally holding the same in a closed position, and means carried by said rod and engaging said trigger for releasing the same from said valve whereby said valve may be forced to an open position.

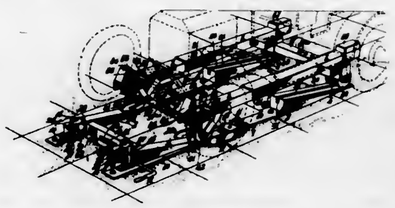
2. An acetylene gas generator comprising an outer casing, a gas bell, a carbid receptacle carried thereby and said carbid receptacle provided with a discharge opening at its lower end, a rubber washer for sealing the lower end of said discharge opening, a bracket suspended below said carbid receptacle, a valve normally closing said discharge opening, a tubular member carried by said valve and provided with a laterally extending flange, said valve provided with a collar portion engaging and resting upon said flange, a laterally swinging trigger engaging the lower end of said flange and adapted to normally hold said valve in a closed position upon said discharge opening, a rod carried within said tubular member, a spring for normally exerting an upward pressure thereon, a head carried by said rod and adapted to engage said trigger for guiding the same from under said flange of said tubular member for suddenly releasing said valve from the lower end of said discharge opening.



3. An acetylene gas generator comprising an outer casing, a gas bell, a carbid receptacle, means for delivering carbid from said receptacle in measured quantities, an operating rod carried by said bell, said carbid container provided with a filling opening, a cap for normally closing said opening, spring means for spacing said carbid receptacle from the inner wall of said casing, a removable adjustable cap engaging said operating rod for facilitating the filling of carbid into said carbid receptacle without removing the bell from said casing, and said rod adapted to be adjusted for controlling the delivery of carbid from said receptacle.

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1,094,004. AUTOMOBILE-JACK. MARTIN H. MEYER, Pender, Nebr. Filed Apr. 5, 1913. Serial No. 759,227. (Cl. 57—15.)



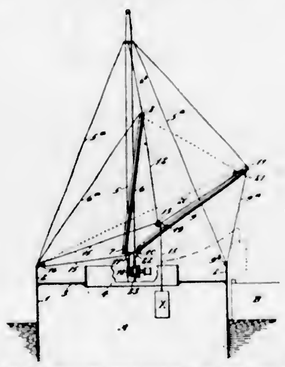
1. In an automobile jack; base supports having inclined trackways, a carriage mounted to move upon the said inclined trackways and adapted for being moved up the said trackways by the forward impulse of the vehicle to be lifted, means for holding the carriage and the vehicle supported thereon locked to their elevated position, said means including a spring jaw latch held to a normal position under spring tension, a hook on the carriage for engaging and interlocking with the said jaw after the carriage and the vehicle thereon have reached their elevated position, and a crank lever shaft connected with the said spring jaw latch for releasing said latch to free the carriage.

2. In an automobile jack; base supports having inclined trackways, a carriage mounted to move upon the said inclined trackways and adapted for being moved up the said trackways by the forward impulse of the vehicle to be lifted, means for holding the carriage and the vehicle supported thereon locked to their elevated position, said means including a spring jaw latch held to a normal position under spring tension, a hook on the carriage for engaging and interlocking with the said jaw after the carriage and the vehicle thereon have reached their elevated position, a crank lever shaft, a pivoted lifting member that engages the spring jaw latch connected with the crank lever and adapted for releasing the latch to free the carriage when the crank lever is actuated.

3. An automobile jack comprising inclined trackways, a carriage mounted on the trackways and operated by the vehicle to be lifted, the said carriage having a forwardly and fixedly held pawl, a crank shaft connected with the trackways, a catch pivotally mounted on the crank of the said shaft, a combined lifter member and guide pivotally mounted on the catch and extended beyond the locking edge of the said catch, the extended end of the said member being held down over the said edge of the catch under spring tension.

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1,094,005. LOAD-TRANSFER APPARATUS. THOMAS SPENCER MILLER, South Orange, N. J. Filed Apr. 27, 1910, Serial No. 557,982. Renewed Sept. 3, 1912. Serial No. 718,395. (Cl. 212—76.)



1. In a load transfer apparatus, a support, a swinging rope supported therefrom and having a rope guide, a combined hoisting and swinger rope guided by said guide, and a rope opposing the pull on the hoisting rope.

2. In a load transfer apparatus, a support, a swinging rope supported therefrom and having a rope guide, a combined hoisting and swinger rope guided by said guide, and a swinger rope connected to the swinging rope and opposing the hoisting rope.

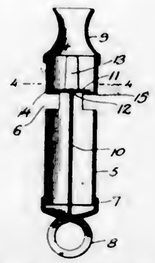
3. In a load transfer apparatus, a support, a swinging rope supported therefrom and having a rope guide, a combined hoisting and swinger rope guided by said guide adapted to hoist a load and swing it in one direction, and a swinger rope to swing the load in the opposite direction.

4. In a load transfer apparatus, a support, a swinging rope supported therefrom and having a rope guide, a combined hoisting and swinger rope guided by said guide adapted to hoist a load and swing it in one direction, a swinger rope connected to the swinging rope to oppose the combined hoisting and swinger rope, and to swing the load in the opposite direction.

5. In a load transfer apparatus, an elevated support, a swinging rope supported therefrom and having a rope guide, a hoisting rope traveling at an angle to the swinging rope and guided by said guide, and a swinger rope connected to the swinging rope to swing the same in one direction.

[Claims 6 to 17 not printed in the Gazette.]

1,094,006. WHISTLE. JOSEPH J. O'REILLY, Brooklyn, N. Y. Filed July 11, 1913. Serial No. 778,590. (Cl. 46—46.)



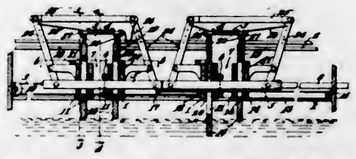

1. In a whistle, the combination with a cylinder having outlets, of a diaphragm, a mouthpiece and inlet, and a cross disk at the upper end of the diaphragm beneath the inlet and of such diameter as to leave orifices of different sizes above the outlets.

2. In a whistle, the combination with a cylinder having a closed end and outlets, of a mouth piece and inlet, a diaphragm dividing the cylinder, and a horizontal disk on the upper end of the diaphragm and above the outlets and having openings of different sizes at each side of the diaphragm.

3. In a whistle, the combination with a cylinder having a mouthpiece and an opening at one end and openings at the side, of a horizontal wall below the mouth piece and having orifices of different sizes above the openings, a diaphragm dividing the cylinder below the wall, and a closure with a ring at the lower end of the cylinder.

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1,094,007. WATER-CRAFT PROPELLER. JOHN S. OBR, Augusta, Ky. Filed Nov. 12, 1913. Serial No. 800,622. (Cl. 115—33.)



1. In a propelling mechanism, a reciprocatory carrier, actuating means therefor having limited movement relative thereto, a vertically movable propeller blade carried by the carrier, and means operatively connecting the propeller blade and actuating means for raising and lowering the propeller blade when the actuating means moves relative to the carrier.

2. In a propelling mechanism, a reciprocatory carrier, a plunger carried thereby and having limited reciprocatory movement relative thereto, a vertically movable propeller blade carried by the carrier, and an operative connection between the plunger and propeller blade for raising and lowering the propeller blade when the plunger is moved relative to the carrier.

3. In a propelling mechanism, a reciprocatory carrier, actuating means therefor having limited movement relative thereto, a vertically movable propeller blade carried by the carrier, and a lever operatively connected to the actuating means and to the propeller blade for raising and lowering the propeller blade when the actuating means is moved relative to the carrier.

4. In a propelling mechanism, a reciprocatory carrier, a plunger carried thereby and having limited movement relative thereto, a lever fulcrumed to the carrier and operatively connected to the plunger, and means operatively connecting the lever and propeller blade for raising and lowering the same.

5. In a propelling mechanism, a reciprocatory carrier, a plunger carried thereby and having limited movement relative thereto, a vertically movable propeller blade carried by the carrier, a lever fulcrumed to the carrier and operatively connected to the plunger, and a flexible element connecting the lever and propeller blade for raising and lowering the same.

[Claims 6 to 19 not printed in the Gazette.]



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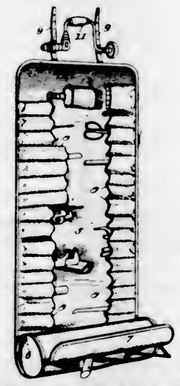
1,094,008. LIFE-BOAT. MIKLOS PANCHULA, Dixonville, Pa. Filed Jan. 26, 1914. Serial No. 814,348. (Cl. 9—3.)



A stabilizer and load-sustaining means for life boats comprising an angle bracket to be secured to the outer face of the boat, the shorter arm of said bracket being hollow and provided with an inflating valve, and an inflatable member carried by said hollow arm.

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1,094,009. TOOL-CARRIER. ARTHUR C. PARKHURST, Waukegan, Ill. Filed Apr. 17, 1913. Serial No. 761,746. (Cl. 190—43.)

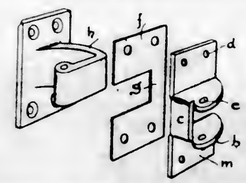


A carrier comprising a cylindrical compartment composed of end walls, a flexible sheet secured to and extending between the end walls to form a portion of the side wall of the compartment, a sheet secured to one side of the first-mentioned sheet and to the end walls of the compartment to form the remaining portion of the side wall of said compartment, said second-mentioned sheet having a projecting flap adapted to overlap the end of the flexible sheet which forms the portion of the side wall of the compartment, the other end of said flexible sheet extending from the compartment and adapted to be rolled therearound and over the aforesaid flap, means for holding the flexible sheet in rolled up position, and pockets on the inner side of the projecting portion of the flexible sheet.

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1,094,010. CONCEALED HINGE. CARL B. PARSONS, Detroit, Mich. Filed Oct. 11, 1913. Serial No. 794,569. (Cl. 6—5.)

1. The combination of a mortise casing constructed of folded sheet metal forming an upper and lower face plate, an upper and lower mortise lining, and a strap narrower than the upper and lower mortise lining connecting these two members at one side, the said upper and lower mortise linings each being provided with an extending perforated ear that projects around to the rear of the side strap and to a position where its outer face is substantially flush with the face of the strap, a hinge-arm, and a pin passing through the end of the hinge-arm and secured in the perforations of the said ears, substantially as described.




2. The combination of a stamping forming an upper and lower face plate, an upper and lower mortise lining and a connecting strap at one side between the upper and lower mortise lining, a keeper-plate fitting over the outside edges of the face portions and having a strap portion to complete the lining of the mortise opening and a hinge arm pivotally supported by the said stamping, substantially as described.

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1,094,011. AMUSEMENT DEVICE. CLIFFORD H. PEEK, East Aurora, N. Y. Filed Feb. 26, 1913. Serial No. 750,785. (Cl. 35—12.)



1. An amusement device consisting of two elements of flexible material, each comprising a plurality of parallel angular strips, the ends of which are connected at two adjacent sides of the element and the strips of one element being adapted to be interwoven with the strips of the other element to form a design, substantially as set forth.

2. An amusement device consisting of two sheets of flexible material, each sheet comprising a plurality of right angular strips arranged parallel to each other and having their ends joined at two sides of the sheet, said strips of the two sheets being adapted to be interwoven to form a design, substantially as set forth.

3. An amusement device consisting of two quadrilateral sheets of flexible material, each sheet having its inner portion divided into a plurality of parallel strips, said sheets having a border adjacent to their outer edge, and said strips being joined to two adjacent sides of the border, substantially as set forth.

4. An amusement device consisting of two elements of flexible material, each element comprising a plurality of strips which are connected at one end and which project from two adjacent sides of the element, the strips which are secured to one side of the element being parallel to each other and extending at an angle to the strips secured to the other side of the element, substantially as set forth.

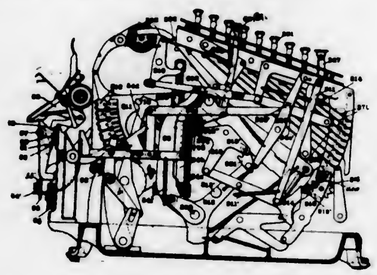
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1,094,012. ADDING-MACHINE. HEBER C. PETERS, Indianapolis, Ind., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 22, 1904. Serial No. 221,655. (Cl. 235—60.)

1. In a multiple key-bank adding machine, having a longitudinally movable paper carriage, a plurality of accounting devices controlled by the key-banks respectively and coöperatively related, and means controlled by said carriage for rendering the machine either split or complete through control of coöperating relationship between the said accounting devices.

2. In a multiple key-bank adding machine, having a longitudinally movable paper carriage, a plurality of ac-

counting devices controlled by the key-banks respectively and coöperatively related, and means for rendering the machine either split or complete according to the position of the carriage through control of coöperating relationship between the said accounting devices.



3. In a multiple key-bank adding machine, having a longitudinally movable paper carriage, a plurality of accounting devices controlled by the key-banks respectively and coöperatively related, and means controlled both manually and by the paper carriage for rendering the machine either split or complete through control of coöperative relationship between the said accounting devices.

4. In a multiple key-bank adding machine, having a longitudinally movable paper carriage, a plurality of accounting devices controlled by the key-banks respectively and coöperatively related, and means for rendering the machine either split or complete according to the position of the carriage as predetermined by the operator through control of coöperative relationship between the said accounting devices.

5. In a multiple key-bank adding machine, a plurality of accounting devices controlled by the key-banks respectively and coöperatively related, the machine being normally split through non-coöperative relationship of certain of said accounting devices, and provided with a movable paper carriage, and means under the control of said carriage for making the machine complete through establishment of coöperative relationship of said accounting devices.

[Claims 6 to 58 not printed in the Gazette.]

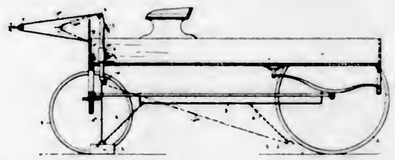
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1,094,013. TOILET OR HAIR COMB. CHARLES PETERSON, Dublin, Ireland. Filed Mar. 21, 1910. Serial No. 550,771. (Cl. 132—3.)




In a toilet or hair comb, a back and teeth extending therefrom, said teeth having straight bodies of considerable length which are parallel to each other and in alinement in the direction of the length of the comb whereby all teeth act alike on the hair, the straight bodies of the teeth being connected to the back by shank portions which extend outwardly from the bodies of the teeth and then inwardly toward the back, the shanks of alternate teeth being situated on one side of the central line of the comb and the shanks of the remaining teeth being situated on the other side whereby spaces of double width are presented between adjacent shanks on each side of the comb and the shanks of adjacent teeth are widely separated so that the hair which has been raised by the points of the comb teeth and carried into the wide spaces will pass between the shanks in comparatively straight lines.

1,094,014. HITCHING DEVICE. WILLIS M. POND, Crete, Nebr. Filed Apr. 16, 1913. Serial No. 761,419. (Cl. 21—135.)

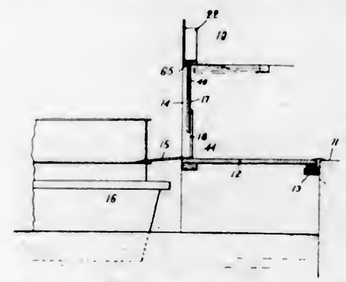


1. The combination with a vehicle, of a rod secured thereunder, a weight, a flexible connection between said weight and said rod movable longitudinally of the latter, a guide secured in said vehicle, a connection secured at one end to the weight, extending through said guide and adapted to be secured at the opposite end to a bridle bit or bits, and means for securing said connection in said guide.

2. The combination with a vehicle, a bracket secured thereto, a guide vertically adjustable in said bracket, a weight movably attached to said vehicle, and a connection secured at one end to said weight, extending through said guide and adapted to be secured at the opposite end to a bridle bit or bits.

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1,094,015. COMBINATION DOOR AND WHARF-DROP MECHANISM. ARTHUR T. PRESCOTT, East Orange, N. J., assignor to George H. Frothingham Company, New York, N. Y., a Corporation of New York. Filed May 8, 1913. Serial No. 766,273. (Cl. 14—71.)




1. The combination with a pier shed structure having a door opening and comprising a cross-beam and a pivotally supported wharf-drop having one end adjustably suspended from said cross-beam, of a pier-shed door adapted to close said opening and suspended from the same cross-beam, and means for raising and lowering the wharf-drop and the pier-shed door.

2. The combination with a pier-shed structure having a door opening and comprising a cross-beam and a pivotally supported wharf-drop having one end adjustably suspended therefrom, of a pier-shed door adapted to close said opening and having a vertically slidable bottom section adapted to rest on the wharf-drop and suspended from said cross-beam, and means for raising and lowering the wharf-drop and the pier-shed door.

3. The combination with a pier-shed structure having a door opening and comprising a cross-beam, a pivotally supported wharf-drop having one end adjustably suspended from said cross-beam, and means for raising and lowering said wharf-drop; of a pier-shed door adapted to close said opening and having a vertically slidable bottom section adapted to rest on the wharf-drop and suspended from the cross-beam by a pair of links located one on each side of the door, and means for successively raising the bottom section of the door and swinging the door together with said bottom section on said links.

4. The combination with a pier and a pier-shed structure having a door opening and comprising a cross-beam and having a wharf-drop pivotally connected to the pier at one end and adjustably suspended from the cross-beam at the other, and means for raising and lowering said wharf-drop; of a pier-shed door adapted to close said opening and a pair of links connected thereto, one at each edge of the door and pivotally suspended from the cross-beam, and means for raising and lowering the pier-shed door.

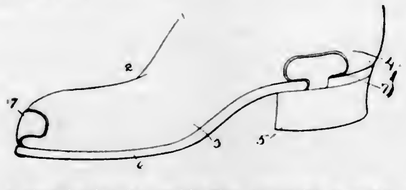
5. The combination with a pier and a pier-shed structure having a door opening and comprising a cross-beam and having a wharf-drop pivotally connected to the pier at one end, chain pulleys rotatively supported on the cross-beam, chains secured to the free end of the wharf-drop and coöperating with chain pulleys, and means for actuating the chain pulley for raising and lowering the wharf-drop, of a pier-shed door adapted to close said opening and having an upper section and a bottom section vertically slidable on said upper section, a pair of links pivotally connected to the cross-beam at one end and to the upper section of the pier-shed door at the other end, and means for raising and lowering the bottom section relative to the upper section and swinging the upper section and bottom section of said door together relatively to the cross-beam.

[Claims 6 and 7 not printed in the Gazette.]



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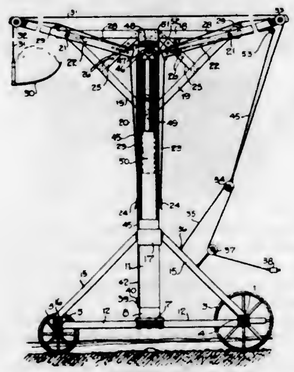
1,094,016. UPPER-PROTECTOR. JOHN H. RAMER, Loveland, Colo. Filed May 25, 1912. Serial No. 699,768. (Cl. 36—72.)




A shoe having in combination therewith a metal protector comprising a narrow flat tang extending intermediate the upper and a tread member and secured to such member, an imperforate neck portion arising from such tang, and carrying on each side thereof an arm contacting throughout substantially its entire inner surface with the outside of that portion of the upper opposite to it.

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1,094,017. HAY-STACKER. WILLIAM RANDOLPH, Crows Landing, Cal. Filed Apr. 23, 1913. Serial No. 763,174. (Cl. 212—53.)



1. A hay stacker including a portable frame, an upright standard rotatably mounted thereon, means for supporting said standard in an upright position, and means for holding said standard against rotation, longitudinal beams pivotally mounted upon the upper end of the standard, means secured to the inner ends of said beams for adjusting the outer ends thereof to various heights, a hay fork adjustably suspended from the outer end of one of said beams, means for raising and lowering said hay fork, and automatic means for releasing said holding means when the fork reaches a certain height to permit the standard to rotate.

2. A hay stacker including a portable frame, an upright standard rotatably mounted thereon, means for supporting said standard in an upright position, means for holding said standard against rotation, spaced parallel arms secured to the upper end of said standard, brace members supporting the ends of said arms, longitudinal beams pivotally mounted between the ends of said arms, means secured to the inner ends of said beams whereby the outer ends thereof may be adjusted to various heights, a fork adjustably suspended from the outer end of one of said beams, means for raising and lowering said fork, and automatic means for releasing said holding means when the fork reaches a certain height to permit the standard to rotate.

3. A hay stacker including a portable frame, an upright standard rotatably mounted thereon, means for supporting said standard in an upright position, a catch member carried by the base, a pivoted strip carried by the standard and adapted to engage said catch member to hold said standard against rotation, longitudinal beams pivotally mounted upon the upper end of said standard, means for adjusting the outer ends of said beams to various heights, a fork suspended from the outer end of one of said beams, means for raising and lowering said fork and automatic means for releasing said trip when the fork reaches a certain height to permit the rotation of the standard.

4. A hay stacker including a portable frame, an upright standard rotatably mounted thereon and having a central bore, a catch member carried by said frame, a pivoted trip mounted upon the standard and adapted to engage said catch member to hold the standard against rotation, longitudinal beams pivotally mounted upon the upper end of said standard, a hay fork adjustably suspended from the outer end of one of said beams, a rod secured to said trip, a cable secured to the other end of said rod, a weight mounted within the bore of the standard and suspended from the intermediate portion of said cable, means for raising said fork, means in operative connection with said raising means for simultaneously raising the weight within the bore whereby when the fork reaches a certain height, the weight within the bore will reach the top of its travel and release the trip to permit the rotation of the standard.

5. A hay stacker including a portable frame, an upright standard rotatably mounted thereon, means for supporting said standard in an upright position, a catch member carried by said frame, a pivoted trip carried by the standard and adapted to engage said catch member to hold the standard against rotation, spaced parallel arms mounted upon the upper end of said standard, brace members supporting the ends of said arms, longitudinal beams pivotally mounted between the outer ends of said arms, means for adjusting the outer ends of said beams to various heights, a fork adjustably suspended from the outer end of one of said arms, means for raising said fork and automatic means for releasing said trip when the fork reaches a certain height to permit the rotation of the standard.

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1,094,018. ENGINE-PLOW. WELDEN C. RARIG, Taft, Tex. Filed Jan. 21, 1913. Serial No. 743,252. (Cl. 97—30.)

1. The combination with a traction engine, of a plow adapted to be drawn by the engine, means connecting the plow with the longitudinal center of the engine, and means actuated by the tendency of the plow to aline longitudinally with the engine to maintain the path of the plow at one side of the path of the engine.

2. The combination with a traction engine, of a plow adapted to be drawn by the engine at one side of the path of the engine, means for flexibly connecting the plow with the engine to prevent variations in the direction of the engine being communicated to the plow, and means for exerting a direct backward thrust upon the plow when the engine is backed.



3. The combination with a traction engine, of a plow, means for drawing the plow by the engine in a longitudinal path at one side of the path of the engine, and means actuated by the tendency of the plow to swing transversely to the path of the engine when backed to maintain the plow in its normal longitudinal position relatively to the engine.

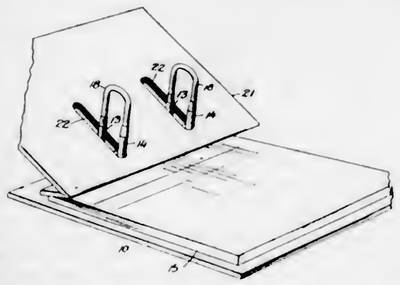
4. The combination with a traction engine, of a plow, wheels upon which the plow is supported, steering mechanism connected with the wheels for controlling the direction of the plow, draw-bar mechanism connecting the engine with the plow, and means connecting the draw-bar mechanism with the steering mechanism for automatically inclining the rear peripheries of the steering wheels away from the furrow when the engine backs the plow.

5. The combination with a traction engine, of a plow, wheels upon which the plow is supported, steering mechanism connected with the front wheels for controlling the direction of the plow, draw-bar mechanism connecting the engine with the plow and inclining toward the furrow so as to draw the plow in its forward movement in a path adjacent the furrow, and means connecting the draw-bar mechanism with the steering mechanism for automatically inclining the front peripheries of the wheels toward the furrow when the inclination of the draw bar to the direction of movement diminishes.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,019. LOOSE-LEAF BINDER. ROBERT REIFEL and GEORGE BLATTEL, New York, N. Y. Filed Dec. 28, 1912. Serial No. 739,009. (Cl. 129—4.)



1. In loose leaf binders, the combination with a base, of tubular posts, a link with ends adapted to fit in the posts, and a swiveled stud on one end of the link and adapted to be locked in one of the posts.

2. In a loose leaf binder, the combination with a base, of tubular posts in pairs, one post of each pair being slotted, removable links entering and connecting the posts, and means on one end of each link and operating in the slots of a post to adjust and lock the link.

3. In loose leaf binders, the combination with a base, of tubular posts, a link with ends adapted to fit in the posts, locking means at one end of the link, and means on the tube coöperating therewith to permit the links to be locked at different heights.

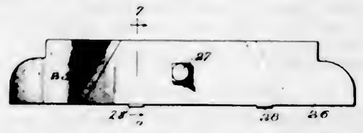
4. In loose leaf binders, the combination with a base, of tubular posts to receive the leaves, coöperating slotted posts, links having ends to fit in the posts, and swiveled studs at one end of the links to work in the slots and be locked at a desired point.

5. In loose leaf binders, the combination with a base, of a plate therein, tubular posts secured to the plate, those at one side having longitudinal and lateral slots, links with ends of different lengths, swiveled studs and knobs on the longer ends of the links and adapted to play in the slots to lock the links at certain points, and a cover with slots to pass over the links and posts.

[Claim 6 not printed in the Gazette.]

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1,094,020. RETAINING MEMBER FOR WELL-PACKERS. LAWRENCE E. ROBINSON, Coffeyville, Kans. Filed May 26, 1913. Serial No. 770,041. (Cl. 166—10.)



1. A sectional retaining member for well packers having frangible means for preventing movement in one direction.

2. A sectional retaining member for well packers having means for preventing movement in one direction, and frangible means for preventing movement in the opposite direction.

3. A sectional retaining member for well packers, formed of two overlapping sections movably mounted in respect to each other in one direction, and frangible means for preventing movement in said direction.

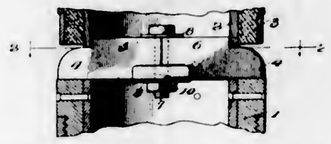
4. A sectional retaining member for well packers formed of a pair of pivotally connected members having means for preventing movement in one direction, and a frangible projection on one of said members for preventing movement of said sections in the opposite direction.

5. A retaining member for well packers formed of two sections pivotally connected together having infrangible means for preventing movement in one direction, and frangible means for preventing movement in the opposite direction.

Claims 6 to 15 not printed in the Gazette.

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1,094,021. SEPARABLE RETAINING MEMBER FOR WELL-PACKERS. LAWRENCE E. ROBINSON, Coffeyville, Kans. Filed May 26, 1913. Serial No. 770,042. (Cl. 166—10.)



1. A separable sectional retaining member for well packers, comprising a pair of sections having abutting ends, and means for clamping said sections together for preventing movement of said sections in respect to each other in one direction.

2. A separable retaining member for well packers comprising a pair of sections arranged end to end having means for clamping the sections together.

3. A separable retaining member for well packers comprising a pair of duplicate members having grooved abutting ends, and a bolt arranged within the grooves of said ends for clamping said members together.



4. A separable retaining member for well packers comprising a pair of members arranged in alinement, each member being provided with a reduced outer end, and a grooved inner end, a bolt arranged between the grooved ends of said members, a washer carried by said bolt resting upon the upper edge of said members, and a flange washer arranged on said bolt embracing the sides of said members.

5. A separable retaining member for well packers comprising a pair of duplicate sections having grooved abutting ends, a bolt arranged in the grooves of said ends, a flange washer arranged on said bolt extending up alongside of said sections, and a nut mounted on said bolt for clamping said sections together.

[Claims 6 and 7 not printed in the Gazette.]

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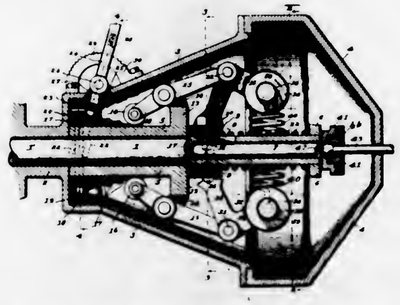
1,094,022. METHOD FOR PRODUCING A COMPOUND CONTAINING TITANIUM CARBID. AUGUSTE J. ROSSI and WILLIAM F. MEREDITH, Niagara Falls, N. Y., assignors to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Jan. 11, 1913. Serial No. 741,372. (Cl. 75—17.)

1. The method of producing a compound consisting essentially of metal having therewith intimately mixed and homogeneously conglomerated minute particles of carbid of titanium which comprises first producing a bath of said metal in molten state mixed with titanium oxid and carbon, raising the temperature of said bath sufficiently to produce therein more of said carbid than of metallic titanium, and cooling the product so rapidly as to promote retention of said carbid.

2. The method of producing a compound consisting essentially of iron having therewith intimately mixed and homogeneously conglomerated minute particles of carbid of titanium which comprises first producing a bath of molten iron mixed with titanium oxid and carbon, raising the temperature of said bath sufficiently to produce therein more of said carbid than of metallic titanium, and cooling the product so rapidly as to promote retention of said carbid.

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1,094,023. GOVERNOR. JOSEPH HENRY RUSSELL, Laporte, Ind. Filed May 26, 1913. Serial No. 769,915. (Cl. 121—112.)



1. A centrifugal governor provided with weights responsive to centrifugal force, a connection to the part to be controlled by the governor, a lever for each weight carrying the said weight and in turn connected to the connection to the part to be controlled, and means for varying, at will, the effective length of one arm of each lever.

2. A centrifugal governor provided with weights responsive to centrifugal force, a connection to the part to be controlled by the governor, lever connections between the weights and the connection to the part to be controlled, fulcrum supports for the levers, and means for adjusting the fulcrum supports to vary the effective length of one arm of each lever.

3. A centrifugal governor provided with weights responsive to centrifugal force, levers each carrying a weight, a connection between the levers and the part to be controlled by the governor, and adjustable fulcrum supports for the levers for varying the effective length of the arm of each lever extending from the fulcrum to the connection to the part to be governed.

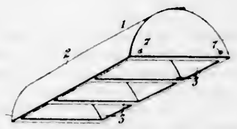
4. A centrifugal governor provided with weights responsive to centrifugal force, an angle lever for each weight, a connection between that end of each lever remote from the weight and the part to be controlled by the governor, and an adjustable fulcrum support connected to the angle of each lever to vary the effective length of the arm of the lever extending from the fulcrum support to the connection of the part to be governed.

5. A centrifugal governor provided with weights responsive to centrifugal force, spring connections between the weights, an angle lever individual to and carrying each weight, said angle lever having the end remote from the weight longitudinally slotted, a slidable connection to the part to be governed provided with a pin connection with the slotted end of each lever, and an adjustable fulcrum support for each lever connected thereto at the angle of said lever.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,024. PRINTING-PRESS. AUGUSTE L. SALTZMAN, East Orange, N. J., assignor, by mesne assignments, to The American Multigraph Company, a Corporation of Ohio. Filed May 29, 1905. Serial No. 262,850. Renewed June 21, 1913. Serial No. 775,134. (Cl. 101—169.)



1. The combination with a printing surface support in the form of a section of a hollow cylinder and being provided with a transverse web, of a press cylinder having a portion of such radius as to fit within the said printing surface support so that the concave surface of the support rests directly upon the cylinder.

2. The combination with a printing surface support in the form of a section of a hollow cylinder and being provided with a transverse web, of a press cylinder having a portion of such radius as to fit within the said printing surface support, said cylinder also having a transverse recess for receiving the said web.

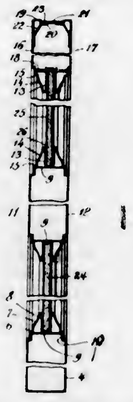
3. The combination with a printing surface support in the form of a section of a hollow cylinder provided with transverse webs at the ends thereof, of a press cylinder having a portion of such radius as to fit within the said printing surface support and having shoulders or projections at the ends whereon the said transverse webs of the printing surface support may rest.

4. The combination with a printing surface support in the form of a hollow cylinder and provided with a plurality of transverse webs, of a press cylinder having a portion of such radius as to fit within the said printing surface support and having transverse recesses for receiving the transverse webs of the said printing surface support.

5. The combination with a printing surface support in the form of a section of a hollow cylinder provided with webs upon the concave side thereof and arranged perpendicularly to the axis thereof, of a press cylinder having a portion of such radius as to fit within the said printing surface support, and having transverse recesses for receiving the webs upon the printing surface support, and having cut-away shoulders or projections at the ends thereof for supporting certain of the said webs.

[Claims 6 to 15 not printed in the Gazette.]

1,094,025. WINDOW AND DOOR. WALTER E. SCOTT, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Mar. 16, 1912. Serial No. 684,199. (Cl. 189—46.)



1. The combination of a frame consisting of a plurality of hollow frame-members formed of pressed sheet-metal and secured together at their ends, a panel within said frame, one of the members of the frame being formed from two sheet metal strips having flanges at their edges, the flanges at the inner edges of the member being parallel and adapted to coact with the panel and the flanges at the other edge of the member being turned toward each other and bent to provide a depression in the outer edge of the member having an opening at the bottom thereof extending lengthwise of the member, and braces lying within said member and secured to the body-portions of said strips and the portions of the flanges thereof which form said depression, substantially as set forth.

2. The combination of a frame consisting of a plurality of hollow frame members formed of pressed sheet-metal and secured together at their ends, a panel within said frame, one of the members of the frame consisting of two sheet-metal strips having their body portions parallel but displaced one from the other and having parallel flanges at their edges displaced from each other and from the planes of the body portions of the strips and adapted to hold the edge of the panel between them, said strips having shoulders formed therein extending lengthwise of the strips and located intermediate the flanges and body portions of the strips, and a bracing strip within the said member of the frame extending between and secured to the two strips forming said member and lying against said shoulders and adjacent to the inner edges of said flanges, substantially as set forth.

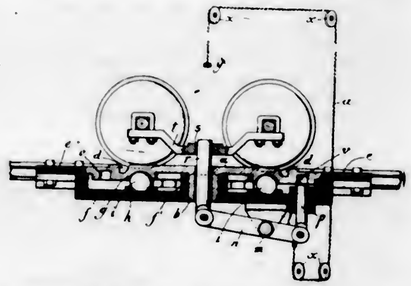
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1,094,026. TURN-TABLE. JOHN J. SIMMONDS, Iola, Kans., assignor to The Simmonds Engineering Company, Iola, Kans., a Corporation of Kansas. Filed Oct. 22, 1913. Serial No. 796,581. (Cl. 104—19.)

1. A transfer turn-table for intersecting trackways, said turn-table having a rotary transfer platform and provided with a latch releasably locking the platform in normal car-receiving position, and a car-arrester stop operatively connected with the latch and tending to restore the latch to a locking position after the latch has been tripped; substantially as described.

2. A transfer-turn-table for intersecting trackways, having a rotary transfer platform and provided with a combined platform latch and car-arrester stop, consisting of a pivoted lever, carrying at one end a latch pin for the rotary platform, and carrying at the other end an arrester pin for the cars; substantially as described.

3. A tranafer turn-table for intersecting trackways, having a rotary transfer platform and provided with a combined platform latch and car-arrester stop, consisting of a pivoted lever, carrying at one end a latch pin for the rotary platform, and carrying at the other end an arrester pin for the cars, the lever being in unstable equilibrium so that the weight of the arm carrying the arrester pin will over-balance the weight of the arm carrying the latch pin; substantially as described.



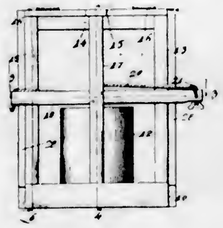
4. A transfer turn-table for intersecting trackways, having a rotary transfer platform provided with a combined platform latch and car-arrester stop, consisting of a pivoted lever, carrying at one end a latch pin adapted to engage with latch-receiving recesses in the platform, and carrying at its other end an arrester-pin passing through the center of rotation of the platform; substantially as described.

5. A transfer turn-table for intersecting trackways, having a rotary transfer platform provided with a combined platform latch and car-arrester stop, consisting of a pivoted lever, carrying at one end a latch pin adapted to engage with latch-receiving recesses in the platform, and carrying at its other end an arrester-pin passing through the center of rotation of the platform, the pivoted lever being in unstable equilibrium with the over-balance on the side of the arrester-pin; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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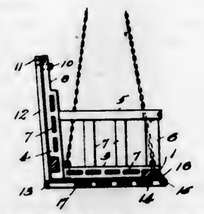
1,094,027. CHURN. JAMES M. SIMMONS, Follansbee, W. Va. Filed Sept. 19, 1912. Serial No. 721,242. (Cl. 31—17.)



In a churning machine, a bed plate, a churn body seated thereon, a pair of standards rising from the rear corners of said bed, a churn dasher in said body, an upright shaft removably journaled in said bed, a T-shaped top member having its arms hinged to said standards and having openings removably receiving and journaling said dasher rod and said pivot shaft, a horizontally disposed lever fixed centrally to said shaft, a horizontally disposed rope wrapped about said dasher rod and having the terminals secured to the ends of said lever, a hooked rod pivoted on said top member, and a keeper on said bed engaging said hooked rod and holding said top member in operative position, disengagement of said rod from said keeper permitting of said top member being rocked up to facilitate removal of said shaft and said dasher and said body from said base.



1,094,028. PORCH-SWING. WILLIAM H. SIMONS, Columbus, Ohio. Filed Sept. 5, 1913. Serial No. 788,318. (Cl. 155—35.)



1. The combination with a porch swing having extended, slotted rear end posts, of a gate hinged to the swing, a link at each end of the gate, and a head on each link adapted to interlock with one of said slotted extensions.

2. The combination with a porch swing having a T-slotted rear post at each end, of a gate hinged at the front of the swing, a link pivoted at each end of the gate, and a pair of T-heads on each link adapted to fit said slotted posts.

3. The combination in a convertible porch swing including its rear posts, of a gate pivoted to the swing and provided with locking links and means for locking said posts and links together, whereby the gate may be stored under the swing and operatively held in front of the swing.

4. The combination in a convertivle porch swing including slotted portions at its rear, of a gate pivoted to the swing and provided with a pair of locking heads adapted to fit the slotted portions, for the purpose described.

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1,094,029. CORD-TIGHTENING DEVICE. ADOLPH G. SOISTMANN, Camden, N. J. Filed June 30, 1910. Serial No. 569,656. (Cl. 84—10.)



1. In a device of the character described, a slidable tightening member and a cord-spreading body carried thereby and independently movable with respect thereto between adjacent tightened cord portions in a plane parallel with said cord portions, said body having one dimension greater than the distance between said adjacent tightened cord portions at the point of application of the spreading body thereto.

2. In a device of the character described, a slidable tightening member and an independently pivoted oblong cord-spreading body connected therewith and adapted to lie between the cord portions, parallel therewith, when in the inoperative position, said spreading body being narrower than the distance between the cord portions adjacent the slidable tightening member.

3. A drum ear adapted to be drawn along normally diverging portions of the drum cord and having ways therefor, an extension rigidly connected with the ear portion of the device and substantially parallel with the substantially parallel portions of the drum cord and an independently movable spreading member carried by said extension.

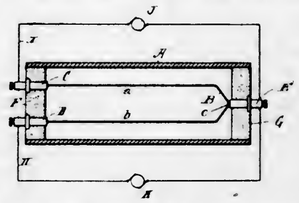
4. In a device of the character described, a slidable tightening member and an oblong cord-spreading body carried thereby and independently movable with respect thereto between adjacent tightened cord portions, said body adapted to be moved from a position parallel with to a position at right angles to said cord portions and to spread and gradually tighten the same until the attainment of its position of maximum spread of the cord portions at right angles to the same.

5. In a drum ear, the combination of a slidable tightening member provided with ways for oppositely disposed cord or string portions, and an oblong spreading member longer than the distance between the oppositely disposed tightened cord or string portions at the point of application of the spreading member thereto, movably connected with the slidable tightening member and adapted at one time to be brought into spreading relationship with the cord or string portions and at another time to be moved between the same in the direction of travel of the tightening member.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,030. ELECTRIC FUSE. SEVERN D. SPRONG and WALTER E. MCCOY, New York, N. Y., assignors of one-third to Frank W. Smith, New York, N. Y. Filed Sept. 6, 1912. Serial No. 718,826. (Cl. 175—273.)



1. An electric fuse, comprising a tube, a closure of insulating material at each end of said tube, one of said closures having two inwardly converging passages, two circuit terminals disposed in said passages, a single circuit terminal entering said tube through the other closure, and a U-shaped fuse strip having its loop connected to said single terminal and its ends connected respectively to said two terminals.

2. An electric fuse, comprising a tube, plugs of insulating material in the ends of said tube, a disk of refractory material in said tube and having inwardly converging passages, two circuit terminals extending through one of said plugs and said passages, a single circuit terminal entering said tube through the other plug, and a U-shaped fuse strip having its loop connected to said single terminal and its ends connected to said two terminals.

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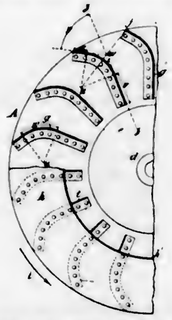
1,094,031. CENTRIFUGAL FAN. FREDERICK R. STILL, Detroit, Mich., assignor to American Blower Company, Detroit, Mich., a Corporation of New York. Filed Apr. 18, 1911. Serial No. 621,756. (Cl. 230—11.)

1. A centrifugal fan wheel comprising a back disk, a front coned ring, and numerous blades fastened between said disk and ring, their inner portions occupying radial planes, their outer or tip portions occupying planes at an angle approximating sixty degrees to said radial planes, and their intermediate portions curved in approximately the segment of a cylinder having a radius about one-fourth the radius of the fan wheel.

2. A centrifugal fan wheel having approximately sixteen blades fastened between a back disk and front ring, the inner portions of the blades occupying radial planes for a distance of approximately one-fifth the radius of the wheel, their outer or tip portions occupying oblique planes for a distance approximating one-sixteenth the radial dimension of the wheel, said planes being approximately sixty degrees from said radial planes, and the intermediate portions of the blades curved in approximately the segment of a cylinder having a radius about one-fourth the radius of the fan wheel.

3. A centrifugal fan wheel comprising a back disk, a front coned ring, and numerous blades fastened between

said disk and ring, their radial dimension at said disk approximating one-half the radius of the wheel and at said ring approximating one-third such radius, their inner edges being inclined to the axis and their outer edges approximately parallel therewith, their inner axial dimension being approximately seven-tenths, and their outer axial dimension being from four to five-tenths the radial dimension of the wheel, the inner portions of the blades occupying radial planes, and the blades being thence curved forwardly, and terminating in oblique tip portions.



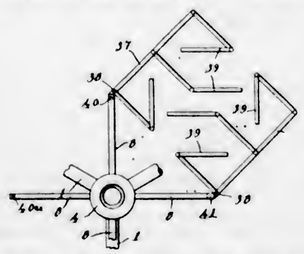
4. A centrifugal fan comprising a spiral casing having a central inlet on one side and a tangential outlet, and a fan wheel revoluble therein, having a back disk opposite said inlet and a front ring adjacent said inlet, with approximately sixteen blades fastened between said disk and ring, the inner edges of the blades being inclined to the axis and approaching it most closely at the disk side, their inner portions occupying radial planes, the blades being thence curved forwardly, and terminating in oblique tip portions, with their outer edges of shorter axial dimension than their inner edges, and the casing having its cut-off at a distance beyond the periphery of the wheel approximating one-fourth to one-fifth the radial dimension of the wheel.

5. A centrifugal fan comprising a spiral casing and a fan wheel revoluble therein, the casing having an inlet of an area approximating one-third of the area of the side of the wheel and an outlet having an area approximating four-fifths the area of the inlet, and the wheel having approximately sixteen blades with their inner portions occupying radial planes, their outer portions occupying oblique planes at an angle of approximately sixty degrees to said radial planes, and their intermediate portions curved between said respective planes.

[Claims 6 to 26 not printed in the Gazette.]

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1,094,032. EXTENSION-LEAF FOR FOLDING TABLES. HARRY A. STONE, New York, N. Y., assignor to Folding-Stand Company, Inc., New York, N. Y., a Corporation of New York. Original application filed May 27, 1912, Serial No. 699,959. Divided and this application filed Mar. 10, 1913. Serial No. 753,374. (Cl. 45—90.)

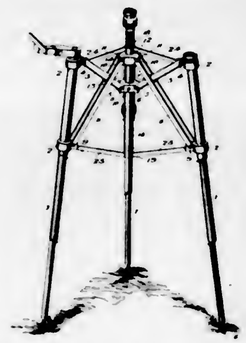


1. An extension leaf composed of foldable main members, and a plurality of freely projecting foldable branch members jointed to the respective main members, said main and branch members being adapted for arrangement to constitute an extended leaf.

2. An extension leaf composed of independent foldable main members, and a plurality of branch members jointed to the respective main members aforesaid but otherwise free for extension in relation to said members, the sets of main members and branch members carried thereby being arranged for positioning to conjointly constitute an extended leaf, each set of main and branch members being foldable and extensible independently of each other.

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1,094,033. FOLDING TABLE. HARRY A. STONE, New York, N. Y., assignor to Folding-Stand Company, Inc., New York, N. Y., a Corporation of New York. Filed May 10, 1913. Serial No. 766,797. (Cl. 45—117.)



1. In a folding table, the combination of foldable legs, jointed internal braces jointed to the legs, a central stem or standard engaged with the braces aforesaid, and supplemental braces engaged with the stem or standard and detachably engaged with the legs.

2. In a folding table, the combination of foldable legs, jointed internal braces jointed to the legs, a central stem or standard engaged with the braces aforesaid, and supplemental foldable braces slidably engaged with the stem or standard and detachably engaged with the legs.

3. In a folding table, the combination with foldable legs, of crossed internal floating jointed braces jointed to the legs, a central stem or standard engaged with the said braces, and sets of supplemental braces engaged with the opposite ends of the stem or standard and with the legs.

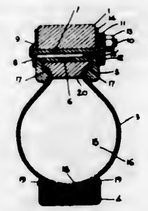
4. In a folding table, the combination with foldable legs, of crossed internal floating jointed braces jointed to the legs, a central stem or standard engaged with the said braces, and sets of supplemental foldable braces slidably engaged with opposite ends of the stem or standard and detachably engaged with the legs.

5. In a folding table, the combination with foldable legs, of crossed upper and lower internal floating jointed braces jointed to the legs, a tubular stem or standard engaged with the braces, connectors slidable in the stem and adapted to be positioned adjacent the ends thereof, and sets of supplemental foldable braces jointed to the connectors and detachably engaged with the legs, said foldable braces being adapted to telescope within the stem or standard when they are folded.

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1,094,034. TIRE. ROBERT E. STURMAN, Franklin township, Wright county, Minn. Filed June 18, 1912. Serial No. 704,383. (Cl. 152—8.)

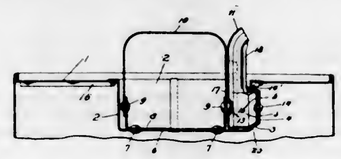
In a resilient tire, the combination of a ring having a dove-tailed groove therein, said ring having an aperture passing through the same, a plurality of sections having out-turned ends to be engaged by said groove, wedge blocks for insertion through said aperture into said groove to engage the out-turned ends of the sections to hold the same and the ring together, and a wedge block for closing



said aperture when the last section has been put in position.

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1,094,035. CAN. DANIEL B. TAMAGNO, New York, N. Y., assignor to Lydie Tamagno, New York, N. Y. Filed July 9, 1912. Serial No. 708,424. (Cl. 221—26.)



1. A can having a chamber countersunk in its wall, a handle and pouring spout connected to move with each other adapted to be collapsed while thus connected within the chamber and to be extended therefrom and means whereby when the spout is collapsed, it is closed to the interior of the can but is open thereto when extended.

2. A can having a chamber countersunk in its wall, a handle and pouring spout connected to move with each other adapted to be collapsed while thus connected within the chamber and to be extended therefrom, means whereby, when the spout is collapsed, it is closed to the interior of the can but is open thereto when extended and a vent closed when the spout is collapsed and open when it is extended.

3. A can having a chamber countersunk in its wall, a handle and pouring spout pivoted upon co-incident axes within the chamber and adapted to be swung thereinto or outwardly therefrom and means whereby when the spout and handle are within the chamber the spout is cut off from the interior of the can but is open thereto when the spout and handle are swung out from the chamber and a vent closed when the spout is depressed within the chamber and open when it is swung out from the chamber.

4. A can having in its top wall a chamber the walls of which extend downwardly below the top of the can and one wall of which chamber has a countersunk apertured circular bearing surface, a spout having a corresponding apertured bearing surface turning in the first named bearing surface, a vent pipe opening to the interior of the can and to an aperture in the side wall of the countersunk bearing surface of the chamber, a corresponding aperture in the circular bearing of the spout and an extension of the vent pipe therefrom to the atmosphere, the various apertures being so related that when the spout is depressed within the chamber the corresponding apertures are closed to each other and the spout and vent closed to the interior of the can, and the apertures are open to each other when the spout is extended to pouring position.

5. A can having a chamber countersunk in its top wall, and the walls of which chamber extend downwardly below the top into the can, a handle adapted to be collapsed within the chamber and extended therefrom and a spout also adapted to be collapsed within the chamber and extended therefrom.

[Claims 6 to 8 not printed in the Gazette.]



1,094,036. FUSE-PLUG. SEIZI TERADA, Seattle, Wash. Filed May 22, 1913. Serial No. 769,272. (Cl. 175—277.)

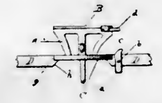


1. A fuse-plug comprising a body provided with a metal external sleeve contact, a sheet of substantially transparent material extending across the outer end of the plug, a tube of non-conductive material inserted within the plug, metal ends for the tube, a fusible element inclosed by the tube and connected with said metal ends, one of said ends being provided with a sight aperture and connected by a conductor with said sleeve contact, the other of said ends being disposed to serve as a contact complementary to the aforesaid contact, and a piece of mica extending across the sight aperture to protect said sheet from the effects of heat produced in the burning of the fusible element.

2. The combination with a chambered fuse-plug provided with an external sleeve contact and an electrical conductor extending from said contact to within the chamber of the plug, of a tube of non-conductive material inserted in the plug chamber, ends of a conducting material for the tube, a fusible element inclosed by the tube and connected with both of said ends, one of said ends being provided with a sight aperture, and a sheet of transparent or semi-transparent material connected to the tube and extending across said sight aperture, one of said ends making contact with said conductor and the other end serving to afford a contact for the plug complementary to the aforesaid sleeve contact.

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1,094,037. AUTOMATIC STOP. ANNA R. TYE, St. Joseph, Mo. Filed Nov. 25, 1913. Serial No. 803,053. (Cl. 104—180.)



1. In a stop for overhead rails, or tracks, in combination with a switch, with a lug attached, of a lever pivotally mounted which is actuated by said lug on switch, said lever being supported by means of a bolt passing through the thicker to the thinner side of said lever, the thinner side of said lever being threaded to securely hold the bolt, and the said bolt passing through an aperture in the rail, said aperture being sufficiently large so as to allow the shaft of the bolt to move with perfect freedom.

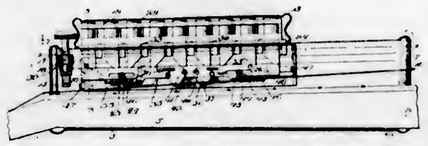
2. In an automatic stop for overhead rails, or tracks in combination with a switch, with a lug attached, of a lever pivotally mounted, said lever being weighted at the bottom, which weighted end normally holds the said lever in a predetermined position, said lug on the switch being adapted to move the said stop in another position, when so actuated by the lug, the upper portion of stop is curved from switch to receive trolleys without breaking them when they come in contact with said stop.

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1,094,038. MECHANICAL FINGERING DEVICE FOR STRINGED MUSICAL INSTRUMENTS. CHARLES H. WEAVER and ROLLIN W. WEAVER, South Bethlehem, Pa. Filed Jan. 9, 1911. Serial No. 601,640. (Cl. 84—12.)

1. A mechanical fingering device for stringed musical instruments, comprising a casing, means for clamping said casing upon the neck of an instrument, a carriage slidably mounted thereon, and mechanism located on the carriage for engagement with the strings of the instrument.

2. A mechanical fingering device for stringed instruments comprising a hinged casing encircling the neck and finger-board of an instrument, bolts for retaining said casing, a carriage slidably mounted thereon, and mechanism located on the carriage for engagement with the strings of the instrument.



3. A mechanical fingering device for stringed musical instruments, a casing having an upper and lower section encircling the neck of an instrument, a longitudinal ridge or raised portion formed on the lower section to furnish a grip for the hand of the operator, as well as to provide a spring action in gripping the neck of the instrument, and a slidably mounted carriage upon the upper section of said casing, and mechanism provided in said carriage for engagement with the strings of the instrument.

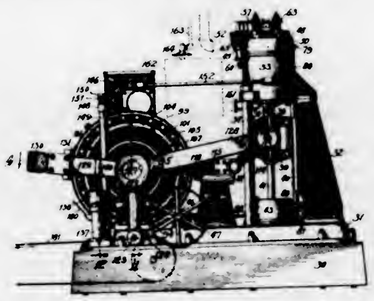
4. A mechanical fingering device for stringed musical instruments comprising a casing encircling the neck of an instrument, longitudinal slides formed on said casing, a carriage engaging said slides and adapted to run thereon, and mechanism mounted in the carriage to engage the strings of the instrument.

5. A mechanical fingering device for stringed musical instruments comprising a casing encircling the neck of the instrument, a carriage slidably mounted upon said casing, a hood covering the carriage and part of said casing and slidable within the carriage, and mechanism mounted on said carriage for engaging the strings of the instrument.

[Claims 6 to 20 not printed in the Gazette.]

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1,094,039. BRIQUETING-MACHINE. MORRIS C. WHITE and OTHO C. DURYEA, Chicago, Ill. Filed Dec. 23, 1910. Serial No. 598,994. (Cl. 25—63.)

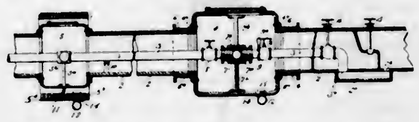


1. In apparatus for forming briquets, or the like, the combination of a ram supported to reciprocate in a given path, a briquet-mold, means for advancing the mold into the path of movement of the ram, a briquet-forming plunger movable in the mold, a normally raised vibratory, plunger-engaging pusher pivotally connected with the ram, means for returning the pusher to normal position on the ram, means for adjusting said normal position of the pusher, and power means operating to advance the ram as the mold enters its path of movement and thereby force the plunger into the mold.

2. In apparatus for forming briquets, or the like, the combination of a ram supported to reciprocate in a given path, a briquet-mold, means for advancing the mold across the path of movement of the ram, a briquet-forming plunger movable in the mold, power means operating to advance the ram when the mold enters its path of movement and thereby force the plunger into the mold, a normally-retracted platen, means for causing the platen to engage and move with the mold in the passage thereof across said path, to resist the thrust of the plunger in forming a briquet, and for disengaging the platen from the mold after the briquet-forming operation, and means for retracting the platen to normal position.

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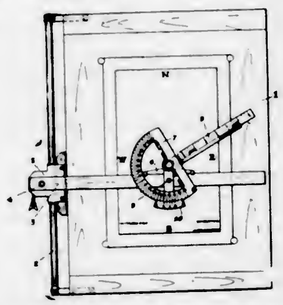
1,094,040. HEAT-DISTRIBUTING SYSTEM. SAMUEL R. WHITE, Bloomington, Ill. Filed Jan. 14, 1907. Serial No. 352,284. (Cl. 237—9.)



In a heat distributing system, the combination with a main exhaust pipe and a live steam pipe located within the exhaust pipe, automatic means for controlling the supply of live steam from the live steam pipe to the main exhaust pipe, a cut-off valve positioned at a given point in the main exhaust pipe, said live steam pipe terminating at a point adjacent the supply side of the cut-off valve and having a valve controlled communication around said cut-off valve with said exhaust steam pipe, whereby either live or exhaust steam or a mixture of both may be supplied to the main pipe beyond the cut-off valve.

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1,094,041. DRAFTSMAN'S DEVICE. GEORGE B. WILLIAMS, Pittsburgh, Pa. Filed Oct. 5, 1911. Serial No. 653,041. (Cl. 33—75.)



In a draftsman's platting device, the combination of a straight edge, a slide mounted upon the straight edge and projecting upon opposite sides thereof, a protractor pivotally mounted upon one of the projecting ends of the slide, a vernier arranged upon the opposite projecting end of the slide and disposed in coöperative relation to the protractor, and a ruler carried by and projecting from the protractor.

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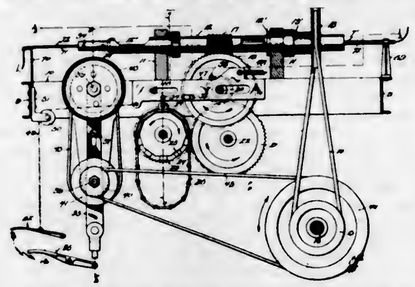
1,094,042. POMPON-MAKING MACHINE. JAMES C. WILSON, Milwaukee, Wis. Filed Feb. 17, 1913. Serial No. 748,915. (Cl. 28—13.)

1. A pompon making machine comprising an intermittent rotary hollow spindle having a split end and a notch intersected by the split, means for guiding yarn on the split-end of the spindle, a cutter registrable with said split when the spindle is at rest, and means for reciprocating the cutter.

2. A pompon making machine comprising an intermittent rotary hollow spindle having a split end and a notch intersected by the split, means for guiding yarn onto the split-end of the spindle, and regulating the length of the



wind, a cutter registrable with said split when the spindle is at rest, and means for reciprocating the cutter.



3. A pompon making machine comprising an intermittent rotary hollow spindle having a split end and a notch intersected by the split, a rotary yarn-guide laterally opposite the split-end of the spindle, a cutter registrable with said split when the spindle is at rest, and means for reciprocating the cutter.

4. A pompon making machine comprising an intermittent rotary hollow spindle having a split end and a notch intersected by the split, an obliquely bored rotary block, a plate adjustable on an end of the block and provided with an eye in register with the block-bore laterally opposite the split-end of the spindle, said block and plate constituting a yarn-guide; a cutter registrable with said split when the spindle is at rest, and means for reciprocating the cutter.

5. A pompon making machine comprising an intermittent rotary hollow spindle having a split end and a notch intersected by the split, a cord-guide extending through the spindle, the cord thereon being accessible through the spindle-notch; means for guiding yarn on the split-end of the spindle, a cutter registrable with said split when the spindle is at rest, and means for reciprocating the cutter.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,043. SAFETY-BAR FOR BANK-VAULTS, PRISONS, &c. NICHOLAS WITSCH, New York, N. Y.; Bertha M. Witsch administratrix of estate of said Nicholas Witsch, deceased. Filed July 16, 1912. Serial No. 709,727. (Cl. 189—9.)



1. A safety-bar for bank vaults, prisons, etc., comprising an exterior stationary tube, an interior tube suspended within the same, and a pendulous laterally-swinging rod suspended in the interior tube.

2. A safety-bar for bank vaults, prisons, etc., comprising an exterior stationary main-tube, a tube suspended within the same, a pendulous laterally-swinging rod within the interior tube, and means for suspending the interior tube and pendulous rod in said exterior tube.

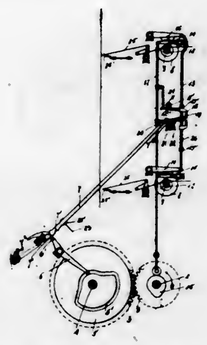
3. A safety-bar for bank vaults, prisons, etc., comprising a tube, and an interior pendulous laterally-swinging rod suspended within said tube.

4. A safety-bar for bank vaults, prisons, etc., comprising a tube, an interior pendulous laterally-swinging rod within the same, a cap for the tube, and means for suspending said rod from said cap.

5. A safety-bar for bank vaults, prisons, etc., comprising an exterior stationary tube, an interior tube within the same, a pendulous rod within the interior tube, a cap for the interior tube, a cap for the exterior tube, and a chain connecting the pendulous rod with the cap of the interior tube and with the cap of the exterior tube.

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1,094,044. TENSION-CONTROLLING MEANS FOR EMBROIDERING-MACHINES. ROBERT ZAHN, Plauen, Germany. Filed June 1, 1912. Serial No. 701,015. (Cl. 112—7.)



1. In a jacquard embroidering machine, the combination with the needle thread tensioning mechanism, comprising thread braking means and thread locking means, of a mechanism for controlling both said thread braking and thread locking means and a single jacquard controlled means for said controlling mechanism, whereby either both the braking and the locking means or the locking means only may be released.

2. In a jacquard embroidering machine, the combination with the needle thread tensioning mechanism, comprising thread braking means and thread locking means, of a mechanism for successively controlling both said thread braking means and thread locking means and a single jacquard controlled means for said controlling mechanism, whereby either both the braking and the locking means or the locking means only may be released.

3. In a jacquard embroidering machine, the combination with the needle thread tensioning mechanism, comprising thread braking means and thread locking means, of a mechanism for controlling both said thread braking and thread locking means and comprising two rotary members having a common axis, and a single jacquard controlled means for operating said members, whereby either the braking and the locking means or the locking means only may be released.

4. In a jacquard embroidering machine, the combination with thread braking means and thread locking means, of an arm connected to each of said means, two rotary members having a common axis adapted to successively coöperate with said arms and a single jacquard controlled means for operating said members, whereby either the braking and the locking means or the locking means only may be released.

5. In a jacquard embroidering machine, the combination with thread locking means including a spring actuated rod, and thread braking means including a spring actuated rod, of an arm secured to each of said rods, two rotary members having a common axis adapted to successively coöperate with said arms and a single jacquard controlled means for operating said members, whereby either the braking and the locking means or the locking means only may be released.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,045. GO-CART OR PERAMBULATOR. ARTHUR J. ADAMS, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 2, 1910. Serial No. 546,926. (Cl. 21—83.)



1. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, inwardly swinging front and rear wheel-forks connected in pairs with the opposite sides of said running-gear frame, links pivotally connected with each other and joining the pairs of wheel-forks near the rear wheel-forks, said links adapted to swing in a plane substantially parallel with the running-gear frame, arms pivotally connected with the handle-bars, links pivotally connected with said arms and with the running-gear frame, a U-shaped member secured to said last-named links and extending downwardly through the front portion of the running-gear frame, and a link connected with the cross-member of said U-shaped member and connected at its rear end with said first-named links, for the purpose set forth.

2. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, inwardly swinging front and rear wheel-forks connected in pairs with the opposite sides of said running-gear frame, cams carried by said wheel-forks and having free front ends, links pivotally connected with each other and joining the pairs of wheel-forks near the rear wheel-forks, arms pivotally connected with the handle-bars, links pivotally connected with the front ends of said arms and pivotally connected with the running-gear frame, said last-named links having downward extensions through the running-gear frame with a cross-member connecting them, and a link connecting said cross member with said first-named links, for the purpose set forth.

3. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear end thereof and adapted to fold forwardly on the running-gear frame, arms pivotally connected with the handle, links pivotally connected with the front ends of said arms and with the running-gear frame, lever-arms depending from and actuated by said links, wheel-forks connected with the opposite sides of the running-gear frame and adapted to fold inwardly and upwardly beneath the running-gear frame, link mechanism connecting said wheel forks, and a reach-link connected with said link mechanism and actuated by said lever arms.

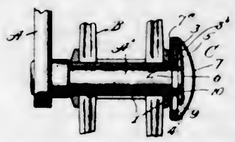
4. In a folding carriage, the combination of a running-gear frame, a handle pivotally connected with the rear portion thereof, arms pivotally connected with intermediate portions of the handle-bars, links pivotally connected with said arms and with the running-gear frame, a U-shaped lever secured to said links, wheel-forks connected with the opposite sides of the running-gear frame and adapted to fold inwardly and upwardly beneath the running-gear frame, link mechanism connected with said wheel-forks, and a reach-link connecting said link mechanism to said U-shaped lever.

5. In a folding carriage, the combination of a running-gear frame, a handle foldable with relation thereto, wheel-forks foldable inwardly and upwardly with relation to the running-gear frame, link mechanism connecting said wheel-forks, cams carried by said wheel-forks, and actuating means for said link mechanism and cams adapted to be actuated in the operations of folding and unfolding the handle and running-gear frame with relation to each other, said actuating mechanism operative to first flex said link mechanism and then complete the fork-folding operation through the medium of said cams.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,046. WHEEL-SECURING DEVICE. ARTHUR J. ADAMS, Chicago, Ill., assignor to Fulton Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1913. Serial No. 751,028. (Cl. 21—30.)



1. An attachment of the character set forth, comprising a disk provided with an eccentric opening and a slot extending therefrom toward the opposite edge of said disk, a cap-piece connected with the peripheral portion of said disk, and a retainer-spring housed between the disk and cap-piece and having portions confined between the peripheral portion of the disk and adjacent portion of the cap-piece, said spring being capable of being flexed within the space between the cap-piece and disk.

2. An attachment of the character set forth, comprising a disk provided with an axle-engaging slot, a cap having its peripheral portion connected with the peripheral portion of said disk, and a retainer-spring having arms whose extremities are closely confined between the peripheral portion of said disk and the adjacent portion of said cap-piece.

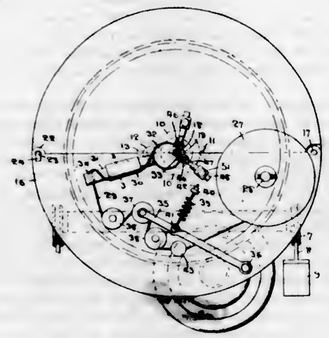
3. An attachment of the character set forth, comprising a disk provided with an axle-engaging slot, a cap-piece having its peripheral portion connected with the peripheral portion of said disk, and a T-form retainer-spring having its arms closely confined between the peripheral portion of said disk and adjacent portion of said cap-piece, and a lug carried by the head-portion of said retainer-spring.

4. The combination with an axle provided near its extremity with transverse grooves, of an attachment comprising a disk provided with an eccentric opening and a slot extending upwardly therefrom, a cap-piece connected with said disk, and a retainer-spring having extremities closely confined between the peripheral portion of said disk and the adjacent portion of said cap-piece, said retainer-spring equipped at its lower portion with a lug normally disposed beneath the extremity of said axle.

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1,094,047. SERVING-MACHINE. FRANK E. AMES, Vallejo, Cal. Filed Nov. 7, 1912. Serial No. 730,049. (Cl. 28—6.)

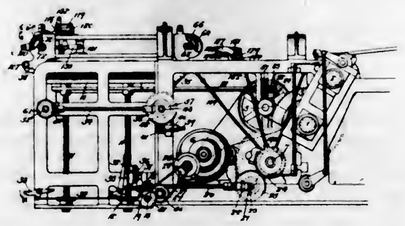
1. In a serving machine, a centrally apertured rotatable disk adapted to receive a cable therethrough, a serving member carried by said disk and adapted to feed serving material on to said cable, sheaves journaled on said disk and adapted to convey the serving material to said serving member, an arm pivoted at one end to said disk, a sheave journaled at the free end of said arm and adapted to engage said serving material, and a retractile spring secured at one end to said arm and having its opposite end adjustably connected with said disk, whereby the slack in said serving material may be taken up.



2. In a serving machine, a centrally apertured rotatable disk adapted to receive a cable therethrough, a sleeve secured on said disk, a beam slidable in said sleeve, a serving mallet carried by the inner end of said beam and adapted to feed serving material on to said cable, the outer end of said beam having an opening laterally therethrough, means carried by said disk for supplying serving material to said serving member, and sleeve provided with a longitudinal opening therein, said serving material adapted to pass through the opening in said beam and through the opening in said sleeve.

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1,094,048. SHEET-DELIVERY APPARATUS FOR PRINTING-MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed June 8, 1909. Serial No. 500,878. (Cl. 101—31.)



1. In a sheet delivery apparatus for printing machines, a vertically adjustable endless delivery carrier and an intermittently driven tape carrier for feeding sheets one side up thereto, said delivery carrier being arranged to deliver the sheets the same side up or the other side up.

2. In a sheet delivery apparatus for printing machines, a vertically adjustable endless delivery carrier and an intermittently driven endless tape carrier for feeding sheets thereto printed side up, the said delivery carrier being arranged to deliver the sheets printed side up or printed side down.

3. In a sheet delivery apparatus for printing machines, a vertically adjustable endless delivery carrier, means for reversing the direction of travel of the same and an intermittently driven endless tape carrier for feeding sheets to the delivery carrier.



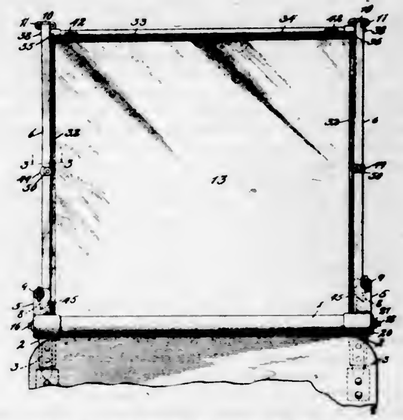
4. In a sheet delivery apparatus for printing machines, a vertically adjustable endless delivery carrier, including reversible grippers, means for reversing the direction of travel of the carrier and an intermittently driven endless tape carrier for feeding sheets to the said grippers.

5. In a sheet delivery apparatus for printing machines, a vertically adjustable endless delivery carrier, means for reversing the direction of travel of the same and an intermittently driven endless tape carrier for feeding sheets to the under or upper side of said delivery carrier.

[Claims 6 to 27 not printed in the Gazette.]

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1,094,049. SHIELD OR SCREEN. BENJAMIN F. BARNES, Rockford, Ill., assignor to Barnes Drill Company, Rockford, Ill., a Corporation of Illinois. Filed May 15, 1908. Serial No. 433,088. (Cl. 21—148.)



1. In a shield or screen, in combination, a frame comprising two side members, each of said side members comprising a slotted tube; a sheet; a rod to which one end of said sheet is attached, the side edges of said sheet lying in the slots in said side members; and means for clamping said edges between the walls of said slots.

2. A shield or screen comprising two slotted side bars; a roller; a sheet attached at one end to said roller; a rod attached to the other end of said sheet, the edges of said sheet extending through said slots; and means for compressing the side walls of said slots to clamp said sheet.

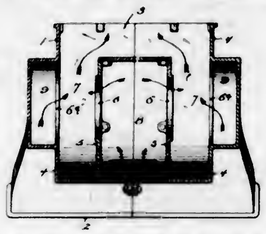
3. A vehicle shield or screen comprising two side bars pivotally supported to fold downward transversely of the vehicle; means at the upper end of each of said side bars for attaching a stay thereto; and means located forward of said side bars and in alinement with the axes of said side bars, to receive such stays.

4. In a shield or screen for vehicles, the combination of slotted side bars; a flexible sheet having its side edges extending into the slots in said side bars; and means for clamping said edges in said slots.

5. A shield or screen comprising a casing having a pair of upstanding lugs at each end thereof; slotted side bars pivoted near their lower ends to said lugs at different heights from said casing so as to fold downwardly on said casing, one upon the other; stop lugs on said casing arranged to engage the lower ends of said side bars for limiting the outward movement of said bars; a roller rotatably mounted in said casing; a sheet attached at one end to said roller; a rod attached to the opposite end of said sheet, said rod being slidable longitudinally on said side bars and preventing collapsing movement of said bars; means carried by said rod for locking it in various positions along said side bars; and means for preventing the upper ends of said bars from springing outwardly.

[Claims 6 to 24 not printed in the Gazette.]

1,094,050. CASING FOR CLEANING DEVICES. CHESTER H. BEACH, Racine, Wis., assignor to Wisconsin Electric Company, Racine Junction, Wis. Filed Feb. 27, 1911. Serial No. 610,993. (Cl. 15—60.)



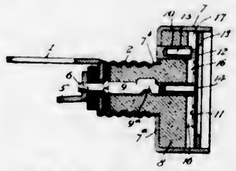
1. In a cleaning device, a casing having end heads provided with exterior channels, two partitions arranged parallel to the heads whereby the casing is divided into a central chamber and two end chambers, the casing heads and partitions each being provided with centrally disposed ports and the central chamber with a peripheral inlet port, a shoe in communication with the central chamber inlet port and head channels, and a nozzle in connection with the casing, the same being provided with ports communicating with each end chamber.

2. In a cleaning device, a casing having end heads provided with ports and offset channels in communication with the ports, division walls arranged in the casing spaced from the end heads, the division walls being provided with ports, whereby the casing is divided into a central chamber and end chambers communicating with each other, a nozzle extending from the casing having ports communicating with the end chambers, and a shoe extending from the aforesaid casing, the shoe being in communication at its ends with the head channels and also in communication with the central chamber.

3. In a cleaner device, a casing having circular end heads provided with centrally disposed ports and offset channels in communication with the ports, division walls mounted within the casing and spaced from the end heads having centrally disposed ports, a nozzle extending longitudinally of the casing having ports in communication with the casing adjacent to its end heads, and a shoe extending from the aforesaid casing, the shoe being in communication with the offset channels of the casing heads and the central portion of said casing.

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1,094,051. IGNITION DEVICE. JOHN BERG, Chicago, Ill., assignor to Metal Specialties Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Original application filed Sept. 18, 1912, Serial No. 720,963. Divided and this application filed May 26, 1913. Serial No. 769,933. (Cl. 219—32.)



1. In a device of the character set forth, an igniter comprising a cup-shaped member equipped with a tubular threaded shank, an insulating composition in said shank and the bottom portion of said cup, a central post extending through said insulating composition, an outer post rising from and having permanent electrical connection with the bottom of said cup and extending through said insulating composition, a resistance coil having its inner end connected with said central post and its outer end connected with said outer post, and a protecting covering over said resistance coil.

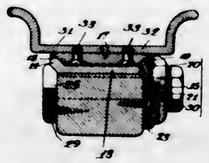
2. In a device of the character set forth, an igniter comprising a cup equipped with a threaded tubular shank, an insulating composition filling said shank and the lower portion of said cup, separately formed thin insulating strips embedded in said composition and projecting above the upper surface thereof, a central post extending through said composition, an outer post extending through said composition and having permanent electrical connection with the bottom of said cup, a resistance coil having its inner end connected with said central post and its outer end with said outer post, said resistance coil resting on the upper edge portions of said insulating strips, and a perforate protecting insulating cover above said resistance coil.

3. In a device of the character set forth, an igniter comprising a cup equipped with a threaded tubular shank, an insulating composition in said shank and the bottom portion of said cup, separately formed thin insulating strips embedded in said composition and projecting above the upper surface thereof, a central post extending through said composition and having an offset or roughened surface within the composition, an outer post extending through said composition and in permanent electrical connection with said cup, a resistance coil having its inner end connected with said central post and its outer end connected with said outer post, said resistance coil resting on the upper edge portions of said insulating strips, and a protecting cover within said cup above said resistance-coil.

4. An igniter of the character set forth, comprising a cup having a tubular shank, an insulating composition in said shank and the bottom portion of said cup, a central post extending through said composition, thin insulating strips embedded in said composition and projecting above the surface thereof, and a resistance coil having its inner end secured to said post and having its outer end electrically connected with said cup.

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1,094,052. DEMOUNTABLE RIM FOR VEHICLE-TIRES. PERCY B. BOSWORTH, Akron, Ohio, assignor to Firestone Tire & Rubber Company, Akron, Ohio, a Corporation of West Virginia. Filed Dec. 1, 1908. Serial No. 465,562. (Cl. 152—21.)



1. The combination with a wheel-rim having a flange on one edge, of a demountable tire-rim having a plurality of separated transversely disposed shoes on its inner face engaging said flange at one edge, the adjacent opposite edges of said wheel-rim and shoes being undercut toward each other, a locking member engaging opposed undercut edges of said wheel-rim and shoes, and means for forcing said locking member between said undercut edges comprising a lever, a ledge on which said lever is fulcrumed, and means for applying pressure to the lever, substantially as described.

2. The combination with a wheel-rim having a flange on one edge and beveled on its opposite edge, of a demountable tire-rim having a separately formed shoe on its inner face engaging said flange at one edge and beveled on its opposite edge, means for securing the shoe to the tire rim, a double-beveled member engaging the opposed beveled edges of said wheel-rim and shoe, and means for forcing said double-beveled member between said beveled edges comprising a lever, a ledge on which said lever is fulcrumed, and means for applying pressure to the lever, substantially as described.

3. The combination with a wheel-rim having an outwardly inclined flange on one edge and beveled on its opposite edge, of a demountable tire-rim having on its inner face a shoe formed with beveled side edges one of which engages said flange, a double-beveled member engaging the opposed beveled edges of said wheel-rim and shoe, the engaging surfaces of said member being disposed at approximately right angles to each other to prevent wedging thereof, and securing means for said double-beveled member comprising a lever, a ledge on which said lever is fulcrumed, and means for applying pressure to the lever, substantially as described.

4. The combination with a felly and a wheel-rim thereon having an outwardly inclined flange on one edge and beveled on its opposite edge, of a demountable tire-rim having on its inner face a shoe formed with beveled side edges one of which engages said flange, a double-beveled member engaging the opposed beveled edges of said wheel-rim and shoe, and a lever clamp having at its inner edge a knuckle fulcrumed in a complementary ledge on the side of the felly and at its outer edge overlying the outer side of said double-beveled member, and means for applying preasure to said lever, substantially as described.

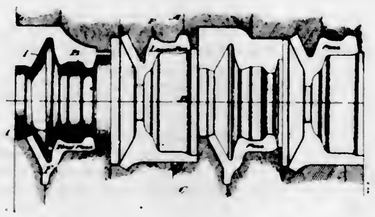
5. In a wheel, the combination of a wheel rim having a retaining flange at one edge, a demountable tire rim adapted to fit on said wheel rim and engage said retaining flange, and means for securing the tire rim in place comprising a retaining portion engaging the wheel and tire rims at the edges thereof opposite to the flanged edge of the wheel rim, and a lever clamp coöperatively associated with said retaining member having at its inner edge a portion fitting a complementary ledge on the side of the wheel, substantially as described.

[Claim 6 not printed in the Gazette.]



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1,094,053. PROCESS FOR ROLLING RAIL-JOINT BARS. WILLIAM J. BRADLEY, Troy, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Nov. 8, 1913. Serial No. 799,951. (Cl. 80—66.)



1. The process of manufacturing rail joint bars which consists in first rolling a bar to approximately its final rail clamping shape, then subjecting the bar to another roll pass to alter the bar whereby rail-clamping portions are left in alternate areas, and subsequently severing the bar at approximately equal distances from said rail clamping portions.

2. A process of making bars for rail joints which consists in subjecting a metal blank to a roll pass producing a bar having a flange member and a base member separated to form a uniform groove therebetween, then subjecting the bar to another roll pass to widen the said groove in alternate areas, and subsequently severing the bar at the maximum width of said alternate areas.

3. A process of making bars for rail joints which consists in subjecting a metal blank to a roll pass to produce a bar having a splice member in its final shape and a flange and base member separated to leave a uniform groove therebetween, then subjecting the bar to another roll pass to widen the said groove in alternate areas, and subsequently severing the bar at the maximum width of said alternate areas.

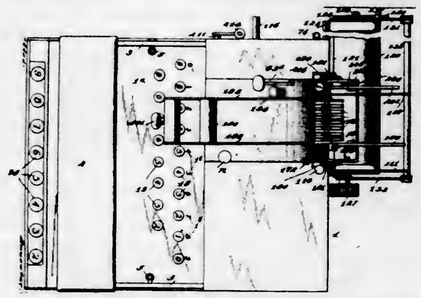
4. A process for making bars for rail joints which consists in subjecting a metal blank to a roll pass to produce a bar having a splice member of final shape and a flange member and base member of unfinished size and spaced apart to leave a uniform groove therebetween, then subjecting the bar to another roll pass to widen the said groove in alternate areas, and subsequently severing the bar at the maximum width of said alternate areas.

5. The process of making rail joint bars which consists in subjecting a metal blank to a roll pass producing a bar having a splice member, a flange member and a base member, with the flange member and base member separated to form a uniform groove therebetween, then subjecting the bar to another roll pass to reduce the splice member and to widen the said groove in alternate areas, and subsequently severing the bar at approximately the maximum width of said alternate areas.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,054. CALCULATING-MACHINE. JOHN BRICKEN, Chicago, Ill., assignor, by direct and mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 1, 1910. Serial No. 552,843. (Cl. 235—60.)



1. A multiplying machine having figure keys, computing mechanism and factor keys for causing the figure keys to produce different effects upon the computing mechanism depending upon the value of the factor key operated, said figure keys being of two kinds, units figure keys and tens figure keys, the units figure keys being for obtaining the units and the tens figure keys being for obtaining the tens of the partial products.

2. A calculating machine having computing mechanism, differential members for actuating the same, a power device and figure keys for throwing said power device into connection with any one of said differential members, said figure keys being of two kinds, units figure keys and tens figure keys, the units figure keys for obtaining the units and the tens figure keys for producing the tens of the partial products.

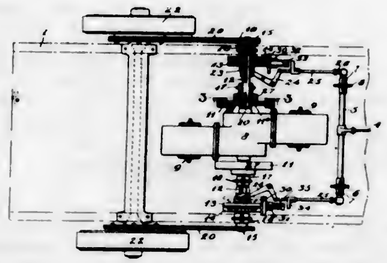
3. In a calculating machine the combination of computing mechanism, differential members for actuating the same, key levers for actuating said differential members, an actuator bar, a power device for operating said actuator bar, and means controlled by said key levers for connecting said actuator bar to said differential mechanism.

4. In a calculating machine the combination of computing mechanism, differential members for actuating the same, key stems for actuating said differential members, key levers for actuating said stems, an actuator bar for actuating said key levers and means for throwing any one of the key levers into and out of engagement with said actuator bar.

5. In a calculating machine the combination of computing mechanism, differential members for actuating the same, key stems for actuating said differential members, key levers for actuating said stems, an actuator bar for actuating said key levers, hooks on said key levers for actuating the same and means for throwing any one of said hooks into and out of engagement with said actuator bar.

[Claims 6 to 39 not printed in the Gazette.]

1,094,055. DRIVING MECHANISM FOR AUTOVEHICLES. ARTHUR R. BULLOCK, Cleveland, Ohio. Filed May 29, 1907. Serial No. 376,281. (Cl. 21—90.)



1. The combination, with a vehicle, of an engine supported thereby and having its shaft extending transversely of said vehicle, shaft sections in alinement with the ends of said engine shaft, compensating mechanism interposed between said sections and the adjacent ends of the engine shaft, stub shafts supported by the vehicle in alinement with the said shaft sections and each having a clutch member, a pair of wheels, one on each side of said vehicle, connections between the ends of said stub shafts and said wheels, clutch members carried by the former shaft sections, and means for operating the latter clutch members, substantially as specified.

2. The combination, with a vehicle, of an engine supported thereby and having its shaft extending transversely of said vehicle, shaft sections in alinement with the ends of said engine shaft, compensating mechanism interposed between said sections and the adjacent ends of said engine shaft, stub shafts supported by the vehicle in alinement with the said shaft sections, a pair of wheels, one on each side of the vehicle, connections between the ends of said stub shafts and said wheels, and clutch mechanism for connecting and disconnecting the stub shafts and the adjacent shaft sections, substantially as specified.

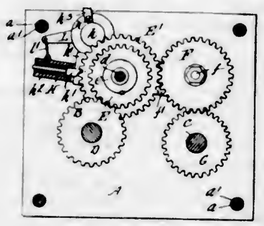
3. The combination, with a vehicle, of an engine supported thereby and having its shaft extending transversely of said vehicle, a fly wheel on and adjacent to each end of said shaft and having its hub projecting beyond the corresponding end of said shaft, a shaft section on each side of and in alinement with said engine shaft and having its inner end provided with an inwardly projecting flange of greater diameter than said hub flange and provided with inclined recesses, rollers interposed between said flanges and fitted in said recesses, a wheel on each side of said vehicle, and driving connections between the ends of said shaft sections and said wheels, substantially as specified.

4. The combination, with a vehicle, of an engine supported thereby and having its shaft extending transversely of said vehicle, a fly wheel on and adjacent an end of said shaft and having its hub projecting beyond said end, a shaft section in alinement with said engine shaft and having its inner end provided with an inwardly projecting flange of greater diameter than said hub flange and provided with inclined recesses, rollers interposed between said flanges and fitted in said recesses, a wheel, and a driving connection between the said shaft section and said wheel, substantially as specified.

5. The combination, with a vehicle, of an engine supported thereby and having a shaft, a shaft section in alinement with the engine shaft, a wheel, a driving connection between said shaft section and said wheel, clutch mechanism for connecting said shaft section with the engine shaft, and means adapted to engage such clutch mechanism and to reverse thereby the rotation of the shaft section with respect to the engine shaft, substantially as specified.

[Claims 6 to 14 not printed in the Gazette.]

1,094,056. STARTING DEVICE. JAMES J. BYRNE, Buffalo, N. Y. Filed Oct. 15, 1912. Serial No. 725,822. (Cl. 123—185.)



1. In a starting device for internal combustion engines, the combination with an engine driven shaft and a starting shaft, of a train of gears connecting said shafts, one of said gears being movable into and out of operative relation to a coöperating gear, a pivoted lever, and means secured to one arm of said lever which are adapted to engage one of said gears, the other arm of said lever engaging said movable gear, whereby the reverse movement of said train of gears swings said lever about its pivot to move said movable gear out of operative position, substantially as set forth.

2. In a starting device for internal combustion engines, the combination with an engine driven shaft and a starting shaft, of a train of gears connecting said shafts, one of said gears being movable into and out of operative relation to a coöperating gear, a casing in which said gears are mounted, a lever pivoted on said casing and adapted to move said movable gear into and out of operative relation with said coöperating gear, and means operated by the reverse movement of the train of gears to swing said lever on its pivot to move said movable gear out of mesh with its coöperating gear, substantially as set forth.

3. In a starting device for internal combustion engines, the combination with an engine driven shaft and a starting shaft, of a train of gears connecting said shafts, a ratchet mechanism between two gears of the train which permits said engine driven shaft to turn in a forward direction independently of said starting shaft, one of the gears of said train being journaled on a pivoted member, and means actuated by the reverse movement of the gears for swinging said pivoted member to move the gear thereon out of mesh with its coöperating gear, substantially as set forth.

4. In a starting device for internal combustion engines, the combination with an engine driven shaft and a starting shaft, of a train of gears connecting said shafts, a pivoted member on which one of the gears of the train is journaled, and which is adapted to swing about its pivot to move the gear mounted therein into and out of mesh with a coöperating gear, and a lever adapted to be actuated by the reverse movement of said train of gears to swing said member to cause the gear mounted thereon to be moved out of mesh with its coöperating gear, substantially as set forth.

5. In a starting device for internal combustion engines, the combination with an engine driven shaft and a starting shaft, of a train of gears connecting said shafts, a pivotsl member on which one of the gears of the train is journaled, and which is adapted to swing about its pivot to move the gear mounted therein into and out of mesh with a coöperating gear, a lever, a pawl at one end of said lever which is adapted to engage with the teeth of one of the gears of said train when said gear turns in the reverse direction, whereby the lever is swung on its pivot to swing said member to cause the gear mounted thereon to move out of mesh with its coöperating gear, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]



1,094,057. PISTON-RING. ARTHUR CHEVROLET, Jackson, Mich. Filed Mar. 21, 1913. Serial No. 755,926. (Cl. 121—108.)



1. A packing ring for pistons comprising a split ring one end of which is cut away at the outer side to form a seating surface eccentric to the outer surface of the ring, and a projecting end portion on the opposite end of the ring having an enlargement to engage said seating surface.

2. A packing ring for pistons comprising a split ring formed at one end with a seating surface, and provided at its opposite end with a tongue to overlap said seating surface, said tongue being formed with an enlargement near its free end to engage said seating surface.

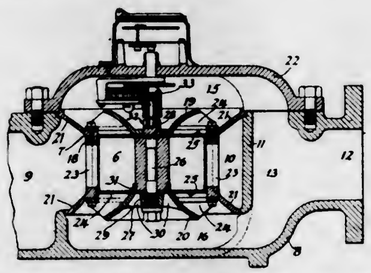
3. A packing ring for pistons comprising a split ring formed with an end portion having an outer surface formed eccentric to the outer surface of the ring, and a tongue on the opposite end of said ring having an inwardly projecting portion adjacent to the free end of the tongue to engage said surface of said end portion of the ring.

4. A packing ring for pistons comprising a split ring having an end portion of lesser thickness than the thickness of the ring and formed with an outer surface inclined inwardly of the ring from the free end of said end portion, and a tongue on the opposite end of said ring cut away at the inner side thereof adjacent to the base of the tongue and forming an enlargement adjacent to the free end of the tongue to engage said inclined surface of said end portion.

5. A packing ring for pistons comprising a pair of split rings arranged side by side with their edges in contact and each provided with a notch in its side adjacent to the other ring, a pin in said notches to prevent relative turning of said rings, one ring of each pair being formed with an end portion which is of lesser thickness than the body of the ring and is formed with an outer surface eccentric to the outer surface of the ring, and a tongue on the opposite end of said ring to overlap said reduced end and having an inwardly projecting portion to engage the said outer surface of said reduced end.

[Claims 6 to 8 not printed in the Gazette.]

1,094,058. WATER-METER. HORACE CHRISMAN, Edgewood Park, Pa., assignor to Pittsburg Meter Company, a Corporation of Pennsylvania. Filed Mar. 14, 1908. Serial No. 421,163. (Cl. 73—37.)



1. In a water meter, a wheel casing provided with peripherally disposed inlet ports, outlet ports, and retarding means located adjacent to said outlet ports, an outer casing provided with inlet and outlet ports, a wheel located within said wheel casing and provided with a hub of relatively large diameter and means provided with apertures whereby the lower face of said hub is subjected to a pressure less than the pressure within the wheel casing.

2. In a water meter, a wheel casing provided with peripherally disposed inlet ports, and outlet ports in the top and bottom, a wheel within said casing provided with a hollow hub portion, a bearing post extending into said hub portion, a bearing for said wheel located adjacent to the top of said post and means provided with apertures whereby the lower face of said hub is subjected to a pressure less than the pressure within the casing.

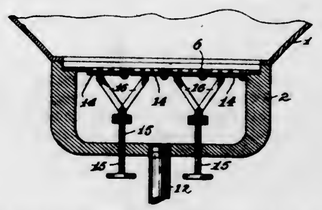
3. In a water meter, a wheel casing provided with peripherally disposed inlet ports, and outlet ports in the top and bottom, a wheel within said casing provided with a hollow hub portion, a bearing post extending into said hub portion, a bearing for said wheel located adjacent to the top of said post, said casing having an opening in the bottom thereof for subjecting a portion of the lower face of said hub to a pressure less than the pressure within the wheel casing.

4. In a water meter, a wheel casing provided with peripherally disposed inlet ports, outlet ports and conoidal deflectors arranged adjacent to said outlet ports, a bearing standard located axially of said casing and a wing wheel mounted on said standard and bearing against the top thereof.

5. In a water meter, a wheel casing provided with peripherally disposed inlet ports, outlet ports and conoidal deflectors arranged adjacent to said outlet ports, a bearing standard located axially of said casing and a wing wheel provided with a hub surrounding said standard, an outer casing and means provided with apertures whereby the lower face of said hub is subjected to a pressure less than the pressure within the wheel casing.

[Claims 6 and 7 not printed in the Gazette.]

1,094,059. BREWING APPARATUS. CHARLES B. DAVIS, New York, N. Y. Filed Aug. 12, 1912. Serial No. 714,567. (Cl. 210—16.)



1. An apparatus for separating liquids from solids comprising a sieve; and a controlling gate comprising a plurality of hinged members, and means for operating them.

2. An apparatus for separating liquids from solids comprising a sieve; and a controlling gate comprising a plurality of hinged members and means for moving same into open and closed position.

3. An apparatus for separating liquids from solids comprising a sieve; and a controlling gate comprising a plurality of hinged members and means for hinging same into open and closed position, said gate-members being located below the sieve.

4. An apparatus for separating liquids from solids comprising a sieve; and a controlling gate comprising a plurality of hinged members and means for hinging same into open and closed position, said gate-members being located below the sieve, and when closed contacting with the underside of the sieve to seal the perforations thereof.

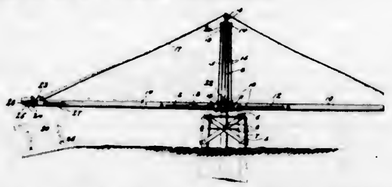
5. An apparatus for separating liquids from solids comprising a sieve; and a hinged controlling gate located below the sieve and means for operating same.

[Claim 6 not printed in the Gazette.]

1,094,060. UNLOADING APPARATUS. TIMOTHY HAYES DONOVAN, Raymond, Wash., assignor of one-half to Ralph Gerber, Raymond, Wash. Filed Mar. 5, 1913. Serial No. 752,132. (Cl. 214—1.)

1. An apparatus for unloading vehicles comprising a vertically adjustable horizontal sweep-arm engageable at

its outer end with one side of the load, and mounted to swing in an arc crossing the vehicle.



2. An apparatus for unloading vehicles comprising a pivoted sweep having diametrically opposite horizontal arms mounted to swing in an arc crossing the vehicle and successively engageable at their outer ends with one side of the load.

3. An apparatus for unloading vehicles comprising horizontal sweep-arms engageable with the load on one side thereof and mounted to swing in an arc crossing the vehicle, said arms being vertically adjustable and connected in diametrically opposite pairs to balance each other.

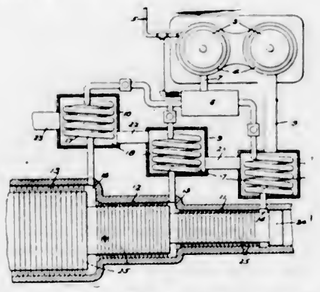
4. An apparatus for unloading vehicles comprising a post, a sweep pivotally suspended from the top of the post, said sweep having horizontal arms mounted to swing in an arc crossing the vehicle, and said arms being loose to permit vertical adjustment of their free ends, pulleys mounted at the top of the post, and cables passing over said pulleys, and connecting diametrically opposite ones of the arms.

5. An apparatus for unloading vehicles comprising a post, a support pivotally mounted at the top of the post, horizontal sweep-arms fastened together and suspended from the aforesaid support, pulleys carried by the support, and cables passing over said pulleys and connecting diametrically opposite ones of the arms.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,061. APPARATUS FOR CONSERVING HEAT. HERBERT H. DOW, Midland, Mich., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Original application filed June 23, 1906, Serial No. 323,106. Divided and this application filed Aug. 6, 1909. Serial No. 511,579. (Cl. 123—6.)



1. In combination with an internal combustion engine, a steam engine including a plurality of working stages or sections in which the pressure successively decreases, separate steam generators, each communicating with a separate stage or section, and means for conveying exhaust gases from the internal combustion engine to the generators and from one generator to another at successively decreasing temperatures.

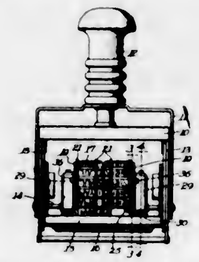
2. In combination with an internal combustion engine, and a steam engine including a plurality of working stages or sections in which the pressure successively decreases, separate steam generators, each communicating with a separate stage or section of said engine, and means for delivering the exhaust gases from said internal combustion engine to said generators at successively decreasing temperatures.

3. In combination with a gas engine, a turbine consisting of a plurality of stages, separate steam generators in series with the exhaust port of the gas engine to receive heat therefrom at successively decreasing temperatures, and means for delivering steam from said steam generators to successive stages of said turbine.

4. In combination with an internal combustion engine, a plurality of steam generators connected in series with the exhaust ports of said internal combustion engine and receiving heat therefrom at successively decreasing temperatures, and an engine including a plurality of working stages or sections at successively decreasing pressures, each of which communicates with one of said generators.

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1,094,062. HAND-STAMP. HARRY S. FOLGER, Chicago, Ill., and ASA M. COMSTOCK, MATT M. COREY, and WILLIAM BOULTHOUSE, Muskegon, Mich., assignors to The Advance Manufacturing and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed May 15, 1913. Serial No. 767,758. (Cl. 101—70.)



1. In a hand stamp, type bands, a type base and wheels supporting the bands, a shaft upon which the wheels are turned, and a lever on said shaft having a portion thereof extending within the wheels to form tightening means for said bands.

2. In a hand stamp, the combination with the type bands, supports therefor, a frame containing the supports, means for adjusting one of the supports in the frame to tighten the bands, and a self locking device holding such adjustment, of a type die, and a yielding connection between the type die and the frame.

3. In a hand stamp, the combination with type bands, means for tightening them, and a self locking device for holding the bands in tightening position, of a frame within which the bands are carried, a die holder, a yielding connection between the frame and the die holder, and guides on the die holder for the frame.

4. In a hand stamp, the combination with a band carrying frame, type bands, a type base and wheels for supporting the bands, and an axle for said wheels, of a band tightening lever located partly within the wheels and upon the axle, the operation of said lever serving to tighten or loosen the bands.

5. In a hand stamp, type bands, a type base and wheels for supporting the bands, a shaft or axle, and a lever having a strip of metal extending therefrom and partly surrounding the shaft, the movement of said lever causing the separation of the type base and the wheels by means of the strip to tighten the bands.

[Claim 6 not printed in the Gazette.]

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1,094,063. ROCK-DRILL BIT. CARROLL R. FORBES, Rolla, Mo. Filed June 9, 1913. Serial No. 772,538. (Cl. 255—63.)

1. A radial wing drill bit having its wings tapered longitudinally, the said wings being flattened at their ends adjacent their outer edges.



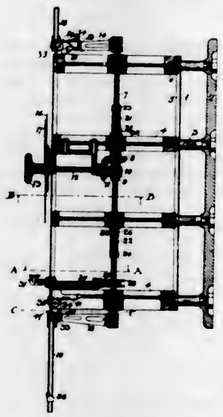
2. A radial wing drill bit having its wings tapered longitudinally, the said wings having flattened faces ex-



tending from their outer edges toward the axis of the bit; said flattened faces being widest at the edges of the wings and narrowing toward the axis of the bit.

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1,094,064. MACHINE FOR ASSEMBLING AND DISTRIBUTING TYPE. HARRY C. GAMMETER, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 28, 1906. Serial No. 308,378. (Cl. 101—130.)



1. The combination with assembling mechanism and distributing mechanism, of temporary type holders arranged to be removably carried by either of said mechanisms, said type holders comprising split tubes, the edges adjacent to the split being adapted to occupy grooves in the type.

2. The combination with a vertical supply member of hand actuated means for distributing type into the upper end of it, hand actuated means for assembling type from the lower end of it, and split tube type holders adapted to engage grooves in the type and arranged for coöperation with either of said means.

3. The combination of a type supply drum adapted to carry columns of type, holders for the type to be distributed or assembled, each adapted to carry a column of type, the holder and drum coöperating and one of them being movable about an axis coincident with the axis of the other, mechanism for distributing type, mechanism for assembling type, and hand actuated means for operating either mechanism.

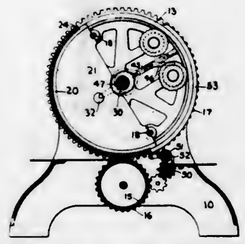
4. The combination of an upright storage drum having on its periphery a plurality of parallel upright holders for individual type, a vertical shaft at the axis of said drum, hand operated mechanism for rotating said shaft, an interchangeable column type holder, supporting devices therefor adjacent to the lower end and upper end of the drum respectively, mechanism for feeding type to the column type holder from the drum and to the drum from the column typeholder when in another position, the typeholder and drum being adapted to have their mutual presentation changed laterally by reason of one of them being carried by said shaft.

5. The combination of a storage drum having about its periphery a plurality of column typeholders, an individual column typeholder from which type may be distributed into the drum, an individual column typeholder into which type may be received from the drum, mechanism interposed between the respective typeholders and the corresponding ends of the drum for controlling the assemblage and distribution, a shaft at the axis of the drum, and means whereby the rotation of the shaft changes the presentation of the drum and typeholders to each other.

[Claims 6 to 107 not printed in the Gazette.]

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1,094,065. DUPLICATING-MACHINE. HARRY C. GAMMETER, Bratenahl, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 14, 1908. Serial No. 432,777. (Cl. 101—169.)



1. In a printing couple, the combination of a shaft, members rigidly mounted thereon, a removable segmental member formed to hold a plurality of lines of type, and a hook for removably holding it in place on the members on the shaft, said hook engaging the shaft between said members.

2. The combination of a shaft, a pair of rings thereon, a type holding member seating on said rings, a pair of webs for said type holding member, and a pair of dogs on the shaft engaging said webs.

3. The combination, with a skeleton drum, comprising a shaft, rings and tie rods connecting said rings, of a removable rigid type holding segment adapted to rest on the rings and having webs projecting transversely toward the shaft and means for holding the segment in place.

4. The combination, with a shaft and members therein, of a removable rigid type holding segment adapted to rest on said members, and having webs projecting transversely toward the shaft, dogs movably mounted on said shaft and operating to engage shoulders on the webs, and set screws for holding the dogs in place.

5. The combination, with a skeleton drum, comprising a shaft, rings and tie rods connecting said rings, of a removable rigid type holding segment adapted to rest on the rings and having webs projecting transversely toward the shaft, and dogs movably mounted on said shaft and having hooks adapted to occupy openings in said webs, and means for locking the dogs in place.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,066. STOVEPIPE-SHIELD. EMIL GIER, Mount Angel, Oreg. Filed Apr. 11, 1912. Serial No. 689,983. (Cl. 126—201.)

1. A device of the class described, comprising a plurality of protective sections, and members adapted to be removably secured to a stove pipe or the like, said members having parts adapted to support said sections at the lower edges thereof and to engage others of said sections at the upper ends thereof, whereby said sections are supported and held assembled with their upper and lower ends respectively, overlapping.

2. A device of the class described, comprising a plurality of protective sections having holes near the upper ends, and annular members clamped upon a stove pipe or the like, and each having laterally disposed parts each provided with a finger, said parts serving to support said sections at the lower ends thereof, and said fingers being adapted to enter the said holes of said sections to hold them in position.



3. A device of the class described comprising a plurality of protective sections having holes near the upper end, and annular members adapted to be clamped upon a stove pipe or the like, and each having laterally disposed parts each provided with a finger, said parts serving to support said sections at the lower ends thereof, said fingers being adapted to enter the said holes of said sections to hold them in position, and said sections having grooves extending diagonally from said holes to each side of said sections to guide said fingers when entering into said holes and to facilitate the mounting of the lower ends of said sections upon said parts.

4. A device of the class described, comprising a plurality of protective sections of rounded cross-section, and members adapted to be adjustably and removably mounted upon a stove pipe or the like, said members having parts adapted to support said sections and hold the same in assembled relation, each of said members furthermore, having intermediate said parts an extension engaging one of said sections intermediate the edges of said section.

5. In a device of the class described, a supporting and assembling member comprising a part having the ends laterally disposed and formed into supporting fingers, one of said ends having an offset constituting a socket, the other of said parts having one end secured to said other part at the end thereof remote from said socket, said other part having the opposite end received in said socket and provided with means for varying the compass of said member.

[Claim 6 not printed in the Gazette.]

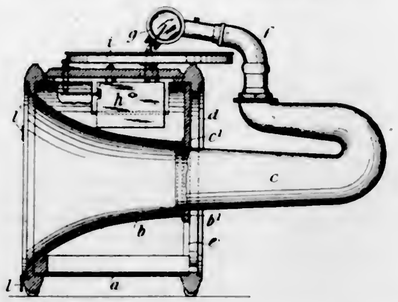
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1,094,067. TALKING-MACHINE. JOSHUA GREEN, London, England. Filed May 26, 1913. Serial No. 769,961. (Cl. 181—3.)

1. A talking machine comprising a casing, a horn made of two or more telescopic parts, one part being fixed within the casing and the other part or parts being designed to telescope axially within the fixed part from the small end of said fixed part toward its large end and means whereby the telescoping parts can be locked in the extended position, substantially as described.

2. A talking machine or gramophone comprising a cylindrical casing having a horn made of two parts one of which is fixed within the casing and has its flared end flush with one end of the latter and the other or elbow portion of which is designed to telescope axially within the fixed portion from the small end of said fixed part toward its large end, the meeting ends of the said two parts being provided with a locking device.

3. A talking machine comprising a cylindrical casing having a horn made of two parts, one of which is fixed within the casing and has its flared end flush with one end of the casing and the other portion of which is designed to telescope axially within the fixed portion from the small end of said fixed part toward its flared end, the meeting ends of the said two parts being provided with a locking device, a turn-table mounted on the top of said casing, said turn-table being adapted to be placed over the front of the casing when the machine is not in use, and means for locking said turn-table to the front of the casing.

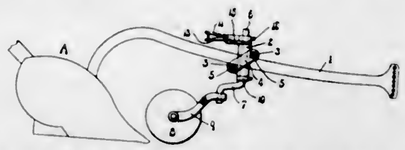


4. A talking machine comprising a casing, a horn provided in said casing and having its flared end flush with one end of said casing and its small end provided with one portion of a detachable locking connection, and an elbow horn section having a flared end provided with the other portion of the detachable locking connection adapted to engage the locking connection on the horn when the machine is in use, and be disengaged therefrom when not in use, the flared end of the elbow horn section being adapted to rest in the horn when the apparatus is not in use and its small end being adapted to rest between the horn and the casing.

5. A talking machine comprising a casing, a horn provided in said casing and having its flared end flush with one end of said casing, the horn being gradually tapered from the flared end to its small end thereby providing a space between the horn and the casing, an interior screw thread provided in the small end of said horn, and an elbow horn section having its flared end provided with an exterior screw thread adapted to engage said interior screw thread when the machine is in use, the flared end of the elbow horn section being adapted to rest in the horn and its small end adapted to rest in the space between the horn and the casing when the machine is not in use.

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1,094,068. ADJUSTABLE COLTER. PETER HAAS, New Athens, Ill., assignor of one-half to William H. Sleight, St. Louis, Mo. Filed Dec. 18, 1913. Serial No. 807,434. (Cl. 97—43.)



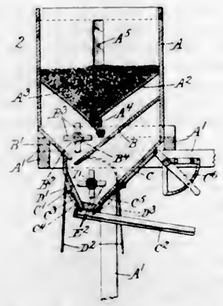
1. A device of the character described comprising a carrier, a bearing secured to said carrier, a stem rotatably fitted to said bearing and provided with a crank arm, a fork pivotally connected to said crank arm, a colter wheel carried by said fork, a set collar adjustably fitted to said stem, a latch handle adjustably secured to said stem, a toothed sector fixed to said bearing, a latch dog pivoted to said latch handle and adapted to interlock with the teeth on said sector, and a spring tending to force said latch dog into engagement with said teeth.



2. A device of the character described comprising a carrier, a bearing secured to said carrier, a stem rotatably fitted to said bearing and provided with a crank arm, a fork pivotally connected to said crank arm, a colter wheel carried by said fork, a set collar adjustably fitted to said stem below said bearing, a latch handle adjustably secured to said stem above said bearing, a toothed sector fixed to said bearing below said latch handle, a latch dog pivoted to said latch handle and adapted to interlock with the teeth on said sector, and a spring tending to force said latch dog into engagement with said teeth.

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1,094,069. MILLING-MACHINE. AXEL T. HEDFELDT, Chicago, Ill. Filed Oct. 19, 1912. Serial No. 726,626. (Cl. 83—36.)



1. A grain feeding device comprising a milling and feeding V-bottomed hopper, a discharging slot through the bottom at the apex of the V, and a feeding and scouring pin-roll located in the apex above the slot but adjacent to it, said roll being larger than the slot, an inclined discharge screen located immediately beneath said discharge opening and means mounted on the V-shaped bottom for varying the effective space between the bottom of the V and the screen to control the flow of material from the hopper along the screen.

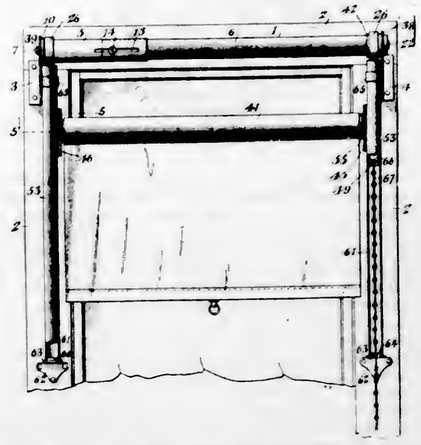
2. A grain feeding device comprising a milling and feeding V-bottomed hopper, a discharging slot through the bottom at the apex of the V, and a feeding and scouring pin-roll located in the apex above the slot but adjacent to it, said roll being larger than the slot, an inclined discharge screen located immediately beneath said discharge opening and means mounted on the V-shaped bottom for varying the effective space between the bottom of the V and the screen to control the flow of material from the hopper along the screen, a supply hopper located above said feeding hopper, means for controlling the discharge of material therefrom, a preliminary feeding and milling hopper located between said supply hopper and said V-bottomed hopper and a discharge from said preliminary feeding and milling hopper to the discharge and milling hopper.

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1,094,070. WINDOW-SHADE HANGER. CHARLES N. HINER, Staunton, Va., assignor to Hiner Specialty & Mfg. Co., Staunton, Va., a Corporation of Virginia. Filed Mar. 6, 1913. Serial No. 752,429. (Cl. 156—27.)

1. A window shade hanger including a spring roller, means for mounting the same at the top of a window, hollow vertical guides located at opposite sides of the window and provided with longitudinal slots, a window shade support having portions extending through the said slots into the hollow guides, and flexible connections wound around the spring roller and adapted to be unwound therefrom and extending into and housed by the hollow guides and connected with and carrying the window shade support.

2. A window shade hanger including a spring roller, means for mounting the same at the top of a window, hollow guides located at opposite sides of the window and provided with longitudinal slots, a shade support comprising transverse connecting means, and spaced supporting brackets secured to the said connecting means and having portions extended into the said slots and guided by the hollow guides, and flexible connections wound around the spring roller and extending into and housed by the hollow guides and carrying the window shade support.



3. A window shade hanger including spaced hollow guides provided with longitudinal slots and mounted for a limited rotary movement, a shade support having portions extending through the slots and slidable along the hollow guides, the rotary movement thereof operating to prevent the shade support from binding in the slots, and means connected with the shade support for raising and lowering the same.

4. A window shade hanger including vertical tubular guides designed to be located at opposite sides of a window and provided with longitudinal slots, supporting brackets receiving and journaling the lower ends of the tubular guides, fixed side brackets located at the upper ends of the guides and having curved portions embracing the same, a slidable window shade support having portions extending through the slots of the tubular guides and slidably interlocked with the same, the rotary movement of the guides preventing the support from binding in the slots, and means connected with the window shade support for raising and lowering the same.

5. A window shade hanger including spaced vertical tubular guides provided with longitudinal slots, supporting brackets having annular flanges extending into and journaling the lower ends of the said guides, means for mounting the upper portions of the guides to permit a limited rotary movement of the same, a window shade support provided with brackets slidable in the said guides and extending through the slots thereof, the rotary movement of the guides preventing the brackets from binding in the slots, and means connected with the window shade support for raising and lowering the same.

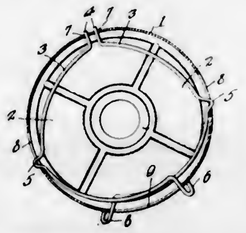
[Claims 6 to 14 not printed in the Gazette.]

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1,094,071. GLOBE-HOLDER. HARRY H. HIPWELL, Pittsburgh, Pa. Filed Aug. 23, 1912. Serial No. 716,765. (Cl. 240—115.)

1. A globe holder including a casing comprising an annular flange having a hole, a pair of wire globe grips, each comprising an extension which is disposed in the hole in the flange, a U-shaped intermediate loop, the flange having an opening receiving the loop slidably, and an elongated portion, the flange having a slot opposite to the hole and receiving the elongated portion slidably, the grips being

resilient and normally constrained to apply pressure to a globe when the same is fitted between the grips.

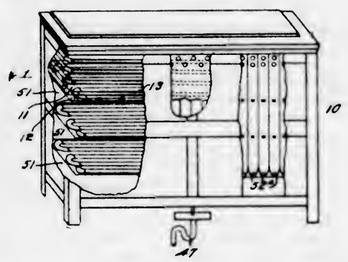


2. In a globe holder, the combination of a casing comprising an annular flange, a pair of wire globe grips each comprising a lug at one end which extends through a small hole on the flange, a U-shaped loop which extends through an opening at one side of the flange, and an elongated end portion, the elongated end portions being overlapped to permit the opening between said grips to be increased by pressing said end portions together.

3. A globe holder comprising a casing; and a resilient, arcuate, gripping structure within the casing, the globe gripping structure being provided with means to engage the casing, and being provided at its free ends with handles which project beyond the casing, the globe gripping structure being provided, intermediate said means and the handles, with a lug, and the casing having a slot in which the lug is mounted for movement circumferentially of the casing.

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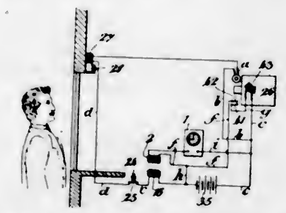
1,094,072. REFRIGERATOR. GEORGE A. ICKES, Altoona, Pa. Filed May 26, 1911. Serial No. 629,662. (Cl. 62—10.)



1. In a refrigerator, a casing having an upper ice chamber and a plurality of shelf compartments, a water circulating means including coiled pipes arranged about the walls and over the bottom of the ice chamber, separate pipe coils in each shelf compartment, a pipe connection between each shelf coil and one of the bottom coils in the ice chamber, a multi-way draw-off valve, and valved connections between said valve and certain of the coils.

2. In a refrigerator, a casing having an upper ice chamber and a plurality of shelf compartments, a water circulating means including pipes coiled about the walls and over the bottom of the ice chamber, separate pipe coils in each shelf compartment, a multi-way draw-off valve, pipe connections between said valve and the uppermost and lowermost coils of the piping in the ice chamber, a drain connection with the uppermost coil of the piping in the ice chamber, a pipe connection between each shelf coil and one of the bottom coils in the ice chamber, and separate valved connections respectively between each shelf coil and the multi-way valve and said drain pipe.

1,094,073. CONTROLLING DEVICE FOR SUBSEQUENTLY IDENTIFYING PERSONS AT A BUSINESS, NEGOTIATIONS, AND THE LIKE. ALFRED ILG, Zurich, Switzerland. Filed Mar. 25, 1913. Serial No. 756,753. (Cl. 234—1.5.)



1. In a device of the character described, the combination with a time stamp, of a photographic camera, means operated by the time stamp to open the shutter of the camera, a numbering mechanism arranged to be coupled to the time stamp, a numbering mechanism for the photograph, and means for actuating both numbering mechanisms simultaneously with the actuation of the time stamp.

2. In a device of the character described, the combination with a time stamp, of a photographic camera, a numbering mechanism arranged to be coupled with the time stamp, means controlled by the operation of the numbering mechanism to open the shutter of the camera, a numbering mechanism for the photograph, and means for actuating both numbering mechanisms simultaneously with the actuation of the time stamp.

3. In a device of the character described, the combination with a time stamp, of a photographic camera, means operated by the time stamp to open the shutter of the camera, a numbering mechanism arranged to be coupled to the time stamp, a numbering mechanism for the photograph, means for actuating both numbering mechanisms simultaneously with the actuation of the time stamp, and means for moving a new photographic surface in position.

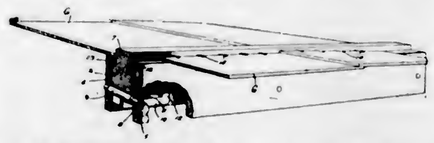
4. In a device of the character described, a clock, a time stamp electrically actuated thereby, a numbering mechanism connected with the stamp, a photographic camera, an electric circuit between the camera and numbering mechanism including a contact controlled by the latter, a solenoid for operating the shutter of the camera, and a solenoid for operating the photographic film of the camera.

5. In a device of the character described, a clock, a time stamp electrically actuated thereby, a numbering mechanism connected with the stamp and operable simultaneously therewith, a photographic camera, an electric circuit between the camera and numbering mechanism including a contact controlled by the latter, a solenoid for operating the shutter of the camera, and a solenoid for operating the photographic film of the camera.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,074. COMPOSITE RAFTER. ROBERT O. KING, North Tonawanda, N. Y. Filed June 7, 1912. Serial No. 702,267. (Cl. 108—16.)



1. A composite rafter or bar comprising parallel irons, a spacer riveting said irons together, a nailing strip between said irons and extending beyond the tops thereof, and a clamp secured to said strip at an intermediate point thereof and having one end engaging said strip and the other end engaging said spacer.



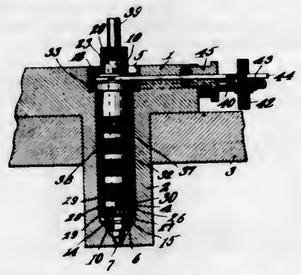
2. A composite rafter or bar comprising parallel flat irons, a filling strip between said irons and extending beyond the tops thereof to form a nailing strip, rivets below said filling strip securing said irons together, and clamps attached to said strip, at points intermediate their ends, each clamp engaging said strip at one end only, and engaging one of said rivets.

3. A composite rafter or bar comprising parallel flat irons, rivets having a central spacing portion for securing said irons in spaced parallel relation, a filler strip between said irons and resting on said rivets, and extending beyond the tops of said irons to form a nailing strip, and clamps screwed to said filling strip, one end of each clamp engaging said strip and the other end engaging one of said spacing portions.

4. A composite rafter or bar comprising flat parallel irons, spacers securing said irons together in spaced parallel relation, a nailing strip projecting above said irons and extending downwardly in contact with said spacers, and substantially U-shaped clamps engaging said spacers and secured to said strip, each clamp being so located that it subtends and engages one spacer, and engages said strip at one end only.

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1,094,075. FUEL-ATOMIZER. JACOB D. KISER, Elyria, Ohio. Filed July 31, 1913. Serial No. 782,389. (Cl. 123—131.)



1. An atomizer including a casing having an outlet, a core stationary within the casing and having ports converging toward said outlet, a needle valve within the core for closing the outlet, and means revoluble upon the core for controlling the admission of fuel to the ports from the interior of the casing, said adjusting means including a slidable rod, means for shifting said rod, and means operated by the rod and having spaces normally registering with the ports.

2. An atomizer including a casing having an outlet, a core stationary within the casing and having ports for directing jets of fuel into the outlet, a needle slidable in the core for closing the outlet, a member mounted for rotation on the core and having notches adapted to register with the ports, and means for rotating the sleeve to shift the notches out of register with the ports.

3. An atomizer including a casing having an outlet, a core stationary within the casing and having ports for directing jets of fuel into the outlet, a needle slidable in the core for closing the outlet, a member mounted for rotation on the core and having notches adapted to register with the ports, and means for rotating the member to shift the notches out of register with the ports, said means including a tangentially disposed slidable rod, and means for shifting the rod.

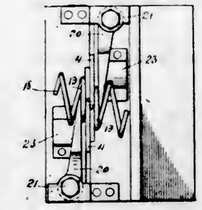
4. An atomizer including a casing having an outlet, a core stationary within the casing and having ports for directing jets of fuel into the outlet, a needle slidable in the core for closing the outlet, a member mounted for rotation on the core and having notches adapted to register with the ports, means for rotating the member to shift the notches out of register with the ports, said means including a tangentially disposed slidable rod, means for shifting the rod, and means for holding the rod against movement.

5. An atomizer including a casing having an outlet, a tubular core fixedly mounted therein and having ports in one end for directing jets of fuel through the outlet, a needle valve slidable within the core and normally closing the outlet, a sleeve mounted for rotation on the core and having a notched flange, said notches normally registering with the ports, a stationary outer sleeve extending around the first named sleeve and fitting snugly within the casing, said outer sleeve having communicating crossed grooves in its periphery for the passage of a combustible mixture between the outer sleeve and the casing, and means for rotating the inner sleeve independently of the core and outer sleeve.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,076. MACHINE FOR BENDING AND CUTTING COILED SPRINGS. JOSEPH P. LEGGETT, Carthage, Mo. Filed Aug. 4, 1913. Serial No. 782,801. (Cl. 140—78.)



1. In a machine for bending coiled springs, two wedge-shaped members for holding opposite sides of a coil of a spring, and means for bending said coil between said members substantially at right angles and at two points.

2. In a machine for bending and cutting coiled springs, two wedge-shaped members for holding opposite sides of a coil of a spring, and means for bending a portion of said coil between said members and cutting said bent portion.

3. In a machine for bending and cutting coiled springs, two wedge-shaped members for holding opposite sides of a coil of a spring, and means for bending a portion of said coil substantially at right angles at two places between said members and for cutting said bent portion.

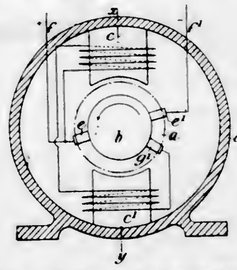
4. In a machine for bending and cutting coiled springs, two wedge-shaped members for holding opposite sides of a coil of a spring, and two coöperating bending and cutting jaws intermediate of said members for bending a portion of said coil and cutting said bent portion.

5. In a machine for bending and cutting coiled springs, two movable coöperating shearing jaws having means for bending a portion of a coil of a spring and cutting said portion after the jaws have bent it, and two wedge-shaped members for engaging and holding opposite sides of said coil during said bending and cutting operations.

[Claims 6 to 25 not printed in the Gazette.]

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1,094,077. VARIABLE-SPEED DYNAMO. HENRY LEITNER, London, England. Filed Apr. 11, 1912. Serial No. 690,052. (Cl. 171—223.)

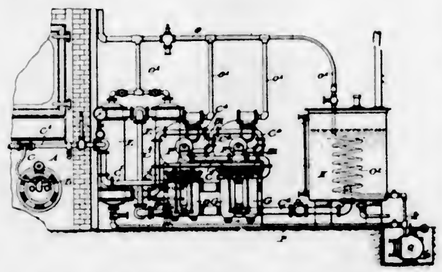


In a dynamo, the combination with field magnets provided with field windings, an armature, main line brushes

and a subsidiary brush connected with a winding of the field magnets so as to add to the force of the field magnets at low speed, the field magnet poles having their areas adjacent to the armature restricted substantially to the cross-sectional area of the pole-cores to limit the displacement of the axis of the magnetic flux, the main brushes being given a predetegmined lead, and the subsidiary brush being given a sufficiently greater predetermined lead than the main brushes so that at high speed the current through the field coils connected therewith will still add to the strength of the field magnets in a diminished degree and prevent the production of reverse current in said coils at any time.

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1,094,078. OIL-BURNING SYSTEM. LUTHER D. LOVEKIN, Philadelphia, Pa., assignor to Schutte and Koerting Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 1, 1911. Serial No. 618,411. (Cl. 158—36.)

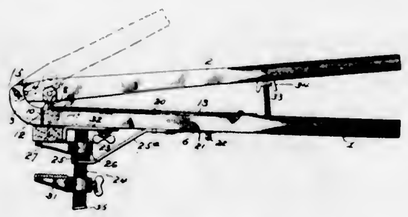


1. In an oil burning system the combination with the burner nozzles of means for supplying them with heated oil under atomizing pressure, comprising a centrifugal pump and a closed conduit system connecting said pump to said burner nozzles and entirely filled with oil in normal operation.

2. In an oil burning system the combination with the burner nozzles of means for supplying them with heated oil under atomizing pressure, comprising a centrifugal pump and a closed conduit system connecting said pump to said burner nozzles, and including heating provisions for the oil passing from the pump to the nozzles through said system and entirely filled with oil in normal operation.

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1,094,079. TOOL FOR SECURING DRAWER-STOPS TO FURNITURE. VALENTINE C. LUPPERT, Williamsport, Pa. Filed Apr. 15, 1913. Serial No. 761,379. (Cl. 1—46.)



A tool of the character described, comprising two connected levers, one constituting a magazine having a transverse slot, a post depending from the lever having the magazine, a driver carried by the other lever and movable in the slot in the magazine lever, a stop mounted on the post in such a way that it may be turned laterally out of the path of the driver, and another stop carried and guided in its movements by the post.

1,094,080. SILO. JOHN HENRY MAYER, Humboldt, Iowa, assignor to Humboldt Cement Products Mfg. Co., Humboldt, Iowa, a Corporation of Iowa. Filed Mar. 10, 1913. Serial No. 753,427. (Cl. 72—6.)



In a silo having a vertical door opening, a plurality of blocks having grooves formed in their ends, and arranged in superposed courses with their grooved ends abutting, a reinforcing rod in each of said blocks provided at each end with an eye, the adjacent eyes of the rods in abutting blocks being contained within the opening formed by the junction of the blocks, means for connecting said eyes together, door jambs provided for the door opening, each jamb having openings therein in line with the ends of the rods in the contiguous blocks, screw threaded sockets connected to the free ends of each alternate series of reinforcing rods, a plurality of rods extending across the door opening each provided at its ends with oppositely arranged screw threads to enter opposite sockets on the same series of reinforcing rods, and screw threaded rods connected to the free ends of the remaining series of reinforcing rods, each of said rods extending through the adjacent opening in the door jamb, and a nut for each of said screw threaded rods in position thereon against the door jamb, as and for the purpose stated.

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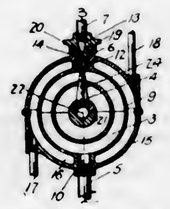
1,094,081. HUMIDOR. MORRIS MAYER, St. Louis, Mo. Filed July 14, 1913. Serial No. 778,939. (Cl. 131—30.)



A humidor, comprising a body, a lid for said body, a moistener pad compartment in said body, comprising spaced walls between which a moistener pad is held, cigar box supporting posts 9 extending above said spaced walls, a spring carried by said lid adapted to bear upon a cigar box seated upon said supporting posts, and pointed posts 7 extending vertically from the bottom of said body entering into the bottom of the cigar box to hold it from lateral movement.

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1,094,082. APPARATUS FOR PRODUCING CREAM. WILLIAM E. MCCADDON, Denver, Colo., assignor to Herbert M. De Witt, Denver, Colo. Filed Apr. 16, 1913. Serial No. 761,493. (Cl. 99—2.)



1. In a device for producing cream and the like, a vacuum chamber having a suction opening and a discharge passage which is contracted to form a narrow throat and which from said throat flares inwardly, a nozzle connected with a source of fluid under pressure extending into the flaring portion of said passage and having, exteriorly, a plurality of longitudinal grooves, and conductive means connected with said passage.

2. In an apparatus for producing cream and the like, a jacketed vacuum chamber having a suction opening and a discharge-passage, a nozzle connected with a source of fluid under pressure, and disposed for the ejection of fluid into said passage, means for the circulation of a cooling fluid through the said jacket, and a conduit connected with said passage.

3. In an apparatus for producing cream and the like, an annular vacuum chamber having a suction opening and a discharge passage, a casing surrounding said chamber to provide a jacket, means on said casing for circulating a cooling fluid through said jacket, a core on said casing having a duct in connection with a source of fluid under pressure, a nozzle on said core in communication with said duct and disposed to eject fluid into said passage, and a conduit connected with said passage.

4. In an apparatus for producing cream and the like, a jacketed vacuum chamber having a suction opening and a discharge-passage, a nozzle connected with a source of fluid under pressure, and disposed for the ejection of fluid into said passage, means for the circulation of a cooling fluid through the said jacket, and conductive means connected with said passage to provide a resistance to the flow of liquid impelled through the same by the ejection of said fluid.

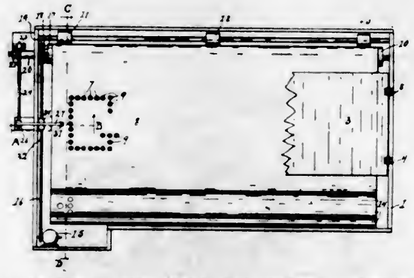
5. In an apparatus for producing cream and the like, an annular vacuum chamber having a suction opening and a discharge passage, a casing surrounding said chamber to provide a jacket, means on said casing for circulating a cooling fluid through said jacket, a core on said casing having a duct in connection with a source of fluid under pressure, a nozzle on said core, in communication with said duct and disposed to eject fluid into said passage, and conducting means connected with said passage to provide a resistance to the flow of liquid impelled through the same by the ejection of said fluid.

[Claims 6 to 10 not printed in the Gazette.]



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1,094,083. ELECTRIC SIGN. ALBERT C. MEYER, San Diego, Cal. Filed Oct. 23, 1912. Serial No. 727,361. (Cl. 177—350.)



1. An electric sign flasher and changer, comprising a sign bestudded with incandescent lamps, a terminal plate, an opposed series of contacts, a movable stencil traveling between said terminal plate and contacts and having sign-forming openings to permit the contacts to engage the said terminal plate therethrough, a shaft for moving the stencil, means for driving the shaft, including a clutch, and means for controlling the clutch in one direction from the stencil and in the other direction from the said driving means.

2. An electric sign flasher and changer, comprising a sign bestudded with incandenscent lamps, a terminal plate, an opposing series of contacts, a movable stencil traveling between the contacts and terminal plate and having a control opening and sign forming openings, the latter permitting the contacts to engage the terminal plate therethrough, a shaft for moving the stencil, means for driving the shaft, including a clutch, a clutch shifting means having an operating arm controlled in one direction by the control opening in the stencil, and means on the shaft-driving means for actuating the operating arm in the opposite direction.

3. An electric sign flasher and changer, comprising a sign bestudded with incandescent lamps, a terminal plate, an opposed series of contacts, a movable stencil traveling between the contacts and terminal plate and having a control-opening and sign-forming openings, the latter permitting the contacts to engage the terminal plate therethrough, a shaft for moving the stencil, means for driving said shaft, including a clutch, a clutch shifting means having an operating arm to pass through and be controlled in one direction by the said control opening in the stencil, means for actuating the said operating arm in the opposite direction from the shaft driving means, a contact to register with the control opening in the stencil, and a second contact on the said operating arm to engage the first named contact through said control opening for lighting the sign when the operating arm is actuated to stop the stencil and for extinguishing the sign when the operating arm is actuated to start the stencil.

4. An electric sign flasher and changer, comprising a sign bestudded with incandescent lamps, a terminal plate, an insulating stencil movable relative to said terminal plate, a series of yielding contacts bearing on the stencil and held thereby from contact with said terminal plate until the movement of the stencil relative to the plate brings openings formed in the stencil into register with the contacts, means for moving said stencil plate, means for driving said moving means, a controlling device for connecting said moving means with the driving means, whereby the stencil may be moved intermittently, a device carried by the driving means for periodically engaging the controlling device, whereby said controlling device is shifted to start the stencil, and means including a stationary contact and a contact carried by the controlling device for extinguishing the sign when said controlling device is moved to start the stencil.

5. The combination with a terminal plate forming one terminal of a lighting circuit and yielding contacts forming the other terminal and in contactual relation with said plate, of a sheet stencil having a series of sign-forming openings and control perforations, one for each series of sign openings, an operating roller for the stencil sheet, clutch members for actuating the roller, a drive belt for the shifting member of the clutch, a lug on the belt, a rock shaft having an arm for shifting the shiftable clutch member, and a second arm in the path of the said belt lug, an insulated finger extending from said second arm to register with any one of said control perforations and in electric connection with the terminal plate, and a contact in the path of the free end of said finger.

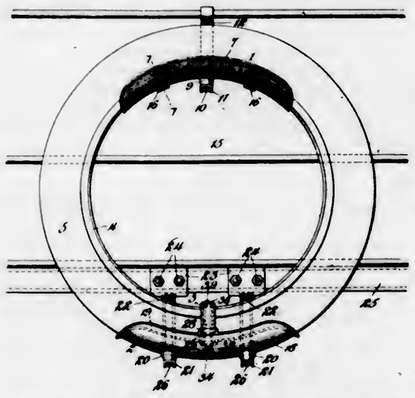
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1,094,084. RIM AND TIRE HOLDER FOR AUTOMOBILES. FRANKLIN C. MILLER, Easton, Pa. Filed Jan. 31, 1913. Serial No. 745,457. (Cl. 224—29.)

1. A device of the class described comprising a support provided with spaced concave tire-receiving seats and having an intervening connecting web or portion and provided at the outer walls of the seats with sockets, and a yoke arching the said seats and having its terminal portions engaging said sockets and supported by the said outer walls, said yoke being provided between its ends with a depending tubular stem extending from the yoke through the web or connecting portion of the support, said stem having contained within the same locking mechanism for holding the stem to the support.

2. A device of the class described including a support having spaced concave tire-receiving seats and provided between the same with a connecting web or portion having an opening, a yoke arching the support and having its terminal portions supported by the outer walls of the same, said yoke being provided between its ends with a depending tubular stem extending at its lower end through the opening in the support and located between the said seats, and locking mechanism contained within the tubular stem and having means for engaging the lower face of the support for retaining the yoke in place.

3. A device of the class described, including a support having a groove or seat to receive a tire and extending circumferentially around a portion of the same and having its groove or seat curved lengthwise of the tire and fitting the latter, brackets arranged at spaced points along the support and having supporting portions extending beneath the said support and secured to the same at the bottom of the groove or seat, and a yoke arching the support at a point between the brackets and detachably secured to the support and removable therefrom.



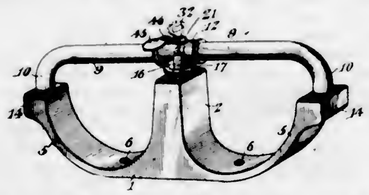
4. A device of the class described including a supporting bracket constructed of a channeled material and composed of a horizontal supporting arm and an upwardly extending arm having a terminal attaching portion, a support provided with a groove or seat and secured to the bracket, and a yoke arching the support and detachably secured to the same.

5. A device of the class described including a projecting bracket, a support constructed of sheet metal and bent transversely to provide a tire receiving seat and provided at the bottom thereof with a depressed portion arranged upon the said bracket, and a fastening device piercing the said depression and the bracket and located within the said depression beyond the plane of the seat.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,085. TIRE-HOLDER FOR AUTOMOBILES, &c. FRANKLIN C. MILLER, Easton, Pa. Filed Mar. 26, 1912, Serial No. 686,456. Renewed Feb. 25, 1913. Serial No. 750,701. (Cl. 224—29.)



1. A tire holder of the class described comprising a base having a vertical post and provided at opposite sides thereof with tire receiving recesses and having arms extending upward at the outer sides of the recesses, the arms being provided in their upper ends with sockets, and a yoke extending across the tire receiving recesses and having downwardly extending terminal portions fitting in the sockets of the said arms and rigidly supported by the latter, said yoke being also provided with an intermediate depending chamber, and locking means contained within the said chamber of the yoke and engaging the post for retaining the yoke on the base.

2. A tire holder of the class described including a base provided with a vertical post and having tire receiving recesses at opposite sides thereof, said base being provided at the outer sides of the recesses with upwardly extending arms having sockets in their upper ends, the upper end of the post being also provided with a socket, a yoke extending across the tire receiving recesses and composed of tubular bars having their outer terminals extending downward and fitting in the sockets of the arms of the base, a coupling connecting the inner ends of the tubular bars and having a central depending portion, a sleeve secured to the central depending portion and fitting in the socket of the post, and locking mechanism contained within the coupling and the sleeve for engaging the interior of the post.

3. A tire holder of the class described including a base provided with a vertical post and having tire receiving recesses at opposite sides thereof, said base being provided at the outer sides of the recesses with upwardly extending arms having sockets in their upper ends, the upper end of the post being also provided with a socket, a yoke extending across the recesses of the base and having terminal portions to fit in the sockets of the said arms and provided at an intermediate point with a hollow depending portion fitting within the socket of the post, and locking mechanism contained within the hollow portion of the yoke and provided with means for engaging the post within the socket thereof.

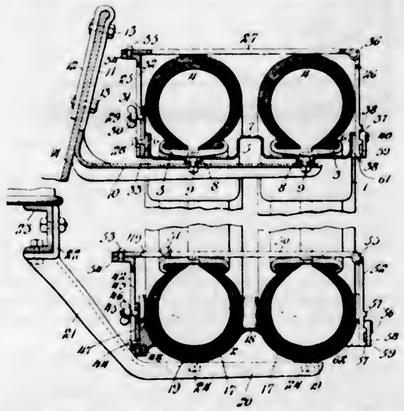
4. A tire holder of the class described comprising a base or support having spaced concave tire receiving seats with an intermediate connecting web, and a removable yoke arching the base or support and having downwardly extending terminal portions detachably engaging the outer wall of each of the said tire receiving seats, said yoke being provided with a self-contained lock located centrally of the yoke and having means for engaging the said connecting web.

5. A tire holder of the class described comprising a base or support having spaced concave tire receiving seats with an intervening connecting web, and provided at the outer walls of said seats with sockets, and a yoke arching the base or support and having downwardly extending terminal portions engaging said sockets, and a self-contained lock located centrally of the yoke and depending from the same between the said seats, said lock being adapted to engage with the said connecting web.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,086. RIM AND TIRE HOLDER FOR AUTOMOBILES. FRANKLIN C. MILLER, Easton, Pa. Filed Mar. 8, 1913. Serial No. 753,010. (Cl. 224—29.)



1. A tire holder including a tire support, a post rising from one side of the support, a top member connected at one end to the post and extending across the support in spaced relation therewith, a hasp member hinged to and depending from the other end of the top member, said hasp member being arranged to swing inwardly and outwardly to and from the support, and means for securing the lower end of the hinged hasp member to the support.

2. A tire holder including a support adapted to receive a tire, a post rising from one side of the support, a top bar or member movably connected with the said post and extending to the opposite side of the support and arranged in spaced relation with the same, said top bar or member being arranged to swing horizontally to carry it beyond the tire, a hasp member hinged to and depending from the top bar or member and carried by the latter in the horizontal movement thereof, and means for securing the lower end of the hasp member to the support.

3. A tire holder including a support adapted to receive a tire, a post arranged at one side of the support, a horizontal top member located above and in spaced relation with the support and pivotally connected at one end to the said post and adapted to swing horizontally beyond the said support, a hasp member depending from and movably connected with the other end of the top member, and locking means for securing the lower end of the hasp member to the support.

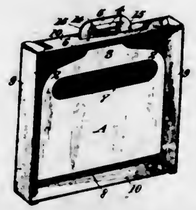
4. A tire holder including a support, a post rising from one side of the support, a top bar or member extending across the support in spaced relation therewith and connected at one end with the post, a hasp member depending from the other end of the top member and carried by the latter, means for adjustably connecting the post to the support, and locking means for securing the hasp member to the support in different adjustments of the post.

5. A tire holder including a support, a post rising from one side of the support and permanently and adjustably connected therewith to enable the post to be raised and lowered, a top bar or member connected with and carried by the post in the adjustment thereof and extending across the support in spaced relation therewith, a hasp member depending from the top bar or member, means for clamping the post in its vertical adjustment, and means for locking the hasp member to the support in different adjustments of the post.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,087. GARMENT-HANGER AND BOX THEREFOR. WILLIAM J. O'DONNELL, Alameda, Cal. Filed Sept. 12, 1912. Serial No. 719,960. (Cl. 206—7.)



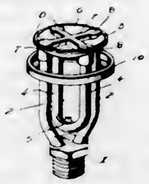
1. A package for garments, comprising a box, a removable cover portion, said box and cover formed with registering slots, a garment hanger, and a handle thereon adapted to extend through said slots.

2. A package for garments consisting of a garment hanger, a handle thereon, a box adapted to receive the hanger, a closure for the box, said box and closure formed with slots through which the handle on the hanger extends to form a handle for the box.

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1,094,088. VAPOR-BURNER. HARRY OFFENBACH, Bradford, Pa. Filed Nov. 22, 1912. Serial No. 732,889. (Cl. 158—53.)

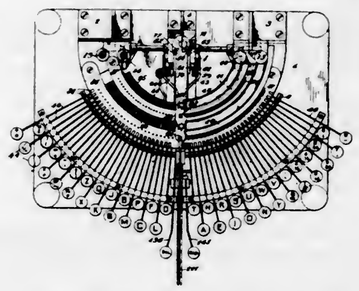
A retort head for hydro-carbon burners including a concavo convex disk formed with diametrically disposed ribs in the concave portion with the upper surface of the ribs in a plane of the edge of the disk, the terminal ends of each rib being formed with enlargements coincident with the edge of the disk and projecting through and below said disk, the enlargements being bored vertically and the ribs bored longitudinally to form open communication



between said enlargements and ribs, oil supply pipes communicating with a pair of diametrically opposed enlargements, and a gas pipe having its terminals communicating with the remaining pair of diametrically opposed enlargements.

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1,094,089. TYPE SETTING AND DISTRIBUTING MACHINE. HENRY C. OSBORN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 21, 1908. Serial No. 468,637. (Cl. 101—130.)



1. In a typesetting and distributing machine, the combination of a storage member having typeholders, a key board, and intermediate mechanisms controlled thereby common to the various typeholders and traveling transversely thereof and interchangeable to distribute type into the storage member and assemble type from it.

2. In a typesetting and distributing machine, the combination of an upright segmental storage member having typeholders, a key board, and oscillatable traveling mechanism controlled thereby and adapted to convey type toward and from a position in registration with a given holder of the storage member, and means for releasing type in the storage member and allowing it to drop into the traveling mechanism.

3. The combination of an upwardly extending storage member having type channels, means for releasing type from the lower end thereof, means for feeding type upwardly into the lower end thereof, and an oscillatable laterally moving type shifter common to both of said means and common to the various type channels.

4. The combination of an upright stationary storage member, means for releasing type from the lower end thereof, means for feeding type upwardly into the lower end thereof, and movable means common to the various type holders and interchangeable for conveying such type to and from said member.

5. The combination of a type case having a set of typeholders, a coöperating type conveyer common to the various holders and having an opening to receive type, a stationary support for such type during the movement of the conveyer, and a keyboard adapted to move the conveyer various amounts.

[Claims 6 to 73 not printed in the Gazette.]

1,094,090. PROCESS OF TREATING MANGANESE-STEEL INGOTS. CHARLES G. OSBORNE, Chicago, Ill. Filed Mar. 5, 1913. Serial No. 752,240. (Cl. 148—24.)

1. The process of treating a cast body of manganese steel, which consists in quenching the unworked steel at a temperature above its point of recrystallization to rapidly reduce the temperature of said steel to a point where no further structural changes take place, and reheating to a rolling temperature, substantially as described.

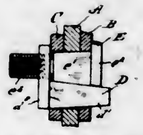
2. The process of treating a manganese steel ingot, which consists in quenching the ingot at a temperature above its point of recrystallization to rapidly reduce the temperature of said steel to a point where no further structural changes take place, and reheating said ingot to a rolling temperature, substantially as described.

3. The process of treating a manganese steel ingot, which consists in stripping the ingot, and quenching said ingot before its temperature has fallen below approximately 750° C. to rapidly reduce the temperature of said steel to a point where no further structural changes take place, substantially as described.

4. The process of treating a manganese steel ingot, which consists in stripping the ingot, quenching said ingot before its temperature has fallen below approximately 750° C. to rapidly reduce the temperature of said steel to a point where no further structural changes take place, and reheating to a temperature of approximately 1175° C., substantially as described.

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1,094,091. FASTENING CONTRIVANCE. ADAM OSTHEIMER, Cleveland, Ohio. Filed May 14, 1913. Serial No. 767,566. (Cl. 85—4.)



1. A fastening contrivance comprising the combination of a member having two parts angularly disposed with respect to each other, one of said parts being provided with an opening, a second member projecting through said opening, and means for fixing said members with respect to each other.

2. A fastening contrivance comprising the combination of two members having registering openings, a wedge projecting through said openings and provided with a laterally projecting flange, said flange having an opening registering with said first mentioned openings, a bolt projecting through all of said openings and a nut for fixing said wedge and bolt relative to each other.

3. A fastening contrivance comprising the combination of two members having registering openings, a wedge projecting in a given direction therethrough and provided with an overlying flange itself provided with an opening in registration with said first mentioned openings, a counter wedge projecting in the reverse direction through said set of openings and means for drawing said wedges together.

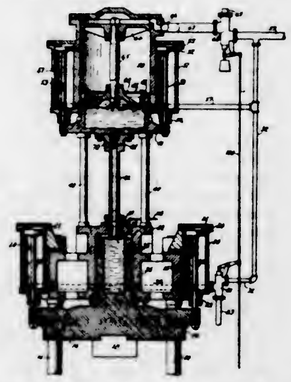
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1,094,092. FORGING-PRESS. EARL F. OYSTER, East Cleveland, Ohio. Filed Dec. 2, 1912. Serial No. 734,462. (Cl. 138—17.)

1. In a machine of the character described, the combination of a coöperating cylinder and plunger, a tubular displacement plunger working in the chamber within the cylinder, a valve for controlling the passing through the displacement plunger, and means for forcing liquid through the plunger.

2. In a machine of the character described, the combination of a frame, a movable pressing head, a cylinder and plunger, carried one by the frame and the other with the head, a displacement plunger working in the chamber within the cylinder and having a bore through which liquid may be supplied to the cylinder, and means in the machine for forcing liquid through said bore.

3. The combination of a frame, a pressing head slidably guided thereby, a coöperating plunger and cylinder, one connected with the frame and the other with the head, a hollow displacement plunger acting into the chamber within the cylinder, and means for controlling and forcing liquid through the plunger.



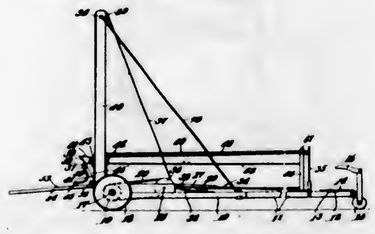
4. The combination of a frame, a cylinder carried thereby, a cross head slidably guided by the frame and having a plunger working in said cylinder, a tubular displacement plunger slidable through the head of said cylinder, means for operating the displacement plunger, and means for forcing liquid through it.

5. The combination, with a frame, of a cross-head slidably guided thereby, a coöperating cylinder and plunger carried by the frame and cross head, a tubular displacement plunger operating into the chamber within the cylinder, a reservoir coupled with the plunger, means for forcing the liquid from said reservoir to the said chamber through the displacement plunger, means for operating the displacement plunger, and lifting cylinders carried by said frame and having pistons with rods connected to said cross head.

[Claims 6 to 30 not printed in the Gazette.]

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1,094,093. HAY GATHERER AND STACKER. PETER PARADISE, Princeton, Cal. Filed July 2, 1912. Serial No. 707,392. (Cl. 57—53.)



1. A gatherer and stacker embodying a wheel mounted frame, vertical guides carried thereby, a buck rake slidably and swingably carried by the guides, means for raising the rake, oscillating means carried by the frame, the rake being engaged by the oscillating means when in its lowermost position so that the rake may be positively swung to and from the ground and being disengaged therefrom when raised, means for swinging the rake upward independent of the oscillating means, means for locking the rake when swung upward by the last mentioned means, and means for releasing the locking means.

2. A gatherer and stacker embodying a wheel mounted frame, vertical guides carried thereby, a buck rake slidably and swingably carried by the guides, means for raising the rake, oscillating means carried by the frame, the rake being engaged by the oscillating means when in its lowermost position so that the rake may be positively swung to and from the ground and being disengaged therefrom when raised so that the rake is free from the said oscillating means, and independent means for manipulating the rake.

3. A gatherer and stacker embodying a wheel mounted frame, vertical guides carried thereby, carriages slidable along the guides, a buck rake pivoted to the carriages, means for raising the carriages, oscillating means carried by the frame, the rake being engaged by the oscillating means when in its lowermost position so that the rake may be positively swung to and from the ground and being disengageable therefrom when raised, means for swinging the rake upward independent of the oscillating means, coöperating means carried by the rake and said carriages for locking the rake when swung upward by the last mentioned means, and means for releasing the locking means.

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1,094,094. CYCLE-CAR. ALFRED E. PARNACOTT, Penge, London, England. Filed May 23, 1913. Serial No. 769,389. (Cl. 21—90.)



1. In a motor vehicle, a central hollow longitudinally extending frame, transmission mechanism inclosed in said frame, a pair of vertically spaced parallel springs arranged transversely of the vehicle and secured to each end of said frame, fittings connecting the ends of each pair of springs, said fittings each having hollow journals extending laterally outward therefrom, wheels rotatably mounted on said journals, Cardan shafts connected with said transmission mechanism and passing through said hollow journals and universal joints connecting the free ends of said shafts with the outer ends of the wheel hubs.

2. In a motor vehicle having wheels, the combination of a supporting frame, springs and fittings connected to form parallelograms secured to said frame, said parallelograms having hollow journals extending outwardly from their opposite ends on which said wheels are mounted to rotate, Cardan shafts extending through said journals and universal joints connecting said shafts with said wheels.

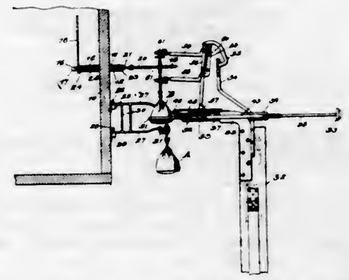
3. In a motor vehicle, the combination of a supporting frame, parallelograms secured to said frame and comprising pairs of spaced transversely arranged springs, T-shaped fittings the heads of which connect the ends of said springs, the stems of said fittings being hollow and extending laterally outward, wheels mounted to rotate on said hollow stems, Cardan shafts extending through said stems and connected by universal joints with said wheel hubs and means for driving said shafts.

4. In a motor vehicle, the combination of a pair of vertically spaced parallel springs arranged transversely at one end of said vehicle, means connecting said springs midway their length for holding them in spaced relation, T-shaped fittings pivotally connected with the ends of said springs and having their stems extending laterally outward, said stems being hollow to form journals, driving wheels carried by said journals, Cardan shafts connected to drive said wheels, said shafts having universal joint connections with said wheels.

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1,094,095. MAIL-BAG CATCHER AND DELIVERER. GEORGE W. POMEROY, Butte, Mont. Filed Sept. 13, 1913. Serial No. 789,580. (Cl. 258—17.)

1. In a mail bag deliverer and catcher, a car fork adapted for securement to a car and to be swung down against the car, a mail bag support mounted upon the car in proximity to the car fork and adapted to be swung against the car, and a crane adapted to be positioned near the path of the car and having a fork frame adapted to swing down away from the car by the weight of a mail bag and a mail bag support connected to the fork frame to swing down therewith.



2. In a mail bag catcher and deliverer, a crane comprising a post, a frame hinged on said post, a shoulder on the post, latching mechanism on the frame for engagement with said shoulder to hold the frame in a horizontal position on the post, a pair of stationary fork arms on the frame, a pair of movable fork arms on the frame for coöperation with the stationary fork arms to catch mail bags, and latch releasing means on the frame in the path of said movable fork arms and adapted to release the frame upon the inward movement of either of said movable fork arms.

3. In a mail bag catcher and deliverer, a crane comprising a vertical post, a frame hinged upon the post, a latch in the frame for engagement with the post to hold the frame in a horizontal position, fork arms on the frame adapted to open and close to receive a mail bag, and connecting means between the fork arms and said latch for operating the latter upon receipt of the mail bag by the fork arms to release the frame and admit of the same swinging down.

4. In a mail bag catcher and deliverer, a post, a frame hinged upon the post, a latch on the frame for engagement with the post to hold the frame in horizontal position, a stationary fork arm on the frame, a movable fork arm on the frame having connection with said latch and adapted to be moved upon the receipt of a mail bag between said fork arms whereby to release said frame and permit the same to swing down against the post, and a hinged mail bag support mounted on the post and having connection with said frame and adapted to swing down into inoperative position upon the release of said frame.

5. In a mail bag catcher and deliverer, a post, a frame hinged on the post, mail bag receiving forks carried by the frame, a latch on the frame adapted to engage said posts, a connection between said latch and said fork arms adapted to release the latch from the post upon the receipt of a mail bag whereby said frame is permitted to swing down against the post, an arm rising from the post above said frame, a lever hinged upon the upper end of the arm, a bar hingedly connected at one end to the free extremity of the lever and at its opposite end to said frame, and a pair of mail bag supporting arms projecting outwardly from said bar.

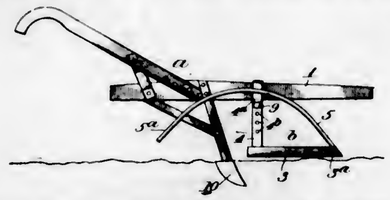
[Claims 6 to 16 not printed in the Gazette.]

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1,094,096. LEAF-LIFTING ATTACHMENT FOR PLOWS. JOHN W. POSTON, Blossom, S. C. Filed Jan. 20, 1914. Serial No. 813,164. (Cl. 97—33.)

A leaf lifting attachment for plows comprising an arm adapted to extend laterally from the plow beam and means for securing said arm to the beam in different positions of lateral adjustment, a frame, comprising an upright member connected to one end of said arm and vertically adjustable thereon and a horizontal member secured to the lower end of the upright member and projecting

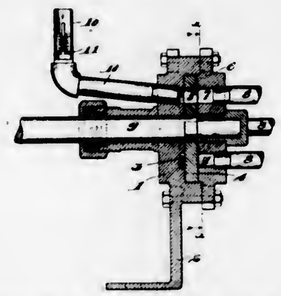
forwardly therefrom, and an arched member connecting the forward end of the horizontal member and the upper



part of the upright member and curving downwardly and rearwardly from said latter member.

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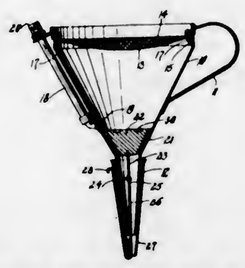
1,094,097. STARTER FOR INTERNAL-COMBUSTION ENGINES. ROBERT E. POULEY, Chicago, and ARTHUR D. POULEY, Waukegan, Ill. Filed Mar. 18, 1912. Serial No. 684,473. (Cl. 137—26.)



A distributing valve comprising a casing inclosing a cylindrical chamber, one wall of said casing having an internal annular recess therein located to one side of and concentric with said chamber, the outer periphery of said recess being of less diameter than the periphery of the chamber, the wall opposite said first mentioned wall having spaced cylindrical ports disposed parallel with the axis of said chamber and registering with said recess, and the wall having said recess being provided with an inlet port substantially parallel with the axis of said chamber and opening into said recess; an operating shaft journaled concentrically in said casing; a disk carried by said shaft and snugly fitting the walls of said chamber, said disk having a perforation therethrough disposed parallel to and adapted to register consecutively with said cylindrical ports, substantially as described.

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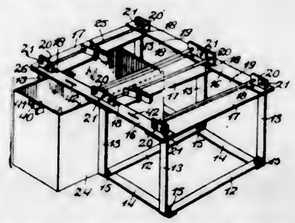
1,094,098. FUNNEL. BÉLA RAKOTTYAY, Jersey City, N. J. Filed Aug. 26, 1913. Serial No. 786,692. (Cl. 226—33.)



In a device of the character described, the combination with a funnel having a conical discharge spout, of a valve normally closing said spout, a hollow conical member shiftably arranged upon the outer face of said spout, and a wire attached to the outer surface of said conical body and connected with said valve, whereby the latter is unseated when said conical member is moved toward the body portion of said funnel, that portion of the wire which is disposed upon the outer surface of said conical body preventing the latter from contacting throughout its circumference with the inner surface of a bottle neck when inserted thereinto, the upper end of the wire upon said conical body being hook-shaped and bent away from said conical body substantially as and for the purpose specified.

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1,094,099. PAINT-BRUSH HOLDER. WILLIAM REILLY, Waltham, Mass. Filed June 6, 1913. Serial No. 772,122. (Cl. 91—63.)



1. A brush holder comprising a liquid-holding tank, bearings above the tank, a horizontal guide rod removably engaged with said bearings and supported thereby above the tank, brush-holding clips slidingly engaged with the rod and projecting over the tank and means for supporting said clips against downward movement.

2. A brush holder comprising a frame having a top opening and bearings at the front and rear sides of the frame top, horizontal rods removably engaged with said bearings and extending across the frame at opposite sides of the top opening, brush-holding clips slidingly engaged with the said rods and projecting over the top opening, a tank under said opening, the frame being provided with means for supporting said clips against downward movement.

3. A brush holder comprising a frame having a top opening the longitudinal edges of which constitute clip guides, and bearings at the front and rear sides of the frame top, horizontal rods removably engaged with said bearings and extending across the frame at opposite sides of the top opening, brush-holding clips slidingly engaged with said rods and projecting over the top opening, the clips having ears projecting under the said guides, and a tank under said opening.

4. A brush holder comprising a frame having top and side openings, and bearings at the front and rear sides of the frame top, horizontal rods removably engaged with said bearings and extending across the frame at opposite sides of the top opening, brush-holding clips slidingly engaged with the said rods and projecting over the top opening, a tank adapted to slide on the bottom of the frame and movable through the side opening, said tank being under the top opening when in place, the frame being provided with means for supporting said clips against downward movement.

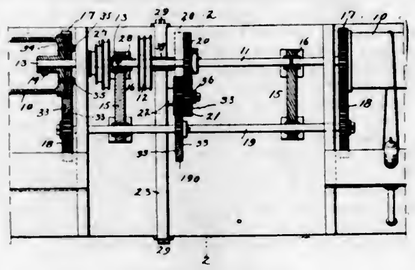
5. A brush holder comprising a skeleton frame composed of transverse body members, having horizontal base portions and vertical end portions, horizontal base members connecting said body members, two sets of horizontal top members, each slotted to receive the vertical portions of the body members the top members of one set being arranged at right angles with the top members of the other set, and the two sets forming top openings in the frame, bearings attached to the vertical portions of the body members above the top members, horizontal rods removably engaged with said bearings, brush-holding clips slidably engaged with said rods and projecting over the top openings, removable tanks bearing loosely on the base



members between the body members and located under said top openings when in place, the frame being provided with means for supporting said clips against downward movement.

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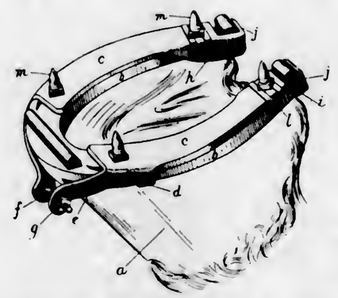
1,094,100. REVERSING MECHANISM FOR THE BAND-CYLINDERS OF SPINNING-MULES. JOHN H. RYALLS, Charlottesville, Va., assignor to Ryalls Machine Company, of Virginia. Filed Apr. 19, 1912. Serial No. 691,873. (Cl. 118—9.)



In a reversing mechanism for spinning mules, the combination of alining band cylinders spaced apart, a shaft secured to each of said cylinders and projecting therefrom, a power shaft situated between and in alinement with said cylinder shafts and rotating independently thereof, a countershaft, a reversing gear connection between said power shaft and said countershaft, and a gear connection between the countershaft and each of said band cylinders, including a gear fitted over the end of each cylinder and affixed thereto.

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1,094,101. OVERSHOE FOR HORSES. CHARLES H. SCHOTTA, Baltimore county, Md. Filed Dec. 2, 1913. Serial No. 804,207. (Cl. 168—30.)



1. In combination with a horseshoe, an overshoe embracing a pair of separate plates with calks thereon, and having heel-engaging clips, which plates at their outer edges and near to the toe ends, are bent at a right angle and thereby adapted to bear against the outer edge of the horseshoe, and at their inner edges, near to the heel ends which are unconnected, provided with flanges which bear against the inner edge of the horseshoe, and means whereby the toe ends of the plates are drawn toward each other and the heel ends forced outward, thereby clamping the horseshoe in a manner substantially as specified.

2. In combination with a horseshoe, an overshoe embracing a pair of separate plates with calks thereon, and having heel-engaging clips, which plates at their outer edges near to the toe ends, are bent at a right angle and thereby adapted to bear against the outer edge of the horseshoe and are provided with inwardly extending clips, and at their inner edges near to the heel ends which are unconnected, provided with flanges which bear against the inner edge of the horseshoe, and means whereby the toe ends of the plates are drawn toward each other and the heel ends forced outward, thereby clamping the horseshoe in a manner substantially as specified.

3. In combination with a horseshoe, an overshoe embracing a pair of separate plates with calks thereon, which plates at their outer edges and near to the toe ends have clips and are bent at a right angle so as to bear against the edge of the horseshoe and at their inner edges near the heel ends, provided with flanges carrying heel clips, means whereby the toe ends of the plates are drawn toward each other, and their heel ends forced outward, thereby clamping each of the plates to the horseshoe, and removable safety clips which are secured to the plates immediately in front of the heel clips, substantially as described.

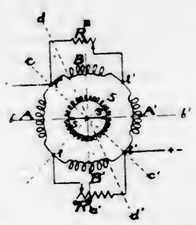
4. In combination with a horseshoe, an overshoe embracing a pair of separate plates with calks thereon, and having grooves therein, which at their outer edges and near to the toe ends are bent at a right angle and adapted to bear against the edge of the horseshoe and are fitted with clips, and at their inner edges near the heel ends provided with flanges carrying clips, a bolt and nut whereby the toe ends of the plates are drawn toward each other, and the heel ends forced outward, thereby clamping each of the plates to the horseshoe, and safety flanged clips which are held in the grooves in the plates, substantially as specified.

5. In combination with a horseshoe, an overshoe embracing a pair of separate plates with calks thereon, and having grooves with corrugated bottoms which at their outer edges near to the toe end, are bent at a right angle, and thereby adapted to bear against the edge of the horseshoe and are fitted with clips, and at their inner edges near the heel are provided with flanges carrying clips, a bolt and nut whereby the toe ends of the plates are drawn toward each other and the heel ends forced outward, thereby clamping each of the plates to the horseshoe, and safety flanged clips which are held in the grooves in the plates, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,102. REPULSION-MOTOR. ARTHUR SIMON, Milwaukee, Wis. Filed Nov. 29, 1907. Serial No. 404,240. (Cl. 172—277.)



1. In an alternating current motor in combination, a continuous closed and symmetrically distributed primary winding having a plurality of taps dividing said winding into a plurality of sections, certain of said sections being directly connected to a source of alternating current supply, and rheostatic means interposed between other of said sections and the supply circuit to vary the relative magnetomotive force of portions of said sections to vary directly the relative density of portions of the primary flux to shift the position of the resultant primary flux to vary the speed of the motor.

2. In a repulsion motor, in combination, a field or stator provided with two sets of windings forming in effect a single continuous closed winding, terminals of a single phase alternating current circuit, having said windings connected between the same, one winding of each set being connected in circuit in series with one winding of the other set, and one winding of each set being arranged in par-

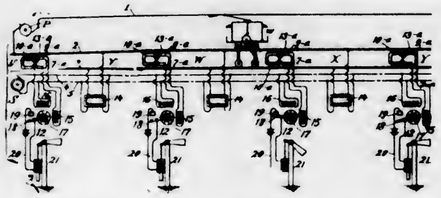
allel with one winding of its own set and one winding of the other set, and a variable resistance shunt extending around each winding of one set.

3. In an alternating current motor, in combination, a primary winding, a secondary winding, said primary winding having taps connected to the terminals of a single phase alternating current circuit, and variable resistances connected between said taps and diametrically opposite points on said winding to vary directly the density of portions of the primary flux, to shift the position of the primary flux and thus vary the speed of the motor.

4. In an alternating current motor, in combination, a primary winding, a secondary winding, said primary winding having a plurality of taps, all connected externally to a single phase alternating current circuit, diametrically opposite taps being connected to different sides of the supply circuit, and variable resistances interposed between one set of diametrically opposite taps and the supply circuit for varying directly the density of portions of the primary flux to shift the position of the primary flux and thus vary the speed of the motor.

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1,094,103. AUTOMATIC BLOCK-SIGNALING SYSTEM FOR ELECTRIC RAILWAYS. OSCAR EGERTON STEVENS, New York, N. Y., assignor to General Railway Signal Company, a Corporation of New York. Filed Nov. 3, 1908. Serial No. 460,904. (Cl. 246—36.)



1. In a signaling system for electric railways, the combination of a source of propulsion current, a feeder, a trackway the rails of which are continuous and form return paths to the source of propulsion current, a source of signaling energy, a transformer in each block section fed from said source of signaling energy and having its secondary connected across the trackway, conductive bonds connecting the rails at the limits of a block section, a coil located in two adjacent block sections and in inductive relation with the rails, and a relay having one member fed from the source of signaling energy and the other member from said coil.

2. In a signaling system for electric railways, the combination of a source of propulsion current, a feeder, a trackway both of the rails of which are continous and are connected to the source of propulsion energy, a series of conductive bonds dividing the trackway into block sections, a series of coils in inductive relation with the rails and located so that one-half of each coil is in one block section and the other half of the coil in an adjacent block section, a source of signaling energy, means for inducing a difference of potential across the trackway fed from said source of signaling energy, and a series of relays each having their coils energized from across the source of signaling energy and from a coil in inductive relation with the trackway.

3. In a signaling system for electric railways, the combination of a source of propulsion current, a feeder, a trackway the rails of which are electrically continuous and serve as return paths to the propulsion generator, a series of non-inductive cross-bonds dividing the rails into block sections, a coil at the end of each block section, said coil in inductive relation with the rails of two adjacent block sections, a source of signaling energy, means for exciting a signaling difference of potential located approximately midway in the block sections, and polyphase relays each energized from the source of signaling energy and from a coil in inductive relation with the rails.

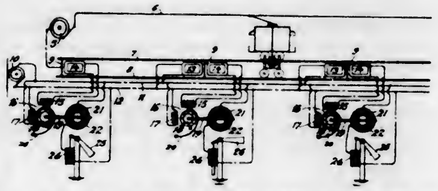
4. In a signaling system for electric railways, the combination of a source of propulsion current, a feeder, a trackway of which the rails are electrically continuous and connected to the source of propulsion current, bonds dividing the rails into block sections, a source of signaling current, means energized from the source of signaling current for exciting a difference of potential across the block sections, a coil situated at each bond in inductive relation with the rails of adjacent block sections and relays having one member energized from the source of signaling energy and the other member from the coil in inductive relation with the rails of the section in which the signal is located.

5. In a signaling system for electric railways, a source of propulsion current, a feeder, a trackway of which the rails are continuous and connected back to the source of propulsion current, means for dividing the rails into block sections, a source of signaling current, means for exciting a difference of signaling potential across the rails, a normally deënergized relay, a motor vehicle, means for actuating the relay in advance of the motor vehicle to indicate the condition of the section in advance, said means consisting of a coil normally in inductive relation with the rails of two adjacent block sections, and a relay having one member energized from the source of signaling energy and the other member from said coil.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,104. AUTOMATIC BLOCK-SIGNALING SYSTEM FOR ELECTRIC RAILWAYS. OSCAR EGERTON STEVENS, New York, N. Y., assignor to General Railway Signal Company, a Corporation of New York. Filed Dec. 31, 1908. Serial No. 470,212. (Cl. 246—36.)



1. In a signal system, a signal biased to one position, a permanently closed circuit including a source of current and an electric motor, connections between the motor and the signal whereby the signal will be moved from the biased position by an operation of the motor caused by current from the source, and means in series with said source and motor for preventing sufficient flow of current to cause an operation of the motor, thus allowing the signal to move to the biased position by reason of its bias.

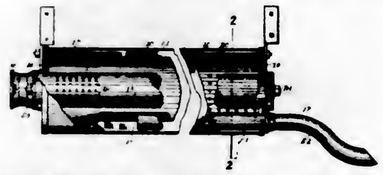
2. In a signal system, a signal biased to one position, a source of current, an electric motor adapted for governing the signal, connections between the source of current and the motor, a reactance device inserted in said connections comprising a magnetic core, a fixed coil and a movable coil, a track circuit, and means governed by the track circuit for moving the movable coil whereby the reactance of the circuit including the motor is changed and the signal is thereby governed.

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1,094,105. MUFFLER. SIDNEY D. WALDON, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 16, 1911. Serial No. 614,929. (Cl. 121—116.)

1. A muffler comprising a plurality of concentrically arranged cylindrical elements, end plates therefor, and an outlet pipe extending through one of the end plates and into the space between said cylindrical elements, the inner of said cylindrical elements having an inwardly bent portion, substantially as shown and described.

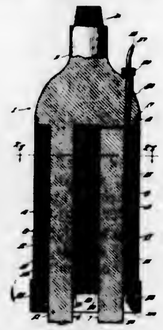
2. A muffler comprising an outer cylindrical casing, an outlet connection in said casing, concentric outer and inner tubular members therein, an exhaust pipe connection at one end of said inner tubular member, said inner tubular member being perforated adjacent said exhaust pipe connection end only, said tubular outer member being perforated adjacent the opposite end only, end plates



abutting against the ends of said elements and said casing and rods connecting the end plates and passing between said elements.

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1,094,106. ELECTROMAGNETIC FISHING-TOOL. CALVIN N. WHITE, Maricopa, Cal. Filed Dec. 23, 1912. Serial No. 738,392. (Cl. 175—21.)



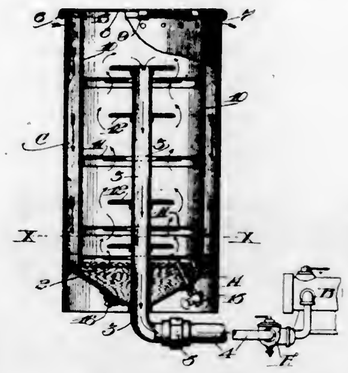
1. An electro-magnetic fishing tool comprising a body member, a pair of cores formed on said body member extending downwardly therefrom, a winding on each core, means for insulating said windings, a tubular shell secured to said body member extending downwardly over said windings, a circular plate against the lower end of said tubular shell, said plate having an opening for each core to permit the ends of said cores to extend downwardly therethrough, a circular shoe secured to the lower end of said shell, and a circular shoulder on said shoe adapted to engage said plate and hold the same against the lower end of said shell.

2. An electro-magnetic fishing tool comprising a body member, a pair of cores formed integral with said body extending downwardly therefrom substantially parallel with each other, said cores having flat inner faces and curved outer faces, a winding on each core, insulating means covering each of said windings, a tubular shell threaded to engage the lower portion of said head, a circular plate against the lower end of said shell, said plate having an opening therethrough for each core to permit the ends of the core to extend downwardly therethrough, a circular shoe threaded to the lower end of said shell, and a circular shoulder on said shoe adapted to engage said plate to hold said plate against said shell.

3. An electro-magnetic fishing tool comprising a body member having an opening extending therethrough, a stuffing box at the outer end of said opening, a pair of cores formed integral with said body member extending downwardly therefrom substantially parallel with each other, said cores having flat inner faces and curved outer faces, a winding on each core, wires from said winding extending through said opening in said body and said stuffing box, a tubular shell threaded to engage the lower portion of said head, a circular plate against the lower end of said shell, said plate having an opening therethrough for each core to permit the ends of the core to extend downwardly therethrough, a circular shoe threaded to the lower end of said shell, and a circular shoulder on said shoe adapted to engage said plate to hold said plate against said shell.

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1,094,107. AIR-WASHER. ALFRED WICKERSHAM, Sunnyvale, Cal., assignor to Atmospheric Clarifier Co., a Corporation. Filed Aug. 29, 1912. Serial No. 717,718. (Cl. 98—45.)



1. In an air filter the combination of a casing having air inlets adjacent its upper end and a convergent bottom, a cover for said casing, a cylinder on the underside of said cover, with its lower end terminating a short distance above the bottom of the casing and opening to the interior of the latter, means for introducing a liquid into the casing to submerge the open lower end of the cylinder and form a seal therefor, means for draining the liquid from the casing to a level above the lower end of the cylinder, and means connecting with a suction apparatus to admit of air in the cylinder being withdrawn therefrom adjacent its upper end.

2. In an air filter the combination of a casing having air inlets adjacent its upper end and a convergent bottom, a cover for said casing, a cylinder on the underside of said cover, with its lower end terminating a short distance above the bottom of the casing and opening to the interior of the latter, means for introducing a liquid into the casing to submerge the open lower end of the cylinder and form a seal therefor, means for draining the liquid from the casing to a level above the lower end of the cylinder, and means connecting with a suction apparatus to admit of air in the cylinder being withdrawn therefrom adjacent its upper end, including an upwardly extending pipe passing through the bottom of the casing with its upper end terminating adjacent the cover within the cylinder.

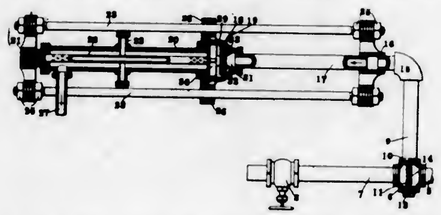
3. In an air purifier, the combination of a water containing receptacle, an inner cylinder open at the bottom and closed at the top within and spaced from the receptacle and submerged at its lower end in liquid within the receptacle, a series of annular baffles or deflectors within the inner cylinder, an air inlet into the annular space formed between the receptacle and inner cylinder and above the liquid level, an air outlet from the inner cylinder, said receptacle, cylinder, liquid and baffles so constructed and arranged that air drawn into the chamber formed between the receptacle and cylinder passes downwardly through the liquid and upwardly past the said annular deflectors, said deflectors having means for downwardly directing the moisture carried upward by the air currents.

4. In an air purifier, the combination of a receptacle adapted to contain water, an inner cylinder closed at the top and open at the bottom, with its lower end sub-

merged in the liquid within the receptacle, said cylinder spaced from the side of the receptacle to provide an air passage downwardly and through the water and under the inner edge of the cylinder, a column providing an outlet for the air, extending up through the receptacle and cylinder and opening into the top of the cylinder, said column having spaced, annular baffles with downwardly turned edges arranged above the liquid level, and intermediate ring baffles on the cylinder with downwardly turned edges, said receptacle, cylinder, baffles and column so constructed and arranged that entering air in the space between the receptacle and cylinder is drawn downwardly through the body of liquid and below the lower edge of the cylinder, passes upwardly past the baffles and finally downwardly again through the column, the downwardly turned edges on said baffles checking the upward travel of moisture carried in suspension by the air.

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1,094,108. STEAM-TRAP. LEO WOERNER, St. Louis, Mo. Filed June 28, 1913. Serial No. 776,258. (Cl. 236—9.)



1. In a steam trap, the combination with a steam pipe, carrying a valve seat, of a stem carrying a valve and surrounded by an outlet passage, said valve seat being provided with a conical nozzle tapering toward its discharge end and surrounded by an annular recess, and said valve with an annular projection extending into said recess, whereby direct impingement of the steam against the co-acting valve surfaces is prevented, and stay rods connecting the outer ends of said steam pipe and stem.

2. In a steam trap, the combination with a steam pipe carrying a valve seat, of a stem carrying a valve and surrounded by an outlet passage, said valve seat having a recess within its bearing surface, and said valve having an annular projection within its bearing surface and adapted to enter said recess, whereby the fluid passing through the valve is deflected prior to its contact with the co-acting surfaces of the valve and valve seat.

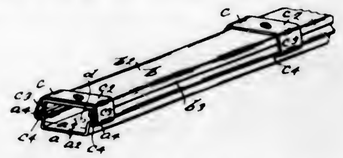
3. In a steam trap, the combination with a steam pipe carrying a valve seat, of a stem carrying a valve and surrounded by an outlet passage, said valve seat having a conical contact face within which is a conical nozzle tapering toward its discharge end and surrounded by a recess, and said valve having a conical surface adapted to coöperate with said valve seat and within said surface an annular projection adapted to enter said recess, whereby the fluid passing through the device is deflected prior to reaching the co-acting surfaces of the valve and valve seat.

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1,094,109. CONDUIT. CLIFFORD JAMES ALPAUGH, Trenton, N. J., assignor to The Trenton Electric and Conduit Company, Trenton, N. J., a Corporation of New Jersey. Filed July 29, 1913. Serial No. 781,866. (Cl. 247—8.)

1. A conduit, comprising a main member having an open side and side walls having a flange, each, intermediate the height thereof, said flanges being outwardly inclined on one face and perpendicular to said side walls on the other face, a detachable cover for said open side, and clips adapted to slide over said inclined flange faces to bear against said perpendicular faces to lock said cover to said main member.

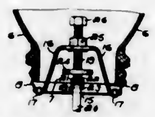
2. A conduit, comprising a main member having an open side and side walls outwardly flanged and extending upwardly and downwardly beyond said flanges, a cover for said open side having dependent sides resting against the upward side wall extensions, and clips engaged with said flanges to lock said main member and cover together.



3. A conduit, comprising a main member having an open side and side walls outwardly flanged intermediate the height thereof, a detachable cover for said open side, and a plurality of clips engaging said flanges for locking said main member and cover together, said clips being perforated for screws for securing to the walls of a building.

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1,094,110. POULTRY FEEDER AND EXERCISER. ANDREW H. BAKER, Brockton, Mass. Filed July 21, 1913. Serial No. 780,158. (Cl. 119—70.)



1. A poultry feeder and exerciser comprising, in combination, a hopper having an exit opening in its bottom, a jointed rod depending through and having its joint above said opening, and a member secured to and projecting laterally from said rod above said joint.

2. A poultry feeder and exerciser comprising, in combination, a hopper having an opening in its bottom, a cap for said opening, said cap having an outlet for the feed, means for supporting said cap, a support secured to said cap adjacent said opening, and agitating means supported by said support.

3. A poultry feeder and exerciser comprising, in combination, a hopper, a cap removably secured to the bottom of said hopper and provided with an exit opening, a support secured to said cap and extending therefrom upwardly into said hopper, and agitating means supported wholly by said support and removable from said hopper with said cap.

4. A poultry feeder and exerciser comprising, in combination, a hopper provided with an exit opening in its bottom, a yoke extending across said opening within said hopper, and having a fixed nut, a rod threaded into said nut, a baffle secured to said rod, and agitating means including a rod supported on the first mentioned rod and depending through said opening.

5. A poultry feeder and exerciser comprising, in combination, a hopper having a mouth at its bottom, a cap for said mouth provided with an exit opening, a support mounted on said cap having a generally U-shaped form and projecting from said cap upwardly into said hopper, agitating means including a rod supported on said support and depending through said opening, and a body interposed between said support and said opening.

[Claim 6 not printed in the Gazette.]

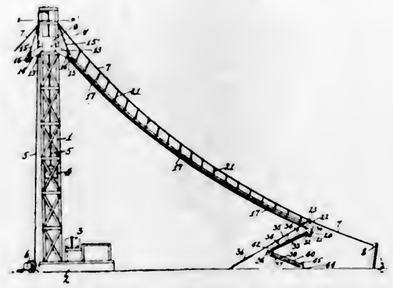
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1,094,111. APPARATUS FOR DISTRIBUTING CONCRETE. RUFUS MCC. BEANFIELD, San Francisco, Cal. Filed Apr. 21, 1913. Serial No. 762,522. (Cl. 214—12.)

1. In an apparatus for distributing concrete, the combination of an elevator tower; a main trough in relation to the tower to receive the concrete from the delivery devices thereof; a catenary support from which said main trough is suspended; a hopper revolubly suspended from said catenary support in position to receive the concrete from the main trough; a second trough in communication with the hopper; and a second catenary support from which the second trough is suspended.



2. In an apparatus for distributing concrete, the combination of an elevator tower; a main trough in relation to the tower to receive the concrete from the delivery devices thereof; a catenary support from which said main trough is suspended; a hopper revolubly suspended from said catenary support in position to receive the concrete from the main trough; a second trough in communication with the hopper; and a second catenary support from which the second trough is suspended, said second catenary support having one of its ends connected with the first catenary support.



3. In an apparatus for distributing concrete, the combination of an elevator tower; a main trough in relation to the tower to receive the concrete from the delivery devices thereof; a catenary support from which said main trough is suspended; a hopper revolubly suspended from and adjustable lengthwise upon said catenary support in position to receive the concrete from the main trough; a second trough in communication with the hopper; and a second catenary support from which the second trough is suspended, said second catenary support having one of its ends connected with the first catenary support and its other end extensibly connected with a fixed point below.

4. In an apparatus for distributing concrete, the combination of an elevator tower; a main trough in relation to the tower to receive the concrete from the delivery devices thereof; a catenary support from which the main trough is suspended; a hopper disposed in relation to the delivery end of the main trough to receive the concrete therefrom; a hanger rod suspended from said catenary support, said hanger rod revolubly supporting said hopper; a second trough in communication with the hopper; and a second catenary support from which the second trough is suspended.

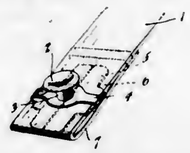
5. In an apparatus for distributing concrete, the combination of an elevator tower; a main trough in relation to the tower to receive the concrete from the delivery devices thereof; a catenary support from which the main trough is suspended; a hopper disposed in relation to the delivery end of the main trough to receive the concrete therefrom; a hanger rod suspended from said catenary support, said hanger rod revolubly supporting said hopper; a shield freely fitting in the hopper opposite the end of the main trough; a spider carried by the hanger rod and connecting the main trough and shield; a second trough in communication with the hopper; and a second catenary support from which the second trough is suspended.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,112. GARTER-FASTENER. AUGUST B. BECK, Cranford, N. J., assignor to Meyer W. Schloss, New York, N. Y. Filed Feb. 21, 1913. Serial No. 749,773. (Cl. 24—245.)

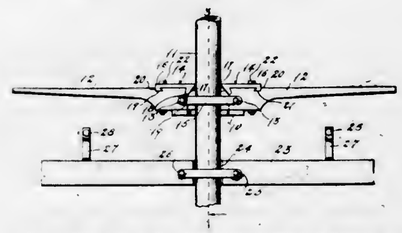
1. In a garter fastener, the combination of a loop of webbing and a button carrying clip engaging the same, the clip comprising a loop transversely embracing one side of the web loop, that part of the clip lying between the sides of the web loop forming a foot plate and extending lengthwise of the web loop and being narrower at its extremities than the web whereby a foot plate for the button, of large area is provided without exposing parts thereof outside of the webbing.



2. In a garter fastener, the combination of a loop of webbing and a button carrying clip engaging the same, the clip comprising a narrow metal strap extending across the outer face of the web remote from the extremity of the web loop, and a wider metal foot plate extending transversely through the web loop and reaching to the bend or extremity of the web loop, said foot plate being narrower at its ends in the direction transverse to the web, than the web itself, for the purpose set forth.

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1,094,113. WELL-PIPE LIFTER. PAUL BISSEN and EDWARD B. BISSEN, Brownsville, Minn. Filed Sept. 6, 1912. Serial No. 718,985. (Cl. 57—9.)



A pipe lifter for well pipes comprising a semi-circular pipe engaging member having transverse pivot pins projecting from its opposite ends, handles mounted upon said pivot pins with their inner ends spaced from one another, a latch member carried by one pivot pin and removably engaged with the other pivot pin, and removable jaws secured to said handles for engagement with the well pipe, said jaws each having a dove-tail tongue and groove connection with the related handle whereby displacement of said jaws from operative engagement with the pipe during lifting of the latter is positively prevented.

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1,094,114. METALLURGICAL PROCESS. WARREN F. BLEECKER, Pittsburgh, Pa. Filed May 3, 1913. Serial No. 765,249. (Cl. 75—17.)

1. The herein described process, consisting in reducing a metallurgical mixture to produce an alloy high in carbon, mixing with the reduced material a quantity of unreduced metallurgical material together with slag forming material and heating the mixture whereby a portion of the carbon of the alloy is removed.

2. The herein described process, consisting in mixing with an alloy high in carbon, slag forming material and unreduced metallic oxid, and subjecting the whole to a reducing temperature.

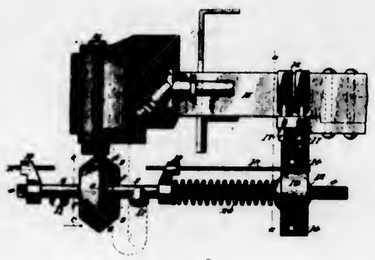
3. The herein described process, consisting in reducing a mixture of metallic oxids with slag-forming material and an excess of carbon to produce an alloy high in carbon, and then mixing with such alloy slag forming material and unreduced oxids, and heating the same to produce an alloy low in carbon.

4. The herein described process, consisting in reducing pulverulent metallic oxid, slag forming material and an excess of carbon, to produce an alloy high in carbon, mixing with such alloy slag forming material and unreduced metallic oxids, and heating the same to produce an alloy low in carbon.

5. The herein described process, consisting in reducing a mixture of ferric oxid and vanadium oxid with slag forming material and excess of carbon to produce an alloy high in carbon, then mixing with said alloy unreduced ferric and vanadium oxids and slag-forming material, and heating the same to produce a ferro-vanadium alloy low in carbon.

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1,094,115. AUTOMATIC LINE-COUPLING. NEWELL M. BOYNTON, JOHN P. MICHIELI, and THEODORE A. BRANDHOFER, Jr., San Francisco, Cal. Filed June 25, 1913. Serial No. 775,671. (Cl. 188—13.)



1. An automatic coupling and uncoupling for trains, comprising a head formed with a passage communicating with the conducting line on the car, a semi-annular divergent flange on the end of said head, a second divergent semi-annular flange on said head rearward of the beforementioned flange and on the opposite side of said head, said last-named flange formed with a pocket adapted to receive the forward flange of a complementary head, and a yieldable support for said head.

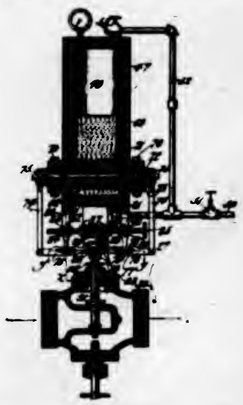
2. An automatic coupling and uncoupling, for trains, comprising a head formed with a passage communicating with the conducting line on the car, a divergent semi-annular flange on the end of said head, a second divergent semi-annular flange on said head rearward of the beforementioned flange and on the opposite side of said head, said last-named flange formed with a pocket adapted to receive the forward flange of a complementary head, a slidable support for said head, and resilient means for maintaining said support in an advanced position.

3. An automatic coupling and uncoupling for trains, comprising a head formed with a passage adapted to be connected with the conducting line on the car, a semi-annular flange on said head rearward of the before-mentioned flange and on the opposite side of said head, said last-named flange formed with a pocket adapted to receive the forward flange of a complementary head, a slidable support for said head, resilient means for maintaining said support in an advanced position, said head supporting means mounted to have an oscillatory movement, and spring means for maintaining the support in a central position.

4. In a line coupling, a coupling member formed with off-set, divergent, semi-annular flanges adapted to receive corresponding flanges on a complementary coupling head, a horizontal bar mounted to have vertical, transverse and longitudinal movement, spring means for maintaining said bar in an advanced position, and yieldable means for normally maintaining the bar in a horizontal position.

5. A coupler head for train lines, comprising a body formed with a passage adapted to be connected with a train line terminal, a semi-annular flange on the end of said member formed with an inclined inner face, an arcuate shoulder at the base of said flange adapted to receive the end of a complementary coupling head, and a second semi-annular flange on said member on the side opposite the before-mentioned flange and rearward thereof, said last-named flange formed with an inclined face terminating in a pocket adapted to receive the outermost flange on a complementary coupling head.

1,094,116. FLUID-CUSHION VALVE OR OTHER REGULATING MECHANISM. FRANCIS H. BROWN, Ridley Park, Pa. Filed Feb. 18, 1913. Serial No. 749,067. (Cl. 50—25.)



1. In a regulating mechanism, a movable element subjected on one side to a variable pressure, and on the opposite side to a substantially constant pressure having a universal range of adjustment and including a fluid cushion suspended in and surrounded by a transmitting medium, and mechanism actuated by said movable element.

2. In a regulating mechanism, a movable element subjected on one side to a variable pressure and on the opposite side to a substantially constant pressure having a universal range of adjustment and including an adjustable fluid cushion surrounded by a liquid transmitting medium, and mechanism actuated by said movable element.

3. In a regulating mechanism, a movable element subjected on one side to a variable pressure and on the opposite side to a substantially constant pressure which includes a fluid cushion and a liquid transmitting medium surrounding such cushion, means to adjust said constant pressure to any predetermined standard of pressure, and mechanism actuated by said movable element.

4. In a regulating mechanism, a movable element subjected on one side to a variable pressure, and on the opposite side to a substantially constant pressure having a universal range of adjustment and including a fluid cushion and a transmitting medium surrounding said cushion, mechanism actuated by said movable element, and devices for varying the travel of said mechanism relative to the travel of said movable element.

5. In a regulating mechanism, a movable element subjected on one side to a variable pressure, and on the opposite side to a substantially constant pressure and including a fluid cushion surrounded by a transmitting medium, means to adjust said constant pressure to any predetermined standard, a counterbalance for said movable element, and mechanism controlled by said movable element.

[Claims 6 to 57 not printed in the Gazette.]

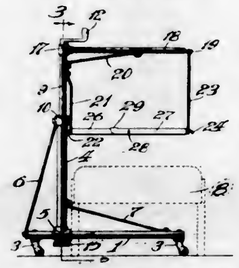
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1,094,117. INVALID-CRANE. WESLEY BUTLER, Hillsboro, Ill., assignor of one-half to J. C. Crabtree, Taylorville, Ill. Filed July 28, 1911. Serial No. 641,053. (Cl. 5—44.)

1. In an invalid crane, the combination of a raising device and a supporting frame, said frame being suspended from said raising device by a pair of links engaging hooks on one side of said frame, and a pair of suspension rods connecting with hooks on the other side of said frame.

2. In a device of the character described, the combination with a crane, of a stretcher suspended from said crane, said stretcher comprising an outer frame, and a sectional inner frame, said inner frame having an intermediate section and adjustable end sections, said central section being rigidly secured to the side bars of said outer frame, said end sections being pivoted to said side bars, and folding end rails for said frames.





3. In a device of the character described, the combination with a crane, of a stretcher suspended from said crane, said stretcher comprising an outer frame, and a sectional inner frame, said inner frame having an intermediate section and adjustable end sections, said central section being rigidly secured to the side bars of said outer frame, said end sections being pivoted to said side bars, and folding end rails for said frames, said end rails being rigidly secured at one end to the side bars of their respective frames and pivotally connected at their adjacent ends.

4. In an invalid crane, the combination of a raising device, with a supporting frame, a sectional inner frame carried by said supporting frame, said supporting frame being suspended from said raising device by a pair of links engaging hooks on one side of said supporting frame, and a pair of suspension rods connected with hooks on the other side of said supporting frame.

5. In an invalid crane, the combination of a raising device, with a supporting frame, a sectional inner frame carried by said supporting frame, said supporting frame being suspended from said raising device by a pair of links engaging hooks on one side of said supporting frame, and a pair of suspension rods connected with hooks on the other side of said supporting frame, the central section of said inner frame being secured to the side bars of said supporting frame, the end sections of said inner frame being pivotally mounted to said side bars and adjustable upwardly and downwardly, respectively, folding end rails rigidly secured to the ends of said frames, said folding rails providing for the securing of a bed sheet to said inner frame.

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1,094,118. VARNISH COMPOSITION FOR CEMENT FLOORS. SAMUEL CABOT, Canton, Mass. Filed May 15, 1912. Serial No. 697,445. (Cl. 134—39.)

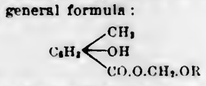
1. A flexible coating composition comprising a mixture of cellulose in fibrous form, varnish, and a fiber suspending and diffusing ingredient, the fibers being disposed to permit the passage of moisture through the composition by capillary action.

2. A flexible coating composition comprising a mixture of wood fibers, varnish, and zinc oxid, the fibers being arranged to permit the passage of moisture by capillary action.

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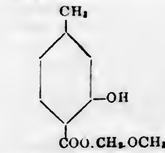
1,094,119. PHARMACEUTICAL COMPOUNDS. JÜRGEN CALLSEN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed June 17, 1913. Serial No. 774,125. (Cl. 23—24.)

1. The new alkoxymethyl esters of cresotinic acids of the following general formula:



R meaning an alkyl radical, being colorless liquids soluble in ether, alcohol, chloroform and benzene, the alcoholic solutions being colored violet by ferric chlorid and exhibiting valuable therapeutic properties, substantially as described.

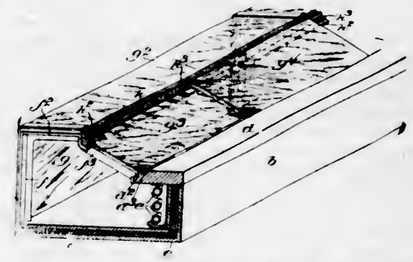
2. The new methoxymethyl ester of metacresotinic acid of the following formula:



being a clear odorless liquid boiling at 125–131° C. under a pressure of about 5 mm., breaking up into meta-cresotinic acid, formic aldehyde and methylic alcohol when reacted upon by dilute acids and exhibiting valuable therapeutic properties, substantially as described.

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1,094,120. SHOW-CASE. EUGENE CARPENTER, Newton, Mass. Filed June 18, 1912. Serial No. 704,315. (Cl. 211—25.)

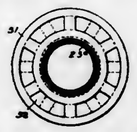


1. A show case comprising a base and a rear wall combined with brackets secured to the front of the base and having vertical, horizontal, and inclined members; transparent vertical and horizontal closing walls supported by said brackets; a horizontal closing wall extending forward from the rear wall of the case, to which the inclined members of the brackets are fastened; and covers supported over said inclined members.

2. A show case comprising a base and a rear wall, combined with brackets secured to the front of the base and having vertical, horizontal, and inclined members; transparent vertical and horizontal closing walls supported by said brackets; a horizontal closing wall extending forward from the rear wall of the case, to which the inclined members of the brackets are fastened, said horizontal wall having guideways in different planes; a guide strip supported on the upper part of the inclined members and having similar guideways in different planes, and overlapping covers supported in said guideways.

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1,094,121. RESISTANCE UNIT FOR CONTROLLERS. HERBERT W. CHENEY, Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Oct. 6, 1909. Serial No. 521,369. (Cl. 219—51.)



1. A resistance unit in the form of a column and comprising a plurality of resistance members, a tube inclosing said resistance members, a plurality of superposed heat radiating members spaced lengthwise of the unit and provided with flanges, said flanges having ventilating open-

ings through which air may pass upwardly along the unit, the openings in adjacent flanges being out of alinement.

2. A resistance element having a plurality of superposed spaced disks, said disks provided with openings, the openings of different disks being in staggered relation.

3. In a heat radiating device, a plurality of superposed and spaced disks provided with openings, the openings in adjacent disks being out of alinement.

4. In a heat radiating device, a tubular element provided with a plurality of external plane flanges, said flanges being provided with openings arranged in staggered relation.

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1,094,122. GAGE FOR SEWING-MACHINES. PIETRO CIOLINO, New York, N. Y. Filed Oct. 24, 1913. Serial No. 797,071. (Cl. 112—9.)



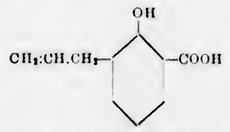
1. The combination with a presser foot having a horizontal polygonal aperture therein, of a bar slidably arranged in said aperture, the cross section of said bar corresponding to that of said aperture, a gage plate of polygonal configuration attached to said bar, each side of said bar being of the same width, the sides of said gage plate being disposed parallel to but at different distances from the planes of the sides of said bar, and means for fixing the position of said bar upon said presser foot.

2. A gage for sewing machines, comprising a bar of polygonal cross-section, and a gage plate of polygonal configuration attached thereto, each side of said bar being of the same width, the sides of said plate being disposed parallel to but at different distances from the planes of the sides of said bar.

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1,094,123. C-ALLYL SALICYLIC ACID. LUDWIG CLAISEN, Godesberg, near Bonn, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y., a Corporation of New York. Filed Oct. 29, 1913. Serial No. 798,055. (Cl. 23—24.)

The new C-allyl-salicylic acid having most probably the formula:



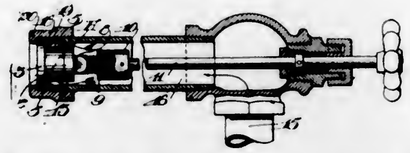

crystallizing from dilute methyl alcohol in the shape of needles melting at 96° C.; its alcoholic solution being colored violet with ferric chlorid; forming esters with alcohols; and being a valuable antipyretic, substantially as described.

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1,094,124. COMBINED VALVE AND SPRAY-NOZZLE FOR HYDROCARBON-BURNERS. GARNET W. COEN, San Francisco, Cal. Filed Nov. 16, 1912. Serial No. 731,783. (Cl. 137—80.)

1. A hydrocarbon burner comprising a pipe having a pair of oppositely positioned grooves formed in its outer end, a flanged nozzle having projecting lugs formed on the flange and projecting into said grooves to hold the parts in fixed relation to each other, means for holding the nozzle and pipe in interlocked position, slots in the nozzle at right angles with each other and a connecting opening, means for conveying oil under pressure to one of said slots and means controlling the volume of oil passing through the slot, and means for adjusting said last named means.

2. A hydrocarbon burner having a nozzle comprising a cylindrical body portion, a central passage in the cylindrical body portion formed by slotting the body longitudinally, an outlet passage connected with said slot, a second slot formed in the face of the nozzle at right angles to the first mentioned slot into which said outlet passage opens, means for conveying oil under pressure to the first mentioned slot, a valve member reciprocally mounted in said slot, and means for adjusting the position of the valve to vary the volume of oil discharging from the nozzle.



3. A hydrocarbon burner including a nozzle having slots at right angles to each other, an oil conveying pipe, means to secure the nozzle and adjust it with relation to the pipe end, a valve having transverse lugs extending into the normally vertical slot, and a central lug in the end in line with the transverse discharge slot, a screw threaded extension of the valve, an internally threaded sleeve in engagement therewith, means to rotate the sleeve to advance or retract the valve, and stop means to limit the rearward movement of the valve.

4. A hydrocarbon burner having a nozzle comprising a cylindrical body portion, a plurality of slots in the cylindrical body portion formed by slotting the body longitudinally, one slot being cut at right angles to the other, a plurality of parallel slots formed in the face of the nozzle, passages connecting the last named slots with the main longitudinal slots, means for conveying oil under pressure to the main longitudinal slots, a valve member having wing extensions projecting into said longitudinal slots, and means for adjusting the position of the valve with relation to the discharge openings to vary the volume of oil discharging from the nozzle.

5. In a hydrocarbon burner, means to produce a flat discharge and flame, said means including a cylindrical body having a slot formed in its front, a rearwardly extending slot at right angles to the first mentioned slot and connected therewith at its front end, a valve fitting and slidable in the vertical slot, means to reciprocate the valve, and a stop to limit its movement.

[Claim 6 not printed in the Gazette.]

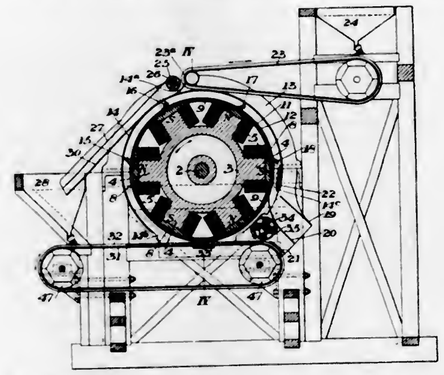
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1,094,125. MAGNETIC SEPARATOR. ROBERT W. COUSINS, Chicago, Ill. Filed Sept. 11, 1908. Serial No. 452,584. (Cl. 83—71.)

1. In a magnetic separator, the combination of a plurality of electromagnets, means for rotating said magnets, means for conveying material into the field of said magnets, whereby the magnetic material is partially segregated from the non-magnetic material, a secondary magnet located near the terminus of said conveying means, means for rotating said secondary magnet, a plurality of chutes extending from said secondary magnet, whereby the material is separated into grades of different contents of magnetic material, a conveyer having a partition thereon for receiving said material and keeping the different grades separate from each other, said conveyer passing through the field of said electromagnets, a pair of shells forming an annular passage around said electromagnets, whereby magnetic material is lifted from said conveyer and carried through said passage by the rotation of said electromagnets, a pair of chutes leading from said passage, and a secondary magnet near one of said chutes, whereby the magnetic material is attracted into said chute and further separated from the non-magnetic material, substantially as described.

2. In a magnetic separator, the combination of a plurality of electromagnets, means for rotating said magnets, means for conveying material into the field of said magnets, whereby the magnetic material is partially segregated from the non-magnetic material, a secondary magnet located near the terminus of said conveying means, means for rotating said secondary magnet, a plurality of chutes extending from said secondary magnet, whereby the material is separated into grades of different contents of magnetic material, a conveyer having a partition thereon for receiving said material and keeping the different grades separate from each other, said conveyer passing through the field of said electromagnets, a pair of shells forming an annular passage around said electromagnets, whereby magnetic material is lifted from said conveyer and carried through said passage by the rotation of said electromagnets, a bridge in said passage to facilitate the separation of magnetic and non-magnetic material, a pair of chutes leading from said passage, and a secondary magnet near one of said chutes, whereby the magnetic material is attracted into said chute and further separated from the non-magnetic material, substantially as described.



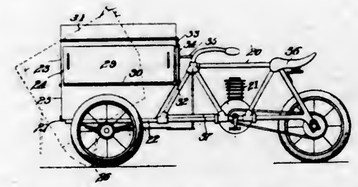


3. In a magnetic separator, the combination of a plurality of primary magnets having corrugated pole pieces, means for rotating said magnets, an endless belt for conveying material into the field of said magnets, whereby the magnetic material is partially segregated from the non-magnetic material, a rotatable secondary magnet located near said belt, whereby material from said belt will pass into the field of said secondary magnet, a plurality of gravity chutes extending from said secondary magnet, whereby the material is separated into grades of different contents of magnetic material, a conveyer for returning said different grades of material into the fields of said primary magnets, a pair of shells forming between them a passage extending around said primary magnets, a plurality of bridges in said passage, whereby, on rotation of said primary magnets, magnetic material will be carried from said conveyer through said passage and non-magnetic material will be separated from magnetic material at said bridges, a pair of chutes extending from said passage, and a rotatable secondary magnet located in proximity to one of said chutes, whereby magnetic material will be attracted into said chute, substantially as described.

4. In a magnetic separator, the combination of a plurality of primary magnets, means for rotating said magnets, a pair of shells having an annular passage between them and extending around said magnets, means for carrying material into the field of said magnets and into communication with said passage, a plurality of bridges in said passage, whereby, on rotation of said magnets, magnetic material will be carried through said passage, and on being brought into contact with said bridges non-magnetic material will be separated from magnetic material, and a chute communicating with said passage for delivering the separated magnetic material, substantially as described.

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1,094,126. SYSTEM OF COLLECTING MAIL AND THE LIKE. SAMUEL C. COX, Washington, D. C. Filed Aug. 19, 1912. Serial No. 715,858. (Cl. 214—1.)



1. The combination with a street mail box, of a street collection vehicle free to travel in any direction and provided with a receptacle, and means coöperating with said mail box and said receptacle for mechanically directing the contents of the mail box into the receptacle, whereby manual handling of the mail matter is rendered unnecessary.

2. The combination with a street mail box provided with a chute, of a street collection vehicle free to travel in any direction and provided with an opening to receive said chute, whereby the contents of said mail box may be mechanically transferred to said receptacle and manual handling thereof rendered unnecessary.

3. The combination with a street mail box provided with a drop bottom formed of articulated sections, of a collection vehicle provided with a receptacle having an opening to receive said drop bottom when the latter is in open position.

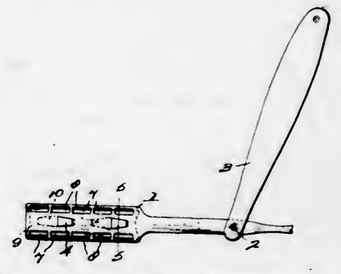
4. The combination with a mail box, of a collection vehicle provided with a receptacle having receiving openings, covers for said openings, and rain guards, said covers and rain guards coöperating to form chutes for directing mail matter from said mail box into either of said openings.

5. The combination with a street mail box provided with a chute, of a street collection vehicle free to travel in any direction and provided with an opening to receive said chute, whereby the contents of said mail box may be mechanically transferred to said receptacle and manual handling thereof rendered unnecessary, and means for normally closing said opening.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,127. SAFETY-RAZOR. HOOPER COYNE, Baltimore, Md. Filed May 17, 1913. Serial No. 768,294. (Cl. 30—12.)

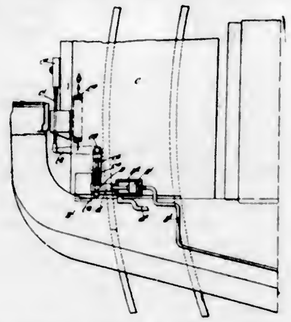


A safety razor comprising a flat guard plate having a pair of medially-extending flat trapezoidal clamping members supported above its upper face by integral spaced end webs terminating slightly within the inclined edges of said trapezoidal members, and a flat razor blade having cutting edges on its opposite sides and provided with medially-extending slots arranged symmetrically to the transverse axis of said blade, each of said slots being formed by a pair of duplicate trapezoidal openings extending symmetrically from a common base for receiving

said trapezoidal members for clamping said blade on said guard, whereby the razor blade may be attached to said guard in reverse directions, substantially as described.

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1,094,128. LOADING APPARATUS OF HEAVY GUNS. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Sept. 30, 1911. Serial No. 652,191. (Cl. 89—46.)



1. In gun loading apparatus, the combination with the rammer and the loading cage, of means under the control of the rammer for enabling the powder charges in the cage to automatically assume their ramming position on the return movement of the rammer after performing a ramming operation.

2. In gun loading apparatus, the combination with the rammer, the loading cage and the members for retaining the powder charges in position in said cage, of means for automatically opening said members on the return movement of the rammer.

3. In gun loading apparatus, the combination with the rammer, the loading cage and the members for retaining the powder charges in position in said cage, of an hydraulic device under the control of the rammer for automatically opening said members on the return movement of the rammer.

4. In gun loading apparatus, the combination with the rammer, the loading cage and the members for retaining the powder charges in position in said cage, of operating mechanism for aforesaid members carried by the cage, an hydraulic device under the control of the rammer, means for temporarily engaging said device with the said mechanism when the cage is in the loading position, and means for automatically operating said hydraulic device on the return movement of the rammer.

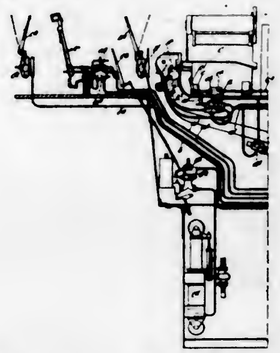
5. In gun loading apparatus, the combination with the rammer, the loading cage and the members for retaining the powder charges in position in said cage, of operating mechanism for aforesaid members carried by the cage, an hydraulic device under the control of the rammer, means for temporarily engaging said device with the said mechanism when the cage is in the loading position and a valve under the control of the rammer for automatically operating the said device on the return movement of the rammer.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,129. CONTROL OF THE BREECH-ACTUATING MECHANISM AND LOADING APPARATUS OF HEAVY GUNS. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Sept. 30, 1911. Serial No. 652,192. (Cl. 89—17.)

1. In gun breech actuating and loading apparatus, the combination with the slide frame, the breech actuating motor carried thereby, and the motor control hand lever mounted on a part of the mounting that does not move in elevation, of a control valve carried by the slide frame, and pressure fluid means for actuating said valve from the aforesaid hand lever.



2. In gun breech actuating and loading apparatus, the combination with the slide frame, the breech actuating motor carried thereby and the motor control hand lever mounted on a part of the mounting that does not move in elevation, of a control valve carried by the slide frame and hydraulic means for actuating said valve from the aforesaid hand lever.

3. In gun breech actuating and loading apparatus, the combination with the slide frame, the breech actuating motor carried thereby, and the motor control hand lever mounted on a part of the mounting that does not move in elevation, of a control valve carried by the slide frame, a valve operated by the said hand lever, and means for connecting said valve to the control valve on the slide frame.

4. In gun breech actuating and loading apparatus, the combination with the slide frame, the breech actuating motor carried thereby, and the motor control hand lever mounted on a part of the mounting that does not move in elevation, of a control valve carried by the slide frame, a valve operated by the said hand lever, and hydraulic means for connecting said valve to the control valve on the slide frame.

5. In gun breech actuating and loading apparatus, the combination with the slide frame, the breech actuating motor carried thereby and the motor control hand lever mounted on a part of the mounting that does not move in elevation, of a differential control valve carried by the slide frame, a pipe supplying constant pressure fluid to said differential valve, a valve operated by said hand lever and a pipe connecting said valve with the differential valve on the slide frame.

[Claim 6 not printed in the Gazette.]

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1,094,130. LOADING APPARATUS OF HEAVY GUNS. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Oct. 4, 1911. Serial No. 652,689. (Cl. 89—45.)

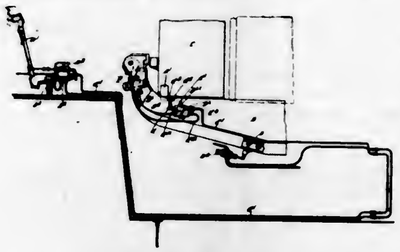
1. In gun loading apparatus, the combination with the loading cage, the rammer and its motor, of means for controlling said motor, a device coöperating with said means, and means for automatically operating said device as the cage reaches its loading position.

2. In gun loading apparatus, the combination with the loading cage, the rammer and its hydraulic motor, of a valve for controlling the said motor, a device coöperating with said valve, and means for automatically operating said device as the cage reaches its loading position.

3. In gun loading apparatus, the combination with the loading cage, the rammer and its hydraulic motor, of a valve for controlling the said motor, and a spring bolt under the control of the loading cage for automatically permitting said valve to move as the cage reaches its loading position.



4. In gun loading apparatus, the combination with the loading cage, the rammer and its hydraulic motor, a hydraulic valve for controlling the said motor, a device for normally retaining said valve in the position to keep the rammer withdrawn and means on the loading cage for operating the said device to release the valve.

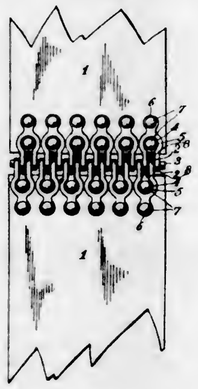


5. In gun loading apparatus, the combination with the loading cage, the rammer and its hydraulic motor, of a differential hydraulic valve for controlling the said motor, a pipe supplying pressure fluid to said valve, a device for normally retaining said valve in the position to keep the rammer withdrawn and means on the loading cage for operating said device to release the valve.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,131. BELT-FASTENER. JAMES K. DIAMOND, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich., a Corporation of Michigan. Filed Oct. 2, 1912. Serial No. 723,552. (Cl. 24—33.)



1. A belt-fastener, comprising a sheet metal unit having openings near each end to receive rivets and a looped middle portion and also having an opening near one end adapted to receive the opposite end of the same, whereby both ends are within the same plane and close together.

2. A belt-fastener, comprising a sheet metal unit having a looped middle portion to be arranged opposite the end of a belt, one end being provided with a perforated head and the other end being laterally enlarged and provided with an opening to receive said head.

3. A belt-fastener, comprising a sheet metal unit having a perforated head at each end and a looped middle portion adapted to be arranged opposite the end of a belt, said unit also being provided with an opening near one end adapted to receive the head on the other end thereof.

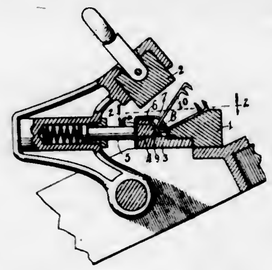
4. A belt fastener, comprising a sheet metal member having two looped portions spaced apart, connected at one end by an outwardly curved member to form a recess; also connected at the other end and extended in the form of a neck adapted to pass between said looped members and terminating in a perforated head to fit within said recess.

5. A belt fastener, comprising a sheet metal member having two parallel looped portions spaced apart to intermesh with like portions, connected at one end by an outwardly curved connecting member having a recess therein connecting with the space between the loops; said member being prolonged to form a reinforcing head perforated to receive a fastening; said looped members also connected at the other end and extended to form a neck adapted to pass between the looped members and terminating in a perforated head to fit within the aforesaid recess.

[Claim 6 not printed in the Gazette.]

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1,094,132. MACHINE FOR SETTING BELT-FASTENERS. JAMES K. DIAMOND, Grand Rapids, Mich., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich. Filed Dec. 21, 1912. Serial No. 738,063. (Cl. 1—50.)



1. In a machine for setting belt fasteners, a holder comprising an anvil, a housing having slots at intervals to receive the fasteners, a pin to retain the fasteners in the housing movable toward and away from the plane of the anvil, and a movable bar in the housing slidable toward and away from the pin to engage the fasteners oppositely to the pin.

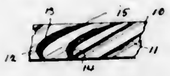
2. In a machine for setting belt fasteners, a holder comprising an anvil, a housing having one side substantially perpendicular to the anvil and provided with a series of slots to receive the fasteners, a pin extending through the housing and laterally movable therein toward and away from the plane of the anvil, a bar laterally slidable in the housing, and means for sliding the bar toward said pin.

3. In a machine for setting belt fasteners, a holder comprising an anvil to support the fasteners, a clenching bar above the anvil to engage the fasteners, a slotted member extending upward substantially at right angles to the surface of the anvil, a bar slidable toward and away from the slotted member, a pin between the said member and bar and freely movable toward and away from the plane of the anvil, and means for yieldably moving the bar toward said member.

4. A machine for setting belt fasteners, comprising an anvil, a clenching bar above the anvil and movable toward and away from the same, a housing having a slotted side at the rear of the anvil, a pin laterally movable in the housing on the inner surface of the said slotted side, a bar slidable in the housing toward and away from said side and a spring-pressed plunger engaging the bar and operated by movement of the clenching bar.

5. In a machine for setting belt fasteners, an anvil, a clenching bar above the anvil, a housing at the rear of the anvil and projecting above the plane thereof, and also having a series of vertical slots in the side next the anvil and slots in the ends, a pin extending through the housing and movable toward and away from the plane of the anvil, a bar slidable in the housing toward and away from the slotted side thereof and provided with shallow grooves opposite the said slots, and a spring pressed plunger engaging the bar.

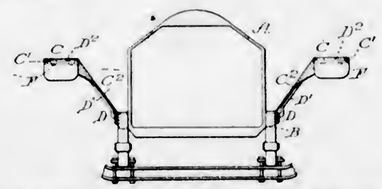
1,094,133. BLADES FOR TURBINES. JOHN DIANOVSZKY, Passaic, N. J., assignor of one-half to Oswald A. Schlegel, Passaic, N. J. Filed July 12, 1913. Serial No. 778,627. (Cl. 121—57.)



1. The combination with a ring having plane parallel grooves across its face, of a series of blades each blade having a base to fit one of the aforesaid grooves, and a wing or body portion rising from the base one edge portion of the wing being sharply inturned so as to project beyond the base and overlap the base of a next adjoining blade, and the second edge of the wing projecting from the base at a less angle than the first edge, the two edges of the wing lying within the vertical planes of the ring sides.

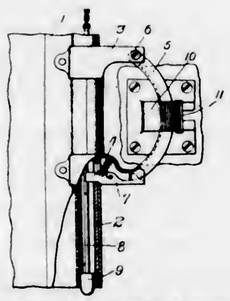
2. The combination with the ring having diagonal grooves across its face, of a series of blades having bases to fit the grooves, and curved bodies rising from the bases, the said bodies being so shaped that a portion of the body of one blade shall overlap the base of the next adjacent blade.

1,094,134. MUD-GUARD FOR VEHICLES. AUGUSTUS W. DICKERSON, Detroit, Mich., assignor to Detroit Auto Specialty Co., Detroit, Mich., a Corporation of Michigan. Filed Nov. 13, 1913. Serial No. 800,703. (Cl. 21—23.)



In a device of the class described, a mud guard provided with an apron and stiffening rib, clips respectively secured to the apron and stiffening rib adapted to embrace a fender iron, the fender iron, and means for securing the clips to the fender iron.

1,094,135. AUTOMATIC-RELEASE HANDLE FOR VESTIBULE-CURTAINS. JAMES H. DONALDSON, Chicago, Ill. Filed Jan. 21, 1914. Serial No. 813,353. (Cl. 105—266.)



1. In an automatic release handle, a curved bar hinged at one end, and a catch for detachably holding the free end of the bar, the curvature of the handle extending entirely to the free end.

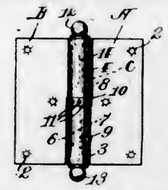
2. In an automatic release handle, a curved bar hinged at one end, and a catch for detachably holding the free end of the bar, said bar being curved uniformly throughout its entire length.

3. In an automatic release handle, a bar hinged at one end, and a catch for detachably holding the free end of the bar, said bar being curved in the arc of a circle and the curvature extending entirely to the free end of the handle.

4. In an automatic release handle, a bar hinged at one end, and a catch for detachably holding the free end of the bar, the entire bar being in the form of an arc of a circle.

5. In an automatic release handle, a bar hinged at one end, and a catch for detachably holding the free end of the bar, the entire bar being in the form of an arc of a circle approximately the size of a circle drawn about an equilateral triangle whose sides are equal in length to a straight line connecting the hinge with the free end of the bar.

1,094,136. HINGE. JOHN H. DONOHUE, St. Paul, Minn. Filed May 1, 1913. Serial No. 764,814. (Cl. 16—112.)



1. A hinge having a pair of leaf members formed with knuckles and a pintle formed with a pair of vertical members fitting into said knuckles and with a laterally extending body adapted to be interposed between said knuckles, having engagements in its surface for turning said pintle, the axes of said vertical members of said pintle being eccentrically arranged to each other and means for holding said pintle to one of said knuckles in horizontally selected position.

2. A hinge, comprising, in combination, a pair of leaves formed with knuckles, a pintle having members fitted in said knuckles permitting said leaves to swing, the axis of one member of said pintle being eccentrically arranged to the axis of the other whereby the turning of said pintle varies the axis on which said leaves are adapted to turn, and means for holding one of said members of said pintle in turned position in one of said knuckles, said pintle being formed with integral engaging means for turning it into selected position said engaging means being placed between said knuckles and laterally accessible.

1,094,137. CONTACT-SHOE DEVICE FOR THIRD-RAIL SYSTEMS. HENRY S. FARQUHAR, Bryn Mawr, Pa. Filed Aug. 14, 1912. Serial No. 714,945. (Cl. 191—49.)

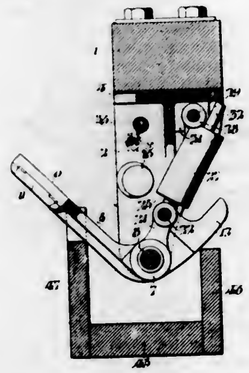
1. The combination of a pivotally mounted shoe, resilient means for alternately holding said shoe in contacting position by pressure in one rotative direction with relation to its pivotal axis, and in inoperative position by pressure in the reverse rotative direction with relation to said axis, and a cam piece adapted to engage with a portion of said shoe and by progressive travel of the shoe shift the same toward inoperative position.

2. The combination of a pivotally mounted shoe, resilient means for pressing said shoe toward contacting position and for holding said shoe in inoperative position, a tail-piece operatively connected with said shoe, and a cam piece adapted to operatively engage said tail-piece and by progressive travel of the shoe shift said shoe from inoperative to contacting position.

3. The combination of a pivotally mounted shoe; spring actuated toggle mechanism connected therewith, said toggle mechanism being adapted to be shifted in either direction past its center by rotative movement of the shoe; a cam-piece adapted to operatively engage with said shoe when in contacting position, and, by progressive travel of the shoe, shift the toggle mechanism past its center toward a position corresponding with the retracted position of the shoe and means for limiting said shifting movement.



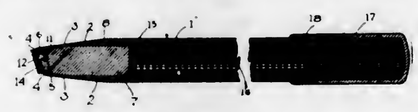
4. The combination of a pivotally mounted shoe; a tail-piece operatively connected therewith; spring actuated toggle mechanism operatively connected with said shoe, said toggle-mechanism being adapted to be shifted in either direction past its center by rotative movement of the shoe; and a cam-piece adapted to operatively engage said tail-piece and, by progressive travel of the tail piece, shift the toggle mechanism toward a position corresponding with the contacting position of the shoe.



5. The combination of a pivotally mounted shoe; a tail-piece operatively connected therewith; spring actuated toggle mechanism operatively connected with said shoe, said toggle-mechanism being adapted to be shifted in either direction past its center by rotative movement of the shoe; and cam-pieces adapted respectively to operatively engage said shoe when in contacting position; or said tail-piece when the shoe is in retracted position, and, by progressive travel of the engaged member, shift the toggle mechanism past its center.

[Claims 6 to 12 not printed in the Gazette.]

1,094,138. PEN. FREDERICK C. FENELEY, Detroit, Mich. Filed Nov. 17, 1913. Serial No. 801,470. (Cl. 120—43.)



1. A pen comprising a body having an extremity thereof provided with ink bearing points, and a member normally seated in the extremity of said body and having ink bearing points adapted to register with the ink bearing points of the extremity of said body.

2. A pen comprising a hollow body having an extremity thereof provided with ink bearing points, a member normally seated in the extremity of said body and having ink bearing points protruding beyond the ink bearing points of said extremity, and means within said hollow body for retaining said member normally seated in the extremity thereof.

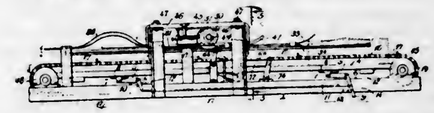
3. A pen comprising a hollow body constituting a reservoir, said body having an extremity thereof beveled and provided with ink bearing points, and a member normally seated in the extremity of said body and having a beveled end projecting from the beveled end of said extremity and provided with ink bearing points adapted to register with the ink bearing points of said extremity when said member is unseated.

4. A pen comprising a body having a frusto-pyramidical shaped extremity provided with ink bearing points and a correspondingly shaped yieldable closure normally seated in the extremity of said body and provided with ink bearing points.

5. A pen comprising a hollow body constituting a reservoir, said body having a reduced beveled extremity, a recessed yieldable member normally seated in the extremity of said body and having a beveled end adapted to be shifted into the plane of the beveled end of the extremity of said body.

[Claims 6 to 11 not printed in the Gazette.]

1,094,139. PACKAGE-SEALING MACHINE. HARRY P. FORTÉ, Canajoharie, N. Y., assignor to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York. Filed Mar. 28, 1913. Serial No. 757,294. (Cl. 93—6.)



1. In a package sealing machine the combination with a package conveying means and a vertically movable bottom guide beneath said conveying means, of a glue roll located above and at the side of said conveying means, a pressure roll located beneath said glue roll, a lever pivotally mounted beneath said bottom guide extending normally a fixed distance above said bottom guide, and connections between said lever and said pressure roll adapted to cause said pressure roll to rise when said lever is depressed.

2. In a package sealing machine the combination with a package conveying means, of a side flap guide, a glue roll journaled above and having its lower surface in alinement with said side-flap guide, a bottom guide for packages, a pair of shafts rotatably mounted beneath said guide, connections between said shafts to cause them to rotate in unison, and connections between said shafts and said bottom guide for raising and lowering said bottom guide.

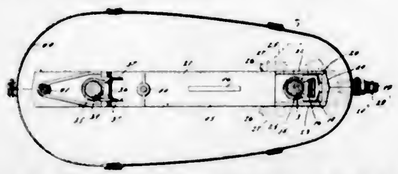
3. In a package sealing machine the combination with a glue roll, of a bottom guide, means for adjusting said bottom guide relatively to said glue roll to accommodate packages of different heights, a pressure roll, a frame or bracket in fixed relation to said glue roll in which said pressure roll is movably mounted on said bottom guide and adapted to be actuated by contacting a moving package, and connections between said pressure roll and said operating device.

4. In a package sealing machine the combination with a frame, of a glue roll journaled in said frame, a bottom guide beneath said glue roll, conveying means adapted to carry packages along said guides, a lever pivotally mounted in said frame, a pressure roll mounted in said lever adapted to engage the underside of a side-flap of a package to force the same into contact with said glue roll, a lever pivoted to the underside of and projecting above said bottom guide, and connections between the lever pivotally mounted in said frame, and the lever pivoted to the underside of said bottom guide, whereby when the latter is depressed the former is raised.

5. In a package sealing machine the combination with a frame and vertically movable horizontal guides for packages mounted in said frame, conveying means adapted to convey packages along said guides, a glue roll rotatably mounted above said guides, a pressure device located beneath said glue roll adapted to move toward and away from said glue roll and normally standing away therefrom, and an actuating device for said pressure device mounted on said guides, and connections between said actuating device and said pressure device which permit the raising and lowering of said guides without substantially changing the relation of said pressure device to said glue roll.

[Claim 6 not printed in the Gazette.]

1,094,140. DISTANCE-ROD FOR AUTOMOBILES. GUSTAVE E. FRANQUIST, New Brunswick, N. J. Filed May 8, 1913. Serial No. 766,268. (Cl. 74—31.)



1. In a vehicle, the combination of two shafts, a distance rod connecting them together, one end of the rod having an opening through which one of the shafts passes, longitudinal arc shaped bearing surfaces on the walls of said openings and a bracket attached to said shaft and having corresponding arc-shaped bearings in engagement with those on the rod and means for moving the rod to cause the bracket to travel lengthwise thereof.

2. In a vehicle, the combination of a distance-rod, a shaft, a bracket, longitudinal arc-shaped guides on the rod engaged by said bracket and means for sliding the bracket along said guides.

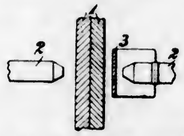
3. In a vehicle, the combination of a distance-rod, a shaft, a bracket, longitudinal arc-shaped guides on the rod engaged by said bracket and a threaded member cooperating with the rod and the bracket whereby the bracket may be caused to slide along said guides.

4. In a vehicle, the combination of a distance-rod, an axle and a shaft connected thereby, a threaded member carried by the rod, a threaded member carried by the shaft and a rotary threaded member engaging with the threads of the other two members whereby the relative positions of the rod and shaft may be adjusted by manipulating said rotary member.

5. In a vehicle, the combination of a distance rod and a shaft arranged at an angle to each other, said rod having a tubular portion internally threaded and the shaft carrying a tail piece externally threaded and passing through said tubular portion, and an internally and externally threaded nut engaging the threads on both the tubular portion and the tail piece.

[Claim 6 not printed in the Gazette.]

1,094,141. PROCESS OF ELECTRIC WELDING. GUIDO GNUCHTEL, Lauter, Germany. Filed Jan. 15, 1913. Serial No. 742,209. (Cl. 219—10.)

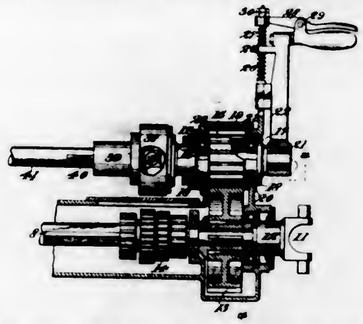


The process of electric welding, consisting in depositing between the electrodes and the parts to be welded, an intermediate layer requiring a higher welding heat than the said parts, and then causing an electric current to pass, by means of the electrodes, through said intermediate layer and the parts to be welded, the said intermediate layer being removed with the electrode after welding, substantially as set forth.

1,094,142. GEARING. WILLIAM R. GORHAM, Oakland, Cal. Filed Mar. 22, 1913. Serial No. 756,113. (Cl. 74—7.)

1. A motor, an intermediate shaft in substantial alinement with the motor shaft and an intermediate clutch, a second shaft parallel with the intermediate shaft, a gear mounted upon the intermediate shaft contiguous to its inner bearing, a pinion mounted upon the second shaft, an eccentric bushing forming a bearing, and means to turn the bushing to engage or disengage the pinion with the gear.

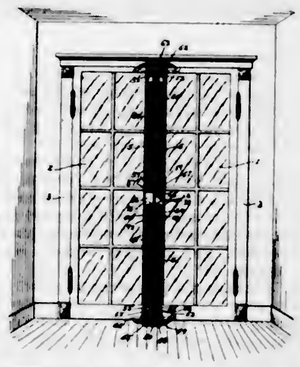
2. A motor, a driving shaft in line with the motor shaft and a housing therefor, an intermediate clutch, a gear carried by said driving shaft in the housing and between the bearings thereof, a countershaft, a pinion upon said countershaft coacting with the gear to derive power from said first named shaft, an eccentric bushing and bearings for the countershaft, and means to turn the bushing to engage and disengage the pinion and the gear.



3. A motor, a driving shaft in line with the motor shaft and a housing therefor, an intermediate clutch, a gear carried by the driving shaft in the housing between the bearings thereof, a countershaft, a pinion upon said countershaft coacting with said gear, an eccentric bushing and bearings for the countershaft, means to turn the bushing to engage and disengage the pinion and the gear, and a universal joint connection in the line of the countershaft.

4. In an apparatus of the character described, a motor, a universal joint connection with the motor shaft, one member of said joint having a sleeve-like hub and bearings therefor, a shaft engaging said hub in axial line therewith, a gear mounted upon said hub, a countershaft, a pinion thereon adapted to engage with said gear, an eccentric bushing with bearings for the pinion shaft, and a housing within which the bushing is turnable to move the pinion into or out of engagement with the gear, and means to compensate for wear between the engaging teeth of the pinion and gear.

1,094,143. LOCKING MECHANISM FOR DOUBLE DOORS AND WINDOWS. CARL J. HAGSTROM, Glen Cove, N. Y. Filed Apr. 11, 1913. Serial No. 760,336. (Cl. 70—74.)



1. The combination with the meeting stile of a door or window of a main casing, a spring thrown latch member mounted in said main casing, a rotatable means in said main casing, a cam arm on said rotatable means adapted to engage the tail of said latch-member, a handle-mechanism for actuating said rotatable means; vertical latch mechanism mounted at the ends of said meeting stile, each comprising a casing, a spring projected latch-body mounted therein, and an inwardly extending tail-piece, a lever-member pivotally mounted in said main casing, pull-pieces connected with opposite ends of said lever-member, an arm on said rotatable means interconnected with said lever-member for oscillating the same, and connecting-rods, said connecting-rods interconnecting said tail-pieces of said vertical latch mechanism with said pull-pieces of said oscillatable lever-arm.



2. The combination with the meeting stile of a door or window of a main casing, a spring thrown latch member mounted in said main casing, a rotatable means in said main casing, a cam arm on said rotatable means adapted to engage the tail of said latch-member, a handle-mechanism for actuating said rotatable means, vertical latch mechanism mounted at the ends of said meeting stile, each comprising a casing, a spring projected latch-body mounted therein, and an inwardly extending tail-body mounted at its inner end, a lever-member pivotally mounted in said main casing, an arm on said rotatable means interconnected with said lever-member for oscillating the same, connecting-rods, means for slidably supporting the outer ends of said connecting-rods, means for interconnecting the outer ends of said connecting rods with said tail-pieces of said vertical latch-mechanisms, and coupling means at the inner end of each connecting-rod for detachably connecting the same with said pull-pieces connected with said lever-arm.

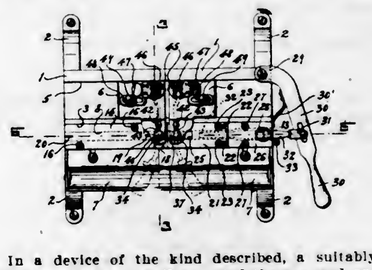
3. A combined latch and lock mechanism for doors and casement windows comprising a main casing, a spring-thrown latch-member mounted in said main casing, said latch-member having a tail-projection at its inner end, a rotatable barrel mounted in said main casing, a handle-means connected with said rotatable barrel, a second independently rotatable barrel mounted in said main casing in alinement with said first-mentioned barrel, a handle means connected with said second barrel, a coupling-tumbler mounted in said casing provided at its free end with a coupling pin, a lug on said second barrel adapted to engage said coupling pin of said coupling-tumbler, a projection on said first barrel adapted to receive the engagement of said coupling pin of said coupling-tumbler whereby the rotation of said second barrel is transmitted through said coupling-pin to said first barrel, means for removing said coupling-tumbler and its coupling-pin from operative relation to said first and second barrels, and a cam-arm on said first barrel adapted to engage said tail-projection of said latch-member.

4. A combined latch and lock mechanism for doors and casement windows comprising a main casing, a rotatable barrel mounted in said main casing, a handle-means connected with said rotatable barrel, a second independently rotatable barrel mounted in said main casing in alinement with said first mentioned barrel, a handle means connected with said second barrel, a coupling tumbler mounted in said casing provided at its free end with a coupling-pin, a lug on said second barrel adapted to engage said coupling-pin of said coupling tumbler, a projection on said first barrel adapted to receive the engagement of said coupling-pin of said coupling tumbler whereby the rotation of said second barrel is transmitted through said coupling-pin to said first barrel, means for removing said coupling-tumbler and its coupling-pin from operative relation to said first and second barrels, spring-thrown latch-mechanisms exteriorly disposed with reference to said main casing, a lever-mechanism provided with pull-pieces pivotally mounted in said main casing, an arm on said first barrel interconnected with said lever-mechanism for actuating the same, and means interconnecting said pull-pieces of said lever-mechanism with said exterior latch-mechanisms.

5. A combined latch and lock mechanism for doors and casement windows comprising a main casing, containing a latch-mechanism, a rotatable barrel mounted in said main casing, latch actuating means connected with said barrel, a handle-means connected with said rotatable barrel, a second independently rotative barrel mounted in said main casing in alinement with said first-mentioned barrel, a handle-means connected with said second barrel, a coupling-tumbler mounted in said casing provided at its free end with a coupling-pin, a lug on said second barrel adapted to engage said coupling pin of said coupling-tumbler, a projection on said first barrel adapted to receive the engagement of said coupling pin of said coupling-tumbler whereby the rotation of said second barrel is transmitted through said coupling-pin to said first barrel, an oscillating cam mounted in said main casing, cam-projections extending upwardly from said oscillating-cam, a knob connected with said oscillating-cam for operating the same from the inner side of a door or window, one of said cam-projections being adapted to be turned into removing engagement with said coupling-tumbler to remove its coupling pin from operative relation to said first and second barrel, and a key-lock mechanism operable from the outside of said door or window to engage and operate said oscillating-cam to control the position of said coupling-tumbler.

[Claim 6 not printed in the Gazette.]

1,094,144. JEWELER'S ASSEMBLING-MACHINE. FREDERICK O. HARRIS, Newark, N. J., assignor to The Brassler Company, a Corporation of New Jersey. Filed Dec. 23, 1913. Serial No. 808,328. (Cl. 59—7.)



1. In a device of the kind described, a suitably supported base-plate, an anvil mounted thereon and provided with means for supporting and guiding the work to be operated upon, punch-members, carrier-members adjustably secured to said base-plate and provided with means for supporting said punch-members above said anvil, means for carrying said punch-members into operative contact with the work, means for returning said punch-members to normal initial position, and means for feeding said work along said anvil and in registration beneath said punch-members.

2. In a device of the kind described, a suitably supported base-plate, an anvil, means for detachably securing said anvil upon said base-plate, means connected with said anvil for supporting and guiding the work to be operated upon, guard-plates connected with said anvil having gage-openings through which the work is passed to said supporting and guiding means, punch-members, means for supporting said punch-members above said anvil, means for carrying said punch-members into operative contact with the work, and means for feeding said work along said anvil and in registration beneath said punch-members.

3. In a device of the kind described, a suitably supported base-plate, an anvil, means for detachably securing said anvil upon said base-plate, means connected with said anvil for supporting and guiding the work to be operated upon, guard-plates connected with said anvil having gage-openings through which the work is passed to said supporting and guiding means, punch-members, carrier-members adjustably secured to said base-plate and provided with means for supporting said punch-members above said anvil, means for carrying said punch-members into operative contact with the work, means for returning said punch-members to normal initial position, and means for feeding said work along said anvil and in registration beneath said punch-members.

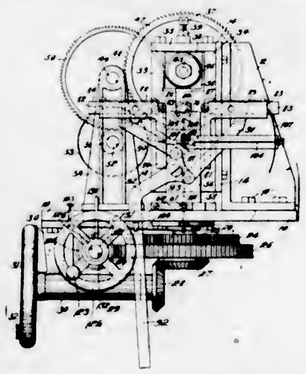
4. In a device of the kind described, a suitably supported base-plate, an anvil, means for detachably securing said anvil upon said base-plate, means connected with said anvil for supporting and guiding the work to be operated upon, guard-plates connected with said anvil having gage-openings through which the work is passed to said supporting and guiding means, punch-members, carrier-members adjustably secured to said base-plate and provided with means for supporting said punch-members above said anvil, means for carrying said punch-members into operative contact with the work, means for returning said punch-members to normal initial position, and means for feeding said work along said anvil and in registration beneath said punch-members, comprising a feed-plunger slidably associated with said anvil, a lever-member pivotally connected with said base-plate, said feed-plunger being connected with said lever-member, and means for limiting the feeding movement of said feed plunger.

5. In a device of the kind described, a suitably supported base-plate, an anvil provided with means for supporting and guiding the work to be operated upon, punch members, means for supporting said punch-members, means for carrying said punch-members into operative contact with the work, and means for feeding said work along said anvil and in registration beneath said punch-members, comprising a feed-plunger slidably associated with said anvil, a lever-member pivotally connected with said base-plate, said feed-plunger being connected with said lever-member, and means for limiting the feeding movement of said feed plunger.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,145. MACHINE FOR ROLLING FINGER-RINGS. HENRY HENRICH, New York, N. Y. Filed Jan. 11, 1913. Serial No. 741,403. (Cl. 80—5.)



1. A ring-forming machine, comprising a mandrel, a ring-forming roller movable toward and from the mandrel, a carriage for said roller, a table, screws journaled in said table and supporting said carriage, and extending below said table, and operating gearing below said table and connected with said screws.

2. A ring-forming machine, comprising a mandrel, a ring-forming roller movable toward and from the mandrel, a carriage for said roller, means for operating said roller during movement of said carriage mandrel-operating gearing carried by said carriage, a mandrel-rest, a mandrel-shaft and mandrel-pinion carried by said rest, and means for moving said carriage so as to place said mandrel gearing into and out of mesh with said mandrel-pinion.

3. A ring-forming machine, comprising a vertically-movable carriage, vertically-adjustable bearings carried by said carriage, one at each end of the same, a shaft in said bearings, a ring-forming roller on said shaft beyond the carriage, mandrel-operating gearing carried by said carriage and connected with said shaft, a mandrel-rest outside of the carriage, and a mandrel-shaft and mandrel-pinion supported by said mandrel-rest and projecting into the path of said mandrel gearing, said carriage being movable to carry said gearing into and out of mesh with said mandrel-pinion.

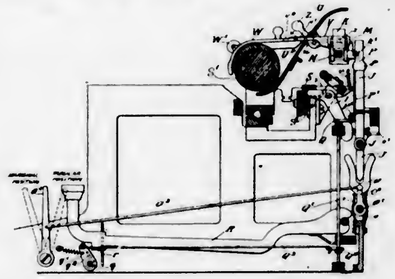
4. A ring-forming machine, comprising a mandrel, a vertically-movable carriage, a ring-forming roller movable toward and from the mandrel supported by said carriage, spaced operating-screws one at each end of said carriage, pinions secured to said screws, a common gear for operating said pinions, and means for operating said gear.

5. A ring-forming machine, comprising a mandrel, a vertically-movable carriage, a ring-forming roller movable toward and from the mandrel supported by said carriage, spaced operating screws one at each end of said carriage, pinions secured to said screws, a common gear for operating both pinions, a worm-wheel rotatable with said gear, and a worm for operating said worm-wheel.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,146. WRITING-MACHINE. EDWARD B. HESS, New York, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Original application filed May 15, 1907, Serial No. 373,849. Divided and this application filed July 10, 1911. Serial No. 637,760. (Cl. 197—63.)



1. The combination of a typewriter carriage, a platen mounted therein, a paper table divided longitudinally of the platen with a space between its adjacent edges, an adjustable margin stop located behind the paper table, and a margin clamp device mounted on the margin stop and extending through the opening in the paper table into operative relation to the platen.

2. The combination of a typewriter carriage, a platen mounted therein, a paper table divided longitudinally of the platen with a space between its adjacent edges, an adjustable margin stop located behind the paper table, an arm attached to the margin stop and extending through the opening in the paper table and a margin clamping member hinged in the end of said arm.

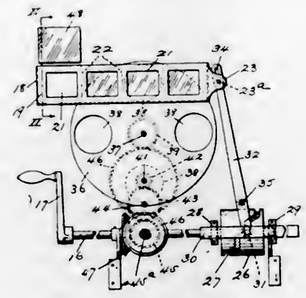
3. The combination of a typewriter carriage, a platen mounted therein, a paper table, an adjustable paper clamp, means at the rear of said paper table for supporting said clamp, locking means for securing said clamp in an adjusted position on said supporting means, and releasing devices for said locking means, said releasing devices extending in front of said paper table.

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1,094,147. SHUTTER FOR MOVING-PICTURE MACHINES. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Nov. 8, 1913. Serial No. 799,916. (Cl. 88—19.3.)

1. In a shutter of the character described, the combination with a casing having an exposure window through which light is focused, of a substantially rectangular holder having a number of spaced openings therethrough, said holder being supported in the casing so as to be reciprocated and intermittently checked during its reciprocation, whereby each opening will consecutively register with the exposure window for passage of light therethrough, and said holder being adapted to carry a number of transparent plates, a drive shaft, and means connected to the drive shaft and to the holder for imparting a reciprocatory movement to the holder and also for intermittently checking the movement of the holder when the drive shaft is rotated.





2. In a shutter of the character described, the combination with a casing having an exposure window through which light is focused, of a substantially rectangular chambered holder having an open top, and having a number of spaced registered openings therethrough, said holder being supported in the casing so as to be reciprocated and intermittently checked during its reciprocation, whereby each pair of the registered openings will consecutively register with the exposure window for passage of light therethrough, and said holder being adapted to carry a number of transparent plates, a drive shaft, a cam held upon the drive shaft, and means connected to the holder and operated by the cam for imparting a reciprocatory movement to the holder and also for intermittently checking the movement of the holder when the drive shaft is rotated.

3. In a shutter of the character described the combination with a casing having an exposure window through which light is focused, of a substantially rectangular holder having a number of spaced openings therethrough, said holder being supported in the casing so as to be reciprocated and intermittently checked during its reciprocation, whereby each opening will consecutively register with the exposure window for passage of light therethrough, and said holder being adapted to carry a number of transparent plates, a drive shaft, a cam held upon the drive shaft, and a lever pivoted to the holder and movably connected to the cam for imparting a reciprocatory movement to the holder and also for intermittently checking the movement of the holder when the drive shaft is rotated.

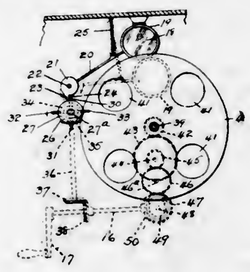
4. In a shutter of the character described, the combination with a casing having an exposure window through which light is focused, of a substantially rectangular holder having a number of spaced openings therethrough, said holder being supported in the casing so as to be reciprocated and intermittently checked during its reciprocation, whereby each opening will consecutively register with the exposure window for passage of light therethrough, and said holder being adapted to carry a number of transparent plates, a drive shaft, means connected to the drive shaft and to the holder for imparting a reciprocatory movement to the holder and also for intermittently checking the movement of the holder when the drive shaft is rotated, a disk having a number of spaced apertures therethrough, said disk being revolubly held in the casing so that each of its openings will register consecutively with one of the openings of the holder, and means operated when the drive shaft is driven for revolving the disk in unison with the reciprocation of the holder.

5. In a shutter of the character described, the combination with a casing having an exposure window through which light is focused, of a substantially rectangular chambered holder having an open top, and having a number of spaced registered openings therethrough, said holder being supported to the casing so as to be reciprocated and intermittently checked during its reciprocation, whereby each pair of the registered openings will consecutively register with the exposure window for passage of light therethrough, and said holder being adapted to carry a number of transparent plates, a drive shaft, a cam held upon the drive shaft, means connected to the holder and operated by the cam for imparting a reciprocatory movement to the holder and also for intermittently checking the movement of the holder when the drive shaft is rotated, a disk having a number of spaced apertures therethrough, said disk being revolubly held in the casing so that each of its openings will register consecutively with one of the openings of the holder, and means operated when the drive shaft is driven for revolving the disk in unison with the reciprocation of the holder.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,148. SHUTTER FOR MOVING-PICTURE MACHINES. FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., a Corporation of New York. Filed Nov. 11, 1913. Serial No. 800,317. (Cl. 88—19.3.)



1. In a shutter of the character described, the combination with a casing having an exposure window, of a plurality of brackets, each carrying a transparent plate, said brackets being pivoted in the casing so as to be swung for intermittently registering the transparent plates with the exposure window, a drive shaft, and means operatively connected to the drive shaft and engaging the brackets for intermittently swinging the brackets in succession to register the transparent plates correspondingly with the exposure window when the drive shaft is rotated.

2. In a shutter of the character described, the combination with a casing having an exposure window, of a bracket carrying a transparent plate, said bracket being pivoted in the casing so as to be swung for intermittently registering the transparent plate with the exposure window, a drive shaft, and means operatively connected to the drive shaft and engaging the bracket, said means being adapted to be adjusted for intermittently swinging the bracket to register the transparent plate with the exposure window when the drive shaft is rotated.

3. In a shutter of the character described, the combination with a casing having an exposure window, of a plurality of brackets, each carrying a transparent plate, said brackets being pivoted in the casing so as to be swung for intermittently registering the transparent plates with the exposure window, a drive shaft, a trip provided in the casing and movably engaging the brackets, and means operatively connected to the drive shaft and to the trip for operating the trip to intermittently swing a number of the brackets in unison so as to register the transparent plates correspondingly with the exposure window when the drive shaft is rotated.

4. In a shutter of the character described, the combination with a casing having an exposure window, of a

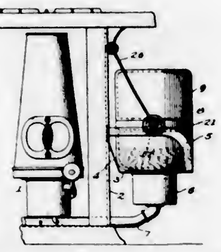
plurality of brackets, each carrying a transparent plate, said brackets being pivoted in the casing so as to be swung for intermittently registering the transparent plates with the exposure window, a drive shaft, an adjustable trip provided in the casing and movably engaging the brackets, and means operatively connected to the drive shaft and to the trip for operating the trip to intermittently swing the brackets in succession so as to register the transparent plates correspondingly with the exposure window when the drive shaft is rotated.

5. In a shutter of the character described, the combination with a casing having an exposure window, of a plurality of brackets, each carrying a transparent plate, said brackets being pivoted in the casing and yieldingly retained so as to be swung for intermittently registering the transparent plates with the exposure window, a drive shaft, and means operatively connected to the drive shaft and engaging the brackets, said means being adapted to be adjusted for intermittently swinging one of the brackets or intermittently swinging a number of the brackets in succession to register the transparent plates correspondingly with the exposure window when the drive shaft is rotated.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,149. OIL-STOVE. RUDOLPH HOFFMAN, Chicago, Ill., assignor to Sears, Roebuck and Company, Chicago, Ill., a Corporation of New York. Filed Nov. 10, 1913. Serial No. 800,066. (Cl. 158—41.)



1. In an oil stove, a stove frame, a tank having a body and neck, two diametrically opposite projections on said body intermediate the ends of the body, two supports on the stove frame, said projections resting upon said supports, and a well below the supports, the neck of the tank extending into said well.

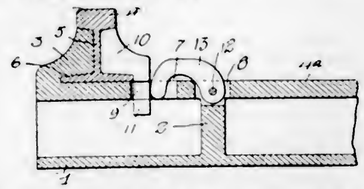
2. In an oil stove, a stove frame, a horizontal member, means for securing said member to the stove frame, two arms connecting the outer portions of said member with the stove frame, a well attached to and depending from said member, and a tank arranged to rest upon said arms, said tank having an outlet portion extending into said well.

3. In an oil stove, a stove frame, a horizontal member, means for securing the inner portion of said member to the stove frame, two arms connecting the outer portions of said member to the stove frame, a well attached to said member, said arms having notches in their upper edges, and a tank having diametrically opposite projections arranged to lie in said notches, said tank having an outlet portion extending into said well.

4. In an oil stove, a stove frame, a glass oil tank, metal projections secured to said tank intermediate its ends, supports on the stove frame on which said projections bear, and whereby said tank is supported, and a well into which the tank extends.

5. In an oil stove, a glass oil tank having a groove extending around it, a metal band in said groove, two metallic projections secured to opposite portions of said band, supporting means on which said projections rest, and means to prevent the tank from swinging on said supporting means.

1,094,150. COMBINED TIE AND RAIL-CLAMP. PAUL KACSMARIK, Bunola, Pa. Filed Feb. 18, 1914. Serial No. 819,540. (Cl. 238—5.)

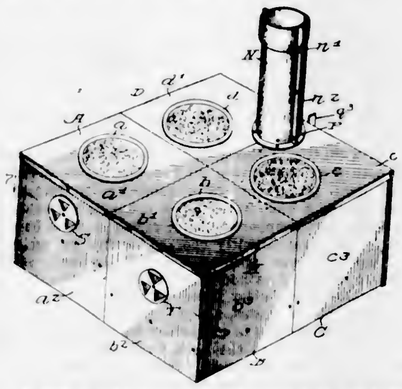


1. A combined tie and rail clamp comprising a hollow tie body provided at one end with a vertically disposed integral outer rail clamp capable of overlapping one side of a rail and further capable of abutting against the head and web of a track rail, said body having its top formed with a longitudinally extending slot and a pocket inwardly with respect to the slot, a removable inner rail clamp adapted to be positioned against the track rail and provided with a neck extending through said slot and further having a cross head arranged below the lower face of the top of the tie body, and means pivotally connected in said pocket and capable of being swung into said slot to engage said neck for maintaining the inner clamp in position.

2. A combined tie and rail clamp comprising a hollow tie body provided at one end with a vertically disposed integral outer rail clamp capable of overlapping one side of a rail base and further capable of abutting against the head and web of a track rail, said body having its top formed with a longitudinally extending slot and a pocket inwardly with respect to the slot, a removable inner rail clamp adapted to be positioned against a track rail and provided with a neck extending through said slot and further having a cross head arranged below the lower face of the top of the tie body, means pivotally connected in said pocket and capable of being swung into said slot to engage said neck for maintaining the inner clamp in position, said inner clamp of less length than said outer clamp, and said outer clamp being of the same width as the width of the tie body.

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1,094,151. KNOCKDOWN OR COLLAPSIBLE STOVE. OLIVER C. KEMP, Chicago, Ill. Filed July 1, 1912. Serial No. 707,061. (Cl. 126—9.)



1. A knock down cooking stove comprising rectangular walls, each wall composed of an outer sheet of metal with one or more of the edges thereof turned to form a flange, inner sheets of asbestos extending to the said flanges, inner sheets of metal covering said asbestos and extending to the said flanges, and means extending through the said flanges to secure the walls together.



2. A knock down cooking stove comprising rectangular walls, each wall composed of an outer sheet of metal with one or more of the edges thereof turned in to form a flange, inner sheets of asbestos extending to the said flanges, inner sheets of metal covering said asbestos and extending to the said flanges, and means extending through the said flanges to secure the walls together, the said outer sheets of metal being aluminum.

3. A knock down cooking stove comprising rectangular walls, each wall composed of an outer sheet of metal with one or more of the edges thereof turned in to form a flange, inner sheets of asbestos extending to the said flanges, inner sheets of metal covering said asbestos and extending to the said flanges, means extending through the said flanges to secure the walls together, the said outer sheets of metal being aluminum, and the said inner sheets of metal being iron.

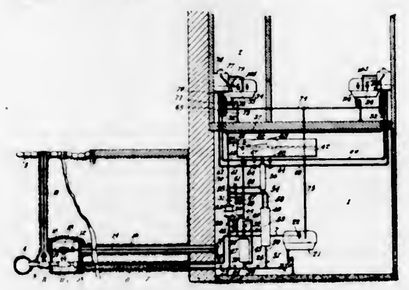
4. The combination of a plurality of complete interdependent stove units, each said unit comprising a combustion chamber, and means for detachably uniting said units, whereby the capacity of the stove may be increased or decreased at will, and a smoke pipe common to all of said units when united.

5. The combination of a plurality of complete interdependent stove units, each said unit comprising a combustion chamber, and means for detachably uniting said units, whereby the capacity of the stove may be increased or decreased at will, and a smoke pipe common to all of said units when united, the said units being each composed of a plurality of sub-units of uniform size.

[Claims 6 to 28 not printed in the Gazette.]

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1,094,152. WATER SYSTEM. GERTRUDE M. KREMELBERG, Pittsfield, Mass. Filed Aug. 14, 1912. Serial No. 715,017. (Cl. 137—79.)



1. In a water supply system, a water main, a supply pipe connected thereto, a renovating pipe connected at one end to the supply pipe at the water main end thereof and having a faucet at the other end, a heater connected to the supply pipe for sterilizing the water and for supplying hot water when renovating the supply pipe, a storage tank for use when renovating the supply pipe, a feed pipe for the tank connected to the supply pipe and having an automatically controlled valve for supplying water to the tank, a pipe connecting the heater to the tank, a by-pass pipe for feeding water from the tank to the heater when renovating the supply pipe, and a pipe connecting the heater with the supply pipe for use when renovating the supply pipe.

2. In a water supply system, a water main, a supply pipe connected thereto, a renovating pipe connected at one end to the supply pipe at the water main end thereof and having a faucet at the other end, a heater connected to the supply pipe for sterilizing the water and for supplying hot water when renovating the supply pipe, a storage tank for use when renovating the supply pipe, a feed pipe for the tank connected to the supply pipe and having an automatically controlled valve for supplying water to the tank, a pipe connecting the heater to the tank, a by-pass pipe for feeding water from the tank to the heater when renovating the supply pipe, cold water faucet feed pipes connected at one of their ends to the tank feed pipe and having faucets at their other ends, a filter in the tank feed pipe for filtering the water to the cold water faucets, a pipe connected at one end to the base of the filter and at the other end to the renovating pipe for the supply pipe for use when renovating the filter, and means for connecting the heater with the tank feed pipe for use when renovating the filter, tank feed pipe, and pipes to the cold water faucets.

3. In a water supply system, a water main, a supply pipe connected thereto, a renovating pipe connected at one end to the supply pipe at the water main end thereof and having a faucet at the other end, a heater connected to the supply pipe for sterilizing the water and for supplying hot water when renovating the supply pipe, a storage tank for use when renovating the supply pipe, a feed pipe for the tank connected to the supply pipe and having an automatically controlled valve for supplying water to the tank, a pipe connecting the heater to the tank, a by-pass pipe for feeding water from the tank to the heater when renovating the supply pipe, a cooler for the sterilized water from the heater, means for connecting the cooler with the heater, ice tanks, pipes for conveying the sterilized water from the cooler to the ice tanks, means governing the supply of sterilized water to the ice tanks dependently operable upon the withdrawal of water therefrom, a pipe connecting the storage tank feed pipe with the cooler for supplying cooling water thereto adapted to be closed when the ice tanks and supply pipes therefor are being renovated, pipes connected to the cooler for conveying the cooling water therefrom, and means in the respective ice tanks connected respectively to each of the said last pipes for automatically controlling the flow of the cooling water, dependently operable upon the flow of the sterilized water in the said respective tanks.

4. In a water supply system, a water main, a supply pipe connected thereto, a renovating pipe connected at one end to the supply pipe at the water main end thereof, and having a faucet at the other end, a heater connected to the supply pipe for sterilizing the water and for supplying hot water when renovating the supply pipe, a storage tank for use when renovating the supply pipe, a feed pipe for the tank connected to the supply pipe, and having an automatically controlled valve for supplying water to the tank, a pipe connecting the heater to the tank, a by-pass pipe for feeding water from the tank to the heater when renovating the supply pipe, a cooler for the sterilized water from the heater, means for connecting the cooler with the heater, ice tanks, pipes for conveying the sterilized water from the cooler to the ice tanks, filters in the sterilized water pipes, by-pass pipes for the filters for use when renovating the filters and sterilized water pipes, means governing the supply of sterilized water to the ice tanks dependently operable upon the withdrawal of water therefrom, a pipe connecting the storage tank feed pipe with the cooler for supplying cooling water thereto and adapted to be closed when the ice tanks, supply pipes therefor, and filters are being renovated, pipes connected to the cooler for conveying the cooling water therefrom, and means in the respective ice tanks connected respectively to each of the said last pipes for automatically controlling the flow of the cooling water dependently operable upon the flow of the sterilized water in the said respective tanks.

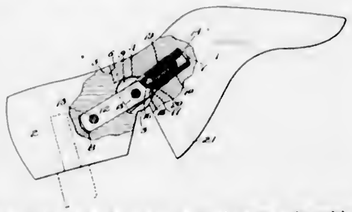
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1,094,153. LAST. WALTER A. KRENTLER, Detroit, Mich., assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 12, 1913. Serial No. 789,450. (Cl. 12—136.)

1. A hinged last having its forepart and heel-part fitted to each other with a knuckle joint, combined with a dowel-like hinge connection consisting of at least two dowel members pivoted to swing intermediate its length in the knuckle and anchored remote from said pintle at its opposite ends within the solid portions of the forepart and heel-part respectively.

2. A last, having a forepart, a heel-part, a portion of the wood of one part extending about the pintle on which said parts swing, and a hinge having a pintle on which said parts swing and having opposite dowel portions extending

lengthwise of the last within said forepart and heel-part respectively and anchored adjacent their opposite ends in the body of the respective last-parts.



3. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts.

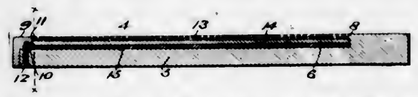
4. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts at the points of approximately greatest wood-mass and strength of said last-parts.

5. A last, having a forepart, a heel-part, a knuckle extending widthwise of the last on one of said parts and the other part containing a complemental concave socket in which said knuckle fits and turns, said knuckle having a radius sufficiently small to have a substantially semi-cylindrical engagement with the socket, whereby a maximum of resistance to vertical and twisting strains is afforded, each last-part having a longitudinal hole bored therein from said knuckle, and a hinge connection consisting of two dowels pivotally connected by a pintle extending approximately the width of the last concentric of said knuckle and extending thence in opposite directions within said two holes and anchored transversely of the last at the ends of the respective dowels within said respective last-parts.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,154. ADVERTISING CHAIR-ARM. WILLIAM P. LE FURGE, Philadelphia, Pa.; H. Melvin Dutcher, administrator of said William P. Le Furge, deceased, assignor to The Adchair Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Feb. 27, 1913. Serial No. 750,942. (Cl. 40—125.)

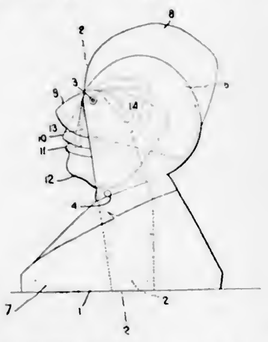


1. A display chair-arm, comprising a solid body formed with a recess in its upper side having an open forward end and undercut to form overhanging bevels providing slideways, a display card in said recess, a glass-plate having beveled edges slidably fitting in such ways beneath said overhanging bevels, an end-block fitting against the end of said body and having a tongue fitting into the open end of the recess and formed with a beveled edge fitting the beveled end-edge of said glass, and means for securing such block.

2. A display chair-arm, comprising a solid body formed with a recess in its upper side having an open forward end and undercut to form overhanging bevels providing slide-ways, a display card in said recess, a glass-plate having beveled edges slidably fitting in such ways beneath said overhanging bevels, an end-block fitting against the end of said body and having a tongue formed with beveled ends and fitting into the open end of the recess and formed with a beveled edge fitting the beveled end-edge of said glass, and a screw passed through the body and the bottom of said recess and into the tongue of said block drawing the bevel of such tongue against the beveled end-edge of the glass.

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1,094,155. PROFILING DEVICE OR SHADOWGRAPH. ANTON A. LEHR, Boston, Mass. Filed Sept. 15, 1913. Serial No. 789,769. (Cl. 46—40.)



1. A toy representing the profile of a living being comprising a plurality of members pivoted at a common point.

2. A toy representing the profile of a face comprising a plurality of relatively movable members pivoted at a common point each presenting at one edge a portion of such profile whereby the contour of the profile may be varied by changing the relative positions of the movable members.

3. A toy representing the profile of a face comprising a support, and a plurality of members pivoted to said support at a common point each member presenting a portion of the profile of a face whereby the profile may be varied by moving one or more of said members about said pivotal point.

4. A toy representing the profile of a face comprising a support, a plurality of members each presenting at one edge a portion of the profile of a face and each pivotally mounted at a point corresponding to the eye of said face and a fastening device representing an eye for pivotally connecting the said members to said support at said pivotal point.

5. A device of the class described comprising a main supporting member, a plurality of members pivoted to said supporting member at a common point by a centrally open fastening device said fastening device being positioned to indicate the eye of a human face each pivoted member presenting at one edge a portion of the profile of a human face.

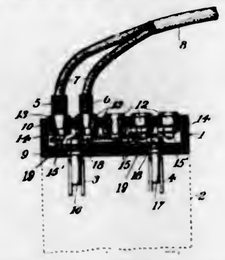
[Claims 6 to 10 not printed in the Gazette.]

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1,094,156. BATTERY-REGULATOR. EDGAR LOWE, New York, N. Y., assignor to General Acoustic Company, Jamaica, N. Y., a Corporation of New York. Filed July 26, 1913. Serial No. 781,395. (Cl. 219—61.)

1. In combination with a battery having terminals, a regulating resistance comprising a block adapted to fit on the top of the battery and having a plurality of bushings, means for connecting two of the bushings to the terminals of the battery, and resistances joining one of said latter two bushings into a series with others on the block.





2. In combination with a battery having terminals, a regulating resistance comprising a block adapted to fit on the top of the battery and having a plurality of bushings, holding prongs for connecting two of the bushings to the terminals of the battery, and resistances joining one of said latter two bushings into a series with others on the block.

3. In combination with a battery having bushings, a regulating resistance comprising a block adapted to fit on the top of the battery, said block further having a plurality of block bushings, split holding prongs for connecting two of the block bushings to the battery bushings, and resistances joining one of said two block bushings into a series with others on the block.

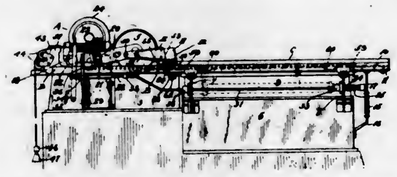
4. In combination with a battery having terminals, a regulating resistance comprising a block adapted to fit on the top of the battery and having a plurality of bushings one of different size from the others, means for connecting this bushing and another bushing on the block to terminals of the battery, and resistances joining one of said terminal connected bushings into a series with others on the block.

5. In combination with a battery having bushings, a regulating resistance comprising a block adapted to fit on the top of the battery and having a plurality of bushings one of different size from the others, for connecting this bushing and another bushing on the block to bushings of the battery, resistances joining one of said terminal connected bushings into a series with others on the block, the batttery bushings further being of unequal size corresponding to the respective sizes of the bushings in the block.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,157. ROLL RAMMING APPARATUS. HARRY P. MACDONALD, Montclair, and HENRY C. PARKER, Elizabeth, N. J., assignors to The Snead & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 26, 1913. Serial No. 803,116. (Cl. 22—40.)



1. A roll ramming apparatus comprising in combination a flask, a roll adapted to ram the sand in the flask, a movable rack supported adjacent the flask and adapted to support the roll over the flask when in operative position, a gear engaging the rack and adapted to move the roll, and a motor for turning the gear, the said rack lying to one side of the flask when moved to inoperative position.

2. A roll ramming apparatus comprising in combination a roll, a flask, a track adapted to support the roll over the flask when in operative position, means for movably supporting the track, and means relieving the said means of the thrust of the roll endwise of the track as the roll is being moved.

3. A roll ramming apparatus comprising in combination a roll, a relatively stationary platform or roll support, a flask, a movable roll support adjacent the stationary support adapted to support the roll over the flask and alining with the stationary support, and interengaging means on the supports adapted to relieve the movable support of endwise thrust as the roll is being moved.

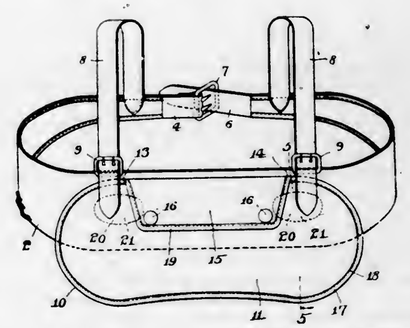
4. A roll ramming apparatus comprising in combination a flask, a roll adapted to ram the sand in the flask, a motor coupled to move with the roll, a rack, a gear engaging the rack and connected with the motor to move the roll, means for movably supporting the rack, and means relieving said first means of the endwise thrust of the roll as the latter is moved.

5. A roll ramming apparatus comprising in combination a roll, a relatively stationary platform or roll support, a flask adjacent thereto, a rack adapted to support the roll over the flask, means for movably supporting the rack, interengaging means on the rack and roll support relieving the rack supporting means of the thrust of the roll as the latter is moved, and a gear engaging the rack and adapted to move the roll.

[Claims 6 to 24 not printed in the Gazette.]

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1,094,158. BREAST-SHIELD. MARGARET A. MATTSON, Collingswood, N. J. Filed July 8, 1913. Serial No. 777,818. (Cl. 128—3.)



1. In a breast shield, a belt adapted to extend around the body of the wearer and having spaced nipple-receiving openings in the forward portion thereof, a pouch extending horizontally across the space between the belt openings and having nipple-receiving openings therein in registry with the belt openings, means for attaching the belt to the pouch, and absorbent material within the pouch and extending from a position in front of one of said openings in the pouch to a position in front of the other of said openings in the pouch.

2. In a breast shield, a belt adapted to extend around the body of the wearer and having spaced nipple-receiving openings in the forward portion thereof, a pouch having a rear wall extending horizontally across the space between the belt openings and having nipple-receiving openings therein in registry with the belt openings, means for attaching the edges of said rear wall around the openings therein to the edges of the belt around the openings therein, and absorbent material within the pouch.

3. In a breast shield, a belt adapted to extend around the body of the wearer and having spaced nipple-receiving openings in the forward portion thereof, a pouch having a rear wall extending horizontally across the space between the belt openings and having nipple-receiving openings therein in registry with the belt openings, binding strips extending around and embracing the edges of said rear wall and said belt around the openings therein and stitched thereto, and absorbent material within the pouch.

1,094,159. PROCESS OF PRODUCING KETO COMPOUNDS FROM KETONES AND ALKYLAMINOMETHANES. GEORG MERLING and OTTO CHRZESCINSKI, Elberfeld, and HUGO KÖHLER, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 16, 1913. Serial No. 768,071. (Cl. 23—24.)

1. The process of producing a polyalkylamino-substituted keto compound which comprises reacting on a ketone with a dialkylaminomethane compound in which the alkyl groups contain more than one carbon atom.

2. The process of producing a dialkylamino substituted-ketone which comprises reacting on a ketone with dialkylaminooxymethane in which the alkyl groups contain more than one carbon atom.

3. The process of producing a polyalkylamino-substituted keto compound which comprises reacting on a ketone with a dialkylaminooxymethane compound in which the alkyl groups contain more than one carbon atom with the addition of a condensing agent.

4. The process of producing a dialkylamino-substituted keto compound which comprises reacting on a ketone with dialkylaminooxymethane in which the alkyl groups contain more than one carbon atom with the addition of a condensing agent.

5. The process of producing a polyalkylamino-substituted keto compound which comprises reacting on a ketone with a dialkylaminomethane compound in which the alkyl groups contain more than one carbon atom with the addition of an inorganic base as a condensing agent.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,160. PROCESS OF PRODUCING KETO COMPOUNDS FROM KETONES AND TETRAALKYLDIAMINOMETHANES. GEORG MERLING and OTTO CHRZESCINSKI, Elberfeld, and HUGO KÖHLER, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 16, 1913. Serial No. 768,072. (Cl. 23—24.)

1. The process of producing a polyalkylamino substituted keto compound which comprises reacting on a ketone with tetraalkyldiaminomethane in which the alkyl groups contain more than one carbon atom until the two fold introduction of the dialkyl-aminomethyl radical has been effected.

2. The process of producing a dialkylamino substituted ketone which comprises reacting on a ketone with tetraalkyldiaminomethane in which the alkyl groups contain more than one carbon atom.

3. The process of producing a polyalkylamino substituted keto compound which comprises reacting on a ketone with tetraalkyldiaminomethane in which the alkyl groups contain more than one carbon atom with the addition of a condensing agent until the two fold introduction of the dialkylaminomethyl radical has been effected.

4. The process of producing a dialkylamino substituted keto compound which comprises reacting on a ketone with tetraalkyldiaminomethane in which the alkyl groups contain more than one carbon atom with the addition of a condensing agent until the two fold introduction of the dialkyl-aminomethyl radical has been effected.

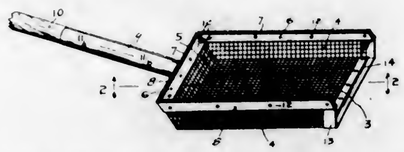
5. The process of producing a polyalkylamino substituted keto compound which comprises reacting on a ketone with tetraalkyldiaminomethane in which the alkyl groups contain more than one carbon atom with the addition of an inorganic base as a condensing agent until the two fold introduction of the dialkyl-aminomethyl radical has been effected.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,161. SCREEN-SHOVEL. CHARLES A. MUELLER, Indianapolis, Ind. Filed Oct. 4, 1913. Serial No. 793,318. (Cl. 83—60.)

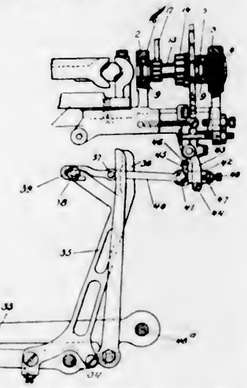
1. As a new article of manufacture, a shovel having a blade with bottom and three sides formed out of woven wire material, a false bottom of woven wire having smaller perforations than the blade of the shovel and laid upon the perforate blade bottom, hooks on the upper end of the false bottom to engage the cross wires of the blade and removable means for holding the false bottom in place at the end of the shovel.



2. As a new article of manufacture, a shovel having a blade with bottom and three sides formed out of wire woven with an open mesh, strap metal reinforcements secured to the free edges of the blade inside and out thereof, a handle socket formed of rear extensions of the outside reinforcements, a false bottom of woven wire of smaller mesh laid upon said blade bottom, and a removable toe-plate secured to the outer end of the blade and holding the false bottom in place at the end of the shovel.

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1,094,162. TYPE-WRITING MACHINE. LEWIS C. MYERS, Brooklyn, N. Y., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y., a Corporation of New York. Filed June 14, 1909. Serial No. 501,902. (Cl. 197—82.)



1. Typewriting machine escapement mechanism comprising a toothed escape wheel and a coöperating loose dog movable transversely to the plane of the wheel in and out between its teeth and having its working face rounded in the direction of its length and of the length of the teeth.

2. Typewriting machine mechanism comprising an escape wheel shaft, an escape wheel fast thereon, a sleeve turning loosely on the shaft and having two ratchet wheels, a feed rack with which one of the wheels engages, a locking pawl connecting the other ratchet and the escape wheel for rotation together in one direction only, ball bearings applied to the ends of the shaft respectively outside of the escape wheel and the ratchet engaging the feed rack.

3. Typewriting machine escapement mechanism comprising an escape wheel shaft and an escape wheel fast thereon, a ratchet, means for connecting the ratchet and escape wheel for rotation together in one direction only; a second ratchet rotating in either direction with the first one, a feed rack with which the latter ratchet wheel engages, ball races at the respective ends of the shaft composed of stationary parts and conical plugs applied to the ends of the escape wheel shaft.

4. Typewriting machine escapement mechanism comprising an escape wheel shaft having a tapered end and a head driven thereon and adapted to form one member of a ball race, and a head on the other end of the shaft adapted to form one member of another ball race.

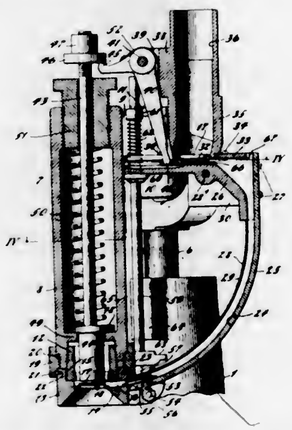
5. Typewriting machine escapement mechanism comprising standards in one of which is fitted an adjustable screw plug, the inner end of which forms one member of a ball race and in the other of which is formed one member of another ball race, an escape wheel shaft having at its respective ends heads constituting the other members of the respective ball races, and located between said heads, an escape wheel fast on the shaft, a sleeve having two ratchets with one of which the escape wheel is locked for rotation in one direction only and the other of which engages the feed rack of the machine.

[Claims 6 to 9 not printed in the Gazette.]



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1,094,163. FEEDING MECHANISM FOR BOTTLE-STOPPERS. TOIMI A. NISSINEN and CHARLES HARTWIG, New York, N. Y., assignors to Frederick G. Zinsser, Hastings-upon-Hudson, N. Y. Filed Feb. 10, 1912. Serial No. 676,897. (Cl. 113—114.)



1. A feeding and capping mechanism for bottle stoppers and the like which comprises a capping head having cap applying parts therein, a member stationary with respect to said head and containing a channel for conveying caps to a definite position with respect to said cap applying parts, and means for moving a succeeding cap along said channel and away from a cap which has been operatively positioned with respect to said cap applying parts, whereby to prevent possible mutilation of one of said caps when the operatively positioned cap is applied to a receptacle.

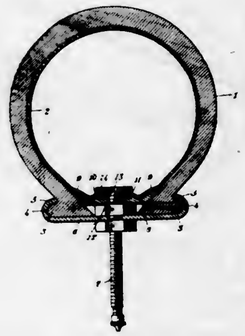
2. A feeding and capping mechanism for bottle stoppers and the like which comprises a capping head having cap applying parts therein, a member stationary with respect to said head and containing a channel for conveying caps to a definite position with respect to said cap applying parts, and means for moving a succeeding cap along said channel and away from a cap which has been operatively positioned with respect to said cap applying parts, said means including a movable part adapted for engagement with said succeeding cap.

3. A feeding and capping mechanism for bottle stoppers and the like which comprises a capping head having cap applying parts therein, a member stationary with respect to said head and containing a channel for conveying caps to a definite position with respect to said cap applying parts, and means for moving a succeeding cap along said channel and away from a cap which has been operatively positioned with respect to said cap applying parts, said means including a movable finger adapted for engagement with said succeeding cap and mechanism for moving said finger.

4. In a bottle capping machine, the combination with a capping head, of a chute fixed with respect to said head and adapted to feed caps thereto, and a device adapted to engage a cap in the chute and move it away from the capping head while another cap is being applied to a bottle.

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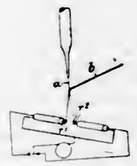
1,094,164. COMBINED SPREADER AND CLAMP FOR TIRES. SOLOMON E. NOLD, Alliance, Ohio, assignor to The Aluminum Foundry Company, Alliance, Ohio, a Corporation of Ohio. Filed Nov. 14, 1911. Serial No. 660,242. (Cl. 152—20.)



As an improved article of manufacture, a combined spreader and clamp plate, the longitudinal edges adapted for contact with the inner face of the tire, said plate curved longitudinally and the inner face provided with concentric ribs and grooves, the outermost rib of the series of concentric ribs formed of greater height than the remaining concentric ribs of the series, all arranged, substantially as and for the purpose specified.

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1,094,165. APPARATUS FOR REPRODUCING VIBRATIONS OF SMALL AMPLITUDE. AXEL ORLING, Tooting, London, England. Filed July 20, 1912. Serial No. 710,655. (Cl. 178—88.)



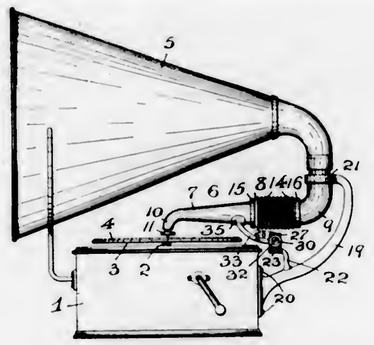
1. A relay contrivance comprising a stream of fluid, an element immersed therein, means for causing said element to undergo relative displacement transversely to said stream and relay means operated by the consequent angular displacement of the receding portion of said stream.

2. A relay contrivance comprising a stream of fluid, an element immersed therein, means for causing said element to undergo relative displacement transversely to said stream, a source of electricity and an electric circuit energized by said source and rendered operative by the consequent angular displacement of the receding portion of said stream.

3. A relay contrivance comprising a stream of fluid, an element immersed therein, means for causing the said element to undergo a series of displacements transversely to the stream, a source of electric energy and opposing cir-

cults energized by said source and alternatively rendered operative by the stream on the transverse displacements of the element.

1,094,166. TONE-ARM FOR TALKING-MACHINES. EDMUND PELTOVITZ, East Orange, N. J. Filed Oct. 31, 1911. Serial No. 657,783. (Cl. 181—3.)




1. A tone-arm comprising a series of rigid metallic sections, and an intermediate non-metallic flexible section, said section being accordion-plaited, so as to open and close in the direction of its longitudinal axis and also to curve to either side of said axis.

2. A tone-arm comprising a series of rigid metallic sections, and an intermediate non-metallic flexible section, said section being accordion-plaited, so as to open and close in the direction of its longitudinal axis and also to curve to either side of said axis, combined with means for supporting said tone-arm on the case of a talking machine or phonograph.

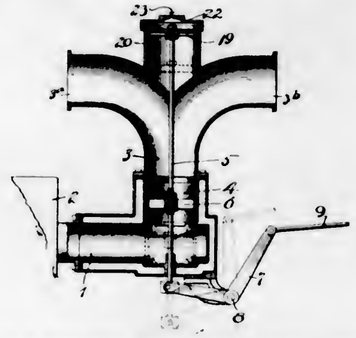
3. A tone-arm comprising a rigidly secured metallic arm-section upon which is mounted in a fixed position an amplifying horn, a second non-metallic flexible arm-section connected with said first-mentioned arm-section, said non-metallic arm-section being accordion-plaited, so as to open and close in the direction of its longitudinal axis and also to curve to either side of said axis, and a third rigid metallic arm-section connected with said flexible non-metallic section, said last-mentioned metallic arm-section having mounted thereon a sound-box.

4. A tone-arm comprising a rigidly secured metallic arm-section upon which is mounted in a fixed position an amplifying horn, a second non-metallic flexible arm-section connected with said first-mentioned arm-section, said non-metallic arm-section being accordion-plaited, so as to open and close in the direction of its longitudinal axis and also to curve to either side of said axis, and a third rigid metallic arm-section connected with said flexible non-metallic section, said last-mentioned metallic arm-section having mounted thereon a sound-box, combined with means for supporting said tone-arm on the case of a talking machine or phonograph.

5. The combination with the case or box of a talking machine or phonograph, of an arm secured to said case or box, a finger connected with said arm, a supporting member connected with said finger, a pin extending from said supporting member, a swivel-block mounted upon said pin, said block being formed in one side with a groove, a pin extending laterally from said block and in alinement with said groove, said pin being provided with a head, an upwardly extending supporting arm provided with a socketed member in which the head of said last-mentioned pin is arranged, and a coiled spring within said socketed-portion, said spring encircling a portion of said last-mentioned pin, and a tone-arm carried by said arms, said tone-arm comprising a series of connected arm-sections, one of said sections being made of a flexible material.

[Claims 6 and 7 not printed in the Gazette.]

1,094,167. THROTTLE-GOVERNOR FOR INTERNAL-COMBUSTION ENGINES. CARL C. RIOTTE, deceased, Jersey City, N. J., by Marie L. Riotte, administratrix, Yonkers, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 16, 1912. Serial No. 678,057. (Cl. 123—108.)




1. In a controlling apparatus for internal combustion engines, a gas pipe having a feeding end and a distributing end, a movable throttle between said ends, means for manually varying the position of the throttle and for yieldingly holding the same in an adjusted or normal position, in combination with means operated by an increase in air tension in the distributing end of said gas pipe for moving the throttle from its normal position in a direction to reduce the area of the passage controlled thereby, and means to return said throttle again to its normal position when said increase in tension in said distributing end above normal ceases.

2. In a controlling apparatus for internal combustion engines, a gas pipe having a feeding end and a distributing end, a movable throttle between said ends, means for manually varying the position of the throttle and for yieldingly holding the same in an adjusted or normal position, in combination with means operated by an increase in air tension in the distributing end of said gas pipe for moving the throttle from its normal position in a direction to reduce the area of the passage controlled thereby, and means to return said throttle again to its normal position when said increase in tension in said distributing end above normal ceases, said tension-controlled means comprising a cylinder and a piston, with means of connecting the piston and the throttle, said cylinder being in open and uniform communication at all times with the distributing end of the feed pipe.

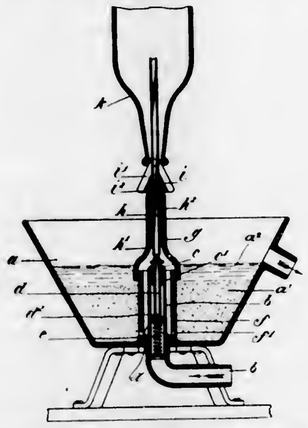
3. In a controlling apparatus for internal combustion engines, a gas pipe having a feeding end and a distributing end, a movable throttle between said ends, means for manually varying the position of the throttle and for yieldingly holding the same in an adjusted or normal position, in combination with means operated by an increase in air tension in the distributing end of said gas pipe for moving the throttle from its normal position in a direction to reduce the area of the passage controlled thereby, means to return said throttle again to its normal position when said increase in tension in said distributing end above normal ceases, said tension-controlled means comprising a cylinder and a piston, with means of connection between the piston and the throttle, said cylinder being in open and uniform communication at all times with the distributing end of the feed pipe, said means for returning the throttle to its normal position comprising a spring.

4. In a controlling apparatus for internal combustion engines, a gas pipe having a feeding end and a distributing end, a movable throttle between said ends, means for manually varying the position of the throttle and for yieldingly holding the same in an adjusted or normal position, in combination with means operated by an increase in air tension in the distributing end of said gas pipe for moving the throttle from its normal position in a direction to reduce the area of the passage controlled thereby, means to return said throttle again to its normal position when said increase in tension in said distributing end above normal ceases, said tension-controlled means comprising a cylinder and a piston, with means of connection between the piston and the throttle, said cylinder being in open and uniform communication at all times with the distributing end of the feed pipe, said means for returning the throttle to its normal position comprising a spring carried and movable with the manually operable means for adjusting the throttle to the desired normal position.

5. In a controlling apparatus in internal combustion engines, a gas pipe having a feeding end and a distributing end, a movable throttle located between said ends, a cylinder, a piston movable therein, the interior of said cylinder being in communication with the gas pipe at a point beyond the throttle so as to be directly influenced by the air tension in the distributing end of the pipe irrespective of the position of the throttle, a piston in the cylinder and means for connecting the piston with the throttle whereby the latter will be moved by the movement of the former, and means for varying the normal operative position of the throttle, said means including a yielding connection whereby the throttle may be moved automatically by the movement of the aforesaid piston without disturbing the normal setting of the throttle.



1,094,168. BOTTLE-WASHING APPARATUS. EDOUARD SCHLAEPFER, fils, Lusanne, Switzerland, assignor to Louis Blanc, Lausanne, Canton of Vaud, Switzerland. Filed Jan. 18, 1913. Serial No. 742,803. (Cl. 141—7.)

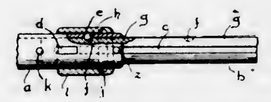



1. An apparatus for washing bottles and the like, comprising a sand and water reservoir, a fixed pipe communicating therewith and open at its upper end, a water pipe within the said fixed pipe, a spring seated water valve provided with a jet nozzle, and a hollow spindle supported by the water valve and carrying a valve controlling the passage through the fixed pipe, whereby on depressing the spindle the water valve is operated and sand is aspirated through the spindle and on relieving the pressure on the spindle, water alone passes therethrough.

2. An apparatus for washing bottles and glasses, comprising a reservoir for sand and water, a movable supply pipe, a delivery pipe forming a continuation of the movable supply pipe and movable therewith, a pipe within the reservoir surrounding and spaced from the said supply pipe and having openings therein providing communication between the said reservoir and the space between the supply pipe and the pipe surrounding the same, a fitting connected to and extending from the said pipe surrounding the supply pipe and within which the said delivery pipe is movable, a device associated with the delivery pipe and co-acting with the end of the said fitting for closing the same to cause the said movable supply pipe and the delivery pipe, together with the liquid flowing through the same, to act as an injector to draw sand and water from the reservoir to and through the delivery pipe, and means for moving the said supply and delivery pipe to separate the said device from the end of the fitting so as to enable the operator to determine by touch when the flow of the cleaning mixture ceases to flow and the rinsing fluid begins.

3. An apparatus for washing bottles and glasses, comprising a reservoir for sand and water, a supply pipe leading to and extending up into the said reservoir, a movable supply pipe within the said supply pipe, a pipe surrounding and spaced from the said supply pipe within the reservoir and having openings therein, a fitting connected to the said pipe surrounding the supply pipe and extending above the reservoir, a delivery pipe passing into the said fitting and so associated with the movable supply pipe as to form a continuation thereof and to be movable therewith, in the lower end of which delivery pipe within the fitting there are lateral openings, a valve connected to the said delivery pipe and adapted to seat against the end of the said fitting to cause the said movable supply pipe and the delivery pipe, together with the stream flowing through the same, to act as an injector to draw the sand and water from the reservoir through the openings in the said pipe surrounding the supply pipe and through the openings in the delivery pipe to the interior thereof, and a spring acting against the end of the supply pipe to move the same, together with the delivery pipe to unseat the said valve so that the operator may determine by touch when the flow of the cleaning mixture ceases and the flow of the rinsing fluid begins.

1,094,169. LOCK FOR TELESCOPING MEMBERS. GUSTAV C. SCHOENBORN, Detroit, Mich. Filed Nov. 24, 1913. Serial No. 802,643. (Cl. 145—34.)




1. The combination of a pair of telescoping members, the inner one being provided with a key way, the outer one being provided with a loose key that fits into the key way, the inner member being also provided with a plurality of recesses, the outer member being also provided with a perforation, a ball for engaging in a recess and the perforation when the same register, and a thimble provided with a recess for engaging over the loose key and over the ball to hold the former in place and hold the latter from being forced out of the recess in which it rests until the thimble is moved to allow the ball to withdraw into the recess of the thimble, substantially as described.

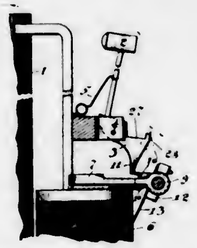
2. The combination of a pair of telescoping frame parts held in non-rotative relation and forming a yoke, a linear member connecting the frame ends, means for tightening the linear member with respect to the frame members, the said inner frame member being provided with a plurality of recesses, the said outer frame member being provided with a perforation and a ball engaging in the perforation and a registering recess, and a thimble adapted to be slipped over the ball to hold the same in place, the said thimble being held firmly over the ball when the tightening means causes the two telescoping members to be tipped slightly out of alinement.

3. The combination of a pair of telescoping frame parts being curved to form a yoke, a linear member connecting the yoke ends, means for tightening the linear member with respect to the frame parts, the inner frame member

being provided with a plurality of recesses, the outer frame member being provided with a perforation, a ball engaging in the perforation and a registering recess, and a thimble slidable over the outside telescoping part and the ball to hold the ball in place, the said thimble being provided with a recess and being movable for a given distance along said outer telescoping part, to either hold the ball in place or allow it to withdraw into the recess, the said telescoping members being adapted to be slightly cocked with respect to each other when the linear member is tightened with respect to the frame members, thereby tightening the ball with respect to the thimble so that same can not be moved.

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1,094,170. BELL-RINGER. JAMES E. SCOVILL, Chicago, Ill. Filed Sept. 13, 1911. Serial No. 649,156. (Cl. 177—288.)



1. A bell ringer comprising a bell; a hammer therefor; yieldable means arranged to operate said hammer; an electro-magnet; an armature for said magnet; a trigger on said armature arranged to engage and lock said hammer in retracted position ready for striking; an electric circuit for said electro-magnet; means for closing said circuit; a constantly rotating shaft; and automatic means on said shaft arranged to reset said hammer after an operative stroke, substantially as described.

2. A bell ringer comprising a bell; a hammer therefor; yieldable means arranged to operate said hammer; an electro-magnet; an armature for said magnet; a trigger on said armature arranged to engage and lock said hammer in retracted position; an electric circuit for said electro-magnet; means for closing said circuit; a rotary member carrying pivoted dogs adapted to reset said hammer; springs arranged to hold said dogs in inoperative positions; a stationary cam arranged to throw said dogs into operative positions; and means for rotating said member, substantially as described.

3. A bell ringer comprising a bell; a hammer therefor; a spring arranged to operate said hammer; an electro-magnet; an armature for said magnet; a trigger on said armature arranged to engage and lock said hammer in retracted position; an electric circuit for said electro-magnet; means for closing said circuit; a rotary member carrying pivoted dogs adapted to reset said hammer; springs arranged to hold said dogs in inoperative positions; a stationary cam arranged to throw said dogs into operative positions; and means for rotating said member, substantially as described.

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1,094,171. PROCESS FOR THE MANUFACTURE OF ALUMINIUM NITRID. OTTOKAR SERPEK. Paris, France, assignor to Société Générale des Nitrures, Paris, France. Filed May 7, 1912. Serial No. 695,722. (Cl. 23—13.)

1. The process for the manufacture of aluminium nitrid, consisting in heating at temperatures above approximately 1300 degrees C. a mixture of aluminous material and carbon with a catalytic substance, in a current of nitrogen with a proportion of free hydrogen.

2. The process for the manufacture of aluminium nitrid, consisting in heating at temperatures above approximately 1300 degrees C. in a current of nitrogen with a proportion of free hydrogen a mixture of aluminous material and carbon with a catalytic substance producing a metal in the reaction.

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1,094,172. CAN-OPENER. HARRY W. SHEEHY, Akron, Ohio. Filed Jan. 9, 1913. Serial No. 740,973. (Cl. 30—3.)



1. A can opener comprising a body portion shaped to be grasped in the hand, and having an elongated slot, a longitudinally extended rod secured to the front end of the handle and extended lengthwise of the slot, the front end of the rod terminating in a puncturing and guide member, a cutting disk rotatably and slidably mounted on the rod within said slot of the body portion, said disk being bodily movable along said rod in said slot from one end of the same toward the other.

2. A can opener comprising a handle-like stamped metal body whose opposite edges are bent down to form side flanges, the forward end of the handle being tapered whereby to produce a restricted passage at such end, the said body having a longitudinally extended slot, a rod having a pointed and hooked front end that seats in the restricted passage at the front end of the handle, said rod extending lengthwise across the slot in the handle and having its inner end riveted onto the handle body and a rotary cutter slidably mounted on the rod, said cutter including a cutting disk, a guiding disk, and a groove-like neck that joins the disks.

3. As an article, an implement of the character stated, comprising a stamped metal handle-like body, the opposite edges of which are bent down to form side flanges, said body having a longitudinal slot near the front end, the side flanges of the said front end forming a restricted passage, a flange that projects down from the front edge of the slot in the handle-like body, said flange having a concaved seat, the body having an aperture at the rear of the slot, a rod having its front end pointed and bent to form a guide and puncturing member, said front end being mounted in the restricted passage and held clamped by the opposite side flanges of the handle, the said rod also engaging the concaved seat in the front flange, the inner end of the rod being bent up and riveted over the aperture in the handle, and a rotary cutter slidably mounted on the rod and movable in the slot of the handle, said cutter including a cutting disk, a guiding disk and an intervening neck groove.

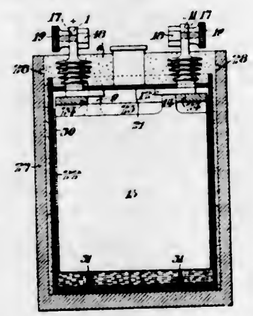
4. As an article, a device of the character stated, a handle-like body stamped from sheet metal, said body having side flanges, an elongated slot near the front end and a rotary cutter, and means for supporting the cutter in the slot in the body portion for rotary movement on its axis and sliding movement in the slot from one end of the same to the other.

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1,094,173. BATTERY-TERMINAL. JAMES M. SKINNER, Philadelphia, Pa. Filed Nov. 16, 1912. Serial No. 731,858. (Cl. 204—52.)

1. In a battery terminal, the combination with a vertical stem, having means at the top thereof arranged to detachably engage an electrical conductor; of a series of spatially distinct annular flanges arranged one above the other upon said stem and including a series of planes in acute angular relation with each other upon the respective flanges; said flanges presenting a series of steps of upwardly increasing breadth; and, a base plate extending transversely upon one side of said stem at the bottom thereof in unitary relation therewith and having a series of battery plate lug sockets.





2. In a battery terminal, the combination with a vertical stem; of a series of transversely extending spatially distinct annular flanges arranged one above the other upon said stem and including a series of planes in acute angular relation with each other upon the respective flanges; said flanges presenting a series of steps of upwardly increasing breadth; and, a base plate extending transversely upon said stem at the bottom thereof in unitary relation therewith and having a series of battery plate lug sockets.

3. In a battery terminal, the combination with a vertical stem; of a series of transversely extending spatially distinct annular flanges arranged one above the other upon said stem and presenting a series of steps of upwardly increasing breadth; and, a base plate extending transversely upon said stem at the bottom thereof in unitary relation therewith and having a series of battery plate lug sockets.

4. In a battery terminal, the combination with a vertical stem having means at the top thereof arranged to detachably engage an electrical conductor; of a series of spatially distinct annular flanges arranged one above the other upon said stem and including a series of planes in acute angular relation with each other upon the respective flanges; said flanges presenting a series of steps of upwardly increasing breadth.

5. In a battery terminal, the combination with a vertical stem having means at the top thereof arranged to detachably engage an electrical conductor; of a series of spatially distinct annular flanges arranged one above the other upon said stem and presenting a series of steps of upwardly increasing breadth.

[Claims 6 and 7 not printed in the Gazette.]

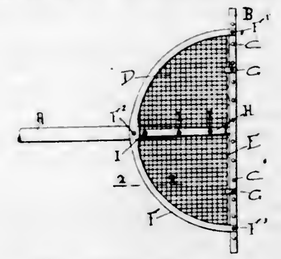
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1,094,174. HAND-RAKE. MARSHALL W. STEDMAN, GEORGE F. KOPP, and CHARLES R. MYERS, Tyringham, Mass. Filed June 5, 1913. Serial No. 771,882. (Cl. 55—10.)

1. In a hand rake the combination with a handle and a head portion, of a lacing, a supporting means for the free ends of the said lacing, means for securing the said supporting means and the said lacing to the rake head, and a clamping means to clamp the lacing to the handle to prevent transverse movement of the lacing.

2. In a hand rake the combination with a handle and a head portion, of a woven wire mesh lacing, a supporting means for the free ends of said lacing, means for securing the ends of the said supporting means to the rake head, clips for securing the said lacing to the rake head, and a clamping piece to clamp the lacing to the handle to prevent transverse movement of the lacing.

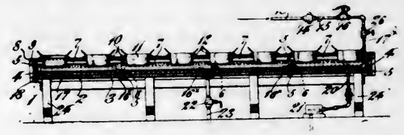
3. In a hand rake the combination of a handle and a head portion, of a woven wire mesh lacing, a sheet metal strip having securing means for the strip through the said lacing and to the said handle portion, a metal supporting and binding means for the free or unfinished edge of the



said lacing, the said means being secured to the outward ends of the said head and to the said handle portion, a selvage edge in the said lacing disposed near the head of the rake, and metal clips secured to the loops of the selvage edge and to the rake head, substantially as shown and described.

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1,094,175. STARCH HEATER OR TABLE. OSCAR M. STEPPACHER, Philadelphia, Pa. Filed Mar. 12, 1913. Serial No. 753,691. (Cl. 126—33.)

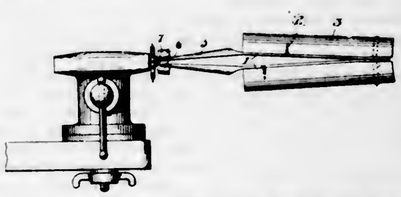


1. In a starch heating apparatus of the character stated, a tank adapted to be heated composed of a body formed of sides, ends, a top and a bottom of wood, said top having an opening therein for the vessel to be heated, and a starching table on said top, the same being composed of a metallic plate, the same having an opening therein coincident with that in said top and having its sides extended beyond the sides of said body.

2. In a starch heating apparatus of the character stated, a tank adapted to be heated composed of a body formed of side, end and bottom walls of wood, said end walls being jointed into the side walls, and said side walls being extended beyond said end walls, and bolts passing through the extensions of the side walls exterior of the end walls, said bolts having tightening devices thereon, said body having therein a starching table of metal, said table and top having coincident openings thereon for the vessel to be heated, and said table having its sides extended beyond the sides of said body.

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1,094,176. PIVOT-STRAIGHTENING DEVICE. JOSIAH NELSON STEVENS, Pittsburgh, Pa. Filed Aug. 5, 1913. Serial No. 783,202. (Cl. 81—6.)



1. A pivot straightening tool comprising a pair of hard metal arms, each extending at an outward inclination from

each end toward the center, means for resiliently connecting the rear ends of said arms together whereby the forward end of said arms will be maintained normally apart, and when swung together the forward termini of the inner faces of said arms will engage, and a pair of soft metal heat-conducting members connected to the outer faces and side edges of said arms at the forward ends thereof.

2. A pivot straightening tool comprising a pair of arms, each of said arms inclining outwardly from each end thereof toward the center, a handle secured to the inner end of each of said arms, a resilient element connecting the inner ends of said handles and arms together whereby the forward ends of said arms will be maintained normally apart, and heat conducting members mounted upon the outer ends of said arms.

3. A pivot straightening tool comprising a pair of arms each including a flattened and a tapered portion, a handle mounted against and secured to said flattened portion, resilient means for connecting said handles and flattened portions together, and a pair of heat conducting members mounted upon and overlapping the free termini of said tapered portions.

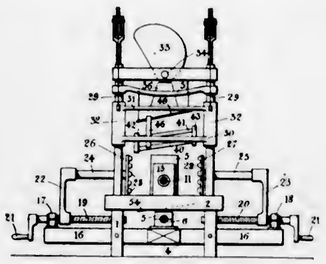
4. A pivot straightening tool comprising a pair of arms each including a flattened and a tapered portion, a handle mounted against and secured to said flattened portion, resilient means for connecting said handles and flattened portions together, and a pair of heat conducting members mounted upon and overlapping the free termini of said tapered portions, said heat conducting members being disposed in opposite directions with respect to each other.

5. A pivot straightening tool comprising a pair of oppositely disposed semi-cylindrical heat conducting members, arms extending into the inner sides of and connected to said members, handles carried by said arms, and means for resiliently connecting the inner ends of said handle and arms together.

[Claims 6 to 18 not printed in the Gazette.]

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1,094,177. APPARATUS FOR SPLITTING SLATE BLOCKS AND THE LIKE. CHARLES SUDRE, Renazé, France. Filed Apr. 17, 1912. Serial No. 691,280. (Cl. 125—5.)



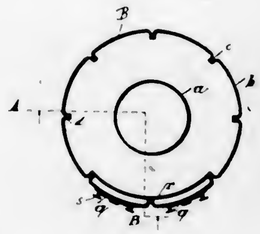
1. Apparatus for splitting blocks of slate or the like into two, four, eight, sixteen etc. numbers of slabs or sheets comprising in combination a table for supporting the block provided with a grooved surface for receiving the splitting knives, two side supports to seize and hold the block on two sides parallel to the plan of cleavage, actuating rods attached to said supports, a cover of resilient material fixed upon said supports, two supports arranged on opposite sides of the block, actuating rods attached to said second supports, grooving blades carried by said rods, means for driving said actuating rods, a sliding carrier for splitting knives, a number of thin inclined flexible knives arranged in rows for splitting the block, a frame, an adjustable rod of said frame, a rider on said rod to receive the knives, and means for actuating the splitting knives substantially as above described and for the purpose set forth.

2. Apparatus for splitting blocks of slate or the like into two, four, eight, sixteen etc. numbers of slabs or sheets comprising in combination a table for supporting the block, said table having grooves for receiving the splitting knives, two side supports for holding the block, two supports with grooving blades, means for actuating the said supports, a sliding carrier for splitting knives, a number of splitting knives arranged at an inclination and mounted on rows one above the other, the lower knife being thicker and having its cutting edge smaller than the double angle of flexibility of the slate, the other knives being thinner and having their cutting edge smaller than the single angle of flexibility of the slate, a frame with adjustable rod; a rider on said rod to receive the knives and grooved or recessed to correspond with the rows of splitting knives, and means for actuating the splitting knives substantially as above described and for the purpose set forth.

3. Apparatus for splitting blocks of slate or the like into two, four, eight, sixteen etc. numbers of slabs or sheets comprising in combination a table for supporting the block, said table having grooves for receiving the splitting knives, two side supports for holding the block, a cover of resilient material for said side supports, two supports with grooving blades, means for actuating the said supports, a sliding carrier for splitting knives, a number of splitting knives arranged at an inclination and mounted on rows one above the other, the lower knife being thicker and having its cutting edge smaller than the double angle of flexibility of the slate, the other knives being thinner and having their cutting edge smaller than the single angle of flexibility of the slate, a frame with adjustable rod; a rider on said rod to receive the knives and grooved or recessed to correspond with the rows of splitting knives, and means for actuating the splitting knives substantially as above described and for the purpose set forth.

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1,094,178. APPARATUS FOR TREATING GRANULAR MATERIAL. LUDWIG TOPF, Erfurt, Germany. Filed May 20, 1913. Serial No. 768,869. (Cl. 34—5.)



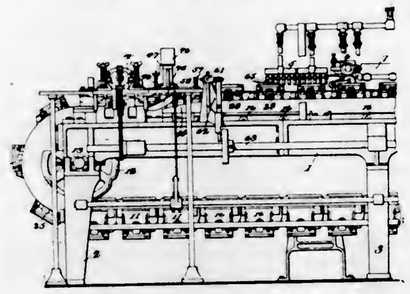
1. A drum for working granular material, comprising in combination, a drum casing consisting of a plurality of inwardly flanged segments and having air openings in some of said segments, closures for said air-openings, and perforated plates extending across the flanges of said segments having openings.

2. A drum for working granular material, comprising in combination, a drum casing consisting of a plurality of inwardly flanged segments and having air openings in some of said segments, closures for said air-openings, and perforated plates extending across said flanged segments in spaced relation to said closures.

3. A drum for working granular materials, comprising in combination, a rotary drum casing having a series of inwardly projecting longitudinal flanges, and having air openings between some of said flanges, closures for said air openings and perforated plates extending over said air openings and resting on the adjacent flanges in spaced relation to said closures.



1,094,179. LAP-SEAM-BODY MAKER. IVAR F. WARME, Syracuse, N. Y., assignor, by mesne assignments, to Continental Can Company, Inc., a Corporation of New York. Filed July 17, 1912. Serial No. 709,926. (Cl. 113—10.)



1. A can body forming and side seaming machine including traveling devices for receiving the can bodies and presenting the same to the soldering means, a relatively stationary gaging device operating upon each can body in turn for gaging the edges, means for clamping the overlapped edges on the traveling devices, and means for soldering said overlapped edges while on said traveling devices.

2. A can body forming and side seaming machine, including means for shaping a can body, traveling devices for receiving the can bodies from the shaping means, and presenting the same to the soldering means, a relatively stationary gaging device operating upon each can body in turn for gaging and overlapping the edges, means for clamping the overlapped edges, and means for soldering said overlapped edges, while on said traveling devices.

3. A can body forming and side seaming machine including forming rolls continuously traveling devices for receiving the can bodies from the forming rolls and presenting the same to the soldering means, means operating on each can body in turn for gaging the side edges, means for clamping the edges, and means for soldering the overlapped edges.

4. A can body forming and side seaming machine including forming rolls continuously traveling devices for receiving the can bodies from the forming rolls and presenting the same to the soldering means, means for operating upon each can body in turn for gaging the edges, means for ending up the edges, means for clamping the overlapped edges, and means for soldering said overlapped edges.

5. A can body forming and side seaming machine including forming rolls continuously traveling devices for receiving the can bodies from the forming rolls, and presenting the same to the soldering means, means for overlapping the side edges of the can bodies, means operating on each body in turn for gaging the edges, means for clamping the overlapped edges, and means for soldering said overlapped edges.

[Claims 6 to 21 not printed in the Gazette.]

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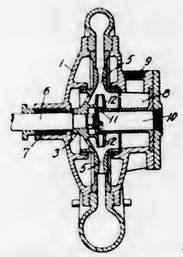
1,094,180. METAL HARMONICA. CHRISTIAN WEISS, Nuremberg, FERDINAND BÜRKER, Trossingen, Württemberg, and MAX HEUSCHKEL, Stuttgart, Germany, assignors to The Firm of Württembergische Harmonikafabrik Ch. Weiss, Trossingen, Germany. Filed Jan. 13, 1913. Serial No. 741,651. (Cl. 84—13.)



In a mouth-harmonica, in combination, a cast metal cellular body, reed plates superposed thereupon, and a U-shaped frame of metal embracing said members and engaging the back and lateral edges thereof to retain said reed plates in position.

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1,094,181. CENTRIFUGAL, TURBINE, OR SIMILAR PUMP. WILLIAM R. WILSON, Yonkers, N. Y., assignor to Alberger Condenser Company, New York, N. Y., a Corporation of New York. Filed Oct. 23, 1911. Serial No. 656,279. (Cl. 230—14.)



1. In a centrifugal, turbine, or similar pump, the combination with an impeller, of means for imparting an initial centrifugal motion to the water before it comes into contact with the air, and means for intermittently supplying volumes or plugs of water to the impeller, and entrapping the air between said volumes or plugs of water.

2. In a centrifugal or like pump, the combination with an impeller having a series of channels, of a water supply, an air suction, means for imparting an initial centrifugal motion to the water before it comes in contact with the air, and means for cutting off the water supply at intervals from the channels of the impeller to permit the air suction to be connected with the channels during those intervals.

3. In a centrifugal, turbine, or similar pump, the combination with an impeller having a series of channels, of means for intermittently supplying plugs or volumes of water to said channels and entrapping air between said volumes or plugs of water, and means for causing the said intermittent supply of water to partake of an initial centrifugal motion before it is brought into contact with the air.

4. In a centrifugal, turbine or similar pump, the combination with an impeller, of means for intermittently supplying volumes or plugs of water to said impeller and entrapping air between said volumes or plugs of water, said means imparting an initial centrifugal motion to the water before it comes into contact with the air.

5. In a centrifugal or like pump, the combination with an impeller having a series of channels, of means for intermittently supplying water to said channels and entrapping air between the plugs of water, said means imparting an initial centrifugal motion to the water before the water entraps the air.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,182. PROCESS OF PRODUCING OXIDS OF NITROGEN. HANS WOLF, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 4, 1913. Serial No. 804,729. (Cl. 23—1.)

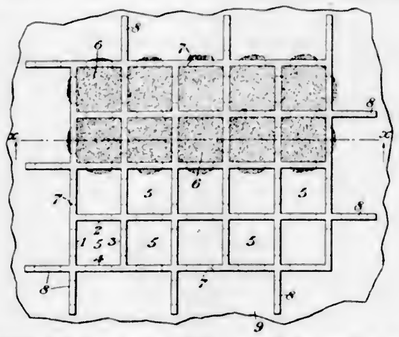
The process of producing oxids of nitrogen by oxidizing ammonia by means of oxygen in the presence of a catalytic agent while preventing the gases from carrying dust-like impurities to the said catalytic agent.

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1,094,183. FLOOR. LESLIE L. WRIGHT, New York, N. Y. Filed Apr. 23, 1913. Serial No. 763,019. (Cl. 94—1.)

A floor for buildings, composed of a number of metallic sections each section being cast in one piece comprising a plurality of adjoining hollow receptacles divided by parallel walls, with extending walls on each side of the casting, openings in the lower part of each wall, a material such as

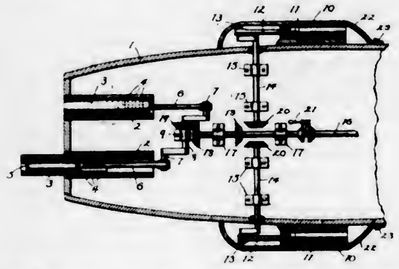
asphalt filling said receptacles and extending through said openings whereby the filling in all the receptacles is united



together with the several metallic sections into one solid body.

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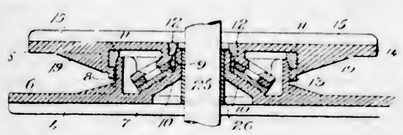
1,094,184. MARINE PROPELLER. ANTON ZIMMERMAN, New Trier, Minn. Filed Aug. 2, 1913. Serial No. 782,715. (Cl. 115—14.)



In a marine propeller, the combination of a hull, a tubular guide casing applied to the exterior of the hull and projecting laterally therefrom, said tubular guide casing having an open end, a reciprocating plunger mounted within the tubular guide casing and adapted to be projected beyond the open end thereof to act upon the water, a cover slidably mounted upon the exterior of the hull and adapted to be moved over the open end of the guide casing, said cover having a pointed forward end so as to minimize the resistance to the water, and means for moving the cover into and out of position.

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1,094,185. CENTER-BEARING FOR PIVOTAL TRUCKS. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 24, 1913. Serial No. 775,463. (Cl. 105—108.)



1. In a device of the class described, a lower part and an upper part having conical surfaces and wear plates mounted on said surfaces, the outside diameter of such conical surfaces being unconfined.

2. In a device of the class described, a lower part and an upper part having conical surfaces between them, wear plates on said surfaces and annular rings surrounding said wear surfaces whereby an oil reservoir is formed.

3. In a device of the class described, an upper part and a lower part with conical surfaces between them, wear plates on said conical surfaces, annular collars surrounding said wear plates and packing connecting said collars whereby dust is excluded from the bearings and an oil reservoir is provided.

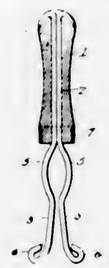
4. In a device of the class described, an upper and a lower part having conical surfaces between them and wear plates secured to each of said surfaces, said wear plates adapted to run against each other.

5. In a device of the class described, upper and lower parts having conical seats between them, wear plates on said seats and fixed thereto, annular collars surrounding said seats and forming an oil reservoir, and means for preventing dust from entering said reservoir.

[Claims 6 to 8 not printed in the Gazette.]

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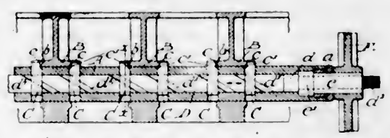
1,094,186. CLOTHES PIN. BERNARD ALTMAN and BESSIE A. KOSMAN, Laurium, Mich. Filed Dec. 4, 1911. Serial No. 663,799. (Cl. 24—255.)



In a clothes pin, a wooden head piece provided with a central groove elongated in cross section and extending the entire length of said wooden head piece, said wooden head piece having a cut out portion in its top surface, a wire bent upon itself to form legs lying parallel within said elongated groove and having its end portion bent at an angle and lying in the cut out portion in the top surface of the wooden head piece, said legs terminating in outwardly bent portions adapted to encircle a clothes line, said outwardly bent portions having looped ends extending outwardly from the line as and for the purpose described.

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1,094,187. TOOL FOR TRUING ENGINE-BEARINGS AND THE LIKE. HERBERT AUSTIN, Bromsgrove, England. Filed Dec. 14, 1912. Serial No. 736,866. (Cl. 82—1.)



1. A tool for use in simultaneously facing up the sides of a set of bearing blocks which are rigid with one another, which comprises a hollow cylindrical bar, a plurality of cutters fitted within and slidable transversely of the bar and of a length which permits them to be retracted entirely within the bar, a rod slidably fitted within the bar, and inclined keys and notches by which the rod and cutters are engaged with one another and insure that as the rod is moved endwise the cutters will be moved transversely of the bar.

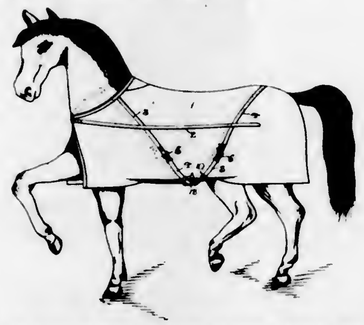
2. A tool for use in simultaneously facing up the sides of a set of bearing blocks which are rigid with one another, which comprises a hollow cylindrical bar, a plurality of cutters, which are adapted to face up the sides of a set of bearing blocks and subsequently round off the angles which the side faces of the blocks make with the



openings therethrough, fitted within and slidable transversely of the bar and of a length which permits them to be retracted entirely within the bar, a rod slidably fitted within the bar and inclined keys and notches by which the rod and cutters are engaged with one another and insure that as the rod is moved endwise the cutters will be moved transversely of the bar.

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1,094,188. HOLDING MEANS FOR HORSE-BLANKETS. WILLIAM G. AYRES, Cynwid, Pa. Filed May 10, 1910. Serial No. 560,512. (Cl. 54—79.)

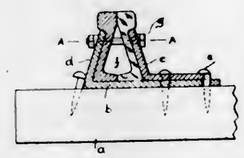


1. The combination of a horse blanket having two girth straps arranged to cross each other under the horse's belly; a slide common to both of said girths at their point of crossing and movably holding them together; with means on each strap for limiting the movement of said slide in one direction thereon.

2. The combination of a horse blanket having two bias girths thereon each made in two parts, of which one is permanently fixed to the blanket and the other is free therefrom, the free portions of said girths crossing each other; devices for connecting the ends of each free part to the fixed parts of the two girths respectively; and a slide movably connecting said free parts of the girths at points substantially midway between the adjacent edges of the blanket when the latter is in operative position.

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1,094,189. CONTINUOUS RAIL. ALLEN BAGLEY, Ypsilanti, Mich. Filed Jan. 2, 1914. Serial No. 809,847. (Cl. 239—16.)



1. A continuous rail, having in combination a plurality of rail halves arranged to break joints and in the form of Z bars placed side by side so that the stems of the Z's or the webs of the rail diverge from top to bottom, substantially as described.

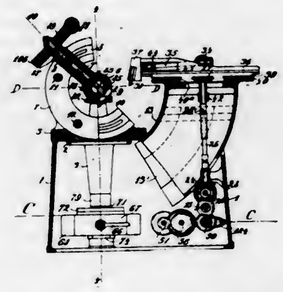
2. A continuous rail, comprising a plurality of rail halves in the form of Z bars arranged side by side so that the stems of the Z or the webs of the rail diverge from top to bottom, a rail chair in which the Z bars are seated and provided with an angularly related upright fish plate portion on the outside of the rail and a fish plate fitting on the inside of the rail, substantially as described.

3. A continuous rail, comprising a plurality of rail halves arranged to break joints in the form of abutting Z bars arranged so that the stems or webs diverge from top to bottom, a rail chair comprising a flat horizontal portion and a fish plate portion under the head of the outside rail half, a fish plate that fits tightly under the rail head of the inside rail half and rests upon the chair, and means for holding the fish plate portion and the fish plate together, substantially as described.

4. A continuous rail, having in combination a plurality of rail halves arranged to break joints and comprising Z bars abutting each other lengthwise and arranged so that the stems or webs diverge from top to bottom, a rail chair comprising a flat strip upon which the feet of the rail halves rest and an angularly disposed fish plate portion that reats against the outside of the web of the outside rail half and tightly under the head thereof, a fish plate member resting against the side of the inside rail and tightly under the head, the said fish plate resting upon the rail chair, means for preventing the rail chair and the fish plate creeping upon the ties and means for clamping the rail halves together, substantially as described.

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1,094,190. BEVEL-GEAR PLANER. CURT BARTH, Duesseldorf, Germany. Filed Mar. 19, 1912. Serial No. 684,747. (Cl. 90—9.)



1. An improved bevel gear planer comprising in combination, two planing tools representing one tooth of an imaginary crown gear, means for communicating to these planing tools a reciprocating motion in horizontal direction comprising in combination, the driving shaft, an intermediate shaft parallel with said driving shaft, three toothed wheels loosely mounted upon said auxiliary shaft and meshing with said toothed wheels of the shaft, a vertical extensible shaft composed of two parts, ball joints connecting the parts of said shaft, a bevel wheel gearing connecting said vertical shaft with said intermediate shaft, an upper horizontal shaft at the right hand side of the machine and an upper horizontal shaft at the left hand side of the machine, bevel wheel gearings connecting the upper end of said vertical shaft with said horizontal shafts, a crank shaft parallel with said right hand side horizontal shaft, and a crank shaft parallel with said left hand side horizontal shaft, spur wheel gearings connecting said horizontal shafts with said crank shafts, a crank of each of said crank shafts, a support slide for the right hand side planing tool and a support slide for the left hand side planing tool, and a rod for each of said slides connecting the same with its crank.

2. An improved bevel gear planer, comprising in combination two planing tools representing one tooth of an imaginary crown gear, means for communicating to these planing tools a reciprocating motion in horizontal direction, means for adjusting the planing tools in horizontal directions, a support for the work, means for communicating to said support a revolving motion around the axis of the imaginary crown gear consisting of the driving shaft, bevel wheels keyed upon said driving shaft, an intermediate shaft parallel with said driving shaft, bevel wheels upon said intermediate shaft, a worm upon said intermediate shaft, a worm wheel gearing meshing with said worm, a vertical shaft carrying said worm wheel, spur wheels upon said vertical shaft, a horizontal shaft, spur wheels loosely mounted upon said horizontal shaft and meshing with the spur wheels of said vertical shaft,

a wheel keyed upon said horizontal shaft, an intermediate shaft parallel with said horizontal shaft and a loose spur wheel upon said shaft, a coupling device for coupling said loose spur wheel with the shaft, a toothed wheel keyed upon said shaft, cone gears for slowly revolving said shaft when the coupling is disengaged and a spur wheel gearing for quickly revolving said shaft when the coupling is engaged, a crank disk upon said shaft, a slide, a crank connecting said slide with said crank disk, a guide moved by said slide, the support for the work driven by said guide, a spindle of said support carrying the work, a spur wheel gearing for revolving said support body, and a rack and toothed wheel connection for reciprocating the slide, a block guided in a slot of said slide, a lever movably connected with said slide so that it oscillates around its pivot when said slide reciprocates, a second slide driven from said lever, a rack and toothed segment connection for transmitting the motion of the lever to the second slide, substantially as described and shown and for the purpose set forth.

3. An improved bevel gear planer comprising in combination two planing tools representing one tooth of an imaginary crown gear, means for communicating to these planing tools a reciprocating motion in horizontal direction, a support for the work, means for communicating to said support a revolving motion around the axis of the imaginary crown gear, means for communicating to the spindle of said support a revolving motion around its own axis, means for feeding the work for the space of one tooth after a tooth has been completely cut, a driving shaft, an intermediate shaft between said driving shaft, and the means for communicating to the spindle of the support a revolving motion around its own axis, a coupling device upon said intermediate shaft, a movable sleeve carrying said coupling devices, and means for automatically shifting said sleeve so that the coupling parts are coupled or uncoupled, a change wheel gearing for transmitting the movement from said intermediate shaft to the work spindle, substantially as described and shown and for the purpose set forth.

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1,094,191. DRAPER. JOSEPH A. BARTOSZ, Salem, Oreg. Filed Mar. 21, 1913. Serial No. 755,855. (Cl. 193—4.)



1. A draper comprising a belt fabric, a slat, a groove formed along the lower face thereof receiving a fold of said fabric, a sinuous wire fitted into the groove within said fold, the raised portions projecting slightly beyond the surface of the groove, and retaining elements secured at intervals over depressed portions of the wire.

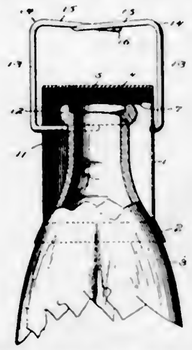
2. A draper comprising a belt fabric, a slat, a groove formed along the lower face thereof receiving a fold of said fabric, a follower comprising a sinuous wire fitted into the groove within said fold, the raised portions projecting slightly beyond the surface of the groove, staples secured at intervals in recessed portions of the wire, lateral members thereof extending vertically through their respective sides of the slat, and a bar fixed across the upper face of the slat upon the staple members.

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1,094,192. JAR CAP AND HANDLE. EMMETT L. BEAN, Erie, Pa. Filed July 23, 1913. Serial No. 780,723. (Cl. 215—22.)

1. A jar cap and handle comprising a cap provided with a compressible disk inside the same, said cap having a slot therein, a renewable cover adapted to be inserted in said slot, a jar having a mouth bead, handle members pivoted to the cap and provided with eccentric members to engage said mouth bead, and adapted to be brought together and interlocked at their ends, and unlocked by pressing the members together.

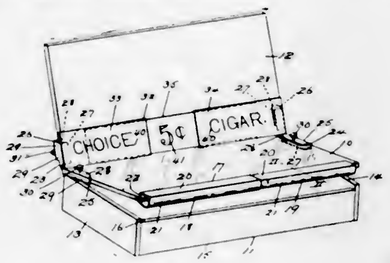
2. A jar handle and cap comprising a jar having a mouth bead, a metal cap to extend over the neck of the jar, a compressible rubber disk in the cap, the latter being slotted to permit a paper cover to be inserted over the top of the jar, pivoted handle members having cam portions to engage underneath the mouth bead of the jar,



said handle members having locking lugs at their terminal ends to engage the members of the handle and to be released for withdrawing the cap from the jar.

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1,094,193. ADJUSTABLE DISPLAY-LID. PHILIP A. BECKER, New York, N. Y. Filed Sept. 3, 1913. Serial No. 787,916. (Cl. 217—58.)




1. A display lid of the character described, comprising a transparent plate adapted to be movably applied upon the open top of a box having a space above the upper edge of its front wall and said box also having a lid hinged thereto, a removable frame provided upon the front edge of the transparent plate so as to be movably disposed in the space above the front wall when the plate is closed upon the box, and two clamps detachably fastened to the rear part of the plate and detachably held to the lid of the box, whereby the transparent plate may be swung to open or closed positions upon the body of the box when its lid is accordingly moved.

2. A display lid of the character described, comprising a transparent plate adapted to be movably applied upon the open top of a box having a space above the upper edge of its front wall, and said box also having a lid hinged thereto, a frame of yielding material removably held upon the front edge of the transparent plate so as to be movably disposed in the space above the front wall when the plate is closed upon the box, two clamps detachably fastened to the rear part of the plate and detachably held to the lid of the box, whereby the transparent plate may be swung to open or closed positions upon the body of the box when its lid is accordingly moved, and means provided upon the clamps for permitting interchangeable signs to be removably mounted upon the transparent plate.

3. A display lid of the character described, comprising a transparent plate adapted to be movably applied upon the open top of a box having a space above the upper edge of its front wall and said box also having a lid hinged thereto, an extensible frame removably held upon the front edge of the transparent plate so as to be movably disposed in the space above the front wall when the plate is closed upon the box, and two clamps detachably fastened to the rear part of the plate and detachably held to the lid of the box, whereby the transparent plate may be swung to open or closed positions upon the body of the box when its lid is accordingly moved.

4. A display lid of the character described, comprising a transparent plate adapted to be movably applied upon the open top of a box having a space above the upper edge of its front wall, and said box also having a lid hinged thereto, an extensible frame removably held upon the front edge of the transparent plate so as to be movably disposed in the space above the front wall when the plate is closed upon the box, two clamps detachably fastened to the rear part of the plate and detachably held to the lid of the box, whereby the transparent plate may be swung to open or closed positions upon the body of the box when its lid is accordingly moved, and means provided upon each of the clamps, said means being adapted for coöperative use to permit interchangeable signs to be removably mounted upon the transparent plate.

5. A display lid of the character described, comprising a transparent plate adapted to be movably applied upon the open top of a box having a lid hinged thereto, and two clamps, each having two integral sleeves disposed at an angle relatively to each other, one of the sleeves of each clamp being removably held to the transparent plate at one edge thereof, and the second sleeve of each clamp being adapted to be removably applied to the box lid, whereby the transparent plate may be swung to open or closed positions upon the body of the box when its lid is accordingly moved.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,194. PRODUCTION OF AMMONIA. CARL BOSCH, ALWIN MITTASCH, and HANS WOLF, Ludwigshafen-on-the-Rhine, and GEOAG STERN, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Dec. 24, 1910. Serial No. 599,100. (Cl. 23—21.)

1. The process of manufacturing ammonia by passing a mixture containing nitrogen and hydrogen free from contact poison over an active catalyst containing a catalytic agent, and a promoter.

2. The process of manufacturing ammonia by passing a mixture containing nitrogen and hydrogen over an active catalyst containing a catalytic agent and a promoter, while substantially avoiding the presence of sulfur.

3. The process of manufacturing ammonia by passing a mixture containing nitrogen and hydrogen free from contact poison over an active catalyst containing cobalt and a promoter.

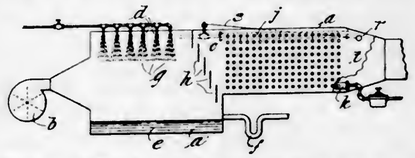
4. The process of manufacturing ammonia by passing a mixture containing nitrogen and hydrogen free from contact poison over an active catalyst containing cobalt and an oxid of an earth metal.

5. The process of manufacturing ammonia by passing a mixture containing nitrogen and hydrogen free from contact poison over an active catalyst containing cobalt and alumina.

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1,094,195. PROCESS FOR DRYING PAPER. EDWARD P. BUTTS, Springfield, Mass. Filed Sept. 13, 1911. Serial No. 649,151. (Cl. 34—24.)

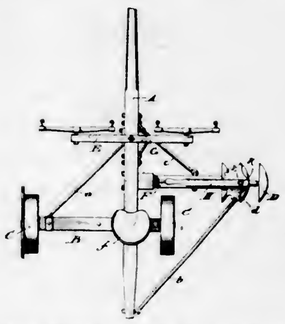
The process of drying paper with air having a predetermined moisture absorbing capacity, which consists in first effecting the saturation of the air by direct contact with water having a definite temperature, then directing the saturated air against an obstruction to separate therefrom the surplus of water, then directing the air against a heated surface having a definite temperature to effect the expansion of the air, next liberating the dried and heated air and causing it to pass over the



paper to be dried, and finally collecting the moisture laden air to again be saturated and used as herein stated.

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1,094,196. ORCHARD-PLOW. CHARLES J. CRAWFORD, Fresno, Cal. Filed July 22, 1913. Serial No. 780,478. (Cl. 97—37.)



1. In an earth working element, the combination of an axle to which a tongue is attached at approximately right angles thereto and at a point nearer one end of said axle than the other; a flange wheel rotatably carried on the longer end of said axle and a wheel rotatably carried on the shorter end of such axle, an extension bracket attached to such tongue, and extending beyond the end of the shorter end of such axle, means for adjustably attaching earth working elements to such extension bracket, and means for attaching a draft to such tongue, all substantially as described.

2. In an earth working element of the character described, the combination of an axle with a tongue attached thereto at a point other than the lateral center, a wheel rotatably attached to each end of such axle, an extension bracket parallel with and on the same side of the tongue as the short end of such axle, means for attaching a draft to said tongue; means for adjustably attaching earth working elements to the outside end of such extension bracket consisting of a support with a swivel bolt connection passing through such extension bracket, a hand lever attached to such swivel bolt and adapted to lock in either one of a plurality of positions, all substantially as described.

3. In an earth working element of the character described, the combination of an axle with a tongue attached at approximately right angles thereto at a point other than the lateral center of such axle, a wheel rotatably attached to each end of such axle, an extension bracket attached to such tongue on the same side, parallel with and extending beyond the short end of such axle, means for adjustably attaching such disks to the outside end of such extension bracket consisting of a swivel, means for locking such swivel in either one of a plurality of positions, and means for adjustably attaching the draft to the tongue consisting of a bracket having a plurality of holes in a line at right angles to the tongue, and attached to the side of the tongue on which the earth working elements are attached, all substantially as described.

4. In an earth working element, the combination of an axle to which a tongue is attached at approximately right angles thereto and at a point nearer one end of said axle than the other, a heavy flanged wheel rotatably mounted on the longer end of such axle, a light wheel rotatably mounted on the shorter end of such axle, a bracket extension attached to such tongue on the side opposite such flange wheel, and extending beyond the short end of such axle, means for adjustably attaching earth working elements to such extension bracket, and means for attaching a draft to said tongue, all substantially as described.

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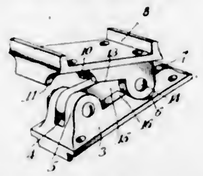
1,094,197. PROCESS OF STERILIZING AND PACKAGING RICE. WATERS SMITH DAVIS, Jr., Galveston, Tex., assignor to Seaboard Rice Milling Co., Galveston, Tex. Filed Apr. 23, 1913. Serial No. 763,167. (Cl. 99—8.)

1. The process of sterilizing and packaging rice, which consists in gradually subjecting it to a sterilizing heat and maintaining the maximum degree of heat for twenty minutes or more; then delivering the sterilized and still hot rice to a shaker whose operation removes imperfect kernels; then discharging the selected kernels into a receiver from which they are in turn delivered and conveyed into cartons or other form of packages, and sealed therein while still hot, these several operations being effected under the exclusion of fresh or cool air, as described.

2. The improved process of sterilizing and packaging rice, which consists in subjecting it to a heat sufficient to sterilize it, then conveying the still hot rice to a receiver, and then delivering it into cartons or other form of package and immediately sealing the latter, fresh or cool air being prevented from access to the rice from the beginning to the end of the described operation, as specified.

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1,094,198. DUMPING-CAR. CHARLES B. DAWSON, Fulton, N. Y., assignor to Enoch Harlan, receiver. Filed Sept. 28, 1910. Serial No. 584,275. (Cl. 105—191.)



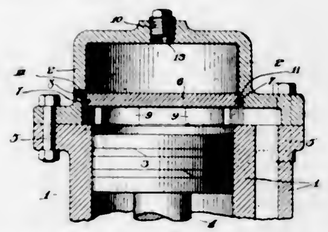
1. In a dumping car, a double hinge connection between the car body and truck comprising an upper and a lower block, each having at one end a semi-cylindrical boss and at the other end a recess adapted to receive the boss on the other block, a pin extending through the center of each boss, and a link connecting the pins of the two bosses.

2. A dumping car having a truck and a body, a stationary plate upon the truck, a tilting plate upon which the body rests, the adjacent faces of said plates each having a transverse recess, a projection upon each plate adapted to fulcrum in the recess of the other plate, the inner face of each plate having a longitudinal recess, and a link pivotally connecting said plates and adapted to seat in said longitudinal recesses when the plates are in horizontal relation, as set forth.

3. A dumping car having a truck and a body, a stationary plate and a pivotal plate, the adjacent faces of the plates having each a concaved transversely disposed recess near one end and projections which are spaced apart, the ends of the latter being convexed, the projections upon one plate adapted to engage the concaved recess in the other plate when the plates are in horizontal relation, the inner face of each plate intermediate the concaved projection and the recess being parallel with the outer face of the plate, the inner face of each plate having a central longitudinal slot intermediate said projections and intersecting the recess, pins passing through registering apertures in the projections upon each plate, and a link mounted pivotally at its ends upon said pins and adapted to engage the recesses upon the two plates when the latter are in their normal positions, as set forth.

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1,094,199. CYLINDER FOR ENGINES. HENRY E. DERBYSHIRE, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Oct. 18, 1913. Serial No. 795,845. (Cl. 121—19.)



1. The combination with a cylinder and its piston, of a dash pot forming a continuation of the upper end of said cylinder and furnished within with an annular shoulder, and a means held against upward pressure by said shoulder and breakable upon contact with said main piston, for normally forming a head for said main cylinder.

2. In combination, a main cylinder and piston, a cover, forming an auxiliary cylinder, secured to said main cylinder and furnished within with an annular shoulder, a piston within said auxiliary cylinder, and a shearable means held against upward pressure by said shoulder and forming in connection with said latter piston a head for said main cylinder.

3. In combination, a main cylinder and piston, a cover secured to and forming a continuation of said main cylinder, a piston within said cover forming a head for said main cylinder, and a breakable means uniting in a steam tight manner said latter piston and the cover, said breakable means being adapted to be fractured to release said latter piston when struck by said main piston.

4. In combination, a main cylinder and piston, a cover forming an auxiliary cylinder secured to said main cylinder, a piston in said auxiliary cylinder, and a shearing ring or flange carried by or forming part of said latter piston and forming in connection therewith a steam tight head for said main cylinder.

5. In combination, a main cylinder and piston, a cover forming an auxiliary cylinder and furnished interiorly with an annular shoulder, means for removably securing said auxiliary to said main cylinder, a piston within said auxiliary cylinder carrying a shearable means adapted to form a steam tight joint with the shoulder in the auxiliary cylinder and with legs adapted to rest on top of said main cylinder.

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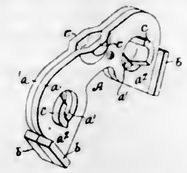
1,094,200. CHAIN-LINK. JAMES M. DODGE, Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Continuation of application Serial No. 531,799, filed Dec. 7, 1909. This application filed May 16, 1910. Serial No. 561,649. (Cl. 74—32.)

1. A chain link element consisting of two sections rigidly secured together, each section having an outwardly projecting bearing extending beyond its plane and alining with the bearing of the other section.

2. A chain link made up of two sections rigidly secured together, each section having two perforations for the pivot pins and two teeth, the teeth and the perforations of one section alining with those of the other section, each section having extended bearings on one side at the pivot perforations and at the working edge of the teeth.



3. A chain link made up of two sections integrally connected together and each section having projections on one side while being plain on the other side.



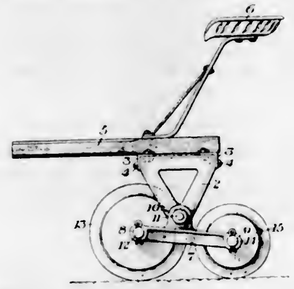
4. A chain link element consisting of two rigidly connected parallel plates, each having alining openings and provided with laterally extending bearings adjacent said openings, said bearings at each opening projecting on opposite sides of their respective plates.

5. A chain link element consisting of two rigidly connected plates having openings and laterally extending bearings adjacent said openings, with projections on the plates intermediate of said openings and extending in opposite directions on the two plates.

[Claim 6 not printed in the Gazette.]

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1,094,201. LAND ROLLER OR PULVERIZER. WILEY JULIUS DUNHAM, Berea, Ohio, assignor to The Dunham Company, Berea, Ohio, a Corporation of Ohio. Filed Nov. 21, 1911. Serial No. 661,538. (Cl. 55—77.)



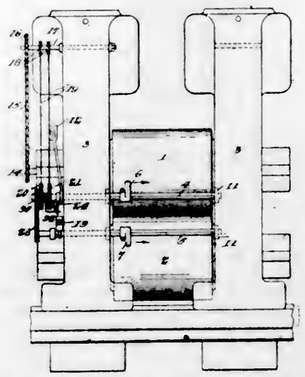
1. A land roller, having a main frame, a rocking frame, an axle mounted in the rear end of the rocking frome, a second axle mounted in the front end of said rocking frame, roller disks mounted on each of said axles, and means for connecting the rocking frame to the main frame to place the greatest weight on the roller disks on the front axle, substantially as described.

2. A land roller having a main frame, a rocking frame pivotally connected to each end of the main frame, said rocking frames being connected to the main frame in front of the center thereof, an axle mounted in the rear ends of both rocking frames, a second axle mounted in the front ends of both of said rocking frames, a plurality of roller disks mounted on the rear axle, and a plurality of roller disks mounted on the front axle, the roller disks on the front axle being of larger diameter than the roller disks on the rear axle; substantially as described.

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1,094,202. CLEANING AND SCOURING ATTACHMENT FOR METAL ROLLS. JOHN DUNLOP and JESSE D. DAVIDSON, Wellsville, Ohio. Filed Nov. 8, 1911. Serial No. 659,112. (Cl. 80—1.)

1. The combination with a mill roll, of a carrier for the grinding and cleaning medium, a horizontal polygonal bar on which said carrier is adapted to slide right and left and thus traverse the length of the roll, a screw shaft, and a nut secured to the carrier and engaging said shaft, the latter being arranged in a longitudinal groove in said polygonal bar, a slidable clutch which is operatively connected with the screw shaft, pulleys mounted on the screw shaft journal, means for rotating them in opposite directions, a trip operated by the grinder carrier at the end of its movement in either direction, and means operatively connecting such trip with the clutch, whereby said clutch is shifted between said pulleys for reversing the rotation of the screw shaft, substantially as described.



2. The combination with a mill roll, of a grinder carrier adapted to traverse the same, a horizontal bar on which the same is mounted to slide, a screw shaft which is operatively connected with the carrier for feeding it along the supporting bar and provided at one end with a cylindrical extension constituting a journal, a sleeve which is clamped to the screw shaft journal, so as to rotate therewith, wheels mounted loose on the sleeve, and means for driving them in opposite directions, a shiftable clutch arranged between such wheels and adapted to slide on a feather connecting it with the sleeve, and trip mechanism for reversing the rotation of the screw shaft and the feed of the grinder carrier, such mechanism operatively connecting the clutch with the grinder carrier, such mechanism including a rod having stops with which the grinder carrier is adapted to come in contact upon reaching the limits of its traverse, whereby the clutch may be shifted, substantially as described.

3. The combination with a mill roll, a grinder carrier, and a horizontal bar supporting the same, of a head provided with a socket adapted to receive one end of the bar and having a cylindrical hollow extension constituting a journal, a screw shaft which is operatively connected with the grinder carrier for traversing it on the face of the roll, said shaft being provided with a cylindrical journal having its bearing in the journal of the aforesaid head, a sleeve mounted rotatably in the head journal, and means for clamping it to the journal of the screw shaft, pulleys mounted loose on the sleeve, a clutch arranged between them and adapted to slide on a feather secured to the sleeve, a trip mechanism operatively connecting such clutch with the grinder carrier, whereby when the latter reaches the limits of its traverse in either direction, the clutch is shifted from engagement with one pulley into engagement with the other pulley, thereby reversing the operation of the screw shaft, substantially as described.

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1,094,203. DENTAL IMPRESSION-TRAY AND DETACHABLE HANDLE. LESLIE EUGENE EATON, Sturgis, S. D. Filed Oct. 25, 1913. Serial No. 797,295. (Cl. 32—6.)

1. A handle for dental trays, comprising pivoted jaws having teeth at their free extremities, one of the jaws having a third tooth forwardly located, the said teeth being adapted to engage open counterpart recesses, with which the said tray is provided.

2. The combination of a dental impression tray, having exteriorly projecting open recesses, and a handle including pivoted jaws equipped with teeth adapted to enter said recesses.



3. The combination of a dental impression tray, whose bottom is provided with three open exteriorly projecting recesses respectively arranged on opposite sides and on the central front portion thereof, and a handle composed of two centrally pivoted members, the parts forward of the pivot being provided with teeth arranged to enter the said recesses, whereby the handle is detachably connected with the tray, substantially as described.

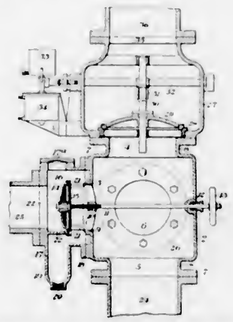
4. The combination of a dental tray, whose bottom is provided with exteriorly projecting covered recesses, the said recesses being arranged on opposite sides and at the central front portion thereof, respectively, and a handle having crossed centrally pivoted members, the parts forward of the pivot comprising jaws, whose free extremities are equipped with teeth adapted to enter the side recesses of the tray, one of the jaws being provided with a third tooth arranged to enter the other recess of the tray, the parts of the members forward of the pivot being equipped with coöperating interlocking parts, substantially as described.

5. A handle for dental impression trays, comprising two crossed members pivoted at their intersection and having rearwardly projecting jaws equipped with teeth at their free extremities, one of the jaws having a third tooth forwardly located, all the teeth lying in a common plane, the portions of the members forward of the pivot being provided with coöperating interlocking parts for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,204. COMBINED PIPE-FITTING, VALVE, AND SEPARATOR. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed Nov. 22, 1912. Serial No. 732,903. (Cl. 137—69.)



1. A combined fitting, valve, and separator, comprising a hollow member having a plurality of openings including a steam inlet opening and a main steam exit opening and attaching means at different sides thereof, a valve carried by the member and adapted to control the main steam exit opening and also to form a separator plate, and a separator chamber inclosing the valve and secured to the fitting proper, substantially as described.

2. A combined fitting, valve, and steam separator, comprising a hollow member having a plurality of its sides provided with openings including a steam inlet opening and a main steam exit opening, a separator chamber adjustably secured to one of said sides over the said main exit opening therein, and a combined separator and valve carried by the member and arranged to control the opening into the separator chamber, the separator chamber also having an outlet connection, substantially as described.

3. A combined pipe fitting, valve, and separator, comprising a hollow member having a steam inlet opening, a main steam outlet opening, another steam outlet opening, a relief valve controlling the last named outlet opening, a combined valve and separator controlling the main outlet opening, and a separator chamber secured to the exterior of said member over the main outlet opening and inclosing said valve said chamber also having a steam outlet connection to convey the steam passing into the chamber to a place of consumption; substantially as described.

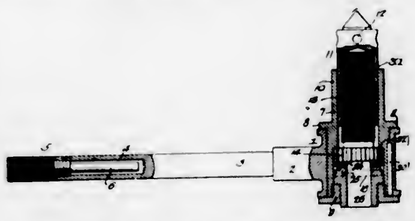
4. A combined pipe fitting, valve, and separator, comprising a hollow member having openings in different sides thereof, one of said openings having a valve seat at the outer end, a combined valve and separator plate adapted to said seat, and a separator chamber secured to the said member and inclosing the valve, said separator chamber having an outlet opening, and an internal baffle plate between the lower wall of said opening and the valve plate, substantially as described.

5. A pipe-fitting having a steam inlet opening and a main steam outlet opening, a steam separating chamber secured to the outer side of the fitting over said main outlet opening, and steam controlling and separating means within the separator chamber said fitting also having another steam outlet and an automatic relief valve controlling said outlet and the separating chamber also having a through steam passage; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,205. RATCHET-DRILL. THOMAS J. FEGLEY and GEORGE O. LEOPOLD, Philadelphia, Pa., assignors to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 17, 1913. Serial No. 774,144. (Cl. 77—48.)



1. The combination in a ratchet drill, of a casing; a shell secured to the casing; a chuck mounted in the shell, said chuck having a feed screw and a ratchet wheel thereon; pivoted pawls carried by the shell and arranged to engage the ratchet wheel; a shifter bearing upon both pawls and arranged so that when moved to one position, one pawl will engage the ratchet wheel and when moved to the opposite position the other pawl will engage the ratchet wheel; means for preventing longitudinal movement of the chuck in the shell; and a feed sleeve having an internal thread engaging the feed screw portion of the chuck.

2. The combination in a ratchet drill, of a casing; a shell secured to the casing; a chuck mounted in the shell having a feed screw and a ratchet wheel thereon; pivoted pawls carried by the shell and arranged to engage the ratchet wheel, one pawl arranged to allow the wheel to ratchet to the right and the other pawl arranged to allow the wheel to ratchet to the left; a shifter for the pawls so that one or the other of the pawls is thrown into engagement with the ratchet wheel; means for preventing longitudinal movement of the chuck in the shell, but allowing it to rotate freely therein; and a feed sleeve arranged to slide in the shell and having a thread arranged to engage the thread in the feed screw, the chuck having a tapered opening therein for the reception of the shank of a drill bit.

3. The combination in a ratchet drill, of a casing; a shell mounted in the casing and secured thereto; a chuck located in the shell and arranged to rotate freely therein and having a ratchet wheel integral therewith; pawls mounted on the shell and engaging the ratchet wheel; a cap secured to the shell and extending over the casing so as to hold the shell in the casing; a detachable sleeve located in the shell and having an opening therein and arranged to engage the chuck so that it will turn therewith, said sleeve being held in position by the cap.

4. The combination in a ratchet drill, of a casing; a shell secured to the casing; a chuck mounted in the shell and having an integral feed screw and an integral ratchet wheel; pawls carried by the casing and engaging the ratchet wheel; and a feed sleeve engaging the feed screw.

5. The combination in a ratchet drill, of a casing; a shell secured to the casing; a chuck mounted in the shell and having a ratchet wheel; the shell having a flange at one end and being screw threaded at the opposite end; and a flanged cap having a thread engaging the thread of the shell and acting to retain the casing and the chuck in the shell.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,206. PULL-SOCKET. CHARLES R. HARE, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 18, 1913. Serial No. 807,466. (Cl. 173—362.)



1. In a pull socket, a casing, a socket body within the same, a chain bell having a base mounted on said body, an insulating lining surrounding said socket body and having a slot embracing said base of the chain bell, said lining being bumped outward adjacent said slot to afford a clearance for the pull chain, substantially as described.

2. In a pull socket, a casing, a socket body within the same, a pull chain carried by the latter, a lining interposed between said socket body and casing, said lining having a slot to permit the passage of said chain therethrough, and being outwardly bumped adjacent said slot to afford a clearance for the chain, substantially as described.

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1,094,207. TRAVELING-CASE. CHARLES M. HOLLINGSWORTH, Washington, D. C. Filed Sept. 10, 1912. Serial No. 719,558. (Cl. 190—60.)

1. A case having a top and end portion, combined with a handle member mounted on the top and end to form a top handle and an end handle by which the case may be carried either horizontally or vertically, an umbrella holding clip mounted on the top, and a gripper for engaging the umbrella and coöperative with said handle member for retaining said umbrella when the case is carried vertically.



2. The combination of a traveling case with a handle member including a top handle section and an end handle section, of means coöperative with said handle member for retaining an umbrella on the case top when the case is upended and carried by the end handle member.

3. The combination of a traveling case with a handle member having a top handle section and an end handle section, and means connecting said handle sections together, in virtue of which when one handle section is in use the other handle section will be held flatwise against the case and vice versa,—an umbrella retaining device mounted on the case adjacent to one handle section, and including a member for gripping the umbrella, and connections between said member and the adjacent handle section for effecting the operation of said member.

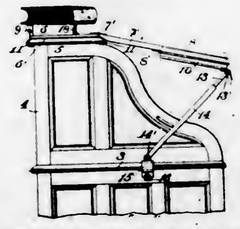
4. In a traveling case, the combination of a top and an end handle forming member and a connection between said members, an umbrella guide mounted on the case adjacent to one of said handle members, and means coöperative with one of said handle members for gripping the umbrella to the case when the end handle member is grasped to hold the case in a position to bring said umbrella into a vertical position.

5. The combination of a traveling case with a top handle member and an end handle member and a connection between said members, an umbrella guide mounted on said case and adjacent to one handle member for holding an umbrella in position on said case, and means coöperative with one of said handle members for gripping the umbrella to the case when said case is held in a position to bring said umbrella into a vertical position.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,208. STANDING-DESK ATTACHMENT FOR ROLL-TOP DESKS. ARTHUR J. HOWE, Pittsburgh, Pa. Filed June 25, 1910. Serial No. 568,822. (Cl. 45—90.)



1. The combination of a desk, a series of leaf-like sections hinged together for folding one on top of the other and for unfolding in extended top-forming relation, means for securing one of the sections to the desk top, supports at the exterior of the desk for the extended sections, each

support consisting of upper and lower members—one freely movable longitudinally of the other, a hinge connecting the upper support member to one of the extensible sections, and a hinge connection between the lower support member and the exterior of the desk, said latter connections being similarly positioned in either position of the attachment, and means for adjusting the last mentioned hinge connection toward and from the front of the desk.

2. The combination of a roll-top desk having projecting ledges at its ends, a supplemental top consisting of leaf like sections hinged together and adapted to fold into compact relation on the desk top with means for securing the attachment in position, arms for supporting the opposite ends of the top-forming portion when extended, each arm formed in telescoping sections with the upper end of the arm hinged to an extensible section of the supplemental top, and ledge-engaging clamps to which the lower ends of the arms are hinged, said clamps being similarly located in either position of the sections.

3. A supplemental desk attachment comprising a base section, means for securing said section to the top of a desk, molding projecting upwardly from a longitudinal edge of the base section, movable sections hinged together and to the opposite longitudinal edge of the base section, the movable sections folding together on top of the base section, and molding carried by the movable portion of the attachment and coöperating with the molding on the fixed section to provide an inclosing edge finish for the attachment when folded.

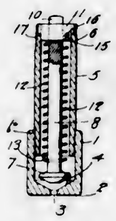
4. A supplemental desk attachment comprising a series of movably connected extensible leaf-like sections adapted to fold together one on top of the other, a strip hinged to turn upwardly on the lowermost section, the strip extending longitudinally of said section and positioned forwardly from the rear edge of the latter, and a molding extending upwardly from the rear edge of the lowermost section against which the other leaf-like sections fold, said strip and molding coöperating to form a book support.

5. The combination with a roll-top desk having projecting end ledges at the juncture of the desk proper and the roll-top portion, of a supplemental top formed in sections hinged together and adapted to unfold in extended relation and fold one on top of the other on the desk top, means securing one section of the supplemental top to the top of the desk, and longitudinally extensible supports wholly outside the desk and hinged at their upper ends to the supplemental top and at their lower ends to the said end ledges, the lower end connection being relatively fixed in similar location in either position of the sections.

[Claim 6 not printed in the Gazette.]

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1,094,209. AUTOMATIC DRAIN-VALVE. WILLIAM R. HUDDLESTON, Brownsville, Tex. Filed Aug. 26, 1913. Serial No. 786,772. (Cl. 188—73.)



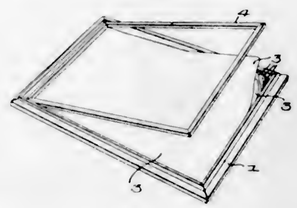
1. A valve casing for use in air brake systems for draining the system and comprising a pipe having its ends threaded and adapted to engage at one end the main reservoir of the system at the lower side thereof, a casing engaging the lower end of the pipe, said casing having its lower end partially closed and provided with a central opening, and with a tapered valve seat encircling the opening, a valve fitting the seat for closing the same, said valve having a stem extending upward through the pipe, said stem being slotted transversely at its upper end, a cross-head in the slot, the first-named pipe having diametrical recesses for receiving the ends of the cross head, and a coil spring encircling the stem, said spring having one of its ends connected with the cross head and the other with the stem, and acting normally to hold the valve in open position, said spring being adapted to yield to close the valve when the air pressure increases in the reservoir.

2. A valve casing for use in air brake systems for draining the system and comprising a pipe having its ends threaded and adapted to engage at one end the reservoir at the lower side thereof, a casing engaging the lower end of the pipe, said casing having its lower end partially closed and provided with a central opening, and with a tapered valve seat encircling the opening, a valve fitting the seat for closing the same, said valve having a stem extending upward through the pipe, said stem being slotted transversely at its upper end, a cross head in the slot, the first named pipe having diametrical recesses for receiving the ends of the cross head, a spring between the cross head and the stem and acting normally to hold the valve open and adapted to yield when the air pressure in the reservoir exceeds the atmospheric pressure.

3. A valve casing for use in air brake systems, and comprising a pipe adapted for engagement with the system at one end, a casing detachably connected with the other end of the pipe and having the end remote from the pipe partially closed and provided with a central port, a valve coöperating with the port for closing the same, a stem in connection with the valve and extending upwardly through the pipe and having its upper end transversely slotted, a cross head in the slot, for guiding the said upper end of the system, the ends of the cross head having a detachable connection with the pipe, and a spring arranged between the cross head and the stem and normally holding the valve away from the port.

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1,094,210. DRIP-PAN. ARTHUR E. HUGHES, Philadelphia, Pa., assignor to Foss-Hughes Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 26, 1913. Serial No. 775,975. (Cl. 184—106.)



1. A drip collecting device consisting of a relatively shallow container; a series of superposed pieces of flat sheet material within said container; and an open holder frame also fitting within the container adjacent the sides thereof and resting upon the topmost of the sheets therein.

2. The combination in a drip pan of a relatively shallow container; a series of flat superposed sheets of liquid proof material removably fitting within the same; and an open frame loosely resting upon the uppermost of said sheets and likewise removably fitted within the container.

3. The combination in a drip pan of an open frame having a bottom formed by a body of sheet material; a series of superposed sheets of oil proof material loosely fitting within the container formed by said frame and the bottom; with means for removably holding the sheets within said container.

4. The combination in a drip pan of an open frame having a bottom formed by a body of sheet material; a series of superposed sheets of oil proof material loosely fitting within the container formed by said frame and the bottom; with means for removably holding the sheets within said container; the same consisting of an open frame resting upon said sheets and loosely fitting within the first frame.

5. A drip collecting device consisting of a relatively shallow container; a series of superposed pieces of sheet material within the container; and a member engaging the topmost of said sheets at the edge thereof while leaving the body of the sheet exposed, for removably holding said sheets within the container.

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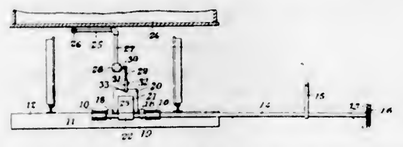
1,094,211. SPRING-HEEL. EUGENE JENOI and STEVE KRUCHIO, Thorpe, W. Va.; said Jenoi assignor of one-half of the entire right to Steve Kruchio, Rozalia Mary Szabo, and Sarah Kruchio, Uniontown, Pa. Filed Sept. 19, 1913. Serial No. 790,610. (Cl. 36—38.)



A spring heel comprising an inverted cup-shaped member secured to the heel portion of a shoe, a plate secured within said member, a transversely arranged cushioning block carried by said plate at the forward end thereof and extending completely across the plate, a second cushioning block arranged parallel with the first named block and carried by said plate at a point spaced from the rear end thereof, a heel proper telescoping within the inverted cup-shaped member, a horseshoe shaped plate closed at its forward end carried by the inner face of the heel proper, and cushioning springs extending between the two plates, the forward cushioning block adapted to engage the closed end of the horseshoe plate while the rearward cushioning block engages at its ends the sides of said horseshoe plates upon complete compression of said springs.

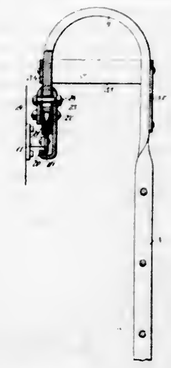
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1,094,212. SAFETY APPLIANCE FOR RAILWAYS. SOREN JENSEN, Racine, Wis. Filed Aug. 20, 1912. Serial No. 716,045. (Cl. 246—59.)



In train stopping apparatus, the combination with a trackway, of horizontally alining bearings disposed between the rails of said trackway, a shaft journaled in said bearings, blocks carried by said shaft between said bearings, a second shaft journaled in said blocks, a tripper plate pivotally mounted upon said last shaft, a collar surrounding the first-mentioned shaft below the second-named shaft, spring arms formed integral with said collar and extending upwardly at opposite sides of said tripper plate and embracing the latter and acting to hold the tripper plate against swinging movement on the second-named shaft, means for rotating said first shaft to swing the tripper plate to active and inactive positions, a train-carried device comprising a valve connected in the train line air pipe, a handle on said valve, and a striker bar mounted on said handle and adjustable thereon and adapted to engage said tripper plate when the latter is in active position whereby the pressure of the train line air will be reduced.

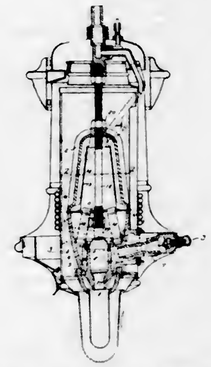
1,094,213. FIRE-ESCAPE. ANDREW FULTON JONES, Sacramento, Cal. Filed Sept. 10, 1913. Serial No. 789,038. (Cl. 228—30.)



A fire escape, comprising a box-like truck having a plurality of carrying wheels adapted to roll on a track, said truck being provided with an upturned flange to guidingly infold said track; a track adapted for permanent mounting upon a standing structure to support said truck and the carrying wheels thereof; a plurality of guide pulleys mounted on said track; an operating cable for said truck, and a ladder having at the upper end thereof bowed arches operatively connected with said truck, said arches being provided adjacent the connected ends thereof with elongated slots, and securing bolts for uniting said truck and the ends of said arches to pass through said slots, to form pivots for balancing said ladder and arches.

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1,094,214. GAS-LAMP. GEORGE KEITH, London, England, assignor of one-half to James Keith, London, England. Filed Nov. 3, 1913. Serial No. 798,940. (Cl. 67—94.)



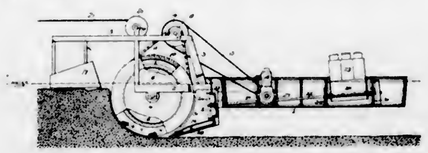
1. In an inverted incandescent gas lamp, in combination, a heater for the mixture of gas and air, a metallic nozzle in thermal contact with said heater, said nozzle having an extension located within said heater and spaced from the wall of said heater, a partition fitted in the space between said extension and the wall of said heater and affording a gyratory chamber having a perforated wall, an injector tube serving to lead a mixture of gas and air into the interior of said chamber, and ducts within the heater serving to lead upwardly within the heater the mixture escaping through the perforations in the wall of said chamber and so arranged as to leave for passage

of the mixture a path surrounding said ducts and leading to the interior of the nozzle.

2. In an incandescent gas lamp, in combination, a heater for the mixture of gas and air, a metallic nozzle having an extension located within said heater, said extension being spaced from the interior wall of said heater, a partition fitted in the space between said extension and the wall of said heater and affording a chamber having an outlet, a tube serving to lead a mixture of gas and air into the interior of said chamber and guiding means for leading the mixture issuing from the outlet in said chamber in contact with the hot wall of the heater and thence to the interior of the nozzle.

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1,094,215. EXCAVATOR. VOLNEY P. KELLER, Malvern, Pa. Filed Mar. 17, 1910. Serial No. 549,945. (Cl. 37—17.)



1. The combination, in an excavator, of a scow, a water tight drum in advance of the hull of the scow, transverse cutters carried by said drum and providing spaces between the same and the drum, means for causing a forwardly flowing current of water to pass under the drum and through the spaces between the same and the cutters, and means for confining said current of water within the lateral limits of the drum.

2. The combination, in an excavator, of a scow, a water tight drum located in advance of the hull of the scow, transverse cutters carried by said drum and providing spaces between the same and the drum, means for causing a forward flow of water underneath the drum and through the spaces between the same and the cutters, means for confining said flow of water within the lateral limits of the drum, and means for subdividing such flow of water within such limits.

3. The combination of a scow, a rotary cutter in advance of the same, means for causing forwardly flowing currents of water through said cutter, and side aprons for preventing lateral escape of the water on its way to the cutter.

4. The combination of a scow, a rotary cutter in advance of the same, pivoted and vertically movable arms carrying said cutter, means for causing forwardly flowing currents of water through the cutter, and side aprons secured to the cutter carrying arms and serving to prevent lateral escape of the water on its way to the cutter.

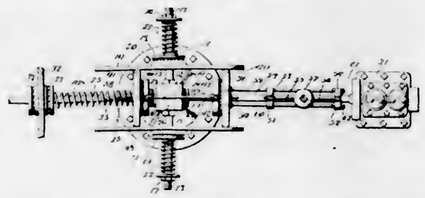
5. The combination of a scow, a rotary cutter in advance of the same, a vertically movable support for said cutter, means for causing forwardly flowing currents of water through the cutter, a lower apron for directing said currents of water to the cutter, and side aprons having pivotal connection with said lower apron and carried by the vertically adjustable cutter support, said aprons serving to prevent lateral escape of the water on its way to the cutter.

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1,094,216. GEARING. RAY E. KELLOGG, Indio, Cal. Filed May 5, 1911, Serial No. 625,162. Renewed Oct. 30, 1913. Serial No. 798,330. (Cl. 74—26.)

1. A driving shaft, a driven shaft, a friction wheel, a friction pinion slidable upon said driving shaft and partaking of its motion and engaging said friction wheel, another friction pinion slidable upon said driven shaft and partaking of its motion and engaging said friction wheel, means for coupling said friction pinions to move together, and a speed-governor connected to said driving shaft and to the sliding friction pinion upon the same.

2. A supporting standard, a driving shaft extending from said standard, a driven shaft extending from said standard, friction wheels mounted for rotation upon said standard and spaced apart, a friction pinion slidable upon said driving shaft and partaking of its motion and engaging said friction wheels, another friction pinion slidable upon said driven shaft and partaking of its motion and engaging said friction wheels, means for coupling said friction pinions to move together, and a speed governor connected to said driving shaft and to the sliding friction pinion upon the same.



3. A supporting standard, a shaft extending transversely of said standard, a driving shaft and a driven shaft mounted for independent rotation in said standard, friction wheels mounted for rotation upon said transverse shaft and spaced apart, a friction pinion slidable upon said driving shaft and partaking of its motion and engaging said friction wheels, another friction pinion slidable upon said driven shaft and partaking of its motion and engaging said friction wheels, means for coupling said friction pinions to move together, and a speed governor connected to said driving shaft and to the sliding friction pinion upon the same.

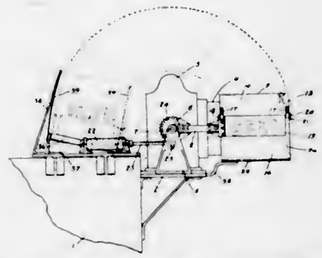
4. A driving shaft, a driven shaft, a friction wheel, a friction pinion slidable upon said driving shaft and partaking of its motion and engaging said friction wheel, another friction pinion slidable upon said driven shaft and partaking of its motion and engaging said friction wheel, an annular bearing member operatively engaging each of said friction pinions, tie rods connecting said bearing members, a spring bearing against one of said friction pinions, and a speed governor connected to said other friction pinion and to the driving shaft.

5. A driving shaft, a driven shaft, a friction wheel, a friction pinion slidable upon said driving shaft and partaking of its motion and engaging said friction wheel, another friction pinion slidable upon said driven shaft and partaking of its motion and engaging said friction wheel, tie rods connecting said friction pinions to cause them to move together, and a speed governor connected to said driving shaft and to the sliding friction pinion upon the same.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,217. RAILWAY SIGNALING DEVICE. THOMAS J. KELLY, Denver, Colo. Filed July 10, 1913. Serial No. 778,325. (Cl. 240—47.)



1. A cover for locomotive headlights comprising a hood adapted to shield light from the headlight, means for moving said hood from shielding position, a number appearing upon the hood, and pivoted means carried by the hood adapted to disclose the number printed on the hood as the latter swings from shielding position.



2. A cover for locomotive headlights comprising a hood, a designation provided thereon, a plate pivoted to the hood adapted to cover the designation, the designation being inverted when the hood is shielding the light, and means for moving the hood from shielding position to a position where the plate will swing to disclose the designation right side up.

3. A cover for locomotive headlights comprising a hood, numerals on the hood in inverted position when the hood is shielding light from the headlight, means for swinging said hood through a vertical arc of substantially one hundred and eighty degrees, and a plate pivoted to the hood adapted to cover the numerals when they are inverted, but adapted to swing to disclose the same when the numerals are right side up.

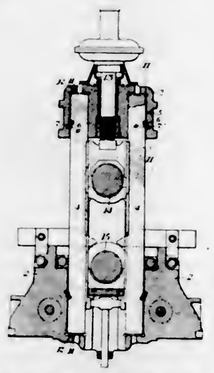
4. A cover for locomotive headlights comprising a hood adapted to shield light from the headlight and swing in a vertical arc, one side of the hood being open, numerals appearing upon the hood, means within the hood for illuminating the numerals, a guard pivoted to said hood adjacent the open side thereof, and means for swinging the hood in a vertical arc, said guard adapted to swing to close the open side of the hood, as the latter swings in a vertical arc.

5. A cover for locomotive headlights comprising a hood adapted to shield the light from the headlight, means for removing the hood from shielding position, and means for controlling said actuating means, and locomotive designating characters carried by said hood and adapted to be in front of the headlight and illuminated thereby when said hood is in shielding position.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,218. ROLLING-MILL. JULIAN KENNEDY, Pittsburgh, Pa. Filed Mar. 7, 1913. Serial No. 752,607. (Cl. 80—55.)



1. In a rolling mill, a housing member having a column socket therein, a column extending into said socket with its end seated against the base thereof, and wedging key means for securing the column, said key means being driven between a wall of the socket and a side of the column and acting to force the end of the column against the base of the socket, substantially as described.

2. A rolling mill having a housing member formed with an angular socket therein, a column member having an angular cross section and fitting within the socket with its end seated against the base thereof, and a wedging key member driven between a wall of the socket and the side bearing of the column and acting to force the end of the column against the base of the socket, substantially as described.

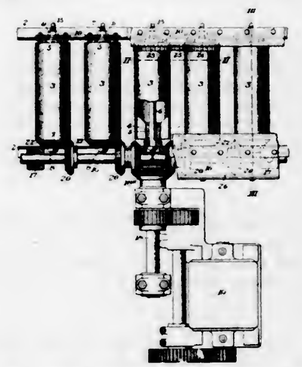
3. A rolling mill having a housing member formed with a socket therein, a column member extending into said socket with its end seated against the base thereof, said column member and socket having opposing key seats, and a driven wedging key in said seats, said seats having bearing walls which are oblique to the vertical axis of the column and acting to force the end of the column against the base of the socket, substantially as described.

4. A rolling mill having a housing member formed with a vertical socket therein, a column member extending into said socket with its end seated against the base thereof, said column member and socket having opposing key seats with bearing walls which are oblique to the vertical axis of the column, and a divided wedging key driven in said seats, substantially as described.

5. A rolling mill having a housing member formed with a vertical socket therein, a column member extending into said socket, said column member and socket having opposing key seats with bearing walls which are oblique to the vertical axis of the column, said column seating on the bottom of the socket, and wedging means driven in said seats arranged to force the end of the column against the bottom of the socket; substantially as described.

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1,094,219. MILL-TABLE. JULIAN KENNEDY, Pittsburgh, Pa. Filed Apr. 17, 1913. Serial No. 761,740. (Cl. 80—44.)



1. A mill table comprising side members, a fixed roll shaft secured in said members, a roll journaled on said shaft, and a beveled driving gear directly engaging the end of the roll and working through an opening in one of the side members, substantially as described.

2. A mill table comprising parallel side members, one of which has openings therethrough, fixed roll shafts secured in said members, rolls journaled on said shafts, a side drive shaft journaled in bearings secured to the last named side member and at substantially right angles to the roll shafts, and driving gears on said shaft and on the rolls, said gears being in direct engagement with each other through one of said members, substantially as described.

3. A mill table comprising side members, one of which has openings therein, a series of fixed shafts secured in said side members, rolls journaled on said shafts and having gear portions at one end, a sectional side drive shaft mounted in bearings secured to the side member having the openings, means for driving the sections of said shaft, the table roll opposite the adjacent ends of the shaft section having spur gear connections with an adjacent roll, and driving gears on the shaft sections engaging the gear portions on the other rolls through said openings, substantially as described.

4. A mill table comprising side members, one of which has openings therein, a series of shafts secured in said side members, rolls journaled on said shafts and having beveled gear portions at one end, a sectional side drive shaft mounted in bearings secured to the side member having openings and at substantially right angles to the fixed shafts, a bevel gear connected to each section of the side

drive shaft, a driving shaft extending at right angles to the sectional side drive shaft, a bevel gear connected to the driving shaft and meshing with the bevel gears on the sections of the sectional drive shaft, and a plurality of bevel gears mounted on the sectional side drive shaft, said bevel gears extending through the openings in the side member and meshing with the bevel gear portions on the ends of the rolls, substantially as described.

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1,094,220. BRAKE-SHOE. JOHN JACOB KINZER, Wildwood, Pa., assignor to Pittsburg Brake Shoe Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 2, 1913. Serial No. 765,120. (Cl. 188—27.)



1. A brake shoe comprising an inclosing casing of cast metal having integral back, end and side walls, said side walls being provided with semi-pyramidal shaped corrugations, and a filling of frictional material within said casing.

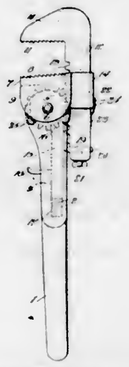
2. A brake shoe comprising an inclosing casing of cast metal having integral back, end and side walls, a lug on the back of said casing formed integral therewith said side walls being provided with semi-pyramidal shaped corrugations, and a filling of frictional material within said casing.

3. A brake shoe comprising an inclosing casing of cast malleable metal having integral back, end and side walls, said side walls being provided with semi-pyramidal shaped corrugations, and a filling of frictional material within said casing.

4. A brake shoe comprising an inclosing casing of cast malleable metal having integral back, end and side walls, a lug on the back of said casing formed integral therewith said side walls being provided with semi-pyramidal shaped corrugations, and a filling of frictional material within said casing.

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1,094,221. WRENCH. JAMES H. KUHNS, Tulsa, Okla. Filed Aug. 9, 1913. Serial No. 783,923. (Cl. 81—127.)



1. A wrench comprising a handle having one of its ends recessed, a gear wheel journaled in the recess, a gripping jaw having oppositely arranged lugs engaging opposite faces of the handle, a pivot pin connecting the lugs to the handle, the gear wheel being journaled on the said pin, said gripping jaw having a bearing extending laterally from the handle, a movable jaw having a shank engaging the bearing and moving substantially parallel with the handle, the shank having teeth for engagement by the gear wheel, normally active means for engaging the gear wheel to prevent rotation thereof, said means being releasable, and means for limiting the movement of the movable jaw away from the fixed jaw.

2. A wrench comprising a handle having one of its ends rounded to form a grip, and having at the other end a pair of longitudinally extending spaced bearing lugs, and having a recess extending longitudinally of the said handle from between the bearing lugs, and having a slot leading from the said recess intermediate the ends thereof to one edge of the said handle, a gear wheel journaled between the bearing lugs, a pawl in the recess for engaging the gear wheel, a spring normally pressing the pawl toward the gear wheel, a fixed jaw having bearing lugs engaging outside the lugs of the handle, a journal pin connecting the lugs upon which the gear wheel is journaled, said fixed jaw having a bearing extending on the opposite side of the handle from the finger piece, and a movable jaw having a lateral shank slidable in the bearing and provided with rack teeth for engagement by the gear wheel.

3. A wrench comprising a handle, said handle being transversely recessed at one end to form laterally spaced longitudinally extending bearing lugs, a fixed jaw having bearing lugs extending alongside the lugs of the handle, a gear wheel between the bearing lugs of the handle, a pivot pin connecting the lugs of the handle and the fixed jaw, the gear wheel being journaled on the pin, said fixed jaw having a bearing, a movable jaw having a lateral shank sliding in the bearing, said shank having teeth for engaging the gear wheel, a spring pressed pawl on the handle for engaging the gear wheel to prevent rotation thereof, and means for permitting the pawl to be moved away from the gear wheel.

4. A wrench comprising a handle, said handle being transversely recessed at one end to form laterally spaced longitudinally extending bearing lugs, a fixed jaw having bearing lugs extending alongside the lugs of the handle, a gear wheel between the bearing lugs of the handle, a pivot pin connecting the lugs of the handle and the fixed jaw, the gear wheel being journaled on the pin, said fixed jaw having a bearing, a movable jaw having a lateral shank sliding in the bearing, said shank having teeth for engaging the gear wheel, and a spring pressed pawl on the handle for engaging the gear wheel to prevent rotation thereof.

5. A wrench comprising a handle, a movable jaw pivoted to one end of the handle and having a bearing extending laterally from the handle, a fixed jaw having a shank slidable in the bearing and provided with teeth at the edge adjacent to the handle, a gear wheel journaled on the pivotal connection of the movable jaw and the handle and engaging the teeth of the shank, releasable means for locking the gear wheel from movement, said shank having a transverse opening at the end remote from the fixed jaw, a pin movable in the opening for engaging the bearing to prevent disengagement of the shank from the bearing, and means for securing the pin in adjusted position.

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1,094,222. PROCESS OF PRODUCING ISOPRENE. LUCAS PETRON KYRIAKIDES and RICHARD BLAIR EARLE, Boston, Mass., assignors to Hood Rubber Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 11, 1911. Serial No. 659,828. (Cl. 23—24.)

1. A process for producing isoprene, which comprises passing the vapors of an isoamylene oxid over a heated dehydrating catalytic.

2. A process for producing isoprene, which comprises passing the vapors of an isoamylene oxid over a heated dehydrating catalytic at less than atmospheric pressure.

3. A process for producing isoprene, which comprises passing the vapors of an isoamylene oxid over heated aluminum silicate.

4. A process for producing isoprene which comprises passing the vapors of an isoamylene oxid over heated aluminum silicate at less than atmospheric pressure.

5. A process for producing isoprene which comprises passing the vapors of an isoamylene oxid over a dehydrating catalytic at a temperature between 400° and 600° C.

[Claims 6 to 9 not printed in the Gazette.]



1,094,223. PROCESS FOR PRODUCING ISOPRENE. LUCAS PETRON KYRIAKIDES, Boston, Mass., assignor to Hood Rubber Company, a Corporation of Massachusetts. Filed Jan. 17, 1912. Serial No. 671,715. (Cl. 23—24.)

1. The process of producing isoprene which consists in bringing the vapors of a methylbutandiol into contact with a heated dehydrating catalytic.

2. The process of producing isoprene which consists in passing the vapors of a methylbutandiol over a heated dehydrating catalytic.

3. The process of producing isoprene which consists in passing the vapors of a methylbutandiol over a heated dehydrating catalytic at a reduced pressure.

4. The process of producing isoprene which consists in passing the vapors of 1.3 dihydroxy-2-methylbutane over a heated dehydrating catalytic at a reduced pressure.

5. The process of producing isoprene, which consists in passing the vapors of 1.3-dihydroxy-2-methylbutane, over a heated dehydrating catalytic.

[Claims 6 to 8 not printed in the Gazette.]

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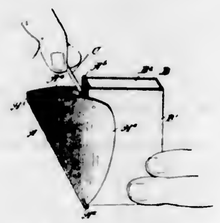
1,094,224. PROCESS FOR PRODUCING 1,3-DIOLS. LUCAS PETRON KYRIAKIDES and RICHARD BLAIR EARLE, Cambridge, Mass., assignors to Hood Rubber Company, a Corporation of Massachusetts. Filed Dec. 21, 1912. Serial No. 738,104. (Cl. 204—9.)

1. The process for producing 1,3-diols by the electrolytic reduction of ketone-alcohols in acid media.

2. The process for producing 1,3 diols by the electrolytic reduction of ketone-alcohols in dilute sulfuric acid solution using lead electrodes.

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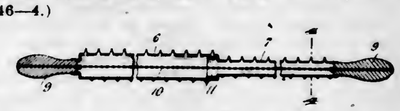
1,094,225. WIND-SHIELD FOR MATCH-BOXES. FREDERICK C. LAMBERT, New York, N. Y., assignor of one-half to George J. Koch, New York, N. Y. Filed Oct. 24, 1913. Serial No. 797,053. (Cl. 206—36.)



1. A wind shield for use on a match box having a casing and a drawer slidable in the casing, comprising an attaching member adapted to engage the inner face of one of the sides of the casing, one end of the attaching member having a flange engaging one edge of the casing side, and a shield having a back and wings extending at right angles therefrom, the said shield back being pivotally connected with the other end of the said attaching member and the said wings being adapted to fit exteriorly on the front and rear of the casing.

2. A wind shield for use on a match box having a casing and a drawer slidable in the casing, comprising an attaching member adapted to engage the inner face of one of the sides of the casing, one end of the attaching member having a flange engaging one edge of the casing side, a shield having a back and wings extending at right angles from the back, and a hinged connection between one end of the said shield back and the other end of the attaching member, whereby to permit the wings of the shield to be adjusted upon the exterior surfaces of the casing front and rear, said shield back being provided with draft openings, adjacent the hinged connection, all for the purpose described.

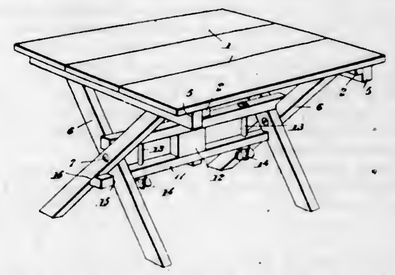
1,094,226. IMPLEMENT FOR STOPPING PNEUMATIC-TIRED VEHICLES. CONSTANT LE DUC, Chatsworth, N. J. Filed June 4, 1913. Serial No. 771,741. (Cl. 46—4.)



An implement of the character described comprising telescoping parts of similar formation, each having rows of outwardly extending teeth and the inner part having its inner end enlarged, handles at the outer ends of the parts and a flexible connection joining the handles and limiting the outward movement of the parts.

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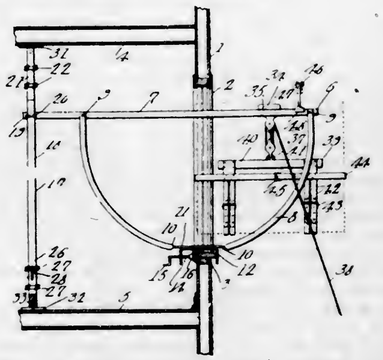
1,094,227. FOLDING STAND. ELLIS A. LOTZ, Harrisburg, Pa. Filed Aug. 19, 1913. Serial No. 785,537. (Cl. 45—11.)



In a stand of the character specified the combination of end pieces comprising crossed legs pivotally connected at their point of crossing, spaced bars having their end portions engaging the crossed legs upon opposite sides of their pivotal connection, said bars having portions cut away to receive the legs, and means for drawing the bars together to cause their end portions to engage the crossed legs by a wedging action.

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1,094,228. COMBINATION HOISTER AND CARRIER. NELSON P. LUND, Houlton, Me. Filed July 21, 1913. Serial No. 780,238. (Cl. 212—135.)



1. In a device for hoisting articles through a window, a support including a track and sill engaging means located below the track and between the forward and rear ends of the track; a carriage mounted to move along the track; hoisting means supported by the carriage; and a frame attached to the rear end of the sup-

port, the frame including relatively movable ceiling engaging and floor engaging parts; and means for holding said parts in adjusted positions.

2. In a device for hoisting articles through a window, an upright frame; tracks secured to the frame intermediate the upper and lower ends of the frame; depending braces secured to the tracks and provided at their lower ends with support engaging means located intermediate the forward and rear ends of the braces; a carriage mounted to move on both tracks; and hoisting means connected with the carriage, the carriage and the hoisting means being mounted to move toward the frame, between the braces.

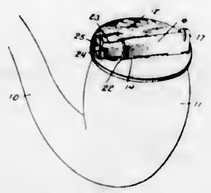
3. In a device for hoisting articles through a window, a longitudinally extensible frame comprising floor engaging and ceiling engaging parts; a support including a track and a depending, building engaging brace extended below the track; means for connecting the support with the frame at different points intermediate the ends of the frame, thereby to render the brace effective; a carriage mounted to move along the track; and hoisting means connected with the carriage.

4. In a device for hoisting articles through a window, an upright floor engaging and ceiling engaging frame; a support including a track and a depending building engaging brace extended below the track; means for connecting the inner end of the support with the frame at points intermediate the upper and lower ends of the frame, thereby to render the brace effective; a carriage mounted to move along the track; and hoisting means carried by the carriage.

5. In a device for hoisting articles through a window, an upright frame comprising slidable connected parts; a clamp connecting the parts of the frame; a track disposed at an angle to the frame; a clamp connecting the track with one of the parts of the frame; a brace depending from the track; a clamp carried by the lower portion of the brace; a carriage mounted to move along the track; and hoisting means mounted on the carriage.

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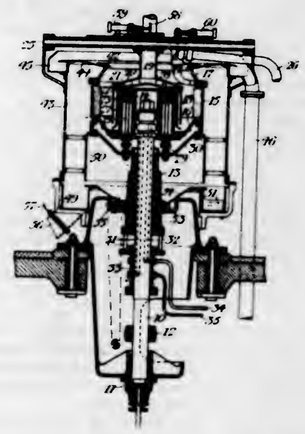
1,094,229. PIPE-CAP. SILAS NOTT MALTERNER, Canton, N. Y. Filed Mar. 21, 1913. Serial No. 755,842. (Cl. 131—12.)



1. A cap for tobacco pipes comprising a disk-like plate having pairs of slots therethrough, a substantially channel-shaped section having extensions disposed through the slots for securing the same thereto and having hooks to engage the interior surface of a pipe bowl, a movable section operable in the first-mentioned section and having a similar engaging member movable through the plate, and spring means between the sections adapted to hold the same normally distended one with respect to the other, said engaging members being extended in opposite directions and having tapered bills.

2. A cap of the class described, comprising a cover plate having a slot therethrough, an inverted channel-shaped guide section anchored to the plate and having integral engaging hooks extending through the same, a movable section operating in the first-named section and having a similar hook movable in the slot and disposed on a line between the aforesaid hooks, said sections having end walls provided with passages, and a coiled spring between said end walls for moving the last-named section in clamping position.

1,094,230. CENTRIFUGAL MACHINE. GUSTAV TER MEER, Hanover, Germany. Filed Dec. 10, 1913. Serial No. 805,694. (Cl. 127—3.)



1. A centrifugal machine for separating mixtures including foam forming liquids, comprising a drum adapted to receive a stream of said mixture and having a peripheral wall against which the heavier or solid portions of said mixture may collect and be retained within said drum when said drum is rotated at high speed, and an overflow edge over which the foam forming liquid may be thrown out at high speed, an annular trough receiving said liquid and a stationary annular ascending wall receiving said liquid directly from said overflow edge, and delivering it to said trough at such reduced speed that it will enter said trough without foam formation.

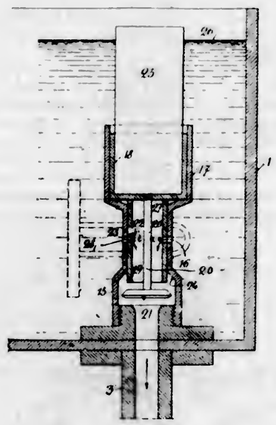
2. A centrifugal machine for separating mixtures including foam forming liquids comprising a drum adapted to be rotated at high speed and having a delivery edge from which the foam forming liquid may be delivered by centrifugal force at high speed, an annular trough encircling said drum, and including inner and outer peripheral wals and a stationary annular upwardly and outwardly inclined wall supported by the inner peripheral wall of said trough and extending across the upper edge of the latter, said wall receiving liquid directly from said delivery edge without shock and delivering it to said trough at such reduced speed as will prevent the formation of foam as said liquid leaves said wall in said trough.

3. A centrifugal machine for separating mixtures including foam forming liquids comprising a drum adapted to retain the heavier or solid portions of said mixture, and having an upwardly and outwardly inclined annular overflow lip or flange and a stationary upwardly and outwardly inclined annular wall closely adjacent to said lip or flange, the surface of said wall being at a very slight angle to the direction of flow of said liquid as it leaves said lip or flange and serving to receive said liquid and gradually slow down the movement of the latter and permit it to flow from said wall substantially without foam formation.

4. A centrifugal machine for separating mixtures including foam forming liquids comprising a drum adapted to retain the heavier or solid portions of said mixture, and having an overflow edge and a stationary upwardly and outwardly inclined annular wall closely adjacent to said overflow edge, the surface of said wall being at a very slight angle to the direction of flow of said liquids as it leaves said overflow edge and serving to receive said liquid and gradually slow down the movement of the latter and permit it to flow from said wall substantially without foam formation.



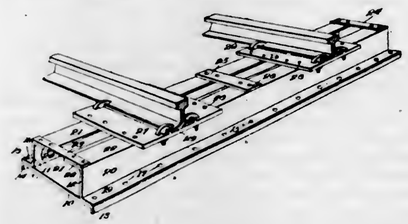
1,094,231. STEAM WARMING SYSTEM. GEORGES MENNESSON, Troyes, France. Filed July 30, 1908. Serial No. 446,197. (Cl. 122—451.)



In a system of heating by a generator having pulsatory vibration, the combination with a feed reservoir, of a distributer of water introduced between said feed reservoir and the generator and comprising a stationary casing having a lower chamber, an intermediate cylindrical chamber and an upper cylindrical chamber, said chambers communicating with each other, the lower chamber having an outlet for the water toward the generator and said intermediate chamber having lateral inlets for the water and a movable system comprising a valve, a hollow cylindrical slide valve and a piston associated with both of said valves, the first mentioned valve of said movable system being adapted to close the communication between the lower chamber and the intermediate chamber, said slide valve being adapted to slide in the intermediate chamber and having lateral inlets for the water as well as being open at both of its ends, the said piston being adapted to slide in the upper cylindrical chamber.

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1,094,232. RAILWAY CROSS-TIE. JOHN H. MESSNER, Pittsburgh, Pa. Filed Sept. 17, 1913. Serial No. 790,304. (Cl. 238—5.)



A railway tie including a base plate, downwardly extending anchoring flanges formed on the longitudinal edges of the base plate, side walls carried by the base plate, outwardly extending flanges formed on the side walls, means securing the flanges to the base plate adjacent the longitudinal edges thereof, closure plates formed on the upper edges of the walls and extending inwardly toward the center of the tie, the inner edges of the closure plates being spaced from each other, and means for holding the closure plates in spaced relation.

1,094,233. HAND-ELEVATOR FOR PACKAGES. ERNEST G. METHVIN, Deming, N. Mex. Filed June 4, 1913. Serial No. 771,700. (Cl. 57—113.)



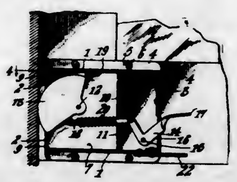
1. In a device of the class described, the combination with a stem, of a stationary gripping member thereon, a movable gripping member slidably supported on the stem, a spring encircling the stem and interposed between the said members, with one end of the spring abutting against the stationary member, a securing member slidable on the stem and having connection with the movable gripping member for actuating the same, with the other end of the spring abutting against the said securing member, and means carried by the stem for actuating the securing member.

2. In a device of the class described, the combination with a stem, of a stationary gripping member thereon, a movable gripping member slidably supported on the stem, a spring encircling the stem and interposed between the said members, with one end of the spring abutting against the stationary member, a securing member slidable on the stem and having connection with the movable gripping member for actuating the same, with the other end of the spring abutting against the said securing member, means carried by the stem for actuating the securing member, a lever mounted to swing on the stem, and a rod having connection with the lever and slidably passing through the rod and the gripping member to connect with the securing member and actuate the same.

3. In a device of the class described, the combination with a stem, of a stationary gripping member thereon, a movable gripping member mounted to slide on the stem, a securing member operable in a longitudinal slot of the stem and having connection with the movable gripping member, a lever mounted to swing on the stem, and a rod having connection with the lever and slidably passing through the rigid gripping member to connect with the securing member for actuating the same when the said lever is actuated.

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1,094,234. WINDOW-HOLDER. ARTHUR A. MILLER, Kapowsin, Wash. Filed Nov. 18, 1913. Serial No. 801,633. (Cl. 16—19.)



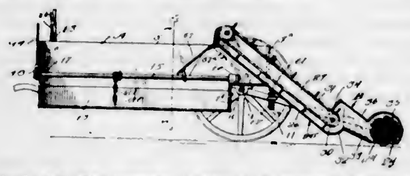
1. In a window holder of the character described, the combination with a casing provided with attaching means and having one end thereof open, of stops adjacent said

open end, a cam housing slidably mounted within said casing, a cam pivotally mounted therein and having one edge projecting therefrom and through the open end of said casing, means within said housing to limit the outward movement of said cam, means adapted to retract said cam, means connected with said last mentioned means to hold said cam in projected position and a spring to normally retain said housing in yieldable engagement with said stop.

2. In a window holder of the character described, the combination with a casing provided with attaching means and having one end thereof open, of stops adjacent said open end, a cam housing slidably mounted within said casing, a cam pivotally mounted therein and having one edge projecting therefrom and through the open end of said casing, a pivotally mounted finger press, a connecting member having one end secured to the inner end of said finger press, the opposite end thereof being secured to said cam whereby the latter may be retracted, means disposed upon said connecting member and adapted to hold said cam in projected position and a spring to normally retain said housing in yieldable engagement with said stops.

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1,094,235. STREET-SWEEPER. NELLIE M. MILLER and GEORGE R. EVANS, Washington, D. C. Filed June 19, 1912. Serial No. 704,622. (Cl. 15—17.)

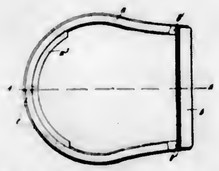


1. In a street sweeper, a vehicle, a sweeping brush supported from said vehicle for rotation, a hood covering said brush, an open topped inclined casing extending upward from the lower rear end portion of the hood, a conveyer provided with flights arranged to force material up said casing, and means to close the upper rear portion of the hood, said means being yieldable to permit passage of the conveyer flights.

2. In a street sweeper, a vehicle, a sweeping brush supported from said vehicle for rotation, a hood covering said brush, an open topped inclined casing extending upward from the lower rear end portion of the hood, a conveyer provided with flights arranged to force material up said casing, and means to close the upper rear portion of the hood, said means being yieldable to permit passage of the conveyer flights, and comprising a shutter hinged to the upper rear edge of the hood and provided with a spring normally holding the shutter closed.

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1,094,236. DEVICE FOR USE IN CONNECTION WITH PRACTISING GOLF. CHARLES HAMILTON MINSHALL, Exmouth, England. Filed Dec. 10, 1912. Serial No. 736,003. (Cl. 46—4.)



1. A device for use in connection with practising golf comprising in combination, a frame having a suitable opening through which the ball is driven and a deformable obstructing member located across said opening.

2. A device for use in connection with practising golf comprising in combination, a frame having a suitable opening through which the ball is driven, and an elastic band secured to said frame and extending across said opening.

3. A device for use in connection with practising golf comprising a frame, a deformable obstructing member located in the opening of said frame and an inclined inner surface on said frame opposite said obstructing member.

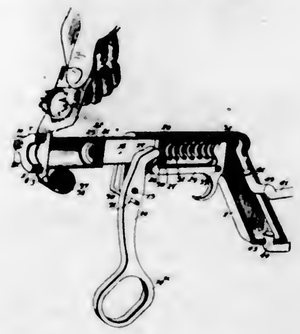
4. A device for use in connection with practising golf, comprising a U-shaped frame, a flexible member extending across said opening, and an inclined inner surface opposite said flexible member.

5. A device for use in connection with practising golf comprising a frame having a suitable opening therein, a flexible member located in said opening and adjustable supporting feet on said frame.

[Claim 6 not printed in the Gazette.]

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1,094,237. TOY GUN. THOMAS J. NASH, Lincoln, Nebr. Filed Mar. 21, 1913. Serial No. 755,834. (Cl. 46—46.)



1. A pneumatic gun having an air chamber in the barrel end thereof, a piston having a slot, means for forcibly moving the piston forwardly, a piston setting lever having a heel to enter said piston-slot for moving the piston rearwardly, a trigger having a projection to enter said piston slot for holding the piston at its lever set position, a fracturable diaphragm, and means for holding the said diaphragm air-tight over the end of the gun barrel, the said means being connected with and adjusted by the movements of the piston setting lever.

2. A pneumatic gun having an air chamber in the barrel end thereof, a piston having a slot, means for forcibly moving the piston forwardly, a piston setting lever having a heel to enter said piston slot for moving the piston rearwardly, a trigger having a projection to enter said piston-slot for holding the piston at its lever set position, a fracturable diaphragm, a member for engaging the diaphragm to hold it air-tight over the end of the gun barrel and means coöperatively connecting the said member with the said lever by virtue of which, when the said lever is moved to set the piston, the said member is released from the said diaphragm.

3. A pneumatic gun having an air chamber at the barrel end thereof, a piston having a slot, means for forcibly moving the piston to its shooting position, a fracturable diaphragm, a member for holding the diaphragm air-tight over the outer end of the barrel, a piston setting lever having a heel to enter said piston-slot for setting the piston to its firing position, a trigger device having a projection to enter said piston-slot for holding it in the cocked position, and connections that coöperate with the diaphragm holding member and the piston setting lever arranged for moving the diaphragm holding member to release the diaphragm as the lever is moved to set the piston and to engage the said diaphragm as the said lever is returned to its normal position.

4. A pneumatic gun having an air chamber in the barrel end thereof, a piston having a longitudinal slot, means for forcibly moving the piston forwardly, a piston setting lever having a heel to enter said piston slot, a trigger for holding said piston at its lever set position, a fracturable



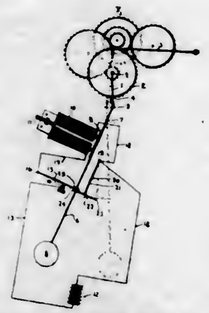
diaphragm, means for engaging the diaphragm to hold it air tight over the end of the gun barrel, said means including a washer having an annular flange in its inner side, a gasket on the flange, said gasket being wider than the flange to extend rearwardly thereof, and means cooperatively connecting the said washer with the piston setting lever by virtue of which as the lever is moved to set the piston the washer and the gasket are moved to release the diaphragm and when the lever is returned to its normal position, the said washer and gasket are moved to engage the diaphragm.

5. A pneumatic gun having an air chamber in the barrel end thereof, a piston having a longitudinal slot, means for forcibly moving the piston forwardly, a piston-setting lever having a heel to enter said piston-slot for moving the piston rearwardly, a trigger having a projection to enter said piston-slot for holding it at its lever set position, a fracturable diaphragm, means for engaging the diaphragm to hold it air-tight over the end of the gun barrel, said means including a washer having an annular flange in its inner side, a gasket on the flange, said gasket being wider than the flange to extend rearwardly thereof, and means coöperatively connecting the said washer with the piston setting lever by virtue of which as the lever is moved to set the piston the washer and the gasket are moved to release the diaphragm and when the lever is returned to its normal position the said washer and gasket are moved to engage the diaphragm, the said coöperating means comprising a bail-like member, the side arms of which straddle the gun barrel and connect at their front ends with the washer and the loop or cross member of which extends under the gun barrel and through the lever at a point to the rear of its fulcrum.

[Claim 6 not printed in the Gazette.]

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1,094,238. ELECTRICALLY-DRIVEN PENDULUM. GUSTAV NOBIS, Davenport, Iowa. Filed June 2, 1913. Serial No. 771,299. (Cl. 58—30.)

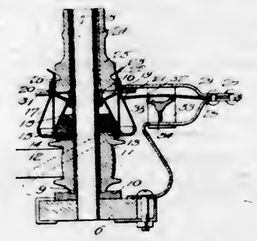


The combination with a pendulum, a clock train actuated by the movements thereof, and a circuit breaker of inverted T-shape pivoted at its upper end beneath the pivot of the pendulum and having forwardly projecting ears at the extremities of its head between which ears said pendulum swings; of an armature on the pendulum, an electro-magnet fixed at one side of the pendulum and opposite said armature, an electric circuit including the magnet, and a circuit closer within said circuit consisting of a screw constituting a fixed terminal and a bar constituting the other terminal hinged at one end and having its other end upbent and adapted to be raised by one of said ears when the circuit breaker swings to one side.

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1,094,239. BOBBIN-STOP. CARL NORDELL, Gilbertville, Mass. Original application filed June 1, 1911, Serial No. 630,551. Divided and this application filed Sept. 2, 1913. Serial No. 787,656. (Cl. 118—12.)

1. The combination of a shaft, a sleeve revolubly mounted on said shaft, a friction clutch member rigidly mounted on said sleeve, a shell normally in frictional engagement with said clutch, a bobbin loosely mounted on said sleeve, means connecting said bobbin and said shell, a ring rigidly connected with said shell, a rigid yoke disposed above said ring, a spring yoke disposed below said ring, a handle for operating said last named shaft, and means carried by said last named shaft and arranged to engage said spring yoke for forcing the latter against said ring and thereby binding the ring between the two yokes.

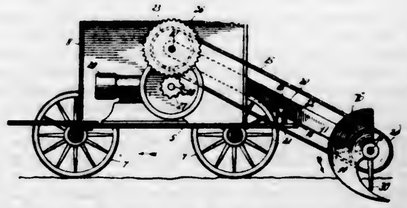


2. The combination with a shaft, a sleeve revolubly mounted on said shaft, a friction clutch member rigidly mounted on said sleeve, a shell normally in frictional engagement with said clutch, a ring rigidly connected with said shell, a rigid yoke disposed above said ring, a spring yoke disposed below said ring, a shaft disposed below said spring yoke, a handle for operating said last named shaft, and means carried by said last named shaft and arranged to engage said spring yoke for forcing the latter against said ring and thereby binding the ring between the two yokes.

3. The combination with a shaft, a sleeve revolubly mounted on said shaft, a friction clutch member rigidly mounted on said sleeve, a shell normally in frictional engagement with said clutch, a ring rigidly connected with said shell, a rigid yoke disposed above said ring, a spring yoke disposed below said ring, a shaft disposed below said spring yoke, a handle for operating said last named shaft, and means carried by said last named shaft and arranged to engage said spring yoke for forcing the latter against said ring and thereby binding the ring between the two yokes, said last named means comprising a series of laterally extending arms or plates rigidly secured to the shaft and adapted to be brought into engagement with said spring yoke in the revolution of the shaft.

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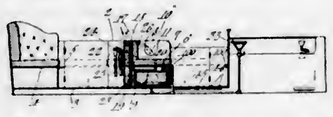
1,094,240. PLOW. OTTO L. K. H. OLDENBURG, Mount Moriah, Natal, South Africa. Filed May 25, 1911. Serial No. 629,336. (Cl. 97—62.)



1. In a plow, a shaft, land side members spaced apart and secured to the shaft, and screw shaped plow members secured to the shaft and extending around the shaft substantially 180 degrees, the rear of the screw-shaped plow members extending beyond the vertical planes of the adjacent land side members.

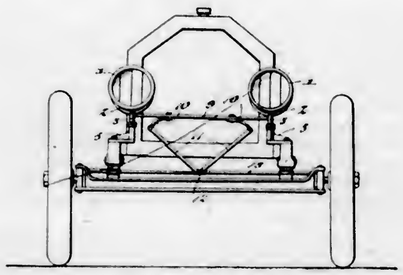
2. In a plow, a shaft, and screw-shaped plow members secured to the shaft and extending around the shaft substantially 180 degrees, the plow members having entrance points spaced from the shaft and extending forward.

1,094,241. AUTO-BODY. ALFRED ORTON, Cheyenne, Wyo. Filed Jan. 23, 1913. Serial No. 743,863. (Cl. 21—43.)



The combination with the body of a vehicle and front and rear seats, of a back hingedly connected with the front seat; a head rest hinged to the back; an extension hinged to the head rest, the back, the head rest and the extension being movable into horizontal alinement with the front and rear seats; and means for maintaining the back, the head rest and the extension alined with the front and rear seats.

1,094,242. AUTOMOBILE LAMP MECHANISM. WILLIAM R. PATTERSON, Loretto, Ky. Filed May 28, 1913. Serial No. 770,420. (Cl. 240—62.)

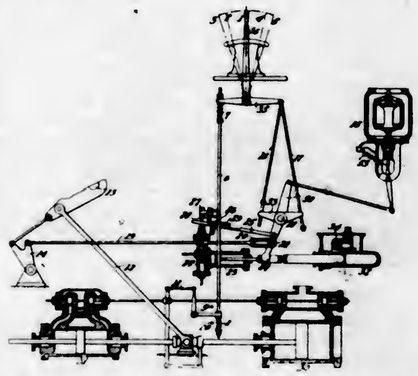


In a headlight for a vehicle having steering knuckles, arms projecting from the steering knuckles and a rod connecting such arms, the combination of side lamp supports provided with offstanding arms, a rod connecting such arms to cause the lamps to move in unison, spring arms secured to the last mentioned rod and inclined in opposite directions, an arm projected from the rod connecting the arms of the steering knuckles, and upwardly diverged rods pivotally connected at their lower ends with the arm projecting from the rod connecting the arms of the steering knuckles and at their upper ends with the said spring arms.

1,094,243. VALVE-GEAR MECHANISM FOR STEAM OR OTHER ELASTIC-FLUID ENGINES. HENRY PILLING, Lancaster, England. Filed June 23, 1913. Serial No. 775,309. (Cl. 121—97.)

1. In elastic fluid rolling mill engines, winding engines or the like, the combination of a valve for throttling the supply of motive fluid to the engine cylinder, a reversing or expansion gear, a single controlling lever, a relay shaft, control connections between the throttle valve and relay shaft, setting gear correlated with the relay shaft and expansion gear and controlled by the movement of the lever, said setting gear adapted while the lever accomplishes the initial portion of its movement from a neutral position to set the expansion gear to a position of late cut off and subsequently to turn the relay shaft and thereby open partially the said throttle valve, and a relay device correlated with and controlled by the movements of the relay shaft and adapted to be set in operation when a further movement away from the neutral position is imparted to the lever, and to turn the relay shaft and thereby open forcibly the said valve to full extent.

2. In elastic fluid rolling mill engines, winding engines or the like, the combination of a valve for throttling the supply of motive fluid to the engine cylinder, a reversing or expansion gear, a single controlling lever, a relay shaft, control connections between the throttle valve and relay shaft, setting gear correlated with the said throttle valve and expansion gear and controlled by the movements of the lever, said setting gear adapted while the lever accomplishes the initial portion of its movement from a neutral position to set the expansion gear to a position of late cut off and subsequently to turn the relay shaft and thereby open partially the said throttle valve, a relay device correlated with and controlled by the movements of the relay shaft and adapted to be set in operation when a further movement away from the neutral position is imparted to the lever, and to turn the relay shaft and thereby open forcibly the said valve to full extent, valve closing means connected with the expansion gear adapted to impart a return movement to said relay device, and thereby close the valve to an extent in accordance with the position in which the expansion gear is momentarily set by reason of a return movement of the lever toward the neutral position.



3. In elastic fluid rolling mill engines, winding engines or the like, the combination of a valve for throttling the supply of motive fluid to the engine cylinder, a reversing or expansion gear, a single controlling lever, a relay shaft, control connections between the throttle valve and relay shaft, setting gear correlated with the said throttle valve and expansion gear and controlled by the movements of the lever, said setting gear adapted while the lever accomplishes the initial portion of its movement from a neutral position to set the expansion gear to a position of late cut off and subsequently to turn the relay shaft and thereby open partially the said throttle valve, a relay device correlated with and controlled by the movements of the relay shaft and adapted to be set in operation when a further movement away from the neutral position is imparted to the lever, and to turn the relay shaft and thereby open forcibly the said valve to full extent, valve closing means connected with the expansion gear adapted to impart a return movement to said relay device, and thereby close the valve to an extent in accordance with the position in which the expansion gear is momentarily set by reason of a return movement of the lever toward the neutral position, and means correlated with the setting gear automatically operating when the control lever returns said gear to neutral position to lock the relay device in inoperative condition.

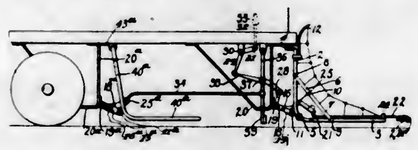
4. In elastic fluid rolling mill engines, winding engines or the like, the combination of a valve for throttling the supply of motive fluid to the engine cylinder, a reversing or expansion gear, a single controlling lever, a relay shaft, control connections between the throttle valve and relay shaft, setting gear correlated with the said throttle valve and expansion gear and controlled by the movements of the lever, said setting gear adapted while the lever accomplishes the initial portion of its movement from a neutral position to set the expansion gear to a position of late cut off and subsequently to turn the relay shaft and thereby open partially the said throttle valve, a relay device correlated with and controlled by the movements of the relay shaft and adapted to be set in operation, when a further movement away from the neutral position is imparted to the lever, and to move in a direction to open forcibly the said valve to full extent, valve closing means connected with the expansion gear adapted to impart a return movement to said device, and thereby close the valve to an extent in accordance with the position in which the expansion gear is momentarily set by reason of a return movement of the lever toward the neutral position, a knock off mechanism actuated by the controlling lever and adapted to operate automatically and cause the closure of the said valve in the event of the said valve closing means failing to operate.

5. In mechanism for controlling, by the movement of a single handling lever adapted to be moved from a neutral position to a position corresponding to latest cut off and vice versa, the throttle valve for admission of elastic fluid to the working cylinders of rolling mill engines, winding engines or the like, means for controlling the torque of the engine comprising a normally inactive relay device operatively connected with the throttle valve, normally locked actuating means adapted to operate said relay device and thereby open the throttle valve fully and mechanism controlled by the handling lever adapted to release said actuating means when the handling lever is in the position corresponding to latest cut off and relock said actuating means, when the lever is returned to its neutral position.

[Claims 6 to 8 not printed in the Gazette.]



1,094,244. STREET-CAR FENDER. ROBERT H. POGUE, New Westminster, British Columbia, Canada. Filed Mar. 17, 1913. Serial No. 754,814. (Cl. 105—130.)



1. In a car fender, the combination of a substantially rectangular fender frame, the sides of which are of L shape, means for suspending the upper end of this frame from the body of the car, means for supporting the frame with the lower rail of it clear of the track, said means comprising a rocking shaft supported from the under-frame of the car and extending across behind the fender frame, levers secured on this rocking shaft which levers are connected by links to the vertical component of the L shape sides of the frame, the pins connecting the levers to the links being normally in alinement between the rocking shaft and the attachment of the links to the frame, and means for moving the lever upward to allow the front end of the fender frame to fall.

2. In a car fender, the combination of a substantially rectangular fender frame, the sides of which are of L shape, means for suspending the upper end of this frame from the body of the car, means for supporting the frame with the lower rail of it clear of the track, said means comprising a rocking shaft supported from the under-frame of the car and extending across behind the fender frame, levers secured on this rocking shaft which levers are connected by links to the vertical component of the L shaped sides of the frame, the pins connecting the levers to the links being normally in alinement between the rocking shaft and the attachment of the links to the frame, means for moving the lever upward to allow the front end of the fender frame to fall, a frame suspended from the car in advance of the fender and means for connecting the lower end of this frame to the rocking shaft to "break" the stability of the supports between that shaft and the fender frame.

3. In a car fender, the combination of a substantially rectangular fender frame, the sides of which are of L shape, means for suspending the upper end of this frame from the body of the car, means for supporting the frame with the lower rail of it clear of the track, said means comprising a rocking shaft supported from the under-frame of the car and extending across behind the fender frame, levers secured on this rocking shaft which levers are connected by links to the vertical component of the L shape sides of the frame, the pins connecting the levers to the links being normally in alinement between the rocking shaft and the attachment of the links to the frame, means for moving the lever upward to allow the front end of the fender frame to fall, a frame suspended from the car in advance of the fender, means for connecting the lower end of this frame to the rocking shaft to "break" the stability of the supports between that shaft and the fender frame, a treadle rod projecting upward through the front end of the car platform and means for connecting the lower end of that rod to a lever on the rocking shaft by which downward pressure on the rod will "break" the stability of the connection between the rocking shaft and the fender frame.

4. In a car fender, the combination of a substantially rectangular fender frame the sides of which are L shaped, means for suspending this frame by its upper rail from the body of the car, means for supporting the frame with the lower rail of it clear of the track, said means comprising, a rocking shaft supported from the under-frame of the car and extending across behind the fender frame, levers secured on this rocking shaft, which levers are link-connected to the lower part of the vertical component of the fender, the pins connecting the levers to the links being normally in alinement between the rocking shaft and the connection of the links to the frame, and an advance rail having backwardly projecting members secured to it which are slidably mounted on the front rail of the fender frame and are connected to the ends of the levers on the rocking shaft.

5. In a car fender, the combination of a substantially rectangular fender frame suspended by one end from the front end of the car and depending toward the track, a similar frame pin-connected to the lower end of the hanging frame, means for sustaining these frames at right angles to one another, said means comprising braces pin-connected to each frame and articulated intermediate of their ends to move outward from the angle, means for supporting the front end of said similar frame clear of the track, said means comprising a rocking shaft supported from the under-frame of the car and extending across behind the hanging frame of the fender, levers secured on this shaft which levers are link-connected to a rail extending across the lower end of the hanging frame, an advance rail having backwardly projecting members which are slidably mounted on the front rail of the fender frame, and links connecting the after ends of these backwardly projecting members to the ends of the rocking shaft levers.

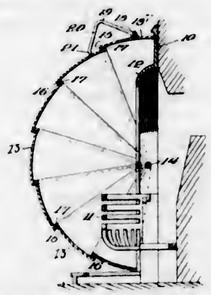
[Claims 6 and 7 not printed in the Gazette.]

1,094,245. BLOWER AND FENDER. JOHN W. PRITCHETT, Holly Springs, Miss. Filed Apr. 11, 1913. Serial No. 760,502. (Cl. 126—135.)

1. A device of the class described comprising a supporting member adapted to be attached to a fireplace, a plurality of leaves pivoted to said supporting member and foldable one within the other and beneath the supporting member, each of said leaves and the supporting member having interlapping lips extending their entire lengths and limiting the movement in one direction and preventing the passage of air when the leaves are distended, and holding means arranged to be applied to the leaves to hold the leaves partly open or fully closed.

2. A device of the class described, comprising a supporting member adapted to be attached to a fireplace, a plurality of leaves pivoted to said supporting member and foldable one within the other and beneath the supporting member, and a holding member pivoted to the supporting member in position to engage any one of the leaves and hold them in suspended position.

3. A device of the class described comprising a supporting member adapted to be attached to a fireplace, a fender comprising a plurality of leaves pivoted to said supporting member and foldable one within the other and beneath the supporting member and provided with stops operating to limit the movement of the leaves in one direction, and a holding device pivoted to the supporting member in position to engage any one of the leaves and hold the fender partly open or to engage all of the leaves and hold the fender fully open.

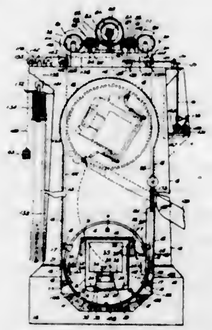


4. A device of the class described comprising a supporting member adapted to be attached to a fireplace, a plurality of leaves pivoted to said supporting member and foldable one within the other, and a holding member arranged to engage the leaves and hold them partly open or fully closed.

5. A device of the class described comprising a supporting member adapted to be attached to a fireplace, a plurality of leaves pivoted to said supporting member and foldable one within the other, and a holding member arranged to engage any one of the leaves to hold them partly open or to engage all of the leaves to hold them fully closed.

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1,094,246. TRUCK-TIPPLER OR MEANS FOR DISCHARGING THE CONTENTS OF TRUCKS AND LIKE VEHICLES. GIUSEPPE ANTONIO PIETRO PROVAY, Lourenço Marquez, Portuguese East Africa. Filed Oct. 5, 1912. Serial No. 724,175. (Cl. 24—11.)



1. A truck tipping apparatus comprising in combination a revoluble structure, a wheeled carriage movable within and transversely of said structure, a track supported by the aforesaid structure and traversed by the wheels of the carriage, said track being inclined from the front to the back of the structure to cause the carriage to automatically take up a position in which the length of rails carried by it are in alinement with the rails of the main track.

2. A truck tipping apparatus comprising in combination a revoluble structure, a wheeled carriage movable within and transversely of said structure, rails supported by the aforesaid structure and traversed by the wheels of the carriage, said rails being inclined from the front to the back of the structure and curved upwardly at the ends.

3. A truck tipping apparatus comprising in combination a revoluble structure consisting of a plurality of cylindrical sections rigidly connected together, a wheeled carriage movable within and transversely of said structure, a rail supported by each section of the structure which rails are inclined from the front to the back of the structure and are traversed by the wheels of the carriage, a length of rails mounted upon the carriage which carriage automatically assumes such a position that the said length of rails are alined with the rails of the main track when the truck is upright.

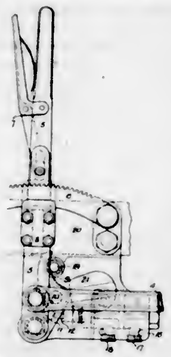
4. A truck tipping apparatus comprising in combination a revoluble structure, means for guiding said structure as it is raised and lowered, means for raising, lowering and revolving said structure, a carriage movable within and transversely of said structure, a transverse track supported by said revoluble structure and traversed by the wheels of the carriage, said track being inclined from the front to the back of the structure, and means for automatically clamping the truck in position in said structure when the structure is rotated to incline the truck.

5. A truck tipping apparatus comprising in combination a revoluble structure, means for guiding said structure as it is raised and lowered, said means permitting the structure to be revolved when it has reached its uppermost position, counterbalancing means for said structure, a carriage movable within and transversely of said structure, a transverse track supported by said revoluble structure and traversed by the wheels of the carriage, said track being inclined from the front to the back of the structure, means for automatically clamping the truck in position in said structure when the structure is rotated to incline the truck, a chute, and means for automatically bringing said chute into position beneath the structure before it is rotated to tip the truck.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,247. STARTING-VALVE. EUGENE L. RAGONNET, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 10, 1912. Serial No. 708,665. (Cl. 121—16.)



1. The combination in a starting valve for compound engines, of a throttle valve arranged to close the port leading to the high pressure cylinder of the engine; a valve chest; a valve therein communicating with the fluid pressure tank of the low pressure cylinder; a throttle lever for actuating the throttle valve; a trigger located in the path of the throttle valve and arranged to actuate the valve in the above mentioned valve chest so that on the first movement of the throttle lever, the trigger will be actuated to open the valve and allow a certain portion of the high pressure fluid to flow directly to the low pressure cylinder and, on the continued movement of the lever, to close said valve.

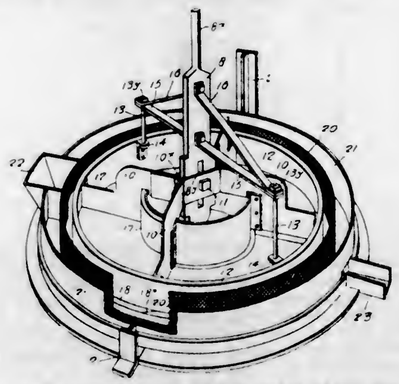


2. The combination in a starting valve for compound engines, of a throttle valve arranged to close the port leading to the high pressure cylinder of the engine; a throttle lever connected to said valve; a latch carried by said lever; a valve chest communicating with the air tank and the low pressure cylinder of the compound engine; a spring pressed valve in said chest; a pivotally mounted trigger having an arm bearing against the stem of the spring pressed valve and having another arm extending into the path of the latch so that when the lever is moved from the closed position to a point immediately before the opening of the throttle valve, it will actuate the trigger and will allow high pressure fluid to pass through the valve chest directly to the low pressure cylinder and, on the continued movement of the throttle lever, to release the valve, which will close against its seat preventing further flow of high pressure fluid directly to the low pressure cylinder.

3. The combination in a starting valve for a compound engine having high and low pressure cylinders, of a throttle valve; a lever connected to the throttle valve; a latch on the lever; a valve chest communicating with an air pressure tank and with the low pressure cylinder; a valve in the valve chest; a spring pressing against the valve to hold it against its seat; said valve having a stem projecting through the valve chest; a pivotally mounted trigger having an arm bearing against the end of the stem of the valve and having another arm in the path of the lever so that when the throttle lever is moved the latch will strike the trigger and will force the valve in the valve chest open against the pressure of the spring and, on the continued movement of the throttle lever, the trigger will be released from the control of the latch and the spring will close the valve against its seat.

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1,094,248. QUARTZ-MILL. HAROLD F. RANDALL, Tiffin, Ohio. Filed July 30, 1913. Serial No. 781,947. (Cl. 83—45.)



1. In a grinding device, a base, a vertical shaft mounted for rotation on said base, a frame carried by said shaft and having an oscillatory movement with respect thereto, said shaft being disposed centrally of said frame, a bed plate, and shoes rigidly secured to and carried by said frame on opposite sides of the shaft and movable toward and away from said bed plate during the oscillation of the frame.

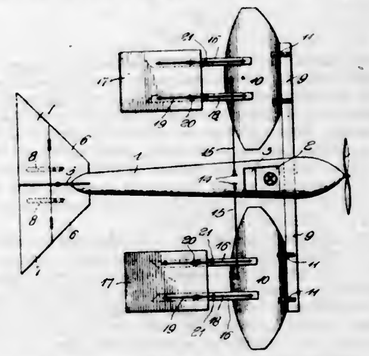
2. In a grinding device, a base, a vertical shaft having a rectangular portion mounted for rotation on said base, said shaft being provided with a slot, a frame provided with a rectangular socket arranged to receive the rectangular portion of the shaft, means carried by the shaft for suspending the frame, shoes carried by said frame on opposite sides of said shaft, a bed carried by said base, dies disposed concentrically about said shaft, and means for feeding material between said dies and said shoes.

3. In a grinding device, a base, a vertical shaft having a rectangular portion mounted for rotation on said base, said shaft being provided with a slot, a frame provided with a rectangular socket arranged to receive the rectangular portion of the shaft, means carried by the shaft for suspending the frame, shoes carried by said frame on opposite sides of said shaft, a bed carried by said base, dies disposed concentrically about said shaft, means for feeding material between said dies and said shoes, and means for adjusting the distance between said shoes and said dies.

4. In a grinding device, a base, a vertical shaft having a rectangular portion mounted for rotation on said base, said shaft being provided with a longitudinal slot, a frame provided with a rectangular socket arranged to receive the rectangular portion of the shaft, pins carried by the frame arranged to project through said longitudinal slot, means carried by the shaft for suspending the frame, said means permitting an oscillatory movement of the frame with respect to the shaft, shoes carried by the frame on opposite sides of the shaft, a bed carried by said base, dies disposed concentrically to said shaft, and means for feeding material through said dies and said shoes.

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1,094,249. AEROPLANE. RALPH R. REED, Oakland, Cal. Filed Apr. 10, 1913. Serial No. 760,311. (Cl. 244—12.)



1. In an aeroplane, a body, a wing supporting bar secured thereto, supporting wings having a flexible connection with said bar in advance of the center of the upthrust of the air, means to yieldingly hold the rear portions of the wings in position, following planes operatively connected with said wings, and means to adjust the curvature of said planes in the direction of the line of flight.

2. In an aeroplane, a body, a wing supporting bar secured thereto, wings having a flexible connection at their forward edges with said bar in advance of the center of the upthrust of the air, flexible struts arranged through the body of the aeroplane, cords to connect the ends of said struts with the upper and lower sides of the wings, plane supporting bars secured to said wings, following planes secured to said bars, and means to adjust the curvature of said planes in the direction of the line of flight.

3. In an aeroplane, a body, a wing supporting bar arranged therethrough, supporting wings flexibly connected with said bar in advance of the center of the upthrust of the air, said wings being curved transversely to the direction of movement of the aeroplane, flexible plane supporting bars secured to and projecting rearwardly from said wings, following planes secured to the rear ends of said bars, said planes having flexible rear ends, tension rods secured at their outer ends to the ends of said plane supporting bars and having right and left hand threaded inner ends, turn buckles engaged with said threaded ends, and struts arranged beneath said rods.

4. In an aeroplane, a body, a wing supporting bar secured thereto, wings having a flexible connection with said bar, flexible struts extending through said body, cords con-

necting the ends of said struts with the lower and upper faces of the wings, following planes secured to said wings, and means for adjusting the curvature of said planes in the direction of the line of flight.

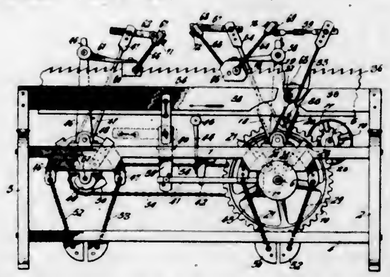
1,094,250. FRUIT-PICKER'S APRON. EBENEZER T. REESE, Granger, Wash. Filed May 16, 1913. Serial No. 768,102. (Cl. 150—2.)



1. An apron for fruit pickers, means at its upper end for attaching the same to the body, hooks at such upper end of the apron, the lower portion of the apron having openings near its edges a short distance from the bottom and having other openings in its bottom portion a short distance from its vertical edges, said openings being adapted to be brought in register by folding or gathering the corner portions of the apron and engaging said openings with the before mentioned hooks to provide a pocket having a middle and side openings.

2. An apron having openings in its edge and bottom portions, a reinforcement secured to the upper end of the apron, hooks attached to the reinforcement and adapted to receive the openings in the lower and edge portions of the apron when the corner portions are gathered to form a pocket, shoulder straps attached to the upper end of the apron, and body straps for securing the apron about the body of the gatherer.

1,094,251. MACHINE FOR AUTOMATICALLY OPERATING SAW SWAGES AND SHAPERS. FREDRICK REGENOLD, Memphis, Tenn. Filed Sept. 25, 1911. Serial No. 651,311. (Cl. 76—54.)



1. The combination of a supporting frame, a shaft revolubly mounted in said frame, eccentrics carried by said shaft, a swage, a fixed shaft also mounted in said frame, arms pivotally mounted on said fixed shaft and having extensions projecting into the path of said eccentrics, levers connected with said swage, and bars connecting said levers and arms.

2. The combination of a supporting frame, a shaft revolubly mounted in said frame, eccentrics carried by said shaft, a swage, a fixed shaft also mounted in said frame, arms pivotally mounted on said fixed shaft and having segmental extensions, slotted frames adjustably mounted on said extensions and having rollers extending into the path of said eccentrics, and coiled springs adjustably connected with said extensions and with said frame.

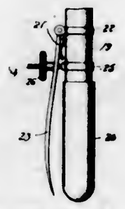
1,094,252. FIRE APPARATUS. FRANK E. ROFF, Richfield Springs, N. Y. Filed Jan. 12, 1912. Serial No. 670,868. (Cl. 169—19.)



1. Fire fighting apparatus comprising an inclosing portable box or case provided with internal means to removably support a lighting and heat-generating manually-portable unit, said case being formed to display exteriorly the light generated by said unit as a signal to indicate the location of said apparatus, and a series of removable manually-portable fire extinguishing units arranged in said case, said case having means whereby the same can be opened and closed for the purposes substantially as described.

2. Fire fighting apparatus comprising a portable case having means whereby the same can be opened and closed, a lighting and heat generating unit arranged in said case to display its light at the exterior of the case and to maintain the temperature within the case above a minimum, and a number of portable fire extinguishing units removably arranged within said case and subject to the heat generated by said lighting unit.

1,094,253. FOUNTAIN BOW-PEN. CHARLES F. ROTH, Quincy, Mass. Filed Jan. 27, 1912. Serial No. 673,770. (Cl. 120—42.)

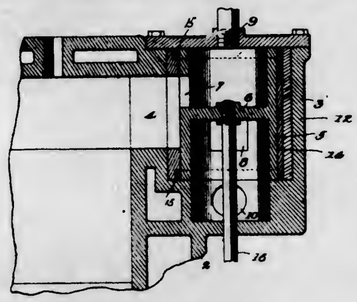


In a device of the class described, the combination with a compartment member, of a tubular feeder carried thereby, a nib formed with the feeder, a bow member supported on the compartment member and movable to engage the nib, a collar carried by the compartment member, a screw formed with the collar and projecting therefrom to loosely pass through an elongated opening in the bow member, a nut threaded on the screw and engaging the bow member for adjusting the free end thereof relatively to the nib and a cap adapted to inclose the nib and feeder and have its inner end engage the compartment member when the bow member is loose on the screw and spaced from the said nib.

1,094,254. INTERNAL-COMBUSTION ENGINE. THOMAS HISLOP RUSSELL, Marion, Ind. Filed Mar. 26, 1912. Serial No. 686,305. (Cl. 123—190.)

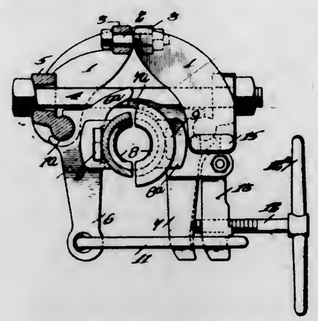
In an internal combustion engine, the combination of a cylinder having a port, a cylindrical valve casing in communication intermediate of its ends with the port of the cylinder and provided at opposite ends with ports for the inlet of the gaseous mixture and an outlet for the burnt gases, a cylindrical bushing fitted snugly within the valve casing and having a port in line with the port of the cylinder and provided at its ends and sides with packing, and a rotary valve arranged within the bushing, said valve being hollow and having its ends in communication with the ports in the respective ends of the valve casing and provided with a medial partition and having ports in





its sides upon opposite sides of said medial partition and at different points in its circumference to alternately register with the port of the bushing leading into the port of the cylinder.

1,094,255. ROPE-CLAMP. SILAS EDWARD RYDER, Muskogee, Okla. Filed May 23, 1913. Serial No. 769,398. (Cl. 24—135.)



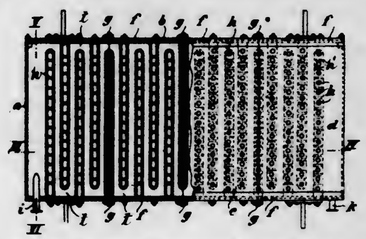
1. A rope-clamp, comprising a frame formed of duplicate sections and means for adjustably connecting them to permit their adjustment toward or from each other, levers pivoted on such frame sections, jaws supported on the levers, and means for adjusting the latter to clamp a rope, as described.

2. A rope-clamp comprising a frame formed of duplicate curved sections, screw bolts adjustably connecting their outer and inner portions, levers jointed on the inner ends of said sections, jaws carried by the levers and means for adjusting the latter for clamping a rope, as described.

3. In a rope-clamp of the class indicated, in combination with duplicate frame sections having their outer ends constructed with perforated lugs whose contact sides are rounded, a screw bolt passing through said lugs and loosely connecting the ends of the frame sections, the inner ends of said sections having other perforated lugs and an adjusting bolt passing through the later, levers hinged adjacent to the last-named lugs, rope jaws supported on the levers, and means for adjusting the latter for clamping a rope, as described.

4. A rope-clamp comprising a frame, levers jointed thereto, clamping jaws carried by said levers, an arm pivoted to one side of the frame and extending alongside one of said levers, a link for connecting the opposite lever with said arm, and a screw passing through the arm and bearing against the adjacent lever for adjusting the levers to clamp a rope in the manner shown and described.

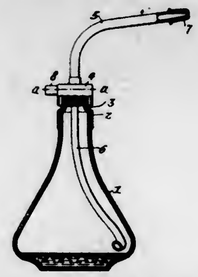
1,094,256. HOT-PLATE. SILVIO ANTON SCHEWCZIK, Vienna, Austria-Hungary. Filed Jan. 30, 1912. Serial No. 674,843. (Cl. 237—18.)



1. In combination, a hot plate section having rows of perforations therein, zig-zag trough-shaped channels cast on the underside of and in one with said hot plate section and extending between said rows of perforations to form a continuous circuitous duct, a supply connection connected with the zig-zag duct, an outlet connection at the other end of said zig-zag duct, transverse ribs between parallel lengths of said zig-zag ducts and located between adjacent perforations on the hot plate.

2. A hot plate having a top, comprising a plurality of sections, means for securing the sections together, each section having a circuitous trough, the walls of which are spaced apart to form an air passage, the trough of each section matching with the trough of the adjacent section to form the trough continuous throughout the entire plate, the top having a plurality of openings which communicate with the air passage, said air passage having transverse braces located between adjacent openings, an inlet pipe communicating with the trough, and an outlet pipe communicating with the trough.

1,094,257. EVACUATOR. ADOLPH W. SCHRAMM, Riverton, N. J., and PERCY RUSSELL, Brooklyn, N. Y., assignors to Electro Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 6, 1911. Serial No. 637,152. (Cl. 128—28.)



1. An evacuator consisting of a container; a structure having a helical passage opening outside said container and connected to the interior thereof; means for delivering a jet of air under pressure into said passage; and a suction pipe connected to the container.

2. An evacuator consisting of a container; a suction pipe for the container; means for producing a vacuum in the container consisting of a structure having a passage of increasing area of cross section connected to the interior of the container; with a nozzle connected to a source of air under pressure and mounted to discharge a jet of said air through said passage.

3. A dental evacuator consisting of a bottle having a suction pipe and provided with an enlarged portion; the end of said pipe terminating within the bottle and being arranged to discharge in a line substantially tangent to the enlarged lower portion thereof; with means for exhausting the air from the upper portion of said bottle.

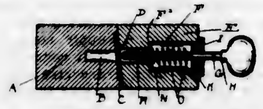
4. The combination of a container having a suction pipe; a cover for the container, having a passage increasing in area of cross section terminating on its under side and connected to the interior of the container; with means for supplying an air jet to said expanding passage.

5. The combination in an evacuator of a container having a suction pipe; and means for exhausting the air from the container consisting of a structure mounted thereon having a passage increasing in area of cross section and discharging outside of said container, though connected to the interior thereof; with a nozzle connected to a source of air under pressure in position to deliver a jet of air tangentially to the passage.

[Claims 6 to 8 not printed in the Gazette.]

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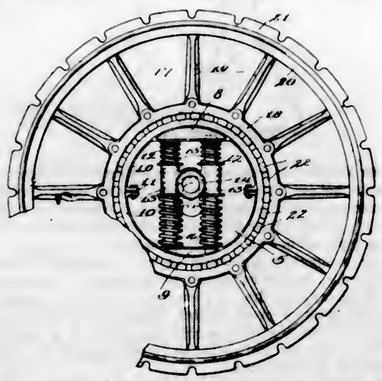
1,094,258. SASH-LOCK. JOHN W. SCHUBLE, Louisville, Ky. Filed Apr. 9, 1913. Serial No. 760,068. (Cl. 16—144.)



A sash lock comprising, in combination with the lower rail of an upper sash and the upper rail of a lower sash, having their adjacent faces inclined, a recess formed in one inclined face with a hole leading into the sash at the bottom of the recess, a plate engaging said recess and having its outer edge flush with the inclined edge of the sash, said plate provided with a threaded opening registering with the hole in the sash, the other sash having a transverse recess which is contracted, forming a shoulder, an open-ended shell extending through the contracted part of said recess and having its outer end flush with the inclined edge of the sash and its inner end flush with said shoulder, a washer bearing against said shoulder and shell, an apertured plate engaging the outer edge of the rail in which the shell is mounted, a screw passing through said plate and washer, a nut upon the shank portion of the screw, a spring interposed between the washer and nut and tending to normally hold the threaded part of the screw within said shell and out of engagement with the threaded hole in the plate in the other sash, as set forth.

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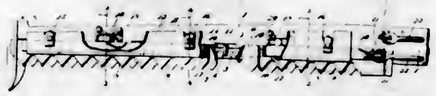
1,094,259. WHEEL. SALVATORE SCOGNAMILLO, New York, N. Y. Filed Nov. 3, 1911. Serial No. 658,421. (Cl. 21—187.)



In a wheel, the combination of a central organization comprising a circular body with an outer grooved rim and upper and lower members having vertically disposed rods terminally held in fixed spaced relation therein and extending across the said body on opposite sides of the center thereof, an axle engaging member having vertically disposed sleeves fixed to diametrically opposite portions thereof and slidably engaging the said rods, independent pairs of springs engaging the rods above and below and bearing upon the opposite ends of the sleeves, the lower pair of springs being of materially stronger tension than the upper pair of springs and normally disposing the axle engaging member above the center of the central organization, an outer wheel organization rotatably mounted on the said central organization, and antifrictional devices interposed between the central and outer wheel organizations.

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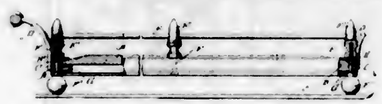
1,094,260. KNIFE ATTACHMENT FOR MOWERS. JOHN H. SIEGFRIED, Lemoore, Cal. Filed Oct. 19, 1911. Serial No. 655,467. (Cl. 56—44.)



A knife-attachment for mowers comprising, in combination, a supporting-bar; a cap-plate disposed above and connected to said bar; a pair of superposed knives and a series of casings interposed between said bar and plate, each casing being provided with a central horizontal shelf extending from end to end thereof; and a pair of flat circular anti-friction disks housed within each casing with their peripheries contacting with the rear edges of said knives and adapted to roll bodily longitudinally of said casing in both directions during the movements of the knives, the upper disk resting upon said shelf, and the lower disk upon said bar.

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1,094,261. TRAY. MORRIS B. SOLOMON, New York, N. Y., assignor to American Tray Company, New York, N. Y., composed of Morris B. Solomon and Abraham Solomon. Filed June 11, 1913. Serial No. 773,006. (Cl. 65—53.)



1. A tray, comprising a tray bottom, a frame for the said tray bottom, an angular covering fitting on the outer side and top of the frame and extending over the top margin of the said bottom to hold the latter in place on the said support, said covering having handles at opposite sides a railing having posts resting on the top of the said covering, and screws passing up through the said frame and through the top of the said covering, the screws screwing into the said posts to draw the same down into firm contact with the top of the said covering.

2. A tray, comprising a tray bottom, a frame for the said tray bottom, an angular covering fitting on the outer side and top of the frame and extending over the top margin of the said bottom to hold the latter in place on the said support, a railing having posts resting on the top of the said covering, and screws passing up through the said frame and through the top of the said covering, the screws screwing into the said posts to draw the same down into firm contact with the top of the said covering, sundry of the said screws having heads in the form of knobs for supporting the tray on a flat surface.

3. A tray, comprising a glass bottom, a wooden frame having a rabbet along the inner side supporting the margin of the said bottom, an angle iron covering extending over the top and outer side of the said frame and provided at opposite sides with handles, the top member of the said covering projecting inwardly over the top margin of the said bottom to hold the latter in place on the rabbet of the frame, a railing having posts resting on the top member of the said covering, the posts being provided with interior screw threads, and screws extending up through the frame outside of the rabbet and through the top member of the covering, the screws engaging the said screw threads, and sundry of the screws having heads in the form of knobs for supporting the tray on a flat surface.

4. A tray, comprising a glass bottom, a wooden frame having a rabbet along its inner side supporting the margin of the said bottom, an angle iron covering extending over the top and outer side of the said frame, the top member of the said covering projecting inwardly over the top margin of the said bottom to hold the latter in place in the rabbet of the frame, a railing having posts resting on the top member of the said covering, the posts being provided with interior screw threads, a metal lining approximately U shape in cross section and fitting onto the bottom of the rabbet, the inner edge and bottom of the frame and screws passing through the frame and the bottom portion of its lining and outside the said rabbet, the screws also passing through the top member of the covering and screwing into the said screw threads of the posts, sundry of the screws having heads in the form of knobs for supporting the tray on a flat surface.

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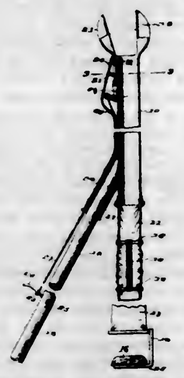
1,094,262. SHOE-LACE-FASTENING DEVICE. MOXIE SPANGENBERG, Boyne City, Mich. Filed Nov. 29, 1912. Serial No. 734,131. (Cl. 24—121.)



As an article of manufacture, a lace fastener comprising a plate having an eye therein near one end adapted to receive a fastener for the securing of the same to a shoe upper, and a resilient tongue bent from the plate at its opposite end, the bight between the tongue and plate being cut away to form a V-shaped slot, the said tongue being bent to form a downwardly tapered and curved groove in its inner face.

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1,094,263. FRUIT-PICKER. LOUISE STEVENS, Rainbow Lake, N. Y. Filed Sept. 11, 1912. Serial No. 719,850. (Cl. 56—99.)

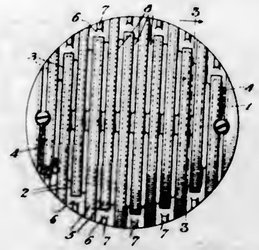


1. In a fruit picker, a rigid tubular member having a stationary jaw at one side and a hollow projection at the opposite side, a movable jaw mounted for movement within said hollow projection, means within said hollow projection for actuating said movable jaw, a handle socket extending from said tubular member, a guide externally of said socket and communicating with the hollow projection, a handle connected to said socket, a pull device connected to said movable jaw and extending through said guide, and a pull device actuating means connected to said handle.

2. In a fruit picker, a rigid tubular member having a stationary jaw at one end and a hollow projection at the side opposite to the stationary jaw, a movable jaw pivoted at its lower end within said hollow projection, means within said hollow projection for actuating said movable jaw, a handle socket extending obliquely from said tubular member at one side, a guide extending externally of said handle socket and communicating with said hollow projection, a handle within said handle socket, a lever carried by said handle, and a pull device connected between said lever and said movable jaw operating means and extending through said guide.

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1,094,264. HEATING UNIT. CLARENCE S. STEWARD, Chattanooga, Tenn. Filed Dec. 9, 1913. Serial No. 805,587. (Cl. 219—63.)



1. A heating unit for electric heaters comprising a single disk, one face of which has a series of grooves formed therein, each groove leading into a chambered portion of greater diameter than the width of said grooves, the bottom of each chamber having openings leading through the disk, affording means for introducing air into the chambers, said grooves adapted to contain resistance wires, substantially as shown and described.

2. A heating unit for electric heaters, the same comprising a disk having one of its faces provided with a series of grooves arranged in parallel relationship and communicating with chambers of greater diameter than the width of the slots and designed to receive a resistance wire, said disk being also provided with slots or air inlets disposed upon the under side thereof and communicating with the wire chambers, substantially as shown and described.

3. A heating unit for electric heaters, the same comprising a disk or body portion of electrically insulated and heat storing material, said disk having one of its faces provided with a series of slots disposed in parallel relationship and communicating with enlarged chambers adapted to receive resistance wires and the opposite side of the disk being provided with air passages communicating with the wire chambers, substantially as shown and described.

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1,094,265. GUN-SIGHT. JAMES RENWICK STEWART, Tacoma, Wash. Filed Dec. 17, 1913. Serial No. 807,208. (Cl. 33—47.)



1. In a gun sight, a support having a longitudinally disposed V-shaped notch; and a bead having a wedge-shaped extension fitting snugly into said notch and integrally secured thereto, said bead being formed of a good light reflecting substance.

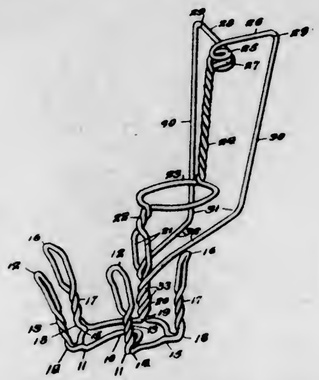
2. In a gun sight, a support having a longitudinal cylindrical portion; a longitudinal V-shaped notch extending from the rear of said support substantially to the middle of said portion, the bottom of said notch rising from the

rear to the front and being curved at the front end thereof; and a bead having a wedge-shaped portion fitting snugly into said notch and integrally secured thereto, said bead forming a part of said cylindical portion whereby said bead presents a large reflecting surface at its upper part.

3. In a gun sight, a support having a substantially cylindrical portion at its upper end, the rear part of said portion being formed by a bead integral therewith, said bead being a good reflector for light and having a wedge-shaped extension, and said cylindrical portion having a V-shaped groove engaging said extension.

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1,094,266. DRINKING-GLASS HOLDER. CHARLES T. STOCKENBERG, Brooklyn, N. Y. Filed Aug. 5, 1913. Serial No. 783,142. (Cl. 248—20.)



1. In a holder of the class described, a strand of wire bent to form a plurality of circular loops, said loops being of different diameters and in different elevations, extensions extending from and rising above one of said loops, one of said extensions merging into the succeeding loop, an extension from the second mentioned loop merging into a smaller loop, and reinforcements from one of said loops to the extension between the two other mentioned loops.

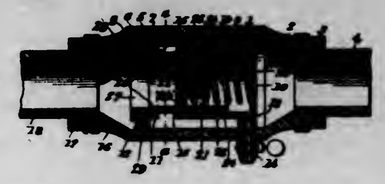
2. In a holder of the class described, a strand of wire bent to form an enlarged loop, extensions from said loop at desired intervals, said extensions being formed of said strand of wire and said extensions rising above the enlarged loop, said wire after forming one of said extensions having the strands spaced from one another to form a medium sized loop, after forming said medium sized loop said strands of wire being formed into an extension from said extension, said strands of wire being looped to form a reduced loop and from said reduced loop, said strands of wire being bent downwardly under said medium sized loop and merging into an extension from said enlarged loop.

3. In a holder of the class described, a strand of wire bent to form a plurality of stems, said stems being connected at the base to the adjacent ones by curved portions of said wire, said curved portions forming the major portion of a circle, and one of said portions being bent inwardly and looped concentric with that portion of the circle formed of the other curved connecting portions.

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1,094,267. CHECK-VALVE. HIRAM E. SULLIVAN, Coaticook, Quebec, Canada. Filed Oct. 8, 1913. Serial No. 794,114. (Cl. 137—32.)

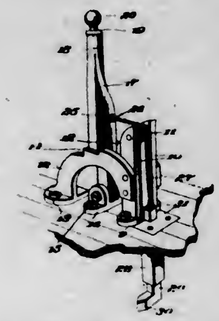
A check valve of the class described comprising a casing having a discharge opening at one end, provided at the opposite end with a reduced threaded portion, a base end with a cylinder extending from the base and arranged in the casing, said cylinder being closed at the outer end and open at the intake end provided in its wall with one or more openings, a cylindrical valve mounted for operation in the cylinder, an annulus detachably secured in



the open end of the cylinder and forming a seat for the valve and a reducer coupling detachably secured to the reduced threaded intake end of said casing.

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1,094,268. RAILWAY-SWITCH. HAMLING TATUM, Elba, Ala. Filed Sept. 3, 1913. Serial No. 787,954. (Cl. 104—171.)



1. The combination with an automatic switch throwing mechanism, of an operating device therefor comprising a base, standards uprising from the base and spaced apart in parallelism, segments secured to said standards and spaced apart, an operating lever fulcrumed between said segments and having the upper portion thereof circular in cross section and formed with a vertical bore at one side of the center line of the lever, a rod slidably mounted within said bore, a dog carried by the end of said rod and engaging one of said segments to hold the lever in any desired position, means normally forcing said dog into engagement with the respective segment, means for sliding said rod against the action of the first means to withdraw the dog from engagement with the respective segment, a foot adapted to contact with said switch throwing mechanism to operate the latter, and connections between said foot and lever.

2. The combination with an automatic switch throwing mechanism, of an operating device therefor comprising a base, standards uprising from the base and spaced apart in parallelism, segments secured to said standards and spaced apart, an operating lever fulcrumed between said segments and having the upper portion thereof circular in cross section and formed with a vertical bore at one side of the center line thereof, a rod slidably mounted within said bore, a dog carried by the lower end of said rod and engaging one of said segments to hold the lever in adjusted position, a spring surrounding said rod and normally holding said dog in engagement with the respective segment, means for sliding said rod against the action of said spring to withdraw the dog from engagement with the respective segment, a foot adapted to contact with said switch throwing mechanism to operate the latter, and connections between said foot and lever.



1,094,269. DENTAL CROWN-REMOVER. RICHARDSON H. TAYLOR, Meeker, Colo. Filed Aug. 6, 1913. Serial No. 783,266. (Cl. 32—10.)



1. A dental crown remover, comprising a gripping tool having closable jaws; a spring to normally hold said jaws in open position; a screw operatively mounted between said jaws; means for manipulating said screw to move the same relative to said jaws; and means for locking said jaws in closed position.

2. A dental crown remover, comprising a gripping tool having closable jaws; a screw operatively mounted between said jaws; an elongated operating stem disposed substantially perpendicular to said screw to project from the mouth of a person; and a universal joint for said stem and said screw.

3. A dental crown remover, comprising a gripping tool having closable jaws; a screw operatively mounted between said jaws; an elongated operating stem disposed substantially perpendicular to said screw to project from the mouth of a person; a universal joint for said stem and said screw; and a bearing for said stem, mounted upon said tool to raise said stem for disposition thereof at an angle to said jaws.

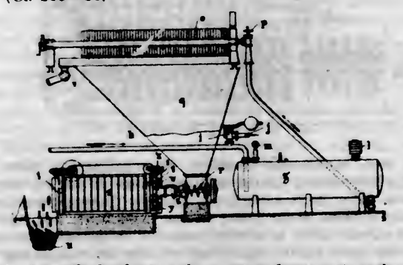
4. A dental crown remover, comprising a gripping tool having closable jaws; a screw operatively mounted between said jaws; an elongated operating stem disposed substantially perpendicular to said screw to project from the mouth of a person; a universal joint for said stem and said screw; and a bearing for said stem, mounted upon said tool to raise said stem for disposition thereof at an angle to said jaws, said bearing embodying a yoke into which said stem may be inserted.

5. A dental crown remover, comprising a gripping tool having closable jaws; a screw operatively mounted between said jaws; an elongated stem operatively connected with said screw and disposed to project from the mouth of a person, said stem having a reduced section; and an upraised bearing for said stem, embodying a yoke having a contracted entrance opening, the dimensions of said opening being less than the normal diameter of said stem and conforming to the diameter of said contracted section.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,270. REMOVAL OF WATER FROM WET CARBONIZED PEAT. NILS TESTRUP, London, and OLOF SÖDERLUND, Clapham Park, London, England, assignors, by mesne assignments, to Wetcarbonising Limited, London, England. Filed Dec. 6, 1911. Serial No. 664,258. (Cl. 100—50.

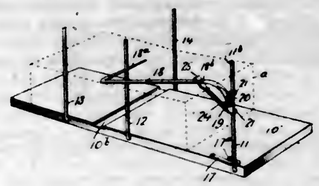


1. A method of removing water from wet carbonized peat, consisting in subjecting the material to filter pressing, and thereafter to slowly applied external pressure.

2. A method of removing water from wet carbonized peat pulp, consisting in subjecting the pulp to filter pressing, until its water content is reduced to about 70 per cent., and thereafter subjecting the resulting solid to a gradually increasing external pressure, until the water content has been reduced to about 50 per cent.

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1,094,271. DEVICE FOR STACKING MAIL-MATTER. EARL P. F. THOMPSON, Troy, Tex. Filed Sept. 29, 1913. Serial No. 792,367. (Cl. 211—86.)



1. A device of the character described, comprising a base, a stop at one side of the base, and a stop at the opposite side, one of said stops having a foot slidable in the base and adapted to turn therein.

2. A device of the character described, comprising a base, a stop at one side of the base, and a stop at the opposite side one of said stops having a foot slidable in the base and adapted to turn therein, the said foot having a flattened side, and there being a plate spring on the base pressing on said foot, the foot furthermore having a shoulder at the inner end of the flattened portion.

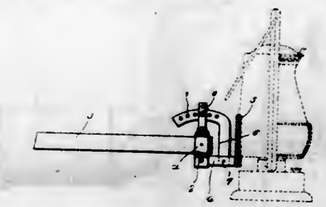
3. In a device of the character described, a base, a presser arm, and an element on the side of the base on which said arm is mounted to swing to a position over the base, or away from the latter, said arm having the free end thereof bent inwardly.

4. In a device of the character described, a base, a standard, a bracket mounted to swing and to slide on the standard, a presser arm pivoted to rock vertically on the bracket, and a spring connected with the bracket and with the arm to exert a downward pull on the arm.

5. In a device of the character described, a base, a standard at the side thereof, a bracket mounted to slide on the standard and to swing laterally thereon, a presser arm pivoted to rock vertically on the bracket, a clutch plate loose on the arm, said arm having a series of notches to engage the clutch plate, and a spring connected at one end with said plate and at the opposite end with the bracket.

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1,094,272. VEHICLE-LAMP. OLNEY THORNLEY, Coyle, Okla. Filed May 28, 1913. Serial No. 770,448. (Cl. 240—57.)



1. Means for securing a lamp to the pole or shaft of a vehicle, the same comprising an attaching means, an arm provided with means for receiving the lamp, and a brace between such arm and attaching means to admit of angularly adjusting the arm to regulate the inclination of the lamp to throw the light to any distance ahead of the vehicle.

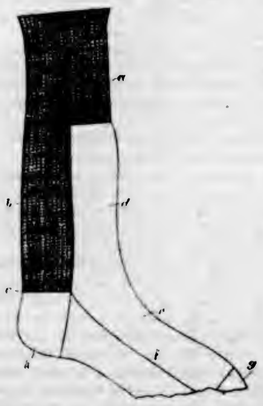
2. A vehicle lamp mount of the character specified comprising a clamp, a lamp receiving arm pivotally connected to one end of the clamp, and a brace between the opposite end of such clamp and arm for holding the latter in the required angular position.

3. A lamp mount comprising a clamp formed of similar members having intermediate portions oppositely deflected, a lamp receiving arm pivotally secured between the lower ends of the clamp members, and a brace between the lamp receiving arm and the opposite end of the clamp and received between the members of such clamp, said brace being adjustable to admit of the relative inclination of the arm being varied, whereby light may be thrown to any distance ahead of the vehicle.

4. A lamp mount of the character described comprising a clamp formed of similar members having their intermediate portions oppositely deflected, a lamp receiving arm pivotally supported between the lower ends of the clamp members, a brace pivotally connected to the outer end of the lamp receiving arm and passing between the upper ends of the clamp members, the upper portion of such brace being provided with a plurality of openings, and means for adjustably connecting the brace to the clamp.

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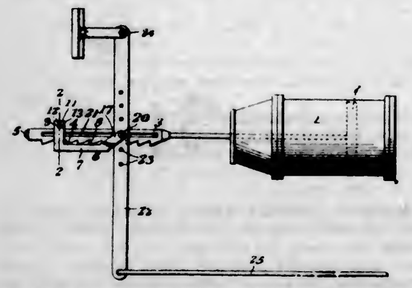
1,094,273. SOCK. CHARLES TIGHE, London, England. Filed Mar. 10, 1913. Serial No. 753,354. (Cl. 2—23.)



A sock having a ribbed portion extending entirely around the upper end and extending down the rear only from the upper portion to a point adjacent the heel, the remaining portion of the sock being plain fabric.

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1,094,274. ADJUSTING MEANS FOR CAR-BRAKES. HERBERT E. TRIBETT, Cameron, W. Va. Filed May 3, 1913. Serial No. 765,300. (Cl. 188—50.)



1. In a device of the class described, the combination of a brake cylinder, a piston within the cylinder and a rod for the piston, of a clamp block for the rod, a cylinder lever, and a brake rod connected with the lever, means for locking the clamp block upon the rod in longitudinal adjustment therewith, and means arranged between the block, the cylinder lever and the rod for permitting the adjustment of the block upon the rod without removing the block from its connection with the rod and with the cylinder lever.

2. In a device of the class described, the combination with a brake cylinder, a piston within the cylinder and a rod for the piston, said rod having a slotted head, of a clamp block arranged for longitudinal adjustment upon the head, a key for sustaining the clamp in locked position upon the head, a cylinder lever, a brake rod pivotally connected with the cylinder lever, and a pivot member passing through the slot of the head and connecting the cylinder lever with the clamp block.

3. In a device of the class described, the combination of a brake cylinder having a piston and being provided with a piston rod having an elongated head, said head being provided with a longitudinally extending slot and having one of its longitudinal edges toothed, a clamp block having teeth adapted to co-act with the teeth of the head, arms upon the clamp block passing over the opposite faces of the head, a key for the arms and engaging with the head, said block having angular ears which pass over the opposite faces of the head, a pivoted cylinder lever provided with a brake rod, and a pivot member for the ears of the clamp block engaging the cylinder lever and passing through the slot of the head.

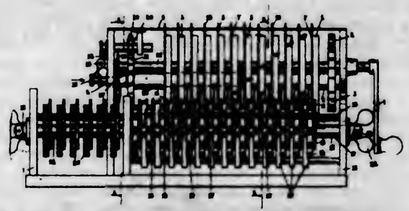
4. In a device of the class described, an air brake cylinder having the rod of its piston provided with an elongated head having one of its sides toothed and being provided with an elongated slot, a clamp block, said block including a body portion having its inner face toothed, one of the ends of the block being provided with spaced arms arranged at an angle to the body and adapted to pass over the opposite faces of the head, said arms having each a key-hole slot, a key including a weighted head and having its shank provided with a bit adapted to pass through the slots of the arms to retain the teeth of the block in engagement with the teeth of the head, the said block having its opposite end formed with angular ears, a pivoted cylinder lever having a brake rod, and a pivot member passing through the ears, the cylinder lever and the slot of the head.

5. In a device of the class described, a piston rod for the piston of a brake cylinder having a slotted head, a clamp having angularly arranged ears overlying the opposite faces of the head, a cylinder lever provided with a brake rod, a pivot member for the ears and for the lever and passing through the slot of the head arms connected with the clamp, and a key member for the arms adapted to hold the clamp into frictional engagement with the head.

[Claim 6 not printed in the Gazette.]

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1,094,275. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Apr. 15, 1913. Serial No. 761,307. (Cl. 235—73.)



1. In a calculating machine, the combination with a setting mechanism comprising two groups of setting members, a main shaft having one group of setting members secured thereto, and a sleeve on said main shaft and carrying the other group of setting members, of operating means for said main shaft, registering mechanism comprising a plurality of registering members adapted to be operated by said setting mechanism, and means to connect said main shaft and said sleeve with each other at will for rotation in the same or in the opposite direction.

2. In a calculating machine, the combination, with a setting mechanism comprising two independently-revoluble groups of setting members, and a registering mechanism operable partly by one group and partly by the other; of means for rotating one of said groups; and means for connecting the other group to the first-named group for simultaneous rotation therewith in either the same or the opposite direction.

3. In a calculating machine, the combination, with a setting mechanism comprising two independently-revoluble groups of setting members arranged in axial alinement, and a registering mechanism operable by said setting mechanism; of means for rotating one of said groups; and means for connecting the other group to the first-named group for simultaneous rotation therewith in either the same or the opposite direction.

4. In a calculating machine, the combination, with a setting mechanism comprising two independently-revoluble groups of setting members, and a registering mechanism operable partly by one group and partly by the other; of a member rotatable continuously in one direction and having a constant connection with one of said groups and a reversible connection with the other group, to rotate both groups either in the same direction or in opposite directions.

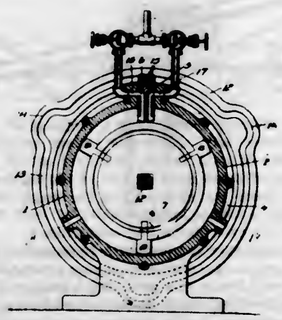
5. In a calculating machine, the combination, with a setting mechanism comprising two independently-revoluble groups of setting members, and a registering mechanism operable by said setting mechanism; of an operating crank; a driving connection between said crank and one of said groups for rotating the latter constantly in one direction; and a reversible driving connection between said crank and the other group, for rotating said other group in either the same direction as or the opposite direction from the first-named group.

[Claims 6 to 12 not printed in the Gazette.]

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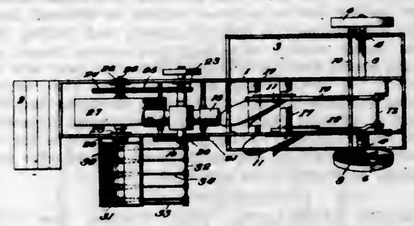
1,094,276. ROTARY STEAM-ENGINE. CHARLES R. UNDERHILL, Chancy, Miss. Filed Dec. 12, 1913. Serial No. 806,280. (Cl. 121—70.)



In a reversible rotary steam engine, a cylindrical casing provided with two independent inlet passages facing each other and tangential to the casing, means for independently, controlling said passages, a concentric rotor working in said casing and provided with wings on the periphery thereof, a shaft on which said rotor is centrally fixedly secured, a cam disk fast on said shaft exteriorly of the casing and formed with a cam groove, a slidable steam cut-off working through an opening in the cylindrical wall of said casing and formed in each of its opposite faces with twin sets of inlet and outlet ports, the casing being provided with exhaust ports equidistant from and at opposite sides of said cut-off, and a projection on said cut-off beyond the cylindrical wall of said casing working in said cam groove, the ports of the cut-off being so arranged that when the cut-off is at the inner limit of its movement, the inlet ports thereof register with the inlet passages of the casing, and the outlet ports of the cut-off communicate with the expansion chamber of the engine.

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1,094,277. MOTOR PLOW AND PLANTER. GORDON R. VAN CAMP, Drayton, N. D. Filed June 11, 1913. Serial No. 773,071. (Cl. 97—80.)



1. The combination with a wheeled frame, of plows carried by the same, a traction wheel mounted at the rear end of the frame and between the sides of the same, a seeding mechanism on one side of the frame operatively connected with said traction wheel, and means on the frame for rotating said traction wheel.

2. The combination with a main frame, of plows carried by the front end thereof, a traction wheel mounted in the rear end of the frame and between the sides of the same to run in the furrow formed by one of the plows, and a seeding mechanism operatively connected with said traction wheel and mounted on the side of the frame in rear of the plows.

3. The combination of a main frame, plows carried thereby, a single traction wheel mounted in the frame behind one of the plows, and a seeding mechanism mounted on the side of the frame and extending laterally beyond the same and operatively connected with said traction wheel.

4. The combination of a frame, plows carried thereby, a single traction wheel carried by the frame to run in the furrow formed by one of the plows, and a seeding mechanism mounted on the side of the frame and laterally beyond the same to travel in rear of some of the plows and operatively connected with the traction wheel.

5. The combination of a frame, plows carried thereby, a traction wheel carried by the frame behind one of the plows, and a seeding mechanism mounted on the side of the frame and operatively connected with the traction wheel, said seeding mechanism being arranged to travel over the ground turned by some of the plows.

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1,094,278. DOOR-LOCKING MECHANISM. ANTOINE VAN DEN PLAS, Woluwe, St. Pierre-les-Brussels, Belgium. Filed Oct. 3, 1912. Serial No. 723,783. (Cl. 16—63.)



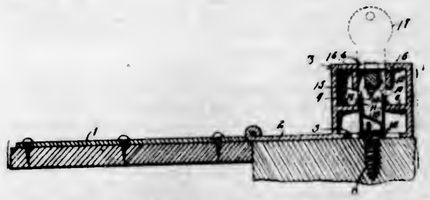
1. In combination, a door jamb, locking bars movably mounted on said jamb and provided with rigid locking bolts having locking portions inclined in different directions and disposed in different planes, said locking portions facing toward each other, a door provided with keepers having portions inclined in different directions and disposed in different planes and of complemental formation with respect to said locking portions, and means for

operating said bars to engage the bolts thereof with said keepers, substantially as described.

2. In combination, a door jamb, locking bars movably mounted on said jamb and provided with rigid locking bolts having locking portions inclined in different directions and disposed in different planes, said locking portions facing toward each other and having keeper engaging spaces slanting laterally and transversely with respect to the door opening, a door provided with keepers having portions inclined in different directions and disposed in different planes and of complemental formation with respect to said locking portions, and means for operating said bars to engage the bolts thereof with said keepers, substantially as described.

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1,094,279. HASP-LOCK. JOHN WAGNER, New York, N. Y. Filed May 26, 1913. Serial No. 769,969. (Cl. 70—5.)

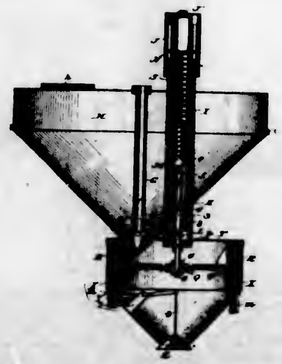


1. A lock of the class described comprising a hingedly connected casing, spaced flanges mounted in the casing, a screw having resilient fingers secured to its outer end, catches formed upon the outer ends of said fingers and adapted to enter the casing and engage the flanges.

2. A lock of the class described comprising a plate adapted to be secured to a door, a second plate hingedly connected to the first named plate and having a casing carried thereby, said casing having one of its sides provided with an opening, spaced flanges mounted in the casing, a key-way formed in the other side of the casing, a screw adapted to engage a door frame, said screw having its outer end provided with a head, resilient fingers connected to the head and having their outer ends provided with catches adapted to enter the opening in the side of the casing to engage the flanges therein, and means passable through the key-way for forcing the fingers toward each other to permit the casing to be swung from engagement with the fingers.

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1,094,280. GAS-GENERATOR. DAVID R. WAY, Fairfield, Iowa. Filed Apr. 15, 1912. Serial No. 690,933. (Cl. 48—48.)



1. In a gas generator, the combination with a bell adapted to be actuated by the volume of gas, of a shaft having helical grooves therein, feed pans operated by the shaft, and means in engagement with the grooves of the shaft adapted to be actuated by the bell for causing the pans to be operated.

2. In a gas generator, the combination with a bell adapted to be actuated by the volume of gas, of a shaft, feed pans operated by the shaft, and reciprocating means in engagement with the shaft and traveling lengthwise of the shaft adapted to be actuated by the bell for causing the shaft to be operated and the pans moved.

3. In a gas generator, the combination with a bell adapted to be actuated by the volume of gas, of a shaft having helical grooves, a cylinder in engagement with the grooves of the shaft, feed pans operated by the shaft, and means connected to the cylinder adapted to be actuated upon the movement of the bell for causing the shaft to be operated and the pans moved.

4. In a gas generator, the combination with a bell adapted to be actuated by the volume of gas, of a shaft carrying feeding means, said shaft provided with helical grooves, means having engagement with the grooves of said shaft, and means engaging said means for holding said means against rotation for causing the rotation of the shaft upon the actuation of said first-named means by the bell.

5. In a gas generator, the combination with a bell adapted to be actuated by the volume of gas, of a shaft carrying feeding means, said shaft provided with helical grooves, means having engagement with the grooves of said shaft, and means engaging said means for holding said means against rotation in one direction for causing the rotation of the shaft upon the actuation of the first-named means by the bell.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,281. CANE-CONVEYER. THOMAS J. WEST, Makawell, Hawaii. Filed Sept. 20, 1913. Serial No. 790,905. (Cl. 193—18.)



1. A cane conveyer comprising a rectangular frame, an endless conveyer belt, transverse rollers arranged adjacent the ends of said frame and over which said belt passes, a pair of arms carrying one of the rollers and pivoted to said frame for movement in the longitudinal plane thereof, blocks slidable longitudinally of said frame, and links connecting said blocks and said arms.

2. A cane conveyer comprising a rectangular frame, an endless conveyer belt, transverse rollers arranged adjacent the ends of said frame and over which said belt passes, a pair of arms carrying one of the rollers and pivoted to said frame for movement in the longitudinal plane thereof, rotatable screw shafts carried by said frame and extending longitudinally thereof, blocks mounted on said screw shafts and movable longitudinally thereof, and links connecting said blocks and said arms.

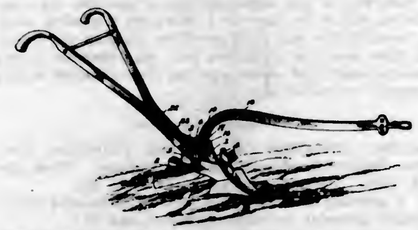
3. A cane conveyer comprising a rectangular frame, an endless conveyer belt, transverse rollers arranged adjacent the ends of said frame and over which said belt passes, a pair of arms carrying one of the rollers and pivoted to said frame for movement in the longitudinal plane thereof, blocks slidable longitudinally of said frame, links connecting said blocks and said arms, and traction wheels supporting said frame, the roller at the rear end of the frame being mounted upon the axle of the rear traction wheels.

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1,094,282. PLOW. ARTHUR M. WHITE, Norfolk, Va., assignor to S. R. White's Sons, Norfolk, Va. Filed Feb. 21, 1912. Serial No. 679,162. (Cl. 97—26.)

1. A plow standard including a base runner, a body member rising therefrom, a lateral offset formed in the body member and defining an approximately vertically disposed recess adapted to receive a plow beam terminal, the body member being provided, adjacent its junction with the runner, with an opening adapted to receive a shovel or blade, an extension formed on the body member and projecting upwardly and rearwardly therefrom, said extension being slotted to receive bolts whereby a handle may be adjustably secured to the body member, and a web member formed integral with and connecting the body member and extension.





2. A plow standard consisting of a single metallic casting including a base runner, a body member rising therefrom, a lateral offset formed in the body member and defining an approximately vertically disposed recess adapted to receive a plow beam terminal, the offset being formed with a plurality of openings adapted to receive bolts for adjustably securing a standard, an extension formed on the body member and projecting upwardly and rearwardly therefrom, said extension having slots adapted to receive bolts, whereby the handle may be adjustably secured to the body, and a web connecting the intermediate portion of the extension with the body member.

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1,094,283. MATCH-BOX. CHARLES WICK, Miami, Ariz. Filed Jan. 2, 1913. Serial No. 739,834. (Cl. 220—9.)



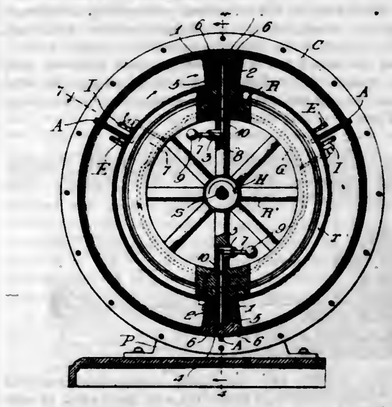
A match box including a casing closed at its lower end, partition walls extending transversely across the casing bearing one against the other and having their free edge portions laterally bent and secured to the wall of the casing, the intermediate portions of said partition walls being bent away from each other to form a cylindrical housing, the upper ends of said housing having inwardly directed retaining fingers, a cover for the casing, and means operatively connected to the cover, seated in the housing and retained therein by said fingers for yieldably holding the cover in place.

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1,094,284. ROTARY ENGINE. RICHARD S. WILKIE, Baker, Oreg. Filed Dec. 22, 1913. Serial No. 808,260. (Cl. 121—67.)

1. In a rotary engine, the combination with an annular cylinder and a rotor, of a piston carried by said rotor, and mounted for slight radial movement within said cylinder and mechanism for overcoming the centrifugal force exerted on said piston.

2. In a rotary engine, the combination with an annular cylinder and a rotor, of a stud projecting radially from the periphery of said rotor, a piston slidable within said cylinder and mounted upon said stud for slight radial movement, a weight adapted to move radially outward when the rotor is revolved and connections between said piston, and said weight for overcoming the centrifugal force exerted on said piston.



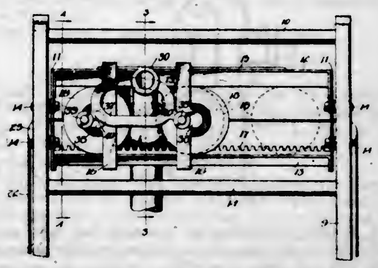
3. A rotory engine comprising an annular cylinder, a mechanically operated abutment therein, a mechanically operated intake valve for said cylinder, an exhaust port therefor, a rotor, a piston loosely mounted for slight radial movement on said rotor and slidable within said cylinder, a lever pivoted intermediate its ends to said rotor, a connection between one end of said lever and said piston and a weight on the opposite end of said lever.

4. A rotary engine comprising an annular cylinder, a mechanically operated abutment therein, a mechanically operated intake valve for said cylinder, an exhaust port therefor, a rotor, a hollow stud projecting radially from the periphery thereof, a piston slidable within said cylinder and having a socket receiving said hollow stud, a lever pivoted intermediate its ends to said rotor, a connecting element slidable within the bore of said stud, and connecting said piston with one end of said lever and a weight on the opposite end of said lever.

5. A rotary engine comprising an annular cylinder, a mechanically operated abutment therein, a mechanically operated intake valve for said cylinder, an exhaust port therefor, a rotor comprising a rim, a hub and a spoke, a stud projecting radially from the periphery of said rim, said stud, rim and spoke being provided with a radial bore, a piston slidable within said cylinder and having a socket receiving said stud, a lever pivoted intermediate its ends to said spoke and having one end projecting into said bore, a link within said bore and connecting said end of said lever with said piston and a weight on the opposite end of said lever.

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1,094,285. FIRE-FIGHTING APPARATUS. SAMUEL B. WILLIS, New York, N. Y. Filed June 20, 1913. Serial No. 774,806. (Cl. 169—18.)



1. An apparatus as characterized, comprising a track frame; a hose carrier truck operatively mounted, to oscil-

late, in said frame; means for holding a fire hose nozzle on said truck to move therewith; and means for oscillating the delivery end of said nozzle in a plane perpendicular to the plane of movement of said truck.

2. An apparatus as characterized, comprising a horizontally-disposed track frame; a wheel-supported hose carrier truck mounted to travel lengthwise on said frame; means for holding a fire hose nozzle on said truck to rock thereon; means for rolling said truck lengthwise said frame; and means for rocking said nozzle during the travel of said truck.

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1,094,286. LINE HOLDER AND STRETCHER. CHARLES EDWARD WINSTEAD, Wilson, N. C. Filed July 12, 1913. Serial No. 778,757. (Cl. 33—87.)



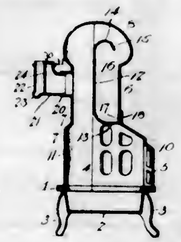
1. A line holder and stretcher, comprising supports between which the line is stretched and held, each of said supports comprising a body portion, means for holding the support at the corner of a wall and means whereby the support may be secured on a blank wall, one means adapted to be folded within the body of the support when said second means is to be used, and both means capable of being folded when the device is not in use.

2. A line holder and stretcher, comprising supports between which the line is stretched and held, each of said supports comprising a body portion made preferably rectangular in the main and having the inner end thereof made V-shaped, the V-shaped portion provided on its inner edge with a notch through which the line passes, and by which it is held and supported in proximity to the wall at the point desired, and means for holding the support on the blank face of the wall against which the line is to be stretched.

3. A line holder and stretcher comprising supports between which the line is stretched and held, each of said supports being composed of a body portion made preferably rectangular in the main and having the inner end thereof made V-shaped, the V-shaped portion provided on its inner edge with a notch through which the line passes, and by which it is held and supported in proximity to the wall at the point desired, and means capable of being folded into the body portion for holding said supports at the corners of a building.

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1,094,287. GAS-HEATER. GEORGE ALBERT WISE, Newark, Ohio, assignor to The Early Sun Stove Company, Newark, Ohio, a Corporation of Ohio. Filed Apr. 29, 1908. Serial No. 429,887. (Cl. 126—85.)



1. A heater comprising an enlarged fire box, an enlarged dome at the top, and a contracted body connecting the fire box and dome, a partition dividing the contracted body into front and rear chambers, the rear chamber being open to the fire box at the bottom and at the top to the front chamber through the dome, and the partition being bent forward at the bottom cutting off the front chamber from the fire box and curved forward and downward at the top, in the dome, a damper controlled opening in the rear wall of the rear chamber, and a damper controlled opening at the lower end of the forward chamber.

2. A heater comprising a body provided with an enlarged fire box and an enlarged upper dome, a partition having its lower end connected to the front of the body and partly overhanging the fire box, said partition extending centrally of the upper portion of the body and terminating within the dome in a forwardly projecting pendent rounded free end, said partition dividing the heater into front and rear chambers, said rear chamber having a damper controlled outlet, and the front chamber having a damper controlled inlet.

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1,094,288. PROCESS OF MAKING PRINTING-INK. MAX WOLFF, Southwark, London, England. Filed Apr. 28, 1913. Serial No. 764,176. (Cl. 134—35.)

1. A printing ink comprising a partly carbonized fibrous vegetable material, an alkaline silicate, and oil.

2. A printing ink comprising peat, an alkaline silicate, and oil.

3. A printing ink comprising peat, an alkaline silicate, a pigment, and oil.

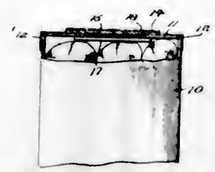
4. A printing ink comprising peat, an alkaline silicate, a pigment, and oily matter derived from petroleum.

5. A printing ink comprising peat, an alkaline silicate, a pigment, oily matter derived from petroleum and resin oil.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,289. MOISTURE-PROOF BOX. JOSEPH WYMORE, Seattle, Wash. Filed Apr. 15, 1913. Serial No. 761,384. (Cl. 229—43.)



A receptacle having an opening, a closure for said opening and larger than the same, a member depending from said closure and extending through said opening, said closure having a guiding line corresponding in outline to the opening and to the depending member to enable the depending member and the portion of the closure externally of the depending member to be cut-out, a stop member extending over the opening within the receptacle, and a member adapted to be secured to the severed parts of the closure to retain the cut-out portion after it has been restored.

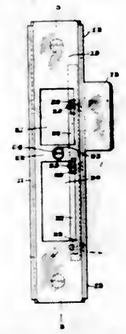
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1,094,290. STRIKE-PLATE FOR LOCKS. JOHN H. AMES, Eddington, Me. Filed Aug. 15, 1913. Serial No. 785,005. (Cl. 70—15.)

1. In a strike plate for locks, the combination with a box adapted to lie within a door casing, of a member supporting the box and having its ends projecting beyond the ends of the box and adapted to receive screws therethrough to secure the box and member to the door casing, the said member having an opening therein, a track formed on the member, a plate provided with a plurality of openings and mounted to slide longitudinally on the track to normally cover the screws securing the member to the door casing, and means engaging the box for securing the said plate in an adjusted position on the said member.

2. In a strike plate for locks, the combination with a member for rigid attachment to a door casing, of a box carried by the member and lying within the door casing, a plurality of screws passing through projecting ends of the said member to secure the member and box rigidly to the door casing, a plate mounted to slide on the said member and normally covering the said screws, and a screw passing through a slot in the said plate and having connection with the said box for securing the plate in an adjusted position on the said member.





3. In a strike plate for locks, the combination with a member for attachment to a door casing, of a box carried by the member to lie within the casing, a plate provided with a plurality of openings and supported on the said member, with a bolt and latch of the lock adapted to pass through the openings in the plate, a bar adjustably supported within the box and adapted to be engaged by the bolt of the lock when the same passes through the opening in the plate, and a second bar supported within the box and adapted to be engaged by the latch of the lock when the same passes through the other opening in the plate.

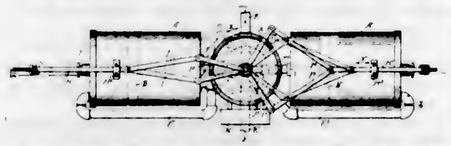
4. In a strike plate for locks, the combination with a box adapted to receive a bolt of a lock therein, of a member carrying the box and adapted for rigid connection with the door casing, a plate carried by the member and provided with an opening through which the bolt passes, means for adjusting the plate on the said member, and means adjustably supported within the box and adapted to be engaged by the bolt when the same passes through the opening in the plate for preventing the door carrying the lock from rattling relatively to its casing.

5. In a strike plate for locks, the combination with the bolt of a lock, of a box for connection with the door casing and adapted to receive the bolt therein, a bar, a screw passing through the side wall of the box and having connection with the said bar, and a nut carried by the bar and having threaded connection with the screw whereby the said bar can be adjusted relatively to the said bolt when the same is received in the said box.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,291. LIQUID-MEASURING DEVICE. EDWARD AUGUST APPELL, New York, N. Y. Filed Mar. 5, 1913. Serial No. 752,072. (Cl. 73—30.)



1. A liquid measuring device, comprising a valve casing provided with an inlet and an outlet for the fluid and adapted to be connected with the container containing a liquid to be measured, a valve mounted to turn on the said valve casing and having sets of ports and actuating and measuring devices connected with the said valve casing, the said actuating devices having movable members under the influence of the pressure of the fluid passing into and out of the actuating devices, and driving means connecting the said movable members of the actuating and measuring devices with the said valve for imparting a continuous turning motion to the valve on withdrawing a portion of the liquid from the container.

2. A liquid measuring device, comprising a valve casing provided with an inlet and an outlet for the liquid and adapted to be connected with the container containing a liquid to be measured, a valve mounted to turn on the said valve casing and having sets of ports and actuating and measuring devices connected with the said valve casing, the said actuating devices having movable members under the influence of the pressure of the fluid passing into and out of the actuating devices, driving means connecting the said movable members of the actuating and measuring devices with the said valve for imparting a continuous turning motion to the valve on withdrawing a portion of the liquid from the container, and a register connected with and driven from the said valve to register the amount of the fluid passing through the valve.

3. A liquid measuring device, comprising a valve casing having an inlet and an outlet, a valve mounted to turn in the valve casing and having inlet and outlet ports, of which the inlet ports are at all times in communication with the said casing inlet and the said outlet ports are at all times in communication with the said casing outlet, measuring receptacles having their ends connected with the said valve casing to connect each end of a measuring receptacle alternately with corresponding inlet ports and outlet ports, movable members in the said measuring receptacles and under the influence of the fluid passing into and out of the measuring receptacles, and a driving connection between the said movable member and the said valve to continually rotate the valve and thereby cause a continuous flow of the fluid to and from the measuring receptacles and through the valve.

4. A liquid measuring device for attachment to a closed container containing a liquid under pressure, comprising a valve casing provided with an inlet and with an outlet, a valve mounted to turn in the said valve casing and having two sets of ports, of which one set is adapted to register with the said inlet and the other with the said outlet on turning the valve, measuring cylinders having their ends connected with the said valve casing to register with the said sets of ports, pistons movable in the said measuring cylinders, and driving means connecting the said pistons with the said valve to rotate the latter.

5. A liquid measuring device for attachment to a closed container containing a liquid under pressure, comprising a valve casing provided with an inlet and with an outlet, a valve mounted to turn in the said valve casing and having two sets of ports, of which one set is adapted to register with the said inlet and the other with the said outlet on turning the valve, measuring cylinders having their ends connected with the said valve casing to register with the said sets of ports, pistons movable in the said measuring cylinders, a ratchet wheel secured on the stem of the said valve, toggle levers fulcrumed loosely on the said stem and carrying pawls engaging the said ratchet wheel, and slides connected with the said toggle levers to open and close the same, the said slides being connected with the said pistons.

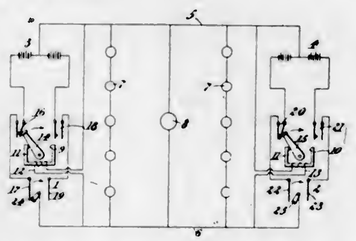
[Claims 6 and 7 not printed in the Gazette.]

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1,094,292. SYSTEM FOR OPERATING OR CONTROLLING TIME-INDICATING DEVICES. LEONARD JAMES ARON, London, England, assignor to X. L. Electric Company Limited, London, England. Filed May 17, 1912. Serial No. 698,030. (Cl. 58—24.)

1. In an electrical time-indicating system, the combination of, a plurality of time indicators, each operable by electric impulses, a distributing net-work in electrical connection with the indicators, means for generating current, a plurality of electrical impulse-connections between the means for generating current and the net-work, a plurality of automatic periodic circuit-controlling devices one in each impulse-connection, a plurality of electrically

opened switches one in each of said impulse-connections so connected that its switch contacts form part of the said impulse-connection and its operating circuit is in electrical connection with the distributing net-work, and means for closing the switches.



2. In an electrical time-indicating system, the combination of, a plurality of time indicators, each operable by electric impulses, a distributing net-work in electrical connection with the indicators, means for generating current, a plurality of electrical impulse-connections between the means for generating current and the net-work, a plurality of automatic periodic circuit-controlling devices one in each impulse-connection so arranged that one normally modifies the said operative connection in a given sense before any other so modifies it, a plurality of electrically opened switches one in each of said impulse-connections so connected that its switch contacts form part of the said impulse-connections and its operating circuit is in electrical connection with the distributing net-work, and means for closing the switches.

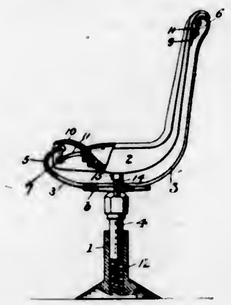
3. In an electrical time-indicating system, the combination of, a plurality of time-indicators, each operable by electric impulses, a distributing net-work in electrical connection with the indicators, a plurality of current generators, a plurality of electrical impulse-connections one between each generator and the net-work, a plurality of automatic periodic circuit-controlling devices one in each impulse-connection, a plurality of electrically opened switches one in each of said impulse-connections so connected that its switch contacts form part of the said impulse-connection and its operating circuit is in electrical connection with the distributing net-work, and means for closing the switches.

4. In an electrical time-indicating system, the combination of, a plurality of time indicators, each operable by electric impulses, a distributing net-work in electrical connection with the indicators, means for generating current, a plurality of electrical impulse-connections between the means for generating current and the net-work, a plurality of automatic periodic circuit-controlling devices one in each impulse-connection, a plurality of electrically opened switches one in each of said impulse-connections so connected that its switch contacts form part of the said impulse-connections and its operating circuit is in electrical connection with the distributing net-work, and means for automatically closing the switches after lapse of a predetermined time from the moment of their being opened.

5. In an electrical time-indicating system, the combination of, a plurality of time indicators each operable by electric impulses, a distributing net-work in electrical connection with the indicators, means for generating current, a plurality of bifurcated electrical impulse-connections between the means for generating current and the net-work, a plurality of automatic two-way periodic circuit-controlling devices, one in each impulse-connection having one way in circuit with one and the other way in the circuit of the other of the said bifurcations, a plurality of electrically opened switches one in each of said impulse-connections so connected that its switch contacts form part of the said impulse-connection and its operating circuit is in electrical connection with the distributing net-work, and means for closing the switches.

[Claims 6 and 7 not printed in the Gazette.]

1,094,293. SEAT. GEORGE BANKS, Greenville, Mich. Filed Nov. 20, 1906. Serial No. 344,330. (Cl. 155—25.)



1. A device of the character described comprising a supporting-stem, a seat-supporting bar secured to the stem, said bar provided with inturned end portions and conforming in general outline to the seat, links having a swivel connection with said inturned portions and a hinged connection with outstanding brackets fixed to the seat, said connection between the links and brackets so formed that the seat can move with respect to the links only in a forward and rear swinging path, and the connection between the links and bar constructed to permit swinging movement of the links in any direction around the said connection.

2. A device of the character described comprising a seat-supporting bar provided with inturned end portions and conforming in general outline to the seat, but arranged out of contact therewith, a seat, brackets rigidly secured to the front and rear portions of said seat, links having a hinged connection at their one end with said brackets and having a swivel connection at their remaining end with the inturned portions of the supporting bar, the connection between the links and brackets so formed that the seat has movement only in a forward and rear swinging path, and the connection between the links and the bar so constructed that the links and the seat carried thereby may swing in any direction with respect to the swivel connection.

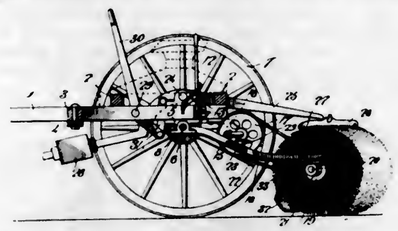
3. A device of the character described comprising a seat-supporting bar provided with inturned end portions, a seat, brackets secured to the front and rear portions of said seat, links hinged to said brackets to have a swinging movement only in a plane parallel to the extent of said bracket, a swivel connection formed between the remaining end of said links and the inturned portions of the bar, said parts so arranged that the seat can move in a horizontal plane from front to back and is permitted to swing in an arc from side to side around said swivel connection, and means carried by the seat on either side of said seat-supporting bar to permit of said horizontal movement and acting to preclude too great circular swinging.

1,094,294. STREET-SWEEPER. MACK DONALD BANKS, Columbus, Ohio. Filed Oct. 4, 1912. Serial No. 723,968. (Cl. 15—17.)

1. In a device of the class described, the combination with a wheeled vehicle having a driving shaft, of two-part arms pivoted to the shaft, spring hinges connecting the two parts of said arms, a brush journaled in said arms, a driving connection between the brush and the driving shaft, and means to raise and lower the brush.

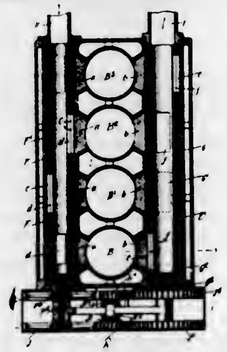
2. In a device of the class described, the combination with a wheeled vehicle having a driving shaft, of two-part longitudinally disposed arms pivoted to the shaft, spring hinges connecting the adjacent ends of said arms, a brush journaled in said arms, a driving connection between the





brush and the driving shaft, and means to raise and lower the brush.

1,094,295. ROTARY VALVE. CHARLES H. BANTLEY, Lebanon, Mo. Filed Nov. 9, 1911. Serial No. 659,291. (Cl. 121—23.)



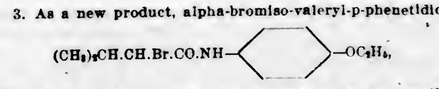
A multiple cylinder internal combustion engine provided with an admission valve and an exhaust valve, each valve comprising a pair of elongated revoluble cylinders one within the other and closed at one end, each cylinder having a longitudinal series of staggered ports of which each port of one cylinder is in the same transverse plane with a port of the other cylinder, the said cylinders having relatively engaging circular ribs and recesses at their closed ends and having shafts extending from said ends, means connected with said shafts for rotating the cylinders continuously in relatively opposite directions, a casing having a closed end and within which said cylinders are mounted, said casing and the outer cylinders having their closed ends provided with relatively engaging circular ribs and recesses, and pipes connected to the opposite casing end and against which the ends of the cylinders abut, whereby to maintain the latter in position.

1,094,296. PHARMACEUTICAL OR MEDICINAL COMPOUND AND PROCESS FOR PRODUCING THE SAME. PETER BERGELL, Berlin-Wilmersdorf, Germany, assignor to J. D. Riedel Aktiengesellschaft, Berlin-Britz, Germany. Filed Nov. 25, 1913. Serial No. 803,023. (Cl. 23—24.)

1. The process for the manufacture of alpha-bromiso-valeryl-p-phenetidid, which consists in causing p-phenetidin to act on alpha-bromiso-valeryl bromid, substantially as described.

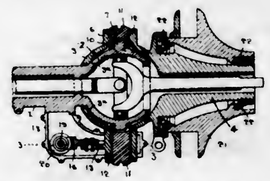
2. The process for the manufacture of alpha-bromiso-valeryl-p-phenetidid, which consists in dissolving p-phenetidin in benzene, gradually introducing into the solution alpha-bromiso-valeryl-bromid, while constantly stirring, then heating the mixture, filtering and allowing the filtered liquid to cool, substantially as described.

3. As a new product, alpha-bromiso-valeryl-p-phenetidid,



melting at 151° C., sparingly soluble in water, easily soluble in alcohol, ether and benzene, crystallizable from dilute alcohol in the shape of large column-shaped anhydrous crystals, only slowly decomposable by alcoholic alkali and possessing soporific and strong antineuralgic properties.

1,094,297. STEERING-GEAR. WILLIAM A. BESSERDICH, Clintonville, Wis. Filed May 29, 1913. Serial No. 770,773. (Cl. 21—196.)



1. A steering gear comprising a casing having a hollow head at the ends thereof and vertically alined trunnions on said heads, a two-part socket rotatable on said trunnions and having a skein-member integral with one of the parts thereof, an arm carried by said socket, a worm segment secured to said arm, a worm meshing with said worm segment, and a housing inclosing said worm and said worm segment.

2. A steering gear comprising a casing having hollow heads at the ends thereof and vertically alined trunnions on said heads, a two-part socket rotatable on said trunnions and having a skein member integral with one of the parts thereof, an arm carried by said socket, a worm segment adjustably secured to said arm, a worm meshing with said worm segment, and a housing inclosing said worm and said worm segment.

3. A steering gear comprising a casing having a hollow head at the end thereof and vertically alined trunnions on said head, a two part socket rotatable on said trunnions and having a skein member integral with one of the parts thereof, an arm carried by said socket, an adjustable worm segment secured to said arm, a two part housing, and a worm rotatable in said housing and meshing with said worm segment.

1,094,298. PRINTING DEVICE FOR CARS. CARL R. BOWEN, Hailey ville, Okla. Filed Apr. 19, 1913. Serial No. 762,243. (Cl. 101—13.)

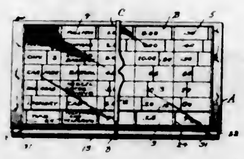


A printing device comprising a case having alining entrance slots in opposite walls thereof, a channeled fol-

lower plate arranged within the case, impression type held within the channel in the follower plate, means carried by the follower plate and engaging the type to prevent displacement thereof, resilient means arranged within the case and acting upon the follower plate to hold the same out of the path of the entrance slot, and a crank lever journaled in the side walls of the case and having its crank working in the path of the follower plate whereby on the turning of the lever the said crank will advance the follower plate in the path of the entrance slot.

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1,094,299. EXPENSE-TABULATOR. EDWARD LOUNSBURG BROWN, New York, N. Y., assignor of one-half to Alfred R. Rodway, New York, N. Y. Filed Aug. 13, 1913. Serial No. 784,640. (Cl. 101—161.)



1. A device of the class described comprising a casing, a table or scale on the casing, a slider movable to different parts of the table, a tape feeding means in the casing, a bed on which the tape bears at all times, a printing mechanism on the casing for impressing the tape, said mechanism including an endless type-carrying element and a platen, a connection between the slider and element for moving the latter, and a presser bar mounted on the casing and operating the platen to press the said element against the tape.

2. A device of the class described comprising a casing, a table thereon including a serial arrangement of words and numbers, a slider movable over the table and into registry with any word or number, a printing mechanism in the casing and including a type-carrying element and a platen, said slider consisting of telescoping sections, a presser bar, a connection between the presser bar and slidable section of the slider, and a tape-holding means against which the type-carrying element is pressed by the platen when the presser bar is actuated.

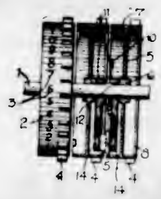
3. A device of the class described comprising a casing, a table thereon including a serial arrangement of words and numbers, a slider movable over the table and into registry with any word or number, a printing mechanism in the casing and including a type-carrying element and a platen, said slider consisting of telescoping sections, a presser bar, a connection between the presser bar and slidable section of the slider, a tape-holding means against which the type-carrying element is pressed by the platen when the presser bar is actuated, a feeding device for the tape, and means actuated by the presser bar for operating the feeding device.

4. A device of the class described comprising a casing, a table thereon with suitable data, a slider on the casing and movable over the said table, a type-carrying element in the casing, a connection between the said element and slider, a presser bar exterior of the casing, a platen, said slider including a movable part having a sliding engagement with the presser bar, the said platen being connected with the presser bar and disposed at one side of the said type-carrying element, a bed in the casing disposed at the other side of the type-carrying element from the platen, means for guiding the tape across the bed, a feeding device for the tape, and a ratchet and pawl means operated by the presser bar for actuating the feeding device.

5. A device of the class described comprising a casing, a table thereon with suitable data, a slider on the casing and movable over the said table, a type-carrying element in the casing, a connection between the said element and slider, a presser bar exterior of the casing, a platen, said slider including a movable part having a sliding engagement with the presser bar, the said platen being connected with the presser bar and disposed at one side of the said type-carrying element, a bed in the casing disposed at the other side of the type-carrying element from the platen, means for guiding the tape across the bed, a feeding device for the tape, said feeding device including a ratchet wheel and a pawl, and a lever connected with the presser bar and with the pawl for actuating the latter.

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1,094,300. ADDING-MACHINE. WILLIAM J. BROWN, Anita, Iowa. Filed July 12, 1913. Serial No. 778,695. (Cl. 235—80.)



1. A device of the class described comprising the combination with wheels having projections formed thereon, and a transfer device resiliently engaged with said projections.

2. A device of the class described comprising the combination with wheels having projections, transfer mechanism resiliently engaged with said projections, the projections of one wheel each having a beveled face, whereby said transfer mechanism may be forced away from the projections when engaged by the beveled face of said projections.

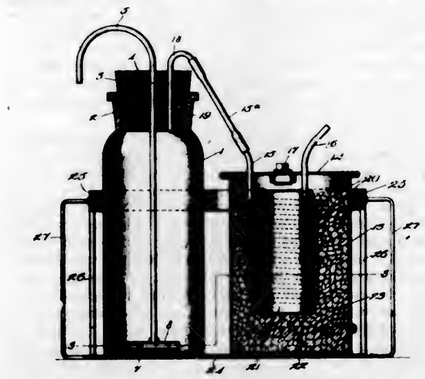
3. A device of the class described comprising a wheel having projections, a second wheel provided with projections, a shaft, a pair of star wheels engaged with the projections of the first mentioned wheels, the projections of one of the first mentioned wheels being each provided with a beveled face, and means engaged with the shaft for retaining said shaft and star wheels in operative position, said star wheels and shaft being adapted to be forced into inoperative position when engaged by one of said beveled faces.

4. A device of the class described comprising a wheel, a second wheel, the first wheel being provided with a plurality of spaced projections each having a straight edge and a beveled edge, the second wheel being provided with a notched flange, a shaft, a pair of star wheels mounted on the shaft, one of said star wheels being engaged with the notched flange of the second wheel, the other star wheel being adapted to be engaged at times by the projections of the first wheel, and means for resiliently retaining the shaft and star wheels in operative position, said star wheels and shaft being adapted to be moved to inoperative position upon engagement of the last mentioned star wheel with the beveled edge of said projections.

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1,094,301. APPARATUS FOR ADMINISTERING ANESTHETICS. ANSEL MARION CAINE, New Orleans, La., assignor to McDermott Surgical Instrument Co., Ltd., New Orleans, La. Filed May 20, 1912. Serial No. 698,558. (Cl. 60—6.)

A heater for use in apparatus for administering anesthetics, comprising a vessel adapted to be heated from an external source, a closed vessel located within the first-named vessel, a pipe entering the first-named vessel and formed with a spiral surrounding the second-named vessel, the inner end of said spiral pipe entering and communicating with the chamber of said second vessel adjacent the bottom thereof, a second pipe passing through the first and second-named vessels and communicating with the chamber of the latter at the top thereof, and a granular heat retaining substance within the space between said vessels adapted to maintain the temperature within the chamber of the second vessel whereby to vaporize the aerated anesthetic liquids, substantially as described.



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1,094,302. STOVE-POLISH. FRANK CAMERON, Jr., Harrison, Ohio, assignor of one-third to Frank Singer, Harrison, Ohio. Filed Jan. 7, 1913. Serial No. 740,675. (Cl. 134—25.)

A polish including silica, soda and neutral soap, graphite, gas black, water, turpentine, and oil of sassafras.

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1,094,303. CRIB-BED. THURE CARLSON, Moline, Ill. Filed July 9, 1913. Serial No. 778,137. (Cl. 5—59.)

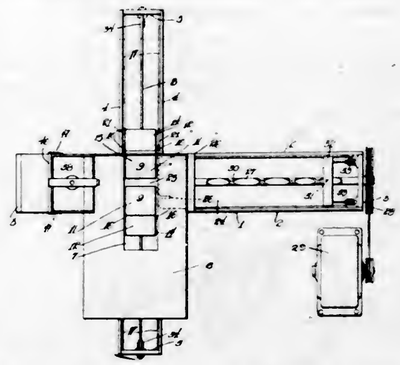


In a folding crib of the class described a frame, a standard bracket at certain corners of the frame, each standard bracket having walls at the ends and outer side of the frame and provided with bearing openings for members of end and side rails, each standard bracket being also provided with overlapping bottom flaps integral with and at the lower sides of its walls, the upper bottom flaps being provided with a downwardly extending eye having an opening, the lower bottom flap having an opening to receive said eye, and supporting legs for the corners of the crib and having pivotal connections at their upper ends, and pintle pins engaging said pivot connections and passing through the said openings of the eyes of the upper bottom flaps.

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1,094,304. PAPER-FOLDING MACHINE. CHARLES W. CAUSEY, San Antonio, Tex. Filed Dec. 13, 1912. Serial No. 736,585. (Cl. 93—6.)

1. In a machine of the class described, a table adapted to hold a sheet of paper and provided with a folding groove, folders disposed at the opposite sides of said table and adapted to move toward the same to fold the paper thereon, means for elevating said folders above said folding groove, means for returning said folders to normal position to throw the same into the folding groove whereby the folding of the paper may be initiated, a magazine designed to contain a quantity of envelops disposed adjacent to said table, a supplemental folder and injector movable toward said table and across the folding groove therein and designed to act upon the paper to complete the folding thereof and subsequently carry the folded sheet into said magazine and into an envelop therein, means for opening said envelop previous to the supplemental folder and injector entering said magazine, and means common to all of said folders and said last means for operating the same.



2. In a machine of the class described, a horizontal table adapted to hold a sheet of paper and provided with a folding groove, folders disposed at the opposite sides of said table and movable horizontally toward and away from the same and adapted to enter the folding groove to initially fold the paper therein, a magazine designed to contain a quantity of envelops disposed adjacent to said table, and a supplemental folder and injector movable horizontally toward said table and across the folding groove therein and designed to act upon the paper to complete the folding thereof and subsequently carry the folded sheet into said magazine and into an envelop therein.

3. In a machine of the class described, a horizontal table adapted to hold a sheet of paper and provided with a folding groove, folders disposed at the opposite sides of said table and movable horizontally toward and away from the same and adapted to enter the folding groove to initially fold the paper therein, a magazine designed to contain a quantity of envelops disposed adjacent to said table, a supplemental folder and injector movable horizontally toward said table and across the folding groove therein and designed to act upon the table to complete the folding thereof and subsequently carry the folded sheet into said magazine and into an envelop therein, and means for opening said envelop previous to the supplemental folder and injector entering the magazine.

4. In a machine of the class described, a horizontal table adapted to hold a sheet of paper and provided with a folding groove, folders disposed at the opposite sides of said table and movable horizontally toward and away from the same and adapted to enter the folding groove to initially fold the paper therein, a magazine designed to contain a quantity of envelops disposed adjacent to said table, a supplemental folder and injector movable horizontally toward said table and across the folding groove therein and designed to act upon the paper to complete the folding thereof and subsequently carry the folded sheet into said magazine and into an envelop therein, means for opening said envelop previous to the supplemental folder and injector entering the magazine, and means connecting said last-named means with said supplemental folder whereby the latter will operate said opening means.

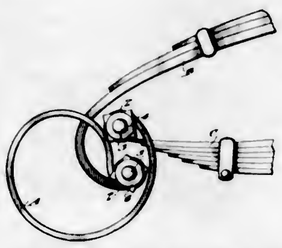
5. In a machine of the class described, a horizontal table adapted to hold a sheet of paper and provided with a horizontal folding groove, folders disposed at the opposite sides of said table and movable horizontally toward and away from the same and adapted to enter the folding groove to initially fold the paper therein, a magazine designed to contain a quantity of envelops disposed adjacent to said table, a supplemental folder and injector movable horizontally toward said table and across the folding groove therein and designed to act upon the paper to com-

plete the folding thereof and subsequently carry the folded sheet into the magazine and into an envelop therein, means adapted to enter said magazine and open the respective envelop therein previous to the supplemental folder and injector entering said magazine, and means for operating said folders and said last-named means.

[Claims 6 to 20 not printed in the Gazette.]

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1,094,305. AUXILIARY SPRING FOR USE ON AUTOMOBILES. ROBERT P. CLARK and WILLIAM H. CLARK, Fresno, Cal. Filed July 22, 1913. Serial No. 780,576. (Cl. 21—50.)



1. The combination with two springs, of a spring ring having overlapping ends, one terminal of the ring connected to an end of one of the springs, and the other terminal of the ring connected to the end of another spring, so that when any vibration or shock is transmitted to the springs, the spring ring will be caused to be convoluted, thereby decreasing the diameter of the ring.

2. The combination with two springs, of two spring rings having overlapping ends, an end of one of the springs having an end of each of the rings connected thereto, and the other spring having the other terminals of the rings connected thereto, so that the ends of the rings are in a vertical plane, said rings convoluted when a strain or shock is transmitted to the springs whereby the diameter of the rings is decreased.

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1,094,306. SPRING DOOR-CLOSER. JOHN A. CROSS, Westwood, N. J. Filed Dec. 6, 1913. Serial No. 805,097. (Cl. 16—46.)



1. In a device of the class described, the combination with a door frame and a door hinged thereto, of a supporting plate mounted in the frame, a shaft journaled in the said plate and being disposed parallel to the axis of the door pivot, the said shaft being provided with a spiral groove, a saddle member rotatably and slidably receiving the said shaft, a spiral thread provided within said saddle member for operative engagement within the shaft groove, means for preventing rotation of the saddle member with respect to the supporting plate during its longitudinal sliding movement upon the shaft, a flange provided upon the shaft, a compression spring mounted between the saddle member and the shaft flange, and means connecting the said shaft with the door to cause coöperative movement thereof.

2. In a device of the class described, the combination with a door frame and a door hinged thereto, of a supporting plate mounted in the frame, a shaft journaled in the said plate and being disposed parallel to the axis of the door pivot, the said shaft being provided with a spiral groove, a saddle member rotatably and slidably receiving the said shaft, a spiral thread provided within said saddle member for operative engagement within the shaft groove, means for preventing rotation of the saddle member with respect to the supporting plate during its longitudinal sliding movement upon the shaft, resilient means for resisting longitudinal movement of the saddle member in one direction, further resilient means for resisting the movement of the saddle member in the opposite direction, and means connecting the said shaft with the door to cause coöperative movement thereof.

3. In a device of the class described, the combination with a door frame and a door hinged thereto, of a supporting plate mounted in the frame, a shaft journaled in the said plate and being disposed parallel to the axis of the door pivot, the said shaft being provided with a spiral groove, a saddle member rotatably and slidably receiving the said shaft, a spiral thread provided within said saddle member for operative engagement within the shaft groove, means for preventing rotation of the saddle member with respect to the supporting plate during its longitudinal sliding movement upon the shaft, resilient means for resisting longitudinal movement of the saddle member in one direction, further resilient means for resisting the movement of the saddle member in the opposite direction, and means connecting the said shaft with the door to cause coöperative movement thereof.

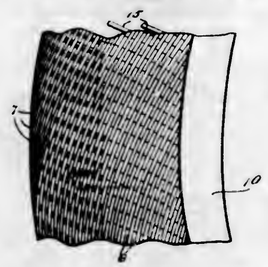
4. In a device of the class described, the combination with a door frame and a door hinged thereto, of a supporting plate mounted in the frame, a shaft journaled in the said plate and being disposed parallel to the axis of the door pivot, the said shaft being provided with a spiral groove, a saddle member rotatably and slidably receiving the said shaft, a spiral thread provided within said saddle member for operative engagement within the shaft groove, means for preventing rotation of the saddle member with respect to the supporting plate during its longitudinal sliding movement upon the shaft, resilient means for resisting longitudinal movement of the saddle member in one direction, a helical spring for resisting movement of the saddle member in the opposite direction, the said spring being positioned surrounding the shaft with one end abutting the said member, an adjustable sleeve mounted upon the said shaft in engagement with the opposite end of the spring, means by which the said sleeve may be secured in adjusted position upon the shaft, and means connecting the shaft with the door to cause coöperative movement thereof.

5. In a device of the class described, the combination with a door frame and a door hinged thereto, of a supporting plate mounted in the frame, a shaft journaled in the said plate and being disposed parallel to the axis of the door pivot, the said shaft being provided with a spiral groove, a saddle member rotatably and slidably receiving the said shaft, a spiral thread provided within said saddle member for operative engagement within the shaft groove, a guide rod connected with the said supporting plate and disposed parallel to the shaft, a bearing plate mounted fixedly upon the saddle member and having a slot therein frictionally engaged with the guide rod, a flange provided upon the shaft, a compression spring mounted between the saddle member and the shaft flange, and means connecting the said shaft with the door to cause coöperative movement thereof.

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1,094,307. ARMORED RESILIENT TIRE. ALEXANDER CROWE and ROBERT W. KIDSTON, Youngstown, Ohio. Filed June 4, 1912. Serial No. 701,637. (Cl. 152—16.)

1. A protective covering for vehicle tires composed of a plurality of series of protective elements extending diagonally across the face of the tire from one margin of the tire to the opposite margin thereof, each of said elements having flat side faces and being of greater depth than width, the side faces of one series of elements lying against and abutting the side faces of the next adjacent series of elements, and flexible connections extending through and connecting the several series of elements.



2. A protective covering for vehicle tires including a plurality of series of links extending diagonally across the face of the tire, the links of one series lying parallel to the links of the next adjacent series, and flexible strands extending diagonally across the tire at right angles to the direction of the series of links and passing through said links and flexibly connecting one series of links to the other series.

3. A protective covering for vehicle tires including a plurality of series of flat-sided links extending parallel to each other, the series of links extending diagonally across the tire, the links having flat contacting sides, and strands of cable extending diagonally at right angles to the direction of the links and passing through said links and flexibly connecting the links to each other.

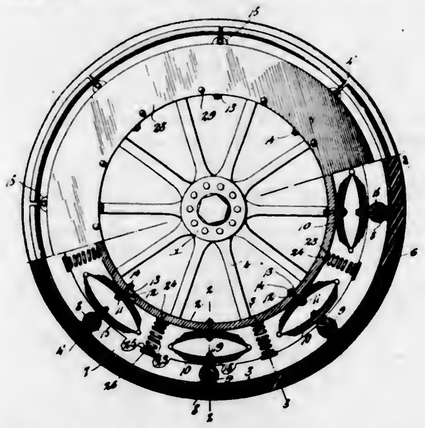
4. A protective covering for vehicle tires including parallel bases and a plurality of series of links, each link having flat contacting sides, the links extending diagonally across the tire from one of said bases to the other, and flexible connections attached at their ends to said bases and each extending through the several series of links and flexibly connecting the links to each other.

5. A protective covering for vehicle tires including a plurality of longitudinally extending series of links, and a continuous flexible cable extending diagonally back and forth across the tire upon which said links are threaded.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,308. SPRING-WHEEL. THOMAS J. CROWE, Dallas, Tex. Filed Jan. 18, 1913. Serial No. 742,875. (Cl. 152—8.)

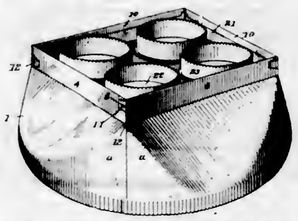


1. In a spring wheel, an inner fixed rim, an outer rim composed of a circular series of sections and provided with inwardly extending flanges, overlapping ears at the adjacent ends of said sections, pivot bolts passing through said ears, the inwardly extending flanges of said sections being cut away in substantially semi-circular shape, a cylindrical closure having rabbeted ends in which the cut away portions of said flanges work in their pivotal movement on said bolt, and springs fastened at one end to said closures and at their opposite ends to the fixed inner rim.

2. In a spring wheel, an inner fixed rim, side flanges thereon, one of which is removable, an outer rim composed of pivotally connected sections having inwardly extending flanges which slide against the inner surface of the inner rim flanges, said outer rim sections being channeled to receive the tire, cross webs connecting the flanges of the outer rim sections between the joints of the outer rim, full elliptic springs interposed between the outer and inner rims and fastened to the inner rim, spring holding knuckles journaled on the pivot bolts connecting the outer rim sections and having said elliptic springs secured thereto, and auxiliary coiled springs interposed between the inner rim and the cross webs of the outer rim.

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1,094,309. HOT-AIR-FURNACE BONNET. WILLIAM PATRICK DAW, Hartford, Conn., assignor of one-half to The Wilbur S. Steele Co., Hartford, Conn. Filed May 20, 1913. Serial No. 768,757. (Cl. 126—114.)



1. A hot air furnace bonnet comprising a body made in a plurality of connected sections, each section having a curved bottom edge and a straight top edge and having an upwardly extending straight rim, and a crown plate set into the body and having an interlocking engagement with the rim portions of the said sections.

2. A hot air furnace bonnet comprising a body provided with an internal flange, with a rim disposed above the flange, a crown plate disposed within the rim and resting on the flange, flanges on the crown plate, and flanges on the rim engaging the flanges on the crown plate.

3. A hot air furnace bonnet comprising a body provided with an internal flange and a rim extending upwardly from the flange and integrally connected by the flange with the said body, a crown plate disposed within the rim and resting on the flange, a flange on the crown plate, and means securing the said rim and flange of the crown plate together.

4. A furnace bonnet comprising a body made up of sections, each section having at one end a doubled flange and at the opposite end a single flange interlocked with the double flange, said double flange having apertures, lugs on the single flange for engaging in the apertures and bendable backward on the outside of the doubled flange, each section having a longitudinal flange and a rim portion above the flange, and a crown plate resting on the longitudinal flange and interlocked with the rim portion.

5. A furnace bonnet comprising a body of circular form at its base and polygonal form at its top, said body being made in sections, a crown plate of polygonal form to fit within the top of the body and having upstanding flanges, and means securing the crown plate and body together.

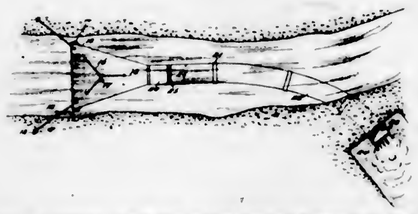
[Claim 6 not printed in the Gazette.]

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1,094,310. SAND AND WATER CONVEYER. CHARLES AUGUSTUS DEAL, Kansas City, Mo. Filed July 11, 1912. Serial No. 708,836. (Cl. 61—5.)

An apparatus for recovering sand from streams, comprising a flume having a gate valve and having the down-

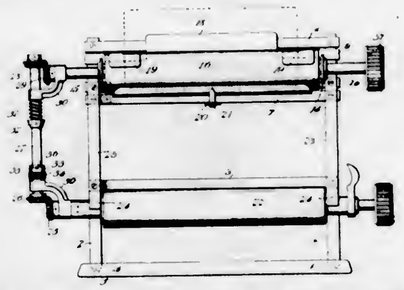
stream end deflected laterally, a funnel at the forward end of the flume provided with a screen at the mouth thereof, means on the funnel for engaging a raising and lowering



device, guides on the side of the funnel adapted to receive vertical anchoring stakes, and anchoring chains also extending from the said forward end of the funnel.

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1,094,311. AUTOMATIC COPY-HOLDER. FRANKLIN A. DEAN and LEWIS L. TEAS, Alta Vista, Kans. Filed Apr. 5, 1912. Serial No. 688,689. (Cl. 120—32.)



1. A copy-holder for typewriting machines, comprising in combination with the machine frame and platen, a stationery supporting frame extending upwardly from the machine frame behind the machine platen, a rotatable copy platen mounted to move with the machine platen and supported by the frame of the copy-holder, a gear wheel on the shaft of the copy-holder platen, a gear wheel on the shaft of the machine platen, a driving shaft movable into and out of gear with said wheels, and a spring yieldingly holding said drive shaft in gear and permitting it to be thrown out of gear without moving the copy-holder platen.

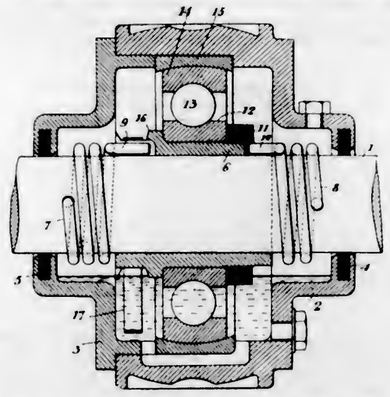
2. A copy-holder for typewriting machines, comprising in combination with the machine frame and platen, a stationary supporting frame extending upwardly from the machine frame behind the machine platen, a rotatable copy platen mounted to move with the machine platen and supported by the frame of the copy-holder, gear wheels on the shafts of both platens, a carriage for the platen of the copy-holder movable along said copy-holder frame, and a slidable drive shaft adapted to be shifted into and out of gear with said wheels without moving either platen.

3. A copy-holder for typewriting machines, comprising in combination with the machine platen a rotatable platen mounted to move with the machine platen, a gear-wheel on the platen shaft of the copy-holder, a shaft drive from said gear wheel to the machine platen shaft, a shoulder on the drive shaft of the copy-holder, a sleeve having an inclined shoulder coöperating with said shoulder on the shaft to throw the latter out of gear, and a spring acting to throw the shaft back in gear.

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1,094,312. BALL-BEARING. CÉLESTIN DELMEZ, Antwerp, Belgium. Filed July 17, 1913. Serial No. 779,571. (Cl. 64—36.)

1. In an anti-friction bearing, the combination of a box, a shaft mounted in the box, a sleeve in the box and slidably mounted on the shaft, ball bearings supported on the sleeve, and springs secured to the shaft and to the sleeve.



2. In an anti-friction bearing, the combination of a box, a shaft mounted in the box, a sleeve in the box, and slidably mounted on the shaft, one end of said sleeve having a flange and a notch and the opposite end being threaded and formed with a notch, coil springs mounted on the shaft opposite each end of the sleeve, one end of each of said springs being secured to the shaft and the opposite end engaging in one of the notches in the sleeve, a ball race member mounted on the sleeve and bearing against the flange, a nut engaging the threaded end of the sleeve and engaging the ball race member, balls mounted on the ball race, an outer ball race member engaging the balls, the outer surface of the outer ball race being convex, and an annulus having an inner concave surface in which the convex surface of the outer ball race fits.

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1,094,313. ROAD-DRAG. PERRY C. DOWELL, Joliet, Ill. Filed July 24, 1912. Serial No. 711,297. (Cl. 37—5.)



In a drag, the combination of a scraper bar of angle material having a pendent flange and a horizontal flange, splice bars spaced longitudinally of and connected to the horizontal flange and extending inwardly therefrom, a plate extending longitudinally of the scraper bar in the rear thereof and having a longitudinal edge directed toward the scraper bar, said plate having a longitudinal depression intermediate its edges and having its edge portions fixed to the splice bars, a series of similar plates arranged edge to edge at the rear of the first plate, and frame bars fixed to the splice bars and extending transversely of and being connected to the last named plates.

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1,094,314. PROCESS FOR PRODUCING ALDOL. RICHARD BLAIR EARLE and LUCAS PETRON KYRIAKIDES, Cambridge, Mass., assignors to Hood Rubber Co., a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,295. (Cl. 23—24.)

1. The process of producing aldol which consists in repeatedly bringing liquid acetaldehyde in contact with calcium hydrate.

2. The process of producing aldol which consists in repeatedly bringing acetaldehyde in contact with an alkaline condensing agent.

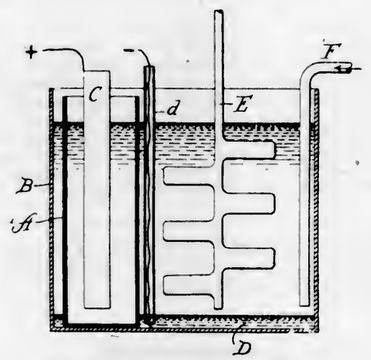
3. The herein described method of producing aldol which consists in vaporizing acetaldehyde, condensing the vapors and bringing the same into contact with a dry alkaline agent, withdrawing the liquid from said agent, and re-evaporating the acetaldehyde in said liquid and continuing the process until a concentrated solution of aldol is secured.

4. The herein described method of producing aldol which consists in vaporizing acetaldehyde, condensing the vapors and bringing the same into contact with dry slaked lime, withdrawing the liquid from said lime, and re-evaporating the acetaldehyde in said liquid and continuing the process until a concentrated solution of aldol is secured.



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1,094,315. PROCESS FOR PRODUCING 1.3-GLYCOLS, (β-GLYCOLS.) RICHARD BLAIR EARLE and LUCAS P. KYRIAKIDES, Cambridge, Mass., assignors to Hood Rubber Company, a Corporation of Massachusetts. Filed Nov. 16, 1912. Serial No. 731,832. (Cl. 204—9.)



1. The process of producing 1.3-glycols which consists in reducing an aldol by an electric current in a solution of alkaline carbonate at a mercury cathode.

2. The process of producing 1.3-glycol which consists in reducing aldol by the electric current in sodium bicarbonate solution at a mercury cathode at a reduced temperature.

3. The process of producing 1.3-glycols which consists in reducing aldols by the electric current in sodium bicarbonate solution at a mercury cathode at temperatures below 20° C.

4. The process of producing 1.3-glycols which consists in reducing aldols in sodium bicarbonate solution at temperatures below 20° C. at a mercury cathode with a voltage of from 5 to 16 volts and current density of from four to five amperes per 100 sq. centimeters of cathode surface.

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1,094,316. PROCESS FOR PRODUCING 1.3-GLYCOLS. RICHARD BLAIR EARLE and LUCAS PETRON KYRIAKIDES, Cambridge, Mass., assignors to Hood Rubber Company, a Corporation of Massachusetts. Filed Dec. 5, 1912. Serial No. 735,165. (Cl. 204—9.)

1. The process of producing 1.3-glycols which consists in reducing 1.3-ketone alcohols by an electric current in an alkali carbonate solution at a mercury cathode.

2. The process for producing 1.3-glycols (β-glycols) which consists in reducing 1.3-ketone alcohols by use of the electric current in sodium bicarbonate solution at a mercury cathode at temperatures below 20° C.

3. The process for producing 1.3-glycols (β-glycols) which consists in reducing 1.3-ketone alcohols in sodium bicarbonate solution at temperatures below 20° C. at a mercury cathode by the electric current using a current density of from 3 to 6 amperes per 100 square centimeters of cathode surface and a voltage of over three volts.

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1,094,317. PROCESS OF PREPARING ELASTIC SUBSTANCES. RICHARD BLAIR EARLE, Cambridge, Mass., assignor to Hood Rubber Company, a Corporation of Massachusetts. Filed Feb. 5, 1913. Serial No. 746,400. (Cl. 23—24.)

1. The herein described process which consists in adding one of the higher fatty acids to an erythrene hydrocarbon and subjecting the same to heat and pressure until the mass is substantially solid.

2. The herein described process which consists in adding to an erythrene hydrocarbon a small percentage of one of the higher fatty acids and heating the same in a closed vessel until the mass is substantially solid.

3. The process for preparing elastic substances by heating any of the hydrocarbons of the homologous series of which butadiene-1.3 is the lowest member with one of the higher fatty acids in a closed vessel until the mass is substantially solid.

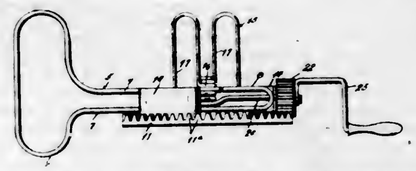
4. The process for preparing elastic substances by heating any of the hydrocarbons of the homologous series of which butadiene-1.3 is the lowest member with one of the higher fatty acids in the proportion of from 1 to 3% of the acid, in a closed vessel to temperatures from 100° to 120° C. for the period of one to three weeks.

5. The herein described process which consists in adding to an erythrene hydrocarbon a small percentage of one of the higher fatty acids, and heating the same in a closed vessel until the contents are solidified, and freeing the solidified product from unchanged hydrocarbon and side products by a current of live steam.

[Claims 6 to 8 not printed in the Gazette.]

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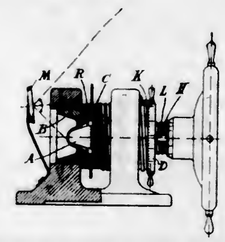
1,094,318. VEGETABLE-SLICER. JOHN EMEL, Sr., Silverdale, Wash. Filed June 27, 1912. Serial No. 706,236. (Cl. 146—11.)



The combination with a handle, of spaced frame members extending from said handle, a pivot pin projecting through said frame members, a shaft carried by said pivot pin between said frame members and extending laterally from the pin, a cutter carrying wheel pivotally mounted on said pivot pin, driving means for said wheel mounted on said shaft, and a follower supporting arm carried by said pin, whereby said pin connects the frame, the wheel, the shaft and the follower arm.

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1,094,319. APPARATUS FOR TESTING METAL SHEETS, &c. ABRAHAM MARTHINIUS ERICHSEN, Berlin-Reinickendorf, Germany. Filed Jan. 6, 1913. Serial No. 740,518. (Cl. 73—51.)



1. An apparatus for testing the resistance to compressive and tensile strains of metal sheets or plates comprising

a frame, two bearings provided on said frame, axially in line with each other, a matrix fitting one of said bearings, means provided in the second bearing and separately moving to and fro in said bearing with respect to said matrix for maintaining the metal sheet to be tested and for exerting on said metal sheet the required testing pressure, said latter means having a part spaced from the matrix to permit the metal sheet to have play in the direction of the axis of the apparatus whatever may be the thickness of said sheet.

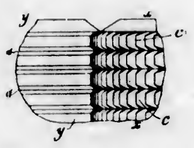
2. An apparatus for testing the resistance to compressive and tensile strains of metal sheets or plates comprising a frame, two bearings provided on said frame and axially in line with each other, a matrix fitting one of said bearings, the second bearing having inner threads, a hollow, inwardly and outwardly threaded sheet holder holding the sheet to be tested against the matrix during the testing process, and engaging the threads of said bearing, a hand wheel for actuating said holder, the outer edge of said holder having a circular cut, the adjacent edge of the matrix having a corresponding cut, a ring loosely and removably mounted in the groove formed by both said cuts for cutting the metal sheet in two portions, the first one formed by a disk shaped plate, the second annular portion being maintained in its original position between said ring and said holder during the testing process, the front, holding surface of said sheet holder having an annular recess to provide play for said disk shaped metal sheet when engaged between said holder and said matrix, a central peripherically threaded die engaging the inner threads of said concentrically disposed holder, a hand wheel for actuating said centrally disposed die, for extending the metal sheet maintained between said matrix and said holder, an axially directed scale for measuring the axial displacements of said die with respect to the metal sheet to be tested, a coil spring between the die controlling hand wheel and a fixed part of the apparatus in order to measure the strain exerted by said die onto the metal sheet to be tested, a corresponding scale on said hand wheel and a mirror provided at the rear end of said frame in order to allow the operator placed at the opposite end to discern the rupture of the metal sheet to be tested.

3. In a machine of the class described, the combination of a frame, two alined bearings on the frame, a matrix mounted in one of the bearings, the other said bearing being internally threaded, an element operating in the threaded bearing and coöperating with the matrix to confine a plate being tested, said element having threads on its circumference and formed with a central threaded opening, a die on the end of a threaded stem mounted in the central threaded opening in the aforesaid element, and a hand piece on the threaded stem to operate the die in the matrix.

4. A machine of the class described, comprising a hollow matrix, means for loosely holding a plate against the surface of the hollow matrix, a part of said means having a threaded opening in alinement with the hollow matrix, a threaded stem operating in the threaded opening and having on its end a die to force the metal into said matrix, a hand wheel on the threaded stem, and an indicator and scale to indicate the movement of the die.

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1,094,320. MANUFACTURE OF FEEDING-CAKE. ERNEST EVANS, Liscard, England. Filed June 24, 1909. Serial No. 504,036. (Cl. 107—23.)



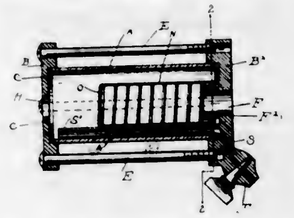
1. A machine for the manufacture of feeding cake comprising in combination, two adjacent moving members, the surface of one of which members has a plurality of laterally extending teeth with a plurality of gaps therein, and the surface of the other of said members having a plurality of continuous longitudinally extending ribs which take in the gaps in the laterally extending teeth, the continuous longitudinally extending ribs constituting side walls, the teeth as end walls, and the moving members on which the ribs and teeth are disposed constituting the superficial walls of the chambers in which the material is compressed.

2. Machinery for the manufacture of feeding cake, comprising a pair of rotatable drums; one of which has a plurality of laterally extending teeth each having a plurality of gaps therein, and the other of which has a plurality of continuous circumferential ribs, the drums being disposed close to each other with a comparatively small space between them, with the continuous ribs extending into the gaps in the teeth, the ribs serving as side walls and the teeth as end walls and forming with the drum surfaces a closed chamber of the space between the drum surfaces.

3. Machinery for the manufacture of feeding cake, comprising a pair of adjustable moving surfaces, one having a plurality of laterally extending teeth with a plurality of gaps therein, and the other having a plurality of continuous ribs thereon, the surfaces being arranged close to each other with a space between them with the ribs extending into the gaps in the teeth, and the teeth and ribs being of wedge form and serving as means for closing in the space between the surfaces and forming with the said surfaces, closed chambers of the spaces.

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1,094,321. GASOLENE FILTER OR TRAP. JAMES H. FINCH, Jr., Quincy, Mass. Filed June 30, 1913. Serial No. 776,711. (Cl. 210—16.)



1. A filter for fuel comprising a reservoir having ends with inlet and exit openings and a valve-regulated drain duct, a filter of chamois skin or other fabric inside the reservoir and about the exit opening, a spring mounted within said filter and a foreign matter shedding device positioned underneath said fabric and over the valve duct, as set forth.

2. A filter for fuel comprising a reservoir having ends with inlet and exit openings and a valve-regulated drain duct, one end of the reservoir having a boss, a filter bag closed at one end and at its open end fitted over said boss, a spring mounted within the filter bag and holding the latter against said boss, and a foreign matter shedding device positioned underneath the filter bag and over the valve regulating the duct, as set forth.

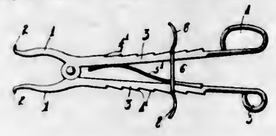
3. A filter for fuel comprising a reservoir having ends with inlet and exit openings and a valve-regulated drain duct, one end of the reservoir having a boss, a filter bag closed at one end and at its open end fitted over said boss, a spring mounted within the filter bag and holding the latter against said boss, and an inverted trough-shaped shedding device fastened to one end of the cylinder, over the valve-regulated duct and underneath said filter bag, as set forth.

4. A filtering device for gasolene and other fuel comprising an open-ended cylindrical shell, end sections which are recessed upon their inner faces, packings seated in said recesses against which the ends of the shell are adapted to contact, screws for holding the heads against the ends of the shell, one end of the shell provided with an inlet opening and the other with an outlet opening and valve-regulated drain duct, a boss projecting from the inner face of one head about said exit opening, a filter bag of chamois or other suitable material telescoping over said boss and closed at its opposite end, a spring within the filter bag, and a foreign matter shedding device projecting from one of said ends and positioned underneath the filter bag and over said duct, as set forth.

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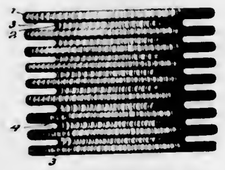
1,094,322. HOOF-SPREADER. LEROY H. FLOYD, Lewiston, Nebr., and GEORGE HENRY BALL, La Fayette, Ga. Filed July 6, 1911. Serial No. 637,187. (Cl. 168—47.)



In a hoof spreader, in combination, a pair of arms pivoted together adjacent one end forming jaw portions and handle portions, the ends of the jaw portions extended and curved outwardly and inwardly to form hoof engaging terminals, the handle portions formed on their outer surfaces with a plurality of equally spaced ratchet teeth, a link surrounding the handle members and having its end portion engaging the ratchet teeth, curved extensions from said end portions forming finger pieces, finger engaging means at the end of each handle portion and a spring positioned between the handle portions and tending to force them apart, said spring being located between the sides of said loop when the loop is engaged on the ratchet teeth whereby lateral displacement of said spring is prevented.

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1,094,323. FLEXIBLE CORRUGATED TUBULAR METAL WALL. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed Apr. 30, 1913. Serial No. 764,731. (Cl. 60—2.)



1. A vibratory tubular metal wall having corrugations, the bends of which are provided with stiffening corrugations parallel to the longitudinal axis of the tubular wall.

2. A vibratory tubular metal wall having corrugations, the bends of which are provided with stiffening corrugations which run crosswise of the bends of the first-named corrugations.

3. A vibratory corrugated tubular metal wall, consisting of alternate concave and convex portions, united by lateral portions, said concave and convex portions being stiffened by corrugations passing around the same and extending somewhat into the lateral portions.

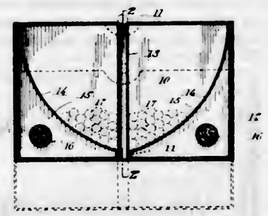
4. A vibratory corrugated tubular metal wall, consisting of alternate concave and convex portions united by lateral portions, said concave and convex portions being stiffened by corrugations whose greatest depth is at the point of greatest curvature and which decrease in depth gradually until they vanish within the lateral portions of the wall.

5. A vibratory tubular metal wall having corrugations free from circumferential seams, the bends of which are provided with stiffening corrugations running crosswise of said first-named corrugations.

[Claim 6 not printed in the Gazette.]

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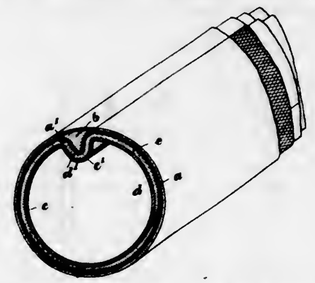
1,094,324. COMBINED CIGARETTE HUMIDOR AND DELIVERING DEVICE. LEO A. GOEBEL, Philadelphia, Pa. Filed Apr. 29, 1913. Serial No. 764,409. (Cl. 131—30.)



In a device of the class described, the combination with a receptacle having transverse slots in the upper and lower faces thereof, of a casing adapted to slidably receive the receptacle, a supporting plate carried by the casing and projecting through the slots in the receptacle, with the upper edge of the supporting plate normally lying flush with the upper face of the receptacle, curved apertured partitions within the receptacle to support cigarettes which will normally lie against the sides of the supporting plate and whereby a single cigarette will be delivered to the curved face of the supporting plate when the receptacle is slid upwardly and partially out of engagement with the said casing, apertured cylinders carried within the receptacle adjacent the curved partitions therein, and moistening agents carried within the said cylinders for supplying moisture to the tobacco of the cigarettes on the said partitions.

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1,094,325. MANUFACTURE OF REINFORCED INNER TUBES OF PNEUMATIC TIRES. FREDRICK HAROLD HALL, Norton Lindsey, England. Filed May 24, 1912. Serial No. 699,439. (Cl. 154—14.)



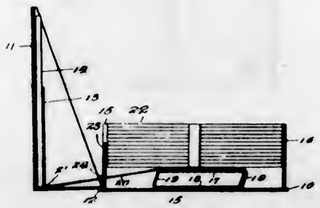
The method of making reinforced inner tubes for pneumatic tires which consists in wrapping a sheet of uncured rubber around a longitudinally-grooved mandrel of the cross-sectional shape of the inside of the tube and pressing said sheet into the groove in said mandrel and against the walls thereof; wrapping a band of fabric around the previously-wrapped mandrel and pressing the same into said groove and against the portion of the sheet therein; filling the plait thus formed in said sheet and band with uncured rubber; wrapping an outer sheet of rubber around said fabric and plait, to complete the circular external contour of the tube; and finally vulcanizing the completed tube.

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1,094,326. DISPLAY-CASE. HARRY R. HAM, New York, N. Y., assignor to Berlin & Jones Envelope Co., New York, N. Y., a Corporation of New York. Filed July 31, 1913. Serial No. 782,297. (Cl. 206—44.)

1. In a display case, a container, a cover hingedly secured thereto, a false bottom secured within said container and being disposed for variable elevation therein, said

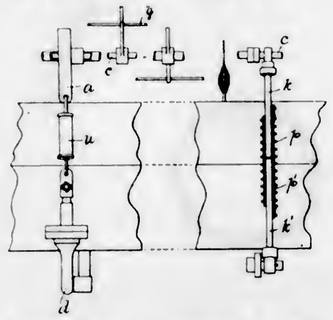
false bottom having a parallel relation to the bottom of said container in all of its positions, a partition in said container for limiting the rearward movement of articles being displayed and connections from a point on said cover remote from the hinged connection thereof to the false bottom through said partition for causing movement of said cover to impart movement to said false bottom to vary the elevation thereof.



2. In a display box, a box member comprising a bottom with side walls thereabout, a cover hingedly secured to said bottom member, a partition across the rear of said box member, said partition being of less height than the side walls, a vertically movable false bottom in said box member, said false bottom comprising a piece of material formed into a parallelogram, one of the wide side walls thereof being permanently secured to the bottom of said box member, the opposite side of said parallelogram serving as a bottom to receive contents for said box, the short sides of said parallelogram permitting oscillation of said false bottom and a tab secured to said parallelogram and to a point on said hinged cover remote from its hinge, said tab passing through the partition at the rear of the box member.

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1,094,327. SPINNING-MULE. WALTER HAMER and JOHN HENRY HOWARTH, Bolton, England, assignors of one-half to The Fine Cotton Spinners' and Doublers' Association Limited, Manchester, England. Filed June 8, 1912. Serial No. 702,560. (Cl. 118—9.)



1. In a spinning mule a counterfaller shaft, an actuating lever, a connection between the actuating lever and the counterfaller shaft, said connection being capable of positive action in one direction and yielding action in the other direction, a weighted lever, a flexible connection between the counterfaller shaft and the weighted lever, and a yielding member interposed in the flexible connection.

2. In a spinning mule, a counterfaller shaft, an actuating lever, a sectional rod connection between the actuating lever and the counterfaller shaft, said sections abutting, a spring arranged to hold the sections of the shaft yieldingly in such abutting relation, a weighted lever, a flexible connection between the weighted lever and the counterfaller shaft and a yielding member interposed in the flexible connection.

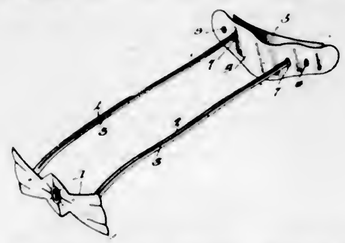
3. In a spinning mule, a counterfaller shaft, an actuating lever, a rod connection between the actuating lever and the counterfaller shaft, said rod being composed of abutting sections, a tube carried by one of the sections embracing the other section and holding said sections in alinement, a spring connecting the two sections and holding them normally yieldingly in abutting relation, a weighted lever, a connection between the weighted lever and the counterfaller shaft, and a yielding member interposed in such connection.

4. In a spinning mule, a counterfaller shaft, an actuating lever, a rod forming connection between the actuating lever and the counterfaller shaft, said rod being composed of abutting sections, means to hold the abutting sections normally yieldingly in abutting relation, a weighted lever and a yielding connection between the weighted lever and the counterfaller shaft.

5. In a spinning mule, a counterfaller shaft provided with an arm, an actuating lever, a connection extending between the actuating lever and the arm, said connection being capable of positive movement of the arm in one direction and yielding movement of the arm in the opposite direction, a weight and a yielding connection between the weight and the counterfaller shaft.

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1,094,328. HAT-FASTENER. JAMES STANLEY HARRIS, Goldfield, Nev. Filed Aug. 19, 1912. Serial No. 715,784. (Cl. 132—25.)



The herein described hat fastener, comprising a body, a pin fixed to and extending from the body, a curved retaining plate adapted to be arranged at the outer side of a hat crown and between said crown and the body and having an aperture that receives the pin and also having at its inner side spaced inwardly-extending lugs, said lugs being arranged at opposite sides of said aperture, and adapted to bear against the outer side of a hat crown to maintain the retaining plate in spaced relation thereto, a curved anchor plate loosely receiving the pin and adapted to be positioned against the inner side of the hat crown, means for connecting said retaining and anchor plates together and to the hat crown, and coöperating means carried by the pin and said lugs on the retaining plate for preventing withdrawal of the pin from said lugs.

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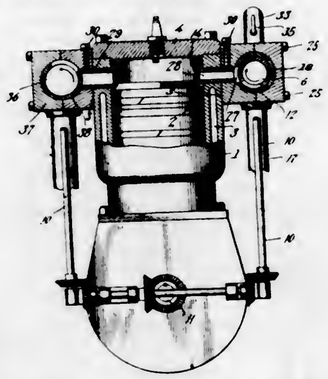
1,094,329. ENGINE. EWEN C. HENDERSON, New Glasgow, Nova Scotia, Canada. Filed Jan. 3, 1913. Serial No. 740,011. (Cl. 123—190.)

1. In an engine, the combination of a cylinder having intake and exhaust ports, of rotary intake and exhaust valves controlling said ports, each valve comprising a rotary tubular body having an opening in one side to register with the corresponding cylinder port, an oscillatory throttle tube incasing the intake valve and journaled thereon and provided with an opening to register more or less with the opening in the valve body, means for rotating the valve and timing the same with the crank shaft, means for turning and holding the throttle tube, a valve case inclosing said valve body and throttle tube, and a plug threaded into said valve case and forming an end bearing for both the valve body and the throttle tube.

2. In an engine, the combination of a cylinder having intake and exhaust ports, of rotary intake and exhaust valves controlling said ports, each valve comprising a rotary tubular body having an opening in one side to register with the corresponding cylinder port, an oscillatory



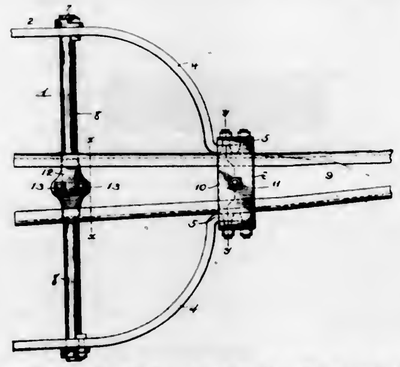
throttle tube incasing the intake valve and journaled thereon and provided with an opening to register more or less with the opening in the valve body, means for rotating the valve and timing the same with the crank shaft, means for turning and holding the throttle tube, and a valve-controlled auxiliary air supply, the valve body and throttle tube being ported to register with the main fluid inlet and the auxiliary air supply.



3. In an engine, the combination of a cylinder having intake and exhaust ports, of rotary intake and exhaust valves controlling said ports, each valve comprising a rotary tubular body having an opening in one side to register with the corresponding cylinder port, an oscillatory throttle tube incasing the intake valve and journaled thereon and provided with an opening to register more or less with the opening in the valve body, a take up liner in the cylinder port adjustable toward and against the throttle tube, means for rotating the valve and timing the same with the crank shaft, and means for turning and holding the throttle tube.

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1,094,330. POLE OR TONGUE CONSTRUCTION. JOHN I. HOKE, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Original application filed Sept. 26, 1913, Serial No. 791,977. Divided and this application filed Dec. 27, 1913. Serial No. 808,995. (Cl. 24—36.)



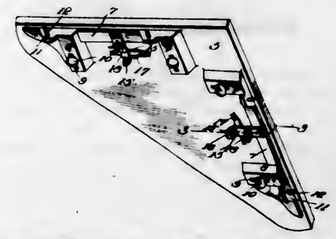
1. The combination with a frame, a cross bar thereon, and a pole, of clamping means adjustably securing the pole to the frame, and clamping means adjustably securing the rear portion of the pole to the cross bar.

2. The combination with a frame, a cross bar in rear of the forward end of said frame, and a pole comprising two members, of clamping devices securing the pole members to the forward end of the frame, and clamping devices securing said pole members to the cross bar.

3. The combination with a frame having parallel arms at its forward end, a plate connecting said arms, and a cross bar in rear of the forward end of the frame, of a pole comprising two channel members passing between said arms and over the cross bar, a clamping plate engaging the bottom faces of channel pole members, a bolt connecting said clamping plate with the connecting plate at the forward end of the frame, a clamping plate engaging the lower flanges of the channel pole members, and a bolt connecting said last mentioned clamping plate with the cross bar.

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1,094,331. CORNER-SHELF. THERON W. HOLLANDER, Fairfield, Iowa. Filed Jan. 9, 1912. Serial No. 670,331. (Cl. 248—18.)



1. The combination with a shelf having keepers secured thereto, of angularly disposed clamping members slidably mounted on the shelf and provided with perforated flanges, slotted casings forming a part of each clamping member, fastening devices extending through the slots in the casings and engaging the shelf, impaling spurs swiveled in the perforations in the flanges, locking members secured to said shelf and adapted to engage the adjacent keepers for normally holding the points of the impaling spurs within the lines of the shelf, and springs housed within the casings of the adjacent clamping members for automatically moving said clamping members to extended position when the locking members are released.

2. The combination with a shelf having keepers secured thereto, of clamping members slidably mounted on one face of the shelf and each provided with spaced slotted casings and depending flanges, fastening devices extending through the slots in the casings and engaging the shelf, a finger piece secured to each clamping member, spring locking members secured to the clamping members and having their free ends bent to form lips for engagement with the adjacent keepers for holding the latter in retracted position, said lips terminating in finger pieces, springs housed within the casings and bearing against the adjacent fastening devices for automatically moving said fastening devices to extended position into engagement with a support when the locking members are released, and auxiliary finger pieces depending from the locking members in spaced relation to the first mentioned finger pieces.

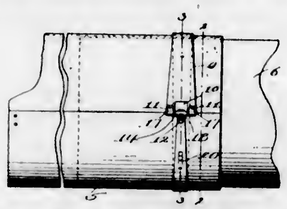
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1,094,332. PIPE-COUPLING. LEMOTT D. HUBBARD, Chicago, Ill. Filed Mar. 20, 1913. Serial No. 755,755. (Cl. 126—308.)

1. The combination, with a split pipe section; of a band encircling said section; means connected with the ends of said band for drawing the same toward each other; and a spring retaining member provided upon said band adjacent one end thereof for releasable engagement with said drawing means, to lock the latter in operating position.

2. The combination, with a split pipe section; of a band encircling said section and provided with terminal hooks; a member connected with said hooks for drawing the ends of said band toward each other, said member having a notch formed therein; and a member provided upon said band and engageable in said notch for locking the first-named member in operative position.

3. The combination, with a split pipe section provided along one of its split edges with a pocket for the reception of the other edge; of a band encircling said section; a member connected with the ends of said band for drawing the same toward each other, to force the second-named edge of said section into said pocket, said member having a notch formed therein; and a spring tongue provided upon said band and engageable in said notch for locking the first-named member in operative position.



4. The combination, with a split pipe section; of a band encircling said section; a cam lever connected with the terminals of said band for drawing the same together, and having a notch formed therein; and a spring tongue provided upon said band and arranged for engagement in said notch to lock said lever in operative position.

5. The combination, with a split pipe section; of a band encircling said section and having one of its ends larger than the other, the larger end being formed with a terminal fork, the arms of which are hooked, the smaller end having a terminal hook which is adapted to fit in the space between said fork arms; and a cam lever for drawing the band ends together having an opening wherein the second-named hook is engaged, and a pair of cross-pieces engaged with the hooked fork arms.

[Claim 6 not printed in the Gazette.]

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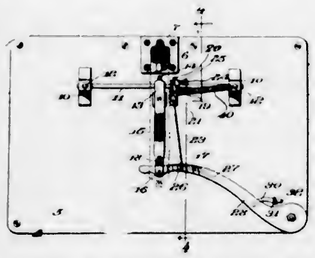
1,094,333. SNAP-FASTENER. ERNEST N. HUMPHREY, New Britain, Conn., assignor to United States Fastener Company, Boston, Mass., a Corporation of Maine. Filed Apr. 28, 1913. Serial No. 763,961. (Cl. 24—216.)



A socket member of a snap fastener pair, comprising a cap provided with resilient arms adapted to be bent over to form a resilient, stud-holding rim and to secure said member to the material, and barbs located between said arms adapted to enter the material to prevent rotation of said socket member.

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1,094,334. BUTTON AND BUTTONHOLE MARKER. GEORGE H. HURD, Farmington, N. H., assignor of one-half to William R. Stacey, Farmington, N. H. Filed May 28, 1913. Serial No. 770,440. (Cl. 33—190.)

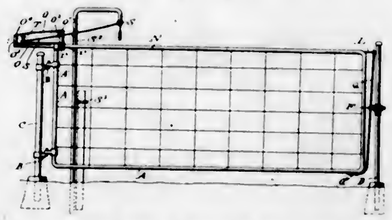


1. In a machine for marking shoe uppers, the combination with a supporting arm, and a presser tool carried thereby, of markers superposed with relation to each other and arranged beneath the tool, means for raising the lowermost marker with respect to the other marker, said lowermost marker being provided with a graduating scale, and a movable work gage traversable over said scale and held at any predetermined adjustment thereon.

2. In a machine for marking shoe uppers, the combination with a supporting arm, and a presser tool carried thereby, of markers superposed with relation to each other and arranged beneath the tool, means for raising the lowermost marker with respect to the other marker, said lowermost marker being provided with a graduating scale, a movable work gage traversable over said scale and automatically held against the work, and means for adjusting the gage to limit its movement relative to the scale.

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1,094,335. GATE-OPENER. ELMER FOREST JOHNSON, Chillicothe, Ohio, assignor of one-half to George W. Johnson, Chillicothe, Ohio. Filed July 21, 1913. Serial No. 780,329. (Cl. 39—14.)



In combination with a swinging gate having an upper portion thereof which is tubular and projects beyond the rear end of the gate, the upper portion of said projecting part being cut away, a latch-engaging rod mounted in said tubular portion, semi-circular bars supported upon said tubular portion of the gate and spaced apart, a straight bar supported upon the edges of the extension of said gate, antifriction rollers journaled upon said straight bar, a rope passing through an eye upon said rod and passing about the antifriction rollers, and other vertically disposed anti-friction rollers journaled between the ends of said semi-circular bars, as set forth.

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1,094,336. FLY-TRAP. GEORGE LOUIS JONTZ, Jenera, Ohio. Filed June 7, 1913. Serial No. 772,395. (Cl. 43—22.)

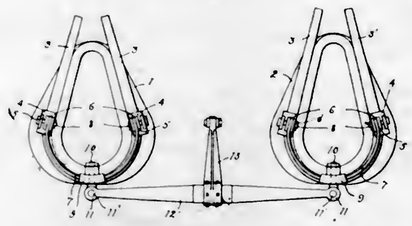


The combination with a support, of a pair of companion supporting brackets mounted upon said support in spaced relation to each other and forming opposed sockets, an elongated trap body adapted to be positioned with its ends within the said sockets, the said body having open ends, and closure caps adapted to be fitted onto the said ends for reception within the sockets afforded by the supporting brackets.

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1,094,337. HARNESS. WALTER S. KENNEDY, Duluth, Minn. Filed July 18, 1912. Serial No. 710,311. (Cl. 54—3.)

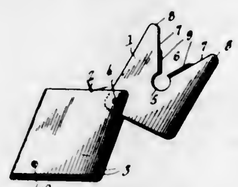
In a team harness, the combination with two sets of hames, each hame having a series of ears in approximately horizontal alinement, of yokes adapted to be pivotally secured between any two of the series of ears, hubs carried by the lower ends of the yokes, eye-bolts pivotally mounted in said hubs and extending below the lower ends of the hames, an evener having its ends pivotally connected to the eye-bolts, a draft arm rigidly secured to the



evener midway its connections with the yokes and extending upwardly, and a pivotal draft connection carried by the draft arm above a horizontal plane passing through the pivotal connections between the yokes and the hames.

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1,094,338. CIGAR-CUTTER. CONRAD H. LEISEGANG, Philadelphia, Pa. Filed May 24, 1913. Serial No. 769,777. (Cl. 131—20.)



1. A cigar tip cutter comprising a thin metal plate provided with a perforation therethrough and with a V-shaped opening extending at its vertex into said perforation, and correspondingly inclined cutters extending along the inclined edges of said V-shaped opening, said cutters having their minimum spacing slightly less than the diameter of the cigar at the point where the cigar is to be cut, whereby the wrapper of a cigar moved longitudinally of the opening may be slitted at diametrically opposite sides thereof.

2. A cigar cutter including a casing, a blade pivotally mounted therein and angularly related cutters carried by the blade, said cutters having their minimum spacing slightly less than the maximum diameter of the cigar at the point where the cigar is to be cut.

3. A cigar cutter including a casing, a blade pivotally mounted therein, said blade being formed with an opening having divergent walls, said blade being further formed with an aperture communicating with the opening, and cutters carried by said walls and extending a portion of the length of said walls only beyond the aperture.

4. A cigar cutter including a casing, a blade pivotally mounted therein, said blade being formed with an opening having divergent walls, said blade being further formed with an aperture communicating with the opening, cutters carried by said walls and extending a portion of the length of said walls only beyond the aperture, and means carried by the casing to coöperate with the plane portion of one of said walls to hold the blade within the casing.

5. A cigar cutter including a casing, a blade pivotally mounted therein, said blade being formed with an opening having divergent walls, said blade being further formed with an aperture communicating with the opening, cutters carried by said walls and extending a portion of the length of said walls only beyond the aperture, means carried by the casing to coöperate with the plane portion of one of said walls to hold the blade within the casing, said blade having finger projections extended beyond the casing to provide manipulating the blade with respect to the casing.

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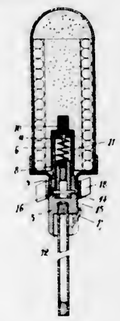
1,094,339. BANDAGE. MINNIE MAY LUPTON, San Antonio, Tex. Filed Mar. 7, 1913. Serial No. 752,753. (Cl. 128—3.)



A device for holding a bandage or dressing in contact with a portion of the human body, said device comprising a pair of ring-shaped opposing jaws, each of said jaws being formed from a primarily circular hollow tube collapsed into flattened form, the folds of the opposing edges of said jaws being each notched to provide a plurality of rows of teeth or serrations, each jaw having an end portion thereof bent at an oblique angle thereto, and a bowed spring connecting the jaws, said spring being secured to the obliquely bent end portion of the jaws and serving to hold the toothed edges of the jaws at a relatively inward angle of divergence.

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1,094,340. RIFLE SHELL OR GRENADE WITH PERCUSSION-FUSEE. RICHARD MACHENBACH, Berlin, Germany, assignor to The Firm of Sprengstoff A.-G. Carbonit, Hamburg, Germany. Filed Dec. 19, 1913. Serial No. 807,683. (Cl. 102—29.)

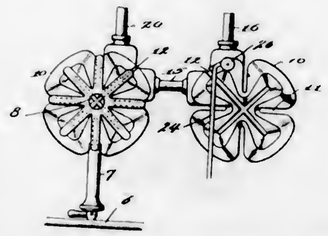


1. A grenade of the character described, comprising a percussion bolt, a retaining member therefor, a safety member to hold the retaining member in position, means on the safety member to rotate the latter, during the flight of the projectile, to release the retaining member, and a catch to normally lock the safety member against rotation, said catch being automatically operated to release the safety member by positioning the grenade on a gun barrel.

2. A grenade of the character described, comprising a tube, a percussion bolt movable therein, a pin to hold the bolt in a retracted position, a spring to retract the pin, a safety ring on the tube and normally inclosing the pin, vanes on the ring to rotate the latter during the flight of

the grenade to move the ring longitudinally of the tube, and means to normally lock the ring against rotation, said locking means being automatically operable to release the ring by positioning the grenade on a gun barrel.

1,094,341. WATER-HEATING ATTACHMENT FOR STOVES. EDGAR A. MILLS, Baltimore, and RICHARD H. RICHARDS, Hamilton, Md., assignors of fifty-five one-hundredths to said Mills, twenty-five one-hundredths to said Richards, and twenty one-hundredths to Ulysses S. G. Peoples, Baltimore, Md. Filed May 14, 1913. Serial No. 767,734. (Cl. 126—53.)



1. The combination with a stove having the usual form of burner, of a water heating attachment removably applied over and structurally independent of the burner and having legs separated by radial slots located over the flame portions of the burner, said slots in part opening out through the periphery of the attachment and provided with straight flat walls converging in an upward direction fully from the bottom to the top of the attachment and forming a greater water expanse at the top portion of the heating attachment than at the bottom thereof, and water supply and circulating means connected to the heater.

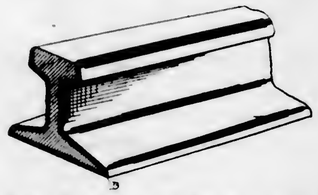
2. The combination with a stove having a burner of usual form, of a water heating attachment applied over and structurally independent of the burner and having legs of V-shaped form in cross-section, the legs being formed and separated by radial slots at angles to each other, said slots respectively opening outwardly from the center through the periphery of the attachment and also extending inwardly from portions of the legs to the center of the attachment and disposed over the flame portions of the burner to provide a greater water expanse at the top portion of the attachment than at the lower portion thereof and wider flame receiving openings at the bottom portions of the legs than at the top portions of the latter, and supply and circulating pipes connected to the heater.

3. The combination with a stove having a burner, of a water heating attachment applied over the burner and structurally independent of the latter and having legs with upper flat surfaces and of V-shaped form in cross-section, the legs being intersected by slots extending from the center out through the periphery of the attachment, the opposing walls of the slots being straight and converging completely from the bottom to the top of the attachment, and supply and circulating pipes connected to the heater.

4. The combination with a stove having burners, of water heaters applied over the burners and each having legs which are in full communication to form a chamber in each heater, each chamber being of V-shaped form so as to bring a minimized quantity of water nearest the source of heat and increasing the expanse and volume of water gradually toward the top of the chamber, the legs being separated by inner and outer radial slots having opposing flat walls converging completely from the bottom to the top of each heater, the inner slots dividing the inner portions of the legs, and supply and circulating pipes connected to the heaters.

5. The combination with a stove having a fuel supply pipe and burners connected thereto, of chambered water heaters applied over the burners, supply and circulating pipes connected to the heaters, and a slow heating burner independent of the stove burners and connected to the fuel supply and extending inwardly under one of the chambered water heaters to a point adjacent to the connection of one of the circulating pipes with said heater and operating to heat the water in the latter heater to maintain a circulation at a medium heat when the stove burners are not used for heating the chambered water heaters.

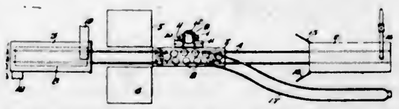
1,094,342. RAILWAY-RAIL. ALFRED H. MOORE, New York, N. Y., assignor of one-half to Charles F. Molley, New York, N. Y. Filed Jan. 4, 1913, Serial No. 740,233. Renewed Sept. 17, 1913. Serial No. 790,377. (Cl. 239—14.)



1. A railway rail having a tread or crown surface of high carbon steel and a web of iron with a steel core.

2. A railway rail having a tread or crown surface of high carbon steel with a web of iron having a steel core and forming a continuous support.

1,094,343. SYSTEM OF PREPARING FILLED BOBBINS. ALFRED B. MORSE, South Easton, Mass. Field June 11, 1913. Serial No. 772,994. (Cl. 104—62.)



1. An apparatus of the kind described, comprising a press equipped to operate upon cages of filled bobbins, a steaming receptacle adjacent thereto, a drier, in combination with means to transfer compressed bobbins from the press to the steaming receptacle, and thence to the drier, as successive steps in the operation of preparing filled bobbins for use.

2. An apparatus of the kind described, comprising a press equipped to operate upon cages of filled bobbins, a steaming receptacle adjacent thereto, a drier, in combination with a transfer car to transfer compressed bobbins from the press to the steaming receptacle, and thence to the drier, as successive steps in the operation of preparing filled bobbins for use.

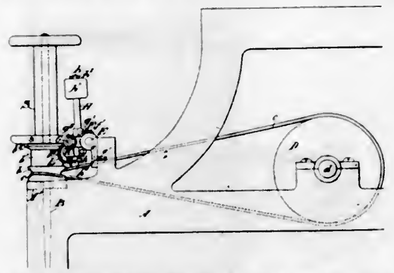
3. An apparatus of the kind described, comprising a press equipped to operate upon cages of filled bobbins, a steaming receptacle adjacent thereto, a drier, in combination with a transfer car having capacity to transfer a large number of cages simultaneously from the press to the steaming receptacle and thence to the drier.

4. In an apparatus of the kind described, a steaming receptacle, a drier, a press arranged intermediate said receptacle and drier, loading and unloading stations adjacent the press, and a transfer car having capacity to carry a large number of cages of filled bobbins into said steaming receptacle and into said drier, arranged with its deck substantially on a level with the press cylinder and with said loading and unloading stations.

5. In an apparatus of the kind described, a steaming receptacle, a drier, a press arranged intermediate said receptacle and drier, a transfer car having capacity to carry a large number of cages of filled bobbins into said steaming receptacle and into said drier, arranged with its deck substantially on a level with the press cylinder, and guiding means on said press to position automatically a cage of filled bobbins into compressing positions, when slid from the transfer car on to the press.



1,094,344. STOP-MOTION FOR SPOOLING OR LIKE MACHINES. JAMES H. O'CONNELL, Lawrence, Mass. Filed June 11, 1913. Serial No. 772,965. (Cl. 242—39.)



1. In a stopping-mechanism for spoolers or like machines, the combination with a winding-spindle having a flange adapted to engage the head of the spool to rotate the latter through frictional contact therewith, of a pivoted bell-crank lever adapted to be moved through contact with the yarn wound on the spool, and an eccentric disk mounted rotatably on one arm of the bell-crank lever and adapted to engage the head of the spool to be rotated therefrom to raise the spool from the driving-flange.

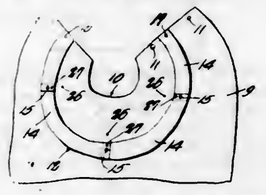
2. In a stopping-mechanism for spoolers or like machines, the combination with a winding-spindle having means to engage the spool to rotate the latter through frictional contact therewith, of a pivoted bell-crank lever, a roller mounted rotatably on one arm of the bell-crank lever and adapted to engage the yarn on the spool, and a disk pivoted on the other arm of the bell-crank lever with its pivot eccentric to its periphery and adapted to be carried into engagement with the spool through movement of the bell-crank lever to be rotated thereby to move the spool away from the driving-means.

3. In a stopping-mechanism for spoolers or like machines, the combination with a winding-spindle having means to frictionally engage the spool to rotate the latter, of a bell-crank lever adapted to be moved through engagement with the yarn on the spool when the mass reaches a predetermined diameter, a disk rotatably mounted on one arm of the bell-crank lever eccentric to its bearing and arranged with its periphery adapted to engage the spool when the bell-crank lever is moved, and means to limit the movement of the disk when the latter is rotated by contact with the spool to maintain the spool away from the driving-means.

4. In a stopping-mechanism for spoolers or like machines, the combination with a winding-spindle having means to frictionally engage the spool to drive the latter, of a fixed arm supported adjacent said spindle, a bearing adjustable on said arm, a rockable bell-crank lever having an arm pivoted on the bearing to adapt it to be moved through engagement with the yarn mass wound on the spool, a stud extending at right-angles from the pivoted arm, a disk eccentrically mounted on said stud with its periphery adapted to engage the head of the spool, and means to limit the rotative movement of the disk.

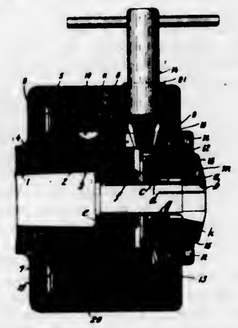
1,094,345. APRON. IDA A. ROBERTSON and BEDFORD S. ROBERTSON, Rockymount, Va. Filed Nov. 12, 1912. Serial No. 730,993. (Cl. 2—54.)

1. In a device of the class described, a cape provided with a transverse, upwardly extended, outstanding hair receiving member comprising a plurality of parts having separable ends; and a brace for maintaining said member in outstanding relation with respect to the cape, one end of the brace being detachably connected with the cape, the other end of the brace being detachably connected with the separable ends of the parts of said member, to hold said parts together.



2. In a device of the class described, a cape; a hair receiving member applied thereto; and a brace having right and left spirals engaged with the cape and with said member.

1,094,346. COLLET-CHUCK. WILLIAM SCHELLENBACH, Hartwell, Ohio. Filed Jan. 8, 1913. Serial No. 740,801. (Cl. 29—114.)



1. An apertured collet head, an interior concentric annulus therein to be translated, a rotatable ring within the head aperture for operating said annulus, means for operating said ring through the head, means in said head providing a collet closure surface concentric with the annulus, and a collet having its inner end detachably fixed to the annulus and its outer end operative in relation to said closure surface.

2. A structure of the nature disclosed combining a spindle, a head thereon providing an aperture concentric therewith and terminating in a flaring closure seat, an annulus translatably mounted within said head, a collet in said aperture having its shank detachably retained in the bore of said annulus, and means for positively adjusting said annulus axially to engage or disengage the head of said collet with said seat.

3. A structure of the nature disclosed combining a head providing an aperture terminating in a flaring closure seat, an annulus translatably mounted in said head concentrically with said aperture, a collet in said aperture having a bayonet-joint connection with the bore of said annulus, and means for positively adjusting said annulus axially.

4. A structure of the nature disclosed combining a head providing an aperture, a cap-member on said head and apertured concentrically therewith, an annulus rotatably retained between said head and cap-member, a translatable annulus operatively connected with said rotatable annulus and adapted to be axially adjusted thereby, and a collet in said aperture having a detachable connection with the bore of said translatable annulus.

5. A structure of the nature disclosed combining a head having a collet-aperture and adapted to be attached to a spindle, a collet, an annulus rotatably inclosed in concentric relation with said head intermediate the ends

thereof and provided with bevel gear-teeth enabling it to be rotated, said head having a radial aperture affording access to said gear-teeth, and means whereby said annulus when rotated may be instrumental in positively translating a collet in said collet-aperture.

[Claims 6 to 18 not printed in the Gazette.]

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1,094,347. METHOD OF KNITTING SELVAGED FABRICS. ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Continuation in part of application Serial No. 748,308, filed Feb. 14, 1913. This application filed Oct. 21, 1913. Serial No. 796,524. (Cl. 66—4.)



1. The art of knitting fabric on a series of hooked instruments comprising the steps, causing a starting course of yarn to lie against the hooked faces of certain of said instruments, placing said yarn under stress toward said faces, and then causing relative movement between said yarn and other of said instruments during maintenance of said stress whereby the said yarn rests on the faces of said certain instruments and passes behind said other instruments.

2. The art of knitting fabric on a series of hooked instruments comprising the steps, causing a run of yarn to lie against the hooked faces of some of said instruments, maintaining said yarn under stress in a direction toward said faces, then causing relative movement between said yarn and other of said instruments during maintenance of said stress whereby said yarn passes behind said other instruments; then laying a next run of yarn against the instruments, and then casting off the first-mentioned run on to the next run of yarn, whereby said next run is drawn into loops passing on either side of the first-mentioned run of yarn; and then knitting in the usual manner at said instruments.

3. The art of knitting fabric on a series of hooked instruments comprising the steps, laying yarn in the hooks of some of the instruments, maintaining said yarn under stress in a direction toward said hooks tending to cause the yarn to pass toward the back of the intervening instruments, arranging the point of contact of the yarn with the instruments upon which it is held during the maintenance of said stress in a position to secure casting off upon relative movement between the instruments and the yarn; laying another run of yarn against the instruments, and then casting off the first-mentioned run, whereby said other run of yarn is drawn into loops passing recurrently in front of and behind the first mentioned run of yarn; and thereafter knitting in a normal manner at said instruments.

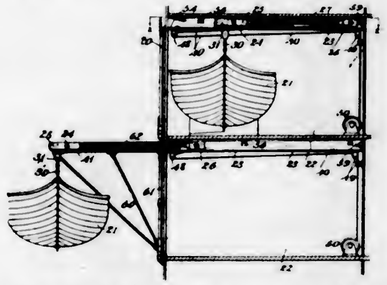
4. The art of knitting fabric on a series of latch needles comprising the formation of a starting run or course of yarn into loops, holding said loops under stress against the faces of certain of said needles only, forming a next course or run of yarn having loops at said certain and at other instruments, and casting off said starting run while retaining said next course upon the instruments, the operation including positioning the loops of said starting run between the faces of the needles and the points of their open latches while maintaining said stress.

5. The method of knitting upon previously bare instruments fabric having an initial selvage, which consists in supplying a starting run of yarn to the faces of recurring members only of a series of such instruments while said instruments are in a position of advance to receive said yarn, then placing said run of yarn under stress tending to cause it to pass toward the backs of said instruments during the movement of some of the instruments through the plane defined by the yarn on said recurring instruments, supplying a next run of yarn to said recurring and to other of said instruments, then casting off the starting run of yarn, and thereafter knitting fabric in the usual manner upon all of the instruments so far employed.

[Claims 6 to 15 not printed in the Gazette.]

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1,094,348. INTERDECK-DAVIT., RICHARD TJADER, New York, N. Y. Filed Mar. 11, 1914. Serial No. 823,927. (Cl. 9—22.)



1. In an interdeck davit, the combination of a pair of parallel trackways secured to the ship transversely thereof, a carriage mounted on said trackways and slidable longitudinally thereof beyond the side of the ship, means to support a lifeboat upon said carriage, means to control the sliding movement of the carriage, and laterally movable latch mechanism constituting interlocking connection between the carriage and the trackways.

2. In an interdeck davit, the combination of a pair of main trackways fixed to a ship perpendicular to the side of the ship, a rigid supporting slide mounted upon said trackways and slidable outwardly thereon, means to support a lifeboat upon said slide, a pair of auxiliary trackways mounted on vertical pivots adjacent the ends of the fixed trackways and adapted to swing on their pivots outwardly into alinement with the fixed trackways and upon which the slide and supported boat may be extended, means to hold the auxiliary trackways normally in the plane of the side of the ship, said holding means being releasable by direct contact of the slide, and means to control the sliding movement of the slide.

3. In an interdeck davit, the combination of a pair of main trackways fixed to a ship substantially perpendicular to the side of the ship, a rigid member supported upon said trackways and projectable beyond the side of the ship, means to support a lifeboat upon said rigid member, a pair of auxiliary trackways mounted upon the side of the ship and adapted to be swung outwardly into alinement with the main trackways, means normally holding the auxiliary trackways substantially in the plane of the side of the ship, said holding means being releasable by the outward movement of the rigid member, and means to control the sliding movements of said rigid member.

4. In an interdeck davit, the combination of fixed supporting means, movable supporting means mounted on the fixed support, means to support a lifeboat in fixed position upon said movable support, the movable support being adapted to project in a plane beyond the side of a ship, auxiliary supports brought into action by the outward sliding movement of the movable support and adapted to support the movable support and boat and projected beyond the ship, means to release said fixed boat supporting means when the movable support reaches its outward limit of movement, and means to control the sliding movements of said movable support, said last mentioned means serving also to control the movements of the boat after being released as aforesaid.

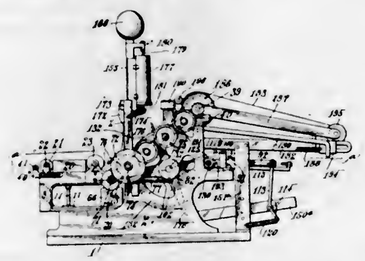
5. In an interdeck davit, the combination of a pair of main trackways fixed to the ship in vertical parallel planes, a rigid carriage mounted upon and slidable longitudinally along said trackways, each side of the carriage having a plurality of pulleys adjacent its ends, means to support a lifeboat positively upon said carriage in normal position, means to automatically release said positive holding means when the carriage reaches a predetermined point, and means to control the sliding movement of the carriage along the trackways.

[Claims 6 to 10 not printed in the Gazette.]



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1,094,349. CAN-LABELING MACHINE. ALBERT P. WAGNER and OSWIN H. WAGNER, North Detroit, Mich. Filed Jan. 20, 1913. Serial No. 743,083. (Cl. 216—59.)



1. In a device of the type specified, a pasting roll, feeding means adapted to feed a label to said pasting roll, can carrying means adapted to place a can in engagement with said label and to subsequently remove said label from engagement with said pasting roll, means for driving said pasting roll at different speeds, said pasting roll being timed with said feeding means during the initial movement of the label and with the can during the subsequent movement of the label.

2. In a device of the type specified, a pasting roll, feeding means adapted to feed a label to said pasting roll, can carrying means adapted to place a can in engagement with said label and to subsequently remove said label from engagement with the pasting roll, a gear and a pinion in operative relation with said pasting roll, means for driving said gear and pinion, and a clutch controlling said operative relation, whereby said pasting roll is timed with the feeding means during the initial movement of the label and with the can during the subsequent movement of the label.

3. In a labeling machine, a pasting roll, label-feeding means adapted to feed labels to said pasting roll, means for holding said label taut when delivered from said pasting roll, a can conveyer adapted to place a can in engagement with each label and to subsequently remove said label from engagement with said pasting roll and said holding means, means for driving said pasting roll at different speeds, said pasting roll being timed with said feeding means during the initial movement of the label and with the can during the subsequent movement of the label.

4. In a labeling machine, a pasting roll, feeding means adapted to feed a label to said pasting roll, means for holding said label taut when delivered from said pasting roll, can-carrying means adapted to place a can in engagement with said label and to subsequently remove said label from engagement with said pasting roll and said holding means, means for spreading said label around said can, means for driving said pasting roll at different speeds, said pasting roll being timed with said feeding means during the initial movement of the label and with the can during the subsequent movement of the label.

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1,094,350. FUNNEL. BERTIE EARL WALTER, Tulsa, Okla. Filed Aug. 23, 1912. Serial No. 716,672. (Cl. 226—33.)

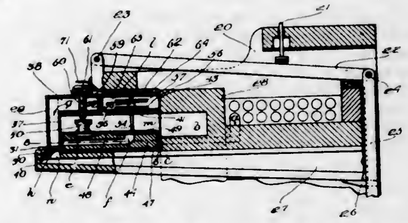
The combination with a glass funnel having a contracted neck forming a valve seat, of a rod working within the funnel, and a glass tube fixed to the rod throughout the length thereof for covering the same and formed with a



glass ball terminal about the lower end of the rod to provide a valve engageable with the said seat.

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1,094,351. PNEUMATIC VALVE MECHANISM. WILLIAM ARTHUR WATSON, Malden, Mass., assignor to National Piano Company, Boston, Mass., a Corporation of Maine. Filed Feb. 1, 1912. Serial No. 674,849. (Cl. 84—178.)



1. A seamless shell for the control valve of the power pneumatic of a musical instrument, said shell having an open end to register with a vacuum passage or chamber of the instrument, and having means for holding a pneumatic and a valve in proper relative positions, said shell having flat side walls with external grooves whereby a bank of the shells can be guided to and secured in position by fastenings passing through the spaces provided by opposing grooves of adjacent shells.

2. A seamless shell for the control valve of the power pneumatic of a musical instrument, said shell having an open end to register with a vacuum passage or chamber of the instrument, and having means for holding a pneumatic and a valve in proper relative positions, said shell having flat side walls with external grooves whereby a bank of the shells can be guided to and secured in position by fastenings passing through the spaces provided by opposing grooves of adjacent shells, the shell also having a lug at its front for the purpose described.

3. A seamless shell for the control valve of the power pneumatic of a musical instrument, said shell having an open end to register with a vacuum passage or chamber of the instrument, and having means for containing a pneumatic and a valve in proper relative positions, the side walls of said shell having internal guide ribs, in combination with a pneumatic base slidably engaged with said ribs.

4. A seamless shell for the control valve of the power pneumatic of a musical instrument, said shell having an open end to register with a vacuum passage or chamber of the instrument, and having means for holding a pneumatic and a valve in proper relative positions, said shell having a vertical partition near one end and a horizontal partition connecting with the vertical partition, and webs connecting said partitions with the outer wall of the shell to form a separate passageway between said webs, the ends of said passageway communicating with the interior chamber of the shell.

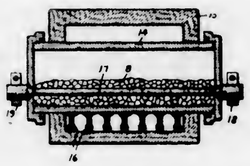
5. A seamless shell for the control valve of the power pneumatic of a musical instrument, said shell having an

open end to register with a vacuum passage or chamber of the instrument, and having means for holding a pneumatic and a valve in proper relative positions, said shell being sub-divided to form an interior chamber, an upper chamber and a plurality of passageways at the front end, and having openings adapted to be controlled by valves.

[Claims 6 to 21 not printed in the Gazette.]

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1,094,352. REFRACTORY FIBROUS MATERIAL AND PROCESS OF MAKING THE SAME. EZECHIEL WEINTRAUB and FRANK A. KRONER, Lynn, Mass., assignors to General Electric Company, a Corporation of New York. Filed May 2, 1913. Serial No. 764,997. (Cl. 204—64.)



1. The process of forming fibrous silicon oxy-carbid which consists in heating silicon and calcium fluorid in a closed space and gradually diffusing oxids of carbon into said space.

2. The process of making a light, fibrous silicon carbon-oxygen compound of low heat conductivity which consists in heating a mixture of silicon and a catalyzer near the melting point of silicon in a space inclosed in part at least by a wall permeable to gas and diffusing through said wall oxid of carbon.

3. The process of making a refractory fibrous silicon-carbon-oxygen compound which consists in heating a charge containing silicon-evolving material and calcium fluorid to a temperature of 1300 to 1400° C. in a closed space, and admitting an oxid of carbon into said spaces.

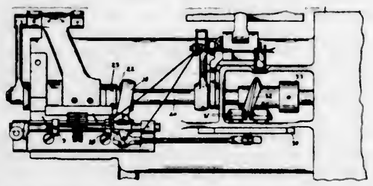
4. The process of forming fibrous silicon-oxycarbid which consists in heating silicon to near its fusing temperature in the presence of a catalyzer in a closed space and slowly diffusing oxid of carbon into said space.

5. The process of forming a fibrous, refractory silicon-carbon-oxygen product which consists in heating silicon in a space inclosed in part at least by a porous wall and diffusing through said wall a gaseous carbon compound.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,353. LOOPER MECHANISM FOR SEWING-MACHINES. JOHN P. WEIS, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Dec. 26, 1912. Serial No. 738,540. (Cl. 112—5.)



1. In a sewing machine, the combination of a driving shaft, a reciprocating and rocking looper shaft located in parallelism with the driving shaft, a looper carried thereby, and means connecting the looper shaft with the driving shaft for shifting said looper in a concave-convex path.

2. In a sewing machine, the combination of a driving shaft, a reciprocating and rocking looper shaft located in parallelism with the driving shaft, a looper carried thereby, and means connecting the looper shaft with the driving shaft for shifting said looper in a concave-convex path and including a slide and means for shifting it.

3. In a sewing machine, the combination of a driving shaft, a reciprocating and rocking looper shaft, a looper carried thereby, and means connecting the looper shaft with the driving shaft and comprising a slide, and means for shifting it and an endwise reciprocating connecting rod between said slide and looper shaft and having pivotal connection with said parts.

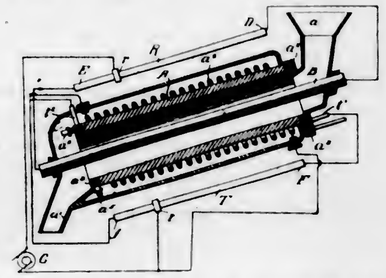
4. In a sewing machine, the combination of a driving shaft, a reciprocating and rocking looper shaft, a looper carried thereby, an eccentric and ball joint connection between said driving shaft and looper shaft, a slide, means connecting it with the looper shaft, and means carried by the driving shaft for reciprocating said slide thereby to rock and reciprocate the looper shaft.

5. In a sewing machine, the combination of a driving shaft, a reciprocating and rocking looper shaft, a plurality of loopers carried thereby, an eccentric and ball joint connection between said driving shaft and looper shaft, a slide, means connecting it with the looper shaft, and means connecting said slide with the driving shaft whereby the looper shaft is rocked and reciprocated lengthwise and the loopers moved in a concave-convex path.

[Claims 6 to 34 not printed in the Gazette.]

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1,094,354. ELECTRIC FURNACE AND PROCESS OF HEATING SUBSTANCES. ERWIN F. VON WILMOWSKY, Boston, Mass.; Edwin J. Prindle, executor of said von Wilmowsky, deceased, assignor to Mrs. Olga Pieper, Potsdam, Germany. Filed Oct. 28, 1896. Serial No. 610,285. (Cl. 204—64.)



1. In a device for controlling an electric discharge, the combination of electrodes parallel and opposite to each other, providing between them an air-gap of considerable width, a divided circuit for each of said electrodes, and means to supply the branches of said divided circuit with pulsating currents of substantially one and the same periodicity.

2. In a device for controlling an electric discharge, the combination of parallel electrodes, a divided circuit for said electrodes, and sources of pulsating currents supplied to the branches of said divided circuit.

3. In a device for controlling an electric discharge, electrodes parallel and opposite to each other, providing between them an air-gap of considerable width, said electrodes being surrounded by solenoid-turns in combination with a divided circuit for said electrodes and with means to supply currents to the branches of said circuit.

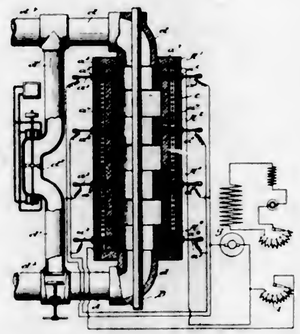
4. In an electric furnace, parallel electrodes, a heating chamber surrounded by solenoid-turns and sources of two pulsating currents and electric conductors joining the four ends of said parallel electrodes with said sources and completing a divided circuit.

5. In an electric furnace, parallel electrodes of which the one is surrounded by the other one and solenoid turns surrounding the same, mechanical support of each electrode at both ends, in combination with a divided circuit and a source for supplying differing currents to the electrodes at both ends.

[Claims 6 to 34 not printed in the Gazette.]



1,094,355. ELECTRIC FURNACE AND PROCESS OF HEATING SUBSTANCES UNIFORMLY AND AT A CONTROLLABLE TEMPERATURE. ERWIN F. VON WILMOWSKY, deceased, Boston, Mass., by Edwin J. Prindle, executor, East Orange, N. J., assignor to Mrs. Olga Pieper, Potsdam, Germany. Original application filed Oct. 28, 1896, Serial No. 610,286. Divided and this application filed Jan. 17, 1914. Serial No. 812,801. (Cl. 204—31.)



1. The process which consists in establishing an electric arc, creating a magnetic field adapted to disperse or spread said arc and passing a current of gas or gases past and in contact with said arc.

2. The process which consists in establishing an electric arc in a magnetic field and transverse to the flux of the same and passing a current of gas to be treated past said arc and in contact with the same.

3. The process which consists in establishing an electric arc in a substantially uniform magnetic field and transverse to the flux of the same, and passing a current of gas to be treated past said arc and in contact with the same.

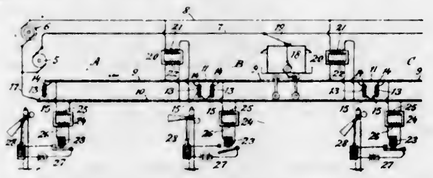
4. The combination, with means for producing a magnetic field, of means for producing an electric arc in said field, and means for passing a current of gas into contact with and past said electric arc.

5. The combination, with means for producing a magnetic field, of electrodes located in said field, means for supplying electricity to said electrodes, and means for passing a current of gas past said electrodes.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,356. SYSTEM OF AUTOMATIC BLOCK-SIGNALING FOR ELECTRIC RAILWAYS. SAMUEL MARSH YOUNG, New York, N. Y. Filed Feb. 8, 1906. Serial No. 300,166. (Cl. 246—36.)



In an electric railway signal system: two lines of rails, each of said lines of rails having insulation inserted therein at intervals forming block signal sections, each insulation in one line of rails being located approximately opposite an insulation in the other line of rails; a source of signaling current; means for connecting said source across the rails of each block; translating devices, one connected across the rails of each block; signals, one for each block controlled by the translating device of the block; a car; a propulsion motor for the car; a source of propulsion current of a character different from that of the first named source; means to connect one terminal of the second named source to one terminal of the propulsion motor of the car; connections from other terminal of the motor of the car to both track rails; conductors, one connecting one rail of each block with the diagonally opposite rail of the adjacent block; reactance coils, one connected across the rails at both ends of each block, said reactance coils allowing the practically unimpeded flow of propulsion current, but substantially preventing the flow of signaling current, and means for electrically connecting the rails to another terminal of the source of propulsion current.

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1,094,357. LACING DEVICE. GEORGE W. AYRES, Rolla, Mo., assignor of one-fourth to Edward A. Dean and one-fourth to G. A. Skyles, Rolla, Mo. Filed June 25, 1912. Serial No. 705,897. Renewed Mar. 5, 1914. Serial No. 822,768. (Cl. 24—147.)



1. A lace holding device including hingedly connected arms co-acting when closed to form a lace receiving loop, and means for swingingly attaching one of said arms to a supporting element.

2. A lace holding device including hingedly connected arms co-acting when closed to form a lace receiving loop, means operable by the strain of the lace for locking the free ends of the arms together when in closed position, and means for swingingly attaching one of said arms to a supporting element.

3. A lace holder including hingedly connected arms co-acting when closed to form a lace receiving loop, a roller bearing carried by one of said arms, said arms being so arranged and proportioned that strain applied against the bearing by a lace will automatically swing the arms to closed position and lock the same against separation, and means for securing the non-roller carrying arms to a shoe.

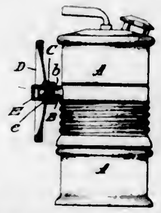
4. A lace holding device for shoes including a body portion adapted for attachment to a shoe, an arm hingedly secured by one end to the body member, and a second arm hingedly secured by one end to the intermediate portion of the first arm to form therewith a lace retaining loop.

5. A lace holding device for shoes including a body portion having prongs by means of which it may be attached to a shoe, an arm hingedly connected to the body portion, and a second arm hingedly connected to the first and co-acting therewith to form therewith a lace retaining loop.

[Claims 6 to 13 not printed in the Gazette.]

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1,094,358. MINER'S LAMP. FREDERIC E. BALDWIN, New York, N. Y. Filed May 16, 1913. Serial No. 767,971. (Cl. 67—87.)



1. In a lamp, the combination, with a burner tube, and a burner frictionally held to said tube, of rotatable means mounted upon the tube and arranged when rotated in one direction to push the burner from the tube.

2. A lamp provided with a burner frictionally held upon the burner tube, and a lifting nut threaded upon said tube,

and adapted to remove said burner from said tube by the mere unscrewing of the nut.

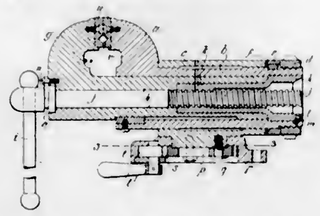
3. In a lamp, the combination, with a burner-tube, and a burner frictionally held to said tube, of a burner-removing device rotatable around said burner-tube, and means arranged to actuate said burner-removing device.

4. A lamp provided with a burner frictionally held upon the burner tube, and a reflector provided with a nut threaded upon the burner tube back of said burner and adapted to remove said burner by pressure exerted thereon by said nut when unscrewing.

5. A lamp provided with a burner frictionally held upon the burner tube, and having a rim or excrescence projecting therefrom, and a lifting nut threaded upon said tube, and adapted to remove said burner from said tube by the mere unscrewing of the nut.

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1,094,359. BENCH-VISE. JOHN GEORGE BARKE, Lincoln, England. Filed Nov. 12, 1913. Serial No. 800,450. (Cl. 81—33.)



A bench vise comprising a base having a horizontally disposed tubular body portion, a sleeve rotatably mounted therein and provided at one end with a jaw portion abutting one end of said body and at the other end with a threaded extension projecting beyond the said body, a collar slidably keyed to said extension, the adjacent faces of said collar and said body being formed with interlocking clutch faces, a nut threaded upon said extension and adapted to control said collar, a second jaw, provided with a stem slidably keyed within the said sleeve, and a screw for adjusting the last mentioned jaw, substantially as described.

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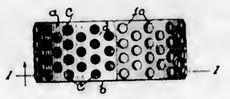
1,094,360. CRAYON. WILLIAM BECKERS, New York, N. Y. Filed Nov. 25, 1911. Serial No. 662,397. (Cl. 106—5.)

1. As a new article of manufacture, a crayon suitable for marking upon textile fibers comprising stearic acid, barium sulfate, and a binding agent.

2. As a new article of manufacture, a crayon suitable for marking upon textile fibers comprising stearic acid, barium sulfate, and starch.

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1,094,361. POLISHING DEVICE. JOHN C. BLEVNEY, Newark, N. J., assignor to The Cork Insert Company, Boston, Mass., a Corporation of Maine. Filed Sept. 19, 1912. Serial No. 721,315. (Cl. 51—1.)

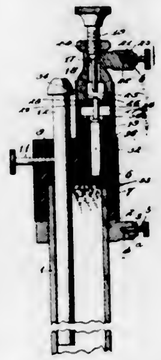


1. In a device of the character described, in combination, a wheel having a rim of rigid material, a plurality of yielding members projecting from said rim and arranged transversely thereof in substantially close proximity to one another and separated by spaces, which extend transversely of the rim between adjacent yielding members, and abrading material affixed to said yielding members, substantially as described.

2. In a device of the character described, in combination, a wheel having a rim of rigid material provided with a plurality of sockets or openings in it which are arranged transversely of the rim and spaced apart, cork members in said openings and projecting beyond the circumference of the rim to form a succession of high points extended transversely of the rim of the wheel and separated by transversely extended spaces, and polishing material affixed to the outer surfaces of said corks, for the purpose specified.

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1,094,362. THERMOSTAT. JULIUS BOEKEL, Philadelphia, Pa. Filed Feb. 12, 1913. Serial No. 747,911. (Cl. 177—302.)



1. In a thermostatic device forming part of an electric circuit, a float, in combination with means operated thereby for closing and opening said circuit and a mass of oxidizable conducting liquid under and in contact with said float, the latter being provided with a downwardly extending contact pin of relatively small diameter adapted to penetrate the oxidized surface of the mercury and the lower portion of said float being relatively broad and forming a shoulder above said contact pin.

2. In a thermostatic device forming part of an electric circuit, a float, in combination with means operated thereby for closing and opening said circuit, a mas of oxidizable conducting liquid under and in contact with said float, a contact pin of relatively smaller diameter extending centrally downward therefrom and adapted to penetrate the oxidized surface of the liquid and a fixed part through which said pin works up and down with the motion of the float.

3. In a thermostatic device forming part of an electric circuit, a float, in combination with means operated thereby for closing and opening said circuit, a mass of conducting liquid under and in contact with said float, a fixed body in which the said float moves up and down and a part of which extends under the said float, forming an annular shoulder surrounding a central hole, and a contact pin extending centrally down from said float through said hole and guided therein, said contact pin being adapted to penetrate the oxidized surface of the liquid and the lower portion of said float being of considerably greater diameter than that of said pin, so that the said annular shoulder will serve as a stop therefor.

4. In combination with a cylindrical float, a part in which said float is guided in its upward and downward movement and which is provided with a stop preventing said float from descending below a given point, a conducting liquid below and in contact with said float, circuit closing devices operated by said float, and a downwardly presented contact pin carried by said float and extending below said stop when the float is in its lowest position and adapted to penetrate the oxidized surface of said liquid.

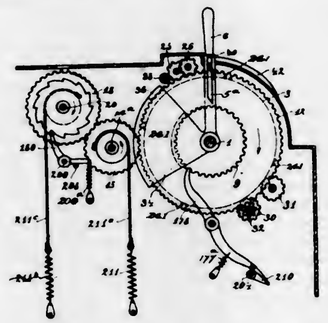
5. In combination with an expansible column of liquid, a float having a needle-form contact at its lower end adapted to penetrate the oxidized surface of said liquid, and provided at its upper end with an extended part carrying a contact, an insulated guide for said extended part, another contact arranged to coöperate therewith in closing the circuit and a casing surrounding these upper contacts.

[Claims 6 to 12 not printed in the Gazette.]



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1,094,363. CALCULATING MECHANISM. HUGO BRUCKMANN, Benrath, Germany. Filed Sept. 16, 1912. Serial No. 720,644. (Cl. 235—82.)



1. A calculating machine comprising means for indicating two numbers successively and for giving the difference between them automatically, a multiplying mechanism including means for showing the result of the multiplications, means for setting said mechanism to multiply one number by another, and connections for transmitting to the multiplying mechanism the movements of the indicating mechanism in showing the second of the two members.

2. In a calculating machine in combination, a registering mechanism, a resetting mechanism, and gearing between said mechanisms, said resetting mechanism comprising a revoluble member carrying a plurality of evenly spaced pins, and means arranged to act on any one of said pins to move said member in a direction opposite to that in which it is moved by said gearing, the ratio of said gearing being such that said registering mechanism is returned to zero position when said means moves said member the distance between two successive pins.

3. In a calculating machine, the combination with a set of numeral wheels and means for actuating them, of a second set of numeral wheels, gearing adapted to connect corresponding wheels of the first set with those of the second set, means for throwing said gearing into and out of action whereby the second set of numeral wheels can be connected to be moved by the first set when the wheels of this latter are being advanced to show a second number after having been set to a first number, multiplying mechanism including means for showing the result of the multiplications and means connecting it to the second set of numeral wheels for multiplying the numbers shown thereon by another number.

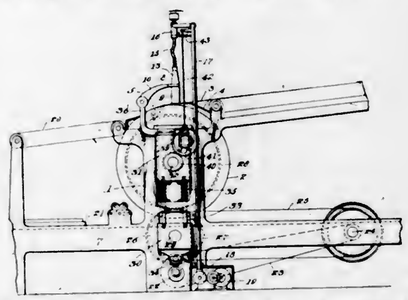
4. In a calculating machine the combination comprising three sets of numeral wheels, means for adjusting the first set of wheels to show any required number, gearing adapted to connect the first set of numeral wheels operatively with the second set, and gearing adapted to connect the first set of wheels operatively with the third set, means for throwing into action one of the said gearings while disconnecting the other, and multiplying mechanism operatively associated with the second set of numeral wheels, whereby when a number has been adjusted upon the first set of wheels while said set of wheels was disconnected from the second set and connected with the third set, the number will be shown on the first and third sets only, and whereby when a second number is adjusted on the first wheels while they are connected to the second set of wheels, said second set of wheels will show only the difference between the first and second numbers and will transmit that difference to the multiplying mechanism.

5. In a calculating machine, the combination comprising three sets of numeral wheels each having toothed rings thereon, the first set being arranged with its wheels adjacent to corresponding wheels of the third set, toothed gearing adapted to connect together said first and third sets of numeral wheels, means for disconnecting the third set of numeral wheels from the first, gearing for transmitting the motion from the first to the second set of numeral wheels and means adapted to throw said gearing out of action when throwing into action the third set of numeral wheels, a multiplying mechanism including means for showing the result of the multiplications and gearing connecting the same to the second set of numeral wheels, and means for adjusting said multiplying mechanism to multiply any number set thereon by another number.

[Claims 6 to 25 not printed in the Gazette.]

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1,094,364. CLEANER DEVICE. MATTHEW J. BULGER, Brooklyn, N. Y. Continuation of application Serial No. 700,397, filed May 29, 1912. This application filed July 17, 1913. Serial No. 779,644. (Cl. 101—111.)



1. In a printing press in combination, a rotary cylinder having a sheet of paper traveling therewith, a paper-cleaning device having a long narrow suction slot extending transversely of said paper sheet, means for producing a suction effect of sufficient intensity through said slot to remove the dust and loose particles of paper from said sheet solely by said suction effect, and means for drawing said paper sheet past the edges of said suction slot and around with said cylinder.

2. In a printing press in combination, a rotary cylinder having a sheet of paper traveling therewith, a paper cleaning device mounted adjacent said cylinder having a long, narrow suction slot extending transversely of said paper sheet and in close proximity to said cylinder, means for producing a suction effect of sufficient intensity through said slot to remove the dust and loose particles of paper from said sheet solely by said suction effect, and means for drawing said paper sheet past the edges of said suction slot and around with said cylinder.

3. In a printing press in combination, a rotary cylinder having a sheet of paper traveling therewith, a paper cleaning device mounted adjacent said cylinder having a long, narrow suction slot extending transversely of said paper sheet and in close proximity to said cylinder, means for producing a suction effect of sufficient intensity through said slot to remove the dust and loose particles of paper from said sheet solely by said suction effect, and paper grippers carried on said cylinder for drawing said paper sheet past the edges of said suction slot and around with said cylinder.

4. A printing press having means for moving and guiding the sheet to be printed, a cleaner consisting of a suction head for removing dust from the sheet extending across the path of the said sheet, and means for inducing through said head a suction effect of sufficient intenaity to remove the dust and loose particles on the sheet without stopping the travel of said sheet, said head being devoid of

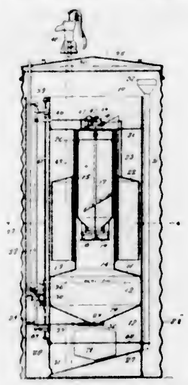
other mechanical means for removing the dust, and automatic means for regulating the induced air current.

5. A printing press having means for moving and guiding the sheet to be printed, a cleaner consisting solely of a suction head for removing dust from the sheet extending across the path of the said sheet, means for inducing through said head a suction effect of sufficient intensity to remove the dust and loose particles without stopping the travel of said sheet, said head being devoid of other mechanical means for removing the dust, and means for temporarily arresting the suction effect when the sheet is being delivered from the press.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,365. ACETYLENE GENERATOR. AUGUSTINE DAVIS, Brooklyn, N. Y., and ALVA C. COLLINS, Elkhart, Ind., assignors to Davis Acetylene Company, Elkhart, Ind., a Corporation of South Dakota. Filed Oct. 28, 1912. Serial No. 728,058. (Cl. 48—57.)



1. An underground acetylene generator comprising the combination of a tank or casing having a water-holding generating chamber in its lower part, mechanism for feeding a charge of carbid to the water, said generating chamber comprising a lower portion holding a considerable part and an upper portion holding another part of the body of water appropriate to a charge of carbid, the two portions of the generating chamber being normally in communication, said lower portion having an exit opening at one side, an outside chamber into which said exit opening delivers, means for removing the contents of said lower portion from said outside chamber upward above ground, and means for sealing off the upper portion of the generating chamber from said lower portion when the latter is to be emptied.

2. An underground acetylene generator comprising the combination of a tank or casing having mechanism in its upper part for feeding a charge of carbid and a water-holding generating chamber in its lower part, said generating chamber having a lower portion holding a considerable part and an upper portion holding another part of the body of water appropriate to a charge of carbid, the two portions of the generating chamber being normally in communication and the bottom of the lower portion sloping to an exit opening, an outside chamber into which said exit opening delivers, means for removing the contents of the lower portion of the generating chamber from said outside chamber upward above ground, means for sealing off the upper portion of the generating chamber from said lower portion when the latter is to be emptied, an agitator in said lower portion, and filling means arranged to flush the sloping bottom thereof.

3. In an underground acetylene generator having suitable means for feeding the carbid to the water, a tank having a water-holding generating chamber in its lower part, said generating chamber comprising a lower portion adapted to hold a considerable part and an upper portion adapted to hold another part of the body of water appropriate to a charge of carbid, the two portions of the generating chamber being normally in communication and said lower portion having an exit, a chamber at the side of the tank into which said exit opens, said outside chamber being also adapted to hold a portion of the water, a pump entering said outside chamber for emptying the same and the lower portion of the tank, and means for sealing off the upper portion of the generating chamber from said lower portion when the latter is to be emptied.

4. In an underground acetylene generator, the combination of a tank or casing having a water-holding generating chamber in its lower part, mechanism for feeding carbid to the water, means partially dividing the generating chamber into upper and lower portions and having an opening normally permitting material to pass from the upper portion to the lower portion, means for closing said opening so as to cut the two portions of the generating chamber off from each other, an outside residuum-removal chamber in communication with the bottom of said lower portion and extending upward alongside and secured to the tank, and means for operating said gate from above ground extending downward in said outside chamber.

5. In an underground acetylene generator, the combination of a tank or casing having a water-holding generating chamber in its lower part, mechanism for feeding carbid to the water, said generating chamber comprising an upper portion and a lower portion connected by an opening normally permitting material to pass from the upper portion to the lower portion, a gate and operating means to close said opening so as to cut the portions of the generating chamber off from each other, a gas passage leading from the upper part of said lower portion and delivering into the upper part of said upper portion, and means whereby said passage is automatically closed when said gate is closed and opened when the gate is opened.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,366. MANUFACTURE OF ARTIFICIAL MARBLE. OTTO ERNST HEUSCHKEL, Victoria Docks, England. Filed May 20, 1911. Serial No. 628,553. (Cl. 106—44.)

1. The method of manufacturing artificial marble consisting in treating leather pieces with alkaline solution for removal of tannic acid, treating the leather-like residue to prevent cohesion of the particles, mixing therewith a solution of magnesium carbonate in acid to which magnesium oxid is added so that the whole forms a plastic mass and drying the resulting product.

2. Method of manufacturing artificial marble consisting in soaking leather pieces in hot alkaline solution, separating said solution from the leather, treating the latter with acid at a temperature suitable for conversion of remanent tannic acid into carbohydrate and gallic acid, treating the leather mass to prevent cohesion of the particles, drying the mass, mixing therewith a solution of magnesium carbonate in acid to which magnesium oxid is added so that the whole forms a plastic mass and drying the resulting product.

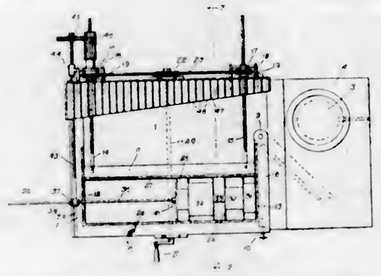
3. Method of manufacturing artificial marble consisting in soaking leather pieces in hot alkaline solution, separating said solution from the leather, treating the latter with acid at a temperature suitable for conversion of remanent tannic acid into carbohydrate and gallic acid, treating the leather mass to prevent cohesion of the particles, drying the mass at a temperature and for a period of time suitable for converting the gallic acid into pyrogallic acid, reducing the leather-like residue to a more or less finely divided condition, mixing therewith a solution of magnesium carbonate in acid to which, magnesium oxid is added so that the whole forms a plastic mass, and drying the resulting product.

4. Method of manufacturing artificial marble consisting in soaking leather pieces in hot alkaline solution, separating said solution from the leather, treating the latter with acid at a temperature suitable for conversion of remanent tannic acid into carbohydrate and gallic acid, treating the mass with a solution of permanganate of potash for the prevention of the development of sulfureted hydrogen and for the removal of empyreumatic matter, and for preventing cohesion of the particles, drying the mass, reducing the leather-like residue to a more or less finely divided condition, mixing therewith a solution of magnesium carbonate in acid to which magnesium oxid is added so that the whole forms a plastic mass, and drying the resulting product.

5. Method of manufacturing artificial marble consisting in soaking leather pieces in an alkaline solution, separating the solution from the mass, treating the mass with acid at a suitable temperature for the conversion of the remanent tannic acid into carbohydrate and gallic acid, soaking the mass in a solution of permanganate of potash to prevent cohesion of the particles, drying the mass at a suitable temperature for the conversion of gallic acid into pyrogallic acid, mixing the mass with a solution of magnesium carbonate in acid with an addition of magnesium oxid, and drying the mass.

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1,094,367. APPARATUS FOR JUSTIFYING WITH HOT METAL. RANDOLPH LANGSETH, Hammond, Ind., assignor, by mesne assignments, of one-half to Automatic Justifier Company, Hammond, Ind., a Corporation of Indiana. Filed Sept. 27, 1912. Serial No. 722,710. (Cl. 22—122.)



1. A hot metal justifying apparatus comprising a table, walls or ledges projecting above the table and forming thereon a rectangle, means for moving one of the said walls from and toward the opposite wall, and a series of spacers of various lengths adapted to be inserted between the latter walls.

2. An apparatus of the character described, comprising a table, two parallel walls or ledges projecting above the table one of said walls or ledges being fixed and the other being movable from and toward the same, an abutment lying midway between said walls, actuating means for said movable wall, and connections between said actuating means and said abutment for maintaining the latter midway between said walls regardless of the distance between the walls.

3. An apparatus of the character described, comprising a table, walls or ledges projecting above the table and forming thereon a rectangle, one of said walls being movable from and toward the opposite wall, a series of spacers of various lengths adapted to be inserted between the latter walls, and each of the walls being graduated so as to permit the movable wall and the spacers to be accurately adjusted.

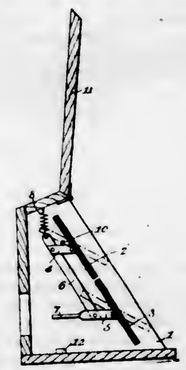
4. An apparatus of the character described, comprising a table, walls or ledges projecting above the table, one of said walls being stationary and the other being movable from and toward the same, an abutment lying midway between said walls and adjustable longitudinally of the walls, and means for moving the movable wall and simultaneously moving the abutment in the same direction and through half the distance.

5. An apparatus of the character described, comprising a table, walls or ledges projecting above the table and forming thereon a rectangle, one of said walls being stationary and the opposite wall being movable from and toward the same, screw devices for actuating said movable wall, one of the other walls being hinged at one end so as to permit it to be swung away from the adjacent walls.

[Claims 6 to 19 not printed in the Gazette.]

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1,094,368. SIGNALING APPARATUS. CLEMENT LEAN, London, England, assignor to Graham & Latham Limited, Westminster, England, a Corporation of England. Filed Apr. 1, 1911. Serial No. 618,353. (Cl. 116—22.)



1. Signaling apparatus comprising a movable mirror, a dark shield which is adjacent to the mirror and the image of which is adapted to be reflected to the observer by the mirror, and means for movably mounting the mirror whereby its position may be changed with relation to the dark shield.

2. Signaling apparatus comprising a mirror, a dark shield adjacent to the mirror, means for mounting the mirror to reflect to the observer the image of said dark shield, and means for moving the mirror out of position for reflecting to the observer such image.

3. Signaling apparatus comprising a mirror, a substantially dark shield adjacent to the mirror, means for mounting the mirror to reflect to the observer the image of the dark shield, and key mechanism for moving the mirror out of position for reflecting to the observer such image.

4. Signaling apparatus comprising a mirror, a substantially dark shield adjacent to the mirror, means for mounting the mirror to reflect to the observer the image of the substantially dark shield, and spring influenced key-mechanism for moving the mirror out of position for reflecting to the observer such image.

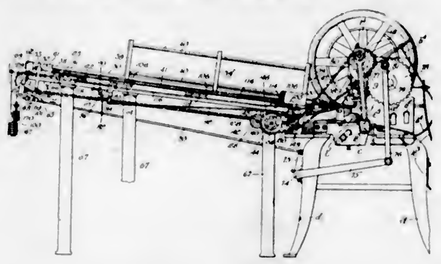
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1,094,369. MAGAZINE AND FEEDER FOR SHEET-METAL STRIPS. HERBERT C. LEONARD, Acushnet, Mass., assignor to Atlas Tack Company, Fairhaven, Mass., a Corporation of New Jersey. Filed Apr. 1, 1912. Serial No. 687,757. (Cl. 10—177.)

1. The combination with instrumentalities for operating upon a blank strip; of a barrel for guiding a blank strip to potential working relation to said instrumentalities, means movable through said barrel for feeding a blank strip therein to said instrumentalities, a magazine for blank strips, and means for transferring a blank strip from said magazine into said barrel in position to be operatively engaged by said feeding means.

2. The combination with instrumentalities for operating upon a blank strip; of a barrel for guiding a blank strip to potential working relation to said instrumentalities, a magazine for blank strips, means for transferring a blank strip from said magazine into said barrel, and means for gripping a blank strip deposited in said barrel, said gripping means being movable in said barrel toward and from said instrumentalities for feeding the blank strip thereto.

3. The combination with instrumentalities for operating upon a blank strip; of means for guiding a blank strip to said instrumentalities, bodily movable strip-engaging means for feeding a blank strip along said guiding means, disconnectible means for feeding said strip-engaging means toward said instrumentalities, disconnectible means for retracting said strip-engaging means, and means controlled by said strip-engaging means for alternately connecting and disconnecting said feeding means and said retracting means to reciprocate said strip-engaging means.



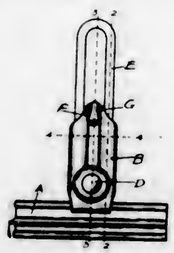
4. The combination with instrumentalities for operating upon a blank strip; of strip-engaging means movable toward and from said instrumentalities for moving a blank strip, weighted means for moving said strip-engaging means toward said instrumentalities, disconnectible power-driven means for moving said strip-engaging means in the opposite direction, and means for connecting and disconnecting said power-driven means to effect reciprocation of said strip-engaging means.

5. The combination with instrumentalities for operating upon a blank strip; of strip-engaging means movable toward and from said instrumentalities for moving a blank strip, weighted means for moving said strip-engaging means in one direction, disconnectible power-driven means for moving said strip-engaging means in said one direction, disconnectible power-driven means for moving said strip-engaging means in the opposite direction, and controlling means for alternately connecting and disconnecting first one and then the other of said power-driven means to move said strip-engaging means in one direction and then in the opposite direction, said controlling means being adapted to leave both of said power-driven means disconnected during a period of time to permit said weighted means to move said strip-engaging means.

[Claims 6 to 38 not printed in the Gazette.]

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1,094,370. HANGER FOR OVERHEAD TRACKS. THOMAS LOUDEN, Fairfield, Iowa, assignor to Louden Machinery Company, Fairfield, Iowa. Filed Feb. 10, 1914. Serial No. 817,953. (Cl. 104—181.)



1. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace and hold the edge of a track rail between them, and a series of recesses in their inner faces adapted to receive and hold the headed end of the hanger member in different positions with relation to the clamping members.

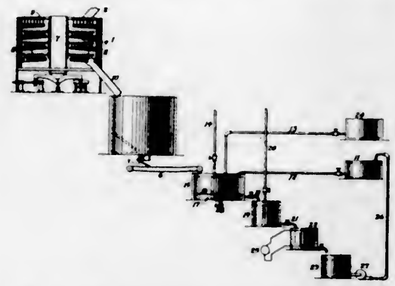
2. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and means to hold the upper ends of the clamping members together and in substantial engagement with the headed end of the hanger member.

3. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and interlocking means on the upper ends of the clamping members adapted to hold them together and in substantial engagement with the headed end of the hanger member.

4. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and interlocking lugs on the upper ends of the clamping members adapted to hold them together and in substantial engagement with the headed end of the hanger member.

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1,094,371. PROCESS FOR EXTRACTING METALS FROM ORES. HENRY S. MACKAY, Norwich, Conn., assignor to MacKay Process Company, Norwich, Conn., a Corporation of Delaware. Filed Apr. 16, 1913. Serial No. 761,565. (Cl. 204—15.)



1. The process of extracting metals from ore containing sulfur which consists in producing from the elements of the ore a solvent for the metal, electrolyzing the solution to extract the metal and, during the process, continuously treating the ore so as to produce and maintain a high efficiency of the solvent and electrolyte.

2. The process of extracting metals from ores which consists in producing from the elements of the ore in the presence of sulfur a solvent for the metal, electrolyzing the solution to extract the metal and, during the process, continuously treating the ore so as to produce and maintain a high efficiency of the solvent and electrolyte.



3. In a process for extracting metals from ore the steps which consist in roasting the ore in the presence of sulfur, leaching and electrolyzing, and controlling the composition of the solvent by the character of the roast.

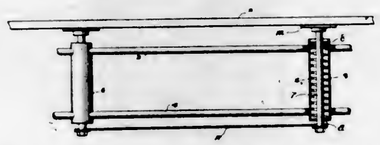
4. A process for extracting metals from ore which consists in forming a solvent for ores from the elements of the ore, by roasting the ore in the presence of sulfur, leaching and electrolyzing and controlling the composition of the electrolyte by the character of the roast.

5. A process for extracting metals from ore which consists in forming a solvent for ores from the elements of the ore, by roasting the ore, leaching and electrolyzing, and controlling the composition of the solvent and the electrolyte by the character of the roast.

[Claims 6 to 31 not printed in the Gazette.]

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1,094,372. AUTOMOBILE PNEUMATIC SPRING. ABI MAYERSON, Pueblo, Colo. Filed Feb. 8, 1911. Serial No. 607,300. (Cl. 21—50.)



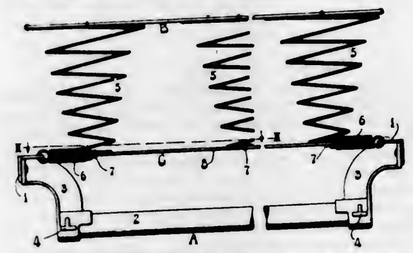
1. In an automobile pneumatic spring of the character described, in combination with a frame attached to the carrying axles; cylinders disposed in said frame adjacent to the corners thereof; and a carrying frame; shafts attached to said carrying frame and adapted to operate perpendicularly in said cylinders with pistons thereon and adapted to permit an escape of air past said pistons; spiral spring means disposed in said cylinders adapted to receive the weight to be carried, all substantially as set forth.

2. In an automobile pneumatic spring of the character described, upright cylinders disposed in the frame of an automobile attached to the axles; a frame structure above and below said cylinders connected by shafts corresponding to the number of cylinders and adapted to operate therein; a piston on each shaft adapted to operate in each cylinder and also adapted to permit the escape of compressed air; spiral spring means disposed in each cylinder operative against the said piston and the bottom of said cylinder, all substantially as set forth.

3. In combination, two separately constructed frames, vertically arranged cylinders fixed to one of said frames and provided with vents, pistons connected to the other frame and designed to fit and work in said cylinders, and springs in the cylinders to force the pistons in one direction away from the vents, said vents allowing for escape of air from the cylinders when the pistons are moved in the opposite direction against the pressure of the springs.

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1,094,373. SPRING BED-BOTTOM. GEORGE A. MELLON, St. Louis, Mo. Filed Dec. 15, 1913. Serial No. 806,789. (Cl. 5—40.)



1. The combination in a bed bottom, of a rigid frame including end rails, lower and upper pliable frames, the said lower frame being connected to the end rails of said rigid frame and free of connection with the side of said rigid frame, and compression springs between said pliable frames.

2. The combination in a bed bottom, of a rigid frame including end rails, a main spring structure comprising lower and upper pliable frames and compression springs between said pliable frames, and tension springs connecting said lower pliable frame to the end rails only of said rigid frame.

3. The combination in a bed bottom, of a rigid frame including end rails, and a spring structure comprising pliable lower and upper frames, and compression springs between said frames, the said lower frame including longitudinal wires and transverse wires, the longitudinal wires having connection with the end rails of said rigid frame and the transverse wires being free of direct connection with said rigid frame.

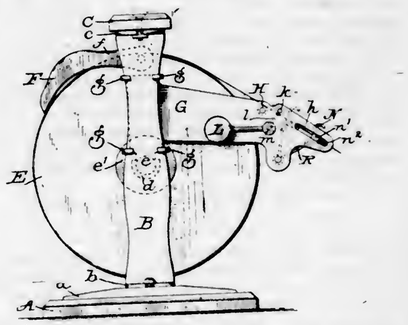
4. A bed bottom comprising a rigid frame, a pair of pliable frames arranged one above the other, tension springs connecting the lower pliable frame to said rigid frame, and compression springs between said pliable frames, the upper pliable frame having no direct connection with said rigid frame, the said upper pliable frame being supported wholly by said compression springs.

5. A bed bottom comprising a rigid frame having end rails, a pliable lower frame in the form of a wire web extending substantially from end to end of said rigid frame, tension springs connecting the ends of said wire web to said end rails and thereby holding said web, under tension, at the level of said end rails, compression springs on said wire web, and a pliable upper frame secured to said compression springs.

[Claim 6 not printed in the Gazette.]

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1,094,374. AUTOMATICALLY-CONTROLLED PAPER-CUTTER. GEORGE J. NETH, Dayton, Ohio, assignor of one-half to Richard C. S. Reed, Hamilton, Ohio. Filed Oct. 11, 1912. Serial No. 725,127. (Cl. 211—32.)

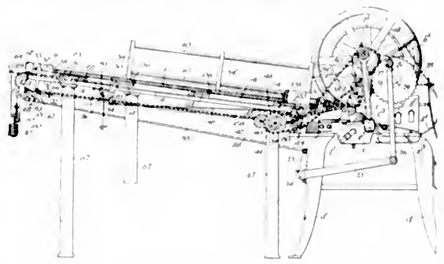


1. The combination in a paper cutter of the standards provided with side arms each formed with a slot; an idle-roller journaled in said side arms; a roller and tension-bar journaled in said side arms; and a cutting-bar journaled in said side arms and provided with a double cutting edge, and adapted to move backward and forward between said side arms; all substantially in the manner and for the purpose described.

2. The combination in a paper cutter,—of the standards; the side arms each formed with a slot and projecting from said standards; an idle-roller journaled in said side arms; a roller and a weighted tension-bar journaled in said side arms; and a cutting-bar provided with hinges and having its ends slidably journaled in the slots of said side arms; substantially as described.

3. In an automatically controlled paper cutter the combination of,—a base, standards, and a top-rail; supporting plates each provided with a slot and extending from said standards; an idle roller journaled in said supporting

3. The combination with instrumentalities for operating upon a blank strip; of means for guiding a blank strip to said instrumentalities, bodily movable strip-engaging means for feeding a blank strip along said guiding means, disconnectible means for feeding said strip-engaging means toward said instrumentalities, disconnectible means for retracting said strip-engaging means, and means controlled by said strip-engaging means for alternately connecting and disconnecting said feeding means and said retracting means to reciprocate said strip engaging means.



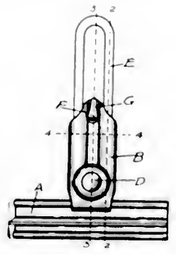
4. The combination with instrumentalities for operating upon a blank strip; of strip-engaging means movable toward and from said instrumentalities for moving a blank strip, weighted means for moving said strip-engaging means toward said instrumentalities, disconnectible power-driven means for moving said strip-engaging means in the opposite direction, and means for connecting and disconnecting said power-driven means to effect reciprocation of said strip-engaging means.

5. The combination with instrumentalities for operating upon a blank strip; of strip-engaging means movable toward and from said instrumentalities for moving a blank strip, weighted means for moving said strip-engaging means in one direction, disconnectible power-driven means for moving said strip-engaging means in said one direction, disconnectible power-driven means for moving said strip-engaging means in the opposite direction, and controlling means for alternately connecting and disconnecting first one and then the other of said power-driven means to move said strip-engaging means in one direction and then in the opposite direction, said controlling means being adapted to leave both of said power-driven means disconnected during a period of time to permit said weighted means to move said strip-engaging means.

[Claims 6 to 38 not printed in the Gazette.]

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1,094,370. HANGER FOR OVERHEAD TRACKS. THOMAS LOUDEN, Fairfield, Iowa, assignor to Louden Machinery Company, Fairfield, Iowa. Filed Feb. 10, 1914. Serial No. 817,953. (Cl. 104—181.)



1. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace and hold the edge of a track rail between them, and a series of recesses in their inner faces adapted to receive and hold the headed end of the hanger member in different positions with relation to the clamping members.

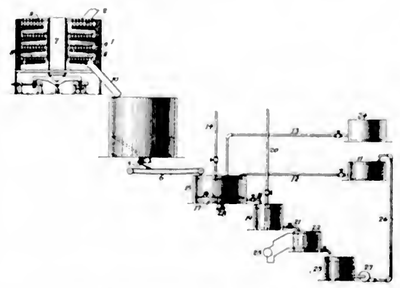
2. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and means to hold the upper ends of the clamping members together and in substantial engagement with the headed end of the hanger member.

3. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and interlocking means on the upper ends of the clamping members adapted to hold them together and in substantial engagement with the headed end of the hanger member.

4. In overhead track hangers, a hanger member adapted at its upper end to be connected with an overhead support and its lower end headed, in combination with a pair of clamping members having their lower ends fitted to embrace the edge of a track rail between them, means to clamp said lower ends upon the edge of the track rail, a series of recesses arranged one above another in the inner faces of the clamping members to receive the headed end of the hanger member in different positions with respect to the clamping members, and interlocking lugs on the upper ends of the clamping members adapted to hold them together and in substantial engagement with the headed end of the hanger member.

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1,094,371. PROCESS FOR EXTRACTING METALS FROM ORES. HENRY S. MACKAY, Norwich, Conn., assignor to MacKay Process Company, Norwich, Conn., a Corporation of Delaware. Filed Apr. 16, 1913. Serial No. 761,565. (Cl. 204—15.)



1. The process of extracting metals from ore containing sulfur which consists in producing from the elements of the ore a solvent for the metal, electrolyzing the solution to extract the metal and, during the process, continuously treating the ore so as to produce and maintain a high efficiency of the solvent and electrolyte.

2. The process of extracting metals from ores which consists in producing from the elements of the ore in the presence of sulfur a solvent for the metal, electrolyzing the solution to extract the metal and, during the process, continuously treating the ore so as to produce and maintain a high efficiency of the solvent and electrolyte.



3. In a process for extracting metals from ore the steps which consist in roasting the ore in the presence of sulfur, leaching and electrolyzing, and controlling the composition of the solvent by the character of the roast.

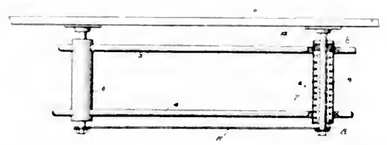
4. A process for extracting metals from ore which consists in forming a solvent for ores from the elements of the ore, by roasting the ore in the presence of sulfur, leaching and electrolyzing and controlling the composition of the electrolyte by the character of the roast.

5. A process for extracting metals from ore which consists in forming a solvent for ores from the elements of the ore, by roasting the ore, leaching and electrolyzing, and controlling the composition of the solvent and the electrolyte by the character of the roast.

[Claims 6 to 31 not printed in the Gazette.]

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1,094,372. AUTOMOBILE PNEUMATIC SPRING. ABE MAYERSON, Pueblo, Colo. Filed Feb. 8, 1911. Serial No. 607,300. (Cl. 21—50.)



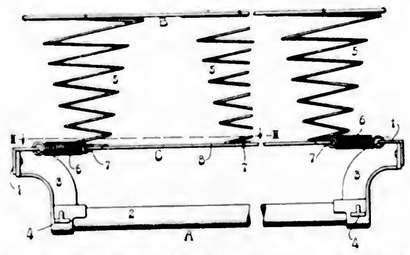
1. In an automobile pneumatic spring of the character described, in combination with a frame attached to the carrying axles; cylinders disposed in said frame adjacent to the corners thereof; and a carrying frame; shafts attached to said carrying frame and adapted to operate perpendicularly in said cylinders with pistons thereon and adapted to permit an escape of air past said pistons; spiral spring means disposed in said cylinders adapted to receive the weight to be carried, all substantially as set forth.

2. In an automobile pneumatic spring of the character described, upright cylinders disposed in the frame of an automobile attached to the axles; a frame structure above and below said cylinders connected by shafts corresponding to the number of cylinders and adapted to operate therein; a piston on each shaft adapted to operate in each cylinder and also adapted to permit the escape of compressed air; spiral spring means disposed in each cylinder operative against the said piston and the bottom of said cylinder, all substantially as set forth.

3. In combination, two separately constructed frames, vertically arranged cylinders fixed to one of said frames and provided with vents, pistons connected to the other frame and designed to fit and work in said cylinders, and springs in the cylinders to force the pistons in one direction away from the vents, said vents allowing for escape of air from the cylinders when the pistons are moved in the opposite direction against the pressure of the springs.

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1,094,373. SPRING BED-BOTTOM. GEORGE A. MELLON, St. Louis, Mo. Filed Dec. 15, 1913. Serial No. 806,789. (Cl. 5—40.)



1. The combination in a bed bottom, of a rigid frame including end rails, lower and upper pliable frames, the said lower frame being connected to the end rails of said rigid frame and free of connection with the side of said rigid frame, and compression springs between said pliable frames.

2. The combination in a bed bottom, of a rigid frame including end rails, a main spring structure comprising lower and upper pliable frames and compression springs between said pliable frames, and tension springs connecting said lower pliable frame to the end rails only of said rigid frame.

3. The combination in a bed bottom, of a rigid frame including end rails, and a spring structure comprising pliable lower and upper frames, and compression springs between said frames, the said lower frame including longitudinal wires and transverse wires, the longitudinal wires having connection with the end rails of said rigid frame and the transverse wires being free of direct connection with said rigid frame.

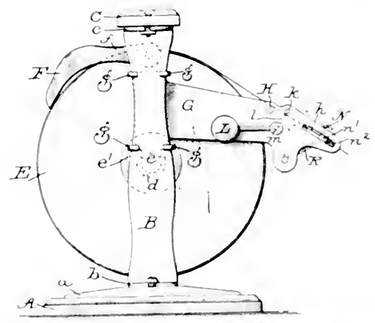
4. A bed bottom comprising a rigid frame, a pair of pliable frames arranged one above the other, tension springs connecting the lower pliable frame to said rigid frame, and compression springs between said pliable frames, the upper pliable frame having no direct connection with said rigid frame, the said upper pliable frame being supported wholly by said compression springs.

5. A bed bottom comprising a rigid frame having end rails, a pliable lower frame in the form of a wire web extending substantially from end to end of said rigid frame, tension springs connecting the ends of said wire web to said end rails and thereby holding said web, under tension, at the level of said end rails, compression springs on said wire web, and a pliable upper frame secured to said compression springs.

[Claim 6 not printed in the Gazette.]

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1,094,374. AUTOMATICALLY-CONTROLLED PAPER-CUTTER. GEORGE J. NETH, Dayton, Ohio, assignor of one-half to Richard C. S. Reed, Hamilton, Ohio. Filed Oct. 11, 1912. Serial No. 725,127. (Cl. 211—32.)



1. The combination in a paper cutter of the standards provided with side arms each formed with a slot; an idle-roller journaled in said side arms; a roller and tension-bar journaled in said side arms; and a cutting-bar journaled in said side arms and provided with a double cutting edge, and adapted to move backward and forward between said side arms; all substantially in the manner and for the purpose described.

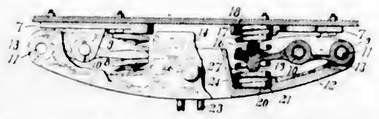
2. The combination in a paper cutter,—of the standards; the side arms each formed with a slot and projecting from said standards; an idle-roller journaled in said side arms; a roller and a weighted tension-bar journaled in said side arms; and a cutting-bar provided with hinges and having its ends slidably journaled in the slots of said side arms; substantially as described.

3. In an automatically controlled paper cutter the combination of,—a base, standards, and a top-rail; supporting plates each provided with a slot and extending from said standards; an idle roller journaled in said supporting

plates; a roller and an automatic tension-bar journaled in said supporting plates; and a cutting-bar having a double cutting edge and slidably journaled in the slots of said supporting plates.

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1,094,375. BUFFER AND DRAW-GEAR. RALPH E. NOBLE and LOUIS E. MITCHELL, Chicago, Ill., assignors to Morgan-Gardner Electric Company, Chicago, Ill. Filed Dec. 30, 1912. Serial No. 739,178. (Cl. 213—39.)



1. A combined buffer and draw-head for cars having a convex face approximately as long as the width of the car, for engagement with various types of buffers, a plurality of vertically arranged pivotal supports for said buffer and draw-head about which it is adapted to rock, and resilient means for holding said buffer and draw-head in normal position with respect to the pivotal supports.

2. The combination with a car or locomotive, of a plurality of vertically arranged pivotal supports, a combined buffer and draw-head having a relatively long convex face sufficiently wide to accommodate buffers of different heights and positions on car fronts, and yielding connections between said buffer and said supports for holding the buffer against pulling and pushing strains, but permitting the buffer to rock with respect to said supports.

3. The combination with a car or locomotive, of a combined draw-head and buffer having a convex face substantially as long as the width of the cars with which it is to engage, a plurality of vertically arranged pivotal supports, and rocking and yielding connections between said draw-head and buffer and said supports.

4. A draw-gear comprising a plurality of oppositely disposed levers pivotally connected with a car or locomotive, a draw-head pivoted to said levers, and springs interposed between the levers and the locomotive for resisting the pulling strain on the draw head.

5. The combination with a car or locomotive of brackets arranged at the end thereof, horizontal levers disposed on opposite sides of the center and pivoted to said brackets, a draw-head having its ends pivoted to the outer ends of said levers, and springs interposed between the inner ends of the levers and the locomotive, and other springs interposed between the inner ends of said levers and the draw-head.

[Claims 6 and 7 not printed in the Gazette.]

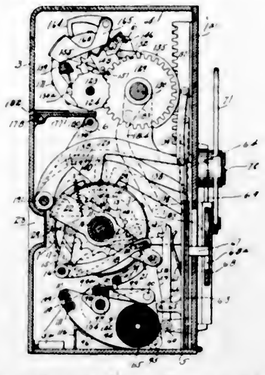
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1,094,376. FARE-REGISTER AND RECORDING-MACHINE. JOHN F. OHMER, Dayton, Ohio, assignor to Ohmer Fare Register Company, Dayton, Ohio, a Corporation of New York, (incorporated in 1902.) Filed Mar. 6, 1909. Serial No. 481,757. (Cl. 234—4.)

1. In a fare register and recorder, an indicating wheel adapted to indicate cash fares, means for setting said indicating wheel, a blind positively actuated by said setting means adapted to conceal each cash fare when said indicator is set, a cash counter for totalizing all the cash fares indicated, and common means adapted to actuate said cash counter and to release the blind at the same time.

2. In a fare register and recorder, a wheel adapted to indicate and print the cash fares, a blind adapted to conceal the fare when the indicator wheel is set, printing mechanism for taking an impression from said indicating and printing wheels, a cash counter adapted to totalize all the fares indicated, and common means adapted to actuate said cash counter, to release said blind and to actuate the printing-mechanism.

3. In a fare register and recorder, a wheel having indicating and printing characters thereon to indicate and print cash fares, a blind adapted to conceal each cash fare when the indicator is set, a slide adapted to release the blind, a cash counter for totalizing all the cash fares indicated, a rock shaft for actuating said cash counter, printing mechanism for taking an impression from said indicating and printing wheel, a slide adapted to actuate said printing mechanism, and a common slide adapted to actuate the total counter shaft, the blind-releasing slide, and the printing-mechanism slide.



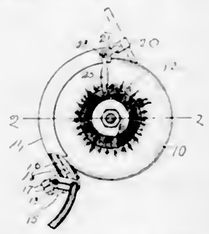
4. In a fare register and recorder, a counter adapted to register the total value of cash fares, and setting mechanism for said counter, of a series of members bearing characters corresponding to the cash fares, and characters other than cash fares, and means on each of said members coöperating with the setting mechanism for setting the counter in positions to register the cash fares only.

5. In a fare register and recorder, a series of wheels bearing indications denoting cash fares and others denoting non-cash fares, cash counter mechanism, setting devices mounted upon said wheels in positions corresponding to the adding values of the indications thereon, and adapted to set the cash counter mechanism for the registration of the cash fares only.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,377. MACHINE FOR WAX-TREATING PARTS OF BOOTS AND SHOES. CHARLES PEASE, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me., a Corporation of Maine. Filed Aug. 23, 1902. Serial No. 120,844. (Cl. 51—17.)



1. A machine for the purposes stated comprising a yielding surfaced work-member consisting of a hub, a series of bristles or filamentous members extending from the periphery of the hub and a hood or covering of textile material over the ends of said members, in combination with a heated medium movably supported in position for frictionally engaging said work-member, means for heating said medium, and means for supplying said work member with wax.

2. A machine for the purposes stated comprising a heated medium, a work-member having a working face of textile material in position to be surface heated by said medium, a holder for melted wax, and means under the control of the workman for moving the wax holder to press the meltable wax against the work-member.

3. A machine of the class described, comprising a wax applying wheel provided with a working face of combustible fabric, a heating and distributing device adjustably mounted in touch with the periphery of said wheel, and a wax holder carried by said device and adjustable bodily therewith.

4. A machine for finishing heels, comprising a flexible, non-metallic work-rubbing member, means for heating said work-rubbing member, a holder for meltable wax, and manually controlled means for moving the wax holder toward and from position for the wax to be melted and taken up by the heated work-member, said manually controlled means being constructed and arranged to maintain the wax holder in the positions to which it may be adjusted.

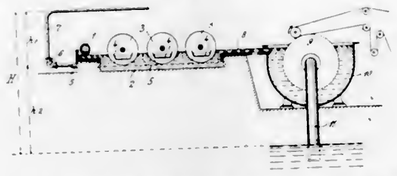
5. A machine for the purposes stated comprising a rotary wax applying wheel having a cover of textile material, together with a combined wax spreading and heating device comprising a metallic wheel-embracing member 14, a rod 15 disposed parallel to the axis of said wheels for supporting said heating device in touch with said textile covering and a bracket formed rigidly with said heating device and shaped to engage said rod 15.

[Claim 6 not printed in the Gazette.]

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1,094,378. PLANT FOR REMOVING WATER FROM PULP IN WOOD-PULP MILLS. PEDER CHRISTIAN SCHWANNING, Christiania, Norway. Filed Dec. 9, 1913. Serial No. 805,564. (Cl. 92—29.)



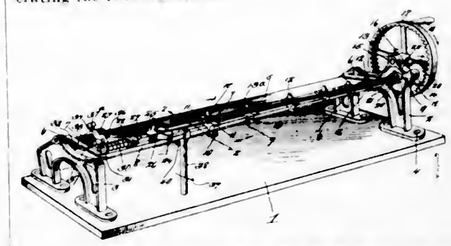
1. In a plant for removing water from pulp in wood pulp mills, a substantially horizontal reservoir, means to feed highly diluted pulp thereto, a series of water removing strainers arranged in spaced relation in said reservoir, a receptacle at the outlet end of the reservoir spaced therefrom and communicating therewith, a suction strainer in said receptacle, a drain pipe communicating with the series of strainers, and a water lifting pump in connection with the drain pipe.

2. In a plant for removing water from pulp in wood pulp mills, a substantially horizontal reservoir, means to feed highly diluted pulp thereto, a series of water removing strainers arranged in spaced relation in said reservoir, a receptacle at the outlet end of the reservoir communicating therewith, a suction strainer in said receptacle, and means for draining water from said series of strainers.

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1,094,379. MACHINE FOR MAKING WIRE-FENCE STAYS. JOHN W. STRACHAN, Kansas City, Mo. Filed Mar. 1, 1913. Serial No. 751,500. Renewed Mar. 11, 1914. Serial No. 824,047. (Cl. 140—90.)

1. In a machine for forming wire fence stays, the combination with a longitudinal guide bar, end castings connected to the ends of the guide bar, a twisting device swiveled in one of the castings, an arm adjustably secured upon the guide bar, a member yieldably mounted in the end of said arm, between which member and the twisting device the wire forming the stay is to be connected, of a pivoted member mounted on the castings, a plurality of loop formers adjustably mounted upon the pivoted member, about each one of which the wire is to be coiled, a drop arm pivoted on the pivoted member to support the same, said drop arm acting as means to be grasped by an operator for restoring the pivoted member to its raised position, said guide bar acting as an abutment to be engaged by the ends of the pivoted member to limit the same in position when swung downwardly, and means for operating the twisting device.

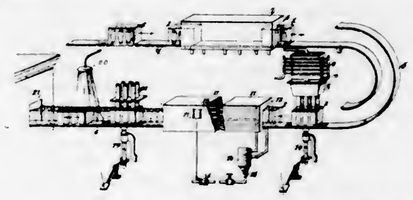


2. In a machine for forming wire fence stays, the combination with a longitudinal guide bar, end castings connected to the ends of the guide bar, a twisting device swiveled in one of the castings, an arm adjustably secured upon the guide bar, a member yieldably mounted in the end of said arm, between which member and the twisting device the wire forming the stay is to be connected, of a pivoted member mounted on the castings, a plurality of looped formers adjustably mounted upon the pivoted member, about each one of which the wire is to be coiled, a drop arm pivoted on the pivoted member to support the same, said drop arm acting as means to be grasped by an operator for restoring the pivoted member to its raised position, said guide bar acting as an abutment to be engaged by the ends of the pivoted member to limit the same in position when swung downwardly, an abutment lug on said pivoted member to limit the drop arm to a vertical position and means for operating the twisting device.

3. In a machine for forming wire fence stays, the combination of a pair of end castings, a longitudinal guide bar connecting said castings, a twisting device swiveled in one of the castings, an arm adjustably secured upon the guide bar and having a pivoted end section, a member yieldably mounted in said end section, said end section adapted to be thrown vertically to hold said yieldably mounted member from alinement with the pivoted device, the wire forming the stay adapted to be connected between said member and the twisting device, a pivoted member mounted in said castings, a plurality of loop formers adjustably mounted upon the pivoted member, about each of which formers the wire is adapted to be coiled, a drop arm pivoted on the pivoted member to support the same, said drop arm acting as means to be grasped by an operator for restoring the pivoted member to its raised position, said guide bar acting as an abutment to be engaged by the ends of the pivoted member to limit the same in position when swung downwardly, means for operating the twisting device, and an abutment lug carried by the pivoted member to limit the drop arm in a vertical position when the pivoted member is raised.

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1,094,380. PROCESS OF TREATING MILK AND OTHER LIQUIDS. GODFREY M. S. TAIT, Washington, D. C. Filed July 28, 1913. Serial No. 781,633. (Cl. 99—8.)



1. The process of pasteurizing milk in bottles which comprises filling the bottles while in a highly heated con-

dition with preheated unpasteurized milk and continuing the heating of the milk in said bottle to complete the pasteurization.

2. The process of pasteurizing milk in bottles which comprises washing and scalding the bottles, filling the bottles after scalding and while in a highly heated condition with preheated unpasteurized milk, and continuing the heating of the milk in said bottles to complete the pasteurization.

3. The process of pasteurizing milk in bottles which comprises filling the bottles while in a highly heated condition with unpasteurized milk preheated to about 130 to 150° F., and continuing the heating of the milk in said bottles at about 130 to 140° F. to complete the pasteurization.

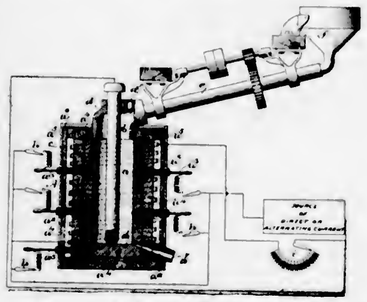
4. The process of pasteurizing milk in bottles which comprises washing and scalding the bottles, filling the bottles while still heated to a temperature above that of pasteurization with unpasteurized milk preheated to about the pasteurization temperature, and continuing the heating of the milk in said bottles to complete the pasteurization.

5. The process of pasteurizing milk in bottles which comprises washing and scalding the bottles, filling the bottles after scalding and while still at a temperature above 130° F. with unpasteurized milk preheated to a temperature of about 130 to 150° F. and continuing the heating of the milk in said bottles at a temperature of about 130 to 140° F. to complete the pasteurization.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,381. ELECTRIC FURNACE FOR AND PROCESS OF HEATING SUBSTANCES UNIFORMLY AND AT A CONTROLLABLE TEMPERATURE IN AN ELECTRIC ARC. ERWIN F. VON WILMOWSKY, Boston Mass.; Edwin J. Prindle, executor of said von Wilmowsky, deceased, assignor to Mrs. Olga Pieper, Potsdam, Germany. Filed Oct. 28, 1896. Serial No. 610,286. (Cl. 204—64.)



1. In an electric arc furnace, the combination of concentric cylindrical electrodes suitably spaced apart, the intermediate space forming the furnace chamber, of a solenoid whose magnetic axis coincides substantially with that of said electrodes, and a regulator in electrical circuit with said solenoid, substantially as described.

2. In an electric arc furnace, the combination of concentric cylindrical electrodes suitably spaced apart, the intermediate space forming the furnace chamber, of a solenoid whose axis coincides substantially with that of said electrodes, independent regulators in electrical circuit with said electrodes and solenoid, respectively, and means for supplying energy to the outer electrode at different levels.

3. In an electric arc furnace, the combination of concentric cylindrical electrodes suitably spaced apart, the intermediate space forming the furnace chamber, of a solenoid whose magnetic axis coincides substantially with that of said electrodes, independent regulators in electrical circuit with said electrodes and solenoid, respectively, substantially as described, and means for establishing an arc between said electrodes.

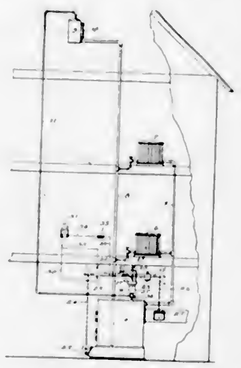
4. In an electric arc furnace, the combination of concentric cylindrical electrodes suitably spaced apart, the intermediate space forming the furnace chamber, of a solenoid whose magnetic axis coincides substantially with that of said electrodes, independent regulators in electrical circuit with said electrodes and solenoid, respectively, means for supplying energy to the outer electrode at different levels, said means consisting of carbon pencils movable through the outer electrode toward and from the inner electrode, and means for conveying current to any one of said pencils.

5. In an electric arc furnace, the combination of concentric cylindrical electrodes suitably spaced apart, the intermediate space forming the furnace chamber, means for closing the upper and lower ends of said intermediate space, and for permitting the continuous feed of material through said space, of a solenoid whose magnetic axis coincides substantially with that of said electrodes, and independent regulators in electrical circuit with said electrodes and solenoid, respectively.

[Claims 6 to 46 not printed in the Gazette.]

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1,094,382. REGULATOR FOR HOT-WATER HEATING SYSTEMS. CHARLES W. YOUNG, Chicago, Ill. Filed Oct. 26, 1912. Serial No. 727,874. (Cl. 236—6.)



1. A pressure and relief device for a hot water heating system comprising a cylinder having its lower end adapted to be connected with the system, a piston in said cylinder, a piston rod extending outwardly from said piston and having its upper ends slotted, a lever pivotally mounted above said piston and extending though the slot in said rod and adapted to be raised by the rod when the piston moves upwardly a predetermined distance, the cylinder being provided with outlet apertures to permit the escape of fluid when the piston passes beyond them, an adjustable weight on said lever for regulating the pressure in the cylinder, and an adjustable stop for regulating the downward movement of the piston, the arrangement being such that a predetermined pressure may be maintained in the system and fluid may pass from the system outwardly through said apertures and may again return to the system by being drawn inwardly past the piston.

2. The combination with a heating system having an air chamber at the top thereof, of a pipe leading from said chamber, a cylinder connected with said pipe, a piston in said cylinder adapted to be raised by the pressure of the air from the system and also adapted to permit the return of air past the same into the system and means operated by said piston for regulating the fire for heating the system.

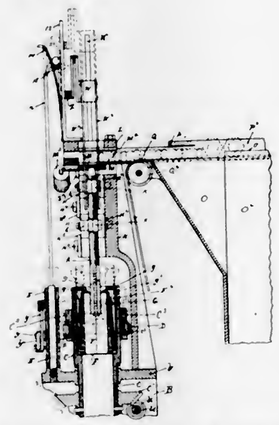
3. The combination with a closed hot water heating system having an air chamber at the top thereof, of a pipe leading from said air chamber, a cylinder with which said pipe is connected, a piston in said cylinder, said cylinder being sufficiently large so that the movement of the piston will provide for the normal expansion and contraction of the water in the system, a rod connected with said piston, a lever for operating fire regulating devices of a furnace, a loose motion connection between said rod and lever, and an adjustable stop for limiting the downward movement of the piston, the arrangement being such that the system will be normally closed at all times and the piston will have a limited range of movement before operating the regulating lever.

4. The combination with a closed hot water heating system, of an air pipe leading from an air chamber at the upper part of the system, a cylinder with which said pipe is connected, a piston in said cylinder actuated by the pressure of the air in the system, said cylinder being large enough to permit the movement of the piston therein to accommodate the normal expansion and contraction of the water and air in the system without permitting any fluid to escape therefrom, a piston rod extending from said piston and having its upper end slotted, a lever pivotally mounted above the piston and extending through the slot in said rod and adapted to be raised by the rod when the piston moves upwardly a predetermined distance, said slot being sufficiently long to permit such predetermined movement of the piston before the lever is actuated, an adjustable weight on said lever, an adjustable stop for regulating the downward movement of the piston, and means operated by said lever for controlling the fire.



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1,094,383. NUT-TAPPING MACHINE. GEORGE ALEXANDER, Erie, Pa., assignor of one-half to Philip W. Dietly, Erie, Pa. Filed Sept. 12, 1913. Serial No. 789,481. (Cl. 10—133.)



1. In a machine of the character described, a hollow vertical shaft having longitudinal slots through the wall of the upper portion thereof, a nut holding sleeve vertically movable within said hollow shaft, a ring on said hollow shaft, having a circumferential slot therein, pins secured in said ring and extending inwardly through the longitudinal slots in said hollow shaft and into the wall of said nut-holding sleeve, a ring in said circumferential slot, mechanism pivoted to said last mentioned ring adapted to give vertical movement to said rings and nut-holding sleeve, and mechanism adapted to rotate said hollow shaft, substantially as set forth.

2. In a machine of the character described, a hollow vertical shaft, a nut-holding sleeve vertically movable within said hollow shaft, means to cause said sleeve to rotate in unison with said hollow shaft, mechanism adapted to engage said nut-holding sleeve and impart vertical movement thereto, mechanism to rotate said hollow shaft, clamping jaws above said hollow shaft adapted to clamp the shank of a threading-tap at spaced points thereon and support said tap in a position concentric with said nut-holding sleeve, mechanism adapted to feed nut-blanks onto the upper end of the shank of said thread cutting tap at proper intervals, mechanism adapted to open and close said clamping jaws alternately in opposing pairs upon said tap shank so as to permit the dropping of a nut blank at each movement of said jaws, and mechanism adapted to raise said nut-holding sleeve to receive a nut-blank as the lower pair of jaws are opened, substantially as set forth.

3. In a machine of the character described, a hollow vertical shaft, a nut holding sleeve vertically movable within said shaft, spring actuated hooks adapted to engage the upper surface of a nut blank entering the upper end of said sleeve secured thereto, shoulders on said hooks adapted to be engaged by the inner surface of said hollow shaft when said sleeve is lowered thereinto to press said hooks inward over a nut blank, means to cause said sleeve to rotate in unison with said hollow shaft, mechanism adapted to engage and lift said sleeve upwardly to receive a nut blank, and permit it to recede downwardly into said hollow shaft so as to cause said hooks to engage the upper surface of a blank, mechanism adapted to support a threading tap concentric with said nut holding sleeve while permitting a nut blank to pass downwardly over the shank thereof, and mechanism adapted to place a nut blank on the upper end of said tap shank at proper intervals, substantially as set forth.

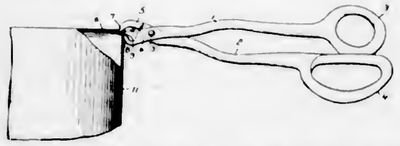
4. In a machine of the character described, a hollow vertical shaft, mechanism to rotate said shaft, a sleeve slidably mounted within and rotatable with said shaft, having an opening therethrough adapted to receive and permit the passage of a nut therethrough, mechanism engaging said sleeve by means whereof the same may be raised and lowered, longitudinally slidable jaws mounted in opposing pairs in guides above said hollow shaft, said pairs of jaws being in spaced relation to each other, a threading tap alternately engaged and supported by a pair of said jaws concentric with said hollow shaft, a nut receiving plate having an opening therethrough concentric with said tap, weight actuated trap doors pivoted to said plate and partially closing said opening, vertically moving feeding fingers adapted to pass through said opening and between said trap doors to push a nut blank downwardly onto the shank of said tap, blank supplying mechanism adapted to move blanks forward onto said trap doors, mechanism to raise said feeding fingers at pre-determined intervals and permit them to lower, mechanism adapted to close the lower pair of jaws upon the shank of the threading tap, and open the upper pair of jaws, and mechanism to cause the nut receiving sleeve to rise upwardly to receive a blank when the lower pair of jaws open, substantially as set forth.

5. In a machine of the character described, a hollow vertical shaft, mechanism to rotate said shaft, a sleeve slidably mounted within and rotatable with said shaft, having an opening therethrough adapted to receive and permit the passage of a nut therethrough, mechanism engaging said sleeve by means whereof the same may be raised and lowered, longitudinally slidable jaws mounted in opposing pairs in guides above said hollow shaft, said pairs of jaws being in spaced relation to each other, a threading tap alternately engaged and supported by a pair of said jaws concentric with said hollow shaft, a nut receiving plate having an opening therethrough concentric with said tap, weight actuated trap doors pivoted to said plate and partially closing said opening, vertically moving feeding fingers adapted to pass through said opening and between said trap doors to push a nut-blank downwardly onto the shank of said tap, a continuous belt adapted to carry and move nut-blanks onto said trap-doors, a hopper, mechanism adapted to place nut-blanks from said hopper onto said belt, guide mechanism adapted to arrange nut-blanks in a flat-wise longitudinal row on said belt, mechanism to cause said belt to carry said row of nut-blanks toward said trap-doors, mechanism to raise said feeding fingers at pre-determined intervals and permit them to lower, mechanism adapted to close the lower pair of jaws upon the shank of the threading tap, and open the upper pair of jaws, and mechanism to cause the

nut receiving sleeve to rise upwardly to receive a blank when the lower pair of jaws open, substantially as set forth.

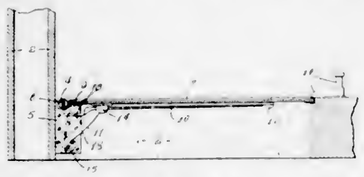
[Claim 6 not printed in the Gazette.]

1,094,384. CAN-OPENER. EARL LYONS AMES, San Bernardino, Cal. Filed July 17, 1913. Serial No. 779,597. (Cl. 164—121.)



A can opener comprising a pair of pivoted crossed handles, one of said handles being extended forwardly of the pivot and reduced to provide a prong, said prong being tapered to a point and disposed approximately at right angles to the handle, and the other of said handles being extended forwardly of the pivot and disposed at approximately right angles to the handles, said last named right angular portion being flattened, and chamfered at its free edge, said chamfered edge disposed transversely of the handles and being disposed in spaced relation to said prong inwardly thereof.

1,094,385. TRAP-DOOR FOR RAILWAY-CAR PLATFORMS. ROY T. ANE, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed May 29, 1911. Serial No. 630,029. (Cl. 105—84.)



1. In a trap door for railway car platforms, a hinged support, a door portion, and means connecting the door portion to the hinged support to turn therewith and to move relatively thereto lengthwise of the axis of the support, said support including projecting means fixed relatively to the main body thereof and slidably engaging the door portion, substantially as and for the purpose described.

2. In a trap door for railway car platforms, a hinged support having a projecting shoulder, a door portion having the upper surface of its hinged side slidably engaging said shoulder, and means connecting the door portion to the hinged support to turn therewith and to move relatively thereto lengthwise of the axis of said support, substantially as and for the purpose specified.

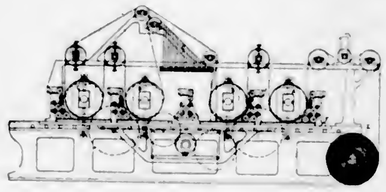
3. In a trap door for railway car platforms, a hinged support having projections arranged one above the other, a door portion slidably engaging one of the projections, and means connecting the door portion to the other of said projections and causing the door portion to turn with the hinged support and permitting the door portion to move relatively to the hinged support lengthwise of the axis of said support, substantially as and for the purpose set forth.

4. In a trap door for railway car platforms, a hinged support having projections arranged one above the other, a door portion having the upper surface of its hinged side slidably engaging one of the projections, and means beneath the door portion connecting the same to the other of said projections and causing the door portion to turn with the hinged support and permitting the door portion to move relatively to the hinged support lengthwise of the axis of said support, substantially as and for the purpose described.

5. In a trap door for railway car platforms, a hinged support having a channel, a door portion having the margin of one side guided in the channel, and means connecting the door portion to the hinged support to turn therewith and to move relatively thereto lengthwise of the axis of said support, substantially as and for the purpose specified.

[Claims 6 to 16 not printed in the Gazette.]

1,094,386. RECIPROCATING-FLAT-BED WEB-PRINTING MACHINE. WILLIAM T. FLETCHER, Belfast, Ireland. Filed Apr. 20, 1912. Serial No. 692,118. (Cl. 101—8.)



1. In a printing press the combination of four cylinders with one flat reciprocating form bed having four sets of forms thereon co-acting with said cylinders, each cylinder co-acting with a single set of forms, means for rotating the cylinders continuously, two of said cylinders in the direction of the forward stroke of the form bed and the other two cylinders in the direction of the return stroke of the form-bed, both cylinders and bed operated from a central shaft, the cylinders operating to print on both sides of a continuous web and said cylinders also operating to feed the web continuously between the bed and cylinders both during the forward and return strokes of the form-bed.

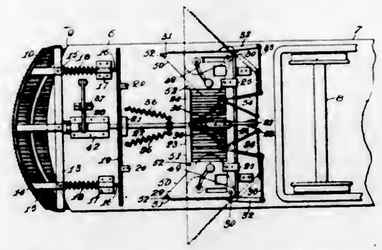
2. In a printing press the combination of two pairs of cylinders with one flat reciprocating form bed having four sets of forms thereon, each cylinder coacting with a single set of forms, the cylinders of each pair rotating in the same direction and oppositely to the cylinders of the other pair, each of said cylinders being provided with an impression surface of one radius for coaction with its set of forms on one stroke of said bed and also provided with a non-impression surface of a less radius to avoid engagement with said bed on the opposite stroke thereof, means for rotating said cylinders continuously said cylinders and bed being operated from a central shaft, said impression surfaces coöperating with said form bed to print on both sides of a continuous web and said cylinders also operating to feed the web continuously between the bed and cylinders during both strokes of said bed.

1,094,387. CAR-FENDER. EDWARD E. GAMACHE, St. Louis, Mo., assignor of one-fifth to Joseph K. Roy and one-fifth to William McNamee, St. Louis, Mo. Filed July 8, 1912. Serial No. 708,323. (Cl. 105—130.)

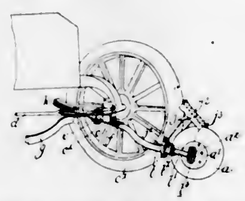
1. A car fender comprising a guard, rods carried thereby, a suspension frame hingedly suspended beneath the platform and against which said rods are adapted to contact, a scoop member suspended beneath the car body and in advance of the truck, a trip bar controlling the same and adapted to be operated by the said suspension frame, wings pivotally mounted on the scoop member, a lever mechanism for operating the wings and projecting the same outwardly automatically with the downward movement of the scoop member, the said trip bar being releasable from its locked position either by the foot or by contact with an object and a lever for placing the scoop member and the wings back in their normal positions.

2. A car fender comprising a detachable guard suspended from the dash of the car, a suspension frame located beneath the platform and hingedly mounted, a scoop member suspended beneath the car body and hingedly mounted, a trip bar controlling the movement of the scoop member and releasable by the movement of the suspension frame, wings carried by the scoop member, a lever mechanism operated by the trip bar for automatically projecting the wings outwardly with the downward movement of the scoop member, a foot operating lever by which the trip bar may be released and a hand lever for raising the scoop member to its normal position for locking the trip bar, substantially as specified.





1,094,388. WHEEL-GUARD OR OBSTRUCTION-REMOVER FOR VEHICLES. WILLIAM HARRY HAYTER, South Norwood, England. Filed Feb. 27, 1914. Serial No. 821,597. (Cl. 105—129.)



1. In an obstacle remover for a road wheel, a support, an element longitudinally adjustable of said support, a bearing carried by said element, and an auxiliary wheel vertically adjustable in said bearing.

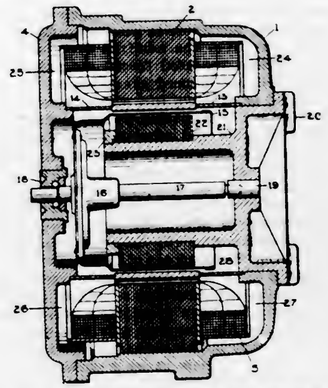
2. In an obstacle remover for a road wheel, a tubular support, a rod telescopically carried therein having a vertical slot and an auxiliary wheel adjustably held in said slot.

1,094,389. ELECTRIC MOTOR. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Aug. 8, 1911. Serial No. 643,042. (Cl. 172—120.)

1. In an electric motor, a shell rotor, a stator, means for forming a dust proof chamber for the rotor, comprising the inner face of the stator, having slots therein closed by strips of non-magnetic material, non-magnetic members bearing on either side of the stator and a casing bearing against the other sides of the non-magnetic members, said casing having a removable portion allowing access to said chamber, and a body of magnetic material within said rotor supported by said removable portion of said casing.

2. In an electric motor, a shell rotor, a stator, means for forming dust proof chamber for the rotor, comprising the inner face of the stator, having slots therein closed by strips of non-magnetic material, non-magnetic members bearing on either side of the stator and a casing bearing against the other sides of the non-magnetic members, said casing having a removable portion allowing access to said chamber.

3. In an electric motor, a casing, a stator therein, a shell rotor adapted to revolve within said stator, and a body of magnetic material within said rotor, supported by a removable portion of said casing, forming part of the outside wall thereof, and a bearing for said rotor in said removable portion of said casing.



4. In an electric motor, a casing formed with a removable portion, a stator therein, a shell rotor adapted to revolve within said stator, a body of magnetic material within said rotor supported by the removable portion of said casing.

1,094,390. METHOD OF UTILIZING FUEL WASTES. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Apr. 3, 1909. Serial No. 487,694. (Cl. 48—203.)



1. The method of utilizing fuel wastes herein described, which consists in, (1) reclaiming fuel from which volatilizable constituents have been driven by heat, whereby the fuel is rendered more porous and relatively free from easily volatilizable constituents, (2) admixing fine dust like fuel of impermeable character when in mass with the reclaimed fuel, whereby the fine dust like fuel when in mass is rendered more permeable to the passage of gases between its particles and throughout the admixed mass, and (3) gasifying the admixed fuels in a producer gas generator.

2. The method of utilizing fuel wastes herein described, which consists in, (1) reclaiming a burnable carbonaceous waste that has been rendered porous by heat, (2) admixing with said porous waste another carbonaceous waste of a dense physical character both as to density of the particles composing the said other waste and as to density of the said other carbonaceous waste as a mass, whereby the second named waste acquires a sufficient porosity when in mass to allow of a uniformly diffused permeation of and passage of gases through the mass of the admixed wastes, (3) generating a burnable gas from the admixed wastes in a gas generator by passing air through the admixed fuels and completely burning part of the admixed fuels, and (4) delivering the burnable gas generated to a place outside of the gas generator in an unburned condition.

3. The method of utilizing fuel wastes herein described, which consists in, (1) intimately admixing fuel particles from which heat has driven easily volatilizable constituents

such as tar, sulfur and hydrogen, and which have thus been rendered porous, with fuel particles that have not been subjected to artificial high heat and which contain easily volatilizable constituents and which when in mass is only imperfectly permeable to gases, and (2) generating a combustible gas from the admixed fuels under a controlled mechanically produced forced air pressure and a mechanically produced induced gas pressure.

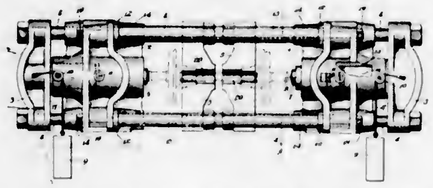
4. The method of utilizing fuel wastes herein described, which consists in, (1) preparing a fuel by driving sulfur and tar from the fuel and admixing fine dust like fuel with the prepared fuel, whereby the admixed fuels when in mass are better suited for gasification in an internally fired gas generator, (2) generating a combustible gas from the admixed prepared fuel and fine dust like fuel under a mechanically produced pneumatic pressure greater than atmospheric pressure, and (3) delivering the gas in an unburned condition for purposes of combustion.

5. The method of utilizing fuel wastes, herein described, which consists in, (1) admixing a porous carbonaceous fuel waste which has been freed from tarry and other volatile matters, with a fine dust like fuel which is of a compact and gas impermeable character when in mass, (2) gasifying the admixed fuels under a controlled mechanically produced pneumatic pressure, and (3) super-heating the gas to fix condensable vapors in the gas.

[Claim 6 not printed in the Gazette.]

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1,094,391. WHEEL-PRESS. ALBERT A. LONGAKER, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a Corporation of Pennsylvania. Filed Dec. 20, 1913. Serial No. 807,820. (Cl. 29—86.)



1. In a press of the character described, in combination, a fixed beam, a cross-head at one end of said beam, a yoke at the other end of said beam, sliding rods connecting said cross-head and yoke, a stop carried by the inner end of said beam adapted to engage the end of an axle, a hydraulically actuated means for actuating said cross-head, sliding rods and yoke in one direction, and a pull-back for operating said parts in the reverse direction.

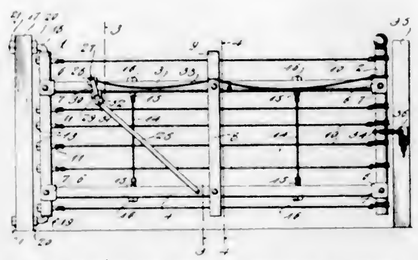
2. In a press of the character described, in combination, two fixed end beams, hollow distance pieces engaging the inner ends of said beams at their tops and bottoms, tension rods passing through said distance pieces and secured to said end beams, sliding rods carried by the tops and bottoms of each end beam, cross-heads at the outer end of each beam and yokes at the inner end of each beam carried by said rods, and hydraulically operated means for actuating each cross-head and the parts connected to and moving with it.

3. In a press of the character described, in combination, two fixed end beams, means for rigidly connecting said beams at their tops and bottoms, sliding rods carried by the tops and bottoms of each beam, cross-heads at the outer end and yokes at the inner end of each beam to which the sliding rods are secured, hydraulically operated means for operatively actuating each cross-head and the movable parts connected therewith, and an axle clamping means.

4. In a press of the character set forth, in combination, two fixed end beams, means for rigidly connecting said beams at their tops and bottoms, a set of sliding rods carried by each of said beams, a cross-head connected to the outer end and a yoke connected to the inner end of each set of rods, bearings for said rods, a hydraulically operated means for operatively actuating each of said cross-heads and connected parts, a pull-back for said parts, and an adjustable axle clamping means carried by one of said end beams.

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1,094,392. GATE. MALCOLM B. MOYER, Montevideo, Minn. Filed Jan. 9, 1913. Serial No. 741,082. (Cl. 39—18.)



1. In a gate of the character described, a frame comprising end bars and cross bars pivotally connected, a pair of brace bars pivotally connected to the lower cross bar, a pair of levers pivotally connected to the upper ends of said brace bars, gripping blocks pivotally connected to said levers and adapted to engage the upper cross bar of the gate frame, stop members mounted on the pivot between said brace bars and levers whereby the movement of these parts in one direction is limited, and means leading from the uppermost block to the free end of the gate for disengaging the gripping blocks, for the purpose set forth.

2. In a gate of the character described, a frame comprising end bars and cross bars pivotally connected, a pair of brace bars pivotally connected to the lower cross bar, a pair of levers pivotally connected to the upper ends of said brace bars, gripping blocks pivotally connected to said levers and adapted to engage the upper cross bar of the gate frame, and stop members mounted on the pivot between said brace bars and levers whereby the movement of these parts is checked when the blocks are in position to disengage said upper cross bar, for the purpose set forth.

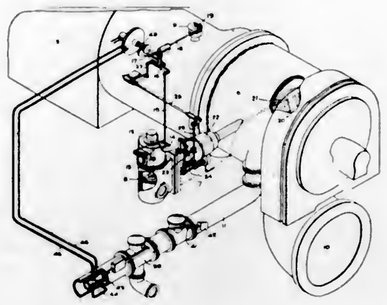
3. In a gate of the character described, a frame comprising end bars, upper and lower cross bars pivotally connected at their ends to said end bars, whereby the free end of the gate may be swung upwardly on the hinged end thereof, a gate supporting mechanism comprising a pair of brace bars pivotally connected at their lower ends to the lower cross bar of the gate frame, a clamping device comprising a pair of levers pivotally connected at their lower ends to the upper ends of said brace bars, gripping blocks pivotally connected to said levers and adapted to be engaged with and disengaged from the upper cross bar of the gate frame, whereby the upper ends of said brace bars are adjustably secured to the upper cross bar of the gate frame and the latter thereby supported in an elevated position, stop members pivotally secured to the connected ends of said brace bars and levers, whereby the movement of these parts in one direction is limited, and a flexible releasing element connected with the upper gripping bar of said clamping device, whereby the latter is actuated to disengage the blocks from the upper cross bar of the gate frame thereby releasing the latter and permitting the same to lower.

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1,094,393. ELASTIC-FLUID TURBINE. FRED E. NORTON, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 13, 1913. Serial No. 748,061. (Cl. 121—118.)

1. In combination, a turbine, a valve controlling the admission of high-pressure fluid thereto, a valve controlling the passage of fluid therethrough, a speed governor which controls both of said valves, and a means responsive to changes in the rate of flow of a fluid for modifying the action of the governor on one of said valves.





2. In combination, a turbine, a valve controlling the admission of high-pressure fluid thereto, a valve controlling the passage of fluid therethrough, a speed governor which controls both of said valves, and a means responsive to changes in the rate of flow of a fluid which acts differentially on said valves.

3. In combination, a turbine, a valve controlling the admission of high-pressure fluid thereto, a valve controlling the passage of fluid therethrough, a speed governor which controls both of said valves, and a means responsive to changes in the rate of flow of low-pressure fluid for adjusting said valves with respect to their ports and independently of the governor.

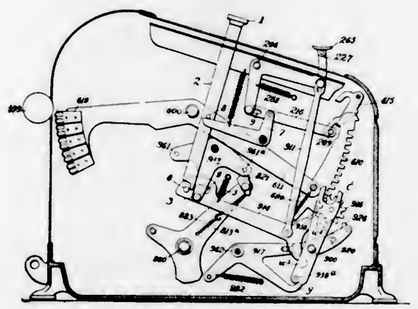
4. In combination, a turbine, a valve controlling the admission of high-pressure fluid thereto, a valve controlling the passage of fluid therethrough, a speed governor which controls both of said valves, a pressure-responsive means for adjusting one of the valves independently of the governor, and a means for adjusting both of said valves independently of the governor.

5. In combination, a turbine, a valve controlling the admission of fluid thereto, a ported ring valve within the turbine for controlling the passage of fluid therethrough, a speed governor for controlling the valves, and a means responsive to the pressure existing in a region in the turbine for causing one of the valves to open or close ports within the turbine independently of the governor.

[Claims 6 to 17 not printed in the Gazette.]

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1,094,394. CALCULATING-MACHINE. WILLIAM HENRY PIKE, Jr., Orange, N. J., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 5, 1904. Serial No. 219,667. (Cl. 235—60.)



1. In a machine of the class described, the combination with register actuating racks, a register normally in engagement with said racks, a main shaft adapted to effect relative movement between the racks and register to actuate the latter, connections between the shaft and register for disengaging and reëngaging the register and racks during the cycle of operations produced by each actuation of the shaft, and a total key controlling the action of said connections to effect totalizing movement of the register, of a second key adapted to vary the action of said connection to effect sub-totalizing movement of the register, independent of any movement of the total key.

2. In a machine of the class described, the combination with register actuating racks, a register normally in engagement with said racks, a main shaft adapted to effect relative movement between the racks and register to actuate the latter, connections between the shaft and register for disengaging and reëngaging the register and racks during the cycle of operations produced by each actuation of the shaft, and means controlling the action of said connections to effect totalizing movement of the register during the cycle of operations resulting from a single actuation of the main shaft, of a device adapted to be adjusted to render said connections inoperative to disengage the racks and register independent of any movement of the said total controlling means.

3. In a machine of the class described, the combination with register actuating racks, a register normally in engagement with said racks, a main shaft adapted to effect relative movement between the racks and register to actuate the latter, connections between the shaft and register for disengaging and reëngaging the register and racks during the cycle of operations produced by each actuation of the shaft, and a total key controlling the action of said connections to effect totalizing movement of the register, of means adjustable to vary the action of said connections to effect sub-totalizing movement of the register without causing any movement of the total key.

4. In a machine of the class described, the combination with register actuating racks, a register normally in engagement with said racks, a main shaft adapted to effect relative movement between the racks and adjustable to actuate the lattter, connections between the shaft and register for disengaging and reëngaging the register and racks during the cycle of operations produced by each actuation of the shaft, and a total key controlling the action of said connections to effect totalizing movement of the register, of a sub-total key adapted to disconnect the main shaft and register to cause the racks to effect sub-totalizing movement of the register without shifting the total key from its normal position.

5. In a machine of the class described, the combination with the register actuating racks, the register normally in engagement with said racks, a main shaft, connections between the main shaft and register for disengaging and reengaging the register and racks during the cycle of operations produced by each actuation of the shaft, including a pitman and a total key adapted to adjust the pitman to effect totalizing movement of the register, of a sub-total key adapted to render the pitman inoperative to disengage the racks and register and thereby effect sub-totalizing movement of the register independent of any movement of the total key.

[Claims 6 to 9 not printed in the Gazette.]

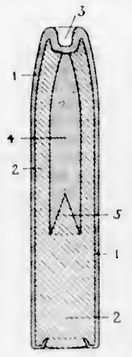
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1,094,395. UNIVERSAL RIFLE-PROJECTILE. JAN WILLEM PEPPELMAN VAN KAMPEN, Watergraafsmeer, and GELDOLPH ADRIAAN CON, Utrecht, Netherlands. Filed Feb. 17, 1914. Serial No. 819,204. (Cl. 102—28.)

1. A projectile comprising a metal casing axially recessed or cupped at the nose of the projectile, a soft metal core of great specific weight within the casing, in combination with a hardened steel spindle arranged axially within said casing and core with its point resting against the bottom of the cup in the casing at the nose of the projectile, substantially as described.

2. A projectile comprising a metal casing axially recessed or cupped at the nose of the projectile, a soft metal core of great specific weight within the casing, in combination with a hardened steel spindle arranged axially

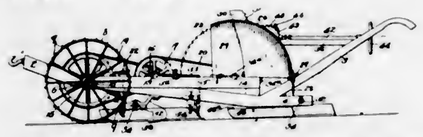
within said casing and core with its point resting against the bottom of the cup in the casing at the nose of the



projectile, said spindle being recessed at its opposite end to receive a quantity of soft metal of great specific weight.

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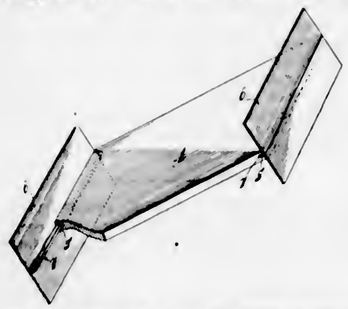
1,094,396. ICE-CUTTING MACHINE. EDGAR WAIGHT, Warren, Mass. Filed Jan. 22, 1912. Serial No. 672,590. (Cl. 62—8.)



In a device of the kind described comprising two frames one of which is pivoted to the other at its front end, an upright frame carried by the pivoted frame, the side members of the said upright frame forming rack bars, an upright guide frame carried by the other frame, the upright frame having the rack bars working over the guide frame, the guide frame having a scale thereon, ice cutting saws carried by the pivoted frame, handles, carried by the other frame, and a gearing supported from said handles and adapted to mesh with the rack bars and lift or lower the pivoted frame.

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1,094,397. CABINET. CHARLES A. ABBATH, Quincy, Ill. Filed Aug. 23, 1913. Serial No. 786,247. (Cl. 211—7.)

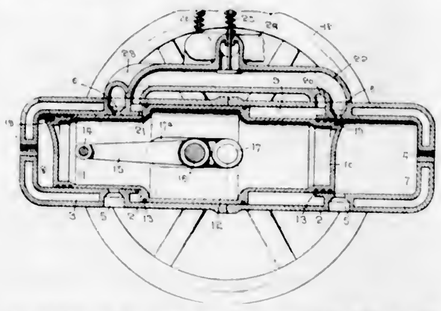


1. A cabinet comprising a plurality of compartments; a shiftable shelf; and two shiftable supports adapted to fit within said compartments, each of said supports consisting of a plate adapted to rest upon the bottom of the compartment and provided with a rib adapted to serve as a support for the corresponding edge of said shelf, substantially as described.

2. A cabinet comprising a plurality of compartments of equal sizes; a shiftable shelf having grooved edges; and two shiftable supports adapted to fit within any of said compartments, each of said supports consisting of a sheet metal plate provided with a central rib adapted to fit the groove in the corresponding edge of said shelf, substantially as described.

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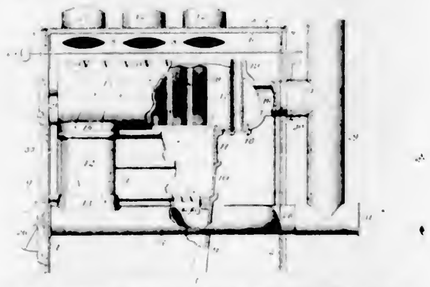
1,094,398. INTERNAL-COMBUSTION ENGINE. CHARLES C. ANDERSON, St. Joseph, Mo. Filed Aug. 8, 1912. Serial No. 714,000. (Cl. 123—56.)



An engine of the class described comprising three cylinders arranged in alinement, the middle one forming a compression chamber of greater diameter than the end cylinders which latter form explosion chambers, a single casting in said cylinders comprising a pair of engine pistons adapted to work in the explosion chambers and a compression or pumping piston working in the compression chamber; and by-passes integral with each other and spaced from the cylinder and connecting the ends of said compression chamber with the oppositely disposed explosion chambers by ports of less diameter than the by-passes, said by-passes gradually increasing in area from said ports to form expansion chambers, and all of said ports being in longitudinal alinement with each other.

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1,094,399. HOT-AIR FURNACE. THEODORE R. BRIEN, Westfield, Mass. Filed Aug. 23, 1909. Serial No. 514,287. (Cl. 126—106.)



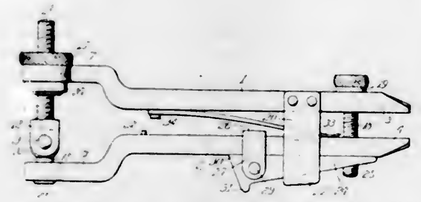
1. In a furnace, the combination with the fire box, of a low down dome of integral construction resting upon the fire box, and comprising a top wall and oppositely disposed side walls, said side walls being curved inwardly so as to overlie the fire box and said side walls comprising a series of vertically extending continuously curved open ended hot air flues and an inclosing chamber the flues being in closed contact with one another so as to form substantially solid walls which terminate short of the rear wall of the dome to afford communication with said inclosing chamber, vertically arranged diving flues communicating with said inclosing chamber, said diving flues projecting downwardly to a point adjacent the lower end of the fire box, a smoke outlet pipe having a flue connection with said inclosing chamber, a substantially U-shaped flue affording communication between the diving flues and the smoke outlet pipe, and a deflector tube in said inclosing chamber of the dome at a point to the rear of said vertically extending flues, said deflector tube being removable.

2. In a furnace, an outer casing, a smoke pipe outside of the casing, a central casing forming an ash pit and fire box, a horizontally disposed substantially U-shaped flue surrounding the central casing, the opposite arms of which connect with the front wall of the outer casing and are normally closed, vertically extending relatively flat diving flues, one supported on each arm of the U-shaped flue and communicating therewith, a dome of integral construction supported on the wall of the central casing and having oppositely disposed sides curving upwardly and inwardly so as to overlie the fire box, said sides having a central partition extending from top to bottom, the space at the inside of the partition being divided into a plurality of vertically extending curved flues open at top and bottom, and the space at the outside of the partition being continuous and closed at its top and connecting at the bottom with the flat vertically extending flues, a horizontally extending pipe projecting from the dome to the outside and communicating with the smoke flue, a vertically extending removable fender in the form of a tube in the dome in the outside space and in front of said horizontally extending flue, and the outer casing having air flue openings in the path of the upper end of the open ended flues of the dome.

3. In a furnace, the combination of a horizontally disposed outer casing having a dome shaped top, an inner casing having an ash pit and fire box, and an interposed grate between the ash pit and fire box, a relatively low down arched dome positioned on the wall of the fire box, said dome comprising two opposed series of abutting and connected vertically extended hot air flues open at the upper and lower ends outside of the fire box, the two series of flues being curved inwardly and connected to one another at the top so as to overlie the fire box and form a closed dome therefor, said dome having an inclosed space surrounding said vertically extending flues, which space communicates with the fire chamber at the rear of the furnace and at a point at the rear of said vertically arranged flues, a substantially U-shaped flue within the outer casing, at a point below said grate, the arms of the flue connecting with the front of the casing, and projecting around the sides of the ash pit section, and the loop of the flue connecting with a flue extension projecting through the rear wall of the casing, and vertically extending diving flues connecting the U-shaped flue with the inclosed space of the dome surrounding the vertically extending flues of the dome.

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1,094,400. WRENCH OR VISE. JAMES C. BURGESS, Indianapolis, Ind., assignor to Albert G. Rice, Indianapolis, Ind. Filed Aug. 11, 1913. Serial No. 784,100. (Cl. 81—23.)



1. A wrench or vise including two oppositely arranged wrench bars having each a jaw portion on one end thereof, pivotal means connecting the opposite ends of the two bars together, a wedge slidingly arranged on the outer side of one of the bars and having a strap fixed relatively near to but at a distance from the larger end thereof, the strap extending about the bar in sliding contact therewith, and a yoke extending about the wedge and secured to the remaining one of the wrench bars.

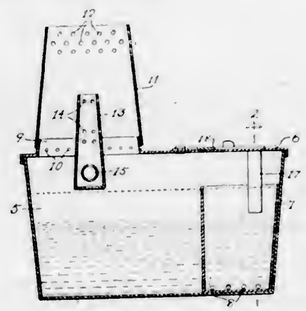
2. A wrench or vise including two bars pivotally connected together at one end, each bar having a jaw portion that has a lateral extension thereon, one of the extensions having an aperture therein, an adjusting screw extending through the aperture and having a head normally seated on the extension at the outer end of the aperture, the screw being screwed into the remaining jaw extension, a yoke extending about one of the bars and fixedly secured to the remaining bar, and a wedge movable between the yoke and the bar about which the yoke extends, the wedge being movable also along one side of the screw.

3. A wrench or vise including a wrench bar having a jaw portion on one end thereof, two plates fixed to opposite sides respectively of the bar and a cross-bar fixed to the plates and having a convex face presented opposite to the wrench bar, a plate spring secured to the wrench bar and extending between the plates, a second wrench bar pivotally connected to the opposite end of the first described wrench bar and extending between the convex face and the spring and having a jaw portion thereon opposite to the first-described jaw portion, and a wedge slidingly guided on the second wrench bar between the bar and the convex face of the cross bar.

4. In a wrench or vise, the combination of a wrench bar having a jaw portion on one end provided with a lateral extension having an aperture, said bar having an opposite offset end portion, a nut rotatably mounted in the offset portion and in contact with opposite sides of said portion, a yoke fixedly secured to said bar between said jaw portion and said offset portion and provided with a cross-bar having a convex face presented toward said wrench bar, a plate spring secured to said wrench bar in proximity to said offset portion and extending opposite to said convex face, a companion wrench bar having a jaw portion on one end provided with a lateral extension, said bar extending between said spring and said convex face and having an opposite offset end portion provided with a pivot, an adjusting screw connected to said pivot and extending into said nut in engagement therewith, an adjusting screw in the said aperture having a head in contact with the outer side of the extension, the screw being screwed into the opposite extension, a wedge movable on said companion bar between it and said convex face, the outer side of said wedge being serrated, the larger end of said wedge having a thumb-knob on the outer side thereof, a guide strap slidingly embracing said companion bar and fixedly secured to said wedge at a distance from but relatively near to the larger end thereof, and a stop device fixed on said companion bar in proximity to the offset portion thereof to stop said wedge.

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1,094,401. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo. Filed May 21, 1913. Serial No. 769,002. (Cl. 158—91.)



1. An orchard heater comprising a fuel reservoir, a cover fitted on the fuel reservoir, a series of air inlet

openings in said cover, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a draft opening in the cover of the fuel reservoir to allow egress for the generated gases.

2. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the fuel reservoir, a cover fitted on the fuel reservoir, a series of air inlet openings in said cover located directly above the combustion compartment, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a draft opening in the cover to allow egress for the generated gases.

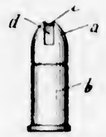
3. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the reservoir, a cover fitted on the fuel reservoir, a draft opening in said cover, a series of air inlet openings in said cover located directly above the combustion compartment, a damper for closing successively said air inlet openings, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a perforated draft tube or chimney extending upward from the draft opening in the cover of the fuel reservoir.

4. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the reservoir, a series of air inlet tubes adapted to admit air for preliminary combustion at or near the surface of the fuel at all times during combustion, a cover fitted on the fuel reservoir, a draft opening in said cover, a perforated draft tube or chimney secured to the cover of the fuel reservoir inclosing the draft opening, a horizontal cross tube extending through the side walls of the reservoir, and a smaller internal draft tube connected to the cross tube and extending upward within the draft tube or chimney.

5. An orchard heater comprising a fuel reservoir, a cover fitted on said reservoir and having a series of air inlet openings therein, draft tubes of varying lengths extending downward from said air inlet openings, a means whereby one or all of said inlet openings may be closed, and a draft opening in the cover for the passage of generated gases.

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1,094,402. BULLET FOR PLEASURE TARGET-SHOOTING. ELIOT KEEN, New York, N. Y., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation of Connecticut. Filed Aug. 19, 1913. Serial No. 785,465. (Cl. 102—26.)




1. A projectile for target shooting comprising a non-explosive bullet free from obscuring material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

2. A projectile for target shooting comprising a non-explosive bullet of deformable metal free from slow burning material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

3. A projectile for target shooting comprising a non-explosive smokeless bullet free from slow burning material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

4. A projectile for target shooting comprising a non-explosive bullet free from slow burning material and carrying a charge of percussion igniting flash light composition a portion of which is exposed to the atmosphere and adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

5. A projectile for target shooting comprising a non-explosive bullet free from slow burning material and provided with an interior space opening to the surface of the bullet, said space being substantially filled with a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,403. DIAPHRAGM-HORN. MILLER REESE HUTCHISON, Orange, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Original application filed May 11, 1911, Serial No. 626,487. Divided and this application filed May 31, 1912. Serial No. 700,789. (Cl. 116—1.)



1. In an alarm or signal, a diaphragm, a bar disposed closely adjacent to said diaphragm extending radially from the center to the periphery, said bar having a portion bent toward said diaphragm and tightly clamped thereto, the remainder of said bar being spaced slightly from said diaphragm and having the other end clamped rigid therewith, a wear-piece on said bar, adjacent to but out of alinement with the axis of said diaphragm and a rotor having a series of cam projections for successive engagement with said wear-piece, said bar being slightly resilient under conditions of use.

2. In an alarm or signal, a diaphragm, a bar disposed substantially parallel with and closely adjacent to said diaphragm but spaced therefrom along the major portion of the length of said bar, means for clamping said bar to said diaphragm adjacent to the center of the latter, a casing including two clamping members, an annular washer, means for rigidly holding said clamping members together with the said washer, the peripheral portion of said diaphragm and one end of said bar therebetween, and forcing means acting on said bar toward said diaphragm to impose on the latter a series of bodily swings of the center portion thereof.

3. In an alarm or signal, a diaphragm, a thrust transmitting member including a resilient bar having one end rigidly clamped adjacent to the edge of the diaphragm and having another portion secured to the diaphragm at the center of the latter and an impact member for delivering thrusts to said first-mentioned member at a point removed from the center of the diaphragm.

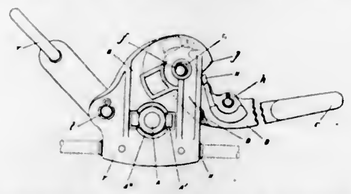
4. In an alarm or signal, a diaphragm, a spring having one end supported adjacent the periphery of the diaphragm and having the opposite end secured to the diaphragm at the center of the latter, a wear piece on said spring intermediate of the ends of the latter and a rotary impact member having engagement with said wear piece.

5. In an alarm or signal of the class described, an elastic diaphragm having a substantially definite time period of free bodily swing, an elongated spring member tightly secured adjacent to the periphery of the diaphragm, and also tightly secured to a central portion of the diaphragm, said spring member presenting a wearpiece spaced endwise from the portion secured to the diaphragm, the stiffness of said spring member and the arrangement of said wearpiece being such that in full operation the movements of the wearpiece bear a definite relation to the natural swing of the diaphragm, in combination with a rotary cam having projections formed and spaced to have a positive forcing engagement with said wear-piece, and a motor adapted to vary its speed in accordance with the work done on the diaphragm and of sufficient power to start and drive said cam up to and at speeds causing cam contacts at intervals corresponding to and harmonizing with the movements of said wearpiece.

[Claims 6 and 7 not printed in the Gazette.]



1,094,404. HAULAGE-CLIP. JAMES W. SMALLMAN, Blackdown, near Leamington, England. Filed Feb. 18, 1913. Serial No. 749,143. (Cl. 104—130.)



1. A haulage clip comprising a pair of rocking shells provided with inclines and stops at the ends of the inclines, a central adjustable device for connecting the shells, and a lever pivoted to work between the inclines, the lever having lateral stops on the body and shoulders on the head, the lateral stops bedding against the fronts of the shells and the shoulders against the stops at the ends of the inclines, substantially as set forth.

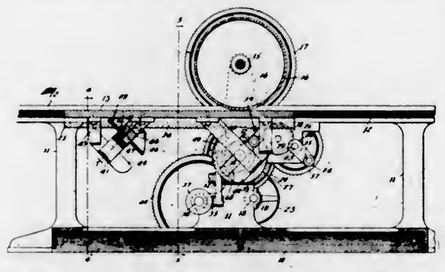
2. A haulage clip comprising a pair of rocking shells provided with inclines, a central adjustable device for connecting the shells, and a lever mounted on a trunnion-peg to work between the inclines, the movement of the lever being limited by a pair of principal stops below and a pair of subsidiary stops above the trunnion-peg, substantially as described.

3. In a haulage clip, the combination, with a pair of rocking shells having comparatively large trunnion-peg holes and inclines terminated by subsidiary stops, the shells being connected by an adjustable device, of a pivoted lever that has lateral stops on the body and shoulders on the head, the lateral stops bedding against the fronts of the shells and the shoulders against subsidiary stops, substantially as set forth.

4. A haulage clip lever that has lateral stops on the body and shoulders on the head, the lateral stops for bedding against the fronts of a pair of rocking shells and the shoulders for engaging with subsidiary stops at the ends of inclines on the inner surfaces of the pair of rocking shells, substantially as represented.

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1,094,405. BED-MOTION FOR PRINTING-PRESSES. BURT F. UPHAM, Chicago, Ill. Filed Feb. 19, 1912, Serial No. 678,647. Renewed June 12, 1913. Serial No. 773,345. (Cl. 101—158.)



1. In a machine of the character described, in combination, a reciprocating bed and means for reciprocating said bed, including a reversing shoe secured to the bed and having its active face disposed throughout its length at an angle of less than ninety degrees to the bed, and a rotating member provided with a wrist or crank pin which engages said face of the shoe during the reversing movement of the bed, said pin being in engagement with the face during the entire time that the bed is being stopped from going in one direction and started in the opposite direction and until the normal speed of the bed is reached.

2. In a machine of the character described, in combination, a frame, a reciprocating bed mounted in ways in said frame, and mechanism for reciprocating said bed, including a reversing shoe secured to the bed and having a single plain active face disposed at an angle less than a right angle to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and stop and start the bed while in engagement with said face, said face of the shoe having portions thereof extending both above and below a horizontal plane passing through the center of rotation of the rotating member.

3. In a machine of the character described, in combination, a frame provided with ways, a bed adapted to reciprocate in said ways, and mechanism for reciprocating said bed including a reversing shoe secured to the bed and having a single plain, active face disposed at forty-five degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and both entirely stop and start the bed while in engagement with said face.

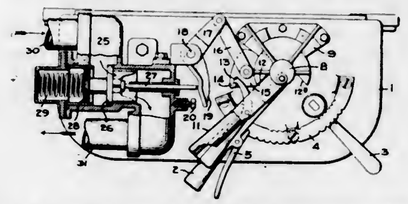
4. In a machine of the character described, in combination, a reciprocating bed and means for reciprocating said bed including a reversing shoe secured to the bed and having its active face disposed throughout its length at an angle of less than ninety degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage the said face of the shoe and both stop the bed as it is going in one direction and start the bed in the opposite direction while in engagement with said face, said shoe being also provided with a movable gate located opposite the active face.

5. In a machine of the character described, in combination, a frame provided with ways, a bed adapted to reciprocate in said ways, and mechanism for reciprocating said bed including a reversing shoe secured to the bed and having a plain, active face disposed at forty-five degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and stop and start the bed while in engagement with said face, said shoe being also provided with a pivoted gate located opposite the active face.

[Claims 6 to 30 not printed in the Gazette.]

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1,094,406. CONTROLLING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 18, 1912. Serial No. 691,643. (Cl. 123—181.)



1. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator therefor, an actuator that is common to and moves both regulators, and means for disconnecting one of the regulators from the actuator.

2. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator therefor, an actuator for simultaneously moving both regulators during a portion of its stroke, means for limiting the simultaneous movements of the regulators, and means for disconnecting one of the regulators from the actuator and permitting the latter to complete its stroke.

3. In combination, an internal combustion engine, a regulator therefor, a fluid starting means for the engine, a regulating valve therefor, an actuator that is common to the regulator and valve, and means for disconnecting the

openings in said cover, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a draft opening in the cover of the fuel reservoir to allow egress for the generated gases.

2. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the fuel reservoir, a cover fitted on the fuel reservoir, a series of air inlet openings in said cover located directly above the combustion compartment, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a draft opening in the cover to allow egress for the generated gases.

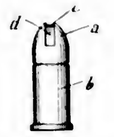
3. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the reservoir, a cover fitted on the fuel reservoir, a draft opening in said cover, a series of air inlet openings in said cover located directly above the combustion compartment, a damper for closing successively said air inlet openings, a series of draft tubes of varying lengths extending downward from said air inlet openings, and a perforated draft tube or chimney extending upward from the draft opening in the cover of the fuel reservoir.

4. An orchard heater comprising a fuel reservoir, a preliminary combustion compartment within the reservoir, a series of air inlet tubes adapted to admit air for preliminary combustion at or near the surface of the fuel at all times during combustion, a cover fitted on the fuel reservoir, a draft opening in said cover, a perforated draft tube or chimney secured to the cover of the fuel reservoir inclosing the draft opening, a horizontal cross tube extending through the side walls of the reservoir, and a smaller internal draft tube connected to the cross tube and extending upward within the draft tube or chimney.

5. An orchard heater comprising a fuel reservoir, a cover fitted on said reservoir and having a series of air inlet openings therein, draft tubes of varying lengths extending downward from said air inlet openings, a means whereby one or all of said inlet openings may be closed, and a draft opening in the cover for the passage of generated gases.

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1,094,402. BULLET FOR PLEASURE TARGET-SHOOTING. ELIOT KEEN, New York, N. Y., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation of Connecticut. Filed Aug. 19, 1913. Serial No. 785,465. (Cl. 102—26.)




1. A projectile for target shooting comprising a non-explosive bullet free from obscuring material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

2. A projectile for target shooting comprising a non-explosive bullet of deformable metal free from slow burning material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

3. A projectile for target shooting comprising a non-explosive smokeless bullet free from slow burning material and carrying a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

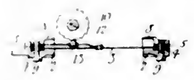
4. A projectile for target shooting comprising a non-explosive bullet free from slow burning material and carrying a charge of percussion igniting flash light composition a portion of which is exposed to the atmosphere and adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

5. A projectile for target shooting comprising a non-explosive bullet free from slow burning material and provided with an interior space opening to the surface of the bullet, said space being substantially filled with a charge of percussion igniting flash light composition adapted, upon impact of the bullet, to produce a momentary flash of light of limited area and centered at the point of impact.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,403. DIAPHRAGM-HORN. MILLER REESE HUTCHISON, Orange, N. J., assignor to Lovell-McConnell Manufacturing Company, a Corporation of Delaware. Original application filed May 11, 1911, Serial No. 626,487. Divided and this application filed May 31, 1912. Serial No. 700,789. (Cl. 116—1.)



1. In an alarm or signal, a diaphragm, a bar disposed closely adjacent to said diaphragm extending radially from the center to the periphery, said bar having a portion bent toward said diaphragm and tightly clamped thereto, the remainder of said bar being spaced slightly from said diaphragm and having the other end clamped rigid therewith, a wear-piece on said bar, adjacent to but out of alinement with the axis of said diaphragm and a rotor having a series of cam projections for successive engagement with said wear-piece, said bar being slightly resilient under conditions of use.

2. In an alarm or signal, a diaphragm, a bar disposed substantially parallel with and closely adjacent to said diaphragm but spaced therefrom along the major portion of the length of said bar, means for clamping said bar to said diaphragm adjacent to the center of the latter, a casing including two clamping members, an annular washer, means for rigidly holding said clamping members together with the said washer, the peripheral portion of said diaphragm and one end of said bar therebetween, and forcing means acting on said bar toward said diaphragm to impose on the latter a series of bodily swings of the center portion thereof.

3. In an alarm or signal, a diaphragm, a thrust transmitting member including a resilient bar having one end rigidly clamped adjacent to the edge of the diaphragm and having another portion secured to the diaphragm at the center of the latter and an impact member for delivering thrusts to said first-mentioned member at a point removed from the center of the diaphragm.

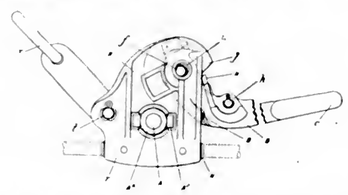
4. In an alarm or signal, a diaphragm, a spring having one end supported adjacent the periphery of the diaphragm and having the opposite end secured to the diaphragm at the center of the latter, a wear piece on said spring intermediate of the ends of the latter and a rotary impact member having engagement with said wear piece.

5. In an alarm or signal of the class described, an elastic diaphragm having a substantially definite time period of free bodily swing, an elongated spring member tightly secured adjacent to the periphery of the diaphragm, and also tightly secured to a central portion of the diaphragm, said spring member presenting a wearpiece spaced endwise from the portion secured to the diaphragm, the stiffness of said spring member and the arrangement of said wearpiece being such that in full operation the movements of the wearpiece bear a definite relation to the natural swing of the diaphragm, in combination with a rotary cam having projections formed and spaced to have a positive forcing engagement with said wear-piece, and a motor adapted to vary its speed in accordance with the work done on the diaphragm and of sufficient power to start and drive said cam up to and at speeds causing cam contacts at intervals corresponding to and harmonizing with the movements of said wearpiece.

[Claims 6 and 7 not printed in the Gazette.]



1,094,404. HAULAGE-CLIP. JAMES W. SMALLMAN, Blackdown, near Leamington, England. Filed Feb. 18, 1913. Serial No. 749,143. (Cl. 104—130.)



1. A haulage clip comprising a pair of rocking shells provided with inclines and stops at the ends of the inclines, a central adjustable device for connecting the shells, and a lever pivoted to work between the inclines, the lever having lateral stops on the body and shoulders on the head, the lateral stops bedding against the fronts of the shells and the shoulders against the stops at the ends of the inclines, substantially as set forth.

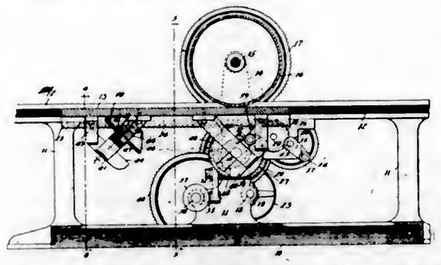
2. A haulage clip comprising a pair of rocking shells provided with inclines, a central adjustable device for connecting the shells, and a lever mounted on a trunnion-peg to work between the inclines, the movement of the lever being limited by a pair of principal stops below and a pair of subsidiary stops above the trunnion-peg, substantially as described.

3. In a haulage clip, the combination, with a pair of rocking shells having comparatively large trunnion-peg holes and inclines terminated by subsidiary stops, the shells being connected by an adjustable device, of a pivoted lever that has lateral stops on the body and shoulders on the head, the lateral stops bedding against the fronts of the shells and the shoulders against subsidiary stops, substantially as set forth.

4. A haulage clip lever that has lateral stops on the body and shoulders on the head, the lateral stops for bedding against the fronts of a pair of rocking shells and the shoulders for engaging with subsidiary stops at the ends of inclines on the inner surfaces of the pair of rocking shells, substantially as represented.

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1,094,405. BED-MOTION FOR PRINTING-PRESSES. BURT F. UPHAM, Chicago, Ill. Filed Feb. 19, 1912, Serial No. 678,647. Renewed June 12, 1913. Serial No. 773,345. (Cl. 101—158.)



1. In a machine of the character described, in combination, a reciprocating bed and means for reciprocating said bed, including a reversing shoe secured to the bed and having its active face disposed throughout its length at an angle of less than ninety degrees to the bed, and a rotating member provided with a wrist or crank pin which engages said face of the shoe during the reversing movement of the bed, said pin being in engagement with the face during the entire time that the bed is being stopped from going in one direction and started in the opposite direction and until the normal speed of the bed is reached.

2. In a machine of the character described, in combination, a frame, a reciprocating bed mounted in ways in said frame, and mechanism for reciprocating said bed, including a reversing shoe secured to the bed and having a single plain active face disposed at an angle less than a right angle to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and stop and start the bed while in engagement with said face, said face of the shoe having portions thereof extending both above and below a horizontal plane passing through the center of rotation of the rotating member.

3. In a machine of the character described, in combination, a frame provided with ways, a bed adapted to reciprocate in said ways, and mechanism for reciprocating said bed including a reversing shoe secured to the bed and having a single plain, active face disposed at forty-five degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and both entirely stop and start the bed while in engagement with said face.

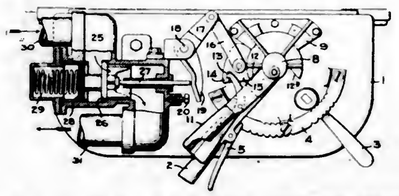
4. In a machine of the character described, in combination, a reciprocating bed and means for reciprocating said bed including a reversing shoe secured to the bed and having its active face disposed throughout its length at an angle of less than ninety degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage the said face of the shoe and both stop the bed as it is going in one direction and start the bed in the opposite direction while in engagement with said face, said shoe being also provided with a movable gate located opposite the active face.

5. In a machine of the character described, in combination, a frame provided with ways, a bed adapted to reciprocate in said ways, and mechanism for reciprocating said bed including a reversing shoe secured to the bed and having a plain, active face disposed at forty-five degrees to the bed, and a rotating member provided with a wrist or crank pin adapted to intermittently engage said face of the shoe and stop and start the bed while in engagement with said face, said shoe being also provided with a pivoted gate located opposite the active face.

[Claims 6 to 30 not printed in the Gazette.]

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1,094,406. CONTROLLING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. WILLIAM EVERETT VER PLANCK, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 18, 1912. Serial No. 691,643. (Cl. 123—181.)



1. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator therefor, an actuator that is common to and moves both regulators, and means for disconnecting one of the regulators from the actuator.

2. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator therefor, an actuator for simultaneously moving both regulators during a portion of its stroke, means for limiting the simultaneous movements of the regulators, and means for disconnecting one of the regulators from the actuator and permitting the latter to complete its stroke.

3. In combination, an internal combustion engine, a regulator therefor, a fluid starting means for the engine, a regulating valve therefor, an actuator that is common to the regulator and valve, and means for disconnecting the

valve and actuator and permitting the latter to move the regulator independently of the valve.

4. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator for said means which automatically returns to its initial position when released, an actuator that is common to both regulators, is permanently connected to one of them and is capable of moving it to and from its initial position, and means for disconnecting the starting means regulator from the actuator and permitting said actuator to actuate the engine regulator.

5. In combination, an internal combustion engine, a regulator therefor, a starting means for the engine, a regulator therefor, a lever for positively moving the engine regulator over its entire range of movement, a connecting means between the lever and the regulator of the starting means, and means for disconnecting said connecting means from the lever.

[Claims 6 to 9 not printed in the Gazette.]

1,094,407. MEANS FOR THE REGULATION OR CONTROL OF RAILWAY AND LIKE TRAFFIC. HANS VON KRAMER, Edgbaston, Birmingham, England. Filed Feb. 5, 1913. Serial No. 746,347. (Cl. 246—25.)

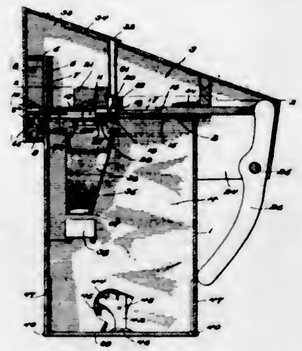


1. In apparatus for the regulation or control of railway and like traffic, the combination of a line wire laid parallel to the track of the vehicle; means for continuously passing periodic electric current through said line wire; a wire frame carried by the vehicle in inductive relation with the line wire; a signal receiving device carried by the vehicle inoperative while current is induced into the frame from the line wire but operative when the induced current ceases; and means for rendering certain parts of the line wire non-inductive to the frame, without interrupting the current passing in the line wire so that the non-inductive parts will operate to convey signals while when the vehicle is passing over the non-inductive lengths the signal receiving device will be inoperative.

2. In apparatus for the regulation or control of railway and like traffic, the combination of a line wire laid parallel to the track of the vehicle; means for continuously passing periodic electric current through said line wire; a wire frame carried by the vehicle in inductive relation with the line wire; a signal receiving device carried by the vehicle inoperative while current is induced into the frame from the line wire but operative when the induced current ceases; a supplemental wire laid parallel to the line wire at certain portions, said supplemental wire being in inductive relation with the opposite limb of the frame to that which the main line wire is in inductive relation with, and whereby the currents induced in the frame by the two parallel parts of the line wire are caused to neutralize each other.

3. In apparatus for the regulation or control of railway and like traffic, the combination of a line wire laid parallel to the track of the vehicle; means for continuously passing periodic electric current through said line wire; a wire frame carried by the vehicle in inductive relation with the line wire; a signal receiving device carried by the vehicle inoperative while current is induced into the frame from the line wire but operative when the induced current ceases; an indicator controlled by the signal receiving device; and means controlled by the position of said indicator whereby when the indicator is in the "blocked" position a portion of the line wire is rendered non-inductive to the frame without interrupting the passage of the current in the main length of the line wire while when the indicator is in the "clear" position the said portions are made inductive to the frame.

1,094,408. MAIL-BOX. PAUL AMADEO, Shenandoah, Pa. Filed Aug. 8, 1912. Serial No. 713,961. (Cl. 194—78.)



1. In a coin controlled mechanism, the combination with a movable member having a coin slot therethrough, of a plunger, a longitudinally movable shutter carried by the member located at the bottom of the member and having a coin slot normally out of register with the coin slot in the member, a spring connecting said shutter with the lower face of the member, normally holding the shutter with its slot out of register with the slot in the member, said shutter at one end projecting beyond the end of the movable member, and a wall against which the projecting end of the shutter is adapted to be moved when the plunger is coupled to the movable member by the coin and moves the latter to its extreme position, whereby the slot in the shutter is moved into register with the slot in the member to permit the coin to drop, substantially as described.

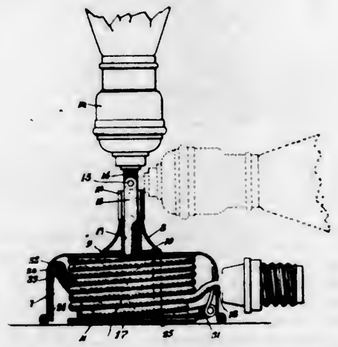
2. In a coin controlled mechanism, the combination with a movable member having a coin slot therethrough, of a plunger, a longitudinally movable shutter carried by the member located at the bottom of the member and having a coin slot normally out of register with the coin slot in the member, said shutter at one end projecting beyond the end of the movable member, and a wall against which the projecting end of the shutter is adapted to be moved when the plunger is coupled to the movable support by the coin and moves the latter to its extreme position, whereby the slot in the shutter is moved into register with the slot in the member to permit the coin to drop, a spring normally holding the shutter in position to close the slot in the support, and a spring normally holding the plunger in one extreme position, substantially as described.

3. In a coin controlled mechanism the combination with a movable member having a coin slot therethrough, of a plunger, a longitudinally movable shutter carried by the member located at the bottom of the member and having a coin slot normally out of register with the coin slot in the member, a spring connecting said shutter with the lower face of the member, normally holding the shutter with its slot out of register with the slot in the member, said shutter at one end projecting beyond the end of the movable member, and a wall against which the projecting end of the shutter is adapted to be moved when the plunger is coupled to the movable member by the coin and moves the latter to its extreme position, whereby the slot in the shutter is moved into register with the slot in the member to permit the coin to drop, a spring holding the plunger in normal position and a lever pivoted between its ends and at one end engaging the plunger, whereby the movement of the lever moves the plunger against the action of the spring, substantially as described.

4. In a coin controlled mechanism, the combination with a movable member having a coin slot therethrough, of a plunger, a longitudinally movable shutter carried by the member located at the bottom of the member and having a coin slot normally out of register with the coin slot in the member, said shutter at one end projecting beyond the end of the movable member, and a wall against which the projecting end of the shutter is adapted to be moved when the plunger is coupled to the support by the coin and moves the latter to its extreme position, whereby the slot in the shutter is moved into register with the slot in the member to permit the coin to drop, a spring normally holding the plunger in one extreme position, and a lever pivoted between its ends and at one end engaging the plunger, whereby the movement of the lever moves the plunger against the action of the spring, substantially as described.



1,094,409. PORTABLE ELECTRIC-LAMP SUPPORT. WILLARD R. GREEN, Chicago, Ill., and ALFRED FORNANDER, New York, N. Y., assignors, by mesne assignments, to Wallace Novelty Company, a Corporation of New York. Filed Aug. 5, 1913. Serial No. 783,010. (Cl. 240—53.)



1. In a portable electric lamp support, the combination of a hollow base open at the bottom, and a spool within said base having a hollow stem fixed to and extending longitudinally along the axis of said spool and through which a flexible conductor is adapted to pass, said stem extending through an opening in the base and whereby the spool is rotatably supported in the base and also acting as a support for the lamp.

2. In a portable electric lamp support, the combination of a hollow base, and a spool within said base having a tubular stem extending co-axially therefrom and through an opening in the base to rotatably support the spool in the base, portions of the free end of the stem being cut away to form a pair of opposite fingers between which the lamp is pivotally supported to swing on an axis transverse to the axis of rotation of the spool.

3. In a portable electric lamp support, the combination of a hollow base; a spool within the base having a tubular stem fixed to and extending coaxially therefrom and through an opening in the base to rotatably support the spool in the base, portions of the free end of the stem being cut away to form a pair of opposite fingers; and a tubular coupling pivotally supported between the stem fingers to swing on an axis transverse to the axis of rotation of the spool and to which the lamp socket is connected.

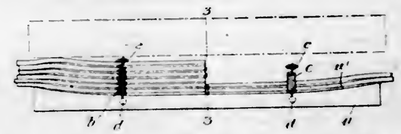
4. In a portable electric lamp support, the combination of a hollow base; a spool within the base having a tubular stem extending laterally therefrom and through an opening in the base to rotatably support the spool and through which a flexible conductor is adapted to pass, portions of the free end of the stem being cut away to form a pair of opposite fingers; a tubular coupling supported between the stem fingers and to which the lamp socket is connected; and means to embrace the stem to clamp the stem fingers against the coupling and prevent axial movement of the spool.

5. In a portable electric lamp support, the combination of a hollow base, a spool within the base having a tubular stem extending laterally therefrom and through an opening in the base to rotatably support the spool and through which a flexible conductor is adapted to pass, portions of the free end of the stem being cut away to form a pair of opposite fingers; a tubular coupling supported between the stem fingers and to which the lamp socket is connected; and a split resilient collar embracing the stem between the base and coupling to clamp the fingers against the coupling and preventing axial movement of the spool.

[Claims 6 to 14 not printed in the Gazette.]

# REISSUES.

13,714. HOLDER FOR CEMENTING SOLES. GEORGE E. BRITTAIN, Haverhill, Mass., assignor to Irving L. Keith, Haverhill, Mass. Filed Nov. 21, 1912. Serial No. 732,797. Original No. 1,016,544, dated Feb. 6, 1912, Serial No. 657,466. (Cl. 12—1.)



1. A holder for cemented soles comprising a base-plate having a sole-supporting face, a pair of coiled springs mounted at opposite sides of said face and held by their resilience, in vertical position to form horizontal guiding and holding devices for the soles, and a strap connected to the free ends of said springs, substantially as described.

2. A holder for a stack of alternately arranged, cemented soles and skived taps, comprising a base plate having a supporting face composed of a horizontally disposed sole-forepart receiving portion and a concave end-portion extending upwardly therefrom toward the end of the plate to hold the skived end-portion of each tap against the adjacent portion of the corresponding sole, in combination with pressing means arranged approximately parallel to said forepart portion, to apply pressure to the top of the stack, whereby the taps are held, throughout their entire lengths, in close contact with the soles, substantially as described.

3. A holder for a stack of alternately arranged, cemented soles and skived taps, comprising a base plate having a supporting face composed of a horizontally disposed sole-forepart receiving portion and an inclined portion extending upwardly therefrom, to hold the skived portions of the taps against the adjacent portions of the soles, in combination with pressing means arranged approximately parallel to said forepart portion, to apply pressure to the top of the stack and to hold the taps and soles in contact throughout the length of the taps, substantially as described.

4. A holder for two stacks of alternately arranged cemented soles and skived taps, comprising a base plate having a supporting face composed of horizontally disposed intermediate sole-fore-part supporting portions and concave end-portions extending upwardly from the outermost ends of said fore-part supporting portions to the opposite ends of the plate, to hold the skived end-portions of the taps against the adjacent portions of the corresponding soles, in combination with pressing means arranged approximately parallel to said fore-part portions to apply pressure to the tops of the stacks, and hold the taps, throughout their entire lengths, in contact with the soles to which they are cemented, substantially as described.

5. A holder for two stacks of alternately arranged cemented soles and skived taps, comprising a base plate

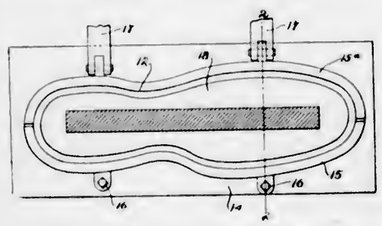
having a supporting face composed of horizontally disposed intermediate sole-fore-part supporting portions and inclined end-portions extending upwardly from the outermost ends of said fore-part supporting portions to the opposite ends of the plate, to hold the skived end-portions of the taps against the adjacent portions of the corresponding soles, in combination with pressing means arranged approximately parallel to said fore-part portions to apply pressure to the tops of the stacks, and hold the taps, throughout their entire lengths, in contact with the soles to which they are cemented, substantially as described.

6. A holder for cemented soles and skived taps, comprising a base-plate having a sole-supporting face thereon, said face having a horizontally disposed portion and an upwardly inclined portion leading from said horizontally disposed portion to the end of the plate, and a yielding clamping means at opposite sides of said face and extending thereover, for pressing a stack of soles onto said face, substantially as described.

7. A holder for cemented soles and skived taps comprising a base-plate having a concave sole-supporting face extending upwardly toward the end thereof, a pair of vertically extending, longitudinally extensible springs mounted on said plate at opposite sides of the middle portion of said face and a strap for connecting the free ends of said springs, substantially as described.

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13,715. METHOD OF MAKING SOLES. WILLIAM B. GREENE, Natick, Mass. Filed Aug. 4, 1913. Serial No. 782,997. Original No. 1,008,640, dated Nov. 14, 1911, Serial No. 629,344. (Cl. 12—142.)



1. The herein described method which consists in confining a sole-blank in a die or curb substantially encircling its edge, and subjecting the same pressure exerted upon the sides of the blank in a manner to substantially and permanently compress the interior body portion of the blank while leaving a marginal peripheral portion of such blank substantially uncompressed.

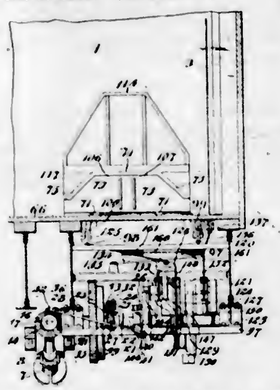
2. The herein described method which consists in confining a sole-blank in a die or curb substantially encircling its edge, and subjecting the same to pressure exerted upon the sides of the blank in a manner to substantially and permanently compress the interior body portion of the blank while leaving a marginal peripheral portion of such blank of more open texture and substantially thicker than the interior body portion.

3. The herein described method which consists in confining a sole blank in a die or curb substantially encircling its edge, and subjecting the same to pressure exerted upon the sides of the blank in a manner to substantially and permanently compress the interior body portion of the blank while leaving a marginal peripheral portion in such condition that stitches may be readily passed therethrough.

4. The method of thickening the edge of a sole leather outer sole which consists in confining the said edge against outward displacement tending to enlarge the area of the sole and, while the edge is so confined, supporting the entire grain side of the sole and subjecting a portion of the flesh side of less area than the entire area of the sole to pressure tending to reduce the thickness thereof while leaving the marginal portion beyond said compressed portion free to expand in a direction transverse to the face of the sole only, the said pressure and the confinement of the edge of the sole causing a permanent increase in thickness of said marginal portion.

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13,716. MAIL-EXCHANGE SYSTEM. ALBERT HUPP, Washington, D. C. Filed Feb. 4, 1914. Serial No. 816,625. Original No. 1,020,609, dated Mar. 19, 1912, Serial No. 556,443. (Cl. 258—6.)



1. In a mail exchange apparatus, a car having a door opening, a door controlling the same, and means, including speed reduction gearing, actuated by the revolution of the axle of the car, for opening the said door.

2. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, periodically operated means actuated by an axle of the car, means actuated by the early part of each movement of said periodically-operated means for opening the car door, and means to disengage the periodically-operated means and the door opening means before the movement of the former ceases.

3. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, periodically-operated means actuated by an axle of the car, means actuated by the early part of each movement of said periodically-operated means for opening the car door, means to disengage the periodically-operated means and the door opening means before the movement of the former ceases, and means to secure the door against closing movement as such disengagement occurs.

4. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, driven means carried by the car, means to be periodically operated by the driven means, a movable stop normally holding the periodically-operated means out of gear with the driven means, a trip on the roadbed over which the car travels, means to be operated by the trip to withdraw said stop to permit the driven means to operate said periodically-operated means, means to restore the stop to its original position after said trip is passed to arrest the periodically-operated means at a predetermined time, and means actuated by the early part of the movement of said periodically-operated means for opening the car door.

5. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, driven means carried by the car, means to be periodically operated by the driven means, a movable stop normally holding the periodically operated means out of gear with the driven means, a trip on the roadbed over which the car travels, means to be operated by the trip to withdraw said stop to permit the driven means to operate said periodically-operated means, means to restore the stop to its original position after said trip is passed to arrest the periodically-operated means at a predetermined time, means actuated by the early part of the movement of said periodically-operated means for opening the car door, means to disengage the periodically-operated means and the door opening means before the movement of the former ceases, and means to secure the door against closing movement as such disengagement occurs.



6. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, driven means carried by the car, means to be periodically operated by the driven means, a movable stop normally holding the periodically operated means out of gear with the driven means, a trip on the roadbed over which the car travels, means to be operated by the trip to withdraw said stop to permit the driven means to operate said periodically-operated means, means to restore the stop to its original position after said trip is passed to arrest the periodically-operated means at a predetermined time, means actuated by the early part of the movement of said periodically-operated means for opening the car door, means to disengage the periodically-operated means and the door opening means before the movement of the former ceases, and means to secure the door against closing movement as such disengagement occurs.

7. In a mail exchange apparatus, a car having a door opening, a transverse track-way upon the car floor opposite said door opening, a truck mounted upon the track-way, driven means carried by the car, means to be periodically-operated by the driven means, a movable stop normally holding the periodically-operated means out of gear with the driven means, a trip on the roadbed upon which the car travels, means to be operated by the trip and withdraw said stop to permit the driven means to operate said periodically-operated means, means to restore the stop to its original position after said trip is passed to arrest the periodically-operated means at a predetermined time, means actuated by the early part of the movement of the periodically-operated means for opening the car door, means for holding the car door open without interrupting the movement of the periodically-operated means, means actuated by the latter to cause the truck to move outward into the door opening and back to its original position, and means for tripping said door-holding means as the movement of the periodically-operated means terminates.

8. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when not opposed, a driven means, a shaft, suitable connections between the shaft and the door to open the same, a yieldingly advanced stop to prevent operation of the shaft, means for tripping and releasing the stop, and means whereby the driven means shall rotate the shaft after the stop is tripped.

9. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when not opposed, driven means, a shaft, suitable connections between the shaft and the door to open the same, a yieldingly advanced stop to prevent operation of the shaft, means for tripping and releasing the stop, means whereby the driven means shall rotate the shaft after the stop is tripped, means to hold the door open without affecting the movement of the shaft, and means for tripping the door-holding means as the movement of the shaft is arrested by said stop.

10. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when not opposed, a shaft, means to revolve the shaft, means to arrest the shaft when it has described one revolution, a sheave, suitable connections between the sheave and the door to open the latter, a part movable with the shaft to engage and operate said sheave, means to trip said part from engagement with the sheave before the movement of the shaft ceases, and means to hold the door open after said tripping action has occurred.

11. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when not opposed, a shaft, means to revolve the shaft, means to arrest the shaft when it has described one revolution, a sheave, suitable connections between the sheave and the door to open the latter, a part movable with the shaft to engage and operate said sheave, means to trip said part from engagement with the sheave before the movement of the shaft ceases, means to hold the door open after said tripping action has occurred, and means, actuated by the shaft, to trip said holding means as the movement of the shaft ceases.

12. In mail exchange apparatus, a car having a door opening, a transverse trackway upon the car floor opposite the door opening, a truck mounted upon the trackway, periodically-operated means carried by the car, a tiltable basket carried by the truck, and suitable connections between said means and the truck for moving the latter toward the door opening until the basket has been caused to tilt downward through the door opening.

13. In mail exchange apparatus, a car having a door opening, a transverse trackway upon the car floor opposite the door opening, a truck mounted upon the trackway, periodically-operated means carried by the car, suitable connections between said means and the truck for moving the latter toward the door opening, a basket carried by and movable endwise and lengthwise of the truck, and means actuated by the movement of the truck toward the door opening for causing the basket to move in the same direction but at greater speed until its advanced end is projected through the door opening.

14. In mail exchange apparatus, a car having a door opening, a transverse track-way upon the car floor opposite the door opening, a truck mounted upon the track-way, periodically-operated means carried by the car, suitable connections between said means and the truck for moving the latter toward the door opening, a basket carried by and movable endwise and lengthwise of the truck, means actuated by the movement of the truck toward the door opening for causing the basket to move in the same direction but at greater speed until its advanced end in projected through the door opening and its center of gravity is beyond the front end of the truck, to cause it to tilt downward at its outer end, and means for arresting the tilting movement of the basket.

15. In mail exchange apparatus, a car having a door opening, a transverse trackway upon the car floor opposite the door opening, a truck mounted upon the track-way, periodically-operated means carried by the car, suitable connections between said means and the truck for moving the latter toward the door opening, a basket carried by and movable endwise and lengthwise of the truck, means actuated by the movement of the truck toward the door opening for causing the basket to move in the same direction but at greater speed until its advanced end is projected through the door opening and its center of gravity is beyond the front end of the truck, to cause it to tilt downward at its outer end, and means forming a part of the truck, for arresting the tilting movement of the basket.

16. In mail exchange apparatus, a car having a door opening, a transverse trackway upon the car floor opposite the door opening, a truck mounted upon the track-way, periodically-operated means carried by the car, suitable connections between said means, and the truck for moving the latter toward the door opening, and means also actuated by the periodically-operated means for returning the truck to its original position.

17. In mail exchange apparatus, a car having a door opening, a transverse trackway upon the car floor opposite the door opening, a truck mounted upon the track-way, periodically-operated means carried by the car, suitable connections between said means and the truck for moving the latter toward the door opening, means also actuated by the periodically-operated means for returning the truck to its original position, a basket mounted upon the truck, and means actuated by the movement of the truck for causing the basket to move in the same direction but at greater speed.

18. In mail exchange apparatus, a car having a door opening, a transverse track-way upon the car floor opposite the door opening, a truck mounted upon the track-way, periodically-operated means carried by the car, suitable connections between said means and the truck for moving the latter toward the door opening, means also actuated by the periodically-operated means for returning the truck to its original position, a basket mounted

upon the truck, means actuated by the movement of the truck toward the door opening, to cause the basket to move in the same direction until its front end is projected through the door opening and its center of gravity is beyond the advanced end of the truck to permit it to tilt downward at its outer end and to retilt and return it to its original position as the truck moves inward, means for limiting the tilting movement of the basket, and means to insure its retilting movement before it attains its original position upon the tuck.

19. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, a truck arranged upon the floor of the car and capable of movement toward and from the door opening, periodically-operated means, means actuated by the early part of each movement of said periodically-operated means for opening the car door, and means actuated by the periodically-operated means after the door is opened for causing the truck to move into the door opening.

20. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, a truck arranged upon the floor of the car and capable of movement toward and from the door opening, periodically-operated means, means actuated by the early part of each movement of said periodically-operated means for opening the car door, means actuated by the periodically-operated means after the door is opened for causing the truck to move into the door opening, means for returning the truck to its original position before the movement of the periodically-operated means ceases, and means for releasing the door before the movement of the periodically-operated means ceases to permit it to close.

21. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, a truck arranged upon the floor of the car and capable of movement toward and from the door opening, periodically-operated means, means actuated by the early part of each movement of said periodically-operated means for opening the car door, means actuated by the peridocally-operated means after the door is opened for causing the truck to move into the door opening, means for returning the truck to its original position before the movement of the periodically-operated means ceases, means for releasing the door before the movement of the periodically-operated means ceases to permit it to close, a basket upon the truck, and means causing the basket to move in the same direction but at greater speed than the truck during the movement of the latter.

22. In mail exchange apparatus, a car having a door opening, a door controlling the same, means to close the door when unopposed, a truck arranged upon the floor of the car, and capable of movement toward and from the door opening, periodically-operated means, means actuated by the early part of each movement of said periodically-operated means for opening the car door, means actuated by the periodically-operated means after the door is opened for causing the truck to move into the door opening, means for returning the truck to its original position before the movement of the periodically-operated means ceases, means for releasing the door before the movement of the periodically-operated means ceases, to permit it to close, a basket upon the truck, means for causing the basket to move in the same direction but at greater speed than the truck during the movement of the latter, the outward movement of the basket continuing until its center of gravity is beyond the front end of the truck to cause its projected end to tilt downward through the door opening, means for limiting the tilting movement, and means for insuring its retilting movement before its opposite movement and the corresponding movement of the truck ceases.

23. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and be swung outward by the truck in its outward movement and effect similar movement of the receiver.

24. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, adjustable means carried by the truck, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the adjustable means carried by the truck when said means occupies a particular adjustment, and adapted in the outward movement of the truck to be struck by said adjustable means when properly adjusted and swing outward thereby and impart similar movement to the receiver.

25. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, an arm held by the yielding means in the path of outward movement of the truck in its outward movement and adapted to effect similar movement of the receiver, an extension pivoted to the inner end of the receiver, and means for causing said extension to swing inward when the receiver swings outward and outward when the receiver swings inward.

26. In a mail exchange apparatus, a car having a side door opening, a door controlling the same, a driven ratchet wheel carried by the car, a shaft, an arm rigid therewith, an arm rotatable on the shaft, yielding means tending to hold said arms at an angle to each other, a pawl pivoted to the said rotatable arm, yielding means connecting the pawl with the said rigid arm and tending to force and hold the pawl in engagement with the ratchet wheel, means held yieldingly in the path of said arms to hold the pawl out of engagement with the ratchet wheel, means for tripping the last-named means to permit the pawl to engage the ratchet wheel and through said arms impart rotatable movement to said shaft, and means whereby the rotation of said shaft shall open the door.

27. In a mail exchange apparatus, a car having a side door opening, a door controlling the same, a driven ratchet wheel carried by the car, a shaft, an arm rigid therewith, an arm rotatable on the shaft, yielding means tending to hold said arms at an angle to each other, a pawl pivoted to the said rotatable arm, yielding means connecting the pawl with the said rigid arm and tending to force and hold the pawl in engagement with the ratchet wheel, means held yieldingly in the path of said arms to hold the pawl out of engagement with the ratchet wheel, means for tripping the last-named means to permit the pawl to engage the ratchet wheel and through said arms impart rotatable movement to said shaft, means rotatable on the shaft, suitable means connecting the last-named means with the door, means rigid with the shaft for rotating the last-named means rotatable thereon to effect the opening of the door, means to effect the release of the last-named means rotatable on the shaft, yielding means for closing the door, and means for holding the door open for a predetermined period of time after said release has occurred.

28. In a mail exchange apparatus, a car having a side door opening, a door controlling the same, a driven ratchet wheel carried by the car, a shaft, an arm rigid therewith, an arm rotatable on the shaft, yielding means tending to hold said arms at an angle to each other, a pawl pivoted to said rotatable arm, yielding means connecting the pawl with the said rigid arm and tending to force and hold the pawl in engagement with the ratchet wheel, means held yieldingly in the path of said arms to hold the pawl out of engagement with the ratchet wheel, means for tripping the last-named means to permit the pawl to engage the ratchet wheel and through said arms impart rotatable movement to said shaft, means rotatable on the shaft, suitable means connecting the last-named means with the door, means rigid with the shaft for rotating the last-named means rotatable thereon to effect the opening of the door, means to effect the release of the last-named means rotatable on the shaft, yielding means for closing the door, means for holding the door open for a predetermined period of time after said release has occurred, and means for tripping said holding means to permit the door to be closed.

29. In mail exchange apparatus, a car having a side door opening, a door controlling the same, a driven ratchet wheel carried by the car, a shaft, an arm rigid therewith, an arm rotatable on the shaft, yielding means tending to hold said arms at an angle to each other, a pawl pivoted to the said rotatable arm, yielding means connecting the pawl with the said rigid arm and tending to force and hold the pawl in engagement with the ratchet wheel, means held yieldingly in the path of said arms to hold the pawl out of engagement with the ratchet wheel, means for tripping the last-named means to permit the pawl to engage the ratchet wheel and through said arms impart rotatable movement to said shaft, means rotatable on the shaft, suitable means connecting the last-named means with the door, means rigid with the shaft for rotating the last-named means rotatable thereon to effect the opening of the door, means to effect the release of the last-named means rotatable on the shaft, yielding means for closing the door, means for holding the door open for a predetermined period of time after said release has occurred, a pair of oppositely rotatable sheaves journaled on said shaft, a truck within the car, a pair of suitably guided cables attached to said sheaves, means connecting the opposite ends of said cables with said truck, means rigid with the shaft for imparting rotation to one of said sheaves to cause the truck to move into the door opening while the door is open, means to trip said sheave-actuating means from engagement therewith, and means movable with the shaft for engagement with the other of said sheaves to effect the withdrawal of the truck, and means to trip the said last-named sheave-actuating means after the truck has been withdrawn.

30. In mail exchange apparatus, a car having a side door opening, a door controlling the same, a driven ratchet wheel carried by the car, a shaft, an arm rigid therewith, an arm rotatable on the shaft, yielding means tending to hold the said arms at an angle to each other, a pawl pivoted to the said rotatable arm, yielding means connecting the pawl with the said rigid arm and tending to force and hold the pawl in engagement with the ratchet wheel, means held yieldingly in the path of said arms to hold the pawl out of engagement with the ratchet wheel, means for tripping the last-named means to permit the pawl to engage the ratchet wheel and through said arms impart rotatable movement to said shaft, means rotatable on the shaft, suitable means connecting the last-named means with the door, means rigid with the shaft for rotating the last-named means rotatable thereon to effect the opening of the door, means to effect the release of the last-named means rotatable on the shaft, yielding means for closing the door, means for holding the door open for a predetermined period of time after said release has occurred, a pair of oppositely rotatable sheaves journaled on said shaft, a truck within the car, a pair of suitably guided cables attached to said sheaves, means connecting the opposite ends of said cables with said truck, means rigid with the shaft for imparting rotation to one of said sheaves to cause the truck to move into the door opening while the door is open, means to trip said sheave-actuating means from engagement therewith, and means movable with the shaft for engagement with the other of said sheaves to effect the withdrawal of the truck, and means to trip the said last-named sheave-actuating means after the truck has been withdrawn.

31. The combination with a car having a side door opening, a truck movable transversely in the car, rotatable drums carried by the car truck, sprocket wheels rotatable with the drums, an endless chain connecting the sprocket wheels and bearing a fixed relation to the car, a mail pouch basket movable with and upon the truck, a cable attached to the drum at the inner end of the truck and to the outer end of the basket, a similar cable attached to the inner end of the basket and to the other drum of the truck, means for moving the truck outward into the door opening and, through said chain and cables, cause the basket to move in the same direction but at greater speed so as to project through the door opening and beyond the side of the car, and means to reverse the movement of the truck and through said sprocket chain and cables return the basket to its original position upon the truck.

32. The combination with a car having a side door opening, a truck movable transversely in the car, rotatable drums carried by the car truck, sprocket wheels rotatable with the drums, an endless chain connecting the sprocket wheels and bearing a fixed relation to the car, a mail pouch basket movable with and upon the truck, a cable attached to the drum at the inner end of the truck and to the outer end of the basket, a similar cable attached to the inner end of the basket and the other drum of the truck, means for moving the truck outward into the door opening, and through said chain and cables cause the basket to move in the same direction but at greater speed so as to project through the door opening, and beyond the side of the car, and until its center of gravity is beyond the outer end of the truck to permit it to tilt downward, means whereby the truck shall limit the tilting movement of the basket, and means to reverse the movement of the truck and through the sprocket chain and cables return the basket to its original position upon the truck.

33. The combination with a car having a side door opening, a truck movable transversely within the car, automatic means actuated by the car axle and flexibly connected to the truck for causing the latter to move outward toward the door opening, and automatically operating means flexibly connected to the truck for reversing such movement.

34. The combination with a car having a side door opening, a truck movable transversely within the car, means flexibly connected to the truck for causing the latter to move outward toward the door opening, means flexibly connected to the truck for reversing such movement, a basket mounted upon the truck, and means actuated by each movement of the truck for causing the basket to move in the same direction but at greater speed.

35. The combination with a truck provided with guard walls, a plurality of rolls carried by said guard walls, and a basket mounted upon the truck and provided with plates projecting outward in the plane of said rolls and provided with slots of sufficient size to permit the said rolls to pass through them at certain times.

36. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and be swung outward by the truck in its outward movement and effect similar movement of the receiver, in combination with means erected near the roadway of the car for detachably supporting a mail pouch in position to be engaged by the inner side of the receiver when open.

37. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and be swung outward by the truck in its outward movement and effect similar movement of the receiver, in combination with a crane at one side of the roadway and provided with a pair of upper jaws above the plane of the receiver and a pair of lower jaws below the plane of the receiver to engage the upper and lower portions of and support a mail pouch arranged vertically in the path of the receiver; said jaws bearing a pivoted relation to the crane, so as to swing away from the car as the receiver engages and withdraws the pouch and also bearing a vertically sliding relation to the crane, a guideway rigid with the crane, and means movable with the jaws and engaging said guideway at times and adapted to move out of the guideway as the jaws swing away from the car, to permit said jaws to move downward on the crane.

38. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and be swung outward by the truck in its outward movement and effect similar movement of the receiver, in combination with a crane erected at one side of the roadway and provided with a pair of upper jaws above the plane of the receiver and a pair of lower jaws below the plane of the receiver to engage the upper and lower portions of and support a mail pouch arranged vertically in the path of the receiver; said jaws bearing a pivoted relation to the crane so as to swing away from the car as the receiver engages and withdraws the pouch and also bearing a vertically sliding relation to the crane, a guideway rigid with the crane, means movable with the jaws and engaging said guideway at times and adapted to move out of

the guideway as the jaws swing away from the car, to permit the jaws to move downward on the crane, and means for reëlevating the jaws.

39. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and be swung outward by the truck in its outward movement and effect similar movement of the receiver, in combination with a crane erected at one side of the roadway and provided with a pair of upper jaws above the plane of the receiver and a pair of lower jaws below the plane of the receiver to engage the upper and lower portions of and support a mail pouch arranged vertically in the path of the receiver; said jaws bearing a pivoted relation to the crane so as to swing away from the car as the receiver engages and withdraws the pouch and also bearing a vertically sliding relation to the crane, a guideway rigid with the crane, means movable with the jaws and engaging said guideway at times and adapted to move out of the guideway as the jaws swing away from the car to permit said jaws to move downward on the crane, and a cable suitably guided and connected to an arm movable with the jaws for effecting the reëlevation of the latter.

40. In mail exchange apparatus, a car having a door opening, a truck within the car and movable transversely, means for moving the truck outwardly into the door opening, a receiver hinged to the car, yielding means holding the receiver folded against the car, and an arm held by the yielding means in the path of outward movement of the truck and adapted to be struck and swung outward by the truck in its outward movement and effect similar movement of the receiver, in combination with a crane at one side of the roadway and provided with a pair of upper jaws above the plane of the receiver and a pair of lower jaws below the plane of the receiver to engage the upper and lower portions of and support a mail pouch arranged vertically in the path of the receiver said jaws bearing a pivotal relation to the crane so as to swing away from the car as the receiver engages and withdraws the pouch and also bearing a vertically sliding relation to the crane, a downwardly sloping guideway rigid with the crane, means movable with the jaws and engaging the crest of the guideway when the jaws are elevated and projecting toward the car, and adapted to swing out of the guideway as the jaws swing away from the car to permit said jaws to move downward on the crane, and a cable suitably guided and connected to the arm movable with the jaws for effecting the reëlevation of the latter.

41. In mail exchange apparatus, a car having a door opening, a door controlling the same, periodically-operable means, means for effecting the operation of the periodically-operable means by establishing a geared relation between said means and one of the axles of the car, and means actuated by the early part of each operation of such periodically operable means for opening the car door.

42. In mail exchange apparatus, a car having a door opening, a door controlling the same, periodically operable means, means for effecting the operation of the periodically-operable means by establishing a geared relation between said means and one of the axles of the car, means actuated by the early part of each operation of such periodically-operable means for opening the car door, and means to close the door when unopposed.

43. In mail exchange apparatus, a car having a door opening, a truck within the car and movable toward and from said opening, a basket carried by and movable longitudinally of the truck, and means actuated by movement of the truck toward the door opening, for causing the basket to move upon and in the same direction as but at greater speed than the truck.

44. In mail exchange apparatus, a car having a door opening, a truck within the car and movable toward and from said opening, a basket carried by and movable longitudinally of the truck, and means actuated by movement of the truck toward the door opening, for causing the basket to move upon and in the same direction as but at greater speed than the truck, until said basket has projected sufficiently beyond the advanced end of the truck to tilt downwardly at such end.

45. In mail exchange apparatus, a car having a door opening, a truck within the car and movable toward and from said opening, a basket carried by and movable longitudinally of the truck, means actuated by movement of the truck toward the door opening, for causing the basket to move upon and in the same direction, as but at greater speed than the truck until said basket has projected sufficiently beyond the advanced end of the truck to tilt downward at such end, and means for arresting the tilting movement of the basket.

46. In an automatic mail exchange device, the combination with a railway mail car, of an automatic mechanism, a trip placed along the track to start said mechanism in operation, means constructed to open and close the door of said car by the operation of said mechanism, and a discharging device constructed and arranged to discharge a plurality of mail bags through said door while it is open.

47. In an automatic mail exchange device, the combination with a railway mail car, of an automatic mechanism, a trip placed along the track to start said mechanism in operation, means constructed to open and close the door of said car by the operation of said mechanism, and a receiving device constructed and arranged to receive a plurality of mail bags through said door while it is open.

48. In a mail exchange apparatus, the combination of a railway mail car having a doorway, a door for said doorway, a trip located along the track, means for discharging mail bags through the doorway, and means for opening said door and actuating said discharging means at substantially uniform distances from said trip irrespective of the speed at which the car is moving.

49. In a mail exchange apparatus, the combination of a railway mail car having a doorway, a door for said doorway, a trip located along the track, mail receiving means for delivering mail bags into the car through said doorway, and means for opening said door and actuating said receiving means at substantially uniform distances from said trip irrespective of the speed at which the car is moving.

50. In a mail exchange apparatus, the combination of a railway mail car having a doorway, a door for said doorway, a trip located along the track, and means including speed-reduction gearing for opening said door at a substantially uniform distance from said trip irrespective of the speed at which the car is moving.

51. In a mail exchange apparatus, the combination of a car, a trip located along the track, means for discharging mail bags from the car, and means including speed-reduction gearing, for actuating said discharging means at a substantially uniform distance from said trip irrespective of the speed at which the car is moving.

52. In a mail exchange apparatus, the combination of a car, a trip located along the track, mail bag receiving means, and means including speed-reduction gearing, for actuating said receiving means at a substantially uniform distance from said trip irrespective of the speed at which the car is moving.

53. In a mail exchange apparatus, the combination of a railway mail car, a trip located along the track, means for discharging mail bags from the car, mail receiving means, and means including speed-reduction gearing for actuating said discharging and receiving means at substantially uniform distances from said trip irrespective of the speed at which the car is moving.

54. In a mail exchange apparatus, the combination with a railway mail car, of means thereon for discharging mail bags from the car, and means, including speed-reduction gearing for operating said discharging means, so timed in its movements as to discharge the bags when the car has traveled a predetermined distance, from the point where the operation commenced, irrespective of the speed at which the car is moving.

55. In a mail exchange apparatus, the combination with a railway mail car, of means thereon for receiving mail bags, from a station along the track, while the car is moving, and means, including speed-reduction gearing, for operating said receiving means so timed in its movements that the receiving means will be in receiving position when the car has traveled a predetermined distance, from the point where the operation commenced irrespective of the speed at which the car is moving.



56. In a mail exchange apparatus, the combination with a car having a doorway, of a door therefor, and means including speed-reduction gearing, for opening the door so timed in its movement as to have the door fully open by the time the car has traveled a predetermined distance, from the point where the operation commenced, irrespective of the speed at which the car is moving.

57. In a mail exchange apparatus, the combination with a railway mail car having a doorway, a door for said doorway, means for receiving mail bags from a station along the track and delivering the same into the car through said doorway, while the car is moving, and operating means for said door and receiving means, including speed-reduction gearing, so timed that the door will be fully open and the receiving means will be in receiving position when the car has traveled a predetermined distance, from the point where the operation commenced, irrespective of the speed at which the car is moving.

58. In a mail exchange apparatus, the combination with a railway mail car having a doorway, a door for said doorway, means for discharging mail bags through said doorway while the car is moving, and operating means for said door and discharging means, including speed-reduction gearing, so timed that the door will be fully open and the mail bags discharged when the car has traveled a predetermined distance from the point where the operation commenced, irrespective of the speed at which the car is moving.

59. In a mail exchange apparatus, the combination with a railway mail car having a doorway, a door for said doorway, means for receiving mail bags, from a station along the track and delivering the same into the car through said doorway, while the car is moving, means for discharging mail from the car through said doorway, and operating means for said door, said receiving means and said discharging means, including speed-reduction gearing, so timed that the door will be fully opened, the receiving means arranged in receiving position and the discharge of the mail bags effected at predetermined distances from the point where the operation commences, irrespective of the speed at which the car is moving.

60. In a mail exchange apparatus, the combination with a railway mail car, of means for receiving mail from a station along the track while the car is moving, means for discharging mail from the car, and operating means for said receiving means and said discharging means, including speed-reduction gearing, so timed that the receiving means will be arranged in receiving position and the discharge of the mail bags effected at predetermined distances from the point where the operation commences, irrespective of the speed at which the car is moving.

61. In a mail exchange apparatus, the combination with a mail car, of means thereon for delivering mail bags therefrom, and means, including speed-reduction gearing, operated by and in accordance with the movement of the car for operating said delivering means.

62. In a mail exchange apparatus, the combination with a mail car, of means thereon for receiving mail while the car is moving, and means, including speed-reduction gearing, operated by and in accordance with the movement of the car for operating said receiving means.

63. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, and means, including speed-reduction gearing, operated by and in accordance with the movement of the car for opening said door.

64. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means on the car for delivering mail bags from the car through said doorway, and means, including speed-reduction gearing, operated by and in accordance with the movement of the car for opening said door and operating said delivering means.

65. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means on the car for receiving mail bags and delivering the same into the car through said doorway, and means, including speed-reduction gearing operated by and in accordance with the movement of the car for opening the door and operating said receiving means.

66. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means on the car for delivering mail bags from the car through said doorway, means on the car for receiving mail bags and delivering the same into the car through said doorway, and means, including speed-reduction gearing, operated by and in accordance with the movement of the car for opening said door and operating said delivering means and said receiving means.

67. In a main exchange apparatus, the combination with a mail car, of means for discharging mail bags from the car, means operated by and in accordance with the movement of the car for operating said bag discharging means, and a trip along the track for connecting said operating means with said discharging means.

68. In a mail exchange apparatus, the combination with a mail car, of means thereon for receiving mail while the car is moving, means operated by and in accordance with the movement of the car for operating said receiving means, and a trip along the track for connecting said operating means with said receiving means.

69. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means for opening said door, means, including speed-reduction gearing, operated by and in accordance with the movement of the car for operating said door opening means, and a trip along the track for connecting said operating means with said door opening means.

70. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means for opening said door, means for discharging mail bags through the doorway, means operated by and in accordance with the movement of the car for operating said door opening means, and said discharging means, and a trip along the track for connecting said operating means with said door opening means and said discharging means.

71. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means for opening said door, means carried by the car for receiving mail bags and delivering the same through said doorway into the car, means operated by and in accordance with the movement of the car for operating said door opening means and said bag receiving means, and a trip along the track for connecting said operating means with said door opening means and said bag receiving means.

72. In a mail exchange apparatus, the combination with a mail car, of means for discharging mail bags from the car, mail bag receiving means carried by the car, means operated by and in accordance with the movement of the car for operating said bag discharging and receiving means, and a trip along the track for connecting said operating means with said discharging means and said receiving means.

73. In a mail exchange apparatus, the combination with a mail car having a doorway, of a door for said doorway, means for opening the door, means for discharging mail bags through said doorway, mail bag receiving means, means operated by and in accordance with the movement of the car for operating said door opening, said bag discharging and bag receiving means, and a trip along the track for connecting said operating means with said door opening means and said bag discharging and bag receiving means.

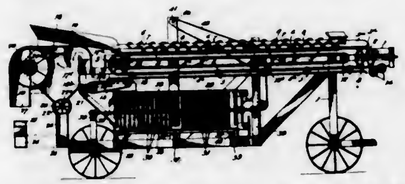
74. In combination with a car having a door, means for opening the door and for receiving and discharging mail through the door, gearing driven by an axle of the car, and means, adapted to be actuated by a trip, for operatively connecting said gearing and said first-mentioned means.

75. In combination with a car and its trucks, means

carried by the car for automatically receiving and discharging mail, gearing carried by the car on the under side thereof for operating said means, gearing driven by one of the truck axles, and a shaft having universal joints therein and operatively connecting the axle gearing with the gearing on the car.

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13,717. PEANUT-PICKER. THOMAS M. LILLISTON, Suffolk, Va., assignor to National Machine Corporation, Suffolk, Va. Filed Feb. 10, 1914. Serial No. 817,795. Original No. 1,017,570, dated Feb. 13, 1912, Serial No. 628,692. (Cl. 130—30.)



1. In a machine of the character described, an endless slat conveyer having transverse rows of picker pins, transverse rows of picker pins located above said endless conveyer and coöperating with the picker pins on the endless conveyer, a wire netting beneath the upper run of said conveyer, an endless belt located within the endless conveyer and movable in the opposite direction, and a second endless belt located adjacent to one end of the first named belt and adapted to receive the peanuts from the first named belt.

2. In a machine of the character described, an endless slat conveyer having transverse rows of picker pins, transverse rows of picker pins located above said endless conveyer and coöperating with the picker pins on the endless conveyer, an endless belt located within the conveyer and movable in the opposite direction, a wire netting between said conveyer and said belt, a second endless belt located adjacent to one end of the first named belt for receiving peanuts from the first named belt, and an inclined chute adjacent to one end of said last named belt.

3. In a machine of the character described, an endless conveyer having transverse rows of picker pins, stationary transverse rows of picker pins above said conveyer, longitudinal undulating wires located above said endless conveyer and coöperating with the picker pins thereon, and a wire netting beneath the upper run of said conveyer.

4. In a peanut picker in combination, a stationary picking screen, spring fingers tending to press the peanut vines against the picking screen, a conveyer having slats to carry the vines over the picking screen, and supporting means for said conveyer slats, said supporting means including tracks mounted adjacent the edges of said picking screens, and wheels carried by said slats and constructed to run on said tracks.

5. In a peanut picker in combination, a relatively long stationary picking screen, resilient spring fingers mounted above said picking screen and tending to spread the vines laterally over the screen, a conveyer including side chains and cross slats to drag the vines over said picking screen and under the spring fingers, and guard boards extending lengthwise on each side of said screen and between said spring fingers and said side chains to prevent the vines being spread over on and being caught by said side chains.

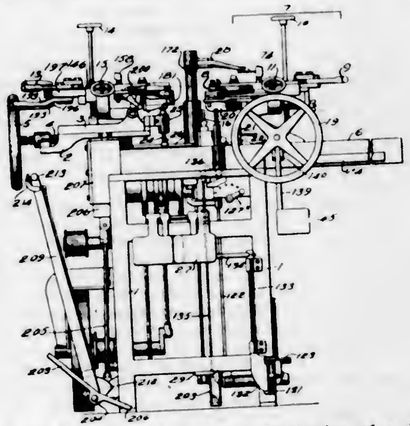
6. In a peanut picker in combination, means to separate the nuts from the vines, an upper endless belt to receive the nuts, a lower endless belt beneath the delivery end of the upper belt, said belts being arranged to provide a space through which the peanuts fall freely in being transferred from the upper belt to the lower belt; and a suction passageway arranged over said lower belt adjacent where the peanuts fall on said lower belt.

7. In a peanut picker in combination, a picking screen, a feed trough to direct vines to said picking screen, a suction mechanism having a suction opening relatively near the place where the vines enter upon the picking screen, means to spread and stir the vines, said means including a conveyer to drag the vines over the picking screen and away from said suction opening, and means to convey the peanuts toward and beneath the suction opening.

8. In a peanut picker in combination, mechanism to pick the peanuts from the vines, means to receive the peanuts from the picking mechanism, an endless apron upon which said peanuts are dropped by said receiving means, the discharge end of said endless apron passing over a roller located partly beneath the lower end of a vertical passageway, and means to maintain a partial vacuum in said passageway to provide an upward current of air through which the peanuts fall when discharged from said apron.

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13,718. LASTING-MACHINE. THOMAS G. PLANT, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 9, 1912. Serial No. 689,697. Original No. 958,280, dated May 17, 1910, Serial No. 455,159. (Cl. 12—14.)



1. In a lasting machine, the combination of a last support, end wipers, auxiliary lasting devices movable into operative position for engaging the work in front of the wipers, and means for guiding the auxiliary lasting devices into engagement with the work as they are moved into operative position.

2. In a lasting machine, the combination of a last support, end wipers, side auxiliary lasting devices for engaging the work in front of the wipers, means for adjusting a wiper toward and from the center of the last and for correspondingly adjusting the associated auxiliary lasting device.

3. In a lasting machine, the combination of a last support, wiper carriers, end wipers associated therewith, side grippers for positively engaging the work in front of the wipers, means for adjusting a wiper with relation to its carrier and for correspondingly adjusting the associated gripper.

4. In a lasting machine, the combination of a last support, end wipers, side grippers and end grippers extending across the end of the shoe, said grippers being adapted to positively engage the work in advance of the wiper edges, and means for causing closing and opening movements of the wipers and side and end grippers over the shoe sole.

5. In a bed lasting machine, the combination of a last support, end wipers, side grippers and end grippers extending across the end of the shoe, said grippers being adapted to engage the work in advance of the wiper edges, and means to move said grippers inwardly over a shoe sole simultaneously with and immediately in advance of the acting edges of said wipers.



6. In a lasting machine, the combination of a last support, end wipers, grippers for positively engaging the work in front of the wipers, arms carrying said grippers, means permitting adjustment of the grippers on said arms and means for moving the wipers and grippers over the sole of a shoe sustained by said support.

7. In a lasting machine, the combination of a last support, end wipers, grippers having teeth for positively engaging the work in front of the wipers and means permitting adjustment of the grippers to regulate the penetration of said teeth.

8. In a lasting machine, the combination of a last support, wiper carriers, end wipers associated therewith, side grippers for positively engaging the work in front of the wipers, a gripper carrier for swinging the grippers into and out of operative position, means for adjusting an end wiper with respect to its carrier toward and from the center of the last, and means controlled by said adjusting means to correspondingly adjust the associated gripper when said grippers are moved into operative position.

9. In a lasting machine, a last support, end wipers, side grippers and a plurality of end grippers extending across the end of the shoe, said grippers being adapted to engage the outside of the work and movable with and in front of the wipers in their closing or wiping movements.

10. In a lasting machine, the combination of a last support, end wipers, grippers for positively engaging the work on the same side as and in front of the wipers, said wipers and grippers constituting lasting devices, and means associated with the grippers to engage the insole and level it with respect to the lasting devices.

11. In a lasting machine, the combination of a last support, end wipers, a gripper carrier and grippers mounted thereon, and adapted to engage the work in front of the wipers, said wipers and grippers constituting lasting devices, and adjustable means carried by the gripper carrier to engage the insole of a shoe sustained on said support and position it with respect to the lasting devices.

12. In a lasting machine, the combination of a last support, end wipers, a gripper carrier having grippers and a foot mounted thereon to swing together toward and from the last support said grippers engaging the work in front of the wipers, said foot engaging the insole between the grippers, and means to force said foot downward to position the work after the grippers and foot have been swung into operative relation therewith.

13. In a bed lasting machine, the combination with wiper carriers, means to impart a combined advancing and closing movement to the carriers, of wiper plates supported by the wiper carriers, a locking pin mounted to swing on each end wiper carrier and engaging a wiper plate for adjusting the plate on the carrier relative to the line of advance and a handle for swinging each locking pin.

14. In a bed lasting machine, the combination with wiper carriers, means to impart a combined advancing and closing movement thereto, wiper plates carried by said wiper carriers, a locking pin mounted to swing on each wiper carrier and engaging a wiper plate for adjusting the plate on the carrier about a center substantially coincident with the center of opening and closing movement of the wiper carriers, and a handle for operating each locking pin.

15. In a bed lasting machine, the combination with wiper carriers, of wiper plates thereon, means for locating said plates on said carriers comprising slots curved from a center coincident with the center of opening and closing movement of the wiper plates and slot engaging pins by which the plates have sliding adjustment upon the carriers, and means for adjustably holding the said plates by said locating means.

16. In a lasting machine, the combination with a wiper carrier, of a wiper plate removably secured thereto, and a clamping member having a recessed edge to engage the adjacent edge of the wiper plate to removably hold the plate on the carrier.

17. A lasting machine having a wiper carrier, a wiper removably connected thereto, and a clamp for engaging the exterior edge portion of the wiper for retaining it on the carrier, said clamp and wiper having correspondingly beveled engaging edge portions.

18. In a lasting machine, the combination of a heel lasting carriage, a last support, an inclined rest for said support and having a longitudinally extending flange, means for causing relative longitudinal movement between the inclined rest and last support, and an elevating rod adapted to engage said longitudinally extending flange.

19. In a lasting machine, the combination of a heel lasting carriage, a last support, an inclined rest for said support and having a longitudinally extending flange, means for causing relative longitudinal movement between the inclined rest and last support, an elevating rod adapted to engage said longitudinally extending flange, and ratchet and pawl means for locking the elevating rod.

20. In a lasting machine, the combination of a last support, end wipers, means for operating the wipers, and separate means disposed one at each side of the last support for pressing the work against the end wipers to increase the effective wiping action of the wipers as they pass beneath said means.

21. In a lasting machine, the combination of a last support, end wipers, means for operating the wipers, and yielding means comprising auxiliary lasting members, one coöperating with each end wiper at opposite sides of the last support for pressing the work against the end wipers to increase the effective wiping action of the wipers as they pass beneath said means.

22. In a lasting machine, the combination of a last support, end wipers, means for operating the wipers, and auxiliary lasting members one for each wiper for pressing the work against the end wipers to increase the effective wiping action of the wipers as they pass beneath said means, said auxiliary lasting members having a beveled or sloping edge to permit the wipers to wedge beneath the auxiliary lasting devices as they move inward.

23. In a lasting machine, the combination of a last support, end wipers, means for operating said wipers, and auxiliary side lasting devices, one for each end wiper, said auxiliary lasting devices having friction engaging faces to engage the material of the upper and hold it upon the end wipers, and means to permit movement of the auxiliary lasting devices with the respective end wipers as they move inward.

24. In a lasting machine, the combination of a last support, end wipers, means for operating said end wipers, separate and independently movable auxiliary lasting members coöperating with said wipers at the side of the shoe to hold the material upon said wipers, and means permitting the auxiliary lasting devices to be adjusted to aline with the shoe.

25. In a lasting machine, the combination of a last support, end wipers, means for operating the end wipers, separate auxiliary lasting members coöperating with each of said wipers at the side portions of the shoe to hold the material upon said wipers as they move inward, and supporting means for said auxiliary lasting members to permit them to be moved independently by the end wipers during the wiping action.

26. In a lasting machine, the combination of a last support, side wiping means for wiping the upper material of a shoe inward, separate auxiliary lasting members for said wiping means to hold the material upon the wiping means during the wiping action, and a head carrying said separate auxiliary lasting members and mounted to swing said auxiliary lasting members into and out of operative position with respect to the wiping means.

27. In a lasting machine, the combination of a last support, wiping means for wiping the upper material of a shoe inward, auxiliary lasting members mounted to contact with the upper material and hold the same against the wiping means, and means for adjusting the auxiliary lasting devices toward and from the center of the shoe sole sustained by said last support.

28. In a lasting machine, the combination of last supporting means, wiping means for wiping the upper material of a shoe inward, independently movable auxiliary lasting members, arms carrying said members, and means

for independently adjusting the arms to move said members relatively inward.

29. In a lasting machine, the combination of a last support, end wipers, and a hold down comprising pivotally mounted bearing arms each carrying an insole engaging member, and means normally acting to separate said members.

30. In a lasting machine, the combination of a last support, end wipers, and a hold down comprising bearing arms each carrying an insole engaging member loosely mounted thereon, and means normally acting to separate said members.

31. In a lasting machine, the combination of a swinging arm, a hold down arm jointed thereto and carrying bearing arms, and a loosely sustained sole engaging member carried by each of said bearing arms.

32. In a lasting machine, the combination of a swinging arm, a hold-down arm jointed thereto and carrying bearing arms, and a sole engaging member carried by each of said bearing arms, said sole engaging members being conformable to the sole of the shoe being lasted.

33. In a lasting machine, the combination of last supporting means, wiper means, a hold down arm carrying bearing arms, a sole engaging member carried by each of said bearing arms, and adapted to swing with relation thereto, and stops to maintain said members in alinement with the general longitudinal direction of a shoe sole sustained by the supporting means.

34. In a lasting machine, the combination of a last support, end wipers, a flexible member adapted to conform to the shape of the shoe at the end thereof, a facing pad for said flexible member, supporting fingers for said flexible member and pad, depending supports carried by the supporting fingers, and means connected to the pad for detachably engaging said supports.

35. In a lasting machine, the combination of a last support, wiping means for wiping the upper material of a shoe inward, a pad for engaging the end portion of a shoe sustained by said support, means for moving the wipers and pad upward about the shoe in drawing the upper to the last, and manually controlled means for bodily adjusting the position of said pad with relation to the wiping means in a direction longitudinally of the shoe to adjust the same for different lengths thereof.

36. In a lasting machine, the combination of last supporting means, wiping means for wiping the upper material of a shoe inward, a flexibly sustained pad for engaging the end portion of a shoe sustained by said support, means for moving the pad upward about the shoe in drawing the upper to the last, a bar for centrally supporting said pad, and means for adjusting said central supporting bar in a direction longitudinally of a shoe sustained by said supporting means to position the pad longitudinally for different lengths of shoes.

37. In a lasting machine, the combination of last supporting means, wiping means for wiping the upper material of a shoe inward, a flexibly sustained pad for engaging and conforming to the end portion of a shoe sustained by said support, a rack bar for supporting said pad, a pinion engaging the rack bar, and hand operated means for operating the pinion to position the pad longitudinally with relation to the wiping means for different lengths of shoes.

38. In a bed lasting machine, the combination with a heel lasting head, and last supporting means, of heel lasting wipers and auxiliary lasting devices or grippers on said head, and means for adjusting the wipers and grippers on the head for use with rights or lefts.

39. In a bed lasting machine, the combination with wiper carriers, wiper plates, means for locating the plates upon the carriers, comprising inter-engaged curved wall portions through which the plates have sliding adjustment upon the carriers, and means for moving and for holding each plate in its selected position of adjustment, comprising a coöperating slot and locking pin, one upon the plate and the other upon the carrier.

40. In a lasting machine, the combination with a last support, a pair of wipers and coöperating grippers, means to advance and close the same, and means to adjust one wiper with relation to the other to start its closing movement near the center line of advance, and means to correspondingly determine the path of the gripper movement.

41. A lasting machine having a last support, end wipers, and positive work-engaging means for the heel, positive work-enagging means for the side, and means to advance the heel engaging means relatively to the side engaging means.

42. A lasting machine having a lasting head, wiping means, pivoted work-engaging devices mounted on the lasting head, means to advance the wiping means relatively to the work-engaging devices and simultaneously to cause movement of the latter about the pivots on the lasting head.

43. A lasting machine having wiping means, positive work-engaging means, and projecting devices on the wiping means to cause closing-in movement of the work-engaging means.

44. A lasting machine having wiping means, work-engaging means adapted to be moved simultaneously with said wiping means, and means for adjusting the work-engaging means for rights or lefts.

45. In a lasting machine, shoe supporting means, end wipers, a pad having end supports for the same, and wedge equalizing means for differentially moving said supports.

46. In a lasting machine, shoe supporting means, end wipers, a pad, pivoted end supports, means to advance said supports, and means also to move said supports with their pivots yieldingly and differentially toward or away from the pad.

47. In a lasting machine, shoe supporting means, end wipers, a pad, slide bars for supporting the end of the pad, means to advance said slide bars, and means automatically conformable to the shape of the last to swing said slide bars toward or away from the pad.

48. In a lasting machine, shoe supporting means, end wipers, a hold down, means to exert a pressure on the last toward the wipers, means to release the hold down, and means simultaneously to relieve the pressure on the last.

49. In a lasting machine, a longitudinally movable lasting head, a hand wheel on the head for positioning the last, a ratchet and pawl for locking the hand wheel, a depending pawl releasing lever, and a cam on the machine frame for actuating the releasing lever.

50. In a lasting machine, the combination with a last support and end wiping means to wipe the upper material inward, of means independently movable with and by each of the wipers to increase the frictional hold thereof upon the stock during the wiping action.

51. In a lasting machine, the combination with wiping means at each side of the shoe end portion, of pivoted and independently movable work-engaging means coacting with the wiping means at each side of the shoe to pinch the stock against the wiping means, said work-engaging means being movable with and by the wiping means.

52. In a lasting machine, the combination with a pad, of pad supporting means having means for supporting the pad thereon while permitting free longitudinal withdrawal of the pad.

53. In a lasting machine, the combination with a toe lasting head, of a toe pad, toe lasting wipers, and means for longitudinally adjusting the toe pad independently of the wipers.

54. In a lasting machine, the combination of a last support, end wipers to wipe the upper material inward, auxiliary lasting devices, carriers for said devices on which said devices are adjustably mounted, and means to permit the said devices to engage the upper material in front of the wipers and be moved inward by the wiper movement.

55. In a lasting machine, the combination of a last support, end wipers, levers for adjusting the end wipers, auxiliary lasting devices, means connected to said levers for positioning the auxiliary lasting devices as they are moved into operative position, and means to move the wipers and auxiliary lasting devices inward.

56. In a lasting machine, the combination of a lasting carriage, a wiper carrying support, a saddle or intermediate support pivotally connecting the lasting carriage and wiper carrying support, segmental guides sustained by said saddle or intermediate support, complemental portions connected to the wiper carrying support and engaging said segmental guides, a sliding rack block having operative engagement with the wiper carrying support, and means for sliding said block.

57. In a lasting machine, a shoe support, a head, wipers on said head for acting at each side of the end of the shoe to lay the upper over the sole, a pad carried by the head and having pivoted end supports, slidable members carrying said end supports, means to advance and swing said end supports, separate means for operating the wipers, and means for raising the head while the pad is in contact with the shoe.

58. In a bed lasting machine, the combination of a head, end wiper plates carried by the head, a flexible pad also carried by the head, independent hand levers for operating the wiper plates and closing the pad about the end of a shoe, means for tilting the head longitudinally and transversely to properly position the wiper plates and pad with respect to the bottom surface of the last, and means for raising the head bodily and with it the pad and wipers when the pad is closed against the end of the shoe and for bodily lowering the head.

59. In a bed lasting machine, the combination of a base, a lasting carriage thereon, a wiper carrying support carrying wiper plates, shoe supporting means, a saddle pivotally connecting the lasting carriage and wiper carrying support, and an interlocking arc-shaped rib and groove connection located between the lasting carriage and wiper carrying support to permit lateral rocking movement of the wiper carrying support and direct that movement about an axis extending lengthwise of the shoe and located substantially in the plane of the bottom face thereof, one member of said interlocking arc-shaped rib and groove connection being mounted on the pivotally supported saddle which connects the lasting carriage and wiper carrying support, and the other on the wiper carrying support.

60. In a bed lasting machine, the combination of a base, a lasting carriage thereon, a wiper carrying support carrying wiper plates, shoe supporting means, a saddle pivotally connecting the lasting carriage and wiper carrying support, an interlocking arc-shaped rib and groove connection located between the lasting carriage and wiper carrying support to permit lateral rocking movement of the wiper carrying support and direct that movement about an axis extending lengthwise of the shoe and located substantially in the plane of the bottom face thereof, one member of said interlocking arc-shaped rib and groove connection being mounted on the pivotally supported saddle which connects the lasting carriage and wiper carrying support, and the other on the wiper carrying support, and an adjusting device carried by the saddle for tilting the wiper carrying support.

61. In a bed lasting machine, the combination of a base, a lasting carriage thereon, a wiper carrying support carrying wiper plates, shoe supporting means, a saddle pivotally connecting the lasting carriage and wiper carrying support, and an interlocking arc-shaped rib and groove connection located between the lasting carriage and wiper carrying support to permit lateral rocking movement of the wiper carrying support and direct that movement about an axis extending lengthwise of the shoe and located substantially in the plane of the bottom face thereof, one of said interlocking connections being disposed adjacent the pivotal point of the saddle and the other near the other end of the saddle, and one member of each of said interlocking connections being mounted on the saddle and the other on the wiper carrying support.

62. In a bed lasting machine, the combination of a lasting head carrying end wipers and a pad, treadle means for raising the head to cause the wipers to lay the upper about the end of the last and to lower the head to cause the wipers to act close to the plane of the bottom of the last in laying the edge of the upper over the last, and additional means to powerfully depress the head while the wipers are over the bottom of the last to lay the stock flat.



63. In a lasting machine, the combination of a lasting head carrying end wipers and a pad, treadle means for raising the head to cause the wipers to lay the upper about the end of the last and to lower the head to cause the wipers to act close to the plane of the bottom of the last in laying the edge of the upper over the last, and a hand lever additional thereto for powerfully depressing the wipers onto the bottom of the last.

64. In a bed lasting machine, the combination of a toe lasting head, toe wipers carried by said head to wipe the upper over the toe end of the last, means for bodily raising and lowering the head to position the wipers with respect to the bottom of the last that they may properly wipe the upper thereover, and additional means for depressing the wipers onto the bottom of the last after the wiping action.

65. In a bed lasting machine, the combination of a toe lasting head, toe wipers carried by said head to wipe the upper over the toe end of the last, means for tilting the head to bring the wipers substantially into the plane of the last bottom, means for bodily raising and lowering the head to position the wipers with respect to the bottom of the last that they may properly wipe the upper thereover, and additional means for depressing the wipers onto the bottom of the last after the wiping action.

66. In a bed lasting machine, the combination of a toe lasting head, toe wipers carried by said head to wipe the upper over the toe end of the last, a treadle, connections between the treadle and head for raising and lowering the head to position the wipers for the wiping action, and a hand lever for giving an additional depression to the head to lay the stock upon the insole and crease the upper over the edge of the insole.

67. In a bed lasting machine, the combination of a vertically movable wiper carrying member, means for raising the member, and other means for depressing said member, said other means being adapted for the application of greater force than the first named means.

68. In a bed lasting machine, the combination of wipers for acting at the end portions of a shoe to wipe the upper over the insole, depressing means adapted to be actuated simultaneously with the closing-in movement of the wipers, and other wiper depressing means of augmented force to cause the wipers to act upon the stock after the application of the fastenings.

69. In a bed lasting machine, the combination of wipers to act upon the end portion of a shoe and wipe the upper over the insole, foot lever elevating and depressing means for the wipers, and means other than the foot lever means, for depressing the wipers with augmented force.

70. In a bed lasting machine, the combination, with a movable lasting head, of means for positioning it for the lasting operation, a last support thereon, last positioning and heel band clasping means adapted to be locked for the lasting operation, means automatically to release said positioning and clasping means as the head returns from lasting position, and means also to effect release of the clasping means independent of the position of the head.

71. In a lasting machine, the combination of shoe positioning means, a pad having movable ends for clasping the pad about the end portion of a shoe, and inward movement controlling means for the ends of the pad comprising a wedge which is automatically movable transversely of the machine to equalize the pad end closing pressure.

72. In a lasting machine, the combination with a shoe support, a pad to act upon the end of a shoe, supports for the ends of the pad, and transversely movable wedging means to cause said supports to conform the pad to the end of the shoe.

73. In a lasting machine, shoe supporting means, an end embracing pad, slide bars movable endwise to advance the pad ends and movable angularly to close the pad ends against the sides of the last, means to advance the slide bars, and a wedge which is advanced between the bars to move them angularly and is movable transversely of the machine to equalize the band closing pressure at the two sides of the shoe.

74. In a lasting machine, shoe supporting means, an end embracing pad, slide bars movable endwise to advance

the pad ends and movable angularly to close the pad ends against the sides of the last, and actuating means comprising a cross-bar having a stud and a slot connection with the ends of the slide bars and a wedge acting by its inclined faces to separate the rear ends of the slide bars when the cross-bar is advanced.

75. In a lasting machine, shoe supporting means, an end embracing pad, slide bars movable endwise to advance the pad ends and movable angularly to close the pad ends against the sides of the last, guiding blocks upon which said slide bars are mounted to slide, arms for turning the guide blocks and effecting the angular movement of the slide bars, and means for moving the slide bars endwise on their guide blocks and turning said guide blocks in inverse proportion to the resistance to closing movement of the ends of the pad.

76. In a bed lasting machine, the combination with wiper carriers, means to impart a combined advancing and closing movement to the wiper carriers, of wiper plates supported by the wiper carriers, said wiper plates being simultaneously advanced and swung inwardly together by said means, and a lever operatively connected with a wiper plate by which it may be swung independently of the other wiper plate.

77. In a bed lasting machine, the combination with wiper carriers, means to impart a combined advancing and closing movement to the wiper carriers, of wiper plates supported by the wiper carriers, said wiper plates being simultaneously advanced and swung inwardly together by said means, a lever operatively connected with a wiper plate by which it may be swung independently of the other wiper plate, and holding means for maintaining the wiper plate in the position to which it may be swung.

78. In a lasting machine, the combination of a wiper carrier, of a wiper plate removably secured thereto, said wiper carrier and wiper plate having engaging edge portions permitting the wiper plate to be removably secured to the wiper carrier with either surface uppermost, and a clamping member for detachably securing the wiper plate to the wiper carrier either side up.

79. In a lasting machine, the combination of a shoe support, end wipers, means for operating the wipers to lay the upper material over the sole of a shoe to be lasted, and means acting to press the work against the wipers at the sides of the toe adjacent the tip seam to render the wiping action of the wipers more effective at the sides than at the end of the toe.

80. In a lasting machine, the combination of a last support, end wipers for laying the upper over the insole, and a hold down, comprising a hold down arm, means for engaging the insole of the shoe to be lasted, and bearing arms on the hold down arm and sustaining said means beneath the hold down arm to permit the latter to engage said means.

81. In a lasting machine, the combination of a last support, wipers for laying the upper over the insole, and a hold down, said hold down comprising a swinging arm, a hold down arm jointed thereto, insole engaging means, and arms jointed to the hold down arm for sustaining said insole engaging means beneath the hold down arm.

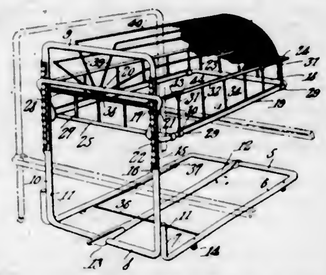
82. In a lasting machine, the combination of a shoe support, end wipers, means for operating the wipers to lay the upper material over the sole of a shoe to be lasted, and means coöperating with the end portions of the wipers to increase the efficiency of their lasting action adjacent the tip seam relatively to their action at the end of the toe.

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13,719. BED. ARTHUR KENNON TAYLOR, Jacksonville, Fla., assignor to Taylor Nursery Baby Bed Company, Jacksonville, Fla., a Corporation of Florida. Filed Oct. 29, 1909. Serial No. 525,392. Original No. 928,821, dated July 20, 1909, Serial No. 464,259. (Cl. 5—59.)

1. In a device of the class described, a foldable supporting member having a rack portion, and a crib having one of its end rails engaged adjustably with the rack.

2. In a device of the class described, a foldable supporting member having crib holding means arranged at different longitudinal points thereon, and a crib having one of its rails engaged adjustably with the crib holding means of the supporting member.



3. In a device of the class described, a base frame, a supporting frame hinged to the base frame, and adapted to be swung to extend vertically thereabove, the axis of the supporting frame being intermediate its upper and lower ends, means hinged to the base frame and engageable with the supporting frame below its axis for holding the same in raised position, and a crib supported by said supporting frame.

4. In a device of the class described, a base frame, a supporting frame hinged to the base frame, and adapted to be swung to extend vertically thereabove, a latch bar pivoted to the base frame and engageable with the supporting frame for holding the latter in raised position, and a crib supported by said supporting frame.

5. In a device of the class described, a foldable supporting frame including stiles of rack formation, and a crib having an end formed to receive and grip said rack stiles for supporting the crib upon the frame.

6. In a device of the class described, a base frame, a supporting frame hinged to the base frame and adapted to be swung to extend vertically thereabove, a crib supported at one end from said supporting frame, and a support upon the base frame adapted to be swung vertically to support the other end of said crib.

7. In a device of the class described, a portable self-sustaining, supporting frame, and a crib having one of its sides engaged directly and adjustably with said supporting frame, said frame being foldable on an axis parallel with that side of said crib which is connected directly with said frame.

8. In a device of the class described, a base, a rectangular frame rising from one end of said base, and a crib having a rectangular frame, one end of which is bent upward and provided with portions engaging opposite sides of said support at different levels, whereby to lock said crib on said support by gravity.

9. In a device of the class described, a crib, and a support for the same having an extended base, the support being foldable toward the base into spaced relation thereto with the crib interposed.

10. In a device of the class described, a crib, and a support for the same having a base extending to one side of the said support, the latter being hinged or jointed to fold toward the base into spaced and substantially parallel relation thereto with the crib interposed.

11. In a device of the class described, a crib, and a support for the same having an extended base of substantially the arm of the crib and adapted to receive the same, the support being foldable toward the base into spaced relation thereto with the crib interposed.

12. A portable child's crib structure comprising a crib and a support therefor on which the crib is adjustable to different heights, said support sustaining the crib at one end of the latter and being provided with an extended base, the base and support being hinged or pivoted together on an axis above the plane of the base and the support being foldable toward the base about the hinge or pivot connection into substantially parallel spaced relation thereto with the crib interposed.



13. In a device of the class described, a crib and a support therefor embraced by one end of the crib and along which the latter is adjustable, said support being provided with an extended base underriding the crib and adapted to receive the latter when in its lowermost position, the support being hinged or pivoted to the base and movable into parallel spaced relation with the latter with the crib interposed when said crib is resting on the base.

14. In a device of the class described, a crib and a support therefor embraced by one end of the crib and along which the latter is adjustable, said support being provided with an extended base underriding the crib and adapted to receive the latter when in its lowermost position, the support being hinged or pivoted to the base and movable into parallel spaced relation with the latter with the crib interposed when said crib is resting on the base and without disconnecting the support and corresponding crib-end.

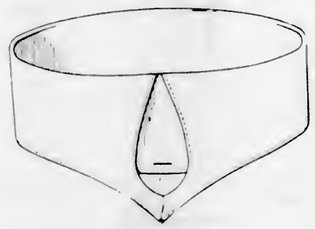
15. A device of the class described comprising a base, a support connected with the base and adapted to be moved into horizontal or upright position with relation to the base, and a crib adjustably connected with the support at one end, the base, support, and crib being of substantially the same size and being adapted to be stored flat upon each other.

16. A device of the class described comprising a base having uprights at one end, a crib of substantially the same size as the base, the depth of the crib being substantially equal to the height of said uprights, and a support connected with said uprights and adapted adjustably to support one end of said crib.

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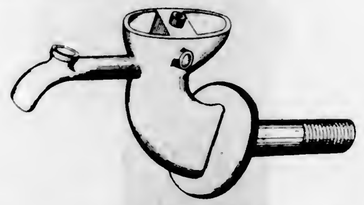
# DESIGNS.

45,611. COLLAR. HERMANN ALMAKER, New York, N. Y. Filed Feb. 27, 1914. Serial No. 821,585. Term of patent 7 years.



The ornamental design for a collar, as shown.

45,612. FAUCET-BRACKET FOR ELECTRICAL WATER-HEATERS. ROBERT A. BOWER, San Francisco, Cal. Filed Feb. 9, 1914. Serial No. 817,703. Term of patent 14 years.



The ornamental design for a faucet bracket for electrical water heaters, as shown.

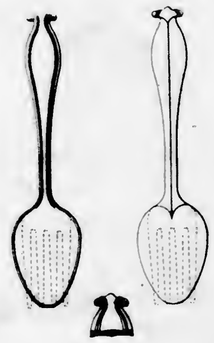


45,613. ARTIFICIAL-LIGHT INCLOSURE. CARL A. BROWN, Fostoria, Ohio, assignor to General Electric Company, a Corporation of New York. Filed Aug. 7, 1913. Serial No. 783,626. Term of patent 3½ years.



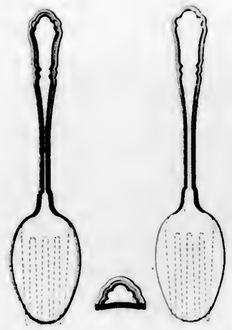
The ornamental design for an artificial light inclosure as shown.

45,614. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM C. CODMAN, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 25, 1914. Serial No. 821,005. Term of patent 14 years.



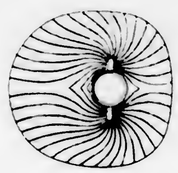
The ornamental design for a handle for spoons, forks or similar articles, as shown.

45,615. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM C. CODMAN, Providence, R. I., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 25, 1914. Serial No. 821,010. Term of patent 14 years.



The ornamental design for a handle for spoons, forks or similar articles, as shown.

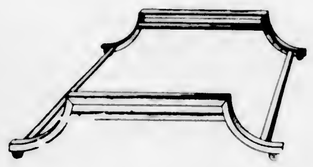
45,616. REFLECTOR. JAMES R. CRAVATH, Chicago, Ill., assignor to National X-Ray Reflector Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1914. Serial No. 818,414. Term of patent 7 years.





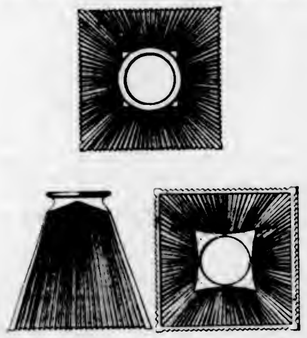
The ornamental design for a reflector as shown.

45,617. BEDSTEAD. WILLIAM J. CURTIS, Philadelphia, Pa. Filed Feb. 11, 1914. Serial No. 818,168. Term of patent 7 years.



The ornamental design for a bedstead as shown.

45,618. REFLECTOR OR SIMILAR ARTICLE. WILLIAM A. DOREY, Newark, Ohio, assignor to The Holophane Glass Co., of New York. Filed Sept. 16, 1907. Serial No. 393,246. Term of patent 14 years.



The ornamental design for a reflector, or similar article, substantially as shown.

45,619. SPOON, FORK, OR SIMILAR ARTICLE. JOHN W. ELLIOTT, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Mar. 11, 1914. Serial No. 824,071. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.

45,620. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,518. Term of patent 7 years.



The ornamental design for a carpet, subetantially as shown.

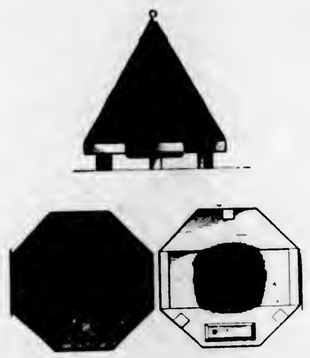


45,621. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,519. Term of patent 3½ years.



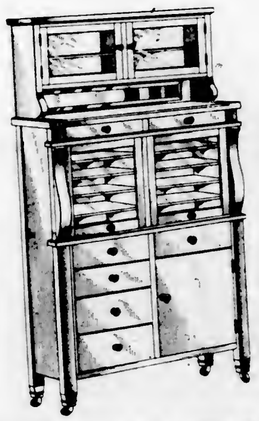
The ornamental design for a carpet, substantially as shown.

45,622. FLY-TRAP. OZRO H. GILLESPIE and VICTOR V. GILLESPIE, Madison, Nebr. Filed Nov. 28, 1913. Serial No. 803,618. Term of patent 3½ years.



The ornamental design for a fly trap, as shown.

45,623. CABINET. HARRY C. GOWRAN, Two Rivers, Wis., assignor to The Hamilton Manufacturing Company, Two Rivers, Wis., a Corporation of Wisconsin. Filed Feb. 16, 1914. Serial No. 819,120. Term of patent 7 years.



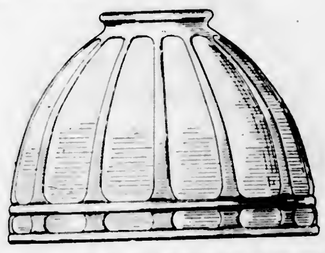
The ornamental design for a cabinet as shown.

45,624. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Apr. 21, 1913. Serial No. 762,740. Term of patent 14 years.



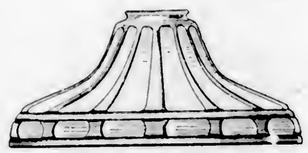
The ornamental design for a lamp shade or reflector as shown.

45,625. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Apr. 21, 1913. Serial No. 762,741. Term of patent 14 years.



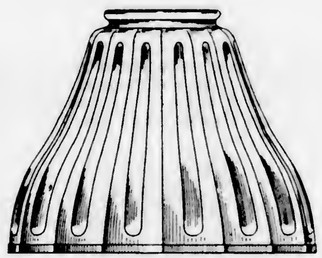
The ornamental design for a lamp shade or reflector as shown.

45,626. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Apr. 21, 1913. Serial No. 762,742. Term of patent 14 years.



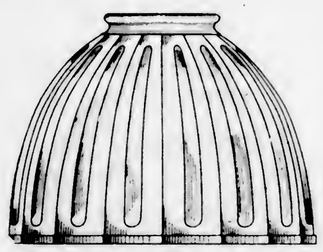
The ornamental design for a lamp shade or reflector as shown.

45,627. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Aug. 7, 1913. Serial No. 783,620. Term of patent 7 years.



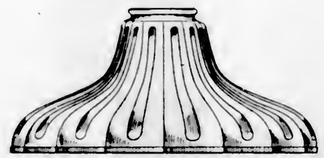
The ornamental design for a lamp shade or reflector as shown.

45,628. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Aug. 7, 1913. Serial No. 783,621. Term of patent 7 years.



The ornamental design for a lamp shade or reflector as shown.

45,629. LAMP SHADE OR REFLECTOR. FLORENCE L. GRANT and CARL A. BROWN, Fostoria, Ohio, assignors to General Electric Company, a Corporation of New York. Filed Aug. 7, 1913. Serial No. 783,622. Term of patent 7 years.



The ornamental design for a lamp shade or reflector as shown.

45,630. LENS-CLIP. FREDERICK HAMILTON, Providence, R. I. Filed May 24, 1912. Serial No. 699,567. Term of patent 14 years.





The ornamental design for a lens clip as shown and described.

45,631. BASE-BURNER. AUGUSTUS F. HARTER, Chicago, Ill., assignor to Cribben & Sexton Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 12, 1914. Serial No. 818,415. Term of patent 7 years.



The ornamental design for a base burner as shown.

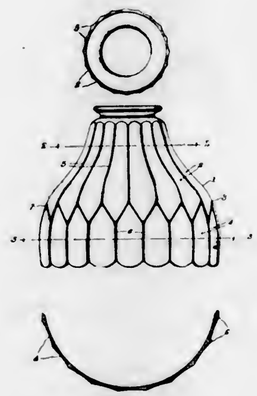


45,632. LOVING-CUP OR SIMILAR RECEPTACLE. WILLIAM H. HEAD, Hookset, N. H. Filed Feb. 7, 1914. Serial No. 817,353. Term of patent 3½ years.



The ornamental design for a loving-cup or a similar receptacle, as shown.

45,633. REFLECTOR-SHADE. JEPTHA L. HOLTON, Steubenville, Ohio, assignor to Gill Brothers Company, Steubenville, Ohio, a Corporation of West Virginia. Filed Jan. 24, 1914. Serial No. 814,248. Term of patent 7 years.



The ornamental design for a shade bowl having two series of substantially flat, meridional flutes, the upper series covering the entire surface of the shade above the hip line, the lower series covering the surface below the hip line, the flutes of the two series being alternately placed so that the lines separating the adjacent flutes of one series bisect the flutes of the other series, and the surfaces of the two sets of flutes meet in a saw-tooth line encircling the hip of the shade substantially as shown and described.

45,634. HEATING-STOVE. GEORGE W. HOWES, Dowagiac, Mich., assignor to Estate of P. D. Beckwith, Inc., Dowagiac, Mich. Filed Feb. 26, 1914. Serial No. 821,307. Term of patent 14 years.



The ornamental design for a heating stove, as shown.

45,635. GAS-LAMP. ALFRED H. HUMPHREY, New York, N. Y. Filed Mar. 13, 1914. Serial No. 824,561. Term of patent 14 years.



The ornamental design for a gas lamp, as shown.

45,636. PAPER BELL. BENZION KARFIOL, New York, N. Y. Filed Jan. 10, 1914. Serial No. 811,473. Term of patent 7 years.



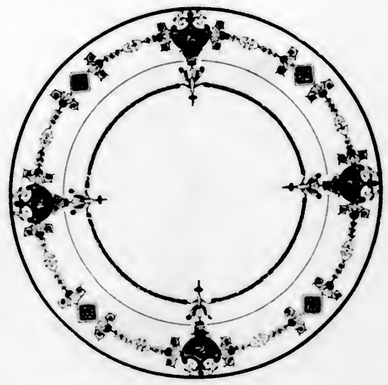
The ornamental design for a paper bell, as shown.

45,637. SPOON, FORK, OR SIMILAR ARTICLE. ALFRED G. KINTZ, Wallingford, Conn., assignor to International Silver Co., Meriden, Conn., a Corporation of New Jersey. Filed Feb. 27, 1914. Serial No. 821,583. Term of patent 7 years.



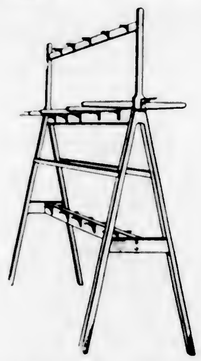
The ornamental design for a spoon, fork or similar article, as shown.

45,638. PLATE. AUGUSTUS J. KOCH, Syracuse, N. Y., assignor to Onondaga Pottery Company, Syracuse, N. Y., a Corporation. Filed Feb. 21, 1914. Serial No. 820,364. Term of patent 7 years.



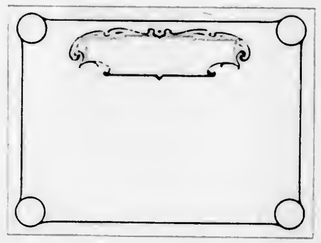
The ornamental design for a plate as shown.

45,639. HARNESS-RACK. JOHN H. LAMPE, Pocahontas, Iowa. Filed Oct. 7, 1913. Serial No. 793,955. Term of patent 7 years.



The ornamental design for a harness rack, as shown.

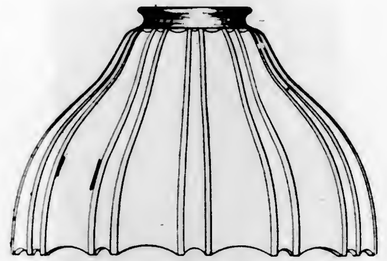
45,640. LETTER-HEAD. LOUIS SPENCER LEVY, New York, N. Y. Filed Feb. 11, 1914. Serial No. 818,164. Term of patent 7 years.

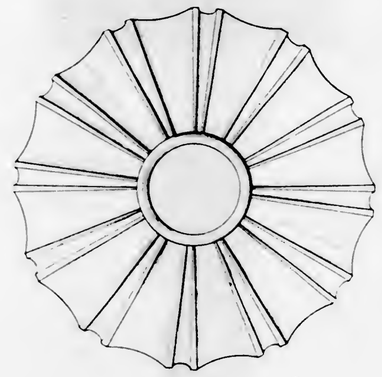


The ornamental design for a letter-head, as shown.



45,641. LAMP-SHADE. HARRY L. LISSFELT, Pittsburgh, Pa., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 28, 1914. Serial No. 821,807. Term of patent 14 years.





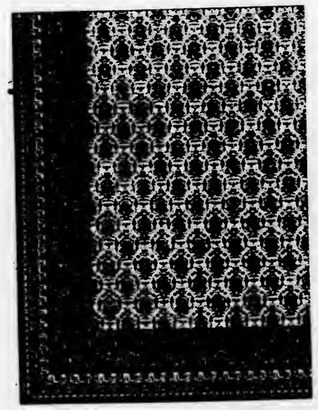
The ornamental design for a lamp shade, as shown.

45,642. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 17, 1914. Serial No. 825,415. Term of patent 7 years.



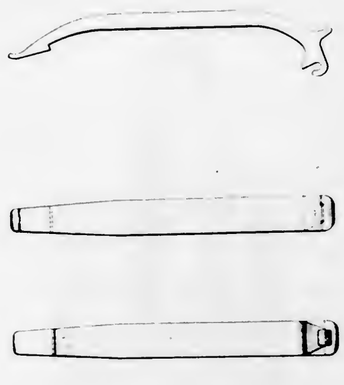
The ornamental design for a rug, substantially as shown.

45,643. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 17, 1914. Serial No. 825,416. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,644. AUTOMOBILE-TOOL. ANDRÉ JULES MICHELIN, Paris, France. Filed Nov. 3, 1913. Serial No. 799,038. Term of patent 3½ years.



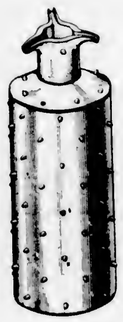
The ornamental design for an automobile tool, as shown.

45,645. SPOON, FORK, OR SIMILAR ARTICLE. BURTON D. MYERS, Wallingford, Conn., assignor to The Simeon L. and George H. Rogers Co., Wallingford, Conn., a Corporation. Filed Feb. 24, 1914. Serial No. 820,761. Term of patent 7 years.



The ornamental design for a spoon, fork or similar article, as shown.

45,646. BOTTLE. FRANK NOVAK, Chicago, Ill. Filed Mar. 4, 1914. Serial No. 822,532. Term of patent 14 years.



The ornamental design for a bottle, as shown.

45,647. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,523. Term of patent 7 years.



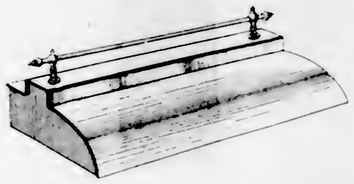
The ornamental design for a rug, substantially as shown.

45,648. WEDDING-RING. MORRIS ROSEN, New York, N. Y. Filed Feb. 9, 1914. Serial No. 817,706. Term of patent 14 years.



The ornamental design for a wedding ring, as shown and described.

45,649. GRATE-FENDER. JOSEPH M. SATTERFIELD, Bellaire, Ohio. Filed Feb. 16, 1914. Serial No. 819,123. Term of patent 14 years.



The ornamental design for a grate fender, as shown.



45,650. RUG. EMIL G. SAUER Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 17, 1914. Serial No. 825,419. Term of patent 3½ years.



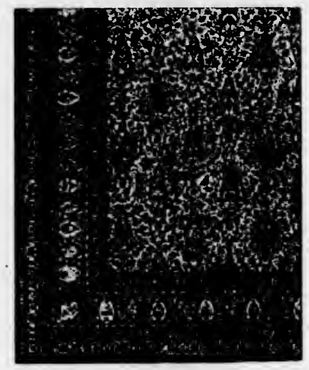
The ornamental design for a rug, substantially as shown.

45,651. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,512. Term of patent 3½ years.



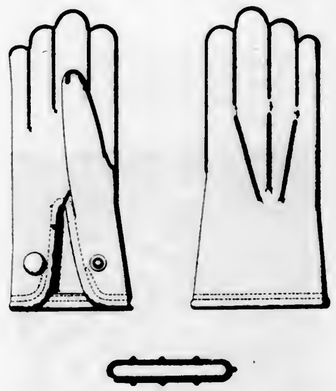
The ornamental design for a carpet, substantially as shown.

45,652. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,513. Term of patent 3½ years.



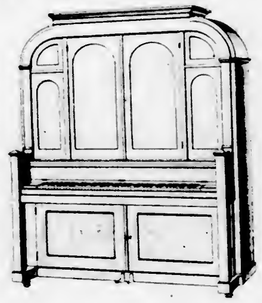
The ornamental design for a rug, substantially as shown.

45,653. CHILD'S MITTEN. CHARLES SCHNABEL, New York, N. Y. Filed Jan. 31, 1914. Serial No. 815,829. Term of patent 14 years.



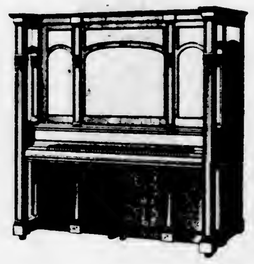
The ornamental design for a child's mitten, as shown.

45,654. ORCHESTRION-CASE. JUSTUS P. SEEBURG, Chicago, Ill. Filed Feb. 16, 1914. Serial No. 819,124. Term of patent 14 years.



The ornamental design for an orchestrion case, as shown.

45,655. ORCHESTRION-CASE. JUSTUS P. SEEBURG, Chicago, Ill. Filed Feb. 16, 1914. Serial No. 819,125. Term of patent 14 years.



The ornamental design for an orchestrion case, as shown.

45,656. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,524. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

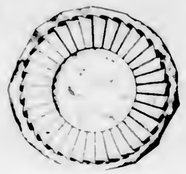
45,657. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 4, 1914. Serial No. 822,525. Term of patent 7 years.



The ornamental design for a rug, substantially as shown.

45,658. RUBBER BATHING-CAP. MABEL JOSEPHINE STEARNS, New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y., a Corporation of New York. Filed Dec. 15, 1911. Serial No. 666,070. Term of patent 7 years.





The ornamental design for a rubber bathing cap, as shown.

45,659. ARTICLE OF MANUFACTURE. CHRISTIAN STICHER, Leipzig, Germany, assignor to Rudolf Gaertner, New York, N. Y. Filed Feb. 28, 1914. Serial No. 821,811. Term of patent 3½ years.



The ornamental design for an article of manufacture, as shown.

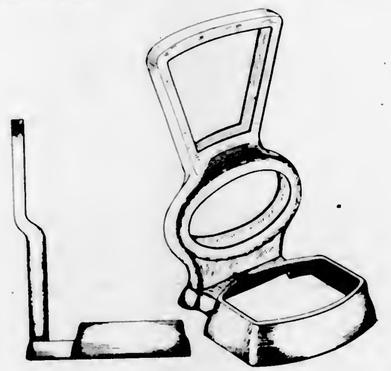


45,660. ARTICLE OF MANUFACTURE. CHRISTIAN STICHER, Leipzig, Germany, assignor to Rudolf Gaertner, New York, N. Y. Filed Feb. 28, 1914. Serial No. 821,812. Term of patent 3½ years.



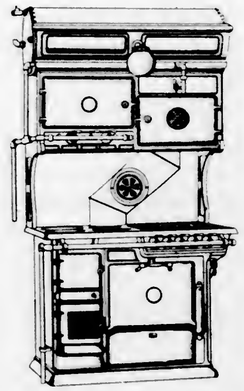
The ornamental design for an article of manufacture, as shown.

45,661. SCALE-FRAME. WALTER F. STIMPSON, Detroit, Mich., assignor to Estelle H. Stimpson, Detroit, Mich. Filed Nov. 24, 1913. Serial No. 802,834. Term of patent 14 years.



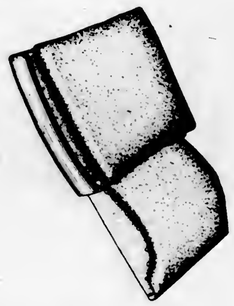
The ornamental design for a scale frame, substantially as shown.

45,662. COMBINED GAS AND COAL RANGE. JAFEW S. VAN BUREN, Albany, N. Y., assignor to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1914. Serial No. 820,362. Term of patent 14 years.



The ornamental design for a combined gas and coal range substantially as shown.

45,663. CHAIR-BACK. JERROLD F. WALTON, Sturgis, Mich. Filed Feb. 11, 1914. Serial No. 818,166. Term of patent 14 years.



The ornamental design for a chair back, as shown.

# TRADE-MARKS

## PUBLISHED APRIL 21, 1914.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 55,446. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) UNITED STATES FASTENER COMPANY, Portland, Me., and Boston, Mass. Filed Apr. 1, 1911.

**E-SOCKET**

*Particular description of goods.*—Snap-Fasteners Used as Garment-Fasteners.
*Claims use* since Jan. 1, 1899.

Ser. No. 56,973. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARDER & DE VOSS, Hamburg, Germany. Filed June 12, 1911.

**Autocrat**

*Particular description of goods.*—Macaroni, Buckwheat-Groats, Oatmeal, Dried Yeast, Soup-Tablets, Pickled Cucumbers, Vermicelli, Butter, Margarin, Cocoanut-Butter, Sardell-Butter, Condensed Milk, Dried Vegetables, Dried Fruit, Canned Vegetables, Canned Fruits, Preserved Fruits, Pea-Sausages, Sausages, Beef-Tea Cubes, Meat Extract, Canned Goose-Breasts, Goose-Liver, Canned Game, Anchovy Paste, Fish Preserves, Marinated, and Fish Preserves in Tomato Sauce.
*Claims use* since Mar. 16, 1907.

Ser. No. 58,250. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HEDDEN & EBERHARDT, New York, N. Y., assignor to Charles A. Hedden, Inc., a Corporation of New York. Filed Aug. 17, 1911.




*Particular description of goods.*—Toilet Waters, Perfumes, and Sachet-Powder.
*Claims use* since Oct. 1, 1910.

Ser. No. 59,054. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) J. FRANCIS BOORAEM, New York, N. Y. Filed Oct. 7, 1911.

**CINCH**

*Particular description of goods.*—Expansion-Bolts.
*Claims use* since Sept. 25, 1911.

Ser. No. 59,843. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WHITE PROVISION COMPANY, Atlanta, Ga. Filed Nov. 21, 1911.




*Particular description of goods.*—Hams, Bacon, and Lard.
*Claims use* since Nov. 1, 1906.

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Ser. No. 61,609. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MCCLEARY, WALLIN & CROUSE, Amsterdam, N. Y. Filed Feb. 19, 1912.

MIDLOTHIAN

*Particular description of goods.*—Textile Rugs.
*Claims use* since Nov. 15, 1911.

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Ser. No. 63,924. (CLASS 33. GLASSWARE.) GUSTAV RICHARD FISCHER, Ilmenau, Germany. Filed June 1, 1912.



Consisting of white and blue stripes of equal width, located longitudinally of the goods and made adjacent to each other, no claim being made for the tube or rod.
*Particular description of goods.*—Colorless Glass Tubes and Glass Rods.
*Claims use* since July 1, 1909.

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Ser. No. 64,176. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & CO., Prag-Wrschowitz, Austria-Hungary. Filed June 13, 1912.



The picture being fanciful.
*Particular description of goods.*—Garment-Fasteners.
*Claims use* since Mar. 27, 1912.

Ser. No. 64,177. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WALDES & CO., Prag-Wrschowitz, Austria-Hungary. Filed June 13, 1912.

GOOD BYE

*Particular description of goods.*—Snap-Buttons Used as Garment-Fasteners.
*Claims use* since the 12th of March, 1912.

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Ser. No. 64,628. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALASKA FISH CO., Seattle, Wash. Filed July 9, 1912.

SEAKETCH

*Particular description of goods.*—Canned Salmon.
*Claims use* since June 13, 1912.

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Ser. No. 65,312. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JENNEVIEVE L. WILEY, Peoria, Ill. Filed Aug. 17, 1912.

Time
Conquerer

*Particular description of goods.*—Massage Oil.
*Claims use* since about the 1st day of November, 1910.

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Ser. No. 65,761. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) U. S. SLICING MACHINE COMPANY, Chicago, Ill. Filed Sept. 16, 1912.



The same being an oval ring.
*Particular description of goods.*—Meat-Slicing Machines and Meat-Slicers.
*Claims use* since February, 1912.





Ser. No. 66,532. (CLASS 47. WINES.) D. LEIDEN G. m. b. H., Cologne-on-the-Rhine, Germany. Filed Oct. 26, 1912.




No claim being made, however, to the words "D. Leiden, Ltd. Cologne o/R. Germany."
*Particular description of goods.*—Still Wines, Sparkling Wines, and Champagne.
*Claims use* since January, 1911.

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Ser. No. 66,792. (CLASS 15. OILS AND GREASES.) INTERNATIONAL ACHESON GRAPHITE COMPANY, Niagara Falls, N. Y. Filed Nov. 9, 1912.

GRAPHCOAT

*Particular description of goods.*—A Lubricant.
*Claims use* since Oct. 4, 1912.

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Ser. No. 68,104. (CLASS 17. TOBACCO PRODUCTS.) WEYMAN-BRUTON COMPANY, New York, N. Y. Filed Jan. 24, 1913.

DUKE

PURE
SCOTCH

The word phrase "Pure Scotch" is not essential to the mark.
*Particular description of goods.*—Snuff.
*Claims use* since about Dec. 3, 1912.

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Ser. No. 68,108. (CLASS 17. TOBACCO PRODUCTS.) WEYMAN-BRUTON COMPANY, New York, N. Y. Filed Jan. 24, 1913.

SCOTCH

KING

*Particular description of goods.*—Snuff.
*Claims use* since about Jan. 5, 1913.

Ser. No. 68,177. (CLASS 35, BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE CARBONE COMPANY, INC., Albany, N. Y. Filed Jan. 29, 1913.




*Particular description of goods.*—Vehicle-Tires Composed Wholly or in Part of Rubber.
*Claims use* since Oct. 15, 1912.

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Ser. No. 68,717. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) COLGATE & CO., Jersey City, N. J., and New York, N. Y. Filed Feb. 25, 1913.



*Particular description of goods.*—Soaps and Soap Powder.
*Claims use* since the 19th day of February, 1913.

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Ser. No. 69,151. (CLASS 17. TOBACCO PRODUCTS.) COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain. Filed Mar. 18, 1913.




*Particular description of goods.*—Cigars, Cigarettes, Leaf-Tobacco, and Snuff.
*Claims use* since Mar. 1, 1912.

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Ser. No. 69,268. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) TAYLOR INSTRUMENT COMPANIES, Rochester, N. Y. Filed Mar. 22, 1913.

LEEDAWL

*Particular description of goods.*—Mariners' Compasses.
*Claims use* since Mar. 11, 1913.

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Ser. No. 70,085. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Apr. 26, 1913.

NEVA

*Particular description of goods.*—Velvets and Plushes in the Piece.
*Claims use* since July 1, 1910.

Ser. No. 70,192. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOHN C. WELLER & JOSEPH L. NALLY, Louisville, Ky. Filed May 2, 1913.

Mel Ola

*Particular description of goods.*—A Non-Intoxicating Drink Made of a Syrup Under a Secret Formula.
*Claims use* since the 10th day of March, 1913.

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Ser. No. 70,316. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GENERAL COMPOSING COMPANY, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany. Filed May 9, 1913.



No claim being made to the representation of a chuck.
*Particular description of goods.*—Cutting-Machines, Shapers, Milling-Machines, Planers, Lathes, Automatic Lathes, Screw-Slotting Machines, Surface-Grinding Machines, Chucks, and Parts of All Such Machines.
*Claims use* since May 18, 1909.

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Ser. No. 70,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE UNCLE SAM'S MACARONI CO., Tecumseh, Mich. Filed May 12, 1913.

KURL-KUT

*Particular description of goods.*—Macaroni Paste Products.
*Claims use* since Apr. 1, 1913

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Ser. No. 70,502. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BALLARD & BALLARD CO., Louisville, Ky. Filed May 20, 1913.

INNER-LINED

*Particular description of goods.*—Wheat-Flour, Self-Rising Wheat-Flour, Graham Flour, Self-Rising Graham Flour, Bran, Buckwheat-Flour and Pancake-Flour.
*Claims use* since about the 25th day of March, 1913.

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Ser. No. 70,653. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BECKER BOCK & COMPANY, Chicago, Ill. Filed May 26, 1913.

STEP-E-Z

*Particular description of goods.*—Foot-Powder.
*Claims use* since Jan. 1, 1913.

Ser. No. 70,788. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WALTER H. HIPOLITE, St. Louis, Mo. Filed May 31, 1913.

Snow-Mellow

*Particular description of goods.*—A Preparation for the Production of Candy, Ice-Cream Dressing, and Filling and Icing for Pastry, Cakes, Pies, and Puddings.
*Claims use* since about the 22d day of May, 1913.

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Ser. No. 70,806. (CLASS 37. PAPER AND STATIONERY.) THE RICHMOND & BACKUS CO., Detroit, Mich. Filed May 31, 1913.

BOND HINGE

*Particular description of goods.*—Ledger-Leaf Paper.
*Claims use* since 1900.

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Ser. No. 71,216. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NOVAVITA G. M. B. H., Berlin, Germany. Filed June 20, 1913.

Novozon

The trade-mark consists of the word "Novozon."
*Particular description of goods.*—A Magnesium Preparation.
*Claims use* since 1901.

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Ser. No. 71,233. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CASSELL DE HIBBS, Fort Worth, Tex. Filed June 21, 1913.



*Particular description of goods.*—Rubber Tires.
*Claims use* since Apr. 9, 1913.

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Ser. No. 71,442. (CLASS 39. CLOTHING.) EDWARD KRIEGER, New York, N. Y. Filed June 30, 1913.

EKCO

*Particular description of goods.*—Rain-Coats and Rubber Coats.
*Claims use* since Jan. 1, 1913.





Ser. No. 71,899. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL MILLING COMPANY, Lockport, N. Y. Filed July 23, 1913.

ROYAL LILY

*Particular description of goods.*—Wheat-Flour.
*Claims use* since July 20, 1909.

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Ser. No. 72,002. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DIETO FOOD CO., New York, N. Y. Filed July 28, 1913.




*Particular description of goods.*—Scientifically-Prepared Whole-Wheat Flour, Rusks, Pine-Nuts, Cocoa, Crackers, Wheat and Barley, (Cereal,) Nut-Cereal, Barley-Coffee, and Bread.
*Claims use* since July 9, 1913.

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Ser. No. 72,048. (CLASS 43. THREAD AND YARN.) ARNOLD OTTO MEYER, Hamburg, Germany. Filed July 30, 1913.




*Particular description of goods.*—Jute Thread and Yarn, Hemp Thread and Yarn, Silk-Thread and Yarn, Artificial-Silk Thread and Yarn, Flax Thread and Yarn, Wool Thread and Yarn, Thread and Yarn of Mixtures of Any of the Foregoing Fibers, Mercerized Thread and Yarn of Any of the Foregoing Fibers or Mixtures of Any of the Same, Any of Said Threads and Yarns Being White or of Gray Color or Otherwise Colored and Being Wound on Spools, Skeined in Hanks, or Packed in Bales.
*Claims use* since October, 1894.

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Ser. No. 72,107. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Aug. 1, 1913.

COTTON KING

*Particular description of goods.*—Disk Harrows and Parts Thereof.
*Claims use* since July 1, 1906.

Ser. No. 72,287. (CLASS 37. PAPER AND STATIONERY.) ANNA JARVIS, Philadelphia, Pa. Filed Aug. 11, 1913.



*Particular description of goods.*—Trading-Slips, Tags, Adhesive Labels, Blotters, Book-Marks, and Blank Visiting-Cards.
*Claims use* on trading-slips, tags, adhesive labels, and blotters since about February, 1909, and on book-marks and blank visiting-cards since about April, 1912.

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Ser. No. 72,420. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JACOB RUPPERT, New York, N. Y. Filed Aug. 19, 1913.

The Talk of the Town

*Particular description of goods.*—Beer.
*Claims use* since Dec. 30, 1912.

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Ser. No. 72,576. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HARRY WINTER VAN DOREN, Pulaski, Va. Filed Aug. 28, 1913.



The representation of the bird being printed in red.
*Particular description of goods.*—Ginger-Ale and Soda-Water of Various Flavors.
*Claims use* since February, 1907.

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Ser. No. 72,768. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM P. O'NEIL, New York, N. Y., assignor to Powell's, a Corporation of New York. Filed Sept. 10, 1913.

KEWPIE

The word "Kewpie."
*Particular description of goods.*—Candles.
*Claims use* since Sept. 9, 1913.

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Ser. No. 72,920. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEK-ARA COMPANY, Chicago, Ill. Filed Sept. 17, 1913.




*Particular description of goods.*—Medicinal Tablets for Bowel Diseases, Backaches, Nervousness, Headaches, Ailments and Troubles of the Stomach.
*Claims use* since May 1, 1913.

Ser. No. 72,091. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OLD DOMINION PEANUT CORPORATION, Norfolk, Va. Filed Sept. 22, 1913.



No claim is made to the words "Quality Peanut Products."

*Particular description of goods.*—Peanut-Butter and Peanut Products.

*Claims use* since Aug. 1, 1913.

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Ser. No. 73,069. (CLASS 37. PAPER AND STATIONERY.) ALFRED GUMBINNER, New York, N. Y. Filed Sept. 26, 1913.

MODEL

*Particular description of goods.*—Fountain-Pens.

*Claims use* since Jan. 1, 1913.

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Ser. No. 73,071. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERCK & Co., New York, N. Y. Filed Sept. 26, 1913.



*Particular description of goods.*—Zinc Stearate Prepared for Medical Uses.

*Claims use* since Sept. 20, 1913.

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Ser. No. 73,189. (CLASS 37. PAPER AND STATIONERY.) AKTIESELSKABET H. E. GOSCH & Co's TÆNDSTIKFABRIKER OG AKTIETÆNDSTIKFABRIKEN GODTHAAB, Copenhagen, Denmark. Filed Oct. 3, 1913.



*Particular description of goods.*—Pencils.

*Claims use* since August, 1913.

Ser. No. 73,417. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD H. HOMER, Winthrop and Boston, Mass. Filed Oct. 16, 1913.




*Particular description of goods.*—Candy.

*Claims use* since Aug. 15, 1913.

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Ser. No. 73,625. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HAROLD "D." HART, San Francisco, Cal. Filed Oct. 27, 1913.




*Particular description of goods.*—Soaps.

*Claims use* since July 1, 1913.

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Ser. No. 73,640. (CLASS 37. PAPER AND STATIONERY.) AKTIESELSKABET H. E. GOSCH & Co's TÆNDSTIKFABRIKER OG AKTIETÆNDSTIKFABRIKEN GODTHAAB, Copenhagen, Denmark. Filed Oct. 28, 1913.



*Particular description of goods.*—Pencils.

*Claims use* since April, 1913.

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Ser. No. 73,654. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK MOSCA, New York, N. Y. Filed Oct. 29, 1913.




*Particular description of goods.*—Olive-Oil and Macaroni.

*Claims use* since Oct. 6, 1913.

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Ser. No. 73,783. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOHN L. SCHNELLER, Chicago, Ill. Filed Nov. 3, 1913.

Columbia Star

*Particular description of goods.*—Whisky.

*Claims use* since July 1, 1908.





Ser. No. 73,876. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE ROYAL VARNISH COMPANY, Toledo, Ohio. Filed Nov. 8, 1913.




The diamond being in red.

*Particular description of goods.*—Varnish.

*Claims use* since about July 10, 1903.

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Ser. No. 73,973. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 13, 1913. Under ten-year proviso.



*Particular description of goods.*—Axes, Hatchets, Adzes, Bush-Hooks, Machetes, Saws, Chisels, Knives with Fixed Blades and Handles Intended for Manual Use as an Implement of Household or Outdoor Use, But Not Including Surgical Knives; Swords, Sickles, Mattocks, Pickaxes, Shovels, Spades, Crowbars, Picks, Hoes, Mill-Picks, Sledges, Hammers, Wedges, Wrenches, Augers, Boring-Bits, Earth and Rock Drills, Cavadores, Barretones, Tarpalas, Palas, Tercados, Jincolas, Barras, Lanzas, Lancitas, Arpones, Cleavers, and Bayonets.

*Claims use* since 1876.

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Ser. No. 74,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE WILLIAM RADAM MICROBE KILLER COMPANY, New York, N. Y. Filed Nov. 17, 1913.




"Radam's" at the top of the mark and "The William Radam Microbe Killer Company" are disclaimed.

*Particular description of goods.*—A Medicinal Preparation of a Prophylactic Character Adapted for Treating Constipation, Biliousness, Diphtheria, Scarlet Fever, Typhoid Fever, Grippe, and Colds.

*Claims use* since October, 1913.

Ser. No. 74,156. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELIZABETH C. DUGGAN, Buffalo, N. Y. Filed Nov. 24, 1913.

Betty's Colonial Sweets

The exclusive use of the word "Sweet" being disclaimed.

*Particular description of goods.*—Candies.

*Claims use* since Nov. 1, 1912.

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Ser. No. 74,171. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RAY A. RICHARDSON, Salt Lake City, Utah. Filed Nov. 24, 1913.




The portrait being that of Eugene Richardson, applicant's son.

*Particular description of goods.*—Cocoa.

*Claims use* since the 1st day of September, 1913.

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Ser. No. 74,212. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) S. A. & W. H. LEONARD, Blounstown, Fla. Filed Nov. 26, 1913.

Ponce De Leon

*Particular description of goods.*—Table-Syrup Made from Pure Sap of Florida Sugar-Cane.

*Claims use* since 4th day of October, 1913.

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Ser. No. 74,310. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PEEK, FREAN AND COMPANY, LIMITED, London, England. Filed Dec. 2, 1913.

RINK

*Particular description of goods.*—Biscuits.

*Claims use* since Mar. 11, 1910.

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Ser. No. 74,453. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. PETER FAHRNEY & SONS Co., Chicago, Ill. Filed Dec. 8, 1913.

OLEOLO

*Particular description of goods.*—A Proprietary Medicine More Particularly Specified as a Liniment.

*Claims use* since Nov. 1, 1913.

Ser. No. 74,478. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROSSENDALE-REDDAWAY BELTING & HOSE CO., Newark, N. J. Filed Dec. 9, 1913. Under ten-year proviso.

**CAMEL HAIR**

The words "Camel Hair."
*Particular description of goods.*—Driving-Belts, Machine-Belting, and Woven Machine-Belting.
*Claims use* since June, 1893.

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Ser. No. 74,553. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BAYWAY CHEMICAL COMPANY, Elizabeth, N. J. Filed Dec. 13, 1913.

**ZULITE**

*Particular description of goods.*—Ready-Mixed Paint.
*Claims use* since June 24, 1913.

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Ser. No. 74,581. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. MCKENZIE & COMPANY, INC., New York, N. Y. Filed Dec. 13, 1913.

**REWARD**

*Particular description of goods.*—Canned Salmon, Canned Corn, and Canned Peaches.
*Claims use* since Sept. 29, 1913.

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Ser. No. 74,582. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. MCKENZIE & COMPANY, INC., New York, N. Y. Filed Dec. 13, 1913.

**VANITY FAIR**

*Particular description of goods.*—Canned Salmon, Canned Corn, and Canned Peaches.
*Claims use* since Sept. 29, 1913.

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Ser. No. 74,583. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINNESOTA MACARONI CO., St. Paul, Minn. Filed Dec. 13, 1913.



The picture shown being a photograph of Gladys Giltner, no claim being made to the word "Minnesota."
*Particular description of goods.*—Macaroni, Spaghetti, Vermicelli, Egg-Noodles, and Farina.
*Claims use* since Sept. 30, 1913.

Ser. No. 74,625. (CLASS 22. GAMES, TOYS, AND SPORTING GOOODS.) LOUIS WOLF & CO., New York, N. Y. Filed Dec. 15, 1913.



*Particular description of goods.*—Dolls.
*Claims use* since Oct. 1, 1913.

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Ser. No. 74,734. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL CHICLE CONCERN, New Orleans, La. Filed Dec. 20, 1913.

**CREOLE MINT**

The exclusive use of the word "Mint" is hereby expressly disclaimed.
*Particular description of goods.*—Chewing-Gum.
*Claims use* since Nov. 5, 1913.

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Ser. No. 74,780. (CLASS 38. PRINTS AND PUBLICATIONS.) B. F. HARRIS, Champaign, Ill. Filed Dec. 22, 1913.

The BANKER-FARMER
Reviewing the Banker's Activities for a Better Agriculture and Rural Life

Applicant disclaims the descriptive words "Reviewing the Banker's Activities for a Better Agricultural and Rural Life." Trade-mark known as "The Banker-Farmer."
*Particular description of goods.*—Title, Head, or Name of a Monthly Magazine.
*Claims use* since Nov. 1, 1913.

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Ser. No. 74,795. (CLASS 47. WINES.) G. H. MUMM & CO., Rheims, France. Filed Dec. 22, 1913.



*Particular description of goods.*—Champagne-Wines and other Sparkling Wines Whether Sparkling or Rendered Sparkling Artificially.
*Claims use* since Jan. 1, 1913.





Ser. No. 74,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLO ANTONIO COVINO, New York, N. Y. Filed Dec. 20, 1913.




*Particular description of goods.*—A Specialty of Olive-Oil Flavored with Essence of the Outer Rinds of Lemons.
*Claims use* since July 1, 1913.

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Ser. No. 74,802. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ENRIQUE GRANA E HIJOS, Malaga, Spain. Filed Dec. 23, 1913.




The exclusive use of the word "Malaga" being disclaimed.
*Particular description of goods.*—Olive-Oil.
*Claims use* since the year 1882.

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Ser. No. 74,846. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) V. LOPEZ & COMPANY, New York, N. Y. Filed Dec. 26, 1913.

**MARCA ESTRELLA**

The word "Marca" being disclaimed. The mark consists of the word "Estrella."
*Particular description of goods.*—Butter, Butter Compounds, and Butter Substitutes.
*Claims use* since Jan. 1, 1910.

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Ser. No. 74,865. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA ELIZABETH ROBINS, Richmond, Va. Filed Dec. 27, 1913.

**URALITHIC**

*Particular description of goods.*—An Antirheumatic, Antacid, and Alkaline Laxative.
*Claims use* since Jan. 29, 1909.

Ser. No. 74,882. (CLASS 5. ADHESIVES.) THE POWERS NATIONAL INK COMPANY, Denver, Colo. Filed Dec. 29, 1913. Under ten-year proviso.

**POWERS' NATIONAL**

*Particular description of goods.*—Mucilage, Paste, and Adhesive Gum.
*Claims use* since on or about July 14, 1890.

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Ser. No. 74,890. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN E. WHITMORE, Buffalo, N. Y. Filed Dec. 29, 1913.

**Royal Mandarine**

*Particular description of goods.*—Toilet, Bath, Shaving, and Laundry Soaps and Cleaning-Powders for Household Use.
*Claims use* since Nov. 1, 1913.

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Ser. No. 74,923. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST SCHNITZLER, Weirsdale, Fla. Filed Dec. 31, 1913.




*Particular description of goods.*—Oranges.
*Claims use* since 1890.

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Ser. No. 74,959. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Jan. 3, 1914.

**PEERO**

*Particular description of goods.*—Dolls.
*Claims use* since about Dec. 1, 1913.

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Ser. No. 74,996. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BIRMINGHAM PHOTOGRAPHIC CO. LTD., Birmingham, England. Filed Jan. 7, 1914.

**CRITERION**

*Particular description of goods.*—Photographic Plates, Sensitized Papers, and Films.
*Claims use* since 1889.

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Ser. No. 75,056. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) KIP BRUSH COMPANY, New York, N. Y. Filed Jan. 9, 1914.



*Particular description of goods.*—Brushes.
*Claims use* since about July 1, 1910.

Ser. No. 74,478. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROSSENDALE-REDDAWAY BELTING & HOSE CO., Newark, N. J. Filed Dec. 9, 1913. Under ten-year proviso.

**CAMEL HAIR**

The words "Camel Hair."

*Particular description of goods.*—Driving-Belts, Machine-Belting, and Woven Machine-Belting.

*Claims use* since June, 1893.

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Ser. No. 74,553. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BAYWAY CHEMICAL COMPANY, Elizabeth, N. J. Filed Dec. 13, 1913.

**ZULITE**

*Particular description of goods.*—Ready-Mixed Paint.

*Claims use* since June 24, 1913.

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Ser. No. 74,581. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. MCKENZIE & COMPANY, INC., New York, N. Y. Filed Dec. 13, 1913.

**REWARD**

*Particular description of goods.*—Canned Salmon, Canned Corn, and Canned Peaches.

*Claims use* since Sept. 29, 1913.

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Ser. No. 74,582. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. S. MCKENZIE & COMPANY, INC., New York, N. Y. Filed Dec. 13, 1913.

**VANITY FAIR**

*Particular description of goods.*—Canned Salmon, Canned Corn, and Canned Peaches.

*Claims use* since Sept. 29, 1913.

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Ser. No. 74,583. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MINNESOTA MACARONI CO., St. Paul, Minn. Filed Dec. 13, 1913.



The picture shown being a photograph of Gladys Giltner, no claim being made to the word "Minnesota."

*Particular description of goods.*—Macaroni, Spaghetti, Vermicelli, Egg-Noodles, and Farina.

*Claims use* since Sept. 30, 1913.

Ser. No. 74,625. (CLASS 22. GAMES, TOYS, AND SPORTING GOOODS.) LOUIS WOLF & CO., New York, N. Y. Filed Dec. 15, 1913.



*Particular description of goods.*—Dolls.

*Claims use* since Oct. 1, 1913.

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Ser. No. 74,734. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL CHICLE CONCERN, New Orleans, La. Filed Dec. 20, 1913.

**CREOLE MINT**

The exclusive use of the word "Mint" is hereby expressly disclaimed.

*Particular description of goods.*—Chewing-Gum.

*Claims use* since Nov. 5, 1913.

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Ser. No. 74,780. (CLASS 38. PRINTS AND PUBLICATIONS.) B. F. HARRIS, Champaign, Ill. Filed Dec. 22, 1913.

*The*
**BANKER-FARMER**
Reviewing the Banker's Activities for a Better Agriculture and Rural Life

Applicant disclaims the descriptive words "Reviewing the Banker's Activities for a Better Agricultural and Rural Life." Trade-mark known as "The Banker-Farmer."

*Particular description of goods.*—Title, Head, or Name of a Monthly Magazine.

*Claims use* since Nov. 1, 1913.

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Ser. No. 74,795. (CLASS 47. WINES.) G. H. MUMM & Co., Rheims, France. Filed Dec. 22, 1913.



*Particular description of goods.*—Champagne-Wines and other Sparkling Wines Whether Sparkling or Rendered Sparkling Artificially.

*Claims use* since Jan. 1, 1913.





Ser. No. 74,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARLO ANTONIO COVINO, New York, N. Y. Filed Dec. 20, 1913.




*Particular description of goods.*—A Specialty of Olive-Oil Flavored with Essence of the Outer Rinds of Lemons.

*Claims use* since July 1, 1913.

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Ser. No. 74,802. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ENRIQUE GRANA E HIJOS, Malaga, Spain. Filed Dec. 23, 1913.




The exclusive use of the word "Malaga" being disclaimed.

*Particular description of goods.*—Olive-Oil.

*Claims use* since the year 1882.

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Ser. No. 74,846. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) V. LOPEZ & COMPANY, New York, N. Y. Filed Dec. 26, 1913.

**MARCA ESTRELLA**

The word "Marca" being disclaimed. The mark consists of the word "Estrella."

*Particular description of goods.*—Butter, Butter Compounds, and Butter Substitutes.

*Claims use* since Jan. 1, 1910.

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Ser. No. 74,865. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARTHA ELIZABETH ROBINS, Richmond, Va. Filed Dec. 27, 1913.

**URALITHIC**

*Particular description of goods.*—An Antirheumatic, Antacid, and Alkaline Laxative.

*Claims use* since Jan. 29, 1909.

Ser. No. 74,882. (CLASS 5. ADHESIVES.) THE POWERS NATIONAL INK COMPANY, Denver, Colo. Filed Dec. 29, 1913. Under ten-year proviso.

**POWERS' NATIONAL**

*Particular description of goods.*—Mucilage, Paste, and Adhesive Gum.

*Claims use* since on or about July 14, 1890.

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Ser. No. 74,890. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHN E. WHITMORE, Buffalo, N. Y. Filed Dec. 29, 1913.

**Royal Mandarine**

*Particular description of goods.*—Toilet, Bath, Shaving, and Laundry Soaps and Cleaning-Powders for Household Use.

*Claims use* since Nov. 1, 1913.

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Ser. No. 74,923. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ERNEST SCHNITZLER, Weirsdale, Fla. Filed Dec. 31, 1913.




*Particular description of goods.*—Oranges.

*Claims use* since 1890.

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Ser. No. 74,959. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & Co., New York, N. Y. Filed Jan. 3, 1914.

**PEERO**

*Particular description of goods.*—Dolls.

*Claims use* since about Dec. 1, 1913.

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Ser. No. 74,996. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BIRMINGHAM PHOTOGRAPHIC CO. LTD., Birmingham, England. Filed Jan. 7, 1914.

**CRITERION**

*Particular description of goods.*—Photographic Plates, Sensitized Papers, and Films.

*Claims use* since 1889.

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Ser. No. 75,056. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) KIP BRUSH COMPANY, New York, N. Y. Filed Jan. 9, 1914.



*Particular description of goods.*—Brushes.

*Claims use* since about July 1, 1910.

Ser. No. 75,066. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa. Filed Jan. 9, 1914.

SOYATOL

*Particular description of goods.*—A Medicinal Nutrient and Tonic Pharmaceutical Compound.
*Claims use* since the 15th day of December, 1913.

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Ser. No. 75,088. (CLASS 39. CLOTHING.) PATRICK J. HARNEY, Lynn, Mass. Filed Jan. 10, 1914.

Tred Fast

*Particular description of goods.*—Boots, Shoes, and Slippers Composed Wholly or Partly of Leather.
*Claims use* since July 1, 1913.

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Ser. No. 75,159. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GREENE & FISH COMPANY, Boston, Mass. Filed Jan. 13, 1914.

Spring

*Particular description of goods.*—Candy.
*Claims use* since Oct. 28, 1913.

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Ser. No. 75,182. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed Jan. 14, 1914.

CRITERION

*Particular description of goods.*—Chocolate Candies and Confections of All Kinds.
*Claims use* since May, 1901.

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Ser. No. 75,183. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. T. PARIS, Chattanooga, Tenn. Filed Jan. 14, 1914.

Dynamo City



*Particular description of goods.*—Coffee.
*Claims use* since Dec. 24, 1913.

Ser. No. 75,197. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUEGELY MILLING COMPANY, Nashville, Ill. Filed Jan. 15, 1914.

HUMMER

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Dec. 1, 1912.

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Ser. No. 75,213. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARSÈNE J. VAN EXEM, New York, N. Y. Filed Jan. 15, 1914.

TECLA

*Particular description of goods.*—Food-Stuffs, Particularly Breakfast Foods and Pancake-Flour.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,247. (CLASS 38. PRINTS AND PUBLICATIONS.) DRAPER COMPANY, Portland, Me., and Hopedale, Mass. Filed Jan. 17, 1914.

TEXTILE TEXTS

*Particular description of goods.*—A Serial Publication Devoted to Textile and Allied Subjects.
*Claims use* since May 27, 1901.

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Ser. No. 75,301. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MAYHEW MILLING CO., Owensboro, Ky. Filed Jan. 19, 1914.

HOUSEHOLD JOY

*Particular description of goods.*—Flour.
*Claims use* since Nov. 10, 1913.

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Ser. No. 75,326. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CADICK MILLING COMPANY, Grand view, Ind. Filed Jan. 21, 1914.

SURE-BAKE

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Dec. 20, 1913.





Ser. No. 75,336. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO KRAUS, Philadelphia, Pa. Filed Jan. 21, 1914.

Nu-Okay

Said trade-mark consists of the arbitrarily selected hyphenated word "Nu-Okay."
*Particular description of goods.*—A Medicament of Gelatinous Material Intended to Give Relief in Coughs, Colds, Sore Throat, and Bronchial Affections and Sold Under the Name of Cough-Gums, Manufactured by and for Me.
*Claims use* since Oct. 22, 1913.

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Ser. No. 75,341. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROETHLISBERGER & CO., New York, N. Y. Filed Jan. 21, 1914.

AMO

*Particular description of goods.*—Olive-Oil.
*Claims use* since Jan. 3, 1914.

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Ser. No. 75,399. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) U. H. DUDLEY & COMPANY, New York, N. Y. Filed Jan. 24, 1914.

NOMAD

*Particular description of goods.*—Dates.
*Claims use* since Dec. 1, 1913.

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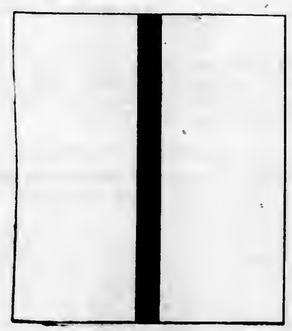
Ser. No. 75,415. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. E. ROYSTON & CO., Aurora, Ill. Filed Jan. 24, 1914.

·ROB-ROY·



The picture shown being fanciful.
*Particular description of goods.*—Canned Vegetables, Canned Pork and Beans, Peanut-Butter, Olives, Tomato Catsup, Vinegar, and Blended Coffee.
*Claims use* since June 27, 1913.

Ser. No. 75,421. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ATLAS BREAD FACTORY, Milwaukee, Wis. Filed Jan. 26, 1914.



*Particular description of goods.*—Bread.
*Claims use* since Dec. 19, 1913.

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Ser. No. 75,481. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HOPKINSVILLE MILLING COMPANY, Hopkinsville, Ky. Filed Jan. 27, 1914.

DIXIE ROSE

*Particular description of goods.*—Wheat-Flour.
*Claims use* since Sept. 1, 1912.

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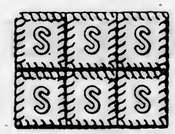
Ser. No. 75,483. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. LUDWIG KAUFMANN, Wilmersdorf, near Berlin, Germany. Filed Jan. 27, 1914.

Sulfoform

*Particular description of goods.*—Pharmaceutical Preparations for Skin Diseases and Women's Diseases.
*Claims use* since August, 1910.

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Ser. No. 75,499. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LOOSE-WILES BISCUIT COMPANY, Boston, Mass. Filed Jan. 28, 1914.




*Particular description of goods.*—Biscuit.
*Claims use* since Jan. 10, 1914.

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Ser. No. 75,525. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DURYEE & BARWISE, New York, N. Y. Filed Jan. 29, 1914.

DUR-BAR

*Particular description of goods.*—Coffee.
*Claims use* since Oct. 22, 1913.

Ser. No. 75,527. (CLASS 39. CLOTHING.) DANIEL W. SHOYER, New York, N. Y. Filed Jan. 29, 1914.

"CHILPRUFE"

The word "Chilprufe."
*Particular description of goods.*—Knit Goods—viz., Sweaters, Knit Jackets, Knit Skirts, and Knit Underwear.
*Claims use* since about Jan. 1, 1914.

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Ser. No. 75,529. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) EDWIN J. W. KRAGY, Altoona, Pa. Filed Jan. 29, 1914.




The exclusive use of the words "Lemon Blend," "Sicily," and "California" being disclaimed.
*Particular description of goods.*—A Non-Alcoholic Beverage Flavored with Lemon.
*Claims use* since May 15, 1912.

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Ser. No. 75,534. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ROBT. F. MACKENZIE CO., Cleveland, Ohio. Filed Jan. 29, 1914.

GYPSY KISSES

*Particular description of goods.*—Candy.
*Claims use* since the year 1907.

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Ser. No. 75,594. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM SCHOTTEN COFFEE COMPANY, St. Louis, Mo. Filed Jan. 31, 1914.

CONQUISTA

*Particular description of goods.*—Green and Roasted Coffee.
*Claims use* since about the month of June, 1907.

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Ser. No. 75,596. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM SCHOTTEN COFFEE COMPANY, St. Louis, Mo. Filed Jan. 31, 1914.

IRACEMA

*Particular description of goods.*—Green and Roasted Coffee.
*Claims use* since about the month of June, 1907.

Ser. No. 75,605. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK SCHWEINFURT GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Schweinfurt-on-the-Main, Germany. Filed Feb. 2, 1914.

Urania

*Particular description of goods.*—Dye Colors, Dyes, and Insecticides.
*Claims use* since Oct. 26, 1911.

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Ser. No. 75,608. (CLASS 37. PAPER AND STATIONERY.) EVERETT PULP AND PAPER CO., Everett, Wash. Filed Feb. 2, 1914.




*Particular description of goods.*—Writing-Paper and Book-Paper.
*Claims use* since Jan. 15, 1914.

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Ser. No. 75,723. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERICAN REMEDY COMPANY, Greencastle, Pa. Filed Feb. 6, 1914.

ARCO

*Particular description of goods.*—An Ointment for the Treatment of Galls, Scratches, Sore Shoulders, Neck, and Back, in Live Stock; Also a Liniment for the Treatment of Affections of the Skin, Muscles, and Joints in Human Beings and Live Stock; Also Preparations for the Treatment of Indigestion, General Debility, Loss of Appetite, Coughs, Colds, Influenza, and Diseases of the Blood and Kidneys in Live Stock, and for a Tonic and Preparations for the Treatment of Roup, Colds, Bowel Trouble, and General Debility in Poultry.
*Claims use* since the 8th day of December, 1913.

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Ser. No. 75,749. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BIESOLT & LOCKE, MEISSNER NÄHMASCHINENFABRIK, Meissen, Germany. Filed Feb. 7, 1914.



*Particular description of goods.*—Sewing-Machines and Parts Thereof.
*Claims use* since Aug. 14, 1909.





Ser. No. 75,750. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BIESOLT & LOCKE, MEISSNER NÄHMASCHINENFABRIK, Meissen, Germany. Filed Feb. 7, 1914.



*Particular description of goods.*—Sewing-Machines and Parts Thereof.
*Claims use* since June 15, 1877.

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Ser. No. 75,768. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) NORTH AMERICAN SMELTING COMPANY, INC., Philadelphia, Pa. Filed Feb. 7, 1914.




No claim being made to the words "Trade-Mark."
*Particular description of goods.*—A Certain Formula of Babbitt or Bearing Metal, Brass, and White Metals.
*Claims use* since 1901.

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Ser. No. 75,782. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALLAHAN & SONS, Louisville, Ky. Filed Feb. 9, 1914.




*Particular description of goods.*—Corn When Used for Feeding or Milling Purposes.
*Claims use* since about Jan. 1, 1914.

Ser. No. 75,818. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE E. CURD, Paducah, Ky. Filed Feb. 10, 1914.




*Particular description of goods.*—A Foot-Powder.
*Claims use* since August, 1913.

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Ser. No. 75,864. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Feb. 12, 1914.




The word "Doll" being disclaimed.
*Particular description of goods.*—Dolls.
*Claims use* since Jan. 30, 1914.

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Ser. No. 75,865. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Feb. 12, 1914.




*Particular description of goods.*—Dolls.
*Claims use* since Jan. 30, 1914.

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Ser. No. 75,866. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Feb. 12, 1914.



*Particular description of goods.*—Dolls.
*Claims use* since Jan. 30, 1914.

Ser. No. 75,868. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRENCH FONDANT CO., Philadelphia, Pa. Filed Feb. 12, 1914.

JACK FROST

*Particular description of goods.*—Prepared Icing.
*Claims use* since May 1, 1913.

Ser. No. 75,893. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOOLSON SPICE CO., Toledo, Ohio. Filed Feb. 13, 1914.

COTTAGE

*Particular description of goods.*—Coffees.
*Claims use* since in June, 1908.

Ser. No. 75,964. (CLASS 39. CLOTHING.) WM. HECHT, New York, N. Y. Filed Feb. 17, 1914.

OLIVER TWIST

*Particular description of goods.*—Children's Washable Outer Suits.
*Claims use* since October, 1912.

Ser. No. 75,965. (CLASS 39. CLOTHING.) WM. HECHT, New York, N. Y. Filed Feb. 17, 1914.

NICKELBY

*Particular description of goods.*—Children's Washable Outer Suits.
*Claims use* since January, 1914.

Ser. No. 76,007. (CLASS 25. LOCKS AND SAFES.) MILLER LOCK COMPANY, Philadelphia, Pa. Filed Feb. 18, 1914.

TITE

*Particular description of goods.*—Locks, Padlocks, and Keys.
*Claims use* since Jan. 2, 1914.

Ser. No. 76,014. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH, New York, N. Y. Filed Feb. 18, 1914.

LUETIN

*Particular description of goods.*—A Preparation Used in Diagnosing Syphilis.
*Claims use* since Jan. 29, 1914.

Ser. No. 76,029. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK H. FLEER CORPORATION, Philadelphia, Pa. Filed Feb. 19, 1914.

BOBS

*Particular description of goods.*—Chewing-Gum and Chewing-Gum Products.
*Claims use* since Dec. 18, 1913.

Ser. No. 76,033. CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR S. HOYT, New York, N. Y. Filed Feb. 19, 1914.

SIP-SAPS

Comprising the arbitrarily formulated and selected word-symbol "Sip-Saps."
*Particular description of goods.*—Candies.
*Claims use* since Feb. 11, 1914.

Ser. No. 76,035. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN A. KIRKHAM, Portland, Oreg. Filed Feb. 19, 1914.

HY-G-O

*Particular description of goods.*—Exercising Apparatus for Children.
*Claims use* since Oct. 15, 1913.

Ser. No. 76,037. (CLASS 39. CLOTHING.) MATTEAWAN MANUFACTURING COMPANY, New York and Matteawan, N. Y. Filed Feb. 19, 1914.

ADJUSTO

*Particular description of goods.*—Hats.
*Claims use* since Feb. 10, 1914.

Ser. No. 76,047. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. DAVIES, Scranton, Pa. Filed Feb. 20, 1914.

KARMO

*Particular description of goods.*—A Medical Preparation to Prevent Foot-Sweating.
*Claims use* since Feb. 1, 1914.





Ser. No. 76,064. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) EUGENE W. THUMB, Chicago, Ill. Filed Feb. 20, 1914.



The signature being a facsimile of the signature of E. W. Thumb.
*Particular description of goods.*—Furniture and Wood Polishes and Lacquers.
*Claims use* since June 1, 1913.

Ser. No. 76,068. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN BAKING COMPANY, Louisville, Ky. Filed Feb. 21, 1914.

Carrie Mehome

The words "Carrie Mehome."
*Particular description of goods.*—Bakery Products—viz., Bread, Cake, Doughnuts, and Cookies.
*Claims use* since Apr. 1, 1911.

Ser. No. 76,115. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) M. C. MIGEL & CO., New York, N. Y. Filed Feb. 24, 1914.

MEXIXE

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since July, 1913.

Ser. No. 76,126. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ORANGE BLOSSOM, INC., San Francisco, Cal. Filed Feb. 24, 1914.

Penny-lix

*Particular description of goods.*—Candy.
*Claims use* since Dec. 1, 1913.

Ser. No. 76,129. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) O. C. DEVEREUX COMPANY, Providence, R. I. Filed Feb. 25, 1914. Under ten-year proviso.

Stonine

*Particular description of goods.*—Jewelry for Personal Adornment.
*Claims use* since July 4, 1881.

Ser. No. 76,130. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. A. FOLGER & COMPANY, San Francisco, Cal. Filed Feb. 25, 1914.

ROYALIST

*Particular description of goods.*—Tea.
*Claims use* since Feb. 10, 1914.

Ser. No. 76,131. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARVEY C. FERGUSON, Cornelia, Ga. Filed Feb. 25, 1914.

20th Century

*Particular description of goods.*—An Egg-Preservative Composition.
*Claims use* since Feb. 18, 1914.

Ser. No. 76,161. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM A. BOHNENKAMP, St. Louis, Mo. Filed Feb. 26, 1914.

HIKE

*Particular description of goods.*—A Cold-Cream Preparation.
*Claims use* since Dec. 1, 1912.

Ser. No. 76,168. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHASE & COMPANY, Jacksonville, Fla. Filed Feb. 26, 1914.

SEMINOLE

*Particular description of goods.*—Citrus Fruits and Tomatoes.
*Claims use* since at least 1888.

Ser. No. 76,206. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CEREAL MINCE COMPANY, Minneapolis, Minn. Filed Feb. 27, 1914.

Brownies

*Particular description of goods.*—A Breakfast-Food Compound Consisting of Wheat-Meal, Cornmeal, and Chocolate or Cocoa.
*Claims use* since about Feb. 21, 1914.

Ser. No. 76,230. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN LINSEED COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 28, 1914.

HYPRO

*Particular description of goods.*—Linseed-Meal for Stock-Feeding Purposes.
*Claims use* since Feb. 24, 1914.

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Ser. No. 76,242. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HENDRY & BISHOP, Edinburgh, Scotland. Filed Feb. 28, 1914.



*Particular description of goods.*—Iron Golf-Heads.
*Claims use* since April, 1911.

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Ser. No. 76,246. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KNIGHT & THOMAS, INC., Boston, Mass. Filed Feb. 28, 1914.

HOME GUARD

*Particular description of goods.*—Portable Fire-Extinguishers.
*Claims use* since July, 1903.

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Ser. No. 76,263. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) KENTUCKY PAINT MANUFACTURING COMPANY, Louisville, Ky. Filed Feb. 28, 1914.

SILVER SEAL

*Particular description of goods.*—Ready-Mixed Paints, Stains, and Varnishes.
*Claims use* since Aug. 15, 1913.

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Ser. No. 76,267. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK VON HEYDEN, AKTIENGESELLSCHAFT, Radebeul, near Dresden, Germany. Filed Mar. 2, 1914.

ACETYLIN

*Particular description of goods.*—Acetyl-Salicylic Acids.
*Claims use* since about the 1st day of November, 1913.

Ser. No. 76,290. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH PALAZZOLO, New York, N. Y. Filed Mar. 2, 1914.

"ESTER"

The word "Esther."
*Particular description of goods.*—Razors, Scissors, and Hair-Clippers.
*Claims use* since Jan. 1, 1914

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Ser. No. 76,322. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN WILEY NASWORTHY, Jacksonville, Fla. Filed Mar. 4, 1914.

EVAGETS

*Particular description of goods.*—Laxative and Tonic Preparations for the Stomach, Liver, and Bowels.
*Claims use* since January, 1914.

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Ser. No. 76,345. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CARSON, PIRIE, SCOTT & CO., Chicago, Ill. Filed Mar. 5, 1914

FIDELITY

*Particular description of goods.*—Unbleached Muslin.
*Claims use* since about August, 1913.

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Ser. No. 76,371. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ROBERT E. MILLER, New York, N. Y. Filed Mar. 5, 1914.

"HO" SLIDE

No claim being made to the exclusive use of the word "Slide."
*Particular description of goods.*—Casters.
*Claims use* since October, 1911.

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Ser. No. 76,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTHONY J. PASTRE, New York, N. Y. Filed Mar. 5, 1914.

FLEUR DE JEUNESSE

*Particular description of goods.*—Greaseless Cream, Toilet Water, Face-Powder, Hair-Tonic, and Hair-Remover.
*Claims use* since Nov. 21, 1913.





Ser. No. 76,396. (CLASS 39. CLOTHING.) IVAN FRANK & Co., New York, N. Y. Filed Mar. 6, 1914.

OLIVER TWIST

Consists of the arbitrary words "Oliver Twist."
*Particular description of goods.*—Outer Suits for Boys and Children.
*Claims use* since on or about the 1st day of January, 1912.

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Ser. No. 76,399. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) S. GLEMBY, INC., New York, N. Y. Filed Mar. 6, 1914.




*Particular description of goods.*—Human-Hair Goods in the Form of Wigs, Switches, Front Pieces, Toupees, Curls, Puffs, Transformations, and Hair Rolls.
*Claims use* since about the year 1911.

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Ser. No. 76,408. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LORING COES & Co. INC., Worcester, Mass. Filed Mar. 6, 1914.



*Particular description of goods.*—Fleshing-Blades and Spiral-Strip Blades for Revolving-Cylinder Cutters.
*Claims use* since Jan. 1, 1914.

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Ser. No. 76,411. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALFRED B. PARKER, Clayton, Mo. Filed Mar. 6, 1914.

NERV-LIFE

*Particular description of goods.*—A Nerve-Tonic.
*Claims use* since Feb. 15, 1914.

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Ser. No. 76,430. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES. DETWILLER & STREET FIREWORKS MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 7, 1914.

THUNDERBOLT

*Particular description of goods.*—Fireworks.
*Claims use* since about Jan. 1, 1900.

Ser. No. 76,447. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARKER BROTHERS, Portland, Me., and Salem, Mass. Filed Mar. 7, 1914.

Dsch-Ga-Bibbel

*Particular description of goods.*—Card Games.
*Claims use* since Feb. 28, 1914.

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Ser. No. 76,484. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) VANGUARD MANUFACTURING CO., Hamtramck, Mich. Filed Mar. 9, 1914.

VANGUARD

*Particular description of goods.*—Wind-Shields.
*Claims use* since Dec. 26, 1908.

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Ser. No. 76,500. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) JOHNSON & JOHNSON, New Brunswick, N. J. Filed Mar. 10, 1914. Under ten-year proviso.

Johnson's

*Particular description of goods.*—First-Aid Cases.
*Claims use* since 1887.

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Ser. No. 76,508. (CLASS 39. CLOTHING.) THE F. & R. LAZARUS & Co., Columbus, Ohio. Filed Mar. 10, 1914.

T-FIT UNDERWEAR
TRADE MARK
FITS-TO-A-T

No claim being made to the words "Trade Mark," "Underwear," and "Fits-To-A-T."
*Particular description of goods.*—Men's Underwear.
*Claims use* since Mar. 15, 1913.

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Ser. No. 76,548. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN Q. GANT, Glen Raven, N. C. Filed Mar. 11, 1914.



*Particular description of goods.*—Canvas, Duck, and Cloth for Making Awnings and Tents.
*Claims use* since Feb. 15, 1914.

Ser. No. 76,549. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 11, 1914.

**Deana**

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since the 2d day of January, 1914.

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Ser. No. 76,554. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS J. LEHMANN, St. Louis, Mo. Filed Mar. 11, 1914.

**LUBRILAX**

*Particular description of goods.*—An Intestinal Lubricant and Remedy for Constipation.
*Claims use* since about Jan. 15, 1913.

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Ser. No. 76,565. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILLIAM A. SPINKS & COMPANY, Chicago, Ill. Filed Mar. 11, 1914.




*Particular description of goods.*—Billiard-Chalk.
*Claims use* since Feb. 24, 1914.

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Ser. No. 76,578. (CLASS 39. CLOTHING.) THE BEACON FALLS RUBBER SHOE COMPANY, Beacon Falls, Conn. Filed Mar. 12, 1914.




*Particular description of goods.*—Boots and Shoes Made Partly or Wholly of Rubber.
*Claims use* since Jan. 10, 1914.

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Ser. No. 76,582. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 12, 1914.

**Sylvanoff**

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since the 2d day of January, 1914.

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Ser. No. 76,587. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MERGENTHALER LINOTYPE COMPANY, New York, N. Y. Filed Mar. 12, 1914.




*Particular description of goods.*—Vise Automatic Stop details, Pot-Pump details, Elevator-Transfer details, Distributer-Shifter details, Magazine details, Magazine (Lower) details, Escapement details, Cam details, on which the trade-mark has been continuously used in the business of the said corporation since Feb. 15, 1913; Knife details, Ejector Slide and Blade details, Distributer-Box details, Escapement (Lower) details, Head-Letter details, on which the trade-mark has been continuously used in the business of the said corporation since Feb. 22, 1913; First-Elevator-Slide-Guide details, on which the trade-mark has been continuously used in the business of the said corporation since Mar. 15, 1913; Keyboard details, Keyboard-Rod details, Multiple-Key-Rod details, Escapement-Verge-Locking details, Assembling-Elevator-Lever details, Assembler details, Assembler-Chute details, Space-Band-Chute details, Assembling-Elevator details, Delivery-Slide details, Delivery-Pump or Air-Cushion details, Delivery-Channel details, First-Elevator-Lever details, Vise details, Vise-Closing and Justification details, Mold-Disk details, Intermediate-Channel details, Distributer-Box (Lower) details, Pi-Stacker details, Automatic Safety and Stopping Pawl details, Starting and Stopping details, on which the trade-mark has been continuously used in the business of the said corporation since Mar. 22, 1913; Keyboard-Key details, Keyboard-Rod-Guide (Upper) details, Stationary-Front details, Assembler-Entrance details, Assembler-Slide details, First-Elevator-Jaw details, Knife-Wiper details, Mold-Driving details, Space-Band-Lever details, Distributer-Clutch details, Distributer-Box-Primary details, Channel-Entrance details, Gasolene-Burner details, on which the trade-mark has been continuously used in the business of the said corporation since Mar. 29, 1913; Keyboard-Cam Rubber-Roll details; Space-Band-Box details, Chase details, Mold-Cam-Lever details, Mold details, Metal-Pot details, on which the trade-mark has been continuously used in the business of the said corporation since Apr. 5, 1913; Keyboard-Cam-Yoke-Frame details, Flexible-Front details, Pot-Gas-Governor details, Second-Elevator details, Distributer Bar and Beam details, Distributer-Screw details, Intermediate Shaft and Clutch details, Tabular details, on which the trade-mark has been continuously used in the business of the said corporation since Apr. 12, 1913; First-Elevator-Slide details, Pot-Gas-Burner details, Primary-Distributer details, Intermediate-Shaft details, Driving-Shaft details, Quadding details, on which the trade-mark has been continuously used in the business of the said corporation since Apr. 19, 1913; Delivery-Lever details, on which the trade-mark has been continuously used in the business of the said corporation since May 3, 1913; Galley details, Ejector-Lever details, on which the trade-mark has been continuously used in the business of the said corporation since May 10, 1913; Assembler-Entrance (Lower) details, on which the trade-mark has been continuously used in the business of the said corporation since May 31, 1913; Pi-Holder details, on which the trade-mark has been continuously used in the business of the said corporation since Aug. 30, 1913; Mold-Disk-Locking details, on which the trade-mark has been continuously used in the business of the said corporation since Jan. 31, 1914; Multiple-Key-Rod-Attachment details, on which the trade-mark has been continuously used in the business of the said corporation since Jan. 18, 1913.





Ser. No. 76,594. (CLASS 39. CLOTHING.) A. J. TOWER COMPANY, Boston, Mass. Filed Mar. 12, 1914.

**HANDICOAT**

*Particular description of goods.*—Waterproof Coats.
*Claims use* since Mar. 1, 1912.

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Ser. No. 76,604. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 13, 1914.

**Radopelt**

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since the 2d day of January, 1914.

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Ser. No. 76,606. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed Mar. 13, 1914.

**SHADO**

*Particular description of goods.*—Dress-Shields.
*Claims use* since the 1st day of March, 1914.

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Ser. No. 76,624. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CARL ZEISS, Jena, Germany. Filed Mar. 13, 1914.



*Particular description of goods.*—Lenses, Prisms, Reflectors, Microscopes, Projecting Apparatus, Kinematographs, Cystoscopes, Endoscopes, Ophthalmoscopes, Spectacles, Spectacle-Glasses, Spectacle-Lens Systems, Objective-Lens Systems, Telescopes, Field-Glasses, Opera-Glasses, Telemeters, Periscopes, Photographic Objectives, Photographic Cameras, Photographic Shutters, Photographic Dark-Slides, Stands for Cameras and other Optical Instruments, Eyeglasses, Magnifying-Glasses, Reading-Glasses, Stereoscopes, Stereocomparators, Theodolites, Sextants, Refractometers, Optometers, Photometers, Levels, Leveling Instruments, and Parts of the Said Apparatus and Instruments.
*Claims use* since September, 1902.

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Ser. No. 76,631. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CRESCENT TOOL CO., Jamestown, N. Y. Filed Mar. 14, 1914.

**CeeTeeCo**

The trade-mark consists of the letters "CeeTeeCo."
*Particular description of goods.*—Pliers and Wrenches.
*Claims use* since October, 1913.

Ser. No. 76,645. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 14, 1914.

**Uralde**

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since the 2d day of January, 1914.

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Ser. No. 76,659. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed Mar. 14, 1914.

**ECONOMY KING**

*Particular description of goods.*—Cream-Separators.
*Claims use* since Dec. 4, 1913.

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Ser. No. 76,681. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE HIND & HARRISON PLUSH CO., New York and Clark Mills, N. Y. Filed Mar. 16, 1914.

**Matelam**

*Particular description of goods.*—Fancy Plushes in the Piece.
*Claims use* since Jan. 1, 1914.

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Ser. No. 76,701. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARLOWE MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 16, 1914.

**TANGO**

*Particular description of goods.*—Hair-Nets.
*Claims use* since the 2d day of March, 1914.

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Ser. No. 76,720. (CLASS 15. OILS AND GREASES.) SAFETY NIGHT LIGHT CO., Brooklyn, N. Y. Filed Mar. 17, 1914.




*Particular description of goods.*—Candles.
*Claims use* since Feb. 10, 1914.

Ser. No. 76,726. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MILTON BRADLEY CO., Springfield, Mass. Filed Mar. 18, 1914.

Tru-Life

*Particular description of goods.*—Games.
*Claims use* since Jan. 15, 1914.

Ser. No. 76,736. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE HESS-BRIGHT MANUFACTURING COMPANY, Philadelphia, Pa. Filed Mar. 18, 1914.

MONARCH

*Particular description of goods.*—Radial Ball-Bearings.
*Claims use* since Mar. 6, 1914.

Ser. No. 76,739. (CLASS 39. CLOTHING.) A. S. HAIGHT & CO., New York, N. Y. Filed Mar. 18, 1914.

Tuckaway

The word "Tuckaway."
*Particular description of goods.*—Underwear.
*Claims use* since November the 1st, 1913.

Ser. No. 76,741. (CLASS 48. MALT EXTRACTS AND LIQUORS.) KEELEY BREWING CO., Chicago, Ill. Filed Mar. 18, 1914.

Ex.

*Particular description of goods.*—Beer.
*Claims use* since the 2d day of March, 1914.

Ser. No. 76,751. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 18, 1914.

LAMBTEX

*Particular description of goods.*—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
*Claims use* since about Dec. 15, 1913.

Ser. No. 76,752. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 18, 1914.

POMOIRÉ

*Particular description of goods.*—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
*Claims use* since about Dec. 15, 1913.

Ser. No. 76,753. (CLASS 39. CLOTHING.) THE SALT'S TEXTILE MANUFACTURING COMPANY, Bridgeport, Conn., and New York, N. Y. Filed Mar. 18, 1914.

SIBERTA

*Particular description of goods.*—Women's, Children's, and Infants' Coats, Cloaks, Wraps, and Capes.
*Claims use* since about Dec. 15, 1913.

Ser. No. 76,803. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE ROYAL SPRING WATER CO., Baltimore, Md. Filed Mar. 20, 1914.

RS

*Particular description of goods.*—Ginger-Ale, Sarsaparilla and Carbonated Water.
*Claims use* since April, 1913.

Ser. No. 76,829. (CLASS 39. CLOTHING.) R. WALKER & SONS LIMITED, Leicester, England. Filed Mar. 21, 1914.




*Particular description of goods.*—Blouses, Aprons, Knitted Leggings, Bodices, Bonnets, Hats, Gaiters, Outer Coats, Cloaks, Undercoats, Caps, Pelisses, Bloomers, Capes, Knickers, Jerseys, Singlets, Jackets, Dresses, Dress-Shirts, Negligée Shirts, Work-Shirts, Undershirts, Underdrawers, Muffs, Mittens, Vests, Hosiery, Petticoats, Gloves, Waistcoats, Trousers, Dress-Skirts, Underskirts, Cardigan Jackets, Combination Shirt and Pants.
*Claims use* since June 19, 1906.





Ser. No. 76,831. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MARY ARTCH, New York, N. Y. Filed Mar. 23, 1914.



Comprising a portrait of myself.
*Particular description of goods.*—Hair-Invigorator and Remedy for Diseases of the Scalp, Dandruff, and Falling Hair.
*Claims use* since Feb. 1, 1914.

Ser. No. 76,843. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) COCHRAN PIPE WRENCH MFG. CO., Chicago, Ill. Filed Mar. 23, 1914.

"SPEEDNUT"

*Particular description of goods.*—Wrenches.
*Claims use* since Mar. 1, 1914.

Ser. No. 76,850. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE GIN-GERA COMPANY, INC., Norfolk, Va. Filed Mar. 23, 1914.

Ginco

*Particular description of goods.*—A Non-Alcoholic Soda Beverage.
*Claims use* since December, 1913.

Ser. No. 76,858. (CLASS 39. CLOTHING.) HALL, HARTWELL & CO., Troy, N. Y. Filed Mar. 23, 1914.

SLIDEWELL

*Particular description of goods.*—Collars, Cuffs, and Dress, Work, and Negligée Shirts.
*Claims use* since about Apr. 3, 1908.

Ser. No. 76,863. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) HERMAN R. MELSTER, Jacksonville, Fla. Filed Mar. 23, 1914.




*Particular description of goods.*—Mineral Water.
*Claims use* since Feb. 18, 1914.

Ser. No. 76,871. (CLASS 15. OILS AND GREASES.) PLATT & WASHBURN REFINING COMPANY, New York, N. Y. Filed Mar. 23, 1914.

MAGIC

*Particular description of goods.*—Lubricating Oils and Greases.
*Claims use* since Sept. 1, 1889.

Ser. No. 76,885. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ALEXIS WITTE CUTLERY COMPANY, New York, N. Y. Filed Mar. 23, 1914.

Solace

*Particular description of goods.*—Razors, Scissors, and Hair-Clippers.
*Claims use* since Mar. 14, 1914.

Ser. No. 76,906. (CLASS 39. CLOTHING.) V. PERRIN & CIE., Grenoble, France; London, England, and Gloversville and New York, N. Y. Filed Mar. 24, 1914.

CLUB

*Particular description of goods.*—Gloves.
*Claims use* since Jan. 10, 1893.

Ser. No. 76,945. (CLASS 39. CLOTHING.) THE PARSONS & BAKER CO., Phoenixville, Pa. Filed Mar. 25, 1914.

Criterion

Which consists of the word "Criterion."
*Particular description of goods.*—Ladies' Knit Underwear.
*Claims use* since Mar. 13, 1914.

Ser. No. 76,952. (CLASS 39. CLOTHING.) AVON SOLE COMPANY, Brockton and Avon, Mass. Filed Mar. 26, 1914.

Du-Flex

*Particular description of goods.*—Composition Soles and Heels for Shoes.
*Claims use* since Aug. 1, 1912.

# TRADE-MARKS

## REGISTERED APRIL 21, 1914.

96,381. CERTAIN NAMED FOODS. AMERICAN MAIZE-PRODUCTS COMPANY, Portland, Me., and New York, N. Y.
Filed May 18, 1908. Serial No. 34,819. PUBLISHED FEBRUARY 10, 1914.

96,382. CORN-STARCH AND STARCH AS INGREDIENT OF CERTAIN FOODS. AMERICAN MAIZE-PRODUCTS COMPANY. Portland, Me., and New York, N. Y.
Filed June 4, 1908. Serial No. 35,129. PUBLISHED FEBRUARY 10, 1914.

96,383. CERTAIN NAMED FOODS. AMERICAN MAIZE-PRODUCTS COMPANY. Portland, Me., and New York, N. Y.
Filed June 5, 1908. Serial No. 35,177. PUBLISHED FEBRUARY 10, 1914.

96,384. BUTTERIN. AMMON & PERSON, Jersey City, N. J.
Filed February 8, 1912. Serial No. 61,377. PUBLISHED APRIL 15, 1913.

96,385. CANNED VEGETABLES. THE J. K. ARMSBY CO., Chicago, Ill., and San Francisco, Cal.
Filed November 2, 1911. Serial No. 59,504. PUBLISHED JANUARY 6, 1914.

96,386. CANDY. THE AROMINT COMPANY, Cincinnati, Ohio.
Filed October 15, 1913. Serial No. 73,365. PUBLISHED FEBRUARY 10, 1914.

96,387. FLAVORING EXTRACTS FOR FOODS. THE ARTHUR CHEMICAL CO., New Haven, Conn.
Filed August 9, 1913. Serial No. 72,243. PUBLISHED FEBRUARY 3, 1914.

96,388. GENERAL TONIC AND REMEDY FOR TREATING CERTAIN NAMED DISEASES. J. C. AYER CO., Lowell, Mass.
Filed October 23, 1913. Serial No. 73,564. Renewal of No. 10,694, November 6, 1883. PUBLISHED FEBRUARY 10, 1914.

96,389. PRESERVED FISH PRODUCTS. RAYMOND BARVIER, New York, N. Y.
Filed October 27, 1913. Serial No. 73,618. PUBLISHED FEBRUARY 10, 1914.

96,390. CARDIAC TONIC AND DIURETIC. THE BAYER COMPANY, INC., New York, N. Y.
Filed January 7, 1914. Serial No. 74,997. PUBLISHED FEBRUARY 10, 1914.

96,391. DISINFECTANT. BAYWAY CHEMICAL COMPANY, Elizabeth, N. J.
Filed December 13, 1913. Serial No. 74,554. PUBLISHED FEBRUARY 10, 1914.

96,392. VEGETABLE EXTRACT. J. W. BEARDSLEY'S SONS, New York, N. Y.
Filed November 8, 1913. Serial No. 73,866. PUBLISHED FEBRUARY 3, 1914.

96,393. FRUIT PRESERVES. BEST-CLYMER MFG. CO., St. Louis, Mo.
Filed November 3, 1913. Serial No. 73,764. PUBLISHED FEBRUARY 3, 1914.

96,394. WHEAT-FLOUR. BOWERSOCK MILLS & POWER CO., Lawrence, Kans.
Filed November 10, 1913. Serial No. 73,880. PUBLISHED FEBRUARY 10, 1914.

96,395. CERTAIN NAMED FOODS. M. BRAWER & SON, New York, N. Y.
Filed October 24, 1913. Serial No. 73,585. PUBLISHED FEBRUARY 10, 1914.

96,396. GRAPE-FRUIT, ORANGES, AND PINEAPPLES. JOHN W. AND HERBERT W. BROWN, Bayamon, Porto Rico, and Philadelphia, Pa.
Filed October 15, 1913. Serial No. 73,367. PUBLISHED FEBRUARY 10, 1914.

96,397. PREPARATION FOR MAKING CAKE. THE CABELL COMPANY, Baltimore, Md.
Filed May 8, 1913. Serial No. 70,293. PUBLISHED FEBRUARY 3, 1914.

96,398. DRIED FRUITS. CALIFORNIA ASSOCIATED RAISIN CO., Fresno, Cal.
Filed August 30, 1913. Serial No. 72,592. PUBLISHED FEBRUARY 3, 1914.

96,399. LIGHT-RED TABLE-WINES. LUIGI CALISSANO & FIGLI, INC., New York, N. Y.
Filed January 8, 1914. Serial No. 75,035. PUBLISHED FEBRUARY 10, 1914.

96,400. CHOCOLATE CANDY. DILLING & COMPANY, Indianapolis, Ind.
Filed September 2, 1913. Serial No. 72,614. PUBLISHED FEBRUARY 10, 1914.

96,401. PREPARATION FOR THE TREATMENT OF COUGHS. THE DIO-PINE CO., Fort Wayne, Ind.
Filed December 13, 1913. Serial No. 74,567. PUBLISHED FEBRUARY 10, 1914.

96,402. PASTY PREPARATION FOR TREATING RAW OR FINISHED TEXTILES. B. P. DUCAS CO., New York, N. Y.
Filed December 23, 1913. Serial No. 74,801. PUBLISHED FEBRUARY 10, 1914.

96,403. CERTAIN NAMED CORN PRODUCTS. EVANS MILLING COMPANY, Indianapolis, Ind.
Filed November 3, 1913. Serial No. 73,760. PUBLISHED FEBRUARY 10, 1914.

96,404. RUBBER ERASERS. A. W. FABER, Stein, near Nuremberg, and Berlin, Germany.
Filed September 18, 1913. Serial No. 72,940. PUBLISHED FEBRUARY 10, 1913.

96,405. CERTAIN PROPRIETARY MEDICINE. DR. PETER FAHRNEY & SONS CO., Chicago, Ill.
Filed December 8, 1913. Serial No. 74,452. PUBLISHED FEBRUARY 10, 1914.

96,406. CATARRH AND HAY-FEVER. JAMES FOLLENS, Kansas City, Mo.
Filed December 8, 1913. Serial No. 74,443. PUBLISHED FEBRUARY 10, 1914.

96,407. CANNED FRUITS AND CANNED VEGETABLES. GETZ BROS. & CO., San Francisco, Cal.
Filed January 4, 1912. Serial No. 60,629. PUBLISHED AUGUST 12, 1913.

96,408. COUGH-SYRUP. W. J. GILMORE DRUG COMPANY, Pittsburgh, Pa.
Filed December 19, 1913. Serial No. 74,688. PUBLISHED FEBRUARY 10, 1914.

96,409. CANNED FRUIT AND CANNED COOKED FISH. GORDON, SEWALL & COMPANY, Houston, Tex.
Filed December 4, 1912. Serial No. 67,222. PUBLISHED FEBRUARY 10, 1914.

96,410. COUGH-SYRUP. THE W. M. GRIFFIN COMPANY, Fort Wayne, Ind.
Filed December 13, 1913. Serial No. 74,574. PUBLISHED FEBRUARY 10, 1914.

96,411. FLOUR. GULFPORT GROCERY CO., Gulfport, Miss.
Filed October 18, 1913. Serial No. 73,473. PUBLISHED FEBRUARY 10, 1914.

96,412. CHEMICALS FOR SANITARY TOILETS. HAWKEYE CHEMICAL COMPANY, Clarion, Ill.
Filed December 11, 1913. Serial No. 74,515. PUBLISHED FEBRUARY 10, 1914.

96,413. CANNED SARDINES. ERNEST L. HEEBNER, New York, N. Y.
Filed July 16, 1913. Serial No. 71,750. PUBLISHED FEBRUARY 10, 1914.

96,414. SELF-RISING WHEAT-FLOUR. HEZEL MILLING COMPANY, East St. Louis, Ill.
Filed November 3, 1913. Serial No. 73,743. PUBLISHED FEBRUARY 10, 1914.

96,415. OLIVE-OIL. FERNANDO PALLERÉS É HIJOS, Tortosa, Spain.
Filed November 3, 1911. Serial No. 59,536. PUBLISHED FEBRUARY 10, 1914.

96,416. POPCORN. WILBUR M. HILL, Woodman, N. H.
Filed October 15, 1913. Serial No. 73,377. PUBLISHED FEBRUARY 10, 1914.

96,417. CANDY. HOLLINGSWORTH CANDY COMPANY, Augusta, Ga.
Filed July 15, 1912. Serial No. 64,735. PUBLISHED FEBRUARY 3, 1914.

96,418. WHEAT-FLOUR. HOWERY-TAYLOR MILLING CO., INC., Roanoke, Va.
Filed July 16, 1913. Serial No. 71,749. PUBLISHED FEBRUARY 10, 1914.

96,419. LARD SUBSTITUTE COMPOSED OF COTTON-SEED OIL AND OLEO-STEARIN. INTERSTATE COTTON OIL REFINING CO., Sherman, Tex.
Filed August 25, 1913. Serial No. 72,515. PUBLISHED FEBRUARY 3, 1914.

96,420. TEAS. ADOLPH KEMPLER, Philadelphia, Pa.
Filed October 25, 1913. Serial No. 73,605. PUBLISHED FEBRUARY 10, 1914.

96,421. REMEDY FOR CERTAIN NAMED DISEASES. HENRY E. KENDALL, Shelby, N. C.
Filed December 22, 1913. Serial No. 74,781. PUBLISHED FEBRUARY 10, 1914.

96,422. BLENDED COFFEE. LEWIS E. KING, Richmond, Ind.
Filed July 24, 1913. Serial No. 71,938. PUBLISHED FEBRUARY 3, 1914.

96,423. FLY-REPELLENTS. WILLIAM MCKIRDY, Nepigon, Ontario, Canada.
Filed April 21, 1913. Serial No. 69,961. PUBLISHED FEBRUARY 10, 1914.

96,424. TEAS, SPICES, AND RICE. THE J. HENRY KOENIG CO., Cincinnati, Ohio.
Filed October 7, 1913. Serial No. 73,253. PUBLISHED FEBRUARY 10, 1914.

96,425. NASAL DOUCHE. KRESS & OWEN COMPANY, New York, N. Y.
Filed September 12, 1913. Serial No. 72,817. PUBLISHED FEBRUARY 10, 1914.

96,426. BOX-FASTENERS. JOSEPH KURZ, New York, N. Y.
Filed December 11, 1912. Serial No. 67,339. PUBLISHED FEBRUARY 10, 1914.

96,427. PREPARATION FOR TREATING ANEMIA, MALARIA, HOOK-WORM, AND BLOOD DISEASES. LANDRUM'S DRUG CO., De Funiak Springs, Fla.
Filed January 10, 1913. Serial No. 67,822. PUBLISHED FEBRUARY 10, 1914.

96,428. HORSE-RADISH. LANE & HAWKINS MANUFACTURING COMPANY, (NOT INCORPORATED,) Chicago, Ill.
Filed October 4, 1913. Serial No. 73,218. PUBLISHED FEBRUARY 10, 1914.

96,429. BEET-PULP. THE LARROWE MILLING CO., Cohocton, N. Y.
Filed October 30, 1913. Serial No. 73,702. PUBLISHED FEBRUARY 10, 1914.

96,430. CERTAIN NAMED FOODS. THE H. D. LEE MERCANTILE CO., Salina, Kans.
Filed February 17, 1913. Serial No. 68,575. PUBLISHED FEBRUARY 10, 1914.

96,431. WHEAT-FLOUR. LEWISTON MILLING CO., LTD., Lewiston, Idaho.
Filed July 16, 1913. Serial No. 71,753. PUBLISHED FEBRUARY 10, 1914.

96,432. WHEAT-FLOUR. LEWISTON MILLING CO., LTD., Lewiston, Idaho.
Filed July 16, 1913. Serial No. 71,754. PUBLISHED FEBRUARY 10, 1914.

96,433. WASHING-MACHINES. THE LOCKWOOD-LUETKEMEYER-HENRY COMPANY, Cleveland, Ohio.
Filed October 22, 1913. Serial No. 73,554. PUBLISHED FEBRUARY 10, 1914.

96,434. OLIVE-OIL. LOFARO & ROSSI, Utica, N. Y.
Filed June 23, 1913. Serial No. 71,310. PUBLISHED FEBRUARY 10, 1914.

96,435. PREPARATION FOR THE EXTERMINATION OF VERMIN. LONDON HYGIENIC CHEMICAL CO., London, England.
Filed November 18, 1913. Serial No. 74,057. PUBLISHED FEBRUARY 10, 1914.

96,436. WHEAT-FLOUR. LOUISVILLE MILLING CO., Louisville, Ky.
Filed September 12, 1913. Serial No. 72,818. PUBLISHED FEBRUARY 3, 1914.

96,437. COCOA. MALMÖ CHOKOLAD- & KONFEKT-FABRIKS AKTIE-BOLAG, Malmo, Sweden.
Filed March 7, 1912. Serial No. 62,018. PUBLISHED FEBRUARY 3, 1914.

96,438. LAXATIVE PILLS. SIMON MARCUS, Philadelphia, Pa.
Filed December 20, 1913. Serial No. 74,732. PUBLISHED FEBRUARY 10, 1914.

96,439. FEED FOR HORSES AND MULES. GEO. B. MATTHEWS & SONS, New Orleans, La.
Filed August 9, 1913. Serial No. 72,251. PUBLISHED FEBRUARY 10, 1914.

96,440. REMEDY FOR MALARIAL FEVER AND OTHER COMPLAINTS CAUSED BY MALARIA. B. & H. MEDICINE COMPANY, Brewton, Ala.
Filed December 20, 1913. Serial No. 74,700. PUBLISHED FEBRUARY 10, 1914.

96,441. CANNED OR PRESERVED FISH. JOSEPH HOWARD MERCIAN, New York, N. Y.
Filed October 18, 1913. Serial No. 73,481. PUBLISHED FEBRUARY 10, 1914.

96,442. CANNED OR PRESERVED FISH. JOSEPH HOWARD MERCIAN, New York, N. Y.
Filed October 18, 1913. Serial No. 73,482. PUBLISHED FEBRUARY 10, 1914.

96,443. CANNED OR PRESERVED FISH. JOSEPH HOWARD MERCIAN, New York, N. Y.
Filed October 18, 1913. Serial No. 73,484. PUBLISHED FEBRUARY 10, 1914.

96,444. CANNED OR PRESERVED FISH. JOSEPH HOWARD MERCIAN, New York, N. Y.
Filed October 18, 1913. Serial No. 73,485. PUBLISHED FEBRUARY 10, 1914.

96,445. STIMULANT FOR NERVOUS EXHAUSTION AND GENERAL DEBILITY. MORROW CHEMICAL COMPANY, Platteville, Wis.
Filed November 26, 1913. Serial No. 74,214. PUBLISHED FEBRUARY 10, 1914.

96,446. FACE-CREAM. BETTY MUNK, New York, N. Y.
Filed December 23, 1913. Serial No. 74,809. PUBLISHED FEBRUARY 10, 1914.



96,447. FOOD FOR CHILDREN, CONSISTING OF CERTAIN NAMED INGREDIENTS. NÄHRMITTELFABRIK MÜNCHEN GESELLSCHAFT MIT BESCHR. HAFTUNG, Pasing, near Munich, Germany.
Filed October 15, 1913. Serial No. 73,389. PUBLISHED FEBRUARY 10, 1914.

96,448. TOILET CREAMS, POWDER, PERFUMERY, AND TOOTH-PASTE. BERNARD NOVAMBÈRE, New York, N. Y.
Filed December 22, 1913. Serial No. 74,787. PUBLISHED FEBRUARY 10, 1914.

96,449. EVAPORATED MILK AND CONDENSED MILK. THE OHIO DAIRY COMPANY, Toledo, Ohio.
Filed August 22, 1913. Serial No. 72,491. PUBLISHED FEBRUARY 3, 1914.

96,450. EVAPORATED MILK AND CONDENSED MILK. THE OHIO DAIRY COMPANY, Toledo, Ohio.
Filed September 8, 1913. Serial No. 72,725. PUBLISHED FEBRUARY 10, 1914.

96,451. FISH PACKED IN CANS OR OTHER HERMETICALLY-SEALED RECEPTACLES. CARL O. OLSEN & KLEPPE, Stavanger, Norway.
Filed July 3, 1913. Serial No. 71,519. PUBLISHED FEBRUARY 10, 1914.

96,452. NAIL-POLISH, NAIL-BLEACH, AND CUTICLE AND STAIN REMOVER. ORIENTAL MANICURE SPECIALTY CO., New York, N. Y.
Filed December 30, 1913. Serial No. 74,896. PUBLISHED FEBRUARY 10, 1914.

96,453. CANNED SALMON. PACIFIC FISHERIES & PACKING COMPANY, Aberdeen, Wash.
Filed October 15, 1913. Serial No. 73,396. PUBLISHED FEBRUARY 10, 1914.

96,454. CANNED SALMON. PACIFIC FISHERIES & PACKING COMPANY, Aberdeen, Wash.
Filed October 15, 1913. Serial No. 73,397. PUBLISHED FEBRUARY 10, 1914.

96,455. FRESH PINEAPPLES. PALO SECO FRUIT COMPANY, South Easton, Mass.
Filed September 13, 1913. Serial No. 72,844. PUBLISHED FEBRUARY 10, 1914.

96,456. CHEWING-GUM. JAMES PANTAZIN CO., Logansport, Ind.
Filed September 30, 1913. Serial No. 73,131. PUBLISHED FEBRUARY 3, 1914.

96,457. CERTAIN NAMED FOODS. PELLIER FRÈRES, Mans, France.
Filed March 11, 1909. Serial No. 41,098. PUBLISHED FEBRUARY 10, 1914.

96,458. CERTAIN NAMED FOODS. PELLIER FRÈRES, Mans, France.
Filed March 11, 1909. Serial No. 41,101. PUBLISHED FEBRUARY 10, 1914.

96,459. CATHARTIC CAPSULES. ARTHUR PETRIE, Oklahoma, Okla.
Filed June 16, 1913. Serial No. 71,137. PUBLISHED FEBRUARY 10, 1914.

96,460. PREPARATIONS FOR RHEUMATISM, GOUT, GRIPPE, AND COLDS. RHEUMA CHEMICAL CO., St. Paul, Minn.
Filed April 19, 1912. Serial No. 62,986. PUBLISHED FEBRUARY 10, 1914.

96,461. TABLETS FOR DYSPEPSIA AND OBSTINATE CONSTIPATION. MARTHA ELIZABETH ROBINS, Richmond, Va.
Filed December 29, 1913. Serial No. 74,883. PUBLISHED FEBRUARY 10, 1914.

96,462. CERTAIN NAMED SPORTING GOODS. F. A. O. SCHWARZ, New York, N. Y.
Filed July 18, 1913. Serial No. 71,840. PUBLISHED FEBRUARY 10, 1914.

96,463. CHEMICAL AND PHARMACEUTICAL PREPARATION CALLED ANALGESIC BALM. SEK-RUB COMPANY, Wilkes-Barre, Pa.
Filed December 31, 1913. Serial No. 74,921. PUBLISHED FEBRUARY 10, 1914.

96,464. CERTAIN NAMED FOODS. ACHILLE STARACE, New York, N. Y.
Filed March 25, 1913. Serial No. 69,334. PUBLISHED FEBRUARY 10, 1914.

96,465. FACE-POWDER, TOILET POWDER, AND TALCUM POWDER. JOSEPH TETLOW, Philadelphia, Pa., assignor to Henry Tetlow Co., Philadelphia, Pa., a Firm.
Filed October 13, 1911. Serial No. 59,137. PUBLISHED FEBRUARY 10, 1914.

96,466. COOKING-OIL CONTAINING COTTON-SEED OIL AND BEEF-STEARIN. THE TEXAS REFINING COMPANY, Greenville, Tex.
Filed May 28, 1910. Serial No. 49,997. PUBLISHED FEBRUARY 10, 1914.

96,467. CANNED FISH. TOKSTAD-BURGER CO., New York, N. Y.
Filed October 6, 1913. Serial No. 73,243. PUBLISHED FEBRUARY 10, 1914.

96,468. ALKALINE CLEANING-POWDER. P. C. TOMSON & COMPANY, Philadelphia, Pa.
Filed May 27, 1909. Serial No. 42,703. PUBLISHED FEBRUARY 3, 1914.

96,469. ALIMENTARY PASTE PRODUCTS. VESUVIO & PIEDMONT PASTE CO., San Francisco, Cal.
Filed October 14, 1913. Serial No. 73,363. PUBLISHED FEBRUARY 10, 1914.

96,470. RECORDS FOR TALKING-MACHINES. VICTOR TALKING MACHINE COMPANY, Camden, N. J.
Filed February 5, 1910. Serial No. 47,617. PUBLISHED FEBRUARY 10, 1914.

96,471. TANNING AGENT. ANDREAS G. WACKENREUTER & WILLIAM A. KLIPSTEIN, New York, N. Y.
Filed November 18, 1913. Serial No. 74,105. PUBLISHED FEBRUARY 10, 1914.

96,472. CANDY. ROY WANGENHEIM, Buffalo, N. Y.
Filed November 29, 1913. Serial No. 74,275. PUBLISHED FEBRUARY 10, 1914.

96,473. PREPARATION OF CROUP-SYRUP. GEORGE A. WARREN, Boston, Mass.
Filed January 2, 1914. Serial No. 74,951. PUBLISHED FEBRUARY 10, 1914.

96,474. INHALANT AND FEVER AND CATHARTIC TABLETS FOR CERTAIN AILMENTS. WEBSTER CHEMICAL COMPANY, St. Paul, Minn.
Filed January 7, 1914. Serial No. 75,021. PUBLISHED FEBRUARY 10, 1914.

96,475. WAFERS OF CATHARTIC SALTS. WEBSTER CHEMICAL COMPANY, St. Paul, Minn.
Filed January 7, 1914. Serial No. 75,022. PUBLISHED FEBRUARY 10, 1914.

96,476. MACARONI. THE WESTERN UNION MACARONI MFG. CO., Denver, Colo.
Filed September 8, 1913. Serial No. 72,738. PUBLISHED FEBRUARY 10, 1914.

96,477. PEANUTS. THOMAS S. WHEATCROFT, New York, N. Y.
Filed August 22, 1913. Serial No. 72,492. PUBLISHED FEBRUARY 10, 1914.

96,478. ARTIFICIALLY-SOURED MILK AND CULTURES FOR MAKING SAME. GEORGE STARR WHITE, INC., Yonkers, N. Y.; Reno, Nev., and Danbury, Conn.
Filed September 24, 1913. Serial No. 73,032. PUBLISHED FEBRUARY 10, 1914.

96,479. NON-POISONOUS ANTISEPTIC. AMBROSE S. WILDEY, West Nutley, N. J.
Filed December 12, 1913. Serial No. 74,546. PUBLISHED FEBRUARY 10, 1914.

96,480. TAMALES AND KARNO. WORKMAN PACKING COMPANY, San Francisco, Cal.
Filed October 6, 1913. Serial No. 73,246. PUBLISHED FEBRUARY 10, 1914.

96,481. ELECTRIC VAPORIZERS, HEATERS, AND SPARK-PLUGS. ARNOLD ELECTRIC COMPANY, Boston, Mass.
Filed December 19, 1913. Serial No. 74,770. PUBLISHED FEBRUARY 17, 1914.

96,482. NECKTIES AND NECKSCARFS. LOUIS AUERBACH, INCORPORATED, New York, N. Y.
Filed May 23, 1913. Serial No. 70,576. PUBLISHED FEBRUARY 17, 1914.

96,483. DISINFECTANT. BAYWAY CHEMICAL COMPANY, Elizabeth, N. J.
Filed December 16, 1913. Serial No. 74,626. PUBLISHED FEBRUARY 17, 1914.

96,484. SUSPENDERS, BELTS, GARTERS, AND ARMBANDS. BERKOWITZ & GUTTMANN, New York, N. Y.
Filed January 21, 1914. Serial No. 75,322. PUBLISHED FEBRUARY 17, 1914.

96,485. CERTAIN NAMED AGRICULTURAL IMPLEMENTS. CECIL BILLUPS, Norfolk, Va.
Filed November 18, 1913. Serial No. 74,049. PUBLISHED FEBRUARY 10, 1914.

96,486. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed December 11, 1913. Serial No. 74,508. PUBLISHED FEBRUARY 10, 1914.

96,487. MATCHES. BRYN & HALDEN TÆNDSTIKFABRIKKER. Bryn, near Christiania, Norway.
Filed August 25, 1913. Serial No. 72,507. PUBLISHED FEBRUARY 17, 1914.

96,488. CERTAIN NAMED TOILET PREPARATIONS. EDWARD BURNHAM, Chicago, Ill.
Filed October 13, 1913. Serial No. 73,327. PUBLISHED FEBRUARY 17, 1914.

96,489. SALT. THE CAREY SALT CO., Hutchinson, Kans.
Filed December 13, 1913. Serial No. 74,562. PUBLISHED FEBRUARY 17, 1914.

96,490. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,164. PUBLISHED FEBRUARY 17, 1914.

96,491. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,165. PUBLISHED FEBRUARY 17, 1914.

96,492. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,166. PUBLISHED FEBRUARY 17, 1914.

96,493. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,168. PUBLISHED FEBRUARY 17, 1914.

96,494. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,169. PUBLISHED FEBRUARY 17, 1914.

96,495. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,170. PUBLISHED FEBRUARY 17, 1914.

96,496. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,171. PUBLISHED FEBRUARY 17, 1914.

96,497. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,172. PUBLISHED FEBRUARY 17, 1914.

96,498. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,173. PUBLISHED FEBRUARY 17, 1914.

96,499. COTTON PIECE GOODS. CONVERSE & COMPANY, New York, N. Y.
Filed January 14, 1914. Serial No. 75,174. PUBLISHED FEBRUARY 17, 1914.

96,500. INSULATED WIRE. CRESCENT BELTING AND PACKING COMPANY, Trenton, N. J.
Filed February 15, 1909. Serial No. 40,543. PUBLISHED MAY 4, 1909.

96,501. REMEDIES FOR DISEASES OF DOGS. TIMOTHY DELANEY, New York, N. Y.
Filed December 30, 1913. Serial No. 74,892. PUBLISHED FEBRUARY 17, 1914.

96,502. PREPARATION FOR THE TREATMENT OF CORNS. CATHARINE DE LONG, Quarryville, Pa.
Filed October 24, 1913. Serial No. 73,587. PUBLISHED FEBRUARY 17, 1914.

96,503. ANTISEPTIC FOR CERTAIN NAMED AILMENTS. MELANCTHON A. DODSON, Norfolk, Va.
Filed August 7, 1912. Serial No. 65,136. PUBLISHED FEBRUARY 10, 1914.

96,504. HYDROCARBON OILS. DUNDAS ENGINEERING COMPANY, Vernon, Cal.
Filed December 11, 1912. Serial No. 67,357. PUBLISHED FEBRUARY 17, 1914.

96,505. HEAD-TONIC, SHAMPOO LIQUOR, HEAD-RUB, BAY-RUM, TOILET WATER, TOILET CREAMS, AND LACE-LOTION. PHIL. EISEMANN, Lancaster, Pa.
Filed October 20, 1913. Serial No. 73,503. PUBLISHED FEBRUARY 17, 1914.

96,506. TRUCKS AND WHEELBARROWS. THE FAIRBANKS COMPANY, New York, N. Y.
Filed January 2, 1914. Serial No. 74,935. PUBLISHED FEBRUARY 17, 1914.

96,507. LIQUEFIED GAS. ARTHUR O. FOX, Madison, Wis.
Filed December 4, 1911. Serial No. 60,068. PUBLISHED FEBRUARY 17, 1914.

96,508. CERTAIN NAMED TOILET PREPARATIONS, TONIC, AND TABLETS. GOODRICH DRUG CO., Omaha, Nebr.
Filed May 1, 1912. Serial No. 63,236. PUBLISHED FEBRUARY 17, 1914.

96,509. PREPARATION FOR USE IN THE TREATMENT OF WHOOPING-COUGH. LOUISE GUERTIN, Whitinsville, Mass.
Filed January 26, 1914. Serial No. 75,450. PUBLISHED FEBRUARY 17, 1914.

96,510. BEER. THE GUND BREWING CO., Cleveland, Ohio.
Filed January 23, 1914. Serial No. 75,383. PUBLISHED FEBRUARY 17, 1914.

96,511. HAIR-TONIC. THE HARAL CO., Detroit, Mich.
Filed November 12, 1912. Serial No. 66,822. PUBLISHED FEBRUARY 10, 1914.

96,512. MINERAL-SPRING WATER. DAVID BAXTER HENDERSON, Charlotte, N. C.
Filed January 26, 1914. Serial No. 75,451. PUBLISHED FEBRUARY 17, 1914.

96,513. HAND-MADE SOUR-MASH WHISKY. S. C. HERBST IMPORTING CO., Milwaukee, Wis.
Filed October 12, 1907. Serial No. 30,567. PUBLISHED FEBRUARY 17, 1914.

96,514. CUSHIONS, PILLOWS, AND MATTRESSES. THE J. C. HIRSCHMAN COMPANY, Indianapolis, Ind.
Filed September 13, 1912. Serial No. 65,736. PUBLISHED FEBRUARY 17, 1914.

96,515. CORNMEAL. HUSTED MILLING COMPANY, Buffalo, N. Y.
Filed October 15, 1913. Serial No. 73,376. PUBLISHED FEBRUARY 10, 1914.



96,516. CANDY-CATHARTIC TABLETS. KLEPPER & ARMITAGE, Portland, Oreg.
Filed November 5, 1913. Serial No. 73,817. PUBLISHED FEBRUARY 17, 1914.

96,517. CIGARETTE-PAPER. ALEXANDER A. KOHARY, Pittsburgh, Pa.
Filed November 24, 1913. Serial No. 74,167. PUBLISHED FEBRUARY 17, 1914.

96,518. WINES AND CHAMPAGNE. LALLIER, VAN CASSEL & CIE., Ay, France.
Filed August 15, 1913. Serial No. 72,354. PUBLISHED FEBRUARY 17, 1914.

96,519. SHOE-LACES. JOHN LAWRIE & SONS, Chicago, Ill.
Filed December 22, 1913. Serial No. 74,783. PUBLISHED FEBRUARY 17, 1914.

96,520. SHOE-LACES. JOHN LAWRIE & SONS, Chicago, Ill.
Filed December 22, 1913. Serial No. 74,784. PUBLISHED FEBRUARY 17, 1914.

96,521. SHOE-LACES. JOHN LAWRIE & SONS, Chicago, Ill.
Filed December 22, 1913. Serial No. 74,785. PUBLISHED FEBRUARY 17, 1914.

96,522. SIZE FOR USE IN MANUFACTURE AND FINISH OF TEXTILES. LEVINSTEIN LIMITED, Blackley, near Manchester, England.
Filed November 7, 1913. Serial No. 73,862. PUBLISHED FEBRUARY 17, 1914.

96,523. MEDICINAL TONIC. C. J. LINCOLN COMPANY, Little Rock, Ark.
Filed May 24, 1913. Serial No. 70,623. PUBLISHED FEBRUARY 17, 1914.

96,524. REMEDIES FOR TOBACCO-POISONING, BILIOUSNESS, CONSTIPATION, DYSPEPSIA, AND INDIGESTION. SAMUEL B. LYON, San Francisco, Cal.
Filed February 15, 1913. Serial No. 68,562. PUBLISHED FEBRUARY 10, 1914.

96,525. PREPARATIONS FOR HAIR-DYES. ANNIE MACKINSTRY, New York, N. Y.
Filed December 14, 1912. Serial No. 67,407. PUBLISHED FEBRUARY 17, 1914.

96,526. MEDICINE FOR CERTAIN NAMED DISEASES. JOHN L. MARDER, Carrollton, Ill., and St. Louis, Mo.
Filed August 8, 1913. Serial No. 72,229. PUBLISHED FEBRUARY 17, 1914.

96,527. REMEDY FOR DISEASES OF POULTRY AND SWINE. HENRY W. METZLER, Champaign, Ill.
Filed October 31, 1913. Serial No. 73,714. PUBLISHED FEBRUARY 17, 1914.

96,528. HAND SEWING-NEEDLES, HOOKS AND EYES. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed January 19, 1912. Serial No. 60,928. PUBLISHED FEBRUARY 17, 1914.

96,529. COD-LIVER-OIL TONIC. MILLER DRUG CO., Philadelphia, Pa.
Filed December 20, 1913. Serial No. 74,729. PUBLISHED FEBRUARY 10, 1914.

96,530. HOSIERY. SULLOWAY MILLS, Franklin, N. H.
Filed August 26, 1913. Serial No. 72,537. PUBLISHED NOVEMBER 11, 1913.

96,531. HOSIERY. SULLOWAY MILLS, Franklin, N. H.
Filed August 26, 1913. Serial No. 72,538. PUBLISHED NOVEMBER 11, 1913.

96,532. TABLE-KNIVES OF OTHER THAN PRECIOUS-METAL OR PLATED WARE. NORTHAMPTON CUTLERY CO., Northampton, Mass.
Filed November 25, 1913. Serial No. 74,194. PUBLISHED FEBRUARY 17, 1914.

96,533. PREPARATION FOR THE TREATMENT OF THE HAIR AND SCALP. LEROY OLDHAM, Baltimore, Md.
Filed December 17, 1913. Serial No. 74,657. PUBLISHED FEBRUARY 17, 1914.

96,534. FERTILIZER. PACIFIC BONE COAL & FERTILIZING CO., San Francisco, Cal.
Filed August 1, 1912. Serial No. 65,022. PUBLISHED JUNE 24, 1913.

96,535. WHISKY. PETER PAN DISTILLING COMPANY, Cincinnati, Ohio.
Filed January 22, 1914. Serial No. 75,365. PUBLISHED FEBRUARY 17, 1914.

96,536. WHISKY. PETER PAN DISTILLING COMPANY, Cincinnati, Ohio.
Filed January 22, 1914. Serial No. 75,366. PUBLISHED FEBRUARY 17, 1914.

96,537. WHISKY. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 16, 1913. Serial No. 74,642. PUBLISHED JANUARY 20, 1914.

96,538. WHISKY. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 16, 1913. Serial No. 74,643. PUBLISHED JANUARY 20, 1914.

96,539. WHISKY. RANDOLPH ROSE, Chattanooga, Tenn.
Filed December 16, 1913. Serial No. 74,644. PUBLISHED JANUARY 20, 1914.

96,540. HAIR-TONIC. THE ROSENET COMPANY, Spokane, Wash.
Filed January 15, 1913. Serial No. 67,937. PUBLISHED JULY 15, 1913.

96,541. WHISKY. CHAS. H. ROSS & CO., Baltimore, Md.
Filed March 18, 1913. Serial No. 69,167. PUBLISHED MAY 6, 1913.

96,542. LINIMENT, HEADACHE REMEDY, DEPILATORY FLUID, AND COMPLEXION-PILLS. EDWARD SHER, New York, N. Y.
Filed May 26, 1913. Serial No. 70,677. PUBLISHED FEBRUARY 17, 1914.

96,543. WHITE FOOT-POWDER FOR PERSPIRING AND SWOLLEN FEET. ISIDOR SHERMAN, New York, N. Y.
Filed June 7, 1913. Serial No. 70,960. PUBLISHED FEBRUARY 10, 1914.

96,544. STEAM-ENGINES. THE SKINNER ENGINE COMPANY, Erie, Pa.
Filed December 29, 1913. Serial No. 74,886. PUBLISHED FEBRUARY 17, 1914.

96,545. HAIR-TONIC. MARY SULLIVAN, Buffalo, N. Y.
Filed December 15, 1913. Serial No. 74,621. PUBLISHED FEBRUARY 17, 1914.

96,546. WINES. THE SWEET VALLEY WINE COMPANY, Sandusky, Ohio.
Filed January 16, 1914. Serial No. 75,236. PUBLISHED FEBRUARY 17, 1914.

96,547. ARTISTS' COLORS. TALENS & SON, Irvington, N. J.
Filed March 17, 1913. Serial No. 69,127. PUBLISHED FEBRUARY 17, 1914.

96,548. ELECTRICAL METAL-CLEANING APPARATUS. RALPH THOMPSON, Boston, Mass.
Filed October 2, 1913. Serial No. 73,179. PUBLISHED FEBRUARY 17, 1914.

96,549. REMEDY FOR ECZEMA. THE TILDEN COMPANY, New Lebanon, N. Y., and St. Louis, Mo.
Filed December 29, 1913. Serial No. 74,887. PUBLISHED FEBRUARY 17, 1914.

96,550. PIPE-THREADING MACHINES AND THREADING-DIES FOR USE THEREIN. THE TOLEDO PIPE THREADING MACHINE COMPANY, Toledo, Ohio.
Filed December 13, 1913. Serial No. 74,598. PUBLISHED FEBRUARY 17, 1914.

96,551. POKER-CHIPS, DICE, DOMINOES, CHECKERS, BASE-BALLS, BASE-BALL BATS, AND CRIBBAGE-BOARDS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,288. PUBLISHED FEBRUARY 17, 1914.

96,552. LICE AND VERMIN DESTROYER. UNGLES HOGGETTE MFG. CO., Lincoln, Nebr.
Filed June 23, 1913. Serial No. 71,326. PUBLISHED FEBRUARY 17, 1914.

96,553. STEEL-WIRE ROPE, PARTICULARLY ADAPTED FOR OIL AND GAS WELL USE. THE UPSON-WALTON CO., Cleveland, Ohio.
Filed December 17, 1913. Serial No. 74,661. PUBLISHED FEBRUARY 17, 1914.

96,554. REMEDY FOR THE ALLEVIATION OF DISEASES OF THE LIVER. VAN VLEET-MANSFIELD DRUG CO., Memphis, Tenn.
Filed August 2, 1905. Serial No. 11,190. PUBLISHED FEBRUARY 17, 1914.

96,555. JAR-CLOSURES OF METAL. THE VICTOR JAR COMPANY, Detroit, Mich.
Filed July 17, 1912. Serial No. 64,787. PUBLISHED FEBRUARY 17, 1914.

96,556. CLOTHS AND STUFFS OF WOOL, WORSTED, OR HAIR IN THE PIECE. WALLACE, SCOTT & CO., LIMITED, Glasgow, Scotland.
Filed December 30, 1913. Serial No. 74,900. PUBLISHED FEBRUARY 17, 1914.

96,557. ALL KINDS OF PERFUMES, FACE-PAINTS, AND ROUGES. E. WERTHEIMER & CIE., Paris, France.
Filed December 20, 1913. Serial No. 74,767. PUBLISHED FEBRUARY 17, 1914.

96,558. READY-MIXED PAINT. THE A. WILHELM COMPANY, Reading, Pa.
Filed August 7, 1913. Serial No. 72,213. PUBLISHED SEPTEMBER 2, 1913.

96,559. CARBON-PAINT. THE WILLIAM CAIL BITMO COMPANY, New York, N. Y.
Filed July 30, 1910. Serial No. 51,192. PUBLISHED FEBRUARY 17, 1914.

96,560. CERTAIN INDUSTRIAL CHEMICALS. WULFING GROCER COMPANY, St. Louis, Mo.
Filed May 23, 1913. Serial No. 70,599. PUBLISHED FEBRUARY 17, 1914.

96,561. RUBBER COATS, RUBBER BOOTS, AND RUBBER SHOES. APSLEY RUBBER COMPANY, Hudson, Mass.
Filed December 22, 1913. Serial No. 74,773. PUBLISHED FEBRUARY 17, 1914.

96,562. COMPOSITION SOLES FOR SHOES. AVON SOLE COMPANY, Brockton, Mass.
Filed October 20, 1913. Serial No. 73,496. PUBLISHED FEBRUARY 17, 1914.

96,563. SLIPPERS AND SLIPPER-SOLES. BICKFORD & SWEET, Worcester, Mass.
Filed December 16, 1913. Serial No. 74,628½. PUBLISHED FEBRUARY 17, 1914.

96,564. TEA, COFFEE, COCOA, CHOCOLATE, AND CHICORY. THE BLIND TEA AGENCY, LTD., London, England.
Filed November 15, 1913. Serial No. 74,011. PUBLISHED FEBRUARY 10, 1914.

96,565. REMEDY FOR HEMORRHOIDS. ROBERT E. BOURGEOIS, Gramercy, La.
Filed December 6, 1913. Serial No. 74,407. PUBLISHED FEBRUARY 10, 1914.

96,566. LINIMENT. JOEL E. CAGWIN, Ames, Iowa.
Filed November 6, 1913. Serial No. 73,832. PUBLISHED FEBRUARY 10, 1914.

96,567. CANNED VEGETABLES OF ALL KINDS. HUSTISFORD CANNING CO., Hustisford, Wis.
Filed November 25, 1913. Serial No. 74,186. PUBLISHED FEBRUARY 3, 1914.

96,568. TONIC REMEDY FOR CERTAIN NAMED DISEASES. CHILHOWEE MEDICINE COMPANY, Athens, Tenn.
Filed November 29, 1913. Serial No. 74,250. PUBLISHED FEBRUARY 10, 1914.

96,569. COLLARS MADE OF TEXTILE MATERIAL. CLUETT, PEABODY & CO., Troy, N. Y.
Filed December 30, 1912. Serial No. 67,636. PUBLISHED FEBRUARY 17, 1914.

96,570. DRESS, NEGLIGÉE, UNDER, AND WORK SHIRTS. COHN & DEUTSCH, Los Angeles, Cal.
Filed January 13, 1913. Serial No. 67,866. PUBLISHED FEBRUARY 17, 1914.

96,571. LADIES' UNDERVESTS. HARRY H. CONDIT, Indianapolis, Ind.
Filed November 27, 1912. Serial No. 67,156. PUBLISHED FEBRUARY 17, 1914.

96,572. TABLE-SYRUP, CORN-STARCH, EDIBLE CORN-OIL, JAMS, JELLIES, AND CORN-SYRUP APPLE JELLY. CORN PRODUCTS REFINING CO., New York, N. Y.
Filed September 8, 1913. Serial No. 72,718. PUBLISHED FEBRUARY 10, 1914.

96,573. MEDICAL COMPOUND FOR CERTAIN NAMED AILMENTS. JOHN COWGILL, Prescott, Ariz.
Filed July 19, 1913. Serial No. 71,854. PUBLISHED FEBRUARY 10, 1914.

96,574. SELF-RAISING WHEAT-FLOUR TO BE USED IN MAKING BISCUITS. THE CRAIGHEAD FLOUR CO., Wilkinsburg, Pa.
Filed May 8, 1913. Serial No. 70,292. PUBLISHED FEBRUARY 3, 1914.

96,575. TOMATO PASTE. A. CUSIMANO & CO., New Orleans, La.
Filed July 9, 1913. Serial No. 71,610. PUBLISHED FEBRUARY 10, 1914.

96,576. REEDS FOR CLARINETS. DEUTSCHE HOLZBLAS-INSTRUMENTEN-FABRIK OSCAR ADLER & CO., Markneukirchen, Germany.
Filed July 3, 1913. Serial No. 71,510. PUBLISHED FEBRUARY 17, 1914.

96,577. CAMEMBERT-TYPE CHEESE. LOUIS BESSARD DU PARC, La Chapelle Aux Pots, France, and Sidney, N. Y., administrator of the estate of Julien Bessard du Parc, deceased.
Filed December 28, 1907. Serial No. 31,969. PUBLISHED FEBRUARY 10, 1914.

96,578. OLIVE-OIL. FANTINI & LATORRACA, New York, N. Y.
Filed November 18, 1913. Serial No. 74,053. PUBLISHED FEBRUARY 10, 1914.

96,579. ROBES, BLOUSES, GOWNS, JACKETS, DRESSES, CORSETS, HATS, HAT-FRAMES. FLORETTE, New York, N. Y.
Filed April 17, 1913. Serial No. 69,850. PUBLISHED FEBRUARY 17, 1914.

96,580. HOMINY FEED. HEINRICH FREUDENTHAL, Hamburg, Germany.
Filed May 13, 1913. Serial No. 70,402. PUBLISHED FEBRUARY 3, 1914.

96,581. PERFUMES. FRANZ FRITZSCHE & Co., Hamburg, Germany.
Filed June 18, 1913. Serial No. 71,163. PUBLISHED FEBRUARY 10, 1914.

96,582. SHIRTS, COLLARS, AND PAJAMAS. THE GOODMAN COLLAR CO., New York, N. Y.
Filed November 15, 1912. Serial No. 66,928. PUBLISHED FEBRUARY 17, 1914.

96,583. LINIMENT. GOOSE GREASE COMPANY, Greensboro, N. C.
Filed July 7, 1913. Serial No. 71,563. PUBLISHED FEBRUARY 10, 1914.

96,584. REMEDY FOR PILES. MOSES GROZE, Baton Rouge, La.
Filed June 19, 1913. Serial No. 71,197. PUBLISHED FEBRUARY 10, 1914.

96,585. MILK, CREAM, BUTTER, DRESSED POULTRY, EGGS, FRESH FRUITS, AND VEGETABLES. JAMES S. HARLAN, Essex, N. Y.
Filed April 2, 1913. Serial No. 69,531. PUBLISHED FEBRUARY 10, 1914.



96,586. ICE-BLANKETS, BAKING-PAN LINERS, AND DISH-CLOTHS MADE OF PAPER. HELP SAVER CO., Philadelphia, Pa.
Filed September 10, 1913. Serial No. 72,765. PUBLISHED FEBRUARY 10, 1914.

96,587. POULTRY FOOD AND TONIC. DR. HESS & CLARK, Ashland, Ohio.
Filed September 13, 1913. Serial No. 72,837. PUBLISHED FEBRUARY 10, 1914.

96,588. SUBSTITUTE FOR OPIUM. THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y.
Filed December 6, 1913. Serial No. 74,414. PUBLISHED FEBRUARY 10, 1914.

96,589. CERTAIN NAMED HOMEOPATHIC MEDICINES AND MEDICINAL PREPARATIONS. C. T. HERLBURT & COMPANY, New York, N. Y.
Filed December 3, 1913. Serial No. 74,331. PUBLISHED FEBRUARY 10, 1914.

96,590. MEDICINAL PREPARATIONS FOR TREATING CERTAIN NAMED DISEASES. THE INTERNATIONAL DRUGGISTS' & CHEMISTS' LABORATORIES, INC., New York, N. Y.
Filed October 18, 1913. Serial No. 73,476. PUBLISHED FEBRUARY 17, 1914.

96,591. HOSIERY. INTERWOVEN STOCKING COMPANY, New Brunswick, N. J.
Filed April 25, 1913. Serial No. 70,057. PUBLISHED FEBRUARY 17, 1914.

96,592. BISCUIT. LOOSE-WILES BISCUIT COMPANY, Boston, Mass.
Filed October 6, 1913. Serial No. 73,232. PUBLISHED FEBRUARY 10, 1914.

96,593. CORSETS. MADAME X MANUFACTURING COMPANY, New York, N. Y.
Filed January 5, 1914. Serial No. 74,975. PUBLISHED FEBRUARY 17, 1914.

96,594. HOSIERY. MADURO MERCANTILE CO., New York, N. Y.
Filed September 12, 1913. Serial No. 72,820. PUBLISHED FEBRUARY 17, 1914.

96,595. CANNED PORK AND BEANS WITH TOMATO SAUCE. CHARLES C. MCDONALD, Elyria, Ohio.
Filed November 21, 1913. Serial No. 74,120. PUBLISHED FEBRUARY 3, 1914.

96,596. CERTAIN NAMED FOODS. MULLEN-BLACKLEDGE-NELLIS CO., Brazil, Ind., and Effingham, Ill.
Filed May 23, 1913. Serial No. 70,588. PUBLISHED FEBRUARY 3, 1914.

96,597. BREWERS' GRAIN. K. & E. NEUMOND, New Orleans, La.
Filed October 14, 1913. Serial No. 73,358. PUBLISHED FEBRUARY 10, 1914.

96,598. ENVELOPS AND WRITING AND PRINTING PAPER. NEW ENGLAND ENVELOPE COMPANY, Worcester, Mass.
Filed November 7, 1913. Serial No. 73,847. PUBLISHED FEBRUARY 17, 1914.

96,599. FLOUR. THE L. C. NICHOLSON CO., Indianapolis, Ind.
Filed November 13, 1913. Serial No. 73,953. PUBLISHED FEBRUARY 10, 1914.

96,600. DATES FOR USE AS FOOD. E. A. O'KELLY & Co., London, England.
Filed November 15, 1913. Serial No. 74,017. PUBLISHED FEBRUARY 10, 1914.

96,601. DRY, PASTE, AND READY-MIXED PAINTS. PARIAN PAINT COMPANY, Atlanta, Ga.
Filed May 16, 1905. Serial No. 5,824. PUBLISHED FEBRUARY 3, 1914.

96,602. INSECTICIDE. THOS. PLUNKETT COMPANY, Minneapolis, Minn.
Filed December 6, 1913. Serial No. 74,420. PUBLISHED FEBRUARY 10, 1914.

96,603. UNDERWEAR. ROBERT REIS & CO., New York, N. Y.
Filed December 20, 1913. Serial No. 74,757. PUBLISHED FEBRUARY 17, 1914.

96,604. UNDERWEAR. ROBERT REIS & CO., New York, N. Y.
Filed December 20, 1913. Serial No. 74,758. PUBLISHED FEBRUARY 17, 1914.

96,605. UNDERWEAR. ROBERT REIS & CO., New York, N. Y.
Filed December 20, 1913. Serial No. 74,759. PUBLISHED FEBRUARY 17, 1914.

96,606. UNDERWEAR. ROBERT REIS & CO., New York, N. Y.
Filed December 20, 1913. Serial No. 74,760. PUBLISHED FEBRUARY 17, 1914.

96,607. CITRUS FRUITS. JAMES N. REYNOLDS, Lindsay, Cal.
Filed November 29, 1913. Serial No. 74,269. PUBLISHED FEBRUARY 10, 1914.

96,608. REMEDIES FOR DISEASES OF THE EYES. LOUIS P. SAVAGE, Laporte, Ind.
Filed December 6, 1913. Serial No. 74,421. PUBLISHED FEBRUARY 10, 1914.

96,609. SHOE-COVER AND VAMP-STAYS. SHOE MANUFACTURERS' SUPPLY COMPANY, Newark, N. J.
Filed September 23, 1913. Serial No. 73,017. PUBLISHED FEBRUARY 17, 1914.

96,610. PAPER FOR WRITING AND PRINTING AND ENVELOPS. BRADNER SMITH & Co., Chicago, Ill.
Filed November 20, 1913. Serial No. 74,088. PUBLISHED FEBRUARY 17, 1914.

96,611. RAIN-COATS, RUBBER BOOTS, RUBBER OVERSHOES, AND RUBBER SANDALS. ST. PAUL RUBBER COMPANY, St. Paul, Minn.
Filed May 7, 1912. Serial No. 63,393. PUBLISHED FEBRUARY 17, 1914.

96,612. PIANOS, PIANO-CASES, AND PLAYER-PIANOS. THE STARR PIANO COMPANY, Richmond, Ind.
Filed June 5, 1913. Serial No. 70,882. PUBLISHED FEBRUARY 10, 1914.

96,613. BREAD. ANTON TUTTER, Raymond, Wash.
Filed November 18, 1913. Serial No. 74,068. PUBLISHED FEBRUARY 10, 1914.

96,614. SOLVENTS FOR SHELLAC AND RESINS, AND PAINT-OILS, READY-MIXED PAINTS, VARNISHES, AND WOOD-FILLERS. UNITED STATES GUTTA PERCHA PAINT COMPANY, Providence, R. I.
Filed November 7, 1913. Serial No. 73,861. PUBLISHED JANUARY 27, 1914.

96,615. CARBON-PAPER. UTICA CARBON & WAX PAPER CO., Utica, N. Y.
Filed November 7, 1913. Serial No. 73,846. PUBLISHED FEBRUARY 10, 1914.

96,616. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed December 22, 1913. Serial No. 74,794. PUBLISHED FEBRUARY 10, 1914.

96,617. TOILET-PAPER. WORTENDYKE MANUFACTURING COMPANY, Richmond, Va.
Filed July 3, 1913. Serial No. 71,521. PUBLISHED FEBRUARY 10, 1914.

96,618. GOWNS, MANTLES, GARMENTS MADE OF FUR, UNDERWEAR FOR WOMEN—VIZ., CHEMISES, NIGHT-DRESSES, DRAWERS, AND CAMISOLES. WORTH, Paris, France.
Filed June 12, 1913. Serial No. 71,080. PUBLISHED FEBRUARY 17, 1914.

96,619. CIGARS AND TOBACCO PREPARED TO BE SMOKED IN PIPES. THE UNITED STATES DISTRIBUTING CO., New York, N. Y.
Filed November 12, 1913. Serial No. 73,936. PUBLISHED FEBRUARY 3, 1914.

# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### BROWN *v.* CAMPBELL.

*Decided April 25, 1913.*

1. INTERFERENCE—PRIORITY.

Where B. conceived the invention in issue in 1904 and a model thereof was made and tested and subsequently other models of ribbon-vibrators were made, some of which did not embody the invention, but the device was not put on the market, and no attempt was made to file an application for patent until B.'s attention was called to a published description of the device of C., which was being manufactured by C.'s assignee, *Held* that B.'s work amounted to nothing more than an abandoned experiment or that by the concealment thereof B. had lost his right to a patent.

2. SAME—SAME—CONCEALMENT.

Where after a model of B.'s device was exhibited at a conference of the officials of the assignee company B. left the question of building such a device in the hands of the officials of this company, and it was not placed on the market or an application for patent therefor filed until C.'s device had been manufactured and B.'s attention called to a published account thereof, *Held* that the fact that B.'s work was disclosed to various workmen and officials of the assignee company does not take the case out of the ruling in *Mason* v. *Hepburn*.

APPEAL from Examiners-in-Chief.

TYPE-WRITING MACHINE.

*Mr. Jacob Felbel* for Brown.

*Messrs. Knight Bros.* for Campbell.

TENNANT, *Assistant Commissioner:*

This is an appeal by Brown from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Campbell.

The issue of the interference is set out in thirty-five counts, of which counts 1, 15, and 24 are illustrative:

1. In a typewriting machine, the combination with printing instrumentalities and a horizontal platen, of ribbon spools at the sides of the machine, a vibratory ribbon carrier, provided with devices which maintain the printing portion of the ribbon substantially at right angles to the lines of print, a guide for said carrier, means for adjusting said guide in the general direction of the length of the platen and maintaining it set in adjusted position, and means for actuating said ribbon carrier at printing operation.

15. In a typewriting machine, the combination with printing instrumentalities and a platen, of a vibratory ribbon carrier provided with a ribbon guide, which maintains the printing portion of the ribbon in a direction crosswise of the lines of print, and so that the printing portion of the ribbon is diverted laterally from the direction of the general run of the ribbon and feeds longitudinally crosswise of the general run, means for moving said carrier to vary the normal position of the printing portion of the ribbon, and means for actuating said carrier at printing operation.

24. In a typewriting machine, a ribbon field-changing mechanism comprising a shiftable guide on which a vibratory ribbon carrier is arranged to move, and means for shifting said guide independently of the operation of the machine.

The invention is issue is correctly described by the Examiner of Interferences as follows:

The subject-matter of the interference relates more specifically to a ribbon mechanism applicable to those typewriting machines commonly known as front strike machines in which the writing is visible. In machines of this type, the ribbon must be moved up into operative position simultaneously with the movement of each typebar into striking position, and subsequently returned to inoperative position below the line of print, to render the writing visible. This ribbon movement is accomplished, in the devices herein involved, by an oscillatory ribbon carrier. In the usual form of ribbon mechanism for visible writing machines, the ribbon is fed through the carrier transversely of the machine in a horizontal direction and parallel to the line of print. In the present devices, however, to provide a greater area of ribbon upon which to strike the type, the ribbon is fed vertically through the carrier in a direction at right angles to the line of print. The carrier is provided with means to shift the vertical position of the ribbon in a horizontal direction to bring into operation different color portions of a polychrome ribbon.

The lower tribunals found that Campbell had established a conception and reduction to practice of the invention in February, 1906. They further found that Brown had established a conception in the latter part of 1904, but that by concealment of the invention until after he had learned of Campbell's work he had forfeited his right to a patent under the doctrine laid down in *Mason* v. *Hepburn*, (84 O. G., 147; 13 App. D. C., 86,) *Matthes* v. *Burt*, (114 O. G., 764; 24 App. D. C., 265,) and subsequent decisions of the Court of Appeals of the District of Columbia.

Before the lower tribunals Brown contended that Campbell had no right to make claims corresponding to certain of the counts of the issue; but that contention was not made on this appeal.

One of the reasons of appeal assigned by Brown is that the Examiners-in-Chief erred in holding that the testimony on behalf of Campbell is sufficient to establish a conception and disclosure of the invention by him in February, 1906. This ground of appeal was not argued at the hearing, and but little mention of it is made in the brief. Campbell's record has, however, been examined, and in my opinion the evidence is clearly sufficient to establish a conception and reduction to practice by him in February, 1906, as was held by the lower tribunals.

The brief on behalf of Brown is apparently devoted to an attempt to show that the decision in *Mason* v. *Hepburn* is wrong in principle, or at least that the doctrine announced therein is so limited as not to be applicable to the present case. In the appendix to Brown's brief filed at the hearing it is said:

> We believe that the doctrine of *Mason* v. *Hepburn*, especially if it is to be so construed as to make it applicable to this case, is not supported by any reported decision of the U. S. Supreme Court but on the contrary positively conflicts with several of that Court's decisions and opinions, and that the Board errs in declaring it to be a "well established" doctrine. In *Andrews et al.* v. *Hovey* (C. D., 1888, 275) the Supreme Court said (p. 288, *underscoring* ours):
>
> "A question arising in regard to the construction of a statute of the United States concerning patents for inventions can not be regarded as judicially settled when it has not been so settled by the highest judicial authority which can pass upon the question. * * * This Court has always had jurisdiction to review suits on patents to a specified extent, and that jurisdiction was extended by section 56 of the act of July 8, 1870 (16 Stat., 207), to writs of error and appeals in such suits without regard to the sum or value in dispute. *No question arising in any such case, reviewable by this Court, can be regarded as finally settled, so as to establish the law for like cases, until it has been determined by this Court.*"

With respect to this it need only be pointed out that the decision in *Andrews* v. *Hovey* was rendered prior to the creation of the circuit courts of appeals, at which time appeals in patent cases lay directly to the Supreme Court of the United States from the circuit court, and that decisions in interference cases by the Court of Appeals of the District of Columbia have never been appealable to the Supreme Court of the United States. (*Frasch* v. *Moore*, 137 O. G., 230; 211 U. S., 1; *Johnson* v. *Muesser*, 145 O. G., 767; 212 U. S., 283; Judicial Code, sec. 250.) The decisions of the Court of Appeals of the District of Columbia in patent cases are the controlling authority for this Office, and certainly where a principle has been announced in a decision rendered by that court and has been repeatedly adhered to in subsequent decisions, as is the case with the ruling in *Mason* v. *Hepburn*, such ruling is "well-settled" law so far as this Office is concerned.

Campbell contends that the testimony offered on behalf of Brown is insufficient to establish a conception and reduction to practice by him in 1904, as claimed, it being urged that the testimony is indefinite in that it does not clearly discriminate between different devices made by Brown about that time and tested by the Remington Typewriter Company.

This testimony has been carefully and correctly summarized by both of the lower tribunals, and further analysis of it is not necessary. The witnesses seem to have clearly identified the Brown ribbon-vibrator and to have established that it was tested in the latter part of 1904. Northway also stated that he saw this device on the "Brown model machine" in December, 1904, and January, 1905, and tested it at that time.

The testimony on behalf of Brown is very voluminous as to the early development of this device, while there is comparatively little said as to what was done after December, 1904. It appears that Brown, who was connected with the Smith Premier Typewriter Company, was requested by the officers of the Wyckoff, Seamans & Benedict Company, which was the predecessor in business of the Remington Typewriter Company, to design for them a front-stroke type-writer which should be built in many of its features like the Remington Standard Typewriter. Such a model was made in 1903, but was not entirely satisfactory, and a subsequent model was made in 1904. It is this latter model which is in evidence as "Brown Exhibit Machine" and in connection with which the Brown ribbon-vibrator was developed, and on which it was placed and tested. It appears from the evidence that in December, 1904, a conference was had at the Remington works at Ilion, N. Y., between Brown and certain officials of the Remington Company. At this conference two models were under consideration, the one made by Brown and one made by Oscar Woodward. According to the testimony of McClain a memorandum was made at that conference, setting forth a list of the features approved in each of the respective models and a further list of features which they desired embodied in the model. Calder testifies that after this conference a third model was completed in December, 1905, that a fourth model was completed in September, 1907, a fifth one during the subsequent four months, and that the final manufacture of the commercial machine was commenced in March, 1908, and that such machines were put on the market in October, 1908.

The testimony is not very clear as to what was done with the Brown ribbon-vibrator after the conference in December, 1904. According to Calder's testimony the fourth model had thereon what was known as the "Ilion movement," which was a ribbon-movement designed to be used in testing the machines and in which the ribbon moved horizontally and not vertically across the platen, as in the Brown device. In 1907 a modified form of the Brown device was made by one Yaw, and preparations were made for manufacturing this device and placing it on the commercial machine; but this idea was subsequently abandoned, and a vibrator in which the ribbon moved horizontally was adopted. No attempt was made to file an application for patent on the Brown device until Brown's attention had been called by Felbel, the attorney for the Remington Company, on October 3, 1907, to an article appearing in the May number of *Typewriter Topics*, in which appears a cut of the Victor machine and a description of the ribbon-vibrator thereon. The Victor Typewriter Company is the assignee of Campbell's application, and the ribbon-vibrator of that machine is the same as that disclosed in Campbell's application.

Under these circumstances it is believed that the conclusion is clearly justified that either the Brown device was regarded by those responsible for its development as unsatisfactory and amounted to nothing more than an abandoned experiment or that Brown by concealing his device until he was aware of the device marketed by the Victor Type-





writer Company, Campbell's assignee, has lost his right to a patent thereto under the ruling in *Mason* v. *Hepburn* and *Gordon* v. *Wentworth*, (135 O. G., 1125; 31 App. D. C., 150.)

If the device amounted merely to an abandoned experiment, then Brown is entitled only to conception prior to Campbell's conception and reduction to practice, and the latter would clearly be entitled to an award of priority, since the record does not show that anything whatsoever was being done toward a reduction to practice of the invention, either actually or constructively, at the time Campbell entered the field or for nearly a year thereafter.

It is argued on behalf of Brown that there was no such concealment in this case as would subordinate Brown's right to a patent to that of Campbell, for the reason that Brown's device was disclosed to various workmen and to many officials of the Remington Company, and that therefore there was no abandonment of the invention by Brown.

The record shows that Brown did not know what became of the original model after the conference at Ilion until some time in the latter part of 1907 and that he was under a contract with the Remington Typewriter Company and apparently left the whole matter in the hands of the officials thereof.

As pointed out above, the record does not show that anything was done with the original Brown device until the modified form thereof was got up by Yaw in 1907. It has been repeatedly held by the Court of Appeals of the District of Columbia that where an inventor after the reduction to practice of the invention conceals it, takes no steps either toward its commercial exploitation or toward filing an application for patent until he is aware that another inventor has reduced the invention to practice, and either put it on the market or filed an application for patent, he has lost his right to a patent in favor of the latter. In many of these cases it appears that the invention had been made known to employees of the inventor, as in *Thomson* v. *Weston*, (99 O. G., 864; 19 App. D. C., 373,) *Matthes* v. *Burt*, (114 O. G., 764; 24 App. D. C., 265,) and *Gordon* v. *Wentworth*, (135 O. G., 1125; 31 App. D. C., 150.) The circumstances in the last of these cases are very analogous to the present case. In that case the court said:

> Appellant alleges conception of his invention on April 1, 1901, and reduction to practice on August 8, 1902. Appellee fixes the date of conception of his invention at April, 1904, and reduction to practice November 2, 1904. It appears that only one Gordon machine was ever built. It was constructed in 1902. After it was tested on some dummy shoes, it was sent to a factory at Brockton, Mass., where it was tested on regular work for one-half day. It was returned to appellant, and, in April, 1903, was sent to what is known as the Lynn school, where operators are trained by the United Shoe Machinery Company. Here it was left for several weeks, where it was used, as the evidence discloses, to beat out heel-seats on shoes that went through the factory.
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> * * * * * * *
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> Assuming, however, that the tests made by appellant constituted a legal reduction of the invention to practice, the mere fact alone that the invention was concealed and suppressed for a period of more than two years, during which time appellee invented his machine and put it upon the market, is sufficient, in our opinion, to defeat the right of appellant to priority over appellee.

The decision of the Examiners-in-Chief awarding priority to Campbell is affirmed.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

BROWN *v.* CAMPBELL.

*Decided February 2, 1914.*

1. INTERFERENCE—PRIORITY—CONCEALMENT.

The man who secretes his invention makes easier and plainer the path of no one. He contributes nothing to the public. The law owes nothing to an inventor who hides away his invention, and to permit him to lie in wait for one who independently and in good faith proceeds to disclose the invention to the public would be against the policy of the patent laws. In the eyes of the law he is not the prior inventor.

2. SAME—SAME—HOLDING IN ALTERNATIVE—UNOBJECTIONABLE.

A holding by the Commissioner that either the device of B. amounted only to an abandoned experiment or that B. by concealing his device until he was aware of that marketed by C.'s assignee had lost his right to a patent *Held* unobjectionable.

*Mr. D. A. Carpenter* for the appellant.

*Mr. H. C. Workman* for the appellee.

ROBB, *J.*:

This is an appeal from concurrent decisions of the Patent Office tribunals in an interference case in which priority of invention was awarded the appellee Campbell. The application of the appellant Brown was filed November 16, 1907; that of Campbell November 16, 1906.

The subject-matter of the interference relates to a ribbon mechanism applicable to type-writing machines in which the writing is visible. The issue is set forth in thirty-five counts, of which the first, fifteenth and twenty-fourth are illustrative:

> 1. In a typewriting machine, the combination with printing instrumentalities and a horizontal platen, of ribbon spools at the sides of the machine, a vibratory ribbon carrier, provided with devices which maintain the printing portion of the ribbon substantially at right angles to the lines of print, a guide for said carrier, means for adjusting said guide in the general direction of the length of the platen and maintaining it set in adjusted position, and means for adjusting said ribbon carrier at printing operation.
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> 15. In a typewriting machine, the combination with printing instrumentalities and a platen, of a vibratory ribbon carrier provided with a ribbon guide, which maintains the printing portion of the ribbon in a direction crosswise of the lines of print, and so that the printing portion of the ribbon is diverted laterally from the direction of the general run of the ribbon and feeds longitudinally crosswise of the general run, means for moving said carrier to vary the normal position of the printing portion of the ribbon, and means for actuating said carrier at printing operation.
>
> 24. In a typewriting machine, a ribbon field-changing mechanism comprising a shiftable guide on which a vibratory ribbon carrier is arranged to move, and means for shifting said guide independently of the operation of the machine.

The Examiner of Interferences and the Board of Examiners-in-Chief, after an unusually exhaustive and satisfactory analysis of the evidence, found that Campbell had established a conception and reduction to practice in February, 1906, and that Brown had established a reduction to practice in the latter part of 1904 but, by concealment of the invention until after he had learned of Campbell's work in 1907, his rights became subordinated to those of Campbell. The Commissioner found that there had been concealment by Brown of the device of 1904, which the lower tribunals of the Patent Office found constituted a reduction to practice, and that the application for a patent was inspired by

the knowledge of what Campbell had done. The Commissioner concluded that—

either the Brown device was regarded by those responsible for its development as unsatisfactory and amounted to nothing more than an abandoned experiment, or that Brown by concealing his device until he was aware of the device marketed by the Victor Typewriter Co., Campbell's assignee, has lost his right to a patent thereto.

This alternative ruling of the Commissioner is criticized by counsel for appellant, but if they will turn to the opinion of the Circuit Court of Appeals for the Seventh Circuit in a somewhat similar case (*Universal Adding Machine Co.* v. *Comptograph Co.*, 146 Fed., 981) they will find that almost the same language was there used.

We are convinced that the evidence fully sustains the finding of the tribunals of the Patent Office that Mr. Brown concealed this invention from the time it was made in 1904 until Mr. Campbell's machine was on the market in 1907, and that it was Mr. Campbell's disclosure of the invention to the public that inspired the Brown application. We do not deem it necessary to review the evidence here, since that has been so satisfactorily done in the Patent Office. We therefore agree with the Office that the case is ruled by *Mason* v. *Hepburn*, (84 O. G., 147; 13 App. D. C., 86;) *Richards* v. *Burkholder*, (128 O. G., 2533; 29 App. D. C., 485;) *Gordon* v. *Wentworth*, (135 O. G., 1125; 31 App. D. C., 150,) and other cases in this court.

No man, when he hath lighted a candle, putteth it in a secret place, neither under a bushel, but on a candlestick, that they which come in may see the light. (St. Luke, xi, 33.)

The man who secretes his invention makes easier and plainer the path of no one. He contributes nothing to the public. Over and over has it been repeated that the object of the patent system is through protection to stimulate inventions, and inventors ought to understand that this is for the public good. Where an invention is made and hidden away it might as well never have been made at all, at least so far as the public is concerned. The law owes nothing to such an inventor, and to permit him to lie in wait, so to speak, for one who independently and in good faith proceeds to make and disclose to the public the same invention would be both unjust and against the policy of the patent laws. In the eyes of the law he is not the prior inventor.

Decision affirmed.

Affirmed.

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 4, 1914.*

*"Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of Octavie Rincheval, 258 Rue du Faubourg St. Martin, Paris, France, for registration of a trade-mark and trade-mark registered February 28, 1899, No. 32,546, to "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, of Hamburg, Germany, and a notice of such declaration sent by registered mail to said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 4, 1914.*

*James S. Longhurst, Jr., his assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Standard Oil Co. of New York, of 26 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered December 24, 1901, No. 37,517, to James S. Longhurst, Jr., of 72 Nevine street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said James S. Longhurst, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James S. Longhurst, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 28, 1914.*

*Strauss & Jandorf Shoe Co., its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of the Hood Rubber Co., of Watertown, Mass., for registration of a trade-mark and trade-mark registered October 16, 1894, No. 25,341, to Strauss & Jandorf Shoe Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said Strauss & Jandorf Shoe Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Strauss & Jandorf Shoe Co., its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*May & Son, their assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of The Dueber Watch Case Mfg. Co., of West Tuscarawas street, Canton, Ohio, for registration of a trade-mark and trade-mark registered August 15, 1882, No. 9,609, to May & Son, of New York, N. Y., and a notice of such declaration sent by registered mail to said May & Son at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said May & Son, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., March 27, 1914.*

*The Goodwill Chemical Company, its assigns or legal representatives, take notice:*

An interference having been declared by this Office between the application of A. H. Richardson, of Fond du Lac, Wis., for registration of a trade-mark and trade-mark registered December 5, 1899, No. 33,842, to The Goodwill Chemical Company, of 325 North Charles street, Baltimore, Md., and a notice of such declaration sent by registered mail to The Goodwill Chemical Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless The Goodwill Chemical Company, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*





THE
# OFFICIAL GAZETTE
OF THE
# United States Patent Office.

Vol. 201—No. 4. TUESDAY, APRIL 28, 1914. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

## CONTENTS.

| | Page. |
|---|---|
| ISSUE OF APRIL 28, 1914 | 907 |
| DRAWINGS | 907 |
| APPLICATIONS UNDER EXAMINATION | 908 |
| PATENTS GRANTED | 909 |
| REISSUES | 1181 |
| DESIGNS | 1183 |
| TRADE-MARKS—REGISTRATION APPLIED FOR | 1191 |
| TRADE-MARKS—REGISTERED | 1213 |
| LABELS AND PRINTS | 1218 |
| COMMISSIONER'S DECISIONS— | |
| Brenizer v. Robinson | 1219 |
| DECISIONS OF THE U. S. COURTS— | |
| Brenizer et al. v. Robinson | 1221 |
| ADJUDICATED PATENTS | 1222 |
| CHANGES IN CLASSIFICATION | 1222 |
| ADVERSE DECISIONS IN INTERFERENCE | 1222 |
| DISCLAIMER | 1222 |
| INTERFERENCE NOTICES | 1222 |

## ISSUE OF APRIL 28, 1914.

| | | | |
|---|---|---|---|
| Patents | 772 | No. 1,094,410 to No. | 1,095,181, inclusive. |
| Designs | 34 | No. 45,664 to No. | 45,697, inclusive. |
| Trade-Marks | 149 | No. 96,620 to No. | 96,768, inclusive. |
| Labels | 17 | No. 17,663 to No. | 17,679, inclusive. |
| Prints | 5 | No. 3,569 to No. | 3,573, inclusive. |
| Reissues | 2 | No. 13,720 to No. | 13,721, inclusive. |
| Total | 979 | | |

## TO RESIDENTS OF THE UNITED STATES.

| States. | Patents and Designs. | Trade-Marks, Labels, and Prints. | States. | Patents and Designs. | Trade-Marks, Labels, and Prints. |
|---|---|---|---|---|---|
| Alabama | 7 | ..... | North Carolina | 2 | ..... |
| Arizona | 3 | ..... | North Dakota | 2 | ..... |
| Arkansas | 2 | ..... | Ohio | 40 | 9 |
| California | 44 | 7 | Oklahoma | 10 | ..... |
| Colorado | 10 | 1 | Oregon | 4 | 1 |
| Connecticut | 21 | 3 | Pennsylvania | 77 | 10 |
| Delaware | 1 | ..... | Rhode Island | 6 | 4 |
| Florida | ..... | ..... | South Carolina | 1 | ..... |
| Georgia | 3 | 1 | South Dakota | 3 | ..... |
| Idaho | 4 | ..... | Tennessee | 6 | 1 |
| Illinois | 63 | 11 | Texas | 14 | 1 |
| Indiana | 20 | ..... | Utah | 3 | ..... |
| Iowa | 10 | 1 | Vermont | 2 | ..... |
| Kansas | 3 | ..... | Virginia | 6 | 3 |
| Kentucky | 1 | 1 | Washington | 8 | 1 |
| Louisiana | 6 | 2 | West Virginia | ..... | ..... |
| Maine | 5 | ..... | Wisconsin | 13 | 5 |
| Maryland | 10 | ..... | Wyoming | 2 | ..... |
| Massachusetts | 39 | 15 | | | |
| Michigan | 26 | 23 | Alaska, District of | ..... | ..... |
| Minnesota | 15 | 2 | Canal Zone | ..... | ..... |
| Mississippi | 3 | 1 | District of Columbia | 4 | ..... |
| Missouri | 18 | 5 | Hawaii Territory | ..... | ..... |
| Montana | 5 | 1 | Philippine Islands | 1 | ..... |
| Nebraska | 9 | ..... | Porto Rico | ..... | ..... |
| Nevada | ..... | ..... | U. S. Army | ..... | ..... |
| New Hampshire | 3 | ..... | U. S. Navy | ..... | ..... |
| New Jersey | 38 | 7 | | | |
| New Mexico | 1 | ..... | Total to residents of the United States | 706 | 150 |
| New York | 113 | 34 | | | |

## TO RESIDENTS OF FOREIGN COUNTRIES.

| Countries. | Patents and Designs. | Trade-Marks. | Countries. | Patents and Designs. | Trade-Marks. |
|---|---|---|---|---|---|
| Argentina | ..... | ..... | Netherlands | 1 | ..... |
| Austria-Hungary | 2 | ..... | Newfoundland | ..... | ..... |
| Belgium | 3 | ..... | New South Wales | 2 | ..... |
| British India | ..... | ..... | New Zealand | ..... | ..... |
| Brazil | ..... | ..... | Norway | 1 | ..... |
| British West Indies | ..... | ..... | Portugal | ..... | ..... |
| Canada | 11 | 2 | Queensland | ..... | ..... |
| Cape Colony | ..... | ..... | Roumania | ..... | ..... |
| Chile | ..... | ..... | Russia | 2 | ..... |
| Cuba | 2 | ..... | Scotland | 2 | ..... |
| Denmark | ..... | ..... | South Australia | ..... | ..... |
| Dominican Republic | ..... | ..... | Spain | 1 | 3 |
| Dutch East India | ..... | ..... | Sweden | 2 | ..... |
| England | 15 | 6 | Switzerland | 5 | ..... |
| France | 8 | 4 | Transvaal, South Africa | ..... | ..... |
| Germany | 38 | 4 | Victoria | 1 | ..... |
| India | ..... | ..... | Wales | 1 | ..... |
| Ireland | ..... | ..... | | | |
| Italy | 2 | 1 | Total to residents of foreign countries | 99 | 21 |
| Japan | ..... | ..... | | | |
| Mexico | ..... | 1 | | | |

## Drawings.

PRECAUTIONS TO BE OBSERVED IN FORWARDING DRAWINGS TO THE UNITED STATES PATENT OFFICE.

Where drawings are to be filed in connection with an application for Letters Patent in the United States Patent Office, each sheet, before it can be accepted by the Office as a part of the application, must be signed in the name of the inventor at the lower right-hand corner, either by him or by an attorney whose written authorisation from the applicant is filed in connection with the application. This signature must also be attested by two witnesses, each of whom should sign the drawing at the lower left-hand corner of the sheet. The signatures should never be written on a line parallel with the longer edges of the sheet, one of the shorter edges being always regarded, for the purpose of locating the signatures, as the lower edge of the sheet. The signatures must all be within the margin-lines of the sheet and below the lines of the drawing. The title of the invention should be written with pencil on the back of each sheet of drawings.

*When there are filed on the same day two or more applications by the same inventor, each of the documents and drawings belonging to the same application should have placed thereon the same letter or number, which should be different from the letter or number placed upon those of any other of the applications.*

It is desirable that all parts of the complete application, including the drawings, be deposited in the Office at the same time. Should, however, the other parts of the application be filed before the drawings are sent, the latter when forwarded should be accompanied by a letter stating the number of sheets inclosed, and that the drawings are to be filed with the other parts of the application, giving the date at which such other parts were filed in the Office, the name of the inventor, and title of the invention. If the application has received a serial number, that should also be given, and it should be indorsed with pencil on the back of each sheet of drawings. The letter should also state, if such be the case, that the new drawings are to be substituted for those previously filed.

## APPLICATIONS UNDER EXAMINATION.

*Condition at Close of Business April 25, 1914.*

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 314 | 1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers. | Feb. 18 | Feb. 27 | 618 |
| 128 | 2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco. | Jan. 2 | Mar. 30 | 440 |
| 175 | 3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working. | Mar. 30 | Apr. 14 | 228 |
| 232 | 4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Railway Mail Delivery; Traversing Hoists. | Nov. 17 | Feb. 6 | 769 |
| 167 | 5. Bookbinding; Harvesters; Jewelry; Music. | Jan. 14 | Mar. 19 | 465 |
| 318 | 6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation. | Jan. 7 | Mar. 11 | 747 |
| 313 | 7. Educational Appliances; Clutches; Games and Toys; Motors; Optics; Velocipedes. | Jan. 23 | Mar. 17 | 655 |
| 131 | 8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports. | Dec. 9 | Mar. 23 | 1006 |
| 142 | 9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps. | Dec. 1 | Mar. 27 | 612 |
| 235 | 10. Carriages and Wagons | Dec. 22 | Mar. 10 | 1011 |
| 154 | 11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus. | Mar. 2 | Mar. 20 | 398 |
| 322 | 12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements. | Dec. 26 | Jan. 19 | 1214 |
| 329 | 13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning. | Mar. 25 | Mar. 25 | 484 |
| 307 | 14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working. | Oct. 23 | Mar. 27 | 530 |
| 308 | 15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics. | Nov. 25 | Mar. 9 | 1253 |
| 109 | 16. Electric Signaling; Radiant Energy; Telegraphy; Telephony. | Nov. 1 | Mar. 24 | 802 |
| 303 | 17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making. | Mar. 13 | Apr. 6 | 181 |
| 227 | 18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves. | Mar. 21 | Mar. 21 | 250 |
| 236 | 19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces. | Dec. 2 | Mar. 3 | 396 |

*Applications Under Examination*—Continued.

| Room No. | Divisions and subjects of invention. | Oldest new application and oldest action by applicant awaiting office action. | | No. of applications awaiting action. |
|---|---|---|---|---|
| | | New. | Amended | |
| 179 | 20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking. | Mar. 4 | Mar. 4 | 398 |
| 112 | 21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling. | Jan. 23 | Mar. 11 | 410 |
| 249 | 23. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships. | Jan. 30 | Mar. 24 | 342 |
| 379 | 23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism. | Jan. 16 | Mar. 2 | 467 |
| 144 | 24. Apparel; Apparel Apparatus; Sewing Machines. | Feb. 5 | Mar. 7 | 560 |
| 315 | 25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers. | Mar. 13 | Mar. 20 | 300 |
| 106 | 26. Electricity, Generation; Motive Power. | Aug. 27 | Jan. 2 | 795 |
| 372 | 27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus. | Feb. 17 | Mar. 18 | 449 |
| 65 | 28. Internal-Combustion Engines | Nov. 7 | Mar. 21 | 819 |
| 147 | 29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools. | Mar. 7 | Mar. 7 | 489 |
| 152 | 30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines. | Jan. 28 | Apr. 6 | 353 |
| 172 | 31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue. | Feb. 20 | Mar. 9 | 366 |
| 278 | 32. Carbonating Beverages; Dispensing Beverages; Dispensing; Ornamentation; Packaging Liquids; Refrigeration. | Nov. 3 | Mar. 10 | 719 |
| 71 | 33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes. | Dec. 18 | Mar. 5 | 506 |
| 304 | 34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners. | Mar. 20 | Mar. 26 | 270 |
| 57 | 35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet. | Feb. 24 | Mar. 27 | 583 |
| 264 | 36. Driers; Geometrical Instruments; Measuring Instruments; Photography. | Mar. 7 | Mar. 4 | 680 |
| 107 | 37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications. | Dec. 1 | Mar. 14 | 778 |
| 378 | 38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells. | Oct. 6 | Dec. 1 | 815 |
| 321 | 39. Water Distribution | Dec. 29 | Mar. 14 | 550 |
| 280 | 40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles. | Jan. 5 | Mar. 4 | 1109 |
| 125 | 41. Railway Draft Appliances; Resilient Tires and Wheels. | Mar. 4 | Mar. 25 | 531 |
| 279 | 42. Railway Signaling; Signals; Electricity-Transmission to Vehicles. | Dec. 5 | Mar. 21 | 468 |
| 282 | 43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification. | Mar. 26 | Mar. 26 | 263 |

Oldest new case, Aug. 27; oldest amended, Dec. 1.
Total number of applications awaiting action..... 25,079

| | | | | |
|---|---|---|---|---|
| 161 | TRADE-MARKS, DESIGNS, LABELS AND PRINTS: | | | |
| | Trade-Marks | Feb. 13 | Apr. 1 | 1190 |
| | Designs | Mar. 21 | Mar. 13 | 238 |
| | Labels and Prints | Apr. 8 | Apr. 8 | 108 |



# PATENTS

## GRANTED APRIL 28, 1914.

1,094,410. WIRE-STRETCHER. HENRY H. ARMSTRONG, Fort Spunky, Tex. Filed Aug. 1, 1913. Serial No. 782,472. (Cl. 39—120.)



1. In a wire stretcher, a centrally pivoted operating member, a pair of arms equidistantly pivoted on each side of the center of the operating member, means for imparting parallel motion to the arms upon oscillation of the operating member, a wire gripping device upon the free end of each arm, and means upon each arm to positively release the gripping device upon the other arm.

2. In a wire stretcher, a centrally pivoted operating member, a pair of arms equidistantly pivoted on each side of the center of the operating member, a spacing member pivoted equidistant from the pivoted end of each arm, a wire gripping device upon the free end of each arm, and means upon each arm to positively release the gripping device upon the other arm.

3. In a wire stretcher, a centrally pivoted operating member, a pair of arms equidistantly pivoted on each side of the center of the operating member, a spacing member pivoted to the central portion of each arm, a wire gripping device upon the free end of each arm comprising a pivoted toothed dog adapted to engage the wire, and means upon each arm to positively release the dog gripping the wire upon the reverse movement.

4. In a wire stretcher, a centrally pivoted operating member, a pair of arms equidistantly pivoted on each side of the center of the operating member, a spacing member pivoted to the central portion of each arm, a wire gripping device upon the free end of each arm comprising a pivoted toothed dog and base plate adapted to engage the wire, and a fixed member upon each arm adapted to slide over the dog on the opposite arm and upon reverse movement engage said dog and release the same.

1,094,411. RINK. EDUARD ARNOLD, Berlin, Germany. Filed June 20, 1913. Serial No. 774,944. (Cl. 94—1.)

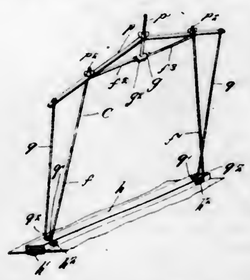



A rink comprising a top layer of crystalline salts, a lower absorbent layer, and a hygroscopic bottom layer.

1,094,412. CANOPY ATTACHMENT FOR HAMMOCKS OR THE LIKE. ALBERT P. ASHWORTH, West Brookville, N. Y. Filed June 5, 1912. Serial No. 701,755. (Cl. 5—10.)

1. An attachment for hammocks, comprising a frame having means thereon adapted to support a canopy, and means thereon adapted to support a roof, said means being adapted to support said roof out of contact with said canopy with a space between said canopy and roof.

2. An attachment for hammocks, comprising a frame, a canopy, a roof, and side coverings, said frame having means thereon adapted to support said roof and side coverings out of contact with said canopy.



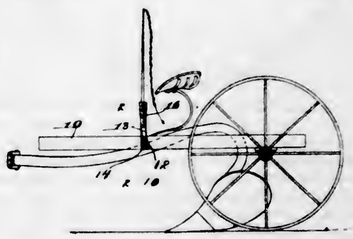
3. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece.

4. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece, said first cross-piece having threaded projections adapted to pass through openings in said second cross-piece.

5. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece, and means upon said projections for holding said second cross-piece in place.

[Claims 6 to 14 not printed in the Gazette.]

1,094,413. WHIP-SOCKET. GILBERT H. BAGLEY, Deapolis, N. D. Filed Nov. 21, 1911. Serial No. 661,589. (Cl. 21—129.)

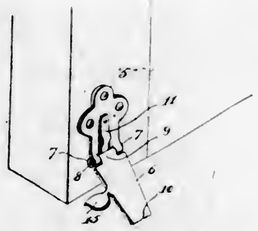


The hereindescribed whip socket provided with a flat side, and a bar to which said flat side is secured, said bar

having a projection to engage the upper edge of a beam to prevent rotative movement of the bar, and said bar having a longitudinal slot therein, and a bolt extending through said slot and beam for securing the bar to a beam and for providing means for attachment of the whip socket to beams of various heights or thicknesses.

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1,094,414. DOOR-STOP. WES BAHNEY, South Bend, Ind. Filed July 30, 1912. Serial No. 712,225. (Cl. 16—154.)

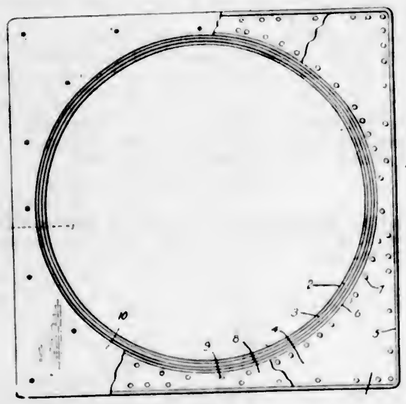


1. A door stop, comprising a bracket, a stop-plate pivoted thereto and adapted to move angularly relative to the face of the door, and means on said stop-plate which projects at right-angles beyond both of the faces of said plate whereby said plate can be adjusted with the foot to a locking or unlocked position.

2. A door stop, comprising a bracket, a stop-plate pivoted thereto and adapted to move angularly relative to the face of the door, means on said stop-plate which projects at right-angles beyond both of the faces of said plate whereby said plate can be adjusted with the foot to a locking or unlocked position, and means for holding said plate in its extreme positions against other than a positive force.

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1,094,415. SAFE OR VAULT WALL. CARL BARTELS, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Filed Apr. 26, 1913. Serial No. 763,711. (Cl. 109—1.)



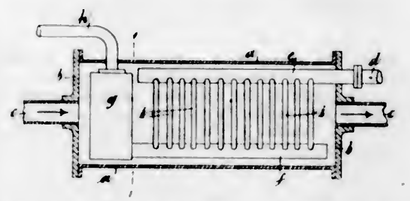
1. A safe or vault wall comprising, a wall consisting of unmachinable metal, studs integrally formed with the wall and projecting from its front face, a plate of machinable metal having perforations engaging said studs and secured to the wall by riveting the studs at the outer face of said plate, and a mask-plate secured to the outer face of said perforated plate, combined substantially as set forth.

2. A safe or vault wall comprising, a wall consisting of unmachinable metal provided with projecting margins to form a facial recess, studs integrally formed with the wall and projecting from its front face into said recess, and a plate of machinable metal disposed within said recess and having perforations engaging said studs and secured to the wall by riveting the studs at the outer face of said plate, combined substantially as set forth.

3. A safe or vault wall comprising, a wall consisting of unmachinable metal provided with projecting margins to form a facial recess, studs integrally formed with the wall and projecting from its front face into said recess, a plate of machinable metal disposed within said recess and having perforations engaging said studs and secured to the wall by riveting the studs at the outer face of said plate, and a mask-plate secured to said perforated plate and covering the joints between said margins and the edges of said plate, combined substantially as set forth.

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1,094,416. VAPORIZER FOR PETROLEUM OR SIMILAR OILS. PAGET BAXTER, London, England. Filed July 29, 1913. Serial No. 781,715. (Cl. 48—107.)



A vaporizer for treating a mixture of air and atomized petroleum or other similar oil for use as a fuel for internal combustion engines comprising in combination a casing, means for passing the exhaust products of combustion from engine through said casing, a supply conduit disposed in said casing and exposed to the exhaust products and connected to the petroleum and air mixing device, a delivery conduit disposed within said casing in a position complementary to the said supply conduit, a series of conduits of relatively small cross sectional area transversely disposed between said supply and delivery, conduits to break up the stream of mixture into a number of streams of comparatively slow velocity and cause the heat of the exhaust gases to be absorbed thereby, and a reservoir of comparatively large volume within said casing connected with said supply conduit and disposed in the path of the hot exhaust gases on their passage through the casing, substantially as described.

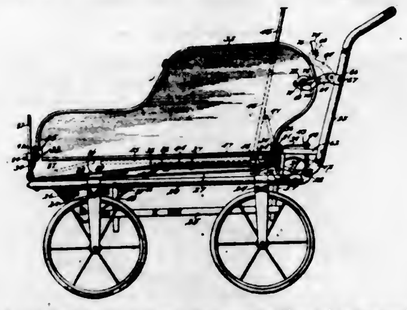
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1,094,417. FOLDING GO-CART. FRANK J. BEIER, Elkhart, Ind., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 1, 1909. Serial No. 480,728. Renewed Mar. 9, 1914. Serial No. 823,634. (Cl. 21—83.)

1. In a folding go-cart, the combination of a supporting frame, a seat supported thereby, sides for the seat supported independently of the seat and foldable laterally with respect thereto, means for limiting the unfolding movement of the sides, a handle foldable with respect to the supporting frame, a common means for securing the sides and the handle in position for use, a foot board independent of the sides and seat and foldable longitudinally with respect to the frame, and means independent of the sides of the seat for securing the foot board in position for use.

2. In a foldable go-cart, the combination of a supporting frame, a seat yieldingly supported by the frame, sides for the seat supported independently of the seat and foldable laterally with respect to the seat, an adjustable back for the seat, a foldable foot-board independent of the sides and seat, means for securing the footboard rigidly in position for use, said foot board and back being foldable longitudinally upon the frame, said sides being foldable laterally upon the back and footboard, and means for securing the parts in their folded position.





3. In a folding go-cart, the combination of a supporting frame, a seat yieldingly supported thereby, sides for the seat foldable laterally with respect to the seat, means for securing the sides in position for use, a foot board independent of the sides and seat and foldable with respect to the frame, means independent of the sides for securing the footboard rigidly in position for use, an adjustable back for the seat between the sides, an adjustable foot rest for the seat independent of the footboard, and means for securing the footrest in its adjusted position.

4. In a folding go-cart, the combination of a supporting frame, a seat yieldingly supported thereby, sides for the seat supported independently of the seat, and foldable laterally with respect to the seat, a footboard separate from the seat and foldable with respect to the frame, means engaging one end of the sides for holding the latter in position, separate means engaging the foot-board for securing the latter in position, a foot rest independent of the foot board and adjustable in the space formed by the sides and footboard, a foldable back for the seat, a foldable handle, and a common means for securing the handle and the other end of the side boards in position for use.

5. In a folding go-cart, the combination of a supporting frame, spaced yielding members supported by and extending above the frame, a seat supported by said members, an adjustable foot rest for the seat, an adjustable back for the seat, sides for the seat supported independently of the seat and foldable laterally with respect thereto, a stop on the frame for limiting the unfolding movement of the sides, a foldable handle, a common means for securing the handle and sides in positions for use, an independent footboard adjacent the end of the frame and foldable with respect to the frame, and means for securing the footboard in position for use.

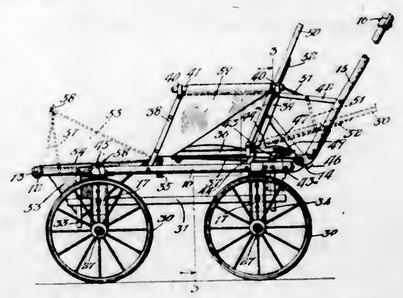
[Claims 6 to 11 not printed in the Gazette.]

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1,094,418. FOLDING GO-CART. FRANK J. BEIER, Elkhart, Ind., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Feb. 28, 1908, Serial No. 418,311. Renewed Mar. 9, 1914. Serial No. 823,635. (Cl. 21—83.)

1. In a folding go-cart, the combination of a seat supporting structure including spaced members, a seat arranged between the said members and out of engagement therewith, means for supporting one end of the seat, means extending beyond the other end of the seat and engaging the said supporting structure to form a yielding support for the said end, side members for the seat adapted to fold with respect to the supporting structure, and means adapted to engage the supporting structure to lock the side members in operative position, said locking means being adapted to move upon and be supported by the said yielding support when the side members of the seat are being adjusted.

2. In a folding go-cart, the combination of a seat supporting structure including spaced members, a seat arranged between the said members and out of engagement therewith, means for supporting one end of the seat, means extending beyond the other end of the seat and engaging the said supporting structure to form a yielding support for the said end, side members for the seat adapted to fold with respect to the supporting structure, and a catch having pivotal connection with the said members of the seat, said catch being provided with a shoulder adapted to engage over a portion of the supporting structure to lock the part in an operative position, the free end of the catch being adapted to move upon and be supported by the said yielding support when the said side members are being adjusted.



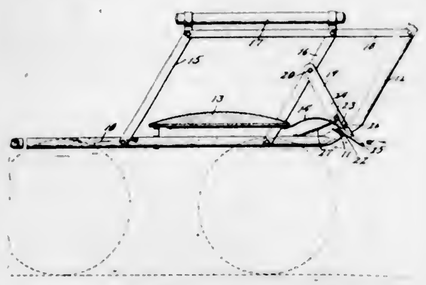
3. In a folding go-cart, the combination of a seat supporting structure including spaced members, a seat arranged between the said members and out of engagement therewith, means for supporting one end of the seat, an elastic member, one extremity of which is secured to the seat and the other extremity having engagement with the supporting structure beyond the seat to form a yielding support for the seat, adjustable side members for the seat, and a catch having pivotal connection with the said members and being adapted to engage a portion of the said structure to lock the parts in an operative position, the free end of the catch being adapted to move upon and be supported by the elastic member when the side members are being adjusted.

4. In a folding go-cart, the combination of a seat supporting structure including spaced members, a seat arranged between the said members and out of engagement therewith, means for supporting one end of the seat, an elastic member, one extremity of which is connected to the seat and the other extremity having engagement with the supporting structure beyond the seat to form a yielding support for the seat, one extremity of the said elastic member having a loose connection with its respective element, side members for the seat, and a catch having pivotal connection with the side members and being adapted to engage a portion of the said structure to lock the parts in an operative position, the free end of the catch being adapted to move upon and be supported by the elastic member when the side members are being adjusted.

5. In a folding go-cart, the combination of a seat supporting structure including spaced members, a seat arranged between the said members and out of engagement therewith, means for supporting one end of the seat, an elastic member, one extremity of which is secured to the seat and the other extremity having engagement with the supporting structure beyond the seat to form a yielding support for the seat, said elastic member being bowed upwardly and one extremity thereof having a rigid connection and the other extremity a loose connection with their respective elements, side members for the seat, and a catch having pivotal connection with the side members and being adapted to engage a portion of the said structure to lock the parts in an operative position, the free end of the catch being adapted to move upon and be supported by the elastic member when the side members are being adjusted.

[Claims 6 to 14 not printed in the Gazette.]

1,094,419. FOLDING GO-CART. FRANK J. BEIER, Elkhart, Ind., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 1, 1909, Serial No. 480,729. Renewed Mar. 9, 1914. Serial No. 823,636. (Cl. 21—83.)



1. In a folding go-cart, the combination of a running gear frame, a seat supported thereby, a folding body structure embodying sides for the seat including uprights pivoted to the frame and adapted to fold onto the frame, a catch pivotally connected to the folding body structure, a guide extending from the seat and upon which guide the catch moves, said catch engaging over a portion of the frame, and means supported by the catch and adapted to engage the frame to unfasten the catch.

2. In a folding go-cart, the combination of a running gear frame, a seat supported thereby, a folding body structure embodying sides for the seat including uprights pivoted to the frame and adapted to fold onto the frame, a catch pivotally connected to the folding body structure, a guide extending from the seat and upon which guide the catch moves, said catch engaging over a portion of the frame, and a member pivotally supported by the catch and projecting therebeyond, said member engaging a portion of the frame as a fulcrum for unfastening the catch.

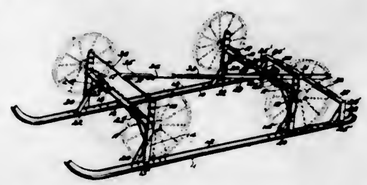
3. In a folding go-cart, the combination of a running gear frame, a seat supported thereby, a folding body structure embodying sides for the seat including uprights pivoted to the frame and adapted to fold onto the frame, a catch pivotally connected to the folding body structure, a guide extending from the seat upon which the catch moves, said catch engaging over a portion of the frame, a member pivotally supported by the catch and projecting therebeyond, said member engaging a portion of the frame as a fulcrum for unfastening the catch, and means for preventing accidental movement of said member.

4. In a folding go-cart, the combination of a running gear frame, a seat supported by the frame, a folding body structure embodying sides for the seat including uprights foldable upon the frame, a catch pivotally connected to the folding body structure and adapted to engage over a portion of the frame, and a member pivotally connected to the catch and extending therebeyond, said member engaging the frame adjacent the catch and extending beyond the frame, whereby the member may rock upon the frame as a fulcrum and about its pivot to disengage the catch from the frame, there being a projection on the catch extending over the said member to hold the latter against accidental movement.

5. In a folding go-cart, the combination of a running gear frame, a seat supported by the frame, sides for the seat including uprights foldable upon the frame, a catch pivotally connected to one of the uprights and adapted to engage over a portion of the frame, a member pivotally connected to the catch and extending therebeyond, said member engaging the frame adjacent the catch and extending beyond the frame, whereby the member may rock upon the frame as a fulcrum and about its pivot to disengage the catch from the frame, there being a projection on the catch extending over the said member to hold the latter against accidental movement, and a guide on the frame for supporting and directing the catch into engagement with the frame.

[Claims 6 to 11 not printed in the Gazette.]

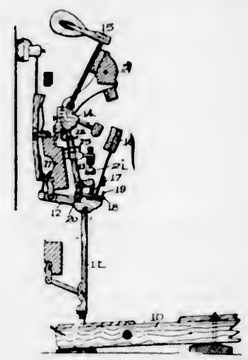
1,094,420. SLED-RUNNER ATTACHMENT. JOHN A. BERGREN, Lake Park, Minn., assignor of one-half to Charley G. Bergren, Hannaford, N. D. Filed June 14, 1912. Serial No. 703,718. (Cl. 21—96.)



1. A sled runner attachment for wheeled vehicles, comprising, rail runners, apertured standards receiving the axles of the vehicle, resilient means connected to the standards above the front axle and to the standards below the rear axle, and a locking member for holding the standards in an upright position.

2. A sled runner attachment for wheeled vehicles, comprising rail runners, standards pivotally connected to said runners and provided with a stop to limit the movement of said standards with relation to the runners in one direction, a bar connecting said standards above the front vehicle axle, a spring connected to said bar and to a bar below the rear vehicle axle, and means for maintaining the standards in a vertical position.

1,094,421. PIANO-ACTION. GUSTAVE BJORKLAND, Bayonne, N. J. Filed July 11, 1910, Serial No. 571,319. Renewed Sept. 25, 1913. Serial No. 791,857. (Cl. 84—26.)



1. In an upright piano action, the combination of a jack having a slot near the top thereof, a hammer butt in position to be operated by the end of the jack, a connection mounted on the hammer butt and projecting through said slot, and an adjustable hook projecting from one side of said jack to the other, and having a transverse end in position for limiting the motion of said jack away from the hammer butt.

2. In an upright piano action, the combination of a jack having a slot near the top thereof, a hammer butt adapted to be operated by the end of the jack, a connection mounted on the hammer butt and projecting through said slot, and an adjustable hook supported on one side of the jack and projecting through said slot into position for limiting the motion of said jack.

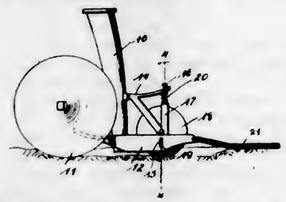


3. In an upright piano action, the combination with a jack and an action rail, of a hook adjustably mounted on the action rail projecting just beyond the jack and capable of turning on its own axis to two positions, in one of which the hook is in psition to engage the jack and limit its motion, and in the other the jack is free to move past it.

4. In an upright piano action, the combination of a jack having a slot near the top thereof, a hammer butt adapted to be operated by the end of the jack, a connection mounted on the hammer butt and projecting through said slot, and an adjustable hook supported on one side of the jack and independently thereof and projecting through said slot into position for limiting the motion of said jack.

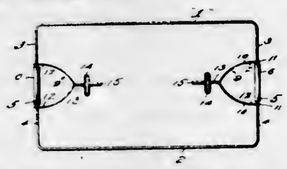
5. In an upright piano action, the combination with a hammer butt, an upright jack, and means on the hammer butt for connecting it with the jack, of a hook located adjacent to the jack and having an end in position to engage the jack independently of the hammer butt, and projecting from one side of the hammer butt to the other when the hook is turned to a certain position to limit the dropping of the jack, whereby removal of the hammer butt will not cause the jack to drop.

1,094,422. ATTACHMENT FOR SEED-DRILLS. ARTHUR BOTTOM, Throne, Alberta, Canada. Filed June 21, 1913. Serial No. 775,021. (Cl. 111—11.)



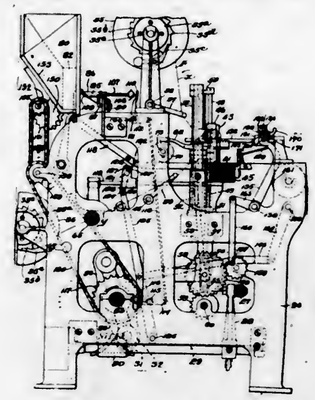
The combination with the seed tube of a grain drill, of a pair of plates secured to the lower end of the seed tube and extending rearwardly therefrom, said plates converging downwardly and disposed to move in a furrow, each of said walls being slotted, a spring depressed fork carried by the tube, means on the fork slidable in the said slots, and a seed pressing wheel mounted in the fork and moving in the furrow between the plates.

1,094,423. BIRD-CAGE GUARD. CHARLES MAISON BRANDT, Philadelphia, Pa., assignor to John T. Williams, Philadelphia, Pa. Filed Nov. 3, 1913. Serial No. 798,940. (Cl. 119—17.)



The herein described bird cage guard comprising a rectangular frame composed of two wire members, one of said members having a tubular extension secured to each of its opposite ends permanently, to permit adjustment and separation of the other member therefrom, supporting members each comprising spaced legs pivotally connected to said frame, said legs being brought together and twisted and hooks formed on said supporting members to engage the wire of the bird cage, said supporting members having oppositely extending fingers adjacent the hooks, and a netting connected to said frame and provided with a pocket to catch the seed thrown from the cage.

1,094,424. LOOM. THOMAS BRINDLE, Providence, R. I., assignor to Robert Burgess, Newton, Mass. Filed Apr. 12, 1912. Serial No. 690,305. (Cl. 139—84.)



1. A loom comprising means for weaving a weft strand back and forth with warp strands to form a fabric having selvages, and means for moving separate fillings longitudinally of the warp into the shed between the picks of the weft, whereby said fillings are interwoven in the fabric.

2. A loom comprising shed-forming mechanism, and means for moving separate fillings successively into the shed by movement longitudinal of the warp whereby said fillings are arranged to be interwoven with the warp.

3. A loom comprising shed-forming mechanism, a magazine at the rear of said mechanism for separate fillings, and means for taking fillings successively from the magazine and moving them forward into the shed in such position as to be interwoven with the warp.

4. A loom comprising shed-forming mechanism, and means for moving separate fillings into the shed by movement longitudinal of the warp and for beating up said fillings.

5. In a loom, the combination with means for picking a shuttle back and forth, of warp needles arranged in a plurality of sets for forming the shed, transverse bars for supporting the needles, means for moving said bars to change the shed, guides for guiding the shed-forming movement of said bars, and means adapted to reciprocate laterally the guides of one of said needle bars without moving the other guides to cross the warp strands laterally.

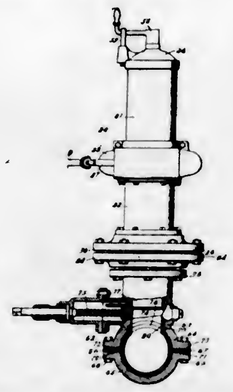
[Claims 6 to 17 not printed in the Gazette.]

1,094,425. TAPPING-MACHINE. ARTHUR W. CASH, Decatur, Ill., assignor to H. Mueller Mfg. Co., Decatur, Ill., a Corporation of Illinois. Filed Sept. 19, 1913. Serial No. 790,672. (Cl. 77—38.)

1. In a machine for tapping mains, a casing, a shaft rotating in the casing, a feed screw revolubly mounted in the outer end of the casing, a locking device for the feed screw to hold the same from turning, a gearing member threaded to the feed screw and having connection with the shaft for advancing the latter upon the rotation of the shaft, and a key mounted longitudinally in the casing and engaging said member to hold the same from turning with the shaft whereby the shaft is automatically fed by its rotation, said key being of a length equal to the distance of travel of the shaft, whereby said feeding means is held from turning throughout the entire length of movement of the shaft.

2. In a machine for tapping mains, a casing, a feed-screw adapted to be held stationary in the casing, a train of gears carried on the shaft and engaging said feed screw and adapted to be turned by the shaft, and a key in the casing engaging said gears to hold the same from turning

about the axis of the shaft whereby said shaft is fed by its rotation, said key extending longitudinally within the casing whereby the gears are held from turning about the shaft throughout the entire length of travel of the shaft.

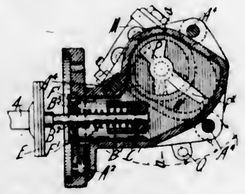


3. In a device for tapping mains, the combination with a shaft, of a cutter on the end of said shaft, means for rotating said shaft, a feed screw extending into the shaft, a rotary member threaded on the feed screw and having connection with the shaft for advancing the same when turned, a crank handle on the outer end of the feed screw for manually advancing the shaft, and means for holding the crank handle against revolution upon the operation of said rotating means.

4. In a device of the character described, a casing, a shaft in said casing, means for rotating the shaft, a cutter on one end of the shaft, a feed screw mounted in the casing and projecting into the opposite end of the shaft, an internal gear having a hub threaded upon said feed screw, a gear fixed upon said shaft, a frame mounted for rotation upon the shaft about said gear, a counter shaft mounted in said frame, gears upon the opposite ends of the counter shaft respectively engaging said internal gear and said gear on the shaft, and an elongated key mounted in the casing longitudinally of the shaft and engaging said frame to hold the latter from turning whereby upon the rotation of said shaft said internal gear rotates on the feed screw to advance said shaft in the casing.

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1,094,426. SHUNTER'S HAND-ACTUATED AIR-BRAKE VALVE. ROBERT FRANCIS COLBORNE, Strathfield, near Sydney, New South Wales, Australia. Filed July 31, 1912. Serial No. 712,386. (Cl. 188—1.)



1. A shunter's hand operated air brake valve attachment, comprising a valve compartment, an air inlet passage forming part of the said compartment and communicating therewith and to the main piston, a graduating stem guide forming part of the compartment, upper and lower radial ports communicating from the valve compartment to adjacent compartments separated from each other and forming part of the valve compartment and communicating respectively with the auxiliary reservoir and the brake cylinder, a rotary disk valve adapted to cover the said radial ports, a valve stem forming part of the disk valve located horizontally in the division between the compartments, an actuating lever attached to the outer end of the valve stem, a coiled spring located on the valve stem between the double chambers and the seating collar adjacent to the actuating lever, extension ends forming part of the coiled spring and arranged on either side of a radial stop, a radial stop, a limitation spring stop affixed externally to the double chambered part of the casing, a limitation stop to control the movement of the actuating lever when putting on the brake, a limitation stop to control the movement of the actuating lever when putting off the brake, a chambered lever forming part of the aforesaid disk valve disposed upon the outer face of the valve to be in line centrally with the graduating stem of the main piston which is operated by it, and, a valve compartment removable cover secured thereto by transverse casing bolts, as described and shown, and for the purposes set forth.

2. The combination with a quick acting tripple valve, auxiliary air cylinder and brake cylinder, of a shunter's hand operated valve attachment comprising a valve casing having an air inlet passage leading thereto, and being in communication with said tripple valve, a pair of separate compartments formed within said valve casing each provided with a radial port, a disk valve for opening and closing communication through said radial ports to the interior of said valve casing and means for operating the same, passages leading from said compartments respectively to the auxiliary reservoir and to the brake cylinder, and a common controlling means for opening and closing both of said passages, and means carried by said disk valve adapted to operate the graduating stem of the tripple valve piston, substantially as described.

3. The combination with the main piston of quick acting brake apparatus having a graduating stem axially attached to said piston and moving therewith, auxiliary air cylinder and brake cylinder, of a shunter's hand operated valve attachment comprising a valve casing surrounding said graduating stem and in communication with the main valve, an air inlet for said valve casing, a pair of separate compartments formed within said valve casing and having radial ports communicating with the interior of said casing, a disk valve for opening and closing said ports, means for operating said disk valve, and means carried by said disk valve for operating said graduating stem, passages from said compartments to the auxiliary reservoir and brake cylinder respectively, and a common stop-cock for opening and closing said passages simultaneously, substantially as described.

4. In a shunter's hand operated air brake valve attachment the combination, with the spring controlled actuating lever of a triple chambered valve attachment, of the connecting rod attached thereto, the shaft and connecting rod lever, the transverse spindle extending to both sides of the vehicle, rope levers affixed to the extremities of the transverse spindle, similar rope levers attached to short spindles on both sides of the vehicle, connecting ropes extending from lever to lever, and operating handles affixed to the ropes, as described and shown, and for the purposes set forth.

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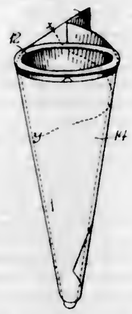
1,094,427. ICE-CREAM CONE AND PROTECTOR THEREFOR. JAMES A. COOK, East Bridgewater, Mass. Filed June 26, 1913. Serial No. 775,898. (Cl. 127—4.)

1. A hollow edible cone provided with a conical protector of thin paper covering the cone substantially from end to end and adapted to be torn to successively expose different portions of the cone, said protector having an extension at one side of its larger end adapted to be bent inwardly over the upper end of the cone and to be withdrawn therefrom to serve as a tearing handle.

2. As an article of manufacture a cone protector, composed of a hollow cone of thin paper formed to cover substantially the entire external surface of the cone and adapted to be torn progressively from its larger end downwardly.



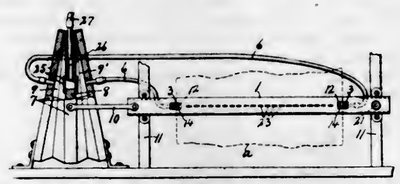
3. As an article of manufacture a cone protector, composed of a hollow cone of thin paper formed to cover substantially the entire external surface of the cone and adapted to be torn progressively from its larger end downwardly, said protector having a flexible extension at one side of its larger end.



4. As an article of manufacture a cone protector, composed of a blank of thin paper having a minimum resistance to tearing strain in one direction and formed into a hollow cone, the axis of which is transverse to the direction of said minimum resistance.

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1,094,428. WEB-GUIDING DEVICE. LEWIS B. DOMAN, Elbridge, N. Y., assignor, by mesne assignments, to Autopiano Company, a Corporation of New York. Filed Jan. 2, 1909. Serial No. 470,431. (Cl. 84—161.)



1. In a web guiding device, valves having movable fingers engaging the edges of and adapted to be actuated by the web when the latter shifts from its normal line of travel, pneumatic means brought into action by the movement of either of said valves for restoring the web to its normal line of travel, and separate means for adjusting said fingers for different widths of webs.

2. In a web guiding device, a bar, a pair of supports relatively adjustable on said bar, fingers movably mounted on the supports engaging the longitudinal edges of the web and adapted to be operated thereby when the web shifts in either direction from its normal line of travel, and means controlled by said fingers for restoring the web to its normal line of travel.

3. In combination with a tracker bar and perforated music sheet of a self-playing musical instrument, valves having movable fingers contacting with opposite edges of the sheet and adapted to be operated by abnormal shifting of the sheet, means controlled by said valves for maintaining normal relation between the sheet and tracker bar, and separate means for adjusting the movable fingers to conform to different widths of sheets.

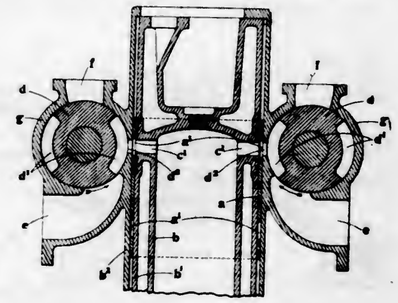
4. In combination with a tracker bar and a perforated music sheet of a self-playing musical instrument, contact members adjustably mounted on the bar and contacting with opposite edges of the sheet, pneumatic means controlled by sai dmembers for maintaining normal relation between the music sheet and tracker bar, and separate means for simultaneously adjusting both members lengthwise of the bar.

5. The combination with the tracker bar and a perforated music sheet of a self-playing musical instrument, of a pair of simultaneously adjustable contact fingers mounted upon the tracker bar to engage the longitudinal edges of the music sheet and adapted to be moved by the shifting of the sheet in either direction from its normal line of travel, and means controlled by the movement of said fingers operable to restore normal relations between the sheet and the tracker bar.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,429. VALVE OF INTERNAL-COMBUSTION ENGINES. MATTHEW E. DUNSCOMBE, Bristol, England. Filed June 22, 1911. Serial No. 634,682. (Cl. 123—188.)



1. In an internal combustion engine, the combination of a cylinder having inlet and exhaust ports, a sleeve valve mounted to slide therein to permit of the alternate inlet and exhaust, said sleeve valve having a series of ports near each extremity, said sleeve having such a movement that the opposite edges of said ports alternately control the exhaust and the opening of the following inlet, means for imparting movement to said sleeve valve, and means for controlling the inlet and exhaust independently of said sleeve valve.

2. In an internal combustion engine the combination of a cylinder having inlet and exhaust ports, a sleeve valve mounted to slide therein to permit of the alternate inlet and exhaust, said sleeve valve having a series of ports disposed near each extremity, said sleeve valve having such a movement that the series of ports at the opposite ends of said sleeve valve alternately control the exhaust and the following inlet, one series of ports being out of operation while the other is in operation, means for imparting movement to said sleeve valve, and means for controlling the inlet and exhaust independently of said sleeve valve.

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1,094,430. PROCESS OF TREATING AND REFINING COTTON-SEED-OIL RESIDUES. CARL EPLER, Bogorodsk, Russia. Filed Apr. 12, 1911. Serial No. 620,696. (Cl. 87—12.)

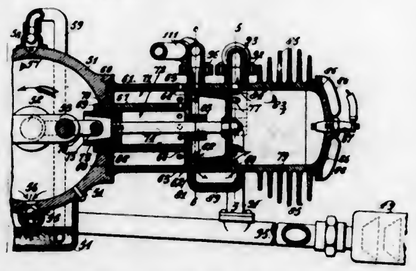
The hereindescribed process of refining and treating oily cotton seed residue (mucilage) which consists of the following steps: boiling the mucilage in a solution of caustic sodium with the addition of common salt and allowing the whole of the mucilage together with the alkali and salt to settle; bleaching the precipitated mass by boiling it with bleaching lime (calcium hypochlorite) and mixing it with sulfuric acid, stirring the mass and allowing it to stand until the oily acid separates; removing the dirty sediment; washing the acid obtained with steam and the addition of common salt; and finally clarifying and drying the washed oily acid by heating it up to 100° C. and stirring it.

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1,094,431. GAS-ENGINE. CLAYTON E. FREDERICKSON, San Francisco, Cal., assignor of one-half to William H. Stenger, San Francisco, Cal. Filed May 9, 1912. Serial No. 696,060. (Cl. 123—56.)

1. In an internal combustion engine, a crank case, a crank shaft mounted therein, a main cylinder mounted on

said crank case, a stationary partition dividing said cylinder into an outer and an inner part, a working piston in said outer part dividing the same into a working chamber and a pump chamber, said main cylinder having a new charge inlet port and an outlet port for the pumping chamber and having a new charge inlet port and an exhaust port for said working chamber, a by-pass duct secured on said cylinder over said pumping chamber outlet port and said working chamber inlet port to connect the same, a new charge duct secured over said pumping chamber inlet port and secured to said by-pass duct, an exhaust duct secured over said exhaust port and to said by-pass duct, said working chamber ports being piston controlled, and operative connections between said working piston and said crank shaft.



2. In an internal combustion engine, a crank case, a crank shaft mounted therein, a main cylinder mounted on said crank case, a stationary partition dividing said cylinder into an outer and an inner part, a working piston in said outer part dividing the same into a working chamber and a pump chamber, said main cylinder having a new charge inlet port and an outlet port for the pumping chamber and having a new charge inlet port and an exhaust port for said working chamber, a by-pass duct secured on said cylinder over said pumping chamber outlet port, and said working chamber inlet port to connect the same, a new charge duct secured over said pumping chamber inlet port and secured to said by-pass duct, an exhaust duct secured over said exhaust port and to said by-pass duct, said working chamber ports being piston controlled, a tubular cross head guide mounted in said inner cylinder part, a cross head piston in said guide, a piston rod rigidly connecting said pistons, a connecting rod between said cross head piston and said crank shaft, and means for cooling said cross head piston and guide.

3. In an internal combustion engine, a crank case, a crank shaft mounted therein, a main cylinder mounted on said crank case, a stationary partition dividing said cylinder into an outer and an inner part, a working piston in said outer part dividing the same into a working chamber and a pump chamber, said main cylinder having a new charge inlet port and an outlet port for the pumping chamber and having a new charge inlet port and an exhaust port for said working chamber, a by-pass duct secured on said cylinder over said pumping chamber outlet port, and said working chamber inlet port to connect the same, a new charge duct secured over said pumping chamber inlet port and secured to said by-pass duct, an exhaust duct secured over said exhaust port and to said by-pass duct, said working chamber ports being piston controlled, a tubular cross head guide mounted in said inner cylinder part, a cross head piston in said guide, a piston rod rigidly connecting said pistons, a connecting rod between said cross head piston and said crank shaft, said cross head guide being spaced from the walls of said inner cylinder part to leave a chamber, means for admitting air into said last named chamber and into said cross head guide between said cross head piston and said stationary partition.

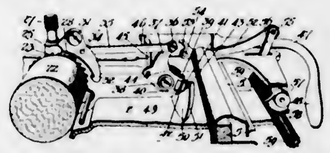
4. In an internal combustion engine, a crank case, a crank shaft mounted thereon, a main cylinder mounted on said crank case, a working piston operating in said cylinder and dividing it into a working chamber and a compression chamber, a cross head cylinder mounted in said main cylinder and having a flange forming a partition to separate said compression chamber from the crank case end of said main cylinder and from said cross head cylinder, said cross head cylinder being spaced from said main cylinder to leave a chamber between said cylinders, means for bracing the crank case end of said cross head cylinder, a cross head piston in said cross head cylinder, a piston rod connecting said pistons, a connecting rod connecting said crank shaft with said cross head piston, a piston controlled by-pass between said working and compression chambers, and said main cylinder having a new charge inlet to the compression chamber, and an exhaust port for said working chamber.

5. In an internal combustion engine, a crank case, a crank shaft mounted thereon, a main cylinder mounted on said crank case, a working piston operating in said cylinder and dividing it into a working chamber and a compression chamber, a cross head cylinder mounted in said main cylinder and having a flange forming a partition to separate said compression chamber from the crank case end of said main cylinder and from said cross head cylinder, a cross head piston in said cross head cylinder, a piston rod connecting said pistons, a connecting rod connecting said crank shaft with said cross head piston, a piston controlled by-pass between said working and compression chambers, and said main cylinder having a new charge inlet to the compression chamber, an exhaust port for said working chamber, said cross head cylinder being spaced from the walls of the main cylinder to leave a pocket or chamber therein and said main cylinder and said cross head cylinder having ports in communication with said pocket.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,432. LINE-SPACING MECHANISM FOR TYPEWRITING MACHINES. LESLIE HAROLD FRIEDMAN, St. Kilda, Melbourne, Victoria, Australia. Original application filed Feb. 12, 1912, Serial No. 667,064. Divided and this application filed Nov. 15, 1912. Serial No. 731,503. (Cl. 197—114.)



1. A typewriting machine having a sliding carriage and a rotatable paper roller, a crank lever pivoted to said carriage, means whereby said lever when operated partially rotates said roller, a link connected to said crank lever, a spindle for operating said link, hand-operated means for rotating said spindle to move said crank lever, and manually operated means for operating said crank lever, from a point adjacent to the key board of the machine, to rotate said roller independently of said last mentioned means.

2. A typewriting machine having a sliding carriage and a rotatable paper roller, a crank lever pivoted to said carriage, means whereby said lever when operated partially rotatea said roller, means for operating said crank lever when the carriage is moved toward its starting position, a link having an open mouth adjacent to said crank lever, and manually operated means for moving said link to operate said crank lever and thereby rotate said roller independently of said last mentioned means.

3. A typewriting machine having a sliding carriage and a rotatable paper roller, a crank lever pivoted to said carriage, means whereby said lever when operated partially rotates said roller, means for operating said crank lever when the carriage is moved toward its starting position, a spindle carried by said carriage, means operated by said spindle for moving said crank lever, a toothed member mounted on said spindle, a fluted spindle mounted on the machine framework and engaging said toothed member, and manually operated means, situated adjacent to the key board of the machine, for operating said fluted spindle.

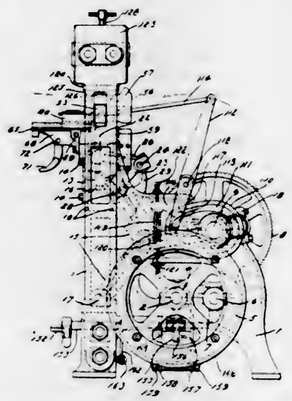
4. A typewriting machine comprising: a slidable carriage, a rotatable paper roller, a ratchet wheel fixed to the roller, a rocking lever carrying a pivoted pawl engaging the ratchet wheel, a crank lever, a link pivotally connected to said crank lever and to said pawl, automatic means for actuating said crank lever when the carriage is moved to its starting position, means for manually operating said crank lever, a link adapted to engage said crank lever and operate it independently of said automatic means, and means for operating said link from a point adjacent the key board of the machine at any point in the travel of the carriage.

5. A typewriting machine comprising: a frame, a rotatable paper roller, a ratchet wheel fixed to said roller, a pawl for moving the roller step by step, a fluted spindle mounted in the frame and extending along the line of travel of the carriage, means for operating said fluted spindle from a point adjacent the key board of the machine, means upon the carriage operatively engaged with said fluted spindle at all points in the travel of the carriage for actuating said pawl and means for automatically operating said pawl when the carriage is moved to its starting position.

[Claims 6 to 21 not printed in the Gazette.]

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1,094,433. HEEL-COMPRESSOR. ADOLPH GEIGER, Rochester, N. Y. Filed June 24, 1911, Serial No. 635,113. Renewed Nov. 15, 1913. Serial No. 801,285. (Cl. 12—48.)



1. A heel compressor, comprising a vertically reciprocating bed, a stationary punch above the bed adapted to compress the heel vertically, laterally movable molds slidably mounted in the bed, means adapted to gradually move the molds inwardly of the bed as the bed ascends, and means adapted to give the molds a quick inward movement against the heel before the vertical compression is released.

2. A heel compressor, comprising a frame, a vertically reciprocating bed on the frame, a punch above the bed adapted to compress the heels vertically during the upward movement of the bed, laterally movable molds in the bed, arms connected to said molds, fulcrum pins for said arms having eccentric bearings in the frame, levers on the fulcrum pins, and means on the bed adapted to engage said levers and shift the fulcrum pins in their bearings.

3. A heel compressor, comprising a frame, a vertically reciprocating bed on the frame, means adapted to compress the heels vertically when the bed is being elevated, laterally movable molds in the bed, means connecting the molds with the frame and adapted to force them inwardly when the bed is elevated, and coacting means on the bed and frame adapted to accelerate the inward movement of the molds as the bed nears its upward limit.

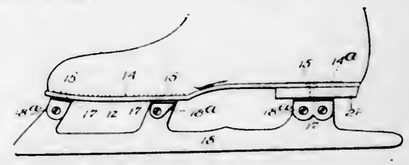
4. A heel compressor, comprising a frame, a vertically reciprocating bed on the frame, means adapted to compress the heels vertically during the upward movement of the bed, molds slidably mounted in the bed and adapted to compress the heels laterally, means adapted to gradually move the molds toward the heel as the bed raises, and means adapted to force the molds against the heels with accelerated speed as the bed nears its upper limit of movement.

5. A heel compressor, comprising a frame, a vertically movable bed on the frame, means adapted to compress the heels vertically during the upward movement of the bed, movable molds on the bed, arms connected to said molds, fulcrum pins for said arms having eccentric bearings in the frame, a lever on each pin, and adjustable means on the bed adapted to engage said levers as the bed nears its upper limit of movement.

[Claims 6 to 22 not printed in the Gazette.]

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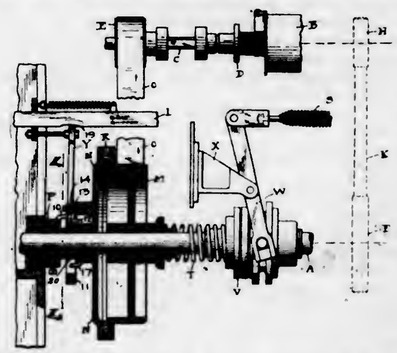
1,094,434. SPORTING-SHOE.. DANIEL J. GOLDEN, Randolph, Mass. Filed Apr. 3, 1913. Serial No. 758,634. (Cl. 36—1.)



The combination with a shoe provided with an inner and an outer sole, of a thin metal plate interposed between the inner and outer soles and covering substantially the area of the outer sole forward of the shank, said plate having rigid coupling members projecting through the outer sole, said coupling members being threaded, complemental coupling members having threaded portions to removably engage the first mentioned coupling members, and supporting members clamped to the outer face of the outer sole by said coupling members.

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1,094,435. STOP-MOTION. JOHN GOOD, New York, N. Y. Filed July 25, 1912. Serial No. 711,407. (Cl. 118—12.)



1. In a spinning machine, the combination with parts adapted to rotate together, one of them being yarn-driven, of a throw-off actuating ring or disk which is mounted to rotate with said parts and is shifted eccentrically with respect to their axes upon lagging of the yarn-driven part.

2. In a spinning machine, a power-driven part and a yarn-driven part mounted to rotate in axial alinement, and a circular member mounted on one of said parts and having contact with both whereby said member remains substantially concentric with the axes of rotation during nor-

mal running and becomes eccentric in event of lagging of the yarn-driven part, in combination with a power-controlling element adapted to be contacted and moved by said member upon the latter becoming eccentric.

3. In a spinning machine, a power-driven part and a yarn-driven part adapted to rotate together, a member encircling the axis of rotation and held in fixed relation to the same during normal running by the coöperation of said parts, and means whereby said member is shifted eccentrically by a camming action when the yarn-driven part lags relatively to the power-driven part, in combination with a power-controlling element adapted to be operated by said member when the latter is shifted.

4. In a spinning machine, a power-driven part and a yarn-driven part adapted to rotate together, a member encircling the axis of rotation and held in fixed relation to the same during normal running by the coöperation of said parts, means whereby said member is shifted eccentrically by a camming action when the yarn-driven part lags relatively to the power-driven part, and a stop for limiting the extent of said camming action, in combination with a power-controlling element adapted to be operated by said member when the latter is shifted.

5. In a spinning machine, a power-driven part and a yarn-driven part adapted to rotate together, and a circular member pivoted to one of said parts and having means of engagement with the other including a curved cam surface and a projection to ride thereon, whereby said member is rendered eccentric upon lagging of the yarn-driven part, in combination with a power-controlling element adapted to be operated by said member when the latter is shifted.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,436. PROCESS OF PURIFYING AND CLARIFYING RAW SUGAR-CANE JUICES. ROBERT E. GORDON, Wallaceburg, Ontario, Canada. Filed Mar. 31, 1913. Serial No. 758,081. (Cl. 127—7.)

1. The process of purifying and clarifying raw sugar cane juices, comprising heating the juice as extracted from the cane to a temperature above 90° C. to precipitate impurities, removing the precipitated impurities, liming at low temperature, carbonating, raising the temperature to above 90° C. while the carbonate of lime is present in the solution, removing precipitated impurities, re-liming, re-carbonating, raising the temperature to above 90° C., removing precipitated impurities, and neutralizing the alkalinity of the solution.

2. The process of purifying and clarifying raw sugar cane juices, comprising heating the raw juices as extracted from the cane to a temperature above 90° C., cooling, removing precipitated impurities, liming, carbonating, raising the temperature to above 90° C., and again removing precipitated impurities.

3. The process of purifying and clarifying raw sugar cane juices, comprising the heating of the raw sugar juice as extracted from the cane to a temperature above 90° C., cooling and removing precipitated impurities, and subsequently treating the solution to alternate liming and carbonation to remove further impurities.

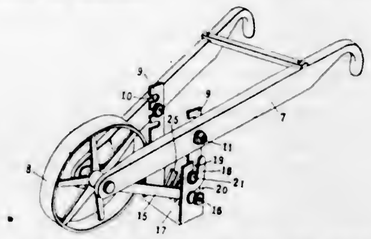
4. The process of purifying and clarifying raw sugar cane juices, comprising the heating of the same immediately following extraction from the cane to a temperature above 90° C., removing precipitated impurities, and subsequently refining by liming and carbonation.

5. The process of purifying and clarifying raw sugar cane juices, comprising the heating of said juices immediately after extraction to a temperature above 90° C., quickly cooling the solution, removing the precipitated impurities, and subsequently purifying by liming, carbonation and filtration, maintaining a high temperature after the first carbonation.

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1,094,437. CULTIVATOR. FRANK HARRIS, Wilmington, Ohio. Filed Aug. 16, 1911. Serial No. 644,458. (Cl. 97—42.)

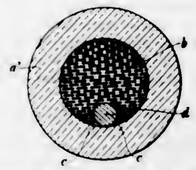
1. In a device of the class described, a frame, and a cultivator member detachably and pivotally adjustable carried thereby, a clamping bolt on the frame for engaging the cultivator member, a pivot pin for the cultivator member carried by said frame, a substantially vertically projecting arm on the cultivator member formed with a longitudinally extending slot therein adapted to engage said pivot pin, said arm being also formed with a second slot adapted to be engaged by the clamping bolt, said second slot being arranged so as to be engaged by said clamping bolt at any point in the length of the second slot, and both of said slots being open-ended so that the cultivator member may be easily and bodily detached from said pivot pin and from said clamping bolt, substantially as described.



2. In a device of the class described, the combination with a main frame, a vertically adjustable secondary frame pendent therefrom, of a cultivator member detachably and pivotally adjustable carried by the secondary frame so as to be vertically adjustable therewith, a clamping bolt carried by the secondary frame for engaging the cultivator member, a pivot pin for the cultivator member also carried by the secondary frame, a substantially vertically projecting arm on said cultivator member formed with a longitudinally extending slot therein at its upper end adapted to engage the pivot pin, said arm being also formed with a second slot through which the clamping bolt projects, said second slot extending transverse to the plane of the longitudinal axis of the first slot having a portion of its length spaced below the lower end of the first slot, and the remainder of its length being substantially concentric to the lower end of the first slot, the clamping bolt engaging the wall of the second slot at any point in the length thereof to maintain the lower end of the first mentioned slot substantially in engagement with the pivot pin, and both of said slots being open-ended through the marginal edges of said vertical arm, so that the cultivator member may be easily bodily detached from said pivot pin and from said clamping bolt, substantially as described.

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1,094,438. GLASS TUBING. HENRY STAFFORD HATFIELD, Jena, Germany, assignor to The Firm of Schott & Gen., Jena, Germany. Filed Mar. 18, 1911. Serial No. 615,364. (Cl. 171—266.)

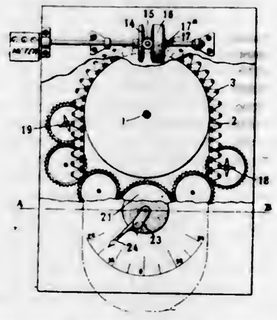


1. Glass tubing grooved internally in the longitudinal direction and intended for the reception of mercury along with a wetting liquid, the bore of the said tubing being so large and the grooving so narrow that, on the tubing being dipped into the mercury the latter enters the said bore, while its meniscus-shaped head does not reach to the bottom of the grooving.

2. Glass tubing having two inner longitudinal grooves formed by a non-amalgamating metal wire being longitudinally fused to its inner surface, which tubing is intended for the reception of mercury along with a wetting liquid, the bore of the said tubing being so large and the said grooves so narrow that, on the tubing being dipped into the mercury, the latter enters the said bore, while its meniscus-shaped head does not reach to the bottom of the grooves.

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1,094,439. MEANS FOR MEASURING THE RATE OF MOVEMENT OF A MECHANISM AVERAGED OVER ANY PREDETERMINED PERIOD OF TIME. HENRY STAFFORD HATFIELD, Jena, Germany. Filed Apr. 1, 1911. Serial No. 618,379. (Cl. 171—34.)



1. A measuring instrument for measuring the rate of movement of a moving part over a predetermined period of time, consisting of a counting train measuring the total movement of the part up to a given moment, a second counting train measuring the total movement of the part up to a predetermined period of time previous to the given moment, and a differential device for measuring the difference between the two, substantially as described.

2. A measuring instrument for measuring the rate of movement of a moving part over a predetermined period of time, consisting of a counting train measuring the total movement of the mechanism up to a given moment, a second counting train measuring the total movement of the mechanism up to a predetermined period of time previous to the given moment, a differential device for measuring the difference between the two, and a maximum indicating device for the differential device, substantially as described.

3. In a measuring instrument, a differential gear; a conveying device adapted to move at a fixed rate and carrying spaced displaceable elements; a part whose movement is to be measured connected to one of the members of the differential gear; a stepping device adapted to be moved by the displaceable elements, when displaced, connected to another member of the differential gear; and a stop for the displaceable elements whose position is controlled by the differential gear, substantially as described.

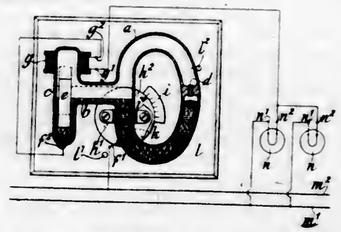
4. In a measuring instrument, a differential gear; a conveying device adapted to move at a fixed rate and carrying spaced displaceable elements; a part whose movement is to be measured connected to one of the members of the differential gear; a stepping device adapted to be moved by the elements, when displaced, connected to another member of the differential gear; a displacer for the displaceable elements; and a stop for such elements whose position is controlled by the differential gear, substantially as described.

5. In a measuring instrument, a part whose movement is to be measured, a conveying device carrying displaceable elements; a displacer arranged to displace the elements in number proportional to the movement of the part whose movement is to be measured, and two counting trains adapted to be operated by the elements, when displaced, whereby the motion of the part during a given time interval may be measured, substantially as described.

[Claim 6 not printed in the Gazette.]



1,094,440. TIMING DEVICE. HENRY STAFFORD HATFIELD, Brunswick, Germany. Filed Mar. 8, 1913. Serial No. 753,113. (Cl. 161—25.)



1. A timing device comprising a tube closed on itself, a conducting fluid filling a part of the tube, a non-conducting fluid of a lesser specific gravity than the conducting fluid filling the remainder of the tube, the said conducting fluid forming two separate upper surfaces, means adapted to rotate the said tube through a certain angle and back again for each setting of the said device, which angle is sufficiently great to allow a portion of the non-conducting fluid to flow past the conducting fluid from one of the upper surfaces of the latter to the other, two contacts within the said tube, which contacts are adapted to be connected by the said conducting fluid, and a restricted plane in the bore of the said tube, which is formed by a system of fine openings adapted to form a passage for the non-conducting fluid.

2. A timing device comprising a tube closed on itself, a conducting fluid filling a part of the tube, a non-conducting fluid of a lesser specific gravity than the conducting fluid filling the remainder of the tube, the said conducting fluid forming two separate upper surfaces, means adapted to rotate the said tube through a certain angle and back again for each setting of the said device, which angle is sufficiently great to allow a portion of the non-conducting fluid to flow past the conducting fluid from one of the upper surfaces of the latter to the other, two contacts within the said tube, which contacts are adapted to be connected by the said conducting fluid, a restricted place in the bore of the said tube, which is formed by a system of fine openings adapted to form a passage for the non-conducting fluid, and part of the said tube being formed as a pocket adapted to receive a portion of the conducting fluid on the tube being rotated and to retain the same until the completion of the said rotation.

3. A timing device comprising a tube closed on itself, a conducting fluid filling a part of the tube, a non-conducting fluid of a lesser specific gravity than the conducting fluid filling the remainder of the tube, the said conducting fluid forming two separate upper surfaces, means adapted to rotate the said tube through an adjustable angle and back again for each setting of the said device, which angle is sufficiently great to allow a portion of the non-conducting fluid to flow past the conducting fluid from one of the upper surfaces of the latter to the other, two contacts within the said tube, which contacts are adapted to be connected by the said conducting fluid, and a restricted place in the bore of the said tube, which is formed by a system of fine openings adapted to form a passage for the non-conducting fluid.

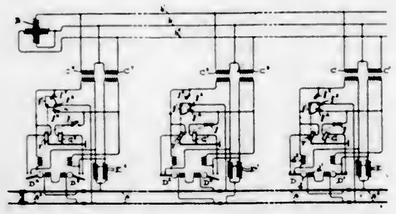
4. A timing device comprising a tube closed on itself, a conducting fluid filling a part of the tube, a non-conducting fluid of a lesser specific gravity than the conducting fluid filling the remainder of the tube, the said conducting fluid forming two separate upper surfaces, means adapted to rotate the said tube through a certain angle and back again for each setting of the said device, which angle is sufficiently great to allow a portion of the non-conducting fluid to flow past the conducting fluid from one of the upper surfaces of the latter to the other, two contacts within the said tube, which contacts are those of a current limiter and are adapted to be connected by the said conducting fluid, and a restricted place in the bore of the said tube, which is formed by a system of fine open-

ings adapted to form a passage for the non-conducting fluid.

5. A timing device comprising a tube closed on itself and rotatable about a fixed pivot, a conducting fluid filling a part of the tube, a non-conducting fluid of a lesser specific gravity than the conducting fluid filling the remainder of the tube, the said conducting fluid forming two separate upper surfaces, crank-gearing adapted to rotate the said tube through a certain angle and back again for each setting of the said device, which angle is sufficiently great to allow a portion of the non-conducting fluid to flow past the conducting fluid from one of the upper surfaces of the latter to the other, two contacts within the said tube, which contacts are adapted to be connected by the said conducting fluid, and a restricted place in the bore of the said tube, which is formed by a system of fine openings adapted to form a passage for the non-conducting fluid.

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1,094,441. BLOCK-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Continuation of application Serial No. 495,100, filed May 10, 1909. This application filed Aug. 7, 1909. Serial No. 511,663. (Cl. 246—30.)



1. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits for the blocks, sources of alternating current for the track circuits, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, said relays having windings supplied with current from the track circuit and cooperating windings supplied with alternating current independently of the track circuit, the currents supplied to said latter windings differing in character in the two relays of each pair, and means controlled by the presence or absence of a train in one block for controlling the character of the current supplied to the block in the rear of said means so as to actuate one only, or both, of the pair of relays for said block in the rear.

2. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits for the blocks, sources of alternating current for the track circuits, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, said relays having windings supplied with current from the track circuit and cooperating windings supplied with alternating current independently of the track circuit, the currents supplied to said latter windings differing in character in the two relays of each pair, and connections including a switch actuated by the movement of a signal from danger to caution for supplying in one position of said switch to the rails of the block in the rear current of a character adapted to actuate one track relay only of said block and in another position of said switch for supplying to the said rails current of a character adapted to actuate both relays of said blocks.

3. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits for the blocks, sources of alternating current for the track circuits, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, said relays having windings supplied with current from the track circuit and cooperating windings supplied with alternating current independently of the track circuit, the currents supplied to said latter windings differing in character in the two relays of each pair, the pairs of relays of adjacent blocks being reversely connected, and means controlled by the presence or absence of a train in one block for controlling the character of the current supplied to the block in the rear of said means so as to actuate one only, or both, of the pair of relays for said block in the rear.

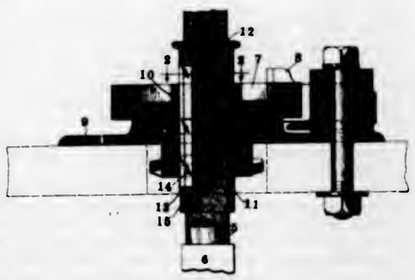
4. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits for the blocks, sources of alternating current for track circuits, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, said relays having windings supplied with current from the track circuit and cooperating windings supplied with alternating current independently of the track circuit, the currents supplied to said latter windings differing in character in the two relays of each pair, and connections including a switch actuated by the movement of a signal from danger to caution for supplying in one position of said switch to the rails of the block in the rear current of a character adapted to actuate one track relay only of said block and in another position for supplying of said switch to the said rails current of a character adapted to actuate both relays of said blocks, the sources and relays of adjacent blocks being reversely connected so that current from the source for one block produces a reverse torque in the adjacent relays upon the breaking down of the insulated joints between them.

5. In a block signal system, signals for the blocks adapted to indicate danger, caution, and clear, track circuits for the blocks, sources of alternating current for the track circuits, a pair of track relays for each block controlling the caution and clear indications according as one or both relays are energized, each of said relays having a winding supplied with current from the track circuit and a coöperating winding supplied with alternating current independently of the track circuit, one of said relays being responsive to a current in the track rails of a character to which the other does not respond, and connections including a switch actuated by the movement of a signal from danger to caution for supplying in different positions of said switch currents of different character to the track rails of the block in the rear, the sources and relays of adjacent blocks being reversely connected so that current from the source for one block produces a reverse torque in the adjacent relays upon the breaking down of the insulated joints between them.

[Claims 6 to 27 not printed in the Gazette.]

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1,094,442. BRAKE MECHANISM. LOUIS A. HOERR, St. Louis, Mo. Filed Oct. 2, 1913. Serial No. 792,920. (Cl. 188—55.)




1. The combination with a brake staff, of a ratchet wheel coöperating with said staff, a sleeve passing through said wheel and surrounding said staff, and a key securing said sleeve to said staff, said key being held in position by said ratchet wheel.

2. The combination with a brake staff of circular cross section, of a ratchet wheel having an angular opening, a sleeve shaped exteriorly to fit the opening in said wheel and provided with a cylindrical passage to receive said staff, and means for securing said sleeve and staff together, said means being held in position by said wheel.

3. The combination with a brake staff of circular cross section, of a ratchet wheel having a square opening, a sleeve provided with a square exterior to fit the opening in said wheel and having a cylindrical passage to receive said staff, and means for securing said sleeve and staff together, said means being held in position by said wheel.

4. The combination with a brake staff of circular cross section provided with a recess, of a ratchet wheel having an angular opening, a sleeve adapted to fit the opening in said wheel and surrounding said staff, said sleeve being provided with a slot closed at its upper end and a key adapted to project through said slot and into said recess in said staff.

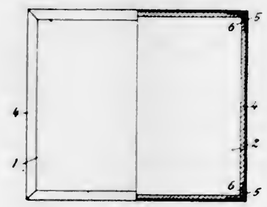
5. The combination with a brake staff, of circular cross section provided with a recess, of a ratchet wheel having an angular opening, a sleeve adapted to fit said opening and surrounding said staff, said sleeve being provided with a slot closed at its upper end and a key passing through said slot and into the recess in said staff, said key being provided with a projecting portion to facilitate its removal.

[Claims 6 and 7 not printed in the Gazette.]



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1,094,443. PROTECTOR-FRAME FOR SCREENS. HEINRICH ILLIG, Frankfort-on-the-Main-Bockenheim, Germany. Filed May 25, 1911. Serial No. 629,445. (Cl. 40—152.)



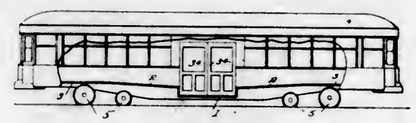

1. In a protector frame for screens, the combination with a frame, comprising a suitable number of clamping members of U-shaped section and having longitudinally slotted ends, of corner plates arranged on the inside of the adjacent ends of said members and adapted to be connected thereto, and of longitudinal insertions arranged on the inner sides of said frame and adapted to take up the shocks striking the frame, substantially as set forth.

2. In a protector frame for screens, the combination with a frame, comprising a suitable number of clamping members of U-shaped section and having longitudinal slots in the ends, of corner plates soldered to the inside of the adjacent ends of said members across said slots, and of elastic strips fitted with recesses for receiving said corner plates and adapted to form an elastic pad between said frame and the screen, substantially as set forth.

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1,094,444. CAR CONSTRUCTION. WILNER E. JOHNSON, Brooklyn, N. Y. Filed Jan. 2, 1913. Serial No. 739,749. (Cl. 105—201.)

1. In a car, the combination with truck bolsters, adjacent opposite ends of the car, of body bolsters carried by said truck bolsters, girder plates having their inner faces secured respectively to the outer ends of said body bolsters, and a door frame on each side of the car having its uprights secured to the spaced ends of said girder plates, said girder plates being widened downwardly to depress said door frames.



2. In a car, the combination of longitudinally spaced wheel trucks, body bolsters mounted above said trucks, girder plates having their inner walls secured to the outer ends of said body bolsters and increasing in depth toward the center of said car, and a centrally disposed door frame comprising uprights secured to the adjacent ends respectively of said girder plates, an upper cross beam rigidly connecting said uprights, and a sill beam arranged on substantially the same level as the lower edge of said plates at the doorway and rigidly uniting the lower ends of said uprights.

3. In a passenger car body, the combination with transverse body bolsters spaced longitudinally of said car body, of plate girders embodied in the sides of said body, and suitable brackets connecting said girders to the ends of said transverse body bolsters, said brackets being provided with recesses fitting the ends of said body bolsters and having plates rigidly secured to said plate girders.

4. In a passenger car body, the combination with transverse body bolsters spaced longitudinally of said car body, of plate girders embodied in the sides of said body, suitable brackets connecting said girders to the ends of said transverse body bolsters, said brackets being provided with recesses fitting the ends of said body bolsters and having plates rigidly secured to said plate girders, said plates being recessed along one edge adjacent to said plate girders, and flanged beams rigidly secured to said plate girders, one flange of each of said beams being disposed in one of said recesses.

5. In a car, the combination with truck bolsters adjacent opposite ends of the car, of body bolsters carried by said truck bolsters, girder plates having their inner faces secured respectively to the outer ends of said body bolsters, and a door frame on each side of the car having its uprights secured to the spaced ends of said girder plates, said girder plates being widened downwardly to depress said door frames, the upper edges of said girder plates being arranged substantially horizontal at suitable elevation and provided with suitable plates which constitute window ledges for the side windows of said car.

[Claims 6 to 24 not printed in the Gazette.]

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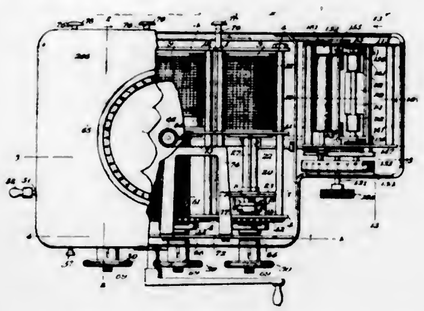
1,094,445. TAG-ADDRESSING MACHINE. WILLIAM G. KIRCHHOFF, St. Louis, Mo., assignor to Theodore W. Remmers, St. Louis, Mo. Filed Sept. 24, 1912. Serial No. 722,062. (Cl. 101—187.)

1. In a device of the class described, in combination, a frame, a plurality of registers mounted on said frame, type carried by said registers, means in each register for position in said type, means in each register for securing said type in position, and means common to all of said registers adapted to operate selectively the type securing means of any one of said registers.

2. In a device of the class described, in combination, a plurality of type registers adapted to print on different lines and including movable type and means for positioning said type, an indicator, and means for throwing said indicator into coöperation with the type positioning means of any of said registers.

3. In a device of the class described, a type register comprising in combination, a frame, a plurality of type carrying members normally held against movement in said frame, an adjustable member, means for freeing said mem-

bers from said frame, means for locking them to said adjustable member, and means for securing said adjustable member in printing position.



4. In a device of the class described, a type register comprising in combination, a frame, an adjustable member mounted therein, a plurality of adjustable type carrying elements normally secured against movement in said frame, means for freeing said elements successively from said frame, means for locking them to said adjustable member, means for adjusting such elements as are locked in the adjustable member relative to the other elements, and means for returning said elements to normal position.

5. In a device of the class described, a type register comprising in combination, a frame, an adjustable member mounted in said frame, a plurality of rings having type on their peripheries carried free on said adjustable member and normally secured against movement in said frame, means for successively freeing said rings from said frame and means for locking them successively to said adjustable member to move therewith in opposite directions.

[Claims 6 to 32 not printed in the Gazette.]

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1,094,446. WRENCH. HARRY B. KUNTZ and GEORGE T. KUNTZ, Port Townsend, Wash. Filed Mar. 16, 1912. Serial No. 684,265. (Cl. 81—165.)




1. A wrench comprising a handle, a bearing mounted on said handle, a stationary jaw carried by said bearing, a shank formed on said jaw, said shank having a groove therein and an oblique slot crossing said groove, a movable jaw slidably mounted in said groove and means to adjust said jaws with relation to one another.

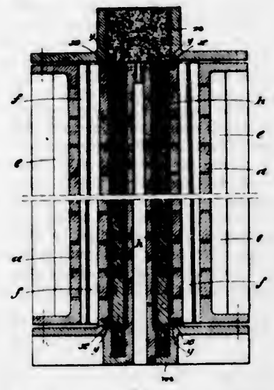
2. In a wrench comprising a handle, a jaw mounted thereon, a shank formed on said jaw, said shank provided with a longitudinal dove-tailed groove and a slot extending obliquely across the groove, a movable jaw provided with a dove-tailed projection thereon adapted to be inserted in the oblique slot and slide in the dove-tailed groove, and means for operating the sliding jaw.

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1,094,447. MOLDING-BOX. WILHELM KURZE, Wilhelmshütte, Neustadt-on-the-Rübenberge, Germany. Filed Apr. 4, 1911. Serial No. 618,913. (Cl. 22—126.)

1. In a metal molding box the combination of a plurality of box parts, each being composed of several sections and adjustable ribs on the inner sections of the box parts, for determining the precise shape of the casting.

2. In a metal molding box the combination of a plurality of box parts, each being composed of two plate-shaped sections, the contacting faces of which are substantially parallel with the inner walls of the molding box and adjustable ribs on the inner sections of the box parts, for determining the precise shape of the casting.



3. In a metal molding box the combination of a plurality of box parts, each being composed of two plate-shaped sections, the contacting faces of which are substantially parallel with the inner walls of the molding box formed by one of said sections, cooling passages and transverse passages in the inner sections of the box parts for receiving and discharging the gases and ribs on the inner sections, substantially as described.

4. In a metal molding box the combination of a plurality of box parts, each being composed of several sections, transverse passages extending through the inner and outer sections of the box parts for receiving and discharging the gases and ribs on the said inner sections, substantially as described.

5. In a metal molding box the combination of a plurality of box parts, ribs on each of said parts, longitudinal passages and transverse passages in said parts, an upper box portion and a lower box portion and a metal core with projections adapted to engage with corresponding openings in the said upper and lower box portions, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

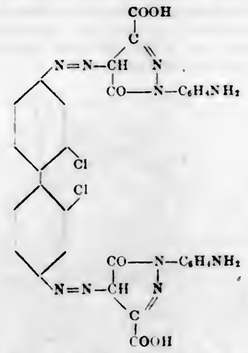
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1,094,448. YELLOW DISAZO DYES FOR COTTON AND PROCESS OF MAKING THEM. AUGUST LEOPOLD LASKA, Offenbach-on-the-Main, Germany, assignor to Corporation of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed Aug. 16, 1913. Serial No. 785,017. (Cl. 8—1.)

1. The process of making yellow disazo dyes for cotton consisting in combining the tetrazo compound of a meta-substituted benzidin with two molecular proportions of a 1-nitrophenyl-5-pyrazolone-3-carboxylic acid, and reducing the nitro groups to amino groups.

2. As new articles the dyestuffs, which may be obtained by combining the tetrazo compound of a meta-substituted benzidin with two molecular proportions of a 1-nitrophenyl-5-pyrazolone-3-carboxylic acid and reducing the nitro groups to amino groups, which dyestuffs are, when dry, orange to red powders, soluble in concentrated sulfuric acid with a yellowish red to red tone, yielding upon reduction with stannous chlorid and hydrochloric acid a meta-substituted benzidin and a 1-aminophenyl-4-amino-5-pyrazolone-3-carboxylic acid, and dye cotton yellow to reddish yellow shades, turning into a brilliant orange to red, by the diazotation on the fiber and the combination with beta-naphthol.

3. As new articles the dyestuffs, which may be obtained by combining the tetrazo compound of meta-meta¹-dichlorobenzidin ($NH_2$:C—1:3) with two molecular proportions of a 1-nitrophenyl-5-pyrazolone-3-carboxylic acid, and reducing the nitro groups to amido groups, which dyestuffs, having in form of free acid probably the formula:

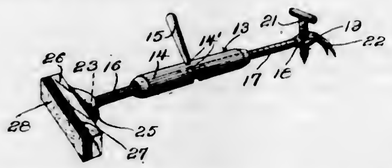



form, when dry, orange powders, soluble in concentrated sulfuric acid with a yellowish red tone, yielding upon reduction with stannous chlorid and hydrochloric acid meta-dichlorobenzidin and a 1-aminophenyl-4-amino-5-pyrazolone-3-carboxylic acid, and dye cotton yellow shades, turning into a brilliant orange by the diazotation on the fiber and the combination with beta-naphthol.

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1,094,449. FLOOR-CLAMPING DEVICE. ISAAC LAURI, Floodwood, Minn. Filed May 12, 1913. Serial No. 767,125. (Cl. 57—117.)




1. In a clamp, a tubular casing having transverse apertures and a threaded bore formed therein, rods operating in the said bore, a block secured to one of the rods, a plate terminating into a fork having an aperture formed therein and formed upon the other rod, a pointed key operating in the said aperture, and a removable handle as operating means for the device.

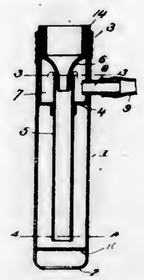
2. In a clamp, a tubular casing having transverse apertures and a threaded bore formed therein, rods operating in the threaded bore, a block secured to one of the rods, a pad secured to the block, a plate having a threaded aperture formed therein and terminating into a fork and formed upon the other rod, a pointed key operating in the said aperture, and a removable handle as operating means for the device.

3. In a clamp, a tubular casing having transverse apertures formed therein, and a bore consisting of left and right hand threads, rods operating in the said bore and having corresponding threads formed thereon, a rod terminating into a swivel head, a block having a socket formed therein for the reception of the said swivel head, a plate terminating into a fork having an aperture formed therein and formed upon another rod, and a removable handle as operating means for the device.

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1,094,450. MASSAGE APPARATUS. HERBERT E. MARCY, Mount Vernon, N. Y. Filed Feb. 17, 1912. Serial No. 678,221. (Cl. 230—13.)

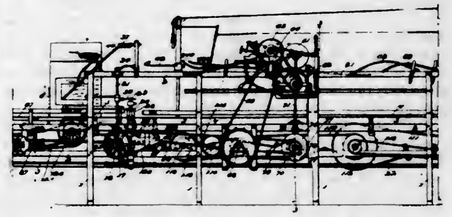
A suction device for attachment to a spigot comprising an outer tube, a partition secured within said tube below the upper end thereof and extending diametrically across the same, a suction tube carried by said partition and extending above and below the same and terminating short of the upper and lower ends of the outer tube and spaced from the outer tube throughout its extent, a funnel-like jet nozzle secured in and closing the upper end of the outer tube and having an elongated lower end extending into the



upper end of the suction tube and spaced from the wall of the suction tube, a lateral air inlet in the outer tube above the partition and below the upper end of the suction tube, and a baffle extending across the outer tube below and adjacent the lower end of the suction tube.

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1,094,451. CARTON-SEALING MACHINE. FRANK B. MARTIN, Battle Creek, Mich., assignor to Postum Cereal Company Limited, Battle Creek, Mich., a Partnership Association. Filed Nov. 13, 1911. Serial No. 659,928. (Cl. 93—6.)



1. In a machine of the character described, the combination of a series of top-flap sealing devices, a vertically adjustable track, means operable during the movement of the machine to adjust said track, and means advancing cartons along said track and past said sealing devices.

2. In a machine of the character described, the combination of a series of top-flap sealing devices, a track, means automatically adjusting said track vertically during the operation of the machine, and means advancing the cartons along said track and past said sealing devices.

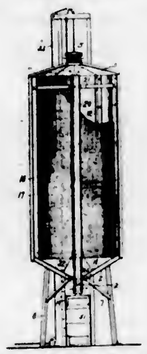
3. In a machine of the character described, the combination of a series of top-flap sealing devices, a vertically adjustable track, means operable during the movement of the machine to adjust said track, means supplying cartons one at a time to said track, and means advancing cartons along said track and past said sealing devices.

4. In a machine of the character described, the combination of a series of top-flap sealing devices, a track, means automatically adjusting said track vertically during the operation of the machine, means supplying cartons one at a time to said track, and means advancing cartons along said track and past said sealing devices.

5. In a machine of the character described, the combination of a series of top-flap sealing devices, a vertically adjustable track, means automatically operated by the carton and controlling said adjustment, means supplying cartons one at a time to said track, and means advancing cartons along said track and past said sealing devices.

[Claims 6 to 32 not printed in the Gazette.]

1,094,452. GRAIN CLEANING, DRYING, AND STORING APPARATUS. ROBERT DIAMOND MAYO and ROBERT DAVID MAYO, Lakewood, Ohio. Filed June 27, 1913. Serial No. 776,121. (Cl. 34—34.)



1. In an apparatus of the class described, a shell of imperforate material forming a tank-like chamber, a perforate lining disposed within said chamber in spaced relation to its wall and having a bottom portion for directing matter to its center, a pipe having one end in valve controlled communication with the lower interior portion of the chamber formed by the lining and having its other end in communication with the upper portion of such chamber to permit matter to flow into the pipe from the lower portion of said chamber, and means for creating a draft upward through said pipe.

2. In an apparatus of the class described, a tank, a pipe extending upward through said tank and opening into the upper and lower end portions of the tank, a valve controlling the lower opening, and means for creating a forced draft upward through said pipe from below the valve whereby matter flowing into the lower portion of the pipe from the tank is blown upward through the pipe and into the upper portion of the tank.

3. In an apparatus of the class described, a tank having an opening in its top portion, means forming a conduit extending from the lower to the upper portions of the tank and opening thereinto, valve means controlling the lower opening into the tank, and means for creating a forced draft upward through said passage whereby the material flowing into the passage from the lower portion of the tank is pneumatically conveyed to the upper portion of the tank and the dust contained therein is expelled from the tank through the top opening therein.

4. In an apparatus of the class described, a tank having imperforate walls and having an opening in its bottom, a perforate lining disposed within the tank in spaced relation to its side wall and having a bottom portion cooperating with the tank bottom to form a passage leading from said bottom opening to the space between the side walls of the lining and tank, and means for introducing air upward through the interior of said lining to the upper portion of the tank.

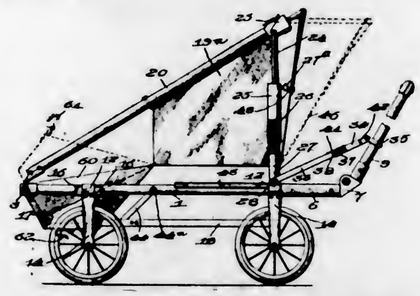
5. In an apparatus of the class described, a tank of imperforate material, a lining therefor of perforate material and forming a space therebetween, said space having an opening to the atmosphere at the lower portion of the tank, and a pipe extending upward through the interior of the lining and opening with the upper and lower portions thereof, and means for creating a forced draft upward through said pipe.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,453. PERAMBULATOR. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Jan. 27, 1906. Serial No. 298,120. (Cl. 21—83.)

1. In a device of the class described, the combination of a running gear frame, a handle movable with relation thereto, a folding seat frame, and an operative connection between the handle and the folding seat frame comprising two members relatively movable longitudinally, means for holding said members from rotating with respect to each other and means for locking said members against relatively longitudinal movement at will.



2. In a device of the class described, the combination of a running gear frame, a handle movable with relation thereto, a folding seat frame mounted upon the running gear frame, an operative connection between the seat frame and the handle comprising two members movable longitudinally with respect to each other and a lock for holding said members against longitudinal movement at will in one direction, one of said members have flanges embracing the other for holding the members against relative rotary movement, and one of said members having a slot and the other having a lug engaging in said slot for limiting their relative longitudinal movement in the opposite direction.

3. In a device of the class described, the combination of a running gear frame, a seat frame flexibly supported thereon at one end, and a seat frame brace supporting the other end upon the running gear frame and comprising a rod operatively connected with the seat frame, and slidable with relation to the running gear frame, and a spring sleeved on the rod and having operative connection therewith at one end and supported at the other end by the running gear frame.

4. In a device of the class described, the combination of a running gear frame, a seat frame flexibly supported thereon at one end, and a seat frame brace supporting the other end upon the running gear frame and comprising a rod operatively connected with the seat frame at one end and slidably connected with the running gear frame at the other end, a spring supported by the running gear frame and having operative connection with the rod, and a telescopic casing inclosing said spring.

5. In a device of the class described, the combination of a running gear frame, a seat frame flexibly connected thereto at one end, and a seat frame brace operatively connected to the other end of the seat frame and comprising a rod, a sleeve secured to the rod and a spring sleeved on the rod and abutting against the end of the sleeve at one end and supported at the other end by the running gear frame.

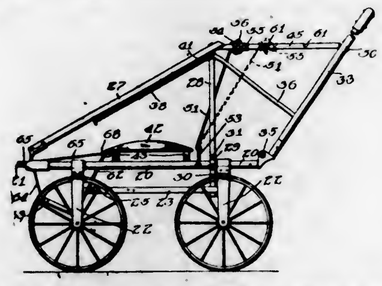
[Claims 6 to 31 not printed in the Gazette.]

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1,094,454. FOLDING PERAMBULATOR OR GO-CART. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Feb. 20, 1907. Serial No. 358,355. (Cl. 21—83.)

1. In a folding perambulator, the combination of a running gear frame, a hinged seat support, a folding handle, a deflectable brace for said seat support, means for moving the brace and seat support into position by the operation of said handle, and means separate from the brace and the first said means for locking the brace in its adjusted position.

2. In a folding perambulator, the combination of a running gear frame, a hinged seat support, a folding handle, a deflectable brace for the seat support, means for moving the brace and seat support into position by the operation of said handle, and separate means operatively related to the seat frame and handle for locking the brace against movement.



3. In a folding perambulator, the combination of a running gear frame, a seat support pivoted at one end to the frame, a folding handle, a brace for the free end of the seat frame, means for moving the brace and seat support into position by the operation of the handle, and means pivotally connected to the free end of the seat frame and adapted to engage the handle to lock the handle and brace against movement.

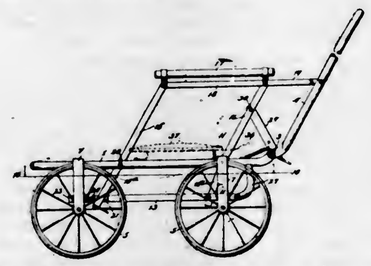
4. In a folding perambulator, the combination of a running gear frame, a seat support pivoted at one end to the frame, a folding handle, a brace for the free end of the seat frame, means for moving the brace and seat support into position by the operation of the handle, a member pivotally connected to the free end of the seat frame, and adapted to engage the handle to lock the seat frame in position, said member being also adapted to be moved about its point of pivotal support and folded on to the seat frame, to permit the seat frame to be folded, and means for supporting the said member in its folded position.

5. In a folding perambulator, the combination of a running gear frame, a hinged seat support, a folding handle, a deflectable brace for the seat support, means for moving the brace and support into position by the operation of the handle, a folding member on the seat support, and means respectively on the handle and member adapted to be brought into engagement to lock the seat frame and handle in their adjusted position.

[Claims 6 to 47 not printed in the Gazette.]

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1,094,455. FOLDING GO-CART. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Mar. 8, 1909. Serial No. 481,991. (Cl. 21—83.)



1. In a folding go-cart the combination of a running gear frame, wheel supports pivoted to fold under the frame crosswise thereof, means connecting the wheel supports together in pairs, a cross-brace pivotally supported and adapted to swing downwardly below the plane of the running gear frame between the said connecting means, a second cross-brace pivotally supported and adapted to swing downwardly from the plane of the running gear frame, comprising supporting arms and a cross-brace embracing the said connecting means, and a cam secured to the last said cross-brace for engaging the said connecting means on one side and causing the wheels on that side to fold in advance of those on the other side.

2. In a folding go-cart the combination of a running gear frame, wheel supports pivotally mounted to fold transversely thereof, connecting bars securing said supports together in pairs, said connecting bars at one end being provided with return bends or loops secured to said wheel supports and having extremities constituting clips, and downwardly swinging arms adapted to engage between said clips and connecting bars for holding said connecting bars in place.

3. In a folding go-cart the combination of a running gear frame, wheel supports rotatably mounted to fold transversely thereof, connecting bars securing said wheel supports together in pairs, having upwardly extending cam-shaped extremities at their rear ends, and a folding seat structure mounted above the running gear frame and having downwardly projecting ball-like extensions adapted to respectively engage between and outside of said connecting bars, one of said ball-like extensions being adapted to embrace and engage under said connecting bars for folding the same inwardly and the other of said extensions being adapted to engage said cam-like extensions for causing the wheel supports to unfold.

4. In a folding go-cart the combination of a running gear frame, wheel supports adapted to fold transversely thereof, connecting bars securing the said wheel supports together in pairs, the connecting bar of each pair of said wheel supports being provided with an upwardly extending cam-like projection, a folding seat structure, a folding handle connected therewith for causing the seat structure to fold and unfold, downwardly extending arms connected to the seat structure and arranged to engage with said cam-like extensions respectively, a ball-like extension embracing said connecting bars operatively connected with the said seat structure and adapted to swing downwardly below the running gear frame, and a cam carried by said ball-like extension for engaging one of said connecting bars and causing the wheel supports controlled by that one to fold faster than the other pair of wheel supports, the aforesaid cam being so formed with relation to the said ball-like extension and its movement that the said downwardly swinging arms will remain substantially in contact with said cam-like extension during the folding movement of the wheels on that side induced by the upwardly swinging action of said ball-like extension.

5. In a folding go-cart the combination of a running gear frame, wheel supports rotatably mounted to fold transversely thereof, means connecting said wheel supports together in pairs, each of said means comprising a single bar having one end looped backwardly upon itself with its extremity free to form a clip and the opposite end curved upwardly to form a cam, a pair of downwardly swinging arms adapted to engage between said bars for holding the bars apart and to engage with said cams for unfolding the wheels, and a downwardly swinging ball-like element embracing said bars and adapted to engage between the same and said clips for locking the bars in position when moving downwardly and to engage with the under sides of the bars for causing the wheels to fold when moving upwardly.

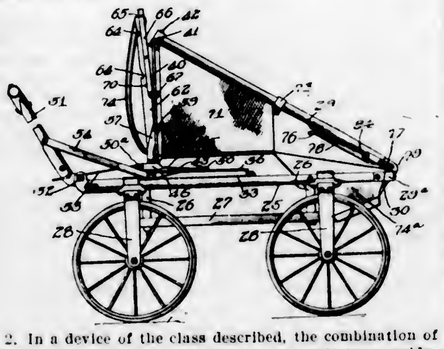
[Claims 6 to 21 not printed in the Gazette.]

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1,094,456. FOLDING PERAMBULATOR OR BABY-CARRIAGE. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Dec. 11, 1906, Serial No. 347,259. Renewed Mar. 15, 1909. Serial No. 483,585. (Cl. 21—83.)

1. In a device of the class described, the combination of a running gear frame containing spaced side bars, guides

secured to the bars, members movable in the guides, a body structure pivoted by one end to the running gear frame, supports pivoted by one end to the members and by the other end to the free end of the body structure, a pivoted handle, and links connecting the handle and the members for moving the latter in the guides when the handle is moved about its pivot to raise and lower the free end of the body structure.



2. In a device of the class described, the combination of a running gear frame containing spaced side bars, guides secured to the bars, members movable in the guides, a body structure pivoted by one end to the running gear frame, supports pivoted by one end to the members and by their other end to the free end of the body structure, a pivoted handle, means controlled by the movement of the handle adapted to move the members in the guide for raising and lowering the body structure, and yielding latches projecting into the guides and adapted to assume a position in front of the members to lock the body structure in position.

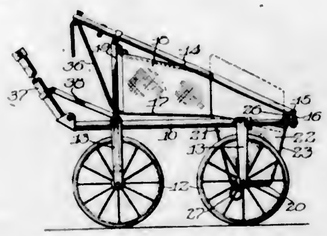
3. In a device of the class described, the combination of a running gear frame containing spaced side bars, members secured to the bars and projecting beyond the sides thereof, a pivoted body structure, inverted substantially U-shaped members, provided with inwardly projecting flanges at the extremities of the sides thereof, said members being adapted to surround the first said members so that the flanges will pass under the edges thereof, supports pivotally connected to the second said members, and the body structure, a pivoted handle, and means controlled by the handle adapted to move the second said members on the first members to raise and lower the body structure.

4. In a device of the class described, the combination of a running gear frame, containing spaced side bars, members secured to the bars and projecting beyond the sides thereof, guides secured over and spaced from said members, a foldable body structure, inverted substantially U-shaped members, provided with inwardly projecting flanges at the extremities of the sides thereof, said members being adapted to surround the first said members so that the flanges will pass under the edges thereof and being disposed between said members and the guides, supports pivotally engaging the second said members and the said body structure, a pivoted handle, and means controlled by the handle adapted to slide the U-shaped members on the first said members for folding and unfolding the body structure.

5. In a device of the class described, the combination of a running gear frame, containing spaced side bars, members secured to the bars and projecting beyond the sides thereof, guides secured over and spaced from said members, a foldable body structure, inverted substantially U-shaped members, provided with inwardly projecting flanges at the extremities of the sides thereof, said members being adapted to surround the first said members so that the flanges will pass under the edges thereof and being disposed between said members and the guides, supports pivotally engaging the second said members and the said body structure, a pivoted handle, means controlled by the handle adapted to slide the U-shaped members on the first said member for folding and unfolding the body structure, and means passing through the guides and adapted to engage the sliding members to lock the body structure in position.

[Claims 6 to 16 not printed in the Gazette.]

1,094,457. FOLDING PERAMBULATOR. ALBERT E. MCGILL, Chicago, Ill. Original application filed Sept. 22, 1905, Serial No. 279,577. Divided and this application filed Jan. 17, 1912. Serial No. 671,745. (Cl. 21—83.)



1. In a device of the class described, the combination of a frame, a seat supported thereby, an inclosed foot-rest operatively related to the seat and movable with reference thereto, and separate means on the foot-rest whereby the outer end thereof may be supported by the frame at different elevations.

2. In a device of the class described, the combination of a frame, a seat supported thereby, a foot-rest having one side flexibly connected with the seat, means at the opposite side for detachably supporting the same upon the frame at one end, and additional means for supporting the front of the foot-rest upon the frame at another elevation.

3. In a device of the class described, the combination of a frame, a seat supported thereby, a foot-rest comprising a bottom portion and flexible side and front and back portions, and means secured to the front portion and the bottom portion for supporting the forward side of the foot-rest at different elevations upon the frame.

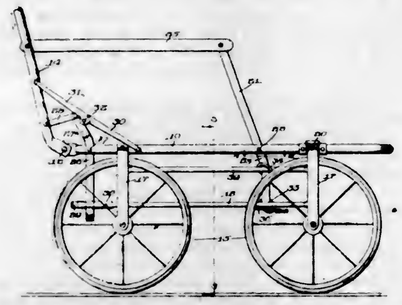
4. In a folding perambulator, the combination of a running gear frame, suitable supports therefor, a seat supported upon said frame, a flexible extension from the forward edge of the seat having an inflexible foot-rest, said extension being adapted to assume either a depending position or a substantially horizontal position, and a connection carried by said extension and adapted to engage the outer end of the frame for holding the extension in a substantially horizontal position.

5. In a folding perambulator, the combination of a running gear frame, suitable supports therefor, a seat supported on said frame, a flexible extension from the forward side of the seat and comprising a foot-rest, said extension being adapted to assume both a depending position and a substantially horizontal position continuous with the seat, and fastening devices on the frame cooperating with the said extension for holding the front of the extension in a substantially horizontal position.

[Claims 6 to 18 not printed in the Gazette.]

1,094,458. FOLDING BABY-CARRIAGE. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Sept. 7, 1909, Serial No. 516,569. Renewed Sept. 17, 1913. Serial No. 790,354. (Cl. 21—83.)

1. In a folding carriage, the combination of a running gear frame, wheel supports pivoted to fold under said frame, deflectable arms depending below the frame, bars connecting said wheel supports in pairs, means separate from and movable independently with relation to said arms and the respective connecting bars, loosely embracing and slidable upon both whereby the wheels will be automatically swung into position for use when the arms are deflected in one direction and collapsed against the running gear frame when the arms are moved in the opposite direction, a foldable handle, and means whereby the folding and unfolding movements of the handle will deflect said arms.



2. In a folding carriage, the combination of a running gear frame, wheel supports pivoted to fold under said frame, deflectable arms depending below the frame, bars connecting said wheel supports in pairs, a ring separate from and loosely surrounding each of said arms and the respective connecting bars and movable independently with respect to both whereby the wheels will be automatically swung into position for use when the arms are deflected in one direction and collapsed against the running gear frame when the arms are deflected in the opposite direction.

3. In a collapsible carriage, the combination with a running gear frame, of wheel supports pivotally mounted on the running gear frame, bars connecting the wheel supports in pairs, arms pivotally mounted on the sides of the frame and connected together below the frame by a cross-bar, the said cross-bar having a bend adjacent one arm, and closed links encircling the said connecting bars and the arms and adapted to swing the pairs of wheels about their pivotal supports one pair in advance of the other when the arms are rotated.

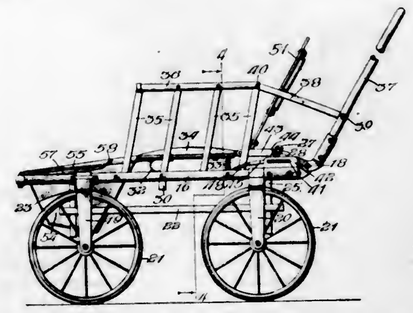
4. In a collapsible carriage, the combination with a running gear frame, of wheel supports pivotally mounted on the running gear frame, bars connecting the wheel supports in longitudinal pairs, one bar being higher than the other, arms pivoted in the sides of the frame having a connecting cross-bar below the frame with a bend adjacent one of the arms, and closed rings encircling each of the bars and the adjacent arm, the pairs of wheels being rotated one in advance of the other when the said arms are moved about their pivots.

5. In a folding carriage, the combination of a running gear frame, wheel supports rotatably mounted to fold transversely thereof, connecting bars securing said wheel supports together in pairs, a deflectable bail-like member depending below the frame, said member comprising spaced arms and a connecting portion, one of said arms being disposed adjacent each of the connecting bars between the wheel supports, and encircling members surrounding and slidable upon each of the connecting bars and the respective adjacent arm, whereby the wheel supports will be folded against the frame when the bail-like member is deflected in the opposite direction, the connecting portion between the arms of the bail-like member being deflected to form a cam adapted to be engaged by one of the encircling members to cause one of the pairs of wheel supports to fold in advance of the other.

[Claims 6 to 10 not printed in the Gazette.]

1,094,459. FOLDING PERAMBULATOR OR GO-CART. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Oct. 21, 1907, Serial No. 398,422. Renewed Feb. 25, 1914. Serial No. 821,047. (Cl. 21—83.)

1. In a folding perambulator, the combination of a supporting structure, a seat supported thereby and including arm rests adjustable independently with relation thereto, means for maintaining the arm rests in a horizontal position with relation to the supporting structure in any of its adjusted positions, a handle foldable with relation to the supporting structure, said arm rests being supported independently of the handle, links having pivotal connection with the handle and the respective arm rests and the supports, whereby the movement of the handle will adjust the arm rests, and means common to the arm rests and handle for locking them in their adjusted position, the last recited means embodying an element slidable with respect to the supporting structure, and a coöperating engaging element stationary with respect to the supporting structure.



2. In a folding perambulator, the combination of a seat supporting structure, a seat including arm rests adjustable independently with relation thereto, supports for the structure foldable with relation thereto, locking means for locking the supports in position and embodying an element having a sliding movement on the supporting structure, and a fixed engaging device with which the sliding element coöperates, and means whereby the adjustment of the arm rests will operate the said locking means.

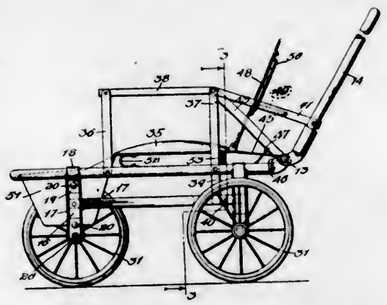
3. In a folding perambulator, the combination of a seat supporting structure, a seat including arm rests adjustable independently with relation thereto, means for maintaining the arm rests horizontally with relation to the supporting structure in any of its adjusted positions, supports for the structure foldable with relation thereto, means embodying an element having sliding movement on the supporting structure, and a fixed engaging device with which the element coöperates for locking the arm supports in position, and means whereby the adjustment of the arm rests will operate said locking means.

4. In a folding perambulator, the combination of a seat supporting structure, a seat including arm rests adjustable independently with relation thereto, supports for the structure foldable with relation thereto, a handle foldable with relation to the supporting structure, said arm rests being supported independently of the handle, means for locking the supports for the said structure, links pivotally connected at one extremity with the handle and at their other extremity with the arm rests and supports whereby the movement of the handle will adjust the arm rests, a back for the seat, an adjustable connection between the back and the links, and means whereby the adjustment of the arm rests will operate the said locking means.

5. In a folding perambulator, the combination of a seat supporting structure, a seat including arms adjustable independently with relation thereto, supports for the structure folded with relation thereto, means whereby the adjustment of the arms will lock the supports in position, a locking member at the rear of the seat operatively related to the arms and slidable on a portion of the supporting structure, and a catch stationary with relation to the locking member toward and away from which the locking member is movable, said catch being adapted to engage the member to lock the arms in position.

[Claims 6 to 20 not printed in the Gazette.]

1,094,460. FOLDING GO-CART. ALBERT E. MCGILL, Chicago, Ill., assignor, by mesne assignments, to William S. Ferris, Elkhart, Ind., and Alexander B. Leith, Chicago, Ill., trustees. Filed Oct. 21, 1907, Serial No. 398,423. Renewed Feb. 25, 1914. Serial No. 821,048. (Cl. 21—83.)



1. In a folding go-cart, the combination of a running gear frame, wheel supports rotatably mounted thereon, a seat supported by the frame, adjustable side arms for the seat, supports for the arms with which the side arms have pivotal connection, some of said supports being provided with extensions extending below the running gear frame, means supported by the wheel supports adapted to be engaged by the extensions to lock the wheel supports in position, a pivoted handle, separate from the arms and the arm supports, means whereby the movement of the handle will adjust the side arms, the side arms being maintained in a horizontal position with respect to the running gear frame in any of its adjusted positions, and a ball like catch connected and movable with the supports and upon the running gear frame for locking the handle and the supports in position.

2. In a folding go-cart, the combination of a running gear frame, wheel supports rotatably mounted thereon, a seat, side arms for the seat, supports for the arms with which the arms are pivotally connected for maintaining the arms in a horizontal position with respect to the running gear frame, a pivoted handle, means whereby the forward and downward movement of the handle will cause the arms to fold with relation to the running gear frame, and to rise to position for use when the handle is raised, means operatively related to the wheel supports and adapted to be engaged by one of the supports to lock the latter in position and a freely pivoted ball like catch connected and movable with the arm rests and upon the running gear frame, said catch being adapted to engage over a portion of the running gear frame to lock the arm rests and handle against movement.

3. In a folding go-cart, the combination of a running gear frame, wheel supports rotatably mounted thereon, a seat, side arms for the seat, supports for the arms with which the arms are pivotally connected for maintaining the arms in a horizontal position with respect to the running gear frame, a pivoted handle, means whereby the forward and downward movement of the handle will cause the arms to fold with relation to the running gear frame, and to rise to position when the handle is raised, means operatively related to the wheel supports and adapted to be engaged by one of the arm supports to lock the latter in position, a ball like catch pivotally connected with the arms to move therewith and adapted to engage the running gear frame to lock the arms and handle against movement, and yielding means for holding the catch in position to engage over a portion of the frame and for also holding the catch in locked engagement with the frame.

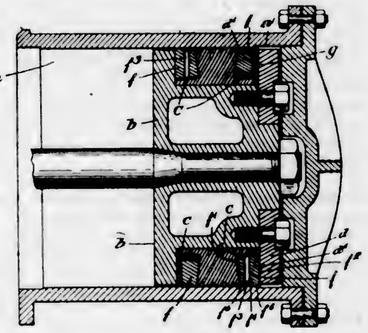
4. In a folding go-cart, the combination of a running gear frame, wheel supports rotatably mounted thereon, a seat, side bars for the seat, supports for the bars pivotally secured to the frame and to the bars for maintaining the bars always in a horizontal position with respect to the running gear frame, one of the respective supports depending below the frame and adapted to engage the wheel support for holding the latter in position, a pivoted handle, means whereby the forward and downward movement of the handle will cause the side bars to fold with respect to the frame and to rise to position for use when the handle is raised, and a bail having pivotal connection with the side bars and provided with a notch adapted to engage over a portion of the frame to lock the parts in operative position.

5. In a folding go-cart, the combination of a running gear frame, wheel supports rotatably mounted thereon, a seat, side bars for the seat, supports for the bars pivotally secured to the frame and to the bars for maintaining the bars always in a horizontal position with respect to the running gear frame, one of the respective supports depending below the frame and adapted to engage the wheel support for holding the latter in position, a pivoted handle, means whereby the forward and downward movement of the handle will cause the side bars to fold with respect to the frame and to rise to position for use when the handle is raised, a bail having pivotal connection with the side bars and provided with a notch adapted to engage over a portion of the frame to lock the parts in operative position, and a yielding member for holding the bail in its locked position.

[Claims 6 to 18 not printed in the Gazette.]

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1,094,461. STEAM-PISTON. ROBERT C. MONTEAGLE, West Newton, Mass. Filed May 1, 1913. Serial No. 764,800. (Cl. 121—108.)



1. A steam piston having an annular recess adjacent its end adapted to receive steam pressure, a split spring metal packing-ring fitted in said recess and adapted to expand against the walls of the cylinder, the angle between the side of said ring next the piston end and the inner side of said ring being less than a right angle, to cause the force of the steam-pressure between the ring and the bottom of the recess to have a component to press the ring against the side of the groove next the piston end, substantially as described.

2. A steam piston having an annular recess adjacent its end adapted to receive steam pressure, a split spring metal packing-ring fitted in said recess and adapted to expand against the walls of the cylinder, the side of the recess next the piston end, and the corresponding side of the ring being perpendicular to the outer surface of the ring and the angle between said side of the ring and its bottom being less than a right angle, as and for the purpose set forth.

3. A steam piston having an annular recess, a split, spring-metal packing-ring fitted in said recess and adapted to expand against the walls of the cylinder, said ring having an annular groove formed in its outer surface and an aperture therethrough leading from the inner side thereof to said groove, whereby the bottom of said groove may act as a balancing surface to outward pressure on the inner side of said ring, the portion of said balancing surface at the opposite side of the middle of the ring from the piston end being materially greater than that at the adjacent side, substantially as described.



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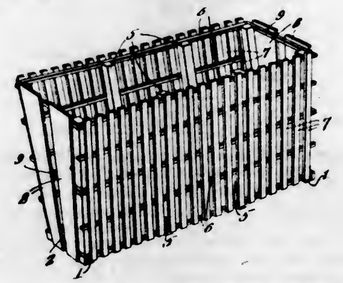
1,094,462. CONNECTING GUIDE REIN OR STRAP. MEINER C. MORK, Hector, Minn. Filed Oct. 20, 1913. Serial No. 796,283. (Cl. 54—36.)



In improvements in a guiding connection, the combination of the single strap arranged for connecting four or more animals abreast, each end of said strap having connections to each outer animal, the intermediate portion of the strap having formed therein pairs of loops having snap hooks for connection to the bits of the intermediate animals, means for holding the loops so constructed, and a connector between the loops of each pair, thereby constituting means to permit the guiding pull to be transmitted directly from one outer animal to the opposite outer animal.

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1,094,463. CRATE. ARTHUR MUNCHAUSEN, Independence, La. Filed Oct. 28, 1912. Serial No. 728,196. (Cl. 217—40.)



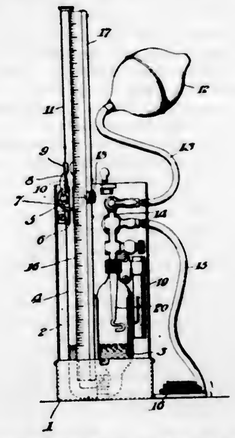
A crate comprising a bottom having perforations formed along its edges, inclined sides comprising vertical strips connected by longitudinal strips extending beyond the vertical strips, vertical posts secured to the longitudinal strips and having projections adapted to enter the perforations in the bottom, ends secured to the bottom and sides, said ends comprising vertical strips connected by transverse strips extending beyond the vertical strips and across the vertical posts at the ends of the sides to receive the fastening means for securing the ends to the sides, division plates received on the longitudinal strips of the sides, and the transverse strips of the ends, and a cover adapted to engage the ends and sides.

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1,094,464. SPHYGMOMANOMETER. PERCIVAL NICHOLSON, Ardmore, Pa. Filed Nov. 8, 1913. Serial No. 799,849. (Cl. 73—44.)

1. In a sphygmomanometer, a tube, a valve casing fixed to an end of said tube, a valve movable in said casing whereby said tube is opened and closed, a second tube connected with said tube first named through said valve, and means fixed to and movable with said valve whereby said second tube is supported.

2. In a sphymomanometer, a tube, mechanism fixed to the end of said tube, a valve movable under control of said mechanism whereby said tube is opened and closed, a supporting device comprising a clip fixed to said valve, and a second tube adapted to be held by said clip and valve in registration with said tube first named.

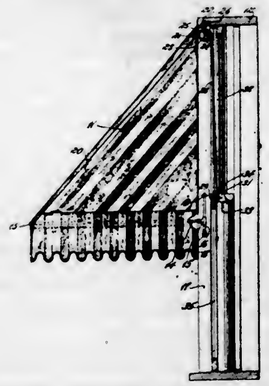


3. In a sphygmomanometer, a case having a lid, a valve casing fixed to the inner face of said lid, a tube fixed to the inner face of said lid with its end fixed to said casing, a valve adapted to turn in said casing to open and close said tube, a detachable tube adapted to pass through said valve in the open position thereof into registration with said tube first named, and a device fixed to said valve and adapted for supporting said detachable tube, said device extending beyond said lid in the open position of said valve and lying within the limits of said lid in the closed postion of said valve.

4. In a sphygmomanometer, a tube, a valve machanism comprising a valve adapted for opening and closing said tube, a second tube connected with said first tube through said valve, and means for supporting said second tube.

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1,094,465. AWNING-FIXTURE. FREDERICK A. O'NEAL, St. Louis, Mo., assignor of one-half to Frank A. Neal, St. Louis, Mo. Filed May 31, 1913. Serial No. 770,917. (Cl. 156—15.)



1. An operating device for an awning comprising a frame pivoted to the window casing, a roll provided with an operating cord wound thereon, and springs adjacent to said roll adapted to be engaged by said frame in raised position, whereby said frame is repelled from raised position upon the release of said cord.

2. An operating device for an awning comprising a frame pivoted to the window casing, a roll provided with an operating cord wound thereon, frame suspending cords wound on said roll in the direction opposite to the direction of winding of said operating cord, and springs adjacent to said roll adapted to be engaged by said frame in raised position and to repel the latter upon the unwinding of said suspending cords.

3. An operating device for an awning comprising a frame pivoted to the window casing, a roll provided with an operating cord wound thereon, frame suspending cords wound on said roll in the direction opposite to the direction of winding of said operating cord, and springs adjacent to said roll adapted to be engaged and flexed by said frame in raised position, said springs having depending loops through which said suspending cords are passed, whereby said awning is supported out of contact with said roll and kept from sticking in raised position.

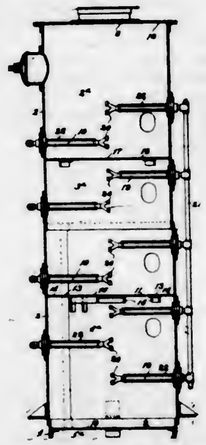
4. A spring-wire suspending means for an awning fixture roll, said spring-wire being bent to form an end bearing for said roll having guide loops through which the awning suspending cords may be passed.

5. The combination with an awning fixture of an operating cord therefor, a window sash grooved on its outer side and provided with a cleat on its under side adjacent to said groove to which said operating cord may be fastened.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,466. GAS-WASHER. WILLARD B. OSBORNE, Sewickley, Pa., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Jan. 27, 1913. Serial No. 744,372. (Cl. 48—135.)



1. A gas washer comprising a casing provided with inlet and outlet openings arranged to direct gas vertically through the casing, of a plurality of alternately oppositely disposed spraying-nozzles within the casing adapted to project a series of sprays horizontally from opposite directions through which the gas passes during its travel through the casing, and baffles located within the casing for directing the gas in a tortuous path.

2. A gas washer comprising a casing provided with inlet and outlet openings arranged to direct gas vertically through the casing, a series of horizontally disposed fluid conducting pipes within the casing each provided with a spraying-nozzle, a sector shaped baffle plate located over the respective fluid conducting pipes.

3. A gas washer comprising a casing provided with inlet and outlet openings arranged to direct gas vertically through the casing, of a series of spraying-nozzles within the casing adapted to project a series of sprays horizontally through which the gas passes during its travel through the casing, sector shaped baffle plates arranged adjacent to the respective spraying-nozzles, and circular baffles located within the casing.

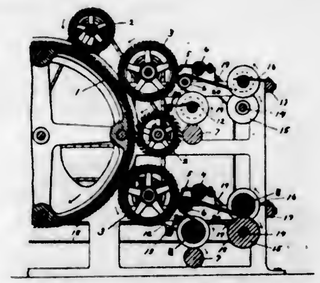
4. A gas washer comprising a casing provided with inlet and outlet openings arranged to direct gas vertically through the casing, a plurality of segmental baffle plates dividing the interior of the casing into a series of compartments, and a spraying-nozzle within a compartment adapted to project a spray horizontally through which the gas passes.

5. A gas washer comprising a casing having gas inlet and outlet openings, alternating baffles within the casing and projecting in opposite directions, and means comprising nozzles alternately disposed in opposite directions for introducing a fluid to the interior of the casing in the form of a spray through which the gas passes during its travel through the casing.

[Claims 6 to 9 not printed in the Gazette.]

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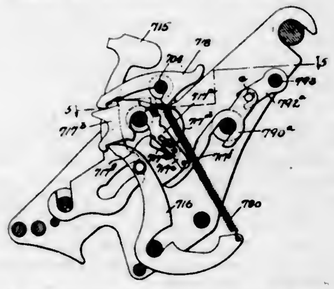
1,094,467. METHOD OF PREPARING ASBESTOS FIBER FOR INSULATING PURPOSES. HARRY L. OWEN, York, Pa., assignor to General Electric Company, a Corporation of New York. Filed Jan. 20, 1909. Serial No. 473,245. (Cl. 19—10.)



The method of preparing asbestos fiber for use in applying to wire, said method consisting in doffing the fiber in separated flocculent strips from the cylinder of a carding machine, depositing said strips directly upon traveling tapes, and winding the tapes with the fiber thereon upon themselves so as to hold the fiber in place upon the tapes and permit it to be picked from the tapes when the latter are unwound.

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1,094,468. ADDING-MACHINE. HEBER C. PETERS, New York, N. Y., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Original application filed Aug. 22, 1904, Serial No. 221,635. Divided and this application filed Feb. 16, 1909. Serial No. 478,295. (Cl. 235—60.)



1. In a machine of the character described, the combination of spring-actuated printing hammers, restraining latches, and a movable coupler carried by one latch and adapted to engage the adjacent latch.



2. The combination with the hammers and actuating means and movable detents of a recording mechanism, of a contact device on one detent movable into and out of position to engage the next detent.

3. In a machine of the character described, the combination of spring-actuated printing hammers, restraining latches, and a coupler movably mounted on one latch and adapted to operatively engage a neighboring latch.

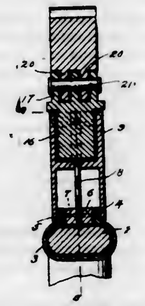
4. In a machine of the character described, the combination of spring-actuated printing hammers, restraining latches, a movable coupler carried by one latch and normally engaging a neighboring latch, and means for moving the coupler to disengage it from such neighboring latch.

5. In a machine of the character described, the combination of spring-actuated printing hammers, restraining latches, and a coupler movably mounted on one latch and spring drawn into engagement with a neighboring latch.

[Claims 6 to 37 not printed in the Gazette.]

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1,094,469. BEER-STEIN. THOMAS P. PICK, Chicago, Ill. Filed Dec. 28, 1911. Serial No. 668,375. (Cl. 65—13.)



1. A stein comprising a receptacle having a handle, a split collar embracing said handle, a block between the ends of said collar, a socket member secured to said block, a hinged lug seated in said socket member, and means upon said socket member detachably engageable with said lug.

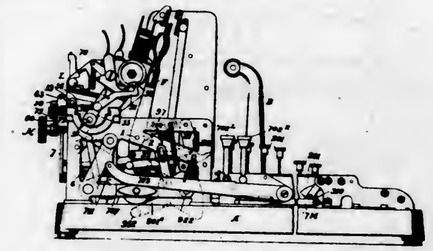
2. A beer stein comprising a receptacle having a cover and a handle, a collar embracing said handle, a block between the ends of said collar, a socket member secured to said block, a lever upon said cover, a lug seated in said socket member and hingedly connected to said lever, and turn-screw means carried by said socket member adapted for drawing the sides of said member together engaging said lug.

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1,094,470. ADDING AND RECORDING MACHINE. WILLIAM H. PIKE, Jr., South Orange, N. J., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 29, 1907. Serial No. 354,779. (Cl. 235—60.)

1. In a machine of the character described, the combination of recording devices, accumulating devices, paper-feeding devices, a manually movable element controlling all said devices, a platen movable relative to the recording devices to permit items to be recorded in different columns, means for holding the platen in a position where each of a succession of actuations of said manually movable element may effect an actuation of the recording, accumulating and paper-feeding devices, the items being all recorded in one column, means for shifting the platen from such position, and means whereby when the platen is shifted from such normal position to permit items to be recorded in another column actuation of said manually movable element cannot effect an actuation of the accumulating or paper-feeding devices.

2. In a machine of the character described, the combination of recording devices, accumulating devices, a rotatable platen movable relative to the recording devices to permit items to be recorded in different columns, a manually movable element controlling the recording and accumulating devices, means for holding the platen in the position where each of a succession of actuations of said manually movable element may effect actuation of the recording, accumulating and platen rotating devices, all items recorded by such actuations being in one column, means for shifting the platen from such position, and means whereby when the platen is shifted from such normal position to permit items to be recorded in another column actuation of said manually movable element cannot effect actuation of the accumulating and platen rotating devices.



3. In a machine of the character described, the combination of recording devices, accumulating devices, a manually movable element controlling both the recording and accumulating devices, a platen, means independent of said manually movable element adapted to shift the platen longitudinally to permit items to be recorded in different columns, means for holding the platen in position to cause items to be recorded in one column, means for shifting the platen from such normal position, and means whereby when the platen is shifted from its normal position to permit the recording of an item in another column actuation of such manually movable element will not effect actuation of the accumulating devices.

4. In a recording and accumulating machine, the combination with recording devices, accumulating devices, a manually movable element controlling said recording and accumulating devices, and a platen mounted to move longitudinally relative to the recording devices to permit items to be recorded in different columns, of adjustable means for moving said platen from one position to another to vary the distance between two columns, means for actuating both the recording and accumulating devices when said manually movable element is actuated with the platen positioned to cause the items to be recorded in one column, and means for preventing actuation of the accumulating devices when said element is actuated with the platen in position to cause items to be recorded in the other column.

5. In a recording and accumulating machine, the combination with recording devices, accumulating devices, a manually movable element controlling the recording and accumulating devices, and a platen mounted to move past the recording devices, of means for shifting said carriage to adjust the platen relative to the recording devices and permit items to be recorded in different columns comprising a rock shaft, an arm carried by said shaft and engaging the platen carriage, and means for rocking said shaft, and means for preventing actuation of the accumulating devices when said manually movable element is operated with the platen in position to have items recorded in one of said columns.

[Claims 6 to 36 not printed in the Gazette.]

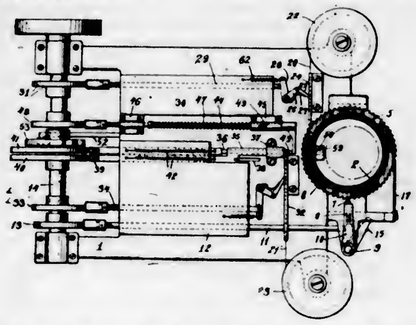
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1,094,471. MACHINE FOR MAKING FLEXIBLE METAL FABRIC. ALPHONSO C. PRATT, Montclair, N. J. Filed Apr. 2, 1913. Serial No. 758,440. (Cl. 140—3.)

1. A machine for making link-mesh, comprising the combination of a support for a piece of link-mesh, means for feeding links of one set to the mesh on the support, means for feeding links of a second set successively to the mesh on the support, and means for meshing each link of the

second set so fed with a link of the first set and with a link of the mesh on the support, substantially as set forth.

2. A machine for making link-mesh, comprising the combination of a support for a piece of link-mesh, means for feeding links of one set to the mesh on the support, means for feeding links of a second set successively to the mesh on the support, and means for simultaneously meshing each link of the second set so fed with one link of the first set and three links of the mesh on the support, substantially as set forth.



3. A machine for making link-mesh, comprising the combination of a support for a piece of link-mesh, means for feeding links of one set to the mesh on the support, and means for successively feeding links of a second set into coaction with the mesh on the support and interlocking the ends of each link so fed with a link of said first set and a link of the mesh on the support, substantially as set forth.

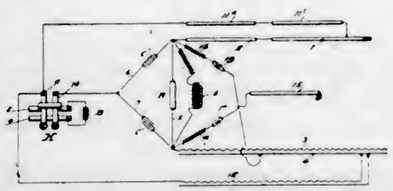
4. A machine for making link-mesh, comprising the combination of a support for a piece of link-mesh, means for feeding links of one set to the mesh on the support, and means for successively feeding links of a second set into coaction with the mesh on the support and simultaneously interlocking the ends of each link so fed with a link of said first set and three links of the mesh on said support, substantially as set forth.

5. A machine for making link-mesh, comprising the combination of a support for a piece of link-mesh, means for moving the mesh in the direction of its length and in the direction of its width step by step, and automatic means for adding two intermeshed links to said piece of mesh in each interval of rest between movements of the mesh, substantially as set forth.

[Claims 6 to 30 not printed in the Gazette.]

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1,094,472. APPARATUS AND METHOD FOR COUNTERACTING THE INDUCTANCE DISTURBANCES IN TELEGRAPH-LINES. CHARLES PRIEST, Arlington, N. J., assignor to Commercial Cable Company, New York, N. Y., a Corporation of New York. Filed Mar. 23, 1911. Serial No. 616,372. (Cl. 178—63.)



1. An electric signaling system comprising a main line subject to extraneous electrical inductive disturbances, a receiving instrument connected to said line, a source of extraneous inductive disturbances of like character to those affecting the main line and directly and independently connected to the receiving instrument on the opposite side thereof from the main line connection, the two sources of inductive disturbances being independent of each other and unaffected by each other outside of the receiving instrument, whereby the inductive disturbances picked up by the main line and the similar disturbances from the compensating source will pass to the receiving instrument unaffected and independently of each other and in opposite directions and will be balanced or neutralized in said instrument.

2. An electric signaling system comprising a main line subject to extraneous electrical inductive disturbances, a receiving instrument connected to said line, an insulated wire serving as a compensating line and corresponding to a portion only of the main line, said wire being independent of the main line and subject to extraneous inductive disturbances of like character to those affecting the main line, the compensating line being independently connected to the receiving instrument on the opposite side thereof from the main line connection, the inductive disturbances picked up by the main line being unaffected by the corresponding inductive disturbances picked up by the compensating line, said disturbances flowing to the receiving instrument in opposite directions and balancing or neutralizing each other in the receiving instrument.

3. A duplex telegraph system comprising a main line subject to extraneous electrical disturbances, an artificial line, a receiving instrument connected to both of said lines, and a compensating line connected to the receiving instrument on the opposite side thereof from the main line connection and subject to extraneous electrical disturbances similar to those affecting the main line.

4. A duplex telegraph system comprising main and artificial lines, a receiving instrument connected to both of said lines, a compensating line connected to the receiving instrument on the opposite side thereof, from the main line connection, a resistance and a condenser interposed between the compensating line and the receiving instrument, a resistance and a condenser connected to the receiving instrument at the main line connection thereof and means connecting this latter condenser to the earth plate of the artificial line.

5. A cable telegraph system comprising an under-water portion and an under-ground portion, a receiving instrument connected to the free end of the under-ground portion, an insulated compensating cable corresponding to the under-ground portion of the main line cable and arranged to be subject to the same extraneous electrical influences, the outer or free end of said compensating cable being sealed or insulated, the inner end of said cable being connected to the receiving instrument on the opposite side thereof from the main line conductor.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,473. BASCULE-BRIDGE. THEODOR RALL, Chicago, Ill. Filed June 8, 1911. Serial No. 631,936. (Cl. 14—38.)



1. In a bascule bridge, the combination of a leaf comprising in its construction a plurality of relatively movable girders, a stationary support upon which said girders are pivotally mounted, links located between the riverward ends of said pivoted girders and said stationary support and pivotally connected with both girders, for connecting the girders in permanently connected movable relation to each other, said girders having interlocking members integral therewith and movable automatically into and out of interlocking engagement with each other, and means for moving the connected girders to raised and lowered positions, to open and close the bridge.



2. In a bascule bridge, the combination of a leaf comprising in its construction a plurality of relatively movable girders, a stationary frame upon which said girders are pivotally mounted, links located between the riverward ends of said pivoted girders and said stationary frame and pivotally connected with both girders for connecting the girders in permanently connected movable relation to each other, each of said girders having a locking member thereon and in fixed relation thereto and movable automatically into and out of locking engagement with a locking member upon the adjacent girder, and means for raising and lowering the girders, to open and close the bridge.

3. In a bascule bridge, the combination of a leaf comprising in its construction an upper girder, a lower girder, a stationary frame for pivotally supporting said upper and lower girders, upper trunnions on the stationary frame and forming supports for the upper girder, lower trunnions located between said upper trunnions and the riverward end of the upper girder and in supporting engagement with the lower girder, connecting link mechanism connected with the upper girder between the upper trunnions and the riverward end of the upper girder, and connected with the lower girder between the lower trunnions and the riverward end of the lower girder, connecting the girders in movable relation to each other, a locking pin upon and in fixed relation to one of said girders, a socket member upon the adjacent girder in position to automatically engage the corresponding locking pin when the girders are in lowered position, means for supporting the girders, and means for raising and lowering the girders to open and close the bridge.

4. In a bascule bridge, the combination of a leaf comprising in its construction a lower girder, an upper girder, a stationary frame for pivotally supporting said upper and lower girders, links located between the riverward ends of said pivoted girders and said stationary frame and pivotally connected with both girders at points intermediate the stationary frame and the riverward ends of said girders, respectively for connecting said girders in permanently connected movable relation to each other, locking members upon and in fixed relation to the upper and lower girders respectively, adapted to secure said girders together in position to form a continuous cantaliver arm when in lowered position and permit the girders to move freely out of interlocking engagement in the direction of their raised positions, and means for raising and lowering the girders, to open and close the bridge.

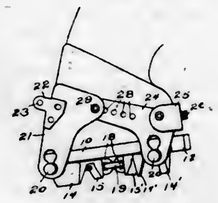
5. In a bascule bridge, the combination of a leaf comprising in its construction lower girders, upper girders, a counter-weight supported by the upper girders, a stationary frame upon which both of said girders are pivotally supported, links located between the riverward ends of said pivoted girders and said stationary frame and pivotally connected with both girders at points intermediate the stationary frame and the riverward ends of said girders, respectively for connecting the girders in permanently connected movable relation to each other, locking members upon and in fixed relation to the upper and lower girders respectively and movable into and out of interlocking engagement with each other, said locking members being adapted to secure the girders together in lowered position, to form a continuous cantaliver arm, and means for raising and lowering the upper and lower leaf members, to open and close the bridge.

[Claim 6 not printed in the Gazette.]

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1,094,474. HORSESHOE ATTACHMENT. EARL J. REECE, Denver, Colo. Filed Dec. 30, 1912. Serial No. 739,373. (Cl. 168—1.)

1. The combination with a horse shoe, of a calk structure detachably connected to the shoe and comprising a plurality of members flexibly connected together centrally of the shoe, each of said members being provided with a calk disposed immediately beneath the shoe and an additional calk carried by each member shorter than the first mentioned calk.



2. The combination with a horse shoe, of a calk structure comprising a plurality of separate members flexibly connected together centrally of the shoe, each of said members being provided with a calk disposed immediately beneath the shoe, and an additional calk carried by each member shorter than the first mentioned calk.

3. The combination with a horse shoe, of a calk structure comprising a plurality of members flexibly connected together centrally of the shoe, means to adjust the radial position of the calk members relative to the central connecting member, a headed stud carried by each of the members and extending beyond the lines of the shoe and a securing structure comprising plates having means for engaging the studs, and other means for drawing such securing structure together.

4. As an article of manufacture, a calk structure proportioned to engage the under side of a horse shoe, said calk structure being composed of separate members flexibly united and each of said members comprising an outer calk and an inner calk shorter than the outer calk.

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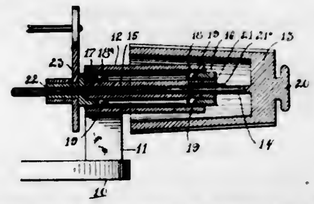
1,094,475. PROCESS OF PURIFYING WATER FROM GERMS BY MEANS OF BROMIN. MAXIMILIAN RIEGEL, Berlin, Germany. Filed Jan. 16, 1914. Serial No. 812,574. (Cl. 210—1.)

1. A process of purifying water from germs consisting in mixing hydrochloric acid with the water and in adding a solution of bromin in potassium bromid, and in then removing the free acid and the free bromin therefrom by adding a predetermined quantity of a mixture of sodium sulfite and an alkali.

2. A process of purifying water from germs consisting in mixing hydrochloric acid with the water and in simultaneously adding a solution of bromin in potassium bromid, and in then removing the free acid and the free bromin therefrom by adding a predetermined quantity of a mixture of sodium sulfite and sodium carbonate.

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1,094,476. RECORD-HOLDER. JULIUS ROEVER, New York, N. Y. Filed July 22, 1910, Serial No. 573,157. Renewed Sept. 20, 1913. Serial No. 790,931. (Cl. 181—13.)



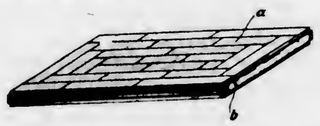
1. A record holder comprising a horizontally arranged cylindrical casing, a sleeve held to rotate in the casing, a collar on the sleeve projecting from the end of the casing and carrying driving means, and a shell or mandrel open at its inner end and closed at its outer end, said

shell or mandrel having a rigid internal spindle sliding freely in and removable from the aforesaid sleeve, but arranged to turn with the sleeve.

2. A record holder comprising a horizontally arranged casing, a sleeve turning in suitable bearings within the casing, means for driving the sleeve, and a shell or mandrel adapted to support a record, said shell or mandrel being open at one end, closed at the other, provided with a handle at its closed end, and having a rigid spindle arranged longitudinally within it, said spindle being freely movable in the aforesaid sleeve and detachable therefrom, and also arranged to turn with the sleeve.

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1,094,477. PROCESS OF MAKING SOUND-DAMPING INTERMEDIATE LAYERS. OTTO ROTHSCHILD, Charlottenburg, Germany. Filed Aug. 15, 1912. Serial No. 715,203. (Cl. 20—4.)




A process of making sound-damping means comprising an iron frame surrounding cork, which consists in heating natural cork and thereby expelling substantially all the moisture therefrom, and diminishing the volume of the same, in thereupon pressing the cork into the iron frame, and in subsequently coating the cork with asphalt.

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1,094,478. KEY. JOHN L. RYAN, Bayonne, N. J. Filed Dec. 22, 1913. Serial No. 808,246. (Cl. 70—9.)



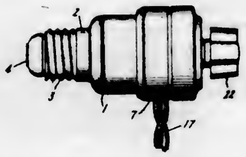
1. A key having a metal shank and bit portion and having an insulated handle portion secured to said shank, said insulated portion having an annular flange at its inner end.

2. A key formed in two sections, one section comprising a metal shank and bit and the other section comprising a rubber handle portion terminating at its inner end in an annular flange.

3. A key consisting of a metal shank and bit having a reduced threaded portion, a handle member of a non-conducting material adapted to receive the reduced threaded portion and an annular flange of non-conducting material carried by the inner end of said handle portion.

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1,094,479. SWITCH-PLUG. HOWARD R. SARGENT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 31, 1913. Serial No. 745,392. (Cl. 173—343.)



1. In a switch plug comprising a base, a pair of contact fingers projecting from said base and adapted to engage corresponding contact terminals in an attaching plug, a pair of binding posts mounted upon said base, and a rotary snap switch co-axially mounted upon said base for making and breaking circuit between a binding post and a contact finger.

2. The combination of an attaching plug provided with a pair of contact terminals, of a switch plug provided with a pair of contact fingers adapted to engage said terminals, a pair of binding posts to which conductors leading from the switch plug may be connected, electrical connections between each of said binding posts and corresponding contact fingers, and a rotary snap switch mounted co-axially of the plug for making and breaking the circuit between one or both of said binding posts and the corresponding fingers.

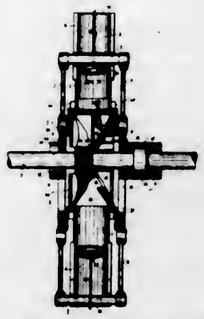
3. In a switch plug, a base having an opening at one side for entrance of conductor leads, a pair of contact fingers projecting from the rear of said base, a pair of switch contacts secured to the front of said base, a rotary snap switch carried by the base for connecting one of said contact terminals to and disconnecting it from one of the switch contacts, and a pair of binding posts connected to the second contact finger and the second switch contact respectively and adapted to receive corresponding conductors leading through the base opening.

4. In a switch plug comprising a base having an opening at one side for entrance of conductor leads, a pair of contact fingers projecting from the rear of said base, a pair of contact plates carried on the front of said base, one of which is electrically connected to one of said fingers, binding posts connected to the second contact finger and to the second contact plate respectively which are adapted to receive conductors extending through the base opening, and a manually-operated switch carried by the base for connecting and disconnecting said contact clips.

5. In a switch plug, a base provided with a recess at its rear, a pair of contact fingers projecting therefrom, a pair of contact plates carried by the front of said base, one of which is electrically connected to one of said fingers, and a manually-operated switch blade carried by said base for connecting and disconnecting said contact plates, binding posts electrically connected to the second contact finger and to the second contact plate respectively said base being provided with an opening extending from said recess to the exterior of the base for the accommodation of conductors leading from the switch block and with an opening extending from said recess to the front of the base adjacent said second contact clip for the accommodation of one of the conductors.

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1,094,480. ROTATABLE MOTOR. MICHAIL SCHISCHMAREW, Liege, Belgium, assignor to Première Societe de la Navigation Aerienne de Russie, St. Petersburg, Russia. Filed Sept. 10, 1912. Serial No. 719,606. (Cl. 123—44.)



1. In an internal combustion engine, in combination, a shaft, a plurality of radially disposed cylinders fixedly supported thereon, reciprocating pistons within said cylinders, hollow stationary pistons within said reciprocating pistons, each of said stationary pistons having a passage extending therethrough, and a suction valve in said passage adapted to open to admit air into the associated reciprocating piston during its inward movement, each of said stationary hollow pistons having a valve adapted to admit air therein during the outward movement of the associated reciprocated piston, a pipe communicating with each hollow piston for conducting the air therefrom and means for delivering the air into one of said cylinders.

2. In an internal combustion engine, in combination, a shaft, a casing mounted thereon and rotatable therewith, said casing being provided with a plurality of chambers adapted to receive an explosive mixture and with a plurality of chambers adapted to receive a cooling fluid, cylinders carried by said casing and communicating with said first mentioned chambers, there being one cylinder for each chamber, reciprocating pistons in said cylinders, said casing being provided with a conical surface having openings formed therein communicating with said chambers, a fixed distributing member provided with a conical face coacting with the conical surface of said casing, said member being provided with compartments, the conical face having openings formed therein communicating with said compartments, with which openings the openings in said casing are adapted to register as the latter rotates, an ignition device in one of said compartments, means for delivering to another of said compartments an explosive mixture, means for delivering to another of said compartments a cooling fluid and means for delivering to another of said compartments compressed air.



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1,094,481. WEATHER-STRIP. HARRY H. SCHROYER, Chicago, Ill., assignor to The Acme Supply Company, a Corporation of Illinois. Filed Mar. 12, 1913. Serial No. 753,760. (Cl. 20—69.)



1. In a device of the class described, a base plate adapted to be secured to the lower rail of a sash and having an angled flange at one edge thereof, a strip secured to said base plate, and a piece of fabric secured between said base plate and strip with its edges depending, said angled flange directing one of said depending edges inward beneath said strip, and said other edge being left free to project beyond the sash rail.

2. In a device of the class described, a base plate adapted to be secured to the lower edge of a sash and coextensive in width therewith and having an angled flange at the inner edge thereof, a narrower strip secured to said base plate, and a piece of fabric secured between said base plate and strip with its edges depending, said angled flange directing one of said depending edges inward beneath said strip, and said other edge being left free to project beyond the sash rail.

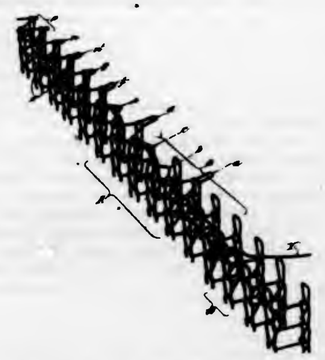
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1,094,482. ART OF KNITTING RIBBED FABRICS. ROBERT W. SCOTT, Boston, Mass. Original application filed May 7, 1913, Serial No. 766,092. Divided and this application filed Sept. 29, 1913. Serial No. 792,515. (Cl. 66—21.)

1. The art of knitting ribbed webs comprising first knitting a course of loops on one face of the fabric, then knitting loops of the same course in separated wales of the other face of the fabric, and then knitting loops in the intervening wales of said other face.

2. The art of knitting ribbed fabrics comprising the formation of successive courses by first forming a run of yarn sufficient to form all the loops of both faces of the fabric knit loops of said yarn penetrating the old stitches of one face of the fabric, subsequently drawing loops of said yarn through some only of the old stitches of the other face of the fabric, and then drawing loops of said yarn through the remaining old stitches of said other face of the fabric.

3. The art of knitting ribbed fabrics comprising the following steps; first knitting a course of loops in all the wales of one face; then drawing the yarn intervening between some of the said wales through some only of the previous loops of the other face, and then drawing the remaining parts of the yarn intervening between face wales through the remaining previous loops of said other face.



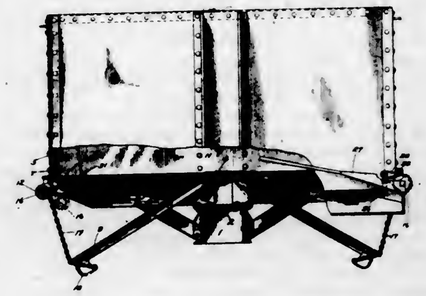
4. The art of forming ribbed fabric comprising knitting a course of the primary face of the fabric and thereafter completing said course in the secondary face of the fabric by knitting a plurality of intercalated series of loops in succession, the loops of the first of said series being completed and relaxed prior to the knitting of the remainder of said series of loops.

5. The art of knitting ribbed webs on two sets of needles, comprising feeding a yarn to the needles, then actuating one set of needles to knit loops of said yarn through the loops of a previous course on one face of the web; then actuating a series of needles distributed among the needles of the other set to knit said yarn through other loops of said previous course, and then actuating the remaining instruments of said other set to knit said yarn through all the remaining loops of said previous course.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,483. DOOR-OPERATING MECHANISM. FREDERICK SEABERG, Chicago, Ill., assignor to National Dump Car Company, a Corporation of Maine. Filed Mar. 8, 1909. Serial No. 481,919. (Cl. 105—14.)



1. A drop bottom car door mechanism comprising in combination with the car door, members pivoted at their upper ends to the car structure adjacent the free edge of the door to swing away from the door to permit the door to open, and flexible door closing mechanism connected to said swinging members and to the door to cause the lower ends of said members to swing under the door when closed.

2. In a car of the class described, a floor provided with door openings, doors hinged adjacent one edge of said

openings, shaft bearings pivoted adjacent the opposite edge of said openings, a shaft mounted in said bearings, chains secured to said doors and shaft, means for moving said shaft beneath the door to support the same in closed position, and to move said shaft out of the path of said door.

3. In a car of the class described, a floor provided with door openings, doors hinged adjacent one edge of said openings, shaft bearings pivoted adjacent the opposite edge of said openings, a shaft mounted in said bearings, chains secured to said doors and shaft, means for holding said shaft out of the path of said doors, and means controlled by the movement of the doors for allowing said shaft to move beneath the doors.

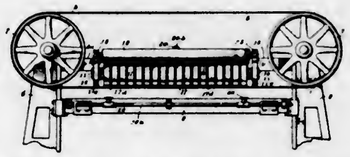
4. In a car of the class described, a floor provided with a door opening, a door hinged adjacent one edge of said opening, shaft bearings pivoted adjacent the opposite edge of said opening, a shaft mounted in said bearings, and movable between a position beneath said door and a position out of the path thereof, a chain secured to said shaft and door, a stop normally holding said shaft out of the path of said door, means for rotating said shaft to wind said chain thereon, and a trip on said door adapted to move said stop to release said shaft.

5. In a car of the class described, a floor provided with a door opening, a door hinged adjacent one edge of said opening, a winding shaft adjacent the opposite edge of said opening and movable from a position beneath the door when closed to a position out of the path thereof, a chain secured to said shaft and door, means for rotating said shaft, means positively locking said shaft out of the path of said door when the free edge of said door is beneath said shaft, and means for releasing said locking means.

[Claims 6 to 26 not printed in the Gazette.]

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1,094,484. SANDPAPERING-MACHINE. HERBERT W. SELLNER, Faribault, Minn. Filed Oct. 14, 1912, Serial No. 725,594. Renewed Nov. 15, 1913. Serial No. 801,258. (Cl. 51—13.)



1. In sanding or polishing machines, comprising a traveling belt and means for driving same, a swinging frame, a plurality of shoes mounted under tension on said frame, a single continuous pressure member arranged above and in contact with said shoes in a plane diagonal thereto, means for moving said member over said shoes, and means for regulating the tension of said shoes.

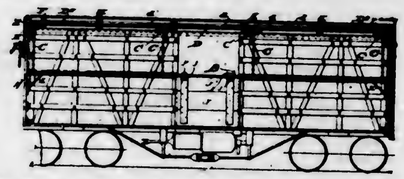
2. In a sanding machine, comprising a traveling belt, and means for driving same, a swinging frame, a plurality of shoes mounted under tension on said frame and having convex tops, a single continuous pressure roller arranged above and in contact with said shoes in a plane diagonal thereto, means for moving said roller over said shoes, and common means for regulating the tension of said shoes.

3. In a sanding or polishing machine, comprising a traveling belt and means for driving same, a swinging frame, a roller mounted on and extending longitudinally of said frame, a plurality of shoes adapted to be depressed by said roller, yielding adjustable means for adjusting said shoes relative to said roller, said means common to all of said shoes, and means for adjusting said roller relative to said shoes.

4. In a sanding or polishing machine, comprising a traveling belt and means for driving same, a row of shoes, a flexible strip secured to the bottoms of said shoes, a bar extending longitudinally through said shoes, yielding bearings between said bar and each of said shoes, means for adjusting said bar, a pressure member extending diagonally of said row of shoes and in frictional engagement therewith, and means for varying the position of said member relative to said shoes substantially in the manner set forth.

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1,094,485. FREIGHT OR CATTLE CAR. JOHN BELL SHELTON, Edson, Alberta, Canada, assignor of one-half to Peter David, Tacoma, Wash. Filed Dec. 11, 1911. Serial No. 665,113. (Cl. 105—15.)



1. In a car of the character described, a movable platform, a winding shaft provided with a right and left hand screw-threaded portion, traveling blocks respectively engaging said screw-threaded portions, suitable sheaves for carrying a flexible element, a flexible element engaged to the platform and adapted to pass over the sheaves and connected with the traveling blocks, and means for rotating the winding shaft whereby the traveling blocks may be operated and the platform raised or lowered.

2. In a car of the character described, an adjustable platform, grain doors hinged to said platform, and means for raising and lowering said platform.

3. In combination, a car body having a door opening therein, a platform mounted for vertical movement within said car body, means to move said platform vertically, suspending means carrying the platform, and a door hinged to the platform and adapted to close said opening.

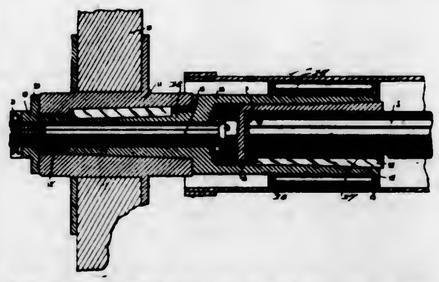
4. In a car of the character described, an adjustable platform, meat supporting hooks carried by said platform, and means for raising and lowering said platform so that the meat suspended from said hooks may be so positioned as to prevent swaying of the meat.

5. In a car of the character described, a winding shaft journaled in the car, a platform having connection with said shaft, means whereby the shaft may be rotated to adjust the platform, a trap door formed in the platform, and grain doors having detachable hinged connection with the platform.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,486. EMERGENCY-AXLE. CHARLES PERRY SNYDER, Slatington, Pa. Filed Jan. 25, 1913. Serial No. 744,176. (Cl. 21—5.)



1. In a device of the character set forth, the combination with a wheel hub, of a spindle to which the wheel hub is adapted to be connected, a casing for the spindle, an axle, and means operating through said spindle and casing to secure said axle in operative relation to said spindle and wheel hub, said securing means operating also to secure the hub upon the spindle.

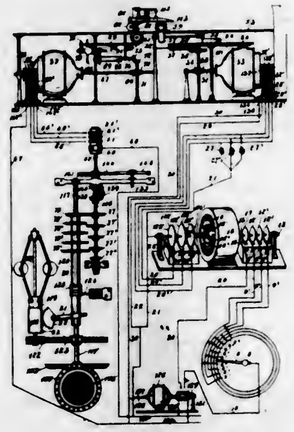


2. In a device of the character set forth, the combination of a spindle, a bearing support connected to said spindle, a chuck within the bearing support, a shank extending through and beyond said spindle to move the chuck longitudinally of the bearing support, and means applied to the outer end of the spindle whereby such movement is effected.

3. In a device of the character set forth, the combination of a spindle, a casing connected to the spindle, a chuck adapted to grip an axle and movable longitudinally of said casing, a shank connected to the chuck and connected to said spindle, and screw threaded means applied to the outer end of the spindle for the purpose of forcibly moving the chuck and shank longitudinally of the casing and spindle, substantially as set forth.

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1,094,487. SHIP'S COURSE-RECORDING DEVICE. FRANCESCO SPALAZZI, Rome, Italy. Filed May 28, 1908. Serial No. 435,523. (Cl. 234—26.5.)



1. An apparatus for automatically recording the course of a ship comprising: a compass, a device for transmitting to a distance the angular movements of said compass, a support for the record sheet lying freely on the desk of the recording apparatus, a deviating roller resting against said sheet and rotated by the device which transmits the angular movements of the compass by angles proportional to the movement of the compass, a device for transmitting to a distance the number of revolutions of a rotating shaft, a propeller shaft operatively connected with said device, a transporting roller operatively connected to said device and rotated by same at a speed proportional to that of the propeller shaft, a writing roller and a pressure roller coöperating respectively with the transporting and the deviating roller in such a way that the record sheet is simply moved forward by the transporting roller passing under the writing roller and between the deviating roller and the pressure roller without moving the two last mentioned rollers, when the ship is moving on a straight course, while each time a change in the direction is made, the deviating roller causes the sheet to rotate around the contact point of the writing roller through a corresponding angle.

2. In an apparatus for automatically recording the course of a ship a device for compensating for the deviations of the compass due to the iron on board, comprising: a compass, a motor the armature of which receives angular displacements proportional to the movements of said compass, a disk divided into sectors and provided with concentric grooves, flexible toothed ribbons inserted in each sector into a groove removed from the central groove to an extent proportional to the value of the deviation in the region corresponding to that sector, so as to form a segmental crown-rack of variable diameter; a cylindrical drum with longitudinal grooves placed radially across said disk and receiving the movement from the motor and transmitting same to the disk by means of the toothed ribbon with which it is always in gear; a deviating roller to rotate the drawing sheet, and suitable connections between the deviating roller and the grooved disk which controls its movement.

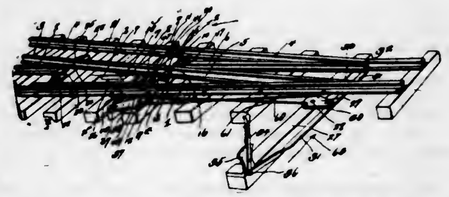
3. In an apparatus for automatically recording the course of a ship a device for maintaining at all speeds of the ship the movement of the record sheet proportioned to the way made comprising: a device for transmitting to a distance the number of revolutions of a rotating shaft, a propeller shaft operatively connected with said device, a transporting roller acting on the record sheet, a variable speed gear inserted between the propeller shaft and the device which transmits the number of its revolutions, a centrifugal governor controlling said variable speed gear, and connections between the propeller shaft and the centrifugal governor, so that the gear may automatically be moved into position by the governor for giving the ratio of transmission which corresponds to the speed with which the ship is moving.

4. In an apparatus for automatically recording the course of a ship a device for compensating for the effects of the resistance of the rudder while the ship is moving comprising a device for transmitting to a distance the angular movements of a rotating shaft, a rudder and a variable speed gearing operatively connected to said device so that the ratio of the transmission in the gear is controlled by the position of the rudder, a transporting roller, a propeller shaft and a device imparting to the transporting roller through the above said variable speed gear a speed proportional to the speed of the propeller shaft so that the ratio of the transmission is modified according to the position of the rudder.

5. In an apparatus for automatically recording the course of a ship a device for varying the tracing scale in accordance with the scale of the sea chart on which the record is made, comprising: a propeller shaft, a device for transmitting the number of revolutions of a rotating shaft operatively connected to the propeller shaft, a second shaft rotated by said device at a speed proportional to the speed of the propeller shaft, a transporting roller which displaces the sheet, an auxiliary shaft transmitting the motion from the second shaft to the transporting roller, a pinion mounted on the said second shaft, a pinion mounted on the auxiliary shaft and a variable speed gearing interposed between said pinions and consisting of a disk carrying trains of gears of different ratios, which can be rotated in such a manner that the first wheel of each train is in gear with the pinion mounted on the second shaft, while the last wheel meshes with the pinion carried by the auxiliary shaft.

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1,094,488. RAILWAY-SWITCH. JOHN C. SPEAS, Alma, Mich. Filed Aug. 25, 1913. Serial No. 786,567. (Cl. 104—119.)

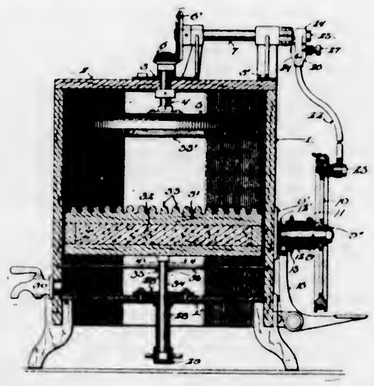


In a railway switch, the combination of a main rail and a switch rail, a pair of switch points, a pivoted rail section adapted to be thrown in alinement with either the main rail or the switch rail and with one or the other of the switch points, a member connecting the switch points at their free ends so that they will move together, a mechanism for operating said member to actuate said

switch points, a bar pivoted to one end of the rail section and having connections with said member, whereby the rail section may be actuated simultaneously with the switch points, a pair of pivoted latch bars having opposing cam grooves disposed upon opposite inclinations, one of said latch bars having a notch including a shoulder to prevent movement of the rail section in one direction when the respective latch bar is raised, while the other latch bar is provided with a projection to prevent movement of the rail section in one direction when said respective latch bar is raised, said bar pivotally connecting the rail section having means on each side operating in one of said cam grooves for raising and lowering each of said latch bars a trifle before the actuation of the rail section, and means to prevent movement of the rail section in the opposite direction, it depending upon which ever of said latch bars is raised.

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1,094,489. WASHING-MACHINE. RUDOLF SPIELVOGEL, Hartford, Wis. Filed Nov. 29, 1913. Serial No. 803,836. (Cl. 68—24.)



A washing machine comprising a polygonal tank, a buoyant false bottom polygonal in shape mounted within the tank, guides for the false bottom, a removable lid for the tank, a revoluble scrubbing disk carried by the lid provided with a scrubbing face opposite the false bottom, and an actuating gear for the scrubbing disk.

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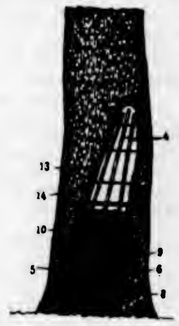
1,094,490. TREE TREATMENT. WARNER S. STERLING, Westwood, N. J. Filed Nov. 1, 1912. Serial No. 728,969. (Cl. 47—36.)

1. A reinforcement for the cavity of a tree, consisting of a filling of cementitious material within the cavity and horizontal reinforcing means extending entirely around within the cementitious filling and disposed substantially within the circumference of the cavity.

2. A reinforcement for the cavity of a tree, consisting of a body of cementitious material within the cavity and horizontal reinforcing means extending entirely around the cementitious material within the circumference of the cavity and consisting of rows of spikes driven into the walls of the cavity and continuous hoops adjacent the spikes, the heads of the spikes being embedded in the cement.

3. A reinforcement for a cavity of a tree, consisting of a filling of cementitious material within the cavity with metallic reinforcements embedded in the said filling and a reticulated metal lath secured to the walls of the cavity around the edges of the filling and embedded in the cement just inside of the outer face of the filling.

4. A reinforcement for a cavity of a tree, consisting of a filling body of cement within the cavity and a sheet of reticulated metal secured to the walls of the cavity at the edges of the filling and embedded in the cement to prevent the cement from cracking and from falling out.

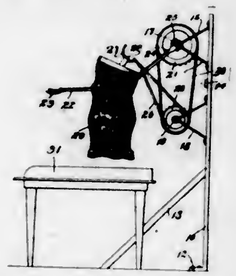


5. A reinforcement for a cavity of a tree, consisting of a filling of cementitious material within the cavity, a reticulated metal lath secured to the walls of the cavity at the edges of the filling and embedded in the cement adjacent the outer surface of the same, and horizontal hoops extending around and embedded in the cement.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,491. MAIL-POUCH LIFTING AND DUMPING DEVICE. CLARENCE B. STEWART, Alhambra, Miss. Filed May 20, 1913. Serial No. 768,885. (Cl. 214—3.)



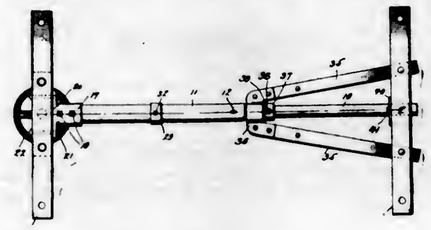
1. In a mail pouch dumping device, uprights, a shaft mounted on the uprights, a pouch engaging and lifting arm mounted on the uprights, means for locking the said shaft and connections between the lifting arm and the shaft whereby the movement of the shaft will communicate movement to the arm.

2. A mail pouch dumping device comprising suitable uprights, brackets mounted on the uprights, a shaft mounted in certain of the brackets, a sprocket carried by the shaft, an operating lever also carried by the shaft, a sprocket mounted on certain other of the brackets, a pouch lifting arm carried by the last named sprocket, means for holding the lever in various elevated positions, and a chain trained around said sprockets.

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1,094,492. RUNNING-GEAR. THEODOR J. STRUPP, Elkton, S. D. Filed Mar. 7, 1913. Serial No. 752,676. (Cl. 21—39.)

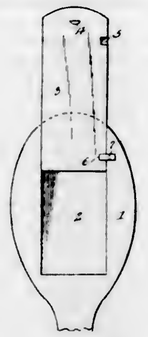
In a vehicle running gear, a reach, a front bolster, a cylindrical socket-piece comprising top and bottom sections encircling the forward end of the reach, bolts securing the reach in the socket-piece, said bolts passing through both sections thereof, the top section having a base portion which abuts against the rear face of the bolster and is secured thereto, and the bottom section having a transversely elongated extension which fits the under side of the bolster and is bolted thereto, said ex-



tension being shaped to form the upper section of a fifth-wheel.

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1,094,493. COMBINED HAIR-BRUSH AND MIRROR. LEON I. TABER, Mount Hermon, Mass. Filed Mar. 23, 1912. Serial No. 685,719. (Cl. 132—11.)



1. In combination with a frame provided with a longitudinal slot, a mirror slidably mounted in said slot, the back of said mirror lying flush with the back of said frame, means mounted on said frame and having engagement with said mirror for holding the latter in a predetermined adjusted position.

2. In combination wth a frame provided with a longitudinal slot, a mirror slidably mounted in said slot, the back of said mirror lying flush with the back of said frame, said mirror being provided wth a plurality of recesses in proximity to one of the longitudinal edges thereof, a spring mounted adjacent the one end of said frame for engagement in said recesses for the purpose specified.

3. In combination with a frame provided with a longitudinal slot in the back thereof, a mirror slidably mounted in said slot, the back of said mirror lying flush with the back of said frame, the back of said mirror being provided with a plurality of recesses, a flat spring mounted on the back of said frame adjacent the outer end thereof adapted for engagement in said recesses for the purpose specified.

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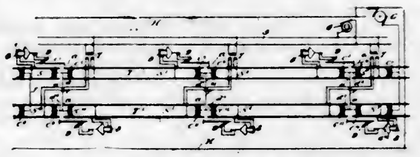
1,094,494. ELECTRIC RAILWAY. LOUIS H. THULLEN, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed May 20, 1905. Serial No. 261,343. (Cl. 246—36.)

1. An electric railway having two or more tracks and in which both rails of each track are used as a return for the propulsion current, in combination wtih cross bonds having a high impedance to a signaling current and a low ohmic resistance to a propulsion current, and means for electrically connecting the cross bonds of one track to the cross bonds of one or more adjacent tracks.





2. An electric railway having two or more tracks and in which one or both rails of each track are used as a return for the propulsion current, in combination with rail bonds having high impedance to a signaling current and low ohmic resistance to a propulsion current, and means for electrically connecting the rail bonds of one track to the rail bonds of one or more adjacent tracks.



3. In combination, an electric railway having two or more tracks, a plurality of block sections for each track, track circuits for the block sections, a source of propulsion current and a source of signaling current, inductive bonds connected across the rails of each block adjacent the ends thereof and having high impedance for signaling current and low impedance for propulsion current, an electric connection from one bond to the adjacent bond, and an electric connection from a pair of bonds on one track to a pair of bonds on an adjacent track.

4. In an electric railway two or more tracks, a plurality of inductive cross bonds for each track, each cross bond connecting one rail of its track to the opposite rail, and a plurality of electric bonds connecting one or more cross bonds of one track to one or more cross bonds on each of the other tracks of the railway.

5. In an electric railway, a source of propulsion current, an inductive cross bond having high impedance to a signaling current and low ohmic resistance to a propulsion current connecting the rails on one side of the track to the rails on the other side of the track, and means for electrically connecting the said cross bond at a point at or near its center to one pole of the source of current supply, the other pole of said source being connected in the usual manner to a trolley wire or third rail or other equivalent conductor of the propulsion current.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,495. SIGNALING SYSTEM FOR RAILWAYS. LOUIS H. THULLEN, Edgewood, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Oct. 14, 1905. Serial No. 282,702. (Cl. 246—30.)



1. A circuit for signaling systems comprising traffic rails, a source of signaling current connected with the traffic rails, and a relay device comprising a field coil and an armature coil, the armature coil receiving current from the traffic rails at one point and the field coil receiving current from the traffic rails at a different point.

2. A circuit for signaling systems comprising traffic rails, a source of signaling current located at a point intermediate the ends of the traffic rails and connected therewith, and a relay device comprising a field and an armature coil which coils receive current from the traffic rails at different points.

3. A circuit for signaling systems comprising traffic rails, a source of signaling current located at a point intermediate the ends of the traffic rails, and connected therewith, and a relay device comprising a field coil and an armature coil both of which are energized by signaling current in the traffic rails, the field coil taking current from the rails on one side of the connection of the source of current with the traffic rails and the armature coil

taking current from the rails on the other side of said connection.

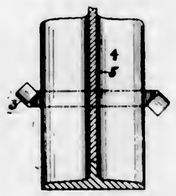
4. A signaling system comprising traffic rails, a source of alternating signaling current connected therewith, a relay device comprising a field coil and an armature coil, which coils are in separate circuits and receive current from the traffic rails but at different points, and means in one of said circuits for increasing or diminishing the inductance in said circuit.

5. A signaling system comprising traffic rails, a source of alternating signaling current connected therewith, a a relay device comprising a field coil and an armature coil, one of said coils being connected directly with the traffic rails at one point and the other of said coils being also connected with the traffic rails through a transformer but at a different point, and said transformer having one winding connected with the traffic rails and its other winding in circuit with said other coil.

[Claims 6 to 22 not printed in the Gazette.]

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1,094,496. CONCRETE-FORM HANGER. GEORGE S. TUITE, Los Angeles, Cal. Filed Jan. 13, 1910. Serial No. 537,889. (Cl. 25—131.5.)



1. A hanger for holding concrete centering comprising a plate having an opening therein near the center thereof and having a pair of hooks at the ends thereof, a bolt projecting from said centering and extending through said opening to serve as a pivot upon which the plate may be swung, the hooks being turned at an acute angle to the axial plane of the plate, one in one direction and the other in the other direction, substantially as described.

2. A hanger for holding concrete centering, comprising a centering base, plates pivotally secured to said base and centrally thereof and each provided with a terminal hook turned at an acute angle to the axial plane of the plate.

3. A support for holding concrete centering to flanged beams, comprising a centering box, pivot bolts secured to and projecting from the central portion thereof, metal hangers spaced apart and having central apertures through which said pivot bolts project, said hangers having terminal hooks turned inwardly at an acute angle to the axial plane of the plate, and reinforcing members carried by said hangers, whereby the entire centering support may be assembled before being positioned over the beam and then locked to the beam by swinging the hangers upon their pivots into locked engagement with the beam.

4. A support for holding concrete centering comprising a plate provided at either end with an inwardly directed hook for grasping the opposite sides of a flanged beam respectively, and means for centrally pivoting said support to the centering to permit said hooks to swing into locking engagement with the beam, said pivotal means being adapted to lock said posts against subsequent angular movement.

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1,094,497. SAW-SET. HERMAN W. UHLENKOTT, Ferdinand, Idaho. Filed Apr. 22, 1913. Serial No. 762,921. (Cl. 76—71.)

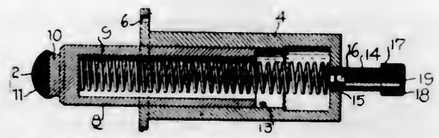
A saw set comprising a handle, said handle having one end provided with a longitudinal bore which opens into a recess, a nut mounted in the recess, a head having a tooth engaging slot carried thereby, a shank formed integral with the head and passable through said bore for engagement with the nut, said handle having a groove formed in its end, said head having a convexed edge for



engaging said groove to prevent rotation of the head upon manipulation of the nut.

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1,094,498. BUFFER. CHARLES A. ULLRICH, Hoboken, N. J. Filed Dec. 29, 1913. Serial No. 809,342. (Cl. 46—66.)



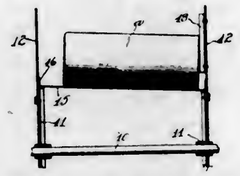
1. A device of the class described comprising the combination with a post, of a cylinder positioned transversely in said post and having an outwardly directed flange at its outer end, means engaged through said flange for securing the cylinder in position, a piston mounted for reciprocation in said cylinder, means for resiliently retaining the piston in its outermost position, a buffer mounted upon the outer end of said piston, said cylinder having an air inlet opening, whereby air may enter the same when said piston is in its outermost position, said post being provided with an air inlet opening in alinement with the air in let opening of the cylinder, a valve casing projecting from the closed end of the cylinder, a valve in said valve casing, a cap adjustably mounted on the outer end of the valve casing and provided with an air escape opening, said valve casing having communication with the cylinder, and means for resiliently retaining said valve in closed position, said piston being adapted, upon inward movement, to compress the air within said cylinder, said cap being adapted to be adjusted to control the escape of air from the chamber through the valve casing.

2. A device of the class described comprising the combination with a post positioned at the end of a runway and having a transverse opening, of a cylinder engaged in said opening, means for securing the cylinder in position, the outer end of said cylinder being open, a hollow piston engaged in said cylinder and projecting from the same, said piston having its outer end closed, a buffer carried on said outer closed end of the piston, a spring positioned in said cylinder and piston and engaged against the opposite closed ends of said cylinder and piston to resiliently retain the piston in its outermost position, said cylinder being provided with an air inlet opening, whereby air may enter said cylinder when the piston is in its outermost position, said piston being adapted to be forced inwardly by engagement with the buffer of movable members on the runway, a valve casing projecting from the inner end of the cylinder, a valve seat formed in said casing, a valve engaged with said seat, a cap adjustably mounted upon the outer end of the casing, said cap being provided with an air escape opening, and a spring positioned in said casing and having one end bearing against the cap while its opposite end bears against the valve to resiliently retain the same in engagement with the valve seat.

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1,094,499. APPARATUS FOR SOAKING OR STERILIZING ICE-CREAM CANS. THEODORE L. VALERIUS, Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 6, 1911. Serial No. 601,150. (Cl. 141—7.)

1. In an apparatus of the character described, the combination of a semicylindrical tank and a wheel-like structure rotatably mounted in said tank, said structure comprising two parallel sides extending close to the curved sides and bottom of the tank, bottom plates extending between the sides of said wheel-like structure, the ends of said plates being secured to one of the sides of said structure closer to the axis thereof than the opposite end of said plates, and walls extending between the sides of said structure, said walls and bottom plates forming a series of separate compartments extending longitudinally of the axis of the wheel-like structure, each adapted to receive an ice cream packing can with its open end adjacent to the end of said bottom plates nearest to the center of said structure, the outer sides of said compartments being open whereby the cans roll in contact with the curved sides and bottom of the tank.



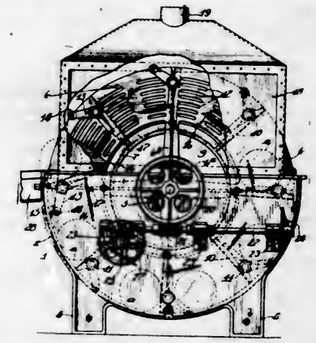
2. In an apparatus of the character described, the combination of a semicylindrical tank and a wheel-like structure rotatably mounted in said tank, said structure comprising two parallel sides extending close to the curved sides and bottom of the tank, bottom plates extending between the sides of said wheel-like structure, the ends of said plates being secured to one of the sides of said structure closer to the axis thereof than the opposite end of said plates, walls extending between the sides of said structure, said walls and bottom plates forming a series of separate compartments extending longitudinally of the axis of the wheel-like structure, each adapted to receive an ice cream packing can with its open end adjacent to the end of said bottom plates nearest to the center of said structure, the outer sides of said compartments being open whereby the cans roll in contact with the curved sides and bottom of the tank, and cross-pieces on the wheel-like structure adjacent the open sides of the compartments to prevent cans from rolling out of the compartments as the latter enter and leave the horizontal plane of the axis of said structure.

3. In an apparatus of the character described, the combination of a tank, a wheel-like structure rotatably mounted in said tank, said structure comprising a shaft journaled in the side walls of the tank, a pair of disks fixed on said shaft, radial walls extending between said disks and forming container-receiving compartments, braces extending between said disks at the outer edge of said radial walls, a pair of levers pivoted on the ends of said shaft, a crossbar connecting the outer ends of said levers, and dogs mounted on said crossbar, said dogs each having a portion adapted to travel upon the periphery of one of said disks, said dogs being adapted to engage said braces for rotating said wheel-like structure.

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1,094,500. ICE-CREAM-CAN STERILIZER. THEODORE L. VALERIUS, Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 14, 1911. Serial No. 620,988. (Cl. 141—7.)

1. In an apparatus for sterilizing ice-cream cans, the combination of a tank; a wheel-like structure rotatably mounted therein and including a pair of sides; a series of shelves extending from one of said sides to the other, said shelves dividing the wheel into compartments each adapted to receive an ice-cream can in a horizontal position, and each of said shelves being tiltably mounted; a series of levers each fixed with relation to one of said shelves; and a cam carried by the tank adjacent to the discharge side thereof, said cam being arranged to successively engage and swing said levers to tilt said shelves and cause the ice-cream cans to roll by gravity sidewise out of thier compartments.



2. In an apparatus for sterilizing packing cans or the like, the combination of a tank; a wheel-like structure rotatably mounted therein and including two sides; a series of shelves each extending from one of said sides to the other, and being mounted in said sides for tilting movement, said shelves dividing said wheel into compartments, each of which is adapted to receive a single ice-cream can in a horizontal position; a member connected with each of said shelves; a cam carried by said tank and arranged to successively engage and swing said members to tilt the shelves and cause the cans to roll sidewise out of the wheel; and a series of springs acting to return said members and said shelves to their normal position after an actuation thereof by said cam.

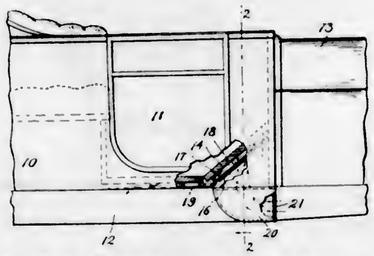
3. In an apparatus for sterilizing ice-cream cans or the like, the combination of a tank; a wheel rotatably mounted therein and having two sides and a central drum means; an annular series of rock shafts having their ends mounted in said sides; a series of shelves extending from one of said sides to the other, and each fixed upon one of said rock shafts; a series of arms fixed to the ends of the respective rock shafts adjacent to one of said wheel sides; a single cam mounted on the tank at its outlet side, and arranged to successively engage said arms for tilting said shelves to discharge the cans therefrom; a second series of arms fixed on the rock shafts; and coiled springs, each fixed at one end to one of said second arms and anchored at its other end to the wheel side, said springs acting to return said shelves to their normal positions after actuation thereof by said cam.

4. In an apparatus for sterilizing ice-cream packing cans or the like, the combination of a tank; a wheel-like structure rotatably mounted in said tank and including a pair of sides; a pair of annular rims fixed to the inner faces of said sides; a drum having its ends mounted on said rims concentric with said structure; a series of shelves extending from one of said sides to the other, each of said shelves being radially disposed with respect to the wheel and being journaled in said sides for tilting movement, said shelves and said drum forming a plurality of compartments, each of which is arranged to receive a single can in a horizontal position; a series of arms, each fixed to one of the journals for said shelves; a cam mounted on the tank adjacent to its discharge side, said cam being arranged to successively engage and swing said arms for tilting said shelves to cause the cans thereon to roll sidewise out of the wheel; and a series of springs acting to return said shelves to their normal position after an actuation thereof by said cam.

5. In an apparatus for sterilizing ice-cream packing cans or the like, the combination of a tank, a wheel-like structure rotatably mounted therein and including a pair of sides and a series of shelves each extending from one of said sides to the other and being mounted on said sides for tilting movement, said shelves dividing the wheel structure into a plurality of compartments, each of which

is adapted to receive a single ice-cream can in a horizontal position, and means acting to successively tilt the shelves as they reach the discharge side of the tank, whereby the can resting on the tilted shelf will roll by gravity sidewise out of the wheel structure.

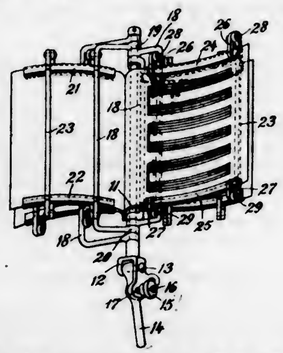
1,094,501. FOOTBOARD VENTILATION FOR MOTOR-VEHICLES. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 8, 1911. Serial No. 659,102. (Cl. 21—90.)



1. In a motor vehicle of the type having a power plant at the forward end of the vehicle, a body, a hood adapted to inclose the power plant and located in front of the body, a foot-board at the forward part of the body at the rear of the hood, said foot board having associated therewith a cooling air space through which air may sweep rearwardly along the same, and means for conducting cooling air currents to opposite sides of the forward portion of said space, said means having at opposite sides of the hood outside of the same and at the forward portion of the body, forwardly facing air inlet openings.

2. In a motor vehicle, of the type having a power plant at the forward end thereof, a hood in front of said body and adapted to inclose a power plant, a double footboard at the forward portion of the body rearwardly of the hood, said double foot-board comprising upper and lower members with an air space between the same, and open at their rear, and means for conducting cooling air currents to opposite sides of the forward portion of said space, said means having at opposite sides of the hood outside of the same and at the forward portion of the body forwardly facing air inlet openings.

1,094,502. PAGE-HOLDER FOR BOOKS AND THE LIKE. VECHTEN WARING, Brooklyn, N. Y. Filed Feb. 24, 1913. Serial No. 750,146. (Cl. 45—61.)



1. In a page holder for books and the like, a pair of members having homologous surfaces curved to substantially the same radius, pivotal connection between said members, and means for forcing them together.

2. In a page holder for books and the like, a pair of members having homologous surfaces curved to substantially the same radius, pivotal connection between said members, and yieldable means for forcing them together.

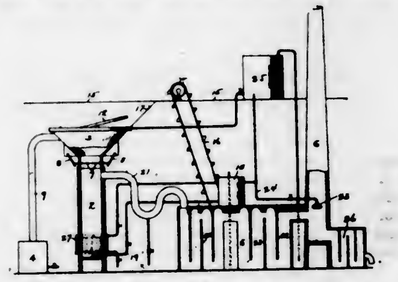
3. In a page holder for books and the like, a supporting member, a frame rotatably mounted thereon, a pair of members having surfaces curved to substantially the same radius mounted on said frame, and means for urging said surfaces together.

4. In a page holder for books and the like, a supporting member, a frame rotatably mounted thereon, a pair of members having surfaces curved to substantially the same radius mounted on said frame, and yieldable means for urging said surfaces together.

5. In a page holder for books and the like, a supporting member, a frame rotatably mounted thereon, a pair of members having surfaces curved to substantially the same radius mounted on said frame, yieldable means for urging said members together, and a second pair of members oppositely disposed with reference to the first named pair, and similar thereto, mounted on said frame.

[Claim 6 not printed in the Gazette.]

1,094,503. APPARATUS FOR INCINERATING REFUSE MATERIAL. THOMAS E. WASLEY, San Jose, Cal. Filed May 16, 1911. Serial No. 627,623. (Cl. 110—8.)



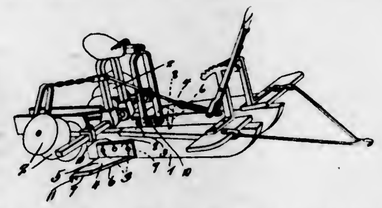
1. A plant of the class described comprising an incinerator, a drying chamber directly over said incinerator, a bottom closure member for the drying chamber upon which the material rests while drying normally closing communication between the drying chamber and the incinerator, said closure member being movable to permit discharge of dried material from the drying chamber to the incinerator, a condenser for volatile products in communication with the drying chamber, a condenser in communication with the incinerator, said second condenser being separate from the first condenser and provided with baffle walls therein to cause the products of combustion to follow a tortuous path, a stack leading from the second condenser, and a water spray in said stack.

2. A plant of the class described comprising an incinerator, a drying chamber directly over said incinerator, a thin bottom closure plate for the drying chamber upon which the material rests while drying normally closing communication between the drying chamber and the incinerator, said plate being movable to permit discharge of dried material from the drying chamber to the incinerator, a condenser, a conductor in communication with said drying chamber and said condenser to conduct volatile products to the condenser, a second condenser, a second conductor, said second conductor leading from said incinerator to said second condenser, said second condenser being separate from the first condenser, a stack leading from the second condenser and a water spray in said stack.

3. A plant of the class described comprising an incinerator, a drying chamber mounted on and directly over said incinerator, a cover device for said chamber, a plurality of relatively slidable thin bottom closure plates for the drying chamber upon which the material rests while drying normally closing communication between the drying chamber and the incinerator, said closure plates being slidable to permit discharge of dried material from the drying chamber to the incinerator, a condenser for volatile products in communication with the drying chamber, a condenser in communication with the incinerator, said second condenser being separate from the first condenser, a stack leading from said second condenser, a water spray in said stack, and a settling chamber for sprayed material.



1,094,504. ATTACHMENT FOR DISK FURROW-CULTIVATORS. BENJAMIN H. WHIPPLE, Forest City, Mo. Filed Aug. 18, 1913. Serial No. 785,413. (Cl. 55—60.)



The combination with a cultivator having horizontally disposed runners, of a pair of knives arranged adjustably on the sides of the runners, said knives comprising upstanding flange portions, each being pivoted to the outer face of a runner, means coöperating with each flange and each runner upon each side of the pivot of said flange for holding the knives in adjusted positions, blades extending laterally and horizontally from said flanges and provided with cutting edges extending at slight acute angles to the plane of the rear portions of the runners, each of said blades having an additional cutting edge at its outer portion extending at an obtuse angle to the first cutting edge and at an acute angle to the rear of each runner, and downwardly extending spurs at the outer portion of each blade adjacent the termination of each second cutting edge.

1,094,505. PURIFICATION OF ASBESTOS. WILLIS R. WHITNEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 1, 1911. Serial No. 647,204. (Cl. 252.)

1. The process of improving the insulating property of commercial asbestos which consists in subjecting the same to the action of a solution of an acid possessing reducing property until conducting particles have been removed therefrom.

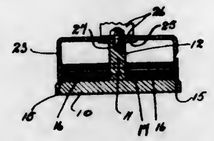
2. The process which consists in subjecting commercial asbestos containing magnetite to the action of a solution of oxalic acid.

3. The process which consists in subjecting commercial asbestos fiber containing magnetite to the action of a solution containing a few per cent. of oxalic acid.

4. The process which consists in treating fabric made of commercial asbestos with a solution of oxalic acid, and then washing with water.

5. Asbestos fabric substantially free from magnetite and having a high insulation resistance.

1,094,506. ELECTRIC IRON. HERBERT WICKS, Cleveland, Ohio. Filed Jan. 2, 1914. Serial No. 809,810. (Cl. 219—25.)



1. An electric laundry iron comprising a body portion, an electric heating element arranged within said body portion and having the terminals thereof extending through said body portion, a standard mounted on said body portion, a bracket secured to said standard and spaced above said body portion, terminal pins carried by said bracket and means connecting the terminals of the heating element with said terminal pins on said bracket.

2. An electric laundry iron comprising a base plate, a cover arranged on said base plate, an electric heating element arranged within said cover and having the terminals thereof extending up through said cover, a handle supporting member mounted on said cover, a bracket secured to said handle supporting member and spaced above said cover, terminal pins carried by said bracket, and means connecting the terminals of the heating element with said terminal pins.

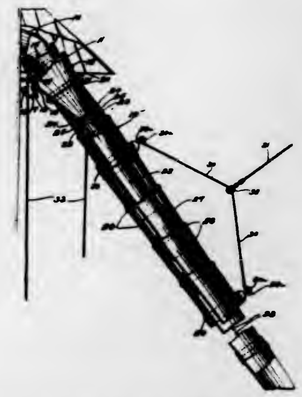
1,094,507. MANUFACTURE OF WOVEN WIRE FABRIC. THEODORE H. WICKWIRE, Cortland, N. Y., assignor to Wickwire Brothers, Inc., Cortland, N. Y., a Corporation of New York. Filed Feb. 6, 1912. Serial No. 675,756. (Cl. 204—8.)



1. The method of producing protected woven wire fabric, which consists in the following steps: first, applying to the wire while in the strand and before weaving, a protecting metal coating; second, weaving the wire thus coated into a fabric; and third, electroplating the woven fabric.

2. The method or process of producing protected wire fabric, which consists in, first, immersing the wire while in the strand in a molten metallic bath; second, weaving the wire after treatment in said bath into a fabric; and third, electroplating the woven fabric.

1,094,508. CONVEYER. ALBERT WILFORD, Baltimore, Md. Filed Feb. 13, 1913. Serial No. 748,255. (Cl. 193—40.)



1. In a conveyer of the character set forth, the combination with a tubular conveyer section, of a casing surrounding the same, and another tubular conveyer section slidably mounted between the first section and the casing.

2. In a conveyer of the character set forth, the combination with a tubular conveyer section, of a casing surrounding the same, another tubular conveyer section slidably mounted between the first section and the casing, and means connected to the casing for supporting the conveyer.

3. In a conveyer of the character set forth, the combination with a tubular conveyer section, of a casing surrounding the same, another tubular conveyer section slidably mounted between the first section and the casing, and shoes mounted respectively on the different sections and slidably engaging the other sections.

4. In a conveyer of the character set forth, the combination with a tubular conveyer section, of a casing surrounding the tubular conveyer section, and another tubular conveyer section slidably mounted on the first mentioned tubular conveyer section and moving within the casing.

5. In a conveyer of the character set forth, the combination with a head, of a tubular conveyer section connected to the head, a casing connected to the head and surrounding the conveyer section in spaced relation thereto, and another tubular conveyer section surrounding the first section and slidable thereon into the casing.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,509. SEPARABLE RIM FOR AUTOMOBILE-WHEELS. WILLIAM M. WIRTH, St. Louis, Mo. Filed Feb. 27, 1913. Serial No. 751,054. (Cl. 152—21.)



1. An improved separable rim for automobile wheels, comprising mating clencher sections having mating inturned flanges upon their inner peripheries, in combination with a split expansible ring U-shaped in cross section and having an annular groove in its outer periphery for receiving said mating flanges, and a curved expanding body having its ends pivoted to the adjacent ends of said ring and symmetrically curved to the radius of said ring upon both outer and inner peripheries, and mounted between the ends of said ring.

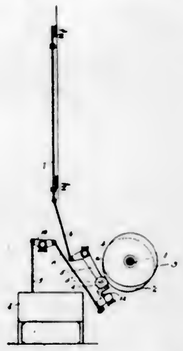
2. An improved separable rim for automobile wheels, comprising mating clencher sections having mating inturned flanges upon their inner peripheries, in combination with a split expansible ring U-shaped in cross section and having an annular groove in its outer periphery for receiving said mating flanges, a curved expanding body having its ends pivoted to the adjacent ends of said ring and symmetrically curved to the radius of said ring upon both outer and inner peripheries and mounted between the ends of said ring, and an operating lever also curved to the radius of said ring and fixed at one end to said curved expanding body.

3. An improved separable rim for automobile wheels, comprising mating clencher sections having mating inturned flanges upon their inner peripheries, in combination with a split expansible ring U-shaped in cross section and having an annular groove in its outer periphery for receiving said mating flanges, a curved expanding body having its ends pivoted to the adjacent ends of said ring and symmetrically curved to the radius of said ring upon both outer and inner peripheries and mounted between the ends of said ring, and an operating lever also curved to the radius of said ring and fixed at one end to said curved expanding body, portions of the said mating flanges being cut away to form a recess in which said curved expanding body is symmetrically located when the ring is expanded.

4. An improved separable rim for automobile wheels, comprising mating clencher sections having mating inturned flanges upon their inner peripheries, in combination with a split expansible ring U-shaped in cross-section and having an annular groove in its outer periphery for receiving said mating flanges, a curved expanding body having its ends pivoted to the adjacent ends of said ring and symmetrically curved to the radius of said ring upon both outer and inner peripheries and mounted between the ends of said ring, and an operating lever also curved to the radius of said ring and fixed at one end to said curved expanding body, portions of the said mating flanges being cut away to form a recess in which said curved expanding body is symmetrically located when the ring is expanded, and a strengthening abutment formed in said groove for receiving the thrust thereat of one end of said expanding-body.

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1,094,510. AUTOMATIC SHUTTLE EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany. Filed June 1, 1912. Serial No. 701,017. (Cl. 112—7.)



In an automatic embroidering machine, the combination with a shuttle driving cam, a circular disk arranged coaxially with said cam so that a part of its periphery coincides with that of the cam, and an adjustable jacquard controlled roller adapted to coöperate with said cam during stitching operation and to be shifted on to the circular disk to bring the shuttles to a standstill at a predetermined point during other operations.

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1,094,511. PAPER-BAG HOLDER. JAMES L. ARMOR and WILLIAM J. VARNER, Soddy, Tenn. Filed Dec. 27, 1912. Serial No. 738,924. (Cl. 211—2.)

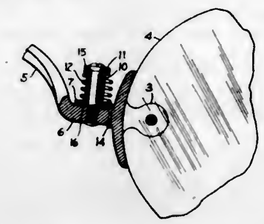


In a device of the class described, comprising a support, a plurality of vertically spaced pairs of eyes secured to the support, a plurality of bag holders comprising arms having outwardly and upwardly curved portions formed upon their lower ends, bars connecting said portions, the upper ends of said arms having oppositely directed extensions adapted to detachably engage said screw eyes, spring members having spaced arms, the upper ends of which are connected by a bar adapted to rest against the support, the arms of said spring members being provided intermediate their ends with eyes adapted to pivotally engage the lateral extensions of the arms of the bag holders, the lower ends of the arms of the spring members having hooks formed thereon adapted to engage the arms of the bag holders, as and for the purpose set forth.



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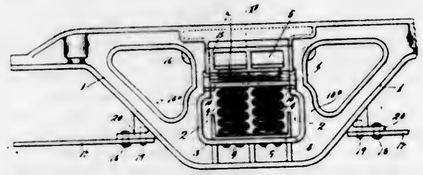
1,094,512. EYEGLASS-MOUNTING. GUSTAV A. BADER, Rochester, N. Y. Filed Aug. 7, 1912. Serial No. 713,939. (Cl. 88—50.)



An eye-glass mounting having, in combination, a fixed portion comprising a body with a pivot projecting therefrom, a sleeve embracing and freely rotatable upon the pivot and having its end adjacent the body reduced in diameter so as to form a shoulder, a nose-clamp lever seated against the body and loosely embracing said reduced portion, said lever being held against the body by said shoulder, and a spring comprising a helical coiled portion surrounding said sleeve above the nose-clamp lever, and extremities engaging, respectively, the fixed portion of the mounting and the nose-clamp lever.

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1,094,513. CAR-TRUCK. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 12, 1913. Serial No. 760,613. (Cl. 105—243.)



1. A truck side frame having columns and brake hanger brackets, both of which are provided with wearing surfaces for engagement with a bolster.

2. In a car truck, side frames and a truck bolster, said frames having columns and brake hanger brackets, both provided with wearing surfaces engageable with said bolster.

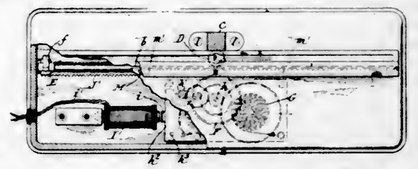
3. In a car truck, truck side frames and a bolster, said frames having columns and brake hanger brackets, both provided with wearing surfaces for engagement with said bolster and said bolster being spring supported in said side frames with freedom for vertical and endwise movements.

4. In a car truck, side frames having integral columns and brake hanger brackets, in combination with a truck bolster, a spring supported in said side frames, said columns and brackets both having wearing surfaces for engagement with said bolster.

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1,094,514. CALCULATING APPARATUS. CLARENCE A. BISHOP, New York, N. Y. Filed June 21, 1913. Serial No. 775,014. (Cl. 234—43.)

1. In a recording apparatus, the combination of a card marking member, a card positioning member, one member being movable relative to the other, and means operable by the manipulation of an inserted card for locking said movable member against movement under the manipulation of said card.



2. In a recording apparatus, the combination with a card marking member, of a time operated card positioning member movable relative to said card marking member, and means operable by the manipulation of a card inserted into contact with said card positioning member for locking the latter against movement.

3. In a recording apparatus, the combination with a card marking member and a card positioning member, one movable relative to the other, of frictional locking means for restraining movement of the movable member, said frictional locking means being normally inactive and brought into action solely by the manipulation of a card into contact with said movable member.

4. In a recording apparatus, the combination with a card marking member, of a time actuated card positioning member embodying locking means adapted to be brought into service solely by the manipulation of a card when inserted into contact with said card positioning member for restraining the latter from movement.

5. In a recording apparatus, the combination with a card marking member, of a card positioning member, means for imparting movement to said card positioning member relative to the card marking member, and means operable by the manipulation of a card when inserted into contact with said card positioning member for restraining the latter from movement.

[Claims 6 to 26 not printed in the Gazette.]

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1,094,515. RAIL-JOINT. LOUIS BLESSING, Jackson, Mich. Continuation of application Serial No. 684,494, filed Mar. 18, 1912. This application filed Sept. 10, 1913. Serial No. 789,030. (Cl. 239—3.)



1. A rail joint comprising the combination with a pair of alined track rails with their ends in abutment, of an inner fish plate that bears on the base flange of the rail on one side thereof, the upper margin of the fish plate being at an interval below the under face of the rail tread, an outer plate having an inner marginal flange that bears against the web and base flange of each rail in the angles thereof and provided with an upwardly extending flange having a tread face at a slight distance below the crown of the rail tread, outer bolts extending through the plates and rail web and holding the plates against the faces of the web, and inner bolts securing the plates together and extending through the rail near the end thereof, the engagement of the inner bolts and webs permitting vertical play of the rails without affecting the bolts.

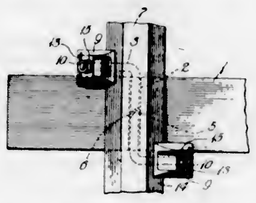
2. A rail joint comprising the combination of a pair of alined abutting track rails with an inner plate resting on the inner base flanges of the rails and bearing against the contiguous web faces thereof, there being an interval below the lower faces of the rail tread portions and the upper face of the plate, an outer plate that bears against the base flanges of rail and the adjacent web face thereof and

clears the lower faces of the tread portions of the rail, a portion of the outer plate extending upwardly in contact with the side of the rail tread portion, of each rail, bolts securing the end portions of the plates to the rail web and closely engaging the latter and bolts clamping through both plates and the inner web portions of the rails and loosely engaging the latter to permit free vertical movement of the rails without affecting the bolts.

3. A rail joint comprising the combination of a pair of alined abutting track rails with an inner fish plate having a base flange that rests on the base flanges of the adjacent rails, the upper face of the plate being at an interval below the overlying portion of the ball of each rail, an outer face plate that bears along its inner lower margin on the base flanges of the rail, longitudinal ribs on the outer plate that bear against the adjacent faces of the rail webs, the upper longitudinal rib being at an interval below the overlying portion of the ball of each rail, and a portion of the outer plate that extends adjacent the ball of the rail extending to a slight distance below the level of the crest of the rail tread, a pair of bolts each passing through the end portions of both plates and closely through the rail web, and a pair of inner bolts that pass through both plates and loosely through the web portions of the rails near the ends thereof, whereby the end portions of the rails are free to move vertically without affecting said inner bolts.

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1,094,516. RAIL-CLAMP. LOUIS BLESSING, Jackson, Mich. Filed Sept. 10, 1913. Serial No. 789,031. (Cl. 238—4.)



1. The combination with a railway tie and rail thereon, of a pair of oppositely disposed clamping members separately insertible in a transverse aperture through the tie beneath the rail adapted to interlock at their inner ends when moved into operative relation to the rail, clamping heads on the members for engaging the rail base flanges, and means for securing the clamping head on the members.

2. The combination with a track tie and a rail thereon, of a pair of members bent at substantially right angles between their ends with the corresponding arms of each inserted in a transverse opening in the tie beneath the rail, the abutting ends of the inserted arms being arranged to interlock when the outer arms are brought into operative relation to the rail, clamping heads on the outer portions of the members adapted to coöperatively grip the rail flange, and means for forcing the heads on to the members and against the rail.

3. The combination with a rail tie having a transverse opening beneath the rail seat, and a track rail on the seat, of a pair of clamping members bent at substantially right angles between their ends, the corresponding arms thereof being inserted in the tie opening in abutting relation and being adapted to interlock with each other when the outer portions of the members are brought into operative relation to the rail, clamping heads movable on the outer portions of the members adapted to coöperatively grip the base of the rail, and nuts for forcing the heads home on the members.

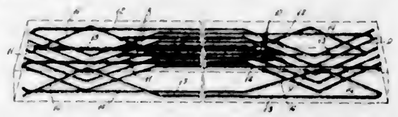
4. The combination of a railway track tie having a transverse opening beneath the rail seat, and a track rail on the seat, of a pair of clamping members each bent at substantially right angles between the ends thereof and having beveled and correspondingly notched end faces on the resultant arms adapted when the latter are inserted in the track opening to abut and interlock when the other portions of the members are moved into operative relation to the rail, clamping heads each longitudinally movable on the outer portion of the clamping member for bearing upon the marginal portion of the rail base, and holding means engaging the clamping members and forcing the heads toward the rails.

5. The combination with a track tie and a rail thereon, of a pair of members bent at substantially right angles between their ends with the corresponding horizontally disposed arms of each inserted in a transverse opening in the tie beneath the rail, clamping heads on the outer portions of the members adapted to coöperatively grip the rail flange, and means for forcing the heads on to the members and against the rail.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,517. RAILWAY-TIE. LOUIS BLESSING, Jackson, Mich. Filed Sept. 10, 1913. Serial No. 789,032. (Cl. 238—3.)



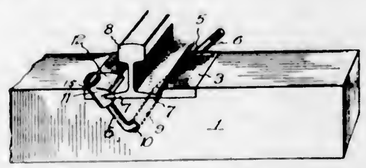
1. A reinforced track tie of cementitious material, sets of reinforcing members oppositely disposed in alternate relation, the members each consisting of a bar having a straight portion and a cambered off-set portion, the straight portions of the bars being disposed in the portion of the tie encountering the greatest bending moment, and a number of the cambered portions being disposed beneath the rail seats of the tie, the off-set portions of the other member being in a reversed position.

2. A track tie comprising a body of cementitious material, reinforcing members each consisting of a straight portion and a cambered off-set portion disposed in parallel spaced relation with the straight portions near the upper face of the middle portion of the tie, reinforcing members having similar straight portions in parallel alternate spaced relation to the first members, oppositely disposed similarly formed cambered off-sets, and reinforcing members having straight portions extending for the major portion of the length of the tie and cambered off-set portions corresponding to the off-sets of the other pieces.

3. A reinforcing railway tie having a body of cementitious material and a plurality of reinforcing members embedded therein each consisting of a bar having a straight portion and a portion with a cambered off-set, the bars being disposed symmetrically in alternating oppositely arranged sets and some of the bars having cambered portions in reverse relation to the others, the bars being square in cross section and twisted.

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1,094,518. RAIL-CLAMP. LOUIS BLESSING, Jackson, Mich. Filed Nov. 26, 1913. Serial No. 803,120. (Cl. 238—4.)



1. The combination with a railway tie and track seat thereon, of rail fastening members each attached to the body of the tie to swing into operative relation to the rail and seat, rail clamps longitudinally adjustable on the holding members adapted to interlock with the rail seat against lateral movement and to engage over the rail, and means engaging the members for holding the rail clamps on the seat and rail.

2. The combination with a railway tie and a rail seat thereon, of holding members each secured to the tie body beneath the seat and adapted to swing into operative relation to the rail seat, and a track rail applied thereto, clamping members adjustably secured on the holding members and adapted to interlock with the rail seat against lateral movement, and means detachably engaging the holding members for forcing the clamping members to seat.

3. The combination with a railway tie, a rail seat thereon and a track rail resting on the seat, of a pair of holding members pivotally secured at the lower ends thereof to the track tie to swing into operative relation to the track seat and rail, clamping means on the holding members adapted to interlock with the rail seat of the rail against lateral movement, and means engaging the holding members and yieldingly forcing the clamping means against the rail and seat.

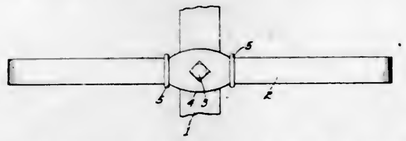
4. The combination of a track tie of cementitious material, a rail seat on the tie, a cushion for the seat between the latter and the tie and a track rail resting on the seat, of holding members each engaging a transverse opening in the tie below the seat with the outer portion adapted to swing into operative relation to the tie, and seat, a clamp on each holder adapted to engage a projection on the seat whereby lateral movement of the clamp is prevented and to hook over the base and flange of an applied rail, and means on the holding members for forcing the clamps into position.

5. The combination with a railway tie of cementitious material, a seat cushion thereon, a rail seat resting on the cushion and having a pair of oppositely disposed longitudinally arranged projections on its face, and a track rail resting on the seat between the projections, of holding members each bent between its ends with the lower portion engaging in a transverse opening of the tie below the rail and with the outer portions extending obliquely past the seat and rail flange, a clamp on each holding member adapted to hook over the rail and the adjacent projection of the seat, and means on each member for holding the clamp interlocked with the rail and projection.

[Claim 6 not printed in the Gazette.]

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1,094,519. VEHICLE-SPRING. BENJAMIN F. BOWMAN, Berkeley, Cal. Filed Mar. 25, 1913. Serial No. 756,711. (Cl. 21—50.)



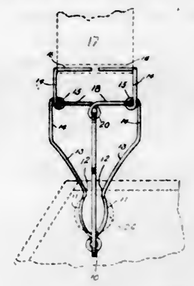
1. The combination of a support, a spring mounted on top of said support comprising a plurality of superposed leaves, said leaves being enlarged throughout the portion which is above said support and provided with an aperture, a bolt passing through said apertures for fastening said leaves to said support, and clamps for binding said leaves together, said clamps being free from the support and arranged one on each side thereof, at the points of union between said enlarged portion and the remainder of said leaves.

2. The combination of a support, a spring mounted on top of said support comprising a plurality of superposed leaves, said leaves being enlarged throughout the portion which is above said support, and clamping bands passed around said leaves at the points of union between said enlarged portion and the remainder of the leaves.

3. As an article of manufacture, a spring comprising a plurality of superposed leaves, said leaves having an enlarged perforated central portion, and clamping bands placed around said leaves at the line of union between said enlarged section and the remainder of the leaves.



1,094,520. SUSPENDER ATTACHMENT. HARRY HARLAN BOYER, Walnut Creek, Cal. Filed Feb. 13, 1913. Serial No. 748,195. (Cl. 24—224.)



1. In a device of the character described, a body portion consisting of a strand of resilient material bent intermediate its length to form side arms, said side arms being bent intermediate their length to form a bottom-receiving pocket and having their upper end portions bent to form attaching means, and a clamping element consisting of a strand of resilient material extending across said bottom-receiving pocket and having its lower end connected with the lower-end portion of said body portion and having its upper-end portion connected with said side arms.

2. In a device of the character described, a body portion consisting of a strand of material bent intermediate its end to form an eye having arms extending therefrom and having their upper end portions formed into attaching means, opposite shoulders formed intermediate the ends of said arms to form a bottom-receiving pocket adjacent said eye, a transverse element connecting said arms, and a clasping element extending longitudinally across said pocket and having one end connected with said transverse member and having its other end connected with said eye.

3. In a device of the character described, a body portion including a strand of wire bent intermediate its ends to form sections of relatively the same length, inwardly projecting shoulders formed on said sections intermediate their ends to form a button receiving pocket, the free extremities of said sections being inturned to form supporting pintles, a transverse member connecting said sections intermediate their ends, and a resilient clasping element carried by said transverse member and said sections, and extending longitudinally thereof across said pocket and being bowed toward said pocket.

4. In a device of the character described, a body portion consisting of a strand of wire bent intermediate its ends to form sections of relatively the same size, oppositely disposed shoulders formed from said sections, intermediate their ends to form a button receiving pocket, said sections being coiled intermediate their ends, the extremities of said sections being inturned to form supporting pintles, a transverse member carrying said coils, said member being coiled intermediate its ends, a resilient clasping element engaging said last mentioned coil and extending across said pocket, the other end of said clasping element engaging said body portion, as and for the purpose set forth and described.

5. In a device of the character described, a body portion including a strand of material bent intermediate its ends to form sections of relatively the same length, said sections being bent adjacent their connection to form arcuate clasping members, the ends of said members being bent inwardly to form oppositely disposed shoulders, said shoulders terminating in two diverging arm portions, parallel finger portions formed from said arm portions, said finger portions being coiled intermediate their arms, the free extremity of said finger portions being bent inwardly to form a supporting pintle, a transverse member connecting said coils, said member being coiled intermediate its

ends, a clasping element having one end in engagement with said last mentioned coil, the other end of said clasping element engaging said body portion, said clasping element being bent downwardly adjacent said shoulders, as and for the purpose set forth and described.

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1,094,521. AIR-FILTER. MAX BRAUER, Berlin-Wilmersdorf, Germany, assignor to The Firm of Dr. Hans Cruse & Co., Berlin, Germany. Filed Aug. 4, 1913. Serial No. 782,906. (Cl. 98—48.)



1. In an apparatus for separating dust from gaseous fluids, the combination with a casing, of a plurality of filtering elements within said casing each formed of sets of spaced and adjacent ropes or cords, the ropes or cords of successive sets being displaced from each other transversely of the direction of the path of the fluid.

2. A filtering element, comprising a frame, and ropes or cords having a rough or fibrous surface secured to said frame in zig-zag on both sides thereof.

3. A filtering element, comprising a frame, and ropes or cords having a rough or fibrous surface secured to said frame in zig-zag on both sides thereof, the ropes of one side being displaced from the ropes of the other side.

4. A filtering element, comprising a frame constructed of iron bars having webs projecting to opposite sides of the plane of the frame and formed with indentations, and ropes or cords inserted in said indentations on both sides of the frame and passed in zig-zag over the area of the frame, the ropes of one side being displaced from those of the opposite side.

5. A filtering element, comprising a frame, and ropes or cords having a rough or fibrous surface secured to said frame and arranged in several layers.

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1,094,522. FLUID-MOTOR OR THE LIKE. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to General Industries Company, a Corporation of New York. Filed Jan. 12, 1912, Serial No. 670,924. Renewed Sept. 23, 1913. Serial No. 791,403. (Cl. 138—21.)



1. A cylinder, a piston operating in said cylinder, an exhaust passage secured to said piston, a valve casing secured to said piston, a valve operating within said casing, said valve controlling the movements of the said piston, and means for controlling movements of the said valve through the said exhaust passage.

2. The combination of a cylinder, a piston operating in said cylinder, a piston cylinder secured to said piston and operating through a cylinder head of said cylinder, a fluid operated valve in said piston controlling the movements thereof, and means for controlling the movements of said valve through the said piston cylinder by means of a piston operating therein.

3. The combination of a cylinder, a piston operating in said cylinder, a piston cylinder secured to said piston and operating through a cylinder head of said cylinder, a fluid operated valve in said piston controlling the movements thereof, and means for controlling the movements of said valve through said piston cylinder.

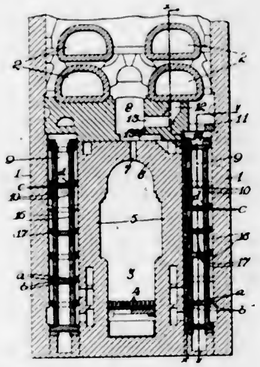
4. The combination of a cylinder, a piston operating in said cylinder, a fluid operated valve carried in said piston and controlling the movements thereof, a valve controlling the movements of said fluid operated valve, and means in said cylinder for operating said last mentioned valve.

5. In a valve structure, the combination with a body containing a plurality of chambers, one of which communicates with an exhaust and another of which communicates with a supply, of a cylinder with the opposite ends of which said chambers are alternately in communication, a valve in said cylinder operated by fluid pressure in said ends, and means for imparting a rotary movement to said body to reverse said communication to said ends comprising a relatively fixed member with which said body engages.

[Claims 6 to 28 not printed in the Gazette.]

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1,094,523. REGENERATIVE-RETORT BENCH. REZEAU B. BROWN, Milwaukee, Wis., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 23, 1903. Serial No. 149,067. (Cl. 48—113.)



1. In a gas furnace, the combination with a combustion chamber, gas retort bench, and separated combustion chamber and retort bench walls, of flues or ducts located between the walls of the combustion chamber and retort bench and separated therefrom by spaces constituting additional flues, and adjustable baffles located in said spaces and independent of said walls.

2. In a gas furnace, the combination with a combustion chamber, gas retort bench, and separated combustion chamber and retort bench walls, of flues or ducts located between the walls of the combustion chamber and retort bench and separated therefrom by spaces constituting additional flues, and baffles located in said spaces and adjustably supported by the flues or ducts and independent of said walls.

3. In a gas furnace, the combination with a combustion chamber, gas retort bench, and separated combustion chamber and retort bench walls, of transverse supports arranged at intervals between the walls aforesaid and independent thereof, tile resting on said supports in superposed relation, thereby forming inner and outer flues or ducts, and adjustable baffles independent of the walls resting on the transverse supports.

4. In a gas furnace, the combination with a combustion chamber, gas retort bench, and separated combustion chamber and retort bench walls, of transverse supports arranged at intervals between the walls aforesaid and independent of said walls, tile resting on said supports in superposed relation, thereby forming inner and outer flues or ducts, and adjustable baffles resting on the ends of the transverse supports and located between the tile and the walls aforesaid and independent of said walls.

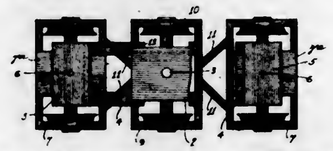
5. In a gas furnace, the combination with a combustion chamber, gas retort bench, and separated combustion chamber and retort bench walls, of flues or ducts removably located between the walls of the combustion chamber and retort bench and supported independently of the walls aforesaid and separated therefrom by spaces constituting additional flues and adjustable baffles slidably mounted in said spaces and independent of said walls and said first named flue.

[Claims 6 and 7 not printed in the Gazette.]



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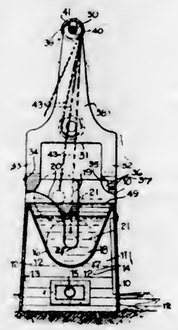
1,094,524. CAR-TRACK. THOMAS H. BURNETT, Exchequer, Cal., assignor of one-half to Charles Gallo, Snelling, Cal. Filed Sept. 22, 1913. Serial No. 790,973. (Cl. 105—137.)



A device of the character described comprising a rigid frame, a platform rigidly secured centrally of said first named frame, a platform secured at each end of said first named frame, a rectangular frame pivotally connected with each of said last named plaforms, said last named rectangular frames each carrying a pair of wheels, a third rectangular frame disposed directly beneath said first named frame and carrying a pair of wheels, independent links pivotally connecting said last named frame with the other two wheel carrying frames and rollers disposed in said first named frame and adapted to bear against the rectangular frame disposed therebeneath, as described.

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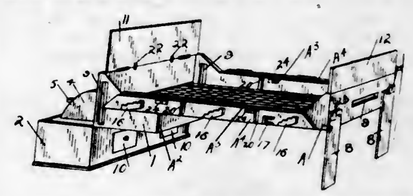
1,094,525. HOG-SCALDER. ELMER J. BURRIS, Little Falls, Minn. Filed Mar. 10, 1913. Serial No. 753,383. (Cl. 17—7.)



A hog scalding apparatus consisting of a scalding receptacle having vertically disposed opposite guiding grooves, one wall of each of which is curved upwardly and rearwardly, a rotary scalding cage having axially extended trunnions adapted to operate in said guide grooves, means for rotating said scalding cage in said scalding receptacle, and means mounted upon said receptacle for raising and lowering said rotary scalding cage and for removing and replacing the same from and into said receptacle through the engagement of the trunnions of said cage with said curved wall of the groove in said receptacle.

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1,094,526. COMBINATION ARTICLE OF FURNITURE. ENOCH BRUCE BUTTERWORTH, Ottawa, Ontario, Canada. Filed Aug. 27, 1913. Serial No. 786,920. (Cl. 5—18.)



1. In an article of the class described, the combination with a vertical rectangular case comprising top, bottom, side and front faces and divided transversely across forming an upper and a base part, of hinge members connecting the front faces of the upper and base parts and about which the upper part may be turned into a horizontal position, hinged boards extending across the back and connected to the inner faces of the top and bottom of the upper part, catches engaging with the inner faces of the hinged boards and the top and bottom of the upper case, and means of supporting the upper case in a horizontal position, as and for the purpose specified.

2. In an article of the class described, the combination with a vertical rectangular case comprising top, bottom, side and front faces and divided transversely across forming an upper and base part and having edge recesses in the sides of the upper part, of hinged members connecting the front faces of the upper and lower part and about which the upper part may be turned into a horizontal position, hinged members closing the recesses in the sides of the upper part, boards extending across the back and hinged to the inside faces of the top and bottom of the upper part, catches engaging with the inner faces of the hinged boards and the top and bottom of the upper case, and means of supporting the upper part in a horizontal position, as and for the purpose specified.

3. In an article of the class described, the combination with a vertical rectangular case comprising top, bottom, side and front faces and divided transversely across forming an upper and a base part, of hinged members connecting the front faces of the upper and base part, boards hinged to the top and the bottom of the case and extending across the back, catches engaging with the inner side of the top and bottom of the case and the hinged boards, legs pivoted to the top of the case and having edge recesses, fixed stop blocks on the top of the case engaging with the recesses when the upper part is in a horizontal position, and means of counterbalancing the upper part as it is being lowered into a horizontal position, as and for the purpose specified.

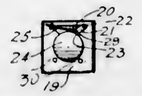
4. In an article of the class described, the combination with the vertical rectangular case comprising top, bottom, side and front faces and divided transversely across forming an upper and a base part, hinged members connecting the front faces of the upper and the base part and about which the upper part may be turned into a horizontal position, boards extending across the back and hinged to the top and bottom of the upper part, catches engaging the inner faces of the hinged boards and the top and bottom of the upper part, legs pivoted to the top face of the upper part and having edge recesses, stop blocks fixed to the top of the upper part and engaging with the recesses when the legs are in a vertical position, rods attached to the bottom face of the upper part, adjustable counterbalancing weights having an orifice engaging with the rods and a set screw for fixing the counterbalancing weights in position on the rod, as and for the purpose specified.

5. In an article of the class described, the combination with a vertical rectangular case comprising top, bottom, side and front faces and divided transversely across forming an upper and a base part, of hinged members connecting the front faces of the upper and base part, boards hinged to the top and bottom of the case, legs pivoted to

the top of the case and having edge recesses, fixed stop blocks on the top of the case engaging with the recesses when the upper part is in a horizontal position, and means carried by the base of said upper part for counter balancing the upper part as it is being lowered into a horizontal position, said counter balancing means being normally inclosed in said base, as and for the purpose specified.

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1,094,527. NUT-LOCK. WILLIAM H. CARTER, Sulphur, Okla. Filed Apr. 7, 1913. Serial No. 759,478. (Cl. 151—25.)



1. The combination with a bolt, of a nut threaded upon said bolt and provided with a spring controlled pawl having a laterally projecting stud, the pawl being normally engaged with the threaded portion of the bolt to lock the nut against reverse rotation, and a key adapted for rotary movement upon the threaded portion of the bolt and provided with a cam projection for engagement against the stud to disengage the pawl from the bolt.

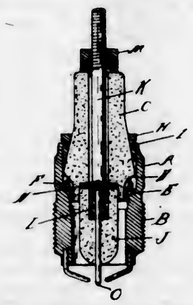
2. A lock nut and key comprising the combination with a bolt, of a nut threaded upon the bolt, a locking pawl carried by the nut and normally engaged with the bolt to lock the nut in position, a key having threaded engagement upon the bolt and engagement with the pawl to force the same away from the bolt, and means carried by the nut for engagement with the key to guide said key into proper engagement with the pawl to force the latter from engagement with the bolt.

3. A nut lock and key comprising the combination of a nut having a spring pressed pawl with a stud projecting laterally therefrom, with a bolt positioned through the nut, the pawl being normally engaged with the bolt and having a concave engaging end provided with teeth for engagement against the bolt, and a key for engagement upon the bolt and against the nut and provided with a cam projection and a stop for engagement with the stud of the cam to force the same away from the bolt.

4. A nut lock comprising the combination with a bolt, of a nut, a locking member carried by the nut and engaged with the bolt to prevent removal of the nut, said locking member carrying a lateral projection, and a key for engagement upon the bolt and having a cam projection for engagement with the lateral projection of the locking member to disengage the latter from the bolt and hold the same in inoperative position during removal of the nut.

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1,094,528. SPARK-PLUG. ALBERT J. CHAMPION, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Oct. 24, 1911. Serial No. 656,534. (Cl. 123—169.)

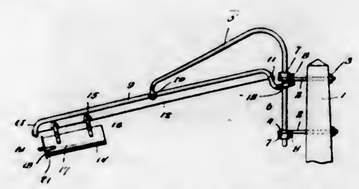


1. In a spark plug, the combination with the case, of an insulator therein including a section secured to the case and an inner section, a shank attached at one end to the inner section at a point considerably above the inner end thereof, said shank extending through the first-mentioned section and serving to clamp the two sections together, and an electrode of smaller cross-section than the shank extending within the inner section and being in electrical contact with the shank.

2. In a spark plug, the combination with the case, of an insulator therein including a section secured to the case and an inner section, the outer end of the latter section being provided with a counter-sink, a shank having one end arranged within the counter-sink and secured thereto, said shank extending through the first-mentioned section and serving to clamp the two sections together, and an electrode of smaller cross-section than the shank extending within the inner section and in electrical contact with the shank.

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1,094,529. MAIL-BOX. ALBERT CHRISTENSEN, Dalton, Nebr. Filed Sept. 27, 1912. Serial No. 722,648. (Cl. 232—40.)



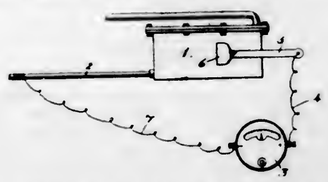
1. In a device as set forth, a support, a supporting member rotatably carried by said support, a rod having slidable communication with said member, said rod pivotally connected intermediate its ends to said member, a mail box and means carried by said rod for movably supporting said mail box.

2. In a device as set forth, a support, a bracket rotatably carried by said support, said bracket composed of angled portions one of which is rotatably carried by said support, a rod having one end slidably mounted upon said bracket, said rod pivotally connected at a point intermediate its ends to one end of one of the angled portions of said bracket, a track carried by said rod and a mail box slidably mounted upon said track.

3. In a device as set forth, a support comprising superposed spaced apart members provided with bearings, a bracket composed of angled portions, one of said angled portions being rotatably mounted within said bearings, a rod having one end slidably mounted upon the portion of said bracket between said supports, said rod being pivotally connected at a point intermediate its ends to one end of the other of said angled portions of said bracket, a track carried by said rod and a mail box slidably mounted upon said track.

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1,094,530. TEMPERATURE-INDICATING DEVICE. MONROE S. CLAWSON, New York, N. Y. Filed May 31, 1910. Serial No. 564,298. (Cl. 73—32.)



1. In combination with a metal retort, and a pipe tapped into the retort, a temperature indicating device comprising a galvanometer, a bar of metal having one end formed wider than the remainder of the bar, said wider portion of the bar being secured to the retort and forming an electrode, which with the metal of the retort as the other electrode, constitutes a thermopile, said bar being connected with the positive side of the galvanometer, and the negative side of the galvanometer being connected with the pipe aforesaid at a point remote from the retort.

2. A temperature indicating device, comprising in combination a metal retort, a pipe tapped into the retort, a galvanometer, a bar of metal having a different thermo-electric potential from the metal of the retort, and secured thereto, thus forming an electrode, which with the retort as the other electrode constitutes a thermopile, there being means whereby said bar of metal is connected with one terminal of the galvanometer and the other terminal of the galvanometer is connected with the aforesaid pipe at a point remote from the retort.

3. A temperature indicating device comprising a thermopile one element of which is a retort, and the other element of which is a metal bar secured to the retort and having a different thermo-electric potential therefrom, said metal bar being provided with an enlarged body portion for attachment with the retort; a galvanometer; and connecting means for connecting the galvanometer with the thermopile.

4. A temperature indicating device comprising a thermopile one element of which is a closed retort, and the other element of which is a metallic member secured on the outside of the retort; and having a thermo-electric potential differing from that of the material of the retort; a galvanometer; and connecting means whereby the thermopile is electrically connected with the galvanometer.



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1,094,531. COMBINED LEVEL AND PLUMMET. ARTHUR L. COASH, Hammond, Ind. Filed Feb. 24, 1913. Serial No. 750,242. (Cl. 88—2.3.)



Apparatus of the character described, comprising a supporting element, a bracket attached to the supporting element and provided with an outwardly extending flange, a reflector having one end thereof engaging and disposed upon the inner side of the flange, a second bracket having holding engagement with the opposite end of the reflector, adjusting means connecting the second bracket with the supporting element, and a compressible longitudinally curved leaf-spring arranged between the reflector and the supporting element with its ends engaging opposite ends of the reflector to exert outward yielding pressure thereon.

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1,094,532. WELL. ARTHUR LEE COLLINS, San Francisco, Cal. Filed Jan. 21, 1913. Serial No. 743,309. (Cl. 166—4.)

1. In a well having successive water strata, a well casing comprising a vertical series of separate cylindrical casing sections concentrically arranged and successively of larger diameter from the lowermost upward, each section extending up within and spaced from the section above it forming an entrance opening, and the lower end of each section terminating substantially at the upper limit of a stratum.

2. In a well having successive water strata, a well casing comprising a vertical series of separate cylindrical casing sections concentrically arranged and successively of larger diameter from the lowermost upward, each section extending up within and spaced from the section above it forming an entrance opening, the lower end of each section terminating substantially at the upper limit of a stratum, the uppermost section being annularly reduced at its top portion, and a cylindrical casing section larger in diameter than said reduced portion extending down over the top thereof and spaced therefrom and from the sides of the well and extending upwardly toward the top of the well, said latter casing section being circumferentially perforated at intervals between successive water strata and having collars atached thereto for packing off each stratum from discharging fluid downwardly.

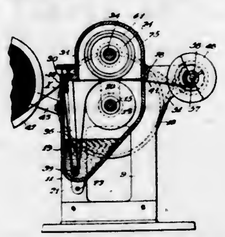


3. In a well having successive water strata, a well casing comprising a vertical series of separate cylindrical casing sections concentrically arranged and successively of larger diameter from the lowermost upward, each section extending up within and spaced from the section above it forming an entrance opening, the lower end of each section terminating substantially at the upper limit of a stratum, and a cap for closing the top of any desired section whereby water from lower strata and casing sections may be cut off.

4. A well casing comprising a cylindrical section adapted to be spaced from the sides of a well and circumferentially perforated at predetermined intervals whereby said perforated portions will be located between successive water strata, and annular collars on said casing between said perforated portions whereby water strata may be packed off from discharging downwardly.

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1,094,533. RIBBON-INKING MACHINE. WALTER H. COTTON, Chicago, Ill., assignor, by direct and mesne assignments, to American Office Machine Co., a Corporation of Illinois. Filed July 5, 1912. Serial No. 707,808. (Cl. 91—39.)



1. In a ribbon inking machine in combination, a pair of upright standards, a feed roll located between the standards and having trunnions at its opposite ends journaled in the respective standards, the length of the feed roll being less than the distance between the standards, an ink pot fitting the space between the standards and having slots extending downwardly from the upper edges of its two side walls for receiving the respective trunnions of the feed roll, an apertured lug carried by the wall of the said ink pot below the lower ends of the said slots and a pin removably entering the aperture of the said lug and engaging one of the said standards.

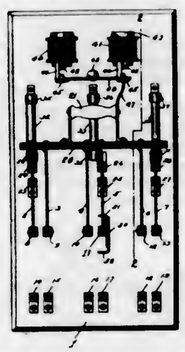
2. In a ribbon inking machine, in combination, a pair of horizontally disposed coöperating pressure and feeding rolls, an openable two-part housing inclosing the rolls and one of the parts of the housing being extended below the rolls to provide a well for receiving the ink, one of the

rolls being carried by each part of the housing with the line of engagement between the rolls substantially in the plane of division between the parts of the housing, and the walls of the housing adjacent the joint between its parts and at opposite sides of the rolls being adapted to provide for the entrance and exit of a ribbon for passage between the rolls, and a deflecting arm removably held between the parts of the housing and entering the said well, whereby each roll is located within the chamber of the part of the housing by which it is carried and a ribbon may be threaded through the housing and between the rolls upon separation of the parts of the housing and removal of the said deflecting arm.

3. In a ribbon inking machine, in combination, a pair of horizontally disposed coöperating pressure and feeding rolls, an openable two-part housing inclosing the rolls and one of the parts of the housing being extended below the rolls to provide a well for receiving the ink, one of the rolls being carried by each part of the housing with the line of engagement between the rolls substantially in the plane of division between the parts of the housing, and the walls of the housing adjacent the joint between its parts and at opposite sides of the rolls being adapted to provide for the entrance and exit of a ribbon for passage between the rolls, whereby each roll is located within the chamber of the part of the housing by which it is carried and a ribbon may be threaded through the housing and between the rolls upon separation of the parts of the housing, and means for deflecting the ribbon into the said well in advance of its passage between the rolls.

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1,094,534. ELECTRIC SWITCH. RANDOLPH HOWARD CONRAD, Oakland, Cal. Filed Jan. 18, 1913. Serial No. 742,066. (Cl. 172—179.)



1. An electric switch of the character described comprising a base provided with bearings, a plurality of pairs of switch blades pivotally mounted in said bearings, the blades of each pair being insulated from each other and also from the remaining pairs, contact clips upon said base in alinement with said blades, electrically controlled means for holding said blades in electrical connection with said contacts, and means for closing the switch in its opposite position upon failure of current, substantially as described.

2. A three-pole electric switch of the character described comprising a base provided with bearings, a double blade for each pole of said switch pivotally mounted in said bearings, contact clips in spaced relation to said bearings and in alinement therewith, an insulated strip having a handle to which said blades are connected, two contacts in alinement with and parallel to each of three of said blades (2, 5 and 7), clips connected to three of said contacts (24, 26, and 28), adapted to receive fuses, clips for the engagement of the free ends of said fuses, two solenoids each having a freely moving laminated core above the switch upon said base, means for operatively connecting said solenoids with the second group of three contacts (23, 25 and 27), and means for operating said switch, substantially as described.

3. The combination of a three phase motor having leads brought out from both ends of each coil, means whereby said coils are connected in delta during the normal operation of the motor, and means for automatically connecting said coils in star or Y upon failure of current.

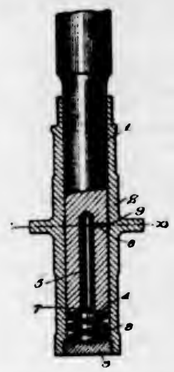
4. An electric switch of the character described comprising in combination, an insulating base, spaced conducting blades, conducting bearings mounted on said base on which said blades are pivoted, fixed contact clips carried by said base and adapted to coöperate with said blades one to each when the switch is in one position, three pairs of clips carried by said base on the opposite side of said bearings from said first mentioned clips, each pair of said second mentioned clips being adapted to coöperate with a single one of said blades when the switch is in a second position, and means for simultaneously operating said blades.

5. An electric switch of the character described comprising in combination, an insulating base, spaced conducting blades, conducting bearings mounted on said base on which said blades are pivoted, fixed contact clips carried by said base and adapted to coöperate with said blades one to each when the switch is in one position, three pairs of clips carried by said base on the opposite side of said bearings from said first mentioned clips, and each pair of said second mentioned clips being adapted to coöporeate with a single one of said blades when the switch is in a second position.

[Claim 6 not printed in the Gazette.]

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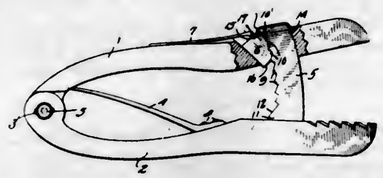
1,094,535. SELF-LUBRICATING BEARING. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Apr. 26, 1911. Serial No. 623,546. (Cl. 64—25.)



The combination with a hollow cylindrical support having a concave surface at the bottom and an annular recess between the top and bottom, of a rotary shaft arranged within the support having a concave lower end, a plurality of anti-friction devices which are solid and provided with smooth upper and lower convex surfaces, said anti-friction devices being disposed between the end of the shaft and the bottom of the support, the shaft having a vertically extending central opening overlying the central part of the uppermost of said anti-friction devices, the upper extremity of said opening lying in a horizontal plane above the aforementioned recess in the support, the shaft being further provided with a lateral opening in the plane of said recess and connecting the latter with the central opening of the shaft, the concave lower end of the latter being recessed laterally to form a communication between the periphery of the shaft and its central opening whereby the lubricating fluid is distributed equally in all directions.



1,094,536. WRENCH. CLAUDE M. DAVIS, Longbeach, Cal. Filed Apr. 5, 1913. Serial No. 759,166. (Cl. 81—111.)



1. A wrench including a pair of connected co-acting clamping jaws, a rack bar carried by one of said jaws, the other of said jaws having a recess formed therein for the reception of said rack bar, and a block freely mounted within said recess for binding engagement with said rack bar, for the purposes set forth.

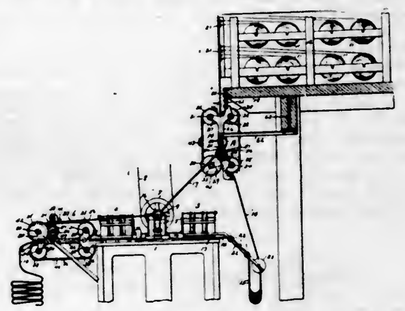
2. A wrench including a pair of connected coacting clamping jaws, a rack bar, carried by one of said jaws, the other of said jaws having a recess formed therein provided with an inclined wall, said bar adapted to be received in said recess, a block freely mounted within said recess and slidably engaging said inclined wall for binding engagement with said rack bar, and a leaf spring carried by said second-named jaw for engagement with said block, for the purpose set forth.

3. A wrench including a pair of connected coacting clamping jaws, a rack bar carried by one of said jaws, the other of said jaws having a recess formed therein provided with an inclined wall, said bar adapted to be retained within said recess, a block having a shoulder formed thereon freely mounted within said recess and slidably engaging said inclined wall for binding engagement with said rack bar, and a leaf spring having a lug formed thereon for engagement with the shoulder upon said block when said block is forced upwardly within said recess by said rack bar and being further adapted to engage said block to hold the same in binding engagement with said rack bar upon downward movement of said block, for the purpose set forth.

4. A wrench including a pair of pivotally connected coacting clamping jaws, a spring member carried by one of said jaws and engaging with the other jaw for normally holding the jaws in an open position, the first of said jaws being provided with a recess, an arcuate rack bar mounted in said recess, said rack bar operating in a transversely extending recess provided in the second of said jaws, a locking block slidably seated in the said recess of the said second jaw, means whereby the said locking block is normally held in engagement with the said rack bar and means carried by the said block and rack bar whereby they may be automatically disengaged to permit the return of the jaws to an open position.

5. A wrench including a pair of co-acting pivotally connected clamping jaws, a spring carried by the first of said jaws, and operatively engaging the second of said jaws to normally hold the jaws in an open position, an arcuate rack bar carried by the first of said jaws, said rack bar being provided at its secured end with an inclined faced shoulder and at its other and free end with a block engaging projection, said rack bar being mounted for sliding movement through a transversely extending opening provided in the second of said jaws, a ratchet tooth locking block slidably mounted in said transversely extending opening, said block being provided with an inclined face at its recess engaging portion and a spring engaging shoulder at its ratchet toothed portion, said block being further provided with an extension adjacent said shoulder adapted for engagement with the block engaging projection carried by said rack bar, a spring carried by said second jaw and disposed to hold the said block in engagement with the said rack bar and being further adapted to co-act with the said inclined faces of the block and rack bar to hold the block out of engagement with the rack bar when it is desired.

1,094,537. APRON-FEED FOR PERFORATING-MACHINES. GEORGE HOWLETT DAVIS, West Orange, N. J. Filed Oct. 24, 1912. Serial No. 727,523. (Cl. 164—89.)



1. In a system for perforating multi-ply sheets of paper, the combination with perforating mechanism, of a rack for containing the paper in individual rolls, intermittent feeding mechanism for drawing the sheets of paper from said rolls to permit the same to form a suspended loop before passing into said perforating mechanism, intermittent apron feeding mechanism in advance of said perforating mechanism for drawing said paper theretbrough, and means for actuating both of said feeding mechanisms in unison whereby said suspended loop is maintained.

2. In a system for perforating multi-ply strips of paper, the combination with suitable perforating mechanism, of means for causing several superposed strips of paper to form and maintain a suspended loop before passing into said perforating mechanism, and means for drawing said superposed strips through said perforating mechanism.

3. In a system for perforating multi-ply strips of paper, the combination with suitable perforating mechanism, of mechanism for intermittently feeding a plurality of superposed strips of paper to said perforating mechanism, and for forming and maintaining said strips in a slack festoon or loop before passing into said perforating mechanism.

4. In a perforating system, the combination with suitable perforating mechanism, a rack for supporting the strips of paper in separate rolls, intermittent feeding mechanism for drawing said strips of paper from said rolls, and for forming and maintaining the superposed strips in a hanging festoon or loop before they are drawn into said perforating mechanism, and intermittent feeding mechanism for drawing said strips of paper from said loop through said perforating mechanism.

5. In a perforating system, the combination with suitable perforating mechanism, of a rack elevated above said perforating mechanism for supporting a plurality of strips of paper in individual rolls, intermittent feeding mechanism for drawing said strips of paper from said rolls downwardly to form a suspended loop and a second feeding mechanism for drawing said strips of paper through said perforating mechanism from said loop.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,538. SWIMMING DEVICE. JOHN DAVIS, Bloomington, Ill. Filed Feb. 13, 1914. Serial No. 818,446. (Cl. 9—17.)

1. A swimming device comprising a collapsible pneumatic member for supporting the swimmer in the water, including substantially plane sides and deck composed of stiff sheets hinged together at their edges and shaped so as to form at the forward end of the member a prow and a downwardly and forwardly inclined deck portion and having the deck hinged along a central longitudinal line so that when said member is collapsed the parts of the deck will fold down between the sides and when said member is expanded the deck will bulge upward slightly beyond the plane uniting its edges to lock said member against collapse.

2. A swimming device comprising a collapsible pneumatic member for supporting the swimmer in the water, means for securing said member to the body of the swimmer, and a valve-controlled passage by which air may be supplied to the interior of said member, said member including two sides and a deck of stiff sheets hinged together and shaped to form at the forward end of the member a prow and a downwardly and forwardly inclined deck portion and united at the rear end of said member by a flexible sheet through which said valve-controlled passage extends, the deck being hinged along a central longitudinal line so that when said member is collapsed the parts of the deck will fold down between the sides and when said member is expanded the deck will bulge upward slightly beyond the plane uniting its edges to lock said member against collapse.



3. A swimming device comprising a collapsible pneumatic member for supporting the swimmer in the water, a strap secured near the forward end of said member and adapted to extend around the neck of the swimmer, a second strap secured near the rear of said member and adapted to extend around the waist of the swimmer, and a valve-controlled passage at the resr of said member whereby air may be supplied to the interior of said member, said member including two sides and a deck of stiff sheets hinged together and shaped to form at the forward end of the member a prow and a downwardly and forwardly inclined deck portion and united at the rear end of said member by a flexible sheet through which said valve-controlled passage extends, the deck being hinged along a central longitudinal line so that when said member is collapsed the parts of the deck will fold down between the sides and when said member is expanded the deck will bulge upward slightly beyond the plane uniting its edges to lock said member against collapse.

4. A swimming device comprising a collapsible pneumatic member for supporting the swimmer in the water, having sides normally tending to lie in collapsed position and put under strain when moved therefrom toward expanded position, a deck having two parts hinged together and secured respectively to said sides, lying when collapsed between said sides and when expanded acting with a toggle action upon said sides to force them apart and put them under tension, and means for stopping said deck parts when in their movement in expanding direction they reach a point slightly beyond dead center, whereby the deck parts hold the sides and the entire member in expanded position.

5. A swimming device comprising a collapsible pneumatic member for supporting the swimmer in the water, having substantially plane sides and deck composed of stiff sheets suitably hinged together at their edges and having the deck hinged along a central longitudinal line so that when said member is collapsed the parts of the deck will fold down between the sides.

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1,094,539. PROCESS OF PRODUCING 1.3-BUTYLENE-GLYCOL. KONRAD DELBRÜCK and KURT MEISENBURG, Elberfeld, Germany, assignors to Farbenfabriken Vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 21, 1913. Serial No. 743,318. (Cl. 204—9.)

1. Process for the production of 1.3-butylene-glycol, which process comprises reducing aldol by electrolysis and separating the 1.3-butylene-glycol from the reaction mixture, substantially as described.

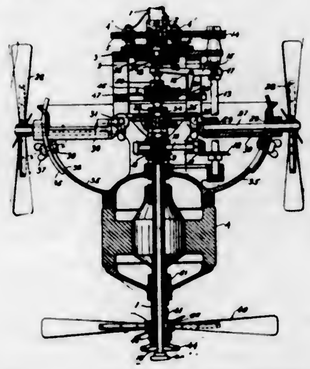
2. The process of producing 1.3-glycol (1.3-diol) which comprises the electrolytic reduction of aldol in acid media.

3. The process of producing 1.3-glycol (1.3-diols) which comprises the electrolytic reduction of aldols in dilute sulfuric acid solutions.

4. The described process of producing 1.3-glycol which consists in electrolytically reducing aldol in a dilute sulfuric acid solution, neutralizing the cathode liquid, and separating therefrom the glycol.

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1,094,540. FAN. CHARLES H. J. DILG, New York, N. Y., assignor to Eck Dynamo and Motor Company, a Corporation of New Jersey. Filed Sept. 14, 1908. Serial No. 452,814. (Cl. 230—1.)



1. The combination with the casing and armature shaft of a motor, of means for causing the casing to revolve concentrically around the armature shaft by connections driven from the latter, a fan mounted on the motor casing and carried bodily therewith during the revolution of the same, and driving connections from the armature shaft to said fan.

2. The combination with the casing and armature shaft of a motor, of bearings for supporting the casing and shaft so that the latter extends vertically, means driven from the armature shaft for causing the casing to revolve concentrically around the armature shaft, a fan mounted on the motor casing and carried bodily therewith during the revolution of the same, and driving connections from the armature shaft to said fan.

3. The combination of a revoluble member, fan shafts carried thereby extending in opposite directions, means for rotating said fan shafts substantially at right angles to the plane of the revolution of the revoluble member, and means for adjusting said fan shafts independently of each other at an angle to the plane of revolution of the revoluble member.

4. The combination of two fans disposed at an angle to each other, a common actuating means for rotating both fans, and controlling devices for causing either of said fans to be rotated separately or in unison at will.

5. The combination of a revolving member, a fan carried thereby, a second fan disposed at an angle to the first fan, a common actuating means for rotating both fans, and devices permitting either of said fans to be rotated independently of the other or both in unison at will, independently of, or in unison with, the revolution of the revolving member.

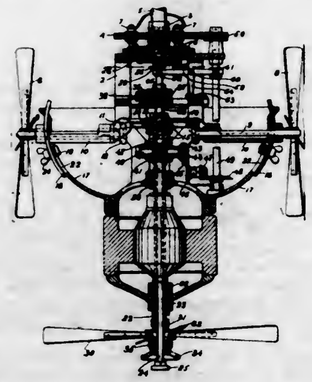
[Claims 6 to 44 not printed in the Gazette.]

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1,094,541. FAN. CHARLES H. J. DILG, New York, N. Y., assignor to Eck Dynamo and Motor Company, a Corporation of New Jersey. Filed Sept. 14, 1908. Serial No. 452,815. (Cl. 230—1.)

1. The combination of a fan, means for causing said fan to oscillate in a substantially horizontal plane, means for imparting an individual rotation to the fan substantially at right angles to the oscillation of the fan, means for adjusting the fan at an angle to the plane of the oscillation of the fan, a second fan substantially at right angles to the first fan, and means for causing said second fan to rotate in a substantially horizontal plane.





2. The combination of a fan, an electric motor, means driven from the armature shaft of said motor for causing the fan to oscillate in a substantially horizontal plane, means also driven from said armature shaft for imparting an individual rotation to the fan substantially in a vertical plane and at right angles to the oscillation of the fan, means for adjusting the fan at an angle to the plane of the oscillation of the fan, a second fan substantially at right angles to the first fan, and means also driven from the armature shaft for causing said second fan to rotate in a substantially horizontal plane.

3. The combination of an electric motor, a fan carried by the motor, means driven from the armature shaft of the motor for causing the motor, and with it the fan, to oscillate in a substantially horizontal plane, means driven from the armature shaft for imparting an individaul rotation to the fan substantially in a vertical plane and at right angles to the plane of oscillation of the motor, means for adjusting the fan at an angle to the plane of the oscillation of the motor, a second fan substantially at right angles to the first fan, and means also driven from the armature shaft for causing said second fan to rotate in a substantially horizontal plane.

4. The combination with the casing and armature shaft of a motor, of means for causing the casing to oscillate concentrically around the armature shaft by connections driven from the latter, a fan carried by the motor casing so as to oscillate therewith, and driving connections from the armature shaft to said fan.

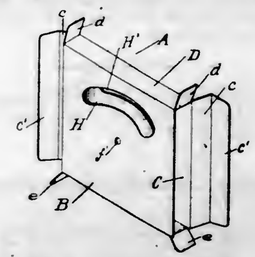
5. The combination with the casing and armature shaft of a motor, of bearings for supporting the casing and shaft so that the latter extends vertically, means driven from the armature shaft for causing the casing to oscillate concentrically around the armature shaft, a fan carried by the motor casing so as to oscillate therewith, and driving connections from the armature shaft to said fan.

[Claims 6 to 25 not printed in the Gazette.]

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1,094,542. PACKAGE. ADELBERT L. A. DODGE, Providence, R. I. Filed Dec. 11, 1912. Serial No. 736,182. (Cl. 206—52.)

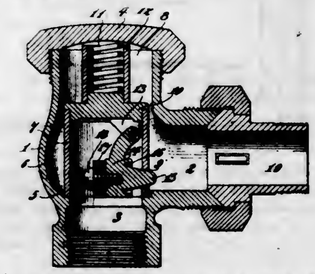
A delivery package comprising a front wall and a back wall, a roll of material contained therebetween, closures for the ends of the package, one being of such length as to leave an opening for the passage of the material from said roll, and a pivot for said roll held in said back and front walls, the said front and back walls being provided with oppositely-disposed arcuate openings to permit of the grasping of the roll to rotate the same, the said pivot having retaining flanges overlapping the outer walls



through which said pivot passes to hold said walls in close contact with the rear and front faces of the roll.

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1,094,543. VALVE. JAMES A. DONNELLY, Brooklyn, N. Y. Original application filed May 12, 1906, Serial No. 316,426. Divided and this application filed Apr. 16, 1909. Serial No. 490,248. (Cl. 237—24.)



1. In a valve of the class described, a valve casing having inlet and outlet passages, a seat surrounding the outlet passage, a tubular casing within the valve casing and having an open end seated on said seat, the opposite end of said tubular casing being closed, said tubular casing having a lateral port through its side wall and communicating with said inlet passage, and a valve suspended within said tubular casing for free swinging movement toward the inlet to close said port and away from the inlet to open said port.

2. In a valve of the class described, a valve casing having inlet and outlet passages, a seat surrounding the outlet passage, a tubular casing within the valve casing and having an open end seated on said seat, the opposite end of said tubular casing being closed, said tubular casing having a lateral port through its side wall and communicating with said inlet passage, a valve suspended within said tubular casing for free swinging movement toward the inlet to close said port and away from the inlet to open said port, and means for regulating the swinging movement of the valve to maintain a determined relation of the pressures in the inlet and outlet passages of the first named valve casing.

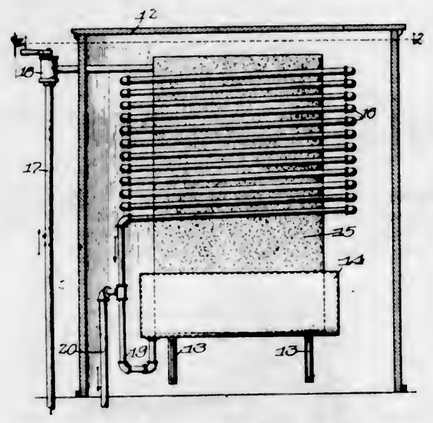
3. In a valve of the class described, an outer casing having inlet and outlet passages, a separate inner casing bodily removable from the outer casing and having a lateral port through its side wall and communicating with said inlet passage, and a valve suspended inside said inner casing and provided with a conical projection extending through said lateral port, said projection being movable toward said port to close it and away from said port to open the same.

4. In a valve of the class described, a valve casing having inlet and outlet passages and an opening, a tubular casing within the valve casing insertible and removable through said opening, said tubular casing being in longitudinal alinement with the outlet and having a lateral port

adjacent and communicating with the inlet, a pivoted valve suspended from the casing and having a conical head engaging said lateral port, said valve being movable toward the inlet to close the lateral port and away from the inlet to open said port.

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1,094,544. HUMIDIFYING DEVICE. FRANK J. DOUGLASS, Chicago, Ill. Filed July 30, 1912. Serial No. 712,373. (Cl. 237—9.)



1. The combination with a steam heating element, of an evaporator, and a water receptacle for supplying water to said evaporator, all so arranged that said evaporator is heated by said heating element and said heating element discharges its water of condensation to said receptacle which supplies said evaporator.

2. In a humidifying device, the combination with a casing provided with an air intake and air outlet, of a vessel in said casing adapted to contain water, a porous element arranged to receive water from said vessel, and means within said casing for applying heat to the porous element to cause evaporation therefrom.

3. In a humidifying device, the combination with a vessel to contain water, of a porous element in said vessel and projecting therefrom, and a steam coil surrounding the projecting part of said porous element and having a discharge connection for water of condensation leading to said vessel.

4. In a humidifying device, the combination with a casing provided with intake and outlet openings, of a vessel for water in said casing, a porous element in said vessel and projecting therefrom, a steam coil surrounding said porous element, means for controllably admitting steam to said steam coil, and a discharge pipe adapted to conduct water of condensation from said coil to said vessel.

5. The combination with a vacuum heating system, of a humidifying device comprising a vessel adapted to contain water, a porous element projecting therefrom, a heating coil forming a part of said vacuum system surrounding said porous element, and a discharge connection from the lower end of the heating coil to said vessel.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,545. GRAB-BUCKET HANGER. DAVID J. EVANS, Kenilworth, Ill. Filed Dec. 18, 1911. Serial No. 666,474. (Cl. 37—30.)

1. In a device of the class described, the combination of a three line hoisting rig, a grab bucket, and a one-piece cruciform hanger interposed between said hoisting rig and said grab bucket, operative connections between said hoisting tower and said hanger, and between said hanger and bucket, substantially as described.

2. In a device of the class described the combination of a three line hoisting rig, a grab bucket, a cruciform hanger interposed between said hoisting rig and said bucket, cables connecting said hoisting rig with the cruciform hanger and other cables or chains connecting said hanger with said bucket.



3. In a grab bucket support having a central opening, a cruciform hanger, portions on each of the arms of said hanger for the attachment of cables and lugs on two of said arms for the attachment of other cables, substantially as described.

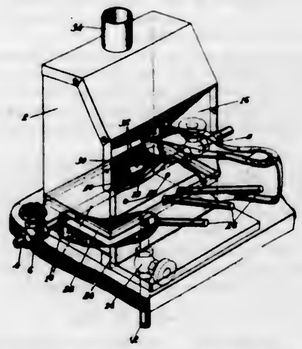
4. In a device of the class described, a plurality of arms radiating from a central portion in pairs diametrically opposite said central portion being provided with a central cable opening, each pair being adapted for the attachment of a pair of cables, lugs on two of said arms for the attachment of other cables as and for the purpose specified.

5. In a grab bucket hanger, two pairs of arms arranged at right angles to one another and connected by a central portion, each of said arms being provided with holes for the attachment of cables of the hoisting equipment, lugs on two of said arms forming other points of attachment for the cables of the hoisting equipment and the central portion of the hanger being provided with an opening, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,546. APPARATUS FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. FRANK E. FERNALD, Milton, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 20, 1911. Serial No. 655,697. (Cl. 12—1.)



1. An apparatus of the character described comprising a tank for a body of water, means for heating the water and means for supporting a shoe with its toe portion only in position to be acted upon by the vapor arising from said body of water.

2. An apparatus of the character described comprising a tank for a body of water, means for supporting a shoe with its toe in said tank above the surface of the water and a steam inlet pipe arranged to deliver steam into the water.



3. An apparatus of the character described comprising a tank adapted to hold a body of water, said tank having an aperture for the reception of the toe portion of a shoe, means to deliver steam into the lower part of said tank, an outlet from said tank and means whereby the quantity of water in the tank may be regulated by the workman.

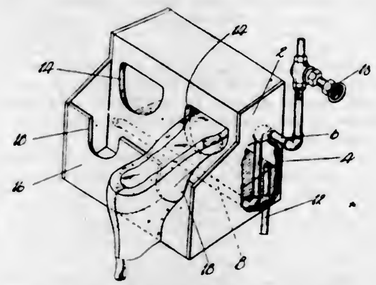
4. An apparatus of the character described comprising a tank having an opening in one of its walls for the insertion of the toe portion of a shoe, a supporting frame for the shoe positioned in front of said opening, said frame being open at its front end to permit the shoe to be inserted into and withdrawn from the opening in the tank in substantially a straight line and means for supplying vapor to the tank.

5. An apparatus of the character described comprising a metal tank having an aperture for the reception of the toe portion of a shoe, a rest positioned in front of the aperture to support a shoe with its toe in said aperture, means for protecting the shoe from contact with the metal of the tank and means for supplying vapor to the tank.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,547. APPARATUS FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. WILLIAM A. BOYDEN, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 21, 1911. Serial No. 634,503. (Cl. 12—1.)



1. An apparatus of the character described, comprising a tank, said tank having one or more apertures for the reception of the toe of a shoe, a steam inlet pipe positioned in said tank, and a discharge pipe having its intake end positioned in the tank above the level of the steam pipe.

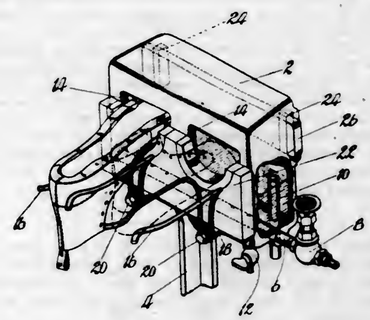
2. An apparatus of the character described, comprising a tank having a plurality of apertures each shaped for the reception of the toe of a shoe, a perforated steam inlet pipe positioned in said tank, a discharge pipe having its intake end positioned in the tank above the level of the steam pipe, and a rest for supporting a shoe with its toe in one of said apertures.

3. An apparatus of the character described, comprising a tank for a body of water, a steam inlet pipe arranged to deliver steam into said body of water, a discharge pipe having its intake end opening into said tank at a point above the level at which the steam is discharged, and a shoe support positioned adjacent to said tank, said tank being constructed to direct the vapor rising from said body of water against a portion only of the shoe sustained by said support.

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1,094,548. APPARATUS FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. EUGENE L. REYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 6, 1911. Serial No. 625,464. (Cl. 12—1.)

1. An apparatus of the character described comprising a metal tank having one or more apertures for the reception of the toe of a shoe, means for supporting a shoe with its toe in the tank, means for causing hot vapors to circulate around the toe of the shoe, and means for protecting the shoe from contact with any of the metal parts of the tank.



2. An apparatus of the character described comprising a tank having one or more apertures for the reception of the toe of a shoe, means for supporting a shoe with its toe in the tank, means for causing hot vapors to circulate around the toe of the shoe, and means for protecting the toe of the shoe from contact with the inner wall of the tank.

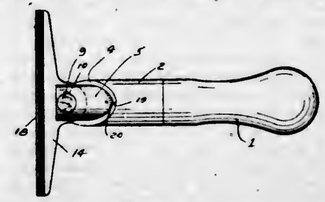
3. An apparatus of the character described comprising a tank having one or more apertures for the reception of the toe of a shoe, means for supporting a shoe in either an upright or an inverted position with its toe in the tank, and means for supplying hot vapors within the tank.

4. An apparatus of the character described comprising a tank having one or more apertures for the reception of the toe of a shoe, a steam inlet pipe extending along the bottom of the tank, a drip pipe having communication with the interior of the tank at a point above the steam pipe, all of said parts being cast together, and shoe supporting means positioned adjacent to each aperture.

5. An apparatus of the character described comprising a tank having a plurality of apertures each constructed to receive the toe of a shoe, a steam inlet pipe extending along the bottom of the tank, a drip pipe having communication with the interior of the tank at a point above the steam pipe, a shoe rest in front of each aperture constructed to support a shoe in either an upright or an inverted position, means for protecting the shoe from contact with the edges of said apertures, and a protecting device constructed of heat insulating material positioned within the tank to protect the shoe from contact with the inner wall of the tank.

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1,094,549. FILE-HOLDER. GILBERT FINDLAY, Berkeley, Cal., and JOSEPH HANSEN, Bellingham, Wash. Filed July 5, 1912. Serial No. 707,883. (Cl. 76—36.)



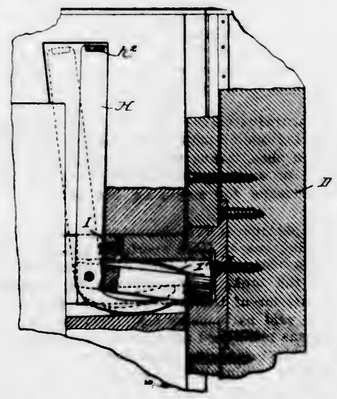
1. A manually operable tool holder comprising in combination, a handle, a ferrule carried thereby and having an extending portion provided with an aperture, a cylindrical shell revolubly carried by and projecting from said ferrule and having a circumferentially extending slot adapted to be alined with the said aperture, means carried by said shell for gripping the tool, a screw having its head

in engagement with the inner periphery of said shell and passing through the said slot therein and through said aperture in said ferrule, and a nut for said screw.

2. A manually operable tool holder comprising in combination, a handle, a ferrule carried thereby and having an extending portion provided with an aperture, a cylindrical shell revolubly carried by and projecting from said ferrule and having a circumferentially extending slot adapted to be alined with the said aperture, means carried by said shell for gripping the tool, a guide having an aperture formed therein, a screw having its head in engagement with the inner periphery of said shell and passing through the said slot therein, through the said aperture in said ferrule, and through the said aperture in the said guide, and a nut for said screw.

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1,094,550. DOOR-LOCK. WILLIAM J. FLEISCHAUER and HERBERT RICHARDSON, Pontiac, Mich., assignors of one-fourth to Bion Brigham and one-fourth to Christopher Madson, South Bend, Ind. Filed July 16, 1913. Serial No. 779,316. (Cl. 70—44.)



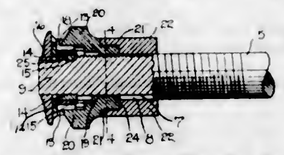
1. In an automobile door lock, the combination of a striker plate having a tapering side recess and a cavity below the recess, of a bolt cage having a tapering head projecting from one end and adapted to fit within the side recess of the striker plate, said bolt cage also having a longitudinal slot extending partially through the said head, a locking bolt pivotally mounted within the slot of the bolt cage and having a projecting free end extending beyond the headed end of the bolt cage and movable into and out of the slot of the head, and means for moving the said locking bolt, all for the purpose described.

2. In an automobile door lock, the combination with a striker plate having a tapering side recess and a cavity below the recess, of a bolt cage having a projecting tapering head at one end adapted to interfit the recess of the striker plate, a locking bolt movable within the bolt cage and into and out of the said projecting head, a pivot pin extending transversely through the rear portion of the bolt cage and through the rear end of the locking bolt and an actuating lever pivoted adjacent its lower end on the said transverse pin and having a lower angular arm projecting beneath the locking bolt for the purpose described.

3. In an automobile door lock, the combination with a striker plate having a tapering side recess and a cavity below the recess, of a bolt cage having a projecting tapering head at one end adapted to interfit the recess of the striker plate, a locking bolt movable within the bolt cage and into and out of the said projecting head, a pivot pin extending transversely through the rear portion of the bolt cage and through the rear end of the locking bolt and an actuating lever pivoted adjacent its lower end on the said transverse pin and having a lower angular arm projecting beneath the locking bolt for the purpose described, the upper portion of said lever having an inclined edge, and a spring controlled push rod having one end in engagement with the said inclined edge whereby to rock the lever and lift the locking bolt when the push rod is depressed.

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1,094,551. SOLE-EDGE TRIMMING AND FINISHING TOOL. ANTONIO D. FRASCOLA, El Reno, Okla. Filed June 14, 1913. Serial No. 773,720. (Cl. 12—92.)



1. In a tool of the character described, the combination of an operating shaft provided with a longitudinal channel, a rand guide and sole trimmer mounted upon said shaft, said sole trimmer having a series of radially projecting spaced cutting teeth, an edge burnishing sleeve mounted upon the shaft and having a key slidable in the channel thereof, said sleeve having buffer teeth arranged in the spaces between the teeth of the trimmer, and a locking and adjusting collar threaded upon said sleeve, said shaft being provided with a relatively narrow unthreaded portion along one side of said channel and threads opening into said channel at the opposite side thereof and extending around the shaft to and being interrupted by said unthreaded portion, said unthreaded portion projecting beyond the base of said threads, said locking collar being provided with a longitudinal series of interrupted threads adapted by rotation of said collar to be disposed in said channel or in locking engagement with the threads upon said shaft.

2. In a tool of the character described, the combination of a shaft provided with a longitudinal channel, one end of said shaft being reduced, a rand guide and sole trimmer mounted upon said reduced end of the shaft, said sole trimmer having a series of radially projecting spaced cutting teeth, a burnishing sleeve longitudinally movable upon the shaft and provided with a key engaged in the channel thereof, and a locking member rotatably mounted upon the sleeve, said shaft being provided with a relatively narrow unthreaded portion along one side of said channel and threads opening into said channel at the opposite side thereof extending around the shaft to and being interrupted by said unthreaded portion, said locking collar being provided with means adapted by rotation of the collar for locking engagement with the threads upon said shaft or to be disposed in said channel whereby the burnishing sleeve may be moved longitudinally upon the shaft.

3. In a tool of the character described, the combination of a shaft provided with a longitudinal channel, a rand guide and sole trimmer mounted upon said shaft, a burnishing sleeve longitudinally movable on the shaft toward and from the rand guide, said sleeve being provided with a key for engagement in the channel in said shaft, and an element rotatably mounted upon the sleeve, said element and shaft being provided with co-engaging means to lock the sleeve against longitudinal movement and secure the same in its adjusted position with relation to the rand guide, the locking means on said element being adapted by rotation of the element to be disposed in said channel whereby the burnishing sleeve may be moved longitudinally upon the shaft.

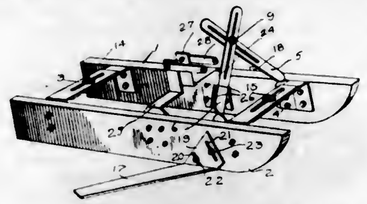
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1,094,552. WEEDER. HENRY E. GRUBIN and WALTER D. DEAN, Hermleigh, Tex. Filed July 8, 1913. Serial No. 777,866. (Cl. 55—60.)

1. A weeder comprising runners, soil engaging members carried by said runners, braces secured at their lower ends to said runners and their upper portions disposed in anti-clinal relation, and means for retaining said braces in adjusted position.



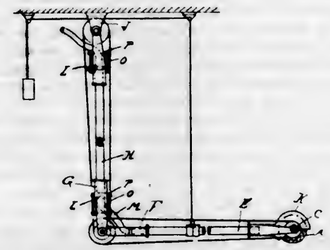
2. A weeder comprising runners, soil engaging members carried by said runners, braces secured at their lower ends to said runners and their upper portions disposed in anti-clinal relation, the upper portion of each of said braces provided with a longitudinal slot and means passing within said slots to thereby retain the braces in their adjusted position.



3. A weeder comprising runners, soil engaging members carried by said runners, braces secured to each of said runners disposed in angular relation to each other, the upper portions of said braces provided with longitudinal slots and means for retaining said braces in their adjusted position.

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1,094,553. DUST-COLLECTOR FOR GRINDERS. MASON B. GIBERSON, Detroit, Mich., assignor to Monarch Steel Castings Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 13, 1913. Serial No. 794,997. (Cl. 51—12.)



1. The combination with a grinder-wheel, of a hood for inclosing said wheel, a jointed frame on which said wheel and hood are mounted, and an exhaust conduit leading from said hood through said jointed frame and permitting the flexing of the latter.

2. The combination with a grinder-wheel, of a hood inclosing said wheel, a jointed frame on which said wheel and hood are mounted, including a plurality of pivotally-connected yoke frames, and tubular connecting arms having a swiveled connection with said yokes, forming an exhaust conduit connected with said hood.

3. The combination with a grinder wheel, of a hood for inclosing said wheel, a yoke frame on which said hood and wheel are mounted, a tubular arm extending from said yoke frame and connected with said hood, a hinged yoke at the opposite end of said tubular arm, having a swiveled connection therewith, and a flexible conduit connected with said tube within said yoke.

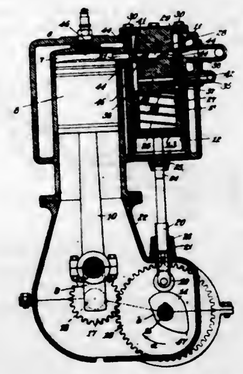
4. The combination with a grinder wheel, of a hood for inclosing said wheel, a yoke frame on which said hood and wheel are mounted, a pair of hinged yoke frames, tubular arms connected respectively to said hinged yoke frames, one of said arms being connected at its opposite end to the yoke frame supporting said grinder wheel and to the hood thereof, and a flexible conduit connecting said tubular arms, permitting of the hinging or swinging movement of said yoke frame.

5. The combination with a grinder-wheel of a hood for inclosing said wheel, a yoke frame on which said grinder-wheel and hood are mounted, a tubular arm connected with said hood and yoke-frame, hinged yokes, one member being swiveled to said tubular arm, and a flexible swiveled connection between said tubular arm and a conduit mounted on the other of said hinged yokes.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,554. INTERNAL-COMBUSTION ENGINE. PAULINE HARTMAN GOGGIN, Salem, Mass. Filed Oct. 1, 1912. Serial No. 723,363. (Cl. 123—188.)



1. An internal combustion engine having, in combination, an explosion cylinder, a valve chest provided with inlet and exhaust ports, a cap for said valve chest having a stem projecting into said valve chest, said stem having passages alining with said inlet and exhaust ports, a valve located within said valve chest between said stem and the walls of said valve chest, and means to reciprocate said valve to alternately connect said inlet and exhaust ports with said explosion cylinder.

2. An internal combustion engine having, in combination, an explosion cylinder, a valve chest provided with inlet and exhaust chambers, said valve chest also having a single passage leading therefrom into said explosion cylinder, a hollow reciprocating valve adapted to be moved to alternately connect said passage with said inlet and exhaust chambers and means adapted to project into and fit said valve provided with passages adapted to aline with said inlet and exhaust passages respectively.

3. An internal combustion engine having, in combination, a piston cylinder, a valve chest having a passage communicating with said piston cylinder, a detachable cylindrical stem suspended within said valve chest provided with inlet and exhaust passages, and a cylindrical valve arranged to reciprocate within said valve chest intermediate the walls thereof and said stem to alternately connect said inlet and exhaust passages with the passage communicating with said piston cylinder.

4. An internal combustion engine having, in combination, an explosion cylinder, a valve chest provided with inlet and exhaust chambers, a stationary stem concentrically suspended within said valve chest, said stem having an inlet and an exhaust passage therethrough alining with said inlet and exhaust chambers respectively, a reciprocatory valve within said valve chest adapted to be moved to connect said inlet passage with said explosion cylinder and close said exhaust passage, said valve also adapted to be moved to close said inlet passage and to connect said exhaust passage with said explosion cylinder.

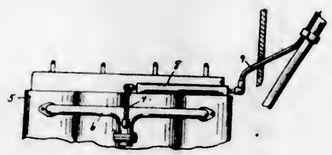
5. An internal combustion engine having, in combination, an explosion cylinder, a cylindrical valve chest arranged parallel with said explosion cylinder and provided with a passage at the upper end thereof communicating with the upper end of said explosion cylinder, said valve chest also having inlet and exhaust ports, a cylindrical valve located within said valve chest having an opening at one end and provided with ports in the side wall there-

of, a detachable closure for said valve chest provided with a cylindrical stem adapted to project into the open end of said valve, said stem having passages therethrough alining with said inlet and exhaust ports, and means to actuate said cylindrical valve to alternately connect the passages in said stem with their respective ports, and with the passage communicating with said explosion cylinder.

[Claim 6 not printed in the Gazette.]

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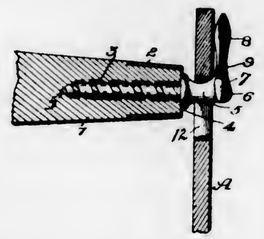
1,094,555. AUXILIARY AIR DEVICE FOR INTERNAL-COMBUSTION ENGINES. PATRICK H. GRACE, Los Angeles, Cal. Filed Mar. 17, 1913. Serial No. 755,028. (Cl. 48—180.)



An auxiliary air device for explosion engines comprising an air inlet pipe opening to the atmosphere at one end and at the other end connected to the manifold of the engine, said pipe having an enlarged chamber intermediate its ends situate near the manifold and in close proximity with a part of the engine which is heated when running; and a cock to control the admission of air into said pipe.

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1,094,556. SWINGLETREE-HOOK. LOYD D. GREENLAND, Knoxville, Iowa, assignor of one-half to A. Vander Wilt, D. Vander Wilt, and W. G. Vander Ploeg. Filed Sept. 5, 1913. Serial No. 788,310. (Cl. 21—79.)



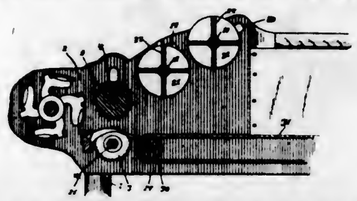
A swingle tree hook comprising a screw threaded shank ending in an enlarged collar from which extends a neck, said neck ending in a slightly enlarged rounded head from which is continued laterally a second rounded neck, a disk shaped button extending from said last mentioned neck said button having bulging faces, a forwardly curved upwardly extending pointed ear extending from said head in alinement with said button.

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1,094,557. FEEDING MECHANISM FOR ENSILAGE-CUTTERS. CHARLES F. HALDEMAN, Salem, Ohio, assignor to The Silver Manufacturing Company, Salem, Ohio, a Corporation of Ohio. Filed Dec. 4, 1913. Serial No. 804,578. (Cl. 146—29.)

1. In a device of the character described, the combination of a frame, side plates secured to said frame, said side plates provided with elongated slots located at different angles to each other, beater carrying bars, beaters journaled in said carrying bars, the shafts of said beaters located through the elongated slots, means adapted to move the beater carrying bars and means for imparting rotary motion to said beaters.

2. In a device of the character described, the combination of a frame, side plates secured to said frame, said side plates provided with elongated slots located at different angles to each other, beater carrying bars, beaters journaled in said carrying bars, the shafts of said beaters located through the elongated slots, means adapted to move the beater carrying bars and means for imparting rotary motion to said beaters, and feed rolls, one of said feed rolls journaled in bars and the beater carrying bars pivotally connected to said roll carrying bars.



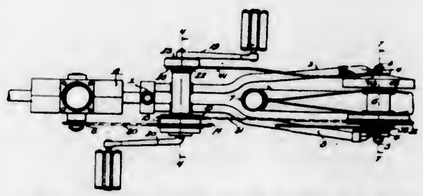
3. In a device of the character described, the combination of a frame, side members secured to said frame, said side members being provided with elongated slots located at different angles to each other, a cutter head, feed rolls, one of said feed rolls adapted to move to and from the other, means for controlling the movement of the movable feed roll, bars adapted to be actuated simultaneously with the movement of one of the feed rolls, beater carrying bars connected to the bars actuated by the movable feed roll, beaters journaled in said carrying bars, the shafts of said beaters located through the slots in the side members, and means for communicating rotary motion to said beaters.

4. In a device of the character described, the combination of a frame, side members secured to said frame, said side members being provided with elongated slots located at different angles to each other, a cutter head journaled in the frame, feed rolls, one of said feed rolls journaled in movable bars, feeder carrying bars pivotally connected to the bars carrying one of the feed rolls, the shafts of the beaters being located through the slots in the side members secured to the frame, and means for imparting rotary motion to the series of beaters.

5. In a device of the character described, the combination of a frame, side members secured to said frame, said side members being provided with elongated slots, said slots located at different angles to each other, a cutter head journaled in the frame, feed rolls, one of said feed rolls journaled in movable bars, beater carrying bars pivotally connected to the movable bars, and actuated by the movable feed rolls, said beater carrying bars normally located at an angle to a horizontal line, a series of beaters carried by said beater carrying bars, the shafts of said beaters being located through the slots in the side members of the frame, and means for imparting rotary motion to the beaters.

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1,094,558. TRANSMISSION-GEARING FOR MOTOR-PROPELLED VEHICLES. WILLIAM S. HARLEY, Milwaukee, Wis. Filed Nov. 18, 1912. Serial No. 732,074. (Cl. 21—90.)



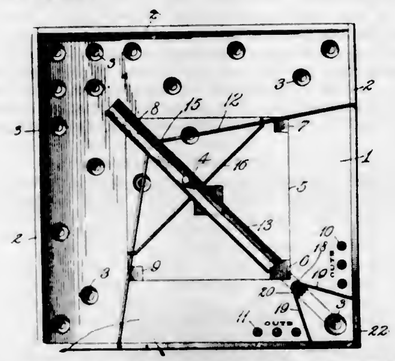
1. In a vehicle of the character described having a frame, a motor, a traction wheel, a traction drive-wheel, a manually controlled clutch mechanism for interlocking the traction drive-wheel and traction-wheel, a traction-wheel brake, and a crank-shaft journaled upon the frame; the combination of a transmission wheel loosely mounted about the crank-shaft, means for locking the transmission wheel to the crank-shaft when the same is rotated in one direction, and belts connecting the said transmission wheel with the motor and traction drive-wheel, a one-way clutch-controlled brake actuating means carried by the crank-shaft and connected to the traction drive-wheel brake, whereby said brake is set when the crank-shaft is rotated in a reverse direction from that aforesaid, and a predeterminedly tensioned means for connecting the one-way clutch-controlled brake-actuating means, whereby said clutch is free to slip under abnormal load strain.

2. In a vehicle of the described character having a frame, a motor, a traction-wheel, a traction drive-wheel therefor, a manually controlled clutch mechanism interposed between the traction-wheel and its traction drive-wheel, a traction drive wheel brake, a pedal-carrying crank-shaft, a clutch-controlled transmission wheel carried by the crank-shaft, and belts connecting the clutch-controlled crank-shaft wheel, motor and traction-drive-wheel; the combination of a disk loosely mounted about the crank-shaft, means connecting the disk and traction-wheel brake mechanism, a clutch-wheel loosely mounted about said crank-shaft, means for locking the clutch-wheel and disk together when the crank-shaft is rotated in one direction, and spring-controlled friction means for holding the clutch-wheel in rotatory engagement with the aforesaid crank-shaft under normal load strain.

3. In a vehicle of the character described having a frame, a motor, a traction wheel, a traction drive-wheel, a manually controlled clutch mechanism for interlocking the traction drive-wheel and traction-wheel, a traction-wheel brake, and a pedal-carrying crank-shaft journaled upon the frame; the combination of a transmission-wheel loosely mounted about the crank-shaft, a belt connection between the transmission-wheel and motor, a belt connection between the transmission-wheel and drive-wheel, and a one-way clutch mechanism carried by the crank-shaft connected to the traction-wheel brake whereby said brake is set when the crank-shaft is rotated in a reverse or rearward direction due to back-fire of the motor.

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1,094,559. GAME APPARATUS. HARRY W. HARRISON, Detroit, Mich. Filed Dec. 12, 1912. Serial No. 736,290. (Cl. 46—61.)



1. A game apparatus comprising a base board having side ledges and ball retaining recesses, a ball, an inclined guide for the ball, means removably supporting the guide above the board yieldingly adjustable for varying the inclination of the guide, the guide being laterally adjustable on the supporting means, a pendulum striking member and spring means supporting the striking member in operative relation to the path of the ball after it leaves the guide.

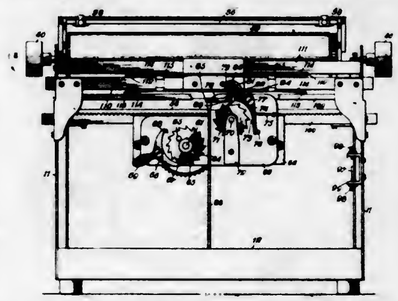


2. A game apparatus comprising a base board, a ball, an inclined guide for the ball, means supporting the guide yieldingly and permitting momentary change of inclination of the guide, the latter being laterally adjustable on the base board, a pendulous striking member, and means yieldingly supporting the member on the board to oscillate in the general path of motion of the ball when the latter falls from the guide the supporting means affording clear passage for the ball in any direction across the board.

3. A game apparatus comprising a base board, and ledges thereon, a ball, an inclined guide trough for the ball, means for supporting the trough at an interval above the board, detachably secured on the ledges, the trough being angularly adjustable on the supporting means and the latter yieldingly permitting momentary change of inclination of the trough, a bat, and means detachably secured on the ledges for yieldingly supporting the bat above the board in pendulous position to oscillate in the general path of the ball as it leaves the trough.

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1,094,560. TYPE-WRITING MACHINE. MARSHMAN W. HAZEN and OTTO PETERMANN, New York, N. Y., assignors, by direct and mesne assignments, to Standard Typewriter Company, a Corporation of New York. Filed Mar. 27, 1909. Serial No. 486,181. (Cl. 197—69.)



1. In a typewriting machine, the combination with a support, of a carriage, and a bearing comprising a plurality of vertically disposed bars extending lengthwise of the carriage, the upper and lower of said bars being movable with the carriage, means for holding the intermediate bar to the support, brackets carried by the lower bar and extending upward over the upper bar, and screws carried by the brackets adapted to engage the upper bar and force said bar and the lower bar toward the intermediate bar.

2. In a typewriting machine, the combination with a support, of a carriage, and a bearing comprising a plurality of vertically disposed bars extending lengthwise of the carriage, the upper and lower of said bars being movable with the carriage, means for holding the intermediate bar to the support, brackets carried by the lower bar and extending upward over the upper bar, and means carried by the brackets adapted to engage the upper bar and force the bars toward each other.

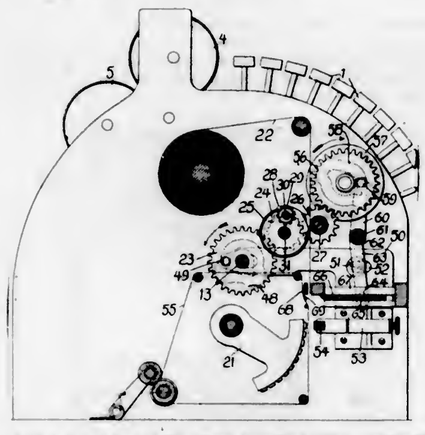
3. In a typewriting machine, the combination with a support, of a carriage mounted on said support, a bearing bar held to said support, a plurality of balls arranged above and below said bar, wire connections between the balls holding the same properly spaced apart in pairs, clips secured to the wire connections and fitting about said bar to permit adjustment of the balls, and bearing bars movable with the carriage on opposite sides of the first-mentioned bar.

4. In a typewriting machine, the combination with a support of a carriage mounted on said support, a plurality of balls, independent means holding the balls properly spaced apart in pairs, bars between which the balls move, clips secured to the ball holding means and fitting about one of said bars to permit adjustment of the balls.

5. In a typewriting machine, the combination with a support, of a carriage, and a bearing comprising a plurality of vertically disposed bars extending lengthwise of the carriage, the upper and lower of said bars being movable with the carriage, means for holding the intermediate bar to the support, brackets carried by the lower bar and extending upward over the upper bar, means carried by the brackets adapted to engage the upper bar and force the bars toward each other, and an independent bearing having a relative movement with respect to the first mentioned bearing, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,094,561. RECORDING MECHANISM FOR CASH-REGISTERS. WOLDEMAR REINHOLD HEINITZ, Chemnitz, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906). Filed July 15, 1912. Serial No. 709,412. (Cl. 235—3.)



1. In a machine of the class described, the combination with a recording mechanism having means for taking a plurality of impressions upon a check strip, of an operating mechanism therefor, and a single means positively actuated by said operating mechanism for weakening the strip between the impressions and for severing the strip at a point beyond the rearmost impression.

2. In a machine of the class described, the combination with a recording mechanism having means for taking duplicate impressions upon a check strip, of an operating mechanism therefor, and a knife positively actuated by said operating mechanism for partially severing the strip between the impressions and for wholly severing said strip beyond the rearmost impression.

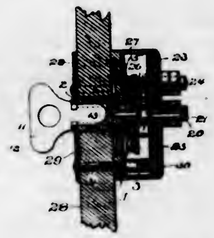
3. In a machine of the class described, the combination with an operating mechanism, of a type carrier differentially adjusted thereby, means for taking duplicate impressions upon a check strip from said type carrier, and a single means for partially severing the strip between the impressions and for wholly severing said strip after the last impression.

4. In a machine of the class described, the combination with an operating mechanism, of a type carrier differentially adjusted thereby, means for taking duplicate impressions upon a check strip from said type carrier and for feeding the strip between impressions, and a knife actuated by the operating mechanism for partially severing the strip between the impressions and for wholly severing said strip beyond the last impression.

5. In a machine of the class described, the combination with a differentially adjustable type carrier, of an operating mechanism, means actuated thereby for taking duplicate impressions upon a check strip from said type carrier, and a knife also actuated by the operating mechanism for partially severing the strip between the impressions and for wholly severing said strip beyond the last impression.

[Claims 6 to 26 not printed in the Gazette.]

1,094,562. ELECTRIC SWITCH. OTTO H. H. HEINS, Edgewater, N. J. Filed June 30, 1909. Serial No. 505,268. (Cl. 175—282.)



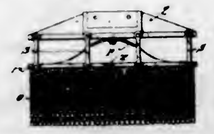
1. The combination of a terminal plate having a central tubular binding post, a contact carried by said plate to one side of said post, a switch plate having a central stud adapted to enter and electrically engage the said tubular post and having a contact surface arranged to bear against the contact carried by the terminal plate, and means for actuating the switch plate.

2. The combination of a terminal plate of insulating material, a hollow post secured centrally therein, other posts secured in the terminal plate and carrying contact springs, a disk of conducting material having an overchanging segment adapted to bear upon the said contact springs, an insulating plate covering the entire face of the disk except the overhanging segment, a stud secured centrally in the disk and projecting therefrom through the said insulating plate to engage the hollow post in the terminal plate, and means for rotating the disk.

3. The combination of a supporting plate having rearwardly projecting tubes and a central forwardly projecting bearing, a switch plate journaled in the said bearing, a terminal plate arranged in rear of the switch plate, and securing bolts inserted through the terminal plate into the tubes of the supporting plate to secure all the parts together.

4. The combination of a supporting plate having rearwardly projecting tubes and a central forwardly projecting bearing adapted to pass through a fixed support, a face plate fitted on the end of said bearing against the fixed support, a switch plate journaled in the said bearing, a terminal plate arranged in rear of the switch plate, fastening bolts inserted through the terminal plate into the rearwardly projecting tubes of the main plate, and other fastening bolts inserted through the face plate into said tubes.

1,094,563. COLLECTOR. ALOIS HELFENSTEIN, Vienna, Austria-Hungary. Filed Mar. 31, 1913. Serial No. 758,024. (Cl. 191—45.)



1. In an electric railway system, the combination of a contact rail upon the roof of a car, of paramagnetic material, of freely movable, flexible, magnetically energized contact elements arranged over a track in groups and slidingly contacting with said rail.

2. In an electric railway system, the combination of an insulated, comparatively wide contact rail of paramagnetic material having downwardly bent ends upon the roof of a car, of freely movable, flexible, magnetically energized contact elements arranged over a track in groups spaced apart for a distance less than the length of a car and slidingly contacting with said rail.

3. In an electric railway system, the combination of insulated contact rails of paramagnetic material upon the roof of a car provided with downwardly directed ends, exciting magnet coils disposed beneath said rails for magnetizing said rails, of freely movable, linked, flexible, magnetically energized chains constituting contact elements arranged in groups over a track and spaced apart for a distance less than the length of a car and slidingly contacting with said rails.

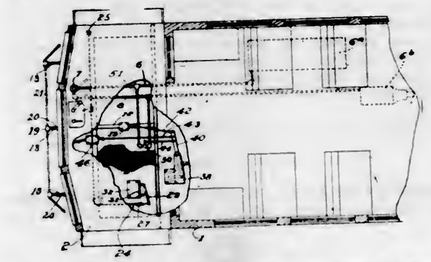
4. The combination with a car provided with a contact rail of paramagnetic material, a magnet disposed beneath said rail and arranged to energize the same, and a flexible contact member of paramagnetic material suspended above said contact rail and adapted to contact therewith upon the passage of said car.

5. In an electric railway system, the combination of comparatively wide insulated contact rails of paramagnetic material upon the roof of a car provided with downwardly directed ends, exciting magnet coils disposed beneath said rails for magnetizing the same, of freely movable, linked, flexible, magnetically energized chains constituting contact elements suspended from spaced links and arranged in groups over a track spaced apart for a distance less than the length of a car and slidingly and intimately contacting with said rails.

[Claim 6 not printed in the Gazette.]



1,094,564. SAFETY DEVICE FOR ELECTRIC CARS. JAMES E. HENDERSON, Birmingham, Ala. Filed May 6, 1913. Serial No. 765,936. (Cl. 105—250.)



1. The combination with an electric car having a fender adapted to be lowered into operating position, of means normally holding the fender raised, an air brake system, a main supply circuit for the car motors, a switch in said circuit, a shunt circuit having a normally open switch, a motor connected in said shunt circuit, and a depressible buffer carried by the car in advance of the fender, means operated by the depression of the buffer to close said shunt circuit and energize said motor, and several means actuated by said motor which respectively release the fender, apply the air brakes and open the main circuit for the motors, substantially as described.

2. In an electric car, a fender normally held in raised position, a catch to hold up said fender, an air brake cylinder, an air tank, a pipe connecting said tank and cylinder, and a valve normally closing said pipe, a main motor circuit, a normally closed switch therein, operating connections leading to said catch, valve and switch, an electric means for simultaneously operating said connections, and a depressible buffer carried by the car in advance of the fender and adapted when depressed to energize said electric means, substantially as described.

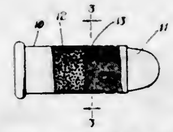
3. The combination with a car having a vertically movable fender, means to hold the fender raised, a buffer carried by the car in front of the fender and comprising spring-pressed rods flexibly connected at their outer ends, a flexible operating connection adapted to be actuated by each or all of said rods, a motor, means controlled by the actuation of said connection to energize said motor, and means operated by said motor to release the fender, substantially as described.

4. The combination with a car having a vertically movable fender, means to hold the fender raised, a buffer carried by the car in front of the fender and comprising spring-pressed rods flexibly connected at their outer ends, a flexible operating connection adapted to be actuated by each or all of said rods, a motor, means controlled by the actuation of said connection to energize said motor, an air brake, and means operated by said motor to release the fender and apply said air brake, substantially as described.

5. The combination with a car having a fender pivotally connected thereto, of a buffer yieldingly mounted on the car in advance of the fender, said buffer comprising a coiled spring connecting the outer ends of sliding members, a catch to hold the free end of the fender elevated, and means movable responsive to the independent depression of any one of said sliding members for releasing said catch and dropping the fender, as and for the purposes described.

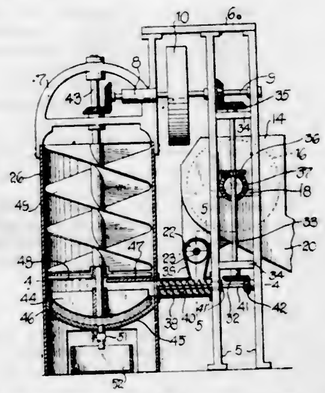
[Claims 6 to 10 not printed in the Gazette.]

1,094,565. CARTRIDGE. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Nov. 19, 1913. Serial No. 801,833. (Cl. 102—12.)



A rim fire cartridge comprising a relatively light metallic shell and a bullet locked therein by a plurality of indentations of the metal of the shell into the bullet back of the mouth of the shell.

1,094,566. ORE-SEPARATOR. ELMER W. HOFFMAN, Joplin, Mo. Filed Jan. 3, 1914. Serial No. 810,221. (Cl. 33—67.)



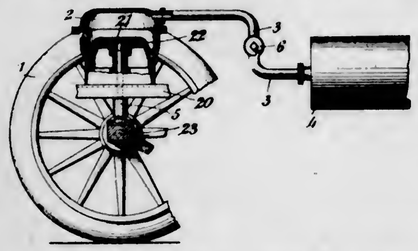
1. In an ore separating machine, a mercury receptacle, means for feeding the ore bearing material to said receptacle, a plurality of rotary agitator blades in said receptacle, a horizontally disposed plate arranged above the mercury bed and preventing the immediate rise of the material as it is fed to the receptacle, and a member movable over said plate in close proximity thereto to remove material accumulating thereon and return the same to the mercury bed.

2. In an ore separating machine, a mercury receptacle, means for feeding the ore bearing material to said receptacle, a vertical shaft, agitator blades fixed upon said shaft and operating in the mercury bed, means disposed above the mercury bed contiguous to the feed inlet to prevent the immediate rise of the material in the receptacle under the action of the agitator blades, a spider secured upon said shaft and moving in close proximity to said last named means to remove accumulations of material therefrom and return the same to the mercury bed, a spiral elevating blade secured upon said shaft above the spider to elevate and discharge the tailings, and means for rotating said shaft.

3. In an ore separating machine, a mercury receptacle, means for feeding the ore bearing material to said receptacle, a vertical shaft, agitator blades secured upon the lower end of said shaft and operating in the mercury bed, a stationary horizontally disposed plate arranged above the mercury bed and projecting inwardly from the feed inlet to prevent the immediate rise of the material under the action of the agitator blades, a spider secured upon said shaft, the arms of said spider moving in close proximity to the upper surface of said plate to remove accumulations of material therefrom and return the same to the mercury bed, means secured upon said shaft and rotatable therewith to receive and discharge the tailings, and means for rotating said shaft.

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1,094,567. PNEUMATIC SPRING FOR VEHICLES. JOSEF HOFMANN, Baumaroche, Switzerland. Filed June 20, 1912. Serial No. 704,781. (Cl. 21—50.)



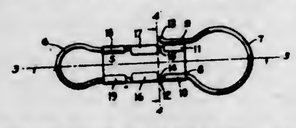

1. In a pneumatic spring, air cushions, air chambers, pipes connecting the cushions with said air chambers and cut off members operable by gravity and centrifugal force and capable of closing said pipes to suddenly diminish the effective volume of the air cushions, said members being independent of the relative position of the members of the pneumatic spring.

2. In a pneumatic spring air cushions, air chambers, pipes connecting the cushions with said air chambers, valves provided on said pipes automatically closing the pipes by centrifugal action and gravity.

3. In a pneumatic spring, air cushions, air chambers, pipes connecting the cushions with said air chambers, a port divided in said pipe, a rotary slide valve having a corresponding port and a weight connected to said valve.

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1,094,568. KEY-RING. WILLIAM HORNICH, Jr., Rochester, N. Y., assignor to Bastian Brothers Company, Rochester, N. Y., a Corporation of New York. Filed Dec. 21, 1912. Serial No. 738,035. (Cl. 59—99.)



1. A key-ring having, in combination, a body provided with a pivotal bearing and a recess; and a member formed of wire in the shape of an open loop; one end of the loop-member being pivotally mounted and fixed against longitudinal movement in said bearing, and the other end being normally seated in the recess and retained yieldingly therein by the resiliency of the wire.

2. A key-ring having, in combination, a body provided with a sleeve and a recess; and a member formed of wire in the shape of an open loop with a straight-end portion; said end-portion of the loop-member being rotatably mounted and fixed against longitudinal movement in the sleeve, and the other end of the loop-member being normally seated in the recess and retained yieldingly therein by the resiliency of the wire.

3. A key-ring having, in combination, a body of sheet-material having one margin rolled over to form a sleeve and the opposite margin turned back to form an abutment having a recess opening toward the sleeve; and a member formed of wire bent in the shape of an open loop; one end of the loop-member being rotatably mounted and fixed against longitudinal movement in the sleeve, and the other end being normally seated in the recess and retained therein by the resiliency of the wire.

4. A key-ring having, in combination, a body provided with a sleeve; a member formed of wire bent to the shape of an open loop, and having one end embraced by the sleeve, with a laterally-bent extremity adapted to engage the body, beyond the sleeve, to limit the rotation of said end in the sleeve; and the other end of the loop-member being normally retained resiliently against the body, but disengageable therefrom by swinging the loop-member about the end embraced by said sleeve.

5. A key-ring having, in combination, a body comprising a piece of sheet-material of which the main-portion is flat, while the opposite margins are bent back to form, respectively, a sleeve and a hook; and a member formed of resilient wire in the shape of an open loop; the loop-member having straight end-portions normally seated in the sleeve and the hook, respectively, and laterally-bent extremities beyond said straight portions; the body having also marginal lugs adapted to engage said extremities to limit lengthwise movement of the loop-member, and the loop-member being rotatable in said sleeve, and being disengageable from said hook by bending the loop-member in its plane.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,569. ICE-PICK. SIDNEY D. HUGHES, Laurel, Miss. Filed Jan. 15, 1913. Serial No. 742,132. (Cl. 83—62.)

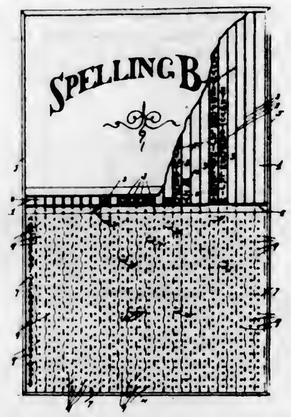


A device of the character described having in combination, a tubular handle having one end interiorly threaded the opposite end being closed and having a dished bottom, of a tubular sleeve having a converging apertured end and an opposite exteriorly threaded apertured boss said boss adapted to screw into said handle, a stem having a pick head at one end and a threaded neck at the other arranged to pass through said sleeve apertures, and a circular head secured to said neck and slidably held within said handle to be engaged by said bottom, as and in the manner set forth.

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1,094,570. SPELLING-BOARD. ARTHUR E. JACOBS, Cleveland, Ohio. Filed Dec. 8, 1909. Serial No. 532,103. (Cl. 35—9.)




1. In a device for arranging a series of characters in a predetermined order, a support, a setting board thereon and spaced therefrom upon which characters are arranged in a single vertical row at one side of the board, said board provided with a series of perforations passing transversely across said board corresponding to each character, a cover, said setting board and cover having an intermediate transverse opening, strips adapted to move parallel with said vertical row of characters and provided with characters spaced to correspond with the characters in said vertical row, said strips adapted to fall by gravity, and means for limiting the movement of said strips, to expose a predetermined set of characters in linear arrangement in said transverse opening, each limiting means being adapted to be located for the desired character by positioning in the hole in the setting board that corresponds with the said character on the strip.

2. In a device for arranging characters in line in a predetermined manner, a setting board provided with perforations arranged in vertical and horizontal rows, each vertical row corresponding to a series of characters, and each horizontal row corresponding to one of said series of characters, and there being as many vertical rows as there are characters to be represented, the said setting board provided with a transverse reading space adjacent thereto, a series of parallel longitudinally moving strips behind said board, said strips adapted to fall by gravity and to register with said longitudinal rows of perforations and provided with series of characters arranged in the reverse order to the series of characters corresponding to the longitudinal rows of perforations, and pins inserted in said perforations adapted to act as stops to limit the movement of said strips, whereby the character upon any one strip corresponding to the perforations in which a pin is inserted will be exposed in said reading opening.

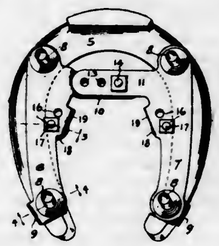
3. In combination, a bottom board, longitudinally movable weighted strips thereon, said strips provided with spaced characters on their upper surfaces and adapted to fall by gravity when the board is placed upright, guides for said strips, a setting board mounted upon a portion of the bottom board and provided with perforations arranged in transverse and longitudinal lines, the longitudinal lines adapted to register with said movable strips, and spaced to correspond with the characters thereon, a series of characters corresponding with the vertical lines of perforations, and reversed in order relatively to the characters on the strips, a plate over the remaining portion of the bottom board, the said cover and setting board having a reading opening between them, and pins insertible in said perforations, said pins serving as stops to limit the fall of said weighted strips, whereby the characters corresponding to the characters of the pin locations or perforations will appear in said reading opening.

4. In combination, a bottom board, a series of weighted and longitudinally movable strips thereon, a cover plate over one portion of the board and a perforated setting plate over the other portion, said plates separated at their margins to form a reading space between them, each of said strips having a series of characters arranged thereon at regular intervals, the perforations in said perforated plate arranged in transverse and longitudinal rows, the said longitudinal rows of perforations registering with said weighted strips, and corresponding to said series of characters and pins adapted to be placed in said perforations in said perforated plate.

5. In a spelling board, a supporting plate, a cover plate and a setting board spaced from said supporting plate, said cover and setting board separated by a reading space, a series of parallel sliding strips in said board beneath said setting board, each of said strips provided with a series of characters spaced on its upper surface, guides separating said strips, said strips being weighted to fall between said guides, by gravity, means for limiting the movements of said strips to expose a linear row of characters in said reading space, and means for limiting the fall of the said strips when the blank spaces thereon are disclosed, in said reading space.

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1,094,571. HORSESHOE ICE-CREEPER. FRANK F. JACOBS, Indianapolis, Ind. Filed Jan. 28, 1914. Serial No. 815,023. (Cl. 168—30.)



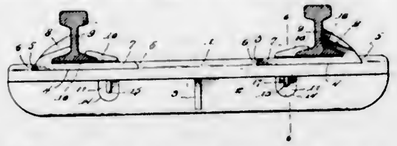
1. In an ice creeper for horseshoes, a pair of body-plates contacting with opposite members of the bottom of the shoe and extending approximately from toe to heel of the shoe, each plate having a plurality of bolt holes at different distances from the outer edge of the plate, removable calks in the heel and toe ends of said plates, an extension-plate from each body-plate in the direction of the other body-plate, one of said extension-plates overlapping the other, and both extension-plates having holes adapted to be brought into register in the two plates, a bolt through a registering pair of said holes, a tongue from each plate formed to contact with and contacting with the outer edge of the adjacent shoe member, a bolt through one of said bolt holes of each plate on the inside of the shoe, said bolts having heads which contact with the top of the shoe and supports for the bolt heads opposite the shoe supports comprising tongue extensions from the body-plates.

2. In an ice creeper for horseshoes, a pair of body-plates contacting with opposite members of the bottom of the shoe and extending approximately from toe to heel of the shoe, removable calks in the heel and toe ends of said plates, an extension-plate from each body-plate in the direction of the other body-plate, one of said extension-plates overlapping the other, and both extension-plates having holes adapted to be brought into register in the

two plates, a bolt through a registering pair of said holes, a tongue from each plate formed to contact with and contacting with the outer edge of the adjacent shoe member, said plates being widened between their heels and said extension-plates, said widened portions having a plurality of bolt-holes which holes are at different distances from the outer edges of the plates, a bolt through a hole in each plate on the inside of the shoe, said bolts having heads which contact with the top of the shoe and supports for the bolt-heads opposite their shoe supports comprising extensions from the body-plates.

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1,094,572. RAILWAY-TIE. ELI JARVIS, Faust, N. Y. Filed Nov. 27, 1912. Serial No. 733,877. (Cl. 238—5.)



1. A device of the character described including a rail-tie having cut-out portions formed therein upon the rail-engaging surface thereof, rail chairs adapted to be seated within the said cut-out portions, the said chairs and the said tie having openings formed therein, a rail-fastening member seated within the said openings, and means including a wedge adapted to extend transversely through the said member beneath the rail-engaging surface of the tie, as and for the purpose set forth.

2. A device of the character described including a rail-tie substantially T-shaped in cross section, the said tie being provided with cut-out portions formed within the rail-engaging surface thereof, the walls of the said cut-out portions being beveled throughout the entire width, rail chairs adapted to be seated within said cut-out portions, the faces of the said chairs being beveled to correspond with the beveled walls of the said cut-out portions, the said chairs and the said tie being further provided with registering openings formed at one side of the rail-engaging surface of the chair, a rail-fastening member seated within the said openings, and means including a wedge member adapted to extend transversely through the said fastening member to fasten the latter immovably with respect to the tie, as and for the purpose set forth.

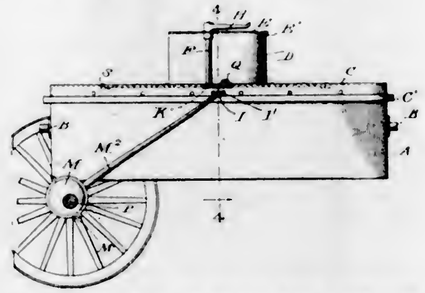
3. A device of the character described comprising a rail tie substantially T-shaped in cross section, a rail chair carried by said tie adapted to fit within cut-out portions formed upon the upper face thereof, a member projecting from one end of said chair adapted to overlap the base of a rail upon one side thereof, and a fastening member extending through said chair and a portion of said tie, the head of which is adapted to overlap the face of said rail upon the opposite side from the said first mentioned member, as and for the purpose set forth and described.

4. A device of the character described comprising a rail tie substantially T-shaped in cross section, a pair of rail chairs having angular faces adapted to fit within cut-out portions upon the upper face of said tie, and a member projecting from one end of said rail chair adapted to overlap one side of a rail base, of a fastening member comprising a head portion adapted to overlap the opposite side of said rail base and a depending portion adapted to extend through the said chair and upper rail portion for fastening the said chair and tie upon the rail, as and for the purpose set forth and described.

5. A device of the character described comprising a rail tie having an upper portion provided with an opening near each end thereof, a lower portion depending from said upper portion provided with openings in direct alinement with said first mentioned openings, rail chairs carried upon said rail tie and adapted to fit within cut-our portions provided for that purpose, and a member projecting from one end of and integral with each of said chairs adapted to overlap the base of a rail for holding the same thereupon, of a fastening member comprising a head portion adapted to overlap the base of said rail upon the opposite side from said chair member, a portion depending from said head portion adapted to pass through the said chair and through the said openings within the said head, and a wedge-shaped member extending transversely through the said depending member for holding the said fastening member in proper place, as and for the purpose set forth and described.

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1,094,573. GARBAGE-WAGON. ARTHUR JOHN JONES, Brookland, D. C., assignor, by direct and mesne assignments, to The Sanitary Wagon Co., a Corporation of Delaware. Filed Feb. 12, 1913. Serial No. 747,896. (Cl. 214—1.)



1. A garbage truck, the body of which constitutes a receptacle, a dome thereon, a swinging top to said dome, a vertical shaft to which said top is fixed, horizontally swinging gates mounted upon the top below said dome, and means for moving the same in opposite directions simultaneously with the movement of said top, as set forth.

2. A garbage truck, the body of which constitutes a receptacle, a dome thereon, a swinging top to said dome, a vertical shaft to which said top is fixed, horizontally swinging gates mounted upon the top below said dome, means for moving the same in opposite directions simultaneously with the movement of said top, and a curved flanged guide member fixed to the under surface of the top and engaged by the outer swinging ends of said gates, as set forth.

3. A garbage truck, the body of which constitutes a receptacle, a dome thereon, a swinging top to said dome, a vertical shaft to which said top is fixed, a stub shaft mounted upon the top, gates, each having an integral pinion wheel which intermesh, said pinion wheels being journaled upon said shafts, a handle fixed to one shaft and adapted to rock the latter, and a curved flanged guiding member fixed to the under surface of the top, as set forth.

4. A garbage receptacle with suitable top, a series of rock shafts mounted in said top, spreader members fixed to said shaft, an eccentric and wheel upon which the same is mounted, a strap about said eccentric, and a rod actuated by the eccentric and adapted to rock said shafts as the wheel rotates, as set forth.

5. A garbage receptacle with suitable top, a series of rock shafts mounted in said top, spreader members fixed to said shaft, an eccentric and wheel upon which the same is mounted, a strap about said eccentric, a rod passing through an aperture in the cover and having pivotal bar connections with said rock shaft, said rod adapted to be actuated by the eccentric for imparting a rocking movement to the various shafts, as set forth.

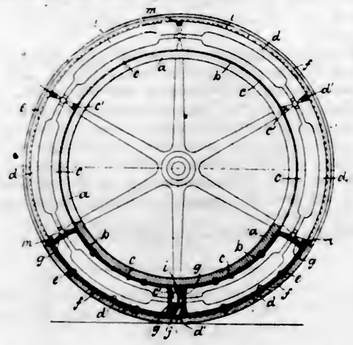
[Claim 6 not printed in the Gazette.]

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1,094,574. VEHICLE-WHEEL. EDWIN JONES, Greenfield, near Holywell, Wales. Filed Oct. 6, 1913. Serial No. 793,507. (Cl. 152—33.)

1. In a vehicle wheel, a felly rim, a tire rim arranged circumferentially of said felly rim, oblong receptacles carried by said felly rim, oblong receptacles carried by said tire rim and confronting the receptacles of said felly rim and coöperating therewith in supporting inflatable bags, cushions arranged at the inner sides of the end walls of said receptacles, and buffers arranged at the outer sides of the end walls of said receptacles and adapted to prevent circumferential displacement of the tire rim relatively to the felly rim.





2. In a vehicle wheel, a felly rim, a tire rim arranged circumferentially of said felly rim, a plurality of spaced oblong receptacles secured to said felly rim, a plurality of spaced oblong receptacles secured to said tire rim and confronting the receptacles of said felly rim, bags arranged in said receptacles, cushions arranged between the ends of said bags and the end walls of said receptacles, contacting buffers arranged between the end walls of said receptacles, and side plates held by said tire rim and adapted to inclose said receptacles.

3. In a vehicle wheel, a felly rim, a tire rim arranged circumferentially of said felly rim, a plurality of oblong receptacles secured to said felly rim, a plurality of oblong receptacles, secured to said tire rim and confronting the receptacles of said felly rim, inflatable bags housed by said receptacles, cushions arranged in said receptacles between the end walls thereof and the ends of said bags, buffers arranged between the ends of said receptacles and adapted to prevent circumferential displacement of said tire rim relatively to said felly rim, side plates engaging said tire rim and inclosing said receptacles, and means extending between the ends of said receptacles and connecting said side plates.

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1,094,575. SPECULUM. FRANKLIN COOPER JOUTRAS, Union Hill, N. J. Filed Feb. 6, 1913. Serial No. 746,530. (Cl. 128—24.)



1. A mouth gag comprising a pair of pivoted inter-engaging levers each having a lateral extension at one end for insertion between the jaws and with handles at their opposite ends adapted to separate the ends bearing the lateral extension, a pivot common to said levers, interengaging locking faces upon the levers adjacent to the pivot, a threaded lever engaging said pivot for forcing said interlocking faces into engagement and locking the levers in various positions of adjustment and an illuminator support adjustably arranged upon said pivot and means for locking said illuminator support against the locking lever of the jaws.

2. A mouth gag comprising a pair of pivoted interengaging levers, a pivot common to said levers, interlocking faces upon the levers, means for forcing said interlocking faces into engagement and locking the levers in various positions of adjustment, an illuminator support operatively arranged with reference to said levers, and having a limited universal adjustment with reference thereto and a lever mounted upon the pivot and adapted for locking and releasing actions with reference to the illuminator support.

3. In a device of the character described, a pair of pivoted levers interengaging serrations intermediate said levers, a pivot common to said levers, a rotatable locking device appurtenant to the levers and mounted upon the pivot, an illuminator support mounted upon the pivot and provided with a ball and socket connection with the locking device of the levers and means for locking said illuminator support in adjusted position upon the pivot.

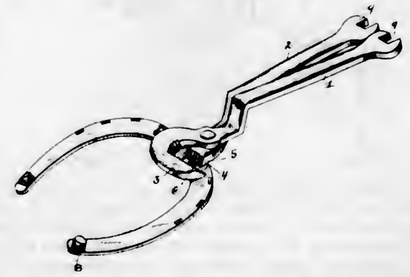
4. In a device of the character described, a pair of pivoted levers adapted for insertion between the jaws, interengaging locking means intermediate said levers, a locking lever for holding said locking means in engagement, said lever provided with a concaved seat, an illuminator supporting member having a convex boss seated within said concaved sent and provided with a concaved seat and a locking lever having a convex face engaging said seat.

5. In a device of the character described, a pair of pivoted levers adapted for insertion between the jaws, interengaging locking means intermediate said levers, a locking lever for holding said locking means in engagement, said lever provided with a concaved serrated seat, an illuminator supporting member having a convex serrated boss seated within said concaved serrated seat and provided with a concaved seat and a locking lever having a convex face engaging said seat.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,576. HORSESHOE-CALK REMOVER. ROLLEY R. KENNEDY, Mansfield, Ohio. Filed Mar. 11, 1913. Serial No. 753,511. (Cl. 81—80.)



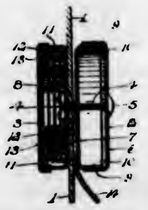
An implement for removing horseshoe calks comprising a pair of handles pivotally connected between their ends, one handle terminating in a laterally directed outer jaw having a toothed inner transverse face, the other handle terminating in an inner jaw having a toothed transverse end face of substantial width confronting the toothed face of said outer jaw, the said toothed faces being beveled and converging downwardly and also being inclined laterally relatively to one another, whereby their paths of movement converge outwardly.

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1,094,577. BAG-TIE FASTENER. JOHN H. KIRKLAND, St. Thomas, Ontario, Canada. Filed May 11, 1912. Serial No. 696,789. (Cl. 24—127.)

1. The combination with a bag, of a tie fastener comprising a member having a yieldable inner face adapted to confront the bag, a rivet extending through said mem-

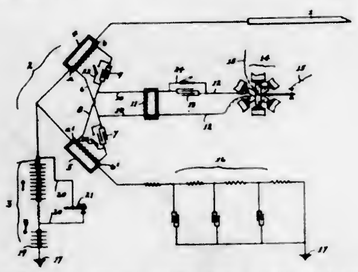
ber and having an end thereof clenched at the inner side of said bag, said member having a rigid periphery holding the edges of said yieldable face in spaced relation to said bag, and a cord having one end thereof connected to said rivet and adapted to be wound thereon whereby the yieldable face of said member is bulged by the convolutions or windings of said cord and said cord frictionally held against said bag.



2. In a bag tie fastener, the combination with a bag side, of a cylindrical hollow member connected to said bag side at the outer side thereof, said member having a rigid periphery spaced from said bag side and a concentric yieldable portion confronting said bag side, and a cord adapted to be wound between said bag side and a yieldable portion of said member whereby the yieldable portion of said member is forced within said member and said cord frictionally held between said bag side and the yieldable portion of said member.

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1,094,578. DUPLEX TELEGRAPHY. ISIDOR KITSEE, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y., a Corporation of New York. Filed Apr. 6, 1911, Serial No. 619,299. Renewed Jan. 13, 1914. Serial No. 811,904. (Cl. 178—48.)



1. Means to duplex lines with great capacity, said means comprising a bridge circuit, a resistance for each side of said bridge circuit, cross circuits connecting the two terminals of the resistance of one bridge side to the two terminals of the resistance of the second bridge side, an inductive resistance connected with one terminal to one of the cross circuits and with the second terminal to the second of the cross circuits, a shunt for said inductive resistance, a relay, said relay connected in said shunt circuit.

2. In a bridge for duplexing lines with great capacity, an inductive risistance for each side of said bridge, a condenser connecting one terminal of the resistance of one bridge side with the opposite terminal of the resistance of the second bridge side, a second condenser connecting the other terminal of the resistance of one bridge side with the opposite terminal of the resistance of the second bridge side.

3. In a duplexing bridge, an inductive resistance for each side of said bridge, two cross circuits, one cross circuit connecting the near terminal of the resistance of one bridge side to the far terminal of the resistance of the second bridge side and the second cross circuit connecting the near terminal of the resistance of the second bridge side to the far terminal of the resistance of the first bridge side.

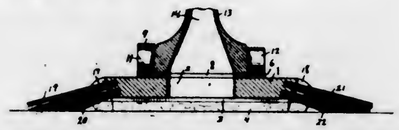
4. In duplex telegraphy, a bridge circuit, an inductive resistance in each side of said bridge circuit, two cross wires connecting crosswise the inductive resistances of both bridge sides, a shunt from said cross wires, the shunt connected with one terminal to one of said cross wires and with the other terminal to the second of said wires, an inductive resistance for said shunt, a second shunt, a condenser in said second shunt and a receiving device closing said shunt.

5. In duplex telegraphy, means to reduce the loss of the incoming impulses due to the bridge circuit, said means comprising inductive resistances inserted in the sides of the bridge circuits, two cross circuits connecting the two terminals of one inductive resistance to the two terminals of the other inductive resistance, a condenser in each of said cross circuits, a relay, a circuit for said relay, one terminal of said circuit connected to one of said cross circuits, the second terminal connected to the second of said cross circuits.

[Claim 6 not printed in the Gazette.]

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1,094,579. VACUUM CLEANING-TOOL. FRANK J. MATCHETTE, Milwaukee, Wis. Filed May 2, 1910. Serial No. 558,888. (Cl. 15—60.)



1. A vacuum cleaning tool comprising a body provided with a recess in a side thereof and a slot in open communication with said recess and bristles or brushes secured to the body of said tool above said slot and extending outwardly and downwardly through said recess and outside the body of said tool.

2. A vacuum cleaning tool comprising a body provided with an open-ended slot in the under face thereof in open communication with the atmosphere at the sides of the tool, said body being also provided with floor-contacting, sweeping members, the outer edges of which are obliquely disposed with respect to the normal directions of movements of the tool to sweep dust and dirt sidewise from in front of the tool to the sides of the tool.

3. The combination in a vacuum cleaning tool of a body member provided with recesses in the sides thereof and a slot in open communication with said recesses on the under face of the tool, bristles or brushes secured to the body member above said slot and extending outwardly and downwardly through said recesses and outside of the tool, and sweeping and polishing members secured to the said body member, the said body member and sweeping and polishing members having their outer edges obliquely disposed with respect to the normal directions of movements of the tool.

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1,094,580. RUBBER SUBSTITUTE. HERMAN MAYER, New York, N. Y. Filed Apr. 8, 1913. Serial No. 759,802. (Cl. 106—23.)

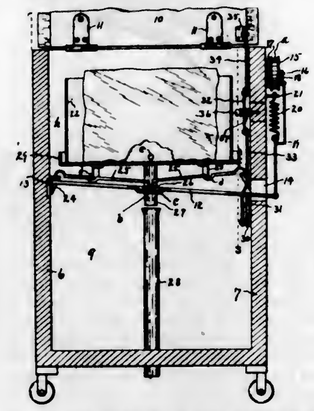
As a rubber substitute, an elastic resilient composition of matter of the character designated, formed of the following ingredients in substantially the proportions stated, viz:—castor oil, thirty-two per cent., cotton seed oil thirty-two per cent., formaldehyde three per cent., petrol oil twenty-one per cent., sulfur chlorid seven per cent., and magnesia five per cent.

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1,094,581. WEIGHING ATTACHMENT FOR ICE-BOXES. ORINDA ELIZABETH MCCUMBER, Omaha, Nebr. Filed Dec. 26, 1913. Serial No. 808,638. (Cl. 73—46.)

1. In weighing attachments for an ice box, the combination of a main lever disposed transversely of and fulcrumed in the box, a spring supported by the box and connected with said main lever; a disk provided with a projection and supported by the main lever; a plurality of secondary levers fulcrumed in the box and supported by the disk, a receptacle mounted on the secondary levers for moving said main lever and for causing a tension of the spring; an index adapted to be actuated by a movement of the main lever; a cam mounted upon the box, and means to move the cam into engagement with the main lever for relieving the tension of the spring.





2. In combination with an ice box having a movable lid, a main lever disposed transversely of and fulcrumed in the box, a spring supported by the box and connected with said main lever; a disk provided with a projection and supported by the main lever; a plurality of secondary levers fulcrumed in the box and supported by the disk; a receptacle mounted on the secondary levers for moving said main lever and for causing a tension of the spring; an index adapted to be actuated by a movement of the main lever; a cam mounted on the box; and an arrangement of links connected with the cam and said lid for moving the cam into engagement with the main lever by one of the movements of the lid for terminating the tension of the spring.

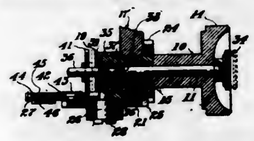
3. In combination with an ice box having an apertured wall and a movable lid, a main lever transversing the aperture of said wall and fulcrumed in the box, a spring supported by the box and connected with said main lever; a receptacle supported by said main lever for causing a tension of the spring; an index adapted to be actuated by a movement of the main lever; a cam mounted on the box; an arrangement of links connected with the cam and said lid for causing a rotatable movement of the cam by a movement of the lid, the operation being that said movement of the cam will cause a closure of a part of said aperture and will cause a movement of the main lever for terminating the tension of said spring.

4. In combination with an ice box having an apertured wall and a movable lid, a lever disposed in said aperture and fulcrumed in the box, a spring supported by the box and connected with the lever, a receptacle supported by the lever for causing a tension of the spring, and a cam adapted to be actuated by a movement of the lid for making a closure of a part of the aperture of said wall and for terminating the tension of the spring.

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1,094,582. STEM-WINDING AND STEM-SETTING MECHANISM. WALTER K. MENNS, Chelsea, Mass. Filed June 28, 1912. Serial No. 706,366. (Cl. 58—46.)

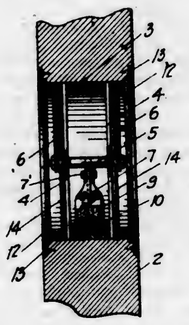
1. The combination with a case, of works within the case, a winding stem rotatably mounted in said case, a setting stem rotatably mounted in the winidng stem, means connecting said winding stem and works, a shaft provided with a socket having a pair of recesses, a pin projecting from said setting stem and engaging said recesses, a coiled spiral spring surrounding the shaft, and a gear on said shaft adapted to be brought into engagement with the works, substantially as described.



2. A clock comprising a winding stem, a sleeve mounted on the winding stem, a gear mounted on the sleeve and rotatable therewith, a setting stem rotatably and slidably mounted within said winding stem, a shaft provided with a socket for receiving the end of the setting stem, driving connections between said setting stem and socket, a gear on said shaft operatively related to the hands of the clock, and a spiral spring surrounding said shaft tending normally to maintain said shaft and gear in inoperative position, substantially as described.

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1,094,583. APPLIANCE FOR LEVELING INSTRUMENTS. ARNOLD J. MOONEN, Denver, Colo., assignor, by direct and mesne assignments, to The National Automatic Level and Instrument Company, a Corporation of Colorado. Filed Jan. 24, 1912. Serial No. 673,247. (Cl. 33—215.)



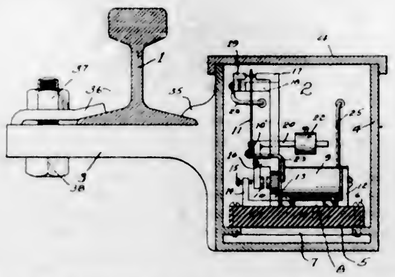
In a leveling instrument, a body having a bore, a casing in the bore, spiders in the bore at the casing ends, an arbor movably supported from said spiders, a pointer on the arbor, a dial plate through which one end of the arbor passes, a pointer on said end of the arbor, and a counterbalance for the pointer consisting of a vessel having a body of liquid therein, the vessel being formed in two parts received one within the other to have their adjacent inner edges overlap, the upper portions of said vessel parts being contracted to form a neck for the vessel, and a combined closure and suspending means for the vessel consisting of a cap received over the vessel neck and connected to the arbor.

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1,094,584. SIGNALING DEVICE. MARK S. MORSE, Oakland, Cal., assignor of two-fifths to J. R. Watson, Jr., Alameda, Cal. Filed May 11, 1912. Serial No. 696,697. (Cl. 246—35.)

1. The combination with an electrically operated signal system, of a device adapted to be vibrated by movement of rolling stock, including a stationary contact, a vibratable contact for coöperation therewith and normally spaced apart therefrom, electrically actuated means operatively connected with said second mentioned contact adapted to positively hold the same in contact with said

first mentioned contact when energized and conducting means between one of said contacts and said electrically actuated means, the other contact and the electrically actuated means being operatively connected in a circuit of said signal system in series with said first-mentioned contact and conducting means, substantially as and for the purpose set forth.



2. The combination with an electrically operated signal system, of a device adapted to be vibrated by movement of rolling stock, including a stationary contact, a vibratable contact for coöperation therewith and normally spaced apart therefrom, electrically actuated means operatively connected with said second mentioned contact adapted to positively hold the same in contact with said first mentioned contact when energized, conducting means between one of said contacts and said electrically actuated means, mechanism for adjusting the sensitiveness to vibrations of said second mentioned contact, the other contact and said electrically actuated means being operatively connected in a circuit of said signal system in series with said first mentioned contact and conducting means, substantially as and for the purpose set forth.

3. A signal system comprising in combination, a stationary contact, a vibratable contact for coöperation therewith and normally spaced apart therefrom, electrically actuated means operatively connected to said second mentioned contact adapted to hold the same in engagement with said first mentioned contact, conducting means between one of said contacts and said electrically actuated means, an electric generator, conducting means operatively connecting said generator with said first mentioned contact and electrically actuated means, a switch disposed in said second mentioned conducting means, an electro-magnet disposed in said second mentioned conducting means, switching means operated by said electro-magnet, and a signal circuit operatively connected to said switching means, substantially as and for the purpose set forth.

4. The combination with an electrically operated signal system, of a device adapted to be vibrated by movement of rolling stock, including an electro-magnet, a movable armature therefor, a vibratable arm carried by and insulated from said armature, and electrically connected with said electro-magnet, a contact normally spaced apart from said vibratable arm but in proximity thereto, to be engaged by said arm when vibrated, the relative positioning of said armature, vibratable arm and contact being such that the latter two are held in engaging relation when said armature is under the influence of said electro-magnet, and means operatively connecting said contact and electro-magnet with the signal system.

5. The combination with an electrically operated signal system, of a device adapted to be vibrated by movement of rolling stock, including an electro-magnet, a movable armature therefor, a vibratable arm carried by and insulated from said armature, and electrically connected with said electro-magnet, means for adjusting the sensitiveness to vibration of said arm, a contact normally spaced apart from said vibratable arm but in proximity thereto, to be engaged by said arm when vibrated, the relative positioning of said armature, vibratable arm and contact being such that the latter two are held in engaging relation when said armature is under the influence of said electro-magnet, and means operatively connecting said contact and electro-magnet with the signal system.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,585. ARCH AND ANKLE SUPPORT. EDWARD J. MOUNTAIN, New York, N. Y. Filed Mar. 7, 1912. Serial No. 682,107. (Cl. 36—71.)



1. In a boot or shoe, a stiff yet resilient supporting plate, the said plate being arched upwardly longitudinally to conform to the normal arch of the foot, the upper surface of the anterior portion of the plate being convex from side to side, and the upper surface of the posterior portion concave from side to side.

2. In a boot or shoe, a stiff yet resilient supporting plate, the said plate being arched longitudinally to conform to the normal arch of the foot, the upper surface of the anterior portion of the plate being convex from side to side, and the upper surface of the posterior portion concave from side to side, the inner edge of the plate being concave and the outer approximately straight and of lesser length than the inner edge, the longitudinal arch being greatest at the inner side of the plate.

3. A stiff yet resilient supporting plate for use with a boot or shoe, the said plate being arched upwardly longitudinally, the said arch being of greater height at its inner edge to cause the upper surface of the plate to face upwardly and outwardly to conform to the normal arch of the foot, the inner edge of the plate being concave and the outer approximating to the corresponding side of the shoe sole and of lesser length than the inner edge, the upper surface of the anterior portion of the plate being convex from side to side, and the upper surface of the posterior portion concave from side to side.

4. In a boot or shoe, a stiff yet resilient supporting plate arched upwardly longitudinally, the arch on the inside edge having shorter radii than the arch on the outer edge, and said plate having its anterior portion arched upwardly transversely, and its posterior portion arched downwardly transversely.

5. A stiff yet resilient supporting plate for use with a boot or shoe, having a longitudinal arch, the outer edge being arched on greater radii than the inner edge, and having reverse transverse curvatures, the upper surface of the anterior portion being convex and the upper surface of the posterior portion being concave.

[Claims 6 to 8 not printed in the Gazette.]

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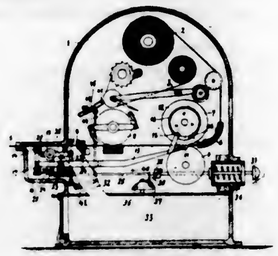
1,094,586. CASH-CONTROLLING APPARATUS. FRIEDRICH MÜLLER, Bochum, Germany, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed July 26, 1910. Serial No. 573,953. (Cl. 235—3.)

1. In a machine of the class described, the combination with a check marking mechanism, and means preventing an operation of said mechanism while a previously marked check marked by the marking mechanism is allowed to remain in the machine.

2. In a machine of the class described, the combination with a check marking mechanism, of a check receiver for receiving a check when marked by the mechanism, and means for preventing an operation of said marking mechanism when a marked check is in the receiver.

3. In a machine of the class described, the combination with a check issuing mechanism, of a check receiver for receiving an issued check, and means for withdrawing the check from the receiver and depositing said check within the machine.





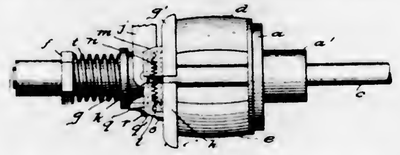
4. In a machine of the class described, the combination with a check issuing mechanism, of a check receiver for receiving an issued check, means for withdrawing the check from the receiver to deposit the same within the mechanism, and means for making a record of the withdrawal of the check.

5. In a machine of the class described, the combination with means for printing and issuing a check, of a check receiver for receiving the issued check, and means cooperating with said receiver for preventing a subsequent operation of the check means while the issued check is allowed to remain in the receiver.

[Claims 6 to 24 not printed in the Gazette.]

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1,094,587. COUNTER-GUARD FOR HEEL-TRIMMING MACHINES. WILLIAM J. NOON, Lynn, Mass. Filed July 27, 1912. Serial No. 711,816. (Cl. 12—90.)



1. The combination with a heel trimmer of a counter guard mounted adjacent to one end of the trimmer in constant readiness for moving axially thereof with yieldingly resisted motion, and including two members, one of which is adjustable relatively to the other toward and from the axis of the trimmer, and means for so adjusting said member.

2. The combination with a heel trimming cutter, of a counter guard mounted slidingly upon the hub of the cutter, and including a plate and a cam for adjusting said plate in and out with respect to the axis of the cutter.

3. In combination with a heel trimming cutter including a hub, a counter guard consisting in part of a sleeve mounted slidingly upon said hub so as to be movable longitudinally of the axis of the cutter, and including also a plate, means affording a sliding connection between said plate and sleeve extending transversely of the axis of the cutter, and an adjusting device arranged to move said plate along said guiding means.

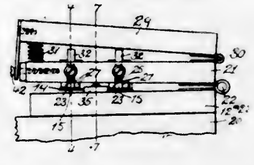
4. A counter guard comprising a main portion, a laterally projecting portion, complemental slides and guides connected with said main portion and laterally extending portion, respectively, and so arranged as to permit the latter to move in and out with respect to the former, and means for securing said laterally extending portion in various positions of lateral adjustment with respect to the main portion.

5. A counter guard comprising a sleeve, a plate extending transversely of said sleeve, means connecting said plate slidingly to the sleeve extending in a direction such as to permit the plate to move toward and from the sleeve, and a cam mounted upon the sleeve with provisions for adjustment thereon, and having engagement with a part of the plate.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,588. MACHINE FOR ASSEMBLING PARTS OF SHOE-ORNAMENTS, &c. SIMON O'BRIEN, Lynn, Mass., assignor to Charles S. Clinch, Lynn, Mass. Filed Mar. 31, 1913. Serial No. 757,802. (Cl. 1—4.)



1. A fastener setting machine comprising a work supporting anvil, a carrier movable toward and away from said anvil, pivoted clenching hammers supported by said carrier, a striker pivotally connected with said carrier, means for transmitting pressure from said striker to said carrier to press the fastener through the material to be united, and means actuated by the movement of said striker toward said carrier for operating said clenching hammers.

2. A fastener setting machine comprising a work supporting anvil, a carrier movable toward and away from said anvil, pivoted clenching hammers supported by said carrier, pressing bars also supported by said carrier, a striker, means for transmitting pressure from said striker to said carrier to cause the pressing bars to force the fastener through the material to be united, and means actuated by the movement of said striker toward said carrier for operating said clenching hammers.

3. A fastener setting machine comprising a work supporting anvil, a carrier movable toward and away from said anvil, pivoted clenching hammers supported by said carrier, spaced pressing bars, said clenching hammers being located between said pressing bars, a striker pivotally connected with said carrier, means for transmitting pressure from said striker to said carrier to cause the pressing bars to force the fastener through the material to be united, and means actuated by the movement of said striker toward said carrier for operating said clenching hammers.

4. A fastener setting machine comprising a work supporting anvil, a carrier movable toward and away from said anvil, pivoted clenching hammers supported by said carrier, a striker pivotally connected with said carrier, a spring interposed between said striker and said carrier for yieldingly transmitting pressure to the carrier to press the fastener through the material to be united, means for limiting the separating movement of said striker and said carrier, and means operated by the movement of the striker toward said carrier for operating the clenching hammers.

5. A fastener setting machine comprising a work supporting anvil, a carrier movable toward and away from said anvil, pivoted clenching hammers supported by said carrier, a striker pivotally connected with said carrier, a spring interposed between said striker and said carrier for yieldingly transmitting pressure to the carrier to force the fastener through the material to be united, a slotted ear secured to said striker, a stop secured to the carrier and coöperating with said ear, and means actuated by the movement of the striker toward the carrier for operating said clenching hammers.

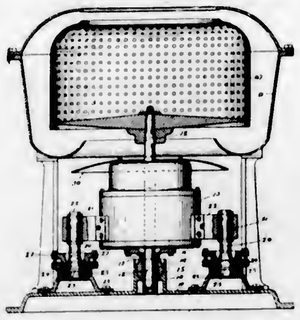
[Claims 6 to 9 not printed in the Gazette.]

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1,094,589. CENTRIFUGAL EXTRACTOR. EDWARD F. POLAND, Boston, Mass. Filed Feb. 16, 1911. Serial No. 608,937. (Cl. 64—48.)

In an electrically operated centrifugal extractor, the combination of a receptacle, an electric-motor arranged in

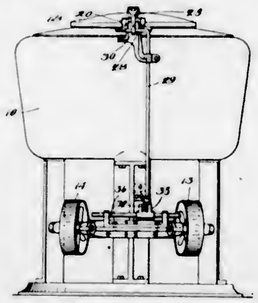
vertical position, to the upper end of the shaft of which motor said receptacle is secured, a spherical boss detachably connected to the lower end of the motor-case having a center-hole through it, a stationarily supported spherical step-bearing for said boss, a flanged socket contained in the center hole in the boss which extends below the boss and receives the lower end of the motor-shaft whereby the motor-case is caused to oscillate to correspond with the



gyrations of said shaft, one or more arms rigidly attached to the lower end portion of the motor-case and radially extended therefrom, each arm having a vertical hole through its outer-end portions, a sleeve arranged in said hole, an upright shaft arranged in said sleeve in parallel relation with the motor shaft and a yielding element connected with the lower end of said upright shaft which admits of an oscillating movement of said shaft in all directions, substantially as described.

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1,094,590. HYDRO-EXTRACTOR. EDWARD F. POLAND, Boston, Mass. Filed June 12, 1913. Serial No. 773,211. (Cl. 127—3.)



1. In a hydro-extractor having a belt-drive, a pivotally supported closing-lid for the receptacle containing the basket, a trig slidably supported for engagement with and disengagement from the belt-pulley, and means connecting said trig with the closing-lid whereby the trig is slid upon movement of the lid, substantially as described.

2. In a hydro-extractor having a belt-drive, pivotally supported closing-lid for the receptacle containing the basket, a bar slidably supported at the side of the belt-pulley and movable into and out of an opening in said pulley, and means connecting said bar with the closing-lid whereby it is moved longitudinally upon movement of said lid, substantially as described.

3. In a hydro-extractor having a belt-drive, a closing-lid for the receptacle containing the basket, pivotally supported thereon and arranged for movement up and down, a link loosely connected with said lid and movable longitudinally upon movement thereof, an upright rod adapted for oscillation, having a short arm at its upper end which is loosely connected with said link and having a short arm at its lower end, and a slidably supported trig arranged adjacent the belt-pulley and adapted to engage and disengage said pulley, said trig having means for operatively connecting it with said last-named short arm, substantially as described.

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1,094,591. AUTOMATIC CONTROLLING MEANS FOR REVERSING COMBUSTION-ENGINES. LEON J. LE PONTOIS, New Rochelle, N. Y., assignor of one-half to Benjamin Hurd, Nutley, N. J. Filed Nov. 25, 1908. Serial No. 464,365. (Cl. 123—41.)



1. In combination with the shaft of a combustion engine, of ignition means and an ignition circuit therefor, said ignition circuit comprising a contact element carried by said shaft, a contact terminal adapted to be engaged by said element upon the rotation of said shaft to effect the closure of said ignition circuit, means for adjustably mounting said contact terminal to vary the time of sparking, and means for automatically preserving said operative relation of said contact element to said contact terminal independently of the direction of rotation of said shaft.

2. In combination with the shaft of a combustion engine, of ignition means and circuit connections therefor, said circuit connections comprising a contact element carried and rotated by said shaft, a contact terminal adapted to be engaged by said contact element upon the rotation of said shaft to effect the closure of said ignition circuit connections, and means for automatically preserving said operative relation of said contact element to said contact terminal independently of the direction of rotation of said shaft.

3. In combination with the shaft of a combustion engine, of ignition means and circuit connections therefor, said circuit connections comprising a contact element insulatedly carried and rotated by said shaft, a contact terminal adapted to be engaged by said contact element upon the rotation of said shaft to effect the closure of said ignition circuit connections, means for adjustably mounting said contact terminal to vary the time of ignition, and means for automatically preserving said operative relation of said contact element to said contact terminal independently of the direction of rotation of said shaft.

4. In combination with the shaft of a combustion engine, of ignition means and circuit connections therefor, said circuit connections comprising a contact element carried and rotated by said shaft, a contact terminal adapted to be engaged by said contact element upon the rotation thereof to effect the closure of said ignition circuit connections, and means for automatically preserving said operative relation of said contact element to said contact terminal independently of the direction of rotation of said shaft, said means comprising a second contact element loosely carried by said shaft and a second contact terminal adapted to be brought into contact with said second contact element.

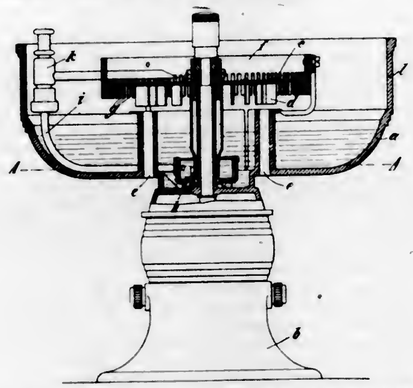
5. In combination with the ignition means of a combustion engine and circuit connections therefor, of controlling means comprising a shaft adapted to be driven by said engine, a device movable independently of and about said shaft for interrupting said ignition circuit, said device comprising a terminal connected to said circuit, and means for reëstablishing said ignition circuit driven automatically by the re-bound of said combustion engine, said last named means comprising a contact element adapted to be moved by said shaft into engagement with said contact terminal.

[Claims 6 to 24 not printed in the Gazette.]



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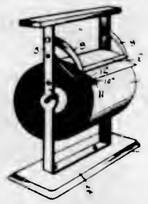
1,094,592. AIR-MOISTENING APPARATUS. CARL HEINRICH PRÖTT, Rheydt, Germany. Filed Oct. 10, 1911. Serial No. 653,857. (Cl. 98—41.)



In combination with a rotating spraying disk, and vanes for air suction arranged in the path of the spray, means for atomizing the latter, a vessel arranged below said disk and containing the entire supply of water therefor, means for raising water to the top of said disk and air tubes passing up through the bottom of the said vessel and through the volume of water contained therein and subject to the suction of said vanes, the whole constituting a compact, portable, air-moistening apparatus.

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1,094,593. PAPER-LIFTING DEVICE. JOHN W. REED, Mulberry, Ind. Filed Mar. 12, 1913. Serial No. 753,873. (Cl. 211—32.)

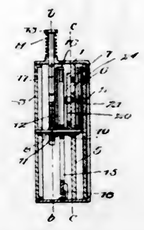


The herein described paper lifting device, comprising a roll holder adapted to contain a roll of material, a pair of downwardly curved supporting arms pivoted to said holder, a cutting knife between the lower end of said arms and secured thereto, and an arm pivoted to said holder below one of said downwardly curved arms, and a deflecting finger secured to last said arm and projecting inwardly from the outer end thereof, said finger lying wholly beyond said knife and adapted to engage the surface of said roll beyond said knife.

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1,094,594. CALCULATOR. HENRY H. RICH, Rochester, N. Y. Filed July 17, 1912. Serial No. 709,909. (Cl. 235—77.)

1. A calculator comprising a continuous scale, two indexes movable thereover, one of said indexes being movable in opposite directions and the other being movable in one direction only, an operating member for the first named index, movable in opposite directions, and means causing both indexes to move in one direction with the operating member and releasing one of the indexes, when the other index is moved in the other direction by the operating member.



2. A calculator comprising a continuous scale having a zero point, a pair of pointers mounted to turn about a common axis over said scale, an operating member for moving one of said pointers in either of two directions, a device for causing the other pointer to move with the first named pointer when the latter is moved in one direction, a device for preventing the movement of the second named pointer when the first named pointer is moved in the other direction, and a stop for limiting the independent return movement of the first named pointer to zero on the scale.

3. A calculator comprising a casing, a scale carried thereby, a hollow shaft mounted to turn in the casing and having a pointer thereon movable over the scale, a second named shaft arranged in the hollow shaft and having a pointer thereon also movable over the scale, a clutch connection between the hollow shaft the other shaft causing them to move together in one direction but permitting one of them to turn free of the other in the other direction, an operating member connected to one of the shafts to move the latter in opposite directions, and means for holding the other shaft against rotation when the operating member is reversed.

4. A calculator comprising a circular scale, a suitably mounted hollow shaft having a pointer movable over said scale, a shaft arranged in the hollow shaft and having a pointer also movable over the scale, a clutch connection between the shafts causing both to move together in one direction but permitting one to move independently of the other in the other direction, an operating member connected to the independently movable shaft to move the latter in opposite directions, and means preventing the rotation of the other shaft except when the two shafts are moved together.

5. A calculator comprising a continuous scale having a zero position, two pointers movable about a common center over said scale, an operating member connected to one of the pointers to move the said pointer in opposite direction, a clutch connection between the pointers causing them to move together when the operating member is moved in one direction but permitting the pointer, to which the operating member is connected, to move in the other direction independently of the other pointer, and a spring connected to the operating member for moving, to zero position, the pointer to which the operating member is connected.

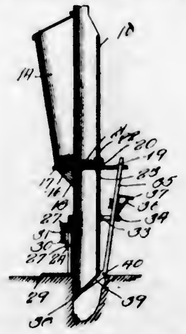
[Claims 6 and 7 not printed in the Gazette.]

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1,094,595. HAND-PLANTER. JOHN W. RIORDAN, Beaver Crossing, Nebr. Filed Feb. 27, 1913. Serial No. 751,100. (Cl. 111—22.)

In a hand planter, a shoe having a tapered discharge end, a seed box carried by the shoe, a valve plate slidable through the shoe and beneath the box, said plate having an opening therethrough, a lever connected to the plate, a plunger slidably carried by the shoe and operating in conjunction with the lever when the shoe is forced into the ground to shift the lever and the valve plate to move the opening to a receiving position, a plate carried by the

lever inclosing the discharge end of the shoe, means operating in conjunction with the valve plate to normally



hold the valve plate with its opening in a discharged position and means normally lowering the plunger.

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1,094,596. TIME-BURNING RAILWAY SIGNAL-FUSEE. LOUIS S. ROSS, Newtonville, Mass., assignor to Central Railway Signal Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed June 27, 1912. Serial No. 706,231. (Cl. 52—6.)

1. A time burning railway signal fusee comprising a metallic nitrate, carbonaceous material, devoid of oxygen, sulfur, perchlorate, and a small quantity of chlorate not exceeding substantially five per cent. of the entire composition, thereby producing a time burning, railway signal fusee compound burning with brilliancy, tenacity and force of flame and not liable to spontaneous ignition or combustion.

2. A time burning railway signal fusee including sulfur, perchlorate, carbonaceous material devoid of oxygen and a small quantity of chlorate not exceeding substantially five per cent. of the entire composition, thereby producing a time burning, railway signal fusee compound burning with brilliancy, tenacity and force of flame and not liable to spontaneous ignition or combustion.

3. A time burning railway signal fusee comprising a metallic nitrate, carbonaceous material devoid of oxygen, sulfur, perchlorate of potassium, and a small quantity of chlorate of potassium not exceeding substantially five per cent. of the entire composition, thereby producing a time burning, railway signal fusee compound burning with brilliancy, tenacity and force of flame and not liable to spontaneous ignition or combustion.

4. A time burning railway signal fusee comprising a metallic nitrate, carbonaceous material devoid of oxygen, sulfur, perchlorate, and a quantity of chlorate less than the said perchlorate, thereby producing a time burning, railway signal fusee compound burning with brilliancy, tenacity and force of flame and not liable to spontaneous ignition or combustion.

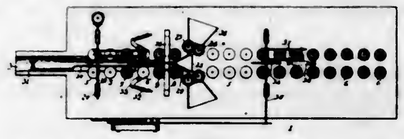
5. A time burning railway signal fusee comprising a metallic nitrate, sulfur, hydrocarbon, carbon, perchlorate of potassium, and a small quantity of chlorate of potassium not exceeding substantially five per cent. of the entire composition, thereby producing a time burning, railway signal fusee compound burning with brilliancy, tenacity and force of flame and not liable to spontaneous ignition or combustion.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,597. MACHINE FOR SKINNING FISH. ELLSWORTH T. RUNDLETT, Portland, Me. Filed Mar. 8, 1913. Serial No. 752,998. (Cl. 17—10.)

1. In a machine for skinning fish, the combination of feeding means for advancing the fish, cutters for forming a longitudinal incision each side of the dorsal and anal fins, a spreader for deflecting the nape from the line of motion of the fish and a pair of skinning rolls on each side of and adjacent to said spreader for seizing and removing the nape and attached skin.



2. In a machine for skinning fish, the combination of feeding means for advancing the fish, cutters for forming longitudinal incisions in the back, a spreader for deflecting the nape from the line of motion of the fish and a pair of skinning rolls on each side of and adjacent to the nape for seizing and removing the nape and attached skin.

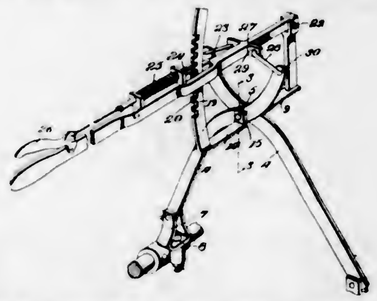
3. In a machine for skinning fish, the combination of a series of feed rolls for advancing the fish, rotary cutters for forming longitudinal incisions at the sides of the dorsal and anal fins, a spreader having diverging side pieces for deflecting the nape out of the line of motion of the fish and a pair of skinning rolls on each side of and adjacent to said spreader for seizing and removing the nape and attached skin.

4. In a machine for skinning fish, the combination of a series of feed rolls for advancing the fish, means for forming longitudinal incisions at each side of the dorsal and anal fins, a longitudinal guide adapted to bear on the fish between the napes on its passage through the rolls, a sprender at the end of said guide for deflecting the nape laterally, and skinning rolls adjacent to said spreader for seizing and removing the nape and attached skin.

5. In a machine for skinning fish, the combination of feeding means for advancing the fish, cutters for forming a longitudinal incision, each side of the dorsal and anal fins, a pair of skinning rolls and a spreader having a guide positioned to direct the nape into the angle between the rolls.

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1,094,598. HOBBLE-ARCH FOR CULTIVATORS. ROBERT P. RUTLEDGE, RANDSOME G. BOLAND, and JOHN A. DEVAULT, Scranton, Tex. Filed Sept. 25, 1912. Serial No. 722,355. (Cl. 97—35.)



1. The combination with the relatively adjustable beams of a cultivator, of crossed pivot legs connected to and supported by the beams, brackets arranged in front and in rear of the legs and each having an attaching ear through which passes the pivot for the legs, the said pivot constituting the support for the brackets, the forwardly extending bracket having an upwardly extending arm and the rarwardly extending bracket being provided with an upwardly and forwardly curved rack, a lever pivoted at the upper end of the said arm and extending between the upper ends of the legs and having a slot receiving the said rack, the lever between the legs being provided with laterally projecting ears, links pivoted to the ears and to the upper ends of the said legs, a pawl slidably mounted upon the lever and arranged for coöperation with the said rack, and means for moving the pawl.



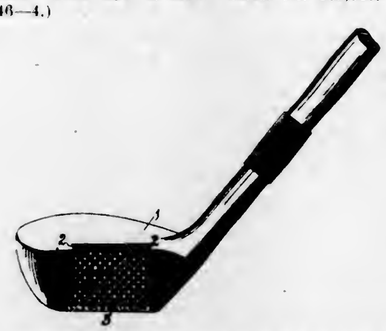
2. The combination with the relatively adjustable beams of a cultivator, of crossed legs pivotally connected intermediate their length, a pair of substantially L-shaped brackets, apertured ears formed on the horizontal portions of the brackets and adapted to receive the pivots of the legs, the vertical portion of the rearward bracket being toothed to serve as a rack-bar, an adjusting lever for the legs, said lever having its forward terminal pivoted to the vertical portion of the forward L-shaped bracket, a yoke formed integrally with the lever and adapted to receive the rack-bar, means carried by the lever and coacting with the rack bar for holding the lever in adjusted position, and a pair of link members conecting the upper terminals of the legs to the lever at a point approximately midway betwen the terminal of the lever and the yoke.

3. The combination with the relatively adjustable beams of a cultivator, of cross legs pivotally connected intermediate their length, a pair of L-shaped brackets constituting a pivotal frame for the legs, a lever pivoted to the vertical portion of the forward bracket, links connecting the lever intermediate its length with the upper terminals of the legs, rack-bar teeth formed in the vertical portion of the rear bracket, and a spring-pressed locking pawl carried by the lever and engaging with the teeth of the rear bracket for holding the legs in adjusted position.

4. The combination with the relatively adjustable beams of a cultivator, a pair of cross legs pivotally connected intermediate their length, a pair of L-shaped brackets constituting a substantially U-shaped pivotal frame for the legs, an adjusting lever pivotally connected to one of the brackets and freely connected intermediate its length to the upper terminals of the legs, and a spring-pressed locking pawl carried by the lever and engageable with rack-bar teeth formed in the other of said brackets, whereby the legs may be held in adjusted position.

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1,094,599. GOLF-CLUB AND OTHER SPORTING IMPLEMENT. PHILIP EDWARD SAMSON, London, England. Filed Apr. 8, 1912. Serial No. 689,340. (Cl. 46—4.)



1. Improvements relating to golf clubs and other sporting implements comprising a resilient facing for the striking portion of the same, said facing consisting of a solidly woven fabric of intertwined strands.

2. Improvements relating to golf clubs and other sporting implements comprising a resilient facing for the striking portion of the same, said facing consisting of a solidly woven fabric of intertwined strands of suitable material saturated with a waterproof binding substance.

3. Improvements relating to golf clubs and other sporting implements comprising a resilient facing for the striking portion of the same, said facing consisting of a coarse fabric of intertwined strands.

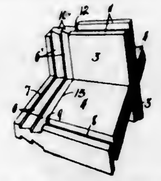
4. An improved golf club or like implement having a resilient striking portion formed to present a surface of elevated and raised portions of a checkered configuration, substantially as described.

5. A golf club having as its striking surface a facing consisting of a material comprising closely woven absorbent strands impregnated with a waterproofing filler.

[Claim 6 not printed in the Gazette.]

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1,094,600. MAUSOLEUM CONSTRUCTION. FREDERICK C. SCHAEKEL, Toledo, Ohio, assignor of one-half to Herbert J. Chittenden, Toledo, Ohio. Filed Sept. 8, 1913. Serial No. 788,644. (Cl. 72—7.)



1. In a structure of the class described, a plurality of slabs built up to form cells, the side, floor and ceiling slabs having double tongue and groove interlocking joints extending longitudinally thereof and having transversely extending interlocking portions at one end thereof which having a damming action with respect to the tongue and groove connections.

2. In a structure of the class described, a plurality of slabs built up to form cells, the side and floor slabs having tapered interengaging portions at their ends and having multiple tongue and groove connection extending at an angle from said tapered portions, said tapered portions having walls which intercept the free passage of liquid lengthwise through the tongue and groove joints.

3. In a structure of the class described, a plurality of slabs built up to form cells, the floor slabs having transversely disposed tapered groves at at least one end thereof and having longitudinal grooves adjacent to its side edges, and side slabs having an edge surface adjacent to one end complemental to said transverse grooves to interengage therewith and having longitudinally disposed tongues for fitting into longitudinal grooves of adjoining floor slabs to unite such slabs, said tapered grooves having walls which stand across the longitudinal grooves to dam the same.

4. A cellular structure of the class described built up of slabs, with two floor slabs forming an abutting joint between adjoining cells and with the side wall slab between such cells provided at its lower edge with transversely spaced longitudinally extending tongues for interengaging with the floor slabs, one at either side of abutting edges thereof, to prevent a separation of the joints, said floor and side slabs having transversely disposed interengaging portions forming shoulders which stand in the plane of and intercept the longitudinally-extending interengaging portions to prevent the seepage of liquid therefrom and relative lengthwise movements of the interengaging slabs.

5. A cellular structure of the class described built up of slabs, with two floor slabs forming an abutting joint between adjoining cells and the side wall slab between such cells provided at its lower edge with transversely spaced longitudinally-extending tongues for interengaging with the floor slabs, one at either side of the abutting edges thereof to prevent a separation of the joint, said floor slabs having adjacent ends thereof formed with longitudinally-registering transversely-disposed grooves, the bottoms of which taper outwardly to form successive shoulders which intercept and form dams across the portions of the floor slabs with which said tongues interengage and the side slab having edge portions complemental to the transversely grooved portion of the adjoining floor slabs for interengaging therewith.

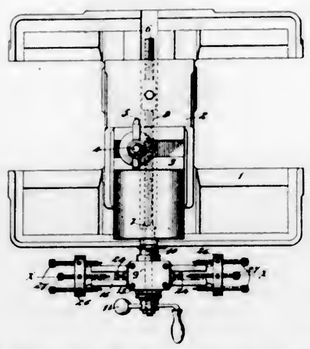
[Claims 6 to 8 not printed in the Gazette.]

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1,094,601. DIAMETER-STOP FOR MACHINE-TOOLS. WILLIAM SCHELLENBACH, Wyoming, Ohio. Filed July 1, 1913. Serial No. 776,759. (Cl. 82—24.)

1. In a device of the nature disclosed, a tool-holder, a feed-screw therefor, a non-rotatable feed-screw driven-member, and means to be engaged by said non-rotatable member for locking the screw against rotation at a predetermined position of the tool-holder.

2. In a device of the nature disclosed, a tool-holder, a feed-screw therefor, a member non-rotatably reciprocated by the screw independent of the tool-holder, and engaging means for said non-rotatable member to lock said screw against rotation at a predetermined position of the tool-holder.



3. In a device of the nature disclosed, a feed-screw therefor, a first member driven by the screw, a second member non-rotatably reciprocated by the screw transversely thereto, and a stop for said non-rotatable member to lock the screw against rotation at a predetermined position of the first member.

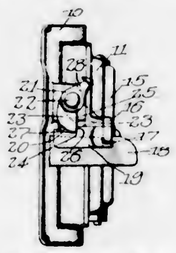
4. In a device of the nature disclosed, a rotary shaft, a first member reciprocated by the shaft longitudinally thereof, a second member non-rotatably reciprocated by the shaft transversely thereto, and a stop for said non-rotatable member arresting the rotation of the shaft at a predetermined longitudinal position of the first member.

5. In a device of the nature disclosed, a hand-operated rotary shaft, a first member longitudinally adjusted on and by the shaft, a non-rotatable member transversely reciprocated by the shaft to corresponding positions relative to the first member, and a plurality of stops adjustable in the motion path of the non-rotatable member arresting the rotation of the shaft at predetermined positions of the first member.

[Claims 6 to 41 not printed in the Gazette.]

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1,094,602. SELF-LOCKING LATCH. EDWARD A. SCHREIBER, Chicago, Ill., assignor to Chicago Car Heating Company, Chicago, Ill., a Corporation of Illinois. Filed July 30, 1912. Serial No. 712,336. (Cl. 70—44.)



1. The combination with a latch bar, of a reversible locking dog movable in a plane transverse to the plane of the latch bar which in one position locks the latch bar and in the other position engages the latch bar so as to be raised thereby.

2. The combination with a latch bar formed with a notch, of a pivoted reversible locking dog having a nose adapted to engage said notch and with a cam face which is in position to be engaged by the latch bar when the dog is turned over upon its pivot.

3. The combination with a latch bar having an angular projection formed with a notch, of a pivoted locking dog formed with a nose adapted to engage said notch and with a cam face which is in position to be engaged by the latch bar when the dog is turned over upon its pivot.

4. The combination with a latch bar formed so as to provide a substantially vertical shoulder, of a pivoted dog weighted at one end and said end formed with a flat surface adapted to engage said shoulder and a curved cam surface adapted to engage the latch bar when the dog is turned on its pivot.

5. The combination with a latch bar, of a gravity dog pivoted to swing transversely to the plane of said bar, and a projecting member on the inner face of the latch bar which engages said dog and swings the same on its pivot, said dog and bar formed with coengaging locking means which operatively engage when the latch is in closed position.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,603. UNIVERSAL JOINT. WALTER SCOTT, Sheridan, Wyo. Filed Apr. 28, 1913. Serial No. 764,230. (Cl. 74—19.)



1. A device of the class described including a shaft having a cylindrical shell formed on one end, ribs formed within said shell, a second shaft having a head, ribs formed on said head and adapted to engage with the first ribs, a securing plate mounted on the first shaft and having an annular recess therein, a ring encircling the second shaft and arranged within said recess, the periphery of said ring engaging the peripheral wall of the recess to limit the swinging movement of the second shaft and prevent the same from engaging the walls of the central opening within the securing plate.

2. The combination of a shaft having a cylindrical shell formed on one end, internally projecting ribs formed in said shell, a second shaft having an annular head formed on one end and adapted to be inserted within said shell, external ribs formed on said annular head and adapted to engage the ribs within the shell, a washer plate mounted upon the first shaft, a securing plate provided with a central opening of a diameter larger than the second shaft, screw bolts passing through the securing plate and the washer plate and engaging with the shell to securely retain the head within the shell, said securing plate being provided with an annular recess and a ring encircling the second shaft and arranged within said annular recess, the periphery of said ring engaging the peripheral wall of the recess to limit the swinging movement of the second shaft and prevent the same from engaging the walls of the central opening in the securing plate.

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1,094,604. POTATO-CUTTER. JAMES K. SHIBATA, Chicago, Ill. Filed Aug. 21, 1913. Serial No. 785,900. (Cl. 146—11.)

A vegetable cutter comprising a grating composed of two sets of fashioning knives, the knives of one set being parallel to each other and transverse to the knives of the other set, the blades of said knives being vertical and their cutting edges uppermost and their back edges substantially on a level with each other, a plunger located over said grating and moving vertically to force the vegetable down through said grating, a horizontally rotating

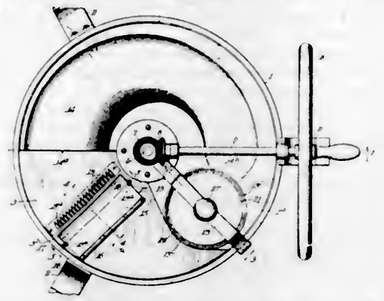
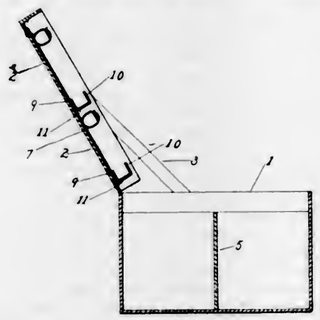


table located beneath said grating, and a slicing knife located beneath said grating and having its cutting edge vertically adjustable toward and from the backs of said fashioning knives.

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1,094,605. DISPLAY-BOX. EVAN J. SHIPMAN, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 29, 1911. Serial No. 641,226. (Cl. 211—28.)



1. In a display box, the combination of a body, partitions in said body dividing the same into a series of compartments, a lid for said body adapted to close the upper end of the latter, and a plurality of article supporting members applied to that surface of the lid which is disposed toward the interior of the body when the latter is closed, said supporting members being located in alinement with the respective compartments of the body and adapted to loosely suspend the articles, whereby the same may hang within the compartments when the lid is closed, and assume a position in contact with the lid that the lid may form a support for the articles when said lid is open.

2. In a display box, the combination with a body having a series of compartments, of a lid to close the open upper end of the body, hinged to the body at one edge, and a plurality of article suspending clips located and spaced in correspondence with the respective compartments of the body, on that surface of the lid which is disposed toward the interior of the body when the box is closed, the articles loosely engaging the clips whereby when the lid is open the same may be disposed in the plane of the lid and in contact with the same, the articles when the lid is closed assuming a position substantially at right angles to the lid and being housed within the compartments of the body.

3. In a display box, the combination with a body portion and a lid therefor, of article suspending members on the inner surface of said lid adapted to engage certain portions of the articles, and retaining means on the lid adapted to engage portions of the articles other than those portions engaged by said suspending members, to hold the articles against the surface of the lid; substantially as described.

4. In a display box, the combination with a body portion, of a lid connected thereto, a transverse strip secured to said lid on the inner surface of the latter and having a retaining portion spaced from the surface of the lid and to engage the article to be displayed, and supporting members for said articles secured to said lid, substantially as described.

5. In a display box, the combination with a body portion, of a lid connected thereto, a plurality of article supporting members, and a common retaining strip extending transversely of the lid and coöperating with said article supporting members to retain said articles against the surface of the lid, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,094,606. ANTICREEPING RAILWAY-RAIL. EDGAR M. SMITH, Chicago, Ill. Filed June 27, 1913. Serial No. 776,032. (Cl. 238—4.)

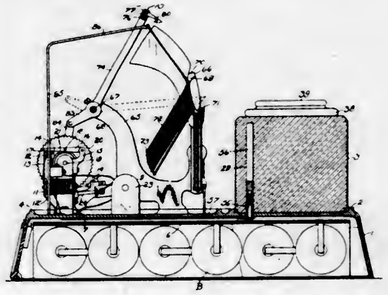


1. A railway rail having a portion of its base flange pressed vertically to form an abrupt depending transverse shoulder adapted to engage with the side of a tie or tie plate.

2. In combination, a railway tie, a tie-plate upon the tie, a railway rail resting upon the tie plate, and an abrupt depending transverse shoulder on the under side of the rail engaging with one of the side edges of the tie plate.

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1,094,607. AUTOMATIC CARD-EXHIBITING DEVICE. JESSE CONRAD SMITH, Kansas City, Mo. Filed Oct. 10, 1911. Serial No. 653,855. (Cl. 40—53.)



1. In an automatic card exhibiting device, spaced vertical plates having upwardly tending grooves in the lower portions of their inner faces, the lower ends of said grooves being cupped and both ends of said grooves having upwardly facing mouths opening through the edges of said plates, cards having rods at their horizontal edges projecting from the card ends and adapted for seating in said grooves, means for lifting a forward card to remove its hanger rod from the lower end of said groove and for dropping its opposite rod into the upper end of said groove, and a stop adjacent the upper ends of said plates for holding said card in a sight position when released from said lifting means, said cards being adapted for mutual support and for automatic forwarding movement

upon the release of each front card whereby a previously exposed card is lowered out of contact with the stop, substantially as set forth.

2. In an automatic card exhibiting device, the combination with spaced vertical plates having facing upwardly tending grooves, in the lower portion thereof, the ends of said grooves being cupped and both ends of the grooves opening upwardly through the edges of said plates, a series of cards each having corner recesses and edge rods projecting from the card ends through said recesses, the projecting ends of said rods being adapted for projection into the plate grooves and for supporting said cards one upon another, oscillatory means for engaging the portion of the hanger rod of a forward card that is exposed by said corner recesses and for lifting same out of the plate grooves and for elevating the card until the ends of the opposite rod drop into the upper ends of said plate grooves, said lifting mechanism being adapted for automatically releasing said card and dropping the upper end of same backwardly when the lower rod has dropped into said grooves, and a stop positioned above the plates for engaging the upper end of said card, said cards being adapted for mutual support and for guidance by the hanger rods whereby all of the cards are lowered when a forward card is removed, to lower the upper card out of contact with its stop, substantially as set forth.

3. The combination with an ink well having a plunger in the mouth thereof, of a frame located adjacent to the ink well, cards freely mounted in said frame, mechanism for changing the position of said cards, an electric motor for actuating said mechanism, a magnet, an armature adapted for engagement with said magnet for closing a circuit through said motor, mechanical means for maintaining said circuit when the magnet has become deënergized, and means in combination with the ink well plunger for closing a circuit through the electromagnet, for the purpose set forth.

4. The combination with an ink well, having a plunger in the mouth thereof, of a grooved frame located adjacent said ink well and having a series of cards arranged within the grooved portions thereof, mechanism for changing the position of said cards, an electric motor for actuating said mechanism, a magnet for closing the circuit through said motor, and mechanical means in combination with the ink well plunger for closing a circuit through the electromagnet.

5. The combination with a well having a plunger disposed in the mouth thereof, of a frame comprising spaced plates, having facing grooves, a series of cards mounted in said grooves, mechanism for changing the position of said cards, an electric motor for actuating said mechanism, an electromagnet for closing a circuit through said motor, mechanism operable by displacement of fluid in the ink well for making and breaking a circuit through the magnet, means for maintaining the motor circuit after the magnet is deënergized, and mechanical means for breaking the motor circuit when the card actuating mechanism has completed a phase of operation.

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1,094,608. HOOK-HANGER. RUSSELLA C. SMITH, Chicago, Ill. Filed Sept. 17, 1913. Serial No. 790,176. (Cl. 24—86.)

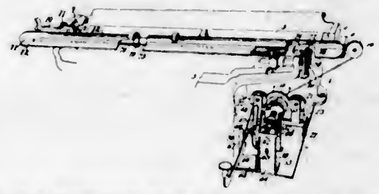


1. A hook hanger comprising a pin member having a pair of straight arms, and a hook member consisting of a single piece of wire pointed at one end and rigidly fastened at the other to one of the arms of the pin member, the loop in said hook member being disposed adjacent the other arm of said pin member when the parts are operatively arranged.

2. A hook hanger comprising a pin member formed of a piece of wire bent to provide two substantially straight parallel arms, one of said arms being provided with a catch and the other arm being pointed and adapted to be engaged by said catch, and a hook member rigidly secured at one end to the arm provided with the catch, the body of said hook member extending upwardly alongside and parallel with the plane of the arms and the point of the hook being disposed downwardly.

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1,094,609. TYPE-WRITING MACHINE. JACOB SOKOLOV, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Feb. 25, 1911. Serial No. 610,753. (Cl. 197—66.)



1. In a typewriting machine, the combination of a carriage, a motor, connections from the motor to the carriage for returning the latter, a device for causing the power of the return drive to be cut-off after the carriage has traveled part way to the starting point but before it has reached the starting point, said device having a variable adjustment or movement automatically proportioned in each instance to the extent of letter feed or forward movement of the carriage whereby the device is set to time the power cut-off on the return movements in accordance with the length of the line from which the return is made.

2. In a typewriting machine, the combination of a carriage, a motor, connections from the motor to the carriage for returning the latter, a device for causing the power of the return drive to be cut-off after the carriage has traveled part way to the starting point but before it has reached the starting point, said device comprising an adjustable element for varying the time of cut-off according to the length of the line from which the return is made, means whereby said adjustable element may be moved proportionately to the movement of the carriage when the latter moves forward, and means for holding said adjustable element against return movement with the carriage until after the cut-off has been effected.

3. In a typewriting machine, the combination of a carriage, a motor, connections from the motor to the carriage for returning the latter, a device for causing the power of the return drive to be cut-off after the carriage has traveled part way to the starting point but before it has reached the starting point, said device comprising an adjustable element for varying the time of cut-off according to the length of the line from which the return is made, means whereby said adjustable element may be moved proportionately to the movement of the carriage when the latter moves forward, and means for holding said adjustable element against return movement with the carriage until after the cut off has been effected, said adjustable means returning automatically to normal position when said carriage is returned.

4. In a typewriting machine, the combination of a carriage, a motor, connections from the motor to the carriage for returning the latter, a device for causing the power of the return drive to be cut off after the carriage has traveled part way to the starting point but before it has reached the starting point, said devices comprising an adjustable element for varying the time of cut-off according to the length of the line from which the return is made, means whereby said adjustable element may be moved proportionately to the movement of the carriage when the latter moves forward, and means for holding said adjustable element against return movement with the carriage until after the cut off has been effected, said adjustable means returning automatically to normal position when said carriage is returned.

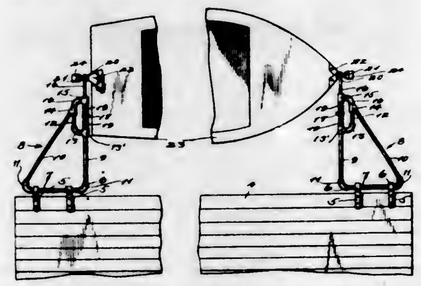
5. In a typewriting machine, the combination of a carriage, a motor, connections from the motor to the carriage for returning the latter, a device for causing the power of the return drive to be cut-off after the carriage has traveled part way to the starting point but before it has reached the starting point, said device comprising an adjustable wedge for varying the time of cut-off according to the length of the line from which the return is made, means whereby said adjustable wedge may be moved proportionately to the movement of the carriage when the latter moves forward.

[Claims 6 to 37 not printed in the Gazette.]



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1,094,610. BOAT-FASTENING MEANS. FREDERICK STEINHAUER, Madison, Wis. Filed June 21, 1913. Serial No. 775,065. (Cl. 9—1.)



1. In apparatus of the character described, the combination with a relatively stationary object, of a plurality of spaced triangular open relatively rigid attaching elements, means pivotally connecting the attaching elements with the relatively stationary object, so that such elements may be swung in a substantially vertical plane, reciprocatory rods carried by the attaching elements, means to yieldingly oppose the movement of the rods in both directions, and means to connect the rods with a boat.

2. In a boat securing apparatus, the combination with a relatively stationary object, of a longitudinal tube, means pivotally connecting the longitudinal tube with the relatively stationary object, so that the longitudinal tube may be swung in a substantially vertical plane, a guide sleeve spaced from the free end of the longitudinal tube and rigidly connected therewith, a reciprocatory rod mounted within the longitudinal tube and guide sleeve, a sleeve rigidly connected with the reciprocatory rod and disposed between the guide sleeve and the longitudinal tube, coil springs surrounding the reciprocatory rod upon opposite sides of the sleeve carried thereby and engaging said guide sleeve and the longitudinal tube, and means to connect the reciprocatory rod with the boat.

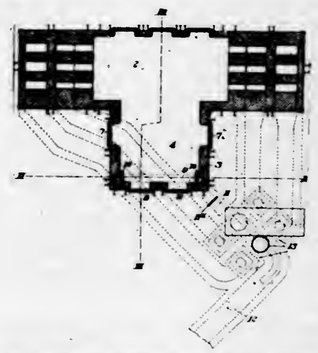
3. A boat attaching apparatus, comprising an open tubular frame, a relatively stationary object, means pivotally connecting one end of the open tubular frame with the relatively stationary object, a reciprocatory rod mounted within a portion of the open tubular frame, spring means to oppose the movement of the rod in both directions, and means to connect the rod with the boat.

4. A boat attaching apparatus, comprising a tube, a relatively stationary object, means pivotally connecting the tube with the relatively stationary object, a rod mounted to reciprocate within the tube, spring means to oppose the movement of the rod in both directions, and means to pivotally connect the rod with the boat.

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1,094,611. HEATING-FURNACE. JOHN ALBERT SWINDELL, Pittsburgh, Pa. Filed June 12, 1913. Serial No. 773,260. (Cl. 75—40.)

1. A blank heating furnace comprising a main heating chamber, flues for causing a heat circulation longitudinally of said chamber from end to end in either direction, said flues having connection with a stack, a preheating chamber offset laterally from the main heating chamber at one side thereof, said preheating chamber being open at its inner side for at least the major portion of the width of the chamber, and for a distance greater than the length of the blank to be heated, said preliminary heating chamber having a controllable flue leading therefrom to the said stack, and forming means whereby a positively controlled heat circulation may be obtained from the main chamber through the preheating chamber; substantially as described.

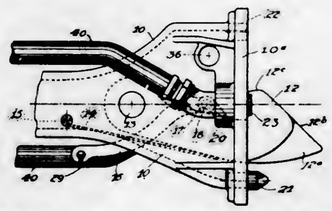


2. A blank heating furnace comprising a main heating chamber, reversible regenerator connections communicating with opposite ends of said main chamber and forming means for causing a heat circulation longitudinally in either direction, a stack with which the said connections are to communicate, a preheating chamber offset laterally from the main heating chamber at one side thereof, said preliminary chamber being open to the main heating chamber at its inner end for at least the major portion of the width of the preliminary chamber and for a distance greater than the length of the blanks to be heated, said preliminary heating chamber having a controllable flue leading therefrom to the said stack, and forming means whereby a positively controlled heat circulation may be obtained from the main chamber through the preheating chamber; substantially as described.

3. A blank heating furnace comprising a main heating chamber, means for causing a heat circulation longitudinally of said chamber in either direction, a preheating chamber offset laterally from the main chamber and communicating therewith at its inner end, said preheating chamber having an offtake flue at each of its outer corner portions, said offtake flues being connected to the stack which provides for the draft through the main heating chamber; substantially as described.

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1,094,612. AUTOMATIC CAR AND TRAIN-PIPE COUPLING. CHARLES H. TOMLINSON, Mansfield, Ohio, assignor to The Tomlinson Coupler Company, Denver, Colo., a Corporation of South Dakota. Filed Nov. 8, 1911. Serial No. 659,083. (Cl. 213—40.)



1. In a car coupler the combination with companion coupler heads, of coupling devices on said heads, means

on said coupling devices for interlocking said devices in coupling relation, means on the coöperating faces of the coupler heads independent of said coupling devices for interlocking said coupler heads to prevent relative vertical and lateral movement when coupled and just prior to the interlocking of said coupling devices in the coupling relation, and fluid connections having terminals in the cooperating faces of the said coupler heads, said connections being adapted to form fluid tight joints with each other.

2. In car and train pipe couplers, the combination with coupler heads having interlocking coupling devices projecting from the adjacent faces thereof, of coöperating projections and intersections on the said adjacent faces, the said coupling devices being adapted to guide the said projections and intersections into engagement, and the said projections and intersections being adapted to aline the said coupler heads before the adjacent faces meet, and fluid connections on the coupler heads adapted to form a fluid tight joint when coupled.

3. In car and train pipe couplers, the combination of coupler heads having counterpart projections and intersections on the adjacent faces thereof to prevent relative vertical and lateral movement, projecting interlocking coupling devices to prevent longitudinal movement and aline the coupler heads before the adjacent faces meet and before the said counterpart projections and intersections coöperate, and an air connection on each coupler head adapted to form an air-tight joint with a similar air connection on its companion coupler head.

4. In car and train pipe couplers, the combination of coupler heads having counterpart projections and intersections on the adjacent faces thereof to prevent relative vertical and lateral movement, projecting interlocking coupling devices to prevent longitudinal movement, coöperating means on the coupling devices and the coupler heads for partially alining the coupler heads before the adjacent faces meet and before the said counterpart projections and intersections coöperate, and an air connection on each coupler head adapted to form an air-tight joint with a similar air connection on its companion coupler head.

5. In a car coupler, the combination with a coupler head provided with an air connection, of a coupling device carried thereby adapted to coöperate with a similar coupling device on a companion coupler head also provided with an air connection, means independent of said coupling device for interlocking the said coupler heads against vertical and lateral movement, said means comprising a pin projecting from the forward faces of each of said coupler heads and adapted to register with an opening on each of the companion coupler heads, said pins having points at their extremities and being cylindrical for a portion of their length and adapted to aline the said coupler heads prior to the contact of the air connections and to lock said heads with respect to relative lateral and vertical movement during the contact of the air connections.

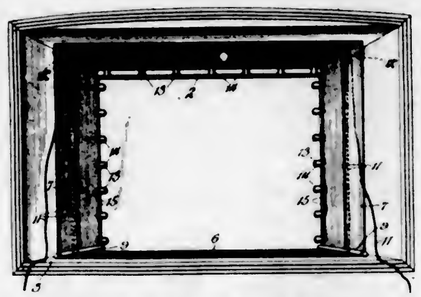
[Claims 6 and 7 not printed in the Gazette.]

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1,094,613. MOVING-PICTURE SCREEN. HARRY S. WALKER, Corvallis, Oreg., assignor, by direct and mesne assignments, of three-eighths to James R. Chambers, Corvallis, Oreg., and one-fourth to Lottie A. Reed, Medford, Oreg. Filed Nov. 27, 1912. Serial No. 733,821. (Cl. 88—24.)

1. In an apparatus of the class described, the combination with a stage, of an approximately rectangular screen having a picture receiving surface and provided at the top with a roller and adapted to be rolled thereon to arrange it out of the way of the stage, a collapsible light absorbing lining composed of a relatively fixed top portion, flexible side portions and a bottom portion connecting the sides, means for detachably securing the side and bottom portions in position, and means connected with the side and bottom portions for raising them simultaneously and together to the top of the stage when the screen is rolled up.

2. An apparatus of the class described including a rectangular screen, a rectangular lining of light absorbing material located in advance of and extending around the screen and composed of a fixed top portion, and a movable bottom and side walls, horizontal rods detachably secured in the lower corners of the lining and holding the same in position, and means connected with the lining for raising and lowering the same.

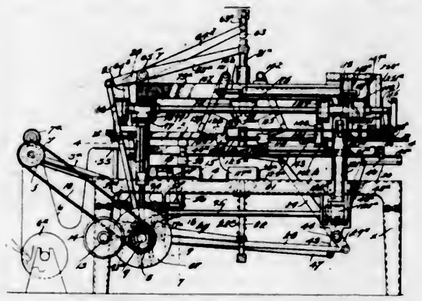


3. An apparatus of the class described including a rectangular screen, a rectangular lining of light absorbing material located in advance of and extending around the screen and composed of a fixed top portion, and a movable bottom and side walls, means detachably connected with the lining at the bottom thereof for holding the same in position, and hoisting means connected with the lining at the lower ends of the side walls thereof for raising and lowering the lining and for supporting the same in an elevated position out of the way.

4. An apparatus of the class described including a screen having a picture receiving surface, a light absorbing lining located in advance of the screen and extending around the same, colored lights arranged in intervals at the inner portion of the lining, and shades interposed between the lights and the screen.

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1,094,614. BREAD-WRAPPING MACHINE. GEORGE R. WARD, New York, N. Y., assignor to The Wrapping Machine Company of America, a Corporation of New York. Filed Mar. 29, 1912. Serial No. 687,174. (Cl. 93—2.)



1. In a wrapping machine in combination, means for supplying a wrapper to an article to be wrapped, means for folding said wrapper against the sides and ends of said article with cocked portions outstanding from the corner edges of said article, movable folding blades acting upon said cocked portions transversely of said corner edges to fold the same against the ends of said article, means for maintaining said article in the position in which said folding means have completed their action, and means for folding the remaining side and end portions of said wrapper beneath said article while said article is in said position.

2. In a wrapping machine in combination, means for supplying a wrapper to an article to be wrapped, means for folding said wrapper against the sides and ends of said article with cocked portions outstanding from the corner edges of said article, movable folding blades acting upon said cocked portions transversely of said corner edges to fold the same against the ends of said article, means for tucking end portions of said wrapper beneath said article in the same position in which said folding blades act on said wrapper, and means for folding side portions of said wrapper in successive flaps upon the bottom of said article and over said tucked-under end portions.

3. In a wrapping machine in combination, means for supplying a wrapper to an article to be wrapped, means for simultaneously folding said wrapper against opposite sides of said article, movable folding blades for folding said wrapper against opposite ends of said article with cocked portions outstanding from the corner edges of said articles, movable folding blades acting upon said cocked portions transversely of said corner edges to fold the same against the ends of said article, means for tucking end portions of said wrapper beneath said article in the same position in which said folding blades act on said wrapper, means for folding side portions of said wrapper in successive flaps upon the bottom of said article and over said tucked-under end portions.

4. In a wrapping machine in combination, means for bringing an article and wrapper in juxtaposition, comprising a movable carrier for said article, and wrapper feed devices moving across the path of said movable carrier, means for folding said wrapper against the sides and ends of said article with cocked portions outstanding from the corner edges of said article, movable folding blades acting upon the cocked portions transversely of said corner edges to fold the same against the ends of said article, means for tucking end portions of said wrapper beneath said article without changing the direction of movement of said article, and means for folding side portions of said wrapper in successive flaps upon the bottom of said article and over said tucked-under end portions.

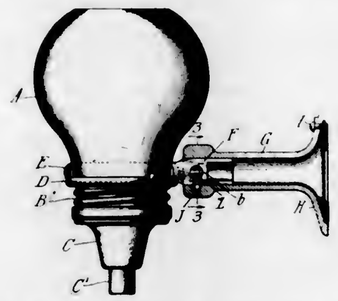
5. In a wrapping machine in combination, means for bringing an article and wrapper in juxtaposition, comprising wrapper feed devices moving past said article, a movable carrier for supporting said article, an oppositely-located presser head for keeping said wrapper and article in contact during subsequent folding operations, means for folding said wrapper against the sides and ends of said article, with cocked portions outstanding from the corner edges thereof, positively movable folding blades acting upon said cocked portions transversely of said corner edges to fold the same against the ends of said article, means for tucking end portions of said wrapper beneath said article, and means for folding side portions of said wrapper in successive flaps upon the bottom of said article and over said tucked-under end portions.

[Claims 6 to 22 not printed in the Gazette.]



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1,094,615. LIQUID-SOAP FIXTURE. EARL G. WATROUS, Chicago, Ill. Filed Aug. 4, 1910. Serial No. 575,489. (Cl. 221—94.)



1. In a liquid soap fixture, the combination of a receptacle having an opening in its bottom and a permanently closed top, a fixed support therefor to which the receptacle is reversibly connected, and means for locking the receptacle in its reversed position.

2. In a liquid soap fixture, the combination of a soap receptacle having an opening in its bottom and a permanently closed top, a fixed support to which the receptacle is reversibly connected, and means for locking the receptacle in each of its opposite positions.

3. In a liquid-soap fixture, the combination of a soap-receptacle having an opening in its bottom and a permanently closed top and a swiveled support therefor permitting its position to be reversed at will, and a locking pin in said swiveled support for locking the receptacle in its reversed position; substantially as described.

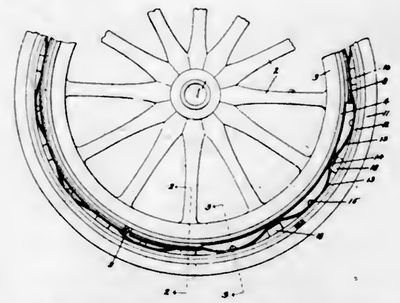
4. In a liquid-soap fixture, the combination of a soap-receptacle having an opening in its bottom and a permanently closed top and a swiveled support therefor permitting its position to be reversed at will, and a locking pin in said swiveled support for locking the receptacle in each of its opposite positions; substantially as described.

5. In a liquid-soap fixture, the combination with the soap-receptacle having an opening in its bottom and a permanently closed top and the fixed supporting arm G provided in its outer end with the apertures K, K, and semi-circular groove J, of the ring E surrounding the soap-receptacle and provided with the arm F swiveled in the support G, and the locking pin L carried by the arm F and provided with the projecting flattened end *b* coöperating with the groove J; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,616. RESILIENT VEHICLE-WHEEL. CHARLES H. WEBER, Hilliard, Ohio. Filed Feb. 6, 1913. Serial No. 746,426. (Cl. 152—32.)



A resilient vehicle wheel comprising a rigid center piece formed of the hub, spokes and felly, said felly being channel shaped, a removable ring element forming one of the sides of said channel, a tread element, overlapping semi-elliptic springs rigidly carried by said tread element and bearing on said felly, a lug on one end of each overlapping spring end coöperating with a slot in the other end, and resilient buffer elements secured to the tread and formed to fit over said lugs.

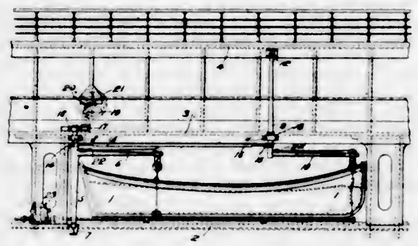
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1,094,617. APPARATUS FOR HOISTING AND LOWERING SHIPS' BOATS. AXEL WELIN, London, England, assignor to Welin Marine Equipment Company, a Corporation of New York. Filed June 18, 1912. Serial No. 704,260. (Cl. 9—22.)

1. Apparatus for hoisting and lowering ships' boats embodying a pair of davits arranged to support a boat between two decks of a ship, one of such davits being supported on the deck above the boat and extending downwardly therefrom and so positioned in relation to the opposite davit as to compel the boat to cross the axis of the davit so supported; means for connecting the two davits to compel the same to move simultaneously.

2. Apparatus for hoisting and lowering ships' boats embodying a pair of davits arranged to support a boat between two decks of a ship, one member of which pair is

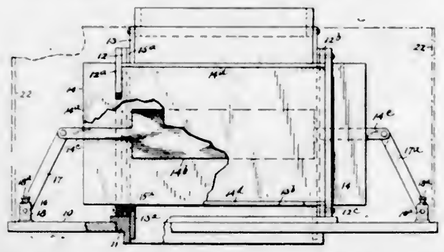
pivotally supported upon the deck above the boat and the other member has a pivotal connection with the deck below the boat, means for connecting the two davits to compel the same to move simultaneously through similar angles and means for rotating one of said davits to compel the boat to cross the axis of the davit supported from the deck above the boat.



3. Apparatus for hoisting and lowering ships' boats embodying a pair of davits arranged to support a boat between two decks of a ship, one member of which pair is pivotally supported upon the deck above the boat and the other member has a pivotal connection with the decks both above and below the boat, means for connecting the two davits to compel the same to move simultaneously through similar angles and means for rotating one of said davits to compel the boat to cross the axis of the davit supported from the deck above the boat.

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1,094,618. APPARATUS FOR TREATING FLUIDS. HERBERT T. WESTON, Cleveland, Ohio. Filed May 1, 1911. Serial No. 624,405. (Cl. 204—32.)



1. In an apparatus for the treatment of fluids by static discharges, a pair of conductors adapted to be connected to opposite sides of a high voltage electric circuit, a pair of flat dielectrics between the conductors, the dielectrics being separated by a space for the passage of fluid to be treated, the spacing of the dielectrics or the width of the fluid space being such that with an impressed voltage necessary to produce a certain intensity of emanations, there is a less expenditure of electrical energy than for the same intensity of emanations produced with a closer spacing of the dielectrics and a correspondingly lower impressed voltage.

2. In an apparatus for the treatment of fluids by static discharges, a plurality of cells each composed of a pair of flat dielectrics and a flat conductor between and in contact with the sides thereof, transparent spacers separating the cells and holding the latter a predetermined distance apart, and means for supporting the cells so that the discharge can be observed through the spacers, comprising an open-ended rack.

3. In an apparatus for the treatment of fluids by static discharges, a plurality of cells each comprising a pair of flat dielectrics and a flat conductor clamped between the same, transparent spacers separating the cells and holding the same a predetermined distance apart, and means for supporting the cells so as to leave unobstructed the view of the discharge through the transparent spacers and so as to permit the removal of any of the cells, comprising an open-ended rack.

4. In an apparatus for the treatment of fluids by static discharges, a plurality of cells each consisting of a pair of flat dielectrics and a flat conductor clamped between the same and in engagement with the sides thereof, transparent spacers separating the cells and holding the same a predetermined distance apart, means sealing the junction of the spacers and cells, and means for supporting the cells so as to permit the removal of any of the latter and so as to permit the observation of the discharge through the transparent spacers comprising a rack open at two opposite sides at which the fluid enters and leaves the apparatus, and open at the ends opposite the spacers.

5. In an apparatus for the treatment of fluids by static discharges, a plurality of cells composed of flat dielectrics and conductors, the cells being spaced apart for the passage of fluid to be treated, a frame supporting the cells, the conductors each having an extension projecting outwardly beyond the associated dielectrics, a pair of terminal conductors, and connectors pivoted to said extensions and loosely engaging said terminal conductors, whereby any of the cells can be disconnected by swinging the connectors out of engagement with the conductors.

[Claim 6 not printed in the Gazette.]

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1,094,619. CARPET-BEATER. WILLIAM WIDMAYER, Chicago, Ill. Filed Jan. 5, 1914. Serial No. 810,414. (Cl. 15—8.)



1. The combination of a stand, a vertically swiveled support carried thereby, an arm pivoted to the support to swing in a vertical plane, and a carpet beater and an operating handle carried by the arm.

2. The combination of a stand, a vertically swiveled support carried thereby, an arm pivoted to the support to swing in a vertical plane, a carpet beater carried by the arm, and an operating handle pivotally connected to the arm.

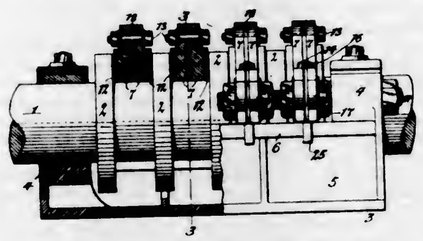
3. The combination of a stand comprising a base and standards rising therefrom, said standards being connected at the top by a cross-piece, a vertically swiveled support carried by said cross-piece, an arm pivoted to the support to swing in a vertical plane, and a carpet beater and an operating handle carried by the arm.

4. The combination of a stand, a vertically swiveled support carried thereby, an arm pivoted to the support to swing in a vertical plane, the outer end of the arm having a seat, a clamping plate carried by the arm above the seat, a carpet beater held in the seat by the clamping plate, and a handle connected to the clamping plate.

5. The combination of a stand, a vertically swiveled support carried thereby, an arm pivoted to the support to swing in a vertical plane, the outer end of the arm having a seat, a clamping plate carried by the arm above the seat, a carpet beater held in the seat by the clamping plate, said clamping plate having a top lug, and a handle socket pivoted to said lug.



1,094,620. THRUST-BEARING FOR PROPELLER-SHAFTS OF SHIPS. HUGH WILSON, Buffalo, N. Y. Filed June 1, 1912. Serial No. 700,910. (Cl. 64—25.)



1. The combination of a bearing block having fixed bearings at its opposite ends, a shaft normally incapable of axial movement and journaled in said bearings and provided between said bearings with a plurality of thrust collars, a plurality of yokes each of which comprises two sections which are arranged transversely between two adjacent collars, adjusting means arranged between the sections of each yoke and operating to move one of these sections in one direction for engaging one of the collars and the other section in the opposite direction for engaging the opposing collar, and means for connecting said yoke sections and adjusting means with fixed supports.

2. The combination of a bearing block having fixed bearings at its opposite ends, a shaft journaled in said bearings and provided between said bearings with a plurality of thrust collars, a plurality of horseshoe yokes each of which comprises two sections which are arranged transversely between two adjacent collars, a horseshoe filling piece arranged between the sections of each yoke for separating the same and holding the outer sides thereof in engagement with the opposing faces of the respective collars, and means for connecting the yoke sections with said bearings, and with each other comprising longitudinal tie rods arranged on opposite sides of the collars and shaft and connected at their ends with said bearings while their intermediate parts pass through openings in the opposite ends of said yoke sections, and screw nuts arranged on said tie rods and bearing against the outer sides of the yoke sections.

3. The combination of a bearing block having bearings at its opposite ends and longitudinal flanges at its opposite sides, a shaft journaled in said bearings and having a plurality of thrust collars, tie rods arranged on opposite sides of the shaft and connecting corresponding ends of the bearings, yokes arranged transversely between adjacent collars and each comprising two sections which straddle the shaft and tie rods, a filling piece arranged between each pair of yoke sections, screw nuts arranged on said tie rods and engaging with the outer sides of the yoke sections, clamping screws arranged between said yoke sections and having hooks at their lower ends which engage said flanges and nuts at their upper ends which engage the upper edges of said yoke sections, and bolts connecting the sections of the yoke with each other.

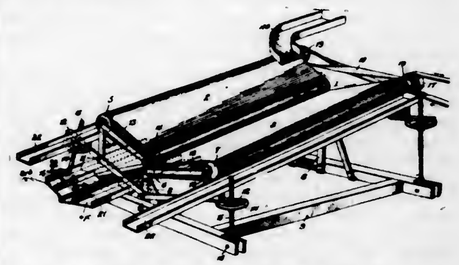
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1,094,621. SEPARATING APPARATUS. WALLACE S. AYRES, Hazleton, Pa. Filed Mar. 13, 1907. Serial No. 362,171. (Cl. 83—54.)

1. A separating apparatus including a pair of endless floors oppositely inclined to form a trough, and having their inner edges overlapped, the adjacent portions of such floors being in proximity, presenting a substantially continuous surface, and supporting and simultaneously acting upon a given body of material passing thereover.

2. A separating apparatus including a pair of endless floors oppositely inclined transversely and having their inner edges overlapped, the adjacent portions of such floors being in proximity, presenting a substantially continuous surface, and supporting and simultaneously acting upon a given body of material passing thereover.

3. A separating apparatus including a trough having oppositely inclined endless side sections and swinging supports for said sections, such sections overlapping each other at their inner edges and constituting a continuous trough with dissimilar sides arranged to travel in opposite directions.



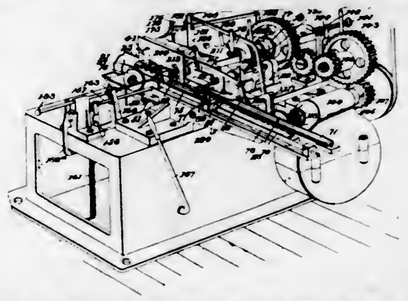
4. A separating apparatus including a trough comprising endless side sections, adjustable swinging supports for effecting the vertical adjustment of the outer edges of said sections, said sections overlapping and presenting a substantially continuous surface, a portion of one side of the trough being abrupt as compared with the opposite side, and means for moving the floor sections in opposite directions.

5. A separating apparatus including a trough comprising a pair of transversely inclined endless side sections, said sections overlapping and presenting a substantially continuous surface, a portion of one side of the trough being abrupt as compared with the opposite side, inner and outer rollers supporting said sections, adjustable swinging supports for effecting the vertical adjustment of the outer rollers, and means for driving the rollers to effect the movement of the floor sections in opposite directions.

[Claim 6 not printed in the Gazette.]

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1,094,622. MATRIX-CONEHOLING MACHINE. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Jan. 21, 1910. Serial No. 539,286. (Cl. 29—54.)



1. A matrix coneholing machine including the following elements, in combination, to-wit; a rotatory chuck provided with blank gaging and holding means; a self centering cutter and means for effecting relative reciprocation of said chuck and cutter.

2. A matrix coneholing machine provided with the following elements, in combination, to-wit; a rotatory chuck provided with means for gaging the longitudinal position of the blank; a plurality of self centering cutters; and a tool head or carrier for said cutters movable laterally of the axis of the chuck for presenting the cutter successively to the blank, and longitudinally of said axis for engaging and withdrawing individual cutters.

3. In a matrix coneholing machine such as described, the combination of the following elements, to-wit; a ro-

tatory chuck; means for gaging the longitudinal and lateral positions of an inserted blank within the chuck; a cutter provided with a plurality of converging cutting edges symmetrically disposed in pairs upon opposite sides of the axis; a tool head or carrier for said cutter; means on said carrier for preventing longitudinal displacement of the cutter and for permitting lateral movement thereof in opposition to applied frictional resistance; and means for effecting relative movements of said chuck and carrier in a direction parallel with the axis of the chuck.

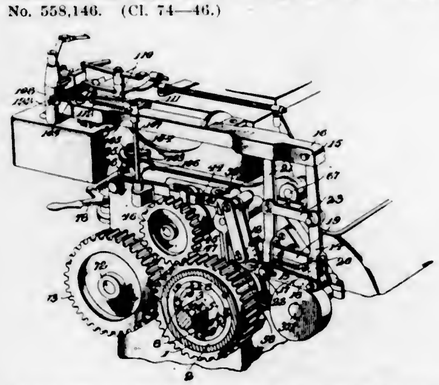
4. In a matrix coneholing machine such as described, the combination of the following elements, to-wit; a rotatory chuck and means for gaging longitudinally and laterally the position of an inserted blank within the chuck; a cutter provided with converging cutting edges symmetrically disposed on opposite sides of the axis of said cutter; a tool head or carrier for said cutter provided with means for frictionally opposing while permitting lateral displacement of the axis of the cutter relative to said head and for resisting longitudinal displacement; and means for effecting relative movements of the chuck and cutter in a direction parallel with the axis of the former.

5. In a matrix coneholing machine such as described, the combination of the following elements, to-wit; a rotatory chuck provided with end and side gaging surfaces for an inserted blank; a tool head or carrier guided to reciprocate parallel with the axis of the chuck; and a cutter provided with converging cutting edges symmetrically disposed on opposite sides of its axis, the shank of said cutter being flattened and received in a slotted bearing on the tool head or carrier.

[Claims 6 to 58 not printed in the Gazette.]

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1,094,623. DRIVING OR TRANSMISSION MECHANISM FOR TYPE AND OTHER MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Original application filed Jan. 4, 1909, Serial No. 470,576. Divided and this application filed Apr. 28, 1910. Serial No. 558,146. (Cl. 74—46.)



1. A driving or power transmitting mechanism provided with driving and driven members and an interposed clutching member and in combination therewith the following elements, to-wit; a timing mechanism coupled with the driving member through a clutch and provided with an admeasuring member; means controlled by the driven member for closing the timing clutch provided with retaining devices acted upon by said admeasuring member for opening said timing clutch; and means coupled with the timing clutch closing means for alternately opening and closing the first named clutch.

2. A driving or transmission mechanism including in combination the following elements, to-wit; driving and driven members and an intermediate self-closing clutch; a movable stop for engaging said clutch to open the latter; a timing mechanism coupled with the driving member through a clutch; and actuating devices coupled with the driven member and said timing clutch and stop for opening the first named clutch and closing the timing clutch.

3. A driving or transmission mechanism including in combination the following elements, to-wit; driving and driven members and an interposed self-closing clutch; a movable stop for engaging said clutch to open the latter; a timing mechanism coupled with the driving member through a clutch and provided with an admeasuring member; and actuating devices for said stop and timing clutch provided with latching or detent means uncoupling member whereof is located in the path traversed by the admeasuring member of the timing mechanism.

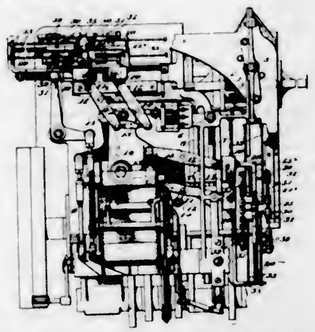
4. A driving or transmission mechanism provided with driving and driven members, an intermediate clutch, and means for actuating the latter to alternately connect and disconnect said members, and in combination therewith, the following elements, to wit; a timing mechanism coupled with the driving member through a clutch and provided with an admeasuring member; actuating devices controlled by the driven member for closing the timing clutch; a latch for retaining said actuating devices in closed position provided with a releasing member opposed to and acted upon by the admeasuring member of the timing mechanism; and means coupling the actuating devices of the timing clutch with the actuating devices of the first named or driving clutch to effect the closing of the latter and the opening of the timing clutch.

5. In a driving or power transmitting mechanism for type machines, the combination of the following elements, to-wit; a driving member; a driven member; a self-closing clutch connecting said driving and driven members; a clutch opening stop mounted upon a reciprocatory support and movable thereon to engage the clutch; a member coupled and moving in unison with the driven member and provided with an engaging shoulder; a latch carried by the stop support and movable thereon to engage said shoulder; connections between said stop and latch to effect simultaneous movements thereof; and a cushioning mechanism or device coupled with the support for said stop and latch.

[Claims 6 to 35 not printed in the Gazette.]

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1,094,624. CENTERING MECHANISM FOR TYPE-MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed July 15, 1912. Serial No. 709,468. (Cl. 101—200.)



1. A positioning or centering mechanism for the performing members of a type casting machine, including, in combination, oppositely movable positioning jaws and a signal-responsive station indicator acting directly upon said jaws to selectively determine different adjustments of the performing member.

2. A positioning or centering mechanism such as described, including, in combination, the following elements, to wit; oppositely movable positioning jaws, a translating device for the performing member, and a signal-responsive station indicator interposed between and acted upon by said jaws to position the performing member.

3. A positioning or centering mechanism such as described, including, in combination, oppositely movable positioning jaws and a signal-responsive station indicator interposed between and acted upon by both jaws.

4. A positioning or centering mechanism including, in combination, the following elements, to wit; oppositely movable positioning jaws; translating devices for a performing member interposed between and engaged by said jaws; and a direct acting signal-responsive station indicator also interposed between and engaged by said jaws to determine various positions of adjustment of the performing member.

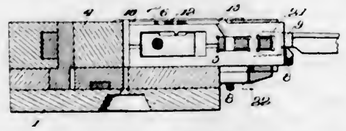
5. A positioning or centering mechanism such as described, including, in combination, the following elements, to wit; oppositely movable positioning jaws; a signal-responsive station indicator provided with a plurality of gages arranged for interposition between said jaws, and a plurality of signal responsive devices controlling said gages to shift the position without changing the linear dimensions of the interponent between the jaws.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,625. TYPE-MOLD. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Dec. 23, 1912. Serial No. 738,282. (Cl. 101—200.)



1. A type mold provided with a casting chamber terminating at one end in a matrix seat and having one of its walls divided into a series of independently movable sections superimposed one upon the other in planes substantially parallel with said matrix seat.

2. A type mold provided with a casting chamber terminating at one end in a matrix seat, one wall of said chamber being formed by a mold blade, the latter comprising three independently movable sections superposed in planes substantially parallel with said matrix seat.

3. A type mold provided with a three part mold blade, the sections whereof are superposed and independently movable and with means for coupling the intermediate section with either adjacent section so as to partake of enforced movements communicated to the latter.

4. A type mold provided with a movable mold blade comprising three superposed longitudinally movable independent sections, with means for coupling one outer section to a cut-off controlling mechanism, means for coupling the other outer section to mold dimensioning mechanism, and means for selectively coupling the intermediate section to either outer section.

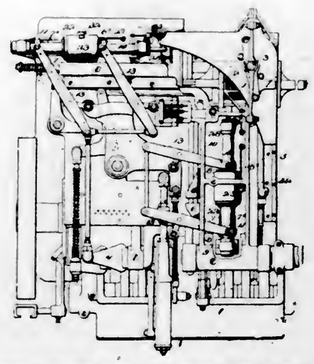
5. A type mold provided with a movable mold blade comprising three independent superposed longitudinal sections, with means for selectively coupling the intermediate section in gaged relation to either adjacent section, means for coupling one outer section with either a cut-off controlling or mold dimensioning mechanism and means for coupling the other outer section with a mold dimensioning mechanism.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,626. CENTERING OR ADJUSTING MECHANISM FOR TYPE-MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Dec. 23, 1912. Serial No. 738,283. (Cl. 101—200.)

1. In a type casting and composing machine provided with a movable die-case and oppositely movable positioning jaws and in combination with the latter a duplex gaging mechanism for varying the closed positions of the jaws and the relation of the die case thereto, the same including a stationary gaging unit equipped with a series of stepped gages and movable laterally of the line of travel of the jaws to present individual gages between and in alinement with said jaws, and a movable gaging unit coupled with the die case and provided with a stepped series of gages movable between and transversely of the line of travel of the jaws.



2. In a type casting and composing machine provided with a die case and a carrier therefor movable relatively to one another on intersecting lines, and in combination therewith, a centering or adjusting mechanism for said die case and carrier, the same including two pairs of oppositely moving positioning members or jaws and duplex gaging mechanism for each pair of jaws provided with signal controlled stationary and movable stepped gaging units interposed between and adjustable transversely of the line of movement of said jaws, the movable unit of one gaging mechanism being coupled with the die case and that of the other with the carrier.

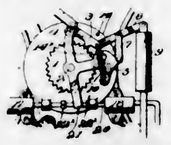
3. A point to point centering or adjusting mechanism for type casting and other machines the same comprising, in combination, oppositely movable positioning jaws and a duplex gaging device interposed between said jaws and including two stepped gaging units, one stationary and the other movable with respect to the line of travel of the jaws and each separately adjustable in a direction transverse to said line of travel.

4. In a point to point centering or adjusting mechanism such as described, provided with oppositely movable positioning jaws adapted to close at any intermediate position in their approaching movement, and in combination therewith, a duplex gaging means interposed between said jaws the same including a stepped gage movable transversely of the jaws to selectively interposed individual gaging members or sections between the jaws for determining different closed positions of the latter, and a second stepped gage movable in two directions the one for adjustment to bring individual gaging members or sections between the jaws, and the other in line with the motion of the jaws, to position said gage and its connected performing member in accordance with the setting of the two gages.

5. In a point to point centering or adjusting mechanism such as described, the combination of the following elements, to wit, oppositely movable positioning jaws; an adjustable or performing member; a duplex gaging means interposed between and adapted to be engaged by said jaws during their closing movements, the same including a gaging member movable transversely of the path of the jaws for arresting the latter at different points in their line of travel and a gaging member coupled with the aforesaid adjustable or performing member and movable both transversely of and parallel with the jaws; and means for selectively adjusting said gaging members.

[Claims 6 to 20 not printed in the Gazette.]

1,094,627. FEED MECHANISM FOR COMPOSING TYPE-MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 8, 1913. Serial No. 747,202. (Cl. 74—16.)



1. A ratchet mechanism such as described, including a ratchet wheel, a holding pawl, a driving pawl, a movable frame supporting the driving pawl and actuating devices connected to the two pawls to seat the one before the other at the time in engagement with the ratchet wheel is withdrawn therefrom, and in combination therewith a motor device coupled with said driving pawl frame and operating in opposition to said actuating devices to yieldingly resist the movement of said frame while under pressure from said actuating devices.

2. A ratchet feed mechanism such as described, provided with a ratchet wheel, holding pawl, driving pawl, a movable support for the driving pawl and actuating devices coupled with the pawls to alternately seat the latter and reciprocate the driving pawl and its support, and in combination therewith, a reversible motor connected with the driving pawl support to oppose the advance of the latter in response to the actuating devices.

3. In a ratchet feed mechanism, the combination of the following elements to wit: a ratchet wheel, a holding pawl mounted in the frame; a driving pawl mounted on a movable frame, a lever coupled with both of said pawls in a manner to fulcrum alternately upon each, and an elastic connection between the active ends of the two pawls, actuating devices coupled with said lever, a reversible motor coupled with the driving pawl frame to resist the movement of the latter in either direction, and means controlled by the actuating devices for reversing the motor.

4. A ratchet feed mechanism such as described, provided with a ratchet wheel, holding and driving pawls and connecting and actuating means including a movable support for the driving pawl for alternately engaging said pawls with the ratchet wheel and in combination therewith, a reversible motor connected with the driving pawl support to retard the movement derived from the actuating means, the same including opposed cylinders and pistons and valve mechanism for alternately admitting pressure to one cylinder and exhausting from the other.

5. A ratchet feeding mechanism such as described, including a ratchet wheel, holding and driving pawls, a movable support for the driving pawl, means coupled with the pawls for alternately engaging the latter with the ratchet wheel, and actuating devices provided with a yielding coupling, and in combination therewith, a reversible motor connected with the support of the driving pawl and valve mechanism controlling said motor and in turn controlled by the pawl actuating devices to reverse the direction of pressure after the pawl support or cam has reached the limit of its motion in one or the other direction.

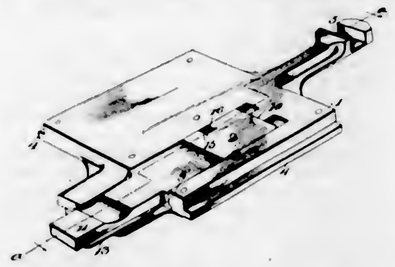
[Claims 6 to 8 not printed in the Gazette.]

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1,094,628. MATRIX-HOLDER FOR TYPE-CASTING MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Feb. 8, 1913. Serial No. 747,203. (Cl. 101—200.)

1. A matrix holder for type casting machines as described, the same including a slotted body section and a slidable matrix section fitted to the slot in the body section and provided with an open sided matrix receiving cell in one side and extending therethrough in a direction transverse to the path of movement of the slidable matrix section in the body section.

2. A matrix holder for type casting machines, composed of a body section provided with an open ended slot or way terminating in a gaging abutment, and a matrix section fitted to slide in said way and provided in one edge with a matrix retaining cell, the open side whereof is closed by one wall of said way, when the parts are assembled.



3. A matrix holder for type casting machines, consisting of a flat body section provided with parallel ribs and an open ended way terminating at its inner end in a gaging abutment and closed on one side by a cover plate; a matrix section fitted to slide in said way and provided in one edge with an open sided matrix cell formed with supporting ribs; and a latch carried by the matrix section for locking the latter in engagement with said gaging abutment.

4. A matrix holder for type casting machines, comprising a body section provided with an open ended slot or way, the sides whereof are of unequal length; and a matrix section provided with an open sided matrix cell in one edge containing matrix engaging shoulders and fitted to slide in said open ended slot or way and to be withdrawn therefrom for the insertion or removal of a matrix.

5. A matrix holder for type casting machines, comprising two separable members, the one provided with interlocking devices for attachment to the casting machine, an open ended slot or way, a gaging member and a cover plate, and the other fitted to slide longitudinally within said slot or way and provided in one edge with an open sided matrix receiving cell containing sustaining ribs, and a spring latch, the latter located in a recess in the face of said last named member in position to engage a complemental locking means on the cover plate.

[Claim 6 not printed in the Gazette.]

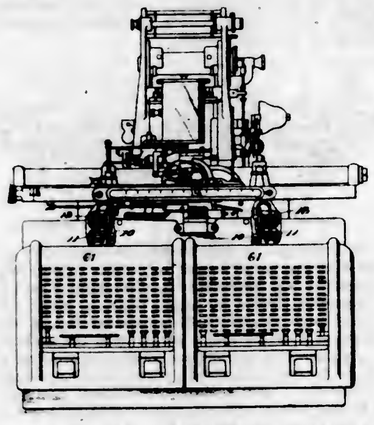
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1,094,629. KEYBOARD MECHANISM FOR PERFORATING AND OTHER MACHINES. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed May 13, 1913. Serial No. 767,460. (Cl. 164—112.)

1. In a machine of the class described the combination of the following elements to-wit: a series of punch controlling valve bars; a series of key-bars; permutation devices intermediate the key-bars and valve-bars; a series of keys, one for each key-bar; a driver; a single acting motor coupled with the driver and provided with a starter; a series of interponents, one for each key, for coupling its key-bar with the driver and actuating the starter of the motor, said interponents being normally under tension to engage the driver and restrained by their respective keys; and means for positively retracting the interponent and re-engaging it during the stroke of the motor.

2. In a machine of the class described equipped with a plurality of punch controlling valve-bars, a plurality of key-bars, permutation devices for connecting each key-bar with any one or more of the valve-bars, and a plurality of keys, one for each key-bar, and in combination therewith, an actuating mechanism for the key-bars controlled by the keys, the same including a driver, a motor for said driver provided with a starter, and a plurality of interponents one for each key for effecting connection between key-bar and driver and for actuating the starter to energize the motor and reciprocate the driver and indicated key-bar.





3. In a machine of the class described provided with a plurality of individual performing members and designating keys therefor, and in combination therewith, an actuating mechanism for said performing members responsive to the keys thereof the same including a single stroke motor equipped with a starter; a driver coupled with said motor; an interponent for each performing member adapted for interposition between the latter and the driver; a motor for each interponent tending to automatically effect engagement with the driver; a tripping connection between each interponent and its key for restraining the advance of the interponent; and connections between the starter and each interponent whereby the latter, when released by its key, will operate to couple the corresponding performing member and driver and start the motor in action.

4. In a machine of the class described, the combinations of the following elements, to-wit: a series of individual performing members or key-bars; a series of keys, one for each performing member; a single stroke motor; a driver coupled with the motor; a series of interponents, one for each performing member, adapted to couple the latter with the driver and provided with an advancing motor and a tripping connection with the associated key; a starter for the driver-motor; and actuating means for said starter located in the path of each interponent and engaged by the latter in its movement toward the driver when released by its key.

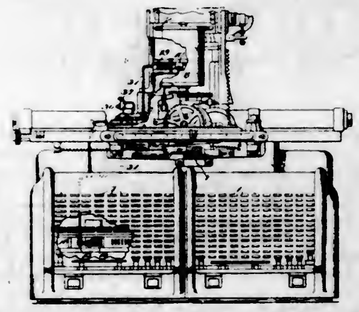
5. In a machine of the class described provided with a performing member and associated designating key and in combination therewith, a motor provided wth starting means; a driver coupled with said motor; an iterponent for connecting the driver and performing member provided with a restraining trip connection with the key and impelling means for effecting its advance toward the driver; actuating devices for the motor starter interposed in the path of the interponent and operated by the latter when released from its key to set the motor in action; and positively acting means controlled by the motor and operating through said motor starter actuating devices to retract the interponent and effect its reëngagement with the key.

[Claims 6 to 31 not printed in the Gazette.]

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1,094,630. RECORD-STRIP COMPOSING-MACHINE. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed May 21, 1913. Serial No. 769,014. (Cl. 164—112.)

1. In a record strip composing machine equipped with a series of punches including a transfer and a plurality of dimensioning members, a series of keys controlling said punches singly, and a line measuring mechanism the admeasuring members whereof are coupled for action with said dimensioning and transfer members, and in combination therewith, controllable means for rendering inoperative the admeasuring member of the transfer punch and for coupling the latter with the dimensioning punches to act in conjunction therewith.



2. In a record strip composing machine equipped with a series of punches including a transfer and a plurality of dimension indicating members, a series of keys controlling said punches, and a line measuring mechanism provided with admeasuring means controlled by said transfer and dimension indicating members, and in combination therewith, controllable means for simultaneously rendering inoperative the connection betwen said transfer member and the line measuring mechanism and coupling up for action said transfer and dimensioning members.

3. In a record strip composing machine, the combination of the following elements, to-wit: a series of key-controlled punches including a transfer member, a line measuring mechanism whose admeasuring members are coupled to respond to the several keys including that of the transfer member, to register the individual values thereof; and controllable means for cutting out the admeasuring member of said transfer member.

4. In a record strip composing machine, the combination of the following elements, to-wit: a series of type and space indicating keys; a series of punches responding singly or in multiple to said keys including a transfer indicating punch; a line measuring mechanism provided with admeasuring members coupled with and responding to said keys to register the values of the signals represented thereby; and controllable means for temporarily suspending the action of the admeasuring member for the transfer punch and for coupling the latter with the type keys so that the signal produced by any type key will include the transfer component and the value of the type indicated by said key will be registered.

5. In a record strip composing machine such as described provided with a series of punches including a transfer punch, and type and space indicating keys controlling said punches singly or in multiple through a series of transmitters, to produce distinctive signals, and in combination therewith, controllable means for temporarily coupling the transmitter for the transfer punch with the other transmitters so that the type keys when operated will add a transfer component to the produced type signal.

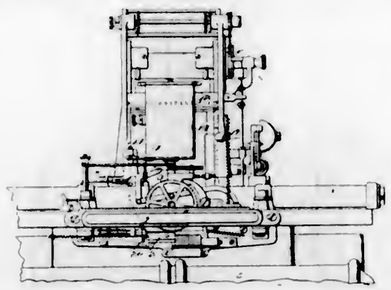
[Claims 6 to 13 not printed in the Gazette.]

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1,094,631. COMPOSING-MACHINE FOR RECORD-STRIPS. JOHN SELLERS BANCROFT and MAURITZ C. INDAHL, Philadelphia, Pa., assignors to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed May 21, 1913. Serial No. 769,015. (Cl. 164—112.)

1. In a composing machine such as described provided with a plurality of punches for producing the component members of type, space, and justification signals, and in

combination therewith, a supplemental punch collocated with the other punches to produce a special signal component in association with those derived from the other punches, and an interponent for coupling said supplemental punch with the series of punches for transmitting motion from the members of the series to said supplemental punch.



2. In a composing machine such as described provided with a series of key controlled punches representing the different components of type, space, and justification signals and in combination therewith, a supplemental punch representing an added space component, and controllable means for coupling said supplemental punch with the members of the first named series of punches so that the latter when actuated for the production of type and space signals, will produce in association therewith the extra space component.

3. In a composing machine such as described provided with a series of type and space signal component punches and a line measuring mechanism for registering the space value of the dimensioning components, including a zero stop and a units rack, and in combination therewith, an extra-spacing component punch, an interponent for coupling said last named punch with the type signal component punches to act in unison therewith in the production of the indicated signal, and a stepped gaging member interposed between the zero stop and units rack and coupled to move in unison with said interponent.

4. In a composing machine such as described equipped with a series of separately movable motor-actuated type signal component punches and a line measuring mechanism, and in combination therewith, an extra-spacing component punch associated with the type-signal component punches, a movable interponent for coupling said extra-spacing and type-signal component punches, and means for varying the action of the line measuring mechanism to compensate for the difference in the space value of the produced signals when said extra-spacing signal component punch is engaged.

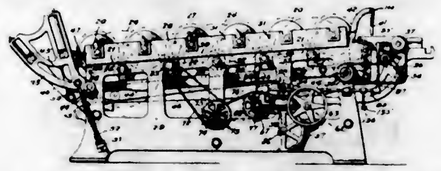
5. In a composing machine such as described, and in combination with the series of type and space signal component punches thereof each provided with an engaging shoulder, of an associated extra-spacing component punch, a two way movable interponent for coupling the shoulders of the type signal component punches and said extra-spacing signal component punch, to cause the latter to operate in connection with any one or more of the operating associated punches, and controllable means, including latching devices, for actuating said interponent.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,632. MANGLE. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company Limited, Chicago, Ill., a Corporation of New York. Filed Aug. 17, 1910. Serial No. 577,677. (Cl. 68—9.)

1. In a mangle, a main frame provided with a series of steam chests, a roll supporting frame coöperating with said chests, a rod extending longitudinally of said frames and connected thereto by toggle links, a lifting rod connected to said longitudinally extending rod, a cam for actuating said lifting rod, a sector upon the shaft of said cam, a coöperating worm gear meshing therewith, a driving shaft for said worm gear, a rock shaft provided with a shifting lever, and a clutch mechanism connected for operation by said rock shaft.



2. In a mangle, a main frame provided with a series of steam chests, a roll supporting frame coöperating with said chests, a rod extending longitudinally of said frames and connected thereto by toggle links, a lifting rod connected to said longitudinally extending rod, a cam for actuating said lifting rod, a sector upon the shaft of said cam, a coöperating worm gear meshing therewith, a driving shaft for said worm gear, a rock shaft provided with a shifting lever, and a clutch mechanism mounted upon said driving shaft and adapted to coöperate with oppositely disposed gears thereon meshing with a gear upon said driving shaft.

3. In a mangle, a main frame provided with a series of steam chests, a roll supporting frame coöperating with said chests, a rod extending longitudinally of said frames and connected thereto by toggle links, a lifting rod connected to said longitudinally extending rod, a cam for actuating said lifting rod, a sector upon the shaft of said cam, a coöperating worm gear meshing therewith, and means carried by said lifting rod for automatically controlling the driving mechanism for said cam.

4. In a mangle, a frame provided with a steam chest, a coöperating roll-supporting frame, a reciprocating rod carried by links connected to said frames, a lifting rod for reciprocating said rod, means for actuating said lifting rod, and means carried by said lifting rod for controlling the actuating means.

5. In a mangle, a frame provided with a steam chest, a coöperating roll-supporting frame, a reciprocating rod connected to said frames by toggle links, a lifting rod carried by said rod, means for actuating said lifting rod, a clutch connection for actuating said lifting rod, a depending arm from said rod, a bell-crank lever pivoted to a supporting bracket, and stops carried by said arm to engage said lever.

[Claims 6 to 9 not printed in the Gazette.]

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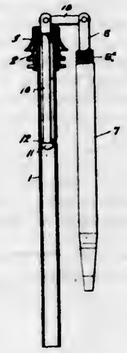
1,094,633. FOLDABLE UMBRELLA. WILLIAM HENRY BEEHLER, Baltimore, Md., assignor to William Beehler, Inc., Baltimore, Md., a Corporation of Maryland. Filed Dec. 4, 1909. Serial No. 531,395. (Cl. 135—46.)

1. In an umbrella, the combination of a rigid hollow metallic rod, a notch thereon extending beyond the end of the rod and having an internal screw thread reaching from the end of the extension approximately to the end of the rod and of an inner diameter approximately the same as the outer diameter of the rod, a removable tip screw threaded to engage the internal thread in the notch, a dowel extending from the tip, a slider within the rod provided with a head at its inner end, and a link pivotally connected to the slider and the tip dowel, the rod being provided with a stop at some distance from the end thereof to engage the slider head.

2. In an umbrella, the combination of a rigid hollow metallic rod, a notch thereon extending beyond the end of the rod and having an internal screw thread, a removable tip screw-threaded to engage the internal thread in the notch, a member extending from the tip, a slider within the rod provided with an abutment at its inner end, and a link pivotally connecting the slider to said member, the rod being provided with a stop to engage said abutment and limit the outward movement of the slider.



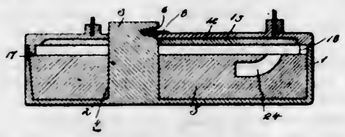
3. In an umbrella, the combination of a tubular metallic rod, a notch thereon having a portion extending beyond the end of the rod, said extended portion having an internal screw thread, a removable tip having a screw to engage said internal thread, a slider within the rod, a link connecting the slider with the tip, and a stop to engage the slider and limit its outward movement.



4. In an umbrella, the combination of a tubular metal rod, a notch structure thereon having a portion extending beyond the end of the rod, a removable tip having a screw engaging an internal thread in said extended notch portion, a slider within the rod, a stop for the slider, a link connecting the slider with the tip and a finishing cap screwed upon the extended end of the notch.

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1,094,634. SAD-IRON. DAVID BESWICK, Philadelphia, Pa. Filed Mar. 28, 1911. Serial No. 617,407. (Cl. 68—26.)



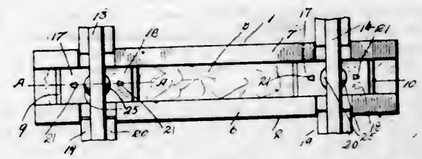
The described device consisting of a hollow sad iron body, a lug projecting from the bottom thereof above the sides of said body, said lug having a recess above said sides, a core with an opening through which said lug projects adapted to seat in said body, the side and end walls of said body being deeper than the thickness of said core whereby corner recesses are provided above said core at the junctures of said walls, a top having depending lugs adapted to fit into said recesses whereby said top and body are held against relative sliding movement, an opening in said top to receive said first lug, a lever pivoted to said top one end of which is adapted to seat in the recess in said first lug and means on said top for wedging said lever in a fixed position.

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1,094,635. RAILROAD-TIE. BENJAMIN FRANKLIN BLESSING, Waynesboro, Pa. Filed Oct. 28, 1913. Serial No. 797,784. (Cl. 238—5.)

1. The described tie consisting of a trough formed of metal having a horizontal bottom with a relatively large opening therein, vertical side walls with overlapping flat horizontal flanges extending the entire length of said tie, and recesses formed in the opposing ends of said tie to receive rails.

2. The described tie consisting of a trough formed of metal having a horizontal bottom with a relatively large opening therein, vertical side walls with overlapping flat horizontal flanges extending the entire length of said tie, recesses formed in the opposing ends of said tie to receive rails, and wood blocks seated in said tie adapted to receive said rails.



3. The described tie consisting of a trough formed of metal having a horizontal bottom with a relatively large opening therein, vertical side walls with overlapping flat horizontal flanges extending the entire length of said tie, recesses formed in the opposing ends of said tie to receive rails, wood blocks seated in said tie adapted to receive said rails, and a filler adapted to completely fill said tie.

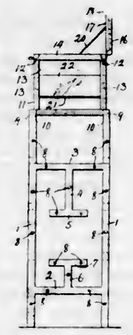
4. The described tie consisting of a trough formed of metal having a horizontal bottom with a relatively large opening therein, vertical side walls with overlapping flat horizontal flanges extending the entire length of said tie, recesses formed in the opposing ends of said tie to receive rails, wood blocks seated in said tie adapted to receive said rails, and a filler adapted to completely fill said tie and cohere with a roadbed.

5. The described tie consisting of a trough formed of metal having a horizontal bottom with a relatively large opening therein, vertical side walls with overlapping flat horizontal flanges extending the entire length of said tie, recesses formed in the opposing ends of said tie to receive rails, wood blocks seated in said tie adapted to receive said rails, a filler adapted to completely fill said tie and cohere with a roadbed, and rail holding plates adapted to be fixed to said blocks.

[Claims 6 and 7 not printed in the Gazette.]

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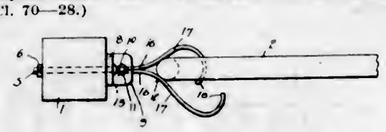
1,094,636. ARTICLE OF FURNITURE. JEAN BOISE, East Weymouth, Mass. Filed Oct. 8, 1913. Serial No. 794,087. (Cl. 211—27.)



1. A device of the character described including spaced upright supporting legs, cross pieces connecting said legs adjacent their ends, downwardly projecting members suspended from certain of said cross pieces, transverse bars secured to the lower ends of said members and having their ends spaced from the supporting legs, upwardly projecting members mounted upon certain of said cross pieces and having transverse blocks mounted upon the upper ends thereof, said blocks having their ends spaced from the upright supporting legs, as and for the purpose set forth.

2. A device of the character described including spaced upright supporting legs, cross pieces connecting said legs adjacent their ends, and opposed T-shaped members carried by said cross pieces, as and for the purpose set forth.

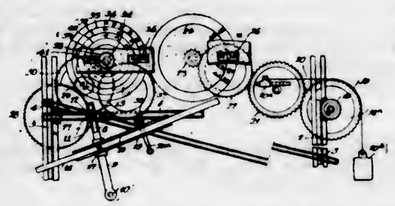
1,094,637. AUTOMATIC GATE-LATCH. PETER BOSEN, Slayton, Minn. Filed Dec. 23, 1913. Serial No. 808,356. (Cl. 70—28.)



1. In a device of the character described, a plate, ears formed integral with the plate intermediate its ends, a pin secured between the ears, a coiled spring surrounding the pin, a cup at the lower end of the coiled spring, and a latch member comprising a loop, a pair of arms formed integral with the loop, said arms extending outwardly with relation to the loop and bent to form a pair of spaced loops between which the end of the gate is adapted to be held when the device is in use.

2. In a device of the character described the combination with a fence post of a pin, means carried by the fence post to support the pin, a coil spring surrounding the pin, a cup at the lower end of the coil spring, a latch member comprising a loop, a pair of arms formed integral with the loop, said arms extending outwardly with relation to the loop and bent to form a pair of spaced loops between which the ends of the gate is adapted to be held when the device is in use.

1,094,638. CALCULATOR FOR BALANCES. ANTIDE BOYER, Paris, and PIERRE LOUIS MARIE GODEAU, Boulogne, France. Filed Oct. 6, 1910. Serial No. 585,643. (Cl. 235—61.)



1. A cost-computing apparatus comprising, in combination, a lever or beam supported by a movable pivot or fulcrum and arranged in turn about the same, means for deflecting one end of said lever through distances proportional to ascertain weights, and a member movable in a fixed path and operatively connected to said fulcrum for shifting the position of the same along the lever, the movements of said member along said fixed path in shifting the fulcrum being directly proportional to price per unit weight, while the resultant deflections of the other end of said lever are proportional to total cost.

2. A cost-computing apparatus comprising, in combination, a lever or beam supported by a movable pivot or fulcrum and arranged to turn about the same, means for deflecting one end of said lever through distances proportional to ascertain weights, mechanism for moving said fulcrum along said lever, a guide and a member movable along said guide for actuating said mechanism and thereby shifting said fulcrum, the movements of said member along said guide in shifting the fulcrum being directly proportional to price per unit weight, while the resultant deflections of the other end of said lever are proportioned to total cost.

3. A cost-computing weighing apparatus comprising, in combination, a beam, a fulcrum engaging said beam and about which the beam is arranged to turn, said fulcrum being movable along the beam, means for displacing one end of said beam in proportion to ascertain weights, means for indicating such displacement, a device movable in direct proportion to unit price changes, means for transmitting motion from said device to said fulcrum, such transmission means being so arranged that the resultant movement of the fulcrum along said beam is not directly proportional to unit price changes, and means for indicating the movements of the other end of said beam.

4. In a cost-computing weighing apparatus, the combination, with a beam and a fulcrum for said beam movable toward either end thereof, of a movable actuating member, and means for transmitting motion from said actuating member to said fulcrum, such transmission means being so arranged that movements of said actuating member over distances equal to each other produce movements of said fulcrum over distances unequal to each other.

5. In a cost-computing weighing device, a lever, an adjustable fulcrum engaging said lever and having a support, means for displacing one end of said lever according to a weight indication, means for indicating said displacement, means for variably displacing said support so as to cause lateral movement of said fulcrum toward or from the other end of the lever, said support-displacing means having a movement proportional to a change in price per unit of weight, means for indicating the movement of said other end and means for recording said movement.

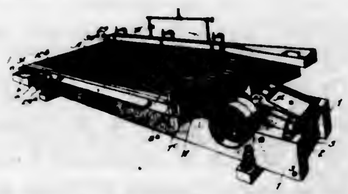
[Claims 6 to 21 not printed in the Gazette.]

1,094,639. MILK-BOTTLE CAP. MELA C. BROWN, Eugene, Oreg. Filed Sept. 25, 1913. Serial No. 791,835. (Cl. 215—14.)



As a new article of manufacture, a milk bottle cap comprising a pair of central round bodies, a plurality of lips integrally formed upon each of said bodies, said bodies and lips being waxed to form a yieldable water-proof structure, a stiff reinforcing disk interposed between said bodies, said bodies and disk adapted to fit in the upper portion of a milk bottle for forming a closure therefor, the side edges of each lip diverging toward the outer end of each lip, said lips adapted to fit over the neck of a milk bottle and snugly engage the bottle without the aid of secondary securing means, each lip adapted to snugly engage the side edges of the adjacent lips when the cap is in use, thereby allowing the lips engaging the bottle to fit squarely upon the bottle, thereby forming a tight closure, and the lips upon one body being formed in staggered relation to the lips on the other body, whereby the space between the lips of one body will be covered by the lips of the other body, thereby preventing moisture from passing between the lips and into the bottle.

1,094,640. CONCENTRATOR. WILLIAM L. CARD and FRANK S. CARD, Denver, Colo., assignors to The Card Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed May 26, 1905. Serial No. 262,417. (Cl. 83—88.)



1. A concentrator deck having two planes which meet on a diagonal line extending from the upper rearward corner at the feed end of the table to the forward tail-



side corner at the concentrate discharge end of the table, and provided with riffles or raised lands which form intermediate channels, the riffles or raised lands being highest intermediate of their ends and coincident with the said diagonal line, and the channels being deepest intermediate of their ends.

2. A concentrator deck comprised of a plurality of inclined planes which meet in a line extending obliquely from the rear end and feed side of the deck toward the tailings side and concentrate discharge end thereof, that plane which is located at the rear end and tailings side of the deck being of less transverse inclination than the other and being inclined downwardly from the rear toward the front end of the table, and riffles intersecting the line of junction of said planes.

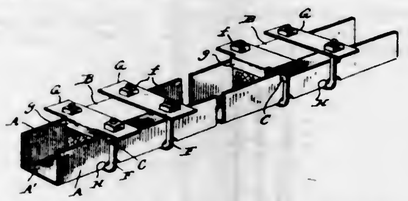
3. The combination of a concentrator table or deck comprised of a plurality of transversely inclined relatively adjustable planes of constant area, which meet in a line extending from the rear end of the table toward the front end thereof in a general diagonal direction, means for simultaneously adjusting the transverse inclination of the said planes, and means for independently adjusting the transverse inclination of the plane adjacent to the tailings side of the table to retard in appropriate degree the transverse flow of pulp.

4. The combination with a concentrator table or deck comprised of a plurality of transversely inclined adjustable planes, each plane having a constant area and said planes being divided from each other on lines extending downwardly and forwardly obliquely of the table or deck from the feed side thereof to the tailings side thereof, of means for independently adjusting the transverse inclination of the plane at the tailings discharge side of said deck to retard in appropriate degree the transverse flow of pulp, and means for simultaneously adjusting the transverse inclination of the several planes.

5. The combination with a concentrator table or deck comprised of transversely inclined adjustable planes, each of said planes having a constant area and said planes being divided from each other on lines extending downward obliquely of the table or deck, of means for simultaneously adjusting the transverse inclinations of said planes, means for independently adjusting the transverse inclination of the plane adjacent to the tailings side of the table to retard in appropriate degree the transverse flow of pulp, and means for securing the respective planes in their adjusted positions.

[Claims 6 to 19 not printed in the Gazette.]

1,094,641. RAILWAY-TIE. JOHN W. CLARK, Jr., Salt Lake City, Utah. Filed Dec. 10, 1913. Serial No. 805,771. (Cl. 238—5.)



1. A railway tie comprising a metal trough-like body having oppositely facing shoulders near each end, cushion blocks seated in the body in proximity to said shoulders and projecting at the top of the body to form the rail seats and fastening devices passing around the outside of the body and cushion blocks for clamping the same together, said fastening devices seating against the shoulders on the body to prevent relative longitudinal movement of the cushion blocks and body.

2. A railway tie comprising a metal trough-like body having its side walls formed with pairs of oppositely facing shoulders near its opposite ends, independent cushion blocks seated in the body in proximity to the shoulders to form rail seats, and fastening devices passing around the outside of the body and cushion blocks for clamping the same together, said fastening devices seating against the shoulders to prevent relative longitudinal displacement of the blocks and body.

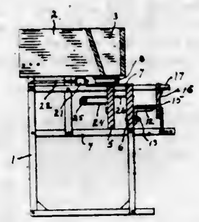
3. A railway tie comprising a metal trough-like body having its side walls formed with pairs of oppositely facing shoulders near its opposite ends and of substantially rectangular form in cross section, independent cushion blocks of rectangular form in cross section, seated in the body in proximity to the shoulders to form rail seats, and clamping fastening devices passing around the outside of the body, and cushion blocks at opposite ends of the blocks and seating against the shoulders on the side walls of the body, whereby the blocks and body will be held against relative longitudinal movement, substantially as described.

4. A railway tie comprising a metal trough-like body having its side walls formed with pairs of oppositely facing shoulders near its opposite ends and having its lower corners recessed, independent cushion blocks seated in the body in proximity to the shoulders and recesses to form rail seats and fastening devices passing around the outside of the body and cushion blocks and coöperating with the cushion blocks at both top and bottom to clamp the blocks and body together, said fastening devices coöperating with the shoulders on the body to prevent relative longitudinal displacement of the parts.

5. A railway tie comprising a metal trough-like body having its opposite side walls recessed in the upper edge to form oppositely facing shoulders near its ends, independent cushion blocks seated in the body in proximity to the shoulders to form rail seats and fastening devices embodying clamping members seating against said shoulders, for clamping the blocks and tie body together and preventing relative longitudinal movement of the same.

[Claims 6 and 7 not printed in the Gazette.]

1,094,642. CEMENT-POST MACHINE. EDWARD J. CONDON, Dixon, Ill. Filed Aug. 1, 1910. Serial No. 574,932. (Cl. 25—41.)



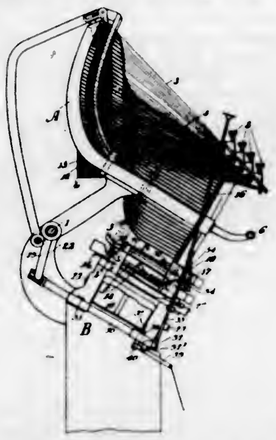
A machine of the character described comprising a frame, a plate located thereon, a receptacle pivoted upon the frame and located above the plate, wedges interposed between the receptacle and the frame, means for moving the wedges whereby the position of the receptacle with relation to the plate is varied, a bar movably mounted upon the plate below the receptacle and a material container mounted upon the frame and located at the delivery edge of the plate.

1,094,643. MATRIX-SETTING AND LINE-CASTING DEVICE. JULIUS DORNETH, Berlin, Germany, assignor to Typograph G. m. b. H., Berlin, Germany. Filed Apr. 4, 1910. Serial No. 553,272. (Cl. 199—8.)

1. In a matrix setting and line casting device the combination with matrix bars, a stop for said matrix bars, means for withdrawing said stop and a lifter for raising said matrix bars, of means operated by said withdrawing means for raising said lifter.

2. In a matrix setting and line casting device the combination with matrix bars, a stop therefor, means for withdrawing said stop, a lifter for raising said matrix bars and a shiftable support for said lifter, of means for rocking said support for raising said lifter.

3. In a matrix setting and line casting device the combination of matrix bars having undercut grooves therein, a stop for said matrix bars, means for withdrawing said stop and a lifter for raising said matrix bars, means operated by said withdrawing means for raising said lifter, a holding bar and a projection on said holding bar, said bar and projection being adapted to enter said undercut grooves when said matrices are raised, as set forth.



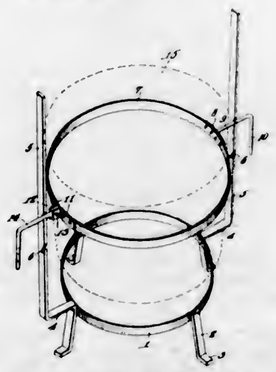
4. In a matrix-setting and line casting device, the combination of matrix bars, a stop for said matrix bars and a lifter for raising said matrix bars, with means for advancing the stop to arrest the matrix bars and for advancing the lifter, means for withdrawing the stop and means operated by said withdrawing means for raising the lifter.

5. In a matrix setting and line casting device the combination with matrix bars, a stop for said matrix bars, means for withdrawing said stop and a lifter for raising said matrix bars, of means operated by said withdrawing means for rocking the lifter upward.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,644. TUB-HOLDER. ADOLPH CLEVELAND DULLNIG, San Antonio, Tex. Filed Oct. 29, 1913. Serial No. 798,130. (Cl. 126—30.)



1. A tub holder comprising a ring, legs secured thereto and depending therefrom adapted to support the same in a horizontal manner, two of the said legs arranged in diametric alinement and extending outwardly adjacent the upper surface of the ring and then extending upward in a vertical and parallel manner, said upwardly extending standards provided with a plurality of notches, and a split ring provided with rods projecting diametrically therefrom adapted to fit within and be rotatably supported by the said notches, said split ring adapted to engage a circular tub for the supporting of the same above the ground in a rotatable manner, the lowermost of said notches adapted to hold the tub against shifting and supported on bte said horisontally disposed ring.

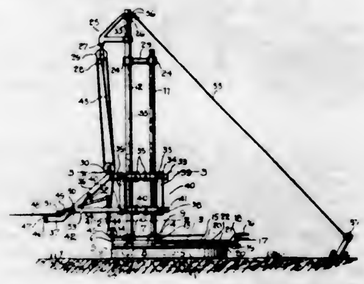
2. In a device of the class described, the combination of a ring, legs carried thereby and depending therefrom, outwardly extending portions carried by the ring, vertical standards carried by the outwardly extending portions, said standards provided with a plurality of notches, a split ring adapted to engage the side walls of a tub, means for drawing the adjacent extremities of the split ring together for bringing the same into forced contact for the rigid engagement of and with said tub, and rods extending outwardly from the said split ring and adapted to fit within and be supported by the said notches of the standards.

3. In a device of the character described, the combination of vertically disposed standards, means for maintaining the same in a vertical position and in spaced and parallel relation, a split ring, a plate rigidly secured to the said ring diametrically opposed to the split portion thereof, a rod carried by said plate and provided with a downwardly extending handle, said split ring provided with plates rigidly secured to the meeting portions of the split ring, said plates provided with outstanding flanges, means extending through said flanges adapted to vary the diameter of said split ring, a rod disposed between the outstanding flanges and adapted to be engaged thereby, the two mentioned rods adapted to fit within and be rotatably supported by notches provided in the said vertical standards.

4. In a device of the class described, the combination of a metallic hoop, legs rigidly secured thereto and depending therefrom, two of the legs which are disposed in diametric relation bent outwardly at their upper extremities, the outwardly extending portions bent upward in a vertical manner to form vertically extending standards, said standards provided with a plurality of horisontally alined notches, a split ring, plates carried by the said ring, means for varying the diameter of said ring, rods rigidly secured to the said ring and projecting diametrically therefrom, said rods adapted to fit within and be rotatably supported by the notches of the standards, said rods bent downward at their outer extremities to form handles for the manipulation of the said split ring, said split ring adapted to rigidly engage the side walls of a tub, the lowermost notches so arranged with respect to the hoop that the tub will rest thereupon when the rods are positioned in the lowermost notches, said rods when so positioned preventing the lateral shifting of the tub when so supported.

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1,094,645. HOISTING-MACHINE. GEORGE M. EICHINGER, Clear Lake, S. D. Filed Apr. 5, 1913. Serial No. 759,128. (Cl. 57—53.)



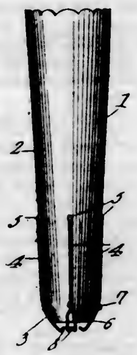
1. A machine of the character described comprising a base, a turn table, means mounted upon the base for supporting the turn table, means for locking the turn table against movement upon its supporting means, standards carried by the turn table, a movable frame mounted on the standards and comprising spaced parallel longitudinal members connected by transverse shafts, rollers mounted upon the shafts between the standards and outwardly of the same for engagement with said standards, whereby friction will be reduced to the minimum during movement of the frame, the outer ends of the upper and lower longitudinal members being connected, a transverse shaft mounted in the forward extremities of the longitudinal members, a material receiving member mounted upon the transeverse shaft, a trip lever engaged with the said member, means for retaining the trip lever in normal po sition, means for releasing the trip lever to allow the member to rock upon the shaft upon which it is mounted, means for moving the frame upon the standards, means for guiding the last mentioned means and means for supporting the guiding means.

2. A machine of the character described comprising a base, a turn table, means mounted upon the base for supporting the turn table, means for locking the turn table against movement upon its supporting means, standards carried by the turn table, a movable frame mounted on the standards and comprising upper and lower longitudinal members arranged in pairs and connected by transverse shafts, said pairs of upper and lower longitudinal members being connected by vertical frame members, rollers mounted upon the shafts between the standards and outwardly of the same for engagement with said standards, whereby friction will be reduced to the minimum during vertical movement of the frame, the outer ends of the upper longitudinal members being directed downwardly and connected with the outer ends of the lower longitudinal members, a transverse shaft mounted in the outer connected ends of the upper and lower longitudinal members, a material receiving member mounted upon the last mentioned transverse shaft, a trip lever engaged with said material receiving member, means for retaining the trip lever in normal position, means for releasing the trip lever to allow the member to rock upon the last mentioned transverse shaft, means for moving the frame vertically upon the standards, means for guiding the last mentioned means, and means for supporting the guiding means.



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1,094,646. GRAIN-SEGREGATOR. JAMES Y. FIELD, Mound City, Mo. Filed June 23, 1913. Serial No. 775,447. (Cl. 130—18.)



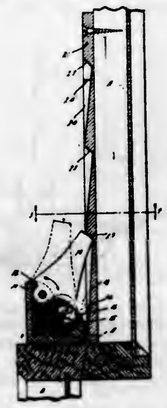
1. A grain segregator comprising a receptacle, having an opening at one end; and resilient arms secured to the receptacle, the arms terminating in angular loop-shaped fingers protruding within the extended contour of the opening.

2. A grain segregator comprising a tubular body; and a plurality of arms each secured at one end to the body, each arm comprising a shank bent upon itself to form a loop-shaped head prolonged angularly within the extended contour of the body to form a U-shaped finger, the sides of the finger coöperating, throughout the several fingers, to prevent a kernel from slipping laterally under the pressure of the fingers, the looped form of the heads serving to reinforce the heads and to prevent a bending of the heads when the fingers are pressed upon a kernel, and the shanks being yieldable to offset the stiffening resulting from the looped form of the heads, and to permit the fingers to open and to close with respect to a segregated kernel, the other end of each arm being twisted around the shank to close the head and to form a shoulder which engages the body to space the head from the side wall of the body, thereby preventing loosened parts of the kernel from being bound between the head and the side wall of the body.

3. A grain segregator comprising a receptacle having an opening at one end, and resilient arms secured to the receptacle, the arms terminating in angular fingers protruding within the extended contour of the opening, each arm having a shoulder intermediate its ends, the shoulder engaging the receptacle to space the lower end of the arm from the side wall of the receptacle, thereby preventing loosened parts of the kernel from being bound between the lower end of the arm and the wall of the receptacle.

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1,094,647. WINDOW-SASH LOCK. ANTHONY FISCHER, Indianapolis, Ind. Filed Sept. 24, 1913. Serial No. 791,495. (Cl. 16—145.)



1. A sash lock comprising two mating members having laterally interlocking portions, a locking dog carried by one of said members and engaging the other member to limit relative movement in one direction, a member for moving said locking dog to inactive position, and interengaging means between said last mentioned member and one of the two first mentioned members to automatically release the locking dog upon sufficient relative movement between the two first mentioned members.

2. A sash lock comprising two mating members, a locking dog carried by one of said members and engaging the other member to limit relative movement in one direction, a member for moving said locking dog to inactive position, and interengaging means between said last mentioned member and one of the two first mentioned members to automatically release the locking dog upon sufficient relative movement between the two first mentioned members.

3. A sash lock comprising two mating members having laterally interlocking portions, a locking dog mounted in one of said members and engageable with the other to limit relative movement in one direction, a cam journaled in the dog-carrying member and engaging the dog to shift the same to inactive position, an arm connected with

said cam, and a portion carried by the other member to engage said arm and automatically retract the cam upon sufficient relative movement between the two first mentioned members.

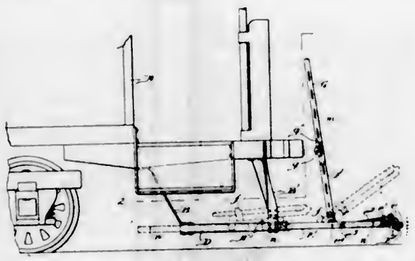
4. A sash lock comprising two mating members, a locking dog mounted in one of said members and engageable with the other to limit relative movement in one direction, a cam journaled in the dog-carrying member and engaging the dog to shift the same to inactive position, an arm connected with said cam, and a portion carried by the other member to engage said arm and automatically retract the cam upon sufficient relative movement between the two first mentioned members.

5. A sash lock comprising two members for attachment respectively to the two sashes of a window, one of said members being provided with ratchet teeth, a pivoted locking pawl carried by the other member and coöperating with the ratchet teeth of the first member, a pivoted cam carried by the pawl-carrying member and coöperating with said pawl to move the latter to inoperative position relative to said ratchet teeth, a finger movable with said cam, and a stop associated with said toothed member and coöperating with said finger to move said cam toward the position in which it allows said pawl to be operative.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,648. CAR-FENDER. GEORGE A. FULLERTON, Boston, Mass.; Mary Harriet Fullerton executrix of said George A. Fullerton, deceased. Filed Apr. 11, 1908. Serial No. 426,469. (Cl. 105—252.)



1. A fender for cars comprising a horizontally movable support; an approximately vertical frame carried by the support and comprising two parts movably connected and a screen with hand holds connected at the bottom to the frame, the vertical position of said frame being its operative position.

2. A fender for cars comprising a horizontally movable support; an approximately vertical frame movably connected at the bottom to the support and comprising two members movably connected and a screen with hand holds carried by the frame, the vertical position of said frame being its operative position.

3. A fender for cars comprising a horizontally movable support; an approximately vertical frame carrying an approximately vertical cord netting with hand holds and movably connected with the support and comprising two parts movably connected; means to positively lock said two movable parts against relative movement; and means to lock the frame with relation to its support, the vertical position of said frame being its operative position.

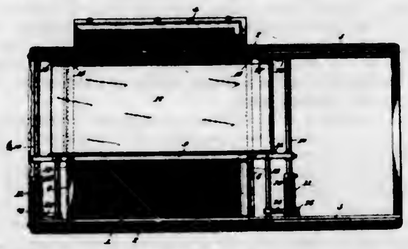
4. A fender for cars comprising a horizontally movable support; an approximately vertical frame carrying an approximately vertical cord netting with hand holds and carried by the support and comprising two parts movably connected; and means to positively lock said two parts against relative movement, the vertical position of said frame being its operative position.

5. A fender for cars comprising a support; and a frame which is approximately vertical when in use but which is horizontally movable, said frame being pivoted to the support so that it may be swung away from the car when not in use but having positive engagement with the support when in its vertical position to prevent movement of the frame toward the car when struck.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,649. RIBBON MECHANISM. EUGENE R. GOLL, Harrisburg, Pa., assignor to Elliott-Fisher Company, Harrisburg, Pa., a Corporation of Delaware. Filed Aug. 23, 1910. Serial No. 578,562. (Cl. 197—152.)



1. The combination with a platen and a transfer web coöperatively related thereto, of supporting means for the web, the web supporting means and platen being relatively movable to slack the web and to take up the slack, said platen and web supporting means being constructed and related to feed the web longitudinally as the slack therein is taken up.

2. The combination with a transfer web, of a platen and platen supporting means relatively movable to produce slack in the web, and tension mechanism coacting with the web to take up the slack and effect a longitudinal feed of the web.

3. The combination with a movable platen and web carrying means, of an endless web movable with the carrying means, the movement of the platen and carrying means serving to slack the web and to take up the slack by a longitudinal feed of the web.

4. The combination with an endless transfer web, of a flat platen, rollers around which the web is led, said rollers and platen being relatively movable, and means coacting with the rollers and web whereby relative movement of the platen and rollers will result in a longitudinal feed of the web.

5. The combination with a platen, of an endless web, carriers supporting said web in a loop, said platen being movable in a lateral direction with respect to said web and coacting with the latter, and means whereby the movement of the platen will result in relative movement of the web carriers to feed the web.

[Claims 6 to 21 not printed in the Gazette.]

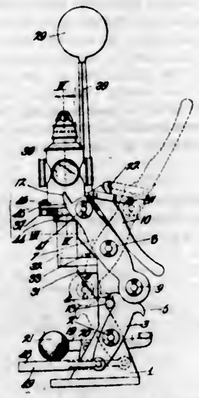
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1,094,650. SWITCH-STAND. BENJAMIN C. HAUKENBERRY, Kansas City, Mo. Filed Nov. 4, 1912. Serial No. 729,203. (Cl. 104—25.)

1. A switch stand, comprising a standard, a switch-operating lever, a locking pin therefor, means to unlock the lever by disengaging the pin therefrom, and automatic means to restore the pin to its original position to lock the lever in the position to which it may be thrown after being unlocked.

2. A switch-stand, comprising a standard, a switch-operating lever, a locking pin therefor, means to unlock the lever by disengaging the pin therefrom, and a lever connected to said locking pin whereby the latter may be withdrawn from engagement with the first-named lever and when unresisted return said locking pin to its original position to lock the first-named lever in the position to which it may be thrown after being unlocked.

3. A switch-stand comprising a standard, a lever fulcrumed thereon, a lever pivoted to the first-named lever and fulcrumed on the stand, a locking pin fitting slidingly in the standard and engaging the first-named lever to prevent movement thereof in one direction, a third lever suitably fulcrumed and connected to the locking pin and adapted by force of gravity to hold said pin advanced to prevent movement of the first-named lever.



4. A switch-stand comprising a standard, a switch-operating lever, a locking pin therefor, means to unlock the lever by disengaging the pin therefrom, means to restore the pin to its original position to lock the lever in the position to which it may be thrown after being unlocked, and a key-operated locking mechanism to lock the pin in its locking position.

5. A switch-stand comprising a standard, a switch-operating lever, a locking pin therefor, means to unlock the lever by disengaging the pin therefrom, automatic means to restore the pin to its original position to lock the lever in the position to which it may be thrown after being unlocked, and a key-operated locking mechanism to lock the pin in its locking position.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,651. KNOCKDOWN LEVEL. NOAH L. HAYDEN, Bisbee, Ariz. Filed Apr. 30, 1913. Serial No. 764,655. (Cl. 33—208.)



1. A spirit level including a central body section, level glasses mounted therein, a pair of end sections detachably connected to said central section, means for detachably connecting the said sections, said means including a pair of hook members adjustably mounted in said end sections, a pair of pin members mounted in the terminals of said central section, said pins being adapted to be engaged by said hook members, and a pair of connecting bolts carried by said end sections and adapted to be screw threaded in the terminals of said center section for holding the said end sections in assembled relation to the said center section.

2. A spirit level including a central body section, a pair of end sections, means for detachably connecting the said end sections to the said center sections, said means including a hook member carried by each of said end sections, means for adjusting the annular relation of said hook members to the longitudinal axis of said end sections, a pin member carried at each end of said center section and adapted to be engaged by said hook member, and a connecting bolt loosely mounted in each of said end sections, said connecting bolts being screw threaded at one terminal and adapted to be screw threaded into the adjacent terminals of said center section.

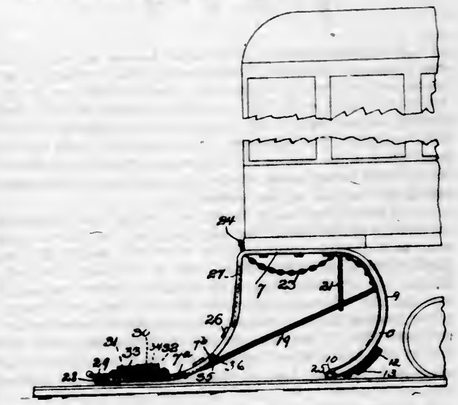


3. A spirit level comprising a central body section, a pair of end sections, a hook member carried by each of said end sections, means for adjusting the angular relation of said hook members to the longitudinal axis of said end sections, a pin member carried transversely at each end of said center section and adapted to be engaged by said hook member and means for insuring a proper alinement of the several sections, said means comprising pins formed on the terminals of the end sections and adapted to be seated in bores formed in the terminals of the center section.

4. A spirit level including a central body section, level glasses arranged therein, a metallic band rim for said center section, a pair of end sections, a metallic band for said end sections, means for insuring the proper alinement of the several sections, comprising pins formed on said end sections and coöperating with said center section and means for detachably connecting said end sections to said center section.

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1,094,652. COMBINED CAR FENDER AND GUARD. LEVI HERTZLER, Carlisle, Pa. Filed June 19, 1913. Serial No. 774,675. (Cl. 105—255.)



1. In a combined fender and guard, frame members, curved housings carried by the frame members at the rear thereof, a guard slidable in the housing, a plate at the rear of the frame members, springs connecting the plate and the guard for normally holding the guard downward, means for holding the guard elevated, a fender, and means actuated by the fender for releasing the guard.

2. In a combined fender and guard, frame members, curved housings carried by the frame members at the rear thereof, a guard slidable in the housing, a plate at the rear of the frame members, springs connecting the plate and the guard for normally holding the guard downward, a latch bar for holding the guard elevated, a fender, a movable member on the fender, means connecting the movable member with the latch bar, and means for holding the movable member projected.

3. In a combined fender and guard, frame members, curved housings carried by the frame members at the rear thereof, a guard slidable in the housing, a plate at the rear of the frame members, springs connecting the plate and the guard for normally holding the guard downward, a latch bar having a hook on its rear end for holding the guard elevated, a fender, a movable member on the fender, means connecting the movable member with the latch bar, and means for holding the movable member projected.

4. In a combined fender and guard, frame members, curved housings carried by the frame members at the rear thereof, a guard slidable in the housing, a plate at the rear of the frame members, springs connecting the plate and the guard for normally holding the guard downward, a latch bar having a hook on its rear end for holding the

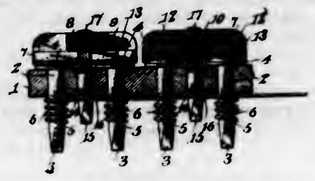
guard elevated, a fender, a movable member thereon, arms connecting the movable member with the latch bar, and means for holding the movable member projected.

5. In a combined fender and guard, frame members having curved rear ends, housings supported thereby, a guard slidable in the housing, a guide rod associated with the guard, means for drawing the guard toward the rails of a track, a latch bar engaging the guide bar for holding the guard elevated, a fender, and means associated with the fender for actuating the latch bar.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,653. PIANO TUNING-PIN. HENRY ADOLPHUS HILLCOAT, Amherst, Nova Scotia, Canada. Filed Feb. 28, 1913. Serial No. 751,312. (Cl. 84—105.)



1. A stringed musical instrument having a tuning pin, and a support therefor through which the tuning pin extends, and means for frictionally binding said pin in adjusted positions, said friction binding means being in part located on one side of the support and extending through and accessible for operation from the same side of the support as is the tuning pin, and said accessible portion of the binding means being shaped for operation by the same manipulating tool as the tuning pin.

2. A piano having a frame, a tuning pin rotatably mounted and extending through the frame and having at one end a friction head and the other end shaped for the application of a manipulating tool, a clamping block engaging the friction head, and a clamp screw extending through the frame and into the friction block, said clamp screw having the end remote from the block presented on the same side of the frame as the manipulating end of the tuning pin, and similarly shaped for the application of the same manipulating tool as that employed for the tuning pin.

3. A piano having a metal frame, a plurality of tuning pins traversing the frame and each having one end shaped for the application of a manipulating tool and the other end formed into a laterally expanded head with a convex face remote from the body of the pin and a plane face toward the body of the pin, a block having concavities therein adapted to engage a plurality of the convex heads of the pin, and a single clamping screw for the block extending through the piano frame with one end threaded into the block and the other end formed with a flange or shoulder for engaging the same face of the frame from which the manipulating ends of the tuning pins project, and said clamp pin or screw having that end corresponding to the manipulating ends of the tuning pins similarly shaped for the application of the same manipulating tool employed for turning the tuning pins.

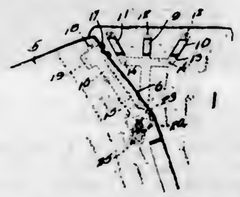
4. A piano having a metal frame, a plurality of tuning pins traversing the frame and each having one end shaped for the application of a manipulating tool and the other end formed into a laterally expanded head with a convex face remote from the body of the pin and a plane face toward the body of the pin, a block having concavities therein adapted to engage a plurality of the convex heads of the pin, and a single clamping screw for the block extending through the piano frame with one end threaded into the block and the other end formed with a flange or shoulder for engaging the same face of the frame from which the manipulating ends of the tuning pins project, and said clamp pin or screw having that end corresponding to the manipulating ends of the tuning pins similarly shaped for the application of the same manipulating tool employed for turning the tuning pins, the concavities of the block being related to the convex heads to admit the introduction of a washer of suitable friction material.

5. A piano having a frame, tuning pins traversing the piano frame and each provided at one end with a laterally expanded head having its outer face convex, each pin having the end remote from the head tapered and squared for the application of a tuning implement, a block having spaced cavities adapted to receive the convex heads of spaced tuning pins, and a single clamp screw for each block traversing the piano frame and threaded into the block and at the end remote from the threaded end formed with a flange or shoulder and squared and tapered to receive the same manipulating tool as the tuning pins.

[Claim 6 not printed in the Gazette.]

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1,094,654. GARMENT-WAIST ADJUSTER. ALBERT K. HURST, Dallas, Tex. Filed Aug. 23, 1912. Serial No. 716,712. (Cl. 24—267.)

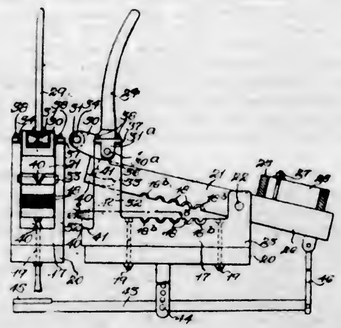


1. In a garment fastening for plackets, a pair of pivoted arms, one of said arms having an opening and an upset slotted portion adjacent the opening, the other arm having an off-set enlarged portion having a width greater than the opening of the first arm and inserted through the opening and slotted portion of the first arm, a fastening member on the end of one of the arms, and means carried by the other arm and adapted to receive the fastening member.

2. In a placket closure, a pair of arms pivoted together and arranged to be secured to the adjacent placket portions of a skirt, one of said arms having an off-set enlarged portion at its end provided with an aperture, the other arm having at its end an opening and an upset portion provided with a slot, the enlarged end of one arm being arranged to pass through the opening and slot of the other arm, and a tape passing through aperture of one arm and the slot of the other arm and having its ends arranged to be secured to a skirt whereby the arms are held together and permitted to have oscillating connection.

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1,094,655. DRILL-BIT FORMING AND SHARPENING MACHINE. WALTER L. JACKSON, Quincy, Mass., assignor of one-half to Theophilus King, Quincy, Mass. Filed Dec. 6, 1913. Serial No. 805,031. (Cl. 76—95.)



1. A drill bit forming and sharpening machine comprising an elongated fixed vise jaw having a plurality of



transverse drill-receiving recesses, an elongated movable vise jaw hinged to the fixed jaw and having complemental transverse recesses arranged to register with the recesses of the fixed jaw when the jaws are closed, the movable jaw being normally separated from the fixed jaw, and means for confining the movable jaw against the fixed jaw, said recesses having polygonal drill shank-engaging portions of uniform size, and end portions constituting frusto-conical forming dies of different sizes, whereby bits of different sizes may be formed on shanks of a uniform size.

2. A drill bit forming and sharpening machine comprising an elongated fixed vise jaw having a plurality of transverse drill-receiving recesses, an elongated movable vise jaw hinged to the fixed jaw and having complemental transverse recesses arranged to register with the recesses of the fixed jaw when the jaws are closed, the movable jaw bing normally separated from the fixed jaw, and means for confining the movable jaw against the fixed jaw, said recesses having polygonal drill shank-engaging portions of uniform size and end portions constituting frusto-conical forming dies of different sizes whereby bits of different sizes may be formed on shanks of a uniform size, the said polygonal recess portions being provided with roughened faces adapted to prevent endwise movement of a drill shank confined in said recesses.

3. A drill bit forming and sharpening machine comprising an elongated fixed vise jaw, an elongated movable vise jaw hinged to the fixed jaw, said jaws having meeting faces provided with transverse shank-holding and bit-forming recesses, means being provided for yieldingly pressing the movable jaw upwardly from the fixed jaw, standards on the fixed jaw at opposite sides of the path of the outer end portion of the movable jaw, provided with stop members at their inner sides, and a lever pivoted to said standards and having a cam shaped shorter arm bearing on the movable jaw and adapted to depress the latter into contact with the lower jaw, said shorter arm being provided with stop members coöperating with the stop members on the standards to arrest the jaw-depressing movement of the lever when the bearing of the shorter arm on the movable jaw is at the inner side of a perpendicular line from the axis of the lever, whereby displacement of the lever by the upward pressure of the movable jaw against it is prevented.

4. A drill bit forming and sharpening machine comprising an elongated fixed vise jaw, an elongated movable vise jaw hinged to the fixed jaw, said jaws having meeting faces provided with transverse shank-holding and bit-forming recesses, means being provided for yieldingly pressing the movable jaw upwardly from the fixed jaw, standards on the fixed jaw at opposite sides of the path of the outer end portion of the movable jaw, provided with stop members at their inner sides, a lever pivoted to said standards and having a cam shaped shorter arm bearing on the movable jaw and adapted to depress the latter into contact with the lower jaw, and means for vertically adjusting the fulcrum of said lever to compensate for wear.

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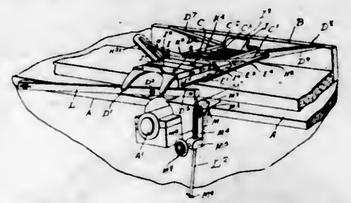
1,094,656. PROCESS FOR THE MANUFACTURE OF ARTICLES OF AGGLOMERATED AND REINFORCED CORK. CHARLES AUGUSTE JANNEAU, Paris, France, assignor to Société Anonyme des Anciens Etablissements Charles Janneau, Paris, France. Filed Apr. 25, 1911. Serial No. 623,295. (Cl. 18—59.)

1. The herein described process of manufacturing articles of agglomerated and reinforced cork which consists in coating the reinforcement with a mixture of pitch, resin and heavy oil, embedding the coated reinforcement in a mass of cork particles agglomerated with a heated mixture of pitch, resin and heavy oil, subjecting the mass to pressure and then allowing the compressed mass to cool.

2. The herein described process of manufacturing articles of agglomerated and reinforced cork which consists in coating the reinforcement with a mixture of pitch, resin and heavy oil in the proportions by weight, of 5/8, 2/8 and 1/8, embedding the coated reinforcement in a mass of cork particles agglomerated with a heated mixture of pitch, resin and heavy oil in the same proportions, subjecting the mass to pressure and then allowing the compressed mass to cool.

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1,094,657. PLANER-GUARD. WILLIAM JENKINS, Meaford, Ontario, Canada. Filed Mar. 7, 1913. Serial No. 752,718. (Cl. 144—251.)



1. A planer guard comprising an arm pivoted at one end to the planer table so as to swing in a vertical plane, a tension device connecting the opposite end of the arm to the table resiliently, an expansible and contractible frame carried at one end by the arm intermediately of its length and bearing at its opposite end against the gage block of the planer table, a gage plate secured at its inner end to the expansible frame, and means for locking the gage plate in the position to which it is adjusted, as and for the purpose specified.

2. A planer guard comprising an arm pivoted at one end to the planer table so as to swing in a vertical plane, a resilient device connecting the opposite end of the arm to the table, an expansible and contractible frame carried at one end by the arm intermediately of its length and bearing at its opposite end against the gage block of the planer table, a plate secured at its inner end to the expansible frame having an open top having a series of cross bars extending across the opening to form a grid, and a hook carried by a stationary portion of the frame and designed to engage with the cross bars and hold the frame in the position to which it is adjusted and means for guiding the board beneath the frame, as and for the purpose specified.

3. A planer guard comprising an arm pivoted at one end to the planer table so as to swing in a vertical plane, a resilient device connecting the opposite end of the arm to the table, an expansible and contractible frame carried at one end by the arm intermediately of its length and bearing at its opposite end against the gage of the planer table, a plate secured at its inner end to the expansible frame having an open top having a series of cross bars extending across the opening to form a grid, means for guiding the board beneath the frame, a plate located over the guard plate and slidable longitudinally in the stationary portion of the frame, a stop at one end of the plate and a hook swingingly connected at the opposite end of the plate and designed to engage with the bars of the grid opening, as and for the purpose specified.

4. A planer guard comprising a supporting arm pivoted at one end to the planer table to move in a vertical plane, resilient connecting means between the opposite end of the arm and the planer table, a frame carried by the supporting arm intermediately of its length and a guard plate carried thereby, means for guiding the board beneath the frame, an arm pivoted to the inner end of the frame vertically set roller journaled in the arm and bearing against the gage block of the planer table, a stop depending from the frame to one side of the roller, and a tension spring normally holding the arm against such stop, and horizontal rollers journaled to each side of the first mentioned horizontal roller and designed to bear against the surface of the board when passed edgewise over the planer knives, as and for the purpose specified.

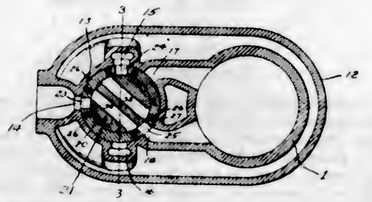
5. A planer guard comprising an arm pivoted at one end to the planer table so as to swing in a vertical plane, resilient means for connecting the opposite ends of the arm to the planer table, an expansible and contractible

frame carried by the arm having a downward curved lip at its end, a main guard plate secured to the inner end of the frame, supplemental guard plates pivotally connected together in series and said series being connected to the main guard plate and designed to be supported by the curved lip when the frame is adjusted into its contracted position and means for guiding the board beneath the guard, as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

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1,094,658. GAS-ENGINE. JULIAN B. JENSEN, Oakland, Cal. Filed May 23, 1912. Serial No. 699,136. (Cl. 123—190.)



1. A control valve for gas engines comprising in combination, a valve seat having a cylindrical bore and an inlet port, exhaust ports diametrically opposite each other with their axes at right angles to the axis of said inlet port, and cylinder ports for communication with the engine cylinder, said cylinder ports being disposed intermediate said exhaust ports with their axes substantially at an angle of 90° to each other and 45° to the axes of the adjacent exhaust port; a cylindrical shell valve oscillatable within said valve seat and having ports with their axes at substantially right angles to each other, adapted to form communication with said inlet ports and either exhaust port of said valve seat, and a port with its axis at substantially 135% with respect to the said first mentioned ports of said shell valve adapted to communicate with either of said cylinder ports of said valve seat; and a drum valve revoluble within said cylindrical shell valve provided with two transversely extending ports, each adapted to form communication between the said port in said shell valve open to the engine cylinder and said port in said shell valve open to the intake port of said valve seat, and successively to form communication with said port in said shell valve open to the engine cylinder and the said port in said shell valve open to an exhaust port in said valve seat, said ports in said drum valve acting alternately, substantially as and for the purpose set forth.

2. In combination with a gas engine including a cylinder, a piston therefor, a crank shaft, and means operatively connecting said piston and said crank shaft, of a valve seat having a cylindrical bore with an inlet port, exhaust ports diametrically opposite each other with their axes at right angles to the axis of said inlet port, and cylinder ports for communication with the engine cylinders, said cylinder ports being disposed intermediate said exhaust ports with their axes at substantially an angle of 90° to each other and 45° to the axis of the adjacent exhaust port; a cylindrical shell oscillatable within said valve seat and having ports with their axes at substantially right angles to each other, adapted to form communication with said inlet ports and either exhaust port of said valve seat, and a port with its axis at substantially 135% with respect to the first mentioned ports of said shell valves, adapted to communicate with each of said cylinder ports of said valve seat; a drum valve revoluble within said cylindrical shell valve provided with two transversely extending ports, each adapted to form communication between the said ports in said shell valve open to the engine cylinder and the said ports in said valve shell open to the inlet port of said valve seat, and successively form communication with the said port in said valve seat to open to the engine cylinder and the said port in said shell valve open to said exhaust port in the valve seat, the ports in said drum acting alternately; and, mechanism operatively connected with the said crank shaft of said engine and said drum valve to impart to the latter one complete revolution at four revolutions of said crank shaft, substantially as and for the purpose set forth.

3. A control valve for gas engines comprising in combination, a valve seat having a bore with an inlet port, two exhaust ports, and two cylinder ports for communication with said engine cylinder; a shell valve rotatable in said valve seat and provided with three ports, the relative position of said ports being such that with one port open to one of said cylinder ports of said valve seat, the other two ports are open respectively to the inlet and one of the exhaust ports of said valve seat, and when said shell valve is rotated to open said first mentioned ports thereof to open to the other cylinder ports in said valve seat, said second mentioned ports of said shell valve are opened respectively to the other exhaust port of said valve seat and said inlet port thereof; and a drum valve rotatable within said shell valve and provided with conducting means for alternately forming a communication between the said first mentioned port of said shell valve and the port of the latter open to the inlet port of said valve seat, and intermittently forming a communication between said first mentioned valve of said shell valve and the port thereof open to the exhaust port of said valve seat, substantially as and for the purpose set forth.

4. In combination with a gas engine including a cylinder, a piston therefor, a crank shaft and means operatively connecting said piston and crank shaft, a valve seat having a bore with an inlet port, two exhaust ports and two cylinder ports communicating with the engine cylinder, a shell valve rotatable within said valve seat and provided with three ports, the relative position of said ports being such that with one port open to one of the said cylinder ports of said valve seat, the other ports are open respectively to the inlet and one of the exhaust ports of said valve seat, and when said shell valve is rotated to open said first mentioned port thereof to open to the other cylinder ports of said valve, said second mentioned ports of said shell valve are opened respectively to the other exhaust port of said valve seat and said inlet port thereof; a drum valve rotatable within said shell valve and provided with means for alternately forming a communication between the said first mentioned port of said shell valve and the port of the latter opened to the inlet port of said valve seat, and intermittently forming a communication between said first mentioned port of said shell valve and the port thereof open to the exhaust port of said valve seat; and, means operatively connecting said crank shaft and drum valve to rotate the latter for controlling operation consistent with the induction, compression, power and exhaust strokes of the engine.

5. In a control valve for gas engines, the combination of a valve seat having inlet, exhaust and cylinder ports leading to the bore thereof, a cylindrical shell valve oscillatable in said valve seat and provided with ports adapted to be opened with the said ports in said valve seat and having longitudinally extending slots, a drum valve rotatable in said shell valve adapted to control communication between said ports in the latter, a plurality of pairs of packing bars adapted to fit in the said slots in said shell valve and one bar of each pair being adapted to bear against the internal periphery of said valve seat and the other bar of each pair being adapted to bear against the periphery of said drum valve, and yieldable means interposed between said bars of each pair, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,659. FIREPLACE. NATHAN JOHNSTON, Sugden, Okla. Filed May 12, 1913. Serial No. 767,176. (Cl. 126—120.)

1. The combination of a chimney including front, rear and side walls and provided at the front wall with a fireplace opening, a blower mounted at the said fireplace opening and slidable downwardly and upwardly to cover and uncover the same, a rear inner plate extending upwardly from the bottom of the chimney and spaced from the rear wall thereof, and an inclined damper pivotally mounted in the space between the inner rear plate and the rear wall of the chimney at a point slightly below the upper edge of the said rear plate and extending forwardly over the same and resting thereon with its front edge arranged in close proximity to the said blower.

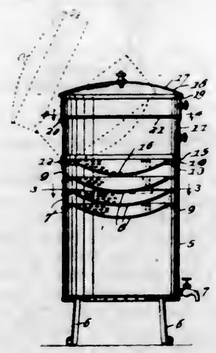




2. The combination of a chimney including front, rear and side walls and provided at the front with a fireplace opening, inner upright side plates extending from the front of the chimney to the rear wall thereof and arranged in spaced relation with the side walls to form side spaces, an inner rear plate extending upwardly from the bottom of the chimney in spaced relation with the rear wall thereof to provide a rear space and connected at its side edges to the said inner side plates, a blower mounted at the fireplace opening and slidable downwardly and upwardly to cover and uncover the same, a damper pivotally mounted between the side plates in the space between the rear plate and the rear wall of the chimney and at a point below the upper edge of the said rear plate and extending forwardly over the same and resting thereon and having its front edge arranged in close proximity to the blower, and operating means connected with the damper and arranged in one of the said side spaces.

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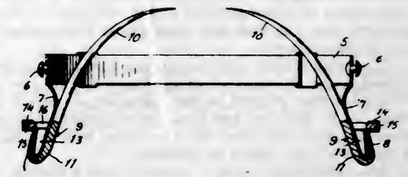
1,094,660. DEVICE FOR MAKING SYRUP. JOSEPH KAUFER, Wilkes-Barre, Pa. Filed June 28, 1913. Serial No. 776,348. (Cl. 167—4.)



In a device for producing syrup, a receptacle, series of brackets arranged in different planes within the said receptacle, strainers comprising rims having recesses coinciding with the brackets, a perforated concaved central portion through which the syrup is strained, a cylindrical section having a flange at its lower edge fitting within the receptacle, external and internal shoulders on the said section, the former of which is supported by the upper edge of the receptacle, a strainer supported by the internal shoulder of the said section for containing sugar, a cover comprising a top having concentric flanges spaced apart to form a channel therebetween and a vertical portion fitting in the said channel, the said vertical portion fitting the cylindrical section and forming a closure therefor, means for hinging the cylindrical section to the receptacle, and means for hinging the cover to the said section.

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1,094,661. HAT-FASTENER. MATHUS O. KEITH and KING D. MCQUEEN, Denver, Colo. Filed Feb. 6, 1913. Serial No. 746,498. (Cl. 132—25.)



1. A hat fastener including a band adapted to be secured to a hat, a depending arm secured to said band and having an upwardly facing spring tongue formed upon its extremity, a hair engaging member, means carried by said member for positive engagement with the extremity of the tongue, whereby said hair engaging member will be locked to the band, and means for disengaging the spring tongue from said first mentioned means.

2. A hat fastener including a band adapted to be secured in a hat, a plurality of depending arms secured to said band, upwardly facing spring tongues carried upon the outer sides of said arms, a hair engaging member, a bar carried by said hair engaging member for positive engagement with the extremities of said spring tongues, and means acting on the tongues to release the latter from engagement with the bar.

3. A fastener of the character described, including a band adapted to be secured within a hat, a plurality of depending arms secured to said band, a plurality of upwardly facing spring tongues secured to the extremities of said arms, a hair engaging member, a locking bar secured to said hair engaging member and having its central portion spaced therefrom, an upwardly extending spring continuing from the lower edge of the hair engaging member, and a housing formed upon the free edge of said spring to receive the locking bar, the spring tongues being adapted for engagement under said bar whereby the two members are locked together and the spring and housing providing means for disengaging the tongues from the bar to permit the removal of the hat.

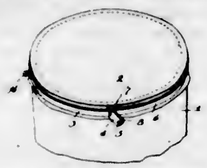
4. A hat fastener including a band adapted to be secured within a hat, a plurality of depending arms carried by said band, an upwardly facing spring tongue formed upon the lower extremity of each arm, a hair engaging member, a bar rigidly secured to the hair engaging member and adapted to engage over the upper extremity of said tongues, whereby the band is held against upward movement reintive to the hair engaging member and a flexible plate formed upon the lower edge of said hair engaging member for engagement with the outer faces of the spring tongues, an inward movement of said plate disengaging the tongues from under said bar.

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1,094,662. CLOSURE. THOMAS P. KILEY, New York, N. Y. Filed Aug. 4, 1913. Serial No. 782,865. (Cl. 217—81.)

1. The combination with a container and a covering therefor, of a bow pivoted to the container, means for locking the bow against movement, a second bow pivoted to the first bow and means for locking the last mentioned bow against movement.

2. The combination with a container and a covering therefor, of a bow pivoted to the container, means for locking the bow against movement, a second bow pivoted to the first bow and means for locking the last mentioned bow against movement, and means whereby the covering will be clamped between the bows and the container.



3. The combination with a container and a covering for the same, of a bow pivoted to the container, a second bow pivoted to the first bow, and means for locking the bows to the container.

4. The combination with a container and a cover therefor, said cover being of greater diameter than the container, of a bow pivoted to the container, a second bow pivoted to the first bow and means whereby said bows will engage the projecting edge of the covering with the side of the container and lock it in position.

5. The combination with a container and a flexible covering for the same, of a bow pivoted to the container, a perforation in the bow, an eye secured to the container, a wire passing through the perforation, and the eye for locking the bow to the container, a second bow pivoted to the first bow, a perforation in the second bow and a stud on the container for engagement with the last named perforation.

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1,094,663. MASSAGE-VIBRATOR. WILLIAM FRANCIS LAY, Boston, Mass. Filed Oct. 19, 1912. Serial No. 726,635. (Cl. 128—16.)



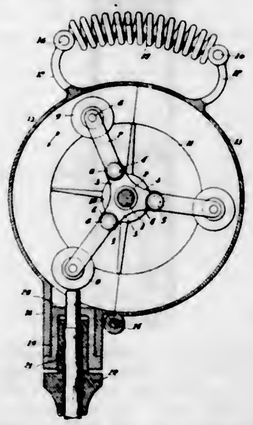
1. In a massage vibrator, the combination with a cam, and means for rotating the cam, of a cam-operated floating follower adapted to carry a massage tool upon its outer end, the follower being freely mounted whereby the same may be applied to the body without pressure and whereby the amplitude and force of the vibratory movements of the follower may be regulated by the movement of the vibrator toward and from the body.

2. In a massage vibrator, a casing, a cam in the casing, means for rotating the cam, a cam-operated follower mounted to slide longitudinally and freely through the casing and adapted to carry a massage tool upon its outer end, and a handle on said casing whereby to manually support the latter in proximity to the body and hold said massage tool near the body without exerting pressure thereon, said casing being advanced toward and receded from the body to the desired degree whereby to move the inner end of the follower toward and from the axis of the cam to thus increase and decrease the vibratory impulses imparted by the cam.

3. In a massage vibrator, a rotating cam, and a cam actuated floating follower adapted to carry a massage tool, the follower being freely mounted whereby the amplitude and force of the vibratory movements of the follower and said tool are regulated and determined solely by the pressure of the tool against the body.

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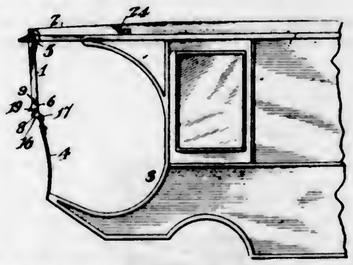
1,094,664. PORTABLE ROTARY HAMMER. CARLO LEONARDI, Milan, Italy. Filed Mar. 25, 1913. Serial No. 756,804. (Cl. 78—34.)



In a device of the kind described, a casing, a shaft journaled in said casing, a hub mounted on said shaft, a series of arms pivoted to said hub and arranged in pairs, a hammer head journaled between each pair of arms, a tubular socket extending from said casing and a tool holder slidably mounted in said socket and arranged to receive the shank of a tool and hold the same in the path of said head, said tool holder being movable to vary the position of the shank with relation to said head.

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1,094,665. STORM-SHIELD FOR VEHICLES. GEORGE STEWARD MACLEOD, Seattle, Wash. Filed Sept. 20, 1909. Serial No. 518,464. (Cl. 21—81.)



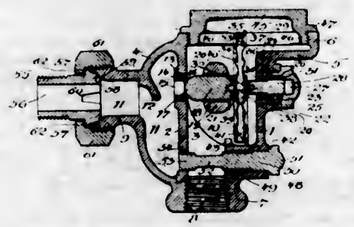
1. A latch designed to be mounted on a swinging member and comprising a casing open at the front, a spring housed within the casing, a latch plate slidable over and covering the open front of the casing and provided with slots and having a lug extending into the casing and engaged by the said spring, said latch plate being provided at one end with an inclined edge and having an offset hook-shaped engaging portion located at one end of the inclined edge, an arm extending from one of the side edges of the latch plate and forming a lift, and fastening devices extending through the slots of the latch plate and permitting a limited sliding movement of the same.

2. A latch designed to be mounted on a swinging member and comprising a casing open at the front, a spring housed within the casing, a latch plate slidable over and covering the open front of the casing and provided with slots, said latch plate having an inclined outer edge and provided at one side thereof with an offset hook-shaped engaging portion, fastening devices extending through the slots of the latch plate and permitting a limited sliding movement of the same, and a coacting keeper consisting of an attaching portion and an inclined engaging portion extending upwardly from the attaching portion and presenting an inclined face and having an upper engaging edge adapted to extend into the hook of the latch plate.



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1,094,666. THERMOSTATIC TRAP OR VALVE. JAMES H. MARTIN, Jr., Chicago, Ill., assignor to Charles P. Monash, Chicago, Ill. Filed Jan. 2, 1914. Serial No. 809,984. (Cl. 236—10.)



1. In a thermostatic trap, the combination of a casing having an inlet passage for water and having also a water discharging chamber and an outlet passage leading therefrom and a port furnishing communication between the inlet and chamber, a loosely mounted and freely slidable valve member controlling the port, a disconnected thermostatic member loosely supported in the water discharging chamber for actuating the valve, and a yieldable bumper externally engaging the thermostatic member and operating to prevent ill-effects from over-expansion of the thermostatic members, substantially as described.

2. In a thermostatic trap, the combination of a casing having an inlet passage provided with a sediment retaining section, and having also a water discharging chamber and an outlet passage leading therefrom, and a port furnishing communication between the inlet passage and the discharging chamber, a loosely mounted and freely slidable valve member controlling the port, a disconnected thermostatic member loosely supported in the water discharging chamber for actuating the valve in one direction, and a yieldable bumper externally engaging the thermostatic member and operating to prevent ill-effects from over expansion of the thermostatic member, substantially as described.

3. In a thermostatic trap, the combination of a casing having an inlet passage for water of condensation and having also a water discharging chamber and an outlet passage leading therefrom and a port furnishing communication between the inlet passage and the water discharging chamber, a loosely mounted and freely slidable horizontal valve member controlling the port, a disconnected vertical thermostatic member loosely supported in the water discharging chamber for actuating the valve in one direction, the inflowing water actuating the valve in the opposite direction, and a yieldable horizontal bumper externally engaging the thermostatic member and operating to prevent ill-effects from over-expansion of the thermostatic member, said thermostatic member loosely located between and unattached to the valve member and bumper, substantially as described.

4. In a thermostatic trap, the combination of a casing having an inlet passage provided with a sediment retaining section and having also a water discharging chamber and an outlet passage leading therefrom and a port furnishing communication between the inlet passage and the water discharging chamber, a loosely mounted and freely slidable horizontal valve member controlling the port, a disconnected vertical thermostatic member loosely supported in the water discharging chamber for moving the valve member to close the port, the inflowing water moving the valve member to open the port, and a yieldable horizontal bumper externally engaging the thermostatic member and operating to prevent ill-effects from over expansion of the thermostatic member, said thermostatic member loosely located and held between and unattached to the valve member and bumper, substantially as described.

5. In a thermostatic trap, the combination of casing having an inlet passage with a sediment section therein, a water discharging chamber, a port between the inlet passage and water discharging chamber and an outlet for the water discharging chamber, a loosely mounted and freely slidable horizontal valve member in the water discharging chamber, a disconnected vertically disposed thermostatic member loosely supported in the water discharging chamber, a yieldable bumper for preventing ill-effects of over expansion of the thermostatic member, the valve member and bumper unattached to the thermostatic member, and a threaded stem for blowing off the sediment section of the inlet passage, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,667. MUFFLER. PHILO W. MASTEN, Los Angeles, Cal. Filed Jan. 6, 1913. Serial No. 740,556. (Cl. 121—116.)



1. A muffler comprising a cylindrical casing having an open outer end, inlet means on the opposite end for introducing engine exhaust into said casing, a removable longitudinally disposed spiral wall in said casing, said wall having a series of radially disposed slots extending inwardly from the edge thereof, and means for retaining said wall in said casing.

2. A muffler comprising a cylindrical casing having an open outer end, inlet means on the opposite end for introducing engine exhaust into said casing, a removable longitudinally disposed spiral wall in said casing, said wall having a series of radially disposed slots extending inwardly from the edge thereof, a plate pivoted on one side of said casing at the outer end thereof adapted to extend across the outer end thereof, a threaded pin on the opposite side of said casing, said plate having a notch adapted to be engaged by said pin, and a nut on said pin for securing said plate in fixed position across the outer end of said casing.

3. A muffler comprising a hollow cylindrical casing having exhaust and admission openings at opposite ends, a brush center located at the axis of said cylinder, and brush members forming a perforated wall extending spirally around said center from end to end of said casing

4. A muffler comprising a hollow cylindrical casing having exhaust and admission openings at opposite ends thereof, and a removable spiral brush extending longitudinally in said casing and adapted to engage the inner wall of said casing and to clean said wall when said brush is being removed.

5. A muffler comprising a casing having exhaust and admission openings at opposite ends thereof, a rod placed axially in said casing, and a spiral wall extending from said rod to said casing, said wall having openings to relieve excessive pressure and said wall being attached to said rod and removable therewith.

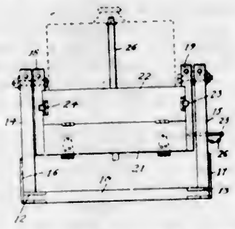
[Claims 6 to 13 not printed in the Gazette.]

1,094,668. ROPE-SOCKET. ALBERT P. MCBAIDE, Independence, Kans. Filed Mar. 17, 1911. Serial No. 615,118. (Cl. 24—126.)



A rope socket, comprising a casing having a tapered bore therethrough, the larger end of the bore being internally threaded, a tapered rope-holding sleeve fitted in said bore, a coil spring seated against the larger end of said sleeve, said spring and sleeve being removable through the larger end of said bore, and a threaded disk, having a wrench socket, screwed into the inner end of said threaded portion for removably retaining said spring and sleeve in said bore and leaving the outer end of said threaded portion open for the attachment of a tool.

1,094,669. HOLDER FOR CARBOYS. HORACE M. MCCORD, Minneapolis, Minn., assignor of five-twentieths to Joseph F. McDonough, La Crosse, Wis. Filed June 9, 1913. Serial No. 772,643. (Cl. 221—91.)



1. A carboy holder comprising a frame, a pivoted support for the carboy consisting of a bottom platform, side and end walls, one of said walls being hinged to swing clear of the support, and means for holding the carboy on the pivoted support.

2. A carboy holder comprising a frame, a pivoted support for the carboy consisting of a bottom platform, side and end walls, one of said walls being hinged to swing clear of the support, said hinged wall being adapted to hold the support in horizontal position while the carboy is being placed thereon, and means for holding the carboy on the pivoted support.

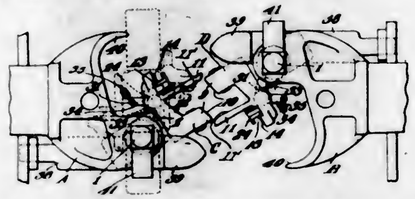
3. A carboy holder comprising a frame, a pivoted support for the carboy consisting of a bottom platform, side and end walls, one of said walls being hinged to swing clear of the support, said hinged wall being adapted to hold the support in horizontal position while the carboy is being placed thereon and is adapted to swing up and firmly position the carboy within the walls, and means for holding the carboy on the pivoted support.

4. A carboy holder comprising a frame, two standards mounted thereon, a box pivotally attached to the standards and adapted to receive the carboy and support the same independently of the structure of the carboy, a hinged side of said box adapted to support the box in a horizontal position when open to permit insertion of the carboy, and an adjustable rod fastened to the box for holding the carboy therein.

5. A carboy holder comprising a frame, two standards mounted thereon, a box pivotally attached to the standards and adapted to receive the carboy and support the same, a hinged side of said box adapted to support the box in a horizontal position when swung down to permit insertion of the carboy, a rod on the box for holding the carboy therein, and having a slot, a bolt fastened to the box and passing through the slot, and a hand nut for adjustably positioning the rod.

[Claims 6 to 9 not printed in the Gazette.]

1,094,670. AUTOMATIC TRAIN-PIPE CONNECTOR. DANIEL B. MCTAGGART, Butte, Mont., assignor of one-half to William H. Woodruff, Butte, Mont. Filed Oct. 7, 1912. Serial No. 724,415. (Cl. 188—13.)



1. The combination with a car-coupler, of a train pipe connector, having a socketed casing mounted for swinging movement upon the knuckle-pin of the car-coupler, a collector member having a shank slidably mounted upon the knuckle-pin within the socketed casing, a spring for holding the collector member projected, and means for moving the collector member for alinement with a mating collector member, such means being actuated by the collecting of two mating car-couplers.

2. The combination with a car-coupler, of a train pipe connector, having a socketed casing mounted for vertical sliding and horizontal swinging movement below the car-coupler, a spring for holding the casing toward the car-coupler, a spring projected collector member carried by the casing, and means engaging the casing and carried by the car-coupler to insure the horizontal registration of mating collector members when two car-couplers mate, the said means being actuated by the mating car-couplers as they move together.

3. The combination with a car-coupler, of a train pipe connector, having a casing mounted for vertical sliding and horizontal swinging movements upon the lower end of the knuckle-pin of the car-coupler, a spring for holding the casing toward the car-coupler mounted upon the knuckle-pin, a spring projected port carrying and collector member mounted in the casing and held against too far projection by the knuckle-pin, and means for alining mating members carried by the car-coupler and upon the knuckle-pin above the casing, said means being actuated by the mating car-coupler as the car-couplers move together.

4. The combination with a car-coupler, of a train pipe connector, having a casing mounted for vertical sliding and horizontal swinging movements upon the lower end of the knuckle-pin of the car-coupler, a spring for holding the casing toward the car-coupler body, a port carrying and hose-pipe connecting member mounted in the casing, a spring for holding said member projected, said member being provided with a fluid conducting channel therethrough, and a valve for controlling said channel, said valve being automatically opened as the two mating connecting members unite and closed when they separate.

5. The combination with a car-coupler, of a train pipe connector, including a carrying member mounted for vertical sliding and horizontal swinging movements upon the knuckle-pin of the car-coupler, a port carrying and connector member mounted in the carrying member, a spring for normally holding the last member projected, said port carrying and collector member being provided with a fluid conducting channel in communication with the port and the train pipe of the car, a valve mounted in said channel for controlling the passage of fluid therethrough, and means connected to the valve and the port carrying and collector member for opening the valve when two connectors mate and for closing the valve when they separate.

[Claims 6 and 7 not printed in the Gazette.]



1,094,671. PROCESS OF REMOVING TIN FROM PHOSPHATE LIQUORS USED IN WEIGHTING SILK. ERNEST MEILI, Hawthorne, N. J., assignor to Weidmann Silk Dyeing Co., Paterson, N. J., a Corporation of New Jersey. Filed May 18, 1911. Serial No. 627,995. (Cl. 252.)

1. The herein-described method of purifying the phosphate of soda solution employed in the weighting of silk by the so-called "tin-phosphate" method which consists in adding to the solution a reagent which reacts on the phosphate of soda and forms a precipitate which carries down with it the tin in the solution.

2. The herein-described method of extracting tin from the phosphate of soda solution employed in the weighting of silk by the so-called "tin-phosphate" method which consists in treating the solution with silicate of soda whereby to precipitate the tin, and then removing the precipitate, substantially as described.

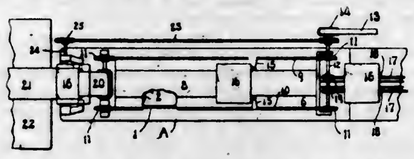
3. The herein described method of extracting tin from the phosphate of soda solution employed in the weighting of silk by the so-called "tin-phosphate" method which consists in treating the solution with silicate of soda while hot, whereby to precipitate the tin, and then removing the precipitate, substantially as described.

4. A process for the regeneration of used phosphate baths employed in the weighting of silk, which consists in precipitating the tin and other metallic impurities in the bath by means of silicic acid.

5. The process for regenerating a phosphate bath that has been used in the weighting of silk, which consists in adding to said bath a chemical which will react with the bath to form nascent silicic acid which latter has the effect of precipitating the whole of the tin and other metallic impurities from the bath, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,094,672. PHOTOGRAPHIC-DRY-PLATE-INSPECTION TABLE. ARNOLD L. MILENTZ, St. Louis county, Mo. Filed May 13, 1912. Serial No. 696,936. (Cl. 88—14.)

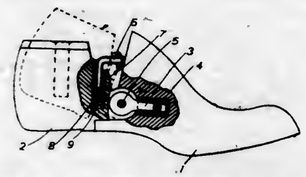


1. An inspection table, comprising a transparent support, means beneath said transparent support from which rays of light are projected therethrough, and means operable along the lines of said transparent support for conducting a photographic dry plate along the support.

2. An inspection table, comprising a pair of transparent top members located one above the other, the uppermost member being narrower than the lowermost member and adapted to serve as a support for a photographic dry plate, and means operable above the lower top member and alongside the upper top member for condcuting a dry plate along the upper top member.

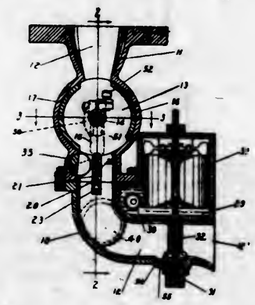
3. An inspection table, comprising a lamp housing box, a lamp in said box, a transparent plate above said lamp housing box, a second transparent plate above said first mentioned plate, the second transparent plate being narrower than the first mentioned plate adapted to serve as a runway for the photographic dry plate, and a conveyer having fingers adapted to travel above the first mentioned plate and alongside of the second mentioned plate to move a dry plate resting on said narrow plate.

1,094,673. HINGED LAST. GEORGE W. MILLER, Rochester, N. Y. Filed Apr. 26, 1913. Serial No. 763,896. (Cl. 12—136.)



A hinged last comprising heel and toe parts, one of said parts having a transverse knuckle with two spaced vertical kerfs therein, and the other part fitting against said knuckle and having a longitudinal socket, a cylindrical hinge member fastened in said socket and having two vertical ears projecting at opposite sides of one end thereof and fitting in the kerfs, and a hinge pin extending through the ears and through the parts of the knuckle between and on the outer sides of the kerfs.

1,094,674. CARBURETER. HARRY A. MILLER and FRANK M. ADAMSON, Indianapolis, Ind. Filed Sept. 12, 1912. Serial No. 719,920. (Cl. 48—155.1.)



1. In a carbureter, a fuel nozzle having a plurality of capillary openings, and provided with an air passageway extending on both sides of said fuel nozzle, a throttle movable across the discharge mouths of said capillary openings, and a valve in said air passage at one side of said nozzle for controlling the passage of air on that side of the nozzle.

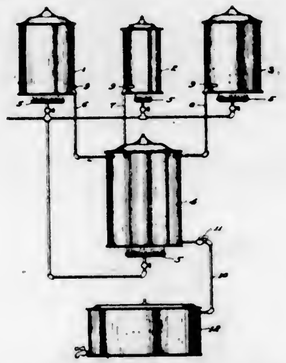
2. In a carbureter, an air passage-way with a transverse elongated cross-sectional area, a fuel nozzle having a plurality of capillary openings arranged in said passage-way, the said nozzle extending in line with the longest transverse dimension of said passage-way, and dividing said passage-way into two channels, and a throttle valve arranged at the discharge mouths of said capillary openings, the said valve having a curvilinear edge extending in a general direction along the line of the fuel nozzle, said curvilinear edge at one end portion being substantially parallel with the said nozzle, and the degree of curvature of the said edge increasing toward the other end such that at the said other end there is a considerable angle formed between the said edge and the nozzle.

3. In a carbureter, an air passage-way with a transverse elongated cross-sectional area, a fuel nozzle having a plurality of capillary openings arranged in said passage-way, the said nozzle extending in line with the longest transverse dimension of said passage-way, and dividing said

passage-way into two channels, and a throttle valve arranged at the discharge mouths of said capillary openings, the said valve having a curvilinear edge extending in a general direction along the line of the fuel nozzle, said curvilinear edge at one end portion being substantially parallel with the said nozzle, and the degree of curvature of the said edge increasing toward the other end such that at the said other end there is a considerable angle formed between the said edge and the nozzle, the angular end of said curvilinear edge terminating a short distance from the end of the valve, and a passage for heated air extending transversely into the first named air passage and having a relatively small discharge mouth directed upwardly at one side of the first mentioned air passage below the said nozzle, and on the same side as the last named end of the said valve.

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1,094,675. PROCESS OF COMPOUNDING A COMMERCIAL ESSENCE OF TEA. JOSEPH T. MONCRIEF, Birmingham, Ala. Filed June 12, 1913. Serial No. 773,320. (Cl. 99—11.)



1. The hereindescribed process of producing a syrup extract of tea which consists in extracting the full strength from a quantity of tea in a covered boiler, obtaining a highly aromatic extract of tea, blending a small quantity of such aromatic extract with a larger quantity of the strong extract first described, combining such extracts with a saccharine syrup, and boiling the resulting compound to produce a syrup extract of tea.

2. The hereindescribed process of producing a syrup extract of tea which consists in blending a large percentage of a strong extract of low grade tea with a small percentage of a highly aromatic extract of high grade tea, adding sugar to the blended extracts, and boiling same to produce a syrup.

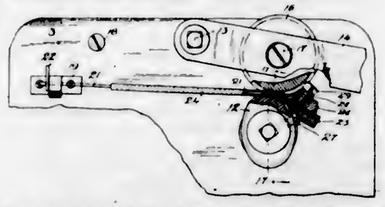
3. The hereindescribed process of producing a syrup extract of tea which consists in blending a large percentage of a strong extract of low grade tea with a small quantity of a highly aromatic extract of high grade tea, adding sugar to the blended extracts, boiling same to produce a syrup, and adding to the syrup when cool a preservative compound to counteract any tendency to ferment.

4. The hereindescribed process of producing a syrup extract of tea which consists in making two extracts of different teas, one a high grade aromatic tea, the other a low grade strong tea, adding a small percentage of aromatic extract to the strong extract, combining and boiling the blended extracts with a sugar syrup comprising about six pounds of sugar to the gallon of extract, and adding a preservative compound to the resultant syrup extract.

5. The hereindescribed process of producing a syrup extract of tea which consists in treating a low grade strong tea to extract therefrom its full strength, treating a high grade aromatic tea to obtain a highly aromatic extract therefrom, blending substantially one part of the aromatic extract with four parts of the strong extract, mixing the blended extract with a syrup formed of six pounds of sugar to the gallon of extract, boiling the resulting mixture in a closed vessel, allowing the syrup extract to cool, and adding one-tenth of one per cent. of benzonte of soda to the syrup extract when cool.

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1,094,676. BRACELET-BENDING MACHINE. CLARENCE E. MOUNTFORD, New York, N. Y., assignor, by mesne assignments, to Goldsmith, Stern & Co., New York, N. Y., a Firm. Filed Oct. 23, 1912. Serial No. 727,315. (Cl. 153—40.)



1. In a machine of the class described, bending rollers grooved to conform to the shape of the tube to be bent, a flexible mandrel with one end fitting said tube, and slotted means for holding the same under tension, so that when a tube is drawn off the mandrel, the mandrel will fall clear of the tube and the mechanism supporting the tube during the bending operation.

2. In a machine of the class described, a pair of bending rollers grooved so as to conform to the shape of a tube being bent, means for driving one of the same, a mandrel with one end fitting said tube, and means constructed to hold the mandrel under tension while the machine is in operation but open to release the same when not under tension whereby the mandrel may drop clear of the tube and the bending rollers may be rounded in either direction to smooth the tube, as set forth.

3. In a machine of the class described, rollers adapted to bend a bracelet, a mandrel, a bracket with a downwardly disposed opening adapted to hold one end of a mandrel while a tube is bent over the same and between said rollers, so that said mandrel will fall clear of the bending mechanism when the bending operation is finished, and means for driving one of said rollers.

4. In a machine of the class described, a bracket having a downwardly disposed slot and a mandrel therein, so mounted as to be freely rotatable therein, the mandrel having at one end a means for fitting it within a tube, and means, whereby during the operation of the machine, the mandrel is held by tension and is dropped from the machine when the bending operation is completed.

5. In a machine of the class described, rollers, a mandrel, a jaw connected to one of the rollers and adapted to enter a tube and a coöperating jaw combined with the first mentioned jaw to reat on the exterior of the tube and to hold the same during the bending operation, and means for holding said mandrel so that when the machine is in operation the mandrel will be held while under tension while the tube is being bent, but will be permitted to drop clear of the tube when not under tension and after the completion of the bending operation.

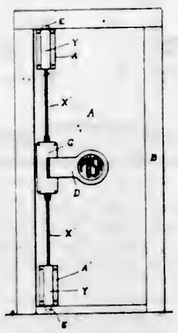
[Claims 6 to 9 not printed in the Gazette.]

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1,094,677. EMERGENCY-BOLT. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 10, 1911. Serial No. 637,637. (Cl. 70—130.)

1. In emergency bolt mechanism for doors, the combination of a casing applied to the door near the free side edge thereof, bolt retracting mechanism in said casing, a bolt arranged for retraction by said retracting mechanism, an operating lever for said retracting mechanism located for the most part at the exterior of said casing, and having a part extending into the casing to actuate said retracting mechanism, and means pivoting said lever to said casing to move in a horizontal plane, the outer or free end of said lever being extended away from and beyond the casing in a direction away from the side edge of the door, and toward the center of the latter, said free end of the lever presenting a substantially flat enlargement or head of extended area disposed at the side of the casing, and close to the face of the door, approximately parallel with the door, and movable still closer to the door as the bolt is retracted by said lever; substantially as described.





2. In emergency bolt mechanism for doors, a bolt, a casing, a slide movable laterally in said casing parallel to the plane of the door, a bell crank lever in the casing rocked by the movement of said slide, a pivoted operating lever for the slide, and means connecting said bell crank lever with the bolt; substantially as described.

3. In emergency bolt mechanism for doors, a casing, a vertically sliding bar therein, a bell crank lever pivoted in the casing and connected with said bar to actuate the same, a bolt connected with said bar, a slide movable laterally in the casing to actuate said bell crank, and a lever pivoted to the casing to move in a horizontal plane and having one end projecting into the casing to actuate said slide, and having its opposite end projecting outside of the casing and to one side of the same; substantially as described.

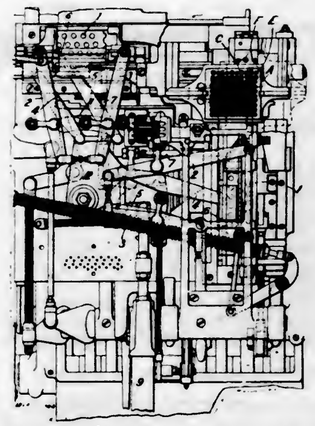
4. In emergency bolt mechanism for doors, a casing, an operating lever pivoted to the casing and having a handle portion projecting outside of the casing and an arm projecting within the casing, a sliding member with which said arm contacts, bell crank levers mounted in said casing and simultaneously operative by contact with said sliding member, vertically sliding bars connected to the respective bell crank levers, and bolts connected to the respective bars; substantially as described.

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1,094,678. TYPE-CASTING MACHINE. FRANK HINMAN PIERPONT, Salfords, Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa., a Corporation of Virginia. Filed Nov. 13, 1912. Serial No. 731,191. (Cl. 101—200.)

1. In a type casting machine provided with a movable die case and selective positioning mechanism therefor equipped with spacing means and in combination therewith, a supplemental positioning mechanism coupled with the die case and provided with apacing means differing in pitch or measure from that of the selective positioning mechanism and operating to automatically shift the die case from the station to which it is carried by the selective positioning mechanism to one of the stations of the supplemental positioning mechanism.

2. In a type casting machine equipped with a movable die case and selective positioning mechanism therefor of a predetermined pitch or measure for designating different stations for the die-case, and in combination therewith, a supplemental positioning means coupled with the die case and equipped with spacing means differing in pitch or measure from that of the selective positioning mechanism and a complemental engaging member, said selective positioning mechanism operating through the die case to selectively designate different stations of the supplemental positioning means.



3. In a type casting machine, the combination of the following elements, to-wit: a two-way movable die case; a duplex selective positioning mechanism, each section whereof is coupled with the die case to move the latter in a direction transverse of the other and is provided with spacing means of a predetermined pitch or measure; and a supplemental positioning means coupled with the die case and provided with spacing means differing in pitch or measure from that of the selective positioning mechanism, said supplemental positioning means operating to displace the die from the indicated station of the selective positioning mechanism to a station of the supplemental positioning means.

4. In a type casting machine provided with a movable die case and a selective positioning mechanism therefor provided with spacing means of a given pitch or measure, and in combination therewith, a supplemental positioning means of a different pitch or measure from that of the selective positioning means, the same including a member coupled with the die case, and provided with a series of inclined surfaces terminating at points out of register with the indicated stations of the selective positioning mechanism, and a plunger coacting with said inclined surfaces to effect a displacement of the die case from the station of the selective positioning mechanism to one of said supplemental positioning means.

5. In a type casting machine the combination of the following elements, to-wit: a movable die case; a selective positioning mechanism coupled with said die case and operating to position the latter at any one of a given series of stations; and a supplemental positioning mechanism whose pitch or measure differs from that of said selective positioning mechanism, the same including a plate provided with a plurality of perforations and marginal inclines disposed serially in the direction of movement of the die case and coupled with the latter, and a plunger adapted to engage said marginal inclines and shift the die case from the station to which it is assigned by the selective positioning mechanism to that one indicated by the perforation adjacent the engaged incline.

[Claim 6 not printed in the Gazette.]

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1,094,679. BED-PARTITION. FREDERICK W. ROBERTI, Los Angeles, Cal. Filed Aug. 11, 1913. Serial No. 784,021. (Cl. 5—41.)

1. A partition, means for securing said partition along the upper surface of the bed, and means for securing bed covers to the upper edge of said partition.

2. A partition, means for detachably securing said partition along the upper surface of the bed, and means for detachably securing bed covers to the upper edge of said partition.



3. A partition and means for securing said partition along the upper surface of the bed underneath the covers thereof, the head end of the partition being cut away at its upper edge.

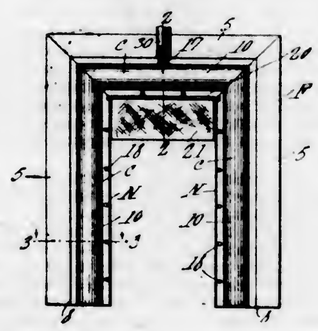
4. A partition and means for securing said partition along the upper surface of the bed, the partition being upholstered on both sides thereof.

5. A partition and means for securing said partition along the upper surface of the bed, and a cover retaining rail detachably secured along the upper edge of the partition.

[Claims 6 to 9 not printed in the Gazette.]

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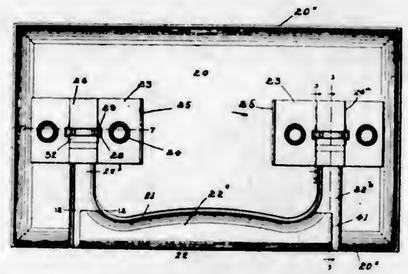
1,094,680. AIR-SCREEN FOR WINDOWS AND DOORS. MCCLELLAN RUSAN, Manitou Springs, Colo. Filed Sept. 15, 1911. Serial No. 649,412. (Cl. 98—21.)



1. In a device of the character described, a frame embodying a bar, and a cleat secured to one edge of and arranged at right angles to the bar, the cleat being beveled away from the bar; and an air tube embodying a back resting against the said bar and having an angular portion at one side resting against the said bevel of the cleat, and a front extending from the other side of the back to the said angular portion and having an angular lip coöperating with said angular portion to form a discharge nozzle, the back of the tube having means engaging between the bar and cleat.

2. In a device of the character described, a frame embodying a bar, and a cleat secured to one edge of and arranged at right angles to the bar, the cleat being beveled away from the bar; and an air tube formed of a sheet metal blank doubled and bent longitudinally to form a flat back resting against the said bar and having an angular portion at one side resting against the said bevel of the cleat, and a curved front extending from the other side of the back toward the said angular portion, and having an angular lip coöperating with the said angular portion to form a discharge nozzle, the blank being formed with a flange at the last mentioned side of the back, the said flange engaging the aforesaid bar, and the back of the tube having means at the elbow between the back and the said angular portion engaging between the said bar and cleat.

1,094,681. BOX-HANDLE. EDWARD R. SARGENT and HERBERT G. COLLINS, New Haven, Conn., assignors to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 7, 1913. Serial No. 740,651. (Cl. 16—10.)



1. In a box handle, the combination of an attaching plate, a bail having hanger arms, each of said hanger arms having pivots formed integral therewith at opposite sides and extending in opposite directions, said hanger arms extending into cutaway portions of said attaching plate, and keeper plates confining the respective hanger arm pivots between said plates and the rear surface of the attaching plate; substantially as described.

2. In a box handle, the combination of an attaching plate having cutaway portions, a bail having hanger arms, each of said hanger arms being provided with integral pivots extending from the opposite sides thereof in opposite directions, a U-shaped keeper plate confining the pivots of each hanger arm between it and the rear surface of the attaching plate, and means for securing said keeper plates to the rear surface of the attaching plate; substantially as described.

3. In a box handle, the combination of an attaching plate having a cutaway portion, a hanger arm located within said cutaway portion and having integral pivots, and a keeper plate attached to the rear surface of said attaching plate and having opposite side walls, said walls having notches therein extending to the respective front margins of said walls and fitting over said pivots; substantially as described.

4. In a box handle, the combination of an attaching plate having a cutaway portion, a hanger arm located in said cutaway portion and having a laterally extending pivot, and a keeper plate secured to the rear surface of said attaching plate, said keeper plate having a wall with a notch therein extending to the front margin of said wall and fitting over said pivot, whereby the latter is confined between the keeper plate and the attaching plate; substantially as described.

5. In a box handle, the combination of an attaching plate having a cutaway portion, and a rearwardly directed lug at the edge of said cutaway portion, a hanger arm located in said cutaway portion and having a pivot lug extending laterally over said first named lug, and a keeper having an opening in which said second lug is confined by the first; substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

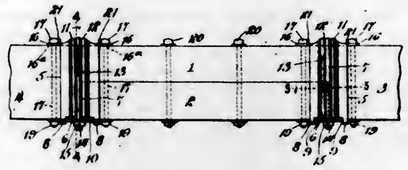
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1,094,682. SPLICE-JOINT FOR CAR-SILLS. JOHN YANCY SATTERWHITE, Wagoner, Okla. Filed Feb. 21, 1913. Serial No. 750,018. (Cl. 20—92.)

1. A clamp of the class described including a yoke composed of spaced sides and a connecting top portion and having depending corner lugs arranged in pairs at the lower ends of the said sides, said yoke being also provided with connected grooves extending across the top and down the sides of the yoke, a bottom plate having lateral extensions provided at opposite sides with recesses receiving the said lugs, which interlock the yoke and the plate, and a U-bolt straddling the yoke and fitted in the said grooves and piercing the lateral extensions of the bottom plate and provided with means for engaging the same.



2. The combination with two members having reduced overlapped portions to form a splice joint, of clamps arranged at the ends of the joint and each including a substantially U-shaped yoke straddling the members at one of the terminals thereof and provided at its sides with spaced depending projecting lugs, said yoke being also provided at the top with longitudinal extensions projecting inwardly and outwardly at the adjacent end of the



joint, a bottom plate connecting the lower ends of the sides of the yoke and engaged by the lugs thereof, a U-bolt straddling the yoke and piercing the lateral extensions of the bottom plate and provided with means for engaging the same, and spaced bolts extending through the bottom plate and the extensions of the top yoke and piercing the overlapped portions of the members at the joint and one of the members thereof beyond the joint.

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1,094,683. MODE OF PREPARING FINELY-DIVIDED OR COLLOID INDIGO DYESTUFFS. ALBRECHT SCHMIDT and ADOLF STEINDORFF, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed May 17, 1911. Serial No. 627,758. (Cl. 8—1.)

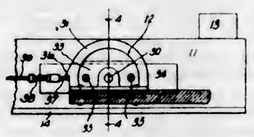
1. The process of preparing a new form of synthetic indigo, which consists in subjecting derivatives of indol which are closely related to indigo and capable of directly yielding indigo, to indigo-producing conditions in the presence of aromatic bases.

2. The process of preparing a new form of synthetic indigo, which consists in producing the indigo from indigo salts in the presence of aromatic bases.

3. The process of preparing a new form of synthetic indigo, which consists in producing the indigo from leuco-indigo salts in the presence of aromatic bases.

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1,094,684. WALL-BED. WILLIAM A. SNYDER, Los Angeles, Cal. Filed May 24, 1913. Serial No. 769,631. (Cl. 5—18.)



1. A wall bed, comprising a horizontally pivoted frame adapted to swing up into a recess, manually releasable means for locking the pivoted frame in a horizontal position, supports for the outer end of said frame, a bed frame slidably mounted in said pivoted frame, and swinging leg supports for the outer end of said bed frame.

2. In a device of the character described, a stationary structure having a recess therein, a frame, and pivot supports for the frame at opposite sides of the recess, each comprising a stationary member carrying a central pivot stud and having an outer segmental flat bearing face, and a movable member supported on said pivot stud and having a corresponding outer segmental bearing face to bear against the first mentioned bearing face, said movable member being connected with the frame through the medium of a channel formed in the face of said member and a corresponding tongue on said frame adapted to fit into said channel.

3. In a device of the character described, a stationary structure having a recess therein, a frame, and pivot supports for the frame at opposite sides of the recess, each comprising a stationary member carrying a central pivot stud and having an outer segmental flat bearing face, and a movable member supported on said pivot stud and having a corresponding outer segmental bearing face to bear against the first mentioned bearing face, and manually releasable means for locking the pivoted frame in horizontal position to the stationary member of one of the pivot supports, and swinging leg supports for said bed frame independent of said pivoted frame.

4. In a device of the character described, a stationary structure having a recess therein, a frame, and pivot supports for the frame at opposite sides of the recess, each comprising a stationary member carrying a central pivot stud and having an outer segmental flat bearing face, and a movable member supported on said pivot stud and having a corresponding outer segmental bearing face to bear against the first mentioned bearing face, said movable member being connected with the frame through the medium of a channel formed in the face of said member and a corresponding tongue on said frame adapted to fit into said channel, and manually releasable means for locking the pivoted frame in horizontal position to the stationary member of one of the pivot supports.

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1,094,685. SYRINGE. ALBERT SPANGLER, Moline, Ill. Filed May 8, 1913. Serial No. 766,385. (Cl. 128—25.)



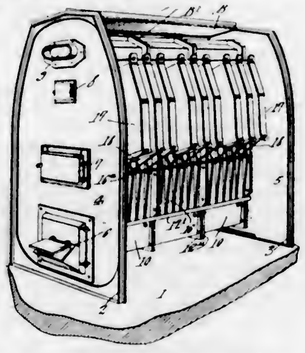
A syringe comprising a tubular body having a lateral branch, a bulb connected with the inner end of said body, a tubular plug screwed into its other end and having transverse notches across the inner extremity of its bore, a tube detachably connected with this plug and carrying a nozzle, a cylindrical block disposed within this end of the body beyond the inner extremity of the plug and having a central bore and a valve seat at the outer end of the same, a valve resting on said seat and loosely disposed below the inner extremity of the plug; a tubular plug screwed into the outer end of said branch and having a valve seat in the inner extremity of its bore, a tube and suction member detachably connected with this plug, a cylindrical block disposed within said branch beyond the inner extremity of this plug and having peripheral notches, and a valve on the seat in this plug and whose opening movement is checked by the block.

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1,094,686. SECTIONAL HOT-AIR FURNACE. ADOLF G. STAPEL, Montgomery, Ala. Filed June 8, 1911. Serial No. 631,964. (Cl. 126—99.)

1. In a sectional furnace, the combination of an ash pit, a fire box and combustion chamber, a series of laterally extending chambers in communication with the com-

bustion chamber, a diaphragm disposed outwardly and downwardly from the top of the combustion chamber into each laterally extending chamber, said diaphragm forming within each laterally extending chamber, a circutous route for the products of combustion passing from the combustion chamber, and a flue into which all of said laterally extending chambers empty.



2. In a sectional furnace, the combination of an ash pit, a fire box, a combustion chamber having a domed central portion, a hot air blast tube entering said combustion chamber from the dome thereof, a flue, a series of laterally extending chambers forming a communication between the combustion chamber and the flue, and a division wall within each laterally extending chamber providing a deflecting means to deflect the products of combustion downwardly and outwardly before entering the flue.

3. In a sectional furnace, the combination of an ash pit, a fire box, a combustion chamber having a dome portion, a hot air blast tube entering into said dome portion at the apex thereof, a flue, chambers forming communication with the combustion chamber and the flue and extending laterally from the combustion chamber, and a deflecting diaphragm, extending outwardly and downwardly within each lateral chamber.

4. In a furnace, the combination of an ash pit, a fire box, a combustion chamber provided with a reduced dome, a hot air blast tube located in the dome thereof and in communication with the top of the combustion chamber, a flue, a series of laterally extending and upwardly inclined chambers, there being an equal number upon each side of and in communication with the combustion chamber, and a diaphragm extending downwardly and outwardly from the top of the combustion chamber into each lateral chamber, and terminating at a point below the center line of its respective laterally extending chamber above the bottom and out of contact with the outer wall thereof.

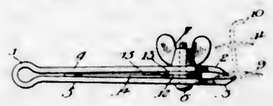
5. In a furnace, a series of sections, each one of said sections being provided with its portion of a fire box, a combustion chamber, two oppositely disposed and laterally extending chambers in communication with the combustion chamber, a flue in communication with both of said laterally extending chambers, and a partition in each of said laterally extending chambers extending from the top of the combustion chamber outwardly to provide two oppositely extending wings to cause the products of combustion to circulate through substantially the full area of the respective laterally extending chambers when passing from the combustion chamber to the flue.

[Claims 6 to 15 not printed in the Gazette.]

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1,094,687. TOOL. JOHN J. TOBIN, Chicago, Ill., assignor to Specialty Sales and Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 20, 1913. Serial No. 749,676. (Cl. 152—27.)

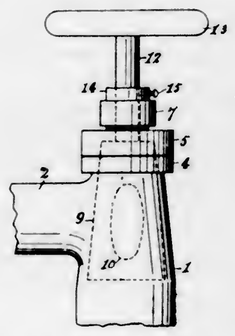
1. In a device of the character described, the combination with a pair of jaws, a bolt for clamping said jaws, and a pair of arms pivotally mounted upon said bolt and adapted to be clamped by said bolt.



2. In a device of the character described, the combination with a pair of jaws, a bolt for clamping said jaws, a pair of arms pivotally mounted upon said bolt and adapted to be clamped by said bolt, and a recess provided in the extremity of one of said arms for the purpose of holding rubber bands, said arms having means whereby they are pivotally mounted upon said bolt, said jaws accommodating said arms between them when not in use.

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1,094,688. VALVE. MELBOURNE WALKER, Florence, Ontario, Canada. Filed May 10, 1911. Serial No. 626,397. (Cl. 137—7.)



1. In valve control, a valve body, a valve member for controlling the passage-way through the body, said body and valve member being relatively adjustable axially of the member to take up for wear, and means at one end of the member for controlling the axial position of the member in both directions relative to the body, said means comprising a cap, a seat therefor, said cap and seat being each mounted on the valve body and independently adjustable relative thereto, said cap being adapted to contact with and form a support for the plug during endwise pressure, and adjustable means carried by the valve stem for positioning the valve member relative to said cap.

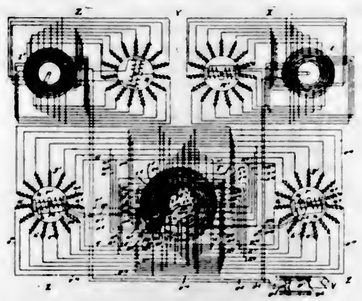
2. In valve control, a valve body, a valve member for controlling the passage way through the body, said body and valve member being relatively adjustable axially of the member to take up for wear, and means at one end of the member for controlling the axial position of the member in both directions relative to the body, said means comprising a cap having a seat adapted to contact with the end of the plug, a threaded stem carried by said cap, a packing nut engaging said threaded stem, a lock-nut for said cap nut threaded onto the body, and a locking collar on the valve stem engaging said packing nut.

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1,094,689. INDICATING SYSTEM FOR TURRETS. FRANK W. WOOD, New York, N. Y., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 8, 1910. Serial No. 576,257. (Cl. 177—338.)

1. A turret tell-tale system comprising three turrets, a single transmitter in each turret operated by movement of the turret, two receivers in one turret, one receiver in each of the other two turrets, connections from the transmitter of the turret having two receivers to the receiver in each other turret, and connections from the transmitter of each turret having one receiver to a separate one of the two receivers in the one turret.





2. A turret tell-tale system comprising three turrets, one central turret and two outside turrets, a single transmitter in each turret operated by movement of the turret, two receivers in the central turret, one receiver in each of the outside turrets, connections from the transmitter of the central turret to the receiver of each outside turret, and connections from the transmitter of each outside turret to one of the receivers of the central turret.

3. A turret tell-tale system comprising three turrets, one central turret and two outside turrets, a single transmitter operated by change of position of the turret in each turret, two position indicators in the central turret, one position indicator in each of the two outside turrets, connections from the transmitter of the central turret to the position indicator of each outside turret, and connections from the transmitter of each outside turret to a position indicator of the central turret.

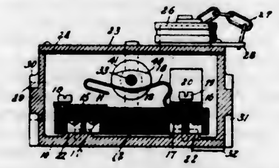
4. A turret tell-tale system comprising three turrets, one central turret and two outside turrets, a single transmitter in each turret operated by movement of the turret, two receivers in the center turret, one receiver in each of the outside turrets, connections from the transmitter in the central turret to the receiver in each outside turret, connections from the transmitters in the outside turrets each to a receiver in the central turret, and means associated with the receivers of the central turret for indicating the position of the central turret.

5. A turret tell-tale system for three turrets comprising one central turret, and two outside turrets, a transmitter in each turret operated by movement of the turret, two receivers in the central turret, one receiver in each of the outside turrets, connections from the transmitter of the central turret to the receiver of each outside turret, connections from the transmitter of each outside turret to the receiver of the central turret, and means associated with the receivers of the central turret and operated by the central turret, for indicating the position of that turret.

[Claims 6 to 10 not printed in the Gazette.]

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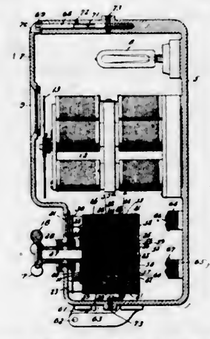
1,094,690. SWITCH. FRANK W. WOOD, New York, N. Y., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y., a Corporation of New York. Filed Dec. 22, 1910. Serial No. 598,687. (Cl. 175—288.)



An electric switch comprising a base of insulating material, fixed contacts secured to said base and spaced from each other, a bridging spring blade contact rigidly secured at one end to one of said fixed contacts and rising abruptly therefrom with an S-shaped bend to provide increased flexibility, said blade extending toward the other fixed contact and being bent downwardly upon itself at its free end, the body of the blade being inclined downwardly from each end toward the center thereof to form a shallow depression, and an operating cam above the blade and continually in contact therewith, said cam being provided with a turning spindle and a lost motion connection between said cam and its spindle, the shallow depression in said blade serving as a partial lock for said operating cam when the circuit is closed and the inclined surfaces on each side thereof providing an increased contact surface for said cam and a quick break when the latter is turned to open the circuit.

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1,094,691. ELECTRICAL SWITCH. FRANK W. WOOD, New York, N. Y., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y., a Corporation of New York. Filed Aug. 2, 1912. Serial No. 712,992. (Cl. 175—289.)



1. In an electric switch, the combination of a stationary casing, a plurality of segments of conducting material mounted within said casing in circular paths and insulated from one another and from the casing, a ring of conducting material mounted within said casing and insulated therefrom and from the segments, a revoluble member within said casing formed with parallel diametrical sockets, brushes each comprising a stem slidable longitudinally in one of said sockets, a contact on the end of each stem in position to engage respectively said ring and the segments, and resilient means in said sockets tending to force the stems outwardly, and electrical connections for said ring and for each segment.

2. In an electric switch, the combination of a stationary casing, a pair of continuous conducting rings mounted in said casing and insulated therefrom and from each other, a plurality of segments of conducting material arranged in circular paths within said casing and insulated therefrom and from one another, a revoluble member extending into said casing made of a number of cylindrical parts insulated one from the other, each of said parts being formed with a plurality of diametrical sockets, a brush slidable in each socket comprising a stem, a roller on its outer end, and a spring in each socket, said springs holding the rollers in contact with the respective conducting rings and circular group of segments, and electrical connections for said rings and segments.

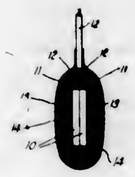
3. In an electrical switch, the combination of a casing of substantially cylindrical form, segments and conducting rings mounted therein and insulated therefrom and from one another, a revoluble member mounted within said casing and provided with means whereby it may be turned, said member including a number of cylindrical parts of conducting material arranged in axial line insulated one from the other and from other parts of said member in each of which said cylindrical parts are formed a plurality of diametrical sockets open at one end only through

the side of each member, the sockets of the several parts opening at different points in the periphery of said member, a brush in each socket comprising a hollow stem, a roller on its outer end and a spring in the hollow of each stem, said springs forcing the roller outwardly into contact with the respective conducting rings and segments, and electrical connections for said rings and segments.

4. In an electric switch the combination with a stationary casing, a pair of continuous conducting rings mounted in said casing and insulated therefrom and from each other, a plurality of segments of conducting material arranged in circular paths within said casing and insulated therefrom and from one another, a revoluble member extending into said casing comprising two circular end plates and two cylindrical parts insulated from each other and from said end plates, each of said cylindrical parts being formed with a plurality of parallel diametrical sockets, the sockets of one part opening through the sides of the revoluble member opposite those in the other part, a brush slidable in each of said sockets comprising a stem, a contact roller on its outer end and a spring forcing said brush outwardly, electrical connection between the brushes in each circular part, and electrical connections for said rings and segments.

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1,094,692. EXPLOSIVE-CAP PROTECTION. CHARLES H. ALLISON, Glendale, Cal. Filed June 28, 1913. Serial No. 776,450. (Cl. 102—7.)



1. An explosive cap protection, comprising an envelop of solid water-proof material capable of being rendered plastic by heat and of relatively low disruptive strength, and a taping of water-proof binder around the said envelop.

2. An explosive cap protection, comprising an envelop as asphalt, and a binding of rubber tape around the envelop.

3. An explosive cap protection, comprising a solid envelop of asphalt bard at normal temperature, and a binding rubber tape around the envelop.

4. An explosive cap protection, comprising an envelop of water-proof material kneaded about the cap in a solid mass.

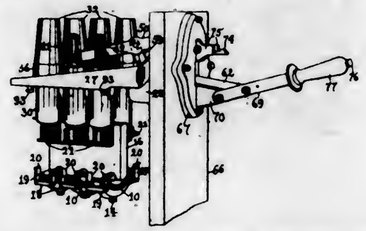
5. An explosive cap protection, comprising an envelop of water-proof material hard at ordinary temperatures kneaded about the cap into a solid mass.

[Claims 6 to 16 not printed in the Gazette.]

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1,094,693. OIL-SWITCH. JOHAN M. ANDERSEN, Boston, Mass., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed July 23, 1908. Serial No. 444,977. (Cl. 175—282.)

1. In an electric circuit controller, in combination, a supporting frame, a stationary contact member located below said frame, a conducting rod extended through said frame and to which said stationary contact member is secured, a sleeve of insulating material surrounding said rod below said frame and provided at its upper end with an enlarged socket and at its lower end with a depending flange opposite to said stationary contact member, a second sleeve of insulating material located above said frame and having its lower portion extended through the said frame and into the socket in the first mentioned sleeve, and provided at its upper end with a socket, means coöperating with said conducting rod to clamp said sleeves in fixed relation to each other, a removable terminal secured to the upper end of said rod, and a sleeve of insulating material surrounding said removable terminal and movable longitudinally thereof, and provided with a reduced portion extended into the socket of the second-mentioned sleeve and a movable contact member coöperating with said stationary contact member, substantially as described.



2. In an electric circuit controller, in combination, a supporting frame, a conducting rod extended through said frame, means to insulate said rod from said frame, a detachable terminal having a split socket in its lower end extended but partially the length of the terminal and into which the upper end of said rod is extended and provided with a separate socket in its upper end for the reception of an electric conductor, said upper socket being separated from the lower socket by a transverse wall and having a continuous circumferential wall, means to clamp the split socket onto said rod, a stationary contact member secured to the lower end of said rod, and a movable contact coöperating with said stationary contact member, substantially as described.

3. In an electric circuit controller, in combination, a substantially horizontal supporting frame, a plurality of pairs of stationary contact members located below said frame and spaced apart, a substantially heavy slab of insulating material movable vertically between the contact members of each pair and interposed between the same in the closed position of the circuit controller, a plurality of movable contact members secured to the lower portion of said slab and extended transversely thereof to coöperate with the pairs of stationary contact members, and means to raise said slab toward the supporting frame to engage the movable contact members with the pairs of stationary contact members.

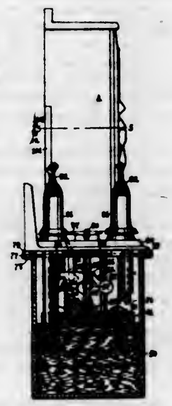
4. In an electric circuit controller, in combination, a plurality of pairs of stationary contact members spaced apart, a substantially heavy slab of insulating material vertically movable between the contact members of said pairs and provided on its upper edge with a downwardly extended hole and below its upper edge with a transverse hole intersecting said vertical hole, a nut inserted into said transverse hole, a threaded rod extended down through said vertical hole and engaging said nut, means connected with said rod for moving said slab upwardly between the contact members of each pair of stationary contact members, and a plurality of contact members secured to said slab at its lower end and extended on opposite sides thereof to engage the stationary contact members in the elevated position of said slab.

5. In an electric circuit controller, in combination, a substantially horizontal supporting frame, a plurality of pairs of stationary contact members located below and supported by said frame with the members of each pair separated from each other, walls of insulating material interposed between the adjacent members of said pairs, a plurality of movable contact members coöperating with said stationary contact members, a slab of insulating material interposed between the members of each pair of stationary members and movable vertically between the members of said pairs and between the insulating walls separating the members of adjacent pairs, and to which the movable contact members are secured, and means to raise said slab, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]



1,094,694. OIL TIME-SWITCH. JOHAN M. ANDERSEN, Boston, Mass., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed July 23, 1908. Serial No. 444,978. (Cl. 175—282.)



1. In combination, a circuit controller provided with a movable member, a rocking device provided with an arm, a link pivoted at one end to said arm and at its other end to said movable member to form a toggle between the latter and said rocking device, a second arm on said rocking device, a counter-weight for said movable member connected with said second arm, a third arm on said rocking device, and means coöperating with said third crank or arm for rocking said device to straighten the toggle and operate said movable member, substantially as described.

2. In combination, a circuit controller comprising a plurality of pairs of fixed members, and a plurality of movable members coöperating therewith, a carrier for said movable members, a stationary arc interrupting wall interposed between said stationary members, movable arc interrupting walls attached to said carrier between said movable members and arranged with relation to said stationary wall to be interposed between said wall and the fixed contact members in the closed position of said circuit controller, substantially as described.

3. In combination, a circuit controller comprising a plurality of pairs of fixed members, and a plurality of movable members coöperating therewith, a carrier for said movable members, a stationary arc-interrupting wall interposed between said stationary members, movable arc-interrupting walls attached to said carrier between said movable members and arranged with relation to said stationary wall to be interposed between said wall and the fixed contact members in the closed position of said circuit controller, a rocking device, means to connect said carrier with said rocking device, and means to operate said rocking device, substantially as described.

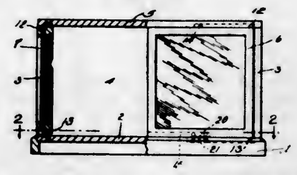
4. In combination, a circuit controller comprising a plurality of pairs of fixed members, and a plurality of movable members coöperating therewith, a carrier for said movable members, a stationary arc-interrupting wall interposed between said stationary members, movable arc-interrupting walls attached to said carrier between said movable members and arranged with relation to said stationary wall to be interposed between said wall and the fixed contact members in the closed position of said circuit controller, a rocking device, means to connect said carrier with said rocking device, and means coöperating with said rocking device to move the same in opposite directions, substantially as described.

5. In combination, a circuit controller comprising a plurality of pairs of fixed members, and a plurality of movable members coöperating therewith, a carrier for said movable members, a stationary arc-interrupting wall interposed between said stationary members, movable arc-interrupting walls attached to said carrier between said movable members and arranged with relation to said stationary wall to be interposed between said wall and the fixed contact members in the closed position of said circuit controller, a lever provided with a plurality of arms, means to connect one of said arms with said carrier, a counterweight attached to another of said arms, and means coöperating with a third arm to turn the lever in opposite directions, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,695. SHOW-CASE DOOR. FOREST T. BARTON and OSCAR HENSON, Seattle, Wash., assignors of one-third to Leo N. Kemper, Seattle, Wash. Filed Mar. 19, 1913. Serial No. 755,303. (Cl. 45—37.)



1. A cabinet having a floor formed with a groove consisting of two portions arranged at right angles to each other, and a door formed with a channel in its lower edge communicating with said groove, and supporting means for said door positioned within said groove and channel and arranged for progressive movement in both.

2. A cabinet having a floor formed with a groove, consisting of two portions arranged at right angles to each other, a top having a similarly arranged groove in its under side, and a door formed with a channel in its lower edge communicating with said first named groove and provided with a plurality of guides in its upper and lower edge protruding in said grooves, one of said guides consisting in a pair of frames pivotally connected together and respectively received in said channel and said floor-groove.

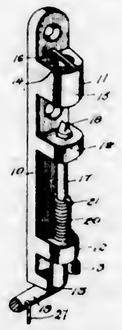
3. A cabinet having a floor formed with a groove, consisting of two portions arranged at right angles to each other, a top having a similarly arranged groove in its under side, and a door formed with a channel in its lower edge communicating with said first named groove and provided with a plurality of guides in its upper and lower edge protruding in said grooves, one of said guides consisting in a pair of frames pivoted to each other provided with rollers respectively bearing on the bottoms of said channel and of said floor-groove.

4. In a cabinet of the class described, provided with a floor having a rectangular groove and a top having a similar groove in its under-face superposed in vertical alinement with said first named groove, a door formed with a channel extending along its lower edge, a guide-pin in the vertical axis of said door extending into said upper groove, oppositely disposed guide pins at the rearward end of said door extending into said upper and lower grooves, respectively, and a supporting member comprised of two parts pivotally connected together and respectively slidably received in said channel in said lower groove.

5. A cabinet having a groove in its floor extending along its front edge to the proximity of its lateral edge and thence parallel with said edge in rectangular rearward directions, and a similar superposed groove in the underside of its top, in combination with a door having a channel in its lower edge communicating with and overlapping said first named groove, a plurality of devices for guiding said door along said grooves positioned respectively at opposite upper and lower rear edges of the door and in the vertical axis of the door and supporting means for the door arranged for progressive movement in said channel and said groove.

[Claims 6 to 11 not printed in the Gazette.]

1,094,696. BURGLAR-ALARM. WILLIAM HERBERT BATES, Brooklyn, N. Y. Filed Jan. 9, 1913. Serial No. 741,039. (Cl. 116—42.)



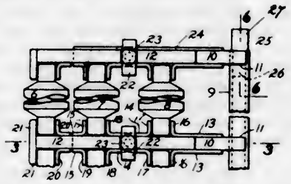
1. A device of the class described comprising a cartridge receiver having a bore extending entirely therethrough and slightly longer than the cartridge, a stop extending transversely of the bore at its outer end and covering a portion only of the bore to permit the escape of gas and other products of the expdosion and also preventing the insertion of a cartridge at the outer end of the bore and preventing the insertion of a loaded cartridge at either end of the bore, and a striking device adapted to engage a cartridge when supported in said receiver.

2. A device of the class described comprising a cartridge receiver having a bore extending entirely therethrough and slightly longer than the cartridge, a stop member extending transversely of the bore at its outer end and of less diameter than the bore to permit the escape of gas and other products of the explosion and also preventing the insertion of a cartridge at the outer end of the bore and preventing the insertion of a loaded cartridge at either end of the bore, and a striking device adapted to engage the cartridge when supported in said receiver.

3. A device of the class described comprising a base having a cartridge receiving lug at one end and with a stop lug at the other end, a spring actuated rod mounted for movement upon said base and having an offset adapted to engage with the stop lug, and a pin extending from said offset in the same longitudinal plane as the rod.

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1,094,697. ROLL-SUPPORT FOR SPINNING, TWISTING, OR LIKE MACHINES. HARRY E. BLANCHARD, Lowell, Mass., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1913. Serial No. 745,085. (Cl. 118—7.)



1. A support for top rolls of the character specified comprising a carrier bar, fingers secured thereto and projecting therefrom, top rolls interposed between said fingers, and formed flanged pieces fixed to and spaced along that side of each finger facing said top rolls, said pieces providing bearings for said rolls.

2. A support for top rolls of the character specified, comprising a carrier bar, fingers secured thereto and projecting therefrom, said fingers being spaced from one another along said bar whereby a series of top rolls may be interposed between adjacent fingers, and flanged pieces secured to said fingers, said pieces being spaced from one another along said fingers, each piece providing one side of an open bearing for a top roll.

3. A support for top rolls of the character specified, the same having a carrier bar, fingers secured thereto and projecting therefrom, said fingers being spaced from one another along said bar whereby said top rolls may be interposed to turn between adjacent ones of said fingers, an extension adjustably secured to each one of said fingers, flanged pieces carried by said fingers and providing both a guide for said extensions and bearings for a portion of said rolls, and flanged pieces carried by each of said extensions and providing bearings for others of said rolls.

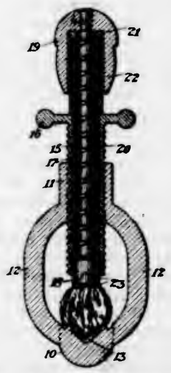
4. A support for top rolls of the character specified, the same having a carrier bar, fingers secured thereto and projecting therefrom, said fingers being spaced from one another along said bar whereby the top rolls may be interposed between adjacent ones of said fingers, flanged strips secured to said fingers, the bodies of which strips are adapted to form a guideway over said fingers and the flanged parts of said strips to form bearings for supporting a portion of said rolls, extensions to said fingers contained in part in said guideways and adjustable longitudinally therein, means for adjustably securing said extensions to said fingers, and flanged pieces carried by said extensions and providing bearings for others of said rolls.

5. A support for top rolls of the character specified, the same having a carrier bar of uniform cross section, fingers of uniform cross section secured thereto and projecting therefrom, extensions to said fingers of uniform cross section adjustably mounted thereon, flanged sheet metal strips secured to said fingers and forming in part guideways for said extensions and in other part bearings for a portion of said rolls, flanged sheet metal pieces secured to said extensions and forming bearings for other of said rolls, and means for adjustably securing said extensions to said fingers.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,698. NUTCRACKER. ERNST A. BOSTROM, Atlanta, Ga. Filed Oct. 29, 1913. Serial No. 797,999. (Cl. 146—3.)



1. A nut cracker having in combination a nut support, a member normally stationary in respect thereto but adjustable toward and from the same, and a blow delivering member guided by said first-mentioned member.

2. A nut cracker having in combination a nut support, a member normally stationary in respect thereto but adjustable toward and from the same, and a blow delivering member guided by said first-mentioned member and supported thereby.

3. A nut cracker having in combination a nut support, a member normally stationary in respect thereto but adjustable toward and from the same, a blow delivering member guided by said first-mentioned member, and a spring having engagement with both of said members and normally tending to move said blow delivering member toward said support.

4. In combination, a nut support, a sleeve normally stationary but movable longitudinally toward and from said support and a plunger member movable longitudinally through said sleeve and provided with a head constituting a blow-delivering member.

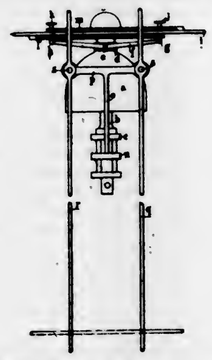
5. In combination, a nut support, a sleeve normally held rigid in respect thereto but adjustable longitudinally toward and from the same, a blow-delivering member movable lengthwise through said sleeve and a spring within said sleeve normally tending to move said blow-delivering member toward said support.

[Claims 6 and 7 not printed in the Gazette.]



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1,094,699. SAFETY DEVICE FOR OVERHEAD ELECTRIC LINES. FRANCOIS FERNAND BOURDIL, Paris, France, assignor to Société Anonyme "Apicea," Paris, France. Filed Dec. 21, 1910. Serial No. 598,650. (Cl. 175—280.)



1. A safety device for an electric conductor comprising insulated centrally pivoted and oppositely directed branches adjacent to said conductor, two connections crossing each other and respectively joining the outer end of each branch to a point of the conductor opposite the other branch, and electrical connecting means joined to said branches so as to move therewith for the purpose described.

2. A safety device for an electric conductor comprising insulated céntrally pivoted and oppositely directed branches adjacent to said conductor, two connections crossing each other and respectively joining the outer end of each branch to a point of the conductor opposite the other branch, horizontally projecting branches attached to said first-named branches, and electrical connecting means joined to said horizontal branches so as to move therewith for the purpose described.

3. A safety device for an electric conductor comprising insulated centrally pivoted and oppositely directed branches adjacent to said conductor, two connections crossing each other and respectively joining the outer end of each branch to a point of the conductor opposite the other branch, horizontal projections at the outer ends of said branches for serving as supports for the line wire, vertical projections at the outer ends of said branches for abutting against the line wire and normally preventing any angular displacement of the device as well as any longitudinal displacement of the line wire, and electrical connecting means joined to the branches so as to move therewith.

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1,094,700. MINE-FINDER. FRANZ BÜNDGENS, Kiel, Germany. Filed Dec. 27, 1911. Serial No. 668,189. (Cl. 102—3.)

1. In a mine finder, a buoy, a drag weight suspended from said buoy, a drag line attached at one end to said weight and suitably towed at its other end, means for automatically releasing said drag line from said weight when the tension between the said line and weight exceeds a predetermined minimum, an explosive-carrying grapnel secured to said drag line near said weight, automatic means for firing said explosive on striking an obstruction, a float adapted to support said grapnel and detachably secured to the buoy, and a line secured to said grapnel and wound on a drum mounted within the drag weight.



2. In a mine finder, a buoy, a drag weight suspended from said buoy, a drag line attached at one end of said weight and suitably towed at its other end, means for automatically releasing said drag line from said weight when the tension between the said line and weight exceeds a predetermined minimum, an explosive-carrying grapnel secured to said drag line near said weight, automatic means for firing said explosive on striking an obstruction, a float adapted to support said grapnel and detachably secured to the buoy, a line secured to said grapnel and wound on a drum mounted within the drag weight, a signal device on said buoy, and means on said buoy for operating said signal device upon detachment of said float whereby contact with a resisting object is indicated.

3. In a mine finder, a buoy, a drag weight suspended from said buoy, a drag line attached at one end to said weight and suitably towed at its other end, means for automatically releasing said drag line from said weight when the tension between the said line and weight exceeds a predetermined minimum, an explosive-carrying grapnel secured to said drag line near said weight, automatic means for firing said explosive on striking an obstruction, a float adapted to support said grapnel and detachably secured to the buoy, a line secured to said grapnel and wound on a drum mounted within the drag weight, a signal device on said float consisting of an electric lamp, batteries carried by said float to supply current to said lamp, a normally open circuit between said lamp and said batteries, and a detachable plug switch for said circuit, said switch comprising a securing means for said float and normally holding said circuit open, whereby when said float is detached and the plug withdrawn the circuit between said lamp and said batteries is closed, thereby operating the lamp.

4. The combination in a mine finder and destroyer, of a drag weight, a float therefor, attaching means for supporting said drag weight from said float, a drag line at one end of said weight and a line to permit suitable towing at its other end, an explosively charged grapnel secured to said drag line near said weight, the other end of said grapnel being affixed to said weight, means for automatically releasing said grapnel from said weight when the tension of said drag line exceeds a predetermined amount, automatic means for operating to fire the explosive charge in said grapnel upon obstruction of said drag line, a grapnel supporting float detachably supported to said buoy, a signal on said buoy normally held inoperative by said grapnel float attachment and operated by the detachment of said float upon the release of said grapnel from said weight, and controlling means between said grapnel and said weight to permit advancing of said buoy and weight out of the explosive zone, and to maintain said controlling connection with the grapnel until the instant of firing.

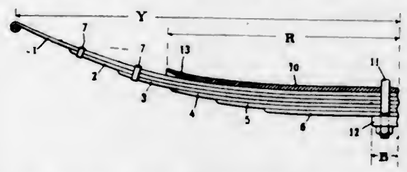
5. The combination in a mine finder and destroyer, of a drag weight, a float therefor, attaching means for supporting said drag weight from said float, a drag line at one end of said weight and a line to permit suitable towing at its other end, an explosively charged grapnel se-

cured to said drag line near said weight, the other end of said grapnel being affixed to said weight, means for automatically releasing said grapnel from said weight when the tension of said drag line exceeds a predetermined amount, automatic means for operating to fire the explosive charge in said grapnel upon obstruction of said drag line, a grapnel supporting float detachably supported to said buoy, a signal on said buoy normally held inoperative by said grapnel float attachment and operated by the detachment of said float upon the release of said grapnel and said weight to permit advancing of said buoy and weight out of the explosive zone, and to maintain said controlling connection with the grapnel until the instant of firing, said controlling means consisting of a clip coupling on said weight and being connected by a cable to said grapnel and a rotatable cable drum carried by the said weight.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,701. VEHICLE SPRING CONSTRUCTION. HENRY S. CHAPIN, Rockville Center, N. Y. Filed July 17, 1913. Serial No. 779,460. (Cl. 21—105.)




1. In a vehicle spring construction, a plurality of resilient leaf members graded in length, a bearing acting against the shortest leaf member and a rigid check bar secured against the outer face of the longest leaf member but curved at its end away from said leaf member and of substantially greater length than the effective length of said bearing to thereby provide a variable fulcrum for said long leaf member.

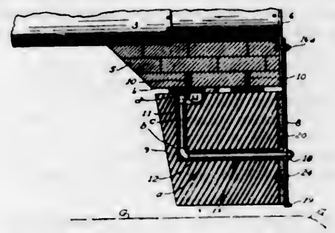
2. In a vehicle spring construction, the combination with a plurality of curved resilient leaf members and a bearing on the outer convex side thereof, of a rigid reinforcing and checking bar on the inner concave side of the resilient leaf member of materially greater length than said bearing and having one end curved away from and normally out of contact with the inner leaf member to provide on the rebound action of the spring a progressive fulcrum for the inner leaf member whereby to vary the leverage exerted by the inner leaf member upon the outer leaf member.

3. In a vehicle spring construction, the combination with a plurality of resilient leaf members graded in length and a bearing acting against the shorter leaf member, of a rigid check bar secured against the longest leaf member, and of substantially greater length than the effective length of said bearing, the end of said check bar being disposed away from and normally out of contact with the long leaf member, whereby without diminishing the compression action of the resilient leaf members, said rigid check bar serves to check the rebound of the leaf members and provide a variable fulcrum for the long leaf member so that the effective length of said resilient leaf members under reaction is variable and substantially less than the effective length of the resilient leaf members under compression and the short leaf members serve as a compression resistance to the reaction of the longest leaf member.

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1,094,702. FURNACE-FRONT. FRANCIS MORTON CLARK, Garden City, N. Y., assignor to Multiple-Grate-Bar Endless Chain Stoker Company, a Corporation of New York. Filed May 3, 1912. Serial No. 694,822. (Cl. 110—95.)

1. In a furnace, side walls, a metallic beam resting on said side walls, a slotted fuel-distributing plate secured to the front of said furnace, fire-brick blocks mounted below said beam in position to protect it from the heat of the fire, an L-shaped supporting means within each fire-brick block, the vertical portions of said supporting means being attached to said beam, and the horizontal portions passing through slots in the distributing plate and being secured to said plate.



2. In a furnace, side walls, a metallic beam resting on said side walls, a slotted vertically adjustable fuel-distributing plate secured to the front of said furnace, fire-brick blocks mounted below said beam in position to protect it from the heat of the fire, an L-shaped supporting means within each fire-brick block, the vertical portions of said supporting means being attached to said beam, and the horizontal portions passing through slots in the distributing plate and being secured to said plate.

3. In a furnace, side walls, a metallic beam resting on said side walls, a slotted fuel-distributing plate secured to the front of said furnace, fire-brick blocks mounted below said beam in position to protect it from the heat of the fire, a hollow L-shaped supporting means within each fire-brick block, the vertical portions of said supporting means being attached to said beam, and the horizontal portions passing through slots in the distributing plate and being secured to said plate.

4. In a furnace, side walls, a metallic beam resting on said side walls, a slotted fuel-distributing plate secured to the front of said furnace, fire-brick blocks mounted below said beam in position to protect it from the heat of the fire; an L-shaped supporting means within each of said fire-brick blocks, hangers depending from said beam, the vertical portions of said supporting means engaging said hangers and the horizontal portions passing through slots in the distributing plate and being secured to said plate.

5. In a furnace, side walls, a metallic beam resting on said side walls, a slotted fuel-distributing plate secured to the front of said furnace, fire-brick blocks mounted below said beam in position to protect it from the heat of the fire, said blocks having an L-shaped passage way extending from the front side to the top and being provided with an elongated recess at the upper end of the L-shaped passage way, an L-shaped supporting means within each block, hangers depending from said beam in position to enter said elongated recess, the vertical portions of said supporting means embracing said hangers and the horizontal portions passing through slots in the distributing plate and being secured to said plate.

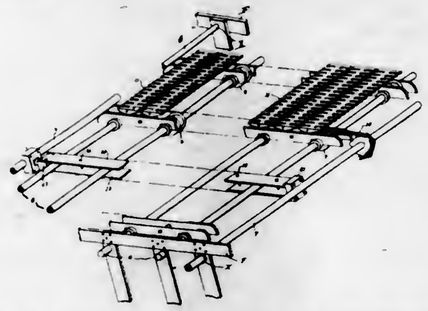
[Claims 6 and 7 not printed in the Gazette.]

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1,094,703. SUPPORTING MECHANISM FOR ENDLESS TRAVELING GRATES. FRANCIS MORTON CLARK, Garden City, N. Y., assignor to Multiple-Grate-Bar Endless Chain Stoker Company, a Corporation of New York. Filed May 3, 1912. Serial No. 694,823. (Cl. 110—40.)

1. In a mechanical stoker, a frame, front and rear shafts journaled in said frame, sprockets on said shafts, an endless grate traveling on said sprockets, reinforcing means independent of the frame and extending from the front to the rear shafts, means for adjusting the length of said reinforcing means, and half-journals at the ends of said reinforcing means and engaging said sprocket shafts to maintain them in alinement.

2. In a mechanical stoker, a frame, front and rear shafts journaled in said frame, sprockets on said shafts, non-rotatable idler shafts mounted in said frame, an endless grate traveling on said sprockets, bifurcated reinforcing means straddling said idler shafts, means for clamping said reinforcing means to said idler shafts, half-journals mounted at each end of said reinforcing means in position to engage said front and rear shafts, and means for adjusting the distance between said half-journals.



3. In a mechanical stoker, front and rear sprocket shafts, sprockets thereon, idler shafts intermediate said sprocket shafts, idlers thereon, a grate traveling over said sprockets and supported in its upper run on said idlers, and means intermediate said idlers, and resting on said idler shafts, for aiding in supporting said grate.

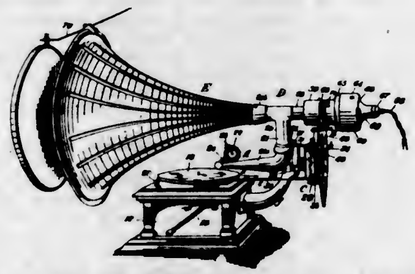
4. In a mechanical stoker, a frame, front and rear sprocket shafts mounted in said frame, idler shafts mounted in said frame intermediate said sprocket shafts, idlers on said idler shafts, a grate traveling over said sprockets and supported in its upper run on said idlers, and means intermediate said idlers, and resting on said idler shafts, for aiding in supporting said grate.

5. In a mechanical stoker, a frame, idler shafts mounted thereon, idlers on said shafts, an endless traveling grate running on said idlers, and pairs of spaced rails, one of which rails is located on each side of said idlers, said rails being supported on said idler shafts in position so that their upper surfaces will engage the grate at points intermediate the idlers to assist in supporting the grate.

[Claim 6 not printed in the Gazette.]

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1,094,704. SOUND AND IMAGE PRODUCING APPARATUS. HARRY H. CLUBB and RICHARD A. WHITEHEAD, Los Angeles, Cal., assignors to Picture Disc Company, Los Angeles, Cal., a Corporation of California. Filed Sept. 22, 1910. Serial No. 583,306. (Cl. 88—27.)



1. In apparatus of the character set forth, operative connections between means for producing vocal and instrumental renditions and means for successively displaying pictorial representations, whereby one of said means is operated in the operation of the other of said means; said operative connections comprising a driven shaft, a drive shaft, a worm, a clutch between the drive shaft and the worm, a gear upon the driven shaft, a detent controlling the gear, a pinion meshing with the worm, a finger rotated by the pinion and disposed in position to intermittently release the gear from the detent and actuate the gear; and means for operating the drive shaft.

2. In apparatus of the character described, a shaft for a picture record and means for intermittently rotating the shaft; said means comprising a gear upon the shaft, a detent controlling the movement of the gear, a pinion, a finger rotated by the pinion to intermittently release the gear from the detent and rotate the gear, a worm meshing with the pinion, and means for rotating the worm.

3. In apparatus of the character described, a shaft for a picture record, a gear upon the shaft, a detent controlling the movement of the gear, a pinion provided with a finger operated to intermittently release the gear from the detent and actuate the gear, a worm meshing with the pinion, a drive shaft, a clutch between the worm and the drive shaft, and means for rotating the drive shaft.

4. In apparatus of the character described, a shaft for a picture record, a gear upon the shaft, a detent controlling the movement of the gear, a pinion provided with a finger operated to intermittently release the gear from the detent and actuate the gear, a worm meshing with the pinion, a drive shaft, a clutch between the worm and the drive shaft, and means for rotating the drive shaft; said drive shaft being provided with change speed means.

5. Apparatus for reproducing vocal and instrumental renditions provided with a tubular body through which the sound waves are emitted, and means for successively displaying pictorial representations through said tubular body; said means comprising a socket for connection with said tubular body and provided with a cut-away portion adapted to receive a picture record entering said cut-away portion in said socket, and lighting means for passing light rays through said picture record and said socket and said tubular body.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,705. TENNIS-RACKET. JOSEPH J. CURLEY, New York, N. Y. Filed Jan. 6, 1914. Serial No. 810,560. (Cl. 46—24.)



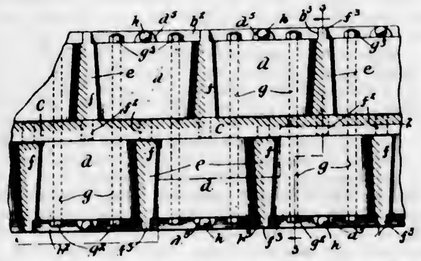
1. A tennis racket having a bow of wood, an outer strip of wood and an interposed strip of bakelite united with the bow and the strip to form an integral structure and extending the full width of the bow.

2. A racket having a bow of wood having therein a reinforcing strip of light resilient water-proof material extending transversely through the full width of the bow, a throat piece and a reinforcing and binding strip extending across the throat piece and for a material distance on the inside of the bow.

3. A tennis racket having a bow of wood, an outer strip of wood and an interposed strip of bakelite united with the bow and the strip to form an integral structure and extending the full width of the bow, a throat piece

and a reinforcing and binding strip extending across the throat piece and for a material distance on the inside of the bow.

1,094,706. WHEEL RIM AND TIRE. FRANK A. DELLERT, Brooklyn, N. Y. Filed Apr. 24, 1913. Serial No. 763,206. (Cl. 152—9.)



1. In a wheel rim and tire construction, a central annular member mounted on the rim and separate series of tire blocks annularly and alternately arranged on said rim and on the opposite sides of said annular member, and means for securing said tire blocks to said rim and annular member consisting of bolts passed through said tire blocks and through said annular member, and locking devices passed transversely between the tire blocks of each series and the inner ends of which engage said annular member and the outer ends of which are provided with inwardly directed hooks which engage the rim.

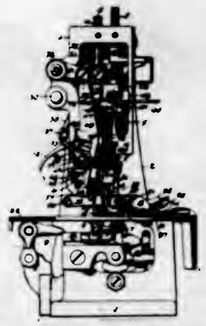
2. In a wheel rim and tire construction, a central annular member mounted on the rim and separate series of tire blocks annularly and alternately arranged on said rim and on the opposite sides of said annular member, and means for securing said tire blocks to said rim and annular member consisting of bolts passed through said tire blocks and through said annular member, and locking devices passed transversely between the tire blocks of each series and the inner ends of which engage said annular member and the outer ends of which are provided with inwardly directed hooks which engage the rim, said tire blocks consisting of body portions of cushioning material and inner plates with which the body portions are connected and through which said bolts are passed.

3. A wheel rim provided with a ring which is mounted thereon centrally thereof, and a plurality of tire blocks mounted in separate series on the opposite sides of said ring, said tire blocks consisting of body portions of cushioning material and base plate members connected therewith, said tire blocks being also tapered and the narrower ends thereof being directed inwardly, and said tire blocks being secured in position by bolts passed through the base plate members thereof and through said ring, and wedge-shaped locking devices placed between the tire blocks of each series and the inner ends of which are provided with bearings in said ring and the outer ends of which are provided with inwardly directed hook members which overlap the sides of the rim.

4. In a wheel rim and tire construction, an annular plate member mounted on the rim, an annular band mounted centrally on said annular plate member, annular series of tire blocks mounted on the annular plate member and on the opposite sides of said band member and alternately arranged bolts passed transversely through the tire blocks and through said band member, and locking devices placed between the blocks of each series and engaging the band member and the edges of the annular plate member.

5. In a wheel rim and tire construction, an annular plate member mounted on the rim, an annular band mounted centrally on said annular plate member, annular series of tire blocks mounted on the annular plate member and on the opposite sides of said band member and alternately arranged bolts passed transversely through the tire blocks and through said band member, and locking devices placed between the blocks of each series and engaging the band member and the edges of the annular plate member, the said tire blocks and said locking devices being tapered or wedge-shaped in form.

1,094,707. RUFFLING AND STITCHING MACHINE. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Apr. 2, 1910. Serial No. 552,948. (Cl. 112—16.)



1. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, feeding mechanism, a presser-bar, and a presser-foot carried thereby, of a swinging ruffling lever, a ruffling blade, a carrier therefor fulcrumed upon said ruffling lever, a spring acting upon said carrier to press the ruffling blade downwardly in operative relation with the work, a separator-plate, a carrier therefor, a spring connected with the separator-plate carrier for pressing the same upwardly, a lifting member carried by the presser-bar and normally out of operative engagement with the ruffling blade carrier but adapted to engage the same to lift said carrier, a fixed stop for arresting the lifting movement of the separator-plate carrier, and a lifting device for the presser-bar whereby the presser-foot, ruffling blade and separator-plate are differentially lifted to admit the work.

2. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, feeding mechanism, a presser-bar, and a presser-foot carried thereby, of a swinging ruffling lever, a ruffling blade, a carrier therefor fulcrumed upon said ruffling lever, a spring acting upon said carrier to press the ruffling blade downwardly in operative relation with the work, a separator-plate, a carrier therefor, a spring connected with the separator-plate carrier for pressing the same upwardly, a lifting member adjustably secured to the presser-bar and normally out of operative engagement with the ruffling blade carrier but adapted to engage the same to lift said carrier, a stop adjustably secured upon a fixed support and adapted for arresting the lifting movement of the separator-plate carrier, and a lifting device for the presser-bar whereby the presser-foot, ruffling blade and separator-plate are differentially lifted to admit the work.

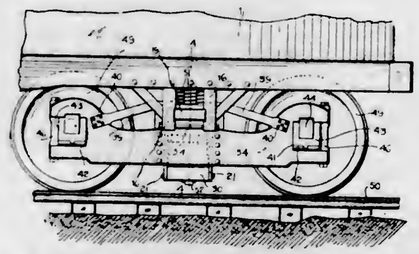
3. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, and feeding mechanism, of a swinging ruffling lever having a longitudinal slideway and an adjacent graduated scale and adapted to move in a plane parallel with that of the needle path, a ruffling blade, a carrier therefor pivotally mounted upon said ruffling lever, an actuating rock-shaft mounted in fixed bearings and provided with a crank-arm adjacent said ruffling lever, means for imparting uniform operative movements to said rock-shaft, a pivotal stud carried by said crank-arm and provided with means whereby it is adjustable longitudinally of the latter, a slide-block mounted upon said stud and entering said slideway in the ruffling lever, and a pointer overlying said scale of the ruffling lever and movable with said pivotal stud to indicate the range of throw of the ruffling lever and ruffling blade under the uniform operative movements of said crank-arm.

4. In a sewing machine, the combination with stitch-forming mechanism including a reciprocating needle, and feeding mechanism, of a swinging ruffling lever adapted to move in a plane parallel with that of the needle-path and provided at one edge with a bearing lug and an adjacent longitudinal guide-rib, a ruffling blade, a carrying arm therefor pivotally mounted upon said ruffling lever, an actuating rock-shaft mounted in fixed bearings and provided with a crank-arm adjacent said ruffling lever, operating means for said rock-shaft, a pivotal stud carried by said crank-arm and affording a coupling between the latter and said ruffling lever, a thrust-rod having one end portion journaled in the bearing lug of the ruffling lever and the opposite end connected with the ruffling blade carrier, a slide-block adjustably mounted upon and intermediate the ends of said thrust-rod and grooved to embrace said guide-rib, and a spring interposed between said bearing lug and slide-block and acting through said thrust-rod and carrier to press the ruffling blade upon the work.

5. In a sewing machine, the combination with stitch-forming mechanism and feeding mechanism, of ruffling mechanism including a swinging ruffling lever, a ruffling blade, a carrying arm therefor pivotally connected at one end with said ruffling lever and having at its opposite end a lateral ear formed with a longitudinally extending slot and having in its under side a seat having lateral shoulders fitted to the edges of the ruffling blade, and a fastening screw with its shank entering the slot in said lateral ear and tapped into the ruffling blade and having its head seated upon the top of said ear, whereby the longitudinal adjustment of the ruffling blade upon said arm may be effected from the upper side of the same while the ruffling blade is held against lateral displacement.

[Claims 6 to 14 not printed in the Gazette.]

1,094,708. CAR-TRUCK. PATRICK J. FANT, Hugo, Okla. Filed Aug. 27, 1913. Serial No. 786,977. (Cl. 105—243.)



1. A device of the class described comprising a truck frame, a truck bolster mounted in said frame, a king bolt carried by the frame and engaged through the bolster, said bolster being adapted to turn for a limited distance in either direction upon the king bolt, means carried by the frame for preventing vertical movement of the ends of the bolster, an upper bolster above the truck bolster, means for resiliently spacing the upper bolster from the truck bolster, means carried by the upper bolster and engaged with the truck bolster to prevent turning of the same independently of the upper bolster, axle supporting means carried by the truck frame, axles carried by the supporting means, and wheels mounted on said axle.

2. A device of the class described comprising a truck frame, a king bolt carried by the truck frame, a truck bolster pivotally mounted upon the king bolt, means for preventing upward movement of the ends of the truck bolster, means for preventing downward movement of the ends of the truck bolster, bearing means carried by the truck frame for the truck bolster, a car bolster above the truck bolster, guide posts depending from the opposite ends of the car bolster, arcuate bearing cups positioned upon the truck bolster and arranged concentrically of the king bolt, springs between the car bolster and the truck bolster, said springs having their lower ends engaged in the bearing cups while their upper ends are secured to the car bolster, axles carried by said truck frame, and wheels mounted upon said axles.

3. A device of the class described comprising a truck frame, including transverse and longitudinal members, means for connecting the transverse members, a king bolt carried by said means, a truck bolster mounted on said king bolt between the transverse truck frame members, said transverse truck frame members having their ends secured in the longitudinal truck frame members, bearing means for the truck bolster, means for preventing upward movement of the truck bolster, means for preventing downward movement of the truck bolster, a car bolster above the truck bolster, means for resiliently spacing the car bolster above the truck bolster, and guide means connected with the car bolster and engaged with the truck bolster to prevent independent movement of said bolsters.

4. A device of the class described comprising a truck frame including transverse and longitudinal frame members, said transverse frame members having their ends connected with the longitudinal frame members, means for connecting the transverse frame members, a king bolt carried by the connecting means, a truck bolster mounted on the king bolt between the transverse frame members, bearing means for the truck bolster carried by the transverse frame member connecting means, means carried by the transverse frame members for preventing downward movement of the ends of the truck bolster, means carried by the longitudinal frame members for preventing upward movement of the ends of the truck bolster, a car bolster positioned upon the truck bolster, springs carried by the car bolster, means carried by the truck bolster for receiving the lower ends of the springs, and guide members carried by the car bolster and engaged with the ends of the truck bolster to guide the car bolster in its vertical movement and prevent independent horizontal movement of said bolsters.

5. A device of the class described comprising a truck frame including connected transverse frame members and longitudinal frame members, means carried by the transverse frame members for supporting a bolster therebetween, a bolster mounted upon said means, said bolster being tapered toward its opposite ends and extended beyond the longitudinal frame members, means for preventing downward movement of the bolster, means for preventing upward movement of the bolster, a car bolster above the truck bolster, cushioning means between said bolsters, arcuate members carried by said truck bolster for holding the lower ends of the cushioning means, guide members, the ends of the truck bolster having recesses in their side edges, said guide members being engaged in said recesses, axle supporting means carried by the truck frame, axles mounted in said means, and wheels mounted upon said axles.

[Claims 6 to 9 not printed in the Gazette.]

1,094,709. ADVERTISING DEVICE. WILLIAM T. FAUCETT, Des Moines, Iowa. Filed Mar. 24, 1913. Serial No. 756,606. (Cl. 40—152.)



1. In a device of the class described, an outer frame, inner frames spaced apart therefrom, a plurality of auxiliary frames designed to be placed between the outer and inner frames, the outer frame and auxiliary frames being provided with lugs and with openings for receiving said

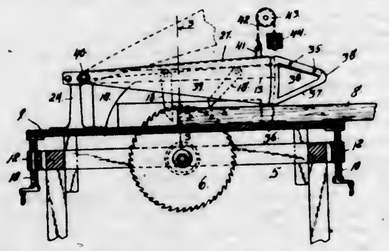
lugs, the inner and auxiliary frames being provided with coacting lugs and spring catch devices so arranged that when the auxiliary frames are placed in position the first named lugs enter said openings and the second named lugs are automatically engaged by said spring catch devices.

2. In a device of the class described, an outer frame designed to be placed adjacent to a wall, a solid back secured thereto, a second frame arranged within said outer frame and spaced apart therefrom at all points, a plurality of smaller frames designed to be placed between said first and second frames for engaging the edges of cards or the like placed between said smaller frames and said back, and means for detachably securing said smaller frames to said first and second frames.

3. In a device of the class described, the combination of an outer frame, a plurality of inner frames spaced apart from each other and from the outer frame, a plurality of auxiliary frames some of which are interposed between said outer and said inner frames, others being interposed between said inner frames, said outer frame being provided with lugs adjacent to all the auxiliary frames except those between the successive inner frames, said inner frames being provided with a plurality of lugs, said auxiliary frames being formed with a plurality of openings on one side to receive certain of the lugs and with catch devices on their other sides engaging others of said lugs on the inner frames.

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1,094,710. SAW-GUARD. ANDREW FLOHR, Colorado Springs, Colo. Filed Aug. 2, 1912. Serial No. 712,973. (Cl. 143—159.)



1. In a saw-guard, the combination with a bench and saw, of a support mounted on the bench and having a stationary bar extending above the saw and in the plane of the latter, and a guard pivotally connected with the support at one extremity and arranged beyond the plane of the saw but in close proximity thereto, the free extremity of the guard being open while the corresponding extremity of the stationary bar projects thereinto and forms a stop to limit the movement of the guard upon its pivot.

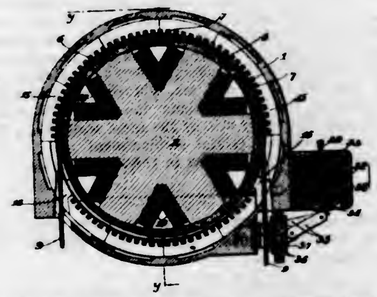
2. In a saw-guard, the combination with a bench and saw, of a support mounted on the bench in the plane of the saw and including a stationary bar extending above the saw and in the plane thereof, and a guard pivotally connected with the support at one extremity and arranged parallel with the stationary bar beyond the plane of the saw, but in close proximity thereto, the free extremity of the guard being hollow to receive the corresponding extremity of the stationary member, the hollow portion of the guard being closed at its lower edge to engage the extremity of the stationary bar which forms a stop to limit the upward movement of the guard farther than is necessary for operating purposes, substantially as described.

3. The combination with a bench and saw of a stationary member extending upwardly from the bench in the plane of the saw and located forward of the same, the said member having a bar extending rearwardly above the saw and in the plane of the latter, and a guard pivotally connected with the forward extremity of the bar and arranged parallel with the latter beyond the plane of the saw, in close proximity thereto, the said guard having a hollow part at its free extremity arranged to receive the corresponding extremity of the stationary bar which is arranged to limit the upward movement of the guard by engaging the hollow extremity of the latter, the said extremity normally resting on the bench and having a beveled surface extending upwardly from the bench, the pivoted guard also including a plate arranged to act in unison with the body portion of the guard, but movable independently of the latter, for the purpose set forth.

4. The combination with a bench and saw of a stationary bar arranged above the saw and in the plane of the latter, a guard pivotally connected at one extremity and occupying a plane on the opposite side of the stationary bar, the free extremity of the pivoted guard being recessed to recieve the corresponding extremity of the stationary bar which serves to limit the upward movement of the guard farther than is necessary for operating purposes, the guard being also equipped with a plate normally moving in unison with the body of the guard, but adapted to move independently thereof, substantially as described.

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1,094,711. ELECTRIC MOTOR. ETHELBERT M. FRASER, Yonkers, N. Y. Filed May 22, 1911. Serial No. 628,770. (Cl. 172—36.)



1. An electric motor comprising a rotatable field structure constituting a pulley, and a stationary armature encircling said field structure.

2. In an electric motor, the combination with an adjustable rotatable field structure constituting a pulley, of a stationary armature concentrically arranged about said structure, and means for bringing said armature and structure into eccentric relation with each other.

3. The combination with an electric motor, comprising a rotatable field structure constituting a pulley, and a stationary armature encircling said field structure, of a flexible connector driven by said field structure.

4. The combination with an electric motor, comprising a rotatable field structure, and a stationary armature encircling said field structure, of a flexible connector partly surrounding and engaging said field structure and driven thereby.

5. In an electric motor, the combination with an adjustable rotatable field structure constituting a pulley, of a stationary armature encircling said field structure, a commutator for said armature, and means for controlling the rotation of said field structure.

[Claims 6 to 27 not printed in the Gazette.]

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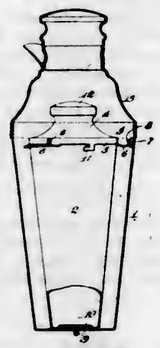
1,094,712. BEVERAGE-SHAKER. SPENCER H. GALE, New York, N. Y. Filed June 9, 1913. Serial No. 772,475. (Cl. 31—63.)

1. A beverage shaker which comprises a beverage receptacle, and a separable, self-contained ice receptacle located within the beverage receptacle.

2. A beverage shaker, which comprises a beverage receptacle, a self-contained ice receptacle and means for removably centering the ice receptacle within the beverage receptacle.



3. A beverage shaker which comprises a beverage receptacle, a self-contained ice receptacle and a lock for removably centering the ice receptacle within the beverage receptacle.



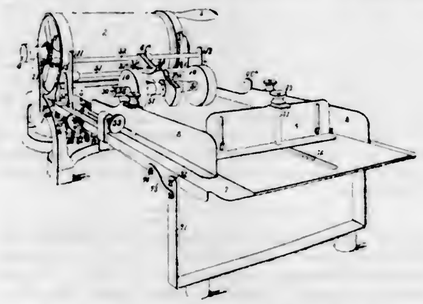
4. A beverage shaker, which comprises a beverage receptacle, having one member of a lock, and a self-contained ice receptacle having the other member of the lock, so arranged that when brought together the ice receptacle will be centered within the beverage receptacle.

5. A beverage shaker which comprises a beverage container having inwardly extending ears, and a closed ice container having centering fingers adapted to engage with the ears and lock the ice container within the bever age container.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,713. STENCILING-MACHINE. CHARLES GIBBS, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 12, 1911. Serial No. 638,048. (Cl. 101—40.)



1. In a sheet feeding machine for a stenciling or printing machine, the combination with a removable table for the sheets, a reciprocating carriage, and sheet feeding mechanism thereon, of a crank below said table revolving in a horizontal plane, a pitman connecting the crank to said carriage to reciprocate it, said crank and pitman being disposed midway between the sides of the feeding machine and connecting with said carriage midway, and means to operate the crank.

2. In a sheet feeding machine for a stenciling or printing machine, the combination with a removable table for the sheets, a reciprocating carriage, and sheet feeding mechanism thereon, of a slide on said carriage below the table, a guide therefor, said slide and guide disposed midway between the sides of said carriage to secure against binding thereof, a horizontally moving crank and pitman connecting with said slide to reciprocate said carriage, and means to operate the crank.

3. In a sheet feeding machine for a stenciling or printing machine, the combination with a removable table for the sheets, a reciprocating carriage, and sheet feeding mechanism thereon, of guiding means for said carriage below the table, said guiding means disposed midway between the sides of said carriage to secure against binding thereof, a horizontally moving crank and pitman for reciprocating the carriage connecting therewith midway, and means to operate the crank.

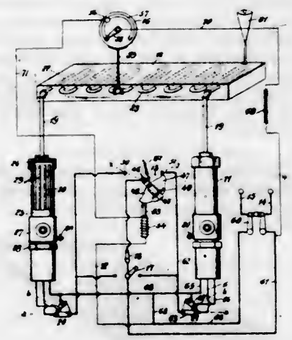
4. In a sheet feeding machine for a stenciling or printing machine, the combination with a table for the sheets, a reciprocating carriage, and sheet feeding mechanism thereon, of guiding means for said carriage below the table being disposed midway between the sides of the carriage, a crank below said table revolving in a horizontal plane, a pitman connecting said crank with the carriage to reciprocate it, and means to operate said crank.

5. In a sheet feeding machine for a stenciling or printing machine, the combination with a table for the sheets, a reciprocating carriage, and sheet feeding mechanism thereon, of a slide on said carriage below the table, a guide therefor, said slide and guide disposed midway between the sides of the carriage, a crank below said table revolving in a horizontal plane, a pitman connecting said crank with the carriage to reciprocate it, and means to operate the crank.

[Claims 6 to 35 not printed in the Gazette.]

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1,094,714. RECIPROCATING HEATER. WILLIAM S. HADAWAY, JR., New Rochelle, N. Y. Filed Mar. 11, 1913. Serial No. 753,504. (Cl. 219—20.)



1. A fluid heater comprising a plurality of receptacles, interposed heat radiating means communicating with the receptacles and means for alternately supplying heat to the receptacles.

2. A fluid heater comprising a plurality of receptacles, interposed heat radiating means communicating with the receptacles and establishing a communication between them and means for alternately supplying heat to said receptacles.

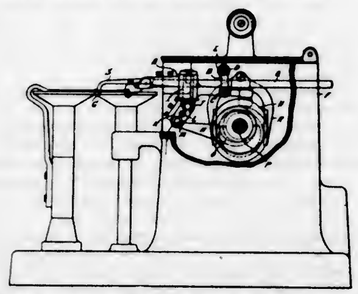
3. A heater comprising a plurality of steam generators, an interposed radiator, electric heaters for the generators and automatic means for alternately supplying energy to the heaters.

4. A heater comprising a plurality of steam generators, an interposed radiator, electric heaters for the generators and automatic means dependent upon the fluid pressure in the radiator for alternately supplying energy to the heaters.

5. An electric heater comprising a plurality of electrically heated steam generators, a steam heated body interposed between the generators and establishing a communication between them and automatic means for alternately supplying electric energy to the steam generators.

[Claims 6 to 15 not printed in the Gazette.]

1,094,715. SEWING-MACHINE. JAMES HEGGIE, Kilbowie, Clydebank, Scotland, assignor to The Singer Manufacturing Company, Elizabeth, N. J. Filed Jan. 15, 1912. Serial No. 671,307. (Cl. 112—36.)



1. In a sewing machine, the looper-actuating mechanism comprising a looper-bar, a fulcrum-stud for said bar, a swinging support having direct pivotal connection with said stud, actuating means for said swinging support, whereby endwise movements are imparted to the looper-bar, a rotary cam and a connection between the same and the looper-bar whereby lateral movements are imparted to the latter, and a swinging link directly and universally jointed to said bar and adapted to impart tilting movements to the same.

2. In a sewing machine, the looper-actuating mechanism comprising two swinging elements, a looper-bar and a fulcrum-stud therefor, a direct connection between the fulcrum-stud and the first of said elements, a universal joint directly connecting the second of said elements and the looper-bar, means for actuating the first element to impart endwise movements to the bar, said movements being translated into endwise tilting movements by the second element, a rotary cam, and a connection between said cam and the looper-bar whereby lateral movements are imparted to the latter.

1,094,716. LETTER-FILING CLIP. JOHN M. HILL, Vancouver, British Columbia, Canada. Filed Aug. 5, 1913. Serial No. 783,049. (Cl. 129—35.)



1. A letter filing member, comprising a piece of thin material one edge of which is folded over and spaced from the other part and has portions removed from it and a narrow strip of resilient material bent to exercise its resilience between the folded portion and the other part of the piece.

2. A letter filing member, comprising a piece of thin sheet metal or other suitable material one edge of which is folded over the other, the lower portion having at least one pointed projection punched upward from it, and a strip of thin resilient material bent to exercise its resilience in the space between the folded portion and the other part.

3. A letter filing member, comprising a piece of thin sheet metal or other suitable material one part of which is folded for a short distance over and spaced from the other part, the over-folded edge having portions removed from its edge, and a strip of resilient material interposed between the folded portions said strip being bent to exercise its resilience between the two parts.

4. A letter filing member, comprising a piece of thin sheet metal one edge of which is folded over the body of the piece to leave space between the two, the said body part of the overfolded strip having at least one paper engaging projection and a strip of thin resilient material bent to a wavelike form and inserted between the overfolded portions of the piece.

5. A letter filing member, comprising a sheet of thin sheet metal conforming fully to the dimensions of the letter sheets it is designed to hold, both ends of said sheet being folded inward substantially parallel to the body of the sheet and the side edges reinforced to afford a measure of rigidity to the sheet, and a strip of resilient material bent to exercise its resilience between the sheet and one of its overturned ends, and provision for facilitating entrance and removal of this spring under the overturned end.

1,094,717. COUPLING FOR ELECTRIC CONDUCTORS. JESSE L. HINDS and JOHN J. DOSSERT, Syracuse, N. Y., assignors to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed May 26, 1909. Serial No. 498,413. (Cl. 173—273.)



In an electrical coupling, a stem having means at one end for attachment to a support, and a clamping jaw at its opposite end, said jaw having a flat face located in a plane substantially intersecting the longitudinal axis of the stem and being provided near its outer end with a transversely disposed groove, a truncated conical lug located on the face and adjacent the groove, a second lug located at an intersection of the face with the stem, said jaw being provided with a transversely extending threaded opening disposed with its axis in alinement with the longer axis of the first-named lug, and extending through the end of the latter, a second clamping jaw having a flat face complemental to the corresponding face of the first-named jaw, and having a groove complemental to the first-named groove, a recess complemental to the second-named lug and a transverse opening of two diameters, the part of said opening of smaller diameter being complemental to the first-named lug, and the part of the opening of larger diameter providing an annular shoulder, and a screw having a stem portion for engaging the transverse opening in the first-named jaw, and a head engaging said annular shoulder, substantially as and for the purpose described.

1,094,718. ELECTRIC CONDENSER AND METHOD OF CONSTRUCTING THE SAME. GOTTLOB HONOLD, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Sept. 25, 1911. Serial No. 651,118. (Cl. 250—41.)



1. The method of manufacturing electric condensers which consists in interposing between layers of conducting material, thin and pliant but cohesive dried layers of an insulation solution, and causing the whole to firmly unite in even surface contact by cold pressure.

2. The method of manufacturing electric condensers which consists in interposing between layers of conducting material, previously dried thin layers of a solution containing difficultly fusible fossil copal, a drying oil, and a suitable solvent; and causing the whole to firmly unite in even surface contact by cold pressure.



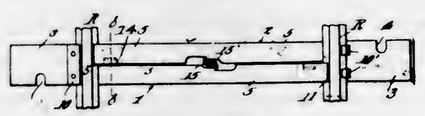
3. The method of manufacturing electric condensers which consists in interposing between layers of conducting material, thin dried layers of fibrous material impregnated with a solution containing difficultly fusible fossil copal, a self-drying oil, and a suitable solvent; and causing the whole to firmly unite in even surface contact by cold pressure.

4. The method of manufacturing coil-wound electric condensers which consists in winding on a suitable core, alternately disposed strips of metal and thin and pliant but cohesive dried layers of an insulation solution; and applying sufficient cold pressure to said strips during the winding to firmly unite them in even surface contact.

5. The method of manufacturing coil-wound electric condensers which consists in winding on a suitable core alternate layers of metal and of a fibrous material impregnated with a solution containing difficultly fusible fossil copal, a self-drying oil and a suitable solvent, and subsequently dried; and maintaining the said strips of fibrous material under tension during the winding operation to thereby apply sufficient cold pressure to firmly unite the whole in even surface contact.

[Claim 6 not printed in the Gazette.]

1,094,719. METALLIC RAILROAD CROSS-TIE. FREEMAN S. HUNTER, Bedford, Ind., assignor of one-half to Oliver P. Hunter, Bedford, Ind. Filed Sept. 30, 1913. Serial No. 792,677. (Cl. 238—5.)

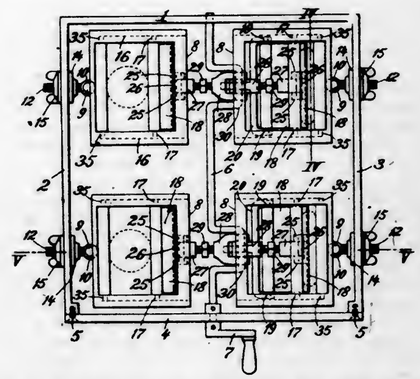


1. A rail tie and fastener, composed of two members, each of which has a relatively wide rail base receiving portion and a long terminal, the terminals of both members being disposed in parallel relation to each other with their free ends resting upon the inner base flange of the two rails, an outer base flange receiving means carried by the rail base receiving portion of each member, each rail base receiving portion adjacent the point of overlap with the free end of the long terminal of the other member being provided with an aperture, a locking lug carried by the free terminal of each member for introduction within the aperture, and a wedging means for wedging the locking lug in its respective aperture to hold the free end of each long terminal downwardly and upon the cooperating base receiving portion of the opposite member.

2. A rail tie and fastener, composed of two members, each of which has a relatively wide rail base receiving portion and a long terminal, the terminals of both members being disposed in parallel relation to each other with their free ends resting upon the inner base flange of the two rails, an outer base flange receiving means carried by the rail base receiving portion of each member, coöperative means carried by the free end of each long terminal and the adjacent portion of the rail base receiving portion of the other member to hold the members in rail base engagement, and a hook carried by the inner face of each long terminal whereby when the members are in rail base engagement the two hooks interlock to hold the members against longitudinal displacement.

3. A rail tie and fastener, composed of two members, each of which has a relatively wide rail base receiving portion and a long terminal, the terminals of both members being disposed in parallel relation to each other with their free ends resting upon the inner base flange of the two rails, an outer base flange receiving means carried by the rail base receiving portion of each member, each rail base receiving portion adjacent the point of overlap with the free end of the long terminal of the other member being provided with an aperture, a locking lug carried by the free terminal of each member for introduction within the aperture, a wedging means for wedging the locking lug in its respective aperture to hold the free end of each long terminal downwardly and upon the cooperating base receiving portion of the opposite member, and a hook carried by the inner face of each long terminal whereby when the members are in rail base engagement the two hooks interlock to hold the members against longitudinal displacement.

1,094,720. MILKING-MACHINE. HANFORD C. JUDSON, New York, N. Y. Filed Jan. 17, 1914. Serial No. 812,660. (Cl. 31—96.)



1. In a milking machine, a movable teat-engaging member comprising a thin flexible element, one portion of which is fixed, and means for imparting a reciprocating undulatory motion to said member.

2. In a milking machine, a movable teat-engaging member comprising a thin flexible element, one portion of which is fixed, means for limiting the motion of another portion to a predetermined path, and means for imparting a reciprocating motion to an intermediate portion of said movable member.

3. In a milking machine, a movable teat-engaging member comprising a thin flexible element, one portion of which is fixed, means for limiting the motion of another portion to a rectilinear path, and means for imparting a reciprocating motion to another portion of said movable member.

4. In a milking machine, a movable teat-engaging member comprising a thin flexible element, one end of said element being fixed, means for limiting the motion of the other end to a predetermined path, and means for imparting a reciprocating motion to an intermediate portion of said movable member.

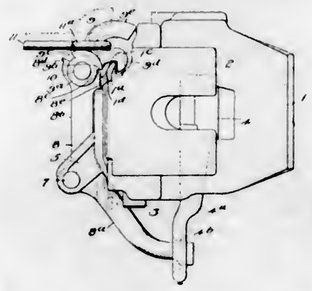
5. In a milking machine, a movable teat-engaging member comprising a thin flexible element, one end of said element being fixed, means for limiting the motion of the other end to a rectilinear path, and means for imparting a reciprocating motion to an intermediate portion of said movable member.

[Claims 6 to 15 not printed in the Gazette.]

1,094,721. CAR-COUPLING. JOSEPH KELSO and WILLIAM KELSO, Pittsburgh, Pa., assignors to McConway & Torley Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 2, 1913. Serial No. 739,678. (Cl. 213—59.)

1. In a car coupler, the combination with the coupler head knuckle and coupler lock, of a lever mounted upon the outside of the coupler head and pivotally connected to the same, a catch pivotally mounted on one arm of the

lever, and means for rotating the catch on its pivot independently of the lever and for simultaneously rotating the catch and lever about the pivotal connection of the lever with the coupler head, said lever having an arm which engages and actuates the coupler lock and said catch and coupler head being provided with locking means for preventing rotation of the lever in one direction until after disengagement of the said locking means of the catch and coupler head.



2. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever pivotally mounted upon the outside of the coupler head and having one of its arms extending transversely of the coupler head to engage and actuate the coupler lock, a catch pivotally mounted upon the other arm of the lever, and means for rotating said catch both with and also independently of the lever, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, and said catch and lever being provided with co-acting stops which limit the rotation of the catch with respect to the lever in one direction.

3. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a lever mounted upon the outside of the coupler head and pivotally connected to the same, a catch movably mounted upon one arm of the lever, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, means for limiting the movement of the catch with respect to the lever, means for rotating the catch and lever in either direction about the pivotal connection of the lever with the coupler head, and means for connecting the coupler lock and lever so as to permit the lever when moved in one direction to apply force to the coupler lock for moving the latter to unlocked position and when moved in the opposite direction to apply force to the coupler lock in an opposite direction.

4. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever mounted upon the outside of the coupler head and pivotally connected to the same, one arm of said lever extending under the coupler head and being loosely connected to the coupler lock and the other arm of said lever extending upwardly from the pivotal point of the lever, a catch pivotally mounted upon the upper end of the upwardly extending lever arm, and an operating bar loosely connected to said catch and adapted to rotate the same, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, and said catch and lever being provided with means for limiting the rotation of the catch with respect to the lever.

5. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever mounted upon the outside of the coupler head and pivotally connected to the same, one arm of the lever engaging the coupler lock to actuate the latter, a catch pivotally mounted on the other arm of the lever, said catch and coupler head being provided with locking means for preventing an unlocking rotation of the lever until after disengagement of said means, and means for moving said catch independently of said lever, said lever and catch having a bias to rotate in the same direction.

1,094,722. SCALE-BEAM. HENRY ELMORE KINTZ, Rochester, N. Y. Filed Dec. 29, 1913. Serial No. 809,222. (Cl. 73—30.)



1. In combination with a scale beam, a balancing ball therefor held against turning relatively to the beam, a screw member also held against turning relatively to the beam, a nut operating on a screw member and connected to the ball to cause the latter to move with such nut longitudinally of the screw member, and an operating member for the nut adapted to turn about an axis extending transversely of the screw member.

2. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member held against turning relatively to the beam, a nut housed within the balancing ball, and operating on the screw member, and an operating member arranged on the exterior of the balancing ball and geared to the nut for moving the latter and the ball longitudinally of the screw member.

3. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member also held against turning relatively to the beam, a nut operating on the screw member and connected to the ball to cause the latter to move with the nut longitudinally of the screw member, a beveled gear on said nut, and an operating member having a beveled gear connected thereto and meshing with the beveled gear on the nut.

4. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member held against turning relatively to the beam, a nut operating on the screw member and connected to the ball to cause the latter to move with such nut longitudinally of the screw member, and a spring interposed between the ball and the nut to cause such nut to bind against the screw member.

5. In combination with a scale beam, a screw member held against turning relatively to the beam, a hollow balancing ball surrounding such screw member, held against turning relatively to said screw member and divided in a plane transverse of the longitudinal axis of the screw member, a nut arranged within the ball and turning on the screw member, and operating means for the nut having a portion on the exterior of the ball.

[Claims 6 to 10 not printed in the Gazette.]

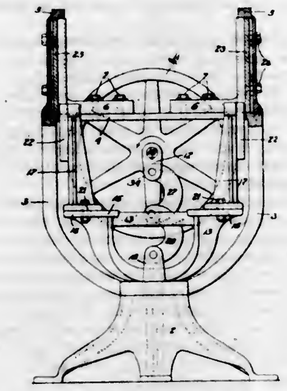
1,094,723. MOLDING-MACHINE. CHARLES F. KNOWLTON, Ross township, Allegheny county, and FRANK F. ELLIOT, Pittsburgh, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 8, 1909. Serial No. 506,514. (Cl. 22—47.)

1. A molding machine having a flask support provided with adjustable guideways, a reciprocable plunger, and laterally adjustable pattern supporting brackets mounted thereon having guides engaging said guideways.

2. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having pattern supporting brackets provided with guides engaging said guideways.

3. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having laterally adjustable pattern-supporting brackets provided with guides engaging said guideways.

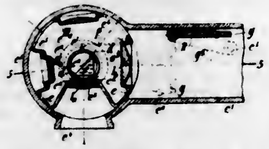
4. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having pattern-supporting brackets engaging said guideways.



5. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with adjustable guideways and a reciprocable plunger having pattern-supporting brackets engaging said guideways.

[Claims 6 to 18 not printed in the Gazette.]

1,094,724. VARIABLE-POWER TELESCOPE. ALBERT KÖNIG, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed May 2, 1912. Serial No. 694,712. (Cl. 88—32.)

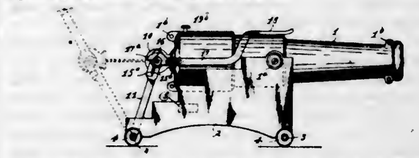


1. In a telescope a plurality of objectives, having different focal lengths and forming real images, and means for bringing the said objectives alternately into approximately the same operative locus without detaching them from the telescope casing, one objective being composed of a collective front member of greater and a dispersive hinder member of smaller focal length and the other objective being composed of a dispersive front member of smaller and a collective hinder member of greater focal length.

2. In a telescope three objectives, each forming a real image, and means for bringing the said objectives alternately into approximately the same operative locus without detaching them from the telescope casing, one of these objectives being composed of a collective front member of greater and a dispersive hinder member of smaller focal length, another objective consisting of a single member, the focal length of which is smaller than that of the first objective, and the third objective being composed of a dispersive front member of smaller and a collective hinder member of greater focal length and the focal length of this third objective being smaller than that of the second objective.

1,094,725. TOY CANNON. WILLIAM C. LANG, Cleveland, Ohio. Filed Aug. 25, 1913. Serial No. 786,351. (Cl. 124—12.)

1. In a toy cannon, a carriage, a cannon body provided with a ball receiving opening, a spring resisted plunger therein, a breech member connected with the latter, jointed link members slidably and pivotally connected to said breech member, and a trigger member within said cannon body adapted to automatically engage said plunger when drawn to set position at the rear of said ball receiving opening and to disengage the same.

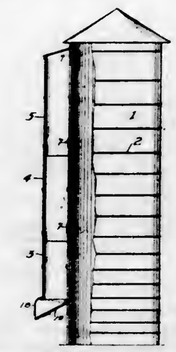


2. In a toy cannon, the combination with a carriage and a cannon body provided with a spring resisted plunger; of a breech member, link members connecting the latter to said plunger, and pairs of jointed lever link members carried by said carriage and connected to said breech member, one pair of lever link members being adapted to normally extend forwardly and to be folded over said cannon body in the loaded and unloaded positions of the parts.

3. In a toy cannon, a carriage, a cannon body, a tubular member extending therethrough, a spring resisted plunger member therein, a stationary breech member, a movable member provided with a link member slidably mounted in said stationary breech member, a second link member connected to said plunger member and telescopically connected to said first mentioned link member, means for operating said movable breech member and a trigger member within the top of said cannon body for automatically engaging said plunger when the latter is retracted.

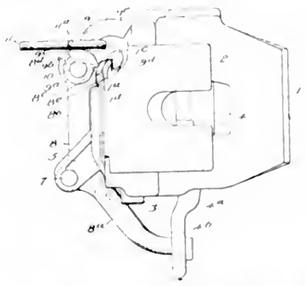
4. A toy cannon, comprising a carriage, a cannon body pivotally mounted thereon, and provided at its top with a vertically extending ball receiving tube, a tubular member extending therethrough intersected by said ball receiving tube and provided with a stationary breech member, a movable breech member provided with a guide link extending through said stationary breech member and into said tubular member, a second guide link movably connected to said first mentioned guide link and provided with a plunger member in said tubular member, a coiled spring in said tube interposed between said plunger member and said stationary breech member, and a pivoted trigger member at the rear of said ball receiving tube and within said cannon body adapted to automatically engage said plunger member when moved to its initial spring or compressed position at the rear of said ball receiving tube by said movable breech member.

1,094,726. SILO-CHUTE. JAMES H. LATIMER, Weinert, Tex. Filed Apr. 7, 1913. Serial No. 759,353. (Cl. 193—29.)



1. A silo chute comprising a plurality of telescopic sections, a circumscribing band secured to each of said sections, the ends of said bands being bent inwardly and then upwardly and then downwardly to form vertical gripping arms and adapted to detachably secure the said sections to the hoops of a silo.

lever, and means for rotating the catch on its pivot independently of the lever and for simultaneously rotating the catch and lever about the pivotal connection of the lever with the coupler head, said lever having an arm which engages and actuates the coupler lock and said catch and coupler head being provided with locking means for preventing rotation of the lever in one direction until after disengagement of the said locking means of the catch and coupler head.



2. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever pivotally mounted upon the outside of the coupler head and having one of its arms extending transversely of the coupler head to engage and actuate the coupler lock, a catch pivotally mounted upon the other arm of the lever, and means for rotating said catch both with and also independently of the lever, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, and said catch and lever being provided with co-acting stops which limit the rotation of the catch with respect to the lever in one direction.

3. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a lever mounted upon the outside of the coupler head and pivotally connected to the same, a catch movably mounted upon one arm of the lever, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, means for limiting the movement of the catch with respect to the lever, means for rotating the catch and lever in either direction about the pivotal connection of the lever with the coupler head, and means for connecting the coupler lock and lever so as to permit the lever when moved in one direction to apply force to the coupler lock for moving the latter to unlocked position and when moved in the opposite direction to apply force to the coupler lock in an opposite direction.

4. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever mounted upon the outside of the coupler head and pivotally connected to the same, one arm of said lever extending under the coupler head and being loosely connected to the coupler lock and the other arm of said lever extending upwardly from the pivotal point of the lever, a catch pivotally mounted upon the upper end of the upwardly extending lever arm, and an operating bar loosely connected to said catch and adapted to rotate the same, said catch being provided with a locking member and said coupler head being provided with a corresponding locking face, and said catch and lever being provided with means for limiting the rotation of the catch with respect to the lever.

5. In a car coupler, the combination with the coupler head, knuckle and coupler lock, of a bell-crank lever mounted upon the outside of the coupler head and pivotally connected to the same, one arm of the lever engaging the coupler lock to actuate the latter, a catch pivotally mounted on the other arm of the lever, said catch and coupler head being provided with locking means for preventing an unlocking rotation of the lever until after disengagement of said means, and means for moving said catch independently of said lever, said lever and catch having a bias to rotate in the same direction.

1,094,722. SCALE-BEAM. HENRY ELMORE KINTZ, Rochester, N. Y. Filed Dec. 29, 1913. Serial No. 809,222. (Cl. 73—30.)



1. In combination with a scale beam, a balancing ball therefor held against turning relatively to the beam, a screw member also held against turning relatively to the beam, a nut operating on a screw member and connected to the ball to cause the latter to move with such nut longitudinally of the screw member, and an operating member for the nut adapted to turn about an axis extending transversely of the screw member.

2. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member held against turning relatively to the beam, a nut housed within the balancing ball, and operating on the screw member, and an operating member arranged on the exterior of the balancing ball and geared to the nut for moving the latter and the ball longitudinally of the screw member.

3. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member also held against turning relatively to the beam, a nut operating on the screw member and connected to the ball to cause the latter to move with the nut longitudinally of the screw member, a beveled gear on said nut, and an operating member having a beveled gear connected thereto and meshing with the beveled gear on the nut.

4. In combination with a scale beam, a balancing ball for such beam held against turning relatively to the beam, a screw member held against turning relatively to the beam, a nut operating on the screw member and connected to the ball to cause the latter to move with such nut longitudinally of the screw member, and a spring interposed between the ball and the nut to cause such nut to bind against the screw member.

5. In combination with a scale beam, a screw member held against turning relatively to the beam, a hollow balancing ball surrounding such screw member, held against turning relatively to said screw member and divided in a plane transverse of the longitudinal axis of the screw member, a nut arranged within the ball and turning on the screw member, and operating means for the nut having a portion on the exterior of the ball.

[Claims 6 to 10 not printed in the Gazette.]

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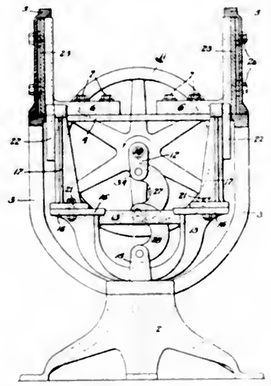
1,094,723. MOLDING-MACHINE. CHARLES F. KNOWLTON, Ross township, Allegheny county, and FRANK F. ELLIOT, Pittsburgh, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 8, 1909. Serial No. 506,514. (Cl. 22—47.)

1. A molding machine having a flask support provided with adjustable guideways, a reciprocable plunger, and laterally adjustable pattern supporting brackets mounted thereon having guides engaging said guideways.

2. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having pattern supporting brackets provided with guides engaging said guideways.

3. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having laterally adjustable pattern-supporting brackets provided with guides engaging said guideways.

4. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with guideways, and a reciprocable plunger having pattern-supporting brackets engaging said guideways.

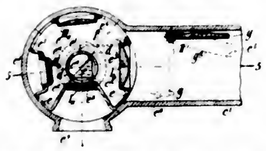


5. A molding machine consisting of a supporting base and frame having a top, laterally adjustable flask-supporting brackets thereon provided with adjustable guideways and a reciprocable plunger having pattern-supporting brackets engaging said guideways.

[Claims 6 to 18 not printed in the Gazette.]

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1,094,724. VARIABLE-POWER TELESCOPE. ALBERT KÖNIG, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed May 2, 1912. Serial No. 694,712. (Cl. 88—32.)



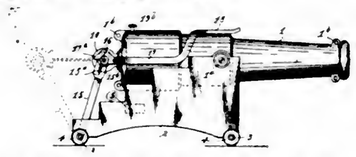
1. In a telescope a plurality of objectives, having different focal lengths and forming real images, and means for bringing the said objectives alternately into approximately the same operative locus without detaching them from the telescope casing, one objective being composed of a collective front member of greater and a dispersive hinder member of smaller focal length and the other objective being composed of a dispersive front member of smaller and a collective hinder member of greater focal length.

2. In a telescope three objectives, each forming a real image, and means for bringing the said objectives alternately into approximately the same operative locus without detaching them from the telescope casing, one of these objectives being composed of a collective front member of greater and a dispersive hinder member of smaller focal length, another objective consisting of a single member, the focal length of which is smaller than that of the first objective, and the third objective being composed of a dispersive front member of smaller and a collective hinder member of greater focal length and the focal length of this third objective being smaller than that of the second objective.

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1,094,725. TOY CANNON. WILLIAM C. LANG, Cleveland, Ohio. Filed Aug. 25, 1913. Serial No. 786,351. (Cl. 124—12.)

1. In a toy cannon, a carriage, a cannon body provided with a ball receiving opening, a spring resisted plunger therein, a breech member connected with the latter, jointed link members slidably and pivotally connected to said breech member, and a trigger member within said cannon body adapted to automatically engage said plunger when drawn to set position at the rear of said ball receiving opening and to disengage the same.



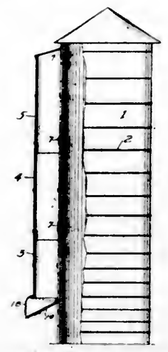
2. In a toy cannon, the combination with a carriage and a cannon body provided with a spring resisted plunger; of a breech member, link members connecting the latter to said plunger, and pairs of jointed lever link members carried by said carriage and connected to said breech member, one pair of lever link members being adapted to normally extend forwardly and to be folded over said cannon body in the loaded and unloaded positions of the parts.

3. In a toy cannon, a carriage, a cannon body, a tubular member extending therethrough, a spring resisted plunger member therein, a stationary breech member, a movable member provided with a link member slidably mounted in said stationary breech member, a second link member connected to said plunger member and telescopically connected to said first mentioned link member, means for operating said movable breech member and a trigger member within the top of said cannon body for automatically engaging said plunger when the latter is retracted.

4. A toy cannon, comprising a carriage, a cannon body pivotally mounted thereon, and provided at its top with a vertically extending ball receiving tube, a tubular member extending therethrough intersected by said ball receiving tube and provided with a stationary breech member, a movable breech member provided with a guide link extending through said stationary breech member and into said tubular member, a second guide link movably connected to said first mentioned guide link and provided with a plunger member in said tubular member, a coiled spring in said tube interposed between said plunger member and said stationary breech member, and a pivoted trigger member at the rear of said ball receiving tube and within said cannon body adapted to automatically engage said plunger member when moved to its initial spring or compressed position at the rear of said ball receiving tube by said movable breech member.

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1,094,726. SILO-CHUTE. JAMES H. LATIMER, Weinert, Tex. Filed Apr. 7, 1913. Serial No. 759,353. (Cl. 193—29.)



1. A silo chute comprising a plurality of telescopic sections, a circumscribing band secured to each of said sections, the ends of said bands being bent inwardly and then upwardly and then downwardly to form vertical gripping arms and adapted to detachably secure the said sections to the hoops of a silo.

2. A silo chute comprising a plurality of telescopic sections, an encircling band secured to each of said sections terminating in the rear thereof in the form of gripping arms, adapted to detachably engage the hoops of a silo and a second band encircling each of said sections, and means for securing the ends of said band to the silo.

3. A silo chute comprising a plurality of telescopic sections, a band secured to each of said sections, the ends of said band being bent inwardly and upwardly and then downwardly to form vertical gripping arms and adapted to detachably secure said sections to the hoops of a silo.

4. A silo chute comprising a plurality of telescopic sections, said sections being U shaped in cross sections, a circumscribing band secured to each of said sections, the ends of said band being bent inwardly and then upwardly and then downwardly to form vertical gripping arms and adapted to detachably secure the said sections to the hoops of a silo, a second band circumscribing each of said sections and means for securing the ends of the latter to a silo.

5. A silo chute comprising an upper section provided with a circumscribing band terminating in vertical gripping arms in the rear thereof, a brace rod secured to said gripping arms and extending to the front of said section, and a door pivoted to that part of the brace rod extending between the said arms.

[Claims 6 and 7 not printed in the Gazette.]

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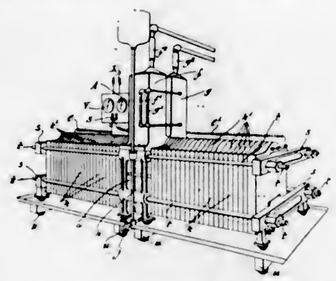
1,094,727. PROCESS FOR THE PRODUCTION OF ARTIFICIAL STONE FROM NATURAL-ROCK WASTE. WOLF LAUFER, Cracow, Austria-Hungary. Filed Sept. 7, 1912. Serial No. 719,083. (Cl. 106—42.)

1. A method of making artificial stone from the waste of native rocks which are able to vitrify in fire, by mixing coarse and fine granulations of such rocks, with phosphate of alumina and carbonate of sodium, compressing the mixture while in a slightly moistened state and burning the thus molded stone.

2. A method of making artificial stone from the waste of native rocks which are able to vitrify in fire, by mixing coarse and fine granulations of such rocks with phosphate of alumina, carbonate of sodium, and precipitated colloidal alumina the said mixture being thereafter compressed while in a slightly moistened state and the thus molded stone being burnt.

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1,094,728. ELECTROLYTIC APPARATUS. ISAAC H. LEVIN, Newark, N. J., assignor to International Oxygen Company, a Corporation of New Jersey. Filed May 9, 1913. Serial No. 766,469. (Cl. 204—9.)



1. An electrolytic apparatus embodying therein a cell containing an anode, a cathode and an interposed diaphragm, separate sources of electrolytic supply, independent, non-communicating means delivering electrolyte from said sources of supply respectively to opposite sides of said diaphragm, and means controlling the hydrostatic pressure on both sides of the diaphragm.

2. An electrolytic apparatus embodying therein a cell containing an anode, a cathode and an interposed diaphragm, a tank having separate compartments or chambers for the electrolyte, and independent, noncommunicating means delivering electrolyte from one of said compartments or chambers to adjacent the anode, and from the other of said compartments or chambers to adjacent the cathode.

3. An electrolyte apparatus embodying therein a cell containing an anode, a cathode and an interposed diaphragm, separate sources of electrolytic supply, non-communicating gas domes, independent, noncommunicating means delivering electrolyte from said sources of supply respectively to opposite sides of said diaphragm, and noncommunicating offtake ducts communicating with opposite sides of said diaphragm and discharging into said gas domes respectively.

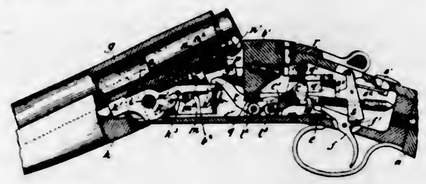
4. An electrolytic apparatus embodying therein a cell containing an anode, a cathode and an interposed diaphragm, a tank having separate compartments or chambers for the electrolyte, a dome surmounting each said compartment or chamber and communicating therewith, independent, noncommunicating means delivering electrolyte from one of said compartments or chambers to adjacent the anode, and from the other of said compartments or chambers to adjacent the cathode, and noncommunicating offtake ducts communicating with opposite sides of said diaphragm and discharging into said gas domes respectively.

5. An electrolytic apparatus embodying therein a cell containing an anode, a cathode and an interposed diaphragm, a tank containing separate compartments or chambers for the electrolyte, a dome surmounting each said compartment or chamber and communicating therewith, each of said domes having an intake port and an inlet duct leading therefrom and having its discharge presented downwardly into its compartment or chamber, means whereby said intake ports are respectively placed in communication with said cell adjacent the anode and adjacent the cathode, and means delivering electrolyte from said tank to opposite sides of said diaphragm.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,729. FIREARM. GEORGE S. LEWIS, Springfield, Mass., assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Jan. 6, 1914. Serial No. 810,649. (Cl. 42—43.)



1. In a firearm, the combination of a barrel, a frame, a pin carried by the frame and adapted to engage the barrel to unite the frame and the barrel hingedly, a hammer mounted in the frame and a cocking lever mounted on said pin and having oppositely extending arms, one of which engages directly with the barrel, an independent lever operatively disposed with respect to the hammer and with which the other of said arms engage, whereby the hammer is cocked when the firearm is broken and a locking bolt with which the said last named lever coöperates when the firearm is broken.

2. In a firearm, the combination of an extractor, a spring to actuate the same, a cocking lever, means carried on the cocking lever to hold the extractor in retracted position and means coöperating with the last named means to actuate the same at a predetermined time and release the extractor.

3. In a firearm, the combination of an extractor, a spring to actuate the same, a cocking lever, a hook mounted pivotally on the cocking lever and in operative engagement with the extractor to hold the same in retracted position, and means to trip the hook at a predetermined time upon movement of the cocking lever to release the extractor.

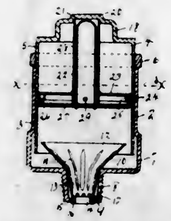
4. In a firearm, the combination with a frame and a hinged barrel, of an extractor, a spring to actuate the same, a cocking lever, a hook mounted pivotally on the cocking lever and in operative engagement with the extractor to hold the same in retracted position, a stud carried by the hook and shoulders formed on the frame with which said stud engages at a predetermined time upon movement of the cocking lever to trip the hook and release the extractor.

5. In a firearm, the combination of a barrel, a frame, a pin carried by the frame and adapted to engage the barrel to unite the frame and barrel hingedly, a cocking lever mounted on the pin and having two oppositely extending arms, one of which engages directly with the barrel, to actuate the lever when the gun is broken, an extractor mounted in the barrel, a spring to actuate the same, a hook carried on the other of said oppositely extending arms of the cocking lever and in operative engagement with the extractor to hold the same in retracted position and means to trip the hook at a predetermined time upon movement of the cocking lever to release the extractor.

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1,094,730. AUTOMATIC GREASE-CUP. JOHN F. LEWIS, Philadelphia, Pa., assignor to L. and B. Grease Cup Company, Philadelphia, Pa., a Corporation of Delaware. Filed Apr. 10, 1912. Serial No. 689,893. Renewed Mar. 24, 1914. Serial No. 827,001. (Cl. 184—39.)



1. A grease cup consisting of a body and a top, the latter threaded into the former, a cap for dividing the cup into a grease receptacle and an air reservoir, and independent means for holding said cap stationary.

2. A grease cup consisting of a body and a top, the latter threaded into the former, a cap for dividing the cup into a grease receptacle and an air reservoir, and a ring co-acting with the cap and the walls of the top for holding said cap stationary.

3. A grease cup consisting of a body and a top, the latter threaded into the former, a cap for dividing the cup into a grease receptacle and an air reservoir, and a ring carrying a flange, the former co-acting with the cap and the latter with the walls of the top for holding the cap in its stationary position.

4. A grease cup consisting of a body and a top, the latter threaded into the former, a cap for dividing the cup into a grease receptacle and an air reservoir, a ring of smaller diameter than the cap, and a flange carried thereby projecting outwardly at a suitable angle, the edge of the ring coacting with the under face of the cap and the edge of the flange with the walls of the top for holding the cap in position.

5. A grease cup consisting of a body and a top, the latter threaded into the former, said top having a socket produced in its outer end, a guide tube, the outer end of which registers with said socket, a cap for dividing the cup into a grease receptacle and an air reservoir, said cap holding the lower end of the guide tube in position means for holding said cap in its stationary position and a disk slidably mounted in the cup.

[Claim 6 not printed in the Gazette.]

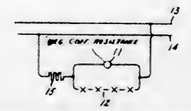
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1,094,731. OXIDIZING PROCESS. LUCIEN LINDEN, Brussels, Belgium. Filed June 6, 1911. Serial No. 631,622. (Cl. 99—1.)

A process of oxidation for the destruction and modification of organic substances, especially intended for the sterilization and purification of water, wherein a soluble permanganate of a non-poisonous substance and a ferric salt of a non-poisonous substance are used, said process consisting in introducing the permanganate and a ferric salt simultaneously and at the same place into the water which has previously been made alkaline; and afterward, when these elements have acted long enough, which is shown by the coloring green of the water, aerating the water; and thereafter adding a soluble hypochlorite of a non-poisonous substance.

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1,094,732. SYSTEM OF DISTRIBUTION. FRED W. LYLE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 18, 1912. Serial No. 720,997. (Cl. 171—229.)



1. The combination of conductors carrying a variable current, a solid resistor of filamentary cross-section connected across said conductors, said resistor having a substantially constant voltage drop between predetermined working limits of current, a load in parallel with said resistor, and a resistance having a marked positive temperature resistance coefficient in series with the resistor and load.

2. The combination of a current consuming device, a regulator connected in shunt to said device, said regulator comprising material having a negative temperature resistance coefficient and a heater having a small temperature resistance coefficient electrically in parallel therewith and in intimate heat conveying relation thereto, the elements of said regulator being proportioned to secure a substantially constant voltage drop over the working range of current and a resistance having a high positive temperature resistance coefficient in series with said regulator.

3. The combination of a source of current subject to voltage variation, a load connected thereto, a resistor containing boron having a substantially constant voltage drop over the working range of current, connected in shunt to said load, and a resistance having a high positive temperature resistance coefficient in series with said load and resistor.

4. In a system having a variable line voltage, the combination of a resistance unit having a negative temperature resistance coefficient, a heater electrically in shunt therewith, said resistance and heater being proportioned to give an essentially constant voltage drop over a wide range of current, and a resistance in series with said regulator proportioned to absorb the differences between line voltage and regulator voltage.

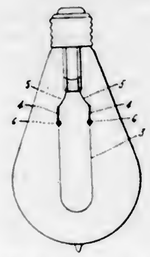
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1,094,733. ELECTRIC REGULATOR. FRED W. LYLE, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 18, 1912. Serial No. 720,998. (Cl. 171—229.)

1. An electric regulator, comprising the combination of a boron resistor of filamentary dimensions, current connections therefor, and a heater electrically in parallel and in heat conveying relation therewith.

2. An electric regulator, comprising a sealed container and a composite conductor mounted therein, comprising two elements in electrical parallel and heat conveying relation, one of said elements consisting of a refractory material of relatively high conductivity and the other of a refractory material of high resistance and high negative temperature resistance coefficient.

3. An electric regulator, comprising a sealed container filled with hydrogen and a composite conductor mounted therein, said conductor consisting of a core of refractory material of relatively high conductivity and moderate temperature resistance coefficient, and a coating of low conductivity and having a high negative temperature resistance coefficient.



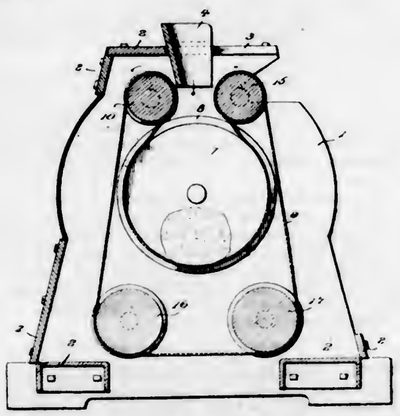
4. An electrical regulator, comprising the combination of a filamentary boron resistor, and a resistor which exhibits an increasing voltage drop with increasing current in intimate heat conducting relation thereto and electrically in parallel therewith.

5. A regulator for electric circuits comprising a container, a composite conductor mounted therein, and current connections therefor, said conductor being composed of two refractory materials, one of which is of comparatively high electrical conductivity and has a moderate temperature coefficient and the other having a relatively low electrical conductivity and a high negative temperature resistance coefficient, said materials being proportioned so that for an increase in current flow the voltage drop in the regulator will not increase.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,734. BALING-PRESS. JOSEPH J. MAREK, Victoria, Tex. Filed July 29, 1913. Serial No. 781,858. (Cl. 100—1.)



1. A baling press comprising a main frame, a series of rollers mounted therein, disks journaled in the frame and forming end compression members, an endless apron carried by the several rollers and passing around the edges of the disks, and a guide disposed in the top of the frame and having its lower end arranged between the uppermost of said rollers.

2. A baling press comprising a main frame, a plurality of rollers mounted therein, disks mounted upon the sides of the frame and located between the rollers, an endless apron carried by the rollers and extending around the end disks, and a three-sided chute fitted in the top of the frame and having its lower end between the uppermost pair of rollers and its open side adjacent the forward roller of said pair of rollers.

3. A baling press comprising a main frame, a plurality of rollers mounted therein, disks mounted upon the inner sides of the frame, a belt trained around the said rollers and said disks, and means for moving one of the rollers to and from the disks.

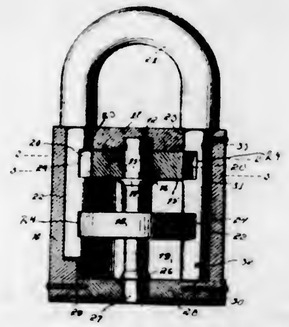
4. A baling press comprising a main frame, a plurality of rollers mounted therein, disks mounted upon the inner sides of the frame, a belt trained around the said rollers and said disks, means for moving one of the rollers to and from the disks, and means for holding the said roller in its inner position.

5. A baling press comprising a pair of standards having inwardly extending notches in their front edges at their upper ends, a plurality of rollers journaled in and extending between the said standards, a roller adapted to fit in the said notches, disks journaled upon the standards and disposed adjacent the inner faces thereof, a belt trained around the several rollers and said disks, and means for retaining the movable roller at the inner ends of the said notches.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,735. PERMUTATION-PADLOCK. JAMES B. MCCHESNEY, St. Louis, Mo. Filed June 27, 1912. Serial No. 706,241. (Cl. 70—113.)

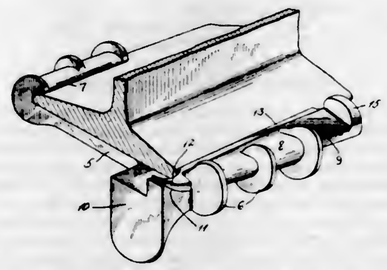


A device of the class described comprising a casing having a cylindrical channel therethrough and a head portion at one end provided with a central tumbler shaft socket, said casing having opposed grooves in its sides and communicating openings through the head, a shackle member slidable through the openings and grooves, a tumbler shaft seated revolubly in said socket, and carrying intermediately thereof an integral tumbler member having opposed notches arranged to receive the shackle arms therein at times, said shaft having a shoulder thereon, and a second tumbler revolubly supported thereon, and having similarly opposed notches, a pin carried upon the shoulder, said tumbler having a segmental recess therein receiving said pin for operation of the tumbler upon rotation of the shaft, frictional means for resisting movement of said tumbler, said shaft having a shoulder thereon adjacent its outer end, a retaining plate engaged over the shaft and against the shoulder secured in the outer end of said cylindrical passage, said shaft projecting therethrough, and an operating dial coengaged with the projecting end of the shaft, as and for the purpose described.

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1,094,736. ANTI-RAIL-CREEPER. JAMES E. MCNEIL, Los Angeles, Cal. Filed Dec. 12, 1911. Serial No. 665,243. (Cl. 238—4.)

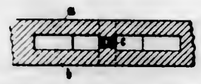
1. An anti-creeping device comprising a plate having rail receiving flanges and a tie engaging abutment, the said abutment having an inclined plane formed thereon and a rail engaging wedge adapted to be driven between one of the flanges and the rail, its end portion engaging the said inclined plane whereby it will be bent so as to lock the wedge in position.



2. An anti-creeper for railroads comprising a plate having rail engaging flanges, and an inclined lug having a curved upper surface opposite one of said flanges, a securing wedge having a rail engaging flange, and a projection adapted to extend beneath said rail, one end of said wedge being tapered and adapted to be bent aside by said inclined projection, the other end of said key having a withdrawing head formed thereon.

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1,094,737. LATCH-NEEDLE. KARL MESH, Hohenstein-Ernstthal, Germany. Filed Nov. 25, 1911, Serial No. 662,462. Renewed Mar. 21, 1914. Serial No. 826,441. (Cl. 66—5.)



1. A latch-needle for use in knitting machines comprising in combination, a needle body composed of hard steel, and having two side pieces or cheeks opposite one another and a hole in each side piece or cheek, and a pivot-pin having both ends welded in the holes of the cheeks, said pivot-pin being composed of a metal having a higher melting point than the hard steel composing the needle body and the side pieces or cheeks of the same.

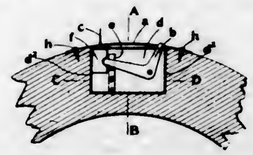
2. A latch needle for use in knitting machines comprising in combination, a needle body composed of hard steel and having two side pieces or cheeks opposite one another and a hole in each side piece or cheek, and a pivot pin one end of which is welded in the hole of one of the cheeks, the other end of the pin being immovably fixed in the hole of the other side piece or cheek, said pivot-pin being composed of a metal having a higher melting point than the hard steel of the needle body.

3. A latch needle for use in knitting machines comprising in combination, a needle body composed of hard steel and having two side pieces or cheeks opposite one another, one of the side pieces or cheeks being provided with a hole and the other with a recess, and a pivot-pin extending through the hole in one of the cheeks, its front end entering said recess of the other cheek, said pivot-pin being welded in the hole of one of the cheeks and immovably fixed in the recess of the other cheek and being composed of a metal having a higher melting point than the hard steel of which the needle is composed.

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1,094,738. HANDLE OF UMBRELLAS, WALKING-STICKS, HAND-BAGS, AND THE LIKE. CONRAN FIELD MENDHAM, London, England. Filed Aug. 23, 1912. Serial No. 716,740. (Cl. 46—41.)

1. A device for application to umbrellas, walking sticks, handbags and like personal articles to draw attention to the identity thereof, comprising a slidable needle point mounted in the article so as to be capable of projecting therefrom and of being normally concealed therein and a lever for the operation of the needle point also concealed in the article.



2. A device for application to umbrellas, walking sticks, hand-bags and like personal articles to draw attention to the identity thereof, comprising a slidable needle point mounted in the article so as to be capable of projecting therefrom and of being normally concealed therein, a lever for the operation of the needle point, and means to maintain the needle point in the operative and inoperative positions, all mounted with the article.

3. A device for application to umbrellas, walking sticks, hand-bags and like personal articles to draw attention to the identity thereof, comprising a slidable bolt carrying a needle point, a bell-crank lever engaging the bolt for its operation, arranged in a recess in the handle or other part of the article, and a cover plate having a hole and a slot through which the needle point, when in operative position, and the bell-crank lever respectively project.

4. A device for application to umbrellas, walking sticks, hand-bags and like personal articles to draw attention to the identity thereof, comprising a slidable bolt carrying a needle point, a bell-crank lever engaging the bolt for its operation, means to maintain the bell-crank lever and needle point in the operative and inoperative positions of the needle point, all arranged in a recess in the handle or other part of the article, and a cover plate having a hole and a slot through which the needle point, when in operative position, and the bell-crank lever respectively project.

5. A device for application to umbrellas, walking sticks, hand-bags and like personal articles to draw attention to the identity thereof, comprising a two part casing for recessing into the article, one part forming the body of the casing, the other serving as a closure plate and resting upon two walls and engaging two walls of the first part, a bell-crank lever within the casing, pivoted in oppositely disposed sides and projecting through a slot in one wall, a slidable bolt and needle point within the casing engaged by the bell-crank lever and adapted to project through the wall of the casing, means for maintaining the bell-crank lever in positions for retaining the needle point in the operative and inoperative positions and an outer cover plate through which the bell-crank lever and needle point may project.

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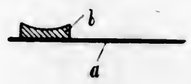
1,094,739. LAST. EDWARD J. MOUNTAIN, New York, N. Y. Filed Mar. 29, 1912. Serial No. 687,245. (Cl. 12—133.)



1. A last for shoes having a concavity under the part corresponding to the first phalanx bone of the great toe, and a convexity at the part corresponding to the location of the great tuberosity of the fifth metatarsal bone.

2. A last for shoes having a concavity under the part corresponding to the first phalanx bone of the great toe, and convexities at the parts corresponding to the location of the great tuberosity of the fifth metatarsal bone and the internal cuneiform and scaphoid bones.

1,094,740. WAFER FOR ENCAPSULATING MEDICINES. HERMANN NERLINGER, Mannheim, Germany. Filed July 30, 1913. Serial No. 782,121. (Cl. 167—2.)



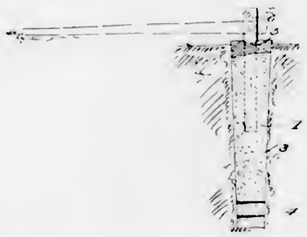

1. A device for encapsulating liquid medicines comprising a wafer carrying an attached thickened absorbent portion with a depression in the latter adapted to receive the medicine and a cover portion adapted to inclose and seal said thickened absorbent portion.

2. A device for encapsulating liquid medicines comprising a saucer shaped wafer carrying a thickened portion with a depression in the latter adapted to receive the medicine and a cover over said saucer shaped wafer for inclosing and sealing said thickened absorbent portion.

3. A device for encapsulating liquid medicines comprising a saucer shaped wafer, carrying an attached thickened absorbent portion with a depression in the latter adapted to receive the medicine, a non-absorbent layer on the lower and lateral part of the said absorbent portion and a cover over said saucer shaped wafer for inclosing and sealing said thickened absorbent portion.

4. A device for encapsulating liquid medicines comprising a wafer carrying an attached thickened absorbent portion adapted to receive the medicine and a cover portion adapted to inclose and seal said thickened absorbent portion.

1,094,741. POST. WILLIAM A. OLIPHANT, Petersburg, Ind. Filed Nov. 25, 1912. Serial No. 733,560. (Cl. 20—99.)

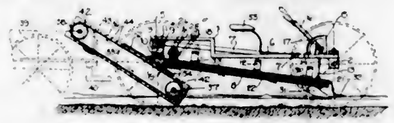


1. In an article of the class described, a base having a concave seat in its upper end, supports located at the ends of the seat, a post disposed in its lower end between the supports and having its said lower end resting in the seat, and means upon the supports pivotally engaging the post, the pivot means being located eccentrically to the concaved wall of the seat.

2. In an article of the class described, a base provided in its upper end with a transversely extending seat terminating short of the opposite sides of the said upper end of the base, supports projecting above the upper end of the base and closing the ends of the seat, a post having its lower end shaped to fit the seat when the post is in upright position, and means upon the supports pivotally engaging the post at points eccentric to the seat.

3. In an article of the class described, a base formed in its upper end with a concave side, spaced supports embedded in the base at the opposite ends of the seat and projecting above the said upper end of the base, a post disposed at its lower end upon the base and having its said end shaped to fit the seat when the post is in upright position, and pivots fitted through the upper ends of the supports and into the opposite sides of the post, the pivots being located eccentrically with respect to the curvature of the seat.

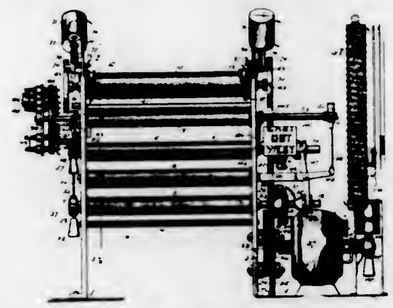
1,094,742. BEET PULLER AND TOPPER. DAVID OLSON, El Campo, Tex. Filed June 30, 1913. Serial No. 776,670. (Cl. 55—108.)



1. A device of the character described comprising a wheeled frame, an auxiliary frame including spaced bars, braces connecting such bars, one of such braces affording a pivotal connection with the wheeled frame, digging means supported by a second of such braces, and a conveying means operatively supported by the auxiliary frame.

2. A device of the character described comprising a wheeled frame including an arched part, an auxiliary frame including spaced bars, braces connecting such bars, one of such braces being provided with ears adapted to project within the arched part of the wheeled frame, means carried by such arched part directed through the ears for pivotally connecting the auxiliary frame to the wheeled frame, digging means supported by a second of such braces, a conveying means carried by the auxiliary frame, and means for adjusting the auxiliary frame about its pivot.

1,094,743. STREET OR STATION INDICATOR. JOHN LAMBURT OLSON, St. Paul, Minn. Filed Dec. 18, 1911. Serial No. 666,320. (Cl. 40—57.)



1. In an indicator, the combination with two winding rollers, an electric motor and gearing between said motor and the winding rollers, of a spacing roller, a tape movable from one winding roller to the other and also passing over said spacing roller, a latch lever normally retaining said spacing roller stationary, an electro-magnetic device connected with the latch lever, a switch controlled by the latch lever, an electric circuit including the motor and said switch, another electric circuit including said electro-magnetic devices, means for momentarily closing said last-mentioned circuit to momentarily energize said electro-magnetic devices, an air pot, and connections between the plunger of the air pot and the latch lever, whereby the return of the latter toward the spacing roller will be retarded.

2. In an indicator, the combination with two winding rollers, a spacing roller, a motor, gearing between the motor and winding rollers, and a tape passing from one winding roller to the other and over the spacing roller, of disks on the spacing roller, each disk having a plurality of notches, pivoted latch arms to engage the notched disks, solenoids having spring pressed cores connected with said latch arms, air pots having their plungers connected with said latch arms, each air pot having a small air inlet near one end and a larger air inlet intermediate of its ends, whereby said latch arms can move freely to release the spacing roller when the solenoids are energized and be retarded in part of their return movement toward the locking disks after the solenoids have been deënergized, an electric circuit including the motor, an electric circuit including said solenoids, means for momentarily closing and then opening the last-mentioned circuit, and switches in the motor circuit controlled by the latch arms.

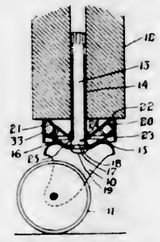
3. In an indicator, the combination with two winding rollers, a tape passing from one to the other, a motor and gearing between the motor and the winding rollers, of clutches for connecting the winding rollers to the gearing, a controller shaft, an eccentric thereon, cones on the shafts or journals of the winding rollers, connections between said cones and clutches, a lever pivoted between its ends and connected with said cones, a central arm on said lever, and a connection between said arm and the eccentric on the controller shaft.

4. In an indicator, the combination with two winding rollers, a tape passing from one to the other, a motor, gearing between the motor and said rollers, and means for connecting said rollers alternatively with the gearing, of a brake for each roller, weights for applying said brakes, a controller shaft, two oppositely disposed eccentrics on said shaft, and devices intermediate of said eccentrics and the weights of the brakes for releasing one brake or the other when the controller shaft is turned.

5. In an indicator, the combination with two winding rollers, a tape passing from one to the other, a motor for driving said rollers, and means for reversing the direction of rotation of the rollers, said means including a controller shaft, of an oscillatory slide or target, an eccentric on the controller shaft, and an arm movable with the sign or target and operable by said eccentric.



1,094,744. SELF-ADJUSTING CASTER. HARRY A. PALMER, Meriden, Conn., assignor to Foster, Merriam and Company, Meriden, Conn., a Corporation of Connecticut. Filed Feb. 12, 1914. Serial No. 818,277. (Cl 16—4.)



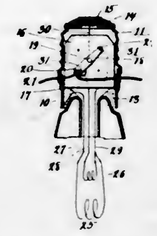
1. A caster of the character described comprising a vertically movable pintle, an upwardly and outwardly inclined lower plate carried by the pintle and provided with a plurality of annular superposed ball channels to receive and detachably hold balls so that they can freely rotate therein, a fixed upper plate having a greater angle of inclination than the lower plate, whereby a ball race is formed having outwardly diverging walls and a series of balls in said race which normally lie in the upper annular channel, the lower plate and pintle dropping down and the balls rolling into a lower channel should the caster pass off from a horizontal support.

2. A caster of the character described comprising an upper fixed plate, a vertically movable pintle, a lower plate secured to the pintle and provided with horizontal annular ball channels disposed in different horizontal planes, both of said plates being inclined upward and outward and the upper plate having a greater angle of inclination, for the purpose set forth, and a series of balls in said race.

3. A caster of the character described, comprising an upper conical plate increasing in diameter upwardly, a lower conical plate increasing in diameter upwardly and provided upon its upper surface with annular ball-receiving channels arranged in different horizontal planes and increasing in diameter upwardly, balls interposed between the upper and lower plates and adapted to be rotatably and detachably held in each annular channel and removed therefrom by shaking the caster, and means pivotally connecting the upper and lower plates so that they may move vertically toward and away from each other.

4. A caster of the character described, comprising an upper conical plate increasing in diameter upwardly, a tubular socket secured to the upper conical plate, a lower conical plate increasing in diameter upwardly and provided upon its upper surface with horizontal annular concentric ball-receiving channels disposed in superposed relation and increasing in diameter upwardly, balls interposed between the upper and lower plates and adapted to be detachably held in each channel to freely rotate therein and adapted to be removed therefrom by shaking the caster, a pintle secured to the lower plate and mounted to rotate and reciprocate in the socket, and a wheel connected with the lower plate.

1,094,745. ELECTRIC INCANDESCENT LAMP. JAMES WILEY PHELPS, Detroit, Mich., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 17, 1904. Serial No. 193,947. Renewed Mar. 5, 1914. Serial No. 822,764. (Cl. 176—26.)



1. In constant potential electric lighting, the combination with an electric incandescent lamp having two incandescing filaments connected in series, the resistance of which being so proportioned that one glows and the other acts as a relatively dark resistance when the current flows through them in series, of a switch therefor, separate contacts arranged to be successively engaged by said switch, one connected to the end of one of said filaments and the other to the joined ends of said filaments, said switch and switch contacts being relatively so arranged that said switch member will make and break engagement with said second contact only when in engagement with the other of said contacts.

2. An electric incandescent lamp having two filaments in series, a base for said lamp provided with means for detachably engaging a lamp holder and with terminals for the reception of current therefrom and a switch carried by said base comprising a movable switch member connected to one of said terminals and a pair of contacts connected respectively to the end of one of said filaments and to the joined ends of said filaments, said switch member and switch contacts being relatively so arranged that said switch member will make and break engagement with said second contact only when in engagement with the other of said contacts.

3. An electric incandescent lamp having a plurality of filaments, a base secured thereto and provided with means for detachably engaging a lamp-holder, an insulating support within said base, a switch arm pivoted to said insulating support and connected to one of the lamp-terminals, separate contacts on said insulating support arranged to be successively engaged by said switch arm and connected respectively to the end of one of said filaments and to the jointed ends of said filaments, said switch and switch contacts being relatively so arranged that said switch member will make and break engagement with said second contact only while in engagement with the other of said contacts and flexible operating cords connected to said switch and extending through guide openings in the sides of said base.

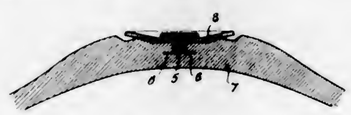
4. An electric incandescent lamp having a base provided with means for detachably engaging a lamp-holder, an insulating plate within said base, a switch-arm pivoted between its ends to said insulating plate, separate contacts on opposite sides of said pivot arranged to be suitably engaged by said switch, operating cords connected to said switch-arm and guide openings for said cords on the sides of said base arranged out of line with said pivot.

5. An electric lamp comprising a bulb having a hollow stem, a base at the neck of the bulb, an insulated post carried by the base and conducting the current from the socket carrying the bulb, a series of insulated leading-in wires extending from the base through the stem, lighting filaments having each one end in electric circuit with a corresponding leading-in wire, and their opposite ends coupled to a common wire in electric connection with the base, and a swinging arm or switch mounted about the post and adapted to successively engage the terminals of the leading-in wires.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,746. ARTIFICIAL DENTURE. ADOLF POCHWADT, Berlin-Schöneberg, Germany. Filed Apr. 18, 1913. Serial No. 762,076. (Cl. 32—4.)



In combination, a dental plate, a rubber suction plate and a member for securing said plates comprising a head, a slit hollow cylindrical shank integral with said head and open at the bottom, a thin tightly-fitting covering plate for said head, an insertion between the shank members extending to the bottom of the shank, and outwardly bent ends to the shank members, substantially as described.

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1,094,747. WHIP-ACTUATING DEVICE. GUSTAF L. RAGUSE, York, N. D. Filed May 19, 1913. Serial No. 768,637. (Cl. 21—129.)

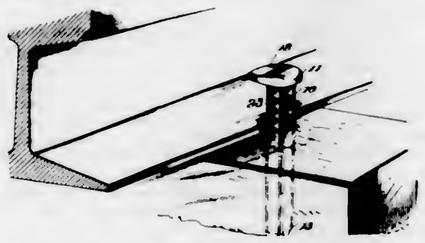


1. In a whip actuating device, the combination of a base plate, the front portion thereof offset therefrom above the general level thereof, the front end of said offset portion bent hook-shape and providing an overhanging portion, a pivot extending between the said overhanging portion and the offset portion, a whip holder rotatably secured to the said pivot and adapted to move in a horizontal plane, resilient tensional springs secured to the said whip holder upon opposite sides of the said pivotal connection thereof, said whip holder adapted to receive the handle of a whip therein, means for securing said base plate to a supporting structure, and a flexible element secured to the whip holding end of the whip holder for the rotating of the same in one direction, said tensional springs adapted to rotate the whip holder violently in the opposite direction upon the releasing of the said flexible element.

2. In a whip actuating device, the combination of a base plate, a forward portion offset therefrom above the general level thereof, the front end of said offset portion bent hook-shape and providing an overhanging portion, a bolt extending between the overhanging portion and the said offset portion, whip holders pivotally secured to the said bolt intermediate their ends, resilient tensional springs secured to the said whip holders upon opposite sides of the said pivotal connection, said whip holders cylindrical in form and adapted to receive handles of whips therein, means for securing the said base plate to a supporting structure, and flexible elements secured to the whip holding end of the whip holders for the rotating of the same in one direction, the said tensional springs adapted to rotate the whip holders violently in the opposite direction upon the releasing of the said flexible elements.

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1,094,748. RAILWAY-SPIKE. CHARLES DANIEL RUSSELL, St. Paul, Minn. Filed Jan. 12, 1914. Serial No. 811,643. (Cl. 85—21.)



1. A spike including a shank formed with a head having a laterally extending projection disposed in alinement with one of the side faces of the shank and having a driving point, the reduced cutting edge of which extends transversely of the shank and in longitudinal relation to the head, the side faces of the shank being channeled throughout their length, the side edges of each channel being inwardly spaced from the side edges of each face, each side face having a sinuous groove formed therein medially of the channel.

2. A spike including a shank formed with a head and a driving point, the side faces of the shank being concaved and having a sinuous groove medially formed therein, the transverse portions of each groove between the bends thereof being approximately parallel.

3. A spike including a substantially rectangular shank formed with a head and a driving point, the side faces of the shank being channeled throughout the greater portion of their transverse area defining wedge-shaped longitudinally extending ribs at the corners of the shank, said ribs having oppositely disposed shoulders and being formed with a reduced shank portion, the shank portion of the spike having sinuous grooves formed therein medially of the side faces thereof.

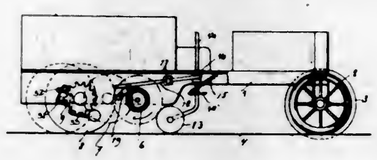
4. A spike including a shank formed with a head and a driving point and having channels formed in its side faces, the shank also being provided with sinuous grooves formed medially of each of the said channels, the transverse portions of each of said grooves lying between the bends thereof being approximately parallel, the bends defining opposed longitudinally spaced staggered depressions upon opposite sides of the medial line of each of said side faces, the walls of said depressions being inclined, and the outer wall of each depression providing an undercut shoulder.

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1,094,749. TOY. WILHELM SADTLER, Homburg-on-the-Höhe, Germany, assignor to The Firm of Ernst Paul Lehmann, Brandenburg-on-the-Havel, Germany. Filed Jan. 25, 1913. Serial No. 744,200. (Cl. 46—48.)

1. In a toy, the combination with steering mechanism carried by said toy, of means for controlling the position of said steering mechanism in accordance with guiding surfaces encountered by said controlling means, and with means for automatically and temporarily making said controlling means inoperative, substantially as and for the purpose set forth.

2. In a toy, the combination, with steering-mechanism carried by said toy, of means for controlling the position of said steering mechanism in accordance with guiding surfaces encountered by said controlling means, and with means for automatically and temporarily raising said controlling means out of engagement with their guiding surfaces, substantially as and for the purpose set forth.



3. In a toy, the combination, with steering means carried by said toy, of means for controlling the position of said steering means in accordance with guiding surfaces encountered by said controlling means, said controlling means consisting of a fore-wheel carrying a projecting flange adapted to bear against the edge of the toy-supporting surface, substantially as set forth.

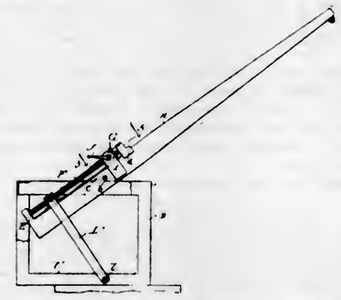
4. In a toy, the combination, with steering mechanism carried by said toy, of means for controlling the position of said steering means in accordance with guiding surfaces encountered by said controlling means, said controlling means comprising a fore-wheel having peripheral supporting surfaces at different distances from its axis, substantially as and for the purpose set forth.

5. In a toy, the combination, with a steering wheel carried by said toy, of means for controlling the position of said steering wheel in accordance with guide-surfaces encountered by said controlling means, and with means for automatically and temporarily forcing the said steering wheel down against its supporting surface, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,750. BALANCED DAVIT. AXEL A. SAWMAN, Brooklyn, N. Y. Filed Dec. 5, 1913. Serial No. 804,837. (Cl. 9—22.)



1. The combination with a swinging davit of a worm screw carried thereby, and of means to revolve said screw, a nut engaging said screw, and pivoted arms carrying said nut and arranged at an angle with said davit, whereby said davit is in balance in all its positions.

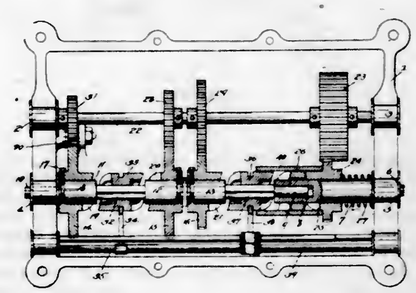
2. The combination with a swinging davit of a worm screw carried thereby, rotary gears operatively connected therewith and means to rotate said gears, a nut engaging said worm, and oscillating arms carrying said nut and arranged at an angle with said davit for the purpose hereinbefore described.

3. The combination in a davit installation of a swinging davit, a frame on which said davit is pivoted, a worm screw mounted on said davit, bevel gears for revolving said screw and means to operate said gears, and an oscillating arm on which a nut engaging said worm is pivoted, said oscillating arm being at an inwardly and upwardly angle from said davit.



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1,094,751. CHANGEABLE-SPEED-GEAR MECHANISM. HENRY L. SCHENCK, Decatur, Ill., assignor of one-fourth to Howard M. Onyett, Decatur, Ill., and one-fourth to Thomas J. Draper, Mount Zion, Ill. Filed May 2, 1912. Serial No. 694,639. (Cl. 74—59.)

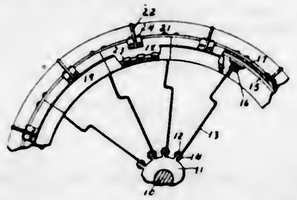


1. In a change speed mechanism, a driven shaft, a double clutch member feathered upon said driven shaft, a counter shaft, a gear carried by said counter shaft, a driving shaft arranged in longitudinal alinement with the driven shaft, a double clutch member fixed on said driving shaft, a pinion loosely mounted upon said driving shaft meshing with the gear of the counter shaft and provided with a clutch face, a spring normally holding the clutch face in engagement with the coöperating double clutch member of the driving shaft, a sleeve carried by the double clutch member of the driven shaft engaging said pinion, meshing gears carried by the driven and counter shafts, the gear of the driven shaft being provided with a clutch face coacting with one of the faces of the feathered double clutch member of the driven shaft, and means for shifting the feathered double clutch member for connecting the clutches of the driven and driving shafts and simultaneously disconnecting the pinion from the clutch member of the driving shaft.

2. In a speed change mechanism, the combination with a driving shaft having a bore at one end, a driven shaft arranged in longitudinal alinement with the driving shaft having a reduced portion extending into said bore, a clutch member mounted to move longitudinally upon said driven shaft, a double clutch member fixed upon said driving shaft, a pinion having a co-acting clutch face loosely mounted upon said driving shaft, a spring for normally holding said clutch face of the pinion in engagement with one of the clutch faces of the double clutch member of the driving shaft, a counter shaft, a gear carried by said counter shaft meshing with the pinion, meshing gears carried by the counter shaft and driven shaft, a sleeve carried by the clutch member of the driven shaft surrounding the double clutch member of the driving shaft and co-acting with the pinion thereof for simultaneously disconnecting the pinion from the fixed clutch member and connecting the clutch member of the driven and driving shafts.

3. In a speed change mechanism, the combination with a driven shaft, of a counter shaft, meshing gears carried by the respective shafts, a driving shaft arranged in longitudinal alinement with the driven shaft, a double clutch member fixed on the driving shaft, a pinion slidably mounted upon said driving shaft having a clutch face, a coil spring surrounding said driving shaft for holding said clutch face in engagement with the clutch member of said driving shaft, a gear carried by the counter shaft of a greater width than the pinion, a clutch member mounted to slide upon said driven shaft, a sleeve carried by said clutch member surrounding the clutch member of the driving shaft and co-acting with the pinion for simultaneously throwing said pinion out of contact with the clutch member and connecting the clutch faces of the clutch members of the driving and driven shafts.

1,094,752. WHEEL. HANS SCHLICHT, Walnut, Iowa. Filed Mar. 17, 1913. Serial No. 755,024. (Cl. 21—207.)



1. In a device of the class described a hub, a plurality of radially extending spokes, a flat rim to the under surface of which said spokes are pivotally secured, a flat casing inclosing said rim and provided on each side with laterally and inwardly extending flanges and with flanges extending outwardly and laterally from said first flanges.

2. In a device of the class described, a hub, spokes extending radially therefrom, a flat rim to which said spokes are secured, a casing made in sections each comprising a tread portion surrounding said rim provided on each side with inwardly and laterally extending flanges on which are formed outwardly and laterally extending flanges, and means for securing said sections to said rim.

3. In a device of the class described, a hub, spokes extending radially therefrom, a flat rim to which said spokes are secured, a flat casing surrounding said rim and provided on each side with inwardly and laterally extending flanges on which are formed outwardly and laterally extending flanges, and a T iron extending circumferentially around said casing with the stem flange extending outwardly and means for securing said rim, said casing and said T iron together.

4. In a device of the class described, a hub, spokes extending radially therefrom, a flat rim to which said spokes are secured, a flat casing surrounding said rim and provided on each side with inwardly and laterally extending flanges on which are formed outwardly and laterally extending flanges, a T iron extending circumferentially around said casing with the stem flange extending outwardly and a plurality of radially extending lugs arranged in pairs on each side of said T iron, and means for securing said lugs, said T iron, said casing and said rim together.

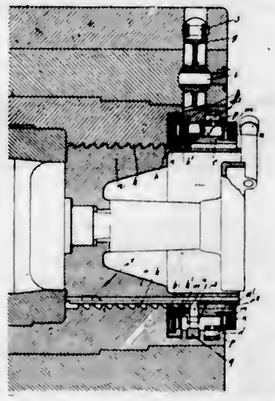
5. In a device of the class described, a hub, spokes extending radially therefrom, a flat rim to which said spokes are secured, a flat casing surrounding said rim and provided on each side with inwardly and laterally extending flanges on which are formed outwardly and laterally extending flanges, a T iron extending circumferentially around said casing with the stem flange extending outwardly and a plurality of radially extending lugs arranged in pairs on each side of said T iron, said pairs being arranged at intervals on said wheel, means for securing said lugs, said T iron, said casing and said rim together and a chain in each channel formed between the adjacent flanges of said casing.

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1,094,753. BREECH MECHANISM OF GUNS. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Nov. 29, 1911. Serial No. 663,035. (Cl. 89—19.)

1. A gun provided with a screw-threaded breech, a screw-threaded breech-screw, a non-rotatable carriage or shutter having screw threads engaging those on said breech-screw, and a rotatable element interposed between said carriage and screw for simultaneously rotating and displacing the latter longitudinally throughout its rearward movement.

2. A gun provided with a screw-threaded breech, a screw-threaded breech-screw, a shutter having screw threads engaging those on said breech-screw, a movable member carried thereby, a rib and groove connection between said screw and movable member, and means imparting movement to said member to simultaneously rotate and longitudinally displace said screw throughout its rearward movement.



3. In a gun provided with a screw-threaded breech, a screw-threaded breech-screw, a track or way arranged transversely of the gun, a non-rotatable shutter having screw threads engaging those on said breech-screw movable on said track or way, a movable element carried by said shutter, and means imparting movement to said element to simultaneously rotate and longitudinally displace said screw throughout its rearward movement.

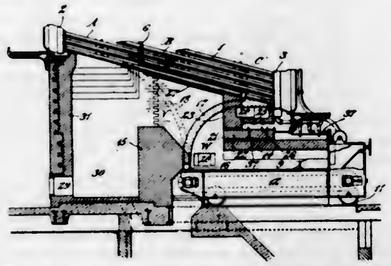
4. A gun provided with a screw-threaded breech, a screw-threaded breech-screw, a shutter having screw threads engaging those on said breech-screw, a movable member carried thereby, a rib and groove connection between said screw and movable member, and means imparting movement to said member to simultaneously rotate and longitudinally displace said screw throughout its rearward movement, said means also displacing said screw with respect to the longitudinal axis of the gun.

5. A gun provided with a screw-threaded breech, a screw-threaded breech-screw, a shutter having screw threads engaging those on said breech-screw, a movable member carried thereby, a rib and groove connection between said screw and movable member, and common means imparting movement to said member to simultaneously rotate and longitudinally displace said screw throughout its rearward movement and to move said screw and shutter laterally with respect to the longitudinal axis of the gun.

[Claims 6 to 19 not printed in the Gazette.]

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1,094,754. WATER-TUBE BOILER. MINOTT W. SEWALL, Roselle, and DAVID S. JACOBUS, Jersey City, N. J., and GEORGE E. PALMER, Chicago, Ill., assignors to The Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Feb. 20, 1909. Serial No. 479,218. (Cl. 110—1.)



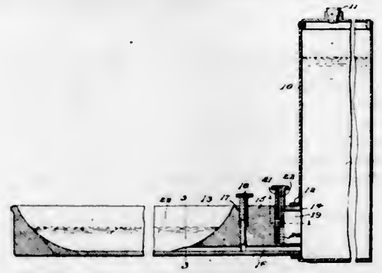
1. In a water tube boiler, in combination, a furnace having side walls, an arched roof spanning the furnace above the grate, a cross wall above the arch, a roof extending from said cross wall and forming with the cross wall a chamber into which soot may fall, a floor for said chamber above the arch and forming with the arch a space excluded from the furnace, buck stays forming abutments for the opposite ends of the arch, and tie rods connecting the buck stays through said space.

2. In a water tube boiler, in combination, a furnace comprising side walls and an arched roof spanning the furnace above the grate, buck stays forming an abutment for said arch, tie rods connecting the buck stays on opposite sides and extending between said arch and the bank of tubes, and a floor 25 interposed between the bank of tubes and the tie rods and providing an air space exterior to the furnace for said tie rods above the arch.



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1,094,755. AUTOMATIC WATERING-FOUNTAIN. ALLAN SMITH, Berkeley, Cal. Filed Apr. 18, 1913. Serial No. 762,150. (Cl. 119—77.)



1. In a device of the class described, a reservoir for a liquid and a receptacle with a conduit providing communication between the reservoir and receptacle and a contracted vertical passage communicating with the reservoir and constantly below the level of the liquid in the same, and a member having an orifice communicating with the open air and with the passage and operative to control the position of the lower end of the orifice relative to the passage.

2. In a device of the class described, a reservoir for a liquid and a receptacle with a conduit providing communication between the reservoir and receptacle and a contracted vertical passage communicating with the reservoir and constantly below the level of the liquid in the same and with a vertical opening communicating with the passage, and a member having an orifice communicating with the open air and with the passage and operative in said opening to control the position of the lower end of the orifice relative to the passage.

3. In a device of the class described, a reservoir for a liquid, and a receptacle with a conduit providing communication between the reservoir and the receptacle and with a contracted passage communicating with the reservoir and constantly below the level of the liquid in the same, an orifice being arranged to provide communication between the open air and the passage.

4. In a device of the class described, a reservoir for a liquid and a receptacle with a conduit providing communication between the reservoir and the receptacle and with a contracted passage communicating with the reservoir and constantly below the level of the liquid in the same, a member having an orifice communicating with the open air and with the passage, and means for adjusting said member to control the position of the orifice relative to the passage.

5. In a device of the class described, a reservoir for a liquid and a receptacle with a conduit providing communication between the reservoir and the receptacle and with a contracted passage communicating with the reservoir and constantly below the level of the liquid in the same, a member having an orifice communicating with the open air and with the passage, means for adjusting said member to control the position of the orifice relative to the passage, and a cut off for controlling the flow through the conduit.

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1,094,756. EMERGENCY STOPPING DEVICE FOR MOTOR-CARS. HARRY M. SPENCER, Dunmore, Pa. Filed Oct. 8, 1912. Serial No. 724,590. (Cl. 21—90.)



1. In an automatic stopping device for vehicles, an annular hub carried member provided with a friction surface and a toothed surface, a friction disk disposed for coöperation with such friction surface, and a pawl operably connected to such disk and normally held out of engagement with the toothed surface, whereby a retrograde movement of the annular member will rotate the disk in an opposite direction and place the pawl in engagement with the toothed surface.

2. An automatic stopping device for vehicles, including an annular hub carried member provided with a friction surface and a toothed surface, a friction disk disposed for coöperation with said friction surface and for movement to and away therefrom, a pawl operably connected to such disk and normally held out of engagement with the toothed surface, and lever actuated means for moving the disk out of engagement with the friction surface.

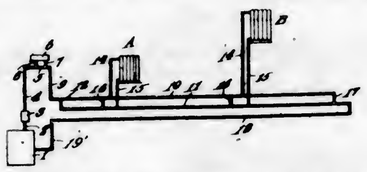
3. An automatic stopping device for vehicles, including an annular hub carried member provided with a friction surface and a toothed surface, a friction disk disposed for coöperation with said friction surface and for movement to and away therefrom, a pawl operably connected to said disk and normally held out of engagement with the toothed surface, and manually actuated and spring returned means to move the disk out of engagement with the friction surface when intentionally reversing the running gear.

4. The combination with a vehicle, of an automatic stopping device therefor, including an annular hub carried member having a friction surface and a toothed surface, an oscillatory shaft hung from the running gear and having an eccentrically disposed cylindrical end, a friction disk mounted for rotation upon said end for movement into and out of engagement with the friction surface of the annular hub carried member, a pawl mounted upon the reduced end of the shaft and in coöperative relation with the disk, the normal rotation of said disk upon the friction surface of the annular member holding the pawl out of engagement with the toothed surface of the annular hub carried member, and means for limiting the movement of the pawl away from the toothed surface, whereby upon the rotation of the annular member in the opposite direction, the disk will cause the movement of the pawl into engagement with the toothed surface.

5. The combination with a vehicle, of an automatic stopping device therefor, including an annular hub carried member having a friction surface and a toothed surface, an oscillatory shaft hung from the running gear and having an eccentrically disposed cylindrical end, a friction disk mounted for rotation upon said end for movement into and out of engagement with the friction surface of the annular hub carried member, a pawl mounted upon the reduced end of the shaft and in coöperative relation with the disk, the normal rotation of the disk upon the friction surface of the annular member holding the pawl out of engagement with the toothed surface of the annular hub carried member, and spring returned means for oscillating the shaft and for retaining the disk in engagement with the friction surface of the annular member.

[Claims 6 and 7 not printed in the Gazette.]

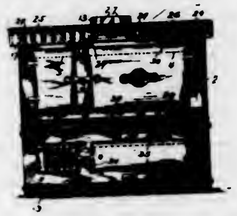
1,094,757. HOT-WATER HEATING SYSTEM. ADOLF G. STAPEL, Montgomery, Ala. Filed July 13, 1912. Serial No. 709,250. (Cl. 237—15.)



1. In a hot water heating system, a boiler, radiators, a flow pipe connected to and extending from the boiler and connected first with one radiator and thence successively with each of the other radiators, a return pipe connected to and extending from the boiler and connected first with that radiator to which the flow pipe is connected with last, the return pipe then being connected with the successive radiators to the first mentioned radiator, that portion of the return pipe which is connected to the radiators being disposed at a lower level than the corresponding portion of the flow pipe, the said portions of the flow and return pipes being arranged at a lower level than the radiators, and cross-over connections between the bottom of the said portion of the flow pipe and the said portion of the return pipe in advance of the radiator connections.

2. In a hot water heating system, a boiler, radiators, a flow pipe connected to and extending from the boiler and connected first with one radiator and thence successively with each of the other radiators, a return pipe connected to and extending from the boiler and connected first with that radiator to which the flow pipe is connected with last, the return pipe then being connected with the successive radiators to the first mentioned radiator, that portion of the return pipe which is connected to the radiators being disposed at a lower level than the corresponding portion of the flow pipe, the said portions of the flow and return pipes being arranged at a lower level than the radiators, and cross-over connections between the bottom of the said portion of the flow pipe and the said portion of the return pipe in advance of the radiator connections, that end of the flow pipe remote from the boiler being extended downwardly and attached to the return pipe beyond the radiator connections, and that end of the return pipe remote from the boiler being extended upwardly and attached to the bottom of the flow pipe beyond the radiator connections.

1,094,758. REVERSIBLE STOVE. FRANK G. SUTTON, Scranton, Pa. Filed Jan. 22, 1914. Serial No. 813,707. (Cl. 126—23.)



1. A stove composed of a plurality of sections, each provided with door openings on one side only, the said sections adapted to be used either side up so as to bring the fire pot and ash pit at either end of the stove.

2. A stove composed of a plurality of sections, two sections of which are adapted to be used either side up, one of said sections having a fire pot and oven and the other an ash pit.

3. A stove composed of a plurality of sections each adapted to be used either side up, one of said sections having a fire pot and oven and the other an ash pit and oven, the door openings of said parts being in the front side only of said sections.

4. A stove composed of top, bottom and intermediate sections, the bottom and intermediate sections adapted to be used either side up, the intermediate section having a fire pot and oven and the bottom section an ash pit, the openings to said parts being at the front side only.

5. A stove composed of three superimposed sections the two lower sections adapted to be used either side up so as to bring the fire pot and ash pit either to the right or left end of the stove.

[Claims 6 to 12 not printed in the Gazette.]

1,094,759. MONKEY-WRENCH. GÉZA SZILÁGYI, Gary, Ind., assignor of one-half to John Ball, Gary, Ind. Filed Apr. 17, 1913. Serial No. 761,670. (Cl. 81—139.)

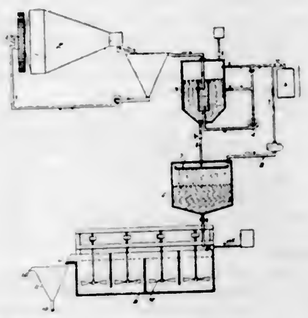


1. A wrench comprising a shank having teeth thereon; a fixed jaw on said shank; a movable jaw slidably mounted on said shank; an arm pivoted at one end to said movable jaw and its other end provided with teeth engaging the teeth of said shank; a thumb piece slidably mounted on said shank and operatively connected with said arm; and means carried by said thumb piece adapted to facilitate locking of said teeth together, substantially as described.

2. A wrench comprising a shank having teeth thereon; a fixed jaw on said shank; a movable jaw slidably mounted on said shank; an arm pivoted at one end to said movable jaw and its other end provided with teeth engaging the teeth of said shank; a thumb piece slidably mounted on said shank and having a portion adapted to engage the outer edge of the toothed end of said arm when said teeth are in mesh; and a link connecting said thumb piece with said arm, substantially as described.

3. A wrench comprising a shank; a fixed jaw on said shank; a movable jaw slidable on said shank; a movable locking member pivoted on said movable jaw and adapted to engage said shank; an operating member slidable on said shank; and a link connecting said locking member and said operating member and adapted to throw said locking member into and out of engagement with said shank upon movement relatively to said movable jaw, substantially as described.

1,094,760. PROCESS FOR RECOVERING METALLIFEROUS CONSTITUENTS OF ORES. JOSEPH T. TERRY, Jr., San Francisco, Cal. Filed Sept. 8, 1913. Serial No. 788,575. (Cl. 83—85.)



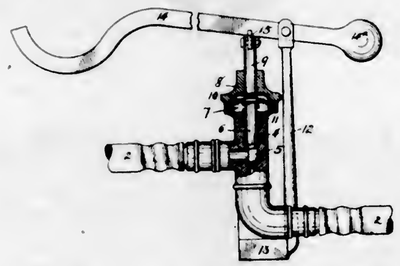
1. A process which consists in the subjection of metalliferous particles of ores existing as carbonates, oxids, chlorids and sulfates, to the action of a hydrogen-sulfid gas, then subjecting the resulting product to partial vacuum, then to agitation in the presence of an oil-film-forming substance, and recovering the oil-coated particles by flotation.

2. A process for preparing non-sulfid ores for flotation methods of concentration which consists in the subjection of metalliferous particles in ore pulp, to the action of hydrogen-sulfid gas, then subjecting the resulting product to partial vacuum and finally subjecting the so treated pulp to a flotation separation.

3. A process for the recovery of metalliferous constituents of ores, which consists in reducing the ores to a pulp, adding a soluble metallic salt and precipitating as a sulfid by hydrogen-sulfid to act as nuclei for the formation of sulfid granules and coagulations, then subjecting the resulting product to partial vacuum and finally subjecting the so treated pulp to a flotation separation.



1,094,761. AUTOGENOUS WELDING OUTFIT. ADOLPH THOUSAND, Weston, Ohio. Filed Dec. 12, 1913. Serial No. 806,313. (Cl. 158—109.)



1. In a fluid pressure line, a reciprocatory valve for closing the same, means separate from the fluid line pressure for causing said valve to normally stand in open position, a plunger movable to impart closing movements to the valve, a movable diaphragm interposed between said valve and plunger, and an article-supporting lever having connection with said plunger and operable by the weight of an article hung thereon to move the plunger and valve to closed position.

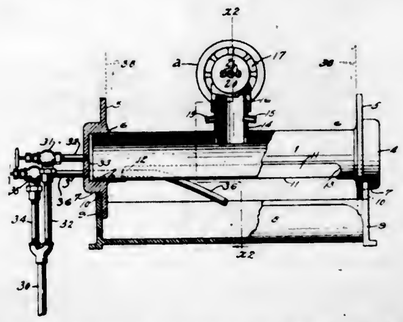
2. In combination, a plurality of fluid supply lines each having a valve chamber therein, a valve movable in each of said chambers to close the respective lines, means urging the valves to have opening movements, an article-supporting lever fulcrumed adjacent to said valves, and means connecting said lever and valves and operable by a movement of said lever upon the application of weight on a part thereof to effect a simultaneous closing of the valves.

3. In combination, a plurality of fluid supply lines each having a valve chamber therein, a valve movable in each of said chambers to close the respective line, means urging each valve to open position, a plunger entering each chamber from without the same and movable to impart closing movements to the associated valve, a movable diaphragm interposed between the valve and plunger of each set, a bar connecting the outer ends of the several plungers, and an article supporting lever having engagement with said bar and operable by the weight of an article hanging thereon to move the bar and plungers to valve closing position.

1,094,762. GAS-GENERATOR. LEVI VAN VLIET and FRANK O'NEIL, Pomona, Cal. Filed Oct. 24, 1912. Serial No. 727,603. (Cl. 158—61.)

1. A gas generator comprising an elongated retort, jets communicating with said retort and directed onto and along the same, and flanged caps at the ends of said retort for deflecting the flame produced by said jets from said retort.

2. A gas generator comprising an elongated tubular retort, a gas dome on the retort, jets mounted on said dome and directed onto the retort, caps on the ends of said retort and provided with flanges for deflecting the flame issuing from said jets, and means for feeding oil to the retort.



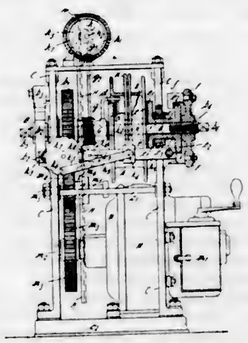
3. A gas generator comprising an elongated tubular retort, jets mounted above and directed onto the retort, caps closing the ends of the tubular retort, said caps being provided with flame deflecting flanges, a generating pan below the retort and adapted to coöperate with the flanged caps to revolubly support the retort, and means for feeding oil to the retort.

4. A gas generator comprising a thin elongated cylindrical retort the circumference being provided at one side with flat faces serving to thin the metal at that side, a generating pan adjacent the said flat faces, and means for feeding oil to the retort.

5. A gas generator comprising a thin elongated cylindrical retort, a gas-dome on same, jets mounted on said dome and directed onto the retort, a generating pan for the retort, and flat faces on the retort adjacent the generating pan.

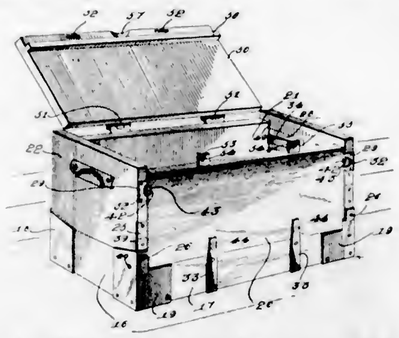
[Claims 6 to 11 not printed in the Gazette.]

1,094,763. SOUNDING-MACHINE. HARRY LEONARD WAITE, Egremont, England. Filed Dec. 20, 1913. Serial No. 808,001. (Cl. 33—129.)



In a sounding machine comprising in combination a frame, a main shaft, a cable drum loosely mounted thereon and having a cable positively attached thereto, means for driving said cable drum, a notched indicating bar adapted to protrude through said frame and adapted to move axially thereto, a worm gear rotationally mounted on said shaft and positively coupled with said drum to be driven thereby, and reduction gear interposed between said worm gear and said notched bar adapted to move the latter axially in a direction corresponding to the direction of rotation of said drum, substantially as described.

1,094,764. FOLDING BOX. GROVER CLEVELAND WELTER, Roswell, N. Mex. Filed May 3, 1913. Serial No. 765,321. (Cl. 217—15.)



1. A foldable receptacle comprising a bottom, end walls pivotally mounted adjacent their lower end portions, front and rear walls pivotally mounted adjacent their lower end portions and positioned between said end walls, strips carried by the edge portions of said front and rear walls and provided with cut-out portions forming notches, plates carried by said end walls, pins carried by said plates and adapted to fit into the notches of said strips for forming an interlocking engagement between said walls, and tongues struck from said plates and having their free end portions bent to form abutment flanges engaging said front and rear walls for releasably holding said pins in said notches.

2. A foldable receptacle comprising a bottom, a front strip secured to said bottom, end strips secured to said bottom, reinforcing plates secured to said front and end strips and extending above said end strips, tongues extending from the forward reinforcing plates and extending in said receptacle, a forward wall having its lower end portions pivotally connected with said tongues, end walls having their lower end portions pivotally connected with the upper end portions of said reinforcing plates, a rear wall, plates extending along the edges of the lower portions of said rear wall and provided with longitudinally extending slots, pins carried by said end strips and passing through said slots for pivotally and slidably mounting said rear wall, means for interlocking the free end portions of said walls, and a cover for said receptacle.

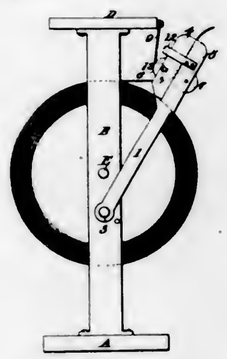
1,094,765. PAPER-ROLL ABUTTER. CHARLIE EDWIN WEEKS, Oakland, Cal., assignor of one-third to Ernest J. Cook, Oakland, Cal., and one-third to Hager Leon, San Francisco, Cal. Filed Oct. 20, 1913. Serial No. 796,215. (Cl. 211—32.)

1. The combination of a pivoted turnable roll holder, arms pivoted out of line with the roll holder axis, feed rolls upon the outer ends of said arms, one of said rolls containing a torsional spring, a cord coiled around said feed roll and having its other end fixed, said cord winding upon the feed roll and advancing the paper when the feed roll holder is raised about its pivots.

2. The combination with a paper roll holder and its journal support, of arms journaled out of the axial line of the holder, feed rolls and cutters mounted upon the outer end of the arms and between which the paper is advanced, a cord fixed at one end and having the opposite end coiled around one of the feed rolls, a torsional spring within said roll adapted to wind the cord and advance the paper as the arms are moved up and down about their pivot.

3. The combination with a paper roll support, of a frame pivotally mounted on said support, feed rollers mounted in said frame, a cutter disposed in advance of said rollers, a flexible element connected at one end to one of said rollers and at its other end to said roll support, and a spring carried by said roller for winding up said flexible element when the roller is turned in one direction.

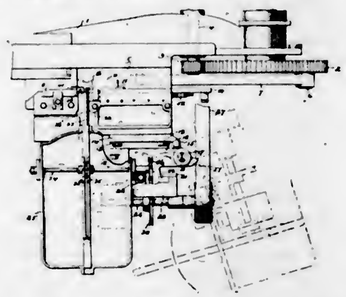
4. A feeding attachment for paper roll holders comprising a frame having revolubly mounted rollers arranged therein and disposed adjacent to each other, a cutter arranged in advance of said rollers one of said rollers having a recess in one end, a shaft revolubly mounted in said recess and projecting beyond said roller to form a journal for one end thereof, and a coiled spring wound on said shaft and connected at one end thereto and at its other end to said roller.



5. A feeding attachment for paper roll holders comprising a frame having revolubly mounted rollers arranged therein and disposed adjacent to each other, severing means arranged in advance of said rollers one of said rollers having a recess in one end, a shaft revolubly mounted in said recess and projecting beyond said roller to form a journal for one end thereof, and a coiled spring wound on said shaft and connected at one end thereto and at its other end to said roller, the other end of said roller having an annular recess therein, and a flexible element secured at one end to said recessed end of said roller and adapted to be connected at its other end to a fixed support.

[Claims 6 to 8 not printed in the Gazette.]

1,094,766. HOPPER MECHANISM. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 14, 1910. Serial No. 566,784. (Cl. 10—165.)



1. The combination with a hinged carrier; of a slide; means for moving said slide upon said carrier; and a hopper connected with said slide so that during the movement of said carrier upon its hinged mounting said hopper mechanism will, as a unit, move through the arc of a circle.

2. In mechanism of the character described, the combination with a fixed member; of a carrier having a connection with said fixed member; a movable part connected with said carrier; and a hopper mechanism connected with said movable part upon that side thereof distant from the connection of said carrier, said hopper mechanism by reason of such connection being moved into and out of its operative position, the space occupied by it when in its operative position being entirely open and free when said hopper mechanism is moved into its inoperative position.

3. In mechanism of the character described, the combination with a fixed member; of a carrier movably connected therewith; a slide upon said carrier; means for adjusting said slide upon said carrier; a hopper mechanism mounted upon said slide and movable therewith; and means for separably securing said carrier against movement.

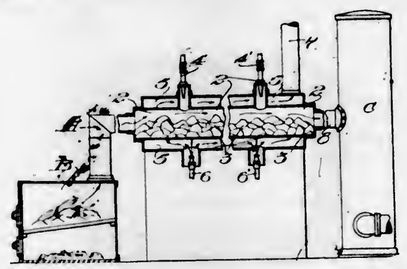
4. In mechanism of the character described, the combination with a fixed member; of a carrier movably connected therewith; a slide upon said carrier; means for adjusting said slide upon said carrier substantially parallel with said pivot mounting; a hopper mechanism mounted upon said slide and movable therewith; and means for separably securing said carrier against movement.

5. In mechanism of the character described, the combination with a fixed member; of a carrier movably connected therewith; a slide upon said carrier; means for adjusting said slide upon said carrier; a hopper mechanism, comprising a hopper; a blade, and rotary means for operating said blade, mounted upon said slide and movable therewith; and means for separably securing said carrier against movement.

[Claims 6 to 8 not printed in the Gazette.]



1,094,767. FUME-DESTROYING PROCESS. STEWART W. YOUNG, Palo Alto, Cal., assignor, by direct and mesne assignments, to The Thiogen Company, San Francisco, Cal., a Corporation of Delaware. Filed Aug. 15, 1911. Serial No. 644,156. (Cl. 23—10.)



1. A method of treating sulfurous fumes to remove the sulfur dioxid and to produce free sulfur therefrom, which consists in subjecting the sulfurous fumes to the action of a heated carbonaceous fuel, in the presence of a calcareous substance with which the sulfur dioxid will react, and then cooling the fumes to a temperature at which the sulfur formed will not recombine with oxygen.

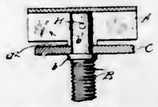
2. A method of treating sulfurous fumes to remove the sulfur dioxid and to produce free sulfur therefrom, which consists in subjecting the sulfurous fumes to the action of a heated carbonaceous fuel, in the presence of a solid reagent capable of neutralizing the sulfur dioxid, and then cooling the fumes to a temperature at which the sulfur formed will not recombine with oxygen.

3. The method of treating sulfurous fumes to eliminate the sulfur dioxid, and to produce free sulfur therefrom, which consists in subjecting the sulfurous fumes to the action of a highly heated hydrocarbon fuel in the presence of a reagent, which has the property of neutralizing the sulfurous acid of the fumes, and then cooling the fumes to a temperature at which the sulfur formed will not recombine with oxygen.

4. A process of decomposing sulfur dioxid which consists in passing the fumes through a heated space, mixed with a highly heated carbonaceous material in the presence of lime rock, and then cooling the fumes to a temperature at which the sulfur formed will not recombine with oxygen.

5. A process whereby sulfur dioxid is eliminated from sulfurous fumes which consists in passing the fumes through a heated space, mixed with a highly heated carbonaceous material in the presence of lime rock, to which a suitable catalytic accelerator has been added, and then cooling the fumes to a temperature at which the sulfur formed will not recombine with oxygen.

1,094,768. THUMB-SCREW. OSCAR ZERK, Cleveland, Ohio, assignor, by mesne assignments, to George W. Bowen, Auburn, N. Y. Filed Apr. 3, 1913. Serial No. 758,553. (Cl. 85—9.)



1. A thumb screw consisting of a stem portion threaded at one end, and a head or handle formed from a blank of sheet metal doubled upon itself to provide corresponding sides and a connecting portion, the latter being located substantially in alinement with the axis of the stem, and the sides embracing opposite sides of the stem, and means for rigidly connecting the head to the stem, substantially as and for the purpose described.

2. A thumb screw consisting of a stem having a threaded portion, a head or handle formed from a blank of sheet metal and comprising corresponding sides and a connecting portion, said sides having corresponding arcuate portions forming a socket, one end of the stem being inserted in said socket and said connecting portion extending transversely across the extremity of said end, and means for connecting the head to the stem, substantially as and for the purpose specified.

3. A thumb screw comprising a stem having a threaded portion, a sheet metal head provided with corresponding sides and a connecting portion, said sides having arcuate portions intermediate their ends and the parts of one side between the arcuate portion and the ends thereof being pressed into intimate contact with the corresponding portions of the other side, and one end of the stem being inserted between the arcuate portions of the two sides, said connecting portion of the head extending transversely across the extreme end of the stem, and means for connecting the head to the stem, substantially as and for the purpose set forth.

4. A thumb screw consisting of a stem threaded at one end, and a head or handle formed from sheet metal and comprising corresponding sides and a connecting portion, the latter extending across one end of the stem, and the sides of the head extending in planes parallel to the longer axis of the stem, said head being provided with a socket for receiving the end of the stem, the walls of the socket being formed by deflected portions of the sides, substantially as and for the purpose described.

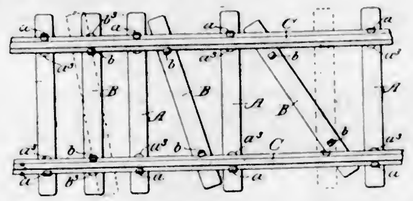
5. A thumb screw consisting of a sheet metal blank, bent into a trough-shape with arcual externally convex transverse bosses on its opposite sides, the side portions between the bosses and the ends being pressed together, the shank of a screw being mounted in the intermediate recess which is left.

[Claim 6 not printed in the Gazette.]

1,094,769. RAILWAY CROSS-TIE. WILLIAM H. ALEXANDER, Pittsburgh, Pa. Filed Jan. 8, 1914. Serial No. 811,031. (Cl. 238—5.)

1. A one-piece sheet-metal tie having a tongue for holding one side of the base of a rail, and a shoulder pressed up from the top of the tie and arranged directly opposite the tongue for engaging the edge of the other side of the base of the rail, said shoulder having a straight face presented to the edge of the base of the rail and its upper surface rounded laterally for guiding the rail-base into position substantially as described.

2. A one-piece tie having rail-holding tongues to overlap one edge of each of the two rails of a track, said tie also having means arranged at the sides of said tongues for attaching a separate clamp for holding the rail to the tie when necessary or desirable.



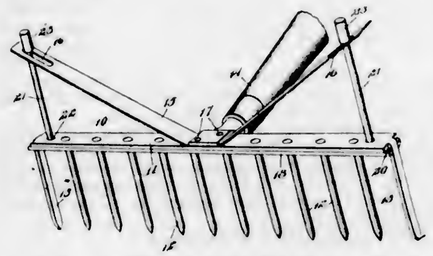
3. A one-piece tie having rail-holding tongues to overlap one edge of each of the two rails of a track, and shoulders to abut against the opposite edges of the rails from those which are overlapped by said tongues, said tie also having means arranged at the sides of said shoulders for attaching a separate clamp for holding the rail to the tie when necessary or desirable.

4. A one-piece tie having rail-holding tongues to overlap one edge of each of the two rails of a track, and shoulders to abut against the opposite edges of the rails from those which are overlapped by said tongues, said tie also having means arranged at the sides of said tongues and shoulders for attaching separate clamps for holding the rail to the tie at either or both sides of said rail when necessary or desirable.

5. The combination with one-piece sheet-metal gage-ties, each having a substantially flat top and downwardly turned side and end flanges to engage the ballast of a road-bed, the top of each of said gage-ties having inwardly extending tongues for overlapping and holding the outer edges of the bases of the two rails of a track to proper gage, of key-ties, each made of one piece of sheet-metal shaped like the gage-ties, the top of each key-tie having outwardly extending tongues for overlapping and holding the inner edges of the bases of the rails as and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,094,770. SELF-CLEANING RAKE. WILLIAM F. BARR, Fowl River, Ala., assignor of two-thirds to Frederick W. Bacho, Mobile, Ala., and Robert A. Howard, Fowl River, Ala. Filed Aug. 9, 1913. Serial No. 783,892. (Cl. 55—146.)



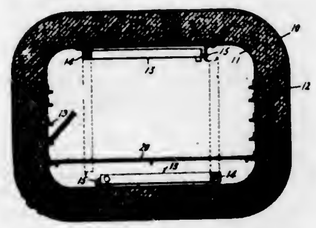
1. A rake comprising a rake body including a crosspiece and prongs projecting therefrom, lateral guides formed at the ends of the crosspiece, a cleaning bar provided with openings through which the prongs extend and having recesses through which the said guides extend, rods projecting from the said cleaning bar, a spring carried by the crosspiece and provided with slots through which the said rods extend, and knobs on the said rods and adapted to be engaged by the spring to limit its action relatively to the said rods.

2. A rake comprising a rake body including a crosspiece and prongs projecting therefrom, guides at the ends of the crosspiece, a cleaning bar provided with openings through which the prongs extend and having recesses through which the guides extend, rods on the cleaning bar and extending in opposite directions to the said prongs, a handle for the rake body, a spring interposed between the crosspiece and the handle and secured thereto, with the ends of the spring provided with slots through which the said rods slidably extend, the said cleaning bar being movable relatively to the said prongs and against the tension of the said spring, and means on the rods for retaining the spring in engagement therewith.

3. In a rake the combination with a rake body, of a cleaning-bar having sliding engagement therewith, a handle, a spring interposed between the handle and the rake body and provided with longitudinal slots, rods carried by the cleaning bar for advancing the same on the rake body when pressure is exerted on the rods, the said rods having sliding engagement with the said spring, and passing through the slots therein, and means on the rods for limiting the sliding action of the spring on the said rods.

4. In a rake the combination with a rake body, of a cleaning bar having sliding engagement therewith provided with recesses, a handle, a V-shaped spring having its medial portion interposed between the rake body and the said handle and rigid therewith, with the ends of the spring provided with longitudinal slots, guides on the ends of the rake body and passing through the recesses in the ends of the cleaning bar for guiding the cleaning bar relatively to the rake body, and means carried by the cleaning bar and passing through the slots in the said spring, for actuating the cleaning bar relatively to the said rake body and against the tension of the said spring.

1,094,771. ELECTRICALLY-HEATED OVEN. HENRY PRICE BALL, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 17, 1913. Serial No. 754,701. (Cl. 219—35.)



1. An electrically heated oven comprising a stationary casing, a substantially flat resistance heating unit mounted therein, means whereby the said unit may be made to assume a substantially horizontal or a substantially vertical position as desired, and means for supporting an article to be heated within the casing when the unit occupies either position.

2. An electrically heated oven comprising a stationary casing, a substantially flat electric resistance heating unit pivotally mounted therein, the pivotal axis being substantially horizontal, and means for supporting an article to be heated within the casing when the unit occupies either position.

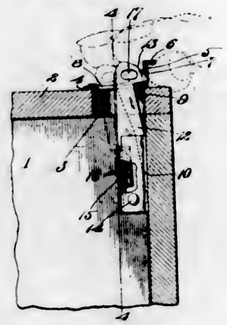
3. An electrically heated oven comprising a stationary casing, a pair of substantially flat electric resistance heating units pivotally mounted therein adjacent opposite walls thereof, the pivotal axes being located at opposite sides of the respective units.

4. An electrically heated oven comprising a stationary casing and a pair of flat electric resistance heating units movably mounted therein so as to assume either horizontal or vertical positions and spaced apart to receive the articles to be heated between them in either position of said units.

5. An electrically heated oven comprising a stationary casing and a pair of flat electric resistance heating units pivotally mounted therein so as to form either horizontal or vertical parallel walls spaced apart to receive the article to be heated between them in either position.



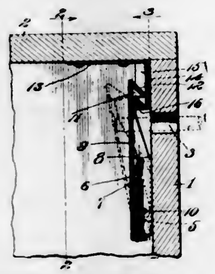
1,094,772. BOX LOCK OR FASTENER. JAMES F. BEEHLER, St. Louis, Mo. Filed Aug. 8, 1913. Serial No. 783,772. (Cl. 70—80.)



1. A box fastener comprising a plate adapted to be applied to the lid of the box, which plate is provided with an opening, a downwardly pending inclined lip at the forward end of said opening, an upwardly projecting web on the front edge of said plate, the upper edge of which web is bent into a horizontal plane to form an outwardly projecting lip, a plate adapted to be fixed to the front wall of the box, and a spring pressed hook, pivotally connected to last said mentioned plate, the upper end of which hook is adapted to pass through the opening in the first mentioned plate.

2. A box fastener comprising a plate adapted to be applied to the lid of the box, which plate is provided with an opening, a web on the front edge of said plate, a horizontally disposed lip on the top of said web, a plate adapted to be fixed to the wall of the box, and a spring pressed hook pivotally mounted on said last mentioned plate, the upper end of which hook is adapted to pass through the opening in the first mentioned plate.

1,094,773. BOX LOCK OR FASTENER. JAMES F. BEEHLER, St. Louis, Mo. Filed Aug. 16, 1913. Serial No. 785,094. (Cl. 70—82.)



In a box fastener, a plate adapted to be fixed to the front wall of the box, a latching member pivotally mounted on said plate, a spring interposed between the plate and latching member, a plate adapted to be applied to the lid of the box and a housing depending from said last mentioned plate, which housing comprises an imperforate front wall, imperforate side walls, and an inclined bottom wall, the upper free edge of which is adapted to be engaged by the latching member when the box lid is closed.

1,094,774. PROCESS OF MAKING INCANDESCENT ELECTRIC LAMPS. ARNOLD BERLINER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 1, 1908. Serial No. 465,540. (Cl. 176—3.)

1. The process of manufacturing an evacuated vitreous vessel which consists in forming the vessel from heated plastic material and exhausting and sealing said vessel before it becomes cool.

2. The process of manufacturing an evacuated vitreous vessel which consists in making the parts of said vessel from heated plastic material, fusing said parts together while still heated to form a vessel, and exhausting and sealing said vessel before it becomes cool.

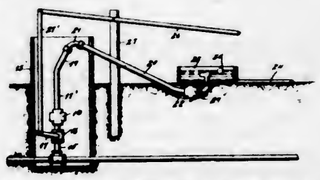
3. The process of forming an evacuated bulb which consists in blowing said bulb, sealing a stem in said bulb before it becomes cool, and exhausting and sealing said bulb before it becomes cool enough to absorb gases.

4. The process of forming an evacuated vessel which consists in making parts of a vessel from molten glass, sealing said parts together while still hot to form a vessel, and exhausting and sealing said vessel while said parts are still hot.

5. The process of manufacturing a lamp which consists in fusing glass, making lamp parts from said fused glass and while still hot assembling and exhausting said lamp.

[Claims 6 to 9 not printed in the Gazette.]

1,094,775. STOCK-WATERER. WILLIAM W. BRATCHER, near Pattonsburg, Mo. Filed Oct. 23, 1912. Serial No. 727,436. (Cl. 137—68.)



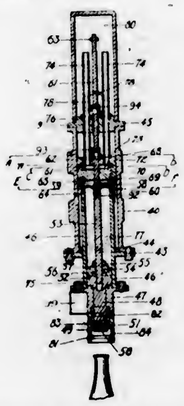
In a stock waterer, the combination of a watering trough, a water supply pipe embedded in the ground, a casing embedded in the ground through which said supply pipe passes transversely, a delivering pipe line disposed vertically and longitudinally of the casing and connected to the supply pipe and comprising a plurality of sections the lowermost of which is provided with a valve and the uppermost rotatably mounted and having its upper end bent laterally, an elbow rotatably connected to the upper end of the uppermost section of the delivering pipe line, a discharge pipe rotatably connected to the elbow and having its discharge end curved laterally and adapted to discharge into the trough downwardly in one position of the uppermost section of the delivering pipe line, elbow and discharge pipe and to be disposed horizontally with respect to the trough when said uppermost section of the delivering pipe line, elbow and discharge pipe are rotated to another position whereby connections may be secured to the discharge end of the discharge pipe to effect an upward discharge through the bottom of the trough.

1,094,776. BOTTLE-CAPPING MACHINE. LOUIS H. BRINKMAN, Glen Ridge, N. J., assignor to General Industries Company, a Corporation of New York. Filed Nov. 28, 1911. Serial No. 662,876. (Cl. 113—4.)

1. Bottle capping apparatus comprising a bottle support, devices for securing the caps to the bottles embracing a cap-hold-down member and coöperating crimping means, and means operatively controlled by a predetermined movement of the crimping means with respect to the cap-hold-down member for causing the securing devices to be withdrawn from the bottle after a cap is secured thereon.

2. Bottle capping apparatus comprising a bottle support, two fluid pressure operated pistons, devices carried thereby for securing the caps to the bottles, and means for control-

ling the movement of the pistons to cause the securing devices to be withdrawn from the bottle after a cap is secured thereon, said means embracing devices carried by one piston and devices carried by the other piston cooperating therewith for causing a reverse movement of both pistons under fluid pressure.



3. The combination of a bottle support, two relatively movable fluid pressure operated pistons, a cap-hold-down member carried by one piston, cap-crimping means carried by the other piston, means operatively controlled by the relative movement of the pistons for controlling the action of the fluid to cause the withdrawal of the piston carrying the crimping means without removing the cap-hold-down member, and connections between the cap-hold-down member and the crimping means for removing the hold-down member, whereby the cap-hold-down is pressed against the cap by fluid pressure until the crimping means has been withdrawn past the hold-down member.

4. Bottle capping apparatus comprising a bottle support, two fluid pressure operated pistons, devices carried thereby for securing the caps to the bottles, and means for controlling the movement of the pistons to cause the securing devices to be withdrawn from the bottle after a cap is secured thereon, said controlling means embracing a valved port through one of said pistons.

5. Bottle capping apparatus comprising two fluid pressure operated pistons, devices carried thereby for securing the caps on the bottles, a cylinder for one of the pistons and an exhaust tube carried by one piston and sliding through the head of said cylinder.

[Claims 6 to 58 not printed in the Gazette.]

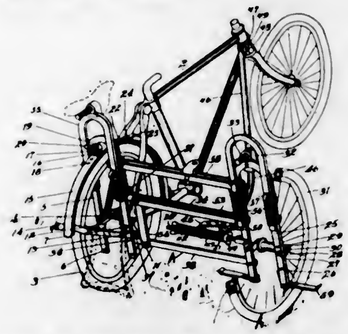
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1,094,777. BICYCLE SIDE CAR. GEORGE G. BUCKLAND, San Francisco, Cal. Filed Dec. 26, 1912. Serial No. 738,531. (Cl. 208—45.)

1. A side car attachment for bicycles or motor-cycles consisting of two substantially inverted U-shaped yokes, clips adjustable upon said yokes having ears for mounting one yoke upon an axle of the bicycle, a side wheel mounted within the other of said yokes, and parallel pivotal connections between the adjacent legs of the yokes.

2. A side car attachment for bicycles or motor-cycles consisting of two substantially U-shaped inverted yokes, clips adjustable upon said yokes having ears for mounting one yoke upon an axle of the bicycle, a side wheel mounted within the other of said yokes, parallel pivotal connections between the adjacent legs of the yokes, and automatic means for normally and yieldably maintaining said yokes in a substantially vertical position.

3. A side car attachment for bicycles or motor-cycles consisting of yokes, one of which is adjustable upon an axle of the bicycle, a side wheel upon which the other yoke is adjustable, means for maintaining said yokes in a substantially parallel relation, and a reach rod connecting said means to the forward part of the bicycle frame.



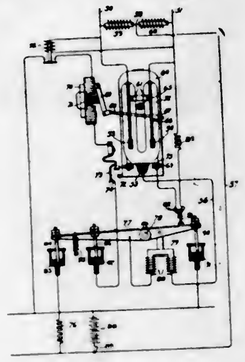
4. A side car attachment for bicycles or motor-cycles consisting of yokes, one of which is adjustable upon an axle of the bicycle, a side wheel upon which the other yoke is adjustable, means for maintaining said yokes in a substantially parallel relation, a reach rod connecting said means to the forward part of the bicycle frame, a variable tension device automatically counteracting the tilting action of said means when the vehicle is making a turn.

5. A side car attachment for bicycles or the like consisting of a side wheel, a yoke shaped frame adjustable upon the axle of the wheel, means connecting the yoke with the bicycle and maintaining it in a substantially parallel relation thereto, and a reach rod having one end connected to the frame adjacent to the said wheel and the forward part connecting with the front of the bicycle frame.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,778. VAPOR ELECTRIC APPARATUS. ALEXANDER CHURCHWARD, New York, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1904. Serial No. 189,464. (Cl. 171—253.)



1. The combination of a vapor electric rectifier, a translating device in the direct current circuit thereof, and means automatically operative on a reduction of current in said device for lowering the total resistance of the direct current circuit.

2. The combination of a vapor electric rectifier, a translating device in the direct current circuit thereof possessing counter-electromotive force, and automatic means for shunting said device by a current-carrying means when the counter-electromotive force becomes excessive.

3. A vapor electric rectifier, and automatic load-varying means for maintaining the total conductance of the direct current circuit of the rectifier high enough to prevent the current from falling below a value necessary to secure stable operation of the rectifier.

4. The combination of a vapor rectifier, and load-varying means responsive to current in the rectified circuit for securing stable operation of the rectifier.

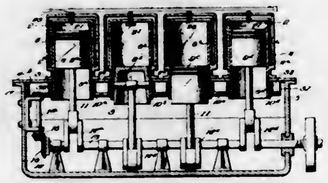
5. The combination of a vapor rectifier, a device possessing counter-electromotive force connected in the rectified circuit, and means for automatically shunting said device upon decrease of current in the rectified circuit.

[Claims 6 to 14 not printed in the Gazette.]



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1,094,779. INTERNAL-COMBUSTION ENGINE. ERNEST A. CUNNINGHAM, Oskaloosa, Iowa, assignor of one-half to John Franklin Hamilton, Oskaloosa, Iowa. Filed Sept. 1, 1911. Serial No. 647,219. (Cl. 123—190.)



1. In an internal combustion engine, the combination with a cylinder and a cylindrical rotatable valve fitting in the cylinder, the cylinder and valve having coacting ports and the valve projecting below the cylinder, of an oil pan surrounding the valve and through which the valve projects, an annular wall on the oil pan surrounding the valve, a downwardly extending web attached to the valve and projecting down over said wall, a gear wheel carried upon said web and disposed within the pan, and a coacting gear wheel disposed within said pan and intermeshing with said first named gear wheel.

2. In an internal combustion engine, the combination with a plurality of cylinders and a plurality of rotatable valves, one for each cylinder and located therein, said valves projecting below the cylinders, of an oil pan extending below the cylinders through the bottom of which the several valves pass, a vertical annular wall surrounding each of the valves and projecting above and below the oil pan, downwardly and outwardly extending annular webs attached to each of the valves and extending down over the corresponding annular wall to the bottom of the oil pan, and gear wheels carried upon the respective webs and intermeshing with each other.

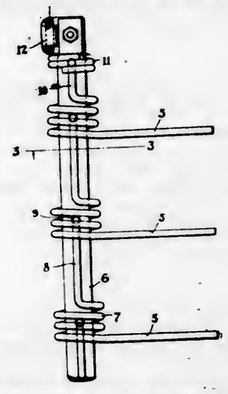
3. In an internal combustion engine, the combination with a cylinder and a cylindrical rotatable valve fitting in the cylinder, the cylinder and valve having coacting ports, of an oil pan surrounding the valve and cylinder, and through which the valve projects, an annular wall on the oil pan surrounding the valve, a gear wheel carried by the valve but disposed within the pan below the upper edge of said wall, and a coacting gear wheel disposed within said pan and intermeshing with the first named gear wheel.

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1,094,780. CONVEYER. GEORGE M. DEPEW, Canandaigua, N. Y. Filed Nov. 22, 1913. Serial No. 802,503. (Cl. 193—8.)

1. A structure, comprising an elongated support and a series of fingers projecting therefrom, in which each finger has an extremity in locking engagement with the support, to retain it in place thereon, and each finger has a portion which surrounds the support and said extremity of the next finger and retains the latter in such locking engagement with the support.

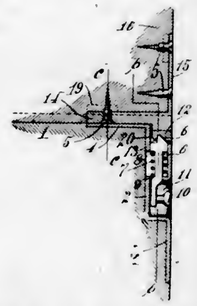
2. A structure, comprising an elongated support provided with a series of recesses, and a series of fingers projecting therefrom, in which each finger has a portion entering one of said recesses, to secure the finger in place on the support, and each finger has also a part which engages the next finger to maintain its said portion in engagement with the corresponding recess.



3. A structure, comprising an elongated support provided with a series of recesses, and a series of fingers mounted on and projecting from the support, in which each finger consists of a single length of spring-wire bent to form an extremity engaging one of said recesses, an intermediate portion coiled about the support and also engaging and retaining the extremity of the next finger, and an arm projecting from the support.

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1,094,781. LATCH FOR SLEEPING-CAR HEAD-BOARDS. CLARK L. DORNEY, Dayton, Ohio. Filed Jan. 14, 1914. Serial No. 811,955. (Cl. 105—210.)



1. A lock for sleeping car head-boards, comprising a member adapted to be attached to the head-board and having a downwardly extended socket lug, a member adapted to be attached to the wall connecting the backs of the seats, said last named member having an opening to receive the socket lug of the first named member, and a pocket in the vertical portion thereof, and a latch slidably mounted in the vertical portion of the last named member and adapted to engage the socket lug of said first named member, said latch having a knob lying within the pocket in the vertical portion of the last named member.

2. A seat corner member provided with a T-shaped socket, a head-board corner member, a T-shaped locking lug on said head-board corner member provided with a locking recess and adapted to be received by said socket, and a latch mounted in said seat corner member, one end of said latch lying in said socket and adapted to be received by said locking recess.

3. A seat corner member provided with a T-shaped socket and a longitudinal groove, a head-board corner member adapted to lie in said groove, a T-shaped locking

lug mounted on said head-board corner member provided with a locking recess and adapted to be received by said socket, and a latch mounted in said seat corner member, one end of said latch lying in said socket and adapted to be received by said locking recess.

4. In a device for the purposes specified, a corner member adapted to be united to a head-board, and provided with a downwardly extended locking lug, a corner member adapted to be united to the wall extending between the seats, said last named member having at its upper corner an opening for the reception of said locking lug, a longitudinal recess in its upper angle for the reception of the lower angle of said head-board member, and a pocket in its lower angle portion, and a latch slidably mounted in said lower angle portion with the engaging end thereof lying in the path of said locking lug and adapted to interlock therewith when said lug is moved into the opening in the seat member.

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1,094,782. BALL-CASTER. LEWIS DUCRO, Cleveland, Ohio, assignor of one-half to Edward A. O'Neil, Cleveland, Ohio, and one-half to C. W. Fishley and W. J. Ockington. Filed Feb. 16, 1912, Serial No. 678,062. Renewed Jan. 29, 1914. Serial No. 815,287. (Cl. 16—45.)

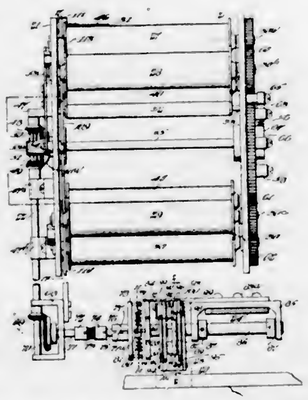


1. In a ball caster, a relatively hard non-rotatably mounted steel bearing ring, and a caster ball mounted beneath and adapted to revolve within said bearing ring.

2. In a ball caster, a non-rotatable removably mounted bearing ring, a caster ball mounted beneath and revoluble within said ring, and means for retaining said caster ball in proper relative position when the latter is moved out of frictional contact with said bearing ring.

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1,094,783. STATION-INDICATOR. GEORGE S. EMERY, Birmingham, Ala. Filed Mar. 27, 1913. Serial No. 757,132. (Cl. 40—47.)



1. A station indicator comprising a revoluble shaft, means controllable by movements of a car for turning said shaft step by step, a flexible shaft section, spring mechanism connecting said first mentioned shaft section with said flexible shaft section, an indicator, a gearing connecting said flexible shaft section with said indicator.

2. A motor mechanism for indicators comprising a revoluble shaft, a pair of cams connected together and mounted loosely upon said revoluble shaft, said cams as a unit being free to swing in two directions, means controllable by the travel of a car for swinging said cams relatively to said shaft, a pair of disks each mounted loosely upon said shaft and each disposed adjacent one of said cams, a pin carried by each disk and disposed partially within the path of travel of the adjacent cam, in order to enable each cam when rocked in one direction to rock one of said disks in the same direction, a pair of pawls each carried by one of said disks, said pawls extending in opposite rotary directions, a pair of ratchet wheels mounted rigidly upon said shaft, each ratchet wheel mating one of said pawls and being arranged to turn the shaft in one direction, and mechanism controllable by the swinging of said cams in either direction for throwing one of said pawls out of engagement with its mating ratchet.

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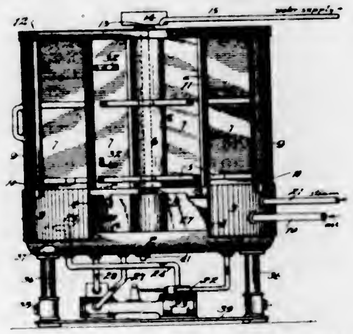
1,094,784. SANITARY BOTTLE-CLOSER. CARL HENRY EPPLE, Oakland, Cal. Filed Jan. 18, 1913. Serial No. 742,915. (Cl. 215—53.)



The combination with a bottle and a closure cap therefor, of an opener for the cap comprising a substantially rigid frame composed of parallel bars extending beneath the cap, a tab connected with said bars and projecting above the cap, and a sheath disposed about said bars, substantially as described.

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1,094,785. MILK-TANK WASHER AND STERILIZER. FRED H. GREEN, San Francisco, Cal. Filed Feb. 24, 1913. Serial No. 750,256. (Cl. 141—7.)



1. An apparatus for cleansing containers, said apparatus comprising a bottom portion having a water holding chamber and an annular rim thereabout, a rotary carrier having supports upon which may be deposited the containers to be cleansed, a circumferentially adjustable housing supported upon said rim and open at one side, a cover for the housing, said carrier having a plurality of radial partitions forming compartments closed in part by said housing, and means for discharging cleansing sprays upwardly toward the containers on said carrier in the compartments.

2. An apparatus for cleansing containers, said apparatus comprising a bottom portion having a water holding chamber and an annular rim thereabout, a rotary carrier having supports upon which may be deposited the containers to be cleansed, a circumferentially adjustable housing supported upon said rim and open at one side, a cover for the housing, said carrier having a plurality of radial partitions forming compartments closed in part by said housing, and means for discharging cleansing sprays upwardly toward the containers on said carrier in the compartments, said rim being provided with an opening forming a gateway through which access may be had to place containers to be cleansed on the supports of the carrier.

3. A device for cleansing containers comprising a basin having an upwardly projecting rim with an opening, a segmental casing with an opening between its edges and adjustably supported on the upper edge of said rim, a water containing compartment within the rim and above the basin, a carrier forming separate compartments, each having supports for receiving vessels or articles to be cleansed, and being rotatable within the housing and supported upon said basin, a pump having suction and discharge connections for constantly circulating a charge of water through said compartment, an air coil and its nozzle, and a steam chamber in which said coil is mounted, whereby a heated blast of air may be projected against the vessels.

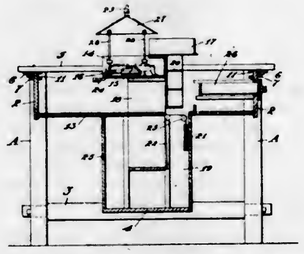
4. An apparatus for washing, sterilizing and drying containers or other articles, said apparatus comprising a water container, a pump having suction and discharge connections with said container for circulating the water therein, a series of spray nozzles attached to the pump discharge connection for directing sprays of water against articles to be washed, a rotary carrier having supports upon which may be disposed the articles to be washed, said carrier having partitions forming separate compartments, an adjustable housing having a water-shedding joint with and resting upon said water container, said housing closing the compartments of the carrier, and a series of steam discharging nozzles mounted upon the water container for discharging steam against the articles thereon.

5. An apparatus for washing, sterilizing and drying containers or other articles, said apparatus comprising a water container, a pump having suction and discharge connections with said container for circulating the water therein, a series of spray nozzles attached to the pump discharge connection for directing sprays of water against articles to be washed, a rotary carrier having supports upon which may be disposed the articles to be washed, said carrier having partitions forming separate compartments, an adjustable housing having a water-shedding joint with and resting upon said water container, said housing closing the compartments of the carrier, a series of steam discharging nozzles mounted upon the water container for discharging steam against the articles thereon, and an air blast nozzle arranged upon the water container for discharging a blast of air against said articles.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,786. CABINET-TABLE. CHARLES B. HEATH, San Francisco, Cal., assignor of one-half to George W. Quigley, San Francisco, Cal. Filed Jan. 15, 1913. Serial No. 742,131. (Cl. 45—17.)

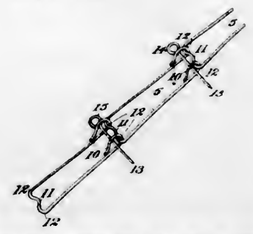


The combination with a table having a slidable top and a recess beneath the top, of a box-like structure in the recess beneath the top, a top on said structure adapted to fold back to form a shelf, a burner in said structure, a removable hood mountable on said structure, slides on which the structure is mounted, guides in which the slides are vertically movable, means for counterweighting the structure not sufficient to elevate it, and means for holding the structure in its uppermost position.

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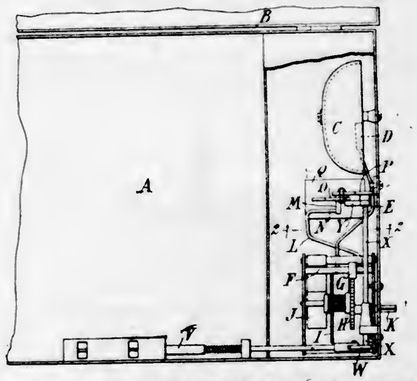
1,094,787. BED SPRING FABRIC. JOHN HOEY, San Francisco, Cal. Filed Sept. 30, 1913. Serial No. 792,585. (Cl. 245—5.)



A bed spring fabric composed of rows of connected links, said links being U-shaped, the free ends of the legs of which links are bent to form eyes, the connecting ends of the links being centrally inwardly bowed to form a pair of spaced seats which latter receive the eyes of the next adjacent links, independent transverse rods passed through the eyes of said rows of links and disposed between the connecting ends of the links and the inner ends of the eyes that are connected to said last-named links, and eyes formed on the ends of said transverse rods to limit the outward movement of the outermost rows of links by engagement with the eyes of said outermost rows of links.

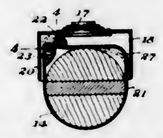
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1,094,788. SAFETY JEWEL-BOX. RALPH HOPKINS, New York, N. Y. Filed Feb. 3, 1908. Serial No. 414,148. (Cl. 110—44.)



A safety jewel box or the like, having a lid, a lock for locking said lid in closed position, an alarm mechanism comprising a bell, a striker, and a motor for operating said striker, a stop arm on said motor, a weighted lever for engaging said stop-arm to prevent operation of said motor, a detent for engaging said weighted lever and holding it in unstable position, said detent being held in position to retain said weighted lever in unstable position by bearing upon an object in proximity thereto, and lock-actuated means for holding said weighted lever in unstable position, said lever when in unstable position holding said motor inoperative, said lock-actuated means being operable to release said weighted lever to free the motor when the lock is locked and said detent is released, said lock-actuated means holding the weighted lever positively locked when the lock is unlocked.

1,094,789. PUSH-BUTTON SUPPORT FOR MOTOR-VEHICLES. ORMOND E. HUNT, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed July 19, 1910. Serial No. 572,775. (Cl. 177—10.)



1. The combination with a motor vehicle steering wheel, of a push button support thereon, and means for clamping said support to said wheel, including a latching device adapted to be released, to permit removal of said support by a rotative movement applied to the support.

2. The combination with a support for a push button, of a flexible attaching band connected thereto, latching means for detachably securing one end of said band to said support, said latching means being released by flexing said band.

3. The combination with a support for a push button, of a yielding attaching band connected thereto, latching means for detachably securing one end of said band to said support, said band normally holding said latching means against releasing movement and permitting the same to be released by flexing said band.

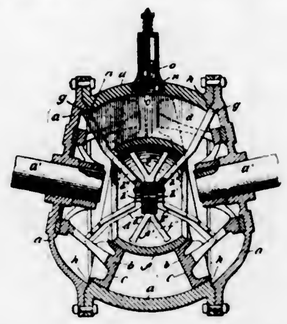
4. The combination with a support for a push button, of an attaching band connected thereto, latching means for detachably securing one end of said band to said support, and means whereby said band prevents release movement of said latching means.

5. The combination with a support for a push button, of a flexible attaching band connected thereto, latching means for detachably securing one end of said band to said support, and means whereby said band prevents release movement of said latch, said means being constructed to release said latch when said band is flexed.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,790. ROTARY INTERNAL-COMBUSTION ENGINE. JOHN ROYAL JAHN, Riverside, Cal. Filed Mar. 27, 1912. Serial No. 686,588. (Cl. 123—8.)



1. In a rotary internal-combustion engine of the compression type, a casing, rotary means therein forming with the casing an annular continuous chamber widening from one point uniformly to a point directly opposite, a series of radial diaphragms dividing said chamber into compartments and adapted to rotate with said rotary means, whereby during rotation said compartments constantly vary in volume, inlet and exhaust mechanism, and igniting means, the arrangement of inlet and exhaust mechanism and igniting means being such that the compression in the respective compartments is completed at the narrowest part of said annular chamber.

2. In a rotary internal-combustion engine of the compression type, the combination of a casing, a pair of oppositely disposed rotary disks supported out of alinement with a continuous annular chamber between their working faces, a shaft attached to one of said disks, a central rotary member forming the inner wall of said annular chamber, diaphragms rotatable with the disks and bridging said chamber at intervals to form a series of compartments, whereby during rotation said compartments constantly vary in volume, inlet and exhaust devices, and igniting means, the arrangement of inlet and exhaust mechanism and igniting means being such that the compression in the respective compartments is completed at the narrowest part of said annular chamber.

3. In a rotary internal-combustion engine of the compression type, a casing, rotary means therein forming with the casing a continuous annular chamber widening from one point to a point directly opposite, diaphragms dividing said chamber into compartments and adapted to rotate with said rotary means, whereby during rotation said compartments constantly vary in volume, inlet and exhaust mechanism, igniting means, and power transmitting means connected to said chamber forming means, the arrangement of inlet and exhaust mechanism and igniting means being such that the compression in the respective compartments is completed at the narrowest part of said annular chamber.

4. In a rotary internal-combustion engine of the compression type, a casing, rotary oppositely-disposed disks set out of contact with each other to form an annular chamber, power transmitting means connected to at least one of said disks, diaphragms bridging the chamber formed between the disks and forming a series of compartments, said diaphragms being adapted to rotate with the disks, a central spherical member having contact with the inner edges of the disks and the inner edges of said diaphragms, whereby during rotation said compartments constantly vary in volume, inlet and exhaust means, and igniting means, the arrangement of inlet and exhaust mechanism and igniting means being such that the compression in the respective compartments is completed at the narrowest part of said annular chamber.

5. In a rotary internal-combustion engine of the compression type, the combination of a casing, a central member, a pair of conical disks rotarily supported between the casing and said central member, said disks having their axes out of alinement so as to form a continuous annular chamber widening from one point to a point directly opposite, power transferring means connected to one of the disks, radial diaphragms rotatable with the disks and bridging said annular chamber whereby upon rotation of the disks and diaphragms the compartments formed by the diaphragms shall constantly vary in volume, and inlet and exhaust mechanism and igniting means, the arrangement of inlet and exhaust mechanism and igniting means being such that the compression in the respective compartments is completed at the narrowest part of said annular chamber.

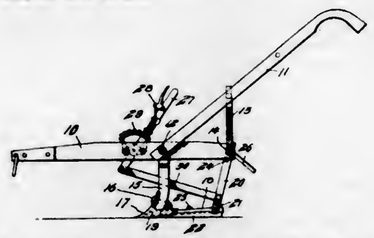
[Claim 6 not printed in the Gazette.]

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1,094,791. PLOW. THOMAS FRASER JAMES, Darlington, S. C. Filed Aug. 7, 1913. Serial No. 783,562. (Cl. 97—26.)

1. In a plow, the combination of a draft beam, a pair of downwardly extending links pivoted to said beam, the pivotal connection of one of the links being adjustable to permit raising and lowering of the link relative to the beam, a bar pivoted to the lower ends of said links and normally arranged substantially parallel with said beam, a hand lever pivoted to said beam and extending thereabove, a link connected with the lower end of said lever and one of the first mentioned links, and means for locking said lever in different positions.

2. In a plow, the combination of a draft beam, a downwardly extending link pivoted to said beam, a bar pivoted to the lower end of said link and extending rearwardly thereof, a link pivoted to the rearward end of said bar, a pin and slot connection between the latter link and said beam, and a rotatable wedge on said pin for securing the link to the beam.



3. In a plow, the combination of a draft beam, comprising two bars spaced apart at their rearward ends, a downwardly extending link pivotally arranged between said bars, a bar pivoted to the lower end of said link and extending rearwardly thereof, a link having its lower end pivoted to the rearward end of said last mentioned bar and its upper end arranged between the bars of said beam and having a longitudinal slot therein, a bolt carried by said beam and extending through said slot, and a rotatable wedge member arranged on said bolt and adapted to clamp said link to the said beam.

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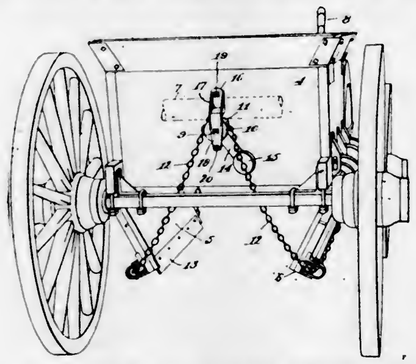
1,094,792. DRAFT-GEAR FOR CARS. GEORGE T. JOHNSON, Columbus, Ohio, assignor to The Buckeye Steel Castings Co., Columbus, Ohio. Filed Mar. 10, 1913. Serial No. 753,371. (Cl. 213—42.)



In a draft gear for cars, the combination of a pair of oppositely disposed abutments, and a yoke comprising top and bottom members, rear end and hooded front end, the yoke being provided adjacent one end with two pairs of oppositely disposed shoulders, one pair projecting laterally from the upper member of the yoke and the other pair projecting laterally from the lower member of said yoke and all of them adapted to engage the said abutments.

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1,094,793. COUNTERBALANCE FOR DOORS OF DUMP-WAGONS. HARRY D. JOHNSON, Jr., South Bend, Ind. Filed Mar. 3, 1913. Serial No. 751,965. (Cl. 21—20.)

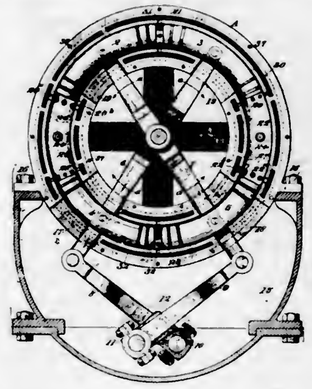


1. A dumping wagon comprising swinging doors, a chain for operating them, a stationary bracket and a counter-balancing means having a projecting weighted arm to pull said chain in one direction and adapted to engage said bracket at a plurality of points to limit the rotary movement of said counter-balancing means.

2. A dumping wagon comprising swinging doors, a chain for operating them, a stationary bracket having upper and lower stops and a counter-balancing means having a weighted portion to pull said chain in one direction and adapted to engage said stops to limit the rotary movement of said counter-balancing means.

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1,094,794. OSCILLATING GAS-ENGINE. JOHN T. KEMPER and CHARLES W. KEMPER, Garberville, Cal., assignors of one-third to Emma A. Turner, Garberville, Cal. Filed Jan. 29, 1913. Serial No. 744,948. (Cl. 123—18.)



1. An oscillating piston gas engine, comprising in combination, a circular-shaped cylinder casting, an annular, continuous cylinder chamber in said casting, a plurality of oscillataing pistons mounted in the cylinder, a pair of centrally pivoted oscillating arms to which the pistons are connected, means for supporting a central pivot member about which the arms and pistons oscillate, radial slots formed in the cylinder casting to permit oscillatory movement of the connecting arms with relation to the pistons, a crank case to which the cylinder casting is secured, a crank shaft journaled in said case, connecting rods connecting the crank shaft with the piston connecting arms, means for conducting an explosive mixture to the cylinder, means for igniting the mixture, and means for scavenging the cylinder.

2. In an engine of the class described, the combination of a cylinder casting, a continuous circular cylinder chamber within said casting, two pair of oppositely-oscillating pistons in said cylinder, a pair of pivoted oscillatory arms to which said pistons are connected, means for transmitting the oscillating movement of said arms to a rotary crank-shaft, a pair of compression chambers formed between the ends on one side of said pistons, a pair of explosion chambers formed between the other ends of the pistons, exhaust ports leading from said explosion chambers, means for admitting explosive charges to the compression chambers, means for conveying said explosive mixture when compressed to the explosion chambers, and means for igniting said explosive charges in the explosion chambers.

3. An oscillating piston engine, comprising in combination a cylinder casting, a continuous circular cylinder chamber within said casting, two pairs of double-ended pistons mounted to oscillate in said cylinder, a pair of pivoted oscillatory arms to the opposite ends of which the pistons are secured, connecting rods connecting said oscillating arms with a crank-shaft, a pair of compression chambers formed between the ends on one side of the pistons, a pair of explosion chambers formed between the other ends of the piston, exhaust ports formed on one end of said explosion chambers, inlet ports formed in the opposite ends of said explosion chambers, intake ports

formed in the compression chambers connected with a source of gas supply, passages formed in the cylinder connecting the intake ports in the explosion chambers with the compression chambers, and means for igniting the gas admitted into the explosion chambers.

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1,094,795. NECKTIE-FASTENER. WILLIAM H. LAUDE and FREDERICK PULESTON, Monticello, Iowa. Filed Mar. 12, 1913. Serial No. 753,853. (Cl. 24—49.)



1. The herein described tie-holder comprising a base plate adapted to be secured to a tie, a spring clamp element bent at its central portion to form a medial groove and spaced transverse shoulders adjacent said groove, one on each side thereof, and a staple extending through said base plate and having its ends bent into said groove and spaced from the ends thereof, whereby said ends may co-act with the portions of the shoulders lying between the ends and the end of the groove, in centering and retaining the tie-holder on a collar button.

2. The herein described tie holder comprising a base plate adapted to be secured to a tie, a spring clamp element bent at its central portion to form a medial groove, and spaced transverse shoulders adjacent said groove one on each side thereof, and connecting means between said base plate and spring clamp element, said connecting means extending into said groove and adapted to co-act with the portions of the shoulders lying between the connecting means and the ends of the groove in centering and retaining the tie holder on a collar button.

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1,094,796. MEANS FOR CLOSING VALVES. HENRY W. LEVERING, Philadelphia, Pa., assignor to I X L Pump and Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 3, 1911. Serial No. 618,686. (Cl. 137—104.)



1. The combination of a valve with valve closing means comprising a member pivotally supported in proximity to said valve and having portions upon opposite sides of its pivot which are adapted to contact with the valve to close the same, one of said portions being adapted to close the valve when the said member and valve are mounted in one position and the said member is moved pivotally in one direction and the other of said portions being adapted to close the valve when the said member and valve are mounted in reversed position and said member is moved pivotally in the same direction.

2. The combination of a valve with valve closing means which means comprises an oblong member pivoted at its center and having portions upon opposite sides of its pivot which are adapted to contact with the valve to close the same, one of the said portions being adapted to operate against the valve when the said member and valve are mounted in one position and the said member is moved pivotally in one direction and the other of said portions being adapted to operate against the valve to close the same when the said member and valve are mounted in reversed position and said member is moved in the same direction, and means for causing movement of the said pivotal member.

3. The combination of a valve adapted to control the issue of water into a water closet tank with means for closing the said valve which means comprises a lever having a float at one end thereof which is adapted to be lifted by the water entering the said tank and the said lever having at its end opposite said float a cam member pivoted in proximity to the valve, the said cam member having operating surfaces upon opposite sides of its pivot one of which is adapted to operate against the valve to close the same when the said cam member and the valve are mounted in one position and the said cam member is pivotally moved in one direction and the other of said surfaces being adapted to operate to close the valve when the said cam member and valve are mounted in a reversed position and said cam member is moved pivotally in the same direction.

4. In a device for controlling the issue of water into a water closet tank, a valve, means for closing the valve, said valve adapted to be located at the bottom or the top of said tank, the said means comprising a lever or arm having upon one end a float which is adapted to be lifted by the entry of water into the said tank and the opposite end of the said lever being provided with a cam, means for pivotally supporting the said cam in proximity to said valve, the said cam having valve actuating portions located upon opposite sides of its pivot, one of the said actuating portions adapted to operate to close the valve when the valve is located at the bottom of the tank when the said float is lifted and the other of the said actuating portions adapted to operate to close the valve when it is reversed and located at the top of the tank when the float is lifted.

5. In a device for controlling the issue of water into a water closet tank, a valve, means for closing the valve, said valve adapted to be located at the bottom or the top of said tank, the said means comprising a lever or arm having a float connected at its outer end which is adapted to be lifted by the flow of water into the said tank, and a cam of oblong shape rigidly connected to the said lever or arm at its opposite inner end, the said cam being pivoted at its center, means for supporting the said pivoted cam in proximity to said valve, the said cam being provided with portions adjacent to its opposite ends and upon the opposite sides of its pivot, one of which portions is adapted to contact with the valve when located at the bottom of the tank to close the same when the float is lifted and the other of the said portions adapted to contact with the valve when in reversed position and located at the top of the tank to close the same when the said float is lifted, and the intermediate portion of the said cam being situated opposite the valve when the said float is in its lower position, whereby the pressure of the water from the water supply occasions the opening of the valve to permit the entry of the water into the said tank to raise the said float and thereby close the valve.

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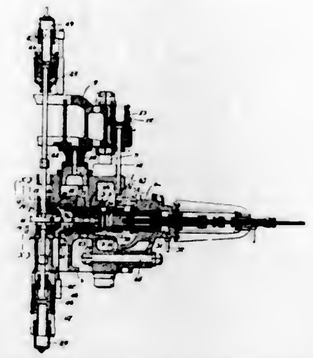
1,094,797. FORGING-MACHINE. HENRIK V. LOSS, Philadelphia, Pa. Filed May 14, 1912. Serial No. 697,151. (Cl. 78—17.)

1. In an upsetting machine, in combination, a stationary frame enveloping a separate movable frame, said movable frame, means for guiding and means for elevating and depressing said movable frame within said stationary frame, a central separable die one part of which is carried by said stationary frame and the other part by said movable frame, separable longitudinally movable dies one part of which is carried by said stationary and the other part by said movable frame, a header die, a piston carrying said header die, a piston inclosing a cylinder in which said first piston works, a cylinder in which said second piston works, and means for admitting a liquid under pressure to said cylinders.

2. In a forging machine, in combination, a stationary frame enveloping a separate movable frame, said movable frame, guides carried by said movable frame, a die-block carried by said guides and movable longitudinally



thereon, an upper die section carried by said die block, rollers interposed between said movable frame and said die-block, a die-block carried by the stationary frame, a die-section carried by and movable longitudinally with said die-block, rollers interposed between said die-block and said frame, and means for actuating said die-blocks and connected parts longitudinally.



3. The combination with a die substantially as set forth, of a removable end consisting of an inner and an outer part, means for removably connecting said two parts, and means for removably attaching said parts to the die sections.

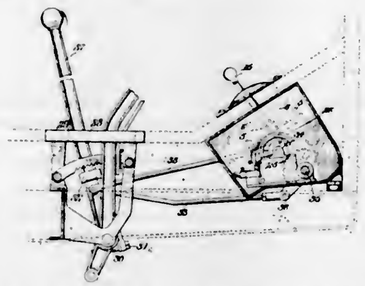
4. In combination, a die section the end of which is turned out to form a hook, a grooved piece adapted to be carried by said hook, a wearing face furnished with longitudinal perforations to receive bolts, bolts passing through said perforations their threaded end entering said grooved piece, and nuts located in said grooved piece for securing said bolts and wearing face.

5. In a forging machine, in combination, a longitudinally separable central die, die blocks carrying said die, and wedges transverse to and back of said die whereby said die sections may be lowered and lifted.

[Claims 6 to 20 not printed in the Gazette.]

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1,094,798. SAFETY-SWITCH FOR MOTOR-VEHICLES. WILLIAM MACGLASHAN, South Bend, Ind., assignor to The Studebaker Corporation, South Bend, Ind., a Corporation of New Jersey. Filed Feb. 5, 1913. Serial No. 746,327. (Cl. 172—179.)



1. In an electrically driven motor vehicle, a controller, a switch for making and breaking the circuit independently of the controller, the switch being in the form of a swinging lever carrying a contact member, a spring-pressed latch inclosed within the lever, and not within the control of the operator, for locking the switch out and holding the circuit open, and a member connected to and actuated by the controller for rendering said locking means inoperative when the controller is at neutral, the switch when closed being free so that it can be thrown open at any time.

2. In an electrically driven motor vehicle, a controller, a switch for making and breaking the circuit, automatic means for locking the switch out of contact, holding the circuit open, means for centering the switch and bringing it into locking position when it is thrown out of contact, and means automatically rendering said locking means inoperative when the controller is at neutral.

3. In an electrically driven motor vehicle, a controller, a pivoted switch for making and breaking the circuit, a spring-actuated bolt on said switch, a fixed retainer engaging the bolt as the switch is oscillated and holding it in retracted position, the retainer being apertured to release the bolt and receive it to hold the switch in inoperative position when the circuit is open, means for closing the aperture in the retainer, and means connected to the controller and to the closing means for actuating the latter to close the aperture.

4. In an electrically driven motor vehicle, a controller, a pivoted switch for making and breaking the circuit, a spring-actuated bolt on said switch, a fixed retainer engaging the bolt as the switch is oscillated and holding it in retracted position, the retainer being apertured to admit the bolt to hold the switch in inoperative position with the circuit open, means for closing the aperture in the retainer, and means connected to the controller and to the closing means for actuating the latter to close the aperture when the controller is in neutral position.

5. In a motor vehicle, a controller, a pivoted switch for making and breaking the circuit, a spring actuated bolt carried by said switch, a fixed retainer engaging the bolt as the switch is oscillated and holding it in retracted position, the retainer being apertured to release and admit the bolt, and hold the switch in inoperative position with the circuit open, a sliding pin for closing the aperture in the retainer and a cam connected to the controller and engaging the pin to place the same on a level with the surface of the retainer when the controller is in neutral position, closing the aperture and freeing the switch.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,799. METHOD OF WATERMARKING PAPER. WILLIAM J. F. MAIDHOF, New York, N. Y. Filed Oct. 6, 1909. Serial No. 521,353. (Cl. 92—68.)

1. The method of water-marking paper consisting in subjecting the paper to the action of a printing or embossing machine while a rounghened sheet is interposed between the printing face of the form and the paper to be marked.

2. The method of water-marking paper consisting in subjecting the paper to the action of a printing or embossing machine while a sheet of textile fabric is interposed between the printing face of the form and the paper to be marked.

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1,094,800. METHOD OF WATERMARKING PAPER. WILLIAM J. F. MAIDHOF, New York, N. Y. Filed Oct. 6, 1909. Serial No. 521,354. (Cl. 92—68.)

1. The method of water-marking paper consisting in subjecting the paper to a direct contact with the form of a printing or embossing machine while a roughened sheet is interposed between the paper to be marked and the impression surface.

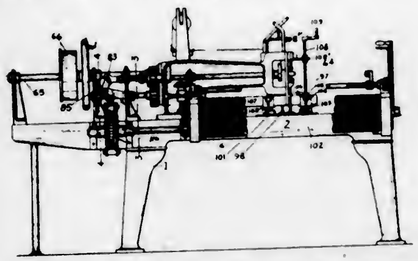
2. The method of water-marking paper consisting in subjecting the paper to direct contact with the form of a printing or embossing machine while a sheet of textile fabric is interposed between the paper to be marked and the impression surface.

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1,094,801. BELT-MACHINE. GEORGE LAWRENCE MARK, Roland Park, Md., assignor to The Gandy Belting Company of Baltimore City, a Corporation of Maryland. Filed Mar. 25, 1912. Serial No. 686,074. (Cl. 112—24.)

1. In a machine for making stitched belting, having central bands and a cover, stitching means including a

needle, feed rolls beyond the stitching means, means for driving the feed rolls to draw the material forward, and temple rolls adjacent the needle to draw and hold the edge portions of the cover together.



2. In a machine for making stitched fabric belting, having central bands and a cover, stitching means, feed rolls for drawing the material forward, and temple rolls having their axes converging in the direction from which the material is fed, placed adjacent the stitching means, for drawing and holding the edge portions of the cover together.

3. In a machine for making stitched fabric belting, having a cover inclosing central bands, in combination, means for drawing the material through the machine, means for supplying internal strips or layers, means for applying tension to each strip, means for supplying a cover strip, means for applying tension to that strip, means for folding the cover about the internal strips, inwardly inclined temple rolls, all on the same side of the material and engaging the material from that side to draw the edges together and hold them, and means for stitching the edges when so held.

4. In a belt making machine, in combination, means for supplying central bands or strips, means for supplying a cover, means for drawing the material through the machine, a rack to guide the bands and turn the cover at each side about the bands, a folder, and temple rolls thereon to guide the edges of the cover and draw them together, a sewing machine having a plurality of needles, a pair of temple rolls in front of the needles to draw and hold the edges of the material together as they are presented to the needles.

5. In a belt making machine, in combination, means for supplying central bands, means for supplying a cover strip twice as wide as the bands, means for guiding the bands, and means for turning the cover at each side about the bands, a folder, freely rotating temple rolls thereon to engage the edges of the cover and draw them together, the rolls converging in the direction from which the material is fed, being placed above the material and engaging the material on the upper side, and means for drawing the material through the machine and stitching the edges of the cover.

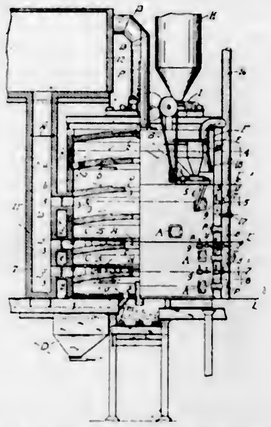
[Claims 6 to 22 not printed in the Gazette.]

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1,094,802. METALLIZING-FURNACE. EDWARD P. MATHEWSON and FREDERICK LAIST, Anaconda, Mont. Filed Dec. 3, 1913. Serial No. 804,415. (Cl. 75—143.)

1. A combined oxidizing and reducing metallurgical furnace comprising a series of superposed intercommunicating hearths discharging successively into one another, a direct firing means coöperating with an intermediate hearth, a combustion chamber interposed between the hearth immediately beneath the direct-fired hearth and the next hearth below, a flue for discharging the waste gases from the combustion chamber to a point outside the furnace, and means in said flue for diverting such waste gases into the direct-fired hearth.

2. A combined oxidizing and reducing metallurgical furnace comprising a series of superposed intercommunicating hearths discharging successively into one another, means for direct-firing an intermediate hearth of the series, a muffle-hearth below the direct-fired hearth, means for conducting the waste gases from the combustion chamber identified with the muffle hearth to a point outside the furnace, and means for diverting said waste gases into the direct-fired hearth.



3. A combined oxidizing and reducing metallurgical furnace comprising a series of superposed intercommunicating hearths discharging successively into one another, means for direct-firing an intermediate hearth of said series, a muffle-hearth contiguous to said direct-fired hearth, a main waste-gas flue, means for conducting the waste gases from the combustion chamber identified with the muffle-hearth to said main flue, a gas flue for conducting the waste gases from the several oxidizing hearths to the main flue, means for diverting any desired portion of the waste gases from the muffle-hearth combustion chamber into the direct-fired hearth, and independent means for conducting away the waste gases from the muffle hearth.

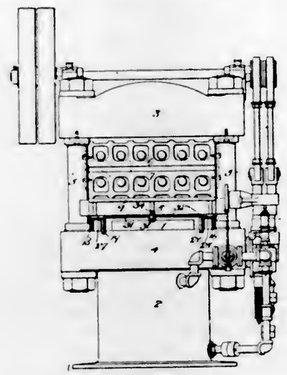
4. A combined oxidizing and reducing metallurgical furnace comprising a series of superposed intercommunicating hearths discharging successively into one another, a direct-firing means coöperating with an intermediate hearth, combustion chambers interposed between the hearth immediately beneath the direct-fired hearth and the next hearth below and the last hearth and the succeeding lower hearth, means independent of the direct-firing means for heating said combustion chambers, an uptake-flue for conducting away the combustion products from said chambers, a damper in said flue, means below the damper for establishing communication between said flue and the direct-fired hearth, means for feeding carbonaceous fuel to the hearth immediately beneath the direct-fired hearth, means in the hearths below the direct-fired hearth for thoroughly commingling the fuel with the roasted charge delivered to said hearths, a flue for conducting the roaster gases from the direct-fired hearth and the hearths above the same, and means for conducting from said reduction hearths the gases evolved from the reaction of reduction.

5. A combined oxidizing and reducing metallurgical furnace comprising a series of superposed intercommunicating hearths discharging successively into one another, means for direct-firing an intermediate hearth of the series, a muffle-hearth contiguous to said direct-fired hearth, means for discharging at a point outside the furnace the waste gases of the muffle-heating means, means for conducting away the waste gases from the direct-fired hearth and hearths above the same, means for diverting the waste gases of the muffle-heating means into the direct-fired hearth, means for feeding reduction fuel to the muffle-hearth, and means for conducting away the gases evolved from the reaction of reduction to a point outside the furnace.

[Claims 6 to 8 not printed in the Gazette.]



1,094,803. HYDRAULIC PRESS. MILTON A. MCKEE, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 14, 1911. Serial No. 621,093. (Cl. 198—3.)



1. In a power press, a yoke, a plunger, upper and lower platens interposed between the top of the yoke and the plunger, heating means for the platens and means for normally holding the lower platen separated from the plunger.

2. In a power press, a yoke, a plunger, upper and lower platens interposed between the top of the yoke and the plunger, heating means for the platens and means for normally holding the upper platen separated from the top of the yoke.

3. In a power press, a yoke, a plunger, upper and lower platens interposed between the top of the yoke and the plunger, heating means for the platens and means for normally holding the lower platen separated from the plunger and upper platen separated from the top of the yoke.

4. In a power press, a yoke, a plunger, upper and lower platens interposed between the top of the yoke and the plunger, heating means for platens and means for normally holding the platens separated from each other and from the plunger and top of the yoke.

5. In a power press, a plunger, upper and lower platens, means for normally holding the platens separated from each other, and from the plunger and a manually operated device independent of the plunger for holding the platens together.

[Claims 6 to 11 not printed in the Gazette.]

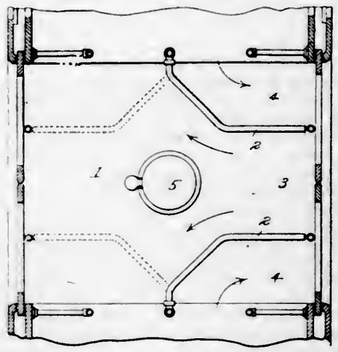
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1,094,804. DOOR OPERATING AND CONTROL DEVICE. WILLIAM S. MENDEN, Brooklyn, N. Y. Original application filed Jan. 2, 1913, Serial No. 739,755. Divided and this application filed Apr. 30, 1913. Serial No. 764,589. (Cl. 105—205.)

1. In a car, an entrance platform intermediately of the ends of said car, side doors for said platform, a revoluble turret in the center of said platform, door operating devices, and operating connections between said devices and said turret.

2. In a car, a platform disposed intermediately of the ends of said car, side doors for said platform, a revoluble turret at the center of said platform, door operating devices, operating connections therefor terminating in said turret, and guide rails arranged transversely of the platform to one side of said turret to form separate passageways for entering and leaving passengers.

3. In a car, a platform disposed intermediately of the ends of said car, side doors for said platform, a revoluble turret at the center of said platform, door operating devices, operating connections therefor terminating in said turret, and guide rails arranged transversely of the platform to one side of said turret to form separate passageways for entering and leaving passengers, said guide rails being suitably mounted to be swung from adjacent one door into position adjacent the other door.



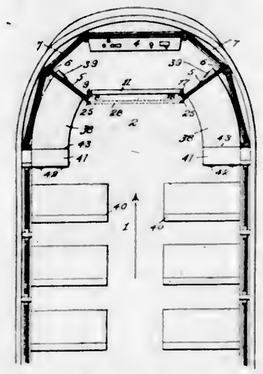
4. In a rapid transit car provided with an entrance platform a door for said platform, a pedestal on said platform adapted to provide a conductor's station, and means for opening and closing said door, said means including a pedal lever mounted on said pedestal.

5. In a rapid transit car provided with an entrance platform, a door for said platform, a pedestal on said platform adapted to provide a conductor's station, and means for opening and closing said door, said means including a pedal lever mounted on said pedestal, and other devices on said pedestal adapted to be manipulated by hand.

[Claims 6 to 23 not printed in the Gazette.]

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1,094,805. STREET-RAILWAY AND OTHER CAR. WILLIAM S. MENDEN, Brooklyn, N. Y. Filed Dec. 2, 1913. Serial No. 804,226. (Cl. 105—205.)



1. In a car, spaced partition sections hinged to the inner wall of the car, said sections being thereby adapted to be folded against the inner wall of the car to be out of the way or to be moved into position forming a compartment, and a tie-bar extending between the adjacent edges of said sections, said tie-bar constituting a barrier across the open space between said sections.

2. In a car, spaced partition sections hinged to the inner wall of the car, said sections being thereby adapted to be folded against the inner wall of the car to be out of the way or to be moved into position forming a compartment, guides mounted on the adjacent edges of said sections, and a flexible panel having means slidably engaging said guides.

3. In a car, the combination with the wall of said car, of spaced partition sections hinged thereto, said sections being thereby adapted to lie against the car wall or caused to project therefrom at an angle, channeled guides mounted on the swinging edges of said sections, a roller extending across the space between said sections when said sections project at an angle from said car wall, and a curtain carried by said roller and having means slidably engaging the channels in said guides.

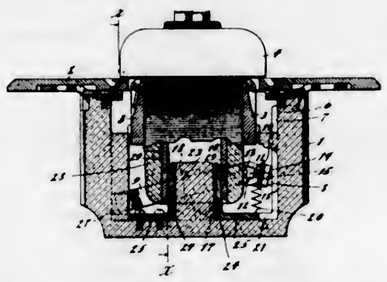
4. In a car provided with a platform and a controller on said platform, a partition comprising sections spaced apart on opposite sides of said controller, and an intermediate section having its lateral edges slidably connected to the adjacent lateral edges of said spaced sections.

5. In a car, the combination with the wall of said car, of spaced partition sections hinged thereto, said sections being thereby adapted to lie against the car wall or caused to project therefrom at an angle, channeled guides mounted on the swinging edges of said sections, a roller extending across the space between said sections when said sections project at an angle from said car wall, a curtain carried by said roller and having means slidably engaging the channels in said guides, and a tie bar pivotally mounted on one of said partition sections and releasably engaging the other.

[Claims 6 to 15 not printed in the Gazette.]

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1,094,806. SWITCH. WILLIAM J. NEWTON, Lynbrook, N. Y., assignor to Metropolitan Electric Mfg. Co., a Corporation of New Jersey. Filed Nov. 15, 1912. Serial No. 731,520. (Cl. 175—282.)



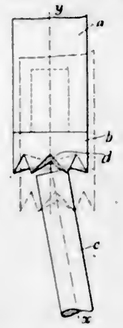
1. In combination, a receptacle provided with a pair of interior contacts, a hollow plug containing on its interior a pair of contacts corresponding to those in the receptacle, and an electric switch located within the receptacle and having its movable member in the path of travel of the wall of said plug whereby the plug is adapted to actuate the switch.

2. A receptacle provided with a rectangular internal lug projecting from its bottom, two contacts located against opposite faces of said lug, two mechanically independent electric switch levers mounted in said receptacle and controlling the circuit to said contacts, in combination with a plug having a rectangular orifice therein adapted to fit over said lug, said plug having two internal contacts adapted to engage with the contacts in the receptacle, and said switch levers being located in the path of travel of the wall of said plug.

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1,094,807. PROCESS OF FORMING AND SHARPENING DRILL-BITS AND THE LIKE. HARRY JOHAN HJALMAR NATHORST and GOTTHARD LUNDSTRÖM, Gellivare Malmfält, Malmberget, Sweden, assignors, by mesne assignments, to Nya Aktiebolaget Altas, Stockholm, Sweden. Filed Dec. 7, 1909. Serial No. 531,806. (Cl. 76—108.)

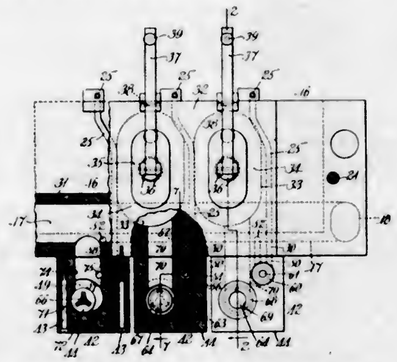
The process of forming and sharpening cutting edges on drill bits and the like which consists in heating the drill bit and holding it so that it may rotate, operating upon the same by a stamp moving at an angle to the axis of the drill bit, and rotating one of said parts in



contact with the other, thus imparting rotary motion to the latter during the said operation.

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1,094,808. PNEUMATIC PLAYER-ACTION. GUSTAF W. PAULSON, Belmont, and RUDOLF PAULSON, Boston, Mass., assignors to Henry F. Miller & Sons Piano Company, a Corporation of Massachusetts. Filed Oct. 18, 1909. Serial No. 523,277. (Cl. 84—178.)



1. In a pneumatic action for musical instruments, the combination of a main casing forming a vacuum chamber, a series of striking pneumatics, a tracker provided with a series of ports, said casing being provided with a series of ports leading from said vacuum chamber, a series of ports respectively leading from said pneumatics, and a series of ports respectively connected to said ports of said tracker, a series of distinct unitary independently demountable casings each provided with a port registering with one of said ports leading from said vacuum chamber, a port registering with one of said ports leading from said pneumatics, and a port registering with one of the ports connected to said tracker, and means comprising a primary valve and a secondary valve located in said demountable casings respectively for controlling the communication between said striking pneumatics and said vacuum chamber.

2. In a pneumatic action for musical instruments, a wind chest provided with a vacuum chamber, a striking pneumatic and a tracker in combination with a distinct unitary demountable casing provided with a plurality of ports adapted to register with a plurality of ports located in the walls of said wind chest, said wind chest ports connected to said vacuum chamber, to said striking pneumatic and to said tracker, respectively, and means comprising a primary valve and a secondary valve located in said demountable casing, respectively, for controlling the communication between said striking pneumatics and said vacuum chamber.

3. In a pneumatic action for musical instruments, the combination of a main casing forming a vacuum chamber, a series of striking pneumatics, a series of tubes leading to the tracker, said casing being provided with a series of ports leading from said vacuum chamber, a series of ports respectively leading from said pneumatics, and a series of ports respectively connected to said tracker tubes, a series of distinct unitary independently demountable casings, each provided with a port registering with one of said ports leading from said vacuum chamber, a port registering with one of said ports leading from said pneumatics, and a port registering with one of the ports connected to said tracker, and means located in said demountable casings for controlling the communication between said striking pneumatics and said vacuum chamber.

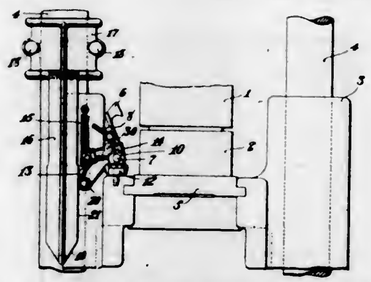
4. In a pneumatic action for musical instruments, a wind chest provided with a vacuum chamber, a striking pneumatic and a tube leading to the tracker, in combination with a distinct unitary demountable casing provided with a plurality of ports adapted to register with a plurality of ports located in the walls of said wind chest, said wind chest ports connected to said vacuum chamber, to said striking pneumatic and to said tracker tube, respectively, and means located in said demountable casing, for controlling the communication between said striking pneumatics and said vacuum chamber.

5. In a pneumatic action for automatic musical instruments, the combination of a wind trunk, a main pneumatic, a controlling pneumatic supported independently of the main pneumatic and communicating therewith through a part carried by the wind trunk and also communicating with the wind trunk, said controlling pneumatic being provided with main pneumatic controlling devices embodying a diaphragm chamber, and a tracker board duct communicating directly with said diaphragm chamber through the wind trunk, and a tracker board connection having communication with the said duct and being free from and independent of the controlling pneumatic.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,809. SOLE-PRESSING MACHINE. EDWIN N. PREBLE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 3, 1910. Serial No. 590,477. (Cl. 12—21.)



1. A sole pressing machine comprising a movable supporting form, a side gage coöperating with the form to position the work thereon, actuating mechanism for the gage adapted to move the gage into and out of contact with the form, the side gage adapted to be adjusted to contact with the form at any desired point, means for retaining the adjustment of the gage, and mechanism for moving the side gage out of contact with the form when the said means are inoperative, substantially as described.

2. A sole pressing machine comprising a movable supporting form, a side gage coöperating therewith, a supporting shaft for the gage, an operating arm connected to the shaft, means connected to the arm normally tending to move the side gage into contact with the form, and means operating to move the gage out of contact with the form upon upward movement of the form, substantially as described.

3. A sole pressing machine comprising a movable supporting form, a side gage coöperating therewith, a supporting shaft for the gage, an operating arm connected to the shaft, means for clamping the arm in any adjusted position upon the shaft, and mechanism yieldably connecting the shaft and arm adapted to rotate the shaft relatively to the arm when the clamping means are loosened, to retract the side gage beyond the edge of the lower form, substantially as described.

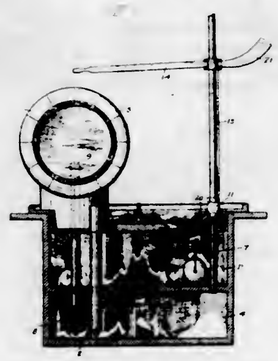
4. A sole pressing machine comprising a movable form, a side gage coöperating therewith, a supporting shaft for the gage, an operating arm connected to the shaft, a tension spring connected to the free end of the arm, and a cam plate mounted upon the machine frame and adapted to move the operating arm in a direction to retract the side gage upon an upward movement of the form, substantially as described.

5. A sole pressing machine comprising a movable form, a side gage coöperating therewith, a supporting shaft for the side gage, an operating arm clamped to the supporting shaft, a sleeve locked against rotation relatively to the supporting shaft, a block loosely supported on the shaft, a spring connecting the block and sleeve, and normally tending to rotate the sleeve relatively to the block, and operative connections between the block and operating arm adapted to prevent a relative rotation of the block and arm, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,094,810. APPARATUS FOR PITCHING CASKS. HENRY RAUCH and HARRY E. RAUCH, Mount Vernon, N. Y. Filed Mar. 19, 1913. Serial No. 755,397. (Cl. 91—11.)



1. In an apparatus for pitching casks and the like, the combination with a receptacle adapted to contain liquid pitch, a second receptacle for the same provided with an opening adapted to permit the passage of pitch into said second receptacle from a cask placed thereover, a valve opening from the second named receptacle inwardly into the first named receptacle, an air inlet pipe opening into said first named receptacle and a pitch outlet pipe leading from said first named receptacle adapted to inject pitch into a cask placed over the opening in said second receptacle, said air inlet pipe being provided with a valve adapted to control the passage of air; of devices operatively connected with said valve and adapted to automatically close said valve when pitch in said second named receptacle rises above a predetermined level therein.

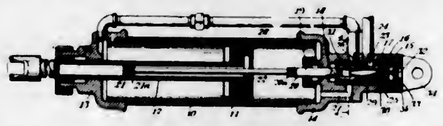
2. In an apparatus for pitching casks and the like, the combination with a receptacle adapted to contain liquid pitch, a second receptacle for the same provided with an opening adapted to permit the passage of pitch into said

second receptacle from a cask placed thereover, a valve opening from the second named receptacle inwardly into the first named receptacle, an air inlet pipe opening into said first named receptacle, a pitch outlet pipe leading from said first named receptacle adapted to inject pitch into a cask placed over the opening in said second receptacle, said air inlet pipe being provided with a valve adapted to control the passage of air, and means adapted to close said valve; of devices adapted to hold said valve open and to automatically release said valve and permit the same to close when pitch in said second named receptacle rises above a predetermined level therein.

3. In an apparatus for pitching casks and the like, the combination with a receptacle adapted to contain liquid pitch, a second receptacle for the same provided with an opening adapted to permit the passage of pitch into said second receptacle from a cask placed thereover, a valve opening from the second named receptacle inwardly into the first named receptacle, an air inlet pipe opening into said first named receptacle, a pitch outlet pipe leading from said first named receptacle adapted to inject pitch into a cask placed over the opening in said second receptacle, said air inlet pipe being provided with a valve adapted to control the passage of air, and means adapted to close said valve; of devices adapted to hold said valve open and to automatically release said valve and permit the same to close when pitch in said second named receptacle rises above a predetermined level therein; said devices comprising a floating ball and lever provided with a trigger arm adapted to engage with said valve and hold same open when said ball is lowered and to release said valve and permit same to close when said ball is raised.

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1,094,811. MOTOR GRINDING-MACHINE. FRANK H. REAGAN and ARTHUR G. PHILLIPS, Scranton, Pa. Filed Aug. 21, 1913. Serial No. 785,886. (Cl. 121—45.)



1. In a reciprocating motor, the combination of a cylinder, a piston therein having a hollow piston rod, a cylinder head containing a cylindrical valve chamber, a hollow cylindrical valve in said chamber for controlling the supply of fluid to the opposite ends of the cylinder, and a valve rod extending within the hollow piston rod and having projections adapted to be engaged by the piston at the ends of its stroke for operating said valve.

2. In a reciprocating motor, the combination of a cylinder, a piston therein having a hollow piston rod, a cylinder head containing a cylindrical valve chamber having an exhaust opening at one end, a hollow cylindrical valve closed at one end and open at the other and having exhaust ports communicating with said interior space, and a valve rod extending within the hollow piston rod and having projections for engaging said piston.

3. In a reciprocating motor, the combination of a cylinder, a piston therein having a piston rod, a cylinder head containing a cylindrical valve chamber having ports leading to opposite ends of the cylinder, a supply port, and an exhaust opening at one end, a hollow cylindrical valve having a groove for connecting the supply with the cylinder ports, and exhaust ports communicating with the interior space of the valve, and means for actuating said valve.

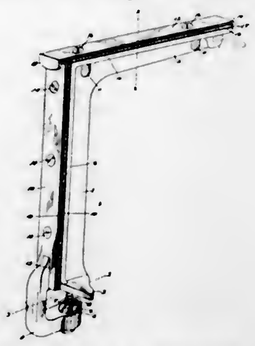
4. In a reciprocating motor, the combination of a cylinder, a piston therein having a piston rod, a cylinder head containing a cylindrical valve chamber, a cylindrical valve in said chamber for controlling the supply of fluid to the opposite ends of the cylinder, and a valve rod connected to said valve and extending within the piston rod for operating said valve, said valve being disposed eccentrically to the valve rod.

5. In a reciprocating motor, the combination of a cylinder, a piston therein having a hollow piston rod, a cylinder head containing a cylindrical valve chamber, a cylindrical valve in said chamber for controlling the supply of fluid to the opposite ends of the cylinder, and a valve rod pivotally connected eccentrically to the end of the valve and extending within the hollow piston rod.

[Claims 6 and 7 not printed in the Gazette.]

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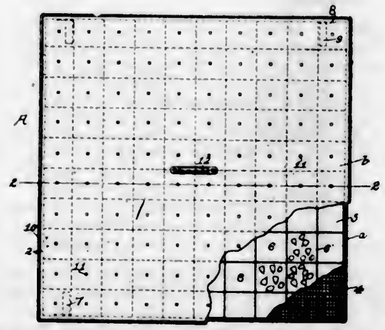
1,094,812. COUNTER-BRACKET. AMZI G. RECK, Columbus, Ohio, assignor to Oscar M. Wolff, Chicago, Ill. Filed July 27, 1911. Serial No. 640,951. (Cl. 211—25.)



The combination with a supporting member of a bracket for supporting glass panels adjacent to the edge of said supporting member, a clamping member adjustably mounted on the outer face of said bracket and adapted to engage the edges of adjacent panels between said member and face, bolts located between said panels for securing said clamping member, and a yoke integral on said bracket for securing said bracket to said supporting member, said yoke having its upper part cut away to form a web of the same thickness as said bolts and providing parallel shoulders adapted to coact with said bolts for abutting spacing the edges of said panels, said clamping member being slotted to fit the shoulders on said yoke.

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1,094,813. SEED-TESTING BED. MORLEY P. REYNOLDS, Cleveland, Ohio. Filed June 24, 1913. Serial No. 775,559. (Cl. 47—30.)



1. A seed testing bed comprising a casing for containing water, a series of seed receptacles in said casing, means for raising said receptacles to position the seeds therein above the water, and means whereby the casing may be inclosed to conserve moisture therein after the seed receptacles are raised.

2. A seed testing bed comprising a casing for containing water, a series of seed receptacles in said casing, means for raising said receptacles to position the seeds therein above the water, and perforated means whereby the casing may be inclosed to conserve moisture therein after the seed receptacles are raised.

3. A seed testing bed comprising a casing for containing water, a series of seed receptacles in said casing having a perforated bottom thereon, means for raising said receptacles to position the seeds therein and said bottom above the water, and means whereby the casing may be inclosed to conserve moisture therein after the seed receptacles are raised.

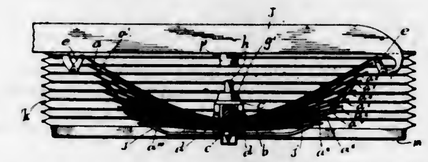
4. A seed testing bed comprising a casing for containing water, a series of seed receptacles in said casing having a perforated bottom thereon, means for raising said receptacles to position the seeds therein and said bottom above the water, and perforated means whereby the casing may be inclosed to conserve moisture therein after the seed receptacles are raised.

5. A seed testing bed comprising a casing for containing water, a series of seed receptacles in said casing having a perforated bottom, a textile covering over said bottom, means for raising said receptacles to position the seeds therein and said bottom and covering above the water, and means whereby the casing may be inclosed to conserve the moisture therein after the seed receptacles are raised.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,814. VEHICLE-SPRING. BENTLEY L. RINEHART, Philadelphia, Pa. Filed Mar. 13, 1913. Serial No. 753,931. (Cl. 21—50.)



1. A vehicle spring consisting of a plurality of flat leaves of decreasing length and curvature each narrowing in width from the middle toward the ends, said leaves being secured together at the middle but being free and separating from one another from the point of connection at the middle toward the ends so as to form intervening spaces between the flat faces of adjacent leaves, said faces of adjacent leaves being brought into contact when the spring is compressed.

2. A vehicle spring consisting of a plurality of flat leaves of decreasing length and curvature each narrowing in width from the middle toward the ends and the width at any point being proportional to the length and leverage from the middle, said leaves being secured together at the middle but being free and separating from one another from the point of connection at the middle toward the ends so as to form intervening spaces between the flat faces of adjacent leaves, said faces of adjacent leaves being brought into contact when the spring is compressed.

3. The combination with the body of a vehicle and its wheel-axle, of a spring consisting of a plurality of leaves of decreasing length and curvature secured together at the middle to the axle and having their ends free and separated from one another so as to form intervening spaces between adjacent leaves with the ends of the upper leaf connected with the body of the vehicle, and means to introduce a lubricant in the intervening spaces between said leaves actuated by the body of the vehicle.

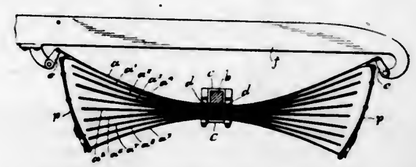
4. The combination with the body of a vehicle and its wheel-axle, of a spring consisting of a plurality of leaves of decreasing length and curvature secured together at the middle to the axle and having their ends free and separated from one another so as to form intervening spaces between adjacent leaves with the ends of the upper leaf connected with the body of the vehicle, an oil pump within the middle of said spring and axle actuated by the contact of the body of the vehicle for introducing oil to the intervening spaces between the leaves of the spring.

5. The combination with the body of a vehicle and its wheel-axle, of a spring consisting of a plurality of leaves of decreasing length and curvature secured together at the middle to the axle and having their ends free and separated from one another so as to form intervening spaces between adjacent leaves with the ends of the upper leaf connected with the body of the vehicle, a cylinder extending through said axle and the middle of the spring adapted to contain oil, and a plunger in said cylinder actuated by the contact of the vehicle body to eject oil upon the leaves of the spring.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,815. VEHICLE-SPRING. BENTLEY L. RINEHART, Philadelphia, Pa. Filed June 7, 1913. Serial No. 772,235. (Cl. 21—105.)



1. A vehicle-spring consisting of a plurality of leaves of different length and curvature secured together at the middle but having their ends separated from one another so as to form intervening spaces between adjacent leaves, the ends of one of the upper leaves being connected with the ends of one of the lower leaves, whereby said lower leaf will be placed under tension upon the recoil of the upper leaf with which it is connected.

2. A vehicle-spring consisting of a plurality of leaves of different length and curvature secured together at the middle but having their ends separated from one another so as to form intervening spaces between adjacent leaves, said spring being fastened at the middle to the axle of the vehicle and at the ends of the upper leaf only to the body of the vehicle, the ends of the upper leaf having a flexible connection with the ends of one of the lower leaves, whereby said lower leaf will be placed under tension upon the recoil of the upper leaf with which it is connected.

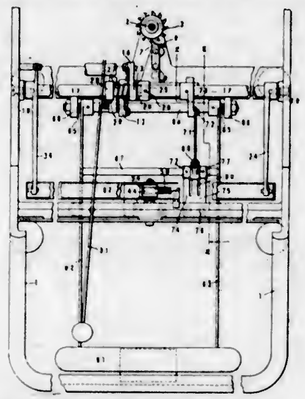
3. A vehicle-spring consisting of a plurality of leaves of different length and curvature secured together at the middle but having their ends separated from one another so as to form intervening spaces between adjacent leaves, the ends of one of the upper leaves being connected by a flexible connection with the ends of one of the lower leaves whereby said lower leaf will be placed under tension upon the recoil of the upper leaf with which it is connected.

4. A vehicle-spring consisting of a plurality of leaves of different length and curvature secured together at the middle but having their ends separated from one another so as to form intervening spaces between adjacent leaves, the upper leaves curving upwardly and the lower leaves curving downwardly and the ends of one of the upper leaves being connected with the ends of one of the lower leaves whereby said lower leaf will be placed under tension on the recoil of the upper leaf with which it is connected.

5. A vehicle-spring consisting of a plurality of leaves of different length and curvature secured together at the middle but having their ends separated from one another so as to form intervening spaces between adjacent leaves, the upper leaves curving upwardly and the lower leaves curving downwardly and the ends of the topmost leaf being connected with the ends of the lowermost leaf, whereby said lower leaf will be placed under tension on the recoil of the upper leaf with which it is connected.

[Claims 6 to 9 not printed in the Gazette.]

1,094,816. TYPE-WRITING MACHINE. JOSEPH ALBERT RONCHETTI, Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn., a Corporation of Connecticut. Filed June 5, 1908. Serial No. 436,749. (Cl. 197—183.)



1. In a typewriting machine, the combination with the spacing mechanism, a universal rock shaft and the universal bar connected therewith, of the character keys which actuate the universal bar when depressed, a space bar, and an independent flexible connection interposed between the space bar and the universal rock shaft.

2. In a typewriting machine, the combination with the spacing mechanism, a universal rock shaft connected therewith and a universal bar connected with the universal rock shaft, of the character keys which rest upon the universal bar and actuate the same when depressed, a space bar, and collapsible means for connecting the space bar with the universal rock shaft, whereby either the character keys or the space bar may be actuated without causing an actuation of the other.

3. In a typewriting machine, the combination with the spacing mechanism, a universal rock shaft connected therewith and adapted to actuate the same, and the universal bar suitably connected with said universal rock shaft and adapted to actuate the latter, of the key levers which rest upon the universal bar, a space bar, flexible connecting means interposed between the space bar and the universal rock shaft, and means for flexing said connecting means when the universal bar is depressed by one of the key levers, whereby the space bar may remain stationary during the depression of said key levers.

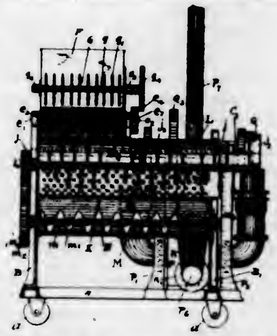
4. In a typewriting machine, the combination with the spacing mechanism, a rock shaft connected therewith and the universal bar connected with said rock shaft, of the key levers which rest upon the universal bar, a space bar, a system of linkage interposed between the space bar and said rock shaft, and means for flexing said system of linkage when the universal bar is depressed by the key levers, whereby the space bar may remain stationary.

5. In a typewriting machine, the combination with the spacing mechanism, of a rock shaft connected therewith, a universal bar connected with said rock shaft, the key levers resting upon the universal bar and actuating the same when depressed, a space bar, a pair of pivotally connected links interposed between the space bar and said rock shaft, and means for automatically flexing said links at their point of pivotal connection when the universal bar is depressed by one of the key levers.

[Claims 6 to 41 not printed in the Gazette.]

1,094,817. COMBINED GRAPE CRUSHER, STEMMER, AND MUST-PUMP. ARTHUR ROSSI, San Francisco, Cal. Filed July 25, 1913. Serial No. 781,277. (Cl. 146—9.)

1. In a machine of the character described the combination of a pair of crushing rollers, a feed hopper, a feed controller placed between said crushing rollers and said hopper, means for the separation and discharge of the stems, a must pump for the removal and delivery of both solids and liquids of the pomace and means to drive said crushing rollers, feed controller and must pump.



2. In a machine of the character described the combination of a pair of crushing rollers, a feed hopper, a feed controller placed between said crushing rollers and said hopper, an elevator for the delivery of material into said hopper, means for the separation and expulsion of stems and a must pump for the removal and delivery of both solids and liquids of the pomace.

3. In a machine of the character described the combination of a pair of crushing rollers adapted to receive clusters of grapes to be crushed, means for effecting the separation and expulsion of the stems, a pan for the collection of the must, a must pump for the removal and delivery of both solids and liquids of the pomace, a discharge pipe leading from said pan to the suction pipe of said must pump and means operating to agitate the must in said pan.

4. In a machine of the character described the combination of a pair of crushing rollers adapted to receive clusters of grapes to be crushed, a feed hopper, a feed controller placed between said hopper and said crushing rollers, means acting to separate and expel the stems, a pan for the collection of the must, a must pump for the removal and delivery of both solids and liquids of the pomace and means operating to agitate the must in said pan.

5. In a machine of the character described the combination of a pair of crushing rollers adapted to receive clusters of grapes to be crushed, means acting to separate and expel the stems, a pan for the collection of the must, a must pump for the removal and delivery of both solids and liquids of the pomace and an agitator comprising a shaft provided with a helical blade, means to drive said crushing rollers and means to drive said agitator shaft.

[Claims 6 to 11 not printed in the Gazette.]

1,094,818. MANUALLY-OPERATED ROTARY DENTAL TOOL. ORIN C. SAMPHERE, Milwaukee, Wis. Filed July 28, 1913. Serial No. 781,454. (Cl. 33—179.)



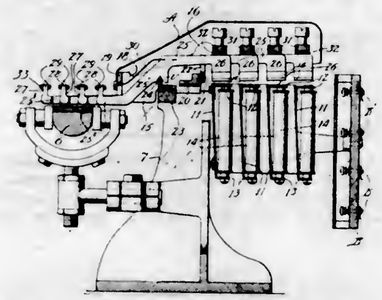
1. The combination with a wire holding barrel and clutch jaws connected therewith, of a shank connected with the barrel and provided with a helical groove, a clutch member adapted to be reciprocated along said shank and having actuating projections adapted to enter the groove therein, and a thumb ring having swivel connection with said shank, said clutch being provided with finger receiving members.

2. The combination with a support, of a set of gripping jaws adapted to engage a piece of wire between them, a thumb ring having swivel connection with said support, a sliding member mounted upon said support, finger rings pivotally connected with said sliding member, and devices connected with said finger rings and adapted to engage and rotate said support when the rings are moved in one direction.

3. The combination with a wire supporting and gripping device provided with an auger shaped shank, of a ring having swivel connection with said shank, and a one way acting shank-rotating clutch provided with finger receiving members for actuating the same.



1,094,819. SELF-PLAYING VIOLIN. HENRY K. SANDELL, Chicago, Ill., assignor to Mills Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 5, 1913. Serial No. 783,132. (Cl. 84—218.)



1. In combination with a string of a stringed instrument having a neck, a rigid frame extending along one side of said neck in spaced relation thereto, a fulcrum-rib on the frame, spring-retracted levers having V-shaped notches at which they are fulcrumed on said rib, each lever having on its forward end a head extending at a right-angle thereto toward the string, and means for moving the levers on their fulcrum to press the heads against the string.

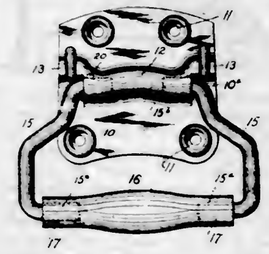
2. In combination with a string of a stringed instrument having a neck, a fulcrum-rib supported to extend along one side of said neck in spaced relation thereto, spring-retracted levers fulcrumed on said rib, each lever having a head on its forward end extending toward the string and provided in its end with a V-shaped notch beveled on one inner face, and means for moving the levers on their fulcrum to press the notches against the string.

3. In combination with a string of a stringed instrument having a neck, a fulcrum-rib supported to extend along one side of said neck in spaced relation thereto, a bar supported to extend parallel with said rib and containing transverse guide-slots, spring-retracted levers fulcrumed between their ends on said rib and confined to work in said slots, each lever having a head on its forward end extending at a right-angle thereto toward the string, and means for moving the levers on their fulcrum to press the head against the string.

4. In combination with a stringed instrument having a neck, a frame supported to extend along a side of the neck, a bar on the frame having slots in its upper edge, a fulcrum-rib on the frame, electromagnets supported on the frame, spring-retracted levers in said slots and fulcrumed on said rib to extend crosswise of a string of the instrument, said levers terminating at one end in heads extending under the string to be pressed against it and armatures for the electromagnets on the opposite ends of the levers.

5. In combination with a stringed instrument having a neck, a frame supported to extend along a side of the neck, rows of electromagnets supported on the frame, a bar on the frame having sets of slots in its upper edge, a fulcrum-rib on the frame, spring-retracted levers in said slots fulcrumed on said rib to extend crosswise of the strings of the instrument, said levers terminating at one end in notched heads to be pressed against the strings and at the opposite end in depending sections, armatures on said sections for the electromagnets in said rows, and cushioning-bars on the frame extending over the levers.

1,094,820. CHEST-HANDLE. EDWARD R. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 10, 1914. Serial No. 817,833. (Cl. 16—10.)



1. In a chest handle, the combination of an attaching plate having a forwardly bulged socket open at the end, said plate having a transverse portion adjacent the mouth of said socket, and a hanger arm at the front of the plate entering said socket in front of said transverse portion, and provided with a wing or lug adapted to engage said transverse portion, whereby said hanger arm is retained in said socket; substantially as described.

2. In a chest handle, the combination of an attaching plate having a socket portion bulged forwardly from the plate and open at the respective ends, said ends of said socket portion terminating short of the ends of the plate, and the latter being provided with portions of metal adjacent the socket ends, separate hanger arms having upper ends located in the openings of the socket portion, means to prevent dislocation of said ends of the hanger arms relative to said socket portion, and a grip member having sockets at the respective ends in which the lower ends of the respective hanger arms are freely rotatable; substantially as described.

3. In a chest handle, the combination of an attaching plate having a horizontally directly forwardly bulged socket portion open at the respective ends, said plate having metal portions at the ends adjacent the respective ends of said socket portion, a bail comprising hanger arms entering said socket portion at the respective ends, and lugs on said hanger arms blocked against outward displacement relative to the socket portion by engagement with the aforesaid portions of the plate adjacent the ends of the socket; substantially as described.

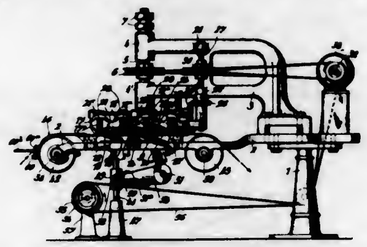
4. In a chest handle, an attaching plate having sockets facing toward the respective ends of the plate, a grip member, separate hanger arms having their upper ends extending into said sockets and their lower ends rotatably connected with said grip member, and interengaging means on the hanger arms and attaching plate respectively for preventing outward displacement of each hanger arm relative to its socket; substantially as described.

5. In a chest handle, an attaching plate having sockets facing toward the respective ends of the plate, a grip member, separate hanger arms having their upper ends extending into said sockets and their lower ends rotatably connected with said grip member, and interengaging means on the hanger arms and attaching plate respectively for preventing outward displacement of each hanger arm relative to its socket, said means comprising a lug on the

upper end of each hanger arm and a transverse portion on the plate to coöperate with said lug; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,094,821. MACHINE FOR CUTTING EMBROIDERIES. MORRIS SCHOENFELD, Rorschach, Switzerland. Filed Aug. 22, 1911. Serial No. 645,444. (Cl. 164—61.)



1. In a machine for cutting fabric along an embroidered edge, a support for the fabric to be cut, a revoluble knife arranged substantially in the plane of the fabric, means for propelling the main portion of the fabric and adapted to affect the same beyond the point of cutting, means for retarding the feed of the fabric and acting thereon in advance of the point of cutting, whereby the main portion of the fabric will be propelled and simultaneously stretched in the direction of its movement, and means for directing the severed portion of the fabric downwardly below the knife in a different direction to the movement of the main portion.

2. In a machine for cutting fabric along an embroidered edge, a revoluble knife, a bed plate, a stationary guide for guiding the severed strip between the knife and bed plate and adapted to guide the severed portion of the fabric below the knife, means for conducting and simultaneously stretching the main part of the fabric and adapted to stretch the fabric in the direction in which it is moved, to prevent the embroidered edge from being drawn into contact with the cutting edge of the knife.

3. In a machine for cutting fabric along an embroidered edge, a revoluble knife, disposed substantially in the same plane as the fabric, means for propelling the main part of the fabric, to and from the place of cutting, a stationary guide for guiding the separated strip of fabric below the knife and consisting of means forming a slot for the passage therethrough of the severed portion of the fabric, said slot being defined by surfaces with which both surfaces of the severed fabric contact.

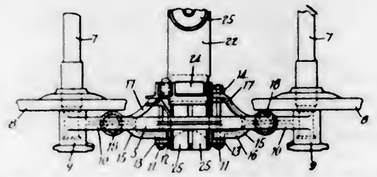
4. In a machine for cutting fabric along an embroidered edge, a revoluble knife, disposed substantially in the same plane as the fabric, means for propelling the main part of the fabric to and from the place of cutting, a stationary guide for guiding the separated strip of fabric below the knife and consisting of means forming a slot for the passage therethrough of the severed portion of the fabric, said slot being defined by surfaces with which both surfaces of the severed fabric contact, and means acting on the severed portion of the fabric to propel the same through said slot.

5. In a machine for cutting fabric along an embroidered edge, a support for the fabric to be cut, a revoluble knife arranged to cut the fabric as it is moved over the support, means for feeding the fabric and means for smoothing the fabric where it passes said knife, comprising means coöperating to press the fabric on the support and means for operating the same so as to move faster than the fabric to cause the same to frictionally smooth the fabric.

[Claims 6 to 27 not printed in the Gazette.]

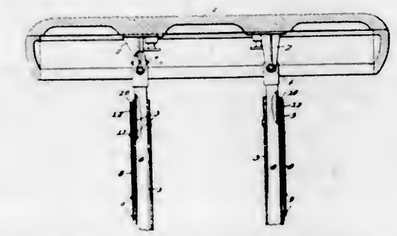
1,094,822. TRUCK. GEORGE F. STARBUCK, Waltham, Mass. Filed Sept. 25, 1913. Serial No. 791,852. (Cl. 105—243.)

1. A car truck having, in combination, a pair of side frames, means adapted to tie said frames together, a pair of axles, journal boxes mounted at opposite ends of each of said axles, arms connected with each of said journal boxes, said arms extending to and pivotally connected with said side frames, the axes of said pivotal connections and said axles lying substantially parallel and normally substantially in the same plane, and springs interposed between said arms and said side frames intermediate the pivots of said arms and their respective journal boxes adapted to yieldingly support said side frames relatively to said axles.



2. A car truck having, in combination, a pair of side frames, means to tie said frames together, a pair of axles, journal boxes mounted upon opposite ends of each of said axles, arms connected with each of said journal boxes, each of said arms being forked, means adapted to pivotally connect each of the members constituting said forks to said side frames, the axes of said pivotal connections lying substantially parallel and normally substantially in the same plane, springs interposed between each of said arms and said frames adapted to yieldingly support said frames on said axles, and a bolster carried by said frames.

1,094,823. GYMNASIUM APPARATUS. ALBERT E. THORNLEY, Pawtucket, R. I., assignor to Narragansett Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Mar. 25, 1913. Serial No. 756,660. (Cl. 46—69.)



1. In a device of the type set forth, a pair of hollow columns, tubular posts sliding in the columns and having a series of spaced holes therein, a horse pivotally connected to one post, a link connection between the horse and the other post, leaf springs secured at their lower ends to the columns and having pins at their upper ends for engagement in the holes of the posts, and latches for actuating the free ends of the springs to move the pins outwardly from the holes of the posts, the latches being pivoted to the columns and having pins disposed beneath the springs, the lower ends of the latches extending outwardly from the springs.

2. In a device of the type set forth, a pair of hollow columns, tubular posts sliding in the columns and having a series of spaced holes therein, a horse pivotally connected to one post, a link connection between the horse and the other post, leaf springs secured at their lower ends to the columns and having pins at their upper ends for engagement in the holes of the posts, and latches for actuating the free ends of the springs to move the pins outwardly from the holes of the posts.

3. In a device of the type set forth, hollow columns, posts sliding in the columns and having a series of spaced holes therein, spring means carried by the columns to engage in said holes to support the posts at varying heights, means to operate the spring means, a horse, and means connecting each post to the horse whereby either end of the horse may be raised or lowered independent of the other end by raising or lowering of the posts.

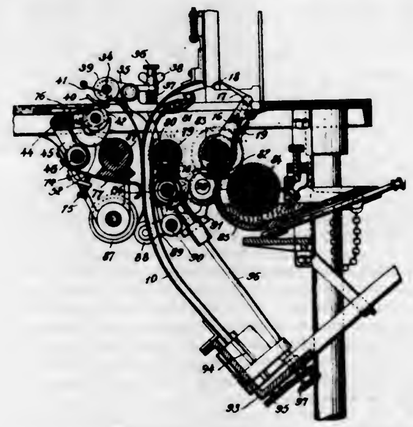
4. In combination with columns, posts slidingly related to the columns, a horse, means connecting each post to the horse whereby either end of the horse may be raised or lowered independent of the other end by sliding movement of the posts, and locking means for independently locking each post to its column.

5. In combination with a horse and means for pivotally supporting each end of the horse, means for adjustably and independently supporting each of said first named means to allow the horse to be moved to assume horizontal or inclined position.

[Claims 6 to 8 not printed in the Gazette.]



1,094,824. ADDRESSING-MACHINE. WILLIAM W. TUCK, New York, N. Y., assignor to Velox Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Oct. 29, 1912. Serial No. 728,426. (Cl. 101—1.)



1. In an addressing machine, an upright magazine for stencils, a pivotally mounted supporting member below the magazine adapted to be reciprocated about its pivot, a picker pivotally mounted on said member and spring-actuated to move its free end toward the stencils in the magazine, and curved guides extending laterally from the magazine and then downwardly, means for holding a stencil in the downwardly extending portions of the guides and coöperating impression and inking members for printing from the stencil when it is held by said means.

2. In an addressing machine, a magazine for stencils, a guide for the stencils leading from the magazine and having a portion thereof directed downwardly, a reciprocating feeding device for feeding stencils from the magazine successively into the guide, a stop-member past which the stencils are moved adapted to coact with the rear edges of the stencils to position the stencils, and a retainer for holding the stencils in coaction with the stop-member in said downwardly directed portion of the guide.

3. In an addressing machine, an upright magazine for stencils, a carrier pivotally mounted below the magazine, a picker pivotally mounted on the carrier and spring-actuated to move its free end toward the stencils in the magazine, means for oscillating the carrier about its pivot, guides extending from the magazine and having a portion thereof directed downwardly, a stop-member adjacent to the guides past which a stencil is moved by the picker and adapted to coact with the rear edge of the stencil to position the latter, and a retainer for holding the stencil in coaction with the stop-member in said downwardly directed portion of the guides.

4. In an addressing machine, a magazine for stencil-cards each having a frame, guides leading from the magazine, a reciprocating feeding device having a projection adapted to engage the edge of the frame of a stencil and move the stencil out of and away from the magazine and backwardly toward the magazine, a stop-member mounted adjacent to the guide, means for reciprocating the feeder to cause the projection thereon to engage a stencil and move the latter past the stop-member and then back into coaction with the stop-member and a retaining means for holding the stencil so moved in coaction with the stop-member.

5. In an addressing machine, an upright magazine for stencils, a carrier pivotally mounted below the magazine, a picker pivotally mounted on the carrier and spring-actuated to move its free end toward the stencil in the magazine, a projection on the picker adapted to coact with the frame of a stencil to move the stencil out of and away from the magazine and backwardly toward the magazine, a stop-member adjacent to the magazine, means for reciprocating the carrier to cause the projection on the picker to engage the frame of a stencil and move the stencil past the stop-member and then back into coaction with the stop-member, and a retainer for holding the stencil so moved in coaction with the stop-member.

[Claims 6 to 19 not printed in the Gazette.]

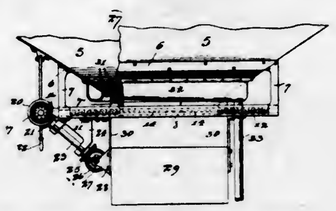
1,094,825. TOOL-POST SCREW AND METHOD OF MAKING THE SAME. JOHN NEWTON WARREN, Lancaster, Pa., assignor of one-third to Henry E. Warren and one-third to Henry E. Muck, Jr., Lancaster, Pa. Filed Apr. 17, 1913. Serial No. 761,680. (Cl. 10—10.)



1. The method of making hard steel tool post screws which consists in subjecting a rod of square steel stock of the size of the head of the screw to be made to the operation of turning to form the shank of the screw, threading said shank, cutting the screw off from the bar, screwing an internally screw threaded collar on the screw shank tight against the head of the screw, and hardening the screw, substantially as described.

2. As an article of manufacture, a hard steel tool post screw having a threaded shank, a square head at one end of the shank having its side of substantially the same size as the diameter of the shank, and an internally screw-threaded round collar of greater outside diameter than the side of the head fitting and held on the shank tight against the underside of the head, substantially as described.

1,094,826. STORAGE BIN OR HOPPER. WALTER B. WRIGHT, Chicago, Ill. Filed Sept. 19, 1912. Serial No. 721,174. (Cl. 110—118.)



1. The combination with a storage bin having a discharge opening at its lower end, of a supporting frame suspended from said bin, a pair of holders carrying oppositely disposed inwardly projecting prongs slidably mounted on said frame on opposite sides of said opening, a pair

of parallel rods journaled in said frame and having oppositely threaded portions engaging said holders, respectively, and means for rotating said rods in unison.

2. The combination with a storage bin having a discharge opening at its lower end, of a supporting frame suspended from said bin, a pair of holders carrying oppositely disposed inwardly projecting prongs reciprocable across said opening, stationary apertured guide-bars disposed adjacent to opposite edges of said opening in which the prongs pertaining to said holders are respectively slidably mounted, a pair of parallel rods journaled in said frame and each having oppositely threaded portions engaging said holders, respectively, and means for rotating said rods in unison in either direction.

3. The combination with a storage bin having a discharge opening at its lower end, of a supporting frame suspended from said bin, a pair of holders carrying oppositely disposed inwardly projecting prongs slidably mounted on said frame on opposite sides of said opening, a pair of parallel rods journaled in said frame and having oppositely threaded portions engaging said holders, respectively, and clutch-controlled means for rotating said rods in unison in a direction to effect either the inward or outward movement of said holders and prongs.

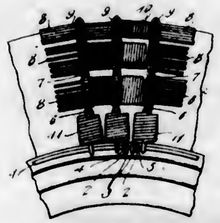
4. The combination with a storage bin having a discharge opening at its lower end, of a supporting frame suspended from said bin, a pair of holders carrying oppositely disposed inwardly projecting prongs slidably mounted on said frame on opposite sides of said opening, a pair of parallel rods journaled in said frame and each having oppositely threaded portions engaging said holders, respectively, bevel pinions on the corresponding ends of said rods, respectively, a cross-shaft carrying on its ends bevel pinions engaging and driving said first-named bevel pinions, a drive-shaft having a bevel friction wheel, a pair of connected oppositely facing bevel friction wheels splined on said cross-shaft, and a lever for shifting either of said last-named friction wheels into driven engagement with the friction wheel on said drive shaft.

5. The combination with a storage bin having downwardly converging walls at its lower portion provided with a row of drain apertures therein, of a gutter secured to the under side of said walls beneath said apertures, and a drain pipe leading from said gutter.

[Claim 6 not printed in the Gazette.]

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1,094,827. TIRE-PROTECTOR. FRANK WYLLYS, Atlanta, Mich., assignor of one-fourth to Orwin A. Phelps, Gaylord, Mich., and six twenty-fifths to Herman Lunden, Briley, Mich. Filed Oct. 24, 1912. Serial No. 727,583. (Cl. 152—16.)



1. A tire armor comprising an oppositely disposed pair of twin hoops adapted to form the base edges of the armor, a plurality of longitudinally spaced series of links extending transversely between said hoops and connected at opposite ends with said hoops, the links of the respective series being in the form of short rods having eyes flexibly connected, longitudinally extending links having eyes at their opposite ends strung on the links of the transverse series, whereby said transverse series of links are held in spaced relation.

2. A flexible tire armor comprising a plurality of longitudinally spaced series of transversely extending links in the form of members having eyes at their opposite ends, the eyes of one member being engaged with the eyes of adjacent members, series of longitudinally disposed similarly constructed links having their eyes strung on the body portion of the transverse links, and means for securing said armor to a tire.

3. A flexible tire armor comprising a plurality of longitudinally spaced series of transversely extending links in the form of short wire rods having eyes at their opposite ends, the eyes of one rod being engaged with the eyes of adjacent rods, series of longitudinally disposed similarly constructed links loosely engaging the transverse links, and means for securing said armor to a tire.

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1,094,828. METHOD OF MOLDING OBJECTS HAVING A REFRACTORY SURFACE LAYER. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by direct and mesne assignments, to Condensite Company of America, East Orange, N. J., a Corporation of New Jersey. Filed Aug. 26, 1910. Serial No. 579,129. (Cl. 18—59.)

1. The method of molding articles, which consists in coating a mold with a solution of substances which react upon application of heat to form a hard phenolic condensation product which is infusible and insoluble but somewhat plastic when heated, drying the same, heating to cause the ingredients to react as aforesaid, pressing a substance to be surfaced into contact with the mold thus coated, while applying heat sufficient to cause the substance to become firmly welded to the coating in the mold, cooling, and removing from the mold the molded article with the hard coating adhering thereto, substantially as described.

2. The method of molding articles, which consists in coating a mold with a solution comprising a methylene-containing substance, a soluble phenolic condensation product capable of reacting with said substance, on application of heat, to form a hard insoluble product, and a plasticity agent dissolved therewith, heating to cause the ingredients to react and form a hard insoluble product, pressing a substance to be surfaced into contact with the mold thus coated, while applying heat sufficient to cause the substance to become firmly welded to the coating in the mold, cooling, and removing from the mold the molded article with the hard coating adhering thereto, substantially as described.

3. The method of molding articles, which consists in coating a mold with a solution of substances which react upon application of heat to form a hard phenolic condensation product which is infusible and insoluble but somewhat plastic when heated, drying the same, heating to cause the ingredients to react as aforesaid, pressing an article to be surfaced, said article being formed of an infusible hard phenolic condensation product, into contact with the mold thus coated, while applying heat sufficient to cause the article to become firmly welded to the coating in the mold, cooling, and removing from the mold the molded article with the hard coating adhering thereto, substantially as described.

4. The method of molding articles, which consists in coating a mold with a solution of substances capable of transformation on application of heat into a hard final insoluble phenolic condensation product, in a solvent having a boiling point higher than the temperature at which the hardening transformation is to be carried out, causing the final hardening transformation with application of heat, and pressing a substance to be surfaced into contact with the mold thus coated, while applying heat sufficient to cause the substance to become firmly welded to the coating in the mold, substantially as described.

5. The method of molding articles, which consists in coating a mold with a solution of a soluble and fusible complete phenolic condensation product mixed with a methylene-containing hardening agent therefor, in a solvent having a boiling point higher than the temperature at which the hardening transformation is to be carried out, causing the final hardening transformation with application of heat, pressing a substance to be surfaced into contact with the coating thus formed in the mold while applying heat sufficient to cause the substance to become firmly welded to the coating in the mold, and removing from the mold the molded article thus coated substantially as described.

[Claims 6 and 7 not printed in the Gazette.]



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1,094,829. ELECTRICAL INSULATOR. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by direct and mesne assignments, to The Halogen Products Company, West Orange, N. J., a Corporation of New Jersey. Filed Mar. 17, 1911. Serial No. 615,040½. (Cl. 171—124.)

1. A liquid insulator into which electrical apparatus may be submerged, consisting of a distilled chloro-naphthalene treated with an alkali, substantially as described.

2. A liquid insulator into which electrical apparatus may be submerged, consisting of a distilled chloro-naphthalene treated with an alkali and from which traces of free alkali are removed, substantially as described.

3. A liquid insulator into which electrical apparatus may be submerged, comprising a chlorinated naphthalene from which solid modifications of the same or higher substitution products or free naphthalene are removed, substantially as described.

4. A liquid insulating composition, comprising a distilled mono-chloro-naphthalene containing substantially no water, free naphthalene, or higher substitution products thereof, substantially as described.

5. An insulating composition containing liquid chlorinated naphthalene having an anhydrid dissolved therein, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,830. NON-INFLAMMABLE VARNISH COMPOSITION. JONAS W. AYLSWORTH, East Orange, N. Y., assignor to Condensite Company of America, Glen Ridge, N. J., a Corporation of New Jersey. Filed Jan. 2, 1912. Serial No. 668,942. (Cl. 134—26.)

1. A varnish composition comprising a solution of acetyl cellulose and a phenol resin in acetylene tetrachlorid, substantially as described.

2. A varnish composition comprising a cellulose ester and a phenol resin dissolved in a water-free volatile solvent therefor, substantially as described.

3. A varnish composition comprising cresol resin and a cellulose ester dissolved in a water-free volatile solvent therefor, substantially as described.

4. A varnish composition comprising a dehydrated phenol resin and a cellulose ester dissolved in a water-free volatile solvent therefor, substantially as described.

5. A varnish composition comprising approximately 100 parts of a phenol resin, and 100 parts of acetyl cellulose, dissolved in 1000 parts of acetylene tetra-chlorid, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,831. BUCKLE. GEORGE W. BAKER, New York, N. Y. Filed Mar. 15, 1913. Serial No. 754,494. (Cl. 2—187.)

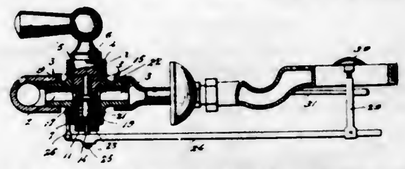


A buckle comprising an annularly endless frame open through the middle, said frame being composed of two similarly shaped parts one being slightly smaller than the other, the smaller frame being secured to the inner edge of the larger and the outer faces of both frames being exposed toward the front and provided with contrasting ornamental surfaces.

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1,094,832. AUTOMATIC GAS-VALVE. CLIFFORD BARGAMIN, New Haven, Conn., assignor to Sentinel Automatic Gas Appliance Company, New Haven, Conn. Filed July 8, 1913. Serial No. 777,893. (Cl. 126—52.)

1. In a gas valve, a valve casing formed with an inlet and an outlet for the gas, a turn plug mounted to turn within said casing and formed with a longitudinal bore through which the gas passes, a spring seated valve controlling said longitudinal bore, a valve operating arm, and means on the stem of said valve and its operating arm the parts of which are combined in such operative relation with respect to each other that the operating arm is moved to its lowest position when the valve is turned off.



2. In a gas valve, a valve casing formed with an inlet and an outlet for the gas, a turn plug mounted to turn within said casing and formed with a longitudinal bore through which the gas passes, a spring seated valve controlling said longitudinal bore, a valve operating arm, and means embodying a cam face on the stem of said valve having such relation to said operating arm that the latter is moved to its lowest position when the valve is turned off.

3. In a gas valve, a valve casing formed with an inlet and an outlet for the gas, a turn plug mounted to turn within said casing and formed with a longitudinal bore through which the gas passes, a spring seated valve controlling said longitudinal bore, a valve operating arm, and means embodying coöperating cam faces on said arm and the stem of said valve, said cam faces having such operative relation with respect to each other that said arm is moved to its lowest position when said valve is turned off.

4. In a gas valve, a valve casing formed with an inlet and an outlet for the gas, a turn plug mounted to turn within said casing and formed with a longitudinal bore through which the gas passes, a spring seated valve controlling said longitudinal bore and having a keyed and sliding engagement with said valve plug, a valve operating arm, and means on the stem of said valve and its operating arm the parts of which are combined in such operative relation with respect to each other that the operating arm is moved to its lowest position when said valve is turned off.

5. In a gas valve, a valve casing formed with an inlet and an outlet for the gas, a turn plug mounted to turn within said casing and formed with a longitudinal bore through which the gas passes, a spring seated valve controlling said longitudinal bore, a valve operating arm, a depressible head carried by said arm and adjustable up and down in a plane perpendicular thereto, and means on the stem of said valve and its operating arm the parts of which are combined in such operative relation with respect to each other that the operating arm is moved in its lowest position when said valve is turned off.

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1,094,833. BOX-COVER. LOUIS F. BRASCH, Newark, N. J. Filed Sept. 14, 1910. Serial No. 581,956. (Cl. 229—21.)

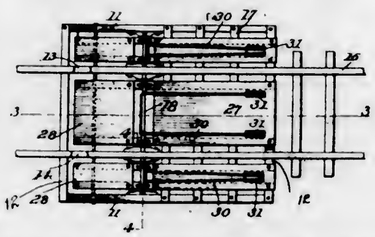


A box-end formed of a single blank of stiff material devoid of scoring, the blank having an excess of material required for the box-end, the blank being formed into an

end piece and a downwardly bent narrow rim, the end piece and rim having a sharply turned juncture the rim being folded successively and at random into closely lying folds to form a substantially perpendicular rim, the folds extending from the edge of the rim toward the end piece, but terminating short of the juncture of the rim and the end piece, the edge being cut along the folds to give symmetry to the edge.

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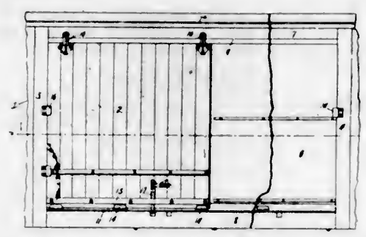
1,094,834. CATTLE-GUARD. ANDREW C. BRIXEN, Laurin, Mont., assignor of one-half to Philippe O. Johnson, Laurin, Mont. Filed Mar. 11, 1913. Serial No. 753,578. (Cl. 39—42.)



A cattle guard including a frame, a shaft journaled in the sides of said frame, a pair of parallel metal bars each formed with a U-shaped offset having the bight arched upwardly and straddling said shaft, means for retaining said arched portion on said shaft, a plate connecting adjacent ends of said bars on one side of said shaft, a plate connecting adjacent ends of said bars on the opposite side of said shaft, one of said plates being of greater weight than the other to normally hold the guard in a horizontal position, stops on said frame supporting said heavier plate in horizontal position normally, said plate being provided adjacent one end with a pair of slots, and a U-shaped rod member having the legs passed through said slots near the free edge thereof and then pivotally connected to said frame, said heavier plate being adapted to be rocked up upon depression of the plate on the opposite side of said shaft therefrom with a resultant rocking up of said rod to form a barrier.

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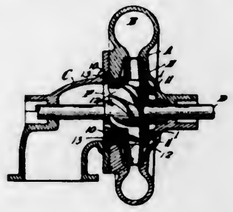
1,094,835. FLUSH CAR-DOOR. FRED T. CARPENTER, Toledo, Ohio. Filed July 11, 1913. Serial No. 778,567. (Cl. 20—22.)



In a car, a door casing comprising spaced apart front and rear jamb-posts of Z-bar form with their outer flanges extending toward each other, said posts being substantially flush with the outer side of the car, a center post intermediate said jamb-posts set inwardly from the outer vertical plane of the jamb-posts, top and bottom side beams connecting said posts, a closure wall extending in substantially the plane of the center-post from the center-post to the rear jamb-post, a track carried by the upper side beam with its outer edge substantially flush with the outer sides of the jamb-posts, a door hung from said track flush with the side of the car to close the space between the front and center posts and adapted to slide toward the rear post without said closure wall, a sill-strip extending between the jamb-posts beneath the door, and guide-members rising from said sill-strip within the vertical outer side plane of the jamb-posts and coacting with the lower edge of the door to guide the sliding movements of the door.

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1,094,836. CENTRIFUGAL, TURBINE, AND SIMILAR PUMP. CARL GEORGE DE LAVAL, East Orange, N. J., assignor to Henry R. Worthington, a Corporation of New Jersey. Filed Apr. 2, 1913. Serial No. 758,393. (Cl. 103—43.)



1. A centrifugal pump or the like, having on the suction side of the impeller a series of stationary helical vanes formed to change the direction of motion of the suction fluid to deliver the fluid to the impeller in substantially the plane of rotation of the impeller.

2. A centrifugal pump or the like, having on the suction side of the impeller a series of stationary helical vanes for changing the direction of flow of the suction fluid toward the direction of impeller flow.

3. In a centrifugal pump or the like, the combination with an impeller having its suction opening at right angles to the plane of impeller rotation of a stationary suction distributer extending substantially to the impeller suction and having a series of fixed vanes curved to gradually change the flow of suction fluid from a plane substantially parallel with the axis of rotation of the impeller to a plane substantially at right angles thereto.

4. In a centrifugal pump or the like, the combination with an impeller having its suction opening at right angles to the plane of impeller rotation, of a stationary distributer removably mounted between the suction inlet and impeller and having a series of fixed vanes curved to gradually change the flow of suction fluid from a plane substantially parallel with the axis of rotation of the impeller to a plane substantially at right angles thereto.

5. In a multistage centrifugal pump or the like, the combination with a plurality of impellers and their connecting passages, each impeller having its suction opening at right angles to the plane of impeller rotation, of a stationary suction distributer for each impeller, extending substantially to the impeller suction and having a series of fixed vanes curved to gradually change the flow of suction fluid from a plane substantially parallel with the axis of rotation of the impeller to a plane substantially at right angles thereto.

[Claim 6 not printed in the Gazette.]

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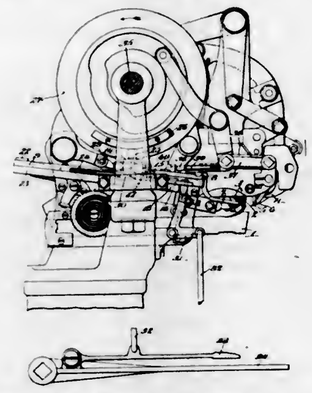
1,094,837. STENCILING MATERIAL. ALBERT B. DICK, Lake Forest, Ill., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed May 3, 1913. Serial No. 765,236. (Cl. 134—1.)

1. In stenciling material, a stencil-moistening composition including glycerin and Turkey-red oil and a fluid with which said glycerin and oil will combine, substantially as set forth.

2. In stenciling material, a stencil-moistening composition including water, glycerin and Turkey-red oil, substantially as set forth.



1,094,838. WELT-SEWING MACHINE. JOHN L. DOW, Melrose Highlands, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 25, 1910. Serial No. 563,252. (Cl. 112—20.)



1. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder, and means for engaging the welt holder with the end of the welt, mechanism for actuating the welt holder independently of its engagement with the shoe, and means for throwing the welt holder out of operation at the will of the operator, without stopping the machine, substantially as described.

2. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder arranged to hold the end of the welt in the rear of the sewing point, and mechanism for intermittently engaging the holder with and disengaging it from the welt during the sewing operation, substantially as described.

3. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder arranged to hold the welt in the rear of the sewing point, and mechanism for imparting a 4-motion movement to the welt holder to intermittently engage it with the welt and move it with the shoe during the feed, substantially as described.

4. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder arranged to hold the welt and move with the shoe during the feed, and mechanism for intermittently engaging the holder with and disengaging it from the welt during the sewing operation and means for rendering the welt holder inactive after the end of the welt has been attached to the shoe, substantially as described.

5. A welt sewing machine, having, in combination, stitch forming mechanism, a welt holder, mechanism for throwing the welt holder into operation in throwing the driving mechanism of the machine into operation and means for throwing the welt holder out of operation at the will of the operator, without stopping the machine, substantially as described.

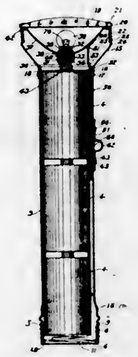
[Claims 6 to 13 not printed in the Gazette.]

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1,094,839. FLASHLIGHT DEVICE. RICHARD MAX EATON, Niagara Falls, N. Y., assignor to The Niagara Searchlight Company, Niagara Falls, N. Y., a Corporation of New York. Filed Oct. 2, 1913. Serial No. 792,914. (Cl. 240—8.5.)

1. In a device of the class described, the combination of a metal casing, means within said casing for generating an electric current, an insulating cover for said generating means, an electric lamp in said casing, means for mounting the lamp in said casing, means entirely within the casing to insulate one terminal of the lamp from the other and means accessible from the outside of the casing for connecting the terminals of the lamp in a circuit including the generating means.

2. In a device of the class described, the combination of a metal casing, means in said casing for generating electric current, an insulating cover for said generating means, a lamp in said casing, means entirely within the casing for insulating one of the terminals of the lamp from the other and means for connecting the terminals of the lamp in a circuit with said generating means, whereby the lamp is operated.



3. In a device of the class described, the combination of a tubular casing, a cell or a battery of cells in said casing, means for connecting one pole of said cell or battery of cells to said casing, a lamp, a lamp reflector, a lamp socket in said reflector, one of the terminals of the lamp being connected to said reflector through said socket, the other terminal of the lamp being connected directly to the other pole of the cell or battery of cells, a layer of insulating material around the rim of the reflector where the same is mounted in the casing, the other parts of the reflector being disengaged from the casing, a slidable member engaging the casing, a slot in the casing, a catch on the outside of the casing, means for connecting the slidable member to the catch extending through the casing, said slidable member engaging the reflector when operated, placing the casing in electrical communication with the reflector and completing a circuit through the lamp and cell or battery of cells including the reflector, the slidable member and the casing.

4. In a device of the class described, the combination of a casing, means in said casing for generating an electric current, a lamp in said casing, a lamp reflector connected to one of the terminals of the lamp, the other terminal of the lamp being connected to said generating means, means separate from the casing within said casing for insulating the reflector from the casing, a member for connecting the casing to the reflector when desired and completing an electrical connection between the lamp and the generating means and a device accessible from the outside for bringing said member into engagement with said reflector and disengaging it therefrom.

5. In a device of the class described, the combination of a metal casing, means for generating an electric current, an insulating cover for the generating means, a lamp mounting means for mounting the lamp within the casing, insulating means within the casing for insulating the lamp mounting means from the casing and means accessible from the outside of the casing for bringing said lamp mounting means in electrical engagement with the casing to operate said lamp.

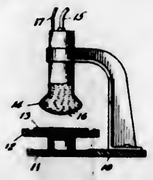
[Claims 6 to 8 not printed in the Gazette.]

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1,094,840. METHOD OF MANUFACTURING INTERIORLY-COATED CANS. FELIX EBERHART, Newark, N. J., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 9, 1912. Serial No. 719,369. (Cl. 113—116.)

1. The method of manufacturing interiorly coated, seamed cans which consists in coating the entire surface

of a can end, including its seam forming flange, with a combined protective and seal-forming coating material, then assembling the coated can end, while the coating material is still soft, with a flanged can body having a hardened protective coating on its interior, and then seaming said can end and can body before the coating material in the joint has hardened.



2. The method of manufacturing interiorly coated, seamed cans which consists in the coating one entire surface of a can end, including its seam forming flange, with a combined protective and seal-forming coating material, then assembling the coated can end, while the coating material is still soft, with a flange can body having a hardened protective coating on its interior, then seaming said can end and can body before the coating material in the joint has hardened, and finally subjecting the seamed can to a drying or baking operation.

3. The method of manufacturing interiorly coated, seamed cans which consists in coating a can end with a combined protective and seal-forming coating material, then assembling the coated can end, while the coating material is still soft, with a flanged can body made from previously coated plate and then seaming the can end and body together.

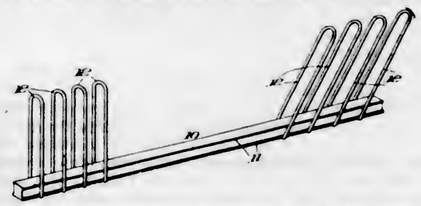
4. The method of manufacturing interiorly coated, seamed cans which consists in coating a can end with a combined protective and seal-forming coating material, then assembling the coated can end, while the coating material is still soft, with a flanged can body made from previously coated plate, seaming the can end and body together and finally subjecting the seamed can to a drying or baking operation.

5. The method of manufacturing interiorly coated, seamed cans which consists in coating a can end with a combined protective and seal-forming coating material, then assembling the coated can end, while the coating material is still soft, with a flanged can body having a hardened protective coating on its interior, and then seaming the can end and body together.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,841. REINFORCEMENT FOR CONCRETE CONSTRUCTION. JULIAN O. ELLINGER, New York, N. Y. Filed Sept. 29, 1909. Serial No. 520,068. (Cl. 72—113.)



1. In a reinforced concrete construction, a longitudinal bar having welding projections on the sides thereof, and loops formed of rigid elements with the inner sides of their free ends in contact with said projections and weldably connected to said bar at the sides thereof by said projections.

2. In a reinforced concrete construction, a longitudinal bar forming a tension member having welding projections on the sides thereof, and a series of loop straps forming shear members, the free ends of each strap being provided with welding projections, the said straps at the inner sides of their free ends being weldably connected to the longitudinal bar to form a homogeneous construction.

3. As a new article of manufacture, a concrete reinforcing bar having lateral ribs or projections at opposite sides of relatively small cross-section compared to the cross-section of the body portion of the bar, and looped shear members each of approximately the same cross-section as the ribs or projections, and welded thereto at both sides of the bar.

4. As a new article af manufacture, a concrete reinforcing bar, having lateral ribs or projections at opposite sides, said ribs or projections being each of relatively small cross-section compared to that of the body of the bar, and looped shear members having a portion thereof of a cross-section substantially equal to the cross-section of the said ribs or projections and engaging opposite sides of the bar, and welded to the ribs or projections.

5. In a reinforced concrete construction, a longitudinal bar having welding projections formed thereon, and shear members consisting of loops formed of rigid elements with the inner sides of their free ends in contact with said projections and weldably connected to the said bar projections.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,842. COLLAPSIBLE FRAME FOR CONCRETE CONSTRUCTION. JULIAN O. ELLINGER, New York, N. Y. Filed Nov. 23, 1911. Serial No. 661,876. (Cl. 72—110.)



1. A concrete reinforcing frame, comprising a longitudinal member, sections extending longitudinally of the frame, two of said sections being arranged at opposite sides of the center of said longitudinal member and being provided with links for pivotally connecting them to the latter and another of said sections being arranged between the first mentioned sections and substantially parallel with and adjacent to the longitudinal member and in position to span the space which is between the confronting ends of the other sections when the frame is expanded.

2. A concrete reinforcing frame, comprising a longitudinal member, sections extending longitudinally of the frame, two of said sections being arranged at opposite sides of the center of the said longitudinal member and being provided with links for pivotally connecting them to the latter and another of said sections being arranged between the first mentioned sections and the longitudinal member and in position to span the space which is between the confronting ends of the other sections when the frame is expanded, said third section being rigidly connected to said longitudinal member and the links being so disposed that they will extend divergently from said longitudinal member to the respective sections when the frame is expanded.

3. A concrete reinforcing frame comprising a longitudinal member, sections extending longitudinally of the frame and arranged at opposite sides of the center of said member, links having pivot connections with said member and sections, whereby the frame may be expanded, and fixed stops secured to the longitudinal member for holding the frame in an expanded position.

4. A concrete reinforcing frame, comprising a longitudinal member, sections extending longitudinally of the frame arranged at opposite sides of the center of said member, links having pivotal connection with said member and sections, whereby the frame may be expanded, and a section which extends longitudinally of the frame and is arranged parallel to and alongside of said member and between the same and said sections and is provided with stops arranged to be engaged by certain of said links to hold the frame in an expanded position.



5. A concrete reinforcing frame, comprising a longitudinal member; sections extending longitudinally of the frame and arranged at opposite sides of the center of said member, spaced elements rigidly secured to said sections and member, respectively and projecting therefrom, a third section extending longitudinally of the frame, said third section being arranged alongside of said longitudinal member and between the same and the first-mentioned sections and being rigidly connected to said member, and links for connecting the first named sections with said longitudinal member, said links having their ends pivotally secured to the projecting portions of said elements.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,843. UNIT-BAR FOR CONCRETE CONSTRUCTION. JULIAN O. ELLINGER, New York, N. Y. Filed Jan. 19, 1912. Serial No. 672,078. (Cl. 72—113.)



1. A reinforcing frame for concrete and the like comprising a plurality of spaced bars having welding projections and straps which connect said bars together, each of said straps comprising parts which are arranged on opposite sides of the frame and between said bars and other parts disposed between the first mentioned parts and weldably united to the bars at places defined by said projections.

2. A reinforcing frame for concrete, and the like, comprising a longitudinal bar, other longitudinal bars spaced from each other and from the first mentioned bar, each of said bars having one of its surfaces provided with welding projections, and straps which connect the first mentioned bar to each of the others each of said straps comprising parts which are arranged on opposite sides of the frame and other parts disposed between the first mentioned parts and weldably united to the bars at places defined by said projections.

3. A reinforcing frame for concrete and the like, comprising a longitudinal bar, other longitudinal bars spaced from each other and from the first mentioned bar, each of said bars having one of its surfaces provided with welding projections, the welding projections on the first mentioned bar being on the opposite side from those on the second mentioned bars, and a series of straps each of which encircles one end of the first mentioned bar and one of the second mentioned bars, and another series of straps which encircles the opposite end of the first mentioned bar and also the other of the second mentioned bars, said straps being weldably united to the several bars at the places defined by said projections.

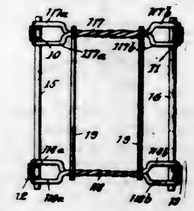
4. A reinforcing frame for concrete and the like, comprising a longitudinal bar, other longitudinal bars spaced from each other and from the first mentioned bar, each of said bars having one of its surfaces provided with welding projections, straps which connect the first mentioned bar to each of the others, each of said straps comprising parts which are arranged on opposite sides of the frame, and other parts disposed between the first mentioned parts and projecting at right angles thereto and weldably united to the bars at places defined by said projections.

5. A reinforcing frame for concrete and the like, comprising a longitudinal bar, other longitudinal bars spaced from each other and from the first mentioned bar, each of said bars having one of its surfaces provided with welding projections, straps which connect the first mentioned bar to each of the others, each of said straps comprising parts which are arranged on opposite sides of the frame, and other parts disposed between the first mentioned parts and projecting at right angles thereto and extending over one of the longitudinal bars and weldably united to the bars at places defined by said projections.

[Claim 6 not printed in the Gazette.]

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1,094,844. COLLAPSIBLE METALLIC STRUCTURE. JULIAN O. ELLINGER, New York, N. Y. Filed Oct. 15, 1912. Serial No. 725,796. (Cl. 72—76.)



1. A device of the class described, consisting of a pair of longitudinal members spaced apart, a series of spaced cross members rigidly secured thereto, a second pair of longitudinal members opposite the first pair of longitudinal members, a second series of cross members spaced apart and rigidly secured to the second pair of longitudinal members, a series of pairs of members substantially parallel to each other but perpendicular to the aforementioned cross members, having the opposite ends of each pair turned over the ends of said cross members to form pivotal connection therewith, and a series of members parallel to the first mentioned rigidly secured cross members and in turn rigidly secured to the pivotal cross members.

2. A device of the class described, consisting of a pair of longitudinal members spaced apart, a series of spaced cross members rigidly secured to said pair of longitudinal members, a second pair of longitudinal members opposite the first pair of longitudinal members, a second series of cross members spaced apart and rigidly secured to the second pair of longitudinal members, a series of pairs of members substantially parallel to each other but perpendicular to the aforementioned cross members, having the opposite ends of each pair bifurcated to span the longitudinal member and each prong thereof turned over the ends of the said cross members to form pivotal connection therewith.

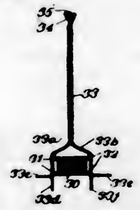
3. A device of the class described, consisting of a pair of longitudinal members spaced apart, a series of cross members spaced apart, the respective ends of which are rigidly connected to the respective longitudinal members, another pair of longitudinal members spaced apart and located opposite the first pair of longitudinal members, a series of cross members spaced apart and opposite the first series of cross members the ends of which are rigidly connected to the latter pair of longitudinal members, another series of cross members having bifurcated ends each of which spans an opposite longitudinal member and are turned over the ends of the respective series of first mentioned cross members and form a pivotal connection therewith, and another series of cross members having bifurcated ends and located opposite the first mentioned cross members having bifurcated ends, each of which spans a longitudinal member and is turned over the other ends of the respective cross members to form pivotal connections therewith.

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1,094,845. REINFORCEMENT FOR CONCRETE CONSTRUCTION. JULIAN O. ELLINGER, New York, N. Y. Filed Oct. 19, 1912. Serial No. 726,600. (Cl. 72—113.)

1. A reinforcement for concrete construction consisting of a longitudinal member having a series of welding projections thereon, a series of transverse or shear members at each end of the longitudinal member, each of said shear members being formed of rods twisted upon themselves, having separated ends, the sides of each of which are welded to the longitudinal member, the extreme ends projecting beyond the longitudinal member to form cen-

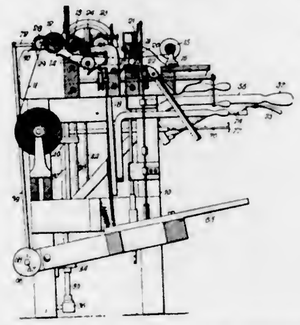
tering members, and rods extending over each end of the tension member and rigidly connected to the upper ends of the shear members.



2. A reinforcement for concrete construction consisting of a longitudinal tension member having welding projections on the sides thereof, a series of transverse shear members consisting of a series of rods twisted together, one of said shear members being bifurcated, each leg of the bifurcation being welded to the longitudinal tension member, and each of said legs being also bifurcated beyond the point of weld and separated to form spacing members.

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1,094,846. MACHINE FOR MAKING WINDOW-SHADES. EPHRAIM O. ENGBERG, Salt Lake City, Utah, assignor to John Beecher Patton, Kent, Ohio. Filed July 7, 1909. Serial No. 506,429. (Cl. 164—49.)



1. In a window shade machine, the combination with means for supporting shade material, of feed mechanism, means for forming a shade-slat loop, an engaging member movable with the feed mechanism, an operating lever, brake mechanism movable with the said lever to stop the machine, and means operated by contact of said engaging member therewith whereby the operating lever is caused to move and actuate the stopping means.

2. In a window shade machine, the combination with means for supporting shade material, of feed mechanism, an engaging member movable with the feed mechanism, an operating lever, brake mechanism movable with the said lever to stop the machine, and means operated by contact of said engaging member therewith whereby the operating lever is caused to move and actuate the stopping means.

3. In a window shade machine, the combination with means for supporting shade material, of feed mechanism, an engaging member movable with the feed mechanism, brake mechanism to stop the machine, and means operated by contact therewith of the engaging member to actuate the stopping means.

4. The combination with means for supporting shade material, of feeding means, an engaging member movable with said feeding means, and brake mechanism operated by contact with said engaging member to stop the machine.

5. The combination with feeding means, and means for forming a shade-slat loop, of a chain, means connected to the feeding means for moving the chain as the machine is operated, an engaging member carried by the chain, a movable stop adapted to be engaged by the engaging member, a lever, means operated by the lever to stop the machine, and means operatively connected to the stop whereby the lever may be moved to apply the machine stopping means.

[Claims 6 to 38 not printed in the Gazette.]

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1,094,847. METALLIC RAILWAY-TIE. CLAUS ERICKSON, Ironwood, Mich., assignor of one-fourth to Joseph Smith, Ironwood, Mich. Filed Jan. 24, 1914. Serial No. 814,221. (Cl. 238—5.)



1. In a device of the character described, the combination of a tie, a rail supporting block resting upon the tie, a rail upon the rail supporting block, a pair of substantially wedge shaped rail clamping members mounted upon the tie on opposite sides of the block, the tapered outer ends of the rail clamping members being formed with lugs which each have a loose pivotal connection with the tie, while the inner ends of the rail clamping members are formed with rail engaging wings, and a fastening member extending under the rail and connecting the rail clamping members.

2. In a device of the character described, the combination of a tie member having spaced openings therein, a rail supporting block resting upon the tie at a point between the openings, a rail upon the rail supporting block, a pair of rail clamping members mounted upon the tie member on opposite sides of the block, the outer ends of the rail clamping members being formed with lugs loosely engaging the openings of the tie member while the inner ends thereof are formed with rail engaging wings, and a bolt passing under the rail and connecting the rail clamping members.

3. In a device of the character described, the combination of a tie member having spaced openings therein, a rail supporting block resting upon the tie at an intermediate point between the openings, a rail upon the rail supporting block, a pair of wedge shaped clamping members mounted upon the tie member on opposite sides of the block, the tapered outer ends of the rail clamping members being provided with downwardly extending hooked lugs passing through the openings of the tie member and engaging the bottom thereof, while the thick inner ends of the said members are provided at the top thereof with wings adapted to engage the basal flanges of the rail, and a bolt member extending under the rail and connecting the wedge shaped clamping members.

4. In a device of the character described, the combination of a channel tie member, a rail supporting block resting upon the tie member and positioned between the flanges thereof, a rail upon the rail supporting block, a pair of wedge shaped rail clamping members applied to the tie on opposite sides of the rail supporting block, the tapered outer ends of the rail clamping members each having a loose pivotal connection with the tie member, while the inner ends thereof are provided with wings adapted to fit over and engage the basal flanges of the rail, and a bolt passing through the rail supporting block and connecting the rail clamping members.

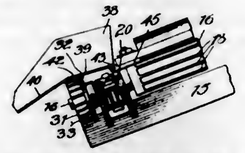
5. In a device of the character described, the combination of a channel tie member having spaced openings in the base thereof, a rail supporting block resting upon the tie member and positioned between the flanges thereof, said block having a bolt receiving notch in the top thereof, a rail resting upon the said block, a pair of rail clamping members mounted upon the tie on opposite sides of the block, the outer ends of the rail clamping members being formed with lugs loosely engaging the openings of the tie member while the inner ends thereof are formed with wings adapted to extend over and engage the basal flanges of the rail, said rail clamping members having bolt receiving openings registering with the bolt receiving notch of the block, and a clamping bolt connecting the rail clamping members and positioned within the bolt receiving notch of the block.

[Claims 6 and 7 not printed in the Gazette.]



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1,094,848. CORN-HUSKING MACHINE. JAMES E. GOODHUE, St. Charles, Ill. Filed Jan. 22, 1914. Serial No. 813,653. (Cl. 130—5.)



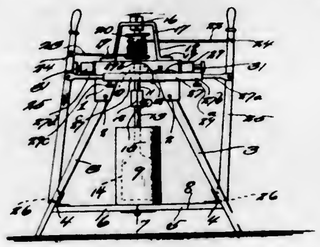
1. In a machine of the character set forth, the combination of inclined rotary members provided with means for husking ears of corn supported thereon, means at the lower ends of said members for driving one of said members from the other thereof, a member supported on said rotary members, and an inclined apron pivotally connected at its upper end with the machine and supported beyond said pivot on said last named member.

2. In a machine of the character set forth, the combination of inclined rotary members provided with means for husking ears of corn supported thereon, and movable laterally relative to each other, means for driving one of said members from the other thereof, a link embracing said rotary members for limiting such lateral movement, and a discharge apron or chute supported on said link in spaced relation to said means.

3. In a machine of the character set forth, the combination of inclined rotary members provided with means for husking ears of corn supported thereon, and movable laterally relative to each other, means for driving one of said members from the other thereof, a link embracing said rotary members for limiting said lateral movement, and a discharge apron or chute pivotally connected with the frame of the machine and supported at its free end on said link in spaced relation to said means.

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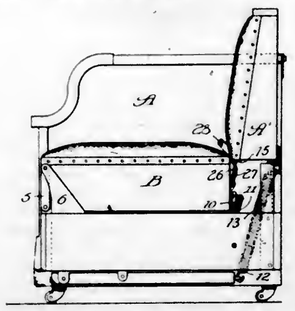
1,094,849. CHURN. ROBERT E. L. GROVE, Dickson, Tenn. Filed June 18, 1913. Serial No. 774,408. (Cl. 31—17.)



In a churn, a collapsible frame comprising a body member, legs hingedly connected thereto, a base member hingedly connected to the lower portions of the legs comprising two sections hingedly connected and adapted to support the churn receptacle, an arched bracket on the body member; a churn operating shaft including a drum mounted in bearings of the arched bracket and the body member; an operating mechanism for the shaft comprising levers hingedly connected to the base member, extensible connections between said levers, each of said extensible connections including hingedly connected elements whereby said extensible connections may be collapsed, locking means for holding said hingedly connected elements alined; cushioning buffers carried by the opposite sides of the body member to cushion said levers as they are oscillated; and connections between said levers and said drum whereby the operating shaft may be rocked; said frame being designed to be collapsed for storage.

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1,094,850. LOCK FOR SOFA-BED SEATS, &c. SIVERT GUNDERSEN, Chicago, Ill., assignor to S. Karpen & Bros., Chicago, Ill., a Corporation of West Virginia. Filed Jan. 24, 1912. Serial No. 673,235. (Cl. 5—51.)



1. In a structure of the character set forth, the combination with a fixed locking member, of a pivoted element, a resilient locking member secured at one end to the rear edge portion thereof and adapted to engage said first-named member with its free end, the said resilient locking member being equipped with arms intermediate its ends, and a member engaging the arms of said resilient locking member and adapted to compress the same and the free end thereof to effect the disengagement of the latter from the fixed locking member in the operation of lifting said pivoted element.

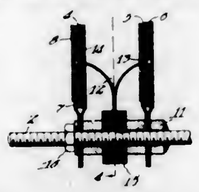
2. In a structure of the character set forth, the combination with a fixed locking member, of a pivoted element, a resilient locking member having a shank secured to said element and equipped with a locking shoulder adapted to engage said first-named locking member, said second named locking member equipped with arms, and a flexible loop-handle attached to said element and having its members engaging said arms, whereby said locking member will be released in the operation of lifting said element.

3. In a structure of the character set forth, the combination with a frame having its back portion equipped with a locking shoulder, of an element mounted in said frame and adapted to swing to a position in front of the frame, a resilient locking member having a shank attached to the rear portion of said element and an inclined portion with an offset upper end affording a locking shoulder engaging said first-named locking shoulders said locking member being equipped with laterally extending arms, and a lifting-loop having its extremities attached to said element beneath said arms, said loop serving as a means of releasing said locking member and lifting said element.

4. In means of the character set forth, the combination of a fixed locking member, an element mounted to swing about its front portion and having its rear portion disposed adjacent said fixed locking member, a resilient locking member having a shank attached to the rear portion of said element and having an inclined tongue rising from said shank and having its upper portion bent forwardly and then upwardly, said tongue equipped with lateral arms, and a loop-form handle having its extremities secured to said element below said arms and having its members passing over said arms, whereby the second-named locking member will be released in the action of lifting said element.

5. In means of the character set forth, a locking-member 20 having a shank adapted to be secured to a seat and having a resilient inclined tongue-portion 23 with an offset 24 at its upper portion affording a locking-shoulder, said portion 23 equipped with lateral lugs 26, for the purpose set forth.

1,094,851. ELECTRIC-RESISTANCE DEVICE. WILLIAM S. HADAWAY, Jr., New York, N. Y. Filed Nov. 20, 1911. Serial No. 661,204. (Cl. 219—63.)



1. In an electric resistance unit, a casing having slots in its opposite ends and on opposite sides thereof, and a strip of resistance material inclosed therein and insulated therefrom, said strip having extensions protruding through said slots and insulated from the walls thereof.

2. In an electric resistance unit, a strip of slotted resistance material having an integral extension of reduced width disposed at right angles to the slots therein, a plurality of sheets of insulation inclosing the same, one of said sheets having a slot in its end through which said extension protrudes, and a casing member having a slot therein opposite the slot in said sheet of insulation.

3. In an electric resistance unit, a strip of slotted resistance material having an integral extension of reduced width disposed at right angles to the slots therein, a plurality of sheets of insulation inclosing the same, one of said sheets having a slot in its end through which said extensions protrudes, and a casing member having a slot therein opposite the slot in said sheet of installation but of greater width and length.

4. In an electric unit, a metallic casing having slots in its opposite ends, sheets of insulation inclosed in said casing, said sheets having slots of smaller size opposite the slots in said casing, and a resistance material inclosed between said sheets of insulation and having extensions protruding through the slots in said insulating material and said casing.

5. In an electric resistance unit, a metallic casing having perforated lugs on its ends and transversely disposed slots in opposite sides of the same near its opposite ends, and a resistance material inclosed in said casing and insulated therefrom, said resistance material having perforated extensions protruding through the slots in said casing and a plurality of supporting members extending through the perforations in said lugs and said extensions.

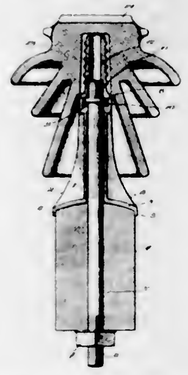
[Claims 6 to 10 not printed in the Gazette.]

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1,094,852. INSULATOR-PIN. JULIUS L. HECHT, Evanston, and JOTHAM C. GAPEN, Oak Park, Ill., assignors of one-half to Electric Service Supplies Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 4, 1911. Serial No. 642,273. (Cl. 173—321.)

1. The combination with an insulator support comprising a hollow base mounted upon a cross-arm, a bolt for securing said base in position on the cross-arm screw-threaded at both ends, one end projecting beneath the cross-arm to receive a nut and the other end projecting above the base, of an insulator comprising a conductor-carrying member and an internally screw-threaded thimble screwing on said projecting end of the bolt engaging the top of the base and clamping the base onto the cross-arm, and laterally projecting means on the bolt below the top of the base and independent of the insulator for preventing the bolt from dropping through the arm when the base and bolt alone are assembled on the cross-arm, said means permitting a free vertical movement of the bolt with respect to the base to allow the insulator to be properly adjusted on the base and at the same time have its thimble seat on and clamp the base in position.

2. The combination with an insulator support comprising a hollow base mounted upon a cross-arm, a bolt for securing said base in position on the cross-arm screw-threaded at both ends, one end projecting beneath the cross-arm to receive a nut and the other end projecting above the base, of an insulator comprising a conductor-carrying member formed of insulating material and having a wire receiving groove in the top thereof and an internally screw-threaded thimble screwing on the projecting end of the bolt engaging the top of the base and clamping the base onto the cross-arm, and laterally projecting means on the bolt below the top of the base and independent of the insulator for preventing the bolt from dropping through the arm when the base and bolt alone are assembled on the cross-arm, said means permitting a free vertical movement of the bolt with respect to the base to allow the groove in the top of the insulator to be properly alined and at the same time have the thimble of the insulator seat on and clamp the base in position.



3. The combination with an insulator support comprising a hollow base mounted upon a cross-arm, a bolt for securing said base in position on the cross-arm screw-threaded at both ends, one end projecting beneath the cross-arm to receive a nut and the other end projecting above the base, of an insulator comprising a conductor-carrying member and an internally screw-threaded thimble screwing on the projecting end of the bolt engaging on the top of the base and clamping the base onto the cross-arm, and a collar on said bolt arranged to engage a shoulder formed in said base below the top thereof to prevent the bolt from dropping through the base and arm after the bolt and base have been assembled on the cross-arm, said collar permitting a free vertical movement of the bolt with respect to the base to allow the insulator to be properly adjusted on the base and at the same time have its thimble seat on and clamp the base in position.

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1,094,853. METHOD OF TREATING RAWHIDE AND THE PRODUCT RESULTING THEREFROM. ALBERT H. HENDERSON, Baltimore, Md., assignor to The Henderson Rubber Company, Baltimore, Md., a Corporation of Maryland. Filed Aug. 3, 1911. Serial No. 642,205. (Cl. 106—23.)

1. The method herein described of expanding rawhide, or the like, in a watery solution containing a substance which will produce osmotic pressure upon the cells of the hide together with a deliquescent polyatomic alcohol, and thereafter subjecting the rawhide treated as aforesaid, to heat in the presence of an oily vehicle, substantially as set forth.

2. The method herein described of expanding rawhide, or the like, in a watery solution containing a substance which will produce osmotic pressure upon the cells of the hide together with a polyatomic alcohol capable of deliquescence, and thereafter subjecting the rawhide treated as aforesaid, to heat in the presence of an oily vehicle and a fixed oil, substantially as set forth.

3. The method herein described of expanding rawhide, or the like, in a watery solution containing a substance which will produce osmotic pressure upon the cells of the hide together with a deliquescent polyatomic alcohol capable of deliquescence, thereafter subjecting the rawhide treated as aforesaid, to heat in the presence of an oily vehicle and a fixed oil, introducing rubber to the interior of the rawhide, and vulcanizing the rubber, substantially as set forth.

4. An article of manufacture consisting of a consolidated mass of expanded granules or fragments of rawhide or the like charged with a deliquescent polyatomic alcohol, substantially as set forth.

5. An article of manufacture consisting of a consolidated mass of granules or fragments of rawhide or the like charged with a deliquescent polyatomic alcohol and vulcanized rubber, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,854. PRACTICE APPARATUS FOR SMALL-ARMS. HORATIO B. HOLLIFIELD, Washington, D. C. Filed Jan. 9, 1914. Serial No. 811,215. (Cl. 124—15.5.)



1. In apparatus of the class described, the combination with a firearm having a firing pin movable rearwardly to some distance from the cartridge chamber, of a marking rod located in the bore of the arm, bearing a marking point at its forward end and extending rearwardly into contact with the forward end of the firing pin, and a spring normally maintaining such contact.

2. The combination with a firearm having in the rear of its cartridge chamber a block provided with a firing pin passage alining with the bore of the arm, of a firing pin normally held in said passage at some distance from said chamber, a marking rod located in said bore and normally extending rearwardly into said passage and into contact with said firing pin, and a spring normally maintaining such contact and yieldingly resisting the forward movement of the rod.

3. The combination with a firearm having alongside the rear portion of its bore a cartridge-extracting spring hook, of a marking rod tube, adapted to be inserted in said bore and pressed rearward alongside said hook, and provided near its rear end with an external circumferential groove in position to be engaged by said hook.

4. The combination with a marking rod tube adapted to be inserted in the bore of a firearm, of a centrally perforated block fixed in the tube near its forward end, a marking rod sliding in the perforation in said block, a guiding block sliding in the tube near its rear end and fixed to the rod, a similarly perforated central block free from both rod and tube, and springs extending from the block last mentioned to the other blocks, respectively.

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1,094,855. REED-HOOK. WINFIELD L. KEITH, Milltown, Me. Filed Apr. 16, 1913. Serial No. 761,406. (Cl. 139—93.)

1. The combination with a handle, and an electric light therein, of a reed hook secured to said handle.

2. The combination with a handle, and an electric light therein, of a reed hook detachably secured to said handle.

3. The combination with a handle, and an electric light therein, of a reed hook secured to said handle, and a shield inclosing said light.

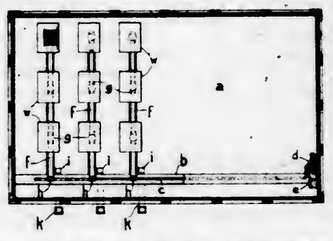
4. The combination with a handle, and an electric light therein, of a reed hook detachably secured to said handle, and a shield carried by said hook and inclosing said light.

5. The combination with a handle, and an electric light therein, of a reed hook secured to said handle and a combined shield and reflector secured to said hook and partially inclosing said light.



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1,094,856. THREAD-MOISTENING APPARATUS FOR TEXTILE-MACHINES. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Aug. 9, 1912. Serial No. 714,263. (Cl. 139—82.)



1. A moistening apparatus for looms comprising a plurality of distributing channels each extending beneath a row of looms; a blast pipe in each of said channels having an outlet beneath each loom of the row and open at one end; a supply channel communicating with all of said distributing channels at the open ends of said blast pipes; a water supply pipe in said supply channel having a discharge nozzle opposite the open mouth of each of said blast pipes; an air flue for each of said blast pipes, said air flue opening at one end to the outer air and at the inner end in the neighborhood of the open end of its corresponding blast pipe; and a valve beneath each loom adapted to govern the outlet from the blast pipe to the loom.

2. A moistening apparatus for looms comprising a plurality of blast pipes each extending beneath a row of looms and having an outlet beneath each loom of the row and open at one end; a water supply pipe having a discharge nozzle for each of said blast pipes; and an air flue for each of said blast pipes, said air flue opening at one end to the outer air and at the inner end in the neighborhood of the open end of its corresponding blast pipe.

3. A moistening apparatus for looms comprising a plurality of blast pipes, each extending beneath a row of looms and having an outlet beneath each loom of the row and open at one end; and a water supply pipe having a discharge nozzle for each of said blast pipes.

4. A moistening apparatus for looms comprising a blast pipe extending beneath a row of looms and having an opening beneath each loom and open at one end; a water supply pipe having a discharge nozzle for said blast pipe; and an air flue opening at one end to the outer air and at

the inner end in the neighborhood of the open end of said blast pipe.

5. A moistening apparatus for looms comprising a blast pipe extending beneath a row of looms and having an outlet beneath each loom and open at one end; and a water supply pipe having a discharge nozzle for said blast pipe.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,857. PROCESS OF PRODUCING AVAILABLE PHOSPHORIC ACID. WALTER S. LANDIS, Niagara Falls, Ontario, Canada, assignor to American Cyanamid Company, Nashville, Tenn., a Corporation of Maine. Filed July 12, 1913. Serial No. 778,730. (Cl. 71—7.)

1. The process of treating phosphatic material in order to render insoluble phosphates available which consists in preparing a finely divided mixture consisting of said material, a sodium salt and water; drying said mixture without permitting said salt to crystallize to a substantial extent; and then calcining the dried mixture to render soluble the contained phosphates, substantially as described.

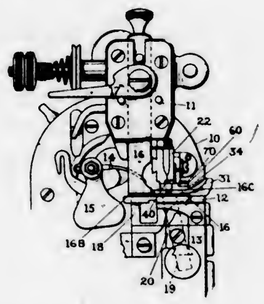
2. The process of changing insoluble phosphates into the soluble form which consists in preparing a finely divided mixture of tricalcium phosphate material, a sodium salt and water; drying said mixture so rapidly that no substantial crystallization of a contained soluble salt will take place; heating said dried mixture to a temperature sufficient to effect the desired transformation; and subsequently finely dividing the calcined mixture, substantially as described.

3. The process of changing the insoluble phosphates in phosphate rock into the soluble form which consists in finely dividing said rock; mixing sodium sulfate therewith; treating the mixture with water; drying the wet mixture thus produced so quickly as to prevent said sodium sulfate from crystallizing to an appreciable extent; and finally calcining said dried mixture at a temperature sufficient to produce the desired change, substantially as described.

4. The herein new composition of matter suitable for calcining consisting of a thoroughly dried mixture of divided phosphate rock and a soluble sodium salt substantially free from soluble crystals, substantially as described.

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1,094,858. SEWING-MACHINE EDGE-GUIDE. JOSEPH M. MERROW, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 9, 1909. Serial No. 488,885. (Cl. 112—9.)




1. In a sewing machine, in combination with the presser foot, a welt guide having a presser foot portion for bearing upon the fabric near the fold in the welt to be stitched to the edge of the fabric, a surface for engaging and guiding the fabric at said fold, the said surface being slightly oblique to the direction of the machine's feed, a surface for bearing upon a layer of the fabric toward the edge thereof and in proximity to the fold of the welt, and means for securing the guide to the presser foot.

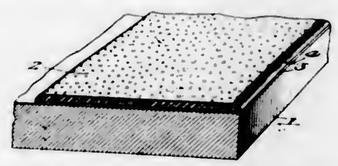
2. In a sewing machine, in combination, the presser foot, a welt guide for welts folded to produce three layers of material, the guide having three surfaces in fixed relation to each other, viz: a bearing surface substantially coincident with the plane of the bearing surface of the presser foot, a bearing surface in a plane parallel with the said coincident surface and a guiding surface intermediate the said bearing surfaces and extending in a direction slightly oblique to the direction of the machine's feed, and means for securing the guide to the presser foot.

3. In combination with a sewing machine presser foot, a welt guide having a wall one face of which is a guide for the fold of the welt to be stitched to the edge of the fabric, one edge of which wall forms a surface for bearing upon a layer of the fabric between the fold of the welt and the said edge and one end of which wall is formed into a chaining finger, and means for securing the guide to the presser foot.

4. In an overseaming machine including a fabric penetrating needle and a presser foot, a welt guide having a surface substantially forming an extension of the under surface of the presser foot for bearing upon the upper face of a folded welt, an edge guiding wall approximately the height of two thicknesses of the folded welt, the lower edge or surface of said wall forming a bearing surface to rest upon the lower thickness of the folded welt and an extension of said guiding wall being formed into a chaining finger adapted to shed off overseaming stitches and to guard the needle from undue deflection.

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1,094,859. ANTISLIP STAIR-SHEET. CHARLES MESSICK, Hackensack, N. J., assignor, by direct and mesne assignments, to Electrical Conveying Machinery Company, a Corporation of New York. Filed Sept. 1, 1910. Serial No. 580,126. (Cl. 20—79.)



1. A friction surface, wear resisting body comprising a tough metal plate whose surface has been prepared to increase its adhesiveness for lead and a coating throughout the wearing surface, of lead, in which friction causing or wear-resisting particles are distributed.

2. A friction surface wear-resisting body comprising a tough metal plate coated throughout its wearing surface with lead in which friction causing or wear-resisting particles are distributed, said coating being secured to said plate throughout their opposing surfaces by an intermediate thin coating intimately adhesive to the surface of the plate and lead coating.

3. A friction surface, wear-resisting body comprising a tough metal plate whose surface has been prepared by tinning to increase its adhesiveness for lead and a coating throughout the wearing surface, of lead, in which friction causing or wear-resisting particles are distributed.

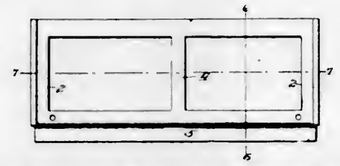
4. A friction surface wear-resisting body comprising a tough metal plate coated throughout its wearing surface with lead in which friction causing or wear-resisting particles are distributed, said coating being secured to said plate throughout their opposing surfaces by an intermediate thin tin coating intimately adhesive to the surface of the plate and lead coating.

5. A friction surface, wear-resisting body comprising a tough metal plate having a surface adapted to render it intimately adhesive to lead and a coating throughout the wearing surface, of lead, in which friction causing or wear-resisting particles are distributed.

[Claims 6 to 8 not printed in the Gazette.]



1,094,860. DASH FOR VEHICLES. WILLIAM J. MITCHELL, Gatesville, N. C., assignor of one-half to Charles P. Turner, Gatesville, N. C. Filed July 8, 1913. Serial No. 777,865. (Cl. 21—15.)



1. In an improved dash, a mounting member having returned side edges, a telescoping member adapted to slide within the returned edges of the mounting member, said telescoping member having a returned upper edge, and a filler removably secured between the mounting and telescoping members.

2. In an improved dash, a mounting member having returned side edges and cut away panel openings, a telescoping member adapted to slide within the returned edges of the mounting member, said telescoping member having a returned upper edge adapted to rest on the upper edge of the mounting member and having panel openings formed therein, and a filler inserted between the mounting and telescoping members to cover the cut away portions of the said members.

3. In an improved dash, a mounting member having its side edges returned in one direction, a telescoping member adapted to slide within the returned edges of the mounting member, and having a returned upper edge in the opposite direction, and a filler inserted between the mounting and telescoping members.

4. In an improved dash, a member having returned side edges, and an inset securing lip at its lower edge, a telescoping member adapted to slide between the inturned edges of the first mentioned member and having a returned upper edge, and a filler adapted to lie between the members and rest at its lower edge on the inset securing lip.

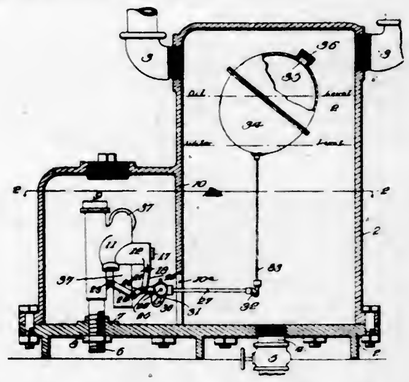
5. An improved dash composed of two metallic frames, one of said frames formed with a suitable foot by means of which it may be secured in position upon a vehicle and having its two ends returned in parallelism with the main body and separated therefrom a suitable distance to constitute channels for the reception of the end portions of the other frame, said other frame having its ends adapted to enter and be concealed within the returned ends of the aforesaid frame, and having its upper edge returned to cover and conceal the upper free edge of the above mentioned frame, whereby a leather or other panel may be readily secured in position between the frames and its edges protected, and to be readily removed when necessary.

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1,094,861. AUTOMATIC OIL AND WATER SEPARATOR. PETER MURPHY and FRANK M. MURPHY, Prescott, Ariz. Filed Dec. 4, 1911. Serial No. 663,866. (Cl. 210—5.)

1. An apparatus of the character described comprising a tank containing liquids of different densities and provided with an outlet opening, a valve controlling the discharge therethrough, a lever arm angularly adjustable in a vertical plane with respect to the valve, a lever operatively connecting the lever arm and valve to operate the latter, and a float operatively connected to the lever arm, said float being adjustable in weight and its weight being so adjusted that it will sink in the lighter liquid and float upon the heavier liquid.

2. A separator for a mixture of two liquids having different densities comprising a settling tank having an outlet pipe, a valve controlling the passage through said outlet pipe, a lever arm angularly adjustable in a vertical plane with respect to the valve acting to open the valve when moved in one direction and to close the valve when moved in the other direction, and a float connected to said lever, said float being lighter than an equal mass of the denser liquid but heavier than an equal mass of the less dense liquid.

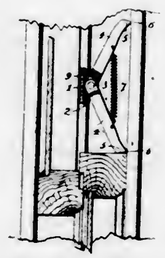


3. An apparatus for separating mixed liquids of different densities, including a receiving tank, an outlet pipe opening through the bottom of the receiving tank, a valve controlling the discharge of liquid into the outlet pipe, a lever operatively engaging said valve, an arm operatively connected to said lever, said arm being rotatably adjustable in a vertical plane, a float in the tank lighter than an equal mass of the denser liquid but heavier than an equal mass of the less dense liquid, and a rod upon which the float is mounted pivotally connected to the end of the arm.

4. An apparatus for separating intermingled liquids of two different densities, comprising a settling tank having an outlet, a valve controlling the passage of liquid through said outlet, a float operatively connected to the valve, means for adjusting the float with respect to the valve to render it operable at any desired level in the tank, and means for adjusting said float to vary its specific gravity according to the specific gravity of the liquids to be separated.

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1,094,862. WINDOW-FASTENER. FRANK H. NEWCOMB, Brooklyn, N. Y. Filed June 23, 1909, Serial No. 503,941. Renewed Mar. 18, 1914. Serial No. 825,680. (Cl. 16—18.)



1. A portable window fastener, comprising an engaging shoe provided at one of its faces with means to engage a window sash, a plurality of locking levers pivotally connected to said shoe at its opposite face, and means for tensioning said levers relatively to each other to hold the fastener in applied position.

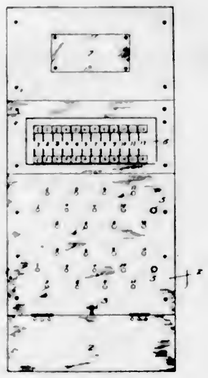
2. A portable window fastener, comprising an engaging shoe provided at one of its faces with means to engage a window sash, and having at its other face a projecting lug, a plurality of locking levers pivotally connected to said lug, and each provided with a foot having a knife edge adapted to engage the window frame when the fastener is in applied position, the feet of the locking levers

projecting laterally to one side thereof and beyond the side of the shoe, and means connected to said levers for tensioning the latter relatively to each other to hold the fastener in applied position.

3. A portable window fastener, comprising an engaging shoe provided at one of its faces with means to engage a window sash, a plurality of locking levers pivotally connected to said shoe at its opposite face, each of said levers provided with a knife-edged bearing surface upon its free end, and means for tensioning said levers relatively to each other to hold the fastener in applied position.

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1,094,863. CAR-WINDOW-OPENING DEVICE. JOHN NORENO, Pittsburgh, Pa. Filed June 19, 1913. Serial No. 774,619. (Cl. 39—97.)



1. In a passenger carrying vehicle provided with windows, winding drums grouped in one place, flexible connections between said windows and winding drums, signals connected to said flexible connections, a key for operating any of said drums, pawls and ratchets for said drums, and individual keys for releasing said pawls from the ratchets.

2. In a chamber provided with windows, individual window operating devices grouped together in one place, a cabinet inclosing said devices, a door for closing said cabinet, openings in said door, marks near said openings indicating particular windows, a winch for insertion in any of the said openings and winch-operated means back of the openings connected with the individual operating devices.

3. In a chamber provided with windows, individual operating devices, a mark and a signal both corresponding to a particular window being provided in connection with each of said operating devices, a cabinet in which said devices and signals may be grouped, and a door for said cabinet, said door being provided with openings to afford access to the individual marks, and a window in front of the said signals.

4. In a chamber provided with windows, individual window operating devices, each of said devices being provided with a ratchet, a pawl for engagement with the ratchet, and a key for releasing the pawl from such engagement, a cabinet for inclosing said devices and keys, and a door for said cabinet, said door being provided with individual openings for affording access to said operating devices.

5. In a passenger carrying vehicle provided with transoms and windows, individual transom and window opening devices, a cabinet in which said devices are grouped together, each of said devices consisting of a drum, a ratchet on said drum, a pawl for engagement with said ratchet, a key for operating said pawl, and flexible connections between each of said drums and its particular transom or window.

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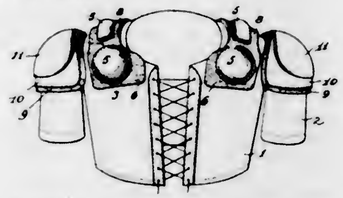
1,094,864. GAS. FRANKLIN PIERCE PETERSON, Tulsa, Okla. Filed Jan. 5, 1914. Serial No. 810,333. (Cl. 48—1.)

1. A new composition of matter, consisting of a liquefied mixture of ethane, propane and butane, produced from natural gas and substantially free from the other hydrocarbons.

2. A new composition of matter consisting of a mixture of easily liquefiable constituents of natural gas, substantially freed of methane and of pentane and higher paraffins.

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1,094,865. FOOT-BALL PROTECTIVE APPAREL. GEORGE L. PIERCE, Brooklyn, N. Y. Filed Jan. 31, 1913. Serial No. 745,350. (Cl. 2—190.)



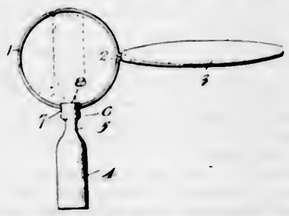
1. In apparel of the class described, the combination of an anchorage of flexible material adapted to be carried by a portion of the human body and comprising a close-fitting jacket of substantially non-stretching material, a resilient member fixedly carried exteriorly by said anchorage, said resilient member being constructed of a soft material such as felt and having an opening therethrough, and a rigid member carried exteriorly by said resilient member.

2. In apparel of the class described, the combination of an anchorage of flexible material adapted to be carried by a portion of the human body and comprising a close-fitting jacket of substantially non-stretching material, a resilient member fixedly carried exteriorly by said anchorage, said resilient member being constructed of a soft material such as felt and having an opening therethrough, and a rigid member carried exteriorly by said resilient member, said rigid member having a dished portion overlying said opening and spaced from said anchorage member.

3. In apparel of the class described, the combination comprising a close fitting jacket of substantially non-stretching material, a pair of thick pads of soft material one for each shoulder permanently secured to the outside of the jacket and consisting of a portion extending like an epaulet over the top of the shoulder, and enlarged portions at its front and rear ends, covering respectively the collar bone and shoulder blade regions, and having openings therethrough over the top of the shoulder, the collar bone and shoulder blade regions; and roofing parts over the top of said openings.

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1,094,866. PUZZLE. JAMES J. QUINN, Chester, Pa., assignor of one-third to William S. Sykes, Chester, Pa. Filed Apr. 7, 1913. Serial No. 759,513. (Cl. 46—41.)



1. A bottle shaped device having a perforation in its head, a loop on which the bottle is suspended, and the dimension of the loop being such as to permit the loop to pass over the upturned bottom of the bottle when the same is standing on its head.

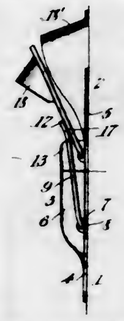


2. A continuous ring and a handle, a device having a perforation of greater diameter than the cross section of the ring and loosely retained thereon, the dimension of the ring being such as to permit the ring to pass over the upturned bottom of the device when standing on its head.

3. A continuous ring and a handle, and a bottle shaped device, having a perforation of greater diameter than the cross section of the ring and loosely retained on the ring, the dimension of the bottle from the center of the perforation to its bottom being greater than the diameter of the ring, as set forth.

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1,094,867. TRUNK-FASTENER. JOSEPH W. SEWARD, Petersburg, Va., assignor to Seward Trunk and Bag Company, Petersburg, Va., a Corporation of Virginia. Filed Dec. 31, 1913. Serial No. 809,703. (Cl. 70—102.)



1. A trunk fastener, comprising a body member formed of a plate having a housing struck up and outwardly therefrom, a coöperating lid member comprising a plate having a lug and a substantially semi-circular guard struck up and outwardly therefrom, said guard being in a plane above the lug, a pivoted spring-actuated hasp loop mounted in the housing of said body member and adapted to embrace the lug of said lid member, a lever pivotally mounted within the lug of the lid member and having a handle portion adapted to fit within the guard member thereof, said lever being engaged by said hasp loop when in locked position and adapted to be disengaged therefrom by outward movement of said lever.

2. In a trunk fastener, the combination with a spring-actuated hasp loop, of an outwardly projecting retaining lug engaged by said hasp, a pivoted lever carried by said retaining lug engaged by said hasp for normally holding said lever in raised position, said lever being capable of moving said hasp off of said lug.

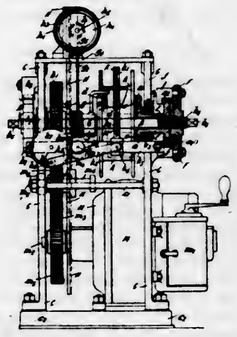
3. In a trunk fastener, the combination with a body member, of a coöperating lid member, a pivoted spring-actuated hasp loop carried by the body member, a retaining lug carried by the lid member to receive said hasp loop, and a lever carried by said lid member engaged by said hasp loop when in locked position and adapted to be disengaged therefrom by the outward movement of said lever.

4. A trunk fastener, comprising a body member having a housing, a pivoted spring-retained hasp loop mounted in said housing, said housing being provided with a socket, a lid member having an outwardly projecting retaining lug, a dowel extending from said lug adapted to coöperate with said socket, a loop lever mounted within said retaining lug and adapted to be engaged by said hasp loop for holding said loop lever in vertical position, said loop lever having a handle portion forming a lift for disengaging the hasp loop from said retaining lug when lifting said lid.

5. A trunk fastener, comprising a lid member and a body member, said lid member being provided with an outwardly projecting lug having a depending dowel extending therefrom, a housing formed on said body member having a dowel socket to receive said dowel, a spring-actuated pivoted loop hasp mounted within said housing capable of embracing said lug, a loop lever having its cross bar pivotally mounted within said lug adapted to be held in contact with said lid member by said loop lever, and capable of disengaging said loop hasp from said lug when moved in an outward direction.

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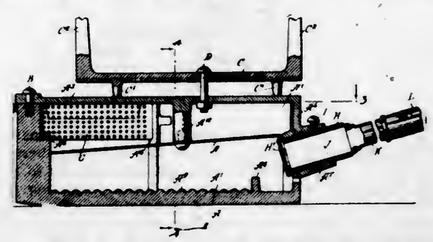
1,094,868. SOUNDING-MACHINE. HARRY LEONARD WAITE, Egremont, England. Filed July 31, 1913. Serial No. 782,320. (Cl. 57—83.)



A sounding machine comprising in combination a frame, a shaft journaled therein, means for driving said shaft, a cable drum loosely mounted on the shaft, a frictional member fixed to said shaft and located on one side of said drum and adapted to engage therewith, a slidable member on the other side of said drum comprising a hollow boss feathered on the shaft having a bearing in the frame and forming itself a bearing for the shaft, said boss being provided at its inner end with a frictional surface adapted to bear against said drum, and provided at its outer end with a suitable flange outside the main frame, and a wheel nut fitting a threaded portion of the shaft and adapted to bear against said flange with retaining means for coupling the wheel nut thereto, substantially as described.

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1,094,869. SAD-IRON. JAMES E. AUSTIN, Binghamton, N. Y., assignor to Central Flatiron Mfg. Co., Binghamton, N. Y., a Corporation. Filed Jan. 18, 1910. Serial No. 538,591. (Cl. 158—23.1.)



1. A sad iron comprising a hollow body having a tubular and upwardly inclined boss at its rear end and a transverse projection on the inner face of its bottom adjacent to said rear end, and a burner and mixing chamber consisting of two telescoping tubular members, one of which is adjustably secured in the boss and is provided with a perforated covering at its inner end, and with the other of which, a gas supply is adapted to be connected.

2. A sad iron, comprising a hollow body, a boss at the rear end of the said body and inclined in an upward and rearward direction, a bushing in the said boss and provided at its forward end with a perforate covering, a sleeve slidably engaging the said bushing, and a pipe connected with a gas supply and having an air admission valve for controlling the admission of air to the gas in the said pipe, and said pipe being connected with the outer end of the said sleeve.

3. A sad iron, comprising a hollow body, a boss at the rear end of the said body and inclined in an upward and rearward direction, a bushing in the said boss and provided at its forward end with a perforate covering, a screw screwing in the said boss against the said bushing for adjustably securing the bushing in place in the boss, a sleeve slidably engaging the said bushing, and a pipe connected with a gas supply and having an air admission valve for controlling the admission of air to the gas in the said pipe, the said pipe being connected with the outer end of the said sleeve.

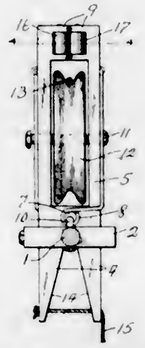
4. A sad iron, comprising a hollow body having outlets at the sides of the front and having openings at the rear end, a burner extending through the rear end of the said body, and a deflector arranged within the said hollow body intermediate the top and bottom thereof, the rear end of the deflector extending to the said rear end openings, and the forward end of the deflector being below the said outlets at the sides of the hollow body.

5. A sad iron, comprising a hollow body having outlets at the sides of the front and having openings at the rear end, a burner extending through the rear end of the said body, and a deflector arranged within the said hollow body intermediate the top and bottom thereof, the rear end of the deflector extending to the said rear end openings, and the forward end of the deflector being below the said outlets at the sides of the hollow body, the said deflector being provided at the sides with upturned flanges spaced from the sides of the said body.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,870. TROLLEY-GUARD. JOHN H. BOYD, Carlisle, Pa. Filed Oct. 11, 1913. Serial No. 794,655. (Cl. 191—80.)



1. In a device of the class described, the combination with a trolley pole having a slot in the outer end thereof; of a pair of arms disposed in the slot of said pole to project above and below the same, the lower projecting portions of said arms being beveled to provide a space therebetween and the upper projecting portions of said arms being designed to form a harp, means to support said arms in position on the pole, a trolley wheel operatively supported between the harp portions of said arms, inwardly disposed extensions formed on the upper ends of said arms adapted for contact with one another, spring means in connection with said arms to normally retain the extensions in contact with one another, and means in connection with the lower projecting portions of said arms, whereby to separate the upper ends thereof.

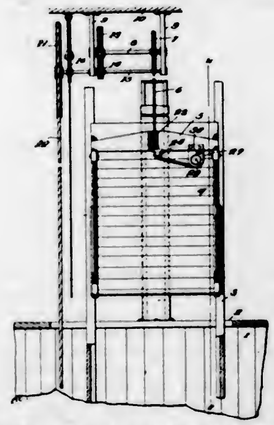
2. In a device of the class described, the combination with a trolley pole having an opening therein; of a pair of arms disposed in said opening to project above and below said pole, the lower projecting portions of said arms being beveled outwardly toward their lower ends to provide a space therebetween and the upper projecting portions of said arms being designed to form a trolley harp, the contacting faces of said arms at a point above said pole being provided with registering cavities to form an opening therein, inwardly disposed extensions formed on the upper ends of said arms, a coil spring disposed in the last mentioned opening, the ends of said coil spring being bent in opposite directions and engaged, respectively with said arms, to normally force the upper portions thereof together, means to rigidly secure one of said arms to the trolley pole, additional means extending through the coil spring in the opening formed between said arms to additionally support said arms in position in the pole, and means in connection with the lower projecting portions of said arms whereby to separate the upper portions thereof.

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1,094,871. [WITHDRAWN.]

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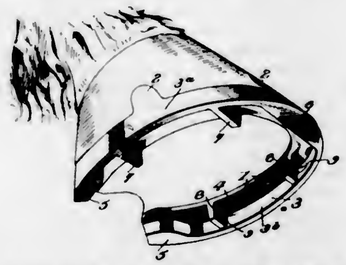
1,094,872. ENSILAGE-ELEVATOR. CHARLES C. BROWN, El Reno, Okla. Filed June 5, 1913. Serial No. 771,989. (Cl. 187—21.)



The combination with an elevator cage having a transverse beam located at one side thereof, and a hoisting cable extending through the beam, of a pulley upon the under side of the beam through which the cable passes, a casing mounted upon the beam and extending inwardly toward the center of the cage, a winding drum mounted for rotation in the casing and having one of its journals projecting through the inner end wall of the casing, the hoisting cable being wound upon the drum, a ratchet fixed upon the projecting journal of the drum, and a pawl pivoted upon the said wall of the casing exteriorly thereof and resting in engagement with the ratchet.

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1,094,873. HORSESHOE. PATRICK F. BURKE, New York, N. Y. Filed Dec. 11, 1912. Serial No. 736,195. (Cl. 168—24.)



1. A horse shoe having a body provided with a depending flange, and lugs integral with and projecting from the under side of the body at each side of the shoe, the lugs at the outer side of the shoe being also integral with the said flange and the lugs at the inner side of the shoe being spaced from the flange and having their sides which are presented toward the flange inclined upwardly toward the flange and merging with the same substantially at the line of juncture of the flange with the body of the shoe.

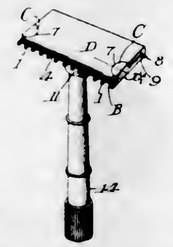
2. A horse shoe having a body provided with a depending flange, and lugs integral with and projecting from the under side of the body at each side of the shoe, the lugs at the outer side of the shoe being also integral with the said flange and the lugs at the inner side of the shoe being spaced from the flange and having their sides which are presented toward the flange inclined upwardly toward the flange and merging with the same substantially at the line of juncture of the flange with the body of the shoe and arranged to constitute supports for the flange when the flange is struck-in to position thereagainst.

3. A horse shoe comprising a body having a downwardly and outwardly inclined flange located at its outer edge and lugs projecting from the under side of the body and each having a side spaced from the flange and inclined downwardly and inwardly, the angle of inclination of the said side of each lug and the opposing portion of the flange being substantially the same and the lower edge of the flange and the lower ends of the lugs occupying the same horizontal plane.



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1,094,874. SAFETY-RAZOR. ARTHUR CAMERON, Chicago, Ill. Filed Aug. 26, 1909. Serial No. 514,729. (Cl. 30—12.)



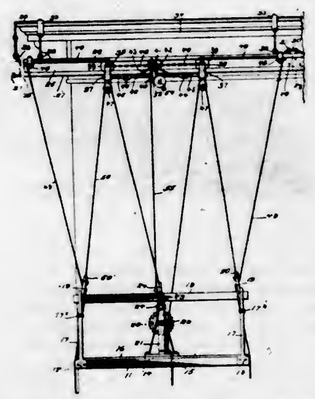
1. In a safety razor, the combination of substantially rectangular supporting guard and clamp plates, said supporting guard plate having comb-teeth on its forward edge and an opening extending through said plate midway between its ends, and said clamp plate having a rigid stem extending through said opening, a part threaded on said stem and passing through said supporting guard, a threaded member to engage said threaded part of the stem for drawing said plates together, and a reversible, double-edged blade in the form of a narrow imperforate strip having both its edges sharpened and arranged between the forward edges of said plates and entirely in front of said stem, one of said plates having projecting lugs at its ends located midway between said opening in the guard plate and the forward edge of said plate, and the other of said plates and said blade having end portions formed to interlock with said lugs to position said reversible blade with either of its edges in operative position, substantially as described.

2. In a safety razor, the combination of substantially rectangular supporting guard and clamp plates, said supporting guard plate having a projecting part midway between its ends with an opening extending therethrough and having comb-teeth on its forward edge, said clamp plate having a flange at its rear edge adapted to overlap the rear edge of said guard plate and also having a stem extending through said opening, a part threaded upon said stem and passing through said projecting part of the guard plate, a threaded member to engage said threaded part of the stem for drawing said plates together, and a reversible, double-edged blade in the form of a narrow, imperforate strip having both its edges sharpened and arranged between the forward portions of said plates and on the front side only of said stem, one of said plates having projecting lugs at its ends midway between the forward edge of the opening in said supporting plate and the front edge thereof, the other of said plates and said blade having end notches midway between the edges and arranged to interlock with said lugs to position said reversible blade with either of its edges in operative position, substantially as described.

3. In a safety razor, the combination of substantially rectangular supporting guard and clamp plates, said guard plate having a projecting portion midway between its ends with an opening extending therethrough at an acute angle to said plate, said clamp plate having a correspondingly disposed rigid stem arranged to extend through said opening, a part threaded on said stem and passing through the opening in said projecting portion, a threaded handle to engage said threaded part of the stem for drawing said plates together, and a reversible, double-edged blade in the form of a narrow, imperforate strip having both its edges sharpened and arranged between the forward portions of said plates and on the front side only of said stem, one of said plates having projecting lugs at its ends located midway between the opening in the supporting guard and the front edge thereof, and the other of said plates and said blade having end portions formed to interlock the said lugs to position said reversible blade with either of its edges in operative position.

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1,094,875. SCAFFOLD. ERIK J. CARLSON. Brooklyn, N. Y. Filed Apr. 26, 1912. Serial No. 693,374. (Cl. 20—82.)



1. In a device of the class described, a supporting track, a traveler including a hanger, a pulley supported in said hanger and engaging said track, a locking device operating through said hanger in position to engage said pulley, means for maintaining said locking device in engagement with said pulley, and means for releasing said locking device from engagement with said pulley.

2. In a device of the class described a supporting track, a traveler including a hanger having pulleys engaging said track, a screw operating through said hanger in position to engage the adjacent track pulley, means for maintaining said screw normally in engagement with said pulley, and means for rotating said screw for releasing it from engagement with the pulley.

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1,094,876. CEMENTITIOUS PRODUCT AND PROCESS OF MAKING SAME. WILLIAM E. CARSON, Riverton, Va. Filed Apr. 5, 1911, Serial No. 619,133. Renewed Oct. 25, 1913. Serial No. 797,356. (Cl. 106—43.)

1. The process of making cementitious compositions which comprises exposing an intermediate mixture of

fine ground slag and fine ground quicklime to the action of sufficient water to produce an unset mixture having hydraulic properties.

2. The process of making cementitious compositions which comprises exposing intimately admixed fine ground high alumina slag and quicklime simultaneously to the action of water in amount only sufficient to produce unset compounds.

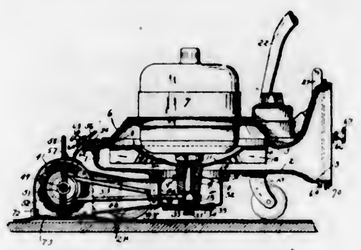
3. The process of making cementitious compositions which comprises fine grinding slag and quicklime together to produce an intimate commixture and adding water in amount sufficient to hydrate the mixture to a point short of the setting point.

4. The process of making cementitious compositions which comprises fine grinding high alumina slag and quicklime together to produce an intimate commixture and adding water in amount sufficient to hydrate the mixture to a point just short of the setting point.

5. As a new composition of matter, a dry pulverulent mixture comprising a partially hydrated and unset intimate commixture of pulverulent high alumina slag and pulverulent lime, the slag particles having been uniformly chemically affected by said lime with the formation of settable compounds, and said mixture being capable of setting on addition of water.

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1,094,877. CLEANER. FRANCIS M. CASE, Cleveland, Ohio. Filed Sept. 26, 1910. Serial No. 583,856. (Cl. 15—60.)



1. In a cleaner for surface coverings, a main casing, supporting means therefor, a suction hood pivoted to the casing and in open communication therewith and projecting freely beyond all supporting means for the entire device, said suction hood being provided with a mouth having its edges in a single plane substantially in parallelism with the surface covered and at a distance therefrom greater than the thickness of the surface covering, means for adjusting the said hood for coverings of different thicknesses, means within the hood for vibrating the surface covering operated upon, and means for creating a suction within the casing and within said hood sufficient to suspend the surface covering against said mouth.

2. In a cleaner, a main casing, supporting wheels therefor, a housing carried by said casing and in open communication therewith, said housing having an inlet opening a suction hood pivoted in the inlet opening in said housing and in open communication therewith, said hood having a mouth, means for holding said suction hood in any adjusted position, a brush mounted in said hood above the mouth therein, means for creating a suction in the main casing and the suction hood, and means for rotating the brush.

3. In a cleaner, a main casing, supporting wheels therefor, a housing secured to the underside of said casing and in open communication therewith and provided with an inlet opening in its side, a suction hood having a mouth and a hollow shank pivoted in the inlet opening of said housing, said shank establishing communication between the suction hood and the housing, a brush rotatably mounted in said hood above the mouth, means for creating a suction within the casing and within the hood, means for rotating said brush, and means for holding the hood in any adjusted position.

4. In a cleaner, a main casing, supporting wheels therefor, a housing secured to the underside of said casing and in open communication therewith and provided with an opening in its side, a suction hood having a mouth and a hollow shank pivoted in said side opening of the housing, said shank establishing communication between the suction hood and the housing, a brush rotatably mounted in said hood above the mouth therein, means for creating a suction within the casing and within the hood, means for rotating said brush, an arc-shaped arm carried by said hood and provided with serrations, a guide for said arm carried by the main casing, a serrated block adapted to engage the serrations of said arm, and suitable clamping means provided between the block and the guide for holding the serrated parts in engagement.

5. In a cleaner, a main casing provided with a discharge opening and an inlet opening in its bottom, a housing secured to the casing about said inlet opening, said housing being provided with an opening in its side, a suction hood having a hollow shank extending into the opening in said housing and pivotally mounted therein, pivot pins connecting the housing and said shank, a brush mounted in said suction hood, means for holding the suction hood in any adjusted position, means for creating a suction within the main casing and within the suction hood, and means for rotating said brush.

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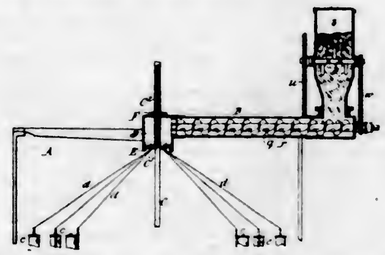
1,094,878. CENTER-MOLD FOR ICE-CREAM. WILLIAM WALKER CASSELL, Vincennes, Ind. Filed May 5, 1909. Serial No. 494,044. (Cl. 107—19.)



A mold of the class described comprising a body portion formed of resilient metal and having disconnected ends whereby the resiliency of the metal will spring or expand the sides, caps arranged on the opposite ends of the mold and having flanges to engage and hold the sides thereof in retracted or operative position, and a V-shaped binding strip for holding the disconnected ends of the body portion of the mold together, the ends of said strip extending between the flanges of the caps and the body portion.

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1,094,879. MANUFACTURE OF RUBBER HOSE. HENRY ZENAS COBB, Winchester, Mass. Filed Mar. 28, 1912. Serial No. 686,869. (Cl. 154—6.)



1. The process of making hose which consists in forming an ascending tubular textile web, while introducing a dense plastic material around the newly-formed web above and in contact with the converging yarns at such rate as to penetrate the mesh thereof.



2. The process of making hose which consists in forming an ascending tubular textile web, while introducing a dense plastic material around the exterior of the newly-formed web to penetrate the mesh thereof, and into contact with the converging yarns, and removing an excess of such material from the web.

3. An apparatus for making hose, comprising means for forming a tubular textile web, and means for introducing a plastic material around the newly-formed web comprising a coating chamber and means for forcing the material thereinto under pressure.

4. An apparatus for making hose, comprising means for forming a tubular textile web and feeding it upwardly as formed, and means for introducing a plastic material directly above the converging yarns adapted to permit the material to gravitate into the yarns.

5. An apparatus for making hose, comprising means for forming a tubular textile web and feeding it upwardly as formed, and means for introducing a plastic material directly above the converging yarns, comprising a coating chamber having a bottom opening large enough to admit the web, and having a top wiper die and means for forcing the material into said chamber.

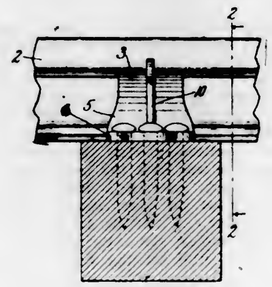
[Claim 6 not printed in the Gazette.]

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1,094,880. [WITHDRAWN.]

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1,094,881. RAIL-BRACE. JOHN E. CONLEY, Memphis, Tenn. Filed May 31, 1910. Serial No. 564,107. (Cl. 239—15.)



1. A rail brace comprising a loop adapted to fit snugly under the head of the rail and provided with two branches, one branch engaging the web of the rail and substantially parallel thereto, a connecting member between the two branches and integral therewith a connecting rib between the loop and the base and engaging the ball of the rail and the base thereof and a base connected with said loop.

2. A rail brace comprising a loop with the closed end at the top, said closed end adapted to engage the head of the rail and provided with two branches, one of which engages the web and a central connecting member cut away to receive the base of the rail and provided with a shoulder which engages the base of the rail and a base at one side of said loop and integral therewith, by means of which the rail brace is fastened to a support.

3. A rail brace comprising a loop adapted to fit beneath the head of the rail and provided with two branches one of which engages the head of the rail, a connecting member between said branches and integral therewith, said connecting member cut away to receive the base of the rail, an engaging face at the bottom of the brace for engaging the vertical face of the rail base, a base connected with said loop and integral therewith and a projecting rib connecting the base and loop and in line with said connecting piece.

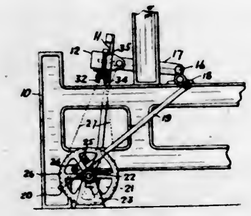
4. A rail brace comprising a loop having one branch extending between the head and base of the rail and engaging the web of said rail, an intermediate connecting piece integrally attached to the branches of said loop and an intermediate rib on the outside of said loop in alinement with the connecting piece and having a portion which engages the ball of the rail and a base with which said rib is integrally connected.

5. A rail brace comprising a loop having one branch extending between the head and base of the rail and engaging the web of said rail, an intermediate connecting piece integrally attached to the branches of said loop and an intermediate rib on the outside of said loop in alinement with the connecting piece and having a portion which engages the ball of the rail and a base with which said rib is integrally connected, said base provided with holes on opposite sides of said rib for the holding devices.

[Claim 6 not printed in the Gazette.]

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1,094,882. HAIRCLOTH-LOOM. GEORGE S. COX, Philadelphia, Pa. Filed July 25, 1913. Serial No. 781,064. (Cl. 139—49.)



1. In a loom, the combination with the crank-shaft, the pivoted lay and the shuttle race carried thereby, and the shuttle, of shuttle reciprocating means comprising a pulley turnable on an axis parallel to the crank-shaft, a crank on the crank-shaft, a pinion on the pulley shaft, a rack bar attached to the crank and in driving engagement with said pinion, a flexible connection engaging the shuttle, the opposite ends of the flexible connection connecting with the pulley face and winding about the same in opposite directions, and guide rollers, engaged by the flexible connection, between the shuttle and each end of the flexible connection connected to the pulley.

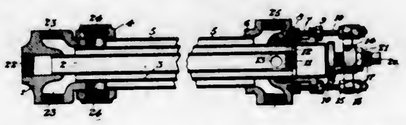
2. In a loom, the combination with the crank-shaft, the pivoted lay and the shuttle race carried thereby, and the shuttle, of shuttle reciprocating means comprising a pulley turnable on an axis parallel to the crank-shaft, a pinion on the pulley shaft, a rack bar attached to the crank and in driving engagement with said pinion, a flexible connection engaging the shuttle, the opposite ends of the flexible connection connecting with the pulley face and winding about the same in opposite directions and directly feeding therefrom in an upward direction, a pair of guide rollers arranged above the pulley, and a pair of guide rollers arranged above and on opposite sides of the first pair of guide rollers and below the level of the shuttle race, one roller of each pair engaging one section of the flexible connection and the other roller of each pair engaging the other section of the flexible connection.

3. In a loom, the combination with the crank-shaft, the pivoted lay and the shuttle race carried thereby and the shuttle, of shuttle reciprocating means comprising a pulley turnable on an axis parallel to the crank shaft, a

pair of guide rollers directly above the pulley, a pair of guide rollers above and on opposite sides of the first pair of guide rollers and below the level of the shuttle race, a flexible connection connected to the pulley face and winding about the same in one direction and thence extending upward to one of the first pair of rollers, thence longitudinally of the shuttle race to one of the second pair of rollers, thence longitudinally of the shuttle race and attached to the shuttle, thence longitudinally of the shuttle race to the other of the second pair of rollers, thence longitudinally of the shuttle race to the other of the first pair of rollers, thence downward to and winding about the pulley face in a direction opposite to the direction of extension of the first end of the flexible connection about the pulley face, a crank on the crank-shaft, a pinion on the pulley shaft, and a rack-bar attached to the crank and in driving engagement with said pinion.

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1,094,883. STEAM-TRAP. JOHN L. CREVELING, New York, N. Y., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y., a Corporation of New York. Filed May 28, 1908. Serial No. 435,378. (Cl. 236—9.)



1. A trap comprehending a tube for conveying liquid; a second tube within the first tube whereby a heating medium in the second tube can be utilized to heat the liquid in the first tube and means coöperating with the second tube so that the heating medium governs direct communication of the second tube with the atmosphere, the trap having no communication between the interior of the tube for conveying the liquid and the interior of the second tube.

2. A combined jacket and trap comprehending fluid conducting means adapted to contain a circulatory medium; means within the same for imparting heat thereto; in combination with means whereby the expansion of said heat imparting means governs communication of the same with the atmosphere, the combined jacket and trap having no communication between the fluid conducting means and the heating means.

3. A steam trap comprising a steam conveying expansion member; fluid conducting means in operative relation thereto; and means whereby expansion action of the expansion member governs the communication of the expansion member with the atmosphere, there being no direct communication between the steam conveying member and the fluid conducting means.

4. A combined jacket and trap comprising an outer tube adapted to contain a circulating medium; a tube within the same adapted to convey steam in operative relation to and separated from the circulating medium; and means whereby expansion of the steam conveying tube controls the drainage of the same.

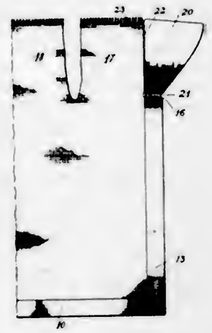
5. A steam trap comprehending a conduit adapted to carry steam under pressure; combined with means whereby water of condensation is discharged from said conduit; means for utilizing heat of said steam while in transit through said conduit, comprising means for conducting a circulating medium in operative relation to said conduit; and means for controlling communication of the conduit with the atmosphere.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,884. KNITTED GARMENT. WILLIAM N. DANIELS, New York, N. Y. Filed June 2, 1913. Serial No. 771,155. (Cl. 66—4.)

1. The process of knitting a garment consisting in knitting the welt, adding a number of needles corresponding to twice the width of the border, knitting the body together with the double width of border up to the end of the border, throwing off the needles corresponding to the border, continuing with the knitting to form the shoulder portions, folding over the border and attaching the same to the body, inserting a lapel portion having an end provided with the same number of stitches as the end of the border and knitting the said end of lapel to the end of the border and attaching the side of the lapel to the side of the shoulder portion.

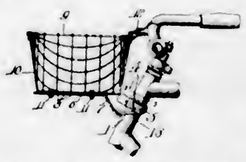


2. The process of knitting a garment consisting in knitting the welt, adding a number of needles corresponding to twice the width of the border, knitting the body together with the double width of border up to the end of the border, throwing off the needles corresponding to the border, continuing with the knitting to form the shoulder portions, folding over the border and attaching the same to the body, inserting a lapel portion having an end provided with the same number of stitches as the end of the border and knitting the said end of lapel to the end of the border, attaching the side of the lapel to the side of the shoulder portion, and knitting the lower end of the border together.

3. The process of knitting a garment consisting in knitting the welt, adding a number of needles corresponding to twice the width of the border, knitting the body together with the double width of border up to the end of the border, throwing off the needles corresponding to the border, adding a needle and continuing with the knitting to form shoulder portions having one stitch projecting over the border, continuing with the knitting to form shoulder portions, folding over the border and attaching the same to the body, inserting a lapel portion having an end provided with the same number of stitches as the end of the border and knitting the said end of lapel to the end of the border, and attaching the side of the lapel to the extra stitch at the side of the shoulder portion.

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1,094,885. PACKAGE-CARRIER FOR BICYCLES. ELMER L. DENNIS, Rockford, Ill., assignor to Andrews Wire & Iron Works, Rockford, Ill., a Corporation of Illinois. Filed Jan. 6, 1913. Serial No. 740,398. (Cl. 224—32.)



1. A package receptacle for bicycles comprising, a receptacle, a bracket adapted to be adjustably attached to the guide-post of a bicycle, a member connected to the receptacle and having an end extending therefrom, said end being pivotally connected to said bracket on a horizontally disposed axis whereby said receptacle may move vertically from said pivotal connection, and adjustable connections adapted to connect the receptacle with the steering-handles of a bicycle, said connections being movable to allow for the said vertical movement of the receptacle.

2. A package receptacle for bicycles comprising, a receptacle, a supporting member fixed with the receptacle and having a loose pivotal connection on a horizontally disposed axis fixed with the guide-post of a bicycle, and vertically movable flexible connections between the top portion of the receptacle and the bicycle to allow the receptacle to move vertically from its said pivotal support.

3. A package carrier for bicycles comprising a link adjustably secured to the guide-post of a bicycle, a package receptacle, a receptacle support having an adjustable connection with the bottom of the receptacle allowing same to be adjusted longitudinally thereon and the support having one end loosely pivotally connected to said link on a horizontally disposed axis, whereby the receptacle may move vertically from said pivotal connection, and adjustable connections attached to the top of the receptacle to hold the receptacle in position.

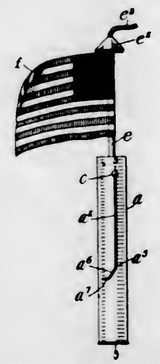
4. A package carrier for bicycles comprising a yoked link having eyes formed at its ends, the link being adapted to straddle the guide-post, of a bicycle and to be attached thereto by a strap passing through said eyes, a package receptacle, a receptacle support having a pivotal connection with said link, and adjustable connections attached to the receptacle and bicycle to hold the receptacle in position.

5. A package carrier for bicycles comprising a bracket adjustably secured to the guide-post of a bicycle, a package receptacle, a receptacle support adapted to be adjustably secured to the bottom of said receptacle allowing the receptacle to be adjustable longitudinally thereon and the support having a downturned end which has a loose pivotal connection with said bracket on a horizontally disposed axis, whereby the receptacle may move vertically from said pivotal connection, and adjustable connections between the top of the receptacle and the bicycle to hold the receptacle in position.



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1,094,886. TOY DEVICE. ALEXANDER DIOSSY, Brooklyn, N. Y. Filed Oct. 6, 1913. Serial No. 793,564. (Cl. 46—37.)

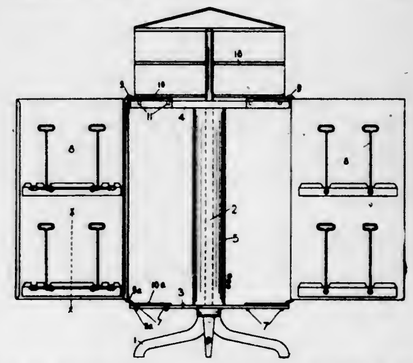


1. A toy of the class described comprising a tube open at one end and closed at the other, said tube being provided in its opposite sides with longitudinal slots which extend from a predetermined point near the open end thereof longitudinally thereof, and the end portions of which adjacent to the closed end of the tube are provided with oppositely curved extensions, a plunger plug movable longitudinally in said tube, a spiral spring placed between the closed end of said tube and said plug, headed pins passing through said slots into said plug, a rod secured centrally in said plug, and a flag connected with said rod, said rod being provided at its outer end with a conical head.

2. A toy device made to represent a fire-cracker and comprising a tube one end of which is closed, and the other end of which is open, said tube being provided in its opposite sides with longitudinal slots which extend from a predetermined point near the open end thereof longitudinally thereof, and the end portions of which, adjacent to the closed end of the tube, are provided with oppositely directed extensions, a plug movable longitudinally in said tube, headed pins passing through the slots in the tube and into said plug, a spiral spring placed between the closed end of said tube and said plug, a rod secured centrally in said plug and provided at its outer end with a conical head having an imitation fuse, and a flag connected with said rod adjacent to the conical head.

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1,094,887. ACCOUNT-REGISTER. DANIEL S. DUNN, Bay City, Mich. Filed Jan. 19, 1911. Serial No. 603,558. (Cl. 40—72.)



In an account register, the combination with a standard, of an upper and a lower polygonal disk having holes therein in proximity to each edge, said disks revolubly mounted on said standard, pairs of brackets adapted to be removably attached to said disks, each bracket comprising a plate provided with projecting pins adapted to be received in the holes of said disks and formed with a plurality of openings near its outer edge, a plurality of inflexible sheets adapted to carry papers, said sheets pivotally secured to said openings of each pair of brackets.

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1,094,888. PENCIL-CLIP. OSCAR F. EHRLE, Long Beach, N. Y. Filed Oct. 25, 1912. Serial No. 727,672. (Cl. 120—106.)



1. In a device of the kind described, in combination, a base adapted to be removably mounted on the finger of the hand, a top-piece on said base, a pivot securing the base and top piece together and permitting a relative movement of rotation, a coil spring encircling the pivot and having its ends connected with the base and the top piece, and a pencil clip carried by the top piece.

2. In a device of the kind described, in combination, a base adapted to be removably mounted on a finger of the hand, a top piece pivoted on the base, lugs on the base and the top piece, a spring engaging the lugs whereby to be flexed as the top piece is rotated, and a pencil clip carried by the top piece.

3. In a device of the kind described, in combination, a dished base having means for detachably engaging a fin-

ger of the hand, a dished top piece arranged on the base, the base and top piece providing a chamber between them, a pivot securing the case and top piece together and permitting rotation of the latter, a spring inside said chamber and arranged to be flexed by rotation of the top piece, and a pencil clip carried by the top piece.

4. In a device of the kind described, in combination, a circular base and a circular top piece coöperating to provide a closed chamber between them, a pivot securing the base and top piece together and permitting rotation of the latter, lugs extending into said chamber from the top piece and from the base, a coil spring encircling the pivot inside the chamber and having its ends arranged to coöperate with said lugs whereby rotation of the top piece in either direction will flex the spring, and a pencil clip carried by the top piece.

5. In a device of the kind described, a circular base and a circular top piece, a pivot connecting said parts and permitting rotation of the top piece on the base, lugs extending inwardly from the base and the top piece, the adjacent lugs being in radial alinement, a spring between the top piece and the base, encircling the pivot and having its ends extending radially into coöperation with said lugs, whereby rotation of the top piece in either direction will flex the spring, a pencil clip carried by the top piece, and means for removably mounting the base on a finger of the hand.

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1,094,889. RAILWAY-SWITCH. HENRY ELLIOT, St. Louis, Mo. Filed Mar. 2, 1914. Serial No. 821,922. (Cl. 104—12.)



1. A railway switch comprising a stationary rail, a switch point movable laterally toward and away from said stationary rail, the said switch point comprising two alined sections joined to each other, and an abutment carried by said switch point at said connection adapted to engage the adjacent side of said stationary rail when the switch point is adjusted toward said rail.

2. A railway switch comprising a stationary rail, a switch point movable laterally toward and away from said stationary rail, the said switch point comprising two alined sections joined to each other, and an abutment secured to said switch point and overlapping the joint between the sections of said switch point, the said abutment being adapted to bear against the adjacent side of said stationary rail when the switch point is adjusted toward said rail.

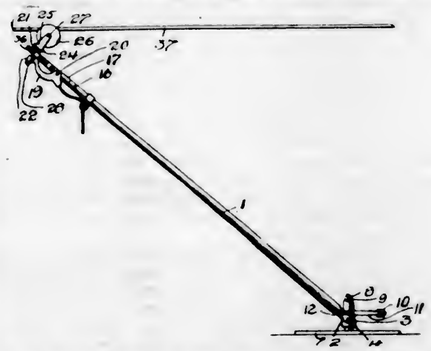
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1,094,890. TROLLEY-WHEEL MOUNT. WIKTOR FICZEK, Jersey City, N. J. Filed Dec. 11, 1913. Serial No. 806,073. (Cl. 64—70.)

1. A trolley wheel mount comprising a pole, a curved supporting arm having a bifurcated lower end pivotally connected to the upper portion of the pole, a spring having one end connected to the pole and its other end bearing against the bifurcated lower end of said supporting arm, a stem loosely connected to the upper end of said arm, a harp integral with the upper end of the stem, and a trolley wheel journaled in the harp.

2. A trolley wheel mount comprising a pole, an extension secured to the upper end of the pole, a supporting arm having a bifurcated lower end pivotally connected to said extension, a spring having its lower end attached to the pole and its upper end engaging the bifurcated end of said arm, a pair of collars integral with the upper end of said supporting arm, a stem journaled in said collars, a harp integral with said stem, and a trolley wheel journaled in the harp.

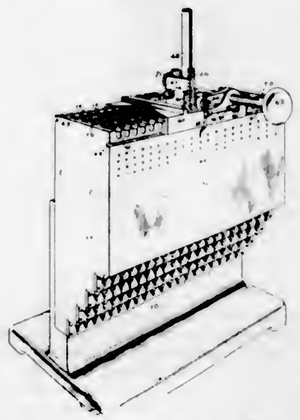
3. A trolley wheel mount comprising a normally inclined harp provided with a stem, a trolley wheel journaled therein, a pair of bearing collars for said stem, means for preventing upward movement of the stem, a curved supporting arm integral at its upper end with said collars and having a bifurcated lower end, an extension projecting below said bifurcated lower end, means for pivotally connecting said bifurcated lower end to said extension, a pole having said extension connected thereto, and a spring connected to the pole and engaging said bifurcated lower end for normally maintaining said stem at an inclination.



4. A trolley wheel mount comprising a normally inclined harp provided with a stem, a trolley wheel journaled therein, a pair of bearing collars for said stem, means for preventing upward movement of the stem, a curved supporting arm integral at its upper end with said collars and having a bifurcated lower end, an extension projecting below said bifurcated lower end, means for pivotally connecting said bifurcated lower end to said extension, a pole having said extension connected thereto, a spring connected to the pole and engaging said bifurcated lower end for normally maintaining said stem at an inclination, and a guard yoke secured to the extension and through which extend said collars.

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1,094,891. DISTRIBUTING MECHANISM FOR TYPE-CASES. HARRY C. GAMMETER, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 5, 1907. Serial No. 360,777. (Cl. 101—203.)



1. The combination of a series of repositories arranged in parallel banks with open upper ends, a carriage mounted to travel over said ends, a slide mounted to travel on the carriage, and a type holder mounted on said slide and formed of a removable tube open in front and adapted to hold a column of type facing forwardly.



2. The combination of a series of repositories arranged in parallel banks with open upper ends, a carriage mounted to travel over such ends, a slide mounted to move on the carriage, a holder for a column of grooved type carried by the slide and consisting of a slotted tube, the edges of which adjacent to the slot engage the grooves of the type, and an escapement adapted to coact with the feet of the type as they descend.

3. The combination, with a type case having type holders extending side by side and also from front to back, of a distributing mechanism having a movable member mounted on another movable member, whereby the former member partakes of a movement from side to side and front to back, each movement being independent of the position given by the other, a holder for a column of type carried by the first mentioned movable member and comprising a pair of parallel edges engaging grooves in the opposite sides of the type, and an escapement adapted to engage the feet of such type and operating to release them singly.

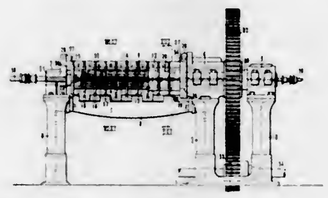
4. The combination of a series of type repositories, a member shiftable with reference thereto and adapted to carry type, a shiftable rod for operating said member, and mechanism for releasing the type operated by turning said rod on its axis.

5. The combination of several series of type holders arranged in banks, a carriage adapted to travel over said holders, a slide mounted to travel across the carriage, a shiftable rod for operating the slide, and mechanism for releasing the type operated by rocking said rod.

[Claims 6 to 9 not printed in the Gazette.]

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1,094,892. SHODDY-STRAINER. JOHN R. GAMMETER, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed July 22, 1910. Serial No. 573,171. (Cl. 18—2.)



1. In a shoddy strainer, in combination, a perforated cylindrical strainer tube having a charge opening near one end thereof, a screw rotatably mounted in said tube of slightly less diameter than the inner diameter of said tube and having cylindrical end portions formed integral therewith fitting within said tube and closing the ends thereof, journals projecting from each end of said screw, bearings for said journals, and means for rotating said screw.

2. In apparatus of the character described, in combination, a perforated tube, a screw rotatably mounted therein closely fitting the same but out of contact with the walls thereof, a journal projecting from each end of said screw beyond an end of said tube, bearings for said journals, said journals having portions thereof adjacent to each end of said screw closing the ends of said tube, and means for rotating said screw.

3. In apparatus of the character described, in combination, a pair of supports, a beam connecting the same, a journal box mounted upon each of said supports, a pair of reticulated cage members hinged to said beam, a tubular foraminous lining mounted within said cage members, means for securing said cage members together, interlocking means on said journal boxes and cage members, and a screw journaled in said journal boxes and extending through said tubular lining.

4. In apparatus of the character described, in combination, a body member having perforated walls, and a chamber therein, an expressing screw mounted in said chamber having a journal at each end thereof, journal boxes for said journals, one at each end of said body member, and interlocking means on said journal boxes and body member to hold the same together.

5. In apparatus of the character described, in combination, a perforated tubular strainer, a two part reticulated cage for supporting the same, an expressing screw rotatable in said tubular strainer and having journals projecting from each end thereof, journal boxes for said journals, one mounted at each end of said tubular strainer, and interlocking means on said journal boxes and cage for holding said journal boxes in position.

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1,094,893. SHINGLE. FRANK HALL GRANT, St. Clair Heights, Mich. Filed Feb. 12, 1914. Serial No. 818,247. (Cl. 108—17.)



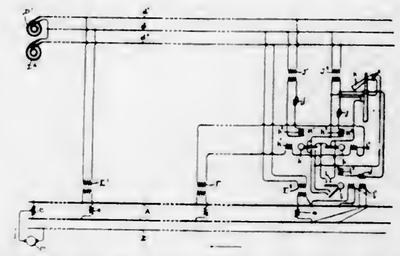
1. A shingle comprising a thin cover sheet of metal whose strength is insufficient to withstand the stresses to which the shingle is subjected, a relatively thicker sheet metal base plate and a thin filling of a sound-deadening material between the cover and base plate, the edges of the cover and the base plate being interlocked to hold the parts rigidly together.

2. A shingle comprising a thin cover sheet of metal whose strength is insufficient to withstand the stresses to which the shingle is subjected, a relatively thicker sheet metal base plate spaced apart slightly from the cover, a thin filling of sound-deadening material between the cover and the base plate, the cover and base plate being interlocked along one edge to form a female member and being interlocked along an opposite edge to form a male member whereby adjacent shingles may be secured together upon the roof.

3. A shingle comprising a thin copper cover sheet whose strength is insufficient to withstand the stresses to which the shingle is subjected, a sheet metal base plate spaced apart slightly therefrom, a thin filling of asphalt between the cover and base plate, the whole being pressed tightly together whereby the asphalt serves as a bond between the cover and the base plate, the cover and base plate being interlocked along one edge to form a female member, and along the opposite edge to form a male member whereby adjacent shingles may be secured together upon the roof.

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1,094,894. BLOCK-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed July 22, 1908, Serial No. 444,744. Renewed Oct. 11, 1910. Serial No. 586,558. (Cl. 246—36.)



1. In a block signal system, in combination with a railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, adjacent sources differing in character, a pair of relays supplied with current from the track be-

tween two adjacent sources, each responding to current from one adjacent source only, a signal near one of said sources controlled by the pair of relays, and a relay having a winding connected in shunt to a portion of rail near the source adjacent to the signal, the said portion of rail being of such length that the relay is normally deënergized but responds to the increased current flow in the rail produced by an approaching train, said relay being arranged when energized to render ineffective to control the signal that relay of said pair which responds to the current from said source near the signal.

2. In a block signal system, in combination with a railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, adjacent sources differing in character, a pair of relays supplied with current from the track between two adjacent sources, each responding to current from one adjacent source only, a signal near one of said sources controlled by the pair of relays, and a relay having a winding connected in shunt to a portion of rail near the source adjacent to the signal, of such length that said relay is normally deënergized but responds to the increased current-flow in the rails produced by an approaching train, which relay when energized renders ineffective to control the signal that relay of said pair which responds to the current from said source near the signal.

3. In a block signal system, in combination with a railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, adjacent sources differing in character, a pair of relays supplied with current from the track relays between two adjacent sources, each responding to current from one adjacent source only, a signal near one of said sources controlled by the pair of relays, and a relay having a winding connected in shunt to a portion of rail near the source adjacent to the signal, of such length that said relay is normally deënergized but responds to the increased current-flow in the rails produced by an approaching train, said relay having front contacts connected in parallel with front contacts of that relay of said pair which responds to the current from said source near the signal.

4. In a block signal system, in combination with a railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, adjacent sources differing in character, a pair of relays supplied with current from the track between two adjacent sources, each responding to current from one adjacent source only, a signal near one of said sources controlled by the pair of relays, and a relay having a winding connected in shunt to a portion of rail near the source adjacent to the signal and jointly with said pair of relays controlling said signal, the said portion of rail being of such length that the relay is normally deënergized but responds to the increased current flow in the rail produced by an approaching train.

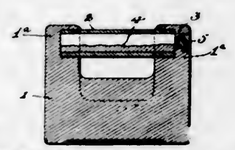
5. In a block signal system, in combination with a railway having both rails conductively continuous for all currents, sources of alternating current connected across the rails at intervals, adjacent sources differing in character, a pair of relays supplied with current from the track between two adjacent sources, each responding to current from one adjacent source only, a signal near one of said sources controlled by the pair of relays, a relay having a winding connected in shunt to a portion of rail near the source adjacent to the signal and jointly with said pair of relays controlling said signal, the said portion of rail being of such length that the relay is normally deënergized but responds to the increased current flow in the rail produced by an approaching train, and contacts controlled by said signal controlling a circuit of the last-mentioned relay.

[Claims 6 to 13 not printed in the Gazette.]

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1,094,895. WEIGHT. PERLEY F. HAZEN, St. Johnsbury, Vt., assignor to The E. and T. Fairbanks and Company, St. Johnsbury, Vt., a Corporation of Vermont. Filed Aug. 11, 1911. Serial No. 643,566. (Cl. 73—56.)

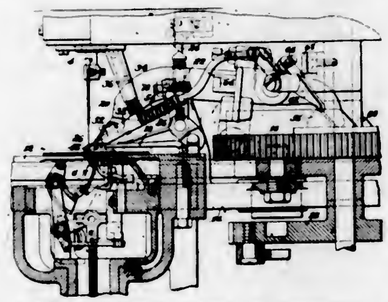
A weight comprising a body portion having arms formed integral therewith, a hollow tubular handle cast into said arms and having its ends closed by said arms, one of said arms having an opening in alinement with the hollow



tubular handle whereby a filling material may be inserted in the handle, and means for closing said openings.

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1,094,896. SEWING-MACHINE. GEORGE S. HILL, Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 8, 1913. Serial No. 805,314. (Cl. 112—33.)



1. A sewing machine, having, in combination, stitch forming mechanism comprising a needle and devices cooperating therewith to form overseam stitches, and devices for severing the needle thread and holding its end in position to be covered by the overseam stitches.

2. A sewing machine, having, in combination, stitch forming mechanism comprising a needle and devices cooperating therewith to form an overseam stitch, and a thread cutter and holder arranged to hold the needle thread at the rear of the sewing point and in line with the initial part of the seam.

3. A sewing machine, having, in combination, stitch forming mechanism comprising a needle and devices cooperating therewith to form an overseam stitch, devices for severing the thread and holding its end in position to be covered by the overseam stitches, and means for operating the thread severing and holding devices to sever and hold the thread at the completion of a sewing operation and to release the thread after the formation of the initial stitches at the beginning of a sewing operation.

4. A sewing machine, having, in combination, stitch forming mechanism including a needle and devices cooperating therewith to form overseam stitches, and means for holding the end of the needle thread in position to be covered by the overseam.

5. A sewing machine, having, in combination, stitch forming mechanism including a needle and devices cooperating therewith to form overseam stitches, and a thread holder arranged to hold the needle thread at the rear of the sewing point in position to be overstitched.

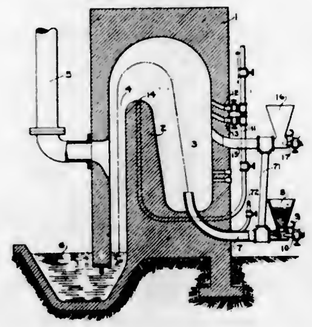
[Claims 6 to 15 not printed in the Gazette.]

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1,094,897. GAS-PRODUCER. JULES H. HIRT, El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company, a Corporation of Delaware. Filed Feb. 14, 1910. Serial No. 543,723. (Cl. 48—74.)

1. The combination in a gas producer, of a free and open gas generating chamber formed therein, a downwardly directed passage smoothly communicating with the upper end of said chamber, a water seal into which said passage is directed, an off-take pipe, and an inlet for combustible material communicating with the lower end of said chamber and directed toward the point of communication of said passage with said chamber, whereby material discharged from said inlet is carried through said chamber and into said passage.





2. The combination in a gas producer, of a free and open gas generating chamber formed therein, an upwardly directed inlet for combustible material communicating with the lower end of said chamber, a second upwardly directed inlet for combustible material communicating with said chamber at a point in advance of the first inlet, a downwardly directed passage smoothly communicating with the upper end of said chamber, a water seal into which said passage is directed, and an off-take pipe, said inlets being directed toward the point of communication of said passage with said chamber, whereby material discharged from said inlets is carried through said chamber and into said passage.

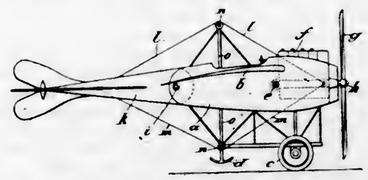
3. The combination in a gas producer, of a free and open gas generating chamber formed therein, an upwardly directed inlet for combusttible material communicating with the lower end of said chamber, a moisture inlet communicating with said chamber at a point in advance of said combustible material inlet and directed toward a common point with said inlet, a downwardly directed passage smoothly communicating with the upper end of said chamber, a water seal into which said passage is directed, and an off-take pipe, said inlets being directed toward the point of communication of said passage with said chamber, whereby material discharged from said inlets is carried through said chamber and into said passage.

4. The combination in a gas producer, of a free and open gas generating chamber formed therein, an upwardly directed inlet for combustible material communicating with the lower end of said chamber, a second upwardly directed inlet for combustible material communicating with said chamber at a point in advance of said first inlet, a moisture inlet communicating with said chamber at a point in advance of said combustible material inlets and directed toward a common point with said inlets, a downwardly directed passage communicating with the upper end of said chamber, a water seal into which said passage is directed, and an off-take pipe, said inlets being directed toward the point of communication of said passage with said chamber, whereby material discharged from said inlets is carried through said chamber and into said passage.

5. In a gas producer, a furnace having its interior divided into a free and open gas generating chamber and a free and open vertical passage in communication with said chamber at its upper end, an upwardly directed fuel inlet at the lower end of said chamber, a second fuel inlet leading into said chamber and combining its flow with that from said first mentioned inlet, a moisture inlet leading to said chamber at the junction of said chamber with said passage, said moisture inlet being in advance of all fuel inlets, and a gas offtake communicating with said passage.

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1,094,898. FLYING-MACHINE. HELLMUTH HIRTH, Johannisthal-Berlin, Germany. Filed Apr. 9, 1913. Serial No. 760,028. (Cl. 244—14.)



1. In a flying machine, the combination of a part carrying the main planes, a part carrying the engine and propeller in front of said main planes, pivotal means connecting said part to said part carrying the main planes, a part carrying the tail behind said main planes, pivotal means connecting the said tail part to said part carrying the main planes and means for keeping the longitudinal axis of said part carrying the engine and propeller always parallel to the longitudinal axis of said tail part.

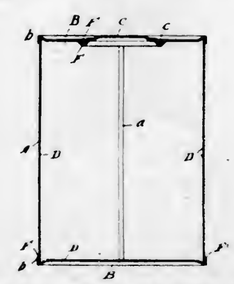
2. In a flying machine, the combination of a front member carrying the engine and propeller, a main member carrying the supporting planes, a tail member, pivotal means connecting said front and tail members to said main member, means for keeping the longitudinal axis of said tail member and the longitudinal axis of said front member always substantially parallel to one another, and means for displacing said members relatively to said main member.

3. A flying machine consisting of a chassis, supporting planes on said chassis, landing gear mounted on said chassis, a member pivoted to said chassis, an engine and propeller connected to said member, a tail pivoted to said chassis, means for connecting said tail to said member and means for displacing the longitudinal axes of said tail and said member parallel to one another relatively to said chassis.

4. A flying machine consisting of a chassis, supporting planes on said chassis, landing gear mounted on said chassis, stretcher bars on said chassis, a part carrying the engine and propeller pivoted to said chassis, a tail member pivoted to said chassis, wires or the like connected to said pivoted part and to said tail and passing freely over the ends of said stretcher bars, and means for displacing the said member and said tail part relatively to said chassis.

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1,094,899. LACQUERED OR PROTECTIVE-COATED CAN. JOHN G. HODGSON, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 18, 1907. Serial No. 362,944. (Cl. 220—98.)



1. A sheet metal preserving can having parts, the edge portions of which are adapted to be united by a solder seam, and provided with a hard, dry, solid, firmly adherent, tasteless, odorless and flavorless, flux-acting protective coating extending to the extreme edges thereof and covering the entire interior surface of the can at the poortions within and adjacent to the seam-forming edge portions as well as elsewhere, said flux-acting, protective coat-

ing freely permitting the solder, when applied, to displace the same to the extent to which the solder flows into the seam, substantially as specified.

2. A sheet metal preserving can having parts, the edge portions of which are adapted to be united by a soldered seam, and provided with a hard, dry, solid, firmly adherent, tasteless, odorless and flavorless flux-acting protective coating, including linseed oil, extending to the extreme edges thereof and covering the entire interior surface of the can at the portions within and adjacent to the seam-forming edge portions as well as elsewhere, said flux-acting protective coating freely permitting the formation of the soldered seam, substantially as specified.

3. A sheet metal preserving can having parts, the edge portions of which are adapted to be united by a solder seam, and provided with a hard, dry, solid, firmly adherent, tasteless, odorless and flavorless flux-acting coating extending to the extreme edges thereof and covering also the interior surface of the can, said flux-acting coating enabling the coated seam-forming edge portions to be soldered by being displaced from those portions where the solder flows when applied, substantially as specified.

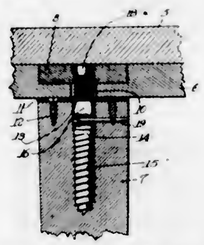
4. A sheet metal preserving can having body, top and bottom heads, the edge portions of which are adapted to be united by a soldered seam, and each provided with a hard, dry, solid, firmly adherent protective coating extending to the extreme edges thereof and covering also the interior surfaces thereof, including the portions in and adjacent to the seam-forming edge portions, said protective coating acting as a flux to freely permit the formation of the soldered seams, substantially as specified.

5. A sheet metal preserving can having parts, the edge portions of which are adapted to be united by a solder seam, and provided with a hard, dry, solid, firmly adherent, tasteless, odorless and flavorless flux-acting coating, including linseed oil, extending to the extreme edges thereof and covering the entire interior surface of the can, said flux-acting coating enabling the coated seam-forming edge portions to be soldered, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,900. TABLE. CHARLES S. HOIT, Chicago, Ill., assignor to Newton & Holt Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 25, 1913. Serial No. 786,354. (Cl. 45—48.)

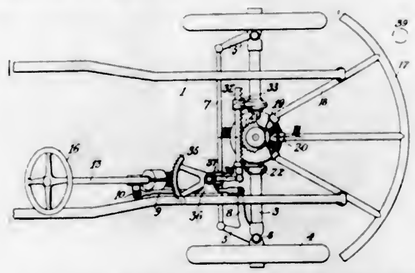


In a knock-down table the combination of a table top; a plurality of cleats, secured to the bottom surface thereof and provided with recesses for a threaded nut, said recesses closed by said top; a leg, to be attached by each of said nuts, each leg provided with a face plate overlying its upper end; and a concentrically positioned screw, secured to said leg for engagement with said nut, the upper portion of said screw having a reduced unthreaded cylindrical portion to provide a centering guide to enter the screw threaded opening in said nut.

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1,094,901. SAFETY DEVICE FOR SELF-PROPELLED VEHICLES. MORRIS A. HOLZMAN, New York, N. Y. Filed Aug. 2, 1912. Serial No. 712,885. (Cl. 21—90.)

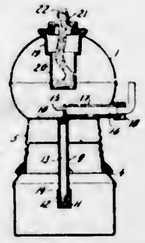
1. In a safety device for self propelling vehicles, a guard comprising a bar extending entirely across the front of the vehicle having converging spokes rigidly secured thereto, a mount for the guard at the converging ends of the spokes and positioned midway between the front wheels of the vehicle to confine the bar to a rotary movement about a fixed axis at the converging ends of the spokes simultaneous with its encountering an obstruction, and means operably connecting the guard at its axis of rotation with the steering mechanism of the vehicle for turning the vehicle away from the obstruction when the obstruction and guard meet.



2. In a safety device for self propelled vehicles, a guard comprising a bar extending entirely across the front of the vehicle having converging spokes rigidly secured thereto, a mount for the guard at the converging ends of the spokes and positioned midway between the front wheels of the vehicle to confine the bar to a rotary movement about a fixed axis simultaneous with its encountering an obstruction and yielding means operably connecting the guard at its axis of rotation with the steering mechanism of the vehicle for turning the vehicle away from the obstruction when the obstruction and bar meet.

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1,094,902. ACETYLENE-GAS LAMP. CHARLES HOPPE, Cincinnati, Ohio. Filed May 19, 1913. Serial No. 768,644. (Cl. 48—4.)



1. An acetylene lamp of the nature disclosed combining a carbid container, a water container at an elevation above said carbid container, a conduit communicating with said water container and depending into said carbid container, a valve seating against the end of said conduit and exteriorly concentrically overlapping a portion thereof to provide an annular discharge channel of a constant area beyond the valve seat, and a stem reciprocable concentrically within said conduit engaged with said valve for moving the same.

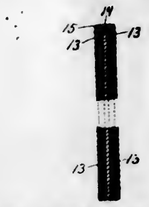
2. An acetylene lamp of the nature disclosed combining a carbid container, a water container, a conduit communicating with said water container and discharging into said carbid container, a valve stem having a definite motion of reciprocation within said conduit, and a cup valve adjustably connected to said stem engaged over the discharge end of said conduit and seating against its end to provide a restricted channel beyond the valve seat.

3. An acetylene lamp of the nature disclosed combining a carbid container, a water container, a conduit communicating with said carbid and water container, a valve controlling stem within said conduit susceptible to definite motions of reciprocation and a valve adjustably connected to said stem for said conduit, said valve and conduit forming an intervening restricted annular discharge channel beyond the valve seat invariable by the movements of the valve and whereby the valve in its motion scavenges said channel.



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1,094,903. STORAGE-BATTERY ELECTRODE AND PROCESS OF MANUFACTURING IT. HARRY CROSS HUBBELL, Newark, N. J. Filed July 17, 1911. Serial No. 638,942. (Cl. 204—29.)



1. The process of making the active material for a storage battery electrode which comprises precipitating ferrous hydroxid from a solution of a salt of iron, filtering and washing the precipitate, heating it without substantial exposure to the air to drive off the free water from the precipitate and then to a dull red heat to convert the hydroxid to iron monoxid, cooling without substantial exposure to the air and briqueting the oxid into tablets suitable for insertion into the pockets of the containing envelop of a storage battery electrode.

2. The process of making the active material for a storage battery electrode which comprises precipitating ferrous oxid from a solution of a salt of iron, filtering and washing the precipitate, heating it without substantial exposure to the air to drive off the free water from the precipitate and then to a dull red heat to convert the hydroxid to iron monoxid, cooling without substantial exposure to the air, grinding the iron monoxid with a proportion of cadmium oxid, and briqueting the mixture into tablets suitable for insertion into the pocket of the containing envelop of a storage battery electrode.

3. The process of making the active material for a storage battery electrode which comprises converting precipitated ferrous hydroxid into iron monoxid by heating it without substantial exposure to the air, cooling the monoxid under the same condition and briqueting it into tablets suitable for insertion into the pocket of the containing envelop of a storage battery electrode.

4. The process of making the active material for a storage battery electrode which comprises converting precipitated ferrous hydroxid into iron monoxid by heating it without substantial exposure to the air, cooling the oxid under the same condition and applying it to the pocket of the containing envelop of a storage battery electrode.

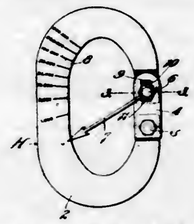
5. The process of making the active material for a storage battery electrode which comprises converting precipitated ferrous hydroxid into iron monoxid by heating it without substantial exposure to the air, cooling the monoxid under the same condition, mixing it with a proportion of cadmium oxid and briqueting the mixture.

[Claims 6 and 7 not printed in the Gazette.]

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1,094,904. WELL-DRILLING APPARATUS. HOWARD R. HUGHES, Houston, Tex. Filed Dec. 13, 1912. Serial No. 736,494. (Cl. 73—46.)

1. A device for connecting a load to a hoisting apparatus, consisting of a link, one of whose sides is provided with an opening so as to permit the upper and lower portions of the link to move relatively to each other, a closure for said opening consisting of a member that is connected to said link at one side of said opening so that it will move with the portion of the link to which it is connected, a movable indicator carried by said link and arranged on the opposite side of said opening, and means for transmitting the movements of said member to said indicator.



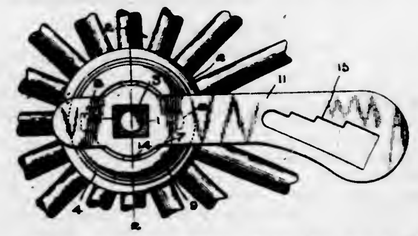
2. A device for connecting a load to a hoisting apparatus, consisting of an elongated link having an opening at one side which permits the upper and lower portions of the link to move relatively to each other, an indicator oscillatingly mounted in said link at one side of said opening, a removable member connected to the link at the other side of said opening so as to close the opening when the device is in use, and coöperating means on said member and indicator for causing the indicator to move when the upper and lower portions of the link move relatively to each other.

3. A device for the purpose described, comprising a substantially C-shaped link provided at one side with an opening or cut-out portion, a bar or strap that closes said opening, said bar having an elongated slot, a member carried by said link projecting through the elongated slot in said bar, a pointer on said member, and coöperating teeth on said bar and member that cause said member to rotate and thus shift said pointer when the bar is moved by the opening up or elongation of the link.

4. A device for the purpose described, comprising a link provided with two sides, one of which has an opening, a bar or strap for closing said opening, bolts passing through said link and bar above and below the opening in the link, the bar being provided with an elongated slot through which the upper bolt passes, said upper bolt having teeth, a scale on the link, a pointer coöperating with said scale and connected to the upper bolt, and rack teeth on said bar that mesh with the teeth on said upper bolt.

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1,094,905. HUB-BAND AND COOPERATING WRENCH. HARRY H. HUNTLEY, Millville, N. J., assignor of one-half to Edward H. Sithens, Millville, N. J. Filed Oct. 27, 1913. Serial No. 797,483. (Cl. 21—80.)



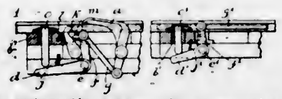
1. The combination with a wheel hub and a band secured thereon, said band at one end projecting beyond the wheel hub and having an opening therein, of a wrench having a nut receiving extension thereon, said extension adapted to be projected through the opening in the band, said extension having lugs at opposite sides, and said band having recesses in its end through which the lugs are moved and said band on the inner face of its end having cam surfaces against which the lugs engage when the extension is given a partial rotary movement to bind the extension against the end of the hub in position to receive the nut, substantially as described.

2. The combination with a wheel hub, of a band secured one one end of the hub and projecting beyond the

hub, said band having an opening in its end, and recesses in opposite walls of the opening, of a wrench having a nut receiving extension thereon adapted to be positioned through the opening in the band, said extension having lugs at opposite sides adapted to be moved through the recesses in the band, and said band at its outer end on its inner face having cam surfaces against which the lugs are moved when the wrench is given a partial turning movement, substantially as described.

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1,094,906. AUTOMATIC BLOCK SYSTEM FOR PREVENTING COLLISIONS ON RAILWAYS. ANDRÉ JOSEPH ICARD, Toulon, France. Filed Mar. 21, 1912. Serial No. 685,242. (Cl. 246—59.)



1. In an automatic system for preventing collisions, the combination of track levers each having an approximately upright centrally fulcrumed portion and a curved tread portion extending above the rail track; vertical guide frames associated with the respective track levers; a stop pin in each guide frame; right angle levers each having a horizontal engaging portion under one of the stop pins, and a vertical arm; rods connecting the upper ends of the vertical arms with the lower ends of said upright portions respectively; spring pressed clamping hooks adapted to engage over the ends of the respective tread portions; and a rod connecting each track lever with the hook associated with the preceding track lever for releasing the hook when a succeeding track lever is depressed.

2. In an automatic system for preventing collisions, the combination of track levers each having an approximately upright centrally fulcrumed portion and a curved tread portion extending above the rail track; vertical guide frames associated with the respective track levers; a stop pin in each guide frame; right angle levers each having a horizontal engaging portion under one of the stop pins, and a vertical arm; rods connecting the upper ends of the vertical arms with the lower ends of said upright portions respectively; spring pressed clamping hooks adapted to engage over the ends of the respective tread portions; a rod connecting each track lever with the hook associated with the preceding track lever for releasing the hook when a succeeding track lever is depressed; and springs depressing said horizontal portions; all of said levers and rods being without counterweights.

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1,094,907. LOCKING DEVICE FOR ELECTRICAL CONTACTS. JAKOB DE RYTTER KIELLAND, Christiania, Norway, assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,273. (Cl. 173—356.)

1. A device for locking contact-couplings comprising a conductive helical spring serving as a nut for the screw-threads of one of the couplings and having the last turns or part of turn located near the free end of the same formed with a smaller diameter than the remaining turns.

2. A device for locking contact-couplings comprising a conductive helical spring serving as a nut for the screw-threads of one of the couplings and having the last turns or part of turn located near the free end of the same formed with a smaller diameter than the remaining turns, and an insulating ring, having a projection for the unlocking of the spring by a movement against the end of the spring.

3. A locking device of the character described comprising an externally screw-threaded member, a socket, a spiral spring fixed at one end in the socket and adapted to engage the threads of said member, the free end portion of said spring being of smaller diameter than the other portion, and means to enlarge the smaller diameter, for the purpose specified.

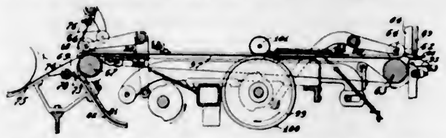
4. A locking device of the character described comprising an externally screw-threaded member, a socket, a spiral spring fixed at one end in the socket and adapted to engage the threads of said member, the free end portion of said spring being of smaller diameter than the other portion, and means adapted to engage the free end of the spring to extend the smaller diameter of the latter, for the purpose specified.



5. A locking device of the character described comprising an externally screw-threaded member, a socket, a spiral spring fixed at one end in the socket and adapted to engage the threads of said member, the free end portion of said spring being of smaller diameter than the other portion, and means on the socket adapted to engage the free end of the spring to extend the smaller diameter of the latter, for the purpose specified.

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1,094,908. SLIP-SHEETING MACHINE. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Dec. 14, 1911. Serial No. 665,725. (Cl. 101—112.)



1. A machine for automatically separating printed sheets from slip sheets, in accordance with the respective thickness thereof, comprising sheet calipering means actuated by each of one set of sheets only, a switch and means pneumatically operated, controlled by the calipering means, for operating the switch.

2. A machine for delivering printed sheets and slip sheets to different points in accordance with the respective thickness of each sheet, which comprises sheet calipering means, a switch and coöperating guides diverging therefrom, and pneumatic means having an air vent controlled by the calipering means, for operating the switch.

3. A machine for delivering printed sheets and slip sheets to different points in accordance with the respective thickness of each sheet, which comprises calipering means actuated by each of one set of sheets only, a switch and coöperating guides divergent from said switch, and pneumatic means, controlled by the calipering means, for operating the switch.

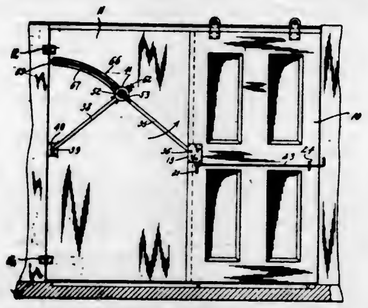
4. Means for feeding sheets from a common series and means for distributing said sheets alternately to different points, said means including a sheet-controlled switch and arbitrary means for altering the order of such alternate distribution.

5. Means for feeding and distributing sheets alternately to different points or piles and manually operative means for arbitrarily changing the order of such alternate distribution while the machine is operating.

[Claims 6 to 61 not printed in the Gazette.]



1,094,909. CLOSING AND LOCKING DEVICE FOR SLIDING DOORS. JACOB KOHN, New York, N. Y. Filed Oct. 22, 1913. Serial No. 796,658. (Cl. 70—102.)



1. In a device of the character described, the combination with a door frame and a sliding door, of a link pivoted to said door, a link fulcrumed to said frame, means connecting said two links tending in all positions of said door to move the latter into closing position, and a locking member mounted upon said door for locking said links against motion.

2. In a device of the character described, the combination with a door frame and a sliding door, of a link pivoted to said door, a link fulcrumed to said frame, means connecting said two links tending in all positions of said door to move the latter into closing position, and a locking member mounted upon said door adapted to engage the link pivoted to said door and to hold the latter in its closed position.

3. In a device of the character described, the combination with a door frame and a sliding door, of a link pivoted to said door, a link fulcrumed to said frame, means connecting said two links tending to move said door into closing position, a locking member mounted upon said door adapted to engage the link pivoted to said door and to hold the latter in its closed position, and means adapted to engage said last named link when the door is in its open position to lock it therein.

4. In a device of the character described, the combination with a door frame and a sliding door, of a link pivoted to said door, a link fulcrumed to said frame, means connecting said two links tending to move said door into closing position, a locking member mounted upon said door adapted to engage the link upon said door and to hold thereby the latter in closing position, means for disengaging said locking member from said last named link to move said door to open position, and means upon said door adapted to engage the link thereon for automatically locking said links against motion when said door is in its open position.

5. In a device of the character described, the combination with a door frame and a sliding door, of means connecting said two elements tending to move said door into closing position, and a locking means upon said door adapted to engage said first named means for locking the latter against motion when said door is both in its fully open and closed positions.

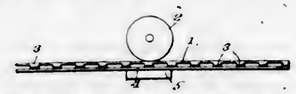
[Claims 6 to 8 not printed in the Gazette.]

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1,094,910. CORRUGATED WELDING-STRIP. LAURENCE S. LACHMAN, New York, N. Y., assignor to Universal Electric Welding Company, New York, N. Y., a Corporation of New York. Filed Aug. 9, 1913. Serial No. 783,903. (Cl. 219—4.)

1. A series of electric welding contact pieces united or connected by a metal strip of substantially uniform width and projecting from said strip transversely to the plane thereof.

2. An electric welding strip consisting of a strip of metal of substantially uniform width on one surface and adapted at its opposite surface to form electric welding contact with the pieces to be united.

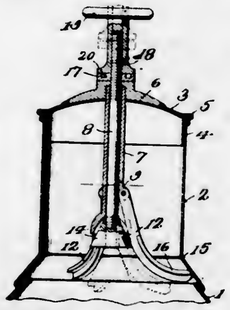


3. An electric welding strip consisting of a piece of metal having a smooth upper surface of uniform width where engaged by the welding electrode and provided on its opposite surface with a series of contact projections adapted to engage the sheets or pieces to be united at separated points of union coinciding with the location of said projections along the continuous strip.

4. A welding strip for electric welding operations, comprising a strip of metal having a smooth upper surface of substantially uniform width and provided on its lower surface with a series of separate projections adapted to form welding contacts for uniting plates or sheets of metal at intervals in their meeting edges or surfaces.

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1,094,911. COVER-RETAINER FOR RECEPTACLES. JEREMIAH C. LAUTENBACHER and ALBERT GEARY, Schuylkill Haven, Pa. Filed Aug. 21, 1913. Serial No. 785,973. (Cl. 31—78.)

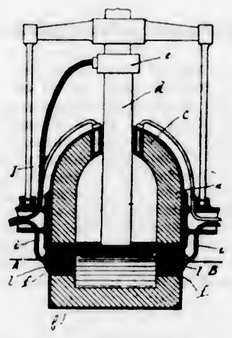


1. The combination of a receptacle, a cover therefor, and means for locking said cover on said receptacle, including a sleeve carried by and depending from said cover, locking fingers pivotally carried by said sleeve, a rod movable through said sleeve, and having means for engaging said fingers for forcing the same into contact with the receptacle, and means for holding said rod from movement.

2. The combination of a receptacle, a cover therefor, and means for locking said cover on said receptacle, including a reinforcing section mounted on the cover and secured thereto, said section extending outwardly from the center of the cover, a sleeve threaded into said reinforcing section, locking fingers pivotally carried by said sleeve, a rod extending through said sleeve, a cam carried by the rod for engaging the fingers for forcing the same into contact with the receptacle, when said rod is raised, and means engaging said reinforcing section for holding the rod raised.

3. The combination of a receptacle, a cover therefor, and means for locking said cover on said receptacle, including a reinforcing section mounted on the cover and secured thereto, said section extending outwardly from the center of the cover, a sleeve threaded into said reinforcing section, locking fingers pivotally carried by said sleeve, a rod extending through said sleeve, a cam carried by the rod for engaging the fingers for forcing the same into contact with the receptacle, when said rod is raised, and means engaging said reinforcing section for holding the rod raised, said means including a nut threaded onto said rod adapted to bear against said reinforcing section, and a hand nut threaded on said rod and adapted to bear against said first named retaining nut.

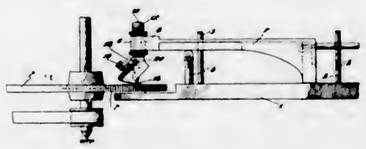
1,094,912. ELECTRIC FURNACE. TOUSSAINT LEVOZ, Héer, Belgium. Filed Sept. 3, 1910. Serial No. 580,286. (Cl. 204—64.)



1. A device for manufacturing steel electrolytically, comprising a suitable furnace, a positive electrode, suspended centrally in the top part of said furnace, the lower end of said electrode terminating substantially at the upper surface of the metal bath, a plurality of negative electrodes embedded in the side walls of said furnace, substantially at the level of the lower end of said positive electrode and of the upper surface of the metal bath, said negative electrodes surrounding the positive electrode, and means for conducting the electric current from a suitable source to and from said electrodes, substantially as described.

2. A device for manufacturing steel electrolytically comprising a suitable furnace, one or more positive electrodes, made of any suitable material, suspended centrally in the top part of said furnace and movable vertically, a plurality of negative electrodes, made of any suitable material, embedded in the side walls of said furnace at the upper level of the metal bath and surrounding the positive electrode or electrodes, a second set of negative electrodes, situated under the first set, also embedded in the side wall of the furnace at the level of the furnace bottom and means for conducting the electric current from a suitable source to and from said electrodes, substantially as described.

1,094,913. APPARATUS FOR GRINDING AND POLISHING PRECIOUS STONES. ERNEST LOESSER, Glen Ridge, N. J., assignor, by direct and mesne assignments, to New Diamond Polishing Tool Company of America, Inc., New York, N. Y., a Corporation of New York. Filed June 1, 1910. Serial No. 564,347. (Cl. 51—11.)



1. Precious stone grinding apparatus comprising a dop holder having a conical socket open at both ends, the larger end of which is uppermost to receive a correspondingly shaped dop having a stone held in the apex thereof and means for holding the dop within the socket.

2. Precious stone grinding apparatus comprising a dop holder having a conical socket open at both ends, the larger end of which is uppermost and whose axis is disposed at an angle to the plane in which the surface of the grinding lap runs, a correspondingly shaped dop seated and held in said socket and means by which the dop may at will be rotated through measured determined distances whereby facets of a series may be successively cut.

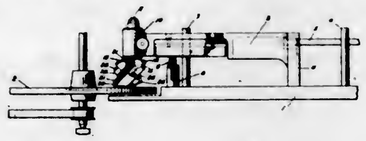
3. Apparatus for grinding precious stones comprising a dop holder having a conical dop seat open at both ends, the larger end of which is uppermost and with its axis disposed at an angle to the plane in which the surface of the grinding lap runs, a dop seated therein and carrying at its apex end the stone to be operated upon and having at its head a toothed wheel and means for engaging the wheel to hold it successively in adjustable positions whereby facets of a series may be successively cut.

4. Precious stone grinding apparatus comprising a dop holder having a conical dop seat whose axis is at an angle to the plane in which the surface of the lap runs, a dop seated therein and carrying the stone to be operated upon at the apex end of the dop and in line with its axis and means whereby the dop may be turned about its axis through determined measured arcs.

5. Precious stone grinding apparatus comprising a dop holder having a conical dop seat open at both ends, the layer end of which is uppermost, a swinging arm having a dop holding screw therein and a detent device adapted to engage a dop seated in the seat to determine its adjustment therein.

[Claims 6 and 7 not printed in the Gazette.]

1,094,914. APPARATUS FOR GRINDING AND POLISHING PRECIOUS STONES. ERNEST LOESSER, Glen Ridge, N. J., assignor, by direct and mesne assignments, to New Diamond Polishing Tool Company of America, Inc., New York, N. Y., a Corporation of New York. Filed Feb. 14, 1913. Serial No. 748,325. (Cl. 51—11.)



1. Diamond grinding and polishing apparatus comprising a dop holder, a dop therein rotatably adjustable and whose axis is at an angle to a vertical line and means for adjusting the holder in an arc of which the stone in the dop is the center or substantially so.

2. Diamond grinding and polishing apparatus comprising a dop holder, a dop therein rotatably adjustable and whose axis is at an angle to a vertical line, means for adjusting the holder in an arc of which the stone in the dop is the center or substantially so and means for adjusting the holder about a vertical axis that passes through the stone in the dop.

3. Diamond grinding and polishing apparatus comprising a dop holder, a dop therein rotatably adjustable and whose axis is at an angle to a vertical line and means for adjusting the holder in a vertical plane in an arc of which the stone in the dop is the center or substantially so.

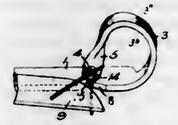
4. Diamond grinding and polishing apparatus comprising a dop holder having a conical seat open at both ends and the axis of which is at an angle to a vertical line, a conical dop seated in such seat and projecting therefrom at its apex end, a circular series of recesses in the head of the dop, locking and releasing means cooperating with said recesses and means for adjusting the dop holder and dop in an arc of which the center is the point of intersection of lines co-incident with the conical sides of the dop.

5. Diamond grinding and polishing apparatus comprising the combination of a vertical rotatably adjustable spindle, an arc shaped way carried at the lower end thereof, a dop holder the axis of which is disposed at an angle that intersects the axis of the spindle which point of intersection is the center of the arc-shaped guide way or substantially so.

[Claims 6 to 10 not printed in the Gazette.]



1,094,915. KNOT-TYING IMPLEMENT. JAMES F. MATTHEWS, Pottersville, Mass., assignor of one-half to James K. Lanning, Boston, Mass. Filed Mar. 22, 1909, Serial No. 484,948. Renewed June 1, 1912. Serial No. 701,049. (Cl. 28—33.)



1. A knot tying implement comprising a thread receiver having a reversely extending portion constituting a bight former about which both threads are to be wrapped in parallelism to form a bight therein, said bight former having as a unitary member thereof a terminal knot former to which said threads may be drawn along the former while so wrapped.

2. A knot tying implement comprising a thread receiver having a bight former about which both threads are to be wrapped in parallelism to form a bight therein, said bight former having an end directed toward and adjacent said receiver and having a knot former to receive said threads.

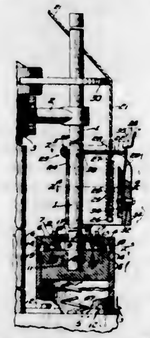
3. A knot tying implement comprising a thread receiver having a bight former about which both threads are to be wrapped in parallelism to form a bight therein, said bight former having a terminal knot former and a side guiding edge along which said threads may be guided to the knot former.

4. A knot tying implement comprising a thread receiver having a reversely bent portion overhanging the base of the receiver and provided with a knot former.

5. A knot tying implement comprising a thread receiver or base having a return portion extending along said base and having a bight former about which the threads are to be wrapped to form a bight, said bight former having opposed guiding edges and the end portion of said bight former having a knot former unitary therewith.

[Claims 6 to 33 not printed in the Gazette.]

1,094,916. TROLLEY CATCHER AND RETRIEVER. CHARLES W. MERRILL, Los Angeles, Cal. Filed Oct. 22, 1909. Serial No. 524,050. (Cl. 191—94.)



1. The combination of a clutch-holder, a clutch capable of movement along and engagement with the clutch-holder, yielding means to normally hold the clutch from engagement with the clutch-holder, and a latch to yieldingly engage the clutch and releasable by sudden movement of the clutch to allow the clutch to engage the clutch-holder.

2. The combination with a trolley arm, of a trolley line, a vertical clutch-holder, a clutch fastened to the trolley line and adapted to move along and normally out of engagement with the clutch-holder, means to hold the clutch out of engagement with said clutch holder during the normal movement of said line as the trolley moves moderately up and down, said clutch being brought into engagement with the clutch holder by a sudden movement of the trolley line, and a resilient latch to prevent the return of the clutch to normal disengaged position.

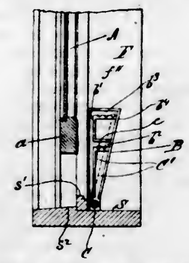
3. The combination with a trolley arm of a trolley line, a vertical clutch-holder fastened to the trolley line, a cramping clutch surrounding and adapted to move along and engage the clutch-holder, means to normally hold the clutch out of engagement during the movement of said line as the trolley moves moderately up and down, said clutch being brought into engagement with the clutch-holder by a sudden pull on the trolley line when the trolley escapes from the trolley wire, and means brought into action by the upward movement of the clutch-holder to draw said clutch-holder down.

4. A trolley-catcher comprising a clutch-holder, a weight surrounding and adapted to move up and down the clutch-holder, a clutch pivoted to the weight and adapted to engage the clutch-holder, yielding means to normally hold the clutch from engaging the clutch-holder, and a latch to engage the clutch-holder and releasable by a sudden movement of the clutch.

5. A trolley-catcher comprising an upright rod, a perforated clutch to engage the rod, a weight on which said clutch is mounted and having an orifice and slidable on the rod, means to yieldingly hold the clutch toward the weight during moderate movement thereof and to allow the clutch to engage the rod upon sudden upward movement of the clutch.

[Claims 6 to 12 not printed in the Gazette.]

1,094,917. VENTILATING WINDOW SHADE AND FIXTURE. LOUIS N. MOSS, New York, N. Y. Filed Oct. 20, 1913. Serial No. 796,116. (Cl. 98—31.)



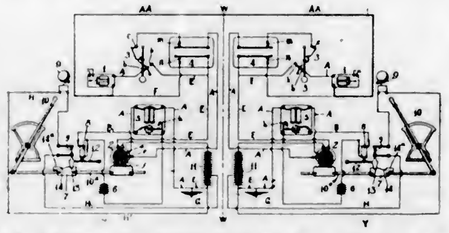
1. The combination of the jamb bracket plates formed with roller trunnion sockets, vertical guide ways, and lateral guide ways, the lower side walls of which latter are formed with seating recesses, and a spring roller curtain mounted on and between said brackets and provided with a curtain rod the ends of which protrude beyond the vertical edges of the curtain, engage the said vertical and lateral ways in the jamb bracket plates, and are adapted to be seated in the said recesses formed for their reception in the lateral guide ways as herein set forth.

2. The combination of the jamb bracket plates formed with roller trunnion sockets, vertical guide ways, and lateral guide ways, the lower side walls of which latter are formed with seating recesses, and a spring roller curtain mounted on and between said brackets and provided with a curtain rod the ends of which protrude beyond the vertical edges of the curtain, engage the said vertical and lateral ways in the jamb bracket plates, and are adapted to be seated in the said recesses formed for their reception in the lateral guide ways, said bracket plates being also formed with inturned flanges adapted to overlap and conceal the vertical edges of the curtain when raised, as and for the purpose set forth.

1,094,918. BLOCK-SIGNAL SYSTEM. JAMES W. MURPHY, Akron, Ohio. Filed Apr. 29, 1912. Serial No. 694,013. (Cl. 246—29.)

1. A block signal system, including in combination, signals at two stations, means for operating said signals,

electrically controllable means for locking the signal-operating means, a line wire connecting the stations, two branch circuits leading from the line wire at each station, a source of current and a selector key in one branch circuit at each station, and a selector and a circuit controller operated by the movement of the signal operating means in the other branch at each station, the selector at each station controlling the electrically controlled signal-locking means at the same station, whereby the signal locking means at one station may be controlled by the selector key at the other station.



2. A block signal system, including in combination, signals at two stations, means for operating said signals, electrically controllable means for locking the signal-operating means, a line wire connecting the stations, two branch circuits leading from the line wire at each station, a source of current and a selector key in one branch circuit at each station, a selector and a circuit controller operated by the movement of the signal operating means in the other branch circuit at each station, the selector at each station controlling the electrically controlled signal locking means at the same station whereby the signal locking means at one station may be controlled by the selector key at the other station, and said selector keys each including means to keep the line circuit closed to maintain the signal locking means unlocked for a limited period of time and to automatically open the line circuit to permit said locking means to return to locking position upon failure of the operator to move the signal within said limited period of time.

3. A block signal system, including in combination, signals at two stations, means for operating said signals, electrically controllable means for locking the signal-operating means, a line wire connecting the stations, two branch circuits leading from the line wire at each station, a source of current and a selector key in one branch circuit at each station, and a selector and a circuit controller operated by the movement of the signal-operating means in the other branch circuit at each station, the selector at each station controlling the electrically controlled signal-locking means at the same station whereby the signal-locking means at one station may be controlled by the selector key at the other station, said selector keys having means for making and breaking the circuit for producing signal impulses through said selectors and for holding the circuit closed to maintain the signal-locking means in unlocked position for a limited period of time after producing said signal impulses and to automatically open the circuit to permit the signal-locking means to return to locked position.

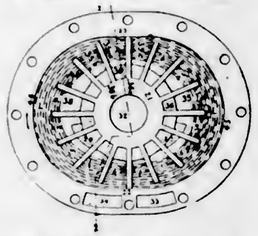
4. A block-signal system, including in combination, signals at two stations, means for operating said signals, electrically controllable means for locking the signal-operating means, a line wire connecting the stations, two branch circuits leading from the line wire at each station, a source of current and a selector key in one branch circuit at each station, and a selector and a circuit controller operated by the movement of the signal-operating means in the other branch circuit at each station, the selector at each station controlling the electrically controlled signal-locking means at the same station whereby the signal-locking means at one station may be controlled by the selector key at the other station, said selector keys having means for making and breaking the circuit for producing signal impulses through said selectors and for holding the circuit closed to maintain the signal-locking means in unlocked position for a limited period of time after producing said signal impulses and to automatically open the circuit to permit the signal-locking means to return to locked position, after the expiration of said limited period of time, to thereby permit the operation of the signals within such limited period of time only.

5. A block signal system, including in combination, a line wire connecting two stations, a signal and signal operating device at each station, two branch circuits leading from the line wire at each station, means for locking the signal-operating devices in different positions, a local circuit at each station including means for operating said locking means, means included in one of said branch circuits at each station for controlling the operation of the local circuit at the other station through said line wire, said controlling means including a selector key and electro-magnetically operated devices in the other branch circuits controlled by said selector keys, to effect the unlocking of said signal locking means and maintain the same in an unlocked position for a limited period of time, and to automatically open the circuit through said line wire to permit the locking means to return to locked position.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,919. TURBO-DISPLACEMENT ENGINE. LEWIS HALLOCK NASH, South Norwalk, Conn., assignor to Nash Engineering Company, a Corporation of New York. Filed May 9, 1905. Serial No. 259,644. (Cl. 123—19.)



1. In a power engine, the combination of a case, a rotary member in the case provided with a plurality of re-acting surfaces and intervening recesses, said recesses being connected by a passage, a liquid within the case adapted to enter and recede from said recesses as the member turns, means for introducing a combustible charge into said recesses, and means for igniting the charge whereby liquid is forced out of one recess through said passage against a re-acting surface to another recess.

2. In a power engine, the combination of a case, a rotor within said case having recesses in its circumference and re-action blades intermediate of said recesses, the outer ends of said recesses being connected by a passage, the case having ports in the center for controlling the inlet and discharge of a combustible charge to the recesses of the rotor, and an igniter for igniting said charge to force the liquid through said passage and direct it upon the reaction blades of the rotor.

3. In a power engine, the combination of a case having two lobes and intervening bearing surfaces, a rotor in the case adapted to form joints with said bearing surfaces and having a plurality of re-acting surfaces and intervening recesses which do not extend to the adjacent surfaces of said lobes, a liquid in the case passing in and out of said recesses as the rotor turns, means controlling the inlet and discharge of a combustible charge to said recesses, and means for igniting the charge.

4. In an engine, the combination of a rotor having recesses adapted to contain a liquid piston, a case inclosing the rotor and providing a passage for conveying the liquid piston from one rotor recess to another as the rotor turns, means for controlling the inlet and discharge of a combustible gas into and out of said recesses, and an igniting device for igniting the charge.

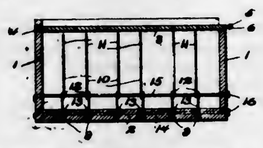


5. The combination of a case having extended portions and intervening bearing points with a rotor in the case and making contact at said points upon the case walls leaving intermediate passages around the case walls, said rotor having blades and intervening recesses, said recesses being connected by said passages, a liquid piston revolving with the rotor, means for introducing a combustible charge into said recesses between the liquid and the walls of said rotor, and means for igniting the charge for driving the liquid out of said spaces through said passages upon the blades of the rotor to exert power and refill said recesses.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,920. EGG-CARRIER. OLIVER NEWMAN, St. Davids, Pa. Filed Aug. 12, 1913. Serial No. 784,296. (Cl. 217—24.)



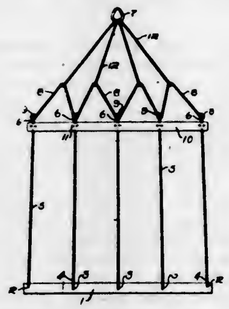
1. An egg carrier comprising a support having longitudinal grooves therein, a plurality of wires, each wire bent forming a plurality of egg engaging loops with coils between the loops, said coils positioned in the grooves, rods projecting through the support and through the coils in the grooves, said wires having coils at the base of each loop in a higher plane than the first-mentioned coils, and rods projecting through the last-mentioned coils which are in alinement, substantially as described.

2. An egg carrier comprising a box having a longitudinally grooved bottom, a plurality of wires bent between their ends forming a plurality of egg engaging loops and between the loops coiled at different elevations, the lower coils located in the grooves, the coils of the respective wires located in alinement, and rods projected through the box and through said coils, substantially as described.

3. An egg carrier comprising a box having a longitudinally grooved bottom, a plurality of wires bent between their ends forming a plurality of egg engaging loops and between the loops coiled at different elevations, the lower coils located in the grooves, the coils of the respective wires located in alinement, rods projected through the box and through said coils, said rods having heads at one end, and up-set at their other ends, substantially as described.

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1,094,921. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Sept. 12, 1910. Serial No. 581,623. (Cl. 5—61.)



1. A couch hammock comprising in combination a body receiving frame and suspension ends therefor, each of said ends consisting of a plurality of continuous wires connected at their lower ends to said frame and each extending upwardly substantially straight throughout nearly its entire length but provided with one or more expansible and contractible coils, thereby providing a slightly resilient hammock support.

2. A couch hammock comprising in combination, a body receiving frame and suspension ends connected thereto, each end consisting of lower and upper portions, each lower portion having continuous upright wires and each upper portion having cords connecting the lower portion to the suspension ring, whereby the length of the connection between the lower portion and the respective suspension ring may be accurately adjusted, the lower ends of each of said wires terminating at or adjacent to the frame.

3. A couch hammock comprising in combination, a body-receiving frame and suspension ends connected thereto, said ends consisting of upright wires bent at intervals into yielding coils, thereby providing a resilient hammock support.

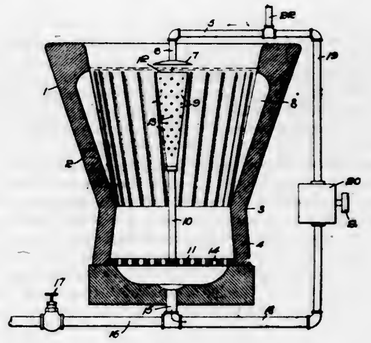
4. A couch hammock comprising in combination, a body-receiving frame and suspension ends connected thereto, said ends consisting of upright continuous wires having expansible and contractible coils.

5. A couch hammock comprising in combination, a body-receiving frame and suspension ends connected thereto, said ends consisting of upright wires having coils constituting eyes and transverse strands positioned in said eyes.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,922. KEIR FOR CONDITIONING TEXTILE MATERIAL. ISAAC E. PALMER, Middletown, Conn. Filed Nov. 23, 1911. Serial No. 661,923. (Cl. 8—19.)



1. A keir for conditioning textile material comprising a receptacle for the material to be treated and a liquor circulating system comprising a pipe and circulating pump connected thereto, said pipe having a point of discharge above said material, and means permitting the percolation through the material of the treating liquor discharged from said pipe the walls of the receptacle being inwardly inclined adjacent the upper portion thereof, thereby to force the treating liquor inwardly toward the center of the receptacle.

2. A keir for conditioning textile material comprising a receptacle for the material to be treated means to introduce the treating liquor into and to discharge it upon the material, and means to withdraw the said liquor from the receptacle and to reintroduce it thereinto for additional treatment, the walls of said receptacle having means permitting the percolation of a treating liquor through the contained material.

3. A keir for conditioning textile material comprising a receptacle for the material to be treated, and means arranged interiorly of the contained material for percolating

a treating liquor therethrough, said receptacle having imperforate walls with downwardly extending percolation channels.

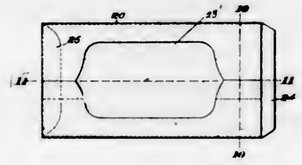
4. A keir for conditioning textile material comprising a receptacle having means for introducing liquid at the top upon the goods therein, a substantially centrally arranged discharge conduit extending upwardly from the lower portion of the receptacle into the mass of goods therein and perforated for the passage thereinto of the liquid and means for enforcing circulation of the liquor from the side walls inwardly.

5. A keir for conditioning textile material comprising a receptacle having channeled side walls, inwardly and downwardly inclined adjacent the upper portion of the receptacle, thereby to force circulating liquid toward the center of the receptacle before reaching the lower portion of said receptacle, and means for introducing liquid at the upper portion of said receptacle, for inward and downward circulation therein.

[Claims 6 to 14 not printed in the Gazette.]

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1,094,923. REVISABLE COMMERCIAL CATALOGUE AND ENVELOP THEREFOR. ISAAC E. PALMER, Middletown, Conn. Filed Mar. 30, 1912. Serial No. 687,406. (Cl. 129—20.)



1. A mailable, bindable, catalogue-sheet-receiving envelop provided at each end with a closing flap, one of said flaps constituting a binding flap for securing a series of said envelops into catalogue form, the envelop having a continuous pocket extending from flap to flap and also having one or both faces provided with a contents-inspection area.

2. A revisable catalogue comprising a plurality of card receiving envelops adapted to be secured together, each envelop being also individually mailable when non-secured in catalogue form and each having a closure flap at each end and a continuous pocket extending from flap to flap, one or both faces of each envelop having a contents-inspection opening, and binding means adapted to extend through the flaps at the inner ends of the envelops and to secure them into catalogue form.

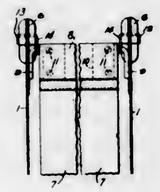
3. A revisable catalogue comprising a plurality of card receiving envelops adapted to be secured together, each envelop being also individually mailable when non-secured in catalogue form and each having a closure means at its outer end and a continuous pocket extending from end to end, one or both faces of each envelop having a contents-inspection opening, and binding means adapted to extend through the inner end portion of said envelops and to secure them into catalogue form.

4. A catalogue-sheet-receiving duplex envelop formed of a single piece folded along parallel lines to form top and bottom edges, the folded over portions being secured along lines substantially parallel to and intermediate the top and bottom edges, thereby to provide two pockets, each having an open end.

5. A catalogue-sheet-receiving duplex envelop formed of a single piece folded along parallel lines to form top and bottom edges, the folded over portions being secured along lines substantially parallel to and intermediate the top and bottom edges, thereby to provide two pockets, each having an open end, one or both faces of each of said pockets having a contents-inspection area.

[Claims 6 to 13 not printed in the Gazette.]

1,094,924. WIND-SHIELD OR BACK-REST FOR COUCH-HAMMOCKS. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Original application filed Sept. 20, 1912, Serial No. 721,337. Divided and this application filed Nov. 4, 1912. Serial No. 729,297. (Cl. 5—61.)



1. As an article of manufacture, a spreader bar for a couch hammock wind shield or the like provided at its ends with eye-engaging hooks forming longitudinal continuations of said spreader.

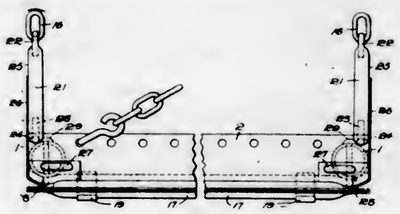
2. As an article of manufacture, a spreader bar for a couch hammock wind shield or the like provided with eye engaging hooks extending from its end edges in a plane between the side faces of said spreader.

3. As an article of manufacture, a wind shield or back rest for a couch hammock consisting of a spreader bar provided at its ends with eye-engaging hooks forming longitudinal continuations of said spreader and adapted flexibly to engage the couch hammock suspension means, and a flexible sheet depending from said spreader.

4. As an article of manufacture, a spreader bar for a couch hammock wind shield or the like provided at its ends with eye-engaging hooks forming longitudinal continuations of said spreader, said hooks being inclined with respect to the longitudinal axis of said spreader.

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1,094,925. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Continuation in part of application Serial No. 721,765, filed Sept. 23, 1912. This application filed Nov. 6, 1912. Serial No. 729,791. (Cl. 5—61.)



1. A frame for a couch hammock consisting of tubular, straight, side members and straight, angle iron end members connected at their meeting ends and positioned in the same plane, the horizontal webs of said angle irons being downwardly bent at their ends to provide recesses for the side members of the frame, and the intermediate portions of said webs being upwardly deflected, a single bolt passing through the end of each side member and the recessed portion of the meeting web, and a seating having end springs connected to said upwardly deflected portions of the web, and spring bands encircling said side members of the frame and connected to the sides of the seating, whereby the seating and members of the frame are supported in the same plane.

2. A frame for a couch hammock comprising substantially cylindrical side members, transverse end members connected thereto, a seating secured to the end members



of the frame, and fastening devices encircling said side members, said devices being connected to the lateral edges of the seating.

3. A frame for a couch hammock consisting of angle iron end members, and side members connected to the terminals of the end members, one of the webs of each end member being substantially upright and the other extending inwardly and having an up-turned edge substantially the entire distance between the side members, and a seating having end springs connected to said upturned edges.

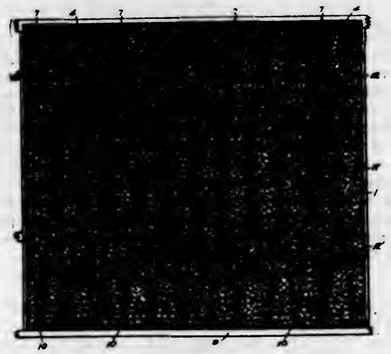
4. A frame for a couch hammock consisting of angle iron end members, and side members connected to the terminals of the end members, one of the webs of each end member being substantially upright and the other extending inwardly and having an up-turned edge substantially the entire distance between the side members, a spreader connected to the under side of the inwardly extending web of each end member, said spreaders having suspension means extending therefrom, and a seating having end springs connected to said up-turned edges.

5. A frame for a couch hammock consisting of angled, metallic end members, and side members connected to the terminals of the end members, one of the webs of each end member being substantially upright and the other extending inwardly and having an up-turned edge substantially the entire distance between the side members, and having their upper surfaces transversely recessed for the reception of the terminals of the side members, and a seating having end springs connected to said up-turned edges.

[Claims 6 to 8 not printed in the Gazette.]

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1,094,926. UNITARY SCREEN. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed June 11, 1913. Serial No. 773,008. (Cl. 156—14.)



1. An article of manufacture consisting of a unitary screen provided with upper and lower slats adapted to be secured against a suitable support, and one or more flexible positioning strips secured to said slats adjacent a face of the screen and extending thereacross to prevent undue bagging of the screen.

2. An article of manufacture consisting of a unitary screen provided with slats having holding means penetrating the same to secure the slats in position, and flexible positioning strips connected to said holding means and crossing the face of the screen, to prevent undue bagging thereof.

3. An article of manufacture consisting of a unitary screen provided with upper and lower slats adapted to be secured against a suitable support, holding means for detachably securing said slats to a suitable support, and cords or strands engaging the screen-holding means and drawn back and forth across a face of the screen, to prevent undue bagging thereof.

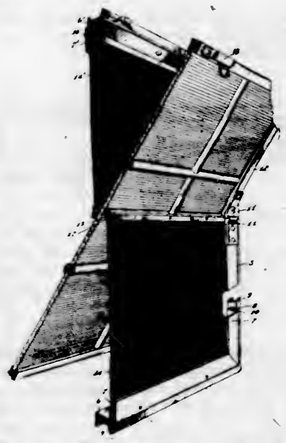
4. A unitary screen provided with edge slats, screw eyes to support said slats in position, and strands reeved back and forth across both faces of the screen, to prevent undue bagging thereof.

5. A unitary screen provided with securing slats, headed means penetrating the slats to support them in position, strands reeved back and forth across both faces of the screen, and means penetrating the screen to secure together the strands at opposite faces of the screen.

[Claim 6 not printed in the Gazette.]

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1,094,927. SCREEN-OPENING. CHARLES H. PASCHALL, Chicago, Ill. Filed Oct. 12, 1911. Serial No. 654,348 (Cl. 156—14.)



The combination of a frame bounded by angle irons, each angle iron having one of its flanges lying respectively in the plane of the rear or front face of the frame accordingly as it is above or below the center of the frame, and its other flange lying within the frame for attachment thereto to support the angle irons, upper and lower screen members respectively secured to the inner faces of the rear and front flanges, whereby the flanges form protective borders for the corresponding edges of the screen members, the secured edges of the screen members lying in the corner between the flanges of the angle irons and the free edges of said screen members being spaced apart horizontally a distance determined by the distance between the planes of the upper and lower flanges and vertically a distance to accommodate a sash, and a sash pivoted in the frame for swinging movement between the free edges of said screen members.

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1,094,928. BUILDING-BLOCK. LOUIS C. G. POPP, Huntington Station, N. Y. Filed Feb. 27, 1913. Serial No. 750,980. (Cl. 72—41.)



1. A building block of coalescent material comprising a body, a sheet of material embedded therein between the inner and outer surfaces of said body whereby the passage of moisture through said block is arrested and a trough-shaped core embedded in said body and having its open end in contact with and covered by said sheet of material.

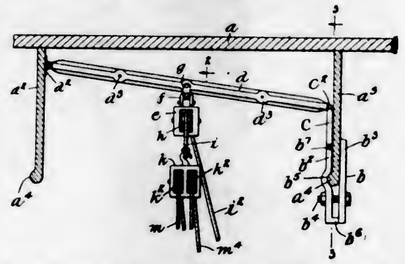
2. A building block of coalescent material comprising a body, a dished receptacle embedded in said body, and a sheet of material embedded in said body and forming a cover for said receptacle, said sheet of material extending

beyond said receptacle throughout its entire periphery, and being adapted to arrest the passage of moisture through said block.

3. A building block of coalescent material comprising a rectangular body having connected grooves extending lengthwise of one end and one side thereof, connected tongues extending lengthwise of the opposite end and opposite side thereof, a dished receptacle embedded in said body and a sheet of material embedded in said body and forming a cover for said receptacle whereby the passage of moisture through said block is arrested.

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1,094,929. HOISTING OR LIFTING APPARATUS. KRISTEN POULSEN, Brooklyn, N. Y. Filed Apr. 29, 1913. Serial No. 764,311. (Cl. 57—129.)



1. In a hoisting apparatus of the class described, the combination with parallel supports of a clamp device adapted to be secured to one of said supports ,and a beam hinged to one side portion of said clamp device and the length of which is greater than the distance between said supports.

2. In a hoisting apparatus of the class described, the combination with two parallel supports of a clamp device adapted to be secured to one of said supports, a beam hinged to said clamp device and the length of which is greater than the distance between said supports, and the free end of which is adapted to bear on the other of said supports, and a pulley block suspended from said beam.

3. In a hoisting apparatus of the class described, the combination with two parallel supports, of a clamp device adapted to be secured to one of said supports, a beam hinged to said clamp device and the length of which is greater than the distance between said supports, and the free end of which is provided with a pivoted shoe adapted to bear on the other support, and a pulley block suspended from said beam.

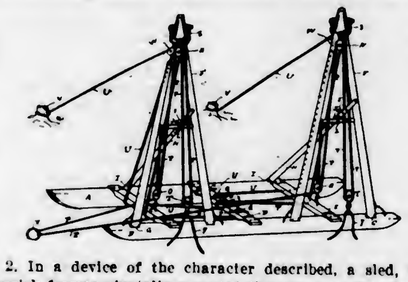
4. A hoisting apparatus adapted for use in connection with two parallel supports said hoisting apparatus comprising a clamp adapted to be secured to one of said supports, one side of said clamp being provided with a hinged member, a beam hinged to said hinged member and the length of which is greater than the distance between said supports, and the free end of which is adapted to bear on the other support.

5. A hoisting apparatus adapted to be used in connection with two parallel supports and comprising, a clamp device adapted to be secured to one of said supports, a beam hinged to said clamp device and the length of which is greater than the distance between said supports, the free end of which is adapted to bear on the other of said supports, and a pulley block connected with said beam.

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1,094,930. PORTABLE DEVICE FOR HANDLING LONG, HEAVY ARTICLES. JOHN T. RANNEY, Fort Kent, Me. Filed Oct. 8, 1913. Serial No. 794,082. (Cl. 212—140.)

1. In a device of the character described, a sled, two derrick frames pivotally mounted on one of the sled runners near each end, means for providing vertical adjustment for said frames, each frame being provided with a hoisting tackle, means for coupling the draw ends of the tackle together, and means for attaching the tackle to the logs at two points spaced apart from each other, one being adapted to be attached to the article at a predetermined distance from the end, whereby one end of the article will automatically assume a predetermined position in the load.



2. In a device of the character described, a sled, two derrick frames pivotally mounted thereon, one at each end of the sled runner, means for providing vertical adjustment to said frames, hoisting tackle mounted on each frame, each comprising a fixed block attached to the top of the frame, a fixed block attached to the sled frame, a movable lifting block and a fixed ring secured to the top of the frame, a cable secured to the sled frame, thence passing through said ring, thence through the lifting block, thence through the block at the top of the derrick frame and thence through the block at the sled frame, means for attaching the lifting blocks to the article at points spaced apart from each other, one being at a predetermined distance from the end thereof, and means for coupling the draw ends of the cable together, whereby both lifting blocks rise or fall simultaneously.

3. In a device of the character described, a sled, two derrick frames pivotally mounted in one of the sled runners, one near each end, braces for providing vertical adjustment for said frames, each frame being provided with a hoisting tackle, each comprising a fixed block attached to the top of the frame, a fixed block attached to the sled frame, a fixed ring secured to the top of the frame, a movable lifting block, a cable removably secured to the sled frame, thence passing through said ring, thence through the lifting block, thence through the block at the top of the derrick frame, and thence through the block at the sled frame, the cables in front of the ring being of sufficient length to permit the lifting blocks to have a large range, means for attaching the lifting blocks to the article at points spaced apart from each other, and means for coupling the draw ends of the cables together, whereby both lifting blocks move simultaneously.

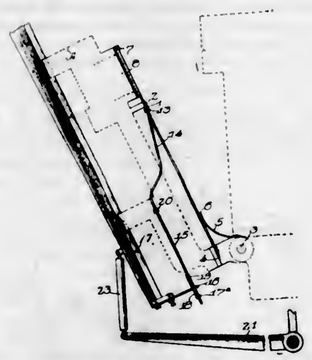
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1,094,931. WIPER FOR TRIMMING-KNIVES OF LINOTYPE-MACHINES. WILLIAM C. REDFIELD, Chicago, Ill. Filed Mar. 25, 1912. Serial No. 686,137. (Cl. 199—14.)

1. In a linotype machine having a pivoted vise frame carrying a reciprocable part and the trimming knives, and having a rocking arm for actuating said reciprocable part, a reciprocable plunger rectangular in cross-section and carrying a wiper adapted to travel over the cutting edges of said trimming knives, a channeled guide for one end portion of said plunger in a part of said vise frame contiguous to said trimming knives, the other end portion of said plunger bearing upon a part of said vise frame contiguous to its pivot, a flat spring mounted at one end upon a part of said vise frame contiguous to the pivot thereof and bearing at its other end upon said plunger between the end portions thereof for holding the lower end portion thereof in contact with the vise frame and causing the wiper to bear upon the trimming knives, said spring having side flanges for preventing lateral movement of said plunger and constituting the same a guide for the plunger, the flat surfaces of the latter coacting with its guides for preventing rotation thereof relatively to said guides, and connection between said reciprocable part and said plunger for actuating the latter.



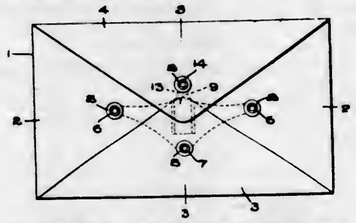
2. In a linotype machine having a pivoted vise frame carrying a reciprocable part and the trimming knives, and having a rocking arm for actuating said reciprocable part, a reciprocable plunger carrying a wiper adapted to travel over the cutting edges of said trimming knives, guides for said plunger, a spring arranged to bear on said plunger between two of its guides to maintain said wiper in contact with said cutting edges during travel thereof over said edges and maintaining said plunger engaged with said guides, an arm having a portion parallel with said



plunger and connected with said plunger between the ends of the latter and between the guides therefor, a pair of collars on the portion of said arm parallel with said plunger, and a member carried by the first elevator having sliding engagement with the last-named portion of said arm between said collars for imparting reciprocatory movement to said plunger, said collars being removable and enabling removal of the device from the machine by removing the endmost collar from said arm.

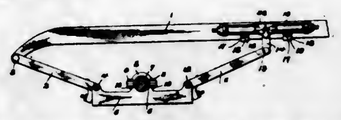
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1,094,932. METALLIC ENVELOP-SEAL. JOHN B. REISSIG, Philadelphia, Pa. Filed Oct. 15, 1913. Serial No. 795,188. (Cl. 229—78.)



The combination with an envelop having end flaps, a bottom flap and a closing flap, of a metal seal comprising two members, one member consisting of an elongated flat plate located against the inner face of the back of the envelop and having three tubular studs, a stud projected through each end flap, and a third stud projected through the bottom flap, each of said studs projected through one flap only and located an appreciable distance from the free end of the flap, washers on the outside of said end and bottom flaps through which said studs are projected and upset, an oblong casing secured to the plate at the center thereof and having inwardly projecting shoulders at opposite sides, the other member comprising a flat metal plate having a tubular stud adjacent one end projected through the closing flap of the envelop and upset against a washer on the outside of said closing flap, said last-mentioned member having a longitudinal recess in its free end, and having recesses in the side edges thereof to receive the shoulder when said last-mentioned member is moved into the casing, substantially as described.

1,094,933. VEHICLE-SPRING. WILLIAM ROPER, Philadelphia, Pa. Filed July 17, 1913. Serial No. 779,412. (Cl. 21—101.)



1. The combination with a vehicle frame and an axle, of a spring housing secured to the axle, a second spring housing secured to the frame, springs in said housings, a lever fulcrumed between its ends in the last-mentioned housing and engaging the springs in the latter, a link pivotally connecting one end of the first-mentioned housing with the frame, a second link connecting the other end of said first-mentioned housing with the lever, and arms on said links engaging the springs in the first-mentioned housing, substantially as described.

2. The combination with a vehicle frame and an axle, of a spring housing secured to the axle, a second spring housing secured to the frame, springs in said housings, a lever fulcrumed between its ends in the central portion of the last-mentioned housing, a roller supported by the upper end of said lever and movable longitudinally in the housing, blocks at opposite sides of the roller engaging the springs in the said housing, a link connecting one end of the first-mentioned housing with the frame, a second link connecting the lower end of the lever with the other end of said first-mentioned housing, and devices on said links engaging the springs in the first-mentioned housing, substantially as described.

3. A vehicle spring comprising a housing adapted to be secured to a frame, and having registering openings and longitudinal slots in the sides thereof, pins in said openings and slots respectively, a lever fulcrumed between its ends on the pin in said openings, and having a forked end engaging the pin in the slots, and a roller on said last-mentioned pin, blocks at opposite sides of the roller, blocks in the ends of the housing, coiled springs between said blocks, and said lever at its lower end adapted to be connected to an operating link, substantially as described.

4. A vehicle spring comprising a housing adapted to be secured to a frame, and having registering openings and longitudinal slots in the sides thereof, pins in said openings and slots respectively, a lever fulcrumed between its ends on the pin in said openings, and having a forked end engaging the pin in the slots, a roller on said last-mentioned pin, blocks at opposite sides of the roller, blocks in the ends of the housing, coiled springs between said blocks, plugs screwed into the ends of the housing, pins adjustable in the plugs and bearing against the last-mentioned blocks, whereby the tension of the springs may be varied, and jam nuts screwed onto said pins against the plugs, substantially as described.

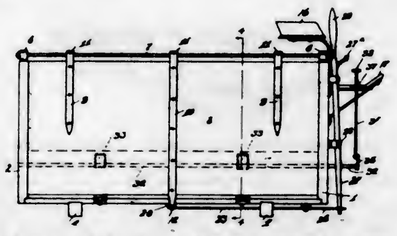
5. A vehicle spring comprising a housing, a lever fulcrumed between its ends to the housing, one end of said lever forked in both directions and located within the housing, a pin supported in the forked end of said lever, a roller on the pin within the forked end of said lever, springs in the housing at opposite sides of the lever, blocks located between the roller and the springs, and means for adjusting the tension of the springs, substantially as described.

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1,094,934. DUMPING-WAGON. WESLEY J. ROMADKA, South Bend, Ind. Filed July 21, 1913. Serial No. 780,166. (Cl. 21—20.)

1. A wagon body having angularly related bottom sections hingedly connected at their relatively outer edges to said body, an underlying frame supporting said sections with their inner free ends elevated above the hinged edges thereof, rods rotatably mounted in said frame and terminating in advance of the forward portion of the wagon body, arms fixed on said rods the free ends of which bear upwardly against the free ends of said sections upon rotation of the rods, and push rods connected to the forward

ends of said rods and adapted in operation to rotate the rods.

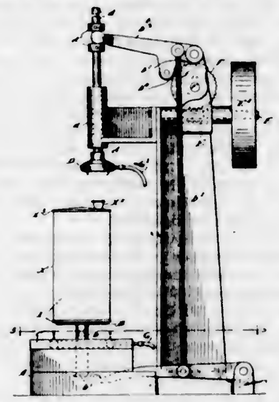


2. A wagon body having angularly related bottom sections hingedly connected at their relatively outer edges to said body, an underlying frame supporting said sections with their inner free ends elevated above the hinged edges thereof, rods rotatably mounted in said frame adjacent the free edges of said sections, curved arms fixed on said rods which bear upwardly against the bottom of said sections and have a constantly shifting bearing with relation to said sections upon rotation of the rods, and means for operating said rods.

3. A wagon body having angularly related bottom sections hingedly connected at their relatively outer edges to said body, an underlying frame supporting said sections with their relatively inner edges elevated above the hinged edges thereof, rods rotatably mounted in said frame beneath and adjacent the free edges of said sections, arms fixed on said rods the free ends of which bear upwardly against the free ends of said sections upon rotation of the rods whereby the load is dumped to the respective sides of the wagon body, and means for operating the rods.

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1,094,935. CAN FUSING OR SWEATING MACHINE. JOHN E. SCHENCK, Chicago, Ill., and CHARLES A. DOOLITTLE, Detroit, Mich., assignors to American Can Company, New York, N. Y., a Corporation of New York. Filed Sept. 8, 1909. Serial No. 516,688. (Cl. 113—79.)



1. In a can fusing or sweating machine, the combination with two stationary burner heads, of two alternately movable can supports, and means for automatically raising and lowering said can supports into and out of operative relation with said burner heads, substantially as specified.

2. In a can fusing or sweating machine, the combination with a lower stationary burner head, of an upper movable burner head, a movable can support, and means for automatically operating said can support and said upper burner head, substantially as specified.

3. In a can fusing or sweating machine, the combination with a pair of alternately moving can supports, of a pair of lower burner heads and a pair of alternately moving upper burner heads, substantially as specified.

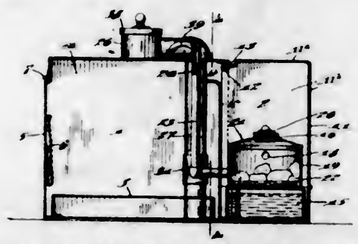
4. In a can fusing or sweating machine, the combination with a pair of alternately moving can supports, of a pair of lower burner heads and a pair of alternately moving upper burner heads and cams, levers and connections for operating said alternately moving parts, substantially as specified.

5. In a can fusing or sweating machine, the combination with a pair of can supports, a pair of lower burner heads, and a pair of upper burner heads, and means for automatically and alternately bringing the cans on said supports into and out of operative relation with said burners, substantially as specified.

[Claims 6 to 8 not printed in the Gazette.]

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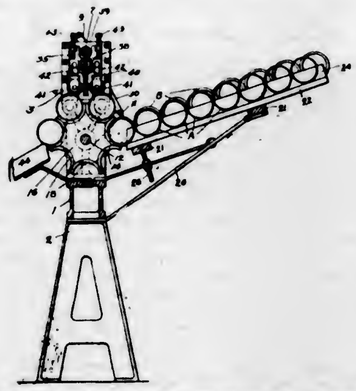
1,094,936. ODORLESS COOKER. JOHN T. SEWELL, Philadelphia, Pa. Filed Oct. 11, 1911. Serial No. 654,110. (Cl. 126—20.)



A cooker adapted to be arranged upon a stove and comprising a casing, a vertical partition dividing said casing into two compartments, there being a communicating opening at or adjacent the upper end of said partition, each of said compartments being provided with an opening giving access thereto, closures for said openings, a dome in the top of one of said compartments, a ventilating pipe leading from said dome, and a boiler arranged in the bottom of the other compartment and having radiating walls whereby the heat and vapors generated in said compartment may pass through said communicating opening into the other compartment and both compartments be ventilated by said ventilating pipe, substantially as described.

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1,094,937. CAN-HEAD-SEAMING MACHINE. LEE C. SHARP, Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 12, 1909. Serial No. 522,347. (Cl. 113—14.)



1. In a can head-seaming machine, the combination with seaming devices, of a carrier-wheel revolubly mounted on a horizontal axis and having peripheral pockets adapted to receive and carry can-bodies and heads; a chute for feeding can-bodies and heads to the carrier-wheel; and chuck-plates mounted adjacent to the carrier-wheel and adapted to engage and rotate the cans in proximity to the seaming devices; portions of the carrier-wheel, of the feed-chute, and of the means carrying the chuck-plates being adjustable axially of the carrier-wheel to adapt the machine for operating upon cans of different lengths.

2. In a can head-seaming machine, a carrier-wheel mounted on a horizontal axis, means for feeding can-bodies and heads to said carrier-wheel, chuck-plates arranged in pairs at opposite sides of the carrier-wheel, means for intermittently actuating the wheel to carry the cans between the successive pairs of chuck-plates, means for simultaneously actuating the chuck-plates to engage the same with the cans, means for revolving the chuck-plates, seaming devices having a fixed relation with each other adapted to simultaneously engage a plurality of adjacent cans held by the chuck-plates, and means for actuating said seaming devices synchronously with the carrier-wheel and chuck-plates.

3. In a can head-seaming machine, conveying devices adapted to receive and carry cylindrical can-bodies and heads so that the axes thereof are substantially horizontal, can end engaging means rotatable on horizontal axes and arranged adjoining the conveying devices, means for actuating said rotatable means to simultaneously engage the same with a plurality of the can-bodies and heads, a vertically reciprocating head arranged above the rotatable means, a plurality of seaming-rollers carried by said head, and means for actuating said head to simultaneously engage the seaming-rollers with a plurality of adjacent cans held by the rotatable means.

4. In a can head-seaming machine, a carrier-wheel mounted on a horizontal axis having removable peripheral members containing pockets adapted to receive can-bodies and heads, means for intermittently actuating said carrier-wheel, a seaming-head, means for intermittently reciprocating said head toward and away from the carrier-wheel, seaming-rollers carried by the head, said seaming rollers being adjacent to each other and adapted to simultaneously engage adjacent cans on said carrier wheel and means on the head for adjusting the position of the seaming-rollers relative to the carrier-wheel to adapt the seaming head for operating upon cans of different diameters.

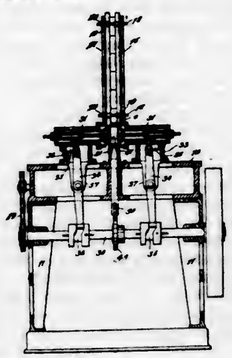
5. In a head-seaming machine for cylindrical cans, a feed-chute having inclined runways through which the can-bodies and heads may roll, means for adjusting the width of said runways, a plurality of seaming devices, pairs of rotating elements arranged adjacent to each of the seaming devices, conveying devices adapted to receive the cans from the feed-chute and carry the same successively to positions adjoining the seaming devices and between the pairs of rotating elements, means for adjusting the width of the conveying devices, means for adjusting the average distance between the pairs of rotating elements, means for simultaneously moving each pair of rotating elements toward and away from each other, and means for simultaneously engaging all the seaming devices with the cans.

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1,094,938. CAN-HEADING MACHINE. LEE C. SHARP, Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 22, 1910. Serial No. 583,174. (Cl. 113—14.)

1. A can heading machine having a swaging tool arranged to engage the can head and bend its crimped edge against the can body, said swaging tool having an integral continuous working surface, and an expansible backing die pressing against the inner side of the seam during the operation of said tool, said tool and die being mounted so as to move simultaneously in the same direction, substantially as specified.

2. In a machine of the character described, in combination: two alined, reciprocating swaging tools, each tool being continuous along its working surface and adapted to embrace the crimped edge of the can head and swage or bend the same inward against the can body; and an expansible die mounted within each of said swaging tools, substantially as specified.



3. A can heading machine having a swaging tool continuous along its working surface and adapted to embrace the crimped edge of the can head and swage or bend the same inward against the can body by a single operation; an expansible backing die adapted to bear against the inner side of the seam during the operation of the swaging tool; and adjustable means for expanding said expansible die, said means being adapted to regulate the amount to which the expansible die is expanded, substantially as specified.

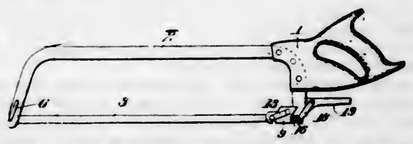
4. In a machine of the character described, in combination: a pair of alined, reciprocating swaging tools, each tool being continuous along its working surface and adapted to embrace the crimped edge of a can head and swage or bend the same inward against the can body by a single operation; a sectional backing die located within each of said swaging tools and adapted to bear against the inner sides of the seams during the operation of the swaging tools; and means for periodically expanding the sections of said dies into active positions, substantially as specified.

5. A can heading machine, having a swaging tool arranged to embrace the crimped edge of the head and clench the same against the body, a tool body carrying the tool, means for slidably mounting said body and for periodically sliding it, a backing die arranged to engage the inner side of the seam during the operation of the swaging tool, means for mounting said die with a limited motion on the tool body and means for yieldingly projecting the die ahead of the tool whereby the die engages the head and moves it to the body and thereupon the swaging tool performs the crimping operation, said backing die being sectional and coacting means for expanding the sections of the die against the seam during the action of the swaging tool.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,939. SAW-HOLDER. BENJAMIN E. SMITH, Latrobe, Pa. Filed May 15, 1913. Serial No. 767,797. (Cl. 145—33.)



1. A saw holder comprising a frame having a notch in its outer edge, a locking lever having a toe adapted to engage said notch and having a flat heel portion adapted to lie against the outer edge of the frame when the lever is in locking position, a block having means for holding

a saw blade and a swinging link connection between said block and lever.

2. A saw holder comprising a frame having a straight outer edge, a locking lever having a flat end adapted to lie against said straight edge so as to maintain said lever projecting at substantial right angles thereto when in locking position, a block adapted to engage and hold a saw blade, and a swinging link connection between the said block and said lever adjacent its flat end.

3. A saw holder comprising a frame, a locking lever coöperating therewith to tension the saw, a block adapted to engage and hold a saw blade, a pin screw-threaded into said block, and a pivotal link connection between the end of said pin and said lever, whereby the tension of the saw may be adjusted by setting said screw-threaded pin.

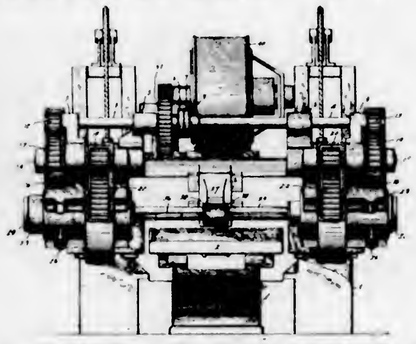
4. A saw holder comprising a U-shaped frame having at one end means for detachably connecting a saw blade thereto, and means coöperating with the other end of said frame for adjustably connecting the saw thereto, said last mentioned means comprising a block adapted to hold the saw blade, a pin screw-threaded into said block and extending in line with the saw blade, a locking lever adapted to engage the said frame to place the saw under tension, and a link connection between said lever and said screw-threaded pin, the arrangement being such that by screwing up said pin more or less the tension of the saw can be varied.

5. A saw holder comprising a frame and a tensioning and locking device coöperating therewith, said locking device comprising a lever unconnected with but adapted to engage the frame, a block to which said lever is pivotally connected, said block having means for holding a saw blade, and a pair of spaced lugs carried by said block independent of such pivotal connection and adapted to embrace the said frame, whereby the parts are maintained in proper alinement, said lugs forming, between them, an open ended slot.

[Claim 6 not printed in the Gazette.]

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1,094,940. MILLING-MACHINE. GEORGE W. SMITH, Rockford, Ill., assignor to The Ingersoll Milling Machine Company, Rockford, Ill., a Corporation of Illinois. Filed Sept. 30, 1911. Serial No. 652,205. (Cl. 90—18.)



1. In apparatus of the character set forth, the combination of two rotatable cutter holding members, of common driving means in connection with both of said cutter holding members for positively driving same, and means included in said driving means for allowing adjustable axial movement of one of said cutter holding members relative to the other.

2. In apparatus of the character set forth, the combination with a rotary cutter holding bar, of a driving shaft comprising sections, separate sets of gearing extending from the respective sections of the driving shaft to the respective ends of the bar for positively driving the latter at both ends, and means for positively but adjustably securing the driving shaft sections together, and against relative movement, to secure an equal transmission of power through the sets of gear.

3. In apparatus of the character set forth, the combination with a rotary cutter holding bar, of a driving shaft comprising sections, separate sets of gearing extending from the respective sections of the driving shaft to the respective ends of the bar for positively driving the latter at both ends, said driving shaft sections being relatively rotatable and having interlocking serrated heads at their adjacent ends, and means for positively locking the heads together to prevent the relative rotation of the sections.

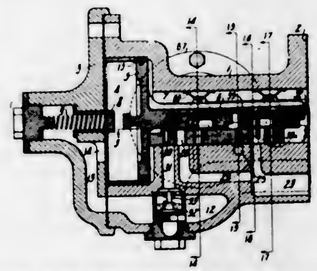
4. In apparatus of the character set forth, the combination with two rotatable cutter holding members, of a drive-shaft, a driving connection between said drive-shaft and each cutter holding member, and means included in the said drive between said cutter members for allowing adjustable axial movement of one cutter member relative to the other.

5. In apparatus of the character set forth, the combination with a single rotary cutter holding bar, of a driving shaft comprising relatively rotatable sections, a set of gearing connecting one of the driving shaft sections with one end portion of the cutter holding bar, a corresponding set of gearing connecting the other driving shaft section with the other end portion of the cutter holding bar, said sets of gearing positively driving the latter, a connection between the driving shaft sections for permitting their relative adjustments, but normally holding them positively against relative rotation, and a motor geared to the driving shaft between the sets of gears.

[Claim 6 not printed in the Gazette.]

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1,094,941. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company, a Corporation of Pennsylvania. Filed Mar. 21, 1912. Serial No. 685,236. (Cl. 188—15.)



1. A triple valve having connections to the atmosphere, train pipe, brake cylinder, and auxiliary reservoir, ports and valve mechanism arranged on service reduction of train pipe pressure to admit air from the auxiliary reservoir to the brake cylinder, and in lap position to open communication between the brake cylinder and a supplementary valve device, and a supplementary valve device controlled solely by pressure from the brake cylinder and arranged when the main valve is in service lap position to admit air from a source of fluid pressure to the brake cylinder upon reduction of pressure in the brake cylinder.

2. A triple valve having connections to the atmosphere, train pipe, brake cylinder, and auxiliary reservoir, ports and valve mechanism arranged on service reduction of train pipe pressure to admit air from the auxiliary reservoir to the brake cylinder, a supplementary valve controlling a connection from a source of fluid pressure to the brake cylinder, a movable abutment for actuating said supplementary valve, and connections whereby the pressures on opposite sides of said movable abutment equalize with the brake cylinder, the connection from the cylinder to one side of the movable abutment being open during service lap position and the connection to the opposite side being past a check valve.



3. A triple valve having connections to the atmosphere, train pipe, brake cylinder, and auxiliary reservoir, ports and valve mechanism arranged on service reduction of train pipe pressure to admit air from the auxiliary reservoir to the brake cylinder, a supplementary valve controlling a connection from a source of fluid pressure to the brake cylinder, and a movable abutment for actuating said supplementary valve, said main valve being arranged in service position to admit air to both sides of said movable abutment and in service lap position to equalize the pressure on both sides of the movable abutment with the brake cylinder and trap the air on one side of said movable abutment.

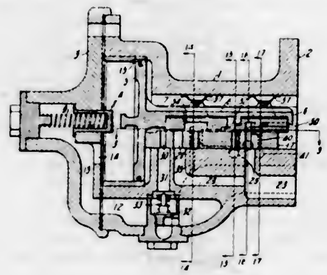
4. A triple valve having connections to the atmosphere, train pipe, brake cylinder, and auxiliary reservoir, ports and valve mechanism arranged on service reduction of train pipe pressure to admit air from the auxiliary reservoir to the brake cylinder, a supplementary valve controlling communication from a source of fluid pressure to the brake cylinder, and a movable abutment for actuating said supplementary valve, said main valve being arranged in service lap position to equalize pressures on opposite sides of said movable abutment with the brake cylinder, one side of said movable abutment being in open communication with the brake cylinder and the other side being in communication with the brake cylinder past a check valve, whereby reduction of brake cylinder pressure opens communication from the supplementary reservoir to the brake cylinder.

5. A triple valve having connections to the atmosphere, train pipe, brake cylinder, auxiliary reservoir and a supplementary reservoir, ports and valve mechanism arranged on service reduction of train pipe pressure to admit air from the auxiliary reservoir to the brake cylinder, and a supplementary valve including a movable abutment, said main valve mechanism being arranged in service lap position to equalize the pressures on both sides of said supplementary movable abutment with the brake cylinder, one side of said movable abutment being in open communication with the brake cylinder and the other side being in communication with the brake cylinder past a check valve, and a supplementary valve actuated by the supplementary movable abutment and arranged to control communication from the supplementary reservoir to the open passage to the brake cylinder.

[Claims 6 to 23 not printed in the Gazette.]

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1,094,942. TRIPLE VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company, a Corporation of Pennsylvania. Filed Mar. 30, 1912. Serial No. 687,534. (Cl. 188—15.)



1. A triple valve having connections to the train pipe, brake cylinder, auxiliary reservoir, atmosphere, and to a double heading control valve, said connection to the double heading control valve being independent of the brake cylinder connection, and ports and valve mechanism arranged in application position to open communication from the auxiliary reservoir to the brake cylinder and to the double heading control valve.

2. A triple valve having connections to the train pipe, brake cylinder, auxiliary reservoir, atmosphere, and to a double heading control valve, said connection to the double heading control valve being independent of the brake cylinder connection, and ports and valve mechanism arranged in application position to open communication from the auxiliary reservoir to the brake cylinder and to the double heading control valve, and in running position to connect the brake cylinder and the double heading control valve to the atmosphere.

3. A triple valve having connections to the train pipe, brake cylinder, auxiliary reservoir, atmosphere, and to a double heading control valve, and ports and valve mechanism arranged in all application and service lap and graduated release positions to open communication from the auxiliary reservoir to the brake cylinder and to the double heading control valve.

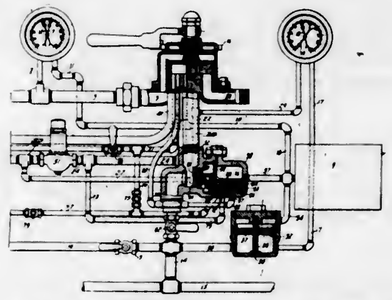
4. A triple valve having connections to the train pipe, brake cylinder, auxiliary reservoir, atmosphere, and to a double heading control valve, and ports and valve mechanism arranged in running position to connect the brake cylinder and the double heading control valve to the atmosphere, and in all application, service lap and graduated release positions to connect the auxiliary reservoir to the brake cylinder and to the double heading control valve.

5. A triple valve having connections to the train pipe, brake cylinder, auxiliary reservoir, atmosphere and to a double heading control valve, said connection to the double heading control valve being independent of the brake cylinder connection, and ports and valve mechanism arranged on light reduction in train pipe pressure to open communication directly from the train pipe to the brake cylinder, and on application reduction in train pipe pressure to open communication from the auxiliary reservoir to the brake cylinder and to the double heading control valve.

[Claims 6 to 21 not printed in the Gazette.]

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1,094,943. AIR-BRAKE SYSTEM. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company, a Corporation of Pennsylvania. Filed Apr. 10, 1912. Serial No. 689,753. (Cl. 188—1.)



1. In an air brake system, the combination of a main reservoir, a train pipe, a brake cylinder, and auxiliary reservoir, a triple valve, an engineer's valve and connections therebetween, and having an additional direct connection between the engineer's valve and the brake cylinder, and a cut-off cock in the connection between the auxiliary reservoir and the brake cylinder, whereby the brake cylinder can be operated either automatically or direct, said engineer's valve being arranged when in lap position to blank the direct brake cylinder connection, and in another position to connect the direct brake cylinder connection with the atmosphere and blank the connection from the main reservoir to the train pipe, whereby the train brakes are held when the engine brakes are released.

2. In an air brake system the combination of a main reservoir, a train pipe, a brake cylinder, an auxiliary

reservoir, a triple valve, an engineer's valve and connections therebetween, and having an additional direct connection between the engineer's valve and the brake cylinder, a cut-off cock in said direct connection, and a cut-off cock in the connection between the auxiliary reservoir and the brake cylinder, whereby the brake cylinder can be operated either automatically or direct, said engineer's valve being arranged when in lap position to blank the direct brake cylinder connection and in another position to connect the direct brake cylinder connection with the atmosphere and blank the conuection from the main reservoir to the train pipe, whereby the train brakes are held when the engine brakes are released.

3. In an air brake system, the combination of a main reservoir, a train pipe, a brake cylinder, an auxiliary reservoir, a triple valve, an engineer's valve and connections therebetween, an additional connection between the main reservoir and train pipe, a double heading valve controlling said additional connection, and means operative when the triple valve is in application position to actuate said double heading valve to close communication from the main reservoir to the train pipe.

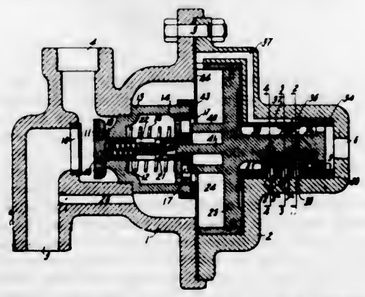
4. In an air brake system, the combination of a main reservoir, a train pipe, a brake cylinder, an auxiliary reservoir, a triple valve, an engineer's valve and connections therebetween, an additional connection between the main reservoir and train pipe, a double heading valve in said connection arranged to close the connection between the main reservoir and train pipe and having communication with the triple valve, whereby in application positions of the triple valve auxiliary reservoir air actuates said double heading valve to close the connection from the main reservoir to the train pipe.

5. In an air brake system, the combination of a main reservoir, a train pipe, a brake cylinder, an auxiliary reservoir, a triple valve, an engineer's valve and connections therebetween, an additional connection between the main reservoir and train pipe, a double heading valve in said connection including a casing with a differential piston mechanism therein open on its smaller area to main reservoir pressure and on its larger area connected to a port in the triple valve, a valve actuated by said differential piston mechanism and controlling connection between the main reservoir and train pipe, said triple valve being arranged in running or release position to connect the double heading valve casing to the atmosphere and in application positions to connect the same to the auxiliary reservoir, whereby in application positions said differential piston mechanism actuates the valve to close connection between the main reservoir and the train pipe.

[Claims 6 to 37 not printed in the Gazette.]

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1,094,944. EMERGENCY CUT-OFF AND PRESSURE-MAINTENANCE VALVE FOR AIR-BRAKE SYSTEMS. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed June 24, 1912. Serial No. 705,566. (Cl. 188—1.)



1. An air brake valve comprising a casing having connections to a steam cut-off valve, a source of pressure, the main reservoir and the train pipe, a movable abutment in said casing open on one side to train pipe pressure and on its opposite side to reservoir pressure, a valve actuated by said movable abutment, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve, and a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe.

2. An air brake valve comprising a casing having connections to a steam cut-off valve, a source of pressure, the main reservoir and the train pipe, a movable abutment in said casing open on one side to train pipe pressure and on its opposite side to reservoir pressure, a valve actuated by said movable abutment, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve, and a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe, said second valve seating toward the train pipe and having a yielding connection with the movable abutment so as to open under preponderance of train pipe pressure.

3. An air brake valve comprising a casing having connections to a steam cut-off valve, a source of pressure, the main reservoir and the train pipe, a movable abutment in said casing open on one side to train pipe pressure and on its opposite side to reservoir pressure, a valve actuated by said movable abutment, ports and passages controlled by said valve and arranged on reduction of pressure on the train pipe side of the movable abutment to connect the source of pressure with the steam cut-off valve, a second valve actuated by said movable abutment and acting to cut off communication between the main reservoir and the train pipe, and a spring arranged to actuate said last named valve to open communication between the main reservoir and the train pipe.

4. An air brake valve comprising a casing having connections to the main reservoir, a supplementary reservoir, and the train pipe, a movable abutment in said casing subject on one side to train pipe pressure and on its opposite side to supplementary reservoir pressure, a valve actuated by said movable abutment and arranged on moderate preponderance of supplementary reservoir pressure over train pipe pressure to open communication from the main reservoir to the train pipe, and a second valve actuated by said movable abutment and arranged on a greater preponderance of supplementary reservoir pressure over train pipe pressure to cut off communication between the main reservoir and the train pipe.

5. An air brake valve comprising a casing having connections to the main reservoir, the equalizing reservoir, the train pipe and a steam cut-off valve, a movable abutment in said casing subject on one side to train pipe pressure and on its opposite side to equalizing reservoir pressure, a valve actuated by said movable abutment and arranged on moderate preponderance of equalizing reservoir pressure over train pipe pressure to open communication from the main reservoir to the train pipe and on a greater preponderance of equalizing reservoir pressure over train pipe pressure to open communication from the main reservoir to the steam cut-off valve.

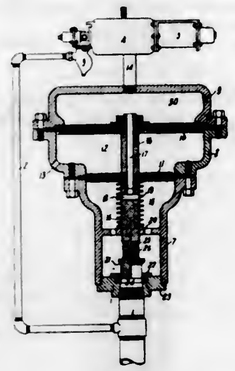
[Claims 6 to 9 not printed in the Gazette.]

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1,094,945. QUICK-RECHARGING VALVE. JACOB RUSH SNYDER, Pittsburgh, Pa., assignor to Percy E. Donner, Pittsburgh, Pa. Filed Aug. 27, 1912. Serial No. 717,367. (Cl. 188—1.)

1. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of a recharging valve device interposed between the train pipe and auxiliary reservoir and including a movable abutment subject on one side to auxiliary reservoir pressure and on its opposite side to train pipe pressure, a valve operatively connected to said abutment and arranged to control communication between the train pipe and the auxiliary reservoir and also controlling communication between the train pipe and the one side of said movable abutment, and a spring acting in conjunction with the pressure on the train pipe side of said movable abutment.





2. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of a recharging valve device interposed between the train pipe and auxiliary reservoir and including differential piston mechanism having its small area subject to train pipe pressure and its large area subject to auxiliary reservoir pressure and arranged to maintain communication from the train pipe to the auxiliary reservoir until the auxiliary reservoir pressure reaches a predetermined point short of equalization with the train pipe and to then close said connection, whereby the equalization of the auxiliary reservoir with the train pipe is completed through the triple valve.

3. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of a recharging valve device interposed between the train pipe and auxiliary reservoir and including differential piston mechanism having its small area subject to train pipe pressure and its large area subject to auxiliary reservoir pressure and arranged to maintain communication from the train pipe to the auxiliary reservoir until the auxiliary reservoir pressure reaches a predetermined point short of equalization with the train pipe and to then close said connection, whereby the equalization of the auxiliary reservoir with the train pipe is completed through the triple valve, and a spring acting in conjunction with the pressure on the smaller area of said differential piston.

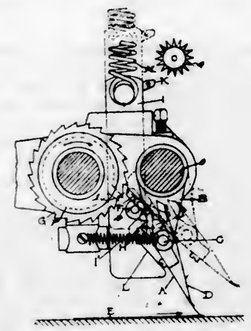
4. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of a recharging valve comprising a casing connected at one end to the auxiliary reservoir and at its opposite end to the train pipe, a connection through said valve from the train pipe connection to the auxiliary reservoir connection, a differential piston in said casing subject on its larger area to auxiliary reservoir pressure and on its smaller area to train pipe pressure, and a valve operatively connected to said differential piston and controlling communication between the train pipe and the auxiliary reservoir and also controlling communication between the train pipe and the smaller area of said differential piston.

5. In a fluid pressure brake, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of a recharging valve comprising a casing connected at one end to the auxiliary reservoir and at its opposite end to the train pipe, a connection in said valve from the train pipe connection to the auxiliary reservoir connection, a valve controlling said connection, a differential piston in said casing subjected on its larger area to auxiliary reservoir pressure and on its smaller area to train pipe pressure and operatively connected to said valve, and a spring coöperating with the pressure acting on the smaller area of said differential piston.

[Claim 6 not printed in the Gazette.]

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1,094,946. DEVICE FOR ACTUATING THE COUNTER IN A SHEET-FEEDER. GEORG SPIESS, Leipzig-Reudnitz, Germany. Filed Jan. 6, 1912. Serial No. 669,746. (Cl. 235—91.)



1. A device for actuating the counter in a sheet feeder by means of the passing sheet, comprising a suspended swinging finger carried forward by the moving sheet, a catch attached to the top of the swinging finger forming one member of a coupling, a continuously rotating second coupling member adapted to engage periodically the first coupling member, a counter, and means actuated by the coupling adapted to effect a stroke in the counter.

2. A device for actuating the counter in a sheet feeder by means of the passing sheet, comprising an elastic suspended swinging finger, a spring bearing against said finger to adjust its elasticity, a catch attached to the top of the swinging finger forming one member of a coupling, a continuously rotating second coupling member adapted to engage periodically the first coupling member, a counter, and means actuated by the coupling adapted to effect a stroke in the counter.

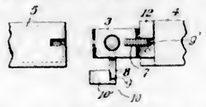
3. A device for actuating the counter in a sheet feeder by means of the passing sheet, comprising a spring operated vertical bar, a swing arm in operative connection with said bar, an elastic swinging finger on said arm adapted to be moved by a passing sheet and having a top tooth or catch forming one member of a coupling, a continuously rotating coupling member adapted to be engaged by the first coupling member when the passing sheet has actuated the swinging finger thereby releasing the vertical bar, a counter, and means on the bar to effect a stroke in the counter.

4. A device for actuating the counter in a sheet feeder by means of the passing sheet, comprising a spring operated vertical bar having an incision in its lower portion, a swing arm in operative connection with said bar, a swinging finger on said arm adapted to be moved by a passing sheet and having a top catch forming one member of a coupling, a detent on said swing arm resting normally in the incision of the vertical bar, and a continuously rotating tooth wheel forming the second coupling member so arranged that the first coupling member is placed in location for engagement by the movement of the passing sheet whereby the detent of the swing arm is released from the incision of the vertical bar.

5. In a device for actuating the counter in a sheet feeder by the movement of a passing sheet, a vertical bar having a slanting cam surface on its bottom portion and an incision at the upper end thereof, a swing arm with detent normally in said incision, and a swing finger suspended from the swing arm and adapted to be actuated by the weak force of a passing sheet whereby the detent of the swing arm is moved out of the incision the vertical bar drawn up and the detent pushed to the right by the cam surface of said bar.

[Claim 6 not printed in the Gazette.]

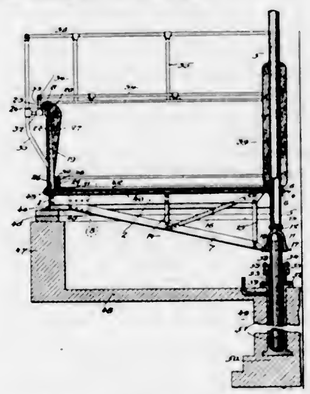
1,094,947. SAFETY-CLASP FOR BRACELETS, NECKLACES, AND SIMILAR ARTICLES OF JEWELRY. CHARLES STRAUSS and GEORGE ROMMEL, New York, N. Y. Filed Mar. 21, 1913. Serial No. 755,910. (Cl. 24—230.)



1. In a device of the class described, the combination of telescoping clasp members, the outer of said members having an internal shoulder and the inner member comprising a resilient U-shaped tongue having one part fixed and the other provided with a shoulder adapted to engage the shoulder of the outer member, and a latch pivoted to the inner face of the fixed part of said tongue and adapted to engage the inner face of the other part to hold the clasp against disengagement.

2. In a device of the class described, the combination of telescoping clasp members having interengaging shoulders one of said members comprising a U-shaped resilient tongue, having one fixed and one free part, and a safety latch pivoted to the inner face of the fixed part to hold the parts against relative movement and movable from between the parts of said tongue to permit disengagement of said members, said other clasp member having a slot in its side to permit movement of said latch.

1,094,948. AMUSEMENT DEVICE FOR USE IN PLEASURE-PARKS. WILLIAM H. STRICKLER, Chicago, Ill., assignor to Federal Construction Company, Chicago, Ill., a Corporation of Illinois. Filed July 22, 1909. Serial No. 508,978. (Cl. 46—27.)



1. In an amusement device, the combination of a platform having a floor and a guard wall around it, and a support engaging the platform centrally and upon which the platform tilts or oscillates, universally.

2. In an amusement device, the combination of a platform having a floor and a guard wall around it, a support engaging the platform centrally, upon which the platform tilts or oscillates universally and a track upon which the lowermost side of the platform rests when in tilted or inclined position.

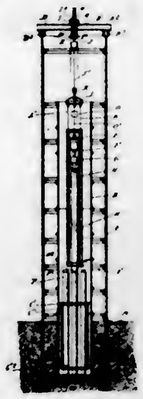
3. In an amusement device, the combination of a platform having a floor and a guard wall around it, a support engaging the platform centrally and upon which the platform tilts or oscillates universally, and means for raising and lowering the support.

4. In an amusement device, the combination of a platform having a floor and a guard wall around it, and a lifting device having a plunger the upper end of which engages the platform centrally and forms a support therefor upon which the platform tilts or oscillates universally.

5. An amusement device having, in combination, a circular platform, a support engaging the platform centrally and upon which the platform tilts or oscillates universally, means for raising and lowering said support, and a track upon which the platform bears throughout when in its lowermost position and at a single point when in tilted or inclined position.

[Claims 6 to 8 not printed in the Gazette.]

1,094,949. APPARATUS FOR DRIVING SUBPILING. HARRISON S. TAFT, Seattle, Wash. Filed May 22, 1913. Serial No. 769,215. (Cl. 61—13.)



1. The combination of a pile driver, its follower, a guide frame for the pile driver and follower, pile frame, and means to position the guide frame over piles in the pile frame, and to raise and lower the guide frame.

2. The combination of a pile driver, its follower, a guide frame for the pile driver and follower, a turn frame and means to support it over piles, suspension connections from the turn frame to the guide frame and means to raise and lower the guide frame, to position it over piles.

3. The combination of a pile driver, its follower, a guide frame for the pile driver and follower, a turn frame, means to support it over piles, a trolley on said turn frame, suspension connections from the trolley to the guide frame, and means to raise and lower the guide frame, to position it over piles.

4. The combination of a pile driver, its follower, a guide frame for the pile driver and follower, a tubular caisson, a pile frame loosely fitting said caisson, and means to position the guide frame over piles in the pile frame, and to raise and lower the guide frame.

5. The combination of a pile driver, its follower, a freely suspended guide frame for the pile driver and follower, a pile frame, and means to position the guide frame over piles in the pile frame, and to raise and lower the guide frame.

[Claims 6 to 14 not printed in the Gazette.]

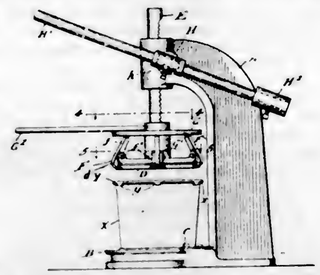
1,094,950. MACHINE FOR CLOSING COVERS ON SHEET-STEEL OR OTHER VESSELS. SWAN TEVANDER, Toledo, Ohio, assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed July 17, 1909. Serial No. 508,158. (Cl. 113—18.)

1. In a machine of the character described, the combination with a vessel support, of a reciprocating closure head for forcing the cover home on the body, a rack, gear and lever for operating said closure head, movable lip tuckers carried by said head and means for operating said lip tuckers independently of said head substantially as specified.

2. In a machine of the character described, the combination with a vessel support, of a reciprocating closure

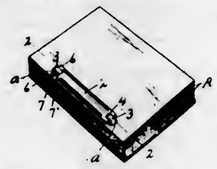


head for forcing the cover home on the body, mechanism for operating said closure head, movable lip tuckers carried by said closure head for bending the locking lips on



the cover under the roll on the body, and vibrating levers for operating said lip tuckers and a lever operating cam carried by said head for actuating said vibrating levers, substantially as specified.

1,094,951. LOOSE-LEAF BINDER. JAMES V. WASHBURNE, Fulton, N. Y. Filed Feb. 5, 1913. Serial No. 746,409. (Cl. 24—67.)



1. A loose leaf binder comprising coöperative flat sheet metal plates, one of said plates having end tongues adapted to be passed through apertures in the leaves and overturned upon the outermost leaf, the other plate having one end interlocked with one of the tongues and its other end provided with a lip inserted under the other tongue, the main body of the latter plate covering the ends of both tongues.

2. A loose leaf binder comprising a pair of substantially flat sheet metal plates, one of the plates having end tongues adapted to pass through apertures in the leaves, the other plate having one end interlocked with one of the tongues and its other end provided with an open sided slot for receiving the other tongue and slidably interlocked therewith by lateral movement, the ends of the tongues being covered by the main body of the second named plate when adjusted for use.

3. A loose leaf binder comprising coöperative flat sheet metal plates, one of said plates having end tongues adapted to be passed through apertures in the leaves and overturned upon the outermost leaf, the other plate having one end interlocked with one of the tongues and its other end provided with a lip inserted under the other tongue, the main body of the latter plate covering the ends of both tongues, and means tending to hold said lip in operative position.

4. A loose leaf binder comprising coöperative flat sheet metal plates, one of said plates having end tongues adapted to be passed through apertures in the leaves and overturned upon the outermost leaf, the other plate having one end interlocked with one of the tongues and its other end provided with a lip inserted under the other tongue, the main body of the latter plate covering the ends of both tongues, said lip adapted to be return bent against the adjacent tongue to prevent disengagement of said lip and tongue.

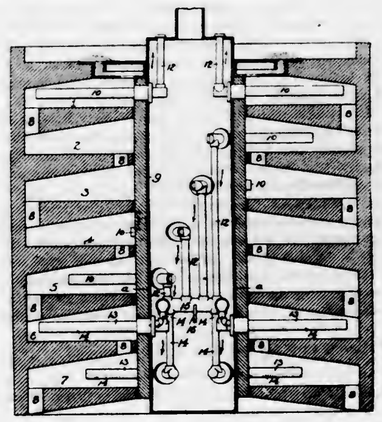
5. A loose leaf binder comprising coöperative sheet metal plates, one of said plates having end tongues and the other plate having one end adapted to be interlocked with one of the tongues and its other end provided with an open-sided slot forming a lip adapted to be inserted under the other tongue, said tongue having a lateral sliding engagement in said slot.

1,094,952. ADVERTISING-BUTTON. GEORGE W. WEBBER, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 13, 1912. Serial No. 720,121. (Cl. 24—103.)



A pin button of the character described including, in combination: a circular sheet metal body having an integral inturned flange on the rear side thereof to thereby form an annular groove, said flange being notched; and a resilient wire pin having a circular portion within said groove and rotatable therein and provided also with a diametrically extending pointed end adapted to be passed through said notch and held beneath the flange when the pin is rotated relatively to the body, substantially as specified.

1,094,953. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed June 19, 1912. Serial No. 704,526. (Cl. 75—143.)

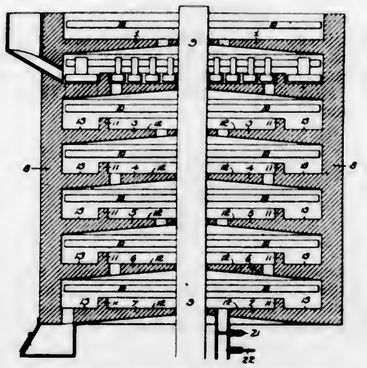


1. The combination, in a metallurgical furnace, of a series of superposed working chambers, a central shaft having rabble arms disposed in said chambers, means for circulating air through said rabble arms for cooling purposes, a manifold in the central shaft, pipe connections between said manifold and said rabble arms, and means for conveying the air from said manifold to a chamber or chambers of the series.

2. The combination, in a metallurgical furnace, of a series of superposed working chambers, a central shaft having rabble arms disposed in said chambers, means for circulating air through some of the rabble arms for cooling purposes, means for discharging air from other rabble arms, a manifold in the central shaft, and pipe connections between said manifold and said rabble arms.

3. The combination, in a metallurgical furnace, of a series of superposed working chambers, a central shaft having rabble arms disposed in a series of said chambers, an air supplying and an air receiving manifold carried by said shaft, and branches connecting said manifolds with air circulating passages in the rabble arms.

1,094,954. METALLURGICAL FURNACE. UTLEY WEDGE, Ardmore, Pa. Filed July 16, 1913. Serial No. 779,261. (Cl. 75—143.)



1. A cylindrical furnace having a hearth with means dividing the same into a plurality of zones, and means for moving material over each of said zones.

2. A furnace having a series of superposed hearths provided with structures for separating each hearth into independent portions, and means for moving material over each portion of the hearth and from hearth to hearth of the series whereby such progressive movement can be effected without admixture of materials.

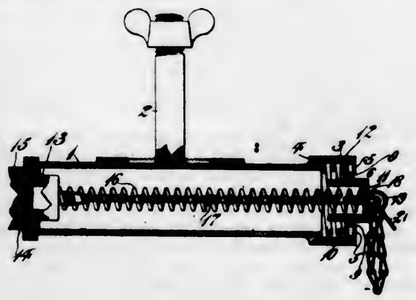
3. A cylindrical furnace having a series of superposed hearths provided with structures whereby each hearth is separated into a plurality of zones, means for mechanically moving material over each of the zones and from hearth to hearth, the material on each zone being separated from that on the adjoining zone.

4. A cylindrical furnace having a hearth with a plurality of portions and a separating structure between them, means for feeding material independently to each portion of the hearth, and means for moving the material over each portion of the hearth.

5. A cylindrical furnace having a hearth with a plurality of portions and a separating structure between them, means for feeding material independently to each portion of the hearth, means for moving the material over the different portions of the hearth, and means for discharging the material from one portion of the hearth independently of the discharge from another portion of the same.

[Claims 6 to 9 not printed in the Gazette.]

1,094,955. WHEEL-FLANGE LUBRICATOR. TIMOTHY J. WHOLEY, Philadelphia, Pa. Filed May 22, 1913. Serial No. 769,160. (Cl. 184—3.)



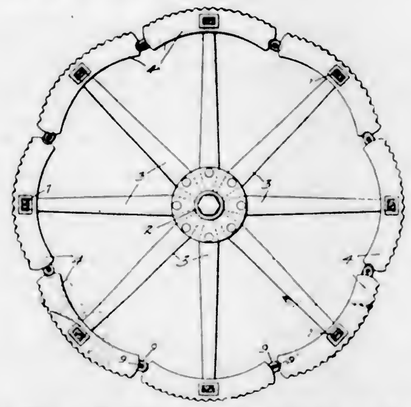
1. In a device of the character stated, a lubricant-holder comprising a barrel having a passage therethrough, a follower therein adapted to receive a stick of lubricant, a chamber at the rear end of said barrel having a shoulder formed at the junction of said chamber and passage, lips projecting inwardly from said chamber, a cap fitting in said chamber, interlocking devices common to said cap and lips, a spring in said chamber intermediate said shoulder and said interlocking devices, and a spring intermediate said follower and said cap.

2. In a device of the character stated, a lubricant-holder, a cap for closing the end of the same, said elements formed with inter-engaging and alternately interrupted flange-joint elements having their opposed engaging faces formed with corresponding projections and depressions, and yielding means bearing against said holder and cap to hold such joint-elements in engagement.

3. In a device of the character stated, a lubricant-holder having a chamber at its rear end provided with inwardly-projecting spaced lips, a cap fitting in said chamber and formed with notches corresponding to said lips and with tongues between such notches having recesses in their outer faces corresponding to said lips, and a spring seated in said chamber and bearing against said cap.

4. In a device of the character stated, a lubricant-holding barrel, a chamber at the rear end of said barrel provided with inwardly-projecting spaced lips, a follower in said barrel, a cap fitting in said chamber and formed with peripheral notches corresponding to said lips and with tongues between such notches having recesses in their outer faces corresponding to said lips, a spring seated in said chamber and bearing against said cap, and a spring interposed between said follower and cap.

1,094,956. VEHICLE-WHEEL. ALBIN ERIK WICKMAN, Willmar, Minn. Filed Mar. 25, 1912. Serial No. 686,193. (Cl. 152—30.)

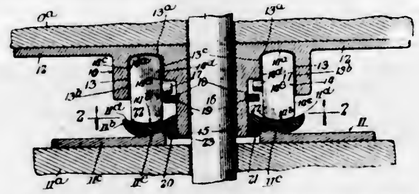


1. The combination in a wheel provided with a hub and spokes radiating therefrom, of a rim comprising a plurality of curved resilient links each of which is formed with two apertures disposed in planes at right angles to each other, a bearing disposed in one of the apertured portions of each link, a spoke projected into the other apertured portion of said link and terminating in said bearing, locking means for said spoke disposed within said bearing, and connecting members carried by each link.

2. The combination in a wheel provided with a hub and spokes radiating therefrom, of a rim comprising a plurality of curved resilient links each of which is formed with two apertures disposed in planes at right angles to each other and with oblique terminal recesses, a bearing disposed in one of the apertured portions of each link and formed with terminal flanges projected beyond said link, a spoke projected into the other apertured portion of said link and terminating in said bearing, locking means for said spoke disposed within said bearing, lugs terminally carried by each of said links in alinement with the terminal recesses therein and locking means for said lugs.



1,094,957. ANTIFRICTION-BEARING. EDWIN S. WOODS, Chicago, Ill.; Albert G. Welch executor of said Woods, deceased. Filed Nov. 7, 1910. Serial No. 591,008. (Cl. 64—64.)



1. A center bearing comprising relatively oscillatory bearing members and a series of circularly arranged, closely spaced antifriction elements all of which have rolling contact with said bearing members and are adapted to oscillate on axes radial to the axis of oscillation of said bearing members, one of said bearing members having a centrally disposed hub and the other a central aperture within which the end of said hub engages, said last named bearing comprising upper and lower plates, the adjacent faces of which are constructed to form a universal bearing, and the upper plate having a central depending flange engaged loosely within an aperture in the lower plate.

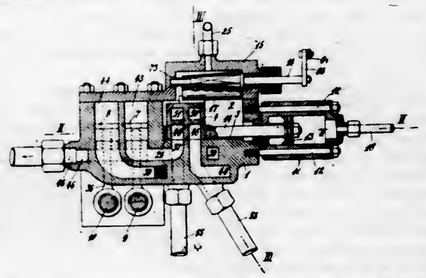
2. A center bearing comprising relatively oscillatory bearing members and an interposed series of antifriction elements, one of said bearing members having a centrally disposed aperture and comprising upper and lower plates, the adjacent faces of which are so constructed to form a universal bearing, and one of said plates being provided with a central flange engaged loosely within an aperture in the other plate.

3. A center bearing comprising relatively oscillatory bearing members and a series of circularly arranged, closely spaced antifriction elements, all of which have rolling contact with said bearing members and are adapted to oscillate simultaneously on axes radial to the axis of oscillation of said bearing members, each antifriction element being provided with a trunnion at its inner end, the upper bearing member being provided with a deep annular groove which partially incloses said antifriction elements and being provided with a central hub which engages with an aperture formed in the lower bearing member, and a split ring engaged within an annular groove on said hub located below the trunnions of said antifriction elements.

4. A center bearing comprising upper and lower, relatively oscillatory bearing members and a series of circularly arranged, closely spaced antifriction elements adapted to oscillate on axes radial to the axis of oscillation of said bearing members, each antifriction element having spherical bearing surfaces, and flattened sides converging toward the central axis of said bearing members, trunnions formed at the inner ends of said antifriction elements, the upper bearing member being provided with a deep groove which partially incloses said antifriction elements, said groove having a transversely curved top wall which forms its bearing face, a central hub rigid with said upper bearing member and projecting into an aperture in said lower bearing member, said hub having an annular shoulder located below the trunnions of said antifriction elements, and the lower bearing member comprising upper and lower plates the adjacent faces of which are constructed to form a universal bearing.

1,094,958. COMPRESSION-REGULATOR FOR ENGINES WITH SUPERHEATED STEAM. FRITZ ADAM, Berne, Switzerland. Filed June 11, 1912. Serial No. 702,954. (Cl. 121—45.)

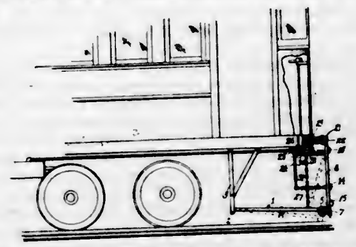
1. The combination with the working cylinders of a steam engine operating with superheated steam and pistons therein, of a separate valve-casing containing ducts, and slide valves so arranged in said casing as to control said ducts leading from the clearance spaces of the said working cylinders to the atmosphere, and means for so operating said valves as to connect the space on that side of the piston opposite to the side where the expansion takes place with the atmosphere, thereby regulating the exhaust and compression of the steam independently of the amount of covering of the steam ports in said working cylinders.



2. The combination with working cylinders of a steam engine operating with superheated steam, pistons therein and the steam chest, of a separate valve-casing, valve chambers in said casing containing ducts leading to said working cylinders, slide valves in said valve-chambers controlling said ducts, a controlling valve provided with bores, a cylinder connected with said casing, a movable piston therein for actuating said controlling valve, and means for admitting steam to said cylinder to operate said piston and said controlling valve, for the purpose of regulating the compression of steam in said working cylinders.

3. The combination with working cylinders of a steam engine operating with superheated steam, pistons in said cylinders and the steam chest, of a separate valve-casing, valve-chambers therein containing ducts leading to said working cylinders, slide valves in said valve-chambers controlling said ducts, fingers engaging said slide valves through openings in the valve-seats, movable rods adjustably carrying said fingers, a rocking shaft, connections between said rocking shaft and said rod including the crossheads of the pistons of said working cylinders so as to automatically operate said slide valves for the purpose of controlling the compression of steam in said working cylinders.

1,094,959. CAR-FENDER. CLARENCE J. ALGE, JAMES E. WEBB, and WILLIAM P. HENSON, Chattanooga, Tenn. Filed May 20, 1913. Serial No. 768,834. (Cl. 105—250.)



1. The combination with a tram car having an air brake system, of a drop fender, brackets depending from the frame of said car for pivotally supporting the said drop fender, a trip gate swingingly mounted forwardly of the pivotal point of said fender, a lever arm attached to the valve stem of the air brake valve, a bell crank lever pivotally secured to the frame of said car, a link connecting the lateral arm of said bell crank lever to the said lever arm, a chain connecting said lateral arm to the said drop fender, and a chain connecting the vertical arm of

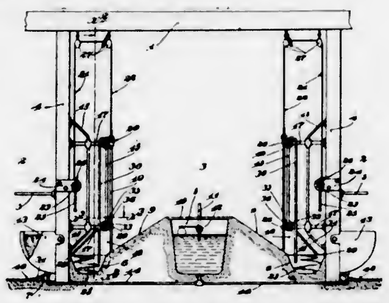
said bell crank lever to the said trip gate, the said fender being adapted to open the said air valve when released by the said trip gate.

2. The combination with a tram car having an air brake system, of a drop fender, a trip gate carried forwardly of the pivotal point of the fender and adapted to normally hold the said fender in spaced relation from the ground, a pair of spring pressed buffer rods slidably mounted in the frame work of said car, a cross beam connecting the said buffer rods, a pair of hook members carried by said trip gate and mounted for swinging movement thereon, means operatively connecting the said fender to the control valve of the said air brake system, said means being adapted to apply the brakes when the said fender is released by said trip gate.

3. The combination with a tram car having an air brake system, of a drop fender, a trip gate carried forwardly of the pivotal point of the fender and adapted to normally hold said fender in spaced relation from the ground, a pair of spring pressed buffer rods slidably mounted in the frame work of said car, a cross beam secured to said trip gate and connecting the said buffer rods, means for securing the drop fender to said trip gate and holding said drop fender in raised position, and means operatively connecting said fender to the control valve of the said air brake system.

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1,094,960. BARN STRUCTURE. GOTTFAID ANDERSSON, Beresford, S. D. Filed May 23, 1913. Serial No. 769,459. (Cl. 119—27.)



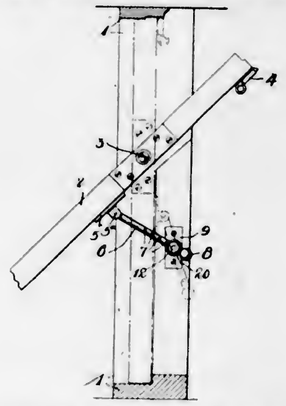
1. A barn structure comprising a row of stalls arranged to face a common passageway, a common manger extending between said stalls and passageway, a fencing located between said manger and said passageway and having its bottom spaced above the floor of the barn to afford a clearance passage, a gate normally closing said clearance passage, removable divider boards extending transversely through said manger, and means for simultaneously raising and lowering said gate and divider boards.

2. A barn structure comprising two rows of stalls arranged to face a common passageway, mangers formed at the longitudinal sides of said passageway, a walk extending through said passageway between said mangers, at an elevation thereabove, sloping feed platforms between said walk and said mangers, a fencing extending in front of said stalls outward of said mangers, the bottom of said fencing being spaced above said feed platforms to afford clearance passages, gates normally closing said clearance passages, means for opening and closing said gates, removable divider boards extending transversely through said mangers, and connections between said gates and divider boards for simultaneously raising and lowering said divider boards with said gates.

3. A barn structure comprising two rows of stalls arranged to face a common passageway, mangers formed at the longitudinal sides of said passageway, a walk extending through said passageway between said mangers, at an elevation thereabove, sloping feed platforms between said walk and said mangers, a fencing extending in front of said stalls outward of said mangers, the bottom of said fencing being spaced above said feed platforms to afford clearance passages, stall dividers between said fencing and the sides of said stalls, vertically movable gates mounted on said fencing and normally closing said clearance passages, hinged divider boards extending transversely through said mangers beneath said stall dividers, means for raising and lowering said gates, including windlass drums and lifting cables, and links connecting said divider boards to said gates for simultaneous raising and lowering movements therewith.

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1,094,961. CONTROLLING MEANS FOR SWINGING CLOSURES. AUGUST ARENS, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 7, 1913. Serial No. 783,467. (Cl. 189—71.)



1. Controlling means for swinging closures comprising, in combination with a swinging closure and its casing with means normally tending to move said closure to closed position, a link pivotally secured to and extending from one of said parts, said link having a notch therein, a swiveled guiding member for said link carried by the other of said parts, said member having a passage for said link and carrying a locking member arranged to project within said passage to engage said link notch to hold said closure in opened position, said locking member being held in engagement with said link notch by spring means, and a fusible abutment normally tensioning said spring but arranged, on fusing, to release said spring and thereby release said holding member whereby said closure may swing to closed position.

2. Controlling means for swinging closures comprising, in combination with a swinging closure and its casing with means normally tending to move said closure to closed position, a link pivotally secured to and extending from one of said parts, said link having a notch therein, a swiveled guiding member for said link carried by the other of said parts, said member having a passage for said link and carrying a locking member arranged to project within said passage to engage said link notch to hold said closure in opened position, said locking member being held in engagement with said link notch by spring means, and a fusible abutment normally tensioning said spring but displaced thereby when fused by heat whereby said spring and locking member are released and whereby said closure may swing to closed position.

3. Controlling means for swinging closures comprising, in combination with a swinging closure and its casing with means normally tending to move said closure to closed position, a swiveled guide member secured to and extending from one of said parts and provided with a passage therethrough, a link pivotally secured to and extending from the other of said parts and through said passage, said link having a notch therein and said guide member having a bore formed therein communicating with said passage, a locking member seated in said bore and arranged to be engaged with the notch in said link, a coiled spring in said bore operating against said locking member, and a fusible abutment closing said bore and normally engaging said spring to tension it against said locking member but displaced by said spring on being fused by heat whereby said spring is released from tension and whereby said closure may swing to closed position.



4. Controlling means for swinging closures comprising, in combination with a swinging closure and its casing with means normally tending to move said closure to closed position, a swiveled guide member secured to and extending from one of said parts and provided with a passage therethrough, a link pivotally secured to and extending from the other of said parts and through said passage, said link having a locking notch therein, and said guide member having a bore formed therein communicating with said passage, a locking member seated in said bore and arranged to be engaged with the notch in said link, a coiled spring in said bore operating against sad locking member, a cap removably carried by said guiding member having an opening therein in alinement with said bore and said spring and of greater diameter than said spring, and a fusible washer withn said cap coverng the opening therein and normally held by said cap in engagement with said spring to tension the same against said locking member but displaced by said spring on being fused by heat whereby said spring may extend through said cap opening to release the tension against said locking member and permit the closure to swing to closed position.

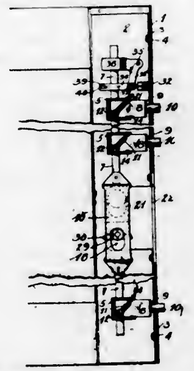
5. Controlling means for swinging closures comprising, in combination with a swinging closure and its casing with means normally tending to move said closure to closed position, a swiveled guide member secured to and extending from one of said parts and provided with a passage therethrough, a link pivotally secured to and extending from the other of said parts and through said passage, said link having a locking notch therein and said guide member having a bore formed therein communicating with said passage, a locking member seated in said bore and arranged to be engaged with the notch in said link, a coiled spring in said bore operating against said locking member, a cap adjustably engaging said guide member having an opening in its end in alinement with said bore and spring and of greater diameter than said spring, said cap also having a slot in its side adjacent said end, and a fusible washer within said cap covering the opening therein and normally held by said cap in engagement with said spring to tension the same against said locking member, said washer upon being fused by heat having that portion opposed to said tensioned spring displaced thereby out through said cap opening whereby said spring may extend out through said opening to release the tension against said locking member and to permit the closure to swing to closed position.

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1,094,962. FIRE-DOOR LOCK. AUGUST ARENS and JAMES R. FLETCHER, New Britain, Conn., assignors to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,470. (Cl. 70—64.)

1. A lock mechanism for hollow door structures comprising in combination a frame mounted within said door, a plurality of spaced latch bolts carried by said frame, a common operating connection for said bolts, an assembled lock mechanism independent of said frame and including a bolt and means for projecting and retracting the same, said lock mechanism extending inwardly of said door edge and being arranged and positioned to coöperate with said operating connection to control said latch bolts.

2. A lock mechanism for hollow door structures, comprising in combination a frame mounted within and extending vertically of said door, a plurality of spaced latch bolts carried by said frame, a common operating connection for said bolts, means normally tending to project said bolts, an assembled lock mechanism independent of said frame and including a bolt and means for projecting and retracting the same, said mechanism extending inwardly of said door edge and being arranged and positioned to coöperate with said operating connection to retract said latch bolts upon the retraction of its own bolt.



3. A lock mechanism for hollow door structures, comprising in combination a frame mounted within and extending vertically of said door, a plurality of spaced latch bolts carried by said frame, a common operating connection for said bolts, means normally tending to project said bolts, an assembled lock mechanism independent of said frame and including a bolt and means for projecting and retracting the same, said mechanism extending inwardly of said door edge and being arranged and positioned to coöperate with said operating connection to retract said latch bolts upon the retraction of its own bolt, and means operable upon the retraction of said latch bolts and the opening of the door to automatically hold said operating connection in bolt-retracted position and operable upon the closing of the door to release said connection whereby said latch bolts may be projected.

4. A lock mechanism for hollow door structures, comprising in combination a frame mounted within and extending vertically of said door, a plurality of spaced latch bolts carried by said frame, a common operating connection for said bolts, an assembled knob-controlled lock mechanism independent of said frame and latch bolts and extending inwardly of the edge of said door, said lock mechanism being detachably secured to said frame and being arranged and positioned relative thereto to coöperate with the operating connection of said latch bolts to operate said bolts upon its operation through said knob control.

5. A lock mechanism for hollow door structures, comprising in combination a frame mounted within and extending vertically of said door, a plurality of vertically spaced latch bolts carried by said frame, a common operating connection for said bolts, said connection being shaped to provide a pocket, means normally tending to project said bolts, an assembled mortise lock mechanism, including a knob-controlled latch bolt, independent of said frame and extending inwardly from the edge of said door and within said pocket, said mortise lock mechanism being detachably secured to said frame and being arranged to cooperate with said operating connection to operate its bolts upon the retraction of the latch bolt of said mortise block.

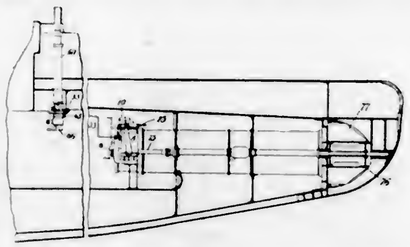
[Claims 6 to 19 not printed in the Gazette.]

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1,094,963. MECHANISM FOR FIRING TORPEDOES. THEODORUS S. BAILEY, Quincy, Mass. Filed Oct. 25, 1910. Serial No. 589,002. (Cl. 114—238.)

1. A torpedo tube installation comprising a plurality of tubes having tube opening mechanism and firing mecha-

nism associated therewith, in combination with connections between the tube opening mechanism and the firing mechanism, such that the actuation of the tube opening mechanism automatically renders inoperative the firing mechanism of the closed tubes and renders operative the firing mechanism of the opening tube; substantially as described.



2. A torpedo tube installation comprising a plurality of tubes having tube opening mechanism and firing mechanism associated therewith, in combination with a firing control device common to a plurality of the firing mechanisms and connections between the tube opening mechanism and said firing control device, such that the actuation of the tube opening mechanism automatically connects the firing control to the open tube; substantially as described.

3. In mechanism for firing torpedoes from any one of a plurality of tubes having cap-operating means adapted to open less than the whole number of tubes, an expulsion valve for each tube, in combination with controlling mechanism for said valves, and connections between the cap-operating means and the controlling mechanism adapted to automatically disconnect the controlling mechanism from the closed tubes and connect it with the open tube or tubes; substantially as described.

4. A torpedo tube installation comprising a plurality of tubes having tube opening mechanism and firing mechanism associated therewith, in combination with a plurality of firing control devices located at a distant station and of less number than the number of tubes and intermediate connections responsive to the movement of the tube opening mechanism and adapted to automatically connect a distant firing control device to the firing mechanism of each open tube; substantially as described.

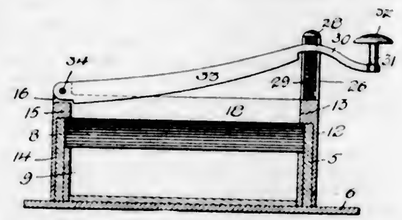
5. In mechanism for firing torpedoes from any one of a plurality of tubes having means adapted to open less than the whole number of tubes, an expulsion valve for each tube, controlling means therefor located at a distant station, and connections between said means and the expulsion valves, said connections including mechanism responsive to the movement of the tube-opening means and adapted to automatically disconnect the controlling means from the closed tubes and connect it with the open tube or tubes; substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,964. CUTTING-MACHINE. JOHN BANVAL, McKees Rocks, Pa. Filed Dec. 11, 1913. Serial No. 806,054. (Cl. 164—44.)

A cutting device comprising a receptacle provided at its top with a passage, a pair of uprights secured to the ends of said receptacle and one of greater height than the other, a pair of parallel spaced bars extending across the top of said receptacle and connected to said uprights, the space between said bars registering with said passage, a stationary cutting blade connected to one of said bars and suspended within said passage, a cutting blade arranged above and associated with said stationary blade and pivotally connected at one end to one of said uprights, a curved arm projecting from the other end of said pivoted blade and extending through said upright of greater height, a spring arranged in said upright of greater height to normally maintain said pivoted blade in an elevated position, and an abutment screw connected to said upright of greater height and limiting the upward movement of said arm.



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1,094,965. SHADE-ROLLER AND BRACKET THEREFOR. LEON BARBEAU, Anson, Me. Filed Aug. 4, 1913. Serial No. 783,000. (Cl. 156—36.)



1. In a device of the character described, a fixed rod, means for preventing rotation thereof, a tube rotatably mounted on such means and inclosing the rod, a disk secured in the tube, a coil spring mounted around the rod having one end secured thereto and the other end secured to the disk, supporting means for the means for preventing rotation of the rod, and means for securing the tube in adjustment.

2. In a device of the character described, a tube, a rod centrally located therein and extending the full length thereof, a centrally bored disk secured in the tube, a coil spring having one end secured to the rod and the other end secured to the disk, disks at each end of the tube adapted to receive the ends of the rod so as to prevent rotation thereof and to form bearings for the rotation of the tube, supporting means secured thereto, and means for securing the tube in rotatable adjustment.

3. In a device of the character described; a tube; a rod centrally located therein and extending the full length thereof; a centrally bored disk secured in the tube; a coil spring having its inner end secured to the disk and its outer end secured to the rod; disks mounted at each end of the tube and adapted to receive the ends of the rod so as to prevent rotation thereof; collars secured to the ends of the tube and bent downwardly over the said disks so as to form bearings for the rotation of the tube; supporting brackets fixedly secured to the said disks; and means for securing the tube in rotatable adjustment.

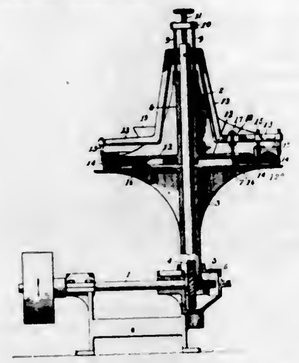
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1,094,966. DOUGH-ROLLING MACHINE. WELLS T. BARKER, Lansing, Mich. Filed Apr. 12, 1912. Serial No. 690,402. (Cl. 107—9.)

1. A dough rolling machine, comprising a rotative disk, means for rotating the same, a spiral wall above the disk relatively fixed with respect to the rotative disk, means for rigidly supporting said wall, a top plate above the disk and spaced apart therefrom, and means for adjustably supporting said plate.

2. A dough rolling machine, comprising a rotative disk, means for rotating the same, a spiral wall above the disk and relatively fixed with respect to the disk and arranged to form a progressively reduced passage between its convolutions, means for rigidly supporting said wall, a top plate supported above the disk and having an opening to receive the material within the inner convolution of the wall, and means for rigidly supporting said top plate.

3. A dough roller, comprising a rotative disk, a spirally arranged wall above the disk and relatively fixed with respect to the latter and having one end near the axis of the disk and its other end near the periphery of the same and arranged to form a progressively reduced spiral passage between its convolutions, means for rigidly supporting said wall, a vertically adjustable top plate having its margin extending within the inner convolution of the wall, an extension of said plate extending between the overlapping convolutions of the wall and vertically adjustable means for supporting the plate and extension.



4. A dough rolling machine, comprising a horizontally disposed disk, means for rotating said disk, a fixed spiral wall above the disk beginning near the axis of the disk and extending to near the periphery thereof and also forming a progressively reduced passage between its convolutions, the inner end of the wall being vertically reduced to extend under a top plate, a top plate above said inner end and having a downwardly turned margin close to one convolution of said wall, an extension of said top plate having both margins turned downward between the convolutions of said wall, vertically adjustable means for supporting the top plate, and fixed means for supporting said wall.

5. A dough rolling machine, comprising a rotative disk, a spirally arranged wall beginning near the axis of the disk at one end and having its convolutions spaced apart to form a spiral passage, said wall being relatively fixed with respect to the disk, means for rigidly supporting said wall, a hopper to deposit material within the inner convolution of said wall and a second curved wall beginning near the hopper and spaced apart from the first named wall to form a passage therebetween beginning at the hopper, a top plate, and means for supporting the top plate.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,967. EXCAVATING AND LOADING APPARATUS. JOHN BAUER, Ordway, Colo. Filed July 1, 1913. Serial No. 776,889. (Cl. 193—7.)



1. In an excavating machine of the class described comprising a frame, an excavating conveyer comprising a series of buckets, supporting means coöperating with the conveyer to hold the buckets in excavating position, said supporting means including spaced bucket engaging gripping members, a track having a flange element coöperating with the gripping members and normally holding the same in engagement with the bucket, said flange being formed to control the release of the gripping members from the bucket for dumping of the same at variable points in the travel of the conveyer.



2. In an excavating machine of the class described, an excavating conveyer comprising a series of buckets, a track on which said conveyer operates, supporting means coöperating with the track for holding the bucket in excavating position, said supporting means including spaced gripping members, means on the buckets adapted to be received between the gripping members to support the bucket in operative position, said track having a flange element with which the gripping members coöperate to hold the same in engagement with the projecting means on the bucket aforesaid and adapted to control the operation of said gripping members for releasing the last-mentioned means to dump the bucket at variable points in the travel of the conveyer.

3. In an excavating and loading machine comprising a frame, an excavating conveyer comprising an endless chain of buckets each pivotally connected at one end to the conveyer, carriages for each bucket also connected to the conveyer in fixed relation to its coöperating bucket, means on said carriage for supporting the relatively movable end of the bucket and operable to release said end for dumping the contents of the bucket, and means connected with the bucket and the carriage for returning the bucket to normal excavating position after dumping the contents of said bucket.

4. In an excavating and loading machine comprising a frame, an excavating conveyer comprising a series of buckets, carriages also connected with the conveyer and adapted to coöperate with each bucket, gripping members on said carriages, supporting means on the buckets engageable by the gripping members, said supporting means having an element predetermining the point of disengagement with said gripping members, and means for controlling the releasing operation of the gripping members.

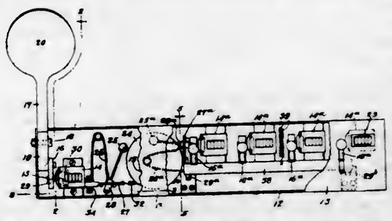
5. In an excavating and loading machine comprising a frame, an excavating conveyer comprising an endless chain of buckets, carriages also connected with the conveyer and adapted to coöperate with the buckets, a track for said conveyer, gripping members on said carriages normally coacting with the track, and means on the buckets engageable by the gripping members aforesaid to support the buckets in excavating position, said track having means to regulate the point in the travel of said conveyer for the release of said gripping members.

[Claims 6 to 11 not printed in the Gazette.]

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1,094,968. TELEPHONE-CALL REGISTER. WILLIAM GIBSON BELL, Newton, and WILLIAM HERBERT VINTO, Boston, Mass.; said Vinto assignor to said Bell. Filed May 26, 1913. Serial No. 770,025. (Cl. 235—99.)

1. A telephone call register comprising a casing having



a sight aperture in its top, a counter mounted in said casing and coinciding with said sight aperture, a compound lever composed of an inner counter-actuating member located within the casing, and an outer lever member fulcrumed to one wall of the casing and jointed at its inner end to the inner member, the said outer member having a longer arm projecting through one side of the casing and adapted to support a telephone element, a bell crank lever mounted on the base of the casing and engaging said coin-actuating member, and a spring acting on said bell crank lever to hold the longer arm of said outer member in a normally raised position.

2. In a telephone call register, the combination with a series of alined yieldingly supported counter operating,

arms, of a spring-pressed bar extending across the paths of movement of all of said arms, pivoted levers supporting the ends of said bar, and alarm operating mechanism connected with one of said levers.

3. In a telephone call register, the combination with a series of alined yieldingly supported counter operating arms, of a spring pressed bar extending across the paths of movement of all of said arms, pivoted levers supporting the ends of said bar, and an alarm operating detent pivotally connected at one end to one of said levers.

4. In a telephone call register, the combination with a series of alined yieldingly supported counter operating arms, of a spring pressed bar extending across the paths of movement of all of said arms, pivoted levers supporting the ends of said bar, an alarm operating detent pivotally connected at one end to one of said levers, and means for raising said detent as it is moved by said lever.

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1,094,969. EYEGLASSES. EUGENE C. BERNHEIM, Southbridge, Mass. Filed Oct. 30, 1912. Serial No. 728,555. (Cl. 88—50.)



1. In an eyeglass, the combination of the lenses, the bridge or bow spring and the finger levers mounted upon the bow spring, springs supported upon the bow spring for actuating said levers, and roller bearings upon which said springs are mounted.

2. In an eyeglass, the combination of the lenses, the bow spring connecting the lenses, studs mounted upon the bow spring, levers mounted upon said studs, roller bearings mounted upon the studs, and springs for actuating the levers having their body portions mounted upon said roller bearings.

3. In an eyeglass, the combination of the bridge connection, supports rigidly carried by the bridge connection, and formed with heads at their upper ends and threaded portions at their lower ends to engage the bridge connection, levers pivoted upon said supports, springs for actuating said levers, and roller bearings upon which the said springs are mounted.

4. In an eyeglass, the combination of the lenses, the bow spring connecting the lenses, studs secured to said bow spring having a head at one end and their other ends secured in said bow spring, levers pivoted upon said studs, sleeves or roller bearings disposed on the studs between the levers and the heads of the studs, and springs coiled around said sleeves and having one end engaging the levers and the other end engaging a portion of the bow spring.

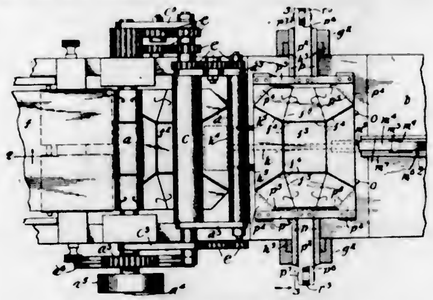
5. In an eyeglass, the combination with the lenses, the bow spring connecting the lenses and formed with the straps and the platform portions, the studs rising from said platforms, the levers pivoted upon said studs, the roller or sleeve bearings mounted on said studs, and the springs coiled around said sleeves or roller bearings with their ends engaging the straps and levers said studs being arranged to retain the levers, sleeve bearings and springs in proper relation.

[Claims 6 to 12 not printed in the Gazette.]

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1,094,970. BLANK PLACING AND REGISTERING MECHANISM FOR PAPER-DISH-MAKING MACHINES. ISAAC BERTIN, New York, N. Y. Filed July 2, 1913. Serial No. 776,937. (Cl. 93—51.)

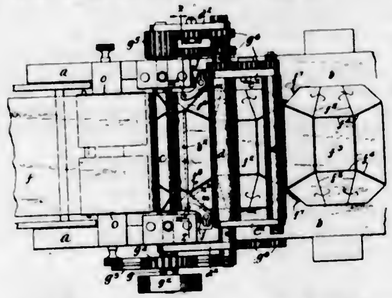
1. In a machine for making paper dishes, a dish forming table forming part of a dish shaping and forming mechanism, means for cutting dish blanks and feeding the same onto the dish forming table, a horizontal bar movable longitudinally of the machine below the dish forming table, means connected with said bar and with said table for holding a dish blank thereon and adjusting it longitudinally of the machine, transversely movable devices mounted above the dish forming table and adapted to adjust a dish blank thereon transversely of the machine and to hold said blank, and means for operating said bar and said devices.



2. In a machine for making paper dishes, a main frame, a main horizontal table provided with an opening, a dish forming table movable vertically in said opening and constituting part of a dish forming and shaping mechanism, a main power shaft, means for feeding a strip of paper over said main table and over said dish forming table, means for cutting dish blanks from said strip and feeding the same onto the dish forming table, devices operating longitudinally of the table and through the same, and devices operating transversely of the table, at predetermined intervals, to adjust and hold a dish blank on the dish forming table, and means in operative connection with the main power shaft and with said devices for operating the latter.

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1,094,971. SCRAP REMOVING OR DISCHARGING MECHANISM FOR PAPER-DISH-MAKING MACHINES. ISAAC BERTIN, New York, N. Y. Filed July 2, 1913. Serial No. 776,938. (Cl. 164—28.)



1. A machine of the class described provided with a horizontal table having recesses at its opposite sides, vertically movable members mounted at the opposite sides of the machine and provided at their upper ends with jaws, other vertically movable members mounted at the opposite sides of the machine and provided with fingers adapted to operate in connection with said jaws to grasp and hold scraps cut from the strip of paper passed over said table, and chutes into which said scraps are discharged by said vertically movable members.

2. A machine of the class described provided with a horizontal table in the opposite side portions of which are recesses below which are scrap discharge chutes, vertically movable sleeves mounted at the opposite sides of said table and provided at their upper ends with jaws, rods vertically movable through said sleeves and provided at their upper ends with fingers which operate in connection with said jaws to detach scrap pieces cut from said strip and discharge the same into said chutes.

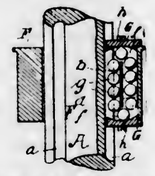
3. In a machine of the class described, a horizontal table provided with recesses in its opposite side edges, means for feeding a strip of paper over said table, devices mounted above and below said table for grasping and holding scraps cut from said strip of paper as it passes over said recesses, and chutes into which said scraps of paper are discharged by said devices.

4. In a machine of the class described, a horizontal table provided with recesses in its opposite side edges, means for feeding a strip of paper over said table, devices mounted above and below said table for grasping and holding scraps cut from said strip of paper as it passes over said recesses, and chutes into which said scraps of paper are discharged by said devices, one of said devices being stationary and the other vertically movable.



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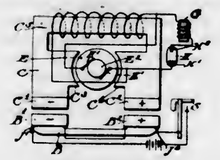
1,094,972. ANTIFRICTIONAL DEVICE FOR RELATIVELY MOVABLE PARTS. FRANK E. BOCORSELSKI, Richmond, Va. Filed Mar. 22, 1913. Serial No. 756,080. (Cl. 64—36.)



The combination of a shaft having longitudinal grooves and supported for rotary movement, of a collar embracing the shaft and provided with transverse ball-raceways longitudinally alined with the longitudinal shaft grooves, and also provided with ball-raceways in parallelism with the first ball-raceways and communicating therewith to provide a continuous ball circulation transverse to the collar, balls movable in the raceways and in the shaft grooves and adapted to spline the collar to the shaft to prevent relative rotary movement, and plates having noses projecting into the shaft grooves for holding the balls in place, the balls disposed in the innermost raceways being adapted to snugly fit in the shaft grooves and the collar being adapted to be actuated to rotate the shaft and the shaft being adapted to be actuated to rotate the collar.

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1,094,973. VEHICLE CONTROLLING APPARATUS. THEODORE BODDE, Brant Rock, Mass., assignor of one-half to Archie G. Shaver, Danville, Ill. Filed Aug. 22, 1908. Serial No. 449,832. (Cl. 246—25.)

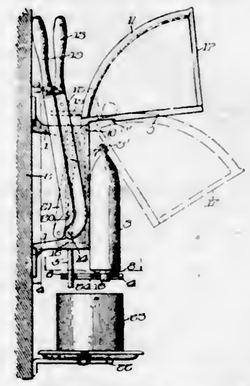


1. In combination, a railway car, an electromagnetic controlling device and a dynamo located on the car, said dynamo comprising a rotating armature and a normally excited field magnet for supplying current for actuating said controlling device, and a stationary magnetic body adapted to form with said field magnet a magnetic shunt about the armature of the dynamo.

2. In combination, a railway car, an electromagnetic controlling device and a dynamo located on the car, said dynamo comprising a rotating armature and a normally excited field magnet for supplying current for actuating said controlling device, a stationary magnetic body adapted to form with said field magnet a magnetic shunt about the armature of the dynamo, and means for rendering said magnetic body ineffective as a magnetic shunt.

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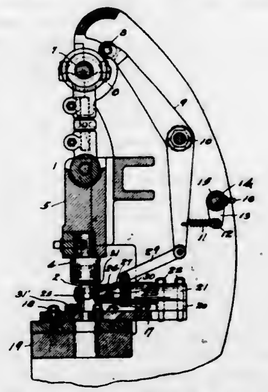
1,094,974. SQUEEZER. FRANKLIN F. BRADLEY, Chicago, Ill., assignor to Bradley & Vrooman Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 24, 1913. Serial No. 791,459. (Cl. 221—60.)



A squeezer including a pair of squeezing members, one of which is movable toward the other; and a holder for the object to be squeezed in movable relation to both members, said holder being mounted freely to be moved by said movable member in the general direction in which squeezing pressure is being applied by such movable member, said holder being also movable toward said members transversely of the general direction in which pressure is applied to the object by said movable member whereby a portion of the object projecting beyond said members may be squeezed.

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1,094,975. PUNCH FOR CASTELLATING NUTS. LATHAM H. BRIGHTMAN, Columbus, Ohio. Filed Dec. 21, 1912. Serial No. 738,068. (Cl. 10—72.)



1. In a machine as described a support comprising a base plate attached to and projecting beyond a portion of the machine, a resiliently supported holder having a socket and supported from and above the base plate, a punch, a stem in the socket, having a guide slot for the punch, and an anvil in coöperative relationship with the stem.

2. In a machine as described a support comprising a base plate attached to and projecting beyond a portion of

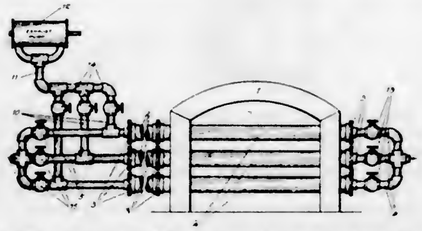
the machine, a resiliently supported holder having a socket and supported from and above the base plate, a punch, a stem in the socket having a guide slot for the punch, an anvil as described, and a slide, sleeve on the bar with actuating means for ejecting the completed work from the stem.

3. In a machine as described a support comprising a base plate attached to and projecting beyond a portion of the machine, a resiliently supported holder having a socket and supported from and above the base plate, a punch, a stem in the socket having a guide slot for the punch, and an anvil as described.

4. In a machine as described the combination with a reciprocable tool, of a resiliently supported bar, a base plate to which the bar is secured at one end, and an anvil adjacent the bar and arranged to receive the load by the pressure of the reciprocable tool as the latter engages a nut, for the purpose described.

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1,094,976. PROCESS OF PREPARING CYANOGEN COMPOUNDS. JOHN E. BUCHER, Coventry, R. I., assignor to Nitrogen Products Company, a Corporation of Rhode Island. Filed Dec. 18, 1912. Serial No. 737,368. (Cl. 23—13.)



1. The process of fixing atmospheric nitrogen which comprises effecting a reaction in which an initially combined alkali metal, initially free nitrogen and dissolved carbon participate to form a cyanogen compound, by bringing the molecules of nitrogen into contact with the dissolved carbon present in an extended catalytic solution surface, while at the same time effecting a copious liberation of molecules of said alkali metal from the material with which they are combined, in the vicinity of said solution surface and distilling under reduced pressure the so formed cyanid from residues of said reaction.

2. The process of producing substantially pure alkali metal cyanogen compounds which comprises effecting a reaction in which alkali metal capable of acting as the base of the cyanogen compound sought, carbon and nitrogen participate to form said compound, and separating the latter from residues of said reaction by distilling said compound under a pressure below that at which said compound was formed.

3. The process of preparing pure cyanid which comprises effecting a separation of the cyanid present in a mass of material from the remaining constituents of said mass by subjecting said mass to a pressure below that of the atmosphere while in a receptacle the material composing which, at the points where the cyanid may encounter the same, is substantially incapable of reacting upon the cyanid to deprive it of carbon, and vaporizing said cyanid by means of heat while so under reduced pressure.

4. The process of fixing nitrogen which comprises effecting a reaction in successive stages, through the intermediacy of catalytic material disposed to present an extended surface, in which alkali metal, free nitrogen, and carbon dissolved in said surface participate to form an alkali metal cyanogen compound, and removing a portion at least of said compound from said catalytic material between said stages wherein said reaction takes place.

5. The process of fixing nitrogen which comprises effecting a reaction through the intermediacy of catalytic material, in which alkali metal, free nitrogen, and carbon in solution in said material, participate to form an alkali metal cyanogen compound, and removing a portion, at least, of said compound from said catalytic material, whereby to aid in maintaining the continued efficiency of said reaction.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,977. SUPPORTING-BRACKET. ROBERT B. CABLE, Jr., Ridgewood, N. J. Filed Mar. 12, 1913. Serial No. 753,701. (Cl. 240—53.)



1. A bracket having a tubular case, a lamp socket disposed so as to hold a lamp in a radial direction from said case, a member carrying said lamp socket resiliently engaging said tubular case and adjustable circumferentially thereon to hold said lamp socket in different positions, said bracket having a resilient part and a substantially straight extension rigid with said tubular case projecting from said tubular case in a direction substantially at right angles to the axis of said tubular case, and a tongue adjacent said extension lying in substantially the same plane with and coöperating resiliently with said extension to clamp a support for said bracket.

2. A bracket having a joint comprising an enlarged tubular case and a resilient member within the same, said resilient member having a curved wall with a gap in the side thereof extending through the end thereof, and conforming to the curvature of the inner face of said case while tending to assume a curvature at a larger radius than said case.

3. A bracket having a swiveled joint consisting of a tubular case and a split-tube within said case, said split-tube being of resilient material and tending to assume a larger diameter than the internal diameter of said case.

4. A bracket having a joint comprising a tubular case and a resilient member within the same, said resilient member having a curved wall slit in a direction substantially parallel with the axis of said tubular case and conforming to the curvature of the inner face of said case while tending to assume a curvature at a larger radius than said case, said shell having a circumferential slot in the wall thereof, and a lamp socket secured to said inner member at said slot.

5. In combination, a bracket having a joint comprising a tubular case, a substantially tubular member mounted within said case and resiliently engaging therewith, a lamp socket secured to said inner member so as to hold a lamp projecting laterally from the axis of the case, said bracket having a substantially straight extension adjacent to said case having a transverse extension with a resilient bow, and a tongue spring-pressed by said bow and cooperating with said substantially straight extension to hold said bracket upon a support, said substantially straight extension and said tongue lying in the same plane, said plane being transverse to the longitudinal axis of said case.

[Claims 6 to 9 not printed in the Gazette.]

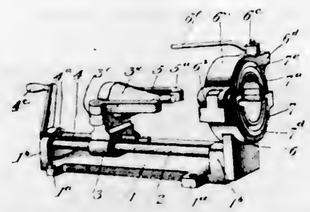
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1,094,978. MACHINE FOR ATTACHING AND DETACHING HOSE-COUPLINGS. RICHARD NOBLE CHURCH, Spokane, Wash., assignor to H. B. Sherman Manufacturing Co., Battle Creek, Mich., a Corporation of Michigan. Filed June 9, 1913. Serial No. 772,591. (Cl. 29—88.2.)

1. A machine of the character described, comprising a base, uprights thereon, parallel guide rods arranged between and supported by said uprights, a member slidably mounted on said rods, a hose clamp adjacent one upright, a member slidably mounted on said rods, and provided with means adapted to engage a coupling, and a rotatable but longitudinally immovable screw engaging said member for reciprocating the same.



2. A machine for attaching and detaching hose couplings comprising a base, a hose clamp thereon, a member movable to and from said clamp provided with a head adapted to support a coupling while being inserted in the hose, and with devices adapted to engage a coupling to withdraw it from the hose, and means for moving said member so as to forcibly insert a coupling in the hose held by the clamp, or to withdraw a coupling from such hose.



3. In a hose coupling machine the combination of a base, a hose clamp thereon, a member movable on said base to and from said clamp provided with a conical head adapted to support a coupling, a rotatable screw mounted on said base and engaging said member for reciprocating the same, and means for preventing longitudinal movement of the screw.

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1,094,979. DEVICE FOR STRETCHING WIRES AND CABLES. JOHN S. CLARKE, East Cleveland, Ohio, assignor of one-half to T. D. Lemieux, Cleveland, Ohio. Filed July 15, 1912, Serial No. 709,608. Renewed Sept. 29, 1913. Serial No. 792,484. (Cl. 39—51.)



1. A device for stretching wires and the like comprising a suitable casing and two intermeshing gears of different sizes mounted on suitable shafts therein and constructed on their peripheries to grip a wire between them, and an eccentric bearing for one of said gears adapted to govern the position thereof in respect to the other gear.

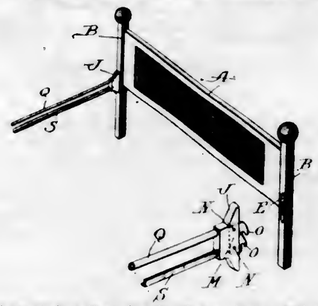
2. A device as described having a casing and intermeshing gears of different sizes therein having grooves in their peripheries and constructed in said grooves to grip a cable or wire between them, said casing having a guide way for the wire leading around the larger of said gears and back and out over the smaller gear, a pawl to engage one of said gears and prevent backward rotation, and shafts carrying said gears, one of which is constructed to engage a crank therewith to rotate the same.

3. A casing as described and a pair of intermeshing wheels of different sizes therein, one of said wheels having a shank extending to the outside of said casing adapted to rotate the same, and said casing having two different openings in its edge into the interior about said wheels and a division wall between said holes extending past the smaller wheel to the larger one and forming part of a curved guide way for a cable.

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1,094,980. METAL BEDSIDE WITH REVERSIBLE LOCK FOR WOODEN BEDS. HAMNER J. CORDLE, Littleton, N. C. Filed Aug. 22, 1913. Serial No. 786,151. (Cl. 5—55.)

In a fastening for connecting the head and foot sections of wooden beds, the combination with the corner posts of the head and foot sections formed with sockets, pins arranged in said sockets, and vertical elongated face plates secured to the posts and having openings registering with the sockets of said posts, of castings having vertical elongated plates bearing flat against said face plates and formed with sockets, plates secured in said sockets and having hooks fitting the openings of the face



plates and engaging the pins in the sockets of the corner posts, a reduced extended portion formed on the opposite side of said castings and having a circular and angular socket therein, a lower angular slat supporting rail retained in the angular sockets and an upper round bracing rail secured in the circular sockets of said castings.

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1,094,981. BIFURCATED UNDERGARMENT. CHARLES W. T. DAVIES, New York, N. Y. Filed Feb. 12, 1914. Serial No. 818,363. (Cl. 2—144.)



1. A bifurcated undergarment having a laterally movable seat section slidably suspended at its upper part.

2. A bifurcated undergarment having at least one of its legs split in a general up and down direction and provided with a laterally movable seat section whose free edge is defined by said split, said seat section being slidably suspended at its upper part.

3. A bifurcated undergarment having one of its legs split in a general up and down direction clear through its lower end and provided with a laterally and bodily movable seat section whose free side and bottom edges are defined by the said split and by the lower end of the leg, said seat section being slidably suspended at its upper part.

4. A bifurcated undergarment having a laterally arranged suspending band or member and a movable seat section whose upper part is slidable on said band.

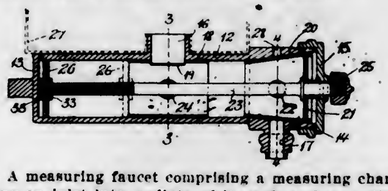
5. A bifurcated undergarment having a laterally arranged suspending band or member, a split leg, and a movable seat section whose upper part is slidable on said band and which freely depends from said band.

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1,094,982. MEASURING FAUCET. THOMAS E. DAVIS, Cambridge, Mass. Filed June 7, 1913. Serial No. 772,297. (Cl. 221—117.)

1. A measuring faucet comprising a measuring chamber having an inlet intermediate of its ends and an outlet at its outer portion, a valve controlling said inlet, a valve

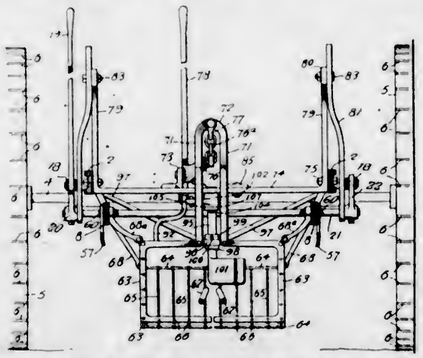
controlling the outlet, a stem to which both valves are connected whereby they may be rotated in unison, and a head adjustably connected to said stem and having a sliding liquid-tight fit on the wall of the chamber.



2. A measuring faucet comprising a measuring chamber having an inlet intermediate of its ends and an outlet at its outer portion, a valve controlling said inlet, a valve controlling the outlet, a stem to which both valves are connected whereby they may be rotated in unison, said stem being threaded, and a head having a threaded opening to receive said stem, said head having a sliding liquid-tight fit on the wall of the chamber.

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1,094,983. BEET-HARVESTER. JAMES B. DAWSON, Pompeys Pillar, Mont. Filed Mar. 24, 1913. Serial No. 756,403. (Cl. 130—32.)



1. In a beet harvester, a cleaning receptacle, said receptacle comprising sectional front and rear frames, the sections of each frame being approximately U-shaped and comprising a body extending vertically and arms extending inwardly, spaced rods connecting the sections of each frame, rods connecting the arms of the rear frames, hangers for suspending the receptacle connected with the upper rods at the sides of the receptacle, means for swinging the receptacle and means engaging the uppermost arms of the sections of the front frame for pressing the said arms downward to separate the lower-most arms.

2. In a beet harvester, a cleaning receptacle comprising a perforate receptacle having an open top and an open front end and being divided into sections at the longitudinal center of the receptacle, means for supporting the said receptacle for swinging movement, means for swinging the said receptacle to agitate the beets, and means for swinging the sections away from each other to dump the beets.

3. In a beet harvester, a cleaning receptacle having perforate sides and a perforate bottom and having an open front, said receptacle being divided longitudinally into lateral sections, means for supporting the receptacle for swinging movement longitudinally, and means for swinging the sections away from each other to dump the beets.

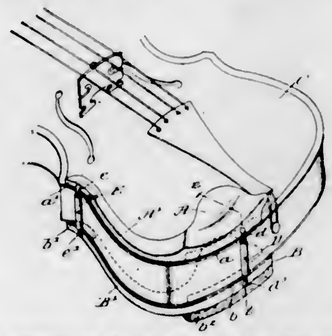
4. In a beet harvester, a cleaning receptacle having an open front end and divided longitudinally into lateral sections, means for supporting the receptacle for swinging movement longitudinally, and means for swinging the sections outwardly and upwardly away from each other to dump the beets.

5. In a beet harvester, a supporting frame, a cleaning receptacle having an open front end and divided longitudinally into lateral sections, a swinging connection between each section and the supporting frame, means on the frame for swinging the sections outwardly and upwardly away from each other to dump the beets, a beater shaft journaled vertically on the frame at the front of the receptacle and provided with a lateral beater blade, and means for oscillating the shaft and swinging the receptacle.

[Claims 6 to 10 not printed in the Gazette.]

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1,094,984. VIOLIN CHIN-REST. CHARLES JOSEPH EDLAVITCH, Baltimore, Md., assignor of one-half to Aaron Burdwise, Baltimore, Md. Filed Sept. 13, 1913. Serial No. 789,618. (Cl. 84—74.)

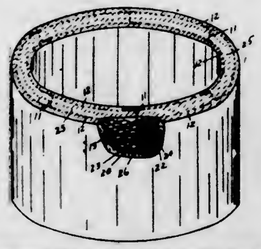


1. The combination with a violin, of chin and shoulder plates disposed upon the top and base thereof with their inner portions curved away from the violin surfaces, and provided with elongated side extensions, said plates being disposed at the rear end of the violin body and having their extensions projecting around one side of the same, and curved to conform to the curvature thereof, said extensions terminating opposite one another and at points adjacent the waist of the violin body, and clamping members connecting the chin and shoulder plates and the extremities of the said extensions.

2. The combination of chin and shoulder rest plates provided with curved elongated side extensions or shanks, and clamping members for connecting the chin and shoulder plates and the extremities of their extensions, the inner edges of the said shanks or extensions merging into and forming supports for the inner portions of the chin and shoulder plates, all for the purpose described.

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1,094,985. REINFORCEMENT AND CENTERING. WILLIAM C. EDWARDS, Jr., Kansas City, Mo. Filed Jan. 6, 1914. Serial No. 810,686. (Cl. 72—117.)



1. Reinforcement for concrete construction comprising a metal sheet having two side members extending in opposite directions from opposite sides of an intermediate transverse stud portion of said sheet; longitudinal corrugations formed in said sheet transverse to the stud, each corrugation being reversed at the stud thereby separating said corrugation into two portions lying respectively on the outer surfaces of the side members of the sheet.

2. Reinforcement for concrete construction comprising a metal sheet having two side members extending in opposite sides of an intermediate transverse stud portion of said sheet; longitudinal corrugations formed in said sheet transverse to the stud, each corrugation being reversed at the stud thereby separating said corrugation into two portions lying respectively on the outer surfaces of the side members; such corrugations being slightly larger in cross section at their outer ends than they are adjacent the stud.

3. Reinforcement for concrete construction comprising combined sections of metal sheets; each section having two side members extending in opposite directions from opposite sides of an intermediate transverse stud portion of said section; longitudinal corrugations formed in said sheet transverse to the stud, each corrugation being reversed at the stud thus separating said corrugation into two portions lying respectively on the outer surfaces of the said side members; the ends of such corrugations being shingled over and engaged with intermediate portions of similar corrugations adjacent the studs on adjacent sections, to form compartments.

4. Reinforcement for concrete construction comprising an expanded metal sheet having two side members extending in opposite directions from opposite sides of an intermediate transverse stud portion of said expanded metal sheet; longitudinal corrugations formed in said sheet transverse to the stud, each corrugation being reversed at the stud thereby separating said corrugation into two portions lying respectively on the outer surfaces of the side members of the sheet.

5. Reinforcement for concrete construction comprising combined sections of expanded metal sheet; each section having two side members extending in opposite directions from opposite sides of an intermediate transverse stud portion of said expanded metal section; longitudinal dovetail corrugations formed in said sheet transverse to the stud, each corrugation being reversed at the stud separating said corrugation into two portions lying respectively on the outer surfaces of the said side members; such corrugations being slightly larger in cross section at their outer ends than they are at the intermediate portion adjacent the stud, such outer enlarged ends being shingled over and engaged with intermediate portions of similar corrugations, on adjacent sections, to form compartments.

[Claim 6 not printed in the Gazette.]

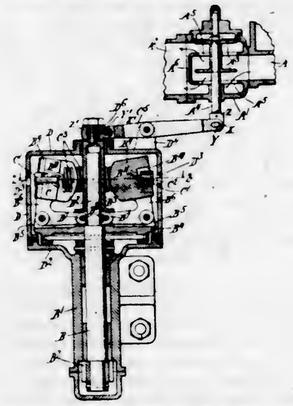
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1,094,986. CARBURETER VALVE AND GOVERNOR. HERMAN W. FALK and WILLIAM K. ANDREW, Milwaukee, Wis. Filed Oct. 27, 1911. Serial No. 657,020. (Cl. 121—112.)

1. A governor having centrifugally separated balanced weights, yokes on the opposed sides of each of said weights, tension springs interposed between the opposed ends of each of said yokes, and means for varying the distance between each of said weights and its yoke, said means comprising a conical pointed screw centrally disposed in said yoke and a conical bearing surface in said weight in opposition to said screw, said yokes being movable relative to the governor weights about the pointed ends of the screws.

2. A governor having centrifugally separated balanced weights, yokes on the opposed sides of each of said weights, tension springs interposed between the opposed ends of each of said yokes, means for varying the distance between each of said weights and its yoke, said means comprising a conical pointed screw centrally disposed in said yoke, a conical bearing surface in said weight in opposition to said screw and a perforate housing for said governor, said perforation being in opposition to said screw, said yokes being movable relative to the governor weights about the pointed ends of the screws.

3. A governor having centrifugally separated balanced weights, yokes on the opposed sides of each of said weights, tension springs interposed between the opposed ends of each of said yokes, and means for varying the distance between each of said weights and its yoke, said means comprising a conical pointed screw centrally disposed in said yoke, and engaging the outer side of the weight, said yokes being movable relative to the governor weights about the pointed ends of the screws.

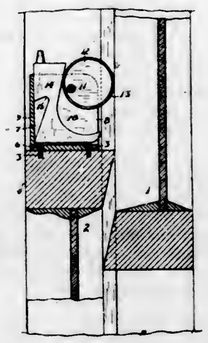


4. A governor having centrifugally separated balanced weights, slotted on their outer opposed sides, yokes located within slots and in engagement with the weights, and tension springs interposed between the opposed ends of each of said yokes and means carried by said yokes located within said slots and engaging said weights for varying the distance between them, said yokes being movable relative to the governor weights about a single point as a fulcrum.

5. A governor having centrifugally separated balanced weights, slotted on their outer opposed sides, yokes located within slots and in engagement with the weights, and tension springs interposed between the opposed ends of each of said yokes and means carried by said yokes located within said slots and engaging said weights for varying the distance between them, said means comprising a conically pointed screw centrally disposed within said yoke and in engagement with the weights, said yokes being movable relative to the governor weights about the pointed ends of the screws.

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1,094,987. SASH-LOCK. WILLIAM R. GILMORE, Richmond, Cal., assignor of one-fourth to Michael J. Fitzgerald and one-fourth to Charles H. Brown, Richmond, Cal. Filed June 3, 1913. Serial No. 771,413. (Cl. 16—19.)



1. The combination of a housing open at the top and front and having side walls and a rear wall, means for

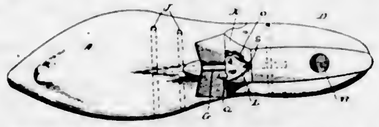
securing it with its front side adjacent to a window sash, an eccentric pivoted between the side walls to swing through the front of the housing, a releaser slidable between the eccentric and the rear wall of the housing, and having an upper portion engaging the outer surface of the eccentric above its pivot and a lower portion arranged to engage said outer surface below its pivot.

2. The combination of a housing open at the top and front and having side walls and a rear wall, means for securing it with its front side adjacent to a window sash, an eccentric pivoted between the side walls to swing through the front of the housing, a releaser slidable between the eccentric and the rear wall of the housing, and having an upper portion engaging the outer surface of the eccentric above its pivot and a lower portion arranged to engage said outer surface below its pivot, said upper portion, when in its lowermost position, substantially filling the interior of the housing between said rear wall and the upper portion of the eccentric, and its projecting portion being free from cavities and recesses which could be operatively engaged by a hook to raise the releaser.

3. The combination of a housing, means for securing it to a window sash, a wedging device movably secured to said housing, and a releaser in the housing formed on its rear edge with a notched portion adapted to engage the top of a wall of the housing and support it in an inoperative position, and having an upper portion arranged to be partly supported by an upper portion of the wedging device, and a lower portion arranged, when raised, to engage an under portion of said wedging device to move it out of its operative position.

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1,094,988. LAST. ALEXANDER GODFREY, Bradford, Mass. Filed July 31, 1911. Serial No. 641,666. (Cl. 12—136.)



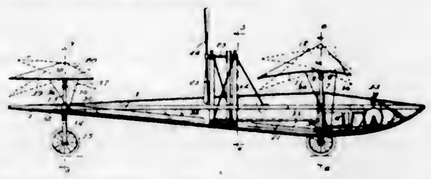
1. The last herein described, consisting of a heel section having an upwardly and backwardly inclined front wall, a plate secured in said heel section and formed with a forwardly projecting extension and provided with a pair of oppositely inclined slots, a toe section formed with a socket to receive the horizontally extending portion of the plate carried by the heel section, a pair of pins carried by the toe section and passing through the oppositely inclined slots of the plate, said slots being arranged to permit the heel section to be moved bodily forward toward the toe section, said toe section being formed with an inner practically perpendicular wall, the parts so arranged that the heel section may be brought forward to bring the inclined wall thereof substantially parallel with the perpendicular wall of the toe section to shorten the last, and means for securing the last when extended and for releasing the sections when necessary.

2. A last comprising a heel section having an upwardly and backwardly inclined front wall, a toe section having a horizontal upper face, means connecting such sections and permitting relative movement therebetween, and means for securing the sections in extended position and for releasing them when necessary, consisting of a keeper on the horizontal upper face of the toe section, a pivoted cam shaped latch mounted on the inclined wall of the heel section, means for guiding said cam-shaped latch, a spring for holding the latch in proper position, and a stud projecting from said keeper to receive contact for releasing the keeper and permitting the heel section to move forward to shorten the last.

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1,094,989. WATER, LAND, AND AIR MACHINE. ELI EDWARD GREGORY, Central City, Ky. Filed Nov. 4, 1913. Serial No. 799,216. (Cl. 244—2.)

1. In a combined water, land, and air machine, a central longitudinal frame member, a triangular frame portion disposed near one end of said longitudinal frame member, cables connecting the front and rear ends of said longitudinal frame member with the three angles of said triangular frame member, a flexible waterproof fabric extending from the front end of the longitudinal frame member rearwardly underneath the triangular shaped frame portion and being connected to the rear end of said longitudinal frame member.



2. In a combined water, land, and air machine, a hull having a body portion of waterproof fabric, a front supporting post and a rear supporting post, each of said posts being mounted for revolution about their axes, a guide plane carried by each of said supporting posts, each of said guide planes having a body portion normally at right angles to its supporting post and pivoted thereto, and a vertically extending fin disposed centrally of said portion.

3. In a combined water, land, and air machine, a hull having a body portion of waterproof fabric, a front supporting post and a rear supporting post, each of said posts being mounted for revolution about their axes, a guide plane carried by each of said supporting posts, each of said guide planes having a body portion normally at right angles to its supporting post and pivoted thereto, a vertically extending fin disposed centrally of said portion, and means for rotating said supporting posts simultaneously and in opposite directions.

4. In a combined water, land, and air machine, a hull having a body portion of waterproof fabric, a front supporting post and a rear supporting post, each of said posts being mounted for revolution about their axes, a guide plane carried by each of said supporting posts, each of said guide planes having a body portion normally at right angles to its supporting post and pivoted thereto, a vertically extending fin disposed centrally of said portion, means for rotating said supporting posts simultaneously and in opposite directions, a pair of front supporting wheels carried by said hull, and a rear supporting wheel carried by said rear supporting post and movable therewith for supporting the device on land.

5. In a combined water, land, and air machine, a hull having a body portion of waterproof fabric, a front supporting post and a rear supporting post, each of said posts being mounted for revolution about their axes, a guide plane carried by each of said supporting posts, each of said guide planes having a body portion normally at right angles to its supporting post and pivoted thereto, a vertically extending fin disposed centrally of said portion, means for rotating said supporting posts simultaneously and in opposite directions, and means for simultaneously tilting the front and rear guide planes in opposite directions.

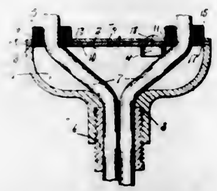
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1,094,990. BRANCH BOX. MORTON HAVENS, Jr., Albany, N. Y. Filed May 20, 1911, Serial No. 628,409. Renewed Dec. 30, 1912. Serial No. 739,379. (Cl. 247—12.)

1. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, one lying upon the other, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, and a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate to hold the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate to hold the insulator from turning, substantially as and for the purpose described.



2. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, one lying upon the other, the plates being formed with alined openings, and notches extending laterally from the openings, the notches of one plate being out of alinement with those of the other, and a perforated insulator formed with an annular shoulder, and a reduced portion below the shoulder, the reduced portion being formed with radial projections spaced apart from said annular shoulder, and located to enter the notches of the bottom plate and interlock with the margin around the opening in the top plate between the notches in such top plate, substantially as and for the purpose described.



3. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two plates, the lower plate being mounted on the body and the upper plate being mounted on the lower plate, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, and a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate to hold the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate to hold the insulator from turning, substantially as and for the purpose specified.

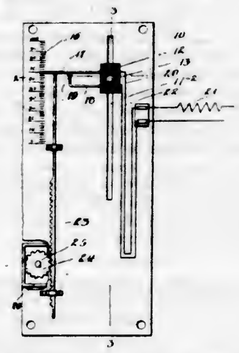
4. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, arranged one above the other, the lower plate being mounted on the body and the upper plate being mounted on the lower plate and separable therefrom, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate for holding the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate for holding the insulator from turning, and means for securing said plates to the hollow body, said means also securing the plates together, substantially as and for the purpose set forth.

5. A branch box for wires comprising a hollow body formed with a passage, and an open side, a closure for the open side of the body including two like plates, arranged one above the other, the lower plate being mounted on the body and the upper plate being mounted on the lower plate and separable therefrom, the plates being formed with alined openings, each opening having a lateral extension, the extension in one plate being out of alinement with the extension in the other plate, a perforated insulator formed with means for coacting with opposite surfaces of one of the plates at the side of the extension in said plate for holding the insulator from endwise movement, and with means for coacting with the side walls of the extension in the other plate for holding the insulator from turning, and screws passed through said plates and engaging the hollow body for securing the plates together and to said body, substantially as and for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]



1,094,991. THERMOSTAT. ROBERT E. HINSON, Hillsboro, Tex., assignor of one-half to Sidney Quayle, Hillsboro, Tex. Filed Mar. 8, 1913. Serial No. 753,112. (Cl. 177—128.)



In a device of the class described, the combination with a slotted supporting plate, of a block slidable on the plate and guided in the said slot, a pointer carried by the block, graduations on the supporting plate and over which the said pointer is adapted to operate, means for securing the said block in a rigid position on the supporting plate, a contact pin projecting from the block and normally engaged by the said pointer, a rack bar mounted to slide on the said supporting plate and adapted to engage the said pointer and move the same out of engagement with the contact pin, a shaft journaled on the supporting plate, a casing carried by the supporting plate and into which the shaft extends, a toothed wheel keyed to rotate with the shaft and meshing with the said rack bar to actuate the same, and a sensitive member carried in the said casing and having connection with the said shaft for imparting rotation thereto when the said member is subjected to heat.

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1,094,992. PINCH-BAR. GEORGE W. HOLLAND, Tombstone, Ariz. Filed Sept. 12, 1913. Serial No. 789,537. (Cl. 105—71.)



1. A pinch bar including a pressure foot formed to cooperate with a wheel and with a rail, said foot being formed with a concavity, an operating lever having a portion shaped to conform to the concavity, a loop connecting said pressure foot and lever, and means carried by the lever to engage the head of the rail.

2. A pinch bar including a pressure foot formed to cooperate with a wheel and with a rail, said foot being formed with a concavity, an operating lever having a portion shaped to conform to the concavity, a loop connecting said pressure foot and lever, and a frame connected to the

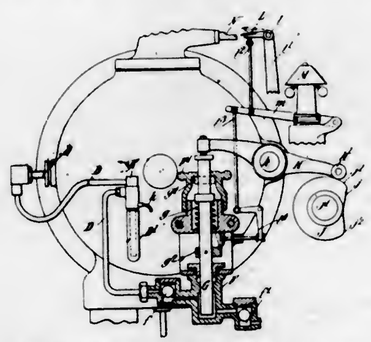
lever and provided with means to engage the tread portion of the rail.

3. A pinch bar including a pressure foot formed to cooperate with a wheel and with a rail, said foot being formed with a concavity, an operating lever having a portion shaped to conform to the concavity, a loop connecting said pressure foot and lever, and a frame pivotally connected to the lever, and hooks carried by the frame to engage beneath the head of the rail.

4. A pinch bar including a pressure foot formed to cooperate with a wheel and with a rail, said foot being formed with a concavity, an operating lever having a portion formed to conform to the concavity, a loop connecting said pressure foot and lever, a frame pivotally connected to the lever, hooks carried by the frame to engage beneath the head of the rail, the cross bar of the frame bearing upon the tread portion of the rail to form a fulcrum for the operation of the device.

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1,094,993. COOLING INTERNAL-COMBUSTION ENGINES. BERTRAM HOPKINSON, Cambridge, England. Filed Jan. 3, 1910. Serial No. 535,955. (Cl. 123—170.)



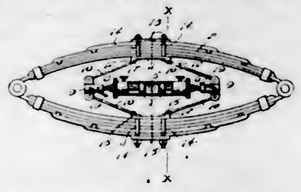
1. In an internal combustion engine, the combination with the combustion chamber, the cylinder and the piston, of an injection pipe the end of which projects into the combustion chamber and has coarse perforations directed against the surfaces to be cooled, means operated from a shaft of the engine for forcing liquid in a cold condition through the perforations, a by-pass valve between the liquid-forcing means and the perforated end of the injection pipe, a thermostatic substance situated to respond to variations of temperature of the combustion chamber walls, and means whereby the thermostatic substance controls the by-pass valve.

2. In an internal combustion engine, the combination with the combustion chamber, the cylinder and the piston, of an injection pipe the end of which projects into the combustion chamber and has coarse perforations directed against the surfaces to be cooled, means operated from a shaft of the engine for forcing liquid in a cold condition through the perforations, means for automatically controlling the supply of fuel to the engine, means acting in conjunction with the fuel-controlling means to control the liquid-forcing means in accordance with the fuel supply, and means acting independently of the fuel controlling means for so regulating the amount of cooling liquid injected as to keep the impact surfaces at substantially the vaporizing temperature of the liquid under the existing conditions.

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1,094,994. AIR-COMPRESSOR. FLOYD E. HUFFORD, Milford, Ill. Filed Mar. 8, 1913. Serial No. 753,044. (Cl. 230—27.)

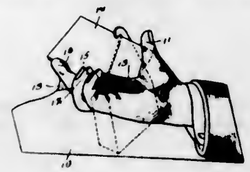
In combination, two members arranged to move in opposition, a cylinder located midway between such members at right angles to their line of movement, pistons arranged to move in opposite ends of the cylinder, oppositely inclined links connecting the outer end of each piston rod with the before mentioned members, a lever mounted intermediate of its ends upon the cylinder and normally in-



clined to the line of movement of the pistons and the said opposed members and links connecting the extremities of said lever with the piston rods.

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1,094,995. DISPLAY-STAND. JOSEPH A. IMHOF, New York, N. Y., assignor to Kaufmann & Strauss Co., New York, N. Y., a Corporation of New York. Filed Nov. 17, 1913. Serial No. 801,511. (Cl. 211—24.)

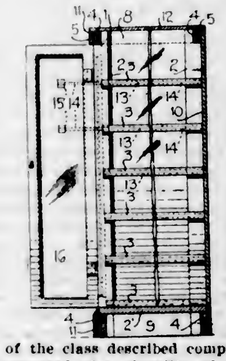


1. In a display stand, a blank having portions foldable therefrom to form a bed plate, portions struck from said foldable portions to form projections in the plane of said blank, an overhanging projection carried by said bed portion, the easel carried by said blank, an overhanging projection carried by said easel, and said overhanging projections carried by said bed portion and said easel forming locking means for a carton placed upon said bed portion.

2. In a display stand, a blank, a portion thereof foldable along a demarcation to form a bed portion, projections struck from said bed portion to remain in the plane of said blank and to rise above said bed portion, a projection struck from said bed portion to be bent above the plane of said bed portion and to have an overhanging edge, from the plane of said bed portion, a projection to overhang the rear edge of said bed portion, and said projection struck from said bed portion together with the projection from said easel forming a locking means for a carton placed on said bed portion.

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1,094,996. CABINET. GUY D. JACOWAY, Dardanelle, Ark. Filed Oct. 11, 1913. Serial No. 794,713. (Cl. 211—27.)



A cabinet of the class described comprising a skeleton frame-work composed of a plurality of vertical bars, arranged in rows spaced one from the other, transverse strips connecting the vertical bars of the rows in pairs and designed to form shelf guides therebetween, a plurality of longitudinal strips securing and bracing the bars in rows, side, rear, bottom and top walls removably secured to the frame-work, a plurality of shelves slidably mounted between the aforesaid shelf guides, and doors hingedly carried in the front of said frame-work.



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1,094,997. CORK-EXTRACTOR. EUGENE JACQUEMIN, Kent, Wash. Filed Aug. 5, 1913. Serial No. 783,109. (Cl. 65—46.)

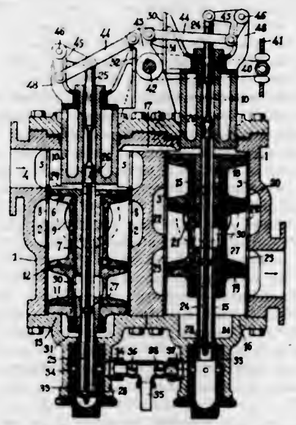


1. A cork extractor comprising a pair of spaced resilient legs and a handle, both of said legs being outwardly curved in reverse directions to each other at opposite sides of the plane of the handle, one of said legs being of greater length than the other.

2. A cork extractor comprising a pair of spaced resilient legs and a handle, both of said legs being outwardly curved in reverse directions to each other at opposite sides of the plane of the handle, one of said legs being of greater length than the other, said legs being flattened for a portion of their lengths.

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1,094,998. HYDRAULIC ELEVATOR. KARL E. OSSIAN JANSSON, Flushing, N. Y., assignor to Standard Plunger Elevator Company, New York, N. Y., a Corporation of New Jersey. Filed May 7, 1908, Serial No. 431,343. Renewed Sept. 24, 1913. Serial No. 791,649. (Cl. 138—14.)



1. The combination with a hydraulic valve comprising a separate supply valve and an exhaust valve, of a pilot valve for each valve, and means whereby when one valve is open, the pilot valve of the other is prevented from being operated to open that valve.

2. The combination with a hydraulic valve comprising a separate supply valve and an exhaust valve, of a pilot valve for each valve, a single means for actuating both pilot valves, and means whereby when one valve is open, the pilot valve of the other valve is prevented from being opened to start the other valve.

3. The combination with a hydraulic valve comprising a separate supply valve and an exhaust valve, of a pilot valve for each valve, means for opening either pilot valve when both valves are closed, connections whereby the movement of one valve closes its pilot valve, and means whereby the other pilot-valve is prevented from being opened when one valve is open.

4. The combination with a hydraulic valve comprising separate supply and exhaust valves, of a pilot valve for controlling each of said valves, a common actuating connection for said pilot valves, and means moving with each of said valves for mechanically locking the pilot valve of the other to prevent starting of the latter valve while the former is open.

5. The combination with a hydraulic valve comprising separate supply and exhaust valves, of a separate pilot valve for controlling each of said valves independently, and means preventing actuation of both of said pilot valves sufficient to effect a simultaneous movement of both valves.

[Claims 6 to 17 not printed in the Gazette.]

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1,094,999. PYROTECHNIC DEVICE. AARON JEDEL, New York, N. Y. Filed Aug. 8, 1913. Serial No. 783,812. (Cl. 52—6.)



1. A pyrotechnic egg having a hardness sufficient to make it practically impossible to crush the same between the fingers, said egg being composed of a mixture of materials including mercuric sulfocyanid, and an inert, noncombustible, inorganic material.

2. As an article of manufacture, a pyrotechnic composed of a mixture including mercuric sulfocyanid, chalk and talc.

3. As an article of manufacture, a pyrotechnic composed of a mixture including mercuric sulfocyanid, chalk and talc, the two latter, in combined amount representing only a minor proportion of the entire product.

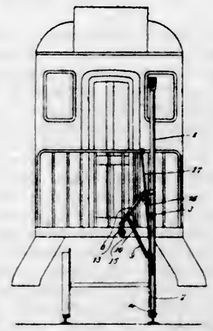
4. As as article of manufacture, a pyrotechnic composed of a mixture including mercuric sulfocyanid, chalk and talc, the sulfocyanid being present as about 90% of the entire product.

5. An article of manufacture comprising a pyrotechnic egg, composed of a mixture containing mercuric sulfocyanid, 90%; powdered talc, 6%; and chalk 4%.

[Claims 6 to 11 not printed in the Gazette.]

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1,095,000. TORPEDO-SETTING DEVICE. ROY KEPNER, St. Elmo, Ill. Filed July 1, 1913. Serial No. 776,861. (Cl. 246—17.)



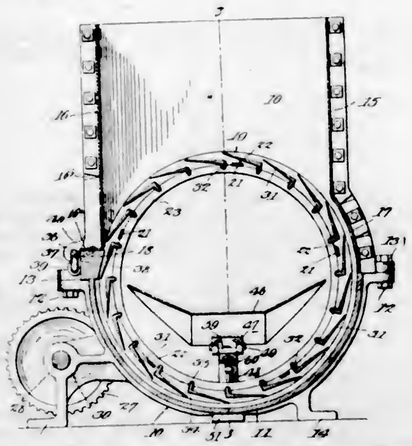
1. A torpedo setting device comprising a pair of long and short pivoted setting arms, one of said setting arms

being pivoted to the other, torpedo holding devices at the outer ends of said arms, braces pivoted to the arms and to each other, and means connected with the shorter arm for independently raising and lowering said arm and lowering and raising the longer arm in conjunction therewith.

2. A torpedo setting device comprising a pair of spaced pivot members adapted for attachment to a car, a long setting arm pivoted to one of said pivot members, a short setting arm pivoted to said long arm, said setting arms being provided at their free ends with torpedo holding means, a brace pivoted to the long setting arm and to the other pivot member, a second brace pivoted to the first-named brace and to the shorter setting arm, a contractile spring connecting the first-named brace with the longer setting arm, and a raising and lowering element connected with the shorter setting arm.

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1,095,001. VEGETABLE-CUTTER. MARTIN W. A. LADE, Pender, Nebr. Filed Oct. 15, 1913. Serial No. 795,265. (Cl. 146—11.)



1. A vegetable cutter comprising a casing having a flexible wall, a cutter working in the casing, a cutter board in the casing past which the cutter travels, said cutter board being carried by the aforesaid flexible wall, and means for bending said wall to adjust the cutter board relative to the cutter.

2. A vegetable cutter comprising a casing having a flexible wall, a cutter working in the casing, a cutter board in the casing past which the cutter travels, said cutter board being carried by the aforesaid flexible wall, a rock-shaft having a crank portion engageable with the back of the cutter bar, and means for operating the rock-shaft.

3. A vegetable cutter comprising a casing having circular side openings, gear rings mounted in said openings, a circular series of knives extending between the rings and fastened thereto, pinions in mesh with the gear rings, and means for operating the pinions.

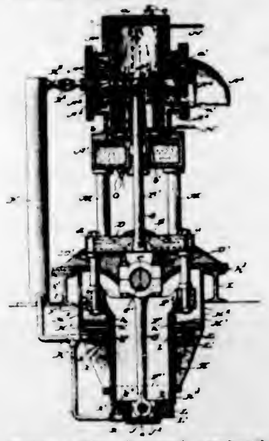
4. A vegetable cutter comprising a casing, and a revolving cutter working therein, said cutter comprising a circular series of blades having attaching shanks at their ends, and a support for the blades, said support comprising concentric rings fitting one within the other and having their contiguous edges notched, the notches of the respective rings registering and receiving the aforesaid shanks, and means for fastening the rings together.

5. A vegetable cutter comprising a casing, and a revolving cutter working therein, said cutter comprising a circular series of blades having attaching shanks at their ends, and a support for the blades, said support comprising concentric rings fitting one within the other and having their contiguous edges notched, the notches of the respective rings registering and receiving the aforesaid shanks, and means for fastening the rings together, said rings being rotatably adjustable relative to each other.

[Claims 6 to 11 not printed in the Gazette.]

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1,095,002. INTERNAL-COMBUSTION ENGINE. SIMON LAKE, Milford, Conn. Filed Nov. 21, 1910. Serial No. 593,562. (Cl. 123—61.)



1. In a double acting internal combustion engine, a power cylinder having a single set of air inlet ports arranged centrally in the walls thereof in horizontal alinement throughout the bore of the cylinder and a plurality of exhaust ports arranged above and below said air inlet ports and out of vertical alinement with said air inlet ports, a power piston operating in said power cylinder having passages or ports adjacent to each end that are designed to register with said single set of air inlet ports when the piston reaches the end of each stroke, and a centrally arranged opening at each end of the piston communicating with said air passages or ports and the opposite ends of said cylinder, a piston rod extending from one end of the power piston through the opening in said end, and a conical member for distributing the incoming air arranged in the opening at the opposite end of said piston and adapted to hold said piston rod in said piston, means for conducting air under pressure to said air inlet ports, and a fuel supply for said power cylinder.

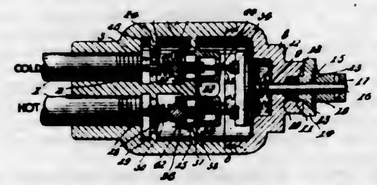
2. In an internal combustion engine, a power cylinder having a series of air inlet ports arranged in the walls thereof and in horizontal alinement mid-way between the heads of said cylinder, and a series of exhaust ports arranged above and below said inlet ports and in horizontal alinement but out of vertical alinement with the air inlet ports, an enlargement formed upon the exterior of the cylinder having an annular passage communicating with each set of ports, a power piston operating in said cylinder, said piston having a series of passages adjacent to each end that are designed to register with said air inlet ports when the piston reaches the end of each stroke, and a central opening in each end communicating with adjacent passages and ends of the cylinder, a piston rod extending from one end of the piston through the opening in said end, a conical member arranged in the opening at the opposite end of the piston, a cross-head connected to the lower end of said piston rod, an air compressing trunk-piston carried by said cross head, an air compression cylinder in which the trunk-piston operates, a crank shaft, a pitman connecting said air compressing piston with the crank of said shaft and adapted to rotate said crank shaft independently of the power piston, an air receiving tank communicating at one end with said air compression cylinder and at its opposite ends with said air passage of said power cylinder, and a fuel supply for said power cylinder.



3. An internal combustion engine, comprising a power cylinder having a series of air inlet ports and series of exhaust ports arranged in the walls thereof intermediate the heads of said cylinder, a power piston operating in said cylinder having passages that register with said air inlet ports when the piston reaches the end of each stroke, each end of said piston having a central opening communicating wth adjacent passages and ends of the power cylinder, a piston rod carried by said power piston, a cross-head connected to the outer end of said piston rod, an air compressing trunk-piston carried by said cross-head, a crank shaft, a pitman connected to the lower end of said trunk-piston and to the crank of said crank shaft and adapted to rotate said crank shaft independently of the power piston, a compression cylinder in which the trunk piston operates, an air receiving tank, valve controlled pipes connecting the opposite ends of said compression cylinder with said receiving tank, a valve controlled pipe extending from said tank to said inlet port of the power cylinder, and a fuel supply for each end of said power cylinder.

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1,095,003. SPIGOT OR FAUCET. MILTON M. LEONARD, Richmond, Va. Filed Dec. 23, 1912. Serial No. 738,217. (Cl. 137—26.)




1. A spigot or faucet consisting of a shell, hot and cold water connections, spring controlled valves for controlling the flow of the liquid, a rotary cam disk adapted to engage either or both of the stems of the valves, a rotary and inwardly movable handle, means for holding the cam disk in proper position, and coöperating means between said cam disk and handle whereby by the rotation of the handle the cam is rotated and by the inward movement of the handle the cam is moved inwardly.

2. A spigot or faucet consisting of a shell or casing formed of two separable parts, hot and cold water connections leading to one of said parts, spring-controlled valves mounted in said part, a rotatable plunger rod mounted in the other part, a cam carried thereby for engagement with one or both of the stems of said valves, a rotary and inwardly movable handle, coöperating means between said handle and the plunger rod and valve casing whereby by the rotation of the handle the cam is rotated and by the inward movement of the handle the cam is moved inwardly, springs acting on said valves, and a spring around said rod acting on said cam.

3. A spigot or faucet consisting of a shell or casing formed of two separable parts, hot and cold water connections leading to one of said parts, spring-controlled valves mounted in said part, a rotatable plunger rod mounted in the other part, a cam carried thereby for engagement with one or both of the stems of said valves, springs acting on said valves, a spring around said rod acting on said cam, and a rotary and inwardly movable handle for said rod provided with a cam for holding the disk in proper position whereby by the rotation of the handle the cam is rotated and by the inward movement of the handle the cam is moved inwardly.

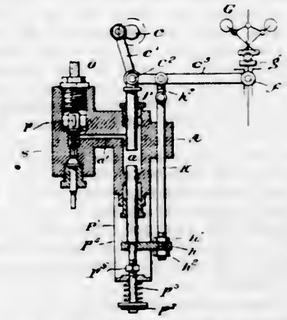
4. A spigot or faucet, comprising a shell or casing, hot and cold water inlets leading to the casing, a vertical longitudinal divisional wall and a pair of transverse integral walls in the casing providing water and valve chambers, valves having stems extending from one face thereof guided in one of the transverse walls, springs around said stems, and valve seats mounted in the other transverse wall, stems extending from the opposite faces of the respective valves, a rotary cam disk adapted to engage either or both of said last-mentioned stems, a pin connected to said cam disk, a rotary inwardly movable handle formed with a cam and pivoted to said pin, and a spring for holding the cam disk in proper position whereby by the rotation of the handle the cam is rotated and by the inward movement of the handle the cam is moved inwardly.

5. A spigot or faucet, comprising a shell or casing, hot and cold water inlets leading to the casing, a vertical and horizontal division wall and a pair of transverse integral walls in the casing providing water and valve chambers, valves having stems extending from one face thereof and guided in one of the transverse walls, springs around said stems, and valve seats mounted in the other transverse wall, stems extending from the opposite faces of the respective valves, slides mounted on the last mentioned stems, cups for guiding said slides, a rotary cam disk for engaging one or both of the last mentioned stems and a rotary and inwardly movable handle for operating the cam disk whereby by the rotation of the handle the cam is rotated and by the inward movement of the handle the cam is moved inwardly.

[Claims 6 to 10 not printed in the Gazette.]

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1,095,004. FUEL-PUMP FOR INTERNAL-COMBUSTION ENGINES. OTTO LIETZENMAYER, Munich, Germany. Original application filed Mar. 4, 1907, Serial No. 360,455. Divided and this application filed Apr. 1, 1910. Serial No. 552,814. (Cl. 123—140.)

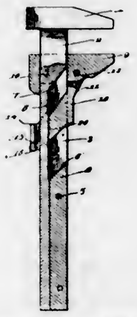


1. In an internal combustion motor, the combination, with a fuel pump having a main plunger, and means for operating the said main plunger, of an auxiliary plunger for said pump, means for moving said auxiliary plunger in synchronism with the main plunger, and means controlled by the speed of the engine for varying the amount of such synchronous movement of the auxiliary plunger.

2. In a fuel pump for internal combustion engines, a pump chamber, a main plunger working therein, an auxiliary plunger, means for yieldingly withdrawing the auxiliary plunger from the pump chamber, in combination with a stop on said auxiliary plunger for limiting the downward movement thereof, a stroke regulator member acting against a shoulder on said auxiliary plunger adapted to raise said plunger, means controlled by the speed of said engine for changing the position of said stroke regulating member thereby regulating the stroke of said auxiliary plunger.

3. In a fuel pump for internal combustion engines, a pump chamber, a main plunger working therein, means for operating said main plunger, an auxiliary plunger, means for yieldingly withdrawing said auxiliary plunger from the pump chamber, said auxiliary plunger provided with a shoulder, in combination with a lever connected with and operated from the engine shaft and arranged to strike the shoulder during a portion of its movement to thereby lift the same, means controlled by the speed of the engine to regulate the stroke of said auxiliary plunger, a stop for limiting the downward movement of said auxiliary plunger.

1,095,005. WRENCH. JOHN Y. LINTNER and LOURY L. BENJAMIN, Blairsville, Pa. Filed Feb. 4, 1914. Serial No. 816,641. (Cl. 81—134.)



1. A wrench including a head and a shank, the said shank being channeled, the inner wall of the channel being formed with teeth, a movable jaw upon the shank, a yoke pivotally connected with the movable jaw, said yoke having a web connected therewith, the said web adapted to be received within the channel of the shank to engage with the teeth thereof, and a spring between the yoke and shank for forcing the web into engagement with the teeth of the shank.

2. In a wrench, a head provided with a shank, said shank having a channel, the inner wall of the channel being formed with teeth, the end walls of the channel being beveled, a movable jaw upon the shank and having one of its sides enlarged, a yoke having inclined side members pivotally connected with the movable jaw, said yoke having an integrally formed web, the opposite walls of which are inclined, the said web being spaced from the side members of the yoke and adapted to be received within the channel of the shank, the inner wall of the web being provided with teeth which are adapted to co-act with teeth in the channel, the connecting member for the sides of the yoke having an opening, a spring secured within the opening and arranged within the yoke and adapted to bear against the shank to swing the yoke to bring the teeth of its web into locking position with the teeth of the channel.

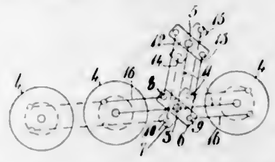
1,095,006. CORN-HANGER. WILLIAM L. LOWE, Stuart, Iowa. Filed July 23, 1913. Serial No. 780,736. (Cl. 34—26.)



1. A device of the class described comprising a body member having V-shaped notches in the side edges thereof, V-shaped racks fitted in said notches and having prongs or side members projecting beyond the front and rear faces of the body member, and cleats secured on the side faces of the body member to secure the racks in the respective recesses.

2. A device of the class described comprising a body member of rectangular cross section having V-shaped notches in the side faces thereof, V-shaped wire racks seated in the notches and having prongs or side members projecting upwardly and outwardly with respect to the front and rear faces of the body member, side cleats secured on the side faces and serving to retain the wire racks in their respective seats, and a suspending yoke connected with the upper end of the body member.

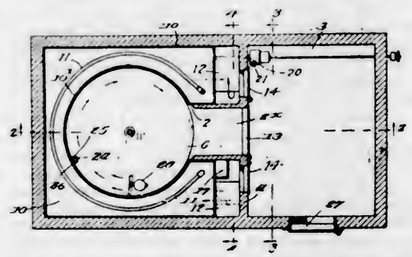
1,095,007. BLIND-SHAFT BEARING FOR THE DRIVING MEANS OF ELECTRIC LOCOMOTIVES. GUSTAV LUNDHOLM, Vesterås, Sweden. Filed Jan. 30, 1914. Serial No. 815,480. (Cl. 105—258.)



1. In driving means for electric locomotives, the combination of a motor driven shaft, driving wheels, a blind shaft placed on a level with the driving wheels, double cranks attached to the blind shaft and arranged to transmit the movements of the motor driven shaft to the driving wheels, double cranks attached to the motor shaft and connected with the aforesaid double cranks, and bearings for said blind shaft movable in vertical direction and immovable in horizontal direction, substantially as and for the purpose set forth.

2. In driving means for electric locomotives, the combination of a motor driven shaft, driving wheels, a blind shaft placed on a level with the driving wheels, double cranks attached to the blind shaft and arranged to transmit the movements of the motor driven shaft to the driving wheels, double cranks attached to the motor shaft and connected with the aforesaid double cranks, and bearings for said blind shaft movable in vertical direction and immovable in horizontal direction, said bearings being resiliently supported, substantially as and for the purpose set forth.

1,095,008. REFRIGERATING APPARATUS. SAM MACKIN, Laredo, Tex. Filed Aug. 11, 1913. Serial No. 784,215. (Cl. 62—10.)



1. In a refrigerating vault, an outer casing having non-conducting walls, a brine tank disposed within said casing, said brine tank having a cylindrical recess and an extension of said recess on one side thereof, a partition disposed within said casing and spaced from one side of said brine tank, the space between said partition and said brine tank constituting cold closets, a shaft disposed within the recess in said brine tank, and a series of circular shelves carried by said shaft, the edges of said shelves being in close proximity to the walls of said tank.

2. In a refrigerating vault, an outer casing having non-conducting walls, a brine tank disposed within said casing, said brine tank having a cylindrical recess and an extension of said recess on one side thereof, a partition disposed within said casing and spaced from one side of said brine tank, the space between said partition and said brine tank constituting cold closets, a shaft disposed within the recess in said brine tank, circular shelves carried by said shaft, the edges of said shelves being in close proximity to the walls of said tank, means for cooling the brine in the tank, means for causing a circulation of the brine in the tank, and means for causing a circulation of air in said cold closets.

3. In a refrigerating vault, a casing having non-conducting walls, a brine tank disposed within said casing at one end thereof, said brine tank having a central cylindrical recess and being provided with an extension of said recess on one side, a transverse main partition disposed within said casing and spaced from said brine tank, auxiliary partitions extending from said first mentioned partitions toward said central recess, the space between said main partition and the wall of said brine tank, and the auxiliary partition and the wall of the casing constituting cold closets, a central shaft disposed in the recess in said brine tank, circular shelves secured to and carried by said shaft, and a scraping device carried by said shelves and arranged to engage the cylindrical wall of said brine tank.

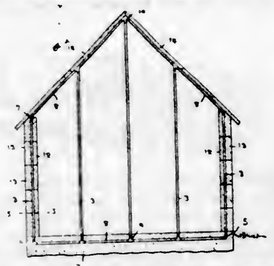
4. In a refrigerating vault, a casing having non-conducting walls, a brine tank disposed within said casing at one end thereof, said brine tank having a central cylindrical recess and being provided with an extension of said recess on one side, a transverse main partition disposed within said casing and spaced from said brine tank, auxiliary partitions extending from said first mentioned partitions toward said central recess, the space between said main partition and the wall of said brine tank, and the auxiliary partition and the wall of the casing constituting cold closets, a central shaft disposed in the recess in said brine tank, circular shelves secured to and carried by said shaft, a scraping device carried by said shelves and arranged to engage the cylindrical wall of said brine tank, means for carrying said brine tank, means for causing a circulation of the brine in the brine tank, and means for causing a circulation of air through the cold closets and through the cylindrical recess containing the shelves.

5. In a refrigerating vault, a casing having non-conducting walls, a brine tank disposed within said casing at one end thereof, said brine tank having a central cylindrical recess and being provided with an extension of said recess on one side, a transverse main partition disposed within said casing and spaced from said brine tank, auxiliary partitions extending from said first mentioned partitions toward said central recess, the space between said main partition and the wall of said brine tank, and the auxiliary partition and the wall of the casing constituting cold closets, a central shaft disposed in the recess in said brine tank, circular shelves secured to and carried by said shaft, a scraping device carried by said shelves and arranged to engage the cylindrical wall of said brine tank, means for carrying said brine tank, means for causing a circulation of the brine in the brine tank, means for causing a circulation of air through the cold closets and through the cylindrical recess containing the shelves, and doors for said cold closets and for the extension of said cylindrical recess.



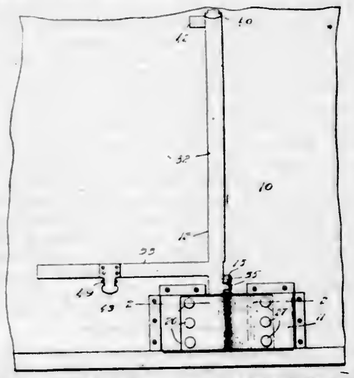
1,095,009. CONSTRUCTION OF FIRE AND DAMP PROOF BUILDINGS. JAMES W. MALLONEE, Benedict, Nebr. Filed Mar. 12, 1913. Serial No. 753,809. (Cl. 72—1.)

In a building, a foundation therefor, a frame work comprising pipes having their bores communicating, an outer wall consisting of blocks and built closely against said frame, wire members having one end embedded in the blocks and the other end projecting from their inner face, an inner wall consisting of blocks and comparatively thinner than the outer wall and built up against said frame on the inner side thereof, the wire members being wound around said pipes and having their free end em-



bedded in the joints in the blocks of the inner wall to tie said walls and frames together.

1,095,010. MUSIC-LEAF TURNER. WILLIAM W. MALONE and EDWARD V. MALONE, Piqua, Ohio. Filed Aug. 12, 1913. Serial No. 784,426. (Cl. 84—17.)



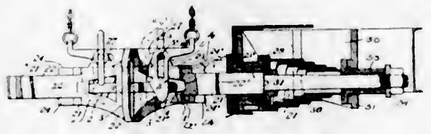
1. A music leaf turner comprising a sheet clamp mounted to turn upon a vertical pivot, a train of gearing, a crank arm operated by said train of gearing, said crank arm having a longitudinal slot, a crank arm carried by said clamp engaging in said slot, and parallel reciprocatory racks movable in opposite directions and engaging said train of gearing for actuating the same to move said crank arms with a resultant rotation of said sheet clamp on its pivot.

2. A music leaf turner comprising a sheet clamp mounted to turn upon a vertical pivot, a train of gearing, a crank arm operated by said train of gearing, horizontally disposed outer gears and an intermediate pinion meshing with said outer gears, a crank arm integral with said pinion and having a longitudinal slot, a crank arm carried by said clamp and engaging in said slot, and parallel reciprocatory racks movable in opposite directions and engaging the outer sides of said outer gears for actuating the same to move said crank arms with a resultant rotation of said sheet clamp on its pivot.

1,095,011. BUFFER FOR CAR-COUPLINGS. LUIS MANZANO, Huelva, Spain. Filed May 18, 1912. Serial No. 698,306. (Cl. 213—56.)

1. In an apparatus of the class described, the combination of a support, a two part draw bar mounted in the support and comprising two members, one member having a stem, an abutment mounted on the stem, and against which both members abut, a spring interposed between the abutments, the member having the stem also having lugs, the companion

member having side arms which engage the member with the stem, and said companion member having lugs which coöperate with the lugs on the member having the stem.

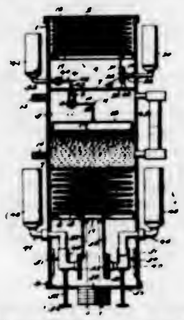


2. In an apparatus of the class described, the combination of a draw bar comprising an outer member and an inner member, the outer member having two parallel arms formed at their inner ends with studs, said outer member having lugs and slotted ears near the forward end, the inner member having perforated ears and lugs near its forward end the ears on both members being adjacent each other, and the lugs on both members coöperating, a pin connecting the ears; the lugs being normally spaced apart, a reduced stem extending from the inner member, an abutment mounted on the stem and against which the inner member and the outer member abut, said abutment having seats in which the studs fit, a second abutment on the stem, means for retaining the second abutment on the stem, and a spring interposed on the stem and confined between the abutments.

3. In an apparatus of the class described, a draw bar comprising inner and outer members, the outer member having a hollow head formed with slotted ears and lugs adjacent said ears, the inner member having a bifurcated head which fits in and forms part of the hollow head on the outer member, the inner member, having perforated ears which register with the slotted ears, and lateral lugs in rear of said perforated ears, the lugs on the inner and outer members being in the same path of movement and normally spaced from each other, a pin connecting the slotted and perforated ears, a stem extending from the inner member, an abutment mounted on the stem and against which the inner end of the abutment bears, a second abutment mounted on the stem, means for retaining the said second abutment in position on the stem, and a spring interposed between the abutments.

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1,095,012. STEAM-BOILER INDICATOR. VOLLIE B. MARRS, Santa Anna, Tex., assignor of one-half to D. J. Harris, Santa Anna, Tex., and one-eighth to William Henry Blakey, Buckholtz, Tex. Filed July 18, 1913. Serial No. 779,862. (Cl. 116—1.)



1. A steam boiler indicator comprising a casing divided into a plurality of compartments, means adapted to establish communication between certain of said compartments, means establishing communication between one of said intercommunicating compartments and the boiler above and below the water line therein, means in said last compartment and controlled by the water level therein to operate said first means whereby communication between said compartments will be established when the water level falls below normal, and an audible signal controlled from the other of said intercommunicating compartments and adapted to be sounded by the steam entering the last-named compartment when said first means is open.

2. A steam boiler indicator comprising a casing divided into a plurality of compartments, means adapted to establish communication between certain of said compartments, means establishing communication between one of said intercommunicating compartments and the boiler above and below the water line therein, means in said last compartment and controlled by the water level therein to operate said first means whereby communication between said compartments will be established when the water level falls below normal, an audible signal controlled from the other of said intercommunicating compartments and adapted to be sounded by the steam entering the last-named compartment when said first means is open, and a second signal controlled from the last-named compartment and adapted to sound when said first means has closed subsequent to the opening thereof.

3. A steam boiler indicator comprising a casing divided into a plurality of compartments, means adapted to establish communication between certain of said compartments, means establishing communication between one of said intercommunicating compartments and the boiler above and below the water line therein, means in said last compartment and controlled by the water level therein to operate said first means whereby communication between said compartments will be established when the water level falls below normal, an audible signal controlled from the other of said intercommunicating compartments and adapted to be sounded by the steam entering the last-named compartment when said first means is open, a second signal controlled from the last-named compartment and adapted to sound when said first means has closed subsequent to the opening thereof, and means controlling communication between said last-named signal and compartment and operated from said first means.

4. A steam boiler indicator comprising a casing divided into three compartments, means adapted to establish communication between certain of said compartments, means establishing communication between one of said intercommunicating compartments and the boiler above and below the water line therein, means in said last compartment and controlled by the water level therein to operate said first means whereby communication between said compartments will be established when the water level falls below normal, an audible signal controlled from the other of said intercommunicating compartments and adapted to be sounded by the steam entering the last-named compartment when said first means is open, audible signals controlled from the remaining compartment, a connection between said last-compartment and the steam space of the boiler, and means controlling communication between said signals and the respective chamber and adapted to place the signals in communication with the chamber in accordance with the pressure within the boiler.

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1,095,013. PROCESS OF ACETYLATION. WALTER E. MASLAND, Wilmington, Del., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Oct. 16, 1912. Serial No. 726,012. (Cl. 23—24.)

1. The process which comprises heating a mixture of halogen derivatives of aliphatic hydrocarbons with an acetylating agent at a temperature suitable for the removal of a halogen acid therefrom, removing a constituent thus formed by said removal and acetylating the remaining halogen derivatives of aliphatic hydrocarbons by heating the residue at a temperature suitable for the production of organic acetates.

2. The process which comprises heating a mixture of halogen derivatives of aliphatic hydrocarbons with an acetylating agent at a temperature suitable for the removal of a halogen acid therefrom, removing a constituent thus formed by said removal and acetylating the remaining halogen derivatives of aliphatic hydrocarbons by heating the residue at a higher temperature suitable for the production of organic acetates.

3. The process which comprises heating a mixture of aliphatic chlorhydrocarbons with an acetylating agent at a temperature suitable to the production of olefins, removing the olefins thus formed and acetylating the remaining aliphatic chlorhydrocarbons by heating the residue at a temperature suitable for the production of organic acetates.

4. The process which comprises heating a mixture of aliphatic chlorhydrocarbons with an acetylating agent at a temperature suitable to the production of olefins, removing the olefins thus formed and acetylating the remaining aliphatic chlorhydrocarbons by heating the residue at a higher temperature suitable for the production of organic acetates.

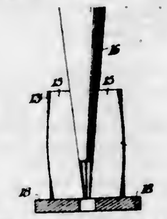
5. The process which comprises heating a mixture of amyl and hexyl chlorids with an acetylating agent at a temperature suitable to the production of olefins, removing the olefins thus formed and acetylating the remaining amyl and hexyl chlorids by heating the residue at a temperature suitable for the production of organic acetates.

[Claims 6 to 12 not printed in the Gazette.]



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1,095,014. PROCESS OF MAKING METALLIC BARRELS. VICTOR MAUCK and JACOB EDWARD WENTLING, Conshohocken, Pa. Filed Oct. 22, 1909. Serial No. 523,952. (Cl. 29—148.)



1. The process of making a metallic barrel from primarily plane sheet metal, which consists in forming the barrel body by bending a rectangular plane sheet metal blank to form a cylindrical tube with edges opposed parallel with the axis of said tube; welding said edges while pressing them together; and, pressing said tube with an expanding die until it is larger in diameter intermediate of its length than at its chimes; said die including a circular series of sectors the outer faces of which conform to arcs having radii slightly less than the radius of the expanded tube, so that said sectors initially engage the cylindrical tube only at the medial, longitudinal regions of their outer faces, and the expansion of the sheet metal begins at the center of the outer face of each sector and is continued with substantially uniform distribution of the stresses in the sheet metal until the final form of said tube is produced.

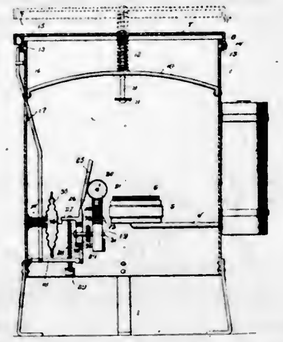
2. The step in making a metallic barrel body of bilge shape, which consists in outwardly bulging a primarily cylindrical tube by simultaneously expanding it at a circular series of lines extending parallel with the axis of said cylinder, whereby the expansion of the metal begins at said lines and is continued with substantially uniform distribution of the stresses in the metal until the final form of the barrel body is produced.

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1,095,015. DEVICE TO PROTECT FRUIT-TREES FROM FROST. WILLIAM E. MAYER, Pittsburgh, Pa., assignor of one-half to Charles E. Eagan, Pittsburgh, Pa. Filed July 17, 1913. Serial No. 779,565. (Cl. 67—10.1.)

1. In a device of the class described, a burner casing, a spring actuated lid, vertically guided supporting means for said lid, latch means to secure the lid in obstructing position, and thermally actuated means to release the latch.

2. In a device of the class described, a burner casing, a lid for the casing, means for bodily projecting said lid upwardly from the casing to constitute a deflector, latch means for holding the lid in retracted position, and means for releasing the latch.



3. In a device of the class described, a burner casing, a lid for the same, spring means for projecting the lid upwardly from the casing to constitute a deflector, and vertically guided supporting means for the lid.

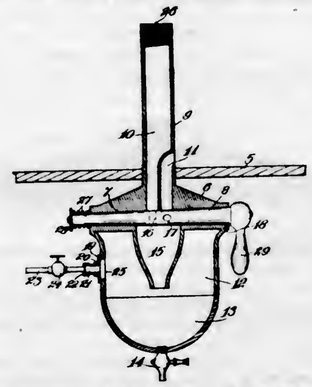
4. In a device of the class described, a casing containing a burner, and thermally actuated igniting means for said burner including a serrated wheel, a friction block engaged thereby, and a spring actuated rack bar engaging the serrated wheel.

5. In a device of the class described, a casing containing a burner, and igniting means for said burner including a serrated wheel, a spring actuated friction member engaged thereby, a spring actuated rack bar engaging the serrated wheel, trigger means for supporting the rack bar against the tension of its actuating spring, and thermostatic trigger actuating means to release the rack bar.

[Claims 6 to 9 not printed in the Gazette.]

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1,095,016. VALVE FOR GASOLENE-TANKS. JAMES B. MCDEVITT, Chicago, Ill., assignor of one-half to Bendt F. N. Bendtsen, Chicago, Ill. Filed Mar. 20, 1913. Serial No. 755,701. (Cl. 158—46.5.)

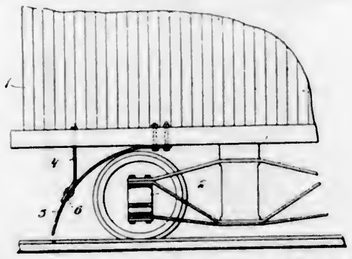


The combination with a tank; of a valve casing connected thereto and comprising a solid body portion having a transverse bore and an outlet nozzle depending therefrom, said body portion having a stem extending into the tank, said stem having channels the inlet ends of which are at different levels in the tank, a cup extending from the body portion, into which cup the nozzle discharges, said cup having an outlet, and a rotatable plug in the aforesaid bore, said valve plug having transverse

ways which are alternately in alinement with the aforesaid channels to open the same to the nozzle, one channel being closed when the other channel is open, and vice versa.

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1,095,017. FENDER. JOSEPH F. MINNICH, Fort Wayne, Ind. Filed Mar. 15, 1913. Serial No. 754,407. (Cl. 105—131.)



The combination with a car body, of a wheel guard secured at one end to the body and comprising a forwardly and downwardly curved guard spring rod or bar overhanging the wheel, means for securing the upper end of the same to the car body over the wheel, a brace connected to the car body and a slidable connection between the lower end of the brace and an intermediate point on the guard rod.

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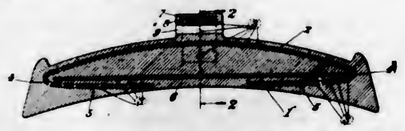
1,095,018. ARTIFICIAL TEETH. GLENN E. MORNINGSTAR and JAMES G. MORNINGSTAR, Greenville, Ohio. Filed May 12, 1913. Serial No. 767,240. (Cl. 32—9.)



In dental bridge work, the combination with a perforated backing and a removable facing, of a post adapted to fit within a slot formed in the facing, a threaded pin projecting at approximately a right angle from said post, an extension of the post projecting beyond the pin to take into an undercut in the removable facing, and a nut mounted upon the inner end of said pin.

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1,095,019. REINFORCED BRAKE-SHOE. JOHN J. MORSE, St. Louis, Mo. Filed Aug. 19, 1912. Serial No. 715,707. (Cl. 188—82.)



1. A reinforced brake-shoe composed of cast-metal and having a perforated plate of metal located adjacent to the back thereof, the end portions of said plate being bent inwardly adjacent to the ends of the brake-shoe so as to extend toward each other and into the wearing part of the brake-shoe.

2. A reinforced brake-shoe composed of cast-metal and having a perforated plate of metal located adjacent to the back thereof and a perforated plate of metal located adjacent to the wearing face of the brake-shoe, the end portions of said first-mentioned plate being bent inwardly adjacent to the ends of the brake-shoe so as to extend into the wearing part of the brake-shoe.

3. A reinforced brake-shoe composed of cast-metal and having a perforated plate of metal located adjacent to the back thereof, the end portions of said plate being bent inwardly at or adjacent to the ends of the brake-shoe so as to extend into the wearing part of the brake-shoe, and a plurality of perforated plates of metal located intermediate said first-mentioned plate and the wearing face of the brake-shoe.

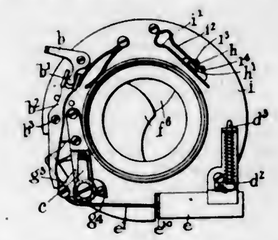
4. In a brake-shoe, a shoe proper and a pair of spaced metal plates embedded in the shoe, the ends of one of the plates being bent inwardly to inclose the ends of the other plate.

5. In a brake-shoe, a shoe proper and a plurality of spaced metal plates embedded in the shoe, the ends of an outermost plate being bent inwardly to inclose the ends of the remaining plates.

[Claims 6 to 8 not printed in the Gazette.]

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1,095,020. SHUTTER FOR PHOTOGRAPHIC CAMERAS. ARTHUR S. NEWMAN, Highgate, London, England. Filed May 31, 1913. Serial No. 770,868. (Cl. 95—63.)



1. In a shutter for photographic cameras, the combination of a supporting plate, a spring-operated part pivoted to said plate, a crank pin on said spring-operated pivoted part, a plurality of shutter blades pivoted to the supporting plate, an oscillating plate carried by the supporting plate for operating said shutter blades, a spring arm pivoted on said oscillating plate by which the oscillating plate is moved by the crank pin in one direction, a fixed part on said oscillating plate by which it is moved by the crank pin in the opposite direction, means for retaining the spring-operated pivoted part when it is wound up, means for releasing said spring-operated part, a rod one end of which is connected to the spring-operated pivoted part, a piston to which the other end of the rod is connected, a cylinder carried by the supporting plate in which the piston merely acts by suction, and means for regulating the admission of air to the inner end of the cylinder, substantially as set forth.

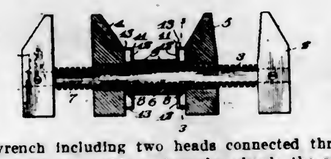
2. In a shutter for photographic cameras, the combination of a supporting plate, a spring-operated part pivoted to said plate, a crank pin on said spring-operated part, a plurality of pivoted shutter blades pivoted to the supporting plate, an oscillating plate for operating said shutter blades, one fixed arm on said oscillating plate having a spring arm pivoted thereto by which the oscillating plate is driven by the crank pin in one direction, a second fixed arm on said oscillating plate acting as a stop for the spring arm and a third fixed arm on said oscillating plate by which it is moved by the crank pin in the opposite direction, means for retaining the spring-operated part when it is wound up, means for releasing said spring-operated part, a rod one end of which is connected to the spring-operated pivoted part, a piston to which the other end of the rod is pivoted, a cylinder fixed to the supporting plate in which the piston merely acts by suction, and means for regulating the admission of air to the inner end of the cylinder, substantially as set forth.

3. In a shutter for photographic cameras, the combination of a supporting plate, a spring-operated part pivoted to said plate, a crank pin on said spring-operated pivoted part, a plurality of shutter blades pivoted to the said plate, an oscillating plate for operating said shutter blades, a spring arm pivoted on said oscillating plate by which the oscillating plate is moved by the crank pin in one direction, a fixed part on said oscillating plate by which it is moved by the crank pin in the opposite direction, a tube on said oscillating plate, a ball located in said tube and extending beyond the open ends thereof, a slot in the supporting plate in which the tube moves, two springs pivoted to the said supporting plate, one of said springs having two indentations to receive the ball without touching the tube, means for retaining the spring-operated pivoted part when it is wound up, means for releasing said spring-operated part, a rod one end of which is connected to the spring-operated pivoted part, a piston to which the other end of the rod is connected, a cylinder fixed to said supporting plate in which the piston merely acts by suction, and means for regulating the admission of air to the inner end of the cylinder, substantially as set forth.



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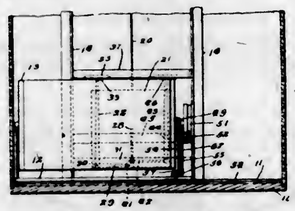
1,095,021. WRENCH. MATTHEW NICHOLAS, Boulder, Colo. Filed Dec. 31, 1913. Serial No. 809,748. (Cl. 81—174.)



A wrench including two heads connected through the medium of a removable rectangular shank, the said shank having two of its opposite sides threaded, a screw nut upon the shank and engaging the threads thereof, said screw nut having opposite ends provided with reduced ends and being provided with an annular slot between the ends and the nut proper, longitudinally movable jaws, one disposed upon each of the opposite ends of the nut, a pair of plates removably secured to the opposite sides of each of the jaws, said plates having their ends inturned over the rear face of the jaws and the meeting edges contacting, the upper edges of the inturned portions being bent inwardly to space the first mentioned angular portions from the jaws and to provide the said jaws upon their rear faces each with a housing, each of the housings having its rear wall provided with a circular opening and the edges provided by the said opening adapted to be received within the annular slot of the nut and to arrange the ring within the housing of each of the jaws.

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1,095,022. SEISMOGRAPH. THOMAS O'BRIEN, Brooklyn, N. Y., assignor to Henry G. Opdycke, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,337. (Cl. 234—1.)



1. In a portable seismograph, a single pendant mass or pendulum fitted and adapted to perform double functions of two separate pendula in the matter of measuring and recording horizontal and also vertical vibrations.

2. In a portable seismograph, a single pendulum, a plurality of springs sustaining said pendulum, a platform sustaining said springs, and a base rigidly connected with and sustaining said platform.

3. In a portable seismograph, a base, a pendulum carried thereby for universal movement therewith, separate levers suitably fulcrumed to said base and jointedly connected with said pendulum and capable of responding freely to any relative movement of said base with regard to said pendulum, said separate levers having extension points for contact with a suitably prepared chart.

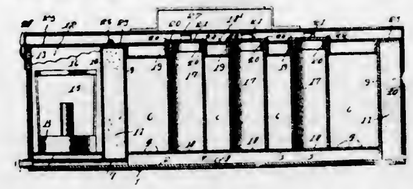
4. In a portable seismograph, a record cylinder, a pendulum, said cylinder having an axial and circumferential movement, and said pendulum having a horizontal and vertical freedom of movement, and levers connected to said pendulum to record vibrations on said cylinder, said levers having freedom of movement in their intended direction independent of each other.

5. In a portable seismograph, a record cylinder and pendulum, levers connected to said pendulum to transmit and magnify vibrations of said pendulum with respect to said cylinder, said levers being connected to transmit the intended vibrations independent of others and means to limit the vibratory movement of said pendulum in certain directions.

[Claims 6 to 9 not printed in the Gazette.]

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1,095,023. COOLING-RECEPTACLE. BRUCE E. PARKER, Vanderbilt, Pa. Filed June 20, 1913. Serial No. 774,850. (Cl. 62—14.)

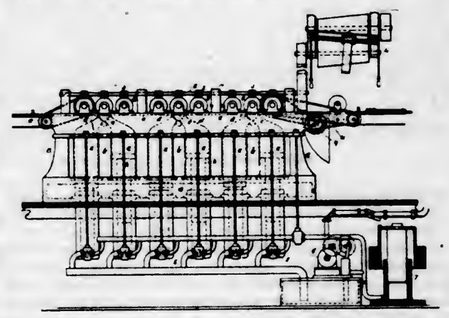


1. A cooling receptacle having insulated walls, a closure removably fitted to said vessel, a foraminous supplemental bottom located above the main bottom of the vessel and provided with impervious portions, the said closure having vertical passages therein, cells rising from the impervious portions of the supplemental bottom and having their upper ends located on a line with the upper edges of the insulated walls of said vessel and extended into the passages in said closure, and closures fitting the passages and closing the upper ends of said cells.

2. A cooling receptacle having insulated side and end walls, a main bottom, a supplemental bottom spaced from the main bottom and provided with perforations, cells rising from the supplemental bottom and having their upper ends lying flush with the upper edges of the insulated walls, a closure removably fitted to the vessel and having insulated walls extending between the first insulated walls and having portions overlying said first walls, the said closure having passages therein receiving the upper ends of the cells, closures removably fitting in said passages and closing said cells.

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1,095,024. MACHINE FOR MANUFACTURING DIFFERENT VARIETIES OF CEREALS INTO UNITARY COMPOUND FORMS. HENRY D. PERKY, Glencoe, Md.; Laban Sparks, administrator of said Henry D. Perky, deceased, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Mar. 13, 1906. Serial No. 305,840. (Cl. 107—14.)



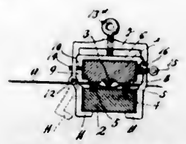
1. In a machine of the character described for making filaments, the combination with a plurality of press cylin-

ders, and a series of removable traveling perforated plate pans above said cylinders, of a plurality of cut-off mouths adapted to equalize the length of the filaments, between and in contact with said cylinders and said plate pans, and means of pressure in connection with said cylinders.

2. In a machine of the class described, the combination with a series of pressure feed devices, of a moving forming plate, and means for simultaneously operating said feed devices and plate.

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1,095,025. WOVEN-WIRE CLAMP. G. BURNS PERSONS, Darfur, Minn. Filed May 5, 1913. Serial No. 765,513. (Cl. 256—55.)



1. A device of the kind described, comprising a pair of coöperating clamping bars having, on their opposing faces, gripping bars, an inner clamping yoke mounted on one of said bars, an outer clamping yoke having, on its prongs, retaining lugs and embracing said bars, the prongs of said outer yoke being mounted for endwise sliding movement, with respect to said inner yoke, and an adjusting device between said two yokes, in combination with a pulling device applied to said bars.

2. A device of the kind described, comprising a pair of coöperating clamping bars having, on their opposing faces, gripping bars, an inner clamping yoke mounted on one of said bars, an outer clamping yoke having, on its prongs, retaining lugs and embracing said bars, the prongs of said outer yoke being mounted for endwise sliding movement, with respect to said inner yoke, and an adjusting device between said two yokes, one of the prongs of said outer yoke having a hinged section, in combination with a pulling device applied to said bars.

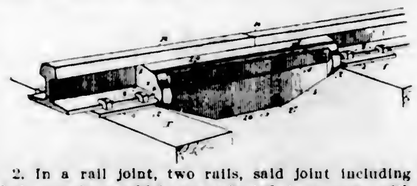
3. A device of the kind described, comprising a pair of coöperating clamping bars having, on their opposing faces, gripping bars arranged for three point contact with the wires of a fence, an inner clamping yoke mounted on one of said bars, for longitudinal adjustments thereon, means for securing said inner yoke in different longitudinal adjustments, an outer yoke having, on its prongs, retaining lugs and embracing said two bars, the prongs of said outer yoke being mounted for endwise sliding movement, with respect to the inner yoke, and an adjusting device between said two yokes, in combination with a pulling device applied to the said bars.

4. A device of the kind described, comprising a pair of coöperating clamping bars having, on their opposing faces, gripping bars arranged for three point contact with the wires of a fence, an inner clamping yoke mounted on one of said bars, for longitudinal adjustment thereon and having, on its prongs, retaining lugs, means for securing said inner yoke in different longitudinal adjustments, an outer yoke having, on its prongs, retaining lugs and embracing said two bars, the prongs of said outer yoke being mounted, for endwise sliding movement, on the inner yoke, an adjusting device between said two yokes, and means for limiting the endwise sliding movement of said outer yoke with respect to said inner yoke, one of the prongs of said outer yoke having a hinged section, in combination with a pulling device applied to the said bars.

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1,095,026. RAIL-JOINT. EVERETT W. FREBLE, Anson, Me. Filed May 24, 1913. Serial No. 769,632. (Cl. 239—10.)

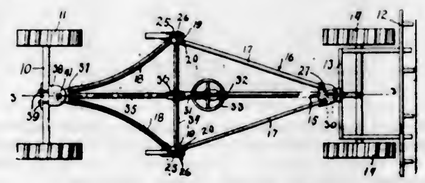
1. In a rail joint, two chair members, one of which being provided with a base upon which the rails rest, the said base having widened ends provided with spike openings, which are so disposed as to permit of the heads of the spikes engaging with the base flanges of the rails, the said chair having a central enlarged portion shaped to engage with the fishing space of the rails, the said enlargement being extended below the base plate and having its inner wall approximately central of the longitudinal plane of the said plate and the said inner wall being channeled to provide a tongue and a groove, the second chair being of a size adapted to fit between the enlarged ends of the first mentioned chair and to have its ends contact with the shoulders provided thereby, the said second chair having a base which is adapted to underlie the base of the first named chair and having its inner face enlarged and channeled to provide a tongue and groove which co-act with the tongue and groove in the underface of the enlarged portion of the first mentioned chair, the second mentioned chair having its portion arranged above the base shaped to engage with the fishing spaces of the rails, and means connecting the upper portions of the chairs with the webs of the rails.



2. In a rail joint, two rails, said joint including two chair members which are adapted to engage with the fishing spaces upon the opposite sides of the rails, one of said chairs being provided with a base upon which the rails rest, the said base having enlarged ends provided with spike receiving openings, the said openings being arranged to permit of the heads of the spikes contacting with the base flanges of the rails, one of the chairs having a central enlarged portion which extends both above and below the plate, the upper portion of said enlargement having end reinforcements, the outer face of said portion being recessed to provide a pocket, a cushion member for the pocket, a plate for closing the pocket, the second rail chair adapted to engage the base plate on the opposite side of the enlargement and to be disposed between the enlarged ends of said chair and to contact with the ends, the ends of the second mentioned chair having reinforcements, the portions of each of the chairs extending below the base having tongues and grooves, means comprising nuts and bolts for securing the said depending portions, the upper portions of the chairs as well as the cushion and pocket closing plate being provided with openings which register with openings in the webs of the rails, and bolts passing through the said openings, and nuts for the bolts.

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1,095,027. HEADER-PUSH. CHARLES REMER, Miles City, Mont. Filed Jan. 9, 1913. Serial No. 741,053. (Cl. 21—114.)



1. The combination with a header having a draft pole; of a tractor, and a wheeled frame connected to the tractor and pivoted to the draft pole.

2. The combination with the draft pole of a vehicle; of means at the forward end of the draft pole for guiding the same, and a coupling connected to the draft pole to the rear of the guide means and including a frame having spaced members adapted to embrace the guide means and permit movement of the same independent of the frame, means for pivotally connecting said frame to the pole, and means carried by said frame and adapted for connection to a tractor.



3. The combination with a header having a draft pole rigid therewith and motive power means for advancing the header; of a wheeled frame connected to the motive power means and pivoted to the draft pole, said frame tapering toward its forward and rear ends.

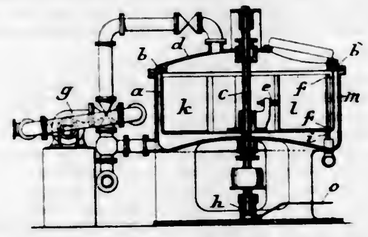
4. The combination with a header having a draft pole rigid therewith and motive power means for advancing the header; of a wheeled frame connected to the motive power means and pivoted to the draft pole, said pole frame being adapted for angular movement one with respect to the other and means carried by the pole for guiding it toward either side of the frame.

5. A header push embodying a frame having side bars, caster wheels at the sides of said frame, spring means supporting the frame over the wheels and coupling means at either end of the frame.

[Claim 6 not printed in the Gazette.]

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1,095,028. APPARATUS FOR DYEING, BLEACHING, OR TREATING WITH FLUIDS AND CENTRIFUGING TEXTILE AND OTHER MATERIALS. WILHELM RESCH, Bluntugen, Switzerland. Filed Aug. 20, 1912. Serial No. 716,031. (Cl. 8—18.)



1. Apparatus for dyeing, bleaching and the like, comprising a closed casing, a rotary drum therein having perforate wall sections, means for raising the drum to engage the upper edge thereof with the casing to make a fluid tight joint, removable boxes in said drum having perforate end sections, and means for holding said boxes in the drum with the perforate ends thereof registering with the perforate wall sections of the drum.

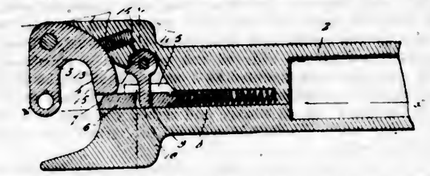
2. Apparatus for dyeing, bleaching and the like, comprising a closed casing, a rotary drum therein having perforate wall sections, means for raising the drum to engage the upper edge thereof with the casing to make a fluid tight joint, removable boxes in said drum having perforate end sections, means for holding said boxes in the drum with the perforate ends thereof registering with the perforate wall sections of the drum, and means for circulating fluid through the boxes and casing in either direction.

3. Apparatus for dyeing, bleaching and the like, comprising a closed casing, a rotary drum therein having perforate wall sections, removable boxes having perforate ends disposed adjacent the perforate wall sections in fluid tight engagement therewith, means for effecting a fluid tight joint between the upper part of the drum and the casing, and means for circulating fluid through the boxes and casing in either direction.

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1,095,029. CAR-COUPLING. HENRY B. REYNOLDS, Petal, Miss., assignor of one-eighth to S. R. Cuhley, Petal, Miss., one-fourth to Jessie E. Herman, Hattiesburg, Miss., and one-half to Charles E. Bell, Prentiss, Miss. Filed July 8, 1913. Serial No. 777,896. (Cl. 213—8.)

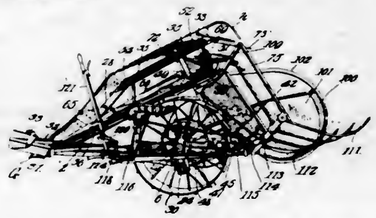
In a car coupler, a draw head having a pivoted knuckle formed with a tail, spaced bars within the draw head, a slidable latch arranged between the bars, a rotatable member journaled within the draw head and projecting thereabove, a hit removably connected with the said member and adapted to bear upon one of the bars and to co-actually engage with the sliding latch, and operating means



arranged upon the end of the rotatable member projecting above the draw bar.

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1,095,030. CORN-HARVESTER. WILLIAM H. ROE, Baltimore, Md. Filed July 19, 1912. Serial No. 710,516. (Cl. 56—105.)



1. A corn harvester, having a frame, a traction wheel, a plurality of inclinedly mounted stalk guiding and feeding means operably connected to the traction wheel, a cutting mechanism also connected to the traction wheel, butt end conveying means for engaging the butt ends of the stalks to insure the feeding thereof in consonance with the tops, means for throwing the tops of the stalks transversely of and inclined toward the rear of the harvester, a stalk receiving fork, a butt end receptacle and retarding drum mounted at the outlet end of the frame with its bottom in a vertical position and its rim horizontally disposed, said drum forming a receptacle for the butt ends of the stalks when the stalks are lying in the fork, and means for elevating and releasing the fork, said fork falling by gravity to release the body and top ends of the stalks so that the top ends engage the ground first, the rim of the butt end receptacle engaging and retarding the butt ends of the stalks to present the body of the stalks in parallel alinement to the direction of travel of the harvester.

2. A corn harvester, having a frame, a traction wheel, a plurality of inclinedly mounted stalk guiding and feeding means operably connected to the traction wheel, a cutting mechanism also connected to the traction wheel, butt end conveying means for engaging the butt ends of the stalks to insure the feeding thereof in consonance with the tops, means for throwing the tops of the stalks transversely of the harvester, a stalk receiving fork, a butt end receptacle to receive the butt ends of the stalks when in the fork, said receptacle having a bottom and rim, the bottom being disposed in a vertical position with the rim horizontally and toward the receiving fork, for receiving the butt ends when the stalks are lying within the fork, and means for elevating and releasing the fork, said fork falling by gravity to release the stalks top end first, the rim of the butt end receptacle engaging and retarding the butt ends of the stalks to present the body of the stalks in parallel alinement to the direction of travel of the harvester.

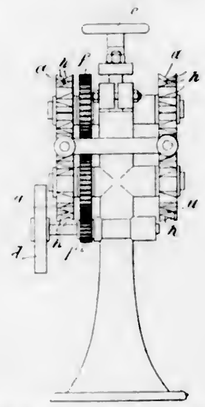
3. A corn harvester, having a frame, a plurality of inclinedly disposed conveyer casings mounted upon the frame, means for moving the forward ends thereof toward and from the ground, a plurality of stalk conveyers mounted in said casings, a plurality of angularly disposed spring stalk guides at the rear of the casing, a conveyer coacting with said guides for causing the tops of the

stalks to be thrown transversely of the rear of the machine, butt end conveyers for moving the butts in consonance with said last mentioned conveyer, a pivoted gravity actuated stalk receiving fork disposed to receive the bodies of the stalks and hold them transversely of and inclined toward the rear of the machine, a stationary butt end receptacle mounted as a continuation of the fork, and means for locking and releasing the fork, said receptacle having a rim to engage and retard the butt ends of the stalks when the fork is released to deposit the stalks top end first.

4. A corn harvester, having a frame, means for delivering cut stalks rearwardly and in an upright position, a pivoted fork disposed transversely and inclined rearwardly of the frame to receive the tops and body portion of the stalks, a vertically disposed disk parallel to the line of travel of the harvester to limit the outward movement of the stalks by engaging the butt ends of the same when the stalks are in the fork, means for holding and releasing the fork, and a rim projecting from the lower rear portion of the disk to form a retarding means for the butt ends of the stalks as the fork delivers the top ends of the stalks to the ground.

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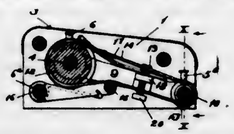
1,095,031. DOUBLE-ACTING MACHINE FOR MANUFACTURING SWEETS. CARL ROST, Dresden, Germany. Filed July 9, 1912. Serial No. 708,484. (Cl. 107—23.)



In a machine of the class described the combination of a standard, a pair of disks mounted to rotate on the standard, cutting teeth on the periphery of each disk, the outer edge of each tooth being inclined with respect to the axis of the disk, the inclination of alternate teeth on a disk being opposite to the inclination of the remaining teeth on said disk, each set of teeth on one disk being oppositely inclined with relation to the sets of teeth on the other disk whereby the teeth of one disk will lie in a plane with their points at a level with the bases of the teeth upon the other disk, when said teeth are in alinement.

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1,095,032. CUTTING DEVICE. WILLIAM M. SAGAR and LESTER W. SAGAR, Brooklyn, N. Y. Filed July 23, 1912. Serial No. 711,167. (Cl. 29—69.)



1. In a device of the class described, a frame provided with a fixed shaft, and a floating shaft carrying a saw swingingly connected to the fixed shaft, said floating shaft provided with tension springs for forcing the saw downward, said main frame having a slot through which said floating shaft passes.

2. In a device of the class described, a frame provided with a fixed shaft, a floating shaft swingingly connected to the fixed shaft and carrying a saw, said floating shaft provided with tension springs for forcing the saw downward, said main frame having a slot through which said floating shaft passes, and means to limit the downward movement of said floating shaft.

3. In a device of the class described, a frame provided with a fixed shaft, a floating shaft swingingly connected to the fixed shaft and carrying a saw, said floating shaft provided with tension springs for forcing the saw downward, said main frame having a slot through which said floating shaft passes, and means for raising and lowering said floating shaft.

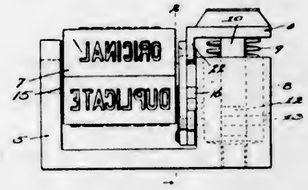
4. In a device of the class described, a frame provided with a fixed shaft, a floating shaft swingingly connected to the fixed shaft and carrying a saw, pulleys mounted on each shaft, a drive belt connecting the pulleys, tension springs for the floating shaft, said main frame having a slot through which said floating shaft passes, and means for varying the depth of the saw cut, said means consisting of brackets extending from the shaft supporting arms and adjusting means passing through said brackets and resting upon lugs upon the inside of the frame.

5. In a device of the class described, a frame, an extension member secured to one side of said frame, means to hold said extension member in adjusted position, a fixed power-receiving shaft, a guard for said shaft, a floating shaft swingingly connected to the fixed shaft by shaft supporting arms and carrying a saw, a guard for said saw, pulleys cast integral with each shaft, connecting means for the pulleys, tension springs for the floating shaft for forcing said shaft downward, said main frame having a slot through which the floating shaft passes, and means for varying the depth of the saw cut, said means consisting of brackets on the shaft supporting arms, screws passing through said brackets and engaging lugs upon the inside of the frame.

[Claims 6 and 7 not printed in the Gazette.]

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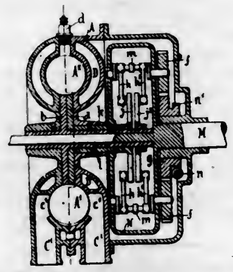
1,095,033. ATTACHMENT FOR PRINTING-PRESSES. EDMUND HEWETT SALE, Chattanooga, Tenn. Filed Oct. 23, 1913. Serial No. 796,920. (Cl. 101—160.)




A printing device of the character specified comprising, in combination, a case provided with a guide opening; a rotatable printing element having a plurality of printing faces, and a depressible plunger mounted in said case, said plunger mounted in said case, said plunger having a depending finger; a ratchet fast on one end of said printing element and having the number of its teeth equal to the number of such printing faces; a rocker bar pivotally mounted in said case; a pawl pivoted to one end of said bar for engagement with said ratchet; a vertically arranged link connecting said finger and the other end of said bar; a depending rod carried by said plunger and working in said guide opening, said rod being provided with a longitudinal seat; and a stop pin extending into said seat for contact with the end walls thereof, to limit the movement of the plunger.



1,095,034. ROTARY INTERNAL-COMBUSTION ENGINE. ANTONIO SANCHEZ and CLAUDIO BARADAT, Paris, France. Filed Oct. 29, 1912. Serial No. 728,524. (Cl. 123—11.)



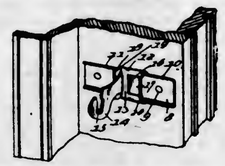
1. A rotary engine comprising a casing, a central shaft, an annular cylinder, two pairs of coöperating pistons in said cylinder, a pair of disks mounted loosely on said shaft and arranged symmetrically to the right and left of the plane, dividing the cylinder into two parts, each disk carrying a pair of pistons, a gear wheel fixed to said casing, satellite gears connected to said disks and engaging said gear-wheel, and means for angularly adjusting said gear-wheel relative to the central shaft for the purpose set forth.

2. A rotary engine comprising a casing, a central shaft revolubly mounted in said casing, an annular cylinder, a pair of disks mounted loosely on said shaft, a pair of pistons carried by each of said disks and operable in the cylinder, a gear wheel mounted adjustably on said casing, an arm connected to each of said disks, a frame fixed to the central shaft, crank shafts journaled on said frame, a pinion fixed on each of said crank shafts and engaging with the gear wheel on the casing and having half as many teeth as said wheel, rods connecting said crank shafts and said disk arms, a worm wheel fixed to the gear wheel, and a worm engaging said worm wheel.

3. A rotary engine comprising a casing (A), a central shaft (M) revolubly mounted in said casing, an annular cylinder, two pairs of coöperating pistons ($a'$, $a^2$, $b'$, $b^2$) in said cylinder, a pair of disks ($a$, $b$) mounted loosely on said shaft, concentric hubs ($k$, $l$,) formed on said disks and projecting to one side of the center of the cylinder, arms ($j$, $j'$) attached to said hubs, a frame (N) fast to the engine shaft (M), crankshafts ($m$) mounted in said frame, satellite gears ($f$) mounted on said shafts, a gear ($g$) mounted on the casing and engaging said satellite gears, and rods ($h$, $h'$) connecting said crankshafts to said arms ($j$, $j'$).

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1,095,035. SHADE-FIXTURE. CHARLES EDWARD SCHAUMLOEFFEL, Baltimore, Md. Filed July 15, 1913. Serial No. 779,173. (Cl. 156—24.)

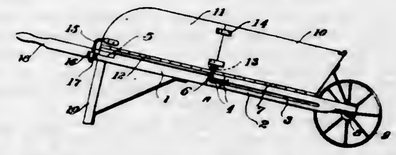


1. In a shade bracket, a base having side flanges provided with teeth, a plate having flanges embracing the first mentioned flanges and slidable thereon, said plate having an aperture therein, a bracket formed integral with the plate, a tongue interposed between the plate and the base plate and having a portion projecting through the aperture of the plate, and dogs carried by the tongue for engaging the teeth of the base plate.

2. In a shade bracket, a base plate having side flanges provided with teeth, a plate having a portion thereof removed to form an opening, flanges on said plate partially embracing the flanges of the base plate, a tongue interposed between the plate and the base plate, a flange formed on the tongue, said flange projecting beyond the side edges of the tongue and constituting dogs for engaging the teeth of the base plate, the said dogs holding the tongue in position to be frictionally engaged by the plate, when said plate is moved toward the flange of the tongue.

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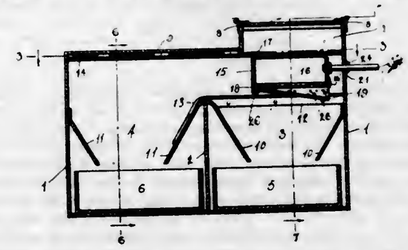
1,095,036. WHEELBARROW. RINHOLT SCHULZE, Humboldt, Iowa. Filed Sept. 26, 1913. Serial No. 792,014. (Cl. 21—68.)



A wheelbarrow comprising oppositely arranged side frame bars each embodying a plurality of sections having an overlapping and slidable relation to each other, means for fastening the relatively slidable sections of said side frame bars, a permanent floor connecting certain sections of said side bars, a detachable floor between the remaining sections thereof, and detachable extension side boards having means for fastening the same in place relatively to the frame of the wheelbarrow.

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1,095,037. ASH-SIFTER. JULIUS SINGER, Racine, Wis. Filed Nov. 27, 1912. Serial No. 733,900. (Cl. 83—60.)



In an ash sifter, the combination with a casing having a transverse partition producing cinder and ash compartments, of tracks secured to the opposite sides of said casing along the full length of the ash compartment and bent downwardly at an angle over the partition and projecting into the cinder compartment, supporting guide rods extending the full length of the casing and disposed above said tracks and in horizontal alinement therewith, a screen frame slidably arranged with said rods and tracks, a hinged bottom for said screen frame, an inclined chute carried by the bottom and extending the full length of the same whereby the ashes that may be confined within the chute carried by the screen are held therein while the cinders are being dumped, and means for reciprocating the screen frame.

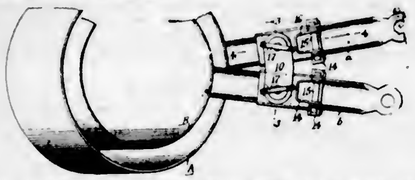
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1,095,038. ATTACHMENT FOR COOKING UTENSILS. CHARLES N. SOWDEN, Guantanamo, Cuba. Filed July 16, 1913. Serial No. 779,292. (Cl. 53—1.)

1. An attachment for converting a pair of handled utensils into a double cooker, comprising a yoke carrying clamps at opposite sides thereof and in different horizontal planes, the clamps being adapted to receive and clamp the handles of two utensils.

2. In a device of the character described, clamping elements adapted to receive between them a member to be clamped, a spring acting on one of the clamp elements

and exerting a pressure on the other element, and an additional clamping device engaging one of said elements to positively bind the elements in clamping engagement with the article to be clamped.

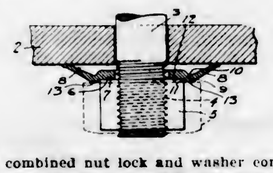


3. In a device of the character described, a yoke, pairs of clamp blocks carried by the yoke, and adapted to receive between them the article to be clamped, said blocks having depressions in the outer faces thereof, and set screws movable in the yoke into engagement with adjacent depressions of the clamp blocks.

4. In a device of the character described, a yoke, pairs of clamp blocks carried by the yoke, the blocks of each pair being adapted to receive between them the article to be clamped, and a spring carried by one of the blocks of each pair, and exerting pressure on the other block in the direction of the first mentioned block.

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1,095,039. SPRING NUT-LOCK. FRANK E. SPENCER, Pittsburgh, Pa. Filed Oct. 14, 1912. Serial No. 725,690. (Cl. 151—38.)



1. A combined nut lock and washer comprising a thick body portion forming a seat for the nut and having relatively thin resilient members extending from opposite sides thereof the extremities of said members projecting beyond the plane of the inner face of said body portion, each resilient member being joined to the body portion by a thinned flexible neck and a stop shoulder on one or more of said resilient members adjacent the nut seat of the body portion and adjacent said thinned neck portion to prevent accidental loosening of the nut when tightened up.

2. A combined nut lock and washer comprising a comparatively thick body portion forming a seat for the nut and having resilient members connected with the outer face of said body portion by comparatively thin spring necks, the outer faces of said necks projecting above the neck seat forming stop shoulders to prevent accidental loosening of the nut when seated between them on said body portion.

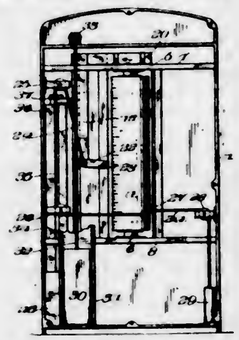
3. A combined nut lock and washer comprising a comparatively thick body portion forming a seat for the nut and having resilient members extending from opposite sides thereof, their outer extremities normally projecting beyond the plane of the inner face of the body portion, depressions or grooves at the inner faces of the junctions of said body portion and resilient members and stop shoulders on said resilient members adjacent said depressions whereby the nut may be turned down squarely on the outer face of said body portion to force the inner face thereof squarely against the member to be clamped, with said shoulders engaging the sides of the nut.

4. A combined nut lock and washer comprising a comparatively thick central body portion forming a seat for the nut and having resilient wing-like members extending from opposite sides thereof, the outer extremities of said members projecting beyond the plane of the inner face of the body portion, the inner face of the body portion being flat and lying in a plane inwardly of the junctions of said resilient members therewith, one or more of said wing-like members having projections or shoulders adjacent the junction with the body portion to form stop shoulders for the nut when the latter is turned up to force the body portion squarely and firmly against the member to be clamped.

5. A combined nut lock and washer comprising a flat body portion forming a seat for the nut and having resilient members extending from opposite sides thereof, the plane of the junction of said members with said body portion being outside of the plane of the inner face of said body portion, the outer extremities of said resilient members projecting within the plane of the inner face of said body portion and having curved bearing faces, said resilient members having projections or shoulders thereon adjacent said body portion to form stop shoulders for the nut when turned up to tightened position.

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1,095,040. COIN-CONTROLLED HEIGHT-INDICATING MACHINE. CHARLES A. STEVENS, Norristown, Pa. Filed Sept. 10, 1912. Serial No. 719,679. (Cl. 33—147.)



1. A coin-controlled height indicating machine, comprising a stand having an observation opening, a cylinder provided with a graduated scale and mounted to turn on a vertical axis on said stand and so related to the stand as to show the graduated scale through said observation opening when turned in one direction and conceal the scale when turned in the opposite direction, an indicator movable lengthwise of said cylinder, a contact arm carried by said indicator, and means for turning the cylinder, and also moving said indicator and contact arm.

2. A coin-controlled height indicating machine, comprising a stand, a graduated cylinder mounted to turn on a vertical axis on said stand, an indicator movable lengthwise of said cylinder, a contact arm movable with the indicator, and means for turning the cylinder and also moving said indicator.

3. A coin-controlled height indicating machine, comprising a stand, a graduated cylinder mounted to turn on a vertical axis on said stand, an indicator movable lengthwise of said cylinder, a contact arm pivotally connected to and movable with the indicator, and means for turning the cylinder and also moving said indicator.

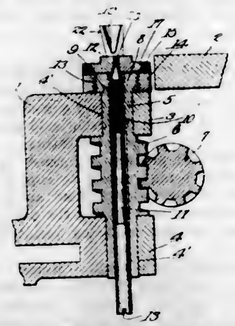
4. A coin-controlled height indicating machine, comprising a stand, a graduated cylinder mounted to turn on a vertical axis on said stand, an indicator movable lengthwise of said cylinder, a contact arm carried by said indicator, and a manually operated slide for turning the cylinder and moving said indicator.

5. A coin-controlled height indicating machine, comprising a stand, a graduated cylinder mounted to turn on a vertical axis on said stand, an indicator movable lengthwise of said cylinder, a contact arm carried by said indicator, manually operated means for turning the cylinder and also moving said indicator, and means for automatically restoring the cylinder and indicator to their initial positions.

[Claims 6 to 9 not printed in the Gazette.]



1,095,041. DOVETAIL-TOOL. WEBSTER G. STROZIER, Washington, D. C., assignor of one-half to Charles C. Sinclair, Washington, D. C. Filed Nov. 28, 1913. Serial No. 803,598. (Cl. 144—87.)



1. A tool for cutting dovetail grooves including a holding block having a diametrical groove, oppositely disposed cutting elements independently adjustable within the groove, each of said elements being substantially in the form of one half of an inverted cone frustum, and a spindle threaded into the block and constituting means for holding the cutting elements against relative movement.

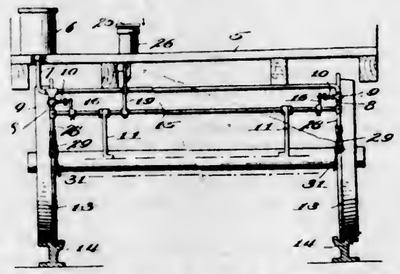
2. A tool for cutting dovetail grooves including a holding block, oppositely disposed bases adjustable diametrically upon one face of the block, a cutting element extending from each base, said cutting elements being oppositely disposed and being in the form of one half of an inverted cone frustum, and a spindle adjustably mounted within the holding block and constituting means for frictionally engaging the bases to hold them against movement relative to each other and to the block.

3. A tool for cutting dovetail grooves, including a holding block, bases adjustable diametrically thereon, said bases being oppositely disposed, a cutting element carried by each base, a spindle screwed into the holding block and constituting means for frictionally engaging the bases to hold them against movement relative to each other and to the holding block, and a spreading element adjustably mounted in the spindle and engaging the bases.

4. A tool for cutting dovetail grooves, including a holding block, oppositely disposed bases adjustable diametrically upon the block, cutting elements carried by the respective bases, a spindle screwed into the holding block and adapted to frictionally engage the bases to hold them against movement relative to the block and to each other, and a threaded stem adjustably mounted in the spindle and having a tapered end constituting spreading means insertible between the bases.

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1,095,042. LUBRICATOR. IVAN F. TALPOT, Boise, Idaho, assignor to Ernest O. Atwood, Boise, Idaho. Filed Dec. 21, 1912. Serial No. 738,087. (Cl. 184—3.)



1. A lubricating appliance for car wheel flanges comprising a lubricant feeding pipe having valves and outlet means depending adjacent to the wheel flanges, brushes independent of the outlet means and movable toward and from the wheel flanges, the brushes when applied to the wheel flanges engaging the peripheries at opposite sides of the latter, and mechanism carrying the brushes and connected to the said valves for simultaneously opening the latter and applying the brushes to the wheel flanges, the upper sides of the brushes when applied being open to receive the lubricant and fit the wheel flanges.

2. The combination with a car having a truck with flanged wheels, of a lubricating mechanism for the wheel flanges consisting of a feed pipe for the lubricant provided with depending nozzles and valves, brushes having a rocking movement relatively to the wheel flanges and independent of the said feed pipe, and mechanism for simultaneously operating the brushes to bring the latter into engagement with the peripheries and opposite side portions of the wheel flanges and for opening the valves, the upper sides of the brushes when applied being open to receive the lubricant and fit the wheel flanges, the valves being provided with means for closing the same the moment the brushes are disengaged from the wheel flanges.

3. In a car, the combination with a car body and movable truck having flanged wheels, of a feed pipe for the lubricant carried by the car body and provided with supply means and also with valves and nozzles depending therefrom adjacent to the flanges of the wheels, a rock shaft carried by the truck and having flexible connections to the valves and also provided with operating means controllable from the bed of the car and in loose association therewith, and brushes fixed to the said rock shaft and movable simultaneously toward the flanges of the wheels when the valves are opened by the rock shaft, the brushes being independent of the feed pipe, the valves and the brushes being instantly restored to normal position or respectively closed and moved away from the flanges of the car wheels when the rock shaft is released, the upper sides of the brushes when applied being open to receive the lubricant and to fit the wheel flanges.

4. In a lubricating device for car wheel flanges, an oil feeding nozzle depending adjacent to each wheel flange, and swinging brushes normally disengaged from the wheel flanges and having longitudinal pockets preliminarily formed therein and opening outwardly through the sides thereof adjacent to the car wheel flanges; the said pockets corresponding to the contour of the wheel flanges for snugly receiving the latter, the oil being deposited by the nozzles in the pockets when the brushes are in engagement with the wheel flanges.

5. In a lubricating device for car wheel flanges, a brush for each wheel flange having a pocket extending longitudinally throughout the length thereof and opening outwardly through the side adjacent to the wheel flange and also continuing through the free end of the brush, the pocket being preliminarily formed in the brush and having the portion thereof opposite the pocket fully closed by the brush material to closely engage the opposite sides and periphery of the flange to hold the lubricant against waste by running downwardly over the flange below the brush, and a flexible lubricant feeding nozzle terminating close to each car wheel flange above the point of application of the brush thereto.

[Claims 6 and 7 not printed in the Gazette.]

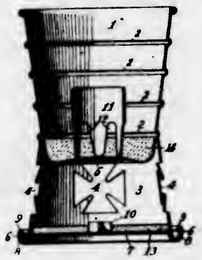
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1,095,043. FUMIGATOR. LUDWIG A. THIELE, Holland, Mich. Filed Sept. 13, 1912. Serial No. 720,240. (Cl. 167—3.)

1. A fumigator, comprising a cup, a support for the cup adapted to be placed within the same, a base adapted to form a closure for the cup and having a marginal channel to receive the lower edge of the support and the upper edge of the cup and also adapted to receive sealing material.

2. A fumigator, comprising a cup to contain fumigating material and provided with a concave bottom, a truncated conical support adapted to be placed within the cup when out of use, a base adapted to retain fuel for heating the cup and contents and provided with a marginal con-

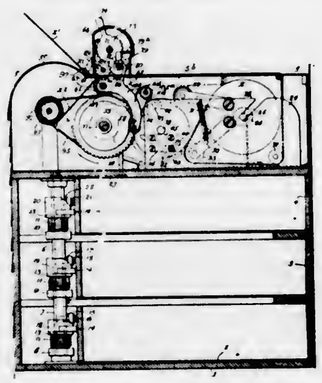
cave channel to receive the lower edge of the support and the upper edge of the cup, and also adapted to contain



sealing material, and an inturned edge to the base to secure the support and sealing material within the channel.

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1,095,044. CASH-REGISTER. STEPHEN B. TILY, JOHN G. REHFUSS, and MARTIN O. REHFUSS, Philadelphia, Pa., assignors to John Wanamaker, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 23, 1911. Serial No. 628,954. (Cl. 235—4.)



1. The combination in a cash register of means for supporting a web of blank paper; means for printing a blank schedule thereon; independent mechanism for printing a record on the previously printed schedule; and a table between the schedule printing means and said record printing mechanism, for supporting the web of paper to permit of the making of an autographic record thereon; with means for guiding the blank paper web from its supporting means to the schedule printing means and from thence to the supporting table and the record printing mechanism.

2. The combination in a cash register of means for supporting a double web of blank paper; means for printing a schedule on one only of the webs of paper as it passes from the supporting means; a structure for supporting said webs of paper to permit of an autographic record being made on one of them; means for causing the autographic record to be duplicated on the unprinted web; and means for simultaneously forming a record on both webs of paper; with devices for successively guiding said paper webs from the supporting means to the schedule printing means, the supporting structure and the record-forming means.

3. The combination in a cash register of a casing; means for supporting a double web of blank paper in the form of a roll within the body of said casing; means for printing a schedule on one only of the webs of paper as it passes from the supporting means, the top of said casing forming a table for supporting said webs of paper and permitting an autographic record being made on one of them; means for causing said latter record to be duplicated on the unprinted web; means within the rear part of the casing for forming a record on one of the webs of paper; and means for guiding the paper webs from the supporting means adjacent the schedule printing means, thence over the top of the casing to the record forming means and to a receiving roll.

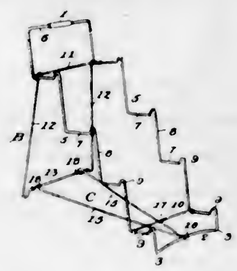
4. The combination in a cash register of a structure for supporting a web of blank paper; printing mechanism carried by said structure for forming a succession of schedules on said web; a casing inclosing said mechanism; and means carried by the casing for printing a record or records on the schedules previously formed on said web of paper; said casing being formed to support the web of paper to permit of the making of an autographic record thereon, and the structure carrying the paper web and the schedule printing mechanism being removable from said casing.

5. The combination of a casing having its top in the form of a web supporting table; a carriage removably mounted in the casing; schedule printing mechanism mounted on the carriage, means for supporting a web of blank paper on the carriage; record printing means mounted on the casing in position to receive the paper web after a schedule has been printed thereon; and operating means carried by the casing for actuating both of said sets of printing mechanism.

[Claims 6 to 9 not printed in the Gazette.]

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1,095,045. FOLDING DISPLAY-RACK. JOHN B. TIMBERLAKE, Jackson, Mich. Filed Feb. 24, 1911. Serial No. 610,456. (Cl. 211—14.)

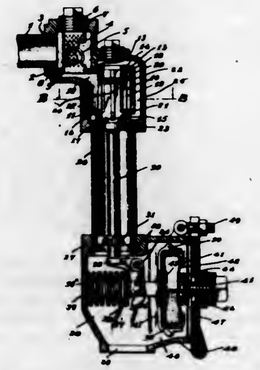


1. In a display rack, the combination of a stand having approximately horizontal article-supports arranged in an upward and rearward extending stepped series, the front end of the stand being arranged to rest upon the surface on which the rack is supported, a pair of cross-bars at the front of the stand disposed close to the said supporting surface and arranged respectively one near the front and the other near the rear of the lowermost horizontal support of the stand, an adjustable leg support hinged to the upper rear portion of the stand, a hooked brace pivotally connected with the leg support at its lower portion and provided at its forward end with a hook device adapted to engage with one or the other of the said cross-bars, substantially as set forth.

2. In a display rack, the combination of a stand formed of wire bent to constitute supports arranged in an upward and rearward extending stepped series, the side bars of the stand being connected at the lowermost support thereof by a plurality of cross-bars, a leg-support hinged to the upper rear portion of the stand, a hooked brace formed of a pair of bars hinged to the leg support near its lower end and converging toward the front where they are united by a hook arranged to engage with one or another of the said cross-bars of the stand, and means for holding apart the ends of the bars of the brace which are pivotally connected with the leg support, substantially as set forth.



1,095,046. STEAM-TRAP. JOSEPH M. TOWNE, East Orange, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y., a Corporation of New York. Filed July 12, 1912. Serial No. 709,117. (Cl. 236—10.)



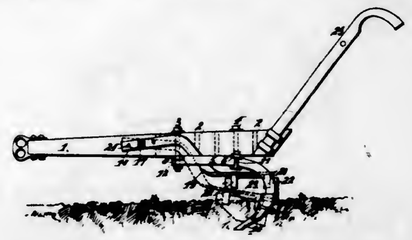
1. In a trap the combination of a drain pipe, a valve chamber into which said drain pipe empties, a vertically movable duplex valve arranged so as to control the flow through upper and lower valve seats in said chamber, a thermostatic expansion device, a lower chamber within which said thermostatic expansion device is located, mechanism whereby said valve can be operated by said thermostatic device and a main discharge pipe leading from the lower interior portion of the valve chamber to the interior of the lower chamber, the lower valve seat being arranged below the drain pipe whereby liquid from the drain pipe can flow from the valve chamber when the valve is away from its seat through the main discharge member into and from the lower chamber, the valve chamber also comprising a by-pass or connecting passageway between the opening which is controlled by the upper member of the duplex valve and the main discharge member leading from the valve chamber, the thermostatic device being located at one side of the path of water flowing downwardly from the main discharge member through the lower chamber.

2. A trap for heating systems, comprising a plurality of chambers, a vertically extending pipe joining said chambers, a vertically arranged balanced valve in one of said chambers, a vertically movable valve stem extending through the pipe into the other of said chambers, a thermostatic means arranged in the latter chamber, said thermostatic means comprising a disk which is located at one side of the said valve stem out of the path of the liquid that flows down said pipe, and means between the latter and the thermostatic means for operating said valve stem.

3. A trap for heating systems comprising a balanced valve, a chamber containing the same, a chamber containing a thermostatic device, a spring controlled bell-crank lever pivotally mounted in said chamber and arranged with one of its arms normally in a horizontal position in order to support said valve, and means between the lever and the thermostatic device whereby said device may operate said valve against its spring control, the valve members of the balanced valve each controlling a passageway between the interior and exterior of the valve casing.

4. A trap for heating systems comprising a chamber, a plurality of valve seats opposite to and vertically arranged in respect to each other, a duplex valve coöperating with said seats, a direct outlet communicating with said chamber, a second chamber encircling the first said chamber and communicating with the outlet and with said first chamber in order to provide an indirect passageway leading to and from the interior of the chamber, and means comprising a thermostatic device for operating the valve so as to simultaneously close the direct and indirect ports.

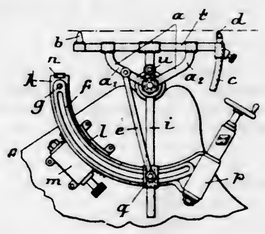
1,095,047. CULTIVATOR. JESSE C. TURNIPSEED, Griffin, Ga. Filed July 2, 1912. Serial No. 707,265. (Cl. 97—10.)



In a cultivator, a main beam, shovel beams having overlapping arms connected with the underside of the main beam, a draft bar connected pivotally with the main beam adjacent to one side face thereof and longitudinally adjustable with reference thereto, said draft bar having a downwardly and laterally offset portion, said offset portion engaging the overlapping arms of the shovel beams, whereby the downward movement of the bar is limited.

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1,095,048. SIGHTING DEVICE FOR GUNS. KARL VÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Nov. 3, 1913. Serial No. 798,957. (Cl. 33—49.)



1. In combination with a sighting device for guns, an arcual guide, a link connected to said sighting device and controlled by said guide, and means for positioning the guide according to the position of the target.

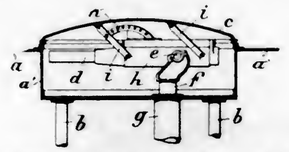
2. In combination with a sighting device for guns, an arcual guide capable of being concentric to the trunnions of a gun barrel, a link connected to said sighting device and to said guide, and means for setting the guide eccentrically to said trunnions when the sighting device is being set for elevated targets.

3. In combination with a sighting device for guns, an arcual guide, a link connected to said sighting device and controlled by said guide, means for positioning the guide according to the position of the target, a support for the guide, and means for adjusting the position of the support to compensate for slope of the ground.

4. In combination with a sighting device for guns having trunnions, an arcual guide pivoted at one end, means for engaging the other end of the guide for holding it concentrically or moving it eccentrically to such trunnions, a link connecting such sighting device to said guide, and a member movable with the gun barrel for shifting said link relatively to the guide.

5. In combination with a sighting device for guns, an arcual guide, a support therefor to which said guide is pivoted at one end, means for adjusting said support, means mounted on said support for adjusting said guide, a link movable in said guide and connected to said sighting device, and a member designed to move with a gun barrel for shifting said link in said guide.

1,095,049. GUN ADAPTED PREFERABLY FOR USE IN SUBMARINE BOATS. KARL VÖLLER, Dusseldorf, Germany. Filed Oct. 3, 1913. Serial No. 793,121. (Cl. 89—38.)



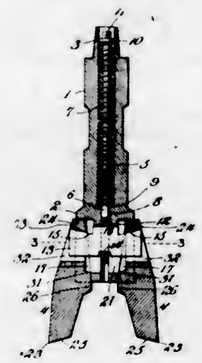
1. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing, means connecting said cover to the gun, the weight of said cover when the gun is in firing position serving to counterbalance the forward end of the gun barrel, and means for raising and lowering the gun and cover.

2. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing, means adjustably connecting said cover to the gun, the weight of said cover when the gun is in firing position serving to counterbalance the forward end of the gun barrel, and means for raising and lowering the gun and cover.

3. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing, said cover being connected to a non-recoiling part of the gun, and movable relatively to the gun barrel to counterbalance the forward end thereof, and means for raising and lowering the gun and cover.

4. In combination with a gun adapted for use in submarine boats, a casing for said gun, a cover for said casing, means adjustably connecting said cover to a non-recoiling part of the gun, locking means for the last mentioned means, and means for raising and lowering the gun and cover.

1,095,050. UNDERREAMER. JAMES HAROLD WALKER and JAMES ALLISON OLINGER, West Chicago, Ill. Filed Nov. 9, 1912, Serial No. 730,465. Renewed Mar. 4, 1914. Serial No. 822,475. (Cl. 255—75.)



1. In an under reamer, a head or stock having recesses or seats, the lateral walls of each of which are provided at the inner ends with longitudinal angle grooves having the walls meeting said lateral walls at an angle thereto of substantially forty-five degrees, and said grooves being also inclined with respect to the recesses, and cutters or bits movable lengthwise in said recesses and provided with stems or tangs having lateral walls with substantially forty-five degree tongues having their outer margins converging toward the free ends of the tongues.

2. In an under reamer, a head or stock, and bits adapted thereto to enter the head or stock from one end thereof, said stock having recesses opening at the said end for receiving the bits and provided with oppositely disposed grooves inclined to approach from the entering end of each recess toward the other end thereof and also inclined outwardly from the entering end of the recess toward the other end thereof, and the bits being provided with tongues shaped in conformity with the inclined grooves.

3. An underreamer comprising a cutter or bit having a body portion and a stem or tang portion with the latter provided with laterally projecting longitudinal tongues at the sides with their outer edges approaching one toward the other as they recede from the body portion, and a head or stock having a receptacle for the stem or tang of the cutter shaped in conformity therewith.

4. An underreamer comprising a cutter or bit having a body portion and a stem or tang portion provided with laterally projecting longitudinal tongues at the sides having their outer edges approaching one toward the other as they recede from the body portion and also inclining toward the front portion of the cutter, and a head or stock provided with a receptacle for the stem or tang of the bit shaped in conformity therewith.

5. An underreamer comprising a bit having a body and a stem or tang, said stem or tang having side tongues converging toward the free end of the tang and the rear face of the tang inclining toward the free end, the degree of convergence of the side portions being less than the degree of inclination of the rear face, and a head or stock provided with a receptacle for the stem or tang conforming with the shape of the latter.

[Claims 6 to 10 not printed in the Gazette.]

1,095,051. LIFE-SAVING SUIT. CARL G. WALLE, New York, N. Y. Filed Oct. 24, 1913. Serial No. 797,059. (Cl. 102—20.)



1. A life-saving suit comprising a coat and trousers of waterproof material, the said coat having an integral neck-piece terminating in an integral elastic hood, the said coat having sleeves provided with wristlets and the said coat having an integral waist-band of an elastic material, the said trousers having integral slippers at the ends of the trouser legs and the trousers having an integral waist-band of an elastic material, the said coat waist-band and the said trouser waist-band overlying one the other and having relatively broad bearing surfaces and welts at their edges which are spaced apart when the waist-bands are lapped.

2. A life-saving suit, comprising a coat and trousers of waterproof material, the said coat having an integral neck-piece terminating in an integral elastic hood, the said coat having sleeves provided with wristlets and the said coat having an integral waist-band of an elastic material, the said trousers having integral slippers at the ends of the trouser legs and the trousers having an integral waist-band of an elastic material, the said coat waist-band and the said trouser waist-band overlying one the other, and the said coat waist-band having at its lower edge an annular welt and the said trouser waist-band having at its upper end an annular welt, and a belt encircling the outer waist-band adjacent the said welts.

3. A life-saving suit comprising a coat and trousers of waterproof material, the coat and trousers having elastic waist bands one overlying the other, the waist bands having annular welts at their terminal edges, and a belt adapted to encircle the said overlying waist bands and to seat between the welts.

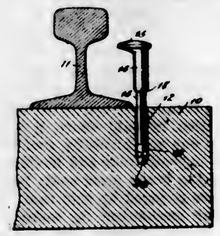
4. A life-saving coat of a waterproof material provided with a collar having fastening means and with an integral neck-piece within the collar terminating in an integral hood of a flexible material.

5. A life-saving coat of a waterproof material, provided with an outer protecting collar and an integral inner neck-piece terminating in an integral hood of a flexible material, the sleeves of the coat being provided with integral wristlets of elastic material and the coat having an integral waist band of an elastic material.

[Claims 6 to 10 not printed in the Gazette.]



1,095,052. RAILWAY-SPIKE. LEOPOLD WECHSLER and RICHARD SCHERER, New York, N. Y. Filed Dec. 4, 1913. Serial No. 804,602. (Cl. 85—26.)

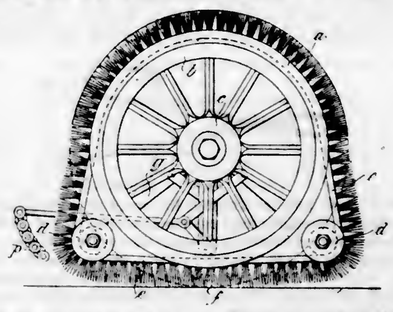


1. The combination with a wooden body and a member to be secured thereon, said body having a bored out portion adjacent to the member; of means for securing the member to the body, said means embodying a spike having a head, an upper shank portion and a lower shank portion of reduced size relative thereto to provide a shoulder, said lower shank portion being adapted to freely pass into the bored out portion when the spike is driven and the upper portion of the shank being adapted to snugly fit therein to assist in holding the spike in position to exclude water.

2. The combination of a wooden body and a member to be secured thereon, said body having a bored out portion adjacent to the member; of means for securing the member to the body, said means embodying a spike having a head, an upper shank portion and a lower shank portion of reduced size relative thereto, said lower shank portion being adapted to freely pass into the bored out portion when the spike is driven and a deflector consisting of a shell having a tapered lower end and diametrical walls intersecting each other to provide curved passages communicating with its upper end and exterior face, said lower shank portion being divided into points engaged in the respective passages whereby when the deflector is seated in the bottom of the bore and the spike is driven, said points will be deflected outwardly and upwardly into the body to prevent displacement of the spike.

3. A fastening device comprising a spike having its shank formed with four points of substantially triangular cross section with tapered extremities and a deflector consisting of a circular shell having diametrical walls disposed at right angles to each other to provide passages which are curved outwardly through the surrounding walls of the shell, the lower end of the deflector being tapered and the top and bottom portion thereof being parallel at right angles to the axis of the shell and the shank having an enlarged upper portion producing a shoulder adapted to contact with the upper end of the shell to limit the driving of the spike.

1,095,053. MUD-GUARD FOR ROAD-VEHICLES. THEODOR ROBERT WIDMAN, East Twickenham, England. Filed Sept. 22, 1913. Serial No. 791,177. (Cl. 21—23.)



1. In combination, a vehicle wheel, an endless flexible splash preventing brush or band coöperably related to and moved by the wheel, guide pulleys over which the band passes, said guide pulleys being located adjacent to the outer periphery of the wheel to cause the brush to traverse the surface close to the surface traversed by the wheel, and means for raising the brush from the road surface.

2. In combination, a wheel, a rim on the wheel, a frame adjacent the wheel, means for supporting the frame, guide pulleys mounted on the frame, an endless flexible splash band or brush mounted to travel on said rim and the pulleys, and means for raising the ends of the lower portion of said band away from the road surface.

3. In combination, an axle, a wheel, a circular rim on the side of the wheel, arms pivotally suspended from the axle, guide pulleys mounted on the lower ends of said arms, an endless flexible splash brush mounted to travel over said rim and the pulleys, and means for opening said arms and raising the ends of the lower portion of the brush away from the road surface.

4. In combination, an axle, a circular rim on the wheel, arms pivotally attached to and suspended from the axle, pulleys mounted on the lower ends of said arms, an endless flexible brush mounted to travel over said rim and the pulleys, a bar fixed to and depending from the axle, said bar having a slot, toggle levers pivoted to the arms, a pin guided in said slot and on which the toggle levers are pivoted, a rod slidably mounted on one of the arms, links pivoted to the inner end of said rod and to the depending bar and the pin, and a guard or obstruction remover fitted on the outer end of the rod.

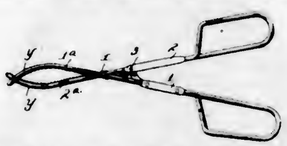
5. In combination, an axle, a wheel, a circular rim on the wheel, arms pivoted to the axle, guide pulleys mounted on the lower ends of said arms, an endless belt mounted to travel over said rim and the pulleys, flexible bristles secured to said belt, a bar fixed to and depending from the axle, said bar having a slot, a pin guided in the slot, toggle levers pivoted to the arms and to the pin, a rod slidably mounted on one of the arms, links pivoted to the inner end of said rod and to the depending bar and the pin, a U-shaped guard or obstruction remover fitted on the outer end of the rod and extending to both sides of the wheel, and rollers mounted on said guard.

[Claims 6 to 8 not printed in the Gazette.]

1,095,054. FISH-TONGS. ROBERT WIESENFELD, Baltimore, Md. Filed Aug. 26, 1913. Serial No. 786,748. (Cl. 81—47.)

1. Fish tongs comprising a pair of members constructed at one end for prehension, and each provided at its opposite end with a plurality of gripping fingers, the fingers on one member being alternated in position with and adapted to enter between fingers on the other member; said fingers being extended in the line of the members for a portion of their length and terminating in curved ends; and said members having a connecting fulcrum carried by one member and offset therefrom to cause the gripping ends to intersect at a point beyond the fulcrum.

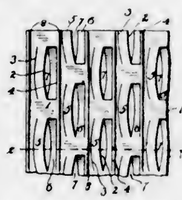
2. Fish tongs comprising a pair of members constructed at one end for prehension, and each provided at its opposite end with a plurality of gripping fingers; the fingers on one member being alternated in position with and adapted to enter between fingers on the other member; said fingers being extended in the line of the members for a portion



of their length and terminating in curved ends; said members having a connecting fulcrum carried by one member and offset therefrom toward the other member, to cause said fingers to intersect at a point beyond the fulcrum, when the tongs are opened and to lie on opposite sides of and diverge from an intermediate plane, when said tongs are fully closed.

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1,095,055. METAL STRUCTURE. ELMER A. WILSON, Niles, Ohio. Filed June 24, 1910. Serial No. 568,711. (Cl. 72—116.)



1. A structure, of the character described, consisting of a piece of sheet metal having parallel corrugations therein and a row of arched loops extending longitudinally between said corrugations, each row of loops comprising an equal number struck up on each of the opposite faces of the sheet substantially as shown and described and arranged side by side in pairs, the pairs in alternate rows being staggered with respect to those in the other rows.

2. A structure, of the character described, consisting of a piece of sheet metal having parallel corrugations therein and pairs of arched loops struck up on both sides thereof in alinement between said corrugations, each of said loops having its sides bent inward toward each other, all for the purposes specified.

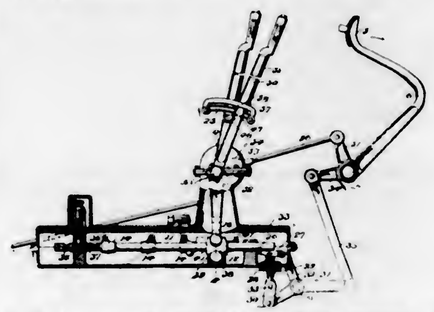
3. A structure, of the character described, consisting of a piece of sheet metal having parallel corrugations therein and a row of arched loops arranged between each pair of said corrugations, each row of loops comprising spaced apart pairs extending longitudinally of said corrugations and arranged end to end, each pair consisting of one loop struck up on each of the opposite faces of the sheets substantially as shown and described, and the pairs in alternate rows being staggered with respect to those in the other rows.

4. A structure, of the character described, consisting of a sheet of metal formed with a plurality of parallel corrugations and provided with a series of parallel slits arranged in groups of three between each pair of parallel corrugations, the metal between the middle slit and one of the outside slits of each group being drawn outward on one side of said sheet and the metal between said middle slit and the other outside slit being drawn outward on the other side of said sheet forming loops projecting from both surfaces of the structure, each of said loops having its sides bent inward toward each other, all for the purposes specified.

5. A structure, of the character described, consisting of a piece of sheet metal having parallel corrugations therein and rows of arched loops arranged between said corrugations, each row of loops comprising spaced apart pairs extending longitudinally of said corrugations and arranged end to end, each pair consisting of one loop struck up on each of the opposite faces of the sheets, and the pairs in alternate rows being staggered with respect to those in the other rows, each of the loops having its sides bent inward toward each other substantially as and for the purpose specified.

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1,095,056. TRANSMISSION-CONTROLLING MECHANISM FOR MOTOR-VEHICLES. ALEXANDER WINTON and HAROLD B. ANDERSON, Cleveland, Ohio, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Filed Sept. 18, 1906. Serial No. 335,142. (Cl. 74—39.)

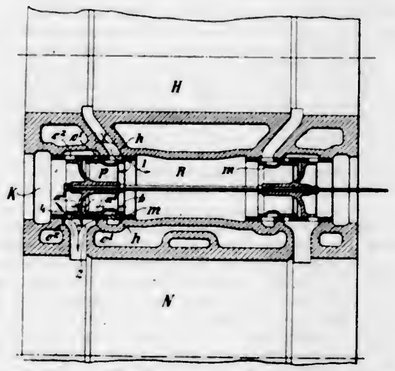


1. In a controlling mechanism for motor vehicles, the combination of a clutch controlling lever, a brake lever shaft, a brake and a brake lever connected with said shaft, a cam directly carried by said shaft, a rearwardly extending link having one end pivotally connected with the clutch lever and its opposite rear end having an elongated slot through which the brake lever shaft passes, the link having a cam surface engaged by said cam.

2. In a controlling mechanism for motor vehicles, the combination of a brake, a brake shaft operatively connected with the brake, a brake lever, the brake shaft having a cam, an oscillating clutch pedal arm operatively connected with the clutch mechanism, a link having one end pivotally connected with the clutch pedal arm, the opposite end of the link having an elongated slot embracing the brake shaft, the link adapted to be engaged by said cam for operating the clutch lever, and the link having a movement upon the brake shaft independent of the cam to permit the clutch pedal to be operated independently of the brake shaft and its cam for the purpose described.

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1,095,057. PISTON DISTRIBUTING-VALVE FOR COMPOUND STEAM-ENGINES. RUDOLF WOLF, Magdeburg-Buckau, Germany. Filed July 23, 1913. Serial No. 780,709. (Cl. 121—34.)




In combination, a high pressure cylinder, a low pressure cylinder, a steam-receiving space being arranged between said cylinders and both cylinders being provided with ports leading from the cylinders to said space, a reciprocating piston valve working in said space and provided with ports adapted to coöperate with the aforesaid ports to admit steam into and out of said steam-receiving space, said piston valve being provided with separate circumferential ports adapted to directly connect the ports of the high pressure cylinder with the ports of the low pressure cylinder to thereby conduct a part of the steam from the high pressure cylinder to the low pressure cylinder without entering the said steam space.



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1,095,058. ADHESIVE ROSINOUS PREPARATIONS AND PROCESS OF PRODUCING THE SAME. HANS WOLFF, Berlin, Germany, assignor to Gebrüder Schubert, Berlin, Germany. Filed Nov. 29, 1912. Serial No. 734,213. (Cl. 87—17.)

1. A process for increasing the adhesiveness of rosin mixtures, consisting in dissolving a rosin mixture in a common solvent of rosin and adding a small quantity of a liquid ester of an aromatic acid.

2. A process for increasing the adhesiveness of rosin mixtures, consisting in dissolving a rosin mixture in a common solvent of rosin and adding a small quantity of a mixture of liquid esters of aromatic acids.

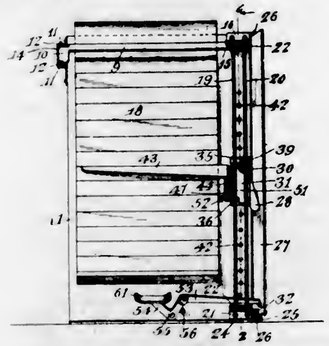
3. A process for increasing the adhesiveness of rosin mixtures, consisting in dissolving a rosin mixture containing mastic rosin in a common solvent of rosin, and in mixing the solution thus obtained with a small quantity of a liquid ester of an aromatic acid.

4. A process for increasing the adhesiveness of rosin mixtures, consisting in dissolving a rosin mixture containing mastic rosin in benzol, and in mixing the solution thus obtained with a small quantity of a liquid ester of an aromatic acid.

5. A plaster consisting of a rosin mixture containing mastic and a small percentage of a liquid ester of an aromatic acid.

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1,095,059. COPY-HOLDER. ALBIN C. WREDE, Smithville, Tex. Filed July 2, 1912. Serial No. 707,283. (Cl. 120—34.)



1. A copy holder including a body provided with a guide and having a series of stops arranged at intervals, a slide movable along the guide, a dogging plate movably mounted on the slide and provided with spaced teeth arranged to be carried alternately into and out of engagement with the stops to produce a step by step movement of the slide along the guide, a line guide carried by the dogging plate, and operating mechanism for moving the dogging plate in one direction, the said line guide being arranged to be lifted by such movement and adapted to actuate the dogging plate in the opposite direction.

2. A copy holder including a body provided with a guide and having a series of stops arranged at intervals longitudinally of the guide, a slide movable along the guide, a dogging plate pivotally mounted on the slide and provided with spaced teeth arranged to be carried alternately into and out of engagement with the stops to produce a step by step movement of the slide along the guide, a line guide arm carried by the dogging plate, and operating mechanism for swinging the dogging plate in one direction, the line guide arm being arranged to be lifted by such movement and adapted to actuate the dogging plate in the opposite direction.

3. A copy holder including a body provided with a guide and having a series of stops arranged at intervals longitudinally of the guide, a slide movable along the guide, a dogging plate movably mounted on the slide and provided with teeth arranged to be carried alternately into and out of engagement with the stops to produce a step by step movement of the slide, a line guide carried by the slide in such movement, operating mechanism for actuating the dogging plate in one direction, and a spring mounted on the slide and arranged to urge the dogging plate in the opposite direction.

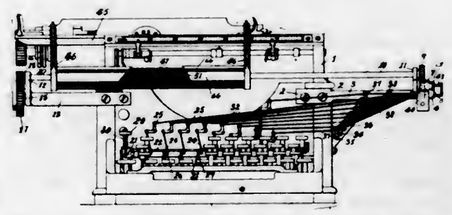
4. A copy holder including a body provided with a series of spaced projections or pins, guide rods mounted on the body and spaced from the pins or projections, a slide mounted on the guide rods, a vibratory dogging plate carried by the slide and provided with teeth arranged to be carried alternately into and out of engagement with the projections or pins for producing a step by step movement of the slide, operating mechanism for moving the dogging plate in one direction, and means for automatically actuating the dogging plate to move the same in the opposite direction.

5. A copy holder including a body, upper and lower brackets mounted on the body, spaced parallel rods supported by the brackets, a series of pins projecting from the body and arranged at intervals in spaced relation with the guide rods, a slide mounted on the guide rods, a dogging plate pivoted to the slide and provided with teeth arranged to be carried alternately into and out of engagement with the pins to produce a step by step movement of the slide, a line guide mounted on the dogging plate, and operating mechanism for actuating the dogging plate.

[Claims 6 and 7 not printed in the Gazette.]

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1,095,060. ADDING ATTACHMENT FOR TYPE-WRITING MACHINES. WALTER WRIGHT, San Francisco, Cal., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y., a Corporation of New York. Filed Nov. 8, 1905. Serial No. 286,368. (Cl. 235—62.)



1. In an apparatus of the character described, the combination with a typewriting machine, of a shaft, computing wheels movable thereon, said shaft having a part adapted to engage any computing wheel and turn the same, means for turning said shaft, and means for limiting the extent of rotation of said shaft, comprising a gear wheel on the shaft and a carriage, said carriage having a fixed rack and a movable rack arranged in alternate positions of the carriage to engage said gear wheel, and means for variably limiting the movement of the movable rack when brought into engagement with the gear wheel.

2. In combination with means for rotating a shaft, means for variably limiting the extent of rotation thereof comprising a gear wheel on the shaft, a carriage sliding in a direction parallel with the shaft, and having fixed

and movable racks adapted in alternate positions of the carriage to engage said gear wheel, and means for variably limiting the extent of movement of the movable rack, when so engaging said gear wheel.

3. In combination with a shaft and means for rotating the same, a gear wheel rotating with the shaft, a carriage moving parallel with the axis of the gear wheel and having a fixed rack and a movable rack, and means for limiting the extent of movement of the movable rack.

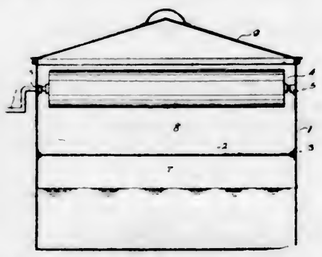
4. In combination with a computing wheel, a shaft for advancing the same, means for rotating said shaft, and means for permitting said shaft to rotate while limiting the extent of rotation thereof, comprising a gear wheel rotating with the shaft, a carriage moving parallel with the axis of the gear wheel, fixed and movable racks on said carriage, a series of levers for shifting said carriage to move the fixed rack out of engagement with the gear wheel and the movable rack into engagement therewith, and means for variably arresting the movement of the movable rack corresponding with the lever so operated.

5. In combination with a computing wheel, a shaft for advancing the same, means for rotating said shaft, and means for permitting said shaft to rotate while limiting the extent of rotation thereof, comprising a gear wheel rotating with the shaft, a carriage moving parallel with the axis of the gear wheel, fixed and movable racks on said carriage, a series of levers for shifting said carriage to move the fixed rack out of engagement with the gear wheel and the movable rack into engagement therewith, means controlled at the will of the operator for connecting said levers with typewriter keys, and means for variably arresting the movement of the movable rack corresponding with the lever so operated.

[Claims 6 to 21 not printed in the Gazette.]

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1,095,061. DRESS-GOODS STEAMER. HERMAN YESSNE, Duluth, Minn. Filed Oct. 17, 1913. Serial No. 795,676. (Cl. 26—7.)



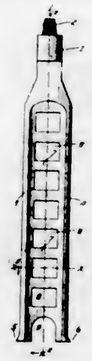
1. A cloth steaming machine comprising a tank, a partition dividing the said tank horizontally into two compartments, the said partition movable into and out of the said tank, the lower of said compartments containing the steam producing water, and the upper of said compartments carrying means for successively winding and unwinding goods in a plane parallel to that of the said partition for the purpose described.

2. A cloth steaming machine comprising a tank, a partition dividing the said tank into two compartments, the lower of the said compartments containing the steam producing water, the upper of the said compartments having means for successively winding and unwinding goods, said partition movable into and out of the said tank, whereby steam from the heated water within the lower compartment may come in contact with the goods or may be shut off therefrom.

3. A cloth steaming machine comprising a tank, a cover therefor, a partition dividing the said tank horizontally into two compartments, the lower of the said compartments containing the steam producing water, the upper of said compartments carrying means for successively winding and unwinding goods in a plane parallel to that of the said partition, the said partition movable into and out of the said tank, whereby two compartments may be united into one to allow the steam to come into contact with the goods, and whereby the compartments may be separated to exclude steam from the goods, the parts arranged as and for the purpose described.

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1,095,062. WELL-DRILLING BIT. WALTER L. YOUNG, Newport Beach, Cal. Filed Oct. 6, 1913. Serial No. 793,763. (Cl. 255—63.)



1. A well-drilling bit comprising side rails terminating at one end of the bit in cutting tips; and cross bars connecting the rails at intervals.

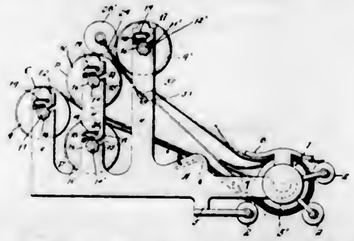
2. A well-drilling bit comprising side rails terminating at one end in cutting tips; the space between the rails being recessed at intervals; and cross bars connecting the rails at the sides of the recesses.

3. A drilling bit consisting of a head provided with a stem, two side rails integral with the head and terminating in cutters; and cross bars connecting said side rails at intervals.

4. A well-drilling bit having a head, side rails extending downward from the head, and cross bars uniting the side rails at intervals between the head and the tips, said tips being sharpened.

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1,095,063. TYPE-WRITER. VICENTE FONT Y AMADOR, Habana, Cuba. Filed May 13, 1912. Serial No. 697,052. (Cl. 197—124.)



In a typewriter, the combination with a carriage and typewriter platen carried thereby, of guide rollers arranged peripherally about the typewriter platen, front, rear and intermediate standards extending in pairs vertically from the carriage, rolls for carrying the carbon paper mounted on the front and rear standards, a pair of paper carrying rolls mounted on the intermediate standards and arranged one above the other, and a tensioned roller arranged to bear against the uppermost paper roll and the carbon roll carried by the front standard, said tensioned roller transmitting motion from the paper roll to said carbon roll, and guide plates for directing the carbon and the paper to and around the typewriter platen.



1,095,064. UMBRELLA-PROTECTOR. HIRAM C. ANDERSON and ADOLPH P. KEMMER, New York, N. Y. Filed Jan. 23, 1914. Serial No. 813,884. (Cl. 135—36.)

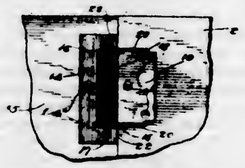


1. The combination of an umbrella rod, a cap of hard insulating material for the end of the rod, a soft rubber cushioning tip secured in the end of said cap, and screw threaded connecting means to secure the cap detachably in place.

2. The combination of an umbrella rod and an insulating protector extending along the full length of said rod, said protector comprising a main part and a cap, the cap extending over the end or point of the rod and having screw threaded connection with the main part.

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1,095,065. SCREEN-DOOR HINGE. FLOYD ARMSTRONG, Geneva, Ohio. Filed June 17, 1913. Serial No. 774,210. (Cl. 16—25.)



A hinge comprising a primary and an auxiliary section, said primary section formed of sheet metal to provide outwardly bent ears, a plurality of laterally bent yieldable lips integrally formed upon said ears and adapted to move and independent of the body portion of said primary section, said auxiliary section provided with a pair of elongated arms, a shaft passing through said arms and said ears for holding said sections in pivotal engagement with each other, said yieldable lips forming an abutment for the edge of a door carried by said auxiliary section, said lips adapted to yield when the door comes into engagement therewith, whereby accidental marring of the door will be prevented.

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1,095,066. AUTOMATIC STOP FOR TALKING-MACHINES. EARLE C. BALDON, Richmond, Va. Filed Dec. 18, 1912. Serial No. 737,409. (Cl. 74—48.)

1. The combination with a rotatable member, a traveling member movable over the same, said traveling member having a transverse bearing, a U-shaped member having one of its legs pivoted in said bearing, a supporting member, means for clamping said supporting member on said U-shaped member to project laterally from said traveling member and turn with said U-shaped member as said U-shaped member is turned in said transverse bearing, and a brake member pendently connected with the outer end of said supporting member, and having a portion for engaging said rotatable member.



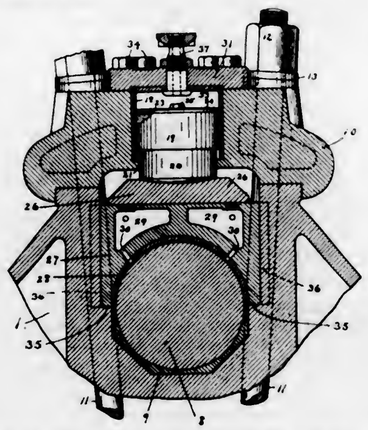
2. In combination with a rotatable member, a traveling member movable over the same, said traveling member having a transverse bearing, and a U-shaped member having one of its legs pivotally mounted in said bearing to travel with said traveling member; of a supporting member, means for removably connecting said supporting member to said U-shaped member to project in the axial line of the pivot of said U-shaped member and rotate with said U-shaped member, a bar extended in a horizontal plane and pivotally connected with the outer end of said supporting member, and a brake shoe on said bar adapted to contact the edge of said rotatable member at a predetermined time.

3. In combination with a rotatable member, a traveling member movable over the same in a horizontal plane, a member pivotally mounted in said traveling member on a pivotal axis to move at right angles to the plane of travel of said traveling member; of a supporting member, means for removably connecting said supporting member to said pivoted member to turn with the same, a bar extended in a horizontal plane and pivotally connected with the outer end of said supporting member, a brake shoe carried by said bar adapted to engage the edge of the rotatable member at a predetermined time, and means for adjustably connecting the outer end of said brake carrying bar with said supporting member for holding said bar in different positions of angular adjustment with regard to said supporting member, said last named means including a segment carried by said supporting member and coöperatively engaging said bar, and means carried by said bar for clamping said segment to said bar.

4. In combination with a rotatable member and an arm pivoted to swing in a horizontal plane over the said rotatable member, a member pivotally mounted in said arm to turn on a pivotal axis at right angles to that of the arm, of a supporting member, means for securing said supporting member to said pivoted member adjacent to its pivot, whereby said supporting member may turn with its longitudinal axis coincident with the pivotal axis of the pivoted member, an arm hinged to said supporting member, a brake shoe carried by said arm and means for adjustably connecting said arm and said supporting member for holding said arm in different positions of angular adjustment with regard to said supporting member.

5. In combination with a rotatable member and an arm pivoted at one end to have its other end swing horizontally over said rotatable member, a member pivotally carried by the free end of said arm to turn on an axis at right angles to the pivotal axis of the arm, a member projecting laterally from said arm carried pivoted member and held with its axis coincident with the pivotal axis of said arm carried pivoted member, a brake arm pivoted to said laterally projecting member on an axis parallel to the pivotal axis of said first mentioned arm, a brake shoe carried by said brake arm, and means for adjustably connecting said brake arm and said projecting member whereby the angular distance between the same may be varied substantially as shown and described.

1,095,067. BEARING. WILLIAM M. BANCROFT, New Orleans, La. Filed Nov. 16, 1912. Serial No. 731,767. (Cl. 64—47.)

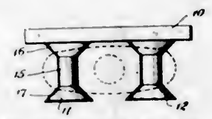


1. In a bearing for a mill roll shaft which has a periodic upward movement under the stress of the material passing through the mill, the combination of a frame, a lower bearing for said mill roll shaft rigidly mounted in the frame, an upper bearing for said shaft vertically slidable in the frame and provided with passages to convey lubricants to the shaft, a hydraulic means for transmitting pressure to said upper bearing, said frame being formed with shoulders so positioned that when the upper bearing contacts therewith an opening is formed between the bearings of greater height than the diameter of the shaft, so that when the shaft rests on the lower bearing while no materials are passing through the mill, the upper bearing is held a sufficient distance from the shaft to permit lubricants to flow into the space above the shaft.

2. In a mill roll shaft which has a periodic upward movement under the stress of materials passing through the mill, the combination of a frame, a lower bearing for said mill roll shaft mounted therein, an upper bearing for said shaft vertically slidable in the frame and provided with passages to convey lubricants to the shaft, a cap for said bearing bored to constitute a hydraulic cylinder, a piston in said bore, a plate between the piston and said upper bearing, said frame being formed with shoulders so positioned that when the upper bearing contacts with the shoulders, an opening is formed between the bearings of greater height than the diameter of the shaft, so that when the shaft rests on the lower bearing while no materials are passing through the mill, the upper bearing is held a sufficient distance from the shaft to permit lubricants to flow into the space above the shaft.

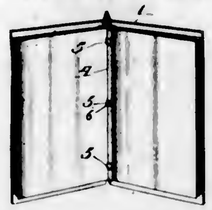
3. In a bearing for a mill roll shaft which has a periodic upward movement under the stress of the materials passing through the mill, the combination of a frame, a lower bearing for said mill roll shaft mounted therein, an upper bearing for said shaft vertically slidable in the frame and provided with oil pockets and passages leading from the pockets to the upper part of the wearing surface of the bearing to convey lubricants to the shaft, a cap for said bearing bored to constitute a hydraulic cylinder, a piston in said bore, a plate between the piston and said upper bearing, said frame being formed with shoulders so positioned that when the upper bearing contacts therewith, an opening is formed between the bearings of greater diameter in line with said piston than at right angles thereto, so that when the shaft rests on the lower bearing while no materials are passing through the mill, the upper bearing is held a sufficient distance from the shaft to permit lubricants to flow into the space above the shaft.

1,095,068. BROOM-HOLDER. ALFRED J. BATE, Yonkers, N. Y. Filed May 6, 1913. Serial No. 765,738. (Cl. 248—49.)



A broom holder comprising a flat base plate and a pair of similar rigid supports extending outwardly therefrom, each composed of a relatively small central cylindrical portion, and inner and outer frusto-conical end portions tapered toward said central portion, said supports being spaced at a fixed distance apart with their axes perpendicular to the base plate and adapted to center a broom between them and to loosely support the broom at a fixed distance from the base plate.

1,095,069. BINDER. LOUIS C. BAUMAN, St. Joseph, Mo. Filed Nov. 26, 1912. Serial No. 733,709. (Cl. 129—1.)



1. In a binder, the combination of a plurality of folded sheets having registered apertures in their folds or bights, an inner binder member connected to the inner sheet adjacent the fold, hinge members attached to the inner member and extending through the apertures in the folds of the sheets and bent upon themselves and having their free ends attached to the outer side of the outer sheet and also having apertures in their folded portions, and an exterior folded member having apertures receiving the folded portions of the hinge members; said exterior member being folded to receive the fold of the sheets and being attached to the outer sheet.

2. The combination of a cover having a folded back and spaced apertures in opposite sides thereof; a plurality of folded sheets arranged in said cover and having registered apertures in their folds or bights; an inner binder member connected to the inner sheet adjacent the fold; hinge members attached to the inner member and extending through the apertures in the folds of the sheets and bent upon themselves and having their free ends attached to the outer side of the outer sheet and also having apertures in their folded portions, an exterior folded member having apertures receiving the folded portions of the hinge members; said exterior member being folded to receive the fold of the sheets and being attached to the outer sheet; and a tape passed through the apertures in the cover and the apertures in the hinge members of the binder.

3. The combination in a binder, of a plurality of folded sheets having an aperture in their fold or bight, an inner binder member connected to the inner sheet adjacent the fold, a hinge member extending through the aperture in the folds of the sheets and bent upon itself and having one of its ends fixed with respect to the inner binder member and its other end attached to the outer side of the outer sheet, and an exterior member having an aperture receiving the folded portion of the hinge member; said exterior member being folded to receive the fold of the sheets and being attached to the outer sheet.

4. The combination in a binder, of a plurality of folded sheets having an aperture in their fold or bight, an inner binder member connected to the inner sheet adjacent the fold, a hinge member extending through the aperture in the folds of the sheets and fixed with respect to the inner binder member and having an aperture in its outer portion, and an exterior member having an aperture receiving the extended portion of the hinge member; said exterior member being folded to receive the fold of the sheets and being attached to the outer sheet.



1,095,070. TRIP MECHANISM FOR BUNDLE-CARRIERS. JOSEPH BAXTER, Moscow, Idaho. Filed Oct. 16, 1912. Serial No. 726,048. (Cl. 56—37.)



1. The combination with a bundle carrier, of a pivoted and spring-pressed tail piece at the delivery end of the carrier, a pivoted latch for holding the tail piece in receiving position, a pivoted member engaging the latch and adapted to release the same, and means connected with the said pivoted member for operating it from a distance.

2. The combination with a bundle carrier, of a pivoted and spring-pressed tail piece at the delivery end of the carrier, a latch for holding the tail piece in receiving position, a trip for the latch, a pull rod, and means connecting the pull rod with the trip and tail piece whereby the latch will be released in advance of the movement of the tail piece.

3. The combination with a bundle carrier, of a tailpiece pivotally mounted on said carrier and having a vertical extension protruding above said carrier to prevent bundles from passing therefrom; a cross head rigidly mounted on said tailpiece; a spiral spring operatively connecting said cross head and said carrier, to move said tailpiece into operative position; a swinging latch pivotally connected to said cross head at the side of the pivot thereof opposite that to which said spring is connected; a stop mounted on said carrier to hold said latch and tailpiece connected therewith in position to maintain the vertical extension above said carrier; a trip operable to release said latch; and means operable from a distance to control said trip.

4. The combination with a bundle carrier, of a tailpiece pivotally mounted at the delivery end of said carrier, said tailpiece having vertical extensions and cross bars connected therewith, normally above the upper edge of said carrier; a spring operatively connecting said carrier and said tailpiece to normally lift the same to operative position; a pull-rod operable from a distance to depress said tailpiece out of operative position; a swinging latch operatively connecting said tailpiece and said carrier to prevent the dislodgment of said tailpiece from the path of said bundles; a trip for said latch; and means connecting said trip and said pull-rod to move said trip at a greater rate of speed than said tailpiece, to release said latch in advance of the movement of said tailpiece.

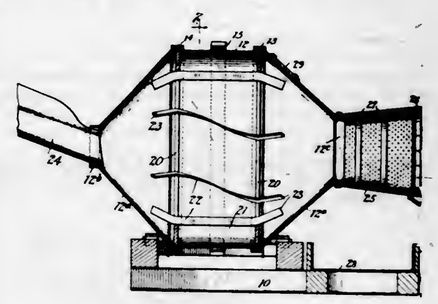
5. The combination with a bundle carrier, of a pivoted and spring-pressed tail piece at the delivery end of the carrier, a latch for holding the tail piece in receiving position, a trip for the latch, a pivoted lever, a wire connecting the lever with the tail piece, a wire connecting the lever with the trip, the last named wire being connected with the lever at a greater distance from the pivot of said lever than the first wire, and means for operating said lever.

[Claim 6 not printed in the Gazette.]

1,095,071. AMALGAMATOR. SAMPSON BEER, Greenwood, Cal. Filed Sept. 26, 1913. Serial No. 791,966. (Cl. 83—67.)

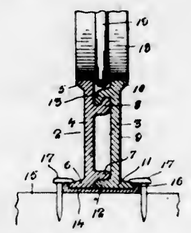
1. A device of the character described, comprising a shell or drum having truncated conical ends formed respectively with an inlet and an outlet, the intermediate portion of the shell being cylindrical and formed with an annular trough or channel, and spiral blades at the inner, open side of the channel, the ends of the blades being deflected on convergent lines.

2. A device of the character described, comprising a shell having tapered ends and a cylindrical intermediate portion, said shell being mounted to revolve and being provided interiorly with fixed rings at the ends of the cylindrical portion, said rings forming an annular trough or channel, and spiral blades supported on the inner edges of the fixed rings and bridging the channel, said blades projecting beyond the rings and being spaced from the shell at both the cylindrical portion and the tapered ends.



3. A device of the character described, comprising a shell having tapered ends and a cylindrical intermediate portion, rings in fixed relation to the shell at the interior thereof, and disposed adjacent to the ends of the cylindrical portion, said rings forming a channel at the cylindrical portion of the shell, and fixed spiral blades on the said rings at the inner periphery thereof, the blades being spaced from the cylindrical portion of the shell and extending at their ends beyond the rings, the said projecting ends being deflected inwardly at an angle to the central portions of the blades.

1,095,072. TRACK CONSTRUCTION OF RAILROADS. ANDREW BENDER, Washington, D. C. Filed Dec. 12, 1913. Serial No. 806,264. (Cl. 239—16.)



1. A track made up of companion rail sections and the meeting ends of one of the sections being spaced away from the meeting ends of the second section, each of said sections comprising a vertical web portion which is of an equal thickness throughout, the said webs at their upper edges being formed with flanges which extend from their outer faces to provide heads, one of the said members below its head having a grooved flange which extends its entire length, the second member having its inner face below its head provided with a hook which extends its entire length and which is adapted to be received within the grooved flange of the first mentioned rail section, the webs of both of the rail sections having their outer faces flanged to provide base members for the sections, the inner faces of the webs adjacent the base members thereof being provided with inturned co-acting lips, one of which being adapted to overlie the other and both adapted to abut with the inner face of the web of the companion section, a tie

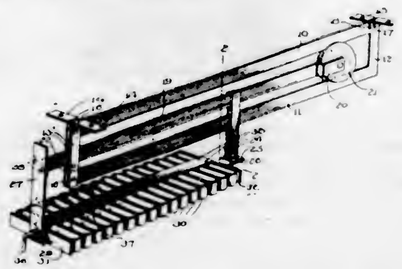
upon which the base members of the rail sections rest, and spikes having their heads engaging with the base members of the sections and entering the tie.

2. A rail including two companion sections, each including a head and a base, and integrally formed interengaging members upon each of the sections for spacing the heads and the webs of the said sections.

3. A rail comprising two companion sections, each including a vertically straight web having one of its edges formed with an outturned head and its opposite edge formed with an outturned flange comprising a base, a hook upon the inner face of one of the sections below its head, a grooved flange upon the inner face of the second section adapted to receive the hook, inwardly disposed overlapping members arranged upon the inner faces of the webs opposite the base flanges, and means for securing the rails to a tie.

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1,095,073. SKIRT-HANGER FOR CABINETS. GLENN E. BISH, Hobart, Okla. Filed June 25, 1912. Serial No. 705,861. (Cl. 211—15.)



1. A clothes hanger comprising a base support, suspending means engaging the ends of the support, a plurality of resilient clothing clamps arranged in parallel relation and extending transversely across the support, a rod extending through the clamps for adjusting the tension thereof, a top support extending across the clamp, and connecting the top support to the base support.

2. A clothes hanger comprising a base support, suspending means therefor, a plurality of resilient elliptically-shaped clothes clamps seated on and extending transversely of the support, an adjuster extending through the clamps for regulating the tension thereof, a top support for the clamps, and fasteners connecting the top and base supports and extending on opposite sides of the adjuster.

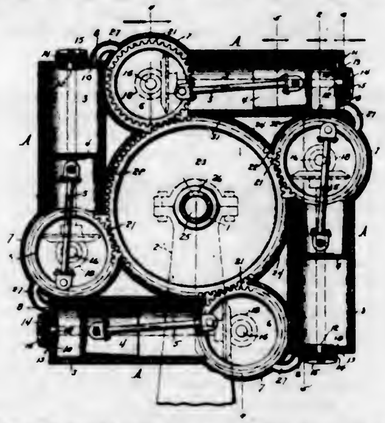
3. A clothes hanger comprising a base support, suspending means therefor, a plurality of parallel resilient clamps seated on and extending transversely of the support, a top support connected to the base support, end braces for the clamps, an adjusting rod extending transversely through the braces and clamps and having a handle at one end, and a nut carried by the other end of the rod.

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1,095,074. ROTARY EXPLOSIVE-ENGINE. JAMES DELBERT BLAYNEY, Edmonton, Alberta, Canada. Filed May 6, 1913. Serial No. 765,806. (Cl. 123—48.)

1. A rotary engine comprising a central casing, a fixed gear therein, means for admitting fuel mixture to the casing, a plurality of power units carried by the central casing and each consisting of a piston and cylinder and a crank casing communicating with the central casing, a fuel conduit between the crank casing of one unit and the cylinder of an adjacent unit, and a valve controlling each conduit.

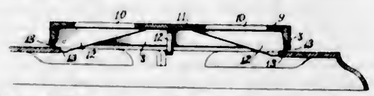
2. A rotary engine comprising a central casing, a fixed gear therein, means for admitting fuel mixture to the casing, a plurality of power units carried by the central casing and each consisting of a piston and cylinder and a crank casing communicating with the central casing, a fuel conduit between the crank casing of one unit and the cylinder of an adjacent unit, and a rotary valve in each



cylinder controlling the admission of fuel thereto and the exhaust of spent gases therefrom.

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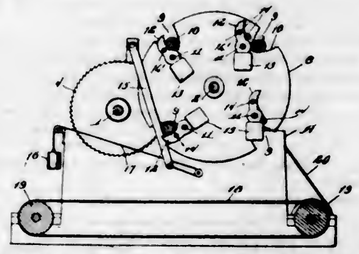
1,095,075. STOVE-LID. JOSEPH BRAUBACH, Hoboken, N. J. Filed Sept. 12, 1913. Serial No. 789,453. (Cl. 126—215.)



As an article of manufacture, a stove lid embodying a series of relatively large orifices formed in the top thereof, the edges of said orifices being removed from the center of said lid and from the edge thereof; a pendent flange integrally constructed with said top to prevent the lateral escape of heat or flame, and to support said top above the bars of a stove-hole, when in service; and a plurality of radially-disposed webs extending below said flange and having a plurality of nicks formed therein, said nicks opening outward and being stepped toward the center of said lid to form registering shoulders for the same, when in service.

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1,095,076. WOOD-SAWING MACHINE. WILLIAM BRETHOUR, Grand Rapids, Mich. Filed Oct. 16, 1912. Serial No. 726,109. (Cl. 143—57.)



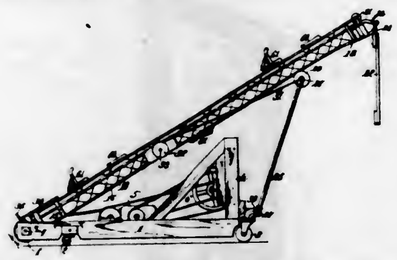
1. In a device of the class described, a carrier comprising a pair of heads supported for rotation and having peripheral recesses for the reception of material to be operated upon, grip members mounted for rotation on said rods said grip members being positioned to engage material placed in the recesses and having counterweights to assist in completing the rotation at the proper time of said grip members, and springs disposed to resist the action of the counterweights.



2. In a machine of the class described, a carrier comprising a pair of heads supported for rotation and having peripheral recesses, rods connecting the heads, said rods being disposed adjacent to the recesses, grip hooks mounted for rotation on the rods and having counterweights, said grip hooks being positioned to engage material placed in the recesses to be operated upon, pivot members extending through the grip hooks, and coiled springs connecting the ends of the pivot members with the heads.

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1,095,077. ELEVATING APPARATUS. FRANK HERBERT BROWN and FRED HAVEL BROWN, Portland, Oreg. Filed May 26, 1909. Serial No. 498,455. (Cl. 193—8.)



1. In an apparatus of the class specified, the combination with an elevating frame having tracks and conveying devices, of an automatically folding and unfolding carrier connected to said conveying devices and having wheels to travel on the tracks and also including a folding and unfolding back.

2. In an apparatus of the class specified, the combination of an inclined elevating frame with tracks and also having conveying devices between the tracks, and a folding and unfolding carrier composed of jointed parts including a folding and unfolding back and connected to said devices and automatically collapsing when moving around the delivery extremity of the frame and automatically assuming a normal position when passing around the receptive end of said frame, the carrier having wheels to engage the tracks.

3. In an apparatus of the class specified, the combination of an inclined elevating frame having conveying devices movable thereover and upper and lower track rails, an automatically folding and unfolding carrier having wheels and connected to said conveying devices and assuming a normal load carrying position when moving over the upper part of the frame, and maintained in a collapsed condition when traveling over the lower portion of the frame by the wheels engaging the lower track.

4. In an apparatus of the class specified, the combination of an inclined elevating frame having conveying means and upper and lower tracks, and a carrier connected to the conveying means and comprising a pilot and a trailer spaced from the pilot and having a normally elevated folding back means and wheels to engage the upper and lower tracks, the folding back having the attaching means therefor below the upper portion of said back when the latter is elevated so as to provide a positive engagement of the back with the devices to be elevated by the conveying means, the wheels holding the trailer folded when engaging the lower track, and the trailer and pilot spaced to permit them to pass around the upper and lower ends of the frame.

5. In an apparatus of the class specified, the combination of an inclined elevating frame having conveying means and upper and lower tracks and a carrier connected to the conveying means and comprising a trailer and a pilot in advance of the trailer to unitedly support the load, the trailer having an automatically folding back means, the folding back having the attaching means therefor below the upper portion of said back when the latter is elevated so as to provide a positive engagement of the back with the devices to be elevated by the conveying means, both the pilot and trailer having wheels to engage the upper and lower tracks, and the pilot and trailer spaced to pass around the upper and lower ends of the frame.

[Claims 6 to 11 not printed in the Gazette.]

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1,095,078. PROCESS OF PRODUCING COPPER ALLOYS. HENRY BRYDA, Blackstone, Mass. Filed Apr. 14, 1913. Serial No. 761,116. (Cl. 75—1.)

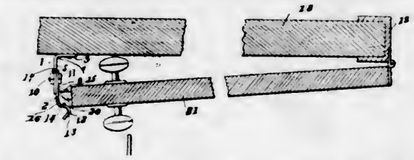
1. A process of producing a copper alloy, which consists in melting copper, and adding successively thereto, while stirring, tin, quick lime, tartar, magnesia, and sal ammoniac.

2. A process of producing a copper alloy, which consists in melting 16 parts of copper, then adding successively the following substances: 1½ parts of tin, 1½ parts of quick lime, 1 part of tartar, 1 part of magnesia; and agitating the mixture after each addition of material.

3. A process of producing a copper alloy which consists in melting copper, then adding to the melted copper a small quantity of tin, then agitating the mixture so formed until the copper and tin are thoroughly combined, then adding quick lime and agitating the mixture, then adding tartar of commerce and agitating the mixture so formed, then adding magnesia and agitating the mixture after said addition, then adding sal ammoniac and agitating the mixture for from thirty to forty-five minutes more or less, then allowing this mixture to stand for a predetermined time and then pouring the mixture so formed into suitable molds.

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1,095,079. DOOR-HOLDER. JAMES S. BURNS, Excel, Ala. Filed July 23, 1913. Serial No. 780,745. (Cl. 16—78.)



1. A door holder comprising an attaching member composed of a bracket plate having a resilient arm extending forwardly therefrom, a stop member slidably adjustable on said arm, fastening means for holding the stop member in adjusted position, a laterally projecting cam-shaped striker-head carried by the stop member, and a stop plate carried by the stop member in rear of said striker-head and arranged in spaced relation thereto to provide an intervening bolt receiving recess.

2. A door holder comprising an attaching member composed of a bracket plate having a resilient arm extending forwardly therefrom, said arm being provided with a longitudinal slot, a stop member having guiding projections engaging said arm to hold said stop member from other than a sliding movement on the arm, a bolt passing through said members and through the aforesaid slot for adjustably connecting and securing said members in adjusted position, a laterally projecting cam shaped striker-head carried by the stop member, and a stop plate carried by the stop member in rear of said striker head and arranged in spaced relation thereto to provide an intervening bolt-receiving recess.

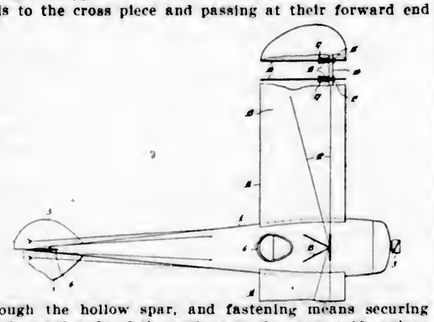
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1,095,080. FLYING-MACHINE. CHARLES A. CHAYNE, Harrisburg, Pa. Filed July 23, 1913. Serial No. 780,757. (Cl. 244—12.)

1. A flying machine including a body, wing spars carried by the body, wings including ribs pivotally engaging the spars, collars on the spars holding the ribs from sliding motion, cross pieces on the ribs, and springs on opposite sides of each rib secured at their rear ends to the cross piece and at their forward ends to the spar, said springs being adapted to permit the ribs to have a certain amplitude of flexing motion.

2. A flying machine including a body, hollow wing spars carried by the body, wings including ribs pivotally engaging the spars, collars on the spars holding the ribs

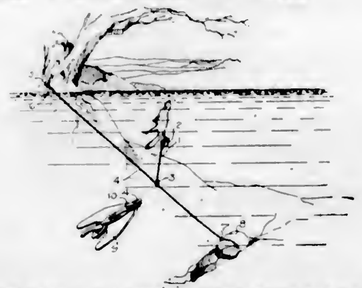
from sliding motion, cross pieces on the spars, and linear springs on opposite sides of each rib secured at their rear ends to the cross piece and passing at their forward end



through the hollow spar, and fastening means securing the forward ends of the springs to the spar, said springs being adapted to permit the ribs to have a certain amplitude of flexing motion.

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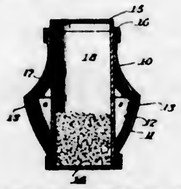
1,095,081. ATTACHMENT FOR ANIMAL-TRAPS. ARTHUR J. COLEMAN, Greenfield, Ind. Filed Apr. 21, 1913. Serial No. 762,600. (Cl. 43—23.)



In a trap of the class described, a chain suitably supported at its ends, a fork-like plate member having a trio of spaced prongs formed at one end thereof and tapered smaller toward its opposite end, the central of said spaced prongs being distorted and bent upwardly for disposition through one of the links of said chain adjacent the lower end of the latter, whereby to dispose the other two prongs on opposite sides of said chain, and an additional prong formed in continuation of the tapered end of said plate member and disposed through an additional link of said chain, said prong being bent inwardly toward the plate member to securely retain the latter on the chain.

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1,095,082. CONDIMENT-HOLDER. CHARLES G. COLVER, Philadelphia, Pa. Filed Nov. 12, 1913. Serial No. 800,562. (Cl. 65—45.)

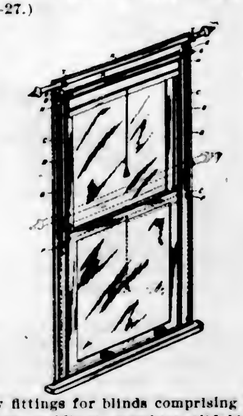


1. As a new article of manufacture, a condiment holder comprising a metallic casing having a series of openings communicating with an air chamber formed by the casing, a base for the casing, a sifter cap closing the upper end of the casing, and a cylinder formed of an absorbent material and contained in the said casing, with the said cylinder adapted to receive and hold the condiment and absorb any moisture therefrom.

2. In a condiment holder, the combination with a casing having a bulged portion forming an air chamber and provided with a series of openings communicating with the air chamber, of a cap for closing the upper end of the casing, and an absorbent cylinder arranged within the casing and held in position by the cap to absorb moisture from condiments carried within the cylinder.

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1,095,083. WINDOW-FITTING FOR BLINDS. FREDERICK FORD COWDROY, North Sydney, New South Wales, Australia. Filed Mar. 17, 1913. Serial No. 754,735. (Cl. 156—27.)



1. Window fittings for blinds comprising guides secured to the window moldings, members slidably mounted on the guides, means for adjustably securing the members on the guides, a curtain pole support at the upper ends of the said members, a horizontal bar formed of two members slidable one upon the other, the members of the bar being each secured to the sliding members with their outer ends projecting beyond the said members, means for adjustably securing the members of the bar together, a blind roller bearing slidably mounted on each member of said bar, said roller bearings being adapted to slide onto the projecting outer ends of said bar members, and means for securing said bearing in position.

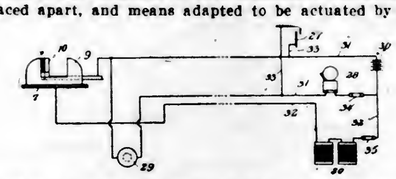
2. Window fittings for blinds, comprising guides on the window moldings, members having clips at their upper ends slidably engaging the guides, means for securing the members in position on the guides, a horizontal bar formed of members adjustably mounted one upon the other, each member of the bar being secured to the clip member with its outer end projecting beyond the said member, and a roller bearing slidably mounted on each member of the bar and adapted to be slid onto the projecting end thereof.

3. In window fittings for blinds, rods having at their upper ends clips slidably engaging guides on a window frame, the clips being formed with sockets, spring devices with which the lower ends of the rods engage, curtain pole brackets having shanks engaging the sockets, a bar formed of sections sliding one upon the other and each secured to the said clips with their outer ends projecting beyond the clips, and roller bearings slidably mounted on the members of the said bar.

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1,095,084. SIGNAL APPARATUS. VICTOR J. CRETTOL, Chicago, Ill. Filed June 3, 1913. Serial No. 771,494. (Cl. 177—311.)

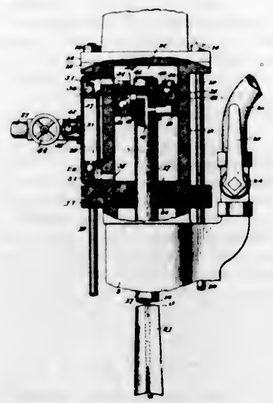
In signal apparatus of the class described, a mail box, a source of electrical energy, lead wires from said source, a circuit closer within said mail box, an indicator connected in series with said circuit closer and in multiple with said lead wires whereby upon the insertion of mail matter in the box the circuit through said indicator will be closed and the latter energized, an audible signal, a push button connected in series with said lead wires whereby the signal may be sounded upon the operation of the push button, conductors connected in multiple with said lead wires around said push button, contacts connected to the terminals of said conductors and normally spaced apart, and means adapted to be actuated by said



indicator to close said last contacts whereby the circuit will be closed around said push button and through the audible signal.

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1,095,085. DRILL. JOHN THOMAS CURNOW, Palatka, Mich. Filed May 24, 1913. Serial No. 769,587. (Cl. 255—49.)



1. A drill as characterized, having a reciprocating motor; a pump cylinder; an internally-chambered piston disposed in said cylinder, said piston having a plurality of inlet openings to the interior thereof, one of said openings being in each face of said piston; a plurality of internally-opening valves for said inlet openings; a piston rod having a passage lengthwise therethrough, said passage being in open communication with the interior of said piston; and a tool having a passage for delivering water to the cutting end of said tool, said passage being in open communication with the passage in said piston rod.

2. A drill as characterized, having a reciprocating motor; a pump cylinder; an internally-chambered piston disposed in said cylinder, said piston having a plurality of inlet openings to the interior thereof, one of said openings being in each face of said piston; a plurality of internally-opening valves for said inlet openings; a piston rod having a passage lengthwise therethrough, said passage being in open communication with the interior of said piston; a tool having a passage for delivering water to the cutting end of said tool, said passage being in open communication with the passage in said piston rod; and means for supplying water to said cylinder at both ends thereof, embodying means for trapping water therein.

3. A drill as characterized, having a reciprocating motor; a pump cylinder; an internally-chambered piston disposed in said cylinder, said piston having a plurality of inlet openings to the interior thereof, one of said openings being in each face of said piston; a plurality of internally-opening valves for said inlet openings; a piston rod having a passage lengthwise therethrough, said passage being in open communication with the interior of said piston; a tool having a passage for delivering water to the cutting end of said tool, said passage being in open communication with the interior of the passage in said piston rod; and a water-supply for said cylinder, embodying an auxiliary chamber in open communication with inlet openings for said cylinder, adjacent the ends thereof, and a plurality of valves mounted in said chamber to prevent the back-flow of water therethrough.

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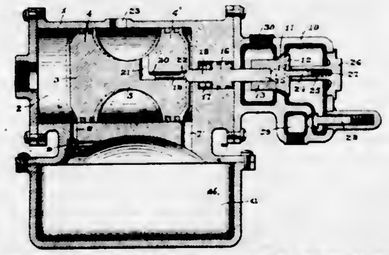
1,095,086. CAR-STEP ATTACHMENT. STEPHEN G. DAVIS, Cayuga, Ind. Filed May 31, 1912. Serial No. 700,750. (Cl. 105—87.)



The combination with the fixed steps of a car structure, of upper and lower guide brackets upon the sides thereof, said brackets being slotted longitudinally, hangers mounted to slide and swing within the brackets, those portions of the hangers working in the upper bracket being reduced in width, the front edge of each reduced portion being concaved and adapted to slide upon the front wall of the slot in which it is mounted during the swinging of the hanger, there being bearing extensions upon the rear end portions of the lower brackets and upon which the hangers are adapted to slide, a revoluble shaft, arms extending therefrom and pivotally connected to the upper ends of the hangers, means for rotating the shaft to raise and lower the hangers and to swing them within the slots during such movement, and means for automatically engaging one of the hangers for holding both hangers and the extension step in elevated positions.

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1,095,087. AIR-BRAKE APPARATUS. WILLIAM R. DAVIS, Columbus, Ohio. Filed July 23, 1913. Serial No. 780,752. (Cl. 188—1.)



1. A double header valve comprising a casing, a piston chambered in said casing, an air chamber adapted to communicate with said piston chamber at both ends thereof, a piston in said chamber and controlling the communication between one end of the piston chamber and the air chamber, a valve chamber having one side connected to the train pipe and the opposite side connected with the main air reservoir, a valve in said chamber and controlling the flow of air from the main air reservoir to the train line, a connection between one end of said piston chamber and the train pipe whereby the piston will be moved longitudinally within its chamber to its limit of movement in one direction when the train pipe pressure is being restored, and means operable from said piston previous to the same reaching its limit of movement to open said valve whereby the communication between the respective main air

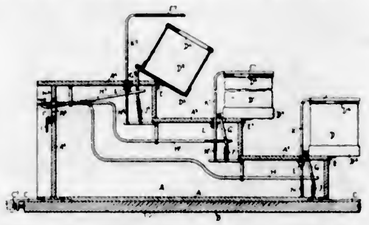
reservoir and the train pipe will be established, said piston in its movement establishing communication between the train pipe end of the piston chamber and the air chamber whereby the train line air will pass into said air chamber.

2. A double header valve comprising a casing, a piston chamber in said casing, an air chamber adapted to communicate with said piston chamber at both ends thereof, a piston in said chamber and controlling the communication between one end of the piston chamber and the air chamber, a valve chamber having one side connected to the train pipe and the opposite side connected with the main air reservoir, a valve in said chamber and controlling the flow of air from the main reservoir to the train line, a connection between one end of said piston chamber and the train pipe whereby the piston will be moved longitudinally within its chamber to its limit of movement in one direction when the train pipe pressure is being restored, means operable from said piston previous to the same reaching its limit of movement to open said valve whereby the communication between the respective main air reservoir and the train pipe will be established, said piston in its movement establishing communication between the train pipe end of the piston chamber and the air chamber whereby the train line air will enter said air chamber and pass behind said piston, to actuate the latter upon a reduction in train line pressure and means for exhausting the air from the rear side of said piston and establishing communication between such side of the piston and the atmosphere when the train line pressure is reduced.

3. A double header valve comprising a casing, a piston chamber in said casing, an air chamber adapted to communicate with said piston chamber at both ends thereof, a piston in said chamber and controlling the communication between one end of the piston chamber and the air chamber, a valve chamber having one side connected to the train pipe and the opposite side connected with the main air reservoir, a valve in said chamber and controlling the flow of air from the main air reservoir to the train line, a connection between one end of said piston chamber and the train pipe whereby the piston will be moved longitudinally within its chamber to its limit of movement in one direction when the train pipe pressure is being restored, means operable from said piston previous to the same reaching its limit of movement to open said valve whereby the communication between the respective main air reservoir and the train pipe will be established, said piston in its movement establishing communication between the piston chamber and the air chamber whereby the train line air will pass behind said piston to actuate the latter upon a reduction in train line pressure, and piston controlled means for exhausting the air from the rear side of said piston and establishing communication between such side of the piston and the atmosphere when the train line pressure is reduced.

4. A double header valve comprising a casing, a piston chamber in said casing, an air chamber adapted to communicate with said piston chamber at both ends thereof, a piston in said chamber and controlling the communication between one end of the piston chamber and the air chamber, a valve chamber having one side connected to the train pipe and the opposite side connected with the main air reservoir, a valve in said chamber and controlling the flow of air from the main air reservoir to the train line, a connection between one end of said piston chamber and the train pipe whereby the piston will be moved longitudinally within its chamber to its limit of movement in one direction when the train pipe pressure is being restored, means operable from said piston previous to the same reaching its limit of movement to open said valve whereby the communication between the respective main air reservoir and the train pipe will be established, said piston in its movement establishing communication between the train pipe end of the piston chamber and the air chamber whereby the train line air will pass into said air chamber, and a reducing valve in the path of the train line air whereby the pressure of the latter within said air chamber will be below the normal train line pressure.

1,095,088. SALES DEVICE. FRANK WHITNEY DE WITT, Jerome, Idaho, assignor to Western Novelty and Manufacturing Company, a Corporation of Idaho. Filed Jan. 30, 1913. Serial No. 745,113. (Cl. 211—26.)



1. A sales device, comprising a support having a series of steps, jars, one for each step and each having the forward portion of its bottom projecting beyond the front edge of the corresponding step, hinges connecting the bottoms of the jars with the steps to allow of swinging the jars from normal upright position into a forwardly tilted position, independent manually-controlled actuating means connected with the said jars to move any one of the jars into tilted position independent of the other jars, and a spring connected with each of the said actuating means for returning the tilted jar to normal upright position on releasing the actuating means.

2. A sales device, comprising a support having a series of steps, jars, one for each step and each having the forward portion of its bottom projecting beyond the front edge of the corresponding step, hinges connecting the bottoms of the jars with the steps to allow of swinging the jars from normal upright position into a forwardly-tilted position, links connected with the said jars, springs pulling on the said links to normally hold the jars in upright position, and levers fulcrumed independent one of the other on the said stand and connected with the said links.

3. A sales device, comprising a support having a series of steps, jars, one for each step, and each having the forward portion of its bottom projecting beyond the front edge of the corresponding step, hinges connecting the bottoms of the jars with the steps to allow of swinging the jars from normal upright position into a forwardly tilted position, links connected with the said jars, springs pulling on the said links to normally hold the jars in upright position, levers fulcrumed independent one of the other on the said stand and connected with the said links, covers for the said jars, and rods mounted to slide on the steps and carrying the said covers, the rods being connected with the said levers.

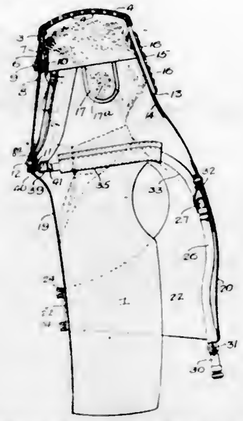
4. A sales device, comprising a support having a series of steps, jars, one for each step and each having the forward portion of its bottom projecting beyond the front edge of the corresponding step, hinges connecting the bottoms of the jars with the steps to allow of swinging the jars from normal upright position into a forwardly tilted position, links connected with the said jars, springs pulling on the said links to normally hold the jars in upright position, levers fulcrumed one independent of the other on the stand and connected with the said links, covers for the said jars, rods mounted to slide on the steps and carrying the said covers, the rods being connected with the said levers, and springs connected with the said rods to lower the covers on releasing the levers.

5. A sales device, comprising a support having a series of steps, jars, one for each step, and each having the forward portion of its bottom projecting beyond the front edge of the corresponding step, hinges connecting the bottoms of the jars with the steps to allow of swinging the jars from normal upright position into a forwardly tilted position, manually-controlled levers fulcrumed on the stand independent one of the other, and links connecting the said levers with the corresponding jars, the rear ends of the levers being provided with fingerpieces arranged on the same level.

[Claim 6 not printed in the Gazette.]



1,095,089. PROTECTIVE GARMENT. HENRY G. DINN, Philadelphia, Pa. Filed Nov. 4, 1912. Serial No. 729,437. (Cl. 128—42.)



1. A protective garment comprising a portion for inclosing the head of a person; a body portion extending downwardly from the head portion, said body portion being divided into two sections throughout a portion of its length and having overlapped portions forming armholes; adjustable means for securing the overlapped portions to the body of the wearer; a detachable transparent section extending substantially the entire length and in front of the face of the wearer; and means for conveying air to the interior of the garment.

2. A protective garment comprising an adjustable head section; a body section extending downwardly from the head section, said body section being divided into two sections, one section forming the front body portion of the garment, the other of said sections forming the back of the garment and having extensions for overlapping the front portion; means for securing the said extensions around the front portions of the garment; a transparent section detachably secured adjacent the face of the wearer and means for supplying air to the inside of the garment.

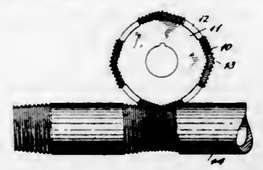
3. A protective garment comprising a head section; a body section extending downwardly from the head section, said body section being divided into two sections throughout a portion of its length, one of said sections forming the front body portion of the garment, the other of said sections forming the back of the garment, one of said sections having extensions for overlapping the other section; means for securing the said extensions around the body of the wearer; a transparent section detachably secured adjacent the face of the wearer and means for supplying air to the inside of the garment.

4. A protective garment comprising a head portion; a body portion extending downwardly from said head portion, said head portion having an interlining adapted to engage the head of the wearer and thereby form a seal, said head portion having perforations above the line of seal; a transparent section detachably secured adjacent the face of the wearer and having a portion adapted to slide between the outer portion of the said head portion and the said interlining; means for adjustably securing the body portion to the wearer and means for supplying air to the inside of the garment.

5. A protective garment comprising an adjustable head portion; a body portion extending downwardly from said head portion, said body portion being divided to extend around the arms of the wearer; means for binding the body portion to the wearer to prevent air from passing between the body portion of the garment and the wearer into the head portion of the garment, said head portion having an interlining adapted to engage and encircle the head of the wearer, said head portion being perforated above the point of contact of the interlining with the head of the wearer; a detachable flexible transparent section extending before the face of the wearer and means for supplying air to the interior of the garment adjacent to the face of the wearer.

[Claims 6 to 12 not printed in the Gazette.]

1,095,090. THREAD-CUTTER. JOHN A. DOWD, Fall River, Mass. Original application filed Aug. 13, 1912, Serial No. 714,889. Divided and this application filed June 5, 1913. Serial No. 771,891. (Cl. 10—102.)



1. In a cutter of the class described, a body portion formed with spaced banks of cutting threads on the periphery, each bank of threads being set at an angle to the next adjacent bank of threads.

2. In a device of the character described, a cutter formed cylindrical or disk-shaped, said cutter having threads on the periphery, said threads being arranged in spaced sets of banks, each set of banks being substantially V-shaped.

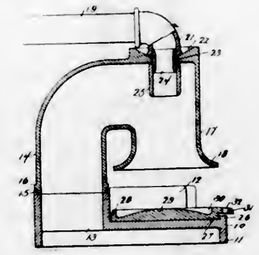
3. In a device of the character described, a cutter formed with a body having spaced banks of threads on the periphery, said threads being struck on the arc of a circle substantially conforming to the work designed to be cut, and with a pitch corresponding to the size of the threads.

4. A cutter formed with a substantially disk-shaped body having spaced banks of cutting threads on the periphery, the threads of each bank being arranged substantially as a unit and said banks of cutting threads being set at such an angle to each other as to form successive raised threaded portions.

5. In a device of the character described, a substantially circular cutter having spaced raised portions on the peripheral face of the cutter, said spaced raised portions being threaded on their peripheral face.

[Claims 6 to 8 not printed in the Gazette.]

1,095,091. OIL-BURNER. WILLIAM THOMAS DOWLING, Delia, Kans. Filed June 18, 1913. Serial No. 774,417. (Cl. 158—91.)



1. In an oil burner, a base, having an open bottom for the entrance of air, an air outlet leading upwardly at the back through said base, flange members at the upper side of the base, at the sides thereof, and ranging forwardly from the said outlet, the said flange members being noncontinuous at the front, presenting a lateral opening between the forward ends of the flange members, a removable pan on the base below the said flange members, a gooseneck supported on the base at the upper end of the air outlet and having communication with the latter, the

front end of the gooseneck terminating in a down-take overhanging the said pan and spaced above the latter, the lower end of the down-take being flared in bell form, there being a space also between the upper edge of the mentioned flange members and the flared end of the said down-take, and a feed pipe connected with the upper end of the down-take and provided with a nozzle within the said down-take, the feed pipe being swiveled to the down-take to alter its angular position relatively to the latter.

2. An oil burner, comprising a base having a member at the upper side thereof to receive an initial supply of oil for starting the burner, an air down-take overhanging the said member, means for supplying air to the said down-take, the top of the down-take having an opening, a feed pipe having its delivery end in line with the said opening in the down-take, a fuel nozzle in the down-take, and a nipple extending through the opening in the down-take and connecting the nozzle and feed pipe.

3. An oil burner comprising a base having a pan support at the upper side thereof, at the front, a removable pan on said support, flange members on the base at the sides of the pan and rising above the latter, the front ends of the flange members being spaced, presenting an opening between the spaced ends, a down-take terminating above the said flange members, the lower end of the down-take being flared outwardly in bell form, and means for delivering fuel and air to the upper portion of said down-take.

4. An oil burner having a base formed with a depending flange forming an air space, said air space being open for the entrance of air, a pan supported on the base above the air space to receive an initial supply of oil for starting the burner, flange members rising on the base at the sides of the pan and above the latter, an air-conducting means communicating with the air space at the under side of the base and having a down-take terminating above the said flange members and pan, and means for supplying fuel to the down-take above its lower end.

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1,095,092. VEGETABLE-CUTTER. FLORENCE E. DRAKE, Michigan City, Ind. Filed Nov. 12, 1913. Serial No. 800,566. (Cl. 146—7.)

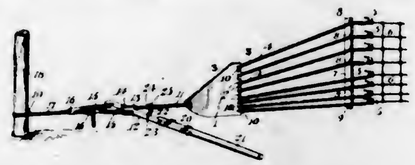


A vegetable cutter comprising companion blades having central shanks of reduced width, the body portion of one of the blades being split in line with the longitudinal center of its shank, the shank of the other blade being split so as to straddle the first shank and extending at right angles to, a handle into which said shanks extend, and means surrounding said handle and shanks for securing said parts together.

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1,095,093. WIRE-STRETCHER. JOHN HENDERSON ELLIOTT, Bono, Ark. Filed June 5, 1912. Serial No. 701,848. (Cl. 39—53.)

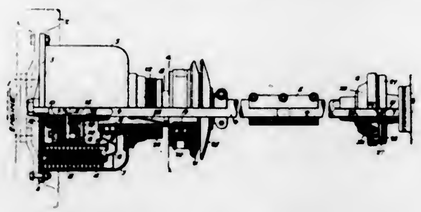
A wire stretcher including a vertical series of chains provided at their front ends with means for connecting them to the wire to be stretched, a vertical plate located in rear of the lower portion of the fence and connected to the rear ends of the chains, a vertical spacing or spreader bar extending above the plane of the said plate and engaging the chains between the ends thereof, the front portions of the chains being in parallelism and the rear portions converging rearwardly, and stretching mechanism



located in line with the bottom portion of the fence and connected with the plate at the rear edge thereof.

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1,095,094. POWER-TRANSMISSION MECHANISM. POWELL EVANS, Philadelphia, Pa. Filed Oct. 26, 1910. Serial No. 589,196. (Cl. 74—46.)



1. The combination of a clutch; a shaft; a universal coupling within the clutch connecting the latter to the shaft, and a brake for the shaft having the co-acting faces of its members curved substantially concentric with the center of motion of said universal coupling.

2. The combination of a clutch including a casing and a tubular operating structure; a shaft; a universal coupling in the casing connecting one of the clutch members and the shaft; and a brake having its members respectively fixed to said tubular structure and to the shaft; the co-acting faces of said brake members being curved concentrically with the point of oscillation of the universal coupling.

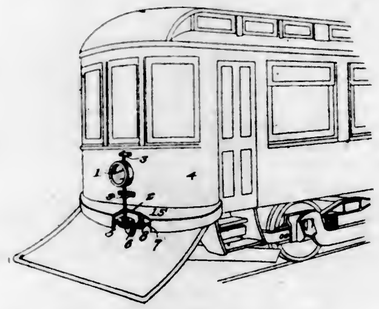
3. The combination of a plate clutch; a shaft extending into said clutch; means for loosely and permanently connecting said shaft and clutch, the same consisting of an internally toothed structure fitting into said clutch and an externally toothed structure mounted on the shaft in position to coöperate with the other toothed structure to constitute a universal coupling; and a curved bearing washer mounted between the two elements of said coupling; with a brake for the shaft having the co-acting faces of its members curved substantially concentric with the center of motion of the coupling.

4. The combination of a clutch including a casing; a drum rotatably mounted in said casing; plates for connecting the drum and the casing; a toothed member rigidly mounted within but structurally independent of the drum; and a hub having an integral toothed plate loosely fitting withoin said first member so as to constitute a second clutch whose parts have a limited universal movement; with a brake for the clutch having the co-acting faces of its members curved to be substantially concentric with the center of motion of the clutch parts.

5. The combination of a clutch having a movable operating member; a brake having one of its elements mounted on said operating member; a universal coupling within the clutch having one of its members connected to one of the clutch members; a shaft connected to the second of the members of the universal coupling and having a brake surface placed to co-act with the said first brake surface, said brake surfaces being curved to be substantially concentric with the point of oscillation of the shaft; with means for actuating the brake and the clutch.



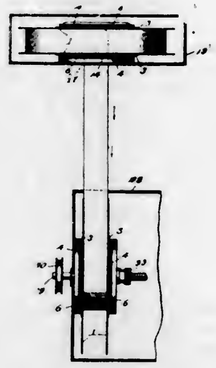
1,095,095. ADJUSTABLE HEADLIGHT. CHARLES E. FARRELL, East St. Louis, Ill. Filed Apr. 23, 1913. Serial No. 763,099. (Cl. 240—62.)



The combination with a car body having a forward bumper, and a truck supporting the body, of a headlight, a rod rotatably mounted on the car and extending through the bumper, said rod supporting the headlight, a rod rotatably mounted beneath the car, intermeshing gears carried by said rods, said gears being located beneath and protected by the bumper, a segmental rack carried by the truck, a pinion fixed on the rod rotatably mounted beneath the car, said pinion engaging the rack, and a casing inclosing said pinion and rack.

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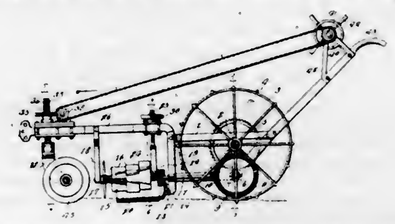
1,095,096. FILM-WINDING APPARATUS. FERDINAND J. H. FLECK, Tamaqua, Pa. Filed Aug. 16, 1910. Serial No. 577,384. (Cl. 88—18.7.)



1. In film-winding mechanism, a magazine reel having an apertured hub portion, a film-guiding portion movable about the said hub portion, a support removably engaged with the hub portion and holding the same against movement with the said film-guiding portion, the said support having a film-guiding slot therein, a second reel having an apertured hub portion and a movable film-guiding portion, a revolving support, means on the support for engagement with the hub portion of the second reel to cause the same to revolve with the support, and a film-guiding element on the first support for directing the film from the first reel onto the said second reel.

2. In film-unwinding mechanism, a revoluble film holder centrally apertured, a stationary support therefor coaxial with said aperture, said support having a film-guiding slot therein, and film-guiding means arranged to guide the film from the inner turn of the film coil toward said slot.

1,095,097. MACHINE FOR DIGGING AND CLEANING DITCHES. EDMUND M. FOURNET, St. Martinville, La. Filed Nov. 19, 1912. Serial No. 732,262. (Cl. 37—17.)



1. In a ditching machine, a shaft supported for rotation with its axis in the line of travel of the machine, earth engaging members connected with the shaft, a hingedly supported earth engaging scoop extending beneath the shaft, and means for adjusting the free end of the scoop.

2. In a ditching machine, a shaft supported for rotation with its axis in the line of travel of the machine, an earth engaging scoop movably supported beneath the shaft and approximately concentric therewith, and earth engaging members carried by the shaft.

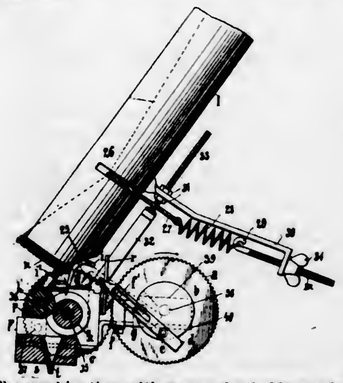
3. In a ditching machine, a shaft supported for rotation, a conical drum carried thereby, a plurality of series of earth engaging paddles carried by the drum and extending variously with respect to the axis of the shaft, and a suitably supported scoop coöperating with the drum and curved approximately concentric with the axis thereof.

4. In a ditching machine, a shaft supported for rotation, earth engaging cutting members and paddles associated with said shaft, a hingedly supported scoop coöperating with the paddles and the cutting members, and means for adjusting the scoop and for supporting it at various adjustments.

5. In a ditching machine, a frame structure, a transporting wheel, a longitudinal shaft supported for rotation, a drum carried by said shaft, earth engaging paddles supported on the drum, a scoop hingedly connected with the frame, and partly surrounding the drum, said scoop having a relatively high side adjacent to the downgoing side of the drum and a relatively low side adjacent to the upgoing side of the drum, and means for transmitting motion from the transporting wheel to the drum carrying shaft.

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1,095,098. FEEDING DEVICE FOR HORSEHAIR-SPINNING MACHINES. NORBERT FRANK, Forst, Lusatia, Germany. Filed Apr. 8, 1912. Serial No. 689,368. (Cl. 28—21.)



1. The combination with means for holding a bundle of hairs; of fingers made of spring metal normally separated at their forward ends, stationary guides in close proximity to said bundles adapted to engage the forward

ends of said fingers, a crank on which the fingers are pivotally mounted, and a pivot between the crank and gripping end of the fingers on which the fingers are slidably mounted, said crank and pivot coöperating to move the forward ends of the fingers along the guide in a closed path.

2. In a machine of the character described, the combination with a pair of guides, spring fingers coöperating with and closed by said guides, stops on the fingers to limit their movement between the guides, a crank to swing the fingers, a pin about which the fingers pivot, said fingers being in sliding relation to the pivot, and means to urge the stops against the guides, whereby the ends of said fingers will have substantially rectilinear movement for one half of their path of movement and curvilinear movement for the other half thereof.

3. In a machine of the character described, the combination with a pair of guides; of spring fingers, stops at their forward ends, a spring to urge the fingers between the guides and the stops against the guides, a crank pin engaging in a slot in the fingers, and a second pin engaging in a second slot in the fingers, said pins effecting the movement of the fingers in relation to the guides.

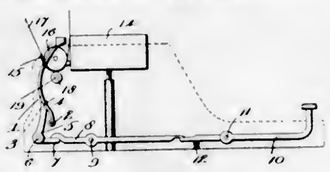
4. In a device of the class described, in combination a fixed holder adapted to contain the fibers, a pair of guides at the end of the holder, a pair of rotatable members mounted contiguous to the guides, spring fingers slidably mounted on the rotatable members and adapted to be projected between the guides by the rotation of said members, stops on the fingers to limit their movement between the guides, and yielding means to hold the stops against the guides, whereby the ends of said fingers will have rectilinear movement away from the holder and curvilinear movement toward the latter.

5. In a device of the class described, in combination a fixed holder adapted to contain the fibers, a pair of guides at the end of the holder, a pair of spring fingers, means to actuate the fingers in parallel longitudinal lines toward and from the holder, stops on the fingers arranged to engage the guides to limit the forward movement of the fingers, and yielding means to hold the stops against the guides whereby said fingers are moved longitudinally of the guides by said actuating means.

[Claim 6 not printed in the Gazette.]

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1,095,099. KEY-WHEEL TYPE-WRITER. MOSES FREUDENBERG, St. Petersburg, Russia. Filed Nov. 26, 1913. Serial No. 803,252. (Cl. 197—49.)



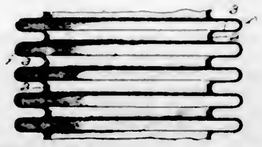
1. In a key wheel typewriter, the combination with a carriage, of a platen mounted thereon, of means for reciprocating said platen, comprising a bent lever, the upper arm of said lever carrying means for slidingly engaging said platen, the lower arm of said lever consisting of a ledge, substantially parallel to the axis of travel of the carriage, a series of levers, one arm of each of said levers resting on said ledge, the other arm of each of said levers engaging with its individual key and adapted to be raised upon depression of said key.

2. In a key wheel typewriter, the combination with a carriage, of a platen on a substantially rectangular frame mounted on said carriage, feed rollers adapted to remain stationary during the reciprocation of said frame, and means for reciprocating said frame, upon depression of a key, comprising a bent lever pivoted to the body of the typewriter, the upper arm of said lever carrying means for slidingly engaging said frame, the lower arm of said lever consisting of a relatively long ledge, substantially parallel to the line of travel of the carriage, a series of levers, pivoted to the body of the typewriter, one arm of each of said levers resting upon said ledge of said bent lever and adapted to depress said ledge, the other arm of each of said levers engaging with its individual key and adapted to be raised when said key is depressed.

3. In a key wheel typewriter, the combination with a series of keys, each pivoted between its ends, of a corresponding series of intermediate levers, each pivoted between its ends and each engaging with its respective key lever, a bent lever, carrying an arm consisting of a relatively long ledge, said ledge adapted to engage each of said intermediate levers, a reciprocating platen, the second arm of said bent lever carrying means for slidingly engaging said platen.

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1,095,100. FLEXIBLE, TUBULAR, CORRUGATED-METAL WALL. WESTON M. FULTON, Knoxville, Tenn., assignor to The Fulton Company, Knoxville, Tenn., a Corporation of Maine. Filed May 19, 1913. Serial No. 768,625. (Cl. 60—2.)



1. A flexible wall for expansible and contractible vessels consisting of corrugated flexible metal, and having the metal at the bends of the corrugations thicker than that of the portions of the wall connecting the bends.

2. A flexible wall for expansible and contractible vessels consisting of a corrugated flexible metal tube, and having the metal at the bends of the corrugations thicker than that of the portions of the wall connecting the bends.

3. A flexible wall for expansible and contractible vessels, consisting of corrugated flexible metal, and having the metal at the centers of the bends of the corrugations thicker than that of the portions of the wall connecting said bends.

4. A flexible wall for expansible and contractible vessels, consisting of corrugated flexible metal and having the metal at the centers of the bends of the corrugations thicker than that of the portions of the wall connecting said bends, and the thickness of the metal of the bends tapering gradually toward the said connecting portions.

5. A flexible tubular wall for expansible and contractible vessels, consisting of corrugated metal, and having the metal of the bends of the corrugations flexible and thickest at their central portions and tapering from said central portions toward and into the portions of the wall connecting said bends.

[Claims 6 and 7 not printed in the Gazette.]

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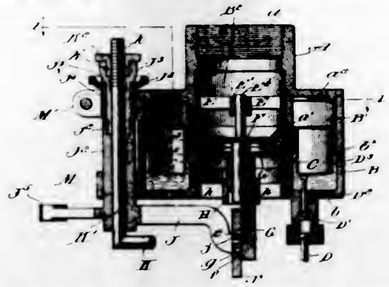
1,095,101. CARBURETER. LEVI S. GARDNER, New Orleans, La., assignor to Gardner Carburetor & Brass Works, Shreveport, La., a Corporation of Louisiana. Filed June 19, 1906, Serial No. 322,380. Renewed Aug. 12, 1911. Serial No. 643,783. (Cl. 48—155.1.)

1. In a device of the character described, the combination with a source of supply of combustible fluid, of a chamber into which said fluid is admitted, a valve forming one wall of said chamber and controlling the admission of air thereto, a valve forming another wall of the chamber and controlling the exit of fluids therefrom, a sleeve-like stem for one of said valves, a stem for the other valve extending through the first mentioned stem, cam devices for engaging said stems, and means for operating said cam devices.

2. In a device of the character described, the combination with a source of supply of combustible fluid, of a casing having a chamber into which said fluid is admitted, said casing having also oppositely inclined walls extending laterally from the top and bottom of said chamber, a pair of valves located in said casing and forming the top and bottom of said chamber, and means for moving said valves toward and from each other.



3. In a device of the character described, the combination of the following elements, to wit: a casing forming a carbureting chamber, one or more ducts or passages leading thereto from the source of supply of the combustible fluid, a valve for controlling the exit of the mixture from said chamber, a valve controlling the admission of air to said chamber, independent longitudinally movable stems connected respectively to said valves, and cam devices connected with said stems for moving them positively in both the opening and closing directions.



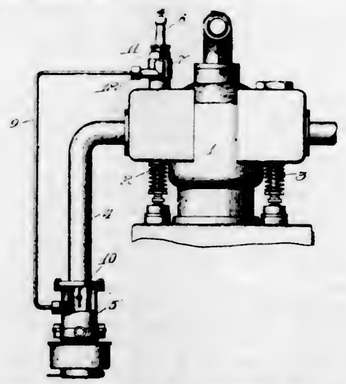
4. In a device of the character described, the combination of the following elements, to wit: a casing forming a carbureting chamber, one or more ducts or passages leading thereto from the source of supply of the combustible fluid, a valve for controlling the exit of the mixture from said chamber, a valve controlling the admission of air to said chamber, independent longitudinally movable stems connected respectively to said valves, and two wedge shaped devices for moving said stems positively in both the opening and closing directions.

5. In a device of the character described, the combination of the following elements, to wit: a casing forming a carbureting chamber, said casing being channeled so as to connect the source of supply of the combustible fluid to said mixing chamber at a plurality of points, a valve for controlling the exit of the mixture from said chamber, a valve for controlling the admission of air to said chamber, longitudinally movable stems connected respectively to said valves, a plate having two surfaces inclined with respect to each other, one for each of said stems, and a device on each of the stems for engaging said surfaces whereby a movement of the plate operates to move the stems.

[Claims 6 to 11 not printed in the Gazette.]

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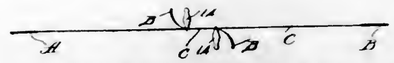
1,095,102. INTERNAL-COMBUSTION ENGINE. LEVI S. GARDNER, Shreveport, La. Filed June 10, 1912. Serial No. 702,655. (Cl. 123—143.)



In combination, an internal combustion engine having a small pocket communicating with the combustion chamber, a carbureter, a connection between the combustion chamber and the carbureter for supplying the engine with a combustible charge, and an auxiliary connection between the carbureter and said pocket, a throttle valve in said carbureter, and said auxiliary connection opening into the carbureter on the side of the throttle valve opposite that on which the engine is located.

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1,095,103. METHOD OF UNITING THE FIBERS OF FIBROUS PLANTS. JOHN S. GILLIES, Manila, Philippine Islands. Filed Dec. 28, 1912, Serial No. 739,128. Renewed Dec. 29, 1913. Serial No. 809,399. (Cl. 13—5.)



1. The method of uniting the fibers of fibrous leaves into continuous strands, consisting in uniting by adhesion sections of said leaves into a continuous strip with the strands of the respective sections in alinement, and removing from the strip the matter extraneous to the strands thereof.

2. The method of uniting the fibers of fibrous leaves into continuous strands consisting in cutting the leaves into sections, treating said sections to separate and expose the fibers in the body portion, and not treating the respective end portions thereof; connecting said sections by uniting the fibers thereof at points adjacent the uncleaned portions; and then removing said uncleaned portions, substantially as described.

3. The method of uniting the fibers of fibrous leaves into continuous strands consisting in cutting the leaves into sections, treating said sections to separate and expose the fibers in the body portion thereof, and leaving the respective end portions intact; overlapping and alining the fibers of said sections adjacent the end portions thereof, and uniting the same with an adhesive; and removing the end portions of said sections, substantially as described.

4. The method of uniting the fibers of fibrous leaves into continuous strands consisting in cutting the leaves of the plant into sections; treating said sections to separate and expose the fibers in the body portion thereof, and leaving intact the end portions; overlapping said overlapping fibers and uniting the same with an adhesive; and removing said intact end portions, substantially as described.

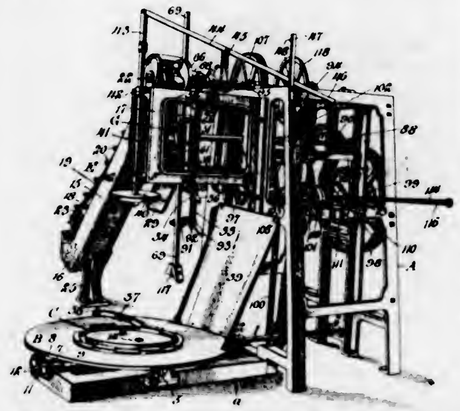
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1,095,104. CONDUIT-TILE-MOLDING MACHINE. ALLEN GLENN, Enid, Okla., assignor to Charles J. Quinn and Charles C. Quinn, Boone, Iowa. Filed Sept. 19, 1910. Serial No. 582,732. (Cl. 25—37.)

1. In a machine of the class described, a mold holder, a reciprocatory tamper provided with a rod or bar, an actuating mechanism for the tamper, and yielding connecting means between the tamper rod and the actuating mechanism and traversed by and engaging the tamper rod between the ends of the latter, the actuating mechanism also including a cushioning means for the tamper and situated out of line of movement of said tamper rod through the yielding connecting means.

2. In a machine of the class described, a mold holder, a reciprocatory tamper arranged in coöperative relation with the holder, a cross head for carrying the tamper and including an elastic clamp constituting a yielding guiding member for the tamper, a sliding block in spaced relation to the yielding guiding member and in turn forming a guiding member for the tamper, and a cushioning means between the second named guiding means and the yielding guiding means, and driving means connected to the second named guiding means for imparting reciprocatory motion to the cross head through the cushioning means.

3. In a machine of the class described, a mold holder, a tamper having a supporting bar or rod, a reciprocatory cross head including spaced guiding blocks traversed by the supporting bar of the tamper, a yieldable clamp carried by one of the blocks for engaging the tamping bar yieldingly, the other guide block being traversed by the tamping bar freely, and cushioning means on the cross head engaging the other guide member freely traversed by the supporting bar for the tamper, and driving means connected to the said other guiding member for imparting reciprocatory movement to the cross head through the cushioning means, said cushioning means being out of line with and located between the ends of the supporting bar for the tamper.



4. In a machine of the class described, a mold holder, a tamper having a supporting bar or rod, a reciprocatory cross head provided with spaced guiding blocks traversed by the supporting bar of the tamper, a yieldable clamp carried by one of the blocks for engaging the tamping bar yieldingly, the other guide block being traversed by the tamping bar freely, and cushioning means engaging the other guiding member freely traversed by the supporting bar for the tamper, and driving means connected to the said other guiding member for imparting reciprocatory movement to the cross head through the cushioning means, said cushioning means being out of line with and located between the ends of the supporting bar for the tamper, and the driving means being a constant stroke means intermediate of the ends of the tamper bar, and also out of the path of movement of said bar through the cross head.

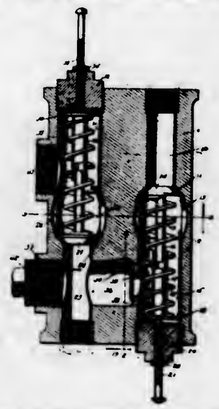
5. In a machine of the class described, the combination of a mold holder, a reciprocatory tamper having a supporting bar or rod and arranged in coöperative relation with the holder, a cross head composed of two separated parts both traversed by the tamper bar or rod and having cushioning devices between said parts out of the path of the tamper bar or rod, said separated parts being movable one toward or from the other, a constant stroke operating means connected with one of the parts of the cross head, and yielding means for connecting the tamper bar or rod with the other part of the cross head and through which yielding means the tamper bar or rod may slide.

[Claims 6 to 20 not printed in the Gazette.]

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1,095,105. CONTROLLING DEVICE FOR WATER-HEATING SYSTEMS. JOHN EDWIN GOODWIN, Norwood, Mass. Filed May 16, 1913. Serial No. 768,026. (Cl. 137—69.)

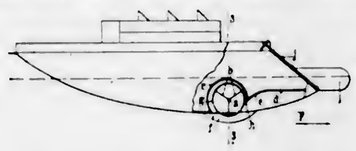
The combination of a water-heating system, including a boiler with a controlling device, comprising a casing having two parallel bores and a transverse bore connecting the two parallel bores: valves in said parallel bores, one controlling the inlet pressure to the system, the other forming the relief for the system, and a check valve in the transverse bore, each of the valves in the parallel bores having a stem; a tubular member having a head fitting snugly into each bore engaging said stems; a coil spring on the stem and the tubular member in engagement with the valve and the head and normally tending



to separate the tubular member from the valve; a plug in each of said bores; and a threaded member in said plug engaging said head whereby the tension of the springs can be varied, substantially as and for the purpose set forth.

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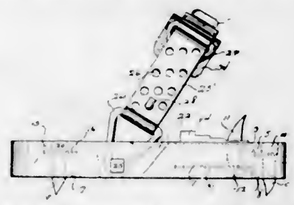
1,095,106. MEANS FOR PROPELLING SHIPS AND THE LIKE. MARCEL GOUNOUILHOU, Bordeaux, France. Filed Nov. 17, 1911. Serial No. 660,902. (Cl. 115—53.)



In a boat, a housing open at the bottom and having its front wall extending below the rear wall and its end walls extending below the front wall, and a paddle wheel having elongated blades radiating from its hub, said wheel being eccentrically mounted in the housing with its blades above the end walls thereof.

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1,095,107. SWAMP-HORSESHOE. MAGNUS GUSTAFSON and THEODORE SWANSON, Duluth, Minn. Filed Sept. 29, 1913. Serial No. 792,496. (Cl. 168—3.)



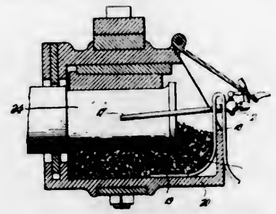
A shoe of the character described, having a broad flat sole, calks secured to the said sole, the said sole adjacent the rear end on opposite sides having vertical recesses, eyes pivotally mounted within said recesses, a plate pivotally mounted upon one of said eyes and having a plurality of openings, a loop having a hooked end adapted to enter one of the said openings, a plate pivotally carried by the opposite end of the loop, a locking lever pivotally



carried by the opposite end of the plate, and passing through the eye on the opposite side of the shoe, and a thumb screw for holding the lever in its locked position.

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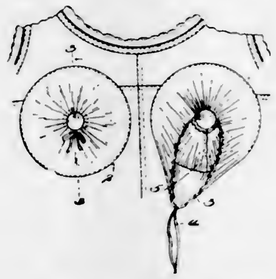
1,095,108. HOT-BOX COOLER. ERNEST S. HAMMOND, Valley Junction, Iowa. Filed Sept. 20, 1911. Serial No. 650,411. (Cl. 64—28.)



In combination with a cooling apparatus for hot boxes of railway cars which includes a tank and a flexible hose connected with the tank, of a supporting clip for the hose, said support comprising a substantially U-shaped resilient member, the legs of which are adapted to exert an inward tension toward each other, the said legs of the said clip adapted to be arranged upon the opposite faces of the outer wall of the journal box, the inner leg of the clip having its end bent to provide an extension, the outer leg having its end flared outwardly to provide a finger grip, the said legs adjacent their connecting portion having openings, a valved nozzle passing through the openings, a swivel member arranged upon the nozzle between the legs of the clip, and the flexible hose upon the tank being connected with the nozzle.

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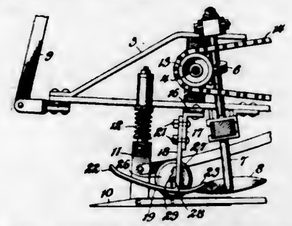
1,095,109. BRASSIÈRE. MABEL HARRINGTON, Newark, N. J. Filed Jan. 19, 1914. Serial No. 813,000. (Cl. 2—87.)



1. A brassière comprising a form fitting upper garment having breast pads at each side of the front thereof, each breast pad comprising a circular retaining strip secured by stitching along a circular line to the inner face of the garment, and having a draw string along its inner free edge, and a plurality of ruffled circular padding strips arranged concentrically within the retaining strip and also secured by stitching along a circular line to the inner face of the garment, the line of attachment of the padding strips closely adjoining the line of attachment of the retaining strip.

2. A brassière comprising a form fitting upper garment having breast pads at each side of the front thereof, each breast pad comprising a circular retaining strip secured by stitching along a circular line to the inner face of the garment, and having a draw string along its inner free edge, and a plurality of ruffled circular padding strips arranged concentrically within the retaining strip.

1,095,110. BEET-TOPPER. HENRY HARRISON, Rifle, Colo., assignor of one-fourth to Thad S. Harp, Rifle, Colo., and one-half to Irving L. Avery, Lander, Wyo. Original application filed May 29, 1912, Serial No. 700,509. Divided and this application filed Sept. 23, 1913. Serial No. 791,361. (Cl. 55—107.)



1. In a beet topper, a flattener for engaging the beet tops during the travel of the machine, and a cutter carried wholly by the flattener and projecting beyond the active surface of the latter toward the beet in position to sever the beet top in the direction of the length of the body of the beet.

2. In a beet topper, a flattening shoe in position to engage the beet tops during the travel of the machine, and a freely rotatable cutting disk carried by the flattening shoe and projecting through the active face thereof.

3. In a beet topper, a beet top engaging shoe, and a cutter having its active portion projecting through the shoe to and beyond the ground side thereof.

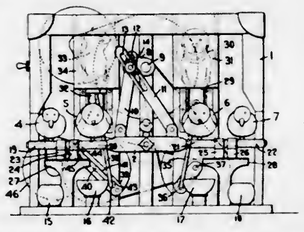
4. In a beet topper, a laterally extended beet top engaging and flattening shoe and a cutter having its active portion on the ground side of the shoe, said cutter comprising a freely rotatable disk and the shoe being provided with a passage for the active portion of the disk.

5. A beet topper provided with a top flattening shoe carrying a cutter adapted to sever the beet tops in the direction of the lengths of the bodies of the beets, and a support for the shoe on which it is adjustable toward and from the ground.

[Claims 6 to 8 not printed in the Gazette.]

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1,095,111. ADVERTISING NOVELTY. WALTER S. HASELTINE, Boston, Mass. Filed July 28, 1913. Serial No. 781,590. (Cl. 46—40.)



1. An advertising novelty comprising pivoted figures mounted for vertical movement, cams positioned to engage said figures and cause them to tilt during their vertical movement and means for giving vertical movement to said figures whereby the figures simultaneously move vertically and tilt to simulate the act of feeding.

2. An advertising novelty comprising an oscillating support, figures pivotally mounted upon said oscillating support means for oscillating said support to move said figures bodily, and for causing the figures to tilt relative to the support, whereby said figures may be made to simulate the act of feeding.

3. An advertising novelty comprising an oscillating support, figures pivotally mounted on said support, objects representing food receptacles mounted in position to be approached by said figures during the movement of the oscillating support, means for oscillating the support

and tilting the figures, whereby the figures will be made to simulate the act of feeding from said bowls.

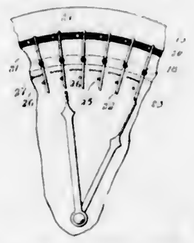
4. An advertising novelty comprising a vertically movable support, a figure representing a helpless animal pivotally mounted upon said vertically movable support, a reciprocating support, a figure representing an animal of another kind mounted upon said reciprocating support, and means for simultaneously moving said vertically movable support and said reciprocating support, whereby the figure representing a helpless animal is caused to move vertically, and also to tilt simulating the act of feeding, and the figure representing the second mentioned animal is caused to move into view and away intermittently.

5. An advertising novelty comprising a bodily movable support, a figure representing a helpless animal mounted on said support, means to engage said figure and give it a tilting movement in addition to its bodily movement, whereby said figure simulates the act of feeding, a second bodily movable support, a figure representing an animal of another kind mounted on said second support, and means to give bodily movement to both of said supports.

[Claims 6 to 8 not printed in the Gazette.]

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1,095,112. ANNUNCIATOR SYSTEM. THOMAS A. HAUGAARD, Cheyenne, Wyo. Filed Oct. 29, 1913. Serial No. 798,079. (Cl. 161—2.)



1. In an annunciator system, a chronometer, a circular series of switches arranged concentrically of the dial of said chronometer and comprising a conducting ring, switch levers fulcrumed upon said ring, an insulated ring disposed concentrically of said conducting ring, contact pins carried by said insulated ring and each disposed adjacent to one of said levers, means whereby any annunciator may be connected in circuit with any one switch, and a finger carried by the hour hand of said chronometer for actuating said switch levers successively.

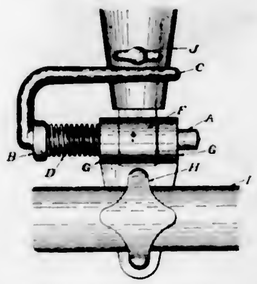
2. In an annunciator system, a chronometer, a circular series of switches arranged concentrically of the dial of said chronometer and comprising a conducting ring, switch levers fulcrumed upon said ring, an insulated ring disposed concentrically of said conducting ring, contact pins carried by said insulated ring and each disposed adjacent to one of said levers, means whereby any annunciator may be connected in circuit with any one switch, a finger carried by the hour hand of said chronometer for actuating said switch levers successively, and means for restoring said switch levers to normal position succeeding the actuation thereof by said finger.

3. In an annunciator system, a chronometer, a circular series of switches arranged concentrically of the dial of said chronometer and comprising a conducting ring, switch levers fulcrumed upon said ring, an insulated ring disposed concentrically of said conducting ring, contact pins carried by said insulated ring and each disposed adjacent to one of said levers, means whereby any annunciator may be connected in circuit with any one switch, a finger carried by the hour hand of said chronometer for actuating said switch levers successively, and a spring connected with each lever and acting to restore the same to normal position succeeding the actuation thereof by said finger.

4. In an annunciator system, a chronometer, a circular series of switches arranged concentrically of the dial of said chronometer and comprising a conducting ring, switch levers fulcrumed upon said ring, an insulated ring disposed concentrically of said conducting ring and surrounding the same, contact pins carried by said insulated ring and each disposed in the path of movement of the outer end of one of said levers, means whereby any annunciator may be connected in circuit with any one switch, a finger carried by the hour hand of said chronometer for actuating said switch levers successively whereby the outer ends of said levers will engage the respective contact pins.

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1,095,113. THILL-COUPLING. EDWARD THOMAS HRUBESKY, Schuyler, Nebr. Filed Mar. 28, 1913. Serial No. 757,409. (Cl. 21—57.)

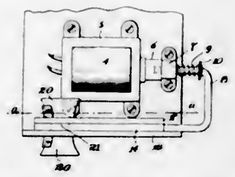


1. In a thill coupling device, a U-shaped bolt having a shoulder thereon, a hook on the extended portion of said bolt, a hole drilled adjacent to said shoulder, a spring on said bolt, one end of said spring bent radially and adapted to enter said hole, said hook adapted to engage said vehicle thill or a clip, substantially as described.

2. In a thill coupling device, a U-shaped bolt having a shoulder thereon, a hook on the extended portion of said bolt, a hole drilled adjacent to said shoulder, a spring on said bolt, one end of said spring bent radially and adapted to enter said hole, said hook adapted to engage said vehicle thill or clip, said spring adapted to be compressed between said shoulder and said vehicle clip substantially as described.

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1,095,114. DEVICE FOR CONTROLLING ELEVATORS. WALTER E. BROWN, New York, N. Y. Filed May 21, 1913. Serial No. 768,947. (Cl. 187—48.)



The combination with a solenoid and its core, a source of electricity and means for closing and breaking the circuit of said solenoid, of a slide having an opening and a recess extending from said opening, a plate of less length than said opening mounted to slide lengthwise in said opening, a tongue extending from said plate into the recess, a spring interposed between the inner end of the recess and the free end of the tongue, said slide being provided in the end opposite the one provided with the recess, with an opening through which an elevator hand rope and balls on said hand rope can pass, said sliding plate being operatively connected with the core of the solenoid, substantially as set forth.



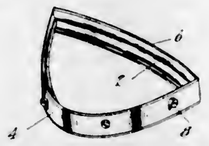
1,095,115. RAILWAY-SWITCH. ALEXANDER JONAS, Philadelphia, Pa., assignor of one-third to Joseph Slater, Philadelphia, Pa. Filed July 24, 1913. Serial No. 781,003. (Cl. 104—24.)



In a device of the character stated a base plate mounted between the rails of a track at the switch, a sliding plate having a number of openings therein, two of which are connected by a groove, an arcuate projection extending into said groove, a pin carried by the base plate, either of the openings in said sliding plate adapted to register with said pin and be disengaged from said pin by said arcuate projection when the sliding plate is operated, means for connecting the sliding plate with the switch point, a pair of oppositely projecting switch levers pivoted between the rails of the track and pintles carried by one end of each of said levers adapted to register with the other openings in the sliding plate, an auxiliary switching lever formed integral with either of the first named levers and projecting therefrom at a point beyond the pivot point, a contact shoe carried by the free end of each of the switching levers and the auxiliary switching lever, said contact shoe being beveled toward each end, and means for supporting the free ends of said levers.

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1,095,116. METHOD OF MAKING DIES. MOSES B. KAVEN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 17, 1909. Serial No. 496,545. (Cl. 29—148.)



1. The method of making dies which consists in forming a frame, securing blades of thin, flexible and tempered steel to the portions of the frame presenting right lines or easy curves, fitting blades of annealed steel to the portions of the frame presenting sharp or reëntrant curves hardening and tempering said last named blades and then securing said blades to the frame.

2. The method of making dies which consists in forming a skeleton frame provided with a vertical face having an outline corresponding to the outline of the blank to be cut by the die, securing to the portions of said face presenting right lines or easy curves blades of thin, tempered steel, fitting blades of annealed steel to the portions of said face presenting sharp or reëntrant curves, hardening and tempering said last-named blades after they have been so fitted and then securing said blades to their respective portions of the frame.

3. The method of making skeleton frame dies which consists in conforming a lead strip of cross section suitable for the frame to the outline of a templet, casting a frame in a mold made with the conformed lead strip as a pattern, profiling said frame to said templet and securing to the former spring cutting blades.

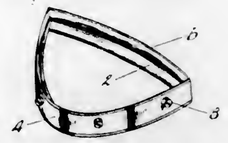
4. The method of making skeleton frame dies which consists in conforming pliant material having a cross section suitable for the frame to the outline of a templet, casting a frame in a mold made with the conformed material as a pattern and securing cutting blades to said frame.

5. The method of making skeleton frame dies which consists in producing a templet having the desired outline, casting a frame from a pattern formed on said templet, profiling said frame to templet, and securing cutting blades to said frame.

[Claims 6 to 26 not printed in the Gazette.]

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1,095,117. DIE. MOSES B. KAVEN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed May 17, 1909, Serial No. 496,545. Divided and this application filed Mar. 15, 1911. Serial No. 614,644. (Cl. 164—29.)



1. A die for cutting blanks from upper leather having included in its cutting periphery a double edged piece of strip steel with corrugations of uniform cross section extending from one edge to the other, the corrugations being sharpened at their edges to form cutting indentations which merge in the cutting edge of the die.

2. A die comprising a frame and flexible cutting blades secured thereto, said frame being thin in cross section and tapering on the inside from its thickest portion toward the cutting edge of the blades, thereby permitting an unobstructed view of the cutting edge as it rests upon the material to be cut.

3. A double edged die comprising a frame and flexible double edged cutting blades having a width greater than that of the frame secured thereto, said frame being of a cross section tapering from its thickest portion toward the cutting edges of the blades, thereby permitting an unobstructed view of the cutting edge resting upon the material to be cut.

4. A die comprising an open, internal frame and cutting blades secured thereto, said frame having a modified triangular cross section, whereby stiffness is imparted to the frame and an unobstructed view of the cutting edges of the blades afforded the operator.

5. A die comprising an open, internal frame having a continuous outer face and a single thin cutting blade secured thereto to each section thereof, said frame extending into proximity to the cutting edge of the blade to support the cutting blade in proximity to its edge, and having the portion adjacent to said cutting edge shaped to afford the operator an unobstructed view of the cutting edge as it rests upon the material to be cut.

[Claims 6 to 17 not printed in the Gazette.]

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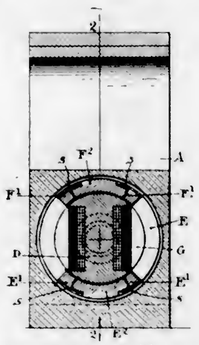
1,095,118. DEVICE FOR THE PRODUCTION OF INDUCED CURRENTS IN MAGNETO MACHINES AND DYNAMOS. ALBERT KELLER-DORIAN, Lyon, France. Filed Dec. 7, 1912. Serial No. 735,452. (Cl. 123—149.)

1. In a magneto machine or dynamo a source of magnetic energy, a rotating armature composed of two disks of magnetic material disposed in proximity to the poles of said source of energy, a coil within said rotating armature, and constantly polarized flanges on said disks adapted for displacement relatively to the coil to produce variations of flux therein.

2. In a magnetic machine or dynamo, a source of magnetic energy, a rotating armature composed of two disks of magnetic material disposed in proximity to the poles of said source of energy, a coil within said rotating armature, constantly polarized flanges on said disks adapted for displacement relatively to the coil to produce variations of flux therein, a circuit breaker in connection with the coil, and an ignition cam rotatable with the armature and coacting with said circuit breaker.

3. In a magnetic machine or dynamo, a source of magnetic energy, a rotating armature composed of two disks of magnetic material disposed in proximity to the poles of

said source of energy, a coil within said rotating armature, constantly polarized flanges on said disks adapted for displacement relatively to the coil to produce variations of flux therein, a circuit breaker in connection with the coil, and an ignition cam rotatable with the armature and coacting with said circuit breaker, said coil and circuit breaker being relatively displaceable to vary the moment of ignition.

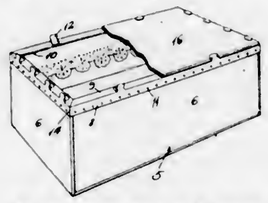


4. In a magnetic machine or dynamo, a source of magnetic energy, a rotating armature composed of two disks of magnetic material disposed in proximity to the poles of said source of energy, a coil within said rotating armature, polarized flanges on said disks adapted for displacement relatively to the coil to produce variations of flux therein, a circuit breaker in connection with the coil, an ignition cam rotatable with the armature and coacting with said circuit breaker, a member rotating at the speed of the motor adapted to impart rotation to said armature, said member carrying the ignition cam and speed increasing gearing between said member and the armature.

5. In a magneto machine or dynamo a source of magnetic energy, a rotating armature composed of two disks of magnetic material disposed in proximity to the poles of said source of energy, a coil within said rotating armature, and polarized flanges on said disks adapted for displacement relatively to the coil to produce variations of flux therein, said flanges including members adapted for movement under centrifugal force to vary the gap between the flanges and the coil in proportion to their angular speed.

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1,095,119. BOX-FASTENING. CHRISTIAN A. KRUM, Burbank, Cal. Filed June 19, 1912. Serial No. 704,589. (Cl. 229—49.)

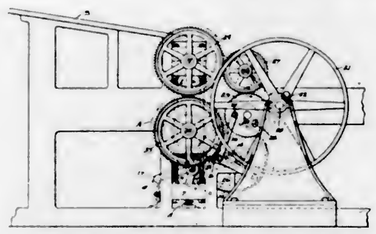


1. A box fastener, comprising a flat metallic band bent upon itself to form a channeled structure having a gripping edge and a plurality of oppositely disposed securing means formed integral with said band, a portion of said band forming a supporting shelf intermediate of said gripping edge and the securing means, and integral clamping members to secure a cover to said shelf.

2. A metallic band formed of a strip bent upon itself to form a triangular channel having three surface planes, clamp means struck from the intermediate plane and securing means formed integral therewith on the exterior of said planes, the other two planes to one side of said exterior plane being cut transversely to form a triangular notch on the intermediate plane, to adapt the exterior plane to be bent at the apex of said notch and the portion of said cut intermediate plane overlapping when so bent to brace the corner of said strip when embracing a box corner.

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1,095,120. BED-MOVEMENT. VICTOR LYNNEQUEST, Omaha, Nebr., assignor of one-third to Raymond J. McKenna and one-third to Roderick Le Bron, Omaha, Nebr. Filed Nov. 22, 1912. Serial No. 733,014. (Cl. 101—4.)



1. In a bed-and-cylinder printing press, a cylinder-gear, a bed-drive shaft, a main drive-shaft, gearing connecting the main drive-shaft and cylinder-gear for actuating the latter continuously, a cam-shaft, means actuated thereby for lifting the cylinder during the alternate revolutions thereof, a gear on the bed-drive shaft arranged to engage the cylinder-gear when the cylinder is in lowered position, a mutilated gear on the cam-shaft, a gear on the bed-drive shaft engageable by said mutilated gear so as to be driven thereby while the cylinder is lifted, a crank-actuated oscillating member, and means for connecting the same with the bed-drive shaft as the bed approaches each limit of its movement.

2. In a press of the class described, a cylinder, a driving shaft, gearing connecting said shaft and the cylinder for continuously rotating the latter in one direction, means for elevating the cylinder during alternate revolutions thereof, a bed-drive shaft, actuating means for said shaft connected with the cylinder when the same is in lowered position and disconnected from the cylinder by elevation thereof, actuating means adapted to connect the driving shaft and bed-drive shaft during the time that the latter is disconnected from the cylinder, a crank-driven reciprocating element, and means for connecting the same with the bed-drive shaft intermittently to reverse the direction of movement of the said shaft.

3. In a press of the class described, a reciprocating bed, a bed-drive shaft gear-connected therewith, two gears fixedly secured on the bed-drive shaft, continuously-moving actuating means engageable with one of said gears to actuate the bed in one direction, continuously-moving actuating means engageable with the other gear to move the bed in the other direction, an oscillating actuating element, means for connecting said element with the bed-drive shaft as the bed approaches each limit of its movement so that the movement of the bed will be thereby reversed simultaneously with the reversal movement of the oscillating element, and primary actuating means operatively connected with the several parts, whereby the continuously-moving actuating means are engaged with the respective gears on the bed-drive shaft alternately after the successive reversals of movement of the bed.

4. In a bed-and-cylinder printing press, a cylinder shaft, a reciprocating bed, a main drive-shaft, a cam-shaft, gearing connecting the main drive-shaft with the cylinder-shaft and cam-shaft to rotate them continuously, a bed drive-shaft gear-connected with the bed, a gear carried by said shaft, a gear carried by the cylinder-shaft and engageable with the gear on the bed-drive shaft to actuate the same, means actuating by the cam-shaft for elevating the cylinder-shaft to disengage said gears during alternate revolutions of the cylinder-shaft, a mutilated gear on the cam-shaft, a gear on the bed-drive shaft engageable by said mutilated gear during a part of the time that the cylinder-shaft is raised, and means for reversing the direction of movement of the bed-drive shaft before each engagement of the gears on the bed-drive shaft by the mutilated gear and by the gear on the cylinder-shaft.

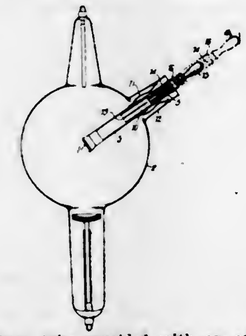
5. In a press of the class described, a reciprocating bed, a bed-drive shaft gear-connected therewith, a main drive-shaft, a cylinder, gearing connecting the main drive-shaft and cylinder for rotating the latter continuously in one direction, means for raising and lowering the cylinder during alternate revolutions thereof, actuating means for connecting the cylinder and bed-drive shaft while the cylinder is in lowered position, said actuating means being disconnected by raising of the cylinder, actuating means connecting the main drive-shaft and bed-drive shaft intermittently, whereby the latter is driven while the cylinder is in raised position, a crank-driven reciprocating member, and means for connecting the same with the bed-drive shaft during the raising and lowering of the cylinder, said member moving in alternating directions during its successive periods of connection with the bed-drive shaft.

[Claims 6 and 7 not printed in the Gazette.]



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1,095,121. COOLING DEVICE FOR RÖNTGEN TUBES. JOHN ALFRED MANNHEIM, Hamburg, Germany. Filed Dec. 12, 1911. Serial No. 665,350. (Cl. 250—35.)



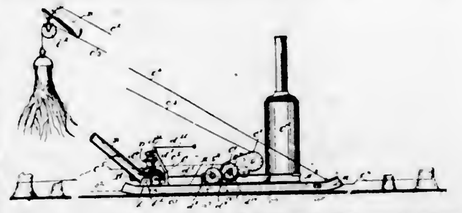
1. A Röntgen tube provided with an anticathode, an anticathode tube extending outwardly from the anticathode and open at its outer end, and a cooling rod adapted to be set removably within said anticathode tube, said rod being constructed with a tendency to expand in spring-like fashion so as to secure a close heat-exchange contact between the outer surface of the cooling rod and the inner surface of the anticathode tube.

2. A Röntgen tube provided with an anticathode, an anticathode tube extending outwardly from the anticathode, and a cooling rod adapted to be set removably within said anticathode tube, said rod consisting of a plurality of movably connected members, and means for forcing them apart into close engagement with the anticathode tube.

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1,095,122. LAND-CLEARING MACHINE. JOHN R. MCGIFFERT, Duluth, Minn., assignor to Clyde Iron Works, Duluth, Minn., a Corporation of Minnesota. Filed Feb. 10, 1909. Serial No. 477,097. (Cl. 57—22.)

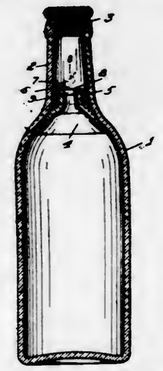
1. In mechanism of the class described, the combination of a horizontal shaft; a drum mounted thereon; clutch for securing said drum to said shaft; a vertical shaft; another drum mounted on said vertical shaft; a cable passing in succession around said vertically disposed drum and said horizontally disposed drum; a driving member rotatable upon said vertical shaft below said vertically disposed drum, and adapted to positively engage therewith and rotate the same to wind in said cable at a predetermined speed, said drum being normally held in such engagement by gravity but being free to rotate at a higher speed independently of said member; and operating connections between said horizontal shaft and said member whereby said shaft may rotate the drum mounted thereon to wind in said cable at a higher rate of speed than said vertically disposed drum, whereby a continuously operative winding means is provided for said cable, the speed of the winding being automatically varied to suit the conditions.



2. In mechanism of the class described, the combination of a horizontal shaft; a drum mounted thereon; a friction clutch for securing said drum to said shaft; a vertical shaft; another drum mounted on said vertical shaft; a cable passing in succession around said vertically disposed drum and said horizontally disposed drum; a toothed member rotatable upon said vertical shaft below said vertically disposed drum, and adapted to positively engage therewith and rotate the same to wind in said cable at a predetermined speed, said drum being normally held in such engagement by gravity but being free to rotate at a higher speed independently of said member; and gearing connecting said horizontal shaft with said member whereby said shaft may rotate the drum mounted thereon to wind in said cable at a higher rate of speed than said vertically disposed drum, whereby a continuously operative winding means is provided for said cable, the speed of the winding being automatically varied to suit the conditions.

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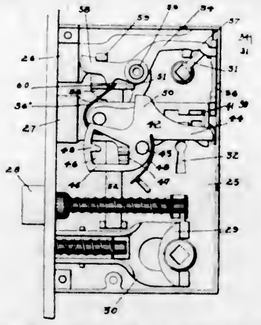
1,095,123. NON-REFILLABLE BOTTLE. FANNY NEWMAN, San Francisco, Cal. Filed Feb. 6, 1913. Serial No. 746,561. (Cl. 215—112.)



1. A bottle comprising a bottle body, a neck, a perforated stopper in the bottle neck, an inverted funnel shaped member adapted to fit the interior of the bottle body at the neck, means to frictionally and releasably hold said funnel shaped member in position, and a valve supported thereby which will allow the liquid to escape from the bottle but which will prevent the liquid from being passed thereinto.

2. A bottle comprising a bottle body, a neck, a perforated stopper in said neck, an inverted funnel shaped member fitting the interior of the neck adjacent the bottle body, an annulus of resilient material surrounding the funnel neck and frictionally holding the funnel shaped member in place in the neck of the bottle, and a valve covering the funnel outlet to prevent the ingress of liquid to the bottle, substantially as described.

1,096,124. LOCK. ALBERT A. PAGE, East Haven, and HENRY H. MUNSON, New Haven, Conn., assignors to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Jan. 8, 1913. Serial No. 740,828. (Cl. 70—71.)



1. In a lock, a case having a keyhole, a plurality of dead bolts in said case, one of which is normally operable by any of a number of keys inserted in said keyhole, a series of keys to actuate said bolt including a display key and an emergency key, a movable ward associated with said keyhole and means for locking said ward in one blocking position by the protraction of said key bolt by the emergency key or by the protraction of the other bolt, and in another blocking position by the protraction of said key bolt by the display key; substantially as described.

2. In a lock, a case having a keyhole, a plurality of bolts in said case, one of which is operable by way of said keyhole, at least three different keys to actuate said bolt, a movable ward associated with said keyhole, and means to lock said ward in either of three different positions on the protraction of said key bolt by the respective keys, and in one of said positions when the other bolt is protracted; substantially as described.

3. In a lock, a case having a keyhole, a plurality of bolts in said case, one of which is operable by way of said keyhole, a plurality of keys to operate said key bolt, a movable ward associated with said keyhole, and means for locking said ward in one blocking position by the protraction of the other bolt and in another blocking position on the protraction by one of said keys of the bolt to which it relates; substantially as described.

4. A reversible lock having a case, a plurality of bolts therein, at least one of which is a key bolt, a movable blocking member associated with said key bolt, and means for automatically locking said ward in one blocking position by the protraction of the other bolt or by the protraction by a certain key of the bolt to which it relates, and in either of two additional positions as said last named bolt is thrown by two other keys respectively; substantially as described.

5. In a lock, the combination of a case having a keyhole, a bolt in said case operable by a key inserted in said keyhole, a ward associated with said keyhole, having means for locking it in key blocking position as said bolt is protracted by a certain key, a second bolt, and means separate from but operable by said second bolt as the latter is protracted to lock said ward in key blocking position; substantially as described.

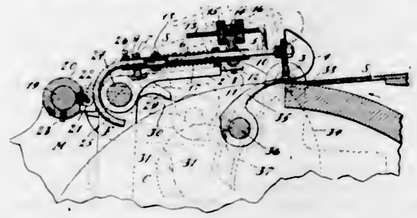
[Claims 6 to 24 not printed in the Gazette.]

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1,095,125. SHEET-GAGE FOR PRINTING-PRESSES. LEWIS L. ROGERS and ALBERT C. ROBBINS, Orange, Mass.; said Robbins assignor to said Rogers. Filed Aug. 1, 1912. Serial No. 712,620. (Cl. 101—38.)

1. In a sheet-gage for a printing press in which the cylinder is bodily reciprocable, the combination with a gage proper associated with the feed-table of said press, of means movable with said cylinder for shifting said gage to a working position with respect to said feed-table.

2. In a side gage for a printing press in which the cylinder is bodily reciprocable, the combination with a gage proper associated with the feed-table of said press, of means movable with said cylinder for shifting said gage in the line of travel of a sheet into the press to a working position with respect to said feed-table.



3. In a sheet-gage for a printing press in which the cylinder is bodily reciprocable, the combination with a sliding gage associated with the feed-table of said press, of means movable with said cylinder for sliding said gage to a working position with respect to said feed-table, and means for automatically returning said gage to its initial position.

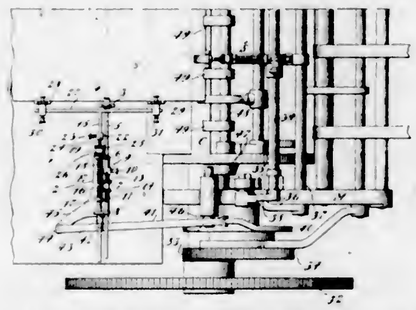
4. In a sheet-gage for a printing press in which the cylinder is bodily reciprocable, the combination with a gage proper associated with the feed-table of said press, of a spring for holding said gage in a normal retracted position, and means movable with said cylinder for advancing said gage to a working position with respect to said feed-table.

5. In a sheet-gage for a one-cylinder two-revolution printing press in which the cylinder is bodily reciprocable, the combination with a gage proper associated with the feed-table of said press, of automatic means whereby the rise of said cylinder shifts said gage to a working position with respect to said feed-table.

[Claims 6 to 11 not printed in the Gazette.]

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1,095,126. SHEET-GAGE FOR PRINTING-PRESSES. LEWIS L. ROGERS and ALBERT C. ROBBINS, Orange, Mass.; said Robbins assignor to said Rogers. Filed Aug. 1, 1912. Serial No. 712,621. (Cl. 101—38.)



1. In a sheet-gage for a printing press, the combination with a stationary gage and a pair of movable gages disposed at opposite sides of said stationary gage, said gages being associated with the feed-table of said press and normally located in different positions with respect to the edge of a sheet to be gaged, of automatic means for shifting the movable gages to a working position in advance of that of the stationary gage.

2. In a sheet-gage for a printing press, the combination with a stationary gage and a pair of movable gages disposed at opposite sides of said stationary gage, said gages being associated with the feed-table of said press and normally located in different positions with respect to the



edge of a sheet to be gaged, of automatic means governed by a movable element of said press for shifting the movable gages to a working position in advance of that of the stationary gage.

3. In a sheet-gage for a printing press, the combination with a stationary gage and a pair of movable gages disposed at opposite sides of said stationary gage, said gages being associated with the feed-table of said press and normally located in different positions with respect to the edge of a sheet to be gaged, of a spring for holding the movable gage in its normal position, and automatic means for shifting the movable gages to its gaging position in advance of that of the stationary gage.

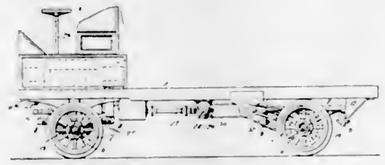
4. In a sheet-gage for a printing press, the combination with an adjustable stationary gage and movable gages disposed at opposite sides of said stationary gage, said gages being associated with the feed-table of said press, of automatic means for shifting the movable gages relatively to the stationary gage to a gaging position which position is variable in accordance with the adjustment.

5. In a sheet-gage for a printing press, the combination with an adjustable stationary gage and movable gages disposed at opposite sides of said stationary gage, said gages being associated with the feed-table of said press and normally located in different positions with respect to the edge of a sheet to be gaged, of automatic means for shifting said adjustable movable gages to a gaging position in advance of that of the stationary gage, which gaging position is variable in accordance with the adjustment.

[Claims 6 to 15 not printed in the Gazette.]

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1,095,127. VEHICLE. MARTIN L. SENDERLING, Jersey City, N. J. Filed May 22, 1911. Serial No. 628,667. (Cl. 21—182.)



1. A road vehicle comprising a frame, and supporting wheels therefor comprising four wheels abreast, arranged in two groups of two each, axles for said wheels, a stirrup for each pair of wheels comprising a centrally depressed portion with a relatively elevated portion on each side of the depressed portion, pedestals projecting downward from said frame and having jointed connections with the depressed portions of said stirrups, and spring means interposed between the elevated portions of each such stirrup and the axle of the corresponding wheels.

2. A road vehicle comprising a frame, and supporting wheels therefor comprising four wheels abreast arranged in two groups of two each, an axle for each such group, spring means for each such group, and means having a joint connection, for transferring load of the vehicle to said springs, and distance rods connecting said axles to a portion of the frame which is fixed against longitudinal motion with respect to the frame.

3. A road vehicle comprising a frame, and supporting wheels, certain of which are arranged abreast, an axle for two wheels so arranged, two leaf springs for such axle, spaced apart laterally, and connected to the axle, stirrups connecting corresponding ends of said springs and having depressed portions located between said springs, and means projecting downward from the frame of the vehicle and pivotally connected to said stirrups and so supporting the vehicle frame.

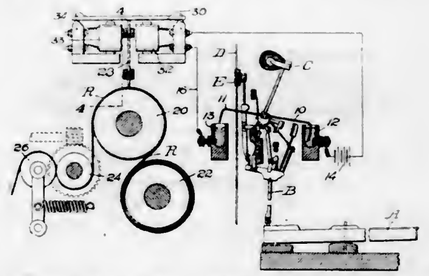
4. A road vehicle comprising a frame, and supporting wheels, certain of which are arranged abreast, an axle for two wheels so arranged, two leaf springs for such axle, spaced apart laterally, and connected to the axle, stirrups connecting corresponding ends of said springs and having depressed portions located between said springs, and means projecting downward from the frame of the vehicle and pivotally connected to said stirrups and so supporting the vehicle frame, and a distance rod connecting said axle to a portion of the frame which is fixed against longitudinal motion with respect to the frame.

5. A road vehicle comprising a frame, and supporting wheels therefor comprising two sets, the wheels of each set arranged abreast, springs for said wheels, framework comprising a transverse member interposed between the springs of one such set of wheels and the vehicle frame, and a transverse leaf spring interposed between the vehicle frame and the said transverse member, said transverse spring connected near its center to one of the parts between which it is interposed, and connected non-rigidly to the other of said members between which it is interposed.

[Claims 6 to 9 not printed in the Gazette.]

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1,095,128. METHOD OF RECORDING MUSICAL TONES. CHARLES F. STODDARD, Boston, Mass. Filed Apr. 30, 1908, Serial No. 430,082. Renewed Aug. 28, 1913. Serial No. 787,204. (Cl. 84—68.)



1. A method of making readable records indicative of the intensities of tones produced by a stringed musical instrument, which comprises recording upon a uniformly moving record-receiving sheet a plurality of parallel straight lines, one line for each tone to be recorded, each said line beginning at substantially the instant of undamping its corresponding string and terminating at substantially the instant of striking said string, whereby the length of each line so recorded graphically represents the elapsed time between the undamping and the striking of the corresponding string.

2. A method of making readable records indicative of the intensities of tones produced by a stringed musical instrument, which comprises recording upon a uniformly moving record-receiving sheet a plurality of parallel straight lines, one line for each tone to be recorded, said lines beginning at the same stages in the operations of their respective tone-sounding actions prior to the sounding of the respective tones, and each said line terminating at substantially the time at which its corresponding string is struck, whereby the length of each said line graphically represents the elapsed time between the first said stage and substantially the time of striking the string.

3. A method of making readable records indicative of the intensities of tones produced by a stringed musical instrument, which comprises recording upon a record-receiving sheet which moves uniformly in relation to co-operating recording means, a plurality of parallel lines, one line for each tone to be recorded, said lines being so recorded during equal movements of their respective tone-sounding actions, and each said line terminating not later than the sounding of its corresponding tone, whereby the lengths of said lines represent graphically the elapsed times during the said equal movements of their respective tone-sounding actions.

4. A method of making readable records indicative of the intensities of tones produced by a stringed musical instrument, which comprises recording in rectilinear alinement and along a record-receiving medium which moves uniformly in relation to cooperating recording means, a

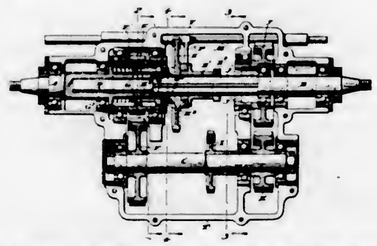
plurality of selected successive stages in the operation of a tone-sounding action, including, first, a stage prior to the sounding of the tone, and, second, substantially the stage when the sound begins, whereby the linear distance between the records of said stages representa the elapsed time between said stages of operation.

5. A method of making readable records indicative of the intensities of tones produced by a stringed musical instrument, which comprises recording in rectilinear alinement along a record-receiving medium, a plurality of selected successive stages in the operation of a tone-sounding action, including, first, a stage prior to the sounding of the tone, and, second, a subsequent stage not later than that at which the sound begins, whereby the linear distance between the records of said stages represents the elapsed time between said stages of operation.

[Claims 6 to 8 not printed in the Gazette.]

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1,095,129. CHANGE-SPEED-GEAR MECHANISM FOR MOTOR-VEHICLES. FENTON FREDERICK STRATTON, East Croydon, England. Filed Mar. 17, 1914. Serial No. 825,349. (Cl. 74—59.)

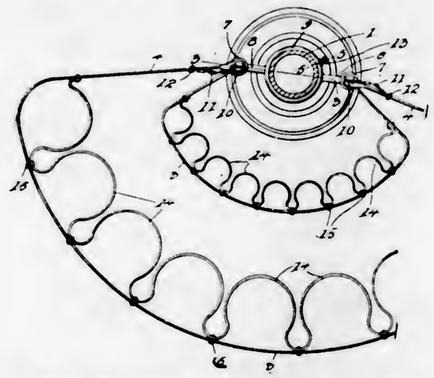


1. A change speed gearing including a drive shaft, a driven shaft in axial alinement with the drive shaft, the driven shaft being formed with a portion extending within the drive shaft, an inner sleeve splined on the drive shaft and having notches in the end thereof, a sleeve embracing the first mentioned sleeve, the inner sleeve being provided with clutch teeth which mesh with clutch teeth carried interiorly of the outer sleeve, a stop ring carried by one end of the outer sleeve, the drive shaft having a collar, a spring interposed between said collar and the inner sleeve, said spring normally forcing the sleeve into contact with the stop ring whereby the clutch teeth of the sleeves are maintained in mesh, a lay shaft, a sprocket fixed on the lay shaft, the outer sleeve having exterior teeth, a sprocket chain engaging said teeth and the sprocket wheel of the lay shaft, a gear wheel splined on the driven shaft and carrying teeth disposed to engage the notches in the inner sleeve whereby the shafts are locked together, means for moving said gear longitudinally of the driven shaft to force the meshing clutch sleeves of the inner and outer sleeves out of mesh against the tension of the spring, a sprocket wheel loosely mounted on the driven shaft, said gear wheel having means for locking the said sprocket wheel thereto, a sprocket wheel mounted on the lay shaft, a chain passing over the sprocket wheel of the driven shaft and that of the lay shaft, and a gear mounted on the lay shaft and disposed to be engaged by the sliding gear of the driven shaft whereby to cause a reverse movement of the said driven shaft.

2. A change speed gearing including a drive shaft, a driven shaft in axial alinement with the drive shaft, an inner sleeve splined on the driven shaft, an outer sleeve, there being clutch teeth arranged exteriorly of the inner sleeve which engage clutch teeth arranged interiorly of the outer sleeve, a stop ring carried by the outer sleeve and projecting inwardly of the same, means for normally maintaining the inner sleeve in contact with the stop ring whereby the clutch teeth of the sleeves are maintained in mesh, the inner sleeve being formed with a clutch face, a gear wheel splined on the driven shaft and including a hub portion with a clutch face, means for moving the gear wheel longitudinally of the driven shaft to bring the clutch face of the hub portion into locking engagement with the clutch face of the inner sleeve, a lay shaft, a sprocket wheel fixed to the lay shaft, a chain passing over said sprocket wheel and engaging teeth arranged exteriorly of the outer sleeve, a sprocket wheel loosely mounted on the driven shaft, a sprocket on the lay shaft, a chain passing over the sprockets of the lay and driven shafts, the hub of the gear wheel being formed with an extension provided with radial projections, the sprocket wheel of the driven shaft being formed with a hub portion provided with notches with which said radial projections engage whereby to lock said sprocket to the gear wheel, the hub of the sprocket having a bore of such diameter whereby the extension of the gear wheel may be projected within the same and brought out of the notches formed in the sleeve and a gear wheel mounted on the lay shaft and engaged by the gear wheel of the driven shaft when the extension of the second mentioned gear wheel is projected within the bore of the driven sprocket.

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1,095,130. UMBRELLA-DISPLAY RACK. CHARLES SWORD, Cohoes, N. Y. Filed Oct. 29, 1913. Serial No. 797,968. (Cl. 211—14.)



A display rack comprising a standard, a sleeve mounted on said standard, means for holding said sleeve in adjusted position, arms projecting outwardly from said sleeve, rings connected with said arms, a curved metal band having twisted and downturned ends inserted in said rings, pins inserted in said rings for holding said ends in place and permitting their removal, and a metal band provided with a series of loops connected at intervals to said curved band for supporting articles within the loops.

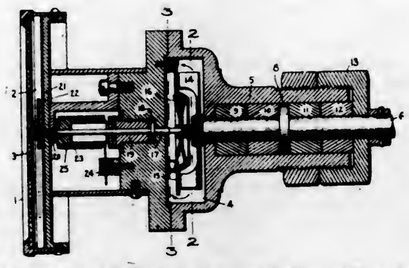
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1,095,131. SPEED-INDICATOR. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 1, 1908. Serial No. 430,286. (Cl. 73—123.)

1. In a speed indicator, the combination with a movable indicating member and a control spring for restraining the movement of said member, of speed responsive mechanism operatively related to said member and having a variable effective torque producing means so that the efficiency of said mechanism varies with the speed to be measured whereby the movement of said indicating member is substantially proportional to the speed.

2. In a speed indicator, the combination with a movable indicating member and a control spring for restraining the movement of said member, of a driving member operatively connected to said indicating member, a receptacle containing a fluid, and a speed responsive member having a variable effective torque producing means for causing said fluid to exert a torque on said driving member of such an amount that the movement of the indicating member is substantially proportional to the speed to be measured.





3. In a speed indicator, the combination with a movable indicating member and a control spring for restraining the movement of said member, of a liquid container, liquid in said container, a device in said container responsive to the movement of the liquid and connected to the indicating member, and speed responsive mechanism having a variable effective liquid movement producing means for automatically varying with the speed to be measured the effective action of the liquid on said device whereby the movement of the indicating member is substantially proportional to the speed to be measured.

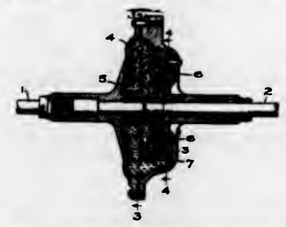
4. In a speed indicator, the combination with a rotatable indicating member and a control spring for restraining the rotation of said member, of a liquid container, a body of liquid in said container, and speed responsive means for moving said liquid to cause it to exert on said member a torque proportional to the speed.

5. In a speed indicator, the combination with a rotatable member and a control spring for restraining the rotation of said member, of a liquid container, a body of liquid in said container and in contact with said member, and speed responsive means having a variable effective area for moving said liquid over said member so as to exert thereon a torque dependent upon the area exposed to the liquid and having means for decreasing the effective area of the speed responsive means exposed to said liquid as the speed increases.

[Claims 6 to 19 not printed in the Gazette.]

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1,095,132. POWER-TRANSMITTING MECHANISM. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed May 1, 1908. Serial No. 430,287. (Cl. 138—3.)



1. In a power transmitting mechanism, the combination of a rotary impelling member shaped to deliver at its periphery fluid under a pressure dependent on the speed of said impelling member, a rotatable motor member shaped to permit fluid to flow through it and thereby exert a torque on said motor member, and a stationary casing shaped to completely inclose both said members and to provide an equally direct and unobstructed discharge passage from every point on the periphery of said impelling member to corresponding points on said motor member, said casing being filled with a fluid in which both said members are completely submerged.

2. A power transmitting mechanism comprising, a rotatable impelling member shaped to deliver at its periphery fluid under pressure dependent on the speed of said impelling member, a rotatable motor member mounted parallel to said impelling member and shaped to be driven by the fluid circulated by said impelling member, and a casing completely inclosing both said members filled with fluid in which both said members are submerged, said casing being shaped to direct through said motor member along the axis of rotation thereof a fluid discharged from said impelling member, said impelling member being mounted concentric with said casing to provide equal clearance between the casing and the impelling member at all points on the periphery of said impelling member.

3. In a power transmitting mechanism, the combination of a rotatable impeller for putting fluid under a pressure dependent on the speed of said impeller, a rotatable motor member having vanes set at an angle to its axis of rotation and to the flow of fluid, means for at will varying the angle of said vanes, and a stationary casing which encircles said impeller and said motor member and provides a discharge passage of substantially the same size at all points on the periphery of said impeller, said discharge passage leading through the vanes of said motor member along the axis of rotation thereof and permitting a direct and unobstructed flow of fluid from every point of the periphery of said impeller to the vanes of said motor member.

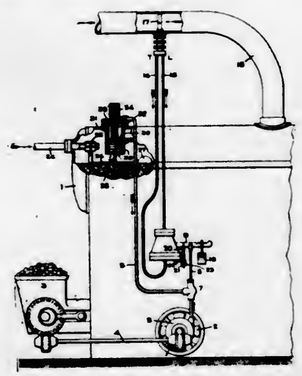
4. In a power transmitting mechanism, the combination of a casing containing fluid and having two coaxial annular chambers communicating at their ends to form a continuous passage for the fluid, a rotatable motor member mounted to rotate about an axis coaxial with said chambers and having vanes which project into one of said chambers at an angle to the flow of fluid therein, and an impeller for delivering fluid at the same pressure to all parts of the chamber into which said vanes project.

5. In a power transmitting mechanism, the combination of a stationary casing containing fluid and having two coaxial annular chambers communicating at their ends to form a continuous passage for the fluid, a rotatable impeller mounted in said casing coaxially with one of said chambers to deliver fluid from all points on its periphery to all points of said chamber at the same pressure, a rotatable motor member mounted coaxially with said other chamber and having vanes which project into said chamber to be acted upon by the fluid flowing therein, and means for at will varying the effect of the fluid flowing in said chamber on said motor member and thereby varying the torque of said motor member.

[Claims 6 to 11 not printed in the Gazette.]

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1,095,133. STEAM-BOILER CONTROL. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Oct. 5, 1912. Serial No. 724,016. (Cl. 122—4.)



1. A steam boiler regulator comprising a device responsive to changes in the volume of steam drawn from said

boiler, means admitting liquid to the boiler, means supplying fuel to heat the boiler, and means dependent on said device for controlling the action of said liquid and fuel supplying means.

2. A steam boiler regulator comprising a pressure difference device in the steam main, means for controlling the supply of fuel to the furnace of said boiler, means for controlling the supply of water for said boiler, and means controlled by said pressure difference device for governing the operation of said fuel and water supplying means.

3. A steam boiler regulator comprising a nozzle plug in the steam main, a movable abutment connected with said plug, a motor governed by said abutment, and air and fuel supplying mechanism driven by said motor.

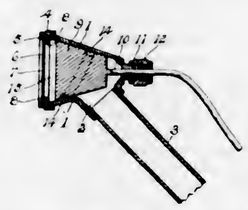
4. A steam boiler regulator comprising a nozzle plug in the steam main, a movable abutment connected to said plug, a motor governed by said abutment and taking steam from said boiler, air and fuel supplying mechanism driven by said motor, and means responsive to the flow of steam to said motor for regulating the feed water.

5. A steam boiler regulator comprising a nozzle plug in the steam main, a movable abutment connected to said plug, a motor governed by said abutment and taking steam from said boiler, air and fuel supplying mechanism driven by said motor, a piston having a constricted passage through which steam must flow to said motor, and a feed water valve operated by said piston.

[Claim 6 not printed in the Gazette.]

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1,095,134. SPRAY-NOZZLE. NORMAN A. WRIGHT, Pontiac, Mich. Filed Nov. 18, 1911. Serial No. 660,985. (Cl. 137—86.)



1. In a spray nozzle, the combination of a casing having an inlet at one end and an axial discharge opening at its opposite end, and a conically shaped plug seated within the casing and formed with a fluid passage opening through the ends of the plug, said plug being seated within the casing with a space between its large end and the discharge end of the casing to form a chamber between said end and the end of the plug into which chamber the discharge end of the passage opens.

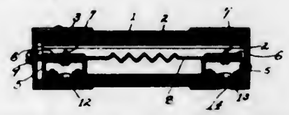
2. In a spray nozzle, the combination of a casing having an inlet opening at one end and an axial discharge opening at its opposite end, a plug in said casing having the form of the frustum of a cone and formed with a spiral groove in its periphery, the ends of which groove are open at the ends of the plug, said casing being formed to fit the plug which is adapted to seat therein and said plug being arranged with a space between its large end and the discharge end of the casing which space forms a chamber into which the groove in the plug opens, and means for adjusting the plug toward and from its seat in the casing.

3. In a spray nozzle, the combination of a casing having an inlet opening at one end and open at its discharge end, a plate to close the discharge end of the casing having an axial discharge opening, a conically formed plug in the casing having a spiral groove in its periphery extending from end to end thereof, said casing being formed with a conical interior seat to fit the plug and said plug being arranged with a chamber between its large end and the said closing plate, and a stem for the plug extending outward through the casing for adjusting the plug toward and from its seat.

4. In a spray nozzle the combination of a hollow conically shaped casing having an inlet opening near one end and an externally screwthreaded discharge end, a closing plate for the discharge end of the casing having an axial discharge opening, a ring engaging the screwthreaded end of the casing to secure the plate in place, a plug in the casing having the form of the frustum of a cone and provided with a groove in its periphery extending from end to end thereof, the casing being formed with an interior seat to fit the plug and the plug being arranged at a distance from the closing plate to form a chamber between the large end of the plug and said plate, a stem for the plug extending outward through an opening in the rear end of the casing for moving the plug toward and from its seat in the casing, and a pipe entering the inlet opening in the casing to supply fluid thereto.

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1,095,135. FUSE-HOLDER. HARRY W. YOUNG, Chicago, Ill. Filed Jan. 10, 1913. Serial No. 741,171. (Cl. 175—273.)



1. A device of the class described comprising two longitudinally separable telescoping tubes constituting a fuse casing, one of said tubes being of a size to fit snugly within the other for substantially its entire length; a terminal contact member carried by each of said tubes but at opposite ends thereof; and a fuse member electrically connected with said contacts, substantially as described.

2. A device of the class described comprising two separable telescoping tubes constituting a fuse casing, one of said tubes being of a size to fit snugly within the other for substantially its entire length and provided with a slot therein adapted to permit insertion of a fuse member; a terminal contact member carried by each of said tubes; a fuse member of the same shape as and adapted to be inserted through said slot; clamping members in each end of the inner tube adapted to clamp said fuse member; and electrical connections between said clamping members and said contacts, substantially as described.

3. A device of the class described comprising two separable telescoping tubes constituting a fuse casing, one of said tubes being of a size to fit snugly within the other for substantially its entire length and provided with a slot of distinctive shape adapted to permit the insertion of a fuse member; a terminal contact member carried by each of said tubes; a fuse member of the same shape as and adapted to be inserted through said slot; clamping members in each end of the inner tube adapted to clamp said fuse member; and electrical connections between said clamping members and said contacts, substantially as described.

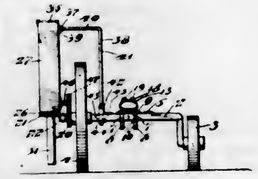
4. A device of the class described comprising two separable telescoping insulating tubes constituting a fuse casing; a metallic cap secured over one end of the inner tube and of a size to pass over the corresponding end of the outer tube; a metallic cap secured over the other end of the outer tube; and a fuse member electrically connected with said caps, substantially as described.

5. A device of the class described comprising two separable telescoping insulating tubes constituting a fuse casing; a metallic cap secured over one end of the inner tube and of a size to pass over the corresponding end of the outer tube; a metallic cap secured over the other end of the outer tube; a metallic clamping member secured in each end of said inner tube, the clamping member in the corresponding end of said tube being electrically connected with the cap thereon; means for effecting an electrical connection between the cap on the outer tube and the other clamping member; and a fuse member connected between said clamping members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]



1,095,136. CORN-PLANTER. JOSEPH BAHNER, Philadelphia, Pa. Filed July 28, 1913. Serial No. 781,692. (Cl. 111—6.)

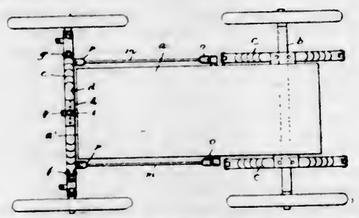


1. In combination with an axle, wheels journaled thereon, a bracket carried by the axle projecting upwardly and extending over one of the wheels, a gear wheel mounted upon the wheel over which the bracket extends, a hopper, a housing carried thereby, a shaft journaled in said housing carrying means for distributing the seeds, a gear wheel also mounted on said shaft outside of the housing adapted to mesh with the first named gear wheel, a plate carried by the outer end of the axle, a lever pivoted to said plate and to the hopper, and a chute leading from the housing.

2. In combination with an axle having wheels journaled thereon one of which is provided with a gear wheel, means carried by said axle for receiving a plow beam, a bracket carried by the axle projecting upwardly and extending over the wheel carrying the gear wheel, a hopper swingingly mounted upon the bracket, said hopper having an opening at its lower end normally closed by an adjustable slide, a housing secured to the lower end of the hopper and in communication therewith through said opening, said housing having a chute opening, an adjustable chute leading from said chute opening, a shaft mounted in the housing, a seed wheel mounted on said shaft within the housing, said seed wheel being provided with seed cavities, a gear wheel mounted on the outer end of said shaft adapted to mesh with the first named gear wheel and means for swinging the lower end of the hopper, whereby the gear wheels carried by the hopper may be moved into or out of operative position.

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1,095,137. AUTOMOBILE RUNNING-GEAR. SAMUEL R. BAILEY, Amesbury, Mass. Filed Sept. 22, 1911. Serial No. 650,766. (Cl. 21—182.)

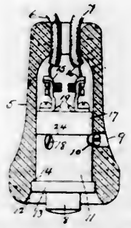


An automobile body having an axle extending from side to side thereof, a ball-and-socket joint between said body and the upper side of the axle at the middle thereof, permitting universal swinging movement of the axle, rods pivotally connected to the ends of the axle and the opposite sides of the body, normally held in an approximately horizontal position and longitudinally unyielding to hold the axle from swinging horizontally about a vertical axis and to permit vertical swinging and simultaneous rearward or forward movement of the axle, substantially as described.

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1,095,138. PUSH-SWITCH. CLARENCE A. BATES, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed June 26, 1913. Serial No. 775,940. (Cl. 177—10.)

1. A pendant switch of the character described, comprising a body of insulating material adapted to be grasped by the hand, said body being longitudinally perforated to afford a switch chamber opening to one end and a wire entrance aperture opening to the opposite end thereof, a switch frame, wire and switch terminals carried thereby, means for mounting said frame within the switch chamber and a push button slidably mounted in said frame and carrying a switch piece adapted to electrically connect the switch terminals only upon the depression of said button inwardly beyond the plane of the end of the switch body.



2. A pendant push button switch having an insulating body adapted to be grasped in the hand and longitudinally perforated to admit leading-in wires at one end and a push button at the opposite end, a switch frame within the body, binding screw wire terminals carried thereby and projecting from the frame toward the wire entrance end of the body, switch terminal flanges struck from said wire terminals and angled toward each other, a push button sliding in said frame and spring contacts carried by said button and adapted to enter between the said switch terminal flanges to complete the switch circuit, substantially as described.

3. A pendant push button switch having a body of insulating material adapted to be grasped by the hand, and chambered to receive a switch frame at one end and leading-in wires at the other end, a switch frame mounted in said body and carrying stationary switch terminals, a push button slidable in said frame, a contact piece mounted on the inner end of said button and swiveling with relation thereto and means for guiding said contact piece into engagement with the switch terminals and holding it against rotation, whereby said push button is free to swivel with relation to said contact piece without displacing it from position to engage the stationary switch terminals, substantially as described.

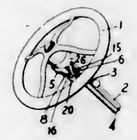
4. A pendant switch of the character described comprising a body of insulating material adapted to be grasped by the hand, said body being longitudinally perforated to afford a switch chamber opening to one end and a wire entrance aperture opening to the opposite end thereof, an internal shoulder at the switch end of the body, a switch frame seated against said shoulder, means for holding said frame in position, an insulating button carried at the inner end of said frame, a pair of wire terminals mounted on said insulating button and projecting toward the wire entrance end of the switch body, switch terminals electrically connected with said wire terminals, a push button working in the outer end of said frame, a spring confined between said insulating button and push button and serving to constantly force the latter outward, together with spring switch contacts adapted to enter between said switch terminals to complete the switch circuit, substantially as described.

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1,095,139. THROTTLE-LOCK FOR AUTOMOBILES. SAMUEL LESLIE BENNETT, Bellows Falls, Vt. Filed Mar. 10, 1913. Serial No. 753,341. (Cl. 21—90.)

1. As an article of manufacture, an auxiliary quadrant member presenting a curved body portion having on its under side a quadrant-receiving groove and on its upper side a series of notches to engage the throttle lever, and a projection constituting a lever stop, and clamping means associated with the body and adapted to clamp said auxiliary quadrant member to the quadrant arm of an automobile.

2. As an article of manufacture, an auxiliary quadrant member provided on its under side with positioning means to fit the quadrant arm of an automobile and retain said auxiliary quadrant in position on said arm, said auxiliary quadrant having on its upper side a plurality of notches to coöperate with the throttle lever, and clamping means associated with said auxiliary quadrant member and adapted to clamp the same to the quadrant arm.

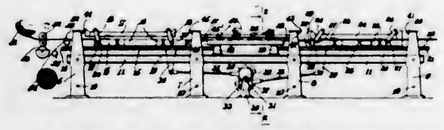


3. As an article of manufacture, an auxiliary quadrant member adapted to overlie and be removably sustained by the quadrant arm of a throttle lever and having a series of fine lever-receiving notches on its upper face, means associated with said auxiliary quadrant member for detachably securing it to the quadrant arm, and a lock for the throttle lever carried by said quadrant member.

4. As an article of manufacture, an auxiliary quadrant member adapted to overlie and be removably sustained by the quadrant arm of a throttle lever and having a series of fine lever-receiving notches on its upper face, means associated with said auxiliary quadrant member for detachably securing it to the quadrant arm, said auxiliary quadrant member having an apertured ear depending therefrom, a locking finger pivoted to the quadrant member and having a portion overlying said ear and provided with two apertures, one of which is in alinement with the aperture in the ear when the locking finger is in its operative position and the other of which is in alinement with said aperture when the locking finger is in its inoperative position, and a lock adapted to extend through the alined apertures to hold the locking finger in either of its two positions.

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1,095,140. CORRUGATED-PAPER-FACING MACHINE. RALPH H. CLARKE, Coshocton, Ohio, assignor to Corrugated Fibre Co., Dayton, Ohio, a Corporation of New Jersey. Filed Mar. 4, 1911. Serial No. 612,346. (Cl. 154—32.)



1. In a machine for facing corrugated paper, the combination, with a pair of oppositely reciprocating supports for the strips during their transit through the machine, of means coöperating with each support during the reciprocation thereof in one direction to advance said strips and at the same time subject them to the requisite pressure.

2. In a machine for facing corrugated paper, the combination, with a reciprocating support for the strips during their transit through the machine, of an upper presser plate carried by said support and pressing against the strips during reciprocation of said support in one direction, and means for raising said plate clear of said strips and holding the same in its raised position during reciprocation of said support in the other direction.

3. In a machine for facing corrugated paper, the combination, with a pair of oppositely reciprocating supports for the strips during their transit through the machine, of a pressure plate carried by each of said supports and pressing against said strips during movement of said support in one direction, and means for raising each of said plates clear of said strips and holding the same in its raised position during movement of said supports in the opposite direction.

4. In a machine for facing corrugated paper, the combination, with a pair of oppositely reciprocating supports for the strips during their transit through the machine, of a presser plate carried by each of said supports and pressing against said strips during movement of said support in one direction, means for raising each of said plates clear of said strips and holding the same in its raised position during movement of said supports in the opposite direction, and means for heating said supports and said plates.

5. In a machine for facing corrugated paper, the combination, with a pair of reciprocating supports, an intermediate stationary support, and means coöperating with said reciprocating supports for advancing the paper strips through the machine, of means for insuring a continuous supporting surface irrespective of the position of said reciprocating supports

[Claims 6 to 13 not printed in the Gazette.]

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1,095,141. LOG AND STREAM-INDICATOR. WILLEM CORNELIS, Utrecht, Netherlands. Filed Aug. 29, 1913. Serial No. 787,322. (Cl. 73—122.)



1. A log or stream indicator comprising, in combination, a trailing filament; a plurality of checking devices attached at intervals thereto; and a member slidable upon said filament and exposed to the pressure of the water for engaging said devices successively and imparting shocks to the filament consequent upon such engagement.

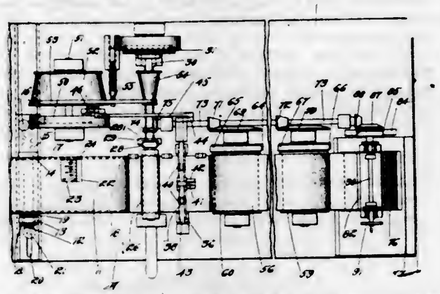
2. A log or stream indicator comprising, in combination, a trailing filament; a plurality of checking devices attached at intervals thereto and embodying, each, a rod provided with one or more collars; and a member slidable upon said filament and exposed to the pressure of the water for engaging the collars of the successive devices and imparting shocks to the filament consequent upon such engagement.

3. A log or stream indicator comprising, in combination, a trailing filament; a plurality of checking devices attached at intervals thereto; and an apertured disk slidable upon said filament and exposed to the pressure of the water for engaging said devices successively and imparting shocks to the filament consequent upon such engagement.

4. A log or stream indicator comprising, in combination, a trailing filament; a plurality of checking devices attached at intervals thereto and embodying, each, a rod provided with one or more collars; and an apertured disk slidable upon said filament and exposed to the pressure of the water for engaging the collars of the successive devices and imparting shocks to the filament consequent upon such engagement, the aperture in said disk having a diameter which is slightly greater than that of said collars.



1,095,142. MOISTENING-MACHINE. CHARLES H. CROWELL, Swampscott, Mass. Filed Apr. 3, 1912. Serial No. 688,292. (Cl. 91—14.)



1. The improved moistening machine for gummed tape which comprises means for delivering the tape, feeding means, cutting means, a conveyer, and moistening mechanism, the feeding means and the conveyer having substantially the same peripheral speed and the moistening means having a peripheral speed which is greater.

2. The improved machine for moistening and severing strips of gummed paper which consists of a pair of feed rolls, a conveyer, cutting means to sever the paper and located between the said feed rolls and the said conveyer, and moistening mechanism, said moistening mechanism having a surface speed greater than that of the conveyer.

3. In a machine of the character described, the combination with a pair of feed rolls, of a conveyer, said feed rolls and conveyer having substantially the same surface speed, cutting means located between the feed rolls and the conveyer, a main shaft rotating the parts, and variable connections between the cutting means and the said main shaft, whereby the number of strokes of the cutting means to a given number of revolutions of the main shaft may be varied.

4. In a machine of the character described, the combination with a pair of feed rolls, a conveyer having substantially the same surface speed as the feed rolls, cutting means located between the feed rolls and the conveyer, means for varying the number of strokes of the cutting means, the distance between the feed rolls and the cutting means and between the cutting means and the conveyer being less than the length of the shortest strip that can be cut.

5. In a machine of the character described, the combination with a container, a pair of feed rolls, a knife, and a conveyer, of means for guiding the tape from one set of instrumentalities to the next succeeding set comprising a bed plate and a hinged top plate.

[Claim 6 not printed in the Gazette.]

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1,095,143. RECEPTACLE CLOSING AND SEALING DEVICE. IRVING G. DOUGLAS, Montclair, N. J., assignor to Cooperage Seal Company, Inc., New York, N. Y., a Corporation of New York. Filed Mar. 7, 1913. Serial No. 752,674. (Cl. 217—106.)



1. In a device of the class described, a portion adapted to rest upon the outer surface of a receptacle adjacent the bung hole and to surround the bung hole, said portion having a bendable member depending from said portion and adapted to extend within the bung hole, said member being provided with means to lock the device against removal, said member being normally in the path of the bung whereby as the bung is driven into position said member will be forced into locking position.

2. In a device of the class described, a portion adapted to rest upon the outer surface of a receptacle adjacent the bung hole and to surround the bung hole, said portion having a bendable member depending from said portion and adapted to extend within the bung hole, said member being provided with projections adapted to co-act with the receptacle to lock the device against removal, said member being normally in the path of the bung whereby as the bung is driven into position said member will be forced into locking position.

3. In a device of the class described, a portion adapted to rest upon the outer surface of the receptacle adjacent the bung hole, and converging flexible arms extending downwardly from said portion and adapted to extend into the bung hole, said arms being provided with portions adapted to co-act with the receptacle to lock the device against removal, said arms lying normally in the path of the bung whereby, as the bung is driven into position, said arms will be spread apart thereby causing said co-acting portions to lock the device in position.

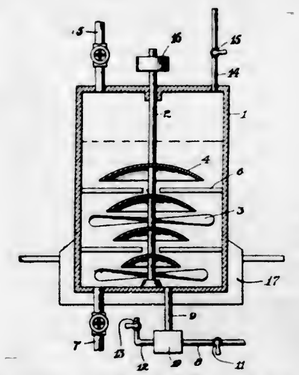
4. In a device of the class described, a portion adapted to rest upon the outer surface of the receptacle adjacent the bung hole, and converging flexible arms extending downwardly from said portion and adapted to extend into the bung hole, said arms being provided with outwardly bent ends adapted to extend under the inner surface of the receptacle adjacent the bung hole, said arms lying normally in the path of the bung whereby, as the bung is driven into position, said arms will be spread apart thereby causing said bent ends to extend under the inner surface of the receptacle locking the device against removal.

5. In a device of the class described, a portion adapted to engage the outer surface of the receptacle adjacent the bung hole, and converging flexible arms extending downwardly from said portion and adapted to extend into the bung hole, said arms being provided with projections adapted to be forced into the receptacle and with projections adapted to be forced into the bung, whereby, as the bung is being driven into place, said arms will be spread apart and said projections will be driven into the receptacle and into the bung, locking the device, and also the bung, against removal.

[Claims 6 and 7 not printed in the Gazette.]

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1,095,144. PROCESS AND APPARATUS FOR TREATING COMPOSITE EDIBLE OILS, &c. CARLETON ELLIS, Montclair, N. J. Filed July 12, 1913. Serial No. 778,731. (Cl. 87—12.)



1. The process of treating fatty materials, containing unsaturated bodies, which comprises exposing a moving body of the same in liquid condition, and in the presence of a catalyzer, to a bubbling current of hydrogen, the general direction of the movement of the body of the mixture being across the path of travel of the hydrogen current.

2. The process of treating a mixture of edible cotton and corn oils, which comprises exposing a moving body of such mixture, in the presence of a catalyzer, to a bubbling current of hydrogen, the general direction of movement of such mixture being substantially transverse to the general direction of movement of said hydrogen current.

3. The process of treating a mixture of edible fatty oils, and the like, which comprises exposing a moving body of such mixture, in the presence of a catalyzer, to a bubbling ascending current of hydrogen, the general direction of movement of such mixture being at an angle to the general direction of movement of such hydrogen current.

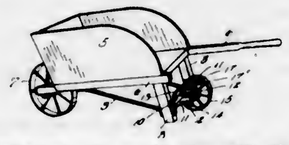
4. The process of treating a mixture of edible fatty oils and the like, which comprises exposing a moving body of such mixture, in the presence of a catalyzer, to a bubbling ascending current of hydrogen, the mixture being caused to circulate in a generally uniform plane, at an angle to the general direction of movement of the hydrogen current, during such treatment.

5. The process of treating a mixture of edible fatty oils and the like, which comprises exposing a moving body of such mixture, in the presence of a catalyzer and in a heated condition, to a bubbling ascending current of hydrogen, the general direction of movement of such mixture being across the path of travel of the ascending hydrogen current.

[Claims 6 to 11 not printed in the Gazette.]

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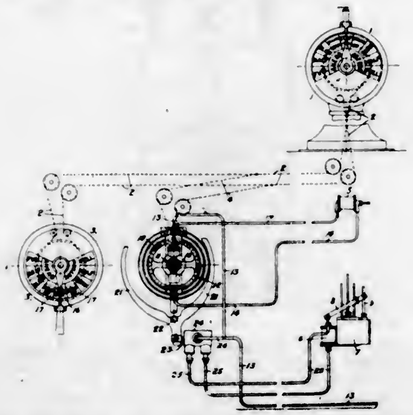
1,095,145. WHEELBARROW. DAVID ELTERICH, Forks, Wash. Filed Jan. 20, 1913. Serial No. 743,014. (Cl. 21—68.)



In a wheelbarrow, the combination with the barrow legs, boxes secured thereto, a frame provided with gudgeons which are journaled in said boxes, a wheel, an axle therefor, said axle being journaled in said frame, and means for securing said frame in positions to present the wheel either above or below the lower ends of said legs.

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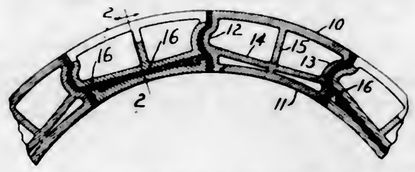
1,095,146. ENGINE-CONTROLLING APPARATUS. ALEXANDER ESPLEN, Liverpool, England. Filed Nov. 25, 1913. Serial No. 802,892. (Cl. 121—13.)



An apparatus for controlling the operation of engines comprising in combination a throttle-control valve, a gearing-control valve provided with a rocking arm for actuating same, a rotatable spindle, a main valve suitably connected with said throttle-control valve and adapted to be operated by said spindle, a swinging lever carried on said spindle and adapted to coöperate with the rocking arm of said gearing-control valve, and means for rotating said spindle whereby when it is moved in one direction the swinging lever contacts with said rocking arm to actuate said gearing-control valve and when further moved in the same direction the main valve is operated to actuate said throttle-control valve, substantially as described.

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1,095,147. HOLLOW TILE. FRANCIS K. FASSETT, Dayton, Ohio, assignor to Evans & Howard Fire Brick Company, St. Louis, Mo., a Corporation. Filed June 30, 1913. Serial No. 776,499. (Cl. 72—41.)




1. A hollow tile having a top and bottom wall and an intermediate web, all of the same length and united by two side walls, the top and bottom being in perpendicular alinement with each other, with the web being longitudinally displaced with reference to them so it will overlap the bottom of a similar tile when the two tiles are abutted end on, said longitudinal displacement of the web allowing room at the other end for the overlapping end of a similar tile when the two tiles are abutted end on.

2. A hollow tile having a top and bottom wall and an intermediate web, all of the same length and united by two side walls, the top and bottom being in perpendicular alinement with each other, with the web being longitudinally displaced with reference to them so it will overlap the bottom of a similar tile when the two tiles are abutted end on, said longitudinal displacement of the web allowing room at the other end for the overlapping end of a similar tile when the two tiles are abutted end on, a portion of each side wall being removed at this end to form spaces 16.

3. A hollow tile having a top and bottom wall and an intermediate web, all of the same length and united by two side walls, the top and bottom being in perpendicular alinement with each other, with the web being longitudinally displaced with reference to them so it will overlap the bottom of a similar tile when the two tiles are abutted end on, said longitudinal displacement of the web allowing room at the other end for the overlapping end of a similar tile when the two tiles are abutted end on, and means incorporated in the side walls whereby the distance between the bottom and the overlapping end of an abutting tile is prevented from exceeding the distance from said bottom to its own web.

4. A hollow tile having a top and bottom wall and an intermediate web, all of the same length and united by two side walls, the top and bottom being in perpendicular alinement with each other while the web is longitudinally displaced so as to extend beyond them at one end, the side walls reaching to said end, sloping from approximately where they join the top to the end of the web, but being cut away on a line with the lower surface of the web back to the bottom, the opposite ends of the side walls having notches complementary to the extending ends, except that the lower portions of the notches extend lower down.

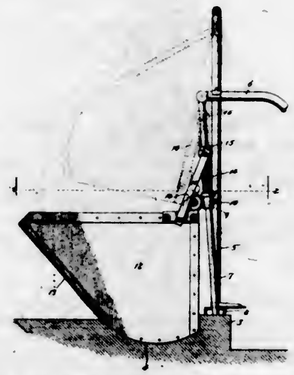
5. A hollow tile of segmental cross section having two concentric walls and an intermediate tangential web, all of the same length and united by radial walls, the concentric walls being in alinement with each other while the web is longitudinally displaced so as to extend beyond them at one end, the radial walls reaching to said end, sloping from approximately where they join the outer wall to the end of the web, but being cut away on a line with the inner surface of the web back to the end of the inner wall, the opposite ends of the radial walls having notches complementary to the extending ends, except that the lower portions of the notches extend lower down.

[Claim 6 not printed in the Gazette.]

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1,095,148. MANGER. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed June 9, 1913. Serial No. 772,610. (Cl. 119—27.)



1. The combination with the stall-members, of a series of stalls and a manger in front of the stalls and pivotally movable, of bars extending upwardly at the margins between the stalls and serving pivotally to support the manger, springs surrounding the bars, and links, each having operative connections at one end with the manger and at the other with the spring, for the purpose set forth.

2. In combination, a curb, a frame forming the front of the stall and adjustable longitudinally of the stall with reference to the curb, a feed-partition member pivotally supported independent of the frame at the front of the stall and adapted to be raised and lowered, whereby the front frame of the stall may be longitudinally adjusted without changing the position of the feed-partition member.

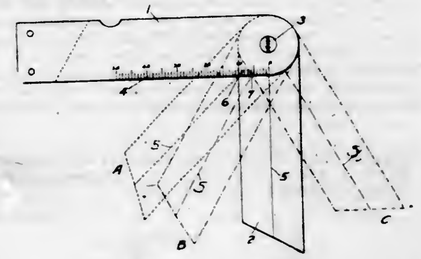
3. In combination with stall-members and upwardly-extending bars, springs surrounding the same, a sliding collar above each spring against which the same bears, a manger pivoted on the bars, and links connecting the collars with the manger at one side of the pivotal support of the manger, whereby the springs tend to raise the manger with increasing force as the same is raised.

4. In a manger and stall construction, in combination, a support, two frames mounted thereon, one of which is fixed and the other one of which is adjustable in the direction of the length of the stall, a manger pivotally mounted on the fixed frame and adapted to be raised and lowered, and spring operated means having a substantially dead-center position when the manger is in lowered position, and adapted to aid in raising the manger and hold it in raised position.

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1,095,149. MITER-TOOL. STEPHEN HAMMER, Portland, Oreg., assignor of one-half to Thomas A. Clarke, Portland, Oreg. Filed Jan. 9, 1913. Serial No. 740,966. (Cl. 33—115.)

1. A device of the class described including two members having straight edges and being pivotally connected to be adjusted to different angles relative to each other, one of said members being provided along its inner edge with a series of close, equally spaced graduation marks, the other member having an index mark extending centrally and longitudinally thereof, and parallel with the inner edge of the member the center of the pivot of the members coinciding with the index mark, both said index mark and the inner edge of said other member coöperating with the graduation marks of the first mentioned member to indicate the relative adjustment of the members to bisect an angle to which the parts are adjusted, the inner edge of said other member, when said parts are adjusted to any angle, indicating by the graduations on the first mentioned member the point to which the index mark of said other member is to be moved to bring the member in position to bisect said angle.




2. A device for the purpose set forth including two flat members of the same width, each having straight parallel longitudinal edges and being pivoted together near their ends at points coincident with their middles and adapted to be adjusted to different angles relative to each other, one of said members being provided along its inner edge with a series of close, equally spaced graduation marks, the other member having an index line extending centrally and longitudinally thereof parallel with its inner edge, the center of the pivot of the members coinciding with the index lines both said index line and the inner edge of said member coöperating with the graduation marks of the first mentioned member to indicate the relative adjustment of the members to bisect the angle to which the parts are adjusted, said inner edge of one member, when said parts are adjusted to any angle, indicating by the graduations on the first mentioned member the point to which the index line of the said other member is to be moved to bring the member in position to bisect said angle.

3. A miter tool of the character set forth, comprising two members pivotally connected at their ends and adapted to be closed and opened knife fashion, said members having straight inner edges, one of said members being provided along its inner edge with a series of close, equally spaced graduation marks, the other member having an index line extending centrally and longitudinally thereof parallel with its inner edge, the center of the pivot of said members coinciding with the said index line, both the index line and the inner edge of the said member coöperating with the graduations of the other member to indicate the relative adjustment of the members to bisect the angle to which the members are adjusted, said inner edge of the said member, when said parts are adjusted to any angle, indicating by the graduations the point to which the said index line of the said member is to be moved to bring said member in position to bisect said angle.

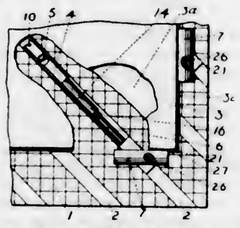
4. A miter tool comprising two flat members pivotally connected at their ends and having straight parallel edges and rounded ends which are concentric with the pivot, one of said members being provided along its inner edge with a series of close, equally spaced graduation marks, and the other of said members being provided with an index line extending centrally and longitudinally thereof parallel with its inner edge, the center of the pivot of the member coinciding with the said index line of the other member, the inner edge of the said other member, when said members are adjusted to any angle, serving to indicate by the graduations of the first mentioned member the point to which the index line of the said other member is to be moved to bring the said member in position to bisect said angle.

5. A miter tool comprising two members with rounded ends and straight edges, pivotally connected at their rounded ends to be adjusted to different angular positions

relative to each other, one of said members including two flat metal parts spaced apart and provided along an inner edge with a series of close, equally spaced indicating marks, and the other of said members comprising a flat member adapted to close between the parts of said first mentioned member and being provided with an index line extending centrally and longitudinally thereof parallel with its inner edge the center of the pivot for the members coinciding with the said index line, the said other member being adapted to be moved to position the index line into crossing relationship with the indicating marks on the inner edge of the first mentioned member, the inner edge of the said second member serving to indicate by the graduation marks on the first mentioned member the particular point to which the index line is to be moved to bring said second member in position to bisect the angle.

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1,095,150. ADJUSTABLE PRINTING-PLATE HOLDER. EDWIN R. STORM, New York, N. Y. Filed Aug. 29, 1908. Serial No. 450,824. (Cl. 101—169.)




1. In a holder for printing-plates the combination of a block having grooves adapted to receive and hold one or more plate-clamps, a rigid plate adapted to be placed between the printing-plate and the grooved block, and adjustable plate-clamps held in the grooves, each of said plate-clamps consisting of a base-piece adapted to be rotated in the grooves, a set-screw working in the base-piece adapted to hold the base-piece to a fixed position, a face-piece and an adjusting-screw connecting the face-piece to the base-piece adapted to move the face-piece and the printing-plate over limited distances and to hold the face-piece, the printing-plate and the rigid plate securely to the block at any point of such limited distances.

2. In a holder for printing-plates the combination of a block having grooves adapted to receive and hold one or more plate-clamps, a rigid plate adapted to be placed beneath the printing-plate and cover the grooves under the said printing-plate, a base-piece adapted to be rotated and inserted in any one of the grooves; a set-screw adapted to hold the base-piece within the groove, an adjusting-screw held by the base-piece, and a face-piece controlled by and moving with the adjusting screw.

3. In a holder for printing-plates the combination of a block having grooves adapted to receive one or more plate-clamps, a base-piece adapted to be inserted at any point of the groove and rotated therein, a set screw adapted to hold the base-piece securely to any point of the groove, an adjusting-screw engaging with the base-piece and a face-piece with a holding edge thereon, controlled by the adjusting-screw.

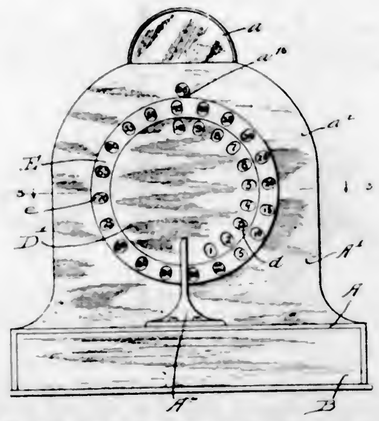
4. In a holder for printing-plates the combination of a grooved block; a base-piece adapted to be inserted at any point of the groove then rotated therein; a set screw adapted to secure the base-piece rigidly within the groove; an adjusting-screw working in the base-piece; a head on the adjusting-screw; a face-piece working on the top of the grooved block; a member on the face-piece engaging with the shank and head of the adjusting-screw; a hole in the face-piece adapted to admit the passage of an operating-bar; a slot in the head of the adjusting-screw adapted to receive the end of an operating bar; and a rigid plate adapted to be placed between the printing-plate and the grooved block.

5. In a holder for printing-plates the combination of a block having grooves adapted to receive and hold one or more plate-clamps, and adjustable plate-clamps held in the grooves, each of said clamps consisting of a base-piece provided with a set-screw and adapted to be rotated and held by the set-screw to a fixed position in the grooves, an adjusting-screw and a face-piece.

[Claims 6 to 18 not printed in the Gazette.]

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1,095,151. CASH-REGISTER. CHARLES SULFER, Chicago, Ill. Filed Mar. 20, 1909. Serial No. 484,649. (Cl. 235—20.)




1. In a device of the class described the combination with a rotative dial graduated at its periphery to indicate money values, of a registering mechanism actuated by the rotation of the dial, an accumulating wheel adapted to indicate total petty sales, means connecting said dial and accumulating wheel, a register, a register shaft, pinions thereon, means on said accumulating wheel adapted to engage one of said pinions to operate the register, a rotatable grooved gear wheel adapted to mesh with another of said pinions, means for rotating said gear wheel to reverse the rotation of the register and means slidable in the groove in said gear wheel whereby the reverse rotation of said gear wheel may be regulated.

2. In a device of the class described the combination with concentrically mounted interfitting rotative dials, of rearwardly directed shafts thereon, one rotative within the other, a register and means operatively connecting said shafts and register adapting said shafts to register the total dollars at said register during the forward movement of one of said dials and during the return movement of the remainder of said dials.

3. In a machine of the class described the combination with a casing of two concentric independently rotative dials journaled parallel with the face thereof and graduated to mark low and high denominations of money respectively, a stop secured adjacent said dials and indicating the limit of movement thereof, finger apertures in the dials at the point of graduation, an accumulating wheel journaled concentrically with said dials and graduated to correspond with the lower denomination dial, positively acting mechanism driving said accumulating wheel with said low denomination dial, concentric shafts on said dials, springs connected with said shafts acting to return said dials to normal position after each count, a plurality of disks on said shafts, a tooth on each disk, arranged out of alinement with the teeth on the other disks and view tablets operated by said teeth.

4. In a machine of the class described the combination with a casing of two concentric independently rotative dials journaled parallel with the face thereof and graduated to mark low and high denominations of money respectively, a rigid stop secured adjacent said dials and indicating the limit of movement thereof, finger apertures in the dials at the point of graduation, an accumulating wheel journaled concentrically with said dials, and graduated to correspond with the lower denomination dial, and rotative in but one direction, a spring controlled detent driving said accumulating wheel from said low denomination dial, concentric shafts on said dials and springs thereon acting to return either of said dials to normal position after each count and means operated by each of said shafts adapted to display the amount of each sale.

5. In a machine of the class described the combination with a casing of two concentric independently rotative dials journaled to revolve in the plane of the front face thereof and graduated to mark low and high denominations of money respectively, a stop secured adjacent said dials and indicating the limit of movement thereof, finger apertures in the dials at the point of graduation, an accumulating wheel journaled concentrically with said dials and graduated to correspond with the lower denomination dial, and rotative in but one direction, positively acting mechanism carried on the back of the low denomination dial and driving said accumulating wheel, a rearwardly directed shaft on each dial, one rotative within the other, springs thereon acting to return either of said dials to normal position after each count, a register mechanism adapting said shafts to actuate the same register and means for returning the register to normal position.

[Claims 6 to 68 not printed in the Gazette.]

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1,095,152. FIRE-RESISTING SHUTTER OR CURTAIN. JOHN VOLP, Grove City, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Mar. 26, 1909. Serial No. 486,014. (Cl. 189—56.)



1. A slat for the construction of flexible shutters or curtains comprising a tubular body portion having oppositely arranged hook members projecting from its edge walls, said slat being formed of two identically shaped sheet metal strips, each strip embodying a side and edge wall of the tubular body and oppositely arranged hook portions having different radial dimensions projecting from each wall, said strips being placed together in reverse relation to form the tubular body portion with the hook members at the adjacent ends fitted one within the other.

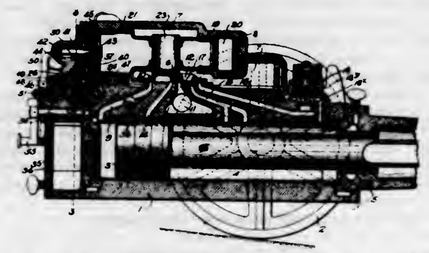
2. A slat for the construction of flexible shutters or curtains consisting of a pair of identically formed sheet metal strips, each strip comprising a side wall, an edge wall bent from one edge of the side wall, a hook forming member bent from the outer edge of said edge wall, and a hook forming member bent from the other edge of the side wall in a direction opposite the first mentioned hook, said hook members and walls being so constructed that in reversing the strips the hook members at adjacent ends are adapted slidingly to fit one within the other with said side and edge walls forming a tubular body portion.

3. A slat for the construction of flexible shutters or curtains consisting of a pair of identically formed sheet metal strips, each strip comprising a side wall, an edge wall bent from one edge of the side wall, a hook forming member bent from the outer edge of said edge wall and a hook forming member bent from the other edge of the side wall in a direction opposite the first mentioned hook, said hook members and walls being so constructed that in reversing the strips the hook members at adjacent ends are adapted slidingly to fit one within the other with said side and edge walls forming a tubular body portion, said hook members lying within the vertical planes of the sides of the slat.

4. A slat for the construction of flexible shutters or curtains consisting of a pair of identically formed sheet metal strips each strip comprising a side wall 5, an edge wall 6 bent from one edge of the side wall at right angles to said side wall, a hook forming member 7 bent from the outer edge of said edge wall, and a hook forming member 8 of greater arc than the hook member 7 bent from the other edge of the side wall in a direction opposite that of hook 7, said hook members and walls being so constructed that in reversing the strips the hook members are adapted slidingly to fit one within the other with said walls forming a tubular body portion, said hook members lying within the vertical planes of the sides of the slat.

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1,095,153. DIRECT-ACTING ENGINE. ALBERT BALL and THOMAS OFFICER, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 30, 1907. Serial No. 390,751. (Cl. 121—10.)



1. In a direct-acting, fluid-pressure engine, the combination with a cylinder provided with inlet and exhaust ports, of a main valve controlling the same, a differential piston for controlling the main valve having pressure constantly admitted against the small pressure area thereof, passages for admitting pressure fluid to or exhausting the same from the larger area of the controlling piston, a balanced piston valve for controlling the pressure fluid passage to the larger area of the controlling piston, said piston valve having open pressure fluid ducts of relatively small cross-sectional area connecting a source of pressure fluid with opposite sides of said piston valve, exhaust passages also leading to the opposite sides of said valve, a tappet-actuated valve for controlling the said exhaust passages and for connecting one or the other alternately with the atmosphere, a tappet rod attached to the differential piston and passing through said tappet-actuated valve and provided with abutments separated by a greater space than the length of said valve, said abutments acting to engage the valve near the end of the movement of the differential piston in either direction and moving the same to reverse the piston valve, whereby the movement of the differential piston in one direction acts to reverse the piston valve and so vary the pressure fluid supply to the differential piston as to cause the latter to move in the opposite direction, a hand-throttling valve for controlling the live pressure passage leading to the larger area of the differential piston, and a second throttling valve for controlling the exhaust passage leading from the larger area of the differential piston, whereby the movement of the latter in either direction may be retarded or stopped.

2. In a direct-acting, fluid-pressure engine, the combination with a cylinder provided with inlet and exhaust ports, of a main valve controlling the same, a differential,

pressure-actuated device for controlling the main valve and adapted to be moved alternately in opposite directions by admitting pressure fluid to or exhausting the same from the larger pressure area thereof, a pressure-actuated, auxiliary valve adapted, when in one position, to admit pressure fluid to said differential, pressure-actuated, valve-moving device, but when in another position to exhaust pressure fluid therefrom, a tappet-actuated reversing valve for controlling the actuating pressure of said auxiliary valve and reversing the same, said reversing valve being moved in either direction by said differential, pressure-actuated device near the close of movement of the latter, means for throttling the pressure fluid supplied to the differential, pressure actuated device, and means also for throttling the exhaust therefrom.

3. In a direct-acting, fluid-pressure engine, the combination with a cylinder provided with inlet and exhaust ports, of a main valve controlling the same, a differential, pressure-actuated device controlling the main valve, an auxiliary valve for admitting pressure fluid to or exhausting the same from said differential, pressure-actuated device, a reversing valve for said auxiliary valve, means for moving said reversing valve through movement of said differential, pressure-actuated device, and means for throttling the pressure fluid supplied to or exhausted from said differential, pressure-actuated device.

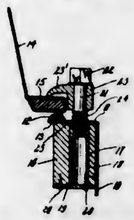
4. In a direct-acting, fluid-pressure engine, the combination with a cylinder, piston and main valve controlling the same, of a differential, pressure-actuated device for controlling the main valve, an auxiliary valve for admitting pressure fluid to or exhausting the same from said differential, pressure-actuated device, and a reversing valve for said auxiliary valve connected to be moved by said differential, pressure-actuated device.

5. In a direct-acting, fluid-pressure engine, the combination with a cylinder, a piston and main valve controlling the same, pressure-actuated means for controlling the main valve, an auxiliary valve for controlling the working pressure fluid supplied to said pressure-actuated means, and a mechanically-actuated, reversing valve for said auxiliary valve.

[Claims 6 to 30 not printed in the Gazette.]

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1,095,154. CLAMP FOR BURIAL-CASES. VLADIMIR BREUER and PHILIP LESCHNIK, New York, N. Y. Filed Feb. 9, 1914. Serial No. 817,653. (Cl. 27—12.)

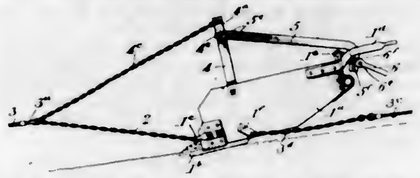


1. In a burial case, the combination with a box having an inwardly bent flange provided with apertures and supporting a packing material, of a cover having a flange resting upon said packing material, a wooden frame in said box disposed below its flange and provided with vertical holes extending therethrough in alinement with said apertures, a tubular interiorly screw threaded member disposed in each hole and aperture having a base plate closing its lower end and abutting against the underface of said frame, a screw threaded spindle having a head upon its free end engaging with each tubular member, and a clamping jaw shiftably disposed upon each spindle, each jaw having a portion that is adapted to overhang the flange of said cover, substantially as and for the purpose specified.

2. In a burial case, the combination with a box having an inwardly bent flange provided with apertures and supporting a packing material, of a cover having a flange resting upon said packing material, a wooden frame in said box disposed below its flange and provided with vertical holes extending therethrough in alinement with said apertures, a tubular interiorly screw threaded member disposed in each hole and aperture having a base plate closing its lower end and abutting against the underface of said frame, a screw threaded spindle having a head upon its free end engaging with each tubular member, a clamping jaw shiftably disposed upon each spindle, each jaw having a portion that is adapted to overhang the flange of said cover, and a spring coiled upon each spindle for holding its clamping jaw against the head of its spindle, substantially as and for the purpose specified.

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1,095,155. EXCAVATING-SCRAPER. IRA E. BURKETT, Macon, Ga., assignor to Schofield-Burkett Construction Co., Macon, Ga., a Corporation of Georgia. Filed Aug. 13, 1913. Serial No. 784,588. (Cl. 37—19.)



1. In combination with a scraper, a draft device attached to the forward end thereof, a lever pivoted to the rear of said scraper, a bar connected with said lever, and a connection between said bar and the draft device, and an intermediate connection between said bar and the forward portion of the scraper, whereby, by shifting said lever, the scraper may be adjusted to loading or hauling position.

2. In combination with a scraper; a draft appliance connected to the forward end thereof, a yoke pivoted on said scraper near its forward end, a lever pivoted to the rear end of the scraper, a connection between the yoke and lever, and a connection between said yoke and the draft appliance; whereby, by shifting said lever, the scraper can be set to loading or hauling position.

3. In combination with a scraper, a draft appliance attached to the forward end thereof, a yoke pivoted on said scraper near its forward end, a lever pivoted to the rear end of the scraper, a connection between the yoke and lever, and a connection between said yoke and the draft appliance, whereby, by shifting said lever, the scraper can be set to loading or hauling position.

4. In combination with a scraper, a draft appliance attached to the forward end thereof, a yoke pivoted on said scraper near its forward end, a lever pivoted to the rear end of the scraper, a bar adjustably connected to said lever and to said yoke, and a chain connecting said yoke and the draft appliance, whereby, by shifting said lever, the scraper can be set to loading or hauling position.

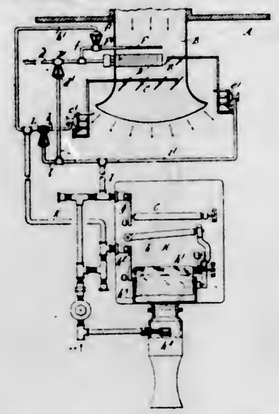
5. In combination with a scraper, a draft device attached thereto, a lever pivoted to the scraper in rear of the point of attachment of the draft chain, means connecting said lever to the draft device, and a yoke attached to said means and to the forward portion of the scraper, whereby, by shifting said lever the effective length of such connection can be varied to hold the scraper in loading or hauling position.

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1,095,156. APPARATUS FOR CONTROLLING THE HUMIDITY AND TEMPERATURE OF AIR. WILLIS H. CARRIER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y. Filed Aug. 7, 1912. Serial No. 713,790. (Cl. 98—39.)

1. The combination of a humidity regulating device which responds to changes in humidity in a room, means controlled thereby for regulating the supply of humidified air to the room, a supplemental moistening device also controlled by said humidity regulating device, a thermostat influenced by the temperature of the room, a heater for the humidified air controlled by said thermostat, and means controlled by said thermostat which affects the control of said humidity regulating device on said air supply means, substantially as set forth.





2. The combination of a humidity regulating device which responds to changes in humidity in a room, means controlled thereby for regulating the supply of humidified air to the room, a supplemental moistening device also controlled by said humidity regulating device, a thermostat influenced by the temperature of the room, a heater for the humidified air controlled by said thermostat, and means controlled by said thermostat which affects the control of said humidity regulating device on said air supply means and also on said supplemental moistening device, substantially as set forth.

3. The combination of a humidity regulating device which responds to changes in humidity in a room, means controlled thereby for regulating the supply of humidified air to the room, a supplemental moistening device also controlled by said humidity regulating device, a thermostat influenced by the temperature of the room, a heater for the humidified air and a damper controlling a by-pass passage around said heater both controlled by said thermostat, and means controlled by said thermostat which affects the control of said humidity regulating device on said air supply means, substantially as set forth.

4. The combination of a hygrostat influenced by the humidity in a room, means controlled thereby for regulating the supply of humidified air to the room, a supplemental moistening device also controlled by said hygrostat, a thermostat influenced by the temperature of the room, a heater for the humidified air controlled by said thermostat, and means controlled by said thermostat which affects the control of said hygrostat on said air supply means and also on said supplemental moistening device, substantially as set forth.

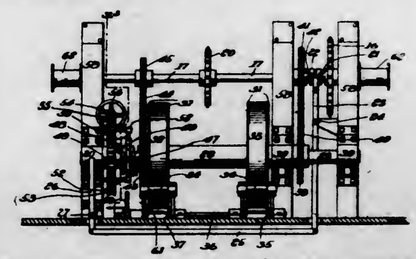
5. The combination of a hygrostat influenced by the humidity in a room, fluid-pressure actuated means controlled by said hygrostat for regulating the supply of humidified air to the room, a fluid pressure actuated supplemental moistening device also controlled by said hygrostat, a thermostat influenced by the temperature of the room, a heater for the humidified air controlled by said thermostat, and means controlled by said thermostat which controls the flow of fluid pressure to and from the actuating device of said air supply means, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

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1,095,157. ROTARY DRILLING-RIG. THOMAS J. GRIFFIN, Los Angeles, Cal. Filed Oct. 13, 1913. Serial No. 794,839. (Cl. 255—19.)

1. In a rotary drilling rig, a rotary table, a rotary table shaft, means for driving the rotary table from the shaft, a counter-shaft, a sprocket loosely mounted on the counter-shaft, a sprocket rigidly mounted on the rotary table shaft, a stationary clutch member, a clutch member splined on said rotary table shaft, a lever for engaging the latter clutch member with the first clutch member to lock the table, a chain connecting said sprockets, and means for clutching said first sprocket with the counter-shaft.



2. In a rotary drilling rig, a rotary table, a rotary table shaft, means for driving the rotary table from the shaft, a counter-shaft, a sprocket loosely mounted on the counter-shaft, a sprocket rigidly mounted on the rotary table shaft, a chain connecting said sprockets, means for clutching said first sprocket with the counter-shaft, a drum shaft, a drum rigid thereon, means for driving the drum shaft from said counter-shaft, a worm wheel loose on the drum shaft, a screw engaging the worm wheel, and a clutch for engaging the worm wheel with the drum shaft to enable the drum to be manually controlled by the screw feed to feed the drill pipe while the rotary table is operating, said worm and screw also being operable to positively prevent rotation of the drum to sustain the drill pipe when said first sprocket is unclutched from the counter-shaft and the table is stationary.

3. In a rotary drilling rig, a rotary table, a drum, and means controlled by a single lever for rotating the drum or for rotating the table.

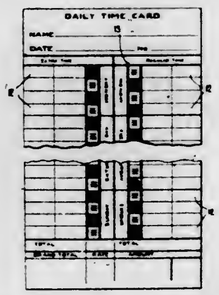
4. In a rotary drilling rig, a rotary table, a drum, and means controlled by a single lever for rotating the drum or for rotating the table, or for releasing both table and drum.

5. In a rotary drilling rig, a rotary table, a drum, a counter-shaft, gearing between the counter-shaft and table for driving the table, gearing between the counter-shaft and drum for driving the drum, and means for rendering either of said gearings stationary while the other operates.

[Claims 6 to 15 not printed in the Gazette.]

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1,095,158. WORKMAN'S TIME-RECORDER. CARL C. HARRIS, Orange, and DESRIE A. STOWELL, Gardner, Mass., assignors to Simplex Time Recorder Company, Gardner, Mass., a Corporation of Massachusetts. Filed Jan. 18, 1913. Serial No. 742,771. (Cl. 234—43.)




1. In a workman's time recorder, in combination, time controlled means to make a record, a receiver adapted to receive temporarily a card having a series of record-receiv-

ing spacers arranged in a predetermined order and visually differentiated by strongly contrasted index areas, and a card-positioning indicator by reference to which the card may be positioned manually in the receiver for the impress of the record in the different spaces, said indicator being fixedly mounted with respect to the record-making point and having displayed upon it a plurality of strongly contrasted index areas corresponding characteristically to those upon the card, whereby the positioning of a card in the receiver is facilitated by the visual relation between the index areas on the card and indicator.

2. In a workman's time recorder, in combination, a casing, time controlled means therein to make a record, a receiver adapted to receive temporarily a card having "in" and "out", record receiving spaces arranged alternately one below the other with adjacent spaces visually differentiated by contiguous light and dark index areas, a card positioning indicator by reference to which a card may be positioned manually in the receiver to receive a record in the desired space, said indicator being mounted upon the exterior of the casing adjacent the card receiver and fixed with respect to the record-making point and having displayed thereupon adjacent light and dark index areas corresponding to the "in" and "out" indices upon the card, corresponding indices on the card, and an indicator facilitating the placing of a card in the receiver with the desired record-receiving space on the card in position to receive a record.

3. In a workman's time recorder, in combination, an inclosing casing provided with time controlled means to make a record, a receiver adapted to receive temporarily a card having a series of spaces for receiving records of different kinds visually differentiated from each other by strongly contrasted index areas adjacent the inner ends of the spaces, and a card-positioning indicator by reference to which the card may be accurately positioned manually for the impress of the record in the proper space, said indicator being mounted exteriorly on the casing and fixed with respect to the record-making point and having a part thereof close to the mouth of the receiver and of a width substantially equal to that of a record-receiving space on the card, the indicator having also displayed upon it, a set of strongly contrasted enlarged index areas corresponding characteristically to those upon the card, the visual relation established between a particular index area upon the card and the characteristically corresponding area displayed on the indicator facilitating the accurate positioning of the card in the receiver for the reception of the desired record in the proper space thereupon.

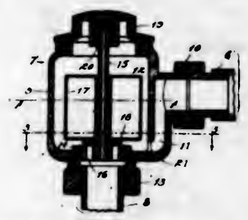
4. In a workman's time recorder, in combination, a casing, time controlled means therein to make a record, a card receiver within which a record card may be manually positioned to receive a record, and a card-positioning indicator, said card having record-receiving spaces marked thereon and said indicator having a part thereof adjacent said card receiver of a width substantially equal to one of said spaces, said indicator also having displayed thereon a set of strongly contrasted index areas.

5. In a workman's time-recorder, in combination, a casing having inclosed therein time controlled means to make a record, a card-receiver arranged horizontally in the casing and having an elongated opening for the reception of a record card and permitting manual lengthwise adjustment therein relative to the record-making point, a stop to engage the rear edge of the card and limit the distance the card can be inserted in the receiver, and an indicator mounted on the casing above the mouth of the receiver, and fixed with respect to the record-making point, said indicator having displayed thereupon characteristically different and strongly contrasted indicia to correspond with similar indicia on the card.

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1,095,159. STEAM-TRAP. JOSEPH H. HEDMARK, Chicago, Ill. Filed Jan. 12, 1912. Serial No. 670,803. (Cl. 237—26.)

1. In a steam trap or the like, the combination of a casing having a suitable inlet and having an outlet in the bottom thereof, a plug fitting in said outlet, said plug being provided with one or more holes therethrough, a tube extending upwardly from said plug to the top of the casing, the plug having a hole forming a continuation of the hole through the tube, a float slidably mounted on said tube, a closure at the bottom of said float for closing said holes and a cap for closing the top of said casing, said cap having a recess adapted to receive the upper end of the tube.



2. In a device of the character set forth, the combination of a casing having an inlet and having an outlet in the bottom thereof, a substantially flat seat in the bottom of said casing, a tube extending upwardly from said seat, the hole through said tube communicating with the outlet, said seat having one or more holes adjacent to the tube, a float slidably mounted on said tube, a closure at the bottom of said float for closing said hole or holes in the seat, and a cap for closing the top of said casing.

3. In a steam trap or water return device, the combination of a chamber having an inlet passageway leading to the bottom thereof and adapted to be sealed by water, a plug fitting in an opening at the bottom of said chamber, holes through said plug, a ring fitting over said holes and adapted to close the same, a tube extending upwardly from said plug said tube and plug being provided with an opening leading from the top of the chamber to the outlet thereof, a float slidably mounted on said tube and connected with said ring, and a cap for said casing having a recess therein fitting freely over the upper end of said tube.

4. In a steam trap, the combination of a casing having an inlet aperture at one side thereof, and an outlet aperture in the bottom, a plug having a flat upper surface fitting in said outlet aperture and having an upwardly extending tube with an air passageway therethrough said passageway also extending downwardly through the plug and communicating with the outlet of the casing, a cap for said casing, having an opening for receiving the upper end of said tube, the walls around said opening extending down over the tube, said plug also having one or more vertical holes arranged adjacent to said tube, a float slidably mounted on said tube, and a closure having a flat closing surface at the bottom of said float for closing said holes when the float is at its lowermost position.

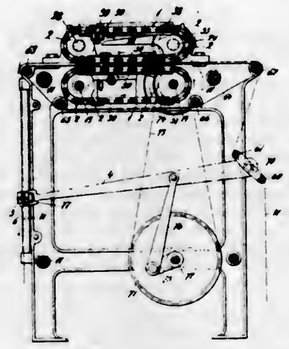
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1,095,160. MACHINE FOR MEASURING AND MARKING WEBS OF FABRIC, PAPER, AND THE LIKE. ERNST KESSLER, Chemnitz, Germany. Original application filed Sept. 5, 1911, Serial No. 647,631. Divided and this application filed Oct. 28, 1912. Serial No. 728,261. (Cl. 216—22.)

1. In an apparatus for measuring webs of fabric, paper, and the like, the combination with chain feeding means exerting a continuous and uniform tension on the web, of an endless tape for guiding the web, and means carried by the chain feeding device for fixing a mark to the web.

2. In an apparatus for measuring webs of fabric, paper, and the like, the combination with a pair of coöperating endless traveling elements having a plurality of coöperating feeding members secured thereto, of rollers on the ends of said feeding members, guides for said rollers, and means for fixing a mark to the fabric forming a part of one of said feeding members.

3. In an apparatus for measuring webs of fabric, paper and the like, the combination with a pair of coöperating endless traveling elements having a plurality of coöperating feeding members secured thereto, of means for fixing a mark to the fabric, forming a part of one of said feeding members, a rocker located on the feeding member which forms a part of the marking device and adapted to operate said marking device, and means to operate said rocker.

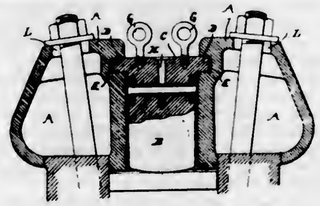


4. In an apparatus for measuring fabric, the combination with a pair of coöperating endless traveling elements having a plurality of coöperating feeding members secured thereto, of a marking device forming a part of one of said feeding members, a bar located on the feeding member which forms a part of said marking device and adapted to operate the marking device, a rocker for operating said bar, and means to operate said rocker.

5. In an apparatus for measuring webs of fabric, paper and the like, the combination with a pair of coöperating endless traveling elements having a plurality of coöperating feeding members secured thereto, of a marking device forming a part of one of said feeding members, a bar located on the feeding member which forms a part of the marking device and adapted to operate the marking device, a rocker arranged to operate said bar, a guide member arranged along the path of said rocker and adapted to rock the same into position for preparing the operation of the marking device, and when released by the rocker to throw the marking device into marking position.

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1,095,161. HYDRAULIC PRESSURE-REGULATING GEAR FOR SUGAR-CANE MILLS AND THE LIKE. JOHN MCNEIL, CHARLES MCNEIL, and WILLIAM ARNOTT MCNEIL, Govan, Scotland. Filed Apr. 22, 1912. Serial No. 692,246. (Cl. 138—10.)



1. In a hydraulic pressure-regulating gear for sugar-cane and like mills, a roll-housing cap with cylinder aperture and bolt-receiving apertures lying on each side of the latter, a plug cover for closing said cylinder aperture, an upper part on said plug cover of oblong form in plan with rounded ends, an opening in the upper part of the body of the roll-housing cap above the cylinder aperture, recesses at opposite sides of this opening and lying below the level of the bolt heads, to receive and engage with the rounded ends of the plug cover, whereby the upward thrust of the plug cover is in part transmitted to the bolt heads.

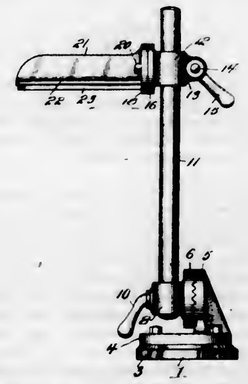
2. In a hydraulic pressure-regulating gear for sugar-cane and like mills, a roll-housing cap with cylinder aperture and bolt-receiving apertures lying on each side of the latter, a plug cover for closing said cylinder aperture, an upper part on said plug cover of oblong form in plan with rounded ends, an opening in the upper part of the body of the roll-housing cap above the cylinder aperture, said opening being bounded at its ends by strengthening ribs which join the parts of the cap above the cylinder aperture, recesses at opposite sides of this opening and lying below the level of the bolt heads, to receive and engage with the rounded ends of the plug cover, whereby the upward thrust of the plug cover is in part transmitted to the bolt heads.

3. In hydraulic pressure-regulating gear for sugar-cane and like mills, a roll-housing cap with cylinder aperture and bolt-receiving apertures, lying on each side of the latter, a plug cover for closing said aperture, an upper part on said plug cover of oblong form in plan with rounded ends, an opening in the upper part of the body of the roll-housing cap above the cylinder aperture, recesses at opposite ends of this opening and lying below the level of the bolt heads, the upper part of the plug cover being of a width between its parallel sides less than the width of the opening which extends across the upper part of the roll-housing cap and the recesses at opposite sides of the opening being of an internal diameter substantially equal to the external diameter of the curved ends on the upper part of the plug cover, substantially as described.

4. A roll-housing cap of the character described, comprising a body generally oblong in plan, vertically apertured centrally to form a plunger well and at each end to permit the passage of securing bolts therethrough, in combination with a plug cover having a lower portion fitting within said plunger well to form a closure therefor and an upper winged portion of greater diameter, recesses in the body of the cap below the level of the bolt-heads and opening from the well toward the opposite ends of the cap to receive the wings on said plug cover and a transverse aperture in the face of the housing communicating with the said longitudinal recesses to permit the plug wings to be passed into the latter, substantially as described.

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1,095,162. DRILL-BRACE. NICHOLAS I. MOSHER, Somerville, Mass. Filed May 3, 1913. Serial No. 765,316. (Cl. 77—59.)

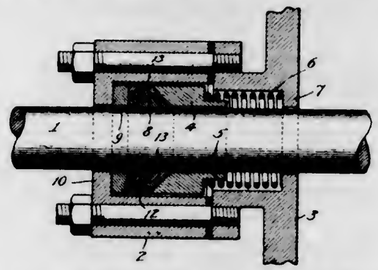


A universal brace comprising a base, a post secured to said base, a sleeve slidably mounted on said post, an arm, and a connection between said sleeve and arm whereby the arm may be rotated about its longitudinal center line and relatively to the post, said connection comprising a disk secured to said sleeve and formed with an annular row of apertures in the front face adjacent to the periph-

ery thereof, a second disk secured to the adjacent end of said arm and placed in face to face contact with the first-mentioned disk and having segmental slots formed therein at diametrically opposite points and adapted to register with any two diametrically opposed apertures in said first disk, and set screws passed through said slots and engaging the respective pair of apertures.

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1,095,163. METALLIC PACKING-RING FOR PISTON-RODS. ALFRED MUNCH, Maywood, Ill. Filed Jan. 2, 1914. Serial No. 809,895. (Cl. 137—116.)

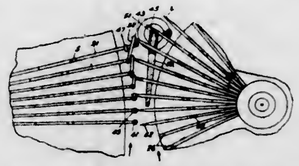


1. A soft, metallic packing ring comprising two sections, each section having an end adapted to overlap the adjacent end of the other section, the overlapping ends having curved meeting faces adapted to interlock the ring sections upon the rod and the curved faces at opposite ends of the ring sections being inclined in the same direction relatively to the axis of the ring.

2. A soft, metallic packing ring comprising two sections, each section having an end adapted to overlap the adjacent end of the other section, the overlapping ends having curved meeting faces adapted to interlock the ring sections upon the rod and the faces at opposite ends of the ring section being substantially parallel to each other and inclined to the axis of the ring.

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1,095,164. KNITTING-MACHINE. ARTHUR S. MUSGROVE, Pittsfield, Mass., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Philadelphia, Pa., a Corporation of New Jersey. Filed Aug. 24, 1909. Serial No. 514,336. (Cl. 66—32.)



1. In a cylinder and dial knitting-machine, stitch-transferring mechanism consisting of reciprocatory dial-needles, a movable transferring point engageable with a stitch-loop on one of the dial-needles; a rotatory support for said point, means for imparting to such point a movement, along the path of the needle-hooks, more rapid than the movement of such needle-hooks, whereby a stitch-loop is carried from one of the dial-needles to the next preceding needle and deposited thereon during the outward slide-movement of such needle.

2. In a knitting-machine, the combination with a rotatory needle-support; of a rotatory transfer-plate having its axis outside of said needle-support; means for imparting rotary movements to the transfer-plate corresponding with the rotary movements of the needle-dial; a transfer-point supported by, and movable radially of, the plate; means for imparting radial movements to the point; and means for changing the elevation of the point at certain times.

3. In a knitting-machine, the combination with a rotatory needle-dial and needle cylinder; of a rotatory transfer-plate; a toothed wheel adapted to engage the cylinder-needles and secured in fixed relation to the plate; a transfer-point supported by, and movable radially of, the plate; means for imparting radial movements to the point; and means for changing the elevation of the point at certain times.

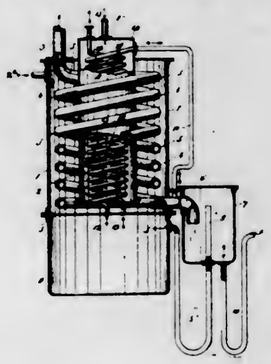
4. In a knitting-machine, the combination with a rotatory needle-support and reciprocatory needles; of a rotatory transfer-plate having its axis outside of said needle-support; a transfer-point supported by said transfer-plate with freedom to move toward and from the center thereof, and transversely of the plane of said needles; means for moving said transfer-point toward and from the center of said plate; and means for changing the elevation of said point relatively to the plane of the needles.

5. In a knitting-machine, the combination with a rotatory needle-support and horizontal reciprocatory needles; of a rotatory transfer-plate, in a plane substantially parallel with said needle support and needles; a transfer-point horizontally supported by said transfer-plate with freedom to move toward and from the center thereof, and vertically; means for moving said transfer point toward and from the center of said plate; and a cam fixed in the path of said point leading from a plane below to a plane above that of the horizontal needles.

[Claim 6 not printed in the Gazette.]

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1,095,165. COOLER FOR EXTRACTION APPARATUS AND THE LIKE. REINHOLD OCKEL, Bonn, Germany. Filed Apr. 1, 1913. Serial No. 758,264. (Cl. 196—5.)



1. The combination with a casing; of a cylinder mounted within said casing and having an open bottom, the bottom of the casing being spaced below the bottom of said cylinder, a condensing coil surrounding the cylinder within the casing, a second condensing coil within the cylinder and having its upper end connected by a pipe to the lower end of the first mentioned coil, the lower end of the last mentioned coil extending through said casing and forming a delivery, an inlet pipe communicating with said cylinder, and an outlet pipe leading from said casing at a point adjacent the top.

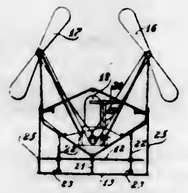
2. The combination with a casing provided with a bottom; of a closed tank located beneath said bottom, a cylinder mounted within said casing and having an open bottom communicating with the interior of the casing, an inlet pipe communicating with the top of the cylinder, an outlet pipe leading from the casing near the top thereof, a condensing coil surrounding said cylinder within the casing, an inlet pipe communicating with one end of the condensing coil, an outlet pipe leading from the lower end of the condensing coil, a second condensing coil arranged within the cylinder, a pipe connecting the upper end of the second condensing coil with the last mentioned outlet pipe, the lower end of the second condensing coil extending into the closed tank, a separator connected to the last mentioned outlet pipe, a pipe leading from said separator to said tank, and a waste pipe leading from the separator.

3. The combination with a casing provided with a bottom; of a closed tank located beneath said bottom, a cylinder mounted within said casing and having an open bottom communicating with the interior of the casing, an inlet pipe communicating with the top of the cylinder, an outlet pipe leading from the casing near the top thereof, a condensing coil surrounding said cylinder within the casing, an inlet pipe communicating with one end of the condensing coil, an outlet pipe leading from the lower end of the condensing coil, a second condensing coil arranged within the cylinder, a pipe connecting the upper end of the second condensing coil with the last mentioned outlet pipe, the lower end of the second condensing coil extending into the closed tank, a separator connected to the last mentioned outlet pipe, a pipe leading from said separator to said tank, a waste pipe leading from the separator, a third condensing coil arranged within said cylinder and having its lower end communicating with the tank and its upper end extending from the cylinder.

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1,095,166. HYDROVANE-BOAT. HOLDEN C. RICHARDSON, Philadelphia, Pa. Filed Mar. 1, 1911. Serial No. 611,664. (Cl. 114—66.5.)



1. In a hydro-vane boat, the combination of supporting vanes, vane-warping levers, a horizontal rudder, a vertical rudder, said rudders being independently operative from a common source of control, and a manually operated universal control comprising a pivoted member operatively connected with the warping levers and with the horizontal and vertical rudders.

2. In a hydro-vane boat having suitable means of propulsion, the combination with the hull, of a normally submerged supporting vane and means for warping said vane to control the supporting effect of the water thereon.

3. In a hydro-vane boat, the combination with the hull, of normally submerged and emersible horizontally disposed inclined hydro-vanes arranged one above another, and vane tip moving means for simultaneously warping oppositely disposed vane tips.

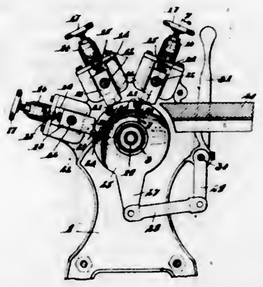
4. In a hydro-vane boat having suitable means of propulsion, the combination with the hull, of a single main supporting group of forwardly disposed hydro-vanes arranged one above another, and means for simultaneously moving the opposite ends of a superimposed normally submerged vane in opposite directions to control the supporting effect of the water upon the vane upon the movement of the vane-ends in close proximity to or away from the surface of the water.

5. In a hydro-vane boat, the combination with the hull, of a submerged supporting vane, vertical and horizontal rudders, means for moving the same, means for moving the vane tips to vary the supporting power afforded the vane by the water at opposite sides of the hull, and a controlling member connected with the rudder and vane tip moving means and adapted to effect the movement of the boat in the direction in which the controlling member is moved by the operator.

[Claims 6 to 14 not printed in the Gazette.]

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1,095,167. LAUNDRY-MANGLE. CLAES F. ROBERG and AUGUST MALMBERG, Chicago, Ill. Original application filed Oct. 30, 1912, Serial No. 728,565. Divided and this application filed June 19, 1913. Serial No. 774,511. (Cl. 68—9.)



1. In a mangle, the combination of a heated roller having stationary bearings; a plurality of movable rollers arranged around said heated roller and adapted to move toward and from the same; toggles connected with said movable rollers adapted, when actuated, to move said rollers; and rotatable actuating devices having slots engaging with the knee joints of said toggles, whereby, when said actuating devices are rotated, said toggles will be actuated to move said movable rollers, substantially as described.

2. In a mangle, the combination of a heated roller having stationary bearings; a plurality of movable rollers arranged around said heated roller and adapted to move toward and from the same; toggles connected with said movable rollers adapted, when actuated, to move said rollers; rotatable actuating devices having slots in their peripheries engaging with the knee joints of said toggles whereby, when said actuating devices are rotated, said toggles will be actuated to move said movable rollers; and a manually operable oscillatory member for rotating said actuating devices, substantially as described.

3. In a mangle, the combination of a heated roller having stationary bearings; a plurality of movable rollers arranged around said heated roller and adapted to move toward and from the same; toggles having their ends arranged substantially in planes passing through the axes of said heated and movable rollers and connected with said movable rollers so as to move the same when said toggles are actuated; and rotatable actuating devices having slots engaging with the knee joints of said toggles whereby, upon rotation of said devices, said toggles will be actuated, substantially as described.

4. In a mangle, the combination of a heated roller having stationary bearings; a plurality of movable rollers arranged around said heated roller and adapted to move toward and from the same; toggles having their ends arranged substantially in planes passing through the axes of said heated and movable rollers and connected with said movable rollers so as to move the same when said toggles are actuated; and rotatable actuating devices having slots engaging with the knee joints of said toggles whereby, upon rotation of said devices, said knee joint of each of said toggles will be moved into substantially the plane including the terminals thereof to cause outward movement of said movable rollers, substantially as described.

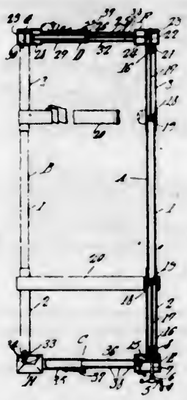
5. In a mangle, the combination of a heated roller having stationary bearings; a plurality of rollers arranged around said heated roller and having movably mounted bearings permitting of movement of said last mentioned rollers toward and from said heated roller; toggles coöperating with said movable roller bearings for moving said movable rollers away from said heated roller, corresponding ends of said toggles loosely engaging slots provided in said movable bearings, the opposite ends of said toggles

being pivotally secured; and means for actuating said toggles, substantially as described.

[Claim 6 not printed in the Gazette.]

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1,095,168. APPARATUS FOR RAISING AND LOWERING CASKETS. CHARLES E. SHRINER, FRANK A. SHRINER, and FRED W. MILLER, Monroe, Wis., assignors to The Monroe Burial Device Company, Monroe, Wis. Filed Apr. 26, 1911. Serial No. 623,520. (Cl. 27—6.)



1. Burial apparatus including a frame having corner boxes, shafts journaled therein, disks secured to the shafts, tubular members connected to and revoluble with the disks, flexible supporting members secured thereto and adapted to unwind therefrom under the weight of a supported casket, shafts housed and centered in and revoluble with said members, a tubular section telescopically connected to said members and having its ends slidably engaging and rotating with said housed shafts, end connections between the boxes, governing means carried by one of the boxes, and means in one of the end connections and in the adjacent boxes for operatively connecting the members at one side of the frame to the members at the other side of the frame to insure rotation of the members in unison.

2. Burial apparatus including a frame having corner boxes, shafts journaled therein, disks secured to the shafts, tubular winding members connected to and revoluble with the disks, angular shafts housed and centered in and revoluble with said members, a tubular section telescoping into said members and having its ends slidably engaging and rotating with the angular shafts, flexible devices connected to and adapted to be wound on said members, telescopic end connections between the boxes, means in one of the end connections and in the adjacent boxes for transmitting motion from the members at one side of the frame to the members at the other side of the frame, and actuating means carried by one of the other boxes.

3. In burial apparatus the combination with means for raising and lowering a casket, of a governor therefor comprising in combination a main shaft, a ratchet fixed thereon, a worm wheel loose thereon, an automatically operated pawl on said worm wheel engaging said ratchet, a worm shaft engaging said worm wheel, a second worm wheel fixed on said worm shaft, a pivotally mounted arm on said second worm wheel, constituting an emergency stop, means for holding said arm in inoperative position, means for engaging said arm when in operative position to stop the rotation of said second worm wheel, a second worm shaft meshing with said second worm wheel, a fixed and a movable collar on said second worm shaft, bow springs connecting said collars and provided with governor and weights, a disk connected with said movable collar, an eccentric disk having its axis radial to the axis of said second worm shaft, a crank member connected with said eccentric disk, and a spring operated handle member connected with said crank and serving to lock said eccentric disk in different positions of adjustment.

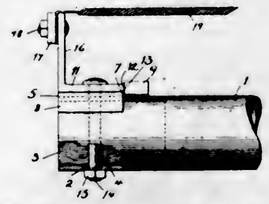
4. In a device of the character described, the combination with supporting straps, a pair of rotatable sleeves to which said straps are secured, a plurality of beads in which said sleeve terminate and on which said sleeves are rotatably mounted, means whereby said sleeves rotate synchronously, a governor to control the rotation of said sleeves when a weight is placed upon said straps, and a pawl and ratchet and worm and worm wheel interposed between said sleeves and said governor.

5. In a device of the character described, the combination with straps adapted to support a casket, a pair of rotatable elements to which said straps are secured, means for supporting said elements, means whereby said elements rotate synchronously, and a centrifugal governor to control the rotation of said elements when a weight is placed upon said straps.

[Claims 6 to 8 not printed in the Gazette.]

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1,095,169. SPRING-FRAME FOR BEDS. FRANCIS EUGENE SLOAN, Baltimore, Md., assignor to The O. K. Manufacturing & Stamping Company, Baltimore, Md., a Corporation of Maryland. Filed Mar. 2, 1912. Serial No. 681,198. (Cl. 5—63.)



1. A saddle for the stretcher tubes and angle bars of wire spring mattress frames comprising a plate having a flat portion with a perforation therein said plate having side flanges which turn down from the flat surface and whose lower edges seat on the stretcher tube and said plate also having an upturned flange which flange is entirely separate and independent of the down-turned flanges,—said up-turned flange forming a stop for the angle bar of the mattress frame.

2. A saddle for stretcher tubes and angle bars of wire spring mattress frames comprising a flat plate portion on which the angle bar seats said flat portion having a perforation extending therethrough and at opposite sides of said flat plate portion the saddle being provided with crosswise-extending edge incisions which extend inwardly and toward each other, and said plate between the edge incisions and one end having flanges which turn up from the top surface of the flat plate portion, and between said incisions and the opposite end, said plate being provided with flanges which turn down from the top surface of the flat plate portion said up-turned and down-turned flanges being entirely separate and independent of each other.

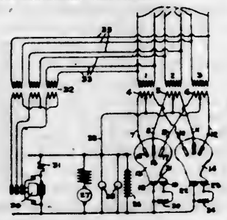
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1,095,170. ALTERNATING-CURRENT-RECTIFYING APPARATUS. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 23, 1903. Serial No. 149,112. (Cl. 171—253.)

1. The combination of a multiphase alternating current system, a set of conductors connected respectively to a terminal of each phase of said system, a vapor rectifying device having anodes connected to said conductors, a second set of conductors connected respectively to a terminal of opposite polarity of each phase, a second vapor rectifying device having anodes connected to said second set of conductors and a direct current load circuit connected to the cathode circuit of each of said rectifying devices and to points of intermediate potential on the phases of said system.



2. The combination of a source of alternating current, a vapor rectifier therefor containing arc paths of constant length, a direct current circuit, means forming a permanent part of said circuit for insuring a flow of current from said source in said rectifier of a value above that at which the operation of the rectifier becomes unstable and translating devices in said circuit for utilizing the remaining part of the rectified current.



3. The combination of a source of alternating current, a vapor rectifier therefor, means for insuring a flow of current in said rectifier of a value above that at which the operation of the rectifier becomes unstable, and means for returning energy from the rectifier circuit to said source.

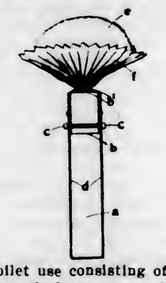
4. The combination of a source of alternating current supply, a mercury vapor rectifier fed therefrom having arc paths of predetermined length, an invariable current-receiving circuit for maintaining the amount of rectified current above a value at which the rectifier becomes unstable and translating devices for utilizing at will the remaining capacity of the rectifier.

5. The combination of a source of alternating current, a vapor rectifying device, a circuit supplied continuously by the rectifier with a predetermined amount of current, and means for returning energy from said circuit to the supply system.

[Claims 6 to 9 not printed in the Gazette.]

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1,095,171. POWDER-PUFF AND POWDER-CONTAINER. ARTHUR ST. CLAIRE STOCKS, London, England. Filed Apr. 24, 1913. Serial No. 763,433. (Cl. 132—28.)



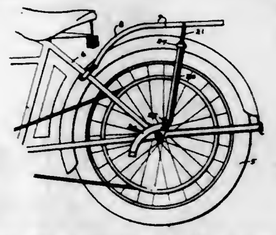
An article for toilet use consisting of a puff, a slide to which said puff is attached, an open ended casing in which said slide is adapted to be withdrawn for inclosure of the puff when out of use and a flexible shield mounted beneath said puff and adapted to be contracted for the compression of the puff on the withdrawal of the puff within the casing.

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1,095,172. CUSHION-SEAT FOR MOTOR-CYCLES. FRANK M. STOLL, Denver, Colo. Filed Oct. 17, 1912. Serial No. 726,320. (Cl. 208—24.)

1. A vehicle seat, having a support pivotally mounted on the vehicle, the forward extremity of said seat being curved downwardly toward the pivot of said support and pivotally connected with the frame work of the vehicle, and a spring interposed between said support and the seat.

2. A motor-cycle seat, comprising a seat proper, cylinders pivotally connected with the motor-cycle frame work, springs arranged within said cylinders, pistons also arranged within said cylinders and engaging said springs, the pistons being pivotally connected with the seat proper, and the forward extremity of said seat proper being curved downwardly toward the point where said cylinders are pivoted and pivotally connected with the frame work of the motor-cycle.



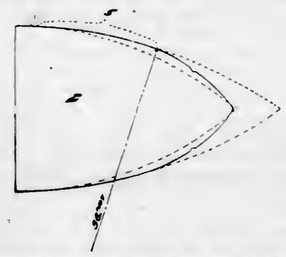
3. A vehicle seat, comprising a seat proper, cylinders pivotally connected with the vehicle frame work, springs arranged within said cylinders, pistons also mounted in said cylinders and engaged by said springs, the said pistons being pivotally connected at their upper extremities with the seat proper, the forward extremity of said seat proper being curved downwardly toward the pivot of said cylinders and pivotally connected with the frame work.

4. A motor-cycle seat, comprising a seat proper, cylinders pivotally connected with the rear axle of the motor-cycle, springs arranged within said cylinders, pistons also received in said cylinders and engaged by said springs, the seat proper having a transverse member journaled thereon, the upper extremities of said pistons being connected with said transverse member, and the forward extremities of said seat proper being curved downwardly toward the point where said cylinders are pivoted and pivotally connected with the frame work of the motor-cycle.

5. A motor-cycle rear seat, comprising a seat proper, cylinders having relatively flat parts at their lower extremities, said parts being pivotally connected with the rear axle of the motor-cycle, spring actuated pistons arranged within said cylinders, the upper extremities of said pistons being pivotally connected with the seat proper, the forward extremity of said seat proper being curved downwardly toward the point where said cylinders are pivoted and pivotally connected with the motor-cycle frame work, and downwardly curved members connected with said relatively flat parts of the cylinders and forming foot rests, substantially as described.

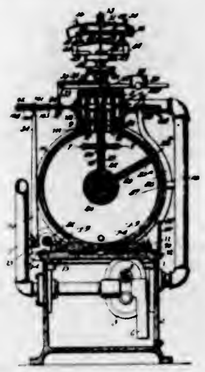
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1,095,173. ARMOR-PIERCING PROJECTILE. ALFRED J. SODEN, Newark, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa. Filed Jan. 7, 1913. Serial No. 740,742. (Cl. 102—26.)



An improved armor-piercing projectile provided with a nose having an ogival point with a radius adjacent to its tip of approximately 1½ calibers, said radius increasing progressively to approximately 3 calibers at a length of approximately .48 caliber from said tip, and then having a fixed curvature with a radius of approximately 3 calibers for a length of approximately 1 caliber, substantially as described.

1,095,174. WATER-WHEEL REGULATOR. ARTHUR DICKERSON, American Fork, Utah, assignor to Dickerson Automatic Governor Company, Salt Lake City, Utah, a Corporation of Utah. Filed Mar. 15, 1912. Serial No. 683,934. (Cl. 121—11.)



1. A water wheel regulator, comprising a drum, a shaft journaled axially thereof and connected with the controlling mechanism of the gate for opening and closing the same when the shaft is rotated, said drum having a radial abutment above the shaft and an inlet port on each side of the abutment, a radial piston on the shaft, a valve chamber seated over the ports and having a communication with each port, a pump driven by the prime mover and connected with opposite sides of the chamber and normally circulating oil therethrough, valves in the chamber for connecting the supply from the pump with either port of the drum and for simultaneously disconnecting the supply from the return to the pump, said valves being normally in neutral position to permit the free circulation of the oil through the chamber, a stem connected to the valves and extending beyond the chamber at each end, a centrifugal regulator operated by the prime mover, a connection between the regulator and the stem for moving the valves when the prime mover exceeds or falls below a predetermined speed, a dash pot connected with the shaft and operated thereby, said dash pot comprising a cylinder for holding oil mounted to be moved longitudinally by the rotation of the shaft, a plunger in the cylinder, a by-pass around the plunger, a valve controlling the by-pass, a yielding connection between the plunger and the valve stem for moving said stem in the opposite direction to its movement by the regulator, and oppositely arranged safety valves in the abutment.

2. A water wheel regulator, comprising a drum, a shaft journaled axially thereof and connected with the controlling mechanism of the gate for opening and closing the same when the shaft is rotated, said drum having a radial abutment above the shaft and an inlet port on each side of the abutment, a radial piston on the shaft, a valve chamber seated over the ports and having a communication with each port, a pump driven by the prime mover and connected with opposite sides of the chamber and normally circulating oil therethrough, valves in the chamber for connecting the supply from the pump with either port of the drum and for simultaneously disconnecting the supply from the return to the pump, said valves being normally in neutral position to permit the free circulation of the oil through the chamber, a stem connected to the valves and extending beyond the chamber at each end, a centrifugal regulator operated by the prime mover, a connection between the regulator and the stem for moving the valves when the prime mover exceeds or falls below a predetermined speed, a dash pot connected with the shaft and operated thereby, said dash pot comprising a cylinder for holding oil mounted to be moved longitudinally by the rotation of the shaft, a plunger in the cylinder, a by-pass around the plunger, a valve controlling the by-pass, a yielding connection between the plunger and the valve stem for moving said stem in the opposite direction to its movement by the regulator, and means operated by the rotation of the shaft beyond a predetermined point in either direction for moving the stem in the opposite direction to its movement by the regulator, said means being yieldingly connected to the stem, and oppositely arranged safety valves in the abutment.

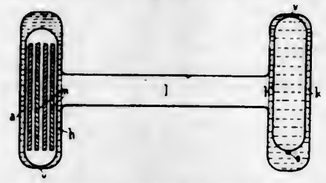
3. A water wheel regulator, comprising a drum, a shaft journaled axially thereof and connected with the controlling mechanism of the gate for opening and closing the same when the shaft is rotated, said drum having a radial abutment above the shaft and an inlet port on each side of the abutment, a radial piston on the shaft, a valve chamber seated over the ports and having a communication with each port, a pump driven by the prime mover and connected with opposite sides of the chamber and normally circulating oil therethrough, valves in the chamber for connecting the supply from the pump with either port of the drum and for simultaneously disconnecting the supply from the return to the pump, said valves being normally in neutral position to permit the free circulation of the oil through the chamber, a stem connected to the valves and extending beyond the chamber at each end, a centrifugal regulator operated by the prime mover, a connection between the regulator and the stem for moving the valves when the prime mover exceeds or falls below a predetermined speed, and a dash pot operated by the movement of the shaft in either direction for moving the valves in the opposite direction to their movement by the regulator, said dash pot being yieldingly connected to the stem, and oppositely arranged safety valves in the abutment.

5. A water wheel regulator, comprising a drum, a shaft journaled axially thereof and connected with the controlling mechanism of the gate for opening and closing the same when the shaft is rotated, said drum having a radial abutment above the shaft and an inlet port on each side of the abutment, a radial piston on the shaft, a valve chamber seated over the ports and having a communication with each port, a pump driven by the prime mover and connected with opposite sides of the chamber and normally circulating oil therethrough, valves in the chamber for connecting the supply from the pump with either port of the drum and for simultaneously disconnecting the supply from the return to the pump, said valves being normally in neutral position to permit the free circulation of the oil through the chamber, a stem connected to the valves and extending beyond the chamber at each end, a centrifugal regulator operated by the prime mover, a connection between the regulator and the stem for moving the valves when the prime mover exceeds or falls below a predetermined speed, and a dash pot yieldingly connected to the stem and operated by the movement of the shaft in either direction for moving the valves in the opposite direction to their movement by the regulator.

[Claims 6 to 8 not printed in the Gazette.]



1,095,175. MERCURY-VAPOR LAMP. RICHARD KÜCH, Hanau, Germany, assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 3, 1910. Serial No. 541,743. (Cl. 176—44.)



1. A vapor electric apparatus comprising a frangible container having an electrode chamber, a body of mercury in said chamber and a heat conducting mass positioned to displace some of said mercury while leaving an unrestricted passage between the wall of the container and said mass, and an envelop of vitreous material for said mass.

2. The combination with a vapor electric device, having a frangible envelop and at least one mercury electrode, a separate vessel of vitreous material having substantially the shape of the portion of said envelop containing the mercury and arranged therein to leave a passage for the flow of mercury when the device is tilted and a heat-conducting mass in said vessel.

3. The combination with a mercury apparatus, of a tubular glass receptacle corresponding in form substantially to a mercury chamber of the apparatus, said receptacle being rigidly supported within such chamber and adapted to prevent sudden movement of any considerable body of mercury to or from said chamber, and mass of metal within said receptacle.

4. In a mercury vapor apparatus, the combination of a frangible vessel having electrode chambers containing mercury, and glass receptacles containing a heat conductive mass, said receptacles being positioned in said chambers to obstruct violent movements of the mercury and thereby prevent destructive impact on the walls of said apparatus, while leaving a free passage for the flow of mercury to and from the electrode chambers.

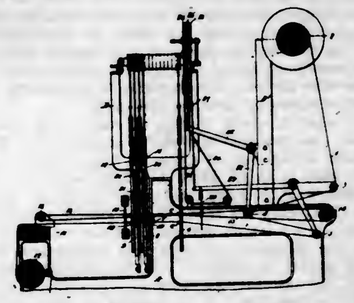
5. The combination with a mercury vapor apparatus, of a tubular receptacle arranged within a mercury chamber of the apparatus and extending across the passage connecting said chamber with the body of the apparatus to prevent sudden movement of any considerable body of mercury to or from said chamber, and a body of mercury within said receptacle.

[Claims 6 and 7 not printed in the Gazette.]

1,095,176. LENO-WEAVING. THOMAS GRIME, New Bedford, Mass., assignor to Nashawena Mills, New Bedford, Mass., a Corporation of Massachusetts. Filed May 29, 1913. Serial No. 770,647. (Cl. 139—84.)

1. In a loom for weaving ornamental filling-leno fabric, the combination with a special warp-thread, of a horizontally reciprocating forward-bight holder of a warp loop, a rearward loop-bight holder, an additional vertically reciprocating warp holder to effect changes in the relative positions of the sides of the loop between its extreme bights, and a reciprocating warp presser between the whip-roll and the said bight holders to reciprocate the forward bight holder, and to draw back the warp and engage the filling threads laid in the loop.

2. In a loom for weaving ornamental filling-leno in combination with a special weft-binding warp, a horizontally reciprocating holder for the forward bight of a loop, vertically reciprocating rearward bight-holders for changing the relative positions of the sides of the loop between the forward and rearward holders to vary the shed formed thereby for the weft, an intermittently acting warp tension regulator, and a reciprocator for the forward bight holder.



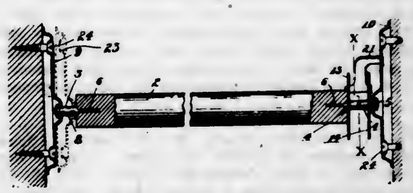
3. In a loom for weaving ornamental filling-leno in combination with a special weft-binding warp, a horizontally reciprocating holder for the forward bight of a loop, vertically reciprocating rearward bight-holders which change the relative positions of the sides of the loop, warp engaging slots in the holders and automatically operated locking devices to retain the warp therein, vertically reciprocating warp guides to withdraw the warps from and direct them into said slots, when the holder for the forward bight of the loop is reciprocated.

4. In a loom for weaving ornamental filling-leno in combination with a special weft interlocking warp, a horizontally reciprocating forward warp loop holder, rearward warp loop holders, mechanism to vertically reciprocate said rearward holders and change the relative positions of the threads constituting the sides of the loop, to form special sheds for picks of filling, and mechanism to draw back the forward loop-holder, and the said warp, to bind or interlock the filling laid in the loop.

5. In a loom for weaving filling-leno, a horizontally reciprocating carrier for a special warp, a warp-looping eye on the carrier, a special weft-interlocking warp held by said eye, means to reciprocate the carrier, rear warp-loop holders, mechanism to vertically reciprocate the latter holders to change the relative positions of the threads constituting the sides of the loop, to form special sheds for picks of filling, means to draw back the carrier and said special warp to bind or interlock the filling laid in the loop, and mechanism to arrest picks of filling during this last named operation.

[Claims 6 to 11 not printed in the Gazette.]

1,095,177. WINDOW-SHADE ROLLER. BERT RIVKIN, New York, N. Y., assignor, by direct and mesne assignments, of one-fourth to Lena Sherman and one-sixth to Selman Liss, New York, N. Y., and one-sixth to Leopold Tropp and one-sixth to Morris M. Turitz, Brooklyn, N. Y. Filed Mar. 21, 1910. Serial No. 550,681. (Cl. 156—34.)



1. A window shade having elongated journals, one of which acts as a drum, a side plate, a hood mounted upon the side plate, the side plate and hood having bearings for the journal and acting as guides for the cord or cable wound upon the journal for rotating the roller in either direction, and means for holding the shade or roller in any position.

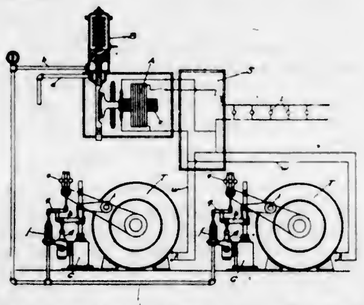
2. A window shade having a roller with elongated journals, one of which acts in the capacity of a drum, a side plate in the form of a bracket and acting as a guide for the cord or cable which is wound upon the journal, and capable of rotating the roller in either direction, means for holding the shade at any desired height, and an automatic adjusting bearing, the adjustability being in line with its axis and movable independently of the holding or operating means of the roller.

3. A window shade having a roller with elongated journals, one of which acts in the capacity of a drum, a side plate in the form of a bracket and acting as a guide for the cord or cable which is wound upon the journal and capable of rotating the roller in either direction, means for holding the shade at any desired height, a second side plate with an extended bearing which acts with one of the elongated journals and compensates for the varying widths of windows, and an automatic adjusting bearing, the adjustability being in line with its axis and movable independently of the holding or operating means of the roller.

4. A window shade, having elongated journals, one of which acts as a drum, a side plate, a hood mounted upon the side plate, the side plate and hood having bearings for the journal and acting as guides for the cord or cable wound upon the journal for rotating the roller in either direction, means for holding the shade or roller in any position, a self-adjusting bearing, the adjustability being in line with its axis and movable independently of the holding or operating means of the roller, and means for keeping all the parts assembled upon the roller when the shades are being transported.

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1,095,178. MECHANISM FOR CONTROLLING THE SPEED OF TURBINES OR OTHER PRIME MOVERS CONNECTED IN PARALLEL. HENRY E. WARREN, Ashland, Mass., assignor to The Lombard Governor Company, Ashland, Mass., a Corporation of New Jersey. Filed Sept. 25, 1911. Serial No. 651,110. (Cl. 171—226.)



Mechanism for governing a plurality of prime-movers for independent generators, consisting of a series of governors mutually responsive to variations of pressure in a fluid system and independently responsive to speed variations of the units which they respectively control, and means to vary the pressure in the fluid system according to the combined output of the units governed.

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1,095,179. SCYTHE. FRITZ W. SCHIELDS, Atlantic, Iowa, assignor to Charles A. Goeken, Atlantic, Iowa. Filed Dec. 11, 1912. Serial No. 736,231. (Cl. 56—27.)

The combination with a scythe handle and blade, of connecting means therefor comprising a member fixed to one end of the blade and projecting beyond the same, the projecting end of said member being provided with an annular series of teeth upon one face and an annular flange at the inner ends of said teeth projecting beyond the longitudinal edges of the teeth, a complementary member provided with a sleeve to receive the handle, said member also having an annular series of teeth formed upon one face and an annular groove at the inner ends of said teeth, said latter member being further provided with an annular flange inwardly of said groove for engagement against the inner face of the annular flange on said first named member, said latter flange being adapted



for engagement in the groove of the last named member between the flange thereon and the inner ends of the teeth, said connecting members and the handle being provided with co-inciding openings, and means disposed therethrough to secure said members in adjusted relationship.

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1,095,180. PROCESS OF MAKING A CEMENTITIOUS COMPOSITION. WILLIAM E. CARSON, Riverton, Va. Filed Apr. 5, 1911. Serial No. 619,132. (Cl. 106—43.)

1. The process of making a cementitious composition which comprises bringing quicklime into reaction with clay in the presence of water and roasting the product below the sintering temperature.

2. The process of making a cementitious composition which comprises pugging clay with water, slaking quicklime in the mixture and roasting the product at temperatures between the approximate limits of 600° and 800° F.

3. The process of making a cementitious composition which comprises pugging clay with a predetermined quantity of water, slaking fine-ground quicklime in the mixture and roasting the product at a temperature too low to cause substantial chemical change therein.

4. The process of making a cementitious composition which comprises pugging clay with water, slaking quicklime in the mixture, the amount of water employed being such as will result in a dry mix, and roasting the product below the sintering temperature.

5. The process of making a cementitious product which comprises bringing a hydrated material comprising alumina, into reaction with quicklime in the presence of water and roasting the product below the sintering temperature.

[Claims 6 to 13 not printed in the Gazette.]

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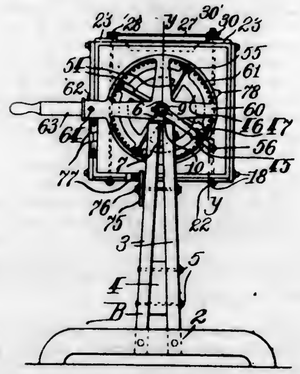
1,095,181. BUTTER-MAKING MACHINERY. PAUL HANSON, Wild Horse, Colo. Filed Dec. 22, 1911. Serial No. 667,332. (Cl. 31—25.)

1. In a device of the class set forth, a supporting frame, and a churning receptacle mounted rotatably on said frame, said receptacle having closed sides and ends, a cover removably fixed upon one side of said receptacle, a lifting shelf extending from a side wall in said receptacle to near its axis and adapted to intercept the entire contents of said receptacle at each revolution, stop pins through the ends of said receptacle obstructing the shelf from movement toward the axis of said receptacle, cleats on the ends of said receptacle supporting said shelf and clamps movably secured upon said ends and adapted to impinge upon said shelf and detachably hold it down upon said cleats and against said stop pins.

2. In a device of the class set forth, a supporting frame, a receptacle rotatable on said frame, said receptacle having closed sides and ends, a cover removably fixed upon one side of said receptacle, a lifting shelf within said



receptacle adapted to assist in agitating the contents thereof, means for rotating said receptacle, a butter worker journaled eccentric to the axis of rotation of said receptacle, means for rotating said butter worker interconnected with said operating means for said receptacle and means interposed between the actuating mechanism for driving said receptacle and the actuating mechanism for driving said butter worker, said interposed means being movable into three positions whereby said receptacle may be held stationary while the interposed means is in one position, the butter worker caused to revolve on its own axis at high speed during the revolution of said receptacle when said interposed means is in medium position, and said parts free from positive engagement when said interposed means is in the remaining position.



3. In a device of the class set forth, a supporting frame, a receptacle having closed sides and ends, shafts carried by said receptacle and journaled in said supporting frame, means for revolving said shafts causing the revolution of said receptacle, gearing carried by one of said shafts, a pinion adapted to be driven by said gearing, a butter worker in said receptacle connected with said pinion to be driven on an axis eccentric to the axis of said receptacle, a handle carried by said gearing whereby said gearing may be held stationary and causing the revolution of said butter worker upon its axis and a stop movable into the path of said receptacle to hold the same stationary and movable out of the path of said receptacle and into the path of said gearing to hold said gear stationary thereby causing the revolution of said butter worker on its axis.

4. In a device of the class set forth, a supporting frame, a receptacle journaled in said frame having closed sides and ends and a cover removably fixed upon one side of said receptacle, a butter worker journaled in said receptacle eccentric to the axis of the receptacle, a drive gear journaled upon the axis of said receptacle, a pinion carried by said butter worker and driven by said gear and a stop movably mounted upon said frame, said receptacle being shouldered whereby said stop may be moved into engagement therewith to hold the receptacle with its door opening uppermost or at an angle with its door opening at one side and said stop being movable out of engagement with said receptacle and into engagement with said gear whereby the butter worker may be revolved upon its axis during the revolution of said receptacle.

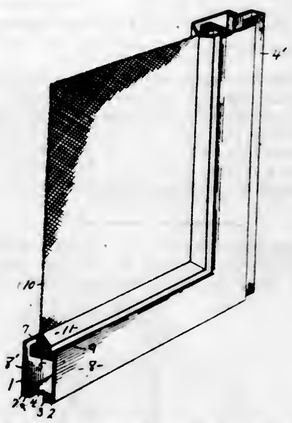
5. In a device of the class set forth, a supporting frame, a receptacle having end walls, a shaft carried by said end walls and journaled in said frame, a butter worker in said receptacle revoluble about an axis eccentric to the axis of said receptacle, a gear journaled upon the axis of said receptacle, means for holding said gear stationary, a second shaft journaled in one end of said receptacle and having an inner squared end removably socketed in one end of said butter worker, a washer interposed between said end of said butter worker and the adjacent end of said receptacle and mounted upon said second shaft to produce a liquid tight joint, a pinion carried by said second shaft having its teeth meshing with the teeth of said gear and a spindle having its outer end threaded into the opposite end of said receptacle and its inner end journaled in the opposite end of said butter worker whereby said butter worker is adapted to revolve upon said shaft and spindle and by unscrewing said spindle said butter worker may be removed from its journal support in said receptacle.

[Claims 6 to 8 not printed in the Gazette.]

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# REISSUES.

13,720. SHEET-METAL SASH AND DOOR. EDVARD CARLSON, Jamestown, N. Y., assignor to Jamestown Window Screen Company, Jamestown, N. Y., a Corporation of New York. Filed Apr. 2, 1913. Serial No. 758,516. Original No. 1,005,509, dated Oct. 10, 1911, Serial No. 625,124. (Cl. 156—14.)



1. A device such as described for securing the edge of a sheet of fabric within a frame, and consisting of a continuous hollow frame formed by pressing a strip of thin metal in substantially U-shaped cross sectional formation, the free edges of said frame being bent inward and interlocked with the edges of a closing strip, the bottom of the U-shaped frame pressed inwardly to form a recess, the bottom of which is substantially parallel to the closing strip, one side of this recess extending into a groove, the other side depressed slightly below the upper edge of the upright side of the frame, thereby forming a lip, the edge of the fabric placed in this recess, and a closing strip adapted to be retained within the recess by its spring action, and consisting of a strip of thin metal having a horizontal section slightly narrower than the recess formed in the frame, a vertical section formed on one side, the upper part of which is bent inwardly at approximately 45° to register with the upper edge of the frame, substantially as and for the purposes set forth.

2. A hollow sheet metal rail for sash and door frames having its inner edge depressed beyond the corresponding edges of its sides to form opposite lengthwise ribs and an intervening recess, one of the ribs having its inner edge offset laterally toward the other rib to form a lengthwise groove opening into the recess, and a retaining strip inserted in the recess and provided with laterally diverging flanges for engaging and retaining the panel in the recess.

3. A sash or door comprising a hollow sheet metal frame provided with a recess in its inner side, a rib forming one side of the recess and an additional rib forming the other side of the recess and overhanging a portion of the same, in combination with an angular retaining strip having one side interposed between said ribs and its other side ex-

tending across said recess into substantial registration with the edge of the opposite rib.

4. A hollow sheet metal rail for screen frames bent in U-shape form and having its closed edge depressed beyond the adjacent edges of the sides to form opposite ribs and an intervening recess, a screen retaining piece inserted in the recess between said ribs and having one side engaged with one of the ribs and provided with diverging flanges extending toward the other rib.

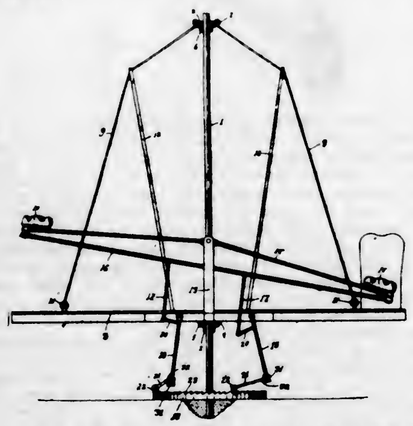
5. A hollow sheet metal rail for screen frames bent in U-shape form and having its closed edge depressed beyond the adjacent edges of the sides to form opposite ribs and an intervening recess, a screen retaining piece inserted in the recess between said ribs and having one side engaged with one of the ribs and provided with diverging flanges extending toward the other rib, and a closing piece connecting the opposite edges at the open side of the rail.

6. A rail for screen frames having its inner edge provided with a central lengthwise recess and lengthwise ribs at opposite sides of the recess, the open side of the recess being narrower than its base, and a screen retaining strip having diverging flanges united by a web bearing against the inner side of one of the ribs, one of said flanges being disposed in the wider portion of the recess and its other flange projecting across the narrower open side of the recess.

7. A hollow sheet metal frame for sash and doors having lengthwise ribs and an intervening recess along its inner edge, one of the ribs having its inner edge offset laterally toward the other rib to form an overhanging portion, a panel in said recess and an angular retaining strip having a portion extending under said overhanging portion and another portion extending outwardly from said recess.

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13,721. MERRY-GO-ROUND. JACOB NEY, Canton, Ohio. Filed Dec. 18, 1913. Serial No. 807,555. Original No. 1,014,249, dated Jan. 9, 1912, Serial No. 641,318. (Cl. 46—27.)



1. In a merry-go-round of the class described, the combination of a horizontal revolving platform, a see-saw mounted upon and carried by the revolving platform, rods pivotally connected to the revolving platform, said rods provided with lever arms, links connected to the lever arms and to the see-saw, push rods pivotally connected to the bottom or lower ends of the rods pivoted to the platform, and push heads connected to the push rods, a fixed toothed ring located below the revolving platform the teeth of the toothed ring being adapted for engagement with the push heads, substantially as and for the purpose specified.

2. In a merry-go-round of the class described, the combination of a horizontally revolving platform, a fixed toothed ring located below the platform, push heads adapted for engagement with the fixed toothed ring, rods connected to the push heads and means carried by the revolving platform adapted to impart movements to the push rods and push heads independent of the horizontal rotary movement of the push heads upon the toothed ring, substantially as and for the purpose specified.

3. In a merry-go-round, the combination of a fixed post, a revolving platform carried by said fixed post, a series of uprights extending from the platform, a revolving plate located at the top or upper end or portion of the post, a series of supporting members fixed to the revolving plate and to the platform respectively, a fixed toothed ring located below the platform, a see-saw carried by the platform and rotatable therewith, and means intermediate the see-saw and the fixed toothed ring adapted to impart rotary movement to the platform and see-saw, substantially as and for the purpose specified.

4. A merry-go-round comprising a rotatable mounted structure, oscillating elements carried by said rotary structure and rotatable therewith, said oscillating elements provided with seats, a fixed toothed ring located below the rotatable mounted structure, and means actuated by the oscillating elements carried by the rotatable mounted structure adapted for engagement with the teeth of the fixed toothed ring, substantially as and for the purpose specified.

5. In a device of the character described, the combination of a rotatable structure, a support for said rotatable structure, an oscillating element mounted upon and carried by said rotatable structure, a ring and means intermediate said rotatable structure and oscillating element and said ring adapted to intermittently impart rotary motion to said rotary structure by intermittent engagement with said ring.

6. In a device of the character described, the combination of a horizontal rotatable platform, a see-saw pivotally mounted upon and carried by the revolving platform, rods pivotally connected to the revolving platform, said rods provided with lever arms, links connected to the lever arms and to the see-saw, push rods pivotally connected to the bottom or lower ends of the rods pivoted to the platform, push heads connected to the push rods, a ring adapted for engagement with the push heads.

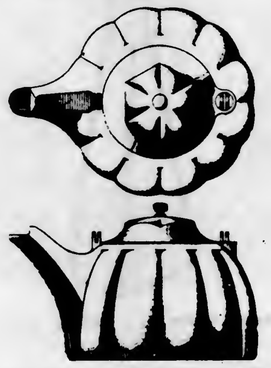
7. In a device of the character described, the combination of a horizontal rotatable platform, a see-saw mounted upon and carried by the revolving platform, rods pivotally connected to the revolving platform, said rods provided with lever arms, links connected to the lever arms and to the see-saw, push rods pivotally connected to the bottom or lower ends of the rods pivoted to the platform, push heads connected to the push rods, a ring adapted for intermittent and alternate engagement with the push heads.

8. In a device of the character described, the combination of a horizontal platform, a see-saw mounted upon and carried by said platform, rods pivotally connected to the platform, said rods provided with lever arms, links connected to the lever arms and to the see-saw, push rods pivotally connected to the bottom or lower end of the rods pivoted to the see-saw, push heads connected to the push rods, a ring adapted for intermittent and alternate engagement with the push rods, a ring adapted for intermittent and alternate engagement with the push heads.



# DESIGNS.

45,664. COOKING-UTENSIL BODY. VERNE WILLIAMS CLISBY, Wellington, Ohio, assignor to The Sterling Machine & Stamping Company, Wellington, Ohio, a Corporation. Filed Feb. 3, 1914. Serial No. 816,328. Term of patent 14 years.



The ornamental design for a cooking-utensil body, as shown.

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45,665. EMBLEM, BUTTON, OR SIMILAR ARTICLE. ARTHUR C. DEXTER, San Diego, Cal. Filed Feb. 11, 1914. Serial No. 818,170. Term of patent 3½ years.



The ornamental design for an emblem, button or similar article as shown.

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45,666. BADGE, PIN, OR SIMILAR ARTICLE. JOHN F. B. FERRY, San Francisco, Cal. Filed Feb. 16, 1914. Serial No. 819,118. Term of patent 3½ years.




The ornamental design for a badge, pin or similar article, as shown.

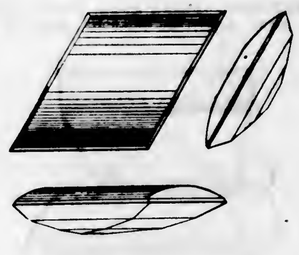
45,667. CLOTHES-LINE HOLDER. JOHN P. HANSEN, Racine, Wis. Filed Jan. 14, 1914. Serial No. 812,145. Term of patent 7 years.



The ornamental design for a clothes line holder, as shown.

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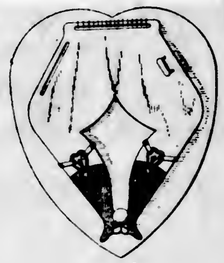
45,668. PRECIOUS, SEMIPRECIOUS, SYNTHETIC, OR IMITATION STONE. SAMUEL HELLER, New York, N. Y. Filed Dec. 29, 1913. Serial No. 809,427. Term of patent 3½ years.



The ornamental design for a precious, semiprecious, synthetic or imitation stone, as shown.

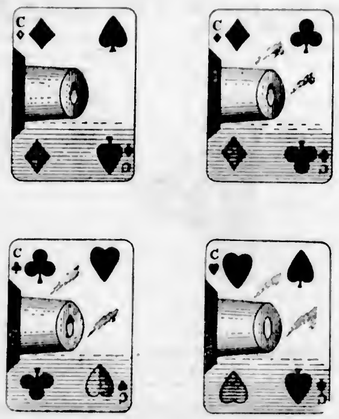
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45,669. GARTER-CLASP. WILLIAM B. HILL, San Francisco, Cal. Filed May 17, 1913. Serial No. 768,351. Term of patent 14 years.



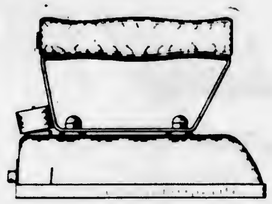
The ornamental design for a garter clasp, as shown.

45,670. SET OF PLAYING-CARDS. GEORGE F. KEARNEY, Gorham, N. Y. Filed Jan. 30, 1914. Serial No. 815,553. Term of patent 14 years.



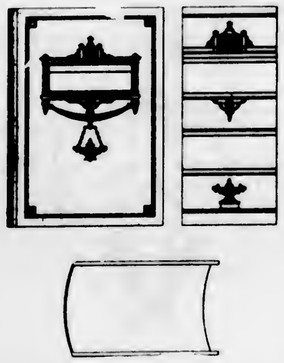
The ornamental design for a set of playing cards, as shown.

45,671. SAD-IRON. FRANK KUHN, Detroit, Mich. Filed Apr. 5, 1913. Serial No. 759,220. Term of patent 14 years.



The ornamental design for a sad-iron, as shown.

45,672. FILE, CONTAINER, OR BOOK-COVER. LOUIS AARON LEBOWICH, Boston, Mass. Filed Oct. 20, 1913. Serial No. 796,345. Term of patent 7 years.



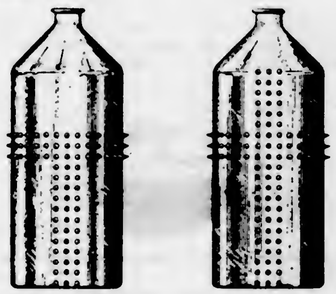
The ornamental design for a file, container, or book-cover as shown.

45,673. BOTTLE. FRANCIS JOSEPH MICHAEL MILES, Chicago, Ill., assignor to Melba Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 12, 1914. Serial No. 824,322. Term of patent 7 years.



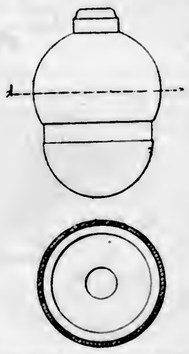
The ornamental design for a bottle as shown.

45,674. POISON-BOTTLE. EARL J. MOSLEY, Goldendale, Wash. Filed Jan. 20, 1914. Serial No. 813,339. Term of patent 7 years.



The ornamental design for a poison bottle, as shown.

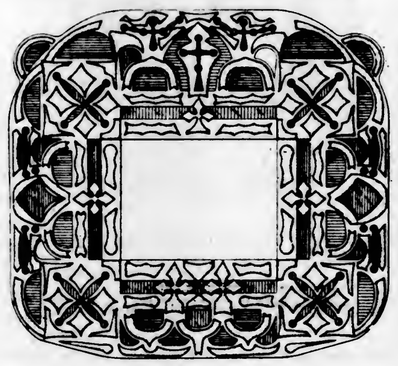
45,675. CONTAINER FOR SOAP-DISPENSERS. WILLIAM C. MORRILL, New York, N. Y. Filed Feb. 10, 1914. Serial No. 817,925. Term of patent 14 years.



The ornamental design for a container for soap dispensers, as shown.

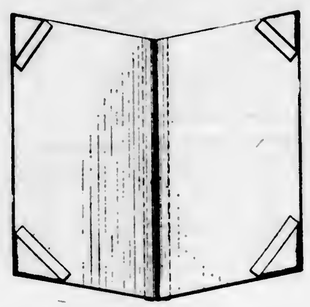


45,676. PICTURE-FRAME. JOHN ORBIK, Hurley, Wis. Filed Feb. 7, 1914. Serial No. 817,354. Term of patent 14 years.



The ornamental design for a picture frame, as shown.

45,677. BANK-BOOK COVER. ROY SHICK, Okmulgee, Okla. Filed Dec. 11, 1913. Serial No. 806,121. Term of patent 7 years.



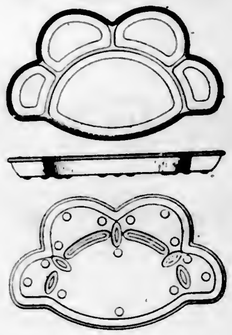
The ornamental design for a bank book cover, as shown.

45,678. BOTTLE-OPENER. JOHN L. SOMMER, Newark, N. J., assignor to J. L. Sommer Manufacturing Co., a Corporation of New Jersey. Filed Mar. 3, 1914. Serial No. 822,236. Term of patent 14 years.



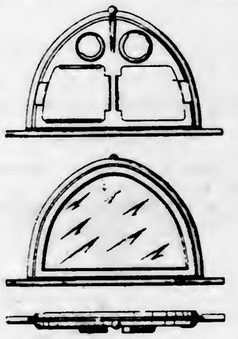
The ornamental design for a bottle opener, as shown.

45,679. DISH. ANDREW N. STANDERFORD, Kokomo, Ind. Filed Jan. 17, 1914. Serial No. 812,851. Term of patent 14 years



The ornamental design for a dish, as shown.

45,680. VANITY-INSERT FOR BAGS. BENNO VOM EIGEN, Newark, N. J., assignor to August Goertz & Co., a Corporation of New Jersey. Filed Jan. 12, 1914. Serial No. 811,760. Term of patent 3½ years.



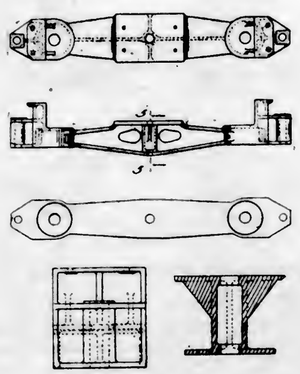
The ornamental design for a vanity insert for bags, as shown.

45,681. WALL-PAPER. EDMUND J. WALENTA, Sr., Philadelphia, Pa., assignor to Standard Wall Paper Co., Hudson Falls, N. Y. Filed Feb. 12, 1914. Serial No. 818,410. Term of patent 3½ years.



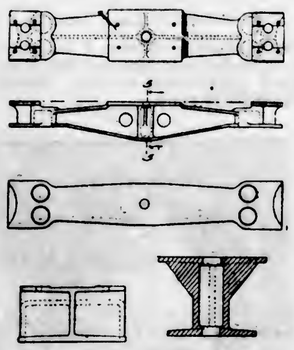
The ornamental design for wall paper, as shown.

45,682. CAR-TRUCK BOLSTER. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 11, 1914. Serial No. 818,167. Term of patent 14 years.



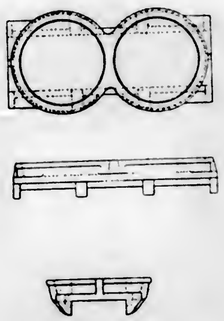
The ornamental design for a car truck bolster as shown.

45,683. CAR-TRUCK BOLSTER. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 21, 1914. Serial No. 820,363. Term of patent 14 years.



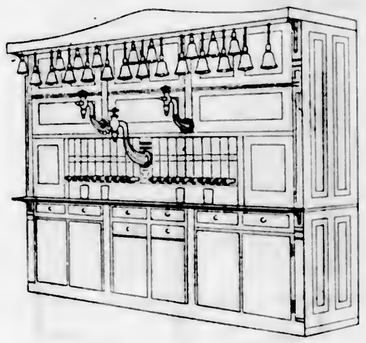
The ornamental design for a car truck bolster as shown.

45,684. SPRING-CAP. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 24, 1914. Serial No. 820,766. Term of patent 14 years.



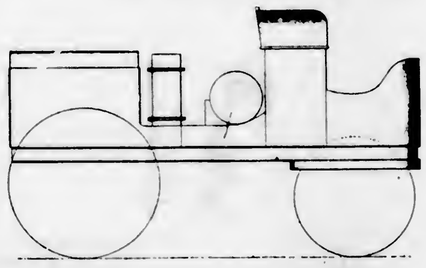
The ornamental design for a spring cap as shown.

45,685. MUSICAL INSTRUMENT. HARRY E. BARNES, Topeka, Kans. Filed Nov. 19, 1913. Serial No. 801,995. Term of patent 7 years.



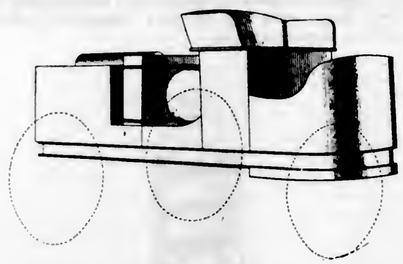
The ornamental design for a musical instrument, as shown.

45,686. VEHICLE-BODY. GEORGE W. BULLEY, Chicago, Ill. Filed Dec. 22, 1913. Serial No. 808,290. Term of patent 14 years.



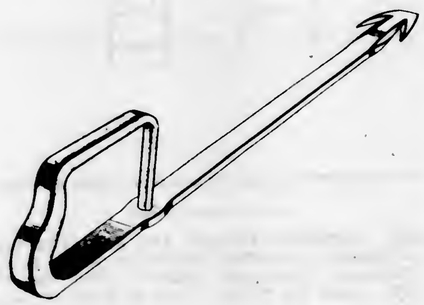


45,686.



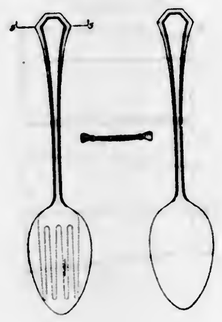
The ornamental design for a vehicle body as shown.

45,687. SHINGLING-TOOL. JOSEPH D. COSSETTE, Escanaba, Mich. Filed Feb. 28, 1914. Serial No. 821,805. Term of patent 14 years.



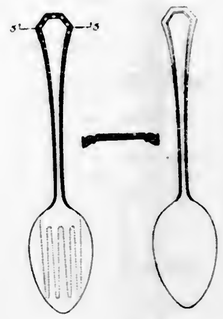
The ornamental design for a shingling tool, as shown.

45,688. SPOON, FORK, OR SIMILAR ARTICLE. WILLIAM B. H. DOWSE, Newton, Mass. Filed Mar. 4, 1914. Serial No. 822,533. Term of patent 14 years.



The ornamental design for a spoon, fork or similar article, substantially as shown.

45,689. SPOON, FORK, OR SIMILAR ARTICLE. WILLIAM B. H. DOWSE, Newton, Mass. Filed Mar. 5, 1914. Serial No. 822,781. Term of patent 14 years.



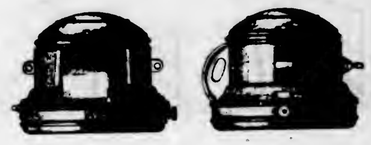
The ornamental design for a spoon, fork or similar article, substantially as shown.

45,690. HAMMER-HEAD. WILLIAM J. FLEISCHAUER and HERBERT RICHARDSON, Pontiac, Mich. Filed Jan. 2, 1914. Serial No. 810,078. Term of patent 7 years.



The ornamental design for a hammer head as shown.

45,691. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn., assignor to The Hawthorne Manufacturing Company, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 17, 1913. Serial No. 749,048. Term of patent 14 years.



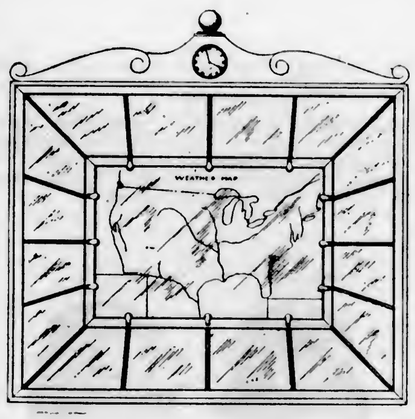
The ornamental design for a lamp, as shown.

45,692. DISPLAY-STAND. ALEXANDER MCDONALD, Duluth, Minn. Filed Feb. 10, 1914. Serial No. 817,941. Term of patent 7 years.



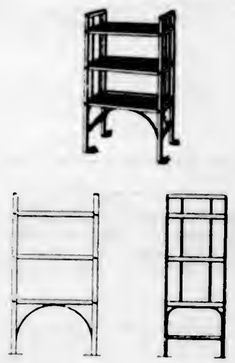
The ornamental design for a display stand, as shown.

45,693. ADVERTISING-CABINET. FRANK H. NEWTON, Oakland, Cal. Filed Jan. 31, 1914. Serial No. 815,848. Term of patent 3½ years.



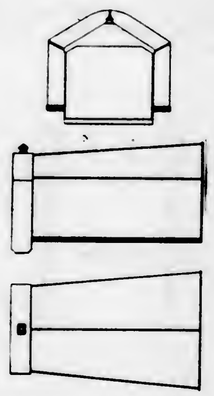
The ornamental design for an advertising cabinet, as shown.

45,694. RACK OR STAND. ISAAC ROSENBERGER, Tallman, Mich., assignor to Norman H. Brandenburg, Astoria, Oreg. Filed Feb. 16, 1914. Serial No. 819,105. Term of patent 14 years.



The ornamental design for a rack or stand, as shown.

45,695. COMBINED BONNET AND RADIATOR FOR AUTOMOBILE-ENGINES. FREDERICK HENRY ROYCE, Westwood, Crowborough, England. Filed Feb. 27, 1914. Serial No. 821,587. Term of patent 14 years.



The ornamental design for a combined bonnet and radiator for automobile engines, as shown.

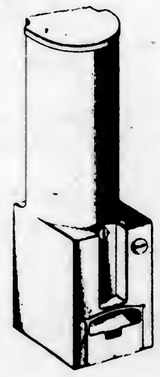


45,696. WATER-HEATER. HARRY J. RYAN, Troy, N. Y. Filed Jan. 14, 1914. Serial No. 812,146. Term of patent 14 years.



The ornamental design for a water heater as shown.

45,697. CASING FOR VENDING-MACHINES. JOHN L. TAYLOR, Chicago, Ill., assignor to Harry D. Yerxa, Chicago, Ill. Filed Feb. 28, 1914. Serial No. 821,806. Term of patent 14 years.



The ornamental design for a casing for vending machine, as shown.

# TRADE-MARKS

## PUBLISHED APRIL 28, 1914.

**The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.**

**Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.**

**As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.**

Ser. No. 33,999. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HOLOPHANE GLASS CO., New York, N. Y. Filed Apr. 10, 1908.

**LUXTURE**

*Particular description of goods.*—Chandeliers, Brackets, and Pedestals for Holding and Supporting Gas and Electric Lights.

*Claims use* since Jan. 16, 1907.

Ser. No. 55,682. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) C. I. HOOD CO., Lowell, Mass. Filed Apr. 11, 1911.

***Peptiron***

*Particular description of goods.*—A Tonic for the Nerves, Blood, and Brain.

*Claims use* since 1901.

Ser. No. 60,529. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ANDREW MURPHY & SON, Omaha, Nebr. Filed Dec. 30, 1911.



Including the illustration of a smiling fanciful face.

*Particular description of goods.*—Wagons, Buggies, and Automobiles.

*Claims use* since Jan. 1, 1907.

Ser. No. 60,875. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FRANCIS A. WOODS, Chicago, Ill. Filed Jan. 17, 1912.

**MOBILETTE**

*Particular description of goods.*—Automobiles.

*Claims use* since the 28th day of March, 1911.

Ser. No. 61,926. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE WILCOX COMPANY, Providence, R. I. Filed Mar. 4, 1912.

**Purogen**

*Particular description of goods.*—Soap.

*Claims use* since January, 1904.

Ser. No. 61,927. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE SPENCER TURBINE CLEANER COMPANY, Hartford, Conn. Filed Mar. 4, 1912.

**VACOMETER**

*Particular description of goods.*—Vacuum-Testers.

*Claims use* since on or about the 28th day of February, 1912.

Ser. No. 61,992. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE STRUTHERS CO., Peoria, Ill. Filed Mar. 7, 1912.



*Particular description of goods.*—Lightning-Rods, Woven-Cable Lightning-Rods, Glass and Porcelain Balls and Insulators for Lightning-Rods, Supporting-Brackets for Lightning-Rods, and Parts of the Same.

*Claims use* since about the 1st day of January, 1911.

Ser. No. 62,088. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAUM & COMPANY, Beaumont, Tex. Filed Mar. 9, 1912.



*Particular description of goods.*—A Remedy for Sore Heads of Chickens.
*Claims use* since Jan. 1, 1912.

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Ser. No. 63,745. (CLASS 38. PRINTS AND PUBLICATIONS.) HENRY VON GLAHN & SON, Brooklyn, N. Y. Filed May 23, 1912.

OUR PUSHER

*Particular description of goods.*—Monthly Publications.
*Claims use* since Sept. 1, 1911.

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Ser. No. 63,863. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) INTERNATIONAL OXYGEN COMPANY, Waverly, N. J., and New York, N. Y. Filed May 28, 1912.

VICTOR

*Particular description of goods.*—Torches for Use in Oxo-Hydric and Oxo-Acetylene Cutting and Welding.
*Claims use* since about Apr. 8, 1912.

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Ser. No. 64,707. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) FOWLER SIGN COMPANY, Tacoma, Wash. Filed July 13, 1912.

SYSTEM LIGHT

No claim being made to the exclusive use of either the word "System" or the word "Light."
*Particular description of goods.*—Apparatus for Lighting Public Halls by Indirect Light Reflected and Diffused from Panels.
*Claims use* since Jan. 1, 1912.

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Ser. No. 65,023. (CLASS 10. FERTILIZERS.) PACIFIC BONE COAL & FERTILIZING CO., San Francisco, Cal. Filed Aug. 1, 1912.

"POMONELLA"

*Particular description of goods.*—Fertilizer.
*Claims use* since July 1, 1912.

Ser. No. 65,354. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. ITEN & SONS, Clinton, Iowa. Filed Aug. 20, 1912.

SNOW WHITE BAKERY

*Particular description of goods.*—Crackers, Cookies, Biscuits, and Cakes.
*Claims use* since Oct. 1, 1908.

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Ser. No. 65,671. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FITZPATRICK BROS., Chicago, Ill. Filed Sept. 10, 1912.




*Particular description of goods.*—Washing Compound.
*Claims use* since Aug. 10, 1912.

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Ser. No. 65,737. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y. Filed Sept. 13, 1912.

FLATLOCK

*Particular description of goods.*—Sewing-Machines and Parts.
*Claims use* since March, 1909.

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Ser. No. 66,358. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK J. HORTON, Youngstown, Ohio. Filed Oct. 18, 1912.

Adas

No claim being made to the spelling of the words "American," "Domestic," "Arts," and "Science."
*Particular description of goods.*—Tea, Coffee, Spices, and Flavoring Extracts for Foods.
*Claims use* since Mar. 25, 1912, on teas and coffees and since June, 1912, on spices and flavoring extracts.





Ser. No. 66,561. (CLASS 11. INKS AND INKING MATERIALS.) RICHARD M. JONES, Louisville, Ky. Filed Oct. 26, 1912.

KNAUFFSATT

*Particular description of goods.*—Compound for Drying Printing-Ink.
*Claims use* since Sept. 1, 1912.

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Ser. No. 67,389. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) PAC-RITE COMPANY, INC., New York, N. Y. Filed Dec. 13, 1912.

Pac-Rite

*Particular description of goods.*—Garment-Folders, or Flat Form Placed Inside of a Coat or Garment to Keep the Same from Creasing.
*Claims use* since June 14, 1912.

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Ser. No. 67,793. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTMORELAND CANDY COMPANY, Richmond, Va. Filed Jan. 8, 1913.

PECONUT CRISP

No claim being made to the word "Crisp."
*Particular description of goods.*—Candy.
*Claims use* since Jan. 22, 1902.

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Ser. No. 68,094. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALEXANDER J. HOWELL, Syracuse, N. Y. Filed Jan. 24, 1913.

SHEFFORD

*Particular description of goods.*—Cheese, Bacon, Peanut-Butter, Potato Chips, Horse-Radish, Welsh Rabbit, and Dried Beef.
*Claims use* since September, 1902.

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Ser. No. 68,280. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) F. KREUGER & COMPANY LTD., London, England. Filed Feb. 3, 1913.

BILLIKEN

*Particular description of goods.*—Matches.
*Claims use* since on or about the 21st day of January, 1911.

Ser. No. 68,360. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EVA NIEMAN, Cincinnati, Ohio. Filed Feb. 6, 1913.

VAN'S "120"

*Particular description of goods.*—A Medicinal Preparation for Stimulating and Developing the Mammary Glands.
*Claims use* since Dec. 15, 1912.

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Ser. No. 68,601. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. J. BADENOCH CO., Chicago, Ill. Filed Feb. 18, 1913.




*Particular description of goods.*—Poultry Feed.
*Claims use* since Feb. 1, 1912.

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Ser. No. 68,782. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEBHARDT CHILI POWDER CO., San Antonio, Tex. Filed Feb. 28, 1913.




*Particular description of goods.*—Chilli Powder, (a Condiment for Making Chilli-Con-Carne;) Tabasco Sauce; Chilli-Con-Carne; Frijoles, (Beans;) Rice with Chilli; Devilled Chilli-Meat; Chilli Spice; Chillimix, (a Condiment for Making Chilli-Con-Carne;) Tamales; and Spaghetti and Chilli with Cheese.
*Claims use* since Jan. 1, 1896.

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Ser. No. 69,270. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. P. WILLIS & CO., New York, N. Y. Filed Mar. 22, 1913.

WILLETTE

*Particular description of goods.*—Silk Piece Goods.
*Claims use* since on or before Mar. 5, 1913.

Ser. No. 69,327. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHARLES A. MEZGER, Brooklyn, N. Y. Filed Mar. 25, 1913.

Climax

*Particular description of goods.*—Spark-Plugs.
*Claims use* since Sept. 2, 1912.

Ser. No. 69,738. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE GRISCOM-RUSSELL COMPANY, New York, N. Y. Filed Apr. 12, 1913.



*Particular description of goods.*—Vapor-Condensers, Steam-Separators, Steam Traps and Coolers, Heat-Extractors, and Feed-Water-Purifying Apparatus, Including Grease-Extractors.
*Claims use* since Aug. 28, 1912.

Ser. No. 69,742. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) JOHN C. LULLMAN, St. Louis, Mo. Filed Apr. 12, 1913.




No claim is made to the words "Lullman St. Louis American Brands."
*Particular description of goods.*—Bar-Iron, Bar-Steel, and Wire.
*Claims use* since about Jan. 1, 1913.

Ser. No. 69,819. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) PORTE MCKEEN BRADLEY, Joplin, Mo. Filed Apr. 16, 1913.

BRADLEY

*Particular description of goods.*—Heating and Cooking Stoves.
*Claims use* since May 1, 1912.

Ser. No. 70,158. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PRU-VA CHEMICAL CO., St. Louis, Mo. Filed May 1, 1913.

PRU-VA

*Particular description of goods.*—A Preventive of Venereal Diseases.
*Claims use* since April, 1913.

Ser. No. 70,206. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HUBLER MILLING & ELEVATOR COMPANY, Salt Lake City, Utah. Filed May 3, 1913.




*Particular description of goods.*—Wheat-Flour.
*Claims use* since July, 1912.

Ser. No. 70,397. (CLASS 37. PAPER AND STATIONERY.) RICHARD BEST, New York, N. Y. Filed May 13, 1913.

"FORGET-ME-NOT"

*Particular description of goods.*—Lead-Pencils.
*Claims use* since Mar. 10, 1913.

Ser. No. 70,398. (CLASS 37. PAPER AND STATIONERY.) RICHARD BEST, New York, N. Y. Filed May 13, 1913.

"IMPERATOR"

*Particular description of goods.*—Lead-Pencils.
*Claims use* since Mar. 15, 1913.

Ser. No. 70,532. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE H. G. HARTER CO., Toledo, Ohio. Filed May 21, 1913.

MI CRO BE NE

*Particular description of goods.*—A Remedy for Hog Diseases.
*Claims use* since Sept. 20, 1907.





Ser. No. 71,052. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE BRITISH XYLONITE CO. LD., London, England. Filed June 12, 1913.



*Particular description of goods.*—Dressing-Combs, Shoe-Horns, Handles for Toilet Articles, Fine or Dust Combs, Fans, Napkin-Rings, Fronts, and Cuff-Protectors Made in Whole or in Part of Celluloid.
*Claims use* since about 1893.

Ser. No. 71,150. (CLASS 39. CLOTHING.) THE B. F. GOODRICH COMPANY, New York, N. Y., and Akron, Ohio. Filed June 17, 1913.



The narrow upper band being colored red. No claim is made for the representation of a boot.
*Particular description of goods.*—Rubber Boots.
*Claims use* since about Sept. 1, 1911.

Ser. No. 71,174. (CLASS 2. RECEPTACLES.) PARK NOVELTY COMPANY, now, by change of name, Lafore-Foster Company, Philadelphia, Pa. Filed June 18, 1913.

QUAKER

*Particular description of goods.*—Cartons and Boxes, and More Particularly Cartons and Boxes Made of Fiber, Fiber-Board, Paper-Board, Pasteboard, Strawboard, or Air-Cell Board.
*Claims use* since on or about Jan. 1, 1909.

Ser. No. 71,484. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE NATIONAL PAINT & VARNISH COMPANY, Cleveland, Ohio. Filed July 2, 1913.



*Particular description of goods.*—Paints for Metal Surfaces.
*Claims use* since about the month of April, 1910.

Ser. No. 71,489. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REGESAN LTD., London, England. Filed July 2, 1913.

Regesan

*Particular description of goods.*—Hair-Tonic, Tooth-Paste, Worm-Syrup, Glycerin Suppositories, Headache-Powders, Almond and Benzoin Cream, Shampoo Preparations, Worm-Powders, Hair-Powder, Ointment, Cold-Relief Tablets, Smokers' Tooth-Powder, a Medicinal Tonic for Children; a Salve for the Treatment of Neuralgia and Rheumatism, and Medicinal Preparations for the Treatment of Asthma, Husky Throats, Sore, Tender, and Aching Feet, Neuralgia, Toothache, and Constipation.
*Claims use* since May, 1912.

Ser. No. 72,265. (CLASS 33. GLASSWARE.) C. C. TRUAX & COMPANY, Toledo, Ohio, assignor to United Grocers Company, Toledo, Ohio, a Corporation of Delaware. Filed Aug. 9, 1913.

UN-GRO-CO

*Particular description of goods.*—Lamp-Chimneys.
*Claims use* since June 1, 1913.

Ser. No. 72,328. (CLASS 38. PRINTS AND PUBLICATIONS.) BONNET-BROWN SALES SERVICE, Chicago, Ill. Filed Aug. 14, 1913.



*Particular description of goods.*—Prints, Publications, Pictorial Illustrations, Books.
*Claims use* since on or about Sept. 15, 1911.

Ser. No. 72,446. (CLASS 38. PRINTS AND PUBLICATIONS.) THE PATENT SCAFFOLDING CO., New York, N. Y. Filed Aug. 20, 1913.

SAFETY

*Particular description of goods.*—A Serial Publication.
*Claims use* since August, 1912.

Ser. No. 72,759. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GEO. BORGFELDT & CO., New York, N. Y. Filed Sept. 10, 1913.

NIFTY

*Particular description of goods.*—Pocket-Knives, Scissors and Shears, Steel Table and Kitchen Knives.
*Claims use* since Aug. 25, 1913.

Ser. No. 72,960. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FERNANDO R. SARI, Washington, D. C. Filed Sept. 19, 1913.




*Particular description of goods.*—Olive-Oil.
*Claims use* since about Oct. 1, 1912.

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Ser. No. 73,000. (CLASS 37. PAPER AND STATIONERY.) J. W. ZANDERS, Bergisch-Gladbach, Germany. Filed Sept. 22, 1913.



*Particular description of goods.*—Cardboard, Pasteboard, Wrapping-Paper, Writing-Paper, and Envelops in Boxes and Packages; Blank Cards and Visiting-Cards.
*Claims use* since Sept. 4, 1908.

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Ser. No. 73,047. (CLASS 38. PRINTS AND PUBLICATIONS.) THE HOME PATTERN COMPANY, Philadelphia, Pa., and New York, N. Y. Filed Sept. 25, 1913.

The Criterion of Fashion

*Particular description of goods.*—A Magazine of General Circulation Published by It as an Adjunct of Its Business as a Publisher and as a Manufacturer and Vender of Dress and Embroidery Patterns.
*Claims use* since Sept. 3, 1913.

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Ser. No. 73,197. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FITZPATRICK BROS., Chicago, Ill. Filed Oct. 3, 1913.




*Particular description of goods.*—Washing Compound.
*Claims use* since Aug. 15, 1913.

Ser. No. 73,370. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PAUL F. BEICH COMPANY, Bloomington, Ill. Filed Oct. 15, 1913.




*Particular description of goods.*—A Topping for Fruit, Jelly, and Ice-Cream.
*Claims use* since July 21, 1913.

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Ser. No. 73,456. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHANN EMIL STROSCHEIN, Berlin, Germany. Filed Oct. 17, 1913.

**Martol**

*Particular description of goods.*—Medicinal, Dietetic, and Pharmaceutical Preparations of Cod-Liver Oil and Oil Emulsions.
*Claims use* since Aug. 5, 1913.

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Ser. No. 73,462. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ALLEN, SLADE & CO., Fall River, Mass. Filed Oct. 18, 1913.




*Particular description of goods.*—Coffee.
*Claims use* since June 21, 1911.

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Ser. No. 73,477. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) GUSTAV KAUFMANN, New York, N. Y. Filed Oct. 18, 1913.

**LAITOL**

The word "Laitol."
*Particular description of goods.*—Brier, Meerschaum, Calabash, and Amber Pipes and Parts Thereof, Meerschaum, Amber, and Brier Cigar and Cigarette Holders, and Composition Cigar and Cigarette Holders and Parts Thereof.
*Claims use* since Apr. 5, 1913.

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Ser. No. 73,498. (CLASS 31. FILTERS AND REFRIGERATORS.) S. F. BOWSER & COMPANY, INC., Fort Wayne, Ind. Filed Oct. 20, 1913. Under ten-year proviso.

**BOWSER**

The same being the word "Bowser."
*Particular description of goods.*—Oil Filtration and Circulation Apparatus.
*Claims use* since Sept. 5, 1885.





Ser. No. 73,521. (CLASS 37. PAPER AND STATIONERY.) PAPER SALES COMPANY, Chicago, Ill. Filed Oct. 20, 1913.




*Particular description of goods.*—Paper Designed and Adapted to be Used for Drying, Cleaning, Polishing, and Dusting Purposes.
*Claims use* since on or about Sept. 1, 1913.

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Ser. No. 73,535. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GEORGES PETIT, Lomme-lez-Lille, France. Filed Oct. 21, 1913.

ZINOX

The right to the use of the words "George Petit, Inventeur" shown in the drawing is hereby disclaimed.
*Particular description of goods.*—Paint in the Form of Paste and Ingredients Used in Paint Consisting of Oxid of Zinc and Flax-Oil.
*Claims use* since July, 1913.

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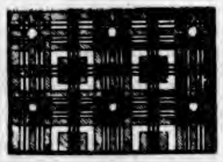
Ser. No. 73,645. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE LARABEE FLOUR MILLS COMPANY, Hutchinson, Kans. Filed Oct. 28, 1913.




*Particular description of goods.*—Wheat-Flour.
*Claims use* since July 1, 1913.

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Ser. No. 73,772. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Nov. 3, 1913.



*Particular description of goods.*—Beer.
*Claims use* since about Mar. 15, 1906.

Ser. No. 73,958. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCOUT GUM CO. INC., Rochester, N. Y. Filed Nov. 13, 1913.



*Particular description of goods.*—Chewing-Gum.
*Claims use* since Oct. 18, 1913.

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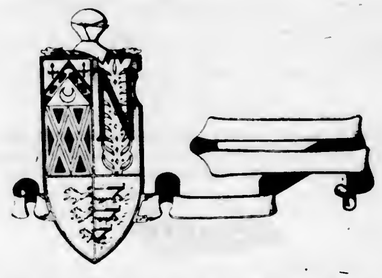
Ser. No. 74,037. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORRIS INCORPORATED, Atlanta, Ga. Filed Nov. 17, 1913.



*Particular description of goods.*—Chocolates, Bonbons, Candies.
*Claims use* since July 13, 1910.

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Ser. No. 74,038. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NORRIS INCORPORATED, Atlanta, Ga. Filed Nov. 17, 1913.



*Particular description of goods.*—Chocolates, Bonbons, Candies.
*Claims use* since Feb. 27, 1911.

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Ser. No. 74,044. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE SOFTENE COMPANY, Canton, Ohio. Filed Nov. 17, 1913.

**SOFTENE**

*Particular description of goods.*—Water-Softening Compound.
*Claims use* since Nov. 10, 1912.

Ser. No. 74,076. (CLASS 15. OILS AND GREASES.) CALEDONIAN OIL CO. INC., New York, N. Y. Filed Nov. 19, 1913.

INERTIAENE 777 CALEDONIAN OIL CO. INC. N.Y.U.S.A. TRADE MARK

The words "Caledonian Oil Co., Inc.," "Trade Mark," and the letters "N. Y. U. S. A." being disclaimed.

*Particular description of goods.*—Lubricating Compounds, Oils, and Greases.

*Claims use* since Oct. 15, 1913.

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Ser. No. 74,148. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AKTIEBOLAGET MJÖLKNINGSMASKINEN OMEGA, Flen, Sweden. Filed Nov. 24, 1913.

OMEGA

*Particular description of goods.*—Milking-Machines and Parts Thereof, Such as Milk Vessels, Teat-Cups, Pipes, Pulsators, Girths, and for Combustion-Motors and Compressors.

*Claims use* since the 23d of April, 1912.

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Ser. No. 74,149. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) BUCHANAN LTD., London, England. Filed Nov. 24, 1913. Under ten-year proviso.

BUCHANAN

*Particular description of goods.*—Polo Sticks and Canes, Balls, Heads, and Sundries for Use in the Games of Polo; Archery-Bows, Cross-Bows, Arrows, and Accouterments; Golf Clubs and Balls, Bags, and Sundries for Use in the Game of Golf; Cricket-Bats, Stumps, Cricket-Balls and Gloves, Leg-Guards, Gauntlets, and Sundries for Use in the Game of Cricket; Croquet Mallets and Balls, Arches, Posts, Clips, and Sundries for Use in the Game of Croquet; Foot-Balls; Lawn-Tennis Rackets and Balls, Posts, Nets, Presses, Markers, and Sundries for Use in the Game of Tennis; Racket-Rackets, Racket-Balls; Squash Rackets and Balls, Presses, and Sundries for Use in the Games of Squash; Lawn-Bowls; Hockey Sticks and Balls and Sundries for Use in the Game of Hockey; Boomerangs; Badminton-Bats, Shuttle-Cocks, and Nets, Posts, and Sundries for Use in the Game of Shuttle-Cock.

*Claims use* since prior to Aug. 13, 1875.

Ser. No. 74,157. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELSÄSSISCHE WERKZEUGFABRIK ZORNHOFF VORMALS GOLDENBERG & Co., Zornhoff, near Zabern, Germany. Filed Nov. 24, 1913.



*Particular description of goods.*—Files, Rasps, and Saws of All Kinds and Parts and Implements Thereof, as Follows: Handles and Mountings for Saws, Saw-Frames, Eyes and Tangs for Saws, Saw-Bows, Saw-Sets, Circular, Straight, and Flexible Blades, Scrapers, Rifflers, Plane-Irons of All Kinds, Tops and Screws for Plane-Irons, Plow-Bits and Mountings, Router-Iron Mountings, Rabbet-Irons, Chisels, Wrenches, Gouges; Turning-Tools, as Follows: Cross-Cutting and other Chisels and Gouges and Handles Therefor, Drawing and Jigger Knives, Shave-Irons, Adzes, Calking-Irons, Axes, Hatchets, Twy-Bills, Pincers, Coopers' Froes, Bills, Picks, Machetes, Hammers, Beck-Irons, Drivers, Stamps, Steel-Rinders, Drills, Borers, Bits and Augers of All Descriptions, Gimlets, Croze-Irons, Notching-Irons, Scribes, Hand and Bench Vises, Screw Wrenches and Spanners, Pulley-Blocks; Telegraph-Tools, as Follows: Twist-Vises, Twist-Irons, Stretching-Vises, Articulated Stretchers, Stretch-Jaws with and without Pulley-Blocks, Lever Stretch-Jaws, Linked Stretch-Jaws, Wall-Piercers, Screw-Blades, Climb-Irons; Farriers' Tools, as Follows: Hammers, Knives, Buttresses, and Pincers; Plasterers' and Stone-Cutters' Tools, as Follows: Stone-Bits, Plasterers' Knives, Trowels, Rifflers, and Scrapers, Molding-Tools for Plasterers, Berthelets, Mortise and Bung Chisels, Gouges, Scrapers, and Bits for Stone-Cutters; Pincers, Snips, Clippers, Pliers, Nippers of All Descriptions, Turn-Screws, Braces, Spades, Hoes, Rakes; Forks for Agricultural Purposes, as Follows: Border-Forks, Potato-Forks, Beet-Root Forks, Digging-Forks, Hay and Manure Forks, Shovels, Hedge and Pruning Shears, Knives for Agricultural Machines, Tobacco-Knives, Tin-Openers, Triers; Butchers' Tools, as Follows: Choppers, Mincing, Clearing, and Chopping Knives, Cleavers, Scrapers, Chop and Steak Beaters, Scrapers for Fishmongers, Bread and Cheese Knives, Coffee and Pepper Mills.

*Claims use* since Dec. 5, 1864.

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Ser. No. 74,159. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELSÄSSISCHE WERKZEUGFABRIK ZORNHOFF VORMALS GOLDENBERG & Co., Zornhoff, near Zabern, Germany. Filed Nov. 24, 1913.



*Particular description of goods.*—Files, Rasps, and Saws of All Kinds and Parts and Implements Thereof, as Follows: Handles and Mountings for Saws, Saw-Frames, Eyes and Tangs for Saws, Saw-Bows, Saw-Sets, Circular, Straight, and Flexible Blades, Scrapers, Rifflers, Plane-Irons of All Kinds, Tops and Screws for Plane-Irons, Plow-Bits and Mountings, Router-Iron Mountings, Rabbet-Irons, Chisels, Wrenches, Gouges; Turning-Tools, as Follows: Cross-Cutting and other Chisels and Gouges and Handles Therefor; Drawing and Jigger Knives, Shave-Irons, Adzes, Calking-Irons, Axes, Hatchets, Twy-Bills, Pincers, Coopers' Froes, Bills, Picks, Machetes, Hammers, Beck-Irons, Drivers, Stamps, Steel-Rinders, Drills, Borers, Bits and Augers of All Descriptions, Gimlets, Croze-Irons, Notching-Irons, Scribes, Hand and Bench Vises, Screw Wrenches and Spanners, Pulley-Blocks; Telegraph-Tools, as Follows: Twist-Vises, Twist-Irons, Stretching-Vises, Articulated Stretchers, Stretch-Jaws with and without Pulley-Blocks, Lever Stretch-Jaws, Linked Stretch-Jaws, Wall-Piercers, Screw-Blades, Climb-Irons; Farriers' Tools, as Follows: Hammers, Knives, Buttresses, and Pincers; Plasterers' and Stone-Cutters' Tools, as Follows: Stone-Bits, Plasterers' Knives, Trowels, Rifflers, and Scrapers, Molding-Tools for Plasterers, Berthelets, Mortise and Bung Chisels, Gouges, Scrapers, and Bits for Stone-Cutters; Pincers, Snips, Clippers, Pliers, Nippers of All Descriptions, Turn-Screws, Braces, Spades, Hoes, Rakes; Forks for Agricultural Purposes, as Follows: Border-Forks, Potato-Forks, Beet-Root Forks, Digging-Forks, Hay and Manure Forks, Shovels, Hedge and Pruning Shears, Knives for Agricultural Machines, Tobacco-Knives, Tin-Openers, Triers; Butchers' Tools, as Follows: Choppers, Mincing, Clearing, and Chopping Knives, Cleavers, Scrapers, Chop and Steak Beaters, Scrapers for Fishmongers, Bread and Cheese Knives, Coffee and Pepper Mills.

*Claims use* since Feb. 21, 1881.

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Ser. No. 74,161. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELSÄSSISCHE WERKZEUGFABRIK ZORNHOFF VORMALS GOLDENBERG & Co., Zornhoff, near Zabern, Germany. Filed Nov. 24, 1913.



*Particular description of goods.*—Files, Rasps, and Saws of All Kinds and Parts and Implements Thereof, as Follows: Handles and Mountings for Saws, Saw-Frames, Eyes and Tangs for Saws, Saw-Bows, Saw-Sets, Circular, Straight, and Flexible Blades, Scrapers, Rifflers, Plane-Irons of All Kinds, Tops and Screws for Plane-Irons, Plow-Bits and Mountings, Router-Iron Mountings, Rabbet-Irons, Chisels, Wrenches, Gouges; Turning-Tools, as Follows: Cross-Cutting and other Chisels and Gouges and Handles Therefor, Drawing and Jigger Knives, Shave-Irons, Adzes, Calking-Irons, Axes, Hatchets, Twy-Bills, Pincers, Coopers' Froes, Bills, Picks, Machetes, Hammers, Beck-Irons, Drivers, Stamps, Steel-Rinders, Drills, Borers, Bits and Augers of All Descriptions, Gimlets, Croze-Irons, Notching-Irons, Scribes, Hand and Bench Vises, Screw Wrenches and Spanners, Pulley-Blocks; Telegraph-Tools, as Follows: Twist-Vises, Twist-Irons, Stretching-Vises, Articulated Stretchers, Stretch-Jaws with and without Pulley-Blocks, Lever Stretch-Jaws, Linked Stretch-Jaws, Wall-Piercers, Screw-Blades, Climb-Irons; Farriers' Tools, as Follows: Hammers, Knives, Buttresses, and Pincers; Plasterers' and Stone-Cutters' Tools, as Follows: Stone-Bits, Plasterers' Knives, Trowels, Rifflers, and Scrapers, Molding-Tools for Plasterers, Berthelets, Mortise and Bung Chisels, Gouges, Scrapers, and Bits for Stone-Cutters; Pincers, Snips, Clippers, Pliers, Nippers of All Descriptions, Turn-Screws, Braces, Spades, Hoes, Rakes; Forks for Agricultural Purposes, as Follows: Border-Forks, Potato-Forks, Beet-Root Forks, Digging-Forks, Hay and Manure Forks, Shovels, Hedge and Pruning Shears, Knives for Agricultural Machines, Tobacco-Knives, Tin-Openers, Triers; Butchers' Tools, as Follows: Choppers, Mincing, Clearing, and Chopping Knives, Cleavers, Scrapers, Chop and Steak Beaters, Scrapers for Fishmongers, Bread and Cheese Knives, Coffee and Pepper Mills.

*Claims use* since Oct. 8, 1858.





Ser. No. 74,197. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES TURNBULL, Roswell, N. Mex. Filed Nov. 25, 1913.

ALAMO



*Particular description of goods.*—Fresh Apples, Pears, Peaches, Plums, Cherries, Strawberries, Raspberries, and Cantaloups.

*Claims use* since July 25, 1913.

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Ser. No. 74,207. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EISENMAYER MILLING COMPANY, Springfield, Mo. Filed Nov. 26, 1913. Under ten-year proviso.

OCEAN SPRAY

*Particular description of goods.*—Wheat-Flour.

*Claims use* since July 15, 1885.

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Ser. No. 74,235. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) EDWIN F. GUTH, St. Louis, Mo. Filed Nov. 28, 1913.

BRASCOLITE

*Particular description of goods.*—Chandeliers and other Supporting-Fixtures for Lights.

*Claims use* since Nov. 1, 1912.

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Ser. No. 74,352. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BOETTICHER & KELLOGG Co., Evansville, Ind. Filed Dec. 4, 1913.

Bee-Kay

*Particular description of goods.*—Saws, Hatchets, Claw-Hatchets, Shingling-Hatchets, Rig-Builders' Hatchets, Axes, Half-Axes, Broadaxes, Ship-Axes, Roofing-Shears, Pocket-Hammers, and Datz Hatchets.

*Claims use* since Sept. 15, 1913.

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Ser. No. 74,438. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN MILK COMPANY, Chicago, Ill. Filed Dec. 8, 1913.

XXX

*Particular description of goods.*—Skimmed Powdered Milk.

*Claims use* since June 13, 1913.

Ser. No. 74,451. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE OKADEE COMPANY, Chicago, Ill. Filed Dec. 8, 1913.

OKADEE

*Particular description of goods.*—Metallic Valves and Hose-Couplings.
*Claims use* since the 15th day of March, 1911.

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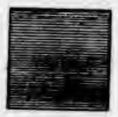
Ser. No. 74,490. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELSÄSSISCHE WERKZEUGFABRIK ZORNHOFF VORMALS GOLDENBERG & CO., Zornhoff, near Zabern, Germany. Filed Dec. 10, 1913. Under ten-year proviso.

GOLDENBERG

*Particular description of goods.*—Files, Rasps, and Saws of All Kinds, and Parts and Implements Thereof, as Follows: Handles and Mountings for Saws, Saw-Frames, Eyes and Tangs for Saws, Saw-Bows, Saw-Sets; Circular, Straight, and Flexible Blades, Scrapers, Rifflers, Plane-Irons of All Kinds, Tops and Screws for Plane-Irons, Plow Bits and Mountings, Router-Iron Mountings, Rabbet-Irons, Chisels, Wrenches, Gouges; Turning-Tools as Follows: Cross-Cutting and other Chisels and Gouges and Handles Therefor, Drawing and Jigger Knives, Shave-Irons, Adzes, Calking-Irons, Axes, Hatchets, Twy-Bills, Pincers, Coopers' Froes, Bills, Picks, Machetes, Hammers, Beck-Irons, Drivers, Stamps, Steel-Rinders, Drills, Borers, Bits, and Augers of All Descriptions, Gimlets, Croze-Irons, Notching-Irons, Scribes, Hand and Bench Vises, Screw Wrenches and Spanners, Pulley-Blocks; Telegraph-Tools as Follows: Twist-Vises, Twist-Irons, Stretching-Vises, Articulated Stretchers, Stretch-Jaws with and without Pulley-Blocks, Lever Stretch-Jaws, Linked Stretch-Jaws, Wall-Piercers, Screw-Blades, Climb-Irons; Farriers' Tools as Follows: Hammers, Knives, Buttresses, and Pincers; Plasterers' and Stone-Cutters' Tools as Follows: Stone-Bits, Plasterers' Knives, Trowels, Rifflers and Scrapers, Molding-Tools for Plasterers, Berthelets, Mortise and Bung Chisels, Gouges; Scrapers and Bits for Stone-Cutters; Pincers, Snips, Clippers, Pliers, Nippers of All Descriptions, Turn-Screws, Braces, Spades, Hoes, Rakes, Forks for Agricultural Purposes as Follows: Border-Forks, Potato-Forks, Beet-Root Forks, Digging-Forks, Hay and Manure Forks; Shovels, Hedge and Pruning Shears, Knives for Agricultural Machines, Tobacco-Knives, Tin-Openers, Triers, Butchers' Tools as Follows: Choppers, Mincing, Clearing, and Chopping Knives, Cleavers, Scrapers, Chop and Steak Beaters, Scrapers for Fishmongers, Bread and Cheese Knives, Coffee and Pepper Mills.
*Claims use* since 1858.

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Ser. No. 74,555. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BAYWAY CHEMICAL COMPANY, Elizabeth, N. J. Filed Dec. 13, 1913.



Being printed in red.
*Particular description of goods.*—A Liquid Protective Coating Composed of Gas-Tar Pitch and Neutral Tar-Oils Similar in Its Application and Use to What is Ordinarily Called "Asphaltum Paint."
*Claims use* since June 24, 1913.

Ser. No. 74,611. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEDGES, BUCK & COMPANY, Stockton, Cal. Filed Dec. 15, 1913.

COMMUNITY

*Particular description of goods.*—Coffee.
*Claims use* since Nov. 1, 1913.

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Ser. No. 74,612. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) JUNGHANNS & KOLOSCHE, Leipzig, Germany. Filed Dec. 15, 1913.

Juka

*Particular description of goods.*—Electric Motors, Electric Generators, and Dynamo-Machines.
*Claims use* since Dec. 10, 1912.

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Ser. No. 74,631. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DIETETIC FOOD COMPANY, Baltimore, Md. Filed Dec. 16, 1913.



*Particular description of goods.*—Bread and Bread-Sticks.
*Claims use* since Mar. 21, 1912.

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Ser. No. 74,632. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DIETETIC FOOD COMPANY, Baltimore, Md. Filed Dec. 16, 1913.



*Particular description of goods.*—Bran Biscuits and Crackers.
*Claims use* since Mar. 21, 1912.





Ser. No. 74,647. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOHN W. VAIL, Chicago, Ill. Filed Dec. 16, 1913.

ARIEL

*Particular description of goods.*—Bedsteads.
*Claims use* since on or before Nov. 1, 1910.

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Ser. No. 74,685. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEO. M. CARSLAKE, Bordentown, N. J. Filed Dec. 19, 1913. Under ten-year proviso.

CARSLAKE'S



CREAMOLINE

The portrait shown is that of George M. Carslake.
*Particular description of goods.*—A Preparation for the Treatment of Chapped Hands, Face, Lips, Rough Skin, Sunburn, and Chafing.
*Claims use* since about Dec. 28, 1892.

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Ser. No. 74,733. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY COMPANY, New York, N. Y. Filed Dec. 20, 1913.

INDIAN

*Particular description of goods.*—Candy.
*Claims use* since Jan. 10, 1910.

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Ser. No. 74,763. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. FRANZ STOHR, Vienna, Austria-Hungary. Filed Dec. 20, 1913.

FRUCTOID

*Particular description of goods.*—Medicated Purgative Confections.
*Claims use* since August, 1910.

Ser. No. 74,768. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) "WITCH" SALES CO., New York, N. Y. Filed Dec. 20, 1913.




*Particular description of goods.*—A Cleaner for Fabrics, Fibers, and Leather.
*Claims use* since Sept. 1, 1913.

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Ser. No. 74,774. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) STEWART DICKSON & CO., INC., New York, N. Y. Filed Dec. 22, 1913.

SEADOG

*Particular description of goods.*—Steam and Hydraulic Packings Composed of Asbestos, Canvas, and Metal, and a Combination of Said Materials.
*Claims use* since June 1, 1913.

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Ser. No. 74,888. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WOODLEY YERBA MATE TEA CO., Shamrock, Tex. Filed Dec. 29, 1913.

Kofeterum

*Particular description of goods.*—Tea.
*Claims use* since Sept. 1, 1913.

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Ser. No. 74,899. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) J. H. WHITE MFG. CO., New York, N. Y. Filed Dec. 30, 1913.

SILVER LINE

*Particular description of goods.*—Body-Shells, Canopies, Ceiling-Plates, Wall-Plates, and Extension Rings and Plates for Chandeliers and Lighting-Fixtures.
*Claims use* since Dec. 1, 1913.

Ser. No. 74,943. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PASQUALE GIUNTA AND SON, Philadelphia, Pa. Filed Jan. 2, 1914.

ROMANA BRAND



No claim being made to the word "Brand" as a technical trade-mark.

*Particular description of goods.*—Olive-Oil.

*Claims use* since about Nov. 17, 1913.

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Ser. No. 74,956. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & Co., New York, N. Y. Filed Jan. 3, 1914.

BUTTERFLY



*Particular description of goods.*—Dolls, Rattles, Toy Watches, Soap-Bubble Outfits, Rubber Balls, Easter Eggs, Cotillion-Favors, and Mechanical Toys.

*Claims use* since Dec. 11, 1913.

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Ser. No. 75,061. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) PARAMOUNT RUBBER CO., Trenton, N. J. Filed Jan. 9, 1914.

PARAMOUNT

*Particular description of goods.*—Rubber Balls—viz., Tennis and Hand Balls.

*Claims use* since Dec. 19, 1913.

Ser. No. 75,067. (CLASS 12. CONSTRUCTION MATERIALS.) D. S. WALTON & Co., New York, N. Y. Filed Jan. 9, 1914.

BARON

*Particular description of goods.*—Roofing-Felt.

*Claims use* since Feb. 1, 1910.

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Ser. No. 75,092. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOY-O CHEMICAL COMPANY, Toledo, Ohio. Filed Jan. 10, 1914.

JOY-O

*Particular description of goods.*—A Cleaner Put Up in Paste and Bar Form.

*Claims use* since Nov. 1, 1913.

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Ser. No. 75,094. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE LENNOX FOUNDRY COMPANY, LIMITED, London, England. Filed Jan. 10, 1914.

TANTIRON

*Particular description of goods.*—Metals, Metal Ingots, and Metal Castings Composed of Non-Corrosive Metal Principally Made of Iron and Pig-Iron.

*Claims use* since Nov. 2, 1908.

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Ser. No. 75,148. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) RED WING MILLING COMPANY, Red Wing, Minn. Filed Jan. 13, 1914.



Consists of the representation of a wing colored red.

*Particular description of goods.*—Wheat-Flour.

*Claims use* since about Mar. 2, 1909.





Ser. No. 75,155. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTERN SYRUP & MANUFACTURING CO., Tacoma, Wash. Filed Jan. 13, 1914.

GOLD SEAL



*Particular description of goods.*—A Table-Syrup Made of Cane-Sugar, Maple-Sugar, and Corn-Syrup.

*Claims use* since Jan. 1, 1913.

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Ser. No. 75,158. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GIDEON E. NEWMAN, Mobile, Ala. Filed Jan. 13, 1914.

MOHOCO

*Particular description of goods.*—Hoes.

*Claims use* since the 1st day of September, 1913.

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Ser. No. 75,175. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CLARKSVILLE MEDICINE COMPANY, Clarksville, Tenn. Filed Jan. 14, 1914.

RAY X

*Particular description of goods.*—Preparations for the Treatment of Rheumatism, Lumbago, Neuralgia, Sprains, Swollen Joints, Bites, and Stings of Poisonous Insects.

*Claims use* since Dec. 1, 1913.

Ser. No. 75,221. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LOUIS V. ARONSON, Newark, N. J. Filed Jan. 16, 1914.

WONDERLITER

*Particular description of goods.*—Cigar and Cigarette Lighting Devices in Which a Spark-Producing Alloy is Used for Igniting Purposes.

*Claims use* since the 1st day of January, 1913.

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Ser. No. 75,309. (CLASS 37. PAPER AND STATIONERY.) GEO. BORGFELDT & Co., New York, N. Y. Filed Jan. 20, 1914.

KEWPIE

*Particular description of goods.*—Writing-Paper, Paper-Cutters, Envelops, Writing-Pads, Blotters, Book-Marks, Paper-Weights, Ink-Wells, Rubber Ink-Erasers, and Blank Books.

*Claims use* since Oct. 1, 1913.

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Ser. No. 75,338. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOOK-OUT MEDICINE COMPANY, Chattanooga, Tenn. Filed Jan. 21, 1914.

LICO

*Particular description of goods.*—Preparations for the Treatment of Indigestion, Menstrual Disturbances, Malaria, Chills, and General Debility of the Blood and Nervous System.

*Claims use* since May 22, 1913.

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Ser. No. 75,388. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE NEW IDEAS COMPANY, Newark, Ohio. Filed Jan. 23, 1914.



*Particular description of goods.*—A Cleaning Compound.

*Claims use* since May 10, 1913.

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Ser. No. 75,394. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE O. F. ZUCH CO., Philadelphia, Pa. Filed Jan. 23, 1914.

LUSTERIZER SOFTENER

No claim is made to the word "Softener" as forming a part of the trade-mark sought to be registered.

*Particular description of goods.*—An Emollient Compound for Treating Dyed Fabrics.

*Claims use* since January, 1913.

Ser. No. 75,450½. (CLASS 38. PRINTS AND PUBLICATIONS.) URIEL DAVIS, New York, N. Y. Filed Jan. 26, 1914.

MOVEMENT TO
STANDARDIZE
MODERN DANCING

*Particular description of goods.*—Instructive Literary Compositions Published Serially.
*Claims use* since Dec. 1, 1913.

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Ser. No. 75,526. (CLASS 17. TOBACCO PRODUCTS.) THEE. WILLARD EDWARDS, Columbus, Miss. Filed Jan. 29, 1914.

EDWARD'S
*CENCIBLE*

No claim of exclusive right being made to the word "Edward's."
*Particular description of goods.*—Cigars.
*Claims use* since August, 1913.

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Ser. No. 75,559. (CLASS 12. CONSTRUCTION MATERIALS.) UNIVERSAL COMPOUND CO. INC., New York, N. Y. Filed Jan. 30, 1914.

HYDROPLASTIC X

*Particular description of goods.*—Asphaltum Paste.
*Claims use* since Jan. 1, 1908.

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Ser. No. 75,561. (CLASS 32. FURNITURE AND UPHOLSTERY.) LOUISE BRIGHAM, New York, N. Y. Filed Jan. 30, 1914.

Louise Brigham

The mark sought to be registered is a facsimile of applicant's signature.
*Particular description of goods.*—Beds, Bedsteads, Wardrobes, Chiffonniers, Dressers, Bureaus, Dressing-Tables, Tables, Chairs, Sideboards, Buffets, Cabinets, Stools, Bookcases, Hat-Racks and Clothes-Trees, Benches, Couches, Desks, Window-Seats Not in the Nature of Receptacles.
*Claims use* since Jan. 5, 1914.

Ser. No. 75,566. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID BARR, Chicago, Ill. Filed Jan. 31, 1914.

D. Barr

Consisting of a facsimile of my signature.
*Particular description of goods.*—Rheumatism Remedies.
*Claims use* since Nov. 4, 1913.

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Ser. No. 75,601. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BECKER & LANGENBERG MILLING COMPANY, Republic, Mo. Filed Feb. 2, 1914.

EARLY
BIRD

*Particular description of goods.*—Wheat-Flour.
*Claims use* since the month of November, 1913.

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Ser. No. 75,615. (CLASS 33. GLASSWARE.) KRAUSSE & AUERBACH, London, England. Filed Feb. 2, 1914.

CONA

*Particular description of goods.*—Coffee-Making Apparatus, (Glass.)
*Claims use* since Oct. 24, 1911.

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Ser. No. 75,619. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) A. C. LAWRENCE LEATHER CO., Boston, Mass. Filed Feb. 2, 1914.

JUNIPER

*Particular description of goods.*—Leather.
*Claims use* since Mar. 3, 1892.

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Ser. No. 75,621. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE MACLEAY ESTATE CO., Portland, Oreg. Filed Feb. 2, 1914.

ROGUE

*Particular description of goods.*—Canned Salmon.
*Claims use* since about 1878.





Ser. No. 75,628. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OHIO CONFECTION COMPANY, Cleveland, Ohio. Filed Feb. 2, 1914.

DITTIES

*Particular description of goods.*—Candy.
*Claims use* since July, 1910.

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Ser. No. 75,632. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN SCHNARR, Orlando, Fla. Filed Feb. 2, 1914.

SCHNARR'S INSECTICIDE

The words "Schnarr's Insecticide" being disclaimed.
*Particular description of goods.*—An Insecticide.
*Claims use* since Jan. 10, 1914.

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Ser. No. 75,642. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed Feb. 3, 1914.

LUXURY

*Particular description of goods.*—Flavoring Extracts for Foods.
*Claims use* since Nov. 1, 1913.

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Ser. No. 75,665. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JARVIS A. WOOD, Philadelphia, Pa. Filed Feb. 3, 1914.

*Summore*

The word "Summore."
*Particular description of goods.*—Citrus Fruit—viz., Grape-Fruit.
*Claims use* since November, 1913.

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Ser. No. 75,683. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

TANGENT

*Particular description of goods.*—Biscuit.
*Claims use* since at least Feb. 3, 1914.

Ser. No. 75,684. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

FIG NEWTONS

No claim of trade-mark ownership is made with respect to the word "Fig."
*Particular description of goods.*—Biscuit.
*Claims use* since at least Sept. 1, 1892.

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Ser. No. 75,685. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

NIMRODS

*Particular description of goods.*—Biscuit.
*Claims use* since at least June 27, 1899.

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Ser. No. 75,686. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

HELICON

*Particular description of goods.*—Biscuit.
*Claims use* since at least Dec. 26, 1913.

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Ser. No. 75,687. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

AVENA

*Particular description of goods.*—Biscuit.
*Claims use* since at least 1888.

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Ser. No. 75,688. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 4, 1914.

SPANGLES

*Particular description of goods.*—Biscuit.
*Claims use* since at least Jan. 24, 1912.

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Ser. No. 75,711. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 5, 1914.

ZAYTONA

*Particular description of goods.*—Candy.
*Claims use* since at least Aug. 29, 1913.

Ser. No. 75,738. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE SUNSET PACKING COMPANY, West Pembroke, Me., and New York, N. Y. Filed Feb. 6, 1914.

LOOKOUT



*Particular description of goods.*—Canned Herring.
*Claims use* since June 10, 1913.

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Ser. No. 75,764. (CLASS 7. CORDAGE.) THE INDIA RUBBER, GUTTA PERCHA AND TELEGRAPH WORKS CO., LTD., Silvertown, London, England. Filed Feb. 7, 1914.

FLEXICORD

*Particular description of goods.*—Cordage, Rope, Twine, and String.
*Claims use* since about March, 1913.

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Ser. No. 75,780. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) ABRAM COX STOVE COMPANY, Philadelphia, Pa. Filed Feb. 9, 1914.

YEAROUND

*Particular description of goods.*—Coal, Wood, Gas, and Oil Ranges, Stoves, and Heaters.
*Claims use* since Nov. 19, 1913.

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Ser. No. 75,801. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MATTIE M. DUEBENDORF, St. Paul, Minn. Filed Feb. 9, 1914.



*Particular description of goods.*—Salve.
*Claims use* since July 1, 1913.

Ser. No. 75,874. (CLASS 38. PRINTS AND PUBLICATIONS.) THE LOUISVILLE COURIER-JOURNAL COMPANY, Louisville, Ky. Filed Feb. 12, 1914.

Farm and Family

*Particular description of goods.*—A Monthly Magazine.
*Claims use* since Jan. 10, 1914.

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Ser. No. 75,890. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PILOT COTTON MILLS COMPANY, Raleigh, N. C. Filed Feb. 13, 1914.

Broadway

*Particular description of goods.*—Cheviots.
*Claims use* since July, 1908.

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Ser. No. 75,905. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed Feb. 14, 1914.

NAPHTHILATE

*Particular description of goods.*—Engine-Distillate of Petroleum.
*Claims use* since the 3d day of December, 1913.

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Ser. No. 75,907. (CLASS 6. CHEMICALS, MEDICINES AND PHARMACEUTICAL PREPARATIONS.) THE VASA COMPANY, Henderson, Ky. Filed Feb. 14, 1914.

Vac-O!

*Particular description of goods.*—An Ointment for Use on Sprains, Skin Eruptions, Burns, and Cuts.
*Claims use* since Feb. 1, 1914.

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Ser. No. 75,936. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HERCULES GAS ENGINE CO., Evansville, Ind. Filed Feb. 16, 1914.



*Particular description of goods.*—Gas-Engines.
*Claims use* since Feb. 10, 1914.





Ser. No. 76,001. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATZ & BESTHOFF, LTD., New Orleans, La. Filed Feb. 18, 1914.




*Particular description of goods.*—Perfumes, Toilet Waters, and Sachet-Powders.
*Claims use* since Aug. 29, 1913.

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Ser. No. 76,002. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATZ & BESTHOFF, LTD., New Orleans, La. Filed Feb. 18, 1914.

GLORIA

*Particular description of goods.*—Perfumes and Face, Talcum, and Sachet Powders.
*Claims use* since May, 1913.

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Ser. No. 76,070. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Feb. 21, 1914.

VITALIC TIRES

The word "Tires" not being claimed as a part of the trade-mark.
*Particular description of goods.*—Pneumatic Tires.
*Claims use* since Sept. 15, 1913.

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Ser. No. 76,072. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CONTINENTAL RUBBER WORKS, Erie, Pa. Filed Feb. 21, 1914.

VITALIC TUBES

The word "Tubes" not being claimed as a part of the trade-mark.
*Particular description of goods.*—Rubber Tubes for Pneumatic Tires.
*Claims use* since Sept. 15, 1913.

Ser. No. 76,107. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUGENE G. GASSAWAY, Fort Worth, Tex. Filed Feb. 24, 1914.



*Particular description of goods.*—Liniment, Salve, and Blood-Purifier.
*Claims use* since Apr. 1, 1904.

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Ser. No. 76,110. (CLASS 33. GLASSWARE.) GILL BROTHERS COMPANY, Steubenville, Ohio. Filed Feb. 24, 1914.

SOLAR

*Particular description of goods.*—Illuminating-Glassware Comprising Reflector-Shades, Shades, Globes, and Reflectors.
*Claims use* since Mar. 9, 1906.

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Ser. No. 76,145. (CLASS 10. FERTILIZERS.) MT. PLEASANT FERTILIZER CO., INC., Mount Pleasant, Tenn. Filed Feb. 25, 1914.

BLACK PATCH

*Particular description of goods.*—A Special Plant-Fertilizer.
*Claims use* since July 1, 1906.

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Ser. No. 76,288. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE CHESMAN-REINBOLT CO., Deerfield, Mich. Filed Feb. 28, 1914.

PLASTERINE

*Particular description of goods.*—A Remedy for Pneumonia, Pleurisy, Bronchitis, Tonsilitis, Enlarged Glands of the Neck or Groin, Pelvic Inflammation, Peritonitis, Boils, Carbuncles, Felons, Tumors, Abscesses, Ulcers, Burns, Erysipelas, Inflamed or Caked Breasts, and Rheumatism.
*Claims use* since Aug. 7, 1912.

Ser. No. 76,245. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) KINCAID BROTHERS, Pittsburgh, Pa. Filed Feb. 28, 1914.

EUREKA

*Particular description of goods.*—Siphons and Ejectors.
*Claims use* since Aug. 29, 1899.

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Ser. No. 76,247. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. KELLY, Forsyth, Mont. Filed Feb. 28, 1914.

KELLY'S



J. A. Kelly

The portrait shown is that of John A. Kelly.
*Particular description of goods.*—A Remedy for Stomach Troubles, Gastritis, Heartburn, Sour Stomach, and All Disorders Arising from Fermentation of Food.
*Claims use* since Jan. 15, 1914.

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Ser. No. 76,280. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) T. P. HOWELL & Co., Newark, N. J. Filed Mar. 2, 1914.




The word "Lion" and the representation of a lion, the word "Brand" being disclaimed.
*Particular description of goods.*—Patent, Enameled, Upholstery, Harness, Saddlery, and Automobile, Carriage, Furniture, Military, and Cap Leathers.
*Claims use* since the year 1840.

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Ser. No. 76,320. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) EDWIN LEACH, Attleboro, Mass. Filed Mar. 4, 1914.




*Particular description of goods.*—Jewelry for Personal Adornment.
*Claims use* since Feb. 1, 1914.

Ser. No. 76,324. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE R. & H. MANUFACTURING COMPANY, Hartford, Conn. Filed Mar. 4, 1914.




The word "Trade-Mark" is hereby specifically disclaimed.
*Particular description of goods.*—Vending and Dispensing Machines.
*Claims use* since Jan. 22, 1914.

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Ser. No. 76,326. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) F. ROSENSTEIN & Co., New York, N. Y. Filed Mar. 4, 1914.




*Particular description of goods.*—Terry Cloth, Cotton Cloth, Cotton Blanketing and Blankets, Woolen Piece Goods, Woolen Blanketing and Blankets, and Mixed Cotton and Woolen Piece Goods, Blanketing, and Blankets.
*Claims use* since about Jan. 1, 1914.

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Ser. No. 76,336. (CLASS 27. HOROLOGICAL INSTRUMENTS.) A. WITTNAUER Co., New York, N. Y. Filed Mar. 4, 1914.

DECATOS

*Particular description of goods.*—Watches, Parts of Watches, and Watchcases.
*Claims use* since Jan. 1, 1913.

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Ser. No. 76,337. (CLASS 27. HOROLOGICAL INSTRUMENTS.) A. WITTNAUER Co., New York, N. Y. Filed Mar. 4, 1914.

DECIMA

*Particular description of goods.*—Watches, Parts of Watches, and Watchcases.
*Claims use* since Jan. 1, 1913.

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Ser. No. 76,415. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) STANDARD OIL Co. OF NEW YORK, New York, N. Y. Filed Mar. 6, 1914.




*Particular description of goods.*—Kerosene-Lamps.
*Claims use* since Jan. 16, 1914.





Ser. No. 76,421. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) P. T. BARBER, Omaha, Nebr. Filed Apr. 14, 1914. Under ten-year proviso.

DR. BARBER'S
PYORRHEA
REMEDY

*Particular description of goods.*—An Antiseptic Wash for the Treatment of Pyorrhea Alveolaris, Sore, Bleeding, and Receding Gums.
*Claims use* since May, 1893.

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Ser. No. 76,424. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NAN C. CRAWFORD, New York, N. Y. Filed Mar. 7, 1914.

Solitaire

*Particular description of goods.*—Lotion for Destroying Odor of Perspiration.
*Claims use* since Mar. 5, 1914.

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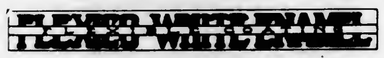
Ser. No. 76,466. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) HALCOMB STEEL COMPANY, Syracuse, N. Y. Filed Mar. 9, 1914.

WALECTRALOY

*Particular description of goods.*—Electric Steel.
*Claims use* since Feb. 1, 1913.

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Ser. No. 76,477. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE O'BRIEN VARNISH Co., South Bend, Ind. Filed Mar. 9, 1914.




No claim being made to the specific use of the words "White Enamel" and "Flexible Coating."
*Particular description of goods.*—A White Enamel Paint.
*Claims use* since July 22, 1909.

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Ser. No. 76,489. (CLASS 7. CORDAGE.) COLUMBIAN ROPE COMPANY, Auburn, N. Y. Filed Mar. 10, 1914.




Consists of a thin flat tape incorporated in the rope between the twisted elements thereof and extends substantially parallel with such elements of the rope throughout its length.
*Particular description of goods.*—Rope.
*Claims use* since Feb. 20, 1914.

Ser. No. 76,502. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KATZ & BESTHOFF, LTD., New Orleans, La. Filed Mar. 10, 1914.

M-I-N-O

*Particular description of goods.*—Perfumes, Toilet Waters, and Face, Talcum, and Sachet Powders.
*Claims use* since Mar. 2, 1914.

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Ser. No. 76,506. (CLASS 39. CLOTHING.) THE F. & R. LAZARUS & Co., Columbus, Ohio. Filed Mar. 10, 1914.

SURETÉ
GUARANTEED

No claim being made to the word "Guaranteed."
*Particular description of goods.*—Men's and Women's Gloves.
*Claims use* since Sept. 20, 1912.

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Ser. No. 76,517. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES H. STONECYPHER, Westminster, S. C. Filed Mar. 10, 1914.



The name shown on the drawing is a facsimile of the applicant's signature.
*Particular description of goods.*—Insect-Destroyer.
*Claims use* since July, 1913.

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Ser. No. 76,531. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. J. BEYERLE MFG. Co., Brooklyn, N. Y. Filed Mar. 11, 1914.

KID

*Particular description of goods.*—A Toilet Powder.
*Claims use* since the year 1912.

Ser. No. 76,547. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN Q. GANT, Glen Raven, N. C. Filed Mar. 11, 1914.




*Particular description of goods.*—Canvas, Duck, and Cloth for Making Awnings and Tents.
*Claims use* since Feb. 15, 1914.

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Ser. No. 76,551. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THOMAS F. KELLEGHAN, New York, N. Y. Filed Mar. 11, 1914.

Venaseptic

*Particular description of goods.*—A Preventive or Protective Remedy for Venereal Diseases.
*Claims use* since Jan. 31, 1914.

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Ser. No. 76,573. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUBRY SISTERS, INC., New York, N. Y. Filed Mar. 12, 1914.



The portrait being the portrait of Matilda R. Aubry Schwahn.
*Particular description of goods.*—Massage-Cream, Rouge, Liquid Complexion-Tint, Depilatory Powder, Tooth-Powder, Talcum Powder, Soap, Cold-Cream, Greaseless Cream, Hair-Tonic, Dry and Wet Face-Powder, and Perfume.
*Claims use* since May 16, 1904.

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Ser. No. 76,615. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SOCIÉTÉ RODIER, Paris, France. Filed Mar. 13, 1914.

TEBERRINE

*Particular description of goods.*—Textile Fabrics in the Form of Piece Goods Made of Silk.
*Claims use* since Jan. 26, 1914.

Ser. No. 76,640. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DIECKENHOFF, RAFFLOER & COMPANY, New York, N. Y. Filed Mar. 14, 1914.




*Particular description of goods.*—Hair-Nets.
*Claims use* since February, 1914.

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Ser. No. 76,684. (CLASS 39. CLOTHING.) HODSHON HAT CO., Danbury, Conn., and Catonsville, Md. Filed Mar. 16, 1914.

ECLATFELT

*Particular description of goods.*—Hats and Caps for Men's and Boys' Wear.
*Claims use* since Jan. 15, 1914.

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Ser. No. 76,890. (CLASS 2. RECEPTACLES.) HAROLD WEDDLE, New York, N. Y. Filed Mar. 23, 1914.

Christmas Goose

*Particular description of goods.*—A Net Receptacle for Toys and Favors.
*Claims use* since Nov. 24, 1913.

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Ser. No. 76,891. (CLASS 2. RECEPTACLES.) HAROLD WEDDLE, New York, N. Y. Filed Mar. 23, 1914.

Thanksgiving Turkey

*Particular description of goods.*—A Net Receptacle for Toys and Favors.
*Claims use* since Nov. 24, 1913.

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Ser. No. 76,937. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) LOUIS B. KATZ, New York, N. Y. Filed Mar. 25, 1914.




The trade-mark consists of the ornamental border in connection with the word "Imperator" and the representation of an eagle, no claim being made to the exclusive use of any of the other words or numerals written in the English or Russian languages appearing on the specimens.
*Particular description of goods.*—Domestic Rectified Spirits.
*Claims use* since Mar. 17, 1914.





Ser. No. 76,944. (CLASS 37. PAPER AND STATIONERY.) THE PAPER MAKERS CO., Louisville, Ky. Filed Mar. 25, 1914.




Consisting of the word "Pendennis" and the figure of a pen and sword crossed, shown in the accompanying drawing.
*Particular description of goods.*—Writing and Bond Paper.
*Claims use* since Nov. 1, 1906.

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Ser. No. 76,957. (CLASS 37. PAPER AND STATIONERY.) BOSTON INDEX CARD COMPANY, Boston, Mass. Filed Mar. 26, 1914.

WESTEL

*Particular description of goods.*—Writing-Paper, Printing-Paper, Wrapping-Paper, and Cards.
*Claims use* since Feb. 25, 1914.

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Ser. No. 76,959. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) F. W. FANSON & SON INC., Bergen, N. Y. Filed Mar. 26, 1914.

"Oasis"

*Particular description of goods.*—Spring-Water.
*Claims use* since the 5th day of December, 1913.

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Ser. No. 76,976. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.



*Particular description of goods.*—Toilet-Paper.
*Claims use* since Oct. 28, 1913.

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Ser. No. 76,977. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.




*Particular description of goods.*—Toilet-Paper.
*Claims use* since Oct. 10, 1913.

Ser. No. 76,978. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.




*Particular description of goods.*—Toilet-Paper.
*Claims use* since Oct. 28, 1913.

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Ser. No. 76,979. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.




*Particular description of goods.*—Toilet-Paper.
*Claims use* since Nov. 6, 1913.

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Ser. No. 76,980. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.

BLU KROSS

*Particular description of goods.*—Toilet-Paper.
*Claims use* since May 3, 1911.

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Ser. No. 76,981. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.

CAMBRIC

*Particular description of goods.*—Toilet-Paper.
*Claims use* since Nov. 14, 1911.

Ser. No. 76,982. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., New Hartford, N. Y. Filed Mar. 26, 1914.

**DANDY**

*Particular description of goods.*—Toilet-Paper.
*Claims use* since May 12, 1911.

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Ser. No. 77,028. (CLASS 48. MALT EXTRACTS AND LIQUORS.) J. P. O'BRIEN & CO. LIMITED, Liverpool, England. Filed Mar. 28, 1914. Under ten-year proviso.



DAGGER

*Particular description of goods.*—Ale and Stout.
*Claims use* since 1869.

Ser. No. 77,122. (CLASS 37. PAPER AND STATIONERY.) A. W. FABER, Stein, near Nuremberg, Germany. Filed Apr. 1, 1914.

Sophomore

*Particular description of goods.*—Lead-Pencils, Colored Pencils, Copying-Pencils, Ink-Pencils, Screw-Pencils, Rubber Pencils, Rubber Erasers, and Penholders.
*Claims use* since Nov. 20, 1913.

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Ser. No. 77,192. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE ATTLEBORO BOTTLING COMPANY, Attleboro, Mass. Filed Apr. 4, 1914.




*Particular description of goods.*—Orangeade, Champagne-Cider, Celery Tonic, Grape-Juice, Ginger-Ale, Sarsaparilla, Raspberry, Cherry, Cream-Soda, Blood-Orange, Lemon-Soda, Strawberry-Soda, Birch-Beer, Seltzer-Water.
*Claims use* since June 1, 1913.

[Vol. 201. No. 4.]



# TRADE-MARKS

## REGISTERED APRIL 28, 1914.

96,620. MAGAZINES AND PERIODICALS, SEMI-MONTHLY. THE ABBOTT & BRIGGS COMPANY, New York, N. Y.
Filed December 6, 1913. Serial No. 74,405. PUBLISHED FEBRUARY 17, 1914.

96,621. HANDKERCHIEFS. THE ACHESON HARDEN COMPANY, New York, N. Y.
Filed January 7, 1914. Serial No. 74,993. PUBLISHED FEBRUARY 24, 1914.

96,622. CERTAIN NAMED FOODS. ALART & MCGUIRE, New York, N. Y., assignors to Alart & McGuire Company, New York, N. Y., a Corporation of New York.
Filed March 19, 1907. Serial No. 26,064. PUBLISHED FEBRUARY 3, 1914.

96,623. INSECT-POWDER FOR THE DESTRUCTION OF ALL INSECT LIFE. ALLAIRE, WOODWARD & CO., Peoria, Ill.
Filed December 13, 1912. Serial No. 67,376. PUBLISHED FEBRUARY 24, 1914.

96,624. SHOES, BOOTS, OR SLIPPERS MADE WHOLLY OR PARTLY OF CERTAIN MATERIALS OR COMBINATIONS THEREOF. B. ALTMAN & CO., New York, N. Y.
Filed January 9, 1914. Serial No. 75,045. PUBLISHED FEBRUARY 24, 1914.

96,625. BIWEEKLY PERIODICAL. THE AMERICAN ART WORKS, Coshocton, Ohio.
Filed April 11, 1913. Serial No. 69,714. PUBLISHED FEBRUARY 17, 1914.

96,626. CERTAIN NAMED OPTICAL SUPPLIES. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed January 12, 1912. Serial No. 60,767. PUBLISHED FEBRUARY 24, 1914.

96,627. PREIODICALS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed March 2, 1912. Serial No. 61,862. PUBLISHED FEBRUARY 10, 1914.

96,628. OPHTHALMIC MOUNTINGS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed January 24, 1914. Serial No. 75,395. PUBLISHED FEBRUARY 24, 1914.

96,629. PNEUMATICALLY-OPERATED PIANOS AND ORCHESTRIONS. AMERICAN PHOTO PLAYER COMPANY, Berkeley, Cal.
Filed October 6, 1913. Serial No. 73,227. PUBLISHED FEBRUARY 24, 1914.

96,630. PRINTING-PRESSES. AMERICAN ROTOGRAVURE COMPANY, New York, N. Y.
Filed January 26, 1914. Serial No. 75,422. PUBLISHED FEBRUARY 24, 1914.

96,631. METAL-POLISH. THE ATKINS CO., New York, N. Y.
Filed October 26, 1911. Serial No. 59,359. PUBLISHED JANUARY 7, 1913.

96,632. CLEANING COMPOUNDS. THE BENFER MANUFACTURING COMPANY, Cleveland, Ohio.
Filed October 3, 1913. Serial No. 73,194. PUBLISHED FEBRUARY 17, 1914.

96,633. SOAP. A. BIETTE & FILS, Nantes, France.
Filed September 30, 1913. Serial No. 73,123. PUBLISHED FEBRUARY 17, 1914.

96,634. PLOWS, MOLDBOARDS, LANDSIDES, POINTS, AND PLOW-BEAMS. CECIL BILLUPS, Norfolk, Va.
Filed January 9, 1914. Serial No. 75,048. PUBLISHED FEBRUARY 24, 1914.

96,635. MEN'S, WOMEN'S, AND CHILDREN'S STOCKINGS, SOCKS, AND KNIT UNDERWEAR. THE F. S. BIXLER COMPANY, Easton, Pa.
Filed February 28, 1913. Serial No. 68,770. PUBLISHED FEBRUARY 24, 1914.

96,636. WOOD-PULP FIBER, SULFITE FIBER. THE BRITISH COLUMBIA SULPHITE FIBRE CO., LIMITED, Vancouver and Mill Creek, British Columbia, Canada.
Filed June 14, 1913. Serial No. 71,098. PUBLISHED FEBRUARY 10, 1914.

96,637. MONTHLY MAGAZINE. M. B. BROWN PRINTING & BINDING COMPANY, New York, N. Y.
Filed December 29, 1913. Serial No. 74,869. PUBLISHED FEBRUARY 10, 1914.

96,638. LEATHER SHOES. BROWN SHOE COMPANY, INC., St. Louis, Mo.
Filed January 26, 1914. Serial No. 75,427. PUBLISHED FEBRUARY 24, 1914.

96,639. PROPELLERS. WILLIAM ROWE BOUTWELL, Norfolk, Va.
Filed December 12, 1913. Serial No. 74,534. PUBLISHED FEBRUARY 24, 1914.

96,640. TOILET SOAPS. FRANK GAIUS BURKE, New York, N. Y.
Filed November 13, 1913. Serial No. 73,943. PUBLISHED FEBRUARY 17, 1914.

96,641. LAXATIVE CRACKERS. THE CALIFORNIA PHARMACY COMPANY, San Francisco, Cal.
Filed January 23, 1913. Serial No. 68,070. PUBLISHED FEBRUARY 24, 1914.

96,642. A WHITE AND ALSO A BLACK CREAM FOR POLISHING PATENT-LEATHER SHOES. CAMMEYER, New York, N. Y.
Filed October 22, 1912. Serial No. 66,457. PUBLISHED FEBRUARY 17, 1914.

96,643. KID GLOVES. J. M. CHANUT & CIE. INC., New York, N. Y.
Filed December 6, 1913. Serial No. 74,409. PUBLISHED FEBRUARY 10, 1914.

96,644. SHOES, BOOTS OF LEATHER, CANVAS, WOOLEN CLOTH, RUBBER, PANAMA STRAW, FOR MEN, WOMEN, AND CHILDREN. CHURCHILL & ALDEN CO., Brockton, Mass.
Filed July 2, 1913. Serial No. 71,473. PUBLISHED FEBRUARY 24, 1914.

96,645. COLLARS, CUFFS, AND DRESS, WORK, AND NEGLIGÉE SHIRTS. CLUETT, PEABODY & CO. INC., Troy, N. Y.
Filed January 27, 1914. Serial No. 75,476. PUBLISHED FEBRUARY 24, 1914.

96,646. TALKING-MACHINES AND PARTS THEREOF. COMPAGNIE GÉNÉRALE DES ETABLISSEMENTS PATHÉ FRÈRES, (PHONOGRAPHE & CINÉMATOGRAPHE,) Paris, France.
Filed January 15, 1913. Serial No. 67,929. PUBLISHED FEBRUARY 24, 1914.

96,647. CIGARS. COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands.
Filed August 21, 1913. Serial No. 72,456. PUBLISHED FEBRUARY 17, 1914.

96,648. CIGARS. COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands.
Filed August 21, 1913. Serial No. 72,458. PUBLISHED FEBRUARY 17, 1914.

96,649. CIGARS. COMPANIA GENERAL DE TABACOS DE FILIPINAS, Barcelona, Spain, and Manila, Philippine Islands.
Filed August 21, 1913. Serial No. 72,459. PUBLISHED FEBRUARY 17, 1914.

96,650. PIECE GOODS OF CERTAIN NAMED MATERIALS AND COMBINATION THEREOF. COURTAULDS, LIMITED, London, England.
Filed January 13, 1914. Serial No. 75,150. PUBLISHED FEBRUARY 24, 1914.

96,651. GAS, GASOLENE, AND KEROSENE ENGINES. DE LAVAL DAIRY SUPPLY COMPANY, Jersey City, N. J., and San Francisco, Cal.
Filed January 10, 1914. Serial No. 75,085. PUBLISHED FEBRUARY 24, 1914.

96,652. REMEDY FOR TUBERCULOSIS AND PULMONARY TROUBLES. SOLEDAD I. DE MENDIA, Mexico, Mexico.
Filed June 16, 1913. Serial No. 71,122. PUBLISHED FEBRUARY 24, 1914.

96,653. EXHAUST-FANS. THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio.
Filed December 13, 1913. Serial No. 74,566. PUBLISHED FEBRUARY 24, 1914.

96,654. SEAT AND BED SPRINGS. DETROIT WIRE SPRING CO., Detroit, Mich.
Filed August 14, 1913. Serial No. 72,333. PUBLISHED DECEMBER 9, 1913.

96,655. CAPS. EAGLE KNITTING MILLS, Milwaukee, Wis.
Filed December 1, 1913. Serial No. 74,283. PUBLISHED FEBRUARY 24, 1914.

96,656. COTTON PIECE GOODS. ELMS & SELLON, New York, N. Y.
Filed December 10, 1913. Serial No. 74,489. PUBLISHED FEBRUARY 24, 1914.

96,657. WASHING-POWDERS. THE N. K. FAIRBANK COMPANY, Chicago, Ill.
Filed December 13, 1912. Serial No. 67,383. PUBLISHED FEBRUARY 17, 1914.

96,658. CERTAIN NAMED MEDICINAL PREPARATIONS. FARBWERKE-HOECHST COMPANY, New York, N. Y.
Filed March 31, 1913. Serial No. 69,458. PUBLISHED FEBRUARY 24, 1914.

96,659. BAKING-POWDER, BLUING, AND AMMONIA. THE FITTS MANUFACTURING COMPANY, Pueblo, Colo.
Filed October 22, 1913. Serial No. 73,547. PUBLISHED FEBRUARY 24, 1914.

96,660. UMBRELLAS AND PARASOLS. FOLLMER, CLOGG & CO., New York, N. Y.
Filed January 20, 1914. Serial No. 75,311. PUBLISHED FEBRUARY 24, 1914.

96,661. RAZOR-STROPS. THE GIBFORD-WEIFFENBACH COMPANY, Adrian, Mich.
Filed November 22, 1913. Serial No. 74,137. PUBLISHED FEBRUARY 17, 1914.

96,662. CERTAIN NAMED ARTICLES MADE OF GLASS. GILLINDER & SONS INC., Philadelphia, Pa.
Filed December 18, 1913. Serial No. 74,675. PUBLISHED FEBRUARY 17, 1914.

96,663. STEEL PENS. JOSEPH GILLOTT & SONS, Birmingham, England, and New York, N. Y.
Filed September 3, 1913. Serial No. 72,656. PUBLISHED FEBRUARY 24, 1914.

96,664. STEEL PENS. JOSEPH GILLOTT & SONS, Birmingham, England, and New York, N. Y.
Filed September 3, 1913. Serial No. 72,657. PUBLISHED FEBRUARY 24, 1914.

96,665. STEEL PENS. JOSEPH GILLOTT & SONS, Birmingham, England, and New York, N. Y.
Filed September 3, 1913. Serial No. 72,658. PUBLISHED FEBRUARY 24, 1914.

96,666. STEEL PENS. JOSEPH GILLOTT & SONS, Birmingham, England, and New York, N. Y.
Filed September 3, 1913. Serial No. 72,659. PUBLISHED FEBRUARY 24, 1914.

96,667. CERTAIN NAMED FOODS. GOLDBERG, BOWEN & CO., San Francisco, Cal.
Filed November 10, 1910. Serial No. 52,696. PUBLISHED APRIL 30, 1912.

96,668. CERTAIN NAMED KITCHEN UTENSILS. THE GOODALE COMPANY, Kalamazoo, Mich.
Filed December 4, 1913. Serial No. 74,362. PUBLISHED FEBRUARY 24, 1914.

96,669. RUBBER AND LEATHER TIRES FOR VEHICLES. CHARLES H. GRAVES, Providence, R. I.
Filed December 23, 1912. Serial No. 67,564. PUBLISHED FEBRUARY 17, 1914.

96,670. HOSIERY. HADDON HOSIERY CO., Philadelphia, Pa., assignor to Haddon Hosiery Co., Philadelphia, Pa., a Corporation of Pennsylvania.
Filed November 28, 1911. Serial No. 59,990. PUBLISHED FEBRUARY 24, 1914.

96,671. JEWELRY FOR PERSONAL WEAR. HALLAM-RICE COMPANY, Providence, R. I.
Filed January 21, 1914. Serial No. 75,329. PUBLISHED FEBRUARY 24, 1914.

96,672. JEWELRY FOR PERSONAL WEAR. CHARLES E. HANCOCK COMPANY, Providence, R. I.
Filed January 5, 1914. Serial No. 74,971. PUBLISHED FEBRUARY 24, 1914.

96,673. WOVEN CARPETS AND RUGS. HARDWICK & MAGEE CO., Philadelphia, Pa.
Filed January 12, 1914. Serial No. 75,146. PUBLISHED FEBRUARY 24, 1914.

96,674. GOLD PAINTS. L. HEMMERDINGER & CO., New York, N. Y.
Filed January 24, 1914. Serial No. 75,402. PUBLISHED FEBRUARY 24, 1914.

96,675. EMBROIDERY THREAD AND YARN. WM. H. HORSTMANN COMPANY, Philadelphia, Pa.
Filed January 12, 1914. Serial No. 75,120. PUBLISHED FEBRUARY 24, 1914.

96,676. DRY SACHET-PERFUMES. RICHARD HUDNUT, New York, N. Y.
Filed December 31, 1913. Serial No. 74,913. PUBLISHED FEBRUARY 24, 1914.

96,677. EXHAUSTERS AND BURNERS FOR HEATING-FURNACES. CAMPBELL M. HUNTER, London, England.
Filed July 12, 1913. Serial No. 71,670. PUBLISHED FEBRUARY 17, 1914.

96,678. NEWSPAPER-CLIPPINGS. WALTER HYAMS & COMPANY, New York, N. Y.
Filed December 22, 1913. Serial No. 74,778. PUBLISHED FEBRUARY 17, 1914.

96,679. ANVILS. ILLINOIS IRON & BOLT CO., Carpentersville, Ill.
Filed December 4, 1913. Serial No. 74,365. PUBLISHED FEBRUARY 24, 1914.

96,680. SURGICAL DRESSINGS OF GAUZE AND COTTON AND WOOL, RUBBER PROTECTIVES, AND FIRST-AID OR EMERGENCY CASES. JOHNSON & JOHNSON, New Brunswick, N. J.
Filed July 10, 1913. Serial No. 71,637. PUBLISHED FEBRUARY 24, 1914.



96,681. OINTMENT FOR DISEASED CONDITIONS OF THE FEET. JORDAN'S FOOT REMEDY COMPANY, Boston, Mass.
Filed December 16, 1913. Serial No. 74,636. PUBLISHED FEBRUARY 24, 1914.

96,682. BRANDY. B. KANPROWICZ, Gnesen, Germany.
Filed January 5, 1912. Serial No. 60,652. PUBLISHED JULY 9, 1912.

96,683. WOODEN MATTING. KEYSTONE WIRE MATTING CO., Beaver Falls, Pa.
Filed August 22, 1913. Serial No. 72,486. PUBLISHED FEBRUARY 24, 1914.

96,684. REMEDY FOR CHOLERA AND ASTHMA. KING BROS., Milan, Ill.
Filed November 20, 1913. Serial No. 74,099. PUBLISHED FEBRUARY 24, 1914.

96,685. LEATHER. KISTLER, LESH & COMPANY, Boston, Mass.
Filed October 7, 1913. Serial No. 73,256. PUBLISHED FEBRUARY 17, 1914.

96,686. CHILDREN'S DRESSES. KLAUBER BROS. & COMPANY, New York, N. Y.
Filed January 21, 1914. Serial No. 75,337. PUBLISHED FEBRUARY 24, 1914.

96,687. BROOMS. KLAUBER WANGENHEIM CO., San Diego, Cal.
Filed June 23, 1913. Serial No. 71,305. PUBLISHED FEBRUARY 24, 1914.

96,688. GLASS BOTTLES. KOEHLER & HINRICHS, St. Paul, Minn.
Filed January 13, 1913. Serial No. 67,880. PUBLISHED FEBRUARY 10, 1914.

96,689. KINEMATOGRAPH-FILMS. LA FILM ARTISTICA GLORIA, Turin, Italy.
Filed February 2, 1914. Serial No. 75,618. PUBLISHED FEBRUARY 24, 1914.

96,690. TWINES AND CORDS MADE FROM COTTON, MERCERIZED COTTON, LINEN, AND SILK. THE LEES MANUFACTURING CO., Westport, Conn., and New York, N. Y.
Filed November 4, 1913. Serial No. 73,792. PUBLISHED FEBRUARY 24, 1914.

96,691. LAUNDRY TABLETS. NATHAN LEVENSON, Worcester, Mass.
Filed July 25, 1913. Serial No. 71,974. PUBLISHED FEBRUARY 10, 1914.

96,692. PREPARATIONS FOR THE TREATMENT OF CERTAIN AILMENTS AND DISEASES. GEORGE W. LITTLE, Bullards, Ga.
Filed December 22, 1913. Serial No. 74,786. PUBLISHED FEBRUARY 24, 1914.

96,693. OVERALLS AND TROUSERS. LONG-HARGROVE MFG. CO., Tyler, Tex.
Filed October 29, 1913. Serial No. 73,652. PUBLISHED FEBRUARY 24, 1914.

96,694. MOVING-PICTURE FILMS. MACNAMARA FEATURE FILM CO., INC., New York, N. Y.
Filed February 3, 1914. Serial No. 75,649. PUBLISHED FEBRUARY 24, 1914.

96,695. CORSETS. MADAME X MANUFACTURING COMPANY, New York, N. Y.
Filed March 6, 1913. Serial No. 68,870. PUBLISHED APRIL 8, 1913.

96,696. JEWELRY FOR PERSONAL ADORNMENT. MANCHESTER-SMITH COMPANY, Providence, R. I.
Filed December 26, 1913. Serial No. 74,838. PUBLISHED FEBRUARY 24, 1914.

96,697. PERFUMES, TOILET WATERS, FACE-POWDERS, ROUGES, AND SACHET-POWDERS. MANDEL BROTHERS, Chicago, Ill.
Filed March 30, 1912. Serial No. 62,538. PUBLISHED FEBRUARY 24, 1914.

96,698. CIGARETTES. SHULEM J. MARCHOSKY, New York, N. Y.
Filed December 12, 1913. Serial No. 74,541. PUBLISHED FEBRUARY 17, 1914.

96,699. CIGARETTES. SHULEM J. MARCHOSKY, New York, N. Y.
Filed December 12, 1913. Serial No. 74,542. PUBLISHED FEBRUARY 17, 1914.

96,700. IMITATION PEARLS. JORDAN MARSH COMPANY, Boston, Mass.
Filed December 13, 1913. Serial No. 74,579. PUBLISHED FEBRUARY 24, 1914.

96,701. PLASTIC COMPOUNDS FOR REPAIRING AND MAKING ROOFS. THE MASTER BUILDERS COMPANY, Cleveland, Ohio.
Filed December 26, 1913. Serial No. 74,842. PUBLISHED FEBRUARY 24, 1914.

96,702. CIGARS, CIGARETTES, SMOKING AND CHEWING TOBACCO, AND SNUFF. ALFRED MAYER, Philadelphia, Pa.
Filed November 18, 1913. Serial No. 74,058. PUBLISHED FEBRUARY 17, 1914.

96,703. CLEANING-CLOTHS. RICHARD MAYER, Boston, Mass.
Filed November 3, 1913. Serial No. 73,747. PUBLISHED FEBRUARY 17, 1914.

96,704. WOODEN STAVES IMPREGNATED WITH WOOD-PRESERVATIVE. THE MCCLURE COMPANY, Saginaw, Mich.
Filed June 9, 1913. Serial No. 70,978. PUBLISHED FEBRUARY 24, 1914.

96,705. LIQUID USED IN TREATING WOOD TO PREVENT ITS DECAYING. THE MCCLURE COMPANY, Saginaw, Mich.
Filed June 9, 1913. Serial No. 70,979. PUBLISHED FEBRUARY 24, 1914.

96,706. WAIST AND SKIRT SUPPORTERS. EVA J. MCKINNEY, Clinton, Ill.
Filed November 11, 1913. Serial No. 73,910. PUBLISHED FEBRUARY 24, 1914.

96,707. SPANISH MAGAZINE PUBLISHED MONTHLY. MERCURIO PUBLISHING COMPANY, New Orleans, La.
Filed September 17, 1913. Serial No. 72,921. PUBLISHED FEBRUARY 10, 1914.

96,708. PULLEY BLOCKS, SHEAVES, BUSHINGS, AND BEARINGS. MERRIMAN BROTHERS, Boston, Mass.
Filed January 3, 1914. Serial No. 74,962. PUBLISHED FEBRUARY 24, 1914.

96,709. UNDERSHIRTS, DRAWERS, AND UNION SUITS. JAMES H. MOFFETT & CO., INC., New York, N. Y.
Filed December 6, 1913. Serial No. 74,416. PUBLISHED FEBRUARY 24, 1914.

96,710. CERTAIN NAMED MACHINERY AND PARTS THEREOF AND TOOLS. MOTORCYCLE EQUIPMENT CO., Hammondsport, N. Y.
Filed November 23, 1912. Serial No. 67,083. PUBLISHED FEBRUARY 24, 1914.

96,711. BUR-MILLS AND ATTRITION-MILLS FOR GRINDING CORN AND OTHER CEREALS. MUNSON BROS. CO., Utica, N. Y.
Filed December 12, 1913. Serial No. 74,551. PUBLISHED FEBRUARY 24, 1914.

96,712. LIQUID PREPARATION TO BE USED AS AN ABRASIVE FOR PRODUCING A DULL FINISH ON ANY POLISHED SURFACE. THEODORE F. MUTCHIE, Portland, Oreg.
Filed May 31, 1913. Serial No. 70,796. PUBLISHED FEBRUARY 17, 1914.

96,713. COUCHES. NAPERVILLE LOUNGE COMPANY, Naperville, Ill.
Filed November 11, 1912. Serial No. 66,798. PUBLISHED FEBRUARY 24, 1914.

96,714. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed November 21, 1913. Serial No. 74,114. PUBLISHED JANUARY 27, 1914.

96,715. WHEAT-FLOUR. CHAS. LACEY PLUMB, New York, N. Y.
Filed July 27, 1908. Serial No. 36,353. PUBLISHED JANUARY 27, 1914.

96,716. LEATHER SHOES. CHESTER FRAZIER REITH, St. Louis, Mo.
Filed January 30, 1914. Serial No. 75,555. PUBLISHED FEBRUARY 24, 1914.

96,717. GLOVES. REY-JOUVIN FRERES ET CO., Grenoble, France.
Filed January 9, 1914. Serial No. 75,065. PUBLISHED FEBRUARY 24, 1914.

96,718. HARNESS, HORSE-COLLARS, HARNESS-STRAPS, AND BAGGAGE-STRAPS. ROBINSON-McGILL M'F'G. CO., Shelbyville, Tenn.
Filed March 9, 1910. Serial No. 48,294. PUBLISHED FEBRUARY 24, 1914.

96,719. MEDICINES AS A REMEDY FOR CERTAIN NAMED DISEASES. AMOS ROGERS, Ottawa, Ontario, Canada.
Filed April 1, 1908. Serial No. 33,776. PUBLISHED FEBRUARY 24, 1914.

96,720. WOVEN MACHINE-BELTING. THE RUSSELL MANUFACTURING CO., Middletown, Conn.
Filed December 18, 1912. Serial No. 67,468. PUBLISHED FEBRUARY 10, 1914.

96,721. LAUNDRY-WASHING MACHINES. T. H. E. SALES COMPANY, New York, N. Y.
Filed December 13, 1910. Serial No. 53,262. PUBLISHED FEBRUARY 24, 1914.

96,722. WATER-GAGES. SARGENT COMPANY, Chicago, Ill.
Filed January 22, 1914. Serial No. 75,373. PUBLISHED FEBRUARY 24, 1914.

96,723. REMEDY FOR RHEUMATISM, SORE MUSCLES, AND ITCHING SKIN. SATTERLEE & SMITH, Lake Charles, La.
Filed March 7, 1913. Serial No. 68,905. PUBLISHED FEBRUARY 24, 1914.

96,724. NATURAL STONES OF VARYING SHAPES USED AS ORNAMENTS IN ARTICLES OF JEWELRY. THOMAS H. SELF, Martinsville, Va.
Filed January 29, 1914. Serial No. 75,539. PUBLISHED FEBRUARY 24, 1914.

96,725. CERTAIN NAMED BRUSHES, DUSTERS, AND MOPS. SILVER-CHAMBERLIN CO., Clayton, N. J.
Filed October 30, 1913. Serial No. 73,700. PUBLISHED FEBRUARY 24, 1914.

96,726. PILE MEDICINE. JOHN F. SMITH, Meadow Creek, W. Va.
Filed December 24, 1913. Serial No. 74,829. PUBLISHED FEBRUARY 24, 1914.

96,727. RUBBER TIRES, TREADS, AND NON-SKIDDING TREADS FOR RUBBER TIRES FOR WHEELS OF AUTOMOBILES, MOTOR-CYCLES, BICYCLES, AND OTHER VEHICLES. SOCIETE GENERALE DES ETABLISSEMENTS BERGOUGNAN, Clermont-Ferrand, France.
Filed April 21, 1913. Serial No. 69,967. PUBLISHED FEBRUARY 17, 1914.

96,728. LAUNDRY SOAP. THE STANDARD SOAP COMPANY, West Berkeley, Cal.
Filed November 16, 1909. Serial No. 45,922. PUBLISHED FEBRUARY 3, 1914.

96,729. TOILET AND LAUNDRY SOAP. THE STANDARD SOAP COMPANY, West Berkeley, Cal.
Filed November 16, 1909. Serial No. 45,923. PUBLISHED FEBRUARY 3, 1914.

96,730. CERTAIN NAMED SEEDS. THE STANFORD SEED COMPANY, Binghamton, N. Y.
Filed August 12, 1913. Serial No. 72,309. PUBLISHED FEBRUARY 17, 1914.

96,731. MONTHLY PERIODICAL. GEORGE H. STOVER, New Dorp, N. Y., assignor to Archibald B. Watson, New York, N. Y.
Filed December 5, 1913. Serial No. 74,403. PUBLISHED FEBRUARY 10, 1914.

96,732. DETERGENT IN POWDER FORM. OTTO W. TANKE, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,678. PUBLISHED FEBRUARY 17, 1914.

96,733. GRASS AND FIELD SEEDS. L. TEWELES & CO., Milwaukee, Wis.
Filed December 19, 1913. Serial No. 74,692. PUBLISHED FEBRUARY 17, 1914.

96,734. GRASS AND FIELD SEEDS. L. TEWELES & CO., Milwaukee, Wis.
Filed December 19, 1913. Serial No. 74,693. PUBLISHED FEBRUARY 17, 1914.

96,735. GRASS AND FIELD SEEDS. L. TEWELES & CO., Milwaukee, Wis.
Filed December 19, 1913. Serial No. 74,694. PUBLISHED FEBRUARY 17, 1914.

96,736. CIGARS. ARNOLD TIETIG & SON, Cincinnati, Ohio.
Filed December 19, 1913. Serial No. 74,690. PUBLISHED FEBRUARY 10, 1914.

96,737. STEEL PILES FOR FOUNDATIONS. THE UNDERPINNING & FOUNDATION CO., New York, N. Y.
Filed January 19, 1914. Serial No. 75,302. PUBLISHED FEBRUARY 24, 1914.

96,738. LUBRICATING OILS AND GREASES. UNION OIL COMPANY OF CALIFORNIA, Oleum and San Francisco, Cal.
Filed May 14, 1913. Serial No. 70,428. PUBLISHED FEBRUARY 24, 1914.

96,739. NON-METALLIC TIRES. UNITED & GLOBE RUBBER MFG. COMPANIES, Trenton, N. J.
Filed January 31, 1913. Serial No. 68,251. PUBLISHED OCTOBER 28, 1913.

96,740. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,449. PUBLISHED FEBRUARY 17, 1914.

96,741. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,450. PUBLISHED FEBRUARY 17, 1914

96,742. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,454. PUBLISHED FEBRUARY 17, 1914.

96,743. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,457. PUBLISHED FEBRUARY 17, 1914.

96,744. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,458. PUBLISHED FEBRUARY 17, 1914.

96,745. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,460. PUBLISHED FEBRUARY 17, 1914.

96,746. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,462. PUBLISHED FEBRUARY 17, 1914.

96,747. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,463. PUBLISHED FEBRUARY 17, 1914.



96,748. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,466. PUBLISHED FEBRUARY 17, 1914.

96,749. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,467. PUBLISHED FEBRUARY 17, 1914.

96,750. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,469. PUBLISHED FEBRUARY 17, 1914.

96,751. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,470. PUBLISHED FEBRUARY 17, 1914.

96,752. PULVERIZED GRAPHITE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,472. PUBLISHED FEBRUARY 17, 1914.

96,753. GRAPHITE LUBRICANT. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,483. PUBLISHED FEBRUARY 24, 1914.

96,754. GRAPHITED-WOOD GREASE. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,484. PUBLISHED FEBRUARY 24, 1914.

96,755. MACHINERY-LUBRICANT. THE UNITED STATES GRAPHITE COMPANY, Saginaw, Mich.
Filed February 10, 1913. Serial No. 68,485. PUBLISHED FEBRUARY 24, 1914.

96,756. BOTTLE WASHING AND RINSING MACHINES. UNIVERSAL BOTTLE WASHER CO., Detroit, Mich.
Filed January 12, 1914. Serial No. 75,141. PUBLISHED FEBRUARY 24, 1914.

96,757. MEDICAL COMPOUND FOR BURNS, SCALDS, AND OTHER INJURIES FROM FIRE. MATTHEW L. VAN VALKENBURGH, Zanesville, Ohio.
Filed December 16, 1913. Serial No. 74,648. PUBLISHED FEBRUARY 24, 1914.

96,758. SOPORIFIC PREPARATION. VEREINIGTE CHININFABRIKEN ZIMMER & CO. GES. MIT BESCHRÄNKTER HAFTUNG, Frankfort-on-the-Main, Germany.
Filed February 5, 1912. Serial No. 61,273. PUBLISHED SEPTEMBER 24, 1912.

96,759. TOOTH-PASTES. WALDHEIMER PARFÜMERIE- UND TOILETTESEIFEN-FABRIK, A. H. A. BERGMANN, Waldheim, Germany, and New York, N. Y.
Filed January 7, 1914. Serial No. 75,017. PUBLISHED FEBRUARY 24, 1914.

96,760. TOOTH-POWDER AND TOOTH-PASTE. DR. J. A. WALSH CO., Boston, Mass.
Filed June 9, 1913. Serial No. 70,991. PUBLISHED FEBRUARY 24, 1914.

96,761. LEATHER SHOES. JOHN WANAMAKER, PHILADELPHIA, Philadelphia, Pa.
Filed January 7, 1914. Serial No. 75,018. PUBLISHED FEBRUARY 24, 1914.

96,762. SUPPORTS FOR CARDS OR PICTURES. JAMES MURRAY WASHBURN, Chicago, Ill.
Filed December 15, 1913. Serial No. 74,624. PUBLISHED FEBRUARY 24, 1914.

96,763. HATS. THE WEAR-U-WELL SHOE COMPANY, Columbus, Ohio.
Filed January 22, 1914. Serial No. 75,376. PUBLISHED FEBRUARY 24, 1914.

96,764. SLIDE-RULES, MEASURING-CALIPERS, MICROMETERS, MEASURING BARS OR RODS, SHEATHS, AND CASES THEREFOR. EUGEN WEBER, Stuttgart, Germany.
Filed November 1, 1913. Serial No. 73,739. PUBLISHED FEBRUARY 24, 1914.

96,765. WRITING-TABLETS. WESTERN TABLET CO., St. Joseph, Mo.
Filed July 31, 1913. Serial No. 72,091. PUBLISHED FEBRUARY 24, 1914.

96,766. ELECTRIC CLEANING APPARATUS. WISCONSIN ELECTRIC COMPANY, Racine, Wis.
Filed January 2, 1914. Serial No. 74,955. PUBLISHED FEBRUARY 24, 1914.

96,767. MOTION-PICTURE AND PHOTOPLAY FILMS. WORLD SPECIAL FILMS CORPORATION, New York, N. Y.
Filed November 7, 1913. Serial No. 73,843. PUBLISHED FEBRUARY 24, 1914.

96,768. SHOVELS, SPADES, AND SCOOPS. THE WYOMING SHOVEL WORKS, Wyoming, Pa.
Filed January 31, 1914. Serial No. 75,598. PUBLISHED FEBRUARY 24, 1914.

# LABELS

## REGISTERED APRIL 28, 1914.

17,663.—*Title:* "WARRIOR LINIMENT." (For Liniment.) JOHN B. ARMOUR, Saco, Mont. Filed January 16, 1914.

17,664.—*Title:* "TO GET THE BEST RESULTS USE O-CEDAR POLISH THE O'CEDAR POLISH WAY." (For O-Cedar Polish.) CHANNELL CHEMICAL COMPANY, Chicago, Ill. Filed March 27, 1914.

17,665.—*Title:* "CHASE-'EM." (For Insect-Powder.) THE "CHASE-'EM" ANT AND ROACH POWDER CO., Covington, Ky. Filed April 8, 1914.

17,666.—*Title:* "REXPORT." (For Beer.) DUBUQUE BREWING & MALTING CO., Dubuque, Iowa. Filed April 6, 1914.

17,667.—*Title:* "KREMPS EXTRA BEER." (For Beer.) INTERBORO BREWING COMPANY, INC., New York, N. Y. Filed March 16, 1914.

17,668.—*Title:* "UNIVERSAL." (For Tea-Caddies.) LANDERS, FRARY & CLARK, New Britain, Conn. Filed March 20, 1912.

17,669.—*Title:* "THE WHITE CHIEF." (For a Remedy.) R. E. MCINTURFF, McComb, Miss. Filed April 9, 1914.

17,670.—*Title:* "SNOW FLAKE SODAS." (For Salted Wafers.) PACIFIC COAST BISCUIT COMPANY, Seattle, Wash. Filed April 6, 1914.

17,671.—*Title:* "AMOLE." (For a Hair-Tonic.) LEON PLASCHY, New York, N. Y. Filed October 28, 1913.

17,672.—*Title:* "ZUBROWNIK." (For Medicinal Bitter Wine.) PREBOL'S PHARMACY, Passaic, N. J. Filed February 26, 1914.

17,673.—*Title:* "REYNOLDS' SWEET MILK FUDGE KOCOA." (For Cocoa.) MILTON H. REYNOLDS, Somerville, Mass. Filed April 9, 1914.

17,674.—*Title:* "CHOCOLATE WAFERETTES." (For Chocolate.) MILTON H. REYNOLDS, Somerville, Mass. Filed April 9, 1914.

17,675.—*Title:* "COOKING CHOCOLATE." (For Chocolate.) MILTON H. REYNOLDS, Somerville, Mass. Filed April 9, 1914.

17,676.—*Title:* "VISCOL." (For Viscol for Shoes and Harness.) ADOLPH SOMMER, Cambridge, Mass. Filed April 8, 1914.

17,677.—*Title:* "GASCONADE WHISKEY." (For Whisky.) STARK DISTILLERY CO., St. Louis, Mo. Filed April 6, 1914.

17,678.—*Title:* "TOUCH-AN-GO." (For a Cleaning Compound.) M. F. SUPPLY CO., Merchantville, N. J. Filed April 3, 1914.

17,679.—*Title:* "ESSAVIE'S." (For Complexion-Powder.) VAIL BROTHERS, Philadelphia, Pa. Filed April 10, 1914.

# PRINTS

## REGISTERED APRIL 28, 1914.

3,569.—*Title:* "A SANITARY CAP FOR MILK BOTTLES." (For Caps for Milk-Bottles.) CHARLES C. JACOBS, Detroit, Mich. Filed March 16, 1914.

3,570.—*Title:* "PAINT UP. CLEAN UP." (For Paint.) THE R. F. JOHNSTON PAINT CO., Cincinnati, Ohio. Filed April 8, 1914.

3,571.—*Title:* "FALSTAFF." (For Beer.) WM. J. LEMP BREWING CO., St. Louis, Mo. Filed April 3, 1914.

3,572.—*Title:* "MINNESOTA PAINTS." (For Paints.) MINNESOTA LINSEED OIL PAINT COMPANY, Minneapolis, Minn. Filed April 9, 1914.

3,573.—*Title:* "SENTIMENT." (For Cigars.) I. TEITELBAUM & CO., Cleveland, Ohio. Filed March 11, 1914.



# DECISIONS

OF THE

# COMMISSIONER OF PATENTS

AND OF

# UNITED STATES COURTS IN PATENT CASES.

## COMMISSIONER'S DECISIONS.

### BRENIZER *v.* ROBINSON.

*Decided January 13, 1913.*

1. INTERFERENCE—PRIORITY—ABANDONED EXPERIMENT.
Where B. made a tin diverter for a potato-paring machine shortly after May, 1906, tested the same for a short period of time, when it was removed from the machine and subsequently lost, and nothing further was done with the invention until 1908, *Held* that this work amounted to nothing more than an abandoned experiment.

2. SAME—SAME—SAME.
Where a diverter was placed in a potato-paring machine which was itself an experimental machine and after some tests the diverter was removed and scrapped and nothing further done with the invention for more than a year and no satisfactory excuse given for the delay, *Held* that what was done constituted merely an abandoned experiment.

3. SAME—SAME.
*Held* that B., who was the first to conceive the invention, was not diligent in reducing to practice at the time R. filed his application, and priority awarded to R.

APPEAL from Examiners-in-Chief.

VEGETABLE-PARING MACHINE.

*Mr. E. H. Hunter* for Brenizer.

*Mr. Harold S. Mackaye* for Robinson.

TENNANT, *Assistant Commissioner:*

This is an appeal from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Robinson.

The invention in issue relates to improvements in potato-paring machines, in which the potatoes are placed in a container having a rotatable bottom provided with a roughened abrading-surface. The particular improvement covered by this invention consists in attaching a deflector to the cylindrical wall of such container, such deflector being defined as a "scoop-shaped lug." The object of this deflector is stated by the patentee, Robinson, to be for the purpose of compelling a flow of vegetables toward the center of the container to prevent the clogging of the same against the container-walls. It incidentally serves also to positively direct the vegetables through the door-opening when the container is being discharged. Brenizer states that the function of this device is to cause the vegetables to be constantly shifted in position and brought successively in contact with the abrading revolving disk.

The issue is as follows:

In a machine of the character described, a container having a cylindrical wall provided with a scoop-shaped lug, in combination with a rotating abrading member, said lug overhanging the rotating abrading member.

Brenizer alleges in his preliminary statement that he conceived the invention in the spring of 1906 and—

that he reduced the invention to practice on a full sized operative vegetable paring machine in the month of May, 1906.

Robinson alleges in his preliminary statement that he conceived the invention in the winter of 1905-06 and actually reduced the invention to practice in November, 1908. The application on which his patent was granted was filed November 12, 1908.

The Examiner of Interferences found that the proofs presented by Robinson were insufficient to establish any earlier date of conception than the date upon which he filed his application. He found that Brenizer had established conception of the invention in 1906, but had failed to establish actual reduction to practice of the invention prior to June, 1909, that he was not active or diligent at the time Robinson entered the field and constructively reduced his invention to practice by the filing of his application, nor subsequently thereto. It is also charged by Brenizer that he disclosed the invention to Robinson in 1906 and 1908. The Examiner of Interferences found the evidence in support of this allegation lacking probative force.

The Examiner-in-Chief affirmed the Examiner of Interferences as to all points.

At the time Robinson's patent issued he was president of the Imperial Machine Company, which was engaged in the manufacture and sale of the paring-machine known as the "Victoria." This company is a competitor of the American Fruit Machinery Company, of which McKay is president and Brenizer an employee. The machines first manufactured by the latter company comprised a polygonal drum in the bottom of which was a rotary abrading-disk. One of the first machines manufactured was sold to the Philadelphia Noodle & Macaroni Company on May 16, 1906, the privilege being reserved by the American Fruit Machinery Company of taking customers into the establishment of the Philadelphia Noodle & Macaroni Company to see the machine in operation. This date is fixed by a contract of this date, it appearing therefrom that the amount paid for the potato-paring machine was $250, half of which was allowed as a rebate for the privilege above referred to. It appears from the testimony of Brenizer that shortly after this machine was sold to the Philadelphia Noodle & Macaroni Company Brenizer made a thin diverter or scoop-shaped lug which he placed on the inside of that machine,

fastening it in position by a clamp. He states that several loads of potatoes were peeled while this diverter was in position and that the result of these tests was satisfactory to him.

McKay testifies in substantial corroboration of Brenizer and further states that no additional tests were made, because he was satisfied with the work accomplished by the diverter.

Two other witnesses were called in corroboration of this testimony. One, George Stone, who was at the time of the alleged experiment president of the Philadelphia Noodle & Macaroni Company, testifies that Brenizer and McKay came to his shop in July or August of 1906 and clamped something which looked like a piece of sheet-iron upon the machine. It does not appear, however, that Stone observed the alleged experiment.

D'Adamo, who was an operator of the paring-machine for the Philadelphia Noodle & Macaroni Company in 1906, corroborates the testimony of Brenizer that such an experiment was performed. As to the extent of the experiment he says:

Me work at this machine four years, one time comes the man to the factory, me working the macaroni. This man make this piece on the machine, make the potatoes work five minutes. This man (indicating Mr. E. B. McKay) work the potatoes five minutes, then take piece off and then go home. (A. to Q. 11.)

It appears from the testimony of Brenizer and of McKay that this diverter after having been removed from the machine was lost. Nothing further appears to have been done in respect to the invention by Brenizer until 1908.

The Examiner of Interferences and the Examiners-in-Chief found that the testimony concerning the alleged tests was insufficient to establish the reduction to practice of the invention in 1906, and with this conclusion I agree. The most that can be said of this demonstration is that it was of an experimental character, and the brevity of the test and the fact that the diverter was destroyed and nothing done with the invention thereafter for about two years would seem to indicate that it amounted to nothing more than an abandoned experiment, notwithstanding the statements of the witnesses to which reference has been made.

It is testified that in February, 1908, the form of the machines manufactured by the American Fruit Machinery Company was changed to a cylindrical container and that in February, 1908, Brenizer caused one Charles Callahan, a tinsmith, to construct a galvanized-sheet-iron body and a black-sheet-iron diverter, which latter was clamped on the side of the cylinder in the same manner as the diverter used in the experiment of 1906. The date of construction of this device is fixed by Callahan's bill for his services, which is dated February 26, 1908, and contains the following items:

| | | |
|---|---|---|
| Feb. 11. | To making one (1) galvanized sheet iron body, as per sketch | 3.00 |
| " 26. | To making one (1) black sheet iron lip or diverter, as per sketch | .75 |

It is testified by Brenizer and McKay that this machine was assembled with the diverter secured thereto in the manner above stated and was used to pare several loads of potatoes in February, 1908. The diverter was then removed and was eventually scrapped. It appears from Brenizer's testimony that this machine was really intended as an experimental machine for the purpose of testing out the possibility of a cylinder with a diverter placed therein. The first commercial machine placed upon the market having a diverter of the character indicated was one sold to Casey's restaurant, which, it is testified by McKay, was ordered on June 6, 1909, and was delivered a few days thereafter.

I agree with the decision of the lower tribunals that the test of the 1908 machine fell short of establishing a reduction to practice of the invention. The machine itself was admittedly experimental in character, and the testimony is insufficient to show that the action of the device contained in that machine was of a satisfactory character, especially when considered in the light of the fact that nothing was done with the device for more than a year, notwithstanding the alleged advantages attained by its use. It is claimed that this delay in placing a potato-paring machine, including a diverter, upon the market was due to the fact that Brenizer and McKay could not come to an agreement as to the amount of royalty or payment which Brenizer was to receive from the American Fruit Machinery Company for the use of this alleged improvement. This excuse is not plausible. The price for which the earlier machines were sold was listed at $250. The cost of making a diverter of the character shown, as appears from Callahan's bill, was seventy-five cents, and, as testified to by Brenizer, (X-Q. 146,) the attachment if applied to commercial machines would amount to about $1.50 additional to each machine. Brenizer had no patent upon the device, and there appears to be no basis for the assumption that the failure to reach an agreement as to the amount to be paid for this additional improvement was such as to defer its introduction into the machine if it produced the advantages claimed therefor.

I am therefore of the opinion that Brenizer has failed to establish a reduction to practice of the invention either in 1906 or February, 1908, and, further, that the lack of diligence in either reducing the alleged invention to practice following the 1908 experiment or constructively reducing the same to practice by the filing of his application before April, 1910, subordinates his rights to those of Robinson, who constructively reduced his invention to practice on November 12, 1909, by filing his application for patent.

It is charged that Brenizer disclosed the invention to Robinson in each of two tests of the device had upon the U. S. S. *Hancock* at the Brooklyn Navy Yard, that during the first test he placed his hand on the inside of the cylinder and held it so that it diverted the potatoes from their circular motion toward the center of the disk, and that Robinson came over to the machine, saw what he was doing, and protested to the commandant or the officer in charge of the test against such action. Brenizer's testimony is corroborated as to these facts by McKay, but is denied *in toto* by Robinson. I agree with the conclusion of the Examiners-in-Chief that the testimony of Brenizer and McKay is insufficient to establish disclosure of the invention to Robinson.





It appears from the testimony that in the operation of paring-machines of this type the centrifugal force is such as to throw the vegetables out against the rim of the machine, leaving a clear space of three or four inches at the center of the rotating disk. The placing of the hand in the cylinder of the hopper of the machine might readily have been for the purpose of crowding the potatoes upon the abrading-disk and into the unoccupied space at the center of the disk to increase the speed of operation of the machine.

In fact, it is admitted by McKay that this act on the part of Brenizer in each case was in the nature of a trick, because it effected a more rapid paring of the potatoes in the machine, which was then in competition with others. Concerning this McKay testifies as follows:

X-Q. 115. But you have testified that you noticed that Brenizer put his hand into the machine, and that you knew it would increase the speed of the machine. Why did not you tell him to take his hand out when you saw what he was doing?

A. We were there to make the best showing of our machine we could, and I certainly would not call the attention of the commanding officer to anything that Brenizer was doing, as this would have been worse than foolish.

X-Q. 116. Why would it have been foolish for you to call the attention of the commanding officer to what Brenizer was doing?

A. Because it would have been most unbusinesslike.

In this case Brenizer as applicant has imposed upon him the burden of proving priority of invention beyond a reasonable doubt, for the reason that his application was not filed until after Robinson's patent was granted.

The testimony of Brenizer and McKay is, to say the least, extraordinary. On the one hand, they claim that they have had knowledge of this valuable invention since 1906 and have fully appreciated its value. On the other hand, they did not incorporate this alleged advantageous device into other machines, although it might have been done for a very small amount, but after a second experiment two years later failed to build or to supply other machines with such a device. This is inconsistent with their claims of successful use.

The testimony of Brenizer's alleged disclosures to Robinson is wholly incredible. They were admittedly made through unfair "tricks" performed during competitive tests of machines of Brenizer and Robinson and were said to have been made under identical circumstances separated by an interval of two years, during which time and for over a year thereafter nothing was done by Brenizer and the company with which he was associated with the alleged valuable improvement thus disclosed to Robinson. These allegations of disclosure to Robinson instead of establishing Brenizer's originality of the invention serve, in my opinion, to discredit the testimony of Brenizer and McKay, especially when considered in connection with other inconsistencies of their testimony above pointed out.

I am of the opinion that Brenizer has failed to sustain the burden placed upon him, and the decision of the Examiners-in-Chief is accordingly affirmed.

## DECISIONS OF THE U. S. COURTS.

### Court of Appeals of the District of Columbia.

BRENIZER ET AL. v. ROBINSON.

*Decided March 2, 1914.*

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* that priority was properly awarded to R.

*Mr. E. H. Hunter* for the appellants.

*Mr. H. S. Mackaye* for the appellee.

SHEPARD, *C. J.*:

This is an interference proceeding relating to priority of invention of an improvement in vegetable-paring machines. Robinson has a patent for the invention issued December 14, 1909, on an application filed November 12, 1908. Brenizer filed April 9, 1910.

Former potato-paring machines consisted of a polygonal container with a rotatable bottom provided with an abrading-surface. The rotation of the disk agitates the potatoes and causes them to roll over one another so that the skins coming in contact with the abrading-surface are rubbed off. They are moved outwardly by centrifugal force, crowding up against the sides of the container so that those at the top are forced again toward the center and fall back upon the central part of the disk. By this circulation all portions of the skins are subjected to the operation of the abrading-surfaces. By the rapid rotation of the abrading-disk there is a tendency of the potatoes to circulate horizontally in the container without the desired vertical circulation. The improvement consists in a lug or projection secured to the wall of the container which tends to prevent this horizontal circular motion by diverting the course of the potatoes and forcing those at the top toward the center so that they will circulate vertically. Claim 18 of Robinson's patent sets out the invention and was copied in Brenizer's application. It constitutes the issue of the interference, as follows:

In a machine of the character described, a container having a cylindrical wall provided with a scoop-shaped lug, in combination with a rotating abrading member, said lug overhanging the rotating abrading member.

Brenizer claims conception in the spring of 1906; disclosure and reduction to practice May 12, 1906.

The patent to Robinson having been issued before the filing of Brenizer's application, the tribunals of the Patent Office correctly held that Brenizer had the burden of proving his case beyond a reasonable doubt.

They concurred in holding upon the evidence that Brenizer had failed to prove his alleged reduction to practice at any time prior to Robinson's constructive reduction to practice.

It is unnecessary to spend time in another review of the evidence. It is sufficient to say that a careful consideration of it has failed to convince us of error.

The decision is therefore affirmed. The clerk will certify this decision to the Commissioner of Patents as the law requires.

Affirmed.

## ADJUDICATED PATENTS.

(U. S. C. C. A.) The Curtis patent, No. 566,969, for an elastic-fluid turbine, *Held* valid and infringed. *International Curtis Marine Turbine Co.* v. *William Cramp & Sons Ship & Engine Bldg. Co.*, 211 Fed. Rep., 124.

(U. S. C. C. A.) The Curtis patent, No. 595,435, for an elastic-fluid turbine, claims 1 to 4, inclusive, *Held* invalid in view of the prior art. *International Curtis Marine Turbine Co.* v. *William Cramp & Sons Ship & Engine Bldg. Co.*, 211 Fed. Rep., 124.

(U. S. D. C.) The Dodge patent, No. 1,000,330, for improvements in storage batteries, *Held* valid and infringed. *Electric Storage Battery Co.* v. *Philadelphia Storage Battery Co.*, 211 Fed. Rep., 154.

## Changes in Classification.

(ORDER No. 2,118.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 18, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 105, Railway Rolling Stock, (Division XXXIV,) establish subclass—

**Wheel-fenders—**

268. Graspers.

This subclass is composed of patents taken from class 105, Railway Rolling Stock, subclasses 33, Wheel-fenders; 127, Wheel-fenders, Inclined, Tilt-up front; 130, Wheel-fenders, Trip and drop-scoop, and 253, Wheel-fenders, Hinged scoop.

THOMAS EWING,
*Commissioner.*

(ORDER No. 2,122.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 23, 1914.*

The following change in the classification of inventions is hereby directed, to take effect immediately:

In class 15, Brushing and Scrubbing, (Division XXVII,) establish subclass—

**Fountain brushes—**

69. Bath and flesh.

This subclass is composed of patents taken from class 15, Brushin and Scrubbing, subclasses 48, Fountain brushes, Hair; 51, Fountain brushes, Scrubbers, and 53, Fountain brushes, Window-cleaners.

THOMAS EWING,
*Commissioner.*

## Adverse Decisions in Interference.

PATENT No. 1,033,109.

On March 24, 1914, a decision was rendered that Charles A. Lundgren was not the first inventor of the subject-matter covered by claims 1 and 2 of his Patent No. 1,033,109, subject, "Adding-machine," and no appeal having been taken within the time allowed such decision has become final.

## Disclaimer.

940,925.—*Samuel J. Dickey*, Philadelphia, Pa. WATER-GAS APPARATUS. Patent dated November 23, 1909. Disclaimer filed Apr. 21, 1914, by the assignee *The United Gas Improvement Company.*

Enters this disclaimer—

"To that part of the claim in said specification which is in the following words, to wit:

"1. Means for definitely controlling the quantity and quality of the production of gas which means comprise the gas generating apparatus and its regulable steam connection and a meter tube interposed in said connection and provided with a gage whereby the attendant is enabled to introduce a definite volume of steam during the interval of each run, substantially as described."

## Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 4, 1914.*

***"Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, take notice:***

An interference having been declared by this Office between the application of Octavie Rincheval, 258 Rue du Faubourg St. Martin, Paris, France, for registration of a trade-mark and trade-mark registered February 28, 1899, No. 32,546, to "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, of Hamburg, Germany, and a notice of such declaration sent by registered mail to said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said "Sirius" Luftgas-Automaten-Gesellschaft Hamburg mit beschränkter Haftung, its assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
*Washington, D. C., April 4, 1914.*

***James S. Longhurst, Jr., his assigns or legal representatives, take notice:***

An interference having been declared by this Office between the application of the Standard Oil Co. of New York, of 26 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered December 24, 1901, No. 37,517, to James S. Longhurst, Jr., of 72 Nevins street, Brooklyn, N. Y., and a notice of such declaration sent by registered mail to said James S. Longhurst, Jr., at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said James S. Longhurst, Jr., his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

J. T. NEWTON, *Assistant Commissioner.*





# INDEX

TO THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

APRIL, 1914.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

## TABLE OF CASES.


| | Page. | | Page. |
|---|---|---|---|
| *Barber v. Spalckhaver | 268 | John L. Whiting-J. J. Adams Co. v. Rubber and Celluloid Harness Trimming Co | 569 |
| Breniser v. Robinson | 1219 | *Johnson v. Martin | 267 |
| *Brenizer *et al.* v. Robinson | 1221 | Manson v. Hutchison | 569 |
| Brown v. Campbell | 903 | *Pein. *In re* | 570 |
| *Brown v. Campbell | 905 | | |


## SUBJECT-MATTER INDEX.


| | Page. |
|---|---|
| Abandoned experiment, invention made, tested, then thrown aside until manufactured by opponent, Brown v. Campbell | 903 |
| Though first to conceive, because lacking in diligence not entitled to award of priority, Brenizer v. Robinson | 1219 |
| Concealment of invention, right to patent forfeited because of, Brown v. Campbell | 903 |
| *Brown v. Campbell | 905 |
| *Conception of invention, dates established by witnesses, Barber v. Spalckhaver | 268 |
| *Construction of claims, unpatentable in view of state of the art, *in re* Pein | 570 |
| *Use of the word "means," Johnson v. Martin | 267 |
| Construction of Equity Rule 58, John L. Whiting-J. J. Adams Co. v. Rubber and Celluloid Harness Trimming Co | 569 |
| Intereference, motion to dissolve because issue is unpatentable made by patentee not to be transmitted, Manson v. Hutchison | 569 |
| Interrogatories, penalty under Equity Rule 58 for failure to answer, John L. Whiting-J. J. Adams Co. v. Rubber and Celluloid Harness Trimming Co | 569 |
| *Priority of invention, award in accordance with evidence, Barber v. Spalckhaver | 268 |
| *Brenizer *et al.* v. Robinson | 1221 |
| *Inventor not entitled to where he conceals invention till another discloses the same, Brown v. Campbell | 905 |
| *Only question in issue, patentability not considered, Johnson v. Martin | 267 |
| Trade-marks, cancelation of trade-mark registration, John L. Whiting-J. J. Adams Co. v. Rubber and Celluloid Harness Trimming Co | 569 |

# DIGEST

OF THE

# DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

APRIL, 1914.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

## ABANDONED EXPERIMENTS.

See Concealment of Invention.

1. CONCEALMENT OF INVENTION.
Where B. conceived the invention in issue in 1904 and a model thereof was made and tested and subsequently other models of ribbon-vibrators were made, some of which did not embody the invention, but the device was not put on the market, and no attempt was made to file an application for patent until B.'s attention was called to a published description of the device of C., which was being manufactured by C.'s assignee, *Held* that B.'s work amounted to nothing more than an abandoned experiment or that by the concealment thereof B. had lost his right to a patent. [Brown *v.* Campbell, 903.

2. SAME—HOLDING IN ALTERNATIVE—UNOBJECTIONABLE.
A holding by the Commissioner that either the device of B. amounted only to an abandoned experiment or that B. by concealing his device until he was aware of that marketed by C.'s assignee had lost his right to a patent *Held* unobjectionable. [*Brown *v.* Campbell, 905.

3. INTERFERENCE—PRIORITY.
Where B. made a tin diverter for a potato-paring machine shortly after May, 1906, tested the same for a short period of time, when it was removed from the machine and subsequently lost, and nothing further was done with the invention until 1908, *Held* that this work amounted to nothing more than an abandoned experiment. [Brenizer *v.* Robinson, 1219.

4. SAME—SAME.
Where a diverter was placed in a potato-paring machine which was itself an experimental machine and after some tests the diverter was removed and scrapped and nothing further done with the invention for more than a year and no satisfactory excuse given for the delay, *Held* that what was done constituted merely an abandoned experiment. [Id.

## ALLEGATION.

See Construction of Claims, 2.

## APPLICANT AND PATENTEE.

See Motion to Dissolve Interference.

## ASSIGNEE.

See Abandoned Experiments 1; Concealment of Invention, 1.

## ATTORNEY.

See Priority of Invention, 1.

## BAR TO PATENT.

See Construction of Claims, 2.

## CANCELATION OF TRADE-MARK REGISTRATION.

NEW EQUITY RULES—INTERROGATORIES.
*Held* that the new equity rules apply to cancelation proceedings and that either party thereto may file interrogatories and that in the event of the failure to answer such interrogatories the party in default is liable to the penalty provided by Equity Rule 58. [John L. Whiting-J. J. Adams Co. *v.* Rubber and Celluloid Harness Trimming Co., 560.

## CONCEALMENT OF INVENTION.

See Abandoned Experiments, 1, 2.

1. ABANDONED EXPERIMENT.
Where after a model of B.'s device was exhibited at a conference of the officials of the assignee company B. left the question of building such a device in the hands of the officials of this company, and it was not placed on the market or an application for patent therefor filed until C.'s device had been manufactured and B.'s attention called to a published account thereof, *Held* that the fact that B.'s work was disclosed to various workmen and officials of the assignee company does not take the case out of the ruling in *Mason* v. *Hepburn*. [Brown *v.* Campbell, 903.

2. INTERFERENCE—PRIORITY—ABANDONED EXPERIMENT.
The man who secretes his invention makes easier and plainer the path of no one. He contributes nothing to the public. The law owes nothing to an inventor who hides away his invention, and to permit him to lie in wait for one who independently and in good faith proceeds to disclose the invention to the public would be against the policy of the patent laws. In the eyes of the law he is not the prior inventor. [*Brown *v.* Campbell, 905.

## CONCEPTION OF INVENTION.

See Abandoned Experiments, 1; Priority of Invention, 1, 2.

## CONSTRUCTION OF CLAIMS.

1. INTERFERENCE—USE OF TERM "MEANS."
Where the claim in issue includes "means for alternately conveying the cartons one at a time from said streams to the conveyer," *Held* that as there is no limitation that the means convey the cartons directly to the machine the claim should be construed broadly and includes a construction in which several elements are required to convey the cartons to the machine. [*Johnson *v.* Martin, 267.

2. SAME—QUESTION OF PATENTABILITY HAS NO BEARING THEREON.
Where it is contended that the issue should not be given a broad construction because the appellee's machine which was claimed as a reduction to practice is alleged to have been in public use more than two years before the filing of his application, *Held* that the question of priority is the only one before the court, and the question of a statutory bar to a patent containing the claims in interference is not in issue. [*Id.

3. PATENTABILITY—LIQUID-MEASURING DEVICE.
Claims for a measuring device for aerated liquids under high pressure *Held* unpatentable in view of the prior art. [**In re* Pein, 870.

## DELAY IN FILING APPLICATIONS.

See Abandoned Experiments, 1; Concealment of Invention, 1.

## DILIGENCE.

See Priority of Invention, 1, 2.

## DISCLOSURE OF INVENTION.

See Concealment of Invention, 1, 2; Priority of Invention, 1.

DRAWINGS.

See Priority of Invention, 1.

ELEMENTS.

See Construction of Claims, 1.

EQUITY RULES.

See Cancelation of Trade-Mark Registration.

EVIDENCE.

See Priority of Invention, 3.

FORMER DECISION CITED.

See Concealment of Invention, 1.

FORMER DECISION OVERRULED.

See Motion to Dissolve Interference.

INTERFERENCE.

See Abandoned Experiments; Concealment of Invention; Construction of Claims; Motion to Dissolve Interference; Priority of Invention.

INTERROGATORIES.

See Cancelation of Trade-Mark Registration.

LIMITATION OF CLAIMS.

See Construction of Claims, 1.

MACHINE.

See Abandoned Experiments, 1, 3, 4; Construction of Claims.

MODELS.

See Abandoned Experiments, 1; Concealment of Invention, 1.

MOTION TO DISSOLVE INTERFERENCE.

APPLICANT AND PATENTEE—MOTION BY PATENTEE TO DISSOLVE ON GROUND THAT ISSUE IS NOT PATENTABLE—SHOULD NOT BE TRANSMITTED.

Where a patentee moves to dissolve the interference in which he is involved on the ground that the issue is not patentable, *Held* that such a motion should not be transmitted, since otherwise the patentee could contend in this Office that the subject-matter of the patent is not patentable and in the courts that his patent is valid. (*Baltzley* v. *Seeberger*, 115 O. G., 1329, overruled.)

[Manson *v.* Hutchison, 569.

PATENTABILITY.

See Construction of Claims, 2, 3; Motion to Dissolve Interference.

PRIORITY OF INVENTION.

See Abandoned Experiments, 1, 3, 4; Concealment of Invention, 2; Construction of Claims, 2.

1. AWARD—CONCEPTION.

Where B. testifies that he disclosed the invention in issue to a draftsman, who, on September 6, 1905, began work on scale drawings which were completed January 26, 1906, and that on September 27, 1905, he disclosed the invention to the draftsman of the attorney and showed him two free-hand sketches which did not disclose certain details of the issue, which, however, were old in the art, and the draftsman corroborates B.'s testimony as to the date when the scale drawings were commenced and the attorney's draftsman states that B. explained the invention to him on September 27, 1905, and that he prepared the drawings for the application, *Held* that B. has established a conception of the invention prior to December 9, 1905, the earliest date established by S; *Held*, further, that B. was reasonably diligent and is entitled to an award of priority. [*Barber *v.* Spalckhaver, 268.

2. SAME—SAME.

*Held* that B., who was the first to conceive the invention, was not diligent in reducing to practice at the time R. filed his application, and priority awarded to R.

[Brenizer *v.* Robinson, 1219.

3. SAME.

Evidence reviewed and *Held* that priority was properly awarded to R. [*Brenizer *et al. v.* Robinson, 1221.

PUBLIC USE.

See Abandoned Experiments, 1, 2; Construction of Claims, 2.

PUBLISHED DESCRIPTION.

See Abandoned Experiments, 1; Concealment of Invention, 1.

REDUCTION TO PRACTICE.

See Construction of Claims, 2; Priority of Invention, 2.

RIGHT TO PATENT.

See Abandoned Experiments, 1; Concealment of Invention, 1, 2.

STATE OF THE ART.

See Construction of Claims, 3.

TERMINOLOGY.

See Construction of Claims, 1.

TESTS.

See Abandoned Experiments.

TESTIMONY.

See Priority of Invention, 1.

TRANSMISSION OF MOTIONS.

See Motion to Dissolve Interference.

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# ALPHABETICAL LIST OF PATENTEES

TO WHOM

## PATENTS WERE ISSUED DURING THE MONTH OF APRIL, 1914.

[Abbreviations: "Gaz."=Official Gazette.]

A. A. Simonds & Son Company, The. (See Simonds, Herbert R., assignor.)
A. B. Dick Company. (See Dick, Albert B., assignor.)
A. G. Spalding & Bros. (See Grant, Basil H., assignor.)
A. G. Spalding & Bros. (See Hart, Henry R., assignor.)
A. J. Nystrom & Company. (See Swanson, Frank H., assignor.)
A. O. Norton, Incorporated. (See Starbuck, Calvin T., assignor.)
Abbath, Charles A., Quincy, Ill. Cabinet. No. 1,094,397; Apr. 21; Gaz. vol. 201; p. 844.
Abbott, James H., Philadelphia, Pa. Producing dental suction. No. 1,092,553; Apr. 7; Gaz. vol. 201; p. 147.
Abbott, James H., Philadelphia, Pa. Suction for dental plates. No. 1,092,554; Apr. 7; Gaz. vol. 201; p. 148.
Achilles, Paul A., Hamburg, Germany. Manufacture of hollow bodies of perfect shape. No. 1,093,568; Apr. 14; Gaz. vol. 201; p. 524.
Ackerman, E. L. (See Stutts, William H., assignor.)
Acme Supply Company, The. (See Schroyer, Harry H., assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Traube, Arthur, assignor.)
Actien Gesellschaft für Anilin Fabrikation. (See Witt, Otto N., assignor.)
Ad-Atype Matrix Company, The. (See Hanrahan, John E., assignor.)
Adam, Fritz, Berne, Switzerland. Compression-regulator for engines with superheated steam. No. 1,094,958; Apr. 28; Gaz. vol. 201; p. 1103.
Adams, Arthur J., assignor to Fulton Manufacturing Company, Chicago, Ill. Wheel-securing device. No. 1,094,046; Apr. 21; Gaz. vol. 201; p. 728.
Adams, Arthur J., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Go-cart or perambulator. No. 1,093,093; Apr. 14; Gaz. vol. 201; p. 367.
Adams, Arthur J., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Go-cart or perambulator. No. 1,093,094; Apr. 14; Gaz. vol. 201; p. 367.
Adams, Arthur J., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Go-cart or perambulator. No. 1,093,095; Apr. 14; Gaz. vol. 201; p. 368.
Adams, Arthur J., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Go-cart or perambulator. No. 1,094,045; Apr. 21; Gaz. vol. 201; p. 728.
Adams, Calvin T., New York, N. Y. Non-skidding tire. No. 1,092,419; Apr. 7; Gaz. vol. 201; p. 102.
Adams, John E., Loveland, Ohio. Towel-holder. No. 1,093,518; Apr. 14; Gaz. vol. 201; p. 508.
Adams, Stephen S., St. Louis, Mo. License-plate for motor-vehicles. No. 1,092,887; Apr. 14; Gaz. vol. 201; p. 297.
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Center-bearing for pivotal trucks. No. 1,094,185; Apr. 21; Gaz. vol. 201; p. 776.
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
Adamson, Frank M. (See Miller and Adamson.)
Adchair Company, The. (See Le Furge, William P., assignor.)
Adder Machine Company. (See Hunter and Küntzler, assignors.)
Addometer Corporation. (See Lotterhand, Jason C., assignor.)
Advance Manufacturing and Supply Company, The. (See Folger, Comstock, Corey, and Boulthouse, assignors.)
Advertisers Company. (See Gibson, Francis W., assignor.)
Ahlbrecht, August, Pittsburgh, Pa. Aeroplane. No. 1,092,888; Apr. 14; Gaz. vol. 201; p. 297.
Aiken, Thomas M., Pittsburgh, assignor of one-third to C. D. Kuhns, Knoxville, and one-third to E. C. Mull, Pittsburgh, Pa. Sink-strainer. No. 1,093,342; Apr. 14; Gaz. vol. 201; p. 453.
Aims, William D. P., Jr., Philadelphia, Pa. Horseshoe. No. 1,093,163; Apr. 14; Gaz. vol. 201; p. 392.
Aisenstein, Edward, New York, N. Y. Cigarette-box. No. 1,092,555; Apr. 7; Gaz. vol. 201; p. 148.
Akins, Edwin J., Moundsville, W. Va. Superheater. No. 1,093,519; Apr. 14; Gaz. vol. 201; p. 509.
Alberger Condenser Company. (See Wilson, William B., assignor.)
Albert, Charles H., assignor of one-half to E. A. Potter and J. C. Luds, Indianapolis, Ind. Felly-band and rim for wheels. No. 1,093,234; Apr. 14; Gaz. vol. 201; p. 416.
Albert and J. M. Anderson Manufacturing Company. (See Andersen, Johan M., assignor.)
Albrecht, Guido J., and S. L. Long, assignors to Long Mailing Machine Company, Minneapolis, Minn. Automatic selecting and feeding device for cards, envelops, or the like. No. 1,093,593; Apr. 21; Gaz. vol. 201; p. 575.
Alexander, George, assignor of one-half to P. W. Dietly, Erie, Pa. Nut-tapping machine. No. 1,094,383; Apr. 21; Gaz. vol. 201; p. 839.
Alexander, Valentine C. (See Culver, Albert V., assignor.)
Alexander, William H., Pittsburgh, Pa. Railway crosstie. No. 1,094,769; Apr. 28; Gaz. vol. 201; p. 1037.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,092,420; Apr. 7; Gaz. vol. 201; p. 102.
Alexanderson, Ernst F. W., Schenectady, N. Y., assignor to General Electric Company. Phase-balancer. No. 1,093,594; Apr. 21; Gaz. vol. 201; p. 575.
Alge, Clarence J., J. E. Webb, and W. P. Henson, Chattanooga, Tenn. Car-fender. No. 1,094,959; Apr. 28; Gaz. vol. 201; p. 1103.
Alger, Harley C., Chicago Heights, Ill. Smoke-recording apparatus. No. 1,093,903; Apr. 21; Gaz. vol. 201; p. 681.
Allen, Andrews, Chicago, Ill. Hoisting and dumping apparatus. No. 1,092,889; Apr. 14; Gaz. vol. 201; p. 297.
Allen, Charles A., Gallon, Ohio. Railway-tie. No. 1,092,198; Apr. 7; Gaz. vol. 201; p. 26.
Allen, John S., Columbus, Ga. Package-tie. No. 1,093,096; Apr. 14; Gaz. vol. 201; p. 369.
Allen, Oglesby, Jr., Chicago, Ill. Rail-joint. No. 1,092,624; Apr. 7; Gaz. vol. 201; p. 173.
Allen, Thomas B., assignor to The Carborundum Company, Niagara Falls, N. Y. Making nitrogenous compounds. No. 1,093,819; Apr. 21; Gaz. vol. 201; p. 653.
Allendorf, Augustus, Harvard, Ill. Lightning-arrester. No. 1,092,510; Apr. 7; Gaz. vol. 201; p. 134.
Allgemeine Handelsgesellschaft m. b. H. Bock & Co. (See Paciorkiewicz, Wladislaw, assignor.)
Allington, William E., Saginaw, Mich. Centrifugal fan. No. 1,093,371; Apr. 14; Gaz. vol. 201; p. 462.
Allis-Chalmers Manufacturing Company. (See Bogen, Louis E., assignor.)
Allis-Chalmers Manufacturing Company. (See Cheney, Herbert W., assignor.)
Allis-Chalmers Manufacturing Company. (See Hirt, Jules H., assignor.)
Allis-Chalmers Manufacturing Company. (See Nichols, Louis C., assignor.)
Allison, Charles H., Glendale, Cal. Explosive-cap protection. No. 1,094,692; Apr. 28; Gaz. vol. 201; p. 1010.
Allison, James M., Indianapolis, Ind. Beverage extract. No. 1,093,962; Apr. 21; Gaz. vol. 201; p. 700.
Allum, James C. E., and J. F. Perkins, Chicago, Ill., assignors of one-third to C. B. Yoder, St. Louis, Mo. Reversible type-writer key. No. 1,093,872; Apr. 14; Gaz. vol. 201; p. 464.
Alpaugh, Clifford J., assignor to The Trenton Electric and Conduit Company, Trenton, N. J. Conduit. No. 1,094,109; Apr. 21; Gaz. vol. 201; p. 750.
Alta, John, Grand Rapids, Mich. Dovetail mortise and tenon. No. 1,093,023; Apr. 14; Gaz. vol. 201; p. 342.
Altman, Bernard, and B. A. Kosman, Laurium, Mich. Clothes-pin. No. 1,094,186; Apr. 21; Gaz. vol. 201; p. 776.
Altmeyer, Frank. (See Opels, John, assignor.)
Aluminum Foundry Company, The. (See Nold, Solomon E., assignor.)

Alvord, Elliot L., assignor to The Johns-Pratt Company, Hartford, Conn. Trolley-wire-feed-tap insulator. No. 1,093,235; Apr. 14; Gaz. vol. 201; p. 416.
Amadeo, Paul, Shenandoah, Pa. Mail-box. No. 1,094,408; Apr. 21; Gaz. vol. 201; p. 848.
American Bank Note Company. (See Kritter, William A., assignor.)
American Bank Note Company. (See Reinhardt, James H., assignor.)
American Blower Company. (See Still, Frederick R., assignor.)
American Can Company. (See Eberhart, Felix, assignor.)
American Can Company. (See Hodgson, John G., assignor.)
American Can Company. (See Jones, Harry W., assignor.)
American Can Company. (See Schenck and Doolittle, assignors.)
American Can Company. (See Sharp, Lee C., assignor.)
American Can Company. (See Tevander, Swan, assignor.)
American Can Company. (See Weber, George W., assignor.)
American Cyanamid Company. (See Landis, Walter S., assignor.)
American Fire Alarm Company. (See Knittel, David G., assignor.)
American Fire Alarm Company. (See Knittel and Davis, assignors.)
American Graphophone Company. (See Macdonald, Thomas H., assignor.)
American Graphophone Company. (See Scully, John J., assignor.)
American Graphophone Company. (See Steventon, Thomas, assignor.)
American Hardware Corporation, The. (See Arens, August, assignor.)
American Hardware Corporation, The. (See Arens and Fletcher, assignors.)
American Hardware Corporation, The. (See Smyser, Louis B., assignor.)
American Hoist & Derrick Co. (See Crosby, Wilhelm, and Brink, assignors.)
American Hosiery Company. (See Davison and Dummer, assignors.)
American Hosiery Company. (See Davison and Pasco, assignors.)
American Laundry Machinery Company. (See Cooper, Daniel M., assignor.)
American Multigraph Company, The. (See Gammeter, Harry C., assignor.)
American Multigraph Company, The. (See Osborn, Henry C., assignor.)
American Multigraph Company, The. (See Saltzman, Auguste L., assignor.)
American Office Machine Co. (See Cotton, Walter H., assignor.)
American Optical Company. (See Baker, Nelson M., assignor.)
American Pianograph Company. (See Cornwall, George R., assignor.)
American Seeding Machine Company. (See Lewis and Faas, assignors.)
American Spring Tire Company, The. (See De Voll, Charles H., assignor.)
American Steel Foundries. (See Janney, Robert E. L., assignor.)
American Telephone and Telegraph Company. (See Kitsee, Isidor, assignor.)
American Telephone and Telegraph Company. (See Shaw, Thomas, assignor.)
American Tray Company. (See Solomon, Morris B., assignor.)
American Type Founders Company. (See Kelly, William M., assignor.)
Ames, Earl L., San Bernardino, Cal. Can-opener. No. 1,094,384; Apr. 21; Gaz. vol. 201; p. 840.
Ames, Frank E., Vallejo, Cal. Serving-machine. No. 1,094,047; Apr. 21; Gaz. vol. 201; p. 728.
Ames, James W., Lubbock, Tex. Silo. No. 1,093,904; Apr. 21; Gaz. vol. 201; p. 681.
Ames, John H., Eddington, Me. Strike-plate for locks. No. 1,094,290; Apr. 21; Gaz. vol. 201; p. 808.
Amspacker, Lemmet L., Glasco, Kans. Wagon end-gate. No. 1,093,963; Apr. 21; Gaz. vol. 201; p. 701.
Andersen, Johan M., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass. Oil-switch. No. 1,094,693; Apr. 28; Gaz. vol. 201; p. 1010.
Andersen, Johan M., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass. Oil time-switch. No. 1,094,694; Apr. 28; Gaz. vol. 201; p. 1011.
Anderson-Barngrover Mfg. Co. (See Anderson and Thompson, assignors.)
Anderson, Charles C., St. Joseph, Mo. Internal-combustion engine. No. 1,094,398; Apr. 21; Gaz. vol. 201; p. 844.
Anderson, Charles P., Seattle, Wash. Gate-valve. No. 1,092,421; Apr. 7; Gaz. vol. 201; p. 103.
Anderson, Chris, and H. M. Ruddock, Caldwell, Idaho. Pump. No. 1,092,324; Apr. 7; Gaz. vol. 201; p. 70.
Anderson, Christian, Aldermere, British Columbia, Canada. Tie and rail-fastening. No. 1,093,520; Apr. 14; Gaz. vol. 201; p. 509.
Anderson, Edward V., Monesson, assignor of one-half to C. E. Golden, Crafton, Pa. Pilot-valve. No. 1,092,806; Apr. 7; Gaz. vol. 201; p. 234.
Anderson, Harold B. (See Winton and Anderson.)
Anderson, Hiram C., and A. P. Kemmer, New York, N. Y. Umbrella-protector. No. 1,095,064; Apr. 28; Gaz. vol. 201; p. 1139.
Anderson, Robert H., Pool, near Leeds, assignor to The Wilnaport Company Limited, Leeds, England. Apparatus for applying labels to fabrics at measured distances apart. No. 1,092,556; Apr. 7; Gaz. vol. 201; p. 148.
Anderson, William C., and A. R. Thompson, assignors to Anderson-Barngrover Mfg. Co., San Jose, Cal. Exhaust-box for fruit-canning. No. 1,093,305; Apr. 14; Gaz. vol. 201; p. 442.
Andersson, Gottfrid, Beresford, S. D. Barn structure. No. 1,094,960; Apr. 28; Gaz. vol. 201; p. 1104.
Andrew, William K. (See Falk and Andrew.)
Andrews, Jacob R., Bath, Me. Ship's steering system. No. 1,093,964; Apr. 21; Gaz. vol. 201; p. 701.
Andrews, William H., Atlanta, Ga. Fruit-picker. No. 1,093,097; Apr. 14; Gaz. vol. 201; p. 369.
Andrews Wire & Iron Works. (See Dennis, Elmer L., assignor.)
Anschütz-Kaempfe, Hermann, Neumühlen, near Kiel, Germany. Gyroscope-compass. No. 1,092,816; Apr. 14; Gaz. vol. 201; p. 273.
App, Roscoe J., Bangor, Pa. Tellurian. No. 1,093,024; Apr. 14; Gaz. vol. 201; p. 342.
Appell, Edward A., New York, N. Y. Liquid-measuring device. No. 1,094,291; Apr. 21; Gaz. vol. 201; p. 809.
Appleby, Thomas, Philadelphia, Pa. Electrolytic-cleaning electrode. No. 1,093,236; Apr. 14; Gaz. vol. 201; p. 417.
Appler, Grafton W., Lyons, N. Y. Refillable fuse-cartridge. No. 1,093,164; Apr. 14; Gaz. vol. 201; p. 392.
Arbon, Paul. (See Knight, William L., assignor.)
Arcade Manufacturing Company. (See Perkins, Floyd N., assignor.)
Arctic Ice Machine Company, The. (See Neff, Cole, and Ebersole, assignors.)
Arens, August, assignor to The American Hardware Corporation, New Britain, Conn. Controlling means for swinging closures. No. 1,094,961; Apr. 28; Gaz. vol. 201; p. 1104.
Arens, August, and J. R. Fletcher, assignors to The American Hardware Corporation, New Britain, Conn. Fire-door lock. No. 1,094,962; Apr. 28; Gaz. vol. 201; p. 1105.
Arey, Fred C., Oak Park, assignor to Northwestern Expanded Metal Company, Chicago, Ill. Trussed expanded metal. No. 1,092,325; Apr. 7; Gaz. vol. 201; p. 71.
Arlington Company, The. (See Wieland, Friedrich, assignor.)
Armor, James L., and W. J. Varner, Soddy, Tenn. Paper-bag holder. No. 1,094,511; Apr. 28; Gaz. vol. 201; p. 944.
Armstrong-Blum Manufacturing Company. (See Blum, George J., assignor.)
Armstrong, Floyd, Geneva, Ohio. Screen-door hinge. No. 1,095,065; Apr. 28; Gaz. vol. 201; p. 1139.
Armstrong, Henry A., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,092,813; Apr. 7; Gaz. vol. 201; p. 236.
Armstrong, Henry H., Fort Spunky, Tex. Wire-stretcher. No. 1,094,410; Apr. 28; Gaz. vol. 201; p. 909.
Arndt, Charles W., Hutchinson, Kans. Valve for water-tanks. No. 1,093,165; Apr. 14; Gaz. vol. 201; p. 393.
Arnold, Eduard, Berlin, Germany. Rink. No. 1,094,411; Apr. 28; Gaz. vol. 201; p. 909.
Arnold Electric Company. (See Arnold, George A., assignor.)
Arnold, George A., Middletown, Conn., assignor to Arnold Electric Company. Electric heater. No. 1,093,237; Apr. 14; Gaz. vol. 201; p. 417.
Arnold, William H., Stockton, Cal. Trolley-wheel construction. No. 1,093,025; Apr. 14; Gaz. vol. 201; p. 343.
Aron, Leonard J., assignor to X. L. Electric Company Limited, London, England. System for operating or controlling time-indicating devices. No. 1,094,292; Apr. 21; Gaz. vol. 201; p. 809.
Arrow Electric Company, The. (See Hare, Charles R., assignor.)
Aseptic Service Company. (See Rees, Warren C., assignor.)
Aseptic Service Company. (See Rees and Etherington, assignors.)
Ashbaugh, James W., Bremen, Ohio. Combination gas-valve. No. 1,093,026; Apr. 14; Gaz. vol. 201; p. 343.
Ashley, Frank M., New York, N. Y. Fountain-pen. No. 1,092,199; Apr. 7; Gaz. vol. 201; p. 26.
Ashley, Frank M., New York, N. Y. Inkstand. No. 1,093,677; Apr. 21; Gaz. vol. 201; p. 606.
Ashmore, Edith B., Philadelphia, Pa. Stub adjusting and ejecting cigarette-holder. No. 1,093,569; Apr. 14; Gaz. vol. 201; p. 524.
Ashworth, Albert P., West Brookville, N. Y. Canopy attachment for hammocks or the like. No. 1,094,412; Apr. 28; Gaz. vol. 201; p. 909.
Asquith, Frank R. (See Asquith, Stead A., assignor.)
Asquith, Stead A., assignor of one-half to F. R. Asquith, Waterloo, Iowa. Speedometer. No. 1,093,166; Apr. 14; Gaz. vol. 201; p. 393.
Atkinson, George K., assignor of one-half to The John Steptoe Shaper Company, Cincinnati, Ohio. Clutch. No. 1,093,306; Apr. 14; Gaz. vol. 201; p. 443.
Atlas Tack Company. (See Leonard, Herbert C., assignor.)





Atmospheric Clarifer Co. (See Wickersham, Alfred, assignor.)
Atwood, Ernest O. (See Talbot, Ivan F., assignor.)
Aufschnaiter, Otto von. (See Brosch and Aufschnaiter.)
Auperl, Harry, New York, N. Y. Frappeying-machine. No. 1,092,131; Apr. 7; Gaz. vol. 201; p. 3.
Austin, Herbert, Bromsgrove, England. Tool for truing engine-bearings and the like. No. 1,094,187; Apr. 21; Gaz. vol. 201; p. 776.
Austin, James E., assignor to Central Flatiron Mfg. Co., Binghamton, N. Y. Sad-iron. No. 1,094,869; Apr. 28; Gaz. vol. 201; p. 1071.
Automatic Air Brake Company. (See Collins, William P., assignor.)
Automatic Justifier Company. (See Langseth, Randolph, assignor.)
Automatic Ventilator Company. (See Fleming, William J., Jr., assignor.)
Autopiano Company. (See Doman, Lewis B., assignor.)
Avery, Irving L., *et al.* (See Harrison, Henry, assignor.)
Axe, Roy T., assignor to O. M. Edwards, Syracuse, N. Y. Trap-door for railway-car platforms. No. 1,094,385; Apr. 21; Gaz. vol. 201; p. 840.
Axien, Johann H., Hamburg, Germany. Blower. No. 1,092,132; Apr. 7; Gaz. vol. 201; p. 3.
Ayers, William N., Jr., Fort Smith, Ark. Valve. No. 1,092,890; Apr. 14; Gaz. vol. 201; p. 298.
Aylsworth, Jonas W., assignor to Condensite Company of America, East Orange, N. J. Electrical insulation composition and preparing the same. No. 1,092,511; Apr. 7; Gaz. vol. 201; p. 135.
Aylsworth, Jonas W., assignor to Condensite Company of America, East Orange, N. J. Comminuting phenolic condensation products. No. 1,092,512; Apr. 7; Gaz. vol. 201; p. 135.
Aylsworth, Jonas W., assignor to Condensite Company of America, East Orange, N. J. Molding objects having a refractory surface layer. No. 1,094,828; Apr. 28; Gaz. vol. 201; p. 1058.
Aylsworth, Jonas W., East Orange, assignor to The Halogen Products Company, West Orange, N. J. Electrical insulator. No. 1,094,829; Apr. 28; Gaz. vol. 201; p. 1059.
Aylsworth, Jonas W., East Orange, assignor to Condensite Company of America, Glen Ridge, N. J. Non-inflammable varnish composition. No. 1,094,830; Apr. 28; Gaz. vol. 201; p. 1059.
Ayres, George W., Rolla, Mo. Hame-trace. No. 1,093,905; Apr. 21; Gaz. vol. 201; p. 682.
Ayres, George W., assignor of one-fourth to E. A. Dean and one-fourth to G. A. Skyles, Rolla, Mo. Lacing device. No. 1,094,357; Apr. 21; Gaz. vol. 201; p. 829.
Ayres, Wallace S., Hazleton, Pa. Separating apparatus. No. 1,094,621; Apr. 28; Gaz. vol. 201; p. 983.
Ayres, William G., Cynwyd, Pa. Holding means for horse-blankets. No. 1,094,188; Apr. 21; Gaz. vol. 201; p. 777.
B. F. Goodrich Company, The. (See Gammeter, John R., assignor.)
Babbitt, Elwin J., assignor of one-third to L. G. Riley, Onaway, and one-third to C. R. Willing, Millersburg, Mich. Music-holder. No. 1,092,625; Apr. 7; Gaz. vol. 201; p. 173.
Babcock & Wilcox Company, The. (See Sewall, Jacobus, and Palmer, assignors.)
Bach, Frederick A. (See Wörner, Johannes, assignor.)
Bacho, Frederick W., *et al.* (See Bahr, William F., assignor.)
Baddiley, James. (See Levinstein and Baddiley.)
Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,094,512; Apr. 28; Gaz. vol. 201; p. 945.
Badische Anilin & Soda Fabrik. (See Bosch, Mittasch, Wolf, and Stern, assignors.)
Badische Anilin & Soda Fabrik. (See Isler and Bally, assignors.)
Badische Anilin & Soda Fabrik. (See Schmid, Henri, assignor.)
Badische Anilin & Soda Fabrik. (See Wolf, Hans, assignor.)
Bagley, Allen, Ypsilanti, Mich. Continuous rail. No. 1,094,189; Apr. 21; Gaz. vol. 201; p. 777.
Bagley, Gilbert H., Deapolis, N. D. Whip-socket. No. 1,094,413; Apr. 28; Gaz. vol. 201; p. 909.
Bahmiller, John, Salem, Ohio. Fastening for plane-bits. No. 1,092,326; Apr. 7; Gaz. vol. 201; p. 71.
Bahner, Joseph, Philadelphia, Pa. Corn-planter. No. 1,095,136; Apr. 28; Gaz. vol. 201; p. 1163.
Bahney, Wes, South Bend, Ind. Door-stop. No. 1,094,414; Apr. 28; Gaz. vol. 201; p. 910.
Bähr, Gottfried, Schramberg, and H. Dobesch, assignors to Senfgefäss-Werke, Gesellschaft mit beschränkter Haftung, Stuttgart, Germany. Container having appliance for discharging the contents thereof. No. 1,093,965; Apr. 21; Gaz. vol. 201; p. 701.
Bahr, William F., Fowl River, assignor of two-thirds to F. W. Bacho, Mobile, and R. A. Howard, Fowl River, Ala. Self-cleaning rake. No. 1,094,770; Apr. 28; Gaz. vol. 201; p. 1038.
Bailey, Gilbert E., assignor to The Ferrochem Company, Los Angeles, Cal. Water-softener. No. 1,092,327; Apr. 7; Gaz. vol. 201; p. 71.
Bailey, James F., assignor of one-half to F. T. Sutherland, Jacksonville, Fla. Wrench. No. 1,092,133; Apr. 7; Gaz. vol. 201; p. 3.
Bailey, Samuel R., Amesbury, Mass. Automobile running-gear. No. 1,095,137; Apr. 28; Gaz. vol. 201; p. 1163.
Bailey, Theodorus S., Quincy, Mass. Mechanism for firing torpedoes. No. 1,094,963; Apr. 28; Gaz. vol. 201; p. 1105.
Baker, Andrew H., Brockton, Mass. Poultry feeder and exerciser. No. 1,094,110; Apr. 21; Gaz. vol. 201; p. 750.
Baker, Arthur J., assignor to the Cincinnati Milling Machine Company, Oakley, Cincinnati, Ohio. Means increasing cutter efficiency. No. 1,093,581; Apr. 14; Gaz. vol. 201; p. 527.
Baker Brothers. (See Hallenbeck, George E., assignor.)
Baker, George S., London, England. Machine for cutting dough or like plastic substances. No. 1,092,817; Apr. 14; Gaz. vol. 201; p. 273.
Baker, George W., New York, N. Y. Buckle. No. 1,094,831; Apr. 28; Gaz. vol. 201; p. 1059.
Baker, Nelson M., assignor to American Optical Company, Southbridge, Mass. Guard. No. 1,093,678; Apr. 21; Gaz. vol. 201; p. 606.
Baldon, Earle C., Richmond, Va. Automatic stop for talking-machines. No. 1,095,066; Apr. 28; Gaz. vol. 201; p. 1139.
Baldwin Company, The. (See Gally, Robert A., assignor.)
Baldwin, Frederic E., New York, N. Y. Miner's lamp. No. 1,094,358; Apr. 21; Gaz. vol. 201; p. 829.
Baldwin, James E., Hempstead, assignor of one-half to F. N. Van Zandt, Brooklyn, N. Y. Automatic shut-off. No. 1,093,238; Apr. 14; Gaz. vol. 201; p. 417.
Baldwin Locomotive Works. (See Ragonnet, Eugene L., assignor.)
Ball, John. (See Szilágyi, Géza, assignor.)
Ball, Albert, and T. Officer, Claremont, N. H., assignors, by mesne assignments, to Sullivan Machinery Company, Boston, Mass. Direct-acting engine. No. 1,095,153; Apr. 28; Gaz. vol. 201; p. 1169.
Ball, Charles C., Irvington, N. J. Hand-bag. No. 1,092,200; Apr. 7; Gaz. vol. 201; p. 26.
Ball, George H. (See Floyd and Ball.)
Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Expansion member for electric heating devices. No. 1,093,754; Apr. 21; Gaz. vol. 201; p. 631.
Ball, Henry P., Pittsfield, Mass., assignor to General Electric Company. Electrically-heated oven. No. 1,094,771; Apr. 28; Gaz. vol. 201; p. 1038.
Ball, Herman F., New York, N. Y. Truck for railway-vehicles. No. 1,093,966; Apr. 21; Gaz. vol. 201; p. 701.
Ball, James, Chicago, Ill. Arch-support and ventilator for shoes. No. 1,092,557; Apr. 7; Gaz. vol. 201; p. 149.
Ballard, Harrie A., Boston, assignor to The Boylston Manufacturing Company, South Boston, Mass. Shuttle-driving mechanism. No. 1,093,239; Apr. 14; Gaz. vol. 201; p. 418.
Bally, Oscar. (See Isler and Bally.)
Balsillie, John G., Melbourne, Victoria, Australia. Wireless-telegraph receiver. No. 1,093,240; Apr. 14; Gaz. vol. 201; p. 418.
Bamford, Frank W., Trenton, N. J., assignor to John Maddock & Sons. Water-closet seat. No. 1,093,373; Apr. 14; Gaz. vol. 201; p. 465.
Bammer, Pius, Grants Pass, Oreg. Button-attaching machine. No. 1,093,582; Apr. 14; Gaz. vol. 201; p. 528.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Matrix-coneholing machine. No. 1,094,622; Apr. 28; Gaz. vol. 201; p. 983.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Driving or transmission mechanism for type and other machines. No. 1,094,623; Apr. 28; Gaz. vol. 201; p. 984.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Centering mechanism for type-machines. No. 1,094,624; Apr. 28; Gaz. vol. 201; p. 984.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Type-mold. No. 1,094,625; Apr. 28; Gaz. vol. 201; p. 985.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Centering or adjusting mechanism for type-machines. No. 1,094,626; Apr. 28; Gaz. vol. 201; p. 985.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Feed mechanism for composing type-machines. No. 1,094,627; Apr. 28; Gaz. vol. 201; p. 986.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Matrix-holder for type-casting machines. No. 1,094,628; Apr. 28; Gaz. vol. 201; p. 986.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Keyboard mechanism for perforating and other machines. No. 1,094,629; Apr. 28; Gaz. vol. 201; p. 986.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Record-strip composing-machine. No. 1,094,630; Apr. 28; Gaz. vol. 201; p. 987.
Bancroft, John S., and M. C. Indahl, assignors to Lanston Monotype Machine Company, Philadelphia, Pa. Composing-machine for record-strips. No. 1,094,631; Apr. 28; Gaz. vol. 201; p. 987.
Bancroft, William M., New Orleans, La. Bearing. No. 1,095,067; Apr. 28; Gaz. vol. 201; p. 1140.

Banks, Boyd D., *et al.* (See Hunter, James W., assignor.)
Banks, George, Greenville, Mich. Seat. No. 1,094,293; Apr. 21; Gaz. vol. 201; p. 810.
Banks, Mack Donald, Columbus, Ohio. Street-sweeper. No. 1,094,294; Apr. 21; Gaz. vol. 201; p. 810.
Bankson, Wilbur L., *et al.* (See De Force, George I., assignor.)
Banner, Otto, Sterkrade, Germany, assignor to Ingersoll-Rand Company, New York, N. Y. Pressure-equalizer for rotary blowers. No. 1,093,374; Apr. 14; Gaz. vol. 201; p. 465.
Bantley, Charles H., Lebanon, Mo. Rotary valve. No. 1,094,295; Apr. 21; Gaz. vol. 201; p. 811.
Bányai, John, McKees Rocks, Pa. Cutting-machine. No. 1,094,964; Apr. 28; Gaz. vol. 201; p. 1106.
Baradat, Claudio. (See Sanchez and Baradat.)
Barbeau, Leon, Anson, Me. Shade-roller and bracket therefor. No. 1,094,965; Apr. 28; Gaz. vol. 201; p. 1106.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Inking mechanism for bed-and-cylinder printing-presses. No. 1,093,521; Apr. 14; Gaz. vol. 201; p. 509.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery apparatus for printing-machines. No. 1,094,048; Apr. 21; Gaz. vol. 201; p. 729.
Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Car-truck. No. 1,094,513; Apr. 28; Gaz. vol. 201; p. 945.
Barber, Thomas W., South Norwood, London, England. Axle-truck of railway and tramway vehicles. No. 1,093,755; Apr. 21; Gaz. vol. 201; p. 631.
Barbre, Thomas J., Denver, Colo. Pneumatic rock-drill. No. 1,092,237; Apr. 7; Gaz. vol. 201; p. 38.
Barenter, Heinrich, Essen-West, Germany. Coke-oven door. No. 1,093,522; Apr. 14; Gaz. vol. 201; p. 510.
Bargamin, Clifford, assignor to Sentinel Automatic Gas Appliance Company, New Haven, Conn. Automatic gas-valve. No. 1,094,832; Apr. 28; Gaz. vol. 201; p. 1059.
Barke, John G., Lincoln, England. Bench-vise. No. 1,094,350; Apr. 21; Gaz. vol. 201; p. 830.
Barker, Wells, T., Lansing, Mich. Dough-rolling machine. No. 1,094,966; Apr. 28; Gaz. vol. 201; p. 1106.
Barmore, John D., Apalachicola, Fla. Spark-plug. No. 1,092,687; Apr. 7; Gaz. vol. 201; p. 193.
Barnes, Benjamin F., assignor to Barnes Drill Company, Rockford, Ill. Shield or screen. No. 1,094,049; Apr. 21; Gaz. vol. 201; p. 729.
Barnes Drill Company. (See Barnes, Benjamin F., assignor.)
Barnickel, William S., St. Louis, Mo. Treating crude oil. No. 1,093,098; Apr. 14; Gaz. vol. 201; p. 349.
Barnum, Charles, Redwood Falls, Minn. Shock-forming attachment for grain-binders. No. 1,093,906; Apr. 21; Gaz. vol. 201; p. 682.
Barringer, Lawrence E., and F. C. Zapf, Schenectady, N. Y., assignors to General Electric Company. Insulating compound. No. 1,093,967; Apr. 21; Gaz. vol. 201; p. 702.
Barron, William L., New York, N. Y., assignor to The Singer Manufacturing Company. Button-sewing machine. No. 1,093,241; Apr. 14; Gaz. vol. 201; p. 419.
Barros, Manuel, New York, N. Y. Electrical window alarm-lock. No. 1,092,513; Apr. 7; Gaz. vol. 201; p. 135.
Bartels, Amandus, and O. Miech, Harburg-on-the-Elbe, Germany. Automatic conveyer or feeding apparatus. No. 1,093,523; Apr. 14; Gaz. vol. 201; p. 510.
Bartels, Carl, Hamilton, Ohio, assignor to The Mosler Safe Company, New York, N. Y. Safe or vault wall. No. 1,094,415; Apr. 28; Gaz. vol. 201; p. 910.
Barten, William H., Gordon, Nebr. Block-molding machine. No. 1,093,242; Apr. 14; Gaz. vol. 201; p. 419.
Barth, Curt, Dusseldorf, Germany. Bevel-gear planer. No. 1,094,190; Apr. 21; Gaz. vol. 201; p. 777.
Barth, Ernest C., Providence, R. I. Steam-heater. No. 1,092,626; Apr. 7; Gaz. vol. 201; p. 174.
Bartholomew, William, assignor to Troy Laundry Machinery Company Limited, Chicago, Ill. Mangle. No. 1,094,632; Apr. 28; Gaz. vol. 201; p. 988.
Bartlett, Albert D., Washington, D. C. Locking device for electric lamps, &c. No. 1,092,627; Apr. 7; Gaz. vol. 201; p. 175.
Barton, Forest T., and O. Henson, assignors of one-third to L. N. Kemper, Seattle, Wash. Show-case door. No. 1,094,695; Apr. 28; Gaz. vol. 201; p. 1011.
Bartoss, Joseph A., Salem, Oreg. Draper. No. 1,094,191; Apr. 21; Gaz. vol. 201; p. 778.
Bast, Emil J. (See Bast, Friedrich C. and E. J.)
Bast, Friedrich C. and E. J., Gary, Minn. Gearing. No. 1,092,328; Apr. 7; Gaz. vol. 201; p. 71.
Bastian Brothers Company. (See Hornich, William, Jr., assignor.)
Bate, Alfred J., Yonkers, N. Y. Broom-holder. No. 1,095,068; Apr. 28; Gaz. vol. 201; p. 1140.
Bates, Clarence A., assignor to The Bryant Electric Company, Bridgeport, Conn. Push-switch. No. 1,095,138; Apr. 28; Gaz. vol. 201; p. 1163.
Bates, William H., Brooklyn, N. Y. Burglar-alarm. No. 1,094,696; Apr. 28; Gaz. vol. 201; p. 1012.
Bauer, John, Ordway, Colo. Excavating and loading apparatus. No. 1,094,967; Apr. 28; Gaz. vol. 201; p. 1107.
Bauer, Louis, New York, N. Y. Window-fastener. No. 1,093,595; Apr. 21; Gaz. vol. 201; p. 576.
Bauer, Walter J. (See Day, Edward J., assignor.)
Bauman, Louis C., St. Joseph, Mo. Binder. No. 1,095,069; Apr. 28; Gaz. vol. 201; p. 1140.
Baxter, John B., assignor to Covert Manufacturing Company, Watervliet, N. Y. Snap-hook. No. 1,092,238; Apr. 7; Gaz. vol. 201; p. 39.
Baxter, Joseph, Moscow, Idaho. Trip mechanism for bundle-carriers. No. 1,095,070; Apr. 28; Gaz. vol. 201; p. 1141.
Baxter, Paget, London, England. Vaporizer for petroleum or similar oils. No. 1,094,416; Apr. 28; Gaz. vol. 201; p. 910.
Bayley, William, Springfield, Ohio. Window-sash adjuster. No. 1,093,099; Apr. 14; Gaz. vol. 201; p. 369.
Beach, Chester H., Racine, assignor to Wisconsin Electric Company, Racine Junction, Wis. Vacuum-cleaner. No. 1,093,520; Apr. 21; Gaz. vol. 201; p. 653.
Beach, Chester H., Racine, assignor to Wisconsin Electric Company, Racine Junction, Wis. Casing for cleaning devices. No. 1,094,050; Apr. 21; Gaz. vol. 201; p. 730.
Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Multiple key. No. 1,093,100; Apr. 14; Gaz. vol. 201; p. 370.
Beach, Clarence E., Binghamton, assignor to G. O. Knapp, New York, N. Y. Auxiliary alarm system. No. 1,093,679; Apr. 21; Gaz. vol. 201; p. 607.
Bean, Emmett L., Erie, Pa. Jar cap and handle. No. 1,094,192; Apr. 21; Gaz. vol. 201; p. 778.
Beanfield, Rufus M., San Francisco, Cal. Apparatus for distributing concrete. No. 1,094,111; Apr. 21; Gaz. vol. 201; p. 750.
Bear, John W. (See Brown, Leonard L., assignor.)
Beasley, Frank A., Garnett, Kans., assignor of one-half to W. A. Rollins, Kansas City, Mo. Device for heating charges for explosive-engines. No. 1,093,756; Apr. 21; Gaz. vol. 201; p. 632.
Beaudry, Zotique, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me. Machine for burnishing the edges of the heels and soles of boots and shoes. No. 1,092,469; Apr. 7; Gaz. vol. 201; p. 120.
Beaumont, Joseph, and F. G. White, Chicago, Ill. Electric block-signal apparatus. No. 1,093,596; Apr. 21; Gaz. vol. 201; p. 576.
Beaumont, Joseph, and F. G. White, Chicago, Ill. Electric block-signal apparatus. No. 1,093,597; Apr. 21; Gaz. vol. 201; p. 577.
Beck, August B., Cranford, N. J., assignor to M. W. Schloss, New York, N. Y. Garter-fastener. No. 1,094,112; Apr. 21; Gaz. vol. 201; p. 751.
Beck, Charles W., Rockville Center, N. Y., assignor, by mesne assignments, to Michigan Motor Specialties Company, Detroit, Mich. Spark-plug. No. 1,093,598; Apr. 21; Gaz. vol. 201; p. 577.
Beck, Joseph W., J. W. Reid, and R. W. Skinner, El Rito, N. Mex. Machine for making railway-ties. No. 1,093,680; Apr. 21; Gaz. vol. 201; p. 607.
Becken, Albert C., Chicago, Ill. Bracelet-holder for watches. No. 1,093,757; Apr. 21; Gaz. vol. 201; p. 632.
Becken, Albert C., Chicago, Ill. Bracelet watch-holder. No. 1,093,758; Apr. 21; Gaz. vol. 201; p. 632.
Becken, Albert C., Chicago, Ill. Bracelet watch-holder. No. 1,093,759; Apr. 21; Gaz. vol. 201; p. 632.
Becker, Bernhardt A., St. Louis, Mo. Non-capsizable boat. No. 1,092,628; Apr. 7; Gaz. vol. 201; p. 175.
Becker, Joseph, Washington, D. C. Spherometer. No. 1,093,307; Apr. 14; Gaz. vol. 201; p. 443.
Becker, Philip A., New York, N. Y. Adjustable display-bd. No. 1,094,193; Apr. 21; Gaz. vol. 201; p. 778.
Beckers, William, New York, N. Y. Crayon. No. 1,094,360; Apr. 21; Gaz. vol. 201; p. 880.
Beebe, Watson, assignor to Metallic Novelty Works, Detroit, Mich. Fly-trap. No. 1,093,599; Apr. 21; Gaz. vol. 201; p. 578.
Beech Nut Packing Company. (See Forté, Harry P., assignor.)
Beecher, Herbert P., Aurora, Ill. Sectional highway construction. No. 1,092,558; Apr. 7; Gaz. vol. 201; p. 150.
Beehler, James F., St. Louis, Mo. Box lock or fastener. No. 1,094,772; Apr. 28; Gaz. vol. 201; p. 1039.
Beehler, James F., St. Louis, Mo. Box lock or fastener. No. 1,094,773; Apr. 28; Gaz. vol. 201; p. 1039.
Beehler, William H., assignor to William Beehler, Inc., Baltimore, Md. Foldable umbrella. No. 1,094,633; Apr. 28; Gaz. vol. 201; p. 988.
Beeney, Ernest W. (See Beeney, Maurice J. and E. W.)
Beeney, Maurice J. and E. W., Newark, assignors to H. F. Wendell, Leipsic, Ohio. Clothes-washer. No. 1,093,101; Apr. 14; Gaz. vol. 201; p. 370.
Beer, Sampson, Greenwood, Cal. Amalgamator. No. 1,095,071; Apr. 28; Gaz. vol. 201; p. 1141.
Behnke, Albert R., assignor of one-half to W. C. J. Timmerman, St. Paul, Minn. Demountable rim. No. 1,093,375; Apr. 14; Gaz. vol. 201; p. 465.
Beler, Frank J., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding go-cart. No. 1,094,417; Apr. 28; Gaz. vol. 201; p. 910.
Beler, Frank J., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding go-cart. No. 1,094,418; Apr. 28; Gaz. vol. 201; p. 911.





Beler, Frank J., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding go-cart. No. 1,094,419; Apr. 28; Gaz. vol. 201; p. 912.
Beistle Company, The. (See Beistle, Martin L., assignor.)
Beistle, Martin L., assignor to The Beistle Company, Inc., Shippensburg, Pa. Artificial wreath. No. 1,093,243; Apr. 14; Gaz. vol. 201; p. 419.
Beler Water Heater Company. (See Ellis, John, assignor.)
Bell, Charles E., *et al.* (See Reynolds, Henry B., assignor.)
Bell, Frank E. (See Jackson and Bell.)
Bell, Harmon. (See Loftus, Thomas J., assignor.)
Bell, Louis A., Starkville, Miss. Portable folding shelter. No. 1,092,514; Apr. 7; Gaz. vol. 201; p. 135.
Bell, William G., Newton, and W. H. Vinto, Boston, Mass.; said Vinto assignor to said Bell. Telephone-call register. No. 1,094,968; Apr. 28; Gaz. vol. 201; p. 1107.
Bender, Andrew, Washington, D. C. Track construction of railways. No. 1,095,072; Apr. 28; Gaz. vol. 201; p. 1141.
Bendixen, Niels, assignor to Hans H. Lützhöft-Petersen, Copenhagen, Denmark. Production of printing-surfaces with relief effect. No. 1,092,239; Apr. 7; Gaz. vol. 201; p. 39.
Bendtsen, Bendt F. N. (See McDevitt, James B., assignor.)
Benjamin Electric Manufacturing Company. (See Kielland, Jakob D., assignor.)
Benjamin, Loury L. (See Lintner and Benjamin.)
Bennett, Harry L., Seattle, Wash. Gearing. No. 1,092,240; Apr. 7; Gaz. vol. 201; p. 40.
Bennett, Paul P., Rockford, assignor to Otis and Moe Manufacturing Company, Chicago, Ill. Egg-carrier. No. 1,093,570; Apr. 14; Gaz. vol. 201; p. 524.
Bennett, Samuel L., Bellows Falls, Vt. Throttle-lock for automobiles. No. 1,095,139; Apr. 28; Gaz. vol. 201; p. 1163.
Bennion, Charles, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,092,470; Apr. 7; Gaz. vol. 201; p. 120.
Benson, William C., Owensville, Ind. Railway-tie with cushions. No. 1,093,308; Apr. 14; Gaz. vol. 201; p. 443.
Bentley, Fred W., Schenectady, N. Y., assignor to General Electric Company. Emergency-governor. No. 1,092,968; Apr. 14; Gaz. vol. 201; p. 324.
Benton, Curtis, San Francisco, Cal. Automatic electromagnetic switch. No. 1,092,969; Apr. 14; Gaz. vol. 201; p. 325.
Berg, Alfred G., and J. H. Root, Newburgh, N. Y. Center-indicator. No. 1,093,027; Apr. 14; Gaz. vol. 201; p. 348.
Berg, John, assignor to Metal Specialties Manufacturing Company, Chicago, Ill. Ignition device. No. 1,094,051; Apr. 21; Gaz. vol. 201; p. 730.
Bergell, Peter, Berlin-Wilmersdorf, assignor to J. D. Riedel Aktiengesellschaft, Berlin-Britz, Germany. Pharmaceutical or medicinal compound and producing the same. No. 1,094,296; Apr. 21; Gaz. vol. 201; p. 811.
Bergen Point Iron Works. (See Smith, Augustus, assignor.)
Berger, John, Salt Lake City, Utah. Placer-machine. No. 1,093,760; Apr. 21; Gaz. vol. 201; p. 633.
Berger Manufacturing Company, The. (See Schlafly, Julius H., assignor.)
Bergren, Charley G. (See Bergren, John A., assignor.)
Bergren, John A., Lake Park, Minn., assignor of one-half to C. G. Bergren, Hannaford, N. D. Sled-runner attachment. No. 1,094,420; Apr. 28; Gaz. vol. 201; p. 912.
Berlin & Jones Envelope Co. (See Ham, Harry R., assignor.)
Berlin Machine Works, The. (See Mitchell, Harrison J., assignor.)
Berlin Machine Works, The. (See Stevens, Burt D., assignor.)
Berliner, Arnold, Berlin, Germany, assignor to General Electric Company. Making incandescent electric lamps. No. 1,094,774; Apr. 28; Gaz. vol. 201; p. 1039.
Bernheim, Eugene C., Southbridge, Mass. Eyeglasses. No. 1,094,969; Apr. 28; Gaz. vol. 201; p. 1108.
Berry, Charles W., West Somerville, Mass. Recorder. No. 1,093,244; Apr. 14; Gaz. vol. 201; p. 420.
Berry, Jesse, Bertram, Iowa. Oiling device. No. 1,092,329; Apr. 7; Gaz. vol. 201; p. 72.
Bertin, Isaac, New York, N. Y. Blank placing and registering mechanism for paper-dish-making machines. No. 1,094,970; Apr. 28; Gaz. vol. 201; p. 1108.
Bertin, Isaac, New York, N. Y. Scrap removing or discharging mechanism for paper-dish-making machines. No. 1,094,971; Apr. 28; Gaz. vol. 201; p. 1108.
Bertodo, Mariano, and R. F. Mohr, New York, N. Y. Scaffold. No. 1,092,422; Apr. 7; Gaz. vol. 201; p. 103.
Besserdich, William A., Clintonville, Wis. Steering-gear. No. 1,094,297; Apr. 21; Gaz. vol. 201; p. 811.
Best, Daniel, San Leandro, Cal. Blue-rock trap. No. 1,093,524; Apr. 14; Gaz. vol. 201; p. 510.
Best Stove Company. (See Best, William J., assignor.)
Best, William J., assignor to Best Stove Company, Detroit, Mich. Broiler. No. 1,093,245; Apr. 14; Gaz. vol. 201; p. 420.
Beste, Mary H. C., Summit, N. J. Purse. No. 1,093,681; Apr. 21; Gaz. vol. 201; p. 608.
Beswick, David, Philadelphia, Pa. Sad-iron. No. 1,094,634; Apr. 28; Gaz. vol. 201; p. 989.
Beugler, Edwin F., assignor to E. & B. Holmes Machinery Company, Buffalo, N. Y. Bung-boring and bush-setting machine. No. 1,092,515; Apr. 7; Gaz. vol. 201; p. 136.
Bevan, Alexander, Providence, R. I. Trolley-switch. No. 1,092,891; Apr. 14; Gaz. vol. 201; p. 298.
Beymer, Ruby A., Columbia, S. C. Cinder-deflector. No. 1,092,516; Apr. 7; Gaz. vol. 201; p. 136.
Bicknell, Richard S., New York, N. Y. Electric furnace. No. 1,093,968; Apr. 21; Gaz. vol. 201; p. 702.
Bigelow, Edward M., Lincoln, Nebr. Clothes-pounder. No. 1,093,969; Apr. 21; Gaz. vol. 201; p. 702.
Bill Deesy Company. (See Hopkins, Alfred, assignor.)
Binard, William J. (See Mathey and Binard.)
Binkley, William R., New Bedford, Mass., assignor of one-half to E. E. Clement, Washington, D. C. Automatic telephone-exchange system. No. 1,093,525; Apr. 14; Gaz. vol. 201; p. 511.
Bird, Willis A., Headland, Ala. Seed-planter. No. 1,093,376; Apr. 14; Gaz. vol. 201; p. 465.
Birnbaum, Henry, Rapid City, S. D. Nozzle. No. 1,093,907; Apr. 21; Gaz. vol. 201; p. 683.
Bish, Glenn E., Hobart, Okla. Skirt-hanger for cabinets. No. 1,095,073; Apr. 28; Gaz. vol. 201; p. 1142.
Bishop, Clarence A., New York, N. Y. Calculating apparatus. No. 1,094,514; Apr. 28; Gaz. vol. 201; p. 945.
Bissen, Edward B. (See Bissen, Paul and E. B.)
Bissen, Paul and E. B., Brownsville, Minn. Well-pipe lifter. No. 1,094,113; Apr. 21; Gaz. vol. 201; p. 751.
Bittner, David, Jr., St. Louis, Mo. Weed-extractor. No. 1,092,818; Apr. 14; Gaz. vol. 201; p. 274.
Bjorkland, Gustave, Bayonne, N. J. Piano-action. No. 1,094,421; Apr. 28; Gaz. vol. 201; p. 912.
Bjorlie, John E., Pekin, N. D. Camera attachment. No. 1,093,821; Apr. 21; Gaz. vol. 201; p. 654.
Bjur, William L., New York, N. Y. Piano fall-board. No. 1,092,970; Apr. 14; Gaz. vol. 201; p. 325.
Blair, Charles A., Indianapolis, Ind. Envelop-sealer. No. 1,092,471; Apr. 7; Gaz. vol. 201; p. 121.
Blair, William R., assignor to Landis Machine Company, St. Louis, Mo. Awl-feed adjustment for shoe-stitching machines. No. 1,092,892; Apr. 14; Gaz. vol. 201; p. 299.
Blake, Charles G., Pittsburgh, Pa. Tile. No. 1,093,761; Apr. 21; Gaz. vol. 201; p. 633.
Blake, George H., Alameda, assignor to W. A. Plummer Manufacturing Company, San Francisco, Cal. Cooler. No. 1,092,330; Apr. 7; Gaz. vol. 201; p. 72.
Blake, George W., Wyandotte, Mich. Pouring-spout. No. 1,093,600; Apr. 21; Gaz. vol. 201; p. 578.
Blakey, William H., *et al.* (See Marrs, Vollie B., assignor.)
Blanc, Louis. (See Schlaepfer, Edouard, Fils, assignor.)
Blanchard, Harry E., Lowell, assignor to Saco-Lowell Shops, Boston, Mass. Roll-support for spinning, twisting, or like machines. No. 1,094,697; Apr. 28; Gaz. vol. 201; p. 1012.
Blanchard, Willie L., Lehigh, Okla. Funnel. No. 1,092,517; Apr. 7; Gaz. vol. 201; p. 136.
Blankenship, Howard S., assignor of one-half to B. E. Obendorfer, Norfolk, Va. Automatic switch-controlling mechanism. No. 1,092,423; Apr. 7; Gaz. vol. 201; p. 103.
Blattel, George. (See Reifel and Blattel.)
Blayney, James D., Edmonton, Alberta, Canada. Rotary explosive-engine. No. 1,095,074; Apr. 28; Gaz. vol. 201; p. 1142.
Bleecker, Warren F., Pittsburgh, Pa. Metallurgical process. No. 1,094,114; Apr. 21; Gaz. vol. 201; p. 751.
Blessing, Benjamin F., Waynesboro, Pa. Railway-tie. No. 1,094,635; Apr. 28; Gaz. vol. 201; p. 989.
Blessing, Louis, Jackson, Mich. Rail-joint. No. 1,094,515; Apr. 28; Gaz. vol. 201; p. 946.
Blessing, Louis, Jackson, Mich. Rail-clamp. No. 1,094,516; Apr. 28; Gaz. vol. 201; p. 946.
Blessing, Louis, Jackson, Mich. Railway-tie. No. 1,094,517; Apr. 28; Gaz. vol. 201; p. 946.
Blessing, Louis, Jackson, Mich. Rail-clamp. No. 1,094,518; Apr. 28; Gaz. vol. 201; p. 946.
Bleyney, John C., Newark, N. J., assignor to The Cork Insert Company, Boston, Mass. Polishing device. No. 1,094,361; Apr. 21; Gaz. vol. 201; p. 830.
Blichmann, John A., Dubuque, Iowa. Bath trap and overflow. No. 1,093,601; Apr. 21; Gaz. vol. 201; p. 579.
Block, Edgar N., assignor to Empire State Ring Company, Buffalo, N. Y. Finger-ring. No. 1,092,819; Apr. 14; Gaz. vol. 201; p. 274.
Blomberg, Peter A., Jesse Lake, assignor of one-half to C. Krantz, Deer River, Minn. Mail receiving and delivering apparatus. No. 1,093,908; Apr. 21; Gaz. vol. 201; p. 683.
Bloomfield, Victor. (See Crain, John W., assignor.)
Blum, George J., assignor to Armstrong-Blum Manufacturing Company, Chicago, Ill. Shaft-coupling. No. 1,093,822; Apr. 21; Gaz. vol. 201; p. 654.
Boberg, Teofron, assignor to Techno-Chemical Laboratories Limited, London, England. Catalytic material and producing the same. No. 1,093,377; Apr. 14; Gaz. vol. 201; p. 466.
Bobring, Charles F., Junction City, Kans. Adjustable shade and curtain support. No. 1,092,424; Apr. 7; Gaz. vol. 201; p. 104.

Bock, Henry L., assignor to W. E. Bock, Toledo, Ohio. Flywheel. No. 1,093,246; Apr. 14; Gaz. vol. 201; p. 420.
Bock, William E. (See Bock, Henry L., assignor.)
Bocorselski, Frank E., Richmond, Va. Antifrictional device for relatively movable parts. No. 1,094,972; Apr. 28; Gaz. vol. 201; p. 1109.
Bodde, Theodore, Brant Rock, Mass., assignor of one-half to A. G. Shaver, Danville, Ill. Vehicle controlling apparatus. No. 1,094,973; Apr. 28; Gaz. vol. 201; p. 1109.
Boddie, James R., Muskogee, Okla. Cotton-press. No. 1,093,526; Apr. 14; Gaz. vol. 201; p. 511.
Boekel, Julius, Philadelphia, Pa. Thermostat. No. 1,094,362; Apr. 21; Gaz. vol. 201; p. 830.
Boesch, John E. W., Columbia, Nev. Tool. No. 1,093,527; Apr. 14; Gaz. vol. 201; p. 512.
Bogart, Howard M., Cincinnati, Ohio. Twist-drill grinder. No. 1,093,028; Apr. 14; Gaz. vol. 201; p. 344.
Bogen, Louis E., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Motor-control system. No. 1,093,378; Apr. 14; Gaz. vol. 201; p. 466.
Bohn, Friedrich, Kiel, Germany. Apparatus for marine aiming-drill. No. 1,092,425; Apr. 7; Gaz. vol. 201; p. 104.
Bolse, Jean, East Weymouth, Mass. Article of furniture. No. 1,094,636; Apr. 28; Gaz. vol. 201; p. 989.
Boland, Randsome G. (See Rutledge, Boland, and Devault.)
Bolen, Emerson A., assignor to Northwestern Novelty Company, Morris, Ill. Cigar-box-lid holder. No. 1,092,807; Apr. 7; Gaz. vol. 201; p. 234.
Bollhorn, Franz J. L., Lauenburg-on-the-Elbe, Germany. Game apparatus. No. 1,093,909; Apr. 21; Gaz. vol. 201; p. 684.
Bone, Jamieson, Boston, assignor to C. M. Tyler, Brookline, Mass. Damper. No. 1,093,167; Apr. 14; Gaz. vol. 201; p. 394.
Bonham, Guy L., West Hartford, Conn. Safety-razor. No. 1,093,102; Apr. 14; Gaz. vol. 201; p. 370.
Bonhoeffer, Otto, Elberfeld, and H. Guntrum, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Cellulose formate and making same. No. 1,093,247; Apr. 14; Gaz. vol. 201; p. 421.
Bonner, Hugh G., Clay Center, Nebr. Hen's nest. No. 1,093,602; Apr. 21; Gaz. vol. 201; p. 579.
Bonnett, Charles H., Port Huron, Mich. Tunneling and excavating machine. No. 1,093,603; Apr. 21; Gaz. vol. 201; p. 579.
Boomer, Richard. (See Garrison and Boomer.)
Boreham, Charles A., Coalinga, Cal. Vehicle-spring. (Reissue.) No. 13,711; Apr. 7; Gaz. vol. 201; p. 238.
Borgolte, Frederick, Hutchinson, Kans. Disinfecting device for mausoleums. No. 1,093,823; Apr. 21; Gaz. vol. 201; p. 654.
Bosch, Carl, A. Mittasch, H. Wolf, Ludwigshafen-on-the-Rhine, and G. Stern, Mannheim, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Production of ammonia. No. 1,094,194; Apr. 21; Gaz. vol. 201; p. 779.
Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)
Bosch, Firm of Robert. (See Krauss, Adolf, assignor.)
Bosch, Firm of Robert. (See Seck, Willy, assignor.)
Bosen, Peter, Slayton, Minn. Automatic gate-latch. No. 1,094,637; Apr. 28; Gaz. vol. 201; p. 990.
Bossé, Adolphe E., Pittsburgh, Pa. Refrigerating apparatus. No. 1,092,426; Apr. 7; Gaz. vol. 201; p. 105.
Bostrom, Ernst A., Atlanta, Ga. Nutcracker. No. 1,094,698; Apr. 28; Gaz. vol. 201; p. 1012.
Bosworth, Percy B., assignor to Firestone Tire & Rubber Company, Akron, Ohio. Demountable rim for vehicle-tires. No. 1,094,052; Apr. 21; Gaz. vol. 201; p. 730.
Bottom, Arthur, Thorne, Alberta, Canada. Attachment for seed-drills. No. 1,094,422; Apr. 28; Gaz. vol. 201; p. 913.
Boulthouse, William. (See Folger, Comstock, Corey, and Boulthouse.)
Bourdelles, Emile, assignor to Schneider & Cie., Paris, France. Breech-loading gun. No. 1,092,763; Apr. 7; Gaz. vol. 201; p. 220.
Bourdil, Francois F., assignor to Société Anonyme "Apicea," Paris, France. Safety device for overhead electric lines. No. 1,094,690; Apr. 28; Gaz. vol. 201; p. 1013.
Bouret, Guillaume, Paris, France. Rotary internal-combustion engine. No. 1,093,309; Apr. 14; Gaz. vol. 201; p. 444.
Bowditch, James. (See Sawyer and Bowditch.)
Bowen, Carl R., Halleyville, Okla. Printing device for cars. No. 1,094,298; Apr. 21; Gaz. vol. 201; p. 811.
Bowen, George W. (See Zerk, Oscar, assignor.)
Bowen, Harry, assignor to The Holton Company, Jackson, Mich. Work-holder for drilling-machines. No. 1,093,029; Apr. 14; Gaz. vol. 201; p. 344.
Bowers, Lionel F., assignor to Columbia Manufacturing Company, Columbia, Pa. Driving mechanism. No. 1,093,248; Apr. 14; Gaz. vol. 201; p. 421.
Bowers, Thomas G., New Haven, Conn. Shoulder-brace. No. 1,093,379; Apr. 14; Gaz. vol. 201; p. 466.
Bowes, John J., Jr., Pensacola, Fla. Hose-coupling. No. 1,093,528; Apr. 14; Gaz. vol. 201; p. 512.
Bowling, James H., Russellville, Ky. Oil-burner. No. 1,093,249; Apr. 14; Gaz. vol. 201; p. 421.
Bowman, Benjamin F., Berkeley, Cal. Vehicle-spring. No. 1,094,519; Apr. 28; Gaz. vol. 201; p. 947.
Boyd, David C., assignor to The Gallon Iron Works and Manufacturing Company, Gallon, Ohio. Scarifier. No. 1,093,104; Apr. 14; Gaz. vol. 201; p. 371.
Boyd, Harry E., Akron, and R. B. Koontz, Springfield township, Summit county, Ohio. Collapsible core. No. 1,093,105; Apr. 14; Gaz. vol. 201; p. 372.
Boyd, John H., Carlisle, Pa. Trolley-guard. No. 1,094,870; Apr. 28; Gaz. vol. 201; p. 1072.
Boyden, William A., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in the manufacture of boots and shoes. No. 1,094,547; Apr. 28; Gaz. vol. 201; p. 957.
Boydstun, Robert W., Natchitoches, La. Lawn-mower. No. 1,093,168; Apr. 14; Gaz. vol. 201; p. 394.
Boyen, Edgar C. W. A. von, Barmstedt, assignor, by mesne assignments, to Wachs und Cerosinwerke zu Hamburg, J. Schlickum & Co., Hamburg, Germany. Refining and decolorizing mineral wax. No. 1,092,629; Apr. 7; Gaz. vol. 201; p. 175.
Boyer, Antide, Paris, and P. L. M. Godeau, Boulogne, France. Calculator for balances. No. 1,094,638; Apr. 28; Gaz. vol. 201; p. 990.
Boyer, Harry H., Walnut Creek, Cal. Suspender attachment. No. 1,094,520; Apr. 28; Gaz. vol. 201; p. 947.
Boylston Manufacturing Company, The. (See Ballard, Harrie A., assignor.)
Boynton, Newell M., J. P. Michiell, and T. A. Brandhofer, Jr., San Francisco, Cal. Automatic line-coupling. No. 1,094,115; Apr. 21; Gaz. vol. 201; p. 752.
Bozell, William H., *et al.* (See Stanfield, Jasper H., assignor.)
Brach, Emil J., Chicago, Ill. Confectionery-machine. No. 1,093,380; Apr. 14; Gaz. vol. 201; p. 467.
Bradley, Franklin F., assignor to Bradley & Vrooman Company, Chicago, Ill. Squeezer. No. 1,094,974; Apr. 28; Gaz. vol. 201; p. 1109.
Bradley & Vrooman Company. (See Bradley, Franklin F., assignor.)
Bradley, William J., Troy, assignor to The Rail Joint Company, New York, N. Y. Rolling rail-joint bars. No. 1,094,053; Apr. 21; Gaz. vol. 201; p. 731.
Bragg, George J., Philadelphia, Pa. Banana-peeling machine. No. 1,093,762; Apr. 21; Gaz. vol. 201; p. 633.
Brandhofer, Theodore A., Jr. (See Boynton, Michiell, and Brandhofer.)
Brandt, Charles M., assignor to J. T. Williams, Philadelphia, Pa. Bird-cage guard. No. 1,094,423; Apr. 28; Gaz. vol. 201; p. 913.
Brasch, Louis F., Newark, N. J. Box-cover. No. 1,094,833; Apr. 28; Gaz. vol. 201; p. 1059.
Brassler Company, The. (See Brassler, Hans, assignor.)
Brassler, Hans, South Orange, N. J., assignor to The Brassler Company. Chain. No. 1,092,427; Apr. 7; Gaz. vol. 201; p. 105.
Bratcher, William W., near Pattonsburg, Mo. Stock-waterer. No. 1,094,775; Apr. 28; Gaz. vol. 201; p. 1039.
Braubach, Joseph, Hoboken, N. J. Stove-lid. No. 1,095,075; Apr. 28; Gaz. vol. 201; p. 1142.
Brauer, Max, Berlin-Wilmersdorf, assignor to Dr. Hans Cruse & Co., Berlin, Germany. Air-filter. No. 1,094,521; Apr. 28; Gaz. vol. 201; p. 948.
Breaznell, Joseph H., New York, N. Y. Connecting-clip for electrical conductors. No. 1,092,472; Apr. 7; Gaz. vol. 201; p. 121.
Brethour, William, Grand Rapids, Mich. Wood-sawing machine. No. 1,095,076; Apr. 28; Gaz. vol. 201; p. 1142.
Breuer, Vladimir, and P. Leschnik, New York, N. Y. Clamp for burial-cases. No. 1,095,154; Apr. 28; Gaz. vol. 201; p. 1170.
Bricken, John, Chicago, Ill., assignor to Burroughs Adding Machine Company, Detroit, Mich. Calculating-machine. No. 1,094,054; Apr. 21; Gaz. vol. 201; p. 731.
Bridgeport Hardware Manufacturing Corporation, The. (See Platt, Arthur I., assignor.)
Brien, Theodore R., Westfield, Mass. Hot-air furnace. No. 1,094,399; Apr. 21; Gaz. vol. 201; p. 844.
Briggs-Detroiter Company. (See Lee, William S., assignor.)
Brigham, Blon, *et al.* (See Fleischauer and Richardson, assignors.)
Brightman, Latham H., Columbus, Ohio. Punch for castellating nuts. No. 1,094,975; Apr. 28; Gaz. vol. 201; p. 1109.
Brindle, Thomas, Providence, R. I., assignor to R. Burgess, Newton, Mass. Loom. No. 1,094,424; Apr. 28; Gaz. vol. 201; p. 913.
Brink, Harry L. (See Crosby, Wilhelm, and Brink.)
Brinkman, Louis H., Glen Ridge, N. J., assignor to General Industries Company. Fluid-motor or the like. No. 1,094,522; Apr. 28; Gaz. vol. 201; p. 948.
Brinkman, Louis H., Glen Ridge, N. J., assignor to General Industries Company. Bottle-capping machine. No. 1,094,776; Apr. 28; Gaz. vol. 201; p. 1039.
Britt, Auttum J., Glenwood, Ind. Spindle-lubricator. No. 1,093,970; Apr. 21; Gaz. vol. 201; p. 702.
Brittain, George E., assignor to I. L. Keith, Haverhill, Mass. Holder for cementing soles. (Reissue.) No. 13,714; Apr. 21; Gaz. vol. 201; p. 849.
Brixen, Andrew C., assignor of one-half to P. O. Johnson, Laurin, Mont. Cattle-guard. No. 1,094,834; Apr. 28; Gaz. vol. 201; p. 1060.



Brodeur, Alcibiade A., Worcester, Mass. Fan attachment for rocking-chairs. No. 1,093,529; Apr. 14; Gaz. vol. 201; p. 512.
Brogan, James A., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,093,030; Apr. 14; Gaz. vol. 201; p. 344.
Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,092,820; Apr. 14; Gaz. vol. 201; p. 274.
Brooks, James M., Washington, D. C. Envelop-moistener. No. 1,092,688; Apr. 7; Gaz. vol. 201; p. 194.
Brooks, Leon D., San Francisco, Cal. Adjustable gage for sawing-machines. No. 1,092,518; Apr. 7; Gaz. vol. 201; p. 137.
Brooks, Winfred M., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Snap-seal. No. 1,093,250; Apr. 14; Gaz. vol. 201; p. 422.
Brosch, Anton, and O. von Aufschnaiter, Vienna, Austria-Hungary. Apparatus for effecting subaqueous irrigation of the bowels. No. 1,093,251; Apr. 14; Gaz. vol. 201; p. 422.
Broussard, Carrie P., Youngsville, La. Hat-pin. No. 1,092,689; Apr. 7; Gaz. vol. 201; p. 194.
Browder, James H., McKenzie, Ala. Combination rail-joint and rail-clamp. No. 1,093,682; Apr. 21; Gaz. vol. 201; p. 608.
Brown, Albert W., Elmira, N. Y. Life-saving buoy. No. 1,093,381; Apr. 14; Gaz. vol. 201; p. 467.
Brown, Benjamin F., Woodsville, N. H. Rail-handling apparatus. No. 1,092,630; Apr. 7; Gaz. vol. 201; p. 175.
Brown, Charles C., El Reno, Okla. Ensilage-elevator. No. 1,094,872; Apr. 28; Gaz. vol. 201; p. 1072.
Brown, Charles H., *et al.* (See Gilmore, William R., assignor.)
Brown, Clarence C., Los Angeles, Cal. Candy-cutting device. No. 1,092,331; Apr. 7; Gaz. vol. 201; p. 72.
Brown, Edward L., assignor of one-half to A. R. Rodway, New York, N. Y. Expense-tabulator. No. 1,094,299; Apr. 21; Gaz. vol. 201; p. 812.
Brown, Francis H., Ridley Park, Pa. Fluid cushion-valve or other regulating mechanism. No. 1,094,116; Apr. 21; Gaz. vol. 201; p. 752.
Brown, Frank H. and F. H., Portland, Oreg. Elevating apparatus. No. 1,095,077; Apr. 28; Gaz. vol. 201; p. 1143.
Brown, Frank O., Dallas, Tex. Raising fluids from Artesian wells. No. 1,093,031; Apr. 14; Gaz. vol. 201; p. 845.
Brown, Fred H. (See Brown, Frank H. and F. H.)
Brown, G. H. (See Hawley, Joel E., assignor.)
Brown, John W., Lakewood, assignor to National Carbon Company, Cleveland, Ohio. Electric furnace. No. 1,093,382; Apr. 14; Gaz. vol. 201; p. 467.
Brown, Leonard L., assignor of one-half to J. W. Bear, Clifton Forge, Va. Automatic emergency flagging-machine. No. 1,093,824; Apr. 21; Gaz. vol. 201; p. 655.
Brown, Mary E., administratrix. (See Ford, John C.)
Brown, Mela C., Eugene, Oreg. Milk-bottle cap. No. 1,094,639; Apr. 28; Gaz. vol. 201; p. 990.
Brown, Norton M., Aurora, Ill. Feeder for ensilage-machines. No. 1,093,763; Apr. 21; Gaz. vol. 201; p. 634.
Brown, Otis E., Brockton, Mass., assignor to The Singer Manufacturing Company. Stitch-forming mechanism. No. 1,092,821; Apr. 14; Gaz. vol. 201; p. 275.
Brown, Rezeau B., Milwaukee, Wis., assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Regenerative-retort bench. No. 1,094,523; Apr. 28; Gaz. vol. 201; p. 948.
Brown, Samuel F., Indian Orchard, Mass. Game apparatus. No. 1,093,764; Apr. 21; Gaz. vol. 201; p. 634.
Brown, Walter E., New York, N. Y. Device for controlling elevators. No. 1,095,114; Apr. 28; Gaz. vol. 201; p. 1154.
Brown, William J., Anita, Iowa. Adding-machine. No. 1,094,300; Apr. 21; Gaz. vol. 201; p. 812.
Browne, Richard H. (See McLean, Frank E., assignor.)
Browne, Roy C., East St. Louis, Ill. Lamp mechanism for automobiles. No. 1,093,383; Apr. 14; Gaz. vol. 201; p. 468.
Browning, Ray J., Williamsport, Pa. Brush device for receptacles. No. 1,092,428; Apr. 7; Gaz. vol. 201; p. 106.
Brownjohn, Benjamin J., and T. J. Denny, Petersham, near Sydney, New South Wales, Australia. Sliding and swinging sash window. No. 1,092,473; Apr. 7; Gaz. vol. 201; p. 122.
Bruckmann, Hugo, Benrath, Germany. Calculating mechanism. No. 1,094,363; Apr. 21; Gaz. vol. 201; p. 831.
Brunet, Martin, North Chicago, and J. Macek, Waukegan, Ill. Intermittent-grip device. No. 1,092,134; Apr. 7; Gaz. vol. 201; p. 4.
Brüninghaus, Alfred, Duisburg-Ruhrort, Germany. Regenerator. No. 1,092,332; Apr. 7; Gaz. vol. 201; p. 73.
Brunton, David W., Denver, Colo. Sight for transits and similar instruments. No. 1,092,822; Apr. 14; Gaz. vol. 201; p. 275.
Brust, Charles A., Memphis, Tenn. Cotton-separating machine. No. 1,093,106; Apr. 14; Gaz. vol. 201; p. 372.
Bryan, Frank D., Middletown, Pa. Refillable fuse. No. 1,092,333; Apr. 7; Gaz. vol. 201; p. 73.
Bryant, Clarence R., Fort Worth, Tex. Packing-ring. No. 1,092,690; Apr. 7; Gaz. vol. 201; p. 194.
Bryant Electric Company, The. (See Bates, Clarence A., assignor.)
Bryant, George W., New York, N. Y. Tire-tool. No. 1,093,825; Apr. 21; Gaz. vol. 201; p. 655.
Bryda, Henry, Blackstone, Mass. Producing copper alloys. No. 1,095,078; Apr. 28; Gaz. vol. 201; p. 1143.
Brymer, Andrew, Kittanning, Pa. Show-case. No. 1,093,169; Apr. 14; Gaz. vol. 201; p. 395.
Bryson, Kenneth D., New York, N. Y. Collapsible tube. No. 1,092,691; Apr. 7; Gaz. vol. 201; p. 195.
Bubb, Elmer F., Chicago, Ill. Marine propulsion apparatus. No. 1,092,520; Apr. 7; Gaz. vol. 201; p. 137.
Bucher, John E., Coventry, R. I., assignor to Nitrogen Products Company. Preparing cyanogen compounds. No. 1,094,976; Apr. 28; Gaz. vol. 201; p. 1110.
Buckeye Steel Castings Co., The. (See Johnson, George T., assignor.)
Buckham, George T. (See Dawson and Buckham.)
Bucklus, Albert O., Jr., Chicago, Ill., assignor to The National Malleable Castings Company. Journal-box-securing mechanism. No. 1,093,170; Apr. 14; Gaz. vol. 201; p. 395.
Buckland, George G., San Francisco, Cal. Bicycle side car. No. 1,094,777; Apr. 28; Gaz. vol. 201; p. 1040.
Buckman, Henry H., Jr., Indianapolis, Ind. Electric furnace for metallurgical purposes. No. 1,092,764; Apr. 7; Gaz. vol. 201; p. 220.
Buckminster, Ira C., Beverly, Mass., assignor to The S. O. & C. Co., Ansonia, Conn. Machine for setting gromets and similar articles. No. 1,093,604; Apr. 21; Gaz. vol. 201; p. 579.
Buell, William H., assignor to Winchester Repeating Arms Co., New Haven, Conn. Impact-illuminated target for pleasure-shooting. No. 1,093,171; Apr. 14; Gaz. vol. 201; p. 395.
Buff, Max. (See Flachslaender, Grälert, and Buff.)
Buffalo Forge Company. (See Carrier, Willis H., assignor.)
Buhoup, Harry C., Chicago, Ill. Brake mechanism. No. 1,093,683; Apr. 21; Gaz. vol. 201; p. 609.
Bulasky, Louis, New York, N. Y. Sewing-machine. No. 1,093,971; Apr. 21; Gaz. vol. 201; p. 703.
Bulger, Matthew J., Brooklyn, N. Y. Cleaner device. No. 1,094,364; Apr. 21; Gaz. vol. 201; p. 831.
Bullock, Arthur R., Cleveland, Ohio. Driving mechanism for autovehicles. No. 1,094,055; Apr. 21; Gaz. vol. 201; p. 732.
Bündgens, Franz, Kiel, Germany. Mine-finder. No. 1,094,700; Apr. 28; Gaz. vol. 201; p. 1013.
Burch, Clarence P., Spokane, Wash. Wrench. No. 1,092,135; Apr. 7; Gaz. vol. 201; p. 4.
Burchess, Herman, Chicago, Ill., assignor of one-half to E. Ross, New York, N. Y. Hinge. No. 1,092,136; Apr. 7; Gaz. vol. 201; p. 4.
Burd, Roy L., Chicago, Ill. Piston packing-ring. No. 1,092,201; Apr. 7; Gaz. vol. 201; p. 27.
Burdick, Charles L., London, England. Packet and making same. No. 1,093,605; Apr. 21; Gaz. vol. 201; p. 580.
Burdwise, Aaron. (See Edlavitch, Charles J., assignor.)
Burgess, James C., assignor to A. G. Rice, Indianapolis, Ind. Wrench or vise. No. 1,094,400; Apr. 21; Gaz. vol. 201; p. 845.
Burgess, Robert. (See Brindle, Thomas, assignor.)
Burhorn, Edwin, Hoboken, N. J. Cooling-tower. No. 1,092,884; Apr. 7; Gaz. vol. 201; p. 73.
Burkam, Jacob, Brooklyn, N. Y. Bed-pan. No. 1,093,530; Apr. 14; Gaz. vol. 201; p. 512.
Burke, Patrick F., New York, N. Y. Horseshoe. No. 1,094,873; Apr. 28; Gaz. vol. 201; p. 1072.
Bürker, Ferdinand. (See Weiss, Bürker, and Heuschkel.)
Burkett, Ira E., assignor to Schofield-Burkett Construction Co., Macon, Ga. Excavating-scraper. No. 1,095,155; Apr. 28; Gaz. vol. 201; p. 1170.
Burkle, Henry C., Toronto, Kans. Bale-conveyer. No. 1,093,531; Apr. 14; Gaz. vol. 201; p. 513.
Burlington Separator Co. (See Wheeler, George E., assignor.)
Burlog, Peter A., Upham, N. D. Tool-holder. No. 1,092,971; Apr. 14; Gaz. vol. 201; p. 325.
Burnett, Thomas H., Exchequer, assignor of one-half to C. Gallo, Snelling, Cal. Car-truck. No. 1,094,524; Apr. 28; Gaz. vol. 201; p. 949.
Burns, James S., Excel, Ala. Door-holder. No. 1,095,079; Apr. 28; Gaz. vol. 201; p. 1143.
Burns, John H., Beloit, Wis. Hat-pin-point protector. No. 1,093,765; Apr. 21; Gaz. vol. 201; p. 634.
Burns, Newton H., Cincinnati, Ohio. Currycomb. No. 1,093,107; Apr. 14; Gaz. vol. 201; p. 372.
Burrett, Horace W. (See Taylor, Harry, assignor.)
Burris, Elmer J., Little Falls, Minn. Hog-scalder. No. 1,094,525; Apr. 28; Gaz. vol. 201; p. 949.
Burroughs Adding Machine Company. (See Bricken, John, assignor.)
Burroughs Adding Machine Company. (See Peters, Heber C., assignor.)
Burroughs Adding Machine Company. (See Pike, William H., Jr., assignor.)
Bursley, Henry A. (See Nix, Dowling, and Bursley.)
Burton, James M., Long Island City, assignor to Neptune Meter Company, New York, N. Y. Water-meter. No. 1,093,571; Apr. 14; Gaz. vol. 201; p. 524.
Butler, Wesley, Hillsboro, assignor of one-half to J. C. Crabtree, Taylorville, Ill. Invalid-crane. No. 1,094,117; Apr. 21; Gaz. vol. 201; p. 752.
Butters, Charles, Oakland, Cal. Precipitation of metals from cyanid solutions. No. 1,092,765; Apr. 7; Gaz. vol. 201; p. 220.

Butterworth, Enoch B., Ottawa, Ontario, Canada. Combination article of furniture. No. 1,094,526; Apr. 28; Gaz. vol. 201; p. 949.

Butts, Edward P., Springfield, Mass. Drying paper. No. 1,094,195; Apr. 21; Gaz. vol. 201; p. 779.

Buzby, Augustus C. (See Organ, Thomas O., assignor.)

Byrne, James J., Buffalo, N. Y. Starting device. No. 1,094,056; Apr. 21; Gaz. vol. 201; p. 732.

Byrne, John, East Liverpool, Ohio. Railway-tie and fastener. No. 1,092,335; Apr. 7; Gaz. vol. 201; p. 73.

Byron Jackson Iron Works. (See Holst, John, assignor.)

C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)

C. B. Cottrell & Sons Company. (See McKee, Milton A., assignor.)

C. G. Sargent's Sons Corporation. (See Cilley, Osborn H., assignor.)

Cable, Robert B., Jr., Ridgewood, N. J. Supporting-bracket. No. 1,094,077; Apr. 28; Gaz. vol. 201; p. 1110.

Cabot, Samuel, Canton, Mass. Varnish composition for cement floors. No. 1,094,118; Apr. 21; Gaz. vol. 201; p. 753.

Cadenas, Florence L., New York, N. Y. Wearing-apparel. No. 1,093,032; Apr. 14; Gaz. vol. 201; p. 345.

Cadwell, William H., New Britain, Conn. Combined bottle-cap and extractor. No. 1,092,519; Apr. 7; Gaz. vol. 201; p. 137.

Cady, Walter G., Middletown, Conn. Wire-connector. No. 1,093,972; Apr. 21; Gaz. vol. 201; p. 703.

Cain, Albert H., Roodhouse, Ill. Hose-banding tool. No. 1,093,910; Apr. 21; Gaz. vol. 201; p. 684.

Cain, Jesse S., Grand Rapids, Mich. Harvester for beans and the like. No. 1,093,108; Apr. 14; Gaz. vol. 201; p. 372.

Calne, Ansel M., assignor to McDermott Surgical Instrument Co., Ltd., New Orleans, La. Apparatus for administering anesthetics. No. 1,094,301; Apr. 21; Gaz. vol. 201; p. 812.

Calderwood, Benjamin C., Valley Falls, R. I., assignor to Price-Campbell Cotton Picker Corporation, New York, N. Y. Locking-ring for retaining picking-fingers. No. 1,093,973; Apr. 21; Gaz. vol. 201; p. 703.

Call, Benjamin G. (See Williams, Thomas C., assignor.)

Callan, John G., Boston, Mass., assignor to General Electric Company. Governing low-pressure turbines. No. 1,092,972; Apr. 14; Gaz. vol. 201; p. 325.

Callicotte, Albert A., North Yakima, Wash. Airship. No. 1,092,973; Apr. 14; Gaz. vol. 201; p. 326.

Callison, Minta M., Dewitt, Ill. Sawbuck. No. 1,092,974; Apr. 14; Gaz. vol. 201; p. 326.

Callsen, Jürgen, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical compound. No. 1,094,110; Apr. 21; Gaz. vol. 201; p. 753.

Cameron, Arthur, Chicago, Ill. Safety razor. No. 1,094,874; Apr. 28; Gaz. vol. 201; p. 1073.

Cameron, Frank, Jr., assignor of one-third to F. Singer, Harrison, Ohio. Stove-polish. No. 1,094,802; Apr. 21; Gaz. vol. 201; p. 813.

Cameron, John M., assignor, by mesne assignments, to Cameron Smokeless Boiler Company, Johnson City, Tenn. Boiler-furnace. No. 1,093,911; Apr. 21; Gaz. vol. 201; p. 684.

Cameron Smokeless Boiler Company. (See Cameron, John M., assignor.)

Cameron, William W., La Crosse, Wis., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill. Fertilizer-distributer. No. 1,093,826; Apr. 21; Gaz. vol. 201; p. 656.

Cameron, William W., La Crosse, Wis., assignor, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill. Controlling mechanism. No. 1,093,827; Apr. 21; Gaz. vol. 201; p. 656.

Campbell, Benjamin G., Oakland, Cal. Closet-valve. No. 1,092,336; Apr. 7; Gaz. vol. 201; p. 74.

Campbell, Richard, Liverpool, England. Water-filter. No. 1,093,684; Apr. 21; Gaz. vol. 201; p. 609.

Campbell, William E., Detroit, Mich. Fireless cooker. No. 1,092,202; Apr. 7; Gaz. vol. 201; p. 27.

Campfield, Edwin M., Richmond, Ind. Conduit. No. 1,092,893; Apr. 14; Gaz. vol. 201; p. 299.

Campfield, Edwin M., Richmond, Ind. Sectional conduit. No. 1,093,766; Apr. 21; Gaz. vol. 201; p. 634.

Canby, Amos G., assignor to National Can Company, Detroit, Mich. Receptacle-display holder. No. 1,093,033; Apr. 14; Gaz. vol. 201; p. 345.

Cannon, Elmer E., Waukomis, Okla. Kafir-corn topper. No. 1,093,109; Apr. 14; Gaz. vol. 201; p. 373.

Cannon, George T., Johannesburg, Transvaal, South Africa. Rope-grip or jockey for mechanical haulage and the like. No. 1,092,137; Apr. 7; Gaz. vol. 201; p. 5.

Cannova, Calogero, Sioux City, Iowa. Railway-crossing signal. No. 1,092,521; Apr. 7; Gaz. vol. 201; p. 138.

Cappa, Guy B. (See Gaylord and Cappa.)

Carborundum Company, The. (See Allen, Thomas B., assignor.)

Card, Frank S. (See Card, William L. and F. S.)

Card Manufacturing Company, The. (See Card, William L. and F. S., assignors.)

Card, William L. and F. S., assignors to The Card Manufacturing Company, Denver, Colo. Concentrator. No. 1,094,640; Apr. 28; Gaz. vol. 201; p. 990.

Carkhuff, Stacy G., Akron, Ohio. Vehicle-tire. No. 1,093,310; Apr. 14; Gaz. vol. 201; p. 444.

Carlson, Edvard, assignor to Jamestown Window Screen Company, Jamestown, N. Y. Sheet-metal sash and door. (Reissue.) No. 13,720; Apr. 28; Gaz. vol. 201; p. 1181.

Carlson, Erik J., Brooklyn, N. Y. Scaffold. No. 1,094,875; Apr. 28; Gaz. vol. 201; p. 1073.

Carlson, Frank A. (See Greenleaf, Rupert L., assignor.)

Carlson, John G. (See Watson and Carlson.)

Carlson, Thure, Moline, Ill. Crib-bed. No. 1,094,303; Apr. 21; Gaz. vol. 201; p. 813.

Carnes, John P., Cold Spring, Tex. Nut-removing tool. No. 1,093,252; Apr. 14; Gaz. vol. 201; p. 422.

Carpenter, Eugene, Newton, Mass. Show-case. No. 1,094,120; Apr. 21; Gaz. vol. 201; p. 753.

Carpenter, Fred T., Toledo, Ohio. Flush car-door. No. 1,094,835; Apr. 28; Gaz. vol. 201; p. 1060.

Carrara, Marie-Louise, Renens, near Lausanne, assignor to Société Anonyme "Le Buste Universel," Lausanne, Switzerland. Body-form. No. 1,092,138; Apr. 7; Gaz. vol. 201; p. 5

Carrier, Willis H., assignor to Buffalo Forge Company, Buffalo, N. Y. Apparatus for controlling the humidity and temperature of air. No. 1,095,156; Apr. 28; Gaz. vol. 201; p. 1170.

Carroll, Thomas, Dayton, Ohio. Permutation-lock. No. 1,092,474; Apr. 7; Gaz. vol. 201; p. 122.

Carroll, Thomas, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,092,975; Apr. 14; Gaz. vol. 201; p. 326.

Carroll, William G., Beaumont, Tex. Meter. No. 1,093,685; Apr. 21; Gaz. vol. 201; p. 610.

Carson, William E., Riverton, Va. Cementitious product and making same. No. 1,094,876; Apr. 28; Gaz. vol. 201; p. 1073.

Carson, William E., Riverton, Va. Making a cementitious composition. No. 1,095,180; Apr. 28; Gaz. vol. 201; p. 1180.

Carter & Hakes Machine Company, The. (See Hakes, Curtis, assignor.)

Carter, William H., Sulphur, Okla. Nut-lock. No. 1,094,527; Apr. 28; Gaz. vol. 201; p. 950.

Carter, Wilson E., Buxton, Iowa. Strap-tightener. No. 1,092,203; Apr. 7; Gaz. vol. 201; p. 27.

Casabiancas, Fernando, Sabadell, Spain. Spinning-frame. No. 1,092,631; Apr. 7; Gaz. vol. 201; p. 176.

Case, Francis M., Cleveland, Ohio. Cleaner. No. 1,094,877; Apr. 28; Gaz. vol. 201; p. 1074.

Casey, John H. (See Tracy, David D., assignor.)

Casgrain, Louis A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Nurling-machine. No. 1,092,894; Apr. 14; Gaz. vol. 201; p. 299.

Casgrain, Louis A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,092,895; Apr. 14; Gaz. vol. 201; p. 300.

Cash, Arthur W., assignor to H. Mueller Mfg. Co., Decatur, Ill. Tapping-machine. No. 1,094,425; Apr. 28; Gaz. vol. 201; p. 913.

Cassell, William W., Vincennes, Ind. Center-mold for ice-cream. No. 1,094,878; Apr. 28; Gaz. vol. 201; p. 1074.

Caswell, William A., Chicago, Ill., assignor, by mesne assignments, to National Dump Car Company. Railway-car. No. 1,093,828; Apr. 21; Gaz. vol. 201; p. 657.

Catterall, James, Fisherville, Mass. Oiling device. No. 1,092,337; Apr. 7; Gaz. vol. 201; p. 74.

Causey, Charles W., San Antonio, Tex. Paper-folding machine. No. 1,094,304; Apr. 21; Gaz. vol. 201; p. 813.

Cavalier, Benjamin, Baltimore, Md. Steaming device. No. 1,093,532; Apr. 14; Gaz. vol. 201; p. 513.

Caxton School Supply Company. (See Holbrook, Frederick A., assignor.)

Centner, Isaac, Toronto, Ontario, Canada. Cap. No. 1,092,429; Apr. 7; Gaz. vol. 201; p. 106.

Central Flatiron Mfg. Co. (See Austin, James E., assignor.)

Central Railway Signal Company. (See Ross, Louis S., assignor.)

Century Electric Company. (See Pillsbury, Edwin S., assignor.)

Cerda, Arthur G., Morelia, Mexico, assignor, by mesne assignments, to W. Mooers, Arlington, Mass. Party-line telephone system. No. 1,093,034; Apr. 14; Gaz. vol. 201; p. 346.

Chalfant, Peter T., Philadelphia, Pa. Hook and eye manipulator. No. 1,092,338; Apr. 7; Gaz. vol. 201; p. 75.

Chambers Brothers Company. (See King, Howard K., assignor.)

Chambers, James R., *et al.* (See Walker, Harry S., assignor.)

Chambersburg Engineering Company. (See Derbyshire, Henry E., assignor.)

Chambersburg Engineering Company. (See Longaker, Albert A., assignor.)

Champion, Albert J., assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,094,528; Apr. 28; Gaz. vol. 201; p. 950.

Champion Ignition Company. (See Champion, Albert J., assignor.)

Chapin, Henry S., Rockville Center, N. Y. Vehicle spring construction. No. 1,094,701; Apr. 28; Gaz. vol. 201; p. 1014.

Chapman, Frank E. V., assignor of one-fourth to Durand, Ivins & Carton, Asbury Park, N. J. Wheel-mount. No. 1,093,912; Apr. 21; Gaz. vol. 201; p. 685.





Chapman, Fred H., Winchester, Mass. Non-refillable bottle. No. 1,092,559; Apr. 7; Gaz. vol. 201; p. 150.

Chapman, William E., New Britain, Conn. Tool for vacuum-cleaners. No. 1,092,823; Apr. 14; Gaz. vol. 201; p. 276.

Chapsal, François J., and A. L. E. Saillot, Paris, France. Device for accelerating the application of pneumatic brakes. No. 1,092,339; Apr. 7; Gaz. vol. 201; p. 75.

Charbonneaux, Auguste E., San Francisco, Cal. Explosive. No. 1,093,767; Apr. 21; Gaz. vol. 201; p. 635.

Charles Cory & Son. (See Wood, Frank W., assignor.)

Charles, George M., Washington, D. C. Faucet. No. 1,093,533; Apr. 14; Gaz. vol. 201; p. 513.

Charlton, Christopher J., South Benfleet, England. Rotary electroplating apparatus. No. 1,093,384; Apr. 14; Gaz. vol. 201; p. 468.

Chato, August, Pittsburgh, Pa. Wrench. No. 1,093,253; Apr. 14; Gaz. vol. 201; p. 423.

Chaumeret, Marius, Paris, France. Parachute for aerostation and aviation. No. 1,093,311; Apr. 14; Gaz. vol. 201; p. 444.

Chayne, Charles A., Harrisburg, Pa. Flying-machine. No. 1,095,080; Apr. 28; Gaz. vol. 201; p. 1145.

Chemische Fabrik Griesheim-Elektron. (See Laska, August L., assignor.)

Cheneaux, Edouard, Paris, France. Variable-speed gearing. No. 1,092,692; Apr. 7; Gaz. vol. 201; p. 195.

Cheney, Herbert W., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Resistance unit for controllers. No. 1,094,121; Apr. 21; Gaz. vol. 201; p. 753.

Cheout, Jacob B., Des Moines, Iowa. Attachment for wagon-ranches. No. 1,093,312; Apr. 14; Gaz. vol. 201; p. 444.

Chevrolet, Arthur, Jackson, Mich. Piston-ring. No. 1,094,057; Apr. 21; Gaz. vol. 201; p. 733.

Chicago Car Heating Company. (See Schreiber, Edward A., assignor.)

Chicago-Cleveland Car Roofing Company. (See Russell, Thomas N., assignor.)

Chicago Pneumatic Tool Company. (See Mackie, Edwin M., assignor.)

Chicago Title and Trust Company, trustee. (See Neidig, William J., assignor.)

Chisham, William R., Hannibal, Mo. Clothes-washer. No. 1,092,896; Apr. 14; Gaz. vol. 201; p. 300.

Chittenden, Herbert J. (See Schaekel, Frederick C., assignor.)

Chrisman, Horace, Edgewood Park, Pa., assignor to Pittsburg Meter Company. Water-meter. No. 1,094,058; Apr. 21; Gaz. vol. 201; p. 733.

Christensen, Albert, Dalton, Nebr. Mail-box. No. 1,094,529; Apr. 28; Gaz. vol. 201; p. 950.

Christensen, Sigurd B., Granville, Iowa. Planter. No. 1,092,241; Apr. 7; Gaz. vol. 201; p. 40.

Christianson, Andrew, Butler, assignor to Standard Motor Truck Co., Pittsburgh, Pa. Long spring-base for trucks. No. 1,092,824; Apr. 14; Gaz. vol. 201; p. 276.

Christie, Evi W., Sewaren, assignor to Wheeler Condenser and Engineering Company, Carteret, N. J. Dry vacuum-pump. No. 1,093,313; Apr. 14; Gaz. vol. 201; p. 445.

Christie, Thomas C., Lebanon, Ohio. Automatic furnace-damper regulator. No. 1,093,534; Apr. 14; Gaz. vol. 201; p. 513.

Christman, Peter, Green Bay, Wis. Rotary pump. No. 1,092,139; Apr. 7; Gaz. vol. 201; p. 5.

Christopher, Calvin F., Asheville, N. C. Dinner-pail. No. 1,093,110; Apr. 14; Gaz. vol. 201; p. 373.

Chrzescinski, Otto. (See Merling, Chrzescinski, and Köhler.)

Church, George W., Stamford, Conn., assignor to R. Hoe and Co., New York, N. Y. Paper-roll-driving mechanism. No. 1,093,913; Apr. 21; Gaz. vol. 201; p. 685.

Church, Richard N., Spokane, Wash., assignor to H. B. Sherman Manufacturing Co., Battle Creek, Mich. Machine for attaching and detaching hose-couplings. No. 1,094,978; Apr. 28; Gaz. vol. 201; p. 1110.

Churchill, William, assignor to Corning Glass Works, Corning, N. Y. Optical system for headlights. No. 1,092,560; Apr. 7; Gaz. vol. 201; p. 150.

Churchward, Alexander, New York, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,094,778; Apr. 28; Gaz. vol. 201; p. 1040.

Cilley, Osborn H., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Yarn-conditioning machine. No. 1,092,976; Apr. 14; Gaz. vol. 201; p. 327.

Cincinnati Milling Machine Company, The. (See Baker, Arthur J., assignor.)

Cincinnati Milling Machine Company, The. (See De Leeuw, Adolph L., assignor.)

Cincinnati Milling Machine Company, The. (See Einstein, Sol, assignor.)

Ciolino, Pietro, New York, N. Y. Gage for sewing-machines. No. 1,094,122; Apr. 21; Gaz. vol. 201; p. 754.

Civita, Tony, and B. C. Leghorn, Arlington, Oreg. Combined rake, grader, and snow-scraper. No. 1,093,535; Apr. 14; Gaz. vol. 201; p. 514.

Ciadel, Edward, New York, N. Y. Sanitary garbage-can. No. 1,093,536; Apr. 14; Gaz. vol. 201; p. 514.

Clairemont, Victor, assignor to National Egg Company, San Francisco, Cal. Preserving eggs. No. 1,092,897; Apr. 14; Gaz. vol. 201; p. 300.

Claisen, Ludwig, Godesberg, near Bonn, Germany, assignor to Synthetic Patents Co., Inc., New York, N. Y. C-allyl salicylic acid. No. 1,094,123; Apr. 21; Gaz. vol. 201; p. 754.

Clandening, William H., Carman, Manitoba, Canada. Automatic ventilator-controller. No. 1,093,314; Apr. 14; Gaz. vol. 201; p. 445.

Clark, Charles R., Plainville, Conn. Wind-shield. No. 1,093,974; Apr. 21; Gaz. vol. 201; p. 704.

Clark, Francis M., Garden City, N. Y., assignor to Multiple-Grate-Bar Endless Chain Stoker Company. Furnace-front. No. 1,094,702; Apr. 28; Gaz. vol. 201; p. 1014.

Clark, Francis M., Garden City, N. Y., assignor to Multiple-Grate-Bar Endless Chain Stoker Company. Supporting mechanism for endless traveling grates. No. 1,094,703; Apr. 28; Gaz. vol. 201; p. 1014.

Clark, John W., Jr., Salt Lake City, Utah. Railway-tie. No. 1,092,641; Apr. 28; Gaz. vol. 201; p. 991.

Clark, Robert P. and W. H., Fresno, Cal. Auxiliary spring for use on automobiles. No. 1,094,305; Apr. 21; Gaz. vol. 201; p. 814.

Clark, William H. (See Clark, Robert P. and W. H.)

Clarke, George W., Santa Monica, assignor of one-half to F. M. Wright, San Francisco, Cal. Printer's stick. No. 1,093,111; Apr. 14; Gaz. vol. 201; p. 374.

Clarke, Graham, assignor to The Ohio Chemical and Manufacturing Company, Cleveland, Ohio. Blow-off and valve for gas-tanks. No. 1,093,254; Apr. 14; Gaz. vol. 201; p. 423.

Clarke, Graham, assignor to The Ohio Chemical & Manufacturing Company, Cleveland, Ohio. Anesthetizer. No. 1,093,975; Apr. 21; Gaz. vol. 201; p. 704.

Clarke, John S., East Cleveland, assignor of one-half to T. D. Lemieux, Cleveland, Ohio. Device for stretching wires and cables. No. 1,094,979; Apr. 28; Gaz. vol. 201; p. 1111.

Clarke, Ralph H., Coshocton, assignor to Corrugated Fibre Co., Dayton, Ohio. Corrugated-paper-facing machine. No. 1,095,140; Apr. 28; Gaz. vol. 201; p. 1164.

Clarke, Robert H., Warlingham, England. Surgical apparatus. No. 1,093,112; Apr. 14; Gaz. vol. 201; p. 374.

Clarke, Thomas A. (See Hammer, Stephen, assignor.)

Claussen, Edward E., Hartford, Conn. Dispensing apparatus. No. 1,093,976; Apr. 21; Gaz. vol. 201; p. 705.

Clawson, Monroe S., New York, N. Y. Temperature-indicating device. No. 1,094,530; Apr. 28; Gaz. vol. 201; p. 950.

Clement, Edward E. (See Binkley, William R., assignor.)

Clemmer, George H., West Alexandria, Ohio. Fuel-mixer. No. 1,093,385; Apr. 14; Gaz. vol. 201; p. 469.

Clifford L. Miller & Co. (See Slosson, James S., assignor.)

Clifford, William, Duluth, Minn. Differential shaft-coupling. No. 1,093,537; Apr. 14; Gaz. vol. 201; p. 514.

Clinch, Charles S. (See O'Brien, Simon, assignor.)

Clinton Wire Cloth Company. (See Southwick, William S., assignor.)

Clipper Belt Lacer Company. (See Diamond, James K., assignor.)

Close, James, Newark, N. J. Forming jointure means upon tubular members. No. 1,093,914; Apr. 21; Gaz. vol. 201; p. 686.

Clough, Boswell, New Richmond, Ind. Impregnator. No. 1,093,538; Apr. 14; Gaz. vol. 201; p. 514.

Clubb, Harry H., and R. A. Whitehead, assignors to Picture Disc Company, Los Angeles, Cal. Sound and image producing apparatus. No. 1,094,704; Apr. 28; Gaz. vol. 201; p. 1015.

Clyde Iron Works. (See McGiffert, John R., assignor.)

Coash, Arthur L., Hammond, Ind. Combined level and plummet. No. 1,094,531; Apr. 28; Gaz. vol. 201; p. 951.

Cobb, Henry Z., Winchester, Mass. Tubular fabric. No. 1,093,915; Apr. 21; Gaz. vol. 201; p. 686.

Cobb, Henry Z., Winchester, Mass. Manufacture of rubber hose. No. 1,094,879; Apr. 28; Gaz. vol. 201; p. 1074.

Coen, Garnet W., San Francisco, Cal. Combined valve and spray-nozzle for hydrocarbon-burners. No. 1,094,124; Apr. 21; Gaz. vol. 201; p. 754.

Coen, Harry B. (See Williams and Coen.)

Coffelder, Thomas, Detroit, Mich. Radiator. No. 1,092,242; Apr. 7; Gaz. vol. 201; p. 40.

Cogger, William B., Cleveland, assignor to T. Kundtz, Lakewood, Ohio. Combined chair and table-leaf. No. 1,093,686; Apr. 21; Gaz. vol. 201; p. 610.

Cohn, Louis, New York, N. Y. Double card-case. No. 1,093,315; Apr. 14; Gaz. vol. 201; p. 445.

Coin Controlled Lock Co. (See Farnsworth, Willis S., assignor.)

Colborne, Robert F., Strathfield, near Sydney, New South Wales, Australia. Shunter's hand-actuated air-brake valve. No. 1,094,426; Apr. 28; Gaz. vol. 201; p. 914.

Cole, Donald. (See Neff, Cole, and Ebersole.)

Cole, Joseph L., Chicago, Ill. Water-curtain. No. 1,092,243; Apr. 7; Gaz. vol. 201; p. 41.

Cole, Robert C., assignor to The Johns-Pratt Company, Hartford, Conn. Fuse-clip. No. 1,092,480; Apr. 7; Gaz. vol. 201; p. 106.

Coleman, Arthur J., Greenfield, Ind. Attachment for animal-traps. No. 1,095,081; Apr. 28; Gaz. vol. 201; p. 1144.

Collins, Alva C. (See Davis and Collins.)

Collins, Arthur L., San Francisco, Cal. Well. No. 1,094,532; Apr. 28; Gaz. vol. 201; p. 951.

Collins, Herbert G. (See Sargent and Collins.)

Collins, James E., Danvers, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for thickening the edges of soles. No. 1,093,035; Apr. 14; Gaz. vol. 201; p. 346.

Collins, William P., assignor to Automatic Air Brake Company, Boston, Mass. Brake mechanism. No. 1,093,172; Apr. 14; Gaz. vol. 201; p. 396.

Colonial Trust Company, The, trustee. (See Dow, Herbert H., assignor.)

Columbia Manufacturing Company. (See Bowers, Lionel F., assignor.)

Colver, Charles G., Philadelphia, Pa. Condiment-holder. No. 1,095,082; Apr. 28; Gaz. vol. 201; p. 1144.

Commercial Cable Company. (See Priest, Charles, assignor.)

Compos, Michel, Mobile, Ala. Printing-controlled electric sign. No. 1,092,977; Apr. 14; Gaz. vol. 201; p. 327.

Comstock, Asa M. (See Folger, Comstock, Corey, and Boulthouse.)

Condensite Company of America. (See Aylsworth, Jonas W., assignor.)

Condon, Edward J., Dixon, Ill. Cement-post machine. No. 1,094,642; Apr. 28; Gaz. vol. 201; p. 991.

Conklin, Charles M., Cincinnati, Ohio. Spark-plug. No. 1,093,113; Apr. 14; Gaz. vol. 201; p. 374.

Conley, John E., Memphis, Tenn. Rail-brace. No. 1,094,881; Apr. 28; Gaz. vol. 201; p. 1075.

Conley, Joseph, Anadarko, Okla. Incinerator. No. 1,093,829; Apr. 21; Gaz. vol. 201; p. 657.

Conner, Lawrence H., Headrick, Okla. Baling-press. No. 1,093,255; Apr. 14; Gaz. vol. 201; p. 423.

Conrad, Randolph H., Oakland, Cal. Electric switch. No. 1,094,534; Apr. 28; Gaz. vol. 201; p. 952.

Consolidated Car-Heating Company. (See McElroy, James F., assignor.)

Continental Can Company. (See Tallaferro, Thomas L., assignor.)

Continental Can Company. (See Warme, Ivar F., assignor.)

Continental & Commercial Trust & Savings Bank, trustee. (See Mieble, Robert, assignor.)

Convery, Martin T., Philadelphia, Pa. Nut-lock. No. 1,093,316; Apr. 14; Gaz. vol. 201; p. 446.

Conway, Robert J. (See Morgan, Jack C., assignor.)

Cook, Edward H., Wilkes-Barre, Pa., assignor to International Wire Company. Machine for covering electric conductors. No. 1,093,539; Apr. 14; Gaz. vol. 201; p. 515.

Cook, Egbert C., Chicago, Ill. Hammock-couch. No. 1,093,036; Apr. 14; Gaz. vol. 201; p. 347.

Cook, Ernest J., *et al.* (See Weeks, Charlie E., assignor.)

Cook, George, Sioux City, Iowa. Shock-absorber for percussion-operated tools. No. 1,093,830; Apr. 21; Gaz. vol. 201; p. 657.

Cook, James A., East Bridgewater, Mass. Ice-cream cone and protector therefor. No. 1,094,427; Apr. 28; Gaz. vol. 201; p. 914.

Cook, Miller, Whitman, Mass. Holddown for lasting-machines. No. 1,092,431; Apr. 7; Gaz. vol. 201; p. 106.

Cooley, Robert L., Milwaukee, Wis. Parallel-liner. No. 1,093,606; Apr. 21; Gaz. vol. 201; p. 580.

Coolidge, Loren Z., Aberdeen, Wash. Pocket. No. 1,092,244; Apr. 7; Gaz. vol. 201; p. 41.

Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Self-lubricating bearing. No. 1,094,535; Apr. 28; Gaz. vol. 201; p. 952.

Cooper, Warren L., Pueblo, Colo. Gasolene or oil vending machine. No. 1,093,687; Apr. 21; Gaz. vol. 201; p. 610.

Cooperage Seal Company. (See Douglas, Irving G., assignor.)

Copeland, Walter G., Waco, Tex. Fence-post. No. 1,092,432; Apr. 7; Gaz. vol. 201; p. 107.

Coppet, Frédéric de, Lausanne, Switzerland. Stamp-canceling machine. No. 1,092,561; Apr. 7; Gaz. vol. 201; p. 150.

Corbett, James G., Beaver Falls, Pa. Fountain-brush. No. 1,093,114; Apr. 14; Gaz. vol. 201; p. 375.

Corcoran, Charles A., Brooklyn, N. Y. Mothproof bag and the like. No. 1,093,769; Apr. 21; Gaz. vol. 201; p. 635.

Corcoran, John, assignor of one-half to J. Laun, Chicago, Ill. Corn-planter. No. 1,093,978; Apr. 21; Gaz. vol. 201; p. 505.

Cordle, Hamner J., Littleton, N. C. Metal bedside with reversible lock for wooden beds. No. 1,094,980; Apr. 28; Gaz. vol. 201; p. 1111.

Corey, Matt M. (See Folger, Comstock, Corey, and Boulthouse.)

Cork Insert Company, The. (See Blevney, John C., assignor.)

Corkery, Edmund J., Grand Rapids, Mich. Cork-puller. No. 1,093,768; Apr. 21; Gaz. vol. 201; p. 635.

Corliss, James W., and J. Wharmby, assignors of one-half to J. W. Corliss, Lakeland, and one-half to C. L. King, St. Petersburg, Fla. Piano damp-absorber. No. 1,093,979; Apr. 21; Gaz. vol. 201; p. 706.

Cornand, Auguste, and H. Van de Cruys, Brussels, Belgium. Soldering and welding materials. No. 1,092,340; Apr. 7; Gaz. vol. 201; p. 75.

Cornelis, Willem, Utrecht, Netherlands. Log and stream indicator. No. 1,095,141; Apr. 28; Gaz. vol. 201; p. 1164.

Cornell, Charles A., Hollywood, and S. E. McKee, Los Angeles, Cal. Concrete-pump. No. 1,093,916; Apr. 21; Gaz. vol. 201; p. 686.

Corning Glass Works. (See Churchill, William, assignor.)

Cornwall, George R., Rye, N. Y., assignor to American Planograph Company. Printing. No. 1,093,831; Apr. 21; Gaz. vol. 201; p. 657.

Corrugated Fibre Co. (See Clarke, Ralph H., assignor.)

Corson, Fred L., Rochester, N. H. Strip-guide for sewing-machines. No. 1,093,540; Apr. 14; Gaz. vol. 201; p. 515.

Cotton, Howard W., assignor of one-half to S. H. Pomeroy, New York, and one-half to P. C. Lenz, Brooklyn, N. Y. Fusible link. No. 1,092,562; Apr. 7; Gaz. vol. 201; p. 151.

Cotton, Walter H., Chicago, Ill., assignor to American Office Machine Co. Ribbon-inking machine. No. 1,094,533; Apr. 28; Gaz. vol. 201; p. 951.

Coulet, Léon, Hyères-les-Palmiers, France. Combined box and dropping-bottle with a sugar-magazine. No. 1,092,766; Apr. 7; Gaz. vol. 201; p. 220.

Cousins, Robert W., Chicago, Ill. Magnetic separator. No. 1,094,125; Apr. 21; Gaz. vol. 201; p. 754.

Covert Manufacturing Company. (See Baxter, John B., assignor.)

Cowdroy, Frederick F., North Sydney, New South Wales, Australia. Window-fitting for blinds. No. 1,095,083; Apr. 28; Gaz. vol. 201; p. 1144.

Cox, Geldolph A. (See Van Kampen and Cox.)

Cox, George S., Philadelphia, Pa. Haircloth-loom. No. 1,094,882; Apr. 28; Gaz. vol. 201; p. 1075.

Cox, Harry D., Richmond, Va. Folding-vehicle-top holder. No. 1,092,898; Apr. 14; Gaz. vol. 201; p. 301.

Cox, Samuel C., Washington, D. C. System of collecting mail and the like. No. 1,094,126; Apr. 21; Gaz. vol. 201; p. 755.

Cox, Virgil C., Paducah, Ky. Oil-can. No. 1,092,433; Apr. 7; Gaz. vol. 201; p. 107.

Coyne, Hooper, Baltimore, Md. Safety-razor. No. 1,094,127; Apr. 21; Gaz. vol. 201; p. 755.

Crabtree, J. C. (See Butler, Wesley, assignor.)

Craig, John H., Cincinnati, Ohio. Refrigerating vessel. No. 1,093,541; Apr. 14; Gaz. vol. 201; p. 515.

Crain, John W., assignor of one-fourth to V. Bloomfield, Winchester, Ky. Plow. No. 1,092,632; Apr. 7; Gaz. vol. 201; p. 176.

Crall, Edwin, Eau Claire, Wis. Washing-machine. No. 1,092,140; Apr. 7; Gaz. vol. 201; p. 6.

Crane, Samuel G., assignor to Toledo Scale Co., Toledo, Ohio. Scale. No. 1,092,341; Apr. 7; Gaz. vol. 201; p. 75.

Cravens, George W., assignor to Delta-Star Electric Company, Chicago, Ill. Electric switch. No. 1,092,245; Apr. 7; Gaz. vol. 201; p. 42.

Crawford, Cary W., Los Angeles, Cal. Vehicle-spring. No. 1,092,789; Apr. 7; Gaz. vol. 201; p. 228.

Crawford, Charles J., Fresno, Cal. Orchard-plow. No. 1,094,196; Apr. 21; Gaz. vol. 201; p. 779.

Creamery Package Manufacturing Company. (See Valerius, Theodore L., assignor.)

Crettol, Victor J., Chicago, Ill. Signal apparatus. No. 1,095,084; Apr. 28; Gaz. vol. 201; p. 1144.

Creveling, John L., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y. Steam-trap. No. 1,094,883; Apr. 28; Gaz. vol. 201; p. 1076.

Criesman, Thomas G., Pilot Mountain, N. C. Bed-slat fastener. No. 1,093,542; Apr. 14; Gaz. vol. 201; p. 516.

Crosby, Oliver, E. A. Wilhelm, and H. L. Brink, assignors to American Hoist & Derrick Co., St. Paul, Minn. Grapple. No. 1,093,832; Apr. 21; Gaz. vol. 201; p. 658.

Crosby, Oliver, H. L. Brink, and E. A. Wilhelm, assignors to American Hoist & Derrick Co., St. Paul, Minn. Grapple. No. 1,093,833; Apr. 21; Gaz. vol. 201; p. 658.

Crosby, Oliver, E. A. Wilhelm, and H. L. Brink, assignors to American Hoist & Derrick Co., St. Paul, Minn. Grapple. No. 1,093,834; Apr. 21; Gaz. vol. 201; p. 659.

Crosby, Robert E. L., Jonesboro, Ark. Wheel for automobiles, &c. No. 1,093,115; Apr. 14; Gaz. vol. 201; p. 375.

Cross, Frank L., Madison, Wis. Gas-regulator for mixing-chambers. No. 1,092,204; Apr. 7; Gaz. vol. 201; p. 28.

Cross, John A., Westwood, N. J. Spring door-closer. No. 1,094,306; Apr. 21; Gaz. vol. 201; p. 814.

Crouch, Frank J., and H. Stutsman, Portland, Oreg. Explosive-engine. No. 1,093,317; Apr. 14; Gaz. vol. 201; p. 446.

Crouse-Hinds Company. (See Hinds and Dossert, assignors.)

Crowe, Alexander, and R. W. Kidston, Youngstown, Ohio. Armored resilient tire. No. 1,094,307; Apr. 21; Gaz. vol. 201; p. 814.

Crowe, Thomas J., Dallas, Tex. Spring-wheel. No. 1,094,308; Apr. 21; Gaz. vol. 201; p. 815.

Crowell, Charles H., Swampscott, Mass. Moistening-machine. No. 1,095,142; Apr. 28; Gaz. vol. 201; p. 1165.

Crowley, John C., Toledo, Ohio. Window-lock. No. 1,092,825; Apr. 14; Gaz. vol. 201; p. 276.

Crucible Steel Company of America. (See Soden, Alfred J., assignor.)

Cruden, John J., Blanchard, N. D. Drag rake or fork. No. 1,092,693; Apr. 7; Gaz. vol. 201; p. 195.

Crume, John J., Amarillo, Tex. Churning-machine. No. 1,092,694; Apr. 7; Gaz. vol. 201; p. 195.

Crump, Frank H., Los Angeles, Cal. Bookbinding. No. 1,093,835; Apr. 21; Gaz. vol. 201; p. 659.

Cruse & Co., Dr. Hans. (See Brauer, Max, assignor.)





Cubelic, Ludwig, Charlottenburg, Germany, assignor to General Electric Company. Governing mechanism for turbines. No. 1,093,116; Apr. 14; Gaz. vol. 201; p. 376.

Cubelic, Ludwig, Charlottenburg, Germany, assignor to General Electric Company. Steam-controlling apparatus. No. 1,093,917; Apr. 21; Gaz. vol. 201; p. 686.

Cubelic, Ludwig, Charlottenburg, Germany, assignor to General Electric Company. Regulating low-pressure turbines. No. 1,093,918; Apr. 21; Gaz. vol. 201; p. 687.

Cuff, William H., Braintree, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Gage. No. 1,092,899; Apr. 14; Gaz. vol. 201; p. 301.

Cuhley, S. R., *et al.* (See Reynolds, Henry B., assignor.)

Culver, Albert V., assignor to V. C. Alexander, Frankfort, Ind. Stove-leg caster. No. 1,092,808; Apr. 7; Gaz. vol. 201; p. 235.

Culver, Arthur C., and A. W. Russel, assignors to Russel Motor Axle Company, Detroit, Mich. Vehicle-brake. No. 1,092,842; Apr. 7; Gaz. vol. 201; p. 76.

Cunningham, Ernest A., assignor of one-half to J. F. Hamilton, Oskaloosa, Iowa. Internal-combustion engine. No. 1,094,779; Apr. 28; Gaz. vol. 201; p. 1041.

Cunningham, Ira, and H. Flowers, Grand Saline, Tex. Wrench. No. 1,092,695; Apr. 7; Gaz. vol. 201; p. 196.

Cunningham, William J., assignor of one-half to F. G. Meyer, Toledo, Ohio. Electrical sparking device. No. 1,093,318; Apr. 14; Gaz. vol. 201; p. 446.

Curley, Joseph J., New York, N. Y. Tennis-racket. No. 1,094,705; Apr. 28; Gaz. vol. 201; p. 1015.

Curnow, John T., Palatka, Mich. Drill. No. 1,095,085; Apr. 28; Gaz. vol. 201; p. 1145.

Curry, Ida F., Seattle, Wash. Garment. No. 1,092,696; Apr. 7; Gaz. vol. 201; p. 196.

Curtis, Charles H., Bluffton, Fla. Fly-trap. No. 1,092,697; Apr. 7; Gaz. vol. 201; p. 197.

Curtis, William J., Philadelphia, Pa. Adjustable support for beds. No. 1,092,698; Apr. 7; Gaz. vol. 201; p. 197.

Cutler, Asa B. (See Cutler, Frank W. and A. B.)

Cutler, Frank W. and A. B., Hood River, Oreg. Fruit-grading apparatus. No. 1,093,836; Apr. 21; Gaz. vol. 201; p. 659.

Cutler-Hammer Mfg. Co., The. (See Wiegand, Henry J., assignor.)

Cutter, William M., San Francisco, Cal. Automatic door opening and closing device for elevators. No. 1,092,633; Apr. 7; Gaz. vol. 201; p. 177.

D'Humy, Fernand E., Englewood, N. J., assignor to The Western Union Telegraph Company. Pneumatic transmission system. No. 1,092,982; Apr. 14; Gaz. vol. 201; p. 329.

Damm, Charles F., Buffalo, N. Y. Street-car. No. 1,092,978; Apr. 14; Gaz. vol. 201; p. 327.

Daniels, Isaac. (See McRonald and Daniels.)

Daniels, William N., New York, N. Y. Knitted garment. No. 1,094,884; Apr. 28; Gaz. vol. 201; p. 1076.

Daubenspeck, Philip B. (See Garrigan and Daubenspeck.)

Daubigné, Félix A., Auboué, France. Process and apparatus for drying air. No. 1,092,434; Apr. 7; Gaz. vol. 201; p. 107.

David, Peter. (See Shelton, John B., assignor.)

Davidson, Jesse D. (See Dunlop and Davidson.)

Davies, Charles W. T., New York, N. Y. Bifurcated undergarment. No. 1,094,981; Apr. 28; Gaz. vol. 201; p. 1111.

Davis Acetylene Company *et al.* (See Davis, Augustine, assignor.)

Davis, Am. (See Gleason, Thomas F., assignor.)

Davis, Augustine, Brooklyn, N. Y., and A. C. Collins, assignors to Davis Acetylene Company, Elkhart, Ind. Acetylene-generator. No. 1,094,365; Apr. 21; Gaz. vol. 201; p. 832.

Davis, Charles B., New York, N. Y. Brewing apparatus. No. 1,094,059; Apr. 21; Gaz. vol. 201; p. 733.

Davis, Charles W., Edgeworth, assignor to Standard Underground Cable Company, Pittsburgh, Pa. Junction-box for electrical conductors. No. 1,093,607; Apr. 21; Gaz. vol. 201; p. 580.

Davis, Claude M., Longbeach, Cal. Wrench. No. 1,094,536; Apr. 28; Gaz. vol. 201; p. 953.

Davis, Emry, Brooklyn, N. Y. Inkstand. No. 1,093,770; Apr. 21; Gaz. vol. 201; p. 636.

Davis, Frederick H., assignor to The National Book Cover Company, Syracuse, N. Y. Envelop-fastener. No. 1,093,572; Apr. 14; Gaz. vol. 201; p. 525.

Davis, George H., West Orange, N. J. Apron-feed for perforating-machines. No. 1,094,537; Apr. 28; Gaz. vol. 201; p. 953.

Davis, Herbert F., Cumberland Center, Me. Foot-guard. No. 1,092,246; Apr. 7; Gaz. vol. 201; p. 42.

Davis, John, Bloomington, Ill. Swimming device. No. 1,094,538; Apr. 28; Gaz. vol. 201; p. 953.

Davis, Milton E., Canastota, N. Y. Pail. No. 1,092,767; Apr. 7; Gaz. vol. 201; p. 221.

Davis, Stephen G., Cayuga, Ind. Car-step attachment. No. 1,095,086; Apr. 28; Gaz. vol. 201; p. 1145.

Davis, Thomas E., Cambridge, Mass. Measuring-faucet. No. 1,094,982; Apr. 28; Gaz. vol. 201; p. 1111.

Davis, Waters S., Jr., assignor to Seaboard Rice Milling Co., Galveston, Tex. Sterilizing and packaging rice. No. 1,094,197; Apr. 21; Gaz. vol. 201; p. 780.

Davis, William L. (See Knittel and Davis.)

Davis, William R., Columbus, Ohio. Air-brake apparatus. No. 1,095,087; Apr. 28; Gaz. vol. 201; p. 1145.

Davison, Edward H., and E. L. Dummer, assignors to American Hosiery Company, New Britain, Conn. Union suit or combination-garment. No. 1,092,809; Apr. 7; Gaz. vol. 201; p. 235.

Davison, Edward H., and M. K. Pasco, assignors to American Hosiery Company, New Britain, Conn. Union suit. No. 1,092,900; Apr. 14; Gaz. vol. 201; p. 301.

Daw, William P., assignor of one-half to The Wilbur S. Steele Co., Hartford, Conn. Hot-air-furnace bonnet. No. 1,094,309; Apr. 21; Gaz. vol. 201; p. 815.

Dawson, Arthur T., and G. T. Buckham, assignors to Vickers Limited, Westminster, London, England. Tripod-mounting for automatic guns. No. 1,093,319; Apr. 14; Gaz. vol. 201; p. 446.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Loading apparatus of heavy guns. No. 1,094,128; Apr. 21; Gaz. vol. 201; p. 756.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Control of the breech-actuating mechanism and loading apparatus of heavy guns. No. 1,094,129; Apr. 21; Gaz. vol. 201; p. 756.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Loading apparatus of heavy guns. No. 1,094,130; Apr. 21; Gaz. vol. 201; p. 756.

Dawson, Charles B., Fulton, N. Y., assignor to E. Harlan, receiver. Dumping-car. No. 1,094,198; Apr. 21; Gaz. vol. 201; p. 780.

Dawson, Isaac N., Peru, Ind. Gate. No. 1,092,901; Apr. 14; Gaz. vol. 201; p. 301.

Dawson, James B., Pompeys Pillar, Mont. Beet-harvester. No. 1,094,983; Apr. 28; Gaz. vol. 201; p. 1112.

Day, Edward J., assignor of one-fourth to W. J. Bauer, Milwaukee, Wis. Line-fastener. No. 1,092,563; Apr. 7; Gaz. vol. 201; p. 151.

Day, Walter A. (See Goetze and Day.)

De Force, George I., assignor of one-third to L. E. Stancliff and one-third to W. L. Bankson, Erie, Pa. Detachable horseshoe-calk. No. 1,092,634; Apr. 7; Gaz. vol. 201; p. 177.

De Laval, Carl G., East Orange, N. J., assignor to Henry R. Worthington. Centrifugal turbine and similar pump. No. 1,094,836; Apr. 28; Gaz. vol. 201; p. 1060.

De Leeuw, Adolph L., Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company. Oiling system. No. 1,093,118; Apr. 14; Gaz. vol. 201; p. 376.

De Lukacsevics, Charles, West Nutley, N. J., assignor to G. W. Morgan, Jr., New York, N. Y. Internal-combustion engine. No. 1,093,544; Apr. 14; Gaz. vol. 201; p. 516.

De Mendoza ver Mehr, John M. (See Owens, John S., assignor.)

De Noyelles, Judson R., Binghamton, N. Y. Pneumatic valve. No. 1,093,546; Apr. 14; Gaz. vol. 201; p. 517.

De Vignier, Robert M., Hollis Terrace, assignor to Western Electric Company, New York, N. Y. Combined jack and drop. No. 1,092,964; Apr. 14; Gaz. vol. 201; p. 323.

De Vilbiss Manufacturing Company, The. (See De Vilbiss, Thomas A., assignor.)

De Vilbiss, Thomas A., assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio. Pivoting means for tables or the like. No. 1,093,038; Apr. 14; Gaz. vol. 201; p. 347.

De Vilbiss, Thomas A., assignor to The De Vilbiss Manufacturing Company, Toledo, Ohio. Atomizer or the like. No. 1,093,039; Apr. 14; Gaz. vol. 201; p. 347.

De Voe, Albert H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Ruffling and stitching machine. No. 1,094,707; Apr. 28; Gaz. vol. 201; p. 1016.

De Voll, Charles H., New York, N. Y., assignor, by mesne assignments, to The American Spring Tire Company, Dover, Del. Vehicle-tire. No. 1,092,981; Apr. 14; Gaz. vol. 201; p. 328.

De Witt, Frank W., Jerome, Idaho, assignor to Western Novelty and Manufacturing Company. Sales device. No. 1,095,088; Apr. 28; Gaz. vol. 201; p. 1146.

De Witt, Herbert M. (See McCaddon, William E., assignor.)

De Witt, Miles, White Sulphur Springs, N. Y. Brooder. No. 1,093,921; Apr. 21; Gaz. vol. 201; p. 688.

Deal, Charles A., Kansas City, Mo. Sand and water conveyer. No. 1,094,310; Apr. 21; Gaz. vol. 201; p. 815.

Dean, Edward A., *et al.* (See Ayres, George W., assignor.)

Dean, Franklin A., and L. L. Teas, Alta Vista, Kans. Automatic copy-holder. No. 1,094,311; Apr. 21; Gaz. vol. 201; p. 816.

Dean, Walter D. (See Geurin and Dean.)

Deatherage, Isaac, Duluth, assignor of fifty-five one-hundredths to J. P. Simon, F. W. Koehler, and J. F. Glynn, Superior, Wis. Paper-cutter attachment for tables. No. 1,093,543; Apr. 14; Gaz. vol. 201; p. 516.

Debner, Charles F. (See Worley, George I., assignor.)

Delgman, Richard C. (See Jackson, Earnest L., assignor.)

Deiller, Eugene M., Newark, N. J. Faucet. No. 1,093,117; Apr. 14; Gaz. vol. 201; p. 376.

Delaney, Bernard, Rochester, N. Y. Arch and heel support and insole. No. 1,093,608; Apr. 21; Gaz. vol. 201; p. 581.

Delbrück, Konrad, and K. Meisenburg, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing 1.3-butyleneglycol. No. 1,094,539; Apr. 28; Gaz. vol. 201; p. 954.

Dellert, Frank A., Brooklyn, N. Y. Wheel rim and tire. No. 1,094,706; Apr. 28; Gaz. vol. 201; p. 1016.
Delmez, Célestin, Antwerp, Belgium. Ball-bearing. No. 1,094,312; Apr. 21; Gaz. vol. 201; p. 816.
Delta-Star Electric Company. (See Cravens, George W., assignor.)
Deming, William L., Salem, Ohio. Account-cabinet. No. 1,092,564; Apr. 7; Gaz. vol. 201; p. 151.
Dempsey, James A., New York, N. Y. Grate-shaker. No. 1,093,386; Apr. 14; Gaz. vol. 201; p. 469.
Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Starting means for vapor electric apparatus. No. 1,093,545; Apr. 14; Gaz. vol. 201; p. 517.
Dengler, Benjamin F., Los Angeles, Cal. Base-ball-game board. No. 1,092,079; Apr. 14; Gaz. vol. 201; p. 328.
Denison, Howard and S., Pittsburgh, Pa. Car-replacer. No. 1,092,635; Apr. 7; Gaz. vol. 201; p. 178.
Denison, Sullivan. (See Denison, Howard and S.)
Dennis, Conrad L., Bucklin, Kans. Device for trisecting angles. No. 1,093,919; Apr. 21; Gaz. vol. 201; p. 687.
Dennis, Elmer L., assignor to Andrews Wire & Iron Works, Rockford, Ill. Package-carrier for bicycles. No. 1,094,885; Apr. 28; Gaz. vol. 201; p. 1076.
Denny, Thomas J. (See Brownjohn and Denny.)
Denton, Samuel W., Bronwood, Ga. Bagging-measuring machine. No. 1,093,037; Apr. 14; Gaz. vol. 201; p. 347.
Depenbrock, Frank, San Francisco, Cal. Compact folding vapor-bath cabinet. No. 1,092,699; Apr. 7; Gaz. vol. 201; p. 198.
Depew, George M., Canandaigua, N. Y. Conveyer. No. 1,094,780; Apr. 28; Gaz. vol. 201; p. 1041.
Derbyshire, Henry E., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Cylinder for engines. No. 1,094,199; Apr. 21; Gaz. vol. 201; p. 780.
Deruy, Abdon F., Pittsburg, Kans. Post for drilling-machines. No. 1,092,980; Apr. 14; Gaz. vol. 201; p. 328.
Detroit Auto Specialty Co. (See Dickerson, Augustus W., assignor.)
Detroit Steel Products Company. (See Drummond, Robert S., assignor.)
Deuscher, Charles A., assignor of one-third to J. J. Lyons, New York, N. Y. Horse-overshoe. No. 1,093,547; Apr. 14; Gaz. vol. 201; p. 517.
Devault, John A. (See Rutledge, Boland, and Devault.)
Deves, Francois, New York, N. Y. Transmission-gearing. No. 1,093,920; Apr. 21; Gaz. vol. 201; p. 687.
Dewar, George M., assignor of one-half to A. Thompson, Indianapolis, Ind. Lamp-socket and shade-holder. No. 1,092,810; Apr. 7; Gaz. vol. 201; p. 235.
Dewson, Edward H., New York, N. Y., and W. V. Turner, Edgewood, assignors to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electropneumatic brake apparatus. No. 1,092,141; Apr. 7; Gaz. vol. 201; p. 6.
Diamond, James K., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich. Belt-fastener. No. 1,094,131; Apr. 21; Gaz. vol. 201; p. 757.
Diamond, James K., assignor to Clipper Belt Lacer Company, Grand Rapids, Mich. Machine for setting belt-fasteners. No. 1,094,132; Apr. 21; Gaz. vol. 201; p. 757.
Dianovszky, John, assignor of one-half to O. A. Schlegel, Passaic, N. J. Blade for turbines. No. 1,094,133; Apr. 21; Gaz. vol. 201; p. 758.
Diaz, Pascual M., San Antonio, Tex., assignor to Mergenthaler Linotype Company. Mold for typographical casting-machines. No. 1,092,142; Apr. 7; Gaz. vol. 201; p. 6.
Dick, Albert B., Lake Forest, assignor to A. B. Dick Company, Chicago, Ill. Stenciling material. No. 1,094,837; Apr. 28; Gaz. vol. 201; p. 1060.
Dick, Harvey B. (See Scott, Robert, assignor.)
Dick, Jacob, New London, Conn. Window-gate. No. 1,092,247; Apr. 7; Gaz. vol. 201; p. 42.
Dickerson, Arthur, American Fork, assignor to Dickerson Automatic Governor Company, Salt Lake City, Utah. Water-wheel regulator. No. 1,095,174; Apr. 28; Gaz. vol. 201; p. 1178.
Dickerson, Augustus W., assignor to Detroit Auto Specialty Co., Detroit, Mich. Mud-guard for vehicles. No. 1,094,134; Apr. 21; Gaz. vol. 201; p. 758.
Dickerson Automatic Governor Company. (See Dickerson, Arthur, assignor.)
Dieckman, Charles A., Warrenton, Mo. Anvil-block. No. 1,093,320; Apr. 14; Gaz. vol. 201; p. 447.
Dieterich, Ludwig M., Mount Vernon, N. Y. Power-transmission apparatus. No. 1,093,922; Apr. 21; Gaz. vol. 201; p. 688.
Dietly, Philip W. (See Alexander, George, assignor.)
Dilg, Charles H. J., New York, N. Y., assignor to Eck Dynamo and Motor Company. Fan. No. 1,094,540; Apr. 28; Gaz. vol. 201; p. 954.
Dilg, Charles H. J., New York, N. Y., assignor to Eck Dynamo and Motor Company. Fan. No. 1,094,541; Apr. 28; Gaz. vol. 201; p. 954.
Dillig, George F., Baltimore, Md. Explosive-engine. No. 1,092,205; Apr. 7; Gaz. vol. 201; p. 28.
Dilworth, Lawrence, assignor to Dilworth, Porter & Company, Limited, Pittsburgh, Pa. Tie-plate. No. 1,093,256; Apr. 14; Gaz. vol. 201; p. 424.
Dilworth, Porter & Company. (See Dilworth, Lawrence, assignor.)
Dimm, Chandos R., Muncy, Pa. Bearing for grinding-mills. No. 1,093,688; Apr. 21; Gaz. vol. 201; p. 611.
Dinn, Henry G., Philadelphia, Pa. Protective garment. No. 1,095,089; Apr. 28; Gaz. vol. 201; p. 1147.
Diossy, Alexander, Brooklyn, N. Y. Toy device. No. 1,094,886; Apr. 28; Gaz. vol. 201; p. 1077.
Dippon, Fritz. (See Landsmann and Dippon.)
Diss, Louis A., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Making or forming types having curved faces. No. 1,092,475; Apr. 7; Gaz. vol. 201; p. 122.
Dix, Don R., Salt Lake City, Utah. Communion-service filler. No. 1,092,565; Apr. 7; Gaz. vol. 201; p. 152.
Dixie Cotton Felt Mattress Company. (See Weinberg, Ike J., assignor.)
Dobesch, Hans. (See Bähr and Dobesch.)
Doble, William H., assignor of one-fourth to Pneumatic Scale Corporation, Limited, Quincy, Mass. Panel for boxes. No. 1,093,548; Apr. 14; Gaz. vol. 201; p. 517.
Dodge, Adelbert L. A., Providence, R. I. Package. No. 1,094,542; Apr. 28; Gaz. vol. 201; p. 955.
Dodge, James M., Philadelphia, Pa., assignor to Link-Belt Company, Chicago, Ill. Chain-link. No. 1,094,200; Apr. 21; Gaz. vol. 201; p. 780.
Doeg, Issachar W., Exeter, N. H. Oiler for shafts. No. 1,093,609; Apr. 21; Gaz. vol. 201; p. 581.
Doggett, Danton, San Francisco, Cal. Container. No. 1,092,902; Apr. 14; Gaz. vol. 201; p. 302.
Dolenga, Maryan, St. Louis, Mo. Nutcracker. No. 1,093,549; Apr. 14; Gaz. vol. 201; p. 518.
Doman, Lewis B., Elbridge, N. Y., assignor, by mesne assignments, to Autopiano Company. Web-guiding device. No. 1,094,428; Apr. 28; Gaz. vol. 201; p. 915.
Donaldson, Francis, Yonkers, assignor to The T. A. Gillespie Company, New York, N. Y. Hoisting-tower. No. 1,093,257; Apr. 14; Gaz. vol. 201; p. 424.
Donaldson, James H., Chicago, Ill. Automatic-release handle for vestibule-curtains. No. 1,094,135; Apr. 21; Gaz. vol. 201; p. 758.
Donaly, James L., Newark, N. J. Fishing-bait. No. 1,093,980; Apr. 21; Gaz. vol. 201; p. 706.
Donavan, Lillian, Lexington, N. C. Collapsible screen and rack. No. 1,093,119; Apr. 14; Gaz. vol. 201; p. 377.
Donnelly, James A., Brooklyn, N. Y. Valve. No. 1,094,543; Apr. 28; Gaz. vol. 201; p. 955.
Donner, Percy E. (See Snyder, Jacob R., assignor.)
Donohue, John H., St. Paul, Minn. Hinge. No. 1,094,136; Apr. 21; Gaz. vol. 201; p. 758.
Donovan, Timothy H., assignor of one-half to R. Gerber, Raymond, Wash. Unloading apparatus. No. 1,094,060; Apr. 21; Gaz. vol. 201; p. 733.
Doolittle, Charles A. (See Schenck and Doolittle.)
Doorenbos, Jacob, Kalamazoo, Mich. Incandescent lamp. No. 1,092,826; Apr. 14; Gaz. vol. 201; p. 276.
Dorneth, Julius, assignor to Typograph G. m. b. H., Berlin, Germany. Matrix-setting and line-casting device. No. 1,094,643; Apr. 28; Gaz. vol. 201; p. 991.
Dorney, Clark L., Dayton, Ohio. Latch for sleeping-car head-boards. No. 1,094,781; Apr. 28; Gaz. vol. 201; p. 1041.
Dorrance, Harold J., Pittsburgh, Pa. Osteopathic-treatment table. No. 1,092,435; Apr. 7; Gaz. vol. 201; p. 108.
Dossert, John J. (See Hinds and Dossert.)
Doty, Charles H. (See Hussey and Doty.)
Dougan, Kennedy, Minneapolis, Minn. Machine for delinting cotton-seed. No. 1,092,983; Apr. 14; Gaz. vol. 201; p. 330.
Douglas, Irving G., Montclair, N. J., assignor to Cooperage Seal Company, Inc., New York, N. Y. Receptacle closing and sealing device. No. 1,095,143; Apr. 28; Gaz. vol. 201; p. 1165.
Douglass, Frank J., Chicago, Ill. Humidifying device. No. 1,094,544; Apr. 28; Gaz. vol. 201; p. 956.
Dow, Herbert H., Midland, Mich., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Apparatus for conserving heat. No. 1,094,001; Apr. 21; Gaz. vol. 201; p. 734.
Dow, John L., Melrose Highlands, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-sewing machine. No. 1,094,838; Apr. 28; Gaz. vol. 201; p. 1061.
Dowd, John A., Fall River, Mass. Thread-cutter. No. 1,095,090; Apr. 28; Gaz. vol. 201; p. 1147.
Dowdle, John W., Mineral Springs, Ark. Self-cleaning rake. No. 1,092,522; Apr. 7; Gaz. vol. 201; p. 138.
Dowell, Perry C., Joliet, Ill. Road-drag. No. 1,094,313; Apr. 21; Gaz. vol. 201; p. 816.
Dowling, John J. (See Nix, Dowling, and Bursley.)
Dowling, William T., Delia, Kans. Oil-burner. No. 1,095,091; Apr. 28; Gaz. vol. 201; p. 1147.
Downie, Thomas H., San Francisco, Cal. Foundry-flask. No. 1,092,636; Apr. 7; Gaz. vol. 201; p. 178.
Downs, Levi, Monticello, N. Y. Trap-nest. No. 1,093,550; Apr. 14; Gaz. vol. 201; p. 518.
Doze, John C., Conway Springs, Kans. Wire splicer and stretcher. No. 1,092,700; Apr. 7; Gaz. vol. 201; p. 198.
Drake, Florence E., Michigan City, Ind. Vegetable-cutter. No. 1,095,092; Apr. 28; Gaz. vol. 201; p. 1148.
Draper Company. (See Holliday, James W., assignor.)
Draper Company. (See Koechlin, Albert G., assignor.)
Draper, Thomas J., *et al.* (See Schenck, Henry L., assignor.)
Dreisbach, Charles A., assignor to New Haven Sand Blast Company, New Haven, Conn. Sand-blast apparatus. No. 1,093,551; Apr. 14; Gaz. vol. 201; p. 518.



Drummond, Robert S., assignor to Detroit Steel Products Company, Detroit, Mich. Expansion-joint for metallic window-sashes. No. 1,092,476; Apr. 7; Gaz. vol. 201; p. 123.
Du Roth, John. (See Heinz and Du Roth.)
Dubail, Jules, Delle, France. Gage for verifying the dimensions of screws and screw-threads. No. 1,092,827; Apr. 14; Gaz. vol. 201; p. 277.
Ducro, Lewis, assignor of one-half to E. A. O'Neil, Cleveland, Ohio, and one-half to C. W. Fishley and W. J. Ockington. Ball-caster. No. 1,094,782; Apr. 28; Gaz. vol. 201; p. 1042.
Ducsay, Steve, Canonsburg, Pa. Sash-holder. No. 1,093,387; Apr. 14; Gaz. vol. 201; p. 469.
Duff Manufacturing Company, The. (See Hindman, Isaiah E., assignor.)
Duffy, Thomas I., Chicago, Ill. Tire-carrier. No. 1,092,811; Apr. 7; Gaz. vol. 201; p. 236.
Duffy, Thomas I., assignor to E. C. Sales Co., Chicago, Ill. Tire-carrier bracket. No. 1,092,566; Apr. 7; Gaz. vol. 201; p. 152.
Dufresne, Joseph, Montreal, Quebec, Canada. Shuttle-threader. No. 1,093,837; Apr. 21; Gaz. vol. 201; p. 660.
Dukesmith, Frank H., Meadville, assignor to T. C. Van Horne, Pittsburgh, Pa. Air-brake system. No. 1,092,812; Apr. 7; Gaz. vol. 201; p. 236.
Dulinig, Adolph C., San Antonio, Tex. Tub-holder. No. 1,094,644; Apr. 28; Gaz. vol. 201; p. 992.
Dumas, Frank, Burke, N. Y. Washing-machine. No. 1,093,689; Apr. 21; Gaz. vol. 201; p. 611.
Dummer, Edward L. (See Davison and Dummer.)
Duncan, Lester C., Lenia, Idaho. Speed-indicator. No. 1,092,828; Apr. 14; Gaz. vol. 201; p. 277.
Duncan, Walter B., Paris, Tex. Tug-clip. No. 1,093,173; Apr. 14; Gaz. vol. 201; p. 306.
Dunham Company, The. (See Dunham, Wiley J., assignor.)
Dunham, Wiley J., assignor to The Dunham Company, Berea, Ohio. Land roller or pulverizer. No. 1,094,201; Apr. 21; Gaz. vol. 201; p. 781.
Dunleavy, James F., Newton, Mass. Desk. No. 1,093,981; Apr. 21; Gaz. vol. 201; p. 706.
Dunlop, John, and J. D. Davidson, Wellsville, Ohio. Cleaning and scouring attachment for metal rolls. No. 1,094,202; Apr. 21; Gaz. vol. 201; p. 781.
Dunn, Conally L., assignor of one-half to J. E. Legard, Abingdon, Va. Lantern. No. 1,092,248; Apr. 7; Gaz. vol. 201; p. 42.
Dunn, Daniel S., Bay City, Mich. Account-register. No. 1,094,887; Apr. 28; Gaz. vol. 201; p. 1077.
Dunscombe, Matthew E., Bristol, England. Valve of internal-combustion engines. No. 1,094,429; Apr. 28; Gaz. vol. 201; p. 915.
Durand, Ivins & Carton. (See Chapman, Frank E. V., assignor.)
Durbin Automatic Train Pipe Connector Company. (See Schmidt, Peter, assignor.)
Duryea, Otho C. (See White and Duryea.)
Dusak, Stanley, Seanor, Pa. Telephone-receiver holder. No. 1,092,637; Apr. 7; Gaz. vol. 201; p. 178.
Dutcher, H. Melvin, administrator. (See Le Furge, William P.)
Dutchess Tool Company. (See Hanna and Van Houten, assignors.)
Dutton, Edgar E. (See Sheard and Dutton.)
Dye, Harry D., San Francisco, Cal. Refillable soap-stick. No. 1,092,430; Apr. 7; Gaz. vol. 201; p. 108.
E. & B. Holmes Machinery Company. (See Beugler, Edwin F., assignor.)
E. C. Sales Co. (See Duffy, Thomas I., assignor.)
E. I. du Pont de Nemours Powder Company. (See Masland, Walter E., assignor.)
E. J. Brooks & Co. (See Brooks, Winfred M., assignor.)
E. and T. Fairbanks and Company, The. (See Hazen, Perley F., assignor.)
Eagan, Charles E. (See Mayer, William E., assignor.)
Earle, Richard B. (See Kyriakides and Earle.)
Earle, Richard B., assignor to Hood Rubber Company, Boston, Mass. Preparing rubber from hydrocarbons. No. 1,093,923; Apr. 21; Gaz. vol. 201; p. 688.
Earle, Richard B., Cambridge, Mass., assignor to Hood Rubber Company. Preparing elastic substances. No. 1,094,317; Apr. 21; Gaz. vol. 201; p. 817.
Earle, Richard B., and L. P. Kyriakides, Cambridge, Mass., assignors to Hood Rubber Co. Producing aldol. No. 1,094,314; Apr. 21; Gaz. vol. 201; p. 816.
Earle, Richard B., and L. P. Kyriakides, Cambridge, Mass., assignors to Hood Rubber Company. Producing 1.3-glycols, (β-glycols.) No. 1,094,315; Apr. 21; Gaz. vol. 201; p. 817.
Earle, Richard B., and L. P. Kyriakides, Cambridge, Mass., assignors to Hood Rubber Company. Producing 1.3-glycols. No. 1,094,316; Apr. 21; Gaz. vol. 202; p. 817.
Early Sun Stove Company, The. (See Wise, George A., assignor.)
Eaton, Leslie E., Sturgis, S. D. Dental impression-tray and detachable handle. No. 1,094,203; Apr. 21; Gaz. vol. 201; p. 781.
Eaton, Richard M., assignor to The Niagara Searchlight Company, Niagara Falls, N. Y. Flash-light device. No. 1,094,839; Apr. 28; Gaz. vol. 201; p. 1061.
Ebaugh, John E., Shenandoah, Iowa. Assembling soldering-tool. No. 1,093,552; Apr. 14; Gaz. vol. 201; p. 519.
Eberhardt, Paul. (See Pau and Eberhardt.)
Eberhart, Felix, Newark, N. J., assignor to American Can Company, New York, N. Y. Manufacturing interiorly-coated cans. No. 1,094,840; Apr. 28; Gaz. vol. 201; p. 1061.
Eberle, Eugen, Augsburg, Germany. Supplying fuels which ignite with difficulty to internal-combustion engines. No. 1,093,553; Apr. 14; Gaz. vol. 201; p. 519.
Ebersole, Elbert L. (See Neff, Cole, and Ebersole.)
Eberwein, Johann, North Tonawanda, N. Y. Self-leveling table. No. 1,092,638; Apr. 7; Gaz. vol. 201; p. 179.
Eck Dynamo and Motor Company. (See Dilg, Charles H. J., assignor.)
Eckert, Alfred C., Glen Ridge, N. J. Bracelet watch-holder. No. 1,093,610; Apr. 21; Gaz. vol. 201; p. 581.
Economy Fuse & Manufacturing Company. (See Mallory, Edward B., assignor.)
Edens, John, assignor to H. F. Brammer Manufacturing Company, Davenport, Iowa. Operating-gearing for washing-machines. No. 1,093,982; Apr. 21; Gaz. vol. 201; p. 707.
Edlavitch, Charles J., assignor of one-half to A. Burdwise, Baltimore, Md. Violin chin-rest. No. 1,094,984; Apr. 28; Gaz. vol. 201; p. 1112.
Edmunds and Jones Manufacturing Company. (See Godley, Charles E., assignor.)
Edwards, George S., Greencastle, Pa. Dental instrument. No. 1,092,701; Apr. 7; Gaz. vol. 201; p. 198.
Edwards, Oliver M. (See Axe, Roy T., assignor.)
Edwards, William C., Jr., Kansas City, Mo. Reinforcement and centering. No. 1,094,985; Apr. 28; Gaz. vol. 201; p. 1112.
Ehrle, Oscar F., Long Beach, N. Y. Pencil-clip. No. 1,094,888; Apr. 28; Gaz. vol. 201; p. 1077.
Eichberg, Friedrich, Berlin, Germany, assignor to General Electric Company. Repulsion-motor control. No. 1,093,983; Apr. 21; Gaz. vol. 201; p. 707.
Eichinger, George M., Clear Lake, S. D. Hoisting-machine. No. 1,094,645; Apr. 28; Gaz. vol. 201; p. 992.
Einfeldt, Emil, assignor, by mesne assignments, to G. W. and N. French and J. L. Hecht, Davenport, Iowa. Making wheel-tires. No. 1,092,477; Apr. 7; Gaz. vol. 201; p. 123.
Einfeldt, Emil, assignor, by mesne assignments, to G. W. and N. French and J. L. Hecht, Davenport, Iowa. Machine for making metal tires. No. 1,092,478; Apr. 7; Gaz. vol. 201; p. 123.
Einstein, Sol, assignor to The Cincinnati Milling Machine Company, Oakley, Cincinnati, Ohio. Automatic feed, quick-traverse, and reverse control. No. 1,092,479; Apr. 7; Gaz. vol. 201; p. 124.
Electric Service Supplies Company. (See Hecht and Gapen, assignors.)
Electric Tachometer Company, The. (See Hopkins, Nevil M., assignor.)
Electrical Conveying Machinery Company. (See Messick, Charles, assignor.)
Electro Dental Manufacturing Company. (See Schramm and Russell, assignors.)
Elia, Giovanni E., Rome, Italy. Submarine mine. No. 1,092,143; Apr. 7; Gaz. vol. 201; p. 7.
Elia, Giovanni E., Rome, Italy. Submarine mine. No. 1,092,702; Apr. 7; Gaz. vol. 201; p. 199.
Elia, Giovanni E., Rome, Italy. Firing apparatus for moored torpedoes. No. 1,092,703; Apr. 7; Gaz. vol. 201; p. 199.
Ellinger, Julian O., New York, N. Y. Reinforcement for concrete construction. No. 1,094,841; Apr. 28; Gaz. vol. 201; p. 1062.
Ellinger, Julian O., New York, N. Y. Collapsible frame for concrete construction. No. 1,094,842; Apr. 28; Gaz. vol. 201; p. 1062.
Ellinger, Julian O., New York, N. Y. Unit-bar for concrete construction. No. 1,094,843; Apr. 28; Gaz. vol. 201; p. 1063.
Ellinger, Julian O., New York, N. Y. Collapsible metallic structure. No. 1,094,844; Apr. 28; Gaz. vol. 201; p. 1063.
Ellinger, Julian O., New York, N. Y. Reinforcement for concrete construction. No. 1,094,845; Apr. 28; Gaz. vol. 201; p. 1063.
Elliot, Frank F. (See Knowlton and Elliot.)
Elliot, Henry, St. Louis, Mo. Railway-switch. No. 1,094,889; Apr. 28; Gaz. vol. 201; p. 1078.
Elliott-Fisher Company. (See Goll, Eugene R., assignor.)
Elliott, John H., Bono, Ark. Wire-stretcher. No. 1,095,093; Apr. 28; Gaz. vol. 201; p. 1148.
Elliott, William S., Pittsburgh, Pa. Combined pipe-fitting, valve, and separator. No. 1,094,204; Apr. 21; Gaz. vol. 201; p. 782.
Ellis, Carleton, Montclair, N. J. Making catalyzers. No. 1,092,206; Apr. 7; Gaz. vol. 201; p. 29.
Ellis, Carleton, Montclair, N. J. Generating hydrogen. No. 1,092,903; Apr. 14; Gaz. vol. 201; p. 302.
Ellis, Carleton, Montclair, N. J. Process and apparatus for treating composite edible oils, &c. No. 1,095,144; Apr. 28; Gaz. vol. 201; p. 1165.
Ellis, Edgar, Sulphur Springs, Ala. Combined seed-planter and fertilizer-distributer. No. 1,093,321; Apr. 14; Gaz. vol. 201; p. 447.
Ellis, John, assignor to Beler Water Heater Company, Pittsburgh, Pa. Thermostatic gas-valve-operating mechanism. No. 1,093,771; Apr. 21; Gaz. vol. 201; p. 636.
Ellis, John, assignor to Beler Water Heater Company, Pittsburgh, Pa. Gas-burner. No. 1,093,772; Apr. 21; Gaz. vol. 201; p. 636.

Ellison, Thomas J., Terrill, Ky. Coverer. No. 1,093,773; Apr. 21; Gaz. vol. 201; p. 637.
Elster, Albert D., Meriden, Conn. Gasolene-strainer. No. 1,093,258; Apr. 14; Gaz. vol. 201; p. 424.
Elterich, David, Forks, Wash. Wheelbarrow. No. 1,095,145; Apr. 28; Gaz. vol. 201; p. 1166.
Ely, Marshall S. (See White, Kirk H., assignor.)
Emel, John, Sr., Silverdale, Wash. Vegetable-slicer. No. 1,094,318; Apr. 21; Gaz. vol. 201; p. 817.
Emerson-Brantingham Company. (See Cameron, William W., assignor.)
Emery, George S., Birmingham, Ala. Station-indicator. No. 1,094,783; Apr. 28; Gaz. vol. 201; p. 1042.
Emmert, Albert, Corpus Christi, Tex. Disk harrow. No. 1,092,249; Apr. 7; Gaz. vol. 201; p. 43.
Empire State Iding Company. (See Block, Edgar N., assignor.)
Engberg, Ephraim O., Salt Lake City, Utah., assignor to J. B. Patton, Kent, Ohio. Machine for making window-shades. No. 1,094,846; Apr. 28; Gaz. vol. 201; p. 1064.
Engblom, Eric, Denver, Colo., assignor of one-half to F. Gyllensten. Cement watering-trough. No. 1,092,250; Apr. 7; Gaz. vol. 201; p. 43.
Epler, Carl, Bogorodsk, Russia. Treating and refining cotton-seed-oil residues. No. 1,094,430; Apr. 28; Gaz. vol. 201; p. 915.
Epple, Carl H., Oakland, Cal. Sanitary bottle-closer. No. 1,094,784; Apr. 28; Gaz. vol. 201; p. 1042.
Eppler, Andrew, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,092,567; Apr. 7; Gaz. vol. 201; p. 152.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,092,568; Apr. 7; Gaz. vol. 201; p. 153.
Epstein, Irving, New York, N. Y. Stapling-machine. No. 1,093,040; Apr. 14; Gaz. vol. 201; p. 348.
Erichsen, Abraham M., Berlin-Reinickendorf, Germany. Apparatus for testing metal sheets, &c. No. 1,094,319; Apr. 21; Gaz. vol. 201; p. 817.
Erickson, Charles J., assignor, by mesne assignments, to First Trust and Savings Bank, trustee, Chicago, Ill. Party-line telephone system. No. 1,093,041; Apr. 14; Gaz. vol. 201; p. 349.
Erickson, Claus, assignor of one-fourth to J. Smith, Ironwood, Mich. Metallic railway-tie. No. 1,094,847; Apr. 28; Gaz. vol. 201; p. 1064.
Ericsson, Gustav E., assignor of one-half to E. W. Webster, Dubois, Pa. Gate-locking means. No. 1,093,174; Apr. 14; Gaz. vol. 201; p. 396.
Erman, August, Omaha, Nebr. Clamp. No. 1,093,554; Apr. 14; Gaz. vol. 201; p. 519.
Ern, Carl F., Wald, near Solingen, Germany. Razor. No. 1,092,829; Apr. 14; Gaz. vol. 201; p. 277.
Esplen, Alexander, Liverpool, England. Engine-controlling apparatus. No. 1,095,146; Apr. 28; Gaz. vol. 201; p. 1166.
Etherington, Alfred L., Milton, Nova Scotia, Canada. Spring-seat for agricultural machines. No. 1,093,042; Apr. 14; Gaz. vol. 201; p. 349.
Etherington, Stanley. (See Rees and Etherington.)
Evans, Charles E., Weed, Cal. Lumber-jack. No. 1,092,704; Apr. 7; Gaz. vol. 201; p. 200.
Evans, David J., Kenilworth, Ill. Grab-bucket hanger. No. 1,094,545; Apr. 28; Gaz. vol. 201; p. 956.
Evans, Ernest, Liscard, England. Manufacture of feeding-cake. No. 1,094,320; Apr. 21; Gaz. vol. 201; p. 818.
Evans, George R. (See Miller and Evans.)
Evans & Howard Fire Brick Company. (See Fassett, Francis K., assignor.)
Evans, James B., Sr., Fort Worth, Tex. Rail-joint. No. 1,093,555; Apr. 14; Gaz. vol. 201; p. 520.
Evans, Powell, Philadelphia, Pa. Power-transmission mechanism. No. 1,095,094; Apr. 28; Gaz. vol. 201; p. 1148.
Eveleth, Charles E. (See Hewlett and Eveleth.)
Ewalt, Guy L., Sykes, Mont. Valve. No. 1,092,984; Apr. 14; Gaz. vol. 201; p. 330.
F. Wesel Manufacturing Company. (See Hopkins, Charles E., assignor.)
F. A. Hardy & Company. (See Pixley, Charles H., assignor.)
F. W. Wakefield Brass Company, The. (See Wakefield, Frederick W., assignor.)
Faas, Henry N. (See Lewis and Faas.)
Fagan, Philip J., St. Louis, Mo. Bedstead. No. 1,093,774; Apr. 21; Gaz. vol. 201; p. 637.
Fairchild, David L., *et al.*, administrators. (See Ozias, Albert N.)
Falk, Herman W., and W. K. Andrew, Milwaukee, Wis. Carbureter valve and governor. No. 1,094,986; Apr. 28; Gaz. vol. 201; p. 1113.
Falkenberg, Bjarne, assignor to Pacific Electric Heating Company, Ontario, Cal. Submerged electric heater. No. 1,092,528; Apr. 7; Gaz. vol. 201; p. 138.
Fant, Patrick J., Hugo, Okla. Car-truck. No. 1,094,708; Apr. 28; Gaz. vol. 201; p. 1017.
Farbenfabriken vorm. Friedr. Bayer & Co. (See Bonhoeffer and Guntrum, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Callsen, Jürgen, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Delbrück and Meisenburg, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Flachslaender, Grälert, and Buff, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Merling, Chrzescinski, and Köhler, assignors.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt and Steindorff, assignors.)
Farnsworth, Willis S., assignor to Coin Controlled Lock Co., San Francisco, Cal. Coin-controlled lock. No. 1,093,175; Apr. 14; Gaz. vol. 201; p. 396.
Farquhar, Henry S., Bryn Mawr, Pa. Contact-shoe device for third-rail systems. No. 1,094,137; Apr. 21; Gaz. vol. 201; p. 758.
Farrar, Robert L. (See Harden, Harry, assignor.)
Farrell, Charles E., East St. Louis, Ill. Adjustable headlight. No. 1,095,095; Apr. 28; Gaz. vol. 201; p. 1149.
Farrington Manufacturing Company. (See Thomas, Adelbert A., assignor.)
Fassett, Francis K., Dayton, Ohio, assignor to Evans & Howard Fire Brick Company, St. Louis, Mo. Hollow tile. No. 1,095,147; Apr. 28; Gaz. vol. 201; p. 1166.
Fassmann, Marshall W., Natchez, Miss. Paper-case. No. 1,093,838; Apr. 21; Gaz. vol. 201; p. 660.
Faucett, William T., Des Moines, Iowa. Advertising device. No. 1,094,709; Apr. 28; Gaz. vol. 201; p. 1017.
Federal Construction Company. (See Strickler, William H., assignor.)
Fegley, Thomas J., and G. O. Leopold, assignors to North Bro's M'f'g Co., Philadelphia, Pa. Ratchet-drill. No. 1,094,205; Apr. 21; Gaz. vol. 201; p. 782.
Fekete, John. (See Koletar and Fekete.)
Feneley, Frederick C., Detroit, Mich. Pen. No. 1,094,138; Apr. 21; Gaz. vol. 201; p. 759.
Ferguson, Milford B., New York, N. Y., assignor, by mesne assignments, of one-half to Package Machinery Company. Paper-feeding apparatus. No. 1,092,437; Apr. 7; Gaz. vol. 201; p. 109.
Ferguson, Ward S., assignor to McCurdy-Ferguson Company, Los Angeles, Cal. Fixture-hanger. No. 1,093,556; Apr. 14; Gaz. vol. 201; p. 520.
Fernald, Frank E., Milton, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in the manufacture of boots and shoes. No. 1,094,546; Apr. 28; Gaz. vol. 201; p. 956.
Ferre, Charles E., Gunnison, Utah. Water-gate. No. 1,092,343; Apr. 7; Gaz. vol. 201; p. 76.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Manger. No. 1,095,148; Apr. 28; Gaz. vol. 201; p. 1167.
Ferris, William S., *et al.*, trustees. (See Adams, Arthur J., assignor.)
Ferris, William S., *et al.*, trustees. (See Beier, Frank J., assignor.)
Ferris, William S., *et al.*, trustees. (See McGill, Albert E., assignor.)
Ferrochem Company, The. (See Bailey, Gilbert E., assignor.)
Fetters, Henry M., Laporte, Ind. Appliance for cleaning tarnished metals. No. 1,092,985; Apr. 14; Gaz. vol. 201; p. 330.
Ficzek, Wiktor, Jersey City, N. J. Trolley-wheel mount. No. 1,094,890; Apr. 28; Gaz. vol. 201; p. 1078.
Field, James Y., Mound City, Mo. Grain-segregator. No. 1,094,646; Apr. 28; Gaz. vol. 201; p. 993.
Finch, James H., Jr., Quincy, Mass. (Gasolene filter or trap. No. 1,094,321; Apr. 21; Gaz. vol. 201; p. 818.
Findlay, Gilbert, Berkeley, Cal., and J. Hansen, Bellingham, Wash. File-holder. No. 1,094,549; Apr. 28; Gaz. vol. 201; p. 957.
Fine Cotton Spinners' and Doublers' Association Limited, The. (See Hamer and Howarth, assignors.)
Fippard, Arthur J., Hankow, China, and Bournemouth, England. Clutch. No. 1,092,344; Apr. 7; Gaz. vol. 201; p. 76.
Firestone Tire & Rubber Company. (See Bosworth, Percy B., assignor.)
First Trust and Savings Bank, trustee. (See Erickson, Charles J., assignor.)
Firth, William. (See Smith, Joseph J., assignor.)
Fischer, Anthony, Indianapolis, Ind. Window-sash lock. No. 1,094,647; Apr. 28; Gaz. vol. 201; p. 993.
Fischer, Gustav A., Cleveland, Ohio. Pasteurizing-machine. No. 1,093,924; Apr. 21; Gaz. vol. 201; p. 688.
Fisher, Dudley T., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, Rock-drill. No. 1,093,120; Apr. 14; Gaz. vol. 201; p. 377.
Fishley, C. W., *et al.* (See Ducro, Lewis, assignor.)
Fitch, John F., assignor to R. A. Wittemann, Buffalo, N. Y. Speed-changing-gear mechanism. No. 1,092,438; Apr. 7; Gaz. vol. 201; p. 109.
Fitzgerald, Daniel P., Newark, N. J. Machine for making link mesh. No. 1,092,251; Apr. 7; Gaz. vol. 201; p. 43.
Fitzgerald, Edward F., Philadelphia, Pa. Valve. No. 1,093,121; Apr. 14; Gaz. vol. 201; p. 378.
Fitzgerald, Michael J., *et al.* (See Gilmore, William R., assignor.)
Flachslaender, Joseph, K. P. Grälert, Elberfeld, and M. Buff, Vohwinkel, near Elberfeld, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Green sulfur dye. No. 1,093,259; Apr. 14; Gaz. vol. 201; p. 425.
Flack, Harry L., Dayton, Ohio. Car-wrench. No. 1,093,388; Apr. 14; Gaz. vol. 201; p. 469.
Fleck, Ferdinand J. H., Tamaqua, Pa. Film-winding apparatus. No. 1,095,096; Apr. 28; Gaz. vol. 201; p. 1149.





Fleischauer, William J., and H. Richardson, Pontiac, Mich., assignors of one-fourth to B. Brigham and one-fourth to C. Madson, South Bend, Ind. Door-lock. No. 1,094,550; Apr. 28; Gaz. vol. 201; p. 958.
Fleming, William J., Jr., Darien, Conn., assignor to Automatic Ventilator Company, New York, N. Y. Car-ventilator. No. 1,092,705; Apr. 7; Gaz. vol. 201; p. 200.
Fletcher, Gayle M., Billings, Mont. Operating mechanism for band-operated devices. No. 1,094,043; Apr. 14; Gaz. vol. 201; p. 349.
Fletcher, James R. (See Arens and Fletcher.)
Fletcher, William T., Belfast, Ireland. Reciprocating-flat-bed-web-printing machine. No. 1,094,386; Apr. 21; Gaz. vol. 201; p. 840.
Fleury, Frederick E. (See Pelton and Fleury.)
Flexible Steel Lacing Company. (See Purple, George E., assignor.)
Flinchbaugh, Frederick T., York, Pa. Gearing. No. 1,092,639; Apr. 7; Gaz. vol. 201; p. 179.
Flint, Louis J., South Whitley, Ind., assignor to Grip Nut Company, Chicago, Ill. Gearing. No. 1,093,984; Apr. 21; Gaz. vol. 201; p. 708.
Flohr, Andrew, Colorado Springs, Colo. Saw-guard. No. 1,094,710; Apr. 28; Gaz. vol. 201; p. 1018.
Flood & Conklin Co. (See McIlwrath, Andrew, assignor.)
Flowers, Haywood. (See Cunningham and Flowers.)
Floyd, Leroy H., Lewiston, Nebr., and G. H. Ball, La Fayette, Ga. Hoof-spreader. No. 1,094,322; Apr. 21; Gaz. vol. 201; p. 819.
Folding-Stand Company. (See Stone, Harry A., assignor.)
Folger, Harry S., Chicago, Ill., A. M. Comstock, M. M. Corey, and W. Boulthouse, Muskegon, Mich., assignors to The Advance Manufacturing and Supply Company, Chicago, Ill. Hand-stamp. No. 1,094,062; Apr. 21; Gaz. vol. 201; p. 734.
Font y Amador, Vincent, Habana, Cuba. Type-writer. No. 1,095,063; Apr. 28; Gaz. vol. 201; p. 1138.
Food Products Co. (See Kirk and Hobson, assignors.)
Forbes, Carroll R., Rolla, Mo. Rock-drill bit. No. 1,094,063; Apr. 21; Gaz. vol. 201; p. 734.
Ford, Albert J., New York, N. Y. Printing-press. No. 1,092,830; Apr. 14; Gaz. vol. 201; p. 278.
Ford, James E., Hydro, Okla. Roller jewel-setter. No. 1,092,345; Apr. 7; Gaz. vol. 201; p. 77.
Ford, John C., deceased; M. E. Brown, administratrix, assignor of one-half to C. F. McFarland, Keokuk, Iowa. Suction apparatus. No. 1,093,389; Apr. 14; Gaz. vol. 201; p. 470.
Foreman, Harry L., San Dimas, Cal. Solar heater. No. 1,093,925; Apr. 21; Gaz. vol. 201; p. 689.
Fornander, Alfred. (See Green and Fornander.)
Forry, Charles E., Oakland, Cal. Can-top feeder. No. 1,092,706; Apr. 7; Gaz. vol. 201; p. 200.
Forté, Harry P., assignor to Beech-Nut Packing Company, Canajoharie, N. Y. Package-sealing machine. No. 1,094,139; Apr. 21; Gaz. vol. 201; p. 759.
Fortier, George, assignor of one-half to J. Geoffroy, Warren, R. I. Multiplier mechanism. No. 1,092,904; Apr. 14; Gaz. vol. 201; p. 302.
Foss-Hughes Company. (See Hughes, Arthur E., assignor.)
Foster Brothers Manufacturing Company. (See Foster, William S., assignor.)
Foster, Eliza B. (See Kleeman, Frederick, assignor.)
Foster, Merriam and Company. (See Palmer, Harry A., assignor.)
Foster, William S., assignor to Foster Brothers Manufacturing Company, Utica, N. Y. Wire-feeding device for coiling-machines. No. 1,093,390; Apr. 14; Gaz. vol. 201; p. 470.
Foulkes-Gaylord Company. (See Gaylord and Capps, assignors.)
Fourchy, Richard, Kansas City, Mo. Spring-wheel. No. 1,093,391; Apr. 14; Gaz. vol. 201; p. 470.
Fournet, Edmund M., St. Martinville, La. Machine for digging and cleaning ditches. No. 1,095,097; Apr. 28; Gaz. vol. 201; p. 1149.
Fouts, Samuel E. (See McCaskey and Fouts.)
Fowler Car Company, The. (See Fowler, William E., Sr., assignor.)
Fowler Car Company, The. (See Murray, Charles F., assignor.)
Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Car side. No. 1,093,839; Apr. 21; Gaz. vol. 201; p. 660.
Fowler, William E., Sr., assignor to The Fowler Car Company, Chicago, Ill. Boltless car side. No. 1,093,840; Apr. 21; Gaz. vol. 201; p. 660.
Fox, Henry C., Richmond, Ind. Railway-rail joint. No. 1,092,480; Apr. 7; Gaz. vol. 201; p. 124.
Fox, Lewis J., administrator. (See Fox, William C.)
Fox, William C., deceased; L. J. Fox, administrator, San Francisco, Cal. Gold-saving device. No. 1,092,524; Apr. 7; Gaz. vol. 201; p. 139.
Foyer Brothers & Company, The. (See Foyer, Melvin J., assignor.)
Foyer, Melvin J., assignor to The Foyer Brothers & Company, Toledo, Ohio. Push-handle for go-carts and the like. No. 1,093,322; Apr. 14; Gaz. vol. 201; p. 447.
Frame, Robert E., Michigan City, Ind. Draft-gear. No. 1,093,392; Apr. 14; Gaz. vol. 201; p. 471.
Frank, Norbert, Forst, Lusatia, Germany. Feeding device for horsehair-spinning machines. No. 1,095,098; Apr. 28; Gaz. vol. 201; p. 1149.
Frank, Richard T. (See Hopkins and Frank.)
Frank, William J., St. Louis, Mo. Clothes-pounder. No. 1,092,640; Apr. 7; Gaz. vol. 201; p. 179.
Franklin, Virgil E., Graymont, Ga. Land-marker. No. 1,092,346; Apr. 7; Gaz. vol. 201; p. 77.
Franquist, Gustave E., New Brunswick, N. J. Distance-rod for automobiles. No. 1,094,140; Apr. 21; Gaz. vol. 201; p. 760.
Frantz, Albert K., Flourtown, Pa. Adjustable level attachment. No. 1,093,775; Apr. 21; Gaz. vol. 201; p. 637.
Frascola, Antonio D., El Reno, Okla. Sole-edge trimming and finishing tool. No. 1,094,551; Apr. 28; Gaz. vol. 201; p. 958.
Fraser, Ethelbert M., Yonkers, N. Y. Electric motor. No. 1,094,711; Apr. 28; Gaz. vol. 201; p. 1018.
Fraser, Ethelbert M., Yonkers, N. Y., assignor, by mesne assignments, to General Elevator Company, Jersey City, N. J. Electric elevator system. No. 1,093,583; Apr. 14; Gaz. vol. 201; p. 529.
Frederickson, Clayton E., assignor of one-half to W. H. Stenger, San Francisco, Cal. Gas-engine. No. 1,094,481; Apr. 28; Gaz. vol. 201; p. 915.
Fredrickson, Walter, Porterville, Cal. Hand-protector. No. 1,092,207; Apr. 7; Gaz. vol. 201; p. 29.
Freeland, Frank A., Uniontown, Mo. Haystack-cover. No. 1,092,707; Apr. 7; Gaz. vol. 201; p. 201.
Freeman, Laban T., Brookville, Miss. Educational appliance. No. 1,093,690; Apr. 21; Gaz. vol. 201; p. 611.
French, G. Watson, *et al.* (See Einfeldt, Emil, assignor.)
French, Joseph, Woonsocket, R. I. Detachably-secured label. No. 1,093,985; Apr. 21; Gaz. vol. 201; p. 708.
French, Nathaniel, *et al.* (See Einfeldt, Emil, assignor.)
Freudenberg, Moses, St. Petersburg, Russia. Key-wheel type-writer. No. 1,095,099; Apr. 28; Gaz. vol. 201; p. 1150.
Frey, John F., Indianapolis, Ind. Preparing dry mats for stereotyping. No. 1,093,323; Apr. 14; Gaz. vol. 201; p. 448.
Fridlund, Lewis, Willmar, Minn. Curtain-stretcher. No. 1,092,347; Apr. 7; Gaz. vol. 201; p. 77.
Fridlund, Lewis, Willmar, Minn. Curtain-stretcher. No. 1,092,348; Apr. 7; Gaz. vol. 201; p. 78.
Friedlander, Eugene A., Cleveland, Ohio. Talking-machine. No. 1,093,611; Apr. 21; Gaz. vol. 201; p. 582.
Friedman, Leslie H., St. Kilda, Melbourne, Victoria, Australia. Line-spacing mechanism for type-writing machines. No. 1,094,432; Apr. 28; Gaz. vol. 201; p. 916.
Fritsch, Joseph, Sedro Woolley, Wash. Rat or animal trap. No. 1,093,691; Apr. 21; Gaz. vol. 201; p. 612.
Fritz, Julius, Petaluma, Cal. Handle for the covers of cooking utensils and the like. No. 1,093,393; Apr. 14; Gaz. vol. 201; p. 471.
From, James W., Shelby, Nebr. Corn-husking machine. No. 1,092,349; Apr. 7; Gaz. vol. 201; p. 78.
Frost, Charles H., Pasadena, Cal. Sewer or storm-drain construction and forming the same. No. 1,093,612; Apr. 21; Gaz. vol. 201; p. 582.
Früh, Karl, Weinheim, Germany, assignor to General Electric Company. Internal-combustion engine. No. 1,093,176; Apr. 14; Gaz. vol. 201; p. 397.
Fuerth, William G., Newark, N. J., assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y. Stenciling material. No. 1,092,768; Apr. 7; Gaz. vol. 201; p. 221.
Fuller, George J. A. (See Fuller, George, L., and G. J. A.)
Fuller, George, L., and G. J. A., Bow, London, England. Constructing secondary or storage batteries. No. 1,092,252; Apr. 7; Gaz. vol. 201; p. 44.
Fuller, George, L., and G. J. A., Bow, London, England. Secondary or storage battery. No. 1,092,253; Apr. 7; Gaz. vol. 201; p. 44.
Fuller, Leonard. (See Fuller, George, L., and G. J. A.)
Fullerton, George A., deceased, Boston, Mass.; M. H. Fullerton, executrix. Car-fender. No. 1,094,648; Apr. 28; Gaz. vol. 201; p. 994.
Fullerton, Mary H., executrix. (See Fullerton, George A.)
Fulton Company, The. (See Fulton, Weston M., assignor.)
Fulton Manufacturing Company. (See Adams, Arthur J., assignor.)
Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Flexible corrugated tubular metal wall. No. 1,094,323; Apr. 21; Gaz. vol. 201; p. 819.
Fulton, Weston M., assignor to The Fulton Company, Knoxville, Tenn. Flexible, tubular, corrugated-metal wall. No. 1,095,100; Apr. 28; Gaz. vol. 201; p. 1150.
Furuseth, Ole L., Belmond, Iowa. Fruit-drier. No. 1,093,044; Apr. 14; Gaz. vol. 201; p. 350.
Fynn, Valère A., London, England, assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Dynamo-electric machine. No. 1,093,045; Apr. 14; Gaz. vol. 201; p. 350.
G. Josephy's Erben. (See Queiser, Friedrich, assignor.)
Gaeth, Paul, Cleveland, Ohio. Gas or fluid motor. No. 1,093,177; Apr. 14; Gaz. vol. 201; p. 397.
Galbraith, Henry L., Bozeman, Mont. Dirigible headlight. No. 1,093,178; Apr. 14; Gaz. vol. 201; p. 397.
Gale, Spencer H., New York, N. Y. Beverage-shaker. No. 1,094,712; Apr. 28; Gaz. vol. 201; p. 1018.
Galion Iron Works and Manufacturing Company, The. (See Boyd, David C., assignor.)
Gall, Adolph F., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Motion-picture-projecting apparatus. No. 1,092,905; Apr. 14; Gaz. vol. 201; p. 303.

Gall, Adolph F., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Projecting apparatus. No. 1,092,906; Apr. 14; Gaz. vol. 201; p. 303.

Gallo, Charles. (See Burnett, Thomas H., assignor.)

Gallup, Rockwell L., Chicago, Ill., assignor, by mesne assignments, to N. Glab, Dubuque, Iowa. Bottle-washing machine. No. 1,093,841; Apr. 21; Gaz. vol. 201; p. 661.

Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Web-guiding device. No. 1,093,046; Apr. 14; Gaz. vol. 201; p. 350.

Gally, Robert A., assignor to The Baldwin Company, Cincinnati, Ohio. Web-guiding detector device. No. 1,093,179; Apr. 14; Gaz. vol. 201; p. 398.

Gamache, Edward E., assignor of one-fifth to J. K. Roy and one-fifth to W. McNamee, St. Louis, Mo. Car-fender. No. 1,094,387; Apr. 21; Gaz. vol. 201; p. 840.

Gammeter, Harry C., assignor to The American Multigraph Company, Cleveland, Ohio. Machine for assembling and distributing type. No. 1,094,064; Apr. 21; Gaz. vol. 201; p. 735.

Gammeter, Harry C., Bratenahl, assignor to The American Multigraph Company, Cleveland, Ohio. Duplicating-machine. No. 1,094,065; Apr. 21; Gaz. vol. 201; p. 735.

Gammeter, Harry C., assignor to The American Multigraph Company, Cleveland, Ohio. Distributing mechanism for type-cases. No. 1,094,891; Apr. 28; Gaz. vol. 201; p. 1078.

Gammeter, John R., Akron, Ohio, assignor to The B. F. Goodrich Company. Shoddy-strainer. No. 1,094,892; Apr. 28; Gaz. vol. 201; p. 1079.

Gandy Belting Company of Baltimore City, The. (See Mark, George L., assignor.)

Gapen, Jotham C. (See Hecht and Gapen.)

Garcean, Ward V., Grand Rapids, Mich. Air-tank. No. 1,092,641; Apr. 7; Gaz. vol. 201; p. 180.

Gardner Carburetor & Brass Works. (See Gardner, Levi S., assignor.)

Gardner, Harvey R., assignor to Home Creamery Manufacturing Company, Owatonna, Minn. Combined churn and butter-worker. No. 1,092,350; Apr. 7; Gaz. vol. 201; p. 70.

Gardner, John P., Cairo, Ill. Weather-strip. No. 1,093,394; Apr. 14; Gaz. vol. 201; p. 472.

Gardner, Levi S., Shreveport, La. Calipers. No. 1,092,254; Apr. 7; Gaz. vol. 201; p. 44.

Gardner, Levi S., Shreveport, La. Internal-combustion engine. No. 1,095,102; Apr. 28; Gaz. vol. 201; p. 1151.

Gardner, Levi S., New Orleans, assignor to Gardner Carburetor & Brass Works, Shreveport, La. Carbureter. No. 1,095,101; Apr. 28; Gaz. vol. 201; p. 1150.

Garred, Ulysses A., assignor of one-third to A. E. Wiggin and one-third to F. Laist, Anaconda, Mont. Multiple-deck concentrator. No. 1,093,986; Apr. 21; Gaz. vol. 201; p. 708.

Garrie, Daniel T. (See Wappler, Reinhold H., assignor.)

Garrigan, William H., and P. B. Daubenspeck, Coalinga, Cal. Elevator and spider for handling well-casings. No. 1,093,842; Apr. 21; Gaz. vol. 201; p. 661.

Garrison, Philip C., and R. Boomer, Detroit, Mich. Electric heat unit. No. 1,092,700; Apr. 7; Gaz. vol. 201; p. 228.

Garrity, George F., Scranton, Pa. Railway-spike. No. 1,092,351; Apr. 7; Gaz. vol. 201; p. 79.

Gartside, Joseph H., Philadelphia, Pa. Means for indicating broken rails. No. 1,092,986; Apr. 14; Gaz. vol. 201; p. 330.

Gassaway, Huey E., Floyd, Tex. Stay-hinge. No. 1,093,843; Apr. 21; Gaz. vol. 201; p. 662.

Gasser, Milton H., Toledo, Ohio. Removing chaff from coffee. No. 1,092,831; Apr. 14; Gaz. vol. 201; p. 278.

Gasser, Sanford, Sherman, Mich. Rail-holder. No. 1,092,525; Apr. 7; Gaz. vol. 201; p. 139.

Gawley, Thomas R., Bellingham, Wash. Ship construction. No. 1,093,692; Apr. 21; Gaz. vol. 201; p. 612.

Gaylord, Robert H., Pasadena, and G. B. Capps, assignors to Foulkes-Gaylord Company, Los Angeles, Cal. Signaling system. No. 1,093,926; Apr. 21; Gaz. vol. 201; p. 689.

Geary, Albert. (See Lautenbacher and Geary.)

Gehrke, Edward A., Lincoln, Nebr. Automatic fire-alarm. No. 1,093,395; Apr. 14; Gaz. vol. 201; p. 472.

Geiger, Adolph, Rochester, N. Y. Heel-compressor. No. 1,094,433; Apr. 28; Gaz. vol. 201; p. 917.

Geiser, Rudolph, assignor of one-half to F. C. Heyer, Toledo, Ohio. Air-coupling device. No. 1,093,613; Apr. 21; Gaz. vol. 201; p. 582.

General Acoustic Company. (See Lowe, Edgar, assignor.)

General Electric Company. (See Alexanderson, Ernst F. W., assignor.)

General Electric Company. (See Ball, Henry P., assignor.)

General Electric Company. (See Barringer and Zapf, assignors.)

General Electric Company. (See Bentley, Fred W., assignor.)

General Electric Company. (See Berliner, Arnold, assignor.)

General Electric Company. (See Callan, John G., assignor.)

General Electric Company. (See Churchward, Alexander, assignor.)

General Electric Company. (See Cubelic, Ludwig, assignor.)

General Electric Company. (See Dempster, John T. H., assignor.)

General Electric Company. (See Eichberg, Friedrich, assignor.)

General Electric Company. (See Früh, Karl, assignor.)

General Electric Company. (See Gilson, Emery G., assignor.)

General Electric Company. (See Hayden, Joseph L. R., assignor.)

General Electric Company. (See Hewlett and Eveleth, assignors.)

General Electric Company. (See Joos, Hermann, assignor.)

General Electric Company. (See Küch, Richard, assignor.)

General Electric Company. (See Lemp, Hermann, assignor.)

General Electric Company. (See Lyle, Fred W., assignor.)

General Electric Company. (See Moreton, Alfred G., assignor.)

General Electric Company. (See Morrison, George F., assignor.)

General Electric Company. (See Norton, Fred E., assignor.)

General Electric Company. (See Owen, Harry L., assignor.)

General Electric Company. (See Pagel, Gustav, assignor.)

General Electric Company. (See Pape, Wilhelm, assignor.)

General Electric Company. (See Phelps, James W., assignor.)

General Electric Company. (See Pirani, Marcello von, assignor.)

General Electric Company. (See Pratt, William H., assignor.)

General Electric Company. (See Rice, Richard H., assignor.)

General Electric Company. (See Sargent, Howard R., assignor.)

General Electric Company. (See Standerwick, Reginald G., assignor.)

General Electric Company. (See Steinmetz, Charles P., assignor.)

General Electric Company. (See Thomson, Elihu, assignor.)

General Electric Company. (See Ver Planck, William E., assignor.)

General Electric Company. (See Weintraub, Ezechiel, assignor.)

General Electric Company. (See Weintraub and Hibschman, assignors.)

General Electric Company. (See Weintraub and Kroner, assignors.)

General Electric Company. (See Whiting, Max A., assignor.)

General Electric Company. (See Whitney, Willis R., assignor.)

General Electric Company. (See Wilkinson, James, assignor.)

General Elevator Company. (See Fraser, Ethelbert M., assignor.)

General Fire Extinguisher Company. (See Meloon, Jonathan C., assignor.)

General Industries Company. (See Brinkman, Louis H., assignor.)

General Knit Fabric Company. (See Scott, Robert W., assignor.)

General Railway Signal Company. (See Howe, Winthrop K., assignor.)

General Railway Signal Company. (See Stevens, Oscar E., assignor.)

Geoffroy, Joseph. (See Fortier, George, assignor.)

George H. Frothingham Company. (See Prescott, Arthur T., assignor.)

George, Jerome R., assignor to Morgan Construction Company, Worcester, Mass. Reversing-valve for heating-furnaces. No. 1,093,047; Apr. 14; Gaz. vol. 201; p. 351.

George P. Clark Company. (See Oldroyd, Walter J., assignor.)

Gerber, Ralph. (See Donovan, Timothy H., assignor.)

Gerbing, Max P., Wentworth, Mo. Cultivator. No. 1,092,987; Apr. 14; Gaz. vol. 201; p. 331.

Gerhardt, Emil, Newport, Ky. Combination desk and chair. No. 1,093,396; Apr. 14; Gaz. vol. 201; p. 473.

Gering, Joseph P., Schrag, Wash. Spark-adjuster for explosive-engines. No. 1,092,255; Apr. 7; Gaz. vol. 201; p. 44.

German-American Portland Cement Works. (See Worm, Fritz, assignor.)

Geurin, Henry E., and W. D. Dean, Hermleigh, Tex. Weeder. No. 1,094,552; Apr. 28; Gaz. vol. 201; p. 958.

Gezelschap, Frederick W. (See Winding and Gezelschap.)

Gibbs, Charles, assignor to Underwood Typewriter Company, New York, N. Y. Stenciling-machine. No. 1,094,713; Apr. 28; Gaz. vol. 201; p. 1019.

Gibbs, Chester A. (See Lieber and Gibbs.)

Gibersoh, Mason B., assignor to Monarch Steel Castings Company, Detroit, Mich. Dust-collector for grinders. No. 1,094,553; Apr. 28; Gaz. vol. 201; p. 959.

Gibson, Alexander P. (See Graves, McCollman, and Gibson.)





Gibson, Francis W., Boston, Mass., assignor to Advertisers Company. Game apparatus. No. 1,092,842; Apr. 7; Gaz. vol. 201; p. 180.

Gier, Emil, Mount Angel, Oreg. Stovepipe-shield. No. 1,094,066; Apr. 21; Gaz. vol. 201; p. 735.

Gilbert, Sidney C., Newbern, N. C. Vending-machine. No. 1,092,988; Apr. 14; Gaz. vol. 201; p. 331.

Gillespie, Osro H., Madison, Nebr. Burial-casket. No. 1,093,324; Apr. 14; Gaz. vol. 201; p. 448.

Gillies, John S., Manila, Philippine Islands. Uniting the fibers of fibrous plants. No. 1,095,103; Apr. 28; Gaz. vol. 201; p. 1151.

Gilmore, William E., assignor of one-fourth to M. J. Fitzgerald and one-fourth to C. H. Brown, Richmond, Cal. Sash-lock. No. 1,094,087; Apr. 28; Gaz. vol. 201; p. 1113.

Gilson, Emery G., Schenectady, N. Y., assignor to General Electric Company. Brush for dynamo-electric machines. No. 1,093,614; Apr. 21; Gaz. vol. 201; p. 583.

Giolitti, Federico, Turin, assignor to Societa Anonima Italiana Gio. Ansaldo Armstrong & Co., Genoa, Italy. Cementation of articles of iron, steel, and alloys of steel. No. 1,093,844; Apr. 21; Gaz. vol. 201; p. 662.

Girod, Edgar F., Monroe, La. Rotary engine. No. 1,093,584; Apr. 14; Gaz. vol. 201; p. 529.

Gitzendanner, Charles, New York, N. Y., assignor to Kast Inserting and Gathering Machine Company. Book or pamphlet making machine. No. 1,092,439; Apr. 7; Gaz. vol. 201; p. 109.

Glab, Nicholas. (See Gallup, Rockwell L., assignor.)

Glauber, Joseph H., Cleveland, Ohio. Coupling or lock-nut. No. 1,092,256; Apr. 7; Gaz. vol. 201; p. 45.

Gleason, Edward D., Brooklyn, assignor, by mesne assignments, to Neu-Metals and Process Company, Long Island City, N. Y. Alloy. No. 1,093,557; Apr. 14; Gaz. vol. 201; p. 520.

Gleason, Thomas F., assignor of one-third to A. Davis, Muscatine, Iowa. Life-saving apparatus. No. 1,093,987; Apr. 21; Gaz. vol. 201; p. 709.

Glen Rock Stamping Company, The. (See Kenly, Wilmer F., assignor.)

Glenn, Allan, London, England. Propulsion of vessels on and immersed in water. No. 1,093,693; Apr. 21; Gaz. vol. 201; p. 612.

Glenn, Allen, Enid, Okla., assignor to C. J. and C. C. Quinn, Boone, Iowa. Conduit-tile-molding machine. No. 1,095,104; Apr. 28; Gaz. vol. 201; p. 1151.

Glidden, Samuel H., assignor of one-half to M. H. Ingersoll, Seattle, Wash. Hook and eye. No. 1,093,260; Apr. 14; Gaz. vol. 201; p. 425.

Glidden, Wallace D. (See Hurff, George M., assignor.)

Glines, George A., *et al.* (See Lockhart, Robert R., assignor.)

Glynn, James F., *et al.* (See Deatherage, Isaac, assignor.)

Gnüchtel, Guido, Lauter, Germany. Electric welding. No. 1,094,141; Apr. 21; Gaz. vol. 201; p. 760.

Godeau, Pierre L. M. (See Boyer and Godeau.)

Godfrey, Alexander, Bradford, Mass. Last. No. 1,094,988; Apr. 28; Gaz. vol. 201; p. 1114.

Godley, Charles E., assignor to Edmunds and Jones Manufacturing Company, Detroit, Mich. Lamp. No. 1,093,122; Apr. 14; Gaz. vol. 201; p. 378.

Godwin, Kirjath A., Salem, N. J. Tool for finishing heads of bottles. No. 1,092,569; Apr. 7; Gaz. vol. 201; p. 153.

Goebel, Leo A., Philadelphia, Pa. Combined cigarette humidor and delivering device. No. 1,094,824; Apr. 21; Gaz. vol. 201; p. 819.

Goehler, Max, Vancouver, British Columbia, Canada. Milking device. No. 1,093,845; Apr. 21; Gaz. vol. 201; p. 662.

Goeken, Charles A. (See Schields, Fritz W., assignor.)

Goetze, William A., and W. A. Day, Weaverville, Cal. Tire-valve. No. 1,093,397; Apr. 14; Gaz. vol. 201; p. 473.

Goggin, Pauline H., Salem, Mass. Internal-combustion engine. No. 1,094,554; Apr. 28; Gaz. vol. 201; p. 959.

Gold, Egbert H., Chicago, Ill. Multiple-circuit steam-heating system. No. 1,092,570; Apr. 7; Gaz. vol. 201; p. 153.

Gold, Frank, Richmond, Victoria, Australia. Machine for manufacturing spring-headed nails. No. 1,093,398; Apr. 14; Gaz. vol. 201; p. 473.

Golde Patent Manufacturing Company, G. m. b. H. (See Golde, Traugott, assignor.)

Golde, Traugott, assignor to Golde Patent Manufacturing Company, G. m. b. H., Gera, Germany. Hinged vehicle-hood. No. 1,092,352; Apr. 7; Gaz. vol. 201; p. 79.

Golden, Charles E. (See Anderson, Edward V., assignor.)

Golden, Daniel J., Randolph, Mass. Sporting-shoe. No. 1,094,434; Apr. 28; Gaz. vol. 201; p. 917.

Golden West Motors Company. (See Robinson, Edward S., assignor.)

Goldsborough, Charles F., Monett, Mo., assignor to Peerless Vacuum Engine Company, Phoenix, Ariz. Power plant. No. 1,092,257; Apr. 7; Gaz. vol. 201; p. 45.

Goldsborough, John B., Croton, N. Y. Underpinning buildings. No. 1,093,261; Apr. 14; Gaz. vol. 201; p. 426.

Goldsborough, John B., Croton, N. Y. Underpinning buildings. No. 1,093,262; Apr. 14; Gaz. vol. 201; p. 426.

Goldsmith, Stern & Co. (See Mountford, Clarence E., assignor.)

Goll, Eugene R., assignor to Elliott-Fisher Company, Harrisburg, Pa. Ribbon mechanism. No. 1,094,649; Apr. 28; Gaz. vol. 201; p. 994.

Good, John, New York, N. Y. Stop-motion. No. 1,094,435; Apr. 28; Gaz. vol. 201; p. 917.

Goodhue, James E., St. Charles, Ill. Corn-husking machine. No. 1,094,848; Apr. 28; Gaz. vol. 201; p. 1065.

Goodloe, Hawthorne A., *et al.* (See Waddell, Edward B., Jr., assignor.)

Goodwin, John E., Norwood, Mass. Controlling device for water-heating systems. No. 1,095,105; Apr. 28; Gaz. vol. 201; p. 1152.

Goodyear Tire and Rubber Company, The. (See Upson, Ralph H., assignor.)

Gookin, Albert T., Cambridge, Mass. Resilient wheel. No. 1,093,399; Apr. 14; Gaz. vol. 201; p. 474.

Goolsby, Margaret E., Orlando, Fla. Surgical apparatus. No. 1,092,643; Apr. 7; Gaz. vol. 201; p. 180.

Gordon, Robert E., Wallaceburg, Ontario, Canada. Purifying and clarifying raw sugar-cane juices. No. 1,094,436; Apr. 28; Gaz. vol. 201; p. 918.

Gorham, William R., Oakland, Cal. Gearing. No. 1,094,142; Apr. 21; Gaz. vol. 201; p. 760.

Gorman, James A., and H. W. Sumner, assignors to Phoenix Sales Company, Seattle, Wash. Stump-pulling apparatus. No. 1,092,907; Apr. 14; Gaz. vol. 201; p. 304.

Goss Printing Press Company, The. (See Johnston, Robert T., assignor.)

Gottfrid, Daniel, Kansas City, Kans. Weed-puller. No. 1,093,400; Apr. 14; Gaz. vol. 201; p. 474.

Gottlieb, Herman A., New York, N. Y. Attachment for stereopticons. No. 1,093,401; Apr. 14; Gaz. vol. 201; p. 474.

Goudschaal, Godlove E., Raymond, Minn. Boot-cleaner. No. 1,092,832; Apr. 14; Gaz. vol. 201; p. 279.

Gounouilhou, Marcel, Bordeaux, France. Means for propelling ships and the like. No. 1,095,106; Apr. 28; Gaz. vol. 201; p. 1152.

Goyette, Olivier, New York, N. Y. Triangle-box. No. 1,093,123; Apr. 14; Gaz. vol. 201; p. 378.

Graber, Edward D., Greenwich, Conn. Perpetual calendar. No. 1,092,208; Apr. 7; Gaz. vol. 201; p. 29.

Grace, Patrick H., Los Angeles, Cal. Auxiliary air device for internal-combustion engines. No. 1,094,555; Apr. 28; Gaz. vol. 201; p. 960.

Graham & Latham Limited. (See Lean, Clement, assignor.)

Graham, William S., assignor to Parlin and Orendorff Company, Canton, Ill. Riding-cultivator. No. 1,092,481; Apr. 7; Gaz. vol. 201; p. 125.

Grälert, Karl P. (See Flachslaender, Grälert, and Buff.)

Grant, Basil H., Jamaica, assignor to A. G. Spalding & Bros., New York, N. Y. Polo-bag. No. 1,092,833; Apr. 14; Gaz. vol. 201; p. 279.

Grant, Frank H., St. Clair Heights, Mich. Shingle. No. 1,094,893; Apr. 28; Gaz. vol. 201; p. 1079.

Grant, Robert P., Hartford, Conn. Belt. No. 1,093,263; Apr. 14; Gaz. vol. 201; p. 427.

Graves, George W., M. McCollman, and A. P. Gibson, Alderson, W. Va. Spring-wheel. No. 1,093,124; Apr. 14; Gaz. vol. 201; p. 379.

Gray, George, Sisseton, S. D. Bed-spring. No. 1,093,402; Apr. 14; Gaz. vol. 201; p. 475.

Gray, John, Jr., New Orleans, La. Lamp-guard. No. 1,092,708; Apr. 7; Gaz. vol. 201; p. 201.

Gray, Milton H., Springfield, Ohio. Circuit for electric lighting or power. No. 1,093,615; Apr. 21; Gaz. vol. 201; p. 583.

Gray Telephone Pay Station Company, The. (See Long, George A., assignor.)

Green, Fred H., San Francisco, Cal. Milk-tank washer and sterilizer. No. 1,094,785; Apr. 28; Gaz. vol. 201; p. 1042.

Green, Joshua, London, England. Talking-machine. No. 1,094,067; Apr. 21; Gaz. vol. 201; p. 736.

Green, Willard R., Chicago, Ill., and A. Fernander, New York, N. Y., assignors, by mesne assignments, to Wallace Novelty Company. Portable electric-lamp support. No. 1,094,409; Apr. 21; Gaz. vol. 201; p. 849.

Greene, William B., Natick, Mass. Making soles. (Reissue.) No. 13,715; Apr. 21; Gaz. vol. 201; p. 850.

Greenland, Loyd D., Knoxville, Iowa, assignor of one-half to A. and D. Vander Wilt and W. G. Vander Ploeg. Swingletree-hook. No. 1,094,556; Apr. 28; Gaz. vol. 201; p. 960.

Greenleaf, Rupert L., assignor of one-half to F. A. Carlson, Brockton, Mass. Heel-trimmer. No. 1,093,846; Apr. 21; Gaz. vol. 201; p. 663.

Gregory, Eli E., Central City, Ky. Water, land, and air machine. No. 1,094,989; Apr. 28; Gaz. vol. 201; p. 1114.

Greve, Herman L., New York, N. Y. Mailing-wrapper. No. 1,092,209; Apr. 7; Gaz. vol. 201; p. 29.

Greve, Herman L., New York, N. Y. Mailing-wrapper. No. 1,092,210; Apr. 7; Gaz. vol. 201; p. 30.

Grier, Frederick A., Salisbury, Md. Brake attachment for trucks. No. 1,092,989; Apr. 14; Gaz. vol. 201; p. 331.

Griesinger, John, Los Angeles, Cal. Book-sewing machine. No. 1,093,694; Apr. 21; Gaz. vol. 201; p. 613.

Griffin, Judson M., Detroit, Mich. Brake-shoe. No. 1,093,776; Apr. 21; Gaz. vol. 201; p. 637.

Griffin, Thomas J., Los Angeles, Cal. Rotary drilling-rig. No. 1,095,157; Apr. 28; Gaz. vol. 201; p. 1171.

Griffin, William H., Bishop, Md. Valve. No. 1,092,482; Apr. 7; Gaz. vol. 201; p. 125.

Grime, Thomas, assignor to Nashawena Mills, New Bedford, Mass. Leno-weaving. No. 1,095,176; Apr. 28; Gaz. vol. 201; p. 1179.

Grimm, Charles F., Le Roy, Minn. Solder. No. 1,093,403; Apr. 14; Gaz. vol. 201; p. 475.

Grip Nut Company. (See Flint, Louis J., assignor.)

Grizzard, Henry E., Franklin, Va. Envelop-opening device. No. 1,093,695; Apr. 21; Gaz. vol. 201; p. 613.

Grove, George F., Madison township, Montgomery county, Ohio. Automobile transmission-gear. No. 1,092,211; Apr. 7; Gaz. vol. 201; p. 80.

Grove, Robert E. L., Dickson, Tenn. Churn. No. 1,094,849; Apr. 28; Gaz. vol. 201; p. 1065.

Grushlaw, Samuel, Philadelphia, Pa. Pocket for sweaters. No. 1,092,144; Apr. 7; Gaz. vol. 201; p. 7.

Grusong, Henry, Cresson, Pa. Wheel-mount. No. 1,093,264; Apr. 14; Gaz. vol. 201; p. 427.

Guenther, Edward, West New York, N. J. Circulating-pump mechanism for exerting pressure. No. 1,093,696; Apr. 21; Gaz. vol. 201; p. 613.

Guignard, Gaston P., Melun, and H. L. A. M. Watrigant, Lille, France. Extraction of glycerin and fatty matters contained in distillery-vinasses. No. 1,092,791; Apr. 7; Gaz. vol. 201; p. 229.

Guilford, Wilhelminia M. (See Guilford, William C. J., assignor.)

Guilford, William C. J., assignor to W. M. Guilford, Washington, D. C. Impression device for dental use. No. 1,093,125; Apr. 14; Gaz. vol. 201; p. 379.

Guinzburg, Victor, New York, N. Y., assignor to I. B. Kleinert Rubber Company. Sanitary garment-protector. No. 1,093,616; Apr. 21; Gaz. vol. 201; p. 584.

Gulu, Ernest A. L., Prats-de-Mollo, France. Automatic apparatus for removing leaves, refuse, or large particles carried along by water, &c. No. 1,092,440; Apr. 7; Gaz. vol. 201; p. 110.

Gundersen, Sivert, assignor to S. Karpen & Bros., Chicago, Ill. Lock for sofa-bed seats, &c. No. 1,094,850; Apr. 28; Gaz. vol. 201; p. 1065.

Gunn, Charles H., Modesto, Cal. Scraper. No. 1,093,558; Apr. 14; Gaz. vol. 201; p. 520.

Guntrum, Hugo. (See Bonhoeffer and Guntrum.)

Gussette, Benjamin, Ward Springs, Minn. Extension car-step. No. 1,093,617; Apr. 21; Gaz. vol. 201; p. 584.

Gustafson, Magnus, and T. Swanson, Duluth, Minn. Swamp-horseshoe. No. 1,095,107; Apr. 28; Gaz. vol. 201; p. 1152.

Guth, Frederick A., Waverly, Ohio. Gate. No. 1,093,404; Apr. 14; Gaz. vol. 201; p. 475.

Gwynn, Emmer F. (See Haller, Winfield A., assignor.)

Gyllensten, Frank. (See Engblom, Eric, assignor.)

Gyro Motor Company. (See Moore, Robert S., assignor.)

H. Koppers Company. (See Koppers, Heinrich, assignor.)

H. Mueller Mfg. Co. (See Cash, Arthur W., assignor.)

H. B. Sherman Manufacturing Co. (See Church, Richard N., assignor.)

H. F. Brammer Manufacturing Company. (See Edens, John, assignor.)

H. P. Patents and Processes Company. (See Hochstetter, Frederick W., assignor.)

Haan, Isidore de, Amsterdam, Netherlands. Safety device for Bunsen burners, gas cooking-ranges, and the like. No. 1,093,180; Apr. 14; Gaz. vol. 201; p. 398.

Haas, Ferdinand G., St. Paul, Minn. Piston. No. 1,092,834; Apr. 14; Gaz. vol. 201; p. 279.

Haas, Jackson O., Philadelphia, Pa. Hat. No. 1,093,777; Apr. 21; Gaz. vol. 201; p. 637.

Haas, Joseph, Jr., Newport, Ky. Curtain-fastener. No. 1,093,927; Apr. 21; Gaz. vol. 201; p. 689.

Haas, Peter, New Athens, Ill., assignor of one-half to W. H. Sleight, St. Louis, Mo. Adjustable colter. No. 1,094,068; Apr. 21; Gaz. vol. 201; p. 736.

Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of welt-shoes. No. 1,093,697; Apr. 21; Gaz. vol. 201; p. 614.

Hadaway, William S., Jr., New York, N. Y. Temperature-regulator. No. 1,093,126; Apr. 14; Gaz. vol. 201; p. 379.

Hadaway, William S., Jr., New Rochelle, N. Y. Reciprocating heater. No. 1,094,714; Apr. 28; Gaz. vol. 201; p. 1019.

Hadaway, William S., Jr., New York, N. Y. Electric-resistance device. No. 1,094,851; Apr. 28; Gaz. vol. 201; p. 1066.

Haeger, David C., Elgin, Ill. Building-block. No. 1,093,127; Apr. 14; Gaz. vol. 201; p. 380.

Haennig, Joseph F., Masonville, Iowa. Pump-vent. No. 1,093,847; Apr. 21; Gaz. vol. 201; p. 663.

Haeseler, Charles H., Philadelphia, Pa. Percussive tool. No. 1,093,048; Apr. 14; Gaz. vol. 201; p. 351.

Hageman, John T., Ottawa, Ohio. Fertilizer-distributer. No. 1,093,928; Apr. 21; Gaz. vol. 201; p. 690.

Hagerthey, George W., Linwood, N. J. Dispensing-can. No. 1,093,325; Apr. 14; Gaz. vol. 201; p. 448.

Hagstrom, Carl J., Glen Cove, N. Y. Locking mechanism for double doors and windows. No. 1,094,143; Apr. 21; Gaz. vol. 201; p. 760.

Hakes, Curtis, Winsted, assignor to The Carter & Hakes Machine Company, Winchester, Conn. Lever-vise. No. 1,092,145; Apr. 7; Gaz. vol. 201; p. 7.

Halborg, Carl J., Rockford, Ill. Machine for backing off hobs or cutters for cutting gears. No. 1,092,571; Apr. 7; Gaz. vol. 201; p. 154.

Haldeman, Charles F., assignor to The Silver Manufacturing Company, Salem, Ohio. Feeding mechanism for ensilage-cutters. No. 1,094,557; Apr. 28; Gaz. vol. 201; p. 960.

Hale and Kilburn Company. (See Scott, Walter E., assignor.)

Hall, Fredrick H., Norton Lindsey, England. Manufacture of reinforced inner tubes of pneumatic tires. No. 1,094,325; Apr. 21; Gaz. vol. 201; p. 819.

Hallanan, Michael, New York, N. Y. Tire. No. 1,092,353; Apr. 7; Gaz. vol. 201; p. 79.

Hallen, Kasper, Chicago, Ill. Automobile-jack. No. 1,093,405; Apr. 14; Gaz. vol. 201; p. 475.

Hallenbeck, George E., assignor to Baker Brothers, Toledo, Ohio. Machine-tool. No. 1,093,265; Apr. 14; Gaz. vol. 201; p. 427.

Haller, Winfield A., New York, N. Y., assignor of one-half to E. F. Gwynn, Pittsburgh, Pa. Vestibule for street-railway cars. No. 1,092,644; Apr. 7; Gaz. vol. 201; p. 181.

Halogen Products Company, The. (See Aylsworth, Jonas W., assignor.)

Ham, Harry R., assignor to Berlin & Jones Envelope Co., New York, N. Y. Display-case. No. 1,094,326; Apr. 21; Gaz. vol. 201; p. 819.

Hamer, Walter, and J. H. Howarth, Bolton, assignors of one-half to The Fine Cotton Spinners' and Doublers' Association Limited, Manchester, England. Spinning-mule. No. 1,094,327; Apr. 21; Gaz. vol. 201; p. 820.

Hamerschlag, Arthur A., Pittsburgh, Pa. Producing an explosive mixture. No. 1,093,406; Apr. 14; Gaz. vol. 201; p. 475.

Hamilton, James L., Grand Junction, Colo. Orchard-heater. No. 1,094,401; Apr. 21; Gaz. vol. 201; p. 845.

Hamilton, James L., Grand Junction, Colo., assignor to Hamilton Orchard Heater Company, Wheeling, W. Va. Orchard-heater. No. 1,092,835; Apr. 14; Gaz. vol. 201; p. 279.

Hamilton, John F. (See Cunningham, Ernest A., assignor.)

Hamilton Orchard Heater Company. (See Hamilton, James L., assignor.)

Hamilton, William M., Philadelphia, Pa. Fortune-telling apparatus. No. 1,092,354; Apr. 7; Gaz. vol. 201; p. 79.

Hamm, William S., Hubbard Woods, Ill., assignor to The Adams & Westlake Company. Automobile-lamp. No. 1,093,618; Apr. 21; Gaz. vol. 201; p. 584.

Hamm, William S., Hubbard Woods, assignor to The Adams & Westlake Company, Chicago, Ill. Lamp. No. 1,093,619; Apr. 21; Gaz. vol. 201; p. 585.

Hammen, John J., Sac City, Iowa. Tile-car. No. 1,092,355; Apr. 7; Gaz. vol. 201; p. 80.

Hammer, Stephen, assignor of one-half to T. A. Clarke, Portland, Oreg. Miter-tool. No. 1,095,149; Apr. 28; Gaz. vol. 201; p. 1167.

Hammond, Ernest S., Valley Junction, Iowa. Hot-box cooler. No. 1,095,108; Apr. 28; Gaz. vol. 201; p. 1153.

Hammond, Richard, Winnipeg, Manitoba, Canada. Grain-stooker. No. 1,092,356; Apr. 7; Gaz. vol. 201; p. 80.

Hammond, Robert O., Amityville, assignor to Tywacana Farms Poultry Company, Farmingdale, Long Island, N. Y. Egg-carrier. No. 1,093,407; Apr. 14; Gaz. vol. 201; p. 476.

Hammond Typewriter Co., The. (See Lopez, Arthur, assignor.)

Hand, John L. H., Atco, N. J. Cover for navigation instruments. No. 1,092,645; Apr. 7; Gaz. vol. 201; p. 181.

Hankey, Albert, assignor of one-half to E. Nelson, Galloway, Wis. Elevator. No. 1,093,929; Apr. 21; Gaz. vol. 201; p. 690.

Hanna, David J., and F. H. Van Houten; said Van Houten assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y. Bearing and packing gland for mixing-machines. No. 1,093,620; Apr. 21; Gaz. vol. 201; p. 585.

Hanna, Oscar V., Meridian, Tex. Wheel. No. 1,093,988; Apr. 21; Gaz. vol. 201; p. 709.

Hannon, George R., Ivesdale, Ill. Railway-rail. No. 1,092,646; Apr. 7; Gaz. vol. 201; p. 181.

Hanrahan, John E., assignor to The Ad-Atype Matrix Company, Baltimore, Md. Making matrices. No. 1,092,709; Apr. 7; Gaz. vol. 201; p. 201.

Hansen, Augie L., assignor to The Justrite Mfg. Co., Chicago, Ill. Shield for portable acetylene-gas lamps. No. 1,093,128; Apr. 14; Gaz. vol. 201; p. 380.

Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Percussive drill. No. 1,093,266; Apr. 14; Gaz. vol. 201; p. 427.

Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Drill-cylinder. No. 1,093,408; Apr. 14; Gaz. vol. 201; p. 476.

Hansen, John M., Pittsburgh, Pa. Pedestal car-truck. No. 1,092,357; Apr. 7; Gaz. vol. 201; p. 81.

Hansen, Joseph. (See Findlay and Hansen.)

Hanson, Paul, Wild Horse, Colo. Butter-making machinery. No. 1,095,181; Apr. 28; Gaz. vol. 201; p. 1180.

Happer, Hervey L., Minneapolis, Minn. Roaster. No. 1,092,258; Apr. 7; Gaz. vol. 201; p. 45.

Harbot, Delbert D., Nichols, N. Y. Screw-driving machine. No. 1,093,848; Apr. 21; Gaz. vol. 201; p. 663.

Harden, Harry, assignor of one-half to R. L. Farrar, London, Ohio. Seeder attachment for gang and sulky plows. No. 1,092,358; Apr. 7; Gaz. vol. 201; p. 81.





Hardsocg, Lester C., assignor to The Hardsocg Manufacturing Company, Ottumwa, Iowa. Locking device. No. 1,092,908; Apr. 14; Gaz. vol. 201; p. 304.

Hardsocg Manufacturing Company, The. (See Hardsocg, Lester C., assignor.)

Hardy, Jean A., Paris, France. Differential gearing. No. 1,093,573; Apr. 14; Gaz. vol. 201; p. 525.

Hardy, Lawrence P., assignor to L. P. Hardy Printing Company, South Bend, Ind. Coupon or ticket holder. No. 1,092,909; Apr. 14; Gaz. vol. 201; p. 304.

Hare, Charles R., assignor to The Arrow Electric Company, Hartford, Conn. Pull-socket. No. 1,094,206; Apr. 21; Gaz. vol. 201; p. 783.

Harlan, Enoch, receiver. (See Dawson, Charles B., assignor.)

Harley, William S., Milwaukee, Wis. Three-wheel truck. No. 1,092,910; Apr. 14; Gaz. vol. 201; p. 305.

Harley, William S., Milwaukee, Wis. Transmission-gearing for motor-propelled vehicles. No. 1,094,558; Apr. 28; Gaz. vol. 201; p. 960.

Harn, Charles B., South Brownsville, assignor of one-third to A. D. Pringle and one-third to H. W. Tweed, Brownsville, Pa. Switch-lock. No. 1,092,259; Apr. 7; Gaz. vol. 201; p. 46.

Harp, Thad S., *et al.* (See Harrison, Henry, assignor.)

Harrington, Mabel, Newark, N. J. Brassière. No. 1,095,109; Apr. 28; Gaz. vol. 201; p. 1153.

Harris Automatic Press Company, The. (See Smith and Wright, assignors.)

Harris, Carl C., Orange, and D. A. Stowell, assignors to Simplex Time Recorder Company, Gardner, Mass. Workman's time-recorder. No. 1,095,158; Apr. 28; Gaz. vol. 201; p. 1171.

Harris, Charles R., Los Angeles, Cal., assignor of one-half to W. Hoyt, Cleveland, Ohio. Rigid element. No. 1,093,267; Apr. 14; Gaz. vol. 201; p. 428.

Harris, Christopher C., Bowling Green, Ky. Tobacco-press. No. 1,093,181; Apr. 14; Gaz. vol. 201; p. 399.

Harris, D. J., *et al.* (See Marrs, Vollie B., assignor.)

Harris, Frank, Wilmington, Ohio. Cultivator. No. 1,094,437; Apr. 28; Gaz. vol. 201; p. 918.

Harris, Frederick O., Newark, N. J., assignor to The Brassler Company. Jeweler's assembling-machine. No. 1,094,144; Apr. 21; Gaz. vol. 201; p. 761.

Harris, Harry. (See Harris, William G. and H.)

Harris, James S., Goldfield, Nev. Hat-fastener. No. 1,094,328; Apr. 21; Gaz. vol. 201; p. 820.

Harris, Jesse J., Canonsburg, Pa. Sprinkling-car for mines. No. 1,093,268; Apr. 14; Gaz. vol. 201; p. 428.

Harris, William G. and H., London, England. Fastening device. No. 1,092,647; Apr. 7; Gaz. vol. 201; p. 182.

Harris, William T., Louisville, Ky. Wheel. No. 1,093,849; Apr. 21; Gaz. vol. 201; p. 664.

Harrison, Harry W., Detroit, Mich. Game apparatus. No. 1,094,559; Apr. 28; Gaz. vol. 201; p. 961.

Harrison, Henry, assignor of one-fourth to T. S. Harp, Rifle, and one-half to I. L. Avery, Lander, Wyo. Beet-topper. No. 1,095,110; Apr. 28; Gaz. vol. 201; p. 1153.

Hart, Henry R., Montclair, N. J., assignor to A. G. Spalding & Bros., New York, N. Y. Knee-guard. No. 1,092,836; Apr. 14; Gaz. vol. 201; p. 280.

Hart, Hubert C. (See Keyes, Nelson B., assignor.)

Hartmann, Dennis I., Brooklyn, N. Y. Shaving and lather brush. No. 1,092,710; Apr. 7; Gaz. vol. 201; p. 201.

Hartmann, Frederick, Cincinnati, Ohio. Stair construction. No. 1,092,572; Apr. 7; Gaz. vol. 201; p. 154.

Hartmann Trunk Company. (See Wheary, George H., assignor.)

Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Spear for spring shade-rollers. No. 1,093,930; Apr. 21; Gaz. vol. 201; p. 690.

Hartshorn, Edmund F., Newark, assignor to Stewart Hartshorn Company, East Newark, N. J. Shade-roller. No. 1,093,931; Apr. 21; Gaz. vol. 201; p. 690.

Hartwig, Charles. (See Nissinen and Hartwig.)

Harvey, Redge, assignor of one-half to H. E. Marshall, Detroit, Mich. Mailing-package. No. 1,093,850; Apr. 21; Gaz. vol. 201; p. 664.

Haseltine, Stacey B., assignor to W. H. Miner, Chicago, Ill. Friction draft-rigging. No. 1,093,778; Apr. 21; Gaz. vol. 201; p. 638.

Haseltine, Walter S., Boston, Mass. Advertising novelty. No. 1,095,111; Apr. 28; Gaz. vol. 201; p. 1153.

Haskell, Broderick, Franklin, Pa. Telegraph-pole and the like. No. 1,093,326; Apr. 14; Gaz. vol. 201; p. 448.

Hassel, William G., and R. W. Zeditz, Waterbury, Conn. Moisture-removing device. No. 1,092,526; Apr. 7; Gaz. vol. 201; p. 139.

Hastings, William P., Henry, Tenn. Railway-tie. No. 1,093,129; Apr. 14; Gaz. vol. 201; p. 380.

Hatfield, Henry S., Jena, Germany. Means for measuring the rate of movement of a mechanism averaged over any predetermined period of time. No. 1,094,439; Apr. 28; Gaz. vol. 201; p. 919.

Hatfield, Henry S., Brunswick, Germany. Timing device. No. 1,094,440; Apr. 28; Gaz. vol. 201; p. 919.

Hatfield, Henry S., assignor to Firm of Schott & Gen., Jena, Germany. Glass tubing. No. 1,094,438; Apr. 28; Gaz. vol. 201; p. 918.

Hatfield, Richard H., New York, N. Y. Radiator. No. 1,092,711; Apr. 7; Gaz. vol. 201; p. 202.

Hauck, Arthur E., Brooklyn, N. Y. Oil-burner. No. 1,092,212; Apr. 7; Gaz. vol. 201; p. 31.

Hauer, Simen, and M. B. Jacobson, La Crosse, Wis. Automatic railway-gate. No. 1,092,712; Apr. 7; Gaz. vol. 201; p. 202.

Haugaard, Thomas A., Cheyenne, Wyo. Annunciator system. No. 1,095,112; Apr. 28; Gaz. vol. 201; p. 1154.

Haukenberry, Benjamin C., Kansas City, Mo. Switch-stand. No. 1,094,650; Apr. 28; Gaz. vol. 201; p. 994.

Haussler, William J., Brooklyn, assignor to Firm of M. Hohner, New York, N. Y. Display-stand. No. 1,093,327; Apr. 14; Gaz. vol. 201; p. 449.

Havens, Morton, Jr., Albany, N. Y. Branch box. No. 1,094,990; Apr. 28; Gaz. vol. 201; p. 1114.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Block-signal system. No. 1,094,441; Apr. 28; Gaz. vol. 201; p. 920.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Block-signal system. No. 1,094,894; Apr. 28; Gaz. vol. 201; p. 1079.

Hawley, Joel E., assignor of one-half to G. H. Brown, Kansas City, Mo. Apparatus for recovering gold-dust. No. 1,093,049; Apr. 14; Gaz. vol. 201; p. 352.

Haxby, Robert V., *et al.*, administrators. (See Oxias, Albert N.)

Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Arc-electrode and making it. No. 1,093,182; Apr. 14; Gaz. vol. 201; p. 399.

Hayden, Noah L., Bisbee, Ariz. Knockdown level. No. 1,094,651; Apr. 28; Gaz. vol. 201; p. 995.

Hays, Charles L., Eldora, Iowa. Steering mechanism for motor-vehicles. No. 1,093,130; Apr. 14; Gaz. vol. 201; p. 380.

Hays, Charles L., Eldora, Iowa. Load-supporting means for carrying-wheels. No. 1,093,131; Apr. 14; Gaz. vol. 201; p. 381.

Hayter, William H., South Norwood, England. Wheel-guard or obstruction-remover for vehicles. No. 1,094,388; Apr. 21; Gaz. vol. 201; p. 841.

Hayward, Martin A., East Bridgewater, Mass. Pull-on device for boots and shoes. No. 1,092,483; Apr. 7; Gaz. vol. 201; p. 125.

Hazard, Allen B., assignor of one-half to R. E. Humpston, Chicago, Ill. Indicator. No. 1,093,621; Apr. 21; Gaz. vol. 201; p. 586.

Hazen, Marshman W., New York, N. Y., assignor to Standard Typewriter Company. Carriage for type-writing machines. No. 1,092,837; Apr. 14; Gaz. vol. 201; p. 280.

Hazen, Marshman W., and O. Petermann, New York, N. Y., assignors to Standard Typewriter Company. Type-writing machine. No. 1,094,560; Apr. 28; Gaz. vol. 201; p. 961.

Hazen, Perley F., assignor to The E. and T. Fairbanks Company, St. Johnsbury, Vt. Weight. No. 1,094,895; Apr. 28; Gaz. vol. 201; p. 1080.

Heath, Charles B., assignor of one-half to G. W. Quigley, San Francisco, Cal. Cabinet-table. No. 1,094,786; Apr. 28; Gaz. vol. 201; p. 1043.

Heaton, Charles D., Providence, R. I. Plating. No. 1,093,698; Apr. 21; Gaz. vol. 201; p. 614.

Heaverside, James H. (See Smith and Heaverside.)

Hecht, Joseph, Riverside, Cal. Cultivator. No. 1,092,990; Apr. 14; Gaz. vol. 201; p. 332.

Hecht, Joseph L., *et al.* (See Einfeldt, Emil, assignor.)

Hecht, Julius L., Evanston, and J. C. Gapen, Oak Park, Ill., assignors of one-half to Electric Service Supplies Company, Philadelphia, Pa. Insulator-pin. No. 1,094,852; Apr. 28; Gaz. vol. 201; p. 1066.

Heckel, Otto A., St. Louis, Mo. Nut-lock. No. 1,093,050; Apr. 14; Gaz. vol. 201; p. 352.

Hedfeldt, Axel T., Chicago, Ill. Milling-machine. No. 1,094,069; Apr. 21; Gaz. vol. 201; p. 737.

Hedgcock, William C., Hammond, Ind., assignor to Simplex Railway Appliance Company, Chicago, Ill. Brake-beam. No. 1,093,851; Apr. 21; Gaz. vol. 201; p. 664.

Hedmark, Joseph H., Chicago, Ill. Steam-trap. No. 1,095,159; Apr. 28; Gaz. vol. 201; p. 1172.

Hegenscheidt, William. (See Jeczalik, John, assignor.)

Heggem, Alfred G., Pittsburgh, Pa. Control casing-head. No. 1,092,441; Apr. 7; Gaz. vol. 201; p. 110.

Heggie, James, Kilbowie, Clydebank, Scotland, assignor to The Singer Manufacturing Company, Elizabeth, N. J. Sewing-machine. No. 1,094,715; Apr. 28; Gaz. vol. 201; p. 1020.

Heinemann, Arthur, West Kensington, London, England. Depolymerization of turpentine or turpentine-oil. No. 1,092,838; Apr. 14; Gaz. vol. 201; p. 281.

Helnitz, Woldemar R., Chemnitz, Germany, assignor to The National Cash Register Company, Dayton, Ohio. Recording mechanism for cash-registers. No. 1,094,561; Apr. 28; Gaz. vol. 201; p. 962.

Heinrich, Jacob, Nuremberg, assignor to Metallpapier-Bronzefarben-Blattmetalwerke Aktiengesellschaft, Munich, Germany. Control device for sheet-separators. No. 1,092,359; Apr. 7; Gaz. vol. 201; p. 82.

Heins, Otto H. H., Edgewater, N. J. Electric switch. No. 1,094,562; Apr. 28; Gaz. vol. 201; p. 962.

Heintz, Otto L., Buffalo, N. Y. Ash-receptacle. No. 1,092,991; Apr. 14; Gaz. vol. 201; p. 332.

Heinz, Carl, and J. Du Roth, Johnstown, Pa. Collapsible car-body. No. 1,093,574; Apr. 14; Gaz. vol. 201; p. 525.

Heisler, Charles L., Schenectady, N. Y. Wheel for vehicles. No. 1,092,573; Apr. 7; Gaz. vol. 201; p. 155.

Heisler, Charles L., Schenectady, N. Y. Locomotive-sand-box arrangement. No. 1,093,989; Apr. 21; Gaz. vol. 201; p. 710.

Helfenstein, Alois, Vienna, Austria-Hungary. Electric induction heater or furnace. No. 1,093,328; Apr. 14; Gaz. vol. 201; p. 449.

Helfenstein, Alois, Vienna, Austria-Hungary. Collector. No. 1,094,563; Apr. 28; Gaz. vol. 201; p. 962.

Heller, Rose, Philadelphia, Pa. Screen. No. 1,093,779; Apr. 21; Gaz. vol. 201; p. 638.

Hellriegel, Edmund, Brooklyn, assignor to The Wagner Comb Manufacturing Co., New York, N. Y. Eyeglasses. No. 1,092,360; Apr. 7; Gaz. vol. 201; p. 82.

Hellwig, Gustave, and M. Lagelbaner, Bridgeport, Conn. Fly-catcher. No. 1,092,361; Apr. 7; Gaz. vol. 201; p. 82.

Helman, Maurice, Sidney, Ohio. Stamp-vending machine No. 1,093,409; Apr. 14; Gaz. vol. 201; p. 476.

Helmer, Alf, New York, N. Y. Knife and scissors sharpener. No. 1,092,713; Apr. 7; Gaz. vol. 201; p. 202.

Heman, Theodore R., Chicago, Ill. Juvenile cart. No. 1,092,992; Apr. 14; Gaz. vol. 201; p. 332.

Hemenger, Francis R., Algonac, Mich. Steering device for ships. No. 1,092,213; Apr. 7; Gaz. vol. 201; p. 31.

Hempel, Theodor. (See Jucker and Hempel.)

Hemstreet, Adelaide S., Indian Head, Saskatchewan, Canada. Combined crochet work-bag and spool-holder. No. 1,092,792; Apr. 7; Gaz. vol. 201; p. 229.

Henderson, Albert H., assignor to The Henderson Rubber Company, Baltimore, Md. Fibrous thread. No. 1,093,183; Apr. 14; Gaz. vol. 201; p. 390.

Henderson, Albert H., assignor to The Henderson Rubber Company, Baltimore, Md. Treating rawhide and the product resulting therefrom. No. 1,094,853; Apr. 28; Gaz. vol. 201; p. 1066.

Henderson, Ewen C., New Glasgow, Nova Scotia, Canada. Engine. No. 1,094,329; Apr. 21; Gaz. vol. 201; p. 820.

Henderson, James E., Birmingham, Ala. Safety device for electric cars. No. 1,094,564; Apr. 28; Gaz. vol. 201; p. 963.

Henderson Rubber Company, The. (See Henderson, Albert H., assignor.)

Hendrickson, Robert O., Portland, Oreg., assignor, by mesne assignments, to Wallis Tractor Company, Racine, Wis. Governor-head. No. 1,093,852; Apr. 21; Gaz. vol. 201; p. 664.

Hennes, George C., Benton Harbor, Mich. Rake-cleaner. No. 1,093,410; Apr. 14; Gaz. vol. 201; p. 476.

Hennessey, John H., assignor to The John T. Mauran Mfg. Co., Providence, R. I. Elastic-bracelet link. No. 1,092,648; Apr. 7; Gaz. vol. 201; p. 182.

Henrich, Henry, New York, N. Y. Machine for rolling finger-rings. No. 1,094,145; Apr. 21; Gaz. vol. 201; p. 762.

Henry F. Miller & Sons Piano Company. (See Paulson, Gustaf W. and R., assignors.)

Henry, R. D., *et al.* (See Ramsey, William H., assignor.)

Henry R. Worthington. (See De Laval, Carl G., assignor.)

Henson, Oscar. (See Barton and Henson.)

Henson, William P. (See Alge, Webb, and Henson.)

Hentschel, Andrew J., Schulenburg, Tex. Bridle and bit. No. 1,092,214; Apr. 7; Gaz. vol. 201; p. 31.

Hergesheimer, John, Glenside, Pa. Call system. No. 1,093,132; Apr. 14; Gaz. vol. 201; p. 381.

Herkena, Herken H., Gilman, Ill. Rivet. No. 1,092,862; Apr. 7; Gaz. vol. 201; p. 82.

Herman, Francis A., Slatington, Pa. Attachment for penholders. No. 1,093,133; Apr. 14; Gaz. vol. 201; p. 382.

Herman, Jessie E., *et al.* (See Reynolds, Henry B., assignor.)

Herman, Reinhold, Crafton, Pa. Automatic switch and locking device for lever control of steering-posts. No. 1,093,622; Apr. 21; Gaz. vol. 201; p. 586.

Herman, Reinhold, Crafton, Pa. Blue-printing apparatus. No. 1,093,623; Apr. 21; Gaz. vol. 201; p. 587.

Herr, Frederick, New York, N. Y. Hat-brim press. No. 1,093,411; Apr. 14; Gaz. vol. 201; p. 477.

Herrick Aiken Company. (See Ramsey, James C., Jr., assignor.)

Herrick, William J. (See La Batt, Homer C., assignor.)

Herther, August A., Indianapolis, Ind. Mail-bag catcher and deliverer. No. 1,093,624; Apr. 21; Gaz. vol. 201; p. 587.

Hertsler, Levi, Carlisle, Pa. Combined car fender and guard. No. 1,094,652; Apr. 28; Gaz. vol. 201; p. 995.

Hess, Albert, Friedberg, Hesse, Germany. Folding box. No. 1,093,412; Apr. 14; Gaz. vol. 201; p. 477.

Hess, Edward B., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Writing-machine. No. 1,094,146; Apr. 21; Gaz. vol. 201; p. 762.

Heuschkel, Max. (See Weiss, Bürker, and Heuschkel.)

Heuschkel, Otto E., Victoria Docks, England. Manufacture of artificial marble. No. 1,094,366; Apr. 21; Gaz. vol. 201; p. 832.

Heuser, Leonard, New York, N. Y. Safety-razor. No. 1,092,363; Apr. 7; Gaz. vol. 201; p. 83.

Hewitt, Charles B. (See Zackey, William W., assignor.)

Hewlett, Edward M., and C. E. Eveleth, Schenectady, N. Y., assignors to General Electric Company. Oil-switch. No. 1,093,051; Apr. 14; Gaz. vol. 201; p. 352.

Heyer, Ferdinand C. (See Geiser, Rudolph, assignor.)

Heylman, Edward M., assignor to Rock Island Plow Company, Rock Island, Ill. Wheel adjustment for plows. No. 1,093,990; Apr. 21; Gaz. vol. 201; p. 710.

Hibschman, Allen E. (See Weintraub and Hibschman.)

Higgin, Henry, assignor of one-half to The Higgin Manufacturing Company, Newport, Ky. Window-screen. No. 1,092,442; Apr. 7; Gaz. vol. 201; p. 111.

Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)

High Frequency Ignition Coil Company. (See Perkin, Howard W., assignor.)

Hill, George S., Strafford, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,094,896; Apr. 28; Gaz. vol. 201; p. 1050.

Hill, Henry, Phoenix, Ariz. Automobile-wheel. No. 1,093,413; Apr. 14; Gaz. vol. 201; p. 477.

Hill-Independent Mfg. Co. (See Scotford and Price, assignors.)

Hill, James B., Chicago, Ill. Float. No. 1,093,414; Apr. 14; Gaz. vol. 201; p. 477.

Hill, John M., Vancouver, British Columbia, Canada. Letter-filing clip. No. 1,094,716; Apr. 28; Gaz. vol. 201; p. 1020.

Hillcoat, Henry A., Amherst, Nova Scotia, Canada. Piano tuning-pin. No. 1,094,653; Apr. 28; Gaz. vol. 201; p. 996.

Himes, James M., Washington, D. C. Window-ventilator. No. 1,093,415; Apr. 14; Gaz. vol. 201; p. 478.

Hindman, Isaiah E., Crafton, assignor to The Duff Manufacturing Company, Pittsburgh, Pa. Jack. No. 1,093,260; Apr. 14; Gaz. vol. 201; p. 428.

Hinds, Jesse L., and J. J. Dossert, assignors to Crouse-Hinds Company, Syracuse, N. Y. Coupling for electric conductors. No. 1,094,717; Apr. 28; Gaz. vol. 201; p. 1020.

Hiner, Charles N., assignor to Hiner Specialty & Mfg. Co., Staunton, Va. Window-shade hanger. No. 1,094,070; Apr. 21; Gaz. vol. 201; p. 737.

Hiner Specialty & Mfg. Co. (See Hiner, Charles N., assignor.)

Hines, Edward, assignor of forty-nine one-hundredths to F. Tross, Jr., Louisville, Ky. Antiskidding device for automobiles. No. 1,093,416; Apr. 14; Gaz. vol. 201; p. 478.

Hinson, Robert E., assignor of one-half to S. Quayle, Hillsboro, Tex. Thermostat. No. 1,094,991; Apr. 28; Gaz. vol. 201; p. 1115.

Hinson, Walter M., Enfield, Conn. Tobacco-hanger. No. 1,093,270; Apr. 14; Gaz. vol. 201; p. 429.

Hinton, John R., Ontario, Oreg. Music-leaf turner. No. 1,092,527; Apr. 7; Gaz. vol. 201; p. 139.

Hipwell, Harry H., Pittsburgh, Pa. Globe-holder. No. 1,094,071; Apr. 21; Gaz. vol. 201; p. 737.

Hirsh, Arthur, Chicago, Ill. Folding bed. No. 1,093,329; Apr. 14; Gaz. vol. 201; p. 449.

Hitt, Jules H., El Paso, Tex., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Gas-producer. No. 1,094,897; Apr. 28; Gaz. vol. 201; p. 1080.

Hirth, Hellmuth, Johannisthal-Berlin, Germany. Flying-machine. No. 1,094,898; Apr. 28; Gaz. vol. 201; p. 1081.

Hiser, Charles H., assignor to The Springfield Metallic Casket Company, Springfield, Ohio. Metallic grave-vault. No. 1,092,260; Apr. 7; Gaz. vol. 201; p. 46.

Hjelkrem, Olof, Chicago, Ill. Shoe. No. 1,092,146; Apr. 7; Gaz. vol. 201; p. 8.

Hlinka, Mike, Cleveland, Ohio. Swimming apparatus. No. 1,093,417; Apr. 14; Gaz. vol. 201; p. 478.

Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Cartridge. No. 1,094,565; Apr. 28; Gaz. vol. 201; p. 963.

Hobson, Oliver J. (See Kirk and Hobson.)

Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Shutter for moving-picture machines. No. 1,094,147; Apr. 21; Gaz. vol. 201; p. 762.

Hochstetter, Frederick W., New York, N. Y., assignor to H. P. Patents and Processes Company, Inc. Shutter for moving-picture machines. No. 1,094,148; Apr. 21; Gaz. vol. 201; p. 763.

Hockett, Oscar C. (See Newsom, Albert L., assignor.)

Hodgson, John G., Maywood, Ill., assignor to American Can Company, New York, N. Y. Lacquered or protective-coated can. No. 1,094,899; Apr. 28; Gaz. vol. 201; p. 1081.

Hoefer, Benjamin C., Chicago, Ill. Coin-delivering machine. No. 1,093,052; Apr. 14; Gaz. vol. 201; p. 352.

Hoerr, Louis A., St. Louis, Mo. Slack-adjuster. No. 1,092,215; Apr. 7; Gaz. vol. 201; p. 32.

Hoerr, Louis A., St. Louis, Mo. Brake mechanism. No. 1,094,442; Apr. 28; Gaz. vol. 201; p. 920.

Hoey, John, San Francisco, Cal. Bed-spring fabric. No. 1,094,787; Apr. 28; Gaz. vol. 201; p. 1043.

Hoffman, Andrew A., assignor to Rome Sanitary Company, Rome, N. Y. Float-valve. No. 1,093,418; Apr. 14; Gaz. vol. 201; p. 478.

Hoffman, Arthur M., Camden, N. J. Crossing for street-railways. No. 1,093,184; Apr. 14; Gaz. vol. 201; p. 399.

Hoffman, Elmer W., Joplin, Mo. Ore-separator. No. 1,094,566; Apr. 28; Gaz. vol. 201; p. 963.

Hoffman, Frank, assignor to M. F. Hoffman, Cincinnati, Ohio. Governor for fire-engines. No. 1,093,585; Apr. 14; Gaz. vol. 201; p. 529.

Hoffman, John J., New Kensington, assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Metal car-roof. No. 1,092,484; Apr. 7; Gaz. vol. 201; p. 126.





Hoffman, John J., New Kensington, assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Car-roof. No. 1,092,485; Apr. 7; Gaz. vol. 201; p. 126.

Hoffman, John J., New Kensington, assignor, by mesne assignments, to P. H. Murphy Company, Parnassus, Pa. Manufacturing sheet-metal car-roof parts. No. 1,092,486; Apr. 7; Gaz. vol. 201; p. 126.

Hoffman, Martin H., Masontown, W. Va. Ladder. No. 1,093,419; Apr. 14; Gaz. vol. 201; p. 478.

Hoffman, Michael F. (See Hoffman, Frank, assignor.)

Hoffman, Rudolph, assignor to Sears, Roebuck and Company, Chicago, Ill. Oil-stove. No. 1,092,261; Apr. 7; Gaz. vol. 201; p. 47.

Hoffman, Rudolph, assignor to Sears, Roebuck and Company, Chicago, Ill. Blue-flame oil-burner. No. 1,092,262; Apr. 7; Gaz. vol. 201; p. 47.

Hoffman, Rudolph, assignor to Sears, Roebuck and Company, Chicago, Ill. Oil-stove. No. 1,094,149; Apr. 21; Gaz. vol. 201; p. 764.

Hofmann, Herman, Fontanelle, Iowa. Grain-separator. No. 1,093,853; Apr. 21; Gaz. vol. 201; p. 665.

Hofmann, Josef, Baumaroche, Switzerland. Pneumatic spring for vehicles. No. 1,094,567; Apr. 28; Gaz. vol. 201; p. 964.

Hohmann, Charles, Newark, N. J. Attachment for shoe-stands. No. 1,093,699; Apr. 21; Gaz. vol. 201; p. 614.

Hohner, Firm of M. (See Haussler, William J., assignor.)

Hoit, Charles S., assignor to Newton & Hoit Company, Chicago, Ill. Table. No. 1,094,900; Apr. 28; Gaz. vol. 201; p. 1082.

Hoke, John I., assignor to Oliver Chilled Plow Works, South Bend, Ind. Pole or tongue construction. No. 1,094,330; Apr. 21; Gaz. vol. 201; p. 821.

Holbrook, Frederick A., assignor to Caxton School Supply Company, Chicago, Ill. Blackboard-eraser. No. 1,093,625; Apr. 21; Gaz. vol. 201; p. 587.

Holder, Charles, Jr., New York, N. Y., assignor to Holder Welding Equipment Co. Blowpipe. No. 1,093,420; Apr. 14; Gaz. vol. 201; p. 479.

Holder Welding Equipment Co. (See Holder, Charles, Jr., assignor.)

Holland, George W., Tombstone, Ariz. Pinch-bar. No. 1,094,992; Apr. 28; Gaz. vol. 201; p. 1115.

Holland, Newman H., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 1,092,911; Apr. 14; Gaz. vol. 201; p. 806.

Hollander, Theron W., Fairfield, Iowa. Corner-shelf. No. 1,094,331; Apr. 21; Gaz. vol. 201; p. 821.

Holliday, James W., Liberty, S. C., assignor to Draper Company, Hopedale, Mass. Filling-severing device for looms. No. 1,092,263; Apr. 7; Gaz. vol. 201; p. 48.

Hollifield, Horatio B., Washington, D. C. Practice apparatus for small-arms. No. 1,094,854; Apr. 28; Gaz. vol. 201; p. 1067.

Hollings, Harry, Edinburg, Scotland. Side-lay mechanism for printing, ruling, folding, and like machines. No. 1,092,912; Apr. 14; Gaz. vol. 201; p. 306.

Hollingsworth, Charles M., Washington, D. C. Traveling-case. No. 1,094,207; Apr. 21; Gaz. vol. 201; p. 783.

Hollis, Elbert H., assignor of forty-nine one-hundredths to J. Thomas, Kansas City, Kans. Beet-harvester. No. 1,092,216; Apr. 7; Gaz. vol. 201; p. 32.

Holman, Edward E., Portland, Oreg. Oil-burner. No. 1,092,793; Apr. 7; Gaz. vol. 201; p. 229.

Holmes, Asa T., St. John, Wash. Steering device for cultivators. No. 1,093,421; Apr. 14; Gaz. vol. 201; p. 479.

Holmes, Harry, Noyo, Cal. Cable-guide. No. 1,092,714; Apr. 7; Gaz. vol. 201; p. 203.

Holst, John, assignor to Byron Jackson Iron Works, Berkeley, Cal. Hay-fork. No. 1,093,422; Apr. 14; Gaz. vol. 201; p. 479.

Holton Company, The. (See Bowen, Harry, assignor.)

Holub, Henry, Louise, Tex. Horse-releaser. No. 1,092,993; Apr. 14; Gaz. vol. 201; p. 332.

Holsman, Morris A., New York, N. Y. Safety device for self-propelled vehicles. No. 1,094,901; Apr. 28; Gaz. vol. 201; p. 1082.

Holsworth, Edward, Alliance, Ohio. Spark-plug. No. 1,093,423; Apr. 14; Gaz. vol. 201; p. 480.

Homans, Thomas S., Hempstead, assignor to International Typesetting Machine Company, New York, N. Y. Linotype-machine. No. 1,092,715; Apr. 7; Gaz. vol. 201; p. 203.

Home Creamery Manufacturing Company. (See Gardner, Harvey R., assignor.)

Hommel, Richard F., San Francisco, Cal. Automatic parachute attachment for aeroplanes. No. 1,092,443; Apr. 7; Gaz. vol. 201; p. 111.

Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Electric condenser and constructing the same. No. 1,094,718; Apr. 28; Gaz. vol. 201; p. 1020.

Hood Rubber Company. (See Earle, Richard B., assignor.)

Hood Rubber Company. (See Earle and Kyriakides, assignors.)

Hood Rubber Company. (See Kyriakides, Lucas P., assignor.)

Hood Rubber Company. (See Kyriakides and Earle, assignors.)

Hoover, Benjamin, Meridian, Miss. Safety attachment for railway-cars. No. 1,093,854; Apr. 21; Gaz. vol. 201; p. 665.

Hoover, Harry B., Chicago, Ill. Welding-torch. No. 1,092,913; Apr. 14; Gaz. vol. 201; p. 306.

Hoover, Theodore J. (See Nutter and Hoover.)

Hopkins, Alfred, assignor, by mesne assignments, to Bill Deesy Company, Boston, Mass. Construction member. No. 1,092,217; Apr. 7; Gaz. vol. 201; p. 32.

Hopkins, Cary N., Pasadena, and R. T. Frank, Los Angeles, Cal. Carton. No. 1,092,528; Apr. 7; Gaz. vol. 201; p. 139.

Hopkins, Charles E., Worcester, Mass., assignor, by mesne assignments, of one-half to F. Wesel Manufacturing Company, Brooklyn, N. Y. Stereotyping apparatus. No. 1,092,264; Apr. 7; Gaz. vol. 201; p. 48.

Hopkins, Evan H. (See Jockers, George W., assignor.)

Hopkins, Nevil M., Washington, D. C., assignor, by mesne assignments, to The Electric Tachometer Company, Philadelphia, Pa. Electromagnetic tachometer. No. 1,093,271; Apr. 14; Gaz. vol. 201; p. 429.

Hopkins, Ralph, New York, N. Y. Safety jewel-box. No. 1,094,788; Apr. 28; Gaz. vol. 201; p. 1043.

Hopkins, William E., Pittsburgh, Pa. Non-refillable cigar-box. No. 1,093,855; Apr. 21; Gaz. vol. 201; p. 665.

Hopkinson, Bertram, Cambridge, England. Cooling internal-combustion engines. No. 1,094,993; Apr. 28; Gaz. vol. 201; p. 1116.

Hoppe, Charles, Cincinnati, Ohio. Acetylene-gas lamp. No. 1,094,902; Apr. 28; Gaz. vol. 201; p. 1082.

Hopton, Stanley D. (See Pelton and Hopton.)

Horn, Guido, Weissensee, near Berlin, Germany. Rope-machine. No. 1,093,053; Apr. 14; Gaz. vol. 201; p. 353.

Horn, William J., St. Joseph, Mo. Butcher's skewering-awl. No. 1,092,529; Apr. 7; Gaz. vol. 201; p. 140.

Horne, James. (See Dawson and Horne.)

Hornich, William, Jr., assignor to Bastian Brothers Company, Rochester, N. Y. Key-ring. No. 1,094,568; Apr. 28; Gaz. vol. 201; p. 964.

Houck, Andrew. (See Sharp, Noah T., assignor.)

Housman, James H., and C. F. Jordan, Clifton Forge, Va. Equalizer for car-trucks. No. 1,092,530; Apr. 7; Gaz. vol. 201; p. 140.

Howard, Robert A., *et al.* (See Bahr, William F., assignor.)

Howarth, John H. (See Hamer and Howarth.)

Howe, Arthur J., Pittsburgh, Pa. Standing-desk attachment for roll-top desks. No. 1,094,208; Apr. 21; Gaz. vol. 201; p. 783.

Howe, Charles G., Macon, Mo. Shroud or other garment. No. 1,092,265; Apr. 7; Gaz. vol. 201; p. 48.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Electric signal mechanism. No. 1,092,266; Apr. 7; Gaz. vol. 201; p. 49.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Relay-bond. No. 1,093,780; Apr. 21; Gaz. vol. 201; p. 638.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Electric motor. No. 1,094,389; Apr. 21; Gaz. vol. 201; p. 841.

Howson, Ellis E., Salt Lake City, Utah. Extraction of precious metals from their carrier. No. 1,093,700; Apr. 21; Gaz. vol. 201; p. 615.

Hoyt, Worthington. (See Harris, Charles R., assignor.)

Hrubesky, Edward T., Schuyler, Nebr. Thill-coupling. No. 1,095,113; Apr. 28; Gaz. vol. 201; p. 1154.

Hubbard, Lemott D., Chicago, Ill. Pipe-coupling. No. 1,094,332; Apr. 21; Gaz. vol. 201; p. 821.

Hubbell, Daniel D., assignor to The White-Haines Optical Company, Columbus, Ohio. Shooting-glasses. No. 1,092,769; Apr. 7; Gaz. vol. 201; p. 221.

Hubbell, Harry C., Newark, N. J. Storage-battery electrode and manufacturing it. No. 1,094,903; Apr. 28; Gaz. vol. 201; p. 1083.

Hubbell, Henry C., Newark, N. J. Making storage-battery electrodes. No. 1,092,267; Apr. 7; Gaz. vol. 201; p. 49.

Huddleston, William R., Brownsville, Tex. Automatic drain-valve. No. 1,094,209; Apr. 21; Gaz. vol. 201; p. 784.

Hudson, John, Spokane, Wash. Sewing-machine attachment. No. 1,093,185; Apr. 14; Gaz. vol. 201; p. 399.

Huebner-Bleistein Patents Company. (See Huebner, William C., assignor.)

Huebner, William C., assignor to Huebner-Bleistein Patents Company, Buffalo, N. Y. Photographic method. No. 1,093,134; Apr. 14; Gaz. vol. 201; p. 382.

Huff, Herman C., Pittsburgh, Pa. Sewerage system. No. 1,092,649; Apr. 7; Gaz. vol. 201; p. 182.

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Vehicle-brake. No. 1,092,531; Apr. 7; Gaz. vol. 201; p. 140.

Hufford, Floyd E., Milford, Ill. Air-compressor. No. 1,094,994; Apr. 28; Gaz. vol. 201; p. 1116.

Hughes, Arthur E., assignor to Foss-Hughes Company, Philadelphia, Pa. Drip-pan. No. 1,094,210; Apr. 21; Gaz. vol. 201; p. 784.

Hughes, Howard R., Houston, Tex. Well-drilling apparatus. No. 1,094,904; Apr. 28; Gaz. vol. 201; p. 1083.

Hughes-Mahone, Nora E., London, England. Lady's headgear. No. 1,092,794; Apr. 7; Gaz. vol. 201; p. 230.

Hughes, Sidney D., Laurel, Miss. Ice-pick. No. 1,094,569; Apr. 28; Gaz. vol. 201; p. 964.

Hulbert, Charles P., assignor to Hulbert & Dorsey, Chicago, Ill. Plumbing-fitting. No. 1,093,626; Apr. 21; Gaz. vol. 201; p. 588.

Hulbert & Dorsey. (See Hulbert, Charles P., assignor.)

Humboldt Cement Products Mfg. Co. (See Mayer, John H., assignor.)

Humphrey, Ernest N., New Britain, Conn., assignor to United States Fastener Company, Boston, Mass. Snap-fastener. No. 1,094,333; Apr. 21; Gaz. vol. 201; p. 822.
Humphries, George, Haverhill, Mass. Mop. No. 1,092,770; Apr. 7; Gaz. vol. 201; p. 222.
Humpston, Richard E. (See Hazard, Allen B., assignor.)
Hunt, Helm, Ferris & Company. (See Ferris, Henry L., assignor.)
Hunt, Ormond E., assignor to Packard Motor Car Company, Detroit, Mich. Push-button support for motor-vehicles. No. 1,094,789; Apr. 28; Gaz. vol. 201; p. 1044.
Hunter, Freeman S., assignor of one-half to O. P. Hunter, Bedford, Ind. Metallic railway cross-tie. No. 1,094,719; Apr. 28; Gaz. vol. 201; p. 1021.
Hunter, James W., Andrew, assignor of one-fourth to B. D. Banks and one-fourth to O. P. Mosee, Sterling, W. Va. Rail-joint. No. 1,093,559; Apr. 14; Gaz. vol. 201; p. 521.
Hunter, John P., and H. Klintzler, Wilkes-Barre, Pa., assignors to Adder Machine Company. Adding-machine. No. 1,093,424; Apr. 14; Gaz. vol. 201; p. 480.
Hunter, Oliver P. (See Hunter, Freeman S., assignor.)
Huntington, Howard, Princeton, N. J. Nautical apparatus. No. 1,093,186; Apr. 14; Gaz. vol. 201; p. 400.
Huntley, Harry H., assignor of one-half to E. H. Sithens, Millville, N. J. Hub-band and coöperating wrench. No. 1,094,905; Apr. 28; Gaz. vol. 201; p. 1083.
Hupfel, Adolph G., New York, N. Y. Combined hop press and filter. No. 1,092,994; Apr. 14; Gaz. vol. 201; p. 333.
Hupp, Albert, Washington, D. C. Mail-exchange system. (Reissue.) No. 13,716; Apr. 21; Gaz. vol. 201; p. 850.
Hurd, Benjamin. (See Le Pontois, Leon J., assignor.)
Hurd, George H., assignor of one-half to W. R. Stacey, Farmington, N. H. Button and buttonhole marker. No. 1,094,334; Apr. 21; Gaz. vol. 201; p. 822.
Hurd, George W. (See Stimpson, Walter F., assignor.)
Hurd, Marcus C., Cassoday, Kans. Sterilizing-case. No. 1,092,716; Apr. 7; Gaz. vol. 201; p. 203.
Hurff, George M., Peoria, assignor to W. D. Glidden, Kewanee, Ill. Seed-corn hanger. No. 1,093,856; Apr. 21; Gaz. vol. 201; p. 665.
Hurst, Albert K., Dallas, Tex. Garment-waist adjuster. No. 1,094,654; Apr. 28; Gaz. vol. 201; p. 996.
Hurst, Wilford L., Aspen, Colo. Controlling device for waterways. No. 1,093,425; Apr. 14; Gaz. vol. 201; p. 480.
Hussey, Frank W., and C. H. Doty, assignors to The Kilbourne and Jacobs Manufacturing Company, Columbus, Ohio. Truck. No. 1,093,560; Apr. 14; Gaz. vol. 201; p. 521.
Huster, Frank. (See Roberts, William B., assignor.)
Hutchings, George F., Kansas City, Mo., and C. A. Woody, Denver, Colo., assignors to J. M. Jones, trustee. Mixing-machine. No. 1,092,771; Apr. 7; Gaz. vol. 201; p. 222.
Hutchinson, William S., Oyster Bay, N. Y. Drum-brake. No. 1,093,330; Apr. 14; Gaz. vol. 201; p. 449.
Hutchison, Miller R., Orange, N. J., assignor to Lovell-McConnell Manufacturing Company. Diaphragm-horn. No. 1,094,403; Apr. 21; Gaz. vol. 201; p. 846.
Hutto, Oscar L., Pellon, S. C. Vending-machine. No. 1,092,218; Apr. 7; Gaz. vol. 201; p. 33.
Hutts, Milton T., *et al.* (See Mullins, Ollie, assignor.)
I. R. Kleinert Rubber Company. (See Gulnzburg, Victor, assignor.)
I. E. Palmer Co., The. (See Palmer, Isaac E., assignor.)
I X L Pump and Manufacturing Company. (See Levering, Henry W., assignor.)
Icard, André J., Toulon, France. Automatic block system for preventing collisions on railways. No. 1,094,906; Apr. 28; Gaz. vol. 201; p. 1084.
Ickes, George A., Altoona, Pa. Refrigerator. No. 1,094,072; Apr. 21; Gaz. vol. 201; p. 738.
Idoine, Harry, Altoona, Pa. Locomotive sand-box. No. 1,092,268; Apr. 7; Gaz. vol. 201; p. 49.
Ilg, Alfred, Zurich, Switzerland. Controlling device for subsequently identifying persons at a business, negotiations, and the like. No. 1,094,073; Apr. 21; Gaz. vol. 201; p. 738.
Illig, Heinrich, Frankfort-on-the-Main, Bockenheim, Germany. Protector-frame for screens. No. 1,094,443; Apr. 28; Gaz. vol. 201; p. 921.
Illinois Modern Button & Machine Company. (See Lauesen, Albert C., assignor.)
Imhof, Joseph A., assignor to Kaufmann & Strauss Co., New York, N. Y. Display-stand. No. 1,094,995; Apr. 28; Gaz. vol. 201; p. 1116.
Indahl, Mauritz C. (See Bancroft and Indahl.)
Independent Button Fastener Machine Company. (See Stenman, Ella F., assignor.)
Independent Harvester Company. (See Nichols, Winfield S., assignor.)
Ingersoll, M. H. (See Glidden, Samuel H., assignor.)
Ingersoll Milling Machine Company, The. (See Smith, George W., assignor.)
Ingersoll-Rand Company. (See Banner, Otto, assignor.)
Ingersoll-Rand Company. (See Hansen, Charles C., assignor.)
Ingersoll-Rand Company. (See Treiber, William F., assignor.)
Ingbrsm, Howard T., Fairfield, Iowa. Mop-wringer. No. 1,093,932; Apr. 21; Gaz. vol. 201; p. 691.
Interlocking Fence Company. (See Stoddard, John D., assignor.)
International Agricultural Corporation. (See Peacock, Samuel, assignor.)
International Oxygen Company. (See Levin, Isaac H., assignor.)
International Steam Pump Company. (See Riesner, Michael, assignor.)
International Typesetting Machine Company. (See Homans, Thomas S., assignor.)
International Wire Company. (See Cook, Edward H., assignor.)
Internationale Neverfail Patentkurbelfenster G. m. b. H. (See Oehring, Oscar, assignor.)
Ironside, Matthew C., Kansas City, Kans. Car-coupling. No. 1,093,781; Apr. 21; Gaz. vol. 201; p. 639.
Irving-Pitt Manufacturing Company. (See Pitt, William P., assignor.)
Irwin, Richard, Farmington, Mo. Fence-post. No. 1,093,426; Apr. 14; Gaz. vol. 201; p. 481.
Isler, Max H., and O. Bally, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthraquinone dyes and making them. No. 1,093,427; Apr. 14; Gaz. vol. 201; p. 481.
J. Stevens Arms & Tool Company. (See Lewis, George S., assignor.)
J. D. Riedel Aktiengesellschaft. (See Bergell, Peter, assignor.)
J. G. Brill Co., The. (See Adams, Walter S., assignor.)
J. M. Kohler Sons Company. (See Kohler, Walter J., assignor.)
J. S. Bretz Company. (See Mooers, Louis P., assignor.)
Jackson, Earnest L., assignor of six-tenths to R. C. Deignan, Columbus, Ga. Stop-motion for speeders. No. 1,092,364; Apr. 7; Gaz. vol. 201; p. 83.
Jackson, Lucian C., Buffalo, N. Y. Electric igniting device for explosive-engines. No. 1,093,857; Apr. 21; Gaz. vol. 201; p. 666.
Jackson, Maunsell B., Jr., Vancouver, British Columbia, and P. T. Jackson, Toronto, Ontario, Canada; said Maunsell B. Jackson, Jr., assignor to said P. T. Jackson. Heating apparatus. No. 1,093,103; Apr. 14; Gaz. vol. 201; p. 371.
Jackson, Philip T. (See Jackson, Maunsell B., Jr., and P. T.)
Jackson, Robert E., Victoria, and F. E. Bell, Norfolk, Va. Spark-arrester. No. 1,093,054; Apr. 14; Gaz. vol. 201; p. 353.
Jackson, Walter L., assignor of one-half to T. King, Quincy, Mass. Drill-bit forming and sharpening machine. No. 1,094,655; Apr. 28; Gaz. vol. 201; p. 996.
Jackson, William B. (See Lindsay and Jackson.)
Jacobs, Arthur E., Cleveland, Ohio. Spelling-board. No. 1,094,570; Apr. 28; Gaz. vol. 201; p. 965.
Jacobs, Arthur I., Hartford, Conn. Adjustable tool. No. 1,092,650; Apr. 7; Gaz. vol. 201; p. 182.
Jacobs, Frank F., Indianapolis, Ind. Horseshoe ice-creeper. No. 1,094,571; Apr. 28; Gaz. vol. 201; p. 965.
Jacobs, Frank M., Topeka, Kans. Means for staying sectional walls. No. 1,093,428; Apr. 14; Gaz. vol. 201; p. 481.
Jacobs, Henry W. (See Leighty, William J., assignor.)
Jacobs, Henry W., Topeka, Kans. Boiler. No. 1,093,430; Apr. 14; Gaz. vol. 201; p. 482.
Jacobs, Henry W., Topeka, Kans., and F. W. Shupert, Bristol, Ind. Boiler-flue. No. 1,093,429; Apr. 14; Gaz. vol. 201; p. 481.
Jacobs, William R., Commerce, Tex. Ironing-board. No. 1,092,444; Apr. 7; Gaz. vol. 201; p. 112.
Jacobson, Charl. (See Lease and Jacobson.)
Jacobson, Magnus B. (See Hauer and Jacobson.)
Jacobus, David S. (See Sewall, Jacobus, and Palmer.)
Jacoway, Guy D., Dardanelle, Ark. Cabinet. No. 1,094,906; Apr. 28; Gaz. vol. 201; p. 1116.
Jacquemin, Eugene, Kent, Wash. Cork-extractor. No. 1,094,997; Apr. 28; Gaz. vol. 201; p. 1117.
Jahn, John R., Riverside, Cal. Rotary internal-combustion engine. No. 1,094,790; Apr. 28; Gaz. vol. 201; p. 1044.
James, Charles S., Jonesboro, Ind. Chicken-coop. No. 1,092,717; Apr. 7; Gaz. vol. 201; p. 204.
James, Thomas F., Darlington, S. C. Plow. No. 1,094,791; Apr. 28; Gaz. vol. 201; p. 1044.
Jamestown Window Screen Company. (See Carlson, Edvard, assignor.) (Reissue.)
Janneau, Charles A., assignor to Société Anonyme des Anciens Etablissements Charles Janneau, Paris, France. Manufacture of articles of agglomerated and reinforced cork. No. 1,094,656; Apr. 28; Gaz. vol. 201; p. 997.
Janney, Robert E. L., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Car-coupling. No. 1,093,858; Apr. 21; Gaz. vol. 201; p. 666.
Jansson, Charles A., assignor to Underwood Computing Machine Company, New York, N. Y. Shaft-coupling. No. 1,092,574; Apr. 7; Gaz. vol. 201; p. 155.
Jansson, Karl E. O., Flushing, assignor to Standard Plunger Elevator Company, New York, N. Y. Hydraulic elevator. No. 1,094,998; Apr. 28; Gaz. vol. 201; p. 1117.
Jaques, Fernando O., Jr., Cranston, assignor, by mesne assignments, to L. S. Moulthrop, Providence, R. I. Combined tap and drill-gage. No. 1,093,331; Apr. 14; Gaz. vol. 201; p. 450.
Jarrett, Wilbur H. (See West, Earl E., assignor.)





Jarvis, Ell, Faust, N. Y. Railway-tie. No. 1,094,572; Apr. 28; Gaz. vol. 201; p. 966.
Jecsalik, John, Chicago, assignor to W. Hegenscheidt, Worth, Ill. Shade-holder coupling. No. 1,092,795; Apr. 7; Gaz. vol. 201; p. 230.
Jedel, Aaron, New York, N. Y. Pyrotechnic device. No. 1,094,999; Apr. 28; Gaz. vol. 201; p. 1117.
Jeffrey Manufacturing Company, The. (See Fisher, Dudley T., assignor.)
Jenkins, Charles F., Washington, D. C. Aeroplane or flying-machine. No. 1,092,365; Apr. 7; Gaz. vol. 201; p. 83.
Jenkins, Charles F., Washington, D. C. Film-winding device. No. 1,093,933; Apr. 21; Gaz. vol. 201; p. 691.
Jenkins, William, Meaford, Ontario, Canada. Pianerguard. No. 1,094,657; Apr. 28; Gaz. vol. 201; p. 997.
Jenoi, Eugene, and S. Kruchio, Thorpe, W. Va.; said Jenoi assignor of one-half of the entire right to said Kruchio, R. M. Szabo, and S. Kruchio, Uniontown, Pa. Spring-heel. No. 1,094,211; Apr. 21; Gaz. vol. 201; p. 785.
Jensen, Julian B., Oakland, Cal. Gas-engine. No. 1,094,658; Apr. 28; Gaz. vol. 201; p. 998.
Jensen, Soren, Racine, Wis. Safety appliance for railways. No. 1,094,212; Apr. 21; Gaz. vol. 201; p. 785.
Jeppesen, John, Centerburg, Ohio. Milk cooler and aerator. No, 1,092,532; Apr. 7; Gaz. vol. 201; p. 141.
Jessup, William S., New York, N. Y. Coffee-percolator. No. 1,092,575; Apr. 7; Gaz. vol. 201; p. 155.
Jockers, George W., assignor to E. H. Hopkins, Cleveland, Ohio. Securing device for electrollers and the like. No. 1,093,332; Apr. 14; Gaz. vol. 201; p. 450.
John Maddock & Sons. (See Bamford, Frank W., assignor.)
John Steptoe Shaper Company, The. (See Atkinson, George K., assignor.)
John T. Mauran Mfg. Co., The. (Hennessey, John H., assignor.)
John Wanamaker Inc. (See Tily and Rehfuss, assignors.)
Johns, Luther. (See Paine, Clifford E., assignor.)
Johns-Pratt Company, The. (See Alvord, Elliot L., assignor.)
Johns-Pratt Company, The. (See Cole, Robert C., assignor.)
Johnson, Albin, *et al.* (See Johnson, Gustaf O., assignor.)
Johnson, Arnold O., Elnora, Ind. Train-stopping apparatus. No. 1,092,718; Apr. 7; Gaz. vol. 201; p. 204.
Johnson, Charles J., Chicago, Ill. Heating apparatus. No. 1,093,333; Apr. 14; Gaz. vol. 201; p. 450.
Johnson, Chester F., Detroit, Mich. Carbureter. No. 1,093,627; Apr. 21; Gaz. vol. 201; p. 588.
Johnson, Chris P., San Francisco, Cal. Shock-absorber. No. 1,093,187; Apr. 14; Gaz. vol. 201; p. 400.
Johnson Combined Pressing & Refinishing Iron Company. (See Johnson, Fritz, assignor.)
Johnson, Elmer F., assignor of one-half to G. W. Johnson, Chillicothe, Ohio. Gate-opener. No. 1,094,335; Apr. 21; Gaz. vol. 201; p. 822.
Johnson, Fritz, assignor to Johnson Combined Pressing & Refinishing Iron Company, Racine, Wis. Flat-iron. No. 1,092,839; Apr. 14; Gaz. vol. 201; p. 281.
Johnson, George T., Melrose, Mass. Roll-paper. No. 1,093,334; Apr. 14; Gaz. vol. 201; p. 451.
Johnson, George T., assignor to The Buckeye Steel Castings Co., Columbus, Ohio. Draft-gear for cars. No. 1,094,792; Apr. 28; Gaz. vol. 201; p. 1045.
Johnson, George W. (See Johnson, Elmer F., assignor.)
Johnson, Gustaf O., assignor of one-third to F. Lundquist and one-third to A. Johnson, Elkhart, Ind. Adjustable stool. No. 1,092,445; Apr. 7; Gaz. vol. 201; p. 112.
Johnson, Harry D., Jr., South Bend, Ind. Counterbalance for doors of dump-wagons. No. 1,094,793; Apr. 28; Gaz. vol. 201; p. 1045.
Johnson, Henry O., Buda, Ill. Separator. No. 1,092,719; Apr. 7; Gaz. vol. 201; p. 204.
Johnson, James M., Rice Lake, Wis. Bath-cabinet. No. 1,093,055; Apr. 14; Gaz. vol. 201; p. 353.
Johnson, Joseph E., Meriden, Conn. Coffee-pot. No. 1,092,772; Apr. 7; Gaz. vol. 201; p. 222.
Johnson, Mark W., Jr., Birmingham, Ala. Drying air for blast-furnaces. No. 1,093,859; Apr. 21; Gaz. vol. 201; p. 666.
Johnson, Martina, Forsyth, Mont. Darning device. No. 1,093,628; Apr. 21; Gaz. vol. 201; p. 588.
Johnson, Oscar J., Cloquet, Minn. Button-fastener. No. 1,092,773; Apr. 7; Gaz. vol. 201; p. 223.
Johnson, Philippe O. (See Brixen, Andrew C., assignor.)
Johnson, Presley B., Sacramento, Cal. Seal-lock. No. 1,093,135; Apr. 14; Gaz. vol. 201; p. 382.
Johnson, William E., and G. A. Pennock, assignors to Rock Island Plow Company, Rock Island, Ill. Planting-machine. No. 1,093,991; Apr. 21; Gaz. vol. 201; p. 711.
Johnson, William H., Stamps, Ark. Automatic train control. No. 1,093,782; Apr. 21; Gaz. vol. 201; p. 639.
Johnson, Wilner E., Brooklyn, N. Y. Door-control device for vehicles. No. 1,093,629; Apr. 21; Gaz. vol. 201; p. 589.
Johnson, Wilner E., Brooklyn, N. Y. Car construction. No. 1,094,444; Apr. 28; Gaz. vol. 201; p. 921.
Johnston, David S., Hiawatha, Utah. Mine-car truck. No. 1,093,783; Apr. 21; Gaz. vol. 201; p. 639.
Johnston, Nathan, Sugden, Okla. Fireplace. No. 1,094,659; Apr. 28; Gaz. vol. 201; p. 998.
Johnston, Robert T., assignor to The Goss Printing Press Company, Chicago, Ill. Casting printing-plates. No. 1,092,487; Apr. 7; Gaz. vol. 201; p. 127.
Joly, Henry E., Rathangan, Ireland. Apparatus for removing the honey from beehives. No. 1,092,210; Apr. 7; Gaz. vol. 201; p. 33.
Jonas, Alexander, assignor of one-third to J. Slater, Philadelphia, Pa. Railway-switch. No. 1,095,115; Apr. 28; Gaz. vol. 201; p. 1155.
Jones, Albert L., assignor of one-half to E. S. Swain, Seattle, Wash. Interior hatband. No. 1,092,774; Apr. 7; Gaz. vol. 201; p. 223.
Jones, Ambrose W., Owingsville, Ky. Curette. No. 1,092,914; Apr. 14; Gaz. vol. 201; p. 306.
Jones, Andrew F., Sacramento, Cal. Fire-escape. No. 1,094,213; Apr. 21; Gaz. vol. 201; p. 785.
Jones, Arthur J., Brookland, D. C., assignor to The Sanitary Wagon Co. Garbage-wagon. No. 1,094,573; Apr. 28; Gaz. vol. 201; p. 966.
Jones, Edwin, Greenfield, near Holywell, Wales. Vehicle-wheel. No. 1,094,574; Apr. 28; Gaz. vol. 201; p. 966.
Jones, Ernest A., New York, N. Y. Route-indicator mechanism. No. 1,092,147; Apr. 7; Gaz. vol. 201; p. 8.
Jones, Francis M., Emporia, Kans. Adjustable steel window-screen. No. 1,093,272; Apr. 14; Gaz. vol. 201; p. 430.
Jones, Harry W., Chicago, Ill., assignor to American Can Company, New York, N. Y. Paper-walled container vessel or package. No. 1,092,148; Apr. 7; Gaz. vol. 201; p. 8.
Jones, John M. C., Onarga, Ill. Scraper for green-corn-cutting machines. No. 1,092,995; Apr. 14; Gaz. vol. 201; p. 333.
Jones, Joseph M., trustee. (See Hutchings and Woody, assignors.)
Jontz, George L., Jenera, Ohio. Fly-trap. No. 1,094,336; Apr. 21; Gaz. vol. 201; p. 822.
Joos, Hermann, Berlin, Germany, assignor to General Electric Company. Tapped turbine. No. 1,093,934; Apr. 21; Gaz. vol. 201; p. 691.
Jordan, Charles F. (See Housman and Jordan.)
Jordan, Jason W., Jr., Lexington, Miss. Drawer-lock. No. 1,092,651; Apr. 7; Gaz. vol. 201; p. 183.
Jordan, Linwood F. (See Lamare, Vincent A., assignor.)
Joutras, Franklin C., Union Hill, N. J. Speculum. No. 1,094,575; Apr. 28; Gaz. vol. 201; p. 967.
Joy, Charles F., North Attleboro, Mass. Harness-saddle. No. 1,093,188; Apr. 14; Gaz. vol. 201; p. 400.
Jucker, Albert, and T. Hemmel, Kreuzlingen, Switzerland. Tensioning-frame for fabric to be embroidered and the like. No. 1,093,136; Apr. 14; Gaz. vol. 201; p. 383.
Judson, Hanford C., New York, N. Y. Milking-machine. No. 1,094,720; Apr. 28; Gaz. vol. 201; p. 1021.
Jullan, Gideon, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-rounding machine. No. 1,092,936; Apr. 14; Gaz. vol. 201; p. 334.
Justice, Carl, Henlawson, W. Va. Dough-board. No. 1,093,431; Apr. 14; Gaz. vol. 201; p. 482.
Justrite Mfg. Co., The. (See Hansen, Augie L., assignor.)
Kachelmeier, Charles, Sheboygan, Wis. Restraining device. No. 1,093,992; Apr. 21; Gaz. vol. 201; p. 711.
Kacsmarik, Paul, Bunola, Pa. Combined tie and rail-clamp. No. 1,094,150; Apr. 21; Gaz. vol. 201; p. 764.
Kafka, Carl F., Vienna, Austria-Hungary. Pessary. No. 1,093,993; Apr. 21; Gaz. vol. 201; p. 711.
Kaibel, Burkhardt, Darmstadt, Germany. Sewage and refuse separator. No. 1,093,994; Apr. 21; Gaz. vol. 201; p. 712.
Kalamazoo Loose Leaf Binder Co. (See Wigginton, George P., assignor.)
Kalina, Loeser, New York, N. Y. Combination-tool. No. 1,093,432; Apr. 14; Gaz. vol. 201; p. 482.
Kampfe, Richard, New York, N. Y. Locking means for safety-razor blades. No. 1,093,189; Apr. 14; Gaz. vol. 201; p. 401.
Kandle-Born Company. (See Kandle, Matthias M., assignor.)
Kandle, Matthias M., assignor to Kandle-Born Company, Springfield, Mass. Printing-press. No. 1,093,190; Apr. 14; Gaz. vol. 201; p. 401.
Kanellos, Peter, Los Angeles, Cal. Liquid-dispenser. No. 1,092,533; Apr. 7; Gaz. vol. 201; p. 141.
Kapelman, Felix G., New York, N. Y. Bed. No. 1,092,446; Apr. 7; Gaz. vol. 201; p. 112.
Kast Insetting and Gathering Machine Company. (See Gitzendanner, Charles, assignor.)
Kaufer, Joseph, Wilkes-Barre, Pa. Device for making syrup. No. 1,094,660; Apr. 28; Gaz. vol. 201; p. 999.
Kaufmann, Jacob, assignor to Steel Heddle Manufacturing Company, Philadelphia, Pa. Loom-harness. No. 1,093,995; Apr. 21; Gaz. vol. 201; p. 712.
Kaufmann & Strauss Co. (See Imhof, Joseph A., assignor.)
Kaven, Moses B., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Making dies. No. 1,095,116; Apr. 28; Gaz. vol. 201; p. 1155.
Kaven, Moses B., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Die. No. 1,095,117; Apr. 28; Gaz. vol. 201; p. 1155.
Kawalle, William E., Oakland, Cal. Miter-box. No. 1,092,576; Apr. 7; Gaz. vol. 201; p. 155.
Keating, Harry J., Chicago, Ill. Electromagnetic controlling device. No. 1,093,137; Apr. 14; Gaz. vol. 201; p. 383.

Kebabian, George S., New York, N. Y. Machine for treating and refinishing rugs and textile fabrics. No. 1,093,433; Apr. 14; Gaz. vol. 201; p. 483.

Keen, Eliot, New York, N. Y., assignor to Winchester Repeating Arms Co., New Haven, Conn. Bullet for pleasure target-shooting. No. 1,094,402; Apr. 21; Gaz. vol. 201; p. 846.

Keers, John, Brooklyn, N. Y. Tool for spreading the tubes of water-tube boilers. No. 1,092,840; Apr. 14; Gaz. vol. 201; p. 281.

Keith, Alexander. (See Weiss and Keith.)

Keith, George, assignor of one-half to J. Keith, London, England. Gas-lamp. No. 1,094,214; Apr. 21; Gaz. vol. 201; p. 785.

Keith, Irving L. (See Brittain, George E., assignor.) (Reissue.)

Keith, James. (See Keith, George, assignor.)

Keith, Mathus O., and K. D. McQueen, Denver, Colo. Hat-fastener. No. 1,094,661; Apr. 28; Gaz. vol. 201; p. 999.

Keith, Winfield L., Milltown, Me. Reed-hook. No. 1,094,855; Apr. 28; Gaz. vol. 201; p. 1067.

Keller-Dorian, Albert, Lyon, France. Device for the production of induced currents in magneto machines and dynamos. No. 1,095,118; Apr. 28; Gaz. vol. 201; p. 1155.

Keller, John M., Cleveland, Ohio. Pinion-housing. No. 1,092,915; Apr. 14; Gaz. vol. 201; p. 307.

Keller, Volney P., Malvern, Pa. Excavator. No. 1,094,215; Apr. 21; Gaz. vol. 201; p. 786.

Keller, William, Decatur, Ill. Switch-frog. No. 1,093,860; Apr. 21; Gaz. vol. 201; p. 667.

Kelley, Roy, Minden City, Mich. Igniter trip device for explosion-engines. No. 1,093,191; Apr. 14; Gaz. vol. 201; p. 402.

Kellogg, Alfred J., Newberg, Oreg. Compensating truck for railway-cars. No. 1,092,814; Apr. 7; Gaz. vol. 201; p. 237.

Kellogg, Ray E., Indio, Cal. Gearing. No. 1,094,216; Apr. 21; Gaz. vol. 201; p. 786.

Kelly, Charles F., Philadelphia, Pa. Railway-crossing. No. 1,093,784; Apr. 21; Gaz. vol. 201; p. 640.

Kelly, Crosby E., Griffin Corners, N. Y. Snap-hook. No. 1,093,630; Apr. 21; Gaz. vol. 201; p. 589.

Kelly, Henry D., Kansas City, Mo. Dispensing-urn. No. 1,092,907; Apr. 14; Gaz. vol. 201; p. 334.

Kelly, Ray, Knobnoster, Mo. Rotary engine. No. 1,093,861; Apr. 21; Gaz. vol. 201; p. 667.

Kelly, Thomas J., Denver, Colo. Railway signaling device. No. 1,094,217; Apr. 21; Gaz. vol. 201; p. 786.

Kelly, William M., New York, N. Y., assignor to American Type Founders Company, Jersey City, N. J. Printing-press. No. 1,092,998; Apr. 14; Gaz. vol. 201; p. 334.

Kelsey, Sidney E., Kansas City, Mo. Still or retort. No. 1,092,366; Apr. 7; Gaz. vol. 201; p. 84.

Kelso, Joseph and W., assignors to McConway & Torley Company, Pittsburgh, Pa. Car-coupling. No. 1,094,721; Apr. 28; Gaz. vol. 201; p. 1021.

Kelso, William. (See Kelso, Joseph and W.)

Kemmer, Adolph P. (See Anderson and Kemmer.)

Kemp, Oliver C., Chicago, Ill. Knockdown or collapsible stove. No. 1,094,151; Apr. 21; Gaz. vol. 201; p. 764.

Kemper, Charles W. (See Kemper, John T. and C. W.)

Kemper, John T. and C. W., assignors of one-third to E. A. Turner, Garberville, Cal. Oscillating gas-engine. No. 1,094,794; Apr. 28; Gaz. vol. 201; p. 1045.

Kemper, Leo N. (See Barton and Henson, assignors.)

Kempf, Henry J., Springfield, Mass., assignor, by mesne assignments, to Package Machinery Company. Gum-wrapping machine. No. 1,092,149; Apr. 7; Gaz. vol. 201; p. 8.

Kempshall, Eleazer, Providence, R. I., assignor to Roll Fabric Company. Drawing-roll. No. 1,092,775; Apr. 7; Gaz. vol. 201; p. 223.

Kendrick, Arthur B., East Orange, N. J. Jock-strap. No. 1,092,488; Apr. 7; Gaz. vol. 201; p. 127.

Kenly, Wilmer F., assignor to The Glen Rock Stamping Company, Glen Rock, Pa. Fountain for fowls. No. 1,093,335; Apr. 14; Gaz. vol. 201; p. 451.

Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,092,150; Apr. 7; Gaz. vol. 201; p. 9.

Kennedy, Harold H., assignor to Waverley Company, Indianapolis, Ind. Automobile-drive. No. 1,093,631; Apr. 21; Gaz. vol. 201; p. 590.

Kennedy, James E., Washington, D. C. Stove-top-supporting device. No. 1,092,918; Apr. 14; Gaz. vol. 201; p. 307.

Kennedy, Julian, Pittsburgh, Pa. Rolling-mill. No. 1,094,218; Apr. 21; Gaz. vol. 201; p. 787.

Kennedy, Julian, Pittsburgh, Pa. Mill-table. No. 1,094,219; Apr. 21; Gaz. vol. 201; p. 787.

Kennedy, Rolley R., Mansfield, Ohio. Horseshoe-calk remover. No. 1,094,576; Apr. 28; Gaz. vol. 201; p. 967.

Kennedy, Walter S., Duluth, Minn. Harness. No. 1,094,337; Apr. 21; Gaz. vol. 201; p. 822.

Kent, Everett E., Newton, Mass. Safety device for turnstiles. No. 1,093,935; Apr. 21; Gaz. vol. 201; p. 692.

Kent, Samuel R., High Springs, Fla. Steam-boiler plug. No. 1,093,434; Apr. 14; Gaz. vol. 201; p. 483.

Kepner, Roy, St. Elmo, Ill. Torpedo-setting device. No. 1,095,000; Apr. 28; Gaz. vol. 201; p. 1117.

Kesler, Elias, Oklahoma, Okla. Animal-trap. No. 1,093,632; Apr. 21; Gaz. vol. 201; p. 590.

Kesselring, Hermann M., Chicago, Ill. X-ray tube. No. 1,092,489; Apr. 7; Gaz. vol. 201; p. 128.

Kessler, Ernst, Chemnitz, Germany. Machine for measuring and marking webs of fabric, paper, and the like. No. 1,095,160; Apr. 28; Gaz. vol. 201; p. 1172.

Kestner, Paul, Lille, France. Nozzle for ventilating and humidifying apparatus. No. 1,093,996; Apr. 21; Gaz. vol. 201; p. 712.

Kettlewell, Robert B., Harrogate, England, assignor to Yost Writing Machine Company, Ilion, N. Y. Type-writing machine. No. 1,092,841; Apr. 14; Gaz. vol. 201; p. 282.

Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for use in the manufacture of boots and shoes. No. 1,094,548; Apr. 28; Gaz. vol. 201; p. 967.

Keyes, Nelson B., assignor to H. C. Hart, Unionville, Conn. Safety device for machine operators. No. 1,093,192; Apr. 14; Gaz. vol. 201; p. 402.

Kidston, Robert W. (See Crowe and Kidston.)

Kielland, Jakob D., Christiania, Norway, assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Locking device for electrical contacts. No. 1,094,907; Apr. 28; Gaz. vol. 201; p. 1084.

Kiesel, William F., Jr., Altoona, Pa. Car-brake. No. 1,092,917; Apr. 14; Gaz. vol. 201; p. 307.

Kilburn, Edward E., W. E. Smith, and I. W. Kilbourn, assignors to Kilbourn Manufacturing Corporation, New Brunswick, N. J. Circular-knitting machine. No. 1,092,577; Apr. 7; Gaz. vol. 201; p. 156.

Kilbourn, Isaac W. (See Kilbourn, Smith, and Kilbourn.)

Kilbourn Manufacturing Corporation. (See Kilbourn, Smith, and Kilbourn, assignors.)

Kilbourn Manufacturing Corporation. (See Smith, William E., assignor.)

Kilbourne and Jacobs Manufacturing Company, The. (See Hussey and Doty, assignors.)

Kiley, Thomas P., New York, N. Y. Closure. No. 1,094,662; Apr. 28; Gaz. vol. 201; p. 999.

Killebrew, Oscar D., Richmond, Va. Treating metal tubing. No. 1,093,435; Apr. 14; Gaz. vol. 201; p. 483.

Kimble Electric Co. (See Nies, John D., assignor.)

King, Andrew J., Hope, N. D. Lamp-burner. No. 1,093,336; Apr. 14; Gaz. vol. 201; p. 452.

King, Charles L. (See Corliss and Wharmby, assignors.)

King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Slip-sheeting machine. No. 1,094,008; Apr. 28; Gaz. vol. 201; p. 1084.

King, Robert O., North Tonawanda, N. Y. Composite rafter. No. 1,094,074; Apr. 21; Gaz. vol. 201; p. 788.

King, Theophilus. (See Jackson, Walter L., assignor.)

Kingsford, Russell T., Plainfield, N. J. Internal-combustion motor. No. 1,092,578; Apr. 7; Gaz. vol. 201; p. 156.

Kinnear Manufacturing Company, The. (See Voip, John, assignor.)

Kinnear, William R., Detroit, Mich. Metallic keg. No. 1,092,999; Apr. 14; Gaz. vol. 201; p. 335.

Kinsey, George, Wyoming, Ohio. Snell-fastening for fish-hooks. No. 1,093,000; Apr. 14; Gaz. vol. 201; p. 335.

Kintz, Henry E., Rochester, N. Y. Scale-beam. No. 1,094,722; Apr. 28; Gaz. vol. 201; p. 1022.

Kinzer, John J., Wildwood, assignor to Pittsburg Brake Shoe Company, Pittsburgh, Pa. Brake-shoe. No. 1,094,220; Apr. 21; Gaz. vol. 201; p. 788.

Kirby, Charles H. (See Low and Kirby.)

Kirby, Lewis H., Kalamazoo, Mich. Air-inlet device for the manifold of an engine. No. 1,093,701; Apr. 21; Gaz. vol. 201; p. 615.

Kirchhoff, William G., assignor to T. W. Remmers, St. Louis, Mo. Tag-addressing machine. No. 1,094,445; Apr. 28; Gaz. vol. 201; p. 921.

Kirk, Allan B., and O. J. Hobson, Portland, Oreg., assignors, by mesne assignments, to Food Products Co. Evaporator. No. 1,092,796; Apr. 7; Gaz. vol. 201; p. 230.

Kirkland, John H., St. Thomas, Ontario, Canada. Bag-tie fastener. No. 1,094,577; Apr. 28; Gaz. vol. 201; p. 967.

Kiser, Jacob D., Elyria, Ohio. Fuel-atomizer. No. 1,094,075; Apr. 21; Gaz. vol. 201; p. 739.

Kishler, Claude B., New York, N. Y. Foldable egg-boiler. No. 1,093,337; Apr. 14; Gaz. vol. 201; p. 452.

Klichen, Joseph M. W., East Orange, N. J. Utilizing fuel wastes. No. 1,094,390; Apr. 21; Gaz. vol. 201; p. 841.

Kitsee, Isidor, Philadelphia, Pa. Printing apparatus. No. 1,092,490; Apr. 7; Gaz. vol. 201; p. 128.

Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telegraphic receiving organism. No. 1,092,151; Apr. 7; Gaz. vol. 201; p. 9.

Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Telegraphy. No. 1,093,001; Apr. 14; Gaz. vol. 201; p. 335.

Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Relay. No. 1,093,702; Apr. 21; Gaz. vol. 201; p. 615.

Kitsee, Isidor, Philadelphia, Pa., assignor to American Telephone and Telegraph Company, New York, N. Y. Duplex telegraphy. No. 1,094,578; Apr. 28; Gaz. vol. 201; p. 968.

Kitson Machine Shop. (See Perham, Haven C., assignor.)

Klapper, Russell B., Monticello, Ind. Meter-reading device. No. 1,093,193; Apr. 14; Gaz. vol. 201; p. 402.





Kleeman, Frederick, assignor of one-half to E. B. Foster, Artesia, N. Mex. Trace-fastener. No. 1,093,436; Apr. 14; Gaz. vol. 201; p. 484.

Klein, Conrad, Philadelphia, Pa. Fender. No. 1,093,785; Apr. 21; Gaz. vol. 201; p. 640.

Kluge, Otto, Golconda, Ill. Mowing attachment for motor-vehicles. No. 1,092,720; Apr. 7; Gaz. vol. 201; p. 205.

Kluge, Otto, Golconda, Ill. Harvester. No. 1,092,721; Apr. 7; Gaz. vol. 201; p. 205.

Kluge, Otto, Golconda, Ill. Mowing attachment for motor vehicles. No. 1,092,722; Apr. 7; Gaz. vol. 201; p. 205.

Knapp, George O. (See Beach, Clarence E., assignor.)

Knapp, John E., Belmont, Mass. Safety-razor. No. 1,092,367; Apr. 7; Gaz. vol. 201; p. 84.

Knies, Henry E., White Haven, Pa. Fountain-pen. No. 1,092,368; Apr. 7; Gaz. vol. 201; p. 84.

Knight, William L., assignor to P. Arbon, Tulsa, Okla. Clamp. No. 1,093,703; Apr. 21; Gaz. vol. 201; p. 616.

Knittel, David G., assignor to American Fire Alarm Company, Pittsburgh, Pa. Signal device. No. 1,092,918; Apr. 14; Gaz. vol. 201; p. 308.

Knittel, David G., and W. J. Davis, assignors to American Fire Alarm Company, Pittsburgh, Pa. Signal-transmitter. No. 1,092,919; Apr. 14; Gaz. vol. 201; p. 308.

Knowlton, Charles F., Ross township, Allegheny county, and F. F. Elliot, Pittsburgh, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio. Molding-machine. No. 1,094,723; Apr. 28; Gaz. vol. 201; p. 1022.

Knox, Harry D., Marietta, Ohio. Latrine. No. 1,092,920; Apr. 14; Gaz. vol. 201; p. 309.

Knox, William S., Bridgeport, Ill. Stock-releasing device. No. 1,092,723; Apr. 7; Gaz. vol. 201; p. 205.

Koch, Charles W. F., and U. G. Shuler, Decatur, Ill. Elevating-caster. No. 1,092,220; Apr. 7; Gaz. vol. 201; p. 33.

Koch, George J. (See Lambert, Frederick C., assignor.)

Koechlin, Albert G., Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass. Thread-moistening apparatus for textile-machines. No. 1,094,856; Apr. 28; Gaz. vol. 201; p. 1067.

Koehler, Fred W., *et al.* (See Deatherage, Isaac, assignor.)

Koehler, Henry L., Louisville, Ky. Burning-press. No. 1,092,776; Apr. 7; Gaz. vol. 201; p. 223.

Koeppen, Ernst, Jersey City, N. J. Knife cleaning and polishing machine. No. 1,093,437; Apr. 14; Gaz. vol. 201; p. 484.

Köhler, Hugo. (See Merling, Chrzescinski, and Köhler.)

Kohler, Walter J., assignor to J. M. Kohler Sons Company, Sheboygan, Wis. Drain connection. No. 1,092,579; Apr. 7; Gaz. vol. 201; p. 157.

Kohn, Jacob, New York, N. Y. Closing and locking device for sliding doors. No. 1,094,909; Apr. 28; Gaz. vol. 201; p. 1085.

Koletar, Joseph, and J. Fekete, Bridgeport, Conn. Valve-grinding tool. No. 1,092,652; Apr. 7; Gaz. vol. 201; p. 183.

Kolsky, George, Niagara Falls, N. Y. Process of making chlorates and apparatus therefor. No. 1,092,369; Apr. 7; Gaz. vol. 201; p. 85.

König, Albert, assignor to Firm of C. Zeiss, Jena, Germany. Variable-power telescope. No. 1,094,724; Apr. 28; Gaz. vol. 201; p. 1023.

Koontz, Russell B. (See Boyd and Koontz.)

Kopp, George F. (See Stedman, Kopp, and Myers.)

Köppen, Lothar von, Potsdam, Germany. Ice-skate. No. 1,092,653; Apr. 7; Gaz. vol. 201; p. 183.

Koppers, Heinrich, Essen-on-the-Ruhr, Germany, assignor to H. Koppers Company, Chicago, Ill. Apparatus for discharging vertical retorts. No. 1,093,936; Apr. 21; Gaz. vol. 201; p. 692.

Kornbacher, John F. (See Schwarz, Albert, assignor.)

Kornmann, Ralf, Berlin, Germany. Air screw-propeller. No. 1,093,633; Apr. 21; Gaz. vol. 201; p. 590.

Korthauer, William L., Verdi township, Lincoln county, Minn. Weed-destroyer. No. 1,093,786; Apr. 21; Gaz. vol. 201; p. 641.

Kosman, Bessie A. (See Altman and Kosman.)

Kraft, Daniel, Oyster Bay, N. Y. Skylight and greenhouse bar. No. 1,093,937; Apr. 21; Gaz. vol. 201; p. 692.

Kramer, Hans von, Edgbaston, Birmingham, England. Means for the regulation or control of railway and like traffic. No. 1,094,407; Apr. 21; Gaz. vol. 201; p. 848.

Krantz, Carl. (See Blomberg, Peter A., assignor.)

Kratsmann, Gustav, Barsbüttel, Altrahlstedt, Germany. Transportable potato-hole-digging machine. No. 1,093,938; Apr. 21; Gaz. vol. 201; p. 692.

Kraus, Charles A., Newton Highlands, Mass. Conducting-seal for vacuum-containers. No. 1,093,997; Apr. 21; Gaz. vol. 201; p. 712.

Krauss, Adolf, Cannstatt, assignor to Firm of R. Bosch, Stuttgart, Germany. Brush-holder. No. 1,093,634; Apr. 21; Gaz. vol. 201; p. 591.

Kremelberg, Gertrude M., Pittsfield, Mass. Water system. No. 1,094,152; Apr. 21; Gaz. vol. 201; p. 765.

Kremer, Gustav, Paterson, N. J. Hat-binding. No. 1,093,338; Apr. 14; Gaz. vol. 201; p. 452.

Krentler-Arnold Hinge Last Company. (See Krentler, Walter A., assignor.)

Krentler, Walter A., assignor to Krentler-Arnold Hinge Last Company, Detroit, Mich. Last. No. 1,094,153; Apr. 21; Gaz. vol. 201; p. 765.

Kritter, William A., Amityville, N. Y., assignor to American Bank Note Company. Printing from intaglio, engraved, or undersurface plates. No. 1,092,269; Apr. 7; Gaz. vol. 201; p. 50.

Krone, Oscar E., Mapleton, Mich. Recording instrument. No. 1,093,704; Apr. 21; Gaz. vol. 201; p. 616.

Kroner, Frank A. (See Weintraub and Kroner.)

Kruchio, Sarah, *et al.* (See Jenol and Kruchio, assignors.)

Kruchio, Steve. (See Jenol and Kruchio.)

Krueck, Caroline. (See Krueck, Jakob G., assignor.)

Krueck, Jakob G., assignor of one-half to C. Krueck, Cleveland, Ohio. C-clamp. No. 1,093,438; Apr. 14; Gaz. vol. 201; p. 484.

Krueger, August C., Cambria, Wis. Windmill. No. 1,093,862; Apr. 21; Gaz. vol. 201; p. 667.

Krug, Ira R., Philadelphia, Pa. Internal-combustion-engine control. No. 1,093,586; Apr. 14; Gaz. vol. 201; p. 530.

Kruger, Charles M., Hannibal, Mo. Vapor-generator. No. 1,093,138; Apr. 14; Gaz. vol. 201; p. 384.

Krum, Christian A., Burbank, Cal. Box-fastening. No. 1,095,119; Apr. 28; Gaz. vol. 201; p. 1156.

Kruschke, Rudolph C., Duluth, Minn. Mining-headlight. No. 1,093,339; Apr. 14; Gaz. vol. 201; p. 452.

Kück, Richard, Hanau, Germany, assignor, by mesne assignments, to General Electric Company. Mercury-vapor lamp. No. 1,095,175; Apr. 28; Gaz. vol. 201; p. 1179.

Kügelgen, Franz von. (See Seward and Kügelgen.)

Kugler, Charles H., Cozad, Nebr. Spike-puller. No. 1,093,863; Apr. 21; Gaz. vol. 201; p. 668.

Kuhn, Harry A., and W. W. Macfarren, Pittsburgh, Pa. Tunneling. No. 1,093,787; Apr. 21; Gaz. vol. 201; p. 641.

Kuhns, Charles D., *et al.* (See Aiken, Thomas M., assignor.)

Kuhns, James H., Tulsa, Okla. Wrench. No. 1,094,221; Apr. 21; Gaz. vol. 201; p. 788.

Kulla, Bernhard, Ivanhoe, Minn. Hand-stamp. No. 1,093,561; Apr. 14; Gaz. vol. 201; p. 521.

Kundtz, Theodor. (See Cogger, William B., assignor.)

Kuntz, George T. (See Kuntz, Harry B. and G. T.)

Kuntz, Harry B. and G. T., Port Townsend, Wash. Wrench. No. 1,094,446; Apr. 28; Gaz. vol. 201; p. 922.

Küntzler, Henry. (See Hunter and Küntzler.)

Kupferle, Edward, St. Louis, Mo. Measuring-pump. No. 1,092,491; Apr. 7; Gaz. vol. 201; p. 128.

Kurtz, Daniel E., assignor to Spiegel, May, Stern Company, Chicago, Ill. Cabinet-drawer. No. 1,092,270; Apr. 7; Gaz. vol. 201; p. 50.

Kurz, August W., New York, N. Y. Vault-head. No. 1,092,921; Apr. 14; Gaz. vol. 201; p. 309.

Kurze, Wilhelm, Wilhelmshütte, Neustadt-on-the-Rübenberge, Germany. Molding-box. No. 1,094,447; Apr. 28; Gaz. vol. 201; p. 922.

Kushlan, Max, Boston, Mass. Motor-starter for rectifier systems. No. 1,092,724; Apr. 7; Gaz. vol. 201; p. 206.

Kyriakides, L. P. (See Earle and Kyriakides.)

Kyriakides, Lucas P., Boston, Mass., assignor to Hood Rubber Company. Producing isoprene. No. 1,094,223; Apr. 21; Gaz. vol. 201; p. 789.

Kyriakides, Lucas P., and R. B. Earle, assignors to Hood Rubber Company, Boston, Mass. Producing isoprene. No. 1,094,222; Apr. 21; Gaz. vol. 201; p. 788.

Kyriakides, Lucas P., and R. B. Earle, Cambridge, Mass., assignors to Hood Rubber Company. Producing 1,3 diols. No. 1,094,224; Apr. 21; Gaz. vol. 201; p. 789.

L. and B. Grease Cup Company. (See Lewis, John F., assignor.)

L. P. Hardy Printing Company. (See Hardy, Lawrence P., assignor.)

La Batt, Homer C., assignor to W. J. Herrick, Chicago, Ill. Sheet-feeding machine. No. 1,092,271; Apr. 7; Gaz. vol. 201; p. 51.

La Batt, Homer C., Chicago, Ill., assignor to W. J. Herrick. Sheet-feeding machine. No. 1,092,272; Apr. 7; Gaz. vol. 201; p. 51.

La Rue, George W., Kansas City, Mo. Gas-heated sad-iron. No. 1,093,440; Apr. 14; Gaz. vol. 201; p. 485.

Labombarde, Elie W., Nashua, N. H. Paper box and blank therefor. No. 1,093,705; Apr. 21; Gaz. vol. 201; p. 617.

Lachman, Laurence S. (See Lachman, Maurice and L. S.) (Reissue.)

Lachman, Laurence S., assignor to Universal Electric Welding Company, New York, N. Y. Corrugated welding-strip. No. 1,094,910; Apr. 28; Gaz. vol. 201; p. 1085.

Lachman, Maurice and L. S., New York, N. Y. Metallic structure. (Reissue.) No. 13,712; Apr. 7; Gaz. vol. 201; p. 238.

Lack, Finis E. (See Wright, William C., assignor.)

Lade, Martin W. A., Pender, Nebr. Vegetable-cutter. No. 1,095,001; Apr. 28; Gaz. vol. 201; p. 1118.

Lagelbaner, Mathias. (See Hellwig and Lagelbaner.)

Laidlaw, James A., Sacramento, Cal. Car-door-operating mechanism. No. 1,093,273; Apr. 14; Gaz. vol. 201; p. 430.

Laist, Frederick, *et al.* (See Garred, Ulysses A., assignor.)

Laist, Frederick. (See Mathewson and Laist.)

Lake, Simon, Milford, Conn. Internal-combustion engine. No. 1,095,002; Apr. 28; Gaz. vol. 201; p. 1118.

Lamare, Vincent A., Chicago, Ill., assignor of one-half to I. F. Jordan, Portland, Me. Flying-machine. No. 1,093,788; Apr. 21; Gaz. vol. 201; p. 642.

Lamb, Orange S. (See Lamb, William G. and O. S.)
Lamb, William G. and O. S., Waterloo, Iowa. Resilient brake-hanger. No. 1,093,864; Apr. 21; Gaz. vol. 201; p. 668.
Lambert, Frederick C., assignor of one-half to G. J. Koch, New York, N. Y. Wind-shield for match-boxes. No. 1,094,225; Apr. 21; Gaz. vol. 201; p. 789.
Lamort, Marcel, Vitry-le-François, France. Paper-making machine. No. 1,093,998; Apr. 21; Gaz. vol. 201; p. 713.
Lamsens, Oscar M., Detroit, Mich. Filter. No. 1,093,999; Apr. 21; Gaz. vol. 201; p. 713.
Lamson Company, The. (See Whittier, Frederick G., assignor.)
Lancaster, Arthur, Alva, Okla. Washstand. No. 1,093,274; Apr. 14; Gaz. vol. 201; p. 430.
Landis Machine Company. (See Blair, William R., assignor.)
Landis, Walter S., Niagara Falls, Ontario, Canada, assignor to American Cyanamid Company, Nashville, Tenn. Producing available phosphoric acid. No. 1,094,857; Apr. 28; Gaz. vol. 201; p. 1068.
Landsmann, Arthur K., and F. Dippon, St. Louis, Mo. Rotary explosive engine or motor. No. 1,093,056; Apr. 14; Gaz. vol. 201; p. 354.
Lane, Frank M., Memphis, Tenn. Service-box cover. No. 1,093,275; Apr. 14; Gaz. vol. 201; p. 430.
Lang, William C., Cleveland, Ohio. Mold-making machine. No. 1,093,439; Apr. 14; Gaz. vol. 201; p. 485.
Lang, William C., Cleveland, Ohio. Toy cannon. No. 1,094,725; Apr. 28; Gaz. vol. 201; p. 1023.
Langseth, Randolph, assignor, by mesne assignments, of one-half to Automatic Justifier Company, Hammond, Ind. Apparatus for justifying with hot metal. No. 1,094,367; Apr. 21; Gaz. vol. 201; p. 833.
Langton, Ninon, Clare, La. Diaper-cleaner. No. 1,093,939; Apr. 21; Gaz. vol. 201; p. 693.
Lanning, James K. (See Matthews, James F., assignor.)
Lanston Monotype Machine Company. (See Bancroft and Indahl, assignors.)
Lanston Monotype Machine Company. (See Pierpont, Frank H., assignor.)
Lanz, Firm of Heinrich. (See Seck, Karl H. W. L., assignor.)
Lapin, John, Brooklyn, N. Y. Trench-digging machine. No. 1,092,777; Apr. 7; Gaz. vol. 201; p. 224.
Laser, William, St. Louis, Mo. Swimming-glove. No. 1,093,276; Apr. 14; Gaz. vol. 201; p. 431.
Laska, August L., Offenbach-on-the-Main, assignor to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Yellow disazo dyes for cotton and making them. No. 1,094,448; Apr. 28; Gaz. vol. 201; p. 922.
Latham, Albert, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,092,580; Apr. 7; Gaz. vol. 201; p. 157.
Latimer, James H., Weinert, Tex. Silo-chute. No. 1,094,726; Apr. 28; Gaz. vol. 201; p. 1023.
Lattau, Arthur, New York, N. Y. Automatic photographing apparatus. No. 1,092,273; Apr. 7; Gaz. vol. 201; p. 51.
Laubach, Hiram F., Tacoma, Wash. Combined union and valve. No. 1,093,706; Apr. 21; Gaz. vol. 201; p. 617.
Laude, William H., and F. Puleston, Monticello, Iowa. Necktie-fastener. No. 1,094,795; Apr. 28; Gaz. vol. 201; p. 1046.
Lauderdale, Chapin F., Portland, Oreg. Sanitary shield for dental instruments. No. 1,093,865; Apr. 21; Gaz. vol. 201; p. 668.
Lauesen, Albert C., assignor to Illinois Modern Button & Machine Company, Chicago, Ill. Press for making buttons. No. 1,092,492; Apr. 7; Gaz. vol. 201; p. 128.
Laufer, Wolf, Cracow, Austria-Hungary. Production of artificial stone from natural-rock waste. No. 1,094,727; Apr. 28; Gaz. vol. 201; p. 1024.
Laughrin, George, Savanna, Ill. Hoisting mechanism. No. 1,093,707; Apr. 21; Gaz. vol. 201; p. 617.
Laukhuff, Alfred, Duisburg, Germany. Traveling crane. No. 1,093,057; Apr. 14; Gaz. vol. 201; p. 354.
Laun, Justus. (See Corcoran, John, assignor.)
Laurance, Lionel E., Stites, Idaho. Sectional steering-wheel. No. 1,093,441; Apr. 14; Gaz. vol. 201; p. 485.
Lauri, Isaac, Floodwood, Minn. Floor-clamping device. No. 1,094,449; Apr. 28; Gaz. vol. 201; p. 923.
Lautenbacher, Jeremiah C., and A. Geary, Schuylkill Haven, Pa. Cover-retainer for receptacles. No. 1,094,911; Apr. 28; Gaz. vol. 201; p. 1085.
Lawless, Christopher J., Lincoln, Nebr. Silo-door frame. No. 1,093,635; Apr. 21; Gaz. vol. 201; p. 591.
Lawless, Christopher J., Lincoln, Nebr. Silo-door. No. 1,093,636; Apr. 21; Gaz. vol. 201; p. 591.
Lawrence, Benjamin, Leyton, England. Electric ignition-generator. No. 1,092,570; Apr. 7; Gaz. vol. 201; p. 85.
Lawrence, Charles S., Mount Lowe, Cal. Ratchet tripod-leg. No. 1,093,866; Apr. 21; Gaz. vol. 201; p. 668.
Lawrence Manufacturing Company. (See Paquette, Ezilias, assignor.)
Lawrenz, Emil, Detroit, Mich. Street-car-door lock. No. 1,092,493; Apr. 7; Gaz. vol. 201; p. 129.
Lawton, Burton L., Meriden, Conn. Bearing. No. 1,093,194; Apr. 14; Gaz. vol. 201; p. 403.
Lay, William F., Boston, Mass. Massage-vibrator. No. 1,094,663; Apr. 28; Gaz. vol. 201; p. 1000.
Le Bron, Roderick, *et al.* (See Lynnequest, Victor, assignor.)
Le Duc, Constant, Chatsworth, N. J. Implement for stopping pneumatic-tired vehicles. No. 1,094,226; Apr. 21; Gaz. vol. 201; p. 789.
Le Furge, William P., deceased; H. M. Dutcher, administrator, assignor to The Adchair Company, Philadelphia, Pa. Advertising chair-arm. No. 1,094,154; Apr. 21; Gaz. vol. 201; p. 766.
Le Pierre, Auguste M., Korbel, Cal. Nut-lock. No. 1,092,534; Apr. 7; Gaz. vol. 201; p. 141.
Le Pontois, Leon J., New Rochelle, N. Y., assignor of one-half to B. Hurd, Nutley, N. J. Automatic controlling means for reversing combustion-engines. No. 1,094,591; Apr. 28; Gaz. vol. 201; p. 972.
Lean, Clement, London, assignor to Graham & Latham Limited, Westminster, England. Signaling apparatus. No. 1,094,368; Apr. 21; Gaz. vol. 201; p. 833.
Lease, Charles E., and C. Jacobson, Galt, Cal. Plow. No. 1,093,139; Apr. 14; Gaz. vol. 201; p. 384.
Lebombard, Nelson J., Hyde, Mich. Wrench. No. 1,092,152; Apr. 7; Gaz. vol. 201; p. 9.
Lee, Elcseus J., Council Bluffs, Iowa. Car-door. No. 1,092,654; Apr. 7; Gaz. vol. 201; p. 183.
Lee, William S., assignor to Briggs-Detroiter Company, Detroit, Mich. Vehicle-spring. No. 1,092,581; Apr. 7; Gaz. vol. 201; p. 158.
Lefter, Benjamin F., Daleville, Ind. Buggy-shaft tug. No. 1,093,442; Apr. 14; Gaz. vol. 201; p. 486.
Legard, John E. (See Dunn, Conally L., assignor.)
Legaré, Thomas K., Columbia, S. C. Adjustable crown-templet. No. 1,093,867; Apr. 21; Gaz. vol. 201; p. 669.
Leggett, Joseph P., Carthage, Mo. Vehicle propelling mechanism. No. 1,093,277; Apr. 14; Gaz. vol. 201; p. 431.
Leggett, Joseph P., Carthage, Mo. Machine for bending and cutting coiled springs. No. 1,094,076; Apr. 21; Gaz. vol. 201; p. 730.
Leghorn, Benjamin C. (See Civita and Leghorn.)
Lehmann, Firm of Ernst P. (See Sadtler, Wilhelm, assignor.)
Lehr, Anton A., Boston, Mass. Profiling device or shadowgraph. No. 1,094,155; Apr. 21; Gaz. vol. 201; p. 766.
Leighty, William J., assignor of one-half to H. W. Jacobs, Topeka, Kans. Means for forming couplings or joints. No. 1,093,868; Apr. 21; Gaz. vol. 201; p. 669.
Leinert, Charles H., Chicago, Ill. Apparatus for drying gases. No. 1,093,869; Apr. 21; Gaz. vol. 201; p. 669.
Leisegang, Conrad H., Philadelphia, Pa. Cigar-cutter. No. 1,094,338; Apr. 21; Gaz. vol. 201; p. 823.
Leith, Alexander B., *et al.*, trustees. (See Adams, Arthur J., assignor.)
Leith, Alexander B., *et al.*, trustees. (See Beier, Frank J., assignor.)
Leith, Alexander B., *et al.*, trustees. (See McGill, Albert E., assignor.)
Leitner, Henry, London, England. Variable-speed dynamo. No. 1,094,077; Apr. 21; Gaz. vol. 201; p. 739.
Leitner, Hugo F., Nipomo, Cal. Soldering-iron gun. No. 1,092,725; Apr. 7; Gaz. vol. 201; p. 206.
Leland, Charles H., and H. S. Webber, Los Angeles, Cal. Plural-crypt structure. No. 1,093,940; Apr. 21; Gaz. vol. 201; p. 693.
Leland, Charles S., Mount Desert, Me. Glazier's tool. No. 1,092,447; Apr. 7; Gaz. vol. 201; p. 112.
Lemieux, T. D. (See Clarke, John S., assignor.)
Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Internal-combustion engine. No. 1,093,140; Apr. 14; Gaz. vol. 201; p. 384.
Lendle, Carl R., Chicago, Ill. Garment-form. No. 1,092,726; Apr. 7; Gaz. vol. 201; p. 206.
Lenz, Peter C., *et al.* (See Cotton, Howard W., assignor.)
Leon, Hager, *et al.* (See Weeks, Charlie E., assignor.)
Leonard, Herbert C., Acushnet, assignor to Atlas Tack Company, Fairhaven, Mass. Magazine and feeder for sheet-metal strips. No. 1,094,369; Apr. 21; Gaz. vol. 201; p. 833.
Leonard, Milton M., Richmond, Va. Spigot or faucet. No. 1,095,003; Apr. 28; Gaz. vol. 201; p. 1119.
Leonardi, Carlo, Milan, Italy. Portable rotary hammer. No. 1,094,664; Apr. 28; Gaz. vol. 201; p. 1000.
Leopold, George O. (See Fegley and Leopold.)
Leschnik, Philip. (See Breuer and Leschnik.)
Lester, Isaac E., Birmingham, England. Casting of iron. No. 1,093,443; Apr. 14; Gaz. vol. 201; p. 486.
Levering, Henry W., assignor to I X L Pump and Manufacturing Company, Philadelphia, Pa. Means for closing valves. No. 1,094,796; Apr. 28; Gaz. vol. 201; p. 1046.
Levin, Isaac H., Newark, N. J., assignor to International Oxygen Company. Electrolytic apparatus. No. 1,094,728; Apr. 28; Gaz. vol. 201; p. 1024.
Levin, Jacob H. (See Morrison and Levin.)
Levinstein, Herbert, and J. Baddiley, assignors to Levinstein, Limited, Blackley, Manchester, England. Azo dyestuffs and their production. No. 1,092,842; Apr. 14; Gaz. vol. 201; p. 283.
Levinstein, Limited. (See Levinstein and Baddiley, assignors.)
Levoz, Toussaint, Héer, Belgium. Electric furnace. No. 1,094,912; Apr. 28; Gaz. vol. 201; p. 1086.
Lewis, Benjamin F. and J. W., Hartland, Kans. Automatic hay-ejector for sweep-rakes. No. 1,093,444; Apr. 14; Gaz. vol. 201; p. 486.



Lewis, Dean C., Reading, Pa. Mechanically-operated gear-changing mechanism for automobiles. No. 1,092,922; Apr. 14; Gaz. vol. 201; p. 309.
Lewis, George S., Springfield, assignor to J. Stevens Arms & Tool Company, Chicopee Falls, Mass. Firearm. No. 1,094,729; Apr. 28; Gaz. vol. 201; p. 1024.
Lewis, John F., assignor to L. and B. Grease Cup Company, Philadelphia, Pa. Automatic grease-cup. No. 1,094,730; Apr. 28; Gaz. vol. 201; p. 1025.
Lewis, John W. (See Lewis, Benjamin F. and J. W.)
Lewis, Pearl A., and H. N. Faas, assignors to The American Seeding Machine Company, Springfield, Ohio. Cultivator. No. 1,093,789; Apr. 21; Gaz. vol. 201; p. 642.
Lewis, Rollin C., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Combination-lock. No. 1,092,843; Apr. 14; Gaz. vol. 201; p. 283.
Lieber, Otto, Hancock, and C. A. Gibbs, Houghton, Mich. Sliding track for skip-roads. No. 1,093,708; Apr. 21; Gaz. vol. 201; p. 618.
Lienhard, Robert, Jr. (See McNeil and Lienhard.)
Lietzenmayer, Otto, Munich, Germany. Fuel-pump for internal-combustion engines. No. 1,095,004; Apr. 28; Gaz. vol. 201; p. 1119.
Lighter, Charles E., Mason City, Iowa. Motor-vehicle. No. 1,093,445; Apr. 14; Gaz. vol. 201; p. 486.
Lillard, David B., Elkmont, Ala. Fifth-wheel for buggies. No. 1,092,371; Apr. 7; Gaz. vol. 201; p. 86.
Lilliston, Thomas M., assignor to National Machine Corporation, Suffolk, Va. Peanut-picker. (Reissue.) No. 13,717; Apr. 21; Gaz. vol. 201; p. 856.
Lindeman, Max. (See Newton, Dimond C., assignor.)
Linden, Lucien, Brussels, Belgium. Oxidizing. No. 1,094,731; Apr. 28; Gaz. vol. 201; p. 1025.
Linder, William C., Antonia, La. Frame construction. No. 1,092,727; Apr. 7; Gaz. vol. 201; p. 207.
Lindsay Auto Parts Company. (See Lindsay, Thomas J., assignor.)
Lindsay, Hamilton, and W. B. Jackson, Cleveland, Ohio. Smoke-preventer. No. 1,092,582; Apr. 7; Gaz. vol. 201; p. 158.
Lindsay, Thomas J., Indianapolis, Ind., assignor to Lindsay Auto Parts Company. Driving-axle. No. 1,092,494; Apr. 7; Gaz. vol. 201; p. 129.
Lindstedt, Carl H., and H. Travers, Hotchkissville, Conn. Punching device. No. 1,092,274; Apr. 7; Gaz. vol. 201; p. 52.
Link, Adolf P., Brooklyn, N. Y. Apparatus for melting snow and drying sand and like substances. No. 1,092,778; Apr. 7; Gaz. vol. 201; p. 224.
Link-Belt Company. (See Dodge, James M., assignor.)
Lint, Edward L., Paw Paw, Mich. Lock. No. 1,093,637; Apr. 21; Gaz. vol. 201; p. 591.
Lintner, John Y., and L. L. Benjamin, Blairsville, Pa. Wrench. No. 1,095,005; Apr. 28; Gaz. vol. 201; p. 1120.
Lipman, Carl E. L., assignor to The Lipman Manufacturing Company, Beloit, Wis. Air-pump. No. 1,092,495; Apr. 7; Gaz. vol. 201; p. 130.
Lipman Manufacturing Company, The. (See Lipman, Carl E. L., assignor.)
Lippincott, Alpheus C., East Orange, N. J. Warning device. No. 1,093,058; Apr. 14; Gaz. vol. 201; p. 355.
Liss, Selman, *et al.* (See Rivkin, Bert, assignor.)
Littauer, Lucius N. (See Weis and Littauer.)
Little, Arthur D., Boston, Mass., assignor to Standard Alcohol Company, New York, N. Y. Food composition for stock. No. 1,092,221; Apr. 7; Gaz. vol. 201; p. 34.
Littlejohn, Charles F., assignor, by mesne assignments, to The Recording Register & Fare Box Company, New Haven, Conn. Recording fare-register. No. 1,093,059; Apr. 14; Gaz. vol. 201; p. 355.
Livingston, William, New York, N. Y., assignor, by mesne assignments, to Noesting Pin Ticket Company, Inc. Pin-ticket. No. 1,092,923; Apr. 14; Gaz. vol. 201; p. 310.
Livingston, William, New York, N. Y., assignor, by mesne assignments, to Noesting Pin Ticket Company, Inc. Pin-ticket. No. 1,093,638; Apr. 21; Gaz. vol. 201; p. 592.
Lloyd, Charles E., Philadelphia, Pa. Steam-boiler furnace. No. 1,093,790; Apr. 21; Gaz. vol. 201; p. 642.
Locher, Charles H., Glasgow, Va. Apparatus for rock-drilling. No. 1,092,583; Apr. 7; Gaz. vol. 201; p. 159.
Lockhart, Robert R., assignor to himself, G. A. Glines, W. E. Wright, V. Williams, D. B. Sprague, and J. D. Sinclair, Winnipeg, Manitoba, Canada. Electrical water-heater. No. 1,093,195; Apr. 14; Gaz. vol. 201; p. 403.
Lockwood, John F., Kansas City, Mo. Awning. No. 1,092,496; Apr. 7; Gaz. vol. 201; p. 130.
Locomotive Superheater Company. (See Toltz, Max, assignor.)
Loesser, Ernest, Glen Ridge, N. J., assignor to New Diamond Polishing Tool Company of America, Inc., New York, N. Y. Apparatus for grinding and polishing precious stones. No. 1,094,913; Apr. 28; Gaz. vol. 201; p. 1086.
Loesser, Ernest, Glen Ridge, N. J., assignor to New Diamond Polishing Tool Company of America, Inc., New York, N. Y. Apparatus for grinding and polishing precious stones. No. 1,094,914; Apr. 28; Gaz. vol. 201; p. 1086.
Loftus, Thomas J., Castella, assignor of one-half to H. Bell, Oakland, Cal. Rotary fluid-motor. No. 1,093,278; Apr. 14; Gaz. vol. 201; p. 431.
Loftus, Thomas J., Castella, assignor of one-half to H. Bell, Oakland, Cal. Gear-wheel. No. 1,093,279; Apr. 14; Gaz. vol. 201; p. 432.
Lombard Governor Company, The. (See Warren, Henry E., assignor.)
Lombardi, Joseph, New York, N. Y. Catamaran. No. 1,093,196; Apr. 14; Gaz. vol. 201; p. 403.
Long, Clarence E., Fort Wayne, Ind. Switch-throwing device. No. 1,092,372; Apr. 7; Gaz. vol. 201; p. 86.
Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Coin-controlled telephone pay-station. No. 1,094,000; Apr. 21; Gaz. vol. 201; p. 714.
Long, Levett A., Dayton, Ohio. Insole. No. 1,092,373; Apr. 7; Gaz. vol. 201; p. 86.
Long Mailing Machine Company. (See Albrecht and Long, assignors.)
Long, Robert G., Lawrence, Kans. Fire-door draft-check. No. 1,093,446; Apr. 14; Gaz. vol. 201; p. 487.
Long, Sidney L. (See Albrecht and Long.)
Long, Sidney L., assignor of one-half to G. W. McClelland, Minneapolis, Minn. Automatic damper. No. 1,092,275; Apr. 7; Gaz. vol. 201; p. 52.
Longaker, Albert A., assignor to Chambersburg Engineering Company, Chambersburg, Pa. Wheel-press. No. 1,094,391; Apr. 21; Gaz. vol. 201; p. 842.
Longard, Clarence C., Halifax, Nova Scotia, Canada. Internal-combustion engine. No. 1,093,709; Apr. 21; Gaz. vol. 201; p. 618.
Loosen, Jacob, Oakland, Cal. Variable spray-nozzle. No. 1,093,340; Apr. 14; Gaz. vol. 201; p. 453.
Lopez, Arthur, New York, N. Y., assignor to The Hammond Typewriter Co. Double-shuttle anvil for type-writing machines. No. 1,093,575; Apr. 14; Gaz. vol. 201; p. 525.
Loss, Henrik V., Philadelphia, Pa. Forging-machine. No. 1,094,797; Apr. 28; Gaz. vol. 201; p. 1046.
Lotterhand, Jason C., New York, N. Y., assignor to Addometer Corporation. Printing mechanism for adding-machines. No. 1,092,497; Apr. 7; Gaz. vol. 201; p. 130.
Lotz, Ellis A., Harrisburg, Pa. Folding stand. No. 1,094,227; Apr. 21; Gaz. vol. 201; p. 789.
Louden Machinery Company. (See Louden, Thomas, assignor.)
Louden, Thomas, assignor to Louden Machinery Company, Fairfield, Iowa. Hanger for overhead tracks. No. 1,094,370; Apr. 21; Gaz. vol. 201; p. 834.
Louden, William, Fairfield, Iowa. Structural coupling for pipes, shafts, and the like. No. 1,092,655; Apr. 7; Gaz. vol. 201; p. 183.
Loudenslager, David, Rising City, Nebr. Gate-latch. No. 1,092,728; Apr. 7; Gaz. vol. 201; p. 207.
Lovekin, Luther D., assignor to Schutte and Koerting Company, Philadelphia, Pa. Oil-burning system. No. 1,094,078; Apr. 21; Gaz. vol. 201; p. 740.
Lovell-McConnell Manufacturing Company. (See Hutchison, Miller R., assignor.)
Low, Stanley, and C. H. Kirby, London, England. Golf-club holder. No. 1,092,729; Apr. 7; Gaz. vol. 201; p. 207.
Lowe, Edgar, New York, assignor to General Acoustic Company, Jamaica, N. Y. Battery-regulator. No. 1,094,156; Apr. 21; Gaz. vol. 201; p. 766.
Lowe, William L., Stuart, Iowa. Corn-hanger. No. 1,095,006; Apr. 28; Gaz. vol. 201; p. 1120.
Luda, J. Carlyle, *et al.* (See Albert, Charles H., assignor.)
Ludwig, Alexander, Redding, Cal. Power-generator. No. 1,093,280; Apr. 14; Gaz. vol. 201; p. 432.
Ludwig, William F., Chicago, Ill. Drum and cymbal beater. No. 1,092,276; Apr. 7; Gaz. vol. 201; p. 53.
Lueckenbach, Anton T., Neenah, Wis. Washtub-supporting leg. No. 1,093,060; Apr. 14; Gaz. vol. 201; p. 355.
Lund, Nelson P., Houlton, Me. Combination hoister and carrier. No. 1,094,228; Apr. 21; Gaz. vol. 201; p. 789.
Lundeen, Oscar W., Oakland, Nebr. Spittoon-washing machine. No. 1,092,924; Apr. 14; Gaz. vol. 201; p. 310.
Lunden, Herman, *et al.* (See Wyllys, Frank, assignor.)
Lundgren, Carl G., Chicago, Ill. Bearing. No. 1,092,730; Apr. 7; Gaz. vol. 201; p. 208.
Lundholm, Gustaf, Vesterås, Sweden. Blind-shaft bearing for the driving means of electric locomotives. No. 1,095,007; Apr. 28; Gaz. vol. 201; p. 1120.
Lundquist, Fred, *et al.* (See Johnson, Gustaf O., assignor.)
Lundstrom, Charles G., Des Moines, Iowa. Portable grinding-machine. No. 1,092,277; Apr. 7; Gaz. vol. 201; p. 53.
Lundström, Gotthard. (See Nathorst and Lundström.)
Luppert, Valentine C., Williamsport, Pa. Tool for securing drawer-stops to furniture. No. 1,094,079; Apr. 21; Gaz. vol. 201; p. 740.
Lupton, Minnie M., San Antonio, Tex. Bandage. No. 1,094,389; Apr. 21; Gaz. vol. 201; p. 823.
Lurch, Edward C., New York, N. Y. Comb. No. 1,093,941; Apr. 21; Gaz. vol. 201; p. 693.
Lurie, Charles J. (See Royse, James G., assignor.)
Lütshöft-Petersen, Hans H. (See Bendixen, Niels, assignor.)
Lux, Julius K., Jersey City, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,092,779; Apr. 7; Gaz. vol. 201; p. 225.
Lyle Clay Cleaner Company. (See Lyle, Robert W., assignor.)

Lyle, Fred W., Lynn, Mass., assignor to General Electric Company. System of distribution. No. 1,094,732; Apr. 28; Gaz. vol. 201; p. 1025.

Lyle, Fred W., Lynn, Mass., assignor to General Electric Company. Electric regulator. No. 1,094,733; Apr. 28; Gaz. vol. 201; p. 1026.

Lyle, Robert W., South River, N. J., assignor to Lyle Clay Cleaner Company. Knife or cutter for clay-cleaning machinery. No. 1,092,584; Apr. 7; Gaz. vol. 201; p. 159.

Lyle, Robert W., New York, N. Y., assignor to Lyle Clay Cleaner Company. Means for separating stones from clay. No. 1,092,780; Apr. 7; Gaz. vol. 201; p. 225.

Lynam, James, Newman, Cal. Fountain-brush and can. No. 1,092,656; Apr. 7; Gaz. vol. 201; p. 184.

Lynch, Michael J., Newport, R. I. Automatic saw-set. No. 1,092,657; Apr. 7; Gaz. vol. 201; p. 184.

Lynen, Georg H., Passaic, N. J. Apparatus for use in the manufacture of superphosphate. No. 1,093,141; Apr. 14; Gaz. vol. 201; p. 385.

Lynnequest, Victor, assignor of one-third to R. J. McKenna and one-third to R. Le Bron, Omaha, Nebr. Bed-movement. No. 1,095,120; Apr. 28; Gaz. vol. 201; p. 1156.

Lyons, Jeremiah J. (See Deuscher, Charles A., assignor.)

Maag, Edward, Mount Vernon, N. Y. Blank jacquard-card. No. 1,093,142; Apr. 14; Gaz. vol. 201; p. 385.

MacDougall, William D., Washington, D. C. Method and apparatus for simulating the appearance of movement in a target caused at sea by rolling and yawing. No. 1,093,639; Apr. 21; Gaz. vol. 201; p. 592.

MacGlashan, William, assignor to The Studebaker Corporation, South Bend, Ind. Safety-switch for motor-vehicles. No. 1,094,708; Apr. 28; Gaz. vol. 201; p. 1047.

MacKay, Henry S., assignor to MacKay Process Company, Norwich, Conn. Extracting metals from ores. No. 1,094,371; Apr. 21; Gaz. vol. 201; p. 834.

MacKay Process Company. (See MacKay, Henry S., assignor.)

MacLeod, George S., Seattle, Wash. Storm-shield for vehicles. No. 1,094,665; Apr. 28; Gaz. vol. 201; p. 1000.

Macdonald, Alexander, Inverell, New South Wales, Australia. Road-wagon. No. 1,093,447; Apr. 14; Gaz. vol. 201; p. 487.

Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Roll ramming apparatus. No. 1,092,844; Apr. 14; Gaz. vol. 201; p. 283.

Macdonald, Harry P., Montclair, and H. C. Parker, Elizabeth, assignors to The Snead & Co. Iron Works, Jersey City, N. J. Roll ramming apparatus. No. 1,094,157; Apr. 21; Gaz. vol. 201; p. 767.

Macdonald, Thomas H., assignor to American Graphophone Company, Bridgeport, Conn. Sound-box and mounting therefor. No. 1,093,710; Apr. 21; Gaz. vol. 201; p. 618.

Macek, Johann. (See Brunet and Macek.)

Macfarren, Walter W. (See Kuhn and Macfarren.)

Machenbach, Richard, Berlin, assignor to Sprengstoff A.-G. Carbonit, Hamburg, Germany. Rifle shell or grenade with percussion-fusee. No. 1,094,340; Apr. 21; Gaz. vol. 201; p. 823.

Machlet, Adolph W., Elizabeth, N. J. Hardening or treatment of steel, iron, &c. No. 1,092,925; Apr. 14; Gaz. vol. 201; p. 310.

Mack, Henry E., Jr., *et al.* (See Warren, John N., assignor.)

Mackie, Edwin M., North Tarrytown, N. Y., assignor to Chicago Pneumatic Tool Company, Chicago, Ill. Compressor. No. 1,092,278; Apr. 7; Gaz. vol. 201; p. 53.

Mackin, Sam, Laredo, Tex. Refrigerating apparatus. No. 1,095,008; Apr. 28; Gaz. vol. 201; p. 1120.

Macneale, Neil, assignor to The Toledo Electric Welder Company, Cincinnati, Ohio. Electric welding-machine. No. 1,093,281; Apr. 14; Gaz. vol. 201; p. 432.

Madsen, Charles P., Chicago, Ill., assignor to The Michigan Stove Company. Electric flat-iron. No. 1,093,791; Apr. 21; Gaz. vol. 201; p. 643.

Madsen, Charles P., Chicago, Ill., assignor to The Michigan Stove Company. Armored electric heating unit. No. 1,093,792; Apr. 21; Gaz. vol. 201; p. 643.

Madsen, Waldemar, Chicago, Ill. Locking-hinge. No. 1,092,926; Apr. 14; Gaz. vol. 201; p. 311.

Madson, Christopher, *et al.* (See Fleischauer and Richardson, assignors.)

Magyar, Joseph, Puritan, Pa. Life-preserver. No. 1,093,002; Apr. 14; Gaz. vol. 201; p. 336.

Mahlke, Conrad, Elbing, Germany. Piano-keyboard. No. 1,094,001; Apr. 21; Gaz. vol. 201; p. 714.

Maldhof, William J. F., New York, N. Y. Watermarking paper. No. 1,094,799; Apr. 28; Gaz. vol. 201; p. 1047.

Maldhof, William J. F., New York, N. Y. Watermarking paper. No. 1,094,800; Apr. 28; Gaz. vol. 201; p. 1047.

Majors, James M., Ottumwa, Iowa. Pneumatic-rubber-tube and metal-stem protector. No. 1,092,927; Apr. 14; Gaz. vol. 201; p. 311.

Mallonee, James W., Benedict, Nebr. Construction of fire and damp proof buildings. No. 1,095,009; Apr. 28; Gaz. vol. 201; p. 1121.

Mallory, Edward B., Chicago, Ill., assignor to Economy Fuse & Manufacturing Company, New York, N. Y. Cartridge-fuse. No. 1,092,153; Apr. 7; Gaz. vol. 201; p. 10.

Mallory, Edward B., Wilkinsburg, assignor to Economy Fuse & Manufacturing Co., Pittsburgh, Pa. Refillable cartridge-fuse. No. 1,092,498; Apr. 7; Gaz. vol. 201; p. 131.

Malmberg, August. (See Roberg and Malmberg.)

Malone, Edward V. (See Malone, William W. and E. V.)

Malone, William W. and E. V., Piqua, Ohio. Music-leaf turner. No. 1,095,019; Apr. 28; Gaz. vol. 201; p. 1121.

Malterner, Silas N., Canton, N. Y. Pipe-cap. No. 1,094,229; Apr. 21; Gaz. vol. 201; p. 790.

Mandel, Louis, Chicago, Ill. Magazine-camera. No. 1,093,341; Apr. 14; Gaz. vol. 201; p. 453.

Manhattan Electrical Supply Company. (See Peterson, Johann G., assignor.)

Mannheim, John A., Hamburg, Germany. Cooling device for Röntgen tubes. No. 1,095,121; Apr. 28; Gaz. vol. 201; p. 1157.

Manny, Ira F., assignor to Selective Signal Company, Milwaukee, Wis. Rewinding mechanism. No. 1,092,154; Apr. 7; Gaz. vol. 201; p. 10.

Mansfield, Charles L., Ravenna, Mich. Threshing-machine screen. No. 1,092,222; Apr. 7; Gaz. vol. 201; p. 34.

Manzano, Luis, Huelva, Spain. Buffer for car-couplings. No. 1,095,011; Apr. 28; Gaz. vol. 201; p. 1121.

Marcante, Peter F., Allentown, Pa. Resilient wheel. No. 1,093,448; Apr. 14; Gaz. vol. 201; p. 488.

March, Jacob M., deceased, Spring City borough, Pa.; M. March, administratrix, New York, N. Y. Lock-nut. No. 1,092,155; Apr. 7; Gaz. vol. 201; p. 11.

March, Maud, administratrix. (See March, Jacob M.)

Marcus, Solomon, Worcester, Mass. Garment-display chair. No. 1,093,542; Apr. 14; Gaz. vol. 201; p. 521.

Marcy, Herbert E., Mount Vernon, N. Y. Massage apparatus. No. 1,094,450; Apr. 28; Gaz. vol. 201; p. 923.

Marek, Joseph J., Victoria, Tex. Baling-press. No. 1,094,734; Apr. 28; Gaz. vol. 201; p. 1026.

Margolis, Jacob, New York, N. Y. Trousers. No. 1,092,374; Apr. 7; Gaz. vol. 201; p. 86.

Mark, George L., Roland Park, Md., assignor to The Gandy Belting Company of Baltimore City. Belt-machine. No. 1,094,801; Apr. 28; Gaz. vol. 201; p. 1047.

Marquardt, Reinhold G., and O. H. Stuewe, assignors to Milwaukee Woven Wire Works, Milwaukee, Wis. Mattress-springs. No. 1,092,375; Apr. 7; Gaz. vol. 201; p. 86.

Marrs, Vollie B., assignor of one-half to D. J. Harris, Santa Anna, and one-eighth to W. H. Blakey, Buckholts, Tex. Steam-boiler indicator. No. 1,095,012; Apr. 28; Gaz. vol. 201; p. 1122.

Marshall, Harry E. (See Harvey, Redge, assignor.)

Martin, Frank B., assignor to Postum Cereal Company, Limited, Battle Creek, Mich. Carton-sealing machine. No. 1,094,451; Apr. 28; Gaz. vol. 201; p. 923.

Martin, James H., Jr., assignor to C. P. Monash, Chicago, Ill. Thermostatic trap or valve. No. 1,094,666; Apr. 28; Gaz. vol. 201; p. 1001.

Martin, Julius, and H. Sibbald, New York, N. Y. Carbureter attachment. No. 1,092,279; Apr. 7; Gaz. vol. 201; p. 54.

Martin, William H., Ukiah, Cal. Car-fender. No. 1,093,870; Apr. 21; Gaz. vol. 201; p. 670.

Masland, Walter E., assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Process of acetylation. No. 1,095,013; Apr. 28; Gaz. vol. 201; p. 1122.

Masten, Philo W., Los Angeles, Cal. Muffler. No. 1,094,667; Apr. 28; Gaz. vol. 201; p. 1001.

Master, George A. (See Nielsen, Iver C., assignor.)

Mastin, Charles I. E., Midland Park, N. J. Mat or pad. No. 1,092,928; Apr. 14; Gaz. vol. 201; p. 311.

Matchette, Frank J., Milwaukee, Wis. Vacuum cleaning-tool. No. 1,094,579; Apr. 28; Gaz. vol. 201; p. 968.

Mathewson, Edward P., and F. Laist, Anaconda, Mont. Metallizing-furnace. No. 1,094,802; Apr. 28; Gaz. vol. 201; p. 1048.

Mathey, John J., and W. J. Binard, White Lake, S. D. Steering-truck for traction-engines. No. 1,092,376; Apr. 7; Gaz. vol. 201; p. 87.

Mathis, Ebenezer S. (See Mathis, Maja C., assignor.)

Mathis, Maja C., Florence, assignor of one-half to E. S. Mathis, Haddonfield, N. J. Pencil-holder. No. 1,092,156; Apr. 7; Gaz. vol. 201; p. 11.

Mathis, Owen, Granite, Okla. Clothes-pin. No. 1,093,449; Apr. 14; Gaz. vol. 201; p. 488.

Matsuo, Itiro N., Chicago, Ill. Picture-mat and material for making same. No. 1,092,499; Apr. 7; Gaz. vol. 201; p. 131.

Matthews, James F., Pottersville, assignor of one-half to J. K. Lanning, Boston, Mass. Knot-tying implement. No. 1,094,915; Apr. 28; Gaz. vol. 201; p. 1087.

Mattson, Margaret A., Collingswood, N. J. Breast-shield. No. 1,094,158; Apr. 21; Gaz. vol. 201; p. 767.

Mauck, Victor, and J. E. Wentling, Conshohocken, Pa. Making metallic barrels. No. 1,095,014; Apr. 28; Gaz. vol. 201; p. 1123.

Mauser, Paul, Oberndorf-on-the-Neckar, Germany. Device for automatic firearms for shooting with blank cartridges. No. 1,092,157; Apr. 7; Gaz. vol. 201; p. 11.

Mavor, Henry A., Glasgow, Scotland. Electric speed-controlling means. No. 1,092,797; Apr. 7; Gaz. vol. 201; p. 231.

Maxwell, Robert P., Prairie City, Ill. Street-sweeper and loader. No. 1,092,929; Apr. 14; Gaz. vol. 201; p. 311.

May, Samuel C., Modesto, Cal. Pier-protector. No. 1,092,731; Apr. 7; Gaz. vol. 201; p. 208.

Maybach, Wilhelm, Cannstatt, Germany. Internal-combustion engine. No. 1,092,930; Apr. 14; Gaz. vol. 201; p 311.



Mayer, Herman, New York, N. Y. Rubber substitute. No. 1,094,580; Apr. 28; Gaz. vol. 201; p. 968.

Mayer, John H., assignor to Humboldt Cement Products Mfg. Co., Humboldt, Iowa. Silo. No. 1,094,080; Apr. 21; Gaz. vol. 201; p. 740.

Mayer, Morris, St. Louis, Mo. Humidor. No. 1,094,081; Apr. 21; Gaz. vol. 201; p. 740.

Mayer, William E., assignor of one-half to C. E. Eagan, Pittsburgh, Pa. Device to protect fruit-trees from frost. No. 1,095,015; Apr. 28; Gaz. vol. 201; p. 1123.

Mayerson, Abi, Pueblo, Colo. Automobile pneumatic spring. No. 1,094,372; Apr. 21; Gaz. vol. 201; p. 835.

Mayo, Robert D. and R. D., Lakewood, Ohio. Grain cleaning, drying, and storing apparatus. No. 1,094,452; Apr. 28; Gaz. vol. 201; p. 924.

Maytag Company, The. (See Snyder, Howard F., assignor.)

Mazinski, Anton P., Jersey City, N. J. Non-refillable bottle. No. 1,094,002; Apr. 21; Gaz. vol. 201; p. 715.

McAdams, William A., Bay Shore, N. Y. Aluminum alloy. No. 1,092,500; Apr. 7; Gaz. vol. 201; p. 131.

McAndrews, William H., Chicago, Ill. Carbureter. No. 1,093,343; Apr. 14; Gaz. vol. 201; p. 453.

McArdle, Edward J., Chicago, Ill. Steam-heating system. No. 1,092,845; Apr. 14; Gaz. vol. 201; p. 284.

McAtee, Mirt L., Mountain View, Okla. Weeder. No. 1,092,377; Apr. 7; Gaz. vol. 201; p. 87.

McAuvie, Frank A. (See Weise and McAuvie.)

McBride, Albert P., Independence, Kans. Rope-socket. No. 1,094,668; Apr. 28; Gaz. vol. 201; p. 1002.

McCaddon, William E., assignor to H. M. De Witt, Denver, Colo. Apparatus for producing cream. No. 1,094,082; Apr. 21; Gaz. vol. 201; p. 740.

McCall, Thaddeus D., Chicago, Ill. Cooking vessel. No. 1,093,282; Apr. 14; Gaz. vol. 201; p. 433.

McCarthy, John H., Stafford Springs, Conn. Signal device. No. 1,092,732; Apr. 7; Gaz. vol. 201; p. 208.

McCarthy, Florens, Brooklyn, N. Y. Combination-lock. No. 1,092,733; Apr. 7; Gaz. vol. 201; p. 209.

McCaskey, Perry A., Lakewood, Ohio. Cooker. No. 1,093,003; Apr. 14; Gaz. vol. 201; p. 336.

McCaskey, Perry A., Alliance, and S. E. Fouts, East Cleveland, assignors to The McCaskey Register Company, Alliance, Ohio. Accounting and filing apparatus. No. 1,092,158; Apr. 7; Gaz. vol. 201; p. 11.

McCaskey Register Company, The. (See McCaskey and Fouts, assignors.)

McChesney, James B., St. Louis, Mo. Permutation-padlock. No. 1,094,735; Apr. 28; Gaz. vol. 201; p. 1026.

McClellan, Benjamin S., Chicago, Ill. Metallic sash. No. 1,092,931; Apr. 14; Gaz. vol. 201; p. 312.

McClelland, George W. (See Long, Sidney L., assignor.)

McClellon, James M., Everett, Mass. Condenser for locomotives. No. 1,093,942; Apr. 21; Gaz. vol. 201; p. 693.

McClintock, Charles, and L. McTurnan, Elwood, Ind. Dust-collecting eraser. No. 1,092,535; Apr. 7; Gaz. vol. 201; p. 142.

McClure, Edward, assignor of one-half to F. P. Smith, Chicago, Ill. Window-sash. No. 1,093,587; Apr. 14; Gaz. vol. 201; p. 530.

McCollman, Mosley. (See Graves, McCollman, and Gibson.)

McConway & Torley Company. (See Kelso, Joseph and W., assignors.)

McCord, Horace M., Minneapolis, Minn., assignor of five-twentieths to J. F. McDonough, La Crosse, Wis. Holder for carboys. No. 1,094,669; Apr. 28; Gaz. vol. 201; p. 1002.

McCord, Ralph, St. Louis, Mo. Stop for closet-seats. No. 1,093,640; Apr. 21; Gaz. vol. 201; p. 593.

McCormick, Langdon, New York, N. Y. Producing illusory effects. No. 1,093,711; Apr. 21; Gaz. vol. 201; p. 619.

McCormick, Langdon, assignor to Thurston-McCormick Co. Inc., New York, N. Y. Apparatus for producing scenic effects. No. 1,093,943; Apr. 21; Gaz. vol. 201; p. 694.

McCoy, Walter E. (See Sprong and McCoy.)

McCracken, William S., Joliet, Ill. Horseshoe. No. 1,092,585; Apr. 7; Gaz. vol. 201; p. 159.

McCumber, Orinda E., Omaha, Nebr. Weighing attachment for ice-boxes. No. 1,094,581; Apr. 28; Gaz. vol. 201; p. 968.

McCurdy, Ernest A., Taft, Cal. Pump. No. 1,092,159; Apr. 7; Gaz. vol. 201; p. 12.

McCurdy-Ferguson Company. (See Ferguson, Ward S., assignor.)

McDermott Surgical Instrument Co. (See Caine, Ansel M., assignor.)

McDevitt, James B., assignor of one-half to B. F. N. Bendtsen, Chicago, Ill. Valve for gasolene-tanks. No. 1,095,016; Apr. 28; Gaz. vol. 201; p. 1123.

McDonough, Joseph F. (See McCord, Horace M., assignor.)

McElroy, James F., Albany, N. Y., assignor to Consolidated Car-Heating Company. Electric switch. No. 1,093,793; Apr. 21; Gaz. vol. 201; p. 643.

McFadden, Samuel D. (See Stene and McFadden.)

McFarland, Corey F. (See Ford, John C., assignor.)

McFarling, Charles H. (See Rumley and McFarling.)

McGee, Joseph A., Big Spring, Ind. Power-transmission mechanism. No. 1,092,932; Apr. 14; Gaz. vol. 201; p. 318.

McGiffert, John R., assignor to Clyde Iron Works, Duluth, Minn. Land-clearing machine. No. 1,095,122; Apr. 28; Gaz. vol. 201; p. 1157.

McGill, Albert E., Chicago, Ill. Folding perambulator. No. 1,094,457; Apr. 28; Gaz. vol. 201; p. 926.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Perambulator. No. 1,094,453; Apr. 28; Gaz. vol. 201; p. 924.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding perambulator or go-cart. No. 1,094,454; Apr. 28; Gaz. vol. 201; p. 924.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding go-cart.' No. 1,094,455; Apr. 28; Gaz. vol. 201; p. 925.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding perambulator or baby-carriage. No. 1,094,456; Apr. 28; Gaz. vol. 201; p. 925.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding baby-carriage. No. 1,094,458; Apr. 28; Gaz. vol. 201; p. 926.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding perambulator or go-cart. No. 1,094,459; Apr. 28; Gaz. vol. 201; p. 927.

McGill, Albert E., Chicago, Ill., assignor, by mesne assignments, to W. S. Ferris, Elkhart, Ind., and A. B. Leith, Chicago, Ill., trustees. Folding go-cart. No. 1,094,460; Apr. 28; Gaz. vol. 201; p. 928.

McGill, John F., Outcrop, Pa. Window shade and curtain hanger. No. 1,093,061; Apr. 14; Gaz. vol. 201; p. 356.

McGuire, Elwood W., Richmond, Ind. Lawn-mower. No. 1,093,283; Apr. 14; Gaz. vol. 201; p. 433.

McIlwrath, Andrew, Chicago, Ill., assignor to Flood & Conklin Co., Newark, N. J. Wood-veneering. No. 1,092,846; Apr. 14; Gaz. vol. 201; p. 284.

McIntosh, Charles H. (See White and McIntosh.)

McIntyre, Robert S., Riverside, Cal. Compressed-air water-elevator. No. 1,093,871; Apr. 21; Gaz. vol. 201; p. 670.

McKean, Eugene, Oakland, Cal. Road-smoother. No. 1,092,280; Apr. 7; Gaz. vol. 201; p. 55.

McKee, Milton A., Westerly, R. I., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Hydraulic press. No. 1,094,603; Apr. 28; Gaz. vol. 201; p. 1049.

McKee, Samuel E. (See Cornell and McKee.)

McKenna, Raymond J., *et al.* (See Lynnequest, Victor, assignor.)

McLaughlin, Helena G., New Orleans, La. Ice-cream packer. No. 1,093,450; Apr. 14; Gaz. vol. 201; p. 488.

McLean, Frank E., assignor of one-half to R. H. Browne, Muskegon, Mich. Cabinet for type-writing, adding, printing, or other analogous machines. No. 1,093,344; Apr. 14; Gaz. vol. 201; p. 454.

McLeod, Ernest G., Brockton, Mass. Fountain-pen. No. 1,093,712; Apr. 21; Gaz. vol. 201; p. 619.

McLoughlin Brothers. (See Wiplitzhauser, August, assignor.)

McLoughlin, James, Glen Cove, N. Y. Combination reinforcing-rod and wall-plug. No. 1,092,734; Apr. 7; Gaz. vol. 201; p. 209.

McNamee, William, *et al.* (See Gamache, Edward E., assignor.)

McNeil, Charles. (See McNeil, John, C., and W. A.)

McNeil, James, and R. Lienhard, Jr., Pittsburgh, Pa. Elastic spring-support. No. 1,093,143; Apr. 14; Gaz. vol. 201; p. 385.

McNeil, James E., Los Angeles, Cal. Anti-rail-creeper. No. 1,094,736; Apr. 28; Gaz. vol. 201; p. 1026.

McNeil, John, C., and W. A., Govan, Scotland. Hydraulic pressure-regulating gear for sugar-cane mills and the like. No. 1,095,161; Apr. 28; Gaz. vol. 201; p. 1173.

McNeil, William A. (See McNeil, John, C., and W. A.)

McNutt, William H., New York, assignor to C. E. Owen, Franklin, N. Y. Safety-closure. No. 1,093,576; Apr. 14; Gaz. vol. 201; p. 526.

McQueen, King D. (See Keith and McQueen.)

McRonald, Adelbert H., Portland, Me., and I. Daniels, Boonville, N. Y.; said McRonald assignor, by mesne assignments, to said Daniels. Machine for preparing spruce-gum for the market. No. 1,093,451; Apr. 14; Gaz. vol. 201; p. 488.

McTaggart, Daniel B., assignor of one-half to W. H. Woodruff, Butte, Mont. Automatic train-pipe connector. No. 1,094,670; Apr. 28; Gaz. vol. 201; p. 1002.

McTurnan, Lea. (See McClintock and McTurnan.)

McVay, Zadock, Double Springs, Ala. Acetylene-gas generator. No. 1,094,008; Apr. 21; Gaz. vol. 201; p. 715.

McWilliams, Arthur C., Chicago, Ill. Combined motor-starter and circuit-breaker. No. 1,092,281; Apr. 7; Gaz. vol. 201; p. 55.

Mead, William A. (See Mennis and Mead.)

Meade, Richard K., Roland Park, Md. Waterproof concrete and making the same. No. 1,092,933; Apr. 14; Gaz. vol. 201; p. 313.

Meaker, John W., Detroit, Mich. Mechanism for operating flush-tank valves. No. 1,092,586; Apr. 7; Gaz. vol. 201; p. 160.

Meeh, Karl, Hohenstein-Ernstthal, Germany. Latch-needle. No. 1,094,737; Apr. 28; Gaz. vol. 201; p. 1027.

Meeks, Anna J., assignor of one-half to J. W. Meeks, Jennings, La. Grain header and conveyer. No. 1,092,735; Apr. 7; Gaz. vol. 201; p. 210.

Meeks, John W. (See Meeks, Anna J., assignor.)

Meer, Gustav ter, Hanover, Germany. Centrifugal machine. No. 1,094,230; Apr. 21; Gaz. vol. 201; p. 790.
Mees, Elias. (See Workman, Edward E., assignor.)
Mehlum, Casper, Cambridge, Mass. Collapsible mandrel. No. 1,093,284; Apr. 14; Gaz. vol. 201; p. 434.
Meier, Henry B., Port Chester, N. Y. Automatic time contact-switch. No. 1,092,736; Apr. 7; Gaz. vol. 201; p. 210.
Meili, Ernest, Hawthorne, assignor to Weidmann Silk Dyeing Co., Paterson, N. J. Removing tin from phosphate liquors used in weighting silk. No. 1,094,671; Apr. 28; Gaz. vol. 201; p. 1003.
Meisenburg, Kurt. (See Delbrück and Meisenburg.)
Melamid, Mellich, Freiburg, Germany. Treating mineral oils. No. 1,092,448; Apr. 7; Gaz. vol. 201; p. 113.
Mellsch, John, assignor of one-half to J. Zboyoski, Benid, Ill. Ice crusher or grater. No. 1,092,658; Apr. 7; Gaz. vol. 201; p. 184.
Mellen, Grenville, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company. Making extruded articles of metal or other material. No. 1,092,934; Apr. 14; Gaz. vol. 201; p. 313.
Mellen, Grenville, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company. Flux for purifying aluminum and its alloys. No. 1,092,935; Apr. 14; Gaz. vol. 201; p. 314.
Mellen, Grenville, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company. Purifying aluminum and its alloys. No. 1,092,936; Apr. 14; Gaz. vol. 201; p. 314.
Mellen, Grenville, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company. Apparatus for making extruded articles of metal or other material. No. 1,092,937; Apr. 14; Gaz. vol. 201; p. 314.
Mellen, Grenville, East Orange, N. J., assignor of one-half to United Aluminum Ingot Company. Melting-furnace. No. 1,092,938; Apr. 14; Gaz. vol. 201; p. 314.
Mellinger, Aldus M., Ephrata, Pa. Weather-vane. No. 1,093,062; Apr. 14; Gaz. vol. 201; p. 356.
Mellon, George A., St. Louis, Mo. Spring bed-bottom. No. 1,094,373; Apr. 21; Gaz. vol. 201; p. 835.
Meloon, Jonathan C., Providence, R. I., assignor to General Fire Extinguisher Company, New York, N. Y. Fusible device. No. 1,093,003; Apr. 14; Gaz. vol. 201; p. 356.
Menden, William S., Brooklyn, N. Y. Door operating and control device. No. 1,094,804; Apr. 28; Gaz. vol. 201; p. 1049.
Menden, William S., Brooklyn, N. Y. Street-railway and other car. No. 1,094,805; Apr. 28; Gaz. vol. 201; p. 1049.
Mendham, Conrad F., London, England. Handle of umbrellas, walking-sticks, hand-bags, and the like. No. 1,094,738; Apr. 28; Gaz. vol. 201; p. 1027.
Mengen, Charles J., St. Louis, Mo. Starting device for motor-vehicles. No. 1,093,641; Apr. 21; Gaz. vol. 201; p. 593.
Mennesson, Georges, Troyes, France. Steam warming system. No. 1,094,231; Apr. 21; Gaz. vol. 201; p. 791.
Mennis, May, and W. A. Mead, Denver, Colo. Tailor's measuring apparatus. No. 1,092,737; Apr. 7; Gaz. vol. 201; p. 210.
Menns, Walter K., Chelsea, Mass. Stem winding and setting mechanism. No. 1,094,582; Apr. 28; Gaz. vol. 201; p. 960.
Mercer, Savil D., Eldorado, Okla. Operating means for churns and other devices. No. 1,093,285; Apr. 14; Gaz. vol. 201; p. 434.
Meredith, William F. (See Rossi and Meredith.)
Mergenthaler Linotype Company. (See Armstrong, Henry A., assignor.)
Mergenthaler Linotype Company. (See Diaz, Pascual M., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Muehleisen, Carl, assignor.)
Mergenthaler Linotype Company. (See Rogers, William H., assignor.)
Merling, Georg, O. Chrzescinski, Elberfeld, and H. Köhler, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing keto compounds from ketones and alkylaminomethanes. No. 1,094,159; Apr. 21; Gaz. vol. 201; p. 768.
Merling, Georg, O. Chrzescinski, Elberfeld, and H. Köhler, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing keto compounds from ketones and tetraalkyldiaminomethanes. No. 1,094,160; Apr. 21; Gaz. vol. 201; p. 768.
Merrick, Frank W., assignor to Union Lock Stitch Company, Boston, Mass. Manufacturing shoes. No. 1,093,563; Apr. 14; Gaz. vol. 201; p. 521.
Merrill, Arthur H., Hartford, Conn. Cigar-tip cutter. No. 1,093,004; Apr. 14; Gaz. vol. 201; p. 336.
Merrill, Charles W., Berkeley, Cal. Filter-press. No. 1,093,345; Apr. 14; Gaz. vol. 201; p. 454.
Merrill, Charles W., Los Angeles, Cal. Trolley catcher and retriever. No. 1,094,916; Apr. 28; Gaz. vol. 201; p. 1087.
Merrow, Joseph M., assignor to The Merrow Machine Company, Hartford, Conn. Sewing-machine edge-guide. No. 1,094,858; Apr. 28; Gaz. vol. 201; p. 1068.
Merrow Machine Company, The. (See Merrow, Joseph M., assignor.)
Messick, Charles, Hackensack, N. J., assignor to Electrical Conveying Machinery Company. Antislip stair-sheet. No. 1,094,859; Apr. 28; Gaz. vol. 201; p. 1068.
Messner, John H., Pittsburgh, Pa. Railway cross-tie. No. 1,094,232; Apr. 21; Gaz. vol. 201; p. 791.
Metal Specialties Manufacturing Company. (See Berg, John, assignor.)
Metallic Novelty Works. (See Beebe, Watson, assignor.)
Metallpapier-Bronzefarben-Blattmetallwerke Aktiengesellschaft. (See Heinrich, Jacob, assignor.)
Metcalf, Henry D., Casey, Ill. Faucet-operating mechanism. No. 1,093,452; Apr. 14; Gaz. vol. 201; p. 489.
Methvin, Ernest G., Deming, N. Mex. Hand-elevator for packages. No. 1,094,233; Apr. 21; Gaz. vol. 201; p. 791.
Metropolitan Electric Mfg. Co. (See Newton, William J., assignor.)
Mettler, John D., Snydertown, Pa. Dump-car. No. 1,092,659; Apr. 7; Gaz. vol. 201; p. 185.
Metzner, Otto, assignor to The Rookwood Pottery Company, Cincinnati, Ohio. Tile-coating machine. No. 1,093,004; Apr. 14; Gaz. vol. 201; p. 357.
Meunier, Alfred, Taunton, Mass. Self-threading shuttle. No. 1,093,713; Apr. 21; Gaz. vol. 201; p. 619.
Meyer, Albert C., San Diego, Cal. Electric sign. No. 1,094,083; Apr. 21; Gaz. vol. 201; p. 741.
Meyer, Fred G. (See Cunningham, William J., assignor.)
Meyer, Martin H., Pender, Nebr. Automobile-jack. No. 1,094,004; Apr. 21; Gaz. vol. 201; p. 715.
Meyerhoff, Jacob, Chicago, Ill. Telephone signal system. No. 1,093,794; Apr. 21; Gaz. vol. 201; p. 644.
Meyers, Harry H., New York, N. Y. Gem-setting. No. 1,092,587; Apr. 7; Gaz. vol. 201; p. 160.
Michaud, Onesime E., St. Louis, Mo. Roller-bearing. No. 1,093,795; Apr. 21; Gaz. vol. 201; p. 644.
Michiell, John P. (See Boynton, Michiell, and Brandhofer.)
Michigan Motor Specialties Company. (See Beck, Charles W., assignor.)
Michigan Stove Company, The. (See Madsen, Charles P., assignor.)
Michigan Washing Machine Company *et al.* (See Stanfield, Jasper H., assignor.)
Michler, William F., Rhinelander, Wis. Safety-envelop. No. 1,092,660; Apr. 7; Gaz. vol. 201; p. 185.
Miech, Otto. (See Bartels and Miech.)
Miehle Printing Press & Manufacturing Company, The. (See Moe, Sivert, assignor.)
Miehle, Robert, Chicago, Ill. Fuel-regulator for steam-boilers. No. 1,092,781; Apr. 7; Gaz. vol. 201; p. 225.
Miehle, Robert, assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Bed-motion for printing-presses. No. 1,093,346; Apr. 14; Gaz. vol. 201; p. 455.
Miehle, Robert, assignor to Continental & Commercial Trust & Savings Bank, trustee, Chicago, Ill. Printing-press. No. 1,093,453; Apr. 14; Gaz. vol. 201; p. 489.
Milentz, Arnold L., St. Louis county, Mo. Photographic-dry-plate-inspection table. No. 1,094,672; Apr. 28; Gaz. vol. 201; p. 1003.
Miles, Casper W., Anderson township, Hamilton county, Ohio, assignor to S. S. Miles, Greensboro, N. C. Gas-compressor valve mechanism. No. 1,092,782; Apr. 7; Gaz. vol. 201; p. 226.
Miles, Stephen S. (See Miles, Casper W., assignor.)
Miller, Arthur A., Kapowsin, Wash. Window-holder. No. 1,094,234; Apr. 21; Gaz. vol. 201; p. 791.
Miller, Charles, assignor to Miller Motor Company, New York, N. Y. Rotary engine. No. 1,093,796; Apr. 21; Gaz. vol. 201; p. 644.
Miller, Franklin C., Easton, Pa. Rim and tire holder for automobiles. No. 1,094,084; Apr. 21; Gaz. vol. 201; p. 741.
Miller, Franklin C., Easton, Pa. Tire-holder for automobiles, &c. No. 1,094,085; Apr. 21; Gaz. vol. 201; p. 742.
Miller, Franklin C., Easton, Pa. Rim and tire holder for automobiles. No. 1,094,086; Apr. 21; Gaz. vol. 201; p. 742.
Miller, Fred W. (See Shriner and Miller.)
Miller, George W., Rochester, N. Y. Hinged last. No. 1,094,673; Apr. 28; Gaz. vol. 201; p. 1003.
Miller, Harry A., and F. M. Adamson, Indianapolis, Ind. Carburetor. No. 1,094,674; Apr. 28; Gaz. vol. 201; p. 1003.
Miller, Joseph H., Duluth, Minn. Cushion-heel and means for attaching same. No. 1,092,378; Apr. 7; Gaz. vol. 201; p. 87.
Miller Motor Company. (See Miller, Charles, assignor.)
Miller, Nellie M., and G. R. Evans, Washington, D. C. Street-sweeper. No. 1,094,235; Apr. 21; Gaz. vol. 201; p. 792.
Miller, Robert S., Cleveland, Ohio. Car-door fastening. No. 1,092,939; Apr. 14; Gaz. vol. 201; p. 315.
Miller, St. John, Pioneer, Ohio. Feeder for tile-machines. No. 1,093,714; Apr. 21; Gaz. vol. 201; p. 619.
Miller, Thomas S., South Orange, N. J. Load-transfer apparatus. No. 1,094,005; Apr. 21; Gaz. vol. 201; p. 718.
Miller, Wayne T., Angola, Ind. Fluid-dispensing apparatus. No. 1,093,347; Apr. 14; Gaz. vol. 201; p. 455.



Miller, William F., Toronto, Ontario, Canada. Globe-manipulator. No. 1,092,940; Apr. 14; Gaz. vol. 201; p. 315.
Miller, William H., Peru, Ind. Door. No. 1,092,501; Apr. 7; Gaz. vol. 201; p. 131.
Mills, Edgar A., Baltimore, and R. H. Richards, Hamilton, assignors of fifty-five one-hundredths to said Mills, twenty-five one-hundredths to said Richards, and twenty one-hundredths to U. S. G. Peoples, Baltimore, Md. Water-heating attachment for stoves. No. 1,094,341; Apr. 21; Gaz. vol. 201; p. 824.
Mills, Edward J., San Francisco, Cal. Index for bound books. No. 1,093,286; Apr. 14; Gaz. vol. 201; p. 434.
Mills Novelty Company. (See Sandell, Henry K., assignor.)
Millspaugh, William H., Sandusky, Ohio. Cylinder-head fastener. No. 1,092,847; Apr. 14; Gaz. vol. 201; p. 284.
Milton Bradley Company. (See Palmer, Harry B., assignor.)
Milwaukee Woven Wire Works. (See Marquardt and Stuewe, assignors.)
Miner, James H., Lumberton, Miss. Wheel-flange lubricator. No. 1,092,738; Apr. 7; Gaz. vol. 201; p. 210.
Miner, William H. (See Haseltine, Stacey B., assignor.)
Miner, William H. (See Nash, Charles J., assignor.)
Minerals Separation Limited. (See Nutter and Hoover, assignors.)
Minnich, Joseph F., Fort Wayne, Ind. Fender. No. 1,095,017; Apr. 28; Gaz. vol. 201; p. 1124.
Minnier, Blythe J., Watertown, N. Y., assignor to New York Air Brake Company. Air-brake apparatus. No. 1,093,454; Apr. 14; Gaz. vol. 201; p. 489.
Minshall, Charles H., Exmouth, England. Device for use in connection with practising golf. No. 1,094,236; Apr. 21; Gaz. vol. 201; p. 792.
Mioton, Sidney F., assignor of two-fifths to J. Oury, New Orleans, La. Controller for gas-stoves. No. 1,093,872; Apr. 21; Gaz. vol. 201; p. 671.
Mitchell, David G., Oberon, N. D. Tire-protector. No. 1,093,455; Apr. 14; Gaz. vol. 201; p. 490.
Mitchell, Harrison J., assignor to The Berlin Machine Works, Beloit, Wis. End-thrust bearing. No. 1,092,160; Apr. 7; Gaz. vol. 201; p. 12.
Mitchell, Harrison J., assignor to The Berlin Machine Works, Beloit, Wis. Clamping device for woodworking-machines. No. 1,093,456; Apr. 14; Gaz. vol. 201; p. 490.
Mitchell, John F., Topeka, Kans. Collapsible drinking-cup. No. 1,093,873; Apr. 21; Gaz. vol. 201; p. 671.
Mitchell, Louis E. (See Noble and Mitchell.)
Mitchell, William J., assignor of one-half to C. P. Turner, Gatesville, N. C. Dash for vehicles. No. 1,094,860; Apr. 28; Gaz. vol. 201; p. 1069.
Mittasch, Alwin. (See Bosch, Mittasch, Wolf, and Stern.)
Mixsell, Ward T., Washington, D. C. Carbureter. No. 1,092,282; Apr. 7; Gaz. vol. 201; p. 55.
Moe, Sivert, assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill. Feed control and tripping mechanism for printing-presses. No. 1,092,941; Apr. 14; Gaz. vol. 201; p. 316.
Mohr, Robert F. (See Bertodo and Mohr.)
Molley, Charles F. (See Moore, Alfred H., assignor.)
Monaghan, William J., assignor to Waterbury Mfg. Co., Waterbury, Conn. Portable electric lamp. No. 1,093,144; Apr. 14; Gaz. vol. 201; p. 386.
Monarch Steel Castings Company. (See Giberson, Mason B., assignor.)
Monash, Charles P. (See Martin, James H., Jr., assignor.)
Moncrief, Joseph T., Birmingham, Ala. Compounding a commercial essence of tea. No. 1,094,675; Apr. 28; Gaz. vol. 201; p. 1004.
Monkiewicz, Albert, New Britain, Conn. Grinding-wheel. No. 1,092,588; Apr. 7; Gaz. vol. 201; p. 160.
Monroe Burial Device Company, The. (See Shriner and Miller, assignors.)
Monsarrat, Charles N., *et al.* (See Motley, Phillips B., assignor.)
Monteagle, Robert C., West Newton, Mass. Steam-piston. No. 1,094,461; Apr. 28; Gaz. vol. 201; p. 928.
Mooers, Louis P. (See Spillman and Mooers.)
Mooers, Louis P., Geneva, Ohio, assignor of one-half to J. S. Bretz Company, New York, N. Y. Ball-bearing. No. 1,093,348; Apr. 14; Gaz. vol. 201; p. 455.
Mooers, Walter. (See Cerda, Arthur G., assignor.)
Moonen, Arnold J., Denver, Colo., assignor to The National Automatic Level and Instrument Company. Appliance for leveling instruments. No. 1,094,583; Apr. 28; Gaz. vol. 201; p. 969.
Moore, Alfred H., assignor of one-half to C. F. Molley, New York, N. Y. Railway-rail. No. 1,094,342; Apr. 21; Gaz. vol. 201; p. 824.
Moore, George. (See Wilson, John A., assignor.)
Moore, George D., Rowena, S. D. Door-holder. No. 1,093,457; Apr. 14; Gaz. vol. 201; p. 490.
Moore, George W., Florence Logging Camp, Snohomish county, Wash. Saw-guide. No. 1,093,458; Apr. 14; Gaz. vol. 201; p. 491.
Moore, Lee C., Pittsburgh, Pa. Steel tower or derrick. No. 1,092,503; Apr. 7; Gaz. vol. 201; p. 132.
Moore, Robert S., assignor to Gyro Motor Company, Washington, D. C. Rotary-cylinder gas-engine. No. 1,093,349; Apr. 14; Gaz. vol. 201; p. 455.
Moreton, Alfred G., Erie, Pa., assignor to General Electric Company. Internal-combustion engine. No. 1,093,944; Apr. 21; Gaz. vol. 201; p. 694.
Morgal, John F., Dayton, Ohio. Clutch. No. 1,092,379; Apr. 7; Gaz. vol. 201; p. 88.
Morgan Construction Company. (See George, Jerome R., assignor.)
Morgan, Frank, Melrose, Mass. Starting device for internal-combustion engines. No. 1,093,065; Apr. 14; Gaz. vol. 201; p. 357.
Morgan-Gardner Electric Company. (See Noble and Mitchell, assignors.)
Morgan, George W., Jr. (See De Lukacsevics, Charles, assignor.)
Morgan, Jack C., Los Angeles, assignor of one-half to R. J. Conway, Oakland, Cal. Comb. No. 1,093,459; Apr. 14; Gaz. vol. 201; p. 491.
Mork, Meiner C., Hector, Minn. Connecting guide rein or strap. No. 1,094,462; Apr. 28; Gaz. vol. 201; p. 929.
Morningstar, Glenn E. and J. G., Greenville, Ohio. Artificial teeth. No. 1,095,018; Apr. 28; Gaz. vol. 201; p. 1124.
Morningstar, James G. (See Morningstar, Glenn E. and J. G.)
Morrison, George F., Newark, N. J., assignor to General Electric Company. Welding lamp-filaments. No. 1,093,197; Apr. 14; Gaz. vol. 201; p. 404.
Morrison, George W. (See Pearson, George F., assignor.)
Morrison, John A., and J. H. Levin, Minneapolis, Minn.; said Morrison assignor to said Levin. Device for removing obstructions from plumbing-passageways. No. 1,093,066; Apr. 14; Gaz. vol. 201; p. 357.
Morse, Alfred B., South Easton, Mass. System of preparing filled bobbins. No. 1,094,343; Apr. 21; Gaz. vol. 201; p. 824.
Morse, John J., St. Louis, Mo. Reinforced brake-shoe. No. 1,095,019; Apr. 28; Gaz. vol. 201; p. 1124.
Morse, Mark S., Oakland, Cal. Relay. No. 1,092,283; Apr. 7; Gaz. vol. 201; p. 56.
Morse, Mark S., Oakland, assignor of two-fifths to J. R. Watson, Jr., Alameda, Cal. Signaling device. No. 1,094,584; Apr. 28; Gaz. vol. 201; p. 960.
Morton, Albert H., Lowell, Mass. Thread-board for spinning, twisting, and like machines. No. 1,093,715; Apr. 21; Gaz. vol. 201; p. 620.
Moseley, Harry H., Atlantic, Mass. Automobile-starter. No. 1,092,739; Apr. 7; Gaz. vol. 201; p. 211.
Moses, Opiedie P., *et al.* (See Hunter, James W., assignor.)
Mosher, Nicholas I., Somerville, Mass. Drill-brace. No. 1,095,162; Apr. 28; Gaz. vol. 201; p. 1173.
Mosler Safe Company, The. (See Bartels, Carl, assignor.)
Moss, Louis N., New York, N. Y. Ventilating window shade and fixture. No. 1,094,917; Apr. 28; Gaz. vol. 201; p. 1087.
Motley, Phillips B., assignor to himself, C. N. Monsarrat, and J. G. Sullivan, Westmount, Quebec, Canada. Mold. No. 1,093,874; Apr. 21; Gaz. vol. 201; p. 671.
Mottinger, Byron T., Youngstown, Ohio. Electromagnetic separator. No. 1,093,875; Apr. 21; Gaz. vol. 201; p. 672.
Moulthrop, Louis S. (See Jaques, Fernando O., Jr., assignor.)
Mountain, Edward J., New York, N. Y. Arch and ankle support. No. 1,094,585; Apr. 28; Gaz. vol. 201; p. 970.
Mountain, Edward J., New York, N. Y. Last. No. 1,094,739; Apr. 28; Gaz. vol. 201; p. 1027.
Mountford, Clarence E., assignor, by mesne assignments, to Goldsmith, Stern & Co., New York, N. Y. Bracelet-bending machine. No. 1,094,676; Apr. 28; Gaz. vol. 201; p. 1004.
Mowery, Nelson. (See Smith and Mowery.)
Moyer, Albert, New York, N. Y. Joint-plate. No. 1,092,848; Apr. 14; Gaz. vol. 201; p. 285.
Moyer, Malcolm B., Montevideo, Minn. Gate. No. 1,094,392; Apr. 21; Gaz. vol. 201; p. 842.
Muehleisen, Carl, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,093,716; Apr. 21; Gaz. vol. 201; p. 620.
Mueller, Charles A., Indianapolis, Ind. Screen-shovel. No. 1,094,161; Apr. 21; Gaz. vol. 201; p. 768.
Mühlbauer, Ernst C., assignor to Universelle Cigaretten-Maschinen-Industrie System Otto Bergstrisser Aktiengesellschaft, Dresden-Löbtau, Germany. Cigarette-making machine. No. 1,093,564; Apr. 14; Gaz. vol. 201; p. 522.
Muhlfeld, John E., Kansas City, Mo. Shock-absorber. No. 1,093,642; Apr. 21; Gaz. vol. 201; p. 593.
Mull, Ernest C., *et al.* (See Aiken, Thomas M., assignor.)
Müller, Carl A., Witzenhausen, Germany. Safety-lock. No. 1,092,223; Apr. 7; Gaz. vol. 201; p. 34.
Müller, Friedrich, Bochum, Germany, assignor to The National Cash Register Company, Dayton, Ohio. Cash-controlling apparatus. No. 1,094,586; Apr. 28; Gaz. vol. 201; p. 970.
Muller, Henry J., Brooklyn, N. Y. Amusement-railway. No. 1,092,740; Apr. 7; Gaz. vol. 201; p. 211.
Mullins, Ollie, assignor of one-half to M. T. Hutts and one-fourth to J. J. Ury, Terre Haute, Ind. Stamp-cutter. No. 1,093,460; Apr. 14; Gaz. vol. 201; p. 491.
Multiple-Grate-Bar Endless Chain Stoker Company. (See Clark, Francis M., assignor.)
Multipost Company. (See Straight, Bennett D., assignor.)

Munch, Alfred, Maywood, Ill. Metallic packing-ring for piston-rods. No. 1,095,163; Apr. 28; Gaz. vol. 201; p. 1174.

Munchausen, Arthur, Independence, La. Crate. No. 1,094,463; Apr. 28; Gaz. vol. 201; p. 929.

Munson, Henry H. (See Page and Munson.)

Murphy, Frank M. (See Murphy, Peter and F. M.)

Murphy, James W., Akron, Ohio. Block-signal system. No. 1,094,918; Apr. 28; Gaz. vol. 201; p. 1087.

Murphy, Peter and F. M., Prescott, Ariz. Automatic oil and water separator. No. 1,094,861; Apr. 28; Gaz. vol. 201; p. 1069.

Murphy, Peter H. (See Owen, William J., assignor.)

Murphy, Thomas J., Rochester, N. Y. Rectifier of electric currents. No. 1,093,717; Apr. 21; Gaz. vol. 201; p. 620.

Murray, Charles F., Evanston, assignor to The Fowler Car Company, Chicago, Ill. Car side. No. 1,093,876; Apr. 21; Gaz. vol. 201; p. 672.

Murray, William A., Los Angeles, Cal. Pull-tension truss. No. 1,092,783; Apr. 7; Gaz. vol. 201; p. 226.

Musgrove, Arthur S., Pittsfield, Mass., assignor to Scott & Williams, Incorporated, Philadelphia, Pa. Knitting-machine. No. 1,095,164; Apr. 28; Gaz. vol. 201; p. 1174.

Muslay, Julius. (See Viz and Muslay.)

Myers, Charles H., Buffalo, N. Y. Carbureter. No. 1,093,718; Apr. 21; Gaz. vol. 201; p. 621.

Myers, Charles R. (See Stedman, Kopp, and Myers.)

Myers, John H., Kenmore, N. Y. Rotary pump. No. 1,093,005; Apr. 14; Gaz. vol. 201; p. 337.

Myers, Lewis C., assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,092,380; Apr. 7; Gaz. vol. 201; p. 88.

Myers, Lewis C., Brooklyn, assignor, by mesne assignments, to Royal Typewriter Company, Inc., New York, N. Y. Type-writing machine. No. 1,094,162; Apr. 21; Gaz. vol. 201; p. 768.

Myers, Martin J., New York, N. Y. Fastening device. No. 1,093,643; Apr. 21; Gaz. vol. 201; p. 594.

Mygatt, Otis A., New York, N. Y. Pressed-glass structure. No. 1,093,350; Apr. 14; Gaz. vol. 201; p. 456.

Mygatt, Otis A., New York, N. Y. Glassware. No. 1,093,719; Apr. 21; Gaz. vol. 201; p. 621.

Nagel, Carl, Gliesmarode, Brunswick, Germany. Weighing or measuring apparatus. No. 1,092,741; Apr. 7; Gaz. vol. 201; p. 212.

Nagy, John R., Martins Ferry, Ohio. Tie and rail-fastener. No. 1,092,661; Apr. 7; Gaz. vol. 201; p. 185.

Naiser, John, Sr., Tulton, Tex. Fence-post. No. 1,092,942; Apr. 14; Gaz. vol. 201; p. 316.

Narragansett Machine Company. (See Thornley, Albert E., assignor.)

Nash, Charles J., assignor, by mesne assignments, to W. H. Miner, Chicago, Ill. Draft-rigging for single center-sill cars. No. 1,093,797; Apr. 21; Gaz. vol. 201; p. 645.

Nash Engineering Company. (See Nash, Lewis H., assignor.)

Nash, Frederick J., Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stop mechanism. No. 1,093,588; Apr. 14; Gaz. vol. 201; p. 531.

Nash, Lewis H., South Norwalk, Conn., assignor to Nash Engineering Company. Turbo-displacement engine. No. 1,094,919; Apr. 28; Gaz. vol. 201; p. 1088.

Nash, Thomas J., Lincoln, Nebr. Toy gun. No. 1,094,227; Apr. 21; Gaz. vol. 201; p. 792.

Nashawena Mills. (See Grime, Thomas, assignor.)

Nathan Manufacturing Co. (See Wood, Robert, assignor.)

Nathorst, Harry J. H., and G. Lundström, Gellivare Malmfält, Malmberget, assignors, by mesne assignments, to Nya Aktiebolaget Altas, Stockholm, Sweden. Forming and sharpening drill-bits and the like. No. 1,094,807; Apr. 28; Gaz. vol. 201; p. 1050.

National-Acme Manufacturing Company, The. (See Trobeck, Enoch, assignor.)

National Automatic Level and Instrument Company, The. (See Moonen, Arnold J., assignor.)

National Book Cover Company, The. (See Davis, Frederick H., assignor.)

National Can Company. (See Canby, Amos G., assignor.)

National Carbon Company. (See Brown, John W., assignor.)

National Cash Register Company, The. (See Carroll, Thomas, assignor.)

National Cash Register Company, The. (See Heinits, Woldemar R., assignor.)

National Cash Register Company, The. (See Müller, Friedrich, assignor.)

National Dump Car Company. (See Caswell, William A., assignor.)

National Dump Car Company. (See Seaberg, Frederick, assignor.)

National Egg Company. (See Clairemont, Victor, assignor.)

National Electric Utilities Corporation. (See Rice, Merrit H., assignor.)

National Machine Corporation. (See Lilliston, Thomas M., assignor.) (Reissue.)

National Malleable Castings Company, The. (See Buckius, Albert O., Jr., assignor.)

National Malleable Castings Company, The. (See Stephenson, John W., assignor.)

National Match Company. (See Vaughan, Bernard G., assignor.)

National Piano Company. (See Watson, William A., assignor.)

Neal, Frank A. (See O'Neal, Frederick A., assignor.)

Neely, Charles, Ebensburg, Pa. Shingle-cutting machine. No. 1,092,381; Apr. 7; Gaz. vol. 201; p. 88.

Neff, Abner R., Los Angeles, Cal. Electric cap-light. No. 1,093,287; Apr. 14; Gaz. vol. 201; p. 435.

Neff, Peter, D. Cole, and E. L. Ebersole, assignors to The Arctic Ice Machine Company, Canton, Ohio. Ammonia-compressor. No. 1,092,943; Apr. 14; Gaz. vol. 201; p. 316.

Neidig, William J., Madison, Wis., assignor, by mesne assignments, to Chicago Title and Trust Company, trustee. Type-writing machine. No. 1,093,798; Apr. 21; Gaz. vol. 201; p. 645.

Neldner, Konstance E., assignor of one-half to V. K. Neldner, Milwaukee, Wis. Cheese. No. 1,092,504; Apr. 7; Gaz. vol. 201; p. 132.

Neldner, Vincent K. (See Neldner, Konstance E., assignor.)

Neller, Ernest T. (See Neller, John H. and E. T.)

Neller, John H., Appleton, Wis., and E. T. Neller, Bakersfield, Cal. Grease-cup. No. 1,092,161; Apr. 7; Gaz. vol. 201; p. 13.

Nelson, Charles A., Chicago, Ill. Lawn-sprinkler. No. 1,093,006; Apr. 14; Gaz. vol. 201; p. 337.

Nelson, Edward. (See Hankey, Albert, assignor.)

Nelson, Walter H., assignor to Ohmer Fare Register Company, Dayton, Ohio. Operating device for registering and indicating mechanism. No. 1,093,720; Apr. 21; Gaz. vol. 201; p. 620.

Neptune Meter Company. (See Burton, James M., assignor.)

Nerlinger, Hermann, Mannheim, Germany. Wafer for encapsulating medicines. No. 1,094,740; Apr. 28; Gaz. vol. 201; p. 1028.

Nesdall, John T., New York, N. Y. Attachment for field-glasses, &c. No. 1,092,224; Apr. 7; Gaz. vol. 201; p. 84.

Ness, Martin, Bothell, Wash. Pump. No. 1,092,382; Apr. 7; Gaz. vol. 201; p. 88.

Neth, George J., Dayton, assignor of one-half to R. C. S. Reed, Hamilton, Ohio. Automatically-controlled paper-cutter. No. 1,094,374; Apr. 21; Gaz. vol. 201; p. 835.

Neu-Metals and Process Company. (See Gleason, Edward D., assignor.)

New Diamond Polishing Tool Company of America. (See Loesser, Ernest, assignor.)

New Haven Sand Blast Company. (See Dreisbach, Charles A., assignor.)

New Jersey Patent Company. (See Gall, Adolph F., assignor.)

New Jersey Patent Company. (See Holland, Newman H., assignor.)

New Jersey Patent Company. (See Oertly, John, assignor.)

New York Air Brake Company. (See Minnier, Blythe J., assignor.)

New York Coil Company. (See Rhoades, Lewis T., assignor.)

Newcomb, Frank H., Brooklyn, N. Y. Window-fastener. No. 1,094,862; Apr. 28; Gaz. vol. 201; p. 1069.

Newman, Arthur S., Highgate, London, England. Shutter for photographic cameras. No. 1,095,020; Apr. 28; Gaz. vol. 201; p. 1124.

Newman, Fanny, San Francisco, Cal. Non-refillable bottle. No. 1,095,123; Apr. 28; Gaz. vol. 201; p. 1157.

Newman, Oliver, St. Davids, Pa. Egg-carrier. No. 1,094,620; Apr. 28; Gaz. vol. 201; p. 1089.

Newnam, Edward B., deceased; S. F. Newnam, administratrix, Denver, Colo. Foot-vise. No. 1,093,461; Apr. 14; Gaz. vol. 201; p. 491.

Newnam, Sarah F., administratrix. (See Newnam, Edward B.)

Newpher, Alfred H., assignor to The Adams & Westlake Company, Chicago, Ill. Car-window. No. 1,093,644; Apr. 21; Gaz. vol. 201; p. 594.

Newport, William A., assignor of one-half to G. J. White, Hamilton, Ontario, Canada. Woodworking machinery. No. 1,093,198; Apr. 14; Gaz. vol. 201; p. 404.

Newsom, Albert L., assignor to O. C. Hockett, Richmond, Va. Stopper and extractor therefor. No. 1,093,288; Apr. 14; Gaz. vol. 201; p. 435.

Newton, Dimond C., assignor of one-half to M. Lindeman, Owego, N. Y. Safety and signaling device for railways. No. 1,092,383; Apr. 7; Gaz. vol. 201; p. 89.

Newton & Holt Company. (See Holt, Charles S., assignor.)

Newton, William J., Lynbrook, N. Y., assignor to Metropolitan Electric Mfg. Co. Switch. No. 1,094,806; Apr. 28; Gaz. vol. 201; p. 1050.

Ney, Jacob, Canton, Ohio. Merry-go-round. (Reissue.) No. 13,721; Apr. 28; Gaz. vol. 201; p. 1182.

Niagara Searchlight Company, The. (See Eaton, Richard M., assignor.)

Nicholas, Matthew, Boulder, Colo. Wrench. No. 1,095,021; Apr. 28; Gaz. vol. 201; p. 1125.

Nichols, Louis C., Milwaukee, Wis., assignor, by mesne assignments, to Allis-Chalmers Manufacturing Company. Connector. No. 1,092,589; Apr. 7; Gaz. vol. 201; p. 161.

Nichols, Winfield S., assignor to Independent Harvester Company, Plano, Ill. Disk harrow. No. 1,092,284; Apr. 7; Gaz. vol. 201; p. 57.

Nicholson, Percival, Ardmore, Pa. Sphygmomanometer. No. 1,093,199; Apr. 14; Gaz. vol. 201; p. 404.





Nicholson, Percival, Ardmore, Pa. Sphygmomanometer. No. 1,094,464; Apr. 28; Gaz. vol. 201; p. 929.

Nickels, Leslie J., San Francisco, Cal. Pipette. No. 1,092,384; Apr. 7; Gaz. vol. 201; p. 89.

Nickerson, Clarendon, assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Drop-hammer. No. 1,093,799; Apr. 21; Gaz. vol. 201; p. 645.

Nickerson, Edith F., Bourne, Mass. Glove. No. 1,093,877; Apr. 21; Gaz. vol. 201; p. 672.

Niclausse, Albert. (See Niclausse, Jules and A.)

Niclausse, Jules and A., Paris, France. Steam-boiler. No. 1,093,067; Apr. 14; Gaz. vol. 201; p. 358.

Nielsen, Iver C., assignor of one-half to G. A. Master, Chicago, Ill. Bottle-washing machine. No. 1,093,068; Apr. 14; Gaz. vol. 201; p. 358.

Nies, John D., St. Charles, assignor to Kimble Electric Co., Chicago, Ill. Rotor construction for induction-motors. No. 1,092,849; Apr. 14; Gaz. vol. 201; p. 285.

Niles-Bement-Pond Company. (See Reiss, George T., assignor.)

Nilson, Carl L., Transcona, Canada. Locomotive. No. 1,093,069; Apr. 14; Gaz. vol. 201; p. 359.

Nilsson, Carl V., Philadelphia, Pa. Turning-machine. No. 1,093,645; Apr. 21; Gaz. vol. 201; p. 594.

Nissinen, Toimi A., and C. Hartwig, New York, assignors to F. G. Zinsser, Hastings-upon-Hudson, N. Y. Feeding mechanism for bottle-stoppers. No. 1,094,163; Apr. 21; Gaz. vol. 201; p. 769.

Nitrogen Products Company. (See Bucher, John E., assignor.)

Nix, Edward A., J. J. Dowling, and H. A. Bursley, New Orleans, La. Refrigerator-car-hatch plug. No. 1,092,944; Apr. 14; Gaz. vol. 201; p. 316.

Nobis, Gustav, Davenport, Iowa. Electrically-driven pendulum. No. 1,094,238; Apr. 21; Gaz. vol. 201; p. 793.

Noble, Alanson C., Chicago, Ill. Head-rest for beds. No. 1,092,850; Apr. 14; Gaz. vol. 201; p. 285.

Noble, Ralph E., and L. E. Mitchell, assignors to Morgan-Gardner Electric Company, Chicago, Ill. Buffer and draw-gear. No. 1,094,375; Apr. 21; Gaz. vol. 201; p. 836.

Noesting Pin Ticket Company. (See Livingston, William, assignor.)

Noiseless Typewriter Company, The. (See Ronchetti, Joseph A., assignor.)

Nold, Solomon E., assignor to The Aluminum Foundry Company, Alliance, Ohio. Combined spreader and clamp for tires. No. 1,094,164; Apr. 21; Gaz. vol. 201; p. 769.

Noon, William J., Lynn, Mass. Counter-guard for heel-trimming machines. No. 1,094,587; Apr. 28; Gaz. vol. 201; p. 971.

Nordell, Carl, Gilbertville, Mass. Bobbin-stop. No. 1,094,239; Apr. 21; Gaz. vol. 201; p. 793.

Noreko, John, Pittsburgh, Pa. Car-window-opening device. No. 1,094,863; Apr. 28; Gaz. vol. 201; p. 1070.

Noro, Seikichi, Gladwyne, Pa. Attachment for horseshoes. No. 1,093,351; Apr. 14; Gaz. vol. 201; p. 456.

Norris, Samuel E., Crowell, Tex. Seeder and planter. No. 1,093,462; Apr. 14; Gaz. vol. 201; p. 492.

Norsk Hydro-Elektrisk Kvoelstofaktiesclskab. (See Schloesing, Alphonse T., assignor.)

North Bro's M'f'g Co. (See Fegley and Leopold, assignors.)

Northwestern Expanded Metal Company. (See Arey, Fred C., assignor.)

Northwestern Novelty Company. (See Bolen, Emerson A., assignor.)

Norton, Fred E., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,094,393; Apr. 21; Gaz. vol. 201; p. 842.

Nuttall, James, Bury, England. Doctor or scraper for cleaning the surfaces of cylinders, rolls, and the like. No. 1,092,798; Apr. 7; Gaz. vol. 201; p. 231.

Nutter, Edward H., New York, N. Y., and T. J. Hoover, assignors to Minerals Separation Limited, London, England. Method and apparatus for ore concentration. No. 1,093,463; Apr. 14; Gaz. vol. 201; p. 492.

Nya Aktiebolaget Altas. (See Nathorst and Lundström, assignors.)

O. K. Manufacturing & Stamping Company, The. (See Sloan, Francis E., assignor.)

O'Brien, Asher J., Seattle, Wash. Brake mechanism. No. 1,092,162; Apr. 7; Gaz. vol. 201; p. 13.

O'Brien, Michael W., Rochester, N. Y. Ejector for presses. No. 1,093,290; Apr. 14; Gaz. vol. 201; p. 405.

O'Brien, Ora, Hanford, Cal. Automatic fuel-feeding mechanism for burners. No. 1,093,878; Apr. 21; Gaz. vol. 201; p. 673.

O'Brien, Simon, assignor to C. S. Clinch, Lynn, Mass. Machine for assembling parts of shoe ornaments, &c. No. 1,094,588; Apr. 28; Gaz. vol. 201; p. 971.

O'Brien, Thomas, Brooklyn, assignor to H. G. Opdycke, New York, N. Y. Seismograph. No. 1,095,022; Apr. 28; Gaz. vol. 201; p. 1125.

O'Bryan, George W., Cambria, Va. Combination window-screen and fly-trap. No. 1,092,505; Apr. 7; Gaz. vol. 201; p. 132.

O'Connell, James H., Lawrence, Mass. Stop-motion for spooling or like machines. No. 1,094,344; Apr. 21; Gaz. vol. 201; p. 825.

O'Connor, Martin A., Buffalo, N. Y., assignor to W. H. Miner Company, Chicago, Ill. Friction draft-rigging for railway-cars. No. 1,093,879; Apr. 21; Gaz. vol. 201; p. 673.

O'Donnell, William J., Alameda, Cal. Garment-hanger and box therefor. No. 1,094,087; Apr. 21; Gaz. vol. 201; p. 743.

O'Leary, Thomas J., St. Paul, Minn. Attachment for pneumatic-tire valves. No. 1,093,464; Apr. 14; Gaz. vol. 201; p. 492.

O'Neal, Frederick A., assignor of one-half to F. A. Neal, St. Louis, Mo. Awning-fixture. No. 1,094,465; Apr. 28; Gaz. vol. 201; p. 929.

O'Neil, Edward A., *et al.* (See Ducro, Lewis, assignor.)

O'Neil, Frank. (See Van Vliet and O'Neil.)

O'Reilly, Joseph J., Brooklyn, N. Y. Whistle. No. 1,094,006; Apr. 21; Gaz. vol. 201; p. 716.

Obendorfer, B. E. (See Blankenship, Howard S., assignor.)

Obst, Joseph A., Pawtucket, R. I. Piano-player action. No. 1,092,163; Apr. 7; Gaz. vol. 201; p. 13.

Ockel, Reinhold, Bonn, Germany. Cooler for extraction apparatus and the like. No. 1,095,165; Apr. 28; Gaz. vol. 201; p. 1174.

Ockington, W. J., *et al.* (See Ducro, Lewis, assignor.)

Oehring, Oscar, Eisleben, assignor to Internationale Neverfail Patentkurbelfenster G. m. b. H., Berlin, Germany. Sliding window. No. 1,092,945; Apr. 14; Gaz. vol. 201; p. 317.

Oertly, John, Cincinnati, Ohio, assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Kinetoscope. No. 1,093,646; Apr. 21; Gaz. vol. 201; p. 594.

Offenbach, Harry, Bradford, Pa. Vapor-burner. No. 1,094,088; Apr. 21; Gaz. vol. 201; p. 743.

Officer, Thomas. (See Ball and Officer.)

Ohio Chemical and Manufacturing Company, The. (See Clarke, Graham, assignor.)

Ohlsson, Charles J., New York, N. Y. Hook. No. 1,093,945; Apr. 21; Gaz. vol. 201; p. 695.

Ohmer Fare Register Company. (See Nelson, Walter H., assignor.)

Ohmer Fare Register Company. (See Ohmer, John F., assignor.)

Ohmer, John F., assignor to Ohmer Fare Register Company, Dayton, Ohio. Fare-register and recording-machine. No. 1,094,376; Apr. 21; Gaz. vol. 201; p. 836.

Oldenburg, Otto L. K. H., Mount Moriah, Natal, South Africa. Plow. No. 1,094,240; Apr. 21; Gaz. vol. 201; p. 793.

Oldroyd, Walter J., Hartford, assignor to George P. Clark Company, Windsor Locks, Conn. Caster device. No. 1,092,506; Apr. 7; Gaz. vol. 201; p. 133.

Olechnowicz, Frank, Mineola, N. Y. Hat-pin guard. No. 1,092,536; Apr. 7; Gaz. vol. 201; p. 142.

Ollinger, James A. (See Walker and Ollinger.)

Oliphant, William A., Petersburg, Ind. Post. No. 1,094,741; Apr. 28; Gaz. vol. 201; p. 1028.

Oliver Chilled Plow Works. (See Hoke, John I., assignor.)

Oliver, Edd C., Detroit, Mich. Speedometer. No. 1,092,590; Apr. 7; Gaz. vol. 201; p. 161.

Olson, Charley A., St. Peter, Minn. Pen-extractor. No. 1,093,721; Apr. 21; Gaz. vol. 201; p. 622.

Olson, David, El Campo, Tex. Beet puller and topper. No. 1,094,742; Apr. 28; Gaz. vol. 201; p. 1028.

Olson, John L., St. Paul, Minn. Street or station indicator. No. 1,094,743; Apr. 28; Gaz. vol. 201; p. 1028.

Onyett, Howard M., *et al.* (See Schenck, Henry L., assignor.)

Opdycke, Henry G. (See O'Brien, Thomas, assignor.)

Opelz, John, assignor of one-third to F. Altmeyer, Cleveland, Ohio. Roofing-tile. No. 1,092,799; Apr. 7; Gaz. vol. 201; p. 231.

Organ, Thomas O., Germantown, assignor to A. C. Buzby, Philadelphia, Pa. Lubricator. No. 1,092,164; Apr. 7; Gaz. vol. 201; p. 13.

Orling, Axel, Tooting, London, England. Apparatus for reproducing vibrations of small amplitude. No. 1,094,165; Apr. 21; Gaz. vol. 201; p. 769.

Orr, John S., Augusta, Ky. Water-craft propeller. No. 1,094,007; Apr. 21; Gaz. vol. 201; p. 716.

Orton, Alfred, Cheyenne, Wyo. Auto-body. No. 1,094,241; Apr. 21; Gaz. vol. 201; p. 794.

Osborn, Francis C., Detroit, Mich. Puzzle. No. 1,092,165; Apr. 7; Gaz. vol. 201; p. 14.

Osborn, Henry C., assignor to The American Multigraph Company, Cleveland, Ohio. Type setting and distributing machine. No. 1,094,089; Apr. 21; Gaz. vol. 201; p. 743.

Osborn Manufacturing Company, The. (See Knowlton and Elliot, assignors.)

Osborne, Charles G., Chicago, Ill. Treating manganese-steel ingots. No. 1,094,090; Apr. 21; Gaz. vol. 201; p. 744.

Osborne, Harry, *et al.* (See Vaughan, Henry H., assignor.)

Osborne, Willard B., Sewickley, assignor to Riter-Conley Manufacturing Company, Pittsburgh, Pa. Gas-washer. No. 1,094,466; Apr. 28; Gaz. vol. 201; p. 930.

Osbourn, Millard F., Merchantville, N. J., assignor to Warren Webster & Company. Steam-heating system. No. 1,093,722; Apr. 21; Gaz. vol. 201; p. 622.

Ostheimer, Adam, Cleveland, Ohio. Fastening contrivance. No. 1,094,091; Apr. 21; Gaz. vol. 201; p. 744.

Otis Elevator Company. (See Reno, Jesse W., assignor.)

Otis, Hazel K. (See Otis, James S., assignor.)
Otis, James S., assignor, by mesne assignments, to H. K. Otis, New York, N. Y. One-way valve. No. 1,093,465; Apr. 14; Gaz. vol. 201; p. 493.
Otis and Moe Manufacturing Company. (See Bennett, Paul P., assignor.)
Otter, Alois, New York, N. Y. Steering-gear for vehicles. No. 1,093,466; Apr. 14; Gaz. vol. 201; p. 493.
Ottignon, Thomas, Wexford, Ontario, Canada. Fire-escape. No. 1,092,662; Apr. 7; Gaz. vol. 201; p. 186.
Oury, Joseph. (See Miloton, Sidney F., assignor.)
Owen, Carrie E. (See McNutt, William H., assignor.)
Owen, Harry L., York, Pa., assignor to General Electric Company. Preparing asbestos fiber for insulating purposes. No. 1,094,467; Apr. 28; Gaz. vol. 201; p. 930.
Owen, William J., Collinwood, Ohio, assignor to P. H. Murphy, Pittsburgh, Pa. Car-roof. No. 1,093,201; Apr. 14; Gaz. vol. 201; p. 405.
Owens, John S., assignor to J. M. De Mendoza ver Mehr, London, England. Rotary mixing-machine. No. 1,093,723; Apr. 21; Gaz. vol. 201; p. 623.
Oyster, Earl F., East Cleveland, Ohio. Forging-press. No. 1,094,092; Apr. 21; Gaz. vol. 201; p. 744.
Ozias, Albert N., deceased; D. L. Fairchild and R. V. Haxby, administrators, Minneapolis, Minn. Spring-balance scale. No. 1,092,449; Apr. 7; Gaz. vol. 201; p. 113.
P. H. Murphy Company. (See Hoffman, John J., assignor.)
Pacher, Franz, Dusseldorf-Rath, Germany. Manufacturing metal bodies. No. 1,092,663; Apr. 7; Gaz. vol. 201; p. 186.
Pacific Electric Heating Company. (See Falkenberg, Bjarne, assignor.)
Pacific Electric Heating Company. (See Vanden Berg, Peter H., assignor.)
Paciorkiewicz, Wladislaw, Charlottenburg, assignor to Allgemeine Handelsgesellschaft m. b. H. Bock & Co., Berlin-Charlottenburg, Germany. Coin-tester. No. 1,093,647; Apr. 21; Gaz. vol. 201; p. 595.
Package Machinery Company. (See Ferguson, Milford B., assignor.)
Package Machinery Company. (See Kempf, Henry J., assignor.)
Packard Motor Car Company. (See Huff, Russell, assignor.)
Packard Motor Car Company. (See Hunt, Ormond E., assignor.)
Packard Motor Car Company. (See Waldon, Sidney D., assignor.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Rabbeted lock front and strike. No. 1,092,946; Apr. 14; Gaz. vol. 201; p. 317.
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Emergency-bolt. No. 1,094,677; Apr. 28; Gaz. vol. 201; p. 1004.
Page, Albert A., East Haven, and H. H. Munson, assignors to Sargent & Company, New Haven, Conn. Lock. No. 1,095,124; Apr. 28; Gaz. vol. 201; p. 1158.
Page, Hattie J., Grand Rapids, Mich. Pajamas. No. 1,093,724; Apr. 21; Gaz. vol. 201; p. 623.
Page, Lyman C., Decoto, Cal. Attachment for telegraph apparatus. No. 1,093,725; Apr. 21; Gaz. vol. 201; p. 623.
Pagel, Gustav, Berlin, Germany, assignor to General Electric Company. Turbine-driven auxiliaries. No. 1,093,145; Apr. 14; Gaz. vol. 201; p. 386.
Paine, Clifford E., assignor of one-fourth to L. Johns, Chicago, Ill. Bridge. No. 1,093,202; Apr. 14; Gaz. vol. 201; p. 406.
Paine, William E., New York, N. Y. Traction-vehicle. No. 1,093,289; Apr. 14; Gaz. vol. 201; p. 436.
Pajeau, Charles H., Evanston, Ill. Mechanical-construction blocks. No. 1,092,591; Apr. 7; Gaz. vol. 201; p. 161.
Palmer, George E. (See Sewall, Jacobus, and Palmer.)
Palmer, Harry A., assignor to Foster, Merriam and Company, Meriden, Conn. Self-adjusting caster. No. 1,094,744; Apr. 28; Gaz. vol. 201; p. 1029.
Palmer, Harry B., New York, N. Y., assignor to Milton Bradley Company, Springfield, Mass. Game apparatus. No. 1,093,577; Apr. 14; Gaz. vol. 201; p. 526.
Palmer, Isaac E., Middletown, Conn. Keir for conditioning textile material. No. 1,094,922; Apr. 28; Gaz. vol. 201; p. 1089.
Palmer, Isaac E., Middletown, Conn. Revisable commercial catalogue and envelop therefor. No. 1,094,923; Apr. 28; Gaz. vol. 201; p. 1090.
Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 1,094,921; Apr. 28; Gaz. vol. 201; p. 1089.
Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Wind-shield or back-rest for couch-hammocks. No. 1,094,924; Apr. 28; Gaz. vol. 201; p. 1090.
Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 1,094,925; Apr. 28; Gaz. vol. 201; p. 1090.
Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Unitary screen. No. 1,094,926; Apr. 28; Gaz. vol. 201; p. 1091.
Palmer, Sumner S., Oakland, Iowa. Animal-holding machine. No. 1,092,742; Apr. 7; Gaz. vol. 201; p. 212.
Palmowski, Joseph, Wilkes-Barre, Pa. Mouse or rat trap. No. 1,093,880; Apr. 21; Gaz. vol. 201; p. 673.
Panchula, Miklos, Dixonville, Pa. Life-boat. No. 1,094,008; Apr. 21; Gaz. vol. 201; p. 717.
Pape, Wilhelm, Charlottenburg, Germany, assignor to General Electric Company. Elastic-fluid turbine. No. 1,092,947; Apr. 14; Gaz. vol. 201; p. 317.
Pape, Wilhelm, Charlottenburg, Germany, assignor to General Electric Company. Regulator for mixed-pressure turbines. No. 1,092,948; Apr. 14; Gaz. vol. 201; p. 318.
Paquette, Exilias, assignor to Lawrence Manufacturing Company, Lowell, Mass. Circular-knitting machine. No. 1,092,166; Apr. 7; Gaz. vol. 201; p. 14.
Paradise, Peter, Princeton, Cal. Hay gatherer and stacker. No. 1,094,093; Apr. 21; Gaz. vol. 201; p. 744.
Parker, Bruce E., Vanderbilt, Pa. Cooling-receptacle. No. 1,095,023; Apr. 28; Gaz. vol. 201; p. 1125.
Parker, Edward E., Woburn, Mass. Fitting for radiators. No. 1,092,385; Apr. 7; Gaz. vol. 201; p. 90.
Parker, George D., Riverside, Cal. Fruit-grading apparatus. No. 1,092,664; Apr. 7; Gaz. vol. 201; p. 186.
Parker, Henry C. (See Macdonald and Parker.)
Parker, Porter H., Carthage, Mo. Belt-cutter. No. 1,093,070; Apr. 14; Gaz. vol. 201; p. 359.
Parker, William E., Manning, Tex. Air-brake apparatus. No. 1,092,945; Apr. 14; Gaz. vol. 201; p. 318.
Parkhurst, Arthur C., Waukegan, Ill. Tool-carrier. No. 1,094,009; Apr. 21; Gaz. vol. 201; p. 717.
Parlin and Orendorff Company. (See Graham, William S., assignor.)
Parnacott, Alfred E., Penge, London, England. Cycle-car. No. 1,094,094; Apr. 21; Gaz. vol. 201; p. 745.
Parsons, Carl B., Detroit, Mich. Concealed hinge. No. 1,094,010; Apr. 21; Gaz. vol. 201; p. 717.
Parsons Engineering Company. (See Parsons, John H., assignor.)
Parsons, John H., Philadelphia, Pa., assignor to Parsons Engineering Company, Wilmington, Del. Furnace. No. 1,092,851; Apr. 14; Gaz. vol. 201; p. 285.
Parsons, John H., Philadelphia, Pa., assignor to Parsons Engineering Company, Wilmington, Del. Furnace and air-injecting nozzle therefor. No. 1,092,852; Apr. 14; Gaz. vol. 201; p. 286.
Parsons, John H., Ridley Park, Pa., assignor to Parsons Engineering Company, Wilmington, Del. Furnace and air-injecting nozzle therefor. No. 1,092,853; Apr. 14; Gaz. vol. 201; p. 286.
Parsons, John H., Ridley Park, Pa., assignor to Parsons Engineering Company, Wilmington, Del. Apparatus for feeding air to furnaces. No. 1,092,854; Apr. 14; Gaz. vol. 201; p. 287.
Parsons, Willard P., Flushing, N. Y. Manufacturing coal-gas and coke. No. 1,092,950; Apr. 14; Gaz. vol. 201; p. 318.
Parvin, Charles H., Collingswood, N. J., and M. L. Snyder, Wyncote, Pa. Sanitary towel and soap service. No. 1,092,743; Apr. 7; Gaz. vol. 201; p. 213.
Paschall, Charles H., Chicago, Ill. Screen-opening. No. 1,094,927; Apr. 28; Gaz. vol. 201; p. 1091.
Pasco, Martin K. (See Davison and Pasco.)
Patrick, Joseph, Crabtree, Pa. Coupling. No. 1,093,467; Apr. 14; Gaz. vol. 201; p. 494.
Patterson, William R., Loretto, Ky. Automobile lamp mechanism. No. 1,094,242; Apr. 21; Gaz. vol. 201; p. 794.
Patton, John B. (See Engberg, Ephraim O., assignor.)
Patton, John B. (See Tucker, Benjamin W., assignor.)
Pau, Wilhelm, and P. Eberhardt, Grabow, assignors to Riitgerswerke-Aktiengesellschaft, Berlin, Germany. Working up the acid sludge and liquors produced as by-products during the washing of mineral oils. No. 1,092,386; Apr. 7; Gaz. vol. 201; p. 90.
Paulson, Gustaf W., Belmont, and R. Paulson, Boston, Mass., assignors to Henry F. Miller & Sons Piano Company. Pneumatic player-action. No. 1,094,808; Apr. 28; Gaz. vol. 201; p. 1050.
Paulson, Rudolf. (See Paulson, Gustaf W. and R.)
Paulus, William A., Ridgewood, N. J. Package-band-fastening device. No. 1,092,855; Apr. 14; Gaz. vol. 201; p. 287.
Pawsat, Ewald F., assignor to Wald Manufacturing Company, Sheboygan, Wis. Bicycle-stand. No. 1,093,352; Apr. 14; Gaz. vol. 201; p. 457.
Payton, Lewis A., Ellendale, Okla. Wind-wheel. No. 1,093,881; Apr. 21; Gaz. vol. 201; p. 674.
Peacock, Samuel, Chicago, Ill., assignor to International Agricultural Corporation, New York, N. Y. Producing ammonia. No. 1,092,107; Apr. 7; Gaz. vol. 201; p. 15.
Pearson, George F., assignor of one-half to G. W. Morrison, Lowell, Mass. Scissors and shears. No. 1,093,726; Apr. 21; Gaz. vol. 201; p. 624.
Pearson, John P. A., San Francisco, Cal. Tire-fastening. No. 1,093,071; Apr. 14; Gaz. vol. 201; p. 359.
Pease, Charles, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me. Machine for wax-treating parts of boots and shoes. No. 1,094,377; Apr. 21; Gaz. vol. 201; p. 830.
Pease, Lewis E., West Somerville, Mass. Fountain-syringe. No. 1,093,353; Apr. 14; Gaz. vol. 201; p. 457.
Peck, Clifford H., East Aurora, N. Y. Amusement device. No. 1,094,011; Apr. 21; Gaz. vol. 201; p. 717.
Peerless Motor Car Company, The. (See Wadsworth, George R., assignor.)
Peerless Vacuum Engine Company. (See Goldsborough, Charles F., assignor.)



Peirce, Edward B., Lowell, Mass. Truck for one-rail tracks. No. 1,092,951; Apr. 14; Gaz. vol. 201; p. 319.
Pelton, Ernest, and S. D. Hopton, Geneva, Ohio. Feed-water heater for steam-boilers. No. 1,092,592; Apr. 7; Gaz. vol. 201; p. 162.
Pelton, George E., Georgetown, Ky. Type-writer ribbon. No. 1,092,856; Apr. 14; Gaz. vol. 201; p. 287.
Pelton, Louis and S., and F. E. Fleury, Chicago, Ill. Bathing-suit. No. 1,093,354; Apr. 14; Gaz. vol. 201; p. 457.
Pelton, Sarah. (See Pelton and Fleury.)
Peltovitz, Edmund, East Orange, N. J. Tone-arm for talking-machines. No. 1,094,166; Apr. 21; Gaz. vol. 201; p. 770.
Pender, James. (See Pender, John F., assignor.)
Pender, John F., assignor of one-half to J. Pender, St. John, New Brunswick, Canada. Compensating bearing. No. 1,093,290; Apr. 14; Gaz. vol. 201; p. 436.
Pennock, George A. (See Johnson and Pennock.)
Peoples, Ulysses S. G. (See Mills and Richards, assignors.)
Perez, Miguel, Chicago, Ill. Non-refillable bottle. No. 1,093,882; Apr. 21; Gaz. vol. 201; p. 674.
Perham, Clara A., executrix. (See Perham, Haven C.)
Perham, Haven C., deceased; C. A. Perham, executrix, assignor to Kitson Machine Shop, Lowell, Mass. Cotton-conveying apparatus. No. 1,092,857; Apr. 14; Gaz. vol. 201; p. 287.
Perkin, Howard W., Glendale, assignor to High Frequency Ignition Coil Company, Los Angeles, Cal. High-frequency discharge apparatus. No. 1,093,072; Apr. 14; Gaz. vol. 201; p. 360.
Perkins, Floyd N., assignor to Arcade Manufacturing Company, Freeport, Ill. Refrigerator-latch. No. 1,092,285; Apr. 7; Gaz. vol. 201; p. 57.
Perkins, James D., Washington, D. C. Rear-end search-light. No. 1,092,450; Apr. 7; Gaz. vol. 201; p. 113.
Perkins, Josiah F. (See Allum and Perkins.)
Perky, Henry D., deceased, Glencoe, Md.; L. Sparks, administrator, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Machine for manufacturing different varieties of cereals into military compound forms. No. 1,095,024; Apr. 28; Gaz. vol. 201; p. 1125.
Perry, Samuel H., York, Nebr. Automatic watering-trough. No. 1,092,387; Apr. 7; Gaz. vol. 201; p. 90.
Persohn, Frank A., Baltimore, Md. Eyeglass-mounting. No. 1,093,355; Apr. 14; Gaz. vol. 201; p. 457.
Persons, G. Burns, Darfur, Minn. Woven-wire clamp. No. 1,095,025; Apr. 28; Gaz. vol. 201; p. 1126.
Petermann, Otto. (See Hazen and Petermann.)
Peters, Heber C., Indianapolis, Ind., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,094,012; Apr. 21; Gaz. vol. 201; p. 717.
Peters, Heber C., New York, N. Y., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,094,468; Apr. 28; Gaz. vol. 201; p. 930.
Petersen, William A., *et al.* (See Vaughan, Henry H., assignor.)
Peterson, Charles, Dublin, Ireland. Toilet or hair comb. No. 1,094,013; Apr. 21; Gaz. vol. 201; p. 718.
Peterson, Edwin L., assignor to Pressed Steel Truck Company, Pittsburgh, Pa. Hand-truck. No. 1,092,286; Apr. 7; Gaz. vol. 201; p. 57.
Peterson, Franklin P., Tulsa, Okla. Gas. No. 1,094,864; Apr. 28; Gaz. vol. 201; p. 1070.
Peterson, Godfrey W., Genoa, Nebr. Veterinary implement. No. 1,092,593; Apr. 7; Gaz. vol. 201; p. 162.
Peterson, Johann G., assignor to Manhattan Electrical Supply Company, Jersey City, N. J. Separable attachment-plug. No. 1,093,468; Apr. 14; Gaz. vol. 201; p. 494.
Petinot, Napoleon. (See Stassano and Petinot.)
Petit, Albert, Los Angeles, Cal. Pin-point guard. No. 1,093,800; Apr. 21; Gaz. vol. 201; p. 646.
Phaneuf, Elphege, St. Hyacinthe, Quebec, Canada. Sewing-machine throat-plate. No. 1,092,858; Apr. 14; Gaz. vol. 201; p. 288.
Phelster, Samuel E., Yacolt, Wash. Spark-arrester. No. 1,093,469; Apr. 14; Gaz. vol. 201; p. 494.
Phelps, George W., Chicago, Ill. Signal system. No. 1,093,801; Apr. 21; Gaz. vol. 201; p. 646.
Phelps, James W., Detroit, Mich., assignor, by mesne assignments, to General Electric Company. Electric incandescent lamp. No. 1,094,745; Apr. 28; Gaz. vol. 201; p. 1029.
Phelps, Orwin A., *et al.* (See Wyllys, Frank, assignor.)
Phillips, Arthur G. (See Reagan and Phillips.)
Phipps, Harry K., Emlenton, Pa. Plow attachment. No. 1,093,073; Apr. 14; Gaz. vol. 201; p. 360.
Phoenix Sales Company. (See Gorman and Sumner, assignors.)
Piaget, Henry V. (See Shaver, Elmer C., assignor.)
Pick, Thomas P., Chicago, Ill. Beer-stein. No. 1,094,469; Apr. 28; Gaz. vol. 201; p. 931.
Picture Disc Company. (See Clubb and Whitehead, assignors.)
Pieper, Olga. (See Wilmowsky, Erwin F. von, assignor.)
Pierce, George L., Brooklyn, N. Y. Foot-ball protective apparel. No. 1,094,865; Apr. 28; Gaz. vol. 201; p. 1070.
Pierce, Samuel H., Deseronto, Ontario, Canada. Plastic-cartridge-making machine. No. 1,092,461; Apr. 7; Gaz. vol. 201; p. 118.
Pierpont, Frank H., Salfords, Horley, England, assignor to Lanston Monotype Machine Company, Philadelphia, Pa. Type-casting machine. No. 1,094,678; Apr. 28; Gaz. vol. 201; p. 1005.
Pike, William H., Jr., Orange, N. J., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Calculating-machine. No. 1,094,394; Apr. 21; Gaz. vol. 201; p. 843.
Pike, William H., Jr., South Orange, N. J., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Adding and recording machine. No. 1,094,470; Apr. 28; Gaz. vol. 201; p. 931.
Pilling, Henry, Lancaster, England. Valve-gear mechanism for steam or other elastic-fluid engines. No. 1,094,243; Apr. 21; Gaz. vol. 201; p. 794.
Pillsbury, Edwin S., St. Louis, Mo., assignor to Century Electric Company. Electric motor. No. 1,093,074; Apr. 14; Gaz. vol. 201; p. 360.
Pirani, Marcello von, Wilmersdorf, near Berlin, Germany, assignor to General Electric Company. Preforming refractory material prior to rolling. No. 1,093,203; Apr. 14; Gaz. vol. 201; p. 406.
Pitt, William P., Independence, assignor to Irving-Pitt Manufacturing Company, Kansas City, Mo. Loose-leaf binder. No. 1,092,287; Apr. 7; Gaz. vol. 201; p. 57.
Pitts, Alfred M., assignor to W. F. Pitts, Boston, Mass. Detachable manhole-step. No. 1,093,204; Apr. 14; Gaz. vol. 201; p. 406.
Pitts, Walter F. (See Pitts, Alfred M., assignor.)
Pittsburg Brake Shoe Company. (See Kinzer, John J., assignor.)
Pittsburg Meter Company. (See Chrisman, Horace, assignor.)
Pittsburgh Air Brake Company. (See Snyder, Jacob R., assignor.)
Pixley, Charles H., Chicago, Ill., assignor to F. A. Hardy & Company. Device for measuring spectacle-bridges. No. 1,092,288; Apr. 7; Gaz. vol. 201; p. 58.
Planchon, Victor, Lyon, France. Machine for manufacturing artificial-silk and like thread. No. 1,093,146; Apr. 14; Gaz. vol. 201; p. 386.
Plant, Thomas G., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. (Reissue.) No. 13,718; Apr. 21; Gaz. vol. 201; p. 856.
Platt, Arthur I., assignor to The Bridgeport Hardware Manufacturing Corporation, Bridgeport, Conn. Box-opener. No. 1,093,946; Apr. 21; Gaz. vol. 201; p. 695.
Platt, Clarence D., Bridgeport, Conn. Hickey. No. 1,093,007; Apr. 14; Gaz. vol. 201; p. 337.
Pneumatic Scale Corporation. (See Doble, William H., assignor.)
Pneumelectric Machine Company, The. (See Wagner, John L., assignor.)
Pochwadt, Adolf, Berlin-Schöneberg, Germany. Artificial denture. No. 1,094,746; Apr. 28; Gaz. vol. 201; p. 1030.
Podgoursky, Nicholaus, St. Petersburg, Russia. Water-level indicator. No. 1,092,388; Apr. 7; Gaz. vol. 201; p. 90.
Poelma, Richard W. (See Sorum, Herman F., assignor.)
Pogue, Robert H., New Westminster, British Columbia, Canada. Street-car fender. No. 1,094,244; Apr. 21; Gaz. vol. 201; p. 795.
Poland, Edward F., Boston, Mass. Centrifugal extractor. No. 1,094,589; Apr. 28; Gaz. vol. 201; p. 971.
Poland, Edward F., Boston, Mass. Hydro-extractor. No. 1,094,590; Apr. 28; Gaz. vol. 201; p. 972.
Pollak, Anton, Paris, France. Device for the photographic registration of vibrations in line form. No. 1,092,594; Apr. 7; Gaz. vol. 201; p. 162.
Pomeroy, George W., Butte, Mont. Mail-bag catcher and deliverer. No. 1,094,095; Apr. 21; Gaz. vol. 201; p. 745.
Pomeroy, Silas H., *et al.* (See Cotton, Howard W., assignor.)
Pond, Willis M., Crete, Nebr. Hitching device. No. 1,094,014; Apr. 21; Gaz. vol. 201; p. 718.
Poole, Robert M., Mount Gambier, South Australia, Australia. Manufacturing illuminating and fuel gases from wood. No. 1,093,470; Apr. 14; Gaz. vol. 201; p. 494.
Popp, Louis C. G., Huntington Station, N. Y. Building-block. No. 1,094,928; Apr. 28; Gaz. vol. 201; p. 1091.
Porges, Philipp, Vienna, Austria-Hungary. Refrigerating device for railway-cars. No. 1,093,075; Apr. 14; Gaz. vol. 201; p. 361.
Porter, Robb S., Charleston, W. Va. Hypodermic syringe. No. 1,093,471; Apr. 14; Gaz. vol. 201; p. 495.
Poston, John W., Blossom, S. C. Leaf-lifting attachment for plows. No. 1,094,096; Apr. 21; Gaz. vol. 201; p. 745.
Postum Cereal Company. (See Martin, Frank B., assignor.)
Potter, Charles F., Woodhaven, N. Y. Double-walled container. No. 1,093,648; Apr. 21; Gaz. vol. 201; p. 595.
Potter, Edward A., *et al.* (See Albert, Charles H., assignor.)
Pouley, Arthur D. (See Pouley, Robert E. and A. D.)
Pouley, Robert E., Chicago, and A. D. Pouley, Waukegan, Ill. Starter for internal-combustion engines. No. 1,094,097; Apr. 21; Gaz. vol. 201; p. 746.
Poulsen, Kristen, Brooklyn, N. Y. Hoisting or lifting apparatus. No. 1,094,929; Apr. 28; Gaz. vol. 201; p. 1092.
Pratt, Alphonso C., Montclair, N. J. Machine for making flexible metal fabric. No. 1,094,471; Apr. 28; Gaz. vol. 201; p. 931.

Pratt, William H., Lynn, Mass., assignor to General Electric Company. Device for mensuring speed. No. 1,092,452; Apr. 7; Gaz. vol. 201; p. 114.

Preble, Edwin N., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-pressing machine. No. 1,094,809; Apr. 28; Gaz. vol. 201; p. 1051.

Preble, Everett W., Anson, Me. Rail-joint. No. 1,095,026; Apr. 28; Gaz. vol. 201; p. 1126.

Predock, George E. (See Udell and Predock.)

Première Societe de la Navigation Aerienne de Russie. (See Schischmarew, Michail, assignor.)

Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,093,008; Apr. 14; Gaz. vol. 201; p. 338.

Presbrey, Edward H., New York, N. Y. Grease-cup. No. 1,093,472; Apr. 14; Gaz. vol. 201; p. 495.

Prescott, Arthur T., East Orange, N. J., assignor to George H. Frothingham Company, New York, N. Y. Combination door and wharf-drop mechanism. No. 1,094,015; Apr. 21; Gaz. vol. 201; p. 718.

Prescott, Jesse, Worcester, Mass. Garbage-incinerator. No. 1,093,356; Apr. 14; Gaz. vol. 201; p. 458.

Pressed Steel Truck Company. (See Peterson, Edwin L., assignor.)

Pressley, Charles W. (See Way, Raymond S., assignor.)

Price-Campbell Cotton Picker Corporation. (See Calderwood, Benjamin C., assignor.)

Price, Max C. (See Scotford and Price.)

Priest, Charles, Arlington, N. J., assignor to Commercial Cable Company, New York, N. Y. Apparatus and method for counteracting the inductance disturbances in telegraph-lines. No. 1,094,472; Apr. 28; Gaz. vol. 201; p. 932.

Prindle, Edwin J., executor. (See Wilmowsky, Erwin F. von.)

Pringle, Arthur D., *et al.* (See Harn, Charles B., assignor.)

Pritchett, John W., Holly Springs, Miss. Blower and fender. No. 1,094,245; Apr. 21; Gaz. vol. 201; p. 795.

Proctor, Charles M., Detroit, Mich. Removable tip for the contacting ends of armature-springs. No. 1,093,076; Apr. 14; Gaz. vol. 201; p. 361.

Prött, Carl H., Rheydt, Germany. Air-moistening apparatus. No. 1,094,592; Apr. 28; Gaz. vol. 201; p. 973.

Provay, Giuseppe A. P., Lourenço, Marquez, Portuguese East Africa. Truck-tippler or means for discharging the contents of trucks and like vehicles. No. 1,094,246; Apr. 21; Gaz. vol. 201; p. 796.

Prudhomme, François, Vienne, France. Manufacture of pig-iron. No. 1,092,168; Apr. 7; Gaz. vol. 201; p. 15.

Pugh, William M., Pocahontas, Va. Rail-joint. No. 1,093,727; Apr. 21; Gaz. vol. 201; p. 624.

Puleston, Frederick. (See Laude and Puleston.)

Purple, George E., La Grange, assignor to Flexible Steel Lacing Company, Chicago, Ill. Belt-fastening. No. 1,092,859; Apr. 14; Gaz. vol. 201; p. 288.

Putnam, John M., Mobile, Ala. Musical instrument. No. 1,092,507; Apr. 7; Gaz. vol. 201; p. 133.

Pyramiden Fliegenfängerfabrik Max Dametz, G. m. b. H. (See Trilger, Karl, assignor.)

Quayle, Sidney. (See Hinson, Robert E., assignor.)

Queiser, Friedrich, Philadelphia, Pa., assignor to G. Josephy's Erben, Bielitz, Austria-Hungary. Tape-condenser. No. 1,092,595; Apr. 7; Gaz. vol. 201; p. 163.

Quigley, George W. (See Heath, Charles B., assignor.)

Quinn, Charles C., *et al.* (See Glenn, Allen, assignor.)

Quinn, Charles J., *et al.* (See Glenn, Allen, assignor.)

Quinn, James J., assignor of one-third to W. S. Sykes, Chester, Pa. Puzzle. No. 1,094,866; Apr. 28; Gaz. vol. 201; p. 1070.

Quist, Charles, Fruitvale, assignor of one-third to N. Quist, Haywards, Cal. Insect-trap. No. 1,093,291; Apr. 14; Gaz. vol. 201; p. 436.

Quist, Nils. (See Quist, Charles, assignor.)

Qviller, Theodor, Lilleströmmen, and H. Stub, Christiania, Norway. Pulp-strainer. No. 1,092,389; Apr. 7; Gaz. vol. 201; p. 91.

R. Hoe and Co. (See Church, George W., assignor.)

R. Thomas and Sons Company, The. (See Sandford, Joseph A., Jr., assignor.)

Rabbett, William H. (See Van Derwerken, Theodore E., assignor.)

Rach, Carl, Stapleton, N. Y. Rotary press. No. 1,092,800; Apr. 7; Gaz. vol. 201; p. 232.

Razonnet, Eugene L., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Starting-valve. No. 1,094,247; Apr. 21; Gaz. vol. 201; p. 796.

Ragsdale, Alonzo K., Hamilton, Ohio. Storm-front for baby-carriages. No. 1,092,225; Apr. 7; Gaz. vol. 201; p. 34.

Raguse, Gustaf L., York, N. D. Whip-actuating device. No. 1,094,747; Apr. 28; Gaz. vol. 201; p. 1030.

Raifsnider, Alfred, Granbury, Tex. Fly-trap. No. 1,092,537; Apr. 7; Gaz. vol. 201; p. 142.

Rail Joint Company, The. (See Bradley, William J., assignor.)

Raillere, Louis H., New York, N. Y. Broiler. No. 1,093,883; Apr. 21; Gaz. vol. 201; p. 674.

Railway Materials Company, The. (See True, Charles H., assignor.)

Rainey, Paul M., West Hoboken, N. J., assignor to Western Electric Company, New York, N. Y. Device for amplifying variations in electrical currents. No. 1,092,453; Apr. 7; Gaz. vol. 201; p. 114.

Rakottyay, Béla, Jersey City, N. J. Funnel. No. 1,094,098; Apr. 21; Gaz. vol. 201; p. 746.

Rakowski, Windislaus, Davis, W. Va. Curtain-support. No. 1,093,884; Apr. 21; Gaz. vol. 201; p. 674.

Rall, Theodor, Chicago, Ill. Bascule-bridge. No. 1,094,473; Apr. 28; Gaz. vol. 201; p. 932.

Ramer, John H., Loveland, Colo. Upper-protector. No. 1,094,016; Apr. 21; Gaz. vol. 201; p. 719.

Ramsey, James C., Jr., Andover, assignor, by mesne assignments, to Herrick Aiken Company, Incorporated, Lawrence, Mass. Lamp-support. No. 1,093,009; Apr. 14; Gaz. vol. 201; p. 338.

Ramsey, William H., assignor of one-third to J. A. Smith and one-third to R. D. Henry, Dawson, Pa. Flexible pipe-coupling. No. 1,092,390; Apr. 7; Gaz. vol. 201; p. 91.

Randall, Harold F., Tiffin, Ohio. Quartz-mill. No. 1,094,248; Apr. 21; Gaz. vol. 201; p. 797.

Randolph, William, Crows Landing, Cal. Hay-stacker. No. 1,094,017; Apr. 21; Gaz. vol. 201; p. 719.

Rankin, James E., Fulton, Ky. Steam-engine. No. 1,092,226; Apr. 7; Gaz. vol. 201; p. 35.

Rannel, James, Harlem, Mont. Road-ditching machine. No. 1,092,169; Apr. 7; Gaz. vol. 201; p. 15.

Ranney, Amos M., Watrous, Saskatchewan, Canada. Fire-guard. No. 1,093,205; Apr. 14; Gaz. vol. 201; p. 407.

Ranney, John T., Fort Kent, Me. Portable device for handling long, heavy articles. No. 1,094,930; Apr. 28; Gaz. vol. 201; p. 1092.

Rapid Electrotype Company, The. (See Smith, Michael, assignor.)

Rarig, Welden C., Taft, Tex. Engine-plow. No. 1,094,018; Apr. 21; Gaz. vol. 201; p. 719.

Rauch, George F., Platte, S. D. Beer and hops separator. No. 1,092,538; Apr. 7; Gaz. vol. 201; p. 142.

Rauch, Harry E. (See Rauch, Henry and H. E.)

Rauch, Henry and H. E., Mount Vernon, N. Y. Apparatus for pitching casks. No. 1,094,810; Apr. 28; Gaz. vol. 201; p. 1051.

Ray, Paul J., Lakewood, Ohio. Compression-rheostat. No. 1,092,952; Apr. 14; Gaz. vol. 201; p. 319.

Reagan, Frank H., and A. G. Phillips, Scranton, Pa. Motor grinding-machine. No. 1,094,811; Apr. 28; Gaz. vol. 201; p. 1052.

Recht, Florence. (See Recht, Frederick, assignor.)

Recht, Frederick, New York, assignor to F. Recht, Brooklyn, N. Y. Window-cane. No. 1,092,784; Apr. 7; Gaz. vol. 201; p. 222.

Reck, Anuzi G., Columbus, Ohio, assignor to O. M. Wolff, Chicago, Ill. Counter-bracket. No. 1,094,812; Apr. 28; Gaz. vol. 201; p. 1052.

Recording Register & Fare Box Company. (See Littlejohn, Charles F., assignor.)

Redfield, William C., Chicago, Ill. Wiper for trimming-knives of linotype-machines. No. 1,094,931; Apr. 28; Gaz. vol. 201; p. 1092.

Reece, Earl J., Denver, Colo. Horseshoe attachment. No. 1,094,474; Apr. 28; Gaz. vol. 201; p. 933.

Reed, John W., Mulberry, Ind. Paper-lifting device. No. 1,094,593; Apr. 28; Gaz. vol. 201; p. 973.

Reed, Lottie A., *et al.* (See Walker, Harry S., assignor.)

Reed, Ralph R., Oakland, Cal. Aeroplane. No. 1,094,249; Apr. 21; Gaz. vol. 201; p. 797.

Reed, Richard C. S. (See Neth, George J., assignor.)

Reeder, Franklin H., Philadelphia, Pa. Corn-planter. No. 1,092,539; Apr. 7; Gaz. vol. 201; p. 143.

Rees, Warren C., Somerville, assignor to Aseptic Service Company, Boston, Mass. Sanitary water-closet. No. 1,092,392; Apr. 7; Gaz. vol. 201; p. 92.

Rees, Warren C., Somerville, and S. Etherington, Winthrop, Mass., assignors to Aseptic Service Company. Sanitary water-closet. No. 1,092,391; Apr. 7; Gaz. vol. 201; p. 91.

Reese, Ebenezer T., Granger, Wash. Fruit-picker's apron. No. 1,094,250; Apr. 21; Gaz. vol. 201; p. 798.

Reese, Herbert T., assignor to The Springfield Metallic Casket Company, Springfield, Ohio. Burial-vault. No. 1,092,289; Apr. 7; Gaz. vol. 201; p. 58.

Reeves, Edwin A., Milford, Conn. Vacuum-cleaner. No. 1,093,473; Apr. 14; Gaz. vol. 201; p. 495.

Reeves, Frank N., Newark, N. J., assignor to Western Electric Company, New York, N. Y. Electrical controlling mechanism. No. 1,093,147; Apr. 14; Gaz. vol. 201; p. 386.

Regan, Joseph C., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Hoist-block. No. 1,092,860; Apr. 14; Gaz. vol. 201; p. 288.

Regenold, Fredrick, Memphis, Tenn. Machine for automatically operating saw swages and shapers. No. 1,094,251; Apr. 21; Gaz. vol. 201; p. 798.

Rehfuss, John G. (See Tily and Rehfuss.)

Rehfuss, Martin O. (See Tily and Rehfuss.)

Reid, Joseph W. (See Beck, Reid, and Skinner.)

Reifel, Robert, and G. Blattel, New York, N. Y. Loose-leaf binder. No. 1,094,010; Apr. 21; Gaz. vol. 201; p. 720.

Reifsnyder, James D., assignor to Stokes & Smith Company, Philadelphia, Pa. Thumb-hole-cutting machine. No. 1,092,393; Apr. 7; Gaz. vol. 201; p. 92.

Reilly, John P., *et al.* (See Showalter, Roy C., assignor.)

Reilly, William, Waltham, Mass. Paint-brush holder. No. 1,094,099; Apr. 21; Gaz. vol. 201; p. 746.





Reinhardt, James H., East Orange, N. J., assignor to American Bank Note Company. Geometrical machine. No. 1,092,170; Apr. 7; Gaz. vol. 201; p. 16.

Reinhardt, James H., East Orange, N. J., assignor to American Bank Note Company. Perforating-machine. No. 1,092,506; Apr. 7; Gaz. vol. 201; p. 163.

Reiss, George T., Hamilton, Ohio, assignor to Niles-Bement-Pond Company, Jersey City, N. J. Wheel-press tailblock. No. 1,092,597; Apr. 7; Gaz. vol. 201; p. 164.

Reissig, John B., Philadelphia, Pa. Metallic envelop-seal. No. 1,094,932; Apr. 28; Gaz. vol. 201; p. 1093.

Remer, Charles, Miles City, Mont. Header-push. No. 1,095,027; Apr. 28; Gaz. vol. 201; p. 1126.

Remington Typewriter Company. (See Diss, Louis A., assignor.)

Remington Typewriter Company. (See Shepard, Charles H., assignor.)

Remmers, Theodore W. (See Kirchhoff, William G., assignor.)

Reno, Jesse W., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Conveyer. No. 1,092,394; Apr. 7; Gaz. vol. 201; p. 93.

Renz, Charles W., Diller, Nebr. Vehicle-wheel. No. 1,093,077; Apr. 14; Gaz. vol. 201; p. 362.

Réol, Jean, assignor to Société de Constructions Mécaniques d'Alais, Alais, France. Continuous drying-kiln with vertical axis. No. 1,093,206; Apr. 14; Gaz. vol. 201; p. 407.

Resch, Wilhelm, Binningen, Switzerland. Apparatus for dyeing, bleaching, or treating with fluids and centrifuging textile and other materials. No. 1,095,028; Apr. 28; Gaz. vol. 201; p. 1127.

Reynolds, Henry B., assignor of one-eighth to S. R. Cubley, Petal, one-fourth to J. E. Herman, Hattiesburg, and one-half to C. E. Bell, Prentiss, Miss. Car-coupling. No. 1,095,029; Apr. 28; Gaz. vol. 201; p. 1127.

Reynolds, Morley P., Cleveland, Ohio. Seed-testing bed. No. 1,094,813; Apr. 28; Gaz. vol. 201; p. 1052.

Rheinische Metallwaaren- und Maschinenfabrik. (See Völler, Karl, assignor.)

Rhoades, Lewis T., Mont Clare, Pa., assignor to New York Coil Company, New York, N. Y. Auxiliary air-inlet device for internal-combustion engines. No. 1,092,395; Apr. 7; Gaz. vol. 201; p. 93.

Rice, Albert G. (See Burgess, James C., assignor.)

Rice, Merrit H., New Rochelle, assignor to National Electric Utilities Corporation, New York, N. Y. Incinerator. No. 1,093,502; Apr. 14; Gaz. vol. 201; p. 533.

Rice, Merrit H., New Rochelle, assignor to National Electric Utilities Corporation, New York, N. Y. Unit and making the same. No. 1,093,947; Apr. 21; Gaz. vol. 201; p. 695.

Rice, Richard H., Lynn, Mass., assignor to General Electric Company. Elastic-fluid turbine. No. 1,093,148; Apr. 14; Gaz. vol. 201; p. 387.

Rich, Henry H., Rochester, N. Y. Calculator. No. 1,094,594; Apr. 28; Gaz. vol. 201; p. 973.

Richards, Richard H. (See Mills and Richards.)

Richards, Walter W., Philadelphia, Pa. Razor-blade-sharpening device. No. 1,093,802; Apr. 21; Gaz. vol. 201; p. 646.

Richardson, Edro, Baltimore, Md. Flushing-valve. No. 1,092,598; Apr. 7; Gaz. vol. 201; p. 164.

Richardson, Henry B., Attleboro, Mass. Machine for drying and polishing articles of jewelry, &c. No. 1,093,078; Apr. 14; Gaz. vol. 201; p. 362.

Richardson, Herbert. (See Fleischauer and Richardson.)

Richardson, Holden C., Philadelphia, Pa. Hydrovane-boat. No. 1,095,166; Apr. 28; Gaz. vol. 201; p. 1175.

Rieber, Frank, Berkeley, Cal. Apparatus for producing electric signals. No. 1,093,292; Apr. 14; Gaz. vol. 201; p. 436.

Riegel, Maximilian, Berlin, Germany. Purifying water from germs by means of bromin. No. 1,094,475; Apr. 28; Gaz. vol. 201; p. 933.

Riemenschneider, Julius, Milwaukee, Wis. Plant-holder for plant-setting machines. No. 1,092,454; Apr. 7; Gaz. vol. 201; p. 115.

Ries, Elias E., New York, N. Y. Method of and means for manufacturing metal pipe and tubing. No. 1,093,010; Apr. 14; Gaz. vol. 201; p. 338.

Riesner, Michael, Cincinnati, Ohio, assignor to International Steam Pump Company. Air and gas compressor. No. 1,092,396; Apr. 7; Gaz. vol. 201; p. 94.

Riggs, Elwood, Omaha, Nebr. Spectacles. No. 1,092,290; Apr. 7; Gaz. vol. 201; p. 58.

Riley, Leland G., *et al.* (See Babbitt, Elwin J., assignor.)

Riley, Robert S., Providence, R. I. Telemotor. No. 1,092,397; Apr. 7; Gaz. vol. 201; p. 94.

Rinehart, Bentley L., Philadelphia, Pa. Vehicle-spring. No. 1,094,814; Apr. 28; Gaz. vol. 201; p. 1053.

Rinehart, Bentley L., Philadelphia, Pa. Vehicle-spring. No. 1,094,815; Apr. 28; Gaz. vol. 201; p. 1053.

Riordan, John W., Beaver Crossing, Nebr. Hand-planter. No. 1,094,595; Apr. 28; Gaz. vol. 201; p. 973.

Riotte, Carl C., deceased, Jersey City, N. J.; M. L. Riotte, administratrix, Yonkers, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J. Throttle-governor for internal-combustion engines. No. 1,094,167; Apr. 21; Gaz. vol. 201; p. 770.

Riotte, Marie L., administratrix. (See Riotte, Carl C.)

Riter-Conley Manufacturing Company. (See Brown, Rezeau B., assignor.)

Riter-Conley Manufacturing Company. (See Osborne, Willard B., assignor.)

Rivkin, Bert, assignor of one-fourth to L. Sherman, one-sixth to S. Liss, New York, one-sixth to L. Tropp, and one-sixth to M. M. Turitz, Brooklyn, N. Y. Window-shade roller. No. 1,095,177; Apr. 28; Gaz. vol. 201; p. 1179.

Robbins, Albert C. (See Rogers and Robbins.)

Roberg, Claes F., and A. Malmberg, Chicago, Ill. Laundry-mangle. No. 1,095,167; Apr. 28; Gaz. vol. 201; p. 1175.

Roberti, Frederick W., Los Angeles, Cal. Bed-partition. No. 1,094,679; Apr. 28; Gaz. vol. 201; p. 1005.

Roberts, Edwin T., Roswell, N. Mex. Fruit-drier. No. 1,093,011; Apr. 14; Gaz. vol. 201; p. 339.

Roberts, Ernest J., Christchurch, New Zealand. Feed-guide for lithographic and other printing machines. No. 1,092,455; Apr. 7; Gaz. vol. 201; p. 115.

Roberts, Sherman C., Denver, Colo. Apparatus for milling alfalfa-hay. No. 1,092,801; Apr. 7; Gaz. vol. 201; p. 232.

Roberts, William B., assignor of one-half to F. Huster, Philadelphia, Pa. Curtain-holder. No. 1,093,649; Apr. 21; Gaz. vol. 201; p. 595.

Robertson, Bedford S. (See Robertson, Ida A. and B. S.)

Robertson, Ida A. and B. S., Rockymount, Va. Apron. No. 1,094,345; Apr. 21; Gaz. vol. 201; p. 825.

Robinson, Ebenezer. (See Tucker, George E., assignor.)

Robinson, Edward S., Oroville, assignor to Golden West Motors Company, Sacramento, Cal. Steering and driving mechanism for motor-vehicles. No. 1,092,744; Apr. 7; Gaz. vol. 201; p. 213.

Robinson, Edward S., Oroville, assignor to Golden West Motors Company, Sacramento, Cal. Steering-gear for automobiles. No. 1,092,745; Apr. 7; Gaz. vol. 201; p. 213.

Robinson, Edward S., Oroville, assignor to Golden West Motors Company, Sacramento, Cal. Brake. No. 1,092,746; Apr. 7; Gaz. vol. 201; p. 214.

Robinson, Edward S., Oroville, assignor to Golden West Motors Company, Sacramento, Cal. Transmission-gearing. No. 1,092,747; Apr. 7; Gaz. vol. 201; p. 214.

Robinson, John G., Manchester, England. Steam-superheater for locomotive and like tubular boilers. No. 1,093,293; Apr. 14; Gaz. vol. 201; p. 437.

Robinson, Joseph E., Oil City, Pa. Internal anchor device for oil, gas, water, and other wells. No. 1,092,508; Apr. 7; Gaz. vol. 201; p. 133.

Robinson, Lawrence E., Coffeyville, Kans. Dry-hole plug for wells. No. 1,092,540; Apr. 7; Gaz. vol. 201; p. 143.

Robinson, Lawrence E., Coffeyville, Kans. Retaining member for well-packers. No. 1,094,020; Apr. 21; Gaz. vol. 201; p. 720.

Robinson, Lawrence E., Coffeyville, Kans. Separable retaining member for well-packers. No. 1,094,021; Apr. 21; Gaz. vol. 201; p. 720.

Robinson, Mitchell, Detroit, Mich. Auxiliary keyboard for pianos. No. 1,092,291; Apr. 7; Gaz. vol. 201; p. 59.

Rock Island Plow Company. (See Heylman, Edward M., assignor.)

Rock Island Plow Company. (See Johnson and Pennock, assignors.)

Rockstroh, Max, Klein Sedlitz, near Pirna, Germany. Safety device for platen printing-presses. No. 1,093,079; Apr. 14; Gaz. vol. 201; p. 362.

Rockwell, Walter S., assignor to W. S. Rockwell Company, New York, N. Y. Preheater and furnace-shield. (Reissue.) No. 13,713; Apr. 14; Gaz. vol. 201; p. 533.

Rodgers, William, Hamilton, Ontario, Canada. Electric generator or motor. No. 1,093,650; Apr. 21; Gaz. vol. 201; p. 596.

Rodway, Alfred R. (See Brown, Edward L., assignor.)

Roe, William H., Baltimore, Md. Corn-harvester. No. 1,095,030; Apr. 28; Gaz. vol. 201; p. 1127.

Roeder, Albert J., *et al.* (See Roeder, Henry W. A., assignor.)

Roeder, Charles E., *et al.* (See Roeder, Henry W. A., assignor.)

Roeder, Henry W. A., assignor of one-fourth to A. J. Roeder and one-fourth to C. E. Roeder, Oshkosh, Wis. Adjustable hanger. No. 1,092,815; Apr. 7; Gaz. vol. 201; p. 237.

Roever, Julius, New York, N. Y. Record-holder. No. 1,094,476; Apr. 28; Gaz. vol. 201; p. 933.

Roff, Frank E., Richfield Springs, N. Y. Fire apparatus. No. 1,094,252; Apr. 21; Gaz. vol. 201; p. 798.

Rogers, George D., Cleveland, Ohio. High-tension discharge apparatus. No. 1,092,398; Apr. 7; Gaz. vol. 201; p. 94.

Rogers, Lewis L., and A. C. Robbins, Orange, Mass.; said Robbins assignor to said Rogers. Sheet-gage for printing-presses. No. 1,095,125; Apr. 28; Gaz. vol. 201; p. 1158.

Rogers, Lewis L., and A. C. Robbins, Orange, Mass.; said Robbins assignor to said Rogers. Sheet-gage for printing-presses. No. 1,095,126; Apr. 28; Gaz. vol. 201; p. 1158.

Rogers, William H., Batavia, N. Y., assignor to Mergenthaler Linotype Company, Typographical machine. No. 1,092,171; Apr. 7; Gaz. vol. 201; p. 16.

Rohr, Moritz von, assignor to Firm of C. Zeiss, Jena, Germany. Magnifying-glass. No. 1,092,801; Apr. 14; Gaz. vol. 201; p. 289.

Roitman, Nathan, St. Louis, Mo. Toy. No. 1,092,862; Apr. 14; Gaz. vol. 201; p. 289.

Rolka, Ignatius B., Niagara Falls, N. Y. Lock-nut. No. 1,093,474; Apr. 14; Gaz. vol. 201; p. 495.

Roll Fabric Company. (See Kempshall, Eleazer, assignor.)
Rollins, W. A. (See Beasley, Frank A., assignor.)
Romadka, Wesley J., South Bend, Ind. Dumping-wagon. No. 1,094,934; Apr. 28; Gaz. vol. 201; p. 1093.
Rome Sanitary Company. (See Hoffman, Andrew A., assignor.)
Rommel, George. (See Strauss and Rommel.)
Ronchetti, Joseph A., Woonsocket, R. I., assignor, by mesne assignments, to The Noiseless Typewriter Company, Middletown, Conn. Type-writing machine. No. 1,094,816; Apr. 28; Gaz. vol. 201; p. 1054.
Rookwood Pottery Company, The. (See Metzner, Otto, assignor.)
Root, John H. (See Berg and Root.)
Roper, William, Philadelphia, Pa. Vehicle-spring. No. 1,094,933; Apr. 28; Gaz. vol. 201; p. 1093.
Rose, Wilfred K., Findlay, Ill. Scale-rack. No. 1,092,292; Apr. 7; Gaz. vol. 201; p. 59.
Rosenberg, Louis, Chelsea, Mass. Cigar-bunch slitter. No. 1,092,172; Apr. 7; Gaz. vol. 201; p. 17.
Rosing, Orvar G., Minneapolis, Minn. Boat. No. 1,093,475; Apr. 14; Gaz. vol. 201; p. 496.
Ross, Charles, Chicago, Ill. Combined telephone-mouthpiece guard and advertising device. No. 1,093,803; Apr. 21; Gaz. vol. 201; p. 647.
Ross, Elias. (See Burchess, Herman, assignor.)
Ross, Louis S., Newtonville, Mass., assignor to Central Railway Signal Company, Pittsburgh, Pa. Time-burning railway signal-fusee. No. 1,094,596; Apr. 28; Gaz. vol. 201; p. 974.
Rossi, Arthur, San Francisco, Cal. Combined grape crusher, stemmer, and must-pump. No. 1,094,817; Apr. 28; Gaz. vol. 201; p. 1054.
Rossi, Auguste J., and W. F. Meredith, Niagara Falls, assignors to The Titanium Alloy Manufacturing Company, New York, N. Y. Producing a compound containing titanium carbid. No. 1,094,022; Apr. 21; Gaz. vol. 201; p. 721.
Rost, Carl, Dresden, Germany. Double-acting machine for manufacturing sweets. No. 1,095,031; Apr. 28; Gaz. vol. 201; p. 1128.
Roth, Charles F., Quincy, Mass. Fountain bow-pen. No. 1,094,253; Apr. 21; Gaz. vol. 201; p. 798.
Rothman, Rubin, Brooklyn, N. Y. Sealing bottles. No. 1,092,899; Apr. 7; Gaz. vol. 201; p. 94.
Rothschild, Otto, Charlottenburg, Germany. Making sound-damping intermediate layers. No. 1,094,477; Apr. 28; Gaz. vol. 201; p. 934.
Rousseau, Peter G., Brooklyn, N. Y. Transfer-ticket. No. 1,093,476; Apr. 14; Gaz. vol. 201; p. 496.
Rowell, Benton C., Chicago, Ill. Rail-anchor. No. 1,093,804; Apr. 21; Gaz. vol. 201; p. 647.
Roy, Joseph K., *et al.* (See Camache, Edward E., assignor.)
Royal Typewriter Company. (See Hess, Edward B., assignor.)
Royal Typewriter Company. (See Myers, Lewis C., assignor.)
Royer, Elmer H., Altoona, Pa. Fender. No. 1,093,728; Apr. 21; Gaz. vol. 201; p. 624.
Royse, James G., assignor of one-half to C. J. Lurie, Staunton, Va. Rail-joint. No. 1,093,885; Apr. 21; Gaz. vol. 201; p. 675.
Ruddock, Hubert M. (See Anderson and Ruddock.)
Rüdenberg, Reinhold, Charlottenburg, assignor to Siemens-Schuckert Werke, G. m. b. H., Berlin, Germany. Means for protecting electric circuits from excessively-high differences of potential and similar disturbances. No. 1,093,477; Apr. 14; Gaz. vol. 201; p. 496.
Rudolph, George W., Boonville, Ind. Throttle-valve. No. 1,092,748; Apr. 7; Gaz. vol. 201; p. 215.
Ruehlmann, Philipp, Camden, N. J. Stiffener for traveling-bags. No. 1,092,541; Apr. 7; Gaz. vol. 201; p. 144.
Ruff, Christian S., Riverside, N. J. Adjustable crank-hanger for polycycles. No. 1,093,729; Apr. 21; Gaz. vol. 201; p. 624.
Rumley, Luther M., and C. H. McFarling, Supply, Okla. Cultivator. No. 1,092,665; Apr. 7; Gaz. vol. 201; p. 187.
Rumrill, Albert L., West Somerville, Mass. Feed-bag holder. No. 1,092,863; Apr. 14; Gaz. vol. 201; p. 289.
Rundlett, Ellsworth T., Portland, Me. Machine for skinning fish. No. 1,094,597; Apr. 28; Gaz. vol. 201; p. 974.
Rusan, McClellan, Manitou Springs, Colo. Air-screen for windows and doors. No. 1,094,680; Apr. 28; Gaz. vol. 201; p. 1006.
Rusby, Joseph H., Nutley, N. J. Extension-drill. No. 1,093,478; Apr. 14; Gaz. vol. 201; p. 496.
Russel, Albert W. (See Culver and Russel.)
Russel Motor Axle Company. (See Culver and Russel, assignors.)
Russell, Arthur L., Hyde Park, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,093,651; Apr. 21; Gaz. vol. 201; p. 596.
Russell, Charles D., St. Paul, Minn. Railway-spike. No. 1,094,748; Apr. 28; Gaz. vol. 201; p. 1030.
Russell, Joseph H., Laporte, Ind. Governor. No. 1,094,023; Apr. 21; Gaz. vol. 201; p. 721.
Russell, Percy. (See Schramm and Russell.)
Russell, Thomas H., Marion, Ind. Internal-combustion engine. No. 1,094,254; Apr. 21; Gaz. vol. 201; p. 798.
Russell, Thomas N., assignor to Chicago-Cleveland Car Roofing Company, Chicago, Ill. Carline. No. 1,093,652; Apr. 21; Gaz. vol. 201; p. 596.
Russell, William M., Sapulpa, Okla. Wire-reel guard. No. 1,092,293; Apr. 7; Gaz. vol. 201; p. 59.
Rütgerswerke-Aktiengesellschaft. (See Pau and Eberhardt, assignors.)
Ruth, Rudolf, Mortsell, near Antwerp, Belgium. Photographic process of making prints in natural colors. No. 1,093,948; Apr. 21; Gaz. vol. 201; p. 695.
Rutledge, Robert P., R. G. Boland, and J. A. Devault, Scranton, Tex. Hobble-arch for cultivators. No. 1,094,598; Apr. 28; Gaz. vol. 201; p. 974.
Ryalls, John H., Charlottesville, Va., assignor to Ryalls Machine Company, of Virginia. Reversing mechanism for the band-cylinders of spinning-mules. No. 1,094,100; Apr. 21; Gaz. vol. 201; p. 747.
Ryalls Machine Company. (See Ryalls, John H., assignor.)
Ryan, John L., Bayonne, N. J. Key. No. 1,094,478; Apr. 28; Gaz. vol. 201; p. 934.
Ryan, Michael B., Bridgeport, Conn. Making welded chain. No. 1,093,207; Apr. 14; Gaz. vol. 201; p. 407.
Ryan, Michael B., Bridgeport, Conn. Chain-link. No. 1,093,208; Apr. 14; Gaz. vol. 201; p. 407.
Ryan, Michael B., Bridgeport, Conn. Wire chain-link. No. 1,093,209; Apr. 14; Gaz. vol. 201; p. 408.
Ryan, William J., Sapulpa, Okla. Sign-printer. No. 1,092,749; Apr. 7; Gaz. vol. 201; p. 215.
Ryder, Silas E., Muskogee, Okla. Rope-clamp. No. 1,094,255; Apr. 21; Gaz. vol. 201; p. 799.
Rynearson, Eugene, Dallas, Tex. Meter-box. No. 1,092,400; Apr. 7; Gaz. vol. 201; p. 95.
S. Karpen & Bros. (See Gundersen, Sivert, assignor.)
S. O. & C. Co., The. (See Buckminster, Ira C., assignor.)
S. S. Wenzell Machine Company. (See Van Leir, Henry W., assignor.)
Saco-Lowell Shops. (See Blanchard, Harry E., assignor.)
Sadtler, Wilhelm, Homburg-on-the-Höhe; assignor to Firm of E. P. Lehmann, Brandenburg-on-the-Havel, Germany. Toy. No. 1,094,749; Apr. 28; Gaz. vol. 201; p. 1030.
Sagar, Lester W. (See Sagar, William M. and L. W.)
Sagar, William M. and L. W., Brooklyn, N. Y. Cutting device. No. 1,095,032; Apr. 28; Gaz. vol. 201; p. 1128.
Sage, Ralph V., Westmont borough, Pa. Steel box-car. No. 1,092,456; Apr. 7; Gaz. vol. 201; p. 115.
Saillot, Alfred L. E. (See Chapsal and Saillot.)
Sale, Edmund H., Chattanooga, Tenn. Attachment for printing-presses. No. 1,095,033; Apr. 28; Gaz. vol. 201; p. 1128.
Salge, Henry F., Lockhart, Tex. Plow. No. 1,093,294; Apr. 14; Gaz. vol. 201; p. 437.
Saltzman, Auguste L., East Orange, N. J., assignor, by mesne assignments, to The American Multigraph Company. Printing-press. No. 1,094,024; Apr. 21; Gaz. vol. 201; p. 721.
Samphere, Orin C., Milwaukee, Wis. Manually-operated rotary dental tool. No. 1,094,818; Apr. 28; Gaz. vol. 201; p. 1054.
Samson, Philip E., London, England. Golf-club and other sporting implement. No. 1,094,590; Apr. 28; Gaz. vol. 201; p. 975.
Sanborn, Augustus M., Stanford University, Cal. Carbureter. No. 1,092,953; Apr. 14; Gaz. vol. 201; p. 319.
Sanchez, Antonio, and C. Baradat, Paris, France. Rotary internal-combustion engine. No. 1,095,034; Apr. 28; Gaz. vol. 201; p. 1129.
Sande, Gustave, Seattle, Wash. Railway-rail and joint therefor. No. 1,093,805; Apr. 21; Gaz. vol. 201; p. 647.
Sandell, Henry K., assignor to Mills Novelty Company, Chicago, Ill. Self-playing violin. No. 1,094,819; Apr. 28; Gaz. vol. 201; p. 1055.
Sander, Charles O. (See Zander, John L., assignor.)
Sanders, Edward M., Fitchburg, Mass. Folding boat. No. 1,093,357; Apr. 14; Gaz. vol. 201; p. 458.
Sanders, Matthew W., Chicago, Ill. Musical toy. No. 1,093,806; Apr. 21; Gaz. vol. 201; p. 648.
Sandford, Joseph A., Jr., assignor to The R. Thomas and Sons Company, East Liverpool, Ohio. Insulator. No. 1,093,479; Apr. 14; Gaz. vol. 201; p. 497.
Sandford, Joseph A., Jr., assignor to R. Thomas and Sons Company, East Liverpool, Ohio. Insulator. No. 1,093,480; Apr. 14; Gaz. vol. 201; p. 497.
Sandherr, Frederick H., St. Louis, Mo. Gearing. No. 1,093,807; Apr. 21; Gaz. vol. 201; p. 648.
Sanitary Wagon Co., The. (See Jones, Arthur J., assignor.)
Sanlaville, Claude M., Le Coteau, France. Manufacturing artificial horsehair. No. 1,093,295; Apr. 14; Gaz. vol. 201; p. 438.
Sargent & Company. (See Page, Albert A., assignor.)
Sargent & Company. (See Page and Munson, assignors.)
Sargent & Company. (See Sargent, Edward R., assignor.)
Sargent & Company. (See Sargent and Collins, assignors.)
Sargent & Company. (See Shipman, Evan J., assignor.)
Sargent, Edward R., assignor to Sargent & Company, New Haven, Conn. Chest-handle. No. 1,094,820; Apr. 28; Gaz. vol. 201; p. 1055.
Sargent, Edward R., and H. G. Collins, assignors to Sargent & Company, New Haven, Conn. Box-handle. No. 1,094,681; Apr. 28; Gaz. vol. 201; p. 1006.



Sargent, Howard R., Schenectady, N. Y., assignor to General Electric Company. Switch-plug. No. 1,094,479; Apr. 28; Gaz. vol. 201; p. 934.
Satterwhite, John Y., Wagoner, Okla. Splice-joint for car-sills. No. 1,094,682; Apr. 28; Gaz. vol. 201; p. 1006.
Sattler, Ross W., Mount Vernon, Ohio. Roundabout. No. 1,093,591; Apr. 14; Gaz. vol. 201; p. 532.
Saumell, Augusto D., New York, N. Y. Sheet-music-perforating device. No. 1,092,401; Apr. 7; Gaz. vol. 201; p. 95.
Savage, Louis P., Laporte, Ind. Medicine-dropper. No. 1,093,481; Apr. 14; Gaz. vol. 201; p. 497.
Sawman, Axel A., Brooklyn, N. Y. Balanced davit. No. 1,094,750; Apr. 28; Gaz. vol. 201; p. 1031.
Sawyer, Charles H., and J. Bowditch, Newcastle, New South Wales, Australia. Limber-pin for mine-skips. No. 1,092,750; Apr. 7; Gaz. vol. 201; p. 216.
Scato, Antonio, New York, N. Y. Device for supporting the hands of pianoforte-players. No. 1,092,173; Apr. 7; Gaz. vol. 201; p. 17.
Schaanning, Peder C., Christiania, Norway. Plant for removing water from pulp in wood-pulp mills. No. 1,094,378; Apr. 21; Gaz. vol. 201; p. 837.
Schaekel, Frederick C., assignor of one-half to H. J. Chittenden, Toledo, Ohio. Mausoleum construction. No. 1,094,600; Apr. 28; Gaz. vol. 201; p. 975.
Schalscha, Max, Summit, assignor to Union Iron Works, Hoboken, N. J. Pile-hammer. No. 1,093,210; Apr. 14; Gaz. vol. 201; p. 408.
Scharwath, John A., Cranford, N. J. Producing heat-insulating material. No. 1,092,402; Apr. 7; Gaz. vol. 201; p. 96.
Schaumloeffel, Charles E., Baltimore, Md. Shade-fixture. No. 1,095,035; Apr. 28; Gaz. vol. 201; p. 1129.
Schellenbach, William, Hartwell, Ohio. Collet-chuck. No. 1,094,346; Apr. 21; Gaz. vol. 201; p. 825.
Schellenbach, William, Wyoming, Ohio. Diameter-stop for machine-tools. No. 1,094,601; Apr. 28; Gaz. vol. 201; p. 975.
Schenck, Henry L., assignor of one-fourth to H. M. Onyett, Decatur, and one-fourth to T. J. Draper, Mount Zion, Ill. Changeable-speed-gear mechanism. No. 1,094,751; Apr. 28; Gaz. vol. 201; p. 1031.
Schenck, John E., Chicago, Ill., and C. A. Doolittle, Detroit, Mich., assignors to American Can Company, New York, N. Y. Can fusing or sweating machine. No. 1,094,935; Apr. 28; Gaz. vol. 201; p. 1094.
Scherer, Richard. (See Wechsler and Scherer.)
Scheuerman, William, Leotl, Kans. Rail-brace. No. 1,093,482; Apr. 14; Gaz. vol. 201; p. 497.
Schewczik, Silvio A., Vienna, Austria-Hungary. Hot-plate. No. 1,094,256; Apr. 21; Gaz. vol. 201; p. 799.
Schields, Fritz W., assignor to C. A. Goeken, Atlantic, Iowa. Scythe. No. 1,095,179; Apr. 28; Gaz. vol. 201; p. 1180.
Schiesl, William W., assignor of one-fourth to F. Schmitt, Milwaukee, Wis. Antifriction journal-bearing. No. 1,092,174; Apr. 7; Gaz. vol. 201; p. 17.
Schiessler, Josef, Baden, near Vienna, Austria-Hungary. Receiving apparatus for alternative wireless telegraphy and telephony. No. 1,092,294; Apr. 7; Gaz. vol. 201; p. 60.
Schilling, George W., Philadelphia, Pa. Checker or chess board. No. 1,092,599; Apr. 7; Gaz. vol. 201; p. 165.
Schilling, Paul, assignor of one-half to T. D. Schilling, Milwaukee, Wis. Mattress. No. 1,092,864; Apr. 14; Gaz. vol. 201; p. 289.
Schilling, Theodore D. (See Schilling, Paul, assignor.)
Schlipp, Charles, Philadelphia, Pa. Detachable sleigh-runners for baby-carriages. No. 1,093,483; Apr. 14; Gaz. vol. 201; p. 497.
Schischmarew, Michail, Liege, Belgium, assignor to Première Societe de la Navigation Aerienne de Russie, St. Petersburg, Russia. Rotatable motor. No. 1,094,480; Apr. 28; Gaz. vol. 201; p. 934.
Schlaepfer, Edouard, fils, assignor to L. Blanc, Lausanne, Canton of Vaud, Switzerland. Bottle-washing apparatus. No. 1,094,168; Apr. 21; Gaz. vol. 201; p. 771.
Schlafy, Julius H., assignor to The Berger Manufacturing Company, Canton, Ohio. Base for composition floors. No. 1,093,653; Apr. 21; Gaz. vol. 201; p. 597.
Schlegel, Oswald A. (See Dianovszky, John, assignor.)
Schlicht, Hans, Walnut, Iowa. Wheel. No. 1,094,752; Apr. 28; Gaz. vol. 201; p. 1032.
Schlitte, Paul, Leipzig, Germany. Driving of spindles. No. 1,092,666; Apr. 7; Gaz. vol. 201; p. 187.
Schloesing, Alphonse T., Paris, France, assignor to Norsk Hydro-Elektrisk Kvoelstofaktieselskab, Christiania, Norway. Process and apparatus for absorbing nitrous vapors in the dry and with heat by the aid of a base such as lime. No. 1,092,295; Apr. 7; Gaz. vol. 201; p. 60.
Schloss, Meyer W. (See Beck, August B., assignor.)
Schlueter, Peter H., Chicago, Ill. Cooking vessel. No. 1,093,654; Apr. 21; Gaz. vol. 201; p. 597.
Schmid, Henri, Mülhausen, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing brown shades on fiber. No. 1,092,542; Apr. 7; Gaz. vol. 201; p. 144.
Schmidt, Albrecht, and A. Steindorff, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Preparing finely-divided or colloid indigo drestuffs. No. 1,094,683; Apr. 28; Gaz. vol. 201; p. 1007.
Schmidt, Else, *geb.* Walter, Berlin-Tegel, Germany. Machine for cutting bread. No. 1,092,751; Apr. 7; Gaz. vol. 201; p. 216.
Schmidt, Frank M. (See Schmidt, Robert W. and F. M.)
Schmidt, Peter, assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo. Locking mechanism for train-pipe couplings. No. 1,092,296; Apr. 7; Gaz. vol. 201; p. 61.
Schmidt, Robert W. and F. M., New York, N. Y. Hat-pin guard. No. 1,093,730; Apr. 21; Gaz. vol. 201; p. 625.
Schmidt, Wilhelm, Cassel-Wilhelmshöhe, assignor to Schmidt'sche Heissdampf-Gesellschaft m. b. H., Cassel, Germany. Engine. No. 1,092,543; Apr. 7; Gaz. vol. 201; p. 144.
Schmidt'sche Heissdampf-Gesellschaft m. b. H. (See Schmidt, Wilhelm, assignor.)
Schmitt, Fred. (See Schiesl, William W., assignor.)
Schmitt, Henry and H. J., Chicago, Ill. Advertising device. No. 1,092,175; Apr. 7; Gaz. vol. 201; p. 17.
Schmitt, Henry J. (See Schmitt, Henry and H. J.)
Schneider & Cie. (See Bourdelles, Emile, assignor.)
Schneider, Clara G. (See Schneider, Max and C. G.)
Schneider, Eugène, Le Creuzot, France. Breech mechanism of guns. No. 1,094,753; Apr. 28; Gaz. vol. 201; p. 1032.
Schneider, Eugene W., New York, N. Y. Driving mechanism for electrically-propelled vehicles. No. 1,093,149; Apr. 14; Gaz. vol. 201; p. 387.
Schneider, Max and C. G., Denver, Colo. Spraying device. No. 1,092,865; Apr. 14; Gaz. vol. 201; p. 290.
Schniter, Karl, Frankfort-on-the-Main, assignor to Vereinigte Kunstseidefabriken A. G., Kelsterbach-on-the-Main, Germany. Preparation of nitrocellulose. No. 1,093,012; Apr. 14; Gaz. vol. 201; p. 339.
Schnitzler, Oscar, Remington, Ohio. Speed-changing mechanism. No. 1,092,297; Apr. 7; Gaz. vol. 201; p. 61.
Schoenberg, Fredrich E., St. Louis, Mo. Window-screen. No. 1,092,457; Apr. 7; Gaz. vol. 201; p. 116.
Schoenberger, Michael F., Los Angeles, Cal. Supporting arrangement for cars. No. 1,093,977; Apr. 21; Gaz. vol. 201; p. 705.
Schoenborn, Gustav C., Detroit, Mich. Lock for telescoping members. No. 1,094,169; Apr. 21; Gaz. vol. 201; p. 771.
Schoenfeld, Charles, Canton, Ohio. Stream-motor. No. 1,092,403; Apr. 7; Gaz. vol. 201; p. 96.
Schoenfeld, Morris, Rorschach, Switzerland. Machine for cutting embroideries. No. 1,094,821; Apr. 28; Gaz. vol. 201; p. 1056.
Schoenmehl, Charles B., Waterbury, Conn. Primary battery. No. 1,092,600; Apr. 7; Gaz. vol. 201; p. 165.
Schofield-Burkett Construction Co. (See Burkett, Ira E., assignor.)
Schott & Gen. (See Hatfield, Henry S., assignor.)
Schotta, Charles H., Baltimore county, Md. Overshoe for horses. No. 1,094,101; Apr. 21; Gaz. vol. 201; p. 747.
Schramm, Adolph W., Riverton, N. J., and P. Russell, Brooklyn, N. Y., assignors to Electro Dental Manufacturing Company, Philadelphia, Pa. Evacuator. No. 1,094,257; Apr. 21; Gaz. vol. 201; p. 799.
Schreiber, Edward A., assignor to Chicago Car Heating Company, Chicago, Ill. Self-locking latch. No. 1,094,602; Apr. 28; Gaz. vol. 201; p. 976.
Schroeder, Frederick A., Park Ridge, assignor of one-half to J. E. Sheridan, Chicago, Ill. Shoe-cleat. No. 1,093,358; Apr. 14; Gaz. vol. 201; p. 459.
Schroyer, Harry H., Chicago, Ill., assignor to The Acme Supply Company. Weather-strip. No. 1,094,481; Apr. 28; Gaz. vol. 201; p. 935.
Schubert Gebrüder. (See Wolff, Hans, assignor.)
Schuble, John W., Louisville, Ky. Sash-lock. No. 1,094,258; Apr. 21; Gaz. vol. 201; p. 800.
Schulhoff, Saul, Philadelphia, Pa. Protective rubber cap with stopple for milk-bottles. No. 1,093,211; Apr. 14; Gaz. vol. 201; p. 408.
Schulte, Theodore B., Cleveland, Ohio. Davenport-bed. No. 1,093,565; Apr. 14; Gaz. vol. 201; p. 522.
Schulte, Theodore B., Cleveland, Ohio. Davenport-bed. No. 1,093,949; Apr. 21; Gaz. vol. 201; p. 696.
Schulz, Paul A. H. A., Columbia, S. C. Aseptic package for surgical dressings. No. 1,092,176; Apr. 7; Gaz. vol. 201; p. 18.
Schulze, John H., St. Louis, Mo. Explosive-engine. No. 1,092,866; Apr. 14; Gaz. vol. 201; p. 290.
Schulze, Rinholt, Humboldt, Iowa. Wheelbarrow. No. 1,095,036; Apr. 28; Gaz. vol. 201; p. 1129.
Schutte and Koerting Company. (See Lovekin, Luther D., assignor.)
Schwartz, Carl, St. Louis, Mo. Cloth measuring and cutting and cost-computing machine. No. 1,092,802; Apr. 7; Gaz. vol. 201; p. 232.
Schwarz, Albert, assignor of one-fourth to J. F. Kornbacher, Detroit, Mich. Partition for beds. No. 1,092,208; Apr. 7; Gaz. vol. 201; p. 61.
Schwarz, Henry, Brooklyn, N. Y. Ale-drawing apparatus. No. 1,093,150; Apr. 14; Gaz. vol. 201; p. 387.
Schwarzrock, Fredrick A., Milwaukee, Wis. Suitcase. No. 1,093,484; Apr. 14; Gaz. vol. 201; p. 498.
Schweter, Erich, Wilkes-Barre, Pa. Steam-engine. No. 1,093,655; Apr. 21; Gaz. vol. 201; p. 597.

Scognamillo, Salvatore, New York, N. Y. Wheel. No. 1,094,259; Apr. 21; Gaz. vol. 201; p. 800.
Scotford, Louis K., Chicago, Ill., and M. C. Price, assignors to Hill-Independent Mfg. Co., Muskegon, Mich. Hand-stamp. No. 1,093,485; Apr. 14; Gaz. vol. 201; p. 498.
Scott, Frederick C., Hornby Island, British Columbia, Canada, assignor to F. W. Trounce, Buffalo, N. Y. Pruning implement. No. 1,092,954; Apr. 14; Gaz. vol. 201; p. 320.
Scott, Robert, assignor of one-half to H. B. Dick, Kalispell, Mont. Halter. No. 1,093,486; Apr. 14; Gaz. vol. 201; p. 498.
Scott, Robert W., Boston, Mass. Knitting ribbed fabrics. No. 1,094,482; Apr. 28; Gaz. vol. 201; p. 935.
Scott, Robert W., Boston, Mass., assignor to General Knit Fabric Company, Utica, N. Y. Knitting fabrics. No. 1,093,359; Apr. 14; Gaz. vol. 201; p. 459.
Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Knitting selvaged fabrics. No. 1,094,347; Apr. 21; Gaz. vol. 201; p. 826.
Scott, Walter, Sheridan, Wyo. Universal joint. No. 1,094,603; Apr. 28; Gaz. vol. 201; p. 976.
Scott, Walter E., assignor to Hale and Kilburn Company, Philadelphia, Pa. Window and door. No. 1,094,025; Apr. 21; Gaz. vol. 201; p. 722.
Scott & Williams. (See Musgrove, Arthur S., assignor.)
Scott & Williams. (See Scott, Robert W., assignor.)
Scott & Williams. (See Swinglehurst, Harry, assignor.)
Scovill, James E., Chicago, Ill. Bell-ringer. No. 1,094,170; Apr. 21; Gaz. vol. 201; p. 772.
Scullin, Terance, and S. R. Skov, Cleveland, Ohio. Car-door. No. 1,093,731; Apr. 21; Gaz. vol. 201; p. 625.
Scully, John J., assignor to American Graphophone Company, Bridgeport, Conn. Combined recorder and reproducer. No. 1,093,732; Apr. 21; Gaz. vol. 201; p. 625.
Seaberg, Frederick, Chicago, Ill., assignor to National Dump Car Company. Car. No. 1,093,886; Apr. 21; Gaz. vol. 201; p. 675.
Seaberg, Frederick, Chicago, Ill., assignor to National Dump Car Company. Door-operating mechanism. No. 1,094,483; Apr. 28; Gaz. vol. 201; p. 935.
Seaboard Rice Milling Co. (See Davis, Waters S., Jr., assignor.)
Seaman, Charles, Ironwood, Mich. Skirt-gage. No. 1,092,177; Apr. 7; Gaz. vol. 201; p. 18.
Sears, Roebuck and Company. (See Hoffman, Rudolph, assignor.)
Seck, Karl H. W. L., assignor to Firm of H. Lanz, Mannheim, Germany. Hydraulic lifting mechanism. No. 1,093,151; Apr. 14; Gaz. vol. 201; p. 388.
Seck, Willy, Berlin-Wilmersdorf, assignor to Firm of R. Bosch, Stuttgart, Germany. Reversing device for combustion-engines. No. 1,092,404; Apr. 7; Gaz. vol. 201; p. 96.
Segall, Solomon L., New York, N. Y. Sanitary garbage-receptacle. No. 1,092,752; Apr. 7; Gaz. vol. 201; p. 216.
Seidl, Frank W., deceased, Manitowoc; M. Seidl, executrix, Milwaukee, Wis. Jewel-gage. No. 1,093,360; Apr. 14; Gaz. vol. 201; p. 459.
Seidl, Minnie, executrix. (See Seidl, Frank W.)
Seitz, George F., Philadelphia, Pa. Reservoir-penholder. No. 1,092,753; Apr. 7; Gaz. vol. 201; p. 216.
Selective Signal Company. (See Manny, Ira F., assignor.)
Sellers, William H., Jr., Florence, Kans. Sweep-rake. No. 1,093,487; Apr. 14; Gaz. vol. 201; p. 499.
Sellew, Ernest B., Pawtucket, R. I. Auxiliary support. No. 1,092,867; Apr. 14; Gaz. vol. 201; p. 291.
Sellner, Herbert W., Faribault, Minn. Sandpapering-machine. No. 1,094,484; Apr. 28; Gaz. vol. 201; p. 936.
Senderling, Martin L., Jersey City, N. J. Vehicle. No. 1,095,127; Apr. 28; Gaz. vol. 201; p. 1159.
Senfgefäss-Werke, Gesellschaft mit beschrankter Haftung. (See Bihr and Dobesch, assignors.)
Sentinel Automatic Gas Appliance Company. (See Bargamin, Clifford, assignor.)
Serafin, Romano, Stafford Springs, Conn. Metallic railway-tie. No. 1,093,013; Apr. 14; Gaz. vol. 201; p. 339.
Serpek, Ottokar, assignor to Société Générale des Nitrures, Paris, France. Manufacture of aluminium nitrids. No. 1,094,171; Apr. 21; Gaz. vol. 201; p. 772.
Seth, John, Brooklyn, Iowa. Boiler. No. 1,093,733; Apr. 21; Gaz. vol. 201; p. 625.
Sewall, Minott W., Roselle, D. S. Jacobus, Jersey City, N. J., and G. E. Palmer, Chicago, Ill., assignors to The Babcock & Wilcox Company, Bayonne, N. J. Water-tube boiler. No. 1,094,754; Apr. 28; Gaz. vol. 201; p. 1032.
Seward, George O., East Orange, N. J., and F. von Kügelgen, Holcombs Rock, Va., assignors to Virginia Laboratory Company, New York, N. Y. Cathode for electrolytic furnaces. No. 1,092,178; Apr. 7; Gaz. vol. 201; p. 18.
Seward, Joseph W., assignor to Seward Trunk and Bag Company, Petersburg, Va. Trunk-fastener. No. 1,094,807; Apr. 28; Gaz. vol. 201; p. 1071.
Seward Trunk and Bag Company. (See Seward, Joseph W., assignor.)
Sewell, John T., Philadelphia, Pa. Odorless cooker. No. 1,094,936; Apr. 28; Gaz. vol. 201; p. 1094.
Shaffer, Gustav C., Chicago, Ill. Dumping freight-car. No. 1,093,734; Apr. 21; Gaz. vol. 201; p. 626.
Shannon, Robert L., Ripley, Miss. Thermostatic circuit-closer. No. 1,092,754; Apr. 7; Gaz. vol. 201; p. 217.
Shapiro, Samuel, Philadelphia, Pa. Closure. No. 1,093,735; Apr. 21; Gaz. vol. 201; p. 626.
Sharp and Dohme. (See Winchester, Benjamin T., assignor.)
Sharp, Lee C., Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y. Can-head-seaming machine. No. 1,094,937; Apr. 28; Gaz. vol. 201; p. 1094.
Sharp, Lee C., Plattsmouth, Nebr., assignor to American Can Company, New York, N. Y. Can-heading machine. No. 1,094,938; Apr. 28; Gaz. vol. 201; p. 1095.
Sharp, Noah T., Ludlow, Ky., assignor of one-half to A. Houck, Cincinnati, Ohio. Resilient vehicle-wheel. No. 1,092,755; Apr. 7; Gaz. vol. 201; p. 217.
Shattuck, Ira H., Hollywood, Cal. Towel-cabinet. No. 1,092,405; Apr. 7; Gaz. vol. 201; p. 97.
Shaver, Archie G. (See Bodde, Theodore, assignor.)
Shaver, Elmer C., New York, N. Y., assignor of one-half to H. V. Piaget, Montclair, N. J. Bag-fastener. No. 1,092,955; Apr. 14; Gaz. vol. 201; p. 320.
Shaw, Thomas, Hackensack, N. J., assignor to American Telephone and Telegraph Company. Means for reducing reflection losses in duplex circuits. No. 1,092,956; Apr. 14; Gaz. vol. 201; p. 321.
Shaw, Thomas, Hackensack, N. J., assignor to American Telephone and Telegraph Company. Means for reducing reflection losses in phantom circuits. No. 1,092,957; Apr. 14; Gaz. vol. 201; p. 321.
Sheard, Joseph L., and E. E. Dutton, Fallsdale, Pa. Hydrocarbon blow-torch. No. 1,092,756; Apr. 7; Gaz. vol. 201; p. 217.
Sheehy, Harry W., Akron, Ohio. Can-opener. No. 1,094,172; Apr. 21; Gaz. vol. 201; p. 772.
Shelton, John B., Edson, Alberta, Canada, assignor of one-half to P. David, Tacoma, Wash. Freight or cattle car. No. 1,094,485; Apr. 28; Gaz. vol. 201; p. 936.
Shepard, Charles H., Brooklyn, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,092,406; Apr. 7; Gaz. vol. 201; p. 97.
Shepherd, William W., Wilmington, Ohio. Attachment for hitching-straps. No. 1,092,299; Apr. 7; Gaz. vol. 201; p. 62.
Sheridan, John E. (See Schroeder, Frederick A., assignor.)
Sherman, Lena, *et al.* (See Rivkin, Bert, assignor.)
Sherwood, Arthur, New Haven, Conn. Wheel. No. 1,092,227; Apr. 7; Gaz. vol. 201; p. 35.
Shibuta, James K., Chicago, Ill. Potato-cutter. No. 1,094,604; Apr. 28; Gaz. vol. 201; p. 976.
Shiley, Richard G., Cleveland, Ohio. Speed-regulator for internal-combustion engines. No. 1,092,667; Apr. 7; Gaz. vol. 201; p. 187.
Shipman, Evan J., assignor to Sargent & Company, New Haven, Conn. Pin-tumbler lock. No. 1,093,080; Apr. 14; Gaz. vol. 201; p. 363.
Shipman, Evan J., assignor to Sargent & Company, New Haven, Conn. Display-box. No. 1,094,605; Apr. 28; Gaz. vol. 201; p. 977.
Shnable, Emile R., Chicago, Ill. Excavator-bucket. No. 1,093,887; Apr. 21; Gaz. vol. 201; p. 675.
Shoemaker, William B., assignor of one-half to G. Wenzelmann, Galesburg, Ill. Gutter-end-forming clamp. No. 1,093,950; Apr. 21; Gaz. vol. 201; p. 696.
Shogren, Martin W., Louisville, Nebr. Draft-tongues for agricultural implements. No. 1,093,488; Apr. 14; Gaz. vol. 201; p. 499.
Shook, Jacob W., Williamsport, Pa. Pot-lid-supporting device. No. 1,093,489; Apr. 14; Gaz. vol. 201; p. 499.
Showalter, Roy C., assignor of one-half to F. K. Thieme and one-fourth to J. P. Reilly, Altoona, Pa. Trolley-wheel mount. No. 1,092,803; Apr. 7; Gaz. vol. 201; p. 233.
Shredded Wheat Company, The. (See Perky, Henry D., assignor.)
Shredded Wheat Company, The. (See Wallace, Edwin L., assignor.)
Shreeve, Herbert E., Millburn, N. J., assignor to Western Electric Company, New York, N. Y. Current-amplifying apparatus and circuit. No. 1,093,888; Apr. 21; Gaz. vol. 201; p. 676.
Shriner, Charles E. and F. A., and F. W. Miller, assignors to The Monroe Burial Device Company, Monroe, Wis. Apparatus for raising and lowering caskets. No. 1,095,168; Apr. 28; Gaz. vol. 201; p. 1176.
Shriner, Frank A. (See Shriner and Miller.)
Shuler, Ulysses G. (See Koch and Shuler.)
Shultz, Guy R., Douglas county, Kans. Threshing cylinder and concave. No. 1,092,757; Apr. 7; Gaz. vol. 201; p. 217.
Shupert, Frank W. (See Jacobs and Shupert.)
Shurz, Benjamin F., Marion, Ohio. Automatic railway-brake valve. No. 1,092,958; Apr. 14; Gaz. vol. 201; p. 321.
Sibbald, Harry. (See Martin and Sibbald.)
Sidwell, Ernest, Coventry, England. Air-cooled internal-combustion engine used on motor-bicycles. No. 1,092,228; Apr. 7; Gaz. vol. 201; p. 36.
Sidwell, Lester L., Rivera, Cal. Device for handling tree-fumigating tents. No. 1,093,656; Apr. 21; Gaz. vol. 201; p. 598.
Siegfried, John H., Lemoore, Cal. Knife attachment for mowers. No. 1,094,260; Apr. 21; Gaz. vol. 201; p. 800.
Siemens-Schuckert Werke, G. m. b. H. (See Rüdenberg, Reinhold, assignor.)



Silberrad, Oswald, Buckhurst Hill, England. Explosive. No. 1,092,758; Apr. 7; Gaz. vol. 201; p. 218.
Silica Stone Works. (See Thomas, Charles W., assignor.)
Silva, Manuel, Provincetown, Mass. Wheel-tire. No. 1,093,736; Apr. 21; Gaz. vol. 201; p. 626.
Silver Manufacturing Company, The. (See Haldeman, Charles F., assignor.)
Simmonds Engineering Company, The. (See Simmonds, John J., assignor.)
Simmonds, John J., assignor to The Simmonds Engineering Company, Iola, Kans. Turn-table. No. 1,094,020; Apr. 21; Gaz. vol. 201; p. 722.
Simmons, James M., Follansbee, W. Va. Churn. No. 1,094,027; Apr. 21; Gaz. vol. 201; p. 722.
Simon, Arthur, Milwaukee, Wis. Repulsion-motor. No. 1,094,102; Apr. 21; Gaz. vol. 201; p. 747.
Simon, J. P., *et al.* (See Deatherage, Isaac, assignor.)
Simonds, Herbert R., assignor to The A. A. Simonds & Son Company, Dayton, Ohio. Knife-bar for beating-engines. No. 1,093,490; Apr. 14; Gaz. vol. 201; p. 499.
Simons, William H., Columbus, Ohio. Porch-swing. No. 1,094,028; Apr. 21; Gaz. vol. 201; p. 723.
Simplex Railway Appliance Company. (See Hedgcock, William C., assignor.)
Simplex Time Recorder Company. (See Harris and Stowell, assignors.)
Simpson, John H., Providence, R. I. Signaling device. No. 1,092,229; Apr. 7; Gaz. vol. 201; p. 36.
Sinclair, Charles C. (See Strozier, Webster G., assignor.)
Sinclair, John D., *et al.* (See Lockhart, Robert R., assignor.)
Singer, Frank. (See Cameron, Frank, Jr., assignor.)
Singer, Julius, Racine, Wis. Ash-sifter. No. 1,095,037; Apr. 28; Gaz. vol. 201; p. 1129.
Singer Manufacturing Company, The. (See Barron, William L., assignor.)
Singer Manufacturing Company, The. (See Brown, Otis E., assignor.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Heggie, James, assignor.)
Singleton, James N. G., Orlando, Fla. Treating citrus fruits. No. 1,093,081; Apr. 14; Gaz. vol. 201; p. 363.
Sisson, Vinton E., Chicago, Ill. Carline. No. 1,093,657; Apr. 21; Gaz. vol. 201; p. 598.
Sithens, Edward H. (See Huntley, Harry H., assignor.)
Skinner, James M., Philadelphia, Pa. Battery-terminal. No. 1,094,173; Apr. 21; Gaz. vol. 201; p. 772.
Skinner, Raymond W. (See Beck, Reid, and Skinner.)
Skov, Soren R. (See Scullin and Skov.)
Skyles, G. A., *et al.* (See Ayres, George W., assignor.)
Slater, George E., Graceville, Fla. Churn-operating mechanism. No. 1,092,300; Apr. 7; Gaz. vol. 201; p. 62.
Slater, Joseph. (See Jonas, Alexander, assignor.)
Sleeper, Joseph J., Moores, Pa. Pump for suction-cleaners. No. 1,093,014; Apr. 14; Gaz. vol. 201; p. 339.
Sleight, William H. (See Haas, Peter, assignor.)
Slick, Edwin E., Westmont borough, Pa. Rail. No. 1,093,212; Apr. 14; Gaz. vol. 201; p. 408.
Sloan, Francis E., assignor to The O. K. Manufacturing & Stamping Company, Baltimore, Md. Spring-frame for beds. No. 1,095,169; Apr. 28; Gaz. vol. 201; p. 1176.
Sloper, Thomas, county of Wilts, England. Anchoring member for fabric articles. No. 1,093,213; Apr. 14; Gaz. vol. 201; p. 408.
Slosson, James S., New Brighton, assignor to Clifford L. Miller & Co., New York, N. Y. Means for making and applying wire ties. No. 1,092,179; Apr. 7; Gaz. vol. 201; p. 19.
Smallman, James W., Blackdown, near Leamington, England. Haulage-clip. No. 1,094,404; Apr. 21; Gaz. vol. 201; p. 847.
Smetana, Maximilian, assignor of one-half to W. C. Wittman, Philadelphia, Pa. Impervious bag. No. 1,092,601; Apr. 7; Gaz. vol. 201; p. 165.
Smid, John E., George, Iowa. Writing-tablet. No. 1,093,082; Apr. 14; Gaz. vol. 201; p. 363.
Smith, Ab C., Warren, Ark. Cable-clamp. No. 1,092,668; Apr. 7; Gaz. vol. 201; p. 187.
Smith, Abram E., New York, N. Y. Tank-car. No. 1,093,737; Apr. 21; Gaz. vol. 201; p. 626.
Smith, Allan, Berkeley, Cal. Automatic watering-fountain. No. 1,094,755; Apr. 28; Gaz. vol. 201; p. 1033.
Smith, Augustus, Roselle, assignor to Bergen Point Iron Works, Bayonne, N. J. Hoisting apparatus for operating grab-buckets. No. 1,092,669; Apr. 7; Gaz. vol. 201; p. 188.
Smith, Augustus, Roselle, assignor to Bergen Point Iron Works, Bayonne, N. J. Bucket-hoist. No. 1,092,670; Apr. 7; Gaz. vol. 201; p. 188.
Smith, Benjamin E., Latrobe, Pa. Saw-holder. No. 1,094,929; Apr. 28; Gaz. vol. 201; p. 1095.
Smith, Edgar M., Chicago, Ill. Anticreeping railway-rail. No. 1,094,606; Apr. 28; Gaz. vol. 201; p. 977.
Smith, Francis H., St. Mary, Ky., assignor to S. B. Smith, Annadel, Tenn. Truck. No. 1,092,544; Apr. 7; Gaz. vol. 201; p. 145.
Smith, Frank A., assignor to Static Electro Eradicator, Incorporated, Syracuse, N. Y. Static electric eradicator. No. 1,093,491; Apr. 14; Gaz. vol. 201; p. 500.
Smith, Frank W. (See Sprong and McCoy, assignors.)
Smith, Franklin E., Weymouth, assignor to Vickers Limited, Westminster, England. Automobile torpedo. No. 1,092,759; Apr. 7; Gaz. vol. 201; p. 218.
Smith, Franklin P. (See McClure, Edward, assignor.)
Smith, George D., Paterson, N. J. Paper receptacle. No. 1,092,868; Apr. 14; Gaz. vol. 201; p. 291.
Smith, George W., assignor to The Ingersoll Milling Machine Company, Rockford, Ill. Milling-machine. No. 1,094,940; Apr. 28; Gaz. vol. 201; p. 1096.
Smith, J. A., *et al.* (See Ramsey, William H., assignor.)
Smith, Jesse C., Kansas City, Mo. Automatic card-exhibiting device. No. 1,094,607; Apr. 28; Gaz. vol. 201; p. 977.
Smith, Joseph. (See Erickson, Claus, assignor.)
Smith, Joseph, Manchester, England. Adjustable-spring seat-pillar and saddle-support for motor-cycles. No. 1,092,407; Apr. 7; Gaz. vol. 201; p. 98.
Smith, Joseph J., New York, N. Y., assignor to W. Firth, Chestnut Hill, Mass. Pneumatic dust-remover for card-ing-engines. No. 1,092,804; Apr. 7; Gaz. vol. 201; p. 233.
Smith, Louis P., and J. H. Heaverside, Cleveland, Ohio. Pavement. No. 1,093,738; Apr. 21; Gaz. vol. 201; p. 626.
Smith, Michael, Passaic, N. J., assignor to The Rapid Electrotype Company, Cincinnati, Ohio. Production of matrices or molds for printing-plates. No. 1,093,015; Apr. 14; Gaz. vol. 201; p. 340.
Smith, Ralph A., and N. Mowery, Wilkes-Barre, Pa. Feed-regulator. No. 1,092,602; Apr. 7; Gaz. vol. 201; p. 165.
Smith, Robert M., Chicago, Ill. School-desk. No. 1,092,180; Apr. 7; Gaz. vol. 201; p. 19.
Smith, Russella C., Chicago, Ill. Hook-hanger. No. 1,094,608; Apr. 28; Gaz. vol. 201; p. 978.
Smith, Sidney B. (See Smith, Francis H., assignor.)
Smith, Walter H., Niles, and C. J. Wright, Warren, assignors to The Harris Automatic Press Company, Niles, Ohio. Delivery mechanism. No. 1,093,152; Apr. 14; Gaz. vol. 201; p. 388.
Smith, William E. (See Kilbourn, Smith, and Kilbourn.)
Smith, William E., assignor to Kilbourn Manufacturing Corporation, New Brunswick, N. J. Circular-knitting machine. No. 1,092,301; Apr. 7; Gaz. vol. 201; p. 62.
Smith, William G., Waterbury, Conn. Railway safety appliance. No. 1,093,492; Apr. 14; Gaz. vol. 201; p. 500.
Smyser, Louis B., assignor to The American Hardware Corporation, New Britain, Conn. Transom-operator. No. 1,093,296; Apr. 14; Gaz. vol. 201; p. 438.
Snapp, John H., Washington, D. C. Printing from photographic negatives. No. 1,092,545; Apr. 7; Gaz. vol. 201; p. 145.
Snead & Co. Iron Works, The. (See Macdonald, Harry P., assignor.)
Snead & Co. Iron Works, The. (See Macdonald and Parker, assignors.)
Snell, Charles S., London, England. Transport-vehicle. No. 1,093,889; Apr. 21; Gaz. vol. 201; p. 676.
Snow, Norman L., Plainfield, N. J. Fan or blower system. No. 1,093,214; Apr. 14; Gaz. vol. 201; p. 409.
Snyder, Charles P., Slatington, Pa. Emergency-axle. No. 1,094,486; Apr. 28; Gaz. vol. 201; p. 936.
Snyder, Howard F., assignor to The Maytag Company, Newton, Iowa. Conveyer for band-cutters and feeders. No. 1,092,181; Apr. 7; Gaz. vol. 201; p. 19.
Snyder, Jacob R., assignor to P. E. Donner, Pittsburgh, Pa. Emergency cut-off and pressure-maintenance valve for air-brake systems. No. 1,094,944; Apr. 28; Gaz. vol. 201; p. 1098.
Snyder, Jacob R., assignor to P. E. Donner, Pittsburgh, Pa. Quick-recharging valve. No. 1,094,945; Apr. 28; Gaz. vol. 201; p. 1098.
Snyder, Jacob R., Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company. Triple valve. No. 1,094,941; Apr. 28; Gaz. vol. 201; p. 1096.
Snyder, Jacob R., Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company. Triple valve. No. 1,094,942; Apr. 28; Gaz. vol. 201; p. 1097.
Snyder, Jacob R., Pittsburgh, Pa., assignor, by mesne assignments, to Pittsburgh Air Brake Company. Air-brake system. No. 1,094,943; Apr. 28; Gaz. vol. 201; p. 1097.
Snyder, Mahlon L. (See Parvin and Snyder.)
Snyder, William A., Los Angeles, Cal. Wall-bed. No. 1,094,684; Apr. 28; Gaz. vol. 201; p. 1007.
Sochurek, Frank, Jr., West Allis, and J. Sochurek, Milwaukee, Wis. Spittoon-holder. No. 1,092,869; Apr. 14; Gaz. vol. 201; p. 291.
Sochurek, Joseph. (See Sochurek, Frank, Jr., and J.)
Societa Anonima Italiana Gio. Ansaldo Armstrong & Co. (See Giolitti, Federico, assignor.)
Société Anonyme "Apicea." (See Bourdil, Francois F., assignor.)
Société Anonyme des Anciens Etablissements Charles Janneau. (See Janneau, Charles A., assignor.)
Société Anonyme "Le Buste Universel." (See Carrara, Marie-Louise, assignor.)
Société de Constructions Mécaniques d'Alais. (See Réol, Jean, assignor.)
Société Générale des Nitrures. (See Serpek, Ottokar, assignor.)
Soden, Alfred J., Newark, N. J., assignor to Crucible Steel Company of America, Pittsburgh, Pa. Armor-piercing projectile. No. 1,095,173; Apr. 28; Gaz. vol. 201; p. 1177.
Söderlund, Olof. (See Testrup and Söderlund.)
Solstmann, Adolph G., Camden, N. J. Cord-tightening device. No. 1,094,029; Apr. 21; Gaz. vol. 201; p. 723.

Sokolov, Jacob, assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,094,609; Apr. 28; Gaz. vol. 201; p. 978.

Solomon, Morris B., assignor to American Tray Company, New York, N. Y. Tray. No. 1,094,261; Apr. 21; Gaz. vol. 201; p. 800.

Sommer, William H., Peoria, Ill. Wire-feeding mechanism. No. 1,093,578; Apr. 14; Gaz. vol. 201; p. 527.

Sorum, Herman F., assignor of one-half to R. W. Poelma, Chicago, Ill. Hose-coupling. No. 1,092,603; Apr. 7; Gaz. vol. 201; p. 166.

Southwick, William S., assignor to Clinton Wire Cloth Company, Clinton, Mass. Machine for welding reinforcements for concrete. No. 1,093,297; Apr. 14; Gaz. vol. 201; p. 438.

Souvielle, Mathieu, Jacksonville, Fla. Dental jaw-brace. No. 1,092,671; Apr. 7; Gaz. vol. 201; p. 188.

Sowden, Charles N., Guatanamo, Cuba. Attachment for cooking utensils. No. 1,095,038; Apr. 28; Gaz. vol. 201; p. 1129.

Sox, David A., assignor of one-half to L. A. Wood, Carrollton, Ga. Cinder-deflector. No. 1,093,890; Apr. 21; Gaz. vol. 201; p. 677.

Spalazzi, Francesco, Rome, Italy. Ship's course-recording device. No. 1,094,487; Apr. 28; Gaz. vol. 201; p. 937.

Spangenberg, Moxie, Boyne City, Mich. Shoe-lace-fastening device. No. 1,094,262; Apr. 21; Gaz. vol. 201; p. 801.

Spangler, Albert, Moline, Ill. Syringe. No. 1,094,685; Apr. 28; Gaz. vol. 201; p. 1007.

Spani, Joseph L., Paragould, Ark. Grate-shaking guard. No. 1,092,546; Apr. 7; Gaz. vol. 201; p. 146.

Sparks, James M., Nadine, N. Mex. Wire-stretcher. No. 1,092,182; Apr. 7; Gaz. vol. 201; p. 20.

Sparks, Laban, administrator. (See Perky, Henry D.)

Speas, John C., Alma, Mich. Railway-switch. No. 1,094,488; Apr. 28; Gaz. vol. 201; p. 937.

Specialty Sales and Manufacturing Company. (See Tobin, John J., assignor.)

Spedden, Edward C., Grangeville, Idaho. Rotary measuring device. No. 1,092,672; Apr. 7; Gaz. vol. 201; p. 189.

Spencer, Frank E., Pittsburgh, Pa. Spring nut-lock. No. 1,095,039; Apr. 28; Gaz. vol. 201; p. 1130.

Spencer, Harry M., Dunmore, Pa. Emergency stopping device for motor-cars. No. 1,094,756; Apr. 28; Gaz. vol. 201; p. 1033.

Spiegel, May, Stern Company. (See Kurtz, Daniel E., assignor.)

Spielvogel, Rudolf, Hartford, Wis. Washing-machine. No. 1,094,489; Apr. 28; Gaz. vol. 201; p. 938.

Spiess, Georg, Leipzig-Reudnitz, Germany. Device for actuating the counter in a sheet-feeder. No. 1,094,946; Apr. 28; Gaz. vol. 201; p. 1009.

Spillman, Edward O., and L. P. Mooers, North Tonawanda, N. Y. Piston for explosion engines or motors. No. 1,092,870; Apr. 14; Gaz. vol. 201; p. 291.

Sprague, Daniel B., *et al.* (See Lockhart, Robert R., assignor.)

Sprengstoff-A.-G. Carbonit. (See Machenbach, Richard, assignor.)

Springfield Metallic Casket Company, The. (See Hiser, Charles H., assignor.)

Springfield Metallic Casket Company, The. (See Reese, Herbert T., assignor.)

Sprong, Severn D., and W. E. McCoy, assignors of one-third to F. W. Smith, New York, N. Y. Electric fuse. No. 1,094,030; Apr. 21; Gaz. vol. 201; p. 723.

Staaf, Werner I., assignor of one-half to E. B. Tyler, Pittsburgh, Pa. Liquid-meter. No. 1,093,808; Apr. 21; Gaz. vol. 201; p. 648.

Stacey, William R. (See Hurd, George H., assignor.)

Stadig, Walter L., St. Francis, Me. Snow-plow. No. 1,093,493; Apr. 14; Gaz. vol. 201; p. 501.

Stadtmuller, Max F., Fort Dodge, Iowa. Alarm mechanism for pneumatic-tired wheels. No. 1,093,739; Apr. 21; Gaz. vol. 201; p. 627.

Stahle, John A., Boston, Mass., assignor, by mesne assignments, to Stahle Mechanical Tire Company, Limited. Wheel. No. 1,092,183; Apr. 7; Gaz. vol. 201; p. 20.

Stahle Mechanical Tire Company. (See Stahle, John A., assignor.)

Staier, Henry, New York, N. Y. Making a composition fo. use in matches. No. 1,092,408; Apr. 7; Gaz. vol. 201; p. 98.

Stancliff, Lynn E., *et al.* (See De Force, George I., assignor.)

Standard Alcohol Company. (See Little, Arthur D., assignor.)

Standard Car Truck Company. (See Barber, John C., assignor.)

Standard Heat and Ventilation Company. (See Creveling, John L., assignor.)

Standard Heat and Ventilation Company. (See Towne, Joseph M., assignor.)

Standard Heat and Ventilation Company. (See Ward, John E., assignor.)

Standard Motor Construction Company. (See Riotte, Carl C., assignor.)

Standard Motor Truck Co. (See Christianson, Andrew, assignor.)

Standard Plunger Elevator Company. (See Jansson, Karl E. O., assignor.)

Standard Typewriter Company. (See Hazen, Marshman W., assignor.)

Standard Typewriter Company. (See Hazen and Petermann, assignors.)

Standard Underground Cable Company. (See Davis, Charles W., assignor.)

Standerwick, Reginald G., Lynn, Mass., assignor to General Electric Company. Distribution system for vapor electric devices. No. 1,093,083; Apr. 14; Gaz. vol. 201; p. 364.

Stanfield, Jasper H., Muskegon, assignor of one-half to Michigan Washing Machine Company, Muskegon Heights, and one-fourth to W. H. Bozell, Muskegon, Mich. Cherry seeder or pitter. No. 1,093,361; Apr. 14; Gaz. vol. 201; p. 460.

Stanfield, Stephen O., Orange, Cal. Rotary valve. No. 1,093,891; Apr. 21; Gaz. vol. 201; p. 677.

Stapel, Adolf G., Montgomery, Ala. Sectional hot-air furnace. No. 1,094,686; Apr. 28; Gaz. vol. 201; p. 1007.

Stapel, Adolf G., Montgomery, Ala. Hot-water heating system. No. 1,094,757; Apr. 28; Gaz. vol. 201; p. 1034.

Starbuck, Calvin T., Birmingham, Ala., assignor to A. O. Norton, Incorporated. Lifting-jack. No. 1,093,590; Apr. 14; Gaz. vol. 201; p. 532.

Starbuck, George F., Waltham, Mass. Truck. No. 1,094,822; Apr. 28; Gaz. vol. 201; p. 1056.

Stassano, Ernesto, Turin, Italy, and N. Petinot, Niagara Falls, N. Y. Electric furnace for medium temperatures particularly for melting copper and its alloys. No. 1,093,404; Apr. 14; Gaz. vol. 201; p. 501.

Static Electro Eradicator. (See Smith, Frank A., assignor.)

Steckle, Edward J., El Paso, Tex. Pulverizing or grinding machine. No. 1,092,302; Apr. 7; Gaz. vol. 201; p. 63.

Stedman, Marshall W., G. F. Kopp, and C. R. Myers, Tyrlingham, Mass. Hand-rake. No. 1,094,174; Apr. 21; Gaz. vol. 201; p. 773.

Steel Heddle Manufacturing Company. (See Kaufmann, Jacob, assignor.)

Steel, Matthew, Sr., and M., Jr., Gosforth, England. Blowpipe. No. 1,093,495; Apr. 14; Gaz. vol. 201; p. 501.

Steinberger, Louis, Brooklyn, N. Y. Case and cap for telephone-receivers. No. 1,093,951; Apr. 21; Gaz. vol. 201; p. 697.

Steindorff, Adolf. (See Schmidt and Steindorff.)

Steinhauer, Frederick, Madison, Wis. Boat-fastening means. No. 1,094,610; Apr. 28; Gaz. vol. 201; p. 979.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Alternating-current-rectifying apparatus. No. 1,095,170; Apr. 28; Gaz. vol. 201; p. 1176.

Steinmetz, Joseph A., Philadelphia, Pa. Means for destroying air-craft. No. 1,092,760; Apr. 7; Gaz. vol. 201; p. 218.

Stene, Robert M., Danby, and S. D. McFadden, Barstow, Cal. Burner. No. 1,092,785; Apr. 7; Gaz. vol. 201; p. 227.

Stenger, William H. (See Frederickson, Clayton E., assignor.)

Stenman, Ella F., Worcester, assignor, by mesne assignments, to Independent Button Fastener Machine Company, (Inc.,) Boston, Mass. Button-setting machine. No. 1,092,604; Apr. 7; Gaz. vol. 201; p. 166.

Stephens, Roderick, New York, N. Y. Vehicle-body. No. 1,093,952; Apr. 21; Gaz. vol. 201; p. 697.

Stephens, William C., Carn Brea, England. Hose coupling or union. No. 1,092,673; Apr. 7; Gaz. vol. 201; p. 189.

Stephenson, John W., Toledo, assignor to The National Malleable Castings Company, Cleveland, Ohio. Railway-track construction. No. 1,093,153; Apr. 14; Gaz. vol. 201; p. 389.

Stephenson, John W., Toledo, assignor to The National Malleable Castings Company, Cleveland, Ohio. Anti-rail-creeper. No. 1,093,154; Apr. 14; Gaz. vol. 201; p. 389.

Stephenson, John W., Toledo, Ohio, assignor to The National Malleable Castings Company. Rail-joint. No. 1,093,155; Apr. 14; Gaz. vol. 201; p. 389.

Stephenson, John W., Toledo, Ohio, assignor to The National Malleable Castings Company. Guard-rail tie-plate. No. 1,093,156; Apr. 14; Gaz. vol. 201; p. 390.

Stephenson, John W., Toledo, Ohio, assignor to The National Malleable Castings Company. Rail-support. No. 1,093,157; Apr. 14; Gaz. vol. 201; p. 390.

Stephenson, John W., Toledo, Ohio, assignor to The National Malleable Castings Company. Rail-joint. No. 1,093,158; Apr. 14; Gaz. vol. 201; p. 390.

Steppacher, Oscar M., Philadelphia, Pa. Starch heater or table. No. 1,094,175; Apr. 21; Gaz. vol. 201; p. 773.

Sterling, Warner S., Westwood, N. J. Tree treatment. No. 1,094,490; Apr. 28; Gaz. vol. 201; p. 938.

Stern, Georg. (See Bosch, Mittnach, Wolf, and Stern.)

Stevens, Burt D., assignor to The Berlin Machine Works, Beloit, Wis. Sawmill-carriage. No. 1,093,215; Apr. 14; Gaz. vol. 201; p. 409.

Stevens, Charles A., Norristown, Pa. Coin-controlled height-indicating machine. No. 1,095,040; Apr. 28; Gaz. vol. 201; p. 1130.

Stevens, John C., Malden, Mass. Holder for calendar-pads. No. 1,092,871; Apr. 14; Gaz. vol. 201; p. 292.

Stevens, Josiah N., Pittsburgh, Pa. Pivot-straightening device. No. 1,094,176; Apr. 21; Gaz. vol. 201; p. 773.

Stevens, Louise, Rainbow Lake, N. Y. Fruit-picker. No. 1,094,263; Apr. 21; Gaz. vol. 201; p. 801.





Stevens, Oscar E., New York, N. Y., assignor to General Railway Signal Company. Automatic block-signaling system for electric railways. No. 1,094,103; Apr. 21; Gaz. vol. 201; p. 748.

Stevens, Oscar E., New York, N. Y., assignor to General Railway Signal Company. Automatic block-signaling system for electric railways. No. 1,094,104; Apr. 21; Gaz. vol. 201; p. 748.

Stevens, Thomas A., Caney, Kans. Tally-card. No. 1,092,184; Apr. 7; Gaz. vol. 201; p. 21.

Stevenson, Alexander T., Portland, Oreg. Medicine-dose measurer and bottle-stopper. No. 1,093,740; Apr. 21; Gaz. vol. 201; p. 627.

Steventon, Thomas, assignor to American Graphophone Company, Bridgeport, Conn. Hydraulic press. No. 1,093,084; Apr. 14; Gaz. vol. 201; p. 364.

Steward, Clarence S., Chattanooga, Tenn. Heating unit. No. 1,094,264; Apr. 21; Gaz. vol. 201; p. 801.

Stewart, Bunker and D. B., Garden City, Kans. Motor. No. 1,092,458; Apr. 7; Gaz. vol. 201; p. 116.

Stewart, Clarence B., Alhambra, Miss. Mail-pouch lifting and dumping device. No. 1,094,491; Apr. 28; Gaz. vol. 201; p. 938.

Stewart, David B. (See Stewart, Bunker and D. B.)

Stewart Hartshorn Company. (See Hartshorn, Edmund F., assignor.)

Stewart, James R., Tacoma, Wash. Gun-sight. No. 1,094,265; Apr. 21; Gaz. vol. 201; p. 801.

Stickney, Burnham C., Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,092,230; Apr. 7; Gaz. vol. 201; p. 36.

Stickney, Burnham C., Elizabeth, N. J., assignor to J. T. Underwood, Brooklyn, N. Y. Type-writing machine. No. 1,093,298; Apr. 14; Gaz. vol. 201; p. 439.

Still, Frederick R., assignor to American Blower Company, Detroit, Mich. Centrifugal fan. No. 1,094,031; Apr. 21; Gaz. vol. 201; p. 723.

Stimpson, Walter F., Detroit, assignor to G. W. Hurd, Dundee, Mich. Adjustable index for scales. No. 1,092,872; Apr. 14; Gaz. vol. 201; p. 292.

Stippick, John, Milwaukee, Wis. Kite. No. 1,092,303; Apr. 7; Gaz. vol. 201; p. 63.

Stobie, Victor, Sheffield, England. Improving pig-iron. No. 1,093,892; Apr. 21; Gaz. vol. 201; p. 678.

Stockenberg, Charles T., Brooklyn, N. Y. Drinking-glass holder. No. 1,094,266; Apr. 21; Gaz. vol. 201; p. 802.

Stocks, Arthur S., London, England. Powder-puff and powder-container. No. 1,095,171; Apr. 28; Gaz. vol. 201; p. 1177.

Stoddard, Charles F., Boston, Mass. Recording musical tones. No. 1,095,128; Apr. 28; Gaz. vol. 201; p. 1159.

Stoddard, John D., Cambridge City, Ind., assignor, by mesne assignments, to Interlocking Fence Company, Morton, Ill. Fence-machine. No. 1,092,409; Apr. 7; Gaz. vol. 201; p. 98.

Stokes & Smith Company. (See Reifsnyder, James D., assignor.)

Stoll, Clarence G., Brooklyn, N. Y., assignor to Western Electric Company, Chicago, Ill. Mounting for fuses. No. 1,093,893; Apr. 21; Gas. vol. 201; p. 678.

Stoll, Frank M., Denver, Colo. Cushion-seat for motor-cycles. No. 1,095,172; Apr. 28; Gaz. vol. 201; p. 1177.

Stoll, Frank M., assignor to The Stoll Manufacturing Company, Denver, Colo. Combined motor-cycle rear seat and luggage-carrier. No. 1,093,741; Apr. 21; Gaz. vol. 201; p. 627.

Stoll Manufacturing Company, The. (See Stoll, Frank M., assignor.)

Stolz, Jacob, Warden, Wash. Header and header-binder. No. 1,093,742; Apr. 21; Gaz. vol. 201; p. 628.

Stone, Harry A., assignor to Folding-Stand Company, Inc., New York, N. Y. Extension-leaf for folding tables. No. 1,094,032; Apr. 21; Gaz. vol. 201; p. 724.

Stone, Harry A., assignor to Folding-Stand Company, Inc., New York, N. Y. Folding table. No. 1,094,033; Apr. 21; Gaz. vol. 201; p. 724.

Stone, John W., Downingtown, Pa. Switch-operating mechanism. No. 1,093,589; Apr. 14; Gaz. vol. 201; p. 531.

Stone, Joseph H., Okemah, Okla. Cotton-chopper. No. 1,093,894; Apr. 21; Gaz. vol. 201; p. 678.

Storm, Edwin R., New York, N. Y. Adjustable printing-plate holder. No. 1,095,150; Apr. 28; Gaz. vol. 201; p. 1168.

Stowell, Desrie A. (See Harris and Stowell.)

Strachan, John W., Kansas City, Mo. Machine for making wire-fence stays. No. 1,094,379; Apr. 21; Gaz. vol. 201; p. 837.

Straight, Bennett D., assignor to Multipost Company, Rochester, N. Y. Stamp-affixer. No. 1,093,658; Apr. 21; Gaz. vol. 201; p. 598.

Stratton, Fenton F., East Croyden, England. Change-speed-gear mechanism for motor-vehicles. No. 1,095,129; Apr. 28; Gaz. vol. 201; p. 1160.

Strauss, Charles, and G. Rommel, New York, N. Y. Safety-clasp for bracelets, necklaces, and similar articles of jewelry. No. 1,094,947; Apr. 28; Gaz. vol. 201; p. 1100.

Straw, William P., Manchester, N. H. Loom-shuttle. No. 1,092,959; Apr. 14; Gaz. vol. 201; p. 322.

Strickler, James P., Columbus, Ohio. Pipe-cutter. No. 1,092,304; Apr. 7; Gaz. vol. 201; p. 63.

Strickler, William H., assignor to Federal Construction Company, Chicago, Ill. Amusement device for use in pleasure-parks. No. 1,094,948; Apr. 28; Gaz. vol. 201; p. 1100.

Stringfellow, Robinson L., Shreveport, La. Pipe-wrench. No. 1,093,496; Apr. 14; Gaz. vol. 201; p. 502.

Strippel, Albert E., assignor of one-half to M. E. Wallace, New York, N. Y. Stencil fabric and producing the same. No. 1,092,509; Apr. 7; Gaz. vol. 201; p. 134.

Strobot, John J. (See Sutton, Robert J., assignor.)

Strozier, Webster G., assignor of one-half to C. C. Sinclair, Washington, D. C. Dovetail-tool. No. 1,095,041; Apr. 28; Gaz. vol. 201; p. 1131.

Struble, Jacob B., New York, N. Y., assignor to The Union Switch and Signal Company, Swissvale, Pa. Railway signaling. No. 1,092,459; Apr. 7; Gaz. vol. 201; p. 116.

Struble, Jacob B., San Francisco, Cal., assignor to The Union Switch and Signal Company, Swissvale, Pa. Railway signaling. No. 1,092,460; Apr. 7; Gaz. vol. 201; p. 117.

Struever, Henry F., Faulkton, S. D. Oil-can. No. 1,092,305; Apr. 7; Gaz. vol. 201; p. 64.

Strupp, Theodor J., Elkton, S. D. Running-gear. No. 1,094,492; Apr. 28; Gaz. vol. 201; p. 938.

Stub, Hans. (See Qviller and Stub.)

Stucki, Arnold, Pittsburgh, Pa. Roller side bearing. No. 1,093,953; Apr. 21; Gaz. vol. 201; p. 697.

Studebaker Corporation, The. (See MacGlashan, William, assignor.)

Stuewe, Oscar H. (See Marquardt and Stuewe.)

Sturman, Robert E., Franklin township, Wright county, Minn. Tire. No. 1,093,034; Apr. 21; Gaz. vol. 201; p. 724.

Sturtevant Mill Company. (See Sturtevant, Thomas J., assignor.)

Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Crushing-mill. No. 1,092,185; Apr. 7; Gaz. vol. 201; p. 21.

Stutsman, Henry. (See Crouch and Stutsman.)

Stuttz, William H., Toledo, Ohio, assignor, by mesne assignments, to E. L. Ackerman, Detroit, Mich. Impulse-pump. No. 1,092,873; Apr. 14; Gaz. vol. 201; p. 292.

Sudre, Charles, Renazé, France. Apparatus for splitting slate blocks and the like. No. 1,094,177; Apr. 21; Gaz. vol. 201; p. 774.

Sulfer, Charles, Chicago, Ill. Cash-register. No. 1,095,151; Apr. 28; Gaz. vol. 201; p. 1168.

Sullivan, Hiram E., Conticook, Quebec, Canada. Check-valve. No. 1,094,267; Apr. 21; Gaz. vol. 201; p. 802.

Sullivan, John G., *et al.* (See Motley, Phillips B., assignor.)

Sullivan Machinery Company. (See Ball and Officer, assignors.)

Sumner, Henry W. (See Gorman and Sumner.)

Sutherland, Franklin T. (See Bailey, James F., assignor.)

Sutliff, Warren J., Schenectady, N. Y. Journal-box. No. 1,092,306; Apr. 7; Gaz. vol. 201; p. 64.

Sutter, John H., Chicago, Ill. Laundry machinery. No. 1,092,605; Apr. 7; Gaz. vol. 201; p. 166.

Sutton, Frank G., Scranton, Pa. Reversible stove. No. 1,094,758; Apr. 28; Gaz. vol. 201; p. 1034.

Sutton, Robert J., assignor of one-half to J. J. Strobot, Chicago, Ill. Bedstead and the like. No. 1,092,606; Apr. 7; Gaz. vol. 201; p. 167.

Swain, Edward S. (See Jones, Albert L., assignor.)

Swanberg, Arthur W., Minneapolis, Minn. Increasing the efficiency of hydrocarbon liquids and the material for effecting such results. No. 1,092,461; Apr. 7; Gaz. vol. 201; p. 117.

Swanson, Frank H., Chicago, Ill., assignor to A. J. Nystrom & Company. Map-holder. No. 1,092,607; Apr. 7; Gaz. vol. 201; p. 167.

Swanson, Theodore. (See Gustafson and Swanson.)

Swartzbaugh, Charles E., assignor to The Toledo Cooker Company, Toledo, Ohio. Fireless cooker or the like. No. 1,093,566; Apr. 14; Gaz. vol. 201; p. 523.

Sweet, Arthur J., Newark, Ohio, assignor to Westinghouse Lamp Company. Means for rating incandescent lamps. No. 1,092,410; Apr. 7; Gaz. vol. 201; p. 98.

Swindell, John A., Pittsburgh, Pa. Heating-furnace. No. 1,094,611; Apr. 28; Gaz. vol. 201; p. 979.

Swindowsky, Charles, Houston, Tex. Pencil attachment. No. 1,093,497; Apr. 14; Gaz. vol. 201; p. 502.

Swinglehurst, Harry, Collingswood, N. J., assignor to Scott & Williams, Inc., Boston, Mass. Yarn-changing device for knitting-machines. No. 1,093,362; Apr. 14; Gaz. vol. 201; p. 460.

Sword, Charles, Cohoes, N. Y. Umbrella-display rack. No. 1,095,130; Apr. 28; Gaz. vol. 201; p. 1160.

Sykes, William S. (See Quinn, James J., assignor.)

Synthetic Patents Co. (See Claisen, Ludwig, assignor.)

Szabo, Rozalia M., *et al.* (See Jenoi and Kruchio, assignors.)

Szilágyi, Géza, assignor of one-half to J. Ball, Gary, Ind. Monkey-wrench. No. 1,094,759; Apr. 28; Gaz. vol. 201; p. 1034.

T. A. Gillespie Company, The. (See Donaldson, Francis, assignor.)

Taber, Leon I., Mount Hermon, Mass. Combined hair-brush and mirror. No. 1,094,493; Apr. 28; Gaz. vol. 201; p. 939.

Taft, Harrison S., Seattle, Wash. Apparatus for driving subpiling. No. 1,094,949; Apr. 28; Gaz. vol. 201; p. 1100.

Tait, George W., Kearney, N. J. Cloth-guiding device. No. 1,092,608; Apr. 7; Gaz. vol. 201; p. 168.
Tait, Godfrey M. S., Washington, D. C. Treating milk and other liquids. No. 1,094,380; Apr. 21; Gaz. vol. 201; p. 837.
Talbot, Ivan F., assignor to E. O. Atwood, Boise, Idaho. Lubricator. No. 1,095,042; Apr. 28; Gaz. vol. 201; p. 1131.
Talbott, John A. (See Wyvill and Talbott.)
Talbott, John L., and W. S. Wright, Lompoc, Cal. Dental instrument. No. 1,092,307; Apr. 7; Gaz. vol. 201; p. 64.
Taliaferro, Thomas L., Baltimore, Md., assignor to Continental Can Company, Syracuse, N. Y. Can-transferring mechanism. No. 1,092,609; Apr. 7; Gaz. vol. 201; p. 168.
Tamagno, Daniel B., assignor to L. Tamagno, New York, N. Y. Can. No. 1,094,035; Apr. 21; Gaz. vol. 201; p. 725.
Tamagno, Lydie. (See Tamagno, Daniel B., assignor.)
Tatum, Hamling, Elba, Ala. Railway-switch. No. 1,094,208; Apr. 21; Gaz. vol. 201; p. 802.
Taylor, Arthur K., assignor to Taylor Nursery Baby Bed Company, Jacksonville, Fla. Bed. (Reissue.) No. 13,719; Apr. 21; Gaz. vol. 201; p. 860.
Taylor, Harry, Hamilton, assignor to H. W. Burrett, Toronto, Ontario, Canada. Boat-propeller. No. 1,092,960; Apr. 14; Gaz. vol. 201; p. 322.
Taylor Nursery Baby Bed Company. (See Taylor, Arthur K., assignor.) (Reissue.)
Taylor, Richardson H., Meeker, Colo. Dental crown-remover. No. 1,094,269; Apr. 21; Gaz. vol. 201; p. 803.
Taylor, Warren H., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Combination-lock. No. 1,092,874; Apr. 14; Gaz. vol. 201; p. 293.
Tena, Lewis L. (See Dean and Tena.)
Techno-Chemical Laboratories Limited. (See Boberg, Teofron, assignor.)
Tegarden, Charles A., Colfax, Ind. Leg-band for poultry. No. 1,093,743; Apr. 21; Gaz. vol. 201; p. 628.
Telleson, Edward, Binghamton, N. Y. Syringe-tank. No. 1,092,231; Apr. 7; Gaz. vol. 201; p. 36.
Terada, Seizi, Seattle, Wash. Fuse-plug. No. 1,094,036; Apr. 21; Gaz. vol. 201; p. 725.
Terry, Joseph T., Jr., San Francisco, Cal. Recovering metalliferous constituents of ores. No. 1,094,760; Apr. 28; Gaz. vol. 201; p. 1034.
Testrup, Nils, London, and O. Söderlund, Clapham Park, London, assignors, by mesne assignments, to Wetcarbonizing Limited, London, England. Removal of water from wet carbonized peat. No. 1,094,270; Apr. 21; Gaz. vol. 201; p. 803.
Tevander, Swan, Toledo, Ohio, assignor to American Can Company, New York, N. Y. Machine for closing covers on sheet-steel or other vessels. No. 1,094,950; Apr. 28; Gaz. vol. 201; p. 1100.
Thiele, Ludwig A., Holland, Mich. Fumigator. No. 1,095,043; Apr. 28; Gaz. vol. 201; p. 1131.
Thieme, Fred K., *et al.* (See Showalter, Roy C., assignor.)
Thiogen Company, The. (See Young, Stewart W., assignor.)
Thom, James C., Chicago, Ill., assignor to Weyman-Bruton Company, New York, N. Y. Machine for packing pulverulent material. No. 1,092,232; Apr. 7; Gaz. vol. 201; p. 37.
Thomas, Adelbert A., assignor to Farrington Manufacturing Company, Boston, Mass. Box. No. 1,092,961; Apr. 14; Gaz. vol. 201; p. 322.
Thomas, Bradford A., San Francisco, Cal. Hydrocarbon-burner. No. 1,092,308; Apr. 7; Gaz. vol. 201; p. 65.
Thomas, Charles W., Laurel Springs, N. J., assignor to Silica Stone Works, Planebrook, Pa. Process and apparatus for manufacturing stone. No. 1,093,363; Apr. 14; Gaz. vol. 201; p. 460.
Thomas, John. (See Hollis, Elbert H., assignor.)
Thompson, Albert. (See Dewar, George M., assignor.)
Thompson, Albert R. (See Anderson and Thompson.)
Thompson, Earl P. F., Troy, Tex. Device for stacking mail-matter. No. 1,094,271; Apr. 21; Gaz. vol. 201; p. 803.
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Turbo ship-steadying device. No. 1,093,159; Apr. 14; Gaz. vol. 201; p. 391.
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Speed-indicator. No. 1,095,131; Apr. 28; Gaz. vol. 201; p. 1160.
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Power-transmitting mechanism. No. 1,095,132; Apr. 28; Gaz. vol. 201; p. 1161.
Thomson, Frederick W., Fort William, Ontario, Canada. Steam steering apparatus. No. 1,093,085; Apr. 14; Gaz. vol. 201; p. 364.
Thomson, Frederick W., Fort William, Ontario, Canada. Steam steering apparatus. No. 1,093,086; Apr. 14; Gaz. vol. 201; p. 365.
Thornley, Clarence W., Electra, Tex. Well-drilling apparatus. No. 1,092,300; Apr. 7; Gaz. vol. 201; p. 65.
Thornley, Albert E., assignor to Narragansett Machine Company, Pawtucket, R. I. Gymnasium apparatus. No. 1,094,823; Apr. 28; Gaz. vol. 201; p. 1056.
Thornley, Frederic S., Clarion, Iowa. Internal-combustion engine. No. 1,093,659; Apr. 21; Gaz. vol. 201; p. 599.
Thornley, Olney, Coyle, Okla. Vehicle-lamp. No. 1,094,272; Apr. 21; Gaz. vol. 201; p. 803.
Thousand, Adolph, Weston, Ohio. Autogenous welding outfit. No. 1,094,761; Apr. 28; Gaz. vol. 201; p. 1035.
Thring, Alfred C., Philadelphia, Pa. Sun-power water-heater. No. 1,093,498; Apr. 14; Gaz. vol. 201; p. 502.
Thullen, Louis H., Edgewood, assignor to The Union Switch & Signal Company, Swissvale, Pa. Electric railway and signaling system therefor. No. 1,092,411; Apr. 7; Gaz. vol. 201; p. 99.
Thullen, Louis H., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Electric railway. No. 1,094,494; Apr. 28; Gaz. vol. 201; p. 939.
Thullen, Louis H., Edgewood, assignor to The Union Switch & Signal Company, Swissvale, Pa. Signaling system for railways. No. 1,094,495; Apr. 28; Gaz. vol. 201; p. 939.
Thurman, William B., Madera, Cal. Ironing-board. No. 1,092,610; Apr. 7; Gaz. vol. 201; p. 168.
Thurston-McCormick Co. (See McCormick, Langdon, assignor.)
Tibble, Frederick, Muskegon, Mich. Stop and waste cock. No. 1,092,310; Apr. 7; Gaz. vol. 201; p. 65.
Tichota, Vencel J., Dodge, Nebr. Draft-equalizer. No. 1,093,087; Apr. 14; Gaz. vol. 201; p. 365.
Tighe, Charles, London, England. Sock. No. 1,094,273; Apr. 21; Gaz. vol. 201; p. 804.
Tily, Stephen B., J. G. and M. O. Rehfuss, assignors to John Wanamaker, Philadelphia, Pa. Cash-register. No. 1,095,044; Apr. 28; Gaz. vol. 201; p. 1132.
Timberlake, John B., Jackson, Mich. Folding display rack. No. 1,095,045; Apr. 28; Gaz. vol. 201; p. 1132.
Timmerman, William C. J. (See Behnke, Albert R., assignor.)
Tinkham, George F., Houston, Tex. Oil-burner. No. 1,092,674; Apr. 7; Gaz. vol. 201; p. 190.
Titanium Alloy Manufacturing Company, The. (See Rossi and Meredith, assignors.)
Tjader, Richard, New York, N. Y. Interdeck-davit. No. 1,094,348; Apr. 21; Gaz. vol. 201; p. 826.
Tobias, Frank C., Fort Wayne, Ind. Hay-distributer. No. 1,092,875; Apr. 14; Gaz. vol. 201; p. 293.
Tobias, John M., Pittsburgh, Pa. Gas heating-stove. No. 1,093,409; Apr. 14; Gaz. vol. 201; p. 502.
Tobin, John J., assignor to Specialty Sales and Manufacturing Company, Chicago, Ill. Tool. No. 1,094,687; Apr. 28; Gaz. vol. 201; p. 1008.
Tödt, Heinrich, Lensahn, Germany. Sterilizer. No. 1,093,500; Apr. 14; Gaz. vol. 201; p. 503.
Toledo Cooker Company, The. (See Swartzbaugh, Charles E., assignor.)
Toledo Electric Welder Company, The. (See Macneale, Neil, assignor.)
Toledo Scale Co. (See Crane, Samuel G., assignor.)
Toltz, Max, St. Paul, Minn., assignor, by mesne assignments, to Locomotive Superheater Company, Wilmington, Del. Steam-superheater. No. 1,093,954; Apr. 21; Gaz. vol. 201; p. 698.
Tomlinson, Charles H., Mansfield, Ohio, assignor to The Tomlinson Coupler Company, Denver, Colo. Automatic car and train-pipe coupling. No. 1,094,612; Apr. 28; Gaz. vol. 201; p. 979.
Tomlinson Coupler Company, The. (See Tomlinson, Charles H., assignor.)
Topf, Ludwig, Erfurt, Germany. Apparatus for treating granular material. No. 1,094,178; Apr. 21; Gaz. vol. 201; p. 774.
Torske, John L., Plummer, Minn. Beater for threshers. No. 1,093,216; Apr. 14; Gaz. vol. 201; p. 410.
Towle, Eugene A., St. Paul, Minn. Closure for vessels. No. 1,093,501; Apr. 14; Gaz. vol. 201; p. 504.
Towne, Joseph M., East Orange, N. J., assignor, by mesne assignments, to Standard Heat and Ventilation Company, Inc., New York, N. Y. Steam-trap. No. 1,095,046; Apr. 28; Gaz. vol. 201; p. 1133.
Toyoda, Sakichi, Shimasaki-cho, Nagoya, Japan. Protecting means for shuttle-replenishing devices. No. 1,093,088; Apr. 14; Gaz. vol. 201; p. 366.
Tracy, David D., assignor of one-half to J. H. Casey, Jackson, Mich. Sectional conduit. No. 1,092,311; Apr. 7; Gaz. vol. 201; p. 66.
Tracy, Joseph F., Chicago, Ill. Spark-plug. No. 1,093,744; Apr. 21; Gaz. vol. 201; p. 628.
Träger, Karl, assignor to Pyramiden Fliegenfängerfabrik Max Dametz, G. m. b. H., Zeitz, Germany. Fly-catcher. No. 1,093,502; Apr. 14; Gaz. vol. 201; p. 504.
Traher, Wilfred C., London, Ontario, Canada. Loose-leaf binder. No. 1,092,675; Apr. 7; Gaz. vol. 201; p. 190.
Traube, Arthur, Charlottenburg, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Converting photographic silver-prints into colored prints. No. 1,093,503; Apr. 14; Gaz. vol. 201; p. 504.
Travers, Harry. (See Lindstedt and Travers.)
Tregoning, John, New Haven, Conn. Combination sash-lock and alarm. No. 1,093,955; Apr. 21; Gaz. vol. 201; p. 698.
Treiber, William F., Corning, assignor to Ingersoll-Rand Company, New York, N. Y. Unloading device for compressors. No. 1,093,209; Apr. 14; Gaz. vol. 201; p. 439.
Trenton Electric and Conduit Company, The. (See Alpaugh, Clifford J., assignor.)
Tribett, Herbert E., Cameron, W. Va. Adjusting means for car-brakes. No. 1,094,274; Apr. 21; Gaz. vol. 201; p. 804.
Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,094,275; Apr. 21; Gaz. vol. 201; p. 804.



Trobeck, Enoch, Charlottenburg, Germany, assignor to The National-Acme Manufacturing Company, Cleveland, Ohio. Metal-working machine. No. 1,092,462; Apr. 7; Gaz. vol. 201; p. 117.
Tropp, Leopold, *et al.* (See Rivkin, Bert, assignor.)
Tross, Fred, Jr. (See Hines, Edward, assignor.)
Trounce, Frank W. (See Scott, Frederick C., assignor.)
Troutman, Roy J., Shamokin, Pa. Sanitary toilet-seat. No. 1,092,786; Apr. 7; Gaz. vol. 201; p. 227.
Troy Laundry Machinery Company Limited. (See Bartholomew, William, assignor.)
True, Charles H., assignor to The Railway Meterials Company, Chicago, Ill. Burner for oil-furnaces. No. 1,093,364; Apr. 14; Gaz. vol. 201; p. 461.
Tschudy, Frederick, Birmingham, Ala. Preventing deposition of carbon in reversing-furnaces. No. 1,093,895; Apr. 21; Gaz. vol. 201; p. 678.
Tuck, William W., assignor to Velox Manufacturing Company, New York, N. Y. Addressing-machine. No. 1,094,824; Apr. 28; Gaz. vol. 201; p. 1057.
Tucker, Benjamin W., Newark, N. J., assignor to J. B. Patton, Kent, Ohio. Tacking device. No. 1,093,300; Apr. 14; Gaz. vol. 201; p. 440.
Tucker, George E., assignor to E. Robinson, Springwater, N. Y. Road scraper and smoother. No. 1,092,676; Apr. 7; Gaz. vol. 201; p. 190.
Tuite, George S., Los Angeles, Cal. Concrete-form hanger. No. 1,094,496; Apr. 28; Gaz. vol. 201; p. 940.
Turitz, Morris M., *et al.* (See Rivkin, Bert, assignor.)
Turner, Charles P. (See Mitchell, William J., assignor.)
Turner, Emma A. (See Kemper, John T. and C. W., assignors.)
Turner, John A., Washington, D. C. Liquid-level indicator. No. 1,093,745; Apr. 21; Gaz. vol. 201; p. 628.
Turner, Walter V. (See Dewson and Turner.)
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pressure-governor for pumps. No. 1,093,660; Apr. 21; Gaz. vol. 201; p. 599.
Turnipseed, Jesse C., Griffin, Ga. Cultivator. No. 1,095,047; Apr. 28; Gaz. vol. 201; p. 1133.
Tweed, Herman D., *et al.* (See Harn, Charles B., assignor.)
Twiss, Richard S., Edgerton, Va. Mail-pouch. No. 1,092,962; Apr. 14; Gaz. vol. 201; p. 322.
Tyden, Emil, Hastings, Mich. Seal-lock. No. 1,093,661; Apr. 21; Gaz. vol. 201; p. 599.
Tyden, Emil, Hastings, Mich. Indicator-lock. No. 1,093,662; Apr. 21; Gaz. vol. 201; p. 600.
Tye, Anna R., St. Joseph, Mo. Automatic stop. No. 1,094,037; Apr. 21; Gaz. vol. 201; p. 725.
Tyler, Augustus, Wheeling, W. Va. Resilient tire. No. 1,092,963; Apr. 14; Gaz. vol. 201; p. 323.
Tyler, Clifford M. (See Bone, Jamieson, assignor.)
Tyler, Edward B. (See Staaf, Werner L., assignor.)
Tyler, Thaddeus F., Lawrence, Mass. Waterproofing apparatus. No. 1,092,761; Apr. 7; Gaz. vol. 201; p. 219.
Typograph G. m. b. H. (See Dorneth, Julius, assignor.)
Tywacana Farms Poultry Company. (See Hammond, Robert O., assignor.)
Udell, Frank L., and G. E. Predock, St. Louis, Mo. Clothes-pounder. No. 1,093,016; Apr. 14; Gaz. vol. 201; p. 340.
Uhlenkott, Herman W., Ferdinand, Idaho. Saw-set. No. 1,094,497; Apr. 28; Gaz. vol. 201; p. 940.
Ulrich, Charles A., Hoboken, N. J. Buffer. No. 1,094,498; Apr. 28; Gaz. vol. 201; p. 940.
Ulrey, Charles A., Villa Nueva, Argentina. Combustion-injected flash-generator. No. 1,093,896; Apr. 21; Gaz. vol. 201; p. 678.
Underhill, Charles R., Chancy, Miss. Rotary steam-engine. No. 1,094,276; Apr. 21; Gaz. vol. 201; p. 805.
Underwood Computing Machine Company. (See Jansson Charles A., assignor.)
Underwood Computing Machine Company. (See Wright, Walter, assignor.)
Underwood, John T. (See Stickney, Burnham C., assignor.)
Underwood Typewriter Company. (See Fuerth, William G., assignor.)
Underwood Typewriter Company. (See Gibbs, Charles, assignor.)
Underwood Typewriter Company. (See Lux, Julius K., assignor.)
Underwood Typewriter Company. (See Sokolov, Jacob, assignor.)
Underwood Typewriter Company. (See Stickney, Burnham C., assignor.)
Union Iron Works. (See Schalscha, Max, assignor.)
Union Lock Stitch Company. (See Merrick, Frank W., assignor.)
Union Metallic Cartridge Company, The. (See Hoagland, Frank O., assignor.)
Union Switch and Signal Company, The. (See Hawkins, Laurence A., assignor.)
Union Switch and Signal Company, The. (See Struble, Jacob B., assignor.)
Union Switch & Signal Company, The. (See Thullen, Louis H., assignor.)
United Aluminum Ingot Company. (See Mellen, Grenville, assignor.)
United Shoe Machinery Company. (See Bennion, Charles, assignor.)
United Shoe Machinery Company. (See Boyden, William A., assignor.)
United Shoe Machinery Company. (See Brogan, James A., assignor.)
United Shoe Machinery Company. (See Casgrain, Louis A., assignor.)
United Shoe Machinery Company. (See Collins, James E., assignor.)
United Shoe Machinery Company. (See Cuff, William H., assignor.)
United Shoe Machinery Company. (See Dow, John L., assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Fernald, Frank E., assignor.)
United Shoe Machinery Company. (See Hadaway, John D., assignor.)
United Shoe Machinery Company. (See Hill, George S., assignor.)
United Shoe Machinery Company. (See Julian, Gideon, assignor.)
United Shoe Machinery Company. (See Kaven, Moses B., assignor.)
United Shoe Machinery Company. (See Keyes, Eugene L., assignor.)
United Shoe Machinery Company. (See Latham, Albert, assignor.)
United Shoe Machinery Company. (See Nash, Frederick J., assignor.)
United Shoe Machinery Company. (See Plant, Thomas G., assignor.) (Reissue.)
United Shoe Machinery Company. (See Preble, Edwin N., assignor.)
United Shoe Machinery Company. (See Prenzel, Adam H., assignor.)
United Shoe Machinery Company. (See Russell, Arthur L., assignor.)
United Shoe Machinery Company. (See West, Alonzo E., assignor.)
United States Fastener Company. (See Humphrey, Ernest N., assignor.)
United-Xpedite Finishing Company. (See Beaudry, Zotique, assignor.)
United-Xpedite Finishing Company. (See Pease, Charles, assignor.)
Universal Electric Welding Company. (See Lachman, Laurence S., assignor.)
Universelle Cigaretten-Maschinen-Industrie System Otto Bergaträsser Aktiengesellschaft. (See Mühlbauer, Ernst C., assignor.)
Upham, Burt F., Chicago, Ill. Bed-motion for printing-presses. No. 1,094,405; Apr. 21; Gaz. vol. 201; p. 847.
Upshaw, Lucius L., Denison, Tex. Cotton-harvester. No. 1,092,762; Apr. 7; Gaz. vol. 201; p. 219.
Upson, Ralph H., assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Apparatus for heating inflating-gas in balloons. No. 1,092,611; Apr. 7; Gaz. vol. 201; p. 169.
Uptegraff, Alexander G., Lenox, Mass. Non-slip tread. No. 1,093,663; Apr. 21; Gaz. vol. 201; p. 601.
Ury, Julian J., *et al.* (See Mullins, Ollie, assignor.)
Vacula, Martin, Munhall, Pa. Automobile-lamp. No. 1,092,412; Apr. 7; Gaz. vol. 201; p. 99.
Vaillancourt, Joseph F., Fall River, Mass. Bobbin-cleaning device. No. 1,092,413; Apr. 7; Gaz. vol. 201; p. 99.
Valerius, Theodore L., Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill. Apparatus for soaking or sterilizing ice-cream cans. No. 1,094,499; Apr. 28; Gaz. vol. 201; p. 940.
Valerius, Theodore L., Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill. Ice-cream-can sterilizer. No. 1,094,500; Apr. 28; Gaz. vol. 201; p. 941.
Valliant, James R., Atlantic City, N. J. Igniting device. No. 1,093,217; Apr. 14; Gaz. vol. 201; p. 410.
Van Camp, Gordon R., Drayton, N. D. Motor plow and planter. No. 1,094,277; Apr. 21; Gaz. vol. 201; p. 805.
Van Cauwenbergh, Frank, Rockford, Ill. Molding-machine. No. 1,092,180; Apr. 7; Gaz. vol. 201; p. 21.
Van de Cruys, Henri. (See Cornand and Van de Cruys.)
Van den Plas, Antoine, Woluwe, St. Pierre-lez-Brussels, Belgium. Door-locking mechanism. No. 1,094,278; Apr. 21; Gaz. vol. 201; p. 805.
Van Derwerken, Theodore E., assignor of one-half to W. H. Rabbett, Green Island, N. Y. Device for turning automobile-headlights. No. 1,093,897; Apr. 21; Gaz. vol. 201; p. 679.
Van Horne, Thomas C. (See Dukesmith, Frank H., assignor.)
Van Houten, Frank H. (See Hanna and Van Houten.)
Van Kampen, Jan W. P., Watergraafsmeer, and G. A. Cox, Utrecht, Netherlands. Universal rifle-projectile. No. 1,094,305; Apr. 21; Gaz. vol. 201; p. 843.
Van Leir, Henry W., assignor, by mesne assignments, to S. S. Wenzell Machine Company, Philadelphia, Pa. Valve for bottle-filling apparatus. No. 1,093,365; Apr. 14; Gaz. vol. 201; p. 461.
Van Patten, George M., Council Bluffs, Iowa. End-gate. No. 1,093,218; Apr. 14; Gaz. vol. 201; p. 410.
Van Raalten, Cornelius D., Gempolkrep, near Modjokerto, Dutch East India. Shaking-sieve apparatus. No. 1,093,579; Apr. 14; Gaz. vol. 201; p. 527.
Van Vliet, Levi, and F. O'Neil, Pomona, Cal. Gas-generator. No. 1,094,762; Apr. 28; Gaz. vol. 201; p. 1035.
Van Zandt, Frederick N. (See Baldwin, James E., assignor.)

Vande, Gerard, Los Angeles, Cal. Vibrator. No. 1,093,301; Apr. 14; Gaz. vol. 201; p. 440.
Vanden Berg, Peter H., assignor to Pacific Electric Heating Company, Ontario, Cal. Alfalfa-gate. No. 1,092,187; Apr. 7; Gaz. vol. 201; p. 22.
Vander Ploeg, W. G., *et al.* (See Greenland, Loyd D., assignor.)
Vander Wilt, D., *et al.* (See Greenland, Loyd D., assignor.)
Vanneman, John M., Philadelphia, Pa. Garment. No. 1,092,677; Apr. 7; Gaz. vol. 201; p. 191.
Varia, Pietro, White Plains, N. Y. Vending-machine. No. 1,092,188; Apr. 7; Gaz. vol. 201; p. 22.
Varian, Samuel T., East Orange, N. J. Billiard-cue. No. 1,092,189; Apr. 7; Gaz. vol. 201; p. 22.
Varner, William J. (See Armor and Varner.)
Vaughan, Bernard G., assignor to National Match Company, Joliet, Ill. Match-splint-conveying apparatus. No. 1,093,366; Apr. 14; Gaz. vol. 201; p. 461.
Vaughan, David L., Riverton, N. J. Carrier for pneumatic-tire shoes. No. 1,092,463; Apr. 7; Gaz. vol. 201; p. 118.
Vaughan, Henry H., assignor to H. Osborne, W. A. Petersen, and said Vaughan, Montreal, Quebec, Canada. Means for turning crank-pins while in place in driving-wheels and boring the driving-wheel for the pin. No. 1,093,219; Apr. 14; Gaz. vol. 201; p. 411.
Vawter, Robert G., Woodstock, Va. Soldering-iron. No. 1,092,678; Apr. 7; Gaz. vol. 201; p. 191.
Veeder, Curtis H., assignor to The Veeder Manufacturing Company, Hartford, Conn. Setting glass. No. 1,093,580; Apr. 14; Gaz. vol. 201; p. 527.
Veeder Manufacturing Company, The. (See Veeder, Curtis H., assignor.)
Velox Manufacturing Company. (See Tuck, William W., assignor.)
Ver Planck, William E., Erie, Pa., assignor to General Electric Company. Controlling mechanism for internal-combustion engines. No. 1,094,406; Apr. 21; Gaz. vol. 201; p. 847.
Verbeyst, Martin, Park Ridge, N. J. Embossing apparatus. No. 1,093,664; Apr. 21; Gaz. vol. 201; p. 601.
Verciaire, Walter E., Chicago, Ill. Aeroplane. No. 1,093,746; Apr. 21; Gaz. vol. 201; p. 629.
Vereinigte Kunstseidefabriken A. G. (See Schniter, Karl, assignor.)
Vickers, Edwin J., New Comerstown, Ohio. Account-file. No. 1,093,956; Apr. 21; Gaz. vol. 201; p. 699.
Vickers Limited. (See Dawson and Buckham, assignors.)
Vickers Limited. (See Dawson and Horne, assignors.)
Vickers Limited. (See Smith, Franklin E., assignor.)
Vinquist, Charles R., Denver, Colo. Automatic vestibule-curtain holder. No. 1,092,190; Apr. 7; Gaz. vol. 201; p. 23.
Vinto, William H. (See Bell and Vinto.)
Virginia Laboratory Company. (See Seward and Kügelgen, assignors.)
Virtue, Dennis E., Owatonna, Minn. Silo. No. 1,093,898; Apr. 21; Gaz. vol. 201; p. 679.
Viz, Elemér, Kosd, and J. Muslay, Budapest, Austria-Hungary. Heat-generator. No. 1,092,312; Apr. 7; Gaz. vol. 201; p. 66.
Voglesong, Clyde C., Oakland, Cal. Change-making machine. No. 1,092,313; Apr. 7; Gaz. vol. 201; p. 67.
Vogt, Adelbert F., Detroit, Mich. Attachment for animal-traps. No. 1,092,612; Apr. 7; Gaz. vol. 201; p. 169.
Voight, Henry G., New Britain, Conn. Lock construction. No. 1,093,809; Apr. 21; Gaz. vol. 201; p. 649.
Voight, Henry G., New Britain, Conn. Lock mechanism. No. 1,093,810; Apr. 21; Gaz. vol. 201; p. 649.
Voight, Henry G., New Britain, Conn. Cylinder-lock mechanism. No. 1,093,811; Apr. 21; Gaz. vol. 201; p. 650.
Völler, Karl, Dusseldorf, Germany. Gun adapted preferably for use in submarine boats. No. 1,093,504; Apr. 14; Gaz. vol. 201; p. 504.
Völler, Karl, Dusseldorf, Germany. Gun adapted preferably for use in submarine boats. No. 1,095,049; Apr. 28; Gaz. vol. 201; p. 1134.
Völler, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Sighting device for guns. No. 1,095,048; Apr. 28; Gaz. vol. 201; p. 1133.
Volp, John, Grove City, assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-resisting shutter or curtain. No. 1,095,152; Apr. 28; Gaz. vol. 201; p. 1169.
Volz, Joseph, Englevale, N. D. Inkstand. No. 1,093,505; Apr. 14; Gaz. vol. 201; p. 504.
Voss, Otto, Summerville, S. C. Hat-fastener. No. 1,092,747; Apr. 21; Gaz. vol. 201; p. 629.
W. A. Plummer Manufacturing Company. (See Blake, George H., assignor.)
W. H. Miner Company. (See O'Connor, Martin A., assignor.)
W. S. Rockwell Company. (See Rockwell, Walter S., assignor.) (Reissue.)
Wachs und Cerosinwerke zu Hamburg J. Schliekum & Co. (See Boyen, Edgar C. W. A. von, assignor.)
Waddell, Edward B., Jr., assignor of one-third to H. A. Goodloe and one-third to M. White, Williamson, W. Va. Automatic safety-valve. No. 1,093,899; Apr. 21; Gaz. vol. 201; p. 680.
Wade, Thomas E., Philadelphia, Pa. Aerial amusement apparatus. No. 1,093,506; Apr. 14; Gaz. vol. 201; p. 504.
Wadsworth, Arthur W., Fort Thomas, Ky. Watch pendant and bow. No. 1,093,017; Apr. 14; Gaz. vol. 201; p. 340.
Wadsworth, George R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Footboard ventilation for motor-vehicles. No. 1,094,501; Apr. 28; Gaz. vol. 201; p. 942.
Wagner, Albert P. and O. H., North Detroit, Mich. Can-labeling machine. No. 1,094,349; Apr. 21; Gaz. vol. 201; p. 827.
Wagner Comb Manufacturing Co., The. (See Hellriegel, Edmund, assignor.)
Wagner Electric Manufacturing Company. (See Fynn, Valere A., assignor.)
Wagner, Hans, Ludwigsburg, Germany. Umbrella. No. 1,093,160; Apr. 14; Gaz. vol. 201; p. 391.
Wagner, John, New York, N. Y. Hasp-lock. No. 1,094,279; Apr. 21; Gaz. vol. 201; p. 806.
Wagner, John L., assignor to The Pneumelectric Machine Company, Syracuse, N. Y. Pressure-developing pneumatic tool. No. 1,093,302; Apr. 14; Gaz. vol. 201; p. 440.
Wagner, Oswin H. (See Wagner, Albert P. and O. H.)
Walke, Friedrich, Akron, Ohio. Closure for receptacles. No. 1,093,748; Apr. 21; Gaz. vol. 201; p. 629.
Waite, Harry L., Egremont, England. Sounding-machine. No. 1,094,703; Apr. 28; Gaz. vol. 201; p. 1035.
Waite, Harry L., Egremont, England. Sounding-machine. No. 1,094,868; Apr. 28; Gaz. vol. 201; p. 1071.
Waitt, George L., Buffalo, N. Y. Cotter. No. 1,092,876; Apr. 14; Gaz. vol. 201; p. 293.
Wakefield, Frederick W., assignor to The F. W. Wakefield Brass Company, Vermillion, Ohio. Terminal for electric-light fixtures. No. 1,093,367; Apr. 14; Gaz. vol. 201; p. 462.
Wald Manufacturing Company. (See Pawsat, Ewald F., assignor.)
Waldon, Sidney D., assignor to Packard Motor Car Company, Detroit, Mich. Muffler. No. 1,094,105; Apr. 21; Gaz. vol. 201; p. 748.
Walker, Harry S., assignor of three-eighths to J. R. Chambers, Corvallis, and one-fourth to L. A. Reed, Medford, Oreg. Moving-picture screen. No. 1,094,613; Apr. 28; Gaz. vol. 201; p. 980.
Walker, James H., and J. A. Olinger, West Chicago, Ill. Underreamer. No. 1,095,050; Apr. 28; Gaz. vol. 201; p. 1134.
Walker, Melbourne, Florence, Ontario, Canada. Valve. No. 1,094,688; Apr. 28; Gaz. vol. 201; p. 1008.
Walker-Wells Company. (See Wells, Harlan P., assignor.)
Wallace, Edwin L., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Machine to facilitate the use of cartons. No. 1,092,233; Apr. 7; Gaz. vol. 201; p. 37.
Wallace, James A., Troy, N. Y. Sharpening device. No. 1,092,877; Apr. 14; Gaz. vol. 201; p. 294.
Wallace, Mary E. (See Strippel, Albert E., assignor.)
Wallace Novelty Company. (See Green and Fornander, assignors.)
Walle, Carl G., New York, N. Y. Life-saving suit. No. 1,095,051; Apr. 28; Gaz. vol. 201; p. 1134.
Wallin, William H., Stromsburg, Nebr. Curtain-clasp. No. 1,092,679; Apr. 7; Gaz. vol. 201; p. 191.
Wallis Tractor Company. (See Hendrickson, Robert O., assignor.)
Walsh, William J., Hamilton, Ontario, Canada. Rotatable open-book rest. No. 1,093,220; Apr. 14; Gaz. vol. 201; p. 411.
Walter, Bertie E., Tulsa, Okla. Funnel. No. 1,094,350; Apr. 21; Gaz. vol. 201; p. 827.
Wappler, Reinhold H., assignor to D. T. Garrie, New York, N. Y. Therapeutic electric apparatus. No. 1,092,878; Apr. 14; Gaz. vol. 201; p. 294.
Ward, George R., New York, N. Y., assignor to The Wrapping Machine Company of America. Bread-wrapping machine. No. 1,094,614; Apr. 28; Gaz. vol. 201; p. 980.
Ward, John E., New York, N. Y., assignor to Standard Heat and Ventilation Company, Inc. Car-ventilator. No. 1,092,879; Apr. 14; Gaz. vol. 201; p. 294.
Ward, Lewis G., William, W. Va. Belt-cutting machine. No. 1,092,547; Apr. 7; Gaz. vol. 201; p. 146.
Wardwell, Simon W., Providence, R. I. Winding-machine. No. 1,093,900; Apr. 21; Gaz. vol. 201; p. 680.
Waring, Vechten, Brooklyn, N. Y. Page-holder for books and the like. No. 1,094,502; Apr. 28; Gaz. vol. 201; p. 942.
Warme, Ivar F., Syracuse, N. Y., assignor, by mesne assignments, to Continental Can Company, Inc. Mechanism for feeding can ends. No. 1,092,613; Apr. 7, Gaz. vol. 201; p. 169.
Warme, Ivar F., Syracuse, N. Y., assignor, by mesne assignments, to Continental Can Company, Inc. Lap-seam-body maker. No. 1,094,179; Apr. 21; Gaz. vol. 201; p. 775.
Warnick, Edward W., Cuyahoga Falls, Ohio. Trolley-wheel guard. No. 1,093,507; Apr. 14; Gaz. vol. 201; p. 505.
Warren, Henry E., *et al.* (See Warren, John N., assignor.)
Warren, Henry E., assignor to The Lombard Governor Company, Ashland, Mass. Mechanism for controlling the speed of turbines or other prime movers connected in parallel. No. 1,095,178; Apr. 28; Gaz. vol. 201; p. 1180.





Warren, John N., assignor of one-third to H. E. Warren and one-third to H. E. Mack, Jr., Lancaster, Pa. Tool-post screw and making the same. No. 1,094,825; Apr. 28; Gaz. vol. 201; p. 1057.
Warren, John R., Grand Rapids, Mich. Internal-combustion engine. No. 1,092,787; Apr. 7; Gaz. vol. 201; p. 227.
Warren, Peter R., Boston, Mass. Display-card. No. 1,093,303; Apr. 14; Gaz. vol. 201; p. 441.
Warren Webster & Company. (See Osbourn, Millard P., assignor.)
Washburne, James V., Fulton, N. Y. Loose-leaf binder. No. 1,094,951; Apr. 28; Gaz. vol. 201; p. 1101.
Wasley, Thomas E., San Jose, Cal. Apparatus for incinerating refuse material. No. 1,094,503; Apr. 28; Gaz. vol. 201; p. 942.
Waterbury Farrel Foundry and Machine Company, The. (See Nickerson, Clarendon, assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)
Waterbury Mfg. Co. (See Monaghan, William J., assignor.)
Watrigant, Henri L. A. M. (See Guignard and Watrigant.)
Watrous, Earl G., Chicago, Ill. Liquid-soap fixture. No. 1,094,615; Apr. 28; Gaz. vol. 201; p. 981.
Watson, J. R., Jr. (See Morse, Mark S., assignor.)
Watson Manufacturing Company. (See Watson and Carlson, assignors.)
Watson, William A., Malden, assignor to National Piano Company, Bos[illegible] Mass. Pneumatic valve mechanism. No. 1,094,351; Ap[illegible] 21; Gaz. vol. 201; p. 827.
Watson, William W., a[illegible] J. G. Carlson, assignors to Watson Manufacturing Company, Jamestown, N. Y. Metallic roller. No. 1,092,464; Apr. 7; Gaz. vol. 201; p. 118.
Watters, John H., Augusta, Ga. Track-sander. No. 1,092,680; Apr. 7; Gaz. vol. 201; p. 191.
Watts, John W., Paducah, Ky. Ventilating sash-lock. No. 1,092,234; Apr. 7; Gaz. vol. 201; p. 37.
Waverley Company. (See Kennedy, Harold H., assignor.)
Way, David R., Fairfield, Iowa. Gas-generator. No. 1,094,280; Apr. 21; Gaz. vol. 201; p. 806.
Way, Raymond S., assignor of one-half to C. W. Pressley, Los Angeles, Cal. Foldable gas-stove. No. 1,092,681; Apr. 7; Gaz. vol. 201; p. 192.
Weaver, Charles H. and R. W., South Bethlehem, Pa. Mechanical fingering device for stringed musical instruments. No. 1,094,038; Apr. 21; Gaz. vol. 201; p. 725.
Weaver, Rollin W. (See Weaver, Charles H. and R. W.)
Weaver, Victor M., Harrisburg, Pa. Cyanamid-producing apparatus. No. 1,093,749; Apr. 21; Gaz. vol. 201; p. 630.
Webb, James E. (See Alge, Webb, and Henson.)
Webber, Herbert S. (See Leland and Webber.)
Weber, Adolphus B., Kaufman, Ill. Fishing-pole support. No. 1,092,548; Apr. 7; Gaz. vol. 201; p. 146.
Weber, August, Sr., and J., assignors to Weber Electric Company, Schenectady, N. Y. Case for incandescent-electric-lamp sockets. No. 1,093,221; Apr. 14; Gaz. vol. 201; p. 411.
Weber, Carl S., Hackensack, N. J. Egg-holder. No. 1,092,682; Apr. 7; Gaz. vol. 201; p. 192.
Weber, Charles H., Hilliard, Ohio. Resilient vehicle-wheel. No. 1,094,616; Apr. 28; Gaz. vol. 201; p. 981.
Weber Electric Company. (See Weber, August, Sr., and J., assignors.)
Weber, George W., assignor to American Can Company, New York, N. Y. Advertising-button. No. 1,094,952; Apr. 28; Gaz. vol. 201; p. 1101.
Weber, John. (See Weber, August, Sr., and J.)
Webster, Edward W. (See Ericsson, Gustav E., assignor.)
Webster, Fay H., Marvell, Ark. Street-indicator for cars. No. 1,093,508; Apr. 14; Gaz. vol. 201; p. 505.
Webster, George M., Fort Dodge, Iowa. Seed-cleaner. No. 1,092,191; Apr. 7; Gaz. vol. 201; p. 23.
Wechsler, Leopold, and R. Scherer, New York, N. Y. Railway-spike. No. 1,095,052; Apr. 28; Gaz. vol. 201; p. 1135.
Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,094,953; Apr. 28; Gaz. vol. 201; p. 1101.
Wedge, Utley, Ardmore, Pa. Metallurgical furnace. No. 1,094,954; Apr. 28; Gaz. vol. 201; p. 1102.
Weeden, John E., Somersworth, N. H. Last. No. 1,093,665; Apr. 21; Gaz. vol. 201; p. 601.
Weeks, Charlie E., assignor of one-third to E. J. Cook, Oakland, and one-third to H. Leon, San Francisco, Cal. Paper-roll abutter. No. 1,094,765; Apr. 28; Gaz. vol. 201; p. 1036.
Wegener, Arnold H., Hoboken, N. J. Nut-lock. No. 1,093,666; Apr. 21; Gaz. vol. 201; p. 602.
Wehner, George A., Savannah, Ga. Target. No. 1,093,667; Apr. 21; Gaz. vol. 201; p. 602.
Weidmann Silk Dyeing Co. (See Meili, Ernest, assignor.)
Weidner, Harvey H., Plymouth, Ind. Photograph-printing stand. No. 1,093,509; Apr. 14; Gaz. vol. 201; p. 506.
Weinberg, Ike J., assignor, by mesne assignments, to Dixie Cotton Felt Mattress Company, Chicago, Ill. Machine for filling compartment-mattresses. No. 1,093,668; Apr. 21; Gaz. vol. 201; p. 603.
Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Electrode. No. 1,093,957; Apr. 21; Gaz. vol. 201; p. 699.
Weintraub, Ezechiel, and A. E. Hibschman, Lynn, Mass., assignors to General Electric Company. Vapor electric device. No. 1,093,368; Apr. 14; Gaz. vol. 201; p. 462.
Weintraub, Ezechiel, and F. A. Kroner, Lynn, Mass., assignors to General Electric Company. Refractory fibrous material and making the same. No. 1,094,352; Apr. 21; Gaz. vol. 201; p. 828.
Weis, John P., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Looper mechanism for sewing-machines. No. 1,094,353; Apr. 21; Gaz. vol. 201; p. 828.
Weise, Clarence H., and F. A. McAuvie, Archbald, Pa.; said McAuvie assignor to said Weise. Moving-picture machine. No. 1,092,549; Apr. 7; Gaz. vol. 201; p. 146.
Weiss, Christian, Nuremberg, F. Bürker, Trossingen, Wurttemberg, and M. Heuschkel, Stuttgart, assignors to Württembergische Harmonikafabrik Ch. Weiss, Trossingen, Germany. Metal harmonica. No. 1,094,180; Apr. 21; Gaz. vol. 201; p. 775.
Weiss, José, Houghton, Arundel, and A. Keith, London, England. Wing or supporting-plane for aeroplanes and aerial machines. No. 1,092,192; Apr. 7; Gaz. vol. 201; p. 23.
Weissberg, Ernst, Cassel, Germany. Electric safety-fuse. No. 1,092,805; Apr. 7; Gaz. vol. 201; p. 234.
Welby, Harry S., Fresno, Cal. Combination tripod and staff. No. 1,093,750; Apr. 21; Gaz. vol. 201; p. 630.
Welch, Albert G., executor. (See Woods, Edwin S.)
Welin, Axel, London, England, assignor to Welin Marine Equipment Company. Apparatus for hoisting and lowering ships' boats. No. 1,094,617; Apr. 28; Gaz. vol. 201; p. 981.
Welin Marine Equipment Company. (See Welin, Axel, assignor.)
Wellisch, Ferdinand J., London, England. Lock. No. 1,092,414; Apr. 7; Gaz. vol. 201; p. 100.
Wellman, Willie F., Hoxie, Kans. Detachable bedstead side. No. 1,093,958; Apr. 21; Gaz. vol. 201; p. 699.
Wells, Harlan P., Amesbury, Mass., assignor to Walker-Wells Company. Vehicle door-lock. No. 1,093,812; Apr. 21; Gaz. vol. 201; p. 650.
Welter, Grover C., Roswell, N. Mex. Folding box. No. 1,094,764; Apr. 28; Gaz. vol. 201; p. 1036.
Welter, William F., Chicago, Ill. Box-staying machine. No. 1,092,614; Apr. 7; Gaz. vol. 201; p. 170.
Wendell, H. F. (See Beeney, Maurice J. and E. W., assignors.)
Wentling, Jacob E. (See Mauck and Wentling.)
Wenzelmann, Gustave. (See Shoemaker, William B., assignor.)
Wenzelmann, Gustave, Galesburg, Ill. Electric stove or iron. No. 1,093,510; Apr. 14; Gaz. vol. 201; p. 506.
West, Alonzo E., Portsmouth, Ohio, assignor to United Shoe Machinery Company, Paterson, N. J. Lubricating device for the shields of edge-trimming machines for shoes. No. 1,092,465; Apr. 7; Gaz. vol. 201; p. 118.
West, Earl E., assignor of one-half to W. H. Jarrett, Bridgeport, Ill. Well-bailing device. No. 1,092,788; Apr. 7; Gaz. vol. 201; p. 228.
West, Thomas J., Makawell, Hawaii. Cane-conveyer. No. 1,094,281; Apr. 21; Gaz. vol. 201; p. 806.
Western Electric Company. (See De Vignier, Robert M., assignor.)
Western Electric Company. (See Rainey, Paul M., assignor.)
Western Electric Company. (See Reeves, Frank N., assignor.)
Western Electric Company. (See Shreeve, Herbert E., assignor.)
Western Electric Company. (See Stoll, Clarence G., assignor.)
Western Electric Company. (See Winans, Milton E., assignor.)
Western Novelty and Manufacturing Company. (See De Witt, Frank W., assignor.)
Western Union Telegraph Company, The. (See D'Humy, Fernand E., assignor.)
Westinghouse Air Brake Company, The. (See Dewson and Turner, assignors.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Lamp Company. (See Sweet, Arthur J., assignor.)
Weston, George G., St. Louis, Mo. Locomotive-fireman's coal-shoveling recorder. No. 1,092,466; Apr. 7; Gaz. vol. 201; p. 119.
Weston, Herbert T., Cleveland, Ohio. Apparatus for treating fluids. No. 1,094,618; Apr. 28; Gaz. vol. 201; p. 982.
Weston, John R., Dubuque, Iowa. Hitching-post. No. 1,093,089; Apr. 14; Gaz. vol. 201; p. 366.
Wetcarbonizing Limited. (See Testrup and Söderlund, assignors.)
Wetter, Ralph E., Dallas, Tex. Automatic service-switch. No. 1,092,415; Apr. 7; Gaz. vol. 201; p. 100.
Weyman-Bruton Company. (See Thom, James C., assignor.)
Whalen, Michael H., New York, N. Y. Bottle. No. 1,093,959; Apr. 21; Gaz. vol. 201; p. 700.
Wharmby, James. (See Corliss and Wharmby.)
Wheary, George H., Racine, Wis. Hanger-fixture for trunks. No. 1,093,224; Apr. 14; Gaz. vol. 201; p. 412.
Wheary, George H., Racine, Wis. Wardrobe-trunk. No. 1,093,225; Apr. 14; Gaz. vol. 201; p. 413.
Wheary, George H., Racine, Wis. Inside pad for trunks. No. 1,093,226; Apr. 14; Gaz. vol. 201; p. 413.

Wheary, George H., Racine, Wis., assignor to Hartmann Trunk Company. Clothes-retainer. No. 1,093,222; Apr. 14; Gaz. vol. 201; p. 411.

Wheary, George H., assignor to The Hartmann Trunk Company, Racine, Wis. Trunk. No. 1,093,223; Apr. 14; Gaz. vol. 201; p. 412.

Wheeler Condenser and Engineering Company. (See Christie, Evi W., assignor.)

Wheeler, Enoch S., Moline, Ill. Cooking utensil. No. 1,093,227; Apr. 14; Gaz. vol. 201; p. 414.

Wheeler, George E., assignor to The Burlington Separator Co., Burlington, Iowa. Butter-separator. No. 1,093,751; Apr. 21; Gaz. vol. 201; p. 630.

Wheeler, Seth, Albany, N. Y. Paper-package. No. 1,092,193; Apr. 7; Gaz. vol. 201; p. 24.

Wheeler, Webster B., Washington, D. C. Coin or check controlled apparatus. No. 1,093,511; Apr. 14; Gaz. vol. 201; p. 506.

Whipple, Benjamin H., Forest City, Mo. Attachment for disk furrow-cultivators. No. 1,094,504; Apr. 28; Gaz. vol. 201; p. 943.

White, Arthur M., assignor to S. R. White's Sons, Norfolk, Va. Plow. No. 1,094,282; Apr. 21; Gaz. vol. 201; p. 806.

White, Calvin N., Maricopa, Cal. Electromagnetic fishing-tool. No. 1,094,196; Apr. 21; Gaz. vol. 201; p. 749.

White, Charles E., Wilmette, Ill. Feeding-basket for birds. No. 1,092,314; Apr. 7; Gaz. vol. 201; p. 67.

White, Charles E., San Francisco, and C. H. McIntosh, Berkeley, Cal. Internal-combustion pump. No. 1,093,669; Apr. 21; Gaz. vol. 201; p. 603.

White, Edward J., Newark, N. J. Tool-holder. No. 1,092,615; Apr. 7; Gaz. vol. 201; p. 170.

White, Frank C., assignor to The Wilcox & White Company, Meriden, Conn. Expression-controller. No. 1,093,228; Apr. 14; Gaz. vol. 201; p. 414.

White, Frank C., assignor to The Wilcox & White Company, Meriden, Conn. Automatic rewind and stop mechanism for mechanical music-playing instruments. No. 1,093,813; Apr. 21; Gaz. vol. 201; p. 651.

White, Frederick G. (See Beaumont and White.)

White, George J. (See Newport, William A., assignor.)

White-Haines Optical Company, The. (See Hubbell, Daniel D., assignor.)

White, Kirk H., Oswego, assignor of one-half to M. S. Ely, New York, N. Y. Union suit. No. 1,093,018; Apr. 14; Gaz. vol. 201; p. 341.

White, Montezuma, *et al.* (See Waddell, Edward B., Jr., assignor.)

White, Morris C., and O. C. Duryea, Chicago, Ill. Briquetting-machine. No. 1,094,039; Apr. 21; Gaz. vol. 201; p. 726.

White, Samuel R., Bloomington, Ill. Heat-distributing system. No. 1,094,040; Apr. 21; Gaz. vol. 201; p. 726.

Whitehead, Richard A. (See Clubb and Whitehead.)

White's Sons, S. R. (See White, Arthur M., assignor.)

Whiting, Max A., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,093,670; Apr. 21; Gaz. vol. 201; p. 604.

Whitmore, George, Mulberry, Kans. Music-leaf turner. No. 1,093,690; Apr. 14; Gaz. vol. 201; p. 366.

Whitney, Willis R., Schenectady, N. Y., assignor to General Electric Company. Sheathed-wire terminal. No. 1,093,512; Apr. 14; Gaz. vol. 201; p. 507.

Whitney, Willis R., Schenectady, N. Y., assignor to General Electric Company. Purification of asbestos. No. 1,094,505; Apr. 28; Gaz. vol. 201; p. 943.

Whittemore, Bennie, Albert Lea, Minn. Road drag and grader. No. 1,093,814; Apr. 21; Gaz. vol. 201; p. 651.

Whittier, Frederick G., Brookline, assignor to The Lamson Company, Boston, Mass. Parcel-routing apparatus. No. 1,093,815; Apr. 21; Gaz. vol. 201; p. 650.

Wholey, Timothy J., Philadelphia, Pa. Wheel-flange lubricator. No. 1,094,955; Apr. 28; Gaz. vol. 201; p. 1102.

Wick, Charles, Miami, Ariz. Match-box. No. 1,094,283; Apr. 21; Gaz. vol. 201; p. 807.

Wickersham, Alfred, Sunnydale, Cal., assignor to Atmospheric Clarifier Co. Air-washer. No. 1,094,107; Apr. 21; Gaz. vol. 201; p. 749.

Wickham, Charles M., Rockford, Ill. Spike. No. 1,092,683; Apr. 7; Gaz. vol. 201; p. 192.

Wickman, Albin E., Willmar, Minn. Vehicle-wheel. No. 1,094,956; Apr. 28; Gaz. vol. 201; p. 1102.

Wicks, Herbert, Cleveland, Ohio. Electric iron. No. 1,094,506; Apr. 28; Gaz. vol. 201; p. 943.

Wickwire Brothers. (See Wickwire, Theodore H., assignor.)

Wickwire, Theodore H., assignor to Wickwire Brothers, Inc., Cortland, N. Y. Manufacture of woven wire fabric. No. 1,094,507; Apr. 28; Gaz. vol. 201; p. 943.

Widerkehr, Joseph, Colmar, Germany. Apparatus for prevention of dust on motor-vehicles. No. 1,092,416; Apr. 7; Gaz. vol. 201; p. 101.

Widman, Theodor R., East Twickenham, England. Mud-guard for road-vehicles. No. 1,095,053; Apr. 28; Gaz. vol. 201; p. 1135.

Widmayer, William, Chicago, Ill. Carpet-beater. No. 1,094,619; Apr. 28; Gaz. vol. 201; p. 982.

Wieda, Ernst F. W., Paterson, N. J. Treating milk and milk products. No. 1,092,616; Apr. 7; Gaz. vol. 201; p. 170.

Wiegand, Cris W., Los Angeles, Cal. Mirror. No. 1,092,965; Apr. 14; Gaz. vol. 201; p. 323.

Wiegand, Henry J., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Rheostat. No. 1,092,880; Apr. 14; Gaz. vol. 201; p. 295.

Wieland, Friedrich, East Rutherford, N. J., assignor to The Arlington Company, New York, N. Y. Manufacturing combs. No. 1,092,881; Apr. 14; Gaz. vol. 201; p. 295.

Wieland, Friedrich, East Rutherford, N. J., assignor to The Arlington Company, New York, N. Y. Die. No. 1,092,882; Apr. 14; Gaz. vol. 201; p. 295.

Wieland, Friedrich, Poughkeepsie, assignor to The Arlington Company, New York, N. Y. Manufacture of combs. No. 1,092,883; Apr. 14; Gaz. vol. 201; p. 295.

Wieland, Friedrich, Poughkeepsie, assignor to The Arlington Company, New York, N. Y. Manufacture of combs. No. 1,092,884; Apr. 14; Gaz. vol. 201; p. 296.

Wiesenfeld, Robert, Baltimore, Md. Fish-tongs. No. 1,095,054; Apr. 28; Gaz. vol. 201; p. 1135.

Wiggin, Albert E., *et al.* (See Garred, Ulysses A., assignor.)

Wigginton, George P., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,093,369; Apr. 14; Gaz. vol. 201; p. 462.

Wigginton, George P., assignor to Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich. Temporary binder or loose-sheet holder. No. 1,093,370; Apr. 14; Gaz. vol. 201; p. 463.

Wilamport Company Limited, The. (See Anderson, Robert H., assignor.)

Wilbur S. Steele Co., The. (See Daw, William P., assignor.)

Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Hopper mechanism. No. 1,094,766; Apr. 28; Gaz. vol. 201; p. 1036.

Wilcox & White Company, The. (See White, Frank C., assignor.)

Wilde, Arthur E., New York, N. Y. Syringe. No. 1,092,684; Apr. 7; Gaz. vol. 201; p. 193.

Wiley, Elmer L., Marion, Kans. Door-hanger. No. 1,092,617; Apr. 7; Gaz. vol. 201; p. 171.

Wiley, Thompson H., Omaha, Nebr. Door-lock keeper. No. 1,093,816; Apr. 21; Gaz. vol. 201; p. 652.

Wilford, Albert, Baltimore, Md. Conveyer. No. 1,094,508; Apr. 28; Gaz. vol. 201; p. 943.

Wilhelm, Edward A. (See Crosby, Wilhelm, and Brink.)

Wilkie, Richard S., Baker, Oreg. Rotary engine. No. 1,094,284; Apr. 21; Gaz. vol. 201; p. 807.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Recording flow-meter. No. 1,092,966; Apr. 14; Gaz. vol. 201; p. 323.

Wilkinson, James, Schenectady, N. Y., assignor to General Electric Company. Damper-regulator. No. 1,093,161; Apr. 14; Gaz. vol. 201; p. 391.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Pitot plug for fluid-meters. No. 1,093,229; Apr. 14; Gaz. vol. 201; p. 415.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Steam-boiler control. No. 1,095,133; Apr. 28; Gaz. vol. 201; p. 1161.

Willcox, Harry S., Oxford, N. Y. Hay-rack. No. 1,093,304; Apr. 14; Gaz. vol. 201; p. 442.

William Beehler, Inc. (See Beehler, William H., assignor.)

Williams, Benjamin, Worcester, Mass. Mop-wringer. No. 1,093,671; Apr. 21; Gaz. vol. 201; p. 804.

Williams, Edward L., assignor of one-half to A. A. Wyckoff, Santa Cruz, Cal. Lock. No. 1,093,817; Apr. 21; Gaz. vol. 201; p. 653.

Williams, George B., Pittsburgh, Pa. Draftsman's device. No. 1,094,041; Apr. 21; Gaz. vol. 201; p. 726.

Williams, Harold S., Caldwell, Idaho. Flume or conduit. No. 1,092,315; Apr. 7; Gaz. vol. 201; p. 67.

Williams, John T. (See Brandt, Charles M., assignor.)

Williams, Joseph A., Cleveland, Ohio. Ignition apparatus. No. 1,092,417; Apr. 7; Gaz. vol. 201; p. 101.

Williams, Roger T., Sandusky, N. Y. Wood-sawing machine. No. 1,093,513; Apr. 14; Gaz. vol. 201; p. 507.

Williams, Roy O., and H. B. Coen, Columbus, Ohio. Water-cooling device. No. 1,092,316; Apr. 7; Gaz. vol. 201; p. 68.

Williams, Thomas C., assignor of one-half to B. G. Call, Garfield, Utah. Water-closet cistern. No. 1,092,317; Apr. 7; Gaz. vol. 201; p. 68.

Williams, Victor, *et al.* (See Lockhart, Robert R., assignor.)

Williams, William E., Chicago, Ill. Railway-car ladder. No. 1,093,019; Apr. 14; Gaz. vol. 201; p. 341.

Williams, William E., Chicago, Ill. Ladder for railway-cars. No. 1,093,020; Apr. 14; Gaz. vol. 201; p. 341.

Williams, William E., Chicago, Ill. Freight-car ladder. No. 1,093,021; Apr. 14; Gaz. vol. 201; p. 341.

Williams, William E., Chicago, Ill. Preserving railway-tie timber against injury from splitting and decay. No. 1,093,230; Apr. 14; Gaz. vol. 201; p. 415.

Williamson, James C., Cordele, Ga. Rope take-up. No. 1,092,618; Apr. 7; Gaz. vol. 201; p. 171.

Willing, Charley R., *et al.* (See Babbitt, Elwin J., assignor.)

Willis, Samuel B., New York, N. Y. Fire-fighting apparatus. No. 1,094,285; Apr. 21; Gaz. vol. 201; p. 807.

Wilmowsky, Erwin F. von, deceased, Boston, Mass.; E. J. Prindle, executor, assignor to O. Pieper, Potsdam, Germany. Electric furnace and process of heating substances. No. 1,094,354; Apr. 21; Gaz. vol. 201; p. 628.



Wilmowsky, Erwin F. von, deceased, Boston, Mass.; E. J. Prindle, executor, East Orange, N. J., assignor to O. Pieper, Potsdam, Germany. Electric furnace and process of heating substances uniformly and at a controllable temperature. No. 1,094,355; Apr. 21; Gaz. vol. 201; p. 629.

Wilmowsky, Erwin F. von, deceased, Boston, Mass.; E. J. Prindle, executor, assignor to O. Pieper, Potsdam, Germany. Electric furnace for and process of heating substances uniformly and at a controllable temperature in an electric arc. No. 1,094,381; Apr. 21; Gaz. vol. 201; p. 838.

Wilson, Elmer A., Niles, Ohio. Metal structure. No. 1,095,055; Apr. 28; Gaz. vol. 201; p. 1136.

Wilson, Hugh, Buffalo, N. Y. Thrust-bearing for propeller-shafts of ships. No. 1,094,620; Apr. 28; Gaz. vol. 201; p. 983.

Wilson, James C., Belchertown, Mass. Sectional pneumatic tire. No. 1,093,672; Apr. 21; Gaz. vol. 201; p. 604.

Wilson, James C., Milwaukee, Wis. Pompon-making machine. No. 1,094,042; Apr. 21; Gaz. vol. 201; p. 726.

Wilson, John A., assignor of one-half to G. Moore, Detroit, Mich. Valve. No. 1,093,514; Apr. 14; Gaz. vol. 201; p. 508.

Wilson, Paul. (See Wilson, Thomas, assignor.)

Wilson, Thomas, assignor of one-half to P. Wilson, Seattle, Wash. Incubator. No. 1,093,231; Apr. 14; Gaz. vol. 201; p. 415.

Wilson, Thomas F., Providence, R. I. Bracket for licenseplates. No. 1,093,515; Apr. 14; Gaz. vol. 201; p. 508.

Wilson, Wesley D., Cordele, Ga. Automatic weighing apparatus. No. 1,093,673; Apr. 21; Gaz. vol. 201; p. 605.

Wilson, William R., Yonkers, assignor to Alberger Condenser Company, New York, N. Y. Centrifugal, turbine, or similar pump. No. 1,094,181; Apr. 21; Gaz. vol. 201; p. 775.

Winans, Milton E., Newark, N. J., assignor to Western Electric Company, New York, N. Y. Safety device for power-presses. No. 1,092,467; Apr. 7; Gaz. vol. 201; p. 119.

Winans, Wesley G., Cleveland, Ohio. Device for securing carpets to stairs. No. 1,093,674; Apr. 21; Gaz. vol. 201; p. 605.

Winchester, Benjamin T., Windsor Hills, assignor, by mesne assignments, to Sharp and Dohme, Baltimore, Md. Capsule-holder. No. 1,092,318; Apr. 7; Gaz. vol. 201; p. 68.

Winchester, Benjamin T., Windsor Hills, assignor, by mesne assignments, to Sharp and Dohme, Baltimore, Md. Capsule-filling machine. No. 1,092,319; Apr. 7; Gaz. vol. 201; p. 69.

Winchester Repeating Arms Co. (See Buell, William H., assignor.)

Winchester Repeating Arms Co. (See Keen, Eliot, assignor.)

Winding, Arthur, and F. W. Gezelschap, Milwaukee, Wis. Building material and making same. No. 1,092,320; Apr. 7; Gaz. vol. 201; p. 69.

Winkley, Erastus E., Lynn, Mass. Machine for operating on shoes. No. 1,092,619; Apr. 7; Gaz. vol. 201; p. 171.

Winstead, Charles E., Wilson, N. C. Line holder and stretcher. No. 1,094,286; Apr. 21; Gaz. vol. 201; p. 808.

Winterhalter, George L. and H. E., Canton, Ohio. Display device or badge. No. 1,093,516; Apr. 14; Gaz. vol. 201; p. 508.

Winterhalter, Howard E. (See Winterhalter, George L. and H. E.)

Wintersteen, William R., Danville, Pa. Neck-yoke attachment. No. 1,093,091; Apr. 14; Gaz. vol. 201; p. 366.

Winton, Alexander, and H. B. Anderson, assignors to The Winton Motor Carriage Company, Cleveland, Ohio. Transmission-controlling mechanism for motor-vehicles. No. 1,095,056; Apr. 28; Gaz. vol. 201; p. 1136.

Winton Motor Carriage Company, The. (See Winton and Anderson, assignors.)

Wipiitzhauser, August, New York, assignor to McLoughlin Brothers, Brooklyn, N. Y. Toy tent. No. 1,092,321; Apr. 7; Gaz. vol. 201; p. 69.

Wirsching, Louis, New York, N. Y. Veterinary surgeon's tool. No. 1,093,675; Apr. 21; Gaz. vol. 201; p. 606.

Wirth, William M., St. Louis, Mo. Separable rim for automobile-wheels. No. 1,094,509; Apr. 28; Gaz. vol. 201; p. 944.

Wisconsin Electric Company. (See Beach, Chester H., assignor.)

Wise, George A., assignor to The Early Sun Stove Company, Newark, Ohio. Gas-heater. No. 1,094,287; Apr. 21; Gaz. vol. 201; p. 808.

Wismer, Michael W., Doylestown, Pa. Collar-button. No. 1,093,752; Apr. 21; Gaz. vol. 201; p. 631.

Witsch, Bertha M., administratrix. (See Witsch, Nicholas.)

Witsch, Nicholas, deceased, New York, N. Y.; B. M. Witsch, administratrix. Safety-bar for bank-vaults, prisons, &c. No. 1,094,043; Apr. 21; Gaz. vol. 201; p. 727.

Witt, Otto N., Westend, near Berlin, assignor to Actien Gesellschaft für Anilin Fabrikation, Berlin, Germany. Stable nitrobenzene-diazonium derivatives. No. 1,093,567; Apr. 14; Gaz. vol. 201; p. 523.

Wittemann, Rudolph A. (See Fitch, John F., assignor.)

Witter, William S., Toledo, Iowa. Spark-plug. No. 1,092,322; Apr. 7; Gaz. vol. 201; p. 69.

Wittman, William C. (See Smetana, Maximilian, assignor.)

Woerner, Leo, St. Louis, Mo. Steam-trap. No. 1,094,108; Apr. 21; Gaz. vol. 201; p. 750.

Wohl, Charles J., El Paso, Tex. Ticket-holder. No. 1,093,517; Apr. 14; Gaz. vol. 201; p. 508.

Woidich, Franz, Prague-Weinberge, Austria-Hungary. Process and apparatus for wood distillation. No. 1,092,620; Apr. 7; Gaz. vol. 201; p. 172.

Wolf, Aaron, assignor to F. Wolf, New York, N. Y. Support for garment-hangers. No. 1,093,232; Apr. 14; Gaz. vol. 201; p. 416.

Wolf, Charles A., Philadelphia, Pa. Crotalin preparation. No. 1,092,550; Apr. 7; Gaz. vol. 201; p. 146.

Wolf, Fannie. (See Wolf, Aaron, assignor.)

Wolf, Hans. (See Boach, Mittasch, Wolf, and Stern.)

Wolf, Hans, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing oxids of nitrogen. No. 1,094,182; Apr. 21; Gaz. vol. 201; p. 775.

Wolf, Rudolf, Magdeburg-Buckau, Germany. Piston-valve for steam-engines. No. 1,092,967; Apr. 14; Gaz. vol. 201; p. 324.

Wolf, Rudolf, Magdeburg-Buckau, Germany. Piston distributing-valve for compound steam-engines. No. 1,095,057; Apr. 28; Gaz. vol. 201; p. 1136.

Wolfe, Edward A., Indianola, Iowa. Trunk-filler. No. 1,092,235; Apr. 7; Gaz. vol. 201; p. 38.

Wolff, Hans, assignor to Gebrüder Schubert, Berlin, Germany. Adhesive rosinous preparation and producing the same. No. 1,095,058; Apr. 28; Gaz. vol. 201; p. 1137.

Wolff, Max, Southwark, London, England. Making printing-ink. No. 1,094,288; Apr. 21; Gaz. vol. 201; p. 808.

Wolff, Oscar M. (See Heck, Amsi G., assignor.)

Wood, Frank W., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y. Indicating system for turrets. No. 1,094,689; Apr. 28; Gaz. vol. 201; p. 1008.

Wood, Frank W., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y. Switch. No. 1,094,690; Apr. 28; Gaz. vol. 201; p. 1009.

Wood, Frank W., assignor, by mesne assignments, to Charles Cory & Son, Inc., New York, N. Y. Electrical switch. No. 1,094,691; Apr. 28; Gaz. vol. 201; p. 1009.

Wood, John G., Detroit, Mich. Label for cans. No. 1,093,233; Apr. 14; Gaz. vol. 201; p. 416.

Wood, Louis A. (See Sox, David A., assignor.)

Wood, Robert, Westmount, Quebec, Canada, assignor to Nathan Manufacturing Co., New York, N. Y. Automatic oiler. No. 1,092,194; Apr. 7; Gaz. vol. 201; p. 24.

Woodruff, William H. (See McTaggart, Daniel B., assignor.)

Woods, Edwin S., deceased, Chicago, Ill.; A. G. Welch, executor. Antifriction-bearing. No. 1,094,957; Apr. 28; Gaz. vol. 201; p. 1103.

Woody, Corydon A. (See Hutchings and Woody.)

Wootten, John A., Hot Springs, Ark. Wearing-apparel. No. 1,092,685; Apr. 7; Gaz. vol. 201; p. 193.

Workman, Edward E., assignor of one-half to E. Mees, Lyons, Ind. Mold for plastic blocks. No. 1,092,195; Apr. 7; Gaz. vol. 201; p. 25.

Worley, George L., assignor of one-half to C. F. Dehner, Kansas City, Mo. Road-oiling vehicle. No. 1,093,818; Apr. 21; Gaz. vol. 201; p. 653.

Worm, Fritz, assignor to German-American Portland Cement Works, La Salle, Ill. Cement-manufacturing apparatus. No. 1,092,551; Apr. 7; Gaz. vol. 201; p. 147.

Wörner, Johannes, Cannstatt, Germany, assignor of one-fourth to F. A. Bach, Chicago, Ill. Shaped or molded block for making ceilings. No. 1,092,621; Apr. 7; Gaz. vol. 201; p. 172.

Worthley, Annie L., Los Angeles, Cal. Bedclothes-holder. No. 1,092,468; Apr. 7; Gaz. vol. 201; p. 119.

Wrapping Machine Company, The. (See Ward, George R., assignor.)

Wrede, Albin C., Smithville, Tex. Copy-holder. No. 1,095,059; Apr. 28; Gaz. vol. 201; p. 1137.

Wright, Charles J. (See Smith and Wright.)

Wright, Edgar, Warren, Mass. Ice-cutting machine. No. 1,094,396; Apr. 21; Gaz. vol. 201; p. 844.

Wright, Edwin B., Hoxie, Ark. Car-replacer. No. 1,093,960; Apr. 21; Gaz. vol. 201; p. 700.

Wright, Francis M. (See Clarke, George W., assignor.)

Wright, Leslie L., New York, N. Y. Floor. No. 1,094,183; Apr. 21; Gaz. vol. 201; p. 775.

Wright, Norman A., Pontiac, Mich. Spray-nozzle. No. 1,095,134; Apr. 28; Gaz. vol. 201; p. 1162.

Wright, Oscar, Pennant Hills, near Sydney, New South Wales, Australia. Manufacture of charcoal. No. 1,092,418; Apr. 7; Gaz. vol. 201; p. 102.

Wright, Walter, San Francisco, Cal., assignor, by mesne assignments, to Underwood Computing Machine Company, New York, N. Y. Adding attachment for typewriting machines. No. 1,095,060; Apr. 28; Gaz. vol. 201; p. 1137.

Wright, Walter B., Chicago, Ill. Storage bin or hopper. No. 1,094,826; Apr. 28; Gaz. vol. 201; p. 1057.

Wright, Walter S. (See Talbott and Wright.)

Wright, William C., assignor of one-half to F. E. Lack, Paducah, Ky. Machine for uniting knit fabrics. No. 1,092,885; Apr. 14; Gaz. vol. 201; p. 296.

Wright, William E., *et al.* (See Lockhart, Robert R., assignor.)

Wrikeman, John S., Kilgore, Ohio. Hinge. No. 1,092,236; Apr. 7; Gaz. vol. 201; p. 38.

Württembergische Harmonikafabrik Ch. Weiss. (See Weiss, Bürker, and Heuschkel, assignors.)
Wyckoff, Amos A. (See Williams, Edward L., assignor.)
Wyllys, Frank, Atlanta, assignor of one-fourth to O. A. Phelps, Gaylord, and six twenty-fifths to H. Lunden, Briley, Mich. Tire-protector. No. 1,094,827; Apr. 28; Gaz. vol. 201; p. 1058.
Wyman, Horace B., Houston, Tex. Carbureter. No. 1,093,901; Apr. 21; Gaz. vol. 201; p. 681.
Wymore, Joseph, Seattle, Wash. Moisture-proof box. No. 1,094,289; Apr. 21; Gaz. vol. 201; p. 808.
Wyvill, William H., and J. A. Talbott, Upper Marlboro, Md. Pipe-line coupling for railway-cars. No. 1,093,676; Apr. 21; Gaz. vol. 201; p. 606.
X. L. Electric Company Limited. (See Aron, Leonard J., assignor.)
Yale & Towne Manufacturing Company, The. (See Lewis, Rollin C., assignor.)
Yale & Towne Manufacturing Company, The. (See Regan, Joseph C., assignor.)
Yale & Towne Manufacturing Company, The. (See Taylor, Warren H., assignor.)
Yeaman, Thomas B., Nashville, Tenn. Resilient wheel-tire. No. 1,093,902; Apr. 21; Gaz. vol. 201; p. 681.
Yeomans, Gustavus R., Marietta, Ohio. Combination plug and valve. No. 1,093,961; Apr. 21; Gaz. vol. 201; p. 700.
Yessne, Herman, Duluth, Minn. Dress-goods steamer. No. 1,095,061; Apr. 28; Gaz. vol. 201; p. 1138.
Yingling, Harvy C., Baltimore, Md. Controlling device for gas-burners. No. 1,092,686; Apr. 7; Gaz. vol. 201; p. 193.
Yoder, Charles B. (See Allum and Perkins, assignors.)
Yokoseki, Jishiu, Seattle, Wash. Head-covering. No. 1,093,162; Apr. 14; Gaz. vol. 201; p. 392.
Yost Writing Machine Company. (See Kettlewell, Robert B., assignor.)
Youmans, Charles E., Yonkers, N. Y. Rock-drill. No. 1,092,886; Apr. 14; Gaz. vol. 201; p. 296.
Young, Charles W., Chicago, Ill. Regulator for hot-water heating systems. No. 1,094,382; Apr. 21; Gaz. vol. 201; p. 838.
Young, Daniel W., Jr., Chicago, Ill. Self-heating sad-iron. No. 1,092,196; Apr. 7; Gaz. vol. 201; p. 25.
Young, Harry W., Chicago, Ill. Fuse-holder. No. 1,095,135; Apr. 28; Gaz. vol. 201; p. 1162.
Young, Samuel M., New York, N. Y. System of automatic block-signaling for electric railways. No. 1,094,356; Apr. 21; Gaz. vol. 201; p. 829.
Young, Stewart W., Palo Alto, assignor to The Thiogen Company, San Francisco, Cal. Fume-destroying process. No. 1,094,767; Apr. 28; Gaz. vol. 201; p. 1037.
Young, Walter L., Newport Beach, Cal. Well-drilling bit. No. 1,095,062; Apr. 28; Gaz. vol. 201; p. 1138.
Yuhas, Louis, Chicago, Ill. Operating means for velocipedes. No. 1,092,197; Apr. 7; Gaz. vol. 201; p. 25.
Zackey, William W., Philadelphia, Pa., assignor of forty-nine one-hundredths to C. B. Hewitt, Burlington, N. J. Sound-box. No. 1,092,552; Apr. 7; Gaz. vol. 201; p. 147.
Zahn, Robert, Plauen, Germany. Fabric-winding device for embroidering-machines. No. 1,093,753; Apr. 21; Gaz. vol. 201; p. 631.
Zahn, Robert, Plauen, Germany. Tension-controlling means for embroidering-machines. No. 1,094,044; Apr. 21; Gaz. vol. 201; p. 727.
Zahn, Robert, Plauen, Germany. Automatic shuttle embroidering-machine. No. 1,094,510; Apr. 28; Gaz. vol. 201; p. 944.
Zander, John L., assignor to C. O. Sander, Irvington, N. J. Electric recorder. No. 1,092,323; Apr. 7; Gaz. vol. 201; p. 70.
Zapf, Frank C. (See Barringer and Zapf.)
Zboyoski, Joseph. (See Mellsch, John, assignor.)
Zedlitz, Rudolph W. (See Hassel and Zedlitz.)
Zeiser, John R., Berwick, Pa. Mold. No. 1,092,622; Apr. 7; Gaz. vol. 201; p. 172.
Zeiss, Firm of Carl. (See Konig, Albert, assignor.)
Zeiss, Firm of Carl. (See Rohr, Moritz von, assignor.)
Zellweger, John, St. Louis, Mo. Hot-air furnace. No. 1,093,022; Apr. 14; Gaz. vol. 201; p. 342.
Zerk, Oscar, Cleveland, Ohio, assignor, by mesne assignments, to G. W. Bowen, Auburn, N. Y. Thumb-screw. No. 1,094,768; Apr. 28; Gaz. vol. 201; p. 1037.
Zimmerman, Anton, New Trier, Minn. Marine propeller. No. 1,094,184; Apr. 21; Gaz. vol. 201; p. 776.
Zinsser, Frederick G. (See Nissinen and Hartwig, assignors.)
Zippler, Michael, Jr., Pittsburgh, Pa. Cupola-furnace. No. 1,092,623; Apr. 7; Gaz. vol. 201; p. 173.

# ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. Ziegler & Sons Co. (See Ziegler, Alfred M., assignor.)
A. H. Heisey & Co. (See Sanford, Andrew J., assignor.)
Abram Cox Stove Company. (See Van Buren, Jafew S., assignor.)
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Car-truck bolster. Nos. 45,682–3; Apr. 28; Gaz. vol. 201; p. 1186.
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Spring-cap. No. 45,684; Apr. 28; Gaz. vol. 201; p. 1186.
Almaker, Hermann, New York, N. Y. Collar. No. 45,611; Apr. 21; Gaz. vol. 201; p. 861.
August Goertz & Co. (See Eigen, Benno vom, assignor.)
Bailey, George R., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y. Casket-handle and lugs. No. 45,581; Apr. 14; Gaz. vol. 201; p. 534.
Bailey, George R., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y. Name-plate for caskets. No. 45,582; Apr. 14; Gaz. vol. 201; p. 534.
Bailey, George R., assignor to Sterling Casket Hardware Company, Brooklyn, N. Y. Casket-handle and lugs. No. 45,583; Apr. 14; Gaz. vol. 201; p. 534.
Barnes, Harry E., Topeka, Kans. Musical instrument. No. 45,685; Apr. 28; Gaz. vol. 201; p. 1186.
Beckwith, Estate of P. D. (See Howes, George W., assignor.)
Beetar, Kalil, New York, N. Y. Emblem. No. 45,549; Apr. 7; Gaz. vol. 201; p. 288.
Bigelow Carpet Company. (See Elliot, William A., assignor.)
Bigelow Carpet Company. (See Merry, John, assignor.)
Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
Bigelow Carpet Company. (See Spring, William A., assignor.)
Bower, Robert A., San Francisco, Cal. Faucet-bracket for electrical water-heaters. No. 45,612; Apr. 21; Gaz. vol. 201; p. 861.
Brandenburg, Norman H. (See Rosenberger, Isaac, assignor.)
Broaddus, Logan A., Denver, Colo. Salt or pepper shaker. No. 45,584; Apr. 14; Gaz. vol. 201; p. 535.
Brown, Carl A. (See Grant and Brown.)
Brown, Carl A., Fostoria, Ohio, assignor to General Electric Company. Artificial-light inclosure. No. 45,613; Apr. 21; Gaz. vol. 201; p. 861.
Bruce, Robert D., Pittsburgh, Pa. Air-navigating vessel. No. 45,550; Apr. 7; Gaz. vol. 201; p. 238.
Bulley, George W., Chicago, Ill. Vehicle-body. No. 45,686; Apr. 28; Gaz. vol. 201; p. 1186.
Burris, Harry, Newcastle, Ind. Burial-casket. No. 45,551; Apr. 7; Gaz. vol. 201; p. 288.
Burton, Robert N., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Temperature-indicator. Nos. 45,552–4; Apr. 7; Gaz. vol. 201; p. 239.
Clisby, Verne W., assignor to The Sterling Machine & Stamping Company, Wellington, Ohio. Cooking-utensil body. No. 45,664; Apr. 28; Gaz. vol. 201; p. 1183.
Codman, William C., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. Nos. 45,614–15; Apr. 21; Gaz. vol. 201; pp. 861–2.
Cohn, Albert, London, England. Coffee-percolator. No. 45,585; Apr. 14; Gaz. vol. 201; p. 535.
Conn, Charles G., Elkhart, Ind. Cornet. No. 45,555; Apr. 7; Gaz. vol. 201; p. 239.
Cossette, Joseph D., Escanaba, Mich. Shingling-tool. No. 45,687; Apr. 28; Gaz. vol. 201; p. 1187.
Cravath, James R., assignor to National X-Ray Reflector Company, Chicago, Ill. Reflector. No. 45,616; Apr. 21; Gaz. vol. 201; p. 862.
Cribben & Sexton Company. (See Harter, Augustus F., assignor.)
Cross, Jay E., South Lancaster, Mass. Powder-container. No. 45,586; Apr. 14; Gaz. vol. 201; p. 535.
Curtis, William J., Philadelphia, Pa. Bedstead. No. 45,617; Apr. 21; Gaz. vol. 201; p. 862.
Curtiss, George E., assignor to Landers, Frary & Clark, New Britain, Conn. Percolator. No. 45,587; Apr. 14; Gaz. vol. 201; p. 535.
Curtiss, George E., assignor to Landers, Frary & Clark, New Britain, Conn. Urn. Nos. 45,588–90; Apr. 14; Gaz. vol. 201; pp. 535–6.
De Fontaine, Wade H., New York, N. Y. Carbureter. No. 45,591; Apr. 14; Gaz. vol. 201; p. 536.
Dexter, Arthur C., San Diego, Cal. Emblem, button, or similar article. No. 45,665; Apr. 28; Gaz. vol. 201; p. 1183.
Dorey, William A., Newark, Ohio, assignor to The Holophane Glass Co., New York, N. Y. Reflector or similar article. No. 45,618; Apr. 21; Gaz. vol. 201; p. 862.
Dowse, William B. H., Newton, Mass. Spoon, fork, or similar article. Nos. 45,688–9; Apr. 28; Gaz. vol. 201; p. 1187.
Dunn, Emanuel W., Oakland, Cal. Orchard-heater. No. 45,592; Apr. 14; Gaz. vol. 201; p. 536.
Eigen, Benno vom, Newark, N. J., assignor to August Goertz & Co. Vanity-insert for bags. No. 45,680; Apr. 28; Gaz. vol. 201; p. 1185.
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 45,620–1; Apr. 21; Gaz. vol. 201; pp. 862–3.
Elliott, John W., Wallingford, assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 45,619; Apr. 21; Gaz. vol. 201; p. 862.
English & Mersick Company, The. (See Wheeler, Gardner E., assignor.)
Ferry, John F. B., San Francisco, Cal. Badge, pin, or similar article. No. 45,666; Apr. 28; Gaz. vol. 201; p. 1183.
Fleischauer, William J., and H. Richardson, Pontiac, Mich. Hammer-head. No. 45,690; Apr. 28; Gaz. vol. 201; p. 1187.
Follmer, Charles J., New York, N. Y. Parasol. No. 45,593; Apr. 14; Gaz. vol. 201; p. 536.
Gaertner, Rudolf. (See Sticher, Christian, assignor.)
General Electric Company. (See Brown, Carl A., assignor.)
General Electric Company. (See Grant and Brown, assignors.)
Gill Brothers Company. (See Holton, Jeptha L., assignor.)
Gillespie, Osro H. and V. V., Madison, Nebr. Fly-trap. No. 45,622; Apr. 21; Gaz. vol. 201; p. 863.
Gillespie, Victor V. (See Gillespie, Osro H. and V. V.)
Goldstein, William L., and G. C. Van Essen, Pittsburgh, Pa. Barber's wall-case. No. 45,594; Apr. 14; Gaz. vol. 201; p. 536.
Gorham Manufacturing Company. (See Codman, William C., assignor.)
Gowran, Harry C., assignor to The Hamilton Manufacturing Company, Two Rivers, Wis. Cabinet. No. 45,623; Apr. 21; Gaz. vol. 201; p. 863.
Grant, Florence L., and C. A. Brown, Fostoria, Ohio, assignors to General Electric Company. Lamp shade or reflector. Nos. 45,624–9; Apr. 21; Gaz. vol. 201; pp. 863–4.
Gravier, William, and M. P. Hutchins, Detroit, Mich. Wrench. No. 45,556; Apr. 7; Gaz. vol. 201; p. 239.
Guinzburg, Victor, assignor to I. B. Kleinert Rubber Company, New York, N. Y. Protective shield. No. 45,595; Apr. 14; Gaz. vol. 201; p. 537.
Guth, Edwin F., St. Louis, Mo. Lamp-shade. No. 45,557; Apr. 7; Gaz. vol. 201; p. 240.
Hamilton, Frederick, Providence, R. I. Lens-clip. No. 45,630; Apr. 21; Gaz. vol. 201; p. 864.
Hamilton Manufacturing Company, The. (See Gowran, Harry C., assignor.)
Hansen, John P., Racine, Wis. Clothes-line holder. No. 45,667; Apr. 28; Gaz. vol. 201; p. 1183.
Harter, Augustus F., assignor to Cribben & Sexton Company, Chicago, Ill. Base-burner. No. 45,631; Apr. 21; Gaz. vol. 201; p. 864.
Haviland, Theodore, Limoges, France. Covered dish. No. 45,558; Apr. 7; Gaz. vol. 201; p. 240.
Hawthorne, Ellsworth A., assignor to The Hawthorne Manufacturing Company, Incorporated, Bridgeport, Conn. Lamp. No. 45,691; Apr. 28; Gaz. vol. 201; p. 1187.
Hawthorne Manufacturing Company, The. (See Hawthorne, Ellsworth A., assignor.)
Head, William H., Hookset, N. H. Loving-cup or similar receptacle. No. 45,632; Apr. 21; Gaz. vol. 201; p. 865.
Heller, Albert, *et al.* (See Lloyd, George, assignor.)
Heller, Benjamin, *et al.* (See Lloyd, George, assignor.)
Heller, Samuel, New York, N. Y. Precious, semiprecious, synthetic, or imitation stone. No. 45,668; Apr. 28; Gaz. vol. 201; p. 1183.
Hill, William B., San Francisco, Cal. Garter-clasp. No. 45,669; Apr. 28; Gaz. vol. 201; p. 1183.
Holophane Glass Co., The. (See Dorey, William A., assignor.)
Holton, Jeptha L., assignor to Gill Brothers Company, Steubenville, Ohio. Reflector-shade. No. 45,633; Apr. 21; Gaz. vol. 201; p. 865.
Howes, George W., assignor to Estate of P. D. Beckwith, Inc., Dowagiac, Mich. Heating-stove. No. 45,634; Apr. 21; Gaz. vol. 201; p. 865.

Huettel, Albin G., West Hoboken, N. J. Cap. No. 45,596; Apr. 14; Gaz. vol. 201; p. 537.
Humphrey, Alfred H., New York, N. Y. Gas-lamp. No. 45,635; Apr. 21; Gaz. vol. 201; p. 865.
Hutchins, M. Payson. (See Gravier and Hutchins.)
I. B. Kleinert Rubber Company. (See Guinzburg, Victor, assignor.)
International Silver Co. (See Elliott, John W., assignor.)
International Silver Co. (See Kintz, Alfred G., assignor.)
J. G. Brill Co., The. (See Adams, Walter S., assignor.)
J. H. Sager Company. (See Sager, James H., assignor.)
J. L. Sommer Manufacturing Co. (See Sommer, John L., assignor.)
Kapfinger, Caspar, Jr., Kufstein, Austria-Hungary. Curtain-suspender. No. 45,597; Apr. 14; Gaz. vol. 201; p. 537.
Karfiol, Benson, New York, N. Y. Paper bell. No. 45,636; Apr. 21; Gaz. vol. 201; p. 866.
Kearney, George F., Gorham, N. Y. Set of playing-cards. No. 45,670; Apr. 28; Gaz. vol. 201; p. 1184.
Kidwell, James A., Dayton, Ohio. Trading-check. No. 45,559; Apr. 7; Gaz. vol. 201; p. 240.
Kintz, Alfred G., Wallingford, assignor to International Silver Co., Meriden, Conn. Spoon, fork, or similar article. No. 45,637; Apr. 21; Gaz. vol. 201; p. 866.
Koch, Augustus J., assignor to Onondaga Pottery Company, Syracuse, N. Y. Plate. No. 45,638; Apr. 21; Gaz. vol. 201; p. 866.
Kuhn, Frank, Detroit, Mich. Sad-iron. No. 45,671; Apr. 28; Gaz. vol. 201; p. 1184.
Lampe, John H., Pocahontas, Iowa. Harness-rack. No. 45,639; Apr. 21; Gaz. vol. 201; p. 866.
Landers, Frary & Clark. (See Curtiss, George E., assignor.)
Larson, Edward A., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Temperature-indicator. Nos. 45,560–2; Apr. 7; Gaz. vol. 201; pp. 240–1.
Lebowich, Louis A., Boston, Mass. File-container or book-cover. No. 45,672; Apr. 28; Gaz. vol. 201; p. 1184.
Lechner, Arthur O., Pittsburgh, Pa. Piano-back. No. 45,563; Apr. 7; Gaz. vol. 201; p. 241.
Lee, Jonathan, Ottumwa, Iowa. Burial-couch. No. 45,564; Apr. 7; Gaz. vol. 201; p. 241.
Levy, Louis S., New York, N. Y. Letter-head. No. 45,640; Apr. 21; Gaz. vol. 201; p. 866.
Lissfelt, Harry L., assignor to Macbeth-Evans Glass Company, Pittsburgh, Pa. Lamp-shade. No. 45,641; Apr. 21; Gaz. vol. 201; p. 867.
Lloyd, George, assignor to B. and A. Heller, Chicago, Ill. Bottle. No. 45,565; Apr. 7; Gaz. vol. 201; p. 241.
Longobardi, Catello, Schenectady, N. Y. Musical instrument. No. 45,566; Apr. 7; Gaz. vol. 201; p. 241.
Macbeth-Evans Glass Company. (See Lissfelt, Harry L., assignor.)
Mansfield, James R., Alexandria, Va. Badge, pin, or fraternal emblem. No. 45,598; Apr. 14; Gaz. vol. 201; p. 537.
McAdams, Thomas J., Marion, Ill. Envelop opener and seal. No. 45,599; Apr. 14; Gaz. vol. 201; p. 537.
McDonald, Alexander, Duluth, Minn. Display-stand. No. 45,692; Apr. 28; Gaz. vol. 201; p. 1188.
Meinecke, Christian W., Jersey City, N. J., assignor to Meinecke & Company, New York, N. Y. Irrigator-reservoir. No. 45,567; Apr. 7; Gaz. vol. 201; p. 242.
Meinecke & Company. (See Meinecke, Christian W., assignor.)
Melba Manufacturing Company. (See Miles, Francis J. M., assignor.)
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,642–3; Apr. 21; Gaz. vol. 201; p. 867.
Michaelis, William A. E., Seattle, Wash. Violin-bridge. No. 45,600; Apr. 14; Gaz. vol. 201; p. 537.
Michelin, André J., Paris, France. Automobile-tool. No. 45,644; Apr. 21; Gaz. vol. 201; p. 867.
Miles, Francis J. M., assignor to Melba Manufacturing Company, Chicago, Ill. Bottle. No. 45,673; Apr. 28; Gaz. vol. 201; p. 1184.
Miller, Richard, New Berlin, Ohio. Rebound-check. No. 45,568; Apr. 7; Gaz. vol. 201; p. 242.
Mobley, Earl J., Goldendale, Wash. Poison-bottle. No. 45,674; Apr. 28; Gaz. vol. 201; p. 1184.
Mohrhenn, Regina, New York, N. Y. Casserole. No. 45,601; Apr. 14; Gaz. vol. 201; p. 538.
Morrill, William C., New York, N. Y. Container for soap-dispensers. No. 45,675; Apr. 28; Gaz. vol. 201; p. 1184.
Myers, Burton D., assignor to The Simeon L. and George H. Rogers Co., Wallingford, Conn. Spoon, fork, or similar article. No. 45,645; Apr. 21; Gaz. vol. 201; p. 868.
Mygatt, Otis A., New York, N. Y. Shade, reflector, or similar article. No. 45,569; Apr. 7; Gaz. vol. 201; p. 242.
National X-Ray Reflector Company. (See Cravath, James R., assignor.)
Newton, Frank H., Oakland, Cal. Advertising-cabinet. No. 45,693; Apr. 28; Gaz. vol. 201; p. 1188.
Norris, Albert F. and C. H., Stoughton, Mass. Piano-pedal. No. 45,610; Apr. 14; Gaz. vol. 201; p. 539.
Norris, Clifton H. (See Norris, Albert F. and C. H.)
Novak, Frank, Chicago, Ill. Bottle. No. 45,646; Apr. 21; Gaz. vol. 201; p. 868.
O'Shea, William, Kansas City, Mo. Crucifix. No. 45,602; Apr. 14; Gaz. vol. 201; p. 538.
Onondaga Pottery Company. (See Koch, Augustus J., assignor.)
Orbik, John, Hurley, Wis. Picture-frame. No. 45,676; Apr. 28; Gaz. vol. 201; p. 1185.
Parker, Stearns & Company. (See Stearns, Mabel J., assignor.)
Reynolds, Charles F., Cleveland, Ohio. Buckle. Nos. 45,603–4; Apr. 14; Gaz. vol. 201; p. 538.
Richardson, Herbert. (See Fleischauer and Richardson.)
Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,647; Apr. 21; Gaz. vol. 201; p. 868.
Rosen, Morris, New York, N. Y. Wedding-ring. No. 45,648; Apr. 21; Gaz. vol. 201; p. 868.
Rosenberger, Isaac, Tallman, Mich., assignor to N. H. Brandenburg, Astoria, Oreg. Rack or stand. No. 45,694; Apr. 28; Gaz. vol. 201; p. 1188.
Royce, Frederick H., Westwood, Crowborough, England. Combined bonnet and radiator for automobile-engines. No. 45,695; Apr. 28; Gaz. vol. 201; p. 1188.
Ryan, Harry J., Troy, N. Y. Water-heater. No. 45,696; Apr. 28; Gaz. vol. 201; p. 1189.
Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Base member for automobile-bumpers. No. 45,570; Apr. 7; Gaz. vol. 201; p. 242.
Sager, James H., assignor to J. H. Sager Company, Rochester, N. Y. Automobile-bumper. No. 45,571; Apr. 7; Gaz. vol. 201; p. 242.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Tumbler. No. 45,606; Apr. 14; Gaz. vol. 201; p. 538.
Sarrasin, Jules J., New Orleans, La. Handle for tooth-brushes. No. 45,572; Apr. 7; Gaz. vol. 201; p. 242.
Satterfield, Joseph M., Bellaire, Ohio. Grate-fender. No. 45,649; Apr. 21; Gaz. vol. 201; p. 868.
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,650; Apr. 21; Gaz. vol. 201; p. 869.
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 45,651; Apr. 21; Gaz. vol. 201; p. 869.
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. No. 45,652; Apr. 21; Gaz. vol. 201; p. 869.
Schnabel, Charles, New York, N. Y. Child's mitten. No. 45,653; Apr. 21; Gaz. vol. 201; p. 869.
Seeburg, Justus P., Chicago, Ill. Orchestrion-case. Nos. 45,654–5; Apr. 21; Gaz. vol. 201; p. 869.
Shick, Roy, Okmulgee, Okla. Bank-book cover. No. 45,677; Apr. 28; Gaz. vol. 201; p. 1185.
Short, Joseph S., New York, N. Y. Stripped looping. No. 45,573; Apr. 7; Gaz. vol. 201; p. 243.
Simeon L. and George H. Rogers Co., The. (See Myers, Burton D., assignor.)
Sommer, John L., Newark, N. J., assignor to J. L. Sommer Manufacturing Co. Bottle-opener. No. 45,678; Apr. 28; Gaz. vol. 201; p. 1185.
Speakman, Willard A., Wilmington, Del. Bath water-distributing fixture. No. 45,574; Apr. 7; Gaz. vol. 201; p. 243.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 45,656–7; Apr. 21; Gaz. vol. 201; p. 871.
Standard Wall Paper Co. (See Walenta, Edmund J., Sr., assignor.)
Standerford, Andrew N., Kokomo, Ind. Dish. No. 45,679; Apr. 28; Gaz. vol. 201; p. 1185.
Stearns, Mabel J., New York, assignor to Parker, Stearns & Company, Brooklyn, N. Y. Rubber bathing-cap. No. 45,658; Apr. 21; Gaz. vol. 201; p. 871.
Sterling Casket Hardware Company. (See Bailey, George R., assignor.)
Sterling Machine & Stamping Company, The. (See Cliby, Verne W., assignor.)
Stewart, Edward B., assignor to Western Casket Hardware Company, Elgin, Ill. Casket-handle. No. 45,606; Apr. 14; Gaz. vol. 201; p. 538.
Stewart, John K., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Temperature-indicator. No. 45,575; Apr. 7; Gaz. vol. 201; p. 243.
Stewart-Warner Speedometer Corporaton. (See Burton, Robert N., assignor.)
Stewart-Warner Speedometer Corporation. (See Larson, Edward A., assignor.)
Stewart-Warner Speedometer Corporation. (See Stewart, John K., assignor.)
Sticher, Christian, Leipzig, Germany, assignor to R. Gaertner, New York, N. Y. Article of manufacture. Nos. 45,659–60; Apr. 21; Gaz. vol. 201; pp. 870–1.
Stimpson, Estelle H. (See Stimpson, Walter F., assignor.)
Stimpson, Walter F., assignor to E. H. Stimpson, Detroit, Mich. Scale-frame. No. 45,661; Apr. 21; Gaz. vol. 201; p. 871.
Sweers, Riley, Toledo, Ohio. Holder for resilient dishes. No. 45,607; Apr. 14; Gaz. vol. 201; p. 539.
Taylor, John L., assignor to Harry D. Yerxa, Chicago, Ill. Casing for vending-machines. No. 45,697; Apr. 28; Gaz. vol. 201; p. 1189.
Thamm, Rose, Berkeley, Cal. Napkin-holder. No. 45,576; Apr. 7; Gaz. vol. 201; p. 243.



Walcutt Brothers Company. (See Weiss, Roger, assignor.)
Walenta, Edmund J., Sr., Philadelphia, Pa., assignor to Standard Wall Paper Co., Hudson Falls, N. Y. Wall-paper. No. 45,681; Apr. 28; Gaz. vol. 201; p. 1185.
Walton, Jerrold F., Sturgis, Mich. Chair-back. No. 45,663; Apr. 21; Gaz. vol. 201; p. 871.
Weatherby, Sidney M., Philadelphia, Pa. Font of type. No. 45,608; Apr. 14; Gaz. vol. 201; p. 539.
Weiss, Roger, Brooklyn, assignor to Walcutt Brothers Company, New York, N. Y. Wall covering, frieze, border, or similar article. No. 45,577; Apr. 7; Gaz. vol. 201; p. 243.
Westerdale, Jesse W., Gaylord, Kans. Corner-piece and photographic display-cabinet. No. 45,578; Apr. 7; Gaz. vol. 201; p. 243.
Western Casket Hardware Company. (See Stewart, Edward B., assignor.)
Wheeler, Gardner E., assignor to The English & Mersick Company, New Haven, Conn. Automobile radiator-casing. No. 45,609; Apr. 14; Gaz. vol. 201; p. 539.
Whitbeck, John V., Cleveland, Ohio. Car-body. No. 45,579; Apr. 7; Gaz. vol. 201; p. 244.
Yerxa, Harry D. (See Taylor, John L., assignor.)
Ziegler, Alfred M., Boston, assignor to A. Ziegler & Sons Co., Roxbury, Mass. Waist-belt. No. 45,580; Apr. 7; Gaz. vol. 201; p. 244.
Van Essen, George C. (See Goldstein and Van Essen.)
Van Buren, Jafew S., Albany, N. Y., assignor to Abram Cox Stove Company, Philadelphia, Pa. Combined gas and coal range. No. 45,662; Apr. 21; Gaz. vol. 201; p. 871.

# ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Wilhelm Company, The, Reading, Pa. Ready-mixed paint. No. 96,558; Apr. 21; Gaz. vol. 201; p. 900.

A. G. Spalding & Bros., New York, N. Y. Implements, apparatus, and articles used in tennis, base-ball, golf, &c. No. 96,361; Apr. 14; Gaz. vol. 201; p. 567.

A. W. Faber, Stein, near Nuremberg, and Berlin, Germany. Rubber erasers. No. 96,404; Apr. 21; Gaz. vol. 201; p. 895.

Abbott & Briggs Company, New York, N. Y. Magazines and periodicals, Semimonthly. No. 96,620; Apr. 28; Gaz. vol. 201; p. 1213.

Acheson Harden Company, The, New York, N. Y. Handkerchiefs. No. 96,621; Apr. 28; Gaz. vol. 201; p. 1213.

"Ago" Lederkitt-Industrie-Gesellschaft mit beschränkter Haftung, Trieste, Austria-Hungary. Certain named footwear. No. 96,217; Apr. 14; Gaz. vol. 201; p. 563.

Alart & McGuire, assignors to Alart & McGuire Company, New York, N. Y. Certain named foods. No. 96,622; Apr. 28; Gaz. vol. 201; p. 1213.

Allaire, Woodward & Co., Peoria, Ill. Insect-powder. No. 96,623; Apr. 28; Gaz. vol. 201; p. 1213.

Allen & Wheeler Co., The, Troy, Ohio. Self-rising wheat-flour. No. 96,078; Apr. 7; Gaz. vol. 201; p. 261.

American Art Works, Coshocton, Ohio. Biweekly periodical. No. 96,625; Apr. 28; Gaz. vol. 201; p. 1213.

American Maize-Products Company, Portland, Me., and New York, N. Y. Certain named foods. No. 96,381; Apr. 21; Gaz. vol. 201; p. 895.

American Maize-Products Company, Portland, Me., and New York, N. Y. Corn starch and starch as ingredient of certain foods. No. 96,382; Apr. 21; Gaz. vol. 201; p. 895.

American Maize-Products Company, Portland, Me., and New York, N. Y. Certain named foods. No. 96,383; Apr. 21; Gaz. vol. 201; p. 895.

American Motor Equipment Co., Boston, Mass. Lubricating oil and grease. No. 96,218; Apr. 14; Gaz. vol. 201; p. 563.

American Optical Company, Southbridge, Mass. Spectacles, eyeglasses, frames, bridges, lenses, &c. No. 96,079; Apr. 7; Gaz. vol. 201; p. 261.

American Optical Company, Southbridge, Mass. Certain named optical supplies. No. 96,626; Apr. 28; Gaz. vol. 201; p. 1213.

American Optical Company, Southbridge, Mass. Periodicals. No. 96,627; Apr. 28; Gaz. vol. 201; p. 1213.

American Optical Company, Southbridge, Mass. Ophthalmic mountings. No. 96,628; Apr. 28; Gaz. vol. 201; p. 1213.

American Oven & Machine Company, Chicago, Ill. Kneading and mixing machines. No. 96,219; Apr. 14; Gaz. vol. 201; p. 563.

American Photo Player Company, Berkeley, Cal. Pneumatically-operated pianos and orchestrions. No. 96,629; Apr. 28; Gaz. vol. 201; p. 1213.

American Pin Company, Waterbury, Conn. Safety-pins. No. 96,080; Apr. 7; Gaz. vol. 201; p. 261.

American Rotogravure Company, New York, N. Y. Printing-presses. No. 96,630; Apr. 28; Gaz. vol. 201; p. 1213.

American Writing Machine Company, Ilion and New York, N. Y. Type-writing machines. No. 96,220; Apr. 14; Gaz. vol. 201; p. 563.

Ammon & Person, Jersey City, N. J. Butterin. No. 96,384; Apr. 21; Gaz. vol. 201; p. 895.

Apsley Rubber Company, Hudson, Mass. Rubber coats, boots, and shoes. No. 96,561; Apr. 21; Gaz. vol. 201; p. 900.

Arbuckle Brothers, New York, N. Y., and Chicago, Ill. Coffee. No. 96,081; Apr. 7; Gaz. vol. 201; p. 261.

Armstrong Brothers, Hampton, Va. Oysters. No. 96,083; Apr. 7; Gaz. vol. 201; p. 261.

Arnold Electric Company, Boston, Mass. Electric vaporizers, heaters, and spark-plugs. No. 96,481; Apr. 21; Gaz. vol. 201; p. 898.

Aromint Company, The, Cincinnati, Ohio. Candy. No. 96,386; Apr. 21; Gaz. vol. 201; p. 895.

Arthur Chemical Co., The, New Haven, Conn. Flavoring extracts for foods. No. 96,387; Apr. 21; Gaz. vol. 201; p. 895.

Athos Tobacco Company, Inc., New York, N. Y. Cigarettes containing Turkish tobacco. No. 96,221; Apr. 14; Gaz. vol. 201; p. 563.

Atkins Co., The, New York, N. Y. Metal-polish. No. 96,631; Apr. 28; Gaz. vol. 201; p. 1213.

Atlas Portland Cement Company, The, Northampton, Pa., and New York, N. Y. Monthly almanac or magazine of business. No. 96,222; Apr. 14; Gaz. vol. 201; p. 563.

August Buermann Manufacturing Co., Newark, N. J. Bits, spurs, stirrups, and saddlery hardware. No. 96,246; Apr. 14; Gaz. vol. 201; p. 564.

Autopress Company, The, New York, N. Y. Printing-presses. No. 96,223; Apr. 14; Gaz. vol. 201; p. 563.

Avon Sole Company, Brockton, Mass. Composition soles for shoes. No. 96,562; Apr. 21; Gaz. vol. 201; p. 900.

B. Altman & Co., New York, N. Y. Shoes, boots, or slippers. No. 96,624; Apr. 28; Gaz. vol. 201; p. 1213.

B. & H. Medicine Company, Brewton, Ala. Remedy for malarial fever, &c. No. 96,440; Apr. 21; Gaz. vol. 201; p. 896.

B. P. Ducas Co., New York, N. Y. Pasty preparation for treating raw or finished textiles. No. 96,402; Apr. 21; Gaz. vol. 201; p. 895.

Badanes, Samuel E., New York, N. Y. House-dresses, maids' and nurses' dresses, and negligées. No. 96,224; Apr. 14; Gaz. vol. 201; p. 563.

Baer, Clyde K., Philadelphia, Pa. Laxative pills, tonic medicine, dyspepsia-tablets, &c. No. 96,088; Apr. 7; Gaz. vol. 201; p. 261.

Bancroft, Harold S., New York, N. Y. Oil used with the cutting and lubrication of metal. No. 96,225; Apr. 14; Gaz. vol. 201; p. 563.

Bardou, Eugéne, Perpignan, France. Books of cigarette-papers. No. 96,226; Apr. 14; Gaz. vol. 201; p. 563.

Barker, Rose & Clinton Co., Elmira, N. Y. Certain named machines, tools, tool-handles, and the like. No. 96,227; Apr. 14; Gaz. vol. 201; p. 563.

Barvier, Raymond, New York, N. Y. Preserved fish products. No. 96,389; Apr. 21; Gaz. vol. 201; p. 895.

Bauer & Black, Chicago, Ill. Porous plasters. Nos. 96,089–90; Apr. 7; Gaz. vol. 201; p. 261.

Bayer Company, Inc., The, New York, N. Y. Cardiac tonic and diuretic. No. 96,390; Apr. 21; Gaz. vol. 201; p. 895.

Bayway Chemical Company, Elizabeth, N. J. Disinfectant. No. 96,391; Apr. 21; Gaz. vol. 201; p. 895.

Bayway Chemical Company, Elizabeth, N. J. Disinfectant. No. 96,483; Apr. 21; Gaz. vol. 201; p. 898.

Beebe, Berton, East St. Louis, Ill. Flour. No. 96,091; Apr. 7; Gaz. vol. 201; p. 261.

Benfer Manufacturing Company, The, Cleveland, Ohio. Cleaning compounds. No. 96,632; Apr. 28; Gaz. vol. 201; p. 1213.

Berkowitz & Guttmann, New York, N. Y. Suspenders, belts, garters, and armbands. No. 96,484; Apr. 21; Gaz. vol. 201; p. 898.

Bernagozzi, William P., New York, N. Y. Cordials, whisky, and brandy. No. 96,229; Apr. 14; Gaz. vol. 201; p. 563.

Best-Clymer Mfg. Co., St. Louis, Mo. Fruit jelly and preserves, mustard, and minced pie-filling. No. 96,092; Apr. 7; Gaz. vol. 201; p. 261.

Best-Clymer Mfg. Co., St. Louis, Mo. Fruit preserves. No. 96,093; Apr. 7; Gaz. vol. 201; p. 261.

Best-Clymer Mfg. Co., St. Louis, Mo. Fruit preserves. No. 96,393; Apr. 21; Gaz. vol. 201; p. 895.

Bibeault, Philippe, Woonsocket, R. I. Billiard balls and tables. No. 96,094; Apr. 7; Gaz. vol. 201; p. 261.

Bickford & Sweet, Worcester, Mass. Slippers and slipper-soles. No. 96,563; Apr. 21; Gaz. vol. 201; p. 900.

Biette & Flie, A., Nantes, France. Soap. No. 96,633; Apr. 28; Gaz. vol. 201; p. 1213.

Billups, Cecil, Norfolk, Va. Plows, moldboards, landsides, points, and plow-beams. Nos. 96,231–5; Apr. 14; Gaz. vol. 201; p. 563.

Billups, Cecil, Norfolk, Va. Certain named agricultural implements. No. 96,485; Apr. 21; Gaz. vol. 201; p. 898.

Billups, Cecil, Norfolk, Va. Plows, moldboards, landsides, points, plow-beams, harrows, &c. No. 96,486; Apr. 21; Gaz. vol. 201; p. 898.

Billups, Cecil, Norfolk, Va. Plows, moldboards, landsides, points, and plow-beams. No. 96,634; Apr. 28; Gaz. vol. 201; p. 1213.

Binney & Smith Company, East Orange, N. J., and New York, N. Y. Crayons. No. 96,236; Apr. 14; Gaz. vol. 201; p. 563.

Blackstone Manufacturing Company, The, Jamestown, N. Y. Washing-machines. Nos. 96,237–9; Apr. 14; Gaz. vol. 201; p. 563.

Blind Tea Agency, Ltd., The, London, England. Tea, coffee, cocoa, chocolate, and chicory. No. 96,564; Apr. 21; Gaz. vol. 201; p. 900.

Block, Harry, St. Joseph, Mo. Overcoats. No. 96,240; Apr. 14; Gaz. vol. 201; p. 563.

Blyn Shoe Manufacturing Company, New York, N. Y. Leather boots and shoes. No. 96,241; Apr. 14; Gaz. vol. 201; p. 563.

Bonnell, J. Harper, 2d, New York, N. Y. Cigarettes. No. 96,242; Apr. 14; Gaz. vol. 201; p. 563.

Borden's Condensed Milk Co., New York, N. Y. Condensed milk. No. 96,095; Apr. 7; Gaz. vol. 201; p. 261.

Bourgeois, Robert E., Gramercy, La. Remedy for hemorrhoids. No. 96,565; Apr. 21; Gaz. vol. 201; p. 900.

Boutwell, William R., Norfolk, Va. Propellers. No. 96,639; Apr. 28; Gaz. vol. 201; p. 1213.

Bowersock Mills & Power Co., Lawrence, Kans. Wheat-flour. No. 96,394; Apr. 21; Gaz. vol. 201; p. 895.

Boy Scouts of America, New York, N. Y. Certain named articles of clothing. No. 96,243; Apr. 14; Gaz. vol. 201; p. 563.

Boyce, Wheeler & Boyce, New York, N. Y. Knit undershirts, union suits, and ladies' vests. No. 96,244; Apr. 14; Gaz. vol. 201; p. 563.

Bradner Smith & Co., Chicago, Ill. Paper for writing and printing and envelops. Nos. 96,356–8; Apr. 14; Gaz. vol. 201; p. 567.

Bradner Smith & Co., Chicago, Ill. Paper for writing and printing and envelops. No. 96,610; Apr. 21; Gaz. vol. 201; p. 901.

Brawer & Son, M., New York, N. Y. Certain named foods. No. 96,395; Apr. 21; Gaz. vol. 201; p. 895.

Brelsford Printing Co., The, Dayton, Ohio. Certain matter printed from type, plates, or die impressions. No. 96,245; Apr. 14; Gaz. vol. 201; p. 564.

Bristol-Myers Company, New York, N. Y. Saline laxatives, uric-acid solvents, &c. No. 96,097; Apr. 7; Gaz. vol. 201; p. 261.

British Columbia Sulphite Fibre Co. Limited, The, Vancouver and Mill Creek, British Columbia, Canada. Wood-pulp fiber, sulfite fiber. No. 96,636; Apr. 28; Gaz. vol. 201; p. 1213.

Brown, John W. and H. W., Bayamon, Porto Rico, and Philadelphia, Pa. Grape-fruit, oranges, and pineapples. No. 96,396; Apr. 21; Gaz. vol. 201; p. 896.

Brown Shoe Company, Inc., St. Louis, Mo. Leather shoes. No. 96,638; Apr. 28; Gaz. vol. 201; p. 1213.

Bryn & Halden Tændstikfabrikker, Bryn, near Christiania, Norway. Matches. No. 96,487; Apr. 21; Gaz. vol. 201; p. 898.

Burke, Frank G., New York, N. Y. Toilet soaps. No. 96,640; Apr. 28; Gaz. vol. 201; p. 1213.

Burnham, Edward, Chicago, Ill. Certain named toilet preparations. No. 96,488; Apr. 21; Gaz. vol. 201; p. 898.

Burstein & Co., Harry, Philadelphia, Pa. Ladies' coats, suits, and outer skirts. No. 96,248; Apr. 14; Gaz. vol. 201; p. 564.

Burstein, Harry, Philadelphia, Pa. Coats, cloaks, suits, skirts, and dresses. No. 96,247; Apr. 14; Gaz. vol. 201; p. 564.

C. Gotzian & Co., St. Paul, Minn. Leather shoes. No. 96,278; Apr. 14; Gaz. vol. 201; p. 564.

C. J. Lincoln Company, Little Rock, Ark. Medicinal tonic. No. 96,523; Apr. 21; Gaz. vol. 201; p. 899.

C. T. Hurlburt & Company, New York, N. Y. Certain named homeopathic medicines and medicinal preparations. No. 96,589; Apr. 21; Gaz. vol. 201; p. 901.

Cabell Company, The, Baltimore, Md. Preparation for making cake. No. 96,397; Apr. 21; Gaz. vol. 201; p. 895.

Cagwin, Joel E., Ames, Iowa. Liniment. No. 96,566; Apr. 21; Gaz. vol. 201; p. 900.

California Associated Raisin Co., Fresno, Cal. Dried fruits. No. 96,398; Apr. 21; Gaz. vol. 201; p. 895.

California Pharmacy Company, The, San Francisco, Cal. Laxative crackers. No. 96,641; Apr. 28; Gaz. vol. 201; p. 1213.

Calumet Co., Inc., Chicago, Ill. Coating compound for automobile wheel-rims and metallic surfaces. No. 96,100; Apr. 7; Gaz. vol. 201; p. 261.

Cammeyer, New York, N. Y. Creams for polishing patent-leather shoes. No. 96,642; Apr. 28; Gaz. vol. 201; p. 1213.

Carey Salt Co., The, Hutchinson, Kans. Salt. No. 96,489; Apr. 21; Gaz. vol. 201; p. 898.

Carson, Pirie, Scott & Co., Chicago, Ill. Laces. No. 96,249; Apr. 14; Gaz. vol. 201; p. 564.

Carter and Son, E. C., New York, N. Y. Certain named textile fabrics in the piece. No. 96,101; Apr. 7; Gaz. vol. 201; p. 261.

Charles A. Eaton Company, Brockton, Mass. Leather boots and shoes. No. 96,260; Apr. 14; Gaz. vol. 201; p. 564.

Charles E. Hancock Company, Providence, R. I. Jewelry. No. 96,672; Apr. 28; Gaz. vol. 201; p. 1214.

Charles H. Besly & Company, Chicago, Ill. Grinding-disks. No. 96,230; Apr. 14; Gaz. vol. 201; p. 563.

Chasco Co., The, Philadelphia, Pa. Tooth powder and paste, worm-syrup, blackberry cordial, &c. No. 96,103; Apr. 7; Gaz. vol. 201; p. 261.

Chemical Specialties Co., Jersey City, N. J. Adhesive. No. 96,104; Apr. 7; Gaz. vol. 201; p. 261.

Chertoff, Noah, New York, N. Y. Thread and yarn. No. 96,105; Apr. 7; Gaz. vol. 201; p. 261.

Chicago Cleaning Company, York, Nebr. Cleaning compound for textile fabrics. No. 96,250; Apr. 14; Gaz. vol. 201; p. 564.

Chicago Shipping & Receipt Book Co., Chicago, Ill. Current, &c., binders, spring-holders, and ring-books. No. 96,251; Apr. 14; Gaz. vol. 201; p. 564.

Chilhowee Medicine Company, Athens, Tenn. Tonic remedy for certain named diseases. No. 96,568; Apr. 21; Gaz. vol. 201; p. 900.

Churchill & Alden Co., Brockton, Mass. Shoes and boots. No. 96,644; Apr. 28; Gaz. vol. 201; p. 1213.

Clauberg & Co., F. A., New York, N. Y. Razors, razor-blades, knives, scissors, and shears. No. 96,252; Apr. 14; Gaz. vol. 201; p. 564.

Clinedinst Coal and Heat Saving Chemical Company, The, Washington, D. C. Compound for treating coal. No. 96,106; Apr. 7; Gaz. vol. 201; p. 261.

Cluett, Peabody & Co., Troy, N. Y. Collars. No. 96,569; Apr. 21; Gaz. vol. 201; p. 900.

Cluett, Peabody & Co. Inc., Troy, N. Y. Collars, cuffs, and shirts. No. 96,645; Apr. 28; Gaz. vol. 201; p. 1213.

Cohen, Jules E., Paris, France. Automobiles, motor boats and cycles, aeroplanes, and aerohydroplanes. No. 96,253; Apr. 14; Gaz. vol. 201; p. 564.

Cohn & Deutsch, Los Angeles, Cal. Shirts. No. 96,570; Apr. 21; Gaz. vol. 201; p. 900.

Columbia Wax Products Co., New York, N. Y. Ironing-wax. No. 96,107; Apr. 7; Gaz. vol. 201; p. 262.

Comet Cycle Car Company, Indianapolis, Ind. Automobiles. No. 96,254; Apr. 14; Gaz. vol. 201; p. 564.

Compagnie Générale des Etablissements Pathé Frères, (Phonographe & Cinématographe,) Paris, France. Talking-machines and parts thereof. No. 96,646; Apr. 28; Gaz. vol. 201; p. 1213.

Compania General de Tabacos de Filipinas, Barcelona, Spain, and Manila, Philippine Islands. Cigars. Nos. 96,647–9; Apr. 28; Gaz. vol. 201; p. 1214.

Condit, Harry H., Indianapolis, Ind. Ladies' undervests. No. 96,571; Apr. 21; Gaz. vol. 201; p. 900.

Consolidated Fire Works Company of America, New York, N. Y. Fireworks. No. 96,108; Apr. 7; Gaz. vol. 201; p. 262.

Converse & Company, New York, N. Y. Cotton piece goods. Nos. 96,490–9; Apr. 21; Gaz. vol. 201; p. 898.

Cooley, Harry, Madison, Wis. Illuminating and fuel oils. No. 96,255; Apr. 14; Gaz. vol. 201; p. 564.

Corn Products Refining Company, New York, N. Y. Fruit jelly. No. 96,109; Apr. 7; Gaz. vol. 201; p. 262.

Corn Products Refining Co., New York, N. Y. Table-syrup, corn-starch, edible corn-oil, jams, &c. No. 96,572; Apr. 21; Gaz. vol. 201; p. 900.

Courtaulds, Limited, London, England. Piece goods of certain named materials and combination thereof. No. 96,650; Apr. 28; Gaz. vol. 201; p. 1214.

Cowgill, John, Prescott, Ariz. Medical compound for certain named ailments. No. 96,573; Apr. 21; Gaz. vol. 201; p. 900.

Craighead Flour Co., The, Wilkinsburg, Pa. Self-raising wheat-flour. No. 96,574; Apr. 21; Gaz. vol. 201; p. 900.

Crescent Belting and Packing Company, Trenton, N. J. Insulated wire. No. 96,500; Apr. 21; Gaz. vol. 201; p. 898.

Crisafulli Bros., New York, N. Y. Tomato paste with basil. No. 96,110; Apr. 7; Gaz. vol. 201; p. 262.

Crystalina Company. (See Hull, Alfred S., assignor.)

Cusimano & Co., A., New Orleans, La. Tomato paste. No. 96,575; Apr. 21; Gaz. vol. 201; p. 900.

Darby Candy Co., The, Baltimore, Md. Chocolates. No. 96,111; Apr. 7; Gaz. vol. 201; p. 262.

Daussa & Company, P., New York, N. Y. Macaroni and whole-wheat macaroni. No. 96,112; Apr. 7; Gaz. vol. 201; p. 262.

De Laval Dairy Supply Company, Jersey City, N. J., and San Francisco, Cal. Gas, gasolene, and kerosene engines. No. 96,651; Apr. 28; Gaz. vol. 201; p. 1214.

De Long, Catherine, Quarryville, Pa. Preparation for the treatment of corns. No. 96,502; Apr. 21; Gaz. vol. 201; p. 898.

De Vilbiss Manufacturing Company, Toledo, Ohio. Exhaust-fans. No. 96,653; Apr. 28; Gaz. vol. 201; p. 1214.

Delaney, Timothy, New York, N. Y. Remedies for diseases of dogs. No. 96,501; Apr. 21; Gaz. vol. 201; p. 898.

Des Moines Bakery Company, Des Moines, Iowa. Bread. No. 96,113; Apr. 7; Gaz. vol. 201; p. 262.

Detroit Wire Spring Co., Detroit, Mich. Seat and bed springs. No. 96,654; Apr. 28; Gaz. vol. 201; p. 1214.

Deutsche Holzblas-Instrumenten-Fabrik Oscar Adler & Co., Markneukirchen, Germany. Reeds for clarinets. No. 96,576; Apr. 21; Gaz. vol. 201; p. 900.

Deutsche Orbat-Gesellschaft mit beschränkter Haftung, Dusseldorf, Germany, assignor to C. Gosswveiler, Olten, Switzerland. Liquids for cleaning glass, &c. No. 96,256; Apr. 14; Gaz. vol. 201; p. 564.

Diamond Expansion Bolt Co., New York, N. Y. Cable-clamps. No. 96,114; Apr. 7; Gaz. vol. 201; p. 262.

Dickinson, Maude, Brighton, England. Certain kinds of metal boxes. No. 96,115; Apr. 7; Gaz. vol. 201; p. 262.

Dilling & Company, Indianapolis, Ind. Chocolate candy. No. 96,400; Apr. 21; Gaz. vol. 201; p. 895.

Dio-Pine Co., The, Fort Wayne, Ind. Preparation for the treatment of coughs. No. 96,401; Apr. 21; Gaz. vol. 201; p. 895.

Dodson, Melancthon A., Norfolk, Va. Remedies for certain named diseases. No. 96,258; Apr. 14; Gaz. vol. 201; p. 564.

Dodson, Melancthon A., Norfolk, Va. Antiseptic for certain named ailments. No. 96,503; Apr. 21; Gaz. vol. 201; p. 898.

Dr. J. A. Walsh Co., Boston, Mass. Tooth powder and paste. No. 96,760; Apr. 28; Gaz. vol. 201; p. 1217.



Dr. Peter Fahrney & Sons Co., Chicago, Ill. Certain proprietary medicine. No. 96,405; Apr. 21; Gaz. vol. 201; p. 895.

Dundas Engineering Company, Vernon, Cal. Hydrocarbon oils. No. 96,504; Apr. 21; Gaz. vol. 201; p. 898.

Duriron Castings Company, New York, N. Y. Certain named machines, stills, pumps, and the like and parts thereof. No. 96,259; Apr. 14; Gaz. vol. 201; p. 564.

E. Kirstein Sons Company, Rochester, N. Y. Eyeglass-mountings. No. 96,305; Apr. 14; Gaz. vol. 201; p. 565.

E. L. Koller, Inc., Newark, N. J. Canvas coal-bags. No. 96,142; Apr. 7; Gaz. vol. 201; p. 262.

Eagle Knitting Mills, Milwaukee, Wis. Caps. No. 96,655; Apr. 28; Gaz. vol. 201; p. 1214.

Eisemann, Phil, Lancaster, Pa. Head tonic and rub, shampoo liquor, toilet water and creams, &c. No. 96,505; Apr. 21; Gaz. vol. 201; p. 898.

Elms & Sellon, New York, N. Y. Cotton piece goods. No. 96,656; Apr. 28; Gaz. vol. 201; p. 1214.

Equinoint Ltd., Newcastle-upon-Tyne, England. Ointment. No. 96,118; Apr. 7; Gaz. vol. 201; p. 262.

Ernest Simons Mfg. Co., Port Chester, N. Y. Certain named household furnishings. No. 96,855; Apr. 14; Gaz. vol. 201; p. 567.

Evans Milling Company, Indianapolis, Ind. Certain named corn products. No. 96,403; Apr. 21; Gaz. vol. 201; p. 895.

F. A. Hardy & Co., Chicago, Ill. Lenses. No. 96,286; Apr. 14; Gaz. vol. 201; p. 565.

F. S. Bixler Company, The, Easton, Pa. Stockings, socks, and knit underwear. No. 96,585; Apr. 28; Gaz. vol. 201; p. 1213.

F. A. O. Schwarz, New York, N. Y. Printed books. No. 96,351; Apr. 14; Gaz. vol. 201; p. 567.

F. A. O. Schwarz, New York, N. Y. Certain named sporting goods. No. 96,462; Apr. 21; Gaz. vol. 201; p. 897.

Fairbanks Company, The, New York, N. Y. Valves. No. 96,262; Apr. 14; Gaz. vol. 201; p. 564.

Fairbanks Company, The, New York, N. Y. Trucks and wheelbarrows. No. 96,506; Apr. 21; Gaz. vol. 201; p. 898.

Fantini & Latorraca, New York, N. Y. Olive-oil. No. 96,578; Apr. 21; Gaz. vol. 201; p. 900.

Farbwerke-Hoechst Company, New York, N. Y. Certain named medicinal preparations. No. 96,658; Apr. 28; Gaz. vol. 201; p. 1214.

Finn, Leo A., Washington, D. C. Ginger-ale, sarsaparilla, birch and root beer, cola, &c. No. 96,119; Apr. 7; Gaz. vol. 201; p. 262.

Fischer & Pruefer, Providence, R. I. Certain named articles of precious metal and ornamental buckles. No. 96,263; Apr. 14; Gaz. vol. 201; p. 564.

Fisher, Grover, Philadelphia, Pa. Salves. No. 96,120; Apr. 7; Gaz. vol. 201; p. 262.

Fitts Manufacturing Company, The, Pueblo, Colo. Baking-powder, bining, and ammonia. No. 96,659; Apr. 28; Gaz. vol. 201; p. 1214.

Fjerestad, Carl O., Elkton, S. D. Certain medicinal veterinary preparations. No. 96,121; Apr. 7; Gaz. vol. 201; p. 262.

Florette, New York, N. Y. Robes, blouses, gowns, jackets, hats, &c. No. 96,579; Apr. 21; Gaz. vol. 201; p. 900.

Follens, James, Kansas City, Mo. Catarrh and hay-fever. No. 96,406; Apr. 21; Gaz. vol. 201; p. 895.

Follmer, Clogg & Co., New York, N. Y. Umbrellas and parasols. No. 96,660; Apr. 28; Gaz. vol. 201; p. 1214.

Foote Mineral Co., Philadelphia, Pa. Minerals and mineral samples. No. 96,264; Apr. 14; Gaz. vol. 201; p. 564.

Force, Willard B., New York, N. Y. Tooth-powder. No. 96,122; Apr. 7; Gaz. vol. 201; p. 262.

Fort Pitt Medical Co., Pittsburgh, Pa. Remedy for coughs and colds. No. 96,123; Apr. 7; Gaz. vol. 201; p. 262.

Fox, Arthur O., Madison, Wis. Liquefied gas. No. 96,507; Apr. 21; Gaz. vol. 201; p. 898.

Fox & Co., M. Ewing, New York, N. Y. Calcimine or water-paint. No. 96,265; Apr. 14; Gaz. vol. 201; p. 564.

Frederick F. Ingram Co., Detroit, Mich. Face-powders. No. 96,139; Apr. 7; Gaz. vol. 201; p. 262.

Freudenthal, Heinrich, Hamburg, Germany. Hominy feed. No. 96,580; Apr. 21; Gaz. vol. 201; p. 900.

Fritzsche & Co., Franz, Hamburg, Germany. Perfumes. No. 96,581; Apr. 21; Gaz. vol. 201; p. 900.

Fuhr, L. C., Dennison, Ohio. Preparation for the treatment of cholera infantum. No. 96,127; Apr. 7; Gaz. vol. 201; p. 262.

G. F. Heublein & Bro., Hartford, Conn. Gin. No. 92,292; Apr. 14; Gaz. vol. 201; p. 565.

Galban & Co., Inc., New York, N. Y. Sugar. No. 96,124; Apr. 7; Gaz. vol. 201; p. 262.

Galesburg Coulter-Disc Co., Galesburg, Ill. Certain parts for certain agricultural implements. No. 96,269; Apr. 14; Gaz. vol. 201; p. 564.

Gardner, John H., San Jose, Cal. Puncture-proof compound. No. 96,270; Apr. 14; Gaz. vol. 201; p. 564.

Gautier Frères, Aigre, France. Brandy. Nos. 96,125–6; Apr. 7; Gaz. vol. 201; p. 262.

General Vehicle Company Inc., Rotterdam and Long Island City, N. Y. Electric vehicles. Nos. 96,271–2; Apr. 14; Gaz. vol. 201; p. 564.

Geo. Borgfeldt & Co., New York, N. Y. Dolls, toys, roly-polies, jumping-jacks, &c. No. 96,096; Apr. 7; Gaz. vol. 201; p. 261.

Geo. J. Kelly Co., Haverhill and Lynn, Mass. Black shoe-polish. No. 96,302; Apr. 14; Gaz. vol. 201; p. 565.

Geo. J. Kelly Co., Haverhill and Lynn, Mass. Cleaner or whitener for white buck or canvas shoes. No. 96,303; Apr. 14; Gaz. vol. 201; p. 565.

Geo. W. Caswell Co., San Francisco, Cal. Tea. No. 96,102; Apr. 7; Gaz. vol. 201; p. 261.

George E. Marsh Company, Portland, Me., and Lynn, Mass. Soap in bars or cakes. No. 96,314; Apr. 14; Gaz. vol. 201; p. 566.

George Starr White, Inc., Yonkers, N. Y.; Reno, Nev., and Danbury, Conn. Artificially-soured milk and cultures for making same. No. 96,478; Apr. 21; Gaz. vol. 201; p. 897.

Getz Bros. & Co., San Francisco, Cal. Canned fruits and vegetables. No. 96,407; Apr. 21; Gaz. vol. 201; p. 895.

Gibford-Weiffenbach Company, The, Adrian, Mich. Razor-strops. No. 96,661; Apr. 28; Gaz. vol. 201; p. 1214.

Gillinder & Sons Inc., Philadelphia, Pa. Certain named articles made of glass. No. 96,662; Apr. 28; Gaz. vol. 201; p. 1214.

Gillott & Sons, Joseph, Birmingham, England, and New York, N. Y. Steel pens. Nos. 96,663–6; Apr. 28; Gaz. vol. 201; p. 1214.

Gluck, Samuel, Wilmington, Del. Bread and swieback. No. 96,128; Apr. 7; Gaz. vol. 201; p. 262.

Gohmann Bros. & Kahler Co., New Albany, Ind. Ranges, stoves, and furnaces. No. 96,273; Apr. 14; Gaz. vol. 201; p. 564.

Goldberg, Bowen & Co., San Francisco, Cal. Certain named foods. No. 96,667; Apr. 28; Gaz. vol. 201; p. 1214.

Goldsmith & Son, L., Newark, N. J., and New York, N. Y. Trunks. Nos. 96,274–5; Apr. 14; Gaz. vol. 201; p. 564.

Goodale Company, Kalamazoo, Mich. Certain named kitchen utensils. No. 96,668; Apr. 28; Gaz. vol. 201; p. 1214.

Goodman Collar Co., The, New York, N. Y. Shirts, collars, and pajamas. No. 96,582; Apr. 21; Gaz. vol. 201; p. 900.

Goodrich Drug Co., Omaha, Nebr. Furniture-polish. No. 96,129; Apr. 7; Gaz. vol. 201; p. 262.

Goodrich Drug Co., Omaha, Nebr. Certain named toilet preparations, tonic, and tablets. No. 96,508; Apr. 21; Gaz. vol. 201; p. 898.

Goose Grease Company, Greensboro, N. C. Liniment. No. 96,583; Apr. 21; Gaz. vol. 201; p. 900.

Gordon, Sewall & Company, Houston, Tex. Canned fruits and canned cooked fish. No. 96,409; Apr. 21; Gaz. vol. 201; p. 895.

Goshen Shirt Manufacturing Company, Chicago, Ill. Negligée or soft overshirt. No. 96,276; Apr. 14; Gaz. vol. 201; p. 564.

Goshen Shirt Manufacturing Company, Chicago, Ill. Work-shirts. No. 96,277; Apr. 14; Gaz. vol. 201; p. 564.

Gosswveiler, Carl. (See Deutsche Orbat-Gesellschaft mit beschränkter Haftung, assignor.)

Graves, Charles H., Providence, R. I. Rubber and leather vehicle-tires. No. 96,669; Apr. 28; Gaz. vol. 201; p. 1214.

Great Western Pottery Co., Kokomo, Ind., assignor to Standard Sanitary Manufacturing Company, Pittsburgh, Pa. Water-closet bowls and tanks. No. 96,281; Apr. 14; Gaz. vol. 201; p. 565.

Great Western Smelting & Refining Co., Chicago, Ill. Babbitt and antifriction metals. No. 96,282; Apr. 14; Gaz. vol. 201; p. 565.

Groze, Moses, Baton Rouge, La. Remedy for piles. No. 96,584; Apr. 21; Gaz. vol. 201; p. 900.

Guertin, Louise, Whitinsville, Mass. Preparation for the treatment of whooping-cough. No. 96,509; Apr. 21; Gaz. vol. 201; p. 898.

Gulfport Grocery Co., Gulfport, Miss. Flour. No. 96,411; Apr. 21; Gaz. vol. 201; p. 896.

Gund Brewing Co., Cleveland, Ohio. Beer. No. 96,510; Apr. 21; Gaz. vol. 201; p. 898.

H. D. Lee Mercantile Co., The, Salina, Kans. Certain named foods. No. 96,430; Apr. 21; Gaz. vol. 201; p. 896.

H. W. Johns-Manville Co., New York, N. Y. Asbestos twine and cord. No. 96,300; Apr. 14; Gaz. vol. 201; p. 565.

Haddon Hosiery Co., assignor to Haddon Hosiery Co., Philadelphia, Pa. Hosiery. No. 96,670; Apr. 28; Gaz vol. 201; p. 1214.

Haight & Co., A. S., New York, N. Y. Sweaters, knitted underwear. No. 96,283; Apr. 14; Gaz. vol. 201; p. 565.

Halcyon Knitting Mills Co., South Bethlehem, Pa. Hosiery. Nos. 96,284–5; Apr. 14; Gaz. vol. 201; p. 565.

Hallam-Rice Company, Providence, R. I. Jewelry. No. 96,671; Apr. 28; Gaz. vol. 201; p. 1214.

Haral Co., Detroit, Mich. Hair-tonic. No. 96,511; Apr. 21; Gaz. vol. 201; p. 898.

Hardwick & Magee Co., Philadelphia, Pa. Woven carpets and rugs. No. 96,673; Apr. 28; Gaz. vol. 201; p. 1214.

Harlan, James S., Essex, N. Y. Milk, cream, butter, dressed poultry, eggs, &c. No. 96,585; Apr. 21; Gaz. vol. 201; p. 900.

Hart, Harold "D," San Francisco, Cal. Skin-lotions, toilet and face creams, perfumes, &c. No. 96,130; Apr. 7; Gaz. vol. 201; p. 262.

Hartsville Implement Co., Hartsville, S. C. Fertiliser-distributers, plows, and planters. No. 96,287; Apr. 14; Gaz. vol. 201; p. 565.

Hatley & Womack, Hallsville, Tex. Liquid compound for destroying trees. No. 96,131; Apr. 7; Gaz. vol. 201; p. 262.
Havone Cigarette Case Company, New York, N. Y. Cigarette-cases. No. 96,132; Apr. 7; Gaz. vol. 201; p. 262.
Hawkeye Chemical Company, Clarion, Ill. Chemicals for sanitary toilets. No. 96,412; Apr. 21; Gaz. vol. 201; p. 896.
Heebner, Ernest L., New York, N. Y. Canned sardines. No. 96,413; Apr. 21; Gaz. vol. 201; p. 896.
Helburn Leather Company, Salem, Mass. Leather for use on textile machinery. No. 96,288; Apr. 14; Gaz. vol. 201; p. 565.
Helfrich, Julia G., Baltimore, Md. Boots, shoes, and slippers. No. 96,289; Apr. 14; Gaz. vol. 201; p. 565.
Help Saver Co., Philadelphia, Pa. Paper ice-blankets, baking-pan liners, and dish-cloths. No. 96,586; Apr. 21; Gaz. vol. 201; p. 901.
Hemmerdinger & Co., L., New York, N. Y. Gold paints. No. 96,674; Apr. 28; Gaz. vol. 201; p. 1214.
Henderson, David B., Charlotte, N. C. Mineral-spring water. No. 96,512; Apr. 21; Gaz. vol. 201; p. 898.
Hero Manufacturing Co., Inc., The, Philadelphia, Pa. Certain named articles made of sheet metal. No. 96,290; Apr. 14; Gaz. vol. 201; p. 565.
Hershey, Charles G., Pittsburgh, Pa. Pure crude and petroleum oils for cuts, burns, skin diseases, &c. No. 96,133; Apr. 7; Gaz. vol. 201; p. 262.
Hershey, Eusebius E., Philadelphia, Pa. Dish washers and driers. No. 96,291; Apr. 14; Gaz. vol. 201; p. 565.
Hess & Clark, Dr., Ashland, Ohio. Poultry food and tonic. No. 96,587; Apr. 21; Gaz. vol. 201; p. 901.
Hezel Milling Company, East St. Louis, Ill. Self-rising wheat-flour. No. 96,414; Apr. 21; Gaz. vol. 201; p. 896.
Hide-ite Leather Company, Brockton, Mass. Waterproof leather fiber-board. No. 96,293; Apr. 14; Gaz. vol. 201; p. 565.
Hill, Wilbur M., Woodman, N. H. Popcorn. No. 96,416; Apr. 21; Gaz. vol. 201; p. 896.
Hinde & Dauch Paper Co., The, Sandusky, Ohio. Pamphlets. No. 96,294; Apr. 14; Gaz. vol. 201; p. 565.
Hoffmann-La Roche Chemical Works, The, New York, N. Y. Substitute for opium. No. 96,588; Apr. 21; Gaz. vol. 201; p. 901.
Holland Rusk Company, Holland, Mich. Rusks. No. 96,135; Apr. 7; Gaz. vol. 201; p. 262.
Hollingsworth Candy Company, Augusta, Ga. Candy. No. 96,417; Apr. 21; Gaz. vol. 201; p. 896.
Howe Rubber Co., Newark, N. J. Ankle-protectors and hot-water bags. No. 96,295; Apr. 14; Gaz. vol. 201; p. 565.
Howery-Taylor Milling Co., Inc., Roanoke, Va. Wheat-flour. No. 96,418; Apr. 21; Gaz. vol. 201; p. 896.
Hull, Alfred S., Hinesburg, Vt., assignor to Crystalina Company. Proprietary medicine used as a skin-lotion. No. 96,136; Apr. 7; Gaz. vol. 201; p. 262.
Hunt & Van Nice, Denver, Colo. Embroideries. No. 96,137; Apr. 7; Gaz. vol. 201; p. 262.
Hunter, Campbell M., London, England. Exhausters and burners for heating-furnaces. No. 96,677; Apr. 28; Gaz. vol. 201; p. 1214.
Husted Milling Company, Buffalo, N. Y. Cornmeal. No. 96,515; Apr. 21; Gaz. vol. 201; p. 898.
Hustisford Canning Co., Hustisford, Wis. Canned vegetables. No. 96,567; Apr. 21; Gaz. vol. 201; p. 900.
Hy-Polish Products Company, The, Cleveland, Ohio. Furniture and woodwork polish. No. 96,138; Apr. 7; Gaz. vol. 201; p. 262.
Hyams & Company, Walter, New York, N. Y. Newspaper-clippings. No. 96,678; Apr. 28; Gaz. vol. 201; p. 1214.
Ideal Clothing Company, The, Grand Rapids, Mich. Men's clothing. No. 96,296; Apr. 14; Gaz. vol. 201; p. 565.
Illinois Iron & Bolt Co., Carpentersville, Ill. Anvils. No. 96,679; Apr. 28; Gaz. vol. 201; p. 1214.
Innovation Shirt Company, New York, N. Y. Certain named clothing, underwear, and athletic garments. No. 96,297; Apr. 14; Gaz. vol. 201; p. 565.
International Druggists' & Chemists' Laboratories, Inc., The, New York, N. Y. Medicinal preparations for treating certain named diseases. No. 96,590; Apr. 21; Gaz. vol. 201; p. 901.
International Harvester Corporation, Chicago, Ill. Wagons and parts thereof. No. 96,298; Apr. 14; Gaz. vol. 201; p. 565.
Interstate Cotton Oil Refining Co., Sherman, Tex. Lard substitute. No. 96,419; Apr. 21; Gaz. vol. 201; p. 896.
Interwoven Stocking Company, New Brunswick, N. J. Hosiery. No. 96,591; Apr. 21; Gaz. vol. 201; p. 901.
J. Henry Koenig Co., The, Cincinnati, Ohio. Teas, spices, and rice. No. 96,424; Apr. 21; Gaz. vol. 201; p. 896.
J. Hungerford Smith Co., Rochester, N. Y. Flavoring-syrup for non-alcoholic beverages. No. 96,199; Apr. 7; Gaz. vol. 201; p. 264.
J. C. Ayer Co., Lowell, Mass. Remedy for certain named diseases. No. 96,084; Apr. 7; Gaz. vol. 201; p. 261.
J. C. Ayer Co., Lowell, Mass. Cathartic pills. No. 96,085; Apr. 7; Gaz. vol. 201; p. 261.
J. C. Ayer Co., Lowell, Mass. Remedy for the affections of the lungs and throat. No. 96,086; Apr. 7; Gaz. vol. 201; p. 261.
J. C. Ayer Co., Lowell, Mass. Hair-tonic. No. 96,087; Apr. 7; Gaz. vol. 201; p. 261.
J. C. Ayer Co., Lowell, Mass. General tonic and remedy for treating certain named diseases. No. 96,388; Apr. 21; Gaz. vol. 201; p. 895.
J. C. Hirschman Company, The, Indianapolis, Ind. Cushions, pillows, and mattresses. No. 96,514; Apr. 21; Gaz. vol. 201; p. 898.
J. K. Armsby Co., The, San Francisco, Cal. Salmon. No. 96,082; Apr. 7; Gaz. vol. 201; p. 261.
J. K. Armsby Co., The, Chicago, Ill., and San Francisco, Cal. Canned vegetables. No. 96,385; Apr. 21; Gaz. vol. 201; p. 895.
J. M. Chanut & Cie. Inc., New York, N. Y. Kid gloves. No. 96,643; Apr. 28; Gaz. vol. 201; p. 1213.
J. S. McKenzie & Company, Inc., New York, N. Y. Canned sardines, herring, and salmon. No. 96,153; Apr. 7; Gaz. vol. 201; p. 263.
J. W. Beardsley's Sons, New York, N. Y. Vegetable extract. No. 96,392; Apr. 21; Gaz. vol. 201; p. 895.
James H. Moffett & Co., Inc., New York, N. Y. Undershirts, drawers, and union suits. No. 96,709; Apr. 28; Gaz. vol. 201; p. 1215.
Jennings, Robert G., Elmira, N. Y. Certain named underwear for women and children. No. 96,299; Apr. 14; Gaz. vol. 201; p. 565.
John Eichler Brewing Co., The, New York, N. Y. Beer. No. 96,261; Apr. 14; Gaz. vol. 201; p. 564.
John Eichler Brg. Co., The, New York, N. Y. Beer. No. 96,117; Apr. 7; Gaz. vol. 201; p. 262.
John Hoffmann & Sons Co., Milwaukee, Wis. Coffee. No. 96,134; Apr. 7; Gaz. vol. 201; p. 262.
John Sexton & Company, Chicago, Ill. Grape-juice. No. 96,196; Apr. 7; Gaz. vol. 201; p. 264.
John Wanamaker, Philadelphia, Philadelphia, Pa. Leather shoes. No. 96,761; Apr. 28; Gaz. vol. 201; p. 1217.
Johnson & Johnson, New Brunswick, N. J. Surgical dressings, rubber protectives, and first-aid cases. No. 96,680; Apr. 28; Gaz. vol. 201; p. 1214.
Johnson, Melville E., Palatka, Fla. Certain named citrus fruit. No. 96,140; Apr. 7; Gaz. vol. 201; p. 262.
Jordan Marsh Company, Boston, Mass. Imitation pearls. No. 96,700; Apr. 28; Gaz. vol. 201; p. 1215.
Jordan's Foot Remedy Company, Boston, Mass. Ointment for the feet. No. 96,681; Apr. 28; Gaz. vol. 201; p. 1215.
Juda Brothers, New York, N. Y. Dresses and outer skirts. No. 96,301; Apr. 14; Gaz. vol. 201; p. 565.
Kansas Milling & Export Co., The, Kansas City, Mo. Wheat-flour. No. 96,141; Apr. 7; Gaz. vol. 201; p. 262.
Kasprowicz, Firm of B., Gnesen, Germany. Brandy. No. 96,682; Apr. 28; Gaz. vol. 201; p. 1215.
Kempler, Adolph, Philadelphia, Pa. Teas. No. 96,420; Apr. 21; Gaz. vol. 201; p. 896.
Kendall, Henry E., Shelby, N. C. Remedy for certain named diseases. No. 96,421; Apr. 21; Gaz. vol. 201; p. 896.
Kerr Adjustable Strap Company, New York, N. Y. Adjustable straps for harness, &c. No. 96,304; Apr. 14; Gaz. vol. 201; p. 565.
Keystone Wire Matting Co., Beaver Falls, Pa. Wooden matting. No. 96,683; Apr. 28; Gaz. vol. 201; p. 1215.
King Bros., Milan, Ill. Remedy for cholera and asthma. No. 96,684; Apr. 28; Gaz. vol. 201; p. 1215.
King, Lewis E., Richmond, Ind. Blended coffee. No. 96,422; Apr. 21; Gaz. vol. 201; p. 896.
Kirby Beard & Co. Limited, Birmingham, England. Hairpins. No. 96,228; Apr. 14; Gaz. vol. 201; p. 563.
Kistler, Lesh & Company, Boston, Mass. Leather. No. 96,685; Apr. 28; Gaz. vol. 201; p. 1215.
Klauber Bros. & Company, New York, N. Y. Children's dresses. No. 96,686; Apr. 28; Gaz. vol. 201; p. 1215.
Klauber Wangenheim Co., San Diego, Cal. Brooms. No. 96,687; Apr. 28; Gaz. vol. 201; p. 1215.
Klepper & Armitage, Portland, Oreg. Candy cathartic tablets. No. 96,516; Apr. 21; Gaz. vol. 201; p. 899.
Koblenzer & Son, M., New York, N. Y. Men's outer shirts. No. 96,306; Apr. 14; Gaz. vol. 201; p. 565.
Koehler & Hinrichs, St. Paul, Minn. Glass bottles. No. 96,688; Apr. 28; Gaz. vol. 201; p. 1215.
Kohary, Alexander A., Pittsburgh, Pa. Cigarette-paper. No. 96,517; Apr. 21; Gaz. vol. 201; p. 899.
Kress & Owen Company, New York, N. Y. Nasal douche. No. 96,425; Apr. 21; Gaz. vol. 201; p. 896.
Krohn-Fechheimer Company, The, Cincinnati, Ohio. Leather boots and shoes. No. 96,307; Apr. 14; Gaz. vol. 201; p. 565.
Kurz, Joseph, New York, N. Y. Box-fasteners. No. 96,426; Apr. 21; Gaz. vol. 201; p. 896.
L. C. Nicholson Co., Indianapolis, Ind. Flour. No. 96,599; Apr. 21; Gaz. vol. 201; p. 901.
La Film Artistica Gloria, Turin, Italy. Kinematograph-films. No. 96,689; Apr. 28; Gaz. vol. 201; p. 1215.
La Resista Corset Company, The, Bridgeport, Conn.; New York, N. Y.; Boston, Mass., and Paris, France. Wire corset-stays. No. 96,308; Apr. 14; Gaz. vol. 201; p. 565.
Lallier, Van Cassel & Cie., Ay, France. Wines and champagne. No. 96,518; Apr. 21; Gaz. vol. 201; p. 899.
Landers, Frary & Clark, New Britain, Conn. Certain named knives, razors, machines, and tools. No. 96,144; Apr. 7; Gaz. vol. 201; p. 263.
Landrum's Drug Co., De Funiak Springs, Fla. Preparation for treating anemia, malaria, hook-worm, and blood diseases. No. 96,427; Apr. 21; Gaz. vol. 201; p. 896.



Lane & Hawkins Manufacturing Company, (not incorporated,) Chicago, Ill. Horse-radish. No. 96,428; Apr. 21; Gaz. vol. 201; p. 896.
Larrowe Milling Co., The, Cohocton, N. Y. Beet-pulp. No. 96,429; Apr. 21; Gaz. vol. 201; p. 896.
Lawrie & Sons, John, Chicago, Ill. Shoe-laces. Nos. 96,519–21; Apr. 21; Gaz. vol. 201; p. 899.
Lees Manufacturing Co., The, Westport, Conn., and New York, N. Y. Twines and cords. No. 96,690; Apr. 28; Gaz. vol. 201; p. 1215.
Lehman, Edward, Memphis, Tenn. Liver-wafers. No. 96,145; Apr. 7; Gaz. vol. 201; p. 263.
Leikauf, John E., New York, N. Y. Candy. No. 96,146; Apr. 7; Gaz. vol. 201; p. 263.
Leikauf, John E., New York, N. Y. Laxative. No. 96,147; Apr. 7; Gaz. vol. 201; p. 263.
Levenson, Nathan, Worcester, Mass. Laundry tablets. No. 96,691; Apr. 28; Gaz. vol. 201; p. 1215.
Levinstein Limited, Blackley, near Manchester, England. Size for textiles. No. 96,522; Apr. 21; Gaz. vol. 201; p. 899.
Lewiston Milling Co., Ltd., Lewiston, Idaho. Wheat-flour. Nos. 96,431–2; Apr. 21; Gaz. vol. 201; p. 896.
Little, George W., Bullards, Ga. Preparation for the treatment of certain ailments and diseases. No. 96,692; Apr. 28; Gaz. vol. 201; p. 1215.
Lockwood-Luetkemeyer-Henry Company, The, Cleveland, Ohio. Washing-machines. No. 96,433; Apr. 21; Gaz. vol. 201; p. 896.
Lofaro & Rossi, Utica, N. Y. Olive-oil. No. 96,434; Apr. 21; Gaz. vol. 201; p. 896.
London Hygienic Chemical Co., London, England. Preparation for the extermination of vermin. No. 96,435; Apr. 21; Gaz. vol. 201; p. 896.
Long-Hargrove Mfg. Co., Tyler, Tex. Overalls and trousers. No. 96,693; Apr. 28; Gaz. vol. 201; p. 1215.
Loose-Wiles Biscuit Company, Boston, Mass. Biscuit. No. 96,592; Apr. 21; Gaz. vol. 201; p. 901.
Louis Auerbach, Incorporated, New York, N. Y. Neckties and neckscarfs. No. 96,482; Apr. 21; Gaz. vol. 201; p. 898.
Louisville Milling Co., Louisville, Ky. Wheat-flour. No. 96,436; Apr. 21; Gaz. vol. 201; p. 896.
Lucarini, Eugenio, New York, N. Y. Effervescent medicinal preparation. No. 96,148; Apr. 7; Gaz. vol. 201; p. 263.
Luigi Calissano & Figli, Inc., New York, N. Y. Light-red table-wines. No. 96,399; Apr. 21; Gaz. vol. 201; p. 895.
Luneburg, Vincent M., Chicago, Ill. Wire belt-lace. No. 96,149; Apr. 7; Gaz. vol. 201; p. 263.
Lyon, Samuel B., San Francisco, Cal. Remedies for tobacco-poisoning, biliousness, constipation, &c. No. 96,524; Apr. 21; Gaz. vol. 201; p. 899.
M. B. Brown Printing & Binding Company, New York, N. Y. Monthly magazine. No. 96,637; Apr. 28; Gaz. vol. 201; p. 1213.
M. S. Levy & Sons, Incorporated, Baltimore, Md. Men's and boys' hats. No. 96,309; Apr. 14; Gaz. vol. 201; p. 565.
M. W. Diffley, Inc., Chicago, Ill. Cigars. No. 96,116; Apr. 7; Gaz. vol. 201; p. 262.
M. W. Diffley, Inc., Chicago, Ill. Cigars. No. 96,257; Apr. 14; Gaz. vol. 201; p. 564.
MacKinstry, Annie, New York, N. Y. Hair-dyes. No. 96,525; Apr. 21; Gaz. vol. 201; p. 899.
Mack, Heinrich, Ulm, Germany. Borax, borax tooth and wound powders and shampoo preparation. No. 96,150; Apr. 7; Gaz. vol. 201; p. 263.
Macnamara Feature Film Co., Inc., New York, N. Y. Moving-picture films. No. 96,694; Apr. 28; Gaz. vol. 201; p. 1215.
Madame X Manufacturing Company, New York, N. Y. Corsets. No. 96,593; Apr. 21; Gaz. vol. 201; p. 901.
Madame X Manufacturing Company, New York, N. Y. Corsets. No. 96,695; Apr. 28; Gaz. vol. 201; p. 1215.
Maduro Mercantile Co., New York, N. Y. Hosiery. No. 96,594; Apr. 21; Gaz. vol. 201; p. 901.
Magic Suction Company, New York, N. Y. Adhesive composition for attaching artificial teeth to gums. No. 96,310; Apr. 14; Gaz. vol. 201; p. 565.
Malmö Chokolad- & Konfekt-Fabriks Aktie-Bolag, Malmo, Sweden. Cocoa. No. 96,437; Apr. 21; Gaz. vol. 201; p. 896.
Malsin, Albert, New York, N. Y. Ladies' suits, dresses, and skirts. No. 96,311; Apr. 14; Gaz. vol. 201; p. 565.
Manchester-Smith Company, Providence, R. I. Jewelry for personal adornment. No. 96,696; Apr. 28; Gaz. vol. 201; p. 1215.
Mandel Brothers, Chicago, Ill. Perfumes, toilet waters, face and sachet powders, and rouges. No. 96,697; Apr. 28; Gaz. vol. 201; p. 1215.
Mandel Limousine Co., Chicago, Ill. Vehicles, vehicle tops and bodies. No. 96,312; Apr. 14; Gaz. vol. 201; p. 565.
Manhattan Electrical Supply Co., Jersey City, N. J., and New York, N. Y. Dry batteries. No. 96,313; Apr. 14; Gaz. vol. 201; p. 566.
Marchosky, Shulem J., New York, N. Y. Cigarettes. Nos. 96,698–9; Apr. 28; Gaz. vol. 201; p. 1215.
Marcus, Simon, Philadelphia, Pa. Laxative pills. No. 96,438; Apr. 21; Gaz. vol. 201; p. 896.
Marder, John L., Carrollton, Ill., and St. Louis, Mo. Medicine for certain named diseases. No. 96,526; Apr. 21; Gaz. vol. 201; p. 899.
Master Builders Company, The, Cleveland, Ohio. Plastic compounds for roofs. No. 96,701; Apr. 28; Gaz. vol. 201; p. 1215.
Matthews & Sons, Geo. B., New Orleans, La. Feed for horses and mules. No. 96,439; Apr. 21; Gaz. vol. 201; p. 896.
Mayer, Alfred, Philadelphia, Pa. Cigars, cigarettes, tobacco, and snuff. No. 96,702; Apr. 28; Gaz. vol. 201; p. 1215.
Mayer, D. & E. L., New York, N. Y. Neckties. No. 96,315; Apr. 14; Gaz. vol. 201; p. 566.
Mayer Gebrüder, Esslingen, Germany. Paint and varnish. No. 96,316; Apr. 14; Gaz. vol. 201; p. 566.
Mayer, Richard, Boston, Mass. Cleaning-cloths. No. 96,703; Apr. 28; Gaz. vol. 201; p. 1215.
McClure Company, The, Saginaw, Mich. Wooden staves impregnated with wood-preservative. No. 96,704; Apr. 28; Gaz. vol. 201; p. 1215.
McClure Company, The, Saginaw, Mich. Liquid used in treating wood to prevent its decaying. No. 96,705; Apr. 28; Gaz. vol. 201; p. 1215.
McDonald, Charles C., Elyria, Ohio. Canned pork and beans with tomato sauce. Nos. 96,151–2; Apr. 7; Gaz. vol. 201; p. 263.
McDonald, Charles C., Elyria, Ohio. Canned pork and beans with tomato sauce. No. 96,595; Apr. 21; Gaz. vol. 201; p. 901.
McKinney, Eva J., Clinton, Ill. Waist and skirt supporters. No. 96,706; Apr. 28; Gaz. vol. 201; p. 1215.
McKirdy, William, Nepigon, Ontario, Canada. Fly-repellents. No. 96,423; Apr. 21; Gaz. vol. 201; p. 896.
McLain, Robert E., Warrenton, Tex. Medicine for diarrhea, dropsy, and piles. No. 96,154; Apr. 7; Gaz. vol. 201; p. 263.
Mendia, Soledad I. de, Mexico, Mexico. Remedy for tuberculosis and pulmonary troubles. No. 96,552; Apr. 28; Gaz. vol. 201; p. 1214.
Mercian, Joseph H., New York, N. Y. Canned or preserved fish. No. 96,155; Apr. 7; Gaz. vol. 201; p. 263.
Mercian, Joseph H., New York, N. Y. Canned or preserved fish. Nos. 96,441–4; Apr. 21; Gaz. vol. 201; p. 896.
Mercurio Publishing Company, New Orleans, La. Spanish magazine published monthly. No. 96,707; Apr. 28; Gaz. vol. 201; p. 1215.
Merriman Brothers, Boston, Mass. Pulley blocks, sheaves, bushings, and bearings. No. 96,708; Apr. 28; Gaz. vol. 201; p. 1215.
Metzler, Henry W., Champaign, Ill. Remedy for diseases of poultry and swine. No. 96,527; Apr. 21; Gaz. vol. 201; p. 899.
Meyer, Arnold O., Hamburg, Germany. Yarns. No. 96,156; Apr. 7; Gaz. vol. 201; p. 263.
Meyer, Firm of Arnold O., Hamburg, Germany. Hand sewing-needles, hooks and eyes. No. 96,528; Apr. 21; Gaz. vol. 201; p. 899.
Miller Drug Co., Philadelphia, Pa. Cod-liver-oil tonic. No. 96,529; Apr. 21; Gaz. vol. 201; p. 899.
Moore & Rogers, New Albany, Miss. Cornmeal. No. 96,157; Apr. 7; Gaz. vol. 201; p. 263.
Morrow Chemical Company, Platteville, Wis. Stimulant for nervous exhaustion and general debility. No. 96,445; Apr. 21; Gaz. vol. 201; p. 896.
Mosel-Johnson Co., The, Steubenville, Ohio. Certain named foods. No. 96,158; Apr. 7; Gaz. vol. 201; p. 263.
Motorcycle Equipment Co., Hammondsport, N. Y. Certain named machinery and parts thereof and tools. No. 96,710; Apr. 28; Gaz. vol. 201; p. 1215.
Mullen-Blackledge-Nellis Co., Brazil, Ind., and Effingham, Ill. Certain named foods. No. 96,596; Apr. 21; Gaz. vol. 201; p. 901.
Munk, Betty, New York, N. Y. Face-cream. No. 96,446; Apr. 21; Gaz. vol. 201; p. 896.
Munson Bros. Co., Utica, N. Y. Bur-mills and attrition-mills for grinding corn and other cereals. No. 96,711; Apr. 28; Gaz. vol. 201; p. 1215.
Murphey, Abraham D., Cincinnati, Ohio. Toilet lotion for preventing excessive perspiration. No. 96,159; Apr. 7; Gaz. vol. 201; p. 263.
Mutchle, Theodore F., Portland, Oreg. Liquid abrasive for producing a dull finish on any polished surface. No. 96,712; Apr. 28; Gaz. vol. 201; p. 1215.
Myers Manufacturing Company, Los Angeles, Cal. Ladies' combined shirt-waist and bloomer gymnasium and athletic suits. No. 96,317; Apr. 14; Gaz. vol. 201; p. 566.
N. K. Fairbank Company, The, Chicago, Ill. Washing-powders. No. 96,657; Apr. 28; Gaz. vol. 201; p. 1214.
N. O. Nelson Manufacturing Company, St. Louis, Mo. Bath-tubs, lavatories, sinks, &c. No. 96,320; Apr. 14; Gaz. vol. 201; p. 566.
N. Y. Disinfecting & Exterminating Co., Forst & Mendel, New York, N. Y. Germicide, vermin-exterminator, and disinfectant. No. 96,178; Apr. 7; Gaz. vol. 201; p. 263.
Nagle, Peter J., Rochester, N. Y. Chewing-gum. No. 96,160; Apr. 7; Gaz. vol. 201; p. 263.
Nährmittelfabrik München Gesellschaft mit beschr. Haftung, Pasing, near Munich, Germany. Food for children. No. 96,447; Apr. 21; Gaz. vol. 201; p. 897.
Naperville Lounge Company, Naperville, Ill. Couches. No. 96,713; Apr. 28; Gaz. vol. 201; p. 1215.
National-Acme Manufacturing Company, The, Cleveland, Ohio. Automatic multiple-spindle screw-machines. No. 96,318; Apr. 14; Gaz. vol. 201; p. 566.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 96,161–72; Apr. 7; Gaz. vol. 201; p. 263.

National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. No. 96,714; Apr. 28; Gaz. vol. 201; p. 1216.

National Cash Register Company, Dayton, Ohio. Periodicals. No. 96,319; Apr. 14; Gaz. vol. 201; p. 568.

Neumond, K. & E., New Orleans, La. Brewers' grain. No. 96,597; Apr. 21; Gaz. vol. 201; p. 901.

New England Cotton Yarn Company, New Bedford, Mass. Thread. Nos. 96,321–4; Apr. 14; Gaz. vol. 201; p. 566.

New England Envelope Company, Worcester, Mass. Envelops, writing and printing paper. No. 96,598; Apr. 21; Gaz. vol. 201; p. 901.

Northampton Cutlery Co., Northampton, Mass. Table-knives. No. 96,532; Apr. 21; Gaz. vol. 201; p. 899.

Novambére, Bernard, New York, N. Y. Toilet creams, powder, perfumery, and tooth-paste. No. 96,448; Apr. 21; Gaz. vol. 201; p. 897.

O'Donnell Shoe Co., St. Paul, Minn. Leather shoes. No. 96,325; Apr. 14; Gaz. vol. 201; p. 566.

O'Kelly & Co., E. A., London, England. Dates. No. 96,600; Apr. 21; Gaz. vol. 201; p. 901.

Ohio Dairy Company, The, Toledo, Ohio. Evaporated and condensed milk. Nos. 96,449–50; Apr. 21; Gaz. vol. 201; p. 897.

Oldham, Leroy, Baltimore, Md. Preparation for the treatment of the hair and scalp. No. 96,533; Apr. 21; Gaz. vol. 201; p. 899.

Olsen & Kleppe, Carl O., Stavanger, Norway. Canned fish. No. 96,451; Apr. 21; Gaz. vol. 201; p. 897.

Oostburg Canning Company, Oostburg, Wis. Canned vegetables. No. 96,174; Apr. 7; Gaz. vol. 201; p. 263.

Oriental Manicure Specialty Co., New York, N. Y. Nail polish and bleach and cuticle and stain remover. No. 96,452; Apr. 21; Gaz. vol. 201; p. 897.

Osgood & Silverblatt, Pittsburgh, Pa. Cotton and wool dress goods. No. 96,326; Apr. 14; Gaz. vol. 201; p. 566.

Oxycarbon Co., Worcester, Mass. Portable decarbonizing apparatus. No. 96,327; Apr. 14; Gaz. vol. 201; p. 566.

Pacific Bone Coal & Fertilizing Co., San Francisco, Cal. Fertilizer. No. 96,534; Apr. 21; Gaz. vol. 201; p. 899.

Pacific Fisheries & Packing Company, Aberdeen, Wash. Canned salmon. Nos. 96,453–4; Apr. 21; Gaz. vol. 201; p. 897.

Pacific Guano & Fertiliser Co., The, Honolulu, Hawaii. Fertilizers. Nos. 96,328–9; Apr. 14; Gaz. vol. 201; p. 566.

Padmore & Barnes Limited, Northampton, England. Leather boots, shoes, slippers, leggings, and gaiters. No. 96,330; Apr. 14; Gaz. vol. 201; p. 566.

Pajeau, Charles H., Chicago, Ill. Games, toys, and children's building-blocks. No. 96,175; Apr. 7; Gaz. vol. 201; p. 263.

Pallerés é Hijos, Fernando, Tortosa, Spain. Olive-oil. No. 96,415; Apr. 21; Gaz. vol. 201; p. 896.

Palo Seco Fruit Company, South Easton, Mass. Fresh pineapples. No. 96,455; Apr. 21; Gaz. vol. 201; p. 897.

Pantazin Co., James, Logansport, Ind. Chewing-gum. No. 96,456; Apr. 21; Gaz. vol. 201; p. 897.

Parc, Julien B. du, deceased; Louis B. du Parc, administrator, La Chapelle Aux Pots, France, and Sidney, N. Y. Camembert-type cheese. No. 96,577; Apr. 21; Gaz. vol. 201; p. 900.

Parc, Louis B. du, administrator. (See Parc, Julien B. du.)

Parian Paint Company, Atlanta, Ga. Paints. No. 96,601; Apr. 21; Gaz. vol. 201; p. 901.

Patmos, Louis, Paterson, N. J. Pharmaceutical preparation for the treatment of headaches and neuralgia. No. 96,176; Apr. 7; Gaz. vol. 201; p. 263.

Patterson-Sargent Company, The, Cleveland, Ohio. Paints, enamels, stains, and varnishes. No. 96,331; Apr. 14; Gaz. vol. 201; p. 566.

Pechin, René G., Philadelphia, Pa. Belt-dressing. No. 96,332; Apr. 14; Gaz. vol. 201; p. 566.

Peckham, Samuel C., Brenham, Tex. Candy-coated popcorn and peanuts, pecans and cocoanut, &c. No. 96,177; Apr. 7; Gaz. vol. 201; p. 263.

Pellier, Frères, Mans, France. Certain named foods. Nos. 96,457–8; Apr. 21; Gaz. vol. 201; p. 897.

Peter Pan Distilling Company, Cincinnati, Ohio. Whisky. Nos. 96,535–6; Apr. 21; Gaz. vol. 201; p. 899.

Petrie, Arthur, Oklahoma, Okla. Cathartic capsules. No. 96,459; Apr. 21; Gaz. vol. 201; p. 897.

Pingo Company, Cambridge, Mass. Metal-polishes. No. 96,333; Apr. 14; Gaz. vol. 201; p. 566.

Plumb, Chas. L., New York, N. Y. Wheat-flour. No. 96,715; Apr. 28; Gaz. vol. 201; p. 1216.

Plunkett Company, Thos., Minneapolis, Minn. Insecticide. No. 96,602; Apr. 21; Gaz. vol. 201; p. 901.

Poldihütte Tiegelgusstahlfabrik, Vienna and Kladno, Austria-Hungary. Steel. No. 96,178; Apr. 7; Gaz. vol. 201; p. 264.

Powell, Charles E., Kingston, N. Y. Preparation for the treatment of stomach, liver, intestines, and nerves. No. 96,179; Apr. 7; Gaz. vol. 201; p. 264.

Pschorr, Firm of G., Munich, Germany. Beer. No. 96,334; Apr. 14; Gaz. vol. 201; p. 566.

Quivey, Daniel O., La Fayette, Ind. Carpet and rug cleaning composition. No. 96,335; Apr. 14; Gaz. vol. 201; p. 566.

R. M. Rose Company, Chattanooga, Tenn. Wines. No. 96,192; Apr. 7; Gaz. vol. 201; p. 264.

R. M. Rose Company, Chattanooga, Tenn. Blended whisky. Nos. 96,843–5; Apr. 14; Gaz. vol. 201; p. 566.

Randall-Faichney Company, Boston, Mass. Spark-plugs. No. 96,336; Apr. 14; Gaz. vol. 201; p. 566.

Rapp Mfg. Co., The, Toledo, Ohio. Spark-plugs and parts thereof. No. 96,337; Apr. 14; Gaz. vol. 201; p. 566.

Rayvio Water Co., Chicago, Ill. Natural filtered drinking-water. No. 96,181; Apr. 7; Gaz. vol. 201; p. 264.

Rea & Page Milling Co., Marshall, Mo. Wheat-flour. No. 96,182; Apr. 7; Gaz. vol. 201; p. 264.

Reisch Brewing Co., Springfield, Ill. Malt beverage. No. 96,183; Apr. 7; Gaz. vol. 201; p. 264.

Reith, Chester F., St. Louis, Mo. Leather shoes. No. 96,716; Apr. 28; Gaz. vol. 201; p. 1216.

Reits, Chas. J., Buffalo, N. Y. Carbon-remover. No. 96,184; Apr. 7; Gaz. vol. 201; p. 264.

Revere Rubber Company, Providence, R. I., and Chelsea, Mass. Rubber heels for boots and shoes. No. 96,338; Apr. 14; Gaz. vol. 201; p. 566.

Revillon Frères, New York, N. Y. Certain named clothing. No. 96,339; Apr. 14; Gaz. vol. 201; p. 566.

Rey-Jouvin Freres et Co., Grenoble, France. Gloves. No. 96,717; Apr. 28; Gaz. vol. 201; p. 1216.

Reynolds, James N., Lindsay, Cal. Citrus fruits. No. 96,185; Apr. 7; Gaz. vol. 201; p. 264.

Reynolds, James N., Lindsay, Cal. Citrus fruits. No. 96,607; Apr. 21; Gaz. vol. 201; p. 901.

Rheims & Asscher, Paris, France. Mechanical devices for operating carriage-door window-sashes. No. 96,340; Apr. 14; Gaz. vol. 201; p. 566.

Rheuma Chemical Co., St. Paul, Minn. Preparations for rheumatism, gout, grippe, and colds. No. 96,460; Apr. 21; Gaz. vol. 201; p. 897.

Richard Hudnut, New York, N. Y. Dry sachet-perfumes. No. 96,676; Apr. 28; Gaz. vol. 201; p. 1214.

Riley-Pennsylvania Oil Company, Burlington, Iowa. Illuminating-oils. No. 96,186; Apr. 7; Gaz. vol. 201; p. 264.

Rindskopf, Henry P., New York, N. Y. Dress-shields. Nos. 96,187–8; Apr. 7; Gaz. vol. 201; p. 264.

Rindskopf, Henry P., New York, N. Y. Dress-shields. No. 96,341; Apr. 14; Gaz. vol. 201; p. 566.

Robert Reis & Co., New York, N. Y. Underwear. Nos. 96,603–6; Apr. 21; Gaz. vol. 201; p. 901.

Robertson, William H., Wright, Wash. Natural mineral water. No. 96,189; Apr. 7; Gaz. vol. 201; p. 264.

Robins, Martha E., Richmond, Va. Tablets for dyspepsia and obstinate constipation. No. 96,461; Apr. 21; Gaz. vol. 201; p. 897.

Robinson-McGill Mfg. Co., Shelbyville, Tenn. Harness, horse-collars, harness and baggage straps. No. 96,718; Apr. 28; Gaz. vol. 201; p. 1216.

Rogers, Amos, Ottawo, Ontario, Canada. Remedy for certain named diseases. No. 96,719; Apr. 28; Gaz. vol. 201; p. 1216.

Rose, Randolph, Chattanooga, Tenn. Certain named alcoholic liquors. No. 96,190; Apr. 7; Gaz. vol. 201; p. 264.

Rose, Randolph, Chattanooga, Tenn. Wines. No. 96,191; Apr. 7; Gaz. vol. 201; p. 264.

Rose, Randolph, Chattanooga, Tenn. Whisky. Nos. 96,537–9; Apr. 21; Gaz. vol. 201; p. 899.

Rosenet Company, The, Spokane, Wash. Hair-tonic. No. 96,540; Apr. 21; Gaz. vol. 201; p. 899.

Ross & Co., Chas. H., Baltimore, Md. Whisky. No. 96,541; Apr. 21; Gaz. vol. 201; p. 899.

Russell Manufacturing Co., Middletown, Conn. Woven machine-belting. No. 96,720; Apr. 28; Gaz. vol. 201; p. 1216.

S. C. Herbst Importing Co., Milwaukee, Wis. Whisky. No. 96,513; Apr. 21; Gaz. vol. 201; p. 898.

Salant & Salant, New York, N. Y. Work-shirts. No. 96,346; Apr. 14; Gaz. vol. 201; p. 566.

Samuel Cabot, Inc., Boston, Mass. Enamel. No. 96,099; Apr. 7; Gaz. vol. 201; p. 261.

Santa Rosa Paste Co., Santa Rosa, Cal. Macaroni, vermicelli, and spaghetti. No. 96,194; Apr. 7; Gaz. vol. 201; p. 264.

Sargent Company, Chicago, Ill. Blow-off valves and cocks. No. 96,347; Apr. 14; Gaz. vol. 201; p. 567.

Sargent Company, Chicago, Ill. Water-gages. No. 96,722; Apr. 28; Gaz. vol. 201; p. 1216.

Satterlee & Smith, Lake Charles, La. Remedy for rheumatism, sore muscles, and itching skin. No. 96,723; Apr. 28; Gaz. vol. 201; p. 1216.

Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 96,348; Apr. 14; Gaz. vol. 201; p. 567.

Savage, Louis P., Laporte, Ind. Remedies for diseases of the eyes. No. 96,608; Apr. 21; Gaz. vol. 201; p. 901.

Schermerhorn Bros. Co., Chicago, Ill. Woven yard goods and fabrics. No. 96,349; Apr. 14; Gaz. vol. 201; p. 567.

Schuster Company, The, Cleveland, Ohio. Glass flasks and bottles. No. 96,350; Apr. 14; Gaz. vol. 201; p. 567.

Schwob, Adolphe, New York, N. Y. Watches. No. 96,352; Apr. 14; Gaz. vol. 201; p. 567.

Seibel, R. M., Kansas City, Mo. Alkaline antiseptic, antiphlogistic, &c., preparation. No. 96,195; Apr. 7; Gaz. vol. 201; p. 264.

Sek-Rub Company, Wilkes-Barre, Pa. Analgesic balm. No. 96,463; Apr. 21; Gaz. vol. 201; p. 897.

Self, Thomas H., Martinsville, Va. Natural stones used as ornaments in jewelry. No. 96,724; Apr. 28; Gaz. vol. 201; p. 1216.



Sher, Edward, New York, N. Y. Liniment, headache remedy, depilatory fluid, &c. No. 96,542; Apr. 21; Gaz. vol. 201; p. 899.

Sherman, Isidor, New York, N. Y. White foot-powder. No. 96,543; Apr. 21; Gaz. vol. 201; p. 899.

Shoe Manufacturers' Supply Company, Newark, N. J. Shoe cover and vamp stays. No. 96,609; Apr. 21; Gaz. vol. 201; p. 901.

Shultz, Arthur E., Olney, Ill. Certain named seeds. No. 96,354; Apr. 14; Gaz. vol. 201; p. 567.

Silver-Chamberlin Co., Clayton, N. J. Certain named brushes, dusters, and mops. No. 96,725; Apr. 28; Gaz. vol. 201; p. 1216.

Simpson, John F., Washington, D. C. Ointments and emulsions, preparations for the treatment of certain named diseases. No. 96,197; Apr. 7; Gaz. vol. 201; p. 264.

Skinner Engine Company, The, Erie, Pa. Steam-engines. No. 96,544; Apr. 21; Gaz. vol. 201; p. 899.

Smith & Hemenway Company, New York, N. Y. Pliers. No. 96,359; Apr. 14; Gaz. vol. 201; p. 567.

Smith, John F., Meadow Creek, W. Va. Pile medicine. No. 96,726; Apr. 28; Gaz. vol. 201; p. 1216.

Smith, Lycurgus, Mineral Wells, Tex. Mineral waters. No. 96,198; Apr. 7; Gaz. vol. 201; p. 264.

Societe Generale des Etablissements Bergougnan, Clermont-Ferrand, France. Rubber tires, treads, and non-skidding treads. No. 96,727; Apr. 28; Gaz. vol. 201; p. 1216.

Société Internationale de Lumière Froide (Procédés Dussaud), Paris, France. Projection apparatus, films, and photographic plates. No. 96,360; Apr. 14; Gaz. vol. 201; p. 567.

Soukup, Frank, Bayonne, N. J. Ointment. No. 96,201; Apr. 7; Gaz. vol. 201; p. 264.

Southern Candy Company, Atlanta, Ga. Candy. No. 96,202; Apr. 7; Gaz. vol. 201; p. 264.

Southern Citrus Corporation, Lynchburg, Va. Citrus fruits. No. 96,200; Apr. 7; Gaz. vol. 201; p. 264.

Spratt's Patent (America) Limited, London, England, and Newark, N. J. Food preparation for dogs, cats, poultry, &c. No. 96,203; Apr. 7; Gaz. vol. 201; p. 264.

St. Paul Rubber Company, St. Paul, Minn. Rain-coats, rubber boots, overshoes, and sandals. No. 96,611; Apr. 21; Gaz. vol. 201; p. 901.

Standard Oil Company of California, San Francisco, Cal. Lubricating-oil. No. 96,204; Apr. 7; Gaz. vol. 201; p. 264.

Standard Sanitary Manufacturing Company. (See Great Western Pottery Co., assignor.)

Standard Soap Company, West Berkeley, Cal. Laundry soap. No. 96,728; Apr. 28; Gaz. vol. 201; p. 1216.

Standard Soap Company, West Berkeley, Cal. Toilet and laundry soap. No. 96,729; Apr. 28; Gaz. vol. 201; p. 1216.

Stanford Seed Company, Binghamton, N. Y. Seeds. No. 96,730; Apr. 28; Gaz. vol. 201; p. 1216.

Staples & Company, H. F., Medford, Mass. Certain named polishing materials, crack-fillers, and the like. No. 96,205; Apr. 7; Gaz. vol. 201; p. 264.

Starace, Achille, New York, N. Y. Certain named foods. No. 96,464; Apr. 21; Gaz. vol. 201; p. 897.

Starr Piano Company, The, Richmond, Ind. Pianos, piano-cases, and player-pianos. No. 96,612; Apr. 21; Gaz. vol. 201; p. 901.

Stenography and Reporting Company, The, Trenton, N. J. Certain papers, envelops, cards, rubber erasers, &c. No. 96,362; Apr. 14; Gaz. vol. 201; p. 567.

Stephen Sanford & Sons, Inc., Amsterdam, N. Y. Textile rugs, mats, and carpets. No. 96,193; Apr. 7; Gaz. vol. 201; p. 264.

Stone Hill Wine Company, Hermann, Mo. Wines. No. 96,206; Apr. 7; Gaz. vol. 201; p. 264.

Stover, George H., New Dorp, assignor to A. R. Watson, New York, N. Y. Monthly periodicals. No. 96,731; Apr. 28; Gaz. vol. 201; p. 1216.

Strauss Bros. & Co., New York, N. Y. Braids and edgings. No. 96,363; Apr. 14; Gaz. vol. 201; p. 567.

Strohmeyer & Arpe Company, New York, N. Y. Certain named foods. No. 96,207; Apr. 7; Gaz. vol. 201; p. 264.

Sullivan, Mary, Buffalo, N. Y. Hair-tonic. No. 96,545; Apr. 21; Gaz. vol. 201; p. 899.

Sulloway Mills, Franklin, N. H. Hosiery. No. 96,530; Apr. 21; Gaz. vol. 201; p. 899.

Sulloway Mills, Franklin, N. H. Hosiery. No. 96,531; Apr. 21; Gaz. vol. 201; p. 899.

Sweet Valley Wine Company, Sandusky, Ohio. Wines. No. 96,546; Apr. 21; Gaz. vol. 201; p. 899.

Symphony Cocktail Company, Chicago, Ill. Cocktail ingredients. No. 96,364; Apr. 14; Gaz. vol. 201; p. 567.

T. H. E. Sales Company, New York, N. Y. Laundry-washing machines. No. 96,721; Apr. 28; Gaz. vol. 201; p. 1216.

Talens & Son, Irvington, N. J. Artists' colors. No. 96,547; Apr. 21; Gaz. vol. 201; p. 899.

Tanke, Otto W., Chicago, Ill. Detergent. No. 96,732; Apr. 28; Gaz. vol. 201; p. 1216.

Ten Broeck Tyre Co., Louisville, Ky. Tire-treads. No. 96,365; Apr. 14; Gaz. vol. 201; p. 567.

Tetlow Co., Henry. (See Tetlow, Firm of Joseph, assignor.)

Tetlow, Firm of Joseph, assignor to Henry Tetlow Co., Philadelphia, Pa. Face, toilet, and talcum powders. No. 96,465; Apr. 21; Gaz. vol. 201; p. 897.

Teweles & Co., L., Milwaukee, Wis. Grass and field seeds. Nos. 96,733–6; Apr. 28; Gaz. vol. 201; p. 1216.

Texas Refining Company, Greenville, Tex. Cooking-oil. No. 96,466; Apr. 21; Gaz. vol. 201; p. 897.

Theobald, Margareth, New York, N. Y. Sanitary napkins. No. 96,366; Apr. 14; Gaz. vol. 201; p. 567.

Thompson, Ralph, Boston, Mass. Electrical metal-cleaning apparatus. No. 96,548; Apr. 21; Gaz. vol. 201; p. 899.

Tietig & Son, Arnold, Cincinnati, Ohio. Cigars. No. 96,736; Apr. 28; Gaz. vol. 201; p. 1216.

Tilden Company, The, New Lebanon, N. Y., and St. Louis, Mo. Remedy for eczema. No. 96,549; Apr. 21; Gaz. vol. 201; p. 899.

Tilghman, William G., Palatka, Fla. Shingles. No. 96,367; Apr. 14; Gaz. vol. 201; p. 567.

Tokstad-Burger Co., New York, N. Y. Canned fish. No. 96,467; Apr. 21; Gaz. vol. 201; p. 897.

Toledo Pipe Threading Machine Company, The, Toledo, Ohio. Pipe-threading machines and threading-dies. No. 96,550; Apr. 21; Gaz. vol. 201; p. 899.

Tomson & Company, P. C., Philadelphia, Pa. Alkaline cleaning-powder. No. 96,468; Apr. 21; Gaz. vol. 201; p. 897.

Tower Manufacturing & Novelty Co., New York, N. Y. Poker-chips, dice, dominoes, checkers, base-balls and bats, and cribbage-boards. No. 96,551; Apr. 21; Gaz. vol. 201; p. 899.

Tutter, Anton, Raymond, Wash. Bread. No. 96,613; Apr. 21; Gaz. vol. 201; p. 901.

Twining, Charles, New York, N. Y. Tobacco-pouches and combined tobacco and pipe pouches. No. 96,368; Apr. 14; Gaz. vol. 201; p. 567.

Ullman, Alexander M., New York, N. Y. Metal-polishes. No. 96,369; Apr. 14; Gaz. vol. 201; p. 567.

Underpinning & Foundation Co., The, New York, N. Y. Steel piles for foundations. No. 96,737; Apr. 28; Gaz. vol. 201; p. 1216.

Ungles Hoggette Mfg. Co., Lincoln, Nebr. Lice and vermin destroyer. No. 96,552; Apr. 21; Gaz. vol. 201; p. 900.

Union Oil Company of California, Oleum and San Francisco, Cal. Lubricating oils and greases. No. 96,738; Apr. 28; Gaz. vol. 201; p. 1216.

United Flour Mills Co., Minneapolis, Minn. Wheat-flour. No. 96,208; Apr. 7; Gaz. vol. 201; p. 264.

United & Globe Rubber Mfg. Companies, Trenton, N. J. Non-metallic tires. No. 96,739; Apr. 28; Gaz. vol. 201; p. 1216.

United States Distributing Co., New York, N. Y. Cigars and smoking-tobacco. No. 96,619; Apr. 21; Gaz. vol. 201; p. 901.

United States Graphite Company, The, Saginaw, Mich. Pulverized graphite. Nos. 96,740–52; Apr. 28; Gaz. vol. 201; pp. 1216–17.

United States Graphite Company, Saginaw, Mich. Graphite lubricant. No. 96,753; Apr. 28; Gaz. vol. 201; p. 1217.

United States Graphite Company, Saginaw, Mich. Graphite-wood greases. No. 96,754; Apr. 28; Gaz. vol. 201; p. 1217.

United States Graphite Company, Saginaw, Mich. Machinery-lubricant. No. 96,755; Apr. 28; Gaz. vol. 201; p. 1217.

United States Gutta Percha Paint Company, Saco, Me., and Providence, R. I. Varnishes. No. 96,209; Apr. 7; Gaz. vol. 201; p. 264.

United States Gutta Percha Paint Company, Providence, R. I. Solvents for shellac and resins, and paint-oils, ready-mixed paints, varnishes, and wood-fillers. No. 96,614; Apr. 21; Gaz. vol. 201; p. 901.

United States Playing Card Co., The, Cincinnati, Ohio. Playing-cards. No. 96,210; Apr. 7; Gaz. vol. 201; p. 264.

United States Rubber Company, New York, N. Y. Rubber boots and shoes and rubber heels. No. 96,370; Apr. 14; Gaz. vol. 201; p. 567.

Universal Bottle Washer Co., Detroit, Mich. Bottle washing and rinsing machines. No. 96,756; Apr. 28; Gaz. vol. 201; p. 1217.

Upson-Walton Co., Cleveland, Ohio. Steel-wire rope. No. 96,553; Apr. 21; Gaz. vol. 201; p. 900.

Utica Carbon & Wax Paper Co., Utica, N. Y. Carbon-paper. No. 96,615; Apr. 21; Gaz. vol. 201; p. 901.

Valley City Machine Works, Grand Rapids, Mich. Machines for milling, drilling, and grinding metal. No. 96,371; Apr. 14; Gaz. vol. 201; p. 567.

Van Cassel & Cie., Lallier, Ay, France. Wines and champagne. No. 96,143; Apr. 7; Gaz. vol. 201; p. 262.

Van Valkenburgh, Matthew L., Zanesville, Ohio. Medical compound for burns, scalds, and other injuries from fire. No. 96,757; Apr. 28; Gaz. vol. 201; p. 1217.

Van Vleet-Mansfield Drug Co., Memphis, Tenn. Remedy for impurities of the blood. No. 96,211; Apr. 7; Gaz. vol. 201; p. 264.

Van Vleet-Mansfield Drug Co., Memphis, Tenn. Remedy for diseases of the liver. No. 96,554; Apr. 21; Gaz. vol. 201; p. 900.

Vereinigte Chininfabriken Zimmer & Co., Ges. mit beschränkter Haftung, Frankfort-on-the-Main, Germany. Soporific preparation. No. 96,758; Apr. 28; Gaz. vol. 201; p. 1217.

Vesuvio & Piedmont Paste Co., San Francisco, Cal. Alimentary paste products. No. 96,469; Apr. 21; Gaz. vol. 201; p. 897.

Victor Jar Company, Detroit, Mich. Jar-closures of metal. No. 96,555; Apr. 21; Gaz. vol. 201; p. 900.
Victor Talking Machine Company, Camden, N. J. Records for talking-machines. No. 96,470; Apr. 21; Gaz. vol. 201; p. 897.
W. J. Gilmore Drug Company, Pittsburgh, Pa. Cough-syrup. No. 96,408; Apr. 21; Gaz. vol. 201; p. 895.
W. M. Griffin Company, Fort Wayne, Ind. Cough-syrup. No. 96,410; Apr. 21; Gaz. vol. 201; p. 896.
W. N. Sharpe, Limited, Bradford, England. Note-paper, certain named blank cards, and paper and cardboard initials. No. 96,353; Apr. 14; Gaz. vol. 201; p. 567.
W. P. Fuller & Co., San Francisco, Cal. Varnishes. Nos. 96,266–8; Apr. 14; Gaz. vol. 201; p. 564.
W. P. Poythress Capsule Co., Inc., Richmond, Va. Remedy for certain named diseases. No. 96,180; Apr. 7; Gaz. vol. 201; p. 264.
W. R. Grace & Company, New York, N. Y. Lubricating oils and greases. No. 96,279; Apr. 14; Gaz. vol. 201; p. 565.
W. R. Grace & Company, New York, N. Y. Kerosene, benzin, gasolene, and naphtha. No. 96,280; Apr. 14; Gaz. vol. 201; p. 565.
Wackenreuter & William A. Klipstein, Andreas G., New York, N. Y. Tanning agent. No. 96,471; Apr. 21; Gaz. vol. 201; p. 897.
Waldheimer Parfümerie- und Toiletteseifen-Fabrik, A. H. A. Bergmann, Waldheim, Germany, and New York, N. Y. Tooth-pastes. No. 96,750; Apr. 28; Gaz. vol. 201; p. 1217.
Wallace, Scott & Co., Limited, Glasgow, Scotland. Rain-proof coats, capes, jackets, breeches, and leggings. No. 96,372; Apr. 14; Gaz. vol. 201; p. 567.
Wallace, Scott & Co., Limited, Glasgow, Scotland. Wool, worsted, or hair piece goods. No. 96,556; Apr. 21; Gaz. vol. 201; p. 900.
Wangenheim, Roy, Buffalo, N. Y. Candy. No. 96,472; Apr. 21; Gaz. vol. 201; p. 897.
Warren, George A., Boston, Mass. Preparation of croup-syrup. No. 96,473; Apr. 21; Gaz. vol. 201; p. 897.
Washburn, James M., Chicago, Ill. Supports for cards or pictures. No. 96,762; Apr. 28; Gaz. vol. 201; p. 1217.
Waterproofing Co., New York, N. Y. Waterproof mortar and cement. No. 96,212; Apr. 7; Gaz. vol. 201; p. 264.
Watson, Archibald R.. (See Stover, George H., assignor.)
Wattera, Marcus H., Castleton, Vt. Skin-lotions. No. 96,213; Apr. 7; Gaz. vol. 201; p. 265.
Wear-U-Well Shoe Company, The, Columbus, Ohio. Hats. No. 96,763; Apr. 28; Gaz. vol. 201; p. 1217.
Weber, Eugen, Stuttgart, Germany. Slide-rules, measuring-calipers, micrometers, &c. No. 96,764; Apr. 28; Gaz. vol. 201; p. 1217.
Webster Chemical Company, St. Paul, Minn. Inhalant and fever and cathartic tablets. No. 96,474; Apr. 21; Gaz. vol. 201; p. 897.
Webster Chemical Company, St. Paul, Minn. Wafers of cathartic salts. No. 96,475; Apr. 21; Gaz. vol. 201; p. 897.
Wertheimer & Cie., E., Paris, France. Perfumes, face-paints, and rouges. No. 96,557; Apr. 21; Gaz. vol. 201; p. 900.
Western Clock Co., Peru, Ill. Clocks and watches. No. 96,373; Apr. 14; Gaz. vol. 201; p. 567.
Western Clock Co., Peru, Ill. Clocks and watches. No. 96,616; Apr. 21; Gaz. vol. 201; p. 901.
Western Tablet Co., St. Joseph, Mo. Writing-tablets. No. 96,765; Apr. 28; Gaz. vol. 201; p. 1217.
Western Union Macaroni Mfg. Co., Denver, Colo. Macaroni. No. 96,476; Apr. 21; Gaz. vol. 201; p. 897.
Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Electrical insulating sheets and tubes. No. 96,374; Apr. 14; Gaz. vol. 201; p. 567.
Weyman-Bruton Co., New York, N. Y. Chewing and smoking tobacco. No. 96,375; Apr. 14; Gaz. vol. 201; p. 567.
Wheatcroft, Thomas S., New York, N. Y. Peanuts. No. 96,477; Apr. 21; Gaz. vol. 201; p. 897.
Wheeler & Motter Mercantile Company, St. Joseph, Mo. Blankets. No. 96,376; Apr. 14; Gaz. vol. 201; p. 567.
Whitmore Manufacturing Company, The, Cleveland, Ohio. Lubricants. No. 96,377; Apr. 14; Gaz. vol. 201; p. 567.
Wichman, Lutgen & Co., San Francisco, Cal. Blended whisky. No. 96,378; Apr. 14; Gaz. vol. 201; p. 567.
Wildey, Ambrose S., West Nutley, N. J. Non-poisonous antiseptic. No. 96,479; Apr. 21; Gaz. vol. 201; p. 897.
William Call Bitmo Company, New York, N. Y. Carbon-paint. No. 96,559; Apr. 21; Gaz. vol. 201; p. 900.
William H. Brown & Bro. Company, Baltimore, Md. Perfume, toilet waters, powders, and cold-cream. No. 96,098; Apr. 7; Gaz. vol. 201; p. 261.
Wilson, Arthur E., Kalamazoo, Mich. Writing-tablets. No. 96,379; Apr. 14; Gaz. vol. 201; p. 567.
Wilson, Odell, Cleveland, Ohio. Dental powder used in holding dental plates in the mouth. No. 96,214; Apr. 7; Gaz. vol. 201; p. 265.
Winwood, George M., Jr., Springfield, Ohio. Seeding machinery and grain-drills. No. 96,215; Apr. 7; Gaz. vol. 201; p. 265.
Wisconsin Electric Company, Racine, Wis. Electric cleaning apparatus. No. 96,766; Apr. 28; Gaz. vol. 201; p. 1217.
Wm. C. Robinson & Son Co., Baltimore, Md. Cylinder and engine oils. No. 96,342; Apr. 14; Gaz. vol. 201; p. 566.
Wm. H. Horstmann Company, Philadelphia, Pa. Embroidery thread and yarn. No. 96,675; Apr. 28; Gaz. vol. 201; p. 1214.
Workman Packing Company, San Francisco, Cal. Tamales and karno. No. 96,480; Apr. 21; Gaz. vol. 201; p. 898.
World Special Films Corporation, New York, N. Y. Motion-picture and photoplay films. No. 96,767; Apr. 28; Gaz. vol. 201; p. 1217.
Wortendyke Manufacturing Company, Richmond, Va. Toilet-paper. No. 96,617; Apr. 21; Gaz. vol. 201; p. 901.
Worth, Paris, France. Gowns, mantles, fur garments, women's underwear. No. 96,618; Apr. 21; Gaz. vol. 201; p. 901.
Wulfing Grocer Company, St. Louis, Mo. Certain industrial chemicals. No. 96,560; Apr. 21; Gaz. vol. 201; p. 900.
Wyoming Shovel Works, Wyoming, Pa. Shovels, spades, and scoops. No. 96,768; Apr. 28; Gaz. vol. 201; p. 1217.
Yopp Seed Co., M. J., Paducah, Ky. Field and garden seed. No. 96,380; Apr. 14; Gaz. vol. 201; p. 567.
Young, Robert, Columbus, Ohio. Candy. No. 96,216; Apr. 7; Gaz. vol. 201; p. 265.

# ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Ariel, A. J., New York, N. Y. "Sphinx Rubber Roofing." (For Rubber Roofing.) No. 17,645; Apr. 14; Gaz. vol. 201; p. 568.
Ariel, A. J., New York, N. Y. "Pyramid Rubber Roofing." (For Rubber Roofing.) No. 17,646; Apr. 14; Gaz. vol. 201; p. 568.
Armour, John B., Saco, Mont. "Warrior Liniment." (For Liniment.) No. 17,663; Apr. 28; Gaz. vol. 201; p. 1218.
Channell Chemical Company, Chicago, Ill. "To Get the Best Results Use O-Cedar Polish The O-Cedar Polish Way." (For O-Cedar Polish.) No. 17,664; Apr. 28; Gaz. vol. 201; p. 1218.
Crusellas Hno y. Cia., Habana, Cuba. "Cuban Ox Gall." (For Soap.) No. 17,640; Apr. 7; Gaz. vol. 201; p. 266.
Dubuque Brewing & Malting Co., Dubuque, Iowa. "Rexport." (For Beer.) No. 17,666; Apr. 28; Gaz. vol. 201; p. 1218.
Empire Mills Company, Columbus, Ga. "Old Sol." (For Self-Rising Flour.) No. 17,647; Apr. 14; Gaz. vol. 201; p. 568.
Falk Tobacco Co., New York, N. Y. "Vintage Blend." (For Tobacco.) No. 17,648; Apr. 14; Gaz. vol. 201; p. 568.
German-American Coffee Company, Omaha, Nebr. "Sweetheart Brand." (For Coffee.) No. 17,649; Apr. 14; Gaz. vol. 201; p. 568.
Glienke, W. C., Buffalo, N. Y. "The Yale Brass and Metal Polish." (For Brass and Metal Polish.) No. 17,650; Apr. 14; Gaz. vol. 201; p. 568.
Hustisford Canning Co., Hustisford, Wis. "Dodge County." (For Canned Peas.) No. 17,651; Apr. 14; Gaz. vol. 201; p. 568.
Hustisford Canning Co., Hustisford, Wis. "Herkimer." (For Canned Peas.) No. 17,652; Apr. 14; Gaz. vol. 201; p. 568.
Interboro Brewing Company, Inc., New York, N. Y. "Kremps Extra Beer." (For Beer.) No. 17,667; Apr. 28; Gaz. vol. 201; p. 1218.
Landers, Frary & Clark, New Britain, Conn. "Universal." (For Tea-Caddies.) No. 17,668; Apr. 28; Gaz. vol. 201; p. 1218.
Levy, David B., Brooklyn, N. Y. "Brugg's Anaesthesia Mixture." (For an Anesthesia Mixture.) No. 17,653; Apr. 14; Gaz. vol. 201; p. 568.
M. F. Supply Co., Merchantville, N. J. "Touch-an-Go." (For a Cleaning Compound.) No. 17,678; Apr. 28; Gaz. vol. 201; p. 1218.
Mathews Candy Company, Los Angeles, Cal. "Calora California Candy Orange Slices." (For Candy Orange-Slices.) No. 17,654; Apr. 14; Gaz. vol. 201; p. 568.
McInturff, R. E., McComb, Miss. "The White Chief." (For a Remedy.) No. 17,669; Apr. 28; Gaz. vol. 201; p. 1218.
Medwedeff, A., Baltimore, Md. "Very Best Chewing Gum." (For Chewing-Gum.) No. 17,655; Apr. 14; Gaz. vol. 201; p. 568.
National Gum & Mica Company, New York, N. Y. "Mikah White Paste." (For Adhesive Paste.) No. 17,656; Apr. 14; Gaz. vol. 201; p. 568.
Opera Stars Company, New York, N. Y. "Opera Stars." (For Lozenges.) No. 17,641; Apr. 7; Gaz. vol. 201; p. 266.
Pacific Coast Biscuit Company, Seattle, Wash. "Snow Flake Sodas." (For Salted Wafers.) No. 17,670; Apr. 28; Gaz. vol. 201; p. 1218.
Palmore, L. N., Richmond, Va. "Melrich." (For Ginger-Ale.) No. 17,657; Apr. 14; Gaz. vol. 201; p. 568.
Plaschy, Leon, New York, N. Y. "Amole." (For a Hair-Tonic.) No. 17,671; Apr. 28; Gaz. vol. 201; p. 1218.
Prebol's Pharmacy, Passaic, N. Y. "Zubrownik." (For Medicinal Bitter Wine.) No. 17,672; Apr. 28; Gaz. vol. 201; p. 1218.
Prophytol Products Company, Inc., Richmond, Va. "Bacillicide." (For an Antiseptic.) No. 17,642; Apr. 7; Gaz. vol. 201; p. 266.
R. Blankenburg Company, The, Philadelphia, Pa. "Elder Brand Down Quilts." (For Quilts.) No. 17,637; Apr. 7; Gaz. vol. 201; p. 266.
R. Blankenburg Company, The, Philadelphia, Pa. "Snow Flake Cotton Comforts." (For Comforts.) No. 17,638; Apr. 7; Gaz. vol. 201; p. 266.
R. Blankenburg Company, The, Philadelphia, Pa. "Golden Fleece Lamba Wool Health Comforts." (For Comforts.) No. 17,639; Apr. 7; Gaz. vol. 201; p. 266.
Reynolds, Milton H., Somerville, Mass. "Reynolds' Sweet Milk Fudge Kocoa." (For Cocoa.) No. 17,673; Apr. 28; Gaz. vol. 201; p. 1218.
Reynolds, Milton H., Somerville, Mass. "Chocolate Wafer-ettes." (For Chocolate.) No. 17,674; Apr. 28; Gaz. vol. 201; p. 1218.
Reynolds, Milton H., Somerville, Mass. "Cooking Chocolate." (For Chocolate.) No. 17,675; Apr. 28; Gaz. vol. 201; p. 1218.
Sommer, Adolph, Cambridge, Mass. "Viscol." (For Viscol for Shoes and Harness.) No. 17,676; Apr. 28; Gaz. vol. 201; p. 1218.
Stark Distillery Co., St. Louis, Mo. "Gasconade Whiskey." (For Whisky.) No. 17,677; Apr. 28; Gaz. vol. 201; p. 1218.
The "Chase-'Em" Ant and Roach Powder Co., Covington, Ky. "Chase-'Em." (For Insect-Powder.) No. 17,665; Apr. 28; Gaz. vol. 201; p. 1218.
Vail Brothers, Philadelphia, Pa. "Essavie's." (For Complexion-Powder.) No. 17,679; Apr. 28; Gaz. vol. 201; p. 1218.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Society Linen Stationery of Refinement." (For Stationery.) No. 17,643; Apr. 7; Gaz. vol. 201; p. 266.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Blue Book Fine Cambric." (For Fine Stationery.) No. 17,658; Apr. 14; Gaz. vol. 201; p. 568.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Arabian Tapestry." (For Fine Stationery.) No. 17,659; Apr. 14; Gaz. vol. 201; p. 568.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Emerald Irish Linen." (For Fine Stationery.) No. 17,660; Apr. 14; Gaz. vol. 201; p. 568.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Peerage Linen." (For Fine Stationery.) No. 17,661; Apr. 14; Gaz. vol. 201; p. 568.
White & Wyckoff Mfg. Co., Holyoke, Mass. "Sèvres Superfine." (For Fine Stationery.) No. 17,662; Apr. 14; Gaz. vol. 201; p. 568.
Yeastless Baking Co., The, Louisville, Ky. "Yeastless Bread." (For Bread.) No. 17,644; Apr. 7; Gaz. vol. 201; p. 266.

## PRINTS.

American Art Works, The, Coshocton, Ohio. "Diamond Dyes." (For Dyes.) No. 3,542; Apr. 7; Gaz. vol. 201; p. 266.

Cheesebrough Manufacturing Co., Consolidated, New York, N. Y. "Vaseline." (For Vaseline.) Nos. 3,543–4; Apr. 7; Gaz. vol. 201; p. 266.

Crane, Clarence A., Cleveland, Ohio. "The Debutante." (For Chocolates.) No. 3,545; Apr. 7; Gaz. vol. 201; p. 266.

Cream of Wheat Co., Minneapolis, Minn. "'Ah' reckon as how he's de bes known man in de worl." (For Wheat Breakfast Food.) No. 3,557; Apr. 14; Gaz. vol. 201; p. 568.

Charles E. Hires Company, Philadelphia, Pa. "No! Rollo—." (For Root-Beer.) No. 3,558; Apr. 14; Gaz. vol. 201; p. 568.

Duofold Health Underwear Co., Mohawk, N. Y. "Duofold Health Underwear." (For Underwear.) No. 3,546; Apr. 7; Gaz. vol. 201; p. 266.

Eckhard, Joseph J., Alton, Ill. "Re-tan-o." (For Tan Shoe-Dressing.) No. 3,547; Apr. 7; Gaz. vol. 201; p. 266.

I. Teitelbaum & Co., Cleveland, Ohio. "Sentiment." (For Cigars.) No. 3,573; Apr. 28; Gaz. vol. 201; p. 1218.

Ideal Lather Protector Co., The, New York, N. Y. "The New Ideal Way." (For Lather-Protectors.) No. 3,548; Apr. 7; Gaz. vol. 201; p. 266.

Jacobs, Charles C., Detroit, Mich. "A Sanitary Cap For Milk Bottles." (For Caps for Milk-Bottles.) No. 3,569; Apr. 28; Gaz. vol. 201; p. 1218.

McGowan Company, The, Homestead, Pa. "Oh, No, Old Man! You Can't Stop Us! We Use McGowan's Lightning Puncture Cure." (For Puncture Cure for Pneumatic Tires.) No. 3,559; Apr. 14; Gaz. vol. 201; p. 568.

Minnesota Linseed Oil Paint Company, Minneapolis, Minn. "Minnesota Paints." (For Paints.) No. 3,572; Apr. 28; Gaz. vol. 201; p. 1218.

Murphy and Son, T. J., Lewiston, Me. "Murphy's Magnet Scent." (For a Scent.) No. 3,549; Apr. 7; Gaz. vol. 201; p. 266.

Nelson, Orris W., Framingham, Mass. "I Talk For Minard's Liniment." (For Liniment.) Nos. 3,550–1; Apr. 7; Gaz. vol. 201; p. 266.

Oxola Manufacturing Co., The, Baltimore, Md. "This little pig went to market." (For Shortening.) No. 3,561; Apr. 14; Gaz. vol. 201; p. 568.

Pepsi-Cola Company, The, Newbern, N. C. "Drink Pepsi-Cola." (For Pepsi-Cola.) No. 3,552; Apr. 7; Gaz. vol. 201; p. 266.

Piel Bros., New York, N. Y. "Oster-Bier." (For Beer.) Nos. 3,553–4; Apr. 7; Gaz. vol. 201; p. 266.

Quality Saw and Tool Works, Springfield, Mass. "Quality Saws." (For Hacksaws, Band-Saws, and Circular Saws.) No. 3,562; Apr. 14; Gaz. vol. 201; p. 568.

R. F. Johnston Paint Co., The, Cincinnati, Ohio. "Paint Up. Clean Up." (For Paint.) No. 3,570; Apr. 28; Gaz. vol. 201; p. 1218.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Jam this news under your hood." (For Smoking-Tobacco.) No. 3,555; Apr. 7; Gaz. vol. 201; p. 266.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "You fire up a jimmy pipe." (For Smoking-Tobacco.) No. 3,563; Apr. 14; Gaz. vol. 201; p. 568.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Big joy for you rolling 'em with P. A." (For Smoking-Tobacco.) No. 3,564; Apr. 14; Gaz. vol. 201; p. 568.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Every puff of P. A. is a wallop!" (For Smoking-Tobacco.) No. 3,565; Apr. 14; Gaz. vol. 201; p. 568.

Schlatter & Son, Wm., Springfield, Mass. "Superior Carnation Staples." (For Staples.) No. 3,566; Apr. 14; Gaz. vol. 201; p. 568.

Standard Oil Cloth Co., New York, N. Y. "Meritas." (For Oil-Cloth.) No. 3,567; Apr. 14; Gaz. vol. 201; p. 568.

Union Fibre Company, Winona, Minn. "Between You and the Weather." (For Linen Felt.) No. 3,568; Apr. 14; Gaz. vol. 201; p. 568.

Vapo-Cresolene Co., New York, N. Y. "Vapo-Cresolene." (For Vapo-Cresolene.) No. 3,556; Apr. 7; Gaz. vol. 201; p. 266.

Veillard Brothers, Tell City, Ind. "V. B." (For Cigars.) No. 3,560; Apr. 14; Gaz. vol. 201; p. 568.

Wm. J. Lemp Brewing Co., St. Louis, Mo. "Falstaff." (For Beer.) No. 3,571; Apr. 28; Gaz. vol. 201; p. 1218.

## DISCLAIMER.

Dickey, Samuel J., Philadelphia, Pa.; disclaimer filed by assignee The United Gas Improvement Company. Water-gas apparatus. No. 940,925; disclaimer filed Apr. 21, 1914; Gaz. vol. 201; p. 1222.



# ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

## PATENTS WERE ISSUED DURING THE MONTH OF APRIL, 1914.

[Abbreviations: "Gaz."=Official Gazette.]

Account-cabinet. W. L. Deming. No. 1,092,564; Apr. 7; Gaz. vol. 201; p. 151.

Account-register. D. S. Dunn. No. 1,094,887; Apr. 28; Gaz. vol. 201; p. 1077.

Accounting and filing apparatus. P. A. McCaskey and S. E. Fouts. No. 1,092,158; Apr. 7; Gaz. vol. 201; p. 11.

Acetylation, Process of. W. E. Masland. No. 1,095,013; Apr. 28; Gaz. vol. 201; p. 1122.

Acetylene-generator. A. Davis and A. C. Collins. No. 1,094,365; Apr. 21; Gaz. vol. 201; p. 832.

Acid, C-allyl salicylic. L. Claisen. No. 1,094,123; Apr. 21; Gaz. vol. 201; p. 754.

Acid, Producing available phosphoric. W. S. Landis. No. 1,094,857; Apr. 28; Gaz. vol. 201; p. 1068.

Adding and recording machine. W. H. Pike, Jr. No. 1,094,470; Apr. 28; Gaz. vol. 201; p. 931.

Adding-machine. J. P. Hunter and H. Küntzler. No. 1,093,424; Apr. 14; Gaz. vol. 201; p. 480.

Adding-machine. H. C. Peters. No. 1,094,012; Apr. 21; Gaz. vol. 201; p. 717.

Adding-machine. W. J. Brown. No. 1,094,300; Apr. 21; Gaz. vol. 201; p. 812.

Adding-machine. H. C. Peters. No. 1,094,468; Apr. 28; Gaz. vol. 201; p. 930.

Addressing-machine. W. W. Tuck. No. 1,094,824; Apr. 28; Gaz. vol. 201; p. 1057.

Addressing machine, Tag-. W. G. Kirchhoff. No. 1,094,445; Apr. 28; Gaz. vol. 201; p. 921.

Adjustable hanger. H. W. A. Roeder. No. 1,092,815; Apr. 7; Gaz. vol. 201; p. 237.

Advertising-button. G. W. Weber. No. 1,094,952; Apr. 28; Gaz. vol. 201; p. 1101.

Advertising chair-arm. W. P. Le Furge. No. 1,094,154; Apr. 21; Gaz. vol. 201; p. 766.

Advertising device. H. and H. J. Schmitt. No. 1,092,175; Apr. 7; Gaz. vol. 201; p. 17.

Advertising device. W. T. Faucett. No. 1,094,709; Apr. 28; Gaz. vol. 201; p. 1017.

Advertising novelty. W. S. Haseltine. No. 1,095,111; Apr. 28; Gaz. vol. 201; p. 1153.

Aerial amusement apparatus. T. E. Wade. No. 1,093,506; Apr. 14; Gaz. vol. 201; p. 504.

Aeroplane. A. Ahlbrecht. No. 1,092,888; Apr. 14; Gaz. vol. 201; p. 297.

Aeroplane. W. E. Verclaire. No. 1,093,746; Apr. 21; Gaz. vol. 201; p. 629.

Aeroplane. R. R. Reed. No. 1,094,249; Apr. 21; Gaz. vol. 201; p. 797.

Aeroplane or flying-machine. C. F. Jenkins. No. 1,092,365; Apr. 7; Gaz. vol. 201; p. 83.

Aeroplanes and aerial machines, Wing or supporting-plane for. J. Weiss and A. Keith. No. 1,092,192; Apr. 7; Gaz. vol. 201; p. 23.

Aeroplanes, Automatic parachute attachment for. R. F. Hommel. No. 1,092,443; Apr. 7; Gaz. vol. 201; p. 111.

Agricultural-machine spring-seat. A. L. Etherington. No. 1,093,042; Apr. 14; Gaz. vol. 201; p. 340.

Air and gas compressor. M. Riesner. No. 1,092,396; Apr. 7; Gaz. vol. 201; p. 04.

Air, Apparatus for controlling the humidity and temperature of. W. H. Carrier. No. 1,095,156; Apr. 28; Gaz. vol. 201; p. 1170.

Air-brake apparatus. W. E. Parker. No. 1,092,949; Apr. 14; Gaz. vol. 201; p. 318.

Air-brake apparatus. B. J. Minnier. No. 1,093,454; Apr. 14; Gaz. vol. 201; p. 489.

Air-brake apparatus. W. R. Davis. No. 1,095,087; Apr. 28; Gaz. vol. 201; p. 1145.

Air-brake system. F. H. Dukesmith. No. 1,092,812; Apr. 7; Gaz. vol. 201; p. 236.

Air-brake system. J. R. Snyder. No. 1,094,943; Apr. 28; Gaz. vol. 201; p. 1097.

Air-compressor. F. E. Hufford. No. 1,094,994; Apr. 28; Gaz. vol. 201; p. 1116.

Air-coupling device. R. Geiser. No. 1,093,613; Apr. 21; Gaz. vol. 201; p. 582.

Air-craft, Means for destroying. J. A. Steinmetz. No. 1,092,760; Apr. 7; Gaz. vol. 201; p. 218.

Air-drying process and apparatus. F. A. Daubiné. No. 1,092,434; Apr. 7; Gaz. vol. 201; p. 107.

Air-moistening apparatus. C. H. Prött. No. 1,094,502; Apr. 28; Gaz. vol. 201; p. 973.

Air-screen for windows and doors. M. Rusan. No. 1,094,680; Apr. 28; Gaz. vol. 201; p. 1006.

Air-tank. W. V. Garceau. No. 1,092,641; Apr. 7; Gaz. vol. 201; p. 180.

Air-washer. A. Wickersham. No. 1,094,107; Apr. 21; Gaz. vol. 201; p. 749.

Airship. A. A. Callicotte. No. 1,092,973; Apr. 14; Gaz. vol. 201; p. 326.

Alarm: *See* Burglar-alarm; Fire-alarm.

Alarm-lock, Electrical window. M. Barros. No. 1,092,513; Apr. 7; Gaz. vol. 201; p. 135.

Alarm system, Auxiliary. C. E. Beach. No. 1,093,679; Apr. 21; Gaz. vol. 201; p. 607.

Aldol, Producing. R. B. Earle and L. P. Kyriakides. No. 1,094,314; Apr. 21; Gaz. vol. 201; p. 816.

Ale-drawing apparatus. H. Schwarz. No. 1,093,150; Apr. 14; Gaz. vol. 201; p. 387.

Alfalfa-gate. P. H. Vanden Berg. No. 1,092,187; Apr. 7; Gaz. vol. 201; p. 22.

Alloy. E. D. Gleason. No. 1,093,557; Apr. 14; Gaz. vol. 201; p. 520.

Alloy, Aluminum. W. A. McAdams. No. 1,092,500; Apr. 7; Gaz. vol. 201; p. 131.

Alloys, Producing copper. H. Bryda. No. 1,095,078; Apr. 28; Gaz. vol. 201; p. 1143.

Aluminium nitrids, Manufacture of. O. Serpek. No. 1,094,171; Apr. 21; Gaz. vol. 201; p. 772.

Aluminum and its alloys. G. Mellen. No. 1,092,936; Apr. 14; Gaz. vol. 201; p. 314.

Aluminum and its alloys, Flux for purifying. G. Mellen. No. 1,092,935; Apr. 14; Gaz. vol. 201; p. 314.

Amalgamator. S. Beer. No. 1,095,071; Apr. 28; Gaz. vol. 201; p. 1141.

Ammonia-compressor. P. Neff, D. Cole, and E. L. Ebersole. No. 1,092,943; Apr. 14; Gaz. vol. 201; p. 316.

Ammonia, Producing. S. Peacock. No. 1,092,167; Apr. 7; Gaz. vol. 201; p. 15.

Ammonia, Production of. C. Bosch, A. Mittasch, H. Wolf, and G. Stern. No. 1,094,194; Apr. 21; Gaz. vol. 201; p. 779.

Amusement device. C. H. Peek. No. 1,094,011; Apr. 21; Gaz. vol. 201; p. 717.

Amusement device for use in pleasure-parks. W. H. Strickler. No. 1,094,948; Apr. 28; Gaz. vol. 201; p. 1100.

Anesthetics, Apparatus for administering. A. M. Caine. No. 1,094,301; Apr. 21; Gaz. vol. 201; p. 812.

Anesthetizer. G. Clarke. No. 1,093,975; Apr. 21; Gaz. vol. 201; p. 704.

Angle-trisecting device. C. L. Dennis. No. 1,093,919; Apr. 21; Gaz. vol. 201; p. 687.

Animal-holding machine. S. S. Palmer. No. 1,092,742; Apr. 7; Gaz. vol. 201; p. 212.

Animal-trap. E. Kesler. No. 1,093,632; Apr. 21; Gaz. vol. 201; p. 590.

Animal-trap attachment. A. F. Vogt. No. 1,092,612; Apr. 7; Gaz. vol. 201; p. 169.

Annunciator system. T. A. Haugaard. No. 1,095,112; Apr. 28; Gaz. vol. 201; p. 1154.

Anti-rail-creeper. J. W. Stephenson. No. 1,093,154; Apr. 14; Gaz. vol. 201; p. 389.

Anti-rail-creeper. J. E. McNeil. No. 1,094,736; Apr. 28; Gaz. vol. 201; p. 1026.

Antifrictional device for relatively movable parts. F. E. Bocorselski. No. 1,094,972; Apr. 28; Gaz. vol. 201; p. 1109.

Antiskidding device for automobiles. E. Hines. No. 1,093,416; Apr. 14; Gaz. vol. 201; p. 478.

Anvil-block. C. A. Dieckman. No. 1,093,320; Apr. 14; Gaz. vol. 201; p. 447.

Apparel, Foot-ball protective. G. L. Pierce. No. 1,094,865; Apr. 28; Gaz. vol. 201; p. 1070.

Apparel, Wearing-. J. A. Wootten. No. 1,092,685; Apr. 7; Gaz. vol. 201; p. 193.

Apparel, Wearing-. F. L. Cadenas. No. 1,093,032; Apr. 14; Gaz. vol. 201; p. 345.

Apron. I. A. and B. S. Robertson. No. 1,094,345; Apr. 21; Gaz. vol. 201; p. 825.

Apron, Fruit-picker's. E. T. Reese. No. 1,094,250; Apr. 21; Gaz. vol. 201; p. 798.
Arch and ankle support. E. J. Mountain. No. 1,094,585; Apr. 28; Gaz. vol. 201; p. 970.
Arch and heel support and insole. B. Delaney. No. 1,093,608; Apr. 21; Gaz. vol. 201; p. 581.
Asbestos fiber for insulating purposes, Preparing. H. L. Owen. No. 1,094,467; Apr. 28; Gaz. vol. 201; p. 930.
Asbestos, Purification of. W. R. Whitney. No. 1,094,505; Apr. 28; Gaz. vol. 201; p. 943.
Ash-receptacle. O. L. Heintz. No. 1,092,991; Apr. 14; Gaz. vol. 201; p. 332.
Atomizer, Fuel-. J. D. Kiser. No. 1,094,075; Apr. 21; Gaz. vol. 201; p. 739.
Atomizer or the like. T. A. De Vilbiss. No. 1,093,039; Apr. 14; Gaz. vol. 201; p. 347.
Auto-body. A. Orton No. 1,094,241; Apr. 21; Gaz. vol. 201; p. 794.
Automobile distance-rod. G. E. Franquist. No. 1,094,140; Apr. 21; Gaz. vol. 201; p. 760.
Automobile-drive. H. H. Kennedy. No. 1,093,631; Apr. 21; Gaz. vol. 201; p. 590.
Automobile-jack. K. Hallen. No. 1,093,405; Apr. 14; Gaz. vol. 201; p. 475.
Automobile-jack. M. H. Meyer. No. 1,094,004; Apr. 21; Gaz. vol. 201; p. 715.
Automobile running-gear. S. R. Bailey. No. 1,095,137; Apr. 28; Gaz. vol. 201; p. 1163.
Automobile-spring, Auxiliary. R. P. and W. H. Clark. No. 1,094,305; Apr. 21; Gaz. vol. 201; p. 814.
Automobile-spring, Pneumatic. A. Mayerson. No. 1,094,372; Apr. 21; Gaz. vol. 201; p. 835.
Automobile-starter. H. H. Moseley. No. 1,092,739; Apr. 7; Gaz. vol. 201; p. 211.
Automobile steering-gear. E. S. Robinson. No. 1,092,745; Apr. 7; Gaz. vol. 201; p. 213.
Automobile throttle-lock. S. L. Bennett. No. 1,095,139; Apr. 28; Gaz. vol. 201; p. 1163.
Automobile transmission-gears. G. F. Grove. No. 1,092,211; Apr. 7; Gaz. vol. 201; p. 30.
Automobile, &c., wheel. R. E. L. Crosby. No. 1,093,115; Apr. 14; Gaz. vol. 201; p. 375.
Automobile-wheel. H. Hill. No. 1,093,413; Apr. 14; Gaz. vol. 201; p. 477.
Automobile-wheels, Separable rim for. W. M. Wirth. No. 1,094,509; Apr. 28; Gaz. vol. 201; p. 944.
Automobiles, Mechanically-operated gear-changing mechanism for. D. C. Lewis. No. 1,092,922; Apr. 14; Gaz. vol. 201; p. 300.
Automobiles, Rim and tire holder for. F. C. Miller. No. 1,094,084; Apr. 21; Gaz. vol. 201; p. 741.
Automobiles, Rim and tire holder for. F. C. Miller. No. 1,094,086; Apr. 21; Gaz. vol. 201; p. 742.
Automobiles, &c., Tire-holder for. F. C. Miller. No. 1,094,085; Apr. 21; Gaz. vol. 201; p. 742.
Autovehicle driving mechanism. A. R. Bullock. No. 1,094,055; Apr. 21; Gaz. vol. 201; p. 732.
Awl, Butcher's skewering-. W. J. Horn. No. 1,092,529; Apr. 7; Gaz. vol. 201; p. 140.
Awning. J. F. Lockwood. No. 1,092,496; Apr. 7; Gaz. vol. 201; p. 130.
Awning-fixture. F. A. O'Neal. No. 1,094,465; Apr. 28; Gaz. vol. 201; p. 929.
Axle, Driving-. T. J. Lindsay. No. 1,092,494; Apr. 7; Gaz. vol. 201; p. 129.
Axle, Emergency-. C. P. Snyder. No. 1,094,486; Apr. 28; Gaz. vol. 201; p. 936.
Axle-truck of railway and tramway vehicles. T. W. Barber. No. 1,093,755; Apr. 21; Gaz. vol. 201; p. 631.
Backing off hobs or cutters for cutting gears, Machine for. C. J. Halborg. No. 1,092,571; Apr. 7; Gaz. vol. 201; p. 154.
Bag: *See* Hand-bag; Impervious bag; Mothproof bag; Polo-bag; Work-bag.
Bag-fastener. E. C. Shaver. No. 1,092,955; Apr. 14; Gaz. vol. 201; p. 320.
Bag holder, Feed-. A. L. Rumrill. No. 1,092,863; Apr. 14; Gaz. vol. 201; p. 289.
Bag stiffener, Traveling-. P. Ruehlmann. No. 1,092,541; Apr. 7; Gaz. vol. 201; p. 144.
Bag-tie fastener. J. H. Kirkland. No. 1,094,577; Apr. 28; Gaz. vol. 201; p. 967.
Bait, Fishing-. J. L. Donaly. No. 1,093,980; Apr. 21; Gaz. vol. 201; p. 706.
Balances, Calculator for. A. Boyer and P. L. M. Godeau. No. 1,094,638; Apr. 28; Gaz. vol. 201; p. 990.
Bale-conveyer. H. C. Burkle. No. 1,093,531; Apr. 14; Gaz. vol. 201; p. 513.
Baling-press. L. H. Conner. No. 1,093,255; Apr. 14; Gaz. vol. 201; p. 423.
Baling-press. J. J. Marek. No. 1,094,734; Apr. 28; Gaz. vol. 201; p. 1026.
Banana-peeling machine. G. J. Bragg. No. 1,093,762; Apr. 21; Gaz. vol. 201; p. 633.
Band-cutters and feeders, Conveyer for. H. F. Snyder. No. 1,092,181; Apr. 7; Gaz. vol. 201; p. 19.
Bandage. M. M. Lupton. No. 1,094,339; Apr. 21; Gaz. vol. 201; p. 823.
Bar: *See* Pinch-bar; Safety-bar; Skylight and greenhouse bar.
Barn structure. G. Andersson. No. 1,094,960; Apr. 28; Gaz. vol. 201; p. 1104.
Barrels, Making metallic. V. Manck and J. E. Wentling. No. 1,095,014; Apr. 28; Gaz. vol. 201; p. 1123.
Basket for birds, Feeding-. C. E. White. No. 1,092,314; Apr. 7; Gaz. vol. 201; p. 67.
Bath-cabinet. J. M. Johnson. No. 1,093,055; Apr. 14; Gaz. vol. 201; p. 353.
Bath cabinet, Compact folding vapor-. F. Depenbrock. No. 1,092,699; Apr. 7; Gaz. vol. 201; p. 198.
Bath trap and overflow. J. A. Blichmann. No. 1,093,601; Apr. 21; Gaz. vol. 201; p. 579.
Bathing-suit. L. and S. Felton and F. E. Fleury. No. 1,093,354; Apr. 14; Gaz. vol. 201; p. 457.
Batteries, Constructing secondary or storage. G., L., and G. J. A. Fuller. No. 1,092,252; Apr. 7; Gaz. vol. 201; p. 44.
Battery: *See* Primary battery; Secondary or storage battery.
Battery-regulator. E. Lowe. No. 1,094,156; Apr. 21; Gaz. vol. 201; p. 766.
Battery-terminal. J. M. Skinner. No. 1,094,173; Apr. 21; Gaz. vol. 201; p. 772.
Bearing. C. G. Lundgren. No. 1,092,730; Apr. 7; Gaz. vol. 201; p. 208.
Bearing. B. L. Lawton. No. 1,093,194; Apr. 14; Gaz. vol. 201; p. 403.
Bearing. W. M. Bancroft. No. 1,095,067; Apr. 28; Gaz. vol. 201; p. 1140.
Bearing, Antifriction-. E. S. Woods. No. 1,094,957; Apr. 28; Gaz. vol. 201; p. 1103.
Bearing, Ball-. L. P. Mooers. No. 1,093,348; Apr. 14; Gaz. vol. 201; p. 455.
Bearing, Ball-. C. Delmez. No. 1,094,312; Apr. 21; Gaz. vol. 201; p. 816.
Bearing, Compensating. J. F. Pender. No. 1,093,290; Apr. 14; Gaz. vol. 201; p. 436.
Bearing, End-thrust. H. J. Mitchell. No. 1,092,160; Apr. 7; Gaz. vol. 201; p. 12.
Bearing for grinding-mills. C. R. Dimm. No. 1,093,688; Apr. 21; Gaz. vol. 201; p. 611.
Bearing for pivotal trucks, Center-. W. S. Adams. No. 1,094,185; Apr. 21; Gaz. vol. 201; p. 776.
Bearing for propeller-shafts of ships, Thrust-. H. Wilson. No. 1,094,820; Apr. 28; Gaz. vol. 201; p. 983.
Bearing, Roller-. O. E. Michaud. No. 1,093,795; Apr. 21; Gaz. vol. 201; p. 644.
Bearing, Roller side. A. Stuckl. No. 1,093,953; Apr. 21; Gaz. vol. 201; p. 697.
Bearing, Self-lubricating. D. M. Cooper. No. 1,094,535; Apr. 28; Gaz. vol. 201; p. 952.
Bearings and the like, Tool for truing engine-. H. Austin. No. 1,094,187; Apr. 21; Gaz. vol. 201; p. 776.
Bed. F. G. Kapelman. No. 1,092,446; Apr. 7; Gaz. vol. 201; p. 112.
Bed. A. K. Taylor. (Reissue.) No. 13,719; Apr. 21; Gaz. vol. 201; p. 860.
Bed-bottom, Spring. G. A. Mellon. No. 1,094,373; Apr. 21; Gaz. vol. 201; p. 835.
Bed, Crib-. T. Carlson. No. 1,094,303; Apr. 21; Gaz. vol. 201; p. 813.
Bed, Davenport-. T. B. Schulte. No. 1,093,565; Apr. 14; Gaz. vol. 201; p. 522.
Bed, Davenport-. T. B. Schulte. No. 1,093,949; Apr. 21; Gaz. vol. 201; p. 696.
Bed, Folding. A. Hirsh. No. 1,093,329; Apr. 14; Gaz. vol. 201; p. 449.
Bed head-rest. A. C. Noble. No. 1,092,850; Apr. 14; Gaz. vol. 201; p. 285.
Bed-movement. V. Lynnequest. No. 1,095,120; Apr. 28; Gaz. vol. 201; p. 1156.
Bed-pan. J. Burkam. No. 1,093,530; Apr. 14; Gaz. vol. 201; p. 512.
Bed-partition. F. W. Roberti. No. 1,094,679; Apr. 28; Gaz. vol. 201; p. 1005.
Bed-slat fastener. T. G. Crissman. No. 1,093,542; Apr. 14; Gaz. vol. 201; p. 516.
Bed-spring. G. Gray. No. 1,093,402; Apr. 14; Gaz. vol. 201; p. 475.
Bed-spring fabric. J. Hoey. No. 1,094,787; Apr. 28; Gaz. vol. 201; p. 1043.
Bed spring-frame. F. E. Sloan. No. 1,095,169; Apr. 28; Gaz. vol. 201; p. 1176.
Bed-support, Adjustable. W. J. Curtis. No. 1,092,698; Apr. 7; Gaz. vol. 201; p. 197.
Bed, Wall-. W. A. Snyder. No. 1,094,684; Apr. 28; Gaz. vol. 201; p. 1007.
Beds, Partition for. A. Schwarz. No. 1,092,298; Apr. 7; Gaz. vol. 201; p. 61.
Bedclothes-holder. A. L. Worthley. No. 1,092,468; Apr. 7; Gaz. vol. 201; p. 119.
Bedside with reversible lock for wooden beds, Metal. H. J. Cordle. No. 1,094,980; Apr. 28; Gaz. vol. 201; p. 1111.
Bedstead. P. J. Fagan. No. 1,093,774; Apr. 21; Gaz. vol. 201; p. 637.
Bedstead and the like. R. J. Sutton. No. 1,092,606; Apr. 7; Gaz. vol. 201; p. 167.
Bedstead side, Detachable. W. F. Wellman. No. 1,093,958; Apr. 21; Gaz. vol. 201; p. 699.
Beer and hops separator. G. F. Rauch. No. 1,092,538; Apr. 7; Gaz. vol. 201; p. 142.
Beet puller and topper. D. Olson. No. 1,094,742; Apr. 28; Gaz. vol. 201; p. 1028.
Beet-topper. H. Harrison. No. 1,095,110; Apr. 28; Gaz. vol. 201; p. 1153.
Bell-ringer. J. E. Scovill. No. 1,094,170; Apr. 21; Gaz. vol. 201; p. 772.





Belt. R. P. Grant. No. 1,093,263; Apr. 14; Gaz. vol. 201; p. 427.
Belt-cutter. P. H. Parker. No. 1,093,070; Apr. 14; Gaz. vol. 201; p. 359.
Belt-cutting machine. L. G. Ward. No. 1,092,547; Apr. 7; Gaz. vol. 201; p. 146.
Belt-fastener. J. K. Diamond. No. 1,094,131; Apr. 21; Gaz. vol. 201; p. 757.
Belt-fastener-setting machine. J. K. Diamond. No. 1,094,132; Apr. 21; Gaz. vol. 201; p. 757.
Belt-fastening. G. E. Purple. No. 1,092,859; Apr. 14; Gaz. vol. 201; p. 288.
Belt-machine. G. L. Mark. No. 1,094,801; Apr. 28; Gaz. vol. 201; p. 1047.
Bench: *See* Retort-bench.
Beverage extract. J. M. Allison. No. 1,093,962; Apr. 21; Gaz. vol. 201; p. 700.
Beverage-shaker. S. H. Gale. No. 1,094,712; Apr. 28; Gaz. vol. 201; p. 1018.
Bicycle package-carrier. E. L. Dennis. No. 1,094,885; Apr. 28; Gaz. vol. 201; p. 1076.
Bicycle side car. G. G. Buckland. No. 1,094,777; Apr. 28; Gaz. vol. 201; p. 1040.
Bicycle-stand. E. F. Pawsat. No. 1,093,352; Apr. 14; Gaz. vol. 201; p. 457.
Billiard-cue. S. T. Varian. No. 1,092,189; Apr. 7; Gaz. vol. 201; p. 22.
Bin: *See* Storage-bin.
Binder. L. C. Bauman. No. 1,095,069; Apr. 28; Gaz. vol. 201; p. 1140.
Binder, Loose-leaf. W. P. Pitt. No. 1,092,287; Apr. 7; Gaz. vol. 201; p. 57.
Binder, Loose-leaf. W. C. Traher. No. 1,092,675; Apr. 7; Gaz. vol. 201; p. 190.
Binder, Loose-leaf. R. Reifel and G. Blattel. No. 1,094,019; Apr. 21; Gaz. vol. 201; p. 720.
Binder, Loose-leaf. J. V. Washburne. No. 1,094,951; Apr. 28; Gaz. vol. 201; p. 1101.
Binder or loose-sheet holder, Temporary. G. P. Wigginton. No. 1,093,369; Apr. 14; Gaz. vol. 201; p. 462.
Binder or loose-sheet holder, Temporary. G. P. Wigginton. No. 1,093,370; Apr. 14; Gaz. vol. 201; p. 463.
Bird-cage guard. C. M. Brandt. No. 1,094,423; Apr. 28; Gaz. vol. 201; p. 913.
Bit: *See* Drill-bit; Well-drilling bit.
Blinds, Window-fitting for. F. F. Cowdroy. No. 1,095,083; Apr. 28; Gaz. vol. 201; p. 1144.
Block: *See* Anvil-block; Building-block; Hoist-block; Shaped or molded block; Tail-block.
Block mold, Plastic-. E. E. Workman. No. 1,092,195; Apr. 7; Gaz. vol. 201; p. 25.
Block-molding machine. W. H. Barten. No. 1,093,242; Apr. 14; Gaz. vol. 201; p. 419.
Block-signal apparatus, Electric. J. Beaumont and F. G. White. No. 1,093,596; Apr. 21; Gaz. vol. 201; p. 576.
Block-signal apparatus, Electric. J. Beaumont and F. G. White. No. 1,093,597; Apr. 21; Gaz. vol. 201; p. 577.
Block-signal system. L. A. Hawkins. No. 1,094,441; Apr. 28; Gaz. vol. 201; p. 920.
Block-signal system. L. A. Hawkins. No. 1,094,894; Apr. 28; Gaz. vol. 201; p. 1079.
Block-signal system. J. W. Murphy. No. 1,094,918; Apr. 28; Gaz. vol. 201; p. 1087.
Block system for preventing collisions on railways, Automatic. A. J. Icard. No. 1,094,906; Apr. 28; Gaz. vol. 201; p. 1084.
Blower. J. H. Axlen. No. 1,092,132; Apr. 7; Gaz. vol. 201; p. 3.
Blower and fender. J. W. Pritchett. No. 1,094,245; Apr. 21; Gaz. vol. 201; p. 795.
Blowers, Pressure-equalizer for rotary. O. Banner. No. 1,093,374; Apr. 14; Gaz. vol. 201; p. 465.
Blowpipe. C. Holder, Jr. No. 1,093,420; Apr. 14; Gaz. vol. 201; p. 479.
Blowpipe. M., Sr., and M. Steel, Jr. No. 1,093,495; Apr. 14; Gaz. vol. 201; p. 501.
Board: *See* Checker or chess board; Dough-board; Game-board; Ironing-board; Piano fall-board; Spelling-board.
Boat. O. G. Rosing. No. 1,093,475; Apr. 14; Gaz. vol. 201; p. 496.
Boat-fastening means. F. Steinhauer. No. 1,094,610; Apr. 28; Gaz. vol. 201; p. 979.
Boat, Folding. E. M. Sanders. No. 1,093,357; Apr. 14; Gaz. vol. 201; p. 458.
Boat hoisting and lowering apparatus, Ship's-. A. Welin. No. 1,094,617; Apr. 28; Gaz. vol. 201; p. 981.
Boat, Hydrovane-. H. C. Richardson. No. 1,095,166; Apr. 28; Gaz. vol. 201; p. 1175.
Boat, Life-. M. Panchula. No. 1,094,008; Apr. 21; Gaz. vol. 201; p. 717.
Boat, Non-capsizable. B. A. Becker. No. 1,092,628; Apr. 7; Gaz. vol. 201; p. 175.
Bobbin-cleaning device. J. F. Vaillancourt. No. 1,092,413; Apr. 7; Gaz. vol. 201; p. 99.
Bobbin-stop. C. Nordell. No. 1,094,239; Apr. 21; Gaz. vol. 201; p. 793.
Bobbins, System of preparing filled. A. B. Morse. No. 1,094,343; Apr. 21; Gaz. vol. 201; p. 824.
Boiler: *See* Egg-boiler; Steam-boiler; Water-tube boiler.
Boiler. H. W. Jacobs. No. 1,093,430; Apr. 14; Gaz. vol. 201; p. 482.
Boiler. J. Seth. No. 1,093,733; Apr. 21; Gaz. vol. 201; p. 625.
Boiler control, Steam-. J. Wilkinson. No. 1,095,133; Apr. 28; Gaz. vol. 201; p. 1161.
Boiler-flue. H. W. Jacobs and F. W. Shupert. No. 1,093,429; Apr. 14; Gaz. vol. 201; p. 481.
Boiler-furnace. J. M. Cameron. No. 1,093,911; Apr. 21; Gaz. vol. 201; p. 684.
Boiler furnace, Steam-. C. E. Lloyd. No. 1,093,790; Apr. 21; Gaz. vol. 201; p. 642.
Boiler indicator, Steam-. V. B. Marrs. No. 1,095,012; Apr. 28; Gaz. vol. 201; p. 1122.
Boiler plug, Steam-. S. R. Kent. No. 1,093,434; Apr. 14; Gaz. vol. 201; p. 483.
Boilers, Fuel-regulator for steam-. R. Miehle. No. 1,092,781; Apr. 7; Gaz. vol. 201; p. 225.
Boilers, Tool for spreading the tubes of water-tube. J. Keers. No. 1,092,840; Apr. 14; Gaz. vol. 201; p. 281.
Bolt: *See* Emergency-bolt.
Book or pamphlet making machine. C. Gitzendanner. No. 1,092,439; Apr. 7; Gaz. vol. 201; p. 109.
Book rest, Rotatable open-. W. J. Walsh. No. 1,093,220; Apr. 14; Gaz. vol. 201; p. 411.
Books and the like, Page-holder for. V. Waring. No. 1,094,502; Apr. 28; Gaz. vol. 201; p. 942.
Bookbinding. F. H. Crump. No. 1,093,835; Apr. 21; Gaz. vol. 201; p. 659.
Boot-cleaner. G. E. Goudschaal. No. 1,092,832; Apr. 14; Gaz. vol. 201; p. 279.
Boots and shoes, Apparatus for use in the manufacture of. F. E. Fernald. No. 1,094,546; Apr. 28; Gaz. vol. 201; p. 956.
Boots and shoes, Apparatus for use in the manufacture of. W. A. Boyden. No. 1,094,547; Apr. 28; Gaz. vol. 201; p. 957.
Boots and shoes, Apparatus for use in the manufacture of. E. L. Keyes. No. 1,094,548; Apr. 28; Gaz. vol. 201; p. 957.
Boots and shoes, Machine for use in the manufacture of. C. Bennion. No. 1,092,470; Apr. 7; Gaz. vol. 201; p. 120.
Boots and shoes, Machine for use in the manufacture of. A. H. Prenzel. No. 1,093,008; Apr. 14; Gaz. vol. 201; p. 338.
Boots and shoes, Machine for use in the manufacture of. A. L. Russell. No. 1,093,651; Apr. 21; Gaz. vol. 201; p. 596.
Boots and shoes, Machine for wax-treating parts of. C. Pease. No. 1,094,377; Apr. 21; Gaz. vol. 201; p. 836.
Boots and shoes, Pull-on device for. M. A. Hayward. No. 1,092,483; Apr. 7; Gaz. vol. 201; p. 125.
Bottle. M. H. Whalen. No. 1,093,959; Apr. 21; Gaz. vol. 201; p. 700.
Bottle-cap and extractor, Combined. W. H. Cadwell. No. 1,092,519; Apr. 7; Gaz. vol. 201; p. 137.
Bottle cap, Milk-. M. C. Brown. No. 1,094,639; Apr. 28; Gaz. vol. 201; p. 990.
Bottle-capping machine. L. H. Brinkman. No. 1,094,776; Apr. 28; Gaz. vol. 201; p. 1039.
Bottle-closer, Sanitary. C. H. Epple. No. 1,094,784; Apr. 28; Gaz. vol. 201; p. 1042.
Bottle-head-finishing tool. K. A. Godwin. No. 1,092,569; Apr. 7; Gaz. vol. 201; p. 153.
Bottle, Non-refillable. F. H. Chapman. No. 1,092,559; Apr. 7; Gaz. vol. 201; p. 150.
Bottle, Non-refillable. M. Perez. No. 1,093,882; Apr. 21; Gaz. vol. 201; p. 674.
Bottle, Non-refillable. A. P. Mazinski. No. 1,094,002; Apr. 21; Gaz. vol. 201; p. 715.
Bottle, Non-refillable. F. Newman. No. 1,095,123; Apr. 28; Gaz. vol. 201; p. 1157.
Bottle-washing apparatus. E. Schlaepfer, fils. No. 1,094,168; Apr. 21; Gaz. vol. 201; p. 771.
Bottle-washing machine. I. C. Nielsen. No. 1,093,068; Apr. 14; Gaz. vol. 201; p. 358.
Bottle-washing machine. R. L. Gallup. No. 1,093,841; Apr. 21; Gaz. vol. 201; p. 661.
Bottles, Protective rubber cap with stopple for milk-. S. Schulhoff. No. 1,093,211; Apr. 14; Gaz. vol. 201; p. 408.
Bowels, Apparatus for effecting subaqueous irrigation of the. A. Brosch and O. von Aufschnaiter. No. 1,093,251; Apr. 14; Gaz. vol. 201; p. 422.
Box: *See* Branch box; Cigar-box; Cigarette-box; Display-box; Folding box; Jewel-box; Journal-box; Junction-box; Locomotive sand-box; Mail-box; Match-box; Meter-box; Miter-box; Moisture-proof box; Molding-box; Paper box; Sound-box; Triangle-box.
Box. A. A. Thomas. No. 1,092,961; Apr. 14; Gaz. vol. 201; p. 322.
Box and dropping-bottle with a sugar-magazine, Combined. L. Coulet. No. 1,092,766; Apr. 7; Gaz. vol. 201; p. 220.
Box-cover. L. F. Brasch. No. 1,094,833; Apr. 28; Gaz. vol. 201; p. 1059.
Box cover, Service-. F. M. Lane. No. 1,093,275; Apr. 14; Gaz. vol. 201; p. 430.
Box-fastening. C. A. Krum. No. 1,095,119; Apr. 28; Gaz. vol. 201; p. 1156.
Box-handle. E. R. Sargent and H. G. Collins. No. 1,094,681; Apr. 28; Gaz. vol. 201; p. 1006.
Box lock or fastener. J. F. Beehler. No. 1,094,772; Apr. 28; Gaz. vol. 201; p. 1039.
Box lock or fastener. J. F. Beehler. No. 1,094,773; Apr. 28; Gaz. vol. 201; p. 1039.

Box-opener. A. I. Platt. No. 1,093,946; Apr. 21; Gaz. vol. 201; p. 695.
Box-panel. W. H. Doble. No. 1,093,548; Apr. 14; Gaz. vol. 201; p. 517.
Box-staying machine. W. F. Welter. No. 1,092,614; Apr. 7; Gaz. vol. 201; p. 170.
Brace: *See* Dental jaw-brace; Drill-brace; Rail-brace; Shoulder-brace.
Bracelet-bending machine. C. E. Mountford. No. 1,094,676; Apr. 28; Gaz. vol. 201; p. 1004.
Bracelet-holder for watches. A. C. Becken. No. 1,093,757; Apr. 21; Gaz. vol. 201; p. 632.
Bracelet link, Elastic-. J. H. Hennessey. No. 1,092,648; Apr. 7; Gaz. vol. 201; p. 182.
Bracelet watch-holder. A. C. Eckert. No. 1,093,610; Apr. 21; Gaz. vol. 201; p. 581.
Bracelet watch-holder. A. C. Becken. No. 1,093,758; Apr. 21; Gaz. vol. 201; p. 632.
Bracelet watch-holder. A. C. Becken. No. 1,093,759; Apr. 21; Gaz. vol. 201; p. 632.
Bracelets, necklaces, and similar articles of jewelry, Safety-clasp for. C. Strauss and G. Rommel. No. 1,094,947; Apr. 28; Gaz. vol. 201; p. 1100.
Bracket: *See* Counter-bracket; License-plate bracket; Supporting-bracket; Tire-carrier bracket.
Brake: *See* Car-brake; Drum-brake; Vehicle-brake.
Brake. E. S. Robinson. No. 1,092,746; Apr. 7; Gaz. vol. 201; p. 214.
Brake apparatus, Electropneumatic. E. H. Dewson and W. V. Turner. No. 1,092,141; Apr. 7; Gaz. vol. 201; p. 6.
Brake attachment for trucks. F. A. Grier. No. 1,092,989; Apr. 14; Gaz. vol. 201; p. 331.
Brake-beam. W. C. Hedgcock. No. 1,093,851; Apr. 21; Gaz. vol. 201; p. 664.
Brake-hanger, Resilient. W. G. and O. S. Lamb. No. 1,093,864; Apr. 21; Gaz. vol. 201; p. 668.
Brake mechanism. A. J. O'Brien. No. 1,092,162; Apr. 7; Gaz. vol. 201; p. 13.
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Brake mechanism. H. C. Buhoup. No. 1,093,683; Apr. 21; Gaz. vol. 201; p. 609.
Brake mechanism. L. A. Hoerr. No. 1,094,442; Apr. 28; Gaz. vol. 201; p. 920.
Brake-shoe. J. M. Griffin. No. 1,093,776; Apr. 21; Gaz. vol. 201; p. 637.
Brake-shoe. J. J. Kinzer. No. 1,094,220; Apr. 21; Gaz. vol. 201; p. 788.
Brake-shoe, Reinforced. J. J. Morse. No. 1,095,019; Apr. 28; Gaz. vol. 201; p. 1124.
Brake valve, Automatic railway-. B. F. Shurz. No. 1,092,958; Apr. 14; Gaz. vol. 201; p. 321.
Brakes, Device for accelerating the application of pneumatic. F. J. Chapsal and A. L. E. Saillot. No. 1,092,339; Apr. 7; Gaz. vol. 201; p. 75.
Branch box. M. Havens, Jr. No. 1,094,990; Apr. 28; Gaz. vol. 201; p. 1114.
Brassière. M. Harrington. No. 1,095,109; Apr. 28; Gaz. vol. 201; p. 1153.
Bread-cutting machine. E. Schmidt, *geb.* Walter. No. 1,092,751; Apr. 7; Gaz. vol. 201; p. 216.
Bread-wrapping machine. G. R. Ward. No. 1,094,614; Apr. 28; Gaz. vol. 201; p. 980.
Breast-shield. M. A. Mattson. No. 1,094,158; Apr. 21; Gaz. vol. 201; p. 767.
Brewing apparatus. C. B. Davis. No. 1,094,059; Apr. 21; Gaz. vol. 201; p. 733.
Bridge. C. E. Paine. No. 1,093,202; Apr. 14; Gaz. vol. 201; p. 406.
Bridge, Bascule-. T. Rall. No. 1,094,473; Apr. 28; Gaz. vol. 201; p. 932.
Bridle and bit. A. J. Hentschel. No. 1,092,214; Apr. 7; Gaz. vol. 201; p. 31.
Briqueting-machine. M. White and O. C. Duryea. No. 1,094,039; Apr. 21; Gaz. vol. 201; p. 726.
Broiler. W. J. Best. No. 1,093,245; Apr. 14; Gaz. vol. 201; p. 420.
Broiler. L. H. Raillere. No. 1,093,883; Apr. 21; Gaz. vol. 201; p. 674.
Brooder. M. De Witt. No. 1,093,921; Apr. 21; Gaz. vol. 201; p. 688.
Broom-holder. A. J. Bate. No. 1,095,068; Apr. 28; Gaz. vol. 201; p. 1140.
Brush and can, Fountain-. J. Lynam. No. 1,092,656; Apr. 7; Gaz. vol. 201; p. 184.
Brush and mirror, Combined hair-. L. I. Taber. No. 1,094,493; Apr. 28; Gaz. vol. 201; p. 939.
Brush device for receptacles. R. J. Browning. No. 1,092,428; Apr. 7; Gaz. vol. 201; p. 106.
Brush, Fountain-. J. G. Corbett. No. 1,093,114; Apr. 14; Gaz. vol. 201; p. 375.
Brush-holder. A. Krauss. No. 1,093,634; Apr. 21; Gaz. vol. 201; p. 591.
Brush holder, Paint-. W. Reilly. No. 1,094,099; Apr. 21; Gaz. vol. 201; p. 746.
Brush, Shaving and lather. D. I. Hartmann. No. 1,092,710; Apr. 7; Gaz. vol. 201; p. 201.
Bucket hanger, Grab-. D. J. Evans. No. 1,094,545; Apr. 28; Gaz. vol. 201; p. 956.
Buckle. G. W. Baker. No. 1,094,831; Apr. 28; Gaz. vol. 201; p. 1059.
Buffer. C. A. Ullrich. No. 1,094,498; Apr. 28; Gaz. vol. 201; p. 940.
Buffer and draw-gear. R. E. Noble and L. E. Mitchell. No. 1,094,375; Apr. 21; Gaz. vol. 201; p. 836.
Building-block. D. C. Haeger. No. 1,093,127; Apr. 14; Gaz. vol. 201; p. 380.
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Building material and making same. A. Winding and F. W. Gezelschap. No. 1,092,320; Apr. 7; Gaz. vol. 201; p. 69.
Buildings, Underpinning. J. B. Goldsborough. No. 1,093,261; Apr. 14; Gaz. vol. 201; p. 426.
Buildings, Underpinning. J. B. Goldsborough. No. 1,093,262; Apr. 14; Gaz. vol. 201; p. 426.
Bullet for pleasure target-shooting. E. Keen. No. 1,094,402; Apr. 21; Gaz. vol. 201; p. 840.
Bundle-carriers, Trip mechanism for. J. Baxter. No. 1,095,070; Apr. 28; Gaz. vol. 201; p. 1141.
Bung-boring and bush-setting machine. E. F. Beugler. No. 1,092,515; Apr. 7; Gaz. vol. 201; p. 136.
Bunsen burners, gas cooking-ranges, and the like, Safety device for. I. de Haan. No. 1,093,180; Apr. 14; Gaz. vol. 201; p. 398.
Buoy, Life-saving. A. W. Brown. No. 1,093,381; Apr. 14; Gaz. vol. 201; p. 467.
Burglar-alarm. W. H. Bates. No. 1,094,696; Apr. 28; Gaz. vol. 201; p. 1012.
Burial-case clamp. V. Breuer and P. Leschnik. No. 1,095,154; Apr. 28; Gaz. vol. 201; p. 1170.
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Burner. R. M. Stene and S. D. McFadden. No. 1,092,785; Apr. 7; Gaz. vol. 201; p. 227.
Burners, Automatic fuel-feeding mechanism for. O. O'Brien. No. 1,093,878; Apr. 21; Gaz. vol. 201; p. 673.
Burners, Combined valve and spray-nozzle for hydrocarbon-. G. W. Coen. No. 1,094,124; Apr. 21; Gaz. vol. 201; p. 754.
Burning-press. H. L. Koehler. No. 1,092,776; Apr. 7; Gaz. vol. 201; p. 223.
Butter-making machinery. P. Hanson. No. 1,095,181; Apr. 28; Gaz. vol. 201; p. 1180.
Butter-separator. G. E. Wheeler. No. 1,093,751; Apr. 21; Gaz. vol. 201; p. 630.
Button and buttonhole marker. G. H. Hurd. No. 1,094,334; Apr. 21; Gaz. vol. 201; p. 822.
Button-attaching machine. L. Bammer. No. 1,093,582; Apr. 14; Gaz. vol. 201; p. 528.
Button, Collar-. M. W. Wismer. No. 1,093,752; Apr. 21; Gaz. vol. 201; p. 631.
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Cabinet for type-writing, adding, printing, and other analogous machines. F. E. McLean. No. 1,093,344; Apr. 14; Gaz. vol. 201; p. 454.
Cabinet-table. C. B. Heath. No. 1,094,786; Apr. 28; Gaz. vol. 201; p. 1043.
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Cable-clamp. A. C. Smith. No. 1,092,668; Apr. 7; Gaz. vol. 201; p. 187.
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Cake, Manufacture of feeding-. E. Evans. No. 1,094,820; Apr. 21; Gaz. vol. 201; p. 818.
Calculating apparatus. C. A. Bishop. No. 1,094,514; Apr. 28; Gaz. vol. 201; p. 945.
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Calendar-pad holder. J. C. Stevens. No. 1,092,871; Apr. 14; Gaz. vol. 201; p. 202.
Calendar, Perpetual. E. D. Graber. No. 1,092,208; Apr. 7; Gaz. vol. 201; p. 29.
Calipers. L. S. Gardner. No. 1,092,254; Apr. 7; Gaz. vol. 201; p. 44.
Call system. J. Hergesheimer. No. 1,093,132; Apr. 14; Gaz. vol. 201; p. 381.
Camera attachment. J. E. Bjorlie. No. 1,093,821; Apr. 21; Gaz. vol. 201; p. 654.
Camera, Magazine-. L. Mandel. No. 1,093,341; Apr. 14; Gaz. vol. 201; p. 453.
Camera shutter, Photographic-. A. S. Newman. No. 1,095,020; Apr. 28; Gaz. vol. 201; p. 1124.
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Can fusing or sweating machine. J. E. Schenck and C. A. Doolittle. No. 1,094,935; Apr. 28; Gaz. vol. 201; p. 1094.
Can-head-seaming machine. L. C. Sharp. No. 1,094,937; Apr. 28; Gaz. vol. 201; p. 1094.
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Can-opener. H. W. Sheehy. No. 1,094,172; Apr. 21; Gaz. vol. 201; p. 772.
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Cans, Manufacturing interiorly-coated. F. Eberhart. No. 1,094,840; Apr. 28; Gaz. vol. 201; p. 1061.
Canning, Exhaust-box for fruit-. W. C. Anderson and A. R. Thompson. No. 1,093,305; Apr. 14; Gaz. vol. 201; p. 442.
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Concrete and making the same, Waterproof. R. K. Meade. No. 1,092,933; Apr. 14; Gaz. vol. 201; p. 313.
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Connector. L. C. Nichols. No. 1,092,589; Apr. 7; Gaz. vol. 201; p. 161.
Construction member. A. Hopkins. No. 1,092,217; Apr. 7; Gaz. vol. 201; p. 32.
Container. D. Doggett. No. 1,092,902; Apr. 14; Gaz. vol. 201; p. 302.
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Control, Automatic feed, quick-traverse, and reverse. S. Einstein. No. 1,092,479; Apr. 7; Gaz. vol. 201; p. 124.
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Cooker. P. A. McCaskey. No. 1,093,003; Apr. 14; Gaz. vol. 201; p. 336.
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Cooking utensil. E. S. Wheeler. No. 1,093,227; Apr. 14; Gaz. vol. 201; p. 414.
Cooking-utensil attachment. C. N. Sowden. No. 1,095,038; Apr. 28; Gaz. vol. 201; p. 1129.
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Cooler. G. H. Blake. No. 1,092,330; Apr. 7; Gaz. vol. 201; p. 72.
Cooler for extraction apparatus and the like. R. Oekel. No. 1,095,165; Apr. 28; Gaz. vol. 201; p. 1174.
Cooling-receptacle. B. E. Parker. No. 1,095,023; Apr. 28; Gaz. vol. 201; p. 1125.
Coop, Chicken-. C. S. James. No. 1,092,717; Apr. 7; Gaz. vol. 201; p. 204.
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Cord-tightening device. A. G. Solstmann. No. 1,094,029; Apr. 21; Gaz. vol. 201; p. 723.
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Cork-extractor. E. Jacquemin. No. 1,094,997; Apr. 28; Gaz. vol. 201; p. 1117.
Cork, Manufacture of articles of agglomerated and reinforced. C. A. Janneau. No. 1,094,656; Apr. 28; Gaz. vol. 201; p. 997.
Cork-puller. E. J. Corkery. No. 1,093,768; Apr. 21; Gaz. vol. 201; p. 635.
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Cotter. G. L. Waitt. No. 1,092,876; Apr. 14; Gaz. vol. 201; p. 293.
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Coupling. J. Patrick. No. 1,093,467; Apr. 14; Gaz. vol. 201; p. 494.
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Cupola-furnace. M. Zippler, Jr. No. 1,092,623; Apr. 7; Gaz. vol. 201; p. 173.
Curette. A. W. Jones. No. 1,092,914; Apr. 14; Gaz. vol. 201; p. 306.
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Digging and cleaning ditches, Machine for. E. M. Fournet. No. 1,095,097; Apr. 28; Gaz. vol. 201; p. 1149.
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Fish-hooks, Snell-fastening for. G. Kinsey. No. 1,093,000; Apr. 14; Gaz. vol. 201; p. 335.
Fish-skinning machine. E. T. Rundlett. No. 1,094,597; Apr. 28; Gaz. vol. 201; p. 974.
Fishing-pole support. A. B. Weber. No. 1,092,548; Apr. 7; Gaz. vol. 201; p. 146.
Fishing-tool, Electromagnetic. C. N. White. No. 1,094,106; Apr. 21; Gaz. vol. 201; p. 749.
Fixture-hanger. W. S. Ferguson. No. 1,093,556; Apr. 14; Gaz. vol. 201; p. 520.
Flagging-machine, Automatic emergency. L. L. Brown. No. 1,093,824; Apr. 21; Gaz. vol. 201; p. 655.
Flash-generator, Combustion-injected. C. A. Ulrey. No. 1,093,896; Apr. 21; Gaz. vol. 201; p. 678.
Flashlight device. R. M. Eaton. No. 1,094,839; Apr. 28; Gaz. vol. 201; p. 1061.
Flask: *See* Foundry-flask.
Flat-iron. F. Johnson. No. 1,092,839; Apr. 14; Gaz. vol. 201; p. 281.
Flat-iron, Electric. C. P. Madsen. No. 1,093,791; Apr. 21; Gaz. vol. 201; p. 643.
Float. J. B. Hill. No. 1,093,414; Apr. 14; Gaz. vol. 201; p. 477.
Floor. L. L. Wright. No. 1,094,183; Apr. 21; Gaz. vol. 201; p. 775.
Floor-clamping device. I. Lauri. No. 1,094,449; Apr. 28; Gaz. vol. 201; p. 923.
Floors, Base for composition. J. H. Schlafly. No. 1,093,653; Apr. 21; Gaz. vol. 201; p. 597.
Fluid-dispensing apparatus. W. T. Miller. No. 1,093,347; Apr. 14; Gaz. vol. 201; p. 455.
Fluid-meters, Pitot plug for. J. Wilkinson. No. 1,093,229; Apr. 14; Gaz. vol. 201; p. 415.
Fluid-motor or the like. L. H. Brinkman. No. 1,094,522; Apr. 28; Gaz. vol. 201; p. 948.
Fluid-motor, Rotary. T. J. Loftus. No. 1,093,278; Apr. 14; Gaz. vol. 201; p. 431.
Fluid-treating apparatus. H. T. Weston. No. 1,094,618; Apr. 28; Gaz. vol. 201; p. 982.
Flume or conduit. H. S. Williams. No. 1,092,315; Apr. 7; Gaz. vol. 201; p. 67.
Fly-catcher. G. Hellwig and M. Lagelbaner. No. 1,092,361; Apr. 7; Gaz. vol. 201; p. 82.
Fly-catcher. K. Träger. No. 1,093,502; Apr. 14; Gaz. vol. 201; p. 504.
Fly-trap. A. Raifenider. No. 1,092,537; Apr. 7; Gaz. vol. 201; p. 142.
Fly-trap. C. H. Curtis. No. 1,092,697; Apr. 7; Gaz. vol. 201; p. 197.
Fly-trap. W. Beebe. No. 1,093,599; Apr. 21; Gaz. vol. 201; p. 578.
Fly-trap. G. L. Jontz. No. 1,094,336; Apr. 21; Gaz. vol. 201; p. 822.
Fly-wheel. H. L. Bock. No. 1,093,246; Apr. 14; Gaz. vol. 201; p. 420.
Flying-machine. V. A. Lamare. No. 1,093,788; Apr. 21; Gaz. vol. 201; p. 642.
Flying-machine. H. Hirth. No. 1,094,808; Apr. 28; Gaz. vol. 201; p. 1081.
Flying-machine. C. A. Chayne. No. 1,095,080; Apr. 28; Gaz. vol. 201; p. 1143.
Folding box. A. Hess. No. 1,093,412; Apr. 14; Gaz. vol. 201; p. 477.
Folding box. G. C. Welter. No. 1,094,764; Apr. 28; Gaz. vol. 201; p. 1036.
Folding stand. E. A. Lotz. No. 1,094,227; Apr. 21; Gaz. vol. 201; p. 789.
Folding table. H. A. Stone. No. 1,094,033; Apr. 21; Gaz. vol. 201; p. 724.
Food composition for stock. A. D. Little. No. 1,092,221; Apr. 7; Gaz. vol. 201; p. 34.
Foot-guard. H. F. Davis. No. 1,092,246; Apr. 7; Gaz. vol. 201; p. 42.
Forging-machine. H. V. Loss. No. 1,094,797; Apr. 28; Gaz. vol. 201; p. 1046.
Forging-press. E. F. Oyster. No. 1,094,092; Apr. 21; Gaz. vol. 201; p. 744.
Fork: *See* Hay-fork.
Form, Body-. M. L. Carrara. No. 1,092,138; Apr. 7; Gaz. vol. 201; p. 5.
Form, Garment-. C. R. Lendle. No. 1,092,726; Apr. 7; Gaz. vol. 201; p. 206.
Fortune-telling apparatus. W. M. Hamilton. No. 1,092,354; Apr. 7; Gaz. vol. 201; p. 79.
Foundry-flask. T. H. Downie. No. 1,092,636; Apr. 7; Gaz. vol. 201; p. 178.
Fountain: *See* Watering-fountain.
Fountain for fowls. W. F. Kenly. No. 1,093,335; Apr. 14; Gaz. vol. 201; p. 451.
Frame: *See* Bed-spring frame; Door-frame; Screen protector-frame; Spinning-frame; Tensioning-frame.
Frame construction. W. C. Linder. No. 1,092,727; Apr. 7; Gaz. vol. 201; p. 207.

**Frappering-machine.** H. Auperl. No. 1,092,131; Apr. 7; Gaz. vol. 201; p. 3.
**Fruit-drier.** E. T. Roberts. No. 1,093,011; Apr. 14; Gaz. vol. 201; p. 339.
**Fruit-drier.** O. L. Furuseth. No. 1,093,044; Apr. 14; Gaz. vol. 201; p. 350.
**Fruit-grading apparatus.** G. D. Parker. No. 1,092,664; Apr. 7; Gaz. vol. 201; p. 186.
**Fruit-grading apparatus.** F. W. and A. B. Cutler. No. 1,093,836; Apr. 21; Gaz. vol. 201; p. 659.
**Fruit-picker.** W. H. Andrews. No. 1,093,097; Apr. 14; Gaz. vol. 201; p. 369.
**Fruit-picker.** L. Stevens. No. 1,094,263; Apr. 21; Gaz. vol. 201; p. 801.
**Fruit, Treating citrus.** J. N. G. Singleton. No. 1,093,081; Apr. 14; Gaz. vol. 201; p. 363.
**Fuel-mixer.** G. H. Clemmer. No. 1,093,385; Apr. 14; Gaz. vol. 201; p. 469.
**Fuel wastes, Utilizing.** J. M. W. Kitchen. No. 1,094,390; Apr. 21; Gaz. vol. 201; p. 841.
**Fume-destroying process.** S. W. Young. No. 1,094,767; Apr. 28; Gaz. vol. 201; p. 1037.
**Fumigator.** L. A. Thiele. No. 1,095,043; Apr. 28; Gaz. vol. 201; p. 1131.
**Funnel.** W. L. Blanchard. No. 1,092,517; Apr. 7; Gaz. vol. 201; p. 136.
**Funnel.** B. Rakottyay. No. 1,094,098; Apr. 21; Gaz. vol. 201; p. 746.
**Funnel.** B. E. Walter. No. 1,094,350; Apr. 21; Gaz. vol. 201; p. 827.
**Furnace:** *See* Boiler-furnace; Cupola-furnace; Electric furnace; Heating-furnace; Hot-air furnace; Melting-furnace; Metallizing-furnace; Metallurgical furnace.
**Furnace.** J. H. Parsons. No. 1,092,851; Apr. 14; Gaz. vol. 201; p. 285.
**Furnace and air-injecting nozzle therefor.** J. H. Parsons. No. 1,092,852; Apr. 14; Gaz. vol. 201; p. 286.
**Furnace and air-injecting nozzle therefor.** J. H. Parsons. No. 1,092,853; Apr. 14; Gaz. vol. 201; p. 286.
**Furnace bonnet, Hot-air-.** W. P. Daw. No. 1,094,309; Apr. 21; Gaz. vol. 201; p. 815.
**Furnace-front.** F. M. Clark. No. 1,094,702; Apr. 28; Gaz. vol. 201; p. 1014.
**Furnaces, Apparatus for feeding air to.** J. H. Parsons. No. 1,092,854; Apr. 14; Gaz. vol. 201; p. 287.
**Furnaces, Cathode for electrolytic.** G. O. Seward and F. von Kügelgen. No. 1,092,178; Apr. 7; Gaz. vol. 201; p. 18.
**Furnaces, Drying air for blast-.** M. W. Johnson, Jr. No. 1,093,859; Apr. 21; Gaz. vol. 201; p. 666.
**Furnaces, Preventing deposition of carbon in reversing-.** F. Tschudy. No. 1,093,895; Apr. 21; Gaz. vol. 201; p. 678.
**Furniture, Article of.** J. Boise. No. 1,094,636; Apr. 28; Gaz. vol. 201; p. 989.
**Furniture, Combination article of.** E. B. Butterworth. No. 1,094,526; Apr. 28; Gaz. vol. 201; p. 949.
**Fuse, Cartridge-.** E. B. Mallory. No. 1,092,153; Apr. 7; Gaz. vol. 201; p. 10.
**Fuse-clip.** R. C. Cole. No. 1,092,430; Apr. 7; Gaz. vol. 201; p. 106.
**Fuse, Electric.** S. D. Sprong and W. E. McCoy. No. 1,094,030; Apr. 21; Gaz. vol. 201; p. 723.
**Fuse, Electric safety-.** E. Weissberg. No. 1,092,805; Apr. 7; Gaz. vol. 201; p. 234.
**Fuse-holder.** H. W. Young. No. 1,095,135; Apr. 28; Gaz. vol. 201; p. 1162.
**Fuse-plug.** S. Terada. No. 1,094,036; Apr. 21; Gaz. vol. 201; p. 725.
**Fuse, Refillable.** F. D. Bryan. No. 1,092,333; Apr. 7; Gaz. vol. 201; p. 73.
**Fuse, Refillable cartridge-.** E. B. Mallory. No. 1,092,498; Apr. 7; Gaz. vol. 201; p. 131.
**Fuses, Mounting for.** C. G. Stoll. No. 1,093,893; Apr. 21; Gaz. vol. 201; p. 678.
**Fusee, Time-burning railway signal-.** L. S. Ross. No. 1,094,596; Apr. 28; Gaz. vol. 201; p. 974.
**Fusible device.** J. C. Meloon. No. 1,093,063; Apr. 14; Gaz. vol. 201; p. 356.
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**Gage.** W. H. Cuff. No. 1,092,899; Apr. 14; Gaz. vol. 201; p. 301.
**Game apparatus.** F. W. Gibson. No. 1,092,642; Apr. 7; Gaz. vol. 201; p. 180.
**Game apparatus.** H. B. Palmer. No. 1,093,577; Apr. 14; Gaz. vol. 201; p. 526.
**Game apparatus.** S. F. Brown. No. 1,093,764; Apr. 21; Gaz. vol. 201; p. 634.
**Game apparatus.** F. J. L. Bollhorn. No. 1,093,909; Apr. 21; Gaz. vol. 201; p. 684.
**Game apparatus.** H. W. Harrison. No. 1,094,559; Apr. 28; Gaz. vol. 201; p. 961.
**Game board, Base-ball-.** B. F. Dengler. No. 1,092,979; Apr. 14; Gaz. vol. 201; p. 328.
**Garbage-can, Sanitary.** E. Cladel. No. 1,093,586; Apr. 14; Gaz. vol. 201; p. 514.
**Garbage-incinerator.** J. Prescott. No. 1,093,356; Apr. 14; Gaz. vol. 201; p. 458.
**Garbage-receptacle, Sanitary.** S. I. Segall. No. 1,092,752; Apr. 7; Gaz. vol. 201; p. 216.
**Garment.** J. M. Vanneman. No. 1,092,677; Apr. 7; Gaz. vol. 201; p. 191.
**Garment.** I. F. Curry. No. 1,092,696; Apr. 7; Gaz. vol. 201; p. 196.
**Garment-hanger and box therefor.** W. J. O'Donnell. No. 1,094,087; Apr. 21; Gaz. vol. 201; p. 743.
**Garment-hanger support.** A. Wolf. No. 1,093,282; Apr. 14; Gaz. vol. 201; p. 416.
**Garment, Protective.** H. G. Dinn. No. 1,095,089; Apr. 28; Gaz. vol. 201; p. 1147.
**Garment-protector, Sanitary.** V. Guinsburg. No. 1,093,616; Apr. 21; Gaz. vol. 201; p. 584.
**Garment-waist adjuster.** A. K. Hurst. No. 1,094,654; Apr. 28; Gaz. vol. 201; p. 996.
**Garter-fastener.** A. B. Beck. No. 1,094,112; Apr. 21; Gaz. vol. 201; p. 737.
**Gas.** F. P. Peterson. No. 1,094,864; Apr. 28; Gaz. vol. 201; p. 1070.
**Gas and coke, Manufacturing coal-.** W. P. Parsons. No. 1,092,950; Apr. 14; Gaz. vol. 201; p. 318.
**Gas-burner.** J. Ellis. No. 1,093,772; Apr. 21; Gaz. vol. 201; p. 636.
**Gas-burner-controlling device.** H. C. Yingling. No. 1,092,686; Apr. 7; Gaz. vol. 201; p. 193.
**Gas-drying apparatus.** C. H. Leinert. No. 1,093,869; Apr. 21; Gaz. vol. 201; p. 669.
**Gas-engine.** C. E. Frederickson. No. 1,094,431; Apr. 28; Gaz. vol. 201; p. 915.
**Gas-engine.** J. B. Jensen. No. 1,094,658; Apr. 28; Gaz. vol. 201; p. 998.
**Gas-engine, Oscillating.** J. T. and C. W. Kemper. No. 1,094,794; Apr. 28; Gaz. vol. 201; p. 1045.
**Gas-engine, Rotary-cylinder.** R. S. Moore. No. 1,093,349; Apr. 14; Gaz. vol. 201; p. 455.
**Gas-generator.** D. R. Way. No. 1,094,280; Apr. 21; Gaz. vol. 201; p. 806.
**Gas-generator.** L. Van Vliet and F. O'Neil. No. 1,094,762; Apr. 28; Gaz. vol. 201; p. 1035.
**Gas generator, Acetylene-.** Z. McVay. No. 1,094,003; Apr. 21; Gaz. vol. 201; p. 715.
**Gas-heater.** G. A. Wise. No. 1,094,287; Apr. 21; Gaz. vol. 201; p. 808.
**Gas in balloons, Apparatus for heating inflating-.** R. H. Upson. No. 1,092,611; Apr. 7; Gaz. vol. 201; p. 169.
**Gas or fluid motor.** P. Gaeth. No. 1,093,177; Apr. 14; Gaz. vol. 201; p. 397.
**Gas-producer.** J. H. Hirt. No. 1,094,897; Apr. 28; Gaz. vol. 201; p. 1080.
**Gas-regulator for mixing-chambers.** F. L. Cross. No. 1,092,204; Apr. 7; Gaz. vol. 201; p. 28.
**Gas-washer.** W. B. Osborne. No. 1,094,466; Apr. 28; Gaz. vol. 201; p. 930.
**Gases from wood, Manufacturing illuminating and fuel.** R. M. Poole. No. 1,093,470; Apr. 14; Gaz. vol. 201; p. 494.
**Gate:** *See* Alfalfa-gate; End gate; Railway-gate; Water-gate; Window-gate.
**Gate.** I. N. Dawson. No. 1,092,901; Apr. 14; Gaz. vol. 201; p. 301.
**Gate.** F. A. Guth. No. 1,093,404; Apr. 14; Gaz. vol. 201; p. 475.
**Gate.** M. B. Moyer. No. 1,094,302; Apr. 21; Gaz. vol. 201; p. 842.
**Gate-locking means.** G. E. Ericsson. No. 1,093,174; Apr. 14; Gaz. vol. 201; p. 396.
**Gate-opener.** E. F. Johnson. No. 1,094,335; Apr. 21; Gaz. vol. 201; p. 822.
**Gear mechanism, Changeable-speed.** H. L. Schenck. No. 1,094,751; Apr. 28; Gaz. vol. 201; p. 1031.
**Gear mechanism, Speed-changing-.** J. F. Fitch. No. 1,092,438; Apr. 7; Gaz. vol. 201; p. 109.
**Gear-wheel.** T. J. Loftus. No. 1,093,279; Apr. 14; Gaz. vol. 201; p. 432.
**Gearing.** H. L. Bennett. No. 1,092,240; Apr. 7; Gaz. vol. 201; p. 40.
**Gearing.** F. C. and E. J. Bast. No. 1,092,328; Apr. 7; Gaz. vol. 201; p. 71.
**Gearing.** F. T. Flinchbaugh. No. 1,092,639; Apr. 7; Gaz. vol. 201; p. 179.
**Gearing.** F. H. Sandherr. No. 1,093,807; Apr. 21; Gaz. vol. 201; p. 648.
**Gearing.** L. J. Flint. No. 1,093,984; Apr. 21; Gaz. vol. 201; p. 708.
**Gearing.** W. R. Gorham. No. 1,094,142; Apr. 21; Gaz. vol. 201; p. 760.
**Gearing.** R. E. Kellogg. No. 1,094,216; Apr. 21; Gaz. vol. 201; p. 786.
**Gearing, Differential.** J. A. Hardy. No. 1,093,573; Apr. 14; Gaz. vol. 201; p. 525.
**Gearing for motor-propelled vehicles, Transmission-.** W. S. Harley. No. 1,094,558; Apr. 28; Gaz. vol. 201; p. 960.
**Gearing, Transmission-.** E. S. Robinson. No. 1,092,747; Apr. 7; Gaz. vol. 201; p. 214.
**Gearing, Transmission-.** F. Deves. No. 1,093,920; Apr. 21; Gaz. vol. 201; p. 687.
**Gearing, Variable-speed.** E. Cheneaux. No. 1,092,692; Apr. 7; Gaz. vol. 201; p. 195.
**Gem-setting.** H. H. Meyers. No. 1,092,587; Apr. 7; Gaz. vol. 201; p. 160.
**Generator:** *See* Acetylene-generator; Electric generator; Electric ignition-generator; Flash-generator; Gas-generator; Heat-generator; Power-generator; Vapor-generator.
**Geometrical machine.** J. H. Reinhardt. No. 1,092,170; Apr. 7; Gaz. vol. 201; p. 16.
**Glass:** *See* Magnifying-glass.
**Glass holder, Drinking-.** C. T. Stockenberg. No. 1,094,266; Apr. 21; Gaz. vol. 201; p. 802.





**Glass, Setting.** C. H. Veeder. No. 1,093,580; Apr. 14; Gaz. vol. 201; p. 527.
**Glass structure, Pressed-.** O. A. Mygatt. No. 1,093,350; Apr. 14; Gaz. vol. 201; p. 456.
**Glass tubing.** H. S. Hatfield. No. 1,094,438; Apr. 28; Gaz. vol. 201; p. 918.
**Glassware.** O. A. Mygatt. No. 1,093,719; Apr. 21; Gaz. vol. 201; p. 621.
**Glazier's tool.** C. S. Leland. No. 1,092,447; Apr. 7; Gaz. vol. 201; p. 112.
**Globe-holder.** H. H. Hipwell. No. 1,094,071; Apr. 21; Gaz. vol. 201; p. 737.
**Globe-manipulator.** W. F. Miller. No. 1,092,940; Apr. 14; Gaz. vol. 201; p. 315.
**Glove.** E. F. Nickerson. No. 1,093,877; Apr. 21; Gaz. vol. 201; p. 672.
**Glove, Swimming-.** W. Laser. No. 1,093,276; Apr. 14; Gaz. vol. 201; p. 431.
**Glycerin and fatty matters contained in distillery-vinasses, Extraction of.** G. P. Guignard and H. L. A. M. Watrigant. No. 1,092,791; Apr. 7; Gaz. vol. 201; p. 229.
**Glycols. (β-glycols.) Producing 1.3-.** R. B. Earle and L. P. Kyriakides. No. 1,094,315; Apr. 21; Gaz. vol. 201; p. 817.
**Glycols, Producing 1.3-.** R. B. Earle and L. P. Kyriakides. No. 1,094,316; Apr. 21; Gaz. vol. 201; p. 817.
**Go-cart, Folding.** F. J. Beier. No. 1,094,417; Apr. 28; Gaz. vol. 201; p. 910.
**Go-cart, Folding.** F. J. Beier. No. 1,094,418; Apr. 28; Gaz. vol. 201; p. 911.
**Go-cart, Folding.** F. J. Beier. No. 1,094,419; Apr. 28; Gaz. vol. 201; p. 912.
**Go-cart, Folding.** A. E. McGill. No. 1,094,455; Apr. 28; Gaz. vol. 201; p. 925.
**Go-cart, Folding.** A. E. McGill. No. 1,094,460; Apr. 28; Gaz. vol. 201; p. 928.
**Go-cart or perambulator.** A. J. Adams. No. 1,093,093; Apr. 14; Gaz. vol. 201; p. 367.
**Go-cart or perambulator.** A. J. Adams. No. 1,093,094; Apr. 14; Gaz. vol. 201; p. 367.
**Go-cart or perambulator.** A. J. Adams. No. 1,093,095; Apr. 14; Gaz. vol. 201; p. 368.
**Go-cart or perambulator.** A. J. Adams. No. 1,094,045; Apr. 21; Gaz. vol. 201; p. 728.
**Go-carts and the like, Push-handle for.** M. J. Foyer. No. 1,093,322; Apr. 14; Gaz. vol. 201; p. 447.
**Gold-dust, Apparatus for recovering.** J. E. Hawley. No. 1,093,049; Apr. 14; Gaz. vol. 201; p. 352.
**Gold-saving device.** W. C. Fox. No. 1,092,524; Apr. 7; Gaz. vol. 201; p. 139.
**Golf-club and other sporting implement.** P. E. Samson. No. 1,094,590; Apr. 28; Gaz. vol. 201; p. 975.
**Golf-club holder.** S. Low and C. H. Kirby. No. 1,092,729; Apr. 7; Gaz. vol. 201; p. 207.
**Golf, Device for use in connection with practising.** C. H. Minshall. No. 1,094,236; Apr. 21; Gaz. vol. 201; p. 792.
**Governor.** J. H. Russell. No. 1,094,023; Apr. 21; Gaz. vol. 201; p. 721.
**Governor, Emergency-.** F. W. Bentley. No. 1,092,968; Apr. 14; Gaz. vol. 201; p. 324.
**Governor for fire-engines.** F. Hoffman. No. 1,093,585; Apr. 14; Gaz. vol. 201; p. 529.
**Governor for internal-combustion engines, Throttle-.** C. C. Riotte. No. 1,094,167; Apr. 21; Gaz. vol. 201; p. 770.
**Governor-head.** R. O. Hendrickson. No. 1,093,852; Apr. 21; Gaz. vol. 201; p. 664.
**Grain-binders, Shock-forming attachment for.** C. Barnum. No. 1,093,906; Apr. 21; Gaz. vol. 201; p. 682.
**Grain cleaning, drying, and storing apparatus.** R. D. and R. D. Mayo. No. 1,094,452; Apr. 28; Gaz. vol. 201; p. 924.
**Grain header and conveyer.** A. J. Meeks. No. 1,092,735; Apr. 7; Gaz. vol. 201; p. 210.
**Grain-segregator.** J. Y. Field. No. 1,094,646; Apr. 28; Gaz. vol. 201; p. 993.
**Grain-separator.** H. Hofmann. No. 1,093,853; Apr. 21; Gaz. vol. 201; p. 665.
**Grain-stooker.** R. Hammond. No. 1,092,356; Apr. 7; Gaz. vol. 201; p. 80.
**Granular material, Apparatus for treating.** L. Topf. No. 1,094,178; Apr. 21; Gaz. vol. 201; p. 774.
**Grape crusher, stemmer, and must-pump, Combined.** A. Rossi. No. 1,094,817; Apr. 28; Gaz. vol. 201; p. 1054.
**Grapple.** O. Crosby, E. A. Wilhelm, and H. L. Brink. No. 1,093,832; Apr. 21; Gaz. vol. 201; p. 658.
**Grapple.** O. Crosby, H. L. Brink, and E. A. Wilhelm. No. 1,093,833; Apr. 21; Gaz. vol. 201; p. 658.
**Grapple.** O. Crosby, E. A. Wilhelm, and H. L. Brink. No. 1,093,834; Apr. 21; Gaz. vol. 201; p. 659.
**Grate-shaker.** J. A. Dempsey. No. 1,093,386; Apr. 14; Gaz. vol. 201; p. 469.
**Grate-shaking guard.** J. L. Spani. No. 1,092,546; Apr. 7; Gaz. vol. 201; p. 146.
**Grates, Supporting mechanism for endless traveling.** F. M. Clark. No. 1,094,703; Apr. 28; Gaz. vol. 201; p. 1014.
**Grease-cup.** J. H. and E. T. Neller. No. 1,092,161; Apr. 7; Gaz. vol. 201; p. 13.
**Grease-cup.** E. H. Presbrey. No. 1,093,472; Apr. 14; Gaz. vol. 201; p. 495.
**Grease-cup, Automatic.** J. F. Lewis. No. 1,094,730; Apr. 28; Gaz. vol. 201; p. 1025.
**Grinder, Twist-drill.** H. M. Bogart. No. 1,093,028; Apr. 14; Gaz. vol. 201; p. 344.
**Grinders, Dust-collector for.** M. B. Giberson. No. 1,094,553; Apr. 28; Gaz. vol. 201; p. 959.
**Grinding-machine, Motor.** F. H. Reagan and A. G. Phillips. No. 1,094,811; Apr. 28; Gaz. vol. 201; p. 1052.
**Grinding-machine, Portable.** C. G. Lundstrom. No. 1,092,277; Apr. 7; Gaz. vol. 201; p. 53.
**Grinding-wheel.** A. Monkiewicz. No. 1,092,588; Apr. 7; Gaz. vol. 201; p. 160.
**Grip device, Intermittent-.** M. Brunet and J. Macek. No. 1,092,134; Apr. 7; Gaz. vol. 201; p. 4.
**Grommets and similar articles, Machine for setting.** I. C. Buckminster. No. 1,093,604; Apr. 21; Gaz. vol. 201; p. 579.
**Guard.** N. M. Baker. No. 1,093,678; Apr. 21; Gaz. vol. 201; p. 606.
**Gum for the market, Machine for preparing spruce-.** A. H. McRonald and I. Daniels. No. 1,093,451; Apr. 14; Gaz. vol. 201; p. 488.
**Gum-wrapping machine.** H. J. Kempf. No. 1,092,149; Apr. 7; Gaz. vol. 201; p. 8.
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**Handle of umbrellas, walking-sticks, hand-bags, and the like.** C. F. Mendham. No. 1,094,738; Apr. 28; Gaz. vol. 201; p. 1027.
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Light: *See* Electric cap-light.
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Mat: *See* Picture-mat.
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Searchlight, Rear-end. J. D. Perkins. No. 1,092,450; Apr. 7; Gaz. vol. 201; p. 113.
Seat: *See* Agricultural-machine spring-seat; Cycle rear seat; Toilet-seat; Water-closet seat.
Seat. G. Banks. No. 1,094,293; Apr. 21; Gaz. vol. 201; p. 810.
Secondary or storage battery. G. L. and G. J. A. Fuller. No. 1,092,253; Apr. 7; Gaz. vol. 201; p. 44.
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Seed-testing bed. M. P. Reynolds. No. 1,094,813; Apr. 28; Gaz. vol. 201; p. 1052.
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Self-leveling table. J. Eberwein. No. 1,092,638; Apr. 7; Gaz. vol. 201; p. 179.
Separating apparatus. W. S. Ayres. No. 1,094,621; Apr. 28; Gaz. vol. 201; p. 983.
Separator: *See* Beer and hops separator; Butter-separator; Electromagnetic separator; Grain-separator; Magnetic separator; Oil and water separator; Ore-separator; Sewage and refuse separator.
Separator. H. O. Johnson. No. 1,092,719; Apr. 7; Gaz. vol. 201; p. 204.
Service-switch, Automatic. R. E. Wetter. No. 1,092,415; Apr. 7; Gaz. vol. 201; p. 100.
Serving-machine. F. E. Ames. No. 1,094,047; Apr. 21; Gaz. vol. 201; p. 728.
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Sewer or storm-drain construction and forming the same. C. H. Frost. No. 1,093,612; Apr. 21; Gaz. vol. 201; p. 582.
Sewerage system. H. C. Huff. No. 1,092,649; Apr. 7; Gaz. vol. 201; p. 182.
Sewing-machine. L. Bulasky. No. 1,093,971; Apr. 21; Gaz. vol. 201; p. 703.
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Sewing-machine. G. S. Hill. No. 1,094,896; Apr. 28; Gaz. vol. 201; p. 1080.
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Sewing machine, Book-. J. Griesinger. No. 1,093,694; Apr. 21; Gaz. vol. 201; p. 613.
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Sewing machine, Shoe-. A. Eppler. No. 1,092,567; Apr. 7; Gaz. vol. 201; p. 152.
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Sewing machine, Welt-. J. L. Dow. No. 1,094,838; Apr. 28; Gaz. vol. 201; p. 1061.
Shade and curtain hanger, Window. J. F. McGill. No. 1,093,061; Apr. 14; Gaz. vol. 201; p. 356.
Shade and curtain support, Adjustable. C. F. Bobring. No. 1,092,424; Apr. 7; Gaz. vol. 201; p. 104.
Shade and fixture, Ventilating window. L. N. Moss. No. 1,094,917; Apr. 28; Gaz. vol. 201; p. 1087.
Shade-fixture. C. E. Schaumloeffel. No. 1,095,035; Apr. 28; Gaz. vol. 201; p. 1129.
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Shade-roller. E. F. Hartshorn. No. 1,093,931; Apr. 21; Gaz. vol. 201; p. 690.
Shade-roller and bracket therefor. L. Barbeau. No. 1,094,965; Apr. 28; Gaz. vol. 201; p. 1106.
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Sharpener, Knife and scissors. A. Helmer. No. 1,092,713; Apr. 7; Gaz. vol. 201; p. 202.
Sharpening device. J. A. Wallace. No. 1,092,877; Apr. 14; Gaz. vol. 201; p. 294.
Sharpening device, Razor-blade-. W. W. Richards. No. 1,093,802; Apr. 21; Gaz. vol. 201; p. 646.
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Sheet-feeding machine. H. C. La Batt. No. 1,092,271; Apr. 7; Gaz. vol. 201; p. 51.
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Shell or grenade with percussion-fusee, Rifle. R. Machenbach. No. 1,094,340; Apr. 21; Gaz. vol. 201; p. 823.
Shelter, Portable folding. L. A. Bell. No. 1,092,514; Apr. 7; Gaz. vol. 201; p. 135.
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Shoe. O. Hjelkrem. No. 1,092,146; Apr. 7; Gaz. vol. 201; p. 8.
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Shoes, Arch-support and ventilator for. J. Ball. No. 1,092,557; Apr. 7; Gaz. vol. 201; p. 149.
Shoes, Machine for operating on. E. E. Winkley. No. 1,092,619; Apr. 7; Gaz. vol. 201; p. 171.
Shoes, Machine for use in the manufacture of welt-. J. B. Hadaway. No. 1,093,697; Apr. 21; Gaz. vol. 201; p. 614.



Shoes, Making. J. A. Brogan. No. 1,093,030; Apr. 14; Gaz. vol. 201; p. 344.
Shoes, Manufacturing. F. W. Merrick. No. 1,093,563; Apr. 14; Gaz. vol. 201; p. 521.
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Shoulder-brace. T. G. Bowers. No. 1,093,379; Apr. 14; Gaz. vol. 201; p. 466.
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Show-case. A. Brymer. No. 1,093,169; Apr. 14; Gaz. vol. 201; p. 395.
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Show-case door. F. T. Barton and O. Henson. No. 1,094,695; Apr. 28; Gaz. vol. 201; p. 1011.
Shroud or other garment. C. G. Howe. No. 1,092,265; Apr. 7; Gaz. vol. 201; p. 48.
Shut-off, Automatic. J. E. Baldwin. No. 1,093,238; Apr. 14; Gaz. vol. 201; p. 417.
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Shuttle, Self-threading. A. Meunier. No. 1,093,713; Apr. 21; Gaz. vol. 201; p. 619.
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Sifter, Ash-. J. Singer. No. 1,095,037; Apr. 28; Gaz. vol. 201; p. 1129.
Sign, Electric. A. C. Meyer. No. 1,094,083; Apr. 21; Gaz. vol. 201; p. 741.
Signal: *See* Railway-crossing signal.
Signal apparatus. V. J. Crettol. No. 1,095,084; Apr. 28; Gaz. vol. 201; p. 1144.
Signal device. J. H. McCarthy. No. 1,092,732; Apr. 7; Gaz. vol. 201; p. 208.
Signal device. D. G. Knittel. No. 1,092,918; Apr. 14; Gaz. vol. 201; p. 308.
Signal mechanism, Electric. W. K. Howe. No. 1,092,266; Apr. 7; Gaz. vol. 201; p. 49.
Signal system. G. W. Phelps. No. 1,093,801; Apr. 21; Gaz. vol. 201; p. 646.
Signal-transmitter. D. G. Knittel and W. J. Davis. No. 1,092,919; Apr. 14; Gaz. vol. 201; p. 308.
Signals, Apparatus for producing electric. F. Rieber. No. 1,093,292; Apr. 14; Gaz. vol. 201; p. 436.
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Silo. D. E. Virtue. No. 1,093,898; Apr. 21; Gaz. vol. 201; p. 679.
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Skirt-gage. C. Seaman. No. 1,092,177; Apr. 7; Gaz. vol. 201; p. 18.
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Slicer, Vegetable-. J. Emel, Sr. No. 1,094,318; Apr. 21; Gaz. vol. 201; p. 817.
Small-arms, Practice apparatus for. H. B. Hollifield. No. 1,094,854; Apr. 28; Gaz. vol. 201; p. 1067.
Smoke-preventer. H. Lindsay and W. B. Jackson. No. 1,092,582; Apr. 7; Gaz. vol. 201; p. 158.
Smoke-recording apparatus. H. C. Alger. No. 1,093,903; Apr. 21; Gaz. vol. 201; p. 681.
Snap-fastener. E. N. Humphrey. No. 1,094,333; Apr. 21; Gaz. vol. 201; p. 822.
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Soap fixture, Liquid-. E. G. Watrous. No. 1,094,615; Apr. 28; Gaz. vol. 201; p. 981.
Soap-stick, Refillable. H. D. Dye. No. 1,092,436; Apr. 7; Gaz. vol. 201; p. 108.
Sock. C. Tighe. No. 1,094,273; Apr. 21; Gaz. vol. 201; p. 804.
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Soldering-tool, Assembling. J. E. Ebaugh. No. 1,093,552; Apr. 14; Gaz. vol. 201; p. 519.
Sole-edge-thickening machine. J. E. Collins. No. 1,093,035; Apr. 14; Gaz. vol. 201; p. 346.
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Soles, Holder for cementing. G. E. Brittain. (Reissue.) No. 13,714; Apr. 21; Gaz. vol. 201; p. 849.
Soles, Making. W. B. Greene. (Reissue.) No. 13,715; Apr. 21; Gaz. vol. 201; p. 850.
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Spike. C. M. Wickham. No. 1,092,683; Apr. 7; Gaz. vol. 201; p. 192.
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Spinning-mule. W. Hamer and J. H. Howarth. No. 1,094,327; Apr. 21; Gaz. vol. 201; p. 820.
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Spring-support, Elastic. J. McNeil and R. Lienhard, Jr. No. 1,093,143; Apr. 14; Gaz. vol. 201; p. 385.
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Springs, Machine for bending and cutting coiled. J. P. Leggett. No. 1,094,076; Apr. 21; Gaz. vol. 201; p. 739.
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Squeezer. F. F. Bradley. No. 1,094,974; Apr. 28; Gaz. vol. 201; p. 1109.
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Stapling-machine. I. Epstein. No. 1,093,040; Apr. 14; Gaz. vol. 201; p. 348.
Starch heater or table. O. M. Steppaeher. No. 1,094,175; Apr. 21; Gaz. vol. 201; p. 773.
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Wrench. J. H. Kuhns. No. 1,094,221; Apr. 21; Gaz. vol. 201; p. 788.
Wrench. H. B. and G. T. Kuntz. No. 1,094,446; Apr. 28; Gaz. vol. 201; p. 922.
Wrench. C. M. Davis. No. 1,094,536; Apr. 28; Gaz. vol. 201; p. 953.
Wrench. J. Y. Lintner and L. L. Benjamin. No. 1,095,005; Apr. 28; Gaz. vol. 201; p. 1120.
Wrench. M. Nicholas. No. 1,095,021; Apr. 28; Gaz. vol. 201; p. 1125.
Wrench or vise. J. C. Burgess. No. 1,094,400; Apr. 21; Gaz. vol. 201; p. 845.
Wringer: *See* Mop-wringer.
Writing-machine. E. B. Hess. No. 1,094,146; Apr. 21; Gaz. vol. 201; p. 762.
X-ray tube. H. M. Kesselring. No. 1,092,489; Apr. 7; Gaz. vol. 201; p. 128.
Yarn-conditioning machine. O. H. Cilley. No. 1,092,976; Apr. 14; Gaz. vol. 201; p. 327.
Yoke attachment, Neck-. W. R. Wintersteen. No. 1,093,091; Apr. 14; Gaz. vol. 201; p. 366.



# ALPHABETICAL LIST OF DESIGNS.

Advertising-cabinet. F. H. Newton. No. 45,693; Apr. 28; Gaz. vol. 201; p. 1188.
Air-navigating vessel. R. D. Bruce. No. 45,550; Apr. 7; Gaz. vol. 201; p. 238.
Article of manufacture. C. Sticher. Nos. 45,659–60; Apr. 21; Gaz. vol. 201; pp. 870–1.
Automobile-bumper. J. H. Sager. No. 45,571; Apr. 7; Gaz. vol. 201; p. 242.
Automobile-bumpers, Base member for. J. H. Sager. No. 45,570; Apr. 7; Gaz. vol. 201; p. 242.
Automobile radiator-casing. G. E. Wheeler. No. 45,609; Apr. 14; Gaz. vol. 201; p. 539.
Badge, pin, or fraternal emblem. J. R. Mansfield. No. 45,598; Apr. 14; Gaz. vol. 201; p. 537.
Badge, pin, or similar article. J. F. B. Ferry. No. 45,666; Apr. 28; Gaz. vol. 201; p. 1183.
Bags, Vanity-insert for. B. vom Elgen. No. 45,680; Apr. 28; Gaz. vol. 201; p. 1185.
Barber's wall-case. W. L. Goldstein and G. C. Van Essen. No. 45,594; Apr. 14; Gaz. vol. 201; p. 536.
Base-burner. A. F. Harter. No. 45,631; Apr. 21; Gaz. vol. 201; p. 864.
Bedstead. W. J. Curtis. No. 45,617; Apr. 21; Gaz. vol. 201; p. 862.
Belt, Waist-. A. M. Ziegler. No. 45,580; Apr. 7; Gaz. vol. 201; p. 244.
Book cover, Bank-. R. Shick. No. 45,677; Apr. 28; Gaz. vol. 201; p. 1185.
Bottle. G. Lloyd. No. 45,565; Apr. 7; Gaz. vol. 201; p. 241.
Bottle. F. Novak. No. 45,646; Apr. 21; Gaz. vol. 201; p. 868.
Bottle. F. J. M. Milea. No. 45,673; Apr. 28; Gaz. vol. 201; p. 1184.
Bottle-opener. J. L. Sommer. No. 45,678; Apr. 28; Gaz. vol. 201; p. 1185.
Bottle, Poison-. E. J. Mobley. No. 45,674; Apr. 28; Gaz. vol. 201; p. 1184.
Brush handle, Tooth-. J. J. Sarrazin. No. 45,572; Apr. 7; Gaz. vol. 201; p. 242.
Buckle. C. F. Reynolds. Nos. 45,603–4; Apr. 14; Gaz. vol. 201; p. 538.
Cabinet. H. C. Gowran. No. 45,623; Apr. 21; Gaz. vol. 201; p. 863.
Cap. A. G. Huettel. No. 45,596; Apr. 14; Gaz. vol. 201; p. 537.
Car-body. J. V. Whitbeck. No. 45,579; Apr. 7; Gaz. vol. 201; p. 244.
Carburetor. W. H. De Fontaine. No. 45,591; Apr. 14; Gaz. vol. 201; p. 536.
Cards, Set of playing-. G. F. Kearney. No. 45,670; Apr. 28; Gaz. vol. 201; p. 1184.
Carpet. W. A. Elliot. Nos. 45,620–1; Apr. 21; Gaz. vol. 201; pp. 862–3.
Carpet. E. G. Sauer. No. 45,651; Apr. 21; Gaz. vol. 201; p. 869.
Casket, Burial-. H. Burris. No. 45,551; Apr. 7; Gaz. vol. 201; p. 238.
Casket-handle. E. B. Stewart. No. 45,606; Apr. 14; Gaz. vol. 201; p. 538.
Casket-handle and lugs. G. R. Bailey. No. 45,581; Apr. 14; Gaz. vol. 201; p. 534.
Casket-handle and lugs. G. R. Bailey. No. 45,583; Apr. 14; Gaz. vol. 201; p. 534.
Casket name-plate. G. R. Bailey. No. 45,582; Apr. 14; Gaz. vol. 201; p. 534.
Casserole. R. Mohrhenn. No. 45,601; Apr. 14; Gaz. vol. 201; p. 538.
Chair-back. J. F. Walton. No. 45,663; Apr. 21; Gaz. vol. 201; p. 871.
Check, Trading-. J. A. Kidwell. No. 45,559; Apr. 7; Gaz. vol. 201; p. 240.
Clothes-line holder. J. P. Hansen. No. 45,667; Apr. 28; Gaz. vol. 201; p. 1183.
Collar. H. Almaker. No. 45,611; Apr. 21; Gaz. vol. 201; p. 861.
Cooking-utensil body. V. W. Clisby. No. 45,664; Apr. 28; Gaz. vol. 201; p. 1183.
Corner-piece and photographic display-cabinet. J. W. Westerdale. No. 45,578; Apr. 7; Gaz. vol. 201; p. 243.
Cornet. C. G. Conn. No. 45,555; Apr. 7; Gaz. vol. 201; p. 239.
Couch, Burial-. J. Lee. No. 45,564; Apr. 7; Gaz. vol. 201; p. 241.
Crucifix. W. O'Shea. No. 45,602; Apr. 14; Gaz. vol. 201; p. 538.
Curtain-suspender. C. Kanfinger, Jr. No. 45,597; Apr. 14; Gaz. vol. 201; p. 537.
Dish. A. N. Standerford. No. 45,679; Apr. 28; Gaz. vol. 201; p. 1185.
Dish, Covered. T. Haviland. No. 45,558; Apr. 7; Gaz. vol. 201; p. 240.
Dish holder, Resilient-. R. Sweers. No. 45,607; Apr. 14; Gaz. vol. 201; p. 539.
Display-stand. A. McDonald. No. 45,692; Apr. 28; Gaz. vol. 201; p. 1188.
Emblem. K. Beetar. No. 45,549; Apr. 7; Gaz. vol. 201; p. 238.
Emblem, button, or similar article. A. C. Dexter. No. 45,665; Apr. 28; Gaz. vol. 201; p. 1183.
Engines, Combined bonnet and radiator for automobile-. F. H. Royce. No. 45,695; Apr. 28; Gaz. vol. 201; p. 1188.
Envelop opener and seal. T. J. McAdams. No. 45,599; Apr. 14; Gaz. vol. 201; p. 537.
Faucet-bracket for electrical water-heaters. R. A. Bower. No. 45,612; Apr. 21; Gaz. vol. 201; p. 861.
Fender, Grate-. J. M. Satterfield. No. 45,649; Apr. 21; Gaz. vol. 201; p. 868.
File, container, or book-cover. L. A. Lebowich. No. 45,672; Apr. 28; Gaz. vol. 201; p. 1184.
Fly-trap. O. H. and V. V. Gillespie. No. 45,622; Apr. 21; Gaz. vol. 201; p. 863.
Garter-clamp. W. B. Hill. No. 45,669; Apr. 28; Gaz. vol. 201; p. 1183.
Hammer-head. W. J. Fleischauer and H. Richardson. No. 45,690; Apr. 28; Gaz. vol. 201; p. 1187.
Harness-rack. J. H. Lampe. No. 45,639; Apr. 21; Gaz. vol. 201; p. 866.
Irrigator-reservoir. C. W. Meinecke. No. 45,567; Apr. 7; Gaz. vol. 201; p. 242.
Lamp. E. A. Hawthorne. No. 45,691; Apr. 28; Gaz. vol. 201; p. 1187.
Lamp, Gas-. A. H. Humphrey. No. 45,635; Apr. 21; Gaz. vol. 201; p. 865.
Lamp-shade. E. F. Guth. No. 45,557; Apr. 7; Gaz. vol. 201; p. 240.
Lamp-shade. H. L. Lissfelt. No. 45,641; Apr. 21; Gaz. vol. 201; p. 867.
Lamp shade or reflector. F. L. Grant and C. A. Brown. Nos. 45,624–9; Apr. 21; Gaz. vol. 201; pp. 863–4.
Lens-clip. F. Hamilton. No. 45,630; Apr. 21; Gaz. vol. 201; p. 864.
Letter-head. L. S. Levy. No. 45,640; Apr. 21; Gaz. vol. 201; p. 866.
Light Inclosure, Artificial-. C. A. Frown. No. 45,613; Apr. 21; Gaz. vol. 201; p. 861.
Looping, Stripped. J. S. Short. No. 45,573; Apr. 7; Gaz. vol. 201; p. 243.
Loving-cup or similar receptacle. W. H. Head. No. 45,632; Apr. 21; Gaz. vol. 201; p. 865.
Mitten, Child's. C. Schnabel. No. 45,653; Apr. 21; Gaz. vol. 201; p. 869.
Musical instrument. C. Longobardi. No. 45,566; Apr. 7; Gaz. vol. 201; p. 241.
Musical instrument. H. E. Barnes. No. 45,685; Apr. 28; Gaz. vol. 201; p. 1186.
Napkin-holder. R. Thamm. No. 45,576; Apr. 7; Gaz. vol. 201; p. 243.
Orchard-heater. E. W. Dunn. No. 45,592; Apr. 14; Gaz. vol. 201; p. 536.
Orchestrion-case. J. P. Seeburg. Nos. 45,654–5; Apr. 21; Gaz. vol. 201; p. 869.
Paper bell. B. Karfiol. No. 45,636; Apr. 21; Gaz. vol. 201; p. 866.
Paper, Wall-. E. J. Walents, Sr. No. 45,681; Apr. 28; Gaz. vol. 201; p. 1185.
Parasol. C. J. Follmer. No. 45,593; Apr. 14; Gaz. vol. 201; p. 536.
Percolator. G. E. Curtiss. No. 45,587; Apr. 14; Gaz. vol. 201; p. 535.
Percolator, Coffee-. A. Cohn. No. 45,585; Apr. 14; Gaz. vol. 201; p. 535.
Piano-back. A. O. Lechner. No. 45,563; Apr. 7; Gaz. vol. 201; p. 241.
Piano-pedal. A. F. and C. H. Norris. No. 45,610; Apr. 14; Gaz. vol. 201; p. 539.
Picture-frame. J. Orbik. No. 45,676; Apr. 28; Gaz. vol. 201; p. 1185.
Plate. A. J. Koch. No. 45,638; Apr. 21; Gaz. vol. 201; p. 866.
Powder-container. J. E. Cross. No. 45,586; Apr. 14; Gaz. vol. 201; p. 535.
Precious, semiprecious, synthetic, or imitation stone. S. Heller. No. 45,668; Apr. 28; Gaz. vol. 201; p. 1183.
Rack or stand. I. Rosenberger. No. 45,694; Apr. 28; Gaz. vol. 201; p. 1188.
Range, Combined gas and coal. J. S. Van Buren. No. 45,662; Apr. 21; Gaz. vol. 201; p. 871.
Rebound-check. R. Miller. No. 45,568; Apr. 7; Gaz. vol. 201; p. 242.

Reflector. J. R. Cravath. No. 45,616; Apr. 21; Gaz. vol. 201; p. 862.
Reflector or similar article. W. A. Dorey. No. 45,618; Apr. 21; Gaz. vol. 201; p. 862.
Reflector-shade. J. L. Holton. No. 45,633; Apr. 21; Gaz. vol. 201; p. 865.
Ring, Wedding-. M. Rosen. No. 45,648; Apr. 21; Gaz. vol. 201; p. 868.
Rubber bathing-cap. M. A. Stearns. No. 45,658; Apr. 21; Gaz. vol. 201; p. 870.
Rug. J. Merry. Nos. 45,642–3; Apr. 21; Gaz. vol. 201; p. 867.
Rug. R. F. Riddell. No. 45,647; Apr. 21; Gaz. vol. 201; p. 868.
Rug. E. G. Sauer. No. 45,650; Apr. 21; Gaz. vol. 201; p. 869.
Rug. E. G. Sauer. No. 45,652; Apr. 21; Gaz. vol. 201; p. 869.
Rug. W. A. Spring. Nos. 45,656–7; Apr. 21; Gaz. vol. 201; p. 870.
Sad-iron. F. Kuhn. No. 45,671; Apr. 28; Gaz. vol. 201; p. 1184.
Salt or pepper shaker. L. A. Broaddus. No. 45,584; Apr. 14; Gaz. vol. 201; p. 535.
Scale-frame. W. F. Stimpson. No. 45,661; Apr. 21; Gaz. vol. 201; p. 871.
Shade, reflector, or similar article. O. A. Mygatt. No. 45,569; Apr. 7; Gaz. vol. 201; p. 242.
Shield, Protective. V. Guinzburg. No. 45,595; Apr. 14; Gaz. vol. 201; p. 537.
Shingling-tool. J. D. Cossette. No. 45,687; Apr. 28; Gaz. vol. 201; p. 1187.
Soap-dispenser container. W. C. Morrill. No. 45,675; Apr. 28; Gaz. vol. 201; p. 1184.
Spoon, fork, or similar article. J. W. Elliott. No. 45,619; Apr. 21; Gaz. vol. 201; p. 862.
Spoon, fork, or similar article. A. C. Kintz. No. 45,637; Apr. 21; Gaz. vol. 201; p. 866.
Spoon, fork, or similar article. B. D. Myers. No. 45,645; Apr. 21; Gaz. vol. 201; p. 868.
Spoon, fork, or similar article. W. B. H. Dowse. Nos. 45,688–9; Apr. 28; Gaz. vol. 201; p. 1187.
Spoons, forks, or similar articles, Handle for. W. C. Codman. Nos. 45,614–15; Apr. 21; Gaz. vol. 201; pp. 861–2.
Spring-cap. W. S. Adams. No. 45,684; Apr. 28; Gaz. vol. 201; p. 1186.
Stove, Heating-. G. W. Howes. No. 45,634; Apr. 21; Gaz. vol. 201; p. 865.
Temperature-indicator. R. N. Burton. Nos. 45,552–4; Apr. 7; Gaz. vol. 201; p. 239.
Temperature-indicator. E. A. Larson. Nos. 45,560–2; Apr. 7; Gaz. vol. 201; pp. 240–1.
Temperature-indicator. J. K. Stewart. No. 45,575; Apr. 7; Gaz. vol. 201; p. 243.
Tool, Automatic. A. J. Michelin. No. 45,644; Apr. 21; Gaz. vol. 201; p. 867.
Truck bolster, Car-. W. S. Adams. Nos. 45,682–3; Apr. 28; Gaz. vol. 201; p. 1186.
Tumbler. A. J. Sanford. No. 45,605; Apr. 14; Gaz. vol. 201; p. 538.
Type, Font of. S. M. Weatherly. No. 45,608; Apr. 14; Gaz. vol. 201; p. 539.
Urn. G. E. Curtiss. Nos. 45,588–90; Apr. 14; Gaz. vol. 201; pp. 535–6.
Vehicle-body. G. W. Bulley. No. 45,686; Apr. 28; Gaz. vol. 201; p. 1186.
Vending-machine casing. J. L. Taylor. No. 45,697; Apr. 28; Gaz. vol. 201; p. 1189.
Violin-bridge. W. A. E. Michaelis. No. 45,600; Apr. 14; Gaz. vol. 201; p. 537.
Wall covering, frieze, border, or similar article. R. Weiss. No. 45,577; Apr. 7; Gaz. vol. 201; p. 243.
Water-distributing fixture, Bath. W. A. Speakman. No. 45,574; Apr. 7; Gaz. vol. 201; p. 243.
Water-heater. H. J. Ryan. No. 45,696; Apr. 28; Gaz. vol. 201; p. 1189.
Wrench. W. Gravier and M. P. Hutchins. No. 45,556; Apr. 7; Gaz. vol. 201; p. 239.

# ALPHABETICAL LIST OF TRADE-MARKS.

Abrasive for producing a dull finish on any polished surface. T. F. Mutchle. No. 96,712; Apr. 28; Gaz. vol. 201; p. 1215.
**Adhesive. Chemical Specialties Co. No. 96,104; Apr. 7; Gaz. vol. 201; p. 261.**
Adhesive compound for use in attaching artificial teeth to gums. Magic Suction Company. No. 96,310; Apr. 14; Gaz. vol. 201; p. 565.
Agricultural implements, Certain parts for certain. Galesburg Coulter-Disc Co. No. 96,269; Apr. 14; Gaz. vol. 201; p. 564.
Alcoholic liquors, Certain named. R. Rose. No. 96,190; Apr. 7; Gaz. vol. 201; p. 264.
Alimentary paste products. Vesuvio & Piedmont Paste Co. No. 96,469; Apr. 21; Gaz. vol. 201; p. 897.
Almanac or magazine of business, Monthly. The Atlas Portland Cement Company. No. 96,222; Apr. 14; Gaz. vol. 201; p. 563.
Ankle-protectors and hot-water bags. Howe Rubber Co. No. 96,295; Apr. 14; Gaz. vol. 201; p. 565.
Antiseptic for certain named ailments. M. A. Dodson. No. 96,503; Apr. 21; Gaz. vol. 201; p. 898.
**Antiseptic, germicide, &c., preparation, Alkaline. R. M. Seibel. No. 96,195; Apr. 7; Gaz. vol. 201; p. 264.**
Antiseptic, Non-poisonous. A. S. Wildey. No. 96,479; Apr. 21; Gaz. vol. 201; p. 897.
Anvils. Illinois Iron & Bolt Co. No. 96,679; Apr. 28; Gaz. vol. 201; p. 1214.
Athletic games or sports, Implements, apparatus, and articles used in certain. A. G. Spalding & Bros. No. 96,301; Apr. 14; Gaz. vol. 201; p. 567.
Automobiles. Comet Cycle Car Company. No. 96,254; Apr. 14; Gaz. vol. 201; p. 564.
Automobiles, motor boats and cycles, aeroplanes, and aero-hydroplanes. J. E. Cohen. No. 96,253; Apr. 14; Gaz. vol. 201; p. 564.
Babbitt and antifriction metals. Great Western Smelting & Refining Co. No. 96,282; Apr. 14; Gaz. vol. 201; p. 565.
**Bags, Canvas coal-. E. L. Koller. No. 96,142; Apr. 7; Gaz. vol. 201; p. 262.**
Baking-powder, bluing, and ammonia. The Fitts Manufacturing Company. No. 96,659; Apr. 28; Gaz. vol. 201; p. 1214.
Balm, Analgesic. Sek-Rub Company. No. 96,463; Apr. 21; Gaz. vol. 201; p. 897.
Bath-tubs, lavatories, sinks, plumbing-traps, &c. N. O. Nelson Manufacturing Company. No. 96,320; Apr. 14; Gaz. vol. 201; p. 566.
Batteries, Dry. Manhattan Electrical Supply Co. No. 96,313; Apr. 14; Gaz. vol. 201; p. 566.
**Beer. The John Eichler Brg. Co. No. 96,117; Apr. 7; Gaz. vol. 201; p. 262.**
Beer. The John Eichler Brewing Co. No. 96,261; Apr. 14; Gaz. vol. 201; p. 564.
Beer. G. Pschorr. No. 96,334; Apr. 14; Gaz. vol. 201; p. 566.
Beer. The Gund Brewing Co. No. 96,510; Apr. 21; Gaz. vol. 201; p. 898.
Beet-pulp. The Larrowe Milling Co. No. 96,429; Apr. 21; Gaz. vol. 201; p. 896.
Belt-dressing. R. G. Pechin. No. 96,332; Apr. 14; Gaz. vol. 201; p. 566.
Belting, Woven machine-. The Russell Manufacturing Co. No. 96,720; Apr. 28; Gaz. vol. 201; p. 1216.
**Beverage, Malt. Reisch Brewing Co. No. 96,183; Apr. 7; Gaz. vol. 201; p. 264.**
**Beverages, Flavoring-syrup for non-alcoholic. J. Hungerford Smith Co. No. 96,199; Apr. 7; Gaz. vol. 201; p. 264.**
Billiard balls and tables. P. Bibeault. No. 96,094; Apr. 7; Gaz. vol. 201; p. 261.
Binders, spring-holders, and ring-books. Current, &c. Chicago Shipping & Receipt Book Co. No. 96,251; Apr. 14; Gaz. vol. 201; p. 564.
**Biscuit. National Biscuit Company. Nos. 96,161–72; Apr. 7; Gaz. vol. 201; p. 263.**
Biscuit. Loose-Wiles Biscuit Company. No. 96,592; Apr. 21; Gaz. vol. 201; p. 901.
Biscuit. National Biscuit Company. No. 96,714; Apr. 28; Gaz. vol. 201; p. 1216.
Bits, spurs, stirrups, and saddlery hardware. August Buermann Manufacturing Co. No. 96,246; Apr. 14; Gaz. vol. 201; p. 564.
Blankets. Wheeler & Motter Mercantile Company. No. 96,376; Apr. 14; Gaz. vol. 201; p. 567.
Books, Printed. F. A. O. Schwarz. No. 96,351; Apr. 14; Gaz. vol. 201; p. 567.
Boots and shoes, Leather. Blyn Shoe Manufacturing Company. No. 96,241; Apr. 14; Gaz. vol. 201; p. 563.
Boots and shoes, Leather. Charles A. Eaton Company. No. 96,260; Apr. 14; Gaz. vol. 201; p. 564.
Boots and shoes, Leather. The Krohn-Fechheimer Company. No. 96,307; Apr. 14; Gaz. vol. 201; p. 565.
Boots, shoes, and slippers. J. G. Helfrich. No. 96,289; Apr. 14; Gaz. vol. 201; p. 565.
Boots, shoes, slippers, leggings, and gaiters, Leather. Padmore & Barnes. No. 96,330; Apr. 14; Gaz. vol. 201; p. 566.
**Borax, borax tooth and wound powder, &c. H. Mack. No. 96,150; Apr. 7; Gaz. vol. 201; p. 263.**
Bottle washing and rinsing machines. Universal Bottle Washer Co. No. 96,756; Apr. 28; Gaz. vol. 201; p. 1217.
Bottles, Glass. Kochler & Hinrichs. No. 96,688; Apr. 28; Gaz. vol. 201; p. 1215.
Box-fasteners. J. Kurz. No. 96,426; Apr. 21; Gaz. vol. 201; p. 896.
**Boxes, Metal. M. Dickinson. No. 96,115; Apr. 7; Gaz. vol. 201; p. 262.**
Braids and edgings. Strauss Bros. & Co. No. 96,363; Apr. 14; Gaz. vol. 201; p. 567.
**Brandy. Gautier Frères. Nos. 96,125–6; Apr. 7; Gaz. vol. 201; p. 262.**
Brandy. B. Kasprowicz. No. 96,682; Apr. 28; Gaz. vol. 201; p. 1215.
**Bread. Des Moines Bakery Company. No. 96,113; Apr. 7; Gaz. vol. 201; p. 262.**
Bread. A. Tutter. No. 96,613; Apr. 21; Gaz. vol. 201; p. 901.
**Bread and zwieback. S. Gluck. No. 96,128; Apr. 7; Gaz. vol. 201; p. 262.**
Brooms. Klauber Wangenheim Co. No. 96,687; Apr. 28; Gaz. vol. 201; p. 1215.
Brushes, dusters, and mops. Silver-Chamberlin Co. No. 96,725; Apr. 28; Gaz. vol. 201; p. 1216.
Butterin. Ammon & Person. No. 96,384; Apr. 21; Gaz. vol. 201; p. 895.
**Cable-clamps. Diamond Expansion Bolt Co. No. 96,114; Apr. 7; Gaz. vol. 201; p. 262.**
Cake, Preparation for making. The Cabell Company. No. 96,397; Apr. 21; Gaz. vol. 201; p. 895.
**Candy. J. E. Leikauf. No. 96,146; Apr. 7; Gaz. vol. 201; p. 263.**
**Candy. Southern Candy Company. No. 96,202; Apr. 7; Gaz. vol. 201; p. 264.**
**Candy. R. Young. No. 96,216; Apr. 7; Gaz. vol. 201; p. 265.**
Candy. The Aromint Company. No. 96,386; Apr. 21; Gaz. vol. 201; p. 895.
Candy. Hollingsworth Candy Company. No. 96,417; Apr. 21; Gaz. vol. 201; p. 896.
Candy. R. Wangenheim. No. 96,472; Apr. 21; Gaz. vol. 201; p. 897.
Candy, Chocolate. Dilling & Company. No. 96,400; Apr. 21; Gaz. vol. 201; p. 895.
Canned fish. C. O. Olsen-Kleppe. No. 96,451; Apr. 21; Gaz. vol. 201; p. 897.
Canned fish. Tokstad-Burger Co. No. 96,467; Apr. 21; Gaz. vol. 201; p. 897.
Canned fruit and canned cooked fish. Gordon, Sewall & Company. No. 96,409; Apr. 21; Gaz. vol. 201; p. 895.
Canned fruits and vegetables. Getz Bros. & Co. No. 96,407; Apr. 21; Gaz. vol. 201; p. 895.
**Canned or preserved fish. J. H. Mercian. No. 96,155; Apr. 7; Gaz. vol. 201; p. 263.**
Canned or preserved fish. J. H. Mercian. Nos. 96,441–4; Apr. 21; Gaz. vol. 201; p. 896.
**Canned pork and beans with tomato sauce. C. C. McDonald. Nos. 96,151–2; Apr. 7; Gaz. vol. 201; p. 263.**
Canned pork and beans with tomato sauce. C. C. McDonald. No. 96,595; Apr. 21; Gaz. vol. 201; p. 901.
Canned salmon. Pacific Fisheries & Packing Company. Nos. 96,453–4; Apr. 21; Gaz. vol. 201; p. 897.
Canned sardines. E. L. Heebner. No. 96,413; Apr. 21; Gaz. vol. 201; p. 896.
**Canned sardines, herring, and salmon. J. S. McKenzie & Company. No. 96,153; Apr. 7; Gaz. vol. 201; p. 263.**
Canned vegetables. Oostburg Canning Company. No. 96,174; Apr. 7; Gaz. vol. 201; p. 263.
Canned vegetables. The J. K. Armsby Co. No. 96,385; Apr. 21; Gaz. vol. 201; p. 895.
Canned vegetables. Hustisford Canning Co. No. 96,567; Apr. 21; Gaz. vol. 201; p. 900.
Caps. Eagle Knitting Mills. No. 96,655; Apr. 28; Gaz. vol. 201; p. 1214.
Carbon-remover. C. J. Reitz. No. 96,184; Apr. 7; Gaz. vol. 201; p. 264.
Card or picture supports. J. M. Washburn. No. 96,762; Apr. 28; Gaz. vol. 201; p. 1217.
**Cards, Playing-. The United States Playing Card Co. No. 96,210; Apr. 7; Gaz. vol. 201; p. 264.**

Carpet and rug cleaning composition. D. O. Quivey. No. 96,335; Apr. 14; Gaz. vol. 201; p. 566.
Carpets and rugs, Woven. Hardwick & Magee Co. No. 96,673; Apr. 28; Gaz. vol. 201; p. 1214.
Carriage-doors, Mechanical devices for operating the window-sashes of. Rheims & Auscher. No. 96,340; Apr. 14; Gaz. vol. 201; p. 566.
Catarrh and hay-fever remedy. J. Follens. No. 96,406; Apr. 21; Gaz. vol. 201; p. 895.
Cathartic capsules. A. Petrie. No. 96,459; Apr. 21; Gaz. vol. 201; p. 897.
Cathartic tablets, Candy. Klepper & Armitage. No. 96,516; Apr. 21; Gaz. vol. 201; p. 899.
Cheese, Camembert-type. J. B. du Parc. No. 96,577; Apr. 21; Gaz. vol. 201; p. 900.
Chocolates. Darby Candy Co. No. 96,111; Apr. 7; Gaz. vol. 201; p. 262.
Cigarette-cases. Havone Cigarette Case Company. No. 96,132; Apr. 7; Gaz. vol. 201; p. 262.
Cigarette-papers, Books of. E. Bardon. No. 96,226; Apr. 14; Gaz. vol. 201; p. 563.
Cigarettes. J. H. Bonnell, 2d. No. 96,242; Apr. 14; Gaz. vol. 201; p. 563.
Cigarettes. S. J. Marchosky. Nos. 96,698–9; Apr. 28; Gaz. vol. 201; p. 1215.
Cigarettes containing Turkish tobacco. Athos Tobacco Company. No. 96,221; Apr. 14; Gaz. vol. 201; p. 563.
Cigars. M. W. Diffley, Inc. No. 96,116; Apr. 7; Gaz. vol. 201; p. 262.
Cigars. M. W. Diffley, Inc. No. 96,257; Apr. 14; Gaz. vol. 201; p. 564.
Cigars. Compania General de Tabacos de Filipinas. Nos. 96,647–9; Apr. 28; Gaz. vol. 201; p. 1214.
Cigars. Arnold Tietig & Son. No. 96,736; Apr. 28; Gaz. vol. 201; p. 1216.
Cigars and smoking-tobacco. The United States Distributing Co. No. 96,619; Apr. 21; Gaz. vol. 201; p. 901.
Cigars, cigarettes, tobacco, and snuff. A. Mayer. No. 96,702; Apr. 28; Gaz. vol. 201; p. 1215.
Clarinet-reeds. Deutsche Holzblas-Instrumenten-Fabrik Oscar Adler & Co. No. 96,576; Apr. 21; Gaz. vol. 201; p. 900.
Cleaning apparatus, Electric. Wisconsin Electric Company. No. 96,766. Apr. 28; Gaz. vol. 201; p. 1217.
Cleaning apparatus, Electrical metal-. R. Thompson. No. 96,548; Apr. 21; Gaz. vol. 201; p. 899.
Cleaning-cloths. R. Mayer. No. 96,703; Apr. 28; Gaz. vol. 201; p. 1215.
Cleaning compound for textile fabrics. Chicago Cleaning Company. No. 96,250; Apr. 14; Gaz. vol. 201; p. 564.
Cleaning compounds. The Benfer Manufacturing Company. No. 96,632; Apr. 28; Gaz. vol. 201; p. 1213.
Cleaning liquids for glass, &c. Deutsche Orbat-Gesellschaft mit beschränkter Haftung. No. 96,256; Apr. 14; Gaz. vol. 201; p. 564.
Cleaning-powder, Alkaline. P. C. Tomson & Company. No. 96,468; Apr. 21; Gaz. vol. 201; p. 897.
Clocks and watches. Western Clock Co. No. 96,373; Apr. 14; Gaz. vol. 201; p. 567.
Clocks and watches. Western Clock Co. No. 96,616; Apr. 21; Gaz. vol. 201; p. 901.
Closet bowls, Water-. The Great Western Pottery Co. No. 96,281; Apr. 14; Gaz. vol. 201; p. 565.
Clothing, Certain named. Revillon Frères. No. 96,339; Apr. 14; Gaz. vol. 201; p. 566.
Clothing, Certain named articles of. Boy Scouts of America. No. 96,243; Apr. 14; Gaz. vol. 201; p. 563.
Clothing, Certain named men's. The Ideal Clothing Company. No. 96,296; Apr. 14; Gaz. vol. 201; p. 565.
Clothing, underwear, and athletic garments, Certain named. Innovation Shirt Company. No. 96,297; Apr. 14; Gaz. vol. 201; p. 565.
Coal, Compound for treating. The Clinedinst Coal and Heat Saving Chemical Company. No. 96,106; Apr. 7; Gaz. vol. 201; p. 261.
Coating compound for automobile wheel-rims and metallic surfaces. The Calumet Co. No. 96,100; Apr. 7; Gaz. vol. 201; p. 261.
Coats, cloaks, suits, and outer skirts, Ladies'. H. Burstein & Co. Nos. 96,247–8; Apr. 14; Gaz. vol. 201; p. 564.
Cocktail ingredients. Symphony Cocktail Company. No. 96,364; Apr. 14; Gaz. vol. 201; p. 567.
Cocoa. Malmö Chokolad- & Konfekt-Fabriks Aktie-Bolag. No. 96,437; Apr. 21; Gaz. vol. 201; p. 896.
Coffee. Arbuckle Brothers. No. 96,081; Apr. 7; Gaz. vol. 201; p. 261.
Coffee. John Hoffmann & Sons. No. 96,134; Apr. 7; Gaz. vol. 201; p. 262.
Coffee, Blended. L. E. King. No. 96,422; Apr. 21; Gaz. vol. 201; p. 896.
Collars. Cluett, Peabody & Co. No. 96,569; Apr. 21; Gaz. vol. 201; p. 900.
Collars, cuffs, and shirts. Cluett, Peabody & Co. No. 96,645; Apr. 28; Gaz. vol. 201; p. 1213.
Colors, Artists'. Talens & Son. No. 96,547; Apr. 21; Gaz. vol. 201; p. 899.
Cordials, whisky, and brandy. W. P. Bernagozzi. No. 96,229; Apr. 14; Gaz. vol. 201; p. 563.
Corn products. Evans Milling Company. No. 96,403; Apr. 21; Gaz. vol. 201; p. 895.
Cornmeal. Moore & Rogers. No. 96,157; Apr. 7; Gaz. vol. 201; p. 263.
Cornmeal. Husted Milling Company. No. 96,515; Apr. 21; Gaz. vol. 201; p. 898.
Corset-stays, Wire. The La Resista Corset Company. No. 96,308; Apr. 14; Gaz. vol. 201; p. 565.
Corsets. Madame X Manufacturing Company. No. 96,593; Apr. 21; Gaz. vol. 201; p. 901.
Corsets. Madame X Manufacturing Company. No. 96,695; Apr. 28; Gaz. vol. 201; p. 1215.
Cotton and wool dress goods. Osgood & Silverblatt. No. 96,326; Apr. 14; Gaz. vol. 201; p. 566.
Cotton piece goods. Converse & Company. Nos. 96,490–9; Apr. 21; Gaz. vol. 201; p. 898.
Cotton piece goods. Elms & Sellon. No. 96,656; Apr. 28; Gaz. vol. 201; p. 1214.
Couches. Naperville Lounge Company. No. 96,713; Apr. 28; Gaz. vol. 201; p. 1215.
Cough-syrup. W. M. Griffin Company. No. 96,408; Apr. 21; Gaz. vol. 201; p. 895.
Cough-syrup. The W. J. Gilmore Drug Company. No. 96,410; Apr. 21; Gaz. vol. 201; p. 896.
Crackers, Laxative. The California Pharmacy Company. No. 96,641; Apr. 28; Gaz. vol. 201; p. 1213.
Crayons. Binney & Smith Company. No. 96,236; Apr. 14; Gaz. vol. 201; p. 563.
Cream, Face-. B. Munk. No. 96,446; Apr. 21; Gaz. vol. 201; p. 896.
Cream of tartar, castor-oil, alum, ammonia, &c. Wulfing Grocer Company. No. 96,560; Apr. 21; Gaz. vol. 201; p. 900.
Creams, powder, perfumery, and tooth-paste, Toilet. B. Novambère. No. 96,448; Apr. 21; Gaz. vol. 201; p. 897.
Croup-syrup. G. A. Warren. No. 96,473; Apr. 21; Gaz. vol. 201; p. 897.
Cushions, pillows, and mattresses. The J. C. Hirschman Company. No. 96,514; Apr. 21; Gaz. vol. 201; p. 898.
Dates. E. A. O'Kelly & Co. No. 96,600; Apr. 21; Gaz. vol. 201; p. 901.
Decarbonizing apparatus, Portable. Oxycarbon Co. No. 96,327; Apr. 14; Gaz. vol. 201; p. 566.
Dental powder used in holding dental plates in the mouth. O. Wilson. No. 96,214; Apr. 7; Gaz. vol. 201; p. 265.
Detergent. O. W. Tanke. No. 96,732; Apr. 28; Gaz. vol. 201; p. 1216.
Dish washers and driers. E. E. Hershey. No. 96,291; Apr. 14; Gaz. vol. 201; p. 565.
Disinfectant. Bayway Chemical Company. No. 96,391; Apr. 21; Gaz. vol. 201; p. 895.
Disinfectant. Bayway Chemical Company. No. 96,483; Apr. 21; Gaz. vol. 201; p. 898.
Dolls, toys, roly-polies, jumping-jacks, &c. Geo. Borgfeldt & Co. No. 96,096; Apr. 7; Gaz. vol. 201; p. 261.
Douche, Nasal. Kress & Owen Company. No. 96,425; Apr. 21; Gaz. vol. 201; p. 896.
Dress-shields. H. P. Rindskopf. Nos. 96,187–8; Apr. 7; Gaz. vol. 201; p. 264.
Dress-shields. H. P. Rindskopf. No. 96,341; Apr. 14; Gaz. vol. 201; p. 566.
Dresses and outer skirts. Juda Brothers. No. 96,301; Apr. 14; Gaz. vol. 201; p. 565.
Dresses and negligées, House, maids', and nurses'. S. E. Badanes. No. 96,224; Apr. 14; Gaz. vol. 201; p. 563.
Dresses, Children's. Klauber Bros. & Company. No. 96,686; Apr. 28; Gaz. vol. 201; p. 1215.
Dyspepsia and constipation tablets. M. E. Robins. No. 96,461; Apr. 21; Gaz. vol. 201; p. 897.
Electric vaporizers, heaters, and spark-plugs. Arnold Electric Company. No. 96,481; Apr. 21; Gaz. vol. 201; p. 898.
Embroideries. Hunt & Van Nice. No. 96,137; Apr. 7; Gaz. vol. 201; p. 262.
Enamel. Samuel Cabot, Inc. No. 96,099; Apr. 7; Gaz. vol. 201; p. 261.
Engines, Gas, gasolene, and kerosene. De Laval Dairy Supply Company. No. 96,651; Apr. 28; Gaz. vol. 201; p. 1214.
Engines, Steam-. The Skinner Engine Company. No. 96,544; Apr. 21; Gaz. vol. 201; p. 899.
Envelops and writing and printing paper. New England Envelope Company. No. 96,598; Apr. 21; Gaz. vol. 201; p. 901.
Eyeglass-mountings. E. Kirstein Sons Company. No. 96,305; Apr. 14; Gaz. vol. 201; p. 565.
Eyeglasses, spectacles, lenses, frames, &c. American Optical Company. No. 96,626; Apr. 28; Gaz. vol. 201; p. 1213.
Fabrics in the piece, Certain named textile. E. C. Carter and Son. No. 96,101; Apr. 7; Gaz. vol. 201; p. 261.
Fans, Exhaust-. The De Vilbiss Manufacturing Company. No. 96,653; Apr. 28; Gaz. vol. 201; p. 1214.
Feed for horses and mules. G. B. Mattbews & Sons. No. 96,439; Apr. 21; Gaz. vol. 201; p. 896.
Feed, Hominy. H. Freudenthal. No. 96,580; Apr. 21; Gaz. vol. 201; p. 900.
Fertilizer. Pacific Bone Coal & Fertilizing Co. No. 96,534; Apr. 21; Gaz. vol. 201; p. 899.
Fertilizer-distributers, plows, and planters. Hartsville Implement Co. No. 96,287; Apr. 14; Gaz. vol. 201; p. 565.
Fertilizers. The Pacific Guano & Fertilizer Co. Nos. 96,328–9; Apr. 14; Gaz. vol. 201; p. 566.
Fireworks. Consolidated Fire Works Company of America. No. 96,108; Apr. 7; Gaz. vol. 201; p. 262.
Fish products, Preserved. R. Barvier. No. 96,389; Apr. 21; Gaz. vol. 201; p. 895.
Flasks and bottles, Glass. The Schuster Company. No. 96,350; Apr. 14; Gaz. vol. 201; p. 567.



Flavoring extracts for foods. The Arthur Chemical Co. No. 96,387; Apr. 21; Gaz. vol. 201; p. 895.
Flour. B. Beebe. No. 96,091; Apr. 7; Gaz. vol. 201; p. 261.
Flour. Gulfport Grocery Co. No. 96,411; Apr. 21; Gaz. vol. 201; p. 896.
Flour, Self-rising wheat-. The Allen & Wheeler Co. No. 96,078; Apr. 7; Gaz. vol. 201; p. 261.
Flour, Self-rising wheat-. Hezel Milling Company. No. 96,414; Apr. 21; Gaz. vol. 201; p. 896.
Flour, Self-rising wheat-. The Craighead Flour Co. No. 96,574; Apr. 21; Gaz. vol. 201; p. 900.
Flour, Wheat-. The Kansas Milling & Export Co. No. 96,141; Apr. 7; Gaz. vol. 201; p. 262.
Flour, Wheat-. Rea & Page Milling Co. No. 96,182; Apr. 7; Gaz. vol. 201; p. 264.
Flour, Wheat-. United Flour Mills Co. No. 96,208; Apr. 7; Gaz. vol. 201; p. 264.
Flour, Wheat-. Bowersock Mills & Power Co. No. 96,394; Apr. 21; Gaz. vol. 201; p. 895.
Flour, Wheat-. Howery-Taylor Milling Co. No. 96,418; Apr. 21; Gaz. vol. 201; p. 896.
Flour, Wheat-. Lewiston Milling Co. Nos. 96,431–2; Apr. 21; Gaz. vol. 201; p. 896.
Flour, Wheat-. Louisville Milling Co. No. 96,436; Apr. 21; Gaz. vol. 201; p. 896.
Flour, Wheat-. The L. C. Nicholson Co. No. 96,599; Apr. 21; Gaz. vol. 201; p. 901.
Flour, Wheat-. C. L. Plumb. No. 96,715; Apr. 28; Gaz. vol. 201; p. 1216.
Fly-repellents. W. McKirdy. No. 96,423; Apr. 21; Gaz. vol. 201; p. 896.
Food and tonic, Poultry. Dr. Hess & Clark. No. 96,587; Apr. 21; Gaz. vol. 201; p. 901.
Food for children. Nährmittelfabrik München Gesellschaft mit beschr. Haftung. No. 96,447; Apr. 21; Gaz. vol. 201; p. 897.
Food preparation for dogs, cats, poultry, &c. Spratt's Patent (America). No. 96,203; Apr. 7; Gaz. vol. 201; p. 264.
Foods, Certain named. The Mosel-Johnson Co. No. 96,158; Apr. 7; Gaz. vol. 201; p. 263.
Foods, Certain named. Strohmeyer & Arpe Company. No. 96,207; Apr. 7; Gaz. vol. 201; p. 264.
Foods, Certain named. M. Brawer & Son. No. 96,395; Apr. 21; Gaz. vol. 201; p. 895.
Foods, Certain named. The H. D. Lee Mercantile Co. No. 96,430; Apr. 21; Gaz. vol. 201; p. 896.
Foods, Certain named. Pellier Frères. Nos. 96,457–8; Apr. 21; Gaz. vol. 201; p. 897.
Foods, Certain named. A. Starace. No. 96,464; Apr. 21; Gaz. vol. 201; p. 897.
Foods, Certain named. Mullen-Blackledge-Nellis Co. No. 96,596; Apr. 21; Gaz. vol. 201; p. 901.
Foods, Certain named. Alart & McGuire. No. 96,622; Apr. 28; Gaz. vol. 201; p. 1213.
Foods, Certain named. Goldberg, Bowen & Co. No. 96,667; Apr. 28; Gaz. vol. 201; p. 1214.
Footwear made of certain materals or combinations thereof, Certain named. "Ago" Lederkitt-Industrie-Gesellschaft mit beschränkter Haftung. No. 96,217; Apr. 14; Gaz. vol. 201; p. 563.
Foundation-piles, Steel. The Underpinning & Foundation Co. No. 96,737; Apr. 28; Gaz. vol. 201; p. 1216.
Fruit, Citrus. M. E. Johnson. No. 96,140; Apr. 7; Gaz. vol. 201; p. 262.
Fruits, Citrus. J. N. Reynolds. No. 96,185; Apr. 7; Gaz. vol. 201; p. 264.
Fruits, Citrus. Southern Citrus Corporation. No. 96,200; Apr. 7; Gaz. vol. 201; p. 264.
Fruits, Citrus. J. N. Reynolds. No. 96,607; Apr. 21; Gaz. vol. 201; p. 901.
Fruits, Dried. California Associated Raisin Co. No. 96,398; Apr. 21; Gaz. vol. 201; p. 895.
Furnaces, Exhausters and burners for heating-. C. M. Hunter. No. 96,677; Apr. 28; Gaz. vol. 201; p. 1214.
Furniture and woodwork polish. The Hy-Polish Products Company. No. 96,138; Apr. 7; Gaz. vol. 201; p. 262.
Furniture-polish. Goodrich Drug Co. No. 96,129; Apr. 7; Gaz. vol. 201; p. 262.
Games, toys, and children's building-blocks. C. H. Pajeau. No. 96,175; Apr. 7; Gaz. vol. 201; p. 263.
Garments, Ladies'. A. Maisin. No. 96,311; Apr. 14; Gaz. vol. 201; p. 565.
Gas, Liquefied. A. O. Fox. No. 96,507; Apr. 21; Gaz. vol. 201; p. 898.
Germicide, vermin-exterminator, and disinfectant. N. Y. Disinfecting & Exterminating Co., Forst & Mendel. No. 96,173; Apr. 7; Gaz. vol. 201; p. 263.
Gin. G. F. Heublein & Bro. No. 96,292; Apr. 14; Gaz. vol. 201; p. 565.
Ginger-ale, sarsaparilla, birch and root beers, lemon-soda, &c. L. A. Finn. No. 96,119; Apr. 7; Gaz. vol. 201; p. 262.
Glass articles, Certain named. Gillinder & Sons. No. 96,662; Apr. 28; Gaz. vol. 201; p. 1214.
Gloves. Rey-Jouvin freres et Co. No. 96,717; Apr. 28; Gaz. vol. 201; p. 1216.
Gloves, Kid. J. M. Chanut & Cie. No. 96,643; Apr. 28; Gaz. vol. 201; p. 1213.
Gowns, manties, fur garments, women's underwear. Worth. No. 96,618; Apr. 21; Gaz. vol. 201; p. 901.
Grain, Brewers'. K. & E. Neumond. No. 96,597; Apr. 21; Gaz. vol. 201; p. 901.
Grape-fruit, oranges, and pineapples. J. W. and H. W. Brown. No. 96,396; Apr. 21; Gaz. vol. 201; p. 895.
Grape-juice. John Sexton & Company. No. 96,196; Apr. 7; Gaz. vol. 201; p. 264.
Graphite, Pulverized. The United States Graphite Company. Nos. 96,740–52; Apr. 28; Gaz. vol. 201; pp. 1216–17.
Greases, Graphited-wood. The United States Graphite Company. No. 96,754; Apr. 28; Gaz. vol. 201; p. 1217.
Grinding-disks. Charles H. Besly & Company. No. 96,230; Apr. 14; Gaz. vol. 201; p. 563.
Gum, Chewing-. P. J. Nagle. No. 96,160; Apr. 7; Gaz. vol. 201; p. 263.
Gum, Chewing-. J. Pantazin Co. No. 96,456; Apr. 21; Gaz. vol. 201; p. 897.
Hair-dye preparations. A. MacKinstry. No. 96,525; Apr. 21; Gaz. vol. 201; p. 899.
Hair-pins. Kirby Beard & Co. No. 96,228; Apr. 14; Gaz. vol. 201; p. 563.
Hair-tonic. J. C. Ayer Co. No. 96,087; Apr. 7; Gaz. vol. 201; p. 261.
Hair-tonic. The Haral Co. No. 96,511; Apr. 21; Gaz. vol. 201; p. 898.
Hair-tonic. The Rosenet Company. No. 96,540; Apr. 21; Gaz. vol. 201; p. 899.
Hair-tonic. M. Sullivan. No. 96,545; Apr. 21; Gaz. vol. 201; p. 899.
Handkerchiefs. The Acheson Harden Company. No. 96,621; Apr. 28; Gaz. vol. 201; p. 1213.
Harness, horse-collars, harness and baggage straps. Robinson-McGill Mfg. Co. No. 96,718; Apr. 28; Gaz. vol. 201; p. 1216.
Hats. The Wear-U-Well Shoe Company. No. 96,703; Apr. 28; Gaz. vol. 201; p. 1217.
Hats for men and boys. M. S. Levy & Sons. No. 96,309; Apr. 14; Gaz. vol. 201; p. 565.
Head tonic and rub, shampoo liquor, toilet water and creams, &c. P. Eisemann. No. 96,505; Apr. 21; Gaz. vol. 201; p. 898.
Horse-radish. Lane & Hawkins Manufacturing Company, (not incorporated.) No. 96,428; Apr. 21; Gaz. vol. 201; p. 896.
Hosiery. Halcyon Knitting Mills Co. Nos. 96,284–5; Apr. 14; Gaz. vol. 201; p. 565.
Hosiery. Sulloway Mills. Nos. 96,530–1; Apr. 21; Gaz. vol. 201; p. 898.
Hosiery. Interwoven Stocking Company. No. 96,591; Apr. 21; Gaz. vol. 201; p. 901.
Hosiery. Maduro Mercantile Co. No. 96,594; Apr. 21; Gaz. vol. 201; p. 901.
Hosiery. Haddon Hosiery Co. No. 96,670; Apr. 28; Gaz. vol. 201; p. 1214.
Household furnishings made from textile materials, Certain named. Ernest Simons Mfg. Co. No. 96,355; Apr. 14; Gaz. vol. 201; p. 566.
Inhalant and fever and cathartic tablets. Webster Chemical Company. No. 96,474; Apr. 21; Gaz. vol. 201; p. 897.
Insecticide. Thos. Plunkett Company. No. 96,602; Apr. 21; Gaz. vol. 201; p. 901.
Insulated wire. Crescent Belting and Packing Company. No. 96,500; Apr. 21; Gaz. vol. 201; p. 898.
Insulating sheets and tubes, Electrical. Westinghouse Electric & Manufacturing Co. No. 96,374; Apr. 14; Gaz. vol. 201; p. 567.
Jar-closures, Metal. The Victor Jar Company. No. 96,555; Apr. 21; Gaz. vol. 201; p. 900.
Jelly and preserves, mustard, and minced pie-filling, Fruit. Best-Clymer Mfg. Co. No. 96,092; Apr. 7; Gaz. vol. 201; p. 261.
Jelly, Fruit. Corn Products Company. No. 96,109; Apr. 7; Gaz. vol. 201; p. 262.
Jewelry. Hallam-Rice Company. No. 96,671; Apr. 28; Gaz. vol. 201; p. 1214.
Jewelry. Charles E. Hancock Company. No. 96,672; Apr. 28; Gaz. vol. 201; p. 1214.
Jewelry. Manchester-Smith Company. No. 96,696; Apr. 28; Gaz. vol. 201; p. 1215.
Kerosene, benzin, gasolene, and naphtha. W. R. Grace & Company. No. 96,280; Apr. 14; Gaz. vol. 201; p. 565.
Kinematograph-films. La Film Artistica Gloria. No. 96,689; Apr. 28; Gaz. vol. 201; p. 1215.
Kneading and mixing machines. American Oven & Machine Company. No. 96,219; Apr. 14; Gaz. vol. 201; p. 563.
Knit undershirts, union suits, and ladies' vests. Boyce, Wheeler & Boyce. No. 96,244; Apr. 14; Gaz. vol. 201; p. 563.
Knives, razors, machines, and tools, Certain named. Landers, Frary & Clark. No. 96,144; Apr. 7; Gaz. vol. 201; p. 263.
Knives, Table-. Northampton Cutlery Co. No. 96,532; Apr. 21; Gaz. vol. 201; p. 899.
Laces. Carson, Pirie, Scott & Co. No. 96,249; Apr. 14; Gaz. vol. 201; p. 564.
Lard substitute. Interstate Cotton Oil Refining Co. No. 96,419; Apr. 21; Gaz. vol. 201; p. 896.
Laundry tablets. N. Levenson. No. 96,691; Apr. 28; Gaz. vol. 201; p. 1215.
Laxative. J. E. Leikauf. No. 96,147; Apr. 7; Gaz. vol. 201; p. 263.
Laxatives, uric-acid solvents, &c., Saline. Bristol-Myers Company. No. 96,097; Apr. 7; Gaz. vol. 201; p. 261.

Leather. Kistler, Lesh & Company. No. 96,685; Apr. 28; Gaz. vol. 201; p. 1215.
Leather fiber-board, Waterproof. Hide-ite Leather Company. No. 96,293; Apr. 14; Gaz. vol. 201; p. 565.
Leather for use on textile machinery. Holburn Leather Company. No. 96,288; Apr. 14; Gaz. vol. 201; p. 565.
Lenses. F. A. Hardy & Co. No. 96,286; Apr. 14; Gaz. vol. 201; p. 565.
Lice and vermin destroyer. Ungles Hoggette Mfg. Co. No. 96,552; Apr. 21; Gaz. vol. 201; p. 900.
Liniment. J. E. Cagwin. No. 96,566; Apr. 21; Gaz. vol. 201; p. 900.
Liniment. Goose Grease Company. No. 96,583; Apr. 21; Gaz. vol. 201; p. 900.
Liniment, headache remedy, depilatory fluid, and complexion-pills. E. Sher. No. 96,542; Apr. 21; Gaz. vol. 201; p. 899.
Lotion for preventing excessive perspiration, Toilet. A. D. Murphey. No. 96,159; Apr. 7; Gaz. vol. 201; p. 263.
Lotions, Skin-. M. H. Watters. No. 96,213; Apr. 7; Gaz. vol. 201; p. 265.
Lotions, toilet and face creams, perfumes, &c., Skin-. H. "D" Hart. No. 96,130; Apr. 7; Gaz. vol. 201; p. 262.
Lubricant, Graphite. The United States Graphite Company. No. 96,753; Apr. 28; Gaz. vol. 201; p. 1217.
Lubricant, Machinery-. The United States Graphite Company. No. 96,755; Apr. 28; Gaz. vol. 201; p. 1217.
Lubricants. The Whitmore Manufacturing Company. No. 96,377; Apr. 14; Gaz. vol. 201; p. 567.
Macaroni. The Western Union Macaroni Mfg. Co. No. 96,476; Apr. 21; Gaz. vol. 201; p. 897.
Macaroni and whole-wheat macaroni. P. Dnussa & Company. No. 96,112; Apr. 7; Gaz. vol. 201; p. 262.
Macaroni, vermicelli, and spaghetti. Santa Rosa Paste Co. No. 96,194; Apr. 7; Gaz. vol. 201; p. 264.
Machinery and parts thereof and tools, Certain named. Motorcycle Equipment Co. No. 96,710; Apr. 28; Gaz. vol. 201; p. 1215.
Machines, stills, pumps, and the like, and parts thereof, Certain named. Duriron Castings Company. No. 96,259; Apr. 14; Gaz. vol. 201; p. 564.
Machines, tools, tool-handles, &c., Certain named. Barker, Rose & Clinton Co. No. 96,227; Apr. 14; Gaz. vol. 201; p. 564.
Magazine, Monthly. M. B. Brown Printing & Binding Company. No. 96,637; Apr. 28; Gaz. vol. 201; p. 1213.
Magazine, Spanish monthly. Mercurio Publishing Company. No. 96,707; Apr. 28; Gaz. vol. 201; p. 1215.
Magazines and periodicals, Semimonthly. The Abbott & Briggs Company. No. 96,620; Apr. 28; Gaz. vol. 201; p. 1213.
Matches. Bryn & Halden Tændstikfabrikker. No. 96,487; Apr. 21; Gaz. vol. 201; p. 898.
Matting, Wooden. Keystone Wire Matting Co. No. 96,683; Apr. 28; Gaz. vol. 201; p. 1215.
Medical compound for burns, scalds, &c. M. L. Van Valkenburgh. No. 96,757; Apr. 28; Gaz. vol. 201; p. 1217.
Medical compound for certain named ailments. J. Cowgill. No. 96,573; Apr. 21; Gaz. vol. 201; p. 900.
Medicinal preparation, Effervescent. E. Lucarini. No. 96,148; Apr. 7; Gaz. vol. 201; p. 263.
Medicinal preparations, Certain named. Farbwerke-Hoechst Company. No. 96,658; Apr. 28; Gaz. vol. 201; p. 1214.
Medicinal preparations for treating certain named diseases. International Druggists' & Chemists' Laboratories. No. 96,590; Apr. 21; Gaz. vol. 201; p. 901.
Medicinal tonic. C. J. Lincoln Company. No. 96,523; Apr. 21; Gaz. vol. 201; p. 899.
Medicinal veterinary preparations, Certain. C. O. Fjerestad. No. 96,121; Apr. 7; Gaz. vol. 201; p. 262.
Medicine, Certain proprietary. Dr. Peter Fahrney & Sons Co. No. 96,405; Apr. 21; Gaz. vol. 201; p. 895.
Medicine for coughs, colds, bronchitis, biliousness, &c. J. L. Marder. No. 96,526; Apr. 21; Gaz. vol. 201; p. 899.
Medicine for diarrhea, dropsy, and piles. R. E. McLain. No. 96,154; Apr. 7; Gaz. vol. 201; p. 263.
Medicine, Pile. J. F. Smith. No. 96,726; Apr. 28; Gaz. vol. 201; p. 1216.
Medicine used as a skin-lotion, Proprietary. A. S. Hull. No. 96,136; Apr. 7; Gaz. vol. 201; p. 262.
Medicines and medicinal preparations, Homeopathic. C. T. Hurlburt & Company. No. 96,589; Apr. 21; Gaz. vol. 201; p. 901.
Metal-polish. The Atkins Co. No. 96,631; Apr. 28; Gaz. vol. 201; p. 1213.
Metal-polishes. Pingo Company. No. 96,333; Apr. 14; Gaz. vol. 201; p. 566.
Metal-polishes. A. M. Ullman. No. 96,369; Apr. 14; Gaz. vol. 201; p. 567.
Milk and cultures for making same, Artificially-soured. George Starr White, Inc. No. 96,478; Apr. 21; Gaz. vol. 201; p. 897.
Milk, Condensed. Borden's Condensed Milk Co. No. 96,095; Apr. 7; Gaz. vol. 201; p. 261.
Milk, cream, butter, dressed poultry, fruits, and vegetables. J. S. Harlan. No. 96,585; Apr. 21; Gaz. vol. 201; p. 900.
Milk, Evaporated and condensed. The Ohio Dairy Company. Nos. 96,449–50; Apr. 21; Gaz. vol. 201; p. 897.
Milling, drilling, and grinding metal, Machines for. Valley City Machine Works. No. 96,371; Apr. 14; Gaz. vol. 201; p. 567.
Mills for grinding corn, &c., Bur and attrition. Munson Bros. Co. No. 96,711; Apr. 28; Gaz. vol. 201; p. 1215.
Minerals and mineral samples, Foote Mineral Co. No. 96,264; Apr. 14; Gaz. vol. 201; p. 564.
Mortar and cement, Waterproof. The Waterproofing Co. No. 96,212; Apr. 7; Gaz. vol. 201; p. 264.
Nail polish and bleach, cuticle and stain remover. Oriental Manicure Specialty Co. No. 96,452; Apr. 21; Gaz. vol. 201; p. 897.
Neckties. D. & E. L. Mayer. No. 96,315; Apr. 14; Gaz. vol. 201; p. 566.
Neckties and neckscarfs. L. Auerbach. No. 96,482; Apr. 21; Gaz. vol. 201; p. 898.
Needles, hooks and eyes, Hand sewing-. A. O. Meyer. No. 96,528; Apr. 21; Gaz. vol. 201; p. 898.
Newspaper-clippings. W. Hyams & Company. No. 96,678; Apr. 28; Gaz. vol. 201; p. 1214.
Oil and grease, Lubricating. American Motor Equipment Co. No. 96,218; Apr. 14; Gaz. vol. 201; p. 563.
Oil, Cooking-. The Texas Refining Company. No. 96,466; Apr. 21; Gaz. vol. 201; p. 897.
Oil, Lubricating-. Standard Oil Company of California. No. 96,204; Apr. 7; Gaz. vol. 201; p. 264.
Oil, Olive-. F. P. é Hijos. No. 96,415; Apr 21; Gaz. vol. 201; p. 896.
Oil, Olive-. Lofaro & Rossi. No. 96,434; Apr. 21; Gaz. vol. 201; p. 896.
Oil, Olive-. Fantini & Latorraca. No. 96,578; Apr. 21; Gaz. vol. 201; p. 900.
Oil used in the cutting and lubrication of metal. H. S. Bancroft. No. 96,225; Apr. 14; Gaz. vol. 201; p. 563.
Oils and greases, Lubricating. W. R. Grace & Company. No. 96,279; Apr. 14; Gaz. vol. 201; p. 565.
Oils and greases, Lubricating. Union Oil Company of California. No. 96,738; Apr. 28; Gaz. vol. 201; p. 1216.
Oils, Cylinder and engine. Wm. C. Robinson & Son Co. No. 96,342; Apr. 14; Gaz. vol. 201; p. 566.
Oils, Hydrocarbon. Dundas Engineering Company. No. 96,504; Apr. 21; Gaz. vol. 201; p. 898.
Oils, Illuminating-. Riley-Pennsylvania Oil Company. No. 96,186; Apr. 7; Gaz. vol. 201; p. 264.
Oils, Illuminating and fuel. H. Cooley. No. 96,255; Apr. 14; Gaz. vol. 201; p. 564.
Oils, Pure crude and petroleum. C. G. Hershey. No. 96,133; Apr. 7; Gaz. vol. 201; p. 262.
Ointment. Equinoint Ltd. No. 96,118; Apr. 7; Gaz. vol. 201; p. 262.
Ointment. F. Soukus. No. 96,201; Apr. 7; Gaz. vol. 201; p. 264.
Ointment, Foot-. Jordan's Foot Remedy Company. No. 96,681; Apr. 28; Gaz. vol. 201; p. 1215.
Ointments and emulsions. J. F. Simpson. No. 96,197; Apr. 7; Gaz. vol. 201; p. 264.
Ophthalmic mountings. American Optical Company. No. 96,628; Apr. 28; Gaz. vol. 201; p. 1213.
Opium substitute. The Hoffmann-La Roche Chemical Works. No. 96,588; Apr. 21; Gaz. vol. 201; p. 901.
Overalls and trousers. Long-Hargrove Mfg. Co. No. 96,693; Apr. 28; Gaz. vol. 201; p. 1215.
Overcoats. H. Block. No. 96,240; Apr. 14; Gaz. vol. 201; p. 563.
Overshirt, Negligée or soft. Goshen Shirt Manufacturing Company. No. 96,276; Apr. 14; Gaz. vol. 201; p. 564.
Oysters. Armstrong Brothers. No. 96,083; Apr. 7; Gaz. vol. 201; p. 261.
Paint and varnish. Gebrüder Mayer. No. 96,316; Apr. 14; Gaz. vol. 201; p. 566.
Paint, Calcimine or water-. M. E. Fox & Co. No. 96,265; Apr. 14; Gaz. vol. 201; p. 564.
Paint, Carbon-. The William Call Bitmo Company. No. 96,559; Apr. 21; Gaz. vol. 201; p. 900.
Paint, Ready-mixed. The A. Wilhelm Company. No. 96,558; Apr. 21; Gaz. vol. 201; p. 900.
Paints. Parian Paint Company. No. 96,601; Apr. 21; Gaz. vol. 201; p. 901.
Paints, enamels, stains, and varnishes. The Patterson-Sargent Company. No. 96,331; Apr. 14; Gaz. vol. 201; p. 566.
Paints, Gold. L. Hemmerdinger & Co. No. 96,674; Apr. 28; Gaz. vol. 201; p. 1214.
Pamphlets. The Hinde & Dauch Paper Co. No. 96,294; Apr. 14; Gaz. vol. 201; p. 565.
Paper and envelops, Writing and printing. Bradner Smith & Co. Nos. 96,356–8; Apr. 14; Gaz. vol. 201; p. 567.
Paper and envelops, Writing and printing. Bradner Smith & Co. No. 96,610; Apr. 21; Gaz. vol. 201; p. 901.
Paper, Carbon-. Utica Carbon & Wax Paper Co. No. 96,615; Apr. 21; Gaz. vol. 201; p. 901.
Paper, certain named blank cards, and paper and cardboard initials, Note-. W. N. Sharpe, Limited. No. 96,353; Apr. 14; Gaz. vol. 201; p. 567.
Paper, Cigarette-. A. A. Kohâry. No. 96,517; Apr. 21; Gaz. vol. 201; p. 899.
Paper ice-blankets, baking-pan liners, and dish-cloths. Help Saver Co. No. 96,586; Apr. 21; Gaz. vol. 201; p. 901.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 96,348; Apr. 14; Gaz. vol. 201; p. 567.
Paper, Toilet-. Wortendyke Manufacturing Company. No. 96,617; Apr. 21; Gaz. vol. 201; p. 901.



Papers, envelops, blank cards, rubber erasers, &c., Certain. The Stenography and Reporting Company. No. 96,362; Apr. 14; Gaz. vol. 201; p. 567.
Pastes, Tooth-. Waldheimer, Parfümerie- und Toilettenseifen-Fabrik, A. H. A. Bergmann. No. 96,759; Apr. 28; Gaz. vol. 201; p. 1217.
Peanuts. T. S. Wheatcroft. No. 96,477; Apr. 21; Gaz. vol. 201; p. 897.
Pearls, Imitation. Jordan Marsh Company. No. 96,700; Apr. 28; Gaz. vol. 201; p. 1215.
Pens, Steel. J. Gillott & Sons. Nos. 96,663–6; Apr. 28; Gaz. vol. 201; p. 1214.
Perfume, toilet waters, powders, and cold-cream. William H. Brown & Bro. Company. No. 96,098; Apr. 7; Gaz. vol. 201; p. 261.
Perfumes. F. Fritzsche & Co. No. 96,581; Apr. 21; Gaz. vol. 201; p. 900.
Perfumes, Dry sachet-. Richard Hudnut. No. 96,676; Apr. 28; Gaz. vol. 201; p. 1214.
Perfumes, face-paints, and rouges. E. Wertheimer & Cie. No. 96,557; Apr. 21; Gaz. vol. 201; p. 900.
Perfumes, toilet waters, face and sachet powders, and rouges. Mandel Brothers. No. 96,697; Apr. 28; Gaz. vol. 201; p. 1215.
Periodical, Biweekly. The American Art Works. No. 96,625; Apr. 28; Gaz. vol. 201; p. 1213.
Periodical, Monthly. G. H. Storer. No. 96,731; Apr. 28; Gaz. vol. 201; p. 1216.
Periodicals. The National Cash Register Company. No. 96,319; Apr. 14; Gaz. vol. 201; p. 566.
Periodicals. American Optical Company. No. 96,627; Apr. 28; Gaz. vol. 201; p. 1213.
Pharmaceutical preparation for the treatment of headaches and neuralgia. L. Patmos. No. 96,176; Apr. 7; Gaz. vol. 201; p. 263.
Pianos and orchestrions, Pneumatically-operated. American Photo Player Company. No. 96,629; Apr. 28; Gaz. vol. 201; p. 1213.
Pianos, piano-cases, and player-pianos. The Starr Piano Company. No. 96,612; Apr. 21; Gaz. vol. 201; p. 901.
Picture and photo-play films, Motion-. World Special Films Corporation. No. 96,767; Apr. 28; Gaz. vol. 201; p. 1217.
Picture films, Moving-. Macnamara Feature Film Co. No. 96,694; Apr. 28; Gaz. vol. 201; p. 1215.
Piece goods. Courtaulds, Limited. No. 96,650; Apr. 28; Gaz. vol. 201; p. 1214.
Pills, Cathartic. J. C. Ayer Co. No. 96,085; Apr. 7; Gaz. vol. 201; p. 261.
Pills, Laxative. S. Marcus. No. 96,438; Apr. 21; Gaz. vol. 201; p. 896.
Pills, tonic medicine, dyspepsia-tablets, &c., Laxative. C. K. Baer. No. 96,088; Apr. 7; Gaz. vol. 201; p. 261.
Pineapples, Fresh. Palo Seco Fruit Company. No. 96,455; Apr. 21; Gaz. vol. 201; p. 887.
Pins, Safety-. American Pin Company. No. 96,080; Apr. 7; Gaz. vol. 201; p. 261.
Pipe-threading machines and threading-dies. The Toledo Pipe Threading Machine Company. No. 96,550; Apr. 21; Gaz. vol. 201; p. 899.
Plasters, Porous. Bauer & Black. Nos. 96,089–90; Apr. 7; Gaz. vol. 201; p. 261.
Pliers. Smith & Hemenway Company. No. 96,359; Apr. 14; Gaz. vol. 201; p. 567.
Plows, moldboards, landsides, points, and plow-beams. C. Billups. Nos. 96,231–5; Apr. 14; Gaz. vol. 201; p. 563.
Plows, moldboards, landsides, points, and plow-beams. C. Billups. Nos. 96,485–6; Apr. 21; Gaz. vol. 201; p. 898.
Plows, moldboards, landsides, points, and plow-beams. C. Billups. No. 96,634; Apr. 28; Gaz. vol. 201; p. 1213.
Poker-chips, dice, dominoes, checkers, &c. Tower Manufacturing & Novelty Co. No. 96,551; Apr. 21; Gaz. vol. 201; p. 899.
Polishing materials, crack-fillers, &c., Certain named. H. F. Staples & Company. No. 96,205; Apr. 7; Gaz. vol. 201; p. 264.
Popcorn. W. M. Hill. No. 96,416; Apr. 21; Gaz. vol. 201; p. 896.
Popcorn and peanuts, pecans and cocoanut, &c., Candy-coated. S. C. Peckham. No. 96,177; Apr. 7; Gaz. vol. 201; p. 263.
Powder and paste and certain named medicines, &c., Tooth. The Chasco Co. No. 96,103; Apr. 7; Gaz. vol. 201; p. 261.
Powder and paste, Tooth. Dr. J. A. Walsh Co. No. 96,760; Apr. 28; Gaz. vol. 201; p. 1217.
Powder for perspiring and swollen feet. I. Sherman. No. 96,543; Apr. 21; Gaz. vol. 201; p. 899.
Powder, Insect-. Allaire, Woodward & Co. No. 96,623; Apr. 28; Gaz. vol. 201; p. 1213.
Powder, Tooth-. W. B. Force. No. 96,122; Apr. 7; Gaz. vol. 201; p. 262.
Powders, Face-. Frederick F. Ingram Co. No. 96,139; Apr. 7; Gaz. vol. 201; p. 262.
Powders, Face, toilet, and talcum. J. Tetlow. No. 96,465; Apr. 21; Gaz. vol. 201; p. 897.
Precious-metal articles and ornamental buckles. Fischer & Prueter. No. 96,263; Apr. 14; Gaz. vol. 201; p. 564.
Preparation for the treatment of cholera infantum. L. C. Fuhr. No. 96,127; Apr. 7; Gaz. vol. 201; p. 262.
Preparation for the treatment of corns. C. De Long. No. 96,502; Apr. 21; Gaz. vol. 201; p. 898.
Preparation for the treatment of coughs. The Dio-Pine Co. No. 96,401; Apr. 21; Gaz. vol. 201; p. 895.
Preparation for the treatment of stomach, liver, intestines, and nerves. C. E. Powell. No. 96,179; Apr. 7; Gaz. vol. 201; p. 264.
Preparation for the treatment of the hair and scalp. L. Oldham. No. 96,533; Apr. 21; Gaz. vol. 201; p. 899.
Preparation for the treatment of whooping-cough. L. Guertin. No. 96,509; Apr. 21; Gaz. vol. 201; p. 898.
Preparation for treating anemia, malaria, hook-worm, and diseases of the blood. Landrum's Drug Co. No. 96,427; Apr. 21; Gaz. vol. 201; p. 896.
Preparation for treating raw or finished textiles, Pasty. B. P. Ducas Co. No. 96,402; Apr. 21; Gaz. vol. 201; p. 895.
Preparations for rheumatism, gout, grippe, and colds. Rheuma Chemical Co. No. 96,460; Apr. 21; Gaz. vol. 201; p. 897.
Preparations for the treatment of certain ailments and diseases. G. W. Little. No. 96,692; Apr. 28; Gaz. vol. 201; p. 1215.
Preserves, Fruit. Best-Clymer Mfg. Co. No. 96,093; Apr. 7; Gaz. vol. 201; p. 261.
Preserves, Fruit. Best-Clymer Mfg. Co. No. 96,393; Apr. 21; Gaz. vol. 201; p. 895.
Printed from type, plates, or die impressions, Certain matter. The Breisford Printing Co. No. 96,245; Apr. 14; Gaz. vol. 201; p. 564.
Printing-presses. The Autopress Company. No. 96,223; Apr. 14; Gaz. vol. 201; p. 563.
Printing-presses. American Rotogravure Company. No. 96,630; Apr. 28; Gaz. vol. 201; p. 1213.
Projection apparatus, films, and photographic plates. Société Internationale de Lumière Froide (Procédés Dussaud). No. 96,360; Apr. 14; Gaz. vol. 201; p. 567.
Propellers. W. R. Boutwell. No. 96,639; Apr. 28; Gaz. vol. 201; p. 1213.
Pulley-blocks, sheaves, bushings, and bearings. Merriman Brothers. No. 96,708; Apr. 28; Gaz. vol. 201; p. 1215.
Puncture-proof compound. J. H. Gardner. No. 96,270; Apr. 14; Gaz. vol. 201; p. 564.
Rain-coats, rubber boots, overshoes, and sandals. St. Paul Rubber Company. No. 96,611; Apr. 21; Gaz. vol. 201; p. 901.
Rain-proof coats, capes, jackets, breeches, and leggings. Wallace, Scott & Co. No. 96,372; Apr. 14; Gaz. vol. 201; p. 567.
Ranges, stoves, and furnaces. Gohmann Bros. & Kahler Co. No. 96,273; Apr. 14; Gaz. vol. 201; p. 564.
Razor-strops. The Gibford-Weiffenbach Company. No. 96,661; Apr. 28; Gaz. vol. 201; p. 1214.
Razors, razor-blades, knives, scissors, and shears. F. A. Clauberg & Co. No. 96,252; Apr. 14; Gaz. vol. 201; p. 564.
Remedies for certain named diseases. M. A. Dodson. No. 96,258; Apr. 14; Gaz. vol. 201; p. 564.
Remedies for diseases of dogs. T. Delaney. No. 96,501; Apr. 21; Gaz. vol. 201; p. 898.
Remedies for diseases of the eyes. L. P. Savage. No. 96,608; Apr. 21; Gaz. vol. 201; p. 901.
Remedies for tobacco-poisoning, biliousness, constipation, and dyspepsia. S. B. Lyon. No. 96,524; Apr. 21; Gaz. vol. 201; p. 899.
Remedy and tonic for certain named diseases. J. C. Ayer Co. No. 96,388; Apr. 21; Gaz. vol. 201; p. 895.
Remedy for certain named diseases. J. C. Ayer Co. No. 96,084; Apr. 7; Gaz. vol. 201; p. 261.
Remedy for certain named diseases. W. P. Poythress Capsule Co. No. 96,180; Apr. 7; Gaz. vol. 201; p. 264.
Remedy for certain named diseases. H. E. Kendall. No. 96,421; Apr. 21; Gaz. vol. 201; p. 896.
Remedy for certain named diseases. A. Rogers. No. 96,719; Apr. 28; Gaz. vol. 201; p. 1216.
Remedy for certain named diseases, Tonic. Chilhowee Medicine Company. No. 96,568; Apr. 21; Gaz. vol. 201; p. 900.
Remedy for cholera and asthma. King Bros. No. 96,684; Apr. 28; Gaz. vol. 201; p. 1215.
Remedy for coughs and colds. Fort Pitt Medical Co. No. 96,123; Apr. 7; Gaz. vol. 201; p. 262.
Remedy for diseases of poultry and swine. H. W. Metzler. No. 96,527; Apr. 21; Gaz. vol. 201; p. 899.
Remedy for diseases of the liver. Van Vleet-Mansfield Drug Co. No. 96,554; Apr. 21; Gaz. vol. 201; p. 900.
Remedy for eczema. Tilden Company. No. 96,549; Apr. 21; Gaz. vol. 201; p. 899.
Remedy for hemorrhoids. R. E. Bourgeois. No. 96,565; Apr. 21; Gaz. vol. 201; p. 900.
Remedy for impurities of the blood. Van Vleet-Mansfield Drug Co. No. 96,211; Apr. 7; Gaz. vol. 201; p. 264.
Remedy for malarial fever, &c. B. & H. Medicine Company. No. 96,440; Apr. 21; Gaz. vol. 201; p. 896.
Remedy for piles. M. Groze. No. 96,584; Apr. 21; Gaz. vol. 201; p. 900.
Remedy for rheumatism, sore muscles, and itching skin. Satterlee & Smith. No. 96,723; Apr. 28; Gaz. vol. 201; p. 1216.
Remedy for tuberculosis, &c. S. I. de Mendia. No. 96,652; Apr. 28; Gaz. vol. 201; p. 1214.
Remedy for various affections of the lungs and throat. J. C. Ayer Co. No. 96,086; Apr. 7; Gaz. vol. 201; p. 261.
Robes, blouses, gowns, jackets, hats, &c. Florette. No. 96,579; Apr. 21; Gaz. vol. 201; p. 900.
Roof compounds, Plastic. The Master Builders Company. No. 96,701; Apr. 28; Gaz. vol. 201; p. 1215.

Rouge, nail tint, enamel, and powder, nerve and blood tonic, &c. Goodrich Drug Co. No. 96,508; Apr. 21; Gaz. vol. 201; p. 898.
Rubber boots, shoes, and heels. United States Rubber Company. No. 96,370; Apr. 14; Gaz. vol. 201; p. 567.
Rubber coats, boots, and shoes. Apsley Rubber Company. No. 96,561; Apr. 21; Gaz. vol. 201; p. 900.
Rubber erasers. A. W. Faber. No. 96,404; Apr. 21; Gaz. vol. 201; p. 895.
Rubber heels for boots and shoes. Revere Rubber Company. No. 96,338; Apr. 14; Gaz. vol. 201; p. 566.
Rugs, mats, and carpets, Textile. Stephen Sanford & Sons. No. 96,193; Apr. 7; Gaz. vol. 201; p. 264.
Rules, measuring-calipers, micrometers, &c., Slide-. E. Weber. No. 96,764; Apr. 28; Gaz. vol. 201; p. 1217.
Rusks. Holland Rusk Company. No. 96,135; Apr. 7; Gaz. vol. 201; p. 262.
Salmon. The J. K. Armsby Co. No. 96,082; Apr. 7; Gaz. vol. 201; p. 201.
Salt. The Carey Salt Co. No. 96,489; Apr. 21; Gaz. vol. 201; p. 898.
Salts wafers, Cathartic-. Webster Chemical Company. No. 96,475; Apr. 21; Gaz. vol. 201; p. 897.
Salves. G. Fisher. No. 96,120; Apr. 7; Gaz. vol. 201; p. 262.
Sanitary napkins. M. Theobald. No. 96,366; Apr. 14; Gaz. vol. 201; p. 567.
Screw-machines, Automatic multiple-spindle. The National-Acme Manufacturing Company. No. 96,318; Apr. 14; Gaz. vol. 201; p. 566.
Seed, Field and garden. M. J. Yopp Seed Co. No. 96,380; Apr. 14; Gaz. vol. 201; p. 567.
Seeds. The Stanford Seed Company. No. 96,730; Apr. 28; Gaz. vol. 201; p. 1216.
Seeds, Certain named. A. E. Shultz. No. 96,354; Apr. 14; Gaz. vol. 201; p. 567.
Seeds, Grass and field. L. Teweles & Co. Nos. 96,733–5; Apr. 28; Gaz. vol. 201; p. 1216.
Seeding machinery and grain-drills. G. M. Winwood, Jr. No. 96,215; Apr. 7; Gaz. vol. 201; p. 265.
Sheet-metal articles, Certain named. Hero Manufacturing Co. No. 96,290; Apr. 14; Gaz. vol. 201; p. 565.
Shellac and resins, paint-oils, paints, &c., Solvents for. United States Gutta Percha Paint Company. No. 96,614; Apr. 21; Gaz. vol. 201; p. 901.
Shingles. W. G. Tilghman. No. 96,367; Apr. 14; Gaz. vol. 201; p. 567.
Shirts. Cohn & Deutsch. No. 96,570; Apr. 21; Gaz. vol. 201; p. 900.
Shirts, collars, and pajamas. The Goodman Collar Co. No. 96,582; Apr. 21; Gaz. vol. 201; p. 900.
Shirts, Men's outer. M. Koblenzer & Son. No. 96,306; Apr. 14; Gaz. vol. 201; p. 565.
Shirts, Work-. Goshen Shirt Manufacturing Company. No. 96,277; Apr. 14; Gaz. vol. 201; p. 564.
Shirts, Work-. Salant & Salant. No. 96,346; Apr. 14; Gaz. vol. 201; p. 566.
Shoe-cover and vamp-stays. Shoe Manufacturers' Supply Company. No. 96,609; Apr. 21; Gaz. vol. 201; p. 901.
Shoe-laces. J. Lawrie & Sons. Nos. 96,519–21; Apr. 21; Gaz. vol. 201; p. 899.
Shoe-polish, Black. Geo. J. Kelly Co. No. 96,302; Apr. 14; Gaz. vol. 201; p. 565.
Shoe-polishing cream, Patent-leather-. Cammeyer. No. 96,642; Apr. 28; Gaz. vol. 201; p. 1213.
Shoe-soles, Composition. Avon Sole Company. No. 96,562; Apr. 21; Gaz. vol. 201; p. 900.
Shoes and boots. Churchill & Alden Co. No. 96,644; Apr. 28; Gaz. vol. 201; p. 1213.
Shoes, boots, or slippers. B. Altman & Co. No. 96,624; Apr. 28; Gaz. vol. 201; p. 1213.
Shoes, Cleaner or whitener for white buck or canvas. Geo. J. Kelly Co. No. 96,303; Apr. 14; Gaz. vol. 201; p. 565.
Shoes, Leather. C. Gotzian & Co. No. 96,278; Apr. 14; Gaz. vol. 201; p. 564.
Shoes, Leather. O'Donnell Shoe Co. No. 96,325; Apr. 14; Gaz. vol. 201; p. 566.
Shoes, Leather. Brown Shoe Company. No. 96,638; Apr. 28; Gaz. vol. 201; p. 1213.
Shoes, Leather. C. F. Reith. No. 96,716; Apr. 28; Gaz. vol. 201; p. 1216.
Shoes, Leather. John Wanamaker, Philadelphia. No. 96,761; Apr. 28; Gaz. vol. 201; p. 1217.
Shovels, spades, and scoops. The Wyoming Shovel Works. No. 96,768; Apr. 28; Gaz. vol. 201; p. 1217.
Size for textiles. Levinstein Limited. No. 96,522; Apr. 21; Gaz. vol. 201; p. 899.
Skillets, tea-kettles, cereal-cookers, saucepans, &c. The Goodale Company. No. 96,668; Apr. 28; Gaz. vol. 201; p. 1214.
Slippers and slipper-soles. Bickford & Sweet. No. 96,563; Apr. 21; Gaz. vol. 201; p. 900.
Soap. A. Biette & Fils. No. 96,633; Apr. 28; Gaz. vol. 201; p. 1213.
Soap in bars or cakes. The George E. Marsh Company. No. 96,314; Apr. 14; Gaz. vol. 201; p. 566.
Soap, Laundry. The Standard Soap Company. No. 96,728; Apr. 28; Gaz. vol. 201; p. 1216.
Soap, Toilet and laundry. The Standard Soap Company. No. 96,729; Apr. 28; Gaz. vol. 201; p. 1216.
Soaps, Toilet. F. G. Burke. No. 96,640; Apr. 28; Gaz. vol. 201; p. 1213.
Soporific preparation. Vereinigte Chininfabriken Zimmer & Co. Ges. mit beschränkter Haftung. No. 96,758; Apr. 28; Gaz. vol. 201; p. 1217.
Spark-plugs. The Randall-Faichney Company. No. 96,336; Apr. 14; Gaz. vol. 201; p. 566.
Spark-plugs and parts thereof. The Rapp Mfg. Co. No. 96,337; Apr. 14; Gaz. vol. 201; p. 566.
Spectacles, eyeglasses, frames, bridges, lenses, &c. American Optical Company. No. 96,079; Apr. 7; Gaz. vol. 201; p. 261.
Sporting goods, Certain named. F. A. O. Schwarz. No. 96,482; Apr. 21; Gaz. vol. 201; p. 897.
Springs, Seat and bed. Detroit Wire Spring Co. No. 96,654; Apr. 28; Gaz. vol. 201; p. 1214.
Starch, sugar, glucose, grits, &c., Corn-. American Maize-Products Company. Nos. 96,381–3; Apr. 21; Gaz. vol. 201; p. 895.
Staves impregnated with wood-preservative, Wooden. The McClure Company. No. 96,704; Apr. 28; Gaz. vol. 201; p. 1215.
Steel. Poldihütte Tiegelgusstahlfabrik. No. 96,178; Apr. 7; Gaz. vol. 201; p. 264.
Stimulant for nervous exhaustion, &c. Morrow Chemical Company. No. 96,445; Apr. 21; Gaz. vol. 201; p. 896.
Stockings, socks, and knit underwear. The F. S. Bixler Company. No. 96,635; Apr. 28; Gaz. vol. 201; p. 1213.
Stones used as ornaments in jewelry, Natural. T. H. Self. No. 96,724; Apr. 28; Gaz. vol. 201; p. 1216.
Straps for harness, &c., Adjustable. Kerr Adjustable Strap Company. No. 96,304; Apr. 14; Gaz. vol. 201; p. 565.
Sugar. Galban & Co. No. 96,124; Apr. 7; Gaz. vol. 201; p. 262.
Suits, Ladies' combined shirt-waist and bloomer gymnasium and athletic. Myers Manufacturing Company. No. 96,317; Apr. 14; Gaz. vol. 201; p. 566.
Surgical dressings, rubber protectives, and first-aid cases. Johnson & Johnson. No. 96,680; Apr. 28; Gaz. vol. 201; p. 1214.
Suspenders, belts, garters, and armbands. Berkowitz & Guttmann. No. 96,484; Apr. 21; Gaz. vol. 201; p. 898.
Sweaters, knitted underwear. A. S. Haight & Co. No. 96,283; Apr. 14; Gaz. vol. 201; p. 565.
Syrup, edible corn-oil, jams, and jellies, Table-. Corn Products Refining Co. No. 96,572; Apr. 21; Gaz. vol. 201; p. 900.
Talking-machine records. Victor Talking Machine Company. No. 96,470; Apr. 21; Gaz. vol. 201; p. 897.
Talking-machines and parts thereof. Compagnie Générale des Etablissements Pathé Frères (Phonographe & Cinématographe). No. 96,646; Apr. 28; Gaz. vol. 201; p. 1213.
Tamales and karno. Workman Packing Company. No. 96,480; Apr. 21; Gaz. vol. 201; p. 898.
Tanning agent. A. G. Wackenreuter & W. A. Klipstein. No. 96,471; Apr. 21; Gaz. vol. 201; p. 897.
Tea. Geo. W. Caswell Co. No. 96,102; Apr. 7; Gaz. vol. 201; p. 261.
Tea, coffee, cocoa, chocolate, and chicory. The Blind Tea Agency. No. 96,564; Apr. 21; Gaz. vol. 201; p. 900.
Teas. A. Kempler. No. 96,420; Apr. 21; Gaz. vol. 201; p. 896.
Teas, spices, and rice. The J. Henry Koenig Co. No. 96,424; Apr. 21; Gaz. vol. 201; p. 896.
Thread. The New England Cotton Yarn Company. Nos. 96,321–4; Apr. 14; Gaz. vol. 201; p. 566.
Thread and yarn. N. Chertoff. No. 96,105; Apr. 7; Gaz. vol. 201; p. 261.
Thread and yarn, Embroidery. Wm. H. Horstmann Company. No. 96,675; Apr. 28; Gaz. vol. 201; p. 1214.
Tire-treads. The Ten Broeck Tyre Co. No. 96,365; Apr. 14; Gaz. vol. 201; p. 567.
Tires, Non-metallic. United & Globe Rubber Mfg. Companies. No. 96,739; Apr. 28; Gaz. vol. 201; p. 1216.
Tires, Rubber and leather vehicle-. C. H. Graves. No. 96,669; Apr. 28; Gaz. vol. 201; p. 1214.
Tires, treads, and non-skidding treads, Rubber. Societe Generale des Etablissements Bergougnan. No. 96,727; Apr. 28; Gaz. vol. 201; p. 1216.
Tobacco, Chewing and smoking. Weyman-Bruton Co. No. 96,375; Apr. 14; Gaz. vol. 201; p. 567.
Tobacco-pouches and combined tobacco and pipe pouches. C. Twining. No. 96,368; Apr. 14; Gaz. vol. 201; p. 567.
Toilet chemicals, Sanitary. Hawkeye Chemical Company. No. 96,412; Apr. 21; Gaz. vol. 201; p. 896.
Toilet preparations, Certain named. E. Burnham. No. 96,488; Apr. 21; Gaz. vol. 201; p. 898.
Tomato paste. A. Cusimano & Co. No. 96,575; Apr. 21; Gaz. vol. 201; p. 900.
Tomato paste with basil. Crisafulli Bros. No. 96,110; Apr. 7; Gaz. vol. 201; p. 262.
Tonic and diuretic, Cardiac. Bayer Company. No. 96,390; Apr. 21; Gaz. vol. 201; p. 895.
Tonic, Cod-liver-oil. Miller Drug Co. No. 96,529; Apr. 21; Gaz. vol. 201; p. 899.
Trees, Liquid compound for destroying. Hatley & Womack. No. 96,131; Apr. 7; Gaz. vol. 201; p. 262.
Trucks and wheelbarrows. The Fairbanks Company. No. 96,506; Apr. 21; Gaz. vol. 201; p. 898.
Trunks. L. Goldsmith & Son. Nos. 96,274–5; Apr. 14; Gaz. vol. 201; p. 564.
Twine and cord, Asbestos. H. W. Johns-Manville Co. No. 96,300; Apr. 14; Gaz. vol. 201; p. 565.
Twines and cords. The Lees Manufacturing Co. No. 96,690; Apr. 28; Gaz. vol. 201; p. 1215.
Type-writing machines. American Writing Machine Company. No. 96,220; Apr. 14; Gaz. vol. 201; p. 563.



Umbrellas and parasols. Follmer, Clogg & Co. No. 96,660; Apr. 28; Gaz. vol. 201; p. 1214.
Undershirts, drawers, and union suits. James H. Moffett & Co. No. 96,709; Apr. 28; Gaz. vol. 201; p. 1215.
Undervests, Ladies'. H. H. Condit. No. 96,571; Apr. 21; Gaz. vol. 201; p. 900.
Underwear. Robert Reis & Co. Nos. 96,603–6; Apr. 21; Gaz. vol. 201; p. 901.
Underwear for women and children, Certain named. R. G. Jennings. No. 96,299; Apr. 14; Gaz. vol. 201; p. 565.
Valves. The Fairbanks Company. No. 96,262; Apr. 14; Gaz. vol. 201; p. 564.
Valves and cocks, Blow-off. Sargent Company. No. 96,347; Apr. 14; Gaz. vol. 201; p. 567.
Varnishes. United States Gutta Percha Paint Company. No. 96,209; Apr. 7; Gaz. vol. 201; p. 264.
Varnishes. W. P. Fuller & Co. Nos. 96,266–8; Apr. 14; Gaz. vol. 201; p. 564.
Vegetable extract. J. W. Beardsley's Sons. No. 96,392; Apr. 21; Gaz. vol. 201; p. 895.
Vehicles, Electric. General Vehicle Company. Nos. 96,271–2; Apr. 14; Gaz. vol. 201; p. 564.
Vehicles, vehicle tops and bodies. The Mandel Limousine Co. No. 96,312; Apr. 14; Gaz. vol. 201; p. 565.
Vermin-exterminator. London Hygienic Chemical Co. No. 96,435; Apr. 21; Gaz. vol. 201; p. 896.
Wafers, Liver-. E. Lehman. No. 96,145; Apr. 7; Gaz. vol. 201; p. 263.
Wagons and parts thereof. International Harvester Corporation. No. 96,298; Apr. 14; Gaz. vol. 201; p. 565.
Waist and skirt supporters. E. J. McKinney. No. 96,706; Apr. 28; Gaz. vol. 201; p. 1215.
Washing-machines. The Blackstone Manufacturing Company. Nos. 96,237–9; Apr. 14; Gaz. vol. 201; p. 563.
Washing-machines. The Lockwood-Luetkemeyer-Henry Company. No. 96,433; Apr. 21; Gaz. vol. 201; p. 896.
Washing machines, Laundry-. T. H. E. Sales Company. No. 96,721; Apr. 28; Gaz. vol. 201; p. 1216.
Washing-powders. The N. K. Fairbank Company. No. 96,657; Apr. 28; Gaz. vol. 201; p. 1214.
Watches. A. Schwob. No. 96,352; Apr. 14; Gaz. vol. 201; p. 567.
Water-gages. Sargent Company. No. 96,722; Apr. 28; Gaz. vol. 201; p. 1216.
Water, Mineral-spring. D. B. Henderson. No. 96,512; Apr. 21; Gaz. vol. 201; p. 898.
Water, Natural filtered drinking-. Rayvio Water Co. No. 96,181; Apr. 7; Gaz. vol. 201; p. 264.
Water, Natural mineral. W. H. Robertson. No. 96,189; Apr. 7; Gaz. vol. 201; p. 264.
Waters, Mineral. L. Smith. No. 96,198; Apr. 7; Gaz. vol. 201; p. 264.
Wax, Ironing-. Columbia Wax Products Co. No. 96,107; Apr. 7; Gaz. vol. 201; p. 262.
Whiskies, Blended. R. M. Rose Company. No. 96,343; Apr. 14; Gaz. vol. 201; p. 566.
Whisky. Peter Pan Distilling Company. Nos. 96,535–6; Apr. 21; Gaz. vol. 201; p. 899.
Whisky. R. Rose. Nos. 96,537–9; Apr. 21; Gaz. vol. 201; p. 899.
Whisky. C. H. Ross & Co. No. 96,541; Apr. 21; Gaz. vol. 201; p. 899.
Whisky, Blended. R. M. Rose Company. Nos. 96,344–5; Apr. 14; Gaz. vol. 201; p. 566.
Whisky, Blended. Wichman, Lutgen & Co. No. 96,378; Apr. 14; Gaz. vol. 201; p. 567.
Whisky, Hand-made sour-mash. S. C. Herbst Importing Co. No. 96,513; Apr. 21; Gaz. vol. 201; p. 898.
Wines. R. Rose. No. 96,191; Apr. 7; Gaz. vol. 201; p. 264.
Wines. R. M. Rose Company. No. 96,192; Apr. 7; Gaz. vol. 201; p. 264.
Wines. Stone Hill Wine Company. No. 96,206; Apr. 7; Gaz. vol. 201; p. 264.
Wines. The Sweet Valley Wine Company. No. 96,546; Apr. 21; Gaz. vol. 201; p. 899.
Wines and champagne. Lallier, Van Cassel & Cie. No. 96,143; Apr. 7; Gaz. vol. 201; p. 262.
Wines and champagne. Lallier, Van Cassel & Cie. No. 96,518; Apr. 21; Gaz. vol. 201; p. 898.
Wines, Light-red table-. Luigi Calissano & Figli. No. 96,399; Apr. 21; Gaz. vol. 201; p. 895.
Wire belt-lace. V. M. Luneburg. No. 96,149; Apr. 7; Gaz. vol. 201; p. 263.
Wire rope, Steel-. The Upson-Walton Co. No. 96,553; Apr. 21; Gaz. vol. 201; p. 900.
Wood-preservative, Liquid. The McClure Company. No. 96,705; Apr. 28; Gaz. vol. 201; p. 1215.
Wood-pulp fiber, sulfite fiber. The British Columbia Sulphite Fibre Co. No. 96,636; Apr. 28; Gaz. vol. 201; p. 1213.
Wool, worsted, or hair piece goods. Wallace, Scott & Co. No. 96,556; Apr. 21; Gaz. vol. 201; p. 900.
Woven yard goods and fabrics. Schermerhorn Bros. Co. No. 96,349; Apr. 14; Gaz. vol. 201; p. 567.
Writing-tablets. A. E. Wilson. No. 96,379; Apr. 14; Gaz. vol. 201; p. 567.
Writing-tablets. Western Tablet Co. No. 96,765; Apr. 28; Gaz. vol. 201; p. 1217.
Yarns, Wool, linen, cotton, and silk. A. O. Meyer. No. 96,156; Apr. 7; Gaz. vol. 201; p. 263.

# ALPHABETICAL LIST OF LABELS.

"Amole." (For a Hair-Tonic.) L. Plaschy. No. 17,671; Apr. 28; Gaz. vol. 201; p. 1218.

"Arabian Tapestry." (For Fine Stationery.) White & Wyckoff Mfg. Co. No. 17,659; Apr. 14; Gaz. vol. 201; p. 568.

"Bacillicide." (For an Antiseptic.) Prophytol Products Company. No. 17,642; Apr. 7; Gaz. vol. 201; p. 266.

"Blue Book Fine Cambric." (For Fine Stationery.) White & Wyckoff Mfg. Co. No. 17,658; Apr. 14; Gaz. vol. 201; p. 568.

"Brugg's Anaesthesia Mixture." (For an Anesthesia Mixture.) D. B. Levy. No. 17,653; Apr. 14; Gaz. vol. 201; p. 568.

"Calora California Candy Orange Slices." (For Candy Orange-Slices.) Mathews Candy Company. No. 17,654; Apr. 14; Gaz. vol. 201; p. 568.

"Chase-'Em." (For Insect-Powder.) The "Chase-'Em" Ant and Roach Powder Co. No. 17,665; Apr. 28; Gaz. vol. 201; p. 1218.

"Chocolate Waferettes." (For Chocolate.) M. H. Reynolds. No. 17,674; Apr. 28; Gaz. vol. 201; p. 1218.

"Cooking Chocolate." (For Chocolate.) M. H. Reynolds. No. 17,675; Apr. 28; Gaz. vol. 201; p. 1218.

"Cuban Ox Gall." (For Soap.) Crusellas Hno y Cia. No. 17,640; Apr. 7; Gaz. vol. 201; p. 266.

"Dodge County." (For Canned Peas.) Hustisford Canning Co. No. 17,651; Apr. 14; Gaz. vol. 201; p. 568.

"Elder Brand Down Quilts." (For Quilts.) The R. Blankenburg Company. No. 17,637; Apr. 7; Gaz. vol. 201; p. 266.

"Emerald Irish Linen." (For Fine Stationery.) White & Wyckoff Mfg. Co. No. 17,660; Apr. 14; Gaz. vol. 201; p. 568.

"Essavie'a." (For Complexion-Powder.) Vail Brothers. No. 17,679; Apr. 28; Gaz. vol. 201; p. 1218.

"Gasconade Whiskey." (For Whisky.) Stark Distillery Co. No. 17,677; Apr. 28; Gaz. vol. 201; p. 1218.

"Golden Fleece Lambs Wool Health Comforts." (For Comforts.) The R. Blankenburg Company. No. 17,639; Apr. 7; Gaz. vol. 201; p. 266.

"Herkimer." (For Canned Peas.) Hustisford Canning Co. No. 17,652; Apr. 14; Gaz. vol. 201; p. 568.

"Kremps Extra Beer." (For Beer.) Interboro Brewing Company. No. 17,667; Apr. 28; Gaz. vol. 201; p. 1218.

"Melrich." (For Ginger-Ale.) L. N. Palmore. No. 17,657; Apr. 14; Gaz. vol. 201; p. 568.

"Mikah White Paste." (For Adhesive Paste.) National Gum & Mica Company. No. 17,656; Apr. 14; Gaz. vol. 201; p. 568.

"Old Sol." (For Self-Rising Flour.) Empire Mills Company. No. 17,647; Apr. 14; Gaz. vol. 201; p. 568.

"Opera Stars." (For Lozenges.) Opera Stars Company. No. 17,641; Apr. 7; Gaz. vol. 201; p. 266.

"Peerage Linen." (For Fine Stationery.) White & Wyckoff Mfg. Co. No. 17,661; Apr. 14; Gaz. vol. 201; p. 568.

"Pyramid Rubber Roofing." (For Rubber Roofing.) A. J. Ariel. No. 17,646; Apr. 14; Gaz. vol. 201; p. 568.

"Rexport." (For Beer.) Dubuque Brewing & Malting Co. No. 17,666; Apr. 28; Gaz. vol. 201; p. 1218.

"Reynolds' Sweet Milk Fudge Kocoa." (For Cocoa.) M. H. Reynolds. No. 17,673; Apr. 28; Gaz. vol. 201; p. 1218.

"Sèvres Superfine." (For Fine Stationery.) White & Wyckoff Mfg. Co. No. 17,662; Apr. 14; Gaz. vol. 201; p. 568.

"Snow Flake Cotton Comforts." (For Comforts.) The R. Blankenburg Company. No. 17,638; Apr. 7; Gaz. vol. 201; p. 266.

"Snow Flake Sodas." (For Salted Wafers.) Pacific Coast Biscuit Company. No. 17,670; Apr. 28; Gaz. vol. 201; p. 1218.

"Society Linen Stationery of Refinement." (For Stationery.) White & Wyckoff Mfg. Co. No. 17,643; Apr. 7; Gaz. vol. 201; p. 266.

"Sphinx Rubber Roofing." (For Rubber Roofing.) A. J. Ariel. No. 17,645; Apr. 14; Gaz. vol. 201; p. 568.

"Sweetheart Brand." (For Coffee.) German-American Coffee Company. No. 17,649; Apr. 14; Gaz. vol. 201; p. 568.

"The White Chief." (For a Remedy.) R. E. McInturff. No. 17,669; Apr. 28; Gaz. vol. 201; p. 1218.

"The Yale Brass and Metal Polish." (For Brass and Metal Polish.) W. C. Glienke. No. 17,650; Apr. 14; Gaz. vol. 201; p. 568.

"To Get the Best Results Use O-Cedar Polish The O-Cedar Polish Way." (For O-Cedar Polish.) Channell Chemical Company. No. 17,664; Apr. 28; Gaz. vol. 201; p. 1218.

"Touch-an-Go." (For a Cleaning Compound.) M. F. Supply Co. No. 17,678; Apr. 28; Gaz. vol. 201; p. 1218.

"Universal." (For Tea-Caddies.) Landers, Frary & Clark. No. 17,668; Apr. 28; Gaz. vol. 201; p. 1218.

"Very Best Chewing Gum." (For Chewing-Gum.) A. Medwedeff. No. 17,655; Apr. 14; Gaz. vol. 201; p. 568.

"Vintage Blend." (For Tobacco.) Falk Tobacco Co. No. 17,648; Apr. 14; Gaz. vol. 201; p. 568.

"Viscol." (For Viscol for Shoes and Harness.) A. Sommer. No. 17,676; Apr. 28; Gaz. vol. 201; p. 1218.

"Warrior Liniment." (For Liniment.) J. B. Armour. No. 17,663; Apr. 28; Gaz. vol. 201; p. 1218.

"Yeastless Bread." (For Bread.) The Yeastless Baking Co. No. 17,644; Apr. 7; Gaz. vol. 201; p. 266.

"Zubrownik." (For Medicinal Bitter Wine.) Prebol's Pharmacy. No. 17,672; Apr. 28; Gaz. vol. 201; p. 1218.

## PRINTS.

"A Sanitary Cap For Milk Bottles." (For Caps for Milk-Bottles.) C. Jacobs. No. 3,569; Apr. 28; Gaz. vol. 201; p. 1218.

"'Ah' reckon as how he's de bes known man in de worl." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,557; Apr. 14; Gaz. vol. 201; p. 568.

"Between You and the Weather." (For Linen Felt.) Union Fibre Company. No. 3,568; Apr. 14; Gaz. vol. 201; p. 568.

"Big joy for you rolling 'em with P. A." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,564; Apr. 14; Gaz. vol. 201; p. 568.

"Diamond Dyes." (For Dyes.) The American Art Works. No. 3,542; Apr. 7; Gaz. vol. 201; p. 266.

"Drink Pepsi-Cola." (For Pepsi-Cola.) The Pepsi-Cola Company. No. 3,552; Apr. 7; Gaz. vol. 201; p. 266.

"Duofold Health Underwear." (For Underwear.) Duofold Health Underwear Co. No. 3,546; Apr. 7; Gaz. vol. 201; p. 266.

"Every puff of P. A. is a wallop." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,565; Apr. 14; Gaz. vol. 201; p. 568.

"Falstaff." (For Beer.) Wm. J. Lemp Brewing Co. No. 3,571; Apr. 28; Gaz. vol. 201; p. 1218.

"I Talk For Minard's Liniment." (For Liniment.) O. W. Nelson. Nos. 3,550–1; Apr. 7; Gaz. vol. 201; p. 266.

"Jam this news under your hood." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,555; Apr. 7; Gaz. vol. 201; p. 266.

"Meritas." (For Oil-Cloth.) Standard Oil Cloth Co. No. 3,567; Apr. 14; Gaz. vol. 201; p. 568.

"Minnesota Paints." (For Paints.) Minnesota Linseed Oil Paint Company. No. 3,572; Apr. 28; Gaz. vol. 201; p. 1218.

"Murphy's Magnet Scent." (For a Scent.) T. J. Murphy and Son. No. 3,549; Apr. 7; Gaz. vol. 201; p. 266.

"No! Rollo—." (For Root-Beer.) Charles E. Hires Company. No. 3,558; Apr. 14; Gaz. vol. 201; p. 568.

"Oh, No, Old Man! You Can't Stop Us! We Use McGowan's Lightning Puncture Cure." (For Puncture Cure for Pneumatic Tires.) The McGowan Company. No. 3,559; Apr. 14; Gaz. vol. 201; p. 568.

"Oster=Bier." (For Beer.) Piel Bros. Nos. 3,553–4; Apr. 7; Gaz. vol. 201; p. 266.

"Paint Up. Clean Up." (For Paint.) The R. F. Johnston Paint Co. No. 3,570; Apr. 28; Gaz. vol. 201; p. 1218.

"Quality Saws." (For Hacksaws, Band-Saws, and Circular Saws.) Quality Saw and Tool Works. No. 3,562; Apr. 14; Gaz. vol. 201; p. 568.

"Re-tan-o." (For Tan Shoe-Dressing.) J. J. Eckhard. No. 3,547; Apr. 7; Gaz. vol. 201; p. 266.

"Sentiment." (For Cigars.) L. Teitelbaum & Co. No. 3,573; Apr. 28; Gaz. vol. 201; p. 1218.

"Superior Carnation Staples." (For Staples.) W. Schlatter & Son. No. 3,566; Apr. 14; Gaz. vol. 201; p. 568.

"The Debutante." (For Chocolates.) C. A. Crane. No. 3,545; Apr. 7; Gaz. vol. 201; p. 266.

"The New Ideal Way." (For Lather-Protectors.) The Ideal Lather Protector Co. No. 3,548; Apr. 7; Gaz. vol. 201; p. 266.

"This little pig went to market." (For Shortening.) The Oxola Manufacturing Co. No. 3,561; Apr. 14; Gaz. vol. 201; p. 568.

"V. B." (For Cigars.) Velliard Brothers. No. 3,560; Apr. 14; Gaz. vol. 201; p. 568.

"Vapo-Cresolene." (For Vapo-Cresolene.) Vapo-Cresolene Co. No. 3,556; Apr. 7; Gaz. vol. 201; p. 266.

"Vaseline." (For Vaseline.) Chesebrough Manufacturing Co. Nos. 3,543–4; Apr. 7; Gaz. vol. 201; p. 266.

"You fire up a jimmy pipe." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,563; Apr. 14; Gaz. vol. 201; p. 568.

## DISCLAIMER.

Gas apparatus, Water-. S. J. Dickey. No. 940,925; date of patent Nov. 23, 1909; disclaimer filed Apr. 21, 1914; Gaz. vol. 201; p. 1222.

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MICRO PHOTO INC. MP
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